

REV	CHANGE	ER NO.	DFTS	CHECK	APPD	DATE
(A)	RELEASED TO PRODUCTION.	35-05833	—	—	—	—
B	Page 2: Item 2 was an E size dwg. Dwg. No 315-0524960 superseded by 377-0010329. Items 3 and 8 deleted and item 9 was 15 req'd. Page 4: Item 32 part No. was 007-8953102. Item 38 and 39 added. Page 5: (9) was 15 req'd.	46-03092	FS	-	-	3-28-74
M21-04-STD MODULE						
MO	RFC NO.	PLANT LOC	DESCRIPTION	INTERPLANT USAGE (CODE)	REQD	NEXT ASSEMBLY
					1	315-0524941
MANUFACTURING OPTION FOR USE ONLY AT PLANT SHOWN				REPLACES DWG 315-0524756		
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CLASS	MODEL	PLANT	CLASS	MODEL	PLANT	CLASS: M21
M21	04	08				UNIT: GPMC
M21	04	35				START: 5-11-73 FINISH: 5-11-77
DRAWING OF THE ASSEMBLY			CHKR: <i>W. Drake</i> 7-10-73			REV
SHEET NO. 5, 6 & 7			DESIGNER: D. RAMEY			B
REV	B		APPD: <i>JE</i>	APPD:	CODE: 2-9045	COVER SHEET SHEET 1 OF 7

ITEM	REQD	SIZE	PART NO.	DESCRIPTION	PARTS LIST CHG. ER NO.	REMARKS
1	1	D	315-0524757	BOARD-PRINTED		
2	1	G	315-0524960 377-0010329	FRAME-CARD, TEST PANEL	46ER03092	was size E 315-0524960
4	2	D	315-0520638	BUS BAR	46ER03092	Delete
5	9	D	315-0520637	BUS BAR		
6	REF	D	315-0528411	SCHEMATIC-LOGIC, TEST PNL		
7	REF	A	007-9506300	ASSEMBLY SPECIFICATION	46ER03092	Delete
9	9	A	007-6951204	RIVET-HOLLOW BRASS	46ER03092	was 15 req'd
10	70	A	006-6020401	RESISTOR, 300Ω, ¼W, ±5% R1,2,3,4,5,6,7,8,9,10,11, 12,13,14,15,16,19,20,21, 22,23,24,25,26,27,28,29, 30,31,32,33,34,35,36,37, 38,39,40,41,42,43,44,45, 46,47,48,49,50,51,52,53, 54,55,56,57,58,59,60,61, 62,63,63,65,66,67,68,69, 70,71,72		
11	1	A	006-6020458	RESISTOR, 5.1K, ¼W, ±5% R17		
12	1	A	006-6020415	RESISTOR, 10K, ¼W, ±5% R18		
13	1	A	007-1131504	CAPACITOR-CERAMIC, TUBULAR, 10PF, ±10%, 100V C26		
14	1	A	007-1131522	CAPACITOR-CERAMIC, TUBULAR, 330PF, ±10%, 100V C25		
15	32	A	007-1158901	CAPACITOR, 12UF, 6V, -20% +100% C27,28,29,30,31,32,33,34, 35,36,37,38,39,40,41,42, 43,44,45,46,47,48,49,50, 51,52,53,54,55,56,57,58		
16	8	A	007-1675801	CIRCUIT, QUAD, 2-INPUT MULTIPLEXER E2,E3,E4,E5,F2,F3,F4,F5		
NGR				UNIT: GPMC	REV	
				NAME: BOARD-PLUGIN, LOGIC TEST	315-0528410	
				PANEL	B	
				NCR PROPRIETARY	PARTS LIST	SHEET 2 OF 7

ITEM	REQD	SIZE	PART NO.	DESCRIPTION	PARTS LIST CHG. ER NO.	REMARKS
17	8	A	007-1695001	CIRCUIT, TTL, 2 INPUT NAND GATE A4, A6, B4, B8, C6, D1, D6, F6		
18	1	A	007-1695101	CIRCUIT, TTL, DUAL NAND D7		
19	2	A	007-1695201	CIRCUIT, TTL, 8-INPUT NAND A3, B7		
20	12	A	007-1695301	CIRCUIT, TTL, HEX INVERTER B1, B2, B6, C1, C2, C3, C8, D5, F8, G1, H1, J1		
21	3	A	007-1695401	CIRCUIT, TTL, DUAL FLIP-FLOP E6, E7, K6		
22	3	A	007-1695901	CIRCUIT, TTL, 3 INPUT NAND GATE B3, C4, D2		
23	7	A	007-1696201	CIRCUIT, TTL, 2-INPUT NOR A7, C7, D3, D4, E8, F7, K8		
24	7	A	007-1697101	CIRCUIT, TTL, MSI, 4 BIT SHIFT REGISTER C5, G3, H3, J3, J4, K3, K4		
25	1	A	007-1697201	CIRCUIT, TTL, MSI, 1 OF 10 DECODER B5		
26	6	A	007-1697401	CIRCUIT, TTL, 4 BIT COUNTER A5, G4, G6, H4, H6, J6		
27	8	A	007-1698001	CIRCUIT, TTL, QUAD, 2-INPUT G5, G7, H5, H7, J5, J7, K5, K7		
28	1	A	007-1698101	CIRCUIT, TTL, DUAL MONOSTABLE MVB F1		
29	4	A	007-1698601	CIRCUIT, TTL, 5 BIT COMPARATOR G2, H2, J2, K2		
30	7	A	007-1699401	CIRCUIT, TTL, 2-INPUT NAND, OPEN COLLECTOR A2, A8, D8, E1, G8, H8, J8		
31	16	A	007-1131550	CAPACITOR - CERAMIC 10K PF ±20%, 100V C9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24		

MICRITA FILE

NCR	UNIT: GPMC	315-0528410	REV B
	NAME: BOARD-PLUGIN, LOGIC TEST		
	PANEL		NCR PROPRIETARY PARTS LIST SHEET 3 OF 7

ITEM	REQD	SIZE	PART NO.	DESCRIPTION	PARTS LIST CHG. ER NO.	REMARKS
32	A/R	A	007-9000001	WIRE, 30 GA WIRE WRAP W1, W2, W3, W4, W5, W6	46ER03092	was 007-8951102
33	3	A	007-7001108	SCREW - 82° F.H., 4-40X.500		
34	3	A	007-8731002	WASHER-LOCK, INT TOOTH, NO. 4		
35	3	A	007-4580003	NUT-HEX, 4-40		
36	1	A	007-1021401	CABLE ASSEMBLY		
37	1	A	007-9502000	MARKING-GENERAL		
38	1		315-0529095	Insulator-Upper	46ER03092	ADD
39	1		315-0529096	Insulator-Lower	46ER03092	ADD

