

ITEM	REQD.	DWG. NO.	NAME	SIZE
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395-0060036

REQD.	SIZE	NEXT ASSEMBLY
I	B	395-0060026

ITEM	DWG. NO.	DWG NAME	REVISION LEVEL	
			CURRENT DESIGN	ASSOC & CHG NO THIS MACHINE
1	095-0297064	SCHEMATIC - LOGIC	B	05
2	395-0065099	DIAGRAM - WIRING	A	00

NOTES:

SIMILAR PARTS: _____
 CHANGES: (F) ITEM 1 WAS 095-0010995 (G) ITEM 1 REV WAS A (H) ADD ITEM 2

		H	46ER3136	BD	2-75
		G	46ER0310	NP	6-74
		F	46ER0401	MW	6-73
MODULE CHG. NO.	UNIT CLASS	REV.	RELEASE NO.	DFTS.	DATE

REPLACES DWG SAME NO DATED 4-5-73

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	UNLESS OTHERWISE SPECIFIED, DIMENSIONAL LIMITS ARE:
	INCH NOMINAL
	XX ± .02
	XXX ± .005
	MATERIAL:
	COATING:
	BRAZE:
	HEAT TREAT:
	HARDNESS:

STD. QUALITY SEE SP4004.15	CLASS: M23-1-399-00
START: 6-73	FINISH: 6-21-73
DFTS: M W	CHKR:
DESIGNER: R. EIFORT	
APPD:	APPD:
SUPSD. BY:	
SUPERSEDES:	

NCR THE NATIONAL CASH REGISTER CO.
 DAYTON, OHIO
 UNIT: SYSTEM 399 COMPUTER
 NAME: INDEX-FIELD PRINT PACKAGE
 SHEET OF
 SCALE: _____
 CODE: 2-9507

395-0060036
 FIELD PRINT

ITEM	REQD.	DWG. NO.	NAME	SIZE	ITEM	REQD.	DWG. NO.	NAME	SIZE	ITEM	REQD.	DWG. NO.	NAME	SIZE	REQD.	SIZE	NEXT ASSEMBLY	
																	D	095-0297064

CHANGES: (A) NEW, PAGE 7: R2 & C5 CHANGED, LOCATION 2D. (B) PIN 3 WAS TO PIN 2 ON FF (954) 3B. (C) RENUMBERED R4-R11 WAS R5-R12 AND C7-C21 WAS C8-C22

095-0297064

NOTES:

SIMILAR PARTS		REVISION ON SHEET NUMBER												
2	3	4	5	6	7	8	9	10	11	12				
A	A	A	A	A	A	A								
	C	B	C	C	C									

1	C	46ER03109	MW	7-74
	B	46ER03090	FS	3-74
	A	46ER04011	MW	6-73
REV.	RELEASE NO.	DFTS.	DATE	

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NGR THE NATIONAL CASH REGISTER CO.
DATA TERMINALS DIVISION

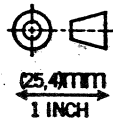
STD. QUALITY SEE SP004.15
CLASS: M23-1-399

