

0-13-0

LOGIC INDEX

FOR

AN/FSQ-7 COMBAT DIRECTION CENTRAL

AND

AN/FSQ-8 COMBAT CONTROL CENTRAL

1 JULY 1958

REVISED 1 NOVEMBER 1958

REVISED 1 APRIL 1960

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PREFACE

The information contained in this manual provides a handy reference for locating logic drawings and relating areas of the equipment to the logic. In addition, other aids such as instruction timing charts and location drawings are included to assist the field engineer in performing maintenance on the AN/FSQ-7 and AN/FSQ-8 computer.

The information contained herein was gathered from logic which applied to DC-20 on April 1, 1960. As such, the manual cannot reflect the actual engineering level of all systems; however, in known areas of significant differences between systems, an indication has been made to differentiate between the systems (i. e., BOMARC additions for some systems). It will be the responsibility of the individual user and/or location to indicate differences between the manual and the system being maintained.

This Student Study Guide provides student study material in support of Type II and Type III computer maintenance courses relating to WS416L.

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Differences Between AN/FSQ-7 Combat Direction Central
and AN/FSQ-8 Combat Control Central

Changes made on a DC machine to make a CC machine

- Drums: *Track data* TD drum - changed to TD-B
Raw data RD drum - changed to TD-A
- LRI and GFI drum fields - The LRI and GFI drum fields on the LOG drum are not used. The pluggable units on the OD side are removed and the status circuits on the CD side have been disabled.
- Outputs: The Ground-to-Air section of outputs is not used. The pluggable units for G/A in the output storage unit are removed. It was necessary to tie some lines from these pluggable units to +10V or -30V because some of these pluggable units fed AND and OR circuits in other sections which are still used. It was also necessary to wire the G/A section as an illegal section in the output control circuits.
- Inputs: LRI and GFI are completely eliminated. The units are not installed. The XTL input element remains essentially unchanged. The only difference being the addition of an input switching relay for one channel. This was necessary because there will be only one phone line from the Direction Central to the Control Central at the combination site. Two phone lines are not necessary because the two buildings are adjacent to each other. This added relay connects the one phone line to the channel when the circuit switch is on either the circuit 1 or circuit 2 position.
- Central Computer: With the exception of Expanded Memory, central computer equipment is unchanged except for a few lines which went to the equipment not provided in the AN/FSQ-8. Examples of this are the clock lines which went to the GFI and LRI input elements. These lines are now terminated on the edge connectors of the computer units.
- The control circuitry for Expanded Memory has been or will be provided in the AN/FSQ-8 equipment, but the new memory unit will not be provided.
- Displays: The area discriminators have been eliminated and there are fewer SD consoles and auxiliary consoles. Otherwise, the Display System remains unchanged.
- Warning Lights: Interconnection Panel rearranged.
- Power: No changes except in the distribution circuits for eliminated equipment. These distribution circuits are not used.

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Central Computer

PART 0

SECTION 1

**Alphabetic list of FF's and pulses by
PU location, Logic and zone number.**

NOTE

In some instances, two names are used to describe a flip-flop. The name on the maintenance consoles in most cases indicates the circuit function of the flip-flop's "I" side; whereas the name on the logic will be more descriptive of the flip-flop's purpose. Where two names do exist for a particular flip-flop, the alternate names or variations are noted in parentheses.

-A-

	PU	LOGIC	ZONE
A-B (OT) FF	4HU	0.3.1	3 D
Accept (Word Acceptable) FF	5DM	0.7.7	10 D
Address Mode FF	5DE	0.7.7	2 D
Address Register	8CD-CX	0.4.1	8-12B
Addressable Drum Parity (Alarm) FF	5BF	0.7.4	8 B
Alarm Branch Control FF	5EV	0.7.5	11 C
Alarm Branch Sync FF	4BD	0.2.2	8B
Alarm FF's 1 & 2	5BH	0.7.4	10 B
Alarm Indicator FF's	6GX-GY	0.7.5	11-12D
Alarm Stop FF	4BF	0.2.2	5 D
Aux Drum Sel (Adr Reg R1) FF	5DX	0.7.7	8 B
Aux Warning Lights FF	5GE	0.7.9	2 B
Auto Branch Control FF	5EV	0.7.5	8 E

-B-

Branch FF	4HW	0.3.1	2 D
Break FF	4BH	0.2.2	7 B
Break FF	5EJ	0.2.3	3 B
Break-In Pulses	5EC	0.2.3	1-3 D
Break-In Parity Check Pulse	5BV	0.1.1	9 C
Break-Out Pulses	5ED-EE	0.2.3	5-7 D
Break Request FF	5EJ	0.2.3	3 B
Break Request Sync FF	5EM	0.2.3	2 C
Burst Time Ctrs (Select)	5FT	0.7.7	13 B

-C-

Card Mach Sel (Oper) FF	5FH	0.7.6	7 B
Card Mach Thy Bfr Cntrl FF	3KD	0.7.6	7 E
Card Word Transfer FF	5FC	0.7.6	9 D
Clear Pause Delay FF	4DM	0.5.3	6 D
Clear Pause Delay Sync FF	4DM	0.5.3	6 D
Clock Freq Div. FF's 1-4	3AC-AD	0.2.6	2 C-D
Clock Osc.	3AY	0.2.6	3 D-E
Clock Reg. (Select) FF	4DR	0.2.6	2 B
Clock Register	3AF-AX	0.2.6	2 A-E
Clock Reg Gate FF	3AE	0.2.6	2 D
Clock Reg Sync FF	3AE	0.2.6	2 D
Clock Test FF	5FR	0.2.6	1 A
Compare CD-1 Pulse	5DH	0.7.7	4 B
Conditioning Delay FF	5FC	0.7.6	9 D
Condition Light FF's 1-3	5BC	0.7.4	12-13B
Condition Lite FF 4	5BK	0.7.4	9 D
Continue FF	4BL	0.2.2	4 D
Continue Clear Sync FF	4BN	0.2.2	7 D
Continue Set Sync FF	4BN	0.2.2	7 D
C.P.C. Control FF	4BX	0.2.5	3 C
CPC - IO FF	4BX	0.2.5	3 C
CSW Control FF	4HS	0.7.3	7 B
CSW Gate FF	4HS	0.7.3	8 B
Cyclic Prog Cntr	4CW-CY	0.2.5	1-5 B

-D-

Delay FF	5FH	0.7.6	11 D
Deselect & Control Clear Pulse	5EW	0.7.5	4-6 A

-D- (cont'd)

	PU	LOGIC	ZONE
Disconnect Aux. Drums Pulse	5DN	0.7.7	5 D
Disconnect Drum Control FF	5DM	0.7.7	4 D
Disc. IO Interlock Sync FF	5EM	0.7.3	2 D
Disconnect Main Drum Pulse	5DN	0.7.7	5 D
Divide Clear Pause Delay FF	4DC	0.5.3	6 C
Divide TPD	4CC-4DC	0.5.3	2-4 C
Drum Ctrl Reg	6HF-6HX	0.7.2	2-11 D
Drum Selected (Operation) FF	5DR	0.7.7	10 B
Duplex M.C. (Exc.) FF	5BK	0.7.4	10 D

* -F-

Firing Hold (Delay) FF	5FC	0.7.6	10 D
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-G-

G/A TO Parity (Alarm) FF	5BG	0.7.4	2 D
G/G Parity (Alarm) FF	5BK	0.7.4	8 D

-I-

Identity (Mode) FF's	5DD-5DE	0.7.7	2-3 D
Illegal Address or Section FF	5BN	0.7.4	13D
Inactivity CTR	5GN	0.7.5	8 A
Inactivity FF	5BD	0.7.4	2 B
Inactivity TPD FF	4BD	0.2.2	8 B
Index Interval Bits FF's	5AT-5AY	0.6.1	10-13 B
Index Reg #1 & #2	6BF-6BX	0.4.2	1-2 D-E
Index Reg #4 & #5	6AF-6AX	0.4.2	1-2 A-B
Inhibit Gate Gen FF's Mem #2	10AD-12CD	0.1.4	2D
Instruction Step FF	4BP	0.2.2	6 B
Instruction Step Sync FF	4BP	0.2.2	5 B
Intercomm FF's 1-3	5BL	0.7.4	3-4B
Intercomm FF 4	5BK	0.7.4	9D
Interleave (Mode) FF	5DL	0.7.7	5 B
Interleave FF's	6HE	0.7.2	1-2 B
Interword Delay FF	5FC	0.7.6	10 D
IO Address Counter	6FD-FX	0.4.1	1-4 E
IO Bfr Filling (Load) FF	5DL	0.7.7	12 D
IO Bfr Filling (Load Sync) FF	5DL	0.7.7	12 D
IO Bfr Full (Status) FF	5DU	0.7.7	10 D
IO Interlock FF	4HV	0.3.1	2 D
IO Interlock FF	5EN	0.7.3	3 D
IO Register (Select) FF	5FJ	0.7.5	5 C
IO Register Full (Status) FF	5DU	0.7.7	8 B
IO Word Cntr	6FD-FX	0.7.3	2-5 B

-L-

Left A Register	2FF-2FX	0.5.1	1-3 C
Left Accumulator	2DF-2DX	0.5.1-2	3-17 D
Left Acc. Sign Control FF	2DE	0.5.1-2	21 C
Left Adder	2EF-2EX	0.5.1-2	2-16 AB
Left Aux O'Flow FF	2EC	0.5.1-2	20 B
Left B Register	2BF-2BX	0.5.1-3	1-6 B
Left B Reg S Storage FF	2BD	0.5.1-3	6 B
Left Carry Storage FF	2EE	0.5.1-2	19 B
Left Divide Connect FF	2ED	0.5.1-2	20 B
Left IO Bfr	6KE-6KK	0.7.1	3-7 B
Left IO Bit Storage FF	5EG	0.6.2	8 B
Left IO Reg	2KE-2KK	0.7.1	3-7 C
Left Mem. Bfr	2GE-2GX	0.1.1	2-7 B
Left O'Flow Alarm FF	5BE	0.7.4	12B
Left Test Register	2MF-2MX	0.1.3	3-4 D

-L- (cont'd)

	PU	LOGIC	ZONE
Load FF	4BR	0.2.2	4 B
Load From AM#1 Pulse	5EY	0.7.3	6 B
Load From Card Reader Pulse	5EX	0.7.3	6C
Lock adr ctr FF	5DF	0.4.1	1 D

-M-

Manual Input Sw. (Select) FF	5FT	0.7.7	13 B
MC Transition FF	4BF	0.2.2	7 B
Memory Address Reg. #1 (X) (Sheet 1 of 2)	65BU-BCC	0-2.1.5	14-16 A-E
Memory Address Reg. #2 (X)	10CP-CY	0.1.5	10-16A
Memory Address Reg. #1 (Y) (Sheet 2 of 2)	67DU-DCC	0-2.1.5	7-10D
Memory #1 Array	-	0-2.1.7	-
Memory #1 Clear Cntrl Pulses	65AH	0-2.1.4	8 A
Memory #1 Clear Inh. Pulses	65AL	0-2.1.4	4B
Memory #1 Clear MAR Pulses (X)	65AH	0-2.1.4	9B
Memory #1 Clear MAR Pulses (Y)	65AG	0-2.1.4	9C
Memory #1 IA Deselect FF	65AN	0-2.1.5	14E
Memory #1 Inh. Gate Gen (L.W.) FF's	65CF-CH	0-2.1.4	4-5D
	65DF-DH		
Memory #1 Inh. Gate Gen. (R.W.) FF's	67BF-BH	0-2.1.4	1-2D
	67CF-CH		
Memory #1 Read Gate Gen. FF (X)	65EG	0-2.1.4	6D
Memory #1 Read Gate Gen. FF (Y)	67 AG	0-2.1.4	9 C
Memory #1 Sample Gate Gen. FF	65AM	0-2.1.4	8C
Memory #1 Sample Pulses	65AJ	0-2.1.4	8B
Memory #1 Set Inh. (Left & Right Wds.) Pulses	65AK	0-2.1.4	7B
Memory #1 Set Read Pulses	65AJ	0-2.1.4	10B
Memory #1 "X" BFN (Sheet 1 of 2)	65AAA	0-2.1.5	12A
Memory #1 "X" CCD Sel. Matrix	66BB	0-2.1.5	
Memory #1 "X" CR (Sheet 1 of 2)	65BG-BJ	0-2.1.5	5-13A
Memory #1 "X" IA Sel. Matrix (Sheet 1 of 2)	65BK-BP	0-2.1.5	13-15 A-E
Memory #1 "Y" BFN (Sheet 2 of 2)	65ACC	0-2.1.5	12A
Memory #1 "Y" CCD Sel. Matrix	66CB	0-2.1.5	
Memory #1 "Y" CR (Sheet 2 of 2)	67DG-DJ	0-2.1.5	5-13A
Memory #1 "Y" IA Sel. Matrix (Sheet 2 of 2)	67DK-DT	0-2.1.5	13-15 A-E
Memory #2 Array	-	0.1.7	-
Memory #2 Clear Inh. Pulses	10BD	0.1.4	2B
Memory #2 Clear Read Pulses	10AC	0.1.4	3B
Memory #2 Clear Write Pulses	10BD	0.1.4	2B
Memory #2 Clear Controls Pulses	4DV	0.1.4	5A
Memory #2 Cycle FF	4BP	0.2.2	6B
Memory #2 Diode Matrix Decoder	11XA-XD	0.1.5	3-14 C-D
Memory #2 Inh. Sample Pulses	4DU	0.1.4	5B
Memory #2 Pulse Distributor	10AC-BC-BD	0.1.4	2-4A
Memory #2 Set Read Pulse	10AC	0.1.4	4B
Memory #2 Sample Pulse	10AC	0.1.4	4B
Memory #2 Set Inh. Pulse	10BC	0.1.4	3B
Memory #2 Start Memory Pulse	10AC	0.1.4	4A
Memory #2 Set Write Pulse	10BC	0.1.4	3B
Memory #2 "X" Read Gate Level	10CL	0.1.4	4D
Memory #2 "X" Write Gate Level	10CL	0.1.4	4 D
Memory #2 "Y" Read Gate Level	12AL	0.1.4	3 D
Memory #2 "Y" Write Gate Level	12AL	0.1.4	3 D
Memory Parity (Alarm) FF	5BF	0.7.4	9B

-N-

Non Search FF	5BM	0.7.4	12D
North Azimuth FF	5BM	0.7.4	11D
Not Read Drums FF	5DR	0.7.7	10 B

-O-

OB Parity FF	5BN	0.7.4	13D
Operate GPI Azimuth Pulse	5CY	0.7.5	2 B

-O- (cont'd)

	PU	LOGIC	ZONE
Operate GFI Target Pulse	5CY	0.7.5	2 B
Operation Register	4 HY, JN, & JY	0.3.1	4-12A
Oscillator	4CV	0.2.2	8 D
Output Alarm FF	5BE	0.7.4	11B
Output (OB) Parity FF	5BN	0.7.4	13B

-P-

Parity Check FF	2GD	0.1.1	8 B
Parity Check Control FF	5BU	0.1.1	9 B
Parity Word Transfer FF	4DR	0.1.3	4 C
Parity Write (Control) FF	2GD	0.1.1	8 B
Pause FF	4BH	0.2.2	8 B
Printer Not Ready FF	5BJ	0.7.4	6 B
Printer (Selected) FF	5FD	0.7.6	10 A
Program Counter	6GE-GX	0.4.1	1-4 B
PT-OT (Operation Time) FF	4HT	0.3.1	3 D
Punch Not Ready FF	5BJ	0.7.4	6 B
Punch (Selected) FF	5FD	0.7.6	9 A

-R-

Range FF	5BM	0.7.4	11D
Read FF	5EK	0.7.3	6 E
Reader Not Ready FF	5BJ	0.7.4	7B
Reader (Selected) FF	5FH	0.7.6	8 B
Rds/Wrt Zero, (Tapes & Card Mach) FF	5EM	0.7.3	4 D
Right A Register	3FF-3FX	0.5.2	1-3 C
" Accumulator	3DF-3DX	0.5.2-2	3-17 D
" Acc. Sign Control FF	3DE	0.5.2-2	21 B
" Adder	3EF-3EX	0.5.2-2	3-17 AB
" Aux O'flow FF	3EC	0.5.2-2	20 B
" B Register	3BF-3BX	0.5.2-3	2-6 B
" B Reg "S" Storage FF	3BD	0.5.2-3	6 B
" Carry Storage FF	3EE	0.5.2-2	19 B
" Divide Connect FF	3ED	0.5.2-2	20 B
" IO Buffer	6JF-6JX	0.7.2	2-11 B
" IO Register	3KF-3KX	0.7.2	13-15 C
" Memory Buffer	3GF-3GX	0.1.2	2-6 B
" O'flow Alarm FF	5 BE	0.7.4	11 B
" Test Register	3MF-3MX	0.1.3	1-2 C

-S-

Sample Gate Gen. F.F. Mem. #2	12CF	0.1.4	2 D
SD Camera F.F.	5BF	0.7.4	7B
Second Break Req. FF	5FH	0.7.6	6 C
Second Break (Out) Req. F.F.	5DW	0.7.7	11 B
Sense Sync FF	5BU	0.7.4	4C
Sense Word Counter F.F.	5EN	0.7.3	5 D
Simplex M.C. (Exc) F.F.	5BM	0.7.4	11D
Single Pulse F.F.	4BR	0.2.2	4 B
Start CPC F.F.	4BN	0.2.5	4 C
" GFI Program Pattern Gen. Pulse	5CY	0.7.5	2 B
" LRI & X-TELL Comp. Pat. Gen. Pulse	5CY	0.7.5	2 B
" Memory Pulses	6DD & 4DS	0.4.1	6-5E
Status Drum Parity (Alarm)	5BE	0.7.4	11B
Step Counter	4DE-4DK	0.5.3	3-7B

-T-

Tape Backspace Pulse	13AN	0.8.2	9A
" Backward FF	13AP	0.8.2	7B

-T- (cont'd)

	PU	LOGIC	ZONE
Tape Character Register	13CS-CY	0.8.4	12 A-E
" Clock	13AD-AF	0.8.3	7 A-E
" Clock Reset Pulse	13AF	0.8.3	3 E
" Delay Backspace FF	13AR	0.8.2	5 A
" Delay Clock Reset Pulse	13AS	0.8.3	3 D
" Delay Read-Write FF	13BX	0.8.2	5 B
" Delay Read-Write Pulse	13BC	0.8.2	5 C
" Disconnect Pulse	13BH	0.8.2	2 C
" Drive Select FF's	13AL-AM	0.8.1	4-6 B
" End Character Gate Pulse	13AG	0.8.3	5 C
" EOF FF	13DL	0.8.4	10 C
" EOR Pulse	13AR	0.8.2	3 A
" Error FF	13BT	0.8.5	6 C
" Freq Divider FF	13AD	0.8.3	8 C
" Go FF	13BK	0.8.2	8 B
" Missing Pulse Detector	13BM	0.8.2	4 B
" Osc & Osc Gate FF	13AC	0.8.3	8 B
" Parity (Alarm) FF	5 BF	0.7.4	8B
" PT-11 Sense Pulse	13CH	0.8.1	7 B
" Rds-Wrt Go Pulse	13BE	0.8.2	9 C
" Read EOF Pulse	13BX	0.8.4	11 C
" Readout Word Reg Pulse	13DM	0.8.3	3 D
" Request Break Pulse	13CH	0.8.3	3 C
" Reset Char Reg Pulse	13AH	0.8.3	3 E
" Reset Word Reg Pulse	13DM	0.8.3	3 D
" Rewind Pulse	13BJ	0.8.2	2 D
" Sample Error Read Pulse	13AD	0.8.3	5 E
" Sample Error Write Pulse	13AG	0.8.3	5 D
" Second Word Counter Zero FF	13BH	0.8.2	10 A
" Select Read Delay FF	13BC	0.8.2	6 C
" Selection (Operate) FF	5FR	0.7.8	4 D
" Step Word Ring Pulse	13AH	0.8.3	3 E
" Sync Bit FF	13CV	0.8.2	5D
" Test Switches	-	0.8.5	-
" Unit Prepared Pulse	13BH	0.8.1	7 C
" Unit Ready Pulse	13BH	0.8.1	7 C
" Word Ctr Zero FF	13BM	0.8.2	10A
" Word Register	13DC-DX	0.8.4	3-12, A-E
" Word Ring Ctr	13CJ-CP	0.8.4	3-10 A
" Write Bus Levels	13CJ-CP	0.8.4	2 A-E
" Write EOF Pulse	13DL	0.8.4	10 C
" Write Pulse	13AJ	0.8.3	3 B
Tapes Not Prepared FF	5BL	0.7.4	4 B
Tapes Not Ready FF	5BJ	0.7.4	5B
Test Mem Adr Reg	2NC, ND 2PC, PD	0.1.3	17-19 A
Test Mem FF	4DS	0.1.3	2 A
Test Mem Matrix		0.1.3	
Test Memory - Parity Check FF	4DS	0.4.1	7 D
Test Mem Plugboard		7.1.17	50-53 A-C
Test Mem Switches		7.1.17	51-53 E
TPD	4CE-CS	0.2.3	4-11 A
TPD Clear (Control Clear Sync) FF	4BK	0.2.2	5 D
TPD Control FF	4BL	0.2.2	3 D
TPD Control Set (Sync) FF	4BK	0.2.2	6 D
Track Display FF	5BH	0.7.4	9 B
TTY Parity FF (Alarm)	5BH	0.7.4	9 B
Two MC Operation FF	4BK	0.2.2	6 D
Two MC (Set) Sync FF	4DM	0.5.3	7 D

-W-

Warning Light (Select) FF	5GC	0.7.9	3 A
Warning Light Reg Counter	5GE-GF	0.7.9	4-5 B
Word Ctr Equals Zero (Status) FF	5EP	0.7.3	7 D
Word Demand FF	5DF	0.7.7	6 B
Word Demand Sync FF	5DF	0.7.7	6 B

-W- (cont'd)

	PU	LOGIC	ZONE
Write FF	5EK	0.7.3	7 E
Write Drums FF	5DV	0.7.7	12 B
Write Reg Full (Status) FF	5DV	0.7.7	12 B
Write Reg Full (Status Sync) FF	5DW	0.7.7	11 B

PART 0

SECTION 2

**PU Layout indicating type numbers,
logic numbers and important registers
and circuits.**

0-2.2

	B	C	D	E	F	G	H	J	K	L	M	N	P
C	7035	7035	7035	7032	7035	7035	SPARE	7040	7040	SPARE	7050	7009	7009
D	7034	SPARE	7035	7032	SPARE	7608	SPARE	SPARE	SPARE	SPARE	SPARE	7009	7009
E	7034	7034	7032	7032	7034	7610	▲	SPARE	7051	SPARE	SPARE	7060	7025
F	7033	7036	7033	7615	7033	▲	▲	7614	▲	7052	7042	7059	7061
G	▲	7034	▲	▲	7055	▲	▲	▲	▲	▲	▲	▲	▲
H	▲	▲		▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
J													
K													
L													
M													
N													
P	7607					7610	7603						
R													
S													
T													
U													
V													
W													
X	▼	7034	7033	7615	7055	7610	▼	7614	7051	7052	7042	7059	7061
Y	7035	SPARE	7619	7006	SPARE	SPARE	SPARE	7079	SPARE	SPARE	SPARE	7060	7060

LEFT ARITHMETIC ELEMENT
UNIT 2
P.U. LAYOUT

**LEFT ARITHMETIC ELEMENT
UNIT 2
LOGIC LAYOUT**

	B	C	D	E	F	G	H	J	K	L	M	N	P
C	0.5.1-3	0.5.1-2	0.5.1-2	0.5.1-2	0.5.1	0.1.1	SPARE	0.1.1	0.7.1 0.2.4	SPARE	0.1.3	0.1.3	0.1.3
D	0.5.1-3	SPARE	0.5.1-2 0.2.4	0.5.1-2	SPARE	0.1.1	SPARE	SPARE	SPARE	SPARE	SPARE	0.1.3	0.1.3
E	0.5.1-3	0.5.1-2	0.5.1-2	0.5.1-2	0.5.1	0.1.1	0.1.1	0.1.1	0.1.1	0.7.1 0.7.6	0.1.3	0.1.3	0.1.3
F	1	1	1	1	1	1	1	1	1	1	1	1	1
G	2	2	2	2	2	2	2	2	2	2	2	2	2
H	3	3	3	3	3	3	3	3	3	3	3	3	3
J	4	4	4	4	4	4	4	4	4	4	4	4	4
K	5	5	5	5	5	5	5	5	5	5	5	5	5
L	6	6	6	6	6	6	6	6	6	6	6	6	6
M	7	7	7	7	7	7	7	7	7	7	7	7	7
N	8	8	8	8	8	8	8	8	8	8	8	8	8
P	9	9	9	9	9	9	9	9	9	9	9	9	9
R	10	10	10	10	10	10	10	10	10	10	10	10	10
S	11	11	11	11	11	11	11	11	11	11	11	11	11
T	12	12	12	12	12	12	12	12	12	12	12	12	12
U	13	13	13	13	13	13	13	13	13	13	13	13	13
V	14	14	14	14	14	14	14	14	14	14	14	14	14
W	15	15	15	15	15	15	15	15	15	15	15	15	15
X	15	15	15	15	15	15	15	15	15	15	15	15	15
Y	0.5.1-3	SPARE	0.5.1-2 0.3.2	0.5.1-2	SPARE	SPARE	SPARE	0.2.4	SPARE	SPARE	SPARE	0.1.3	0.1.3

0-2.4

	A	B	C	D	E	F	G	H	J	K	L	M
C	7050	7035	7035	7035	7032	7035	7035	SPARE	7040	7040	SPARE	7050
D	7049	7032	SPARE	7035	7032	7055	SPARE	SPARE	SPARE	7053	SPARE	7041
E	7606	7034	7034	7032	7032	7034	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE
F	7047	7033	7036	7033	7615	7033	7610	↑	7614	7051	7052	7042
G	↑	↑	7034	↑	↑	7055	↑	↑	↑	↑	↑	↑
H	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
J	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
K	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
L	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
M	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
N	↑	7607	↑	↑	7615	↑	7610	7607	↑	↑	↑	↑
P	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
R	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
S	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
T	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
U	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
V	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
W	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
X	7047	↓	7034	7033	7615	7055	7610	↓	7614	7051	7052	7042
Y	7054	7035	SPARE	7619	7006	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

RIGHT ARITHMETIC ELEMENT
UNIT 3
P.U. LAYOUT

RIGHT ARITHMETIC ELEMENT
UNIT 3
LOGIC LAYOUT

	A	B	C	D	E	F	G	H	J	K	L	M
C	0.2.6	0.5.2-3	0.5.2-2	0.5.2-2	0.5.2-2	0.5.2	0.1.2	SPARE	0.1.2 0.2.4	0.7.2 0.7.6 0.2.4	SPARE	0.1.3
D	0.2.6	0.5.2-3	SPARE	0.5.2-2	0.5.2-2	0.5.2	SPARE	SPARE	SPARE	0.7.6	SPARE	0.1.3
E	0.2.6	0.5.2-3	0.5.2-2	0.5.2-2	0.5.2-2	0.5.2	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE
F	↑ S	↑ S	↑ S	↑ S	↑ S	↑ S	↑ S	↑ S	↑ S	↑ S	↑ S	↑ S
G	1	1	1	1	1	1	1	1	1	1	1	1
H	2	2	2	2	2	2	2	2	2	2	2	2
J	3	3	3	3	3	3	3	3	3	3	3	3
K	4	4	4	4	4	4	4	4	4	4	4	4
L	5	5	5	5	5	5	5	5	5	5	5	5
M	6	6	6	6	6	6	6	6	6	6	6	6
N	7	7	7	7	7	7	7	7	7	7	7	7
P	8	8	8	8	8	8	8	8	8	8	8	8
R	9	9	9	9	9	9	9	9	9	9	9	9
S	10	10	10	10	10	10	10	10	10	10	10	10
T	11	11	11	11	11	11	11	11	11	11	11	11
U	12	12	12	12	12	12	12	12	12	12	12	12
V	13	13	13	13	13	13	13	13	13	13	13	13
W	14	14	14	14	14	14	14	14	14	14	14	14
X	↓ 15	↓ 15	↓ 15	↓ 15	↓ 15	↓ 15	↓ 15	↓ 15	↓ 15	↓ 15	↓ 15	↓ 15
Y	0.2.6	0.5.2-3 0.2.6	SPARE	0.5.2-2 0.6.2	0.5.2-2	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

0-2.5

**INSTRUCTION CONTROL ELEMENT
UNIT 4
P.U. LAYOUT**

	B	C	D	E	F	G	H	J
C	SPARE	7604	7604	7006	7006	7011	7011	7016
D	7608	7015	7006	7006	7000	7012	7012	↑
E	7079	7617	7009	7000	7006	7011	7011	↑
F	7019	7023	7009	7079	7000	7011	7011	↑
G	7017	7023	7610	7000	7618	7011	7613	↑
H	7077	↑	7610	7000	7000	7012	7011	↑
J	7070	↓	7009	7079	7079	7011	7012	↑
K	7604	↓	7610	7000	7079	7089	7011	↑
L	7019	7023	7618	7000	7000	7017	7613	↓
M	7005	7617	7604	7079	7000	7011	7616	7016
N	7604	7023	7000	7079	7006	7009	7011	7009
P	7604	↑	SPARE	7000	7000	7613	7016	↑
R	7019	↓	7019	7000	7000	7011	7016	↑
S	7000	7023	7019	7079	7011	7011	7608	↑
T	7000	7000	7000	7079	7000	7011	7610	7610
U	7006	7000	7079	7000	7079	7613	↓	↑
V	7003	7001	7079	SPARE	7079	7011	↓	↑
W	7003	7604	7074	7070	7000	7000	7610	↑
X	7608	7604	7000	7079	SPARE	7079	7035	↑
Y	7000	7604	7079	SPARE	7000	7079	7009	↓

**SELECTION CONTROL ELEMENT
UNIT 5
P.U. LAYOUT**

	A	B	C	D	E	F	G
C	7064	7058	7620	7620	7000	7609	7066
D	↑	↑	7068	7609	7000	7609	7000
E	↑	↑	7000	7609	7000	7069	7019
F	↑	↑	7000	7604	7079	7070	7019
G	↑	↑	7000	7074	7610	7079	7022
H	↑	↑	7620	7079	7016	7066	7000
J	↑	↑	7031	7079	7019	7607	7006
K	↑	↑	7000	7074	7019	7022	7074
L	↑	↑	7000	7604	7006	7000	7079
M	↓	↓	7069	7019	7004	7079	7070
N	7064	7058	7000	7000	7019	7000	7608
P	7073	7065	7000	7000	7009	7069	SPARE
R	7000	SPARE	7069	7019	7070	7019	↑
S	7000	7072	7000	7075	7068	7073	↑
T	7009	SPARE	7069	7075	7079	7066	↑
U	↓	7019	7069	7019	7079	7075	↓
V	↓	7000	7000	7019	7607	7070	SPARE
W	↓	7070	7069	7604	7006	7079	7063
X	↓	7079	7000	7009	7079	7006	7062
Y	7009	7006	7079	7000	7073	7006	7062

SELECTION CONTROL ELEMENT
UNIT 5
LOGIC LAYOUT

	A	B	C	D	E	F	G
C	1-3	0.7.4	0.6.2	0.6.2	0.2.3	0.7.6	0.7.9
D	4-11	0.7.4	0.7.4 0.7.6 0.7.7	0.7.7 0.7.4	0.2.3	0.7.6	0.7.9
E	12-17	0.7.4	0.6.2 0.7.4 0.7.6 0.7.7	0.7.7	0.1.1 0.2.3 0.6.2	0.7.6	0.7.9
F	20-25	0.6.1 0.7.4	0.7.4 0.7.5 0.7.7 0.7.8 0.7.9	0.4.1 0.7.7	0.2.3	0.7.6 0.7.5 0.7.3	0.7.9
G	26-33	0.7.4	0.7.5 0.7.7 0.7.8	0.7.3 0.7.7	0.6.2	0.6.2 0.7.6 0.7.5	0.7.9
H	34-41	0.7.4	0.6.2	0.7.7	0.2.3	0.7.6	0.7.9
J	42-47	0.7.4	0.7.5 0.7.8	0.7.1 0.7.2 0.7.7	0.2.3	0.7.5 0.7.1 0.7.2 0.6.2	0.7.9
K	50-55	0.7.4	0.7.4 0.7.5	0.7.3 0.7.7	0.7.3	0.7.3 0.7.6	0.7.9 0.2.6
L	56-63	0.7.4	0.7.5	0.7.7	0.2.2 0.7.3 0.7.4	0.2.6 0.2.3 0.7.1 0.7.5 0.7.8	0.7.9 0.7.5 0.2.6
M	64-71	0.7.4	0.7.5	0.7.7	0.2.3 0.7.3	0.7.6 0.7.2 0.7.1 0.2.6	0.7.5
N	72-77	0.7.4	0.7.5	0.4.1 0.7.5 0.7.7	0.7.3	0.2.3 0.7.3 0.7.7 0.7.5	0.7.5
P	0.7.4	0.1.1 0.7.4	0.7.5	0.7.7	0.7.3	0.7.6	SPARE
R	0.7.5 0.7.7	SPARE	0.7.6	0.7.7	0.2.3 0.7.3	0.7.6 0.2.6	SPARE
S	0.4.1 0.7.2	0.7.4	0.7.5 0.7.6	0.7.7	0.7.3	0.7.4 0.7.6	SPARE
T	BIT 10	SPARE	0.7.6	0.7.7	0.2.3 0.4.1 0.7.2	0.7.7	SPARE
U	11	0.1.1 0.7.4	0.7.6	0.7.7	0.1.1 0.7.1 0.7.3 0.1.2 0.7.5	0.7.7 0.7.6	SPARE
V	12	0.1.1 0.7.4 0.7.5	0.7.5 0.7.6	0.7.7	0.7.5	0.7.7 0.7.6	SPARE
W	13	0.7.1 0.7.2 0.7.4 0.7.5	0.7.6	0.7.7	0.7.5	0.7.7 0.7.1 0.7.2	0.7.5
X	14	0.4.1 0.7.4 0.7.5 0.7.6	0.4.1 0.7.7 0.7.6 0.7.8	0.7.7	0.7.3	0.2.4 0.7.3	0.7.5
Y	BIT 15	0.7.4 0.7.7 0.2.4	0.6.2 0.7.5 0.7.7	0.7.7 0.2.6	0.7.3 0.7.5	0.2.4	0.7.5

**PROGRAM ELEMENT
UNIT 6
P.U. LAYOUT**

	A	B	C	D	E	F	G	H	J	K
C	7608	7608	SPARE	7602	SPARE	SPARE	7000	7079	SPARE	SPARE
D	7025	7025	7008	7079	7014	7608	7607	7025	SPARE	7025
E	SPARE		7025	7025	7029	7025	7025	7604	7031	7020
F			7008	7602	7014	↑		7030*	7018	↑
G	↑	↑	↑	↑	↑	↑	↑	↑ *	↑	↑
H								*		
J								*		
K								*		
L										
M	7608	7608								
N				7602		7608	7607			
P										
R										
S										
T										
U										
V										
W	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
X			7008		7014			7030	7018	7020
Y	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

*P.U's NOT SUPPLIED FOR DC-16 & HIGHER

**PROGRAM ELEMENT
UNIT 6
LOGIC LAYOUT**

	A	B	C	D	E	F	G	H	J	K
C	0.4.2	0.4.2	SPARE	0.4.1	SPARE	SPARE	0.4.1 0.7.2	0.7.2 0.4.1	SPARE	SPARE
D	0.4.2	0.4.2	0.4.1	0.4.1	0.4.1	0.4.1 0.7.3	0.4.1	0.7.2	SPARE	0.7.1
E			0.4.1	0.4.1	0.4.1	0.7.3 0.4.1	0.4.1 0.7.3	0.7.2	0.7.2	↑ P
F	↑ S	↑ S	↑ S	↑ S	↑ S	↑ S	↑ S	↑ S	↑ S	↑ S
G	0.4.2	0.4.2	0.4.1	0.4.1	0.4.1	0.4.1	0.4.1	0.7.2	0.7.2	0.7.1
H	1	1	1	1	1	1	1	1	1	1
J	2	2	2	2	2	2	2	2	2	2
K	3	3	3	3	3	3	3	3	3	3
L	4	4	4	4	4	4	4	4	4	4
M	5	5	5	5	5	5	5	5	5	5
N	6	6	6	6	6	6	6	6	6	6
P	7	7	7	7	7	7	7	7	7	7
R	8	8	8	8	8	8	8	8	8	8
S	9	9	9	9	9	9	9	9	9	9
T	10	10	10	10	10	10	10	10	10	10
U	11	11	11	11	11	11	11	11	11	11
V	12	12	12	12	12	12	12	12	12	12
W	13	13	13	13	13	13	13	13	13	13
X	14	14	14	14	14	14	14	14	14	14
Y	15	15	15	15	15	15	15	15	15	15
	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

**MEMORY ELEMENT
UNITS 10 & 12
P.U. LAYOUT**

UNIT 10

	A	B	C
C	7091	7092	7086
D	7088	7093	
E	7087	SPARE	7086
F	7084	7083	
G	↑	↑	7086
H			
J			7086
K			
L			7090
M			SPARE
N			SPARE
P			7082
R			7080
S			7082
T			7082
U			7080
V			7082
W			7082
X	↓	↓	7080
Y	7084	7083	7082

UNIT 12

A	B	C
7086	SPARE	SPARE
	↑	7088
7086	↓	SPARE
	SPARE	7081
7086	7083	7084
	↑	↑
7086		
7090		
SPARE		
SPARE		
7082		
7080		
7082		
7082		
7080		
7082		
7082		
7080	↓	↓
7082	7083	7084

**MEMORY ELEMENT
UNITS 10 & 12
LOGIC LAYOUT**

UNIT 10

	A	B	C	
C	MEM. CLOCK 0.1.4	MEM. CLOCK 0.1.4	RD ODD MGG	
D	INH. GG 0.1.4	MEM. CLOCK 0.1.4	0.1.5	
E	0.1.4	SPARE	WRT ODD MGG 0.1.5	
F	↑ L-15	↑		
G	L-14		RD EVEN MGG 0.1.5	
H	L-13			
J	0.1.6 L-12		WRT EVEN MGG 0.1.5	
K	L-11			
L	SENSE AMPLIFIERS	DIGIT PLANE DRIVERS 0.1.6	RWGG 0.1.4	
M			L-10	SPARE
N			L-8	SPARE
P			L-7	
R	L-6		↑	
S	L-5			
T	L-4			
U	L-3			
V	L-2			
W	L-1			
X	L-S		"X" MAR 0.1.5	
Y	↓ P	↓	↓	

UNIT 12

	A	B	C
	RD ODD	SPARE	SPARE
	MGG 0.1.5	SPARE	INH. GG 0.1.4
	WRT ODD MGG 0.1.5	SPARE	SPARE
		SPARE	0.1.4
	RD EVEN MGG 0.1.5	↑	↑ R-15
			R-14
	WRT EVEN MGG 0.1.5		R-13
			R-12
	RWGG 0.1.4		R-11
	SPARE		R-10
	SPARE		R-9
	↑	0.1.6	R-8
		0.1.6	R-7
			R-6
			R-5
	"Y" MAR 0.1.5		R-4
			R-3
			R-2
			R-1
	↓	↓	↓ R-S

TAPE ADAPTER

Unit 13

PU LAYOUT

	A	B	C	D
C	7212	7216	SPARE	7203
D	7679	7214	↑	↑
E	7230	7219	↓	↓
F	7230	7213	↓	↓
G	7630	7217	SPARE	
H	7667	7220	7208	↓
J	7225	7221	7206	↓
K	7233	7222	↑	7 203
L	7233	7215	↓	7204
M	7233	7209	↓	7205
N	7227	SPARE	↓	7203
P	7228	SPARE	7206	↑
R	7226	7210	SPARE	↓
S	7208	7224		↓
T	SPARE	7223	↑	↓
U	↓	SPARE	↑	↓
V	↓	SPARE	7663	↓
W	↓	SPARE	↓	↓
X	↓	7218	↓	7203
Y	SPARE	SPARE		SPARE

**TAPE ADAPTER ELEMENT
UNIT 13
LOGIC LAYOUT**

	A	B	C	D		
C	0.8.3	0.8.2	SPARE	WORD REGISTER 0.8.4	1,2	
D	0.8.3	0.8.2	SPARE		3,4	
E	0.8.3	0.8.2	SPARE		5,6	
F	0.8.3	0.8.2	SPARE		7,8	
G	0.8.3	0.8.2	SPARE		9,10	
H	0.8.3	0.8.1 0.8.2	0.8.1 0.8.3		11,12	
J	0.8.3 0.8.2	0.8.2	0.8.4	13,14		
K	0.8.1	0.8.2 0.8.1	0.8.4	WORD REGISTER 0.8.4	15,16	
L	0.8.1	0.8.2	0.8.4		0.8.4 0.8.3	
M	0.8.1	0.8.2	0.8.4	0.8.3		
N	0.8.2 0.8.1	SPARE	0.8.4	WORD REGISTER 0.8.4	17,18	
P	0.8.2	SPARE	0.8.4		19,20	
R	0.8.2	0.8.2	SPARE		21,22	
S	0.8.3 0.8.1	0.8.5	CHARACTER REGISTER 0.8.4	WORD REGISTER 0.8.4	1	
T	SPARE	0.8.5			2	23,24
U	SPARE	SPARE			3	25,26
V	SPARE	SPARE	0.8.2	4	27,28	
W	SPARE	SPARE	CHARACTER REGISTER 0.8.4	WORD REGISTER 0.8.4	5	
X	SPARE	0.8.2 0.8.4			6	29,30
Y	SPARE	SPARE			7	31,32
					33	
					SPARE	

**MEMORY NO. 1 ELEMENT
UNIT 65
PU LAYOUT**

	A	B	C	D	E
C	7575	7575	7575	7575	7574
D	SPARE	↑	7575	7575	↑
E	SPARE	↓	7575	7575	↓
F	SPARE	7575	7588	7588	7574
G	7587	7595	SPARE	SPARE	7590
H	7587	SPARE	7588	7588	SPARE
J	7591	7595	7583	7583	7584
K	7592		↑	↑	↑
L	7593	↑			
M	7581				
N	7082	7576			
P	SPARE				
R	↑				
S		↓			
T					
U		7610			
V		↑			
W					
X					
Y					
AA					
BB	↓	↓	↓	↓	↓
CC	SPARE	7610	7583	7583	7584

**MEMORY NO. 1 ELEMENT
UNIT 65
LOGIC LAYOUT**

	A	B	C	D	E
C	0-2.15	↑	0-2.1.5	0-2.1.5	0-2.1.5
D	SPARE		0-2.1.5	0-2.1.5	0-2.1.5
E	↑		0-2.1.5	0-2.1.5	0-2.1.5
F	↓		0.2.1.5	0-2.1.4	0-2.1.5
G		0-2.1.5	SPARE	SPARE	0-2.1.4
H	SPARE		0-2.1.4	0-2.1.4	SPARE
J	0-2.1.4		↑	↑	↑
K	0-2.1.4				
L	0-2.1.4				
M	0-2.1.4				
N	0-2.1.5				
P	SPARE				
R	↑				
S					
T		0-2.1.5			
U		MAR R8 - R15			
V			0-2.1.6		
W					
X					
Y					
AA					
BB	↓				
CC	SPARE	↓	↓	↓	↓

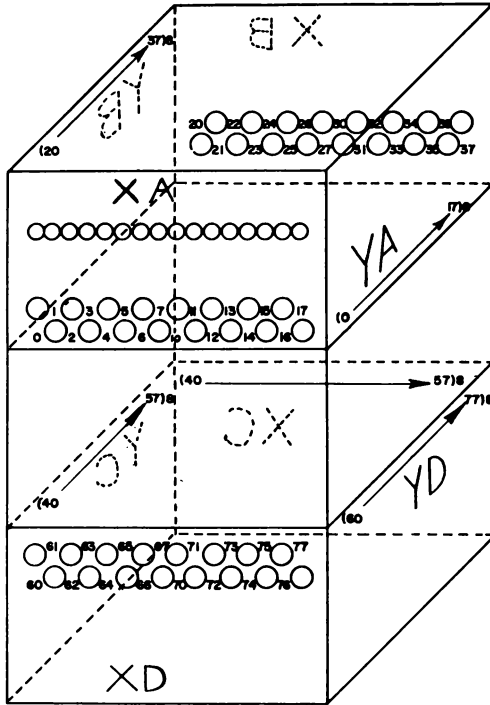
DIGIT PLANE DRIVERS
DIGIT PLANE DRIVERS
SENSE AMPLIFIERS

**MEMORY NO. 1 ELEMENT
UNIT 67
PU LAYOUT**

	A	B	C	D
C	7574	7575	7575	7575
D	↑	7575	7575	↑
E	↓	7575	7575	↓
F	7574	7588	7588	7575
G	7590	SPARE	SPARE	7595
H	SPARE	7588	7588	SPARE
J	7594	SPARE	7575	7595
K	7584	7583	7583	7576
L	↑	↑	↑	↑
M				
N				
P				
R				
S				↓
T				7576
U				7610
V				↑
W				
X				
Y				
AA				
BB	↓	↓	↓	↓
CC	7584	7583	7583	7610

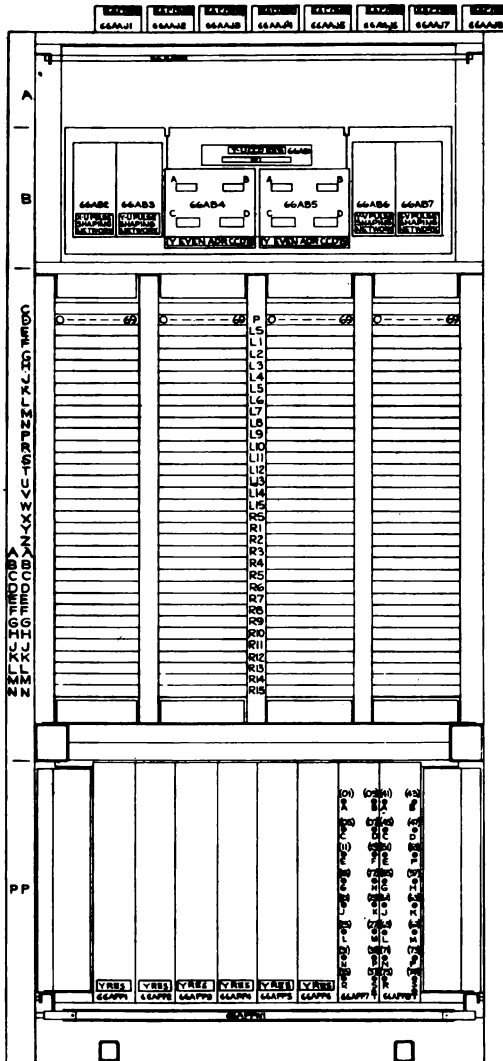
**MEMORY NO. 1 ELEMENT
UNIT 67
LOGIC LAYOUT**

	A	B	C	D
C	0-2.1.5	0-2.1.5	0-2.1.5	↑
D	↑	0-2.1.5	0-2.1.5	0-2.1.5
E	↓	0-2.1.5	0-2.1.5	↓
F	0.2.1.5	0-2.1.4	0-2.1.4	↓
G	0-2.1.4	SPARE	SPARE	↓
H	SPARE	0-2.1.4	0-2.1.4	SPARE
J	0-2.1.4	SPARE	0.2.1.5	0.2.1.5
K	↑	↑	↑	↑
L				
M				
N				
P				
R				
S				
T	0-2.1.6	0-2.1.6	0-2.1.6	0-2.1.5
U	↑	↑	↑	↑
V	↓	↓	↓	↓
W				
X				
Y				
AA				
BB				↓
CC	↓	↓	↓	0.2.1.5



**MEMORY #2
ARRAY FRAME ENLARGED**

(Showing Driver Panel Locations When Facing Wiring Side)



PANEL A FRONT -

For Layouts of other panels and more detailed information refer to logic 0-2.1.7 (sheet 2).

CORE MEMORY ARRAY-MEMORY I

PART 0
SECTION 3

**Summary PUNCH connections to Central
Computer:**

Card Reader
Card Recorder
Line Printer
Computer Entry Punch

CARD READER- (Summary Punch Connections to Central Computer)

SP51A	P.U.	LOGIC	ZONE	BIT	READ BRUSH	FUNCTION
1	2KF	0.7.1	6C	L8	17	Info transfer line to Left I/O Reg
2	2KG	0.7.1	5C	L1	18	" " " " " " "
3	2KH	0.7.1	5C	L2	19	" " " " " " "
4	2KJ	0.7.1	*	L3	20	" " " " " " "
5	2KK	0.7.1	*	L4	21	" " " " " " "
6	2KL	0.7.1	*	L5	22	" " " " " " "
7	2KM	0.7.1	*	L6	23	" " " " " " "
8	2KN	0.7.1	*	L7	24	" " " " " " "
9	2KP	0.7.1	4C	L8	25	" " " " " " "
10	2KR	0.7.1	*	L9	26	" " " " " " "
11	2KS	0.7.1	*	L10	27	" " " " " " "
12	2KT	0.7.1	*	L11	28	" " " " " " "
13	2KU	0.7.1	*	L12	29	" " " " " " "
14	2KV	0.7.1	*	L13	30	" " " " " " "
15	2KW	0.7.1	*	L14	31	" " " " " " "
16	2KX	0.7.1	3C	L15	32	" " " " " " "
17	3KF	0.7.1	15B	R8	33	Info transfer line to Right I/O Reg
18	3KG	0.7.2	14B	R1	34	" " " " " " "
19	3KH	0.7.2	13B	R2	35	" " " " " " "
20	3KJ	0.7.2	*	R3	36	" " " " " " "
21	3KK	0.7.2	*	R4	37	" " " " " " "
22	3KL	0.7.2	*	R5	38	" " " " " " "
23	3KM	0.7.2	*	R6	39	" " " " " " "
24	3KN	0.7.2	*	R7	40	" " " " " " "
25	3KP	0.7.2	*	R8	41	" " " " " " "
26	3KR	0.7.2	*	R9	42	" " " " " " "
27	3KS	0.7.2	*	R10	43	" " " " " " "
28	3KT	0.7.2	*	R11	44	" " " " " " "
29	3KU	0.7.2	*	R12	45	" " " " " " "
30	3KV	0.7.2	*	R13	46	" " " " " " "
31	3KW	0.7.2	*	R14	47	" " " " " " "
32	3KX	0.7.2	13B	R15	48	" " " " " " "
33	6KF	0.7.1	6A	L8	49	Info transfer to Left I/O Buffer Reg
34	6KG	0.7.1	5A	L1	50	" " " " " " "
35	6KH	0.7.1	5A	L2	51	" " " " " " "
36	6KJ	0.7.1	*	L3	52	" " " " " " "
37	6KK	0.7.1	*	L4	53	" " " " " " "
38	6KL	0.7.1	*	L5	54	" " " " " " "
39	6KM	0.7.1	*	L6	55	" " " " " " "
40	6KN	0.7.1	*	L7	56	" " " " " " "
41	6KP	0.7.1	4A	L8	57	" " " " " " "
42	6KR	0.7.1	*	L9	58	" " " " " " "
43	6KS	0.7.1	*	L10	59	" " " " " " "
44	6KT	0.7.1	*	L11	60	" " " " " " "
45	6KU	0.7.1	*	L12	61	" " " " " " "
46	6KV	0.7.1	*	L13	62	" " " " " " "
47	6KW	0.7.1	*	L14	63	" " " " " " "
48	6KX	0.7.1	3A	L15	64	" " " " " " "
49	6JF	0.7.2	11A	R8	65	Info transfer to Right I/O Buffer Reg
50	6JG	0.7.2	*	R1	66	" " " " " " "
51	6JH	0.7.2	*	R2	67	" " " " " " "
52	6JJ	0.7.2	*	R3	68	" " " " " " "
53	6JK	0.7.2	10A	R4	69	" " " " " " "
54	6JL	0.7.2	9A	R5	70	" " " " " " "
55	6JM	0.7.2	9A	R6	71	" " " " " " "
56	6JN	0.7.2	8A	R7	72	" " " " " " "
57	6JP	0.7.2	7A	R8	73	" " " " " " "
58	6JR	0.7.2	7A	R9	74	" " " " " " "
59	6JS	0.7.2	6A	R10	75	" " " " " " "
60	6JT	0.7.2	5A	R11	76	" " " " " " "
61	6JU	0.7.2	4A	R12	77	" " " " " " "
62	6JV	0.7.2	3A	R13	78	" " " " " " "
63	6JW	0.7.2	3A	R14	79	" " " " " " "
64	6JX	0.7.2	2A	R15	80	" " " " " " "

*(Not shown on logic)

CARD READER- (Summary Punch Connections to Central Computer)

<u>SP51A</u>	<u>P.U.</u>	<u>LOGIC</u>	<u>ZONE</u>	<u>BIT</u>	<u>READ BRUSH</u>	<u>FUNCTION</u>
85 to 80						(Not used)
81	1G3	7.1.13	31C	-	-	Ready I/O Units
82	1G3	7.1.13	31C	-	-	" " "
83	5FE	0.7.6	9B	-	-	Start Reader
84	5FP	0.7.6	10B	-	-	Disconnect Card Reader
85 to 87						(Not used)
88	1H3	7.1.13	35D	-	-	"Reader Ready" Relay
89						(Not used)
90	5BS	0.7.4	7A	-	-	Card Reader Not Ready
91	5FS	0.7.6	11B	-	-	Request Disconnect
92	5FS	0.7.6	6B	-	-	Request Break
93	1G3	7.1.5	4E	-	-	-48 volt return
94 to 100						(Not used)

*(Not shown on logic)

CARD RECORDER
LINE PRINTER (Summary Punch Connections to Central Computer)

<u>From</u> <u>SP53A</u>	<u>To</u> <u>SP52B</u>	<u>SP52A</u>	<u>P.U.</u>	<u>LOGIC</u>	<u>ZONE</u>	
1	1	1	2LF	0.7.6	5E	LS
2	2	2	2LG	0.7.6	5E	1
3	3	3	2LH	0.7.6	4E	2
4	4	4	2LJ	0.7.6	*	3
5	5	5	2LK	0.7.6	*	4
6	6	6	2LL	0.7.6	*	5
7	7	7	2LM	0.7.6	*	6
8	8	8	2LN	0.7.6	*	7
9	9	9	2LP	0.7.6	*	8
10	10	10	2LR	0.7.6	*	9
11	11	11	2LS	0.7.6	*	10
12	12	12	2LT	0.7.6	*	11
13	13	13	2LU	0.7.6	*	12
14	14	14	2LV	0.7.6	*	13
15	15	15	2LW	0.7.6	*	14
16	16	16	2LX	0.7.6	3E	15
17	17	33	3LF	0.7.6	5B	RS
18	18	34	3LG	0.7.6	5B	1
19	19	35	3LH	0.7.6	4B	2
20	20	36	3LJ	0.7.6	*	3
21	21	37	3LK	0.7.6	*	4
22	22	38	3LL	0.7.6	*	5
23	23	39	3LM	0.7.6	*	6
24	24	40	3LN	0.7.6	*	7
25	25	41	3LP	0.7.6	*	8
26	26	42	3LR	0.7.6	*	9
27	27	43	3LS	0.7.6	*	10
28	28	44	3LT	0.7.6	*	11
29	29	45	3LU	0.7.6	*	12
30	30	46	3LV	0.7.6	*	13
31	31	47	3LW	0.7.6	*	14
32	32	48	3LX	0.7.6	3B	15
33	33	17	2LF	0.7.6	5E	LS
34	34	18	2LG	0.7.6	5E	1
35	35	19	2LH	0.7.6	4E	2
36	36	20	2LJ	0.7.6	*	3
37	37	21	2LK	0.7.6	*	4
38	38	22	2LL	0.7.6	*	5
39	39	23	2LM	0.7.6	*	6
40	40	24	2LN	0.7.6	*	7
41	41	25	2LP	0.7.6	*	8
42	42	26	2LR	0.7.6	*	9
43	43	27	2LS	0.7.6	*	10
44	44	28	2LT	0.7.6	*	11
45	45	29	2LU	0.7.6	*	12
46	46	30	2LV	0.7.6	*	13
47	47	31	2LW	0.7.6	*	14
48	48	32	2LX	0.7.6	3E	15
49	49	49	3LF	0.7.6	5B	RS
50	50	50	3LG	0.7.6	5B	1
51	51	51	3LH	0.7.6	4B	2
52	52	52	3LJ	0.7.6	*	3
53	53	53	3LK	0.7.6	*	4
54	54	54	3LL	0.7.6	*	5
55	55	55	3LM	0.7.6	*	6
56	56	56	3LN	0.7.6	*	7
57	57	57	3LP	0.7.6	*	8
58	58	58	3LR	0.7.6	*	9
59	59	59	3LS	0.7.6	*	10
60	60	60	3LT	0.7.6	*	11
61	61	61	3LU	0.7.6	*	12
62	62	62	3LV	0.7.6	*	13
63	63	63	3LW	0.7.6	*	14
64	64	64	3LX	0.7.6	3B	15

Information transfer lines from the Left I/O Thyatron Register to the Line Printer- Odd Word Calc. Exit Hubs.

Information transfer lines from the Left I/O Thyatron Register to the Card Recorder thru the Line Printer for even words.

Information transfer lines from the Right I/O Thyatron Register to the Line Printer- Odd Word Calc. Exit Hubs.

Information transfer lines from the Right I/O Thyatron Register to the Card Recorder thru the Line Printer for even words.

Information transfer lines from the Left I/O Thyatron Register to the Line Printer- Even Word Calc. Exit Hubs.

Information transfer lines from the Left I/O Thyatron Register to the Card Recorder thru the Line Printer for odd words.

Information transfer lines from the Right I/O Thyatron Register to the Line Printer- Even Word Calc. Exit Hubs.

Information transfer lines from the Right I/O Thyatron Register to the Card Recorder thru the Line Printer for odd words.

NOTE: * indicates not shown on the logic

CARD RECORDER
LINE PRINTER (Summary Punch Connections to Central Computer)

<u>From</u> <u>SP53A</u>	<u>To</u> <u>SP52B</u>	<u>SP52A</u>	<u>P.U.</u>	<u>LOGIC</u>	<u>ZONE</u>	<u>FUNCTION</u>
85		85				} Not used
to 89		to 89				
90	90	90	1G3	7.1.13	35E	-48 volt return- Not Ready Relay
91	91	91	5FS	0.7.6	11B	Request Disconnect- Line Printer & Rcdr.
92	92	92	3KD	0.7.6	7E	Request Breakout- Line Printer & Rcdr.
93	93	93	5BS	0.7.4	6A	Recorder not ready
94	94	94	5FP	0.7.6	10B	Disconnect Printer- Rcdr. Thyatron Pl.
95	95	95	5FE	0.7.6	9B	Write Thyatron Plates
96	96	96	5CW	0.7.6	1E	Recorder Operate 1- PER73
97	97	97	5CW	0.7.6	1E	Recorder Operate 2- PER 74
98	98	98	1G3	7.1.13	31C	} Ready I/O Units
99	99	99	1G3	7.1.13	31C	
100	100	100	1HS	7.1.13	35D	Recorder Not Ready Relay
101	} **	101	5CR	0.7.6	3D	} Operate Printer Thyatron Plates
to		102	5CR	0.7.6	3D	
160		103	5CR	0.7.6	2D	
		104	5CT	0.7.6	2D	
		105	5CT	0.7.6	2D	
		106	5CT	0.7.6	2D	
		107	5CU	0.7.6	2D	
		108	5CU	0.7.6	1D	
		109	5CU	0.7.6	1D	
		110	5CW	0.7.6	1D	
		111				} Not used
		112				
		113	5BS	0.7.6	6A	Line Printer Not Ready
		114				Not used
		115	5FE	0.7.6	10B	Start Line Printer
		116	5BS	0.7.4	6D	} Sense Entry
		117	5BS	0.7.4	6D	
		118	1G3	7.1.13	31C	} Ready I/O Units
		119	1G3	7.1.13	31C	
		120	1HS	7.1.13	35D	Line Printer Not Ready Relay
		121	3LF	5.4.3.1		72 volt Control
		122				} Not used
		to				
		180				

NOTE: *indicates not shown on the logic
 **not used on card recorder

NOTE
 Punch magnets are numbered in reverse order of card column.
 Punch magnet number one is used to punch column eighty.

COMPUTER ENTRY PUNCH - (Nike connections to Central Computer through MDI)

NIKE CONN.	LOGIC	CEP 352		CEP 353		CEP 354		BIT	PUNCH	FUNCTION
		P.U.	ZONE	P.U.	ZONE	P.U.	ZONE			
CA	2.2.1	23EF	21A	23EG	20A	23EH	19A	-	-	+10 volts present
CB	2.2.1	23EF	21A	23EG	20A	23EH	19A	-	-	Information Ready
CC	2.2.1	23ES	6D	23ES	6D	23ES	6D	R6	-	Card Count 1
CD	2.2.1	23D6	7D	23D6	7D	23D6	7D	R5	-	" " 2
CE	2.2.1	23D6	7D	23D6	7D	23D6	7D	R4	-	" " 3
CF	2.2.1	23ER	8D	23ER	8D	23ER	8D	R3	-	" " 4
CG	2.2.1	23ER	9D	23ER	9D	23ER	9D	R2	-	" " 5
CJ	2.2.1	23DU	2D	23DU	2D	23DU	2D	R13	-	Column Count
CK	2.2.1	23DU	3D	23DU	3D	23DU	3D	R12	-	" "
CL	2.2.1	23ET	3D	23ET	3D	23ET	3D	R11	-	" "
CM	2.2.1	23ET	4D	23ET	4D	23ET	4D	R10	-	" "
CN	2.2.1	23DT	4D	23DT	4D	23DT	4D	R9	-	" "
CP	2.2.1	23DT	5D	23DT	5D	23DT	5D	R8	-	" "
CR	2.2.1	23ES	6D	23ES	6D	23ES	6D	R7	-	" "
CS	2.2.1	23DL	20D	23DL	19D	23DL	19D	L8	12	
CT	2.2.1	23DL	19D	23DL	19D	23DL	19D	L1	11	
CU	2.2.1	23EL	18D	23EL	18D	23EL	18D	L2	0	
CV	2.2.1	23EL	18D	23EL	18D	23EL	18D	L3	1	
CW	2.2.1	23DM	17D	23DM	17D	23DM	17D	L4	2	
CX	2.2.1	23DM	17D	23DM	17D	23DM	16D	L5	3	
CY	2.2.1	23EM	16D	23EM	16D	23EM	16D	L6	4	
CZ	2.2.1	23EM	15D	23EM	15D	23EM	15D	L7	5	
Ca	2.2.1	23DN	15D	23DN	15D	23DN	15D	L8	6	
Cb	2.2.1	23DN	14D	23DN	14D	23DN	14D	L9	7	
Cc	2.2.1	23EN	14D	23EN	13D	23EN	13D	L10	8	
Cd	2.2.1	23EN	13D	23EN	13D	23EN	13D	L11	9	
Ce										} (Not used)
Cj										
Ck	2.2.1	23EF	21B	23EG	20B	23EH	19B	-	-	Interlock
Cm	2.2.1	23EF	21B	23EG	20B	23EH	19B	-	-	Interlock
Cn	2.2.1	23EF	20A	23EG	19A	23EH	19A	-	-	Ground
*DA to DZ Da to Dn										} *(Computer Entry Punch Units are Simplex. For "B" Computer connections, convert nuke connector from "C" to "D". i.e., CA to DA, Ca to Da, etc.

Information transfer lines from the CEPs to the MI Register

Drums

PART 1

SECTION 1

Flip-Flop - PU, Logic and Zone Reference

	PU	LOGIC	ZONE
AM-A APC	21MD-MP	1.2.3	10-13 C
AM-A APC Check FF	21PT	1.2.3	10 C
AM-A APC Error FF	21PT	1.2.3	9 C
AM-A Index Pulse FF	21FX	1.1.2	1 E
AM-A Timing Ckts		1.1.2	14-16 E
AM-B APC	21MD-MP	1.2.3	10-13 A
AM-B APC Check FF	21PU	1.2.3	10 A
AM-B APC Error FF	21PU	1.2.3	9 B
AM-B Index Pulse FF	21FX	1.1.2	1 E
AM-B Timing Ckts		1.1.2	10-13 E
AM-C APC	20JJ-JV	1-2.2.3	10-13 E
AM-C APC Check FF	20KS	1-2.2.3	10 E
AM-C APC Error FF	20KS	1-2.2.3	9 E
AM-C Index Pulse FF	20BW	1-2.1.2	2 E
AM-C Timing Ckts		1-2.1.2	4-5 E
AM-D APC	20JJ-JV	1-2.2.3	10-13 C
AM-D APC Check FF	20KS	1-2.2.3	9 C
AM-D APC Error FF	20KS	1-2.2.3	10 C
AM-D Index Pulse FF	20BW	1-2.1.2	2 E
AM-D Timing Ckts		1-2.1.2	4-5 D
AM-E APC	20JJ-JV	1-2.2.3	10-13 A
AM-E APC Check FF	20KT	1-2.2.3	9 B
AM-E APC Error FF	20KT	1-2.2.3	10 A
AM-E Index Pulse FF	20BW	1-2.1.2	2 E
AM-E Timing Ckts		1-2.1.2	4-5 C,D
AM-F APC	20KE-KR	1-2.2.3	5-8 E
AM-F APC Check FF	20KT	1-2.2.3	4 E
AM-F APC Error FF	20KT	1-2.2.3	4 E
AM-F Index Pulse FF	20BW	1-2.1.2	2 D
AM-F Timing Ckts		1-2.1.2	4-5 C
AM-G APC	20KE-KR	1-2.2.3	5-8 C
AM-G APC Check FF	20KU	1-2.2.3	4 C
AM-G APC Error FF	20KU	1-2.2.3	4 C
AM-G Index Pulse FF	20BW	1-2.1.2	2 D
AM-G Timing Ckts		1-2.1.2	4-5 B
AM-H APC	20KE-KR	1-2.2.3	5-8 A
AM-H APC Check FF	20KU	1-2.2.3	4 B
AM-H APC Error FF	20KU	1-2.2.3	4 A
AM-H Index Pulse FF	20BW	1-2.1.2	2 D
AM-H Timing Ckts		1-2.1.2	4-5 A
APC Alarm FF	21LU	1.2.3	2 D
AXD Adr Compare FF	20FT	1-2.2.1	6 C
AXD APC Alarm FF	20EY	1-2.2.3	2 C
AXD CD Mode FF	20FP	1-2.2.1	10 E
AXD CD Read FF	20FR	1-2.2.1	10 C
AXD CD Selection Reg	20FC-FD	1-2.1.1	15 B-C
AXD CD Write FF	20FR	1-2.2.1	10 C
AXD CD Write Reg	20CE-CX	1-2.2.1	2-4 B
AXD CD Write Reg Full FF	20FS	1-2.2.1	9 A
AXD CD Write Reg Wrt Pulse Str FF	20CD	1-2.2.1	4 C
AXD Check Reg	20EB-EK	1-2.3.2	3-6 E
AXD Drum Field Drivers	20GC-HW	1-2.1.1	2-8B
AXD Drum Read Amp	20AC-AX	1-2.2.2	12A-E
AXD Erase Ckt		1-2.3.3	9B-C
AXD Drum SW Cans	20B(P1)-(P33)	1-2.1.1	5B-7D
AXD Field SW Cans	AM(P2)-(P36)	1-2.1.1	5-7B
AXD Manual Read FF	20ET	1-2.3.2	14 B
AXD Manual Write FF	20ET	1-2.3.2	14 B
AXD Manual Test Error FF	20EV	1-2.3.2	1 C
AXD Master Sync FF	20FT	1-2.2.1	8 B
AXD OPG's		1-2.3.3	7B-C
AXD Read SW Cans	20A(P1)-(P11)	1-2.1.1	4B-D
AXD Selection & Diode Switching	20FC-FK	1-2.1.1	
AXD TC & Index Wrt FF	20BD	1-2.3.3	5 B
AXD TC & Index Wrt Reg FF	20BE	1-2.3.3	5 C
AXD TC & Index Wrt Pulse Str FF	20BB	1-2.3.3	5 C
AXD Test APC	20EM-EP	1-2.3.2	8-12 A
AXD Test APC Check FF	20EP	1-2.3.2	13 A

- A - (cont'd)

	PU	LOGIC	ZONE
AXD Test APC Error FF	20EL	1-2.3.2	12 B
AXD Test Pattern FF	20ER	1-2.3.2	9 D
AXD Timing & Distribution	20BG-BS	1-2.1.2	3 & 4 A-E

- C -

CD Address Compare FF	21FG	1.2.1	7 C
CD Master Sync FF	21FG	1.2.1	9 C
CD Mode FF	21FD	1.2.1	10 E
CD Read Status Fld Disc Ctr	21PE-PR	1.3.1	2-5 E
CD Read FF	21FE	1.2.1	10 C
CD Selection Reg	21GC-GD	1.1.1	13 C
CD Write FF	21FE	1.2.1	10 C
CD Write Reg	22GE-GX	1.2.1	2-4 B
CD Write Reg Full FF	21FF	1.2.1	10 A
CD Write Reg Pulse Str FF	22GD	1.2.1	5 B
Check Register	21KP-KY	1.7.2	3-6 E
Computer Test Read FF	21LE	1.7.2	14 B
Computer Test Sync FF	21LE	1.8.1	13 B
Computer Test Write FF	21LE	1.7.2	14 B

- D -

DD Drum Read Amp	22BF-BY	1.5.3	2-5 A
DD OD Reg Ctr	21AD-AE	1.5.3	6-7 C
DD OD Sync FF	21AC	1.5.3	8 B
Display Dim FF	21DW	1.5.1	1 D
Drum Field Drivers	21HC-JK	1.1.1	9 A-E
Drum Full Alarm FF	21LT	1.3.1	9 A
Drum Read Ckts	22EC-EV	1.2.2	5-11 A & B
Drum Timing & Distribution	22FJ-FV	1.1.2	

- G -

GFI CD Status Write Reg FF	22HH	1.3.2	14 D
GFI OD Full FF	21BU	1.3.2	12 A
GFI OD Full Alarm FF	21MU	1.3.2	12 A
GFI OD Rel Time Ctr Input FF	22MX	1.3.2	6 A
GFI OD Rel Time Ctr Step FF	22MX	1.3.2	7 A
GFI OD Rel Time Ctr Sync FF	22MX	1.3.2	6 A
GFI OD Status Reg FF	21BU	1.3.2	13 B
GFI OD Status Write Reg FF	22HH	1.3.2	11 B
GFI OD Test Status Reg FF	21BU	1.3.2	12 B
GFI OD Write Pulse Stretcher FF	22NC	1.3.2	10 C
GFI OD Write Reg	22ND-NX	1.3.2	3-10 C
GFI OD Write Reg Full FF	21BU	1.3.2	11 B
GFI Relative Time Ctr Wrt Ckt	21NJ-NM	1.3.2	5-7 C

- I -

IC Drum Read Amp	22AF-AY	S-1.6.1	
IC Other APC	21RG-RK	S-1.6.1	5-9 E
IC Other APC Alarm FF	21RL	S-1.6.1	4 E
IC Other APC Check FF	21RL	S-1.6.1	4 E
IC Other Compare FF	21RN	S-1.6.1	13 D
IC Other Read FF	21RN	S-1.6.1	14 D
IC Other Read Sync FF	21RN	S-1.6.1	14 D
IC Test Pattern FF	21KF	1.8.3	8D

- L -

LOG Status Write Pulse Str FF	22HG	1.1.2	7 B
LOG Index Pulse FF	21FX	1.1.2	1 D

- L - (cont'd)

	PU	LOGIC	ZONE
LOG (Test) APC	21LW-LY	1.2.3	5-8 A
LOG (Test) APC Check FF	21LY	1.2.3	3 A
LOG (Test) APC Alarm FF	21LV	1.2.3	3 A
Log Drum Timing Ckts	21EH-EG	1.1.2	9A-E
LRI Status Slot Ctr	21PC	1.3.3	2 E
LRI OD Write Reg	22LD-LV	1.3.3	3-5 B
	22MD-MW		
LRI OD Slot Ctr	21AH	1.3.3	11 B
LRI-1 CD Slot Ctr	21FP	1.3.3	7 D
LRI-1 CD Status Write Reg FF	22HJ	1.3.3	8 B
LRI-1 OD Full FF	21BN	1.3.3	10 A
LRI-1 OD Full Alarm FF	21LT	1.3.3	10 B
LRI-1 OD Status Reg FF	21BN	1.3.3	11 B
LRI-1 OD Status Write Reg FF	22HJ	1.3.3	11 D
LRI-1 OD Test Status Reg FF	21BN	1.3.3	9 B
LRI-1 OD Write Pulse Str FF	22MC	1.3.3	6 B
LRI-1 OD Write Reg Full FF	21BN	1.3.3	8 A
LRI-2 CD Slot Ctr	21FS	1.3.4	7 D
LRI-2 CD Status Write Reg FF	22HK	1.3.4	11 D
LRI-2 OD Full FF	21BR	1.3.4	10 A
LRI-2 OD Full Alarm FF	21LT	1.3.4	10 B
LRI-2 OD Status Reg FF	21BR	1.3.4	11 B
LRI-2 OD Status Write Reg FF	22HK	1.3.4	8 B
LRI-2 OD Test Status Reg FF	21BR	1.3.4	9B
LRI-2 OD Write Pulse Str FF	22LC	1.3.4	6 B
LRI-2 OD Write Reg Full FF	21BR	1.3.4	8 A

- M -

Main Drum Erase Ckts		1.7.3	9B-C
Main Drum OFG's		1.7.3	7B-C
Main Drum SW Cans	22F(P1)-(P33)	1.1.1	7-3, B-D
Main Field SW Cans	AM(P2)-(P36)	1.1.1	3-7B
Main RDS SW Cans	22E(P1)-(P11)	1.1.1	3B-E
Manual Test Error FF	21KL	1.7.2	1 C
Marker Status Slot Ctr FF	21PC	1.3.5	8 E
MDXD APC	21MD-MP	1.2.3	10-13E
MDXD APC Check FF	21RL	1.2.3	10D
MDXD APC Error FF	21RL	1.2.3	9D
MDXD Drum Timing Ckts	21EJ-EK	1.1.2	6A-E
MDXD Index Pulse FF	21FX	1.1.2	1D
MDXD Status Write Pulse Str FF	22HP	1.1.2	3A
MI CD Status Write Reg FF	22HM	1.3.1	11 D
MI OD Full FF	21BG	1.3.1	10 A
MI OD Full Alarm FF	21LT	1.3.1	9 A
MI OD Status Reg FF	21BG	1.3.1	11 B
MI OD Status Write Reg FF	22HM	1.3.1	8 B
MI OD Test Status Reg FF	21BG	1.3.1	9 B
MI OD Write Pulse Str FF	22KC	1.3.1	6 B
MI OD Write Reg Full FF	21BG	1.3.1	8 A
MI OD Write Reg	22KD-KW	1.3.1	3-5 B

- O -

OB Disconnect Ctrs 1 & 2	21AT	1.4.1	22 C
OB Drum Read Amp	22CF-CY	1.4.1	5-8 D
OB OD Field Sw Ctr 1 & 2	21AR, 21AF	1.4.1	15 E
OB CD Gap Ctr	21AU	1.4.1	18-19 C
OB CD Field Ctrs 1 & 2	21AR	1.4.1	19 B
OB OD Gap Ctr	21AV	1.4.1	10 C
OB OD Restart FF	21AG	1.4.1	10 D
OB Odd Reg	21AS	1.4.1	21 A
OB-1 CD Status Reg	21AK	1.4.1	16 A
OB-1 CD Status Write Reg	22HC	1.4.1	16 B

- O - (cont'd)

	PU	LOGIC	ZONE
OB-1 OD Status Write Reg	22HC	1.4.1	17 D
OB-2 CD Status Reg	21AL	1.4.1	14 A
OB-2 CD Status Write Reg	22HD	1.4.1	14 B
OB-2 OD Status Write Reg	22HD	1.4.1	15 C
OB-3 CD Status Reg	21AM	1.4.1	13 A
OB-3 CD Status Write Reg	22HE	1.4.1	11 B
OB-3 OD Status Write Reg	22HE	1.4.1	13 C

- P -

Parity FF	21KP	1.7.2	6 E
Precessing Error FF	21LV	1.8.2	3 E

- R -

RD Field Selection Matrix	21CJ-CT	1.5.1	5-9E
RD APC	21PE-PR	1.2.3	5-8 C
RD APC Check FF	21PV	1.2.3	4 C
RD APC Error FF	21PV	1.2.3	4 C
RD CD Timing Gap Ctr	21ES	1.1.2	13-14 A
RD Index Pulse FF	21FX	1.1.2	1 D
RD OD Field Ctr	21DX	1.5.1	1-2 A
RD OD Field Sel Ctr	21DR-DT	1.5.1	6-7 D
RD OD Reg Ctr	21DP	1.5.1	3 B
RD OD Scan Counter	21DT-DU	1.5.1	6-8 B
RD OD Scan Counter Step FF	21DM	1.5.1	5 B
RD OD Scan Counter Sync FF	21DM	1.5.1	5 A
RD OD Selected FF	21DK	1.5.1	4 B
RD OD Sync FF	21DK	1.5.1	4 A
RD OD Timing Gap Ctr	21ET	1.5.1	3 E
RD OD Transfer Scan Ctr FF	21DM	1.5.1	5 C
RD Timing	21EN-ED	1.1.2	14-16B

- S -

Sel. Reg. 01, 02	21GC	1.1.1	21 C
Sel. Reg. 04, 10	21GC-D	1.1.1	21 D
Sel. Reg. 20, 40	21GD	1.1.1	21 E
Step Disconnect Ctr FF	21PC	1.3.1	2 E
SD Drum Read Amp	22DF-DY	1.5.2	6B-E
SD OD Timing Pulse Sw Ctr	21MT	1.5.2	4 B
SP XTL CD Marker Status Wrt Reg FF	22PW	1.3.6	10 D
SP XTL CD Marker Status Wrt Pulse Str FF	22PX	1.3.6	11 D
SP XTL CD Status Wrt Reg FF	22HR	1.3.6	11 D
SP XTL OD Full FF	21BJ	1.3.6	9 A
SP XTL OD Full Alarm FF	21LT	1.3.6	8 A
SP XTL OD Marker Chan Status FF	21BL	1.3.6	10 A
SP XTL OD Status Reg FF	21BJ	1.3.6	11 A
SP XTL OD Status Wrt Reg	22HR	1.3.6	7 C
SP XTL OD Test Marker Chan Status FF	21BL	1.3.6	7 B
SP XTL OD Test Status Reg FF	21BJ	1.3.6	8 B
SP XTL OD Write Pulse Str FF	22PC	1.3.6	5 C
SP XTL OD Write Reg	22PD-PW	1.3.6	2-5 B
SP XTL OD Write Reg Full FF	21BJ	1.3.6	7 B
Status Test Read Sample FF	21KJ	1.7.1	4 D
Status Disconnect Ctr.	21PE-PR	1.3.1	2-5 E

- T -

TC & Index Write FF	22HV	1.7.3	5 B
TC & Index Write Reg FF	22HU	1.7.3	6 C
TC & Index Write Pulse Str FF	22HX	1.7.3	5 C
TD APC	21PE-PR	1.2.3	5-8 D
TD APC Check FF	21PU	1.2.3	4 D
TD APC Error FF	21PU	1.2.3	4 E
TD CD Timing Gap Ctr	21EY	1.1.2	13-14 C
TD Computer Test Start FF	21DJ	1.8.2	9 C
TD Field Selection Matrix	21CC-21CH	1.5.1	9-12E

- T - (cont'd)

	PU	LOGIC	ZONE
TD Index Pulse FF	21FX	1.1.2	1 E
TD OD Field Ctr	21DG	1.5.1	9-10 C
TD OD Register Ctr	21DD	1.5.1	11-12 B
TD OD Selected FF	21DC	1.5.1	12 B
TD OD Slot Ctr	21DE-21DF	1.5.1	9-10 B
TD OD Sync FF	21DC	1.5.1	12 B
TD OD Timing Gap Ctr	21DY	1.5.1	11-12 C
TD Read Sample FF	21DJ	1.5.2	5 A
TD Timing Ckts	21EL-EM	1.1.2	14-18C
Test APC	21LW-LY	1.2.3	5-8 B
Test APC Check FF	21LY	1.2.3	3 A
Test APC Alarm FF	21LV	1.2.3	3 A
Test Pattern FF	21KF	1.7.2	9 D

- X -

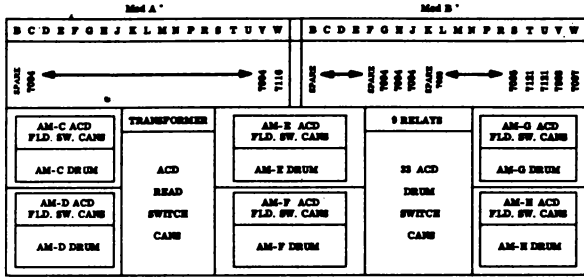
XTL CD Marker Status Wrt Reg	22JW	1.3.5	10 D
XTL CD Marker Status Wrt Pulse Str	22JX	1.3.5	11 D
XTL CD Status Write Reg FF	22HL	1.3.5	11 D
XTL OD Full FF	21BC	1.3.5	9 A
XTL OD Full Alarm FF	21LT	1.3.5	8 A
XTL OD Marker Chan Status FF	21BE	1.3.5	9 B
XTL OD Status Reg FF	21BC	1.3.5	11 A
XTL OD Status Write Reg FF	22HL	1.3.5	7 B
XTL OD Test Marker Chan Status FF	21BE	1.3.5	9 B
XTL OD Test Status Reg FF	21BC	1.3.5	8 C
XTL OD Write Pulse Str FF	22JC	1.3.5	5 C
XTL OD Write Reg	22JD-JW	1.3.5	2-15 B
XTL OD Write Reg Full FF	21BC	1.3.5	7 B

PART 1

SECTION 2

PU Layout indicating type numbers, logic numbers, and important registers and circuits.

AUXILIARY DRUMS
Unit 20
PU LAYOUT



* Logic Layout For Modules A & B shown on page 1-2.5

**ACD READ
SW CANS**

P2	P1
P4	P3
P6	P5
P8	P7
P10	P9
	P11

**ACD FIELD SW CANS
FRONT**

P4	P8	P12	P16	P20	P24	P28	P32	P36
P3	P7	P11	P15	P19	P23	P27	P31	P35
P2	P6	P10	P14	P18	P22	P26	P30	P34
P1	P5	P9	P13	P17	P21	P25	P29	P33

AS SEEN FROM BOTTOM

**ACD DRUM
SW CANS**

P2	P1
P4	P3
P6	P5
P8	P7
P10	P9
P12	P11
P14	P13
P16	P15
P18	P17
P20	P19
P22	P21
P24	P23
P26	P25
P28	P27
P30	P29
P32	P31
	P33

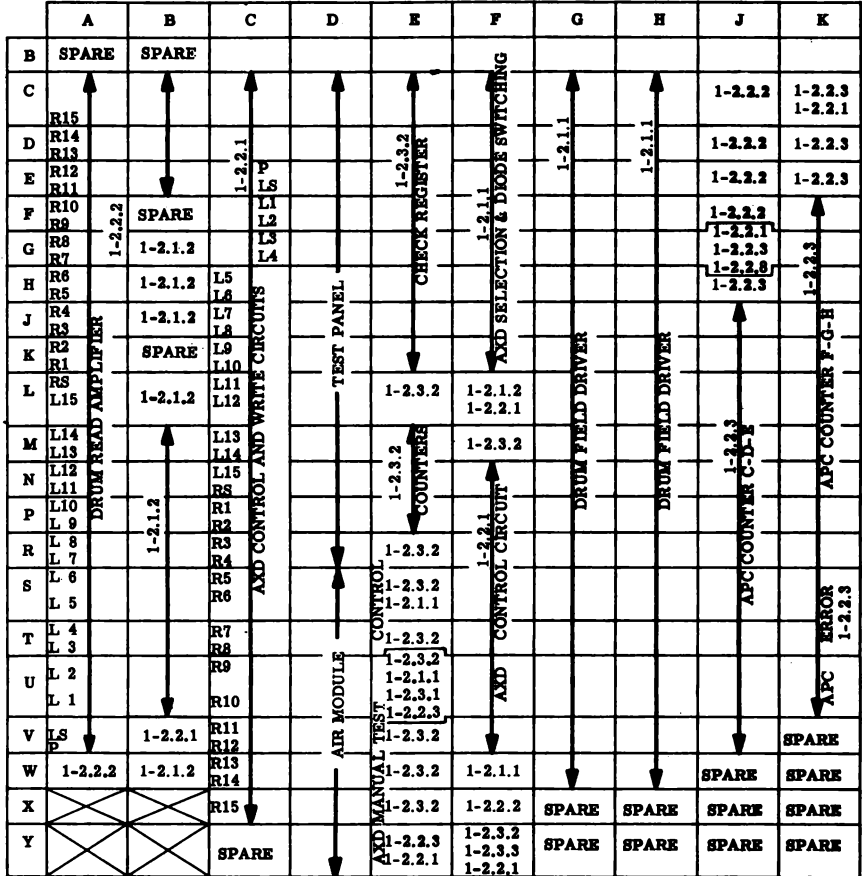
AS SEEN FROM WIRING SIDE

**AUXILIARY DRUMS
UNIT 20
PU LAYOUT**

	C	D	E	F	G	H	J	K	
C	7118		7108	7103	7125	7125	7504	7111	
D	7130	TEST PANEL	↑	7103	↑	↑	↑	7106	
E	7109		↓	7145			↓	7117	
F	↑			7145			7504	↑	
G				7168			7111		
H				7168			7106		
J				↓	7168		7117		
K				7108	7508			↑	
L				7136	7142				
M				7249	7142				
N				7249	7167				
P				7249	7132			↓	
R				7114	7147			7117	
S			AIR MODULE	7142	7157				7129
T				7507	7139				7129
U		7170		7152			↓	7129	
V		7122		7141	↓	↓	7117	SPARE	
W	↓	7142		7151	7125	7125	SPARE	↑	
X	7109	7184		7505	SPARE	SPARE	SPARE	↓	
Y	SPARE	↓		7169	7506	SPARE	SPARE	SPARE	

Note: For Modules A & B see page 1-2.3

**AUXILIARY DRUMS
UNIT 80
LOGIC LAYOUT**



1-2.6

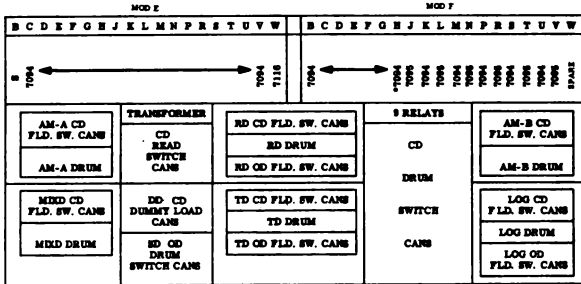
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R
C	7156	7162	7138	7101	SPARE	7167	7103	7125	7125	7111	7182	7106	7149	7133	SPARE
D	7150	7121	↑	7110	SPARE	7132	7103	↑	↑	7183	7552	7117	↑	7106	SPARE
E	7150	7135	↑	7128	SPARE	7147	7145	↑	↑	7116	7103	↑	↑	7117	SPARE
F	7107	7096	↑	7100	7096	7157	7145	↑	↑	7114	7099	↑	↑	↑	7248
G	7098	7179	↑	7103	7142	7139	7180	↑	↑	7142	7166	↑	↑	↑	7117
H	7146	7121	↑	7104	↑	7152	7168	↑	↑	7172	7119	↑	↑	↑	↑
J	7121	7162	↑	7101	↑	7141	7178	↑	↑	7105	7115	↑	↑	↑	↓
K	7161	7121	↑	7175	↑	7151	7153	↑	↑	SPARE	↑	↑	↑	↑	7117
L	7161	7135	↑	7177	↑	7096	7168	↑	↑	7170	↓	↑	↑	↑	7749
M	7161	S	↑	7134	↓	7111	7158	↑	↑	7122	7115	↑	↑	↑	7156
N	7121	7144	↑	7159	↓	7121	7158	↑	↑	7142	SPARE	↓	↑	↑	7126
P	SPARE	7121	↑	7103	7142	7146	7160	↑	↑	7184	↑	7117	↑	↓	7152
R	7171	7144	↑	7103	7121	7121	7160	↑	↑	7108	↓	SPARE	↑	7117	SPARE
S	7173	7121	↑	7121	7143	7146	7182	↑	↑	↑	SPARE	7111	↑	SPARE	↑
T	7123	7096	↑	7176	7143	7121	7121	↑	↑	↑	7174	7148	↑	7129	↑
U	7143	7179	↑	7110	7096	7505	7121	↑	↑	↑	7169	7202	↓	7129	↑
V	7143	7121	↓	7163	7096	7142	7121	↑	↑	↑	7136	SPARE	7149	7129	↑
W	7156	SPARE	7138	7181	7096	7111	7151	↑	↓	↑	7249	↑	7115	SPARE	↑
X	SPARE	7156	7070	7100	7111	7097	7684	↓	7125	↓	7249	↓	SPARE	SPARE	↓
Y	SPARE	7019	7012	7143	7143	7142	7151	7125	SPARE	7108	7249	SPARE	7115	SPARE	SPARE

MAIN DRUM
DATE 21
PU LAYOUT

	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R
C	1.5.3	1.3.5	TD FLD 6	1.5.1	SPARE	1.2.1	1.1.1	AM-A1	AM-A2	1.7.2 1.8.1	1.1.1 1.8.2 1.8.3	1.2.3	S1.6.1 1.2.2 1.4.3 1.5.2	1.3.1 1.3.3 1.3.5	SPARE
D	1.5.3	1.3.5 1.7.1	TD FLD 5	1.5.1 1.3.5	SPARE	1.2.1	1.1.1	AM-A3	AM-A4	1.7.2 1.8.2	1.7.1 1.8.1	CTR= 1024	1.5.3 1.8.2	1.2.3 1.3.1	SPARE
E	1.5.3	1.7.1 1.3.5	TD FLD 4	1.5.1 1.5.2	SPARE	S1.6.1 1.2.1	1.1.1	AM-A5	AM-A6	1.7.2 1.8.2	1.7.2 1.8.1	= 512		1.2.3 1.3.1	SPARE
F	1.4.1	1.3.1 1.3.5 1.3.6	TD FLD 3	1.5.1	1.1.2	1.2.1	1.1.1	AM-B7	AM-B8	1.7.2 1.8.1	1.3.1 1.4.1 1.3.6 1.8.1 1.8.2 1.3.1	= 256		1.2.3 1.3.1	1.7.1
G	1.4.1	1.3.1	TD FLD 2	1.5.1	1.1.2	1.2.1	1.1.1	AM-B9	AM-B10	1.7.2 1.8.1	1.7.1 1.8.1 1.8.2	= 128		1.2.3 1.3.1	IC OTHER APC CIRCUITS S - 1.6.1
H	1.4.1 1.3.3 1.8.2 1.7.1	1.3.1 1.3.5 1.7.1	TD FLD 1	1.5.1	1.1.2	1.2.1	1.1.1	AM-B11	AM-B12	1.7.2	1.8.1 1.8.2 1.8.3	(MIXD - AMA - AMB) 1.2.3 = 64		1.2.3 1.3.1	
J	1.4.1	1.3.6	RD FLD 8	1.5.2 1.8.2	1.1.2	1.2.1	1.1.1	LRI-1	OB-1	1.7.1 1.7.2	1.8.1	= 32		1.3.1	
K	1.4.1 1.7.1	1.7.1 1.3.6	RD FLD 7	1.5.1	1.1.2	1.2.1 1.4.1 1.7.2	1.1.1	LRI-2	OB-2	SPARE	1.8.1	= 16		1.2.3 1.3.1	
L	1.4.1 1.7.1	1.7.1 1.3.6	RD FLD 6	1.5.1	1.1.2	1.2.1 S1.6.1 1.3.5 1.7.2	1.1.1	GFI	OB-3	1.1.1 1.2.3 1.7.1 1.7.2	1.8.1	= 8		1.2.3 1.3.1	1.2.3
M	1.4.1 1.7.1	SPARE	RD FLD 5	1.2.1 1.5.1	1.1.2	1.1.2 1.2.1 1.4.1 1.7.2	1.1.1	X-TELL	MI	1.7.2	1.8.1	APC COUNTER = 4		1.2.3 1.3.1	
N	1.4.1 1.7.1	1.3.3	RD FLD 4	1.5.1	1.1.2	1.8.3 1.7.2	1.1.1	SP X-TELL	DD	1.7.2	SPARE	= 2	1.2.2	1.2.3 1.3.1	1.8.3
P	SPARE	1.3.3 1.7.1	RD FLD 3	1.5.1	1.1.2	1.3.1 1.3.3 1.3.4 1.3.5 1.3.6	1.1.1	SP AM	IC	1.7.2	SPARE	= 1	1.5.3 1.4.1	1.3.1 1.2.3	SPARE
R	1.4.1	1.3.4 1.1.1	RD FLD 2	1.5.1	1.1.2 1.5.1	1.3.1 1.3.5 1.3.6	1.1.1	TD-1	TD-2	L8-L3	SPARE	SPARE	1.8.2 1.5.2	1.2.3 1.3.1	SPARE
S	1.4.1	1.3.4 1.7.1 1.8.1	RD FLD 1	1.5.1	1.1.2	1.1.1 1.1.2 1.3.2 1.3.3 1.3.4 1.7.2	1.1.1	TD-3	TD-4	L4-L7	SPARE	1.5.2	READ CKTS	SPARE	SPARE
T	1.4.1	1.1.2 1.3.2 1.3.3 1.3.4	RD FLD 9	1.5.1	1.5.1	1.3.2 1.3.3 1.3.4	1.1.2	TD-5	TD-6	L8-L11	1.2.3 1.3.1 1.3.3 1.3.4 1.3.5 1.3.6	1.5.2		1.2.3	SPARE
U	1.4.1	1.3.2	1.4.1	1.5.1	1.1.2	1.2.2	1.7.2 1.1.2	RD-1	RD-2	L12 L15	1.2.1 1.2.3 1.8.2	1.2.1		1.2.3	SPARE
V	1.4.1	1.3.2 1.3.6 1.7.1	1.4.1	1.5.1	1.1.2	1.7.2	1.1.2 1.2.1	RD-3	RD-4	R8-R3	1.2.3 1.7.2 1.8.2	SPARE		1.2.3	SPARE
W	1.1.2 1.4.1	SPARE	1.4.1	1.5.1	1.1.2	1.1.2 1.2.1	1.1.2 1.2.1 1.3.1 1.7.2	RD-5	RD-6	R4-R7	1.2.3	SPARE	1.8.2	SPARE	SPARE
X	SPARE	1.1.2 1.3.4	1.2.1 1.5.1 1.5.3	1.5.1	1.1.2	1.1.2	1.1.1	RD-7	RD-8	R8-R11	1.2.3	SPARE	SPARE	SPARE	SPARE
Y	SPARE	1.2.1	1.1.1 1.2.1 1.7.2	1.5.1	1.1.2	1.1.2	1.1.1 1.1.2 1.2.1	RD-9	SPARE	R12 R15	1.2.3	SPARE	1.8.2	SPARE	SPARE

1-2.7
1-2.8

MAIN DRUMS
Unit 22
PU LAYOUT



* Dalt Wired - PU Not Supplied

CD RDS. SW. CANS

P2	P1
P4	P3
P6	P5
P8	P7
P10	P9
P12	P11

CD FIELD SW. CANS FRONT

P4	P8	P12	P16	P20	P24	P28	P32	P36
P3	P7	P11	P15	P19	P23	P27	P31	P35
P2	P6	P10	P14	P18	P22	P26	P30	P34
P1	P5	P9	P13	P17	P21	P25	P29	P33

CD DRUM SW. CANS

P2	P1
P4	P3
P6	P5
P8	P7
P10	P9
P12	P11
P14	P13
P16	P15
P18	P17
P20	P19
P22	P21
P24	P23
P26	P25
P28	P27
P30	P29
P32	P31
P	P33

DD CD DUMMY LOAD CANS

P14	P13
P16	P15
P18	P17
P20	P19

OD FIELD SW CANS FOR RD, TD & LOG DRUMS

P36	P32	P28	P24	P20	P16	P12	P8	P1
P35	P31	P27	P23	P19	P15	P11	P7	P2
P34	P30	P26	P22	P18	P14	P10	P6	P3
P33	P29	P25	P21	P17	P13	P9	P5	P4

AS SEEN FROM BOTTOM

UNUSED

P22	P21
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NOTE: See page 1-2.11 For Logic Layout of Modules E & F.

SD OD DRUM SW. CANS

P24	P23
P26	P25
P28	P27
P30	P29
P32	P31
P	P33

AS SEEN FROM WIRING SIDE

1-2.10

Note: See Page 1-2.9 For Modules E & F

	A	B	C	D	G	H	J	K	L	M	N	P
C	SPARE	7094	SPARE	*7094	7118	7131	7130	7130	7130	7130	7130	7130
D	SPARE	7509	7094	*7509	7130	7131	7131	7131	7127	7127	7131	7131
E	7116	7116	7116	7116	7109	7131	↑	↑	↑	↑	↑	↑
F	7094	7094	7094	7094	↑	7137						
G	↑	↑	↑	↑								
H						7154						
J						7131						
K						↑					7131	
L						↓					7112	
M						7131					7131	
N						7137					↑	
P						7154						
R						7131						
S						SPARE						
T						↑						
U												
V							↓	↓	7127	↓		↓
W					↓		7131	7131	SPARE	7127	↓	7131
X	↓	↓	↓	↓	7109	↓	7154	SPARE	SPARE	7120	7131	7154
Y	7094	7094	7094	7094	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	7113	7202

UNIT WIRED
PU NOT SUPPLIED

MAIN DRUMS
UNIT 22
PU LAYOUT

* PU Not Supplied For C. C.

MAIN DRUMS
Unit 22
LOGIC LAYOUT

	A	B	C	D	E	F	G	H	J	K	L	M	N	P
B					SPARE	1.4.1								
C	SPARE	DRUM READ AMP. 1.3.5	SPARE	1.3.6	R-15	1.4.1	1.2.1 1.7.2	1.4.1	1.3.5	1.3.1	1.3.4	1.3.3	1.3.2	* 1.3.6
D	SPARE		1.3.1	1.3.6	R-14 R-13	1.4.1	1.2.1	1.4.1	↑ P L-S	↑ P L-S	↑ P	↑ L-15	↑ P L-S	* L-S
E	S-1.6.1	1.5.3	1.2.2 1.4.1	1.5.2	R-12 R-11	1.3.3	↑ P L-S	1.4.1	L-1 L-2	L-1 L-2	LS	RS	L-1 L-2	* L-1 L-2
F	↑ IC OD-IX P	↑ P L-S	↑ P L-S	↑ P L-S	R-10 R-9	1.3.4	L-1 L-2	1.1.2	L-3 L-4	L-3 L-4	L-1	R-1	L-3 L-4	* L-3 L-4
G	LS L-1	L-1 L-2	L-1 L-2	L-1 L-2	R-8 R-7	1.3.2	L-3 L-4	1.1.2	L-5 L-6	L-5 L-6	L-2	R-2	L-5 L-6	* L-5 L-6
H	L-2 L-3	L-3 L-4	L-3 L-4	L-3 L-4	R-6 R-5	*	L-5 L-6	1.3.2	L-7 L-8	L-7 L-8	L-3	R-3	L-7 L-8	* L-7 L-8
J	L-4 L-5	L-5 L-6	L-5 L-6	L-5 L-6	R-4 R-3	↑	L-7 L-8	1.3.3	L-9 L-10	L-9 L-10	L-4	R-4	L-9 L-10	* L-9 L-10
K	L-6 L-7	L-7 L-8	L-7 L-8	L-7 L-8	R-2 R-1	↑	L-9 L-10	1.3.4	L-11 L-12	L-11 L-12	L-5	R-5	L-11 L-12	* L-11 L-12
L	L-8 L-9	1.3.1 L-9 L-10	1.4.1 L-9 L-10	1.5.2 L-9 L-10	R-8 L-15	1.1.2	1.2.1 L-11 L-12	1.3.5	L-13 L-14	L-13 L-14	1.3.3 L-6	1.3.4 R-6	1.3.2 1.3.2	* 1.3.6 L-13 L-14
M	S-1.6.1 L-10 L-11	L-11 L-12	L-11 L-12	L-11 L-12	L-14 L-13	↑	L-13 L-14	1.3.1	L-15 R-S	L-15 R-S	L-7	R-7	L-13 L-14	* L-15 R-S
N	L-12 L-13	L-13 L-14	L-13 L-14	L-13 L-14	L-12 L-11	DRUM TIMING & DISTRIBUTION	L-15 R-S	1.1.2	R-1 R-2	R-1 R-2	L-8	R-8	L-15 R-S	* R-1 R-2
P	L-14 L-15	L-15 R-S	L-15 R-S	L-15 R-S	L-10 L-9	DRUM READ CIRCUITS	R-1 R-2	1.1.2	R-3 R-4	R-3 R-4	L-9	R-9	R-1 R-2	* R-3 R-4
R	DRUM READ AMPLIFIERS R-S R-1	DRUM READ AMPLIFIERS R-1 R-2	DRUM READ AMPLIFIERS R-1 R-2	DRUM READ AMPLIFIERS R-1 R-2	L-8 L-7	↑	R-3 R-4	1.3.6	R-5 R-6	R-5 R-6	L-10	R-10	R-1 R-2	* R-3 R-4
S	DRUM READ AMPLIFIERS R-2 R-3 R-4	DRUM READ AMPLIFIERS R-3 R-4	DRUM READ AMPLIFIERS R-3 R-4	DRUM READ AMPLIFIERS R-3 R-4	L-6 L-5	↑	R-5 R-6	SPARE	R-7 R-8	R-7 R-8	L-11	R-11	R-5 R-6	* R-7 R-8
T	DRUM READ AMPLIFIERS R-4 R-5	DRUM READ AMPLIFIERS R-5 R-6	DRUM READ AMPLIFIERS R-5 R-6	DRUM READ AMPLIFIERS R-5 R-6	L-4 L-3	↑	R-7 R-8	↑	R-9 R-10	R-9 R-10	L-12	R-12	R-7 R-8	* R-9 R-10
U	DRUM READ AMPLIFIERS R-6 R-7	DRUM READ AMPLIFIERS R-7 R-8	DRUM READ AMPLIFIERS R-7 R-8	DRUM READ AMPLIFIERS R-7 R-8	L-2 L-1	↓	R-9 R-10	↑	R-11 R-12	R-11 R-12	L-13	R-13	R-9 R-10	* R-11 R-12
V	IC DRUM READ AMPLIFIERS R-8 R-9	DRUM READ AMPLIFIERS R-9 R-10	OB DRUM READ AMPLIFIERS R-9 R-10	SD DRUM READ AMPLIFIERS R-9 R-10	L-S P	↓	R-11 R-12	↑	R-13 R-14	R-13 R-14	L-14	R-14	R-11 R-12	* R-13 R-14
W	R-10 R-11	R-11 R-12	R-11 R-12	R-11 R-12	1.1.2 1.2.2	SPARE	R-13 R-14	↑	R-15	R-15	SPARE	R-15	R-13 R-14	* R-15
X	R-12 R-13	R-13 R-14	R-13 R-14	R-13 R-14			R-15	↑	1.3.5	SPARE	SPARE	1.3.2	R-15	* 1.3.6
Y	R-14 R-15	R-15	R-15	R-15			SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	1.3.2	* 1.7.3

* Unit Wired. PU Not Supplied.

Inputs

PART 2

SECTION 1

FLIP-FLOP - PU, LOGIC and Zone Reference

INPUTS

GFI

Flip Flops	Even Channels			Odd Channels		
	PU	Logic	Zone	PU	Logic	Zone
- A -						
Add Range	34AS	S2.1.2-2	14D	34AM	S2.1.2	14D
Azimuth	34A(AA)	S2.1.2-2	9A	34AE	S2.1.2	9A
Azimuth Sync	34A(CC)	S2.1.2-2	13B	34AC	S2.1.2	13B
- C -						
Channel Ready	34AT	S2.1.2-2	12D	34AL	S2.1.2	12D
- M -						
Missing Azimuth Protection	34AY	S2.1.2-2	8A	34AF	S2.1.2	7A
- P -						
Pulse Shortening	34AY	S2.1.2-2	7A	34AF	S2.1.2	7A
- R -						
Range Control	34AR	S2.1.2-2	15D	34AN	S2.1.2	15D
Range Sync	34AS	S2.1.2-2	14D	34AM	S2.1.2	14D
Reintensify Delay	34AS	S2.1.2-2	14D	34AM	S2.1.2	14D
- S -						
Shift Drive	34AT	S2.1.2-2	12C	34AL	S2.1.2	12C
Spurious Azimuth Alarm	34A(AA)	S2.1.2-2	9A	34AE	S2.1.2	9A
Spurious Azimuth Protection	34AY	S2.1.2-2	8B	34AF	S2.1.2	8B
- T -						
Target	34AT	S2.1.2-2	13C	34AL	2.1.2	13C
		<u>Common "A"</u>			<u>Common "B"</u>	
- D -						
Drum Demand	34JV	2.1.3	14D	34KV	2.1.3	14A
- O -						
OD-2 Frequency Divider	34JU	2.1.3	14D	34KU	2.1.3	14A
		MDI				
		<u>Direct Entry</u>				
- G -						
Gate Break Request	23BD	2.2.2	2C			
-R-						
Reading MDI Core Matrix	23BC	2.2.2	1C			
Readout Alarm	23CW	2.2.2	3B			
Readout Error	23CW	2.2.2	3B			
Register Shift	23BE	2.2.2	2A			
-S-						
Shift Frequency Divider	23BC	2.2.2	1C			

**INPUTS
MDI**

<u>Flip Flops</u>	<u>FU</u>	<u>Direct Entry Logic</u>	<u>Zone</u>
- A -			
ADI Gate & Read	23DC	2.2.1	15C
ADI Gate & Read	23DD	2.2.1	15B
ADI Hold	23DC	2.2.1	14C
ADI Hold	23DD	2.2.1	14B
- G -			
Gate to Drums	23EH, EF EG, DG	2.2.1	19-21B
- H -			
Hold	23EH, EF EG	2.2.1	19-20B
- L -			
Light Gun Core Interlock	23DJ	2.2.1	17B
Light Gun Sync	23DG	2.2.1	21A
- M -			
MI Register	23DL-DU 23EL-EU	2.2.1	1-20D
MI Register Ready	23DK	2.2.1	15B
- S -			
Select	23EH, EF EG, DG	2.2.1	19-21B
- T -			
Target Available	23DJ	2.2.1	17C

XTEL

	<u>Common "A"</u>			<u>Common "B"</u>		
- C -						
Clock Alarm	32HW	A2.3.5	10B	32KW	B2.3.5	10B
Clock Time	32HU-HW	A2.3.5	10-13B	32KU-KW	B2.3.5	10-13B
Clock Step, Sync & Reset Control	32HT	A2.3.5	13B-C	32KT	B2.3.5	13C
Clock One's Test	32HW	A2.3.5	10B	32KW	B2.3.5	10B
Clock Parity	32HV	A2.3.5	11B	32KV	B2.3.5	11B
- D -						
Drum Demand 2 Inhibit	32HX	A2.3.5	12A	32KX	B2.3.5	12A
Drum Field Selection	32HX	A2.3.5	13A	32KX	B2.3.5	13A
- P -						
Pulse Generator	32GX	A2.3.5	8B	32JX	B2.3.5	8B
- R -						
Readout Alarm	32HC	A2.3.5	10B	32KC	B2.3.5	10B
- X -						
XTL 2/3 & 5/6	32GV	A2.3.5	8B-C	32JV	B2.3.5	8B-C

INPUTS

XTEL

<u>Flip Flops</u>	<u>Channel Equipment</u>			<u>PU</u>	<u>Logic</u>	<u>Zone</u>
	<u>PU</u>	<u>Logic</u>	<u>Zone</u>			
- A -						
Address Compare	32AW	S2.3.2	14D			
- C -						
Channel Ready	32AC	S2.3.2	15D			
- F -						
Fast Shift	32AG	S2.3.2	12C			
- G -						
Good Message	32AU	S2.3.2	13D			
- P -						
Parity Check (1-5)	32AV	S2.3.2	9-10C			
Parity Error	32AU	S2.3.2	12D			
- R -						
Readout Protection	32AW	S2.3.2	12E			
Readout & Reset I & II	32AT	S2.3.2	13E			
- S -						
Shift Coupler	32AJ	S2.3.2	11D			
Shift Delay	32AH	S2.3.2	13A			
Start Readout & Reset	32AC	S2.3.2	15C			
- T -						
Timing Sync	32AE	S2.3.2	14A			
Timing (XTL 1/6)	32AD	S2.3.2	14B			

LRI

	<u>Common "A"</u>			<u>Common "B"</u>		
- C -						
Clock Alarm	41HF	A2.4.6	9A	41WF	B2.4.6	9A
Clock One's Test	41HF	A2.4.6	9A	41WF	B2.4.6	9A
Clock Parity	41HG	A2.4.6	10A	41WG	B2.4.6	10A
Clock Sync, Step & Reset Control	41HJ	A2.4.6	12A	41WJ	B2.4.6	12A
Clock Time	41HF-HH	A2.4.6	9-11A	41WF-WH	B2.4.6	9-11A
- D -						
Display Time Counter	41G(AA) -G(CC)	S2.4.5	6-8C	41V(AA) -V(CC)	S2.4.5	6-8A
Display Time Counter Alarm	41HN	S2.4.5	7D	41WN	S2.4.5	7B
Drum Demand 1 & 2	41GY	S2.4.5	7-8E	41VY	S2.4.5	7-8B
- L -						
LRI 1/2 Level (Ch 1-18)	41HN	A2.4.6	8E	41FE	B2.4.6	8E
LRI 1/2 Level (Ch 19-36)	41UE	A2.4.6	8E	41WN	B2.4.6	8E
- M -						
Monitor Display	41G(AA)	S2.4.5	8D	41V(AA)	S2.4.5	8A

INPUTS

LRI

<u>Flip Flops</u>	<u>Common "A"</u>			<u>PU</u>	<u>Common "B"</u>		
	<u>PU</u>	<u>Logic</u>	<u>Zone</u>		<u>PU</u>	<u>Logic</u>	<u>Zone</u>
- P -							
Pulse Generator	41HK	A2.4.6	10D	41WK	B2.4.6	10D	
- R -							
Readout Alarm	41HN	A2.4.6	13E	41WN	B2.4.6	13E	
- S -							
Site Time Readout	41GX	A2.4.6	11B	41VX	B2.4.6	11B	
		<u>Even Channel</u>			<u>Odd Channel</u>		
- C -							
Channel Ready Clear	41AU	S2.4.2	11E	41AK	S2.4.2	11C	
	41AY	S2.4.2	13D	41AF	S2.4.2	13B	
- F -							
Fast Shift	41AV	S2.4.2	11D	41AJ	S2.4.2	11B	
- L -							
Last Shift Load Data	41AV	S2.4.2	10D	41AJ	S2.4.2	10B	
	41AY	S2.4.2	14C	41AF	S2.4.2	14A	
- M -							
Message Parity Count	41AW	S2.4.2	13D	41AH	S2.4.2	13B	
- P -							
Parity Error	41AW	S2.4.2	13E	41AH	S2.4.2	13C	
- R -							
Readout Word 1 & 2	41AT	S2.4.2	10D	41AL	S2.4.2	10B	
- S -							
Start Word Transfer Sync Interval 1	41AU	S2.4.2	10E	41AK	S2.4.2	10C	
	41AV	S2.4.2	14E	41AJ	S2.4.2	14B	
	41AW	S2.4.2	14E	41AH	S2.4.2	14B	
- T -							
Time Cycle	41A(AA)	S2.4.2	15D	41AE	S2.4.2	15B	
Time Sync	41A(BB)	S2.4.2	15E	41AD	S2.4.2	15B	
- W -							
Word One Parity Count	41A(CC)	S2.4.2	12E	41AC	S2.4.2	12B	

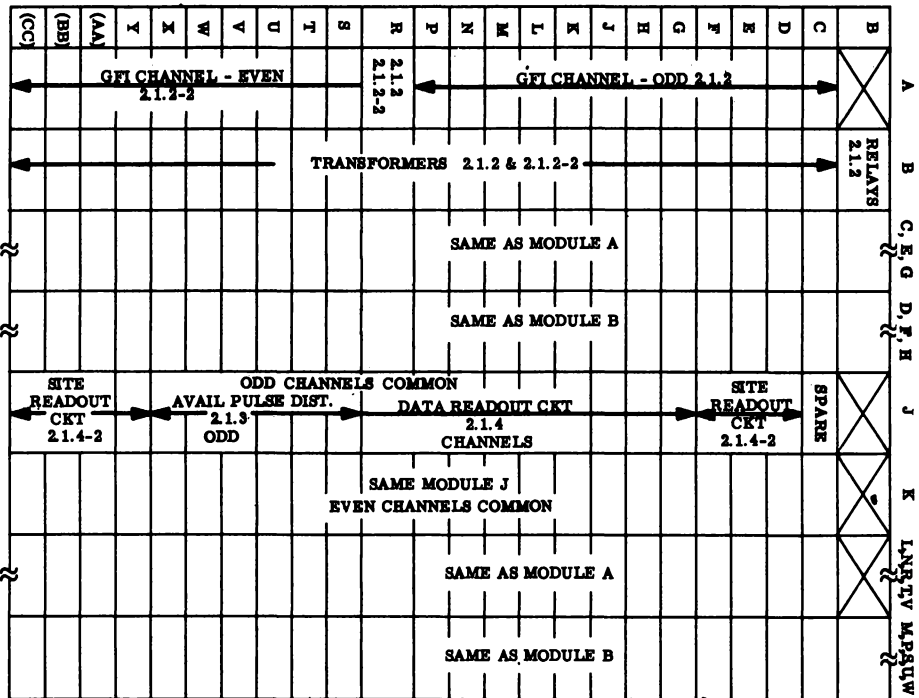
PART 2

SECTION 2

PU Layout indicating type numbers, logic numbers, and important registers and circuits.

G. F. I.
UNIT 34
PU LAYOUT

	A	B	C, E, G	D, F, H	J	K	L, N, R, T, V	M, P, S, U, W	
B	X	RELAYS	X	X	X	X	X	X	
C	7378	↑ TRANSFORMERS			SPARE				
D	7379				7372				
E	7380				↑ ↓				
F	7381								
G	7382								
H	7383								
J	7387								
K	7386								
L	7385			SAME AS MODULE A		SAME AS MODULE B	SAME AS MODULE J	SAME AS MODULE A	SAME AS MODULE B
M	7384								
N	7397								
P	7514					7372			
R	7397				7374				
S	7384				7373				
T	7385				7374				
U	7386				7375				
V	7387	↓ TRANSFORMERS			7376				
W	7383				7377				
X	7382				7396				
Y	7381				7515				
(AA)	7380				7516				
(BB)	7379				7517				
(CC)	7378				7518				



MANUAL DATA INPUT
 Unit 23
PU LAYOUT and LOGIC LAYOUT

	B	C	D	E
C	7235	7247	7735	7190
D	7236	↑	7735	7738
E	7234	↑	7740	7190
F	7237	↑	7739	7737
G	7238	↑	7737	7737
H	↑	↑	7191	7737
J	↑	↑	7736	7191
K	↑	↑	7736	7186
L	↑	↑	7187	7187
M	↑	↑	↑	↑
N	↑	↑	↑	↑
P	↑	↑	↑	↑
R	↑	↑	↑	↑
S	↑	↑	↑	↑
T	↑	↑	↑	↑
U	↑	7247	7187	7187
V	↑	7250	7194	SPARE
W	↑	7245	SPARE	↑
X	↓	SPARE	SPARE	↓
Y	7238	SPARE	SPARE	SPARE

	A	B	C	D	E	
C	↙	2.2.2	↑	LS L1	2.2.1	
D	↘	↑	2.2.2-2 SENSE AMP. & BLOCING OSC	↑	↑	
E	↘	↓		L2 L3	↑	↑
F	↘	2.2.2		L4 L5	↑	↑
G	↑	↑		L6 L7	↑	↑
H	↑	↑		L8 L9	↑	↑
J	↑	↑		L10 L11	↑	↑
K	↑	↑		L12 L13	↓	↓
L	↑	↑		L14 L15	2.2.1	2.2.1
M	↑	↑		RS R1	LS L1	L2 L3
N	↑	↑		R2 R3	L4 L5	L6 L7
P	↑	↑		R4 R5	L8 L9	L10 L11
R	↑	↑		R6 R7	L12 L13	L14 L15
S	↑	↑		R8 R9	RS R1	R2 R3
T	↑	↑		R10 R11	R4 R5	R6 R7
U	↑	↑		R12 R13	R8 R9	R10 R11
V	↑	↑	R14 R15	R12 R13	R14 R15	
W	↑	↑	2.2.2	2.2.1	SPARE	
X	↑	↑	2.2.2	SPARE	SPARE	
Y	↓	↓	SPARE	SPARE	SPARE	

MDI DIRECT INTERCONNECTION PANELS
Unit 23
LOGIC LAYOUT

A 2.2.2-6	E 2.2.2-6
B 2.2.2-5	F 2.2.2-5
C 2.2.2-4	G 2.2.2-4
D 2.2.2-3	H 2.2.2-3
MODULE A UNIT 23 2.2.2 & 2.2.2-2 (PHANTOM)	

**CROSSTELL
UNIT 32
P.U. LAYOUT**

	*A	*B-F	G	H	J	K	*L-S
C	7333		7361	7728			
D	7334		7360	SPARE			
E	7729		7362	#SP			
F	7314		7362	#SP			
G	7732		SPARE	SPARE			
H	7337		7689	7689			
J	7339		7314	7314			
K	7340		7315	7724			
L	↑	*SAME AS MODULE A	7315	7724	SAME AS MODULE G	SAME AS MODULE H	*SAME AS MODULE A
M	↕		7359	7724			
N	↓		7690	7747			
P	7340		7747	7747			
R	7341		SPARE	7747			
S	7342		SPARE	7357			
T	7343		7355	7308			
U	7344		7364	7309			
V	7345		7365	7310			
W	7733		7366	7311			
X	SPARE		7367	7731			
Y	SPARE		7368	SPARE			

*MCD A-F CHANNELS 1-6

#PU 7726 SUPPLIED ONLY
FOR EXPANDED MODULES

MOD L-S CHANNELS 7-12

**CROSTELL
UNIT 32
LOGIC LAYOUT**

	A*	*B-F	G	H	J	K	*L-S	
C	S-2.3.2	⌘	A-2.3.5	A-2.3.5	B-2.3.5	B-2.3.5	⌘	
D	S-2.3.2		A-2.3.5	SPARE	B-2.3.5	SPARE		
E	S-2.3.2		SITE CANS ↕ A-2.3.5	↕	SITE CANS ↕ B-2.3.5	↕		
F	S-2.3.2							
G	S-2.3.2		A-2.3.5	SPARE	B-2.3.5	SPARE		
H	↕		↕	A-2.3.5	↕	B-2.3.5		
J	↕		↕	↕	↕	↕		
K	S-2.3.2							
L	S-2.3.2	*SAME AS MODULE A					*SAME AS MODULE A	
M	S-2.3.2							
N	↕							
P								
R					↕			↕
S				A-2.3.5		B-2.3.5		
T				↕		↕		
U				CLOCK REG & CNTRL ↕ A-2.3.5	↕	CLOCK REG & CNTRL ↕ B-2.3.5		
V								
W	S-2.3.2							
X	SPARE		↕	SPARE	↕	SPARE		
Y	SPARE	⌘	A-2.3.5	SPARE	B-2.3.5	SPARE	⌘	

*MODULES A-F CHANNELS 1-6 MODULES L-S CHANNELS 7-12

LRI
UNIT 41
P.U. LAYOUT

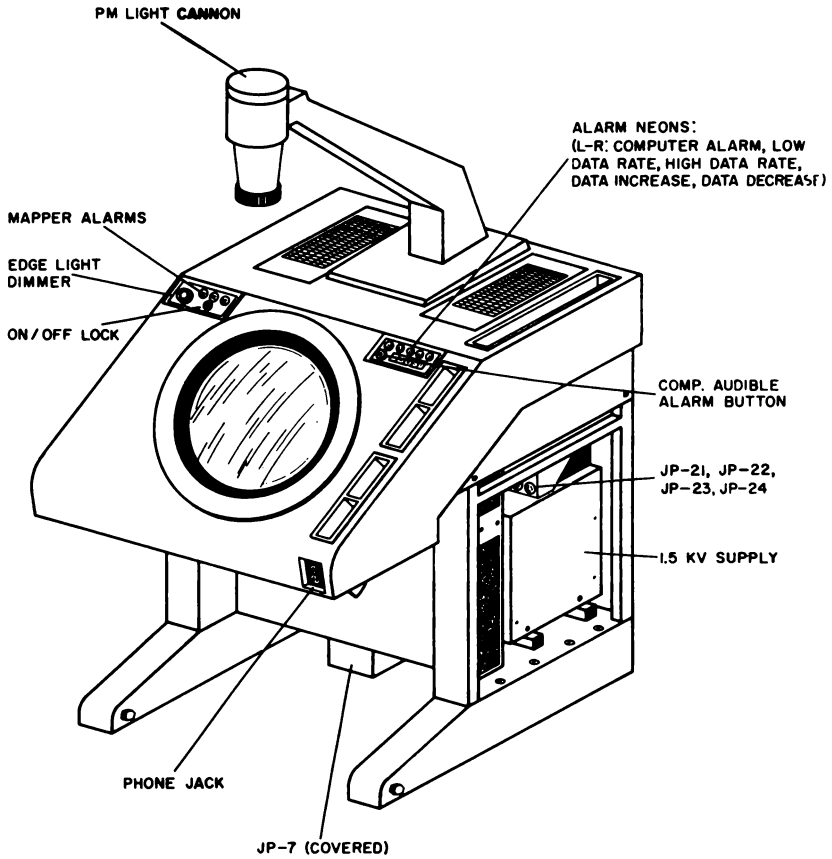
	A*	*B-E	F	G	H	*J-T	U	V	W	*X-(BB)
C	7671	7399	7399	7688	7688		7399	7688	7688	
D	7729		7329	↑	7688		7329	↑	7688	
E	7672		7328	↓	7688		7328	↓	7688	
F	7673		7330		7311		7330		7311	
G	7675		7331	7688	7310		7331	7688	7310	
H	7674		7330	7324	7309		7330	7324	7309	
J	7676		7331	7314	7308		7331	7314	7308	
K	7677		7330	7315	7323		7330	7315	7323	
L	7678	*SAME AS MODULE A	7330	7314	7321	*SAME AS MODULE A	7330	7314	7321	*SAME AS MODULE A
M	7306		7331	7315	7313		7331	7315	7313	
N	7307		7330	7315	7322		7330	7315	7322	
P	7296		7331	7314	SPARE		7331	7314	SPARE	
R	7307		7330	7315	SPARE		7330	7315	SPARE	
S	7306		7330	7314	7316		7330	7314	7316	
T	7678		7331	7315	7316		7331	7315	7316	
U	7677		7330	7314	7327		7330	7314	7327	
V	7676		7398	7315	7326		7398	7315	7326	
W	7674		7399	7318	7325		7399	7318	7325	
X	7675		7400	7319	SPARE		7400	7319	SPARE	
Y	7673		7400	7320	SPARE		7400	7320	SPARE	
(AA)	7672		7401	7317	SPARE		7401	7317	SPARE	
(BB)	7729		7400	7321	SPARE		7400	7321	SPARE	
(CC)	7671		7400	7532	SPARE		7400	7532	SPARE	

*MOD A-F CHANNELS 1-10
 MOD J-M CHANNELS 11-18
 MOD N-T CHANNELS 19-28
 MOD X-(BB) CHANNELS 29-36

**LRI
UNIT 41
LOGIC LAYOUT**

	A*	*B - E	F	G	H	*J - T	U	V	W	*X - (BB)
C	SPARE		B-2.4.6	A-2.4.6	A-2.4.6		A-2.4.6	B-2.4.6	B-2.4.6	
D	S-2.4.2		↑	↑	A-2.4.6		↑	↑	B-2.4.6	
E	↑			↓	A-2.4.6			↓	B-2.4.6	
F				A-2.4.6	↑			B-2.4.6	↑	
G				A-2.4.6 S-2.4.5	↑			B-2.4.6 S-2.4.5	↑	
H				A-2.4.6	↑			B-2.4.6	↑	
J					↓				↓	
K					A-2.4.6				B-2.4.6	
L					A-2.4.6				B-2.4.6	
M		*SAME AS MODULE A			A-2.4.6				B-2.4.6	
N					S-2.4.5 A-2.4.6				S-2.4.5 B-2.4.6	
P					SPARE				SPARE	
R					SPARE	*SAME AS MODULE A			SPARE	*SAME AS MODULE A
S										
T					↓				↓	
U					A-2.4.6				B-2.4.6	
V					A-2.4.6				B-2.4.6	
W			B-2.4.6	↓	A-2.4.6		A-2.4.6	↓	B-2.4.6	
X			↑	A-2.4.6	SPARE		↑	B-2.4.6	SPARE	
Y			↑	S-2.4.5	SPARE		↑	S-2.4.5	SPARE	
(AA)			B-2.4.6	↑	SPARE		A-2.4.6	↑	SPARE	
(BB)	S-2.4.2		↑	↓	SPARE		↑	↓	SPARE	
(CC)	SPARE		↑	↓	SPARE		↑	↓	SPARE	

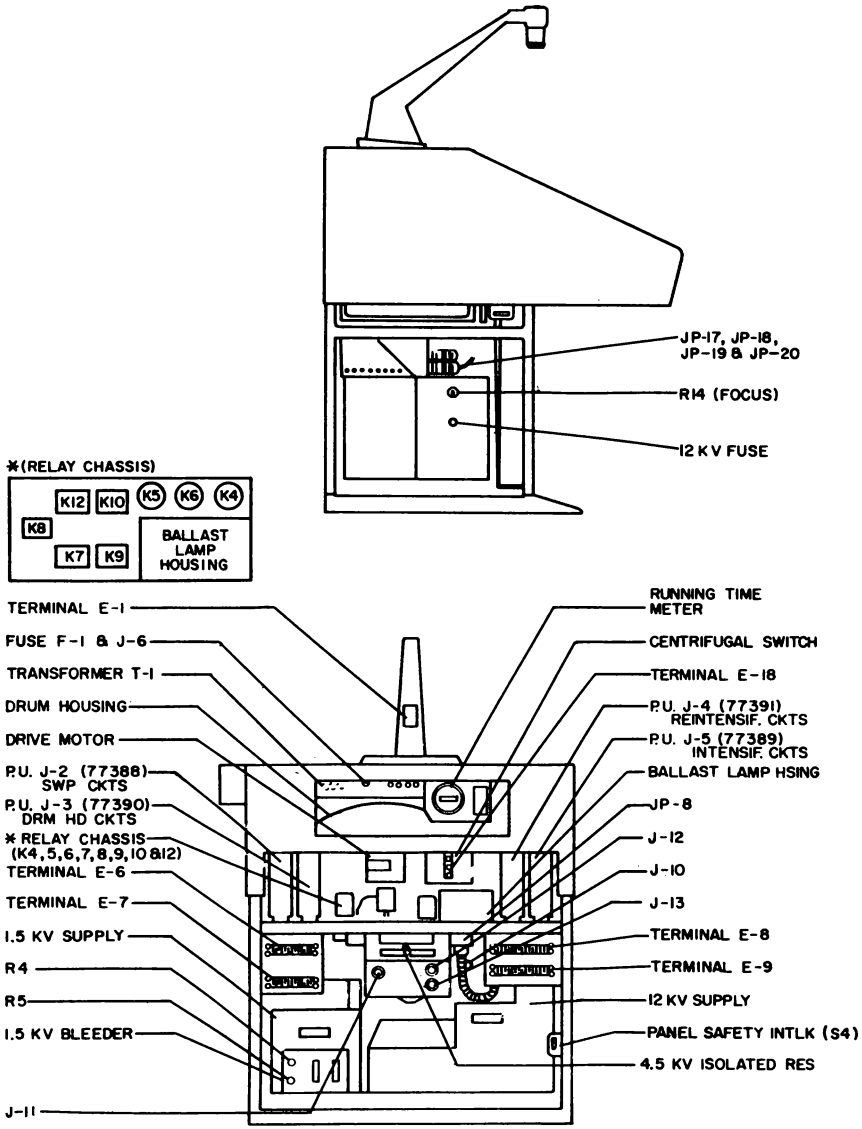
* Mod. A-F Channels 1-10
 Mod. J-M Channels 11-18
 Mod. N-T Channels 19-28
 Mod. X-(BB) Channels 29-36



LOGIC REF 2.0.11 THROUGH 2.0.19

GFI MAPPER (Unit 600-617)

2-2.10.