MICRITA FILE

NCR	UNIT: GPMC	315-0528410	REV B
	NAME: BOARD-PLUGIN, LOGIC TEST		
	PANEL		NCR PROPRIETARY PARTS LIST SHEET 4 OF 7

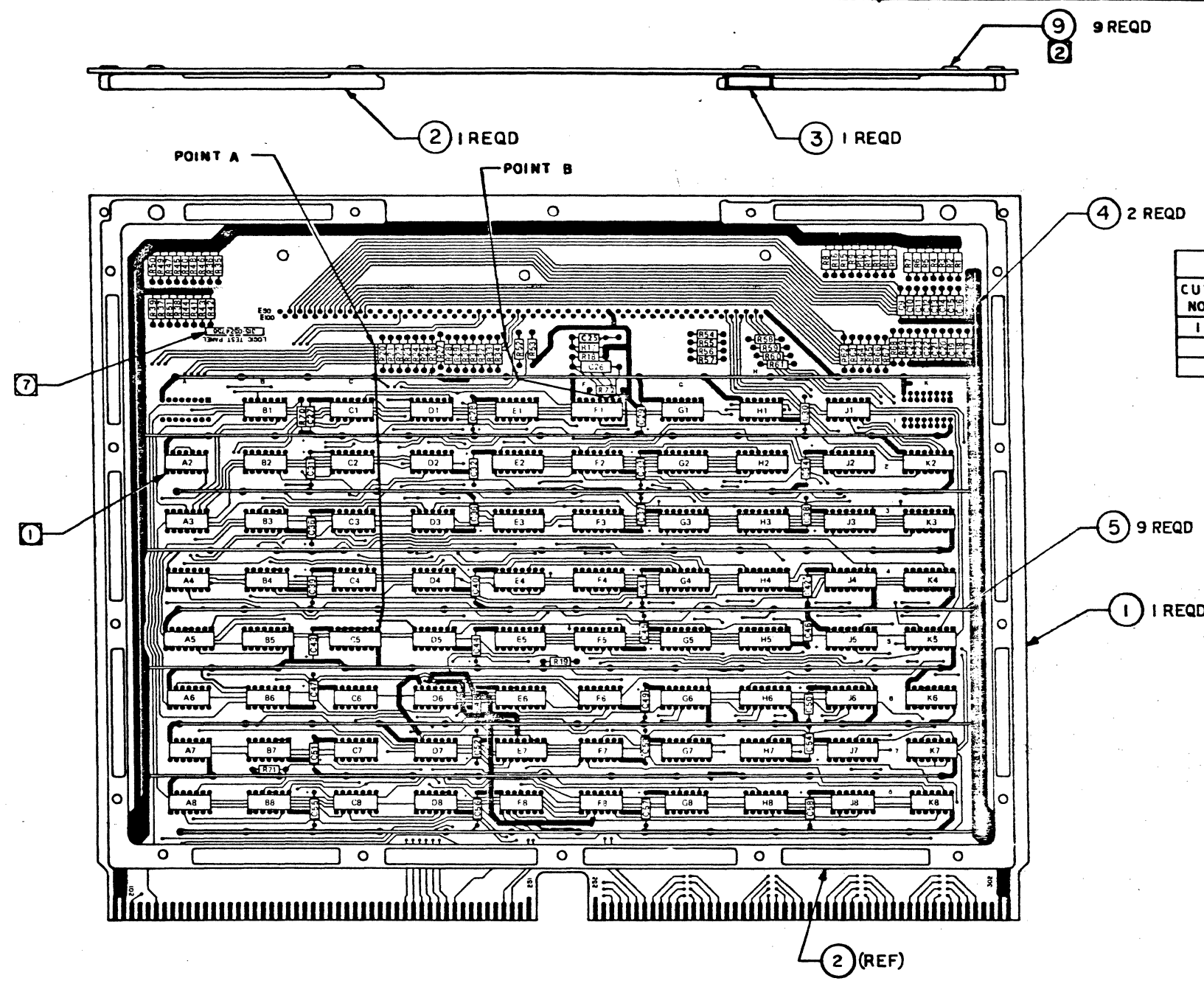
(25,4)MM
1 INCH

③
WIRE LIST

REF DES	START TERM.	END TERM.	COMP SIDE	SLD SIDE	P/L ITEM
1	F8-3	D6-12	X		32
2	E7-5	D6-11	↑		↑
3	D7-6	D6-13			
4	F1-3	POINT B			
5	F1-3	F1-13	↓		↓
6	C5-1	POINT A	X		32