START: 6-73 FINISH: 6-73 UNIT: TRUNK INTERFACE
DFTS: MW CHKR: NAME: SCHEMATIC - LOGIC
DESIGNER: D. DOUD

XX = 82
XXX = 805

APPR: APPR: SHEET 1 OF 7
SCALE: 095-0297064
SUSP.D. BY: CODE 2-9550
SUPERSEDES: 095-0010994

FIELD PRINT



FUNCTION	INPUT PIN	OUTPUT PIN	PAGE / ZONE	REMARKS
HDATA1*	55		3 D4	TO PERIPHERAL
HDATA1*		55	3 D1	↑
HDATA2*	56		3 D4	
HDATA2*		56	3 D1	
HDATA3*	57		3 C4	
HDATA3*		57	3 C1	
HDATA4*	58		3 C4	
HDATA4*		58	3 C1	
HDATA5*	59		3 B4	
HDATA5*		59	3 B1	
HDATA6*	60		3 B4	
HDATA6*		60	3 B1	
HDATA7*	61		3 A4	
HDATA7*		61	3 A1	
HDATA8*	62		3 A4	
HDATA8*		62	3 A1	
HPRTY.*	63		4 B4	
HPRTY.*		63	4 B1	
IICLK.*	65		5 C4	↓
IOPER.*	64		5 B4	TO PERIPHERAL
JCLKA.S		94	7 D2	TEST POINT
JCNOCL.G/		93	7 C2	TEST POINT
JDINCK.G/		17	6 C2	TEST POINT
JDSEL*		70	7 D1	TO PERIPHERAL
JFUN*		68	7 C1	TO PERIPHERAL
JINCK.S		98	6 D2	TEST POINT
JOCLK*	69		4 A4	TO PERIPHERAL
JOCLK*		69	4 B1	TO PERIPHERAL
JRPIN3.G		16	6 C1	TEST POINT
JSDIA.G		35	7 D2	TEST POINT
JSEL*		66	7 D1	TO PERIPHERAL
JSTAT*		67	7 C1	TO PERIPHERAL
JTOUT.S		86	7 B3	TEST POINT
MR*	46		4 D4	TO M 05

FUNCTION	INPUT PIN	OUTPUT PIN	PAGE / ZONE	REMARKS
RDINT03*		250	6 C1	TO M05
RDIROUT*		47	5 A2	↑
RDO1*		204	3 D1	
RDO2*		206	3 D1	
RDO3*		208	3 C1	
RDO4*		210	3 C1	
RDO5*		214	3 C1	
RDO6*		218	3 B1	
RDO7*		221	3 B1	
RDO8*		224	3 A1	
RDO9*		226	5 D3	
RD10*		229	5 D3	
RD11*		231	5 B1	↓
RD12*		234	5 D3	TO M 05
RD13*		236		NOT USED
RD14*		239	7 B1	TO M 05
RD15*		241	7 B1	↑
RD16*		244	7 B1	↓
RPINT03*		249	6 C1	TO M 05
RPOS01*		213		NOT USED
RPOS02*		216		NOT USED
RPOS03*		220		NOT USED
SD01*	203		3 D3	TO M 05
SD02*	205		3 D3	↑
SD03*	207		3 C3	
SD04*	209		3 C3	
SD05*	211		3 B3	
SD06*	215		3 B3	
SD07*	219		3 B3	↓
SD08*	223		3 A3	TO M 05
SD09*	225			NOT USED
SD10*	228			↑
SD11*	230			
SD12*	233			
SD13*	235			↓
SD14*	238			NOT USED
SD15*	240		5 B3	TO M 05
SD16*	243		5 A3	TO M 05

FUNCTION	INPUT PIN	OUTPUT PIN	PAGE / ZONE	REMARKS
SMB7*	247		5 C3	TO M 05
SMB8*	246		5 C3	↑
SMB9*	245		5 C3	↓
SPOS01*	212		4 D4	TO M 05
SPOS02*	217			NOT USED
SPOS03*	222			NOT USED
SPT03*	227		4 C4	TO M 05
SSEL03*	251		4 C4	↑
SSTB*	248		4 C4	↓
STERM*	48		4 B4	TO M 05
+12V	52			NOT USED
-12V	51			NOT USED
+5V	1			+5 VOLT LOGIC
↑	2			↑
↓	201			↓
+5V	202			+5 VOLT LOGIC
GND	101			LOGIC GROUND
↑	102			↑
	301			↓
	302			LOGIC GROUND
	255		3 D4	SIGNAL RETURN
	256		3 D4	↑
	257		3 C4	
	258		3 C4	
	259		3 B4	
	260		3 B4	
	261		3 A4	
	262		3 A4	
	263		4 B4	
	264		5 B4	
	265		5 C4	
	266		7 C1	
	267		7 C1	
	268		7 C1	
	269		4 A4	↓
GND	270		7 D1	SIGNAL RETURN