LOGIC REF 2.0.11 THROUGH 2.0.19

GFI MAPPER (Unit 600-617)

2-2.11

**TEST PATTERN GENERATOR
UNIT 92
P. U. LAYOUT AND LOGIC LAYOUT**

	A	B	C
C	7880	7863	7880
D	7864	7864	7864
E	7865	7865	7865
F	BLANK	BLANK	BLANK
G	BLANK	BLANK	BLANK
H	7881	7763	7887
J	7882	7867	7882
K	7883	7868	7883
L	7762	7765	7762
M	7762	7757	7762
N	7762	7758	7762
P	7765	↑	7765
R	BLANK	↓	BLANK
S	↑	7758	↑
T	↓	7782	↓
U	↓	7873	↓
V	↓	7874	↓
W	↓	7759	↓
X	↓	7759	↓
Y	↓	7760	↓
AA	↓	7761	↓
BB	↓	BLANK	↓
CC	BLANK	BLANK	BLANK

	A	B	C
C	S2.6.1	S2.6.2	S2.6.3
D	S2.6.1	S2.6.2	S2.6.3
E	S2.6.1	S2.6.2	S2.6.3
F	BLANK	BLANK	BLANK
G	BLANK	BLANK	BLANK
H	S2.6.1	S2.6.2	S2.6.3
J	↑	↑	↑
K	↓	↓	↓
L	↓	↓	↓
M	↓	↓	↓
N	↓	↓	↓
P	S2.6.1		S2.6.3
R	BLANK		BLANK
S	↑	↑	↑
T	↓	↓	↓
U	↓	↓	↓
V	↓	↓	↓
W	↓	↓	↓
X	↓	↓	↓
Y	↓	↓	↓
AA	↓	S2.6.2	↓
BB	↓	BLANK	↓
CC	BLANK	BLANK	BLANK

LRI MONITOR
UNIT 93
P. U. LAYOUT AND LOGIC LAYOUT

	B	C
C	7766	7775
D	7768	
E	7774	7775
F	7773	
G	7768	7775
H	7769	
J	7767	7925
K	7768	
L	7768	7929
M	7768	
N	7768	
P	7768	
R	7768	7764
S	7772	7930
T	7771	7933
U	7770	7926
V	7771	7926
W	7770	7927
X	7771	
Y	7770	7927
AA	7771	
BB	7770	7928
CC	SPARE	7928

	B	C
C	2.5.1-1	2.5.1-1
D	2.5.1-1 2.5.1-2	
E	2.5.2-2	2.5.1-1
F	2.5.2-2	
G	2.5.2-2	2.5.1-1
H	2.5.1-1	
J	↑	2.5.1-1
K		
L		2.5.1-1
M		
N		
P		
R	↓	2.5.1-1
S	2.5.1-1	2.5.1-1
T	2.5.1-2	2.5.1-1
U	↑	2.5.1-1
V		2.5.1-1
W		2.5.1-1
X		
Y		2.5.1-1
AA	↓	
BB	2.5.1-2	2.5.1-1
CC	SPARE	2.5.1-1

Outputs

PART 3

SECTION 1

Alphabetic list of important FF's and pulses by PU location, logic and zone number.

Flip Flops	PU	Logic	Zone
- B -			
Burst Count Sel. Ctr.	42DD-DE	3.1.2	16D-E
BTC Control	42DC	3.1.2	16C
BTC Sel. & Read	42DC	3.1.2	16C
- D -			
Data Pulse Stretcher	33LM	3.1.4	9B
- I -			
Illegal Address	42GD	3.1.1-2	13D
Illegal Section	42GD	3.1.1-2	10D
Inhibit (G/A, G/G "A" & "B")	33FP	3.1.1-3	14A-D
Inhibit (TTY)	33EX	3.1.1-3	12D
Inhibit G/A TDA & B	33EX	3.1.1-3	12D
- L -			
LRI Completed Msg. (G/A Test)	33LF	3.1.4	17-19A
Lost Parity Alarm	42GR	3.1.1-2	8D
- M -			
Master Stop	42DJ	3.1.4	7D
- N -			
Non-Search Alarm	42GC	3.1.1-2	13D
- O -			
OB Register (P-L15)	42AC-AV	3.1.1	3-16A
OB Register (RS-R15)	42BD-BV	3.1.1-2	3-12A
OD-13 Pulse Start	33NN	3.1.3	5B
OD-13 Pulse Stop	42EV	3.1.3	5C
OD-13 Single Cycle	42EU	3.1.4	7C
OD-32 Pulse Start	42EX	3.1.2	5A
OD-32 Pulse Stop	42EX	3.1.2	5A
OD-91 Frequency Divider	42BY	3.1.3	3B
OD-91 Pulse Start	42EV	3.1.3	3B
OD-91 Pulse Stop	42EW	3.1.3	3C
OB Register Loading	42AY	3.1.1-2	2A
Output Parity Alarm (G/A, G/G, TTY)	42GC	3.1.1-2	12-13D
Output Parity Generator	42AX	3.1.1-2	14B
Output Parity Alarm G/A-T/D	42GP	3.1.1-2	13E
- P -			
Parity No-Good	42GD	3.1.1-2	11D
Pause	33HD	3.1.4	17B
- R -			
Reset & Prime	42EY	3.1.3	2B
Reset & Prime Sync	42EY	3.1.3	2A
Restart to Drums	42GK	3.1.1-2	1C
Restart to Drums Sync	42GK	3.1.1-2	1C
- S -			
Set Pulse	33FF	3.1.1-2	13B
Single Cycle Outputs	42DJ	3.1.4	8D

Flip Flops	PU	Logic	Zone
- T -			
Test Shift	42GJ	3.1.4	9C
Test Shift Control	33LM	3.1.4	9B
Test Sync Generator	42GE	3.1.4	17-18D
Test Transfer	42GF	3.1.4	13B
Test Transfer Delay	42GF	3.1.4	13B
Test Word Generator	42GL	3.1.4	14C
G/A			
- A -			
Auto Busy Bit	33LD	3.2.1	11C
- B -			
Burst Time Counter	42EC-EE	3.1.2	9-11B
- E -			
Elapsed Time Counter	42DV-DW	3.1.2	5B
- O -			
Output Data & Sync. Chan #1	33NK	3.2.1	6D-E
Output Data & Sync. Chan #2	33NL	3.2.1	6D
Output Parity Counters 1 & 2	33LJ	3.2.1	12D
Output Shift	33HH	3.2.1	12A
- S -			
Search	33LC	3.2.1	9D
Shift Control	33LD	3.2.1	11C
Skip Pulse	33LC	3.2.1	9D
13 Counter Shift	33LH	3.2.1	4B
25 Counter Shift	33HC	3.2.1	10B
25 Counter Carry	33LH	3.2.1	4B
G/G			
- B -			
Burst Time Counter	42EF-EJ	3.1.2	12-16B
- C -			
Completed Msg. Control Chan FFs	33LL	3.2.2	9D-E
Completed Msg. Shift Gen.	33LW	3.2.2	7D
19 Counter Carry	33JM	3.2.2	8A
- O -			
Output Data & Sync	33NP-NU	3.2.2	4C-E
Output Parity Counters	33LX	3.2.2	6D
Output Shift	33HX	3.2.2	9C
- P -			
Phase	33KM	3.2.2	19B
- S -			
Search	33LP	3.2.2	7C
Shift Controls	33LP	3.2.2	7C
5 Counter Shift	33LR	3.2.2	5A
19 Counter Shift	33JM	3.2.2	8A

Flop Flops	PU	Logic TTY	Zone
- B -			
Burst Time Counter	42EK-EM	3.1.2	6-8B
- H -			
High Speed Shift Control	33KJ	3.2.3	5B
High Speed Shift Pulse Gen.	33KJ	3.2.3	6B
- O -			
Output Data	33MC-MR	3.2.3	5C-E
Output Parity Counter	33KC-KG	3.2.3	8C-E
O&R Shift	33GC	3.2.3	7C
- S -			
Search	33KJ	3.2.3	3B
51 Counter Shift	33JS	3.2.3	4A

PART 3

SECTION 2

**PU Layout indicating type numbers,
logic numbers and important
registers and circuits.**

**OUTPUT STORAGE
UNIT 33
P.U. LAYOUT**

	F	G	H	J	K	L	M	N
C	7429	7558	*7464	*7470	7407	*7462	7484	SPARE
D	7429	7486	7455	*7468	↑	*7463	7496	↑
E	7429	↑	7440	*7468	↓	*7466		↓
F	7430	↓	*7460	*7469	↓	*7601	7484	↓
G	7429	↓	*7460	7481	7407	7465	7496	SPARE
H	7429	7486	7555	7480	7406	*7467		7695
J	7429	7554	*7554	↑	7488	7631	7484	7695
K	7693	7554	*7554	↓	7700	7409	7496	*7695
L	7693	7554	*7554	7480	SPARE	7484		*7695
M	7693	7694 ARRAY	*7694 ARRAY	7557	7495	7446	7484	7414
N	7553	SPARE	7694 ARRAY	7554	SPARE	7478	7496	7428
P	7441	↑	7694 ARRAY	7554	SPARE	7477		7695
R	7553	↓	7554	7554	7630	7479	7484	↑
S	SPARE	↓	7554	7449	SPARE	7485	7496	↓
T	*7553	↓	7554	7697	↑	7485		↓
U	7553	SPARE	7475	7696	↑	7485	SPARE	7695
V	7553	7644	7475	7696	↓	7500	↑	7653
W	7553	7639	7556	7696	↓	7501	↑	7653
X	SPARE	7645	7502	7696	↓	7632	↓	7652
Y	SPARE	SPARE	7700	7494	SPARE	7700	SPARE	7609

* Not supplied for DC-16 & higher

NOTE: Modules D & E shown on page 3-2.4 under BOMARC 1 section

**OUTPUT STORAGE
UNIT 33
LOGIC LAYOUT**

	F	G	H	J	K	L	M	N	
C	3.1.1-2	3.2.3	3.2.1	3.2.1	TTY OUTPUT PARITY CTR FF's 3.2.3	3.2.1	3.2.3 TTY LINE REGISTERS & RELAY DRIVERS	SPARE	
D	3.1.1-2	3.2.3	3.1.4 3.2.3	3.2.1		3.2.1		SPARE	
E	3.1.1-2	3.2.3	3.2.1 3.2.2	3.2.1		3.2.1		SPARE	
F	3.1.1-2	3.2.3	3.2.1	3.2.1		3.1.4		SPARE	
G	3.1.1-2	3.2.3	3.2.1	3.2.2		3.2.1		SPARE	
H	3.1.1-2	3.2.3	3.2.1	3.2.2		3.2.3		3.2.1 3.1.4	3.2.5
J	3.1.1-2	3.2.3	3.2.1	3.2.2		3.2.3		3.2.1	3.2.5
K	3.1.1-3	3.2.3	3.2.1	3.2.2		3.1.3		3.1.3	3.2.1
L	3.1.1-3	3.2.3	3.2.1	3.2.2		SPARE		3.2.2	3.2.1
M	3.1.1-3	3.2.3	3.2.1	3.2.2		3.2.2		3.1.3 3.1.4	3.1.3
N	3.1.1-3	SPARE	3.2.1	3.2.2	SPARE	3.2.2	3.1.3		
P	3.1.1-3	SPARE	3.2.1	3.2.2	SPARE	3.2.2	3.2.2 G OUTPUT	1	
R	3.1.1-3	SPARE	3.2.2	3.2.2	3.1.4	3.2.2		2	
S	3.1.1-3	SPARE	3.2.2	3.2.3	SPARE	3.2.2		3	
T	3.1.1-3	SPARE	3.2.2	3.2.3	SPARE	3.2.2		4	
U	3.1.1-3	SPARE	3.2.2	3.2.3	SPARE	3.2.2		5	
V	3.1.1-3	3.2.5	3.2.2	3.2.3	SPARE	3.2.2	SPARE	3.1.4	
W	3.1.1-3	3.2.5	3.2.2	3.2.3	SPARE	3.2.2	SPARE	3.1.4	
X	SPARE	3.2.5	3.2.2	3.2.3	SPARE	3.2.2	SPARE	3.1.4	
Y	SPARE	SPARE	3.2.2	3.2.3	SPARE	3.2.2	SPARE	3.1.4	

See page 3-2.2 for P. U.'s not supplied for DC-16 & higher.

**OUTPUT STORAGE FRAME 33
BOMARC 1**

PU LAYOUT

	C	D	E
	25 Counter BO: OSR Flux Amp. Core Array	15 Counter 17 Counter T. D. OSR T. D. Flux Amp.	T. D. Arrays Reset & Inhibit Drivers
	9	9	9
C	SPARE	SPARE	SPARE
D	SPARE	SPARE	SPARE
E	SPARE	77644	SPARE
F	77631	77640	77647
G	77460	77648	77636
H	77460	77648	77649
J	77554	77638	77495
K	77554	77638	SPARE
L	77554	77638	SPARE
M	77629	77554	#77629
N	77637	77554	#77629
P	SPARE	77636	SPARE
R	SPARE	77636	*77553
S	SPARE	77642	*77553
T	SPARE	77641	SPARE
U	SPARE	SPARE	77553
V	77469	*77558	77553
W	77468	*77462	77553
X	77468	*77464	77441
Y	77470	*77463	SPARE

**OUTPUT STORAGE FRAME 33
BOMARC 2**

PU LAYOUT

C	D	E
25 Counter BO: OSR Flux Amp. Core Arrays	15 Counter 17 Counter T. D. OSR T. D. Flux Amp.	T. D. Arrays Reset & Inhibit Drivers
9	9	9
SPARE	SPARE	SPARE
SPARE	SPARE	SPARE
77631	77644	SPARE
77631	77640	77647
77460	77648	77636
77460	77648	77649
77554	77638	77495
77554	77638	SPARE
77554	77638	SPARE
77629	77554	77629
77629	77554	77629
77554	77636	SPARE
77554	77636	77553
77554	77642	77553
77460	77641	77553
77460	SPARE	77553
77469	77558	77553
77468	77462	77553
77468	77464	77441
77470	77463	SPARE

* Spare PU For Non-Bomarc Sites

PU 7694 Supplied For Non-Bomarc sites

OUTPUT STORAGE UNIT #33
BOMARC 1
LOGIC LAYOUT

	C	D	E
C	SPARE	SPARE	SPARE
D	SPARE	SPARE	SPARE
E	SPARE	3.1.4 3.2.5	SPARE
F	3.2.6	3.1.4 3.2.5	
G	↑	3.1.4 3.2.5	
H	↓	3.2.5	
J		↑	
K	↓		SPARE
L	3.2.6		SPARE
M	ARRAY		ARRAY
N	DUMMY		ARRAY
P	SPARE		SPARE
R	↑		3.1.1-3
S	↓		3.1.1-3
T		3.2.5	SPARE
U	SPARE	SPARE	3.1.1-3
V	3.2.6	3.1.3 3.2.6	3.1.1-3
W	3.2.6	3.2.6	3.1.1-3
X	3.2.6	3.2.6	3.1.1-3
Y	3.2.6	3.1.3	3.1.1-3

OUTPUT STORAGE UNIT #33
BOMARC 2
LOGIC LAYOUT

	C	D	E
C	SPARE	SPARE	SPARE
D	SPARE	SPARE	SPARE
E	3.2.6	3.1.4 3.2.5	SPARE
F	↑	3.1.4 3.2.5	3.1.3 3.2.5
G	↓	3.1.4 3.2.5	3.2.5
H		3.2.5	3.1.3 3.2.5
J		↑	3.2.5
K	↓		SPARE
L	3.2.6		SPARE
M	ARRAY		ARRAY
N	ARRAY		ARRAY
P	3.2.6		SPARE
R	↑		3.1.1-3
S	↓		3.1.1-3
T		3.2.5	3.1.1-3
U		SPARE	3.1.1-3
V		3.1.3 3.2.6	3.1.1-3
W		3.2.6	3.1.1-3
X		3.2.6	3.1.1-3
Y	3.2.6	3.1.3 3.2.6	3.1.1-3

**OUTPUT CONTROL
UNIT 42
P.U. LAYOUT**

	A	B	C	D	E	F	G
C	7421	7422	7650	7403	*7473	7473	7447
D	↑	7421	7434	7404	* ↑	7473	7561
E	↑	↑	7435	7405	*	7473	*7454
F			SPARE	7456		7473	7564
G			7435	SPARE		7472	7451
H			SPARE	SPARE		7422	7451
J			SPARE	7443		↑	7453
K			7646	7408		↓	7699
L			7423	↑	↓	SPARE	7565
M			7423	↓	7473	↓	7457
N			7424		7472		7457
P			7424	* ↓	7418		7447
R			7425	*7408	7413	↓	7643
S			7420	7436	7412	7643	SPARE
T			↑	*7559	7410	SPARE	↑
U	↓	↓		7436		↑	
V	7421	7421		*7474	7417		
W	7634	SPARE		*7474	7417		
X	7651	7415	↓	7439	7411	↓	↓
Y	7633	7454	7420	7560	7411	SPARE	SPARE

* Not Supplied DC-16 & Higher

**OUTPUT CONTROL
UNIT 42
LOGIC LAYOUT**

	A	B	C	D	E	F	G
C	P	3.1.1 3.1.2	3.1.1-3	BTC SELECTION AND CONTROL 3.1.2	G/A BTC 3.1.2	3.1.2	3.1.1-2
D	L-8	R-8	3.1.1-3			3.1.2	3.1.1-2
E	L-1	R-1	3.1.1-3			3.1.2	3.1.4
F	L-2	R-2	SPARE			3.1.2	3.1.4
G	L-3	R-3	3.1.1-3	SPARE	G/G BTC 3.1.2	3.1.2	3.1.4
H	L-4	R-4	SPARE	SPARE		3.1.2	3.1.4
J	L-5	R-5	SPARE	3.1.4	TTY BTC 3.1.2	SPARE	3.1.4
K	L-6	R-6	3.1.1-3 3.1.1-2 3.1.1 3.1.2	3.1.2			3.1.4
L	L-7	R-7	3.1.1	3.1.2			3.1.4
M	L-8	R-8	3.1.1	3.1.2			3.1.3 3.1.4
N	L-9	R-9	3.1.1	3.1.2	3.1.2	3.1.4 3.1.1-2	
P	L-10	R-10	3.1.1	3.1.2	3.1.3	3.1.1-2	
R	L-11	R-11	3.1.1	3.1.2	3.1.3	3.1.1-2 3.1.4	
S	L-12	R-12	3.1.1	3.1.1	3.1.3 3.1.4 3.1.1-2	3.1.3	SPARE
T	L-13	R-13	3.1.1 3.1.1-2	3.1.1	3.1.3	SPARE	SPARE
U	L-14	R-14	3.1.1	3.1.1	3.1.4 3.1.3	SPARE	SPARE
V	L-15	R-15	3.1.1	3.1.2	3.1.3	SPARE	SPARE
W	3.1.1 3.1.4	SPARE	3.1.1	3.1.2	3.1.3	SPARE	SPARE
X	3.1.1-2	3.1.3	3.1.1	3.1.1	3.1.2 3.1.3	SPARE	SPARE
Y	3.1.1-2	3.1.3	3.1.1	3.1.1-2 3.1.1	3.1.3	SPARE	SPARE

Displays

PART 4

SECTION 1

**Alphabetic list of FF's and pulses by
PU location, logic and zone number**

SD

-A-

	PU	LOGIC	ZONE
Allow Light Gun _____	24LR _____	4.1.4 _____	2 C

-B-

Bypass Feature _____	24JV _____	4.1.20 _____	8 C
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-C-

Category Register _____	24JJ, KJ _____	4.1.7 _____	6-8 C
Character Positioning Ctr _____	24BR-BS _____	4.1.11 _____	15-18 D
Character Register (X Sel Reg) _____	24CN-CR _____	4.1.10 _____	4-11 E
Character Register (Y Sel Reg) _____	24CS-CU _____	4.1.10-2 _____	4-11 E
Conditional Blank Pulse _____	24KX _____	4.1.20 _____	13 E
Conditional Sample Pulse _____	24LV _____	4.1.20 _____	17 D
Conditional Unblank Pulse _____	24KX _____	4.1.20 _____	13 E

-D-

Display _____	24HJ _____	4.1.7 _____	9 C
Drum Read (WOW) _____	24MT _____	4.1.21 _____	9 B

-F-

Focus-Defocus _____	24LY _____	4.1.20 _____	11 E
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-I-

Intensify _____	24LY _____	4.1.20 _____	12 E
Info/Track MSG _____	24KT _____	4.1.2 _____	5 C

-O-

OD Pulse Distributor _____	24MU _____	4.1.20 _____	18 B
ON-OFF Control _____	24MU _____	4.1.20 _____	18 B

- P -

Position _____	24LS _____	4.1.5 _____	2 C
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-R-

Radar Category FF's _____	24MS _____	4.1.21 _____	3-4 B
RD/TD _____	24MT _____	4.1.21 _____	9 B

-S-

Symbol Sequencer _____	24HX _____	4.1.19 _____	18-21 B
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-T-

Tab-Vector Msg _____	24FT _____	4.1.2 _____	5 C
Timer _____	24LY _____	4.1.20 _____	15-16 C

-V-

Vector Control _____	24AS _____	4.1.20 _____	14 E
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-V- (Cont'd)

	PU	LOGIC	ZONE
Vector Bypass for Track MSG	24KV	4.1.20	7 C
Vector Register	24AM-AS	4.1.12	1-15 E
Vector Intensity Generator	24BP	4.1.12-2	3 C

-W-

Word 0 Storage		4.1.2	2-8 C
Word 1 Storage (X, Y Reg)		4.1.6	2-21 E
Word 2 Storage (DAB)		4.1.7	2-11 C
Word 3 Storage (DAB)		4.1.8	2-11 C
Word 4 Storage (DAB)		4.1.9	1-8 C
Word 5 Storage		4.1.3	2-14 B
Word 6 Storage		4.1.4	2-11 C
Word 7 Storage		4.1.5	2-13 B

SD Camera Control

-C-

Counter	25AD	4.6.1	2 B
Completion FF	25AE	4.6.1	8 B

-I-

Intensify	25AE	4.6.1	8 D
Interlock	25AD	4.6.1	8 B

-M-

Mode Requested	25AD	4.6.1	7 B
Mode Selected	25AE	4.6.1	7 D

-O-

Operation & Gate FF	25AD	4.6.1	7 B
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DD

-C-

Character Counting	25AP	4.3.5	8-9 C
Character Positioning	25DP	4.3.5	8-9 A
Character Storage and Character Reg	25BN-BR	4.3.4	1-11 B
	25CN-CR		
Character Timing and Intensify	25AG-AJ	4.3.2	6B-8B
Contrast Ctr	25CK-CM	4.3.2	2D-4D
Contrast Gate Gen	25CM	4.3.2	2D
Control Bit Storage	25BH	4.3.2	5A

-D-

Delay Ctr	25BH, CJ	4.3.2	8D-9D
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-E-

	PU	LOGIC	ZONE
Erase Control	25BH	4.3.2	7 D
Erase Gate Ctr	25CK	4.3.2	5 D
Erase Gate Gen	25CK	4.3.2	5 D

-I-

Intensify Gate Gen	25AG	4.3.2	8 B
Intensify Control	26AP	4.3.2	6 B

-O-

ON-OFF Control	25AJ	4.3.2	10 D
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-P-

Phase Ctr	25AJ	4.3.2	11 B
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-S-

Slot Ctr	25CJ, DK	4.3.3	9 C
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Display Tester

OD Pulse Dist	25EW	4.5.1	10-11 B
DD Word Control	25EX	4.5.1	7 E
DD Initial Delay	25ET	4.5.1	10 C
TD Word Sync	25EX	4.5.1	8 E
Word Sequence	25ET	4.5.1	1-4 B
SD Word Control	25EW	4.5.1	11 B
End Test Control	25EX	4.5.1	8 E

PHOTOGRAPHIC RECORDER REPRODUCER

- R -

Request Display Gate Generator		4.8.3	15-B-D
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PART 4

SECTION 2

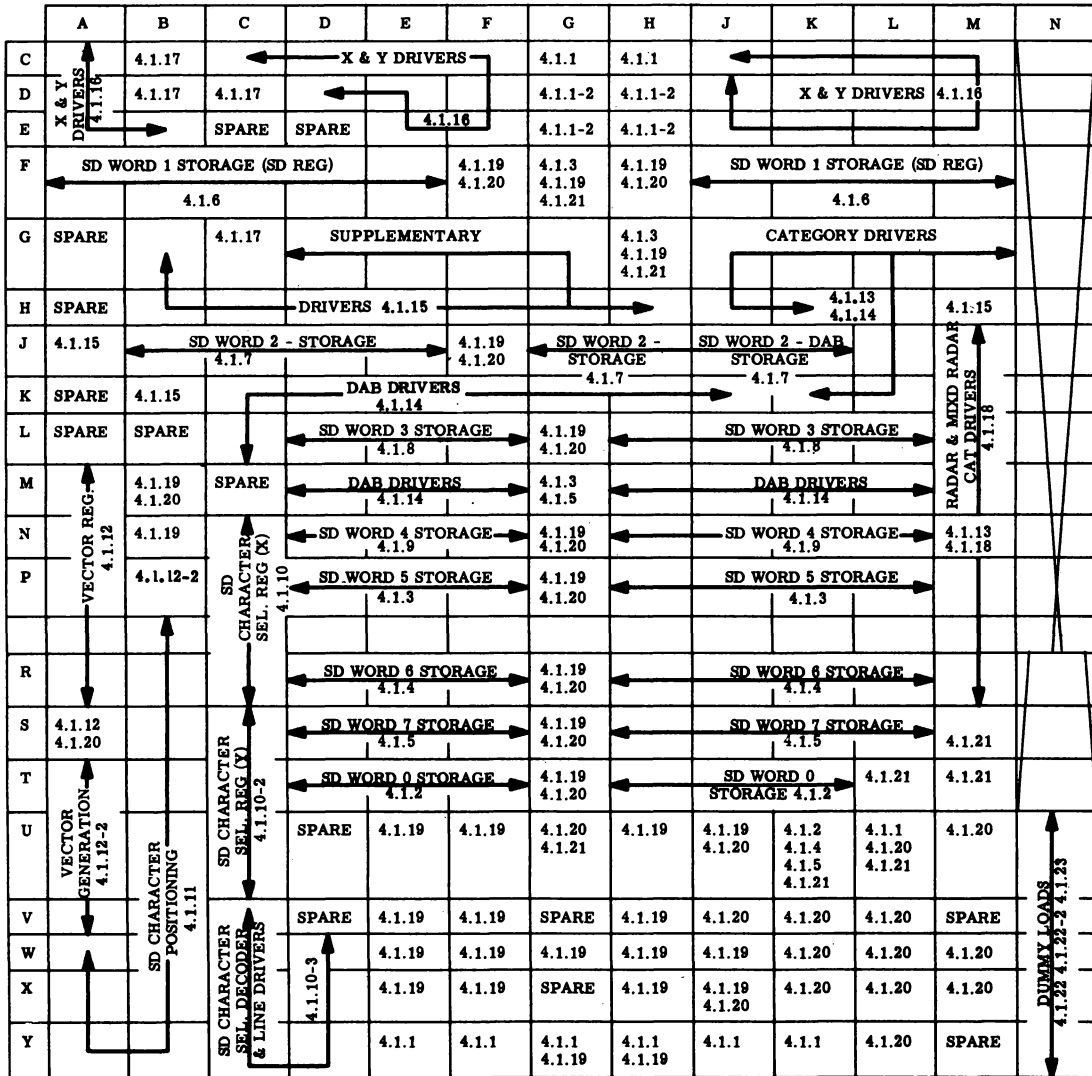
PU Layout indicating type numbers, logic numbers registers and circuits.

4-2.2

	A	B	C	D	E	F	G	H	J	K	L	M	N
C	7260	7270	7261	7261	7261	7261	7277	7277	7260	7261	7261	7261	
D	7260	7951	7951	7261	7261	7261	7197	7197	7260	7260	7261	7261	
E	7260	7260	SPARE	SPARE	7260	7261	7197	7197	7260	7261	7261	7261	
F	7251	7251	7251	7251	7251	7259	7962	7259	7251	7251	7251	7251	
G	SPARE	7271	7951	7271	7271	7271	7271	7962	7273	7273	7273	7273	
H	SPARE	7271	7271	7271	7271	7271	7271	7271	7273	7273	↑	7271	
J	7271	7295	7295	7295	7295	7259	7295	7295	7255	7256	↓	7270	
K	SPARE	7271	7961	7961	7961	7961	7961	7961	7961	7273	7273	↑	
L	SPARE	SPARE	7961	7295	7295	7295	7259	7295	7295	7295	7295	↓	
M	7251	7259	SPARE	7961	7961	7961	7258	7961	7961	7961	7961	7270	
N	↑	7259	7274	7295	7295	7295	7259	7295	7295	7295	7295	7269	
P	↑	7963	↑	↑	↑	↑	↑	↑	↑	↑	↑	7269	
R	↓	7287	↑	↑	↑	↑	↑	↑	↑	↑	↓	7269	
S	7251	7287	↑	↓	↓	↓	↓	↓	↓	↓	7295	7284	
T	7283	7283	↓	7295	7295	7295	7259	7295	7295	7295	7253	7291	
U	7279	7264	7274	SPARE	7276	7275	7254	7272	7292	7257	7254	7278	7955
V	7283	7263	7285	SPARE	7268	7268	SPARE	7272	7268	7294	7253	SPARE	7955
W	7964	7964	7964	7964	7275	7275	7275	7272	7268	7293	7253	7267	7955
X	7965	7965	7965	7282	7268	7268	SPARE	7200	7950	7253	7196	7265	7956
Y	7965	7965	7965	7282	7253	7277	7253	7253	7277	7253	7200	SPARE	7957

EDGE
UNIT 24
P.U. LAYOUT

4-2.3

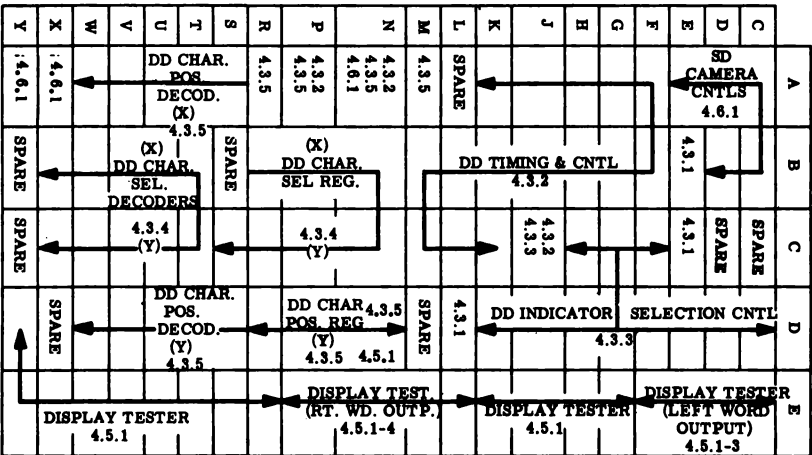


EDGE
UNIT 34
LOGIC LAYOUT

**DDGE
UNIT 26
P.U. LAYOUT**

	A	B ₁	C	D	E
C	7253	7953	SPARE	7286	7198
D	7200	7954	SPARE	↕	↕
E	7952	7277	7277	↕	↕
F	7265	7254	7286	7286	7198
G	7200	7253	7286	7253	7262
H	7253	7200	7252	7252	↕
J	7200	7195	7200	7252	↕
K	7195	7199	7200	7200	7262
L	SPARE	7265	7253	7277	7198
M	7195	7266	7200	SPARE	↕
N	7199	7280	7280	7253	↕
P	7200	7280	7280	7200	7198
R	7285	7280	7280	7285	7253
S	7964	SPARE	7285	7964	7288
T	7965	7964	7964	7965	7200
U	7965	7965	7965	7965	7199
V	7965	7965	7965	7965	7289
W	7965	7965	7965	7965	7278
X	7960	7965	7965	SPARE	7290
Y	7959	SPARE	SPARE	7958	7513

DDDR
UNIT #25
LOGIC LAYOUT



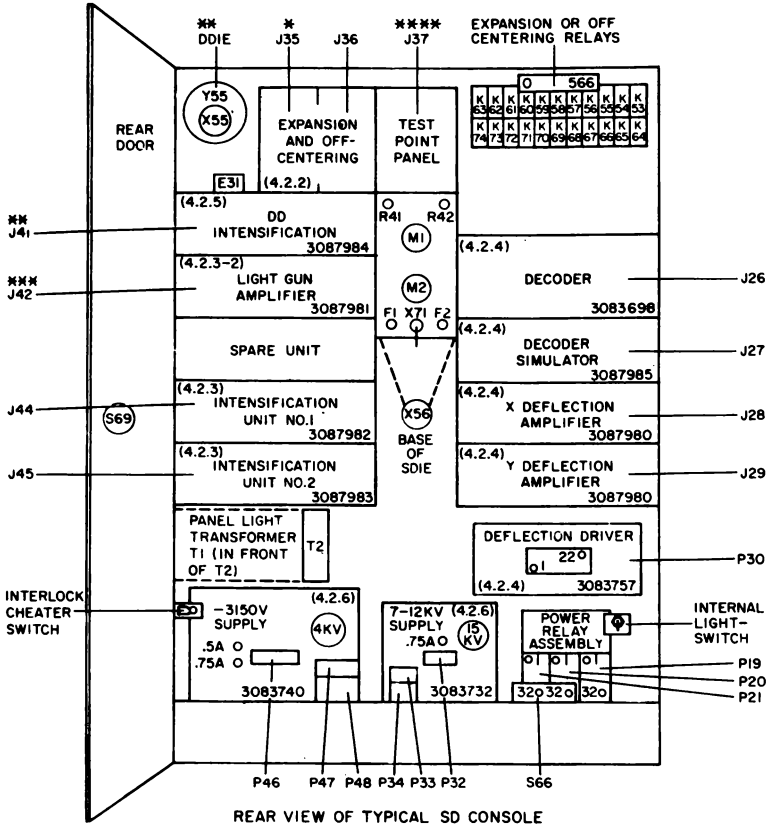
PART 4

SECTION 3

Component & Logic Reference Data
SD Console
Aux. D Console
Projector Console
Command Desk

EXPANSION OR OFF-CENTERING

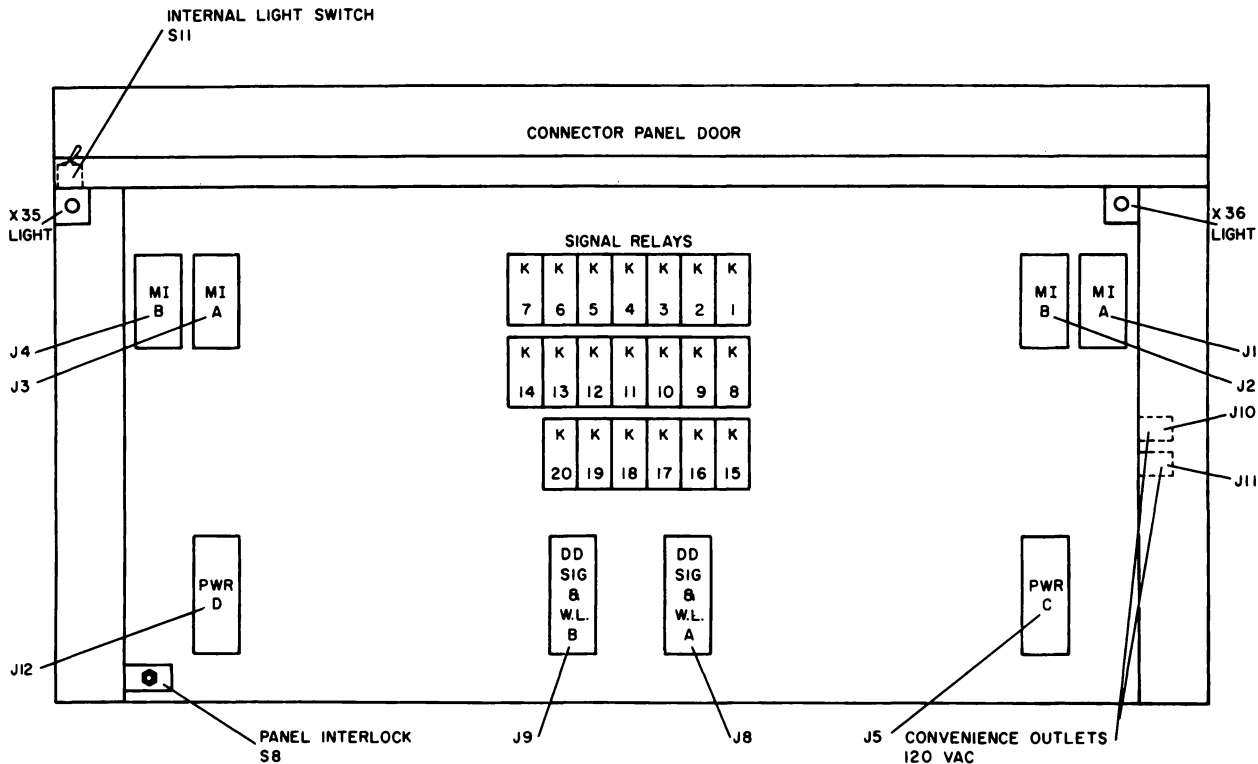
K63	K62	K61	K60	K59	K58	K57	K56	K55	K54	K53	UPPER BANK
AX	BX	CX	DX	EX	EX	FX	FX	GX	GX	SPARE	
K74	K73	K72	K71	K70	K69	K68	K67	K66	K65	K64	LOWER BANK
AY	BY	CY	DY	EY	EY	FY	FY	GY	GY	FEED BACK	



- NOTES:
 * EXPANSION MAY BE EITHER PLUGBOARD OR SWITCHES
 ** WILL BE BLANK WHEN CONSOLE HAS NO DDIE
 *** MAY BE AREA DISCRIMINATOR AMPLIFIER 3077986
 **** PANEL LAYOUT ILLUSTRATION ON 4-3.14 AND 4-3.15

REAR VIEW OF TYPICAL SD CONSOLE

4-3.4



SIGNAL RELAYS OF TYPICAL AUXILIARY CONSOLE, FRONT VIEW

SIGNAL RELAY FUNCTIONS

RELAY NO.	K7	K6	K5	K4	K3	K2	K1
COMPUTER		B	B	B	B	B	B
DEFLECTION		POS. LT.	POS. RT.	UP SEL	DOWN SEL	LT. SEL	RT. SEL
MISC. CONTROL		ERASE IN SEL A & B	CONTRAST GATE, ERASE GATE			INT. IN SEL A & B	INT. GATE

RELAY NO.	K14	K13	K12	K11	K10	K9	K8
COMPUTER		A	A	A	A	A	A
DEFLECTION		POS. LT.	POS. RT.	UP SEL	DOWN SEL	LT. SEL	RT. SEL.
MISC. CONTROL		ERASE IN SEL A & B	CONTRAST GATE, ERASE GATE			INT. IN SEL A & B	INT. GATE

RELAY NO.		K20	K19	K18	K17	K16	K15
COMPUTER				A	A	B	B
DEFLECTION				POS. UP.	POS DOWN	POS UP	POS DOWN
MISC. CONTROL							

4-3.6

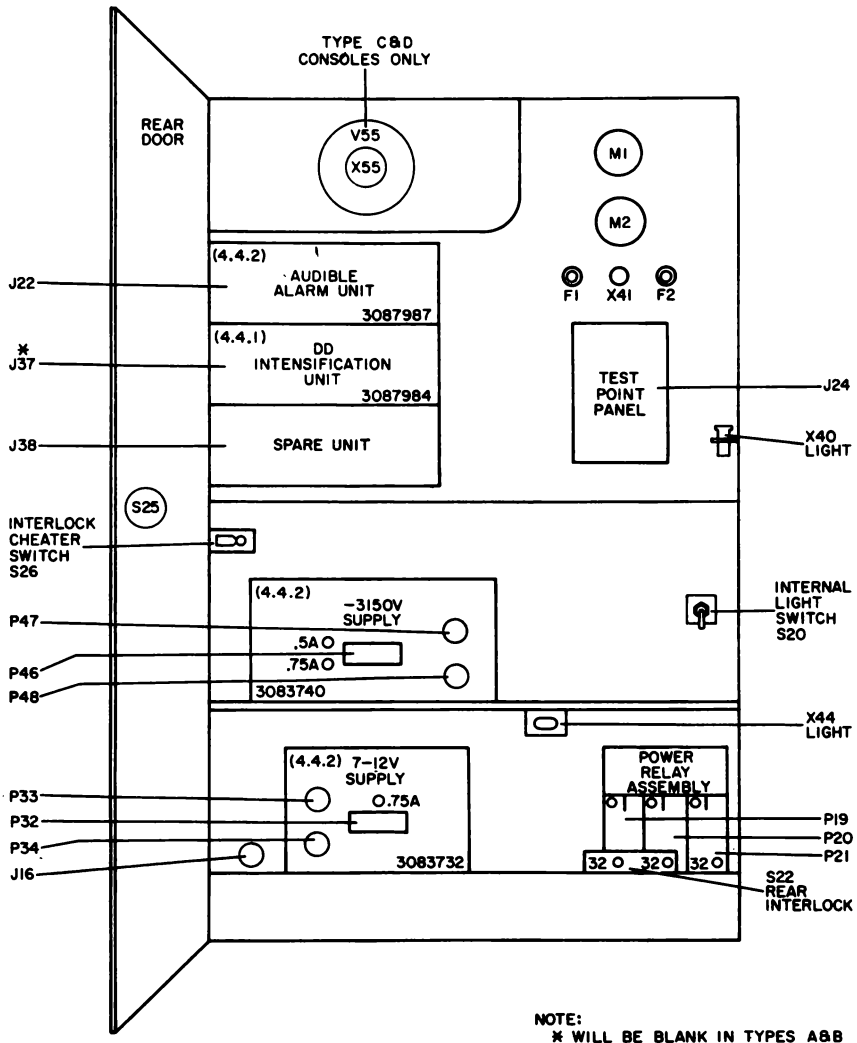
RELAY NO.	K14	K13	K12	K11	K10	K9	K8		K7	K6	K5	K4	K3	K2	K1
COMPUTER	B	B	B	B	B	B	B		A	A	A	A	A	A	A
DEFLECTION	UP SEL	DOWN SEL POS RT		POS LT *RT. SEL		*LT. SEL *POS RT.	*POS LT.		*POS LT.	*LT. SEL *POS RT.		POS LT. *RT SEL		DOWN SEL POS RT.	UP SEL
CATS, DABS, RD IN	Z, AA, AB, AC, AD	V, W, X, Y	N, P, R, S, T, U	J, K, L, M	C, D, E, F, G, H	A, B				A, B	C, D, E, F, G, H	J, K, L, M	N, P, R, S, T, U	V, W, X, Y	Z, AA, AB, AC, AD
DEFL. BITS or MISC CONTROL							MODE 2	MODE 1		MODE 1	MODE 2				

RELAY NO.	K30	K29	K28	K27	K26	K25	K24	K23		K22	K21	K20	K19	K18	K17	K16	K15
COMPUTER	B	B	B	B	B	B	B	B		A	A	A	A	A	A	A	A
DEFLECTION	POS UP	LT. SEL. POS DOWN		RT. SEL. *DOWN SEL.		*UP SEL	*POS DOWN	*POS UP		*POS UP	*UP SEL *POS DOWN		RT SEL *DOWN SEL		LT. SEL	POS DOWN	POS UP
DEFL BITS or MISC CONTROL	BY-PASS FEAT. VECT INT. L.G. OUT, PASS L.G.	L1-0, L2-0, L3-0 . PT. FEAT IN	LS-0 RS-0 R1-0 R2-0 R3-0	C,D,E FEAT. IN	FOCUS, DE-FOCUS AND INT GATES IN A,B, FEAT. IN			*CON- TRAST, *ERASE, AND *INT. GATE IN		*CON- TRAST, *ERASE, AND *INT. GATE IN		A,B FEAT IN FOCUS, DE-FOCUS AND INT GATES -IN	C,D,E FEAT IN	LS-0 R1-0 R2-0 R3-0 RS-0	L1-0 L2-0 L3-0	PT. FEAT. BY-PASS FEAT. VECT INT. IN	L.G. OUT PASS L.G. IN

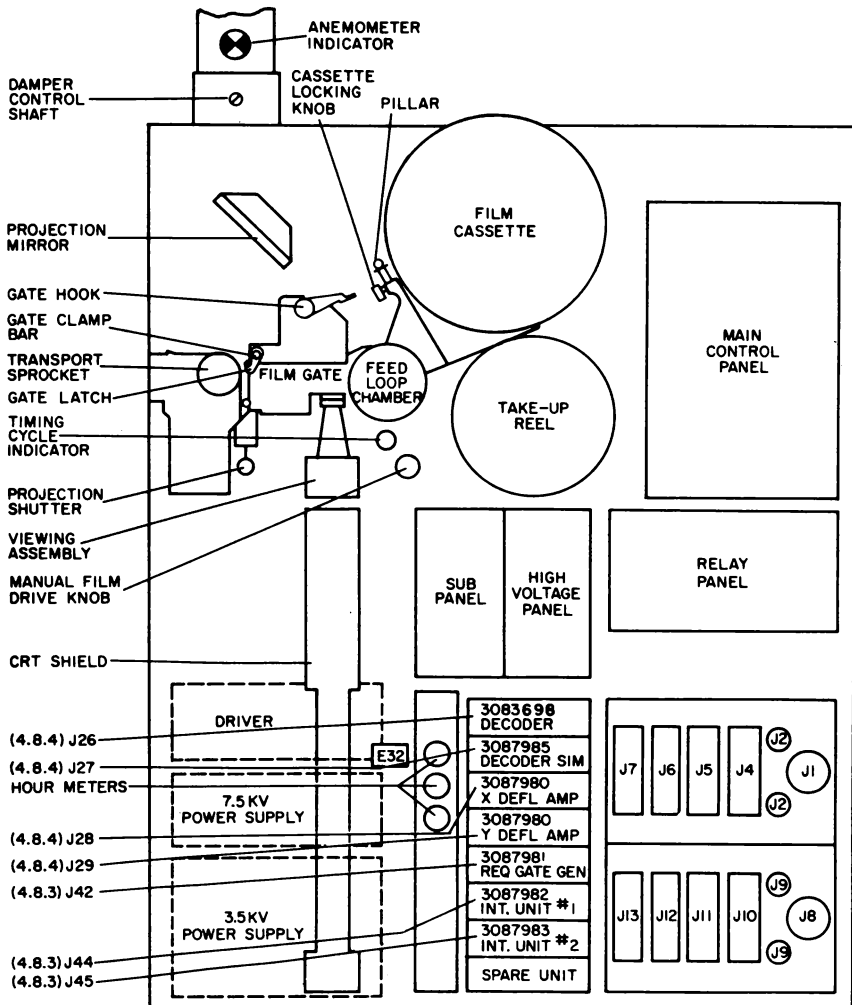
RELAY NO.	K52	K51	K50	K49	K48	K47	K46	K45	K44	K43	K42	K41	K40	K39	K38	K37	K36	K35	K34	K33	K32	K31	
COMPUTER	B	B	B	B	B	B	B				B	B	A	A			A	A	A	A	A	A	A
DEFL BITS or MISC CONTROLS	L9, L10 L11, L12	L8, L8 L7, L8	L1-1 L2-1 L3-1 L4	LS-1 R10-1 R11-1 R12-1	R6-1 R7-1 R8-1 R9-1	R2-1 R3-1 R4-1 R5-1	RS-1 R1-1				*ERASE AND *INT. IN SEL B	*ERASE AND *INT IN SEL A	*ERASE AND *INT IN SEL A	*ERASE AND *INT IN SEL B		RS-1 R1-1	R2-1 R3-1 R4-1 R5-1	R6-1 R7-1 R8-1 R9-1	LS-1 R10-1 R11-1 R12-1	L1-1 L2-1 L3-1 L4	L5, L6 L7, L8	L9, L10 L11 L12	

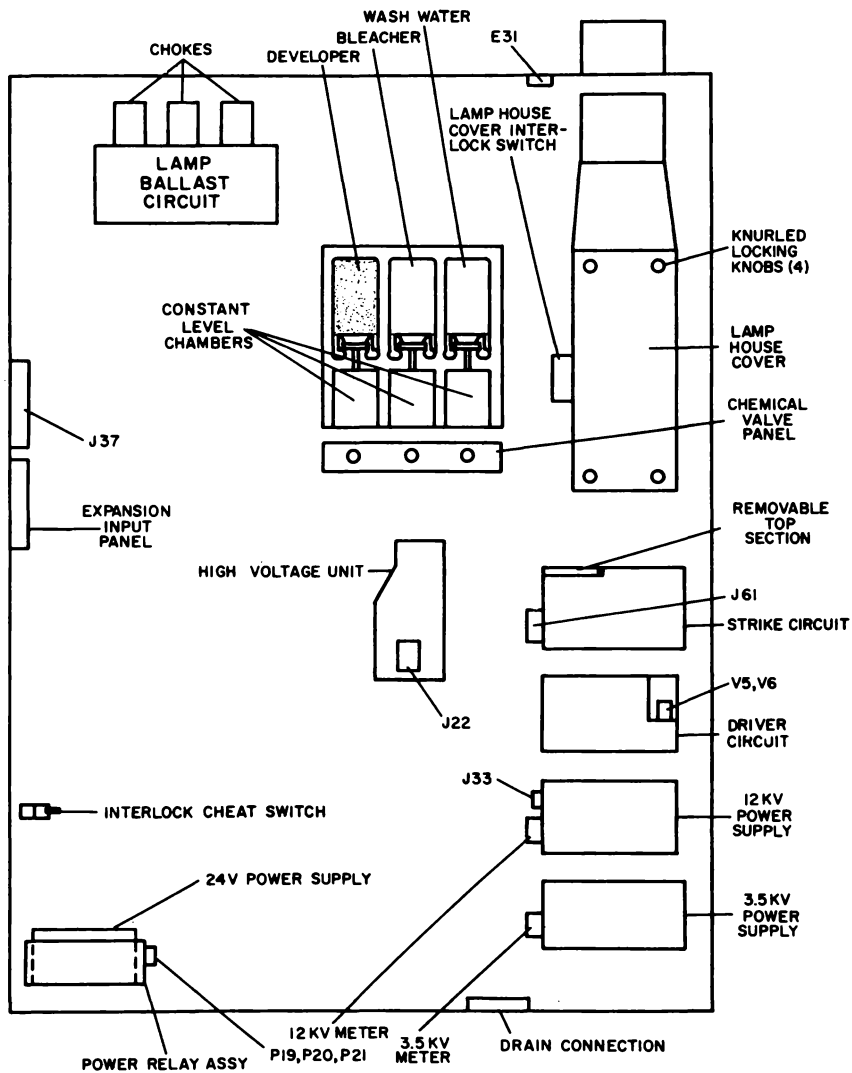
Note: *Used for DD

SIGNAL RELAY FUNCTIONS



REAR VIEW OF TYPICAL AUXILIARY CONSOLE





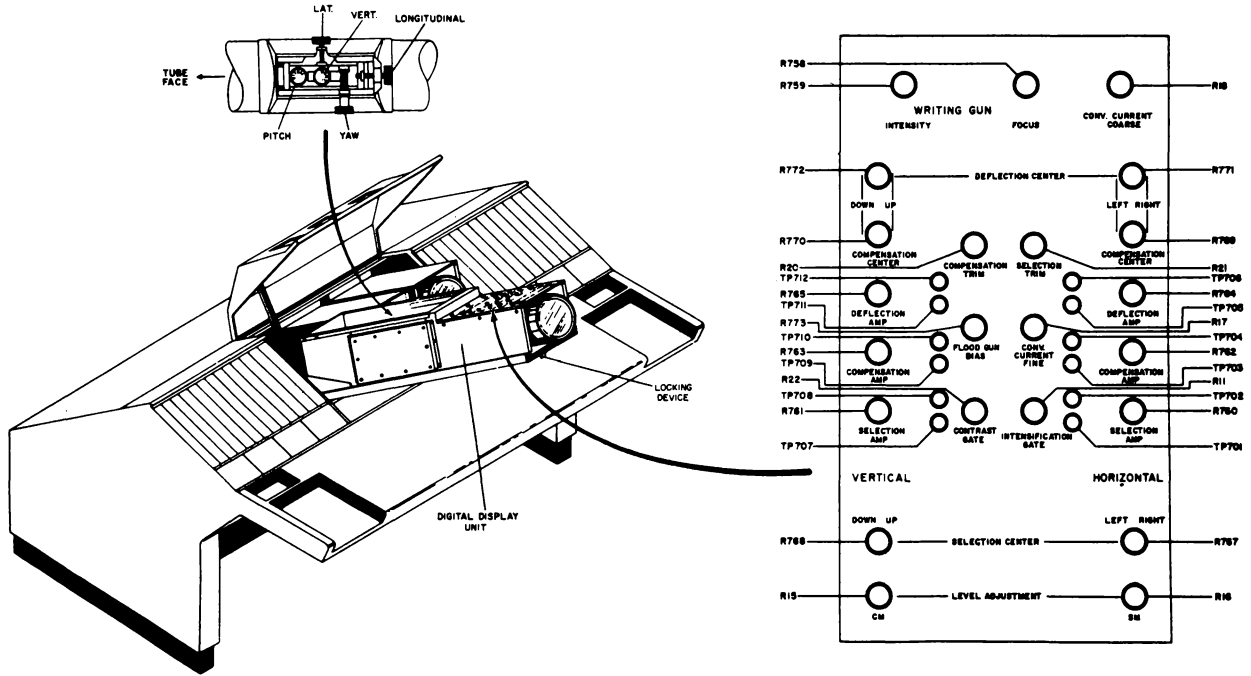
PROJECTOR CONSOLE, REAR VIEW

4-3.10

K77	K78	K79	K80	K81	K82	K83	K84	K85	K86	K87	K88	K89	K90	K91	K92	K93	K94	K95	K96	K97	K98	K99	K100
K61	K62	K63	K64	K65	K66	K67	K68	K69	K70	K71	K72	K73	K74	K75	K76								
K54 ○		K55 ○		K56 ○		K57 ○		K58 ○		K59 ○		K60 ○											
K47 ○		K48 ○		K49 ○		K50 ○		K51 ○		K52 ○		K53 ○											
K40 ○		K41 ○		K42 ○		K43 ○		K44 ○		K45 ○		K46 ○											
K33 ○		K34 ○		K35 ○		K36 ○		K37 ○		K38 ○		K39 ○											
K17	K18	K19	K20	K21	K22	K23	K24	K25	K26	K27	K28	K29	K30	K31	K32								
J1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	K15	K16								

PROJECTOR CONSOLE, RELAY PANEL

4-3.11



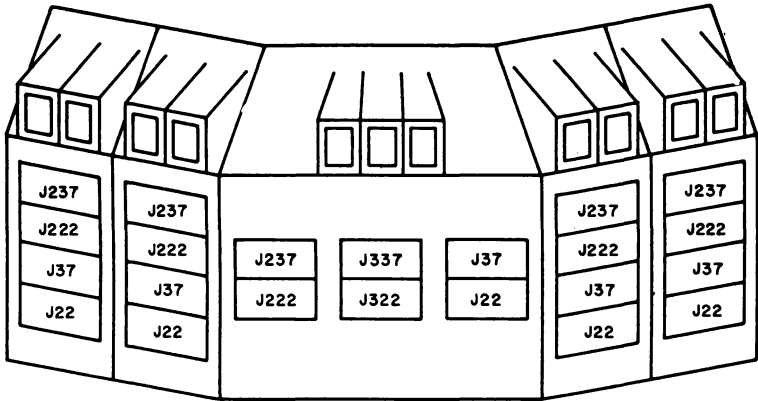
COMMAND DESK (DIGITAL DISPLAY UNIT CONTROLS)

COMMAND DESK (DIGITAL DISPLAY CONTROLS)

PROJECTOR CONSOLE RELAY PANEL; FUNCTIONAL CHART

RELAY	CC	FUNCTION	RELAY	CC	FUNCTION
K1	A	SEL UP, CAT DAB OR RD	K51		CLEAR REQUEST CKT
K2	A	SEL DWN, POS RT CAT DAB OR RD	K52		TIME DELAY
K3	A	CAT DAB OR RD	K53		CRT INTENSITY CONT
K4	A	POS LT, CAT DAB OR RD	K54		SPARE
K5	A	CAT DAB OR RD	K55		EXPANSION CONT
*K6	A	POS UP, TEST CAT, BY PASS, VECT	K56		EXPANSION CONT
K7	A	SEL LT, POS DWN, L8, L1, L2, L3 = 0	K57		EXPANSION CONT
K8	A	SEL RT RS, R1, R2, R3 = 0 FEAT E	K58		EXPANSION CONT
K9	A	INT, DEFOCUS FEAT A, B, C, D	K59	A	TRANSPORT SOLENOID
K10	A	FOCUS GATE, L8, L9, L10, L11, L12 = 1	K60	B	TRANSPORT SOLENOID
K11	A	L2, L3, L4, L5, L6, L7 = 1	K61		SPARE
K12	A	LS = 1, L1 = 1, R9, R10, R11, R12 = 1	K62		EXPANSION Gx
K13	A	R3, R4, R5, R6, R7, R8 = 1	K63		EXPANSION Gx
K14	A	RS, R1, R2 = 1 TD	K64		EXPANSION Fx
K15		SPARE	K65		EXPANSION Fx
K16		SPARE	K66		EXPANSION Ex
K17	B	SEL UP CAT DAB OR RD	K67		EXPANSION Ex
K18	B	POS RT SEL DWN CAT DAB OR RD	K68		OFF CENTERING Dx
K19	B	CAT DAB OR RD	K69		FEED BACK DEFL
K20	B	POS LT CAT DAB OR RD	K70		OFF CENTERING Dy
K21	B	CAT DAB OR RD	K71		EXPANSION Ey
*K22	B	POS UP, TEST CAT, BY PASS, VECT	K72		EXPANSION Ey
K23	B	SEL LT, POS DWN; L8, L1, L2, L3 = 0	K73		EXPANSION Fy
K24	B	SEL RT RS, R1, R2, R3 = 0 FEAT E	K74		EXPANSION Fy
K25	B	INT, DEFOCUS, FEAT A, B, C, D	K75		EXPANSION Gy
K26	B	FOCUS GATE, L8, L9, L10, L11, L12 = 1	K76		EXPANSION Gy
K27	B	L2, L3, L4, L5, L6, L7 = 1	K77		OFF CENTERING Cx
K28	B	LS = 1, L1 = 1, R9, R10, R11, R12 = 1	K78		OFF CENTERING Bx
K29	B	R3, R4, R5, R6, R7, R8 = 1	K79		OFF CENTERING Ax
K30	B	RS, R1, R2 = 1 TD	K80		INT. NOR OR INTERMIT.
K31		SPARE	K81		REMOTE CONTRACTED
K32		SPARE	K82		EXPANSION CONT
K33		LAMP INTERLOCK	K83		CATEGORY S1
K34		LIGHT SHUTTER	K84		CATEGORY S2
K35		SPARE	K85		CATEGORY S3
K36		REMOTE CONTRACTED	K86		CATEGORY S4
K37		REMOTE CONTRACTED	K87		CATEGORY S5
K38		REMOTE CONTRACTED	K88		CATEGORY S6
K39		REMOTE - LOCAL	K89		CATEGORY S7
K40		DRIVE MOTOR	K90		CATEGORY S8
K41		SHUTTER	K91		CATEGORY S9
K42		REMOTE CAT CONTROL	K92		CATEGORY S10
K43		CHEMICAL LOW	K93		CATEGORY S11
K44		WASTE BLOCKAGE	K94		CATEGORY S12
K45		FILM LOW	K95		CATEGORY S13
K46		FILM BREAK	K96		CATEGORY S14
K47		GATE OPEN	K97		CATEGORY S15
K48		BUZZER RELEASE	K98		OFF CENTERING Ay
K49		FAULTY DISPLAY ALARM	K99		OFF CENTERING By
K50		CONTINUOUS DISPLAY	K100		OFF CENTERING Cy

*CAT DAB OR RD



250A		250B	250C		250D	250E
<u>PU</u>	<u>PU TYPE</u>		<u>PU</u>	<u>PU TYPE</u>		
J237	7984	SAME	J237	7984 -	SAME	SAME
J222	7987	AS	J222	7987	AS	AS
J37	7984	250A	J337	7984	250A	250A
J22	7987		J322	7987		
			J37	7984		
			J22	7987		

COMMAND POST PLUGGABLE UNIT LAYOUT

J37 TEST POINTS, SD CONSOLE

	10	9	8	7	6	5	4	3	2	1	
A	○	○	○	○	○	○	○	○	○	○	A
B	○	○	○	○	○	○	○	○	○	○	B
C	○	○	○	○	○	○	○	○	○	○	C
D	○	○	○	○	○	○	○	○	○	○	D
E	○	○	○	○	○	○	○	○	○	○	E
F	○	○	○	○	○	○	○	○	○	○	F
G	○	○	○	○	○	○	○	○	○	○	G
H	○	○	○	○	○	○	○	○	○	○	H
J	○	○	○	○	○	○	○	○	○	○	J
K	○	○	○	○	○	○	○	○	○	○	K
L	○	○	○	○	○	○	○	○	○	○	L
M	○	○	○	○	○	○	○	○	○	○	M
N	○	○	○	○	○	○	○	○	○	○	N
P	○	○	○	○	○	○	○	○	○	○	P
R	○	○	○	○	○	○	○	○	○	○	R
S	○	○	○	○	○	○	○	○	○	○	S
T	○	○	○	○	○	○	○	○	○	○	T
U	○	○	○	○	○	○	○	○	○	○	U
V	○	○	○	○	○	○	○	○	○	○	V
W	○	○	○	○	○	○	○	○	○	○	W
	10	9	8	7	6	5	4	3	2	1	

Test Point	Signal/Voltage	Connects	Logic
B5	L11-1	K56-C3	4.2.2
B6	L12-1	K56-C4	4.2.2
B7	LS-0	K59-C1	4.2.2
B8	L1-0	K62-B3	4.2.2
B9	L2-0	K61-B3	4.2.2
B10	L3-0	K60-B4	4.2.2
C1		-	-
C2	RS-1	K74-B1	4.2.2
C3	R1-1	K70-B1	4.2.2
C4	R2-1	K70-B2	4.2.2
C5	R3-1	K68-B2	4.2.2
C6	R4-1	K68-C2	4.2.2
C7	R5-1	K68-C3	4.2.2
C8	R6-1	K68-C4	4.2.2
C9	R7-1	K68-C5	4.2.2
C10		-	-
D1		-	-
D2	R8-1	K67-B1	4.2.2
D3	R9-1	K67-C1	4.2.2
D4	R10-1	K67-C2	4.2.2
D5	R11-1	K67-C3	4.2.2
D6	R12-1	K67-C4	4.2.2
D7	RS-0	K70-C1	4.2.2
D8	R1-0	K73-B2	4.2.2
D9	R2-0	K72-B3	4.2.2
D10	R3-0	K71-B4	4.2.2
E1	X-0	K55-A1	4.2.2
E2	X-1	K55-A2	4.2.2
E3	X-2	K55-A3	4.2.2
E4	X-3	K55-A4	4.2.2
E5	X-4	K55-A5	4.2.2
E6	X-5	K55-A6	4.2.2
E7	X-6	K54-A2	4.2.2

Test Points	Signal/Voltage	Connects	Logic
A1	-	-	-
A2	LS-1	K63-B1	4.2.2
A3	L1-1	K59-C2	4.2.2
A4	L2-1	K59-B2	4.2.2
A5	L3-1	K59-B2	4.2.2
A6	L4-1	K57-C2	4.2.2
A7	L5-1	K57-C3	4.2.2
A8	L6-1	K57-C4	4.2.2
A9	L7-1	K57-C5	4.2.2
A10		-	-
B1		-	-
B2	L8-1	K56-B1	4.2.2
B3	L9-1	K56-C1	4.2.2
B4	L10-1	K56-C2	4.2.2

J37 TEST POINTS, SD CONSOLE (cont'd)			
Test Point	Signal/Voltage	Connects	Logic
L9	6.3 VAC LIGHT GUN LAMP	J42-B7	4.2.3-2
L10	-	-	-
M1	28 VAC SWITCHED	J27-F5	4.2.6
M2	-	-	-
M3	-	-	-
M4	-	-	-
M5	-	-	-
M6	-	-	-
M7	-	-	-
M8	-	-	-
M9	-	-	-
M10	-	-	-
N1	DD INTENSITY GATE	J41-E7	4.2.5
N2	DD INTENSITY SEL 2	J41-E8	4.2.5
N3	DD INTENSITY SEL 1	F41-F5	4.2.5
N4	DD ERASE GATE	J41-D8	4.2.5
N5	DD ERASE SEL 1	J41-E5	4.2.5
N6	DD ERASE SEL 2	J41-E6	4.2.5
N7	COLLECTOR MESH	J41-C1	4.2.5
N8	STORAGE MESH	J41-C2	4.2.5
N9	COLLECTOR MESH LEVEL	J41-B3	4.2.5
N10	DD INTENSITY GATE	J41-D5	4.2.5
P1	DD FLOOD GUN BIAS	P38-8	4.2.5
P2	DD MATRIX	P38-1	4.2.5
P3	PC #7A OR #8A SWITCHED	J57-3	4.2.6
P4	PC #7A OR #8A SWITCHED	J57-11	4.2.6
P5	PC #7B OR #8B SWITCHED	J57-6	4.2.6
P6	PC #7B OR #8B SWITCHED	J57-14	4.2.6

J37 TEST POINTS, SD CONSOLE (cont'd)			
Test Point	Signal/Voltage	Connects	Logic
P7	-	-	-
P8	DEFLECTION COIL	E31-4	4.2.5
P9	SELECTION COIL	E31-2	4.2.5
P10	SELECTION COIL	J41-A1	4.2.5
R1	-48 V	J41-D3	4.2.6
R2	-48 V RETURN	J41-B5	4.2.6
R3	120 VAC	T1-1	4.2.6
R4	120 VAC NEUTRAL	T1-2	4.2.6
R5	PANEL LIGHT LINE	T1-3	4.2.6
R6	PANEL LIGHT LINE	T1-8	4.2.6
R7	-	-	-
R8	CONVERGENCE CURRENT COARSE	J44-A3	4.2.3
R9	SELECTION TRIM	J44-A1	4.2.3
R10	SD CONVERGENCE CURRENT	R17-A3	4.2.3
S1	6.3 VAC/+90 V REF	J41-F4	4.2.6
S2	6.3 VAC/+10 V REF	J29-F4	4.2.6
S3	6.3 VAC/-30 V REF	J41-C4	4.2.6
S4	6.3 VAC/-48 V REF	J29-C8	4.2.6
S5	6.3 VAC/-150 V REF	J29-B8	4.2.6
S6	6.3 VAC/-300 V REF	J29-B7	4.2.6
S7	208 VAC Ø1	P21-3	4.2.6
S8	208 VAC Ø2	M1-1	4.2.6
S9	208 VAC Ø3	P30-1	4.2.6
S10	208 VAC NEUTRAL	M2-2	4.2.6
T1	6.3 VAC/+90 V REF	J41-F8	4.2.6
T2	6.3 VAC/+10 V REF	J29-F8	4.2.6
T3	6.3 VAC/-30 V REF	J41-C8	4.2.6
H9	-	-	-

J37 TEST POINTS, SD CONSOLE (cont'd)			
Test Point	Signal/Voltage	Connects	Logic
E8	X-7	K54-A2	4.2.2
E9	X-8	K54-A3	4.2.2
E10	X-9	K54-A4	4.2.2
F1	Y-0	K66-A1	4.2.2
F2	Y-1	K66-A2	4.2.2
F3	Y-2	K66-A3	4.2.2
F4	Y-3	K66-A4	4.2.2
F5	Y-4	K66-A5	4.2.2
F6	Y-5	K66-A6	4.2.2
F7	Y-6	K65-A1	4.2.2
F8	Y-7	K65-A2	4.2.2
F9	Y-8	K65-A3	4.2.2
F10	Y-9	K65-A4	4.2.2
G1	X-OUT SIGNAL	J26-A2	4.2.4
G2	Y-OUT SIGNAL	J26-F1	4.2.4
G3	HORIZONTAL CENTER	J27-A6	4.2.4
G4	VERTICAL CENTER	J27-A8	4.2.4
G5	X-AXIS OUTPUT	J27-A5	4.2.4
G6	Y-AXIS OUTPUT	J27-A7	4.2.4
G7	DOWN FEEDBACK	J29-B1	4.2.4
G8	LEFT FEEDBACK	J28-B1	4.2.4
G9	UP FEEDBACK	J29-C6	4.2.4
G10	RIGHT FEEDBACK	J28-C6	4.2.4
H1	VIA CATHODE "X"	J28-A1	4.2.4
H2	VIA CATHODE "Y"	J29-A1	4.2.4
H3	VIB CATHODE "X"	J28-A3	4.2.4
H4	VIB CATHODE "Y"	J29-A3	4.2.4
H5	VI GRIDS "X" AMP	J28-A2	4.2.4
H6	VI GRIDS "Y" AMP	J29-A2	4.2.4
H7	-	-	-
H8	-	-	-
H9	-	-	-
H10	-	-	-
J1	-	-	-
J2	-	-	-
J3	FSS-1 BRIGHT-DIM	J44-F5	4.2.3
J4	FSS-2 BRIGHT-DIM	J44-F6	4.2.3
J5	BYPASS	J44-B6	4.2.3
J6	POINT INPUT	J44-A6	4.2.3
J7	POINT INTENSITY	J44-A8	4.2.3
J8	SD DEFOCUS TO HV UNIT	J44-F7	4.2.3
J9	SD DEFOCUS AMP	J44-E8	4.2.3
J10	SD MATRIX	P22-23	4.2.4
K1	-	-	-
K2	-	-	-
K3	DEFOCUS IN	J44-E7	4.2.3
K4	FOCUS IN	J45-F5	4.2.3
K5	INTENSITY IN	J45-E7	4.2.3
K6	BRIGHT POINT INTENSITY	J45-E6	4.2.3
K7	DIM POINT INTENSITY	J45-D7	4.2.3
K8	BRIGHT CHARACTER INTENSITY	J45-E5	4.2.3
K9	DIM CHARACTER INTENSITY	J45-E8	4.2.3
K10	INTENSITY OUT	J45-F3	4.2.3
L1	BRIGHT VECTOR INTENSITY	J45-D8	4.2.3
L2	DIM VECTOR INTENSITY	J45-D6	4.2.3
L3	LIGHT GUN GATE	J42-A5	4.2.3-2
L4	PASS LIGHT GUN GATE	J42-B1	4.2.3-2
L5	LIGHT GUN TRIGGER	J42-F6	4.2.3-2
L6	LIGHT GUN AMP OUTPUT	J42-C2	4.2.3-2
L7	+600V	J42-C7	4.2.3-2
L8	6.3VAC LIGHT GUN LAMP	J42-E6	4.2.3-2
T4	6.3 VAC/-48 V REF	J29-C4	4.2.6
T5	6.3 VAC/-150 V REF	J29-B4	4.2.6
T6	6.3 VAC/-300 V REF	J29-B6	4.2.6
T7	-	-	-
T8	-	-	-
T9	-	-	-
T10	-	-	-
U1	-	-	-
U2	-90 V	E31-8	4.2.6
U3	-	-	-
U4	+150 V	J41-E3	4.2.6
U5	-	-	-
U6	+250 V	J41-E4	4.2.6
U7	-	-	-
U8	+600 V	J42-F2	4.2.6
U9	-	-	-
U10	-	-	-
V1	-300 V	J41-C3	4.2.6
V2	-	-	-
V3	-150 V	J41-D1	4.2.6
V4	-	-	-
V5	-30 V	J41-D2	4.2.6
V6	-	-	-
V7	-	-	-
V8	-	-	-
V9	+10 V	J41-E1	4.2.6
V10	-	-	-
W1	-	-	-
W2	GROUND	J37-W3	4.2.6
W3	GROUND	J37-W4	4.2.6
W4	GROUND	J37-W5	4.2.6
W5	GROUND	J37-W6	4.2.6
W6	GROUND	J37-W7	4.2.6
W7	GROUND	J37-W8	4.2.6
W8	GROUND	J37-W9	4.2.6
W9	GROUND	J41-A4	4.2.6
W10	-	-	-

XV 6.3 VAC BETWEEN S1 AND T1, +90 V TO GND W 2
 XIV 6.3 VAC BETWEEN S2 AND T2, +10 V TO GND W2
 XIII 6.3 VAC BETWEEN S3 AND T3, -30 V TO GND W2
 XII 6.3 VAC BETWEEN S4 AND T4, -48 V TO GND W2
 XI 6.3 VAC BETWEEN S5 AND T5, -150 V TO GND W2
 X 6.3 VAC BETWEEN S6 AND T6, -300 V TO GND W2

Power

PART 5

SECTION 1

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MCD-19

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Component Layout _____	5.0.3.15

MCD-27

MCD	
Control & Indication _____	5.4.4
Common Power Distribution _____	5.3.4.1
Common Control & Indication _____	5.4.4.1
Component Layout _____	5.0.4
Component Index _____	5.0.4.1
Distribution Components _____	5.0.4.2
Power Distribution _____	5.3.4
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Power Distribution _____	5.3.4.2
Control & Indication _____	5.4.4.2
Component Index _____	5.0.4.3
Component Layout _____	5.0.4.6
Unit 24 SDGE	
Power Distribution _____	5.3.4.3
Control & Indication _____	5.4.4.3
Component Index _____	5.0.4.4

MCD-27 (cont'd)

Unit 25 DDGE	
Power Distribution _____	5.3.4.4
Control & Indication _____	5.4.4.4
Component Index _____	5.0.4.5
Component Layout _____	5.0.4.7
Unit 30 Warning Light Control	
Power Distribution _____	5.3.4.5
Control & Indication _____	5.4.4.5
Component Layout _____	5.0.4.6
Duplex Consoles	
Power Distribution _____	5.3.4.6
Control & Indication _____	5.4.4.6
Signal Status Switching Simplex Displays	5.4.4.7

MCD 29

MCD	
Control & Indication _____	5.4.5
Common Power Distribution _____	5.3.5.1
Common Control & Indication _____	5.4.5.1
Component Layout _____	5.0.5
Component Index _____	5.0.5.1
Distribution Component _____	5.0.5.2
Power Distribution _____	5.3.5
Unit 21 Drum Control	
Power Distribution _____	5.3.5.2
Control & Indication _____	5.4.5.2
Component Index _____	5.0.5.3
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Power Distribution _____	5.3.5.3
Control & Indication _____	5.4.5.3
Component Index _____	5.0.5.4
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Power Distribution _____	5.3.5.4
Control & Indication _____	5.4.5.4

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MCD	
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Common Power Distribution _____	5.3.6.1
Common Control & Indication _____	5.4.6.1
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Power Distribution _____	5.3.6
MCD	
Component Index _____	5.0.6.1
Distribution Components _____	5.0.6.2
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Power Distribution _____	5.3.6.3
Control & Indication _____	5.4.6.3
Component Index _____	5.0.6.4

MCD 31 (cont'd)

Unit 42 Output Control

Power Distribution _____	5.3.6.2
Control & Indication	5.4.6.2
Component Index	5.0.6.3

MCD-46

MCD

Control & Indication	5.4.8
Common Power Distribution	5.3.8.1
Common Power Control & Indication _____	5.4.8.1
Component Layout	5.0.8
Component Index _____	5.0.8.1
Distribution Component	5.0.8.2
Power Distribution	5.3.8

Unit 20 Aux Drums

Power Distribution _____	5.3.8.2
Control & Indication	5.4.8.2
Component Index	5.0.8.3

Aux Drums Motors

Power Distribution _____	5.3.8.4
Control & Indication	5.4.8.3

MCD-59

MCD

Control & Indication	5.4.7
Common Power Distribution	5.3.7.1
Common Control & Indication _____	5.4.7.1
Component Layout	5.0.7
Component Index _____	5.0.7.1
Distribution Components	5.0.7.2
Power Distribution	5.3.7

Unit 32 CrossTell

Power Distribution _____	5.3.7.3
Control & Indication	5.4.7.3

Unit 34 GFI

Power Distribution _____	5.3.7.4
Control & Indication	5.4.7.4

Unit 41 L.R.I.

Power Distribution _____	5.3.7.2
Control & Indication	5.4.7.2

Unit 93 LRI Monitor Control, Duplexed

Power Distribution _____	5.3.7.5
Control & Indication	5.4.7.5
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Simplex Power Supply Unit 61

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Simplex Power Supply Unit 61 (Cont'd)

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+250V Module C	CD 5.2.1.1
+150V Module C	CD 5.2.1.2
+90V Module B	CD 5.2.1.9
+10V Module B	CD 5.2.1.4
-15V Module B	CD 5.2.1.5
-30V Module B	CD 5.2.1.6
-48V Module C	CD 5.2.1.10
-150V Module B	CD 5.2.1.8
-300V Module A	CD 5.2.1.7
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Component Location Mod B	5.0.1.11
Component Location Mod C	5.0.1.12
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Component Location, Sequencing Device	CD 5.0.1.16
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Sequencing Device Control	CD 5.2.1.14
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Component Layout Mod B	CD 5.0.2.2
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Control	CD 5.4.2
Power Distribution	CD 5.3.2
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Location Drawing	S 5.0.9.10
CB Unit Control	CD 5.4.9.1
Reg & Unreg AC Dist	CD 5.3.9.1
DC Dist	CD 5.3.9.2
Console Control	CD 5.4.9.2
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Component Index	5.0.9.1
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System Control	CD 5.4.9
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Unit 56 Control	CD 5.4.10.1
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DC Dist	CD 5.3.10.3
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MC-Simplex

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Calculator Selection & Control	S 5.5.1.2
Excursion FF	S 5.5.1.3
-48V Distribution	S 5.5.2.1
-48V & Equipment Bond Return	S 5.5.2.2
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Dynamic Timer	S 5.5.2.4
Circuit Group Select	S 5.5.3.1
Voltage Group	S 5.5.3.2
Calculator Controlled Relays	S 5.5.4.1
Mode Select	S 5.5.5.1
Safe Limit Select	S 5.5.6.1
MC Relay Select	S 5.5.7.1
Field Reference Input	S 5.5.8.1
Excursion Magnitude Select	S 5.5.8.2
Amplidyne Control	S 5.5.9.1
Voltage Contactor Control	S 5.5.10.1
Indicator Lights	S 5.5.11.1
Component Index Unit 58	S 5.0.12.1-S 5.0.12.11
Component Layout Unit 58 Mod "A" Panel 1-13	85.0.12.24

MC-Duplex

DX MC Controls

Amplidyne Excursion Start Stop	5.5.1.1
Control Calc. Selection & Control	5.5.1.2
No Two Interlock	5.5.1.3
Excursion FF	S 5.5.1.3
-48V +72V Distribution	5.5.2.1
-48V Return	5.5.2.2
Reg AC Circuits	5.5.2.3
Dynamic Timer	5.5.2.4
Line Groupe Select	5.5.3.1
Voltage Group Select	5.5.3.2
Marginal Checking Groupe Select	5.5.3.3
Circuit Groupe Select	5.5.3.4
Calculator Controlled Relays	5.5.4.1
Mode Select	5.5.5.1
Safe Limit Selection	5.5.6.1
Intermediate Matrix	5.5.7.1
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Component Layout Mod "A" PCD A & B	5.0.2.21

DX MC Control MC Relays

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Unit 19 Mod D	5.5.7.18
Unit 19 Mod E	5.5.7.3
Unit 19 Mod E	5.5.7.19
Unit 19 Mod F	5.5.7.4
Unit 19 Mod G & K	5.5.7.20
Unit 19 Mod H & J	5.5.7.21
Unit 19 Mod K	5.5.7.5

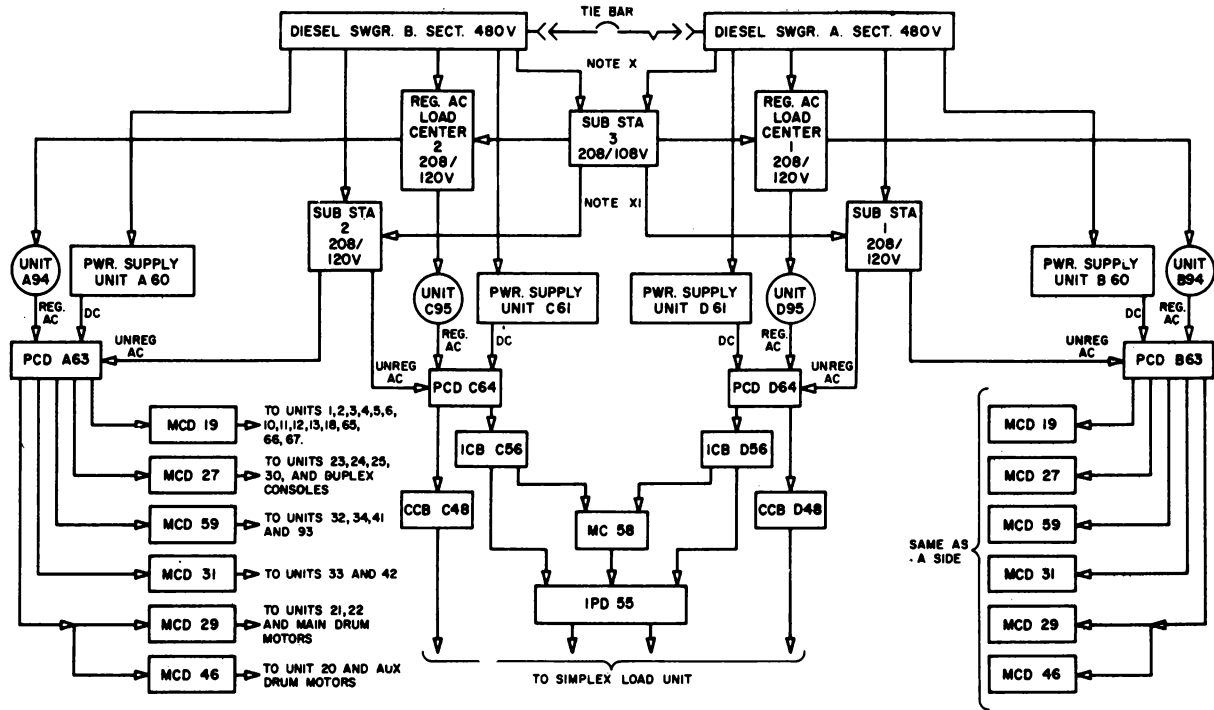
MC-Duplex (cont'd)

DX M.C. Controls

Unit 19 Mod N	5.5.7.6
Unit 27 Mod - C, D, E, & F	5.5.7.7
Unit 29 Mod D	5.5.7.8
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Unit 59 Mod B	5.5.7.12
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Mod G	5.5.7.15
Intercom Select	5.5.7.16
Field Reference Input	5.5.8.1
Excursion Magnitude Select	5.5.8.2
Satellite Distribution A	A 5.5.8.3
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Amplidyne Control	5.5.9.1
Voltage Contractor Control	5.5.10.1
Indication Lights	5.5.11.1
Satellite Isolation	5.5.12.1
Intermediate Relay Select	5.5.13.1

Miscellaneous

Component Layout - Standard Power Module	5.0.3.11
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- X EITHER A OR B DIESEL SWITCH GEAR, BUT NOT BOTH, MAY FEED SUB 3
 XI SUB STA 3 WILL FEED NO MORE THAN ONE LOAD CENTER OR ONE SUB STA AT A TIME

SIMPLIFIED BLOCK DIAGRAM OF POWER SYSTEM

PART 5

SECTION 2

MARGINAL CHECKING

MARGINAL CHECK WORD

Left Word

Bit

S	1	Start Excursion	
	0	Change Excursion	
1 and 2	10	Continue from 20,000	Restart after excursion
	11	Load from Card Reader	
	00	Load from Drums	
	01	Continue from 00000	
3 and 4	10	Continue from 20,000	Second restart after
	11	Load from Card Reader	First excursion
	00	Load from Drums	
	01	Continue from 00000	
5 and 6	00	Infinite	Time duration
	01	3 seconds	
	10	7 seconds	
	11	30 seconds	
7	0	Positive	Excursion Polarity
	1	Negative	
8	0	100 V	Excursion Safe Limit
	1	25 V	
9 to 12	0000	0 Volts	Excursion Magnitude
	0001	10 Volts	
	0010	12 Volts	
	0011	14 Volts	
	0100	16 Volts	
	0101	18 Volts	
	0110	20 Volts	
	0111	25 Volts	
	1000	30 Volts	
	1001	35 Volts	
	1010	40 Volts	
	1011	50 Volts	
	1100	60 Volts	
	1101	70 Volts	
	1110	85 Volts	
	1111	100 Volts	
13 to 15	001	+250 Volts	Voltage Group
	010	+150 Volts	
	011	+90 Volts	
	100	-150 Volts	
	101	-300 Volts	

Right Word

S to 3	0000	Not used	M. C. Group
	0001	MC-1 Memory	
	0010	MC-2 Arithmetic	
	0011	MC-3 Program and Control	
	0100	MC-4 I/O Control	
	0101	MC-5 Drums	
	0110	MC-6 Displays	
	0111	MC-7 Inputs	
	1000	MC-8 Outputs	
	1001	MC-9 Simplex equipment	

MARGINAL CHECK WORD (cont'd)

Bit

4 to 9 _____ 000 000 A to F _____ M. C. Circuit
100 000 A
010 000 B
001 000 C
000 100 D
000 010 E
000 001 F

10 to 15 _____ 000 000 1 to 6 _____ M. C. Line
100 000 1
010 000 2
001 000 3
000 100 4
000 010 5
000 001 6

MC-9 only *Simplex*

10 to 15 _____ 000 000 G to M _____ M. C. Line
100 000 G
010 000 H
001 000 J
000 100 K
000 010 L
000 001 M

INTRODUCTION

Marginal Checking breakdowns are given for the Marginal Checking groups MC-1 through MC-9. The breakdowns are presented as IBM listings with heading as explained in the legend below.

V	Voltage Group Selection
MC	MC Group Selection
C/L	Circuit/Line Selection
FR	Load Unit
TYPE	Circuit Type
DESCRIPTION	Logical Function
MC (X) SUM 001	Page number of summary MC (X) listing
07/01/58	Date of listing
LOGIC	Number of Logical Block Schematic drawing

MC-1

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-1	05/01/60	LOGIC
6250	A5	65	BJ	246-9	B5	CR XU SELECTION			0-2.1.5
6250	A6	65	RG	246-9	B5	CR XV SELECTION			0-2.1.5
6250	B5	67	DJ	246-9	B5	CR YU SELECTION			0-2.1.5
6250	B6	67	DG	246-9	B5	CR YV SELECTION			0-2.1.5
6250	C2	65	BU	1-7	B5	PCA MAR R15			0-2.1.5
6250	C2	65	BV	1-7	B5	PCA MAR R14			0-2.1.5
6250	C2	65	BW	1-7	B5	PCA MAR R13			0-2.1.5
6250	C2	65	BX	1-7	B5	PCA MAR R12			0-2.1.5
6250	C2	65	BY	1-7	B5	PCA MAR R11			0-2.1.5
6250	C2	65	B1	1-7	B5	PCA MAR R10			0-2.1.5
6250	C2	65	B2	1-7	B5	PCA MAR R9			0-2.1.5
6250	C2	65	B3	1-7	B5	PCA MAR R8			0-2.1.5
6250	C2	67	DU	1-7	B5	PCA MAR R7			0-2.1.5
6250	C2	67	DV	1-7	B5	PCA MAR R6			0-2.1.5
6250	C2	67	DW	1-7	B5	PCA MAR R5			0-2.1.5
6250	C2	67	DX	1-7	B5	PCA MAR R4			0-2.1.5
6250	C2	67	DY	1-7	B5	PCA MAR R3			0-2.1.5
6250	C2	67	D1	1-7	B5	PCA MAR R2			0-2.1.5
6250	C2	67	D2	1-7	B5	PCA MAR R1			0-2.1.5
6250	C2	67	D3	1-7	B5	PCA MAR RC			0-2.1.5
6250	C5	67	BF	456	D6	PCF INH GG			0-2.1.4
6250	C5	67	BH	456	D6	PCF INH GG			0-2.1.4
6250	C5	67	CF	456	D6	PCF INH GG			0-2.1.4
6250	C5	65	CF	456	D6	PCF INH GG			0-2.1.4
6250	C5	67	CH	456	D6	PCF INH GG			0-2.1.4
6250	C5	65	CH	456	D6	PCF INH GG			0-2.1.4
6250	C5	65	DF	456	D6	PCF INH GG			0-2.1.4
6250	C5	65	DH	456	D6	PCF INH GG			0-2.1.4
6250	D1	11	XA		E10-15-31	CMD X DRIVER PANEL A			0.1.5
6250	D2	11	XB		E10-16-31	CMD X DRIVER PANEL B			0.1.5
6250	D3	11	XC		E10-17-31	CMD X DRIVER PANEL C			0.1.5
6250	D4	11	XD		E10-18-31	CMD X DRIVER PANEL D			0.1.5
6250	E1	11	YA		E10-10-31	CMD Y DRIVER PANEL A			0.1.5
6250	E2	11	YB		E10-11-31	CMD Y DRIVER PANEL B			0.1.5
6250	E3	11	YC		E10-12-31	CMD Y DRIVER PANEL C			0.1.5
6250	E4	11	YD		E10-13-31	CMD Y DRIVER PANEL D			0.1.5
6250	E5	10	AD	3-7	B5	PCF INHIBIT			0.1.4
6250	E5	12	CD	3-7	B5	PCF INHIBIT			0.1.4
6250	F1	11	XA		E10-14-30	MOA X MATRIX OUTPUT AMPLIFIER			0.1.5
6250	F1	11	XB		E10-14-30	MOA X MATRIX OUTPUT AMPLIFIER			0.1.5
6250	F1	11	XC		E10-14-30	MOA X MATRIX OUTPUT AMPLIFIER			0.1.5
6250	F1	11	XD		E10-14-30	MOA X MATRIX OUTPUT AMPLIFIER			0.1.5
6250	F2	11	YA		E10-09-30	MOA Y MATRIX OUTPUT AMPLIFIER			0.1.5
6250	F2	11	YB		E10-09-30	MOA Y MATRIX OUTPUT AMPLIFIER			0.1.5
6250	F2	11	YC		E10-09-30	MOA Y MATRIX OUTPUT AMPLIFIER			0.1.5
6250	F2	11	YD		E10-09-30	MOA Y MATRIX OUTPUT AMPLIFIER			0.1.5
6250	F3	10	CC	1245	B5	MGG X MEN GATE GEN RD ODD			0.1.5

MC-1

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-1	05/01/60	LOGIC
6250	F3	10	CG	1245	B5	MGG X MEN GATE GEN RD EVEN			0.1.5
6250	F4	10	CE	1245	B5	MGG X MEN GATE GEN WR ODD			0.1.5
6250	F4	10	CJ	1245	B5	MGG X MEN GATE GEN WR EVEN			0.1.5
6250	F5	12	AC	1245	B5	MGG Y MEM GATE GEN RD ODD			0.1.5
6250	F5	12	AG	1245	B5	MGG Y MEM GATE GEN RD EVEN			0.1.5
6250	F6	12	AE	1245	B5	MGG Y MEM GATE GEN WR ODD			0.1.5
6250	F6	12	AJ	1245	B5	MGG Y MEM GATE GEN WR EVEN			0.1.5
6150	A2	67	AG	34	B6	CF Y RGG			0-2.1.4
6150	A2	65	EG	34	B6	CF X RGG			0-2.1.4
6150	A2	65	AM	3	B5	CF SAMPLE GG			0-2.1.4
6150	B1	65	AN	3-7	G5	PCF IA DSL			0-2.1.5
6150	B2	67	AC	2-5		SWD YV SELECTION			0-2.1.5
6150	B2	67	AD	2-5		SWD YV SELECTION			0-2.1.5
6150	B2	67	AE	2-5		SWD YV SELECTION			0-2.1.5
6150	B2	67	AF	23		SWD YV SELECTION			0-2.1.5
6150	B2	67	BC	2-7		SWD YV SELECTION			0-2.1.5
6150	B2	67	BD	2-7		SWD YV SELECTION			0-2.1.5
6150	B2	67	BE	2-7		SWD YV SELECTION			0-2.1.5
6150	B3	67	CC	2-7		SWD YU SELECTION			0-2.1.5
6150	B3	67	CD	2-7		SWD YU SELECTION			0-2.1.5
6150	B3	67	CE	2-7		SWD YU SELECTION			0-2.1.5
6150	B3	67	CJ	2-7		SWD YU SELECTION			0-2.1.5
6150	B3	67	DC	2-7		SWD YU SELECTION			0-2.1.5
6150	B3	67	DD	2-7		SWD YU SELECTION			0-2.1.5
6150	B3	67	DE	2-7		SWD YU SELECTION			0-2.1.5
6150	B3	67	DF	2-7		SWD YU SELECTION			0-2.1.5
6150	D1	10	AF	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AG	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AH	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AJ	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AK	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AL	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AM	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AN	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AP	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AR	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AS	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AT	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AU	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AV	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AW	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AX	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	10	AY	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	12	CG	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	12	CH	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	12	CJ	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	12	CK	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	12	CL	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	12	CM	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	12	CP	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	12	CN	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	12	CS	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	12	CT	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	12	CU	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	12	CV	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	12	CW	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	12	CX	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D1	12	CY	1-5	G5	SA SENSE AMPLIFIER			0.1.6
6150	D2	65	DC	2-7		SWD XV SELECTION			0-2.1.5
6150	D2	65	DD	2-7		SWD XV SELECTION			0-2.1.5
6150	D2	65	DE	2-7		SWD XV SELECTION			0-2.1.5

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V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-1	05/01/60	LOGIC
6150	D2	65	EC	2-5		SWD	XV SELECTION			0-2.1.5
6150	D2	65	ED	2-5		SWD	XV SELECTION			0-2.1.5
6150	D2	65	EE	2-5		SWD	XV SELECTION			0-2.1.5
6150	D2	65	EF	45		SWD	XV SELECTION			0-2.1.5
6150	D3	65	AC	2-7		SWD	XU SELECTION			0-2.1.5
6150	D3	65	BC	2-7		SWD	XU SELECTION			0-2.1.5
6150	D3	65	BD	2-7		SWD	XU SELECTION			0-2.1.5
6150	D3	65	BE	2-7		SWD	XU SELECTION			0-2.1.5
6150	D3	65	BF	2-7		SWD	XU SELECTION			0-2.1.5
6150	D3	65	CC	2-7		SWD	XU SELECTION			0-2.1.5
6150	D3	65	CD	2-7		SWD	XU SELECTION			0-2.1.5
6150	D3	65	CE	2-7		SWD	XU SELECTION			0-2.1.5
6150	E1	10	CP	3-7	G5	CPCFX	MEM ADR REG			0.1.5
6150	E1	10	CR	1-9	D5	CPCFX	MEM ADR REG			0.1.5
6150	E1	10	CS	3-7	G5	CPCFX	MEM ADR REG			0.1.5
6150	E1	10	CT	3-7	G5	CPCFX	MEM ADR REG			0.1.5
6150	E1	10	CU	1-9	D5	CPCFX	MEM ADR REG			0.1.5
6150	E1	10	CV	3-7	G5	CPCFX	MEM ADR REG			0.1.5
6150	E1	10	CW	3-7	G5	CPCFX	MEM ADR REG			0.1.5
6150	E1	10	CX	1-9	D5	CPCFX	MEM ADR REG			0.1.5
6150	E1	10	CY	3-7	G5	CPCFX	MEM ADR REG			0.1.5
6150	E1	12	AP	3-7	G5	CPCFX	MEM ADR REG			0.1.5
6150	E1	12	AR	1-9	D5	CPCFX	MEM ADR REG			0.1.5
6150	E1	12	AS	3-7	G5	CPCFX	MEM ADR REG			0.1.5
6150	E1	12	AT	3-7	G5	CPCFX	MEM ADR REG			0.1.5
6150	E1	12	AU	1-9	D5	CPCFX	MEM ADR REG			0.1.5
6150	E1	12	AV	3-7	G5	CPCFX	MEM ADR REG			0.1.5
6150	E1	12	AW	3-7	G5	CPCFX	MEM ADR REG			0.1.5
6150	E1	12	AX	1-9	D5	CPCFX	MEM ADR REG			0.1.5
6150	E1	12	AY	3-7	G5	CPCFX	MEM ADR REG			0.1.5
6150	F1	12	CF	3	D5	CF	SAMPLE GATE GEN			0.1.4
6150	F1	10	CL	1289	B6	CF	X RD-WR GATE GEN			0.1.4
6150	F1	12	AL	1289	B6	CF	Y RD-WR GATE GEN			0.1.4
690	B1	65	AJ	26	D6	DD	MPD 1			0-2.1.4
690	B1	65	AK	8	G6	DD	MPD 2			0-2.1.4
690	B1	65	AL	1	B5	DD	MPD 3			0-2.1.4
690	B1	67	AJ	1	B5	PA	MPD 4			0-2.1.4
690	B1	65	AH	7	G6	PA	CL MEM CONTROLS			0-2.1.4
690	B1	65	AH	12	B6	GT	DPD SEL GATES L W			0-2.1.4
690	B1	65	AG	127	B6G6	GT	DPD SELECT GATES RW			0-2.1.4
690	B1	65	AM	4	B6	GT	SAMPLE GG			0-2.1.4
690	B2	67	AK	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	67	AL	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	67	AM	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	67	AN	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	67	AP	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	67	AR	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	67	AS	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	67	AT	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	67	AU	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	67	AV	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	67	AW	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	67	AX	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	67	AY	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	67	A1	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	67	A2	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	67	A3	5	D5	SA	SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B2	65	EJ	5	D5	SA	SENSE AMP LEFT H WORD			0-2.1.6
690	B2	65	EK	5	D5	SA	SENSE AMP LEFT H WORD			0-2.1.6
690	B2	65	EL	5	D5	SA	SENSE AMP LEFT H WORD			0-2.1.6
690	B2	65	EM	5	D5	SA	SENSE AMP LEFT H WORD			0-2.1.6
690	B2	65	EN	5	D5	SA	SENSE AMP LEFT H WORD			0-2.1.6
690	B2	65	EP	5	D5	SA	SENSE AMP LEFT H WORD			0-2.1.6
690	B2	65	ER	5	D5	SA	SENSE AMP LEFT H WORD			0-2.1.6
690	B2	65	ES	5	D5	SA	SENSE AMP LEFT H WORD			0-2.1.6
690	B2	65	ET	5	D5	SA	SENSE AMP LEFT H WORD			0-2.1.6
690	B2	65	EU	5	D5	SA	SENSE AMP LEFT H WORD			0-2.1.6
690	B2	65	EV	5	D5	SA	SENSE AMP LEFT H WORD			0-2.1.6
690	B2	65	EW	5	D5	SA	SENSE AMP LEFT H WORD			0-2.1.6
690	B2	65	EX	5	D5	SA	SENSE AMP LEFT H WORD			0-2.1.6

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-1	05/01/60	LOGIC
690	B2	65	EY	5	D5	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B2	65	E1	5	D5	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B2	65	E2	5	D5	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B2	65	E3	5	D5	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	67	AK	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	67	AL	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	67	AM	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	67	AN	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	67	AP	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	67	AR	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	67	AS	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	67	AT	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	67	AU	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	67	AV	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	67	AW	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	67	AX	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	67	AY	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	67	A1	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	67	A2	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	67	A3	5	D6	SA SENSE AMP RIGHT HALF WORD			0-2.1.6
690	B3	65	EJ	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	EK	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	EL	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	EM	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	EN	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	EP	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	ER	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	ES	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	ET	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	EU	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	EV	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	EW	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	EX	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	EY	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	E1	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	E2	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	B3	65	E3	5	D6	SA SENSE AMP LEFT H WORD			0-2.1.6
690	D1	10	CE	1245	B6	MGG X MEN GATE GEN WR ODD			0.1.5
690	D1	10	CJ	1245	B6	MGG X MEN GATE GEN WR EVEN			0.1.5
690	D2	10	CC	1245	B6	MGG X MEN GATE GEN RD ODD			0.1.5
690	D2	10	CG	1245	B6	MGG X MEN GATE GEN RD EVEN			0.1.5
690	D3	12	AC	1245	B6	MGG Y MEM GATE GEN RD ODD			0.1.5
690	D3	12	AG	1245	B6	MGG Y MEM GATE GEN RD EVEN			0.1.5
690	D4	12	AE	1245	B6	MGG Y MEM GATE GEN WR ODD			0.1.5
690	D4	12	AJ	1245	B6	MGG Y MEM GATE GEN WR EVEN			0.1.5
690	E1	10	AC	26	B6D6	DD MEM PULSE DISTURB			0.1.4
690	E1	10	BD	5	D6	DD MEM PULSE DISTRIB			0.1.4
690	E1	10	BC	2	D6	DD MEM PULSE DISTRIB			0.1.4
690	E3	10	BF	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BG	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BH	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BJ	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BK	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BL	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BM	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BN	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BP	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BR	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BS	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BT	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BU	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BV	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BW	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BX	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	10	BY	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6
690	E3	12	BG	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.6

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V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-1	05/01/60	LOGIC
690	E3	12	BH	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.66
690	E3	12	BJ	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.66
690	E3	12	BK	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.66
690	E3	12	BL	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.66
690	E3	12	BM	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.66
690	E3	12	BN	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.66
690	E3	12	BP	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.66
690	E3	12	BR	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.66
690	E3	12	BS	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.66
690	E3	12	BT	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.66
690	E3	12	BU	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.66
690	E3	12	BV	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.66
690	E3	12	BW	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.66
690	E3	12	BX	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.66
690	E3	12	BY	2-5	B6	DPD DIGIT PLANE DRIVER			0.1.66
690	F1	10	AF	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AG	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AH	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AJ	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AK	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AL	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AM	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AN	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AP	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AR	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AS	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AT	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AU	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AV	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AW	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AX	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	10	AY	6	G6	GT SAMPLE L HALF WORD			0.1.66
690	F1	12	CF	3	B6	GT SAMPLE GATE GEN			0.1.66
690	F1	12	CG	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CH	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CJ	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CK	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CL	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CM	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CN	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CP	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CR	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CS	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CT	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CU	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CV	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CW	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CX	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CY	6	G6	GT SAMPLE R HALF WORD			0.1.66
690	F1	12	CF	4	D6	GT SAMPLE GATE GEN			0.1.64
-150	A1	65	AN	12	B7	AFF IA Deselect			0-2.1.5
-150	A1	65	BU	89	D7	AFF MAR R15			0-2.1.5
-150	A1	65	BV	89	D7	AFF MAR R14			0-2.1.5
-150	A1	65	BW	89	D7	AFF MAR R13			0-2.1.5
-150	A1	65	BX	89	D7	AFF MAR R12			0-2.1.5
-150	A1	65	BY	89	D7	AFF MAR R11			0-2.1.5
-150	A1	65	B1	89	D7	AFF MAR R10			0-2.1.5
-150	A1	65	B2	89	D7	AFF MAR R9			0-2.1.5
-150	A1	65	B3	89	D7	AFF MAR R8			0-2.1.5
-150	A1	67	DU	89	D7	AFF MAR R7			0-2.1.5
-150	A1	67	DV	89	D7	AFF MAR R6			0-2.1.5
-150	A1	67	DW	89	D7	AFF MAR R5			0-2.1.5
-150	A1	67	DX	89	D7	AFF MAR R4			0-2.1.5
-150	A1	67	DY	89	D7	AFF MAR R3			0-2.1.5
-150	A1	67	D1	89	D7	AFF MAR R2			0-2.1.5
-150	A1	67	D2	89	D7	AFF MAR R1			0-2.1.5
-150	A1	67	D3	89	D7	AFF MAR RS			0-2.1.5
-150	A2	67	AG	1256	B7	AFF Y RGG			0-2.1.4
-150	A2	65	EG	1256	B7	AFF X RGG			0-2.1.4
-150	A3	65	AM	12	B7	AFF SAMPLE GG			0-2.1.4
-150	A3	67	BF	12	B7	AFF INH GG			0-2.1.4
-150	A3	67	BH	12	B7	AFF INH GG			0-2.1.4

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V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-1	05/01/60	LOGIC
-150	A3	67	CF	12	B7	AFF INH GG			0-2.1.4
-150	A3	67	CH	12	B7	AFF INH GG			0-2.1.4
-150	A3	65	CF	12	B7	AFF INH GG			0-2.1.4
-150	A3	65	CH	12	B7	AFF INH GG			0-2.1.4
-150	A3	65	DF	12	B7	AFF INH GG			0-2.1.4
-150	A3	65	DH	12	B7	AFF INH GG			0-2.1.4
-150	A5	65	A3	123567B7		BFN TAPE CORE BIAS			0-2.1.5
-150	A6	65	A1	123567B7		BFN TAPE CORE BIAS			0-2.1.5
-150	C1	65	BG	246-9	D7	CR XV SELECTION			0-2.1.5
-150	C2	65	BJ	246-9	D7	CR XU SELECTION			0-2.1.5
-150	C3	67	DG	246-9	D7	CR YV SELECTION			0-2.1.5
-150	C4	67	DJ	246-9	D7	CR YU SELECTION			0-2.1.5
-150	D1	10	CP	12	B7	AFF X MEM ADR REG			0.1.5
-150	D1	10	CS	12	B7	AFF X MEM ADR REG			0.1.5
-150	D1	10	CT	12	B7	AFF X MEM ADR REG			0.1.5
-150	D1	10	CV	12	B7	AFF X MEM ADR REG			0.1.5
-150	D1	10	CW	12	B7	AFF X MEM ADR REG			0.1.5
-150	D1	10	CY	12	B7	AFF X MEM ADR REG			0.1.5
-150	D1	12	AP	12	B7	AFF Y MEM ADR REG			0.1.5
-150	D1	12	AS	12	B7	AFF Y MEM ADR REG			0.1.5
-150	D1	12	AT	12	B7	AFF Y MEM ADR REG			0.1.5
-150	D1	12	AV	12	B7	AFF Y MEM ADR REG			0.1.5
-150	D1	12	AW	12	B7	AFF Y MEM ADR REG			0.1.5
-150	D1	12	AY	12	B7	AFF Y MEM ADR REG			0.1.5
-150	D2	10	CL	3467	B7	AFF X RD-WR GATE GEN			0.1.4
-150	D2	12	AL	3467	B7	AFF Y RD-WR GATE GEN			0.1.4
-150	D3	10	AD	12	B7	AFF INHIBIT			0.1.4
-150	D3	12	CD	12	B7	AFF INHIBIT			0.1.4
-150	D3	12	CF	12	B7	AFF INHIBIT SAMPLE			0.1.4
-150	E1	10	AF	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AG	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AH	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AJ	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AK	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AL	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AM	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AN	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AP	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AR	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AS	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AT	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AU	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AV	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AW	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AX	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	10	AY	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	12	CG	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	12	CH	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	12	CJ	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	12	CK	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	12	CL	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	12	CM	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	12	CN	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	12	CP	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	12	CR	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	12	CS	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	12	CT	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	12	CU	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	12	CV	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6
-150	E1	12	CW	1-5	B7	SA-1SENSE AMPLIFIER			0.1.6

MC-1

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-1	05/01/60	LOGIC
-300	D1	12	8W	2-5	D8	DPD DIGIT PLANE DRIVER			0.1.6
-300	D1	12	BX	2-5	D8	DPD DIGIT PLANE DRIVER			0.1.6
-300	D1	12	BY	2-5	D8	DPD DIGIT PLANE DRIVER			0.1.6
-300	E1	10	CE	1245	D8	MGG X MEM GATE GEN WR ODD			0.1.5
-300	E1	10	CJ	1245	D8	MGG X MEM GATE GEN WR EVEN			0.1.5
-300	E1	12	AE	1245	D8	MGG Y MEM GATE GEN WR ODD			0.1.5
-300	E1	12	AJ	1245	D8	MGG Y MEM GATE GEN WR EVEN			0.1.5
-300	E2	10	CC	1245	D8	MGG X MEM GATE GEN RD ODD			0.1.5
-300	E2	10	CG	1245	D8	MGG X MEM GATE GEN RD EVEN			0.1.5
-300	E2	12	AC	1245	D8	MGG X MEM GATE GEN RD ODD			0.1.5
-300	E2	12	AG	1245	D8	MGG X MEM GATE GEN RD EVEN			0.1.5

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-2	05/01/60	LOGIC
6250	A1	02	NF	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NG	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NH	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NJ	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NK	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NL	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NN	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NM	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NP	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NR	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NS	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NT	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NU	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NV	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NW	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NX	567	B5	PCF	L TEST MEM ADR MATRIX OUTPUT			0.1e3
6250	A1	02	NC	345	B5	PCF	L TEST MEM ADDR REG OUTPUT			0.1e3
6250	A1	02	ND	345	B5	PCF	L TEST MEM ADDR REG OUTPUT			0.1e3
6250	A1	02	PC	345	B5	PCF	L TEST MEM ADDR REG OUTPUT			0.1e3
6250	A1	02	PD	345	B5	PCF	L TEST MEM ADDR REG OUTPUT			0.1e3
6250	A1	02	NY	567	B5	PCF	TEST MEM SWITCH REG A			0.1e3
6250	A1	02	PY	567	B5	PCF	TEST MEM SWITCH REG B			0.1e3
6250	B1	02	DY	456	B5	LA	COMPARE			0.6e2
6250	B1	03	DY	456	B5	LA	COMPARE			0.6e2
6150	A1	02	EE	5	G5	CF	LEFT ADD COMPARE			0.5e1-2
6150	A1	02	DE	56	G5	CF	L ACC SIGN CONTROL			0.5e1-2
6150	A1	02	CF	4568	G5	CF	L ACC			0.5e1-2
6150	A1	02	DF	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	DG	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	DH	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	DJ	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	DK	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	DL	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	DM	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	DN	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	DP	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	DR	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	DS	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	DT	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	DU	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	DV	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	DW	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	DX	1-7	B6D5G5	CF	L ACC			0.5e1-2
6150	A1	02	EC	56	G5	CF	L ADDER END EFFECTS	AUX FLOW		0.5e1-2
6150	A1	02	ED	56	G5	CF	L ADDER END EFFECTS	DIVIDE COMM		0.5e1-2
6150	A1	02	EE	56	G5	CF	L ADDER END EFFECTS	CARRY STORE		0.5e1-2
6150	A1	03	CF	4568	G5	CF	R ACC			0.5e2-2
6150	A1	03	DE	56	G5	CF	R ACC			0.5e2-2
6150	A1	03	DF	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	DG	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	DH	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	DJ	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	DK	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	DL	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	DM	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	DN	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	DP	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	DR	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	DS	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	DT	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	DU	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	DV	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	DW	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	DX	1-7	B6D5G5	CF	R ACC			0.5e2-2
6150	A1	03	EC	56	G5	CF	R ADDER END EFFECTS			0.5e2-2
6150	A1	03	ED	56	G5	CF	R ADDER END EFFECTS			0.5e2-2
6150	A1	03	EE	56	G5	CF	R ADDER END EFFECTS			0.5e2-2
6150	A1	03	EE	5	G5	CF	RIGHT ADD COMPARE			0.5e2-2
6150	A2	02	BF	1-7	B6D5G5	CF	L B REG			0.5e1-3
6150	A2	02	BG	35	D5	CF	L B REG			0.5e1-3
6150	A2	02	BH	35	D5	CF	L B REG			0.5e1-3
6150	A2	02	BJ	35	D5	CF	L B REG			0.5e1-3
6150	A2	02	BK	35	D5	CF	L B REG			0.5e1-3
6150	A2	02	BL	35	D5	CF	L B REG			0.5e1-3

MC-2

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-2	05/01/60	LOGIC
6150	A2	02	BM	35	D5	CF	L B REG			0.5.1-3
6150	A2	02	BN	35	D5	CF	L B REG			0.5.1-3
6150	A2	02	BP	35	D5	CF	L B REG			0.5.1-3
6150	A2	02	BR	35	D5	CF	L B REG			0.5.1-3
6150	A2	02	BS	35	D5	CF	L B REG			0.5.1-3
6150	A2	02	BT	35	D5	CF	L B REG			0.5.1-3
6150	A2	02	BU	35	D5	CF	L B REG			0.5.1-3
6150	A2	02	BV	35	D5	CF	L B REG			0.5.1-3
6150	A2	02	BW	35	D5	CF	L B REG			0.5.1-3
6150	A2	02	BX	35	D5	CF	L B REG			0.5.1-3
6150	A2	02	BD	56	G5	CF	L B REG S STORE			0.5.1-3
6150	A2	02	FF	1-7	86D5G5	CF	L A REG			0.5.1
6150	A2	02	FG	3456	D5	CF	L A REG			0.5.1
6150	A2	02	FH	3456	D5	CF	L A REG			0.5.1
6150	A2	02	FJ	3456	D5	CF	L A REG			0.5.1
6150	A2	02	FK	3456	D5	CF	L A REG			0.5.1
6150	A2	02	FL	3456	D5	CF	L A REG			0.5.1
6150	A2	02	FM	3456	D5	CF	L A REG			0.5.1
6150	A2	02	FN	3456	D5	CF	L A REG			0.5.1
6150	A2	02	FP	3456	D5	CF	L A REG			0.5.1
6150	A2	02	FR	3456	D5	CF	L A REG			0.5.1
6150	A2	02	FS	3456	D5	CF	L A REG			0.5.1
6150	A2	02	FT	3456	D5	CF	L A REG			0.5.1
6150	A2	02	FU	3456	D5	CF	L A REG			0.5.1
6150	A2	02	FV	3456	D5	CF	L A REG			0.5.1
6150	A2	02	FW	3456	D5	CF	L A REG			0.5.1
6150	A2	02	FX	3456	D5	CF	L A REG			0.5.1
6150	A2	03	BD	56	G5	CF	R B REG			0.5.2-3
6150	A2	03	BF	1-7	86D5G5	CF	R B REG			0.5.2-3
6150	A2	03	BG	35	D5	CF	R B REG			0.5.2-3
6150	A2	03	BH	35	D5	CF	R B REG			0.5.2-3
6150	A2	03	BJ	35	D5	CF	R B REG			0.5.2-3
6150	A2	03	BK	35	D5	CF	R B REG			0.5.2-3
6150	A2	03	BL	35	D5	CF	R B REG			0.5.2-3
6150	A2	03	BM	35	D5	CF	R B REG			0.5.2-3
6150	A2	03	BN	35	D5	CF	R B REG			0.5.2-3
6150	A2	03	BP	35	D5	CF	R B REG			0.5.2-3
6150	A2	03	BR	35	D5	CF	R B REG			0.5.2-3
6150	A2	03	BS	35	D5	CF	R B REG			0.5.2-3
6150	A2	03	BT	35	D5	CF	R B REG			0.5.2-3
6150	A2	03	BU	35	D5	CF	R B REG			0.5.2-3
6150	A2	03	BV	35	D5	CF	R B REG			0.5.2-3
6150	A2	03	BW	35	D5	CF	R B REG			0.5.2-3
6150	A2	03	BX	35	D5	CF	R B REG			0.5.2-3
6150	A2	03	FF	1-7	86D5G5	CF	R A REG			0.5.2
6150	A2	03	FD	345	D5	CF	R A REG L SIGN			0.5.2
6150	A2	03	FG	3456	D5	CF	R A REG			0.5.2
6150	A2	03	FH	3456	D5	CF	R A REG			0.5.2
6150	A2	03	FJ	3456	D5	CF	R A REG			0.5.2
6150	A2	03	FK	3456	D5	CF	R A REG			0.5.2
6150	A2	03	FL	3456	D5	CF	R A REG			0.5.2
6150	A2	03	FM	3456	D5	CF	R A REG			0.5.2
6150	A2	03	FN	3456	D5	CF	R A REG			0.5.2
6150	A2	03	FP	3456	D5	CF	R A REG			0.5.2
6150	A2	03	FR	3456	D5	CF	R A REG			0.5.2
6150	A2	03	FS	3456	D5	CF	R A REG			0.5.2
6150	A2	03	FT	3456	D5	CF	R A REG			0.5.2
6150	A2	03	FU	3456	D5	CF	R A REG			0.5.2
6150	A2	03	FV	3456	D5	CF	R A REG			0.5.2
6150	A2	03	FW	3456	D5	CF	R A REG			0.5.2
6150	A2	03	FX	3456	D5	CF	R A REG			0.5.2
6150	A3	02	MF	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	MG	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	MH	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	MJ	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	MK	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	ML	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	MM	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	MN	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	MP	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	MR	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	MS	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	MT	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	MU	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	MV	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	MW	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	MX	3	D5	CF	L TEST REG			0.1.3
6150	A3	02	NE	1	D5	CF	TEST MEM LIVE REG & ADR MATRIX			0.1.3

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-2	05/01/60	LOGIC
6150	A3	02	NY	1	D5	CF	TEST MEM ADR MATRIX 6	SW REG A		0.1.3
6150	A3	02	PY	1	D5	CF	TEST MEM ADR MATRIX 6	SW REG B		0.1.3
6150	A3	03	AF	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	AG	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	AH	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	AJ	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	AK	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	AL	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	AM	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	AN	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	AP	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	AR	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	AS	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	AT	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	AU	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	AV	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	AW	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	AX	3	D5	CF	REAL TIME CLOCK REG			0.2.6
6150	A3	03	MF	3	D5	CF	R TEST REG			0.1.3
6150	A3	03	MG	3	D5	CF	R TEST REG			0.1.3
6150	A3	03	MH	3	D5	CF	R TEST REG			0.1.3
6150	A3	03	MJ	3	D5	CF	R TEST REG			0.1.3
6150	A3	03	MK	3	D5	CF	R TEST REG			0.1.3
6150	A3	03	ML	3	D5	CF	R TEST REG			0.1.3
6150	A3	03	MM	3	D5	CF	R TEST REG			0.1.3
6150	A3	03	MN	3	D5	CF	R TEST REG			0.1.3
6150	A3	03	MP	3	D5	CF	R TEST REG			0.1.3
6150	A3	03	MR	3	D5	CF	R TEST REG			0.1.3
6150	A3		MS	3	D5	CF	R TEST REG			0.1.3
6150	A3	03	MT	3	D5	CF	R TEST REG			0.1.3
6150	A3	03	MU	3	D5	CF	R TEST REG			0.1.3
6150	A3		MV	3	D5	CF	R TEST REG			0.1.3
6150	A3	03	MW	3	D5	CF	R TEST REG			0.1.3
6150	A3	03	MX	3	D5	CF	R TEST REG			0.1.3
6150	A3	02	DY	2456	B6	CF	COMPARE			0.6.2
6150	A3		DY	2456	D5	LA	COMPARE			0.6.2
6150	A3		AE	4	D5	CF	REAL TIME CLOCK SYNC			0.2.6
6150	A4	06	BC	57	B5D5	CF	INDEX REG 162	COND MET		0.4.2
6150	A4	06	BF	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	BG	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	BH	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	BJ	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	BK	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	BL	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	BM	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	BN	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	BP	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	BR	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	BS	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	BT	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	BU	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	BV	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	BW	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	BX	57	B5D5	CF	INDEX REGS 162			0.4.2
6150	A4	06	AC	57	B5D5	CF	INDEX REGS 465	COND MET		0.4.2
6150	A4	06	AF	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	A4	06	AG	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	A4	06	AH	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	A4	06	AJ	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	A4	06	AK	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	A4	06	AL	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	A4	06	AM	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	A4	06	AN	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	A4	06	AP	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	A4	06	AR	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	A4	06	AS	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	A4	06	AT	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	A4	06	AU	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	A4	06	AV	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	A4	06	AW	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	A4	06	AX	57	B5D5	CF	INDEX REGS 465			0.4.2
6150	B1	02	EF	369	G5	CF	L ADDER			0.5.1-2
6150	B1	02	EG	369	G5	CF	L ADDER			0.5.1-2
6150	B1	02	EH	369	G5	CF	L ADDER			0.5.1-2
6150	B1	02	EJ	369	G5	CF	L ADDER			0.5.1-2
6150	B1	02	EK	369	G5	CF	L ADDER			0.5.1-2