④
CONDUCTOR CUT LIST

CUT NO.	CUT BETWEEN	COMP SIDE	SLD SIDE
1	E7-4	FEED THRU	X



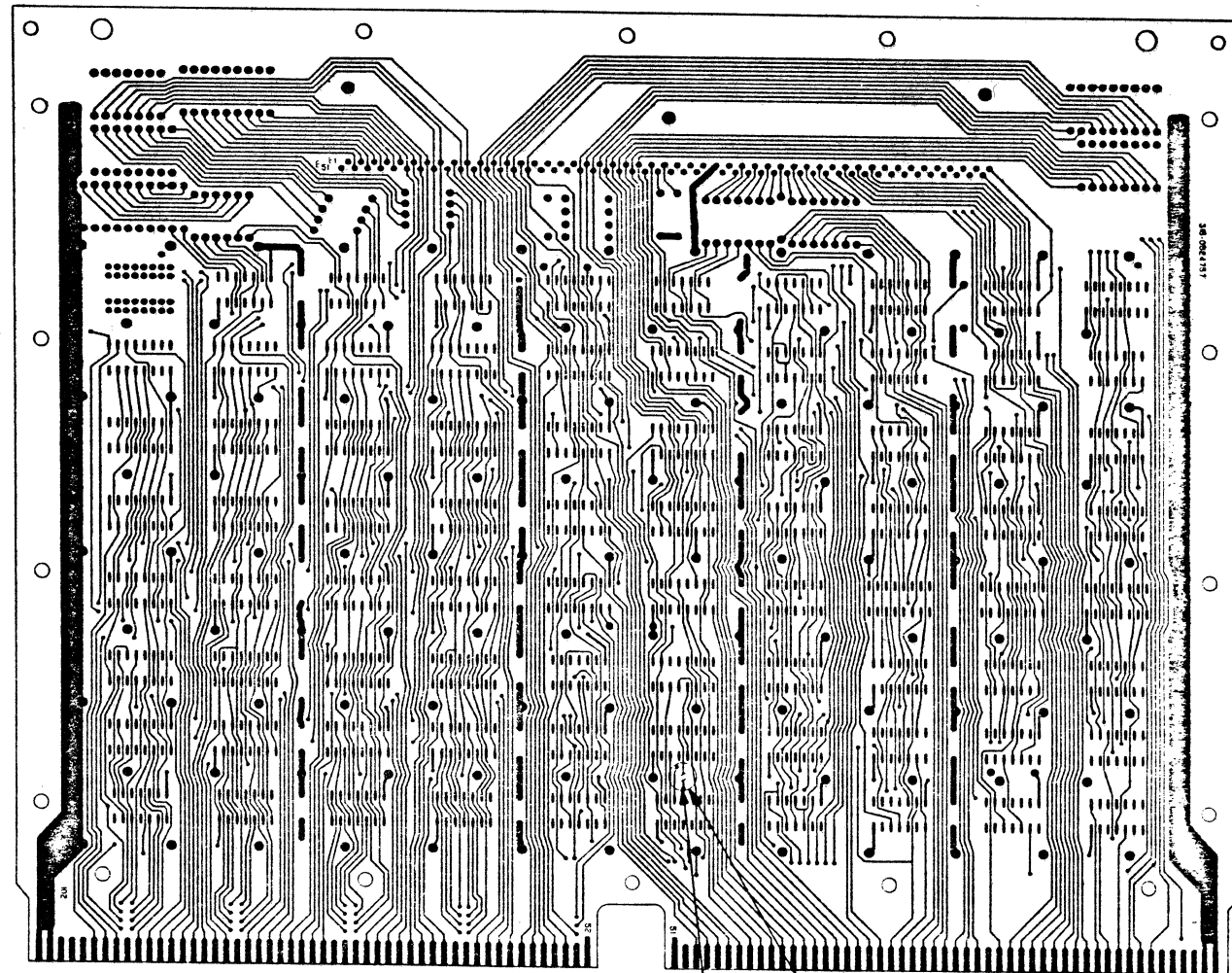
315-0528410

- ⑦ REIDENTIFY AS 315-0528410 IN .06 HIGH CHARACTERS PER ITEM 37.
- ⑥ ITEM 2 AND COMPONENTS OMITTED FOR CLARITY.
- ⑤ SOLDER ITEM 36 TO ITEM 1 PER ITEM 7.
- ④ CUT CONDUCTOR APPROXIMATELY AS SHOWN PER ITEM 7.
- ③ ROUTE JUMPERS (WIRE)/COMPONENTS APPROXIMATELY AS SHOWN PER ITEM 7.
- ② INSTALL FROM THIS SIDE.
- ① ■ INDICATES PIN NUMBER ONE.

UNLESS OTHERWISE SPECIFIED, DIMENSIONAL LIMITS ARE:
INCH NOMINAL
.XX ±
.XXX ±

REV B	SEE SHEET ONE FOR CHANGES
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NCR DATA PROCESSING DIVISION RANCHO BERNARDO, CALIFORNIA	
UNIT: GPMC	NAME: BOARD-PLUGIN, LOGIC TEST
PANEL	
SHEET 5 OF 7	DWG SIZE D
SCALE: 1:1	315-0528410
CODE: 29045	

25.4mm
1 INCH



4

FEED THRU A

315-0528410

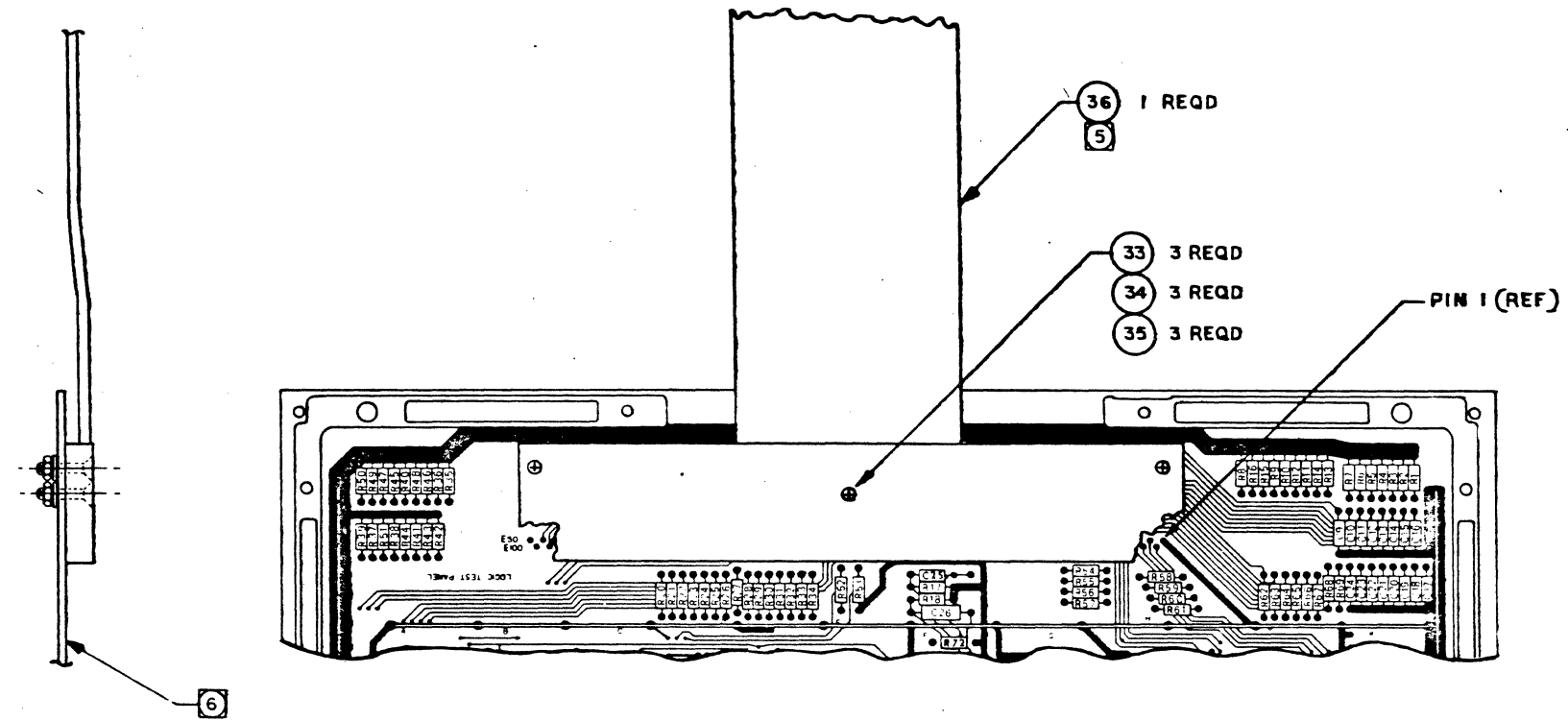
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NCR DATA PROCESSING DIVISION RANCHO BERNARDO, CALIFORNIA	
UNIT: GPMC	
NAME: BOARD-PLUGIN, LOGIC TEST PANEL	
SHEET 6 OF 7	DWG SIZE
SCALE: 1:1	D 315-0528410