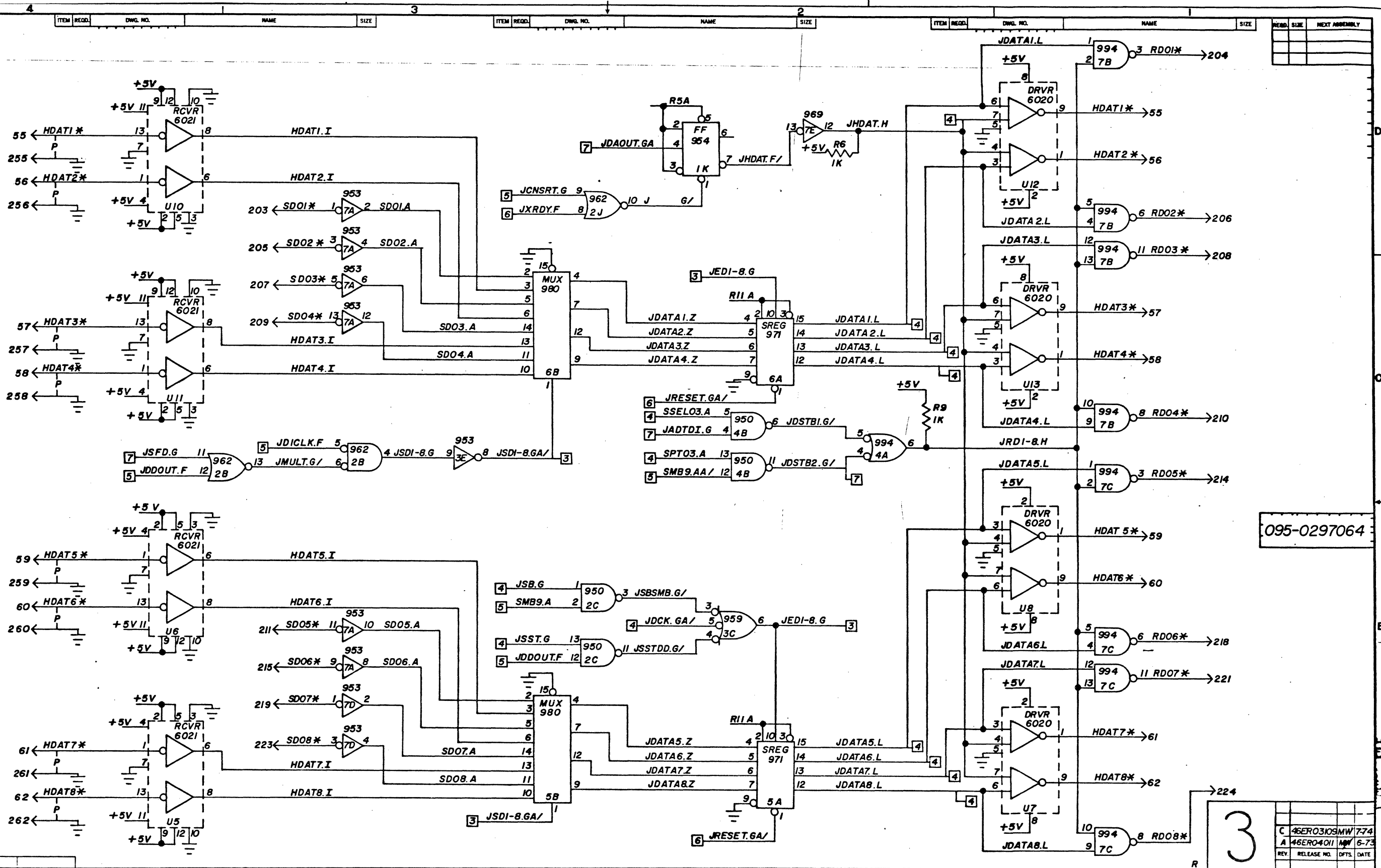
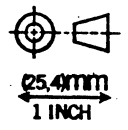
095-0297064

2

NOTES:
SIMILAR PARTS:
A CHANGES: (A) NEW

A 46E0401/MW 6-73
REV. RELEASE NO. DFTS. DATE

STD. QUALITY SEE SP004.15		CLASS M23-1-399		NCR THE NATIONAL CASH REGISTER CO. DATA TERMINALS DIVISION	
START: 6-73	FINISH: 6-19-73	UNIT: TRUNK INTERFACE	NAME: SCHEMATIC - LOGIC		
DFTS: MW	CHKR:	DESIGNER: D. DOUD (PIN SUMMARY)			
APPD:	APPD:	SHEET 2 OF 7	095-0297064		
SUPSD. BY:	SCALE:	FIELD PRINT			
SUPERSEDES: 095-000995		CODE: 2-9550			