MC-2

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-2	05/01/60	LOGIC
6150	B1	02	EL	569	G5	CF	L ADDER			0.5.1-2
6150	B1	02	EM	569	G5	CF	L ADDER			0.5.1-2
6150	B1	02	EN	569	G5	CF	L ADDER			0.5.1-2
6150	B1	02	EP	569	G5	CF	L ADDER			0.5.1-2
6150	B1	02	ER	569	G5	CF	L ADDER			0.5.1-2
6150	B1	02	ES	569	G5	CF	L ADDER			0.5.1-2
6150	B1	02	ET	569	G5	CF	L ADDER			0.5.1-2
6150	B1	02	EU	569	G5	CF	L ADDER			0.5.1-2
6150	B1	02	EV	569	G5	CF	L ADDER			0.5.1-2
6150	B1	02	EW	569	G5	CF	L ADDER			0.5.1-2
6150	B1	02	EX	569	G5	CF	L ADDER			0.5.1-2
6150	B1	03	EG	569	G5	CF	R ADDER			0.5.2-2
6150	B1	03	EH	569	G5	CF	R ADDER			0.5.2-2
6150	B1	03	EJ	569	G5	CF	R ADDER			0.5.2-2
6150	B1	03	EK	569	G5	CF	R ADDER			0.5.2-2
6150	B1	03	EL	569	G5	CF	R ADDER			0.5.2-2
6150	B1	03	EM	569	G5	CF	R ADDER			0.5.2-2
6150	B1	03	EN	569	G5	CF	R ADDER			0.5.2-2
6150	B1	03	EP	569	G5	CF	R ADDER			0.5.2-2
6150	B1	03	ER	569	G5	CF	R ADDER			0.5.2-2
6150	B1	03	ES	569	G5	CF	R ADDER			0.5.2-2
6150	B1	03	ET	569	G5	CF	R ADDER			0.5.2-2
6150	B1	03	EU	569	G5	CF	R ADDER			0.5.2-2
6150	B1	03	EV	569	G5	CF	R ADDER			0.5.2-2
6150	B1	03	EW	569	G5	CF	R ADDER			0.5.2-2
6150	B1	03	EX	569	G5	CF	R ADDER			0.5.2-2
6150	C1	02	NF	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	NG	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	NH	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	NJ	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	NK	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	NL	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	NM	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	NN	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	NP	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	NR	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	NS	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	NT	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	NU	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	NV	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	NW	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	NX	1	D5	CF	L TEST MEM OUTPUT			0.1.3
6150	C1	02	PF	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	C1	02	PG	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	C1	02	PH	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	C1	02	PJ	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	C1	02	PK	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	C1	02	PL	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	C1	02	PM	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	C1	02	PN	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	C1	02	PP	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	C1	02	PR	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	C1	02	PS	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	C1	02	PT	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	C1	02	PU	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	C1	02	PV	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	C1	02	PW	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	C1	02	PX	1	D5	CF	R TEST MEM OUTPUT			0.1.3
6150	E1	03	AY	3	D5	ST	REAL TIME CLOCK OSC			0.2.6
690	A1	02	CE	7	G5	GT	L ACC TO L MEM BUF	5 BIT		0.5.1-2
690	A1	02	CG	3	B5	GT	L ACC TO L MEM BUF			0.5.1-2
690	A1	02	CH	3	B5	GT	L ACC TO L MEM BUF			0.5.1-2
690	A1	02	CJ	3	B5	GT	L ACC TO L MEM BUF			0.5.1-2
690	A1	02	CK	3	B5	GT	L ACC TO L MEM BUF			0.5.1-2
690	A1	02	CL	3	B5	GT	L ACC TO L MEM BUF			0.5.1-2
690	A1	02	CM	3	B5	GT	L ACC TO L MEM BUF			0.5.1-2
690	A1	02	CN	3	B5	GT	L ACC TO L MEM BUF			0.5.1-2
690	A1	02	CP	3	B5	GT	L ACC TO L MEM BUF			0.5.1-2
690	A1	02	CR	3	B5	GT	L ACC TO L MEM BUF			0.5.1-2
690	A1	02	CS	3	B5	GT	L ACC TO L MEM BUF			0.5.1-2
690	A1	02	CT	3	B5	GT	L ACC TO L MEM BUF			0.5.1-2
690	A1	02	CU	3	B5	GT	L ACC TO L MEM BUF			0.5.1-2
690	A1	02	CV	3	B5	GT	L ACC TO L MEM BUF			0.5.1-2

MC-2

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-2	05/01/60	LOGIC
690	A1	03	CV	3	B5	GT	R ACC TO R MEM BUF			0.5.2-2
690	A1	03	CW	3	B5	GT	R ACC TO R MEM BUF			0.5.2-2
690	A1	03	CX	3	B5	GT	R ACC TO R MEM BUF			0.5.2-2
690	A1	03	FE	3	B5	GT	R A REG TO R MEM BUF			0.5.2
690	A1	03	MF	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	MG	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	MH	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	MJ	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	MK	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	ML	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	MM	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	NN	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	MP	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	MR	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	MS	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	MT	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	MU	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	MV	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	MW	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	MX	5	D6	GT	R TEST REG TO R MEM BUF			0.1.3
690	A1	03	FG	1	B6	GT	R A REG TO R MEM BFR			0.5.2
690	A1	03	FH	1	B6	GT	R A REG TO R MEM BFR			0.5.2
690	A1	03	FJ	1	B6	GT	R A REG TO R MEM BFR			0.5.2
690	A1	03	FK	1	B6	GT	R A REG TO R MEM BFR			0.5.2
690	A1	03	FL	1	B6	GT	R A REG TO R MEM BFR			0.5.2
690	A1	03	FM	1	B6	GT	R A REG TO R MEM BFR			0.5.2
690	A1	03	FN	1	B6	GT	R A REG TO R MEM BFR			0.5.2
690	A1	03	FP	1	B6	GT	R A REG TO R MEM BFR			0.5.2
690	A1	03	FR	1	B6	GT	R A REG TO R MEM BFR			0.5.2
690	A1	03	FS	1	B6	GT	R A REG TO R MEM BFR			0.5.2
690	A1	03	FT	1	B6	GT	R A REG TO R MEM BFR			0.5.2
690	A1	03	FU	1	B6	GT	R A REG TO R MEM BFR			0.5.2
690	A1	03	FV	1	B6	GT	R A REG TO R MEM BFR			0.5.2
690	A1	03	FW	1	B6	GT	R A REG TO R MEM BFR			0.5.2
690	A1	03	FX	1	B6	GT	R A REG TO R MEM BFR			0.5.2
690	A2	02	BE	5	D5	GT	L B REG ROUND OFF			0.5.1-3
690	A2	02	CE	6	D6	GT	L ACC BFM CONDITION MET			0.5.1-2
690	A2	02	DE	12789	B5D6G67	GT	L ACC END EFFECTS EXCEPT BFM GT			0.5.1-2
690	A2	02	EC	7	D6	GT	L ADDER END EFFECTS AUX OFLOW			0.5.1-2
690	A2	02	ED	78	D6G6	GT	L ADDER END EFFECTS DIVIDE CONN			0.5.1-2
690	A2	02	EE	789	D6G67	GT	L ADDER END EFFECTS CARRY STORE			0.5.1-2
690	A2	02	FE	4	B6	GT	L A REG TO L ACC SIGN CONTROL			0.5.1
690	A2	02	FE	59	D5G7	GT	L A REG TO L ADDER DSL			0.5.1
690	A2	02	JF	3	D5	GT	L MEM BUF TO I-O REG PARITY			0.1.1
690	A2	02	JF	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	02	JG	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	02	JH	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	02	JJ	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	02	JK	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	02	JL	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	02	JM	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	02	JN	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	02	JP	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	02	JR	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	02	JS	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	02	JT	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	02	JU	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	02	JV	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	02	JW	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	02	JX	4578	G56	GT	L MBR TO L _A A _B I-O & TEST REGS			0.1.1
690	A2	03	BD	79	D6G7	GT	R B REG END EFFECTS			0.5.2-3
690	A2	03	BE	5	D5	GT	R B REG ROUND OFF			0.5.2-3
690	A2	03	CE	6	D6	GT	R A C END EFFECTS			0.5.2-2
690	A2	03	DE	12789	B5D6G67	GT	R ACC END EFFECTS			0.5.2-2
690	A2	03	EC	7	D6	GT	R ADDER END EFFECTS			0.5.2-2
690	A2	03	ED	78	D6G6	GT	R ADDER END EFFECTS			0.5.2-2
690	A2	03	EE	2789	B5D6G67	GT	R ADDER END EFFECTS			0.5.2-2
690	A2	03	FE	4	B6	GT	R A REG TO SIGN CNTRL R ACC			0.5.2
690	A2	03	FE	59	D5G7	GT	R A REG END EFFECTS TO R ADDER			0.5.2
690	A2	03	JF	4578	G56	GT	R MBR TO R _A A _B I-O & TEST REGS			0.1.2
690	A2	03	JG	4578	G56	GT	R MBR TO R _A A _B I-O & TEST REGS			0.1.2
690	A2	03	JH	4578	G56	GT	R MBR TO R _A A _B I-O & TEST REGS			0.1.2
690	A2	03	JJ	4578	G56	GT	R MBR TO R _A A _B I-O & TEST REGS			0.1.2
690	A2	03	JK	4578	G56	GT	R MBR TO R _A A _B I-O & TEST REGS			0.1.2
690	A2	03	JL	4578	G56	GT	R MBR TO R _A A _B I-O & TEST REGS			0.1.2
690	A2	03	JM	4578	G56	GT	R MBR TO R _A A _B I-O & TEST REGS			0.1.2
690	A2	03	JN	4578	G56	GT	R MBR TO R _A A _B I-O & TEST REGS			0.1.2
690	A2	03	JP	4578	G56	GT	R MBR TO R _A A _B I-O & TEST REGS			0.1.2

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-2	05/01/60	LOGIC
690	A2	03	JR	4578	G56	GT R MBR TO R _A B ₁ -0	6	TEST REGS	0.1.2
690	A2	03	JS	4578	G56	GT R MBR TO R _A B ₁ -0	6	TEST REGS	0.1.2
690	A2	03	JT	4578	G56	GT R MBR TO R _A B ₁ -0	6	TEST REGS	0.1.2
690	A2	02	JU	4578	G56	GT R MBR TO R _A B ₁ -0	6	TEST REGS	0.1.2
690	A2	03	JV	4578	G56	GT R MBR TO R _A B ₁ -0	6	TEST REGS	0.1.2
690	A2	03	JW	4578	G56	GT R MBR TO R _A B ₁ -0	6	TEST REGS	0.1.2
690	A2	03	JX	4578	G56	GT R MBR TO R _A B ₁ -0	6	TEST REGS	0.1.2
690	A3	02	BE	3	B5	GT L B REG S TO L A REG S			0.5.1-3
690	A3	02	BG	9	G7	GT L B REG TO L A REG			0.5.1-3
690	A3	02	BH	9	G7	GT L B REG TO L A REG			0.5.1-3
690	A3	02	BJ	9	G7	GT L B REG TO L A REG			0.5.1-3
690	A3	02	BK	9	G7	GT L B REG TO L A REG			0.5.1-3
690	A3	02	BL	9	G7	GT L B REG TO L A REG			0.5.1-3
690	A3	02	BM	9	G7	GT L B REG TO L A REG			0.5.1-3
690	A3	02	BN	9	G7	GT L B REG TO L A REG			0.5.1-3
690	A3	02	BP	9	G7	GT L B REG TO L A REG			0.5.1-3
690	A3	02	BR	9	G7	GT L B REG TO L A REG			0.5.1-3
690	A3	02	BS	9	G7	GT L B REG TO L A REG			0.5.1-3
690	A3	02	BT	9	G7	GT L B REG TO L A REG			0.5.1-3
690	A3	02	BU	9	G7	GT L B REG TO L A REG			0.5.1-3
690	A3	02	BV	9	G7	GT L B REG TO L A REG			0.5.1-3
690	A3	02	BW	9	G7	GT L B REG TO L A REG			0.5.1-3
690	A3	02	BX	9	G7	GT L B REG TO L A REG			0.5.1-3
690	A3	02	CE	9	G7	GT L ACC TO L B REG			0.5.1-2
690	A3	02	CG	5	D5	GT L ACC TO L B REG			0.5.1-2
690	A3	02	CH	5	D5	GT L ACC TO L B REG			0.5.1-2
690	A3	02	CJ	5	D5	GT L ACC TO L B REG			0.5.1-2
690	A3	02	CK	5	D5	GT L ACC TO L B REG			0.5.1-2
690	A3	02	CL	5	D5	GT L ACC TO L B REG			0.5.1-2
690	A3	02	CM	5	D5	GT L ACC TO L B REG			0.5.1-2
690	A3	02	CN	5	D5	GT L ACC TO L B REG			0.5.1-2
690	A3	02	CP	5	D5	GT L ACC TO L B REG			0.5.1-2
690	A3	02	CR	5	D5	GT L ACC TO L B REG			0.5.1-2
690	A3	02	CS	5	D5	GT L ACC TO L B REG			0.5.1-2
690	A3	02	CT	5	D5	GT L ACC TO L B REG			0.5.1-2
690	A3	02	CU	5	D5	GT L ACC TO L B REG			0.5.1-2
690	A3	02	CV	5	D5	GT L ACC TO L B REG			0.5.1-2
690	A3	02	CW	5	D5	GT L ACC TO L B REG			0.5.1-2
690	A3	02	CX	5	D5	GT L ACC TO L B REG			0.5.1-2
690	A3	02	FE	7	G5	GT L A REG TO L ACC			0.5.1
690	A3	02	FG	2	D6	GT L A REG TO L ACC			0.5.1
690	A3	02	FH	2	D6	GT L A REG TO L ACC			0.5.1
690	A3	02	FJ	2	D6	GT L A REG TO L ACC			0.5.1
690	A3	02	FK	2	D6	GT L A REG TO L ACC			0.5.1
690	A3	02	FL	2	D6	GT L A REG TO L ACC			0.5.1
690	A3	02	FM	2	D6	GT L A REG TO L ACC			0.5.1
690	A3	02	FN	2	D6	GT L A REG TO L ACC			0.5.1
690	A3	02	FP	2	D6	GT L A REG TO L ACC			0.5.1
690	A3	02	FR	2	D6	GT L A REG TO L ACC			0.5.1
690	A3	02	FS	2	D6	GT L A REG TO L ACC			0.5.1
690	A3	02	FT	2	D6	GT L A REG TO L ACC			0.5.1
690	A3	02	FU	2	D6	GT L A REG TO L ACC			0.5.1
690	A3	02	FV	2	D6	GT L A REG TO L ACC			0.5.1
690	A3	02	FX	2	D6	GT L A REG TO L ACC			0.5.1
690	A3	02	JF	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	02	JG	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	02	JH	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	02	JJ	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	02	JK	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	02	JL	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	02	JM	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	02	JN	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	02	JP	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	02	JR	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	02	JS	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	02	JT	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	02	JU	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	02	JV	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	02	JW	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	02	JX	9	G7	GT L MEM BUF TO R A REG			0.1.1
690	A3	03	BE	3	B5	GT R B REG TO R A REG			0.5.2-3
690	A3	03	BG	9	G7	GT R B REG TO R A REG			0.5.2-3
690	A3	03	BH	9	G7	GT R B REG TO R A REG			0.5.2-3
690	A3	03	BJ	9	G7	GT R B REG TO R A REG			0.5.2-3
690	A3	03	BK	9	G7	GT R B REG TO R A REG			0.5.2-3
690	A3	03	BL	9	G7	GT R B REG TO R A REG			0.5.2-3
690	A3	03	BM	9	G7	GT R B REG TO R A REG			0.5.2-3
690	A3	03	BN	9	G7	GT R B REG TO R A REG			0.5.2-3

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V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-2	05/01/60	LOGIC
690	A3	03	BP	9	G7	GT R B REG TO R A REG			0.5.2-3
690	A3	03	BR	9	G7	GT R B REG TO R A REG			0.5.2-3
690	A3	03	BS	9	G7	GT R B REG TO R A REG			0.5.2-3
690	A3	03	BT	9	G7	GT R B REG TO R A REG			0.5.2-3
690	A3	03	BU	9	G7	GT R B REG TO R A REG			0.5.2-3
690	A3	03	BV	9	G7	GT R B REG TO R A REG			0.5.2-3
690	A3	03	BW	9	G7	GT R B REG TO R A REG			0.5.2-3
690	A3	03	BX	9	G7	GT R B REG TO R A REG			0.5.2-3
690	A3	03	CE	9	G7	GT R ACC TO R B REG			0.5.2-2
690	A3	03	CG	5	D5	GT R ACC TO R B REG			0.5.2-2
690	A3	03	CH	5	D5	GT R ACC TO R B REG			0.5.2-2
690	A3	03	CJ	5	D5	GT R ACC TO R B REG			0.5.2-2
690	A3	03	CK	5	D5	GT R ACC TO R B REG			0.5.2-2
690	A3	03	CL	5	D5	GT R ACC TO R B REG			0.5.2-2
690	A3	03	CM	5	D5	GT R ACC TO R B REG			0.5.2-2
690	A3	03	CN	5	D5	GT R ACC TO R B REG			0.5.2-2
690	A3	03	CP	5	D5	GT R ACC TO R B REG			0.5.2-2
690	A3	03	CR	5	D5	GT R ACC TO R B REG			0.5.2-2
690	A3	03	CS	5	D5	GT R ACC TO R B REG			0.5.2-2
690	A3	03	CT	5	D5	GT R ACC TO R B REG			0.5.2-2
690	A3	03	CU	5	D5	GT R ACC TO R B REG			0.5.2-2
690	A3	03	CV	5	D5	GT R ACC TO R B REG			0.5.2-2
690	A3	03	CW	5	D5	GT R ACC TO R B REG			0.5.2-2
690	A3	03	CX	5	D5	GT R ACC TO R B REG			0.5.2-2
690	A3	03	FE	7	G5	GT R A REG TO R ACC			0.5.2
690	A3	03	FD	1	B6	GT R A REG LS TO L MEM BFR S			0.5.2
690	A3	03	FG	2	D6	GT R A REG TO R ACC			0.5.2
690	A3	03	FH	2	D6	GT R A REG TO R ACC			0.5.2
690	A3	03	FJ	2	D6	GT R A REG TO R ACC			0.5.2
690	A3	03	FK	2	D6	GT R A REG TO R ACC			0.5.2
690	A3	03	FL	2	D6	GT R A REG TO R ACC			0.5.2
690	A3	03	FN	2	D6	GT R A REG TO R ACC			0.5.2
690	A3	03	FP	2	D6	GT R A REG TO R ACC			0.5.2
690	A3	03	FR	2	D6	GT R A REG TO R ACC			0.5.2
690	A3	03	FS	2	D6	GT R A REG TO R ACC			0.5.2
690	A3	03	FT	2	D6	GT R A REG TO R ACC			0.5.2
690	A3	03	FU	2	D6	GT R A REG TO R ACC			0.5.2
690	A3	03	FV	2	D6	GT R A REG TO R ACC			0.5.2
690	A3	03	FW	2	D6	GT R A REG TO R ACC			0.5.2
690	A3	02	GD	36	B6G6	GT MEM 6 I-O PAR ALARM			0.1.1
690	A3	03	FX	2	D6	GT R A REG TO R ACC			0.5.2
690	A4	06	DC	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DF	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DG	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DH	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DJ	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DK	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DL	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DM	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DN	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DP	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DR	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DS	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DT	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DU	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DV	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DW	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	DX	5	G5	GT ADR REG TO R A REG			0.4.1
690	A4	06	EF	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	A4	06	EG	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	A4	06	EH	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	A4	06	EJ	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	A4	06	EK	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	A4	06	EL	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	A4	06	EM	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	A4	06	EN	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	A4	06	EP	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	A4	06	ER	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	A4	06	ES	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	A4	06	ET	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	A4	06	EU	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	A4	06	EV	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	A4	06	EW	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	A4	06	EX	2345	B6D56	GT ADR REG TO INDEX REG 1 2 4 6 5			0.4.1
690	B1	02	EF	123	B56D5	GT L ADDER CARRY GT EVEN BITS			0.5.1-2

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-2	05/01/60	LOGIC
690	B1	02	EH	123	B56D5	GT	L ADDER CARRY	GT	EVEN BITS	0.5.1-2
690	B1	02	EK	123	B56D5	GT	L ADDER CARRY	GT	EVEN BITS	0.5.1-2
690	B1	02	EM	123	B56D5	GT	L ADDER CARRY	GT	EVEN BITS	0.5.1-2
690	B1	02	EP	123	B6	GT	L ADDER CARRY	GT	EVEN BITS	0.5.1-2
690	B1	02	ES	123	B56D5	GT	L ADDER CARRY	GT	EVEN BITS	0.5.1-2
690	B1	02	EU	123	B56D5	GT	L ADDER CARRY	GT	EVEN BITS	0.5.1-2
690	B1	02	EW	123	B56D5	GT	R ADDER CARRY	GT	EVEN BITS	0.5.1-2
690	B1	03	EF	1-2	B56D5	GT	R ADDER CARRY	GT	EVEN BITS	0.5.2-2
690	B1	03	EH	123	B56D5	GT	R ADDER CARRY	GT	EVEN BITS	0.5.2-2
690	B1	03	EK	123	B56D5	GT	R ADDER CARRY	GT	EVEN BITS	0.5.2-2
690	B1	03	EM	123	B56D5	GT	R ADDER CARRY	GT	EVEN BITS	0.5.2-2
690	B1	03	EP	123	B6	GT	R ADDER CARRY	GT	EVEN BITS	0.5.2-2
690	B1	03	ES	123	B56D5	GT	R ADDER CARRY	GT	EVEN BITS	0.5.2-2
690	B1	03	EU	123	B56D5	GT	R ADDER CARRY	GT	EVEN BITS	0.5.2-2
690	B1	03	EW	123	B56D5	GT	R ADDER CARRY	GT	EVEN BITS	0.5.2-2
690	B2	03	AY	6	D6	GT	REAL TIME CLOCK OSC OUTPUT			0.2.6
690	B2	03	AD	26	B6D6	GT	REAL TIME CLOCK FREQ DIV GT 2 4			0.2.6
690	B2	03	AF	4	B5	GT	REAL TIME CL REG CARRY EVEN BIT			0.2.6
690	B2	03	AH	4	B5	GT	REAL TIME CL REG CARRY EVEN BIT			0.2.6
690	B2	03	AK	4	B5	GT	REAL TIME CL REG CARRY EVEN BIT			0.2.6
690	B2	03	AM	4	B5	GT	REAL TIME CL REG CARRY EVEN BIT			0.2.6
690	B2	03	AP	4	B5	GT	REAL TIME CL REG CARRY EVEN BIT			0.2.6
690	B2	03	AS	4	B5	GT	REAL TIME CL REG CARRY EVEN BIT			0.2.6
690	B2	03	AU	4	B5	GT	REAL TIME CL REG CARRY EVEN BIT			0.2.6
690	B2	03	AW	4	B5	GT	REAL TIME CL REG CARRY EVEN BIT			0.2.6
690	B3	02	CF	7	G6	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B3	02	CG	8	G6	GT	L ACC ODD BITS DSR			0.5.1-2
690	B3	02	CH	8	G6	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B3	02	CJ	8	G6	GT	L ACC ODD BITS DSR			0.5.1-2
690	B3	02	CK	8	G6	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B3	02	CL	8	G6	GT	L ACC ODD BITS DSR			0.5.1-2
690	B3	02	CM	8	G6	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B3	02	CN	8	G6	GT	L ACC ODD BITS DSR			0.5.1-2
690	B3	02	CP	8	G6	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B3	02	CR	8	G6	GT	L ACC ODD BITS DSR			0.5.1-2
690	B3	02	CS	8	G6	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B3	02	CT	8	G6	GT	L ACC ODD BITS DSR			0.5.1-2
690	B3	02	CU	8	G6	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B3	02	CV	8	G6	GT	L ACC ODD BITS DSR			0.5.1-2
690	B3	02	CW	8	G6	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B3	02	CX	8	G6	GT	L ACC 15 TO LB REG S DRS			0.5.1-2
690	B3	03	CF	7	G6	GT	R ACC EVEN BITS DSR			0.5.2-2
690	B3	03	CG	8	G6	GT	R ACC ODD BITS DSR			0.5.2-2
690	B3	03	CH	8	G6	GT	R ACC EVEN BITS DSR			0.5.2-2
690	B3	03	CJ	8	G6	GT	R ACC ODD BITS DSR			0.5.2-2
690	B3	03	CK	8	G6	GT	R ACC EVEN BITS DSR			0.5.2-2
690	B3	03	CL	8	G6	GT	R ACC ODD BITS DSR			0.5.2-2
690	B3	03	CM	8	G6	GT	R ACC EVEN BITS DSR			0.5.2-2
690	B3	03	CN	8	G6	GT	R ACC ODD BITS DSR			0.5.2-2
690	B3	03	CP	8	G6	GT	R ACC EVEN BITS DSR			0.5.2-2
690	B3	03	CR	8	G6	GT	R ACC ODD BITS DSR			0.5.2-2
690	B3	03	CS	8	G6	GT	R ACC EVEN BITS DSR			0.5.2-2
690	B3	03	CT	8	G6	GT	R ACC ODD BITS DSR			0.5.2-2
690	B3	03	CU	8	G6	GT	R ACC EVEN BITS DSR			0.5.2-2
690	B3	03	CV	8	G6	GT	R ACC ODD BITS DSR			0.5.2-2
690	B3	03	CW	8	G6	GT	R ACC EVEN BITS DSR			0.5.2-2
690	B3	03	CX	8	G6	GT	R ACC ODD BITS DSR			0.5.2-2
690	B4	02	EG	1-3	B56D5	GT	L ADDER CARRY GATE ODD BITS			0.5.1-2
690	B4	02	EJ	1-3	B56D5	GT	L ADDER CARRY GATE ODD BITS			0.5.1-2
690	B4	02	EL	1-3	B56D5	GT	L ADDER CARRY GATE ODD BITS			0.5.1-2
690	B4	02	EN	1-3	B6	GT	L ADDER CARRY GATE ODD BITS			0.5.1-2
690	B4	02	ER	1-3	B56D5	GT	L ADDER CARRY GATE ODD BITS			0.5.1-2
690	B4	02	ET	1-3	B56D5	GT	L ADDER CARRY GATE ODD BITS			0.5.1-2
690	B4	02	EV	1-3	B56D5	GT	L ADDER CARRY GATE ODD BITS			0.5.1-2
690	B4	03	EG	1-3	B56D5	GT	R ADDER CARRY GATE ODD BITS			0.5.2-2
690	B4	03	EJ	1-3	B56D5	GT	R ADDER CARRY GATE ODD BITS			0.5.2-2
690	B4	03	EL	1-3	B56D5	GT	R ADDER CARRY GATE ODD BITS			0.5.2-2
690	B4	03	EN	1-3	B6	GT	R ADDER CARRY GATE ODD BITS			0.5.2-2
690	B4	03	ER	1-3	B56D5	GT	R ADDER CARRY GATE ODD BITS			0.5.2-2
690	B4	03	ET	1-3	B56D5	GT	R ADDER CARRY GATE ODD BITS			0.5.2-2
690	B4	03	EV	1-3	B56D5	GT	R ADDER CARRY GATE ODD BITS			0.5.2-2
690	B5	03	AC	6	D5	GT	REAL TIME CLOCK FREQ DIV GT 1			0.2.6

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V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-2	05/01/60	LOGIC
690	B5	03	AD	4	D5	GT	REAL TIME CLOCK FREQ	DIV	GT 3	0.2.6
690	B5	03	AE	3	B6	GT	REL TIME CLOCK SYNC			0.2.6
690	B5	03	AG	4	B5	GT	REL TIME CLOCK CARRY	ODD BIT		0.2.6
690	B5	03	AJ	4	B5	GT	REL TIME CLOCK CARRY	ODD BIT		0.2.6
690	B5	03	AL	4	B5	GT	REL TIME CLOCK CARRY	ODD BIT		0.2.6
690	B5	03	AN	4	B5	GT	REL TIME CLOCK CARRY	ODD BIT		0.2.6
690	B5	03	AR	4	B5	GT	REL TIME CLOCK CARRY	ODD BIT		0.2.6
690	B5	03	AT	4	B5	GT	REL TIME CLOCK CARRY	ODD BIT		0.2.6
690	B5	03	AV	4	B5	GT	REL TIME CLOCK CARRY	ODD BIT		0.2.6
690	B5	03	AX	4	B5	GT	REL TIME CLOCK CARRY	ODD BIT		0.2.6
690	B5	03	AC	4	D6	GT	REAL TIME CLOCK SYNC			0.2.6
690	B6	02	CF	9	G7	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B6	02	CG	9	G7	GT	L ACC ODD BITS DSR			0.5.1-2
690	B6	02	CH	9	G7	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B6	02	CJ	9	G7	GT	L ACC ODD BITS DSR			0.5.1-2
690	B6	02	CK	9	G7	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B6	02	CL	9	G7	GT	L ACC ODD BITS DSR			0.5.1-2
690	B6	02	CM	9	G7	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B6	02	CN	9	G7	GT	L ACC ODD BITS DSR			0.5.1-2
690	B6	02	CP	9	G7	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B6	02	CR	9	G7	GT	L ACC ODD BITS DSR			0.5.1-2
690	B6	02	CS	9	G7	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B6	02	CT	9	G7	GT	L ACC ODD BITS DSR			0.5.1-2
690	B6	02	CU	9	G7	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B6	02	CV	9	G7	GT	L ACC ODD BITS DSR			0.5.1-2
690	B6	02	CW	9	G7	GT	L ACC EVEN BITS DSR			0.5.1-2
690	B6	02	CX	9	G7	GT	L ACC ODD BITS DSR			0.5.1-2
690	B6	02	CX	9	G7	GT	L ACC 15 TO L8 REG S DSR			0.5.1-2
690	B6	03	CF	9	G7	GT	R ACC EVEN BITS DSR			0.5.2-2
690	B6	03	CG	9	G7	GT	R ACC ODD BITS DSR			0.5.2-2
690	B6	03	CH	9	G7	GT	R ACC EVEN BITS DSR			0.5.2-2
690	B6	03	CJ	9	G7	GT	R ACC ODD BITS DSR			0.5.2-2
690	B6	03	CK	9	G7	GT	R ACC EVEN BITS DSR			0.5.2-2
690	B6	03	CL	9	G7	GT	R ACC ODD BITS DSR			0.5.2-2
690	B6	03	CM	9	G7	GT	R ACC EVEN BITS DSR			0.5.2-2
690	B6	03	CN	9	G7	GT	R ACC ODD BITS DSR			0.5.2-2
690	B6	03	CR	9	G7	GT	R ACC EVEN BITS DSR			0.5.2-2
690	B6	03	CS	9	G7	GT	R ACC ODD BITS DSR			0.5.2-2
690	B6	03	CT	9	G7	GT	R ACC EVEN BITS DSR			0.5.2-2
690	B6	03	CU	9	G7	GT	R ACC ODD BITS DSR			0.5.2-2
690	B6	03	CV	9	G7	GT	R ACC EVEN BITS DSR			0.5.2-2
690	B6	03	CW	9	G7	GT	R ACC ODD BITS DSR			0.5.2-2
690	B6	03	CX	9	G7	GT	R ACC EVEN BITS DSR			0.5.2-2
690	C1	02	BD	79	D6G7	GT	L B REG S STORE			0.5.1-3
690	C1	02	BE	89	G67	GT	L B REG S TO S STORE			0.5.1-3
690	C1	02	BE	2467	B6D6G5	GT	L B REG DSL DSR			0.5.1-3
690	C1	02	BG	4678	B56G56	GT	LB REG DSL 6 DSR			0.5.1-3
690	C1	02	BH	4678	B56G56	GT	LB REG DSL 6 DSR			0.5.1-3
690	C1	02	BJ	4678	B56G56	GT	LB REG DSL 6 DSR			0.5.1-3
690	C1	02	BK	4678	B56G56	GT	LB REG DSL 6 DSR			0.5.1-3
690	C1	02	BL	4678	B56G56	GT	LB REG DSL 6 DSR			0.5.1-3
690	C1	02	BM	4678	B56G56	GT	LB REG DSL 6 DSR			0.5.1-3
690	C1	02	BN	4678	B56G56	GT	LB REG DSL 6 DSR			0.5.1-3
690	C1	02	BP	4678	B56G56	GT	LB REG DSL 6 DSR			0.5.1-3
690	C1	02	BR	4678	B56G56	GT	LB REG DSL 6 DSR			0.5.1-3
690	C1	02	BS	4678	B56G56	GT	LB REG DSL 6 DSR			0.5.1-3
690	C1	02	BT	4678	B56G56	GT	LB REG DSL 6 DSR			0.5.1-3
690	C1	02	BU	4678	B56G56	GT	LB REG DSL 6 DSR			0.5.1-3
690	C1	02	BV	4678	B56G56	GT	LB REG DSL 6 DSR			0.5.1-3
690	C1	02	BW	4678	B56G56	GT	LB REG DSL 6 DSR			0.5.1-3
690	C1	02	BX	4678	B56G56	GT	LB REG DSL 6 DSR			0.5.1-3
690	C1	02	CE	345	B56D5	GT	L ACC D S L			0.5.1-2
690	C1	02	CF	123	D56	GT	L ACC D S L			0.5.1-2
690	C1	02	CG	67	D6G5	GT	L ACC D S L			0.5.1-2
690	C1	02	CH	67	D6G5	GT	L ACC D S L			0.5.1-2
690	C1	02	CJ	67	D6G5	GT	L ACC D S L			0.5.1-2
690	C1	02	CK	67	D6G5	GT	L ACC D S L			0.5.1-2
690	C1	02	CL	67	D6G5	GT	L ACC D S L			0.5.1-2
690	C1	02	CM	67	D6G5	GT	L ACC D S L			0.5.1-2
690	C1	02	CN	67	D6G5	GT	L ACC D S L			0.5.1-2
690	C1	02	CP	67	D6G5	GT	L ACC D S L			0.5.1-2
690	C1	02	CR	67	D6G5	GT	L ACC D S L			0.5.1-2
690	C1	02	CS	67	D6G5	GT	L ACC D S L			0.5.1-2
690	C1	02	CT	67	D6G5	GT	L ACC D S L			0.5.1-2
690	C1	02	CU	67	D6G5	GT	L ACC D S L			0.5.1-2
690	C1	02	CV	67	D6G5	GT	L ACC D S L			0.5.1-2
690	C1	02	CW	67	D6G5	GT	L ACC D S L			0.5.1-2

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-2	05/01/60	LOGIC
690	C1	02	CX	67	D6G5	GT L ACC D S L			0.5.1-2
690	C1	03	BG	4678	B56G56	GT RB REG DSL & DSR			0.5.2-3
690	C1	03	BH	4678	B56G56	GT RB REG DSL & DSR			0.5.2-3
690	C1	03	BJ	4678	B56G56	GT RB REG DSL & DSR			0.5.2-3
690	C1	03	BK	4678	B56G56	GT RB REG DSL & DSR			0.5.2-3
690	C1	03	BL	4678	B56G56	GT RB REG DSL & DSR			0.5.2-3
690	C1	03	BH	4678	B56G56	GT RB REG DSL & DSR			0.5.2-3
690	C1	03	BH	4678	B56G56	GT RB REG DSL & DSR			0.5.2-3
690	C1	03	BP	4678	B56G56	GT RB REG DSL & DSR			0.5.2-3
690	C1	03	BR	4678	B56G56	GT RB REG DSL & DSR			0.5.2-3
690	C1	03	BS	4678	B56G56	GT RB REG DSL & DSR			0.5.2-3
690	C1	03	BT	4678	B56G56	GT RB REG DSL & DSR			0.5.2-3
690	C1	03	BU	4678	B56G56	GT RB REG DSL & DSR			0.5.2-3
690	C1	03	BV	4678	B56G56	GT RB REG DSL & DSR			0.5.2-3
690	C1	03	BW	4678	B56G56	GT RB REG DSL & DSR			0.5.2-3
690	C1	03	BX	4678	B56G56	GT RB REG DSL & DSR			0.5.2-3
690	C1	03	BE	24	B6	GT R B REG SHIFT RIGHT			0.5.2-3
690	C1	03	BE	89	G67	GT R B REG S TO R B REG S STORE			0.5.2-3
690	C1	03	BE	67	D6G5	GT R B REG SHIFT LEFT			0.5.2-3
690	C1	03	CE	3	B5	GT R ACC S TO L ACC 15 FCL			0.5.2-2
690	C1	03	CE	45	B6D5	GT R ACC TO R B REG 15 & R ACC 15			0.5.2-2
690	C1	03	CF	123	D56	GT R ACC S TO ACC 15 & R B REG 15			0.5.2-2
690	C1	03	CG	67	D6G5	GT R ACC D S L			0.5.2-2
690	C1	03	CH	67	D6G5	GT R ACC D S L			0.5.2-2
690	C1	03	CJ	67	D6G5	GT R ACC D S L			0.5.2-2
690	C1	03	CK	67	D6G5	GT R ACC D S L			0.5.2-2
690	C1	03	CL	67	D6G5	GT R ACC D S L			0.5.2-2
690	C1	03	CM	67	D6G5	GT R ACC D S L			0.5.2-2
690	C1	03	CN	67	D6G5	GT R ACC D S L			0.5.2-2
690	C1	03	CP	67	D6G5	GT R ACC D S L			0.5.2-2
690	C1	03	CR	67	D6G5	GT R ACC D S L			0.5.2-2
690	C1	03	CS	67	D6G5	GT R ACC D S L			0.5.2-2
690	C1	03	CT	67	D6G5	GT R ACC D S L			0.5.2-2
690	C1	03	CU	67	D6G5	GT R ACC D S L			0.5.2-2
690	C1	03	CV	67	D6G5	GT R ACC D S L			0.5.2-2
690	C1	03	CW	67	D6G5	GT R ACC D S L			0.5.2-2
690	C1	03	CX	67	D6G5	GT R ACC D S L			0.5.2-2
690	C2	02	EF	478	D6G67	GT L ADDER CARRY GT EVEN BITS			0.5.1-2
690	C2	02	EH	478	D6G67	GT L ADDER CARRY GT EVEN BITS			0.5.1-2
690	C2	02	EK	478	D6G67	GT L ADDER CARRY GT EVEN BITS			0.5.1-2
690	C2	02	EM	478	D6G67	GT L ADDER CARRY GT EVEN BITS			0.5.1-2
690	C2	02	EP	478	B6	GT L ADDER CARRY GT EVEN BITS			0.5.1-2
690	C2	02	ES	478	D6G67	GT L ADDER CARRY GT EVEN BITS			0.5.1-2
690	C2	02	EU	478	D6G67	GT L ADDER CARRY GT EVEN BITS			0.5.1-2
690	C2	02	EW	478	D6G67	GT L ADDER CARRY GT EVEN BITS			0.5.1-2
690	C2	03	EF	478	D6G67	GT R ADDER CARRY GT EVEN BITS			0.5.2-2
690	C2	03	EH	478	D6G67	GT R ADDER CARRY GT EVEN BITS			0.5.2-2
690	C2	03	EK	478	D6G67	GT R ADDER CARRY GT EVEN BITS			0.5.2-2
690	C2	03	EM	478	D6G67	GT R ADDER CARRY GT EVEN BITS			0.5.2-2
690	C2	03	EP	478	B6	GT R ADDER CARRY GT EVEN BITS			0.5.2-2
690	C2	03	ES	478	D6G67	GT R ADDER CARRY GT EVEN BITS			0.5.2-2
690	C2	03	EU	478	D6G67	GT R ADDER CARRY GT EVEN BITS			0.5.2-2
690	C2	03	EW	478	D6G67	GT R ADDER CARRY GT EVEN BITS			0.5.2-2
690	C3	02	EG	478	D6G67	GT L ADDER CARRY GATE ODD BITS			0.5.1-2
690	C3	02	EJ	478	D6G67	GT L ADDER CARRY GATE ODD BITS			0.5.1-2
690	C3	02	EL	478	D6G67	GT L ADDER CARRY GATE ODD BITS			0.5.1-2
690	C3	02	EN	478	B6	GT L ADDER CARRY GATE ODD BITS			0.5.1-2
690	C3	02	ER	478	D6G67	GT L ADDER CARRY GATE ODD BITS			0.5.1-2
690	C3	02	ET	478	DLG67	GT L ADDER CARRY GATE ODD BITS			0.5.1-2
690	C3	02	EV	478	D6G67	GT L ADDER CARRY GATE ODD BITS			0.5.1-2
690	C3	03	EG	478	D6G67	GT R ADDER CARRY GATE ODD BITS			0.5.2-2
690	C3	03	EJ	478	D6G67	GT R ADDER CARRY GATE ODD BITS			0.5.2-2
690	C3	03	EL	478	D6G67	GT R ADDER CARRY GATE ODD BITS			0.5.2-2
690	C3	03	EN	478	B6	GT R ADDER CARRY GATE ODD BITS			0.5.2-2
690	C3	03	ER	478	D6G67	GT R ADDER CARRY GATE ODD BITS			0.5.2-2
690	C3	03	ET	478	D6G67	GT R ADDER CARRY GATE ODD BITS			0.5.2-2
690	C3	03	EV	478	D6G67	GT R ADDER CARRY GATE ODD BITS			0.5.2-2
690	C4	02	EX	1-478	B56D56G67	GT L ADDER CARRY GATE ODD BITS			0.5.1-2
690	C4	03	EX	1-478	B56D56G67	GT R ADDER CARRY GATE ODD BITS			0.5.2-2
690	D1	03	CE	8	G6	GT R ACC TO R ADR REG			0.5.2-2
690	D1	03	CG	4	B6	GT R ACC TO R ADR REG			0.5.2-2
690	D1	03	CH	4	B6	GT R ACC TO R ADR REG			0.5.2-2

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V	C-L	FR	PU	TUBES	PINS,	TYPE	DESCRIPTION	MC-2	05/01/60	LOGIC
690	D1	03	CJ	4	B6	GT	R ACC TO R	ADR REG		0.5.2-2
690	D1	03	CK	4	B6	GT	R ACC TO R	ADR REG		0.5.2-2
690	D1	03	CL	4	B6	GT	R ACC TO R	ADR REG		0.5.2-2
690	D1	03	CM	4	B6	GT	R ACC TO R	ADR REG		0.5.2-2
690	D1	03	CN	4	B6	GT	R ACC TO R	ADR REG		0.5.2-2
690	D1	03	CP	4	B6	GT	R ACC TO R	ADR REG		0.5.2-2
690	D1	03	CR	4	B6	GT	R ACC TO R	ADR REG		0.5.2-2
690	D1	03	CS	4	B6	GT	R ACC TO R	ADR REG		0.5.2-2
690	D1	03	CT	4	B6	GT	R ACC TO R	ADR REG		0.5.2-2
690	D1	03	CU	4	B6	GT	R ACC TO R	ADR REG		0.5.2-2
690	D1	03	CV	4	B6	GT	R ACC TO R	ADR REG		0.5.2-2
690	D1	03	CW	4	B6	GT	R ACC TO R	ADR REG		0.5.2-2
690	D1	03	CX	4	B6	GT	R ACC TO R	ADR REG		0.5.2-2
690	D2	06	BC	36	B6G6	GT	INDEX REGS 1&2	COND MET		0.4.2
690	D2	06	BF	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	BG	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	BH	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	BJ	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	BK	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	BL	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	BM	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	BN	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	BP	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	BR	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	BS	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	BT	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	BU	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	BV	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	BW	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	BX	36	B6G6	GT	INDEX REGS 1&2	TO ADR REG		0.4.2
690	D2	06	AC	36	B6G6	GT	INDEX REGS 4&5	COND MET		0.4.2
690	D2	06	AF	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	AG	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	AH	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	AJ	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	AK	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	AL	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	AM	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	AN	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	AP	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	AR	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	AS	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	AT	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	AU	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	AV	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	AW	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	AX	36	B6G6	GT	INDEX REGS 4&5	TO ADR REG		0.4.2
690	D2	06	DC	1	B5	GT	ADR REG SELECT	MEM 1 OR 2		0.4.1
-150	A1	02	DF	89	D7	AFF	L ACC			0.5.1-2
-150	A1	02	DG	89	D7	AFF	L ACC			0.5.1-2
-150	A1	02	DH	89	D7	AFF	L ACC			0.5.1-2
-150	A1	02	DJ	89	D7	AFF	L ACC			0.5.1-2
-150	A1	02	DK	89	D7	AFF	L ACC			0.5.1-2
-150	A1	02	DL	89	D7	AFF	L ACC			0.5.1-2
-150	A1	02	DM	89	D7	AFF	L ACC			0.5.1-2
-150	A1	02	DN	89	D7	AFF	L ACC			0.5.1-2
-150	A1	02	DP	89	D7	AFF	L ACC			0.5.1-2
-150	A1	02	DR	89	D7	AFF	L ACC			0.5.1-2
-150	A1	02	DS	89	D7	AFF	L ACC			0.5.1-2
-150	A1	02	DT	89	D7	AFF	L ACC			0.5.1-2
-150	A1	02	DU	89	D7	AFF	L ACC			0.5.1-2
-150	A1	02	DV	89	D7	AFF	L ACC			0.5.1-2
-150	A1	02	DW	89	D7	AFF	L ACC			0.5.1-2
-150	A1	02	DX	89	D7	AFF	L ACC			0.5.1-2
-150	A1	03	DF	89	D7	AFF	R ACC			0.5.2-2
-150	A1	03	DG	89	D7	AFF	R ACC			0.5.2-2
-150	A1	03	DH	89	D7	AFF	R ACC			0.5.2-2
-150	A1	03	DJ	89	D7	AFF	R ACC			0.5.2-2
-150	A1	03	DK	89	D7	AFF	R ACC			0.5.2-2
-150	A1	03	DL	89	D7	AFF	R ACC			0.5.2-2
-150	A1	03	DM	89	D7	AFF	R ACC			0.5.2-2
-150	A1	03	DN	89	D7	AFF	R ACC			0.5.2-2
-150	A1	03	DP	89	D7	AFF	R ACC			0.5.2-2
-150	A1	03	DR	89	D7	AFF	R ACC			0.5.2-2
-150	A1	03	DS	89	D7	AFF	R ACC			0.5.2-2
-150	A1	03	DT	89	D7	AFF	R ACC			0.5.2-2

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-2	05/01/60	LOGIC
-150	A1	03	DU	89	D7	AFF R ACC			0.5+2-2
-150	A1	03	DV	89	D7	AFF R ACC			0.5+2-2
-150	A1	03	DW	89	D7	AFF R ACC			0.5+2-2
-150	A1	03	DX	89	D7	AFF R ACC			0.5+2-2
-150	A2	02	FF	89	D7	AFF L A REG			0.5+1
-150	A2	02	FG	78	D7	AFF L A REG			0.5+1
-150	A2	02	FH	78	D7	AFF L A REG			0.5+1
-150	A2	02	FJ	78	D7	AFF L A REG			0.5+1
-150	A2	02	FK	78	D7	AFF L A REG			0.5+1
-150	A2	02	FL	78	D7	AFF L A REG			0.5+1
-150	A2	02	FM	78	D7	AFF L A REG			0.5+1
-150	A2	02	FN	78	D7	AFF L A REG			0.5+1
-150	A2	02	FP	78	D7	AFF L A REG			0.5+1
-150	A2	02	FR	78	D7	AFF L A REG			0.5+1
-150	A2	02	FS	78	D7	AFF L A REG			0.5+1
-150	A2	02	FT	78	D7	AFF L A REG			0.5+1
-150	A2	02	FU	78	D7	AFF L A REG			0.5+1
-150	A2	02	FV	78	D7	AFF L A REG			0.5+1
-150	A2	02	FW	78	D7	AFF L A REG			0.5+1
-150	A2	02	FX	78	D7	AFF L A REG			0.5+1
-150	A2	03	FD	78	D7	AFF R A REG	L SIGN		0.5+2
-150	A2	03	FF	89	D7	AFF R A REG			0.5+2
-150	A2	03	FG	78	D7	AFF R A REG			0.5+2
-150	A2	03	FH	78	D7	AFF R A REG			0.5+2
-150	A2	03	FJ	78	D7	AFF R A REG			0.5+2
-150	A2	03	FK	78	D7	AFF R A REG			0.5+2
-150	A2	03	FL	78	D7	AFF R A REG			0.5+2
-150	A2	03	FM	78	D7	AFF R A REG			0.5+2
-150	A2	03	FN	78	D7	AFF R A REG			0.5+2
-150	A2	03	FP	78	D7	AFF R A REG			0.5+2
-150	A2	03	FR	78	D7	AFF R A REG			0.5+2
-150	A2	03	FS	78	D7	AFF R A REG			0.5+2
-150	A2	03	FT	78	D7	AFF R A REG			0.5+2
-150	A2	03	FU	78	D7	AFF R A REG			0.5+2
-150	A2	03	FV	78	D7	AFF R A REG			0.5+2
-150	A2	03	FW	78	D7	AFF R A REG			0.5+2
-150	A2	03	FX	78	D7	AFF R A REG			0.5+2
-150	A3	02	BF	89	D7	AFF L B REG			0.5+1-3
-150	A3	02	BG	12	B7	AFF L B REG			0.5+1-3
-150	A3	02	BH	12	B7	AFF L B REG			0.5+1-3
-150	A3	02	BJ	12	B7	AFF L B REG			0.5+1-3
-150	A3	02	BK	12	B7	AFF L B REG			0.5+1-3
-150	A3	02	BL	12	B7	AFF L B REG			0.5+1-3
-150	A3	02	BM	12	B7	AFF L B REG			0.5+1-3
-150	A3	02	BN	12	B7	AFF L B REG			0.5+1-3
-150	A3	02	BP	12	B7	AFF L B REG			0.5+1-3
-150	A3	02	BR	12	B7	AFF L B REG			0.5+1-3
-150	A3	02	BS	12	B7	AFF L B REG			0.5+1-3
-150	A3	02	BT	12	B7	AFF L B REG			0.5+1-3
-150	A3	02	BU	12	B7	AFF L B REG			0.5+1-3
-150	A3	02	BV	12	B7	AFF L B REG			0.5+1-3
-150	A3	02	BW	12	B7	AFF L B REG			0.5+1-3
-150	A3	02	BX	12	B7	AFF L B REG			0.5+1-3
-150	A3	02	MF	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	MG	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	MH	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	MJ	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	MK	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	ML	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	MM	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	MN	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	MP	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	MR	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	MS	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	MT	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	MU	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	MV	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	MW	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	MX	12	B7	AFF L TEST REG			0.1+3
-150	A3	02	NC	12	B7	AFF L TEST MEM ADR REG			0.1+3
-150	A3	02	ND	12	B7	AFF L TEST MEM ADR REG			0.1+3
-150	A3	02	PC	12	B7	AFF L TEST MEM ADR REG			0.1+3
-150	A3	02	PD	12	B7	AFF L TEST MEM ADR REG			0.1+3
-150	A3	03	AE	1256	B7D7	AFF REAL TIME CLOCK REG			0.2+6
-150	A3	03	AF	12	B7	AFF REAL TIME CLOCK REG			0.2+6
-150	A3	03	AG	12	B7	AFF REAL TIME CLOCK REG			0.2+6

MC-2

	V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-2	05/01/60	LOGIC
-150	A3	03	AH	12	B7		AFF	REAL TIME CLOCK REG			0.2.6
-150	A3	03	AJ	12	B7		AFF	REAL TIME CLOCK REG			0.2.6
-150	A3	03	AK	12	B7		AFF	REAL TIME CLOCK REG			0.2.6
-150	A3	03	AL	12	B7		AFF	REAL TIME CLOCK REG			0.2.6
-150	A3	03	AM	12	B7		AFF	REAL TIME CLOCK REG			0.2.6
-150	A3	03	AN	12	B7		AFF	REAL TIME CLOCK REG			0.2.6
690	A3	02	FW	2	D6		GT	L A REG TO L ACC			0.5.1
-150	A3	03	AP	12	B7		AFF	REAL TIME CLOCK REG			0.2.6
-150	A3	03	AR	12	B7		AFF	REAL TIME CLOCK REG			0.2.6
-150	A3	03	AS	12	B7		AFF	REAL TIME CLOCK REG			0.2.6
-150	A3	03	AT	12	B7		AFF	REAL TIME CLOCK REG			0.2.6
-150	A3	03	AU	12	B7		AFF	REAL TIME CLOCK REG			0.2.6
-150	A3	03	AV	12	B7		AFF	REAL TIME CLOCK REG			0.2.6
-150	A3	03	AW	12	B7		AFF	REAL TIME CLOCK REG			0.2.6
-150	A3	03	AX	12	B7		AFF	REAL TIME CLOCK REG			0.2.6
-150	A3	03	BF	89	D7		AFF	R B REG			0.5.2-3
-150	A3	03	BG	12	B7		AFF	R B REG			0.5.2-3
-150	A3	03	BH	12	B7		AFF	R B REG			0.5.2-3
-150	A3	03	BJ	12	B7		AFF	R B REG			0.5.2-3
-150	A3	03	BK	12	B7		AFF	R B REG			0.5.2-3
-150	A3	03	BL	12	B7		AFF	R B REG			0.5.2-3
-150	A3	03	BM	12	B7		AFF	R B REG			0.5.2-3
-150	A3	03	BN	12	B7		AFF	R B REG			0.5.2-3
-150	A3	03	BP	12	B7		AFF	R B REG			0.5.2-3
-150	A3	03	BR	12	B7		AFF	R B REG			0.5.2-3
-150	A3	03	BS	12	B7		AFF	R B REG			0.5.2-3
-150	A3	03	BT	12	B7		AFF	R B REG			0.5.2-3
-150	A3	03	BU	12	B7		AFF	R B REG			0.5.2-3
-150	A3	03	BV	12	B7		AFF	R B REG			0.5.2-3
-150	A3	03	BW	12	B7		AFF	R B REG			0.5.2-3
-150	A3	03	BX	12	B7		AFF	R B REG			0.5.2-3
-150	A3	03	MF	12	B7		AFF	R TEST REG			0.1.3
-150	A3	03	MG	12	B7		AFF	R TEST REG			0.1.3
-150	A3	03	MH	12	B7		AFF	R TEST REG			0.1.3
-150	A3	03	MJ	12	B7		AFF	R TEST REG			0.1.3
-150	A3	03	MK	12	B7		AFF	R TEST REG			0.1.3
-150	A3	03	ML	12	B7		AFF	R TEST REG			0.1.3
-150	A3	03	MM	12	B7		AFF	R TEST REG			0.1.3
-150	A3	03	MN	12	B7		AFF	R TEST REG			0.1.3
-150	A3	03	MP	12	B7		AFF	R TEST REG			0.1.3
-150	A3	03	MR	12	B7		AFF	R TEST REG			0.1.3
-150	A3	03	MS	12	B7		AFF	R TEST REG			0.1.3
-150	A3	03	MT	12	B7		AFF	R TEST REG			0.1.3
-150	A3	03	MU	12	B7		AFF	R TEST REG			0.1.3
-150	A3	03	MV	12	B7		AFF	R TEST REG			0.1.3
-150	A3	03	MW	12	B7		AFF	R TEST REG			0.1.3
-150	A3	03	MX	12	B7		AFF	R TEST REG			0.1.3
-150	A4	06	BC	1289	B7D7		AFF	INDEX REG 162			0.4.2
-150	A4	06	BF	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	BG	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	BH	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	BJ	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	BK	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	BL	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	BM	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	BN	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	BP	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	BR	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	BS	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	BT	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	BU	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	BV	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	BW	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	BX	1289	B7D7		AFF	INDEX REG 1 6 2			0.4.2
-150	A4	06	AF	1289	B7D7		AFF	INDEX REG 465			0.4.2
-150	A4	06	AG	1289	B7D7		AFF	INDEX REG 465			0.4.2
-150	A4	06	AH	1289	B7D7		AFF	INDEX REG 465			0.4.2
-150	A4	06	AJ	1289	B7D7		AFF	INDEX REG 465			0.4.2
-150	A4	06	AK	1289	B7D7		AFF	INDEX REG 465			0.4.2
-150	A4	06	AL	1289	B7D7		AFF	INDEX REG 465			0.4.2
-150	A4	06	AM	1289	B7D7		AFF	INDEX REG 465			0.4.2
-150	A4	06	AN	1289	B7D7		AFF	INDEX REG 465			0.4.2
-150	A4	06	AP	1289	B7D7		AFF	INDEX REG 465			0.4.2
-150	A4	06	AR	1289	B7D7		AFF	INDEX REG 465			0.4.2
-150	A4	06	AS	1289	B7D7		AFF	INDEX REG 465			0.4.2
-150	A4	06	AT	1289	B7D7		AFF	INDEX REG 465			0.4.2
-150	A4	06	AU	1289	B7D7		AFF	INDEX REG 465			0.4.2
-150	A4	06	AV	1289	B7D7		AFF	INDEX REG 465			0.4.2

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-2	05/01/60	LOGIC
-150	A4	06	AW	1289	B7D7	AFF INDEX REG 465			0.4.2
-150	A4	06	AX	1289	B7D7	AFF INDEX REG 465			0.4.2
-150	A4	06	AC	1289	B7D7	AFF INDEX REG 465			0.4.2
-150	B1	02	DF	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	DG	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	DH	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	DJ	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	DK	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	DL	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	DM	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	DN	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	DP	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	DR	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	DS	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	DT	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	DU	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	DV	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	DW	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	DX	567	B7	CF6 L ACC			0.5.1-2
-150	B1	02	FF	567	B7	CF6 L A REG			0.5.1-2
-150	B1	02	FG	3-6	B7	CF6 L A REG			0.5.1
-150	B1	02	FH	3-6	B7	CF6 L A REG			0.5.1
-150	B1	02	FJ	3-6	B7	CF6 L A REG			0.5.1
-150	B1	02	FK	3-6	B7	CF6 L A REG			0.5.1
-150	B1	02	FL	3-6	B7	CF6 L A REG			0.5.1
-150	B1	02	FM	3-6	B7	CF6 L A REG			0.5.1
-150	B1	02	FN	3-6	B7	CF6 L A REG			0.5.1
-150	B1	02	FP	3-6	B7	CF6 L A REG			0.5.1
-150	B1	02	FR	3-6	B7	CF6 L A REG			0.5.1
-150	B1	02	FS	3-6	B7	CF6 L A REG			0.5.1
-150	B1	02	FT	3-6	B7	CF6 L A REG			0.5.1
-150	B1	02	FU	3-6	B7	CF6 L A REG			0.5.1
-150	B1	02	FV	3-6	B7	CF6 L A REG			0.5.1
-150	B1	02	FW	3-6	B7	CF6 L A REG			0.5.1
-150	B1	02	FX	3-6	B7	CF6 L A REG			0.5.1
-150	B1	03	DF	567	B7	CF6 R ACC			0.5.2-2
-150	B1	03	DG	567	B7	CF6 R ACC			0.5.2-2
-150	B1	03	DH	567	B7	CF6 R ACC			0.5.2-2
-150	B1	03	DJ	567	B7	CF6 R ACC			0.5.2-2
-150	B1	03	DK	567	B7	CF6 R ACC			0.5.2-2
-150	B1	03	DL	567	B7	CF6 R ACC			0.5.2-2
-150	B1	03	DM	567	B7	CF6 R ACC			0.5.2-2
-150	B1	03	DN	567	B7	CF6 R ACC			0.5.2-2
-150	B1	03	DP	567	B7	CF6 R ACC			0.5.2-2
-150	B1	03	DR	567	B7	CF6 R ACC			0.5.2-2
-150	B1	03	DS	567	B7	CF6 R ACC			0.5.2-2
-150	B1	03	DT	567	B7	CF6 R ACC			0.5.2-2
-150	B1	03	DV	567	B7	CF6 R ACC			0.5.2-2
-150	B1	03	DW	567	B7	CF6 R ACC			0.5.2-2
-150	B1	03	DX	567	B7	CF6 R ACC			0.5.2-2
-150	B1	03	FF	567	B7	CF6 R A REG			0.5.2
-150	B1	03	FG	3-6	B7	CF6 R A REG			0.5.2
-150	B1	03	FH	3-6	B7	CF6 R A REG			0.5.2
-150	B1	03	FJ	3-6	B7	CF6 R A REG			0.5.2
-150	B1	03	FK	3-6	B7	CF6 R A REG			0.5.2
-150	B1	03	FL	3-6	B7	CF6 R A REG			0.5.2
-150	B1	03	FM	3-6	B7	CF6 R A REG			0.5.2
-150	B1	03	FN	3-6	B7	CF6 R A REG			0.5.2
-150	B1	03	FP	3-6	B7	CF6 R A REG			0.5.2
-150	B1	03	FR	3-6	B7	CF6 R A REG			0.5.2
-150	B1	03	FS	3-6	B7	CF6 R A REG			0.5.2
-150	B1	03	FT	3-6	B7	CF6 R A REG			0.5.2
-150	B1	03	FU	3-6	B7	CF6 R A REG			0.5.2
-150	B1	03	FV	3-6	B7	CF6 R A REG			0.5.2
-150	B1	03	FW	3-6	B7	CF6 R A REG			0.5.2
-150	B1	03	FX	3-6	B7	CF6 R A REG			0.5.2
-150	B1	03	DU	567	B7	CF6 R ACC			0.5.2-2
690	B6	03	CP	9	G7	GT R ACC EVEN BITS DSR			0.5.2-2
-150	C1	02	NF	567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3
-150	C1	02	NG	567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3
-150	C1	02	NH	567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3
-150	C1	02	NJ	567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3
-150	C1	02	NK	567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3
-150	C1	02	NL	567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3

MC-2

V.C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-2	05/01/60	LOGIC
-150	C1	02	NM 567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3
-150	C1	02	NN 567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3
-150	C1	02	NP 567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3
-150	C1	02	NR 567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3
-150	C1	02	NS 567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3
-150	C1	02	NT 567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3
-150	C1	02	NU 567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3
-150	C1	02	NV 567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3
-150	C1	02	NW 567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3
-150	C1	02	NX 567	B7	CF6 L TEST MEM ADR MATRIX OUTPUT			0.1.3
-150	C1	02	NC 345	D7	CF6 L TEST MEM ADR REG			0.1.3
-150	C1	02	ND 345	D7	CF6 L TEST MEM ADR REG			0.1.3
-150	C1	02	PC 345	D7	CF6 L TEST MEM ADR REG			0.1.3
-150	C1	02	PD 345	D7	CF6 L TEST MEM ADR REG			0.1.3
-150	C1	02	NY 1567	B7D7	CF6 TEST MEM SWITCH A			0.1.3
-150	C1	02	PY 1567	B7D7	CF6 TEST MEM SWITCH B			0.1.3
-150	C1	02	NE 1	D7	CF6 TEST MEM LIVE REG			0.1.3
-150	D1	03	AY 3	D7	ST REAL TIME CLOCK OSC			0.2.6
-150	F1	02	BD 34	B7	AFF LB REG S STORE			0.5.1-3
-150	F1	02	DE 34	B7	AFF L ACC SIGN CONTROL			0.5.1-2
-150	F1	02	GD 1289	B7D7	AFF L MEM BUF WRITE & PARITY CHECK			0.1.1
-150	F1	02	EC 34	B7	AFF L AUX OFLOW			0.5.1-2
-150	F1	02	ED 34	B7	AFF L DIVIDE CONNECT			0.5.1-2
-150	F1	02	EE 34	B7	AFF L CARRY STORE			0.5.1-2
-150	F1	03	DE 34	B7	AFF R ACC SIGN CONTROL			0.5.2-2
-150	F1	03	EC 34	B7	AFF R AUX OFLOW			0.5.2-2
-150	F1	03	ED 34	B7	AFF R DIVIDE CONNECT			0.5.2-2
-150	F1	03	EE 34	B7	AFF R CARRY STORE			0.5.2-2
-150	F1	03	EU 34	B7	AFF RB REG S STORE			0.5.2-3
-300	A1	03	AC 3	D8	CFF REAL TIME CLOCK FREQ DIV			0.2.6
-300	A1	03	AD 135	B7D7B	CFF REAL TIME CLOCK FREQ DIV			0.2.6

MC-3

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-3	05/01/60	LOGIC
6250	A1	04	JH	123	B5	PCF CLASS CYCLE BRANCH			0.3.1
6250	A2	04	JK	123567B5		PCF CLASS CYCLE ADD I O			0.3.1
6250	A3	04	JJ	123567B5		PCF CLASS CYCLE STORE RESET			0.3.1
6250	A4	04	JL	123567B5		PCF CLASS CYCLE SHIFT & MISC			0.3.1
6250	A4	04	JM	12356	B5	PCF CLASS CYCLE MULT			0.3.1
6250	B2	04	JS	345	B5	PCF OP REG VARIATION 7			0.3.1
6250	B2	04	JR	345	B5	PCF OP REG VARIATION 8			0.3.1
6250	B2	04	JP	345	B5	PCF OP REG VARIATION 9			0.3.1
6250	B2	04	JN	345	B5	PCF OP REG VARIATION 10			0.3.1
6250	B2	04	HY	345	B5	PCF OP REG VARIATION 11			0.3.1
6250	B2	04	GN	345	B5	PCF OP REG VARIATION 12			0.3.1
6250	B3	04	HR	12	B5	PCF AOR 16 BIT OPERATION			0.5.1-2
6250	B3	04	HP	123567B5		PCF INDEX SELECTION MATRIX			0.3.1
6250	B3	04	HR	567	B5	PCF INDEX SELECTION MATRIX			0.3.1
6250	B3	04	JC	123567B5		PCF VARIATION MATRIX			0.3.1
6250	B3	04	JD	123567B5		PCF VARIATION MATRIX			0.3.1
6250	B3	04	JE	123567B5		PCF VARIATION MATRIX			0.3.1
6250	B3	04	JF	123567B5		PCF VARIATION MATRIX			0.3.1
6250	B3	04	JG	123567B5		PCF VARIATION MATRIX			0.3.1
6250	C1	04	DE	345	B5	PCF STEP COUNTER BIT 32			0.5.3
6250	C1	04	DF	345	B5	PCF STEP COUNTER BIT 16			0.5.3
6250	C1	04	DJ	345	B5	PCF STEP COUNTER BIT 2			0.5.3
6250	E1	04	HM	2	B5	I L-12 CNTL OF 17TH BIT			0.5.2-2
6250	F1	02	GE	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GF	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GG	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GH	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GI	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GJ	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GK	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GL	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GM	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GN	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GO	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GP	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GQ	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GR	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GS	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GT	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GU	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GV	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GW	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	02	GX	1-7	B5	PCA L MEM BFR			0.1.1
6250	F1	03	GF	1-7	B5	PCA R MEM BFR			0.1.2
6250	F1	03	GG	1-7	B5	PCA R MEM BFR			0.1.2
6250	F1	03	GH	1-7	B5	PCA R MEM BFR			0.1.2
6250	F1	03	GJ	1-7	B5	PCA R MEM BFR			0.1.2
6250	F1	03	GK	1-7	B5	PCA R MEM BFR			0.1.2
6250	F1	03	GL	1-7	B5	PCA R MEM BFR			0.1.2
6250	F1	03	GM	1-7	B5	PCA R MEM BFR			0.1.2
6250	F1	03	GN	1-7	B5	PCA R MEM BFR			0.1.2
6250	F1	03	GP	1-7	B5	PCA R MEM BFR			0.1.2
6250	F1	03	GR	1-7	B5	PCA R MEM BFR			0.1.2
6250	F1	03	GS	1-7	B5	PCA R MEM BFR			0.1.2
6250	F1	03	GT	1-7	B5	PCA R MEM BFR			0.1.2
6250	F1	03	GU	1-7	B5	PCA R MEM BFR			0.1.2
6250	F1	03	GV	1-7	B5	PCA R MEM BFR			0.1.2
6250	F1	03	GW	1-7	B5	PCA R MEM BFR			0.1.2
6250	F1	03	GX	1-7	B5	PCA R MEM BFR			0.1.2
6250	F2	04	DG	1-7	B5	PCA STEP CNTR 8			0.5.3
6250	F2	04	DH	1-7	B5	PCA STEP CNTR 4			0.5.3
6250	F2	04	DK	1-7	B5	PCA STEP CNTR 1			0.5.3
6250	F2	05	EG	1-7	B5	PCA L10 BIT STORAGE			0.6.2
6250	F2	04	HT	1-7	B5	PCA CYCLE CONTROL PT-0T			0.3.1
6250	F2	04	HU	1-7	B5	PCA CYCLE CONTROL A6B			0.3.1

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V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-3	05/01/60	LOGIC
6250	F2	04	HV	1-7	B5	PCA CYCLE CONTROL I-O INTLK			0*3*1
6250	F2	04	JU	1-7	B5	PCA OP REG CLASS 5			0*3*1
6250	F2	04	JV	1-7	B5	PCA OP REG CLASS 4			0*3*1
6250	F2	04	JT	1-7	B5	PCA OP REG 6			0*3*1
6250	F2	04	HW	1-7	B5	PCA BRANCH ON-OFF			0*3*1
6250	F2	04	JY	1-7	B5	PCA OP REG 1			0*3*1
6250	F2	04	JX	1-7	B5	PCA OP REG 2			0*3*1
6250	F2	04	JW	1-7	B5	PCA OP REG 3			0*3*1
6150	A1	04	GG	2-9	D5	CF INSTR MATRIX BRANCH & MISC			0*3*2
6150	A1	04	GH	23679	D5	CF INSTR MATRIX BRANCH			0*3*2
6150	A1	04	GJ	1-6	D5	CF INSTR MATRIX BRANCH			0*3*2
6150	A1	04	GK	6-9	D5	CF INSTR MATRIX BRANCH			0*3*2
6150	A2	04	HC	1-6	D5	CF INSTR MATRIX I-O			0*3*2
6150	A2	04	HD	23567	D5	CF INSTR MATRIX I-O			0*3*2
6150	A2	04	HE	1-6	D5	CF INSTR MATRIX I-O			0*3*2
6150	A2	04	HF	1-9	D5	CF INSTR MATRIX ADD			0*3*2
6150	A2	04	HG	1247-9D5	D5	CF INSTR MATRIX ADD			0*3*2
6150	A2	04	HH	1-6	D5	CF INSTR MATRIX ADD			0*3*2
6150	A2	04	HJ	1	D5	CF INSTR MATRIX ADD			0*3*2
6150	A2	04	FG	36	D5	CF INSTR MATRIX ADD			0*3*1
6150	A2	04	HC	6	D5	CF BSN OT & NO ALARM			0*3*2
6150	A2	04	HC	6	D5	CF BSN OT & NO ALARM			0*3*2
6150	A3	04	GK	1-5	B5	CF INSTR MATRIX RESET INDEX CLASS			0*3*2
6150	A3	04	GL	124589D5	D5	CF INSTR MATRIX RESET INDEX CLASS			0*3*2
6150	A3	04	GS	1256	D5	CF INSTR MATRIX STORE & MISC CLASS			0*3*2
6150	A3	04	GT	1-9	D5	CF INSTR MATRIX STORE			0*3*2
6150	A3	04	GU	146-9	D5	CF INSTR MATRIX STORE & ADD			0*3*2
6150	A3	04	GV	1-9	D5	CF INSTR MATRIX STORE			0*3*2
6150	A3	04	GS	789	D5	CF TEST MEM ADR ENCODER			0*1*3
6150	A3	04	GU	3	D5	CF INSTRUCTION MATRIX			0*3*2
6150	A3	04	GU	2	D5	CF INSTRUCTION MATRIX			0*3*2
6150	A4	04	FS	1-9	D5	CF INSTR MATRIX MISC CLASS			0*3*2
6150	A4	04	GC	1-9	D5	CF INSTR MATRIX MISC CLASS			0*3*2
6150	A4	04	GD	1239	D5	CF INSTR MATRIX MISC CLASS			0*3*2
6150	A4	04	GE	2-9	D5	CF INSTR MATRIX MISC CLASS			0*3*2
6150	A4	04	GF	3-9	D5	CF INSTR MATRIX MISC CLASS			0*3*2
6150	A4	04	GM	1-6	D5	CF INSTR MATRIX MULT			0*3*2
6150	A4	04	GP	1236-9D5	D5	CF INSTR MATRIX MULT			0*3*2
6150	A4	04	GR	1-6	D5	CF INSTR MATRIX MULT			0*3*2
6150	A4	04	GR	789	D5	CF TEST MEM ADR ENCODER			0*1*3
6150	A4	04	HK	1-9	D5	CF INSTR MATRIX SHIFT			0*3*2
6150	A4	04	HL	124689D5	D5	CF INSTR MATRIX SHIFT			0*3*2
6150	A4	04	HN	1-6	D5	CF INSTR MATRIX SHIFT			0*3*2
6150	A4	04	HL	378	D5	CF INSTR MATRIX MISC CLASS			0*3*2
6150	A4	04	GF	12	D5	CF CLASS CYCLE ADD			0*3*1
6150	A4	04	GE	1	D5	CF BPIX-PT & NO ALARM			0*3*2
6150	B1	02	GD	57	B5D5	CF PARITY WRITE & PARITY CHECK			0*1*1
6150	B1	02	HE	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HF	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HG	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HH	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HJ	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HK	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HL	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HM	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HN	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HP	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HR	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HS	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HT	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HU	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HV	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HW	2	D5	CF L MEM BUF			0*1*1
6150	B1	02	HX	2	D5	CF L MEM BUF			0*1*1
6150	B1	03	HF	2	D5	CF R MEM BUF			0*1*2
6150	B1	03	HG	2	D5	CF R MEM BUF			0*1*2
6150	B1	03	HH	2	D5	CF R MEM BUF			0*1*2
6150	B1	03	HJ	2	D5	CF R MEM BUF			0*1*2
6150	B1	03	HK	2	D5	CF R MEM BUF			0*1*2
6150	B1	03	HL	2	D5	CF R MEM BUF			0*1*2

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-3	05/01/60	LOGIC
6150	B1	03	HM	2	D5	CF	R MEM BUF			0+1+2
6150	B1	03	HN	2	D5	CF	R MEM BUF			0+1+2
6150	B1	03	HP	2	D5	CF	R MEM BUF			0+1+2
6150	B1	03	HR	2	D5	CF	R MEM BUF			0+1+2
6150	B1	03	HS	2	D5	CF	R MEM BUF			0+1+2
6150	B1	03	HT	2	D5	CF	R MEM BUF			0+1+2
6150	B1	03	HU	2	D5	CF	R MEM BUF			0+1+2
6150	B1	03	HV	2	D5	CF	R MEM BUF			0+1+2
6150	B1	03	HW	2	D5	CF	R MEM BUF			0+1+2
6150	B1	03	HX	2	D5	CF	R MEM BUF			0+1+2
6150	B2	06	GD	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GF	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GG	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GH	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GJ	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GK	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GL	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GM	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GN	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GP	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GR	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GS	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GT	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GU	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GV	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GW	35	D5	CF	PROG CTR			0+4+1
6150	B2	06	GX	35	D5	CF	PROG CTR			0+4+1
6150	B3	06	CD	456	D5	CF	ADR REG			0+4+1
6150	B3	06	CF	456	D5	CF	ADR REG			0+4+1
6150	B3	06	CG	456	D5	CF	ADR REG			0+4+1
6150	B3	06	CH	456	D5	CF	ADR REG			0+4+1
6150	B3	06	CJ	456	D5	CF	ADR REG			0+4+1
6150	B3	06	CK	456	D5	CF	ADR REG			0+4+1
6150	B3	06	CL	456	D5	CF	ADR REG			0+4+1
6150	B3	06	CM	456	D5	CF	ADR REG			0+4+1
6150	B3	06	CN	456	D5	CF	ADR REG			0+4+1
6150	B3	06	CP	456	D5	CF	ADR REG			0+4+1
6150	B3	06	CR	456	D5	CF	ADR REG			0+4+1
6150	B3	06	CS	456	D5	CF	ADR REG			0+4+1
6150	B3	06	CT	456	D5	CF	ADR REG			0+4+1
6150	B3	06	CU	456	D5	CF	ADR REG			0+4+1
6150	B3	06	CV	456	D5	CF	ADR REG			0+4+1
6150	B3	06	DC	9	D5	CF	ADR REG			0+4+1
6150	B3	06	CW	456	D5	CF	ADR REG			0+4+1
6150	B3	06	CX	456	D5	CF	ADR REG			0+4+1
6150	B3	06	DF	9	D5	CF	ADR REG			0+4+1
6150	B3	06	DG	9	D5	CF	ADR REG			0+4+1
6150	B3	06	DH	9	D5	CF	ADR REG			0+4+1
6150	B3	06	DJ	9	D5	CF	ADR REG			0+4+1
6150	B3	06	DK	9	D5	CF	ADR REG			0+4+1
6150	B3	06	DL	9	D5	CF	ADR REG			0+4+1
6150	B3	06	DM	9	D5	CF	ADR REG			0+4+1
6150	B3	06	DN	9	D5	CF	ADR REG			0+4+1
6150	B3	06	DP	9	D5	CF	ADR REG			0+4+1
6150	B3	06	DR	9	D5	CF	ADR REG			0+4+1
6150	B3	06	DS	9	D5	CF	ADR REG			0+4+1
6150	B3	06	DT	9	D5	CF	ADI REG			0+4+1
6150	B3	06	DV	9	D5	CF	ADR REG			0+4+1
6150	B3	06	DW	9	D5	CF	ADR REG			0+4+1
6150	B3	06	DX	9	D5	CF	ADR REG			0+4+1
6150	B3	06	DU	9	D5	CF	ADR REG			0+4+1
6150	C1	04	BF	45	D5	CF	TPD CONTINUE			0+2+2
6150	C1	04	BH	14569	D5	CF	TPD CNTRL PAUSE BREAK			0+2+2
6150	C1	04	BG	123	D5	CF	TPD CNTRL PAUSE BREAK			0+2+2
6150	C1	04	BL	14569	D5	CF	CONTINUE TPD CONTROL			0+2+2
6150	C1	04	BR	14569	D5	CF	SINGLE PULSE & LOAD			0+2+2
6150	C1	04	DL	3-68	D5	CF	STEP CNTR			0+5+3
6150	C1	04	BK	349	B6D6G6	CF	TPD CONTROL SYNC 62MC OP			0+2+2
6150	C1	04	BN	34	B6D6	CF	CONTINUE CONTROL SYNC			0+2+2
6150	C1	04	BN	9	G6	CF	CPC START			0+2+5
6150	C1	04	BP	349	B6D6G6	CF	MEM CYCLE, INSTR STEP & SYNC			0+2+2
6150	C1	04	CC	349	B6D6G6	CF	DIVIDE TPD 0+1+2			0+5+3
6150	C1	04	CD	349	B6D6G6	CF	DVD TPD 3+4 & DVD CLR PAUSE DLY			0+5+3
6150	C1	04	CW	349	B6D6G6	CF	CPC BITS 123			0+2+5

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V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-3	05/01/60	LOGIC
6150	C1	04	CX	349	B6D6G6	CF	CPC BITS 456			0.2.5
6150	C1	04	CY	349	B6D6G6	CF	CPC BITS 789			0.2.5
6150	C1	04	BX	57	B9D5	CF	CP CONTROL			0.2.5
6150	C1	04	HS	57	B9D5	CF	CSW GATE & CONTROL			0.7.3
6150	C1	04	BD	5	D5	CF	ALARM BRANCH SYNC			0.2.2
6150	C1	04	DM	349	B6D6G6	CF	2 MC SYNC & CLR PAUSE DELAY			0.5.3
6150	C1	04	BD	7	B5	CF	INACTIVE TPD			0.2.2
6150	C1	04	BF	569	D5	CF	MC TRANSITION OFF			0.2.2
6150	C2	04	DR	145	D5	CF	MEM UNIT SEL CNTRL CLOCK REG			0.2.6
6150	C2	04	DS	45	D5	CF	MEM UNIT SEL CNTRL TM & MEM 162			0.1.3
6150	C2	04	DR	9	D5	CF	PARITY WD XFER			0.1.3
6150	C2	04	HM	123	D5	CF	L-12 CNTRL OF 17TH BIT			0.5.2-2
6150	C2	04	DS	569	D5	CF	TM START CNTRL & PARITY CHECK			0.4.1
6150	D1	04	CE	345	D5	CF	TPD-0 TP-0			0.2.3
6150	D1	04	CF	34	D5	CF	TPD-1 TP-1 IP-1			0.2.3
6150	D1	04	CG	34	D5	CF	TPD-2 TP-2 IP-2			0.2.3
6150	D1	04	CH	34	D5	CF	TPD-3 TP-3 IP-3			0.2.3
6150	D1	04	CJ	34	D5	CF	TPD-4 TP-4 IP-4			0.2.3
6150	D1	04	CK	34	D5	CF	TPD-5 TP-5 IP-5			0.2.3
6150	D1	04	CL	34	D5	CF	TPD-6 TP-6 IP-6			0.2.3
6150	D1	04	CM	345	D5	CF	TPD-7 TP-7 IP-7			0.2.3
6150	D1	04	CN	34	D5	CF	TPD-8 TP-8 IP-8			0.2.3
6150	D1	04	CP	34	D5	CF	TPD-9 TP-9 IP-9			0.2.3
6150	D1	04	CR	34	D5	CF	TPD-10 TP-10 IP-10			0.2.3
6150	D1	04	CS	34	D5	CF	TPD-11 TP-11 IP-11			0.2.3
6150	E1	04	BM	9	D5	VRD	MAN OP COMPUTE RELAY DRIVER			0.2.2
690	A1	04	FR	678	G67	GT	COM GEN ACC			0.5.1-2
690	A1	04	FT	1-8	B56D56G567GT	GT	COM GEN ACC			0.5.1-2
690	A1	04	FT	9	G7	GT	COM GEN ACC			0.7.3
690	A1	04	FH	1-9	B56D56G567GT	GT	COM GEN B REG			0.5.1-3
690	A1	04	FL	1-4	B56D56	GT	COM GEN B REG			0.5.1-3
690	A1	04	FL	5	G5	GT	COM GEN B REG			0.5.2-3
690	A1	04	FG	1	B6	GT	L-12 CNTRL OF 17TH BIT			0.5.1-2
690	A2	04	FY	4-8	D6G567	GT	COM GEN ACC			0.5.2-2
690	A2	04	FY	1239	B56D567	GT	COM GEN ACC			0.5.1-2
690	A2	04	GW	1-46-9	B56D56G67	GT	COM GEN ACC			0.5.1-2
690	A2	04	GW	5	G5	GT	COM GEN ACC			0.5.2-2
690	A2	04	GN	7	D6	GT	COM GEN ADDER			0.5.1-2
690	A2	04	HM	5	B6	GT	17 BIT OPERATION			0.5.1-2
690	A2	04	GN	7	D6	GT	ADDER END EFFECTS			0.5.1-2
690	A3	04	EU	45	D6G5	GT	INDEX SEL			0.3.2
690	A3	04	EE	1-8	B56D56G567GT	GT	COM GEN INDEX REG			0.4.2
690	A3	04	EG	1-35-9	B56D56G567GT	GT	COM GEN INDEX REG			0.4.2
690	A3	04	EG	4	D6	GT	IP DRIVER			0.2.2
690	A3	04	EE	9	G7	GT	PROG CTR			0.4.1
690	A4	04	ER	1-8	B56D56G567GT	GT	COM GEN ADDERS			0.5.1-2
690	A4	04	ER	9	G7	GT	COM GEN ADDERS			0.5.2-2
690	A4	04	FG	27	D6G5	GT	COM GEN ADDERS			0.3.1
690	A4	04	JP	7	D6	GT	COMPARE			0.6.2
690	A4	04	EL	1-4679	B56D56G67	GT	COM GEN A REG			0.5.1
690	A4	04	EL	58	G57	GT	COM GEN A REG			0.5.2
690	A4	04	EP	2345	B6D56	GT	COM GEN A REG			0.5.1
690	A4	04	EP	1	B5	GT	COM GEN A REG			0.5.2
690	A4	04	FR	5	G5	GT	COM GEN A REG			0.5.1
690	A4	04	FF	7	G6	GT	PROG SYNC CONTROL			0.7.4
690	A5	04	FD	5	G5	GT	COM GEN SELECT CONTROL			0.4.1
690	A5	04	FD	6	G6	GT	COM GEN SELECT CONTROL			0.3.1
690	A5	04	FD	89	G7	GT	COM GEN SELECT CONTROL			0.7.3
690	A5	04	FD	7	G6	GT	COM GEN SELECT CONTROL			0.7.4
690	A5	04	FD	234	B6D56	GT	COM GEN SELECT CONTROL			0.7.5
690	A5	04	FD	1	B5	GT	COM GEN SELECT CONTROL			0.7.8
690	A5	04	FF	2	B6	GT	COM GEN SELECT CONTROL			0.7.7
690	A5	04	FF	3	D5	GT	COM GEN SELECT CONTROL			0.7.8
690	A5	04	FF	1	B5	GT	COM GEN SELECT CONTROL			0.2.4

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V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-3	05/01/60	LOGIC
690	A6	04	EW	1	B5	GT	COM GEN IO CONTROL			0.4.1
690	A6	04	EW	247	B6D6G6	GT	COM GEN IO CONTROL			0.7.3
690	A6	04	EW	6	G6	GT	COM GEN IO CONTROL			0.7.2
690	A6	04	EW	5	G5	GT	COM GEN IO CONTROL			0.7.1
690	B1	04	DT	27	B6G6	GT	COM GEN MEM CONTROL			0.1.1
690	B1	04	DT	345	D5G65	GT	COM GEN MEM CONTROL			0.1.3
690	B1	04	DT	6	G6	GT	COM GEN MEM CONTROL			0.4.1
690	B1	04	DT	1	B5	GT	SEL CLOCK REG			0.2.6
690	B2	04	FR	2	B6	GT	COM GEN ACC			0.5.2-2
690	B2	04	FW	12356	B56D5G56	GT	COM GEN ACC			0.5.1-2
690	B2	04	FW	4789	D6G67	GT	COM GEN ACC			0.5.2-2
690	B3	04	DX	12678	B56G67	GT	COM GEN MEM BFR XFER			0.1.1
690	B3	04	DX	345	D5G65	GT	COM GEN MEM BFR XFER			0.1.2
690	B3	04	FL	78	G67	GT	COM GEN MEM BFR XFER			0.1.1
690	B3	04	FL	6	G6	GT	COM GEN IX INT			0.6.1
690	B3	04	FL	9	G7	GT	COM GEN PROG CNTR			0.6.2
690	B3	04	FR	3	D5	GT	L MEM BFR TO TOB & ITB GATES			0.1.1
690	B3	04	FR	4	D6	GT	COM GEN MEM BUF XFER			0.1.2
690	B3	04	DX	9	G7	GT	START TEST MEM			0.4.1
690	B4	04	EH	1-46-9B56D56G67		GT	COM GEN PROG CONTROL			0.4.1
690	B4	04	EK	1-9	B56D56G567	GT	COM GEN PROG CONTROL			0.4.1
690	B4	04	EW	8	G7	GT	START MEM			0.4.1
690	B4	04	EX	6	G6	PA	MEM BFR TO TEST REG			0.1.1
690	B5	04	FM	9	G7	GT	COM GEN INSTR CONTROL			0.2.2
690	B5	04	FM	135	B5D5G5	GT	COM GEN INSTR CONTROL			0.3.1
690	B5	04	FM	24678	B6D6G67	GT	COM GEN INSTR CONTROL			0.5.3
690	B5	04	FP	247	B6D6G6	GT	COM GEN INSTR CONTROL			0.3.1
690	B5	04	FP	3569	D5G567	GT	COM GEN INSTR CONTROL			0.2.2
690	B5	04	FP	18	B5G7	GT	COM GEN INSTR CONTROL			0.5.3
690	B5	04	FR	1	B5	GT	COM GEN INSTR CONTROL			0.5.3
690	C1	04	FF	5	G5	GT	STEP CNTR 8			0.5.3
690	C1	04	DJ	7	D6	GT	STEP COUNTER BIT 2			0.5.3
690	C2	02	HG	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HJ	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HL	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HN	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HR	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HT	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HW	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HV	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HG	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2
690	C2	02	HJ	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2
690	C2	02	HL	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2
690	C2	02	HN	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2
690	C2	02	HT	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2
690	C2	02	HV	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2
690	C2	02	HF	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HH	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HK	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HM	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HP	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HS	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HU	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HW	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HV	46	B6D6	GT	L MEM BUF PAR GATE 0 SIDE			0.1.1
690	C2	02	HF	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2
690	C2	02	HH	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2
690	C2	02	HK	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2
690	C2	02	HM	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2
690	C2	02	HP	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2
690	C2	02	HR	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2
690	C2	02	HS	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2
690	C2	02	HU	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2
690	C2	02	HW	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2
690	C2	02	HV	46	B6D6	GT	R MEM BUF PAR GATE 0 SIDE			0.1.2

MC-3

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-3	05/01/60	LOGIC
690	C3	06	GF	4	B6	GT	PGM CNTR CARRY EVEN BIT			0*4*1
690	C3	06	GH	4	B6	GT	PGM CNTR CARRY EVEN BIT			0*4*1
690	C3	06	GK	4	B6	GT	PGM CNTR CARRY EVEN BIT			0*4*1
690	C3	06	GM	4	B6	GT	PGM CNTR CARRY EVEN BIT			0*4*1
690	C3	06	GP	4	B6	GT	PGM CNTR CARRY EVEN BIT			0*4*1
690	C3	06	GS	4	B6	GT	PGM CNTR CARRY EVEN BIT			0*4*1
690	C3	06	GU	4	B6	GT	PGM CNTR CARRY EVEN BIT			0*4*1
690	C3	06	GW	4	B6	GT	PGM CNTR CARRY EVEN BIT			0*4*1
690	C4	04	DF	7	D6	GT	STEP CNTR 16			0*5*3
690	C4	04	EH	5	G5	GT	STEP CNTR 4			0*5*3
690	C4	04	EU	23	B6D5	GT	STEP CNTR 1			0*5*3
690	C5	02	HF	35	B5	GT	L MEM BUF SIGN BIT 1 SIDE			0*1*1
690	C5	02	HH	35	B5	GT	L MEM BUF PAR GATE 1 SIDE			0*1*1
690	C5	02	HK	35	B5	GT	L MEM BUF PAR GATE 1 SIDE			0*1*1
690	C5	02	HM	35	B5	GT	L MEM BUF PAR GATE 1 SIDE			0*1*1
690	C5	02	HP	35	B5	GT	L MEM BUF PAR GATE 1 SIDE			0*1*1
690	C5	02	HS	35	B5	GT	L MEM BUF PAR GATE 1 SIDE			0*1*1
690	C5	02	HU	35	B5	GT	L MEM BUF PAR GATE 1 SIDE			0*1*1
690	C5	02	HW	35	B5	GT	L MEM BUF PAR GATE 1 SIDE			0*1*1
690	C5	03	HF	35	B5	GT	R MEM BUF SIGN BIT 1 SIDE			0*1*2
690	C5	03	HH	35	B5	GT	R MEM BUF PAR GATE 1 SIDE			0*1*2
690	C5	03	HK	35	B5	GT	R MEM BUF PAR GATE 1 SIDE			0*1*2
690	C5	03	HM	35	B5	GT	R MEM BUF PAR GATE 1 SIDE			0*1*2
690	C5	03	HP	35	B5	GT	R MEM BUF PAR GATE 1 SIDE			0*1*2
690	C5	03	HS	35	B5	GT	R MEM BUF PAR GATE 1 SIDE			0*1*2
690	C5	03	HU	35	B5	GT	R MEM BUF PAR GATE 1 SIDE			0*1*2
690	C5	03	HW	35	B5	GT	R MEM BUF PAR GATE 1 SIDE			0*1*2
690	C5	03	HG	35	B5	GT	R MEM BUF PAR GATE 1 SIDE			0*1*2
690	C5	03	HJ	35	B5	GT	R MEM BUF PAR GATE 1 SIDE			0*1*2
690	C5	03	HL	35	B5	GT	R MEM BUF PAR GATE 1 SIDE			0*1*2
690	C5	03	HN	35	B5	GT	R MEM BUF PAR GATE 1 SIDE			0*1*2
690	C5	03	HR	35	B5	GT	R MEM BUF PAR GATE 1 SIDE			0*1*2
690	C5	03	HT	35	B5	GT	R MEM BUF PAR GATE 1 SIDE			0*1*2
690	C5	03	HV	35	B5	GT	R MEM BUF PAR GATE 1 SIDE			0*1*2
690	C5	03	HX	35	B5	GT	R MEM BUF PAR GATE 1 SIDE			0*1*2
690	C5	02	HG	35	B5	GT	L MEM BUF PAR GATE 1 SIDE			0*1*1
690	C5	02	HJ	35	B5	GT	L MEM BUF PAR GATE 1 SIDE			0*1*1
690	C5	02	HL	35	B5	GT	L MEM BUF PAR GATE 1 SIDE			0*1*1
690	C5	02	HN	35	B5	GT	L MEM BUF PAR GATE 1 SIDE			0*1*1
690	C5	02	HR	35	B5	GT	L MEM BUF PAR GATE 1 SIDE			0*1*1
690	C5	02	HT	35	B5	GT	L MEM BUF PAR GATE 1 SIDE			0*1*1
690	C5	02	HV	35	B5	GT	L MEM BUF PAR GATE 1 SIDE			0*1*1
690	C5	02	HX	35	B5	GT	L MEM BUF PAR GATE 1 SIDE			0*1*1
690	C6	06	GD	4	B6	GT	PGM CNTR CARRY ODD BIT			0*4*1
690	C6	06	GJ	4	B6	GT	PGM CNTR CARRY ODD BIT			0*4*1
690	C6	06	GL	4	B6	GT	PGM CNTR CARRY ODD BIT			0*4*1
690	C6	06	GN	4	B6	GT	PGM CNTR CARRY ODD BIT			0*4*1
690	C6	06	GR	4	B6	GT	PGM CNTR CARRY ODD BIT			0*4*1
690	C6	06	GT	4	B6	GT	PGM CNTR CARRY ODD BIT			0*4*1
690	C6	06	GV	4	B6	GT	PGM CNTR CARRY ODD BIT			0*4*1
690	C6	06	GX	4	B6	GT	PGM CNTR CARRY ODD BIT			0*4*1
690	C6	06	GY	4	B6	GT	PGM CNTR CARRY ODD BIT			0*4*1
690	D1	04	CE	67	G566	GT	TPD-0 TP-0			0*2*3
690	D1	04	CF	89	B6D6	GT	TPD-1 TP-1 IP-1			0*2*3
690	D1	04	CG	89	G56	GT	TPD-2 TP-2 IP-2			0*2*3
690	D1	04	CH	89	G56	GT	TPD-3 TP-3 IP-3			0*2*3
690	D1	04	CJ	89	G56	GT	TPD-4 TP-4 IP-4			0*2*3
690	D1	04	CK	89	G56	GT	TPD-5 TP-5 IP-5			0*2*3
690	D1	04	CL	89	G56	GT	TPD-6 TP-6 IP-6			0*2*3
690	D1	04	CM	67	B6D6	GT	TPD-7 TP-7 IP-7			0*2*3
690	D1	04	CN	89	G56	GT	TPD-8 TP-8 IP-8			0*2*3
690	D1	04	CP	89	G56	GT	TPD-9 TP-9 IP-9			0*2*3
690	D1	04	CR	89	G56	GT	TPD-10 TP-10 IP-10			0*2*3
690	D1	04	CS	89	G56	GT	TPD-10 TP-10 IP-11			0*2*3
690	D2	03	HX	3-6	B56D6	GT	R MEM BUF PAR GATE 15 BIT			0*1*2
690	D3	02	JF	6	D6	GT	L MEM BUF S TO ADR REG			0*1*1
690	D3	02	JG	6	D6	GT	L MEM BUF TO OPERATION REG			0*1*1
690	D3	02	JH	6	D6	GT	L MEM BUF TO OPERATION REG			0*1*1

MC-3

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-3	05/01/60	LOGIC
690	D4	06	DC	2	B6	GT	ADR REG TO TEST & MEM ADR 162			0+4+1
690	D4	06	DF	2	B6	GT	ADR REG TO MEM ADR REG 1 & 2			0+4+1
690	D4	06	DG	2	B6	GT	ADR REG TO MEM ADR REG 1 & 2			0+4+1
690	D4	06	DH	2	B6	GT	ADR REG TO MEM ADR REG 1 & 2			0+4+1
690	D4	06	DJ	2	B6	GT	ADR REG TO MEM ADR REG 1 & 2			0+4+1
690	D4	06	DK	2	B6	GT	ADR REG TO MEM ADR REG 1 & 2			0+4+1
690	D4	06	DL	2	B6	GT	ADR REG TO MEM ADR REG 1 & 2			0+4+1
690	D4	06	DM	2	B6	GT	ADR REG TO MEM ADR REG 1 & 2			0+4+1
690	D4	06	DN	2	B6	GT	ADR REG TO MEM ADR REG 1 & 2			0+4+1
690	D4	06	DP	2	B6	GT	ADR REG TO MEM ADR REG 1 & 2			0+4+1
690	D4	06	DR	2	B6	GT	ADR REG TO MEM ADR REG 1 & 2			0+4+1
690	D4	06	DW	2	B6	GT	ADR REG TO TEST & MEM ADR 1 & 2			0+4+1
690	D4	06	DS	2	B6	GT	ADR REG TO MEM ADR REG 1 & 2			0+4+1
690	D4	06	DT	2	B6	GT	ADR REG TO MEM ADR REG 1 & 2			0+4+1
690	D4	06	DU	2	B6	GT	ADR REG TO TEST & MEM ADR 162			0+4+1
690	D4	06	DV	2	B6	GT	ADR REG TO TEST & MEM ADR 161			0+4+1
690	D4	06	DX	2	B6	GT	ADR REG TO TEST & MEM ADR 1 & 2			0+4+1
690	D4	06	DD	3	D5	PA	ADR REG PARITY CHECK			0+4+1
690	D4	06	DE	58	G57	PA	ADR REG PARITY CHECK			0+4+1
690	D5	06	GD	67	G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GF	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GG	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GH	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GJ	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GK	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GL	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GM	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GN	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GP	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GR	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GS	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GT	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GU	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GV	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GW	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D5	06	GX	67	B5G6	GT	PROG CTR TO RA REG & ADR REG			0+4+1
690	D6	04	DL	29	D6G7	GT	STEP CTR 7 TO 6, 3 TO 2			0+5+3
690	D6	04	BJ	124689B56D6G67		GT	TPD CONTROL			0+2+2
690	D6	04	BJ	3	D5	GT	CPC CONTROL			0+2+5
690	D6	04	BS	3	D5	GT	COMPLEMENT 3X			0+2+4
690	D6	04	BS	6789	G67*	GT	SINGLE PULSE			0+2+2
690	D6	04	BT	3	D5	GT	CPC START			0+2+5
690	D6	04	BX	4	D6	GT	CPC CONTROL			0+2+5
690	D6	04	BY	1-9	B56D56G567G	GT	LOAD CPC			0+2+5
690	D6	04	CU	46	D6G6	GT	CPC BITS 123			0+2+5
690	D6	04	DN	7	G6	GT	MC TRANSITION			0+2+2
690	D6	04	CT	246	B6D6G6	GT	CPC BITS 456 789			0+2+5
690	D6	04	BJ	7	G6	GT	ALARM BRANCH SYNC			0+2+2
690	D6	04	BD	6	G6	GT	INACTIVE TPD & ALRM BR SYNC			0+2+2
690	D6	04	BT	12	B56	GT	CONTINUE CONTROL SYNC			0+2+2
690	D6	04	BT	567	G56	GT	TPD CONTROL SYNC & 2MC OP			0+2+2
690	D6	04	CT	789	G67	GT	DIVIDE TPD 0+1+2			0+5+3
690	D6	04	DN	12	B56	GT	DIVIDE TPD 3+			0+5+3
690	D6	04	CU	123	B56D6	GT	MEMCYCLE INSTR STEP & SYNC			0+2+2
690	D6	04	DN	456	D6G56	GT	2 MC SYNC & CLR PAUSN DELAY			0+5+3
690	D6	04	EG	4	D6	GT	2 MC TPD ON			0+2+2
690	D6	04	DY	8	G7	GT	TP=0 DELAYED, CLR LFT MEM BFR			0+1+1
690	D6	04	DY	9	G7	GT	TP=0 DELAYED, CLR RT MEM BFR			0+1+2
690	D6	04	CU	7	G6	GT	STORE PARITY WORD			0+7+5
690	E1	06	CF	79	G57	GT	ADR REG CARRY EVEN BIT			0+4+1
690	E1	06	CH	79	G57	GT	ADR REG CARRY EVEN BIT			0+4+1
690	E1	06	CK	79	G57	GT	ADR REG CARRY EVEN BIT			0+4+1
690	E1	06	CM	79	G57	GT	ADR REG CARRY EVEN BIT			0+4+1
690	E1	06	CP	79	G57	GT	ADR REG CARRY EVEN BIT			0+4+1
690	E1	06	CS	79	G57	GT	ADR REG CARRY EVEN BIT			0+4+1
690	E1	06	CU	79	G57	GT	ADR REG CARRY EVEN BIT			0+4+1
690	E1	06	CW	79	G57	GT	ADR REG CARRY EVEN BIT			0+4+1
690	E2	06	CD	79	G57	GT	ADR REG CARRY ODD BIT			0+4+1
690	E2	06	CG	79	G57	GT	ADR REG CARRY ODD BIT			0+4+1
690	E2	06	CJ	79	G57	GT	ADR REG CARRY ODD BIT			0+4+1
690	E2	06	CL	79	G57	GT	ADR REG CARRY ODD BIT			0+4+1
690	E2	06	CN	79	G57	GT	ADR REG CARRY ODD BIT			0+4+1

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-3	05/01/60	LOGIC
690	E2	06	CR	79	G57	GT	ADR REG CARRY ODD BIT			0+4+1
690	E2	06	CT	79	G57	GT	ADR REG CARRY ODD BIT			0+4+1
690	E2	06	CV	79	G57	GT	ADR REG CARRY ODD BIT			0+4+1
690	E2	06	CX	79	G57	GT	ADR REG CARRY ODD BIT			0+4+1
690	E3	04	BM	4	G6	APA	MAN OP SET TO TL-8			0+2+2
690	E3	04	BM	5	G7	DD	INSTR STEP			0+2+2
690	E3	04	BU	7	G6	PA	PT 5 & ALARM BRN			0+2+2
690	E3	04	EM	34	D56	PA	CLEAR & COMPLIMENT RA REG			0+5+2
690	E3	04	FU	1389	B5D5G7	PA	COM GEN ACC			0+5+1-2
690	E3	04	BU	6	G6	PA	SET CPC			0+2+5
690	E3	04	BW	1	D5	DD	PT-5 & ALARM BR			0+2+2
690	E5	02	HE	3-6	85D6	GT	L MEM BUF PARITY BIT			0+1+1
690	F1	04	CV	123	B6	OSC	2 MC MASTER CLOCK OSC			0+2+2
690	F1	04	CV	4	B6	SH	2 MC MASTER CLOCK OSC			0+2+2
690	F2	04	BU	1-5	B56D56G5	BPA	TPD & CPC CONTROL			0+2+4
690	F2	04	BV	1	D5	DD	COMPL PULSE			0+2+4
690	F2	04	FE	2	B6	BPA	DESELECT & CTL CLR			0+7+5
-150	A1	04	BF	23	B7	AFF	TPD CONTINUE			0+2+2
-150	A1	04	BH	2378	B7	AFF	TPD CNTRL PAUSE BREAK			0+2+2
-150	A1	04	BK	125-8	B7D7	AFF	TPD CONTROL SYNC 2MC OPERATION			0+2+2
-150	A1	04	BL	2378	B7	AFF	CONTINUE TPD CONTROL			0+2+2
-150	A1	04	BN	1256	B7D7	AFF	CONTINUE CONTROL SYNC			0+2+2
-150	A1	04	BP	125-8	B7D7	AFF	MEM CYCLE..INSTR STEP & SYNC			0+2+2
-150	A1	04	BR	2378	B7	AFF	SINGLE PULSE & LOAD			0+2+2
-150	A1	04	HS	1289	B7D7	AFF	FIRST & SECOND CSW TRANSFER			0+7+3
-150	A1	04	CC	125-8	B7D7	AFF	DIVIDE TPD 0+162			0+5+3
-150	A1	04	CD	125-8	B7D7	AFF	DVD TPD 3+4 & DVD CLR PAUSE DLY			0+5+3
-150	A1	04	DE	12	B7	AFF	STEP COUNTER BIT 32			0+5+3
-150	A1	04	DF	12	B7	AFF	STEP COUNTER BIT 16			0+5+3
-150	A1	04	DG	89	D7	AFF	STEP CTR 8			0+5+3
-150	A1	04	DH	89	D7	AFF	STEP CNTR 4			0+5+3
-150	A1	04	DJ	12	B7	AFF	STEP COUNTER BIT 2			0+5+3
-150	A1	04	DK	89	D7	AFF	STEP CNTR 1			0+5+3
-150	A1	04	DM	125-8	B7D7	AFF	SET 2 MC SYNC & CL PAUSE DELAY			0+5+3
-150	A1	04	BN	78	D7	AFF	CPC START			0+2+5
-150	A1	04	BX	1289	B7D7	AFF	CPC CONTROL			0+2+5
-150	A1	04	CW	125-8	B7D7	AFF	CPC BITS 1+2+3			0+2+5
-150	A1	04	CX	125-8	B7D7	AFF	CPC BITS 4+5+6			0+2+5
-150	A1	04	CY	125-8	B7D7	AFF	CPC BITS 7+8+9			0+2+5
-150	A1	04	HT	89	D7	AFF	CYCLE CONTROL PT-0T			0+3+1
-150	A1	04	HU	89	D7	AFF	CYCLE CONTROL A & B			0+3+1
-150	A1	04	HV	89	D7	AFF	CYCLE CONTROL I-0 INTLK			0+3+1
-150	A1	04	HW	89	D7	AFF	CYCLE CONTROL BRANCH			0+3+1
-150	A1	04	BD	89	D7	AFF	INACTIVE TPD			0+2+2
-150	A1	04	BD	12	B7	AFF	ALARM BRANCH SYNC			0+2+2
-150	A1	04	BF	78	B7	AFF	MC TRANSITION			0+2+2
-150	A2	04	CE	12	B7	AFF	TPD-0 TP-0			0+2+3
-150	A2	04	CF	12	B7	AFF	TPD-1 TP-1 IP-1			0+2+3
-150	A2	04	CG	12	B7	AFF	TPD-2 TP-2 IP-2			0+2+3
-150	A2	04	CH	12	B7	AFF	TPD-3 TP-3 IP-3			0+2+3
-150	A2	04	CJ	12	B7	AFF	TPD-4 TP-4 IP-4			0+2+3
-150	A2	04	CK	12	B7	AFF	TPD-5 TP-5 IP-5			0+2+3
-150	A2	04	CL	12	B7	AFF	TPD-6 TP-6 IP-6			0+2+3
-150	A2	04	CM	12	B7	AFF	TPD-7 TP-7 IP-7			0+2+3
-150	A2	04	CN	12	B7	AFF	TPD-8 TP-8 IP-8			0+2+3
-150	A2	04	CP	12	B7	AFF	TPD-9 TP-9 IP-9			0+2+3
-150	A2	04	CR	12	B7	AFF	TPD-10 TP-10 IP-10			0+2+3
-150	A2	04	CS	12	B7	AFF	TPD-11 TP-11 IP-11			0+2+3
-150	A3	04	JN	12	B7	AFF	OP REG VARIATION 10			0+3+1
-150	A3	04	JP	12	B7	AFF	OP REG VARIATION 9			0+3+1
-150	A3	04	JR	12	B7	AFF	OP REG VARIATION 8			0+3+1
-150	A3	04	JS	12	B7	AFF	OP REG VARIATION 7			0+3+1
-150	A3	04	JT	89	D7	AFF	OP REG CLASS 6			0+3+1
-150	A3	04	JU	89	D7	AFF	OP REG CLASS 5			0+3+1
-150	A3	04	JV	89	D7	AFF	OP REG CLASS 4			0+3+1
-150	A3	04	JW	89	D7	AFF	OP REG INDEX 3			0+3+1

MC-3

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-3	05/01/60	LOGIC
-150	A3	04	JX	89	D7	AFF OP REG INDEX 2			0*3*1
-150	A3	04	JY	89	D7	AFF OP REG INDEX 1			0*3*1
-150	A3	04	GN	12	B7	AFF OP REG VARIATION 12			0*3*1
-150	A3	04	HY	12	B7	AFF OP REG VARIATION 11			0*3*1
-150	A4	04	DS	78	B7	AFF TM START CNTRL & PARITY CHECK			0*4*1
-150	A4	04	DS	23	B7	AFF MEM UNIT SEL CNTRL TM & MEM 152			0*1*3
-150	A4	04	DR	23	B7	AFF MEM UNIT SEL CNTRL CLOCK REG			0*2*6
-150	A4	04	DR	78	B7	AFF PARITY WD XFER			0*1*3
-150	A5	06	GD	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GF	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GG	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GH	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GJ	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GK	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GL	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GM	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GN	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GP	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GR	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GS	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GT	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GU	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GV	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GW	12	B7	AFF PGM CNTR			0*4*1
-150	A5	06	GX	12	B7	AFF PGM CNTR			0*4*1
-150	A6	06	CD	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CF	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CG	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CH	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CJ	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CK	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CL	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CM	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CN	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CP	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CR	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CS	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CT	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CU	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CV	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CW	23	B7	AFF ADR REG			0*4*1
-150	A6	06	CX	23	B7	AFF ADR REG			0*4*1
-150	B1	04	GG	1-99	D7	CF& INSTR MATRIX BRANCH & MISC			0*3*2
-150	B2	04	HC	1-6	D7	CF& INSTR MATRIX I-0			0*3*2
-150	B2	04	HC	6	D7	CF BSN DT & NO ALARM			0*3*2
-150	B3	04	GK	1-5	B7	CF INSTR MATRIX RESET INDEX CLASS			0*3*2
-150	B3	04	GL	1289	B7	CF& INSTR MATRIX RESET INDEX CLASS			0*3*2
-150	B4	04	GC	1-9	D7	CF& INSTR MATRIX MISC CLASS			0*3*2
-150	B4	04	GE	2-9	D7	CF& INSTR MATRIX MISC CLASS			0*3*2
-150	B4	04	GF	3-9	D7	CF& INSTR MATRIX MISC CLASS			0*3*2
-150	B4	04	FS	1-9	D7	CF& INSTR MATRIX MISC CLASS			0*3*2
-150	B4	04	GF	12	D7	CF& CLASS CYCLE ADD			0*3*1
-150	B4	04	GE	1	D7	CF& IX INT COMP TO ADR REG			0*3*2
-150	B4	04	GE	1	D7	CF& IX INT COMP TO ADR REG			0*3*2
-150	C1	04	JH	123	D7	CF& CLASS CYCLE BRANCH			0*3*1
-150	C2	04	JK	123567D7		CF& CLASS CYCLE ADD I-0			0*3*1
-150	C3	04	JJ	123567D7		CF& CLASS CYCLE STORE RESET			0*3*1
-150	C4	04	JL	123567D7		CF& CLASS CYCLE SHIFT & MISC			0*3*1

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-3	05/01/60	LOGIC
-150	C4	04	JM	12356	D7	CF6 CLASS CYCLE MULT			0.3.1
-150	C5	04	JC	123567D7		CF6 VARIATION MATRIX			0.3.1
-150	C5	04	JD	123567D7		CF6 VARIATION MATRIX			0.3.1
-150	C5	04	JE	123567D7		CF6 VARIATION MATRIX			0.3.1
-150	C5	04	JF	123567D7		CF6 VARIATION MATRIX			0.3.1
-150	C5	04	JG	123567D7		CF6 VARIATION MATRIX			0.3.1
-150	C5	04	HP	123567D7		CF6 INDEX SELECTION MATRIX			0.3.1
-150	C5	04	HR	567	D7	CF6 INDEX SELECTION MATRIX			0.3.1
-150	C5	04	HR	12	D7	CF6 AOR 16 BIT OPERATION			0.5.1-2
-150	D1	04	BF	45	D7	CF6 TPD CONTINUE			0.2.2
-150	D1	04	BG	123	87	CF6 TPD CNTRL PAUSE BREAK			0.2.2
-150	D1	04	BH	14569	D7	CF6 TPD CNTRL PAUSE BREAK			0.2.2
-150	D1	04	BL	14569	D7	CF6 CONTINUE TPD CONTROL			0.2.2
-150	D1	04	DE	345	D7	CF6 STEP COUNTER BIT 32			0.5.3
-150	D1	04	DF	345	D7	CF6 STEP COUNTER BIT 16			0.5.3
-150	D1	04	BF	569	D7	CF MC TRANSITION OFF			0.2.2
-150	D1	04	DJ	345	D7	CF6 STEP COUNTER BIT 2			0.5.3
-150	D1	04	DL	4568	D7	CF6 STEP COUNTER			0.5.3
-150	D2	04	GN	345	D7	CF6 OP REG VARIATION 12			0.3.1
-150	D2	04	HY	345	D7	CF6 OP REG VARIATION 11			0.3.1
-150	D2	04	JN	345	D7	CF6 OP REG VARIATION 10			0.3.1
-150	D2	04	JP	345	D7	CF6 OP REG VARIATION 9			0.3.1
-150	D2	04	JR	345	D7	CF6 OP REG VARIATION 8			0.3.1
-150	D2	04	JS	345	D7	CF6 OP REG VARIATION 7			0.3.1
-150	D2	04	JW	345	D7	CF6 OP REG INDEX 3			0.3.1
-150	D2	04	JX	345	D7	CF6 OP REG INDEX 2			0.3.1
-150	D2	04	JY	345	D7	CF6 OP REG INDEX 1			0.3.1
-150	D2	04	CE	34	D7	CF6 TPD-0 TP-0			0.2.3
-150	D2	04	CM	34	D7	CF6 TPD-7 TP-7 IP-7			0.2.3
-150	D5	04	BV	456	D7	APG TPD & CPC CONTROL PULSE GENS			0.2.2
-150	D5	04	BV	7	D7	APG TPD & CPC CONTROL PULSE GENS			0.2.4
-150	D5	04	BW	45689	D7	APG TPD & CPC CONTROL PULSE GENS			0.2.2
-150	D5	04	BW	7	D7	APG TPD & CPC CONTROL PULSE GENS			0.2.4
-150	D5	04	BV	89	D7	APG COMPUTER ACTIVE & DUPLEX SW OPER			0.2.2
-150	E1	02	GE	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GF	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GG	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GH	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GJ	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GK	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GL	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GM	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GN	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GP	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GR	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GS	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GT	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GU	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GV	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GW	89	D7	AFF L MEM BUF			0.1.1
-150	E1	02	GX	89	D7	AFF L MEM BUF			0.1.1
-150	E1	03	GF	89	D7	AFF R MEM BUF			0.1.2
-150	E1	03	GG	89	D7	AFF R MEM BUF			0.1.2
-150	E1	03	GH	89	D7	AFF R MEM BUF			0.1.2
-150	E1	03	GJ	89	D7	AFF R MEM BUF			0.1.2
-150	E1	03	GK	89	D7	AFF R MEM BUF			0.1.2
-150	E1	03	GL	89	D7	AFF R MEM BUF			0.1.2
-150	E1	03	GM	89	D7	AFF R MEM BUF			0.1.2
-150	E1	03	GN	89	D7	AFF R MEM BUF			0.1.2
-150	E1	03	GP	89	D7	AFF R MEM BUF			0.1.2
-150	E1	03	GR	89	D7	AFF R MEM BUF			0.1.2
-150	E1	03	GS	89	D7	AFF R MEM BUF			0.1.2
-150	E1	03	GT	89	D7	AFF R MEM BUF			0.1.2
-150	E1	03	GU	89	D7	AFF R MEM BUF			0.1.2
-150	E1	03	GV	89	D7	AFF R MEM BUF			0.1.2
-150	E1	03	GW	89	D7	AFF R MEM BUF			0.1.2
-150	E1	03	GX	89	D7	AFF R MEM BUF			0.1.2

V C-L FR PU TUBES PINS TYPE DESCRIPTION MC- 05/01/60 LOGIC

TO BE USED FOR ADDITIONAL INFORMATION

5-2-2.38

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-4	05/01/60	LOGIC
6250	A1	03	KD	3-7	85	PCF RI-O REG TO PRNTR EXIT CTRL			0.7+6
6250	A1	03	MD	345	85	PCF R TEST REG			0.1+3
6250	A2	05	AU	345	85	PCF INDEX INTERVAL			0.6+1
6250	A2	05	AV	345	85	PCF INDEX INTERVAL			0.6+1
6250	A2	05	AW	345	85	PCF INDEX INTERVAL			0.6+1
6250	A2	05	AX	345	85	PCF INDEX INTERVAL			0.6+1
6250	A2	05	AY	345	85	PCF INDEX INTERVAL			0.6+1
6250	A2	05	AT	345	85	PCF INDEX INTERVAL			0.6+1
6250	B1	05	EH	123	85	PCF READ WRITE BREAK IN & OUT			0.2+3
6250	B1	05	EP	345	85	PCF WORD COUNTER STATUS			0.7+3
6250	B1	05	DX	345	85	PCF BIT R-1 DRUM ADR REG			0.7+7
6250	C1	05	BP	67	85	LA BRANCH ON BSN CONTROL			0.7+4
6250	C1	05	BP	23	85	LA BREAK PARITY CHECK CONTROL			0.1+1
6250	D1	13	AJ	789	85	LA TA SEL READY READ WRITE			0.8+2
6250	D1	13	AH	56	85	PCF TA RESET CHAR REG			0.8+3
6250	D1	13	AJ	46	85	PCF TA CLOCK CHAR GATE WRITE PULSE			0.8+3
6250	D1	13	BS	67	85	CPG TA TEST WRT WD CTR ZERO CYCLES			0.8+5
6250	D1	13	BT	4	85	CPG TA TEST READ & REWIND CYCLE			0.8+5
6250	D1	13	BH	8	85	I TA PREPARED			0.8+1
6250	E1	13	BG	13	85	I TA NOT LD PT RWD STAT FILE PROT			0.8+2
6250	E1	13	BG	567	85	PCF TA READ & WRITE STATUS			0.8+2
6250	E1	13	BM	123	85	MPD TA SYNC PULSE MPD			0.8+2
6250	E1	13	CJ	2367	85	PCF TA WORD RING			0.8+4
6250	E1	13	CK	2367	85	PCF TA WORD RING			0.8+4
6250	E1	13	CL	2367	85	PCF TA WORD RING			0.8+4
6250	E1	13	CM	2367	85	PCF TA WORD RING			0.8+4
6250	E1	13	CN	2367	85	PCF TA WORD RING			0.8+4
6250	E1	13	CP	2367	85	PCF TA WORD RING			0.8+4
6150	A1	06	HE	349	86D6G6	CF DRUM CNTRL INTERLEAVE			0.7+2
6150	A1	06	HL	346	D5G5	CF DRUM CONTROL REG			0.7+2
6150	A1	06	HM	346	D5G5	CF DRUM CONTROL REG			0.7+2
6150	A1	06	HN	346	D5G5	CF DRUM CONTROL REG			0.7+2
6150	A1	06	HP	346	D5G5	CF DRUM CONTROL REG			0.7+2
6150	A1	06	HR	346	D5G5	CF DRUM CONTROL REG			0.7+2
6150	A1	06	HS	346	D5G5	CF DRUM CONTROL REG			0.7+2
6150	A1	06	HT	346	D5G5	CF DRUM CONTROL REG			0.7+2
6150	A1	06	HU	346	D5G5	CF DRUM CONTROL REG			0.7+2
6150	A1	06	HV	346	D5G5	CF DRUM CONTROL REG			0.7+2
6150	A1	06	HW	346	D5G5	CF DRUM CONTROL REG			0.7+2
6150	A1	06	HX	346	D5G5	CF DRUM CONTROL REG			0.7+2
6150	A2	02	KE	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KF	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KG	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KH	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KJ	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KK	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KL	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KM	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KN	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KP	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KR	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KS	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KT	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KU	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KV	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KW	45	D5	CF L I-O REG			0.7+1
6150	A2	02	KX	45	D5	CF L I-O REG			0.7+1
6150	A2	02	LF	2	D5	CF L I-O REG			0.7+1
6150	A2	02	LG	2	D5	CF L I-O REG			0.7+1
6150	A2	02	LH	2	D5	CF L I-O REG			0.7+1
6150	A2	02	LJ	2	D5	CF L I-O REG			0.7+1
6150	A2	02	LK	2	D5	CF L I-O REG			0.7+1
6150	A2	02	LL	2	D5	CF L I-O REG			0.7+1
6150	A2	02	LM	2	D5	CF L I-O REG			0.7+1
6150	A2	02	LN	2	D5	CF L I-O REG			0.7+1
6150	A2	02	LP	2	D5	CF L I-O REG			0.7+1

MC-4

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-4	05/01/60	LOGIC
6150	A2	02	LR	2	D5	CF	L I-O REG			0.7.1
6150	A2	02	LS	2	D5	CF	L I-O REG			0.7.1
6150	A2	02	LT	2	D5	CF	L I-O REG			0.7.1
6150	A2	02	LU	2	D5	CF	L I-O REG			0.7.1
6150	A2	02	LV	2	D5	CF	L I-O REG			0.7.1
6150	A2	02	LW	2	D5	CF	L I-O REG			0.7.1
6150	A2	02	LX	2	D5	CF	L I-O REG			0.7.1
6150	A2	02	LF	12	D5	CF	L I-O REG			0.7.6
6150	A2	02	LG	12	D5	CF	L I-O REG			0.7.6
6150	A2	02	LH	12	D5	CF	L I-O REG			0.7.6
6150	A2	02	LJ	12	D5	CF	L I-O REG			0.7.6
6150	A2	02	LK	12	D5	CF	L I-O REG			0.7.6
6150	A2	02	LL	12	D5	CF	L I-O REG			0.7.6
6150	A2	02	LM	12	D5	CF	L I-O REG			0.7.6
6150	A2	02	LN	12	D5	CF	L I-O REG			0.7.6
6150	A2	02	LP	12	D5	CF	L I-O REG			0.7.6
6150	A2	02	LR	12	D5	CF	L I-O REG			0.7.6
6150	A2	02	LS	12	D5	CF	L I-O REG			0.7.6
6150	A2	02	LT	12	D5	CF	L I-O REG			0.7.6
6150	A2	02	LU	12	D5	CF	L I-O REG			0.7.6
6150	A2	02	LV	12	D5	CF	L I-O REG			0.7.6
6150	A2	02	LW	12	D5	CF	L I-O REG			0.7.6
6150	A2	02	LX	12	D5	CF	L I-O REG			0.7.6
6150	A2	03	KF	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	KG	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	KH	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	KJ	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	KK	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	KL	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	KM	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	KN	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	KP	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	KR	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	KS	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	KT	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	KU	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	KV	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	KW	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	KX	45	D5	CF	R I-O REG			0.7.2
6150	A2	03	LF	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LG	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LH	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LJ	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LK	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LL	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LM	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LN	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LP	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LR	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LS	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LT	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LU	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LV	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LW	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LX	2	D5	CF	R I-O REG			0.7.2
6150	A2	03	LF	12	D5	CF	R I-O REG			0.7.6
6150	A2	03	LG	12	D5	CF	R I-O REG			0.7.6
6150	A2	03	LH	12	D5	CF	R I-O REG			0.7.6
6150	A2	03	LJ	12	D5	CF	R I-O REG			0.7.6
6150	A2	03	LK	12	D5	CF	R I-O REG			0.7.6
6150	A2	03	LL	12	D5	CF	R I-O REG			0.7.6
6150	A2	03	LM	12	D5	CF	R I-O REG			0.7.6
6150	A2	03	LN	12	D5	CF	R I-O REG			0.7.6
6150	A2	03	LP	12	D5	CF	R I-O REG			0.7.6
6150	A2	03	LR	12	D5	CF	R I-O REG			0.7.6
6150	A2	03	LS	12	D5	CF	R I-O REG			0.7.6
6150	A2	03	LT	12	D5	CF	R I-O REG			0.7.6
6150	A2	03	LU	12	D5	CF	R I-O REG			0.7.6
6150	A2	03	LV	12	D5	CF	R I-O REG			0.7.6
6150	A2	03	LW	12	D5	CF	R I-O REG			0.7.6
6150	A2	03	LX	12	D5	CF	R I-O REG			0.7.6
6150	A3	06	KE	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KF	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KG	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KH	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KJ	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KK	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KL	4	D5	CF	L I-O BUF			0.7.1