UNLESS OTHERWISE SPECIFIED, DIMENSIONAL LIMITS ARE:
INCH NOMINAL
.XX ±
.XXX ±

NOTES UNLESS OTHERWISE SPECIFIED:

NCR-DPD FORM NO. E-1279

(25.4)MM
1 INCH



315-0528410

UNLESS OTHERWISE SPECIFIED, DIMENSIONAL LIMITS ARE:
INCH NOMINAL
.XX ±
.XXX ±

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NCR DATA PROCESSING DIVISION RANCHO BERNARDO, CALIFORNIA		
UNIT:	GPMC	
NAME:	BOARD-PLUGIN, LOGIC TEST	
	PANEL	
SHEET	7 OF 7	OWN SIZE
SCALE:	1:1	315-05284 C

FUNCTION	INPUT PIN	OUTPUT PIN	PAGE/ZONE	REMARKS
AMA#1	24		8-B11	
AMA#2	14		8-B11	
AMA#3	20		8-A11	
AMA#4	25		8-G7	
B	26		8-D11	
CJ16	28		8-D11	
CL1-A	31		5-G8,7-B11	
CL2-B	298		6-G5	
COM		12	5-D8	
COR-R		241	7-F7	
DFM#1	59		3-G11,4-G11	
DFM#2	60		3-G11,4-G11	
DFM#3	67		3-G11,4-G11	
DFM#4	68		3-G11,4-G11	
DFM#5	69		3-E11,4-E11	
DFM#6	70		3-E11,4-E11	
DFM#7	78		3-E11,4-E11	
DFM#8	79		3-E11,4-E11	
DFM#9	80		3-D11,4-C11	
DFM#10	81		3-D11,4-D11	
DFM#11	87		3-D11,4-D11	
DFM#12	88		3-D11,4-D11	
DFM#13	89		3-B11,4-B11	
DFM#14	90		3-B11,4-B11	
DFM#15	96		3-B11,4-B11	
DMA6-MCA	292		3-B5,6-D7	
DMA6-MCR	296		6-E4	
DRS		258	5-G6	
E	15		8-C11	

FUNCTION	INPUT PIN	OUTPUT PIN	PAGE/ZONE	REMARKS
EOS		58	8-D5	
ERR	239		6-A8	
G	23		8-C11	
HS		8	8-D5	
IP	29		8-G7	
J#1	262		4-G6	
J#2	261		4-G6	
J#3	267		4-F6	
J#4	266		4-F6	
J#5	273		4-E6	
J#6	272		4-E6	
J#7	277		4-E6	
J#8	276		4-E6	
J#9	283		4-D6	
J#10	282		4-C6	
J#11	288		4-C6	
J#12	287		4-C6	
J#13	293		4-B6	
J#14	290		4-B6	
J#15	295		4-A6	
J#16	297		4-A6	
L	27		8-B11	
LOAD		10	7-F7	
MAB#1		260	3-F1	
MAB#2		259	3-F1	
MAB#3		265	3-G1	
MAB#4		264	3-G1	
MAB#5		271	3-D1	
MAB#6		270	3-D1	
MAB#7		275	3-E1	

FUNCTION	INPUT PIN	OUTPUT PIN	PAGE/ZONE	REMARKS
MAB#8		274	3-E1	
MAB#9		281	3-B1	
MAB#10		280	3-C1	
MAB#11		286	3-C1	
MAB#12		285	3-D1	
MAC		21	7-B7	
MCT	257		6-D7	
MDS	291		6-D7	
MR		7	5-F2, 5-D9 7-B10, 8-D5	
MU		240	3-G4	
N1	16		8-G11	
N2	18		8-G11	
N3	13		8-F11	
N4	17		8-F11	
N5	19		8-E11	
N6	206		8-E11	
N7	9		8-E11	
RCGM		11	5-B2	
SSE		249	5-F1	
SSS		248	5-F1	
SYNC		203	8-E5	
T1	237		8-E4	
T2	236		8-D4	
T3	33		8-D4	
T4	238		8-C4	
TPGND		242	8-C5	
TSD#1		61	3-F5	
TSD#2		62	3-F5	
TSD#3		65	3-F5	
TSD#4		66	3-F5	

315-0528411

3. FOR EXTERNAL CONNECTIONS TO LAMP TEST BOARD SEE SCHEMATIC 315-0524897.
2. +5 VOLT PINS 1, 2, 201, 202.
1. GROUND PINS 101, 102, 301, 302.

NOTES: UNLESS OTHERWISE SPECIFIED:

CHANGES: **(A)** RELEASED TO PRODUCTION.