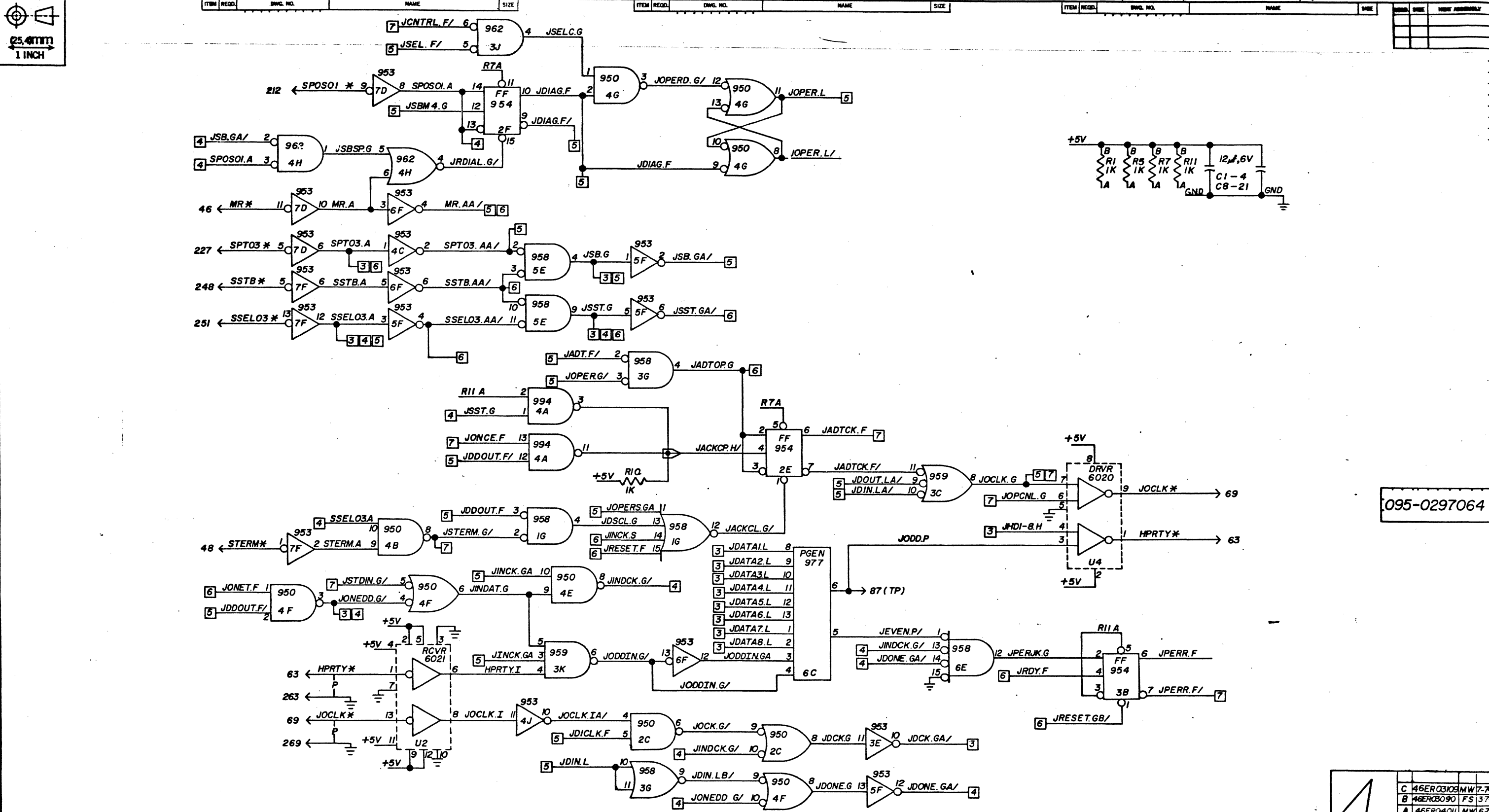
095-0297064

3

C	46ER03K0SMW	7-74
A	46ER04011	6-73
REV.	RELEASE NO.	DPTS. DATE

NOTES:
 SIMILAR PARTS:
 CHANGES: (A) NEW. (C) RENUMBERED R5-12 & C8-22

STD. QUALITY SEE SP004.15		CLASS: M23-1-399		NCR THE NATIONAL CASH REGISTER CO. DATA TERMINALS DIVISION	
START: 6-73	FINISH: 6-19-73	UNIT: TRUNK INTERFACE		NAME: SCHEMATIC-LOGIC	
DPTS: MW	CHR: RCH	DESIGNER: D.DOUD		APPRO: [Signature]	
SHEET 3 OF 7		SCALE: ---		095-0297064	
SUPERSEDES: 095-000995		CODE: 2-9550		FIELD PRINT	



NOTES:
SIMILAR PARTS

CHANGES: (A) NEW, (B) ADDED JUMPERS: 3B5, 3B3 & 3B2, 6E12 (C) RENUMBERED R5-12 & C8-22

095-0297064

4	C 46ER0303 MW 7-74	REV.	RELEASE NO.	DFTS.	DATE
	B 46ER08090 FS 3-74				
	A 46ER04011 MW 6-73				

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NGR THE NATIONAL CASH REGISTER CO.
DATA TERMINALS DIVISION

UNIT: TRUNK INTERFACE
NAME: SCHEMATIC-LOGIC

STD. QUALITY SEE SP004.15
CLASS: M23-1-399

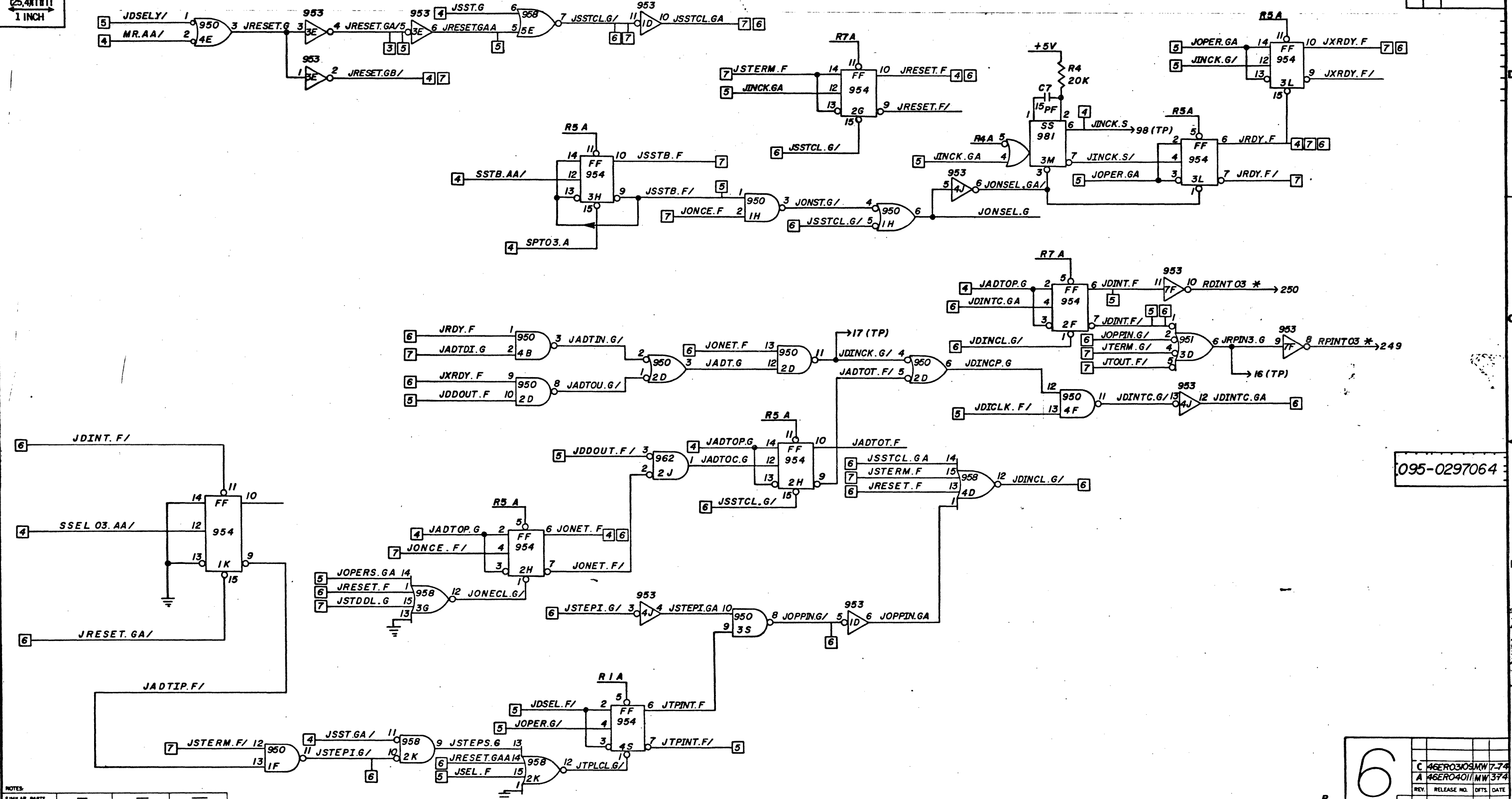
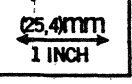
START: 6-73 FINISH: 6-73
DFTS: MW CHKR:

DESIGNER: D. DOUD
APPD: APPD:

SHEET 4 OF 7
SCALE: —
SUPSD. BY: —
SUPERSEDES: 095-0010995
CODC-2-9550

095-0297064
FIELD PRINT

ITEM	REQD.	DWG. NO.	NAME	SIZE	ITEM	REQD.	DWG. NO.	NAME	SIZE	ITEM	REQD.	DWG. NO.	NAME	SIZE	REQD.	SIZE	NEXT ASSEMBLY

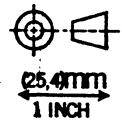


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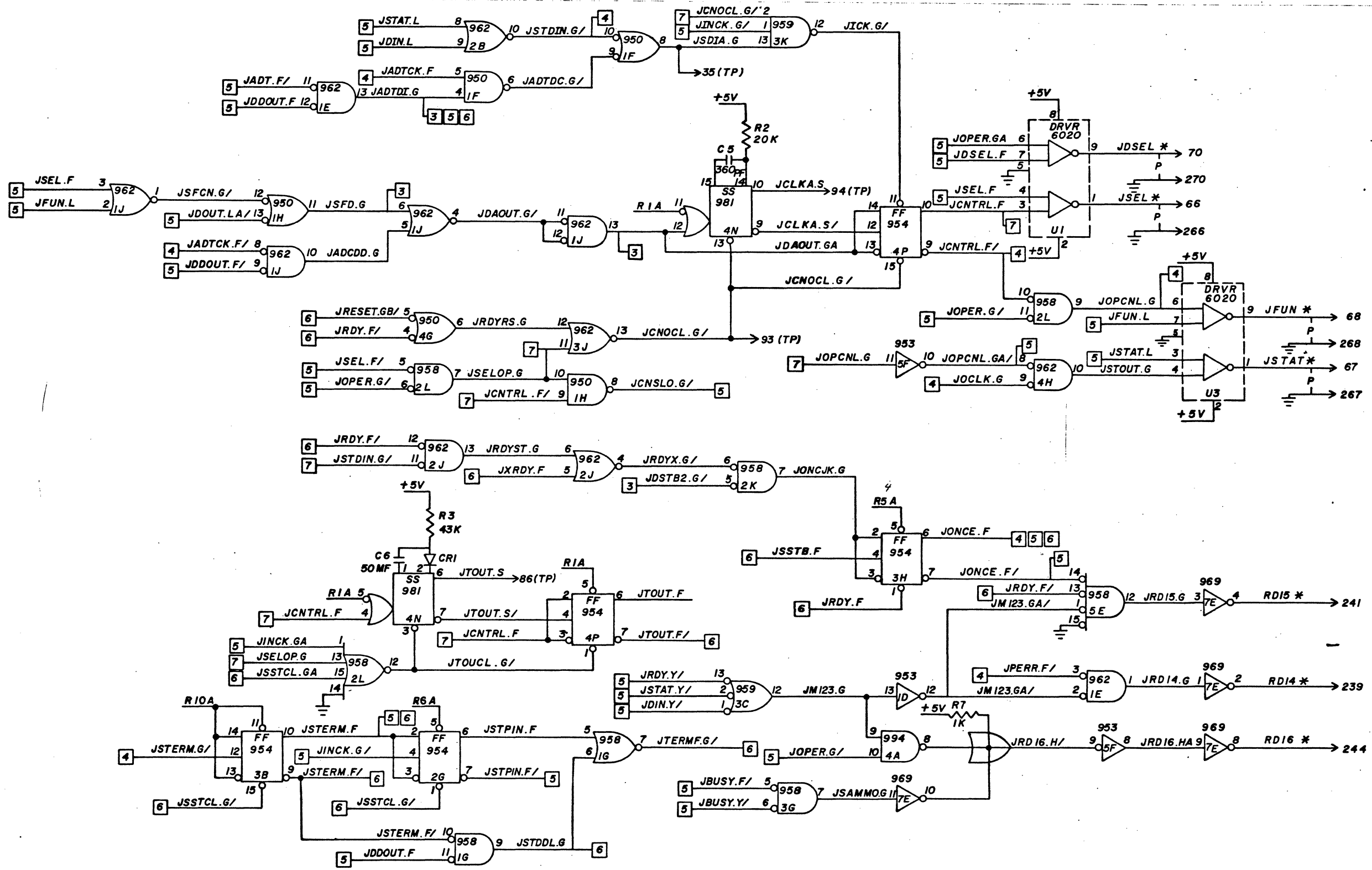
NOTES:
 SIMILAR PARTS: ---
 CHANGES: (A) NEW, ADDED CIRCUIT AT 4B. (C) RENUMBERED R5-12 & C8-22