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-4	05/01/60	LOGIC
6150	A3	06	KM	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KN	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KP	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KR	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KS	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KT	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KU	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KV	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KW	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KX	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KY	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	KZ	4	D5	CF	L I-O BUF			0.7.1
6150	A3	06	JF	456	D5	CF	R I-O BUF			0.7.2
6150	A3	06	JG	456	D5	CF	R I-O BUF			0.7.2
6150	A3	06	JH	456	D5	CF	R I-O BUF			0.7.2
6150	A3	06	JJ	456	D5	CF	R I-O BUF			0.7.2
6150	A3	06	JK	456	D5	CF	R I-O BUF			0.7.2
6150	A3	06	JL	456	D5	CF	R I-O BUF			0.7.2
6150	A3	06	JM	456	D5	CF	R I-O BUF			0.7.2
6150	A3	06	JN	456	D5	CF	R I-O BUF			0.7.2
6150	A3	06	JP	456	D5	CF	R I-O BUF			0.7.2
6150	A3	06	JR	456	D5	CF	R I-O BUF			0.7.2
6150	A3	06	JS	456	D5	CF	R I-O BUF			0.7.2
6150	A3	06	JT	456	D5	CF	R I-O BUF			0.7.2
6150	A3	06	JU	456	D5	CF	R I-O BUF			0.7.2
6150	A3	06	JV	456	D5	CF	R I-O BUF			0.7.2
6150	A3	06	JW	456	D5	CF	R I-O BUF			0.7.2
6150	A3	06	JX	456	D5	CF	R I-O BUF			0.7.2
6150	A4	06	FF	5	D5	CF	I-O ADR CTR			0.4.1
6150	A4	06	FD	5	D5	CF	I-O ADR COUNTER			0.4.1
6150	A4	06	FG	7	85	CF	WD CTR			0.4.1
6150	A4	06	FH	7	85	CF	WD CTR			0.4.1
6150	A4	06	FJ	7	85	CF	WD CTR			0.4.1
6150	A4	06	FK	5	D5	CF	I-O ADR CTR			0.4.1
6150	A4	06	FL	5	D5	CF	I-O ADR CTR			0.4.1
6150	A4	06	FM	5	D5	CF	I-O ADR CTR			0.4.1
6150	A4	06	FN	5	D5	CF	I-O ADR CTR			0.4.1
6150	A4	06	FP	5	D5	CF	I-O ADR CTR			0.4.1
6150	A4	06	FR	5	D5	CF	I-O ADR CTR			0.4.1
6150	A4	06	FS	5	D5	CF	I-O ADR CTR			0.4.1
6150	A4	06	FT	5	D5	CF	I-O ADR CTR			0.4.1
6150	A4	06	FU	5	D5	CF	I-O ADR CTR			0.4.1
6150	A4	06	FV	5	D5	CF	I-O ADR CTR			0.4.1
6150	A4	06	FW	5	D5	CF	I-O ADR CTR			0.4.1
6150	A4	06	FX	5	D5	CF	I-O ADR CTR			0.4.1
6150	A4	06	FD	7	85	CF	WD CTR			0.7.3
6150	A4	06	FF	7	85	CF	WD CTR			0.7.3
6150	A4	06	FG	5	D5	CF	I-O WORD COUNTER			0.7.3
6150	A4	06	FH	5	D5	CF	I-O WORD COUNTER			0.7.3
6150	A4	06	FJ	5	D5	CF	I-O WORD COUNTER			0.7.3
6150	A4	06	FK	7	85	CF	WD CTR			0.7.3
6150	A4	06	FL	7	85	CF	WD CTR			0.7.3
6150	A4	06	FM	7	85	CF	WD CTR			0.7.3
6150	A4	06	FN	7	85	CF	WD CTR			0.7.3
6150	A4	06	FP	7	85	CF	WD CTR			0.7.3
6150	A4	06	FR	7	85	CF	WD CTR			0.7.3
6150	A4	06	FS	7	85	CF	WD CTR			0.7.3
6150	A4	06	FT	7	85	CF	WD CTR			0.7.3
6150	A4	06	FU	7	85	CF	WD CTR			0.7.3
6150	A4	06	FV	7	85	CF	WD CTR			0.7.3
6150	A4	06	FW	7	85	CF	WD CTR			0.7.3
6150	A4	06	FX	7	85	CF	WD CTR			0.7.3
6150	B1	05	BD	38	D5	CF	INACTIVITY			0.7.4
6150	B1	05	BH	8	D5	CF	TTY PARITY			0.7.4
6150	B1	05	BK	8	D5	CF	G-G P. PARITY			0.7.4
6150	B1	05	CR	258	D5	CF	OP PRINTERS 1 2 3			0.7.6
6150	B1	05	CT	258	D5	CF	OP PRINTERS 4 5 6			0.7.6
6150	B1	05	CU	258	D5	CF	OP PRINTERS 7 8 9			0.7.6
6150	B1	05	CW	258	D5	CF	OP PRINTER 10 PUNCH 162			0.7.6
6150	B1	05	BC	38	D5	CF	CONDITION LITES 1 2 3			0.7.4
6150	B1	05	BE	38	D5	CF	INTERCOM 1,2,3, TAPES NOT RDY			0.7.4
6150	B1	05	BF	38	D5	CF	INTERCOM COND LGT 4 & DUPMC EXC			0.7.4
6150	B1	05	BH	38	D5	CF	ALARM 1 & 2 & TRACK DISPLAY			0.7.4
6150	B1	05	BJ	38	D5	CF	RDR .PRINTER PUNCH TAPE NOT READY			0.7.4
6150	B1	05	BK	38	D5	CF	MEM DR TAPE PAR SD CAMERA STAT			0.7.4
6150	B1	05	BL	38	D5	CF	LGR OFLOW OPUT ALM & STS DRM			0.7.4
6150	B1	05	BM	38	D5	CF	INPUT DATA & SIMPLEX CONTROL			0.7.4
6150	B1	05	BN	38	D5	CF	OUT PAR ILL ADR OB PAR			0.7.4

MC-4

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-4	05/01/60	LOGIC
6150	B1	05	BS	2347	B5	CF DUP & SENSE SWS 1-4 & I-O INTLK			0*7*4
6150	B1	05	BP	567	D5G5	LACFBANCH ON BSN CONTROL			0*7*4
6150	B1	05	BP	234	D5G5	LACFBREAK PARITY CHECK CONTROL			0*1*1
6150	B1	05	BU	569	D5	CF BREAK PARITY CHECK CONTROL			0*1*1
6150	B1	05	BU	5	D5	CF BRANCH ON BSN SYNC			0*7*4
6150	B1	05	CD	5	D5	CF DRUM MODE SELECT GATES			0*7*4
6150	B1	05	CD	2	D5	CF DRUM MODE SELECT GATES			0*7*6
6150	B1	05	CD	346-9	D5	CF DRUM MODE SELECT GATES			0*7*7
6150	B1	05	CM	258	D5	CF MC EXCUR STOP-START			0*7*5
6150	B1	05	BG	3	D5	CF G/A TD PARITY			000*7*4
6150	B2	05	AC	1-5	D5	CF PERSELBSN OUT			0*6*1
6150	B2	05	AD	1-9	D5	CF PERSELBSN OUT			0*6*1
6150	B2	05	AE	1-9	D5	CF PERSELBSN OUT			0*6*1
6150	B2	05	AF	1-9	D5	CF PERSELBSN OUT			0*6*1
6150	B2	05	AG	1-9	D5	CF PERSELBSN OUT			0*6*1
6150	B2	05	AH	1-9	D5	CF PERSELBSN OUT			0*6*1
6150	B2	05	AJ	1-9	D5	CF PERSELBSN OUT			0*6*1
6150	B2	05	AK	1-9	D5	CF PERSELBSN OUT			0*6*1
6150	B2	05	AL	1-9	D5	CF PERSELBSN OUT			0*6*1
6150	B2	05	AM	1-9	D5	CF PERSELBSN OUT			0*6*1
6150	B2	05	AN	1-9	D5	CF PERSELBSN OUT			0*6*1
6150	C1	03	MD	12	D5	SS R TEST REG			0*1*3
6150	C2	05	GN	57	B5D5	CF INACTIVITY CNTR			0*7*5
6150	C2	05	FP	12	G5	SS DISCON CARD RD*PRINTER & PUNCH			0*7*6
6150	C2	05	CR	124578G5		SS OP PRINTERS 1 2 3			0*7*6
6150	C2	05	CT	124578G5		SS OP PRINTERS 4 5 6			0*7*6
6150	C2	05	CU	124578G5		SS OP PRINTERS 7 8 9			0*7*6
6150	C2	05	CW	124578G5		SS OP PRINTER 10 OP PUNCH 162			0*7*6
6150	C2	05	FE	124578G5		SS START CARD RD* PRINTER & PUNCH			0*7*6
6150	C2	05	CM	124578G5		SS MC EXCUR STOP-START			0*7*5
6150	C2	05	GC	1	D5	CF MAIN WARNING LIGHT CONTROL			0*7*9
6150	C2	05	GE	1569	D5	CF WARNING LITE CTRL REG 1 & AUX			0*7*9
6150	C2	05	GF	14569	D5	CF WARNING LIGHT CONTROL REG 2 & 4			0*7*9
6150	C2	05	GG	2468	D5	CF WARNING LIGHT COUNTER RESET			0*7*9
6150	D1	05	DM	1456	D5	CF DRUM CNTRL ACCEPT			0*7*7
6150	D1	05	DR	1456	D5	CF NOT READ DRUM & DRUM OPERATION			0*7*7
6150	D1	05	DU	14569	D5	CF I-O REG & BUF STATUS			0*7*7
6150	D1	05	DV	456	D5	CF WR DRUMS & WR REG STATUS			0*7*7
6150	D1	05	FE	258	D5	CF START CARD RD*PRINTER & PUNCH			0*7*6
6150	D1	05	FH	1	D5	CF COMMAND GEN 3			0*7*6
6150	D1	05	FH	36	D5G5	CF CARD MACH OP & CARD RD START			0*7*6
6150	D1	05	FH	9	G5	CF SECOND BREAK REQUEST			0*7*6
6150	D1	05	FP	2	D5	CF DISCON CARD RD*PRINTER & PUNCH			0*7*6
6150	D1	05	FR	145	D5	CF TAPE OPERATION			0*7*8
6150	D1	05	FT	13	D5	CF BURST TIME CNTR & MI MATRIX			0*7*7
6150	D1	05	EV	5	D5	CF OPERATE 16			0*7*5
6150	D1	05	DF	34	B6D6	CF DRUM WORD DEMAND & SYNC			0*7*7
6150	D1	05	DL	34	B6D6	CF I-O BUF SYNC & LOAD			0*7*7
6150	D1	05	DL	9	G6	CF INTER-LEAVE			0*7*7
6150	D1	05	DW	34	B6D6	CF WRITE REG STATUS SYNC BREAK REQ			0*7*7
6150	D1	05	FJ	35	D5	CF I-O REG SELECT			0*7*5
6150	D1	05	FR	569	D5	CF REL TIME CLOCK TEST			0*2*6
6150	D1	05	DF	9	G6	CF LOCK ADR CNTR			0*4*1
6150	D2	05	DS	1-467	B5D5	CF DRUM RD-WR OPERATION CNTRL			0*7*7
6150	D2	05	DT	1-467	B5D5	CF DRUM RD-WR OPERATION CNTRL			0*7*7
6150	D2	05	FK	2	D5	CF I-O REG SELECT			0*7*3
6150	D2	05	FK	2	D5	CF TAPE CONTROLS			0*7*8
6150	D2	05	FU	6	B5	CF TAPE OPERATION			0*7*8
6150	D2	05	FU	78	B5D5	CF BURST TIME CNTR & MI MATRIX			0*7*7
6150	D2	05	CC	258	B5	CF TOB & TTB GATES			0*6*2
6150	D2	05	CH	258	B5	CF TOB & TTB GATES			0*6*2
6150	D2	05	DC	258	B5	CF TOB & TTB GATES			0*6*2
6150	D3	05	EJ	1456	D5	CF BREAK & BREAK REQUEST			0*2*3
6150	D3	05	EK	156	D5	CF READ WRITE			0*7*3
6150	D3	05	EN	14569	D5	CF I-O INTLK SENSE WORD CNTR			0*7*3
6150	D3	05	ES	78	D5	CF STEP I-O WORD COUNTER			0*7*3
6150	D3	05	EM	9	G6	CF I-O INTLK SYNC			0*7*3
6150	D3	05	EM	3	B6	CF RDS WRT ZERO TAPES & CARD MACH			0*7*3

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-4	05/01/60	LOGIC
6150	D3	05	EM	4	D6	CF	BREAK REQUEST SYNC			0.2+3
6150	E1	13	AC	7	D5	CF	TA OSC			0.8+3
6150	E1	13	AJ	9	G5	CF	TA TPD CLOCK CTR REG & FREQ DIV			0.8+3
6150	E1	13	AE	47	D5	CF	TA TPD CLOCK REG			0.8+3
6150	E1	13	AF	47	D5	CF	TA TPD CLOCK REG			0.8+3
6150	E1	13	AG	256	D5	CF	TA CLOCK TIME PULSE DISTRIBUTOR			0.8+3
6150	E2	13	AH	34	D5	SS	TA RESET CHAR REG			0.8+3
6150	E2	13	AJ	23	D5	SS	TA CLOCK CHAR GATE WRITE PULSE			0.8+3
6150	E2	13	AP	123	B5	SS	TA NOT LD PT RWD STAT FILE PROT			0.8+2
6150	E2	13	AP	789	D5	CF	TA BACKWARD CNTRL			0.8+2
6150	E2	13	BD	89	G5	CF	TA SET WRITE STATUS			0.8+2
6150	E2	13	BE	89	D5	CF	TA SET READ STATUS			0.8+2
6150	E2	13	BF	56	G5	CF	TA READ WRITE CONTROL			0.8+2
6150	E2	13	BF	123	B5D5	SS	TA READ WRITE CONTROL			0.8+2
6150	E2	13	BL	123	B5D5	SS	TA RESET WR FF & WR E O R			0.8+2
6150	E2	13	BL	4	G5	CF	TA RESET WR FF			0.8+2
6150	E2	13	BS	1-4	D5	SS	TA TEST WRT WD CTR ZERO CYCLES			0.8+5
6150	E2	13	BT	23	D5	SS	TA TEST READ & REWIND CYCLES			0.8+5
6150	E2	13	BT	6	G5	CF	TA TEST ERROR CNTRL			0.8+5
6150	E3	13	AK	37	D5	CF	TA DRIVE SELECT			0.8+1
6150	E3	13	AL	37	D5	CF	TA DRIVE SELECT			0.8+1
6150	E3	13	BK	89	B5	CF	TA GO PREPD & NOT PREPD+NIFA			0.8+2
6150	E3	13	AM	37	D5	CF	TA DRIVE SELECT			0.8+1
6150	E3	13	BK	1-34-685D5		CF	TA GO PREPD & NOT PTRPD NIFA			0.8+1
6150	E3	13	BX	28	D5	CF	TA DELAYED RD-WR READ E O F			0.8+2
6150	E3	13	BX	8	D5	CF	TA DELAYED RD-WT READ E O F			0.8+4
6150	E3	13	DC	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DD	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DE	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DF	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DG	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DH	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DJ	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DK	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DN	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DP	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DR	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DS	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DT	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DU	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DV	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DW	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DX	38	D5	CF	TA WORD REG			0.8+4
6150	E3	13	DL	34	D5	CF	TA WRITE E O F STATUS			0.8+4
6150	E3	13	CJ	235	D5	CF	TA WORD RING			0.8+4
6150	E3	13	CK	235	D5	CF	TA WORD RING			0.8+4
6150	E3	13	CL	235	D5	CF	TA WORD RING			0.8+4
6150	E3	13	CM	235	D5	CF	TA WORD RING			0.8+4
6150	E3	13	CN	235	D5	CF	TA WORD RING			0.8+4
6150	E3	13	CP	235	D5	CF	TA WORD RING			0.8+4
6150	E4	13	AJ	789	G5	LA	TA SEL READY READ WRITE			0.8+2
6150	E4	13	AN	12	B5	SS	TA BACK SPACE STOP 1			0.8+2
6150	E4	13	AR	7	D5	CF	TA B O R & E O R			0.8+2
6150	E4	13	AR	123	B5	SS	TA START READ BACK SPACE			0.8+2
6150	E4	13	BC	123	B5D5	SS	TA SELECT READ DELAY			0.8+2
6150	E4	13	BC	8	G5	CF	TA SELECT READ DELAY			0.8+2
6150	E4	13	BD	124	B5D5	SS	TA READ WRITE START DELAY			0.8+2
6150	E4	13	BH	4	D5	CF	TA DISCONNECT & SENSE			0.8+2
6150	E4	13	BH	468	D5	CF	TA DISCONNECT & SENSE			0.8+1
6150	E4	13	BM	8	G5	CF	TA WORD CNTR ZERO			0.8+2
6150	E4	13	BR	123	B5	SS	TA BACK SPACE STOP 2 & WR DELAY			0.8+2
6150	E4	13	CS	78	G5	CF	TA CHARACTER REG			0.8+4
6150	E4	13	CT	78	G5	CF	TA CHARACTER REG			0.8+4
6150	E4	13	CU	78	G5	CF	TA CHAR REG			0.8+4
6150	E4	13	CV	78	G5	CF	TA CHARACTER REG			0.8+2
6150	E4	13	CW	78	G5	CF	TA CHARACTER REG			0.8+4
6150	E4	13	CX	78	G5	CF	TA CHARACTER REG			0.8+4
6150	E4	13	CY	78	G5	CF	TA CHARACTER REG			0.8+4
6150	E5	13	86	13	D5	I	TA END BACKSPACE BKWD CTRL			0.8+2
6150	E5	13	8M	123	D5	MPD	TA SYNC PULSE MPD			0.8+2

MC-4

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-4	05/01/60	LOGIC
6150	F1	13	BX	34	B5	EPG TA E O F GATED SYNC PULSE			0*8*2
6150	F1	13	BR	4589	B6	EPG TA BACK SPACE STOP 2 & WR DELAY			0*8*2
6150	F1	13	BE	12	B5	EPG TA READ WRITE CNTRL			0*8*2
6150	F1	13	BC	67	G6	EPG TA DELAYED READ WRITE			0*8*2
6150	F1	13	BD	67	G6	EPG TA READ WRITE START DELAY			0*8*2
6150	F1	13	AR	45	D6	EPG TA START READ			0*8*2
6150	F2	13	AN	3489	D5	EPG TA END BACK SPACE & STOP 1			0*8*2
6150	F2	13	AP	45	D6	EPG TA END BACKSPACE BKWD CTRL			0*8*2
6150	F2	13	BL	67	G6	EPG TA RESET WR FF & WR E O R			0*8*2
6150	F2	13	BM	45	B6	EPG TA E O R SYNC			0*8*2
690	A1	06	DC	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	ED	1	B5	GT ADR REG TO WORD COUNTER			0*4*1
690	A1	06	DF	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DG	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DH	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DJ	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DK	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DL	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DM	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DN	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DP	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DR	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DS	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DT	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DU	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DV	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DW	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DX	7	G7	GT ADR REG TO ADR CNTR			0*4*1
690	A1	06	DF	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	DG	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	DH	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	DJ	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	DK	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	DL	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	DM	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	DN	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	DP	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	DR	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	DS	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	DT	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	DU	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	DV	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	DW	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	DX	1	B5	GT ADR REG TO WD CNTR			0*4*1
690	A1	06	EF	1	B5	GT ADR REG TO DRUM CNTRL REG			0*4*1
690	A1	06	EG	1	B5	GT ADR REG TO DRUM CONTROL REG			0*4*1
690	A1	06	EH	1	B5	GT ADR REG TO DRUM CONTROL REG			0*4*1
690	A1	06	EJ	1	B5	GT ADR REG TO DRUM CONTROL REG			0*4*1
690	A1	06	EK	1	B5	GT ADR REG TO DRUM CONTROL REG			0*4*1
690	A1	06	EL	1	B5	GT ADR REG TO DRUM CONTROL REG			0*4*1
690	A1	06	EM	1	B5	GT ADR REG TO DRUM CONTROL REG			0*4*1
690	A1	06	EN	1	B5	GT ADR REG TO DRUM CONTROL REG			0*4*1
690	A1	06	EP	1	B5	GT ADR REG TO DRUM CONTROL REG			0*4*1
690	A1	06	ER	1	B5	GT ADR REG TO DRUM CONTROL REG			0*4*1
690	A1	06	ES	1	B5	GT ADR REG TO DRUM CONTROL REG			0*4*1
690	A1	06	ET	1	B5	GT ADR REG TO DRUM CONTROL REG			0*4*1
690	A1	06	EU	1	B5	GT ADR REG TO DRUM CONTROL REG			0*4*1
690	A1	06	EV	1	B5	GT ADR REG TO DRUM CONTROL REG			0*4*1
690	A1	06	EW	1	B5	GT ADR REG TO DRUM CONTROL REG			0*4*1
690	A1	06	EX	1	B5	GT ADR REG TO DRUM CONTROL REG			0*4*1
690	A1	06	FD	4	D6	GT WD CTR TO R ACC			0*7*3
690	A1	06	FF	4	D6	GT WD CTR TO R ACC			0*7*3
690	A1	06	FG	4	D6	GT WD CTR TO R ACC			0*7*3
690	A1	06	FH	4	D6	GT WD CTR TO R ACC			0*7*3
690	A1	06	FJ	4	D6	GT WD CTR TO R ACC			0*7*3
690	A1	06	FK	4	D6	GT WD CTR TO R ACC			0*7*3
690	A1	06	FL	4	D6	GT WD CTR TO R ACC			0*7*3
690	A1	06	FM	4	D6	GT WD CTR TO R ACC			0*7*3
690	A1	06	FN	4	D6	GT WD CTR TO R ACC			0*7*3
690	A1	06	FP	4	D6	GT WD CTR TO R ACC			0*7*3
690	A1	06	FR	4	D6	GT WD CTR TO R ACC			0*7*3
690	A1	06	FS	4	D6	GT WD CTR TO R ACC			0*7*3
690	A1	06	FT	4	D6	GT WD CTR TO R ACC			0*7*3
690	A1	06	FU	4	D6	GT WD CTR TO R ACC			0*7*3
690	A1	06	FV	4	D6	GT WD CTR TO R ACC			0*7*3
690	A1	06	FW	4	D6	GT WD CTR TO R ACC			0*7*3

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-4	05/01/60	LOGIC
690	A1	06	FX	4	D6	GT	WD	CTR TO R ACC	0.7+3
690	A1	06	GC	589	G57	GT	DRUM	CNTRL INTERLEAVE	0.7+2
690	A2	06	KE	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KF	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KG	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KH	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KJ	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KK	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KL	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KM	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KN	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KP	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KR	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KS	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KT	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KU	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KV	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KW	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	KX	6	G6	GT	L I-O	BUF TO L I O REG	0.7+1
690	A2	06	JF	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	JG	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	JH	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	JJ	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	JK	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	JL	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	JM	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	JN	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	JP	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	JR	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	JS	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	JT	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	JU	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	JV	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	JW	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	JX	7	G6	GT	R I-O	BUF TO R I O REG	0.7+2
690	A2	06	GD	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GF	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GG	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GH	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GI	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GK	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GL	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GM	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GN	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GO	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GP	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GS	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GT	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GU	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GV	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GW	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A2	06	GX	8	G5	GT	ADR	CNTR TO MEM ADR REG	000+4+1
690	A3	02	KE	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KF	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KG	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KH	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KJ	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KK	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KL	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KM	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KN	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KP	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KR	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KS	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KT	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KU	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KV	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KW	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	KX	789	G567	GT	L I-O	REG TO DR AXD & TA WR REGS	0.7+1
690	A3	02	LF	3	B6	GT	L I-O	REG TO WARN LIGHTS	0.7+1
690	A3	02	LG	3	B6	GT	L I-O	REG TO WARN LIGHTS	0.7+1
690	A3	02	LH	3	B6	GT	L I-O	REG TO WARN LIGHTS	0.7+1
690	A3	02	LJ	3	B6	GT	L I-O	REG TO WARN LIGHTS	0.7+1
690	A3	02	LK	3	B6	GT	L I-O	REG TO WARN LIGHTS	0.7+1
690	A3	02	LL	3	B6	GT	L I-O	REG TO WARN LIGHTS	0.7+1
690	A3	02	LM	3	B6	GT	L I-O	REG TO WARN LIGHTS	0.7+1

MC-4

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-4	05/01/60	LOGIC
690	A3	02	LM	3	B6	GT	L I-O REG TO WARN LIGHTS			0.7.1
690	A3	02	LP	3	B6	GT	L I-O REG TO WARN LIGHTS			0.7.1
690	A3	02	LR	3	B6	GT	L I-O REG TO WARN LIGHTS			0.7.1
690	A3	02	LS	3	B6	GT	L I-O REG TO WARN LIGHTS			0.7.1
690	A3	02	LT	3	B6	GT	L I-O REG TO WARN LIGHTS			0.7.1
690	A3	02	LU	3	B6	GT	L I-O REG TO WARN LIGHTS			0.7.1
690	A3	02	LV	3	B6	GT	L I-O REG TO WARN LIGHTS			0.7.1
690	A3	02	LW	3	B6	GT	L I-O REG TO WARN LIGHTS			0.7.1
690	A3	02	LX	3	B6	GT	L I-O REG TO WARN LIGHTS			0.7.1
690	A3	03	KF	789	G567	CF	R I-O REG TU DM AXD 6 TA WR REGS			0.7.2
690	A3	03	KG	789	G567	CF	R I-O REG TU DM AXD 6 TA WR REGS			0.7.2
690	A3	03	KH	789	G567	CF	R I-O REG TU DM AXD 6 TA WR REGS			0.7.2
690	A3	03	KJ	789	G567	CF	R I-O REG TU DR AXD 6 TA WR REGS			0.7.2
690	A3	03	KK	789	G567	CF	R I-O REG TU DR AXD 6 TA WR REGS			0.7.2
690	A3	03	KL	789	G567	CF	R I-O REG TU DR AXD 6 TA WR REGS			0.7.2
690	A3	03	KM	789	G567	CF	R I-O REG TU DM AXD 6 TA WR REGS			0.7.2
690	A3	03	KN	789	G567	GT	R I-O REG TU DM AXD 6 TA WR REGS			0.7.2
690	A3	03	KP	789	G567	GT	R I-O REG TU DM AXD 6 IA WR REGS			0.7.2
690	A3	03	KR	789	G567	GT	R I-O REG TU DM AXD 6 IA WR REGS			0.7.2
690	A3	03	KS	789	G567	GT	R I-O REG TU DM AXD 6 IA WR REGS			0.7.2
690	A3	03	KT	789	G567	GT	R I-O REG TU DM AXD 6 IA WR REGS			0.7.2
690	A3	03	KU	789	G567	GT	R I-O REG TU DM AXD 6 IA WR REGS			0.7.2
690	A3	03	KV	789	G567	GT	R I-O REG TU DR AXD 6 TA WR REGS			0.7.2
690	A3	03	KW	789	G567	GT	R I-O REG TU DR AXD 6 TA WR REGS			0.7.2
690	A3	03	KX	789	G567	GT	R I-O REG TU DR AXD 6 TA WR REGS			0.7.2
690	A3	03	LF	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A3	03	LG	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A3	03	LH	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A3	03	LJ	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A3	03	LK	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A3	03	LL	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A3	03	LM	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A3	03	LN	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A3	03	LP	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A3	03	LR	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A3	03	LS	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A3	03	LT	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A3	03	LU	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A3	03	LV	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A3	03	LW	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A3	03	LX	3	B6	GT	R I-O REG TO WARN LIGHTS			0.7.2
690	A4	02	KE	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KF	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KG	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KH	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KJ	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KK	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KL	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KM	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KN	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KP	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KR	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KS	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KT	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KU	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KV	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KW	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	02	KX	6	D6	GT	L I-O REG TO L MEM BUF			0.7.1
690	A4	03	KF	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	03	KG	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	03	KH	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	03	KJ	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	03	KK	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	03	KL	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	03	KM	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	03	KN	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	03	KP	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	03	KR	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	03	KS	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	03	KT	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	03	KU	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	03	KV	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	03	KW	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	03	KX	6	D6	GT	R I-O REG TO R MEM BUF			0.7.2
690	A4	02	DY	3	D6	GT	COMPARE			0.6.2
690	A4	03	DY	3	D6	GT	COMPARE			0.6.2
690	A5	05	AS	789	G67	GT	IX IV TO INTERLV			0.7.2

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-4	05/01/60	LOGIC
690	A5	05	AR	1-6	B56D56G56	GT	IX IV TO AUX DRUM SELECT REG			0.7.7
690	A5	05	AS	1-6	B56D56G56	GT	IX IV TO ADR REG			0.4.1
690	A5	05	BX	1	B5	PA	IX IV TO ADR REG			0.4.1
690	A5	05	AT	7	D6	GT	IX INT TO DRUM SEL REG			0.6.1
690	A5	05	AU	7	D6	GT	IX INT TO DRUM SEL REG			0.6.1
690	A5	05	AV	7	D6	GT	IX INT TO DRUM SEL REG			0.6.1
690	A5	05	AW	7	D6	GT	IX INT TO DRUM SEL REG			0.6.1
690	A5	05	AX	7	D6	GT	IX INT TO DRUM SEL REG			0.6.1
690	A5	05	AY	7	D6	GT	IX INT TO DRUM SEL REG			0.6.1
690	A6	05	CN	3	D5	GT	SEL PROG PAT GEN XTAL			0.7.5
690	A6	05	CN	2	B6	GT	SEL PROG PAT GEN LRI			0.7.5
690	A6	05	GM	24	B6D6	GT	INACTIVITY CNTR			0.7.5
690	A6	05	GN	46	J6G6	GT	32 PPS INACTIVITY			0.7.5
690	A6	05	BD	156	B6D6G6	GT	INACTIVITY			0.7.4
690	A6	05	BH	6	G6	GT	TTY PARITY			0.7.4
690	A6	05	BK	6	G6	GT	G-G PARITY			0.7.4
690	A6	05	BW	7	G6	GT	INACTIVITY ALARM & SW ACTIVE			0.7.5
690	A6	05	BC	156	B6D6G6	GT	OT-9 SENSE CONDITION LITES 1 2 3			0.7.4
690	A6	05	BE	156	B6D6G6	GT	SENSE L & R O FLOW OUTPUT ALARM			0.7.4
690	A6	05	BF	156	B6D6G6	GT	SENSE MEM DRUM TAPE PARITY			0.7.4
690	A6	05	BH	15	B6D6	GT	SENSE ALARM 162			0.7.4
690	A6	05	BK	15	B6D6	GT	SENSE INTERCOMM & COND LIGHT			0.7.4
690	A6	05	BL	156	B6D6G6	GT	SENSE INTERCOMM 1 2 3			0.7.4
690	A6	05	BM	156	B6D6G6	GT	SENSE INPUT DATA			0.7.4
690	A6	05	BN	156	B6D6G6	GT	SENSE OUT OB PAR ILL ADR			0.7.4
690	A6	05	BV	13	B5G5	GT	TP-7 BR ON BSN OT-9 BSN COND MET			0.7.4
690	A6	05	BV	6-9	G67	GT	BREAK PARITY CHECK CONTROL			0.1.1
690	A6	05	BW	3456	D56G56	GT	PARITY DUPLEX SW PWR FAIL ALARMS			0.7.5 C. 2.7
690	A6	05	CE	5	G5	GT	DRUM MODE SELECT GATES			0.7.4
690	A6	05	CE	4	D6	GT	DRUM MODE SELECT GATES			0.7.6
690	A6	05	CE	126-9	B56G67	GT	DRUM MODE SELECT GATES			0.7.7
690	A6	05	CF	123	B56D5	GT	SELECT MATRIX GATE			0.7.4
690	A6	05	CF	4	D6	GT	SELECT MATRIX GATE			0.7.5
690	A6	05	CF	6	G6	GT	SELECT MATRIX GATE			0.7.7
690	A6	05	CF	8	G7	GT	SELECT WARNING LIGHT			0.7.9
690	A6	05	CF	9	G7	GT	SELECT MATRIX GATE			0.7.8
690	A6	05	CG	8	G7	GT	SELECT MATRIX GATE			0.7.7
690	A6	05	CG	1-5	B56D56G5	GT	SELECT MATRIX GATE			0.7.8
690	A6	05	CK	89	G67	GT	OPER INTERCOM 1 & 2			0.7.5
690	A6	05	CK	1-4	B56D56	GT	OT-9 OP CON LITES INTERCOM 1,2			0.7.4
690	A6	05	CL	1-4	B56D56G56	GT	INTERCOM 364 MC EXCUR ON-OFF			0.7.5
690	A6	05	CN	157-9	B5G567	GT	STOP MC SMLX EXCUR OP CAMERAS			0.7.5
690	A6	05	CP	1-3	B56D5	GT	INITIATE DIG DISPLAY			0.7.5
690	A6	05	CS	5-9	G567	GT	OPERATE PRINTERS 1,2,3,4,5			0.7.6
690	A6	05	CV	6-9	G67	GT	OPER PATTERN GEN			0.7.5
690	A6	05	CV	1-5	B56D56G5	GT	OPERATE PRINTERS 6,7,8,9,10			0.7.6
690	A6	05	CX	7	G6	GT	OP TAPE PUNCH 1+2 SCAN ADR CTRS			0.4.1
690	A6	05	CX	56	G56	GT	OP TAPE PUNCH 1+2 SCAN ADR CTRS			0.7.6
690	A6	05	CX	89	G7	GT	OP TAPE PUNCH 1+2 SCAN ADR CTRS			0.7.7
690	A6	05	CX	1-4	B56D56	GT	OP TAPE PUNCH 1+2 SCAN ADR CTRS			0.7.8
690	A6	05	GD	13-9	B5D56G567	GT	WARNING LIGHT CONTROL			0.7.9
690	A6	05	GH	13-9	B5D56G567	GT	WARNING LIGHT COUNTER RESET			0.7.9
690	A6	05	BW	9	G7	GT	SENSE COND MET			0.7.4
690	A6	05	BW	1	B5	GT	CLR L I-O REG			0.7.1
690	A6	05	BW	2	B6	GT	CLR R I-O REG			0.7.2
690	A6	05	DY	3	D5	GT	TEST REL TIME CLOCK			0.2.6
690	A6	05	GK	2	B5	GT	CLEAR REL TIME CLOCK			0.2.6
690	A6	05	BG	156	B6D6G6	GT	G/A TD PARITY			000.7.5
690	B1	06	FF	6	G6	GT	WD CTR CARRY EVEN BIT			0.7.3
690	B1	06	FH	6	G6	GT	WD CTR CARRY EVEN BIT			0.7.3
690	B1	06	FK	6	G6	GT	WD CTR CARRY EVEN BIT			0.7.3
690	B1	06	FM	6	G6	GT	WD CTR CARRY EVEN BIT			0.7.3
690	B1	06	FP	6	G6	GT	WD CTR CARRY EVEN BIT			0.7.3
690	B1	06	FS	6	G6	GT	WD CTR CARRY EVEN BIT			0.7.3
690	B1	06	FU	6	G6	GT	WD CTR CARRY EVEN BIT			0.7.3
690	B1	06	FW	6	G6	GT	WD CTR CARRY EVEN BIT			0.7.3
690	B1	06	FX	6	G6	GT	WD CTR CARRY EVEN BIT			0.7.3
690	B2	06	FF	3	B6	GT	I-O ADR CTR CARRY EVEN BIT			0.4.1
690	B2	06	FH	3	B6	GT	I-O ADR CTR CARRY EVEN BIT			0.4.1
690	B2	06	FK	3	B6	GT	I-O ADR CTR CARRY EVEN BIT			0.4.1
690	B2	06	FM	3	B6	GT	I-O ADR CTR CARRY EVEN BIT			0.4.1
690	B2	06	FP	3	B6	GT	I-O ADR CTR CARRY EVEN BIT			0.4.1
690	B2	06	FS	3	B6	GT	I-O ADR CTR CARRY EVEN BIT			0.4.1
690	B2	06	FU	3	B6	GT	I-O ADR CTR CARRY EVEN BIT			0.4.1

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V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-4	05/01/60	LOGIC
690	B2	06	FW	3	B6	GT	I-O ADR CTR CARRY EVEN BIT			0.4.1
690	B3	06	HM	5	D6	GT	DRUM CONTROL REG CARRY EVEN BIT			0.7.2
690	B3	06	HP	5	D6	GT	DRUM CONTROL REG CARRY EVEN BIT			0.7.2
690	B3	06	HS	5	D6	GT	DRUM CONTROL REG CARRY EVEN BIT			0.7.2
690	B3	06	HU	5	D6	GT	DRUM CONTROL REG CARRY EVEN BIT			0.7.2
690	B3	06	HW	5	D6	GT	DRUM CONTROL REG CARRY EVEN BIT			0.7.2
690	B4	06	FD	6	G6	GT	WORD COUNTER CARRY ODD BIT			0.7.3
690	B4	06	FG	6	G6	GT	WD CTR CARRY ODD BIT			0.7.3
690	B4	06	FJ	6	G6	GT	WD CTR CARRY ODD BIT			0.7.3
690	B4	06	FL	6	G6	GT	WD CTR CARRY ODD BIT			0.7.3
690	B4	06	FN	6	G6	GT	WD CTR CARRY ODD BIT			0.7.3
690	B4	06	FR	6	G6	GT	WD CTR CARRY ODD BIT			0.7.3
690	B4	06	FT	6	G6	GT	WD CTR CARRY ODD BIT			0.7.3
690	B4	06	FV	6	G6	GT	WD CTR CARRY ODD BIT			0.7.3
690	B4	06	FX	6	G6	GT	WD CTR CARRY ODD BIT			0.7.3
690	B5	06	FD	3	B6	GT	I-O ADR CTR CARRY ODD BIT			0.4.1
690	B5	06	FG	3	B6	GT	I-O ADR CTR CARRY ODD BIT			0.4.1
690	B5	06	FJ	3	B6	GT	I-O ADR CNTR CARRY ODD BIT			0.4.1
690	B5	06	FL	3	B6	GT	I-O ADR CNTR CARRY ODD BIT			0.4.1
690	B5	06	FN	3	B6	GT	I-O ADR CNTR CARRY ODD BIT			0.4.1
690	B5	06	FR	3	B6	GT	I-O ADR CNTR CARRY ODD BIT			0.4.1
690	B5	06	FT	3	B6	GT	I-O ADR CNTR CARRY ODD BIT			0.4.1
690	B5	06	FV	3	B6	GT	I-O ADR CNTR CARRY ODD BIT			0.4.1
690	B5	06	FX	3	B6	GT	I-O ADR CNTR CARRY ODD BIT			0.4.1
690	B6	06	HL	5	D6	GT	DRUM CONTROL REG CARRY ODD BIT			0.7.2
690	B6	06	HN	5	D6	GT	DRUM CONTROL REG CARRY ODD BIT			0.7.2
690	B6	06	HR	5	D6	GT	DRUM CONTROL REG CARRY ODD BIT			0.7.2
690	B6	06	HT	5	D6	GT	DRUM CONTROL REG CARRY ODD BIT			0.7.2
690	B6	06	HV	5	D6	GT	DRUM CONTROL REG CARRY ODD BIT			0.7.2
690	B6	06	HX	5	D6	GT	DRUM CONTROL REG CARRY ODD BIT			0.7.2
690	C1	05	FF	1	B5	GT	SET CARD MACH CNTRL FF			0.7.6
690	C1	05	FC	135	B6D6G6	GT	COMM GEN 1 & 2 INDEX DELAY			0.7.6
690	C1	05	FF	89	G7	GT	CLEAR I-O BUF & DISCON CARD MACH			0.7.6
690	C1	05	FV	3	D5	GT	SET I-O BUF LOAD SYNC			0.7.7
690	C1	05	FL	2347	B6D56G6	GT	TAPE CONTROLS			0.7.8
690	C1	05	FL	1	B5	GT	TAPE CONTROLS			0.7.1
690	C1	05	FL	6	G6	GT	TAPE OPERATION			0.7.5
690	C1	05	FV	14	B5D6	GT	TAPE OPERATION			0.7.8
690	C1	05	FJ	6	B5	GT	CLR R I-O REG			0.7.2
690	C1	05	FJ	4	B6	GT	CLR L I-O REG			0.7.1
690	C1	05	FL	89	G7	GT	REL TIME CLOCK TEST			0.2.6
690	C1	05	FJ	9	G7	GT	DRUM PARITY ALARM			0.7.5
690	C1	05	FL	6	G6	GT	TAPE PARITY ALARM			0.7.5
690	C2	05	FD	13	B6D6	GT	PRINTER & PUNCH OPERATE			0.7.6
690	C2	05	DE	135	B6D6G6	GT	DR ADR ID BITS 14,15-11,15-5,10			0.7.7
690	C2	05	DE	7	G7	GT	COMPARE DRUM ADR MODE			0.7.7
690	C2	05	DD	57	G67	GT	DRUM ADR IDENT BITS 7-15 & 12-15			0.7.7
690	C2	05	DN	3	D5	GT	OP WR CONTROLS			0.7.5
690	C2	05	DP	1-5	B56D56G5	GT	I-O BUF STATUS & START RD DRUMS			0.7.7
690	C2	05	DP	6-9	G67	GT	L & R I-O REG TO DRUM WR REG			0.7.7
690	C2	05	DY	4-7	D6G56	GT	DRUM NO COMPARE & SEL DRUMS			0.7.7
690	C2	05	DN	7	GT	GT	CPC CONTROL			0.7.7
690	C2	05	DN	126	B56G56	GT	DRUM OP & WR CONTROLS			0.7.7
690	C2	05	DY	89	G7	GT	DRUM WORD DEMAND & SYNC			0.7.7
690	C2	05	DY	12	B56	GT	WRITE REG STATUS SYN BREAK REQ			0.7.7
690	C2	05	FN	3	D5	GT	I-O INTLK SYNC			0.7.3
690	C2	05	FN	56	G56	GT	I-O BUF SYNC & LOAD			0.7.7
690	C2	05	FN	4	D6	GT	INTER-LEAVE			0.7.7
690	C4	13	AC	469	D6G67	SH	TA OSC			0.8.3
690	C4	13	AE	8	G6	GT	TA TPD CLOCK REG CARRY			0.8.3
690	C4	13	AF	3	D6	GT	TA TPD CLOCK REG CARRY			0.8.3
690	C4	13	AD	8	G6	GT	TA TPD CLOCK REG CARRY			0.8.3
690	C5	13	BG	4	D6	GT	TA GATED DISCONNECT			0.8.2
690	C5	13	BX	9	G7	GT	TA READ E O F			0.8.4

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-4	05/01/60	LOGIC
690	C5	13	BX	6	G6	GT	TA GATED SYNC PULSE			0.8*2
690	C5	13	BH	2	B6	GT	TA RESET CLOCK			0.8*2
690	C5	13	BH	37	D6G6	GT	TA READY PREPD			0.8*1
690	C5	13	AH	8	G6	GT	TA CLOCK CKT			0.8*3
690	C5	13	AS	6	G6	PA	TA DELAYED CLOCK RESET			0.8*3
690	C5	13	CH	1	B6	PA	TA BREAK REQ & DELAYED SENSE			0.8*3
690	C5	13	CJ	1	D6	GT	TA STEP WORD RING			0.8*4
690	C5	13	CK	1	D6	GT	TA STEP WORD RING			0.8*4
690	C5	13	CL	1	D6	GT	TA STEP WORD RING			0.8*4
690	C5	13	CM	1	D6	GT	TA STEP WORD RING			0.8*4
690	C5	13	CN	1	D6	GT	TA STEP WORD RING			0.8*4
690	C5	13	CP	1	D6	GT	TA STEP WORD RING			0.8*4
690	C5	13	BS	59	D6G7	GT	TA TEST ERROR STOP & E O R WR			0.8*5
690	C5	13	BT	157	B6D6G6	GT	TA TEST CNTRL !			0.8*5
690	C5	13	AK	15	B6D6	GT	TA DRIVE SELECT			0.8*1
690	C5	13	AL	15	B6D6	GT	TA DRIVE SELECT			0.8*1
690	C5	13	AM	15	B6D6	GT	TA DRIVE SELECT			0.8*1
690	C5	13	AK	8	G6	BPA	TA DRIVE DESELECT			0.8*1
690	C5	13	AH	8	B5	GT	RESET CHARACTER REG			0.8*3
690	C6	13	BE	56	G56	GT	TA READ WR1TE CNTRL			0.8*2
690	C6	13	BL	9	G7	GT	GATED REWIND			0.8*2
690	C6	13	BD	5	D6	GT	TA READ WRITE START DELAY			0.8*2
690	C6	13	AR	89	G67	GT	TA B O R STOP & E O R			0.8*2
690	C6	13	AN	56	D6G6	GT	TA BACK SPACE CNTRL			0.8*2
690	C6	13	BM	69	D6G6	GT	TA E O R CNTRL			0.8*2
690	C6	13	BJ	19	B6G6	GT	TA REWIND CNTRL			0.8*2
690	C6	13	AG	7	G5	GT	TA CLOCK TIME PULSE DISTRIBUTOR			0.8*3
690	C6	13	BF	49	B6G7	GT	TA START RD-WT			0.8*2
690	C6	13	DL	6	G5	GT	TA BREAK REQ WRITE E O F			0.8*3
690	C6	13	DM	25	B6D6	GT	TA WORD REG READ OUT CNTRL			0.8*3
690	C6	13	DC	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DD	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DE	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DF	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DG	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DH	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DJ	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DK	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DN	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DP	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DR	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DS	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DT	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DU	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DV	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DW	1469	B6D6G6G7	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	C6	13	DX	14	B6D6	GT	TA WORD REG CNTRL & READ OUT			0.8*4
690	D1	05	EC	1-4679B56D56G67	GT	BREAK IN 2*4*6*7*9 BREAK OUT 0				0.2*3
690	D1	05	ED	5	B5G5	GT	BREAK IN-11 TPG			0.2*3
690	D1	05	CC	34679	D56G567	GT	TOB & TTB GATES			0.6*2
690	D1	05	CE	3	D5	GT	TOB & TTB GATES			0.6*2
690	D1	05	CH	34679	D56G567	GT	TOB & TTB GATES			0.6*2
690	D1	05	DC	34679	D56G567	GT	TOB & TTB GATES			0.6*2
690	D1	05	EE	2	B6	GT	BREAK IN 1 TPG			0.2*3
690	D2	05	ED	3479	D56G67	GT	BREAK OUT 0 2 5 7 TPG			0.2*3
690	D2	05	EE	47	D6G6	GT	BREAK OUT 8 & 11			0.2*3
690	D2	05	EE	89	G7	GT	STEP PGM CNTR			0.6*2
690	D3	05	FN	1	B5	GT	BREAK REQUEST SYNC			0.2*3
690	D3	05	ER	38	G7	GT	BREAK & BREAK REQUEST SYNC			0.2*3
690	D3	05	EP	89	D6	GT	CLEAR I-O INTLK			0.7*3
690	D3	05	ER	6	G6	GT	SENSE WORD COUNTER			0.7*3
690	D3	05	ER	7	G6	GT	PT-10 LOAD FROM AM-1			0.7*7
690	F1	05	EL	4-7	G56	PA	2 MC OSC PT 166 RD-WR			0.7*3
690	F1	05	EL	89	G7	PA	2 MC OSC PT 166 RD-WR			0.2*2
690	F1	05	DG	6	D6	DD	COMPARE BY ADR MODE			0.7*3
690	F1	05	DG	8	G6	PA	COMPARE BY ADR MODE			0.7*7
690	F1	05	EL	3	D5	PA	STEP I-O WORD COUNTER			0.7*3
690	F1	05	EX	8	G7	PA	CLEAR I-O INTLK			0.7*3
690	F1	05	EX	4	D6	PA	SET I-O WORD CNTR 23			0.7*3
690	F1	05	EY	9	G7	PA	CLEAR ALARM INDICATOR FFS			0.7*5

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V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-4	05/01/60	LOGIC
690	F1	05	DG	24	B5D5	PA MD AXD COMPARE CD-1 & CD-1 DLYD			0*7*7
690	F1	05	DK	23	B56	DD DRUM WD DEMAND DIRECT DLYD			0*7*7
690	F1	05	DK	6	D6	DD I-O BUF LOAD CD-1 DELAY			0*7*7
690	F1	05	FW	14	B5D6	PA DISCON BTC MI MATRIX			0*7*7
690	F1	05	ET	9	G7	PA BREAK IN-OUT 2 STEP I-O ADR CNTR			0*4*1
690	F1	05	ET	28	B6G7	PA PT-1 RD-WR & CLEAR I-O BUF			0*7*2
690	F1	05	EL	2	B6	PA 2 MC OSC & PT 1&6 RD-WR			0*7*8
690	F1	05	FM	4	D6	PA TAPE CONTROLS			0*7*1
690	F1	05	FM	3	D5	PA TAPE CONTROLS			0*7*2
690	F1	05	FM	789	G67	PA TAPE CONTROLS			0*7*8
690	F1	05	FY	1	B5	BPA COMPL REGISTERS			0*2*4
690	F1	05	EU	2	B6	PA L MEM BUF I-O REG			0*1*1
690	F1	05	EL	1	B5	PA CLEAR ALARMS			0*7*4
690	F1	05	FX	1239	B56D56G7	PA MOD CTRL CLR			0*2*4
690	F1	05	FX	4	D6	GT CLEAR REGISTERS			0*2*4
-150	A1	06	FD	89	D7	AFF I-O WORD COUNTER			0*7*3
-150	A1	06	FF	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	FG	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	FH	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	FJ	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	FK	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	FL	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	FM	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	FN	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	FP	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	FR	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	FS	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	FT	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	FU	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	FV	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	FW	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	FX	89	D7	AFF WD CNTR			0*7*3
-150	A1	06	HL	12	B7	AFF DRUM CONTROL REG			0*7*2
-150	A1	06	HM	12	B7	AFF DRUM CONTROL REG			0*7*2
-150	A1	06	HN	12	B7	AFF DRUM CONTROL REG			0*7*2
-150	A1	06	HP	12	B7	AFF DRUM CONTROL REG			0*7*2
-150	A1	06	HR	12	B7	AFF DRUM CONTROL REG			0*7*2
-150	A1	06	HS	12	B7	AFF DRUM CONTROL REG			0*7*2
-150	A1	06	HT	12	B7	AFF DRUM CONTROL REG			0*7*2
-150	A1	06	HU	12	B7	AFF DRUM CONTROL REG			0*7*2
-150	A1	06	HV	12	B7	AFF DRUM CONTROL REG			0*7*2
-150	A1	06	HW	12	B7	AFF DRUM CONTROL REG			0*7*2
-150	A1	06	HX	12	B7	AFF DRUM CONTROL REG			0*7*2
-150	A2	06	HE	125-8	B7D7	AFF DRUM CONTROL INTERLEAVE			0*7*2
-150	A3	06	KE	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KF	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KG	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KH	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KJ	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KK	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KL	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KM	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KN	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KP	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KR	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KS	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KT	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KU	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KV	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KW	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	KX	23	D7	AFF L I-O BUF			0*7*1
-150	A3	06	JF	23	D7	AFF R I-O BUF			0*7*2
-150	A3	06	JG	23	D7	AFF R I-O BUF			0*7*2
-150	A3	06	JH	23	D7	AFF R I-O BUF			0*7*2
-150	A3	06	JJ	23	D7	AFF R I-O BUF			0*7*2
-150	A3	06	JK	23	D7	AFF R I-O BUF			0*7*2
-150	A3	06	JL	23	D7	AFF R I-O BUF			0*7*2
-150	A3	06	JM	23	D7	AFF R I-O BUF			0*7*2
-150	A3	06	JN	23	D7	AFF R I-O BUF			0*7*2
-150	A3	06	JP	23	D7	AFF R I-O BUF			0*7*2
-150	A3	06	JR	23	D7	AFF R I-O BUF			0*7*2
-150	A3	06	JS	23	D7	AFF R I-O BUF			0*7*2
-150	A3	06	JT	23	D7	AFF R I-O BUF			0*7*2
-150	A3	06	JU	23	D7	AFF R I-O BUF			0*7*2

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-4	05/01/60	LOGIC
-150	A3	06	JV	23	D7	AFF R I-O BUF			0.7+2
-150	A3	06	JW	23	D7	AFF R I-O BUF			0.7+2
-150	A3	06	JX	23	D7	AFF R I-O BUF			0.7+2
-150	A4	02	KE	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KF	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KG	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KH	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KJ	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KK	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KL	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KM	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KN	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KP	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KR	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KS	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KT	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KU	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KV	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KW	23	D7	AFF L I-O REG			0.7+1
-150	A4	02	KX	23	D7	AFF L I-O REG			0.7+1
-150	A4	03	KF	23	D7	AFF R I-O REG			0.7+2
-150	A4	03	KG	23	D7	AFF R I-O REG			0.7+2
-150	A4	03	KH	23	D7	AFF R I-O REG			0.7+2
-150	A4	03	KJ	23	D7	AFF R I-O REG			0.7+2
-150	A4	03	KK	23	D7	AFF R I-O REG			0.7+2
-150	A4	03	KL	23	D7	AFF R I-O REG			0.7+2
-150	A4	03	KM	23	D7	AFF R I-O REG			0.7+2
-150	A4	03	KN	23	D7	AFF R I-O REG			0.7+2
-150	A4	03	KP	23	D7	AFF R I-O REG			0.7+2
-150	A4	03	KR	23	D7	AFF R I-O REG			0.7+2
-150	A4	03	KS	23	D7	AFF R I-O REG			0.7+2
-150	A4	03	KT	23	D7	AFF R I-O REG			0.7+2
-150	A4	03	KU	23	D7	AFF R I-O REG			0.7+2
-150	A4	03	KV	23	D7	AFF R I-O REG			0.7+2
-150	A4	03	KW	23	D7	AFF R I-O REG			0.7+2
-150	A4	03	KX	23	D7	AFF R I-O REG			0.7+2
-150	A5	05	AT	12	B7	AFF INDEX INTERVAL			0.6+1
-150	A5	05	AU	12	B7	AFF INDEX INTERVAL			0.6+1
-150	A5	05	AV	12	B7	AFF INDEX INTERVAL			0.6+1
-150	A5	05	AW	12	B7	AFF INDEX INTERVAL			0.6+1
-150	A5	05	AX	12	B7	AFF INDEX INTERVAL			0.6+1
-150	A5	05	AY	12	B7	AFF INDEX INTERVAL			0.6+1
-150	A5	05	EG	89	D7	AFF L10 BIT STORAGE			0.6+2
-150	A6	13	AD	2367	B7D7	AFF TA TPD CLOCK CNTR REG & FREQ DIV			0.8+3
-150	B1	05	AC	1-5	D7	CF6 PERSELBSN OUTPUT			0.6+1
-150	B1	05	AD	1-9	D7	CF6 PERSELBSN OUTPUT			0.6+1
-150	B1	05	AE	1-9	D7	CF6 PERSELBSN OUTPUT			0.6+1
-150	B1	05	AF	1-9	D7	CF6 PERSELBSN OUTPUT			0.6+1
-150	B1	05	AG	1-9	D7	CF6 PERSELBSN OUTPUT			0.6+1
-150	B1	05	AH	1-9	D7	CF6 PERSELBSN OUTPUT			0.6+1
-150	B1	05	AK	1-9	D7	CF6 PERSELBSN OUTPUT			0.6+1
-150	B1	05	AL	1-9	D7	CF6 PERSELBSN OUTPUT			0.6+1
-150	B1	05	AM	1-9	D7	CF6 PERSELBSN OUTPUT			0.6+1
-150	B1	05	AN	1-9	D7	CF6 PERSELBSN OUTPUT			0.6+1
-150	B1	05	AJ	1-9	D7	CF6 PERSELBSN OUTPUT			0.6+1
-150	B2	05	AT	345	D7	CF6 INDEX INTERVAL			0.6+1
-150	B2	05	AU	345	D7	CF6 INDEX INTERVAL			0.6+1
-150	B2	05	AV	345	D7	CF6 INDEX INTERVAL			0.6+1
-150	B2	05	AW	345	D7	CF6 INDEX INTERVAL			0.6+1
-150	B2	05	AX	345	D7	CF6 INDEX INTERVAL			0.6+1
-150	B2	05	AY	345	D7	CF6 INDEX INTERVAL			0.6+1
-150	B3	06	HL	34	D7	CF6 DRUM CONTROL REG			0.7+2
-150	B3	06	HM	34	D7	CF6 DRUM CONTROL REG			0.7+2
-150	B3	06	HN	34	D7	CF6 DRUM CONTROL REG			0.7+2
-150	B3	06	HP	34	D7	CF6 DRUM CONTROL REG			0.7+2
-150	B3	06	HR	34	D7	CF6 DRUM CONTROL REG			0.7+2
-150	B3	06	HS	34	D7	CF6 DRUM CONTROL REG			0.7+2
-150	B3	06	HT	34	D7	CF6 DRUM CONTROL REG			0.7+2

MC-4

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-4	05/01/60	LOGIC
-150	B3	06	HU	34	D7	CF6 DRUM CONTROL REG			0.7.2
-150	B3	06	HV	34	D7	CF6 DRUM CONTROL REG			0.7.2
-150	B3	06	HW	34	D7	CF6 DRUM CONTROL REG			0.7.2
-150	B3	06	HX	34	D7	CF6 DRUM CONTROL REG			0.7.2
-150	B4	06	JF	456	D8	CF6 R I-0 BUF			0.7.2
-150	B4	06	JG	456	D8	CF6 R I-0 BUF			0.7.2
-150	B4	06	JH	456	D8	CF6 R I-0 BUF			0.7.2
-150	B4	06	JJ	456	D8	CF6 R I-0 BUF			0.7.2
-150	B4	06	JK	456	D8	CF6 R I-0 BUF			0.7.2
-150	B4	06	JL	456	D8	CF6 R I-0 BUF			0.7.2
-150	B4	06	JM	456	D8	CF6 R I-0 BUF			0.7.2
-150	B4	06	JN	456	D8	CF6 R I-0 BUF			0.7.2
-150	B4	06	JP	456	D8	CF6 R I-0 BUF			0.7.2
-150	B4	06	JR	456	D8	CF6 R I-0 BUF			0.7.2
-150	B4	06	JS	456	D8	CF6 R I-0 BUF			0.7.2
-150	B4	06	JT	456	D8	CF6 R I-0 BUF			0.7.2
-150	B4	06	JU	456	D8	CF6 R I-0 BUF			0.7.2
-150	B4	06	JV	456	D8	CF6 R I-0 BUF			0.7.2
-150	B4	06	JW	456	D8	CF6 R I-0 BUF			0.7.2
-150	B4	06	JX	456	D8	CF6 R I-0 BUF			0.7.2
-150	B5	13	AE	47	D7	CF6 TA TPD CLOCK REG			0.8.3
-150	B5	13	AF	47	D7	CF6 TA TPD CLOCK REG			0.8.3
-150	B5	13	AP	789	D7	CF TA BACKWARD CNTRL			0.8.2
-150	B6	13	BG	567	D7	CF6 TA READ & WRITE STATUS			0.8.2
-150	B6	13	BX	2	B7	CF6 TA RD-WT DELAY			0.8.2
-150	B6	13	DC	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DD	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DE	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DF	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DG	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DH	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DJ	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DK	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DN	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DP	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DR	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DS	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DT	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DU	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DV	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DW	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DX	38	D7	CF6 TA WORD REG			0.8.4
-150	B6	13	DL	3	D7	CF6 TA WRITE E O F STATUS			0.8.4
-150	C1	05	EJ	1456	D7	CF6 BREAK & BREAK REQUEST			0.2.3
-150	C1	05	EK	136	D7	CF6 READ WRITE			0.7.3
-150	C1	05	EN	14569	D7	CF6 I-0 INTLK SENSE WORD CNTR			0.7.3
-150	C1	05	EP	345	D7	CF6 WORD COUNTER STATUS			0.7.3
-150	C1	05	GC	1	B7	CF6 MAIN WARNING LIGHT CONTROL			0.7.9
-150	C1	05	GE	169	D7	CF6 WARNING LITE CTRL REG 1 & AUX			0.7.9
-150	C1	05	GE	1569	D7	CF6 WARNING LITE CTRL REG 1 & AUX			0.7.9
-150	C1	05	GF	14569	D7	CF6 WARNING LIGHT CONTROL REG 2 & 4			0.7.9
-150	C2	05	FH	1	B7	CF6 COMMAND GEN 3			0.7.6
-150	C2	05	FH	36	B7D7	CF6 CARD MACH OP & CARD RD START			0.7.6
-150	C2	05	FH	9	D7	CF6 SECOND BREAK REQUEST			0.7.6
-150	C2	05	DR	1456	D7	CF6 NOT READ DRUM & DRUM OPERATION			0.7.7
-150	C2	05	DS	34	B7	CF6 DRUM RD-WR OPERATION CNTRL			0.7.7
-150	C2	05	DU	14569	D7	CF6 I-0 REG & BUF STATUS			0.7.7
-150	C2	05	DV	456	D7	CF6 WR DRUMS & WR REG STATUS			0.7.7
-150	C2	05	DX	345	D7	CF6 BIT R-1 DRUM ADR REG			0.7.7
-150	C2	05	FU	8	D7	CF6 BURST TIME CNTR & MI MATRIX			0.7.7
-150	C2	05	FR	145	D7	CF6 TAPE OPERATION			0.7.8
-150	C2	05	FR	569	D7	CF6 REL TIME CLOCK TEST			0.2.6
-150	C3	13	CJ	67	D7	CF6 TA WORD RING			0.8.4
-150	C3	13	CK	67	D7	CF6 TA WORD RING			0.8.4
-150	C3	13	CL	67	D7	CF6 TA WORD RING			0.8.4
-150	C3	13	CM	67	D7	CF6 TA WORD RING			0.8.4
-150	C3	13	CN	67	D7	CF6 TA WORD RING			0.8.4
-150	C3	13	CP	67	D7	CF6 TA WORD RING			0.8.4

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-4	05/01/60	LOGIC
-150	D1	05	GN	1289	B7D7	AFF INACTIVITY CNTR			0.7.5
-150	D1	05	EM	12	B7	AFF RD-WR ZERO TAPE & CARD MACH			0.7.3
-150	D1	05	DF	1256	B7D7	AFF DRUM WORD DEMAND & SYNC			0.7.7
-150	D1	05	DL	1256	B7D7	AFF I-O BUF SYNC & I-O BUF LOAD			0.7.7
-150	D1	05	DL	78	D7	AFF INTERLEAVE			0.7.7
-150	D1	05	DM	2378	B7	AFF DRUM CONTRL ACCEPT			0.7.7
-150	D1	05	DR	2378	B7	AFF NOT READ DRUMS & DRUM OPERATION			0.7.7
-150	D1	05	DU	2378	B7	AFF I-O REG & BUF STATUS			0.7.7
-150	C1	05	DV	2378	B7	AFF WR DRUMS & WR REG STATUS			0.7.7
-150	D1	05	DW	1256	B7D7	AFF WR REG STAT SYNC 2ND BREAK REQ			0.7.7
-150	D1	05	DX	12	B7	AFF BIT R-1 DRUM ADR REG			0.7.7
-150	D1	05	DF	78	D7	AFF LOCK ADR COUNTER			0.4.1
-150	D1	05	GE	2378	B7	AFF WARNING LITE CTRL REG 1 & AUX			0.7.9
-150	D1	05	GF	2378	B7	AFF WARNING LIGHT CONTROL REG 2 & 4			0.7.9
-150	D1	05	FR	23	B7	AFF TAPE OPERATION			0.7.8
-150	D1	05	EV	12	B7	AFF OPERATE 15 16			0.7.5
-150	D1	05	FJ	12	B7	AFF I-O REG SELECT			0.7.5
-150	D1	05	FR	78	B7	AFF REL TIME CLOCK TEST FF			0.2.6
-150	D2	05	EJ	2378	B7	AFF BREAK & BREAK REQUEST			0.2.3
-150	D2	05	EK	2378	B7	AFF READ WRITE			0.7.3
-150	D2	05	EM	56	D7	AFF BREAK REQUEST SYNC			0.2.3
-150	D2	05	EN	78	D7	AFF DISCONNECT I-O INTLK SYNC			0.7.3
-150	D2	05	EN	2378	B7	AFF I-O INTLK SENSE WORD CNTR			0.7.3
-150	D2	05	EP	12	B7	AFF WORD COUNTER STATUS			0.7.3
-150	D2	05	BU	23	B7	AFF BRANCH ON BSN SYNC			0.7.4
-150	D2	05	BU	78	B7	AFF BREAK PARITY CHECK CONTROL			0.1.1
-150	D3	13	AC	8	D7	BFF TA OSC			0.8.3
-150	D3	13	AE	56	B7D8	BFF TA TPD CLOCK REG			0.8.3
-150	D3	13	AF	56	B7D8	BFF TA TPD CLOCK REG			0.8.3
-150	D4	13	BX	7	D7	BFF TA DELAYED READ WRITE			0.8.2
-150	D4	13	BC	9	D8	BFF TA DESELECT & READ DELAY			0.8.2
-150	D4	13	AP	6	D8	BFF TA BACKWARD CNTRL			0.8.2
-150	D4	13	AR	6	D7	BFF TA DELAYED BACKSPACE			0.8.2
-150	D4	13	BM	7	D7	BFF TA WORD CNTR ZERO			0.8.2
-150	D4	13	BH	1	B7	BFF TA 2ND WORD CNTR ZERO			0.8.2
-150	D4	13	BK	7	D8	BFF TA GO CNTRL			0.8.2
-150	D4	13	DC	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DD	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DE	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DF	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DG	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DH	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DJ	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DK	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DN	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DP	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DR	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DS	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DT	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DU	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DV	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DW	27	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DX	2	B7	BFF TA WORD REG			0.8.4
-150	D4	13	DL	2	B7	BFF TA WRITE E O F STATUS			0.8.4
-150	D4	13	CK	9	D8	BFF TA WORD RING			0.8.4
-150	D4	13	CL	9	D8	BFF TA WORD RING			0.8.4
-150	D4	13	CJ	9	D8	BFF TA WORD RING			0.8.4
-150	D4	13	CM	9	D8	BFF TA WORD RING			0.8.4
-150	D4	13	CN	9	D8	BFF TA WORD RING			0.8.4
-150	D4	13	CP	9	D8	BFF TA WORD RING			0.8.4
-150	D4	13	BT	9	D7	BFF TA TEST ERROR			0.8.5
-150	D4	13	AK	26	B7	BFF TA DRIVE SELECT			0.8.1
-150	D4	13	AL	26	B7	BFF TA DRIVE SELECT			0.8.1
-150	D4	13	AM	26	B7	BFF TA DRIVE SELECT			0.8.1
-150	D6	13	AN	7	D7	APG TA REMOTE DESELECT			0.8.1
-150	D6	13	BS	8	D7	APG TA TEST EXECUTE			0.8.5
-150	D6	13	CS	4	B7	ST TA CHARACTER REG			0.8.4
-150	D6	13	CT	4	B7	ST TA CHARACTER REG			0.8.4
-150	D6	13	CU	4	B7	ST TA CHARACTER REG			0.8.4
-150	D6	13	CV	4	Z7	ST TA CHAR REG			0.8.2
-150	D6	13	CW	4	B7	ST TA CHARACTER REG			0.8.4
-150	D6	13	CX	4	B7	ST TA CHARACTER REG			0.8.4

MC-4

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-4	05/01/60	LOGIC
-150	D6	13	CY	4	B7	ST	TA CHARACTER REG			0.8.4
-150	E1	05	CR	124578D7		SS	OP PRINTERS 1 2 3			0.7.6
-150	E1	05	CT	124578D7		SS	OP PRINTERS 4 5 6			0.7.6
-150	E1	05	CU	124578D7		SS	OP PRINTERS 7 8 9			0.7.6
-150	E1	05	CW	124578D7		SS	OP PRINTER 10 PUNCH 1&2			0.7.6
-150	E1	05	FE	124578D7		SS	START CARD RD,PRINTER & PUNCH			0.7.6
-150	E1	05	FP	12 D7		SS	DISCON CARD RD,PRINTER & PUNCH			0.7.6
-150	E1	05	CM	124578D7		SS	MC EXCUR STOP-START			0.7.5
-150	E2	03	MD	12	B7	SS	R TEST REG			0.1.3
-150	E3	13	AH	34	B7	SS	TA RESET CHAR REG			0.8.3
-150	E3	13	AJ	23	B7	SS	TA CLOCK CHAR GATE WRITE PULSE			0.8.3
-150	E4	13	BF	123	B7D7	SS	TA READ WRITE CNTRL			0.8.2
-150	E4	13	AR	123	B7	SS	TA START READ			0.8.2
-150	E4	13	AN	12	B7	SS	TA BACK SPACE STOP 1			0.8.2
-150	E4	13	BK	123	D7	SS	TA SET PREPD & SET NIFA			0.8.1
-150	E4	13	CS	78	D7	CF	TA CHAR REG			0.8.4
-150	E4	13	CT	78	D7	CF	TA CHAR REG			0.8.4
-150	E4	13	CU	78	D7	CF	TA CHAR REG			0.8.4
-150	E4	13	CV	78	D7	CF	TA CHAR REG			0.8.2
-150	E4	13	CW	78	D7	CF	TA CHAR REG			0.8.4
-150	E4	13	CX	78	D7	CF	TA CHAR REG			0.8.4
-150	E4	13	CY	78	D7	CF	TA CHAR REG			0.8.4
-150	E5	13	BC	123	B7D7	SS	TA SELECT READ DELAY			0.8.2
-150	E5	13	BD	124	B7D7	SS	TA READ WRITE START DELAY			0.8.2
-150	E5	13	BJ	23	B7	SS	TA REWIND STATUS & START			0.8.2
-150	E5	13	BR	123	B7	SS	TA DELAYED WRITE			0.8.2
-150	E6	13	AP	123	B7	SS	TA END BACKSPACE BKWD CTRL			0.8.2
-150	E6	13	BL	123	B7D7	SS	TA RESET WR FF & WR E O R			0.8.2
-150	E6	13	BT	23	B7	SS	TA TEST READ & REWIND CYCLES			0.8.5
-150	E6	13	BS	1-4	B7	SS	TA TEST WRT WD CTR ZERO CYCLES			0.8.5
-150	F1	02	KC	3	B7	BPG	L I-O REG			0.2.4
-150	F1	02	KF	1	B7	BPG	L I-O REG			0.7.1
-150	F1	02	KG	1	B7	BPG	L I-O REG			0.7.1
-150	F1	02	KH	1	B7	BPG	L I-O REG			0.7.1
-150	F1	02	KJ	1	B7	BPG	L I-O REG			0.7.1
-150	F1	02	KK	1	B7	BPG	L I-O REG			0.7.1
-150	F1	02	KL	1	B7	BPG	L I-O REG			0.7.1
-150	F1	02	KM	1	B7	BPG	L I-O REG			0.7.1
-150	F1	02	KN	1	B7	BPG	L I-O REG			0.7.1
-150	F1	02	KP	1	B7	BPG	L I-O REG			0.7.1
-150	F1	02	KR	1	B7	BPG	L I-O REG			0.7.1
-150	F1	02	KS	1	B7	BPG	L I-O REG			0.7.1
-150	F1	02	KT	1	B7	BPG	L I-O REG			0.7.1
-150	F1	02	KU	1	B7	BPG	L I-O REG			0.7.1
-150	F1	02	KV	1	B7	BPG	L I-O REG			0.7.1
-150	F1	02	KW	1	B7	BPG	L I-O REG			0.7.1
-150	F1	02	KX	1	B7	BPG	L I-O REG			0.7.1
-150	F1	03	KC	3	B7	BPG	R I-O REG			0.2.4
-150	F1	03	KD	1	B7	BPG	R I-O REG			0.7.6
-150	F1	03	KF	1	B7	BPG	R I-O REG			0.7.2
-150	F1	03	KG	1	B7	BPG	R I-O REG			0.7.2
-150	F1	03	KH	1	B7	BPG	R I-O REG			0.7.2
-150	F1	03	KJ	1	B7	BPG	R I-O REG			0.7.2
-150	F1	03	KK	1	B7	BPG	R I-O REG			0.7.2
-150	F1	03	KL	1	B7	BPG	R I-O REG			0.7.2
-150	F1	03	KM	1	B7	BPG	R I-O REG			0.7.2
-150	F1	03	KN	1	B7	BPG	R I-O REG			0.7.2
-150	F1	03	KP	1	B7	BPG	R I-O REG			0.7.2
-150	F1	03	KR	1	B7	BPG	R I-O REG			0.7.2
-150	F1	03	KS	1	B7	BPG	R I-O REG			0.7.2
-150	F1	03	KT	1	B7	BPG	R I-O REG			0.7.2
-150	F1	03	KU	1	B7	BPG	R I-O REG			0.7.2
-150	F1	03	KV	1	B7	BPG	R I-O REG			0.7.2
-150	F1	03	KW	1	B7	BPG	R I-O REG			0.7.2
-150	F1	03	KX	1	B7	BPG	R I-O REG			0.7.2
-150	F1	06	KE	1	B7	BPG	L I-O BUF			0.7.1

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-4	05/01/60	LOGIC
-150	F1	06	KF	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	KG	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	KH	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	KJ	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	KK	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	KL	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	KM	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	KN	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	KP	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	KR	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	KS	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	KT	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	KU	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	KV	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	KW	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	KX	1	B7	PG L I-O BUF			0.7.1
-150	F1	06	JF	1	B7	PG R I-O BUF			0.7.2
-150	F1	06	JG	1	B7	PG R I-O BUF			0.7.2
-150	F1	06	JH	1	B7	PG R I-O BUF			0.7.2
-150	F1	06	JJ	1	B7	PG R I-O BUF			0.7.2
-150	F1	06	JK	1	B7	PG R I-O BUF			0.7.2
-150	F1	06	JL	1	B7	PG R I-O BUF			0.7.2
-150	F1	06	JM	1	B7	PG R I-O BUF			0.7.2
-150	F1	06	JN	1	B7	PG R I-O BUF			0.7.2
-150	F1	06	JP	1	B7	PG R I-O BUF			0.7.2
-150	F1	06	JR	1	B7	PG R I-O BUF			0.7.2
-150	F1	06	JS	1	B7	PG R I-O BUF			0.7.2
-150	F1	06	JT	1	B7	PG R I-O BUF			0.7.2
-150	F1	06	JU	1	B7	PG R I-O BUF			0.7.2
-150	F1	06	JV	1	B7	PG R I-O BUF			0.7.2
-150	F1	06	JW	1	B7	PG R I-O BUF			0.7.2
-150	F1	06	JX	1	B7	PG R I-O BUF			0.7.2
-150	F1	03	KD	1	B7	PG CARD MACH INDEX PULSE			0.7.6
-150	F2	05	AP	6	D7	APG SET COND. LITE 1			0.7.4
-150	F2	05	FS	45	D7	BPG REQUEST BREAK & DISCON CARD MACH			0.7.6
-150	F2	05	EY	12	B7	BPG LOAD FROM CARD READER & AM-1			0.7.3
-150	F2	05	FS	1236	B7D7	BPG MC EXCUR ON-OFF SIMPLEX & DUPLEX			0.7.4
-150	F2	05	EY	6	B7	BPG DUPLEX SWITCH ALARM			0.7.5
-150	F3	06	FD	12	B7	AFF ADR CNTR			0.4.1
-150	F3	06	FF	12	B7	AFF ADR CNTR LS			0.4.1
-150	F3	06	FG	12	B7	AFF ADR CNTR			0.4.1
-150	F3	06	FH	12	B7	AFF ADR CNTR			0.4.1
-150	F3	06	FJ	12	B7	AFF ADR CNTR			0.4.1
-150	F3	06	FK	12	B7	AFF ADR CNTR			0.4.1
-150	F3	06	FL	12	B7	AFF ADR CNTR			0.4.1
-150	F3	06	FM	12	B7	AFF ADR CNTR			0.4.1
-150	F3	06	FN	12	B7	AFF ADR CNTR			0.4.1
-150	F3	06	FP	12	B7	AFF ADR CNTR			0.4.1
-150	F3	06	FR	12	B7	AFF ADR CNTR			0.4.1
-150	F3	06	FS	12	B7	AFF ADR CNTR			0.4.1
-150	F3	06	FT	12	B7	AFF-ADR CNTR			0.4.1
-150	F3	06	FU	12	B7	AFF ADR CNTR			0.4.1
-150	F3	06	FV	12	B7	AFF ADR CNTR			0.4.1
-150	F3	06	FW	12	B7	AFF ADR CNTR			0.4.1
-150	F3	06	FX	12	B7	AFF ADR CNTR		9	0.4.1
-300	A1	03	KD	2	D8	CFF R I-O REG CARD MACH CONTROL			0.7.6
-300	A2	05	BE	2479	D8	CFF L&R OFLOW OPUT ALRM STS DRM PAR			0.7.4
-300	A2	05	BH	2479	D8	CFF MEM DR TAPE PAR SD CAMERA STAT			0.7.4
-300	A2	05	BF	249	D8	CFF ALARM 1 2 & TRACK DISPLAY			0.7.4
-300	A2	05	BJ	2479	D8	CFF RDR PRINTER PUNCH TAPE NOT READY			0.7.4
-300	A2	05	BM	2479	D8	CFF INPUT DATA & SIMPLEX CONTROL			0.7.4
-300	A2	05	BN	247	D8	CFF OUT PAR ILL ADR OB PAR			0.7.4
-300	A2	05	BD	2479	D8	CFF INACTIVITY			0.7.4
-300	A2	05	BH	7	D8	CFF TTY PARITY			0.7.4
-300	A2	05	BG	247	D8	CFF G/A TD PARITY			000.7.4
-300	B1	05	BK	7	D8	CFF G-G PARITY			0.7.4
-300	B1	05	FH	2	D8	CFF COMMAND GEN 3			0.7.6
-300	B1	05	FC	2468	D8	CFF CARD MACH DELAY & WORD XFER			0.7.6
-300	B1	05	FD	24	D8	CFF PRINTER & PUNCH OPERATE			0.7.6
-300	B1	05	FH	47	D8	CFF CARD MACH OP & CARD RD START			0.7.6

MC-4

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-4	05/01/60	LOGIC
-300	B1	05	FH	38	D8	CFF SECOND BREAK REQUEST			0.7.6
-300	B1	05	BL	2479	D8	CFF INTERCOM 1,2,3, TAPES NOT RDY			0.7.4
-300	B1	05	GX	124-79D8		CFF ALARM INDICATORS			0.7.5
-300	B1	05	DE	8	D8	CFF COMPARE DRUM ADR MODE			0.7.7
-300	B1	05	DD	68	D8	CFF DRUM ADR IDENT BITS 7-15 & 12-15			0.7.7
-300	B1	05	DE	246	D8	CFF DR ADR ID BITS 14,15-11,15-5,10			0.7.7
-300	B1	05	FT	24	D8	CFF BURST TIME CNTR *6 MI MATRIX			0.7.7
-300	B1	05	GC	2	D8	CFF MAIN WARNING LIGHT CONTROL			0.7.9
-300	B1	05	BC	247	D8	CFF CONDITION LITES 1 2 3			0.7.4
-300	B1	05	BK	249	D8	CFF INTCOMM COND LGT 4 DUPLEX MC EXC			0.7.4
-300	B1	05	DD	2	D8	CFF PROG SYNC			000.7.4
-300	C1	13	CS	6	D8	FF TA CHARACTER REG			0.8.4
-300	C1	13	CT	6	D8	FF TA CHARACTER REG			0.8.4
-300	C1	13	CU	6	D8	FF TA CHARACTER REG			0.8.4
-300	C1	13	CV	6	D8	FF TA CHARACTER REG			0.8.2
-300	C1	13	CW	6	D8	FF TA CHARACTER REG			0.8.4
-300	C1	13	CX	6	D8	FF TA CHARACTER REG			0.8.4
-300	C1	13	CY	6	D8	FF TA CHARACTER REG			0.8.4

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-5	05/01/60	LOGIC
6250	A1	20	GC	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GD	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GE	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GF	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GG	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GH	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GJ	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GK	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GL	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GM	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GN	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GP	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GR	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GS	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GT	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GU	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GV	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	GW	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	HC	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	HD	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	HE	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	HG	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	HH	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	HJ	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	HK	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	HL	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	HM	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	HN	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	HP	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	HR	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	HS	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	HT	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	HV	1-7	85	DFD AXD DRUM FIELD DRIVER			1-2.1.1
6250	A1	20	FX	1-5	85	DRD AXD ACD READ WRITE CNTRL			1-2.2.2
6250	A1	21	FU	1-5	85	DRD DRUM CD READ-WRITE CNTRL			1.2.2
6250	A1	21	HJ	1-7	85	DFD DRUM CD LRI-1 FIELD DRIVER			1.1.1
6250	A1	21	HK	1-7	85	DFD DRUM CD LRI-2 FIELD DRIVER			1.1.1
6250	A1	21	HL	1-7	85	DFD DRUM CD GFI-1 FIELD DRIVER			1.1.1
6250	A1	21	HM	1-7	85	DFD DRUM CD XTEL FIELD DRIVER			1.1.1
6250	A1	21	HN	1-7	85	DFD DRUM CD SPARE AM FIELD DRIVER			1.1.1
6250	A1	21	HP	1-7	85	DFD DRUM CD SPARE XTEL FIELD DRIVER			1.1.1
6250	A1	21	JJ	1-7	85	DFD DRUM CD OB-1 FIELD DRIVER			1.1.1
6250	A1	21	JK	1-7	85	DFD DRUM CD OB-2 FIELD DRIVER			1.1.1
6250	A1	21	JL	1-7	85	DFD DRUM CD OB-3 FIELD DRIVER			1.1.1
6250	A1	21	JM	1-7	85	DFD DRUM CD MI FIELD DRIVER			1.1.1
6250	A1	21	JN	1-7	85	DFD DRUM CD DD FIELD DRIVER			1.1.1
6250	A1	21	JP	1-7	85	DFD DRUM CD IC FIELD DRIVER			1.1.1
6250	A1	21	HC	1-7	85	DFD DRUM CD AMA-1 FIELD DRIVER			1.1.1
6250	A1	21	JC	1-7	85	DFD DRUM CD AMA-2 FIELD DRIVER			1.1.1
6250	A1	21	HD	1-7	85	DFD DRUM CD AMA-3 FIELD DRIVER			1.1.1
6250	A1	21	JD	1-7	85	DFD DRUM CD AMA-4 FIELD DRIVER			1.1.1
6250	A1	21	HE	1-7	85	DFD DRUM CD AMA-5 FIELD DRIVER			1.1.1
6250	A1	21	JE	1-7	85	DFD DRUM CD AMA-6 FIELD DRIVER			1.1.1
6250	A1	21	HF	1-7	85	DFD DRUM CD AMB-1 FIELD DRIVER			1.1.1
6250	A1	21	JF	1-7	85	DFD DRUM CD AMB-2 FIELD DRIVER			1.1.1
6250	A1	21	HG	1-7	85	DFD DRUM CD AMB-3 FIELD DRIVER			1.1.1
6250	A1	21	JG	1-7	85	DFD DRUM CD AMB-4 FIELD DRIVER			1.1.1
6250	A1	21	HH	1-7	85	DFD DRUM CD AMB-5 FIELD DRIVER			1.1.1
6250	A1	21	JH	1-7	85	DFD DRUM CD AMB-6 FIELD DRIVER			1.1.1
6250	A1	21	HU	1-7	85	DFD DRUM CD RD-1 FIELD DRIVER			1.1.1
6250	A1	21	JU	1-7	85	DFD DRUM CD RD-2 FIELD DRIVER			1.1.1
6250	A1	21	HV	1-7	85	DFD DRUM CD RD-3 FIELD DRIVER			1.1.1
6250	A1	21	JV	1-7	85	DFD DRUM CD RD-4 FIELD DRIVER			1.1.1
6250	A1	21	HW	1-7	85	DFD DRUM CD RD-5 FIELD DRIVER			1.1.1
6250	A1	21	JW	1-7	85	DFD DRUM CD RD-6 FIELD DRIVER			1.1.1
6250	A1	21	HX	1-7	85	DFD DRUM CD RD-7 FIELD DRIVER			1.1.1
6250	A1	21	JX	1-7	85	DFD DRUM CD RD-8 FIELD DRIVER			1.1.1
6250	A1	21	HY	1-7	85	DFD DRUM CD RD-9 FIELD DRIVER			1.1.1
6250	A1	21	HR	1-7	85	DFD DRUM CD TD-1 FIELD DRIVER			1.1.1
6250	A1	21	JR	1-7	85	DFD DRUM CD TD-2 FIELD DRIVER			1.1.1
6250	A1	21	HS	1-7	85	DFD DRUM CD TD-3 FIELD DRIVER			1.1.1
6250	A1	21	JS	1-7	85	DFD DRUM CD TD-4 FIELD DRIVER			1.1.1
6250	A1	21	HT	1-7	85	DFD DRUM CD TD-5 FIELD DRIVER			1.1.1
6250	A1	21	JT	1-7	85	DFD DRUM CD TD-6 FIELD DRIVER			1.1.1
6250	B1	21	AH	7	85	I DRUM OB-1 OD STATUS CNTRL			1.4.1

MC-5

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-5	05/01/60	LOGIC
6250	B1	21	AM	8	85	I	DRUM OB-2 OD STATUS CNTRL			1.4.1
6250	B1	21	AM	9	85	I	DRUM OB-3 OD STATUS CNTRL			1.4.1
6250	B1	21	AK	23	85	LA	DRUM OB-1 CD STATUS CNTRL			1.4.1
6250	B1	21	AL	23	85	LA	DRUM OD-2 CD STATUS CNTRL			1.4.1
6250	B1	21	AM	23	85	LA	DRUM OB-3 CD STATUS CNTRL			1.4.1
6250	B1	21	AS	3-6	85	LA	DRUM CD FIELD & REG SW CNTRL			1.4.1
6250	B1	21	FP	9	85	I	DRUM MI CD STATUS CNTRL CKT			1.3.1
6250	B1	21	FP	7	85	I	DRUM XTEL CD MARKER STATUS CNTRL			1.3.6
6250	B1	21	FP	8	85	I	DRUM XTEL STATUS CNTRL			1.3.5
6250	B1	21	FS	9	85	I	DRUM GFI CD STATUS CNTRL			1.3.2
6250	B1	21	FS	7	85	I	DRUM LRI-1 CD STATUS CNTRL CKT			1.3.3
6250	B1	21	FS	8	85	I	DRUM LRI-2 CD STATUS CNTRL CKT			1.3.4
6250	B1	21	GX	2	85	I	NO OD DRUMS SEL			001.1.1
6250	B1	21	LC	67	85	LA	DRUM TEST CNTRLS			1.8.3
6250	B1	21	LC	89	85	LA	DRUM TEST CNTRLS			1.1.1
6250	B1	21	LC	1-4	85	LA	DRUM TEST CNTRLS			1.8.2
6250	B1	21	KD	7	85	I	DRUM MANUAL TEST PATTERN CNTRL			1.7.1
6250	B1	21	LD	1	85	I	DRUM MANUAL TEST PATTERN CNTRL			1.7.1
6250	B2	20	FK	7	85	I	AXD ACD SELECT ENCODER			1-2.1.1
6250	B2	21	AF	34	85	LA	DRUM OB OD FIELD SELECT CNTRL			1.4.1
6250	B2	21	DM	9	85	I	DRUM LRI-2 SELECTED			1.2.1
6250	B2	21	GP	1-9	85	LA	DRUM CD SELECT ENCODER			1.1.1
6250	B2	21	GR	1-9	85	LA	DRUM CD SELECT ENCODER			1.1.1
6250	B2	21	GS	1-46-985		LA	DRUM CD SELECT ENCODER			1.1.1
6250	C1	20	FS	589	85	PCF	AXD ACD READ WRITE CNTRL			1-2.2.1
6250	C1	21	CC	12356785		PCF	DRUM TD OD READ CNTRL			1.5.1
6250	C1	21	CD	12356785		PCF	DRUM TD OD READ CNTRL			1.5.1
6250	C1	21	CE	12356785		PCF	DRUM TD OD READ CNTRL			1.5.1
6250	C1	21	CF	12356785		PCF	DRUM TD OD READ CNTRL			1.5.1
6250	C1	21	CG	12356785		PCF	DRUM TD OD READ CNTRL			1.5.1
6250	C1	21	CH	12356785		PCF	DRUM TD OD READ CNTRL			1.5.1
6250	C1	21	CJ	12356785		PCF	DRUM RD OD READ CNTRL			1.5.1
6250	C1	21	CL	12356785		PCF	DRUM RD OD READ CNTRL			1.5.1
6250	C1	21	CM	12356785		PCF	DRUM RD OD READ CNTRL			1.5.1
6250	C1	21	CN	12356785		PCF	DRUM RD OD READ CNTRL			1.5.1
6250	C1	21	CP	12356785		PCF	DRUM RD OD READ CNTRL			1.5.1
6250	C1	21	CR	12356785		PCF	DRUM RD OD READ CNTRL			1.5.1
6250	C1	21	CS	12356785		PCF	DRUM RD OD READ CNTRL			1.5.1
6250	C1	21	CT	12356785		PCF	DRUM RD OD READ CNTRL			1.5.1
6250	C1	21	CU	12356785		PCF	DRUM OB-1 OD FIELD SELECT SWITCH			1.4.1
6250	C1	21	CV	12356785		PCF	DRUM OB-2 OD FIELD SELECT SWITCH			1.4.1
6250	C1	21	CK	12356785		PCF	DRUM RD OD READ CNTRL			1.5.1
6250	C1	21	CW	12356785		PCF	DRUM OB-3 OD FIELD SELECT SWITCH			1.4.1
6250	C1	21	FF	589	85	PCF	DRUM CD READ-WRITE CNTRL			001.2.1
6250	C1	21	LG	23	85	PCF	DRUM TEST CNTRLS			1.7.1
6250	C1	21	LG	67	85	PCF	DRUM TEST CONTROLS			1.8.1
6250	C1	21	LG	56	85	PCF	DRUM TEST CONTROLS			1.8.2
6150	A1	20	CE	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CF	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CG	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CH	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CJ	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CK	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CL	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CM	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CN	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CP	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CR	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CS	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CT	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CU	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CV	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CW	34	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	20	CX	3	D5	CF	AXD ACD WRITE REG			1-2.2.1
6150	A1	22	GE	34	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A1	22	GF	34	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A1	22	GG	34	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A1	22	GH	34	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A1	22	GJ	34	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A1	22	GK	34	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A1	22	GL	34	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A1	22	GM	34	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A1	22	GN	34	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A1	22	GP	34	D5	CF	DRUM CD WRITE CKT			1.2.1

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-5	05/01/60	LOGIC
6150	A1	22	GR	34	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A1	22	GS	34	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A1	22	GT	34	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A1	22	GU	34	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A1	22	GV	34	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A1	22	GW	34	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A1	22	GX	3	D5	CF	DRUM CD WRITE CKT			1.2.1
6150	A2	22	JD	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	JE	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	JF	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	JG	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	JH	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	JJ	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	JK	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	JL	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	JM	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	JN	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	JP	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	JR	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	JS	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	JT	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	JU	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	JV	34	D5	CF	DRUM XTEL OD WRITE CKT			1.3.5
6150	A2	22	KD	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KE	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KF	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KG	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KH	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KJ	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KK	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KL	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KM	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KN	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KP	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KR	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KS	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KT	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KU	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KV	34	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	KW	3	D5	CF	DRUM MI OD WRITE CKT			1.3.1
6150	A2	22	LD	4	D5	CF	DRUM LRI-162 OD WRITE CKT PARITY			1.3.3
6150	A2	22	LE	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	LF	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	LG	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	LH	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A3	22	HD	34	D5	CF	DRUM OB-2 STATUS CNTRL CKT			1.4.1
6150	A3	22	HE	34	D5	CF	DRUM OB-3 STATUS CNTRL CKT			1.4.1
6150	A3	22	HH	34	D5	CF	DRUM GFI STATUS CNTRL CKT			1.3.2
6150	A3	22	HJ	34	D5	CF	DRUM LRI-1 STATUS CNTRL			1.3.3
6150	A3	22	HK	34	D5	CF	DRUM LRI-2 STATUS CNTRL			1.3.4
6150	A3	22	HL	34	D5	CF	DRUM MI STATUS CNTRL CKT			1.3.5
6150	A3	22	HM	34	D5	CF	DRUM MI STATUS CNTRL			1.3.1
6150	A3	22	HR	3	D5	CF	DRUM SPARE XTEL STATUS CNTRL			1.3.6
6150	A3	22	HS	4	D5	CF	DRUM XTEL STATUS CNTRL			1.3.6
6150	A3	22	JW	4	D5	CF	DRUM XTEL CD MARKER STATUS CNTRL			1.3.5
6150	A3	22	PW	34	D5	CF	DRUM XTEL STATUS CNTRL			1.3.6
6150	B1	22	LD	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LE	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LF	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LG	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LH	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LJ	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LK	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LL	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LM	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LN	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LO	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LP	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LR	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LS	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LT	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LU	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	LV	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	MD	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3
6150	B1	22	ME	56	CT	WR	HEADW DRUM LRI-162 WRITE CKT			001.3.3

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-5	05/01/60	LOGIC		
6150	B1	22	MW	78	CT	WR	HEADDW	DRUM	LRI-162 OD WRITE	CKT	1.3+4	
6150	B1	22	ND	5-8	CT	WR	HEADDW	DRUM	GFI OD WRITE	CKT	1.3+2	
6150	B1	22	NE	5-8	CT	WR	HEADDW	DRUM	GFI OD WRITE	CKT	1.3+2	
6150	B1	22	NG	5-8	CT	WR	HEADDW	DRUM	GFI OD WRITE	CKT	1.3+2	
6150	B1	22	NF	5-8	CT	WR	HEADDW	DRUM	GFI OD WRITE	CKT	1.3+2	
6150	B1	22	NH	5-8	CT	WR	HEADDW	DRUM	GFI OD WRITE	CKT	1.3+2	
6150	B1	22	NJ	5-8	CT	WR	HEADDW	DRUM	GFI OD WRITE	CKT	1.3+2	
6150	B1	22	NN	5-8	CT	WR	HEADDW	DRUM	GFI OD WRITE	CKT	1.3+2	
6150	B1	22	NP	5-8	CT	WR	HEADDW	DRUM	GFI OD WRITE	CKT	1.3+2	
6150	B1	22	NR	5-8	CT	WR	HEADDW	DRUM	GFI OD WRITE	CKT	1.3+2	
6150	B1	22	NS	5-8	CT	WR	HEADDW	DRUM	GFI OD WRITE	CKT	1.3+2	
6150	B1	22	NT	5-8	CT	WR	HEADDW	DRUM	GFI OD WRITE	CKT	1.3+2	
6150	B1	22	NU	5-8	CT	WR	HEADDW	DRUM	GFI OD WRITE	CKT	1.3+2	
6150	B1	22	NV	5-8	CT	WR	HEADDW	DRUM	GFI OD WRITE	CKT	1.3+2	
6150	B1	22	NW	5-8	CT	WR	HEADDW	DRUM	GFI OD WRITE	CKT	1.3+2	
6150	B1	22	NX	5-8	CT	WR	HEADDW	DRUM	CFI OD WRITE	CKT	1.3+2	
6150	B1	22	NJ	78	CT	WR	HEADDW	DRUM	GFI REL TIME CNTR	WRITE CKT	1.3+2	
6150	B1	22	NK	5-8	CT	WR	HEADDW	DRUM	GFI REL TIME CNTR	WRITE CKT	1.3+2	
6150	B1	22	NM	5-8	CT	WR	HEADDW	DRUM	GFI REL TIME CNTR	WRITE CKT	1.3+2	
6150	B1	22	PD	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B1	22	PE	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B1	22	PF	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B1	22	PG	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B1	22	PH	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B1	22	PJ	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B1	22	PK	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B1	22	PL	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B1	22	PM	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B1	22	PN	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B1	22	PP	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B1	22	PR	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B1	22	PS	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B1	22	PT	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B1	22	PU	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B1	22	PV	5-8	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	B2	22	HC	5-8	CT	WR	HEADDW	DRUM	OB-1 STATUS	CNTRL CKT	001.4+1	
6150	B2	22	HD	5-8	CT	WR	HEADDW	DRUM	OB-2 STATUS	CNTRL CKT	001.4+1	
6150	B2	22	HE	5-8	CT	WR	HEADDW	DRUM	OB-3 STATUS	CNTRL CKT	001.4+1	
6150	B2	22	HJ	5-8	CT	WR	HEADDW	DRUM	GFI STATUS	CNTRL CKT	001.3+2	
6150	B2	22	HJ	5-8	CT	WR	HEADDW	DRUM	LRI-1 STATUS	CNTRL	001.3+3	
6150	B2	22	HK	5-8	CT	WR	HEADDW	DRUM	LRI-2 STATUS	CNTRL	001.3+4	
6150	B2	22	HM	5-8	CT	WR	HEADDW	DRUM	MI STATUS	CNTRL	001.3+1	
6150	B2	22	HL	5-8	CT	WR	HEADDW	DRUM	XTL STATUS	CNTRL CKT	001.3+5	
6150	B2	22	HR	5-8	CT	WR	HEADDW	DRUM	SP XTEL STATUS		001.3+6	
6150	B2	22	PW	78	CT	WR	HEADDW	DRUM	XTEL STATUS	CNTRL	1.3+6	
6150	B2	22	PW	56	CT	WR	HEADDW	DRUM	SP XT WRITE	CKT	1.3+6	
6150	C1	20	FX	1-5	D5	DRD	AXD	ACD	READ	WRITE	CNTRL	1-2+2+2
6150	C1	21	FU	1-5	D5	DRD	DRUM	CD	READ-WRITE		CNTRL	1.2+2
6150	D1	20	FN	89	G5	CF	AXD	ACD	READ	WRITE	CNTRL	1-2+2+1
6150	D1	20	FP	6	G5	CF	AXD	ACD	READ	WRITE	CNTRL	1-2+2+1
6150	D1	20	FR	24-7	D5G5	CF	AXD	ACD	READ	WRITE	CNTRL	1-2+2+1
6150	D1	20	FS	2	D5	CF	AXD	ACD	READ	WRITE	CNTRL	1-2+2+1
6150	D1	20	FT	2367	D5G5	CF	AXD	ACD	READ	WRITE	CNTRL	1-2+2+1
6150	D1	21	FC	89	G5	CF	DRUM	CD	READ-WRITE		CNTRL	1.2+1
6150	D1	21	FD	6	G5	CF	DRUM	CD	READ-WRITE		CNTRL	1.2+1
6150	D1	21	FE	27	D5G5	CF	DRUM	CD	READ	WRITE	CNTRL	5-1+6+1
6150	D1	21	FE	4-7	D5G5	CF	DRUM	CD	READ	WRITE	CNTRL	1.2+1
6150	D1	21	FF	2	D5	CF	DRUM	CD	READ-WRITE		CNTRL	1.2+1
6150	D1	21	FG	2367	G5D5	CF	DRUM	CD	READ-WRITE		CNTRL	1.2+1
6150	D2	21	AC	1	D5	CF	DRUM	DD	OD	READ	CNTRL	1.5+3
6150	D2	21	AD	25	D5	CF	DRUM	DD	OD	READ	CNTRL	1.5+3
6150	D2	21	AE	25	D5	CF	DRUM	DD	OD	READ	CNTRL	1.5+3
6150	D2	21	AR	3	D5	CF	DRUM	OB	OD	FIELD SELECT	CNTRL	1.4+1
6150	D2	21	AF	34678	D5G56	CF	DRUM	OB	OD	FIELD SELECT	CNTRL	1.4+1
6150	D2	21	AG	35	D5	CF	DRUM	OB	OD	READ	CNTRL	1.4+1
6150	D2	21	DC	67	D5	CF	DRUM	TD	OD	READ	CNTRL	1.5+1
6150	D2	21	DE	37	D5	CF	DRUM	TD	OD	READ	CNTRL	1.5+1
6150	D2	21	DF	258	D5	CF	DRUM	TD	OD	READ	CNTRL	1.5+1
6150	D2	21	DG	13467985	D5	CF	DRUM	TD	OD	READ	CNTRL	1.5+1
6150	D2	21	DH	1	D5	CF	DRUM	TD	OD	READ	CNTRL	1.5+1
6150	D2	21	DK	789	D5	CF	DRUM	RD	OD	READ	CNTRL	1.5+1
6150	D2	21	DM	89	D5	CF	DRUM	RD	OD	READ	CNTRL	1.2+1

MC-5

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-5	05/01/60	LOGIC
6150	D2	21	DM	6	D5	CF	DRUM RD OD READ CNTRL			1.5.1
6150	D2	21	DM	1	D5	CF	DRUM RD OD READ CNTRL			1.5.1
6150	D2	21	DP	13467985		CF	DRUM RD OD READ CNTRL			1.5.1
6150	D2	21	DR	13467985		CF	DRUM RD OD READ CNTRL			1.5.1
6150	D2	21	DT	56	D5	CF	DRUM RD OD READ CNTRL			1.5.1
6150	D2	21	DV	1	D5	CF	DRUM RD OD READ CNTRL			1.5.1
6150	D2	21	DW	39	D5	CF	DRUM RD OD READ CNTRL			1.5.1
6150	D2	21	DX	258	D5	CF	DRUM RD OD READ CNTRL			001.5.1
6150	D2	21	DY	5	D5	CF	DRUM TD TIMING CKT			001.5.1
6150	D2	21	ES	6	D5	CF	DRUM RD TIMING CKT			1.1.2
6150	D2	21	ET	6	D5	CF	DRUM RD TIMING CKT			1.5.1
6150	D2	21	EY	6	D5	CF	DRUM TD TIMING CKT			1.1.2
6150	D2	21	RN	4	D5	CF	DRUM IC OD READ CNTRL CKT			S-1.6.1
6150	D2	22	MX	23	D5	CF	DRUM RI OD REL TIME CNTR			1.3.2
6150	D4	20	FC	13467985		CF	AXD ACD SELECTION REG			1-2.1.1
6150	D4	20	FD	13467985		CF	AXD ACD SEL REG OCTAL ENCODER			1-2.1.1
6150	D4	20	FE	1-8	D5	CF	AXD ACD SEL REG OCTAL ENCODER			1-2.1.1
6150	D4	20	FF	1-478	D5	CF	AXD ACD SEL REG OCTAL ENCODER			1-2.1.1
6150	D4	21	GC	13467985		CF	DRUM CD SELECT REG			1.1.1
6150	D4	21	GD	13467985		CF	DRUM CD SELECT REG			1.1.1
6150	D5	20	FG	346-9	D5	CF	AXD ACD SELECT ENCODER			1-2.1.1
6150	D5	20	FH	346-9	D5	CF	AXD ACD SELECT ENCODER			1-2.1.1
6150	D5	20	FJ	234678D5		CF	AXD ACD SELECT ENCODER			1-2.1.1
6150	D5	20	FK	1-47-9D5G5		CF	AXD ACD SELECT ENCODER			1-2.1.1
6150	D5	21	FS	1	G5	CF	DRUM CD SELECT REG			1.1.2
6150	D5	21	FS	2	G5	CF	DRUM CD SELECT REG			1.7.2
6150	D5	21	FS	1	G5	CF	DRUM CD SELECT REG			1.1.1
6150	D5	21	GS	1-9	D5G5	CF	DRUM CD SELECT REG			1.1.1
6150	D5	21	GG	1-46-8D5G5		CF	DRUM CD SELECT REG			001.1.1
6150	D5	21	GH	1-46-8D5		CF	DRUM CD SELECT ENCODER			001.1.1
6150	D5	21	GJ	1-46-9D5		CF	DRUM CD SELECT ENCODER			1.1.1
6150	D5	21	GK	1357	B5	CF	DRUM CD SELECT ENCODER			1.1.1
6150	D5	21	GL	247-9	D5	CF	DRUM CD SELECT ENCODER			001.1.1
6150	D5	21	GM	24789	D5	CF	DRUM CD SELECT ENCODER			1.1.1
6150	D5	21	GN	24789	D5	CF	DRUM CD SELECT ENCODER			1.1.1
6150	D5	21	GP	1-9	D5	LA	DRUM CD SELECT ENCODER			1.1.1
6150	D5	21	GR	1-9	D5	LA	DRUM CD SELECT ENCODER			1.1.1
6150	D5	21	KK	1-8	B5	CF	DRUM CD SELECT ENCODER			1.1.1
6150	D6	21	GX	12	B6	I	NO OD DRUMS SEL			1.1.1
6150	D6	21	GE	1-8	D5	CF	DRUM CD SELECT REG			1.1.1
6150	D6	21	GF	1-8	D5	CF	DRUM CD SELECT REG			1.1.1
6150	E1	21	AH	9	G6	I	DRUM OB-3/D STATUS CTL			1.4.1
6150	E1	21	AH	2	D5	CF	SD TEST			1.8.2
6150	E1	21	AH	17	G56	CF	DRUM OB-1 OD STATUS CNTRL			1.4.1
6150	E1	21	AH	18	G56	CF	DRUM OB-2 OD STATUS CNTRL			1.4.1
6150	E1	21	AH	29	G56	CF	DRUM OB-3 OD STATUS CNTRL			1.4.1
6150	E1	21	BC	256	D5	CF	DRUM XTEL OD STATUS CNTRL			1.3.5
6150	E1	21	BE	356	D5	CF	DRUM XTEL OD MARKER STATUS CNTRL			1.3.5
6150	E1	21	BG	256	D5	CF	DRUM HI OD STATUS CNTRL			1.3.1
6150	E1	21	BJ	256	D5	CF	DRUM SP XTEL OD STATUS CNTRL			1.3.6
6150	E1	21	BL	356	D5	CF	DRUM SP XTEL OD MARKER STATUS			1.3.6
6150	E1	21	BL	3	D5	CF	DRUM SP XTEL OD MARKER STATUS			1.7.1
6150	E1	21	BY	14569	D5	CF	DRUM LRI 162 SP XTAL NORM/STAT			1.2.1
6150	E1	21	AH	5	D5	CF	DRUM LRI-1 OD STATUS CNTRL			1.3.3
6150	E1	21	AH	5	D5	CF	DRUM LRI-1 OD STATUS CNTRL			1.3.3
6150	E1	21	BN	256	G5	CF	DRUM LRI-1 OD STATUS CNTRL			1.3.3
6150	E1	21	BR	123567G5		CF	DRUM LRI-2 OD STATUS CNTRL			1.3.4
6150	E1	21	BU	256	D5	CF	DRUM GFI OD STATUS CNTRL			1.3.2
6150	E1	21	AV	6	D5	CF	DRUM OB OD GAP CNTR			1.4.1
6150	E1	21	AU	6	D5	CF	DRUM OB-CD GAP CTR			001.4.1
6150	E2	21	AM	3	D5	CF	LOG OD-IX OB FLD SW CTR 1-2			1.4.1
6150	E2	21	CY	2	D5	CF	NOT MANUAL TEST			1.7.2
6150	E2	21	AK	235789D56G5		CF	DRUM OB-1 CD STATUS CNTRL			1.4.1
6150	E2	21	AK	7	G5	CF	DRUM OB-1 CD STATUS CNTRL			1.7.1
6150	E2	21	AL	235789D56G5		CF	DRUM OB-2 CD STATUS CNTRL			1.4.1
6150	E2	21	AM	235789D56G5		CF	DRUM OB-3 CD STATUS CNTRL			1.4.1
6150	E2	21	AR	368	G5	CF	DRUM CU FIELD & REG SW CNTRL			1.4.1
6150	A2	22	LJ	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-5	05/01/60	LOGIC
6150	A2	22	LK	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	LL	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	LM	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	LN	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	LP	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	LR	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	LS	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	LT	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	LV	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	MD	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	ME	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	MF	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	MG	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	MH	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	MJ	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	MK	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	ML	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	MM	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	MN	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	MP	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	MR	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	MS	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	MT	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	MU	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	MV	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	MW	4	D5	CF	DRUM LRI-162 OD WRITE CKT			1.3.3
6150	A2	22	ND	34	D5	CF	DRUM GFI OD WRITE CKT			1.3.2
6150	A2	22	NE	34	D5	CF	DRUM GFI OD WRITE CKT			1.3.2
6150	A2	22	NF	34	D5	CF	DRUM GFI OD WRITE CKT			1.3.2
6150	A2	22	NG	34	D5	CF	DRUM GFI OD WRITE CKT			1.3.2
6150	A2	22	NH	34	D5	CF	DRUM GFI OD WRITE CKT			1.3.2
6150	A2	22	NJ	3	D5	CF	DRUM GFI OD WRITE CKT			1.3.2
6150	A2	22	NN	34	D5	CF	DRUM GFI OD WRITE CKT			1.3.2
6150	A2	22	NP	34	D5	CF	DRUM GFI OD WRITE CKT			1.3.2
6150	A2	22	NR	34	D5	CF	DRUM GFI OD WRITE CKT			1.3.2
6150	A2	22	NS	34	D5	CF	DRUM GFI OD WRITE CKT			1.3.2
6150	A2	22	NT	34	D5	CF	DRUM GFI OD WRITE CKT			1.3.2
6150	A2	22	NU	34	D5	CF	DRUM GFI OD WRITE CKT			1.3.2
6150	A2	22	NV	34	D5	CF	DRUM GFI OD WRITE CKT			1.3.2
6150	A2	22	NW	34	D5	CF	DRUM GFI OD WRITE CKT			1.3.2
6150	A2	22	NX	34	D5	CF	DRUM GFI OD WRITE CKT			1.3.2
6150	A2	22	NJ	4	D5	CF	DRUM GFI REL TIME CNTR WRITE CKT			1.3.2
6150	A2	22	NK	34	D5	CF	DRUM GFI REL TIME CNTR WRITE CKT			1.3.2
6150	A2	22	NM	34	D5	CF	DRUM GFI REL TIME CNTR WRITE CKT			1.3.2
6150	A2	22	PD	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A2	22	PE	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A2	22	PF	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A2	22	PG	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A2	22	PH	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A2	22	PJ	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A2	22	PK	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A2	22	PL	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A2	22	PM	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A2	22	PN	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A2	22	PP	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A2	22	PR	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A2	22	PS	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A2	22	PT	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A2	22	PU	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A2	22	PV	34	D5	CF	DRUM SP XT WRITE CKT			1.3.6
6150	A3	22	HC	34	D5	CF	DRUM OB-1 STATUS CNTRL CKT			1.4.1
6150	E2	21	AS	13-9	D5G5	CF	DRUM CD FIELD & REG SW CNTRL			001.4.1
6150	E2	21	AT	123	D5D5	CF	DRUM CD FIELD & REG SW CNTRL			1.4.1
6150	E2	21	FP	1	G5	CF	DRUM CD STATUS CNTRL			1.3.4
6150	E2	21	FP	38	D5G6	CF	DRUM XTEL CD STATUS CNTRL			1.3.5
6150	E2	21	FP	27	D5G6	CF	DRUM XTEL CD MARKER STATUS CNTRL			1.3.6
6150	E2	21	FP	239	D5G5G6	CF	DRUM MI CD STATUS CNTRL CKT			1.3.1
6150	E2	21	FS	39	D5G6	CF	DRUM GFI CD STATUS CNTRL			1.3.2
6150	E2	21	FP	15	D5G5	C	DRUM LRI-1 CD STATUS CNTRL CKT			1.3.3
6150	E2	21	FS	27	D5G6	CF	DRUM LRI-1 CD STATUS CNTRL CKT			1.3.3
6150	E2	21	FS	358	D5G6	CF	DRUM LRI-2 CD STATUS CNTRL CKT			1.3.4
6450	E2	21	AU	6	D5	CF	DRUM OB CD GAP CNTR			1.4.1
6150	E2	21	PC	45	D5	CF	DRUM STEP DISC CNTR			1.3.1
6150	E2	21	PC	9	D5	CF	DRUM STEP DISC CNTR			1.3.3
6150	E2	21	PC	9	D5	CF	DRUM STEP DISC CNTR			1.3.5

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V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-5	05/01/60	LOGIC
6150	E2	21	AL	7	G5	CF DRUM	08-2	CD STATUS CNTRL	1+7+1
6150	E2	21	AM	7	G5	CF DRUM	08-3	CD STATUS CNTRL	1+7+1
6150	E2	21	AM	3	D5	CF DRUM	08-3	CD STATUS CNTRL	1+4+1
6150	E2	21	CY	13569	D5	CF	LK1-1+2	ATL UM SP ATL COMPARE	001+2+1
6150	E2	21	CY	7	D5	CF		TEST & STATUS	001+2+1
6150	E3	21	GM	13569	G5	CF DRUM	CD	SELECT ENCODER	1+1+1
6150	E3	21	GM	13569	G5	CF DRUM	CD	SELECT ENCODER	1+1+1
6150	E4	20	FM	67	D5	SS	AXD	ACD READ WRITE CNTRL	1-2+2+1
6150	E4	20	FM	12	D5	SS	AXD	ACD READ WRITE CNTRL	1-2+2+1
6150	E4	21	FC	67	D5	SS	DRUM	CD READ-WRITE CNTRL	1+2+1
6150	E4	21	FD	12	D5	SS	DRUM	CD READ-WRITE CNTRL	1+2+1
6150	F1	20	EY	3	D5	VRD	AXD	MANUAL TEST READ WRITE CNTRL	2+2+3
6150	F1	21	LU	3	D5	VRD			1+2+3
6150	F1	21	RF	34	D5	VRD	DRUM	IC OWN TEST	1+7+1
6150	F4	20	EC	2378	D5G5	CF	AXD	MANUAL TEST CHECK REG	1-2+3+2
6150	F4	20	ED	2378	D5G5	CF	AXD	MANUAL TEST CHECK REG	1-2+3+2
6150	F4	20	EE	2378	D5G5	CF	AXD	MANUAL TEST CHECK REG	1-2+3+2
6150	F4	20	EF	2378	D5G5	CF	AXD	MANUAL TEST CHECK REG	1-2+3+2
6150	F4	20	EG	2378	D5G5	CF	AXD	MANUAL TEST CHECK REG	1-2+3+2
6150	F4	20	EH	2378	D5G5	CF	AXD	MANUAL TEST CHECK REG	1-2+3+2
6150	F4	20	EJ	2378	D5G5	CF	AXD	MANUAL TEST CHECK REG	1-2+3+2
6150	F4	20	EK	2378	D5G5	CF	AXD	MANUAL TEST CHECK REG	1-2+3+2
6150	F4	20	ET	456	D5	CF	AXD	MANUAL TEST READ WRT CNTRL	1-2+3+2
6150	F4	20	EY	4	D5	CF	AXD	MANUAL TEST READ WRITE CNTRL	2+2+3
6150	F4	20	FY	3	D5	CF	AXD	MANUAL TEST READ WRITE CNTRL	2+3+2
6150	F4	20	ER	9	D5	CF	AXD	MANUAL TEST PATTERN CNTRL	1-2+3+2
6150	F4	20	EX	67	D5	CF	AXD	MANUAL TEST CHECK CNTRLS	1-2+3+2
6150	F4	21	KR	2378	D5G5	CF	DRUM	MANUAL TEST CHECK REG	1+7+2
6150	F4	21	KS	2378	D5G5	CF	DRUM	MANUAL TEST CHECK REG	1+7+2
6150	F4	21	KT	2378	D5G5	CF	DRUM	MANUAL TEST CHECK REG	1+7+2
6150	F4	21	KU	2378	D5G5	CF	DRUM	MANUAL TEST CHECK REG	1+7+2
6150	F4	21	KV	2378	D5G5	CF	DRUM	MANUAL TEST CHECK REG	1+7+2
6150	F4	21	KW	2378	D5G5	CF	DRUM	MANUAL TEST CHECK REG	1+7+2
6150	F4	21	KX	2378	D5G5	CF	DRUM	MANUAL TEST CHECK REG	1+7+2
6150	F4	21	KY	2378	D5G5	CF	DRUM	MANUAL TEST CHECK REG	1+7+2
6150	F4	21	DJ	67	D5	CF	DRUM	TEST CONTROLS	1+5+2
6150	F4	21	LC	589	D5G5	CF	DRUM	TEST CONTROLS	1+1+1
6150	F4	21	LC	1-4	D5G5	CF	DRUM	TEST CONTROLS	1+8+2
6150	F4	21	LC	67	D5G5	CF	DRUM	TEST CONTROLS	1+8+3
6150	F4	21	LE	79	B5	CF	DRUM	TEST CONTROLS	1+8+1
6150	F4	21	LH	14589	D5	CF	DRUM	TEST CONTROLS	1+8+2
6150	F4	21	LH	67	D5	CF	DRUM	TEST CONTROLS	1+8+1
6150	F4	21	LH	2	D5	CF	DRUM	TEST CONTROLS	1+8+3
6150	F4	21	LD	25-9	D5	CF	DRUM	TEST CONTROLS	1+8+1
6150	F4	21	LD	1	G5	CF	DRUM	TEST CONTROLS	1+7+1
6150	F4	21	LE	1346	B5	CF	DRUM	TEST CONTROLS	1+7+2
6150	F4	21	KH	269	D5	CF	DRUM	MANUAL TEST RD WRT CT	1+7+2
6150	F4	21	KJ	23	D5	CF	DRUM	MANUAL TEST RD WRT CT	1+7+1
6150	F4	21	KJ	4	D5	CF			1+2+3
6150	F4	21	KD	17	D5	CF	DRUM	MANUAL TEST PATTERN CNTRL	1+8+2
6150	F4	21	KF	9	D5	CF	DRUM	MANUAL TEST PATTERN CNTRL	1+7+2
6150	F4	21	KP	67	D5	CF	DRUM	MANUAL TEST CHECK CNTRL	1+7+2
690	A1	20	AC	2	B5	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AD	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AE	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AF	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AG	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AH	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AJ	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AK	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AL	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AM	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AN	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AP	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AR	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AS	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AT	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AU	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	20	AV	23	B56	GT	AXD	ACD INFO READ CKT	1-2+2+2
690	A1	22	EC	2	B5	GT	DRUM	CD READ CKT	1+2+2

MC-5

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-5	05/01/60	LOGIC
690	A2	22	DT	23	B56	GT	DRUM SD OD READ CKT			1.5+2
690	A2	22	DU	23	B56	GT	DRUM SD OD READ CKT			1.5+2
690	A2	22	DV	23	B56	GT	DRUM SD OD READ CKT			1.5+2
690	A2	22	DW	23	B56	GT	DRUM SD OD READ CKT			1.5+2
690	A2	22	DX	23	B56	GT	DRUM SD OD READ CKT			1.5+2
690	A2	22	DY	23	B5	GT	DRUM SD OD READ CKT			1.5+2
690	A3	20	BG	23	B56	GT	AXD AMC-D INDEX READ CKT			1-2.1+2
690	A3	20	BH	23	B56	GT	AXD AME-F INDEX READ CKT			1-2.1+2
690	A3	20	BJ	23	B56	GT	AXD AMG-H INDEX READ CKT			1-2.1+2
690	A3	22	AF	2	B5	GT	DRUM IC INDEX CHAN READ CKT			1.6+1
690	A3	22	DC	3	B6	GT	DRUM XTEL STATUS CNTRL			1.3+6
690	A3	22	DD	39	B6G7	GT	DRUM XTEL STATUS CNTRL			1.3+6
690	A3	22	DC	2	B5	GT	DRUM SPARE XTEL STATUS READ CKT			1.3+6
690	A3	22	DD	2	B5	GT	DRUM SPARE XTEL MARKER READ CKT			1.3+6
690	A3	22	FB	23	B56	GT	DRUM OB-1 STATUS CHAN READ CKT			1.4+1
690	A3	22	FC	23	B56	GT	DRUM OB-2 STATUS CHAN READ CKT			1.4+1
690	A3	22	FD	23	B56	GT	DRUM OB-3 STATUS CHAN READ CKT			1.4+1
690	A3	22	BC	23	B56	GT	DRUM XTEL STATUS READ CKT			1.3+5
690	A3	22	BD	239	B56G7	GT	DRUM XTEL MARKER CHAN READ CKT			1.3+5
690	A3	22	CD	23	B56	GT	DRUM MI STATUS READ CKT			1.3+1
690	A3	22	FE	23	B56	GT	DRUM LRI-1 STATUS READ CKT			1.3+3
690	A3	22	FF	23	B56	GT	DRUM LRI-2 STATUS READ CKT			1.3+4
690	A3	22	FG	23	B56	GT	DRUM GFI STATUS READ CKT			1.3+2
690	A3	22	FK	2	B5	GT	DRUM AMA INDEX CHAN READ CKT			1.1+2
690	A3	22	FK	3	B6	GT	DRUM AMB INDEX CHAN READ CKT			1.1+2
690	A3	22	FM	23	B56	GT	DRUM LOG INDEX CHAN READ CKT			1.1+2
690	A3	22	FP	23	B56	GT	DRUM MIXD INDEX CHAN READ CKT			1.1+2
690	A3	22	FS	23	B56	GT	DRUM TD INDEX CHAN READ CKT			1.1+2
690	A3	22	FU	23	B56	GT	DRUM RD INDEX CHAN READ CKT			1.1+2
690	A4	21	EX	4	D6	PA	DRUM AMA TIMING CKT			1.1+2
690	A4	21	EX	5	G5	PA	DRUM AMB TIMING CKT			1.1+2
690	A4	21	EL	16	B5G5	PA	DRUM TD TIMING CKT			1.1+2
690	A4	21	EM	16	B5G5	PA	DRUM TD TIMING CKT			1.1+2
690	A4	21	EX	6	G6	PA	DRUM TD TIMING CKT			1.1+2
690	A4	21	DY	38	B6G6	GT	DRUM TD TIMING CKT			1.5+1
690	A4	21	ER	18	B5G7	GT	DRUM TD TIMING CKT			1.1+2
690	A4	21	EY	38	B6G6	GT	DRUM TD TIMING CKT			1.1+2
690	A4	21	EN	16	B5G5	PA	DRUM RD TIMING CKT			1.1+2
690	A4	21	EP	16	B5G5	PA	DRUM RD TIMING CKT			1.1+2
690	A4	21	EX	78	G67	PA	DRUM RD TIMING CKT			001.1+2
690	A4	21	ER	3567	D5G56	GT	DRUM RD TIMING CKT			001.1+2
690	A4	21	ER	24	B6D6	GT	DRUM RD TIMING CKT			1.1+2
690	A4	21	ES	38	B6G6	GT	DRUM RD TIMING CKT			1.1+2
690	A4	21	ET	38	B6G6	GT	DRUM RD TIMING CKT			1.5+1
690	A4	21	EG	16	B5G5	PA	DRUM LOG TIMING CKT			1.1+2
690	A4	21	EH	16	B5G5	PA	DRUM LOG TIMING CKT			1.1+2
690	A4	21	EJ	16	B5G5	PA	DRUM MIXD TIMING CKT			1.1+2
690	A4	21	EK	16	B5G5	PA	DRUM MIXD TIMING CKT			1.1+2
690	A4	21	EX	123	B5G5D5	PA	DRUM MIXD TIMING CKT			1.1+2
690	A4	22	HF	17	B5G6	PA	DRUM LOG TIMING CKT			1.1+2
690	A4	22	HN	17	B5G6	PA	DRUM MIXED TIMING CKT			1.2+2
690	A4	22	GC	6	D6	PA	DRUM CD WRITE CKT CNTRL			1.2+1
690	B1	21	EF	124-7	B56D6G56	PA	DRUM AMA-AMB TIMING CKT			1.1+2
690	B1	21	EG	249	B6D6G7	BPA	DRUM LOG TIMING CKT			1.1+2
690	B1	21	EH	249	B6D6G7	BPA	DRUM LOG TIMING CKT			1.1+2
690	B1	21	EJ	249	B6D6G7	BPA	DRUM MIXD TIMING CKT			1.1+2
690	B1	21	EK	249	B6D6G7	BPA	DRUM MIXD TIMING CKT			1.1+2
690	B1	21	EL	249	B6D6G7	BPA	DRUM TD TIMING CKT			1.1+2
690	B1	21	EM	249	B6D6G7	BPA	DRUM TD TIMING CKT			1.1+2
690	B1	21	EN	249	B6D6G7	BPA	DRUM RD TIMING CKT			1.1+2
690	B1	21	EP	249	B6D6G7	BPA	DRUM RD TIMING CKT			1.1+2
690	B4	21	DD	7	G5	BPA	DRUM TD OD READ CNTRL			1.5+1
690	B4	21	FK	6	D6	BPA	DRUM CD READ-WRITE CNTRL			1.2+1
690	B4	21	FL	9	G7	BPA	DRUM CD READ-WRITE CNTRL			1.7+2
690	B4	21	FL	1258	B5G57	BPA	DRUM CD READ-WRITE CNTRL			1.2+1
690	B4	21	FL	347	D5G66	BPA	DRUM CD READ WRT CNTRL			S-1.6+1
690	B4	21	GW	4	D5	BPA	DRUM CD TIMING PULSE DISTRIB			1.2+1
690	B4	21	KN	2	B6	BPA	DRUM MANUAL TEST CHECK CNTRL			1.7+2
690	B4	21	LU	6	G6	BPA	DRUM APC ALARM RESET			001.2+3
690	B4	21	FL	6	G6	BPA	DRUM XTL-1 OR 2 READ SAMPLE			001.3.5
690	B5	21	GY	8	G6	BPA	DRUM DE-SELECT			1.1+2