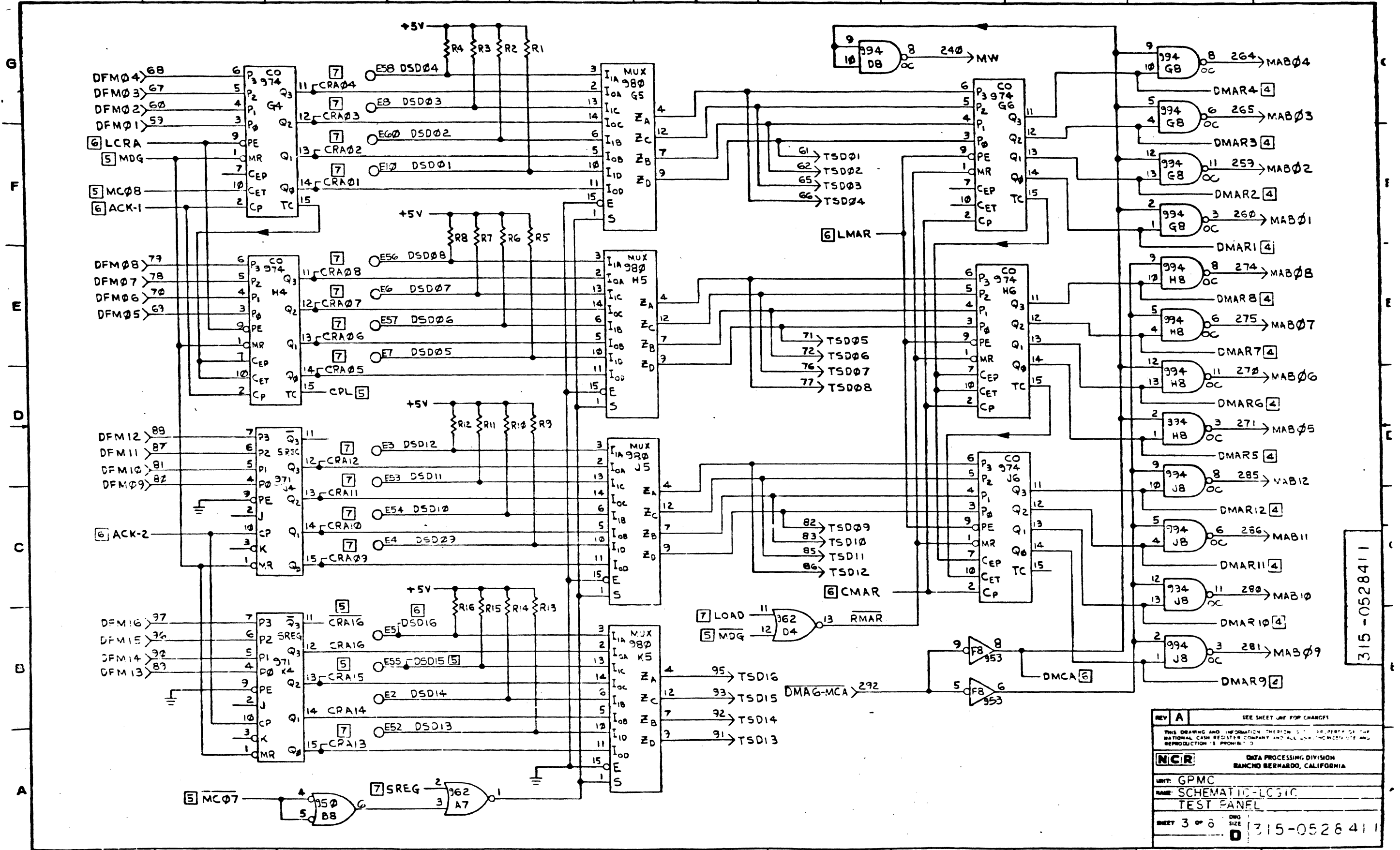
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RANCHO BERNARDO, CALIFORNIA

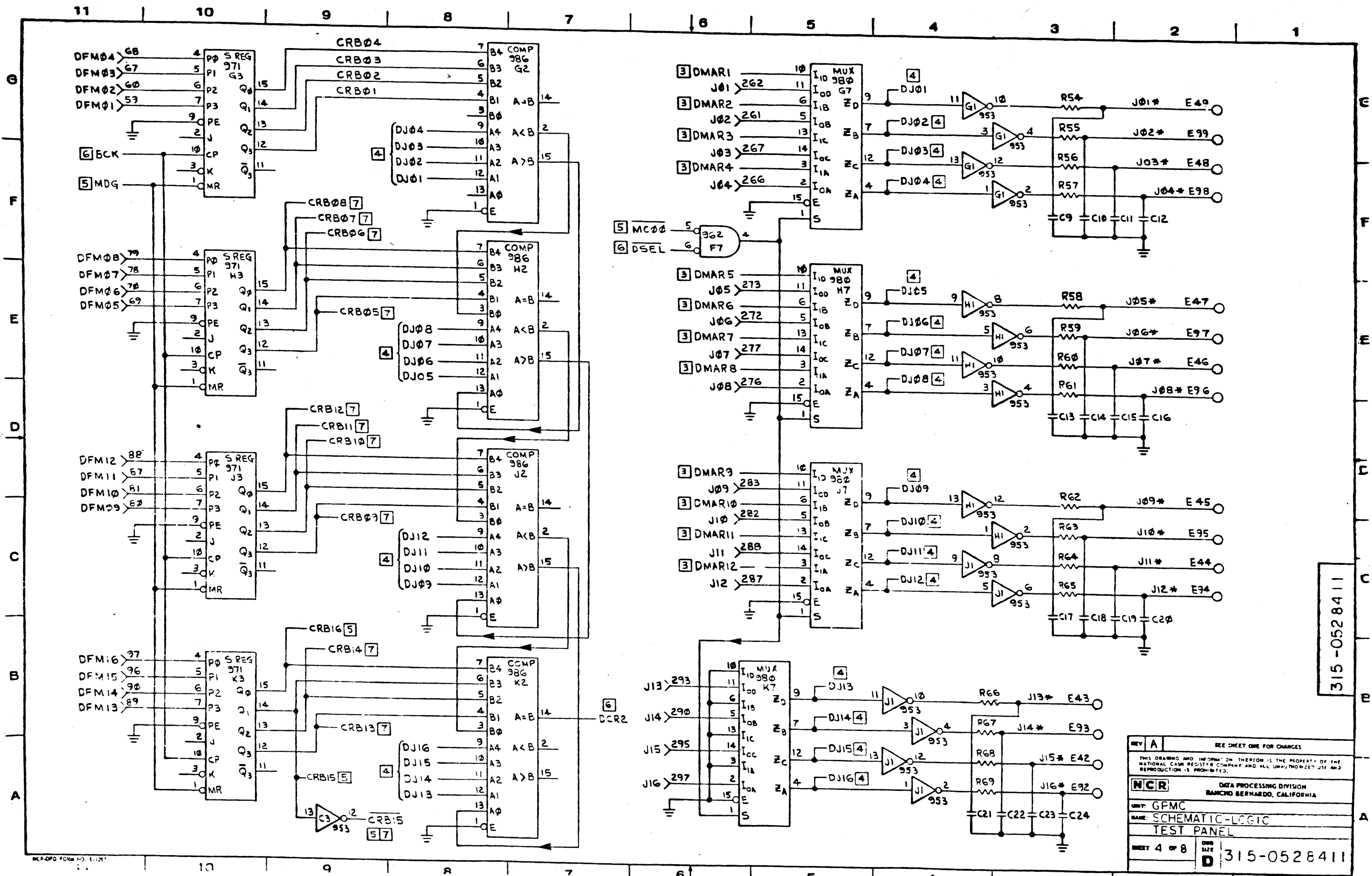
CLASS: M21 UNIT: GPMC
START: 2/10/73 FINISH: 2/15/73
DPTS: G. BARNES NAME: SCHEMATIC-LOGIC, TEST PANEL
CHR: *D. RANEY* 7-7-73
DESIGNER: D. RANEY SHEET 1 OF 8
APPROVED: *[Signature]* CODE: **D**

REPLACES DWG: 315-0524755

M21	04	08							
M21	04	35	A	35-05833					
CLASS	MODEL	PLANT	REV	RELEASE NO.	DPTS	DATE	CHECK	APPD	

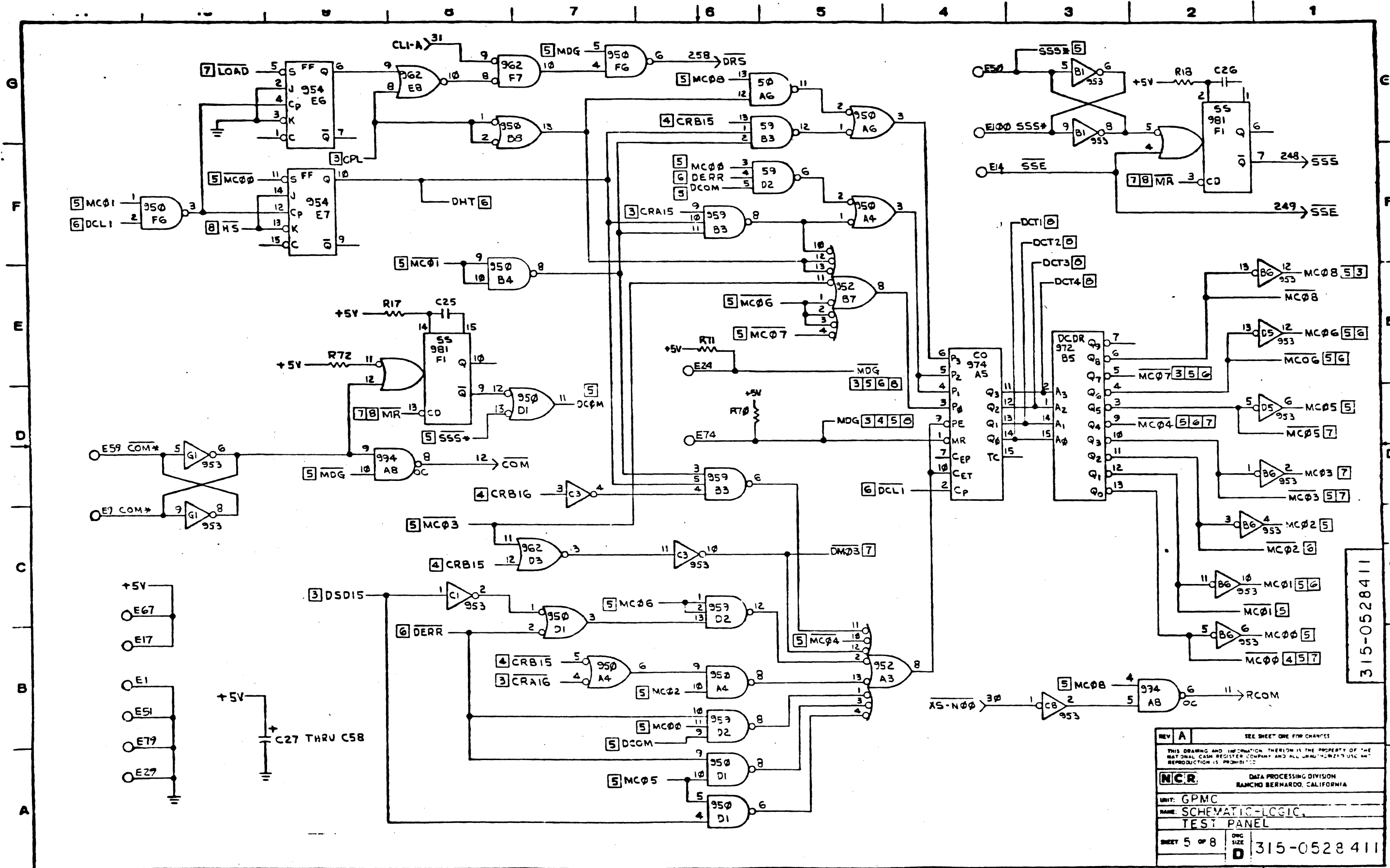


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NCR DATA PROCESSING DIVISION RANCHO BERNARDO, CALIFORNIA		
UNIT:	GPMC	
NAME:	SCHEMATIC LOGIC TEST PANEL	
SHEET	3 OF 8	DWG SIZE
		315-0528411

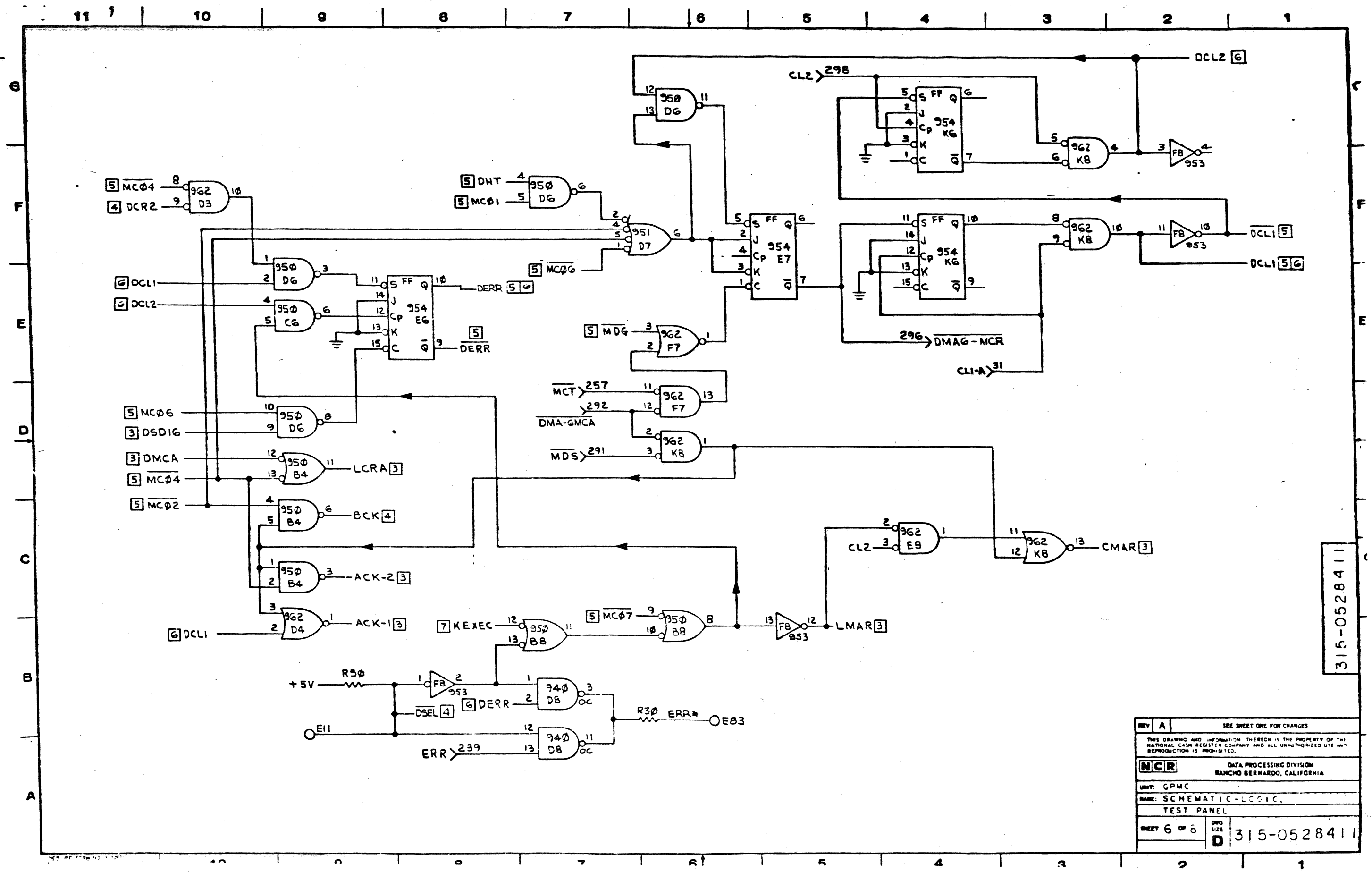


315-0528411

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NCR	DATA PROCESSING DIVISION BANCNO BERNARDO, CALIFORNIA
UNIT: GPMC	
NAME: SCHEMATIC-LOGIC	
TEST PANEL	
SHEET 4 OF 8	SIZE D 315-0528411

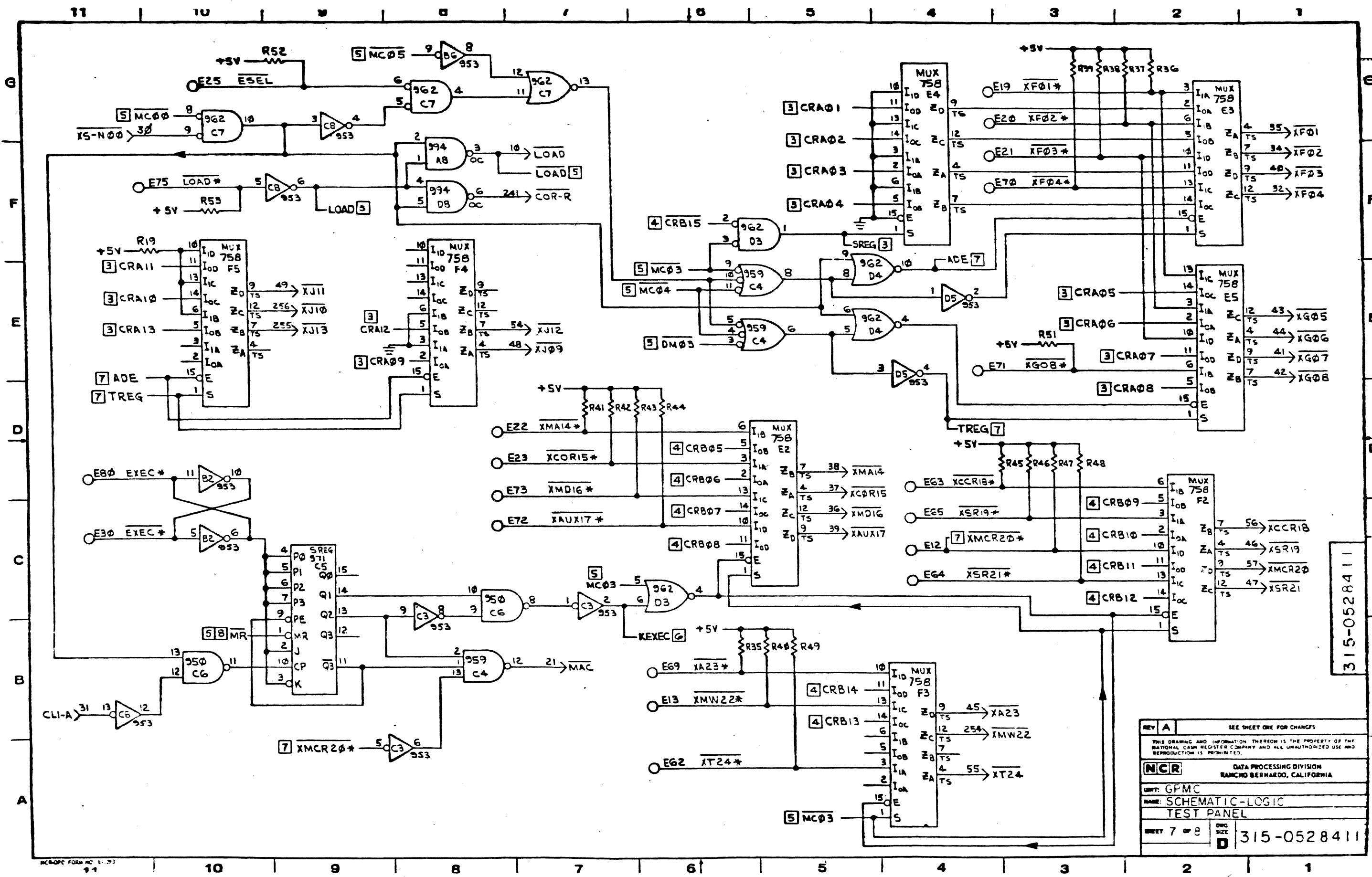


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NCR	DATA PROCESSING DIVISION RANCHO BERNARDO, CALIFORNIA
UNIT: GPMC	
NAME: SCHEMATIC-LOGIC	
TEST PANEL	
SHEET 5 OF 8	DWG SIZE D 315-0528411



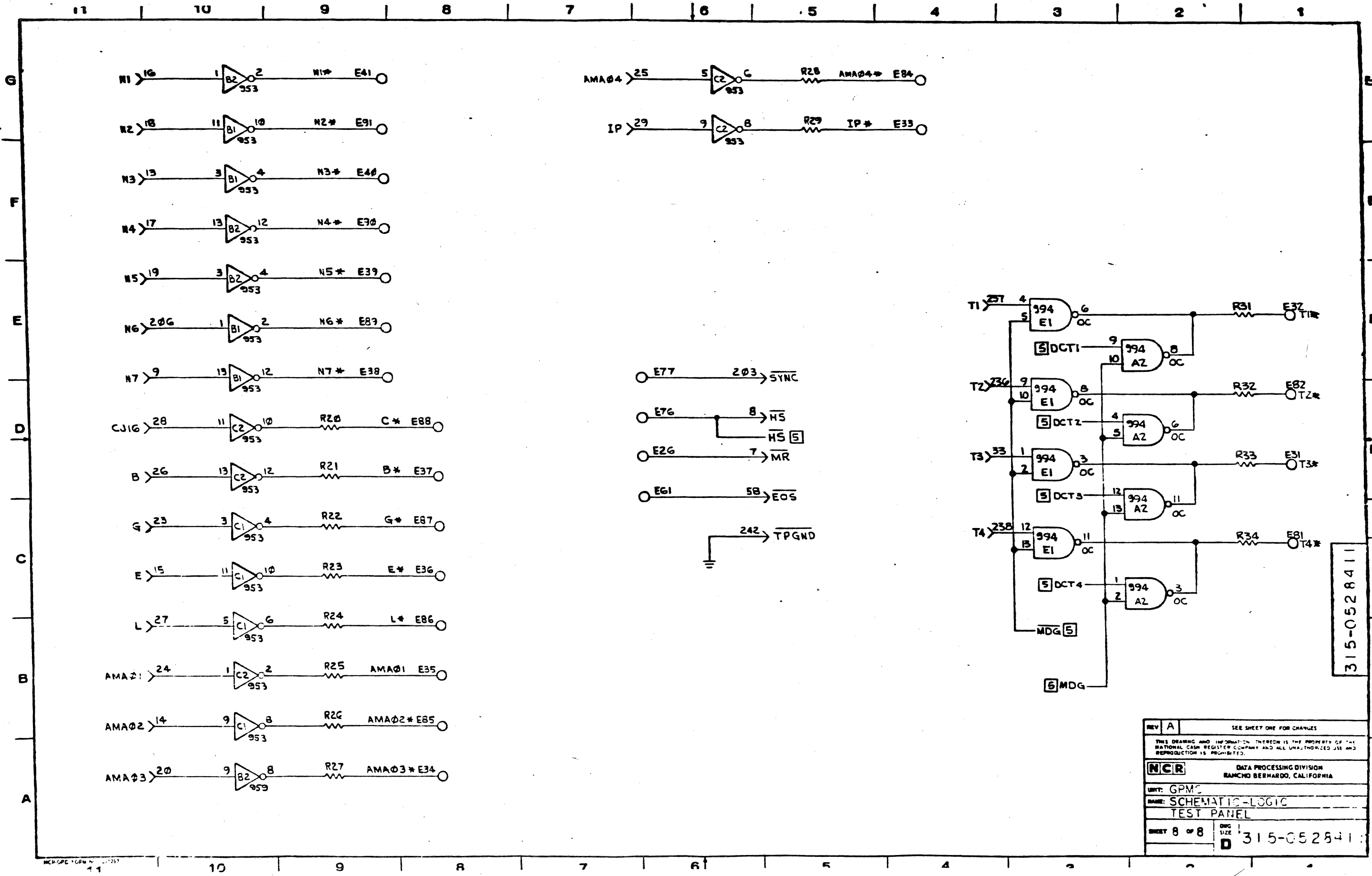
315-0528411

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NCR DATA PROCESSING DIVISION RANCHO BERNARDO, CALIFORNIA	
UNIT: GPMC	
NAME: SCHEMATIC-LOGIC, TEST PANEL	
SHEET 6 OF 8	DWG SIZE D 315-0528411



315-05284-1

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NCR	DATA PROCESSING DIVISION RANCHO BERNARDO, CALIFORNIA
UNIT: GPMC	NAME: SCHEMATIC-LOGIC TEST PANEL
SHEET 7 OF 8	SIZE: 315-05284-1



315-0528411

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NCR DATA PROCESSING DIVISION RANCHO BERNARDO, CALIFORNIA	
UNIT: GPMC	
NAME: SCHEMATIC-LOGIC	
TEST PANEL	
SHEET 8 OF 8	DWG SIZE 1 D 315-0528411