6	C 146R031031MW7-74
	A 146R040111MW374
	REV. RELEASE NO. DTS. DATE

STD. QUALITY SEE SP4004.15		CLASS: M 23-1-399		UNLESS OTHERWISE SPECIFIED, DIMENSIONAL LIMITS ARE: INCH NOMINAL		X1 = 02 X3 = 805		SHEET 6 OF 7		095-0297064	
START:	FINISH:	DESIGNER: D. DOUD	APPD:	APPD:	SCALE:	FIELD PRINT		UNIT: TRUNK-INTERFACE		NAME: SCHEMATIC-LOGIC	
MATERIAL:		COATING:		BRAZE:		HEAT TREAT:		HARDNESS:		CODE: 2-9550	



ITEM	REQD.	DRWG. NO.	NAME	SIZE	ITEM	REQD.	DRWG. NO.	NAME	SIZE	ITEM	REQD.	DRWG. NO.	NAME	SIZE	REQD.	SIZE	NEXT ASSEMBLY



095-0297064

NOTES:
 SIMILAR PARTS:
 CHANGES: (A) NEW, CHANGE R2 & C5 AT LOCATION 2D. (C) RENUMBERED R5-12 & C8-22

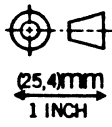
7	C 46ER03109 MW 7-74		
	A 46ER04011 MW 6-73		
REV.	RELEASE NO.	DTS.	DATE

UNLESS OTHERWISE SPECIFIED, DIMENSIONAL LIMITS ARE: INCH NOMINAL
 XX = 02
 XXX = 005

STD. QUALITY SEE SP00A15
 CLASS: M23-1-399
 START: 673 FINISH: 61973
 DFTS: M W CHR.
 DESIGNER: D. DQUD
 APPD.:
 SUPD. BY:
 SUPERSEDES: 095-0010995