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-5	05/01/60	LOGIC
690	B5	21	GY	3	B6	GT DRUM CD SELECT REG DESELECT			1.1.1
690	C1	20	BL	2-9	B6D6	TPG AXD AMC TIMING PULSE GEN			1-2.1.2
690	C1	20	BM	2-9	B6D4	TPG AXD AMD TIMING PULSE GEN			1-2.1.2
690	C1	20	BN	2-9	B6D6	TPG AXD AME TIMING PULSE GEN			1-2.1.2
690	C1	20	BP	2-9	B6D6	TPG AXD AMF TIMING PULSE GEN			1-2.1.2
690	C1	20	BR	2-9	B6D6	TPG AXD AMG TIMING PULSE GEN			1-2.1.2
690	C1	20	BS	2-9	B6D6	TPG AXD AMH TIMING PULSE GEN			1-2.1.2
690	C1	22	FJ	2-9	B6D6	TPG DRUM AMA TIMING CHANNEL			1.1.2
690	C1	22	FL	2-9	B6D6	TPG DRUM AMB TIMING CHANNEL			1.1.2
690	C1	22	FN	2-9	B6D6	TPG DRUM LOG TIMING CKT			1.1.2
690	C1	22	FR	2-9	B6D6	TPG DRUM MIXD TIMING CHANNEL			1.1.2
690	C1	22	FT	2-9	B6D6	TPG DRUM TD TIMING CHAN CD READ CKT			1.1.2
690	C1	22	FV	2-9	B6D6	TPG DRUM RD TIMING CHAN CD READ CKT			1.1.2
690	D1	20	CC	6	D6	PA AXD ACD WRITE CONTROL			1-2.2.1
690	D1	20	FN	12	B6D6	PA AXD ACD READ WRITE CNTRL			1-2.2.1
690	D1	20	FU	27	D6G7	PA AXD ACD READ WRITE CNTRL			1-2.2.1
690	D.	20	FU	9	G5	ADD AXD ACD ADR NO COMPARE			1-2.2.1
690	D1	20	FR	8	G6	GT AXD ACD READ WRITE CNTRL			1-2.2.1
690	D1	20	FW	9	G7	GT AXD ACD READ WRITE CNTRL			1-2.1.1
690	D1	20	FV	169	B5D6G7	GT AXD ACD READ WRITE CNTRL			1-2.2.1
690	D1	21	FC	123	B6D6G6	PA DRUM CD READ-WRITE CNTRL			1.2.1
690	D1	21	FD	34	B6	GT DRUM CD READ-WRITE CNTRL			1.2.1
690	D1	21	FJ	169	B5D6G7	GT DRUM CD READ-WRITE CNTRL			1.2.1
690	D1	21	DD	8	G6	GT DRUM XTEL CD READ WRITE CNTRL			1.3.5
690	D1	21	FH	27	D6G7	PA DRUM CD READ-WRITE CNTRL			1.2.1
690	D2	21	AC	2468	B5D6G56	GT DRUM DD OD READ CNTRL			1.5.3
690	D2	21	AD	6	D6	GT DRUM DD OD READ CNTRL			1.5.3
690	D2	21	AE	3	B6	GT DRUM DD OD READ CNTRL			1.5.3
690	D2	21	AF	1	B6	GT DRUM OB OD FIELD SELECT CNTRL			1.4.1
690	D2	21	AR	1	B6	GT DRUM OB OD FIELD SELECT CNTRL			1.4.1
690	D2	21	AG	24	D6G5	GT DRUM OB OD READ CNTRL			1.4.1
690	D2	21	DC	345	D6G67	GT DRUM TD OD READ CNTRL			1.5.1
690	D2	21	DD	4	D5	GT DRUM TD OD READ CNTRL			1.5.1
690	D2	21	DE	1	B5	GT DRUM TD OD READ CNTRL			1.5.1
690	D2	21	DE	4	D6	GT DRUM TD OD READ CNTRL			1.5.2
690	D2	21	DF	39	B6G6	GT DRUM TD OD READ CNTRL			1.5.1
690	D2	21	DH	257	B5G57	GT DRUM TD OD READ CNTRL			1.5.1
690	D2	21	DK	4	D6	GT DRUM RD OD READ CNTRL			1.5.1
690	D2	21	DL	16-9	B5D6G567	GT DRUM RD OD READ CNTRL			1.5.1
690	D2	21	DM	3	D6	GT DRUM RD OD READ CNTRL			1.5.1
690	D2	21	DN	257	B6G57	GT DRUM RD OD READ CNTRL			1.5.1
690	D2	21	DS	234	B6D56	GT DRUM RD OD READ CNTRL			1.5.1
690	D2	21	DT	7	G7	GT DRUM RD OD READ CNTRL			1.5.1
690	D2	21	DU	4	D5	GT DRUM RD OD READ CNTRL			1.5.1
690	D2	21	DV	345	B6D6G5	GT DRUM RD OD READ CNTRL			1.5.1
690	D2	21	DW	78	G67	GT DRUM RD OD READ CNTRL			1.5.1
690	D2	21	DX	39	B6G6	GT DRUM RD OD READ CNTRL			1.5.1
690	D2	21	RN	568	G567	GT DRUM IC OD READ CNTRL CKT			S-1.6.1
690	D2	21	HT	2-5	B6D56G5	GT DRUM SD OD READ CNTRL			1.5.2
690	D2	22	HX	1	B6	GT DRUM RI OD REL TIME CNTR			1.3.2
690	D2	22	HY	125	B5G65	GT DRUM RI OD REL TIME CNTR			1.3.2
690	D2	22	IF	8	G7	GT DRUM CD DISCON CTR CRY EVEN BIT			1.3.1
690	D2	22	NL	23457	B6D56G6	GT DRUM GFI REL TIME CNTR			1.3.2
690	D2	21	PH	8	G7	GT DRUM CD DISCON CTR CRY EVEN BIT			1.3.1
690	D2	21	RP	3	G6	ADD IC OTHER COMPARE			1.8.3
690	D2	21	RP	2	D6	PA IC OTHER COMPARE			1.8.3
690	D2	21	RP	1	B6	GT MANUAL TEST			1.8.3
690	D4	21	GW	2	B5	GT STEP RD-TD FIELD CTR			1.7.2
690	D4	20	FW	4	D5	PA AXD CCOMPARE ADDRESSABLE			1-2.2.1
690	D4	20	FM	18	B5G6	PA AXD TEST APC END CARRY			1-2.2.1
690	D4	20	BT	236-9	B6D5G67	GT AXD TIMING PULSE DISTRIBUTOR			1-2.1.2
690	D4	20	BU	236-9	B6D5G67	GT AXD TIMING PULSE DISTRIBUTOR			1-2.1.2
690	D4	20	FL	18	B5G6	PA AXD TIMING PULSE DISTRIBUTOR			1-2.1.2
690	D4	20	JG	148	B5D6G7	PA AXD TIMING PULSE DISTRIBUTOR			1-2.2.1
690	D4	20	JG	9	G7	PA AXD TIMING PULSE DISTRIBUTOR			1-2.2.3
690	D4	20	KC	148	B5D6G7	PA AXD TIMING PULSE DISTRIBUTOR			1-2.2.1
690	D4	21	FW	18	B5G6	PA DRUM MANUAL TEST TPD			1.7.2
690	D4	21	FY	18	B5G6	PA DRUM CD TIMING PULSE DISTRIB			1.1.2
690	D4	21	FN	123	B5G6D5	GT DRUM CD TIMING PULSE DISTRIB			1.8.3
690	D4	21	GT	15-9	B5G6G7	GT DRUM CD TIMING PULSE DISTRIB			1.1.2
690	D4	21	GU	23467886D56G67	GT DRUM CD TIMING PULSE DISTRIB			1.1.2	
690	D4	21	GU	9	G7	GT DRUM CD TIMING PULSE DISTRIB			1.7.2

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V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-5	05/01/60	LOGIC
690	D4	21	GV	1-5	B56D56G5	GT	DRUM CD TIMING PULSE DISTRIB			1.2.1
690	D4	21	GV	6789	G67	GT	DRUM CD TIMING PULSE DISTRIB			1.1.2
690	E1	21	AM	1	B6	GT	LOG OD-IX OB FLD SW CTR 1-2			1.4.1
690	E1	21	AN	258	B6G57	GT	DRUM OB-1,2,3 CD ERROR STATUS			1.7.1
690	E1	21	AK	1	B6	GT	DRUM OB CD ERROR STATUS			1.4.1
690	E1	21	AM	1	B6	GT	DRUM RD OD INDEX			1.4.1
690	E1	21	AN	13	B5D5	GT	DRUM OB-1 CD STATUS CNTRL			1.4.1
690	E1	21	AN	46	D6G6	GT	DRUM OB-2 CD STATUS CNTRL			1.4.1
690	E1	21	AN	789	G67	GT	DRUM OB-3 CD STATUS CNTRL			1.4.1
690	E1	21	AS	2	B6	GT	DRUM CD FIELD 6 REG SW CNTRL			1.4.1
690	E1	21	AT	7	G6	GT	DRUM CD FIELD 6 REG SW CNTRL			1.4.1
690	E1	21	FR	789	G67	GT	DRUM MI CD STATUS CNTRL CKT			1.3.1
690	E1	21	FT	789	G67	GT	DRUM GFI CD STATUS CNTRL			1.3.2
690	E1	21	FT	123	B56D5	GT	DRUM LRI-1 CD STATUS CNTRL CKT			1.3.3
690	E1	21	FT	456	D6G56	GT	DRUM LRI-2 CD STATUS CNTRL CKT			1.3.4
690	E1	21	FR	456	D6G56	GT	DRUM XTL CD MARKER STAT CTRL			1.3.5
690	E1	21	FR	123	B56D5	GT	DRUM XTEL CD MARKER STATUS CNTRL			1.3.6
690	E1	21	GW	9	G7	GT	DRUM DISCONNECT			1.3.1
690	E1	21	LF	9	G7	GT	DRUM TEST READ SWITCH			1.8.2
690	E1	21	LF	8	G7	GT	DRUM XTEL CD STATUS CNTRL			1.3.6
690	E1	21	PC	68	G56	GT	DRUM STEP DISC CNTR			1.3.1
690	E1	21	CX	289	B6G7	GT	DRUM LRI 162 SP XTAL NORM/STAT			1.2.1
690	E2	20	JJ	147	B5D5G6	GT	AXD AMC-D-E APC READOUT			1-2.2.3
690	E2	20	JK	147	B5D5G6	GT	AXD AMC-D-E APC READOUT			1-2.2.3
690	E2	20	JL	147	B5D5G6	GT	AXD AMC-D-E APC READOUT			1-2.2.3
690	E2	20	JM	147	B5D5G6	GT	AXD AMC-D-E APC READOUT			1-2.2.3
690	E2	20	JN	147	B5D5G6	GT	AXD AMC-D-E APC READOUT			1-2.2.3
690	E2	20	JP	147	B5D5G6	GT	AXD AMC-D-E APC READOUT			1-2.2.3
690	E2	20	JR	147	B5D5G6	GT	AXD AMC-D-E APC READOUT			1-2.2.3
690	E2	20	JS	147	B5D5G6	GT	AXD AMC-D-E APC READOUT			1-2.2.3
690	E2	20	JT	147	B5D5G6	GT	AXD AMC-D-E APC READOUT			1-2.2.3
690	E2	20	JU	147	B5D5G6	GT	AXD AMC-D-E APC READOUT			1-2.2.3
690	E2	20	JV	147	B5D5G6	GT	AXD AMC-D-E APC READOUT			1-2.2.3
690	E2	20	KE	147	B5D5G6	GT	AXD AMF-G-H APC READOUT			1-2.2.3
690	E2	20	KF	147	B5D5G6	GT	AXD AMF-G-H APC READOUT			1-2.2.3
690	E2	20	KG	147	B5D5G6	GT	AXD AMF-G-H APC READOUT			1-2.2.3
690	E2	20	KH	147	B5D5G6	GT	AXD AMF-G-H APC READOUT			1-2.2.3
690	E2	20	KJ	147	B5D5G6	GT	AXD AMF-G-H APC READOUT			1-2.2.3
690	E2	20	KK	147	B5D5G6	GT	AXD AMF-G-H APC READOUT			1-2.2.3
690	E2	20	KL	147	B5D5G6	GT	AXD AMF-G-H APC READOUT			1-2.2.3
690	E2	20	KM	147	B5D5G6	GT	AXD AMF-G-H APC READOUT			1-2.2.3
690	E2	20	KN	147	B5D5G6	GT	AXD AMF-G-H APC READOUT			1-2.2.3
690	E2	20	KP	147	B5D5G6	GT	AXD AMF-G-H APC READOUT			1-2.2.3
690	E2	20	KR	147	B5D5G6	GT	AXD AMF-G-H APC READOUT			1-2.2.3
690	E2	20	KS	26	B6G6	GT	AXD AMC-D APC ALARM			1-2.2.3
690	E2	20	KT	26	B6G6	GT	AXD AME-F APC ALARM			1-2.2.3
690	E2	20	KU	26	B6G6	GT	AXD AMG-H APC ALARM			1-2.2.3
690	E2	21	AJ	123	B56D5	GT	DRUM OB-1 OD STATUS CNTRL			1.4.1
690	E2	21	AJ	456	D6G56	GT	DRUM OB-2 OD STATUS CNTRL			1.4.1
690	E2	21	PF	8	G7	GT	DRUM CD DISCON CTR CRY ODD BIT			1.3.1
690	E2	21	AJ	789	G67	GT	DRUM OB-3 OD STATUS CNTRL			1.4.1
690	E2	21	PG	8	G7	GT	DRUM CD DISCON CTR CRY ODD BIT			1.3.1
690	E2	21	BN	8	G7	GT	DRUM LRI-1 FULL ALARM			1.3.3
690	E2	21	BN	8	G7	GT	DRUM CD DISCON CTR CRY ODD BIT			1.3.1
690	E2	21	BR	8	G7	GT	DRUM LRI-2 FULL ALARM			1.3.4
690	E2	21	BC	8	G7	GT	DRUM XTEL FULL ALARM			1.3.5
690	E2	21	BG	8	G7	GT	DRUM MI FULL ALARM			1.3.1
690	E2	21	BJ	8	G7	GT	DRUM SP XTEL FULL ALARM			1.3.6
690	E2	21	BH	2376	B6D5G6	GT	DRUM MI OD STATUS CONTROL			1.3.1
690	E2	21	BH	4	D6	GT	DRUM MI OD STATUS CONTROL			1.7.1
690	E2	21	BK	2367	B6D5G6	GT	DRUM SP XTEL OD STATUS CNTRL			1.3.6
690	E2	21	BK	489	D6G7	GT	DRUM SP XTEL OD STATUS CNTRL			1.7.1
690	E2	21	BL	12	B6D6	GT	DRUM SP XTEL OD MARKER STATUS			1.7.1
690	E2	21	BL	8	G7	GT	DRUM SP XTEL OD STATUS CONTROL			1.3.6
690	E2	21	BV	4	D6	GT	DRUM GFI OD STATUS CNTRL			1.7.1
690	E2	21	BP	2367	B6D5G6	GT	DRUM LRI-1 OD STATUS CNTRL			1.3.3
690	E2	21	BP	49	D6G7	GT	DRUM LRI-1 OD STATUS CNTRL			1.7.1
690	E2	21	BS	39	D5G7	GT	DRUM LRI-2 OD STATUS CNTRL			1.7.1
690	E2	21	BS	246	B6D6G6	GT	DRUM LRI-2 OD STATUS CNTRL			1.3.4
690	E2	21	BX	8	G6	PA	DRUM LRI-2 OD STATUS CNTRL			1.3.4
690	E2	21	BE	8	G7	GT	DRUM XTEL OD STATUS CNTRL			1.3.5
690	E2	21	BD	23678	B6D5G67	GT	DRUM XTEL OD STATUS CNTRL			1.3.5
690	E2	21	BD	49	D6G7	GT	DRUM XTEL OD STATUS CNTRL			1.7.1
690	E2	21	BE	12	B6D6	GT	DRUM XTEL OD MARKER STATUS CNTRL			1.7.1
690	E2	21	BS	78	G67	GT	DRUM OD TEST CNTRLS			1.8.1
690	E2	21	BU	8	G7	GT	DRUM GFI FULL ALARM			1.3.2

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-5	05/01/60	LOGIC
690	E2	21	BV	2367	B6D9G6	GT DRUM GF1 OD STATUS CNTRL			1.2.3.2
690	E2	21	MD	147	B5D9G6	GT DRUM MIXD AMA-B CD APC READOUT			1.2.3.3
690	E2	21	ME	147	B5D9G6	GT DRUM MIXD AMA-B CD APC READOUT			1.2.3.3
690	E2	21	MF	147	B5D9G6	GT DRUM MIXD AMA-B CD APC READOUT			1.2.3.3
690	E2	21	MG	147	B5D9G6	GT DRUM MIXD AMA-B CD APC READOUT			1.2.3.3
690	E2	21	MH	147	B5D9G6	GT DRUM MIXD AMA-B CD APC READOUT			1.2.3.3
690	E2	21	MJ	147	B5D9G6	GT DRUM MIXD AMA-B CD APC READOUT			1.2.3.3
690	E2	21	MK	147	B5D9G6	GT DRUM MIXD AMA-B CD APC READOUT			1.2.3.3
690	E2	21	ML	147	B5D9G6	GT DRUM MIXD AMA-B CD APC READOUT			1.2.3.3
690	E2	21	MM	147	B5D9G6	GT DRUM MIXD AMA-B CD APC READOUT			1.2.3.3
690	E2	21	MN	147	B5D9G6	GT DRUM MIXD AMA-B CD APC READOUT			1.2.3.3
690	E2	21	MP	147	B5D9G6	GT DRUM MIXD AMA-B CD APC READOUT			1.2.3.3
690	E2	21	PE	14	B5D5	GT DRUM RD&TD CD READOUT			1.2.3.3
690	E2	21	PF	14	B5D5	GT DRUM RD&TD CD READOUT			1.2.3.3
690	E2	21	PG	14	B5D5	GT DRUM RD&TD CD READOUT			1.2.3.3
690	E2	21	PH	14	B5D5	GT DRUM RD&TD CD READOUT			1.2.3.3
690	E2	21	PJ	14	B5D5	GT DRUM RD&TD CD READOUT			1.2.3.3
690	E2	21	PK	14	B5D5	GT DRUM RD&TD CD READOUT			1.2.3.3
690	E2	21	PL	14	B5D5	GT DRUM RD&TD CD READOUT			1.2.3.3
690	E2	21	PM	14	B5D5	GT DRUM RD&TD CD READOUT			1.2.3.3
690	E2	21	PN	14	B5D5	GT DRUM RD&TD CD READOUT			1.2.3.3
690	E2	21	PP	14	B5D5	GT DRUM RD&TD CD READOUT			1.2.3.3
690	E2	21	PR	14	B5D5	GT DRUM RD&TD CD READOUT			1.2.3.3
690	E2	21	PT	6	G6	GT DRUM AMA CD APC ALARM			1.2.3.3
690	E2	21	PU	2	B6	GT DRUM AMB CD APC ALARM			1.2.3.3
690	E2	21	PU	6	G6	GT DRUM TD CD APC ALARM			1.2.3.3
690	E2	21	PV	6	G6	GT DRUM RD CD APC ALARM			1.2.3.3
690	E2	21	RG	14	B5D5	GT DRUM IC APC OD READ OUT			S-1.6.6.1
690	E2	21	RH	147	B5D9G6	GT DRUM IC APC OD READ OUT			S-1.6.6.1
690	E2	21	RJ	147	B5D9G6	GT DRUM IC APC OD READ OUT			S-1.6.6.1
690	E2	21	RK	147	B5D9G6	GT DRUM IC APC OD READ OUT			S-1.6.6.1
690	E2	21	PL	7	G6	GT IC OTHER APC ERROR			S-1.6.6.1
690	E2	21	PM	7	G6	GT NOT MANUAL TEST			S-1.6.6.1
690	E2	21	PP	7	G6	GT NOT MANUAL TEST			1.2.3.3
690	E2	21	PR	7	G6	GT MIXD APC ERROR			1.2.3.3
690	E2	21	RL	28	B56	GT IC OTHER CHECK			S-1.6.6.1
690	E2	21	RL	69	G67	GT MIXD APC CHECK			S-1.6.6.1
690	E2	21	PE	8	G7	GT DRUM CD DISCON CARRY ODD BIT			001.3.3.1
690	E4	20	EL	12	B56	GT AXD MANUAL TEST 6 APC ALARM			1-2.3.3.2
690	E4	20	ER	136	B5D6	GT AXD MANUAL TEST PATTERN CNTRL			1-2.3.3.2
690	E4	20	ES	6	G5	PA AXD MANUAL TEST PATTERN CNTRL			1-2.3.3.2
690	E4	20	EU	36	D6G7	GT AXD MANUAL TEST CHECK CNTRLS			1-2.3.3.2
690	E4	20	EW	16	B5G5	PA AXD MANUAL TEST CHECK CNTRLS			1-2.3.3.2
690	E4	20	EY	5	G5	PA AXD MANUAL TEST CHECK CNTRL			1-2.3.3.2
690	E4	21	DJ	5	G7	GT DRUM TEST CONTROLS			1.6.2.2
690	E4	21	DJ	3	D6	GT DRUM TEST CONTROLS			1.6.2.2
690	E4	21	LF	57	G56	GT DRUM TEST CONTROLS			1.6.2.2
690	E4	21	LF	346	D56G6	GT DRUM TEST CONTROLS			1.6.2.2
690	E4	21	LF	1	B5	GT DRUM TEST CONTROLS			1.6.2.2
690	E4	21	LF	2	B6	GT DRUM TEST CONTROLS			1.6.2.2
690	E4	21	KH	3478	B6D6	GT DRUM MANL TEST READ WRT CTRL			1.7.2.2
690	E4	21	KD	6	G6	GT DRUM MANL TEST READ WRT CTRL			1.7.2.2
690	E4	21	KJ	67	G6	GT DRUM MANL TEST READ WRT CTRL			1.7.2.2
690	E4	21	LU	7	G7	PA DRUM MANL TEST READ WRT CTRL			1.2.3.3
690	E4	21	KJ	19	B6G5	GT DRUM MANL TEST READ WRT CTRL			1.7.2.2
690	E4	21	KL	36	D6G7	GT DRUM MANL TEST CHECK CNTRL			1.7.2.2
690	E4	21	KN	16	B5G5	PA DRUM MANL TEST CHECK CNTRL			1.7.2.2
690	E4	21	KC	1346	B5D56G6	PA DRUM MANL TEST PATTERN CNTRL			1.7.2.2
690	E4	21	KD	2346	B6D6	GT DRUM MANL TEST PATTERN CNTRL			1.6.2.2
690	E4	21	KF	1457	B5G567	GT DRUM MANL TEST PATTERN CNTRL			1.7.2.2
690	E4	21	KG	6	G5	PA DRUM MANL TEST PATTERN CNTRL			1.7.2.2
690	E4	21	KC	25	B6G5	PA DRUM MANL TEST PATTERN CNTRL			1.6.2.2
690	E4	21	KF	2	B6	GT DRUM MANL TEST PATTERN CNTRL			1.6.2.2
690	E4	21	LV	2	B6	GT DRUM MANL TEST APC			1.7.2.2
690	E4	21	LV	5	D6	GT DRUM MANL TEST APC			1.6.2.2
690	E4	21	LV	3	B6	GT DRUM MANL TEST APC			1.2.3.3
690	E4	21	LJ	1-9	B56D56G567GT	DRUM TEST WRITE SWITCH			1.6.2.2
690	E4	21	LK	1-9	B56D56G567GT	DRUM TEST WRITE SWITCH			1.6.2.2
690	E4	21	LL	1-9	B56D56G567GT	DRUM TEST WRITE SWITCH			1.6.2.2
690	E4	21	LM	2-9	B6D56G567GT	DRUM TEST WRITE SWITCH			1.6.2.2
690	E4	21	NC	9	G7	GT DRUM TEST READ SWITCH			1.6.2.2
690	E4	21	ND	9	G7	GT DRUM TEST READ SWITCH			1.6.2.2
690	E4	21	NE	9	G7	GT DRUM TEST READ SWITCH			1.6.2.2
690	E4	21	NF	9	G7	GT DRUM TEST READ SWITCH			1.6.2.2
690	E4	21	NG	9	G7	GT DRUM TEST READ SWITCH			1.6.2.2
690	E4	21	NH	9	G7	GT DRUM TEST READ SWITCH			1.6.2.2
690	E4	21	NJ	9	G7	GT DRUM TEST READ SWITCH			1.6.2.2
690	E4	21	NK	9	G7	GT DRUM TEST READ SWITCH			1.6.2.2

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V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-5	05/01/60	LOGIC
690	E4	21	NL	9	G7	GT	DRUM TEST READ SWITCH			1.8.2
690	E4	21	NM	9	G7	GT	DRUM TEST READ SWITCH			1.8.2
690	E4	21	NN	9	G7	GT	DRUM TEST READ SWITCH			1.8.2
690	E4	21	NP	9	G7	GT	DRUM TEST READ SWITCH			1.8.2
690	E4	21	NR	9	G7	GT	DRUM TEST READ SWITCH			1.8.2
690	E4	21	NS	9	G7	GT	DRUM TEST READ SWITCH			1.8.2
690	E4	21	NT	9	G7	GT	DRUM TEST READ SWITCH			1.8.2
690	E4	21	NU	9	G7	GT	DRUM TEST READ SWITCH			1.8.2
690	E4	21	NV	9	G7	GT	DRUM TEST READ SWITCH			1.8.2
690	E4	21	NW	1-8	B56D56G567GT	DRUM	TEST READ SWITCH			1.8.2
690	E4	21	NY	1-8	B56D56G567GT	DRUM	TEST READ SWITCH			1.8.2
690	F1	20	EH	49	D6G7	GT	AXD MANL TEST APC CRY EVEN BITS1-2.3.2			
690	F1	20	EN	49	D6G7	GT	AXD MANL TEST APC CRY EVEN BITS1-2.3.2			
690	F1	20	EP	49	D6G7	GT	AXD MANL TEST APC CRY EVEN BITS1-2.3.2			
690	F1	20	EJ	258	B6D6G7	GT	AXD AMC-D-E APC CARRY EVEN BIT 1-2.2.3			
690	F1	20	JK	258	B6D6G7	GT	AXD AMC-D-E APC CARRY EVEN BIT 1-2.2.3			
690	F1	20	JM	258	B6D6G7	GT	AXD AMC-D-E APC CARRY EVEN BIT 1-2.2.3			
690	F1	20	JP	258	B6D6G7	GT	AXD AMC-D-E APC CARRY EVEN BIT 1-2.2.3			
690	F1	20	JS	258	B6D6G7	GT	AXD AMC-D-E APC CARRY EVEN BIT 1-2.2.3			
690	F1	20	JU	258	B6D6G7	GT	AXD AMC-D-E APC CARRY EVEN BIT 1-2.2.3			
690	F1	20	KF	258	B6D6G7	GT	AXD AMF-G-H APC CARRY EVEN BIT 1-2.2.3			
690	F1	20	KH	258	B6D6G7	GT	AXD AMF-G-H APC CARRY EVEN BIT 1-2.2.3			
690	F1	20	KK	258	B6D6G7	GT	AXD AMF-G-H APC CARRY EVEN BIT 1-2.2.3			
690	F1	20	KM	258	B6D6G7	GT	AXD AMF-G-H APC CARRY EVEN BIT 1-2.2.3			
690	F1	20	KP	258	B6D6G7	GT	AXD AMF-G-H APC CARRY EVEN BIT 1-2.2.3			
690	F1	21	AV	15	B5G5	GT	DRUM CD,OB FLD SW CTR EVEN BITS			1.4.1
690	F1	21	AU	15	B5G5	GT	DRUM CD,OB FLD SW CTR EVEN BITS			1.4.1
690	F1	21	LT	167	G6	GT	DRUM MANL TEST READ WRT CTRL			1.2.3
690	F1	21	LV	1	B5	GT	DRUM MANUAL TEST APC			1.7.2
690	F1	21	LW	49	D6G7	GT	DRUM MANL TEST APC CRY EVEN BITS			1.2.3
690	F1	21	LX	49	D6G7	GT	DRUM MANL TEST APC CRY EVEN BITS			1.2.3
690	F1	21	LY	49	D6G7	GT	DRUM MANL TEST APC CRY EVEN BITS			1.2.3
690	F1	21	ME	258	B6D6G7	GT	DRUM MIXD AMA-B CD APC EVEN BITS			1.2.3
690	F1	21	MG	258	B6D6G7	GT	DRUM MIXD AMA-B CD APC EVEN BITS			1.2.3
690	F1	21	MJ	258	B6D6G7	GT	DRUM MIXD AMA-B CD APC EVEN BITS			1.2.3
690	F1	21	ML	258	B6D6G7	GT	DRUM MIXD AMA-B CD APC EVEN BITS			1.2.3
690	F1	21	MN	258	B6D6G7	GT	DRUM MIXD AMA-B CD APC EVEN BITS			1.2.3
690	F1	21	PK	8	G7	GT	DRUM CD DISCON CTR CRY EVEN BIT			1.3.1
690	F1	21	PM	8	G7	GT	DRUM CD DISCON CTR EVEN BIT			1.3.1
690	F1	21	PP	8	G7	GT	DRUM CD DISCON CTR CRY EVEN BIT			1.3.1
690	F1	21	PF	5	D6	GT	DRUM RD CD APC CARRY EVEN BITS			1.2.3
690	F1	21	PH	5	D6	GT	DRUM RD CD APC CARRY EVEN BITS			1.2.3
690	F1	21	PK	5	D6	GT	DRUM RD CD APC CARRY EVEN BITS			1.2.3
690	F1	21	PM	5	D6	GT	DRUM RD CD APC CARRY EVEN BITS			1.2.3
690	F1	21	PP	5	D6	GT	DRUM RD CD APC CARRY EVEN BITS			1.2.3
690	F1	21	PF	2	B6	GT	DRUM TD CD APC CARRY EVEN BITS			1.2.3
690	F1	21	PH	2	B6	GT	DRUM TD CD APC CARRY EVEN BITS			1.2.3
690	F1	21	PK	2	B6	GT	DRUM TD CD APC CARRY EVEN BITS			1.2.3
690	F1	21	PM	2	B6	GT	DRUM TD CD APC CARRY EVEN BITS			1.2.3
690	F1	21	PP	2	B6	GT	DRUM TD CD APC CARRY EVEN BITS			1.2.3
690	F1	21	RG	2	B6	GT	DRUM IC OD APC CARRY EVEN BITS			S-1.6.1
690	F1	21	RH	5	D6	GT	DRUM IC OD APC CARRY EVEN BITS			S-1.6.1
690	F1	21	RJ	28	B6G7	GT	DRUM IC OD APC CARRY EVEN BITS			S-1.6.1
690	F1	21	RK	5	D6	GT	DRUM IC OD APC CARRY EVEN BITS			S-1.6.1
690	F4	20	EM	27	B6G6	GT	AXD MANL TEST APC CARRY ODD BITV-2.3.2			
690	F4	20	EN	27	B6G6	GT	AXD MANL TEST APC CARRY ODD BITV-2.3.2			
690	F4	20	EP	27	B6G6	GT	AXD MANL TEST APC CARRY ODD BITV-2.3.2			
690	F4	20	EJ	258	B6D6G7	GT	AXD AMC-D-E APC CARRY ODD BIT 1-2.2.3			
690	F4	20	JL	258	B6D6G7	GT	AXD AMC-D-E APC CARRY ODD BIT 1-2.2.3			
690	F4	20	JN	258	B6D6G7	GT	AXD AMC-D-E APC CARRY ODD BIT 1-2.2.3			
690	F4	20	JR	258	B6D6G7	GT	AXD AMC-D-E APC CARRY ODD BIT 1-2.2.3			
690	F4	20	JT	258	B6D6G7	GT	AXD AMC-D-E APC CARRY ODD BIT 1-2.2.3			
690	F4	20	JV	258	B6D6G7	GT	AXD AMC-D-E APC CARRY ODD BIT 1-2.2.3			
690	F4	20	KE	258	B6D6G7	GT	AXD AMF-G-H APC CARRY ODD BIT 1-2.2.3			
690	F4	20	KG	258	B6D6G7	GT	AXD AMF-G-H APC CARRY ODD BIT 1-2.2.3			
690	F4	20	KJ	258	B6D6G7	GT	AXD AMF-G-H APC CARRY ODD BIT 1-2.2.3			
690	F4	20	KL	258	B6D6G7	GT	AXD AMF-G-H APC CARRY ODD BIT 1-2.2.3			
690	F4	20	KN	258	B6D6G7	GT	AXD AMF-G-H APC CARRY ODD BIT 1-2.2.3			
690	F4	20	KR	258	B6D6G7	GT	AXD AMF-G-H APC CARRY ODD BIT 1-2.2.3			
690	F4	21	AU	38	B6G6	GT	DRUM CD,OB FIELD SW CTR ODD BIT			1.4.1
690	F4	21	AV	38	B6G6	GT	DRUM CD,OB FIELD SW CTR ODD BIT			1.4.1
690	F4	21	LW	27	B6G6	GT	DRUM MANL TEST APC CRY ODD BITS			1.2.3
690	F4	21	LX	27	B6G6	GT	DRUM MANL TEST APC CRY ODD BITS			1.2.3
690	F4	21	LY	27	B6G6	GT	DRUM MANL TEST APC CRY ODD BITS			1.2.3
690	F4	21	LZ	27	B6G6	GT	DRUM MANL TEST APC CRY ODD BITS			1.2.3
690	F4	21	MD	258	B6D6G7	GT	DRUM MIXD AMA-B CD APC ODD BITS			1.2.3
690	F4	21	MF	258	B6D6G7	GT	DRUM MIXD AMA-B CD APC ODD BITS			1.2.3
690	F4	21	MH	258	B6D6G7	GT	DRUM MIXD AMA-B CD APC ODD BITS			1.2.3

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-5	05/01/60	LOGIC	
690	F4	21	MK	258	86D6G7	GT	DRUM MIXD AMA-B	CD	APC	ODD BITS	1.2+3
690	F4	21	MM	258	86D6G7	GT	DRUM MIXD AMA-B	CD	APC	ODD BITS	1.2+3
690	F4	21	MP	258	86D6G7	GT	DRUM MIXD AMA-B	CD	APC	ODD BITS	1.2+3
690	F4	21	PL	8	G7	GT	DRUM CD DISCON	CTR	CRY	ODD BITS	1.3+1
690	F4	21	PN	8	G7	GT	DRUM CD DISCON	CTR	CRY	ODD BITS	1.3+1
690	F4	21	PR	8	G7	GT	DRUM CD DISCON	CTR	CRY	ODD BITS	1.3+1
690	F4	21	PE	2	86	GT	DRUM TD CD APC	CARRY	ODD BITS	1.2+3	
690	F4	21	PJ	2	86	GT	DRUM TD CD APC	CARRY	ODD BITS	1.2+3	
690	F4	21	PL	2	86	GT	DRUM TD CD APC	CARRY	ODD BITS	1.2+3	
690	F4	21	PN	2	86	GT	DRUM TD CD APC	CARRY	ODD BITS	1.2+3	
690	F4	21	PR	2	86	GT	DRUM TD CD APC	CARRY	ODD BITS	1.2+3	
690	F4	21	PE	5	D6	GT	DRUM RD CD APC	CARRY	ODD BITS	1.2+3	
690	F4	21	PJ	5	D6	GT	DRUM RD CD APC	CARRY	ODD BITS	1.2+3	
690	F4	21	PL	5	D6	GT	DRUM RD CD APC	CARRY	ODD BITS	1.2+3	
690	F4	21	PN	5	D6	GT	DRUM RD CD APC	CARRY	ODD BITS	1.2+3	
690	F4	21	PR	5	D6	GT	DRUM RD CD APC	CARRY	ODD BITS	1.2+3	
690	F4	21	RH	5	D6	GT	DRUM IC OD APC	CARRY	ODD BITS	5-1.6+1	
690	F4	21	RG	28	86G7	GT	DRUM IC OD APC	CARRY	ODD BITS	5-1.6+1	
690	F4	21	RJ	5	D6	GT	DRUM IC OD APC	CARRY	ODD BITS	5-1.6+1	
690	F4	21	RK	28	86G7	GT	DRUM IC OD APC	CARRY	ODD BITS	5-1.6+1	
-150	A1	20	FR	13	B7	BFF	AXD ACD	READ	WRITE	CNTRL	1-2+2+1
-150	A1	20	FS	1	B7	BFF	AXD ACD	READ	WRITE	CNTRL	1-2+2+1
-150	A1	20	FT	18	B7	BFF	AXD ACD	READ	WRITE	CNTRL	1-2+2+1
-150	A1	21	FE	13	B7	BFF	DRUM CD	READ	WRITE	CNTRL	1.2+1
-150	A1	21	FF	1	B7	BFF	DRUM CD	READ	WRITE	CNTRL	1.2+1
-150	A1	21	FG	1	B7	BFF	DRUM CD	READ	WRITE	CNTRL	1.2+1
-150	A1	21	PC	7	D7	BFF	DRUM CD	READ	WRITE	CNTRL	1.3+1
-150	A2	21	AD	147	B7	BFF	DRUM DD	OD	READ	CNTRL	1.5+3
-150	A2	21	AE	147	B7	BFF	DRUM DD	OD	READ	CNTRL	1.5+3
-150	A2	21	DC	8	D7	BFF	DRUM TD	OD	READ	CNTRL	1.5+1
-150	A2	21	DE	8	D7	BFF	DRUM TD	OD	READ	CNTRL	1.5+1
-150	A2	21	DF	147	B7	BFF	DRUM TD	OD	READ	CNTRL	1.5+1
-150	A2	21	DG	258	D7	BFF	DRUM TD	OD	READ	CNTRL	1.5+1
-150	A2	21	DK	6	B7	BFF	DRUM RD	OD	READ	CNTRL	1.5+1
-150	A2	21	DM	47	D7	BFF	DRUM RD	OD	READ	CNTRL	1.5+1
-150	A2	21	DP	258	D7	BFF	DRUM RD	OD	READ	CNTRL	1.5+1
-150	A2	21	DR	258	D7	BFF	DRUM RD	OD	READ	CNTRL	1.5+1
-150	A2	21	DT	3	B7	BFF	DRUM RD	OD	READ	CNTRL	1.5+1
-150	A2	21	DW	6	B7	BFF	DRUM RD	OD	READ	CNTRL	1.5+1
-150	A2	21	DX	147	B7	BFF	DRUM RD	OD	READ	CNTRL	1.5+1
-150	A2	21	RN	13	B7	BFF	DRUM IC	OD	READ	CNTRL	5-1.6+1
-150	A4	20	CE	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CF	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CG	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CH	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CJ	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CK	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CL	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CM	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CN	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CP	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CR	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CS	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CT	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CU	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CV	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CW	12	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	20	CX	1	B7	BFF	AXD ACD	WRITE	REG		1-2+2+1
-150	A4	22	GE	12	B7	BFF	DRUM CD	WRITE	REG		1.2+1
-150	A4	22	GF	12	B7	BFF	DRUM CD	WRITE	REG		1.2+1
-150	A4	22	GG	12	B7	BFF	DRUM CD	WRITE	REG		1.2+1
-150	A4	22	GH	12	B7	BFF	DRUM CD	WRITE	REG		1.2+1
-150	A4	22	GJ	12	B7	BFF	DRUM CD	WRITE	REG		1.2+1
-150	A4	22	GK	12	B7	BFF	DRUM CD	WRITE	REG		1.2+1
-150	A4	22	GL	12	B7	BFF	DRUM CD	WRITE	REG		1.2+1
-150	A4	22	GM	12	B7	BFF	DRUM CD	WRITE	REG		1.2+1
-150	A4	22	GN	12	B7	BFF	DRUM CD	WRITE	REG		1.2+1
-150	A4	22	GP	12	B7	BFF	DRUM CD	WRITE	REG		1.2+1
-150	A4	22	GQ	12	B7	BFF	DRUM CD	WRITE	REG		1.2+1
-150	A4	22	GS	12	B7	BFF	DRUM CD	WRITE	REG		1.2+1
-150	A4	22	GT	12	B7	BFF	DRUM CD	WRITE	REG		1.2+1
-150	A4	22	GU	12	B7	BFF	DRUM CD	WRITE	REG		1.2+1

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-5	05/01/60	LOGIC
-150	A5	22	NS	12	87	BFF DRUM CFI OD WRITE CKT			1.3+2
-150	A5	22	NT	12	87	BFF DRUM GFI OD WRITE CKT			1.3+2
-150	A5	22	NU	12	87	BFF DRUM GFI OD WRITE CKT			1.3+2
-150	A5	22	NV	12	87	BFF DRUM GFI OD WRITE CKT			1.3+2
-150	A5	22	NW	12	87	BFF DRUM GFI OD WRITE CKT			1.3+2
-150	A5	22	NX	12	87	BFF DRUM GFI OD WRITE CKT			1.3+2
-150	A5	22	NJ	2	87	BFF DRUM GFI REL TIME CNTR WRITE CKT			1.3+2
-150	A5	22	NK	12	87	BFF DRUM GFI REL TIME CNTR WRITE CKT			1.3+2
-150	A5	22	ND	12	87	BFF DRUM GFI REL TIME CNTR WRITE CKT			1.3+2
-150	A5	22	PM	12	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	A5	22	PE	12	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	A5	22	PF	12	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	A5	22	PG	12	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	A5	22	PH	12	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	A5	22	PJ	12	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	A5	22	PK	12	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	A5	22	PL	12	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	A5	22	PM	12	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	A5	22	PN	12	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	A5	22	PP	12	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	A5	22	PR	12	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	A5	22	PS	12	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	A5	22	PT	12	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	A5	22	PV	12	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	A6	22	HC	12	87	BFF DRUM OB-1 STATUS CNTRL CKT			1.4+1
-150	A6	22	HD	12	87	BFF DRUM OB-2 STATUS CNTRL CKT			1.4+1
-150	A6	22	HE	12	87	BFF DRUM OB-3 STATUS CNTRL CKT			1.4+1
-150	A6	22	HH	12	87	BFF DRUM GFI STATUS CNTRL CKT			1.3+2
-150	A6	22	HJ	12	87	BFF DRUM LRI-1 STATUS CNTRL CKT			1.3+3
-150	A6	22	HK	12	87	BFF DRUM LRI-2 STATUS CNTRL CKT			1.3+4
-150	A6	22	HM	12	87	BFF DRUM MI STATUS CNTRL			1.3+1
-150	A6	22	HL	12	87	BFF DRUM XTEL STATUS CNTRL CKT			1.3+5
-150	A6	22	HR	2	87	BFF DRUM XTEL STATUS CNTRL			1.3+6
-150	A6	22	PW	2	87	BFF DRUM XTEL STATUS CNTRL			1.3+6
-150	A6	22	HR	1	87	BFF DRUM SPARE XTEL STATUS CNTRL			1.3+6
-150	A6	22	JW	1	87	BFF DRUM XTEL OD WRITE CKT			1.3+5
-150	A6	22	JW	2	87	BFF DRUM XTEL CD MARKER STATUS CNTRL			1.3+5
-150	A6	22	PW	1	87	BFF DRUM SP XT WRITE CKT			1.3+6
-150	B1	20	CD	6-9	D7	AWDAAXD ACD WRITE CONTROL			1-2.2+1
-150	B1	22	GD	6-9	D7	AWDADRUM CD WRITE CKT			1.2+1
-150	B1	22	HG	456	D7	BWDADRUM LOG TIMING CKT			1.1+2
-150	B1	22	HP	456	D7	BWDADRUM MIXD TIMING CKT			1.1+2
-150	B1	22	JX	456	D7	BWDADRUM XTEL CD MARKER STATUS CNTRL			1.3+5
-150	B1	22	PX	456	D7	BWDADRUM XTEL STATUS CNTRL			1.3+6
-150	B2	20	BB	456	D7	BWDAAXD TC 6 INDEX CHAN WRITE CKT			1-2.3+3
-150	B2	22	JC	6-9	D7	AWDADRUM XT OD DWD			1.3+5
-150	B2	22	KC	6-9	D7	AWDADRUM MI OD DWD			1.3+1
-150	B2	22	LC	6-9	D7	AWDADRUM LRI-2 OD DWD			1.3+4
-150	B2	22	MC	6-9	D7	AWDADRUM LRI-1 OD DWD			1.3+3
-150	B2	22	NC	6-9	D7	AWDADRUM GFI OD DWD			1.3+2
-150	B2	22	PC	6-9	D7	AWDADRUM SPARE XTEL OD DWD			1.3+6
-150	B4	22	GD	6-9	D8	AWDBDRUM CD WRITE CKT			1.2+1
-150	B4	22	HG	456	D8	BWDBDRUM LOG TIMING CKT			1.1+2
-150	B4	22	HP	456	D8	BWDBDRUM MIXD TIMING CKT			1.1+2
-150	B4	22	JX	456	D8	BWDBDRUM XTEL CD MARKER STATUS CNTRL			1.3+5
-150	B4	22	PX	456	D8	BWDBDRUM XTEL STATUS CNTRL			1.3+6
-150	B4	20	CD	6-9	D8	AWDBAXD ACD WRITE CONTROL			1-2.2+1
-150	B5	22	JC	6-9	D8	AWDBDRUM XT OD DWD			1.3+5
-150	B5	22	KC	6-9	D8	AWDBDRUM MI OD DWD			1.3+1
-150	B5	22	LC	6-9	D8	AWDBDRUM LRI-2 OD DWD			1.3+4
-150	B5	22	MC	6-9	D8	AWDBDRUM LRI-1 OD DWD			1.3+3
-150	B5	22	NC	6-9	D8	AWDBDRUM GFI OD DWD			1.3+2
-150	B5	22	PC	6-9	D8	AWDBDRUM SPARE XTEL OD DWD			1.3+6
-150	C1	20	CD	34	87	AFF AXD ACD WRITE CONTROL			1-2.2+1
-150	C1	22	GD	34	87	AFF DRUM CD WRITE CKT			1.2+1
-150	C1	22	HG	23	87	AFF DRUM LOG TIMING CKT			1.1+2
-150	C1	22	HP	23	87	AFF DRUM MIXD TIMING CKT			1.1+2

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V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-5	05/01/60	LOGIC
-150	C1	22	JC	34	B7	AFF DRUM XT OD WRITE PULSE STRETCHER			1.3.5
-150	C1	22	JK	23	B7	AFF DRUM XTEL CD MARKER STATUS CNTRL			1.3.5
-150	C1	22	KC	34	B7	AFF DRUM MI OD WRITE PULSE STRETCHER			1.3.1
-150	C1	22	LC	34	B7	AFF DRUM LRI-2 OD WR PULSE STRETCHER			1.3.4
-150	C1	22	MC	34	B7	AFF DRUM LRI-1 OD WR PULSE STRETCHER			1.3.3
-150	C1	22	NC	34	B7	AFF DRUM GFI OD WRT PULSE STRETCHER			1.3.2
-150	C1	22	PC	34	B7	AFF DRUM SPARE XTEL OD WRITE PS			1.3.6
-150	C1	22	PX	23	B7	AFF DRUM XTEL STATUS CNTRL			1.3.6
-150	C4	20	FC	258	D7	BFF AXD ACD SELECTION REG			1-2.1.1
-150	C4	20	FD	258	D7	BFF AXD ACD SELECTION REG			1-2.1.1
-150	C4	21	GC	258	D7	BFF DRUM CD SELECT REG			1.1.1
-150	C4	21	GD	258	D7	BFF DRUM CD SELECT REG			1.1.1
-150	D1	21	BU	137	D7	BFF GFI-OD STATUS & FULL REG			1.3.2
-150	D1	21	AK	4	B7	BFF DRUM OB-1 CD STATUS CNTRL			1.4.1
-150	D1	21	BC	137	B7	BFF DRUM XTEL OD STATUS CNTRL			1.3.3
-150	D1	21	AC	4	B7	BFF DRUM OB-2 CD STATUS CNTRL			1.4.1
-150	D1	21	BE	49	B7	BFF DRUM XTEL OD MARKER STATUS CNTRL			1.3.5
-150	D1	21	AM	4	B7	BFF DRUM OB-3 CD STATUS CNTRL			1.4.1
-150	D1	21	BG	137	D7	BFF DRUM MI OD STATUS CNTRL			1.3.1
-150	D1	21	BJ	137	B7	BFF DRUM SP XTEL OD STATUS CNTRL			1.3.6
-150	D1	21	BL	49	B7	BFF DRUM SP XTEL OD MARKER STATUS			1.3.6
-150	D1	21	BN	137	B7	BFF DRUM LRI-1 OD STATUS CNTRL			1.3.3
-150	D1	21	BR	137	B7	BFF DRUM LRI-2 OD STATUS CNTRL			1.3.4
-150	D2	21	AR	79	D7	BFF DRUM CD FJELD & REG SW CNTRL			1.4.1
-150	D2	21	BY	2378	B7	AFF DRUM LRI 1&2 SP XTAL NORM/STAT			1.2.1
-150	D2	21	AS	8	D7	BFF DRUM CD FIELD & REG SW CNTRL			1.4.1
-150	D4	20	EC	46	B7	BFF AXD MANUAL TEST CHECK REG			1-2.3.2
-150	D4	20	ED	146	B7	BFF AXD MANUAL TEST CHECK REG			1-2.3.2
-150	D4	20	EE	146	B7	BFF AXD MANUAL TEST CHECK REG			1-2.3.2
-150	D4	20	EF	146	B7	BFF AXD MANUAL TEST CHECK REG			1-2.3.2
-150	D4	20	EG	146	B7	BFF AXD MANUAL TEST CHECK REG			1-2.3.2
-150	D4	20	EH	146	B7	BFF AXD MANUAL TEST CHECK REG			1-2.3.2
-150	D4	20	EJ	146	B7	BFF AXD MANUAL TEST CHECK REG			1-2.3.2
-150	D4	20	EK	146	B7	BFF AXD MANUAL TEST CHECK REG			1-2.3.2
-150	D4	20	EX	8	D7	BFF AXD MANUAL TEST CHECK CNTRLS			1-2.3.2
-150	D4	20	ET	37	B7	BFF AXD MANUAL TEST READ WRITE CNTRM-2.3.2			1-2.3.2
-150	D4	20	EY	8	B7	BFF AXD MANUAL TEST READ WRITE CNTRM-2.2.3			1.5.2
-150	D4	21	DJ	8	D7	BFF DRUM TEST CNTRLS			1.7.2
-150	D4	21	LE	8	D7	BFF DRUM TEST CNTRLS			1.8.1
-150	D4	21	LE	25	D7	BFF DRUM TEST CNTRLS			1.7.2
-150	D4	21	KP	8	D7	BFF DRUM MANUAL TEST CHECK CNTRL			1.7.2
-150	D4	21	KR	1469	B7	BFF DRUM MANUAL TEST CHECK REG			1.7.2
-150	D4	21	KS	1469	B7	BFF DRUM MANUAL TEST CHECK REG			1.7.2
-150	D4	21	KT	1469	B7	BFF DRUM MANUAL TEST CHECK REG			1.7.2
-150	D4	21	KU	1469	B7	BFF DRUM MANUAL TEST CHECK REG			1.7.2
-150	D4	21	KV	1469	B7	BFF DRUM MANUAL TEST CHECK REG			1.7.2
-150	D4	21	KW	1469	B7	BFF DRUM MANUAL TEST CHECK REG			1.7.2
-150	D4	21	KX	1469	B7	BFF DRUM MANUAL TEST CHECK REG			1.7.2
-150	D4	21	KY	1469	B7	BFF DRUM MANUAL TEST CHECK REG			1.7.2
-150	D4	21	KJ	5	D7	BFF DRUM MANL TEST READ WRT CTRL			1.7.1
-150	D4	21	LT	1	B7	BFF DRUM MANL TEST READ WRT CTRL			1.3.3
-150	D4	21	LU	8	B7	BFF DRUM MANL TEST READ WRT CTRL			1.2.3
-150	D5	20	FN	67	B7	SS AXD ACD READ WRITE CNTRL			1-2.2.1
-150	D5	20	FP	12	B7	SS AXD ACD READ WRITE CNTRL			1-2.2.1
-150	D5	21	FC	67	B7	SS DRUM CD READ-WRITE CNTRL			1.2.1
-150	D5	21	FD	12	B7	SS DRUM CD READ-WRITE CNTRL			1.2.1
-150	D6	20	EU	8	B7	ABPGAXD MANUAL TEST CHECK CNTRLS			1-2.1.1
-150	D6	20	EU	9	B7	ABPGAXD MANUAL TEST CHECK CNTRLS			1-2.2.3
-150	D6	20	EU	1	B7	ABPGAXD MANUAL TEST CHECK CNTRLS			1-2.3.1
-150	D6	20	EY	9	D7	ABPGAXD MANUAL TEST READ WRITE CNTRM-2.2.1			1.2.3
-150	D6	21	KL	9	B7	ABPGDRUM MANUAL TEST CHECK CNTRL			1.7.1
-150	D6	21	KL	1	B7	ABPGDRUM MANUAL TEST CHECK CNTRL			1.1.1
-150	D6	21	KL	8	B7	ABPGDRUM MANUAL TEST CHECK CNTRL			1.1.1
-150	D6	21	LU	9	D7	ABPGDRUM MANUAL TEST READ WRT CTRL			1.2.1
-150	E1	20	FN	89	D7	CF6 AXD ACD READ WRITE CNTRL			1-2.2.1
-150	E1	20	FR	2456	D7	CF6 AXD ACD READ WRITE CNTRL			1-2.2.1

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-5	05/01/60	LOGIC
-150	E1	20	FS	2589	D78	CF6 AXD ACD READ WRITE CNTRL			1-2.2.1
-150	E1	20	FT	27	D7	CF6 AXD ACD READ WRITE CNTRL			1-2.2.1
-150	E1	21	FC	89	D7	CF6 DRUM CD READ-WRITE CNTRL			1.2.1
-150	E1	21	FE	456	D7	CF6 DRUM CD READ-WRITE CNTRL			1.2.1
-150	E1	21	FE	2	D7	CF6 DRUM CD READ-WRITE CNTRL			S-1.6.1
-150	E1	21	FF	2589	D78	CF6 DRUM CD READ-WRITE CNTRL			1.2.1
-150	E1	21	FG	27	D7	CF6 DRUM CD READ-WRITE CNTRL			1.2.1
-150	E1	21	FG	3	D7	CF6 DRUM READ BY STATUS			1.3.1
-150	E1	21	FP	125	D7	CF6 DRUM READ BY STATUS			1.3.3
-150	E1	21	FP	1	D7	CF6 DRUM READ BY STATUS			1.3.4
-150	E1	21	FP	3	D7	CF6 DRUM READ BY STATUS			1.3.1
-150	E1	21	FP	2	D7	CF6 DRUM READ BY STATUS			1.3.6
-150	E2	21	AD	25	D7	CF6 DRUM DD OD READ CNTRL			1.5.3
-150	E2	21	AE	25	D7	CF6 DRUM DD OD READ CNTRL			1.5.3
-150	E2	21	AF	678	B707	CF6 DRUM OB OD FIELD SELECT CNTRL			1.4.1
-150	E2	21	AG	35	D7	CF6 DRUM OB OD READ CONTROL			1.4.1
-150	E2	21	DE	67	B7	CF6 DRUM TD OD READ CNTRL			1.5.1
-150	E2	21	DE	37	B7	CF6 DRUM TD OD READ CNTRL			1.5.1
-150	E2	21	DF	258	D7	CF6 DRUM TD OD READ CNTRL			1.5.1
-150	E2	21	DG	13467987		CF6 DRUM TD OD READ CNTRL			1.5.1
-150	E2	21	DK	789	D7	CF6 DRUM RD OD READ CNTRL			1.5.1
-150	E2	21	DM	89	B7	CF6 DRUM RD OD READ CNTRL			1.2.1
-150	E2	21	DM	6	B7	CF6 DRUM RD OD READ CNTRL			1.5.1
-150	E2	21	DP	13467987		CF6 DRUM RD OD READ CNTRL			1.5.1
-150	E2	21	DR	13467987		CF6 DRUM RD OD READ CNTRL			1.5.1
-150	E2	21	DT	56	D7	CF6 DRUM RD OD READ CNTRL			1.5.1
-150	E2	21	DX	258	D7	CF6 DRUM RD OD READ CNTRL			1.5.1
-150	E2	21	DY	6	D7	CF6 DRUM TD TIMING CKT			1.5.1
-150	E4	20	FC	13467987		CF6 AXD ACD SELECTION REG			1-2.1.1
-150	E4	20	FD	13467987		CF6 AXD ACD SELECTION REG			1-2.1.1
-150	E4	21	GC	13467987		CF6 DRUM CD SELECT REG			1.1.1
-150	E4	21	GD	13467987		CF6 DRUM CD SELECT REG			1.1.1
-150	E5	21	GX	12	B7	I NO OD DRUMS SEL			1.1.1
-150	E5	21	GG	1-46	B7	CF6 DRUM CD SELECT REG			1.1.1
-150	E5	21	GH	1	B7	CF6 DRUM CD SELECT ENCODER			1.1.1
-150	E5	21	GJ	13467887		CF6 DRUM CD SELECT ENCODER			1.1.1
-150	E5	21	GK	1	B7	CF6 DRUM CD SELECT ENCODER			1.1.1
-150	E5	21	GL	1	B7	CF6 DRUM CD SELECT ENCODER			1.1.1
-150	E5	21	GM	24789	D7	CF6 DRUM CD SELECT ENCODER			1.1.1
-150	E5	21	GN	24789	D7	CF6 DRUM CD SELECT ENCODER			1.1.1
-150	E5	21	KK	1	B7	CF6 DRUM CD SELECT ENCODER			1.1.1
-150	E6	20	FE	1-8	B7	CF6 AXD ACD SEL REG OCTAL ENCODER			1-2.1.1
-150	E6	20	FF	1-478	B7	CF6 AXD ACD SEL REG OCTAL ENCODER			1-2.2.1
-150	E6	21	GE	1-8	B7	CF6 DRUM CD SELECT REG			1.1.1
-150	E6	21	GF	1-8	B7	CF6 DRUM CD SELECT REG			1.1.1
-150	F1	21	BC	256	D7	CF6 DRUM XTEL OD STATUS CNTRL			1.3.5
-150	F1	21	BE	356	D7	CF6 DRUM XTEL OD MARKER STATUS CNTRL			1.3.5
-150	F1	21	BG	256	B7	CF6 DRUM MI OD STATUS CNTRL			1.3.1
-150	F1	21	BJ	256	D7	CF6 DRUM SP XTEL OD STATUS CNTRL			1.3.6
-150	F1	21	BL	356	D7	CF6 DRUM SP XTEL OD MARKER STATUS			1.3.6
-150	F1	21	BN	256	D7	CF6 DRUM LRI-1 OD STATUS CNTRL			1.3.3
-150	F1	21	BY	14569	D7	CF6 DRUM LRI 162 SP XTAL NORM/STAT			1.2.1
-150	F1	21	BR	256	D7	CF6 DRUM LRI-2 OD STATUS CNTRL			1.3.4
-150	F1	21	BU	256	B7	CF6 DRUM GFI OD STATUS CNTRL			1.3.2
-150	F1	22	MX	23	B7	CF6 DRUM RI OD REL TIME CNTR			1.3.2
-150	F2	21	AH	5	D7	CF OPERATE LRI			1.3.3
-150	F2	21	AH	1	D7	CF MANUAL SEL OB-1-2-3			1.4.1
-150	F2	21	AH	2	D7	CF SD TEST			1.0.2
-150	F2	21	AM	3	D8	CF LOG OD-IX OB FLD SW CTR 1-2			1.4.1
-150	F2	21	AU	6	D7	CF6 DRUM OB CD GAP CNTR			1.4.1
-150	F2	21	AV	6	D7	CF6 DRUM OB OD GAP CNTR			1.4.1
-150	F2	21	AK	7	D7	CF6 DRUM OB-1 CD STATUS CNTRL			1.7.1
-150	F2	21	AK	35789	D78	CF6 DRUM OB-1 CD STATUS CNTRL			1.4.1
-150	F2	21	AL	5789	D78	CF6 DRUM OB-2 CD STATUS CNTRL			1.4.1
-150	F2	21	AL	7	D7	CF6 DRUM OB-2 CD STATUS CNTRL			1.7.1
-150	F2	21	AM	235789D78		CF6 DRUM OB-3 CD STATUS CNTRL			1.4.1
-150	F2	21	AM	3	D8	CF6 DRUM OB-3 CD STATUS CNTRL			1.4.1
-150	F2	21	AM	7	D7	CF6 DRUM OB-3 CD STATUS CNTRL			1.7.1

MC-5

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-5	05/01/60	LOGIC
-150	F2	21	AS	179	87	CF6 DRUM CD FIELD 6 REG SW CNTRL			1.4.0.1
-150	F2	21	AR	368	87	CF6 DRUM CD FIELD 6 REG SW CNTRL			1.4.0.1
-150	F2	21	AR	368	87	CF6 DRUM OB OD FIELD SELECT CNTRL			1.4.0.1
-150	F2	21	FS	2	D7	CF6 DRUM LRI-1 CD STATUS CNTRL CKT			1.3.0.3
-150	F2	21	FS	35	D7	CF6 DRUM LRI-2 CD STATUS CNTRL CKT			1.3.0.4
-150	F2	21	FS	1	D7	CF6 DRUM LRI-2 CD STATUS CONTROL CKT			1.1.0.1
-150	F2	21	FS	1	D7	CF6 DRUM LRI-2 CD STATUS CONTROL CKT			1.1.0.2
-150	F2	21	FS	3	D7	CF6 DRUM LRI-1 CD STATUS CONTROL CKT			1.3.0.2
-150	F2	21	GM	1359	87	CF6 DRUM CD SELECT ENCODER			1.1.0.1
-150	F2	21	GN	1359	87	CF6 DRUM CD SELECT ENCODER			1.1.0.1
-150	F2	21	FS	2	D7	CF6 DRUM TEST NOT ERROR			1.7.0.2
-150	F2	21	PC	4	87	CF6 DRUM STEP DISC CNTR			1.3.0.1
-150	F2	21	PC	9	87	CF6 DRUM STEP DISC CNTR			1.3.0.3
-150	F2	21	PC	9	87	CF6 DRUM STEP DISC CNTR			1.3.0.5
-150	F4	20	ET	456	D7	CF6 AXD MANUAL TEST READ WRITE CNTRM-2.3.0.2			1.7.0.1
-150	F4	21	KJ	23	87	CF6 DRUM MANL TEST READ WRT CTRL			1.1.0.1
-150	F4	21	LC	58	D7	CF6 DRUM TEST CNTRLS			1.0.0.2
-150	F4	21	LC	23	-Q7	CF6 DRUM TEST CNTRLS			1.0.0.3
-150	F4	21	LC	7	D7	CF6 DRUM TEST CNTRLS			1.7.0.2
-150	F4	21	LE	1346	87	CF6 DRUM TEST CNTRLS			1.0.0.1
-150	F4	21	LE	79	87	CF6 AXD TEST CONTROLS			1-2.3.0.2
-150	F4	20	FY	3	D7	CF6 DRUM TEST CNTRLS			1.7.0.1
-150	F4	21	LD	1	87	CF6 DRUM TEST CNTRLS			1.0.0.1
-150	F4	21	LD	25-9	87	CF6 DRUM TEST CNTRLS			
-300	A1	20	AC	4-8	D7	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AD	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AE	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AF	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AG	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AH	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AJ	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AK	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AL	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AM	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AN	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AP	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AR	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AS	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AT	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AU	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	20	AV	4-8	D7B	DRA AXD ACD INFO READ CKT			1-2.2.0.2
-300	A1	22	EC	4-8	D7	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	ED	4-8	D7B	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	EE	4-8	D7B	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	EF	4-8	D7B	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	EG	4-8	D7B	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	EH	4-8	D7B	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	EJ	4-8	D7B	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	EK	4-8	D7B	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	EL	4-8	D7B	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	EM	4-8	D7B	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	EN	4-8	D7B	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	EP	4-8	D7B	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	ER	4-8	D7B	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	ES	4-8	D7B	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	ET	4-8	D7B	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	EU	4-8	D7B	DRA DRUM CD READ CKT			1.2.0.2
-300	A1	22	EV	4-8	D7A	DRA DRUM CD READ CKT			1.2.0.2
-300	A2	22	AF	4-8	D8	DRA DRUM IC OD READ CKT			5-1.6.0.1
-300	A2	22	AG	4-8	D7B	DRA DRUM IC OD READ CKT			5-1.6.0.1
-300	A2	22	AH	4-8	D7B	DRA DRUM IC OD READ CKT			5-1.6.0.1
-300	A2	22	AJ	4-8	D7B	DRA DRUM IC OD READ CKT			5-1.6.0.1
-300	A2	22	AK	4-8	D7B	DRA DRUM IC OD READ CKT			5-1.6.0.1
-300	A2	22	AL	4-8	D7B	DRA DRUM IC OD READ CKT			5-1.6.0.1
-300	A2	22	AM	4-8	D7B	DRA DRUM IC OD READ CKT			5-1.6.0.1
-300	A2	22	AN	4-8	D7B	DRA DRUM IC OD READ CKT			5-1.6.0.1
-300	A2	22	AP	4-8	D7B	DRA DRUM IC OD READ CKT			5-1.6.0.1
-300	A2	22	AR	4-8	D7B	DRA DRUM IC OD READ CKT			5-1.6.0.1
-300	A2	22	AS	4-8	D7B	DRA DRUM IC OD READ CKT			5-1.6.0.1
-300	A2	22	AT	4-8	D7B	DRA DRUM IC OD READ CKT			5-1.6.0.1
-300	A2	22	AU	4-8	D7B	DRA DRUM IC OD READ CKT			5-1.6.0.1
-300	A2	22	AV	4-8	D7B	DRA DRUM IC OD READ CKT			5-1.6.0.1
-300	A2	22	AW	4-8	D7B	DRA DRUM IC OD READ CKT			5-1.6.0.1
-300	A2	22	AX	4-8	D7B	DRA DRUM IC OD READ CKT			5-1.6.0.1

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-5	05/01/60	LOGIC
-300	A2	22	AY	4-8	D78	DRA DRUM IC OD READ CKT			5-1.6.1
-300	A2	22	BF	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BG	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BH	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BJ	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BK	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BL	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BM	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BN	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BP	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BR	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BS	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BT	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BU	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BV	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BW	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BX	4-8	D78	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	BY	4-8	D7	DRA DRUM DD OD READ CKT			1.5.3
-300	A2	22	CF	4-8	D78	DRA DRUM OB OD READ CKT			1.4.1
-300	A2	22	CG	4-8	D78	DRA DRUM OB OD READ CKT			1.4.1
-300	A2	22	CH	4-8	D78	DRA DRUM OB OD READ CKT			1.4.1
-300	A2	22	CJ	4-8	D78	DRA DRUM CB OD READ CKT			1.4.1
-300	A2	22	CK	4-8	D78	DRA DRUM OB OD READ CKT			1.4.1
-300	A2	22	CL	4-8	D78	DRA DRUM OB OD READ CKT			1.4.1
-300	A2	22	CM	4-8	D78	DRA DRUM OB OD READ CKT			1.4.1
-300	A2	22	CN	4-8	D78	DRA DRUM OB OD READ CKT			1.4.1
-300	A2	22	CP	4-8	D78	DRA DRUM OB OD READ CKT			1.4.1
-300	A2	22	CR	4-8	D78	DRA DRUM OB OD READ CKT			1.4.1
-300	A2	22	CS	4-8	D78	DRA DRUM OB OD READ CKT			1.4.1
-300	A2	22	CT	4-8	D78	DRA DRUM OB OD READ CKT			1.4.1
-300	A2	22	CU	4-8	D78	DRA DRUM OB OD READ CKT			1.4.1
-300	A2	22	CW	4-8	D78	DRA DRUM OB OD READ CKT			1.4.1
-300	A2	22	CX	4-8	D78	DRA DRUM OB OD READ CKT			1.4.1
-300	A2	22	CY	4-8	D7	DRA DRUM OB OD READ CKT			1.4.1
-300	A2	22	DF	4-8	D78	DRA DRUM SD OD READ CKT			1.5.2
-300	A2	22	DG	4-8	D78	DRA DRUM SD OD READ CKT			1.5.2
-300	A2	22	DH	4-8	D78	DRA DRUM SD OD READ CKT			1.5.2
-300	A2	22	DJ	4-8	D78	DRA DRUM SD OD READ CKT			1.5.2
-300	A2	22	DK	4-8	D78	DRA DRUM SD OD READ CKT			1.5.2
-300	A2	22	DL	4-8	D78	DRA DRUM SD OD READ CKT			1.5.2
-300	A2	22	DM	4-8	D78	DRA DRUM SD OD READ CKT			1.5.2
-300	A2	22	DN	4-8	D78	DRA DRUM SD OD READ CKT			1.5.2
-300	A2	22	DP	4-8	D78	DRA DRUM SD OD READ CKT			1.5.2
-300	A2	22	DR	4-8	D78	DRA DRUM SD OD READ CKT			1.5.2
-300	A2	22	DS	4-8	D78	DRA DRUM SU OD READ CKT			1.5.2
-300	A2	22	DT	4-8	D78	DRA DRUM SD OD READ CKT			1.5.2
-300	A2	22	DU	4-8	D78	DRA DRUM SU OD READ CKT			1.5.2
-300	A2	22	UV	4-8	D78	DRA DRUM SD OD READ CKT			1.5.2
-300	A2	22	DW	4-8	D78	DRA DRUM SD OD READ CKT			1.5.2
-300	A2	22	DX	4-8	D78	DRA DRUM SU OD READ CKT			1.5.2
-300	A2	22	DY	4-8	D7	DRA DRUM SU OD READ CKT			1.5.2
-300	A3	22	BC	4-8	D8	DRA DRUM XTEL CD MARKER			1.3.5
-300	A3	22	BC	4-8	D7	DRA DRUM XTEL OD STATUS READ CKT			1.3.5
-300	A3	22	BD	4-8	D7	DRA DRUM XTEL OD MARKER CHAN RDS CKT			1.3.5
-300	A3	22	BD	4-8	D8	DRA DRUM XTEL CD MARKER STATUS CNTRL			1.3.5
-300	A3	22	CD	4-8	D7	DRA DRUM MI OD STATUS READ CKT			1.3.1
-300	A3	22	CD	4-8	D8	DRA DRUM MI CD STATUS READ CKT			1.3.1
-300	A3	22	DC	4-8	D8	DRA DRUM XTEL STATUS CNTRL			1.3.6
-300	A3	22	DD	4-8	D8	DRA DRUM XTEL STATUS CNTRL			1.3.6
-300	A3	22	DC	4-8	D7	DRA DRUM SPARE XTEL STATUS READ CKT			1.3.6
-300	A3	22	DD	4-8	D7	DRA DRUM SPARE XTEL MARKER READ CKT			1.3.6
-300	A3	22	FB	4-8	D7	DRA DRUM OB-1 CU STATUS CNTRL			1.4.1
-300	A3	22	FC	4-8	D7	DRA DRUM OB-2 CD STATUS CNTRL			1.4.1
-300	A3	22	FD	4-8	D7	DRA DRUM OB-3 CD STATUS CNTRL			1.4.1
-300	A3	22	FB	4-8	D8	DRA DRUM OB-1 STATUS CHAN READ CKT			1.4.1
-300	A3	22	FC	4-8	D8	DRA DRUM OB-2 STATUS CHAN READ CKT			1.4.1
-300	A3	22	FD	4-8	D8	DRA DRUM OB-3 STATUS CHAN READ CKT			1.4.1
-300	A3	22	FE	4-8	D8	DRA DRUM LRI-1 OD STATUS READ CKT			1.3.3
-300	A3	22	FE	4-8	D7	DRA DRUM LRI-1 CD STATUS READ CKT			1.3.3
-300	A3	22	FF	4-8	D8	DRA DRUM LRI-2 OD STATUS READ CKT			1.3.4
-300	A3	22	FF	4-8	D7	DRA DRUM LRI-2 CD STATUS READ CKT			1.3.4
-300	A3	22	FG	4-8	D8	DRA DRUM GFI OD STAT CTRL READ CKT			1.3.2
-300	A3	22	FG	4-8	D7	DRA DRUM GFI CD STAT CTRL READ CKT			1.3.2
-300	A4	22	JD	5-8	D8	BDWADRUM XTEL OD WRITE CKT			1.3.5
-300	A4	22	JE	5-8	D8	BDWADRUM XTEL OD WRITE CKT			1.3.5

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-5	05/01/60	LOGIC
-300	A4	22	MM	56	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.3
-300	A4	22	NN	78	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.4
-300	A4	22	MM	56	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.3
-300	A4	22	MP	78	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.4
-300	A4	22	MP	56	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.3
-300	A4	22	MR	78	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.4
-300	A4	22	MR	56	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.3
-300	A4	22	MS	78	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.4
-300	A4	22	MS	56	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.3
-300	A4	22	MT	78	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.4
-300	A4	22	MT	56	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.3
-300	A4	22	MU	78	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.4
-300	A4	22	MU	56	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.3
-300	A4	22	MV	78	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.4
-300	A4	22	MV	56	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.3
-300	A4	22	MW	78	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.4
-300	A4	22	MW	56	D8	BDWADRU M LRI-162 OD WRITE CKT			1.3.3
-300	A4	22	ND	5-8	D8	BDWADRU M GFI OD WRITE CKT			1.3.2
-300	A4	22	NE	5-8	D8	BDWADRU M GFI OD WRITE CKT			1.3.2
-300	A4	22	NF	5-8	D8	BDWADRU M GFI OD WRITE CKT			1.3.2
-300	A4	22	NG	5-8	D8	BDWADRU M GFI OD WRITE CKT			1.3.2
-300	A4	22	NH	5-8	D8	BDWADRU M GFI OD WRITE CKT			1.3.2
-300	A4	22	NJ	56	D8	BDWADRU M GFI OD WRITE CKT			1.3.2
-300	A4	22	NN	5-8	D8	BDWADRU M GFI OD WRITE CKT			1.3.2
-300	A4	22	NP	5-8	D8	BDWADRU M GFI OD WRITE CKT			1.3.2
-300	A4	22	NR	5-8	D8	BDWADRU M GFI OD WRITE CKT			1.3.2
-300	A4	22	NS	58	D8	BDWADRU M GFI OD WRITE CKT			1.3.2
-300	A4	22	NT	5-8	D8	BDWADRU M GFI OD WRITE CKT			1.3.2
-300	A4	22	NU	5-8	D8	BDWADRU M GFI OD WRITE CKT			1.3.2
-300	A4	22	NV	5-8	D8	BDWADRU M GFI OD WRITE CKT			1.3.2
-300	A4	22	NW	5-8	D8	BDWADRU M GFI OD WRITE CKT			1.3.2
-300	A4	22	NX	5-8	D8	BDWADRU M GFI OD WRITE CKT			1.3.2
-300	A4	22	NM	5-8	D8	BDWADRU M GFI REL TIME CNTR WRITE CKT			1.3.2
-300	A4	22	NJ	78	D8	BDWADRU M GFI REL TIME CNTR WRITE CKT			1.3.2
-300	A4	22	NK	5-8	D8	BDWADRU M GFI REL TIME CNTR WRITE CKT			1.3.2
-300	A4	22	PD	5-8	D8	BDWADRU M SP XT WRITE CKT			1.3.6
-300	A4	22	PE	5-8	D8	BDWADRU M SP XT WRITE CKT			1.3.6
-300	A4	22	PF	5-8	D8	BDWADRU M SP XT WRITE CKT			1.3.6
-300	A4	22	PG	5-8	D8	BDWADRU M SP XT WRITE CKT			1.3.6
-300	A4	22	PH	5-8	D8	BDWADRU M SP XT WRITE CKT			1.3.6
-300	A4	22	PJ	5-8	D8	BDWADRU M SP XT WRITE CKT			1.3.6
-300	A4	22	PK	5-8	D8	BDWADRU M SP XT WRITE CKT			1.3.6
-300	A4	22	PL	5-8	D8	BDWADRU M SP XT WRITE CKT			1.3.6
-300	A4	22	PM	5-8	D8	BDWADRU M SP XT WRITE CKT			1.3.6
-300	A4	22	PN	5-8	D8	BDWADRU M SP XT WRITE CKT			1.3.6
-300	A4	22	PP	5-8	D8	BDWADRU M SP XT WRITE CKT			1.3.6
-300	A4	22	PR	5-8	D8	BDWADRU M SP XT WRITE CKT			1.3.6
-300	A4	22	PS	5-8	D8	BDWADRU M SP XT WRITE CKT			1.3.6
-300	A4	22	PT	5-8	D8	BDWADRU M SP XT WRITE CKT			1.3.6
-300	A4	22	PV	5-8	D8	BDWADRU M SP XT WRITE CKT			1.3.6
-300	A5	22	HC	5-8	D8	BDWADRU M OB-1 STATUS CNTRL CKT			1.4.1
-300	A5	22	HD	5-8	D8	BDWADRU M OB-2 STATUS CNTRL CKT			1.4.1
-300	A5	22	HE	5-8	D8	BDWADRU M OB-3 STATUS CNTRL CKT			1.4.1
-300	A5	22	HH	5-8	D8	BDWADRU M GFI STATUS CNTRL			1.3.2
-300	A5	22	HJ	5-8	D8	BDWADRU M LRI-1 STATUS CNTRL CKT			1.3.3
-300	A5	22	HK	5-8	D8	BDWADRU M LRI-2 STATUS CNTRL CKT			1.3.4
-300	A5	22	HL	5-8	D8	BDWADRU M XTEL STATUS CNTRL CKT			1.3.5
-300	A5	22	HM	5-8	D8	BDWADRU M MI STATUS CNTRL			1.3.1
-300	A5	22	HR	4-8	D8	BDWADRU M XTEL STATUS CNTRL			1.3.6
-300	A5	22	HR	3	D8	BDWADRU M SP XTEL OD STATUS CNTRL			1.3.6
-300	A5	22	JW	5-8	D8	BDWADRU M XTEL CD MARKER STATUS CNTRL			1.3.5
-300	A5	22	PW	56	D8	BDWADRU M SP XTEL WRITE CKT			1.3.6
-300	A5	22	PW	78	D7	BDWADRU M SP XTEL OD STATUS			1.3.6
-300	A6	20	BG	4-8	D78	DRA AXD AMC-D INDEX READ CKT			1-2.1.2
-300	A6	20	BH	4-8	D78	DRA AXD AME-F INDEX READ CKT			1-2.1.2
-300	A6	20	BJ	4-8	D78	DRA AXD AMG-H INDEX READ CKT			1-2.1.2
-300	A6	22	AF	4-8	D7	DRA DRUM IC INDEX CHAN READ CKT			5-1.6.1
-300	A6	22	FK	4-8	D7	DRA DRUM AMA INDEX CHAN READ CKT			1.1.2
-300	A6	22	FK	4-8	D8	DRA DRUM AMB INDEX CHAN READ CKT			1.1.2
-300	A6	22	FM	4-8	D78	DRA DRUM LOG INDEX CHAN READ CKT			1.1.2
-300	A6	22	FP	4-8	D78	DRA DRUM MIXED INDEX CHAN READ CKT			1.1.2
-300	A6	22	FS	4-8	D78	DRA DRUM TD INDEX CHAN READ CKT			1.1.2
-300	A6	22	FU	4-8	D78	DRA DRUM RD INDEX CHAN READ CKT			1.1.2
-300	B1	20	CE	5-8	D7	ADWBAXD ACD WRITE REG			1-2.2.1

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V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-5	05/01/60	LOGIC
-300	B4	22	PM	5-8	D7	BDWBDRUM SP XT WRITE CKT			1.3.6
-300	B4	22	PN	5-8	D7	BDWBDRUM SP XT WRITE CKT			1.3.6
-300	B4	22	PP	5-8	D7	BDWBDRUM SP XT WRITE CKT			1.3.6
-300	B4	22	PR	5-8	D7	BDWBDRUM SP XT WRITE CKT			1.3.6
-300	B4	22	PS	5-8	D7	BDWBDRUM SP XT WRITE CKT			1.3.6
-300	B4	22	PT	5-8	D7	BDWBDRUM SP XT WRITE CKT			1.3.6
-300	B4	22	PU	5-8	D7	BDWBDRUM SP XT WRITE CKT			1.3.6
-300	B4	22	PV	5-8	D7	BDWBDRUM SP XT WRITE CKT			1.3.6
-300	B5	22	HC	5-8	D7	BDWBDRUM OB-1 STATUS CNTRL CKT			1.4.1
-300	B5	22	HD	5-8	D7	BDWBDRUM OB-2 STATUS CNTRL CKT			1.4.1
-300	B5	22	HE	5-8	D7	BDWBDRUM OB-3 STATUS CNTRL CKT			1.4.1
-300	B5	22	HL	78	D7	BDWBDRUM XTEL CD MARKER STATUS CNTRL			1.3.5
-300	B5	22	HH	5-8	D7	BDWBDRUM GFI STATUS CNTRL			1.3.2
-300	B5	22	HJ	5-8	D7	BDWBDRUM LRI-1 STATUS CNTRL CKT			1.3.3
-300	B5	22	HK	5-8	D7	BDWBDRUM LRI-2 STATUS CNTRL CKT			1.3.4
-300	B5	22	HL	56	D7	BDWBDRUM XTEL STATUS CNTRL CKT			1.3.5
-300	B5	22	HR	78	D7	BDWBDRUM XTEL STATUS CNTRL			1.3.6
-300	B5	22	HR	56	D7	BDWBDRUM SPARE XTEL STATUS CNTRL			1.3.6
-300	B5	22	HM	5-8	D7	BDWBDRUM MI STATUS CNTRL CKT			1.3.1
-300	B5	22	JW	78	D7	BDWBDRUM XTEL CD MARKER STATUS CNTRL			1.3.5
-300	B5	22	JW	56	D7	BDWBDRUM XTEL OD WRITE CKT			1.3.5
-300	B5	22	PW	78	D7	BDWBDRUM XTEL STATUS CNTRL CKT			1.3.6
-300	B5	22	PW	56	D7	BDWBDRUM SP XT WRITE CKT			1.3.6
-300	C1	20	CE	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CF	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CG	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CH	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CJ	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CK	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CL	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CM	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CN	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CP	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CR	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CS	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CT	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CU	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CV	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CW	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	20	CX	5-8	D8	ADWAAXD ACD WRITE REG			1-2.2.1
-300	C1	22	GE	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GF	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GG	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GH	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GJ	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GK	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GL	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GM	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GN	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GP	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GR	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GS	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GT	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GU	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GV	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GW	5-8	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C1	22	GX	56	D8	ADWADRUM CD WRITE CKT			1.2.1
-300	C4	20	BL	2-9	D8	TPG AXD AMC TIMING PULSE GEN			1-2.1.2
-300	C4	20	BM	2-9	D8	TPG AXD AMD TIMING PULSE GEN			1-2.1.2
-300	C4	20	BN	2-9	D8	TPG AXD AME TIMING PULSE GEN			1-2.1.2
-300	C4	20	BP	2-9	D8	TPG AXD AMF TIMING PULSE GEN			1-2.1.2
-300	C4	20	BR	2-9	D8	TPG AXD AMG TIMING PULSE GEN			1-2.1.2
-300	C4	20	BS	2-9	D8	TPG AXD AMH TIMING PULSE GEN			1-2.1.2
-300	C4	22	FJ	2-9	D8	TPG DRUM AMA TIMING CHANNEL			1.1.2
-300	C4	22	FL	2-9	D8	TPG DRUM AMB TIMING CHANNEL			1.1.2
-300	C4	22	FN	2-9	D8	TPG DRUM LOG TIMING CKT			1.1.2
-300	C4	22	FR	2-9	D8	TPG DRUM MIXD TIMING CHANNEL			1.1.2
-300	C4	22	FT	2-9	D8	TPG DRUM TD TIMING CHAN CD READ DKT			1.1.2
-300	C4	22	FV	2-9	D8	TPG DRUM RD TIMING CHAN CD READ CKT			1.1.2
-300	D1	21	AT	69	D8	CFF DRUM CD FIELD & REG SW CNTRL			1.4.1
-300	D1	21	FD	3	D8	CFF DRUM CD READ-WRITE CNTRL			1.2.1
-300	D1	21	FP	4	D8	CFF DRUM LRI-1 CD STATUS CNTRL CKT			1.3.3

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-5	05/01/60	LOGIC
-300	D1	21	FS	4	D8	CFF DRUM LRI-2 CD STATUS CNTRL CKT			1.3.4
-300	D1	21	PC	3	D8	CFF DRUM CD LRI STATUS SLOT CNTR			1.3.3
-300	D1	21	PC	2	D8	CFF DRUM CD MARKER STATUS SLOT CNTR			1.3.5
-300	D1	21	PF	9	D8	CFF DRUM CD READ STATUS DISCON CNTR			1.3.1
-300	D1	21	PE	9	D8	CFF DRUM CD READ STATUS DISCON CNTR			1.3.1
-300	D1	21	PG	9	D8	CFF DRUM CD READ STATUS DISCON CNTR			1.3.1
-300	D2	21	AC	7	D8	CFF DRUM DD OD READ CNTRL			1.5.3
-300	D2	21	AF	2	D8	CFF DRUM OB OD FIELD SELECT CNTRL			1.4.1
-300	D2	21	AR	2	D8	CFF DRUM OB OD FIELD SELECT CNTRL			1.4.1
-300	D2	21	AG	6	D8	CFF DRUM OB OD READ CNTRL			1.4.1
-300	D2	21	AH	4	D8	CFF DRUM LRI-1 & 2 OD OPERATE			1.3.3
-300	D2	21	DC	2	D8	CFF DRUM TD OD READ CNTRL			1.5.1
-300	D2	21	DD	135	D8	CFF DRUM TD OD READ CNTRL			1.5.1
-300	D2	21	DK	2	D8	CFF DRUM RD OD READ CNTRL			1.5.1
-300	D2	21	DM	2	D8	CFF DRUM RD OD READ CNTRL			1.5.1
-300	D2	21	DT	8	D8	CFF DRUM RD OD READ CNTRL			1.5.1
-300	D2	21	PH	9	D8	CFF DRUM CD READ STATUS DISCON CNTR			1.3.1
-300	D2	21	DU	135	D8	CFF DRUM RD OD READ CNTRL			1.5.1
-300	D2	21	PJ	9	D8	CFF DRUM CD READ STATUS DISCON CNTR			1.3.1
-300	D2	21	PK	9	D8	CFF DRUM CD READ STATUS DISCON CNTR			1.3.1
-300	D2	22	MX	467	D8	CFF DRUM RI OD REL TIME CNTR			1.3.2
-300	D2	21	RN	7	D8	CFF DRUM IC OD READ CNTRL CKT			S-1.6.1
-300	D3	21	ES	2479	D8	CFF DRUM RD TIMING CKT			1.1.2
-300	D3	21	ET	2479	D8	CFF DRUM RD TIMING CKT			1.5.1
-300	D3	21	DY	2479	D8	CFF DRUM TD TIMING CKT			1.5.1
-300	D3	21	EY	2479	D8	CFF DRUM TD TIMING CKT			1.1.2
-300	D4	20	BD	7	D8	CFF AXD TC&INDEX CHAN WRITE CKT			1-2.3.2
-300	D4	20	BW	234678D8		CFF AXD AMC-D,E,F,G,H INDEX INDICTRI			1-2.1.2
-300	D4	20	FP	5-8	D8	CFF AXD ACD READ WRITE CNTRL			1-2.2.1
-300	D4	20	JJ	369	B7D78	CFF AXD AMC-D-E APC			1-2.2.3
-300	D4	20	KJ	369	B7D78	CFF AXD AMC-D-E APC			1-2.2.3
-300	D4	20	JL	369	B7D78	CFF AXD AMC-D-E APC			1-2.2.3
-300	D4	20	JM	369	B7D78	CFF AXD AMC-D-E APC			1-2.2.3
-300	D4	20	JN	369	B7D78	CFF AXD AMC-D-E APC			1-2.2.3
-300	D4	20	JP	369	B7D78	CFF AXD AMC-D-E APC			1-2.2.3
-300	D4	20	JR	369	B7D78	CFF AXD AMC-D-E APC			1-2.2.3
-300	D4	20	JS	369	B7D78	CFF AXD AMC-D-E APC			1-2.2.3
-300	D4	20	JT	369	B7D78	CFF AXD AMC-D-E APC			1-2.2.3
-300	D4	20	JU	369	B7D78	CFF AXD AMC-D-E APC			1-2.2.3
-300	D4	21	PL	9	D8	CFF DRUM CD READ STATUS DISCON CNTR			1.3.1
-300	D4	20	PV	369	B7D78	CFF AXD AMC-D-E APC			1-2.2.3
-300	D4	21	JH	9	D8	CFF DRUM CD READ STATUS DISCON CNTR			1.3.1
-300	D4	20	KE	369	B7D78	CFF AXD AMF-G-H APC			1-2.2.3
-300	D4	21	PN	9	D8	CFF DRUM CD READ STATUS DISCON CNTR			1.3.1
-300	D4	20	KF	369	B7D78	CFF AXD AMF-G-H APC			1-2.2.3
-300	D4	20	KG	369	B7D78	CFF AXD AMF-G-H APC			1-2.2.3
-300	D4	20	KH	369	B7D78	CFF AXD AMF-G-H APC			1-2.2.3
-300	D4	20	KJ	369	B7D78	CFF AXD AMF-G-H APC			1-2.2.3
-300	D4	20	KK	369	B7D78	CFF AXD AMF-G-H APC			1-2.2.3
-300	D4	20	KL	369	B7D78	CFF AXD AMF-G-H APC			1-2.2.3
-300	D4	20	KM	369	B7D78	CFF AXD AMF-G-H APC			1-2.2.3
-300	D4	20	KN	369	B7D78	CFF AXD AMF-G-H APC			1-2.2.3
-300	D4	20	KP	369	B7D78	CFF AXD AMF-G-H APC			1-2.2.3
-300	D4	20	KR	369	B7D78	CFF AXD AMF-G-H APC			1-2.2.3
-300	D4	20	KS	1357	B7D8	CFF AXD AMC-D APC ALARM			1-2.2.3
-300	D4	20	KT	1357	B7D8	CFF AXD AME-F APC ALARM			1-2.2.3
-300	D4	20	KU	1357	B7D8	CFF AXD ANG-H APC ALARM			1-2.2.3
-300	D4	21	AU	2479	D8	CFF DRUM CD-OB FIELD SW CNTR			1.4.1
-300	D4	21	AV	2479	D8	CFF DRUM CD-OB FIELD SW CNTR			1.4.1
-300	D4	21	FX	2	D8	CFF DRUM LOG TIMING CKT			1.1.2
-300	D4	21	FX	7	D8	CFF DRUM AMA TIMING CKT			1.1.2
-300	D4	21	FX	8	D8	CFF DRUM AMB TIMING CKT			1.1.2
-300	D4	21	FX	3	D8	CFF DRUM MIXD TIMING CKT			1.1.2
-300	D4	21	PU	13	B7	CFF DRUM AMB CD APC ALARM CNTRL			1.2.3
-300	D4	21	PT	57	B7D8	CFF DRUM AMA CD APC ALARM CNTRL			1.2.3
-300	D4	21	MD	369	B7D78	CFF DRUM MIXD AMA-B CD APC			1.2.3
-300	D4	21	ME	369	B7D78	CFF DRUM MIXD AMA-B CD APC			1.2.3
-300	D4	21	MF	369	B7D78	CFF DRUM MIXD AMA-B CD APC			1.2.3
-300	D4	21	MG	369	B7D78	CFF DRUM MIXD AMA-B CD APC			1.2.3
-300	D4	21	MH	369	B7D78	CFF DRUM MIXD AMA-B CD APC			1.2.3
-300	D4	21	MJ	369	B7D78	CFF DRUM MIXD AMA-B CD APC			1.2.3
-300	D4	21	ML	369	B7D78	CFF DRUM MIXD AMA-B CD APC			1.2.3
-300	D4	21	MK	369	B7D78	CFF DRUM MIXD AMA-B CD APC			1.2.3
-300	D4	21	MM	369	B7D78	CFF DRUM MIXD AMA-B CD APC			1.2.3

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V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-5	05/01/60	LOGIC
-300	D4	21	MN	369	87D78	CFF DRUM MIXD AMA-B CD APC			1-2-3
-300	D4	21	MP	369	87D78	CFF DRUM MIXD AMA-B CD APC			1-2-3
-300	D4	21	RG	369	87D8	CFF DRUM IC OD APC			S-1-6-1
-300	D4	21	RH	369	87D8	CFF DRUM IC OD APC			S-1-6-1
-300	D4	21	RJ	369	87D8	CFF DRUM IC OD APC			S-1-6-1
-300	D4	21	RK	369	87D8	CFF DRUM IC OD APC			S-1-6-1
-300	D4	21	FX	6	D8	CFF DRUM RD TIMING CKT			1-1-2
-300	D4	21	PV	57	D8	CFF DRUM RD CD APC ALARM CNTRL			1-2-3
-300	D4	21	FX	4	D8	CFF DRUM TD TIMING CKT			1-1-2
-300	D4	21	PU	57	D8	CFF DRUM TD CD APC ALARM CNTRL			1-2-3
-300	D4	21	PE	36	87D7	CFF DRUM RD & TD CD APC			1-2-3
-300	D4	21	PF	36	87D7	CFF DRUM RD & TD CD APC			1-2-3
-300	D4	21	PG	36	87D7	CFF DRUM RD & TD CD APC			1-2-3
-300	D4	21	PH	36	87D7	CFF DRUM RD & TD CD APC			1-2-3
-300	D4	21	PJ	36	87D7	CFF DRUM RD & TD CD APC			1-2-3
-300	D4	21	PK	36	87D7	CFF DRUM RD & TD CD APC			1-2-3
-300	D4	21	PL	36	87D7	CFF DRUM RD & TD CD APC			1-2-3
-300	D4	21	PM	36	87D7	CFF DRUM RD & TD CD APC			1-2-3
-300	D4	21	PN	36	87D7	CFF DRUM RD & TD CD APC			1-2-3
-300	D4	21	PP	36	87D7	CFF DRUM RD & TD CD APC			1-2-3
-300	D4	21	PR	36	87D7	CFF DRUM RD & TD CD APC			1-2-3
-300	D4	21	RL	57	D8	CFF MIXD APC CK & ERROR			001-2-3
-300	D4	21	RL	13	87	CFF IC OTHER APC CK & ALARM			S-1-6-1
-300	E1	20	GC	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GD	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GE	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GF	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GG	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GH	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GJ	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GK	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GL	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GM	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GN	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GP	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GR	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GS	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GT	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GU	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GV	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	GW	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	HC	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	HD	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	HE	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	HF	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	HG	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	HH	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	HJ	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	HK	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	HL	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	HM	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	HN	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	HP	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	20	HR	1-7	D8	DFD AXD DRUM FIELD DRIVER			1-2-1-1
-300	E1	21	HC	1-7	D8	DFD DRUM CD AMA-1 FIELD DRIVER			1-1-1
-300	E1	21	JC	1-7	D8	DFD DRUM CD AMA-2 FIELD DRIVER			1-1-1
-300	E1	21	HD	1-7	D8	DFD DRUM CD AMA-3 FIELD DRIVER			1-1-1
-300	E1	21	JD	1-7	D8	DFD DRUM CD AMA-4 FIELD DRIVER			1-1-1
-300	E1	21	HE	1-7	D8	DFD DRUM CD AMA-5 FIELD DRIVER			1-1-1
-300	E1	21	JE	1-7	D8	DFD DRUM CD AMA-6 FIELD DRIVER			1-1-1
-300	E1	21	HF	1-7	D8	DFD DRUM CD AMB-1 FIELD DRIVER			1-1-1
-300	E1	21	JF	1-7	D8	DFD DRUM CD AMB-2 FIELD DRIVER			1-1-1
-300	E1	21	HG	1-7	D8	DFD DRUM CD AMB-3 FIELD DRIVER			1-1-1
-300	E1	21	JG	1-7	D8	DFD DRUM CD AMB-4 FIELD DRIVER			1-1-1
-300	E1	21	HH	1-7	D8	DFD DRUM CD AMB-5 FIELD DRIVER			1-1-1
-300	E1	21	JH	1-7	D8	DFD DRUM CD AMB-6 FIELD DRIVER			1-1-1
-300	E1	21	HJ	1-7	D8	DFD DRUM CD LRI-1 FIELD DRIVER			1-1-1
-300	E1	21	HK	1-7	D8	DFD DRUM CD LRI-2 FIELD DRIVER			1-1-1
-300	E1	21	HL	1-7	D8	DFD DRUM CD GFI-1 FIELD DRIVER			1-1-1
-300	E1	21	HM	1-7	D8	DFD DRUM CD XTEL FIELD DRIVER			1-1-1
-300	E1	21	HN	1-7	D8	DFD DRUM CD SPARE AM FIELD DRIVER			1-1-1
-300	E1	21	HP	1-7	D8	DFD DRUM CD SPARE XTEL FIELD DRIVER			1-1-1
-300	E1	21	HR	1-7	D8	DFD DRUM CD TD-1 FIELD DRIVER			1-1-1

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-5	05/01/60	LOGIC
-300	E1	21	JR	1-7	D8	DFD DRUM CD TD-2 FIELD DRIVER			1.1.1
-300	E1	21	HS	1-7	D8	DFD DRUM CD TD-3 FIELD DRIVER			1.1.1
-300	E1	21	JS	1-7	D8	DFD DRUM CD TD-4 FIELD DRIVER			1.1.1
-300	E1	21	HT	1-7	D8	DFD DRUM CD TD-5 FIELD DRIVER			1.1.1
-300	E1	21	JT	1-7	D8	DFD DRUM CD TD-6 FIELD DRIVER			1.1.1
-300	E1	21	HU	1-7	D8	DFD DRUM CD RD-1 FIELD DRIVER			1.1.1
-300	E1	21	HV	1-7	D8	DFD DRUM CD RD-2 FIELD DRIVER			1.1.1
-300	E1	21	JV	1-7	D8	DFD DRUM CD RD-3 FIELD DRIVER			1.1.1
-300	E1	21	HW	1-7	D8	DFD DRUM CD RD-4 FIELD DRIVER			1.1.1
-300	E1	21	HX	1-7	D8	DFD DRUM CD RD-5 FIELD DRIVER			1.1.1
-300	E1	21	JW	1-7	D8	DFD DRUM CD RD-6 FIELD DRIVER			1.1.1
-300	E1	21	HX	1-7	D8	DFD DRUM CD RD-7 FIELD DRIVER			1.1.1
-300	E1	21	JX	1-7	D8	DFD DRUM CD RD-8 FIELD DRIVER			1.1.1
-300	E1	21	HY	1-7	D8	DFD DRUM CD RD-9 FIELD DRIVER			1.1.1
-300	E1	21	JJ	1-7	D8	DFD DRUM CD OB-1 FIELD DRIVER			1.1.1
-300	E1	21	JK	1-7	D8	DFD DRUM CD OB-2 FIELD DRIVER			1.1.1
-300	E1	21	JL	1-7	D8	DFD DRUM CD OB-3 FIELD DRIVER			1.1.1
-300	E1	21	JM	1-7	D8	DFD DRUM CD MI FIELD DRIVER			1.1.1
-300	E1	21	JN	1-7	D8	DFD DRUM CD DD FIELD DRIVER			1.1.1
-300	E1	21	JP	1-7	D8	DFD DRUM CD IC FIELD DRIVER			1.1.1
-300	E4	20	EL	9	D8	CFF AXD MANUAL TEST 6 APC ALARM			1-2.3.2
-300	E4	20	EM	1368	D8	CFF AXD MANUAL TEST APC			1-2.3.2
-300	E4	20	EN	1368	D8	CFF AXD MANUAL TEST APC			1-2.3.2
-300	E4	20	EP	1368	D8	CFF AXD MANUAL TEST APC			1-2.3.2
-300	E4	20	ER	8	D8	CFF AXD MANUAL TEST PATTERN CNTRL			1-2.3.2
-300	E4	20	EU	4	D8	CFF AXD MANUAL TEST CHECK CNTRLS			1-2.3.2
-300	E4	21	BC	9	D8	CFF DRUM XTEL FULL ALARM			1.3.5
-300	E4	21	BG	9	D8	CFF DRUM MI FULL ALARM			1.3.1
-300	E4	21	3J	9	D8	CFF DRUM SP XTEL FULL ALARM			1.3.6
-300	E4	21	8N	9	D8	CFF DRUM LRI-1 FULL ALARM			1.3.3
-300	E4	21	BR	9	D8	CFF DRUM LRI-2 FULL ALARM			1.3.4
-300	E4	21	BU	9	D8	CFF DRUM GFI FULL ALARM			1.3.2
-300	E4	21	DJ	2	D8	CFF DRUM TEST CNTRLS			1.8.2
-300	E4	21	KF	8	D8	CFF DRUM MANUAL TEST PATTERN CNTRL			1.7.2
-300	E4	21	KL	4	D8	CFF DRUM MANUAL TEST CHECK CNTRL			1.7.2
-300	E4	21	LT	5	D8	CFF DRUM MANL TEST WRT CTRL			1.3.1
-300	E4	21	PP	9	D8	CFF DRUM CD READ STATUS DISCON CNTR			1.3.1
-300	E4	21	MU	7	D8	CFF DRUM MANL TEST WRT CTRL			1.3.2
-300	E4	21	PR	9	D8	CFF DRUM CD READ STATUS DISCON CNTR			1.3.1
-300	E4	21	LT	5	D8	CFF DRUM MANL TEST WRT CTRL			1.3.3
-300	E4	21	LT	4	D8	CFF DRUM MANL TEST WRT CTRL			1.3.4
-300	E4	21	LT	8	D8	CFF DRUM MANL TEST WRT CTRL			1.3.5
-300	E4	21	LT	9	D8	CFF DRUM MANL TEST WRT CTRL			1.3.6
-300	E4	21	LV	9	D8	CFF DRUM MANUAL TEST APC			1.2.3
-300	E4	21	LV	6	D8	CFF DRUM MANUAL TEST APC			1.8.2
-300	E4	21	LW	1368	D8	CFF DRUM MANUAL TEST APC			1.2.3
-300	E4	21	LX	1368	D8	CFF DRUM MANUAL TEST APC			1.2.3
-300	E4	21	LY	1368	D8	CFF DRUM MANUAL TEST APC			1.2.3
-300	E4	21	MU	4	D7	CFF DRUM READ WRITE CONTROL			1.2.1

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-6	05/01/60	LOGIC
6250	A1	23	BE	3-5	85	PCF	MI REG SHIFT			002.2.2
6250	A1	23	CV	1235	85	PCF	MI BLOCKING OSC INHIBIT			2.2.2
6250	A1	23	DE	2-6	85	PCF	MI PASS LT GUN SIGNALS			2.2.1
6250	A1	23	DH	2-6	85	PCF	MI REG 6 CEP 1 SELECTORS			2.2.1
6250	A1	23	EJ	2-6	85	PCF	MI CEP 2 & 3 SELECTED			2.2.1
6250	A2	24	CK	124-7	85	I	SDG DAB DRIVERS			4.1.14
6250	A2	24	CL	124-7	85	I	SDG DAB DRIVERS			4.1.14
6250	A2	24	DK	124-7	85	I	SDG DAB DRIVERS			4.1.14
6250	A2	24	DM	124-7	85	I	SDG DAB DRIVERS			4.1.14
6250	A2	24	EK	124-7	85	I	SDG DAB DRIVERS			4.1.14
6250	A2	24	EM	124-7	85	I	SDG DAB DRIVERS			4.1.14
6250	A2	24	FK	124-7	85	I	SDG DAB DRIVERS			4.1.14
6250	A2	24	FP	124-7	85	I	SDG DAB DRIVERS			4.1.14
6250	A2	24	GP	124-7	85	I	SDG DAB DRIVERS			4.1.14
6250	A2	24	HK	124-7	85	I	SDG DAB DRIVERS			4.1.14
6250	A2	24	HM	124-7	85	I	SDG DAB DRIVERS			4.1.14
6250	A2	24	JK	124-7	85	I	SDG DAB DRIVERS			4.1.14
6250	A2	24	JM	124-7	85	I	SDG DAB DRIVERS			4.1.14
6250	A2	24	KN	124-7	85	I	SDG DAB DRIVERS			4.1.14
6250	A2	24	LM	124-7	85	I	SDG DAB DRIVERS			4.1.14
6250	A2	24	FM	124-7	85	I	SDG DAB DRIVER			041.1.4
6250	A4	25	CF	12356785		PCF	DDG SLOT LINE DRIVERS			4.3.3
6250	A4	25	CG	12356785		PCF	DDG SLOT LINE DRIVERS			4.3.3
6250	A4	25	DC	12356785		PCF	DDG SLOT LINE DRIVERS			4.3.3
6250	A4	25	DD	12356785		PCF	DDG SLOT LINE DRIVERS			4.3.3
6250	A4	25	DE	12356785		PCF	DDG SLOT LINE DRIVERS			4.3.3
6250	A4	25	DF	12356785		PCF	DDG SLOT LINE DRIVERS			4.3.3
6250	A5	25	AE	123	85	PCF	DDG CAMERA CONTROL			4.6.1
6250	A5	25	AF	1-4	85	PCF	DDG CHARACTER TIMING & INTENSITY			4.3.2
6250	A5	25	BL	1-4	85	PCF	DDG ERASE GATE			4.3.2
6250	A5	25	BM	234	85	PCF	DDG CONTRAST GATES			4.3.2
6250	B1	24	AC	12356785		PCF	SDG XY REG & LINE DRIVERS			4.1.16
6250	B1	24	AD	12356785		PCF	SDG XY REG & LINE DRIVERS			4.1.16
6250	B1	24	AE	12356785		PCF	SDG XY REG & LINE DRIVERS			4.1.16
6250	B1	24	BE	12356785		PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	CC	1-7	85	PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	DC	1-7	85	PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	DD	1-7	85	PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	EC	1-7	85	PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	ED	1-7	85	PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	EE	12356785		PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	FC	1-7	85	PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	FD	1-7	85	PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	FE	1-7	85	PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	JC	12356785		PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	JD	12356785		PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	JE	12356785		PCF	SDG XY REG AND LINE DRIVERS			041.1.6
6250	B1	24	KC	1-7	85	PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	KD	12356785		PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	KE	1-7	85	PCF	SDG XY REG. AND LINE DRIVERS			4.1.16
6250	B1	24	LC	1-7	85	PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	LD	1-7	85	PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	LE	1-7	85	PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	MC	1-7	85	PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	MD	1-7	85	PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	ME	1-7	85	PCF	SDG XY REG AND LINE DRIVERS			4.1.16
6250	B1	24	AJ	124-7	85D5G5	PCF	SDG SUPPLEMENTARY DRIVERS			4.1.15
6250	B1	24	BG	124-7	85D5G5	PCF	SDG SUPPLEMENTARY DRIVERS			4.1.15
6250	B1	24	BH	124-7	85D5G5	PCF	SDG SUPPLEMENTARY DRIVERS			4.1.15
6250	B1	24	BK	124-7	85D5G5	PCF	SDG SUPPLEMENTARY DRIVERS			4.1.15
6250	B1	24	CH	124-7	85D5G5	PCF	SDG SUPPLEMENTARY DRIVERS			4.1.15
6250	B1	24	DG	124-7	85D5G5	PCF	SDG SUPPLEMENTARY DRIVERS			4.1.15
6250	B1	24	DH	124-7	85D5G5	PCF	SDG SUPPLEMENTARY DRIVERS			4.1.15
6250	B1	24	EG	124-7	85D5G5	PCF	SDG SUPPLEMENTARY DRIVERS			4.1.15
6250	B1	24	EH	124-7	85D5G5	PCF	SDG SUPPLEMENTARY DRIVERS			4.1.15
6250	B1	24	FG	124-7	85D5G5	PCF	SDG SUPPLEMENTARY DRIVERS			4.1.15
6250	B1	24	FH	124-7	85D5G5	PCF	SDG SUPPLEMENTARY DRIVERS			4.1.15
6250	B1	24	GG	124-7	85D5G5	PCF	SDG SUPPLEMENTARY DRIVERS			4.1.15
6250	B1	24	GH	124-7	85D5G5	PCF	SDG SUPPLEMENTARY DRIVERS			4.1.15
6250	B1	24	HH	124-7	85D5G5	PCF	SDG SUPPLEMENTARY DRIVERS			4.1.15
6250	B1	24	MI	124-7	85D5G5	PCF	SDG SUPPLEMENTARY DRIVERS			4.1.15
6250	B1	24	JG	124-7	85D5G5	PCF	SDG CATEGORY DRIVERS			4.1.13

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-6	05/01/60	LOGIC
6250	B1	24	JH	124-7	B5D5G5	PCF SDG CATEGORY DRIVERS			4.1.13
6250	B1	24	KG	124-7	B5D5G5	PCF SDG CATEGORY DRIVERS			4.1.13
6250	B1	24	KH	124-7	B5D5G5	PCF SDG CATEGORY DRIVERS			4.1.13
6250	B1	24	KK	124-7	B5D5G5	PCF SDG CATEGORY DRIVERS			4.1.13
6250	B1	24	LG	124-7	B5D5G5	PCF SDG CATEGORY DRIVERS			4.1.13
6250	B1	24	LH	124-7	B5D5G5	PCF SDG CATEGORY DRIVERS			4.1.13
6250	B1	24	LJ	124-7	B5D5G5	PCF SDG CATEGORY DRIVERS			4.1.13
6250	B1	24	LK	124-7	B5D5G5	PCF SDG CATEGORY DRIVERS			4.1.13
6250	B1	24	MG	124-7	B5D5G5	PCF SDG CATEGORY DRIVERS			4.1.13
6250	B1	24	MN	67	G5	PCF SDG CATEGORY DRIVERS			4.1.13
6250	B1	24	MJ	124-7	B5D5G5	PCF SDG MIXED RADAR DATA DRIVERS			4.1.18
6250	B1	24	MK	124-7	B5D5G5	PCF SDG MIXED RADAR DATA DRIVERS			4.1.18
6250	B1	24	ML	124-7	B5D5G5	PCF SDG MIXED RADAR DATA DRIVERS			4.1.18
6250	B1	24	MM	124-7	B5D5G5	PCF SDG MIXED RADAR DATA DRIVERS			4.1.18
6250	B1	24	MN	1245	B5D5	PCF SDG RADAR DATA CATEGORY DRIVERS			4.1.18
6250	B1	24	MP	124-7	B5D5G5	PCF SDG RADAR DATA CATEGORY DRIVERS			4.1.18
6250	B1	24	MR	124-7	B5D5G5	PCF SDG RADAR DATA CATEGORY DRIVERS			4.1.18
6250	B1	24	MW	12356	B5	PCF SDG REFOCUS CONTROL			4.1.20
6250	B1	24	EX	2-6	B5	PCF SDG A FEATURE			4.1.19
6250	B1	24	FV	2-6	B5	PCF SDG B FEATURE			4.1.19
6250	B1	24	FX	2-6	B5	PCF SDG C FEATURE			4.1.19
6250	B1	24	EV	2-6	B5	PCF SDG D FEATURE			4.1.19
6250	B1	24	JW	2-6	B5	PCF SDG E FEATURE			4.1.19
6250	B1	24	JV	1-6	B5	PCF SDG BYPASS FEATURE			4.1.20
6250	B1	24	JX	12	B5	PCF SDG POINT FEATURE			4.1.19
6250	B1	24	BC	1245	B5D5	PCF SDG MIXING DRIVERS			4.1.17
6250	B2	24	BM	123	B5	PCF SDG GATE GENERATOR			4.1.19
6250	B2	24	BN	123	B5	PCF SDG GATE GENERATOR			4.1.19
6250	B2	24	FF	123	B5	PCF SDG GATE GENERATOR			4.1.19
6250	B2	24	FJ	123	B5	PCF SDG GATE GENERATOR			4.1.19
6250	B2	24	GL	123	B5	PCF SDG GATE GENERATOR			4.1.19
6250	B2	24	GN	123	B5	PCF SDG GATE GENERATOR			4.1.19
6250	B2	24	GP	123	B5	PCF SDG GATE GENERATOR			4.1.19
6250	B2	24	GR	123	B5	PCF SDG GATE GENERATOR			4.1.19
6250	B2	24	GS	123	B5	PCF SDG GATE GENERATOR			4.1.19
6250	B2	24	GT	123	B5	PCF SDG GATE GENERATOR			4.1.19
6250	B2	24	HF	123	B5	PCF SDG GATE GENERATOR			4.1.19
6250	B2	24	MX	1234	B5	PCF SDG INTENSITY GATE			4.1.20
6250	B3	24	HU	12356785		PCF SDG SYMBOL SEQUENCER			4.1.19
6250	B3	24	HV	12356785		PCF SDG SYMBOL SEQUENCER			4.1.19
6250	B3	24	HW	12356785		PCF SDG SYMBOL SEQUENCER			4.1.19
6250	B3	24	HT	89	G7	PCF SDG WOW CONTROL			4.1.21
6250	C1	25	AR	13467985		CGT DDG CHARACTER POSITION DECODER			4.3.5
6250	C1	25	DR	13467985		CGT DDG CHARACTER POSITION DECODER			4.3.5
6250	C1	25	CS	13467985		CGT DDG CHARACTER SEL DECODER			4.3.4
6250	C4	24	AU	1458	D6	CGT SDG CHARACTER SEL DECODERS			4.1.12A
6250	C4	24	CV	13467985		CGT SDG CHARACTER SEL DECODERS			4.1.10B
6250	C4	24	AV	1459	D6	CGT SDG CHARACTER POS DECODERS			4.1.12A
6250	C4	24	BT	1-8	B5	CGT SDG CHARACTER POS DECODERS			4.1.11
6250	C4	24	BV	1-8	B5	CGT SDG CHARACTER POS DECODERS			4.1.11
6250	D1	24	AU	379	B5	SG SDG VECTOR GENERATOR			4.11.2.A
6250	E1	24	KU	5-9	B5	LA SDG RADAR DATA CONTROL			4.1.21
6250	E1	24	MT	12	B5	LA SDG MISCELLANEOUS CONTROL			4.1.21
6250	F1	23	BG	1-8	B5	TCD MI CORE MATRIX DR WDS 001-008			2.2.2
6250	F1	23	BH	1-8	B5	TCD MI CORE MATRIX DR WDS 009-016			2.2.2
6250	F1	23	BJ	1-8	B5	TCD MI CORE MATRIX DR WDS 017-024			2.2.2
6250	F1	23	BK	1-8	B5	TCD MI CORE MATRIX DR WDS 025-032			2.2.2
6250	F1	23	BL	1-8	B5	TCD MI CORE MATRIX DR WDS 033-040			2.2.2
6250	F1	23	BM	1-8	B5	TCD MI CORE MATRIX DR WDS 041-048			2.2.2
6250	F1	23	BN	1-8	B5	TCD MI CORE MATRIX DR WDS 049-056			2.2.2
6250	F1	23	BP	1-8	B5	TCD MI CORE MATRIX DR WDS 057-064			2.2.2
6250	F1	23	BR	1-8	B5	TCD MI CORE MATRIX DR WDS 065-072			2.2.2
6250	F1	23	BS	1-8	B5	TCD MI CORE MATRIX DR WDS 073-080			2.2.2
6250	F1	23	BT	1-8	B5	TCD MI CORE MATRIX DR WDS 073-080			2.2.2
6250	F1	23	BU	1-8	B5	TCD MI CORE MATRIX DR WORDS 089-096			2.2.2
6250	F1	23	BV	1-8	B5	TCD MI CORE MATRIX DR WDS 097-104			2.2.2

MC-6

V C-L FR PU TUBES PINS				TYPE DESCRIPTION	MC-6	05/01/60	LOGIC
6250	F1	23	BW 1-8	B5	TCD MI CORE MATRIX DR WDS	105-112	2+2.2
6250	F1	23	BX 1-8	B5	TCD MI CORE MATRIX DR WDS	113-120	2+2.2
6250	F1	23	BY 1-8	B5	TCD MI CORE MATRIX DR WDS	121-128	2+2.2
6150	A1	25	AE 6	D5	CF SDG CAMERA CONTROL		4+6.1
6150	A1	25	AK 347	D5	CF DDG MASTER CONTROL		4+3.2
6150	A1	25	BJ 347	D5	CF DDG MSTR CTRL & CTRL BIT SENSING		4+3.2
6150	A2	25	AM 347	D5	CF DDG X POSTION COUNTER		4+3.5
6150	A2	25	CH 1-9	D5	CF DDG SLOT COUNTER		4+3.3
6150	A2	25	DH 4-9	D5	CF DDG SLOT COUNTER		004+3.3
6150	A2	25	DJ 1-9	D5	CF DDG SLOT COUNTER		4+3.3
6150	A4	23	DE 7	D5	CF MI PASS LT GUN SIGNAL		2+2.1
6150	A4	23	DJ 6	D5	CF MI TARGET AVAIL		2+2.1
6150	A4	23	DK 6	D5	CF MI REG AVAIL		2+2.1
6150	A4	23	DL 37	85G5	CF MI REG		2+2.1
6150	A4	23	DM 37	85G5	CF MI REG		2+2.1
6150	A4	23	DN 37	85G5	CF MI REG		2+2.1
6150	A4	23	DP 37	85G5	CF MI REG		2+2.1
6150	A4	23	DR 37	85G5	CF MI REG		2+2.1
6150	A4	23	DS 37	85G5	CF MI REG		2+2.1
6150	A4	23	DT 37	85G5	CF MI REG		2+2.1
6150	A4	23	DU 37	85G5	CF MI REG		2+2.1
6150	A4	23	EL 37	85G5	CF MI REG		2+2.1
6150	A4	23	EM 37	85G5	CF MI REG		2+2.1
6150	A4	23	EN 37	85G5	CF MI REG		2+2.1
6150	A4	23	EP 37	85G5	CF MI REG		2+2.1
6150	A4	23	ER 37	85G5	CF MI REG		2+2.1
6150	A4	23	ES 37	85G5	CF MI REG		2+2.1
6150	A4	23	ET 37	85G5	CF MI REG		2+2.1
6150	A4	23	EU 37	85G5	CF MI REG		2+2.1
6150	A4	23	EK 4	D5	CF MI INFO TRANS & DATA AVAIL		2+2.1
6150	A5	23	DC 4	D5	CF MI AREA DISCRIM 1 & SYNC		2+2.1
6150	A5	23	DD 4	D5	CF MI AREA DISCRIM 2 & SYNC		2+2.1
6150	A5	23	ED 46789	D5	CF MI ENCODER OUTPUT		2+2.1
6150	A6	23	BC 5	D5	CF MI CORE READ IN & SHIFT FREQ DIV		2+2.2
6150	A6	23	BD 4	D5	CF MI BREAK REQUEST		2+2.2
6150	A6	23	RO BE 3	D5	CF MI REG SHIFT		2+2.2
6150	A6	23	BF 36	D5	CF MI CORE READ & RESET		2+2.2
6150	A6	23	CW 6	D5	CF MI READOUT ALARM		2+2.2
6150	B1	24	AM 149	D5	CF SDG VECTOR REGISTER		4+1.12
6150	B1	24	AN 149	D5	CF SDG VECTOR REGISTER		4+1.12
6150	B1	24	AP 149	D5	CF SDG VECTOR REGISTER		4+1.12
6150	B1	24	AR 149	D5	CF SDG VECTOR REGISTER		4+1.12
6150	B1	24	AS 149	D5	CF SDG VECTOR REGISTER		4+1.12
6150	B1	24	AF 149	D5	CF SDG XY REG AND LINE DRIVERS		4+1.6
6150	B1	24	BF 149	D5	CF SDG XY REG AND LINE DRIVERS		4+1.6
6150	B1	24	CF 14	D5	CF SDG XY REG AND LINE DRIVERS		4+1.6
6150	B1	24	DF 149	D5	CF SDG XY REG AND LINE DRIVERS		4+1.6
6150	B1	24	EF 149	D5	CF SDG XY REG AND LINE DRIVERS		4+1.6
6150	B1	24	JF 149	D5	CF SDG XY REG AND LINE DRIVERS		4+1.6
6150	B1	24	KF 149	D5	CF SDG XY REG AND LINE DRIVERS		4+1.6
6150	B1	24	LF 149	D5	CF SDG XY REG AND LINE DRIVERS		4+1.6
6150	B1	24	MF 149	D5	CF SDG XY REG AND LINE DRIVERS		4+1.6
6150	B1	24	AS 149	D5	CF SDG VECTOR OFF		4+1.20
6150	B1	24	CN 2	D5	CF SDG CHARACTER REGISTER		4+1.10
6150	B1	24	CP 2	D5	CF SDG CHARACTER REGISTER		4+1.10
6150	B1	24	CR 2	D5	CF SDG CHARACTER REGISTER		4+1.10
6150	B1	24	CS 2	D5	CF SDG CHARACTER REGISTER		4+1.10A
6150	B1	24	CT 2	D5	CF SDG CHARACTER REGISTER		4+1.10A
6150	B1	24	CU 2	D5	CF SDG CHARACTER REGISTER		4+1.10A
6150	B1	24	GF 5	G5	CF SDG WORD FIVE STORAGE		4+1.3
6150	B1	24	GH 2-57-9G5	G5	CF SDG WORD FIVE STORAGE		004+1.3
6150	B1	24	HG 5	G5	CF SDG WORD FIVE STORAGE		4+1.3
6150	B1	24	GM 1256	G5	CF SDG WORD SEVEN STORAGE		004+1.3
6150	B1	24	KU 3	D5	CF SDG DISPLAY MESSAGE		4+1.21
6150	B1	24	KU 12	D5	CF SDG WORD SEVEN STORAGE		4+1.5
6150	B1	24	JJ 1234	85	CF SDG CATEGORY STORAGE MATRIX		4+1.7
6150	B1	24	KJ 1234	85	CF SDG CATEGORY STORAGE MATRIX		4+1.7
6150	B1	24	KU 1	D5	CF SDG USE LIGHT GUN		4+1.4

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-6	05/01/60	LOGIC
6150	B1	24	KU	2	D5	CF	SDG MISCELLANEOUS CONTROL			4.1.2
6150	B1	24	MS	3579	B5	CF	SDG RADAR DATA CONTROL			4.1.21
6150	B1	24	EX	7	D5	CF	SDG A FEATURE			4.1.19
6150	B1	24	FV	7	D5	CF	SDG B FEATURE			4.1.19
6150	B1	24	EV	7	D5	CF	SDG D FEATURE			4.1.19
6150	B1	24	JJ	7	D5	CF	SDG E FEATURE			4.1.19
6150	B1	24	CD	46	B5	CF	SDG TEST MIXING DRIVERS			4.1.17
6150	B1	24	CG	46	B5	CF	SDG TEST MIXING DRIVERS			4.1.17
6150	B1	24	BD	46	B5	CF	SDG TEST MIXING DRIVERS			4.1.17
6150	B2	24	BR	9	D5	CF	SDG CHARACTER COUNTING AND POS			4.1.11
6150	B2	24	BS	9	D5	CF	SDG CHARACTER COUNTING AND POS			4.1.11
6150	B2	24	BT	9	D5	CF	SDG CHARACTER COUNTING AND POS			4.1.11
6150	B2	24	BU	9	G5	CF	SDG CHARACTER COUNTING AND POS			4.1.11
6150	B2	24	BV	9	D5	CF	SDG CHARACTER COUNTING AND POS			4.1.11
6150	B2	24	LX	1-9	D5	CF	SDG TIMER			4.1.20
6150	B2	24	MT	12	D5	CF	SDG MISCELLANEOUS CONTROL			4.1.21
6150	B4	24	MU	2-589	B5D5	CF	SDG ON-OFF CTRL OD DIST & TIMER			4.1.20
6150	B4	24	EU	3489	D5	CF	SDG VECTOR CONTROL			4.1.19
6150	B4	24	FW	1289	D5	CF	SDG VECTOR CONTROL			4.1.19
6150	B4	24	GW	1289	D5	CF	SDG VECTOR CONTROL			4.1.29
6150	B4	24	JU	456	B5	CF	SDG VECTOR CONTROL & END TD MESS			4.1.19
6150	B4	24	EU	89	D5	CF	SDG A1/G1,VECTOR END TAB MSG			4.1.19
6150	B4	24	EW	1289	D5	CF	SDG A FEATURE			4.1.19
6150	B4	24	FU	1289	D5	CF	SDG A B D FEATURE & TRANSFER			4.1.19
6150	B4	24	EU	34	D5	CF	SDG B FEATURE			4.1.19
6150	B4	24	GW	1289	D5	CF	SDG B FEATURE			4.1.19
6150	B4	24	FW	1289	D5	CF	SDG C FEATURE			4.1.19
6150	B4	24	JU	67	B5	CF	SDG E & POINT FEATURE			4.1.19
6150	B4	24	JU	8	B5	CF	SDG A+C,D+E, FEATURE			4.1.20
6150	B5	24	JX	6	D5	CF	SDG TIMER			4.1.20
6150	B5	24	KV	36-9	D5	CF	SDG TIMER			4.1.20
6150	B5	24	KW	2-589	B5	CF	SDG TIMER			4.1.20
6150	B5	24	KV	36	D5	CF	SDG BYPASS FEATURE			4.1.20
6150	C1	25	ES	5-8	D5	CF	DDG WORD SEQUENCER			4.5.1
6150	C1	25	EW	34	D5	CF	DDG TEST CONTROL			4.5.1
6150	C2	25	ES	234	B5	CF	DDG WORD SEQUENCER			4.5.1
6150	C2	25	EW	258	B5	CF	DDG TEST CONTROL			4.5.1
6150	C4	24	MT	12	D5	LA	SDG MISCELLANEOUS CONTROL			4.1.21
6150	C4	24	KU	5-9	G5	LA	SDG MISCELLANEOUS CONTROL			4.1.21
6150	D1	24	AT	26	D5	CGT	SDG VECTOR GENERATOR			4.1.12A
6150	D1	24	AU	26	D5	CGT	SDG VECTOR GENERATOR			4.1.12A
6150	D1	24	AV	26	D5	CGT	SDG VECTOR GENERATOR			4.1.12A
6150	D4	23	DG	7	D5	VRD	MI READOUT ALARM & ERROR			002.2.1
6150	D4	23	EF	7	D5	VRD	MI CEP 1 INTLK			2.2.1
6150	D4	23	EG	7	D5	VRD	MI CEP 2 INTLK			2.2.1
6150	D4	23	EH	7	D5	VRD	MI CEP 3 INTLK			2.2.1
6150	D5	25	AE	6	G5	VRD	DDG CAMERA CONTROL			4.6.1
6150	D5	25	BC	4	B5	VRD	DDG CAMERA CONTROL			4.6.1
6150	E1	23	BF	1267	B5G5	BSS	MI CORE READ & RESET			2.2.2
6150	E4	25	BC	567	D5	BSS	DDG CAMERA CONTROL			4.6.1
6150	E5	23	CC	2356	D5	SAB	MI BLOCKING OSC			2.2.2
6150	E5	23	CD	2356	D5	SAB	MI BLOCKING OSC			2.2.2
6150	E5	23	CE	2356	D5	SAB	MI BLOCKING OSC	YY		2.2.2
6150	E5	23	CF	2356	D5	SAB	MI BLOCKING OSC			2.2.2
6150	E5	23	CG	2356	D5	SAB	MI BLOCKING OSC			2.2.2
6150	E5	23	CH	2356	D5	SAB	MI BLOCKING OSC			2.2.2

MC-6

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-6	05/01/60	LOGIC
6150	E5	23	CJ	2356	D5	SAB MI BLOCKING OSC			2.2.2
6150	E5	23	CK	2356	D5	SAB MI BLOCKING OSC			2.2.2
6150	E5	23	CL	2356	D5	SAB MI BLOCKING OSC			2.2.2
6150	E5	23	CM	2356	D5	SAB MI BLOCKING OSC			2.2.2
6150	E5	23	CN	2356	D5	SAB MI BLOCKING OSC			2.2.2
6150	E5	23	CP	2356	D5	SAB MI BLOCKING OSC			2.2.2
6150	E5	23	CR	2356	D5	SAB MI BLOCKING OSC			2.2.2
6150	E5	23	CS	2356	D5	SAB MI BLOCKING OSC			2.2.2
6150	E5	23	CT	2356	D5	SAB MI BLOCKING OSC			2.2.2
6150	E5	23	CU	2356	D5	SAB MI BLOCKING OSC			2.2.2
6150	E5	23	CW	12	D5	SAB MI BLOCKING OSC			2.2.2
6150	E6	25	AS	156	B5	ALD DDG CHAR SEL LINE DRIVER			004.3.4
6150	E6	25	DS	156	B5	ALD DDG CHAR SEL LINE DRIVER			004.3.4
6150	F1	23	BG	9	G5	CSD MI SHIFT REG WDS 001-008			2.2.2
6150	F1	23	BH	9	G5	CSD MI SHIFT REG WDS 009-016			2.2.2
6150	F1	23	BJ	9	G5	CSD MI SHIFT REG WDS 017-024			2.2.2
6150	F1	23	BK	9	G5	CSD MI SHIFT REG WDS 025-032			2.2.2
6150	F1	23	BL	9	G5	CSD MI SHIFT REG WDS 033-040			2.2.2
6150	F1	23	BM	9	G5	CSD MI SHIFT REG WDS 041-048			2.2.2
6150	F1	23	BN	9	G5	CSD MI SHIFT REG WDS 049-056			2.2.2
6150	F1	23	BP	9	G5	CSD MI SHIFT REG WDS 057-064			2.2.2
6150	F1	23	BR	9	G5	CSD MI SHIFT REG WDS 065-072			2.2.2
6150	F1	23	BS	9	G5	CSD MI SHIFT REG WDS 073-080			2.2.2
6150	F1	23	BT	9	G5	CSD MI SHIFT REG WDS 081-088			2.2.2
6150	F1	23	BU	9	G5	CSD MI SHIFT REG WDS 088-096			2.2.2
6150	F1	23	BV	9	G5	CSD MI SHIFT REG WDS 097-104			2.2.2
6150	F1	23	BW	9	G5	CSD MI SHIFT REG WDS 105-112			2.2.2
6150	F1	23	BX	9	G5	CSD MI SHIFT REG WDS 113-120			2.2.2
6150	F1	23	BY	9	G5	CSD MI SHIFT REG WDS 121-128			2.2.2
6150	F2	24	AW	156	B5	ALD SDG VECTOR & CHAR POS LINE DRIVE			4.1.11
6150	F2	24	BW	156	B5	ALD SDG VECTOR & CHAR POS LINE DRIVE			4.1.11
6150	F2	24	CW	156	B5	ALD SDG CHARACTER SEL LINE DRIVERS			4.1.10
6150	F2	24	DW	156	B5	ALD SDG CHARACTER SEL LINE DRIVERS			4.1.10
6150	F4	25	BT	156	B5	ALD DDG CHARACTER POS LINE DRIVER			4.3.5
6150	F4	25	CT	156	B5	ALD DDG CHARACTER POS LINE DRIVER			4.3.5
690	A1	23	DJ	4	G5	GT MI TARGET AVAIL & LT GUN INTLK			2.2.1
690	A1	23	DK	4	G5	GT MI REG SET & REG AVAIL			2.2.1
690	A1	23	DL	89	G67	GT MI REG			2.2.1
690	A1	23	DM	89	G67	GT MI REG			2.2.1
690	A1	23	DN	89	G67	GT MI REG			2.2.1
690	A1	23	DP	89	G67	GT MI REG			2.2.1
690	A1	23	DR	89	G67	GT MI REG			2.2.1
690	A1	23	DS	89	G67	GT MI REG			2.2.1
690	A1	23	DT	89	G67	GT MI REG			2.2.1
690	A1	23	DU	89	G67	GT MI REG			2.2.1
690	A1	23	EK	5	G5	GT MI REG RSET DATA AVAIL INFO XFEZ02			2.2.1
690	A1	23	EL	89	G67	GT MI REG			2.2.1
690	A1	23	EM	89	G67	GT MI REG			2.2.1
690	A1	23	EN	89	G67	GT MI REG			2.2.1
690	A1	23	EP	89	G67	GT MI REG			2.2.1
690	A1	23	ER	89	G67	GT MI REG			2.2.1
690	A1	23	ES	89	G67	GT MI REG			2.2.1
690	A1	23	ET	89	G67	GT MI REG			2.2.1
690	A1	23	EU	89	G67	GT MI REG			2.2.1
690	A2	23	DC	7	G6	GT DISPLAY TIMING			2.2.1
690	A2	23	DD	7	G6	GT DISPLAY TIMING			2.2.1
690	A2	23	DC	256	B6D6G6	GT MI AREA DISCRIM 1 & SYNC			2.2.1
690	A2	23	DD	256	B6D6G6	GT MI AREA DISCRIM 2 & SYNC			2.2.1
690	A2	23	DF	1-9	B56D56G567GT	MI LT GUN & AREA DISCRIM IDENT			2.2.1
690	A2	23	DG	246	B6D6G6	GT MI REG SELECTOR & SYNC			2.2.1
690	A2	23	EF	2	B6	GT MI CEP 1 SELECTOR & SYNC			2.2.1
690	A2	23	EG	246	B6D6G6	GT MI CEP 2 SELECTOR			2.2.1
690	A2	23	EH	2	B6	GT MI CEP 3 SELECTOR			2.2.1
690	A3	23	BC	67	D6G6	GT MI CORE READ IN & SHIFT FREQ DIV			2.2.2
690	A3	23	BD	3	D6	GT MI BREAK REQUEST			2.2.2
690	A3	23	CW	4	D6	AGT READOUT ERROR			002.2.2

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-6	05/01/60	LOGIC
690	A4	24	BS	248	B6	GT	SDG CHARACTER COUNTING & POS			4.1.11
690	A4	24	EY	1-9	B56D56G567GT	GT	SDG INPUT GATES			4.1.1
690	A4	24	GY	2346-9	B6D96G67	GT	SDG INPUT GATES			4.1.1
690	A4	24	HY	2346-9	B6D96G67	GT	SDG INPUT GATES			4.1.1
690	A4	24	KY	1-9	B56D56G567GT	GT	SDG INPUT GATES			4.1.1
690	A4	24	GY	1	B5	GT	SDG SYMBOL SEQUENCER			4.1.19
690	A4	24	HY	1	B5	GT	SDG SYMBOL SEQUENCER			4.1.19
690	A4	24	LT	1234	B56D56	GT	SDG RADAR DATA CONTROL			4.1.21
690	A4	24	LT	5-9	G567	GT	SDG MISCELLANEOUS CONTROL			4.1.21
690	A5	24	LV	1-4	B56D56	GT	SDG ON-OFF CONTROL AND OD DIST			4.1.20
690	A5	24	LW	234	B6D56	GT	SDG TIMER			4.1.20
690	A5	24	MS	1	B6	APA	SDG RADAR DATA CONTROL			4.1.21
690	B1	25	EX	3	D6	GT	DDG TEST CONTROL			4.5.1
690	B1	25	EV	1-7	B56D56G5	GT	DDG TEST CONTROL			4.5.1
690	B2	25	DY	2357	B56D56G6	OSC	DDG 400KC TEST OSC			4.5.1
690	B2	25	ER	1-8	B56D56G567GT	GT	DDG WORD SEQUENCER			4.5.1
690	B4	25	AH	5-9	G567	GT	DDG CHARACTER TIMING & INTENSITY			4.3.2
690	B4	25	CL	1	B5	GT	DD ERASE GATE			4.3.2
690	B4	25	CL	2-5	B6D96G5	GT	DDG CONTRAST GATES			4.3.2
690	B5	25	AC	3	D5	GT	SD CAMERA CONTROL			4.6.1
690	B5	25	AE	7	B6	GT	SDG CAMERA CONTROL			4.6.1
690	B5	25	AK	68	G56	GT	DDG MASTER CONTROL			4.3.2
690	B5	25	AK	59	D6G7	GT	DDG CHARACTER TIMING & INTENSITY			4.3.2
690	B5	25	BJ	89	G67	GT	DDG MASTER CONTROL			4.3.2
690	B5	25	BG	67	G6	GT	DDG ERASE GATE			4.3.2
690	B6	25	AC	6-9	G67	GT	SDG CAMERA CONTROL			4.6.1
690	B6	25	AM	12689	B56G567	GT	DDG X POSITION COUNTER			4.3.5
690	B6	25	BJ	123	B56G5	GT	DDG CONTROL BIT SENSING			4.3.2
690	B6	25	BG	124	B56D6	GT	DDG MASTER CONTROL			4.3.2
690	B6	25	DG	1237-9	B56D56G67	GT	DDG SLOT COUNTER			4.3.3
690	B6	25	DN	12	B56	GT	DDG Y POSITION COUNTER			4.3.5
690	C1	23	BC	9	G7	PA	MI OD-1 POWERED			2.2.2
690	C1	23	BD	6	G6	PA	MI BREAK REQUEST			2.2.2
690	C1	23	BF	4	D6	PA	MI MATRIX DISCONNECT			2.2.2
690	C1	23	DJ	2	D6	PA	MI LT GUN INTLK			2.2.1
690	C4	30	EW	2-9	B6D96G567	BPA	WL REG DRIVER			6.2.1-8
690	D1	24	GD	23467886		PA	SDG TRANSFER CIRCUITS			4.1.1-2
690	D1	24	GE	23467886		PA	SDG TRANSFER CIRCUITS			4.1.1-2
690	D1	24	HD	23467886		PA	SDG TRANSFER CIRCUITS			4.1.1-2
690	D1	24	HE	23467886		PA	SDG TRANSFER CIRCUITS			4.1.1-2
690	D4	25	EC	2468	B6D6G67	CPA	DDG WORD OUTPUTS			4.5.1
690	D4	25	ED	2468	B6D6G67	CPA	DDG WORD OUTPUTS			4.5.1
690	D4	25	EE	2468	B6D6G67	CPA	DDG WORD OUTPUTS			4.5.1
690	D4	25	EF	2468	B6D6G67	CPA	DDG WORD OUTPUTS			4.5.1
690	D4	25	EL	2468	B6D6G67	CPA	DDG WORD OUTPUTS			4.5.1
690	D4	25	EM	2468	B6D6G67	CPA	DDG WORD OUTPUTS			4.5.1
690	D4	25	EN	2468	B6D6G67	CPA	DDG WORD OUTPUTS			4.5.1
690	D4	25	EP	2468	B6D6G67	CPA	DDG WORD OUTPUTS			4.5.1
690	D4	25	EU	189	G7	PA	DDG TEST CONTROL			4.5.1
690	D5	25	EU	2-7	B6D56G56	PA	DDG TEST CONTROL			4.5.1
690	E1	24	LU	34	D56	BPA	SDG MISCELLANEOUS CONTROL			4.1.21
690	E1	24	GU	23	B6D5	BPA	SDG MISCELLANEOUS CONTROL			4.1.21
690	E1	24	JU	1	B6	BPA	SDG SET POINT			4.1.19
690	E1	24	LU	12	B56	PA	SDG INPUT GATES			4.1.1
690	E1	24	LU	5	G5	BPA	SDG TRANSFER			4.1.20
690	E1	24	GU	14-9	B5D6G567	BPA	SDG ON-OFF CNTRL & OD DIST			041.2.0

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-6	05/01/60	LOGIC
690	E1	24	LU	79	G67	BPA SDG ON-OFF CONTROL AND OD DIST			4.1.20
690	E1	24	LU	8	G7	BPA SDG ON-OFF CONTROL AND OD DIST			4.1.21
690	E2	24	EW	3467	86	CPA SDG A FEATURE			4.1.19
690	E2	24	EU	1267	86	CPA SDG TRANSFER			4.1.19
690	E2	24	FU	3467	86	CPA SDG TRANSFER			4.1.19
690	E2	24	FW	3467	86	CPA SDG TRANSFER			4.1.19
690	E2	24	GW	3467	86	CPA SDG TRANSFER			4.1.19
690	E4	25	AN	1357	85D5G56	PA DDG X POSITION SHIFT CONTROL			4.3.5
690	E4	25	AN	24	86D6	PA SDG CAMERA CONTROL			4.6.1
690	E4	25	BC	3	D6	PA SDG CAMERA CONTROL			4.6.1
690	E4	25	BK	123	856D5	PA DDG MASTER CONTROL			4.3.2
690	F1	23	DV	2-5	86D56G5	BPA MI MANUAL RESET			2.2.1
690	F1	23	EK	367	D6G6	BPA MI REG RSET DATA AVAIL INFO XFEZ02			2.2.1
-150	A1	23	DC	4	D7	CF6 MI AREA DISCRIM 1 & SYNC			2.2.1
-150	A1	23	DD	4	D7	CF6 MI AREA DISCRIM 2 & SYNC			2.2.1
-150	A1	23	DJ	6	D7	CF6 MI TARGET AVAIL			2.2.1
-150	A1	23	DK	6	D7	CF6 MI REG AVAIL			2.2.1
-150	A2	23	DL	3	D7	CF6 MI REG			2.2.1
-150	A2	23	DM	3	D7	CF6 MI REG			2.2.1
-150	A2	23	DN	3	D7	CF6 MI REG			2.2.1
-150	A2	23	DP	3	D7	CF6 MI REG			2.2.1
-150	A2	23	DR	3	D7	CF6 MI REG			2.2.1
-150	A2	23	DS	3	D7	CF6 MI REG			2.2.1
-150	A2	23	DT	3	D7	CF6 MI REG			2.2.1
-150	A2	23	DU	3	D7	CF6 MI REG			2.2.1
-150	A2	23	EL	3	D7	CF6 MI REG			2.2.1
-150	A2	23	EM	3	D7	CF6 MI REG			2.2.1
-150	A2	23	EN	3	D7	CF6 MI REG			2.2.1
-150	A2	23	EP	3	D7	CF6 MI REG			2.2.1
-150	A2	23	ER	3	D7	CF6 MI REG			2.2.1
-150	A2	23	ES	3	D7	CF6 MI REG			2.2.1
-150	A2	23	ET	3	D7	CF6 MI REG			2.2.1
-150	A2	23	EU	3	D7	CF6 MI REG			2.2.1
-150	A3	23	DE	2-6	87	CF6 MI PASS LT GUN SIGNALS			2.2.1
-150	A3	23	DH	2-6	87D7	CF6 MI REG & CEP 1 SELECTORS			2.2.1
-150	A3	23	EJ	2-6	87D7	CF6 MI CEP 2 & 3 SELECTED			2.2.1
-150	A4	24	JJ	1-4	87	CF6 SDG CATEGORY STORAGE MATRIX			4.1.7
-150	A4	24	KJ	1-4	87	CF6 SDG CATEGORY STORAGE MATRIX			4.1.7
-150	A4	24	JU	47	87	CF6 SDG POINT FEATURE & END T D MESS			4.1.19
-150	A4	24	JU	8	87	CF6 SDG A+C+D+E FEATURE			4.1.20
-150	A4	24	KV	36	87	CF6 SDG BYPASS FEATURE			4.1.20
-150	A4	24	KV	36-9	87	CF6 SDG TIMER			4.1.20
-150	A4	24	KW	378	87	CF6 SDG TIMER			4.1.20
-150	A4	24	JU	456	87	CF6 SDG VECTOR CONTROL & E FEATURE			4.1.19
-150	A4	24	MS	379	D7	CF6 SDG MISC CONTROL			4.1.21
-150	A5	24	KU	2	87	CF6 SDG WORD ZERO STORAGE			4.1.2
-150	A5	24	KU	1	87	CF6 SDG USE LIGHT GUN			4.1.4
-150	A5	24	KU	12	87	CF6 SDG WORD SEVEN STORAGE			4.1.5
-150	A5	24	LX	1-9	87	CF6 SDG TIMER			4.1.20
-150	A5	24	MU	258	87	CF6 SDG ON-OFF CONTROL AND OD DIST			4.1.20
-150	A5	24	KU	3	87	CF6 SDG MISC CONTROL			4.1.21
-150	A6	24	HU	12356787		CF6 SDG SYMBOL SEQ			4.1.19
-150	A6	24	HV	12356787		CF6 SDG SYMBOL SEQ			4.1.19
-150	A6	24	HW	12356787		CF6 SDG SYMBOL SEQ			4.1.19
-150	B1	25	CH	1-9	D7	CF6 DDG SLOT COUNTER			4.3.3
-150	B1	25	DH	1-6	D7	CF6 DDG SLOT COUNTER			4.3.3
-150	B1	25	DJ	1-9	D7	CF6 DDG SLOT COUNTER			4.3.3
-150	B4	25	ES	234	87	CF6 DDG WORD SEQUENCER			4.5.1

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-6	05/01/60	LOGIC
-150	B4	25	EW	258	B7	CF6 DDG TEST CONTROL			4.5.1
-150	C1	24	AX	1-7	D7	ALD SDG VECTOR 6 CHAR POS LINE DRIVE			4.1.11
-150	C1	24	AY	1-7	D7	ALD SDG VECTOR 6 CHAR POS LINE DRIVE			4.1.11
-150	C1	24	BX	1-7	D7	ALD SDG VECTOR 6 CHAR POS LINE DRIVE			4.1.11
-150	C1	24	BY	1-7	D7	ALD SDG VECTOR 6 CHAR POS LINE DRIVE			4.1.11
-150	C1	24	CX	1-7	D7	ALD SDG CHARACTER SEL LINE DRIVERS			4.1.10
-150	C1	24	CY	1-7	D7	ALD SDG CHARACTER SEL LINE DRIVERS			4.1.10
-150	C1	24	DX	1-7	D7	ALD SDG CHARACTER SEL LINE DRIVERS			4.1.10
-150	C1	24	DY	1-7	D7	ALD SDG CHARACTER SEL LINE DRIVERS			4.1.10
-150	C2	25	AT	1-7	D7	ALD DDG CHARACTER POS LINE DRIVER			4.3.5
-150	C2	25	AU	1-7	D7	ALD DDG CHARACTER POS LINE DRIVER			4.3.5
-150	C2	25	AV	1-7	D7	ALD DDG CHARACTER POS LINE DRIVER			4.3.5
-150	C2	25	AW	1-7	D7	ALD DDG CHARACTER POS LINE DRIVER			4.3.5
-150	C2	25	BW	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			4.3.4
-150	C2	25	BV	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			4.3.4
-150	C2	25	BW	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			4.3.4
-150	C2	25	BX	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			4.3.4
-150	C2	25	CW	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			4.3.4
-150	C2	25	CV	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			4.3.4
-150	C2	25	CW	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			4.3.4
-150	C2	25	CX	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			4.3.4
-150	C2	25	DT	1-7	D7	ALD DDG CHARACTER POS LINE DRIVER			4.3.5
-150	C2	25	DU	1-7	D7	ALD DDG CHARACTER POS LINE DRIVER			4.3.5
-150	C2	25	DV	1-7	D7	ALD DDG CHARACTER POS LINE DRIVER			4.3.5
-150	C2	25	DW	1-7	D7	ALD DDG CHARACTER POS LINE DRIVER			4.3.5
-150	C3	25	BU	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			004.3.4
-150	C3	25	BV	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			004.3.4
-150	C3	25	BW	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			004.3.4
-150	C3	25	BX	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			004.3.4
-150	C3	25	CU	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			004.3.4
-150	C3	25	CV	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			004.3.4
-150	C3	25	CW	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			004.3.4
-150	C3	25	CX	1-7	D7	ALD DDG CHARACTER SEL LINE DRIVER			004.3.4
-150	D1	23	BC	38	B7D8	BFF MI CORE READ IN 6 SHIFT FREQ DIV			2.2.2
-150	D1	23	BD	3	B7	BFF MI BREAK REQUEST			2.2.2
-150	D2	25	EW	167	D8	BFF DDG TEST CONTROL			4.5.1
-150	D4	24	AF	368	B7	BFF SDG XY REG AND LINE DRIVERS			004.1.6
-150	D4	24	BF	368	B7	BFF SDG XY REG AND LINE DRIVERS			004.1.6
-150	D4	24	CF	36	B7	BFF SDG XY REG AND LINE DRIVERS			4.1.6
-150	D4	24	DF	368	B7	BFF SDG XY REG AND LINE DRIVERS			4.1.6
-150	D4	24	EF	368	B7	BFF SDG XY REG AND LINE DRIVERS			4.1.6
-150	D4	24	FF	368	B7	BFF SDG XY REG AND LINE DRIVERS			4.1.6
-150	D4	24	JF	368	B7	BFF SDG XY REG AND LINE DRIVERS			4.1.6
-150	D4	24	KF	368	B7	BFF SDG XY REG AND LINE DRIVERS			4.1.6
-150	D4	24	LF	368	B7	BFF SDG XY REG AND LINE DRIVERS			4.1.6
-150	D4	24	MF	368	B7	BFF SDG XY REG AND LINE DRIVERS			4.1.6
-150	D4	24	AM	368	B7	BFF SDG VECTOR REGISTER			4.1.12
-150	D4	24	AN	368	B7	BFF SDG VECTOR REGISTER			4.1.12
-150	D4	24	AP	368	B7	BFF SDG VECTOR REGISTER			4.1.12
-150	D4	24	AR	368	B7	BFF SDG VECTOR REGISTER			4.1.12
-150	D4	24	AS	368	B7	BFF SDG VECTOR REGISTER			4.1.12
-150	D4	24	AS	368	B7	BFF SDG VECTOR OFF			4.1.20
-150	D4	24	CN	3	B7	BFF SDG CHARACTER REGISTER			4.1.10
-150	D4	24	CP	3	B7	BFF SDG CHARACTER REGISTER			4.1.10
-150	D4	24	CR	3	B7	BFF SDG CHARACTER REGISTER			4.1.10
-150	D4	24	CS	3	B7	BFF SDG CHARACTER REGISTER			4.1.10
-150	D4	24	CT	3	B7	BFF SDG CHARACTER REGISTER			4.1.10
-150	D4	24	CU	3	B7	BFF SDG CHARACTER REGISTER			4.1.10
-150	D4	24	KV	2	D7	BFF SDG BYPASS FEATURE			4.1.20
-150	D4	24	MS	246	B7	BFF SDG RADAR DATA CONTROL			4.1.21
-150	D4	24	MT	7	D7	BFF SDG MISCELLANEOUS CONTROL			4.1.21
-150	D4	24	MU	167	D8	BFF SDG ON-OFF CONTROL AND OD DIST			4.1.20
-150	D5	23	BE	12	B7	AFF REGISTER SHIFT			002.2.2
-150	E1	23	BF	1267	B7D8	BSS MI CURE READ 6 RESET			2.2.2

MC-6

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-6	05/01/60	LOGIC
-150	E4	25	BD	1-5	B7	PG	DDG	CAMERA CONTROL	4.6.1
-150	E4	28	BC	567	D7	SS	DDG	CAMERA CONTROL	4.6.1
-150	D5	23	BE	12	B7	AFF	MI	REG SHIFT	2.2.2
-150	F1	23	DV	1	B7	PG	MI	MANUAL RESET	2.2.1
-150	F1	23	EF	9	D7	BPG	MI	CEP 1 INFO READY	002.2.1
-150	F1	23	EG	9	D7	PG	MI	CEP 2 INFO READY	2.2.1
-150	F1	23	EH	9	D7	PG	MI	CEP 3 INFO READY	2.2.1
-150	F4	30	EW	1	B7	ABPGWL		MANUAL RESET	6.2.1-8
-300	A1	23	CW	35	B7D8	CFF	MI	READOUT ALARM & ERROR	2.2.1
-300	A1	23	DJ	35	D8	CFF	MI	TARGET AVAIL & LT GUN INTLK	2.2.1
-300	A1	23	DK	35	D8	CFF	MI	REG SET & REG AVAIL	2.2.1
-300	A2	23	DC	8	D8	CFF	AD	1	2.2.1
-300	A2	23	DD	8	D8	CFF	AD	2	2.2.1
-300	A2	23	DC	13	D8	CFF	MI	AREA DISCRIM 1 & SYNC	2.2.1
-300	A2	23	DD	13	D8	CFF	MI	AREA DISCRIM 2 & SYNC	2.2.1
-300	A2	23	DG	135	D8	CFF	MI	REG SELECTOR & SYNC	2.2.1
-300	A2	23	EF	135	D8	CFF	MI	CEP 1 SELECTOR & SYNC	2.2.1
-300	A2	23	EG	135	D8	CFF	MI	CEP 2 SELECTOR	2.2.1
-300	A2	23	EH	135	D8	CFF	MI	CEP 3 SELECTOR	2.2.1
690	A3	23	CW	4	D6	GT	MI	READOUT ALARM & ERROR	2.2.2
-300	A3	23	DL	12	B7	CFF	MI	REG	2.2.1
-300	A3	23	DM	12	B7	CFF	MI	REG	2.2.1
-300	A3	23	DN	12	B7	CFF	MI	REG	2.2.1
-300	A3	23	DP	12	B7	CFF	MI	REG	2.2.1
-300	A3	23	DR	12	B7	CFF	MI	REG	2.2.1
-300	A3	23	DS	12	B7	CFF	MI	REG	2.2.1
-300	A3	23	DT	12	B7	CFF	MI	REG	2.2.1
-300	A3	23	DU	12	B7	CFF	MI	REG	2.2.1
-300	A3	23	EL	12	B7	CFF	MI	REG	2.2.1
-300	A3	23	EM	12	B7	CFF	MI	REG	2.2.1
-300	A3	23	EN	12	B7	CFF	MI	REG	2.2.1
-300	A3	23	EP	12	B7	CFF	MI	REG	2.2.1
-300	A3	23	ER	12	B7	CFF	MI	REG	2.2.1
-300	A3	23	ES	12	B7	CFF	MI	REG	2.2.1
-300	A3	23	ET	12	B7	CFF	MI	REG	2.2.1
-300	A3	23	EU	12	B7	CFF	MI	REG	2.2.1
-300	A4	24	BR	1367	D8	CFF	SDG	CHARACTER COUNTING AND POS	4.1.11
-300	A4	24	BS	1367	D8	CFF	SDG	CHARACTER COUNTING AND POS	4.1.11
-300	A4	24	BJ	1367	D8	CFF	SDG	DAB WORD TWO STORAGE	4.1.7
-300	A4	24	CJ	1367	D8	CFF	SDG	DAB WORD TWO STORAGE	4.1.7
-300	A4	24	DJ	1367	D8	CFF	SDG	DAB WORD TWO STORAGE	4.1.7
-300	A4	24	EJ	1367	D8	CFF	SDG	DAB WORD TWO STORAGE	4.1.7
-300	A4	24	GJ	1367	D8	CFF	SDG	DAB WORD TWO STORAGE	4.1.6
-300	A4	24	HJ	1367	D8	CFF	SDG	DAB WORD TWO STORAGE	4.1.7
-300	A4	24	DL	1367	D8	CFF	SDG	DAB WORD THREE STORAGE	4.1.8
-300	A4	24	EL	1367	D8	CFF	SDG	DAB WORD THREE STORAGE	4.1.8
-300	A4	24	FL	1367	D8	CFF	SDG	DAB WORD THREE STORAGE	4.1.8
-300	A4	24	HL	1367	D8	CFF	SDG	DAB WORD THREE STORAGE	4.1.8
-300	A4	24	JL	1367	D8	CFF	SDG	DAB WORD THREE STORAGE	4.1.8
-300	A4	24	KL	1367	D8	CFF	SDG	DAB WORD THREE STORAGE	4.1.8
-300	A4	24	LL	39	D8	CFF	SDG	DAB WORD THREE STORAGE	4.1.8
-300	A4	24	DM	1367	D8	CFF	SDG	DAB WORD FOUR STORAGE	4.1.9
-300	A4	24	EM	1367	D8	CFF	SDG	DAB WORD FOUR STORAGE	4.1.9
-300	A4	24	FM	1367	D8	CFF	SDG	DAB WORD FOUR STORAGE	4.1.9
-300	A4	24	HM	1367	D8	CFF	SDG	DAB WORD FOUR STORAGE	4.1.9
-300	A4	24	JM	1367	D8	CFF	SDG	DAB WORD FOUR STORAGE	4.1.9
-300	A4	24	KM	1367	D8	CFF	SDG	DAB WORD FOUR STORAGE	4.1.9
-300	A4	24	LN	39	D8	CFF	SDG	DAB WORD FOUR STORAGE	4.1.9
-300	A4	24	DP	1367	D8	CFF	SDG	WORD FIVE STORAGE	4.1.3
-300	A4	24	EP	1367	D8	CFF	SDG	WORD FIVE STORAGE	4.1.3
-300	A4	24	FP	1367	D8	CFF	SDG	WORD FIVE STORAGE	4.1.3
-300	A4	24	HP	1367	D8	CFF	SDG	WORD FIVE STORAGE	4.1.3
-300	A4	24	JP	1367	D8	CFF	SDG	WORD FIVE STORAGE	4.1.3
-300	A4	24	KP	1367	D8	CFF	SDG	WORD FIVE STORAGE	4.1.3
-300	A4	24	LP	39	D8	CFF	SDG	WORD FIVE STORAGE	4.1.3
-300	A4	24	DR	1367	D8	CFF	SDG	WORD SIX STORAGE	4.1.4

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-6	05/01/60	LOGIC
-300	A4	24	ER	13679	D8	CFF SDG WORD SIX STORAGE			4+1+4
-300	A4	24	FR	13679	D8	CFF SDG WORD SIX STORAGE			4+1+4
-300	A4	24	HR	13679	D8	CFF SDG WORD SIX STORAGE			4+1+4
-300	A4	24	JR	13679	D8	CFF SDG WORD SIX STORAGE			4+1+4
-300	A4	24	KR	13679	D8	CFF SDG WORD SIX STORAGE			4+1+4
-300	A4	24	LR	29	D8	CFF SDG WORD SIX STORAGE			4+1+4
-300	A4	24	DS	13679	D8	CFF SDG WORD SEVEN STORAGE			4+1+5
-300	A4	24	ES	13679	D8	CFF SDG WORD SEVEN STORAGE			4+1+5
-300	A4	24	FS	13679	D8	CFF SDG WORD SEVEN STORAGE			4+1+5
-300	A4	24	HS	13679	D8	CFF SDG WORD SEVEN STORAGE			4+1+5
-300	A4	24	JS	13679	D8	CFF SDG WORD SEVEN STORAGE			4+1+5
-300	A4	24	KS	39	D8	CFF SDG WORD SEVEN STORAGE			4+1+5
-300	A4	24	LS	39	D8	CFF SDG WORD SEVEN STORAGE			4+1+5
-300	A4	24	DT	13679	D8	CFF SDG WORD ZERO STORAGE			4+1+2
-300	A4	24	ET	13679	D8	CFF SDG WORD ZERO STORAGE			4+1+2
-300	A4	24	FT	13679	D8	CFF SDG WORD ZERO STORAGE			4+1+2
-300	A4	24	HT	13679	D8	CFF SDG WORD ZERO STORAGE			4+1+2
-300	A4	24	JT	13679	D8	CFF SDG WORD ZERO STORAGE			4+1+2
-300	A4	24	KT	13679	D8	CFF SDG WCRD ZERO STORAGE			4+1+2
-300	A4	24	JJ	68	D8	CFF SDG CATEGORY STORAGE MATRIX			4+1+7
-300	A4	24	KJ	689	D8	CFF SDG CATEGORY STORAGE MATRIX			4+1+7
-300	A4	24	MT	6	D8	CFF SDG MISCELLANEOUS CONTROL			4+1+21
-300	A5	24	HX	23578	D8	CFF SDG SYMBOL SEQUENCER			4+1+19
-300	A6	24	LY	23578	D8	CFF SDG TIMER			4+1+20
-300	B1	25	AD	23578	D8	CFF SDG CAMERA CONTROL			4+6+1
-300	B1	25	AJ	23578	D8	CFF DDG CHARACTER TIMING & CONTROL			4+3+2
-300	B1	25	BN	23678	D8	CFF DDG CHARACTER STORAGE AND REG			4+3+4
-300	B1	25	BP	23678	D8	CFF DDG CHARACTER STORAGE AND REG			4+3+4
-300	B1	25	BR	23678	D8	CFF DDG CHARACTER STORAGE AND REG			4+3+4
-300	B1	25	CN	23678	D8	CFF DDG CHARACTER STORAGE AND REG			4+3+4
-300	B1	25	CP	23678	D8	CFF DDG CHARACTER STORAGE AND REG			4+3+4
-300	B1	25	CR	23678	D8	CFF DDG CHARACTER STORAGE AND REG			4+3+4
-300	B2	25	AE	45	D8	CFF DDG CAMERA CONTROL			4+6+1
-300	B2	25	AG	23578	D8	CFF DDG CHARACTER TIMING & INTENSITY			4+3+2
-300	B2	25	CK	23578	D8	CFF DDG ERASE GATE			4+3+2
-300	B4	25	BH	235	D8	CFF DDG MASTER CONT& & ERASE GATE			4+3+2
-300	B4	25	CM	23578	D8	CFF DDG CONTRAST GATES			4+3+2
-300	B4	25	BH	78	D8	CFF DDG CONTROL BIT SENSING			4+3+2
-300	B5	25	AP	3578	D8	CFF DDG X POSITION COUNTER			4+3+5
-300	B5	25	AP	2	D8	CFF DDG CHARACTER TIMING & INTENSITY			4+3+2
-300	B5	25	CJ	25	D8	CFF DDG SLOT COUNTER FF			4+3+2
-300	B5	25	CJ	378	D8	CFF DDG SLOT COUNTER FF			4+3+3
-300	B5	25	DK	2357	D8	CFF DDG SLOT COUNTER			4+3+3
-300	B5	25	DP	2357	D8	CFF DDG Y POSITION COUNTER			4+3+5
-300	C1	30	BC	1245	D8	CFF WL REGISTER WD 1			6+2+1
-300	C1	30	BD	1245	D8	CFF WL REGISTER WD 1			6+2+1-5
-300	C1	30	CC	1245	D8	CFF WL REGISTER WD 1			6+2+1-2
-300	C1	30	CD	1245	D8	CFF WL REGISTER WD 1			6+2+1-6
-300	C1	30	DC	1245	D8	CFF WL REGISTER WD 1			6+2+1-3
-300	C1	30	DD	1245	D8	CFF WL REGISTER WD 1			6+2+1-7
-300	C1	30	EC	1245	D8	CFF WL REGISTER WD 1			6+2+1-4
-300	C1	30	ED	1245	D8	CFF WL REGISTER WD 1			6+2+1-8
-300	C1	30	BE	1245	D8	CFF WL REGISTER WD2			6+2+1
-300	C1	30	BF	1245	D8	CFF WL REGISTER WD2			6+2+1-5
-300	C1	30	CE	1245	D8	CFF WL REGISTER WD2			6+2+1-2
-300	C1	30	CF	1245	D8	CFF WL REGISTER WD2			6+2+1-6
-300	C1	30	DE	1245	D8	CFF WL REGISTER WD2			6+2+1-3
-300	C1	30	DF	1245	D8	CFF WL REGISTER WD2			6+2+1-7
-300	C1	30	EE	1245	D8	CFF WL REGISTER WD2			6+2+1-4
-300	C1	30	EF	1245	D8	CFF WL REGISTER WD2			6+2+1-8
-300	C1	30	BG	1245	D8	CFF WL REGISTER WD 3			6+2+1
-300	C1	30	BH	1245	D8	CFF WL REGISTER WD 3			5+2+1-5
-300	C1	30	CG	1245	D8	CFF WL REGISTER WD 3			5+2+1-2
-300	C1	30	CH	1245	D8	CFF WL REGISTER WD 3			6+2+1-6
-300	C1	30	DG	1245	D8	CFF WL REGISTER WD 3			6+2+1-3
-300	C1	30	DH	1245	D8	CFF WL REGISTER WD 3			6+2+1-7

MC-6

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-6	05/01/60	LOGIC
-300	C1	30	EG	1245	D8	CFF WL REGISTER WD 3			6.2.1-4
-300	C1	30	EH	1245	D8	CFF WL REGISTER WD 3			6.2.1-8
-300	C1	30	BJ	1245	D8	CFF WL REGISTER WD 4			6.2.1
-300	C1	30	BK	1245	D8	CFF WL REGISTER WD 4			6.2.1-5
-300	C1	30	CJ	1245	D8	CFF WL REGISTER WD 4			6.2.1-2
-300	C1	30	CK	1245	D8	CFF WL REGISTER WD 4			6.2.1-6
-300	C1	30	DJ	1245	D8	CFF WL REGISTER WD 4			6.2.1-3
-300	C1	30	DK	1245	D8	CFF WL REGISTER WD 4			6.2.1-7
-300	C1	30	EJ	1245	D8	CFF WL REGISTER WD 4			6.2.1-4
-300	C1	30	EK	1245	D8	CFF WL REGISTER WD 4			6.2.1-8
-300	C1	30	BL	1245	D8	CFF WL REGISTER WD 5			6.2.1
-300	C1	30	BM	1245	D8	CFF WL REGISTER WD 5			6.2.1-5
-300	C1	30	CL	1245	D8	CFF WL REGISTER WD 5			6.2.1-2
-300	C1	30	CM	1245	D8	CFF WL REGISTER WD 5			6.2.1-6
-300	C1	30	DL	1245	D8	CFF WL REGISTER WD 5			6.2.1-3
-300	C1	30	DM	1245	D8	CFF WL REGISTER WD 5			6.2.1-7
-300	C1	30	EL	1245	D8	CFF WL REGISTER WD 5			6.2.1-4
-300	C1	30	EM	1245	D8	CFF WL REGISTER WD 5			6.2.1-8
-300	C1	30	BN	1245	D8	CFF WL REGISTER WD 6			6.2.1
-300	C1	30	BP	1245	D8	CFF WL REGISTER WD 6			6.2.1-5
-300	C1	30	CN	1245	D8	CFF WL REGISTER WD 6			6.2.1-2
-300	C1	30	CP	1245	D8	CFF WL REGISTER WD 6			6.2.1-6
-300	C1	30	DN	1245	D8	CFF WL REGISTER WD 6			6.2.1-3
-300	C1	30	DP	1245	D8	CFF WL REGISTER WD 6			6.2.1-7
-300	C1	30	EN	1245	D8	CFF WL REGISTER WD 6			6.2.1-4
-300	C1	30	EP	1245	D8	CFF WL REGISTER WD 6			6.2.1-8
-300	C1	30	BR	1245	D8	CFF WL REGISTER WD 7			6.2.1
-300	C1	30	BS	1245	D8	CFF WL REGISTER WD 7			6.2.1-5
-300	C1	30	CR	1245	D8	CFF WL REGISTER WD 7			6.2.1-2
-300	C1	30	CS	1245	D8	CFF WL REGISTER WD 7			6.2.1-6
-300	C1	30	DR	1245	D8	CFF WL REGISTER WD 7			6.2.1-3
-300	C1	30	DS	1245	D8	CFF WL REGISTER WD 7			6.2.1-7
-300	C1	30	ER	1245	D8	CFF WL REGISTER WD 7			6.2.1-4
-300	C1	30	ES	1245	D8	CFF WL REGISTER WD 7			6.2.1-8
-300	C1	30	BT	1245	D8	CFF WL REGISTER WD 8			6.2.1
-300	C1	30	BU	1245	D8	CFF WL REGISTER WD 8			6.2.1-5
-300	C1	30	CT	1245	D8	CFF WL REGISTER WD 8			6.2.1-2
-300	C1	30	CU	1245	D8	CFF WL REGISTER WD 8			6.2.1-6
-300	C1	30	DT	1245	D8	CFF WL REGISTER WD 8			6.2.1-3
-300	C1	30	DU	1245	D8	CFF WL REGISTER WD 8			6.2.1-7
-300	C1	30	ET	1245	D8	CFF WL REGISTER WD 8			6.2.1-4
-300	C1	30	EU	1245	D8	CFF WL REGISTER WD 8			6.2.1-8
-300	C4	25	ET	3578	D8	CFF DDG WORD SEQUENCER & TEST CNTRL			4.5.1
-300	C4	25	EX	246	D8	CFF DDG TEST CONTROL			4.5.1
-300	C6	25	BT	14	D8	ALD DDG CHAR SEL LINE DRIVE19			4.3.4
-300	D1	25	AR	258	D8	CUS DDG CHARACTER POSITION DECODER			4.3.5
-300	D1	25	DR	258	D8	CUS DDG CHARACTER POSITION DECODER			4.3.5
-300	D1	25	CS	258	D8	CUS DDG CHARACTER SEL DECODER			4.3.4
-300	D4	24	AT	8	D8	CF SDG SWEEP			4.1.12A
-300	D4	24	AV	8	D8	CF SDG SWEEP			4.1.12A
-300	D4	24	BU	1-8	D8	CUS SDG CHARACTER POS DECODERS			4.1.11
-300	D4	24	CV	258	D8	CUS SDG CHARACTER SELECTION DECODERS			4.1.10B
-300	F1	30	BC	67	D7	WLD WL RELAY DRIVERS WORD 1			6.2.1
-300	F1	30	BD	67	D7	WLD WL RELAY DRIVERS WORD 1			6.2.1-5
-300	F1	30	CC	67	D7	WLD WL RELAY DRIVERS WORD 1			6.2.1-2
-300	F1	30	CD	67	D7	WLD WL RELAY DRIVERS WORD 1			6.2.1-6
-300	F1	30	DC	67	D7	WLD WL RELAY DRIVERS WORD 1			6.2.1-3
-300	F1	30	DD	67	D7	WLD WL RELAY DRIVERS WORD 1			6.2.1-7
-300	F1	30	EC	67	D7	WLD WL RELAY DRIVERS WORD 1			6.2.1-4
-300	F1	30	ED	67	D7	WLD WL RELAY DRIVERS WORD 1			6.2.1-8
-300	F1	30	BE	67	D7	WLD WL RELAY DRIVERS WORD 2			6.2.1
-300	F1	30	BF	67	D7	WLD WL RELAY DRIVERS WORD 2			6.2.1-5
-300	F1	30	CE	67	D7	WLD WL RELAY DRIVERS WORD 2			6.2.1-2
-300	F1	30	CF	67	D7	WLD WL RELAY DRIVERS WORD 2			6.2.1-6
-300	F1	30	DE	67	D7	WLD WL RELAY DRIVERS WORD 2			6.2.1-3
-300	F1	30	DF	67	D7	WLD WL RELAY DRIVERS WORD 2			6.2.1-7
-300	F1	30	EE	67	D7	WLD WL RELAY DRIVERS WORD 2			6.2.1-4
-300	F1	30	EF	67	D7	WLD WL RELAY DRIVERS WORD 2			6.2.1-8
-300	F1	30	BG	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1
-300	F1	30	BH	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1-5

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-6	05/01/60	LOGIC
-300	F1	30	CG	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1-2
-300	F1	30	CH	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1-6
-300	F1	30	DG	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1-3
-300	F1	30	DH	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1-7
-300	F1	30	EH	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1-8
-300	F1	30	BJ	67	D7	WLD WL RELAY DRIVERS WORD 4			6.2.1
-300	F1	30	BK	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1-5
-300	F1	30	EG	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1-4
-300	F1	30	CJ	67	D7	WLD WL RELAY DRIVERS WORD 4			6.2.1-2
-300	F1	30	CK	67	D7	WLD WL RELAY DRIVERS WORD 4			6.2.1-6
-300	F1	30	DJ	67	D7	WLD WL RELAY DRIVERS WORD 4			6.2.1-3
-300	F1	30	DK	67	D7	WLD WL RELAY DRIVERS WORD 4			6.2.1-7
-300	F1	30	EJ	67	D7	WLD WL RELAY DRIVERS WORD 4			6.2.1-4
-300	F1	30	EL	67	D7	WLD WL RELAY DRIVERS WORD 4			6.2.1-8
-300	F1	30	FL	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1
-300	F1	30	FM	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1-5
-300	F1	30	GL	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1-2
-300	F1	30	LM	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1-6
-300	F1	30	ML	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1-3
-300	F1	30	OL	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1-7
-300	F1	30	PL	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1-4
-300	F1	30	QL	67	D7	WLD WL RELAY DRIVERS WORD 3			6.2.1-8
-300	F1	30	RM	67	D7	WLD WL RELAY DRIVERS WORD 6			6.2.1
-300	F1	30	SN	67	D7	WLD WL RELAY DRIVERS WORD 6			6.2.1-5
-300	F1	30	CP	67	D7	WLD WL RELAY DRIVERS WORD 6			6.2.1-2
-300	F1	30	DN	67	D7	WLD WL RELAY DRIVERS WORD 6			6.2.1-6
-300	F1	30	DP	67	D7	WLD WL RELAY DRIVERS WORD 6			6.2.1-3
-300	F1	30	EP	67	D7	WLD WL RELAY DRIVERS WORD 6			6.2.1-7
-300	F1	30	EH	67	D7	WLD WL RELAY DRIVERS WORD 6			6.2.1-4
-300	F1	30	EP	67	D7	WLD WL RELAY DRIVERS WORD 6			6.2.1-8
-300	F1	30	BT	67	D7	WLD WL RELAY DRIVERS WORD 8			6.2.1
-300	F1	30	BU	67	D7	WLD WL RELAY DRIVERS WORD 8			6.2.1-5
-300	F1	30	CT	67	D7	WLD WL RELAY DRIVERS WORD 8			6.2.1-2
-300	F1	30	CU	67	D7	WLD WL RELAY DRIVERS WORD 8			6.2.1-6
-300	F1	30	DT	67	D7	WLD WL RELAY DRIVERS WORD 8			6.2.1-3
-300	F1	30	DU	67	D7	WLD WL RELAY DRIVERS WORD 8			6.2.1-7
-300	F1	30	ET	67	D7	WLD WL RELAY DRIVERS WORD 8			6.2.1-4
-300	F1	30	EU	67	D7	WLD WL RELAY DRIVERS WORD 8			6.2.1-8
-300	F2	24	AW	14	D8	ALD SDG VECTOR 6 CHAR POS LINE DRIVE			4.1.11
-300	F2	24	BW	14	D8	ALD SDG VECTOR 6 CHAR POS LINE DRIVE			4.1.11
-300	F2	24	CW	14	D8	ALD SDG CHARACTER SEL LINE DRIVERS			4.1.10
-300	F2	24	DW	14	D8	ALD SDG CHARACTER SEL LINE DRIVERS			4.1.10
-300	F4	25	AS	14	D8	ALD DDG CHARACTER POS LINE DRIVER			4.3.5
-300	F4	25	DS	14	D8	ALD DDG CHARACTER POS LINE DRIVER			4.3.5

MC-7

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-7	05/01/60	LOGIC
6250	A1	32	JG	3	85	I LINE PARITY			B-2.3.5
6250	A1	32	JG	19	85	LA LINE PARITY			B-2.3.5
6250	A1	32	JS	234	85	PCF XTEL CH 13-18,19-24			B-2.3.5
6250	A1	32	JS	567	85	PCF XTEL CH 13-18,19-24			B-2.3.5
6250	A1	32	GU	2-7	85	PCF XTEL PULSE DISTRIB			A-2.3.5
6250	A1	32	JU	2-7	85	PCF XTEL PULSE DISTRIB			B-2.3.5
6250	A1	32	GO	178	85	LA IXTEL CLOCK & SITE IDENT PARITY			A-2.3.5
6250	A1	32	JD	178	85	LA IXTEL CLOCK & SITE IDENT PARITY			B-2.3.5
6250	A1	32	GC	12356	85	LA IXTEL DRUM PARITY			A-2.3.5
6250	A1	32	JC	12356	85	LA IXTEL DRUM PARITY			B-2.3.5
6250	A1	32	GK	1-9	85	LA XTEL 33-36 WAY OR			A-2.3.5
6250	A1	32	GL	1-9	85	LA XTEL 33-36 WAY OR			A-2.3.5
6250	A1	32	GM	789	85	LA XTEL 33-36 WAY OR			A-2.3.5
6250	A1	32	HK	1-9	85	LA XTEL 33-36 WAY OR			A-2.3.5
6250	A1	32	HL	1-9	85	LA XTEL 33-36 WAY OR			A-2.3.5
6250	A1	32	HM	1-9	85	LA XTEL 33-36 WAY OR			A-2.3.5
6250	A1	32	JK	1-9	85	LA XTEL 33-36 WAY OR			B-2.3.5
6250	A1	32	JL	1-9	85	LA XTEL 33-36 WAY OR			B-2.3.5
6250	A1	32	JM	789	85	LA XTEL 33-36 WAY OR			B-2.3.5
6250	A1	32	KK	1-9	85	LA XTEL 33-36 WAY OR			B-2.3.5
6250	A1	32	KL	1-9	85	LA XTEL 33-36 WAY OR			B-2.3.5
6250	A1	32	KM	1-9	85	LA XTEL 33-36 WAY OR			B-2.3.5
6250	B1	41	FE	12	85	PCF LRI PULSE DISTRIB			B-2.4.6
6250	B1	41	HN	12	85	PCF LRI PULSE DISTRIB			B-2.4.6
6250	B1	41	UE	12	85	PCF LRI PULSE DISTRIB			A-2.4.6
6250	B1	41	WN	12	85	PCF LRI PULSE DISTRIB			B-2.4.6
6250	B2	41	FF	1-6	85	LA LRI READ OUT CONTROL			B-2.4.6
6250	B2	41	FH	1-6	85	LA LRI READ OUT CONTROL			B-2.4.6
6250	B2	41	FK	1-6	85	LA LRI READ OUT CONTROL			B-2.4.6
6250	B2	41	FL	1-6	85	LA LRI READ OUT CONTROL			B-2.4.6
6250	B2	41	FN	1-6	85	LA LRI READ OUT CONTROL			B-2.4.6
6250	B2	41	FR	1-6	85	LA LRI READ OUT CONTROL			B-2.4.6
6250	B2	41	FS	1-6	85	LA LRI READ OUT CONTROL			B-2.4.6
6250	B2	41	FU	1-6	85	LA LRI READ OUT CONTROL			B-2.4.6
6250	B2	41	GK	1-9	85	LA LRI READ OUT CONTROL			A-2.4.6
6250	B2	41	GM	1-9	85	LA LRI READ OUT CONTROL			A-2.4.6
6250	B2	41	GN	1-9	85	LA LRI READ OUT CONTROL			A-2.4.6
6250	B2	41	GR	1-9	85	LA LRI READ OUT CONTROL			A-2.4.6
6250	B2	41	GT	1-9	85	LA LRI READ OUT CONTROL			A-2.4.6
6250	B2	41	GV	1-9	85	LA LRI READ OUT CONTROL			A-2.4.6
6250	B2	41	UF	1-6	85	LA LRI READ OUT CONTROL			A-2.4.6
6250	B2	41	UH	1-6	85	LA LRI READ OUT CONTROL			A-2.4.6
6250	B2	41	UK	1-6	85	LA LRI READ OUT CONTROL			A-2.4.6
6250	B2	41	UL	1-6	85	LA LRI READ OUT CONTROL			A-2.4.6
6250	B2	41	UN	1-6	85	LA LRI READ OUT CONTROL			A-2.4.6
6250	B2	41	UR	1-6	85	LA LRI READ OUT CONTROL			A-2.4.6
6250	B2	41	US	1-6	85	LA LRI READ OUT CONTROL			A-2.4.6
6250	B2	41	UU	1-6	85	LA LRI READ OUT CONTROL			A-2.4.6
6250	B2	41	VK	1-9	85	LA LRI READ-OUT CONTROL			B-2.4.6
6250	B2	41	VM	1-9	85	LA LRI READ OUT CONTROL			B-2.4.6
6250	B2	41	VN	1-9	85	LA LRI READ OUT CONTROL			B-2.4.6
6250	B2	41	VR	1-9	85	LA LRI READ OUT CONTROL			B-2.4.6
6250	B2	41	VT	1-9	85	LA LRI READ OUT CONTROL			B-2.4.6
6250	B2	41	VV	1-9	85	LA LRI READ OUT CONTROL			B-2.4.6
6250	B2	41	FC	34	D6	LA LRI LONG WORD			B-2.4.6
6250	B2	41	UC	34	D6	LA LRI LONG WORD			A-2.4.6
6250	B2	41	HU	5	85	I LRI SITE PARITY			A-2.4.6
6250	B2	41	MU	5	85	I LRI SITE PARITY			B-2.4.6
6250	B2	41	HV	2-6	85	LA ILRI SITE PARITY			A-2.4.6
6250	B2	41	HW	125	85	LA ILRI SITE PARITY			A-2.4.6
6250	B2	41	WV	125	85	LA ILRI SITE PARITY			B-2.4.6
6250	B2	41	WV	2-6	85	LA ILRT WORD 1 PARITY			B-2.4.6
6250	C1	93	BT	267	85	LA SITE 6 M/L MESSAGE COMPARE			2.5.1-2
6250	C1	93	BU	2457	85	LA SITE 6 M/L MESSAGE COMPARE			2.5.1-2
6250	C1	93	BV	267	85	LA SITE 6 M/L MESSAGE COMPARE			2.5.1-2
6250	C1	93	BW	2457	85	LA SITE 6 M/L MESSAGE COMPARE			2.5.1-2
6250	C1	93	BX	267	85	LA SITE 6 M/L MESSAGE COMPARE			2.5.1-2
6250	C1	93	BY	2457	85	LA SITE 6 M/L MESSAGE COMPARE			2.5.1-2
6250	C1	93	B1	267	85	LA SITE 6 M/L MESSAGE COMPARE			2.5.1-2
6250	C1	93	B2	2457	85	LA SITE 6 M/L MESSAGE COMPARE			2.5.1-2
6150	A1	32	HU	6	D5	CF XTEL CLOCK			A-2.3.5
6150	A1	32	HV	47	D5	CF XTEL CLOCK			A-2.3.5

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-7	05/01/60	LOGIC
6150	A1	32	HW	4	D5	CF	XTEL CLOCK			A-2.3.5
6150	A1	32	KU	6	D5	CF	XTEL CLOCK			B-2.3.5
6150	A1	32	KV	47	D5	CF	XTEL CLOCK			B-2.3.5
6150	A1	32	KW	4	D5	CF	XTEL CLOCK			B-2.3.5
6150	A2	32	GC	3567	B6D5G5	CF	XTEL DRUM PARITY			A-2.3.5
6150	A2	32	JC	3567	B6D5G5	CF	XTEL DRUM PARITY			B-2.3.5
6150	A2	32	GD	3-8	D5G5	CF	XTEL CLOCK & SITE IDENT PARITY			A-2.3.5
6150	A2	32	JD	3-8	D5G5	CF	XTEL CLOCK & SITE IDENT PARITY			B-2.3.5
6150	A2	32	GK	1-9	D5	LA	XTEL 33-36 WAY OR			A-2.3.5
6150	A2	32	GL	1-9	D5	LA	XTEL 33-36 WAY OR			A-2.3.5
6150	A2	32	GM	789	D5	LA	XTEL 33-36 WAY OR			A-2.3.5
6150	A2	32	HK	1-9	D5	LA	XTEL 33-36 WAY OR			A-2.3.5
6150	A2	32	HL	1-9	D5	LA	XTEL 33-36 WAY OR			A-2.3.5
6150	A2	32	HM	1-9	D5	LA	XTEL 33-36 WAY OR			A-2.3.5
6150	A2	32	JL	1-9	D5	LA	XTEL 33-36 WAY OR			B-2.3.5
6150	A2	32	JK	1-9	D5	LA	XTEL 33-36 WAY OR			B-2.3.5
6150	A2	32	JM	789	D5	LA	XTEL 33-36 WAY OR			B-2.3.5
6150	A2	32	KK	1-9	D5	LA	XTEL 33-36 WAY OR			B-2.3.5
6150	A2	32	KL	1-9	D5	LA	XTEL 33-36 WAY OR			B-2.3.5
6150	A2	32	KM	1-9	D5	LA	XTEL 33-36 WAY OR			B-2.3.5
6150	A2	32	JG	3	B6	I	LINE PARITY			B-2.3.5
6150	A2	32	JG	15	D5	LA	LINE PARITY			B-2.3.5
6150	A2	32	JG	7	G5	CF	LINE PARITY			B-2.3.5
6150	B1	34	JY	56	D5	CF	MAP CNTR SITE IDENT			A-2.1.4
6150	B1	34	J1	5	D5	CF	MAP CNTR SITE IDENT			A-2.1.4
6150	B1	34	J2	56	D5	CF	MAP CNTR SITE IDENT			A-2.1.4
6150	B1	34	KY	56	D5	CF	MAP CNTR SITE IDENT			B-2.1.4
6150	B1	34	K1	5	D5	CF	MAP CNTR SITE IDENT			B-2.1.4
6150	B1	34	K2	56	D5	CF	MAP CNTR SITE IDENT			B-2.1.4
6150	B2	41	FC	345	B6D5	CF	LRI LONG WORD			B-2.4.6
6150	B2	41	UC	345	B6D5	CF	LRI LONG WORD			A-2.4.6
6150	B2	41	FW	5	D5	CF	LRI WORD LEVEL			B-2.4.6
6150	B2	41	UW	5	D5	CF	LRI WORD LEVEL			A-2.4.6
6150	B2	41	HU	35	D56	CF	LRI SITE PARITY			A-2.4.6
6150	B2	41	HV	1-8	D5G5	CF	LRI SITE PARITY			A-2.4.6
6150	B2	41	HW	1235-9D5G5		CF	LRI SITE PARITY			A-2.4.6
6150	B2	41	WU	35	D56	CF	LRI SITE PARITY			B-2.4.6
6150	B2	41	WV	1-8	D5G5	CF	LRI SITE PARITY			B-2.4.6
6150	B2	41	WV	1235-9D5G5		CF	LRI WORD 1 PARITY			B-2.4.6
6150	B3	41	HK	2	B5	CF	LRI PULSE DISTRIB			A-2.4.6
6150	B3	41	WK	2	B5	CF	LRI PULSE DISTRIB			B-2.4.6
6150	B3	41	HF	4	D5	CF	LRI CLOCK			A-2.4.6
6150	B3	41	HG	47	D5	CF	LRI CLOCK			A-2.4.6
6150	B3	41	HH	6	D5	CF	LRI CLOCK			A-2.4.6
6150	B3	41	WF	4	D5	CF	LRI CLOCK			B-2.4.6
6150	B3	41	WG	47	D5	CF	LRI CLCK			B-2.4.6
6150	B3	41	WH	6	D5	CF	LRI CLOCK			B-2.4.6
6150	B4	41	GW	7	G5	CF	LRI READ OUT CONTROL			A-2.4.6
6150	B4	41	VW	7	G5	CF	LRI READ OUT CONTROL			B-2.4.6
6150	B4	41	FF	1-6	D5	LA	LRI READ OUT CONTROL			B-2.4.6
6150	B4	41	FH	1-6	D5	LA	LRI READ OUT CONTROL			B-2.4.6
6150	B4	41	FK	1-6	D5	LA	LRI READ OUT CONTROL			B-2.4.6
6150	B4	41	FL	1-6	D5	LA	LRI READ OUT CONTROL			B-2.4.6
6150	B4	41	FN	1-6	D5	LA	LRI READ OUT CONTROL			B-2.4.6
6150	B4	41	FR	1-6	D5	LA	LRI READ OUT CONTROL			B-2.4.6
6150	B4	41	FS	1-6	D5	LA	LRI READ OUT CONTROL			B-2.4.6
6150	B4	41	FU	1-6	D5	LA	LRI READ OUT CONTROL			B-2.4.6
6150	B4	41	GK	1-9	D5	LA	LRI READ OUT CONTROL			A-2.4.6
6150	B4	41	GM	1-9	D5	LA	LRI READ OUT CONTROL			A-2.4.6
6150	B4	41	GN	1-9	D5	LA	LRI READ OUT CONTROL			A-2.4.6
6150	B4	41	GR	1-9	D5	LA	LRI READ OUT CONTROL			A-2.4.6
6150	B4	41	GT	1-9	D5	LA	LRI READ OUT CONTROL			A-2.4.6
6150	B4	41	GV	1-9	D5	LA	LRI READ OUT CONTROL			A-2.4.6
6150	B4	41	UF	1-6	D5	LA	LRI READ OUT CONTROL			A-2.4.6
6150	B4	41	UH	1-6	D5	LA	LRI READ OUT CONTROL			A-2.4.6
6150	B4	41	UK	1-6	D5	LA	LRI READ OUT CONTROL			A-2.4.6
6150	B4	41	UL	1-9	D5	LA	LRI READ OUT CONTROL			A-2.4.6
6150	B4	41	UN	1-6	D5	LA	LRI READ OUT CONTROL			A-2.4.6
6150	B4	41	UR	1-6	D5	LA	LRI READ OUT CONTROL			A-2.4.6
6150	B4	41	US	1-6	D5	LA	LRI READ OUT CONTROL			A-2.4.6

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V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-7	05/01/60	LOGIC
6130	B4	41	UU	1-6	D5	LA	LRI READ OUT CONTROL			A-2.4.6
6130	B4	41	VK	1-9	D5	LA	LRI READ OUT CONTROL			B-2.4.6
6130	B4	41	VH	1-9	D5	LA	LRI READ OUT CONTROL			B-2.4.6
6130	B4	41	VN	1-9	D5	LA	LRI READ OUT CONTROL			B-2.4.6
6130	B4	41	VR	1-9	D5	LA	LRI READ OUT CONTROL			B-2.4.6
6130	B4	41	VT	1-9	D5	LA	LRI READ OUT CONTROL			B-2.4.6
6130	B4	41	VV	1-9	D5	LA	LRI READ OUT CONTROL			B-2.4.6
6130	B4	41	FV	345	D5	CF	LRI SITE IDENTITY			B-2.4.6
6130	B4	41	F1	12456	D5	CF	LRI SITE IDENTITY			B-2.4.6
6130	B4	41	HU	78	G5	CF	LRI SITE IDENTITY			A-2.4.6
6130	B4	41	UW	345	D5	CF	LRI SITE IDENTITY			A-2.4.6
6130	B4	41	UI	12456	D5	CF	LRI SITE IDENTITY			A-2.4.6
6130	B4	41	HU	78	G5	CF	LRI SITE IDENTITY			B-2.4.6
6130	B4	41	G1	48	B5D5	CF	LRI DISPLAY TIME COUNTER			S-2.4.6
6130	B4	41	V1	48	B5D5	CF	LRI DISPLAY TIME COUNTER			S-2.4.6
6150	C1	93	BJ	67	D5	CF	REGISTER CORRECTOR			2.5.1-1
6150	C1	93	BS	1-9	D5	CF	SITE & M/L STORAGE REG			2.5.1-1
6150	C2	93	BE	1-4	D5	CF	INTENSIFICATION			2.5.1-2
6150	C2	93	BF	9	D5	CF	DISPLAY TIMING			2.5.1-2
6150	C2	93	BT	267	D5	LA	SITE & M/L MESSAGE COMPARE			2.5.1-2
6150	C2	93	BU	2457	D5	LA	SITE & M/L MESSAGE COMPARE			2.5.1-2
6150	C2	93	BV	267	D5	LA	SITE & M/L MESSAGE COMPARE			2.5.1-2
6150	C2	93	BW	2457	D5	LA	SITE & M/L MESSAGE COMPARE			2.5.1-2
6150	C2	93	BX	267	D5	LA	SITE & M/L MESSAGE COMPARE			2.5.1-2
6150	C2	93	BY	2457	D5	LA	SITE & M/L MESSAGE COMPARE			2.5.1-2
6150	C2	93	B1	267	D5	LA	SITE & M/L MESSAGE COMPARE			2.5.1-2
6150	C2	93	B2	2457	D5	LA	SITE & M/L MESSAGE COMPARE			2.5.1-2
690	A1	32	HV	135	B6D6G5	GT	XTEL CLOCK STEP & PARITY			A-2.3.5
690	A1	32	KV	135	B6D6G5	GT	XTEL CLOCK STEP & PARITY			B-2.3.5
690	A1	32	HT	1368	B6D6G56	GT	XTEL CLOCK CONTROL			A-2.3.5
690	A1	32	KT	1368	B6D6G56	GT	XTEL CLOCK CONTROL			B-2.3.5
690	A3	32	GJ	1-9	B56D56G567GT	GT	XTEL MESSAGE AMPLIFIER			A-2.3.5
690	A3	32	GN	3-6	D56G56	GT	XTEL MESSAGE AMPLIFIER			A-2.3.5
690	A3	32	HJ	1-9	B56D56G567GT	GT	XTEL MESSAGE AMPLIFIER			A-2.3.5
690	A3	32	JJ	1-9	B56D56G567GT	GT	XTEL MESSAGE AMPLIFIER			B-2.3.5
690	A3	32	JN	3-6	D56G56	GT	XTEL MESSAGE AMPLIFIER			B-2.3.5
690	A3	32	KJ	1-9	B56D56G567GT	GT	XTEL MESSAGE AMPLIFIER			B-2.3.5
690	A3	32	HP	78	G6	GT	XTEL SITE IDENTITY AMPLIFIER			A-2.3.5
690	A3	32	HR	235-8	D5G56	GT	XTEL SITE IDENTITY AMPLIFIER			A-2.3.5
690	A3	32	KP	78	G6	GT	XTEL SITE IDENTITY AMPLIFIER			B-2.3.5
690	A3	32	KR	235-8	D5G56	GT	XTEL SITE IDENTITY AMPLIFIER			B-2.3.5
690	A3	32	GP	5-8	G56	GT	XTEL TIME AMPLIFIER			A-2.3.5
690	A3	32	HN	235-8	D5G56	GT	XTEL TIME AMPLIFIER			A-2.3.5
690	A3	32	HP	2356	D5G5	GT	XTEL TIME AMPLIFIER			A-2.3.5
690	A3	32	JP	5-8	G56	GT	XTEL TIME AMPLIFIER			B-2.3.5
690	A3	32	KN	235-8	D5G56	GT	XTEL TIME AMPLIFIER			B-2.3.5
690	A3	32	KP	2356	D5G5	GT	XTEL TIME AMPLIFIER			B-2.3.5
690	A3	32	HS	1	B6	GT	XTEL DRUM WRITE			A-2.3.5
690	A3	32	KS	1	B6	GT	XTEL DRUM WRITE			B-2.3.5
690	A3	32	KX	1	B5	GT	OD1-D			B-2.3.5
690	A4	32	GT	1	B6	PA	XTEL PULSE GEN			A-2.3.5
690	A4	32	JT	1	B6	PA	XTEL PULSE GEN			B-2.3.5
690	A4	32	GX	236	B6D5G5	GT	XTEL OD 1.263 PULSE DISTRIB			A-2.3.5
690	A4	32	JX	236	B6D5G5	GT	XTEL OD 1.263 PULSE DISTRIB			B-2.3.5
690	B1	34	JD	4	D5	BPA	MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B1	34	JE	23	D5	BPA	MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B1	34	JF	34	D5	BPA	MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B1	34	JG	34	D5	BPA	MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B1	34	JH	34	D5	BPA	MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B1	34	JJ	4	D5	BPA	MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B1	34	JK	34	D5	BPA	MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B1	34	JL	34	D5	BPA	MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B1	34	JM	34	D5	BPA	MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B1	34	JN	34	D5	BPA	MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B1	34	JP	34	D5	BPA	MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B1	34	JR	14	B5D3	BPA	MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B1	34	KD	4	D5	BPA	MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B1	34	KE	23	D5	BPA	MAP CNTR COM EQ OUTPUTS			B-2.1.4

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-7	05/01/60	LOGIC
690	B1	34	KF	34	D5	BPA MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B1	34	KG	34	D5	BPA MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B1	34	KH	34	D5	BPA MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B1	34	KJ	4	D5	BPA MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B1	34	KK	4	D5	BPA MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B1	34	KL	34	D5	BPA MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B1	34	KM	34	D5	BPA MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B1	34	KN	34	D5	BPA MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B1	34	KP	34	D5	BPA MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B1	34	KR	14	B5D5	BPA MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B1	34	JU	3	B6	BPA MAP CNTR COM EQ OD 2			A-2.1.3
690	B1	34	JV	3	B6	BPA MAP CNTR COM EQ OD 2			A-2.1.3
690	B1	34	KU	3	B6	BPA MAP CNTR COM EQ OD 2			B-2.1.3
690	B1	34	KV	3	B6	BPA MAP CNTR COM EQ OD 2			B-2.1.3
690	B1	34	JX	4	D5	BPA MAP CNTR COM EQ OD 3			A-2.1.3
690	B1	34	JW	4	D5	BPA MAP CNTR COM EQ OD 3			A-2.1.3
690	B1	34	KW	4	D5	BPA MAP CNTR COM EQ OD 3			B-2.1.3
690	B1	34	KX	4	D5	BPA MAP CNTR COM EQ OD 3			B-2.1.3
690	B1	34	JT	14	B5D5	BPA MAP CNTR COM EQ OD 4			A-2.1.3
690	B1	34	KT	14	B5D5	BPA MAP CNTR COM EQ OD 4			B-2.1.3
690	B1	34	JS	3	B6	BPA MAP CNTR DATA AVAILABLE			A-2.1.4
690	B1	34	KS	3	B6	BPA MAP CNTR DATA AVAILABLE			B-2.1.4
690	B2	34	JD	1256	D6	GT MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B2	34	JE	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B2	34	JF	1256	B56D6	JT MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B2	34	JG	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B2	34	JH	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B2	34	JJ	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B2	34	JK	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B2	34	JL	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B2	34	JM	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B2	34	JN	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B2	34	JP	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			A-2.1.4
690	B2	34	KD	1256	D6	GT MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B2	34	KE	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B2	34	KF	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B2	34	KG	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B2	34	KH	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B2	34	KJ	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B2	34	KK	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B2	34	KL	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B2	34	KM	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B2	34	KN	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B2	34	KP	1256	B56D6	GT MAP CNTR COM EQ OUTPUTS			B-2.1.4
690	B2	34	JU	5	D6	GT MAP CNTR OD-2 CNTR			A-2.1.3
690	B2	34	KU	5	D6	GT MAP CNTR OD-2 CNTR			A-2.1.3
690	B2	34	JV	1	B5	GT MAP CNTR GATED DRUM DEMAND			A-2.1.3
690	B2	34	KV	1	B5	GT MAP CNTR GATED DRUM DEMAND			B-2.1.3
690	C1	41	FG	1-6	B56D56	GT LRI READ OUT CONTROL			B-2.4.6
690	C1	41	FJ	1-6	B56D56	GT LRI READ OUT CONTROL			B-2.4.6
690	C1	41	FM	1-6	B56D56	GT LRI READ OUT CONTROL			B-2.4.6
690	C1	41	FP	1-6	B56D56	GT LRI READ OUT CONTROL			B-2.4.6
690	C1	41	FT	1-6	B56D56	GT LRI READ OUT CONTROL			B-2.4.6
690	C1	41	FV	12	B6D6	GT LRI READ OUT CONTROL			B-2.4.6
690	C1	41	GJ	1-9	B56D56G567GT	LRI READ OUT CONTROL			A-2.4.6
690	C1	41	GL	1-9	B56D56G567GT	LRI READ OUT CONTROL			A-2.4.6
690	C1	41	GP	1-9	B56D56G567GT	LRI READ OUT CONTROL			A-2.4.6
690	C1	41	GS	1-9	B56D56G567GT	LRI READ OUT CONTROL			A-2.4.6
690	C1	41	GU	1-489	B56D56G7	LRI READ OUT CONTROL			A-2.4.6
690	C1	41	VJ	1-9	B56D56G567GT	LRI READ OUT CONTROL			B-2.4.6
690	C1	41	VL	1-9	B56D56G567GT	LRI READ OUT CONTROL			B-2.4.6
690	C1	41	VP	1-9	B56D56G567GT	LRI READ OUT CONTROL			B-2.4.6
690	C1	41	VS	1-9	B56D56G567GT	LRI READ OUT CONTROL			B-2.4.6
690	C1	41	VU	1-489	B56D56G7	GT LRI READ OUT CONTROL			B-2.4.6
690	C1	41	GW	28	D6G7	GT LRI READ OUT CONTROL			A-2.4.6
690	C1	41	GX	57	D56	GT LRI READ OUT CONTROL			A-2.4.6
690	C1	41	UG	1-6	B56D56	GT LRI READ OUT CONTROL			A-2.4.6
690	C1	41	UJ	1-6	B56D56	GT LRI READ OUT CONTROL			A-2.4.6
690	C1	41	UM	1-6	B56D56	GT LRI READ OUT CONTROL			A-2.4.6
690	C1	41	UP	1-6	B56D56	GT LRI READ OUT CONTROL			A-2.4.6
690	C1	41	UT	1-6	B56D56	GT LRI READ OUT CONTROL			A-2.4.6
690	C1	41	UV	12	B6D6	GT LRI READ OUT CONTROL			A-2.4.6
690	C1	41	VM	28	D6G7	GT LRI READ OUT CONTROL			B-2.4.6
690	C1	41	VX	57	D56	GT LRI READ OUT CONTROL			B-2.4.6
690	C1	41	GY	6	G5	GT LRI DRUM DEMAND			S-2.4.5
690	C1	41	G1	125	B6D6G5	GT LRI DRUM DEMAND			S-2.4.5

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V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-7	05/01/60	LOGIC
690	C1	41	VY	6	G5	GT	LRI DRUM DEMAND			S-2.4.5
690	C1	41	V1	125	B6D6G5	GT	LRI DRUM DEMAND			S-2.4.5
690	C1	41	GU	67	G6	GT	LRI WORD 1 & 2 READ OUT			A-2.4.6
690	C1	41	VU	67	G6	GT	LRI WORD 1 & 2 READ OUT			B-2.4.6
690	C2	41	HH	3	G5	GT	LRI CLOCK CONTROL			A-2.4.6
690	C2	41	HJ	6	G5	GT	LRI CLOCK CONTROL			A-2.4.6
690	C2	41	WH	3	G5	GT	LRI CLOCK CONTROL			B-2.4.6
690	C2	41	WJ	6	G5	GT	LRI CLOCK CONTROL			B-2.4.6
690	C2	41	HG	135	B6D6G5	GT	LRI CLOCK PARITY			A-2.4.6
690	C2	41	WG	135	B6D6G5	GT	LRI CLOCK PARITY			B-2.4.6
690	C2	41	HM	4	D6	GT	LRI SITE PARITY			A-2.4.6
690	C2	41	HW	4	D6	GT	LRI SITE PARITY			B-2.4.6
690	C2	41	G1	6	G6	GT	LRI DISPLAY TIME COUNTER			S-2.4.5
690	C2	41	G3	48	D5G6	GT	LRI DISPLAY TIME COUNTER			S-2.4.5
690	C2	41	V1	6	G6	GT	LRI DISPLAY TIME COUNTER			S-2.4.5
690	C2	41	V3	48	D5G6	GT	LRI DISPLAY TIME COUNTER			S-2.4.5
690	C3	41	HK	5	D6	GT	LRI PULSE DISTRIB			A-2.4.6
690	C3	41	WK	5	D6	GT	LRI PULSE DISTRIB			B-2.4.6
690	C4	93	RC	16	B5G5	GT	DATA AVAILABILITY UNIT			2.5.1-1
690	C5	93	BU	6	G5	GT	INTENSIFICATION STROBE			2.5.1-2
690	C5	93	BW	6	G5	GT	INTENSIFICATION STROBE			2.5.1-2
690	C5	93	BY	6	G5	GT	INTENSIFICATION STROBE			2.5.1-2
690	C5	93	BZ	6	G5	GT	INTENSIFICATION STROBE			2.5.1-2
690	C6	93	BE	6	G5	GT	DISPLAY STARTED			2.5.1-2
690	C6	93	BF	136-8	B5G756	GT	DISPLAY TIMING			2.5.1-2
690	D1	41	GY	1	B6	PA	LRI DRUM DEMAND			S-2.4.5
690	D1	41	G2	1-9	B56D56G567PA	PA	LRI DRUM DEMAND			S-2.4.5
690	D1	41	VY	1	B6	PA	LRI DRUM DEMAND			S-2.4.5
690	D1	41	VZ	1-9	B56D56G567PA	PA	LRI DRUM DEMAND			S-2.4.5
690	D2	41	HK	69	G7	PA	LRI PULSE DISTRIB			A-2.4.6
690	D2	41	HL	4-7	D6G56	PA	LRI PULSE DISTRIB			A-2.4.6
690	D2	41	HN	9	G7	PA	LRI PULSE DISTRIB			A-2.4.6
690	D2	41	WK	69	G7	PA	LRI PULSE DISTRIB			B-2.4.6
690	D2	41	WL	4-7	D6G56	PA	LRI PULSE DISTRIB			B-2.4.6
690	D2	41	WN	9	G7	PA	LRI PULSE DISTRIB			B-2.4.6
690	D2	41	HJ	14	B6D6	PA	LRI CLOCK CONTROL			A-2.4.6
690	D2	41	WJ	14	B6D6	PA	LRI CLOCK CONTROL			B-2.4.6
690	D3	93	BJ	89	G67	PA	DATA AVAIL & DRUM DEMAND			2.5.1-1
690	D3	93	BJ	1-4	B56Q6G5	GT	REGISTER CORRECTOR			2.5.1-1
690	E1	32	GY	45	G56	BPA	XTEL OD-4 PULSE DISTRIB			A-2.3.5
190	E1	32	JY	45	G56	BPA	XTEL OD-4 PULSE DISTRIB			B-2.3.5
190	E1	32	GW	125-8	B56G567	BPA	XTEL PULSE DISTRIB			A-2.3.5
190	E1	32	JW	125-8	B56G567	BPA	XTEL PULSE DISTRIB			B-2.3.5
690	E1	32	JY	45	G56	PA	ODA CH 1-6,7-12			B2.3.5
690	E1	32	JY	47	B3G7	PA	ODA CH 13-18,19-244			B2.3.5
690	E1	32	KX	234	B6D56	GT	DA-2			B-2.3.5
690	E1	32	KX	6	G6	PA	DD-OD3			B-2.3.5
690	E2	32	GT	26	D5G5	DD	XTEL OD-1 DELAY			A-2.3.5
690	E2	32	JT	26	D5	DD	XTEL OD-1 DELAY			B-2.3.5
690	E2	32	GX	15	B3D6	GT	XTEL OD PULSE DISTRIB			A-2.3.5
690	E2	32	JX	15	B5D6	GT	XTEL OD PULSE DISTRIB			B-2.3.5
690	E3	41	FD	3	B6	BPA	LRI READ OUT CONTROL			B-2.4.6
690	E3	41	GX	34	B6	BPA	LRI READ OUT CONTROL			A-2.4.6
690	E3	41	UD	3	B6	BPA	LRI READ OUT CONTROL			A-2.4.6
690	E3	41	VX	34	B6	BPA	LRI READ OUT CONTROL			B-2.4.6
690	E3	41	HM	5-9	G567	BPA	LRI PULSE DISTRIB			A-2.4.6
690	E3	41	WM	5-9	G567	BPA	LRI PULSE DISTRIB			B-2.4.6

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-7	05/01/60	LOGIC
-150	A1	32	GV	1289	87D7	AFF XTEL PULSE DISTRIB			A-2.3.5
-150	A1	32	JV	1289	87D7	AFF XTEL PULSE DISTRIB			B-2.3.5
-150	A2	41	GY	34	D7	AFF LRI DRUM DEMAND			S-2.4.5
-150	A2	41	VY	34	D7	AFF LRI DRUM DEMAND			S-2.4.5
-150	A2	41	FE	34	D7	AFF LRI PULSE DISTRIB			B-2.4.6
-150	A2	41	HN	34	B7	AFF LRI PULSE DISTRIB			A-2.4.6
-150	A2	41	UE	34	D7	AFF LRI PULSE DISTRIB			A-2.4.6
-150	A2	41	WN	34	B7	AFF LRI PULSE DISTRIB			B-2.4.6
-150	B1	32	HV	47	D7	CF6 XTEL CLOCK PARITY			A-2.3.5
-150	B1	32	HW	47	D7	CF6 XTEL CLOCK PARITY			A-2.3.5
-150	B1	32	HU	67	D7	CF6 XTEL CLOCK PARITY			A-2.3.5
-150	B1	32	KU	67	D7	CF6 XTEL CLOCK PARITY			B-2.3.5
-150	B1	32	KV	47	D7	CF6 XTEL CLOCK PARITY			B-2.3.5
-150	B1	32	KW	47	D7	CF6 XTEL CLOCK PARITY			B-2.3.5
-150	B2	32	GU	2-7	B7	CF6 XTEL PULSE DISTRIB			A-2.3.5
-150	B2	32	JU	2-7	B7	CF6 XTEL PULSE DISTRIB			B-2.3.5
-150	B2	32	GD	4569	D7	CF6 XTEL CLOCK & SITE IDENT PARITY			A-2.3.5
-150	B2	32	JD	4569	D7	CF6 XTEL CLOCK & SITE IDENT PARITY			B-2.3.5
-150	B3	41	HV	178	D7	CF6 LRI SITE PARITY			A-2.4.6
-150	B3	41	HW	68	D7	CF6 LRI SITE PARITY			A-2.4.6
-150	B3	41	WV	178	D7	CF6 LRI SITE PARITY			B-2.4.6
-150	B3	41	WW	68	D7	CF6 LRI SITE PARITY			B-2.4.6
-150	B6	93	BU	2	D7	I SITE & M/L MESSAGE COMPARE			2.5.1-2
-150	B6	93	BU	2	D7	I SITE & M/L MESSAGE COMPARE			2.5.1-2
-150	B6	93	BY	2	D7	I SITE & M/L MESSAGE COMPARE			2.5.1-2
-150	B6	93	B2	2	D7	I SITE & M/L MESSAGE COMPARE			2.5.1-2
-150	D1	32	HC	7	D7	APG XTEL ALARM			A-2.3.5
-150	D1	32	KC	7	D7	APG XTEL ALARM			B-2.3.5
-150	D1	32	KC	7	D7	PG ALARM RESET			B-2.3.5
-150	D2	41	HN	7	D7	APG LRI RESET PARITY ERROR & ALARM			A-2.4.6
-150	D2	41	WN	7	D7	APG LRI RESET PARITY ERROR & ALARM			B-2.4.6
-300	A1	32	HU	48	D8	CFF XTEL CLOCK			A-2.3.5
-300	A1	32	HV	268	D8	CFF XTEL CLOCK			A-2.3.5
-300	A1	32	HW	2679	D8	CFF XTEL CLOCK			A-2.3.5
-300	A1	32	KU	48	D8	CFF XTEL CLOCK			B-2.3.5
-300	A1	32	KV	268	D8	CFF XTEL CLOCK			B-2.3.5
-300	A1	32	KW	2679	D8	CFF XTEL CLOCK			B-2.3.5
-300	A1	32	HT	257	D8	CFF XTEL CLOCK CONTROL			A-2.3.5
-300	A1	32	KT	257	D8	CFF XTEL CLOCK CONTROL			B-2.3.5
-300	A1	32	KC	4	D8	CFF READOUT ALARM			B2.3.5
-300	A3	32	HC	4	D8	CFF XTEL ALARM			A-2.3.5
-300	A3	32	KC	4	D8	CFF XTEL ALARM			B-2.3.5
-300	A3	32	GX	4	D8	CFF XTEL OD-1 2 & 3 PULSE DISTRIB			A-2.3.5
-300	A3	32	JX	4	D8	CFF XTEL OD-1 2 & 3 PULSE DISTRIB			B-2.3.5
-300	A3	32	KX	89	D8	CFF DA-1			B-2.3.5
-300	B1	34	JV	2	D8	CFF MAP CNTR DRUM DEMAND			A-2.1.3
-300	B1	34	KV	2	D8	CFF MAP CNTR DRUM DEMAND			B-2.1.3
-300	B1	34	JU	6	D8	CFF MAP CNTR OD-2 CNTR			A-2.1.3
-300	B1	34	KU	6	D8	CFF MAP CNTR OD-2 CNTR			B-2.1.3
-300	C1	41	GY	7	D8	CFF LRI DRUM DEMAND			S-2.4.5
-300	C1	41	VY	7	D8	CFF LRI DRUM DEMAND			S-2.4.5
-300	C2	41	GX	6	D8	CFF LRI READ OUT CONTROL			A-2.4.6
-300	C2	41	VX	6	D8	CFF LRI READ OUT CONTROL			B-2.4.6
-300	C2	41	G1	37	D8	CFF LRI DISPLAY TIME COUNTER			S-2.4.5
-300	C2	41	G3	1357	87D8	CFF LRI DISPLAY TIME COUNTER			S-2.4.5
-300	C2	41	V1	37	D8	CFF LRI DISPLAY TIME COUNTER			S-2.4.5

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	V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-7	05/01/60	LOGIC
-300	C2	41	V3	1357	B7D8		CFF LRI DISPLAY TIME COUNTER			S-2.4.4.5
-300	C3	41	HK	1	D8		CFF LRI PULSE DISTRIB			A-2.4.4.6
-300	C3	41	WK	1	D8		CFF LRI PULSE DISTRIB			B-2.4.4.6
-300	C3	41	HJ	257	D8		CFF LRI CLOCK CONTROL			A-2.4.4.6
-300	C3	41	WJ	257	D8		CFF LRI CLOCK CONTROL			B-2.4.4.6
-300	C4	41	HF	2679	D8		CFF LRI CLOCK			A-2.4.4.6
-300	C4	41	HG	268	D8		CFF LRI CLOCK			A-2.4.4.6
-300	C4	41	HH	48	D8		CFF LRI CLOCK			A-2.4.4.6
-300	C4	41	WF	2679	D8		CFF LRI CLOCK			B-2.4.4.6
-300	C4	41	WG	268	D8		CFF LRI CLOCK			B-2.4.4.6
-300	C4	41	WH	48	D8		CFF LRI CLOCK			B-2.4.4.6
-300	C4	41	HN	8	D8		CFF LRI ALARM			A-2.4.4.6
-300	C4	41	HN	6	D8		CFF LRI ALARM			S-2.4.4.5
-300	C4	41	WN	8	D8		CFF LRI ALARM			B-2.4.4.6
-300	C4	41	WN	6	D8		CFF LRI ALARM			S-2.4.4.5
-300	D1	93	BD	23	B7		CFF DATA AVAILABILITY UNIT			2.5.1-1
-300	D1	93	BD	4689	D78		CFF INTENSIFICATION			2.5.1-1
-300	D1	93	BG	234689B7D78			CFF DISPLAY TIMING			2.5.1-1
-300	D1	93	BK	2	B7		CFF DISPLAY TIMING			2.5.1-1
-300	D1	93	BK	34689	B7D78		CFF SINE STORAGE REG			2.5.1-1
-300	D1	93	BL	234689B7D78			CFF SINE STORAGE REG			2.5.1-1
-300	D1	93	BM	2	B7		CFF SINE STORAGE REG			2.5.1-1
-300	D1	93	BM	34689	B7D78		CFF COSINE STORAGE REG			2.5.1-1
-300	D1	93	BN	234689B7D78			CFF COSINE STORAGE REG			2.5.1-1
-300	D1	93	BP	234689B7D78			CFF COSINE STORAGE REG			2.5.1-1
-300	D1	93	BR	89	D8		CFF SINE STORAGE REG			2.5.1-1
-300	D1	93	BR	2346	B7D7		CFF COSINE STORAGE REG			2.5.1-1

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-8	05/01/60	LOGIC
6250	A1	33	JT	3	85	I	OS TTY 51 COUNTER			3+2+3
6250	A1	33	FF	789	85	PCF	OS CORE SET PULSE			3+1+1-2
6250	A1	33	JY	67	85	LA	OS TTY 51 COUNTER			3+2+3
6250	A1	33	KM	1256	85	PCF	OS G/G CONTROL			3+2+2
6250	A1	33	LN	3	85	I	OS G/G CONTROL			3+2+2
6250	A1	33	HX	8	85	I	OS G/G SHIFT PHASE B			3+2+2
6250	A1	33	HH	8	85	I	OS TTY CONTROL			3+2+3
6250	A1	33	HE	8	85	I	OS G/G SHIFT PHASE A			3+2+2
6250	A1	33	EF	8	85	I	G/A TD 15 COUNTER			3+2+5
6250	A1	33	EJ	1256	85	PCF	SHIFT PHASE A6B			3+2+5
6250	B1	42	CC	7	85	I	OC READ IN CONTROL			3+1+1-3
6250	B1	42	CD	37	85	I	OC READ IN CONTROL			3+1+1-3
6250	B1	42	CE	67	85	I	OC READ IN CONTROL			3+1+1-3
6250	B1	42	CG	67	85	I	OC READ IN CONTROL			3+1+1-3
6250	B2	42	EN	489	85	I	OC G/A G/G TTY COMPARE			3+1+2
6250	B2	42	DJ	2	85	I	OC MASTER STOP			3+1+4
6250	B2	42	FG	8	85	I	OC G/A TD COMPARE			3+1+2
6250	B3	42	DS	23478985		LA	OC G/G ORA SLOTS			3+1+1
6250	B3	42	DT	567	85	LA	OC G/A TD BOM 1-2 ORA SLOTS			3+1+1
6250	B3	42	DX	5	85	I	OC ILL SECT DET & NO COMPARE			3+1+1
6250	B3	42	DU	23478985		LA	OC G/A G/G TD ORA SLOTS			3+1+1
6250	B4	42	CL	2-7	85	PCF	OC SECTION DECODER			3+1+1
6250	B4	42	CM	2-7	85	PCF	OC SECTION DECODER			3+1+1
6250	B5	42	CS	23	85	PCF	OC ADDRESS REG			3+1+1
6250	B5	42	CT	2356	85	PCF	OC ADDRESS REG			3+1+1
6250	B5	42	CU	2356	85	PCF	OC ADDRESS REG			3+1+1
6250	B5	42	CV	2356	85	PCF	OC ADDRESS REG			3+1+1
6250	B5	42	CW	2356	85	PCF	OC ADDRESS REG			3+1+1
6250	B5	42	CX	2356	85	PCF	OC ADDRESS REG			3+1+1
6250	B5	42	CY	2356	85	PCF	OC ADDRESS REG			3+1+1
6250	B6	42	DF	2-7	85	PCF	OC SELECTION DECODER			3+1+2
6250	C1	33	NN	456	85	DCR	OS OD-13 TIMING PULSE			3+1+3
6250	D1	33	JV	13467	85	TCD	OS TTY 51 COUNTER			3+2+3
6250	D1	33	JW	13467	85	TCD	OS TTY 51 COUNTER			3+2+3
6250	D1	33	JX	13467	85	TCD	OS TTY 51 COUNTER			3+2+3
6250	D1	33	JG	12	81	TCD	OS G/C 19 COUNTER			3+2+2
6250	D1	33	JH	1-46-985		TCD	OS G/G 19 COUNTER			3+2+2
6250	D1	33	JJ	1-46-985		TCD	OS G/G 19 COUNTER			3+2+2
6250	D1	33	JK	1-46-985		TCD	OS G/G 19 COUNTER			3+2+2
6250	D1	33	JL	1-46-985		TCD	OS G/G 19 COUNTER			3+2+2
6250	D1	33	JU	13467	85	TCD	OS TTY 51 COUNTER			3+2+3
6250	D1	33	DJ	1-8	85	TCD	G/A TD 15 COUNTER			3+2+5
6250	D1	33	DK	1-8	85	TCD	G/A TD 15 COUNTER			3+2+5
6250	D1	33	DL	1-8	85	TCD	G/A TD 15 COUNTER			3+2+5
6250	E1	33	NM	5-8	85	CVA	OS CONVERSION PULSE GEN			3+1+3
6150	A1	33	NP	478	85	MA	OS G/G CONVERSION			3+2+2
6150	A1	33	NR	478	85	MA	OS G/G CONVERSION			3+2+2
6150	A1	33	NS	478	85	MA	OS G/G CONVERSION			3+2+2
6150	A1	33	NT	478	85	MA	OS G/G CONVERSION			3+2+2
6150	A1	33	NU	478	85	MA	OS G/G CONVERSION			3+2+2
6150	A1	33	NN	3	D5	ACD	OS OD-13 TIMING PULSE			3+1+3
6150	A1	33	NH	478	85	MA	G/A TD CONVERSION			3+2+5
6150	A1	33	NJ	478	85	MA	G/A TD CONVERSION			3+2+5
6150	A2	33	FC	38	D5	CF	OS CORE SET DRIVERS			3+1+1-2
6150	A2	33	FD	38	D5	CF	OS CORE SET DRIVERS			3+1+1-2
6150	A2	33	FE	38	D5	CF	OS CORE SET DRIVERS			3+1+1-2
6150	A2	33	FF	2	D5	CF	OS CORE SET DRIVERS			3+1+1-2
6150	A2	33	FG	38	D5	CF	OS CORE SET DRIVERS			3+1+1-2

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V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-8	05/01/60	LOGIC
6150	A2	33	FH	38	D5	CF	OS CORE SET DRIVERS			3-1-1-2
6150	A2	33	FJ	38	D5	CF	OS CORE SET DRIVERS			3-1-1-2
6150	A2	33	J5	1567	B5G5	CF	OS TTY 51 COUNTER			3-2-3
6150	A2	33	JY	67	D5	LA	OS TTY 51 COUNTER			3-2-3
6150	A2	33	LR	3	B5	CF	OS G/G 5 CNTR SHIFT PULSE GEN			3-2-2
6150	A2	33	GC	1-5	B5	CF	OS TTY OUTPUT SHIFT REG			3-2-3
6150	A2	33	DF	3	D5	GCF	OC DELAY CNTR SHIFT			3-1-4
6150	A2	33	DG	4	D5	CF	17 CNTR SHIFT			3-2-5
6150	A3	33	HH	45	D5	CF	OS G/A CONTROL			3-2-1
6150	A3	33	HH	6-9	G5	CF	OS TTY CONTROL			3-2-3
6150	A3	33	JM	37	B5D5	CF	OS G/G CONTROL			3-2-2
6150	A3	33	HE	26-9	D5G5	CF	OS G/G SHIFT CONTROL			3-2-2
6150	A3	33	HX	3-9	D5G5	CF	OS G/G SHIFT PHASE B			3-2-2
6150	A3	33	LN	37	D5	CF	OS G/G CONTROL			3-2-2
6150	A3	33	LP	56	D5	CF	OS G/G SEARCH			3-2-2
6150	A3	33	KJ	145	B5D5	CF	OS TTY SHIFT CNTRL & SEARCH			3-2-3
6150	A3	33	MD	2	B5	CF	OS TTY CONTROL			3-2-3
6150	A3	33	DE	2	B6	CF	G/A TD SEARCH			3-2-5
6150	A3	33	DF	7	D6	CF	G/A TD NOT SEARCH			3-2-5
6150	A3	33	DM	34	B5D5	CF	G/A TD 15 CNTR SHIFT			3-2-5
6150	A3	33	DS	45	D5	CF	AUTO PAR CHECK & BUSY BIT CNTRL			3-2-5
6150	A3	33	DT	56	G5	CFCF	SHIFT 15 CNTR			3-2-5
6150	A3	33	EF	3	D5	CP	17 CNTR PRIME			3-2-3
6150	A3	33	EH	7	D5	CP	PRIME CMSR 15 CNTR			3-2-5
6150	A3	33	NX	57	D5D6	CF	OS G/A FD TEST CONTROL			3-1-4
6150	A4	33	EX	1	B5	CF	G/A TD HALF WRT CUR GEN			3-1-1-3
6150	A4	33	EX	49	D5G5	CF	OS G/A TD HALF WRT CUR GEN			3-1-1-3
6150	A4	33	FP	149	B5D5G5	CF	OS G/A G/G FD HALF WRT CUR GEN			3-1-1-3
6150	A5	33	LS	9	D5G5	CP	OS G/G COMPLETED MSG SHIFT REG			3-2-2
6150	A5	33	LT	9	D5G5	CP	OS G/G COMPLETED MSG SHIFT REG			3-2-2
6150	A5	33	LU	9	D5G5	CP	OS G/G COMPLETED MSG SHIFT REG			3-2-2
6150	A5	33	LV	148	B5G5	CF	OS G/G COMPLETED MSG SHIFT REG			3-2-2
6150	A5	33	LW	347	D5	CF	OS G/G COMPLETED MSG SHIFT REG			3-2-2
6150	A5	33	GV	2	B6	CF	COMPLETED MSG SHIFT REG			3-2-5
6150	A5	33	GW	89	B6D5	CP	COMPLETED MSG SHIFT REG			3-2-5
6150	A5	33	GX	347-9	B5D5	CF	TD CMSR & ORA SLOTS			3-2-3
6150	A6	33	KC	7	D5	CF	OS TTY PARITY CHECK			3-2-3
6150	A6	33	KD	7	D5	CF	OS TTY PARITY CHECK			3-2-3
6150	A6	33	KE	7	D5	CF	OS TTY PARITY CHECK			3-2-3
6150	A6	33	KF	7	D5	CF	OS TTY PARITY CHECK			3-2-3
6150	A6	33	KG	7	D5	CF	OS TTY PARITY CHECK			3-2-3
6150	A6	33	LM	2	B5	CF	OS DATA PULSE STRETCHER			3-1-4
6150	A6	33	LM	2	D5	CFF	PARITY CHECK			3-2-5
6150	A6	33	DT	2	D5	CF	OS G/A FD STORAGE PARITY CHECK			3-2-1
6150	A6	33	LJ	1	D5	CF	OS G/G PARITY			3-2-2
6150	A6	33	LX	7	D5	CF	OS G/G PARITY			3-2-2
6150	B1	42	CC	3	D5	CF	OC READ IN CONTROL			3-1-1-3
6150	B1	42	CD	19	G5	CF	OC READ IN CONTROL			3-1-1-3
6150	B1	42	CE	14	D5	CF	OC READ IN CONTROL			3-1-1-3
6150	B1	42	CG	14	D5	CF	OC READ IN CONTROL			3-1-1-3
6150	B1	42	CK	3	B5	CF	OC SHIFT G/A TD CMSR			3-1-1-3
6150	B2	42	GR	1	D5	CF	OC LOST PARITY			3-1-1-2
6150	B3	42	CN	12357885D9G5		CF	OC ADDRESS DECODER			3-1-1
6150	B3	42	CP	12357885D9G5		CF	OC ADDRESS DECODER			3-1-1
6150	B3	42	CR	3489	D5	CF	OC ADDRESS DECODER			3-1-1
6150	B3	42	GO	89	D5	CF	OC ALARM CONTROL			3-1-1-2
6150	B4	42	BC	1-6	D5	CF	OC SECTION REG			3-1-1
6150	B4	42	BC	89	D5	CF	OC G/G COMPARE			3-1-2
6150	B4	42	EF	1459	B5D5	CF	OC G/G BURST COUNTER & COMPARE			3-1-2
6150	B4	42	EG	1459	B5D5	CF	OC G/G BURST COUNTER & COMPARE			3-1-2
6150	B4	42	EH	1459	B5D5	CF	OC G/G BURST COUNTER & COMPARE			3-1-2
6150	B4	42	EJ	1459	B5D5	CF	OC G/G BURST COUNTER & COMPARE			3-1-2
6150	B4	42	EK	1459	B5D5	CF	OC TTY BURST COUNTER & COMPARE			3-1-2
6150	B4	42	EL	1459	B5D5	CF	OC TTY BURST COUNTER & COMPARE			3-1-2
6150	B4	42	EM	1459	B5D5	CF	OC TTY BURST COUNTER & COMPARE			3-1-2

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-8	05/01/60	LOGIC
6150	B4	42	EN	67	D5	CF	OC G/A G/G TTY COMPARE			3.1-2
6150	B4	42	CK	7	D5	CF	OC TTY COMPARE			3.1-2
6150	B4	42	FC	1459	B5D5	CF	OC G/A TD BURST CNTR & COMPARE			3.1-2
6150	B4	42	FD	1459	B5D5	CF	OC G/A TD BURST CNTR & COMPARE			3.1-2
6150	B4	42	FE	1459	B5D5	CF	OC G/A TD BURST CNTR & COMPARE			3.1-2
6150	B4	42	FF	1459	B5D5	CF	OC G/A TD BURST CNTR & COMPARE			3.1-2
6150	B4	42	FG	7	D5	CF	OC G/A TD BURST CNTR & COMPARE			3.1-2
6150	B4	42	FH	1234	D5	CF	OC G/A FD & TD COMPARE			3.1-2
6150	B5	42	AC	1	B5	CF	OC PARITY REG			3.1-1
6150	B5	42	AD	1	B5	CF	OC SECTION REG			3.1-1
6150	B5	42	AE	1	B5	CF	OC SECTION REG			3.1-1
6150	B5	42	AF	1	B5	CF	OC SECTION REG			3.1-1
6150	B5	42	AG	1	B5	CF	OC ADDRESS REG			3.1-1
6150	B5	42	AH	1	B5	CF	OC ADDRESS REG			3.1-1
6150	B5	42	AJ	1	B5	CF	OC ADDRESS REG			3.1-1
6150	B5	42	AK	1	B5	CF	OC ADDRESS REG			3.1-1
6150	B5	42	AL	1	B5	CF	OC ADDRESS REG			3.1-1
6150	B5	42	AM	1	B5	CF	OC BURST NUMBER REG			3.1-1
6150	B5	42	AN	1	B5	CF	OC BURST NUMBER REG			3.1-1
6150	B5	42	AP	1	B5	CF	OC BURST NUMBER REG			3.1-1
6150	B5	42	AR	1	B5	CF	OC BURST NUMBER REG			3.1-1
6150	B5	42	AS	1	B5	CF	OC BURST NUMBER REG			3.1-1
6150	B5	42	AT	1	B5	CF	OC BURST NUMBER REG			3.1-1
6150	B5	42	AU	1	B5	CF	OC BURST NUMBER REG			3.1-1
6150	B5	42	AV	1	B5	CF	OC BURST NUMBER REG			3.1-1
6150	B5	42	AX	4	D5	CF	OC PARITY GEN			3.1-1-2
6150	B5	42	AY	4	D5	CF	OC OB REG LOADING			3.1-1-2
6150	B5	42	BD	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BE	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BF	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BG	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BH	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BJ	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BK	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BL	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BM	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BN	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BP	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BR	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BS	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BT	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BU	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BV	1	B5	CF	OC RIGHT DRUM WORD REG			3.1-1-2
6150	B5	42	BY	2	D5	CF	OC PULSE GENERATOR FREQ DIVIDER			3.1-3
6150	B5	42	DK	37	D5	CF	OC BURST TIME COUNT SWITCH			3.1-2
6150	B5	42	DL	37	D5	CF	OC BURST TIME COUNT SWITCH			3.1-2
6150	B5	42	DM	37	D5	CF	OC BURST TIME COUNT SWITCH			3.1-2
6150	B5	42	DN	37	D5	CF	OC BURST TIME COUNT SWITCH			3.1-2
6150	B5	42	DX	2	D5	CF	OC ILL SECT DET & NO COMPARE			3.1-1
6150	B5	42	DY	23	B6	CF	OC ILLEGAL ADR DETECTION			3.1-1
6150	B6	42	DD	1589	D5	CF	OC BURST CNTR SELECT			3.1-2
6150	B6	42	DE	78	G5	CF	OC BURST CNTR SELECT			3.1-2
6150	B6	42	DJ	8	G5	CF	OC ENABLE ODPULSES			3.1-4
6150	B6	42	GL	8	D5	CF	OC TEST WORD GEN			3.1-4
6150	B6	42	GJ	34	B5	CF	OC TEST SHIFT			3.1-4
6150	C1	42	EN	489	G5	I	OC G/A G/G TTY COMPARE			3.1-2
6150	C1	42	DJ	2	D5	I	OC MASTER STOP			3.1-4
6150	C1	42	FG	8	G5	I	OC G/A TD COMPARE			3.1-2
6150	C2	42	CC	7	G5	I	OC READ IN CONTROL			3.1-1-3
6150	C2	42	CD	37	D5	I	OC READ IN CONTROL			3.1-1-3
6150	C2	42	CE	67	G5	I	OC READ IN CONTROL			3.1-1-3
6150	C2	42	CG	67	G5	I	OC READ IN CONTROL			3.1-1-3
6150	C3	42	DS	234789D5		LA	OC G/G ORA SLOTS 0-19			3.1-1
6150	C3	42	DT	567	D5	LA	OC G/A FD BOM 1-2 ORA SLOTS			3.1-1
6150	C3	42	DU	234789D5		LA6	OC G/A G/G TD ORA SLOTS			3.1-1
6150	C3	42	DX	5	G5	I	OC ILL SECT DET & NO COMPARE			3.1-1
6150	C6	33	NP	136	D5	LGT	OS G/G CONVERSION			3.2-2
6150	C6	33	NR	136	D5	LGT	OS G/G CONVERSION			3.2-2

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V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-8	05/01/60	LOGIC
6190	C6	33	NS	136	D5	LGT OS G/G CONVERSION			3-2-2
6190	C6	33	NT	136	D5	LGT OS G/G CONVERSION			3-2-2
6190	C6	33	NU	136	D5	LGT OS G/G CONVERSION			3-2-2
6190	C6	33	NM	48	D5G3	CF OS CONVERSION PULSE GEN			3-1-3
6190	C6	33	NH	136	D5	LGT G/A-TD CONVERSION			3-2-5
6190	C6	33	NJ	136	D5	LGT G/A TD CONVERSION			3-2-5
6190	D1	33	GO	3-6	B5	CSD OS TTY OUTPUT SHIFT REG			3-2-3
6190	D1	33	GE	3-6	B5	CSD OS TTY OUTPUT SHIFT REG			3-2-3
6190	D1	33	GF	3-6	B5	CSD OS TTY OUTPUT SHIFT REG			3-2-3
6190	D1	33	GG	3-6	B5	CSD OS TTY OUTPUT SHIFT REG			3-2-3
6190	D1	33	GH	3-6	B5	CSD OS TTY OUTPUT SHIFT REG			3-2-3
6190	D1	33	HU	6-9	D5	CSD OS G/G OUTPUT SHIFT REG			3-2-2
6190	D1	33	HV	6-9	D5	CSD OS G/G OUTPUT SHIFT REG			3-2-2
6190	D1	33	HW	67	D5	CSD OS G/G OUTPUT SHIFT REG			3-2-2
6190	D1	33	DP	1-4	D5	CSD G/A TD OUTPUT SHIFT REG			3-2-5
6190	D1	33	DR	1-4	D5	CSD G/A TD OUTPUT SHIFT REG			3-2-5
6190	D2	33	JV	89	D5	CSD OS TTY 51 COUNTER			3-2-3
6190	D2	33	JW	89	D5	CSD OS TTY 51 COUNTER			3-2-3
6190	D2	33	JX	89	D5	CSD OS TTY 51 COUNTER			3-2-3
6190	D2	33	JG	56	D5	CSD OS G/G 19 COUNTER			3-2-2
6190	D2	33	JM	89	G5	CSD OS G/G 19 COUNTER SHIFT			3-2-2
6190	D2	33	JT	3	D6	I OS TTY 51 COUNTER			3-2-3
6190	D2	33	JU	89	D5	CSD OS TTY 51 COUNTER			3-2-3
6190	D2	33	LR	56	D5	CSD OS G/G 5 CNTR SHIFT PULSE GEN			3-2-2
6190	D2	33	DM	67	G5	CSD G/A TD SHIFT 15 CNTR			3-2-5
6190	D2	33	DG	67	G5	CSD OC DELAY CNTR SHIFT			3-1-4
6190	D2	33	EF	8	B5	I G/A TD 13 COUNTER			3-2-5
6190	D2	33	EG	1-4	D5	CSD G/A TD 17 CNTR			3-2-5
6190	D3	33	LS	2378	B5	CSD OS G/G COMPLETED MSG SHIFT REG			3-2-2
6190	D3	33	LT	2378	B5	CSD OS G/G COMPLETED MSG SHIFT REG			3-2-2
6190	D3	33	LU	2378	B5	CSD OS G/G COMPLETED MSG SHIFT REG			3-2-2
6190	D3	33	GW	137	B5	CSD COMPLETED MSG SHIFT REG			3-2-5
6190	D4	42	GG	56	D5	CSD OC COMPL OB REG			3-1-4
6190	D4	42	GH	56	D5	CSD OC COMPL OB REG			3-1-4
6190	D4	42	GJ	56	D5	CSD OC COMPL OB REG			3-1-4
6190	E1	42	BX	3	D5	ST OC PULSE GEN			3-1-3
6190	E2	33	LK	1	B5	VRD OS RESET FF			3-1-3
6190	E2	33	MD	13579	D5	VRD OS TTY LINE REG			3-2-3
6190	E2	33	MG	13579	D5	VRD OS TTY LINE REG			3-2-3
6190	E2	33	MK	13579	D5	VRD OS TTY LINE REG			3-2-3
6190	E2	33	NN	13579	D5	VRD OS TTY LINE REG			3-2-3
6190	E2	33	MS	13579	D5	VRD OS TTY LINE REG			3-2-3
6190	E2	42	GC	9	D5	VRD OC G/A G/G TTY ALARM			3-1-1-2
6190	E2	42	GP	9	D5	VRD OS G/A TD ALARM			3-1-1-2
6190	E2	42	GP	9	D5	VRD OC G/A TD BOM 1-2 ALARM			3-1-1-2
6190	E2	33	NV	37	D5	VRD OS G/I G/G FD TD CHAN 1-4			3-1-4
6190	E2	33	NX	3	B6	VRD OS LRI LOOP CHAN SEL			3-1-4
6190	E4	33	FN	1267	D5	RID OS HALF WRITE CURRENT GEN			3-1-1-3
6190	E4	33	FR	1267	D5	RID OS HALF WRITE CURRENT GEN			3-1-1-3
6190	E4	33	FU	1267	D5	RID OS HALF WRITE CURRENT GEN			3-1-1-3
6190	E4	33	FV	1267	D5	RID OS HALF WRITE CURRENT GEN			3-1-1-3
6190	E4	33	FW	1267	D5	RID OS HALF WRITE CURRENT GEN			3-1-1-3
6190	E4	33	FU	1267	D5	RID OS HALF WRT CUR GEN			3-1-1-3
6190	E4	33	EV	1267	D5	RID OS HALF WRT CUR GEN			3-1-1-3
6190	E4	33	EW	1267	D5	RID OS HALF WRITE CURRENT GEN			3-1-1-3
6190	F1	33	GJ	1-9	D5	FA OS TTY FLUX AMPLIFIERS			3-2-3
6190	F1	33	GK	1-9	D5	FA OS TTY FLUX AMPLIFIERS			3-2-3
6190	F1	33	GL	1-7	D5	FA OS TTY FLUX AMPLIFIERS			3-2-3
6190	F1	33	HR	1-9	D5	FA OS G/G FLUX AMPLIFIER			3-2-2
6190	F1	33	HS	1-9	D5	FA OS G/G FLUX AMPLIFIER			3-2-2
6190	F1	33	HT	3-9	D5	FA OS G/G FLUX AMPLIFIER			3-2-2
6190	F1	33	JN	1-9	D5	FA OS G/G FLUX AMPLIFIER			3-2-2
6190	F1	33	JP	1-9	D5	FA OS G/G FLUX AMPLIFIER			3-2-2
6190	F1	33	JR	3-9	D5	FA OS G/G FLUX AMPLIFIER			3-2-2

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-8	05/01/60	LOGIC
6150	F1	33	DM	1-9	D5	FA	G/A TD FLUX AMPLIFIER		3.2.5
6150	F1	33	DN	1-8	D5	FA	G/A TD FLUX AMPLIFIER		3.2.5
6150	F2	33	JS	23	D5	SS	OS TTY 51 COUNTER		3.2.3
6150	F2	33	LN	89	G5	SS	OS G/G CONTROL		3.2.2
6150	F2	33	LV	67	D5	SS	OS G/G COMPLETED MSG SHIFT REG		3.2.2
6150	F2	42	AY	12	B5	SS	OC OB REG LOADING		3.1.1-2
6150	F2	33	GX	56	D6	SS	CLEAR TD CMSR		3.2.5
690	A1	33	JM	1	B6	GT	OS G/G SYNC GEN		3.2.2
690	A1	33	KH	78	G56	GT	OS TTY CONTROL		3.2.3
690	A1	33	LN	26	D6G7	GT	OS G/G CONTROL		3.2.2
690	A1	33	LP	1	B6	GT	OS G/G SHIFT CONTROL		3.2.2
690	A1	33	DE	4	D6	GT	FREQ DIV 2		3.2.5
690	A1	33	DH	59	B6G6	GT	G/A TD SHIFT 15 CNTR		3.2.5
690	A1	33	DS	2	B5	CF	AUTO PAR CHECK & BUSY BIT CNTRL		3.2.5
690	A1	33	EH	3	B5	GT	SYNC GEN		3.2.5
690	A1	33	NX	4689	B5D5G67	GT	OS LRI LOOP CHAN SEL		3.1.4
690	A2	33	GD	12789	B6D9G567	GT	OS TTY OUT SHIFT REG		3.2.3
690	A2	33	GE	12789	B6D9G567	GT	OS TTY OUT SHIFT REG		3.2.3
690	A2	33	GF	12789	B6D9G567	GT	OS TTY OUT SHIFT REG		3.2.3
690	A2	33	GG	12789	B6D9G567	GT	OS TTY OUT SHIFT REG		3.2.3
690	A2	33	GH	12789	B6D9G567	GT	OS TTY OUT SHIFT REG		3.2.3
690	A2	33	HU	34	D6G5	GT	OS G/G OUT SHIFT REG		3.2.2
690	A2	33	HV	34	D6G5	GT	OS G/G OUT SHIFT REG		3.2.2
690	A2	33	HW	3	D6	GT	OS G/G SHIFT REG		3.2.2
690	A2	33	DP	7	G6	GT	G/A TD TEST DATA 1		3.2.5
690	A2	33	DR	68	G6	GT	G/A TD TEST DATA 2		3.2.5
690	A2	33	EF	2	B6	GT	17 CNTR SYNC		3.2.5
690	A3	33	JT	4	G5	GT	OS TTY 51 COUNTER		3.2.3
690	A3	33	JG	3789	B6G567	GT	OS G/G 19 COUNTER		3.2.2
690	A3	33	JS	4	D6	GT	OS TTY 51 COUNTER		3.2.3
690	A3	33	JY	24	D6G6	GT	OS TTY 51 COUNTER		3.2.3
690	A3	33	JT	12	B6D5	GT	OS TTY SPEED SHIFT PUL GEN		3.2.3
690	A3	33	DH	8	G7	GT	G/A TD 15 CNTR		3.2.5
690	A3	33	DJ	9	G5	GT	G/A TD 15 COUNTER		3.2.5
690	A3	33	DK	9	G5	GT	G/A TD 15 COUNTER		3.2.5
690	A3	33	DL	9	G5	GT	G/A TD 15 COUNTER		3.2.5
690	A3	33	EH	1	B6	GT	G/A TD 15 COUNTER		3.2.5
690	A3	33	DG	9	G6	GT	17 CNTR SHIFT		3.2.5
690	A3	33	EG	678	G567	GT	G/A TD 17 CNTR		3.2.3
690	A3	33	LR	4	D6	GT	OS G/G 5 CNTR SHIFT PULSE GEN		3.2.2
690	A4	33	KH	1	B5	GT	OS TTY PARITY ALARM		3.2.3
690	A4	33	LX	5	G5	GT	OS G/G PARITY ALARM		3.2.2
690	A4	33	DT	1	B6	GT	TD PARITY ALARM		3.2.5
690	A5	33	LS	46	D6G6	GT	OS G/G COMPLETED MSG SHIFT REG		3.2.2
690	A5	33	LT	46	D6G6	GT	OS G/G COMPLETED MSG SHIFT REG		3.2.2
690	A5	33	LM	38	B6G6	GT	OS G/A G/G UNIT TEST & SHIFT CTRL		3.1.4
690	A5	33	LU	4	D6	GT	OS G/G COMPLETED MSG SHIFT REG		3.2.2
690	A5	33	KR	24	B5D5	GT	OS G/A G/G UNIT TEST CNTRL		3.1.4
690	A5	33	GV	469	D6G57	GT	COMPLETED MSG SHIFT REG		3.2.5
690	A5	33	GW	246	D6G57	GT	COMPLETED MSG SHIFT REG		3.2.5
690	B1	33	HD	3	B6	GT	OS COMPUTER LOOP CONTROL		3.2.3
690	B1	33	HD	57	G56	GT	OS GATED 13 CSR & PAUSE		3.1.4
690	B3	42	CC	1458	B6D6G6	GT	OC READ IN CONTROL		3.1.1-3
690	B3	42	CD	24568	B6D6G67	GT	OC READ IN CONTROL		3.1.1-3
690	B3	42	CE	2389	B6D6G67	GT	OC READ IN CONTROL		3.1.1-3
690	B3	42	CG	2389	B6D6G67	GT	OC READ IN CONTROL		3.1.1-3
690	B3	42	CK	48	B5G5	GT	OC SHIFT G/A TD CMSR		3.1.1-3
690	B4	42	AC	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY		3.1.1
690	B4	42	AD	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY		3.1.1
690	B4	42	AE	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY		3.1.1
690	B4	42	AF	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY		3.1.1
690	B4	42	AG	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY		3.1.1

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V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-8	05/01/60	LOGIC
690	B4	42	AH	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	B4	42	AJ	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	B4	42	AK	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	B4	42	AL	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	B4	42	AM	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	B4	42	AN	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	B4	42	AP	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	B4	42	AR	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	B4	42	AS	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	B4	42	AT	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	B4	42	AU	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	B4	42	AV	57	D6G6	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	B4	42	BD	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B4	42	BE	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B4	42	BF	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B4	42	BG	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B4	42	BH	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B4	42	BJ	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B4	42	BK	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B4	42	BL	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B4	42	BM	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B4	42	BN	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B4	42	BP	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B4	42	BR	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B4	42	BS	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B4	42	BT	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B4	42	BU	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B4	42	BV	57	D6G6	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	B5	42	DC	1346	B56D6G6	GT	OC TIME CNTR CTRL SEL & RD			3.1.2
690	B5	42	DD	6	D6	GT	OC BURST CNTR SELECT			3.1.2
690	B5	42	DE	23	B6D5	PA	OC BURST CNTR SELECT			3.1.2
690	B5	42	GF	27	G56	GT	OC TEST XFER & TD UNIT TEST CTRL			3.1.4
690	B5	42	GG	1-47	-9856D6G567	GT	OC COMPL OB REG			3.1.4
690	B5	42	GH	1-47	-9856D6G567	GT	OC COMPL OB REG			3.1.4
690	B5	42	GJ	789	G567	GT	OC COMPL OB REG			3.1.4
690	B5	42	GK	78	G67	GT	OC RESTART TO DRUM SYNC			3.1.1-2
690	B5	42	GL	6	G5	GT	OC TEST WORD GEN			3.1.4
690	B5	42	AC	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AD	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AE	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AF	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AG	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AH	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AJ	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AK	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AL	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AM	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AN	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AP	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AR	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AS	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AT	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AU	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	AV	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BD	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BE	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BF	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BG	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BH	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BJ	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BK	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BL	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BM	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BN	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BP	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BR	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BS	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BT	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BU	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B5	42	BV	3	B6	GT	OC TEST READ IN CONTROL			3.1.4
690	B6	42	BY	4	G5	GT	OC PULSE GEN FREQ DIVIDER			3.1.3
690	B6	42	BX	6	D6	PA	OC PULSE GEN			3.1.3
690	B6	42	ER	1368	B56D6G6	GT	OC PULSE GEN			3.1.3
690	B6	42	EU	16	B6G5	GT	OC PULSE GEN			3.1.3
690	B6	42	EV	357	B5D5G5	GT	OC PULSE GEN			3.1.3
690	B6	42	EW	357	B5D5G5	GT	OC PULSE GEN			3.1.3

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-8	05/01/60	LOGIC
690	B6	42	EX	68	G6G7	GT	OC 32 PPS CONTROL			3.1.2
690	B6	42	EY	68	G6G7	GT	OC RESET & PRIME CONTROL			3.1.3
690	C1	42	EF	7	G6	GT	OC G/G BURST COUNTER			3.1.2
690	C1	42	EG	7	G6	GT	OC G/G BURST COUNTER			3.1.2
690	C1	42	EH	7	G6	GT	OC G/G BURST COUNTER			3.1.2
690	C1	42	EJ	7	G6	GT	OC G/G BURST COUNTER			3.1.2
690	C1	42	EK	7	G6	GT	OC TTY BURST COUNTER			3.1.2
690	C1	42	EL	7	G6	GT	OC TTY BURST COUNTER			3.1.2
690	C1	42	EM	7	G6	GT	OC TTY BURST COUNTER			3.1.2
690	C1	42	EN	1	B6	PA	OC RESET TTY BURST CNTR			3.1.2
690	C1	42	FC	7	G6	GT	OC G/A TD BURST CNTR			3.1.2
690	C1	42	FD	7	G6	GT	OC G/A TD BURST CNTR			3.1.2
690	C1	42	FE	7	G6	GT	OC G/A TD BURST CNTR			3.1.2
690	C1	42	FF	7	G6	GT	OC G/A TD BURST CNTR			3.1.2
690	C2	42	GD	13	B56	GT	OC ALARM CONTROL			3.1.1-2
690	C2	42	GR	3-7	B6D6G567	PA	OC PARITY ALARM G/G TD TTY			3.1.1-2
690	C2	42	DY	589	D5G67	PA	OC DRUM PARITY ALARM			3.1.1-2
690	C3	42	AC	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AD	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AE	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AF	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AG	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AH	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AJ	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AK	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AL	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AM	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AN	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AP	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AR	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AS	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AT	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AU	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AV	68	G57	GT	OC LEFT DRUM WORD REG PARITY			3.1.1
690	C3	42	AW	1	B5	GT	OC OD-4 RESET CNTRL			3.1.1
690	C3	42	DK	28	B6G6	GT	OC BURST TIME COUNT SWITCH			3.1.2
690	C3	42	DL	28	B6G6	GT	OC BURST TIME COUNT SWITCH			3.1.2
690	C3	42	DM	28	B6G6	GT	OC BURST TIME COUNT SWITCH			3.1.2
690	C3	42	DN	28	B6G6	GT	OC BURST TIME COUNT SWITCH			3.1.2
690	C3	42	AW	1	B5	GT	OC OD-4 RESET CNTRL			3.1.1
690	C3	42	DX	36	B6G6	GT	OC ILL SECT DET & NO COMPARE			3.1.1
690	C3	42	DY	7	G5	GT	OC ILLEGAL ADDRESS DETECTION			3.1.1
690	C3	42	DT	89	G7	AGT	G/A FD ORA			3.1.1
690	C3	42	BD	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	C3	42	BE	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	C3	42	BF	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	C3	42	BG	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	C3	42	BH	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	C3	42	BJ	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	C3	42	BK	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	C3	42	BL	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	C3	42	BM	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	C3	42	BN	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	C3	42	BP	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	C3	42	BR	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	C3	42	BS	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	C3	42	BT	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	C3	42	BU	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	C3	42	BV	68	G57	GT	OC RIGHT DRUM WORD REG PARITY			3.1.1-2
690	D1	42	GL	3	D6	BPA	OC TEST WORD GEN			3.1.4
690	D2	33	LK	4	D5	BPA	OS RESET FF			3.1.3
690	D2	42	AW	5	D6	BPA	OC OD-4 RESET CNTRL			3.1.1
690	D2	42	EP	46	D6G5	PA	OC OD-1 PULSE GEN DELAY			3.1.3
690	D2	42	ES	368	D56G7	PA	OC OD-3 & PARITY DELAY			3.1.3
690	D2	42	ET	3	B6	PA	OC OD-4			3.1.3
690	D2	42	EN	23	D6G6	BPA	OC RESET G/A BURST COUNTER			3.1.2
690	D2	42	ES	2	B6	BPA	OC STOP NO COMPARE			3.1.1-2
690	D2	42	FG	2	D6	BPA	OC G/A TD BURST CNTR			3.1.2
690	F1	33	FC	124-79G7		STD	OS CORE SET DRIVERS			3.1.1-2

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V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-8	05/01/60	LOGIC
690	F1	33	FD	124-7967		STD OS CORE SET DRIVERS			3.1.1-2
690	F1	33	FE	124-7967		STD OS CORE SET DRIVERS			3.1.1-2
690	F1	33	FF	134 G5		STD OS CORE SET DRIVERS			3.1.1-2
690	F1	33	FG	124-7967		STD OS CORE SET DRIVERS			3.1.1-2
690	F1	33	FH	124-7967		STD OS CORE SET DRIVERS			3.1.1-2
690	F1	33	FJ	124-7967		STD OS CORE SET DRIVERS			3.1.1-2
-150	A2	33	GC	67	D7	GFF OS T1Y OUTPUT SHIFT REG			3.2.3
-150	A2	33	HM	12	B7	GFF OS G/A OUTPUT SHIFT CONTROL			3.2.1
-150	A2	33	HX	12	B7	GFF OS G/G OUTPUT SHIFT			3.2.2
-150	A2	33	LW	12	B7	GFF OS G/G COMPLETED MSG SHIFT REG			3.2.2
-150	A2	33	GX	12	B7	GFF SHIFT TD CMSR			3.2.5
-150	A3	33	DF	12	B7	GFF OC DELAY CNTR SHIFT			3.1.4
-150	A3	33	FF	56	D7	AFF OS CORE SET PULSE			3.1.1-2
-150	A3	33	JM	56	B7	GFF OS G/G 19 COUNTER SHIFT			3.2.2
-150	A3	33	JS	89	D8	GFF OS TTY 51 COUNTER SHIFT			3.2.3
-150	A3	33	LH	23	B7	GFF OS G/A 13 COUNTER SHIFT			3.2.1
-150	A3	33	LR	12	B7	GFF OS G/G 5 CNTR SHIFT PULSE GEN			3.2.2
-150	A3	33	DG	12	B7	AFF 17 CNTR SHIFT			3.2.5
-150	A3	33	DH	12	B7	GFF G/A TD SHIFT 15 CNTR			3.2.5
-150	A4	33	EX	23	D7	AFF G/A TD HALF WRT CUR GEN			3.1.1-3
-150	A4	33	FP	239-8	D7	AFF OS G/A G/G FD HALF WRT CUR GEN			3.1.1-3
-150	A5	42	AX	23	B7	AFF OC PARITY GEN			3.1.1-2
-150	A5	42	GJ	12	B7	GFF OC TEST SHIFT			3.1.4
-150	B1	33	FF	789	D8	CF6 OS CORE SET PULSE			3.1.1-2
-150	B1	33	LP	56	D7	CF6 OS G/G SEARCH			3.2.2
-150	B1	33	KJ	14	B7	CF6 OS TTY SHIFT CNTRL & SEARCH			3.2.3
-150	B1	33	LW	347	D7	CF6 OS COMPLETED MESSAGE SHIFT			3.2.2
-150	B1	33	DE	2	B7	CF G/A TD SEARCH			3.2.5
-150	B1	33	DF	7	B7	CF G/A TJ NOT SEARCH			3.2.5
-150	B1	33	GX	34	D7	CF TD CMSR & ORA SLOTS			3.2.5
-150	C2	42	AX	4	D7	CF6 OC PARITY GEN			3.1.1-2
-150	C2	42	AY	4	D7	CF6 OC OB REG LOADING			3.1.1-2
-150	C2	42	DF	2-7	D7	CF6 OC SELECTION DECODER			3.1.2
-150	C2	42	DS	234789D7		LA6 OC G/G ORA SLOTS 0-19			3.1.1
-150	C2	42	DU	234789D7		LA OC G/A G/G TD ORA SLOTS			3.1.1
-150	C4	42	DD	1589	D7	CF6 OC BURST COUNTER SELECT			3.1.2
-150	C4	42	DE	78	B7	CF6 OC BURST COUNTER SELECT			3.1.2
-150	C4	42	EF	459	D7	CF6 OC G/G BURST COUNTER & COMPARE			3.1.2
-150	C4	42	EG	459	D7	CF6 OC G/G BURST COUNTER & COMPARE			3.1.2
-150	C4	42	EH	459	D7	CF6 OC G/G BURST COUNTER & COMPARE			3.1.2
-150	C4	42	EJ	459	D7	CF6 OC G/G BURST COUNTER & COMPARE			3.1.2
-150	C4	42	EK	459	D7	CF6 OC TTY BURST COUNTER & COMPARE			3.1.2
-150	C4	42	EL	459	D7	CF6 OC TTY BURST COUNTER & COMPARE			3.1.2
-150	C4	42	EM	459	D7	CF6 OC TTY BURST COUNTER & COMPARE			3.1.2
-150	C4	42	BC	89	D7	CF6 OC G/G COMPARE			3.1.2
-150	C4	42	BC	1-6	D7	CF6 OC SECTION REG			3.1.1
-150	C4	42	CK	7	D7	CF6 OC TTY COMPARE			3.1.2
-150	C4	42	FC	459	D7	CF6 OC G/A TD BURST CNTR			3.1.2
-150	C4	42	FD	459	D7	CF6 OC G/A TD BURST CNTR			3.1.2
-150	C4	42	FE	459	D7	CF6 OC G/A TD BURST CNTR			3.1.2
-150	C4	42	FF	459	D7	CF6 OC G/A TD BURST CNTR			3.1.2
-150	C4	42	FH	1234	D7	CF6 OC G/A FD & TD COMPARE			3.1.2
-150	C5	42	CL	2-7	D7	CF6 OC SECTION DECODER			3.1.1
-150	C5	42	CM	2-7	D7	CF6 OC SECTION DECODER			3.1.1
-150	C5	42	GD	89	D7	CF6 OC ALARM CONTROL			3.1.1-2
-150	C5	42	GR	1	B7	CF6 OC LOST PARITY ALARM			3.2.1-2
-150	C6	42	BD	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2
-150	C6	42	BE	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2
-150	C6	42	BF	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2
-150	C6	42	BG	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2
-150	C6	42	BH	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2
-150	C6	42	BJ	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-8	05/01/60	LOGIC
-150	C6	42	BK	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2
-150	C6	42	BL	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2
-150	C6	42	BM	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2
-150	C6	42	BN	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2
-150	C6	42	BP	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2
-150	C6	42	BR	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2
-150	C6	42	BS	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2
-150	C6	42	BT	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2
-150	C6	42	BU	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2
-150	C6	42	BV	1	B7	CF6 OC RIGHT DRUM WORD REG			3.1.1-2
-150	C6	42	CS	23	D7	CF6 OC ADDRESS REG			3.1.1
-150	C6	42	CT	23 ²⁶	D7	CF6 OC ADDRESS REG			3.1.1
-150	C6	42	CU	2356	D7	CF6 OC ADDRESS REG			3.1.1
-150	C6	42	CV	2356	D7	CF6 OC BURST NUMBER REG			3.1.1
-150	C6	42	CW	2356	D7	CF6 OC BURST NUMBER REG			3.1.1
-150	C6	42	CX	2356	D7	CF6 OC BURST NUMBER REG			3.1.1
-150	C6	42	CY	2356	D7	CF6 OC BURST NUMBER REG			3.1.1
-150	D1	33	KM	3	D7	BFF OS G/G CONTROL			3.2.2
-150	D1	33	LP	3	B7	BFF OS G/G SEARCH			3.2.2
-150	D1	33	EJ	3	D7	BFF SHIFT PHASE A&B			3.2.5
-150	D3	42	AY	6	D8	BFF OC OB REG LOADING			3.1.1-2
-150	D3	42	DD	27	B7	BFF OC BURST CNTR SELECT			3.1.2
-150	D3	42	DE	6	D7	BFF OC BURST CNTR SELECT			3.1.2
-150	D3	42	GL	7	D7	BFF TEST WORD GEN			3.1.4
-150	D4	42	EF	68	D8	BFF OC G/G BURST COUNTER			3.1.2
-150	D4	42	EG	68	D8	BFF OC G/G BURST COUNTER			3.1.2
-150	D4	42	EH	68	D8	BFF OC G/G BURST COUNTER			3.1.2
-150	D4	42	EJ	68	D8	BFF OC G/G BURST COUNTER			3.1.2
-150	D4	42	EK	68	D8	BFF OC TTY BURST COUNTER			3.1.2
-150	D4	42	EL	68	D8	BFF OC TTY BURST COUNTER			3.1.2
-150	D4	42	EM	68	D8	BFF OC TTY BURST COUNTER			3.1.2
-150	D4	42	FC	68	D8	BFF OC G/A TD BURST CNTR			3.1.2
-150	D4	42	FD	68	D8	BFF OC G/A TD BURST CNTR			3.1.2
-150	D4	42	FE	68	D8	BFF OC G/A TD BURST CNTR			3.1.2
-150	D4	42	FF	68	D8	BFF OC G/A TD BURST CNTR			3.1.2
-150	D5	42	AC	2	D7	BFF OC PARITY REG			3.1.1
-150	D5	42	AD	2	D7	BFF OC SECTION REG			3.1.1
-150	D5	42	AE	2	D7	BFF OC SECTION REG			3.1.1
-150	D5	42	AF	2	D7	BFF OC SECTION REG			3.1.1
-150	D5	42	AG	2	D7	BFF OC ADDRESS REG			3.1.1
-150	D5	42	AH	2	D7	BFF OC ADDRESS REG			3.1.1
-150	D5	42	AJ	2	D7	BFF OC ADDRESS REG			3.1.1
-150	D5	42	AK	2	D7	BFF OC ADDRESS REG			3.1.1
-150	D5	42	AL	2	D7	BFF OC ADDRESS REG			3.1.1
-150	D5	42	AM	2	D7	BFF OC BURST NUMBER REG			3.1.1
-150	D5	42	AN	2	D7	BFF OC BURST NUMBER REG			3.1.1
-150	D5	42	AP	2	D7	BFF OC BURST NUMBER REG			3.1.1
-150	D5	42	AR	2	D7	BFF OC BURST NUMBER REG			3.1.1
-150	D5	42	AS	2	D7	BFF OC BURST NUMBER REG			3.1.1
-150	D5	42	AT	2	D7	BFF OC BURST NUMBER REG			3.1.1
-150	D5	42	AU	2	D7	BFF OC BURST NUMBER REG			3.1.1
-150	D5	42	AV	2	D7	BFF OC BURST NUMBER REG			3.1.1
-150	D5	42	BD	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	D5	42	BE	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	D5	42	BF	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	D5	42	BG	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	D5	42	BH	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	D5	42	BJ	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	D5	42	BK	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	D5	42	BL	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	D5	42	BM	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	D5	42	BN	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	D5	42	BP	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	D5	42	BR	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	D5	42	BS	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	D5	42	BT	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	D5	42	BU	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	D5	42	BV	2	D7	BFF OC RIGHT DRUM WORD REG			3.1.1-2
-150	E1	33	JS	23	B7	SS OS TTY 51 COUNTER			3.2.3
-150	E1	33	LN	89	D7	SS OS G/G CONTROL			3.2.2

MC-8

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-8	05/01/60	LOGIC
-150	E1	33	LV	67	D7	SS OS G/G COMPLETED MSG SHIFT REG			3.2.2.4
-150	E1	42	AY	12	B7	SS OC OB REG LOADING			3.1.1-2
-150	E1	33	GX	56	D8	SS CLEAR TD CMSR			3.2.5
-150	F1	42	BX	3	D7	ST OC PULSE GEN			3.1.3
-150	F2	33	LK	3	B7	APG OS RESET FF			3.1.3
-150	F2	42	EX	34	B7	APG OC RESET FF			3.1.3
-150	F2	42	EY	34	B7	APG OC CLEAR ALARMS PULSE GEN			3.1.3
-150	F2	42	ES	49	D7	APG OC MAN ADD REG STEP & STRT CYCLE			3.1.4
-150	F2	42	GK	24	B7D7	APG OC RESTART TO DRUM SYNC			3.1.1-2
-300	A1	33	JM	2	D8	CFF OS G/G SYNC GEN			3.2.2
-300	A1	33	LP	2	D8	CFF OS G/G SHIFT CONTROL			3.2.2
-300	A1	33	KJ	237	D8	CFF OS TTY SHIFT CNTRL & SEARCH			3.2.3
-300	A1	33	DE	37	D8	CFF FREQ DIV 2 & 4			3.2.5
-300	A1	33	DE	8	D8	CFF OC TD LRI PAUSE			3.1.4
-300	A1	33	DE	1	D8	CFF G/A TD SEARCH			3.2.5
-300	A1	33	EF	157	B7D7B	CFF 17 CNTR SYNC PRIME & SHIFT			3.2.5
-300	A1	33	EH	24	D8	CFF SYNC GEN & 15 CNTR PRIME			3.2.5
-300	A1	33	DS	16	B7D8	CFF AUTO PAR CHECK & BUSY BIT CNTRL			3.2.5
-300	A1	33	NV	15	D8	CFF OS G/A G/G FD CHAN 1-4			3.1.4
-300	A1	33	NX	1	B7	CFF OS LRI LOOP CHAN SEL			3.1.4
-300	A1	33	NY	2	D8	CFF OC AUTO LOOP INHIBIT			3.1.4
-300	A2	33	LH	6	D8	CFF OS G/A 25 COUNTER CARRY			3.2.1
-300	A2	33	MC	23578	D8	CFF OS TTY LINE REG			3.2.3
-300	A2	33	MF	23578	D8	CFF OS TTY LINE REG			3.2.3
-300	A2	33	MJ	23578	D8	CFF OS TTY LINE REG			3.2.3
-300	A2	33	MM	23578	D8	CFF OS TTY LINE REG			3.2.3
-300	A2	33	MR	23578	D8	CFF OS TTY LINE REG			3.2.3
-300	A3	33	KC	23589	D8	CFF OS TTY PARITY CHECK			3.2.3
-300	A3	33	KD	23589	D8	CFF OS TTY PARITY CHECK			3.2.3
-300	A3	33	KE	23589	D8	CFF OS TTY PARITY CHECK			3.2.3
-300	A3	33	KF	23589	D8	CFF OS TTY PARITY CHECK			3.2.3
-300	A3	33	KG	23589	D8	CFF OS TTY PARITY CHECK			3.2.3
-300	A3	33	LX	12489	D8	CFF OS G/G STORAGE PARITY CHECK			3.2.2
-300	A3	33	DT	34	D8	CFF PARITY CHECK			3.2.5
-300	A4	33	LL	23578	D8	CFF OS G/G COMPLETED MSG SHIFT REG			3.2.2
-300	A4	33	GV	1378	D8	CFF COMPLETED MSG SHIFT REG			3.2.5
-300	A5	33	LM	45	D7B	CFF OC PUL STRETCHER & TEST SHFT CTL			3.1.4
-300	A5	33	KR	5	D8	CFF OC G/A G/G UNIT TEST CNTRL			3.1.4
-300	A6	33	HD	4	D8	CFF OS GATED 13 CSR SHIFT & PAUSE			3.1.4
-300	B1	42	DC	27	D8	CFF OC BURST TIME SEL & RD CTR CTRL			3.1.2
-300	B1	42	DJ	7	D8	CFF OC MASTER STOP			3.1.4
-300	B1	42	EU	2	D8	CFF OC FRAME LOOP CONTROL			3.1.3
-300	B1	42	EU	4	D8	CCF RESET DRUM STATUS			3.1.3
-300	B1	42	GF	39	D7B	CFF OC TEST XFER & TD UNIT TEST CTRL			3.1.4
-300	B1	42	GK	36	D8	CFF OC RESTART TO DRUM SYNC			3.1.1-2
-300	B1	42	GL	2	D8	CFF OC TEST WORD GEN			3.1.4
-300	B2	42	GC	2357	D8	CFF OC G/A G/G TTY ALARM			3.1.1-2
-300	B2	42	GD	467	D8	CFF OC ALARM CONTROL			3.1.1-2
-300	B2	42	GP	5	D8	CFF G/A TD ALARM			3.1.1-2
-300	B2	42	GR	2	D8	CFF OC LOST PARITY ALARM			3.1.1-2
-300	B3	42	BY	67	D8	CFF OC PULSE GEN FREQ DIVIDER			3.1.3
-300	B3	42	EV	2	D8	CFF OC PULSE GEN			3.1.3
-300	B3	42	EW	2	D8	CFF OC PULSE GEN			3.1.3
-300	B3	42	EX	79	D8	CFF OC 32 PPS START & STOP			3.1.2
-300	B3	42	EY	79	D8	CFF OC RESET & PRIME CONTROL			3.1.3
-300	C1	33	NH	25	D8	CFF G/A TD CONVERSION			3.2.5

MC-8

	V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-8	05/01/60	LOGIC
-300	C1	33	NK	25	D8		CFF	OS G/A CONVERSION			3.2.1
-300	C1	33	ML	25	D8		CFF	OS G/A CONVERSION			3.2.1
-300	C1	33	NP	25	D8		CFF	OS G/G CONVERSION			3.2.2
-300	C1	33	NR	25	D8		CFF	OS G/G CONVERSION			3.2.2
-300	C1	33	NS	25	D8		CFF	OS G/G CONVERSION			3.2.2
-300	C1	33	NT	25	D8		CFF	OS G/G CONVERSION			3.2.2
-300	C1	33	NW	25	D8		CFF	OS G/G CONVERSION			3.2.2
-300	C1	33	NR	7	D8		CFF	OS OD-13 PULSE START			3.1.3

MC-9

V C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-9	05/01/60	LOGIC
6250 A	32	*J	58	B5	PCF XTEL TIMING & SYNC CONTROL			S-2+3+2
6250 A	32	*J	68	B5	PCF XTEL START READOUT & RESET			S-2+3+2
6250 A	41	*P	12	B5	PCF LRI LAST SHIFT			S-2+4+2
6250 B	32	*E	234678B5D5		DCR XTEL TIMING SYNC & DATA CONTRLS			S-2+3+2
6250 B	34	*N	234678B5D5		DCR MAP CNTR DDR CONVERTER			S-2+1+2
6250 B	34	*R	234678B5D5		DCR MAP CNTR DDR CONVERTER			S-2+1+2
6250 B	41	*D	234678B5D5		DCR L R I DATA CONVERTER & SYNC			S-2+4+2
6250 B	41	*2	234678B5D5		DCR L R I DATA CONVERTER & SYNC			S-2+4+2
6250 C	32	*R	3-9	B5	LA XTEL DATA DISTRIBUTOR			S-2+3+2
6250 C	32	*S	89	B5	LA XTEL DATA DISTRIBUTOR			S-2+3+2
6250 C	41	*E	89	B5	LA LRI BUSY BIT SHIFT			S-2+4+2
6250 C	41	*1	89	B5	LA LRI BUSY BIT SHIFT			S-2+4+2
6250 D	34	*D	134	B5D5	FD MAP CNTR AZ N SIGNAL PROTECT			S-2+1+2
6250 D	34	*2	13-6	B5D5	FD MAP CNTR AZ N SIGNAL PROTECT			S-2+1+2
6250 F	34	*L	678	B5	PI MAP CNTR CNTR & REG SHIFT DRIVES			S-2+1+2
6250 F	34	*T	678	B5	PI MAP CNTR CNTR & REG SHIFT DRIVES			S-2+1+2
6250 G	34	*F	9	B5	CPG MAP CNTR AZ N SIGNAL PROTECT			S-2+1+2
6250 G	34	*Y	9	B5	CPG MAP CNTR AZ N SIGNAL PROTECT			S-2+1+2
6250 H	34	*D	4	G5	CLA XTEL TIMING AZN PROTECT			S-2+1+2
6250 H	34	*2	4	G5	CLA XTEL TIMING AZN PROTECT			S-2+1+2
6250 J	34	*C	3	B5	PAD MAP CNTR AZN SIGNAL PROTECT			S-2+1+2
6250 J	34	*3	3	B5	PAD MAP CNTR AZN SIGNAL PROTECT			S-2+1+2
6250 J	34	*C	4567	B5	POA AZN MOTOR DRIVE			2+1+2
6250 J	34	*3	4567	B5	POA AZN MOTOR DRIVE			2+1+2
6150 A	32	*D	6	B5D5	CF XTEL TIMING CONTROL			S-2+3+2
6150 A	32	*G	9	G5	CF XTEL FAST SHIFT GEN			S-2+3+2
6150 A	32	*H	34	D5	CF XTEL CORE SHIFT PULSE GEN			S-2+3+2
6150 A	32	*J	134	B6D5	CF XTEL MAIN STORE SHIFT CONTROL			S-2+3+2
6150 A	32	*K	1	B5	CF XTEL BUFFER STORAGE			S-2+3+2
6150 A	32	*L	1	B5	CF XTEL BUFFER STORAGE			S-2+3+2
6150 A	32	*M	1	B5	CF XTEL BUFFER STORAGE			S-2+3+2
6150 A	32	*N	1	B5	CF XTEL BUFFER STORAGE			S-2+3+2
6150 A	32	*P	1	B5	CF XTEL BUFFER STORAGE			S-2+3+2
6150 A	32	*R	1	B6	CF XTEL TIMING			S-2+3+2
6150 A	32	*S	1-5	D5	CF XTEL 2ND & 3RD WORD PARITY GEN			S-2+3+2
6150 A	32	*S	7	D5	CF XTEL MAIN STORE READOUT CNTRL			S-2+3+2
6150 A	32	*T	389	B5	CF XTEL MAIN STORE READOUT CNTRL			S-2+3+2
6150 A	32	*V	5	D5	CF XTEL PARITY CHECK			S-2+3+2
6150 A	34	*E	9	D5	CF MAP CNTR AZ N SIGNAL PROTECT			S-2+1+2
6150 A	34	*F	23	D5	CF MAP CNTR AZ N SIGNAL PROTECT			S-2+1+2
6150 A	34	*1	9	D5	CF MAP CNTR AZ N SIGNAL PROTECT			S-2+1+2
6150 A	34	*Y	23	D5	CF MAP CNTR AZN SIGNAL PROTECT			S-2+1+2
6150 A	34	*G	5	D5	CF MAP CNTR NORTH SYNCHRONIZER			S-2+1+2
6150 A	34	*X	5	D5	CF MAP CNTR NORTH SYNCHRONIZER			S-2+1+2
6150 A	34	*N	1	G5	CF MAP CNTR DDR CONVERTER			S-2+1+2
6150 A	34	*R	1	G5	CF MAP CNTR DDR CONVERTER			S-2+1+2
6150 A	34	*L	4	D5	CF MAP CNTR INPUT CNTRL			S-2+1+2
6150 A	34	*T	4	D5	CF MAP CNTR INPUT CNTRL			S-2+1+2
6150 A	34	*P	1-4	D5	CF MAP CNTR DRUM DEMAND			S-2+1+2
6150 A	34	*H	45	D6	AC ANALOGUE COUNTER			S-2+1+2
6150 A	34	*W	45	D6	AC ANALOGUE COUNTER			S-2+1+2
6150 A	41	*F	46	D5G5	CF L R I CL & LOAD CORE BFR			S-2+4+2
6150 A	41	*Y	46	D5G5	CF L R I CL & LOAD CORE BFR			S-2+4+2
6150 A	41	*J	278	B5D5	CF L R I FAST SHIFT			S-2+4+2
6150 A	41	*V	278	B5D5	CF L R I FAST SHIFT			S-2+4+2
6150 A	41	*K	1	B6	CF L R I CHANNEL READY			S-2+4+2
6150 A	41	*L	25	B5	CF L R I READOUT CTL			S-2+4+2
6150 A	41	*T	25	B5	CF L R I READOUT CTL			S-2+4+2
6150 A	41	*U	8	D5	CF L R I START WD XFER			S-2+4+2
6150 A	41	*E	3	D5	CF L R I DATA CONVERTER & SYNC			S-2+4+2
6150 A	41	*1	3	D5	CF L R I DATA CONVERTER & SYNC			S-2+4+2
6150 A	41	*C	1	B5	CF L R I FIRST WD PARITY CHECK			S-2+4+2
6150 A	41	*3	1	B5	CF L R I FIRST WD PARITY CHECK			S-2+4+2
6150 A	41	*C	3	D5	VRD L R I DRUM DEMAND			S-2+4+2

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-9	09/01/60	LOGIC
6150	A	41	*3	34	D5	VRD L R I DRUM DEMAND			S-2.4.2
6150	A	41	*K	8	D5	CF L R I START WD XFER			S-2.4.2
6150	A	41	*U	1	B6	CF L R I CHANNEL READY			S-2.4.2
6150	A	CX	J2	4	D5	J7-B34CF MAP CNSL RADIAL DEFLECTION			S-2.1.6
6150	A	CX	J4	4	D5	J7-B34 CF MAP CNSL FILTERED TARGETS			S-2.1.2
6150	A	41	*E	89	D5	LA L R I BUSY BIT SHIFT			S-2.4.2
6150	A	41	*I	89	D5	LA L R I BUSY BIT SHIFT			S-2.4.2
6150	A	32	*C	7	G5	CF CHANNEL READY			S-2.3.2
6150	A	32	*D	7	G5	CF MULTIPLE HEADOUT PROTECT			S-2.3.2
6150	A	32	*D	78	G5	VRD MULTIPLE HEADOUT PROTECT			S-2.3.2
6150	B	32	*K	236	D5	CSD XTEL BUFFER & MAIN STORAGE			S-2.3.2
6150	B	32	*L	236	D5	CSD XTEL BUFFER & MAIN STORAGE			S-2.3.2
6150	B	32	*M	236	D5	CSD XTEL BUFFER & MAIN STORAGE			S-2.3.2
6150	B	32	*N	236	D5	CSD XTEL BUFFER & MAIN STORAGE			S-2.3.2
6150	B	32	*P	236	D5	CSD XTEL BUFFER & MAIN STORAGE			S-2.3.2
6150	B	32	*R	2	G5	CSD XTEL DATA DISTRIBUTION			S-2.3.2
6150	B	32	*G	36	B5D5	CSD XTEL 25 CORE COUNTER			S-2.3.2
6150	B	34	*J	5-9	D5	CSD MAP CNTR INPUT CNTR			S-2.1.2
6150	B	34	*K	13-9	D5	CSD MAP CNTR INPUT CNTR			S-2.1.2
6150	B	34	*U	13-9	D5	CSD MAP CNTR INPUT CNTR			S-2.1.2
6150	B	34	*V	5-9	D5	CSD MAP CNTR INPUT CNTR			S-2.1.2
6150	B	41	*F	1	B5	CSD L R I WD CORE BFR			S-2.4.2
6150	B	41	*G	1.25	D5	CSD L R I WD CORE BFR			S-2.4.2
6150	B	41	*X	1.25	D5	CSD L R I WD CORE BFR			S-2.4.2
6150	B	41	*Y	1	B5	CSD L R I WD CORE BFR			S-2.4.2
6150	B	41	*M	456	D5	CSD LRI WORD 1 CORE BUFFER			S-2.4.2
6150	B	41	*N	346	D5	CSD LRI WORD 1 CORE BUFFER			S-2.4.2
6150	B	41	*R	346	D5	CSD LRI WORD 1 CORE BUFFER			S-2.4.2
6150	B	41	*S	456	D5	CSD LRI WORD 1 CORE BUFFER			S-2.4.2
6150	C	32	*R	3-9	D5	LA XTEL DATA DISTRIBUTOR			S-2.3.2
6150	C	32	*S	89	G5	LHA XTEL DATA DISTRIBUTOR			S-2.3.2
6150	C	CX	J3	23	D5	J7-B46 RMA MAP CNSL AZ PROTECT			S-2.1.2
6150	D	34	*G	12	B5	SS MAP CNTR NORTH SYNCHRONIZER			S-2.1.2
6150	D	34	*X	12	B5	SS MAP CNTR NORTH SYNCHRONIZER			S-2.1.2
6150	D	34	*H	123	B5D5	SS MAP CNTR READ OUT REG DRIVE			S-2.1.2
6150	D	34	*W	123	B5D5	SS MAP CNTR READ OUT REG DRIVE			S-2.1.2
6150	D	34	*E	23	B5	SS MAP CNTR AZ N SIGNAL PROTECT			S-2.1.2
6150	D	34	*I	23	B5	SS MAP CNTR AZ N SIGNAL PROTECT			S-2.1.2
6150	D	CX	J5	56	D5	J7-B47SS MAP CNSL SWEEP INTENSITY CNTRL			S-2.1.6
6150	F	34	*L	678	G5	PI MAP CNTR CNTR & REG SHIFT DRIVES			S-2.1.2
6150	F	34	*T	678	G5	PI MAP CNTR CNTR & REG SHIFT DRIVES			S-2.1.2
6150	G	34	*2	356	B6D6	AGC MAP CNTR TRIANGULAR WAVE GEN			S-2.1.2
6150	G	34	*D	356	B6D6	AGC MAP CNTR TRIANGULAR WAVE GEN			S-2.1.2
690	A	32	*C	58	G67	GT XTEL CHAN READY			S-2.3.2
690	A	32	*D	1	B6	GT XTEL TIMING CONTROL			S-2.3.2
690	A	32	*E	59	G67	GT XTEL TIMING CONTROL			S-2.3.2
690	A	32	*F	1-9	B56D56G567G	XTEL 25 CORE COUNTER			S-2.3.2
690	A	32	*G	2	D6	GT XTEL 25 CORE COUNTER			S-2.3.2
690	A	32	*H	1	B6	GT XTEL CORE SHIFT PULSE GEN			S-2.3.2
690	A	32	*T	5	G5	GT XTEL MAIN STORE READOUT CNTRL			S-2.3.2
690	A	32	*U	1-5	B6D56G56	GT XTEL PARITY CHECK			S-2.3.2
690	A	34	*E	456	D6G56	GT MAP CNTR AZ N SIGNAL PROTECT			S-2.1.2
690	A	34	*Y	56	D6G5	GT MAP CNTR AZ N SIGNAL PROTECT			S-2.1.2
690	A	34	*I	456	D6G56	GT MAP CNTR AZ N SIGNAL PROTECT			S-2.1.2
690	A	34	*F	56	D6G5	GT MAP CNTR AZ N SIGNAL PROTECT			S-2.1.2
690	A	34	*M	12	B56	GT MAP CNTR INPUT CNTRL			S-2.1.2
690	A	34	*S	12	B56	GT MAP CNTR INPUT CNTRL			S-2.1.2
690	A	34	*N	5	D6	GT MAP CNTR DDR CONVERTER			S-2.1.2
690	A	34	*R	5	D6	GT MAP CNTR DDR CONVERTER			S-2.1.2
690	A	34	*V	23	B6D6	GT MAP CNTR DATA AVAILABLE			S-2.1.2
690	A	41	*E	1	B6	GT L R I PARITY COUNT			S-2.4.2
690	A	41	*E	4	D6	GT L R I FIRST WD PARITY CHECK			S-2.4.2
690	A	41	*E	56	G56	GT L R I DATA CONVERTER & SYNC			S-2.4.2
690	A	41	*E	7	G7	GT LRI DATA CONVERTER & SYNC			S-2.4.2
690	A	41	*1	1	B6	GT L R I PARITY COUNT			S-2.4.2
690	A	41	*1	4	D6	GT L R I FIRST WD PARITY CHECK			S-2.4.2
690	A	41	*1	7	G7	GT LRI DATA CONVERTER & SYNC			S-2.4.2
690	A	41	*1	56	G56	GT L R I DATA CONVERTER & SYNC			S-2.4.2

MC-9

V	C-L	FR	PU	TUBES	PINS	TYPE	DESCRIPTION	MC-9	05/01/60	LOGIC
690	A	41	*H	12	B56	GT	L R I READOUT & MISSING SYNC			S-2.4.4.2
690	A	41	*H	45	D56	GT	L R I SYNC INT PROTECT			S-2.4.4.2
690	A	41	*W	12	B56	GT	L R I READOUT & MISSING SYNC			S-2.4.4.2
690	A	41	*W	45	D56	GT	L R I SYNC INT PROTECT			S-2.4.4.2
690	A	41	*J	35	B6D6	GT	L R I FAST SHIFT			S-2.4.4.2
690	A	41	*K	57	G56	GT	L R I DR DEMAND & FAST SHIFT			CTW-2.4.4.2
690	A	41	*V	35	B6D6	GT	L R I FAST SHIFT			S-2.4.4.2
690	A	41	*L	167	B6D6G6	GT	L R I READOUT CTL			S-2.4.4.2
690	A	41	*L	9	G7	GT	L R I START WD XFERR			S-2.4.4.2
690	A	41	*T	17	G56	GT	L R I READOUT CTL			S-2.4.4.2
690	A	41	*T	9	G7	GT	L R I START WD XFERR			S-2.4.4.2
690	A	41	*U	5	G6	GT	L R I DR DEMAND & FAST SHIFT			CTW-2.4.4.2
690	B	32	*C	3	D5	PA	XTEL SYNC			S-2.3.3.2
690	B	32	*G	1	B6	PA	XTEL PULSE DISTRIBUTER			S-2.3.3.2
690	C	32	*H	7-9	G7	GGCFXTEL	CORE SHIFT PULSE GEN			S-2.3.3.2
690	C	32	*K	89	G7	GGCFXTEL	MAIN STORAGE			S-2.3.3.2
690	C	32	*L	89	G7	GGCFXTEL	MAIN STORAGE			S-2.3.3.2
690	C	32	*M	89	G7	GGCFXTEL	MAIN STORAGE			S-2.3.3.2
690	C	32	*N	89	G7	GGCFXTEL	MAIN STORAGE			S-2.3.3.2
690	C	32	*P	89	G7	GGCFXTEL	MAIN STORAGE			S-2.3.3.2
690	C	41	*F	23	B6	GGCFL R	I CL CORE BFR			S-2.4.4.2
690	C	41	*Y	23	B6	GGCFL R	I CL CORE BFR			S-2.4.4.2
690	C	41	*M	12	B5	GGCFLRI	WORD 1 CORE BUFFER			S-2.4.4.2
690	C	41	*N	12	B6	GGCFLRI	WORD 1 CORE BUFFER			S-2.4.4.2
690	C	41	*R	12	B6	GGCFLRI	WORD 1 CORE BUFFER			S-2.4.4.2
690	C	41	*S	12	B5	GGCFLRI	WORD 1 CORE BUFFER			S-2.4.4.2
690	D	34	*L	678	G67	PI	MAP CNTR CNTR & REG SHIFT DRIVES			2.1.1.2
690	D	34	*T	678	G67	PI	MAP CNTR CNTR & REG SHIFT DRIVES			2.1.1.2
-150	A	32	*C	7	B7	CF6	CHANNEL READY			S-2.3.3.2
-150	A	32	*D	46	B7D7	CF6	XTEL TIMING CONTROL			S-2.3.3.2
-150	A	32	*H	34	B7	CF6	XTEL CORE SHIFT PULSE GEN			S-2.3.3.2
-150	A	32	*J	1	B7	CF6	XTEL MAIN STORE SHIFT CONTROL			S-2.3.3.2
-150	A	32	*R	3-9	D7	LA6	XTEL DATA DISTRIBUTOR			S-2.3.3.2
-150	A	32	*S	89	D7	LA6	XTEL DATA DISTRIBUTOR			S-2.3.3.2
-150	A	32	*T	389	B7	CF6	XTEL MAIN STORE READOUT CNTRL			S-2.3.3.2
-150	A	34	*E	9	D7	CF6	MAP CNTR AZ N SIGNAL PROTECT			S-2.1.1.2
-150	A	34	*I	9	D7	CF6	MAP CNTR AZ N SIGNAL PROTECT			S-2.1.1.2
-150	A	41	*J	278	B7	CF6	L R I FAST SHIFT			S-2.4.4.2
-150	A	41	*V	278	B7	CF6	L R I FAST SHIFT			S-2.4.4.2
-150	A	41	*L	25	B5	CF6	L R I READOUT CTL			S-2.4.4.2
-150	A	41	*T	25	B5	CF6	L R I READOUT CTL			S-2.4.4.2
-150	A	41	*K	8	D7	CF6	L R I CHANNEL READY			S-2.4.4.2
-150	A	41	*U	8	D7	CF6	L R I CHANNEL READY			S-2.4.4.2
-150	A	41	*P	12	D7	PCF	LRI LAST SHIFT			S-2.4.4.2
-150	B	41	*D	678	B7	DCR	L R I DATA CONVERTER & SYNC			S-2.4.4.2
-150	B	41	*E	678	B7	DCR	L R I DATA CONVERTER & SYNC			S-2.4.4.2
-150	B	34	*N	234	D7	DCR	MAP CNTR DDR CONVERTER			S-2.1.1.2
-150	B	34	*R	234	D7	DCR	MAP CNTR DDR CONVERTER			S-2.1.1.2
-150	C	32	*T	1267	D7	AFF	XTEL MAIN STORE READOUT CNTRL			S-2.3.3.2
-150	D	34	*E	23	B7	SS	MAP CNTR AZ N SIGNAL PROTECT			S-2.1.1.2
-150	D	34	*I	23	B7	SS	MAP CNTR AZ N SIGNAL PROTECT			S-2.1.1.2
-150	D	34	*G	12	B7	SS	MAP CNTR NORTH SYNCHRONIZER			S-2.1.1.2
-150	D	34	*X	12	B7	SS	MAP CNTR NORTH SYNCHRONIZER			S-2.1.1.2
-150	D	34	*H	123	B7	SS	MAP CNTR READ OUT REG DRIVE			S-2.1.1.2
-150	D	34	*W	123	B7	SS	MAP CNTR READ OUT REG DRIVE			S-2.1.1.2
-150	D	34	*P	1-4	D7	SS	MAP CNTR DRUM DEMAND			S-2.1.1.2
-150	D	CX	J5	56	D7	J7-B77SS	MAP CNSL SWEEP INTENSITY CNTRL			S-2.1.1.6
-150	E	CX	J4	12	B7-J7-B78	FOA	MAP CNSL TARGET PT AMP			S-2.1.1.2
-300	A	32	*C	6	D8	CFF	CHANNEL READY			S-2.3.3.2
-300	A	32	*C	9	D8	CFF	XTEL CHAN READY			S-2.3.3.2
-300	A	32	*D	3	D8	CFF	XTEL TIMING CONTROL			S-2.3.3.2
-300	A	32	*E	1	D8	CFF	XTEL TIMING CONTROL			S-2.3.3.2

V	C-L	FR	PU	TUBES	PINS	TYPE DESCRIPTION	MC-9	05/01/60	LOGIC
-300	A'	32	*G	8	D8	CFF XTEL FAST SHIFT GEN			S-2.0.3.2
-300	A	32	*H	2	D8	CFF XTEL CORE SHIFT PULSE GEN			S-2.0.3.2
-300	A	32	*J	2	D8	CFF XTEL MAIN STORE SHIFIT CONTROL			S-2.0.3.2
-300	A	32	*U	68	D8	CFF XTEL PARITY CHECK			S-2.0.3.2
-300	A	32	*V	23689	D8	CFF XTEL PARITY CHECK			S-2.0.3.2
-300	A	32	*M	68	D8	CFF XTELL ADR CK & RD OUT PROTECT			S-2.0.3.2
-300	A	32	*M	3	D8	CFF SYNC PERIOD PARITY PROTECT			S-2.0.3.2
-300	A	34	*C	1	D8	CFF MAP CNTR AZ N SIGNAL PROTECT			S-2.0.1.2
-300	A	34	*E	18	D8	CFF MAP CNTR AZ N SIGNAL PROTECT			S-2.0.1.2
-300	A	34	*F	148	D8	CFF MAP CNTR AZ N SIGNAL PROTECT			S-2.0.1.2
-300	A	34	*Y	148	D8	CFF MAP CNTR AZ N SIGNAL PROTECT			S-2.0.1.2
-300	A	34	*1	18	D8	CFF MAP CNTR AZ N SIGNAL PROTECT			S-2.0.1.2
-300	A	34	*3	1	D8	CFF MAP CNTR AZ N SIGNAL PROTECT			S-2.0.1.2
-300	A	34	*H		D78	CFF MAP CNSL SOURCE FOR 34*L CFF			S-2.0.1.2
-300	A	34	*W		D78	CFF MAP CNSL SOURCE FOR 34*T CFF			S-2.0.1.2
-300	A	34	*L	23	D78	CFF MAP CNTR INPUT DRUM DEMAND CNTRW			S-2.0.1.2
-300	A	34	*T	23	D78	CFF MAP CNTR INPUT DRUM DEMAND CNTRW			S-2.0.1.2
-300	A	34	*M	349	D8	CFF MAP CNTR INPUT CNTRL			S-2.0.1.2
-300	A	34	*S	349	D8	CFF MAP CNTR INPUT CNTRL			S-2.0.1.2
-300	A	34	*N	9	D8	CFF MAP CNTR DDR CONVERTER			S-2.0.1.2
-300	A	34	*R	9	D8	CFF MAP CNTR DDR CONVERTER			S-2.0.1.2
-300	A	41	*D	1	D8	CFF L R I DATA CONVERTER & SYNC			S-2.0.4.2
-300	A	41	*E	2	D8	CFF L R I DATA CONVERTER & SYNC			S-2.0.4.2
-300	A	41	*1	2	D8	CFF L R I DATA CONVERTER & SYNC			S-2.0.4.2
-300	A	41	*2	1	D8	CFF L R I DATA CONVERTER & SYNC			S-2.0.4.2
-300	A	41	*F	57	D78	CFF L R I LOAD DATA & CL CORE BFR			S-2.0.4.2
-300	A	41	*Y	57	D78	CFF L R I LOAD DATA & CL CORE BFR			S-2.0.4.2
-300	A	41	*H	369	D8	CFF L R I PARITY & SYNC INT PROTECTS			S-2.0.4.2
-300	A	41	*W	369	D8	CFF L R I PARITY & SYNC INT PROTECTS			S-2.0.4.2
-300	A	41	*J	1	D7	CFF L R I SYNC INT PROTECT 1			S-2.0.4.2
-300	A	41	*J	49	D78	CFF L R I FAST SHIFT			S-2.0.4.2
-300	A	41	*V	1	D7	CFF L R I SYNC INT PROTECT 1			S-2.0.4.2
-300	A	41	*V	49	D78	CFF L R I FAST SHIFT			S-2.0.4.2
-300	A	41	*K	4	D8	CFF L R I CHANNEL READY			S-2.0.4.2
-300	A	41	*K	9	D8	CFF L R I START WD XFER			S-2.0.4.2
-300	A	41	*U	4	D8	CFF L R I CHANNEL READY			S-2.0.4.2
-300	A	41	*U	9	D8	CFF L R I START WD XFER			S-2.0.4.2
-300	A	41	*L	34	D8	CFF L R I READOUT CTL			S-2.0.4.2
-300	A	41	*T	34	D8	CFF L R I READOUT CTL			S-2.0.4.2
-300	A	41	*C	2	D8	CFF L R I FIRST WD PARITY CHECK			S-2.0.4.2
-300	A	41	*3	2	D8	CFF L R I FIRST WD PARITY CHECK			S-2.0.4.2
-300	A	34	*L	5	D8	CFF MAP CNTR SHIFT DRIVE CNTRL			S-2.0.1.2
-300	A	34	*T	5	D8	CFF MAP CNTR SHIFT DRIVE CNTRL			S-2.0.1.2

SAFE LIMIT VALUES

MC-1

	+250		+150		+90		-150		-300	
	+	-	+	-	+	-	+	-	+	-
A	100	*	0	100	**	100	100	100	0	100
B	100	*	0	100	25	100	100	0	100	100
C	0	100	0	100	25	100	100	100	0	100
D	100	*	0	100	75	100	100	100	0	100
E	100	*	0	100	25	100	100	0	100	100
F	0	100	0	100	25	100	100	100	0	100

* Lines 1 thru 4 are -50v, Lines 5 & 6 are -100v.

**Lines 1 thru 4 are +75v, Lines 5 & 6 are +100v.

MC-2

	+250		+150		+90		-150		-300	
	+	-	+	-	+	-	+	-	+	-
A	100	100	0	100	25	100	100	100	100	100
B	100	100	0	100	25	100	100	0	100	100
C	100	100	0	100	25	100	100	0	100	100
D	100	100	0	100	25	100	100	100	100	100
E	100	100	0	100	25	100	100	0	100	100
F	100	100	0	100	25	100	100	100	100	100

MC-3

	+250		+150		+90		-150		-300	
	+	-	+	-	+	-	+	-	+	-
A	100	100	0	100	25	100	100	100	100	100
B	100	100	0	100	25	100	100	0	100	100
C	100	100	0	100	25	100	100	0	100	100
D	100	100	0	100	25	100	100	0	100	100
E	100	100	0	100	25	100	100	100	100	100
F	50	100	0	100	25	100	100	100	100	100

SAFE LIMIT VALUES

MC-4

	+250		+150		+90		-150		-300	
	+	-	+	-	+	-	+	-	+	-
A	100	100	0	100	25	100	100	100	100	100
B	100	100	0	100	25	100	100	0	100	100
C	100	100	0	100	25	100	100	0	100	100
D	100	100	0	100	25	100	75	100	100	100
E	100	100	0	100	25	100	100	0	100	100
F	100	100	0	100	25	100	100	100	100	100

MC-5

	+250		+150		+90		-150		-300	
	+	-	+	-	+	-	+	-	+	-
A	0	100	0	100	25	100	75	100	75	75
B	100	100	0	100	25	100	100	0	100	0
C	100	100	75	100	25	100	75	100	75	75
D	100	100	0	100	25	100	*	0	100	100
E	100	100	0	100	25	100	100	0	100	100
F	100	100	0	100	25	100	100	0	100	100

* Lines 1 thru 4 are +75, lines 5 & 6 are +100

MC-6

	+250		+150		+90		-150		-300	
	+	-	+	-	+	-	+	-	+	-
A	100	100	0	100	25	100	100	0	100	100
B	100	100	0	100	25	100	100	0	100	100
C	0	50	0	100	25	100	50	0	100	100
D	0	100	0	100	25	100	75	100	100	0
E	100	100	0	100	25	100	100	0	100	25
F	0	100	0	100	25	100	100	0	100	100

SAFE LIMIT VALUES

MC-7

	+250		+150		+90		-150		-300	
	+	-	+	-	+	-	+	-	+	-
A	100	100	0	100	25	100	100	100	100	100
B	100	100	0	100	25	100	100	0	100	100
C	100	100	0	100	25	100	75	100	100	100
D	100	100	0	100	25	100	100	100	100	100
E	100	100	0	100	25	100	100	100	100	100
F	100	100	0	100	25	100	100	100	100	100

MC-8

	+250		+150		+90		-150		-300	
	+	-	+	-	+	-	+	-	+	-
A	100	100	0	100	25	100	100	100	100	100
B	100	100	0	100	25	100	100	0	100	100
C	0	100	0	100	25	100	100	0	100	100
D	100	100	0	100	25	100	75	100	100	100
E	100	100	0	100	25	100	100	0	100	100
F	100	100	0	100	50	100	100	100	100	100

MC-9

	+250		+150		+90		-150		-300	
	+	-	+	-	+	-	+	-	+	-
A	100	100	0	100	25	100	100	0	100	100
B	0	100	0	100	25	100	100	0	100	0
C	100	100	0	100	0	100	100	100	100	100
D	0	100	0	100	25	100	100	0	100	100
E	100	100	0	100	25	100	100	0	100	100
F	25	100	75	100	25	100	75	100	100	100
G	100	100	0	100	25	100	100	100	100	100
H	100	100	75	100	25	100	100	100	100	100
J	0	100	0	100	25	100	100	100	100	100
K	100	100	75	100	25	100	100	100	100	100
L	100	100	0	100	25	100	100	100	100	100
M	100	100	0	100	25	100	100	100	100	100

Warning Lights

PART 6

SECTION 1

**LIST OF WARNING LIGHT
STORAGE REGISTERS**

**WARNING LIGHT STORAGE REGISTERS
FOR PU LOCATIONS SEE CHART II
ON THE APPLICABLE LOGIC PAGE**

<u>REGISTER</u>	<u>LOGIC</u>
WL STORAGE L8-L9	6.2.1
L4-L7 _____	6.2.1-2
L8-L11	6.2.1-3
L12-L15	6.2.1-4
R6-R9 _____	6.2.1-5
R4-R7	6.2.1-6
R8-R11	6.2.1-7
R12-R15 _____	6.2.1-8

PART 6

SECTION 2

**PU LAYOUT & LOGIC LAYOUT AND
RELAY LAYOUT UNIT 30 MOD. A**

**WARNING LIGHTS
UNIT 30
P.U. LAYOUT**

	A	B	C	D	E
C		7691	7691	7691	7692
D		↑	↑	↑	↑
E					
F					
G					
H					
J					
K					
L					
M					
N					
P					
R					
S					
T		↓	↓	↓	↓
U		7691	7691	7691	7692
V		7241	7241	7241	7241
W		SPARE	SPARE	SPARE	7242
X		SPARE	SPARE	SPARE	SPARE
Y		SPARE	SPARE	SPARE	SPARE

**WARNING LIGHTS
UNIT 30
LOGIC LAYOUT**

	A	B	C	D	E
C	RELAYS	S - 3 4 - 7 8 - 11 12 - 15			
		← WORD 1 LHW →			
		6.2.1	6.2.1-2	6.2.1-3	6.2.1-4
D		← WORD 1 RHW →			
		6.2.1-5	6.2.1-6	6.2.1-7	6.2.1-8
E		← WORD 2 LHW →			
		6.2.1	6.2.1-2	6.2.1-3	6.2.1-4
F		← WORD 2 RHW →			
		6.2.1-5	6.2.1-6	6.2.1-7	6.2.1-8
G		← WORD 3 LHW →			
		6.2.1	6.2.1-2	6.2.1-3	6.2.1-4
H		← WORD 3 RHW →			
		6.2.1-5	6.2.1-6	6.2.1-7	6.2.1-8
J		← WORD 4 LHW →			
		6.2.1	6.2.1-2	6.2.1-3	6.2.1-4
K		← WORD 4 RHW →			
		6.2.1-5	6.2.1-6	6.2.1-7	6.2.1-8
L		← WORD 5 LHW →			
		6.2.1	6.2.1-2	6.2.1-3	6.2.1-4
M		← WORD 5 RHW →			
	6.2.1-5	6.2.1-6	6.2.1-7	6.2.1-8	
N	← WORD 6 LHW →				
	6.2.1	6.2.1-2	6.2.1-3	6.2.1-4	
P	← WORD 6 RHW →				
	6.2.1-5	6.2.1-6	6.2.1-7	6.2.1-8	
R	← WORD 7 LHW →				
	6.2.1	6.2.1-2	6.2.1-3	6.2.1-4	
S	← WORD 7 RHW →				
	6.2.1-5	6.2.1-6	6.2.1-7	6.2.1-8	
T	← WORD 8 LHW →				
	6.2.1	6.2.1-2	6.2.1-3	6.2.1-4	
U	← WORD 8 RHW →				
	6.2.1-5	6.2.1-6	6.2.1-7	6.2.1-8	
V	6.2.1 6.2.1-5	6.2.1-2 6.2.1-6	6.2.1-3 6.2.1-7	6.2.1-4 6.2.1-8	
W	SPARE	SPARE	SPARE	6.2.1-8	
X	SPARE	SPARE	SPARE	SPARE	
Y	SPARE	SPARE	SPARE	SPARE	

**WARNING LIGHTS
UNIT 30
MODULE A**

RELAY LAYOUT AND FUNCTIONS

																		Col				
	R1	R0	L8	L8	L8	L7	L6	L5	L5	L5	L4	L4	L4	L3	L3	L1	L1	L1	L3	L3	L3	1
WORD 1	SP	SP	L8	L8	L8	L7	L6	L5	L5	L5	L4	L4	L4	L3	L3	L1	L1	L1	L3	L3	L3	A Row
2																						B
3																						C
4																						D
5																						E
6																						F
7																						G
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	H

	SP	SP	R3*	R2*	R1	R1	R1	R5	R5	R5	SP	SP	L10*	L14*	L13	L12	L11*	L10*	L9	L9	L9	J	
WORD 1	SP	SP	R3*	R2*	R1	R1	R1	R5	R5	R5	SP	SP	L10*	L14*	L13	L12	L11*	L10*	L9	L9	L9	J	
2																							K
3																							L
4																							M
5																							N
6																							P
7																							R
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	S

	SP	R15*	R14*	R13	R12	R11*	R10*	R9	R9	R9	R8	R8	R8	R7*	R6*	R5	R5	R5	R4	R4	R4	T
WORD 1	SP	R15*	R14*	R13	R12	R11*	R10*	R9	R9	R9	R8	R8	R8	R7*	R6*	R5	R5	R5	R4	R4	R4	T
2																						U
3																						V
4																						W
5																						X
6																						Y
7																						AA
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	BB

*Audible Alarm lines also sent thru for these bits

Relays are called out in Logic in the following manner -

30	A	A	1
Unit	Mod	Row	Column

**WARNING LIGHT PATCH PANEL
UNIT 91**

PANEL A S6.3.1	PANEL B S6.3.1-2	PANEL C S6.3.1-3	PANEL D S6.3.1-4
PANEL E *	PANEL F *	PANEL G *	PANEL H *

* Shown in Various Parts of Logic S6.3.1
Through S6.3.1-4

Duplex and Simplex Maintenance Console Switches

PART 7

DUPLIX MAINTENANCE SWITCHES

The following alphabetical duplex maintenance console switch is taken from logic 7.0.2. Many of the switches shown on logics 7.1.7 through 7.1.18 are shown elsewhere in the logic in phantom. The logic page where the switch is shown completely indicates the other pages in logic where it is shown in phantom.

-A-		
	COMPONENT NO.	LOGIC NO.
AC Breaker	1H3(CB-1)	7.1.7
AC Only	1H3(S4)1	5.4.2.1
Addressable Drum Parity Alarm	1G3(S6)2	7.1.12
Alarm-1 Active	1G3(S5)1	7.1.12
Amplidyne Sensitrol Reset	1H3(S16)1	5.5.9.1
Amplidyne Start	1H3(S7)1&2	5.5.1.1
Amplidyne Stop	1H3(S6)1&2	5.5.1.1
AXD Op Comp Test	1E3(S14)1&3	1-2.3.1
AXD Op Manual Test	1E3(S14)2&4	1-2.3.1
AXD Drum Select	1E3(S13)AB	1-2.3.3
-B-		
Bit Storage Control	1B2(S1-128)1&2	4.5.1
-C-		
Circuit Grp Sel A	1H3(S13)2&4	5.5.3.4
Circuit Grp Sel B	1H3(S13)1&3	5.5.3.4
Circuit Grp Sel C	1H3(S12)2&4	5.5.3.4
Circuit Grp Sel D	1H3(S12)1&3	5.5.3.4
Circuit Grp Sel E	1H3(S11)2&4	5.5.3.4
Circuit Grp Sel F	1H3(S11)1&3	5.5.3.4
Clear Alarms	1G3(S31)1	7.1.8
Clear Alarms LRI	1D3(S28)1	2.4.8
Clear Alarms XTL	1D3(S27)1	2.3.5
Clear Memory	1G3(S30)1&2	7.1.9
Complement	1G3(S38)1&2	7.1.8
Complement Control	1G3(S13)2&4	7.1.11
Core Mem Assign	1G3(S22)1	7.1.13
Cyclic Prog Control	1G3(S13)1-3	7.1.11
Cyclic Prog Counter	1G3(S10-12)A, B, C	7.1.11
Computer-Test Operate	1G3(S-9)2&4	7.1.7
-D-		
Deselect AXD	1E3(S11)2	1-2.2.3
Deselect Drum	1E3(S5)1-2	1.1.1
Deselect Tapes	1C3(S7)1	0.8.1
DD Test Operate	1B2(S130)1&3	4.5.1-2
Disp DD Continue	1B2(S131)2	4.5.1-2
Disp RD Dim / Disp RD Bright	1B2(S132)1	4.5.1-2
Drums Op-Comp Test	1E3(S2)1&3	1.7.1
Drums Op-Manual Test	1E3(S2)2&4	1.7.1
Drums-Normal/Status	1G3(S4)1	1.2.1
Drum Select	1E3(S1)A, B	1.7.3
-E-		
Equipment GRP Selection	1H3(S9)1-8	5.5.3.3
Erase and Timing Write	1E3(S4)1	1.7.3
Erase and Timing Write (AXD)	1E3(S10)1	1-2.3.3
Excursion Control Calculator	1H3(S20)3	5.5.5.1
Excursion Control Manual	1H3(S20)1	5.5.5.1

DUPLEX MAINTENANCE SWITCHES (cont'd)

	-I-	COMPONENT NO.	LOGIC NO.
IC Loop Test/IC Normal		1G3(S8)2&4	1.7.1
Inactivity Alarm		1G3(S4)2	7.1.12
Instruction Step		1G3(41)1&2	7.1.8
	-L-		
Line Selector #1		1H3(23)2&4	5.5.3.1
Line Selector #2		1H3(23)1&3	5.5.3.1
Line Selector #3		1H3(22)2&4	5.5.3.1
Line Selector #4		1H3(22)1&3	5.5.3.1
Line Selector #5		1H3(21)2&4	5.5.3.1
Line Selector #6		1H3(21)1&3	5.5.3.1
Load From AM Drums		1G3(S27)1&2	7.1.10
Load From Card Rdr		1G3(S26)1&2	7.1.10
	-M-		
MC Test Control		1H3(S17)1-3	5.5.6.1
Marginal Check Display Generator		1H3(S16)2	4.1.23-2
Master Reset		1G3(S28)1&2	7.1.9
Memory Cycle		1G3(S40)1&2	7.1.8
Memory Parity Alarm		1G3(S7)1	7.1.12
Mode Select		1H3(S20)1-4	5.5.5.1
MDI Core Matrix Readout Test		1C3(S9)2	2.2.2.
	-N-		
N.C. to Drums		1D3(S9)1	3.1.1-3
	-O-		
O'Flow Alarm		1G3(S5)2	7.1.12
	-P-		
Power OFF		1H3(S5)1	5.4.2.1
Power ON		1H3(S3)1	5.4.2.1
Program Continue		1G3(S24)1&2	7.1.8
Program Stop		1G3(S23)1	7.1.8
	-R-		
RD-TD Control		1B2(S132)2	4.5.1-2
Ready IO Units		1G3(S33)1	7.1.13
Reset Aud Alarm		1G3(S32)1&2	7.1.14
Reset Axd Alarms		1E3(S12)1-2	1-2.3.1
Reset Drum Alarms		1E3(S6)2	1.2.3
Reset Flip-Flops		1G3(S29)1-2	7.1.9
Reset Output Alarms		1D3(S6)1	3.1.3
Reset Output FF's		1D3(S7)1	3.1.3
	-S-		
Select G/A (G/A Looped to LRI)		1D3(S2)1-2	3.2.1
Select G/G (G/G Looped to GFT)		1D3(S4)1-2	3.2.2
Sel G/G Output (G/G Looped to XTL)		1D3(S5)1-5	3.2.2

DUPLEX MAINTENANCE SWITCHES (cont'd)

-S-

	COMPONENT NO.	LOGIC NO.
Select Test Memory	1G3(S34)1&2	7.1.9
Select TTY	1D3(S3)ABC	3.1.4
Sense Sw. #1	1G3(S15)2	7.1.12
Sense Sw. #2	1G3(S15)1	7.1.12
Sense Sw. #3	1G3(S14)2	7.1.12
Sense Sw. #4	1G3(S14)1	7.1.12
Service Opposite Duplex Switch	1G3(S21)1, 2&3	7.1.15
Single Pulse	1G3(S39)1&2	7.1.8
SD Test/Operate	1B3(S130)2&4	4.5.1-2
Speaker Select	1J3(S1)	7.1.16
Standby Output	1D3(S10)1	3.1.4
Start Camera Mode 1	1G3(S18)1	4.6.1
Start Camera Mode 2	1G3(S17)1	4.6.1
Start Excursion	1H3(S10)1	5.5.1.1
Start From Test Memory	1G3(S25)1&2	7.1.10
Start Tester	1B3(S129)1&2	4.5.1
Stop/Branch	1G3(S7)2	7.1.12
Stop Excursion	1H3(S18)1	5.5.1.1
Stop To Drums	1D3(S9)12	3.2.2
Stop MDI Demand	1C3(S-8)1	2.2.1
Suppress Camera Index	1G3(S22)2	4.6.1

-T-

Tape Parity Alarm	1G3(S6)1	7.1.12
Test DD-1 - DD2	1B2(S131)1	4.5.1-2
Test Operate (Outputs)	1D3(S10)2&4	3.1.4
Test Memory	1G3(S9)1&3	7.1.17
Test Memory Toggle Sw's Reg A	1F3(S17-32)1&2	7.1.17
Test Memory Toggle Sw's Reg B	1F3(S33-46)1&2	7.1.17
Test MDI Reg.	1C3(S8)2	2.2.1

-U-

Unit OFF	1H3(S1-52)1	5.4.2.2
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-V-

Voltage Selector	1H3(S8)1&5	5.5.3.2
Voltmeter Scale	1H3(S10)1	5.5.9.1

-W-

Write and Erase Interlock	1E3(S15)	1-2.3.1
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SIMPLEX MAINTENANCE CONSOLE SWITCHES

The following alphabetical Simplex Maintenance Console Switch Index is taken from logics 5.0.11.1 and 5.0.11.3. Not listed are the GPI, LRI, and XTEL panel switches which may be seen on logics 5.0.11.3 through 5.0.11.14.

-A-

	COMPONENT NO.	LOGIC NO.
AC Only	47H3(S3)	5.4.2.1

-C-

Circuit Group Selector A	47J3(S17)2	8-5.5.3.1
Circuit Group Selector B	47J3(S17)1	8-5.5.3.1
Circuit Group Selector C	47J3(S16)2	8-5.5.3.1
Circuit Group Selector D	47J3(S16)1	8-5.5.3.1
Circuit Group Selector E	47J3(S15)2	8-5.5.3.1
Circuit Group Selector F	47J3(S15)1	8-5.5.3.1
Circuit Group Selector G	47J3(S23)2	8-5.5.3.1
Circuit Group Selector H	47J3(S23)1	8-5.5.3.1
Circuit Group Selector J	47J3(S22)2	8-5.5.3.1
Circuit Group Selector K	47J3(S22)1	8-5.5.3.1
Circuit Group Selector L	47J3(S21)2	8-5.5.3.1
Circuit Group Selector M	47J3(S21)1	8-5.5.3.1

-M-

Manual Excursion Pot.	47J3(R1)	8-5.5.8.1
Mode Select - Calculator	47J3(S20)3	8-5.5.5.1
Mode Select - Manual	47J3(S20)1	8-5.5.5.1

-P-

Power Off	47H3(S2)	5.4.2.1
Power On	47H3(S1)	5.4.2.1

-R-

Reset Amplidyne Sensitrol	47J3(S13)1	8-5.5.9.1
Reset Audible Alarm	47H3(S4)	5.4.11.1

-S-

Service Opposite Simplex	47H3(S6)	CD-5.4.9.1 CD-5.4.10.1
Start Amplidyne	47J3(S7)	8-5.5.1.1
Start Excursion	47J3(S19)	8-5.5.1.1
Stop Amplidyne	47J3(S6)	8-5.5.1.1
Stop Excursion	47J3(S18)	8-5.5.1.1

-V-

Voltage Group Selector+250V	47J3(S8)1	8-5.5.3.2
Voltage Group Selector+150V	47J3(S8)2	8-5.5.3.2
Voltage Group Selector+90V	47J3(S8)3	8-5.5.3.2
Voltage Group Selector-150V	47J3(S8)4	8-5.5.3.2
Voltage Group Selector-300V	47J3(S8)5	8-5.5.3.2
Voltmeter Scale	47J3(S10)	8-5.5.9.1

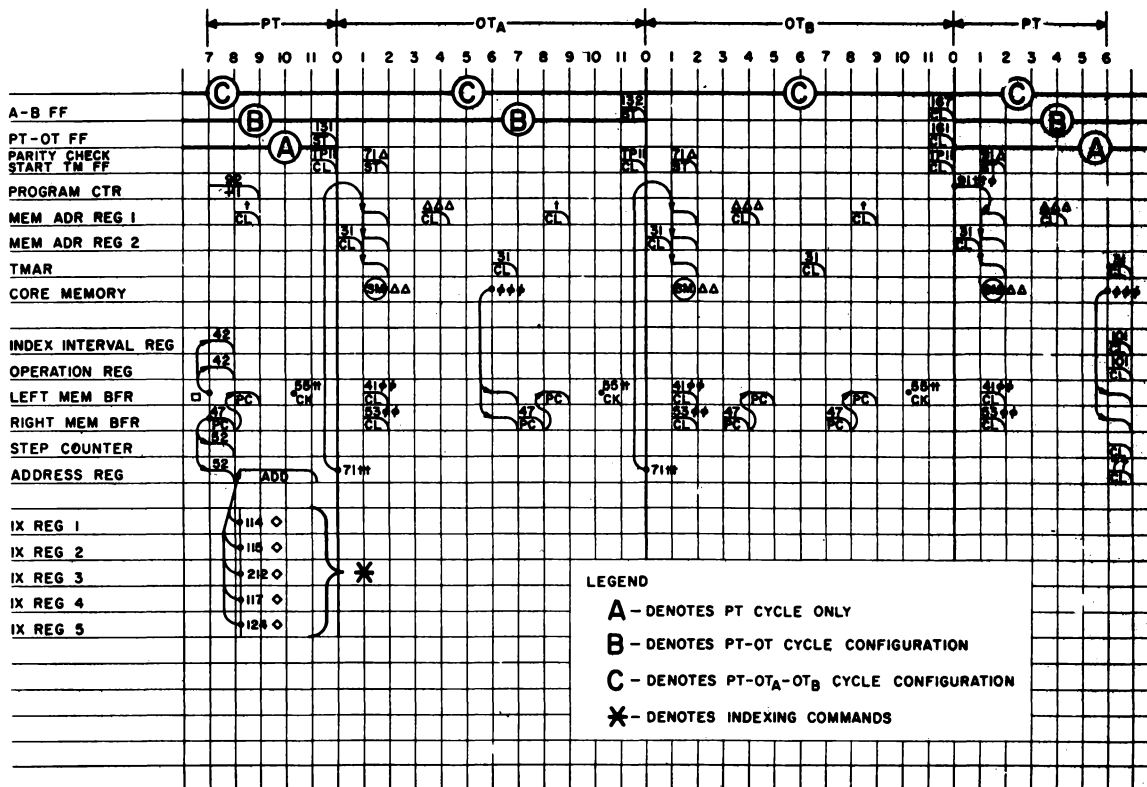
Appendix A

INSTRUCTIONS AND COMMANDS

SECTION A-1

CENTRAL COMPUTER TIMING CHARTS

A-1.3
A-1.4



† CONDITIONAL: OCCURS IF CORE MEMORY 1 WAS SELECTED. THE REGISTER IS CLEARED BY THE SM I PULSE DELAYED 3.4 USEC

††† CONDITIONAL: OCCURS AT TP 10 + 0.2 USEC IF CORE MEMORY ADDRESS WAS SELECTED

†††† IF MEMORY 1 IS SELECTED, TRANSFER OCCURS AT IPO + 0.4 USEC (APPROX.); IF MEMORY 2 OR TEST MEMORY IS SELECTED, TRANSFER OCCURS AT IPO + 0.6 USEC (APPROX)

Δ CONDITIONAL: OCCURS IF CORE MEMORY ADDRESS IS SELECTED. IF MEMORY 1 IS SELECTED THE FF IS SET AT IPO + 0.25 USEC (APPROX.); IF MEMORY 2 IS SELECTED THE FF IS SET AT IPO + 0.6 USEC (APPROX)

ΔΔ CONDITIONAL: OCCURS IF CORE MEMORY ADDRESS IS SELECTED. IF MEMORY 1 IS SELECTED, START MEMORY 1 PULSE IS GENERATED AT IPO + 0.6 USEC (APPROX.); IF MEMORY 2 IS SELECTED, START MEMORY 2 PULSE IS GENERATED AT IPO + 0.85 USEC (APPROX)

ΔΔΔ CONDITIONAL: OCCURS AT TPO + 1.7 USEC IF MEMORY 1 IS NOT SELECTED

♦♦♦ GENERATED BY TPO DELAYED 0.5 USEC

♦♦♦ CONDITIONAL: OCCURS IF BRANCH FF IS CLEARED IF BRANCH FF IS SET, INSTRUCTION ADDRESS IS TRANSFERRED FROM ADDRESS REGISTER BY COMMAND 100

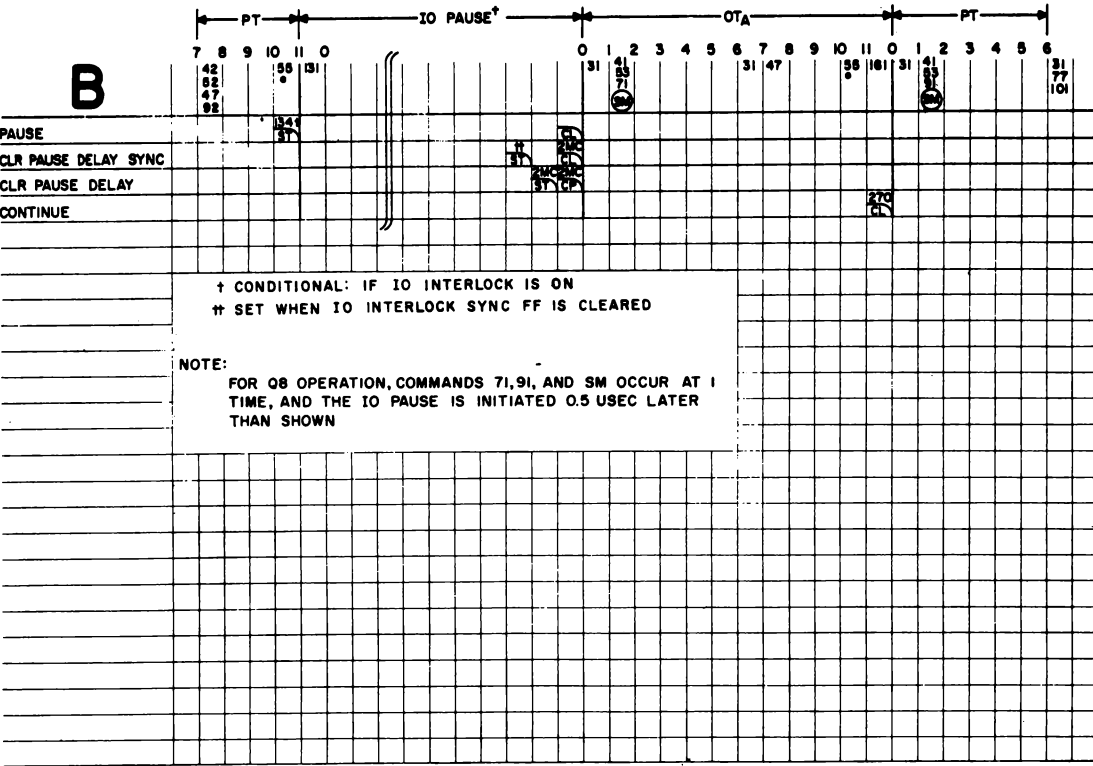
♦♦♦♦ CONDITIONAL: OCCURS IF CORE MEMORY ADDRESS WAS SELECTED, IF TEST MEMORY ADDRESS WAS SELECTED, TRANSFER FROM TEST MEMORY TO MEMORY BUFFER REGISTER OCCURS AT IP5

◇ CONDITIONAL: TRANSFER OCCURS AT PT 8 + 0.1 USEC IF INDEX REGISTER IS SELECTED

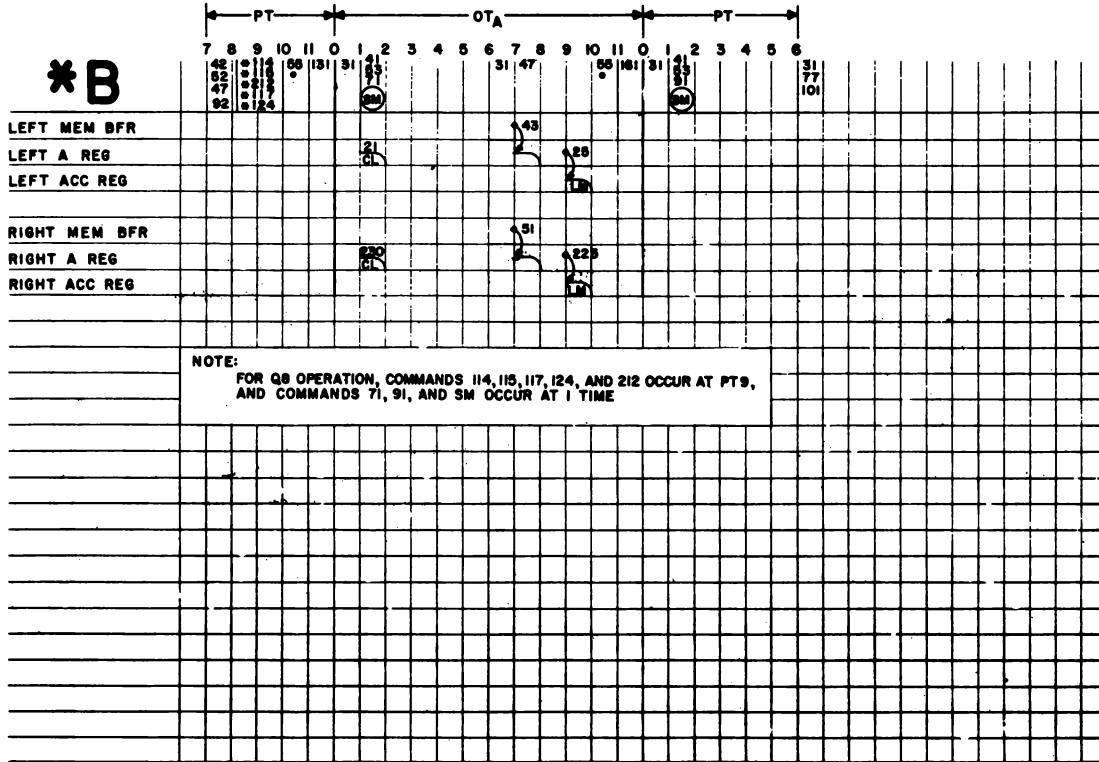
□ FOR Q7 OPERATION, TRANSFER BIT LS TO ADDRESS REGISTER

NOTE:

FOR Q8 OPERATION, THE CORE MEMORY AND TEST MEMORY FF'S (EQUIVALENT TO PARITY CHECK START TM FF) AND MEMORY ADDRESS REGISTER 1 ARE CLEARED BY COMMAND 31 AT 0 TIME; COMMANDS 71, 91 AND SM OCCUR AT 1 TIME; AND COMMANDS 114, 115, 117, 124 AND 212 OCCUR AT PT 9



***B**

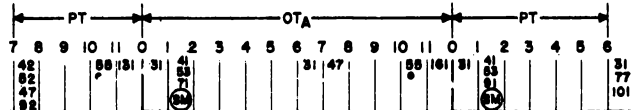


NOTE:
FOR Q8 OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PT 9,
AND COMMANDS 71, 91, AND 5M OCCUR AT 1 TIME

A-1.7

ETR 004
EXTRACT

B



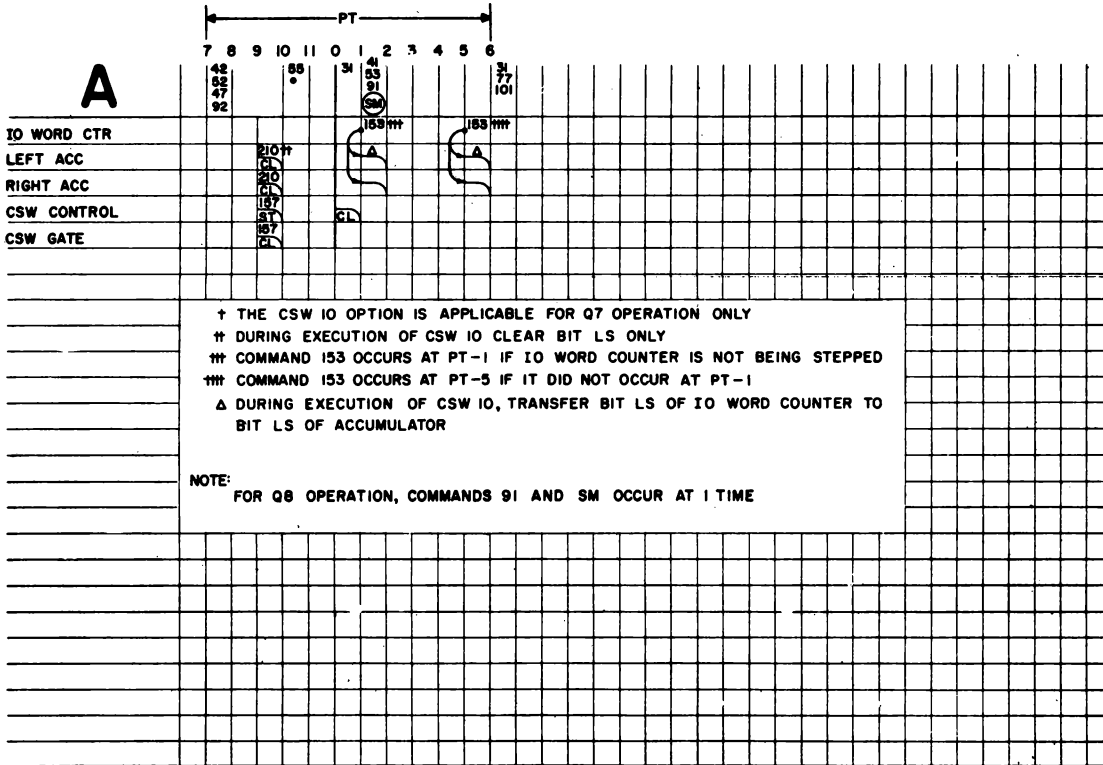
OPERATE GATES

↑ SENSE PER GATE TUBES TO GENERATE CONTROL PULSE TO PERFORM SPECIFIED OPERATION

NOTE:

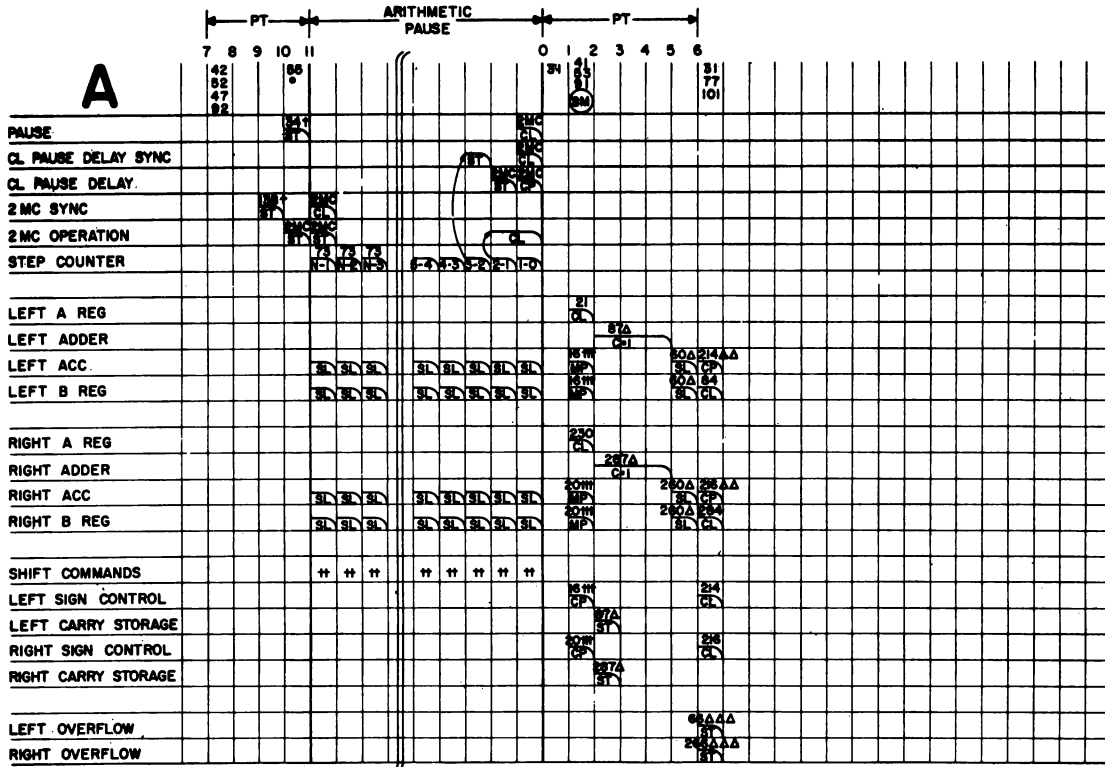
FOR Q8 OPERATION, COMMANDS 71, 91, AND 5M OCCUR AT 1 TIME

A-1.9

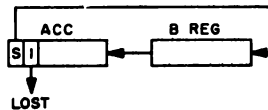


CSW 020
 CSW 10+
 CSW 021

A-1.10



- † CONDITIONAL: IF STEP COUNTER CONTENT GREATER THAN 0
 †† LEFT ARITHMETIC SHIFT COMMANDS: 2,5,81,82
 RIGHT ARITHMETIC SHIFT COMMANDS: 202,205,281,282
 ††† CONDITIONAL: IF ACCUMULATOR REGISTER SIGN CONTAINS A 1
 Δ CONDITIONAL: IF B REGISTER SIGN CONTAINS A 1
 ΔΔ CONDITIONAL: IF SIGN CONTROL FF IS SET
 ΔΔΔ CONDITIONAL: OVERFLOW DEPENDS UPON VALUE OF THE NUMBER
 BEING ADDED



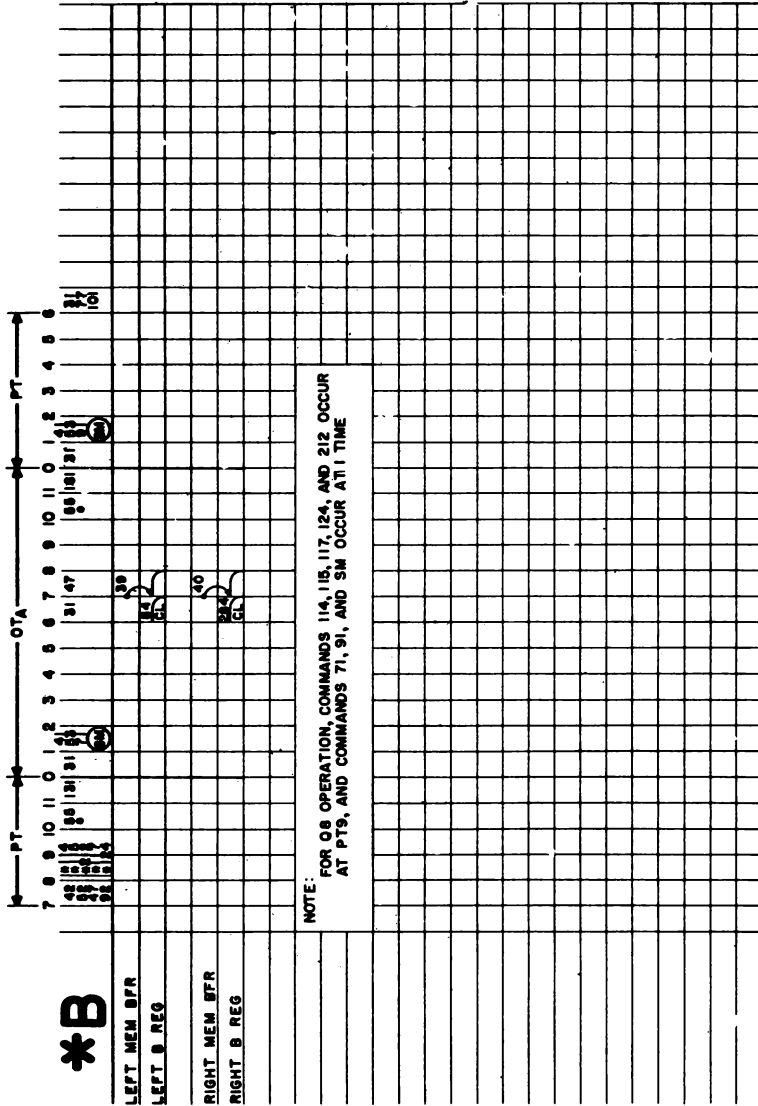
NOTE:

THIS TRAFFIC CHART IS APPLICABLE IF 2 TO 77 SHIFTS ARE SPECIFIED. IF ONLY ONE SHIFT IS SPECIFIED THE 2MC OPERATION: FF IS COMPLEMENTED ON AND OFF RATHER THAN BEING SET AND CLEARED AS SHOWN.

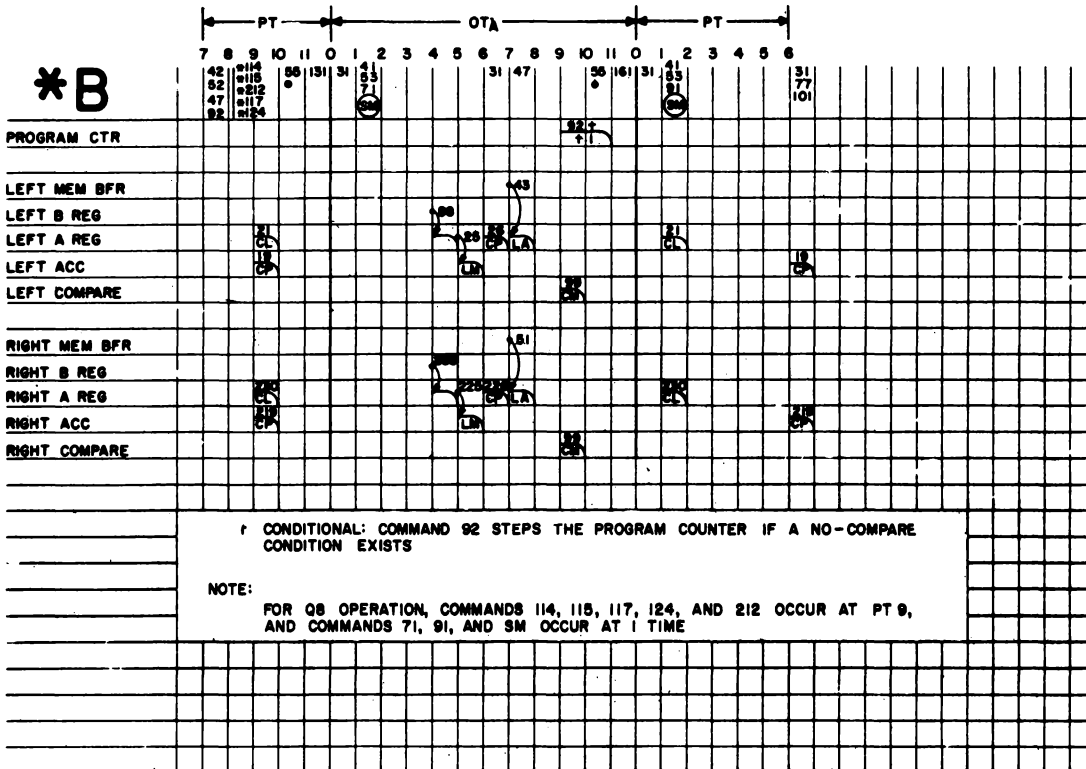
NOTE:

FOR Q8 OPERATION, COMMANDS 91 AND 3M OCCUR AT 1 TIME, AND THE ARITHMETIC PAUSE IS INITIATED AND TERMINATED 0.5 USEC LATER THAN SHOWN. ACTION TO CLEAR THE PAUSE FF IS INITIATED WHEN THE STEP COUNTER CONTENT IS REDUCED FROM 2 TO 1

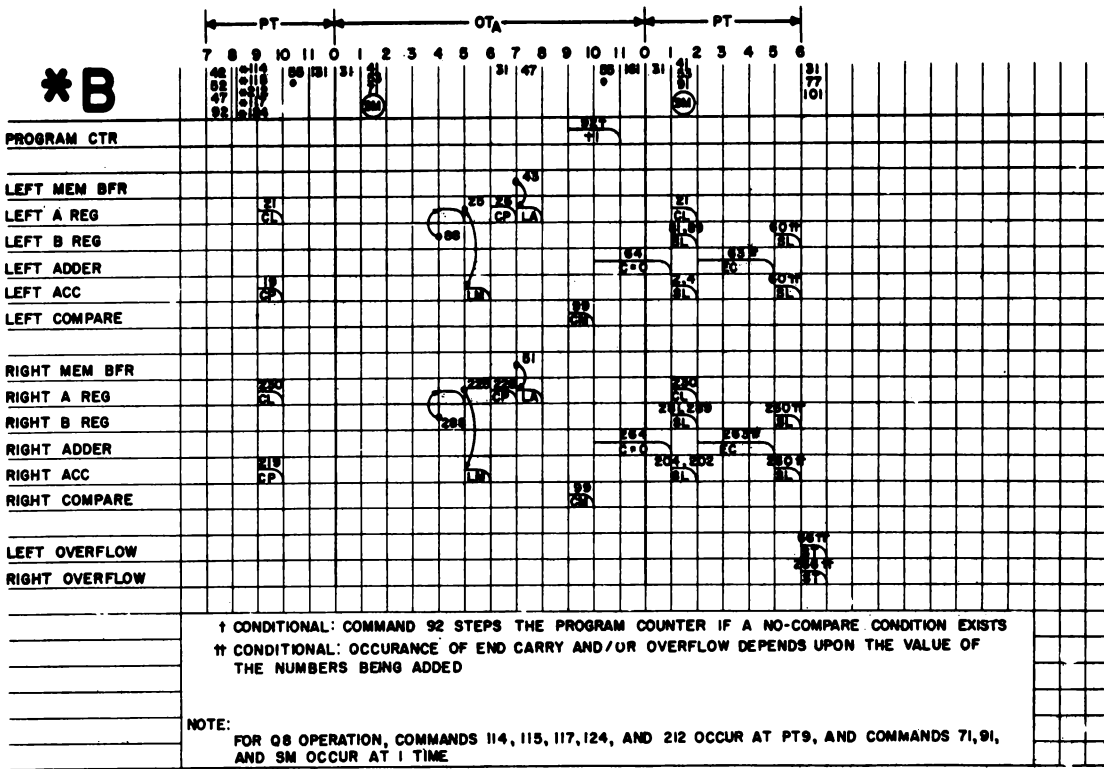
LDB 030
 LOAD B REG



A-1.13

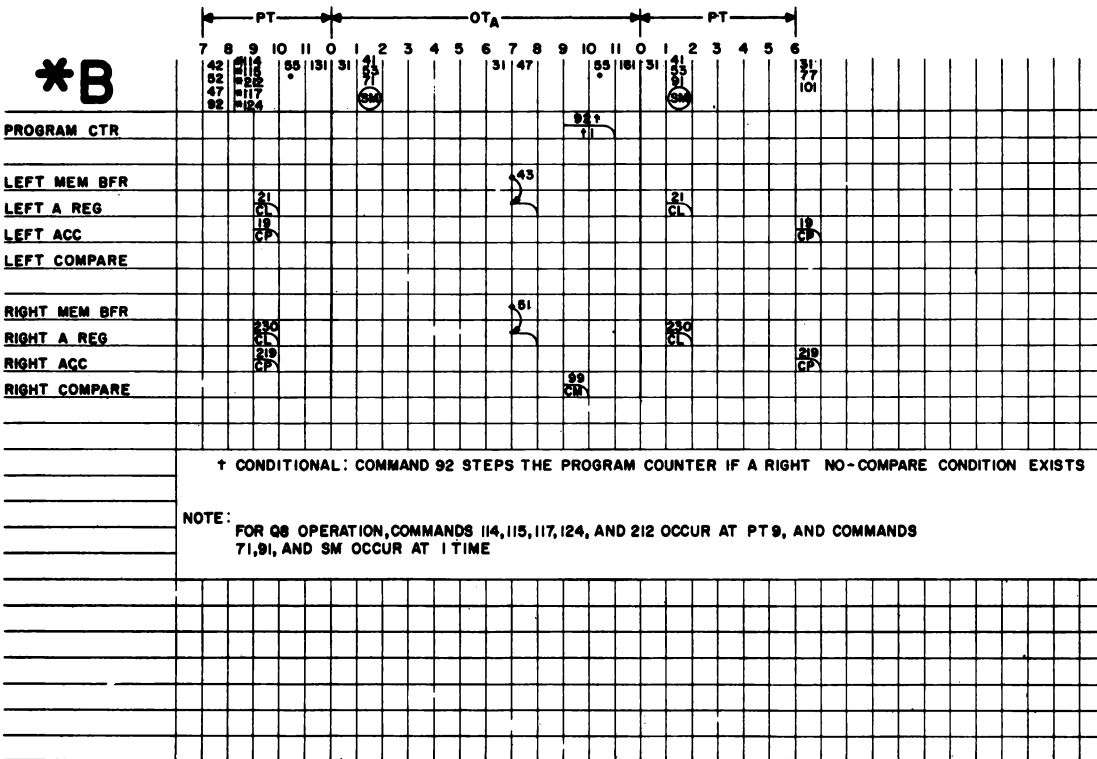


CMM 040
 COMPARE -
 MASKED BITS



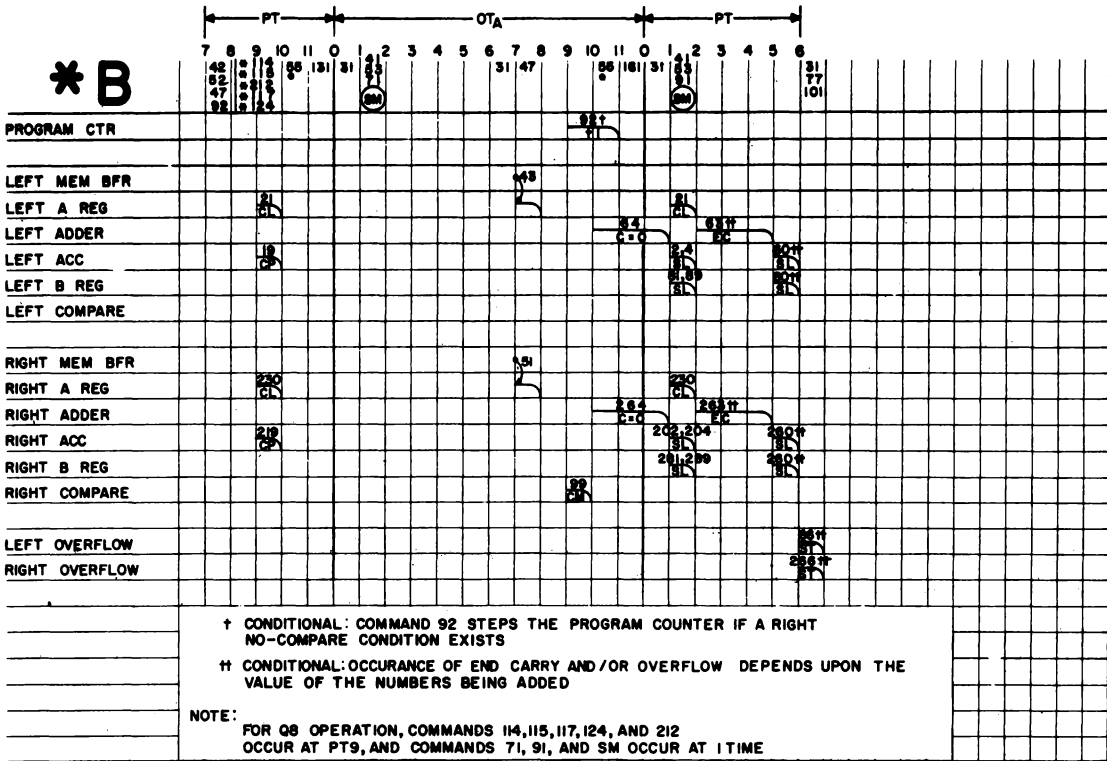
A-1.14

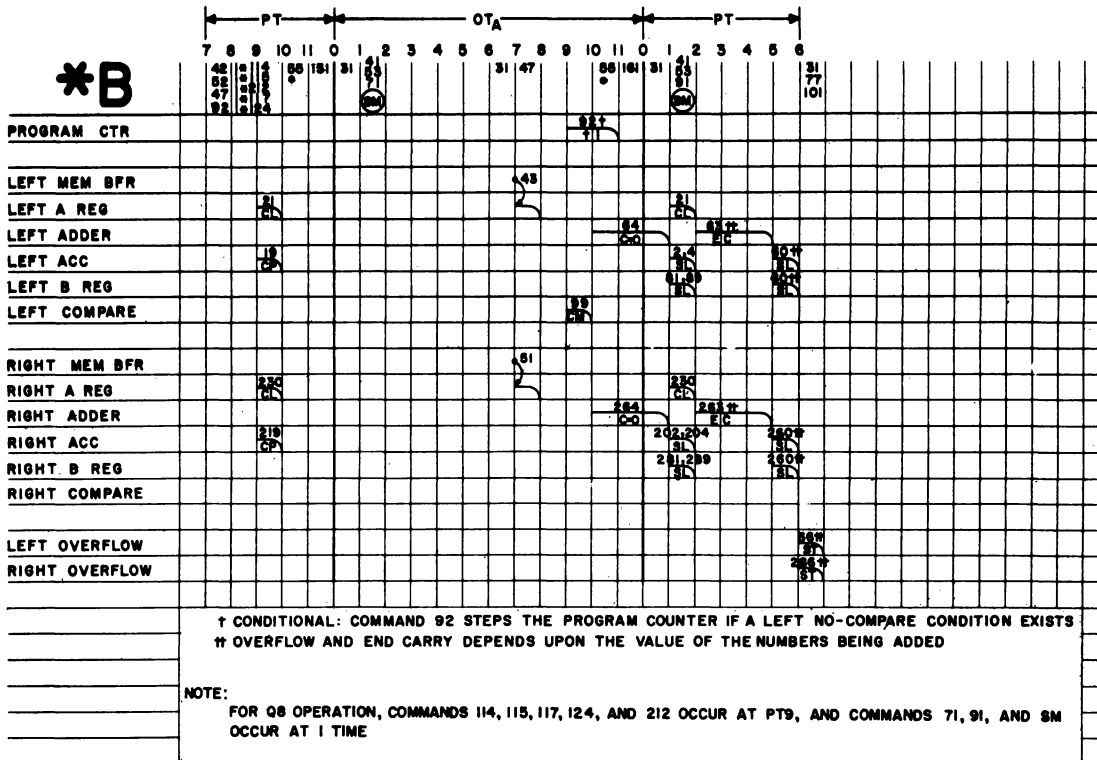
A-1.15



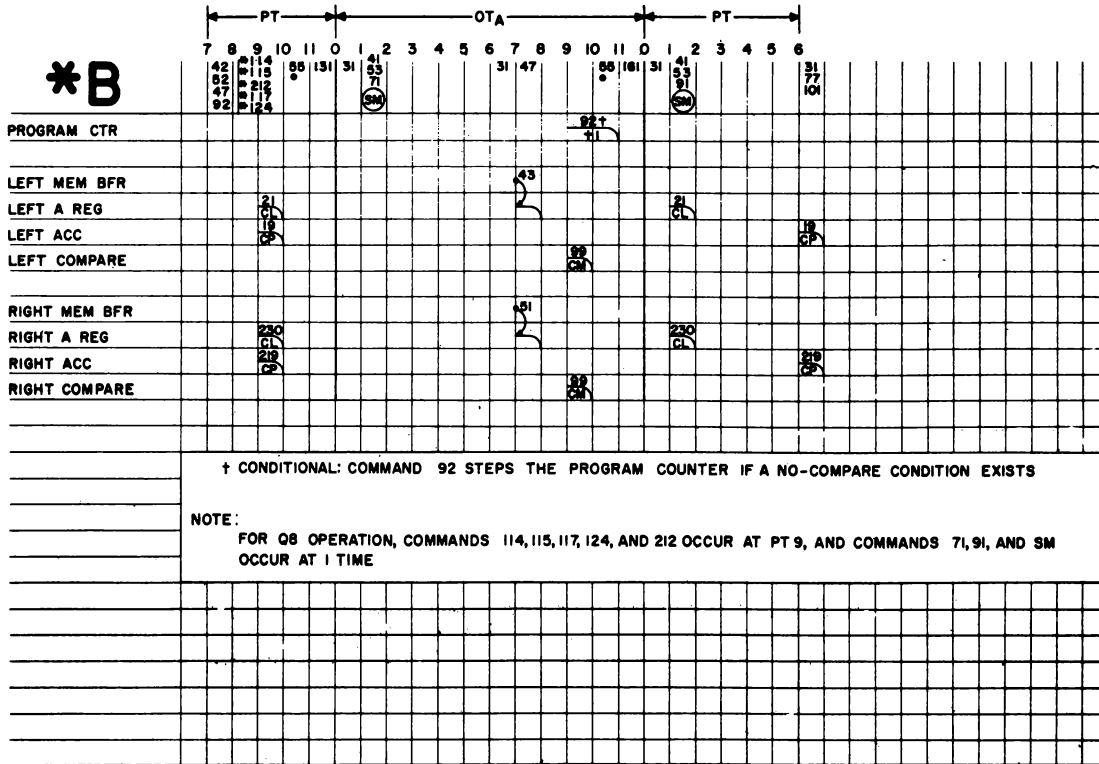
CMR 042
 COMPARE-MASK
 RT. HALF

A-1.16

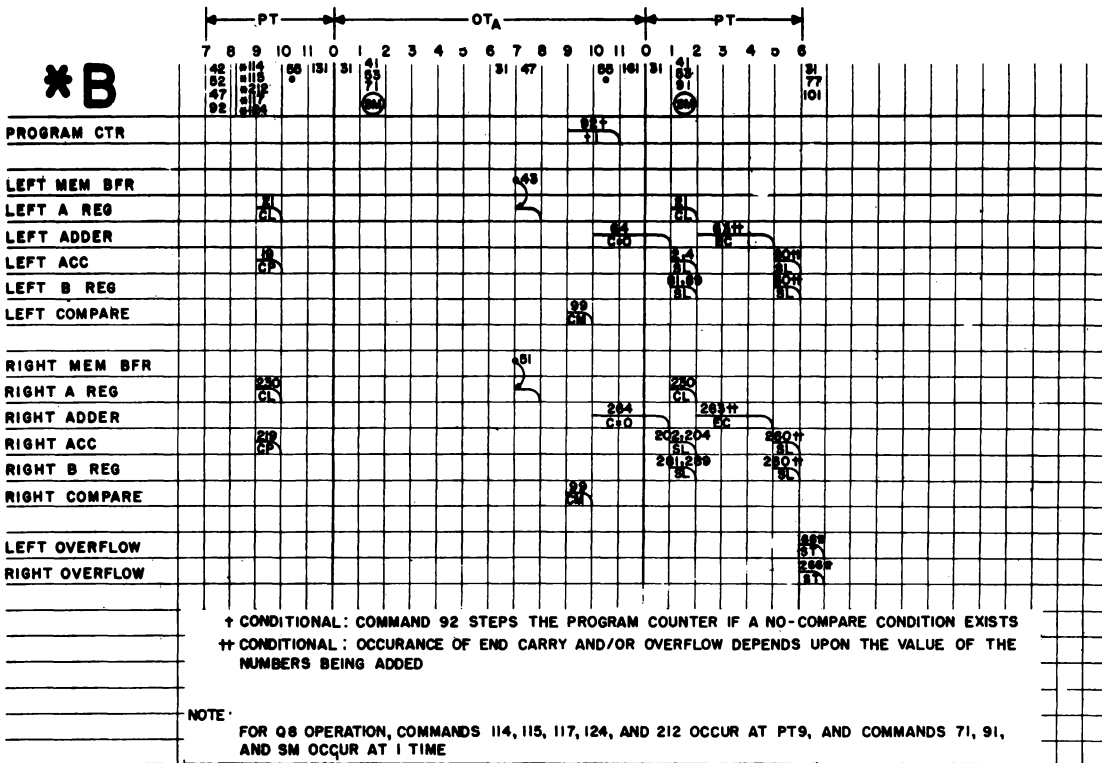




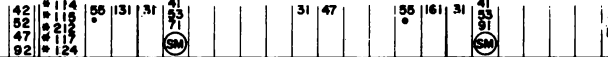
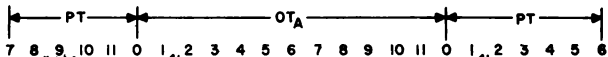
A-1.19



A-1.20



***B**



PROGRAM CTR

COMPARE

IX INTERVAL REG

† SET BITS L10 AND L11 OF INDEX INTERVAL REGISTER SO THAT PER SEL BSN MATRIX OUTPUT LINES 60 TO 77 ACTUALLY CONTROL THE SELECTION OF THE TEST BIT
 ‡ CONDITIONAL: COMMAND 92 STEPS THE PROGRAM COUNTER IF THE BIT BEING TESTED CONTAINS A 1

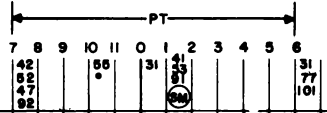
CODE-TOB (00) TEST BIT LS OF MBR
 TOB (01) TEST BIT L1 OF MBR
 TOB (17) TEST BIT L15 OF MBR
 TOB (20) TEST BIT RS OF MBR
 TOB (21) TEST BIT R1 OF MBR
 TOB (37) TEST BIT R15 OF MBR

NOTE:
 FOR Q8 OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PT9, AND COMMANDS 71, 91, AND SM OCCUR AT I TIME

A-1.21

TOB 05-

A



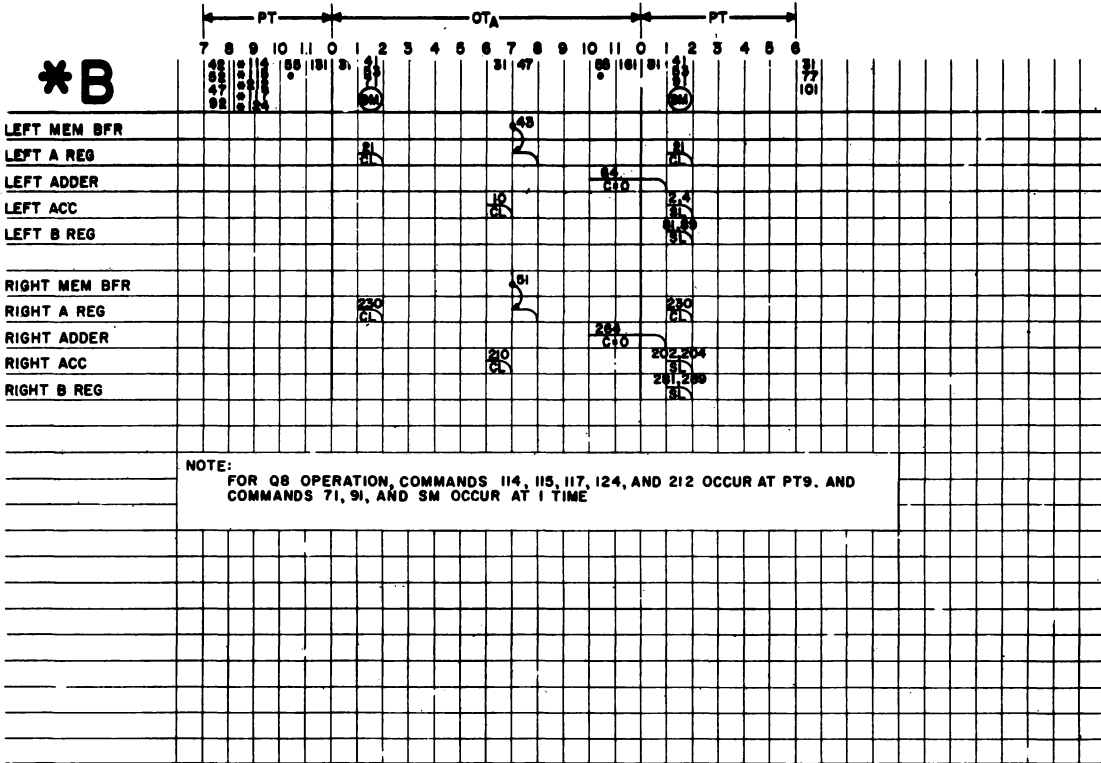
† SINCE NO LOGICAL OPERATION IS PERFORMED DURING THE EXECUTION OF ANY OF THESE INSTRUCTIONS, THEY MAY BE USED TO PROVIDE FOR A 6.0 USEC DELAY IN PROGRAM EXECUTION

NOTE:
FOR Q8 OPERATION, COMMANDS 91 AND 5M OCCUR AT 1 TIME

A-1.23

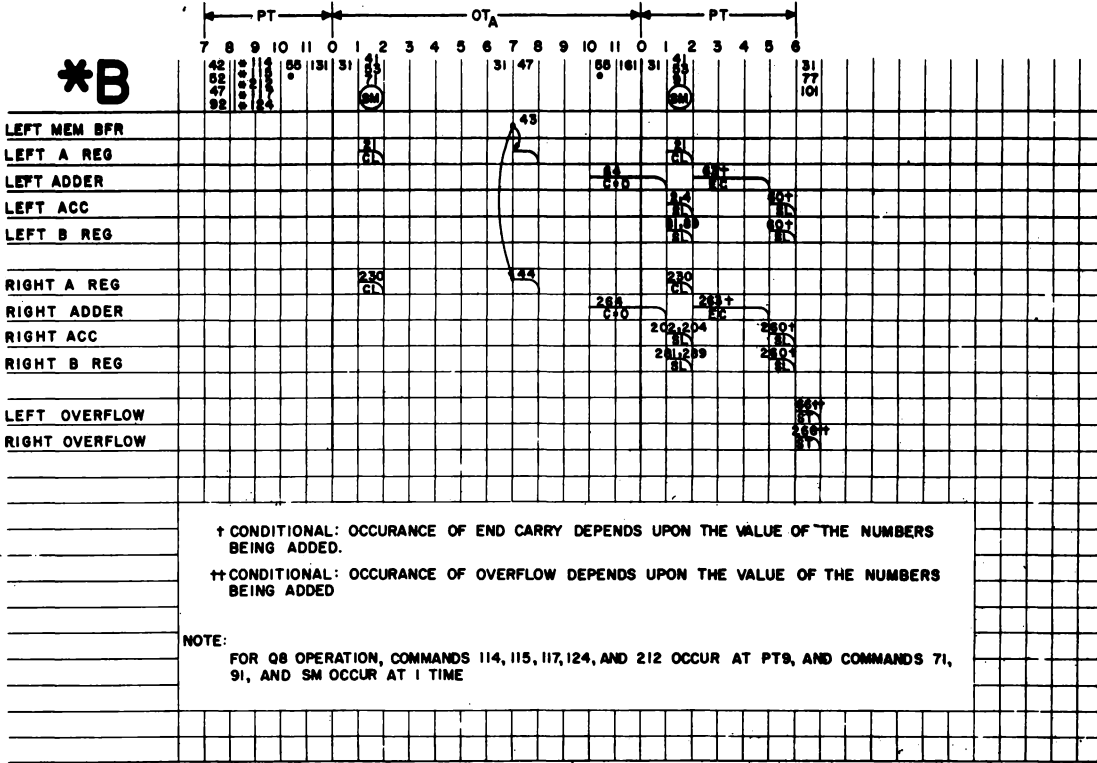
Misc Class
Illegal 0

***B**



NOTE:
 FOR QB OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PT9. AND
 COMMANDS 71, 91, AND 5M OCCUR AT 1 TIME

*B



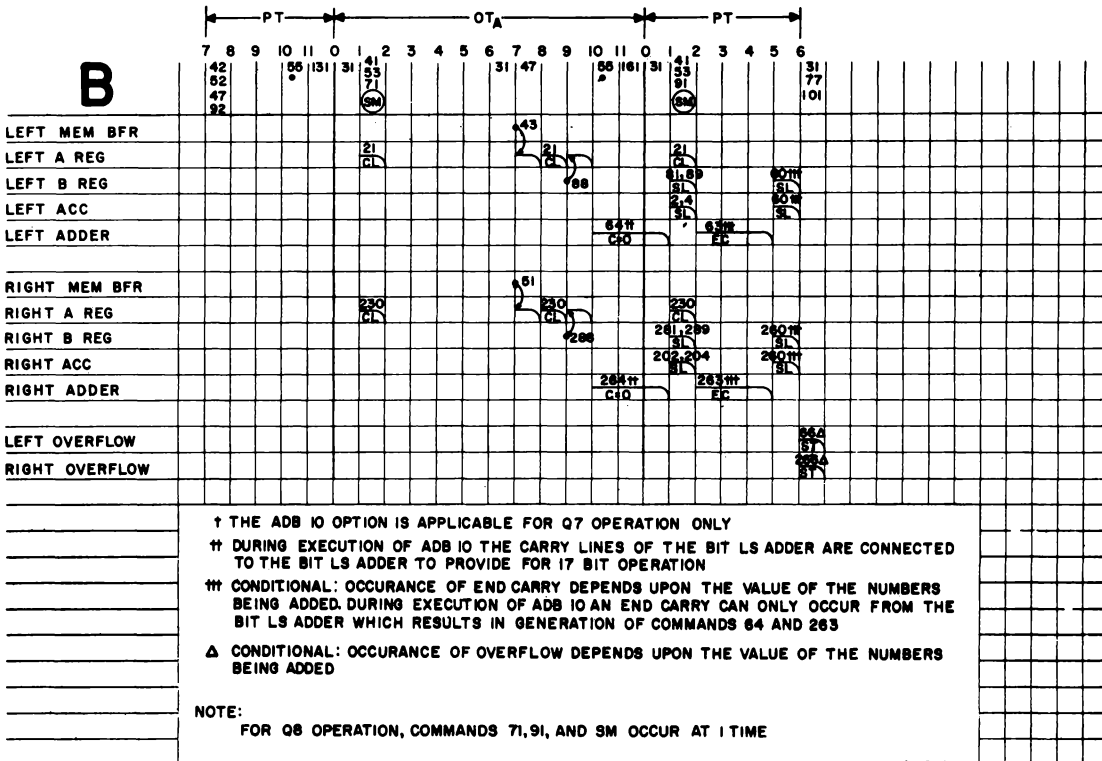
† CONDITIONAL: OCCURANCE OF END CARRY DEPENDS UPON THE VALUE OF THE NUMBERS BEING ADDED.

‡ CONDITIONAL: OCCURANCE OF OVERFLOW DEPENDS UPON THE VALUE OF THE NUMBERS BEING ADDED

NOTE:

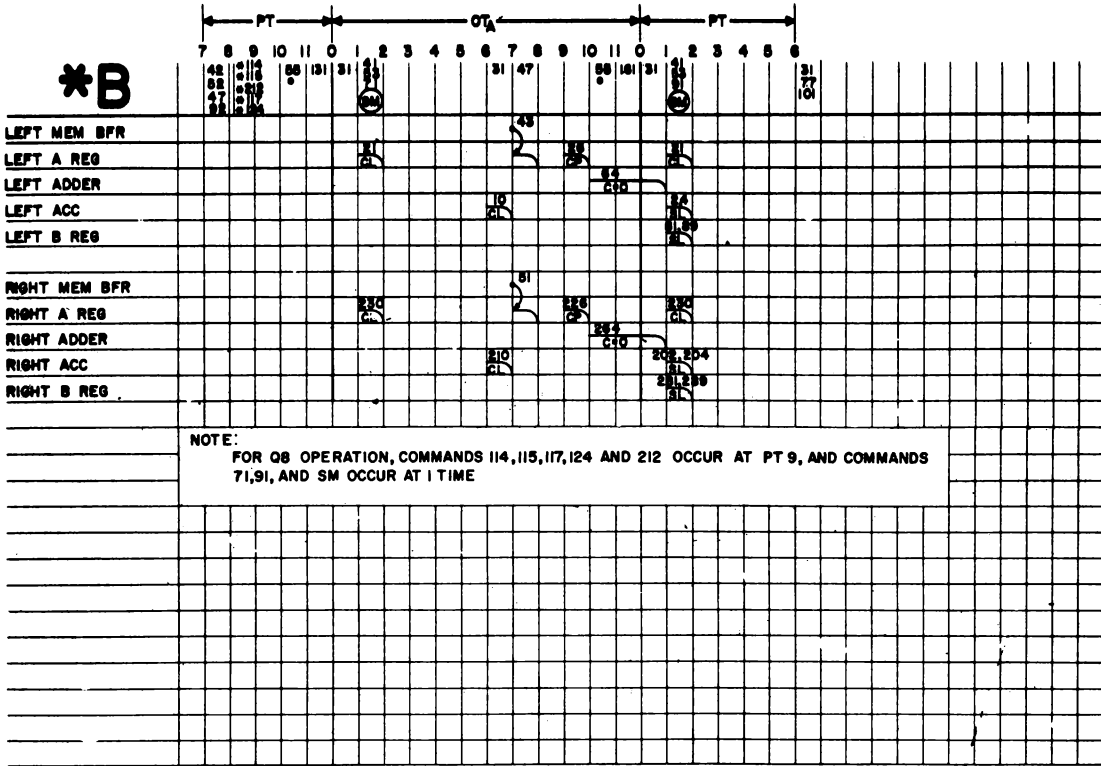
FOR Q8 OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PTs, AND COMMANDS 71, 91, AND SM OCCUR AT I TIME

A-1.27

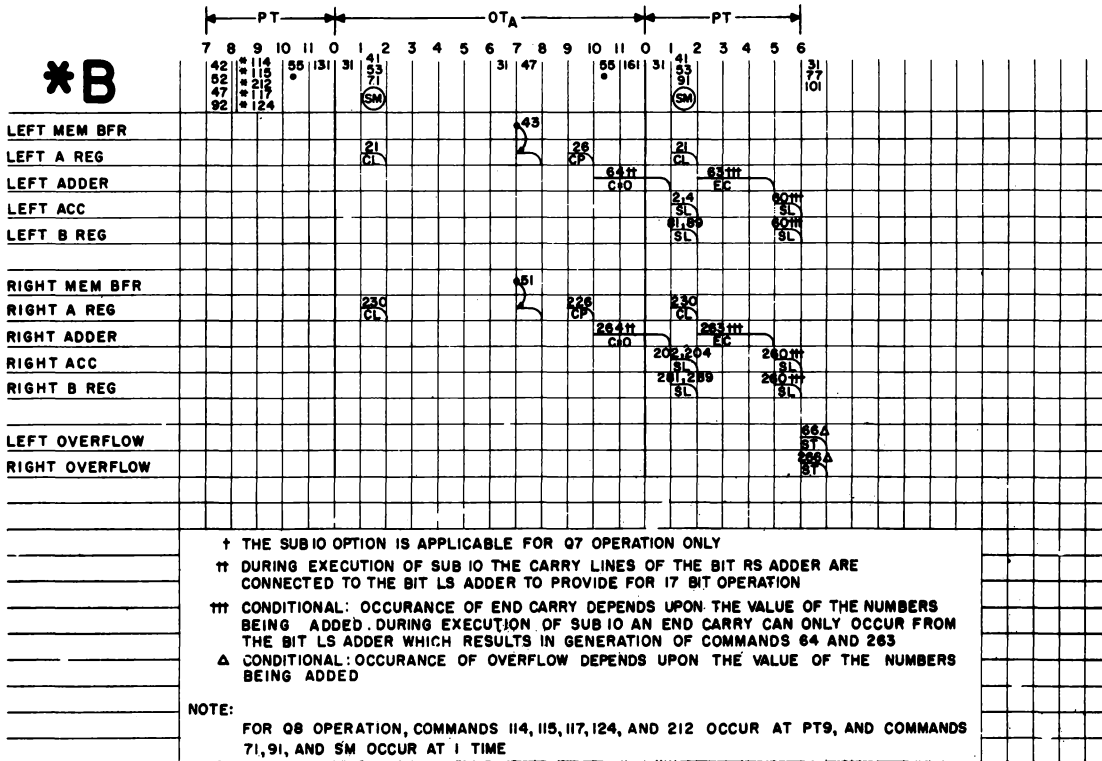


ADB 114
ADB 10 † 115

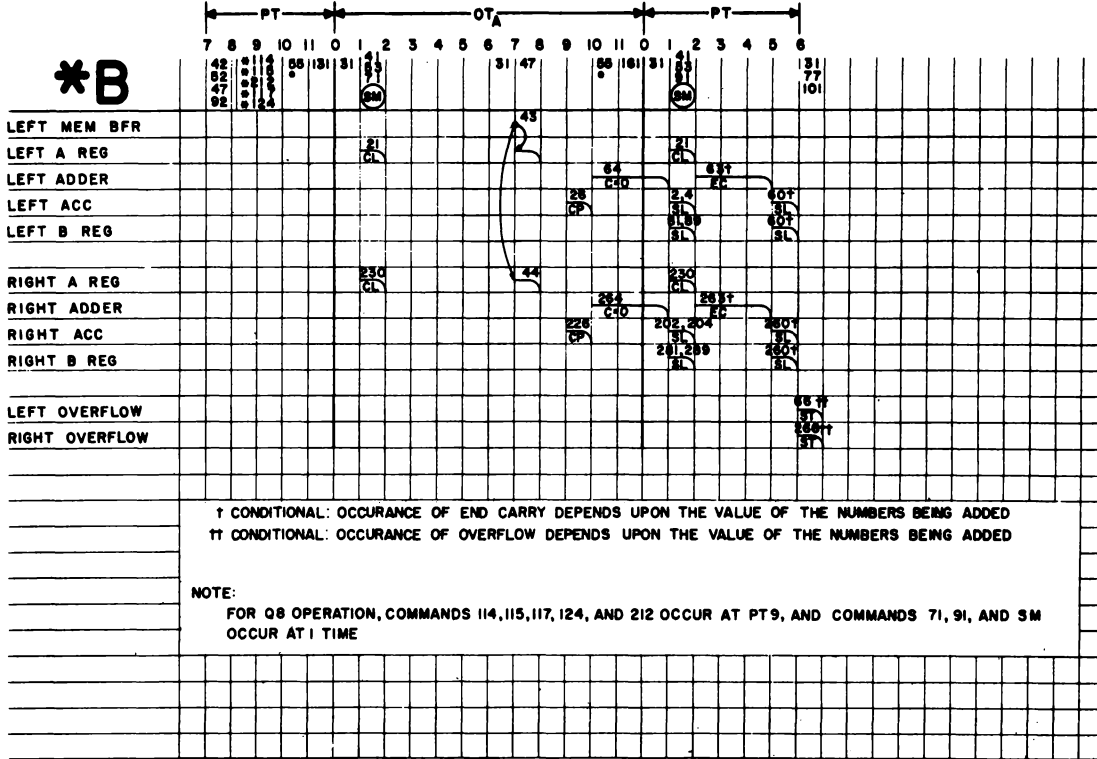
*B



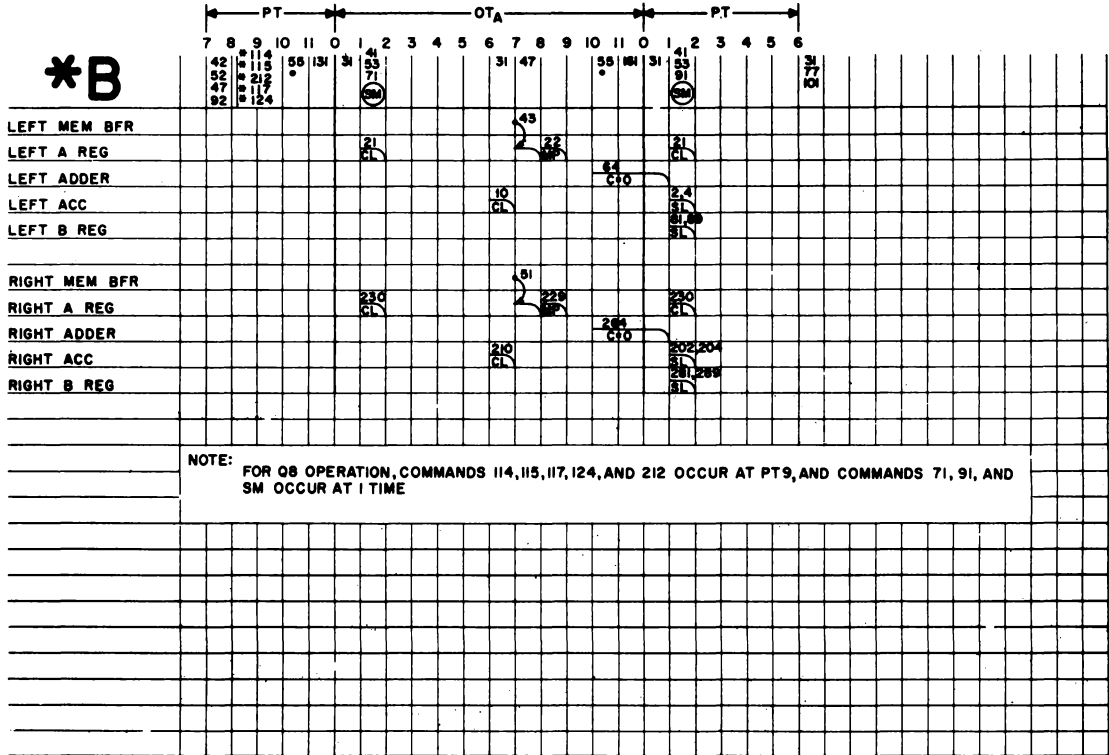
NOTE:
 FOR Q8 OPERATION, COMMANDS 114,115,117,124 AND 212 OCCUR AT PT 9, AND COMMANDS 71,91, AND SM OCCUR AT 1 TIME



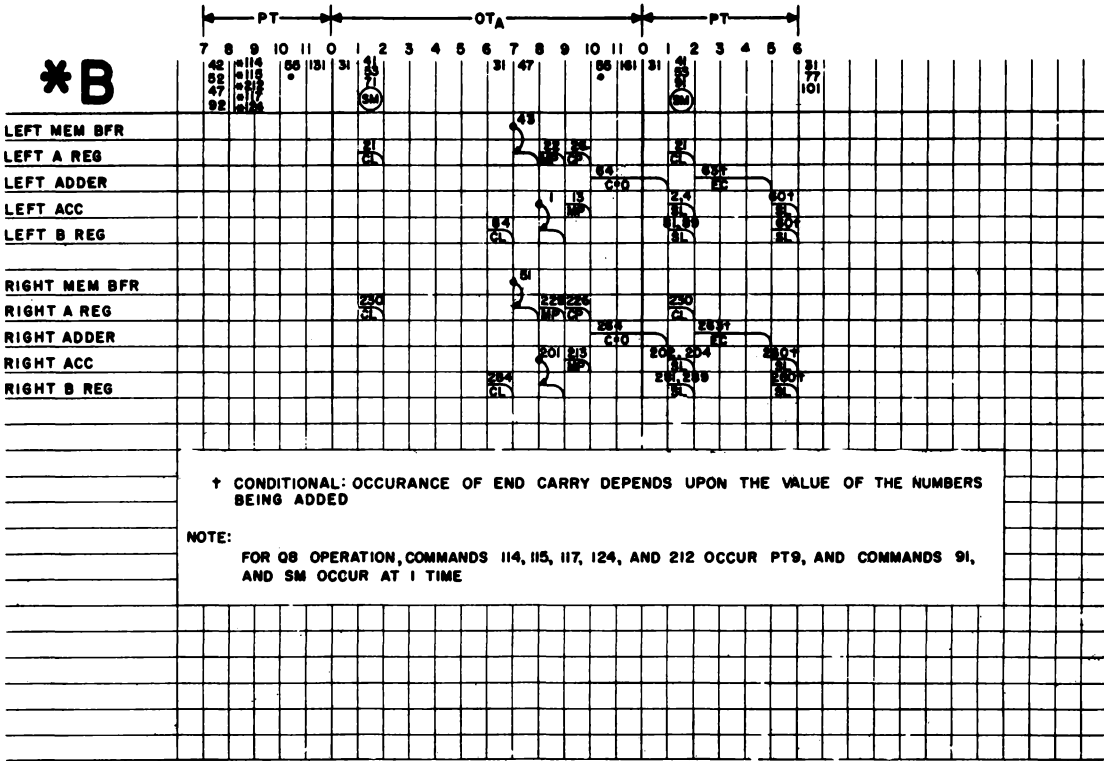
*B

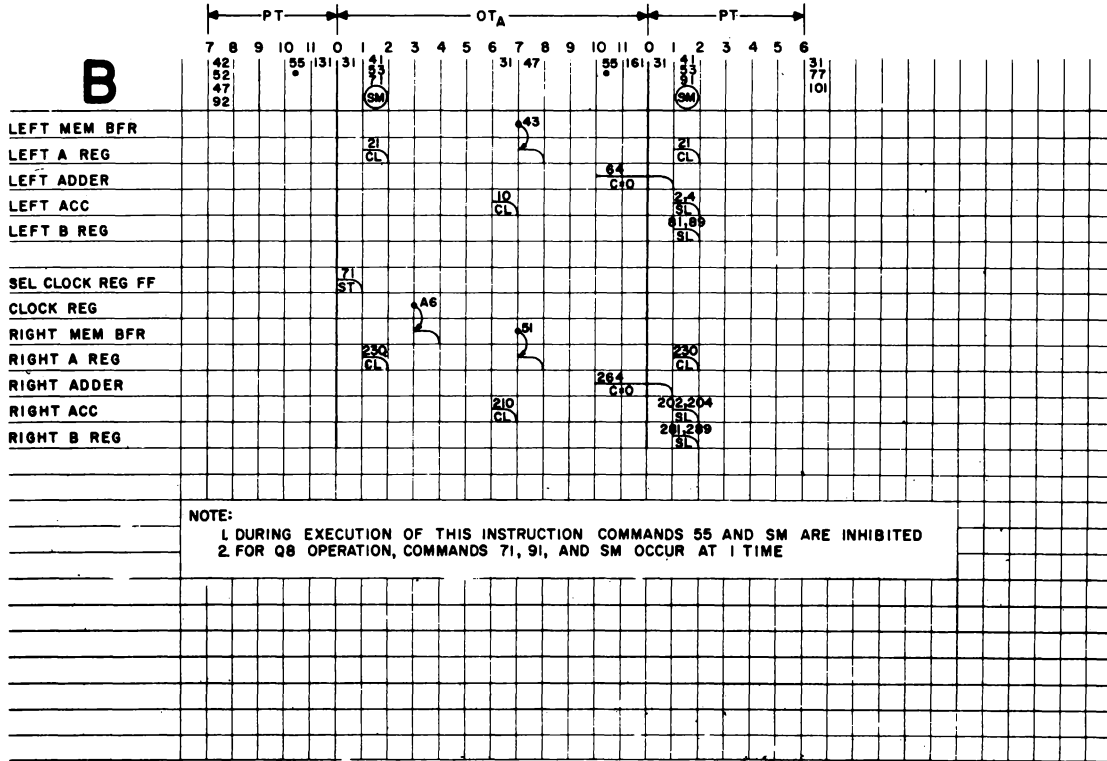


A-1.31

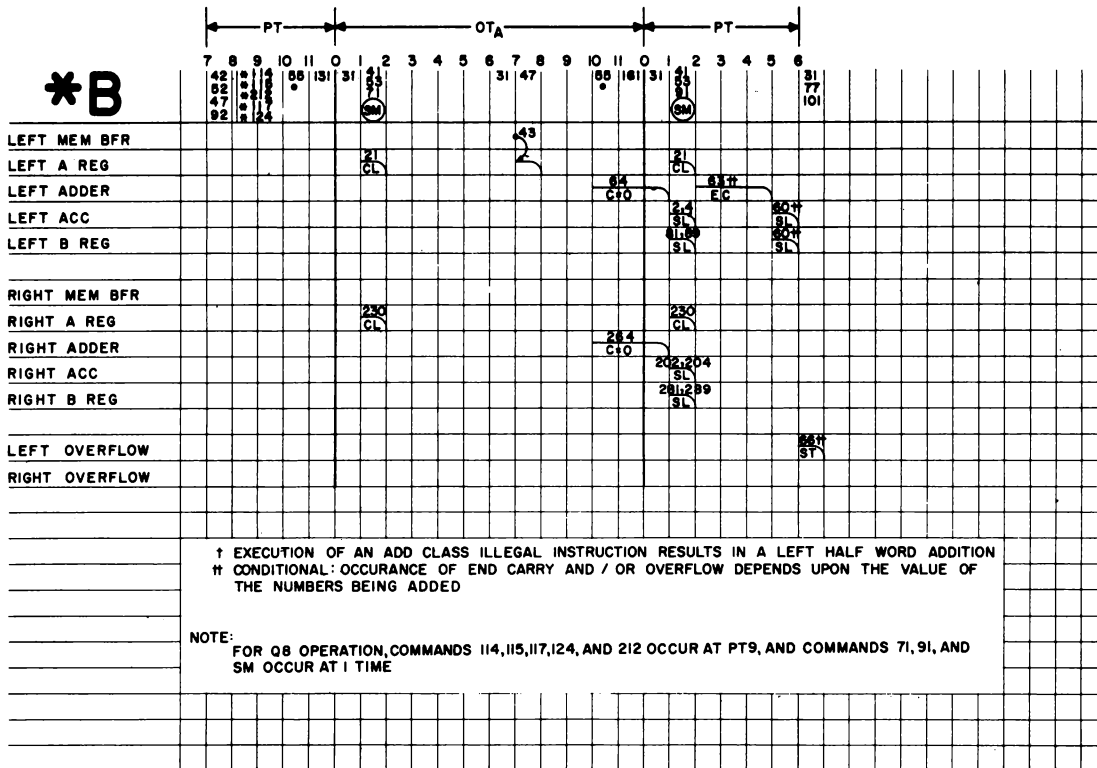


CAM 160



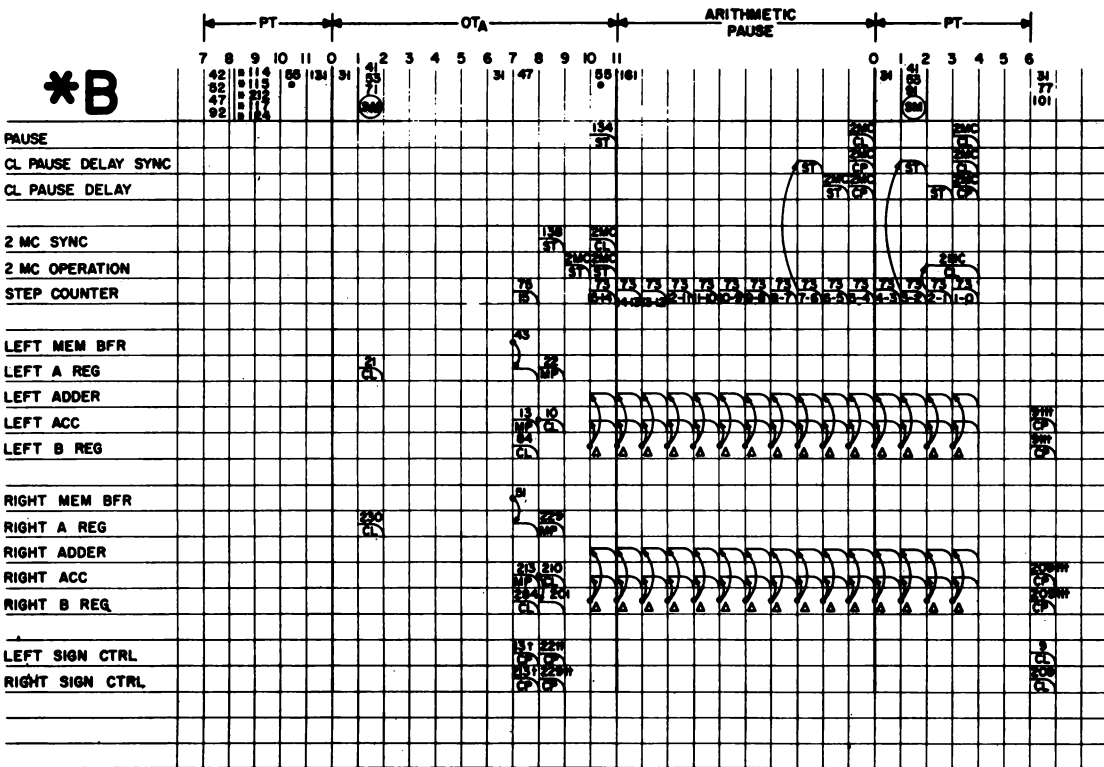


***B**



† EXECUTION OF AN ADD CLASS ILLEGAL INSTRUCTION RESULTS IN A LEFT HALF WORD ADDITION
 †† CONDITIONAL: OCCURRENCE OF END CARRY AND / OR OVERFLOW DEPENDS UPON THE VALUE OF THE NUMBERS BEING ADDED

NOTE:
 FOR Q8 OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PT9, AND COMMANDS 71, 91, AND SM OCCUR AT I TIME

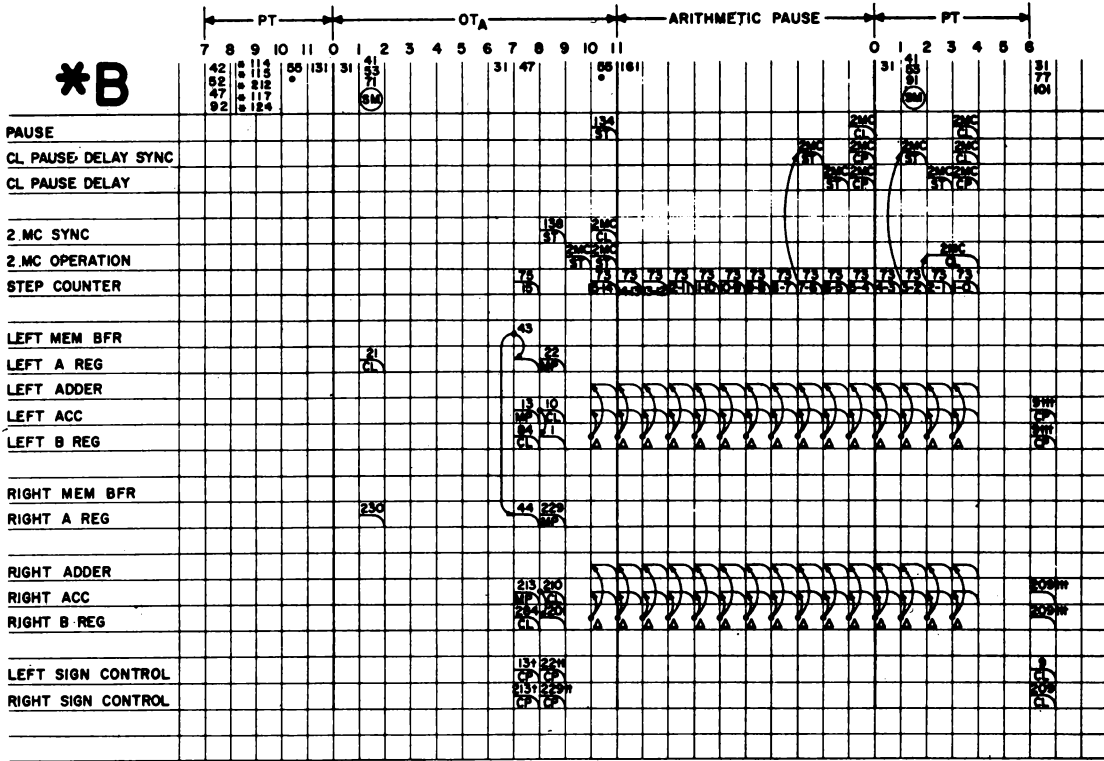


† CONDITIONAL: IF ASSOCIATED ACCUMULATOR SIGN BIT CONTAINS A 1
‡ CONDITIONAL: IF ASSOCIATED A REGISTER SIGN BIT CONTAINS A 1
‡‡ CONDITIONAL: IF ASSOCIATED SIGN CONTROL FF CONTAINS A 1
Δ COMMAND 83 (LEFT) AND 283 (RIGHT) SHIFT THE ASSOCIATED
B REGISTER 1 POSITION TO THE RIGHT AND SENSE THE STATUS
OF BIT 15 OF THE B REGISTER - IF 0, THE ACCUMULATOR IS RIPPLE
SHIFTED 1 POSITION TO THE RIGHT IF 1, A CARRY = 0 PULSE IS APPLIED
TO THE BIT 15 ADDER

NOTE:

FOR Q8 OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PT9,
COMMANDS 71, 91, AND 5M OCCUR AT 1 TIME, AND THE ARITHMETIC PAUSE IS
INITIATED AND TERMINATED 0.5 USEC LATER THAN SHOWN. ACTION TO CLEAR
THE PAUSE FF IS INITIATED WHEN THE STEP COUNTER CONTENT IS REDUCED
FROM 6 TO 5

A-1.38

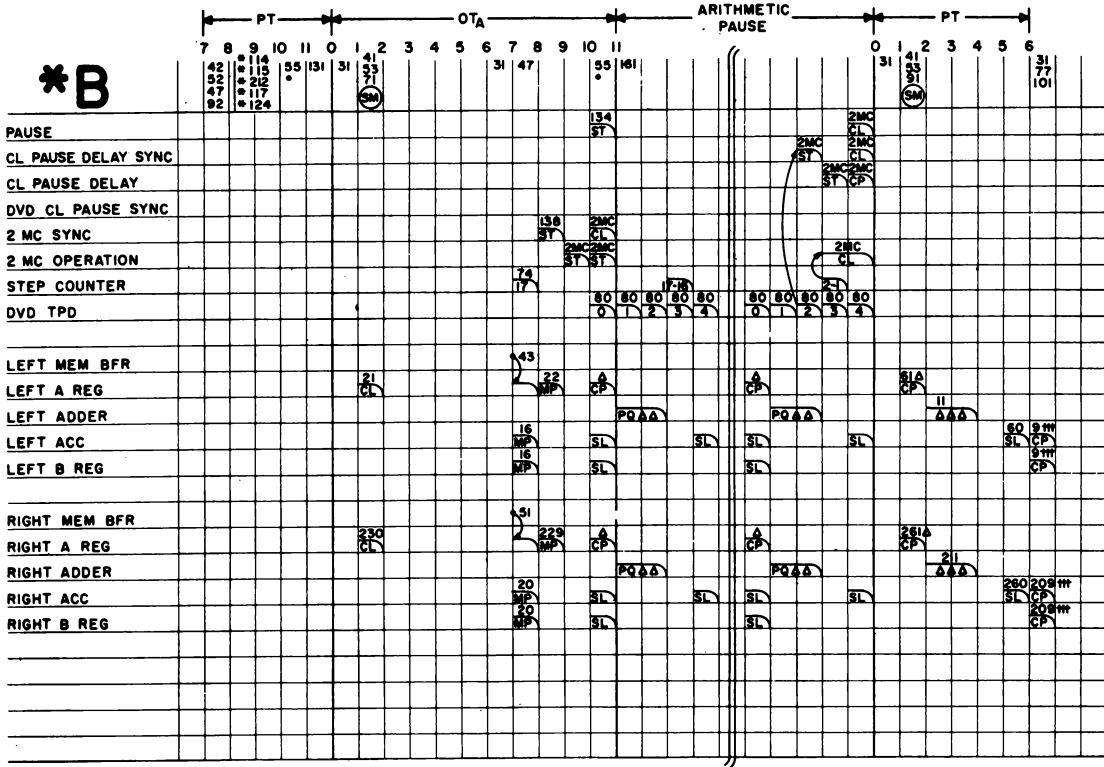


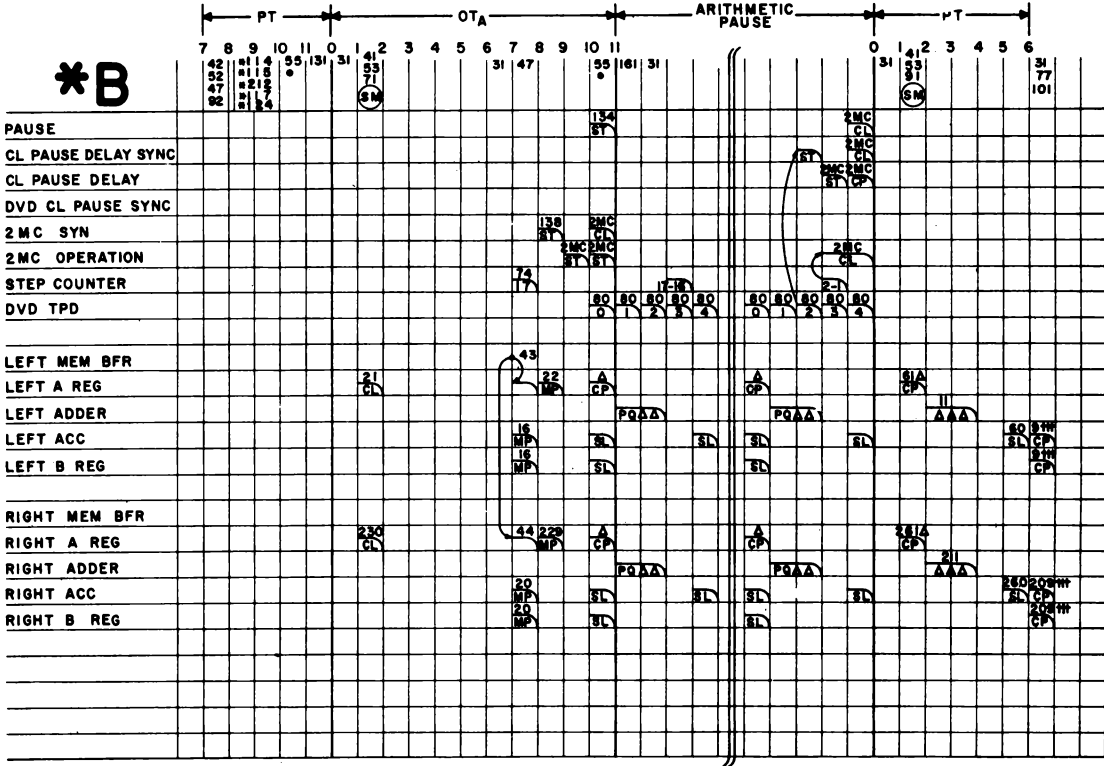
TMU 254

† CONDITIONAL: IF ASSOCIATED ACCUMULATOR SIGN BIT CONTAINS A 1
‡ CONDITIONAL: IF ASSOCIATED A REGISTER SIGN BIT CONTAINS A 1
‡‡ CONDITIONAL: IF ASSOCIATED SIGN CONTROL FF CONTAINS A 1
Δ COMMAND 83 (LEFT) AND 283 (RIGHT) SHIFT THE ASSOCIATED
B REGISTER 1 POSITION TO THE RIGHT AND SENSE THE STATUS
OF B REGISTER BIT 15 - IF 0, THE ACCUMULATOR IS RIPPLE SHIFTED
1 POSITION TO THE RIGHT IF 1, A CARRY = 0 IS APPLIED TO THE
ASSOCIATED BIT 15 ADDER

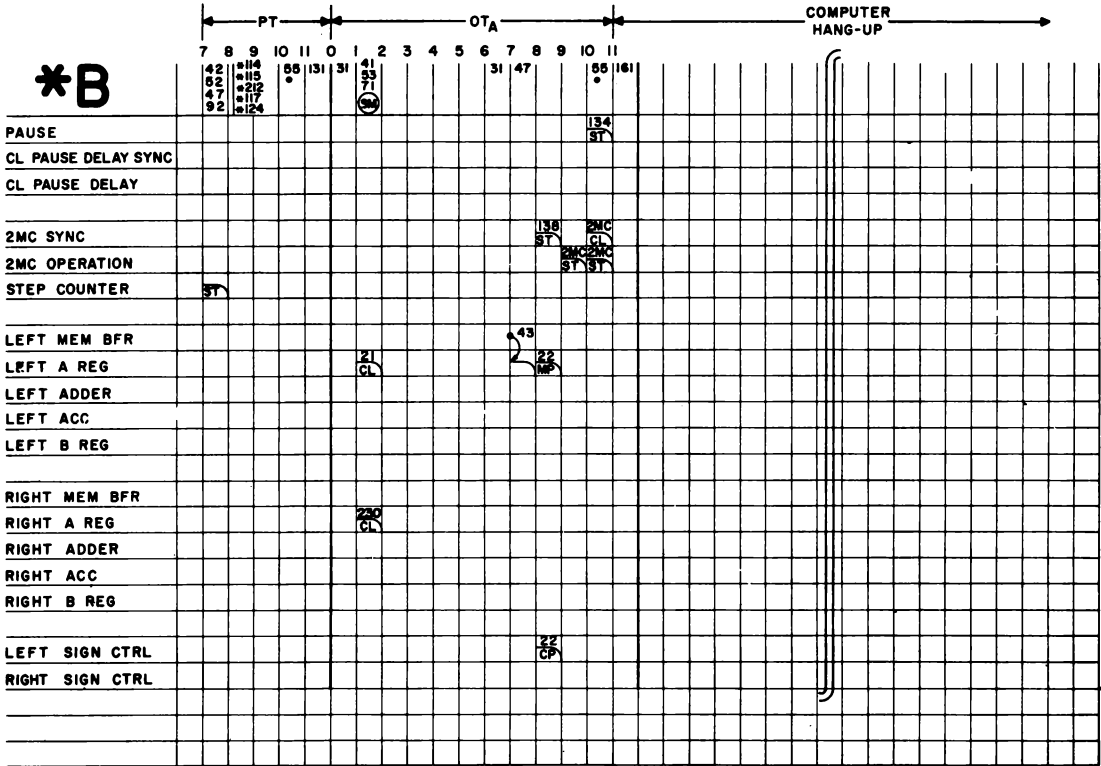
NOTE:

FOR Q8 OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PT9,
COMMANDS 71, 91, AND 5M OCCUR AT 1 TIME, AND THE ARITHMETIC PAUSE IS
INITIATED AND TERMINATED 0.5 USEC LATER THAN SHOWN. ACTION TO CLEAR
THE PAUSE FF IS INITIATED WHEN THE STEP COUNTER CONTENT IS REDUCED
FROM 6 TO 5





A-1.42



A-1.44

A-1.45

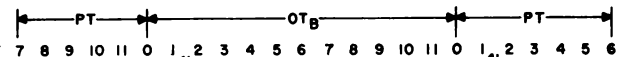
† EXECUTION OF A MULTIPLY CLASS ILLEGAL INSTRUCTION WILL CAUSE THE COMPUTER TO HANG UP SINCE THE PAUSE FF CANNOT BE CLEARED BY THE STEP COUNTER CONTROL CIRCUITS. TO TERMINATE THE COMPUTER HANG UP CONDITION A CONTROL CLEAR PULSE MUST BE GENERATED BY DEPRESSING EITHER THE RESET FF'S, CLEAR MEMORY, MASTER RESET, OR SELECT TEST MEMORY PUSHBUTTONS.

NOTE:

FOR Q8 OPERATION, COMMANDS I14, I15, I17, I24, AND 212 OCCUR AT PT 9, COMMANDS 71, 91, AND SM OCCUR AT 1 TIME, AND THE COMPUTER HANG UP CONDITION IS INITIATED 0.5 USEC LATER THAN SHOWN

Multi. Class
Illegal 2

*C#

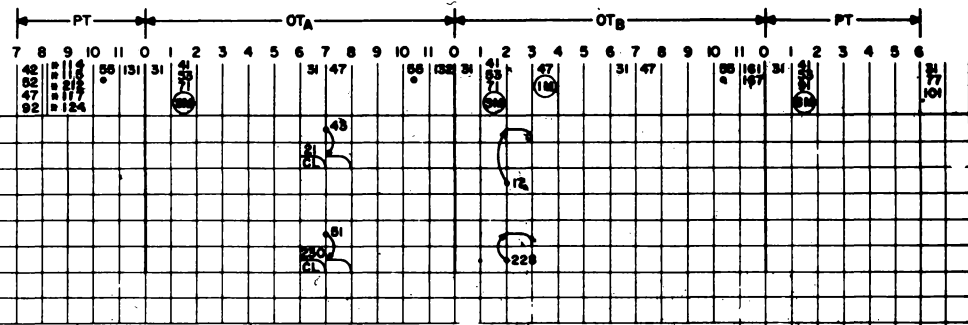


	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	
42	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138
47	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138
92	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138
LEFT MEM BFR																									
LEFT ACC																									
RIGHT MEM BFR																									
RIGHT ACC																									

* FOR THE FST INSTRUCTION THE OT_A CYCLE DOES NOT EXIST AND COMMAND 132 OCCURS AT PT-II

NOTE: FOR Q8 OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PT9, AND COMMANDS 71, 91, AND SM OCCUR AT 1 TIME

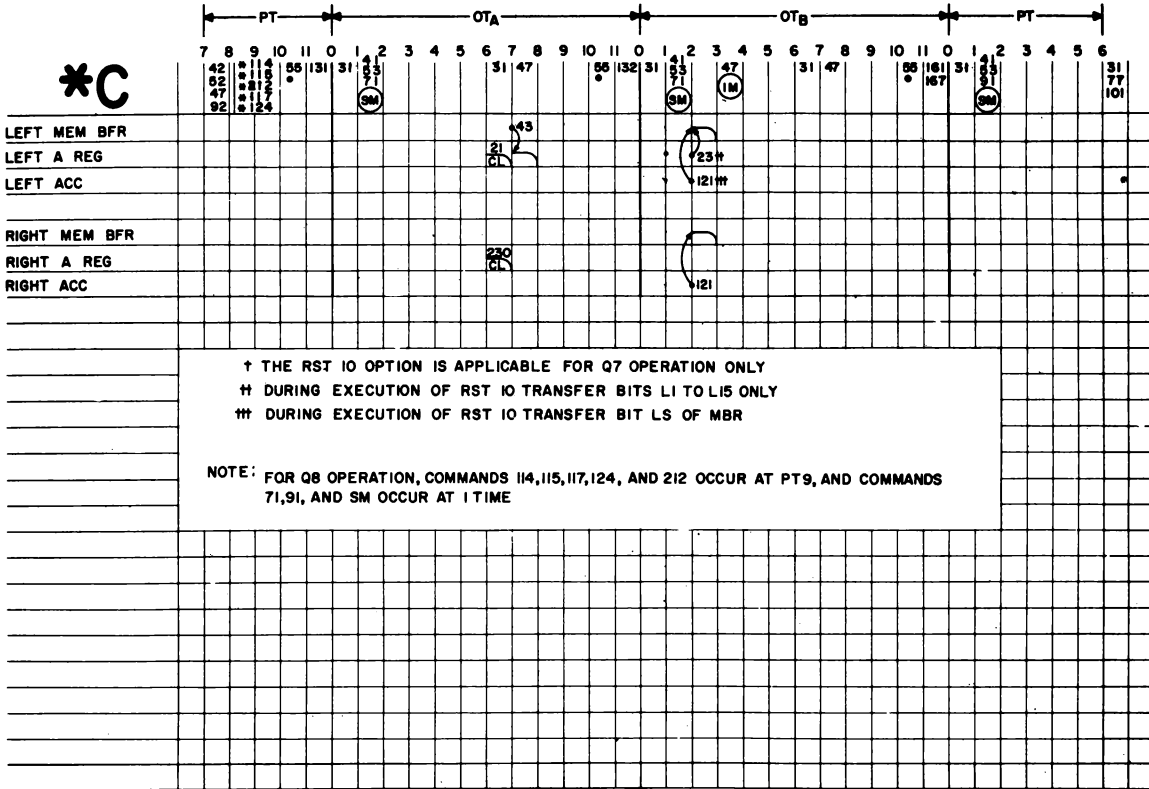
*C



NOTE:
 FOR Q8 OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PTs, AND
 COMMANDS 71, 91, AND SM OCCUR AT I TIME

A-1.47

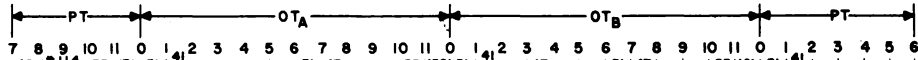
LST 330



† THE RST 10 OPTION IS APPLICABLE FOR Q7 OPERATION ONLY
 †† DURING EXECUTION OF RST 10 TRANSFER BITS L1 TO L15 ONLY
 ††† DURING EXECUTION OF RST 10 TRANSFER BIT LS OF MBR

NOTE: FOR Q8 OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PT9, AND COMMANDS 71, 91, AND 5M OCCUR AT 1 TIME

*C



LEFT MEM BFR

LEFT A REG

RIGHT MEM BFR

RIGHT A REG

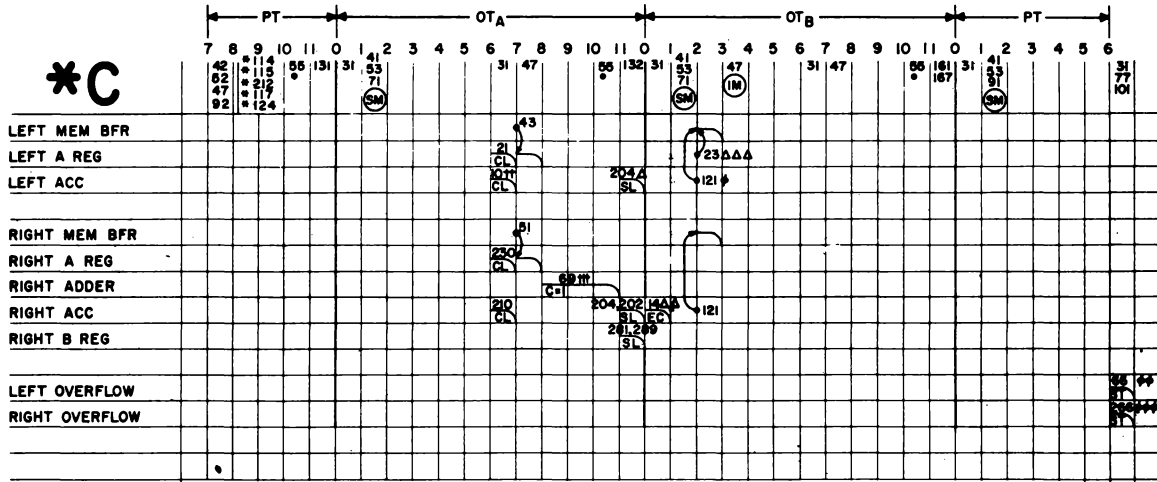
- † THE STA 10 OPTION IS APPLICABLE FOR Q7 OPERATION ONLY
- ‡ DURING EXECUTION OF STA 10 TRANSFER BITS L1 TO L15 ONLY
- ‡‡ DURING EXECUTION OF STA 10 TRANSFER BITS LS AND RS TO R15

NOTE: FOR Q8 OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PT9, AND COMMANDS 71, 91, AND SM OCCUR AT 1 TIME

STA 340
 STA 10 †
 341

AOR 344
 AOR 10 † 345

*C

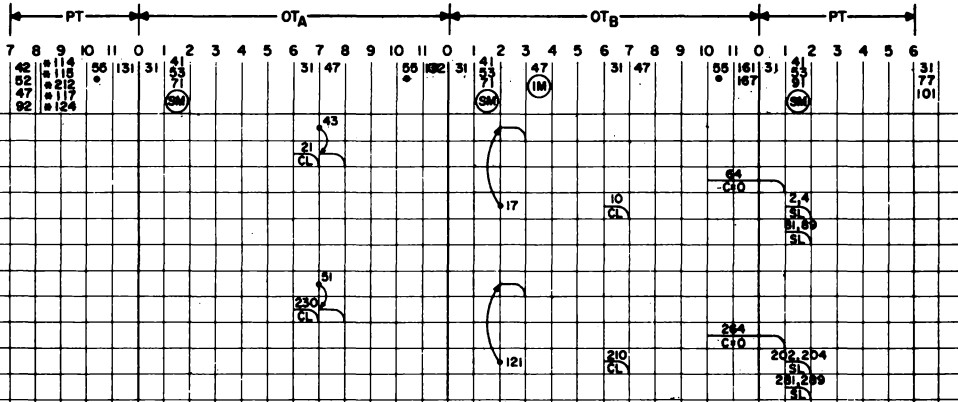


† THE AOR 10 OPTION IS APPLICABLE FOR Q7 OPERATION ONLY
 †† OCCURS ONLY DURING EXECUTION OF AOR 10
 ††† DURING EXECUTION OF AOR 10 CARRY LINES OF BIT RS ADDER ARE CONNECTED TO BIT LS ADDER TO PROVIDE FOR 17 BIT OPERATION
 Δ DURING EXECUTION OF AOR 10 SHIFT ACCUMULATOR BIT LI TO BIT LS
 ΔΔ DURING EXECUTION OF AOR 10 LEFT END CARRY SETS BIT R15 OF ACCUMULATOR
 ΔΔΔ DURING EXECUTION OF AOR 10 TRANSFER BITS LI TO LI5 ONLY
 †† DURING EXECUTION OF AOR 10 TRANSFER BIT LS TO BIT LS OF MBR
 ††† OVERFLOW POSSIBLE ON AOR 10 INSTRUCTION
 †††† OVERFLOW POSSIBLE ON AOR INSTRUCTION

NOTE:
 FOR Q8 OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PT9, AND COMMANDS 71, 91, AND SM OCCUR AT 1 TIME

A-1.50

***C**

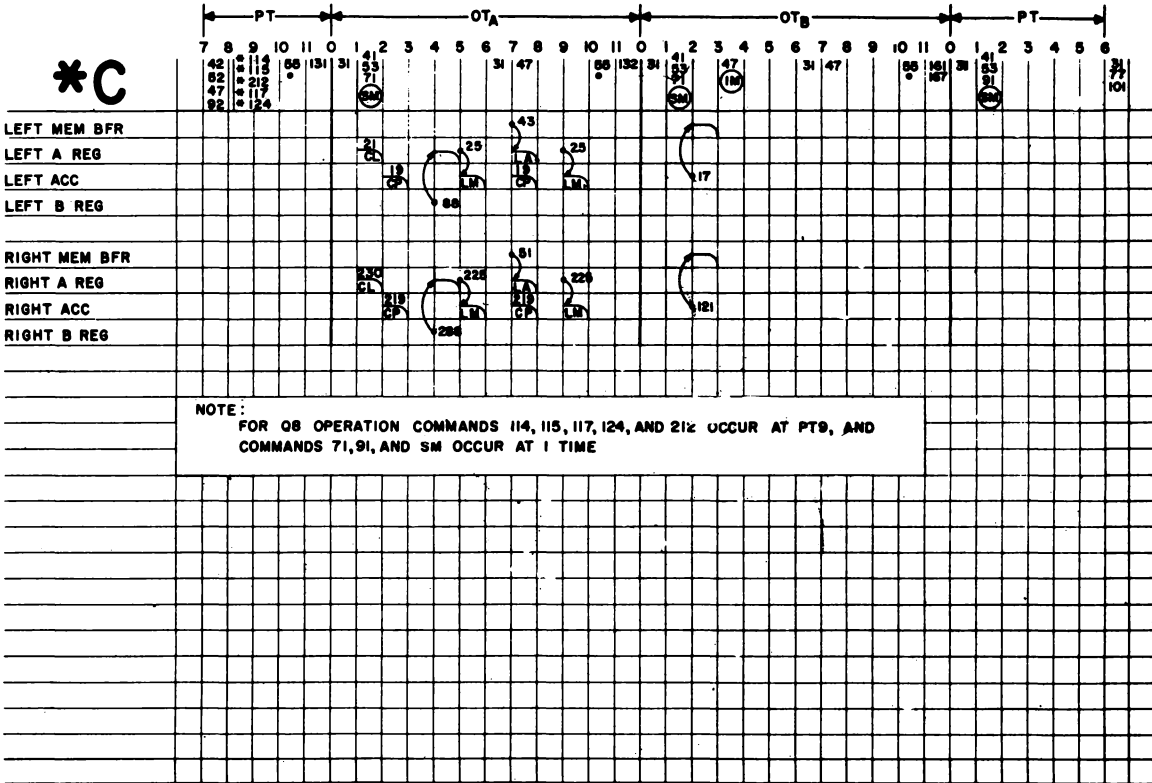


NOTE:

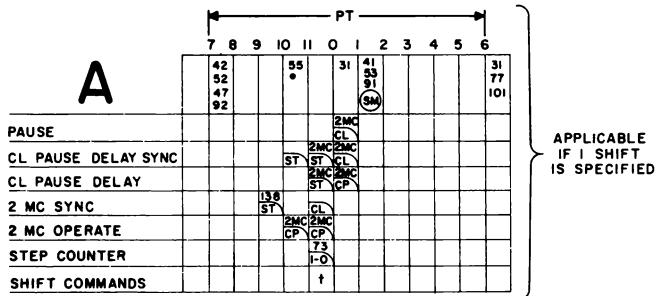
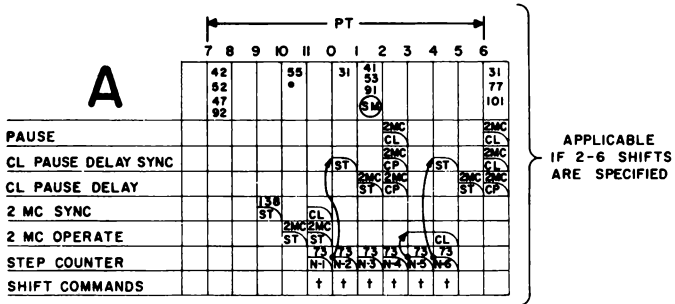
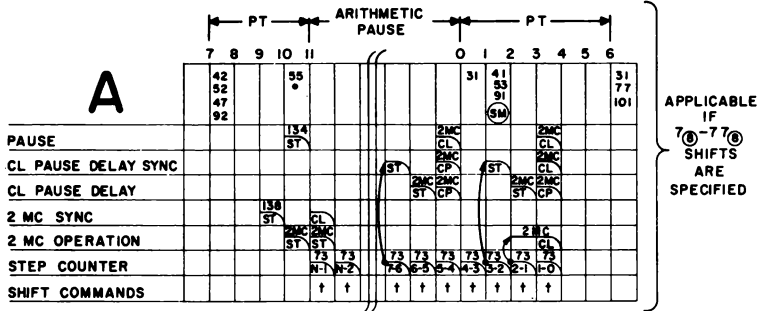
FOR Q8 OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PT9, AND COMMANDS 71, 91, AND SM OCCUR AT I TIME

A-1.51

ECH 350



SHIFT CLASS BASIC COMMANDS



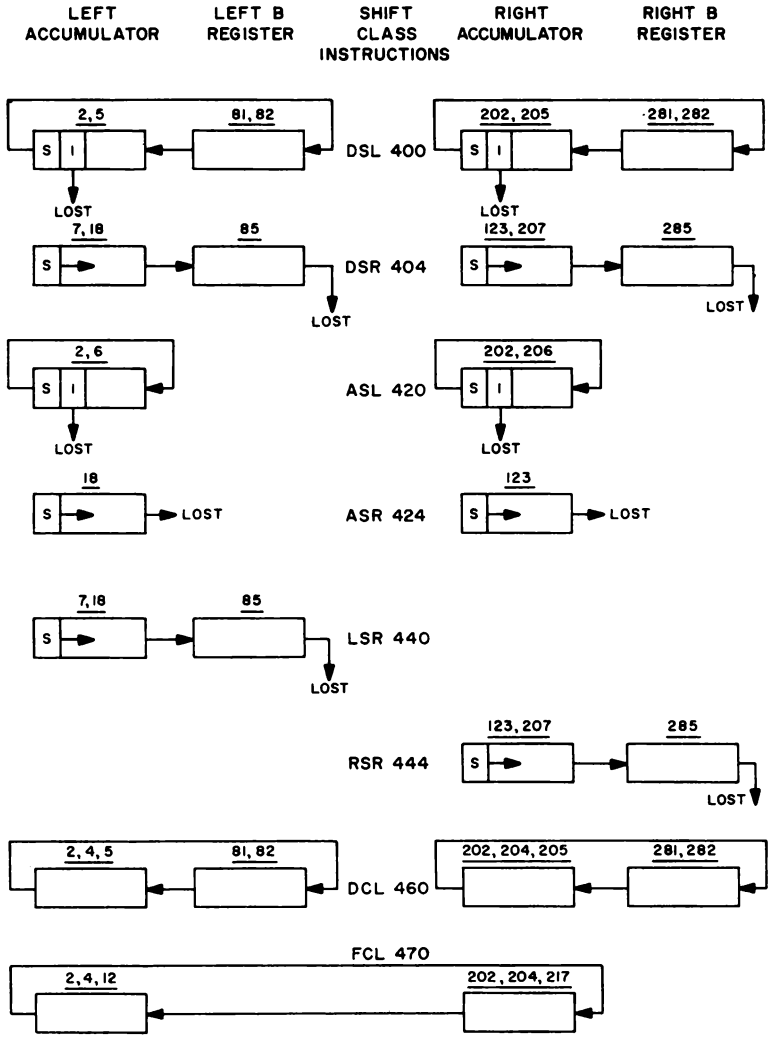
† INSERT APPLICABLE SHIFT COMMANDS NOTED IN ADJACENT CHART

NOTE:

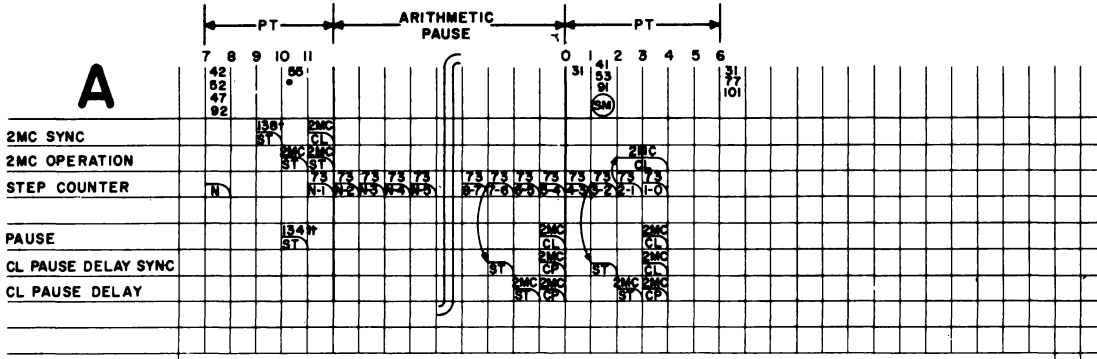
FOR Q8 OPERATION, COMMANDS 91 AND SM OCCUR AT 1 TIME, AND THE ARITHMETIC PAUSE IS INITIATED AND TERMINATED 0.5 USEC LATER THAN SHOWN

ACTION TO CLEAR THE PAUSE FF IS INITIATED WHEN THE STEP COUNTER CONTENT IS REDUCED FROM 6 TO 5

SHIFT CLASS UNIQUE COMMANDS



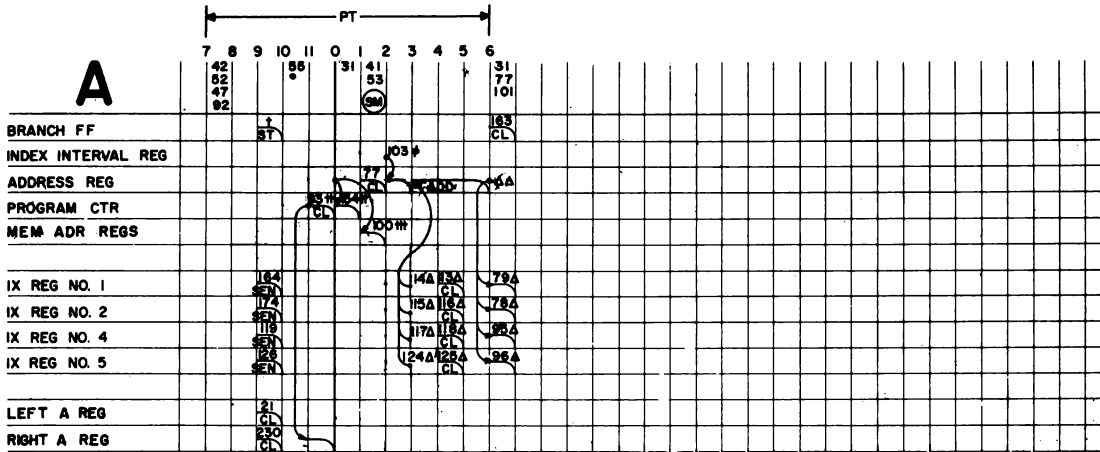
A



† SINCE NO LOGICAL OPERATION IS PERFORMED DURING THE EXECUTION OF ANY OF THESE INSTRUCTIONS, THEY MAY BE USED TO PROVIDE FOR A VARIABLE DELAY OF FROM 6.0 USEC TO 35.5 USEC IN PROGRAM EXECUTION
 # CONDITIONAL: IF STEP COUNTER CONTENT IS GREATER THAN 0
 ## CONDITIONAL: IF STEP COUNTER CONTENT IS GREATER THAN 6

NOTE:
 FOR Q8 OPERATION, COMMANDS 91 AND SM OCCUR AT I TIME AND THE ARITHMETIC PAUSE IS INITIATED AND TERMINATED 0.5 USEC LATER THAN SHOWN

A-1.56



† CONDITIONAL: IF IX0 OR IX3 IS SELECTED, COMMAND 170 SETS THE BRANCH FF TO BRANCH UNCONDITIONALLY. IF IX1, IX2, IX4 OR IX5 IS SELECTED, COMMAND 164, 174, 119 OR 126 SETS THE BRANCH FF ONLY IF THE SELECTED INDEX REGISTER HAS A POSITIVE-SIGN

†† CONDITIONAL: BRANCH FF MUST BE SET

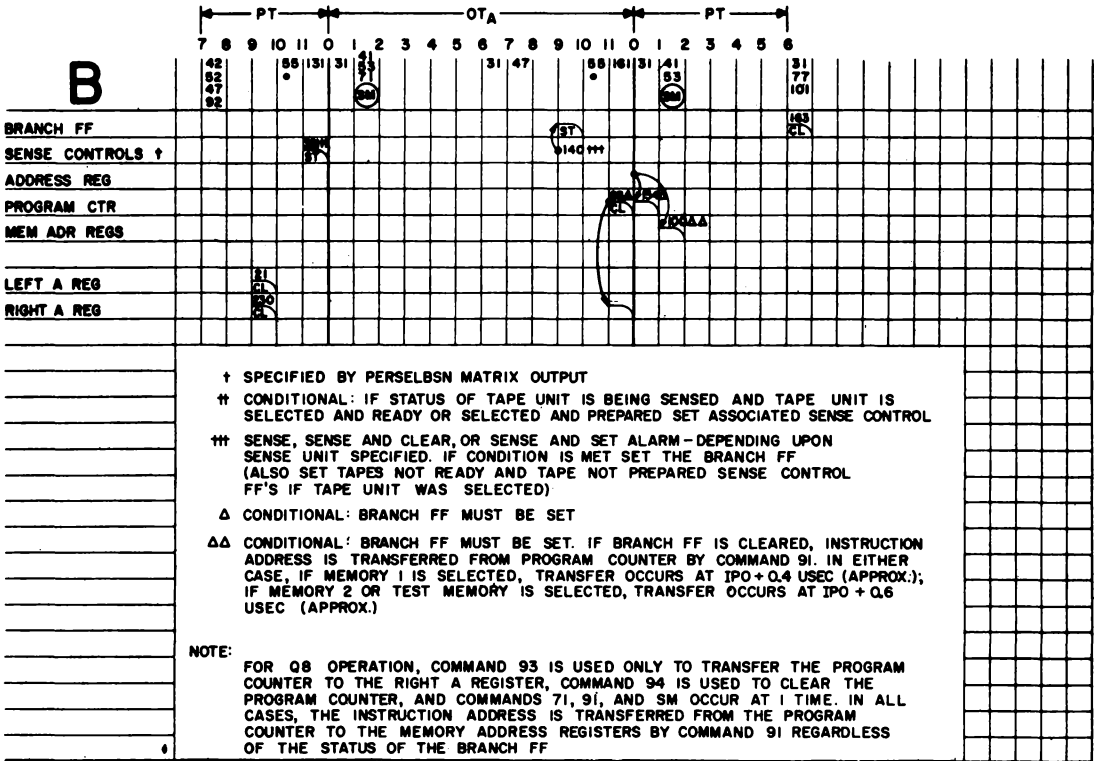
††† CONDITIONAL: BRANCH FF MUST BE SET. IF BRANCH FF IS CLEARED, INSTRUCTION ADDRESS IS TRANSFERRED FROM PROGRAM COUNTER BY COMMAND 91. IN EITHER CASE, IF MEMORY 1 IS SELECTED, TRANSFER OCCURS AT IPO + 0.4 USEC (APPROX.); IF MEMORY 2 OR TEST MEMORY IS SELECTED, TRANSFER OCCURS AT IPO + 0.6 USEC (APPROX.)

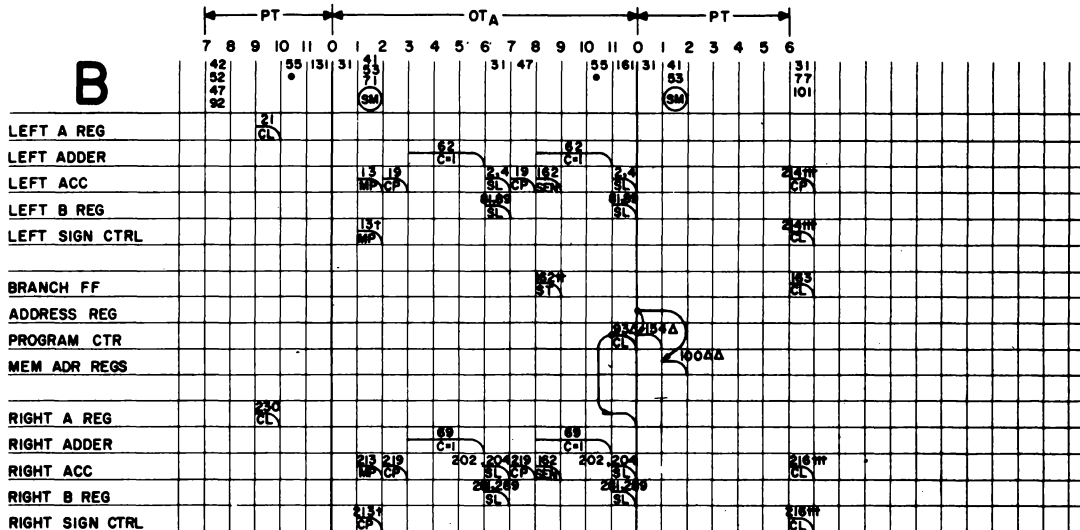
‡ SET BITS LS AND RS-R9 OF ADDRESS REGISTER AND TRANSFER COMPLEMENT OF INDEX INTERVAL REGISTER TO BITS R10-R15 OF ADDRESS REGISTER

Δ CONDITIONAL: BRANCH FF MUST BE SET AND INDEX REGISTER MUST BE SELECTED

ΔΔ CONDITIONAL: TRANSFER FROM ADDRESS REGISTER TO SELECTED INDEX REGISTER CAN ONLY OCCUR IF BIT LS OF ADDRESS REGISTER CONTAINS A 0

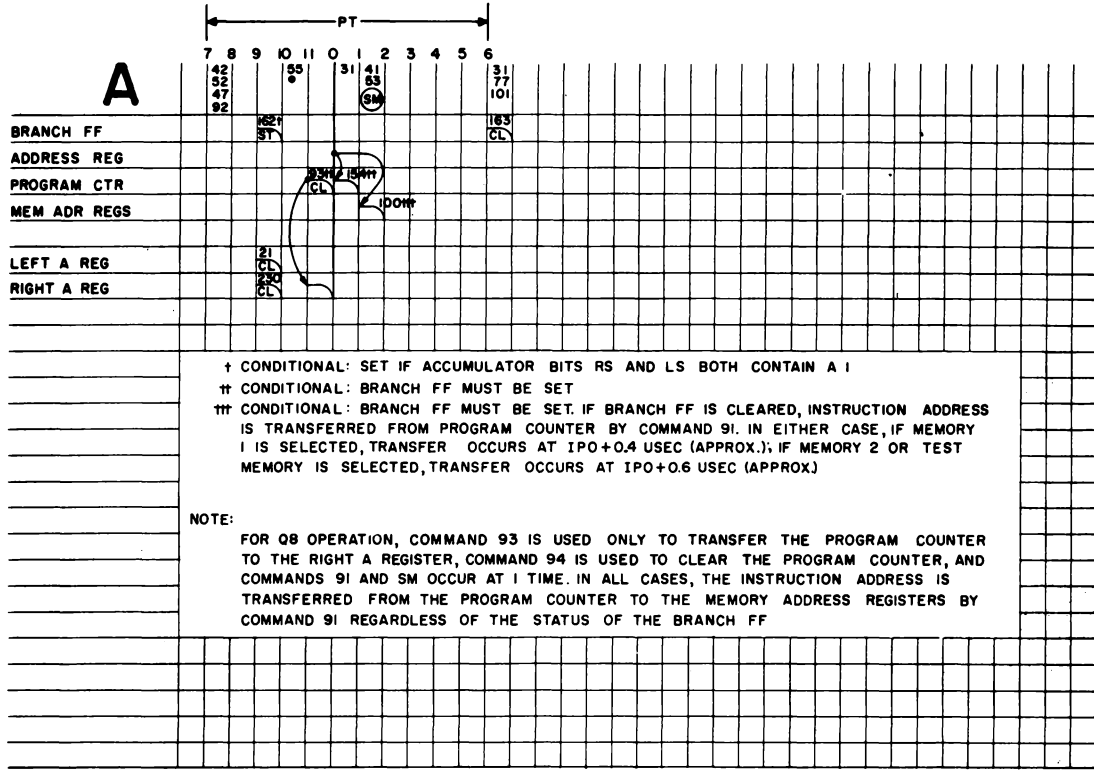
NOTE: FOR Q8 OPERATION, COMMAND 93 IS USED ONLY TO TRANSFER THE PROGRAM COUNTER TO THE RIGHT A REGISTER, COMMAND 94 IS USED TO CLEAR THE PROGRAM COUNTER, AND COMMANDS 91 AND SM OCCUR AT I TIME. IN ALL CASES, THE INSTRUCTION ADDRESS IS TRANSFERRED FROM THE PROGRAM COUNTER TO THE MEMORY ADDRESS REGISTERS BY COMMAND 91 REGARDLESS OF THE STATUS OF THE BRANCH FF



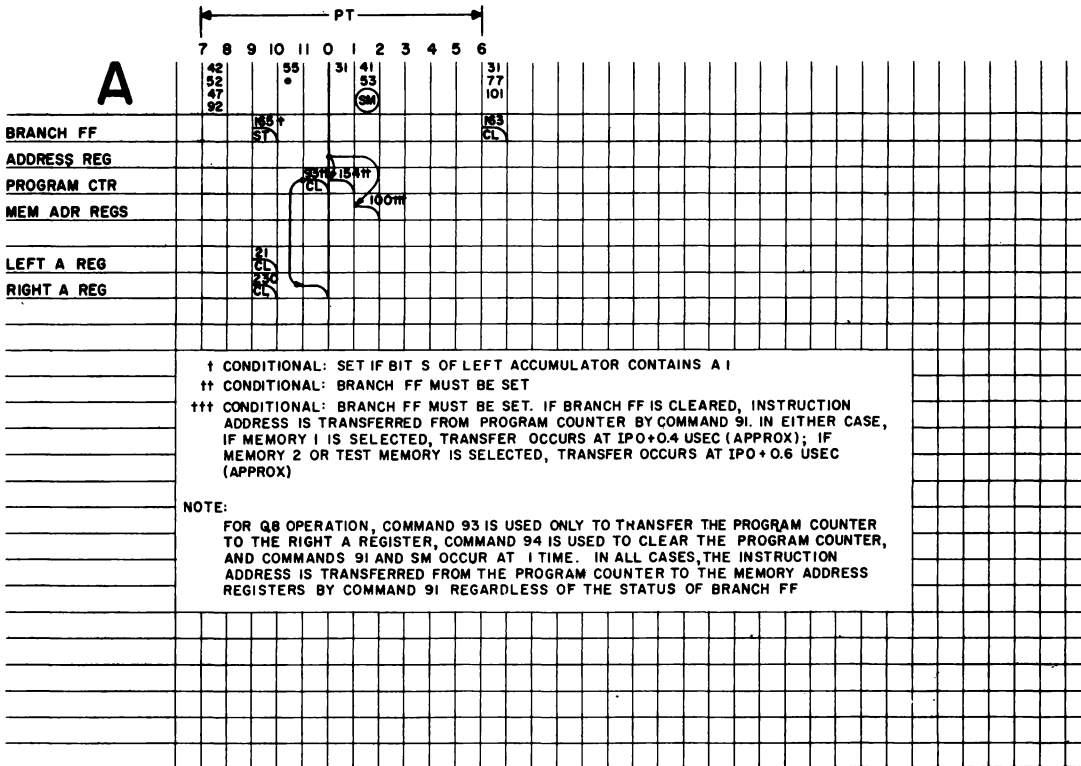


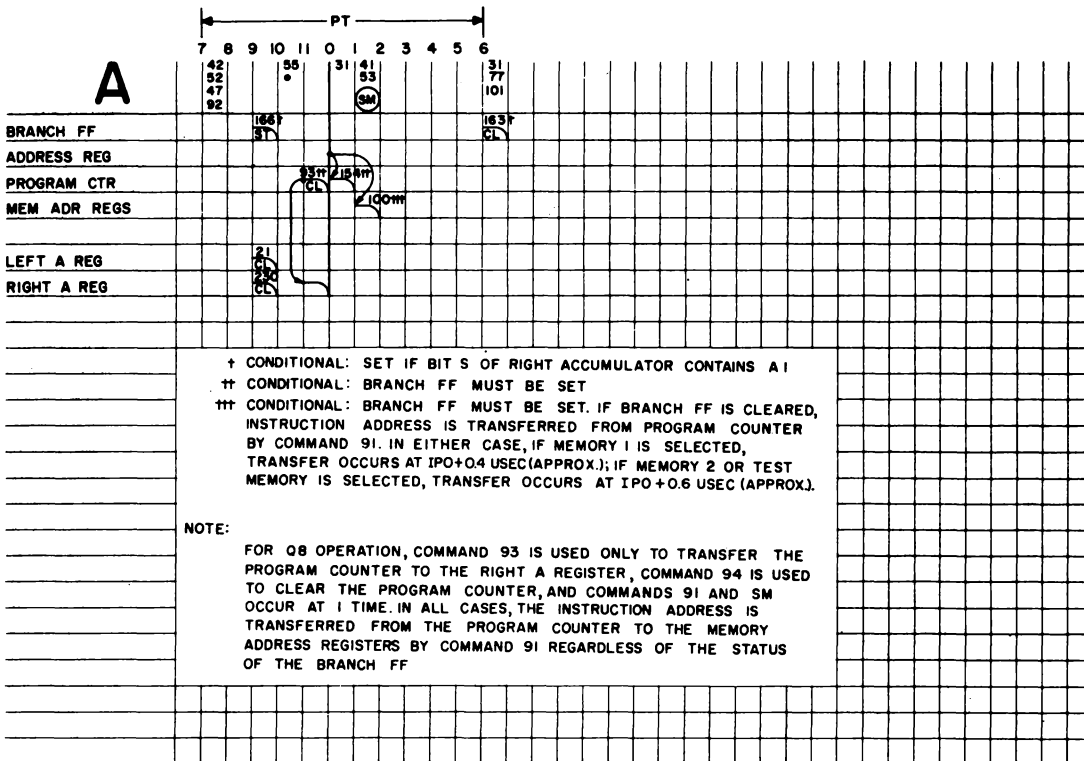
- † CONDITIONAL: IF ASSOCIATED ACCUMULATOR SIGN BIT CONTAINS A 1
- †† CONDITIONAL: SET BRANCH FF IF ACCUMULATOR BITS LS AND RS BOTH CONTAIN A 1
- ††† CONDITIONAL: IF ASSOCIATED SIGN CONTROL FF CONTAINS A 1
- Δ CONDITIONAL: BRANCH FF MUST BE SET
- ΔΔ CONDITIONAL: BRANCH FF IS CLEARED, INSTRUCTION ADDRESS IS TRANSFERRED FROM PROGRAM COUNTER BY COMMAND 91. IN EITHER CASE, IF MEMORY 1 IS SELECTED, TRANSFER OCCURS AT IPO+0.4 USEC (APPROX); IF MEMORY 2 OR TEST MEMORY IS SELECTED, TRANSFER OCCURS AT IPO+0.6 USEC (APPROX).

NOTE:
 FOR Q8 OPERATION, COMMAND 93 IS USED ONLY TO TRANSFER THE PROGRAM COUNTER TO THE RIGHT A REGISTER, COMMAND 94 IS USED TO CLEAR THE PROGRAM COUNTER, AND COMMANDS 71, 91, AND SM OCCUR AT 1 TIME. IN ALL CASES, THE INSTRUCTION ADDRESS IS TRANSFERRED FROM THE PROGRAM COUNTER TO THE MEMORY ADDRESS REGISTERS BY COMMAND 91 REGARDLESS OF THE STATUS OF THE BRANCH FF



A-1.60





A



7	8	9	10	11	0	1	2	3	4	5	6
142	82	47	92	55	31	41	31				31
				°		SM					77
											101

LEFT A REG
RIGHT A REG

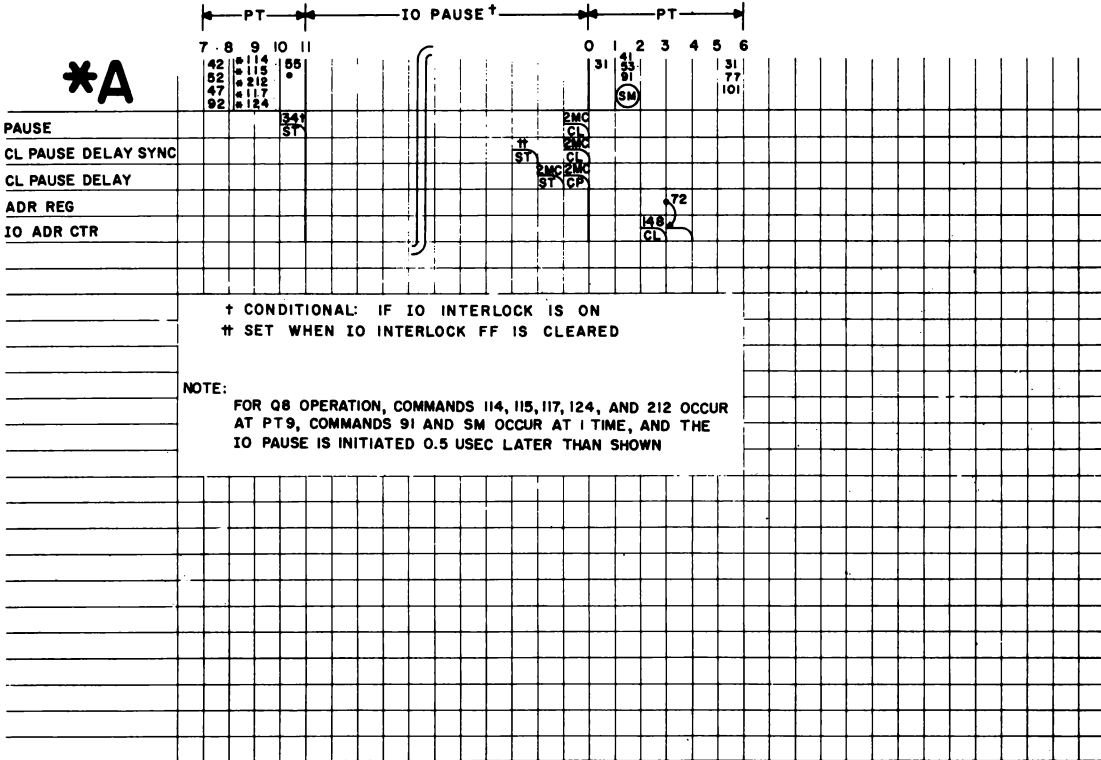
† EXECUTION OF A BRANCH CLASS ILLEGAL INSTRUCTION RESULTS IN THE CLEARING OF THE LEFT AND RIGHT A REGISTERS

NOTE:
FOR Q8 OPERATION, COMMANDS 91 AND SM OCCUR AT 1 TIME

A-1.63

Branch Class
Illegal 5

***A**

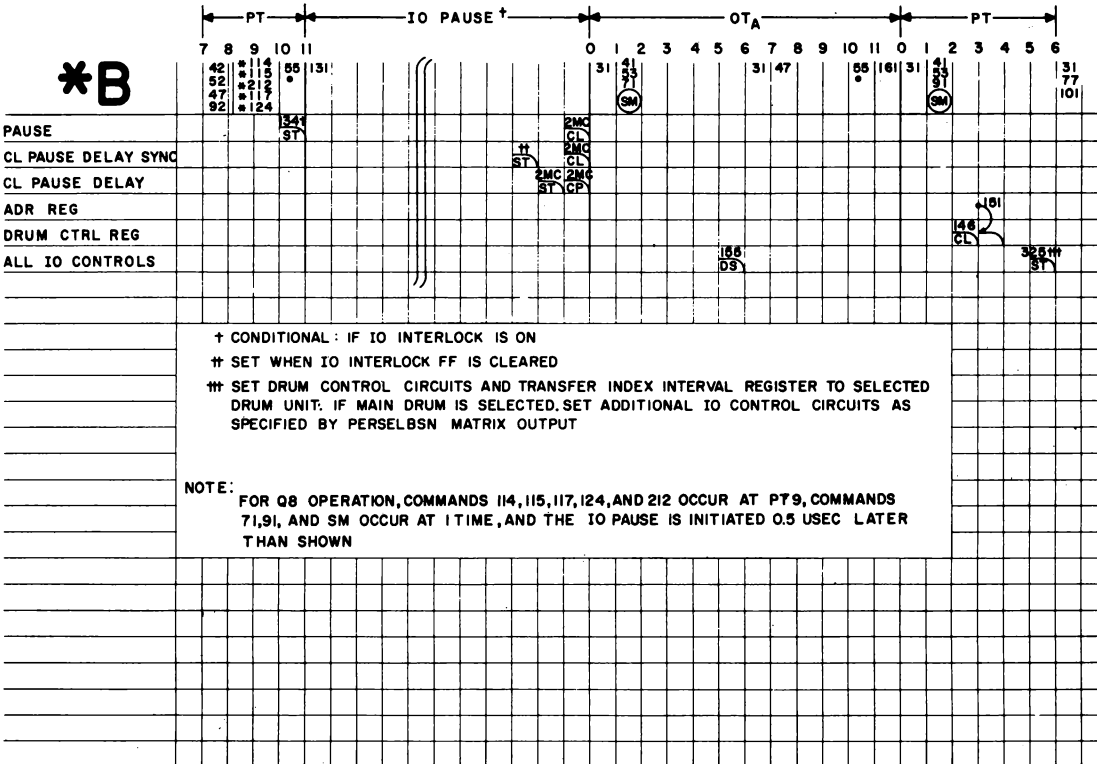


† CONDITIONAL: IF IO INTERLOCK IS ON
 † SET WHEN IO INTERLOCK FF IS CLEARED

NOTE:
 FOR Q8 OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PT9, COMMANDS 91 AND SM OCCUR AT 1 TIME, AND THE IO PAUSE IS INITIATED 0.5 USEC LATER THAN SHOWN

A-1.64

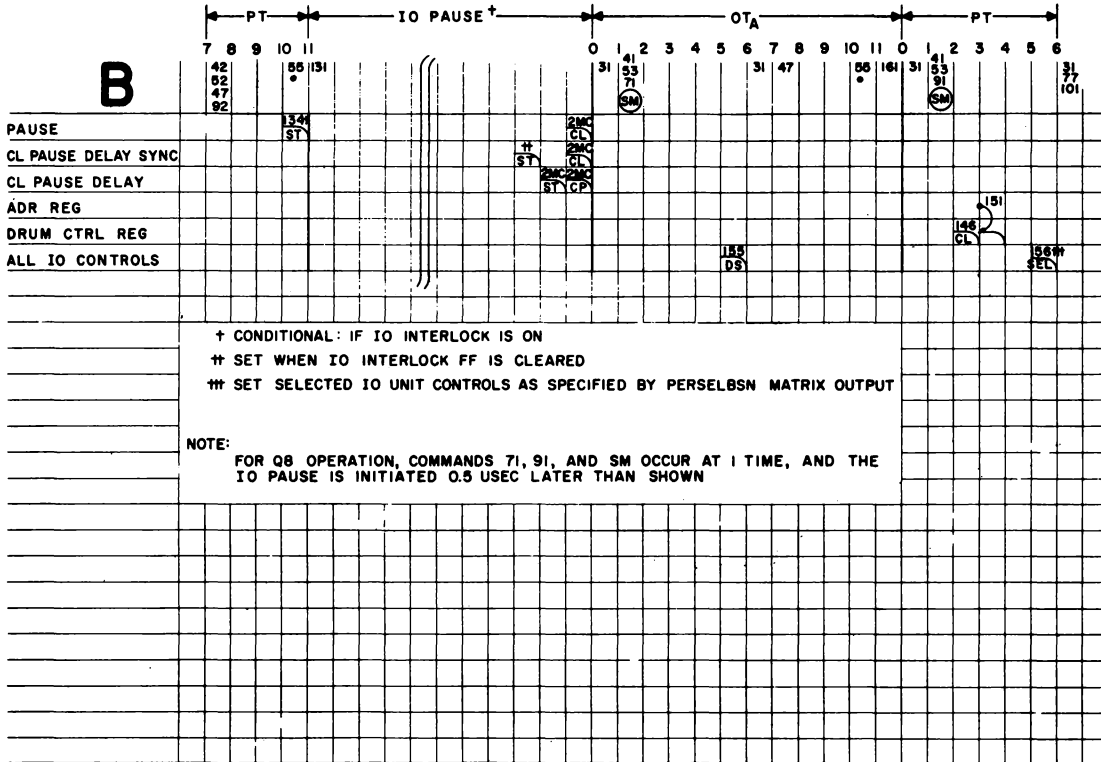
***B**

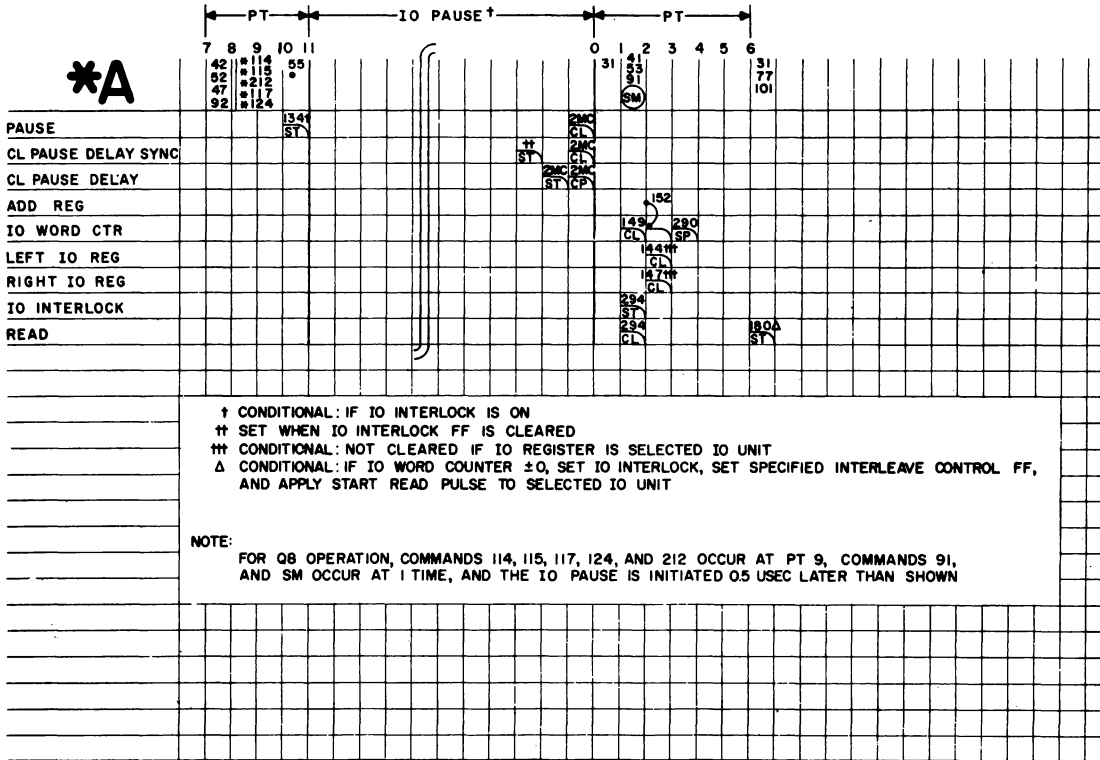


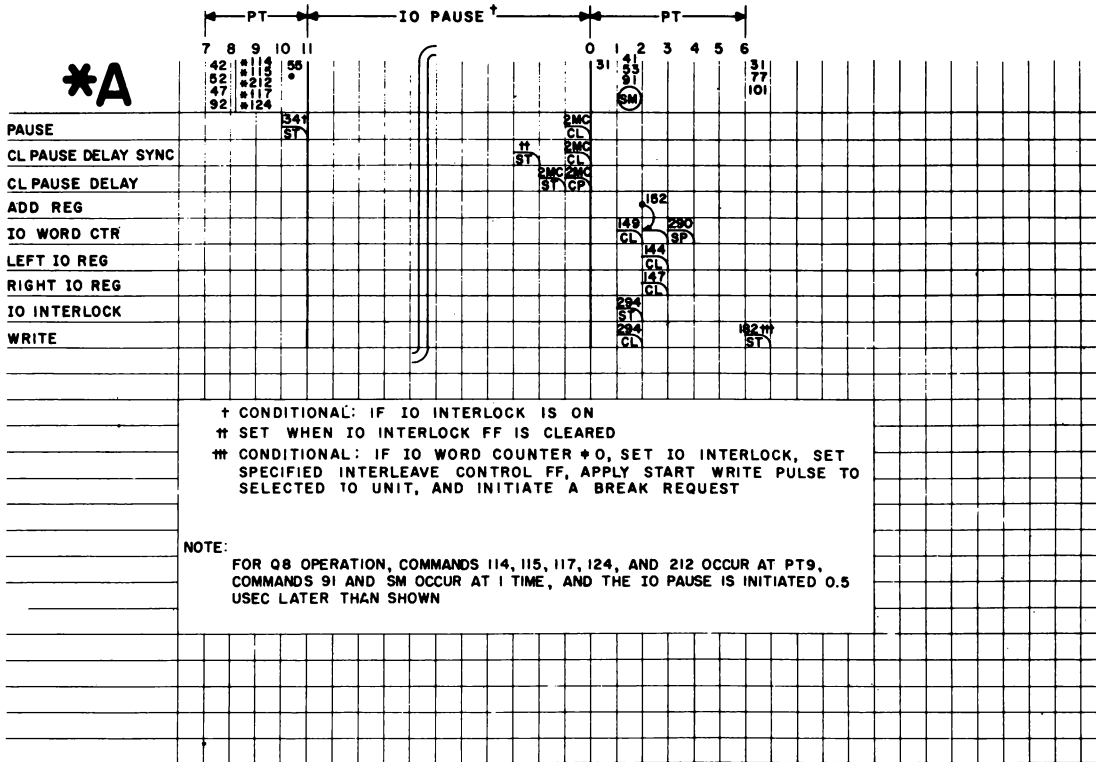
† CONDITIONAL : IF IO INTERLOCK IS ON
 ‡ SET WHEN IO INTERLOCK FF IS CLEARED
 †† SET DRUM CONTROL CIRCUITS AND TRANSFER INDEX INTERVAL REGISTER TO SELECTED DRUM UNIT. IF MAIN DRUM IS SELECTED. SET ADDITIONAL IO CONTROL CIRCUITS AS SPECIFIED BY PERSELBSN MATRIX OUTPUT

NOTE:
 FOR Q8 OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PT9, COMMANDS 71, 91, AND SM OCCUR AT 1 TIME, AND THE IO PAUSE IS INITIATED 0.5 USEC LATER THAN SHOWN

A-1.65



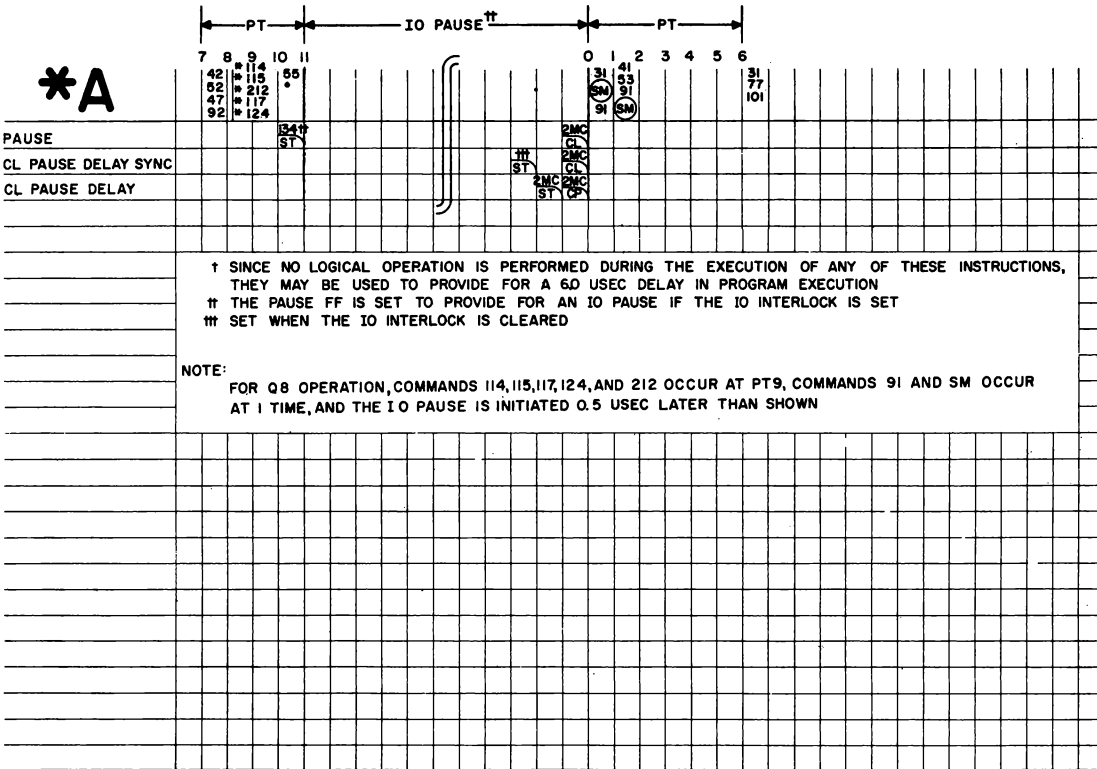




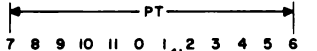
† CONDITIONAL: IF IO INTERLOCK IS ON
 ‡ SET WHEN IO INTERLOCK FF IS CLEARED
 ††† CONDITIONAL: IF IO WORD COUNTER ≠ 0, SET IO INTERLOCK, SET SPECIFIED INTERLEAVE CONTROL FF, APPLY START WRITE PULSE TO SELECTED TO UNIT, AND INITIATE A BREAK REQUEST

NOTE:
 FOR Q8 OPERATION, COMMANDS 114, 115, 117, 124, AND 212 OCCUR AT PT9, COMMANDS 91 AND SM OCCUR AT 1 TIME, AND THE IO PAUSE IS INITIATED 0.5 USEC LATER THAN SHOWN

A-1.68



A



ADDRESS REG
 IX REG NO. 1
 IX REG NO. 2
 IX REG NO. 4
 IX REG NO. 5

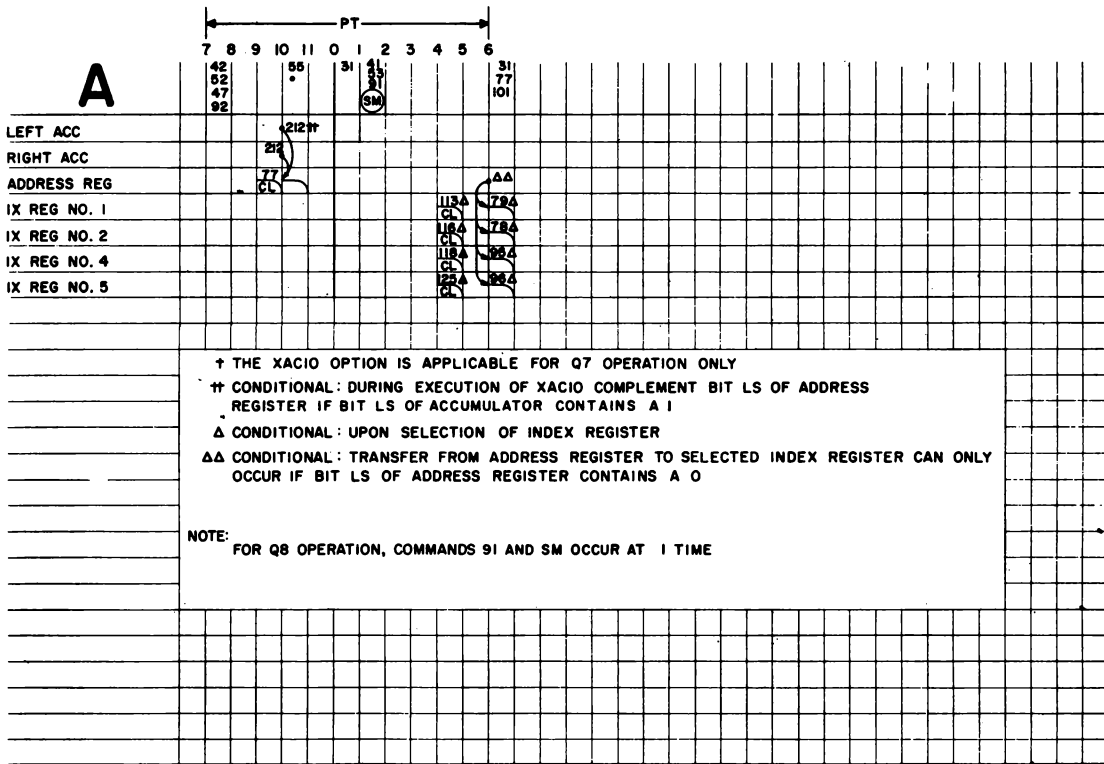
78†
 78†
 85†
 88†

† CONDITIONAL : UPON SELECTION OF INDEX REGISTER

†† CONDITIONAL : TRANSFER FROM ADDRESS REGISTER TO SELECTED INDEX REGISTER
 CAN ONLY OCCUR IF BIT LS OF ADDRESS REGISTER CONTAINS A 0

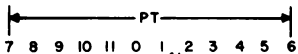
NOTE:
 FOR Q8 OPERATION, COMMANDS 91 AND SM OCCUR AT 1 TIME

A-1.71



XAC 764
10 †
765

A



	7	8	9	10	11	0	1	2	3	4	5	6
RIGHT A REG	42				55		31					31
ADDRESS REG	52				°		4					77
IX REG NO. 1	47						SM					101
IX REG NO. 2	32								230			
IX REG NO. 3												
IX REG NO. 4												
IX REG NO. 5												

† CONDITIONAL: TRANSFER OCCURS IF INDEX REGISTER IS SELECTED

NOTE:
FOR Q8 OPERATION, COMMANDS 91 AND SM OCCUR AT 1 TIME

A



7	8	9	10	11	0	1	2	3	4	5	6
42				86		31	100				31
52				0			100				77
92							100				101

† SINCE NO LOGICAL OPERATION IS PERFORMED DURING THE EXECUTION OF ANY OF THESE INSTRUCTIONS, THEY MAY BE USED TO PROVIDE FOR A 6.0 USEC DELAY IN PROGRAM EXECUTION

NOTE:
FOR Q8 OPERATION, COMMANDS 91 AND 5M OCCUR AT 1 TIME

A-1.73

Reset Class
NOP Illegal 7

Appendix A

SECTION A - 2

COMMAND INDEX - NUMERIC

APPENDIX A

Command Number	Block Schematic Number	Zone	Terminal Designation	Command Name
A	0.1.4	5B	4DUG2	Inhibit Sample #2
A6	0.2.6	5B	4DTA6	Clock Reg to R Mem Bfr
B	0.4.1	6E	6DDJ1	Start Core Mem #2
C	0.1.3	2B	4DUJ3	Clear L Test Reg
D	0.1.1	9E	4DVJ3	L Mem Bfr to L Test Reg
F	0.1.3	3A	4DVA2	Test Mem to Mem Bfr
G	0.1.3	2B	4DUJ1	Clear R Test Reg
H	0.1.2	8E	4DVJ1	R Mem Bfr to Test Reg
1	0.5.1-2	18E	4GYA7	L Acc to L B Reg
2	0.5.1-2	21E	4GYC6	L Acc (2-15) to (1-14)
4	0.5.1-2	21E	4GYH6	L Acc 1 to S
5	0.5.1-2	18D	4FVG2	L Acc S to L B Reg 15
6	0.5.1-2	18D	4GXE6	L Acc S to L15
7	0.5.1-2	1D	4FTC7	L Acc 15 to L B Reg S
9	0.5.1-2	21C	4GXA2	L Correct Sign
10	0.5.1-2	21B	4FUJ1	Clear L Acc
11	0.5.1	4C	4ENA7	Correct L Remainder
12	0.5.1-2	18D	4FVA2	L Acc S to R Acc 15
13	0.5.1-2	21B	4FUJ3	Make L Acc positive
14	0.5.2-2	18C	3EEA8	R End Carry - AOR
16	0.5.1-2	21D	4FVJ1	Make L Acc & L B Reg Pos
17	0.5.1-2	19E	4FWG3	L Acc to L Mem Bfr
18	0.5.1-2	1D	4FTA3	Ripple L Acc Right
19	0.5.1-2	21B	4FUC6	Complement L Acc
20	0.5.2-2	22C	4FVF6	Make R Acc & R B Reg Pos
21	0.5.1	4B	4EMH6	Clear L A Reg
22	0.5.1	4D	4EMA7	Make L A Reg positive
23	0.5.1	5D	4ELA6	L A Reg to L Mem Bfr
25	0.5.1	4D	4EMJ1	L Logical Multiply
26	0.5.1	4B	4EMJ3	Complement L A Reg
31	0.1.4	5B	4DVF6	Clear Mem Adr Reg Mem II
31	0.2.1.4	11B	6TAA6	Clear Mem Adr Reg Mem I
32	0.4.1	6E	6DDH6	Start Core Mem #1
33	0.1.4	5C	4DUH6	Inhibit Sample #1
39	0.1.1	8D	4DYA7	L Mem Bfr to L B Reg
40	0.1.2	7C	4DYA2	R Mem Bfr to R B Reg
41	0.1.1	9A	4DYJ3	Clear L Mem Bfr
42	0.1.1	8D	4DXH7	L Mem Bfr to Oper Reg
43	0.1.1	8D	4DXG3	L Mem Bfr to L A Reg
44	0.1.1	8D	4DXH3	L Mem Bfr to R A Reg
47	0.1.2	1B	4DYF6	Parity Count
51	0.1.2	8D	4DXE7	R Mem Bfr to R A Reg
52	0.1.2	8D	4DXB4	R Mem Bfr to Adr Reg
53	0.1.2	8B	4DYJ1	Clear R Mem Bfr
55	0.1.1	9C	4DKA3	Parity Check
60	0.5.1-2	18A	4ESF6	L Acc Conditional Shift L
61	0.5.1-2	18A	4ESE6	Make L A Reg & Acc Signs Unlike
62	0.5.1-2	1A	4ESJ1	L Carry One
63	0.5.1-2	18A	4ESA2	L End Carry
64	0.5.1-2	1A	4ESJ3	L Carry Zero
66	0.5.1-2	22B	4ETF6	Record L Overflow
67	0.5.1-2	17A	4ETJ1	Compl L Divide Connect FF
69	0.5.2-2	1B	4ESH6	R Carry One
71	0.4.1	13C	4EHC7	Adr Reg to Mem Adr Reg
72	0.4.1	13C	4EHH3	Adr Reg to I/O Adr Ctr
73	0.5.3	2D	4FPA6	Subt One from Step Ctr
74	0.5.3	3B	4FNE6	Set Step Ctr to 17
75	0.5.3	3B	4FNG2	Set Step Ctr to 15
76	0.4.1	13C	4EEJ3	Adr Reg to R A Reg
77	0.4.1	13B	4EJC6	Clear Adr Reg
78	0.4.1	12E	4EKH3	Adr Reg to IX Reg #2
79	0.4.1	12E	4EKG3	Adr Reg to IX Reg #1
80	0.5.3	2C	4FNA7	Partial Quotient
81	0.5.1-3	6E	4FJH6	L B Reg S to L Acc 15
82	0.5.1-3	6D	4FJE6	L B Reg (-1-15) to (8-14)
83	0.5.1-3	7C	4FKA7	L Partial Product
84	0.5.1-3	7A	4FEJ1	Clear L B Reg

APPENDIX A (cont'd)

Command Number	Block Schematic Number	Zone	Terminal Designation	Command Name
85	0.5.1-3	6D	4FJF6	L B Reg (8-14) to (1-15)
87	0.5.1-3	6E	4FJA2	L Round (SLR)
88	0.5.1-3	6D	4FJJ1	L B Reg to L A Reg
89	0.5.1-3	7B	4FKC6	L B Reg Stor to L B Reg S
91	0.4.1	5A	4EHB4	Prog Ctr to Mem Adr Reg
92	0.4.1	1B	4EHA3	Add One to Prog Ctr
93	0.4.1	5C	4EKE7	Prog Ctr to R A Reg
94	0.4.1	4B	6GEA2	Clear Prog Ctr
95	0.4.1	12E	4EKH7	Adr Reg to IX Reg #4
96	0.4.1	12E	4EKJ3	Adr Reg to IX Reg #5
97	0.6.2	8A	4FLJ3	Clear L-10 bit Storage FF
98	0.1.1	7E	4EJJ3	SPC-Test Mem Bfr
99	0.6.2	4D	4JTH7	Compare-Acc & A Reg
101	0.2.4	5B	4FFA6	Clear Oper Reg
102	0.6.1	13B	4FLG3	Set IX Int BIts (10 & 11)
90	0.6.2	8C	5EEH7	Step Prog Ctr X2 (ttb)
100	0.4.1	12D	4EKA6	Adr Reg to MAR (pt. Branch)
100	0.4.1	14B	4EWH7	Adr Reg to MAR (pt. Branch)
103	0.4.1	6A	4FEF6	IX Int Compl to Adr Reg
104	0.7.5	7A	4FDC7	Sense Operate Gate Tubes
113	0.4.2	5E	4EGE7	Clear IX Reg #1
114	0.4.2	4E	4EFC6	IX Reg #1 to Adr Reg
115	0.4.2	4D	4EFF6	IX Reg #2 to Adr Reg
116	0.4.2	5C	4EGG3	Clear IX Reg #2
117	0.4.2	4C	4EFJ1	IX Reg #4 to Adr Reg
118	0.4.2	5B	4EGH3	Clear IX Reg #4
119	0.4.2	5B	4EGB4	Test IX #4-'0' in Sign
121	0.5.2-2	19E	4FVC6	R Acc to R Mem Bfr
123	0.5.2-2	1D	4FYH3	Ripple R Acc Right
124	0.4.2	4B	4EFJ3	IX Reg #3 to Adr Reg
125	0.4.2	5A	4EGH7	Clear IX Reg #5
126	0.4.2	5A	4EGJ3	Test IX #5 '0' in Sign
131	0.3.1	3B	4FMA6	Set PT-OT FF to OT
132	0.3.1	3B	4FMB4	Set A-B FF to B-
134	0.2.2	8B	4FFG3	Set Pulse FF
138	0.5.3	8D	4FNF6	Set 2MC Sync FF
140	0.7.4	3D	4FDH3	Sense Pulse (BSN)
144	0.7.1	7C	4EXA7	Clear L I/O Reg
146	0.7.2	12D	4EWF7	Clear Drum Ctrl Reg
147	0.7.2	16C	4EXE6	Clear R I/O Reg
148	0.4.1	1E	4EWA3	Clear I/O Adr Ctr
149	0.7.3	5A	4EWA7	Clear I/O Wd Ctr
151	0.4.1	13D	4EHH7	Adr Reg to Dr Ctrl Reg
152	0.4.1	13C	4EHG3	Adr Reg Compl to I/O Wd Ctr
153	0.7.3	5B	4EWH1	I/O Wd Ctr to R Acc
154	0.4.1	13D	4EHA6	Adr Reg to Prog Ctr
155	0.7.5	6A	4FEA7	Deselect Pulse
156	0.7.5	7A	4FDB4	Select Pulse
157	0.7.3	8A	4FTJ3	Clear CSW Gate FF & Set CSW Control FF
161	0.3.1	3B	4FPA3	Clear PT-OT FF to PT
162	0.5.2-2	19D	4GYF6	Test R & L Acc S BIts for '1'
163	0.3.1	2B	4FME7	Clear Branch FF
164	0.4.2	5E	4EGA6	Test IX Reg #1- '0' in Sign
165	0.5.1-2	21D	4FYJ3	Test L Acc S Bit for '1'
166	0.5.2-2	22D	4FYG3	Test R Acc S Bit for '1'
167	0.3.1	4B	4FFC7	Clear A-B FF to A
170	0.3.1	3B	4FFH3	Set Branch FF
174	0.4.2	5D	4EGA3	Test IX #2- '0' in Sign
180	0.7.3	8C	4FDH7	PT -6 Start Read
182	0.7.3	8C	4FDJ3	PT -6 Start Write
201	0.5.2-2	19E	4GYA2	R Acc to R B Reg
202	0.5.2-2	21E	4GXC6	R Acc (2-15) to (1-14)
204	0.5.2-2	21D	4GXH6	R Acc 1 to S
205	0.5.2-2	18D	4FVE6	R Acc S to R B Reg 15
206	0.5.2-2	19C	4GXG2	R Acc S to 15
207	0.5.2-2	1D	4FYH7	R Acc 15 to R B Reg S
209	0.5.2-2	22C	4GXA7	R Correct Sign

APPENDIX A (cont'd)

Command Number	Block Schematic Number	Zone	Terminal Designation	Command Name
210	0.5.2-2	21B	4FVH6	Clear R Acc
211	0.5.2	6D	4ENA2	Correct R Remainder
212	0.5.2-2	21E	4FVJ3	R Acc to Adr Reg
213	0.5.2-2	22B	4FUH6	Make R Acc Positive
214	0.5.1-2	21B	4FUA2	L Acc Sign Correction
216	0.5.2-2	22B	4FUG2	R Acc Sign Correction
217	0.5.2-2	18D	4FVA7	R Acc S to L Acc 15
219	0.5.2-2	22B	4FNC6	Complement R Acc
225	0.5.2	7D	4EMF6	R Logical Multiply
226	0.5.2	6B	4EME6	Complement R A Reg
228	0.5.2	6D	4ELE7	R A Reg to R Mem Bfr
229	0.5.2	7D	4EMA2	Make R A Reg Pos
230	0.5.2	6B	4EMC6	Clear R A Reg
260	0.5.2-2	19B	4ESG2	R Acc Conditional Shift L
261	0.5.2-2	20A	4ESC6	Make R A Reg & Acc Signs Unlike
263	0.5.2-2	19B	4ESA7	R End Carry
264	0.5.2-2	1B	4ETA7	R Carry Zero
266	0.5.2-2	20A	4ETE6	Record R Overflow
267	0.5.2-2	20A	4ETG2	Compl R Divide Connect FF
270	0.2.2	4A	4FPJ3	Clear Continue FF
281	0.5.2-3	6E	4FJC6	R B Reg S to R Acc 15
282	0.5.2-3	6D	4FJG2	R B Reg (1-15) to (8-14)
283	0.5.2-3	7D	4FKA2	R Partial Product
284	0.5.2-3	7A	4FEF6	Clear R B Reg
285	0.5.2-3	7D	4FJJ3	R B Reg (8-14) to (1-15)
287	0.5.2-3	6E	4FJA7	R Round (SLR)
288	0.5.2-3	7C	4FKJ3	R B Reg to R A Reg
289	0.5.2-3	7B	4FKH6	R B Reg Stor to R B Reg S
290	0.7.3	5D	4EWC7	Step I/O Wd Ctr if = '0'
294	0.3.1	2B	4FDG3	Set I/O Interlock
321	0.7.8	4C	4FEA2	Sense Tapes for Not Ready
325	0.7.7	9B	4FFA3	Select Pulse for Drums

Appendix A

SECTION A-3

COMMAND INDEX - ALPHABETIC

COMMAND INDEX

-A-

COMMAND	NO.	LOGIC	ZONE
Add 1 to Program Ctr	92	0.4.1	1 B
Adr Reg Comp to I/O Wd Ctr	152	0.4.1	13 C
Adr Reg to Drum Control Reg	151	0.4.1	13 D
Adr Reg to Index Reg #1	79	0.4.1	12 E
Adr Reg to Index Reg #2	78	0.4.1	12 E
Adr Reg to Index Reg #4	95	0.4.1	12 E
Adr Reg to Index Reg #5	98	0.4.1	12 E
Adr Reg to I/O Adr Ctr	72	0.4.1	13 C
Adr Reg to MAR	71	0.4.1	13 C
Adr Reg to Program Ctr	154	0.4.1	13 D
Adr Reg to Right A Reg	78	0.4.1	13 C
Adr Reg to MAR	100	0.4.1	12 D & 14 B

-C-

Clr A-B FF to A	187	0.3.1	4 B
Clr Adr Reg	77	0.4.1	13 B
Clr Branch FF	163	0.3.1	2 B
Clr Continue FF	270	0.2.2	4 A
Clr CSW Gate FF & Set CSW Control FF	157	0.7.3	8 A
Clr Drum Control Reg	146	0.7.2	12 D
Clr IX Reg #1	113	0.4.2	5 E
Clr IX Reg #2	116	0.4.2	5 C
Clr IX Reg #4	118	0.4.2	5 B
Clr IX Reg #5	125	0.4.2	5 A
Clr IO Adr Ctr	148	0.4.1	1 E
Clr IO Wd Ctr	149	0.7.3	5 A
Clr Left Acc	10	0.5.1-2	21 B
Clr Left A Reg	21	0.5.1	4 B
Clr Left B Reg	84	0.5.1-3	7 A
Clr Left IO Reg	144	0.7.1	7 C
Clr Left Mem Bfr	41	0.1.1	9 A
Clear L-10 bit Storage FF	97	0.6.2	8 A
Clr Left Test Reg	C	0.1.3	2 B
Clr Mem Adr Reg & Cntrl	31		
Clr Operations Reg	101	0.2.4	5 B
Clr Program Ctr	94	0.4.1	4 B
Clr Pt-Ot FF to PT	161	0.3.1	3 B
Clr Right Acc	210	0.5.2-2	21 B
Clr Right A Reg	230	0.5.2	6 B
Clr Right B Reg	284	0.5.2-3	7 A
Clr Right IO Reg	147	0.7.2	16 C
Clr Right Mem Bfr	53	0.1.2	8 B
Clr Right Test Reg	G	0.1.3	2 B
Clr L. Sign Ctl FF & L. Acc Sign Correct FF	214	0.5.1-2	21 B
Clock Reg to Right Mem Bfr	A6	0.2.6	5 B
Compare-Acc & A-Reg	99	0.6.2	4 D
Complement Left Acc	19	0.5.1-2	21 B
Complement Left A Reg	26	0.5.1	4 B
Complement Left Divide Connect FF	67	0.5.1-2	17 A
Complement Right Acc	219	0.5.2-2	22 B
Complement Right A Reg	226	0.5.2	6 B
Complement Right Divide Connect FF	267	0.5.2-2	20 A
Correct Left Remainder	11	0.5.1	4 C
Correct Right Remainder	211	0.5.2	6 D

-D-

Deselect	155	0.7.5	6 A
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-I-

Index Interval Comp to Adr Reg	103	0.4.1	6 A
Index Reg #1 to Adr Reg	114	0.4.2	4 E
Index Reg #2 to Adr Reg	115	0.4.2	4 D
Index Reg #4 to Adr Reg	117	0.4.2	4 C

COMMAND INDEX (cont'd)

- I -

COMMAND	NO.	LOGIC	ZONE
Index Reg #5 to Adr Reg	124	0.4.2	4B
Inhibit Sample #1	33	0.1.4	5C
Inhibit Sample #2	A	0.1.4	5B
IO Wd Ctr to Right Acc	153	0.7.3	5B

- L -

Left Acc 1 to Left Acc 8	4	0.5.1-2	21E
Left Acc Conditional Shift Left	60	0.5.1-2	18A
Left Acc Sign Correct and Ctr Sign Control FF	214	0.5.1-2	21B
Left Acc Sign to Left Acc 15	6	0.5.1-2	18D
Left Acc Sign to Left B Reg 15	5	0.5.1-2	18D
Left Acc Sign to Right Acc 15	12	0.5.1-2	18D
Left Acc to Left B Reg	1	0.5.1-2	18E
Left Acc to Left Mem Bfr	17	0.5.1-2	19E
Left Acc 2-15 to 1-14	2	0.5.1-2	21E
Left Acc 15 to Left B Reg Sign	7	0.5.1-2	1D
Left A Reg to Left Mem Bfr	23	0.5.1	5D
Left B Reg Sign Storage to Left B Reg Sign	89	0.5.1-3	7B
Left B Reg Sign to Left Acc 15	81	0.5.1-3	6E
Left B Reg S-14 to 1-15	85	0.5.1-3	6D
Left B Reg 1-15 to S-14	82	0.5.1-3	6D
Left B Reg to Left A Reg	88	0.5.1-3	6D
Left Carry One	62	0.5.1-2	1A
Left Carry Zero	64	0.5.1-2	1A
Left Correct Sign	9	0.5.1-2	21C
Left End Carry	63	0.5.1-2	18A
Left Logical Multiply	25	0.5.1	4D
Left Mem Bfr to Left A Reg	43	0.1.1	8D
Left Mem Bfr to Left B Reg	39	0.1.1	8D
Left Mem Bfr to Left Test Reg	D	0.1.1	9E
Left Mem Bfr to Operations Reg	42	0.1.1	8D
Left Mem Bfr to Right A Reg	44	0.1.1	8D
Left Partial Product	83	0.5.1-3	7C
Left Round Off	87	0.5.1-3	6E

- M -

Make Left Acc and Left B Reg Pos	16	0.5.1-2	21D
Make Left Acc Pos	13	0.5.1-2	21B
Make Left A Reg and Left Acc Signs Unlike	61	0.5.1-2	18A
Make Left A Reg Pos	22	0.5.1	4D
Make Right Acc and Right B Reg Pos	20	0.5.2-2	22C
Make Right Acc Pos	213	0.5.2-2	22B
Make Right A Reg and Right Acc Signs Unlike	261	0.5.2-2	20A
Make Right A Reg Pos	229	0.5.2	7D

- P -

Parity Check	55	0.1.1	9C
Parity Count	47	0.1.2	1B
Partial Quotient	80	0.5.3	2C
Program Ctr to Mar	91	0.4.1	5A
Program Ctr to Right A Reg	93	0.4.1	5C

- R -

Record Left Overflow	66	0.5.1-2	22B
Record Right Overflow	266	0.5.2-2	20A
Right Acc Conditional Shift Left	260	0.5.2-2	19B
Right Acc Sign Correct and Ctr Sign Control FF	216	0.5.2-2	22B
Right Acc Sign To Left Acc 15	217	0.5.2-2	18D

COMMAND INDEX (cont'd)

-R-

COMMAND	NO.	LOGIC	ZONE
Right Acc Sign to Right Acc 15	206	0.5,2-2	19C
Right Acc Sign to Right B Reg 15	206	0.5,2-2	18D
Right Acc to Adr Reg	212	0.5,2-2	21E
Right Acc to Right B Reg	201	0.5,2-2	19E
Right Acc to Right Mem Bfr	121	0.5,2-2	19E
Right Acc 1 to S	204	0.5,2-2	21D
Right Acc 2-15 to 1-14	202	0.5,2-2	21E
Right Acc 15 to Right B Reg Sign	207	0.5,2-2	1D
Right A Reg to Right Mem Bfr Reg Sign	228	0.5,2	6D
Right B Reg Sign Storage to Right B	289	0.5,2-3	7B
Right B Reg Sign to Right Acc 15	281	0.5,2-3	6E
Right B Reg to Right A Reg	288	0.5,2-3	7C
Right B Reg S-14 to 1-15	285	0.5,2-3	7D
Right B Reg 1-15 to S-14	282	0.5,2-3	6D
Right Carry One	69	0.5,2-2	1B
Right Carry Zero	264	0.5,2-2	1B
Right Correct Sign	209	0.5,2-2	22C
Right End Carry	263	0.5,2-2	19B
Right End Carry After AOR	14	0.5,2-2	18C
Right Logical Multiply	225	0.5,2	7D
Right Mem Bfr to Adr Reg	52	0.1,2	8D
Right Mem Bfr to Right A Reg	51	0.1,2	8D
Right Mem Bfr to Right B Reg	40	0.1,2	7C
Right Mem Bfr to Right Test Reg	H	0.1,2	8E
Right Partial Product	283	0.5,2-3	7D
Right Round Off	287	0.5,2-3	6E
Ripple Left Acc Right	18	0.5,1-2	1D
Ripple Right Acc Right	123	0.5,2-2	1D

-S-

Select Pulse	156	0.7,5	7A
Select Pulse For Drums	325	0.7,7	9B
Sense For Branch	140	0.7,4	3D
Sense Operate Gate Tube	104	0.7,5	7A
Sense Tapes Not Ready	321	0.7,8	4C
Set A-B FF to B	132	0.3,1	3B
Set Branch FF	170	0.3,1	3B
Set CSW Cntl FF and Clr CSW Gate FF	157	0.7,3	8A
Set IO Interlock FF	294	0.3,1	2B
Set IX Int Bits (10 & 11)	102	0.8,1	13B
Set Pause FF	134	0.2,2	8B
Set Pt-Ot FF to Ot	131	0.3,1	3B
Set Read FF	180	0.7,3	8C
Set Step Ctr to (15) ₁₀	75	0.5,3	3B
Set Step Ctr to (17) ₁₀	74	0.5,3	3B
Set Write FF	182	0.7,3	8C
SPC - Test Mem Bfr	98	0.1,1	7E
Start Core Memory #1	32	0.4,1	6E
Start Core Memory #2	B	0.4,1	6E
Start ZMc Pulses and Set ZMc Sync FF	138	0.5,3	8D
Step I/O Wd Ctr If ≠ 0	290	0.7,3	5D
Step Prog Ctr X2 (ttb)	90	0.8,2	8C
Subtract 1 from Step Ctr	73	0.5,3	2D

-T-

Test IX #1 Sign for Zero	184	0.4,2	5E
Test IX #2 Sign for Zero	174	0.4,2	5D
Test IX #4 Sign for Zero	119	0.4,2	5B
Test IX #5 Sign for Zero	126	0.4,2	5A
Test Left Acc Sign For 1	165	0.5,1-2	21D
Test Mem to Mem Bfr	F	0.1,3	3A
Test Right Acc Sign for 1	166	0.5,2-2	22D
Test Right and Left Acc Sign for 1	162	0.5,2-2	19D

Appendix B

MISCELLANEOUS

SECTION B.1

PROGRAMMERS DATA CHART

OCTAL OPERATIONAL CODES

TYPE WHEEL CODE

MISC		MULT		BRANCH
HLT 000		*MUL 250		BFX 51-
*ETR 004		*TMU 254		BSN 52-
PER 01-		*DVD 260		BFZ 540
CSW@ 020		*TDV 264		BFM 544
SLR 024#				BLM 550
*LDR 030		STORE		BRM 554
*CMM 040				
*CDM 041#		*CLR 300		IO
*CMR 042		*FST 324		
*CDR 043#		*LST 330		*LDC 600
*CML 044		*RST@ 334		*SDR 61-
*CDL 045#		*STA@ 340		SEL 62-
*CMP 046		*AOR@ 344#		*RDS 670
*CDF 047#		*ECH 350		*WRT 674
*TOB 05--		*DEP 360		
*TTB 054-		SHIFT		RESET
ADD		DSL 400		XIN 754
*CAD 100		DSR 404		XAC@ 764
*ADD@ 104#		ASL 420		ADX 770
*TAD 110#		ASR 424		NOP (700)
ADB@ 114#		LSR 440		
*CSU 130		RSR 444		
*SUB@ 134#		DCL 460		
*TSU 140#		FCL 470		
*CAM 160				
*DIM 164				
CAC 170				

	NO ZONE	12	11	0
ZONE ONLY		+	-	0
1	1	A	J	/
2	2	B	K	S
3	3	C	L	T
4	4	D	M	U
5	5	E	N	V
6	6	F	O	W
7	7	G	P	X
8	8	H	Q	Y
9	9	I	R	Z
8-3	+	.	\$.
8-4	-	□	*	%

*Indexable Instructions
 #Instructions which can cause overflow
 @ Has a 17-bit option

OCTAL INDEX INTERVAL CODES

OPERATE			Start DD, 2nd Section	36
Condition Lts 1-4	01-04		Generate Alarm 1 & 2	37
Set Inactivity	05		Printer 1-10	51-62
Lock Inactivity	06		Start GFI Continuous Pattern	
Intercommunication 1-4	10-13		Gen and Start LRI and XTL	
Test Clock Reg	14		Computer Pattern Gen Type 2	63
Inhibit Alarm Branch	15		Start Program Pattern Gen, GFI	
Reset Alarm Branch	16		Type 1	64
Area Discriminator 1 (spare)	17		LRI sync, XTL sync, GFI as	65
Area Dis 2 (track initiation)	20		LRI data, XTL data,	
MC Start	21		GFI target	66
Stop Duplex MC Exc	22		Set prepared (tapes)	67
Stop Simplex MC Exc	23		Backspace (tapes)	70
Sel. Prog. Pat. Gen. LRI Type 1	24		Rewind (tapes)	71
Sel. Prog. Pat. Gen XTL Type 1	25		Write EOF (tapes)	72
Clear IO Interlock	27		Card Punch 1 & 2	73, 74
SD Camera Modes 1 & 2	31, 32		Lock Address CTR	75
Reserved for SD Cameras			Reset Scan Ctr	76
3 & 4	33, 34		Step Scan Ctr	77
Start DD, 1st Section	35			

AN/FSQ-7
 PROGRAMMING CODE CARD AS OF
 APRIL 1960

OCTAL INDEX INTERVAL CODES (cont'd)

SENSE

Condition Lts 1-4 ON	01-04
Inactivity ON	05
Tapes Not Prepared	10
IO Unit Not Ready	11
L. Overflow ON	12
R. Overflow ON	13
IO Interlock ON	14
Mem Parity Error	15
Drum Parity (Addressable)	16
Tape Parity Error	17
Duplex MC Exc ON	20
Sense Sw 1-4 ACTIVE	21-24
Drum Parity (Status)	25
Simplex MC Exc ON	27
Duplex Switching Completed- ACTIVE	30
Printers 1 & 2 Energized	31,32
Output Alarm ON	33
GFI Range ON, LRI & XTL Timing ON	34
Sense Camera (ON when camera takes picture)	35
Sense Display (ON for data from TD Drum)	37
Alarm 1 ON	41
Alarm 2 ON	42
Intercomm 1-4 ON	43-46
North Azimuth ON	47
Non Search Alarm ON	50
OB Drum Parity	51
Illegal Address or Section ON	52
G/A FD Parity Alarm	53
G/G Parity Alarm	54
TTY Parity Alarm	55
G/A TD Parity Alarm	56
BO No. 1 Parity Alarm	57
BO No. 2 Parity Alarm	60
 <i>SEL MAIN DRUMS (bit R1 = 0)</i>	
AM 1-12	02-15
IC (Other)	16
DD Test (Read Only)	17
Spare XTL (AM 20 - CC only)	20

Spare AM	21
MI (Status)	22
MI (Identity, bits R 14-15)	23
XTL 1 (Status)	24
XTL 1 (Identity, Bits R11-15)	25
IC (Own)	26
DD	27
OB (Write ODD by status, test read all regs by ID R14-15)	30
OB (Write EVEN by status, test read all regs by status)	31
GFI (Status)	32
GFI (Identity - Bits R11-15)	33
LRI 1 (Status)	34
LRI 1 (Identity, bits R12-15)	35
LRI 2 (Status)	36
LRI 2 (Identity, bits R12-15)	37
XTL Marker	40
TD 1-6	41-46
SD Test (Read only)	47
LRI 1 (Identity, bits R7-15)	50
LRI 2 (Identity, bits R7-15)	51
XTL 2 (Status)	52
XTL 2 (Identity, bits R11-15)	53
RD 1-9	60-70
IC (Own test)	76
 <i>SEL AUX DRUMS (bit R1 = 1)</i>	
AM C 13-18	41-46
AM D 19-24	51-56
AM E 25-30	61-66
AM F 31-36	71-76
AM G 37-42	02-07
AM H 43-48	10-15
 <i>SELECT</i>	
Card Reader	01
Card Punch	02
Printer	03
IO Register	04
Manual Input Sw	06
Warning Lights	10
Mag Tapes 1-6	11-16
Burst Time Counters	21

Appendix B

SECTION B-2

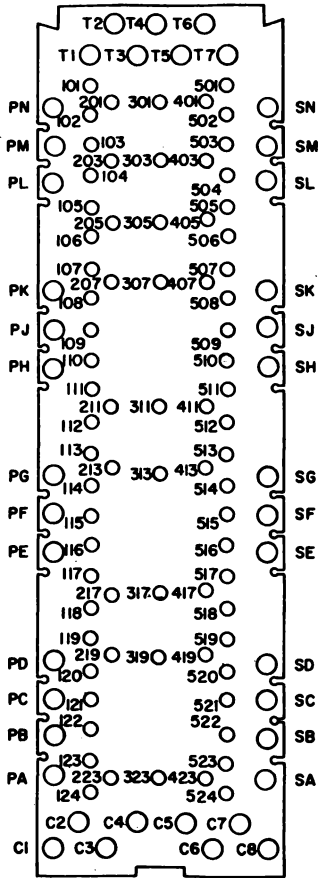
COLOR CODE FOR EQUIPMENT WIRING

COLOR CODE FOR EQUIPMENT WIRING

CODE NO.	COLOR	VOLTAGE & USE
	Yellow	Signal
	Yellow Twisted	Signal
	Yellow & Black - Pair Shielded	Signal
0	Black	Ground
1	Brown	Heater
2	Red	+150
3	Orange	+250
5	Green	-150
6	Blue	-30
7	Violet	-300
8	Gray	+90
9	White	-15
90	White with Black Tr.	+10
91	White with Brown Tr.	Heater Below Ground
92	White with Red Tr.	+150 Marg. Check
93	White with Orange Tr.	+250 Marg. Check
94	White with Yellow Tr.	-150 Reset
95	White with Green Tr.	-150 Marg. Check
96	White with Blue Tr.	+150 Relay
97	White with Violet Tr.	-300 Marg. Check
98	White with Gray Tr.	+90 Marg. Check
905	White with Black & Green	Display Console Input to Wing Boxes -150 Heater 200 Amps
915	White with Brown & Green	-15 Decoupled
920	White with Red & Black Tr.	-600 DC
926	White with Red & Blue Tr.	-48
935	White with Orange & Green Tr.	+208 AC Regulated
965	White with Blue & Green	+600 DC Driver
971	White with Violet & Brown Tr.	Situation Display Console
984	White with Gray & Yellow Tr.	+115 AC Decaying Volts

NON-STANDARD WIRING (UNITS 13, 14, 15, 16, 17, 18, 26 and 40)

CODE NO.	COLOR	VOLTAGE & USE
12	White with Black Tr.	+270
2	Red	+140
	Red with Green Tr.	+140 Relay
	Orange	+70 Thyatron
	Brown	+48 Relay
11	White with Blue Tr.	-12 Clamp
13	White with Blue-Black Tr.	-12 Reset
6	Blue	-80
5	Green	-130
7	Violet	-270
	White with Yellow Tr.	Heater



CARD DETAIL LAYOUT

SGT COLI - Shift Svr.
 SGT HAVLICHEK Course Svr.
 MAJ. HUGHES
 COL. LOVELL

6/40
 21
 76.00
 10
 85
 4
 272.00

Breaker

18:00 - start school
 19:00 - 5 min
 20:05 - 20 min
 21:25 - 5 min
 22:30 - 10 min
 23:45 dismissed

Study Hall - 15:00 - 16:30 - Room

CLASS NO. 26047C

Block	Days		hr/day
11	8	Intro to R-7	1/3
12	9	Tuning & Control	2/0
13	10	Instructions	5/0
14	6	Comp. Alarms + Man Control	6/1
15	12	Memory Systems	8/3
16	9	Selection Control	10/2
17	11	Magnetic Tapes	12/3
18	11	Drums I	14/4
19	8	Drums II	16/2
20	7	Dig. Display	17/4
21	8	Sit Display I	19/2
22	7	Sit Display II	20/4
23	8	Inputs (auto)	22/2
24	13	Outputs	25