UNIT: TRUNK-INTERFACE
 NAME: SCHEMATIC - LOGIC
 SHEET 7 OF 7
 SCALE: ~
 CODE: 2-9550

095-0297064
 FIELD PRINT



REQ. SIZE	NEXT ASSEMBLY

M05 BACKPANEL
05K 55-70

55	HDAT1*	J1&J2-1
56	HDAT2*	J1&J2-2
57	HDAT3*	J1&J2-3
58	HDAT4*	J1&J2-4
59	HDAT5*	J1&J2-5
60	HDAT6*	J1&J2-6
61	HDAT7*	J1&J2-7
62	HDAT8*	J1&J2-8
63	HPRTY*	J1&J2-9
64	IOPER*	J1&J2-10
65	IICLK*	J1&J2-11
66	JSEL*	J1&J2-12
67	JSTAT*	J1&J2-13
68	JFUN*	J1&J2-14
69	JOCLK*	J1&J2-15
70	JDSEL*	J1&J2-16

M05 BACKPANEL
05K 255-270

	LOGIC	GND	J1&J2, 21-24
255	↑	↑	↑
256	↑	↑	↑
257	↑	↑	↑
258	↑	↑	↑
259	↑	↑	↑
260	↑	↑	↑
261	↑	↑	↑
262	↑	↑	↑
263	↑	↑	↑
264	↑	↑	↑
265	↑	↑	↑
266	↑	↑	↑
267	↑	↑	↑
268	↑	↑	↑
269	↑	↑	↑
270	↓	↓	↓

J1

1	HDAT1*	05K-P55-55
2	HDAT2*	05K-P55-56
3	HDAT3*	05K-P55-57
4	HDAT4*	05K-P55-58
5	HDAT5*	05K-P55-59
6	HDAT6*	05K-P55-60
7	HDAT7*	05K-P55-61
8	HDAT8*	05K-P55-62
9	HPRTY*	05K-P55-63
10	IOPER*	05K-P55-64
11	IICLK*	05K-P55-65
12	JSEL*	05K-P55-66
13	JSTAT*	05K-P55-67
14	JFUN*	05K-P55-68
15	JOCLK*	05K-P55-69
16	JDSEL*	05K-P55-70
17	+5VDC	
18	+5VDC	
19	+3VDC	
20	+5VDC	
21	LOGIC GND	
22	LOGIC GND	
23	LOGIC GND	
24	LOGIC GND	
25	FRAME GND	

J2

1	HDAT1*	05K-P55-55
2	HDAT2*	05K-P55-56
3	HDAT3*	05K-P55-57
4	HDAT4*	05K-P55-58
5	HDAT5*	05K-P55-59
6	HDAT6*	05K-P55-60
7	HDAT7*	05K-P55-61
8	HDAT8*	05K-P55-62
9	HPRTY*	05K-P55-63
10	IOPER*	05K-P55-64
11	IICLK*	05K-P55-65
12	JSEL*	05K-P55-66
13	JSTAT*	05K-P55-67
14	JFUN*	05K-P55-68
15	JOCLK*	05K-P55-69
16	JDSEL*	05K-P55-70
17	+5VDC	
18	+5VDC	
19	+3VDC	
20	+5VDC	
21	LOGIC GND	
22	LOGIC GND	
23	LOGIC GND	
24	LOGIC GND	
25	FRAME GND	

TO FRAME GND. ←

TO +5VDC POWER SUPPLY, FUSED AT 5A MAX. ←

NOTES

SIMILAR PARTS

CHANGES (A) INITIAL RELEASE

DESIGN CONTROL: WICHITA, KANSAS

APPRO. REV. RELEASE NO. DPTS. DATE

A 46 ER 03136 60 2-75

UNLESS OTHERWISE SPECIFIED, DIMENSIONAL LIMITS ARE:

INCH NOMINAL
XX : .02 XX : .005
METRIC NOMINAL
XX : 0.5 XX : 0.127

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REQ. IN CES 2-07-01 APPLY TO THIS DRG. THE NATIONAL CASH REGISTER CO. DAYTON OHIO

NCR

CLASS START 2-13-75 FINISH 2-18-75

DFTS. 3 CHDR UNIT M05 TRUNK INTERFACE

DESIGNER NAME DIAGRAM-WIRING

APPRO. APPD. SHEET 1 OF 1

SUPSD BY: SCALE NONE 395-0065099

395-0065099

MATERIAL:
ALTERNATE MATERIAL:
HEAT TREATMENT:
CASE DEPTH:
HARDNESS:
SURFACE TREATMENT:
JOINING: