

FIELD ENGINEERING

I/O DEVICES

REFERENCE DIAGRAM



65 WALNUT STREET, WELLESLEY HILLS, MA 02181 (617) 237-2100

FOREWORD

This document contains logic and schematic diagrams for the I/O devices that are used in INCOTERM Systems. They are required to support Operation and Maintenance Manuals for these systems.

I/O Devices Reference Diagrams

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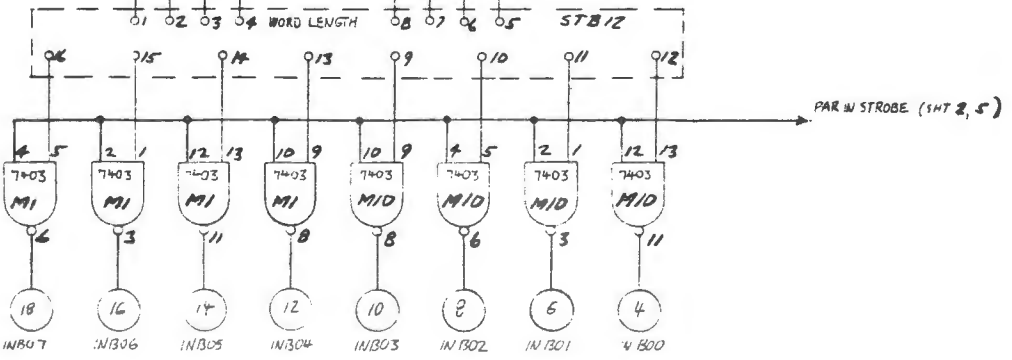
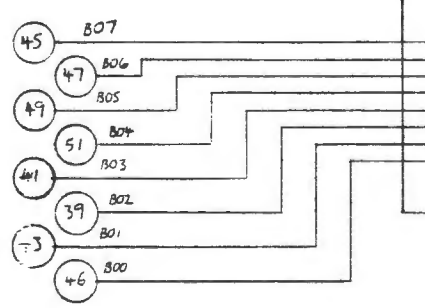
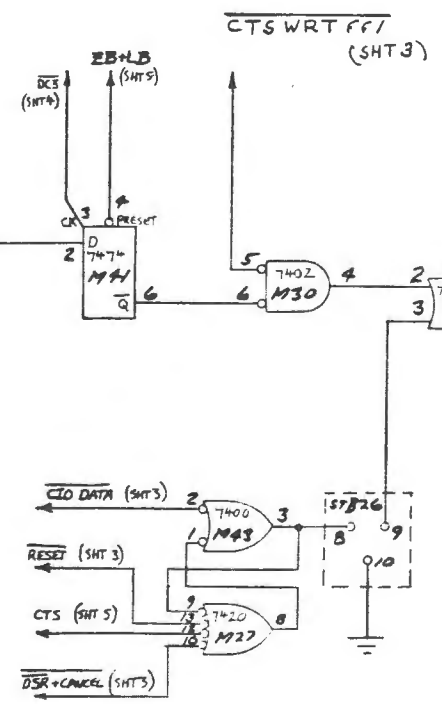
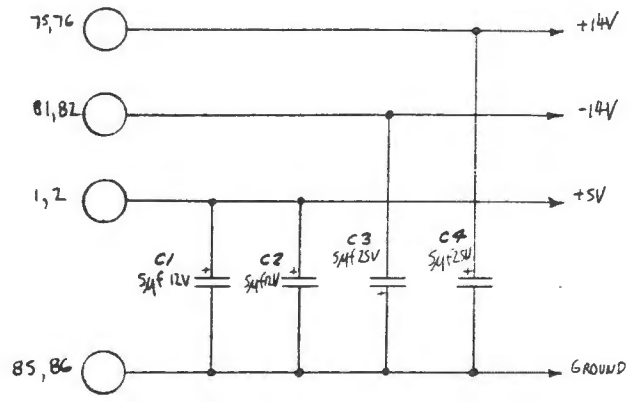
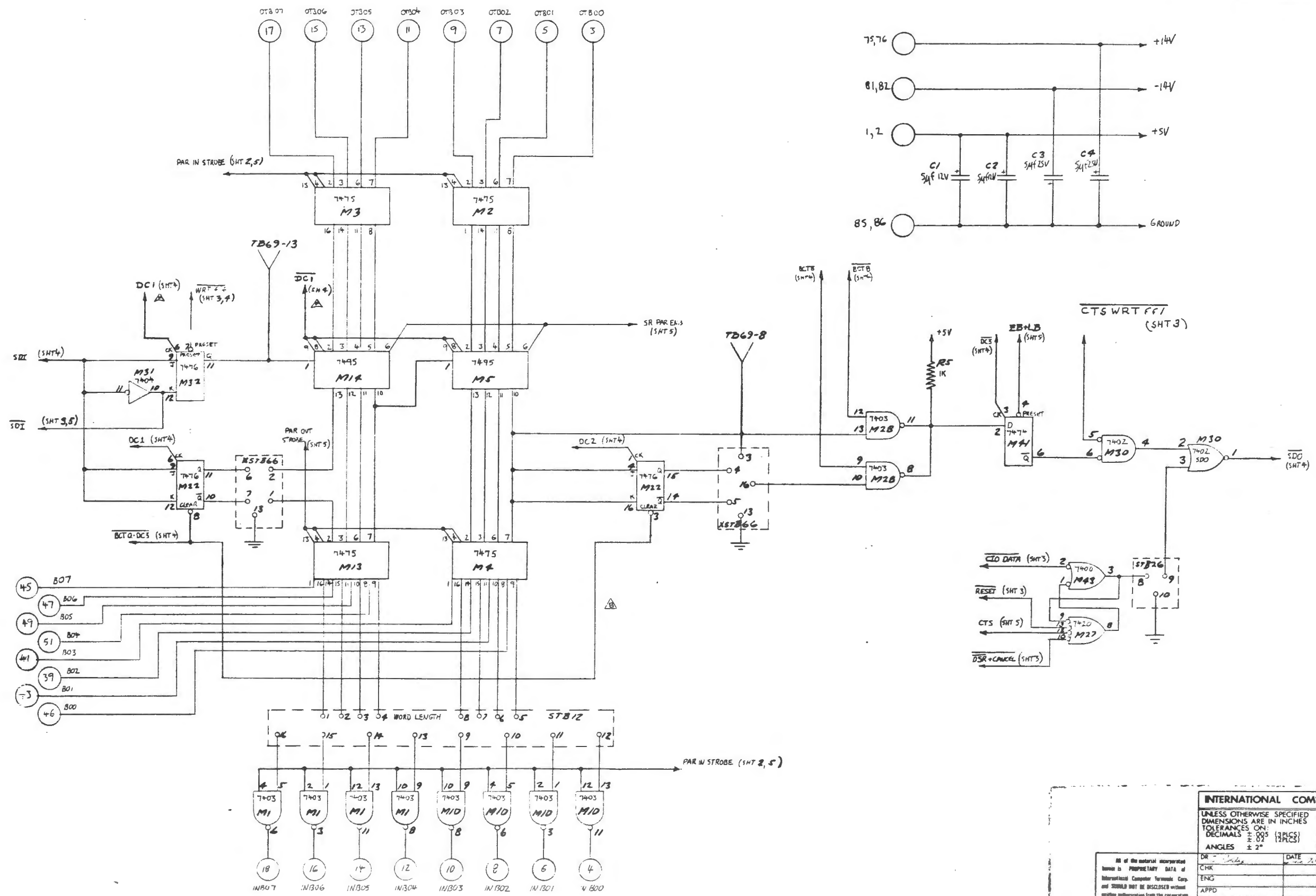
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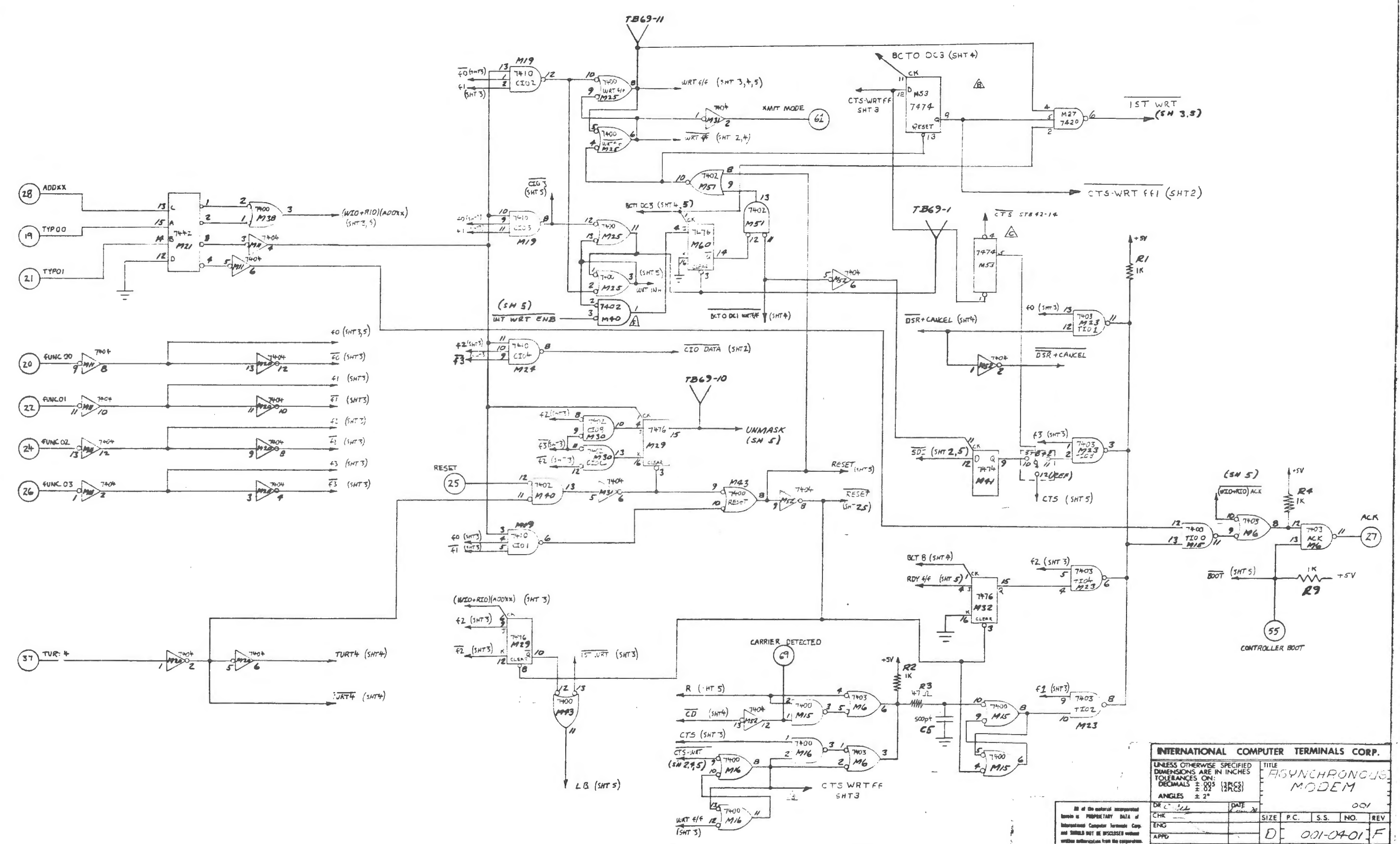
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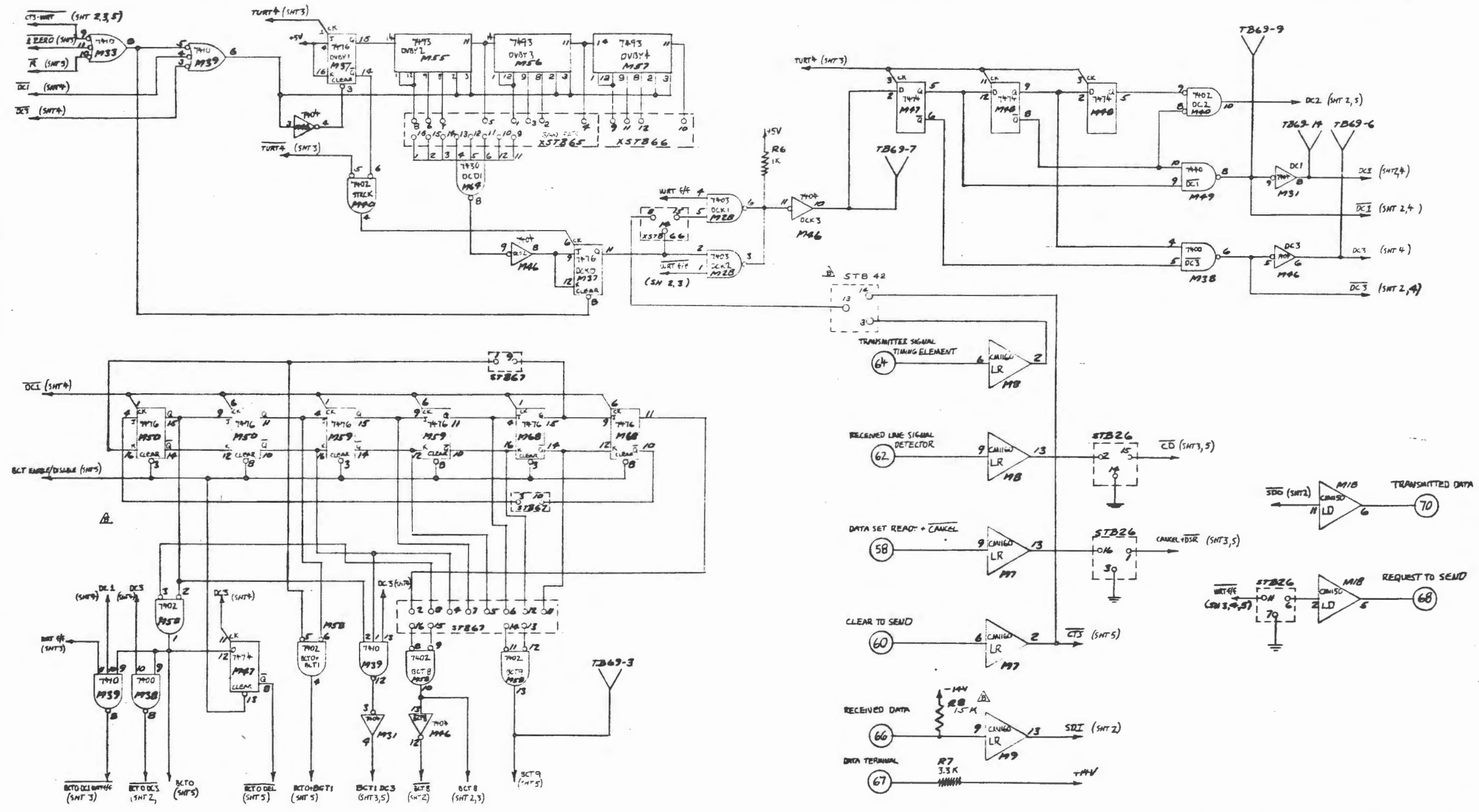
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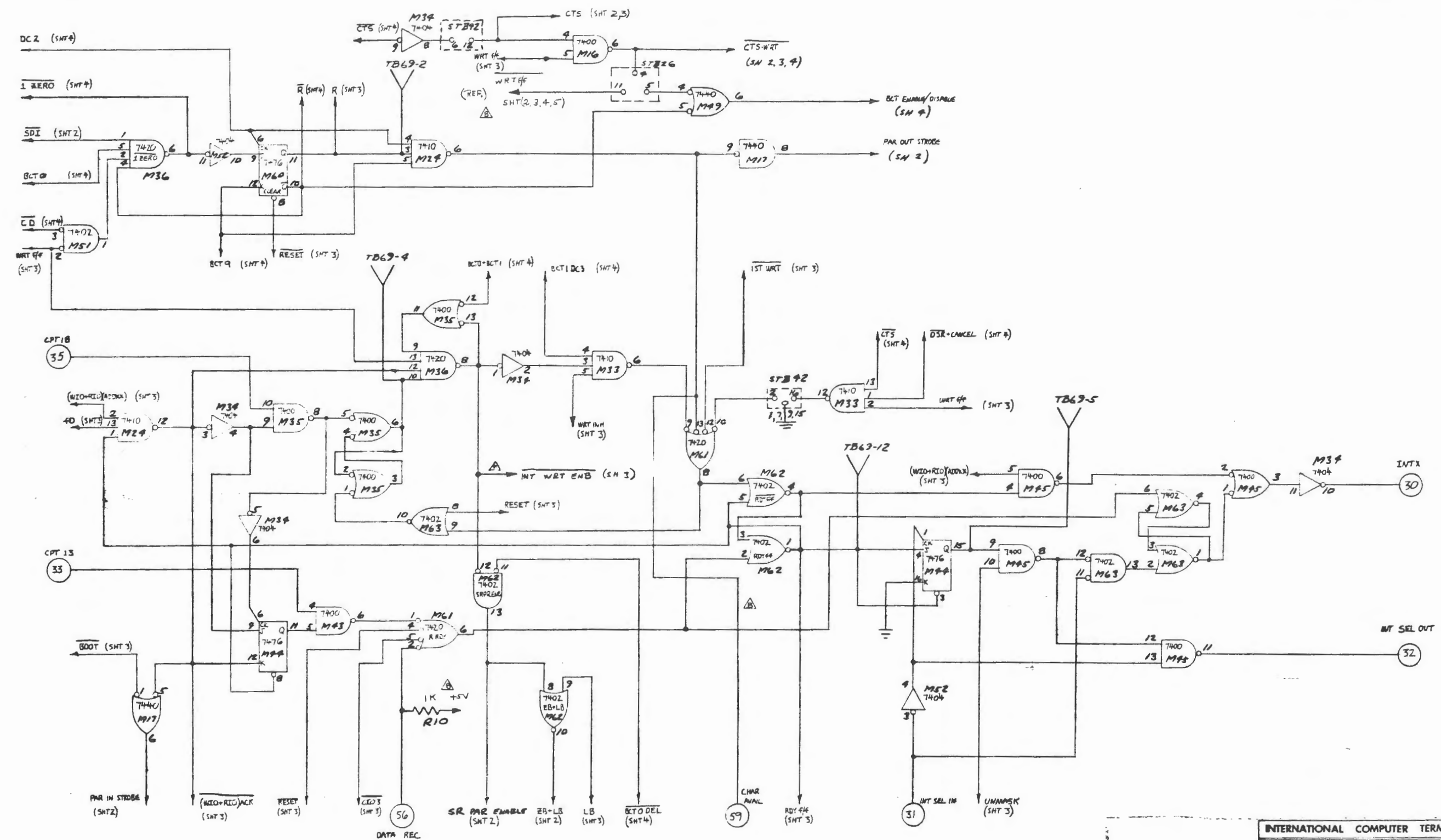
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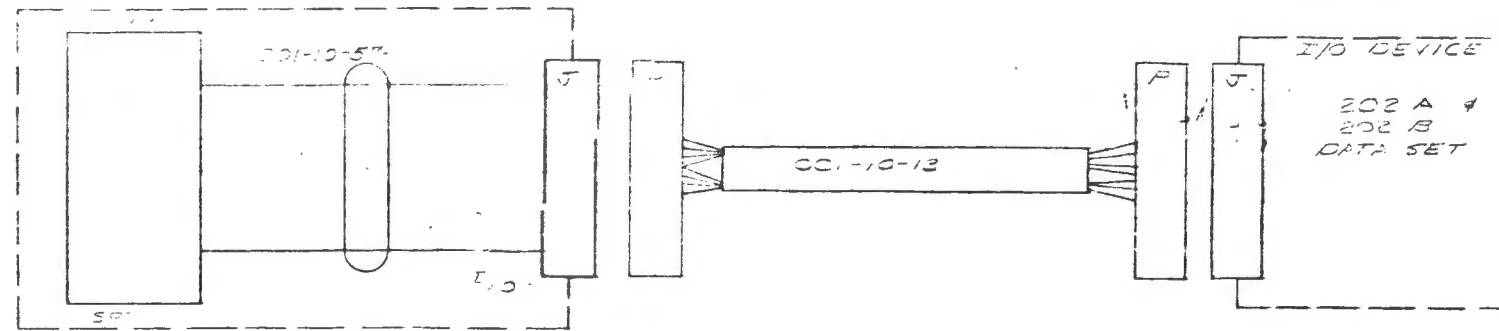


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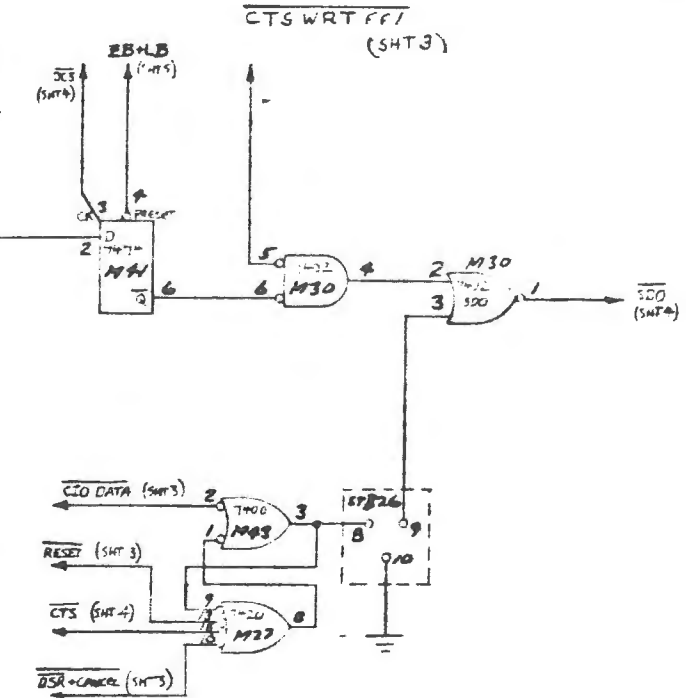
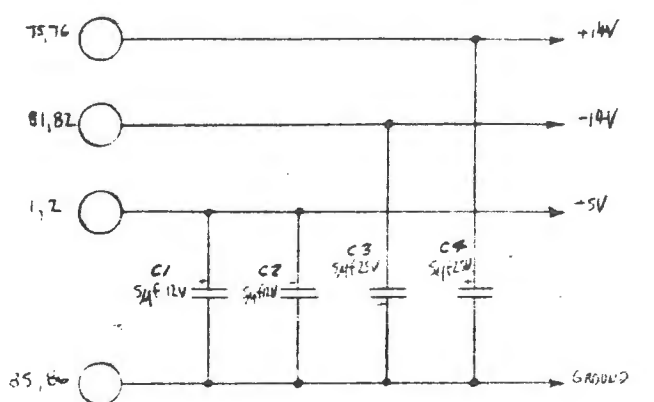
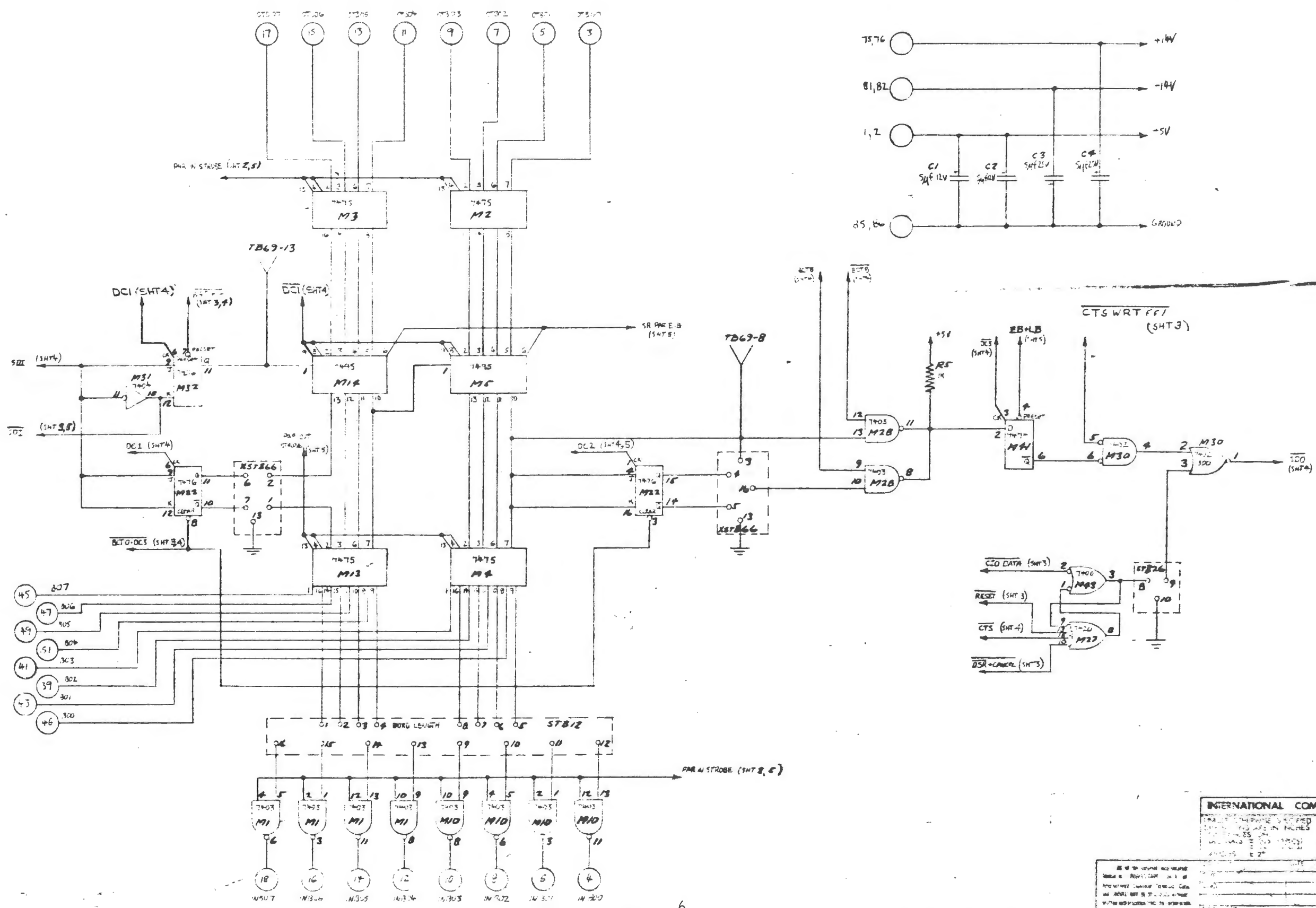


SIGNAL NAME	PCXX → I/O	I/O CABLE COLOR	DEVICE SIGNAL NAME
70		1 BLACK	1 PROTECTIVE GROUND
66		2	2 TRANSMITTED DATA
68		3 RED	3 RECEIVED DATA
60		4 GREEN	4 REQUEST TO SEND
58		5 ORANGE	5 CLEAR TO SEND
		6 BLUE	6 DATA SET READY
		7 WHITE/BLACK	7 SIGNAL GROUND
62		8 RED/BLACK	8 RECEIVED LINE SIGNAL DETECTOR
		9	9
		10	10
		11	11
		12	12
		13 GREEN/BLACK	13 SPARE UNRESERVED
71		14 ORANGE/BLACK	14 VEH SYNC
64		15 BLUE/BLACK	15 TRANSMITTER SIGNAL TIMING ELEMENT (UNUSED)
		16	16
73		17 BLACK/WHITE	17 RECEIVER SIGNAL TIMING ELEMENT (UNUSED)
		18	18
63		19 RED/WHITE	19 REMOTE RELEASE (UNUSED)
67		20 GREEN/WHITE	20 DATA TERMINAL READY
65		21 BLUE/WHITE	21 READY (UNUSED)
		22	22
		23	23
		24	24
		25	25

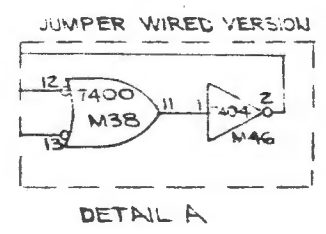
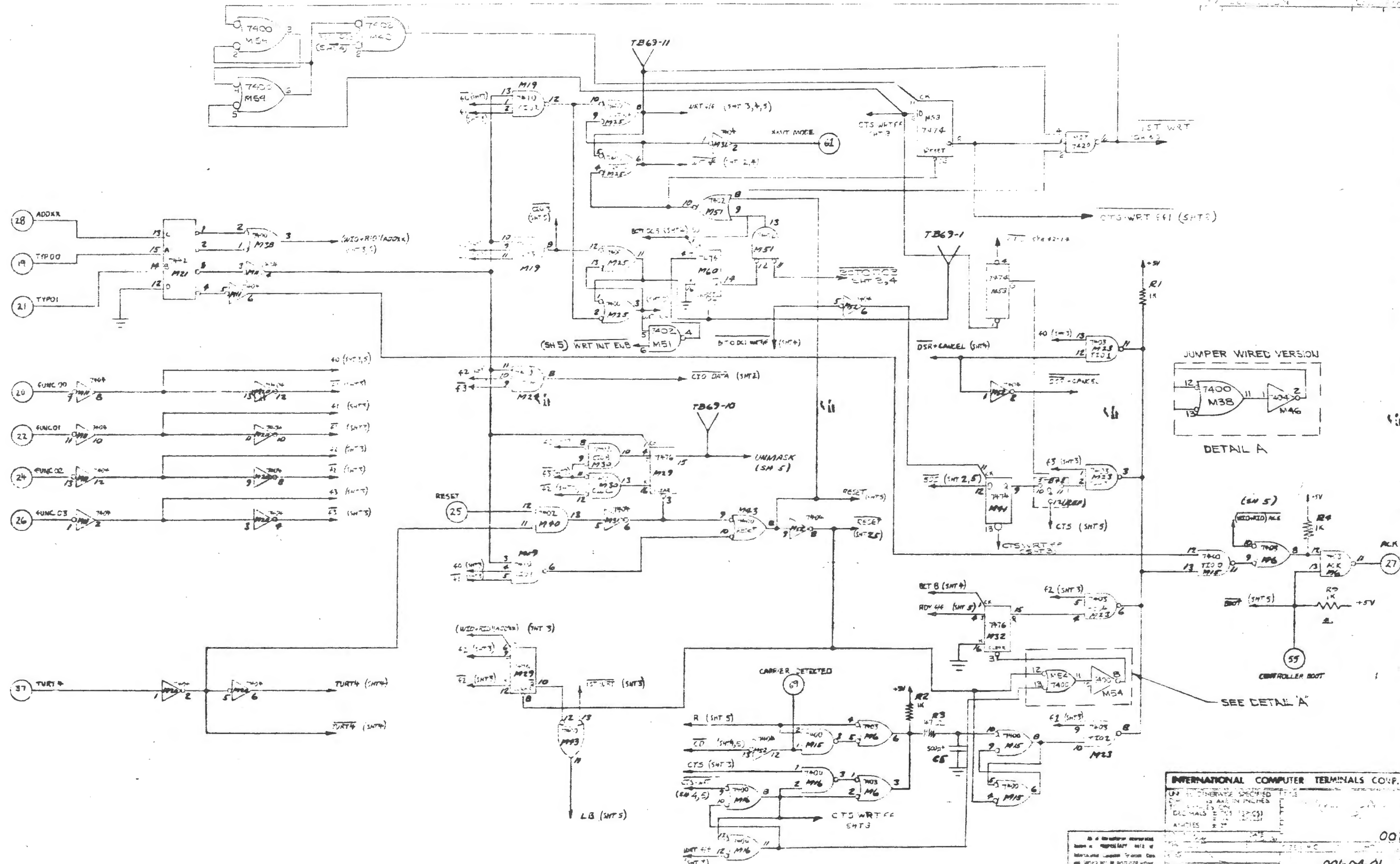
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ASYNCHRONOUS
CONTROLLER

Dr. Anglin
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 D.O. 11/11/70
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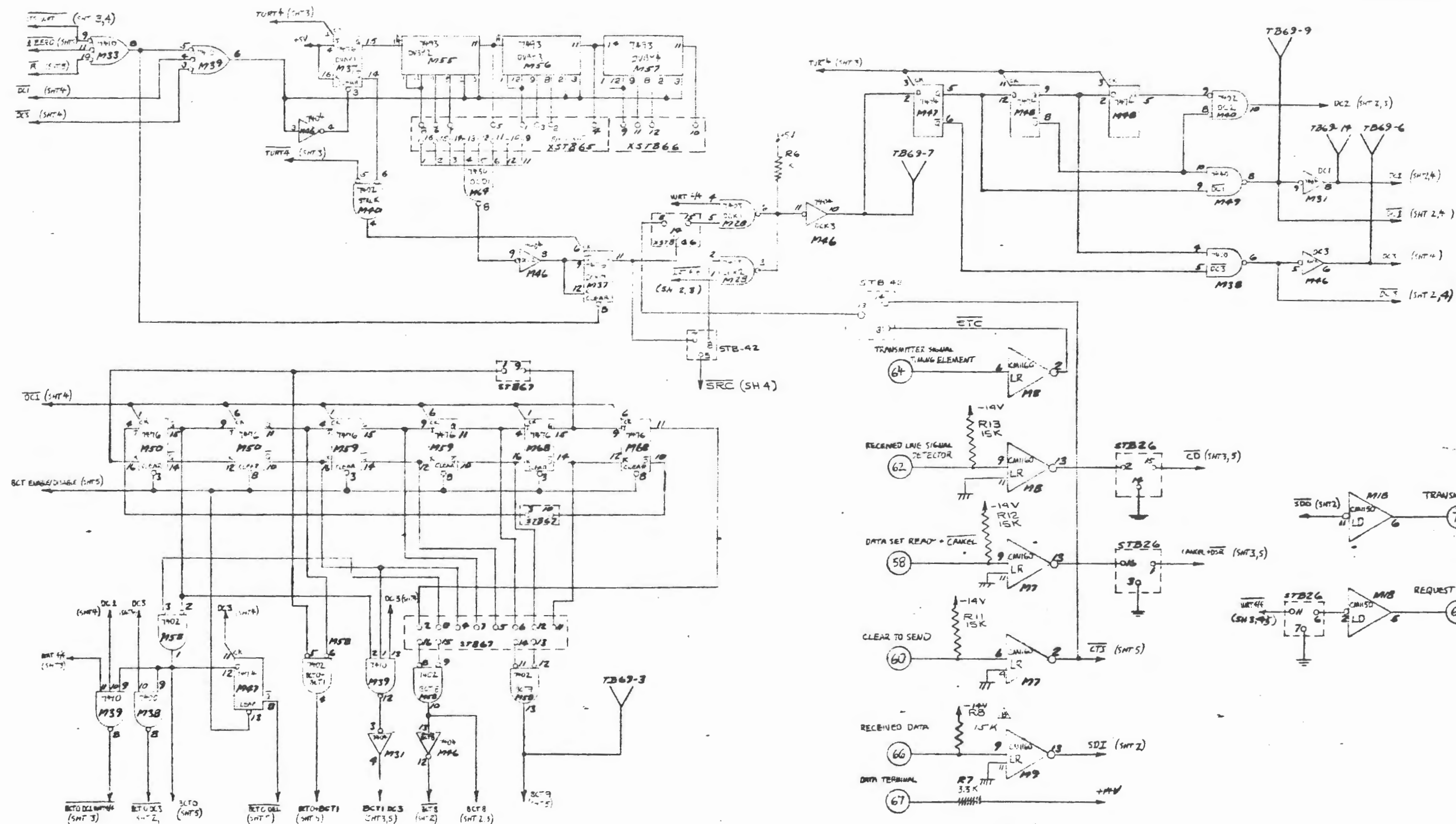


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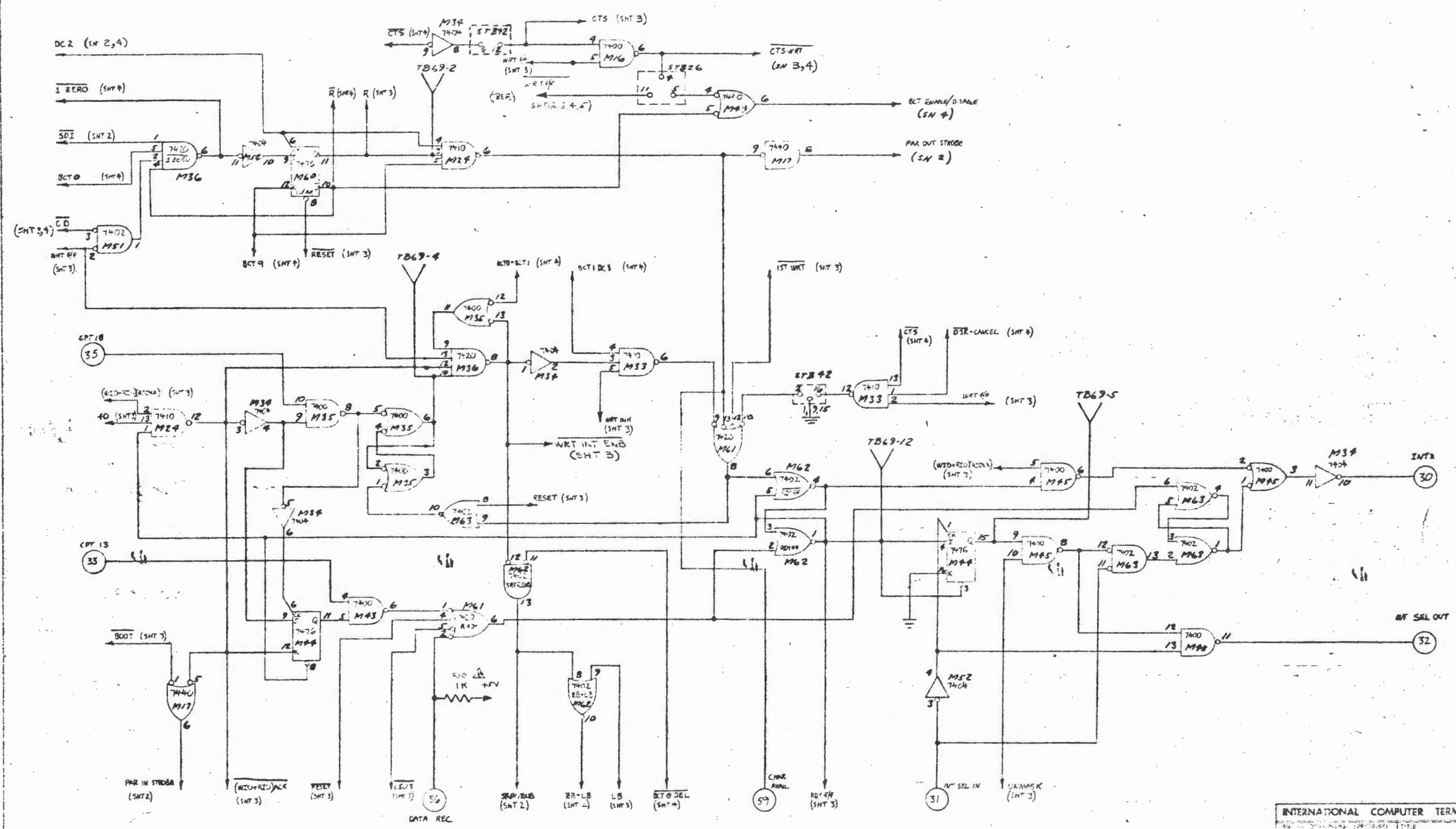
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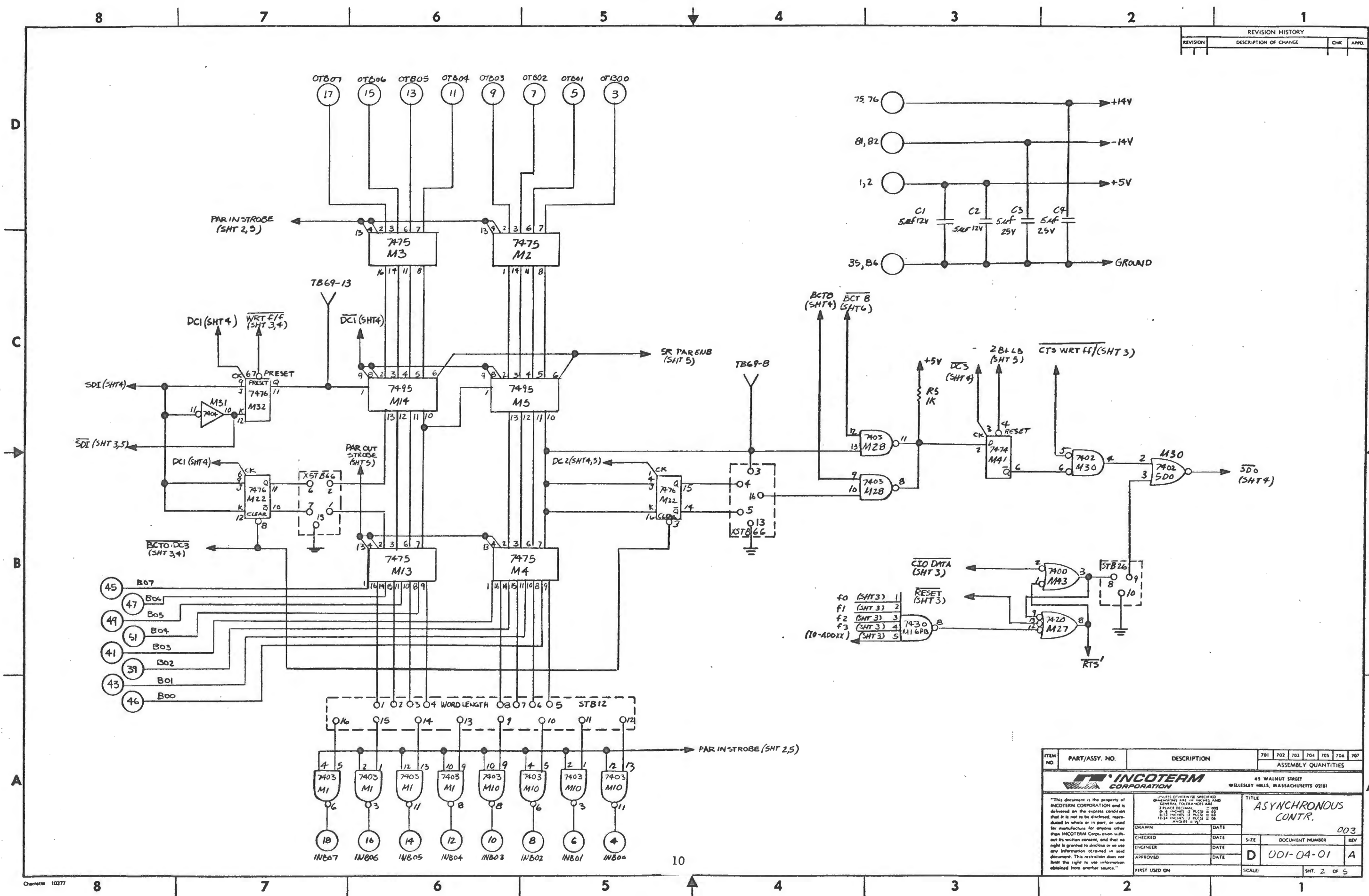
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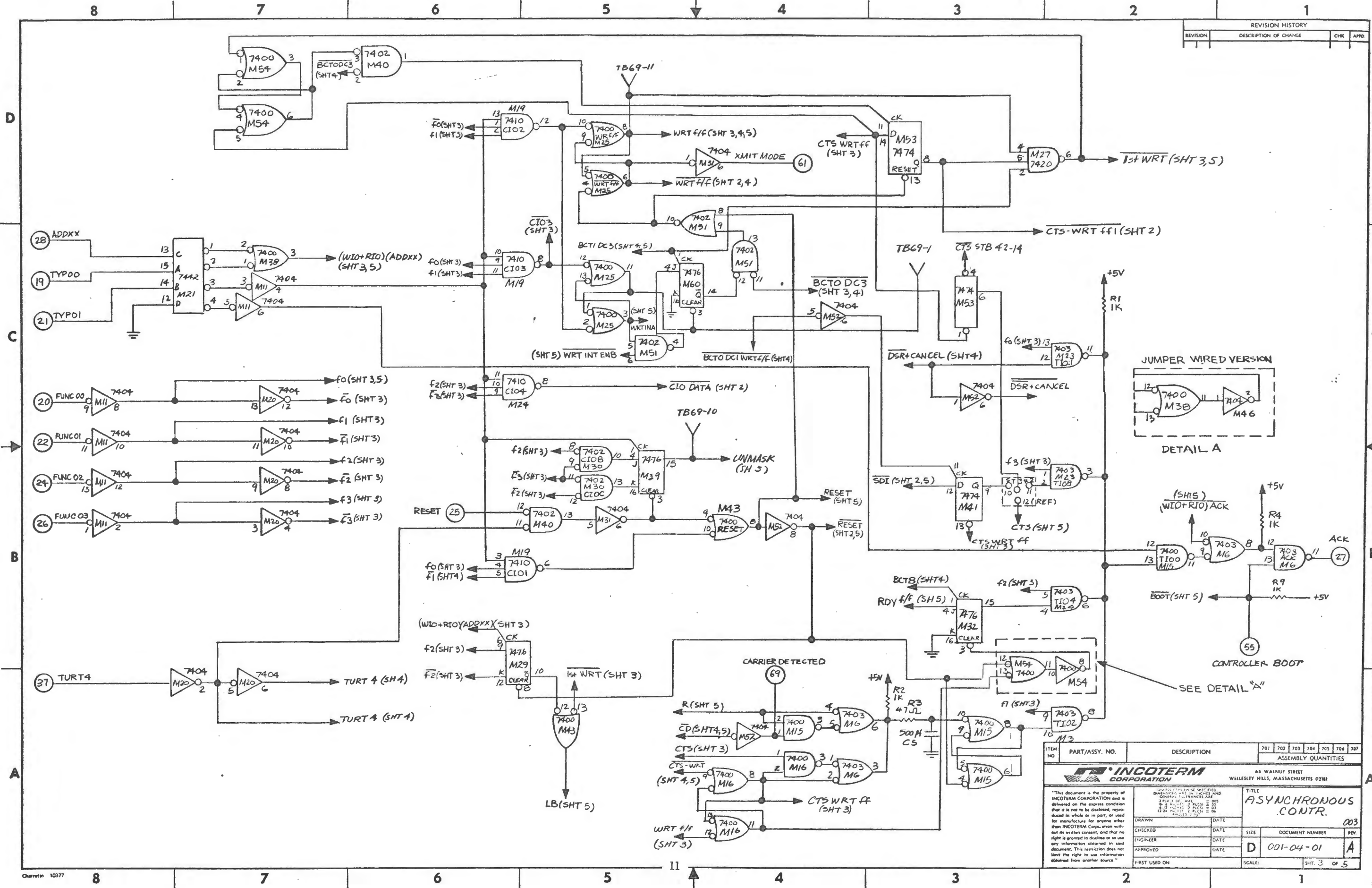
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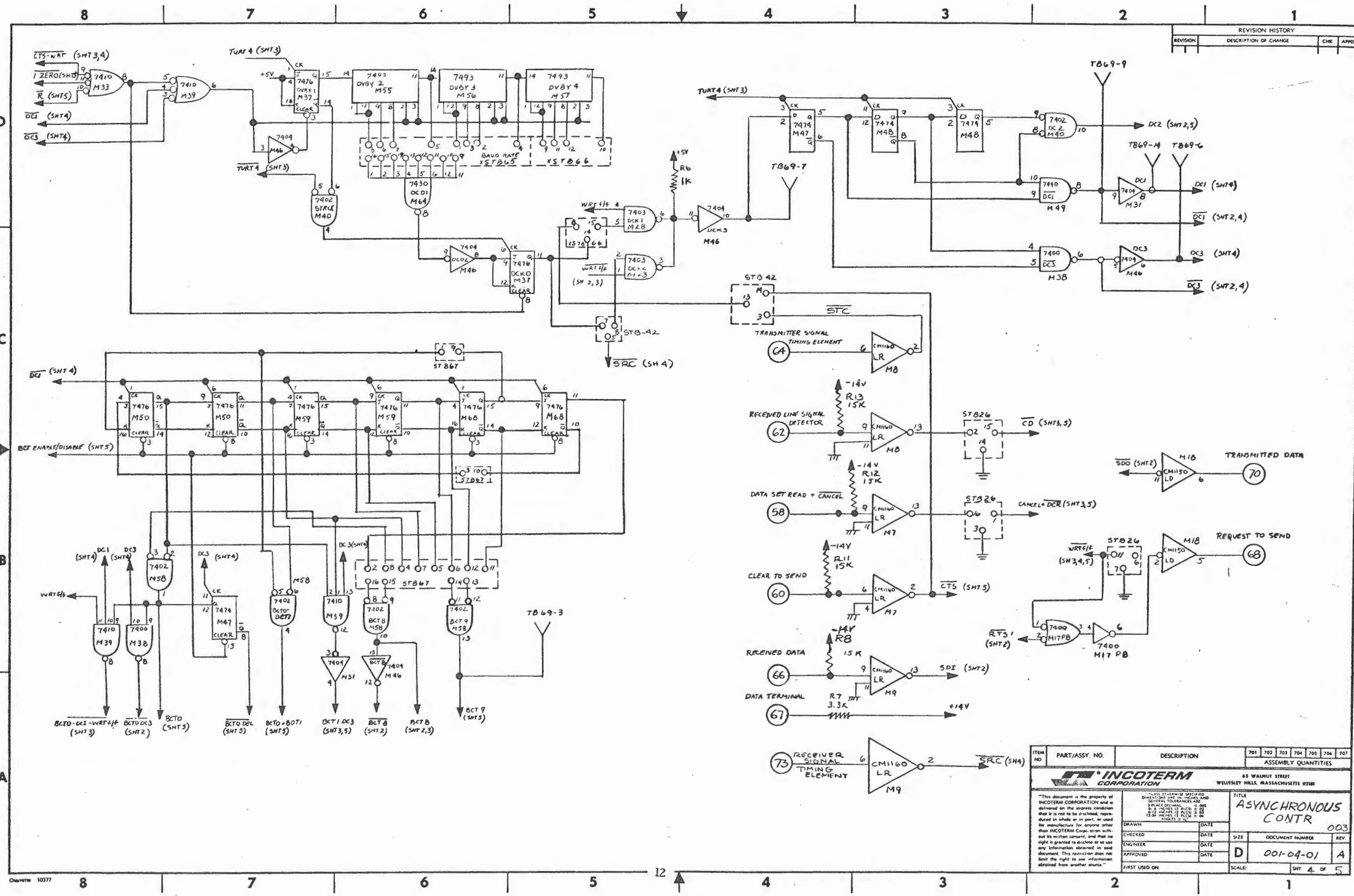
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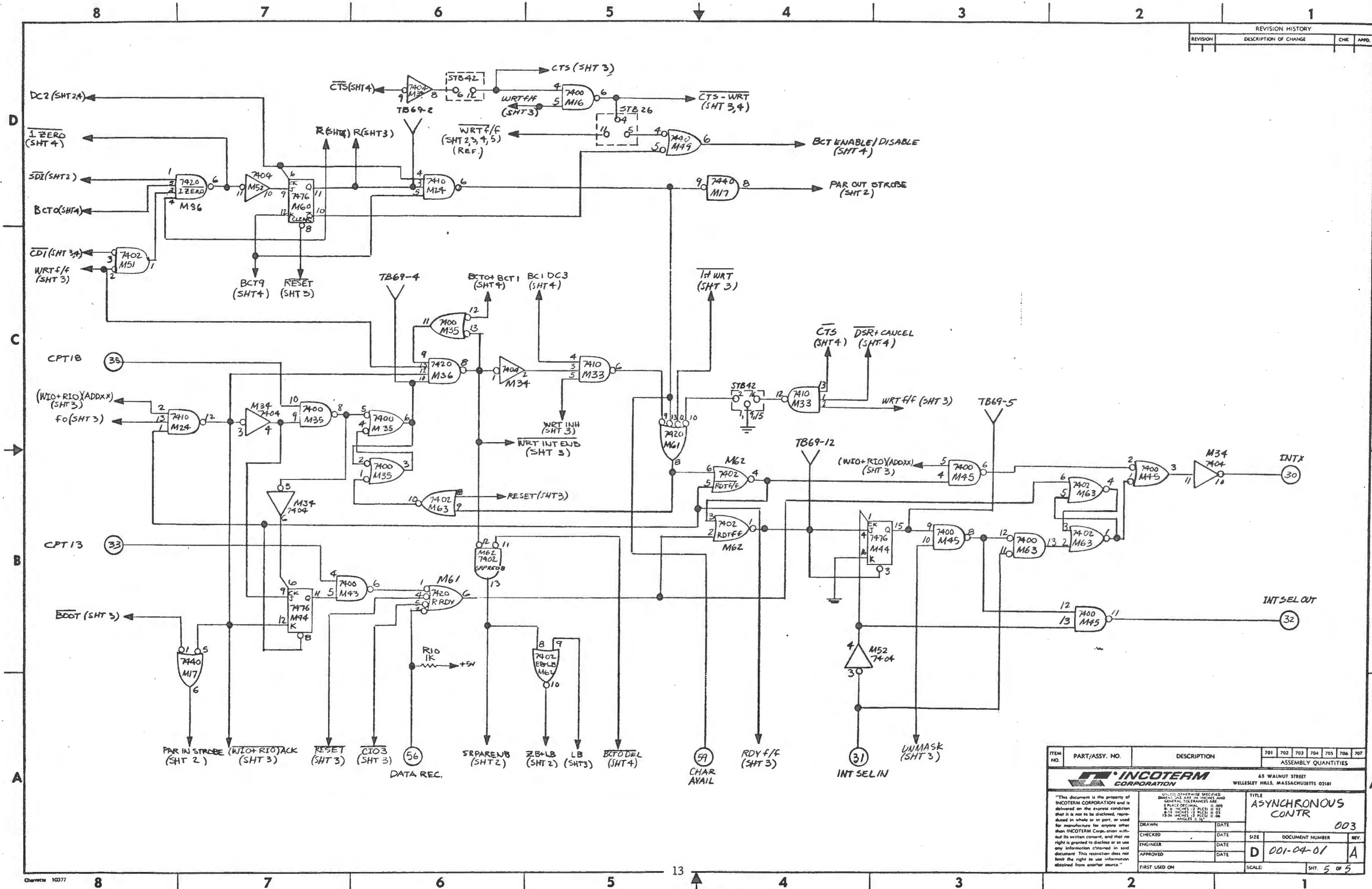
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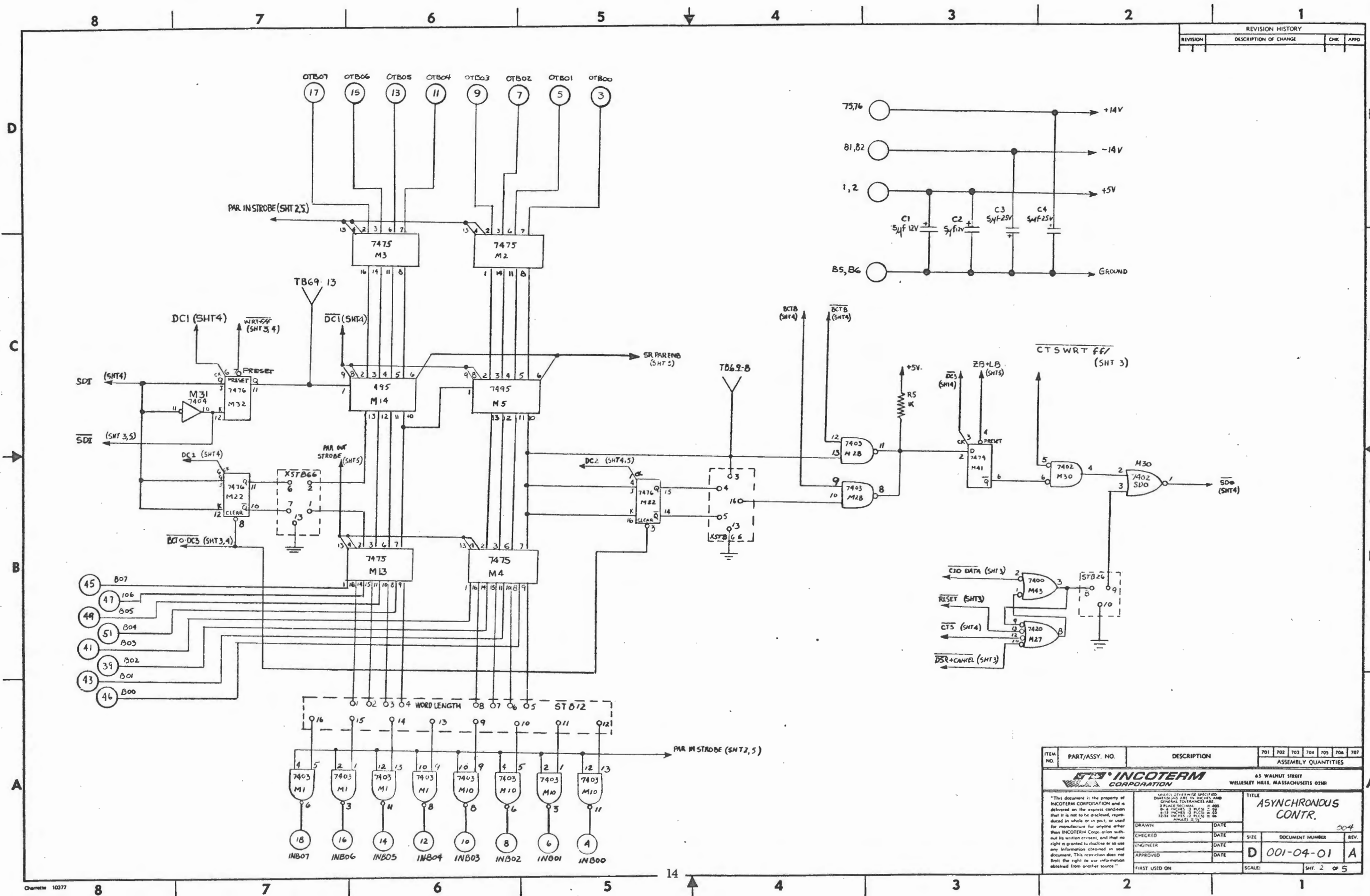
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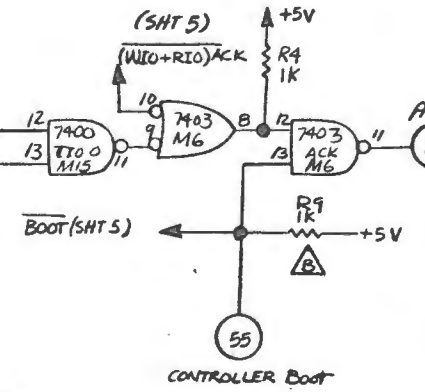
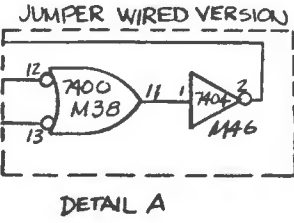
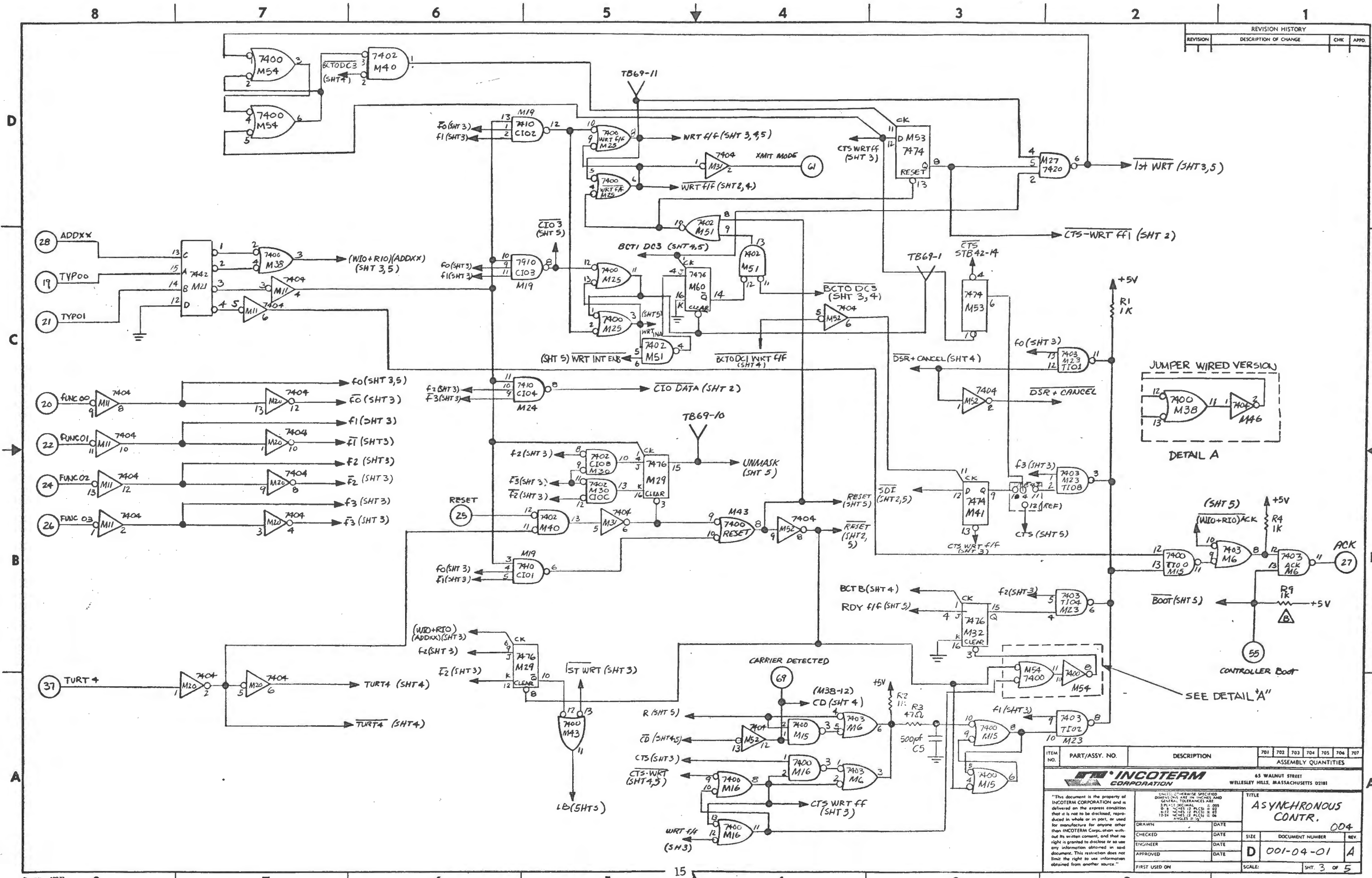
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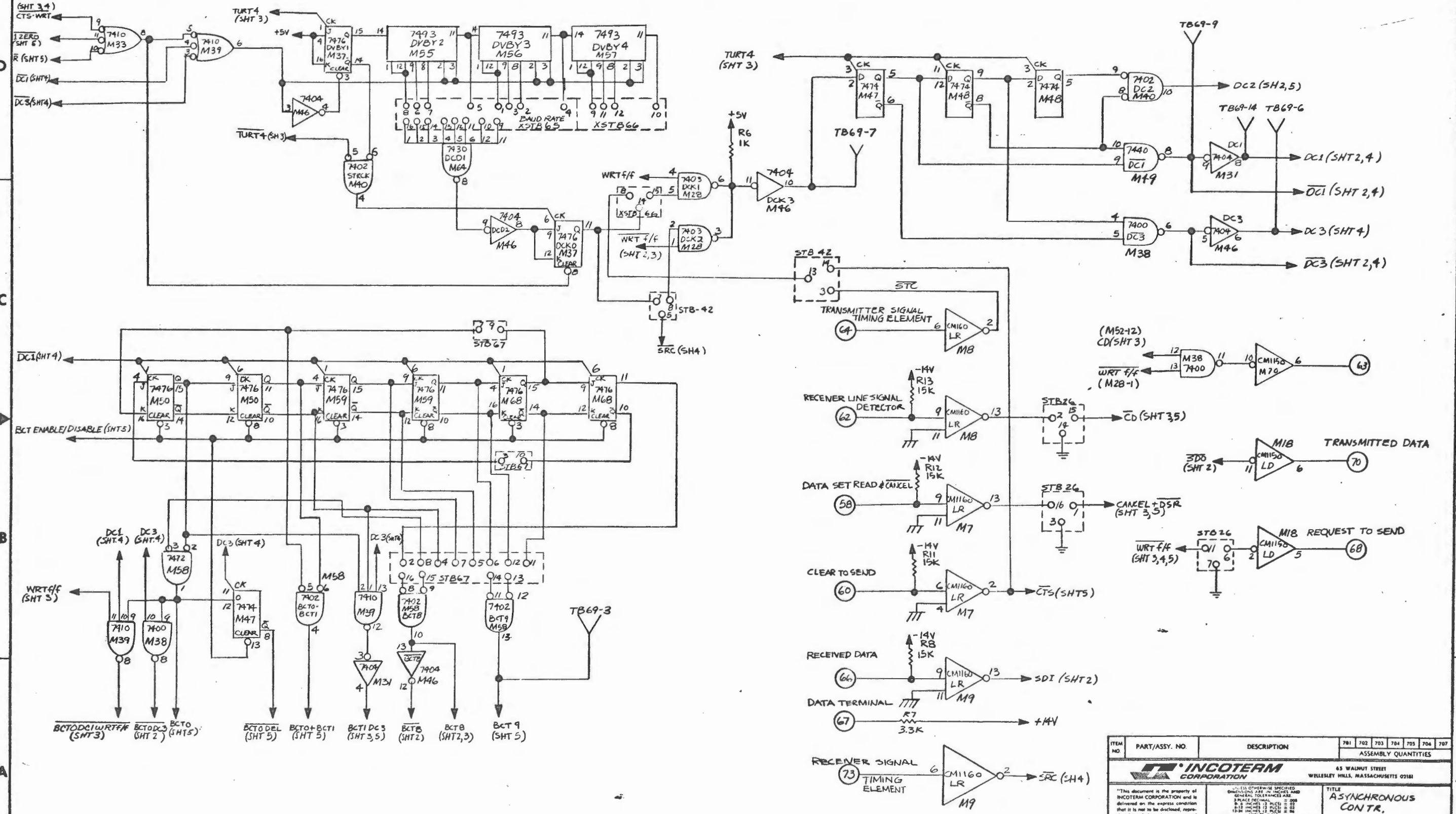
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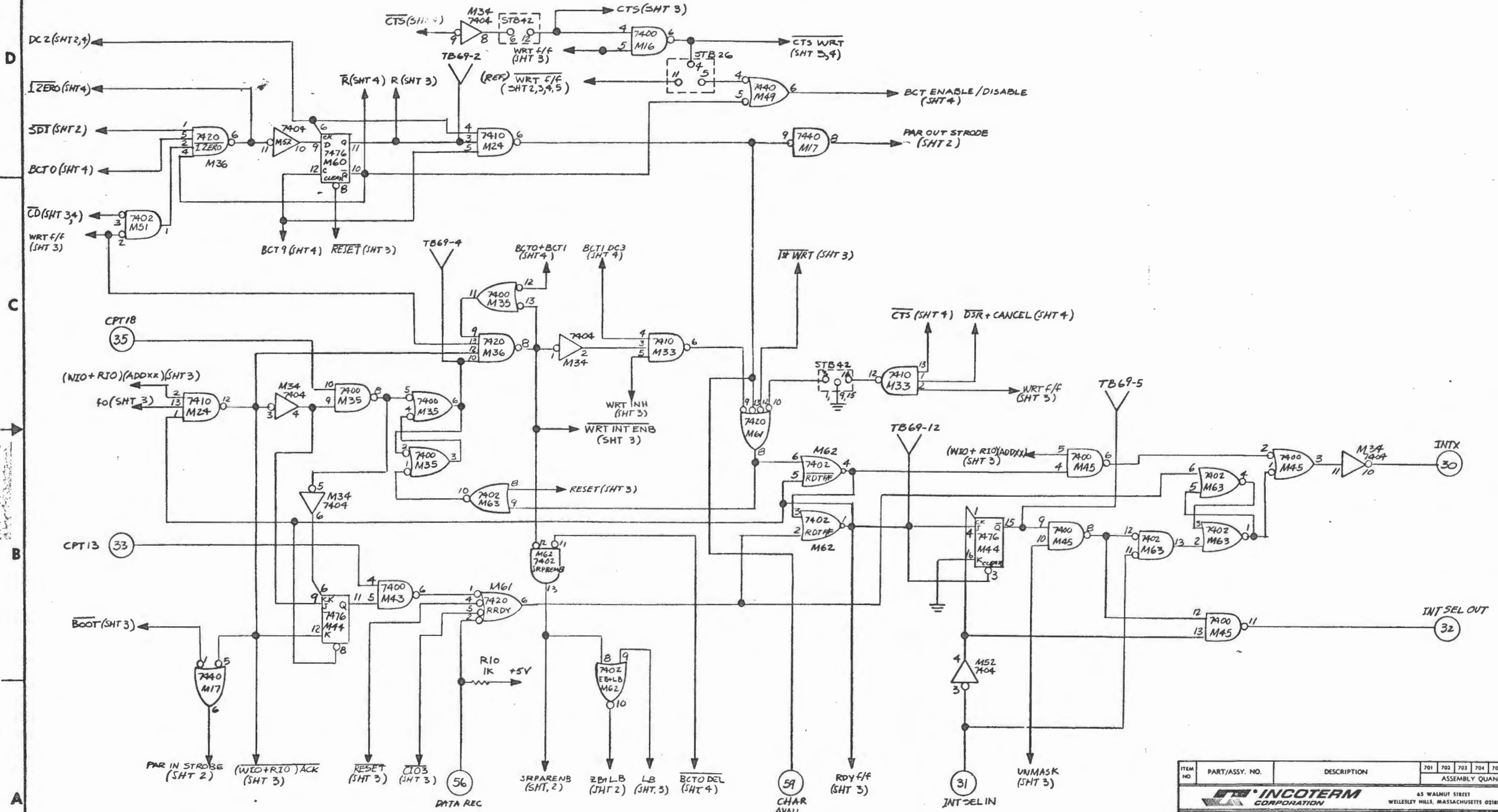
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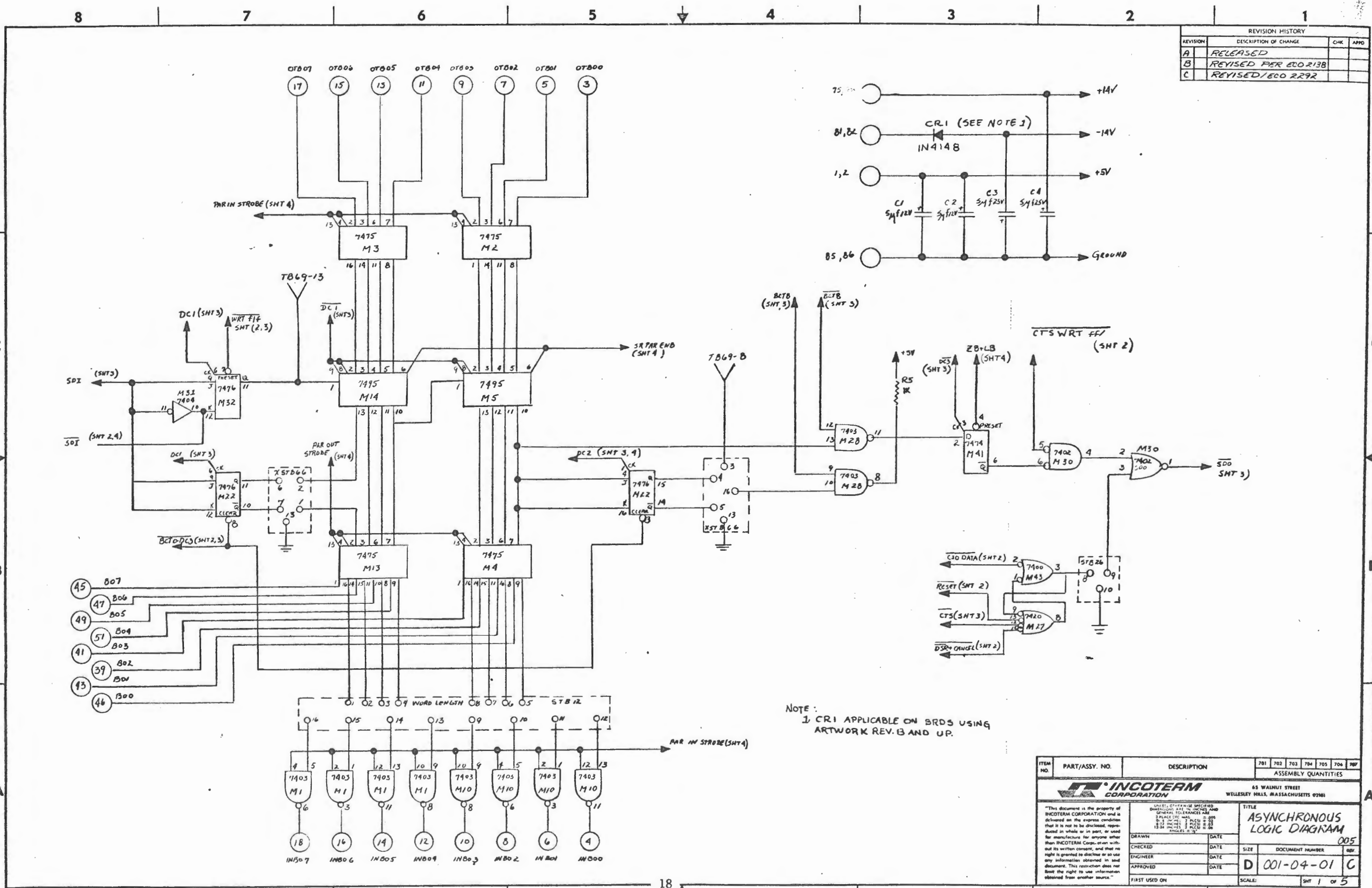
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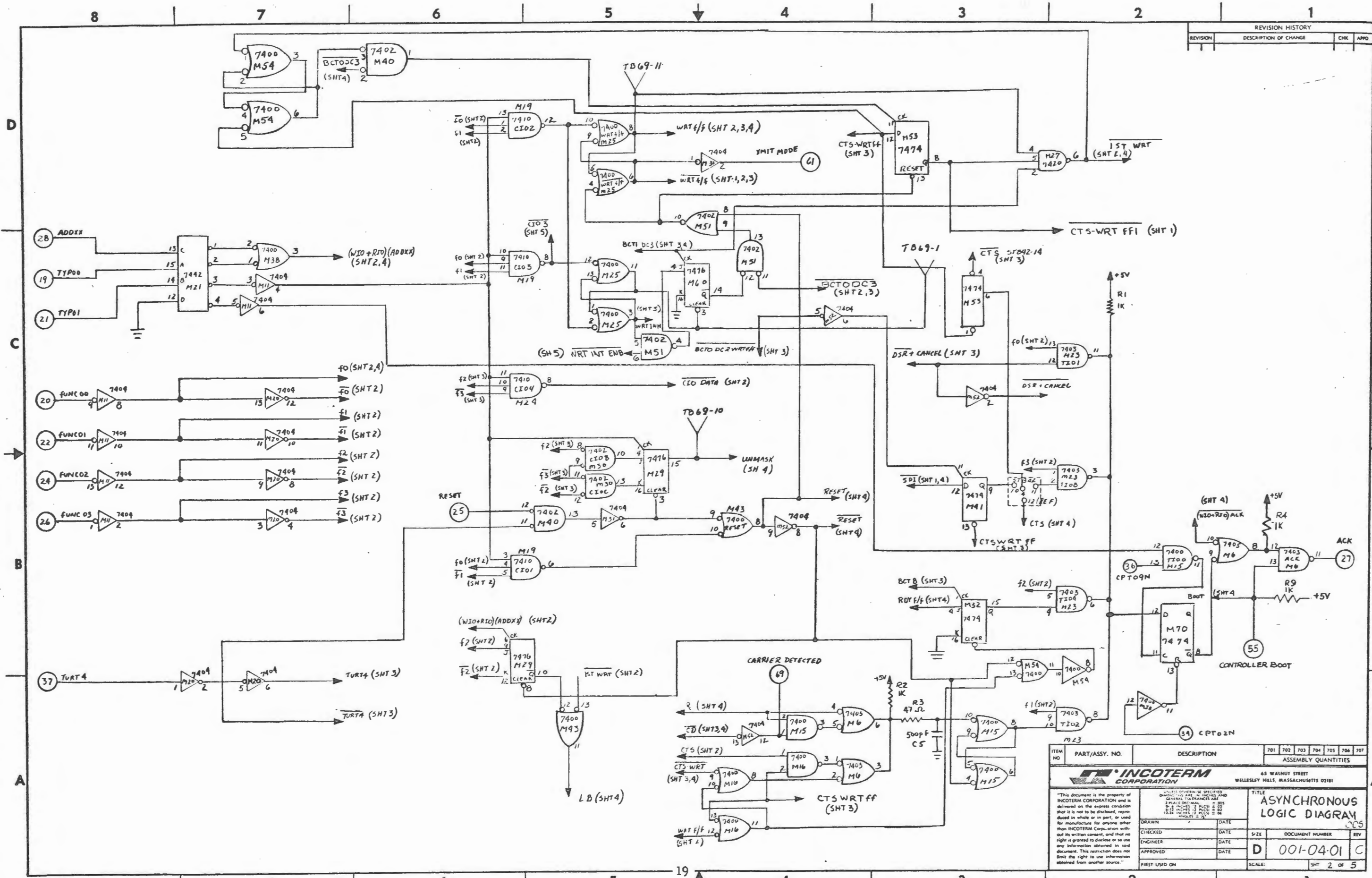
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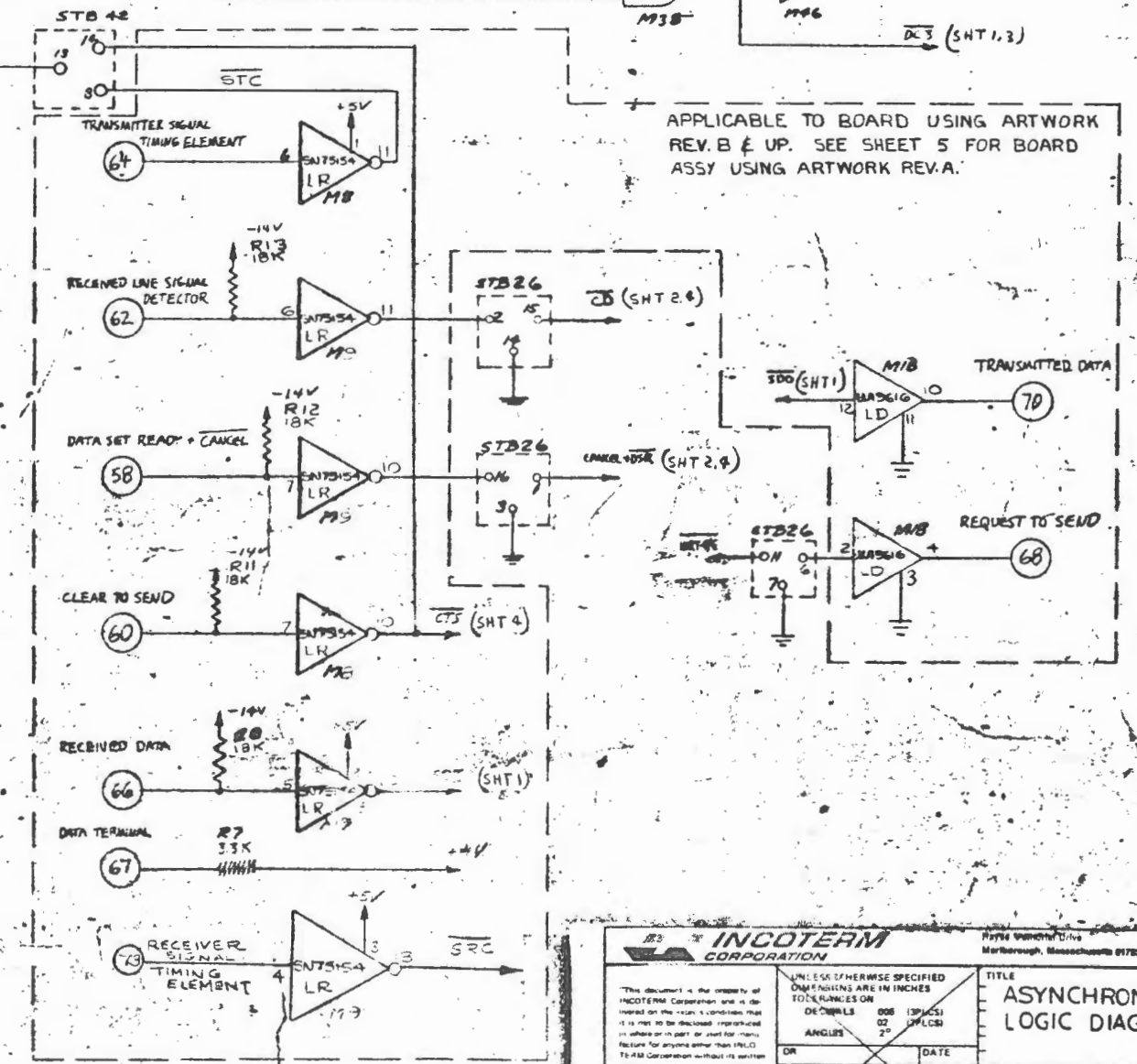
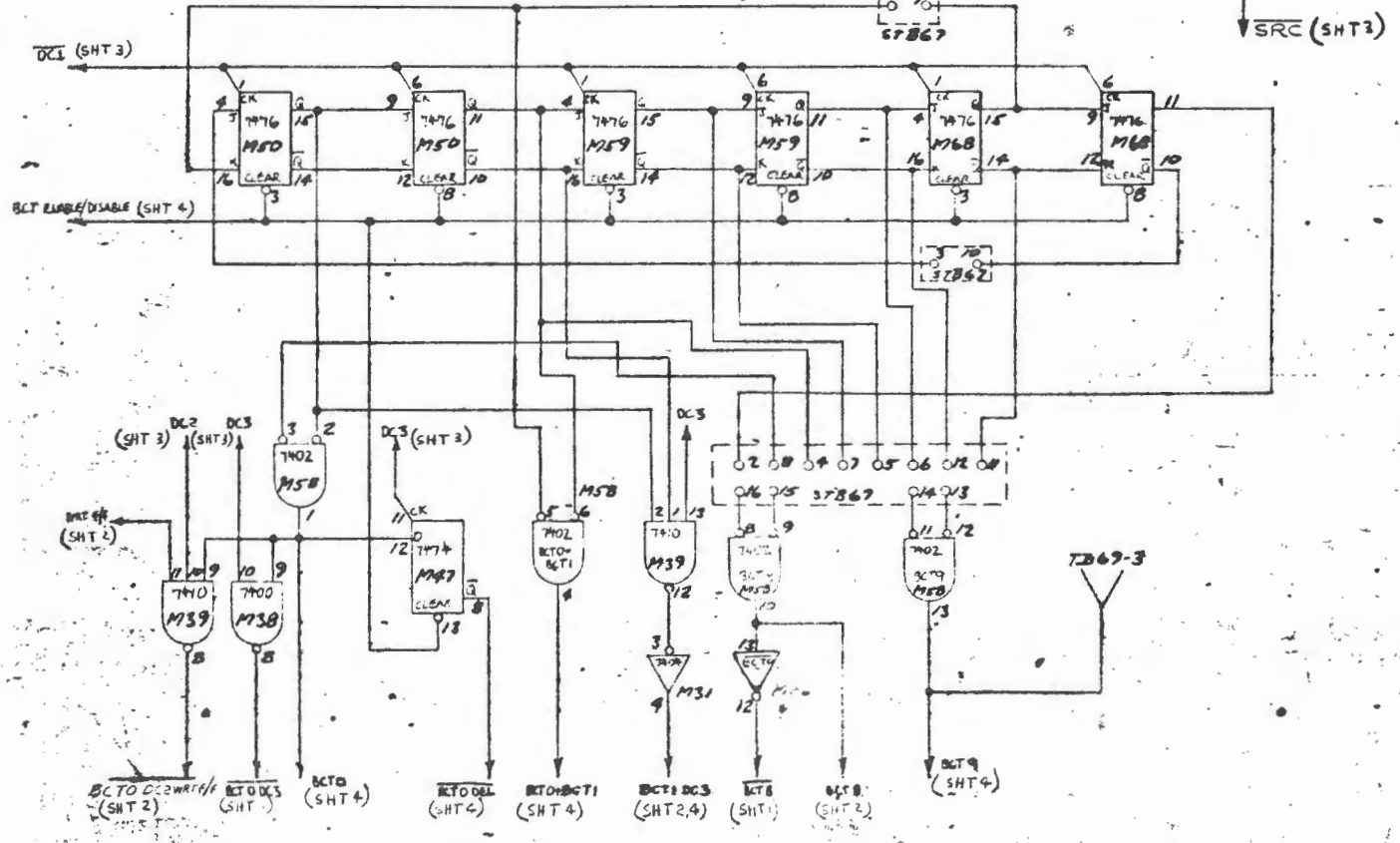
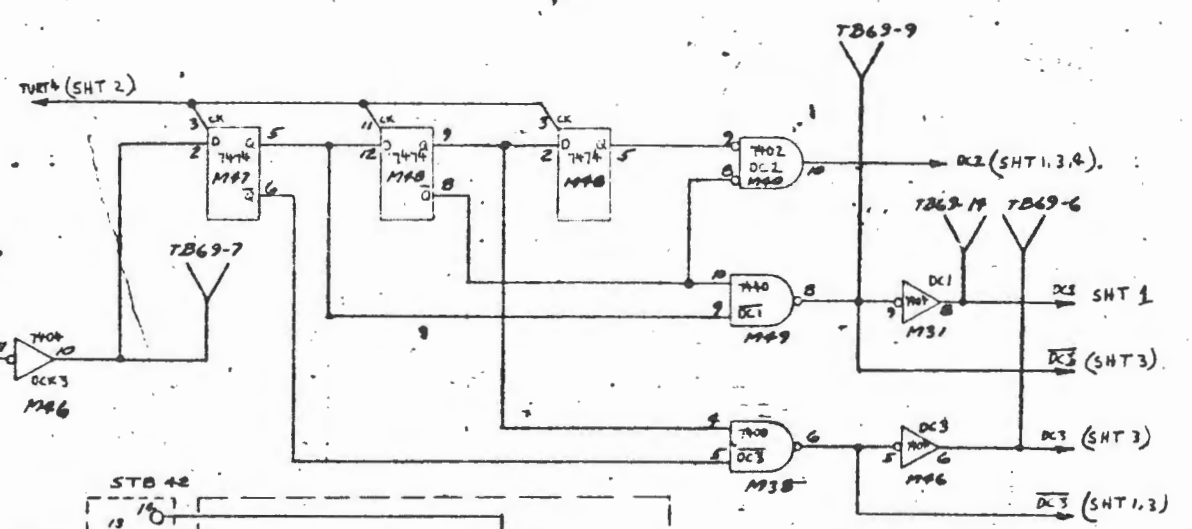
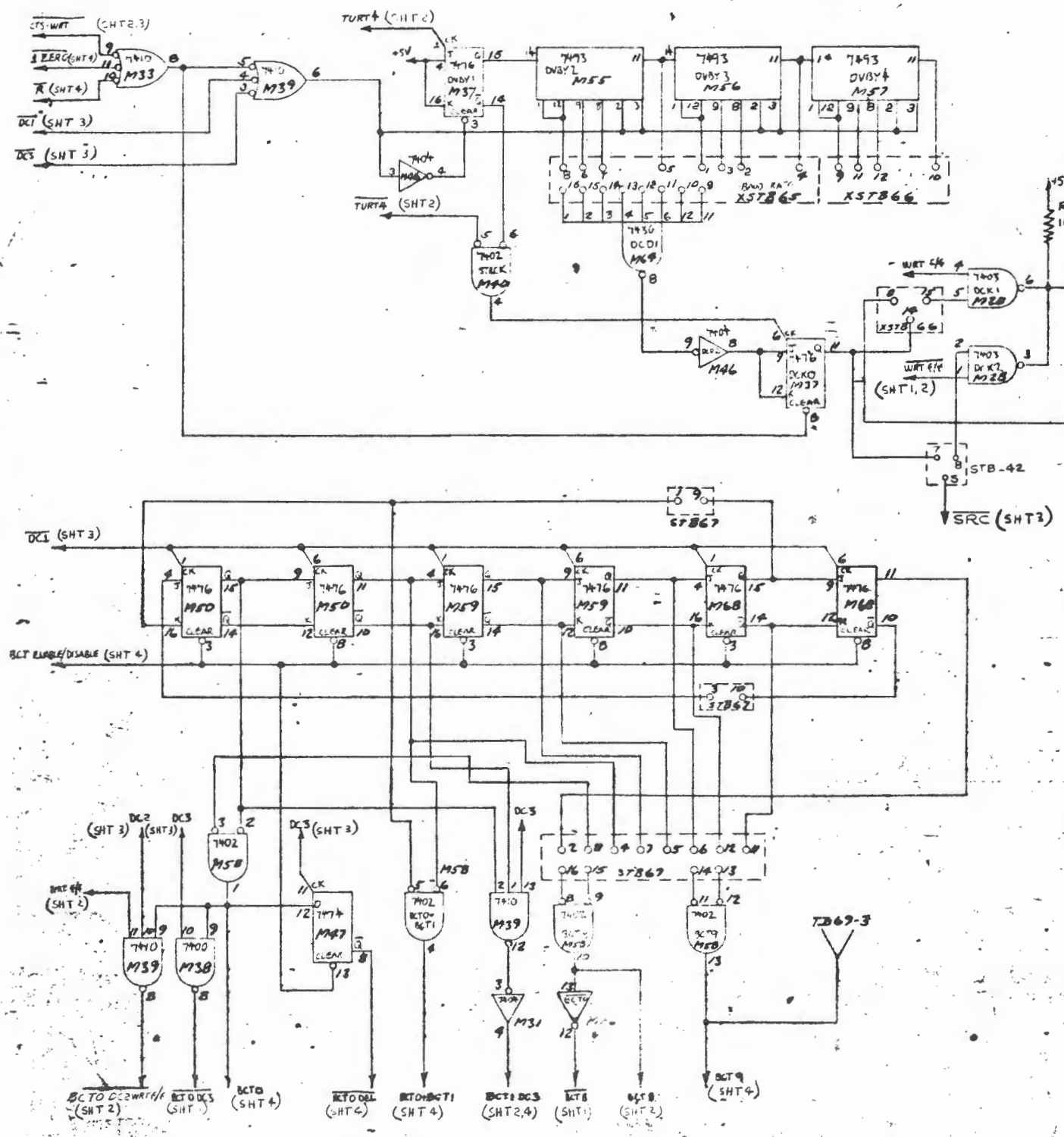


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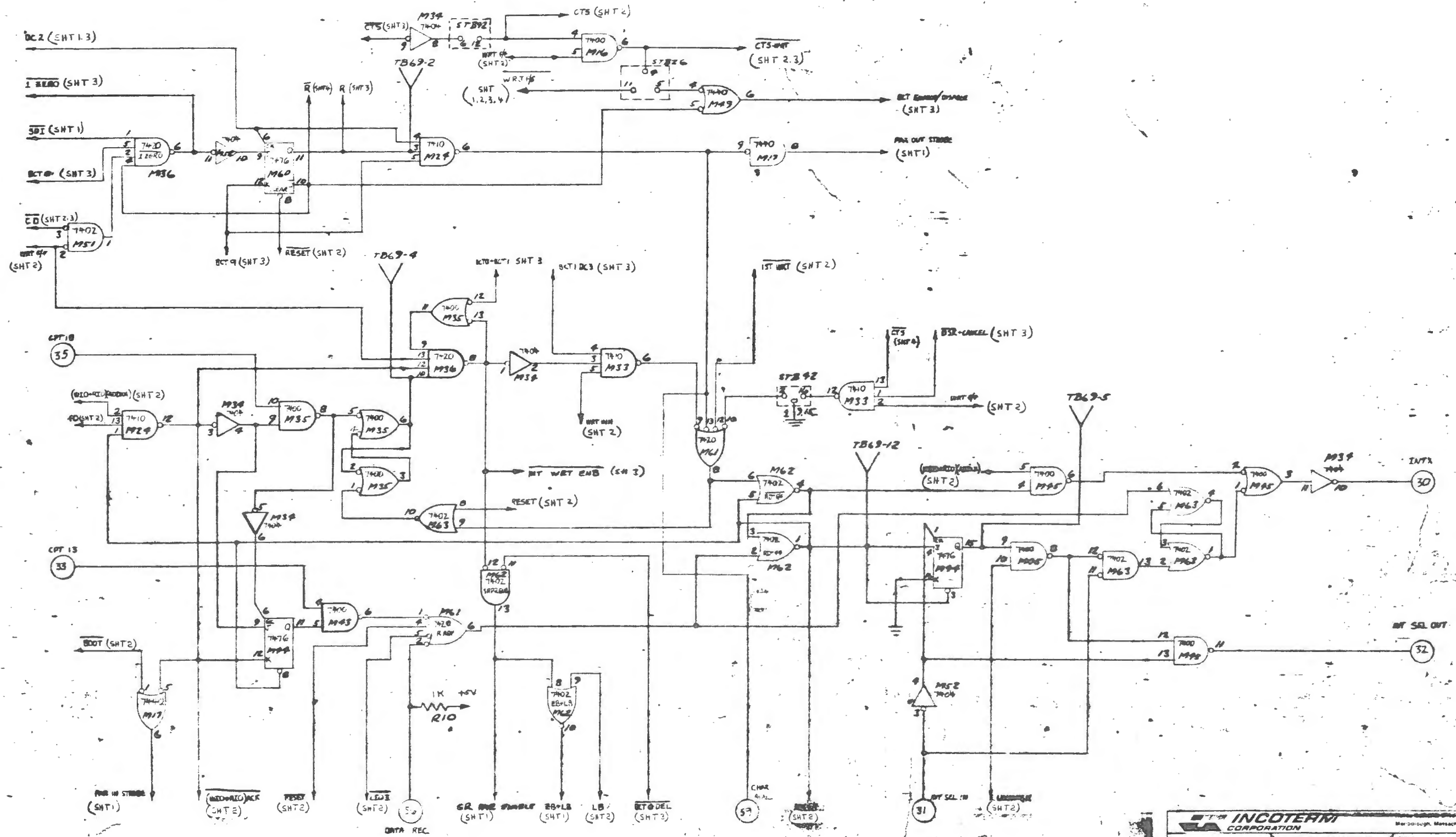


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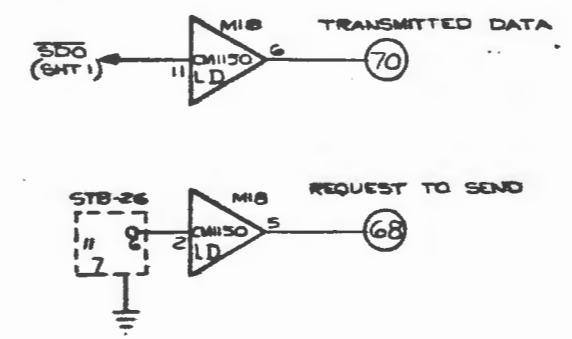
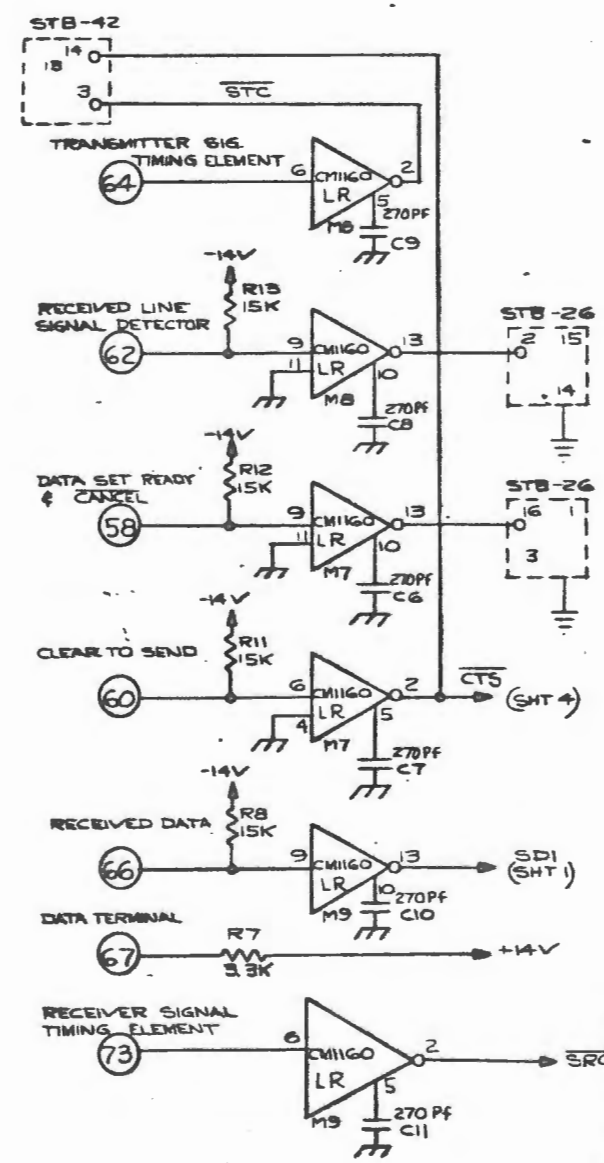
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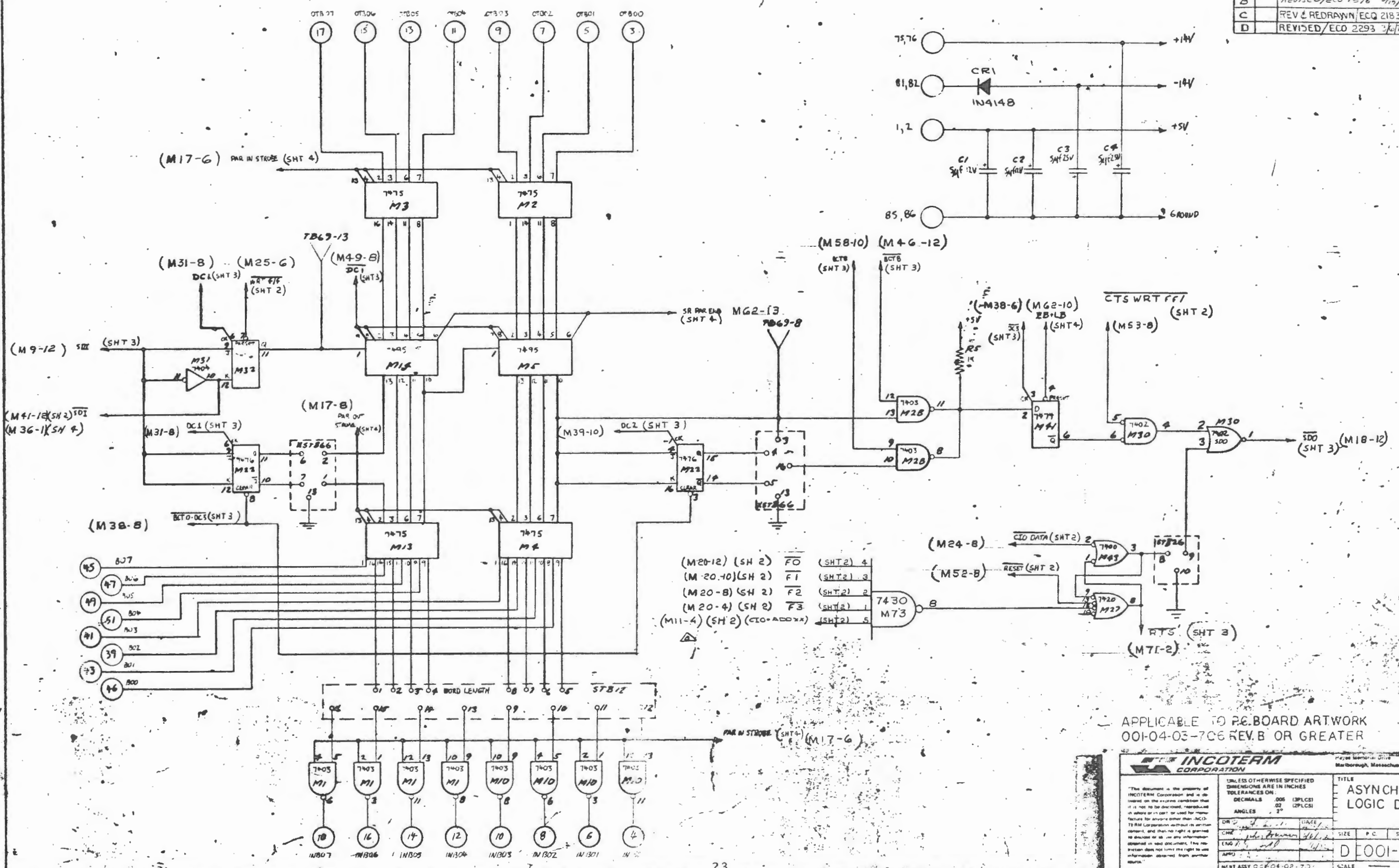
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REV	DESCRIPTION	DATE	BY	CHKD
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B	REVISED/ECO 1876	2/12/72	REV	RA.740
C	REV & REDRAWN/ECO 2183			
D	REVISED/ECO 2293	3/6/73		

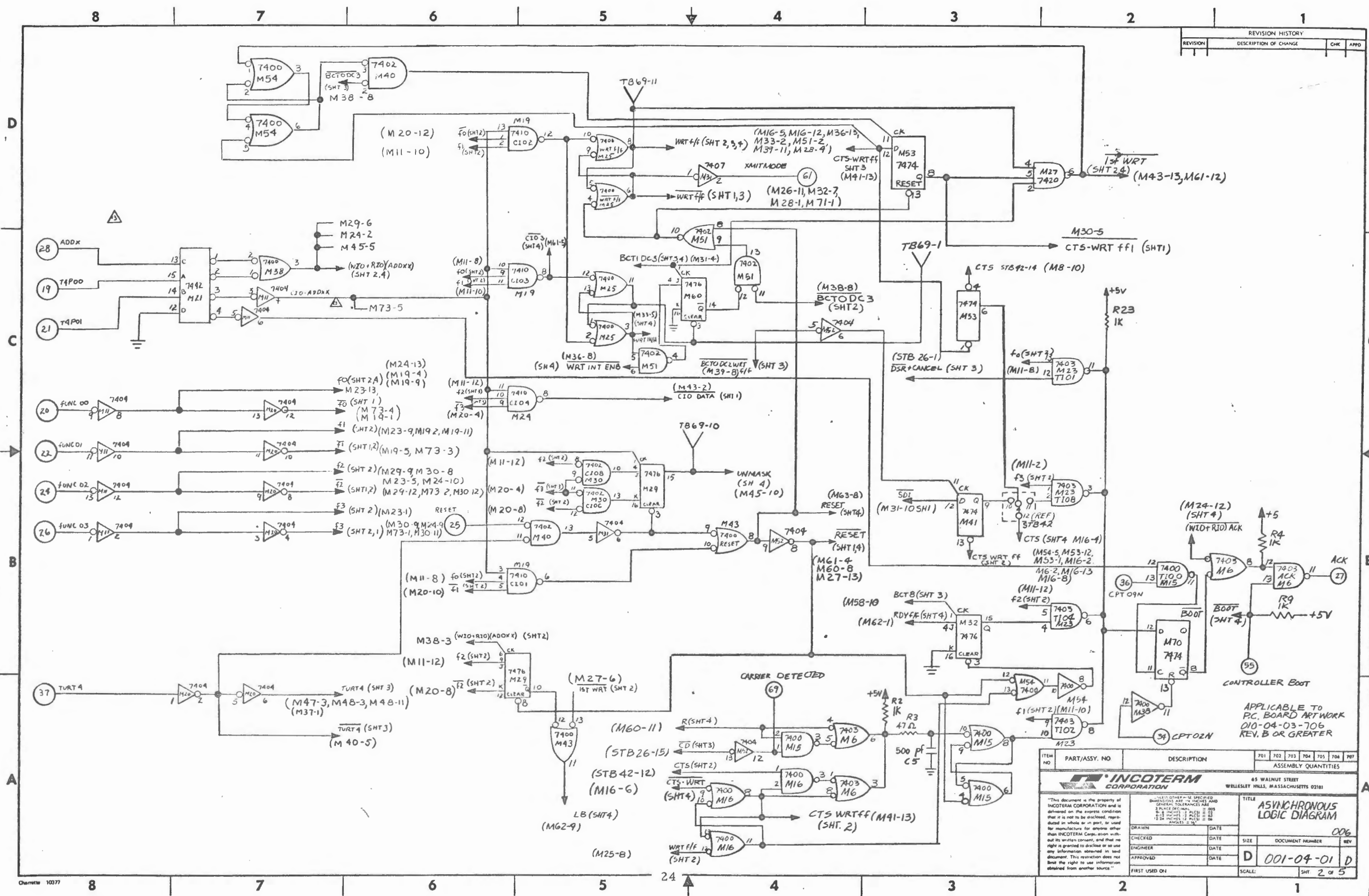


APPLICABLE TO P.C. BOARD ARTWORK
001-04-03-706 REV. B OR GREATER

INCOTERM CORPORATION <small>INCOTERM CORPORATION Marlborough, Massachusetts 01753</small>		TITLE ASYNCHRONOUS LOGIC DIAGRAM	
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DR. J. J. J. ENG. J. J. J. APP. J. J. J.	DATE 3/12/72 SIZE P.C. S.S. NO. REV D 001-04-01 D	006 SCALE SHT 1 OF 3	

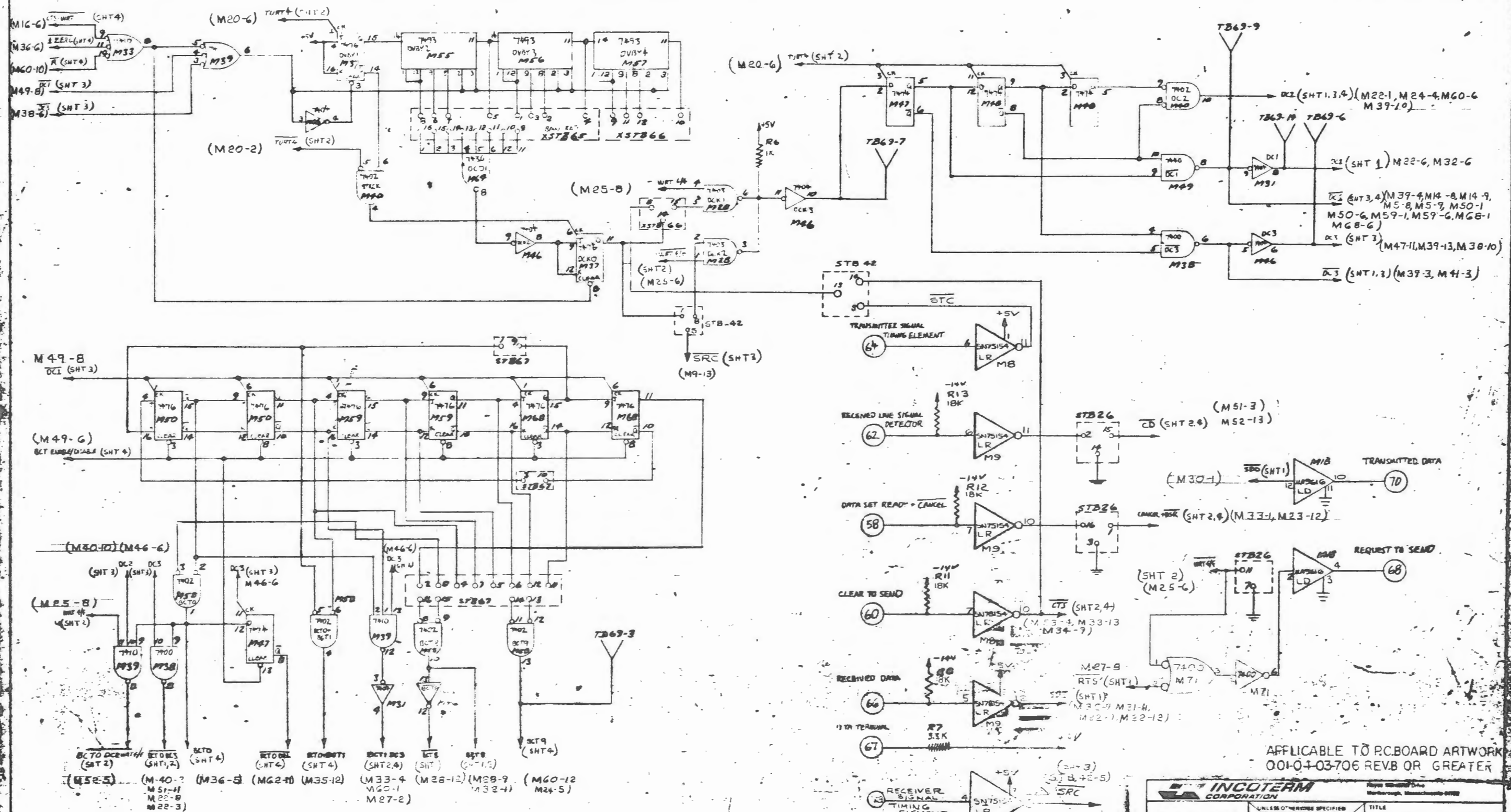
REVISION HISTORY

REVISION	DESCRIPTION OF CHANGE	CHK	APPD



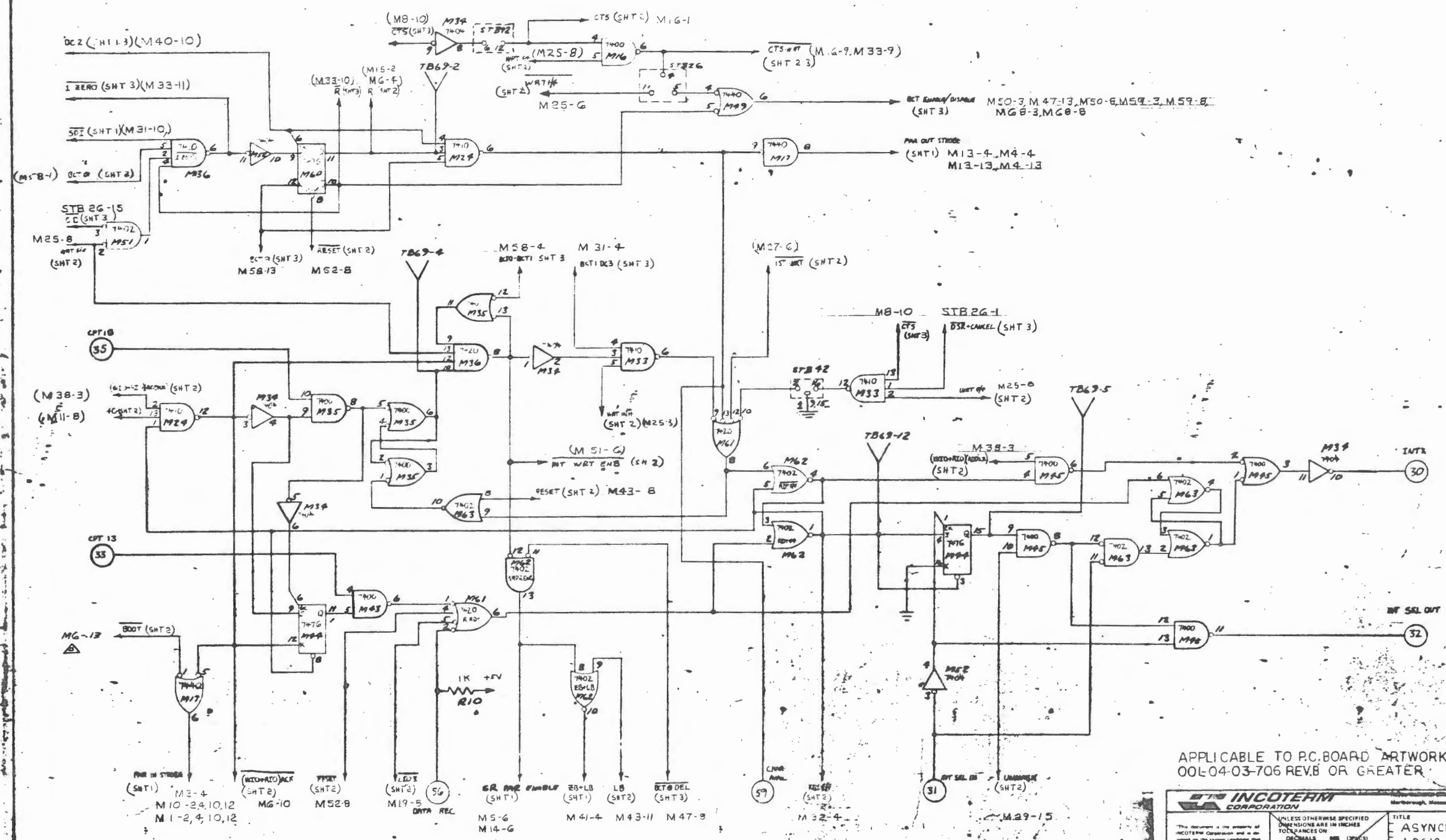
APPLICABLE TO
PC BOARD ARTWORK
010-04-03-706
REV. B OR GREATER

ITEM NO	PART/ASSY. NO	DESCRIPTION	701	702	703	704	705	706	707
INCOTERM CORPORATION 45 WALNUT STREET WELLESLEY HILLS, MASSACHUSETTS 02181									
ASSEMBLY QUANTITIES									
TITLE ASYNCHRONOUS LOGIC DIAGRAM									
006									
DRAWN	DATE	SIZE	DOCUMENT NUMBER						
CHECKED	DATE								
ENGINEER	DATE								
APPROVED	DATE								
FIRST USED ON									
SCALE:			SHT 2 OF 5						



APPLICABLE TO P.C. BOARD ARTWORK
001-04-03-706 REV.B OR GREATER

INCOTERM CORPORATION		TITLE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TO THIRDS OF AN INCH		ASYNCHRONOUS LOGIC DIAGRAM	
BR	DATE	SIZE	P.C. S.L. NO. REV
CHG		D	001-04-01 D
APP		SCALE	SHT 3 OF 5

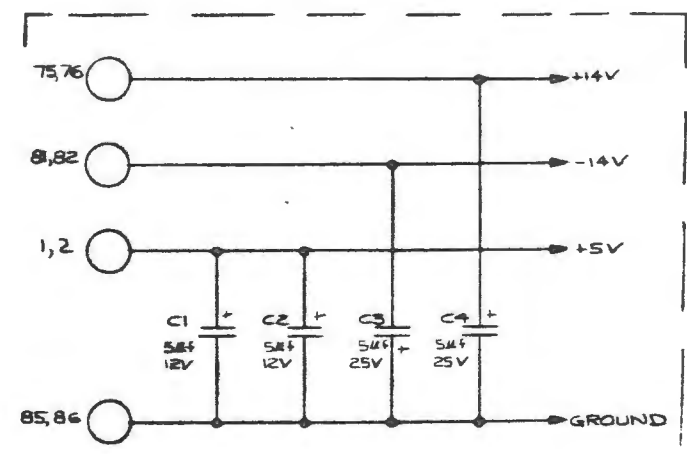


APPLICABLE TO P.C. BOARD ARTWORK
001-04-03-706 REV.B OR GREATER

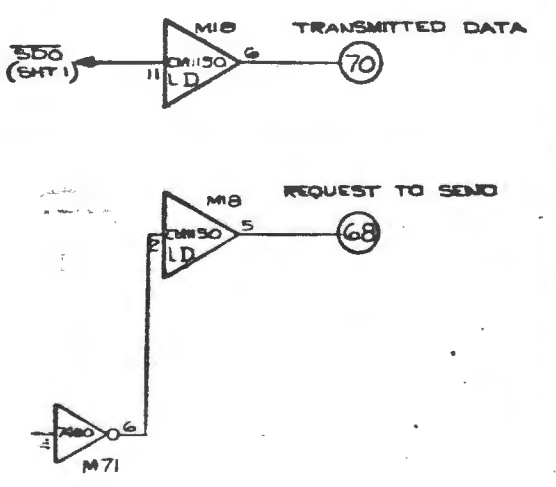
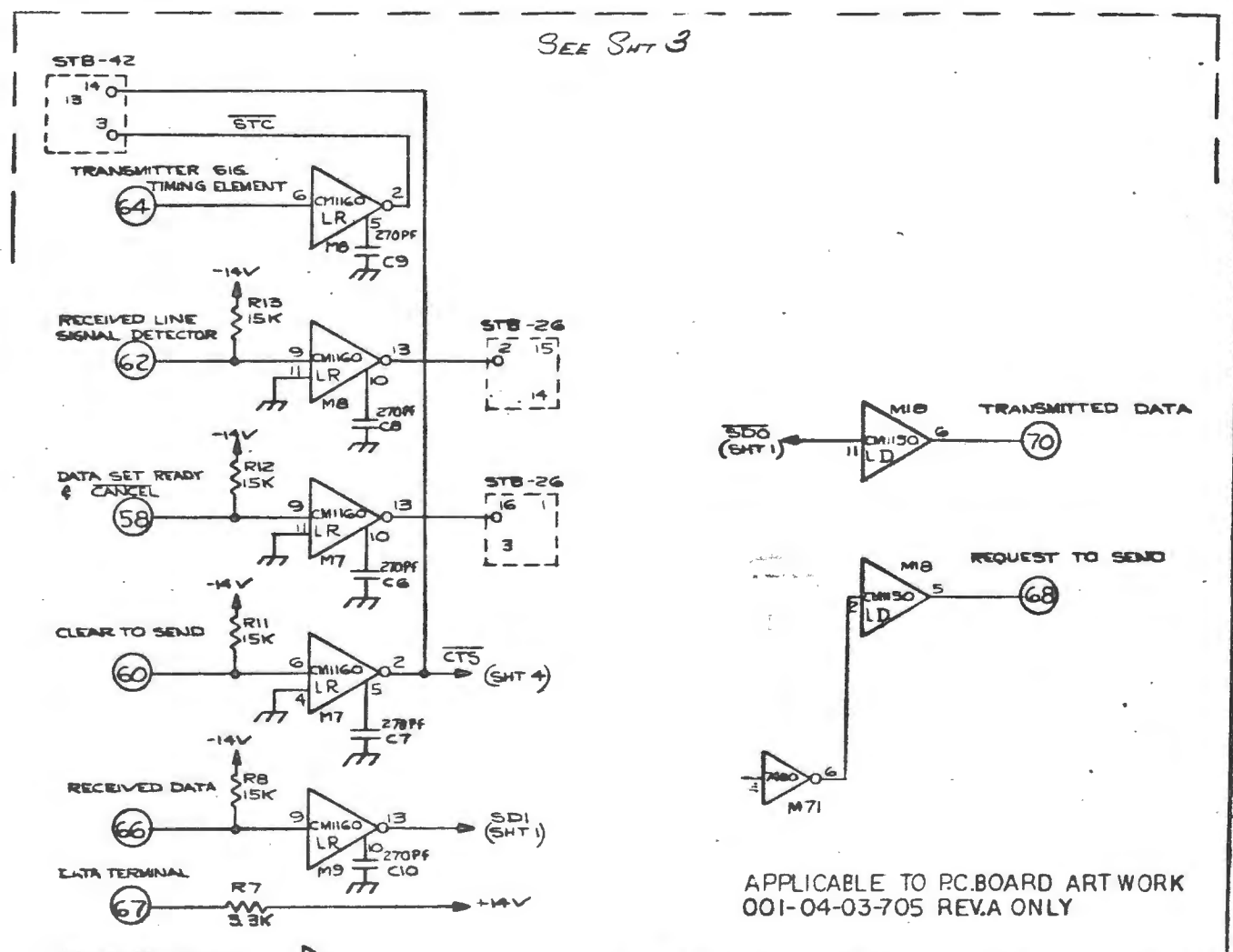
<p>INCOTERM CORPORATION Hartford, Massachusetts 01720</p>		<p>TITLE ASYNCHRONOUS LOGIC DIAGRAM</p>	
<p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS .015 (.39%) ANGLES 2°</p>		<p>006</p>	
DR	DATE	SIZE	P.C. S.S. NO. REV
ENG		D	001-04-01 D
APP		SCALE	SHT 4 OF 5

REV	DESCRIPTION	CHK	APPD

SEE SHT 1

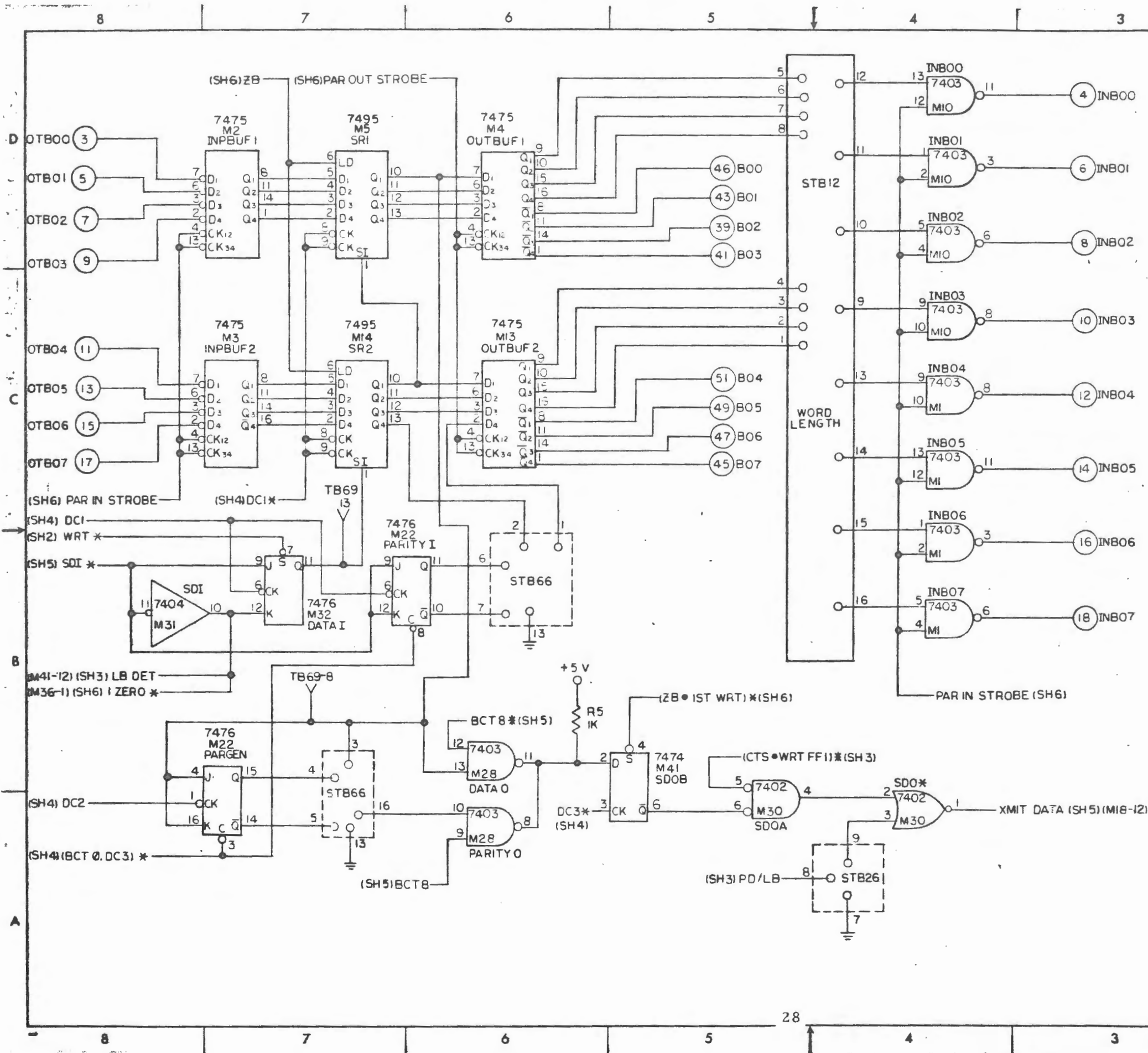


SEE SHT 3



APPLICABLE TO PC BOARD ART WORK
001-04-03-705 REV.A ONLY

INCOTERM CORPORATION		New England Sales Southworth, Massachusetts 01980	
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DR	DATE	SIZE	P.C. S.S. M.B. DEV
CHK		D	001-04-01 D
ENG		SCALE	SHT 5 OF 5
APPD			
NEXT ASSY			



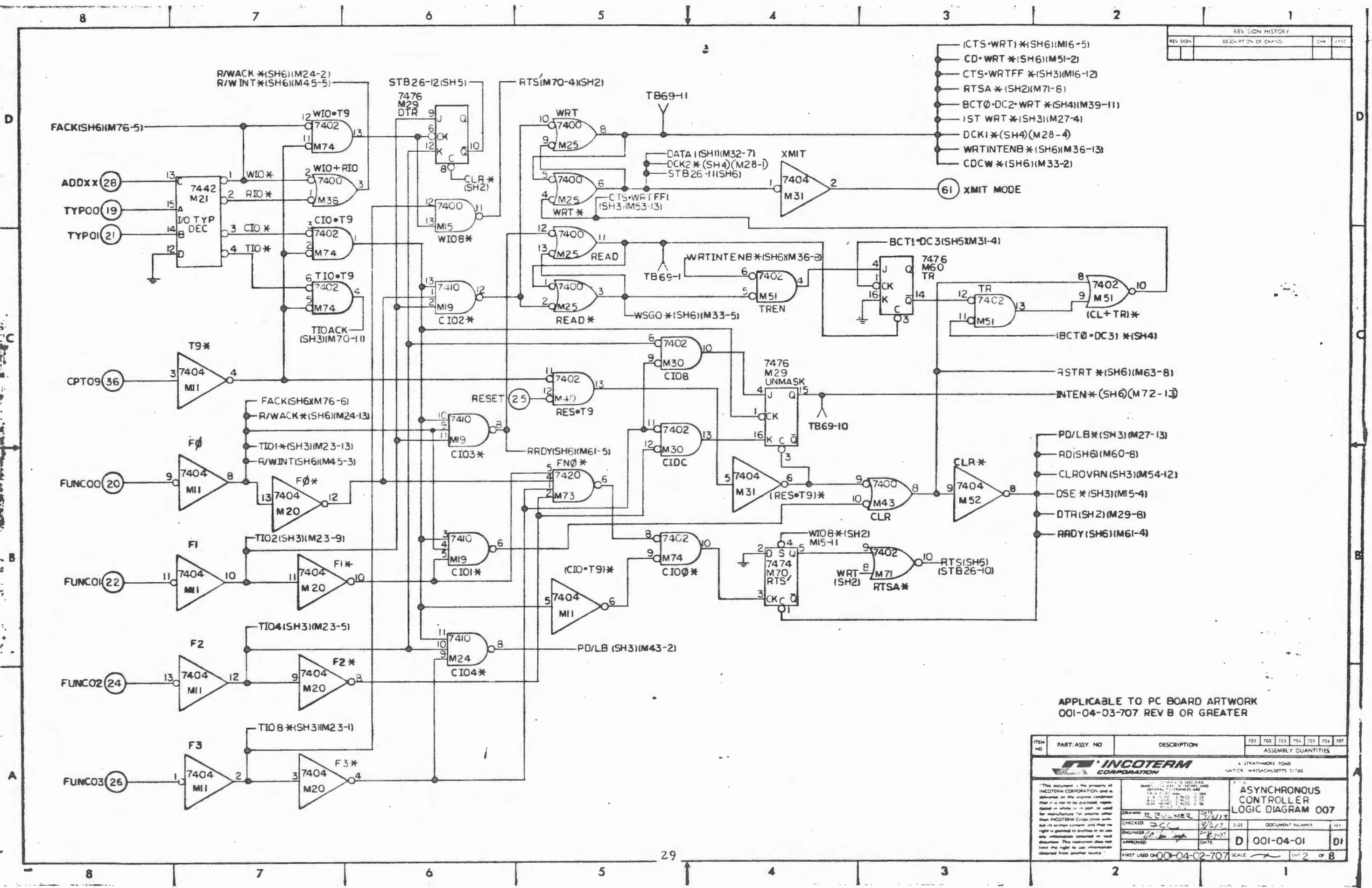
REVISION HISTORY			
REVISION	DESCRIPTION OF CHG	DATE	APP
DI	REV & RECD:AWN/ECO 2548	7	7

JUMPER OPTIONS		
FROM	TO	DESCRIPTION
1	16	8 DATA BITS
2	15	
3	14	
4	13	
5	12	
6	11	
7	10	
8	9	
1	15	7 DATA BITS
2	14	
3	13	
4	12	
1	14	6 DATA BITS
2	13	
3	12	
4	11	
1	13	5 DATA BITS
2	12	
3	11	
4	10	
9	9	7 NO PRIORITY DATA OR LINE BREAK FOR PRIORITY DATA (MUX) OR FOR LINE BREAK (NON-MUX)
8	8	
1	13	13 NO PARITY CHECK 2 TRANSPARENT PARITY 7 EVEN PARITY CHECK 6 ODD PARITY CHECK
2	12	
7	11	
6	10	
16	13	13 TRANSPARENT PARITY 3 EVEN PARITY GEN 4 ODD PARITY GEN - PARITY ALWAYS '1'
16	12	
16	11	
16	10	

APPLICABLE TO PC BOARD ARTWORK
001-04-03-707 REV B OR GREATER

ITEM NO	PART/ASSY NO	DESCRIPTION	701	702	703	704	705	706	707
INCOTERM CORPORATION 8 STRATHMORE ROAD NATICK, MASSACHUSETTS 01790									
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DRAWN: R. BILLMER		DATE: 02/17/77		SCALE: 1/8"		SHEET: 1		OF: 8	
CHECKED: FCC		DATE: 3/4/77		SIZE: 11x17		DOCUMENT NO: 001-04-01		REV: DI	
ENGINEER: J. J. [Signature]		DATE: 2/2/77		SCALE: 1/8"		SHEET: 1		OF: 8	
APPROVED: [Signature]		DATE: 2/2/77		SCALE: 1/8"		SHEET: 1		OF: 8	
FIRST USED ON: 001-04-02-707									

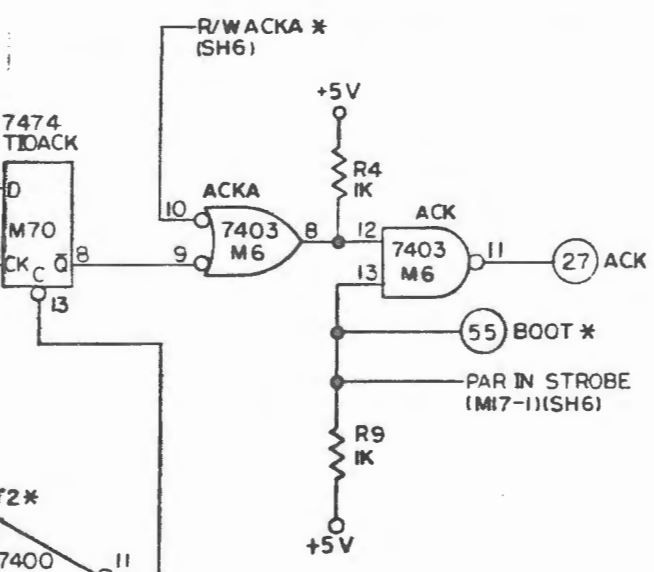
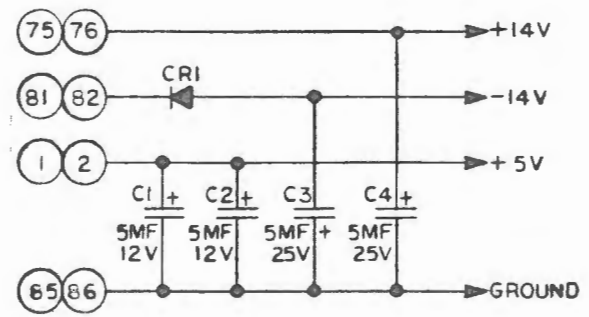
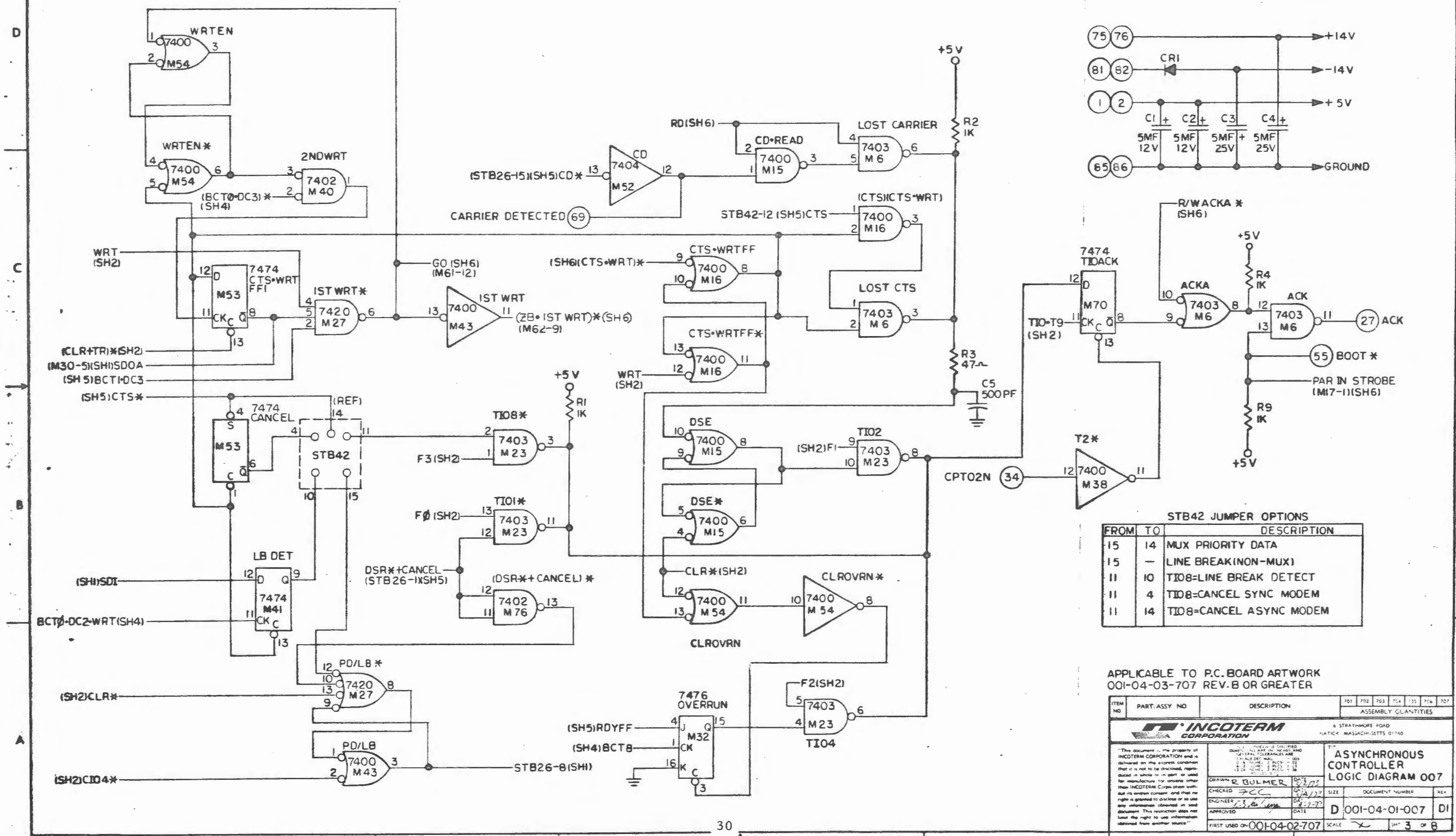
REVISION HISTORY			
REV. NO.	DESCRIPTION OF CHANG.	CHK.	DATE



APPLICABLE TO PC BOARD ARTWORK
001-04-03-707 REV B OR GREATER

ITEM NO.	PART/ASSY NO.	DESCRIPTION	ASSEMBLY QUANTITIES					
			701	702	703	704	705	706
			6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01740					
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DRAWN	R. BULMER	DATE	7/5/77					
CHECKED		DATE						
ENGINEER		DATE						
APPROVED		DATE						
FIRST USED ON 001-04-02-707			SCALE					

REVISION	DESCRIPTION OF CHANGE	CHK	APPD



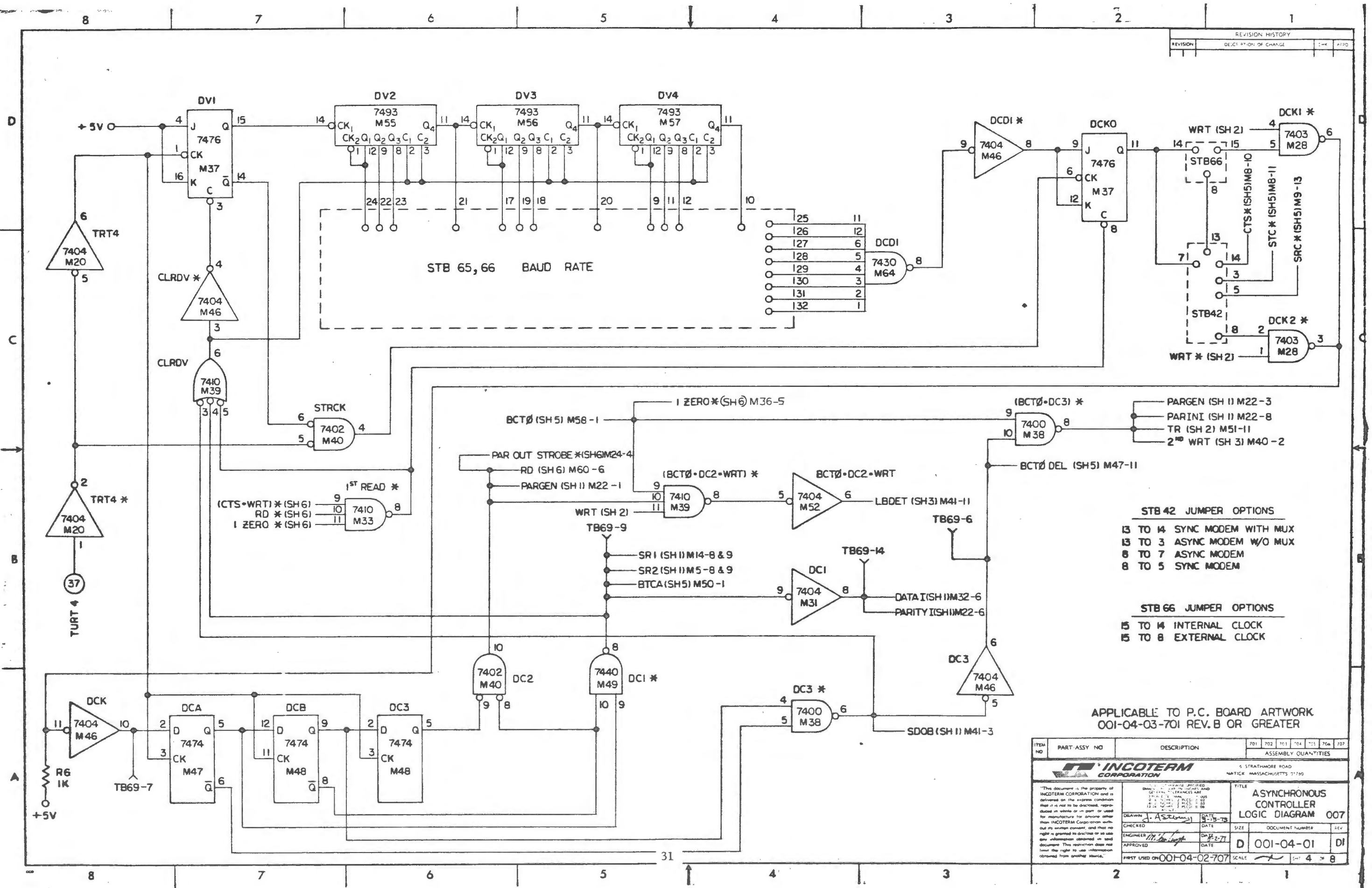
STB42 JUMPER OPTIONS

FROM	TO	DESCRIPTION
15	14	MUX PRIORITY DATA
15	-	LINE BREAK (NON-MUX)
11	10	TIO8=LINE BREAK DETECT
11	4	TIO8=CANCEL SYNC MODEM
11	14	TIO8=CANCEL ASYNC MODEM

APPLICABLE TO P.C. BOARD ARTWORK
001-04-03-707 REV. B OR GREATER

ITEM NO	PART ASSY NO	DESCRIPTION	ASSEMBLY QUANTITIES						
			701	702	703	704	705	706	707
			6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01740						
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FIRST USED ON: 001-04-02-707									

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	DATE	BY

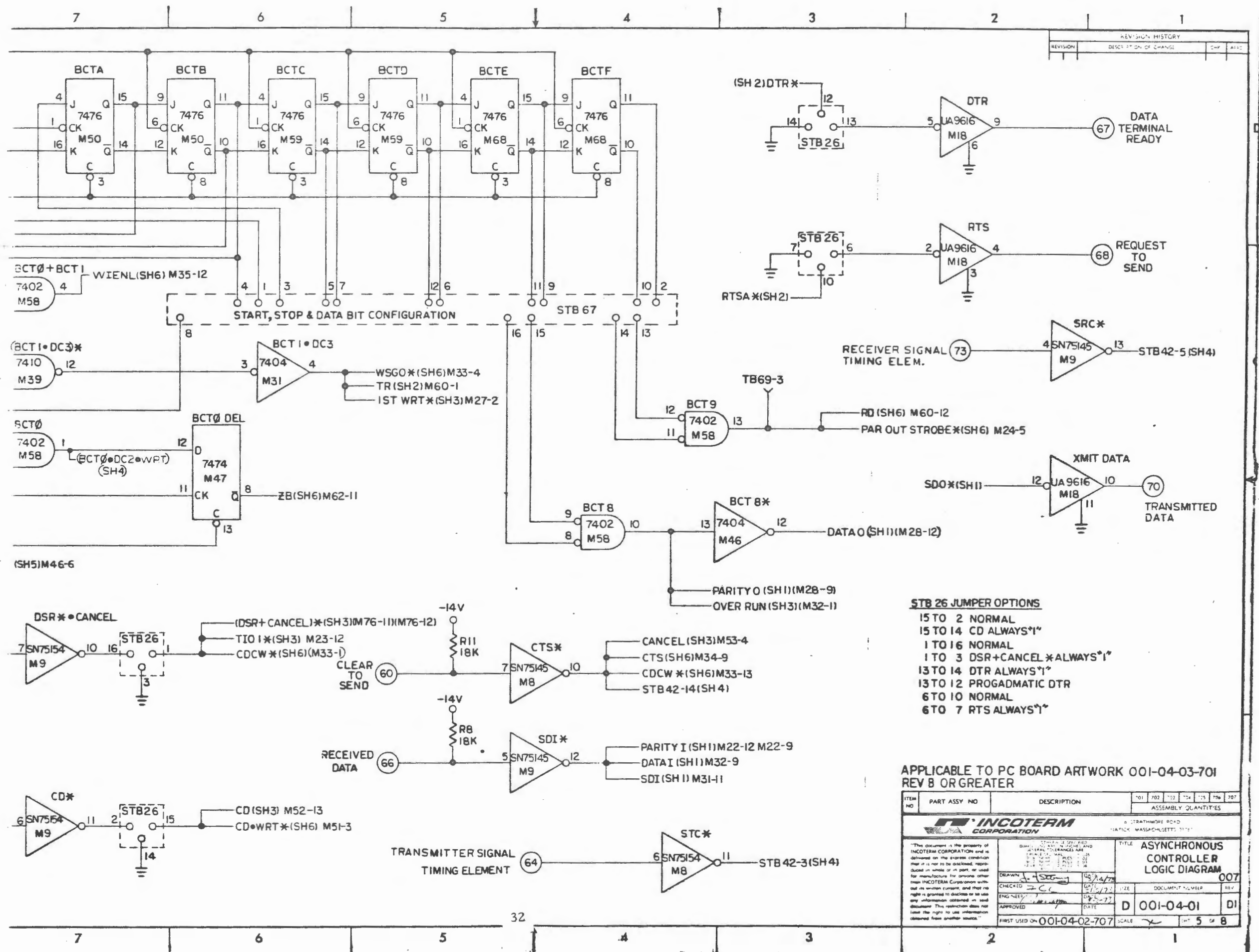


- STB 42 JUMPER OPTIONS**
- 13 TO 14 SYNC MODEM WITH MUX
 - 13 TO 3 ASYNC MODEM W/O MUX
 - 8 TO 7 ASYNC MODEM
 - 8 TO 5 SYNC MODEM

- STB 66 JUMPER OPTIONS**
- 15 TO 14 INTERNAL CLOCK
 - 15 TO 8 EXTERNAL CLOCK

APPLICABLE TO P.C. BOARD ARTWORK
001-04-03-701 REV. B OR GREATER

ITEM NO	PART-ASSY NO	DESCRIPTION	701	702	703	704	705	706	707	
INCOTERM CORPORATION										
5 STRATHMORE ROAD, NATICK, MASSACHUSETTS 01790										
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DESIGNED BY J. A. ...			CHECKED BY ...		DATE ...		DATE ...		REV DI	
FIRST USED ON 001-04-02-707										



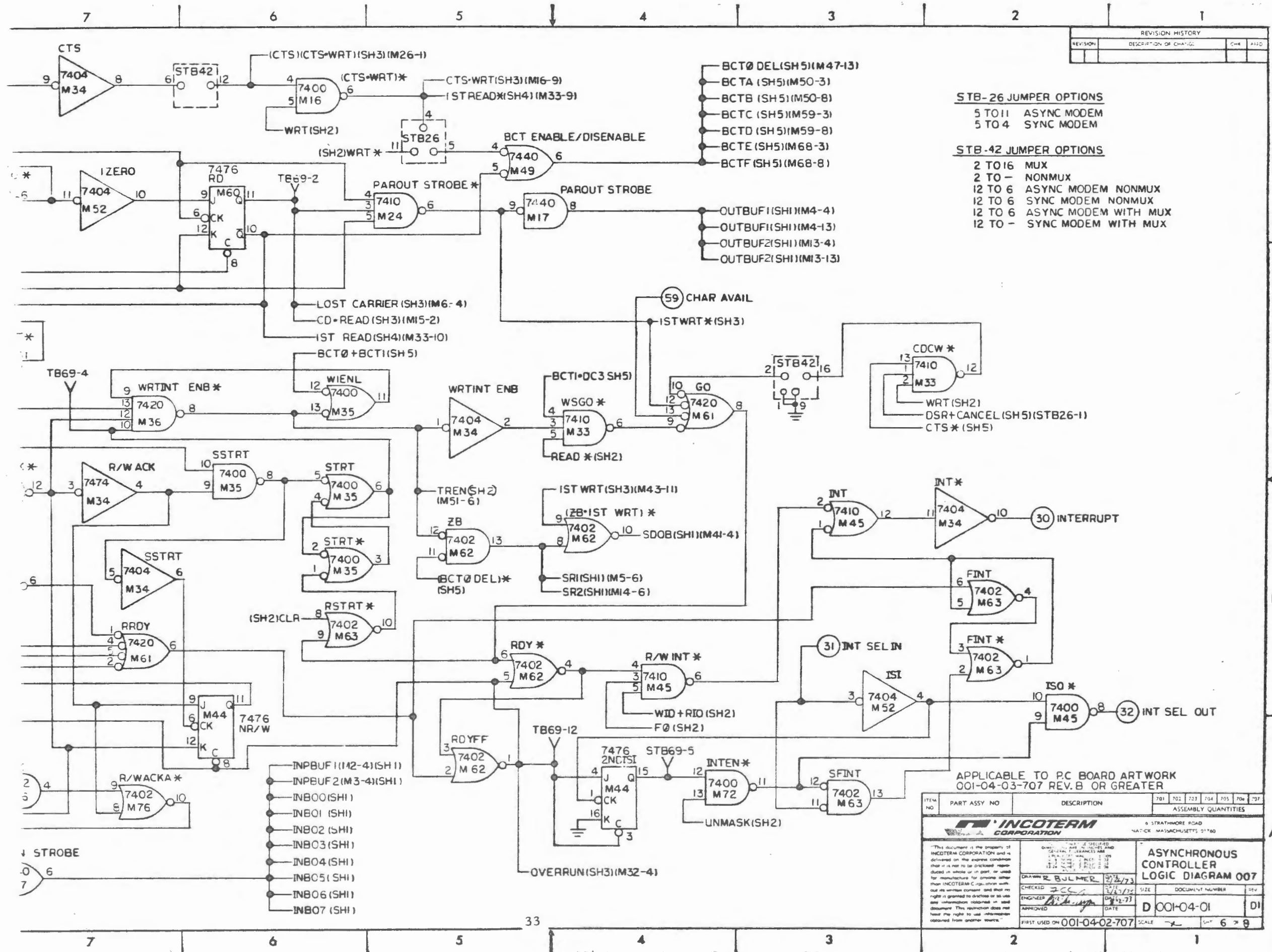
REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	DATE

STB 26 JUMPER OPTIONS

- 15 TO 2 NORMAL
- 15 TO 14 CD ALWAYS*1*
- 1 TO 16 NORMAL
- 1 TO 3 DSR+CANCEL*ALWAYS*1*
- 13 TO 14 DTR ALWAYS*1*
- 13 TO 12 PROGADMATIC DTR
- 6 TO 10 NORMAL
- 6 TO 7 RTS ALWAYS*1*

APPLICABLE TO PC BOARD ARTWORK 001-04-03-701
REV B OR GREATER

ITEM NO	PART ASSY NO	DESCRIPTION	ASSEMBLY QUANTITIES				
			101	202	303	404	505
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DRAWN: [Signature]		DATE: 05/24/77		TITLE: ASYNCHRONOUS CONTROLLER LOGIC DIAGRAM		007	
CHECKED: [Signature]		DATE: 05/27/77		DOCUMENT NUMBER: D 001-04-01		DI	
APPROVED: [Signature]		DATE: 05-77		SCALE: 5/8			
FIRST USED ON: 001-04-02-707							



REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD

STB-26 JUMPER OPTIONS
 5 TO 11 ASYNC MODEM
 5 TO 4 SYNC MODEM

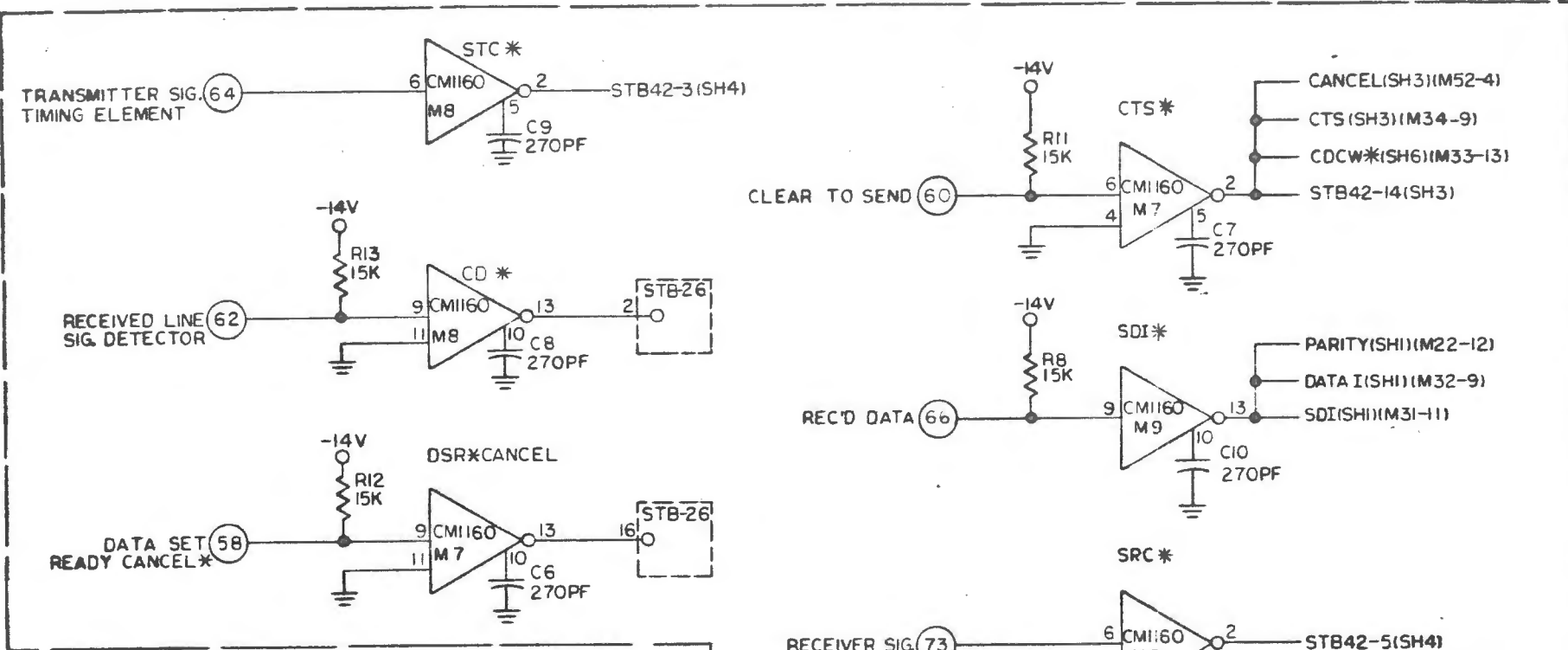
STB-42 JUMPER OPTIONS
 2 TO 16 MUX
 2 TO - NONMUX
 12 TO 6 ASYNC MODEM NONMUX
 12 TO 6 SYNC MODEM NONMUX
 12 TO 6 ASYNC MODEM WITH MUX
 12 TO - SYNC MODEM WITH MUX

APPLICABLE TO P.C BOARD ARTWORK
 001-04-03-707 REV. B OR GREATER

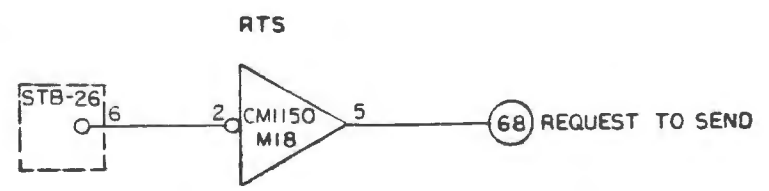
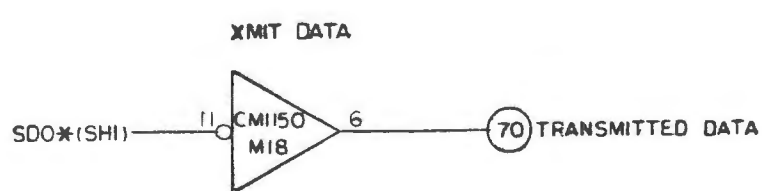
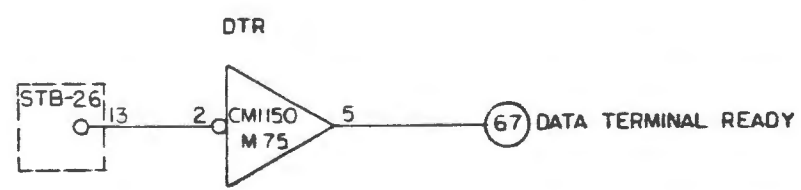
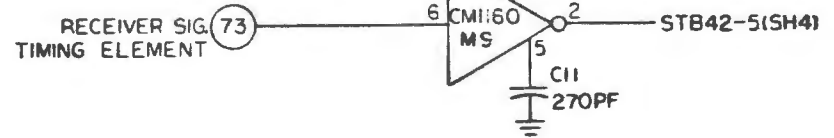
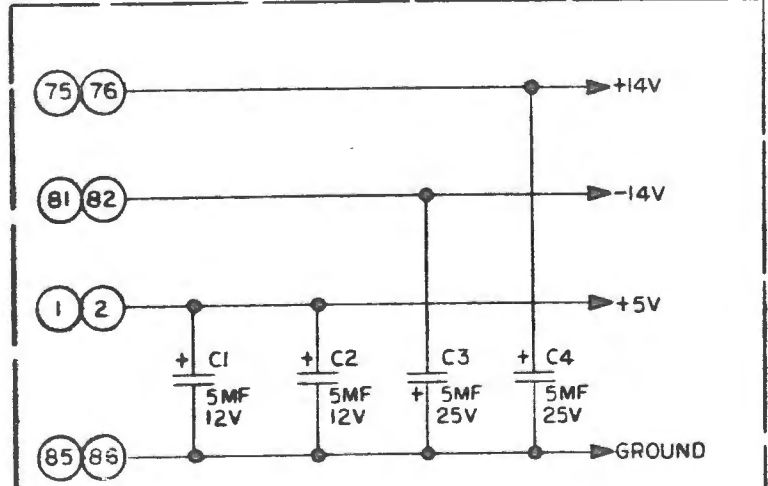
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			701	702	703	704	705
6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01760							
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DRAWN: R. BULMER		DATE: 3/22/73		SIZE: 6 7/8" X 9"		DOCUMENT NUMBER: 001-04-01	
CHECKED: FCC		DATE: 3/27/73		SCALE: 1"		REV: D1	
ENGINEER: [Signature]		DATE: 3/27/73		SCALE: 1"		REV: D1	
APPROVED: [Signature]		DATE: 3/27/73		SCALE: 1"		REV: D1	
FIRST USED ON: 001-04-02-707							

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	DATE	APP'D.

SEE SHEET 5



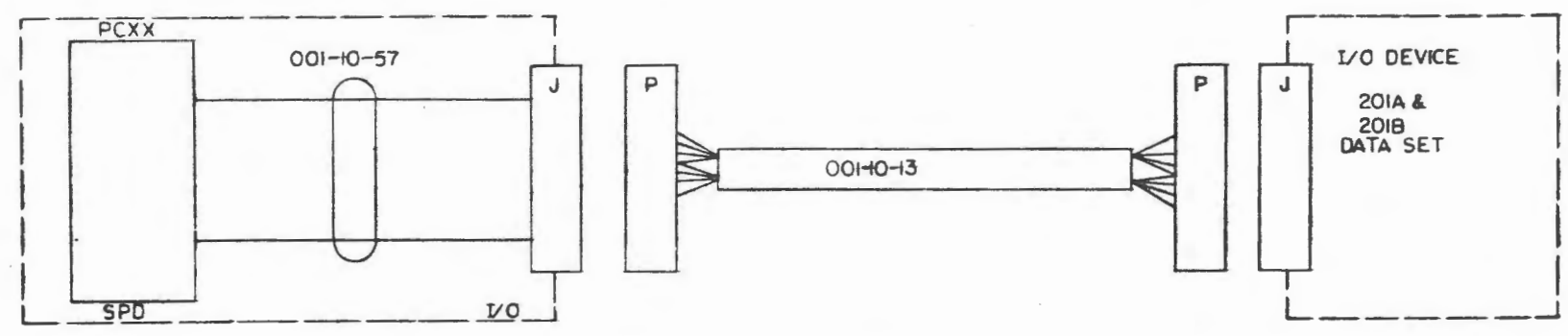
SEE SHEET 3



APPLICABLE TO P.C. BOARD ARTWORK
001-04-03-707 REV. A ONLY

ITEM NO.	PART ASSY. NO.	DESCRIPTION	ASSEMBLY QUANTITIES							
			701	702	703	704	705	706	707	708
			6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01760							
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FIRST USED ON: 001-04-02-707			SCALE: [Blank]		SHEET: 7		OF: 8			

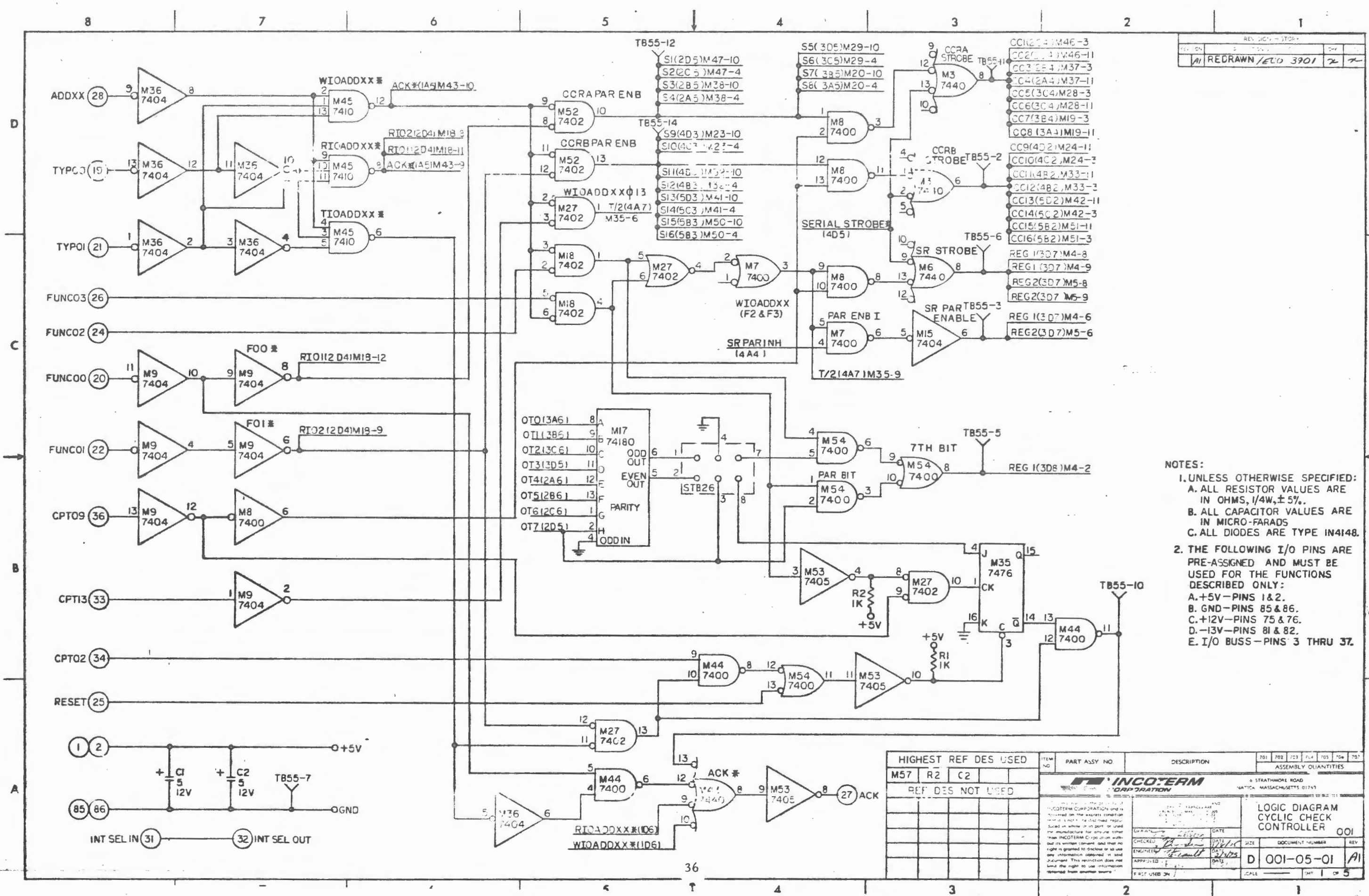
REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD



SIGNAL NAME (LOGIC)	PCXX → I/O WIRE	I/O CABLE COLOR CODE	DEVICE SIGNAL NAME
TRANSMIT DATA	70	1 BLACK	1 PROTECTIVE GROUND
RECEIVED DATA	66	2 WHITE	2 TRANSMITTED DATA
RTS	68	3 RED	3 RECEIVED DATA
CTS	60	4 GREEN	4 REQUEST TO SEND
DSR	58	5 ORANGE	5 CLEAR TO SEND
		6 BLUE	6 DATA SET READY
		7 WHITE/BLACK	7 SIGNAL GROUND
RCUD LINE SIG DET	62	8 RED/BLACK	8 RECEIVED LINE SIGNAL DETECTOR
		9	9
		10	10
		11	11
		12	12
		13 GREEN/BLACK	13 SPARE (UNASSIGNED)
OPEN CIRCUIT	71	14 ORANGE/BLACK	14 NEW SYNC
TRANSMIT SIG TIMING	64	15 BLUE/BLACK	15 TRANSMITTER SIGNAL TIMING ELEMENT
		16	16
OPEN CIRCUIT	73	17 BLACK/WHITE	17 RECEIVER SIGNAL TIMING ELEMENT
		18	18
OPEN CIRCUIT	63	19 RED/WHITE	19 REMOTE RELEASE
DTR	67	20 GREEN/WHITE	20 DATA TERMINAL READY
OPEN CIRCUIT	65	21 BLUE/WHITE	21 READY
		22	22
		23	23
		24	24
		25	25

SIGNAL NAME (LOGIC) PCXX → I/O WIRE I/O CABLE COLOR CODE DEVICE SIGNAL NAME

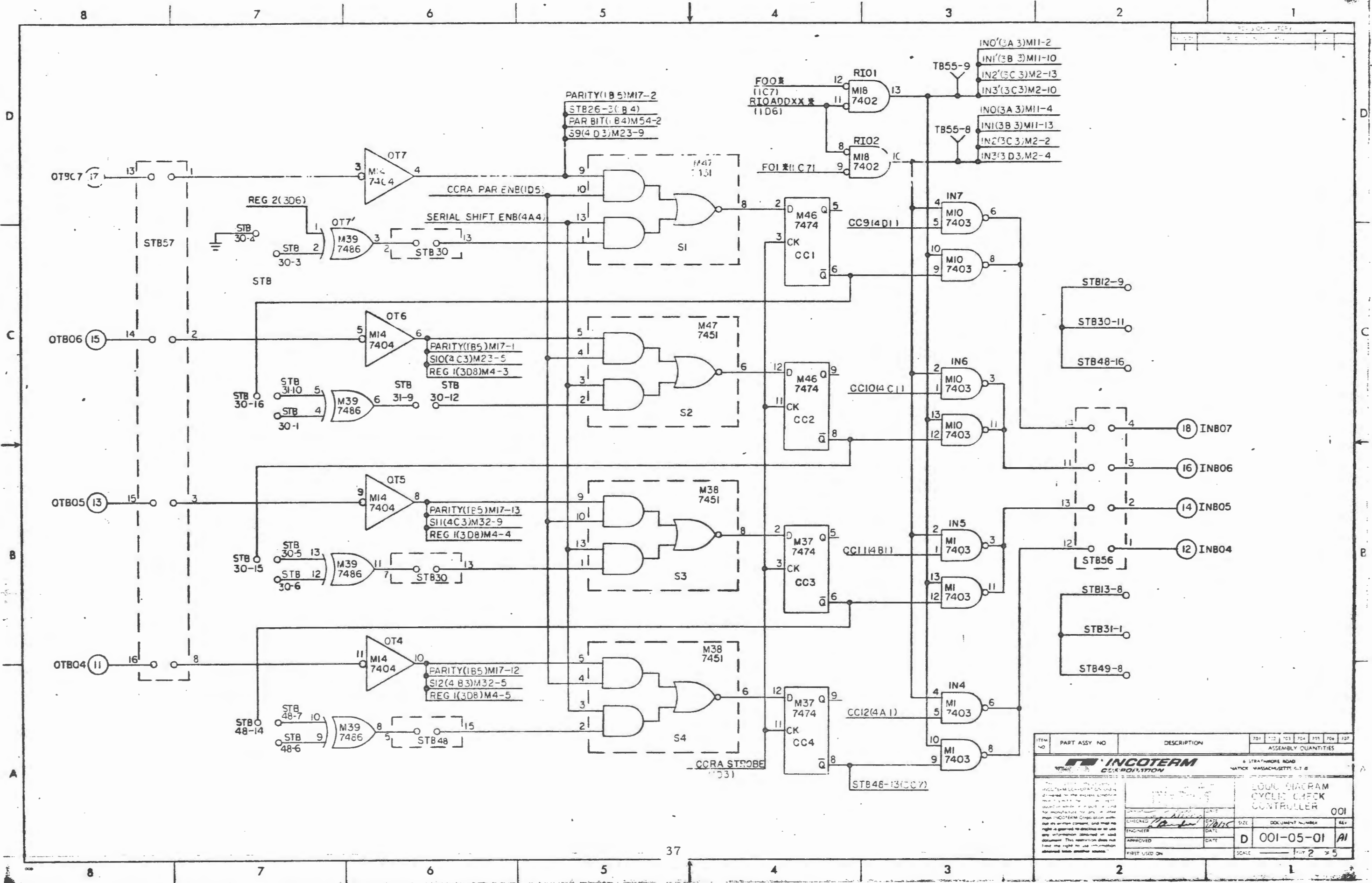
ITEM NO.	PART/ASSY. NO.	DESCRIPTION	701	702	703	704	705	706	707
INCOTERM CORPORATION									
6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01740									
ASSEMBLY QUANTITIES									
A SYNCHRONOUS CONTROLLER LOGIC DIAGRAM 007									
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DRAWN	E. BULMER	DATE	2/21/75						
CHECKED	JCC	DATE	2/22/75						
ENGINEER	JCC	DATE	2/21/75						
APPROVED		DATE							
FIRST USED ON 001-04-02-707									
SCALE: SHY 8 OF 8									



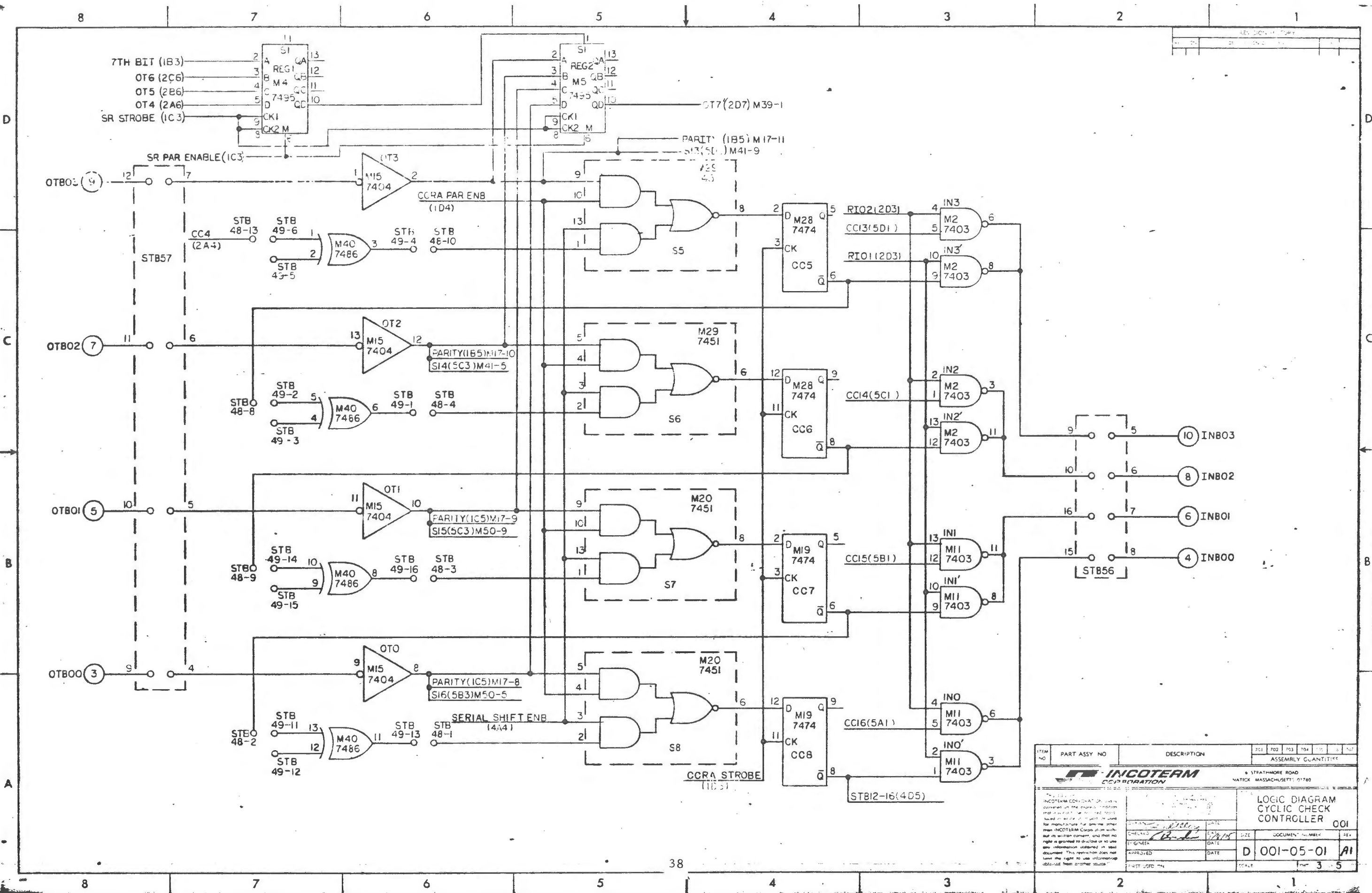
REVISION HISTORY			
REV. NO.	DATE	BY	DESCRIPTION
A1			REDRAWN / ELD 3901

- NOTES:
- UNLESS OTHERWISE SPECIFIED:
 - ALL RESISTOR VALUES ARE IN OHMS, 1/4W, ±5%.
 - ALL CAPACITOR VALUES ARE IN MICRO-FARADS
 - ALL DIODES ARE TYPE IN4148.
 - THE FOLLOWING I/O PINS ARE PRE-ASSIGNED AND MUST BE USED FOR THE FUNCTIONS DESCRIBED ONLY:
 - +5V—PINS 1 & 2.
 - GND—PINS 85 & 86.
 - +12V—PINS 75 & 76.
 - 13V—PINS 81 & 82.
 - I/O BUSS—PINS 3 THRU 37.

HIGHEST REF DES USED		ITEM NO.	PART ASSY NO.	DESCRIPTION	701	702	703	704	705	706	707
M57	R2	C2									
REF DES NOT USED											
				INCOTERM CORPORATION 6 STRATHMORE ROAD NANTUCKET, MASSACHUSETTS 01795							
				LOGIC DIAGRAM CYCLIC CHECK CONTROLLER				OOI			
				D 001-05-01				A1			
				SCALE				SHEET 1 OF 5			

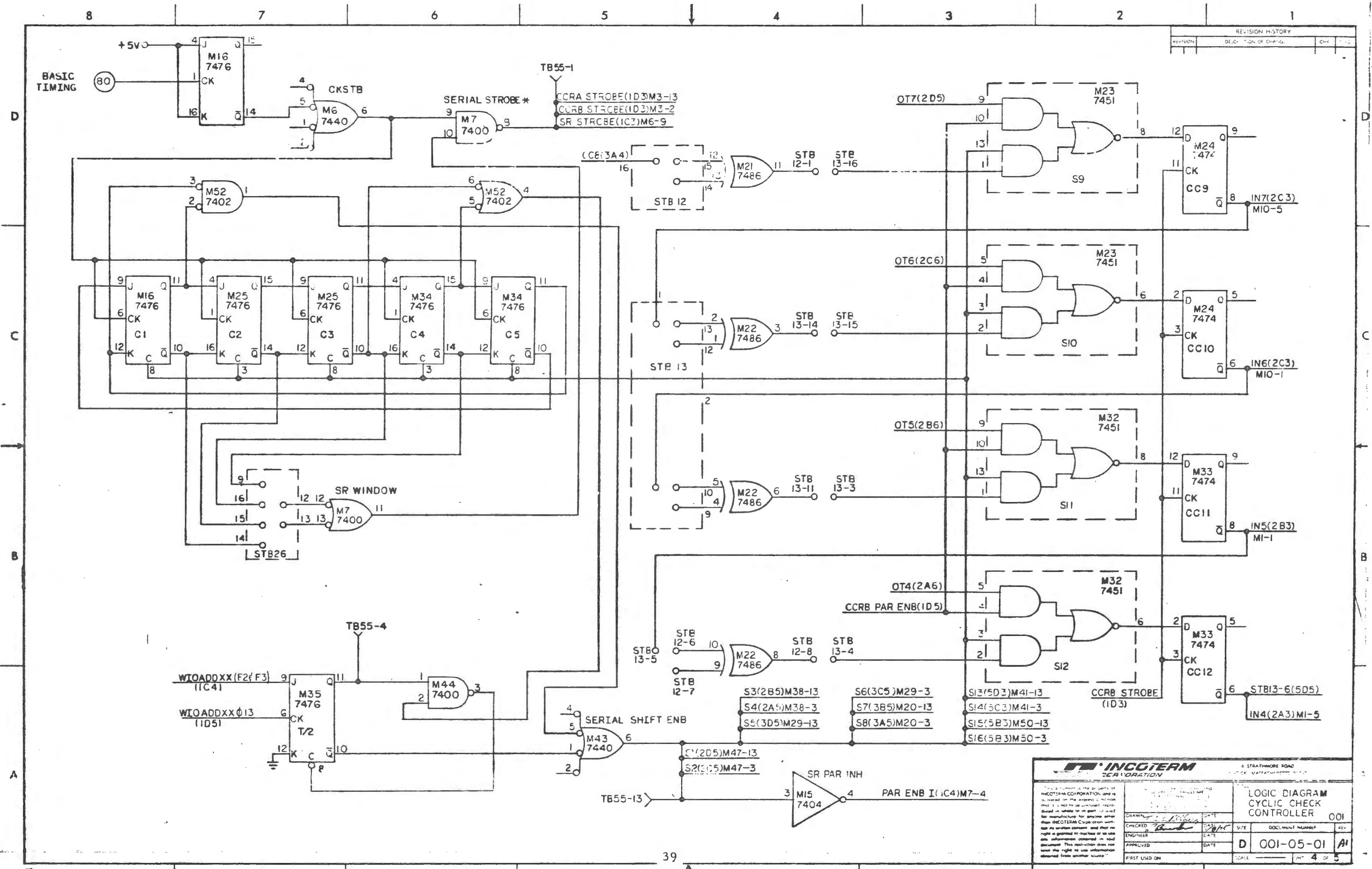


ITEM NO	PART ASSY NO	DESCRIPTION	701	702	703	704	705	706	707
INCOTERM <small>INCOTERM CORPORATION</small> 6 STRATHMORE ROAD NANTUCKET, MASSACHUSETTS 01905			ASSEMBLY QUANTITIES						
LOGIC DIAGRAM CYCLIC CHECK CONTROLLER			001						
CHECKED	DATE	SIZE	DOCUMENT NUMBER		REV				
APPROVED	DATE		D 001-05-01		AI				
FIRST USED ON	SCALE		PAGE 2 OF 5						



ITEM NO	PART ASSY NO	DESCRIPTION	701	702	703	704	705	706
			ASSEMBLY QUANTITIES					
INCOTERM CC17 REVISION			STRATHMORE ROAD NATICK, MASSACHUSETTS 01760					
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			LOGIC DIAGRAM CYCLIC CHECK CONTROLLER			OOI		
			D 001-05-01			AI		
			SCALE: 1:1			PAGE 3 OF 5		

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	DATE



INCOTERM CORPORATION
6 STRATHMORE ROAD
ROCKY HAVEN, PENNSYLVANIA 15880

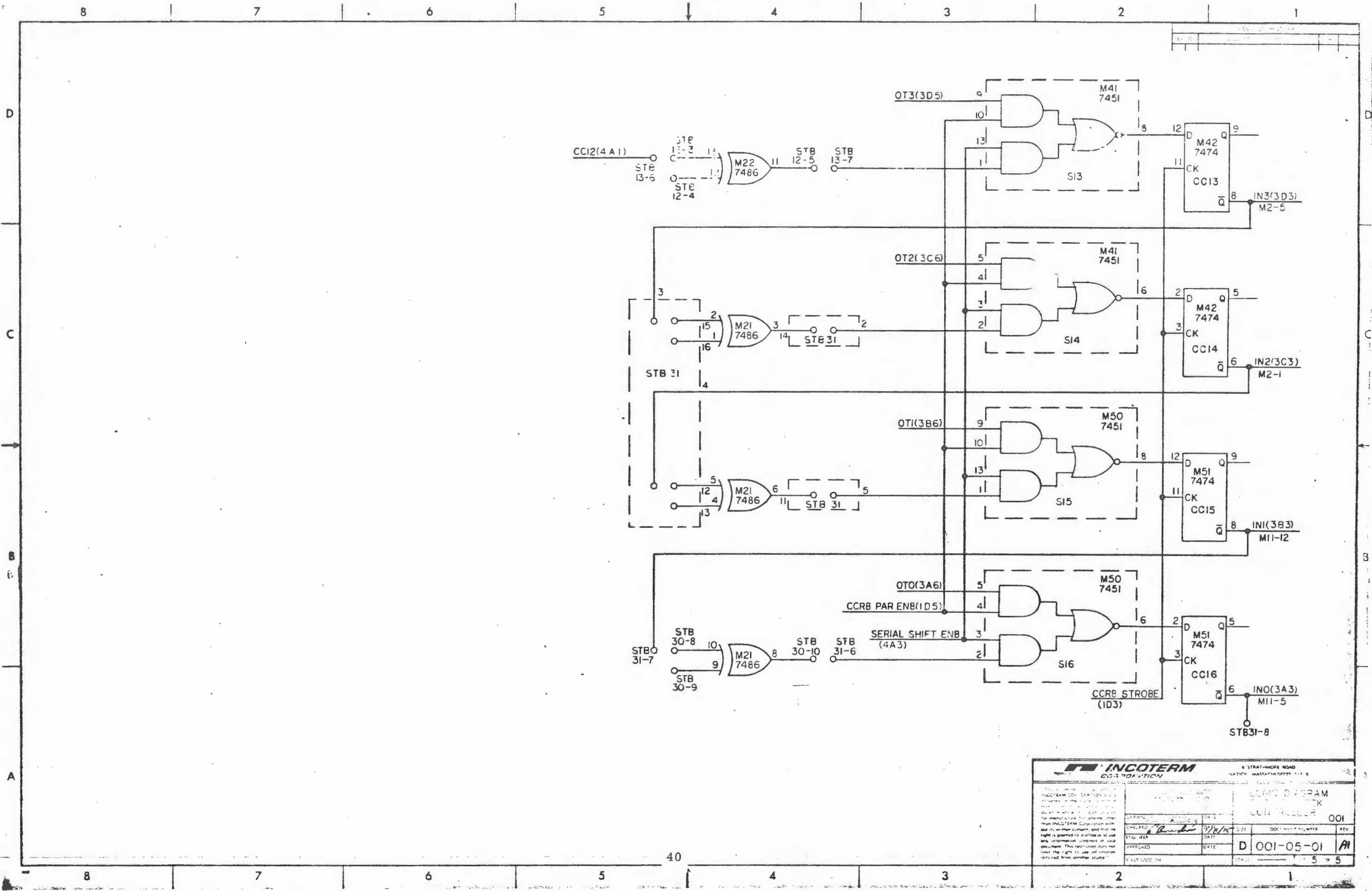
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DRAWN	DATE	SIZE	DOCUMENT NUMBER	REV
CHECKED	DATE			
ENGINEER	DATE			
APPROVED	DATE			
FIRST USED ON				

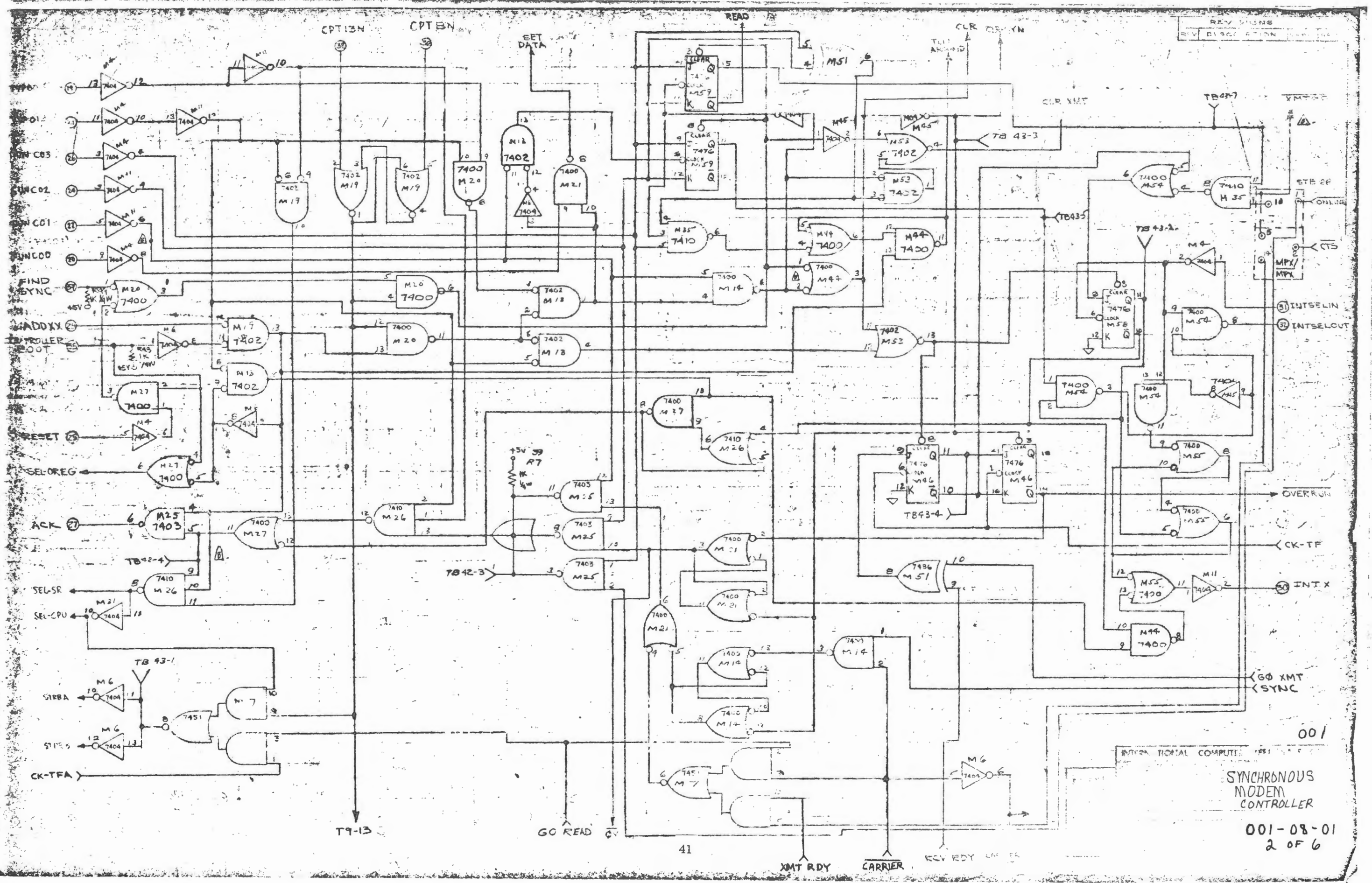
**LOGIC DIAGRAM
CYCLIC CHECK
CONTROLLER** 001

D 001-05-01 **AI**

SCALE: **4** OF **5**

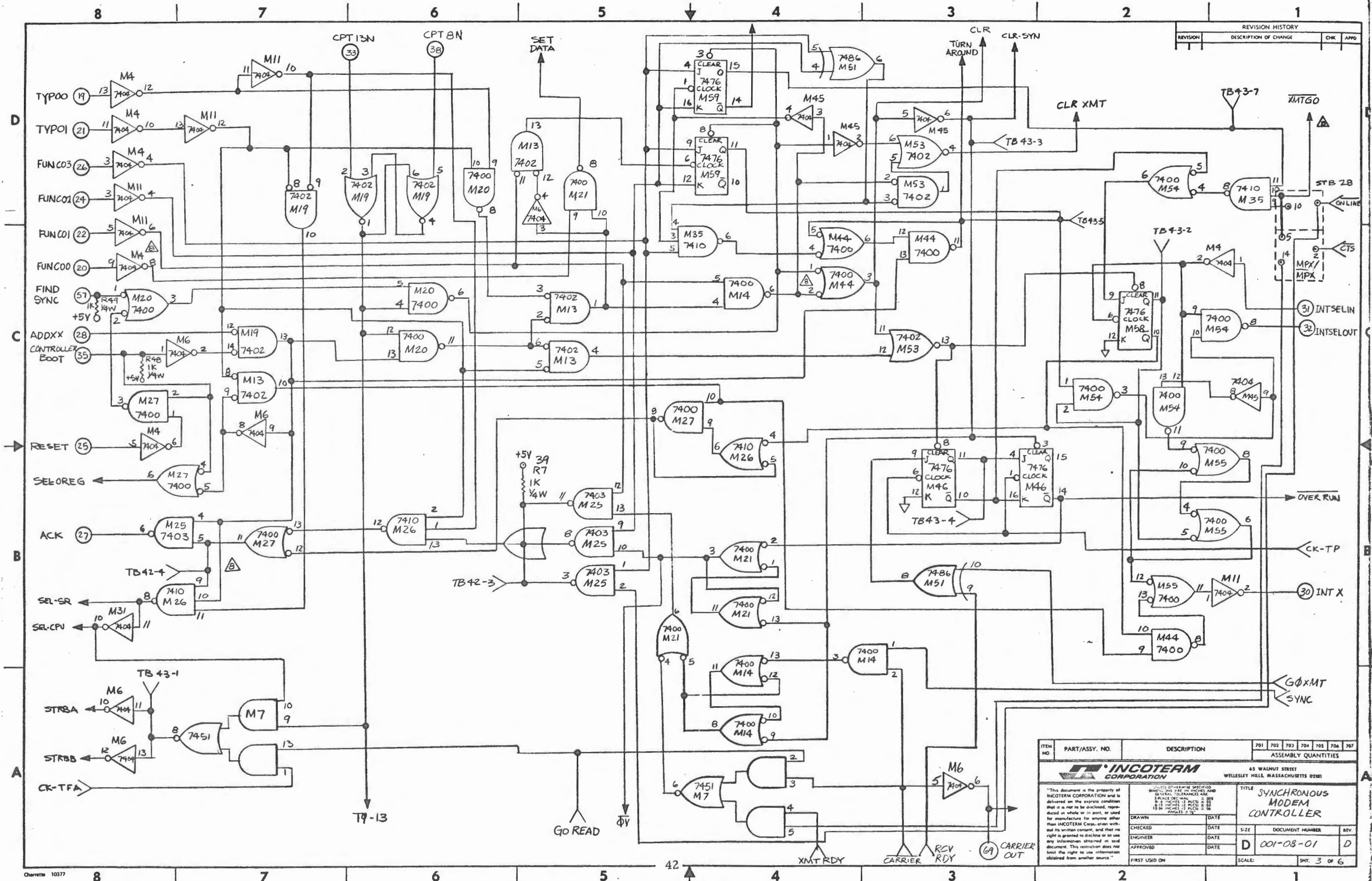


INCOTERM CORPORATION <small>INCOTERM CORPORATION, 100 STRATHMORE ROAD, NANTUCKET, MASSACHUSETTS 01909</small>		LOGIC DIAGRAM CONTROL 001	
CHECKED: <i>[Signature]</i> DATE: 9/8/78	DESIGNED: <i>[Signature]</i> DATE:	D 001-05-01	REV: <i>[Signature]</i>
APPROVED: <i>[Signature]</i> DATE:	DATE:	5	5



SYNCHRONOUS
MODERN
CONTROLLER

001-08-01
2 OF 6



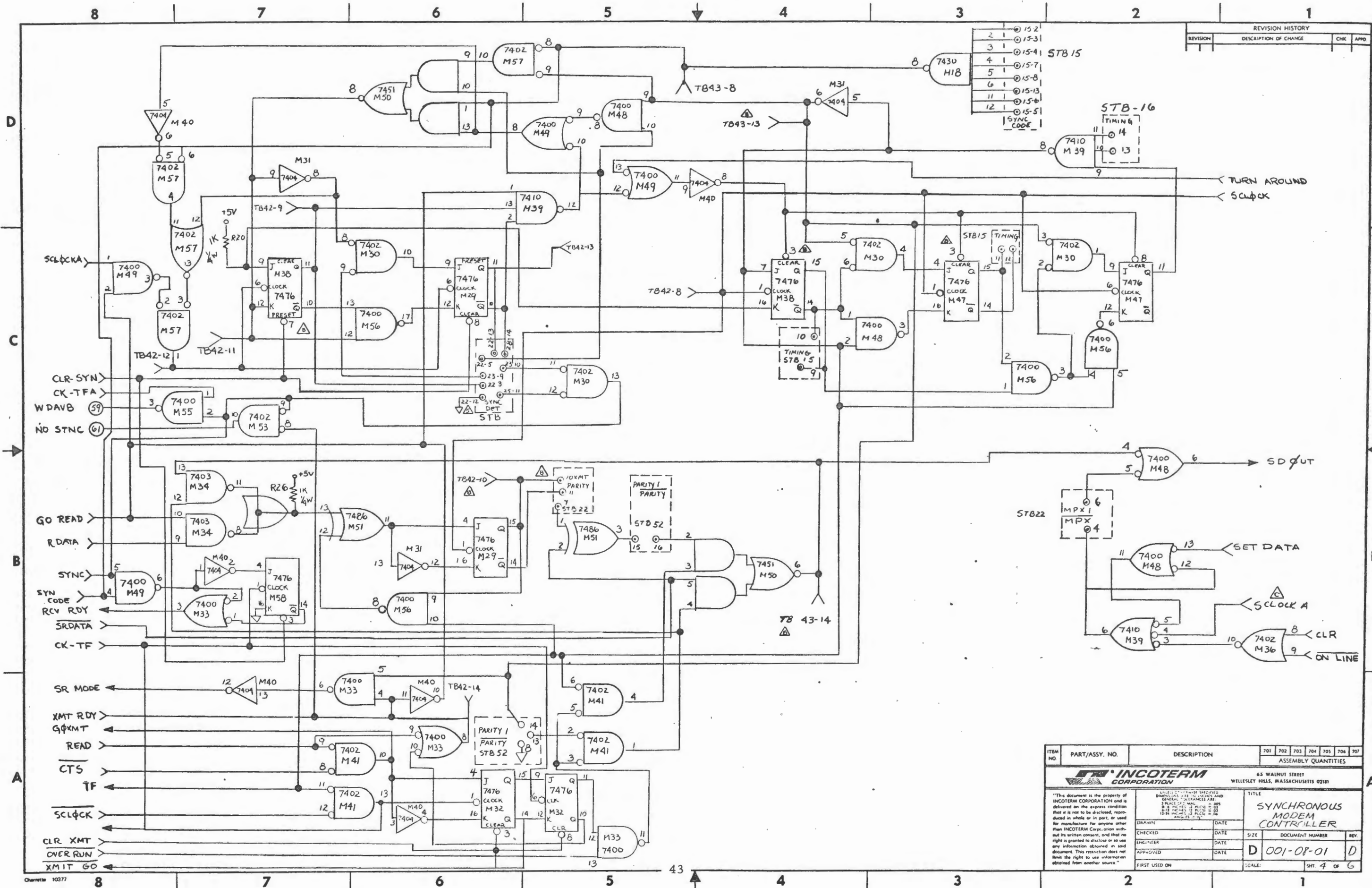
REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD

ITEM NO.	PART/ASSY. NO.	DESCRIPTION	701	702	703	704	705	706	707
INCOTERM CORPORATION 45 WALNUT STREET WELLESLEY HILLS, MASSACHUSETTS 02151									
TITLE: SYNCHRONOUS MODEM CONTROLLER									
DRAWN		DATE		SIZE		DOCUMENT NUMBER		REV.	
CHECKED		DATE		DATE		DATE		DATE	
APPROVED		DATE		DATE		DATE		DATE	
FIRST USED ON		SCALE:		SHT. 3 OF 6					

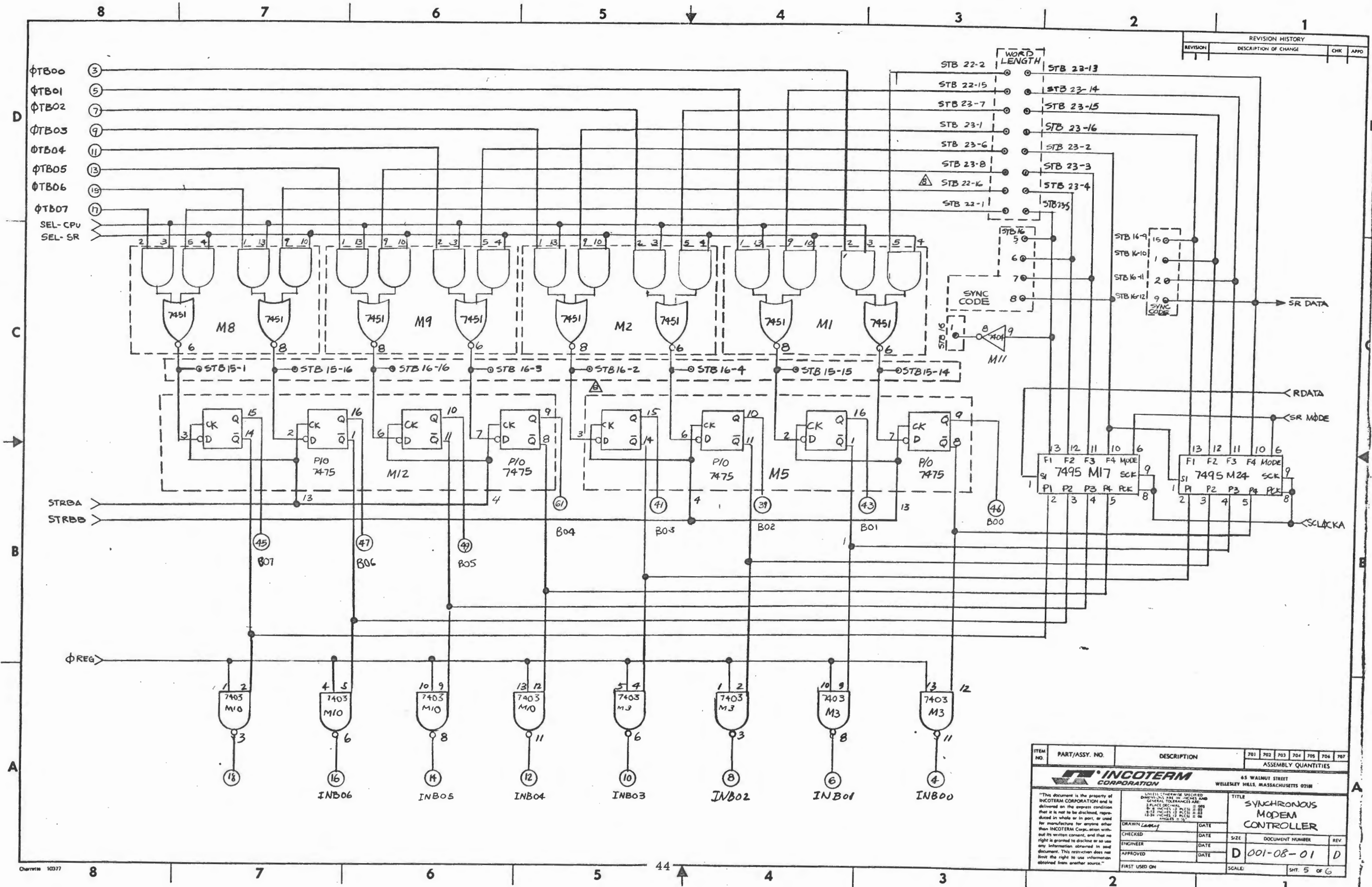
REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD

STB 15			
2	1	15-2	
3	1	15-3	
4	1	15-4	
5	1	15-7	
6	1	15-8	
11	1	15-13	
12	1	15-6	
12	1	15-5	
1	1	15-5	
1	1	15-5	

STB-16			
11	1	15-14	
11	1	15-13	
11	1	15-13	
11	1	15-13	

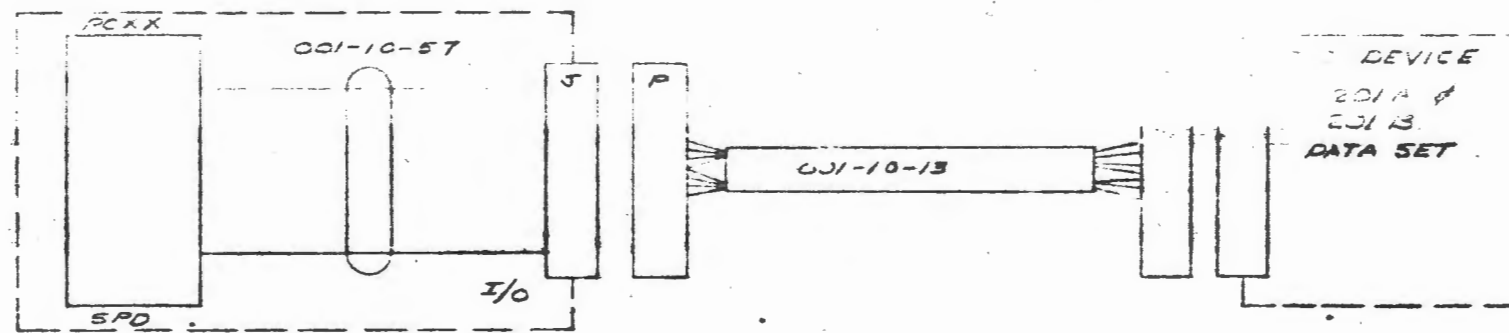


ITEM NO.	PART/ASSY. NO.	DESCRIPTION	701	702	703	704	705	706	707
INCOTERM CORPORATION			ASSEMBLY QUANTITIES						
INCOTERM CORPORATION 65 WALNUT STREET WELLESLEY HILLS, MASSACHUSETTS 02181			TITLE						
"This document is the property of INCOTERM CORPORATION and is delivered on the express condition that it is not to be disclosed, reproduced in whole or in part, or used for manufacture for anyone other than INCOTERM Corporation without its written consent, and that no right is granted to disclose or use any information obtained in said document. This restriction does not limit the right to use information obtained from another source."			SYNCHRONOUS MODEM CONTROLLER						
DRAWN	DATE	SIZE	DOCUMENT NUMBER		REV.				
CHECKED	DATE	D	001-08-01		D				
ENGINEER	DATE								
APPROVED	DATE								
FIRST USED ON	SCALE:	SHT. 4 OF 6							



REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD

ITEM NO.	PART/ASSY. NO.	DESCRIPTION	701	702	703	704	705	706	707
			ASSEMBLY QUANTITIES						
			45 WALNUT STREET WELLESLEY HILLS, MASSACHUSETTS 02181						
<small>"This document is the property of INCOTERM CORPORATION and is delivered on the express condition that it is not to be disclosed, reproduced in whole or in part, or used for manufacture for anyone other than INCOTERM CORPORATION without its written consent, and that no right is granted to disclose or to use any information obtained in said document. This restriction does not limit the right to use information obtained from another source."</small>			<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND GENERAL TOLERANCES ARE: FRACTIONAL: 0.005 DECIMAL: 0.005 HOLE: 0.005 HOLE: 0.005 HOLE: 0.005</small>			TITLE SYNCHRONOUS MODEM CONTROLLER			
DRAWN	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
CHECKED	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
ENGINEER	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
APPROVED	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
FIRST USED ON	SCALE	D 001-08-01		REV	D				
			SCALE	SHT. 5 OF 6					

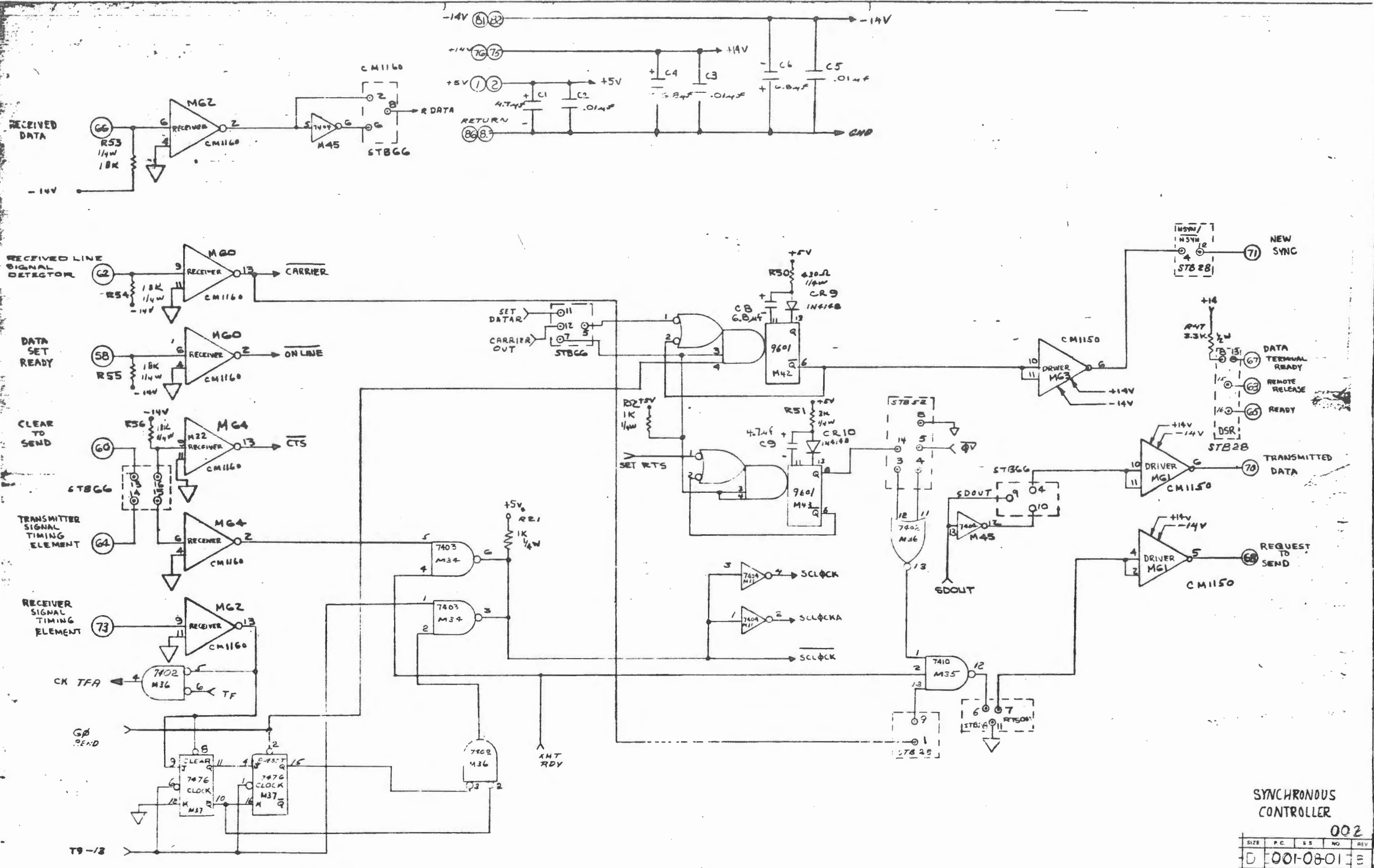


SIGNAL NAME (201A)	PCXX → I/O WIRE	I/O CABLE COLOR CODE	DEVICE SIGNAL NAME
	1	BLACK	1 PROTECTIVE GND
70	2	WHITE	2 TRANSMITTED DATA
66	3	RED	3 RECEIVED DATA
68	4	GREEN	4 REQUEST TO SEND
60	5	ORANGE	5 CLEAR TO SEND
58	6	BLUE	6 DATA SET READY
	7	WHITE/BLACK	7 SIGNAL GND
62	3	RED/BLACK	8 RECEIVED LINE SIGNAL DETECTOR
	9		9
	10		10
	11		11
	12		12
	13	GREEN/BLACK	13 SPARE (UNASSIGNED)
71	14	ORANGE, BLACK	14 NEW SYNC
69	15	BLUE/BLACK	15 TRANSMITTER SIGNAL TIMING ELEMENT
	16		16
73	17	BLACK/WHITE	17 RECEIVER SIGNAL TIMING ELEMENT
	18		18
63	19	RED/WHITE	19 REMOTE RELEASE
67	20	GREEN/WHITE	20 DATA TERMINAL READY
65	21	BLUE/WHITE	21 READY
	22		22
	23		23
	24		24
	25		25

001/002

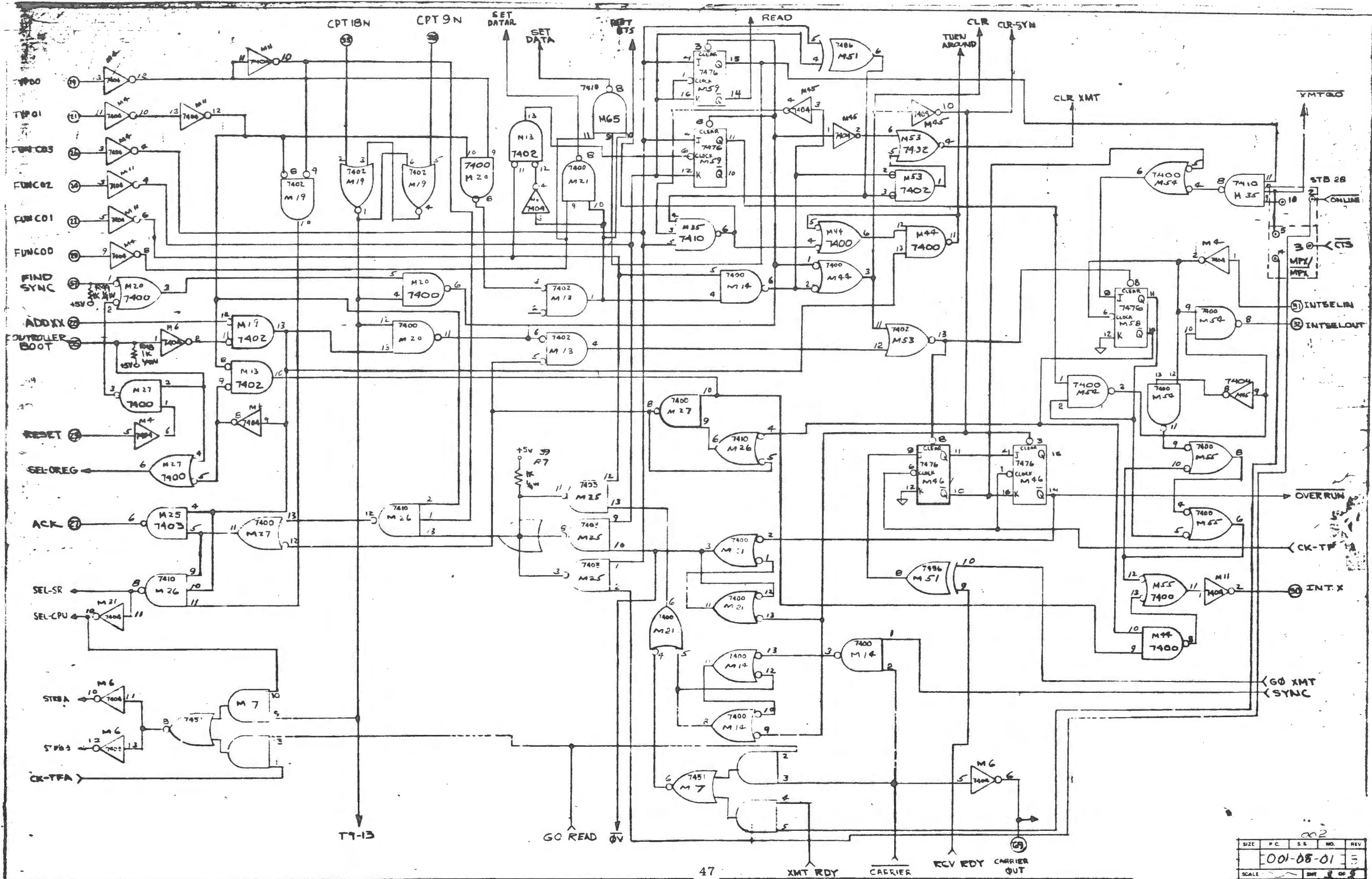
INDOTERM
 Signal Name: 001/002
 Date: _____
 Author: _____
 Checked: _____
 Approved: _____
 Title: _____
 Part: _____
 Revision: _____
 Drawing No: _____
 Scale: _____
 Material: _____
 Quantity: _____
 Unit: _____
 Remarks: _____

001 08 01



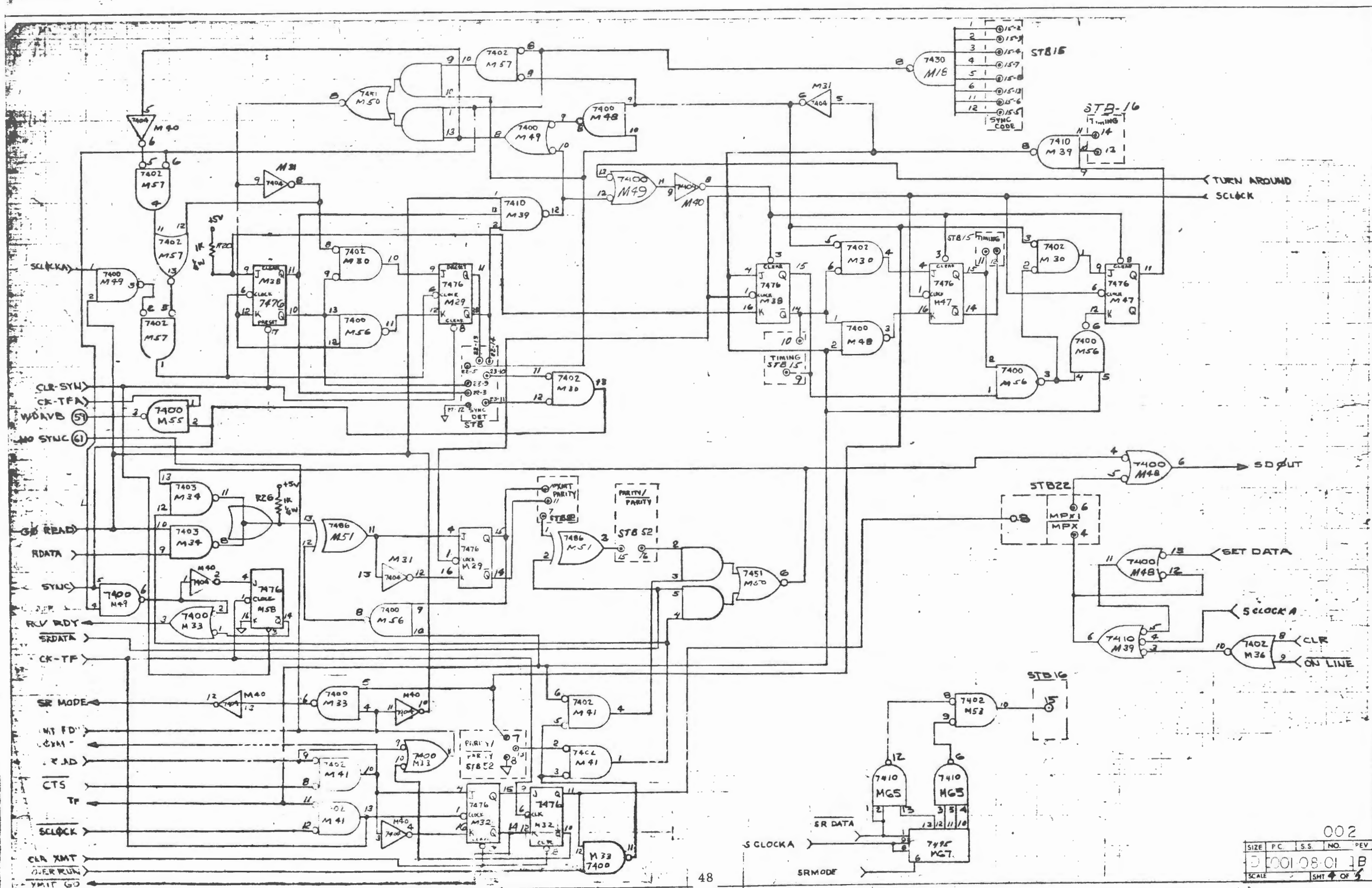
SYNCHRONOUS CONTROLLER
002

SIZE	P.C.	SS	NO.	REV.
D	001-0801	E		
SCALE		SHT	2	OF 3



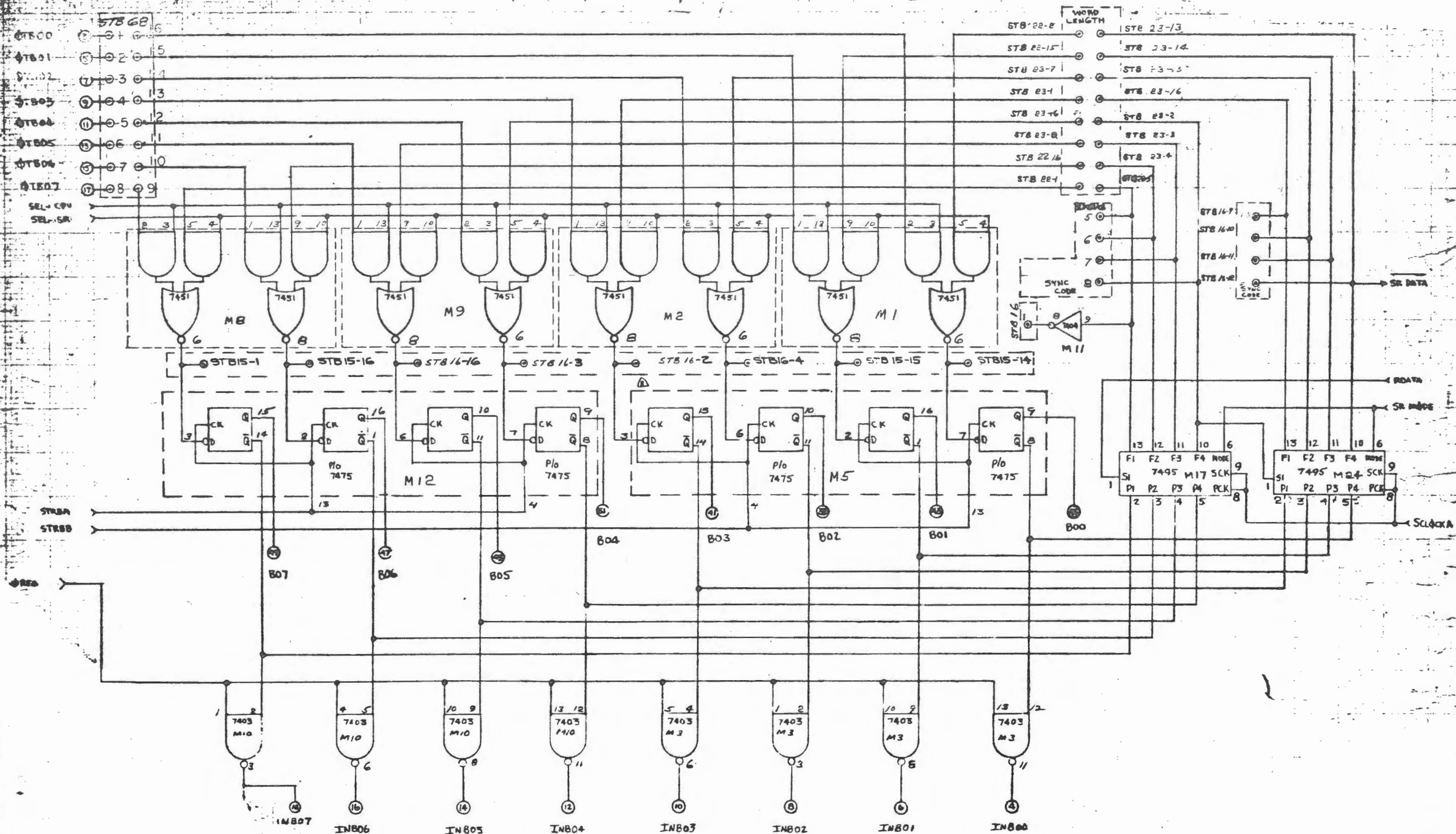
002

SIZE	P.C.	S.S.	NO.	REV.
001-08-01				
SCALE	SHEET			OF
	2			5



002

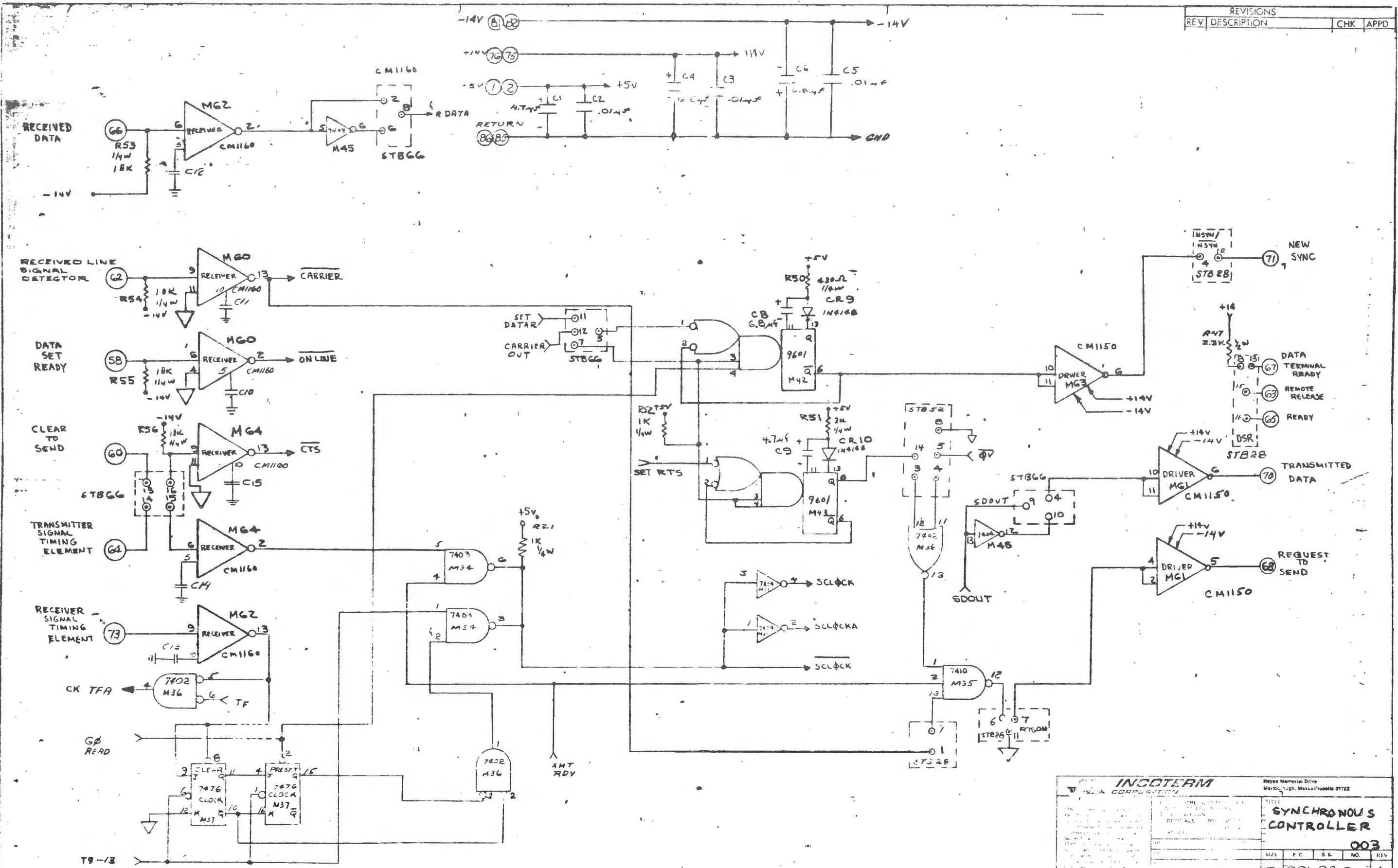
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SCALE	SMT		OF 5	



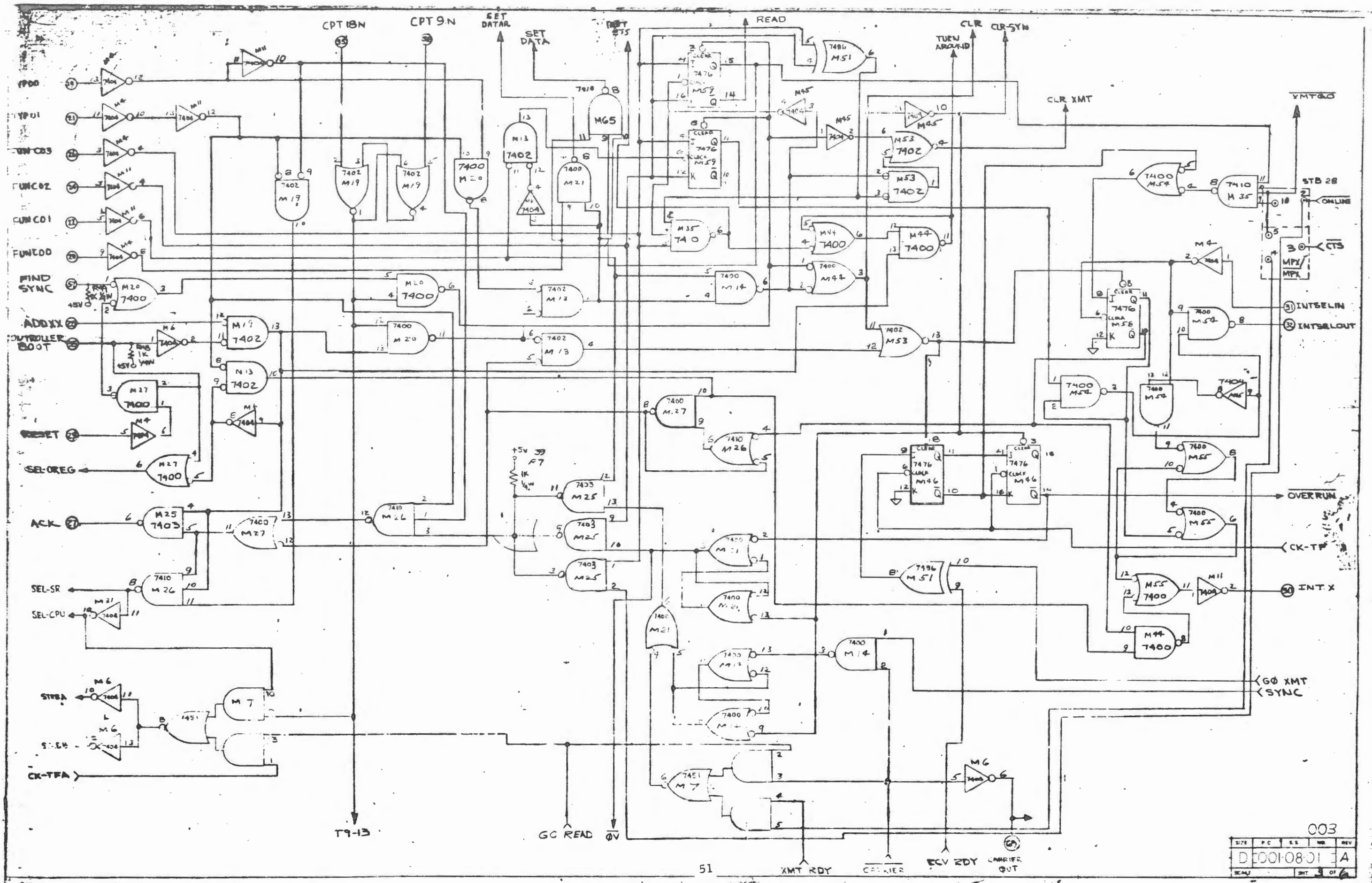
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SIZE	PC	SS	NO	REV
D	001	C	80	B
SCALE		SHT	5	OF 8

REVISIONS		CHK	APPD
REV	DESCRIPTION		



INGO TERM CORPORATION		Weyss Memorial Drive Marlborough, Massachusetts 01752	
TITLE		SYNCHRONOUS CONTROLLER	
NO.		003	
SIZE	P.C.	S.E.	NO. REV
D	001-08-01	A	
SCALE	SHT		2 OF 6



T9-13

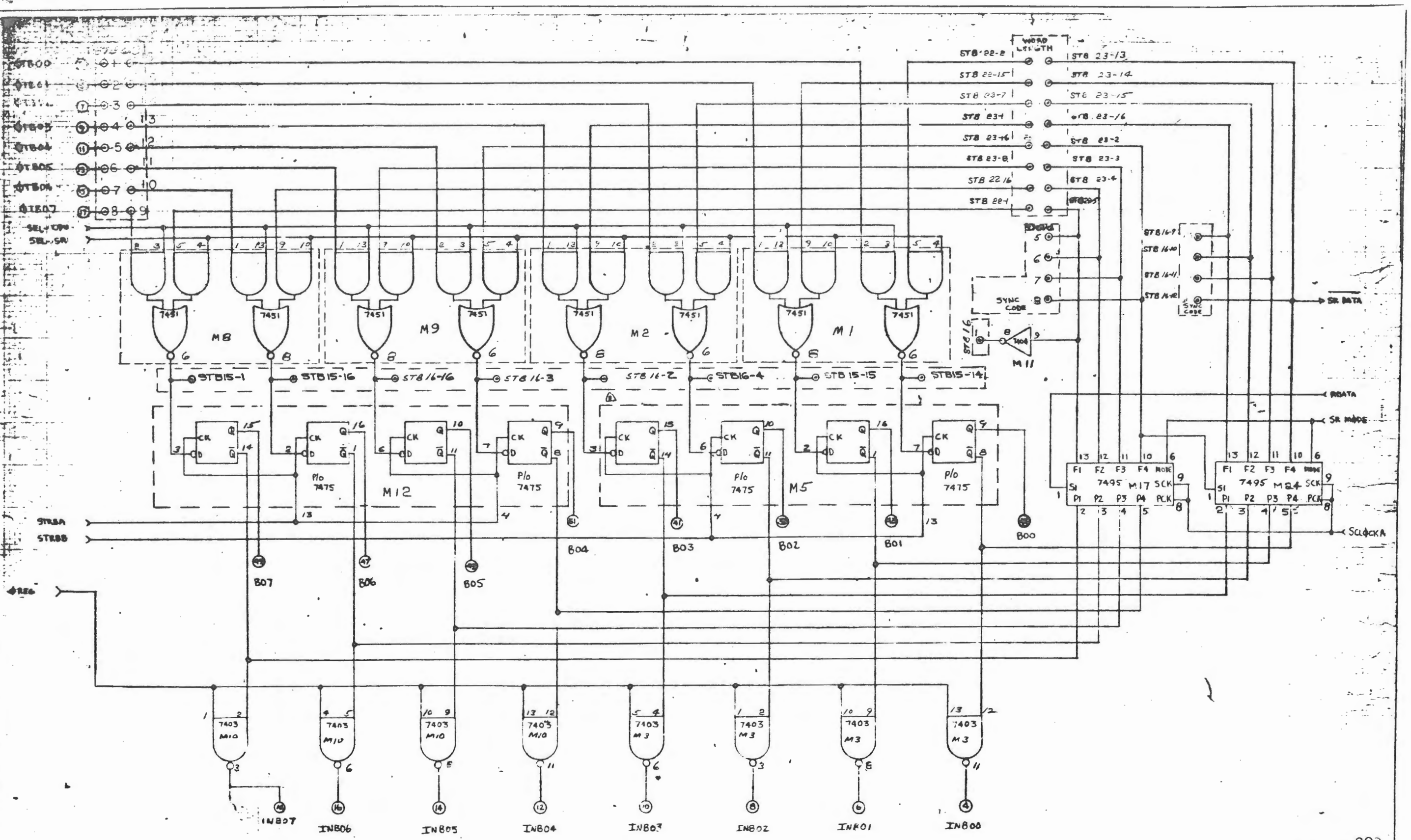
GC READ

51

XMT RDY CARRIER ECV RDY CARRIER OUT

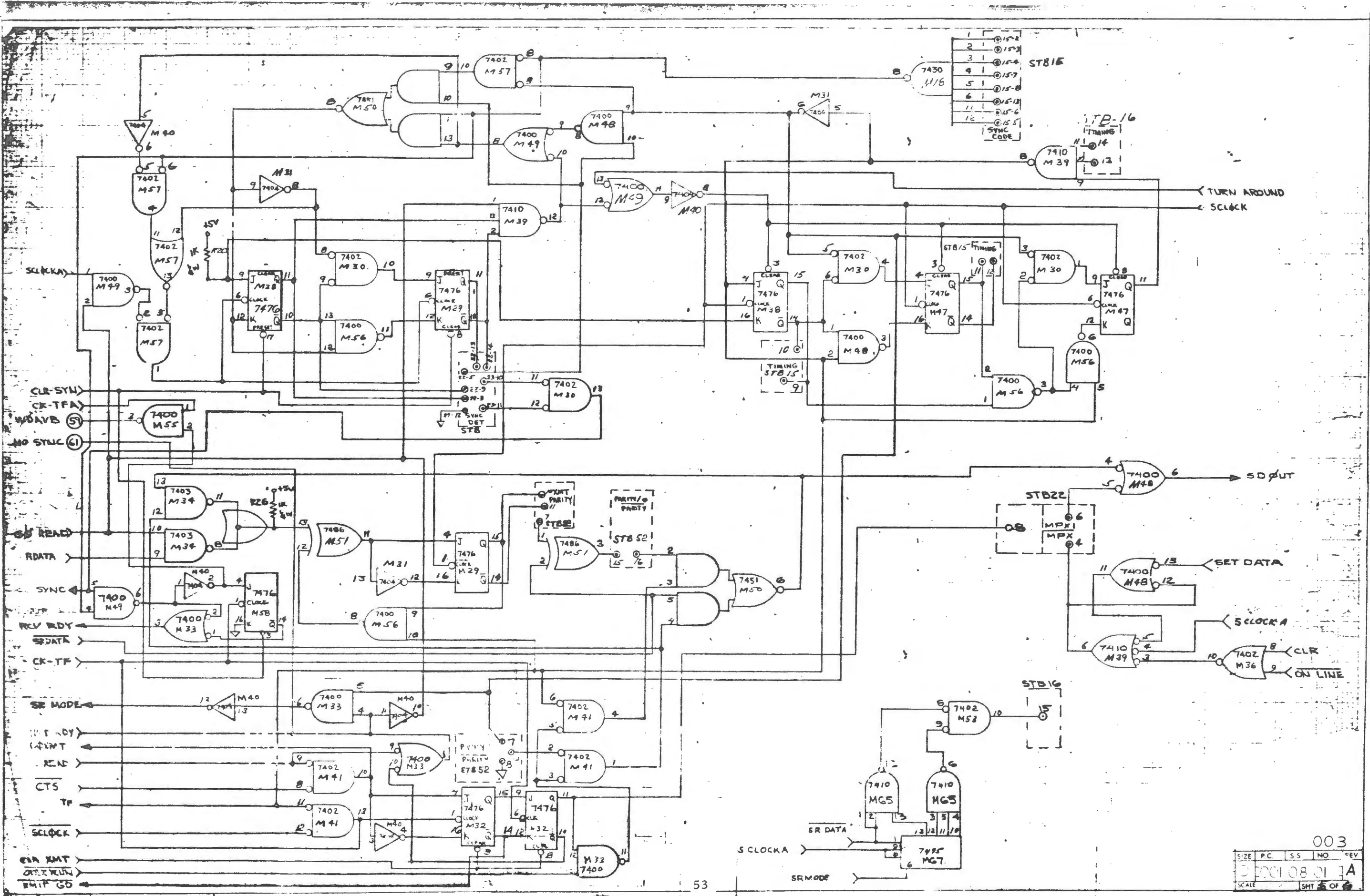
003

SIZE	PC	ES	REV
D	001-08-01	A	
SCALE	INT	3 OF 6	



003

SIZE	PC	SS	NO.	REV.
D001-080				A
SCALE			SHT 4 OF 6	



STB15

1	15-2
2	15-3
3	15-4
4	15-5
5	15-6
6	15-7
7	15-8
8	15-9
9	15-10
10	15-11
11	15-12
12	15-13
13	15-14
14	15-15
15	15-16

SYNC CODE

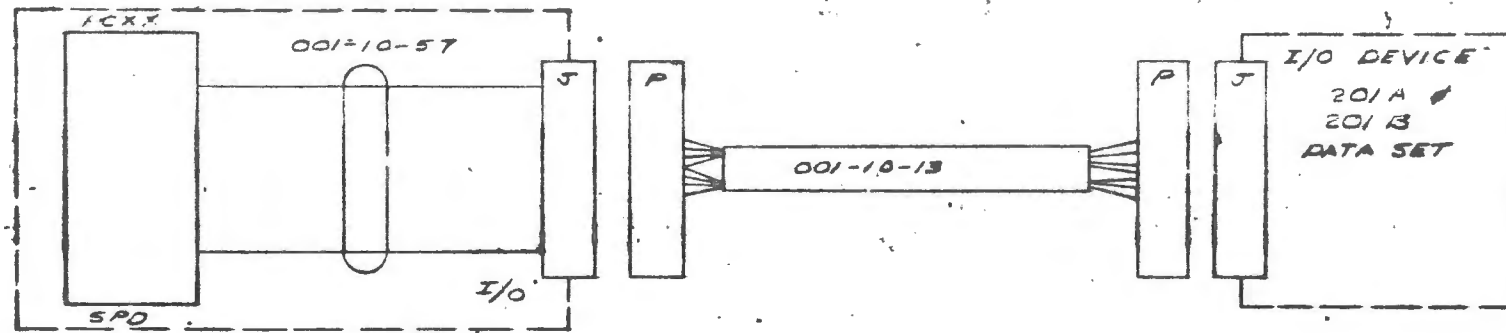
STB-16

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3	16-3
4	16-4
5	16-5
6	16-6
7	16-7
8	16-8
9	16-9
10	16-10
11	16-11
12	16-12
13	16-13
14	16-14
15	16-15
16	16-16

TIMING

003

SIZE	P.C.	SS	NO.	REV.
0	000108	01	1A	
SCALE	SMT 5 OF 6			



SIGNAL NAME (LOGIC)	PCXX → I/O WIRE	I/O CABLE COLOR CODE	DEVICE SIGNAL NAME
	1	BLACK	1 PROTECTIVE GND
	2	WHITE	2 TRANSMITTED DATA
70	3	RED	3 RECEIVED DATA
66	4	GREEN	4 REQUEST TO SEND
68	5	ORANGE	5 CLEAR TO SEND
60	6	BLUE	6 DATA SET READY
58	7	WHITE/BLUE	7 SIGNAL GND
	8	RED/BLACK	8 RECEIVED LINE SIGNAL DETECTOR
62	9		9
	10		10
	11		11
	12		12
	13	GREEN/BLACK	13 SPARE (UNASSIGNED)
71	14	ORANGE/BLACK	14 NEW SYNC
64	15	BLUE/BLACK	15 TRANSMITTER SIGNAL TIMING ELEMENT
	16		16
73	17	BLACK/WHITE	17 RECEIVER SIGNAL TIMING ELEMENT
	18		18
63	19	RED/WHITE	19 REMOTE RELEASE
67	20	GREEN/WHITE	20 DATA TERMINAL READY
65	21	BLUE/WHITE	21 READY
	22		22
	23		23
	24		24
	25		25

INCOTERM
CORPORATION

Hayes Memorial Drive
Middletown, Massachusetts

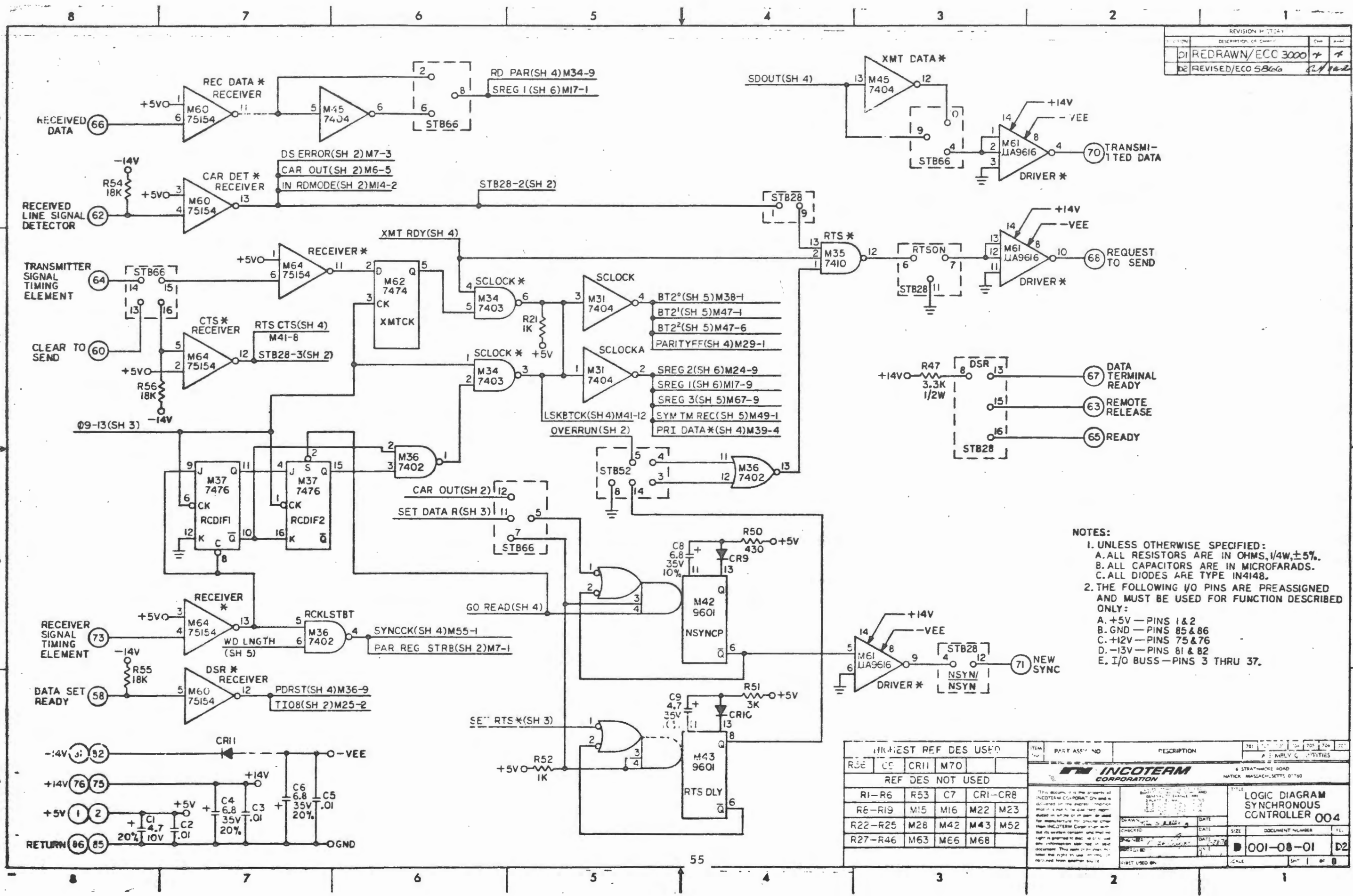
DATE: _____
TITLE: **SYNCHRONOUS CONTROL**

003

001-10-13

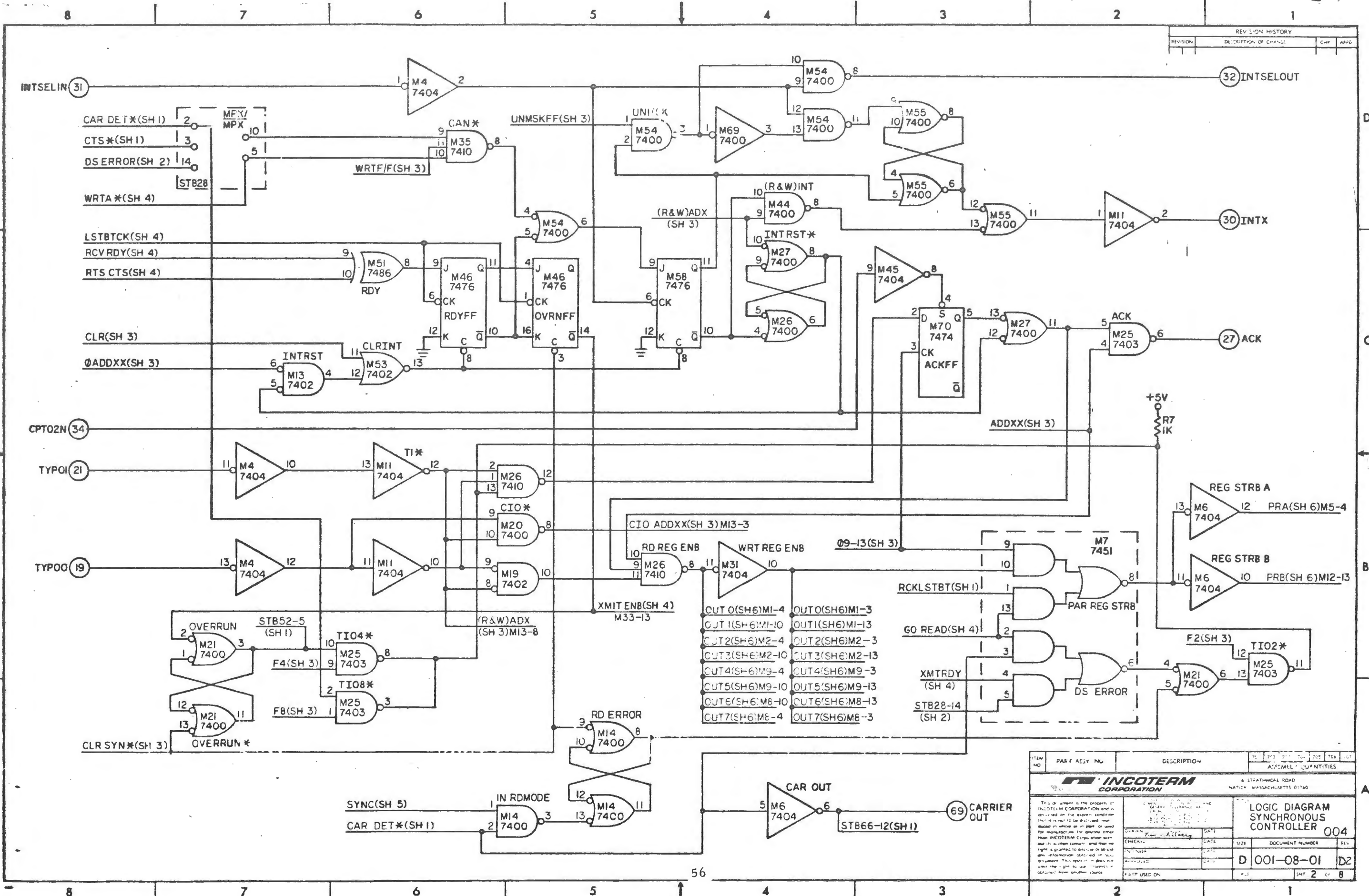
54

REVISION HISTORY	
NO.	DESCRIPTION OF CHANGES
01	REDRAWN/ECC 3000
02	REVISED/ECC 5866



- NOTES:**
- UNLESS OTHERWISE SPECIFIED:
 - A. ALL RESISTORS ARE IN OHMS, 1/4W, ±5%.
 - B. ALL CAPACITORS ARE IN MICROFARADS.
 - C. ALL DIODES ARE TYPE IN4148.
 - THE FOLLOWING I/O PINS ARE PREASSIGNED AND MUST BE USED FOR FUNCTION DESCRIBED ONLY:
 - A. +5V — PINS 1 & 2
 - B. GND — PINS 85 & 86
 - C. +12V — PINS 75 & 76
 - D. -13V — PINS 81 & 82
 - E. I/O BUSS — PINS 3 THRU 37.

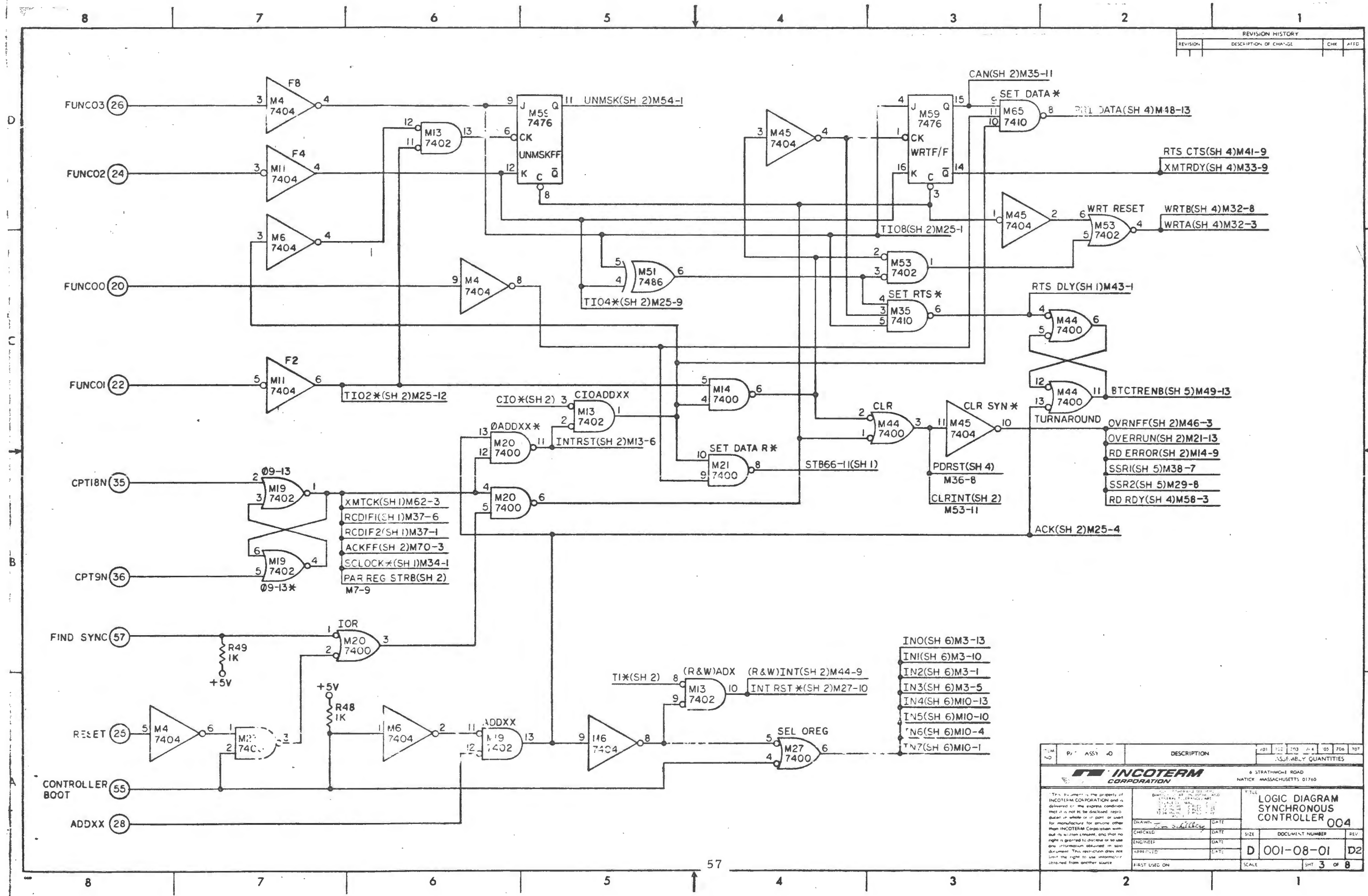
HIGHEST REF DES USED				ITEM				PART ASSY NO				DESCRIPTION			
R3E	C6	CR11	M70												
REF DES NOT USED				INCOTERM CORPORATION 4 STRATHMORE ROAD NATICK, MASSACHUSETTS 01790				TITLE: LOGIC DIAGRAM SYNCHRONOUS CONTROLLER 004							
R1-R6	R53	C7	CR1-CR8	This document is the property of INCOTERM CORPORATION. It is loaned to the recipient for use in the design and development of the product described herein. It is not to be reproduced, stored in a retrieval system, or used for any other purpose without the written consent of INCOTERM CORPORATION.				CHECKED: [] DATE: [] DATE: [] FIRST USED ON: []							
R6-R19	M15	M16	M22 M23					SCALE: []							
R22-R25	M28	M42	M43 M52					DOCUMENT NUMBER: 001-08-01							
R27-R46	M63	M66	M68					SHEET: 1 OF 8							



REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD

ITEM NO	PART ASSY NO	DESCRIPTION	QTY	REV	DATE	SIZE	DOCUMENT NUMBER	REV
INCOTERM CORPORATION 6 SPATHWOLD ROAD NATICK, MASSACHUSETTS 01740								
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LOGIC DIAGRAM SYNCHRONOUS CONTROLLER 004								
CHECKED	DATE	SIZE	DOCUMENT NUMBER	REV				
			D 001-08-01	D2				
APPROVED	DATE							
DATE USED ON								

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD



REV	DATE	BY	CHKD	APPD	SCALE	SHT	TOT

INCOTERM CORPORATION
8 STRATHMOOR ROAD
MATTICK, MASSACHUSETTS 01760

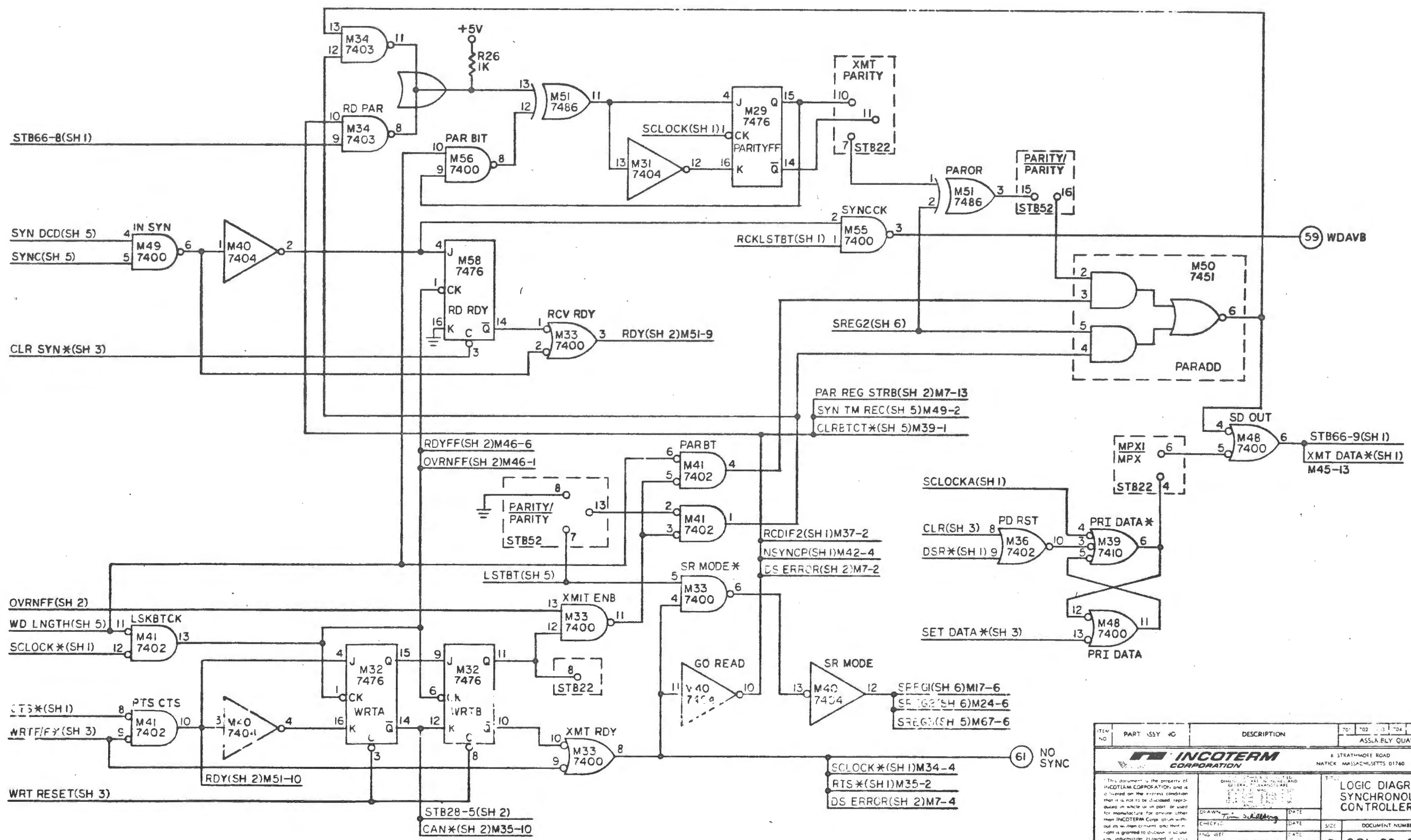
**LOGIC DIAGRAM
SYNCHRONOUS
CONTROLLER 004**

DRAWN	DATE	SIZE	DOCUMENT NUMBER	REV
CHECKED	DATE			
APPROVED	DATE			

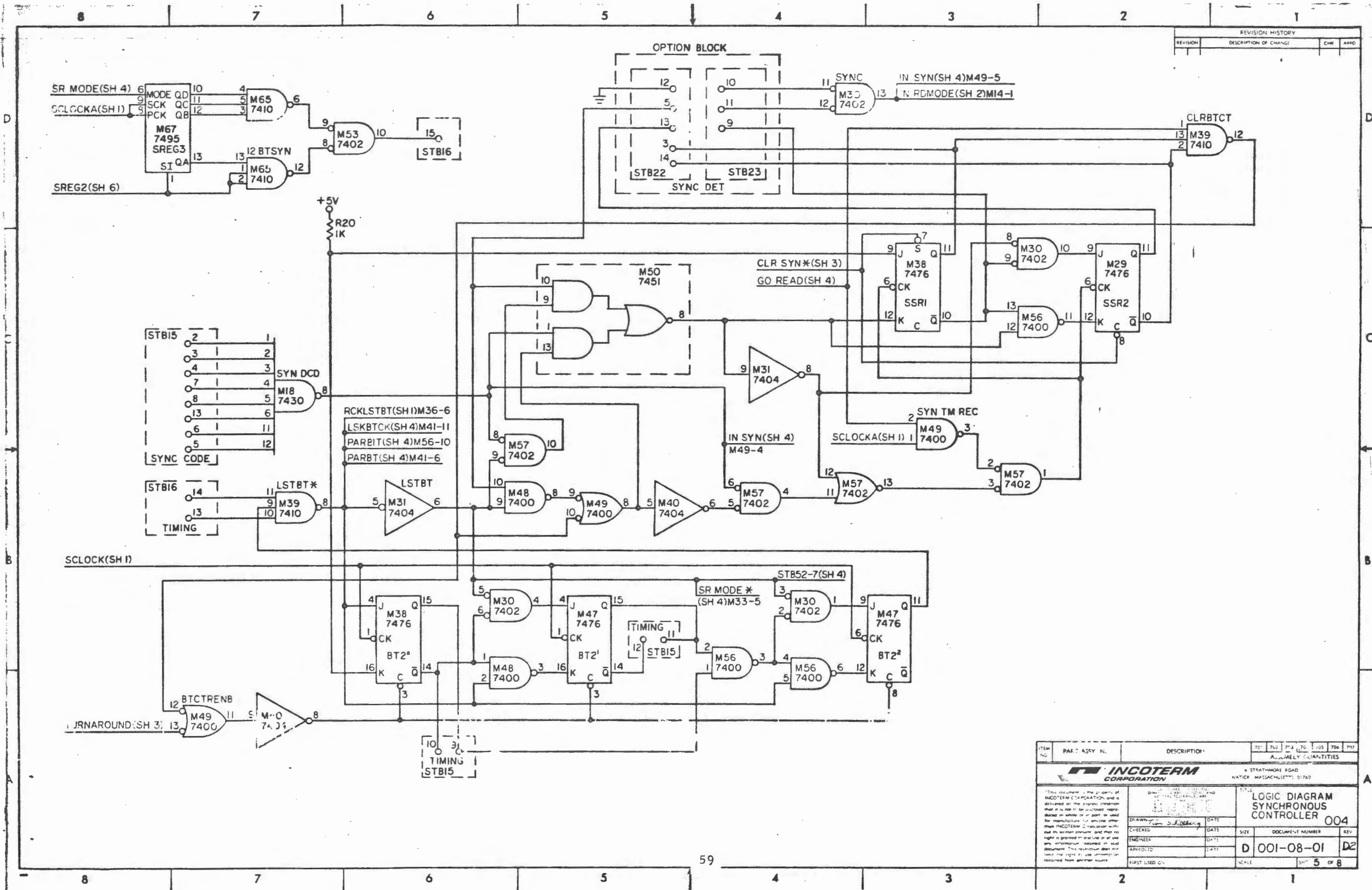
FIRST USED ON: _____

SCALE: _____ SHT 3 OF 8

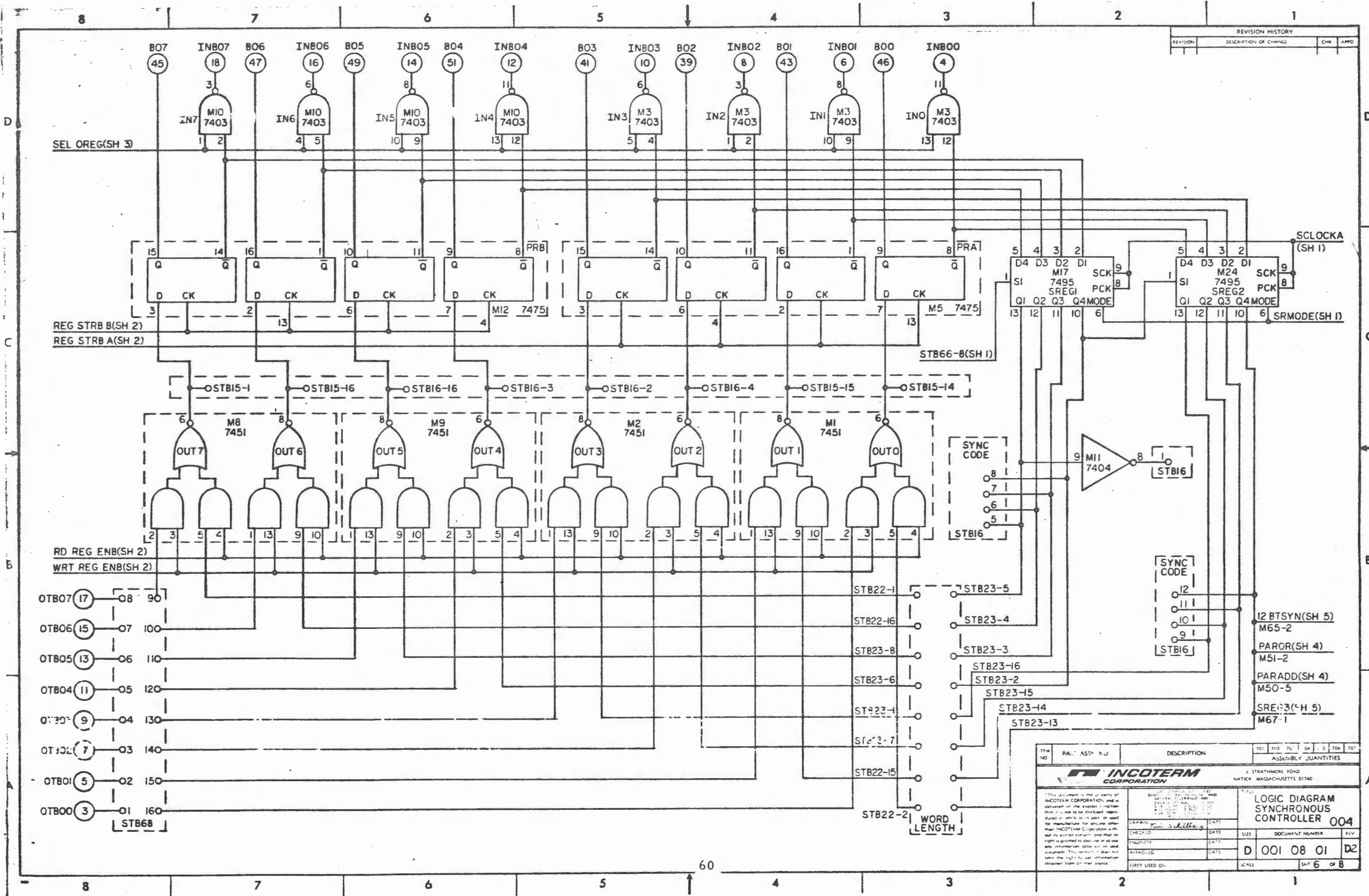
REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APP



ITEM NO.	PART ISSY NO.	DESCRIPTION	70	71	72	73	74	75	76	77
INCOTERM CORPORATION 6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01740										
LOGIC DIAGRAM SYNCHRONOUS CONTROLLER 004										
DRAWN	DATE	CHECKED	DATE	SIZE	DOCUMENT NUMBER	REV.				
ENG. DESIGNED	DATE	APP. DESIGNED	DATE	SCALE	SHT 4 OF 8					
FIRST USED ON	DATE									



ITEM NO	PART ASSY IN.	DESCRIPTION	701	702	703	704	705	706	707	
		APPROPRIATE QUANTITIES								
		6 STRATHMORE ROAD NATICK MASSACHUSETTS 01760								
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DRAWN	DATE	CHECKED	DATE	SIZE	DOCUMENT NUMBER	REV				
DESIGNED	DATE	APPROVED	DATE	D	001-08-01	D2				
FIRST USED ON	SCALE	5 of 8								



REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD

REV	NO	DATE	DESCRIPTION	701	702	703	704	705	706	707

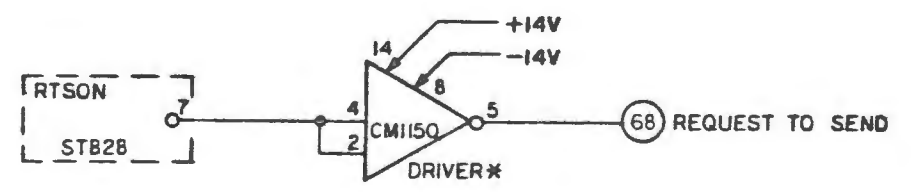
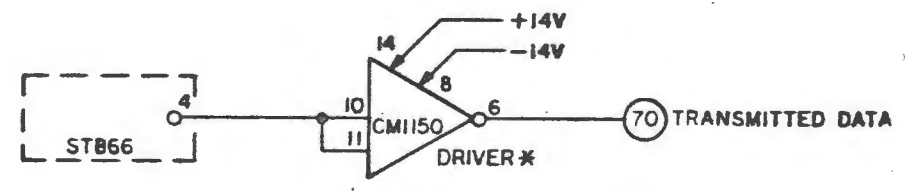
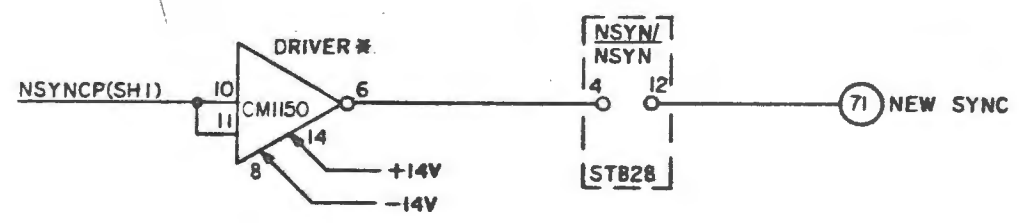
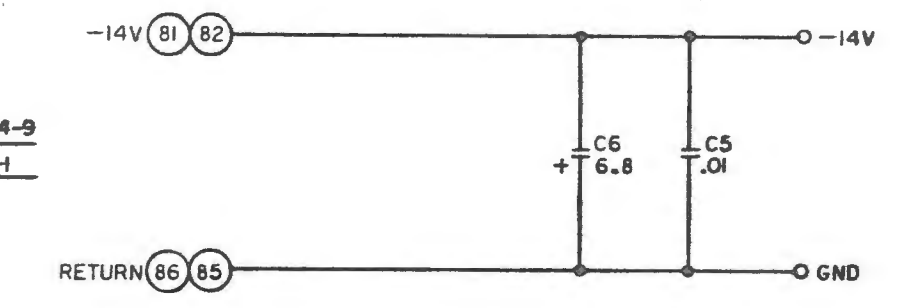
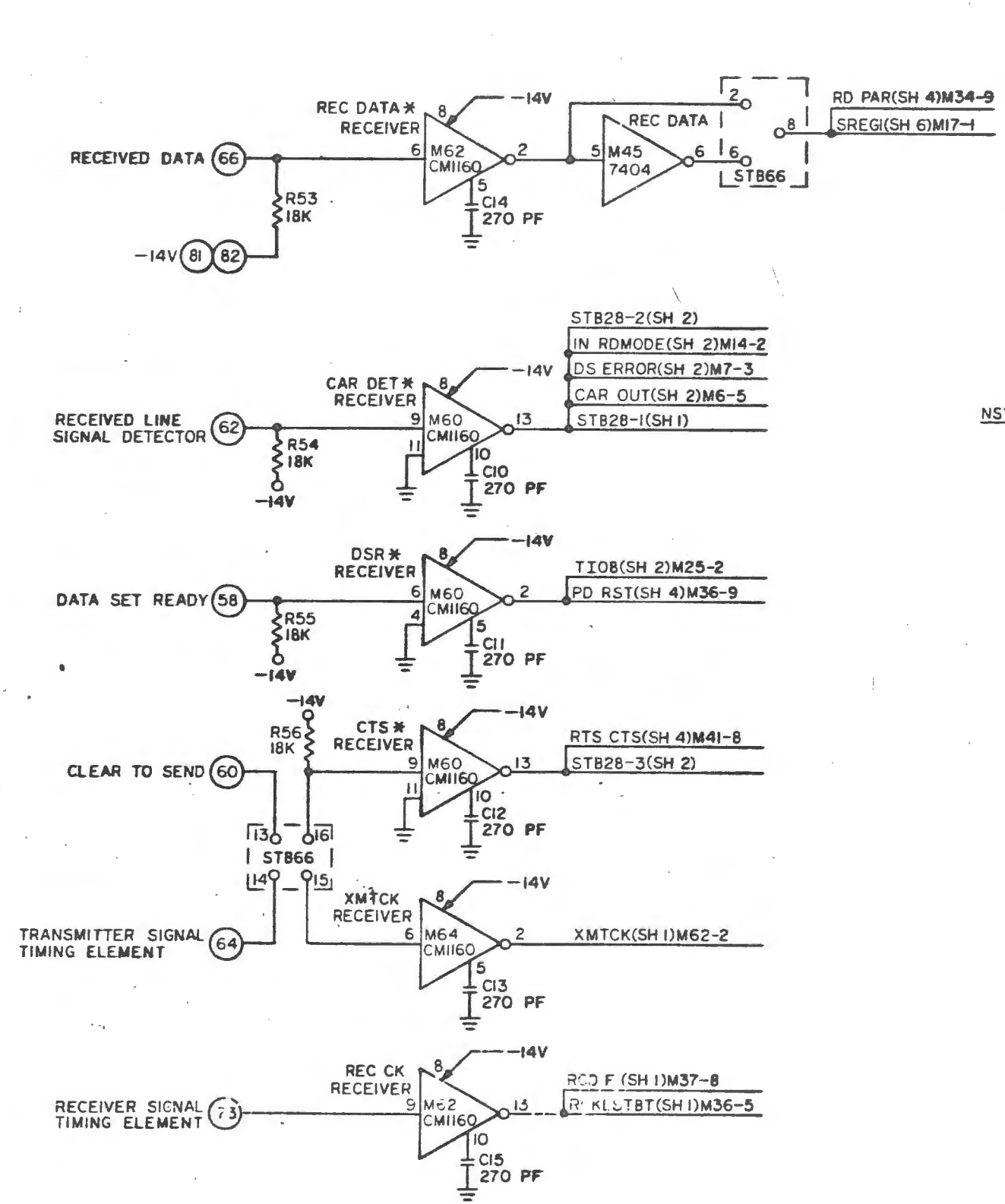
INCOTERM CORPORATION
 6 STRATHMORE ROAD
 NATICK, MASSACHUSETTS 01760

LOGIC DIAGRAM
 SYNCHRONOUS
 CONTROLLER 004

DRAWN	DATE	SIZE	DOCUMENT NUMBER	REV
CHECKED	DATE			
APPROVED	DATE			

D 001 08 01 D2
 SHEET 6 OF 8

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APP



APPLICABLE TO P/C BOARDS USING ART.WORK REV A & B ONLY

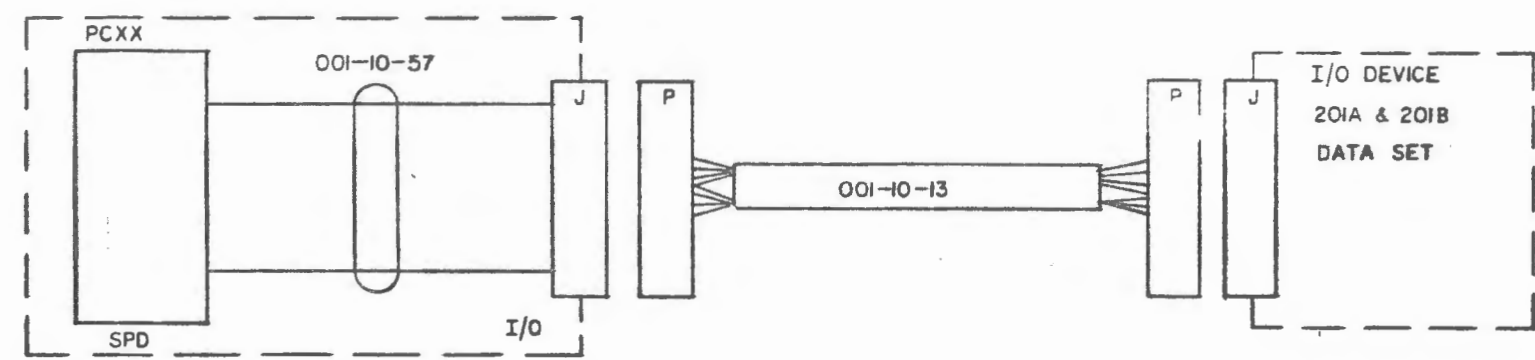
REV	DATE	DESCRIPTION	101	102	103	104	105	106	107

INCOTERM CORPORATION
6 STEATHORE ROAD
NATICK, MASSACHUSETTS 01760

LOGIC DIAGRAM
SYNCHRONOUS CONT
004

CHECKED	DATE	SIZE	DOCUMENT NUMBER	EFF.
APPROVED	DATE			
FIRST USED ON		SCALE		SHT 7 of 8

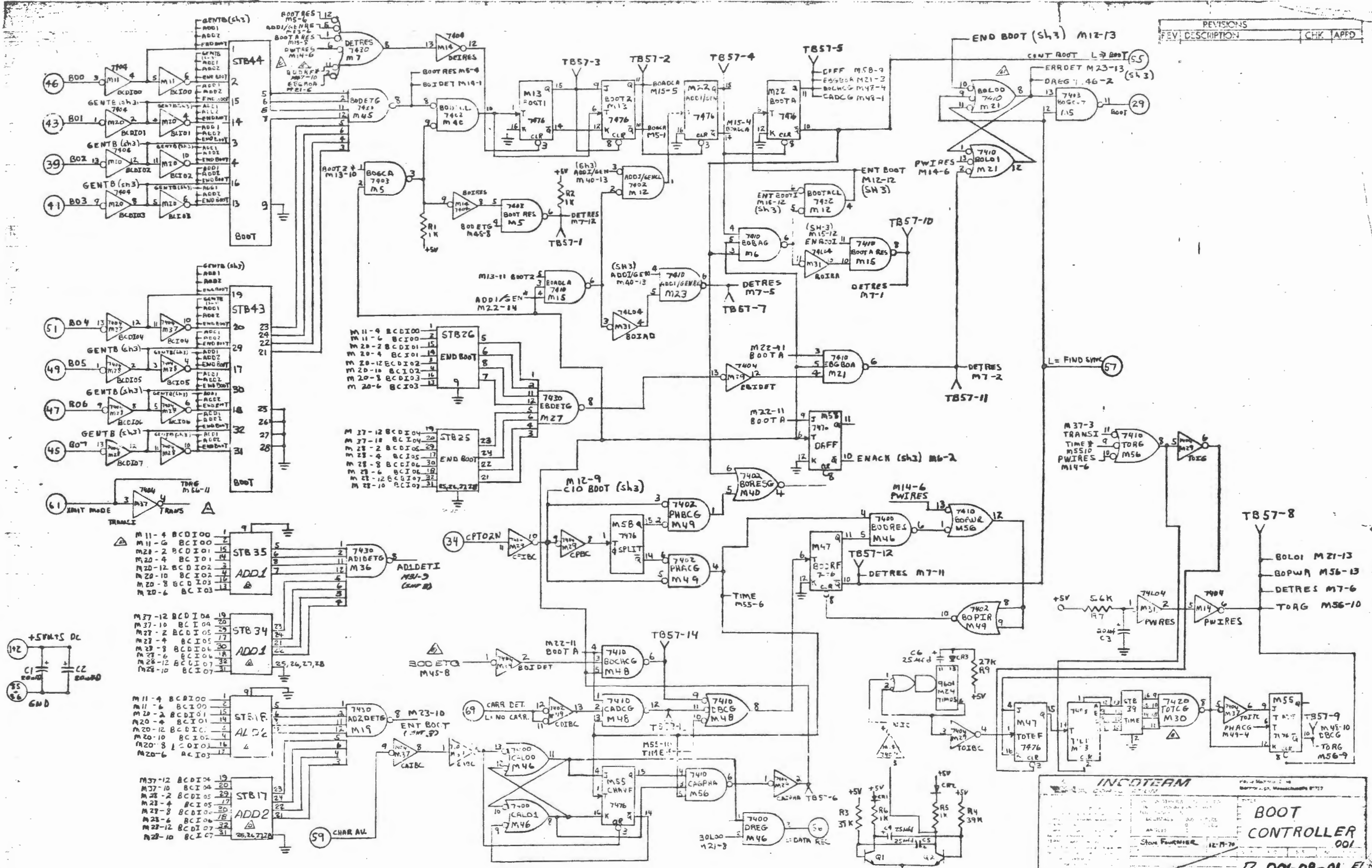
REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD



SIGNAL NAME (LOGIC)	PCXX → I/O WIRE	I/O CABLE COLOR CODE	DEVICE SIGNAL NAME
70	1	BLACK	1 PROTECTIVE GND
66	2	RED	2 TRANSMITTED DATA
68	3	GREEN	3 RECEIVED DATA
60	4	WHITE	4 REQUEST TO SEND
58	5	BROWN	5 CLEAR TO SEND
	6	BLUE	6 DATA SET READY
62	7	ORANGE	7 SIGNAL GND
	8	YELLOW	8 RECEIVED LINE SIGNAL DETECTOR
	9		9
	10		10
	11		11
	12		12
	13	VIOLET	13 SPARE (UNASSIGNED)
71	14	GREY	14 NEW SYNC
64	15	WHITE/BLACK	15 TRANSMITTER SIGNAL TIMING ELEMENT
	16		16
73	17	WHITE/RED	17 RECEIVER SIGNAL TIMING ELEMENT
	18		18
63	19	WHITE/ORANGE	19 REMOTE RELEASE
67	20	WHITE/YELLOW	20 DATA TERMINAL READY
65	21	WHITE/GREEN	21 READY
	22		22
	23		23
	24		24
	25		25

ITEM NO.	PART ACQY. NO.	DESCRIPTION	701	702	703	704	705	706	707
			ASSEMBLY QUANTITIES						
		6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01740							
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REVISIONS		CHK	APPD
REV	DESCRIPTION		



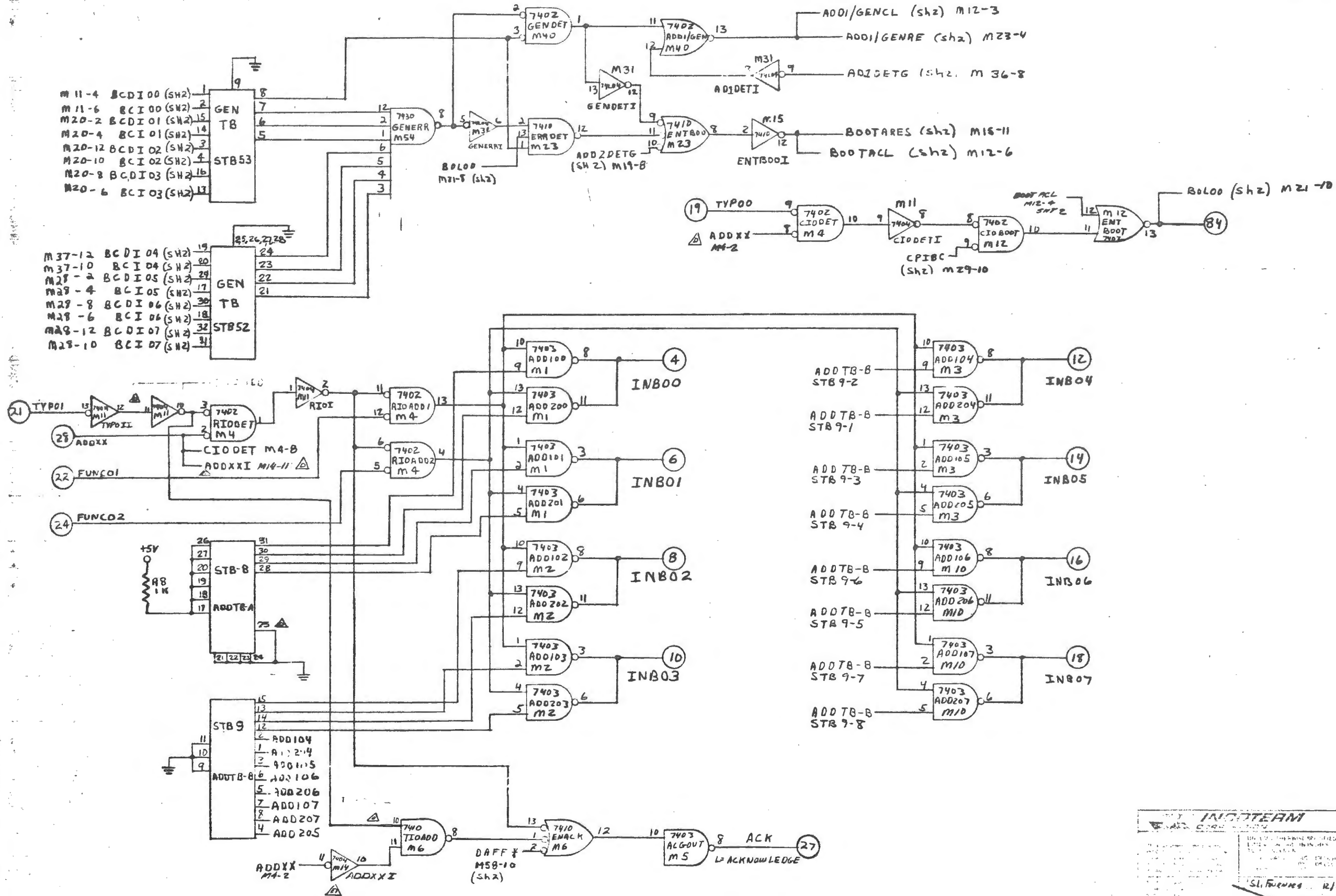
INCOTERM

BOOT CONTROLLER 001

Store POWERWER 12-7-79

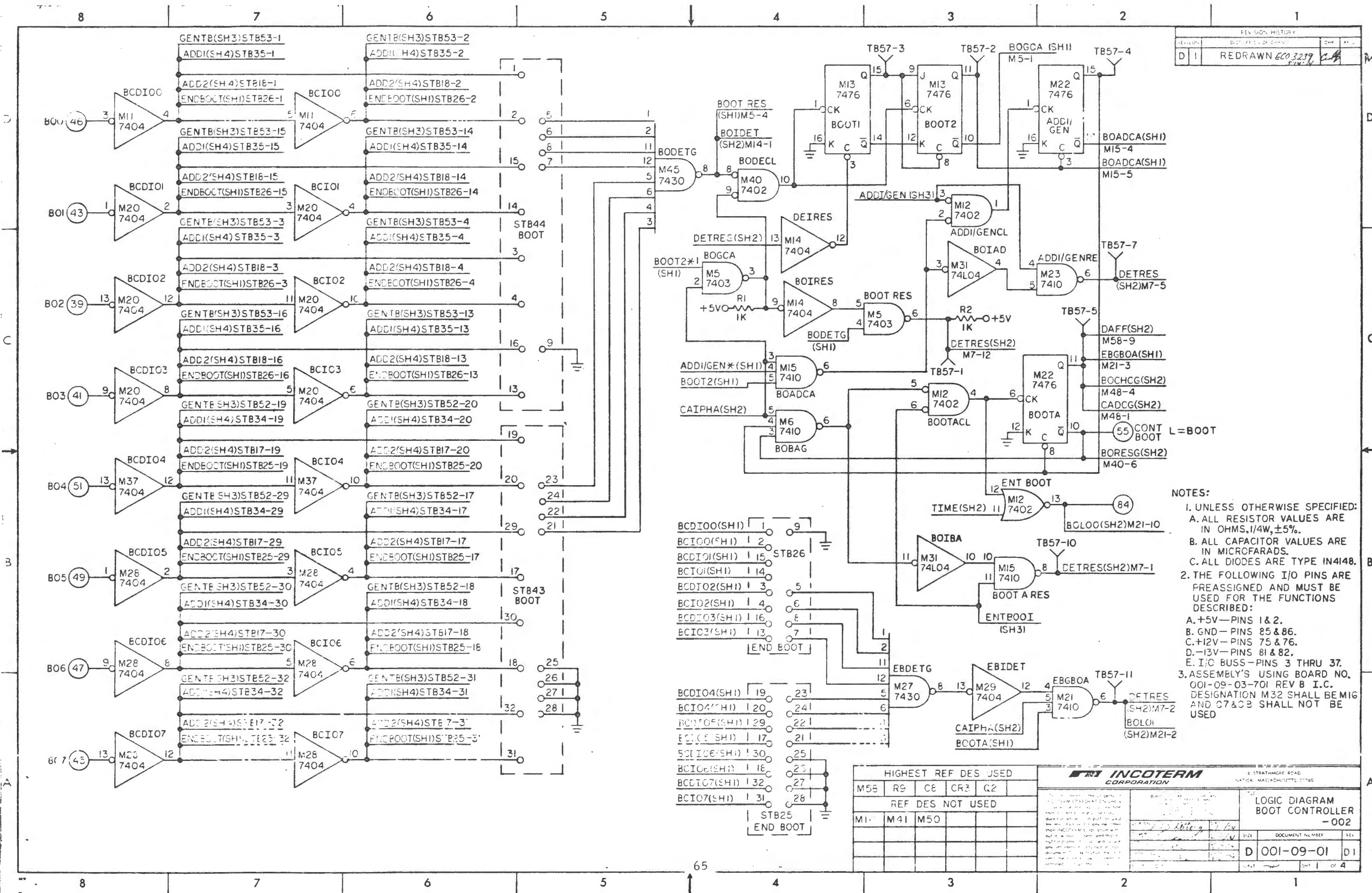
D 001-09-01

REV	DESCRIPTION	CHK	APPD



INGOTERM		Hyalis Memorial Drive Marblehead, Massachusetts 01947	
DATE OF THE ENGINE REVISION	DATE OF THE BOARD REVISION	BOOT CONTROLLER	
		SI, FURNES 12/21/70	
		D 001-09-01 E1	
		303	

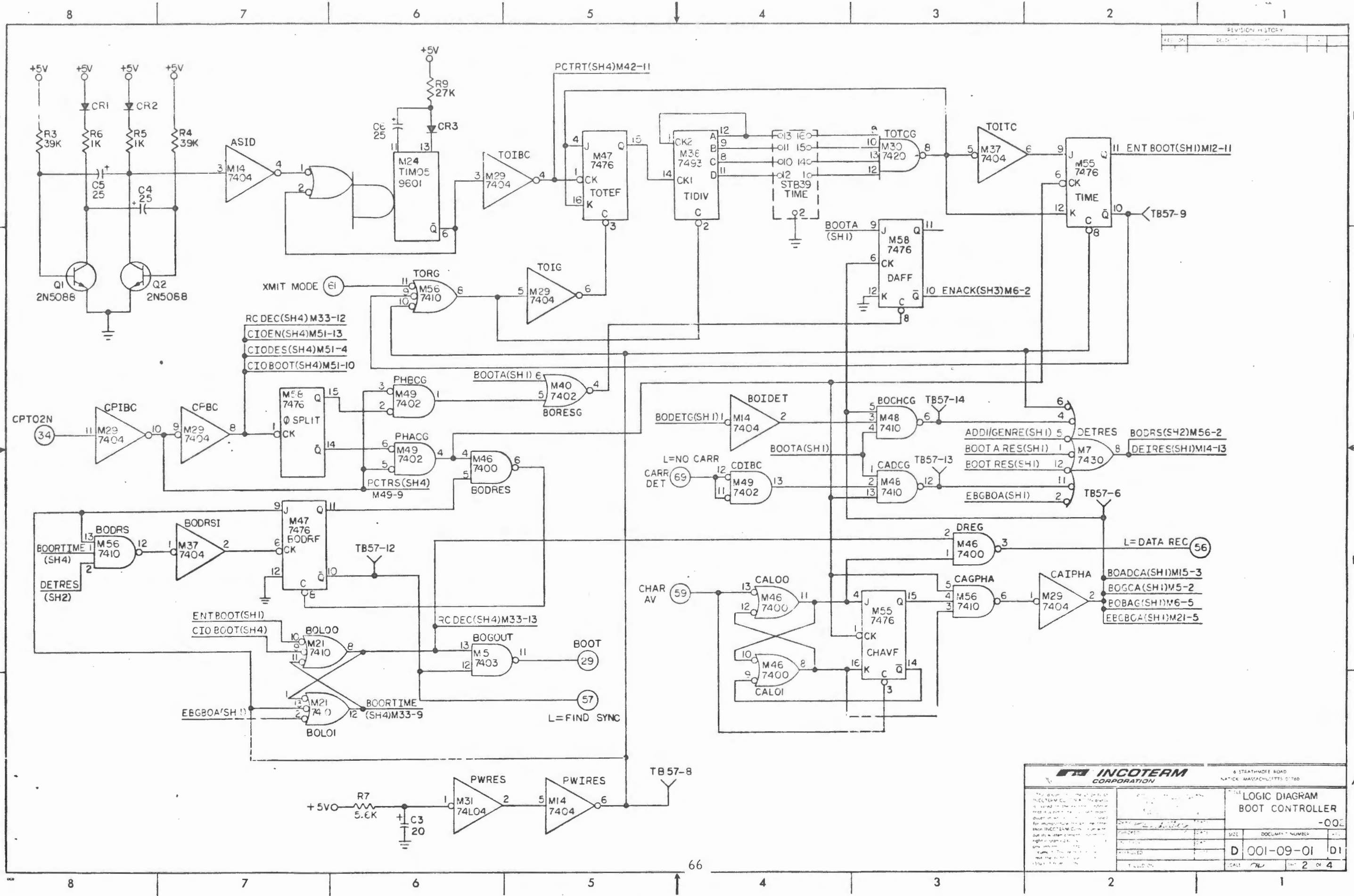
REVISION HISTORY		CHK	DATE
D 1	REDRAWN ECO 3239		



- NOTES:**
- UNLESS OTHERWISE SPECIFIED:
 - ALL RESISTOR VALUES ARE IN OHMS, 1/4W, ±5%.
 - ALL CAPACITOR VALUES ARE IN MICROFARADS.
 - ALL DIODES ARE TYPE IN4148.
 - THE FOLLOWING I/O PINS ARE PREASSIGNED AND MUST BE USED FOR THE FUNCTIONS DESCRIBED:
 - +5V—PINS 1 & 2.
 - GND—PINS 85 & 86.
 - +12V—PINS 75 & 76.
 - 13V—PINS 81 & 82.
 - I/O BUSS—PINS 3 THRU 37.
 - ASSEMBLY'S USING BOARD NO. 001-09-03-701 REV B I.C. DESIGNATION M32 SHALL BE M16 AND C7 & C9 SHALL NOT BE USED

HIGHEST REF DES USED		REF DES NOT USED	
M58	R9	C8	CR3
Q2			
M1	M41	M50	

		LOGIC DIAGRAM BOOT CONTROLLER -002	
		DOCUMENT NUMBER D 001-09-01	REV D 1



REVISION HISTORY	
REV. NO.	DATE

INCOTERM CORPORATION
 6 STRATHMORE ROAD
 NATICK, MASSACHUSETTS 01960

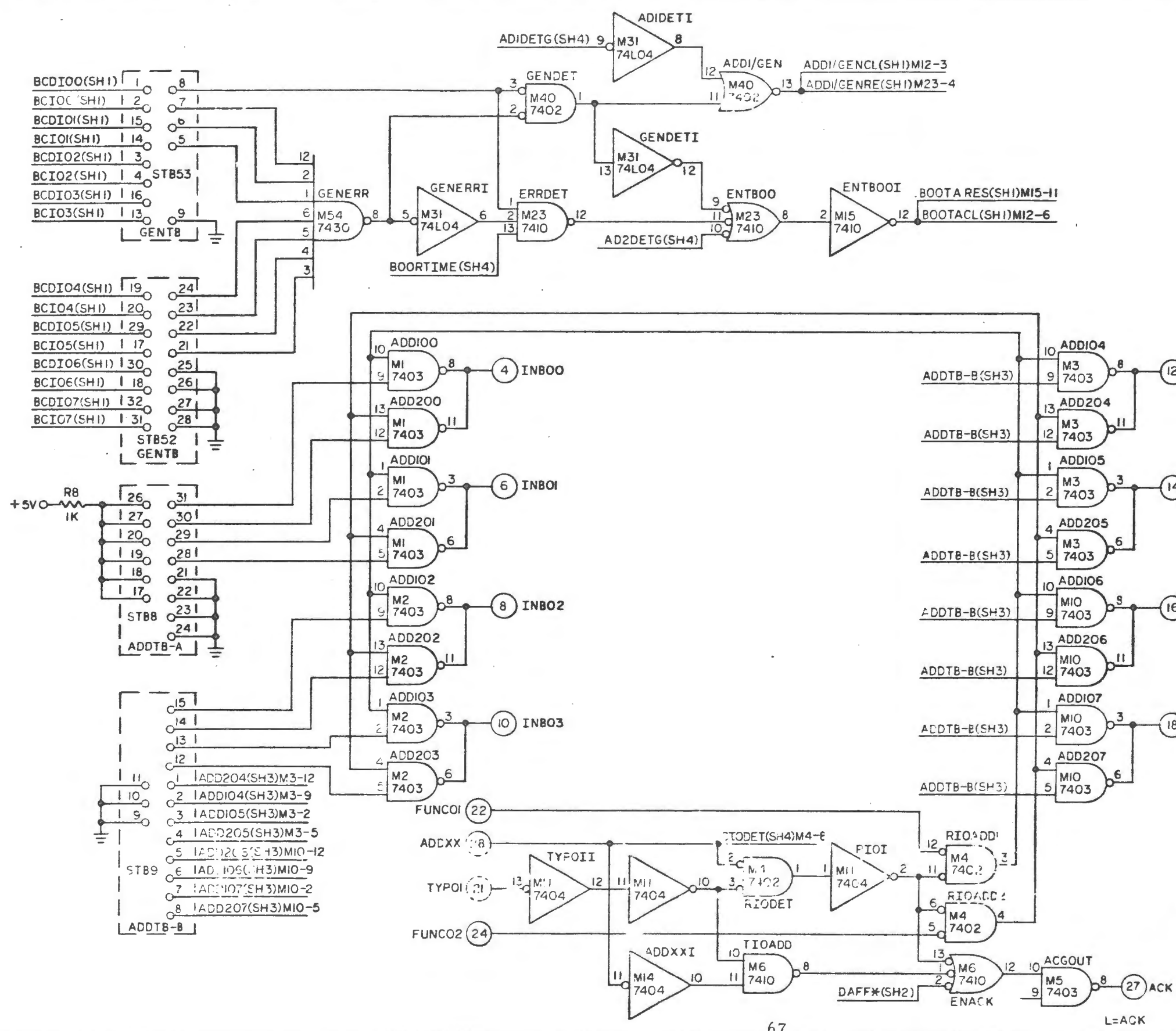
**LOGIC DIAGRAM
 BOOT CONTROLLER**
 -002

REV.	DATE	SIZE	DOCUMENT NUMBER

SCALE: 1/8" = 1"

PAGE: 2 OF 4

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	DATE



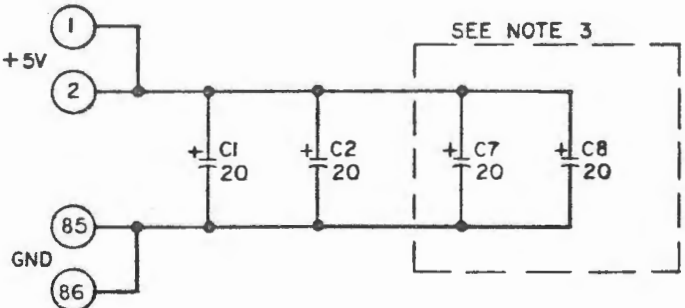
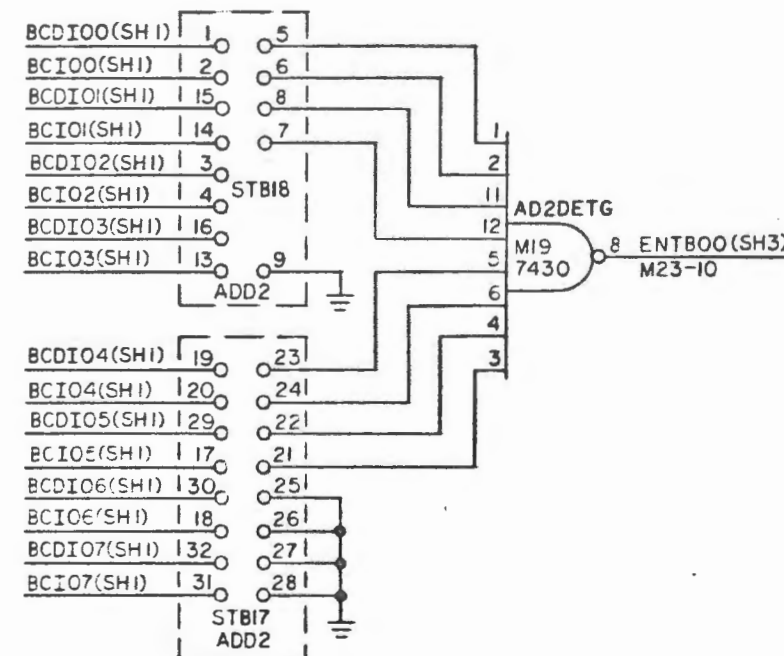
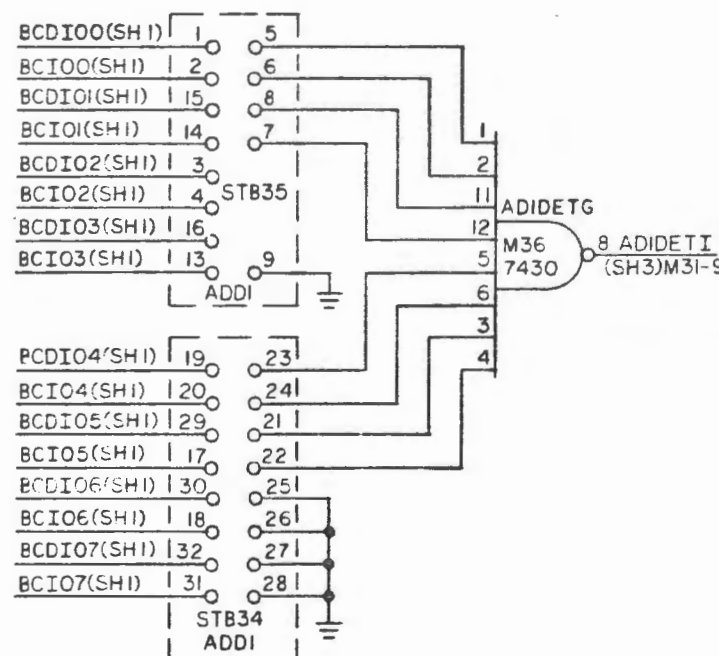
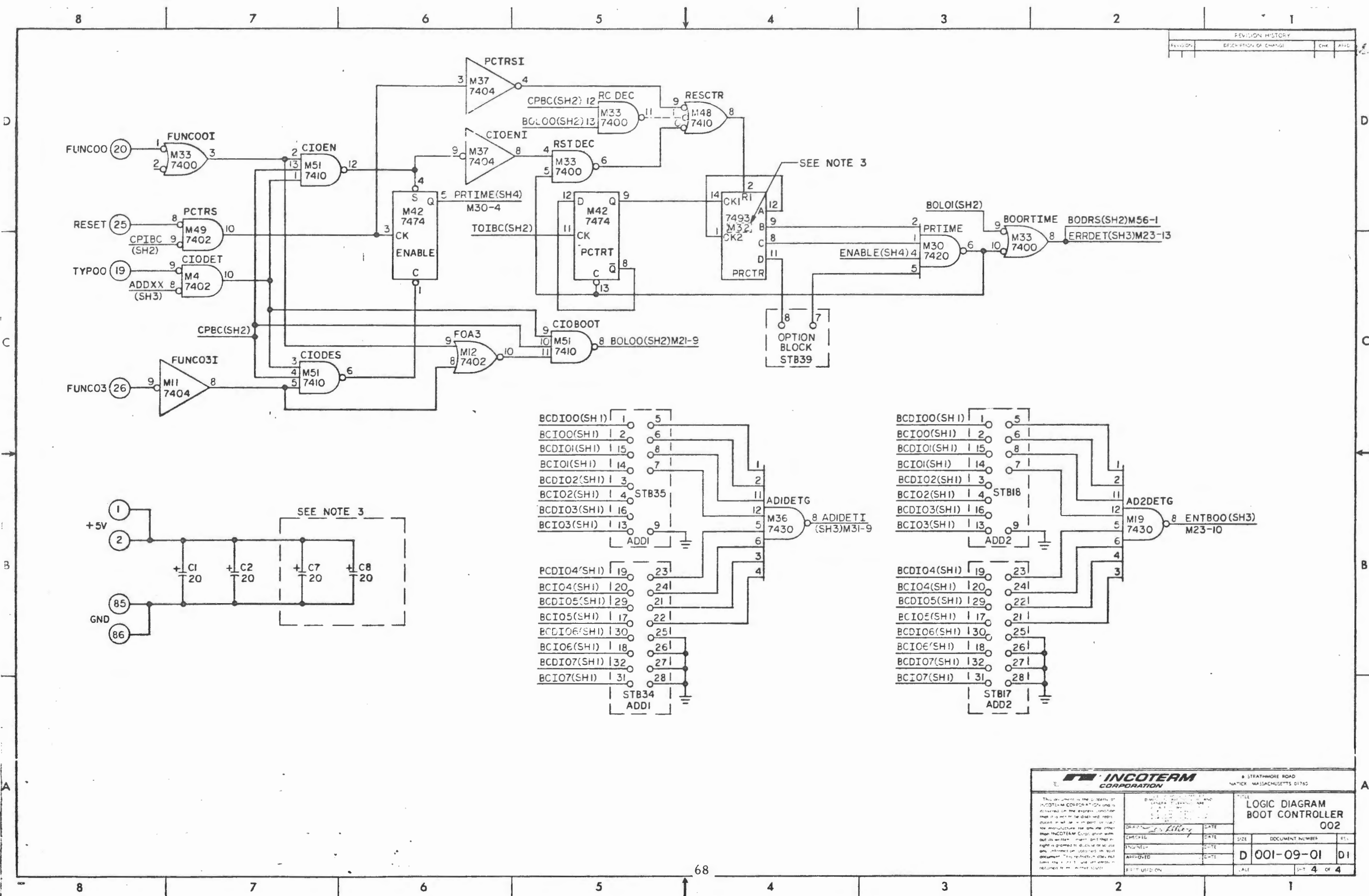
INCOTERM CORPORATION
 10 STRATHMORE ROAD
 NATICK, MASSACHUSETTS 01740

LOGIC DIAGRAM BOOT CONTROLLER
 002

DESIGNED BY	DATE	SIZE	DOCUMENT NUMBER
ENGINNER	DATE	D	001-09-01
TESTED BY	DATE	SCALE	SHT 3 OF 4

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REVISION HISTORY			
REV	DESCRIPTION OF CHANGE	CHK	APPR

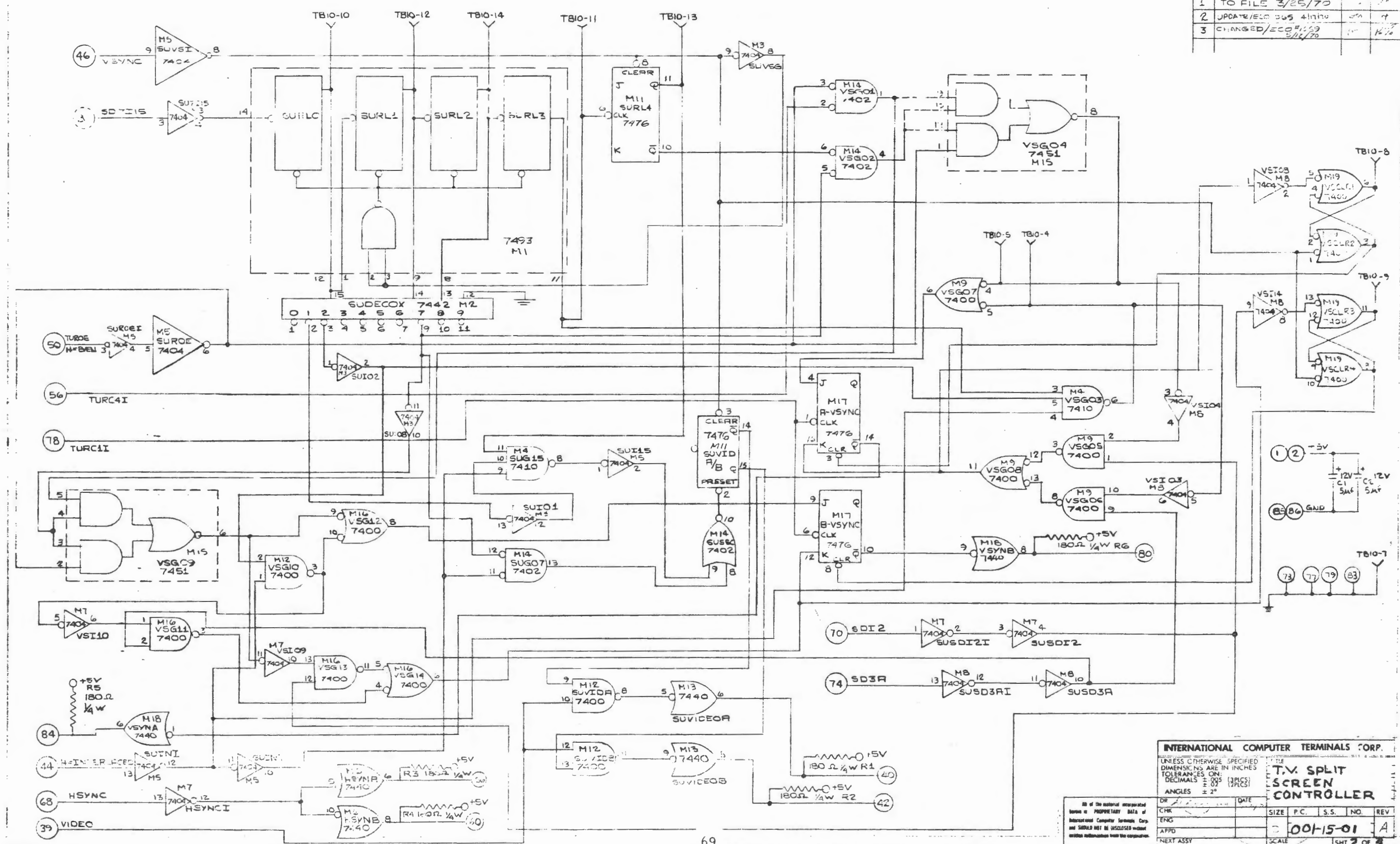


INCOTERM CORPORATION
 8 STRATHMORE ROAD
 NATICK, MASSACHUSETTS 01745

LOGIC DIAGRAM
 BOOT CONTROLLER
 002

DATE	DATE	DATE	DATE
DESIGNED BY	DATE	SIZE	DOCUMENT NUMBER
CHECKED	DATE	D	001-09-01
APPROVED	DATE		01
REVISION	DATE		SHT 4 OF 4

REVISIONS			
REV	DESCRIPTION	CHK	APPD
1	TO FILE 3/25/70		
2	UPDATE/ELEC BUS 4/1/70		
3	CHANGED/ELEC 5/11/70		



INTERNATIONAL COMPUTER TERMINALS CORP.

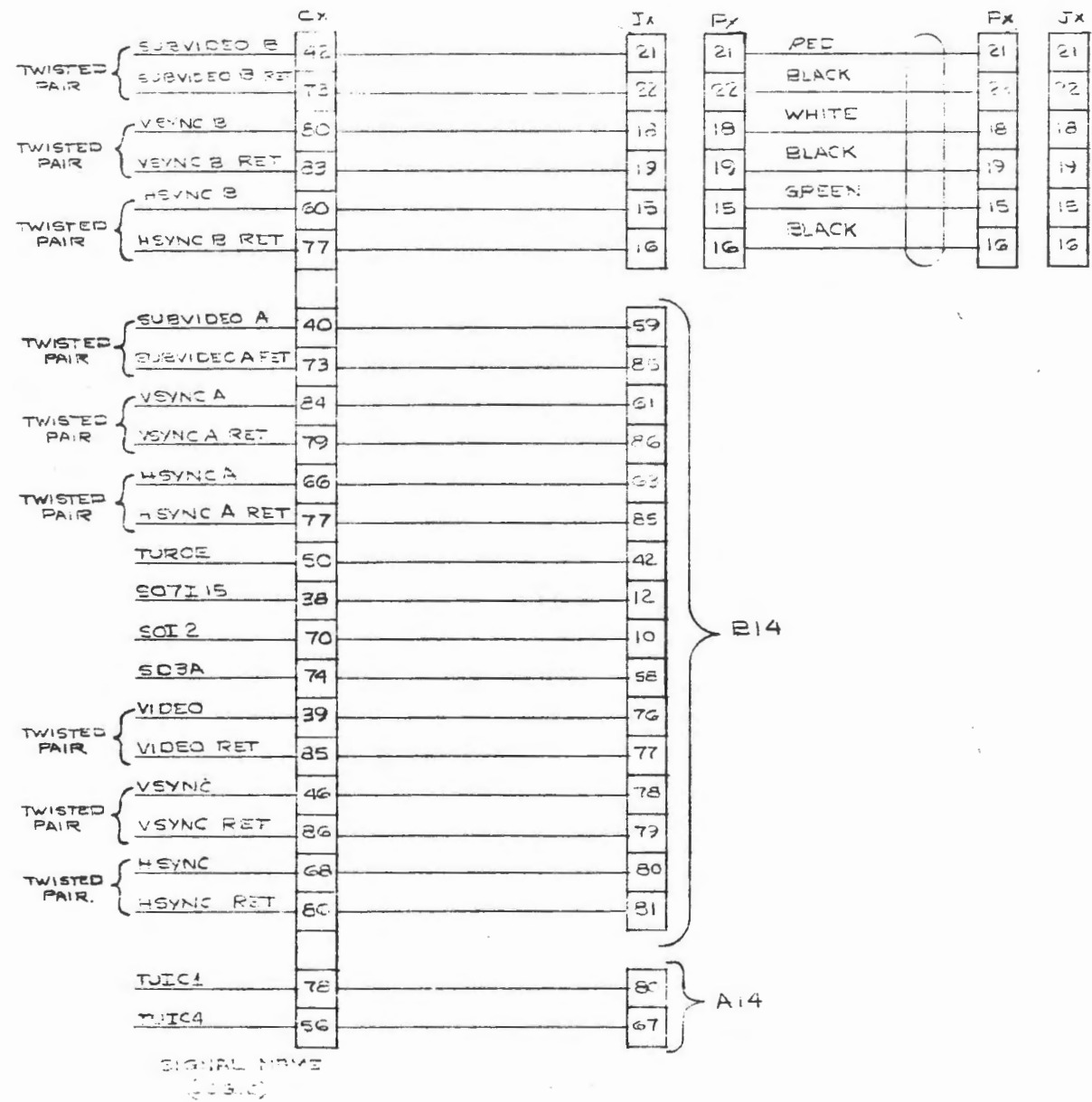
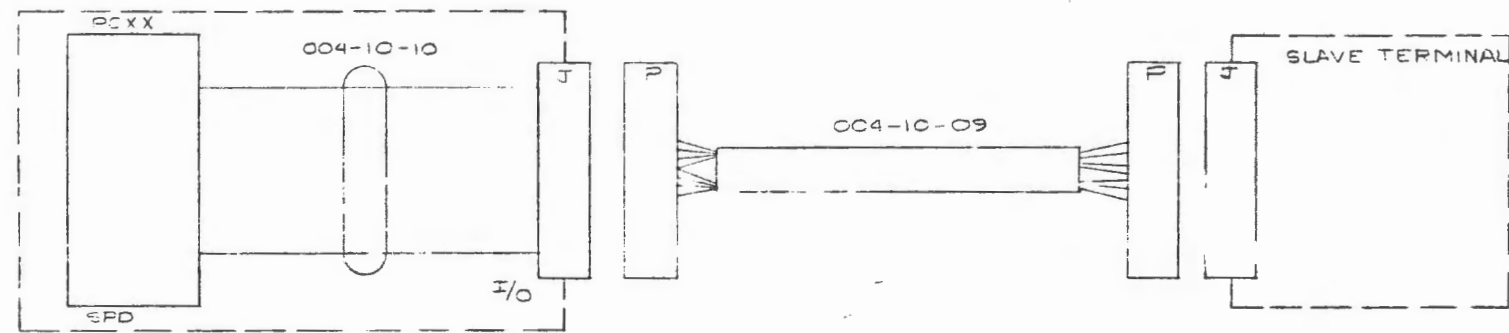
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS ± .005 (3 DEC) ANGLES ± 2°

T.V. SPLIT SCREEN CONTROLLER

DR	DATE	SIZE	P.C.	S.S.	NO.	REV
CHK						
ENGR						
APPD						
NEXT ASSY		SCALE				

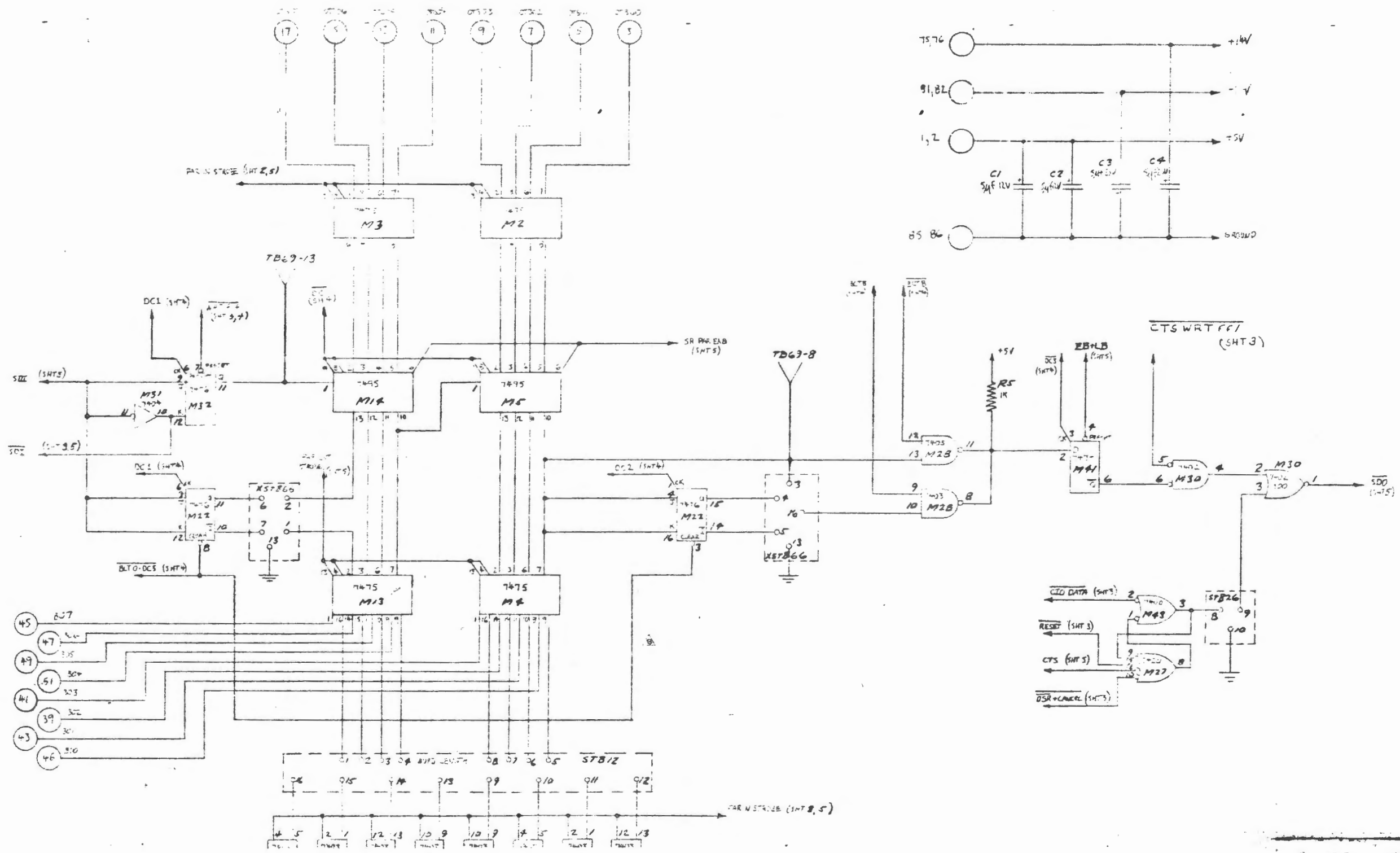
001-15-01 A

SHT 2 OF 3

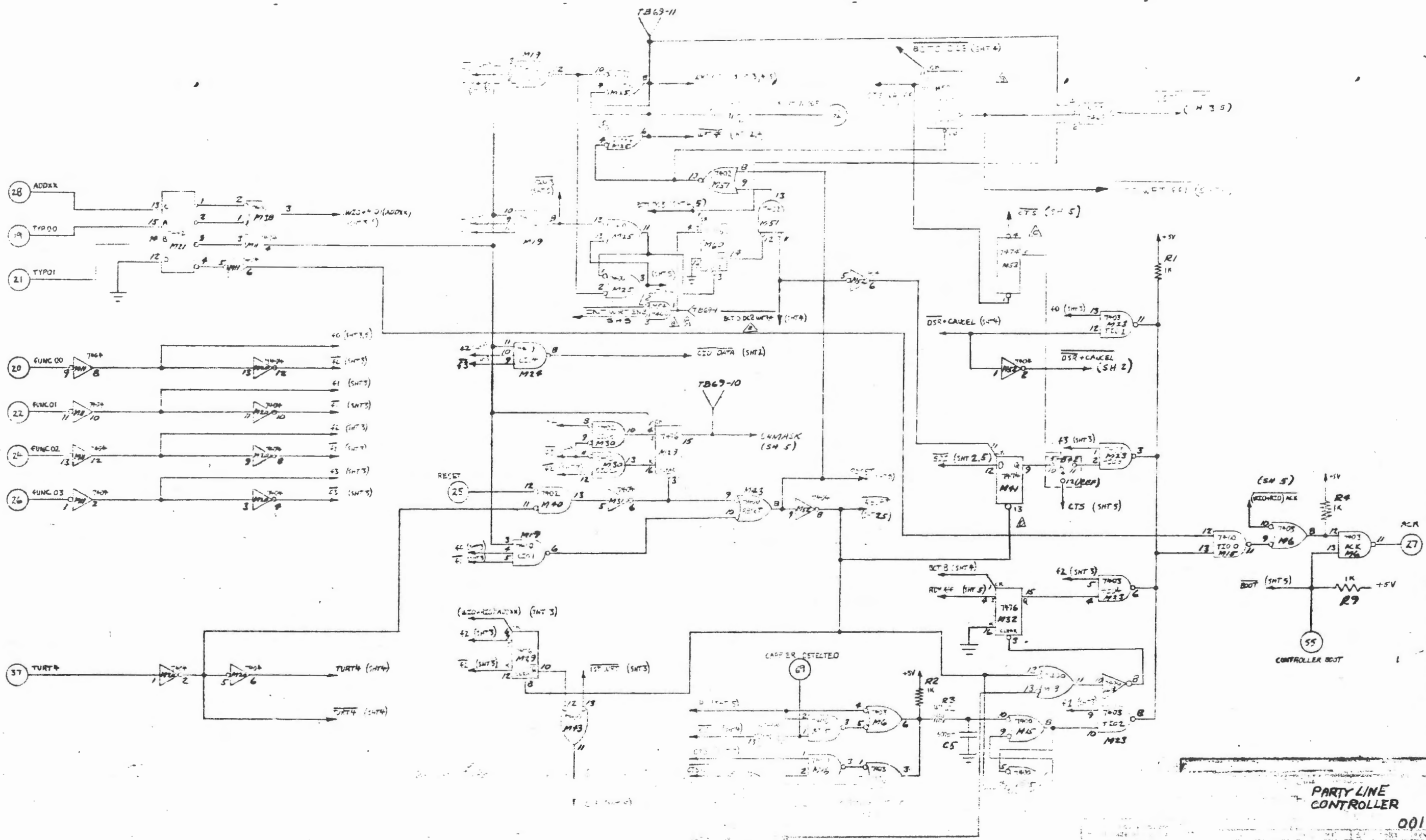


NOTES:
 ↓ BEFORE WIRING; REMOVE WIRES
 B14-76 TO B14-59
 B14-78 TO B14-61
 B14-80 TO B14-63

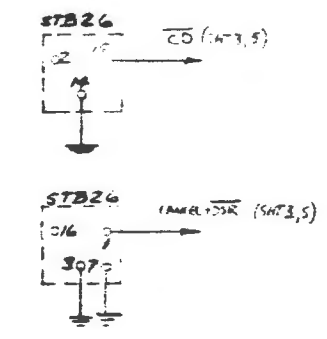
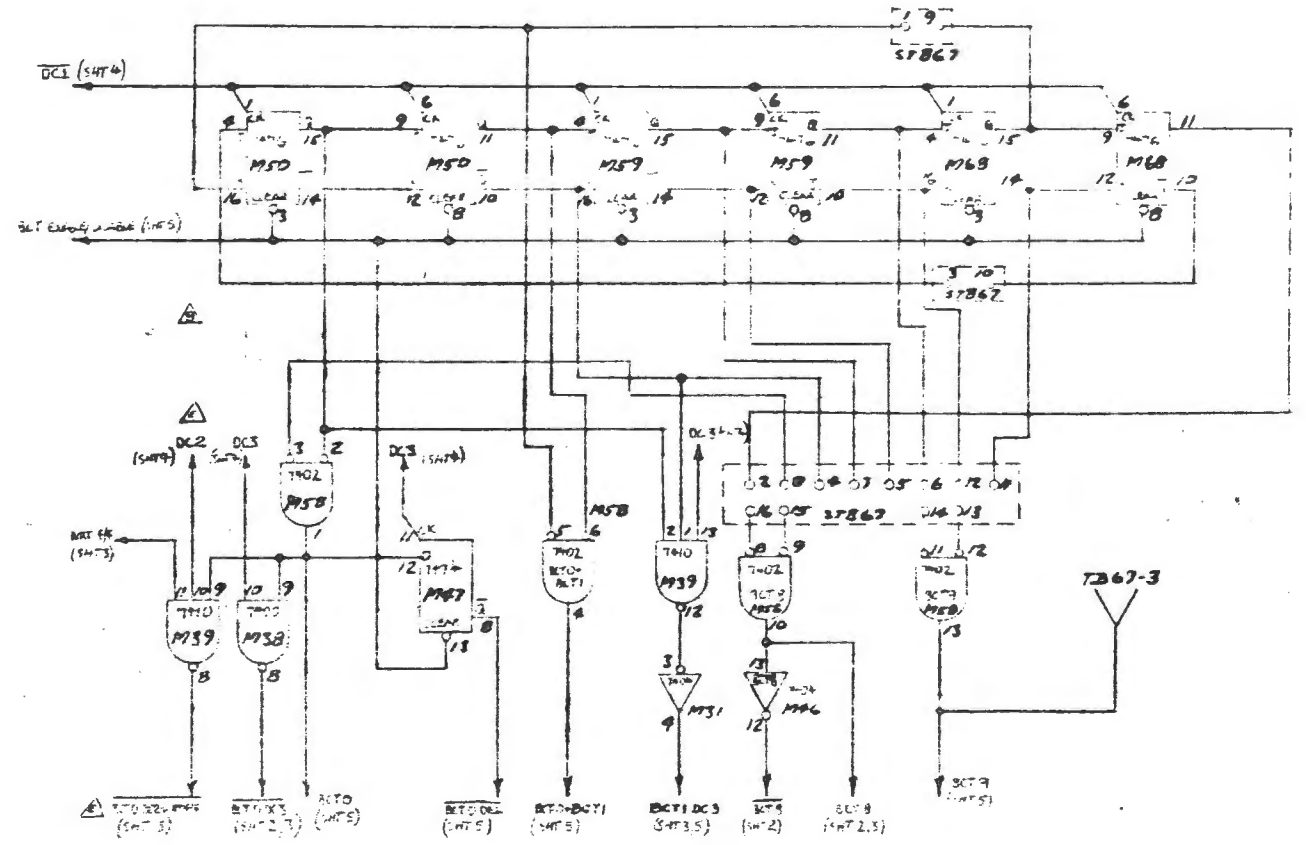
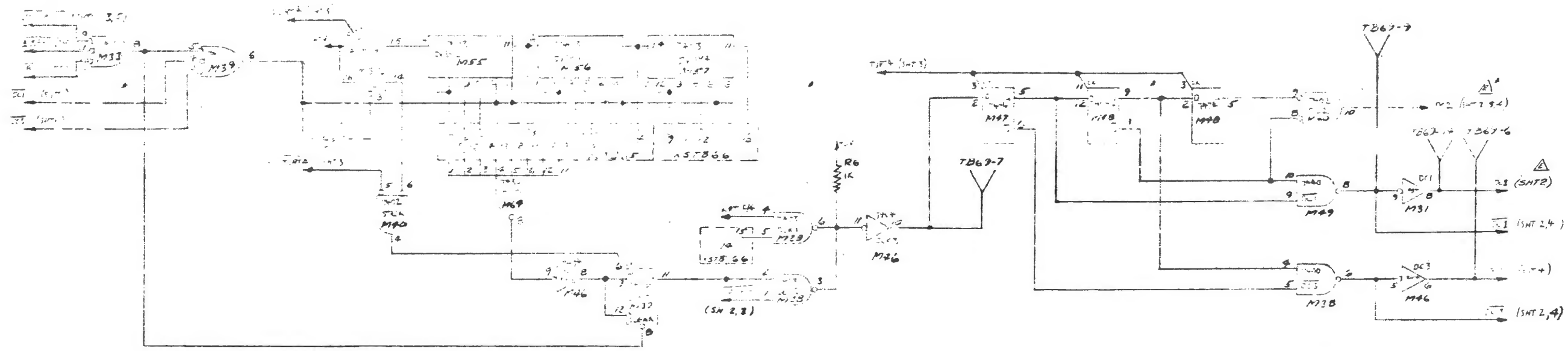
IN 70 TERM
 SPLIT SCREEN CONTROLLER
 D 001-15-01 A
 20-51-100



PARTY LINE
CONTROLLER
001
001-18-01

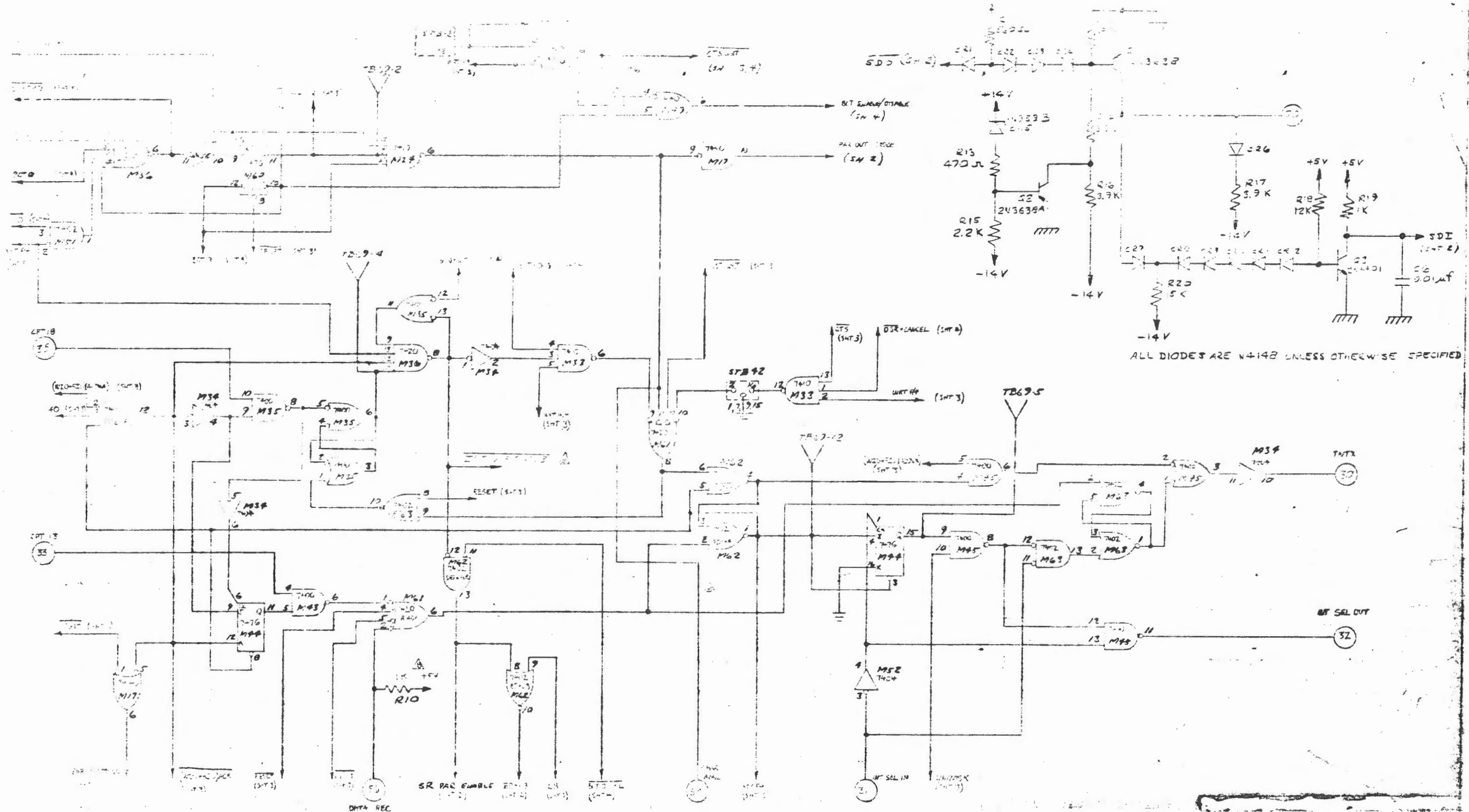


PARTY LINE
CONTROLLER
001
00118-01



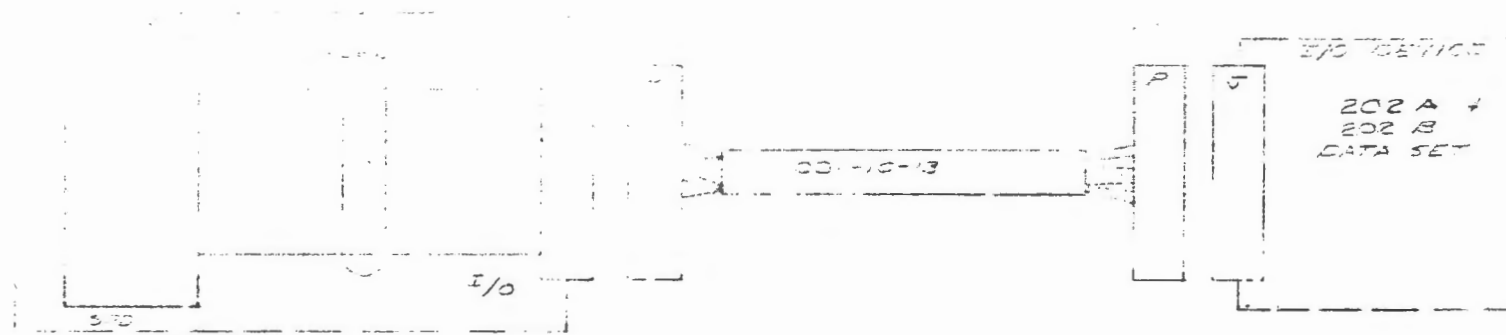
PARTY LINE
CONTROLLER

00110-01



PARTY LINE CONTROLLER

001-10-01

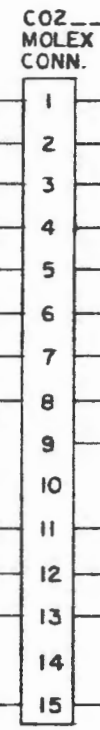
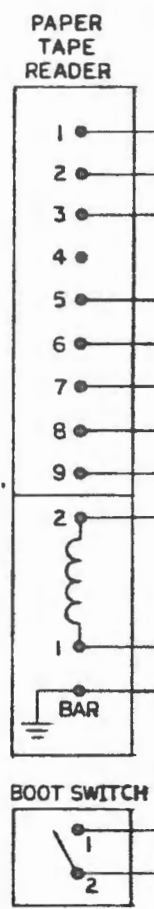


SIGNAL NAME (LOGIC)	PCXX → I/O	I/O TABLE COLOR CODE	DEVICE SIGNAL NAME
	1	BLACK	PROTECTIVE GROUND
70	2	WHITE	TRANSMITTED DATA
	3	RED	RECEIVED DATA
68	4	GREEN	REQUEST TO SEND
60	5	ORANGE	CLEAR TO SEND
58	6	BLUE	DATA SET READY
	7	WHITE/BLACK	SIGNAL GROUND
62	8	RED/BLACK	RECEIVED LINE SIGNAL DETECTOR
	9		
	10		
	11		
	12		
	13	GREEN/BLACK	SPARE UNASSIGNED
71	14	ORANGE/BLACK	NEW SYNC
64	15	BLUE/BLACK	TRANSMITTER SIGNAL TIMING ELEMENT (UNUSED)
	16		
73	17	BLACK/WHITE	RECEIVER SIGNAL TIMING ELEMENT (UNUSED)
	18		
63	19	RED/WHITE	REMOTE RELEASE (UNUSED)
67	20	GREEN/WHITE	DATA TERMINAL READY
65	21	BLUE/WHITE	READY (UNUSED)
	22		
	23		
	24		
	25		

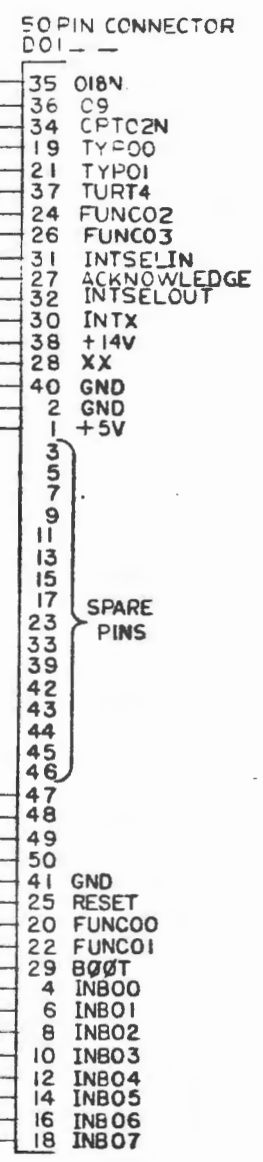
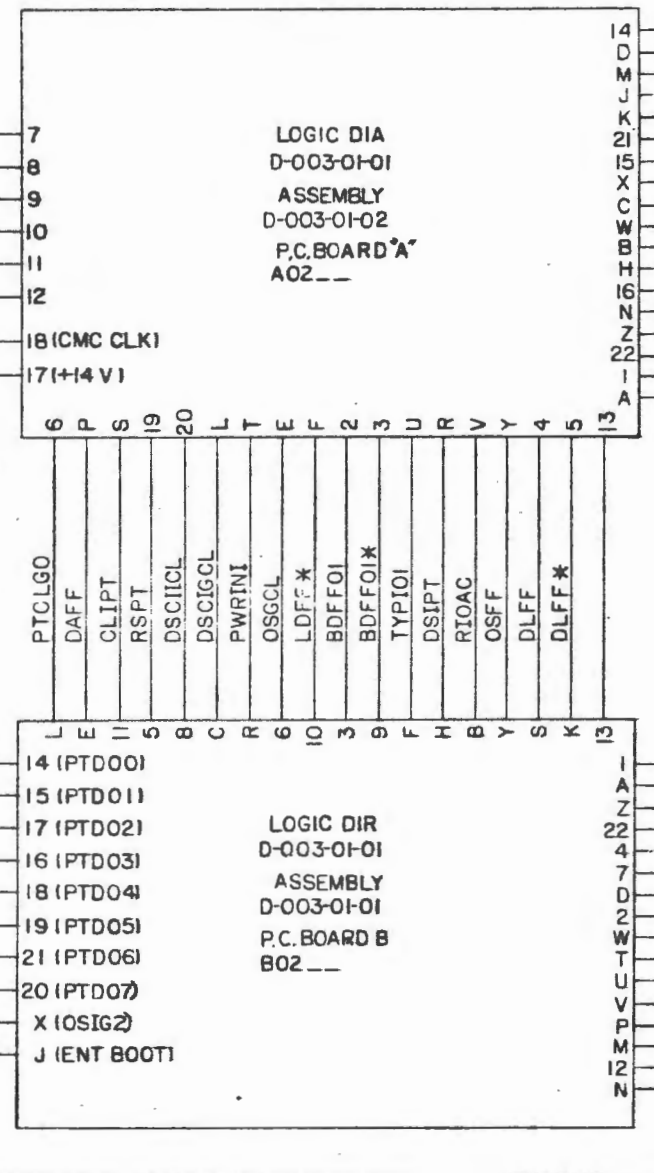
PARTY LINE
CONTROLLER

0018-01

REVISION HISTORY			
REV.	DESCRIPTION	DATE	BY
A1	REV. 2 REDRAWN EDD 2-4-75		
B	REVISED/ECO 323*	5/22/79	clh



SPARE PINS
7
8
9
10
11
12

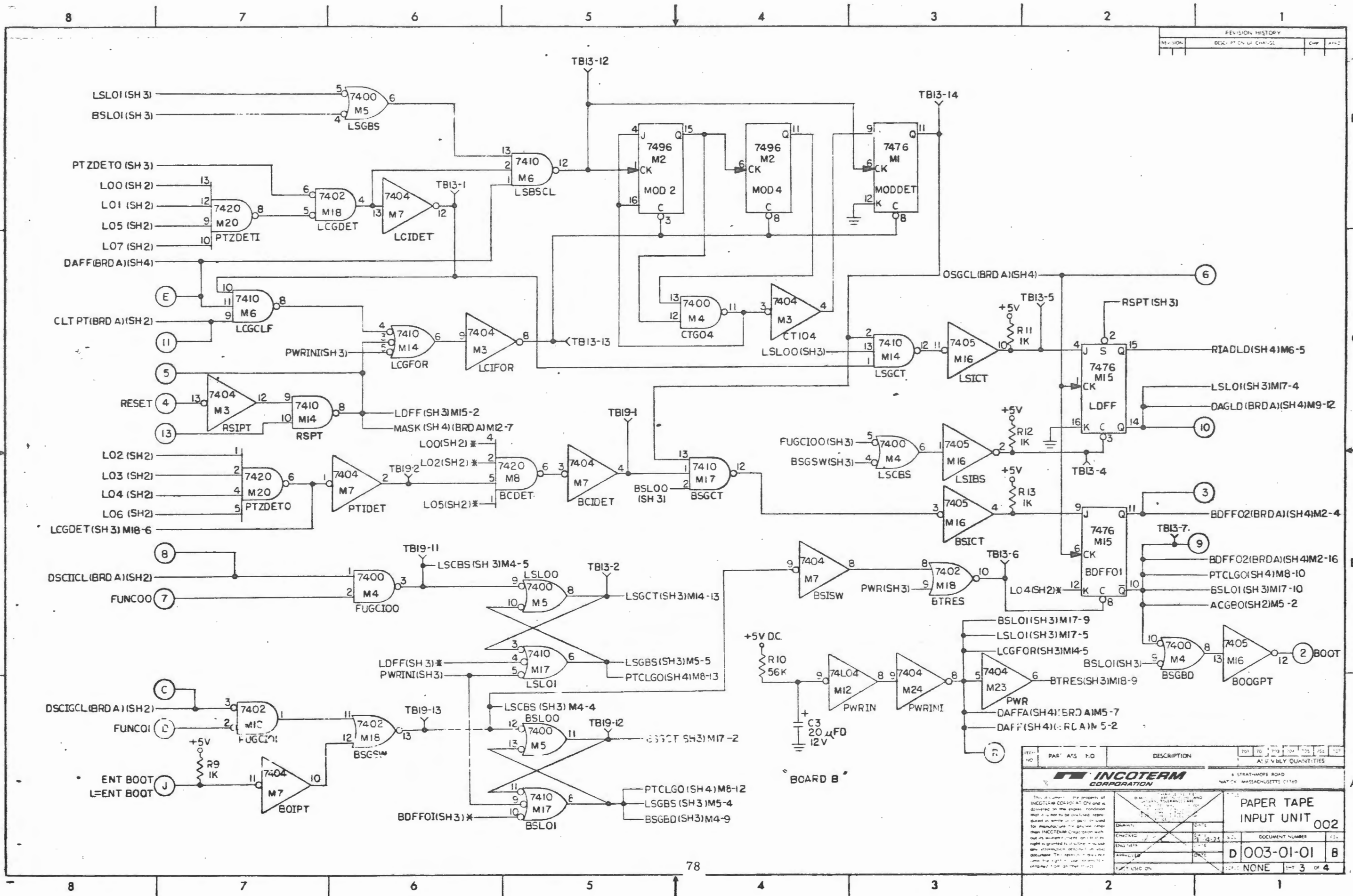


WIRE LIST
A-003-10-23

NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL RESISTORS 1/4W

ITEM NO.	PART ASSY. NO.	DESCRIPTION	QTY.	UNIT	DATE	BY
AS EASILY QUANTITIES						
INCOTERM CORPORATION		67 FAIRVIEW ROAD MILFORD, MASSACHUSETTS 01760				
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DATE	DESIGNED BY	CHECKED BY	DATE	DATE	DATE	DATE
	WAMES		4-8-75			
PAPER TAPE INPUT UNIT 002			DOCUMENT NUMBER		REV.	
			D 003-01-01		B	
			DATE		PAGE	
			NONE		1 of 4	

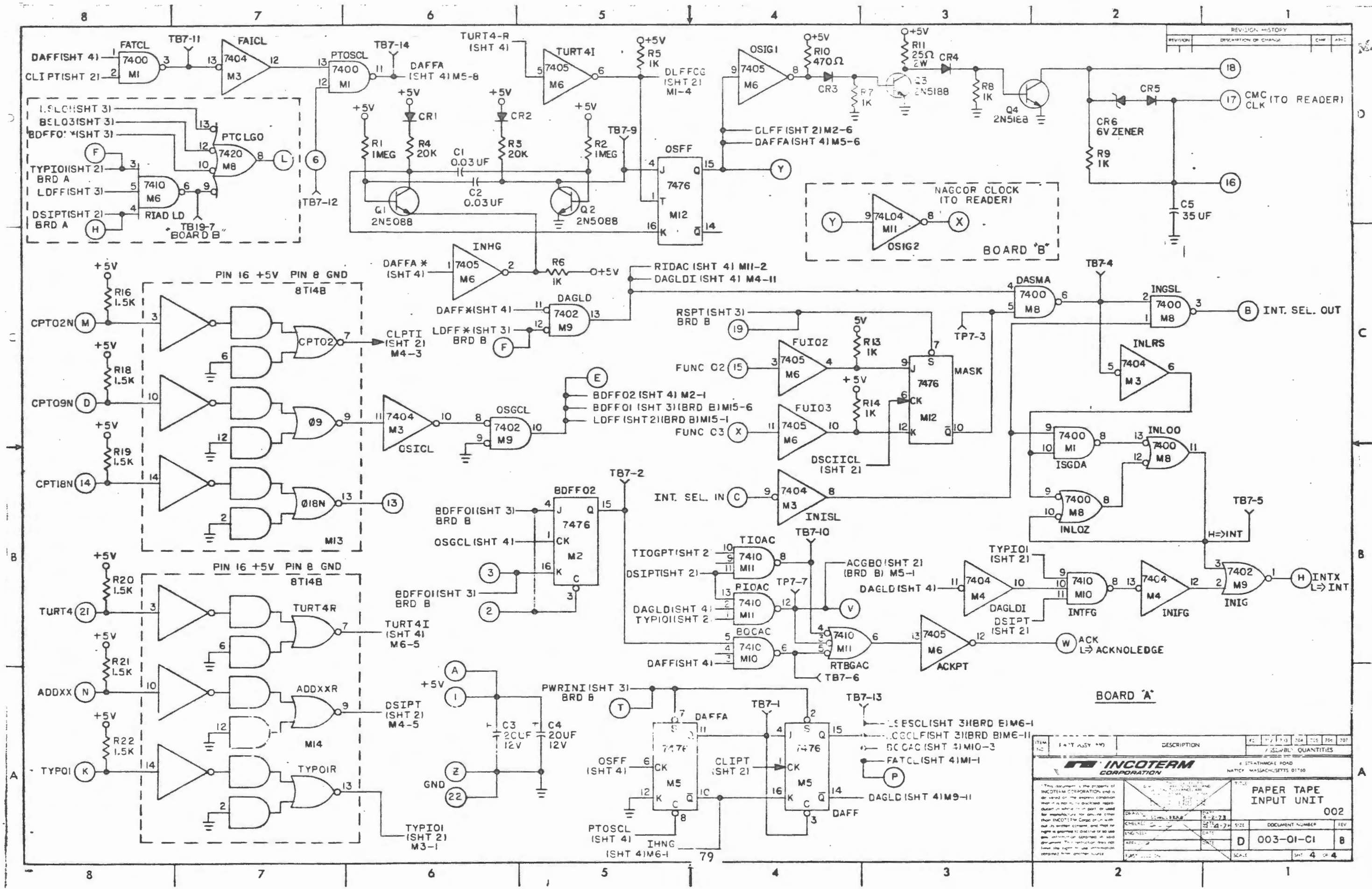
REVISION HISTORY			
REV. NO.	DESCRIPTION OF CHANGE	CHK	DATE



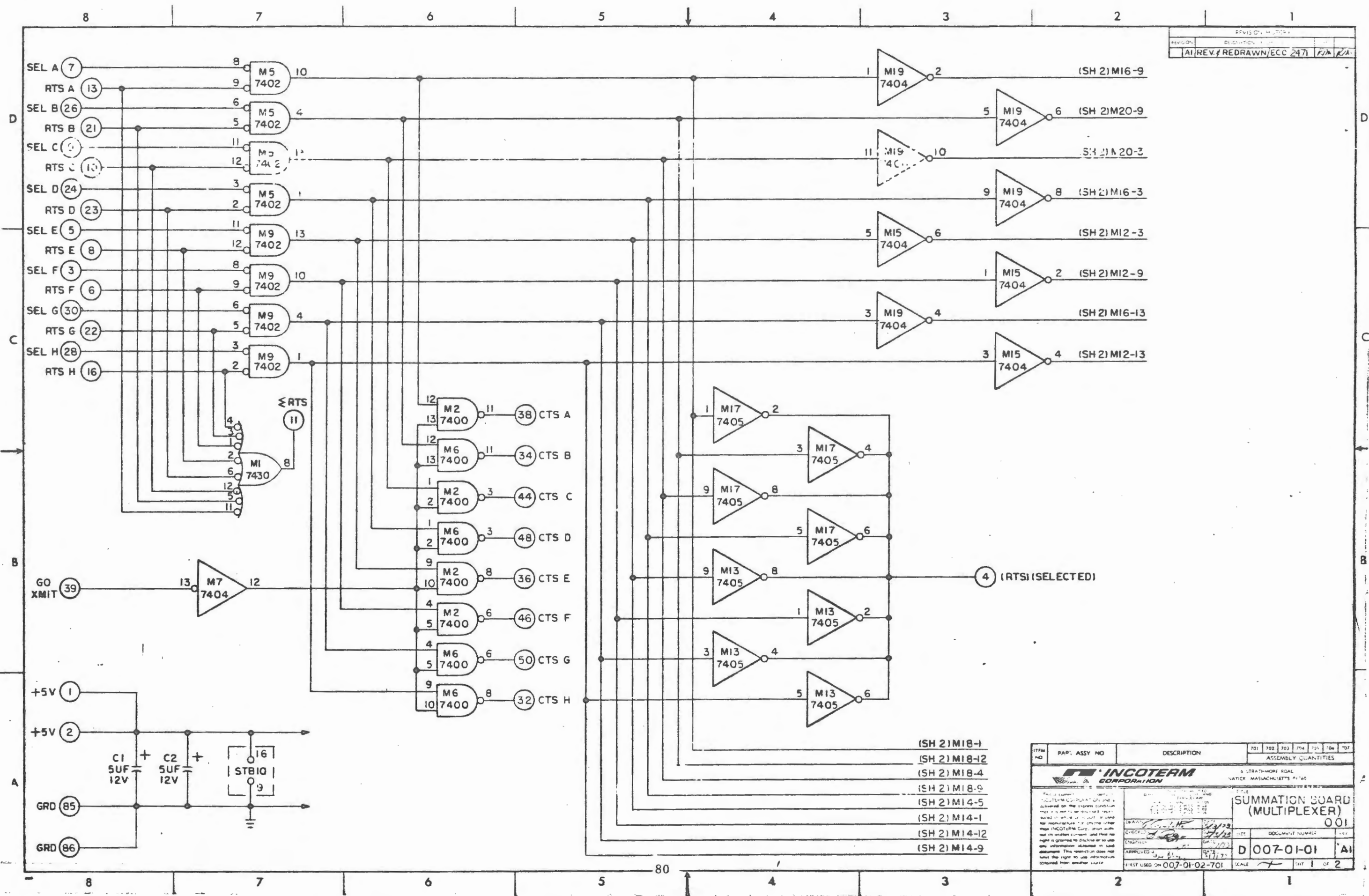
REV. NO.	PAR. ATT. NO.	DESCRIPTION	701	702	703	704	705	706	707

		6 STRATMORE ROAD NANTUCKET, MASSACHUSETTS 01900	
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DRAWN: DATE:	CHECKED: DATE:	DESIGNED: DATE:	APPROVED: DATE:
PAPER TAPE INPUT UNIT 002		DOCUMENT NUMBER:	
D 003-01-01 B		NONE INT 3 OF 4	

REVISION HISTORY		CHK	DATE
REVISION	DESCRIPTION OF CHANGE		

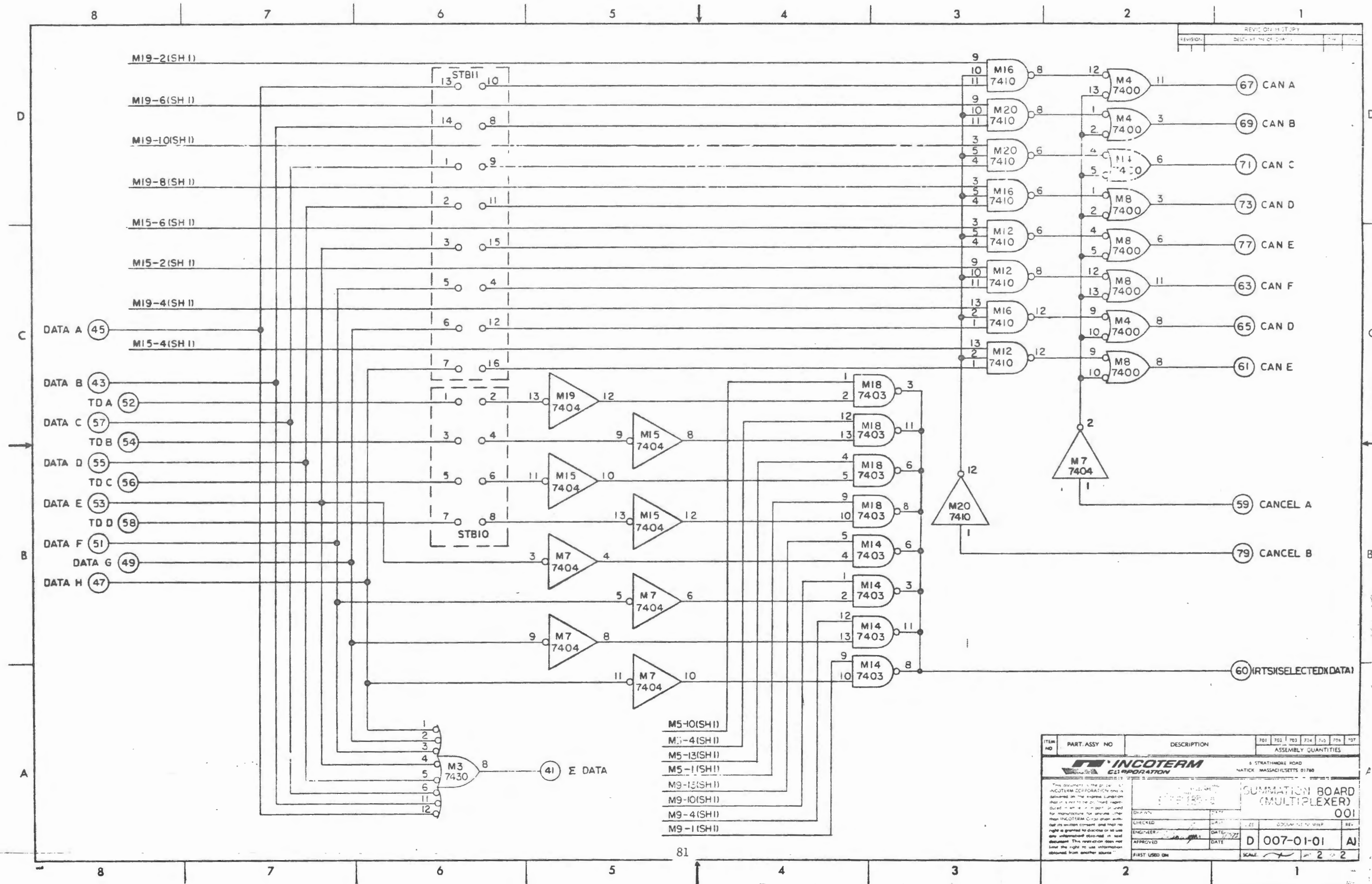


ITEM NO.	PART NUMBER	DESCRIPTION	QTY	104	105	106	107
INCOTERM CORPORATION							
6 STATHMOKE ROAD MATTAPAN, MASSACHUSETTS 01900							
PAPER TAPE INPUT UNIT							
002							
CHKD BY	DATE	SIZE	DOCUMENT NUMBER	REV			
ENGR BY	DATE	D	003-01-C1	B			
APP'D BY	DATE	SCALE	SHT 4 OF 4				



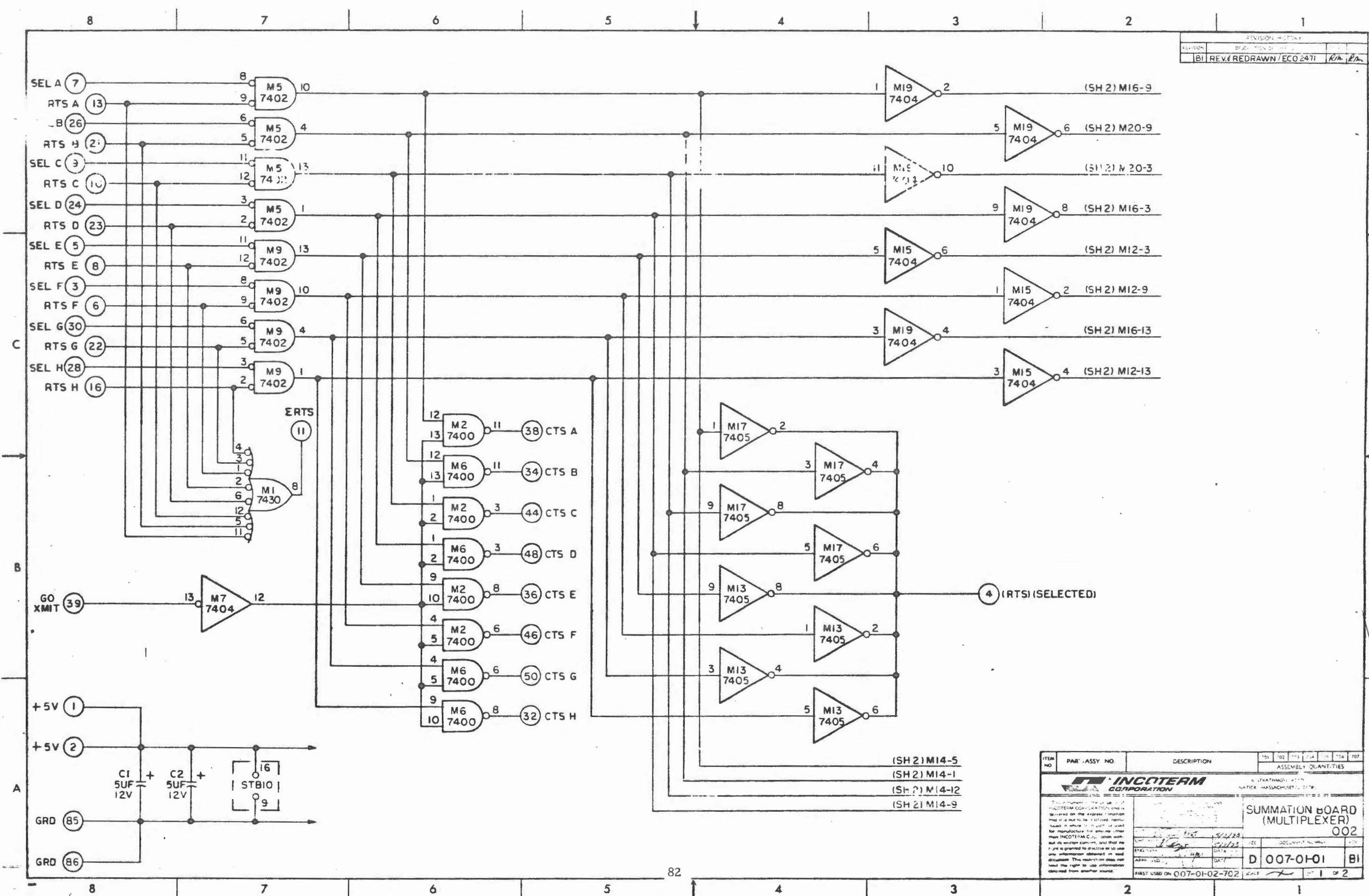
REVISION	DESCRIPTION	DATE
AI REV. / REDRAWN / ECC 2471	K/A	K/A

ITEM NO.	PART ASSY NO.	DESCRIPTION	701	702	703	704	705	706	707
			ASSEMBLY QUANTITIES						
		INCOTERM CORPORATION		5 STRATHMORE ROAD NATICK, MASSACHUSETTS 01900					
		TITLE		SUMMATION BOARD (MULTIPLEXER)					
		DRAWN		001					
		CHECKED		DOCUMENT NUMBER					
		APPROVED		D 007-01-01					
		DATE		AI					
		FIRST USED ON		007-01-02-701					
		SCALE		1 OF 2					



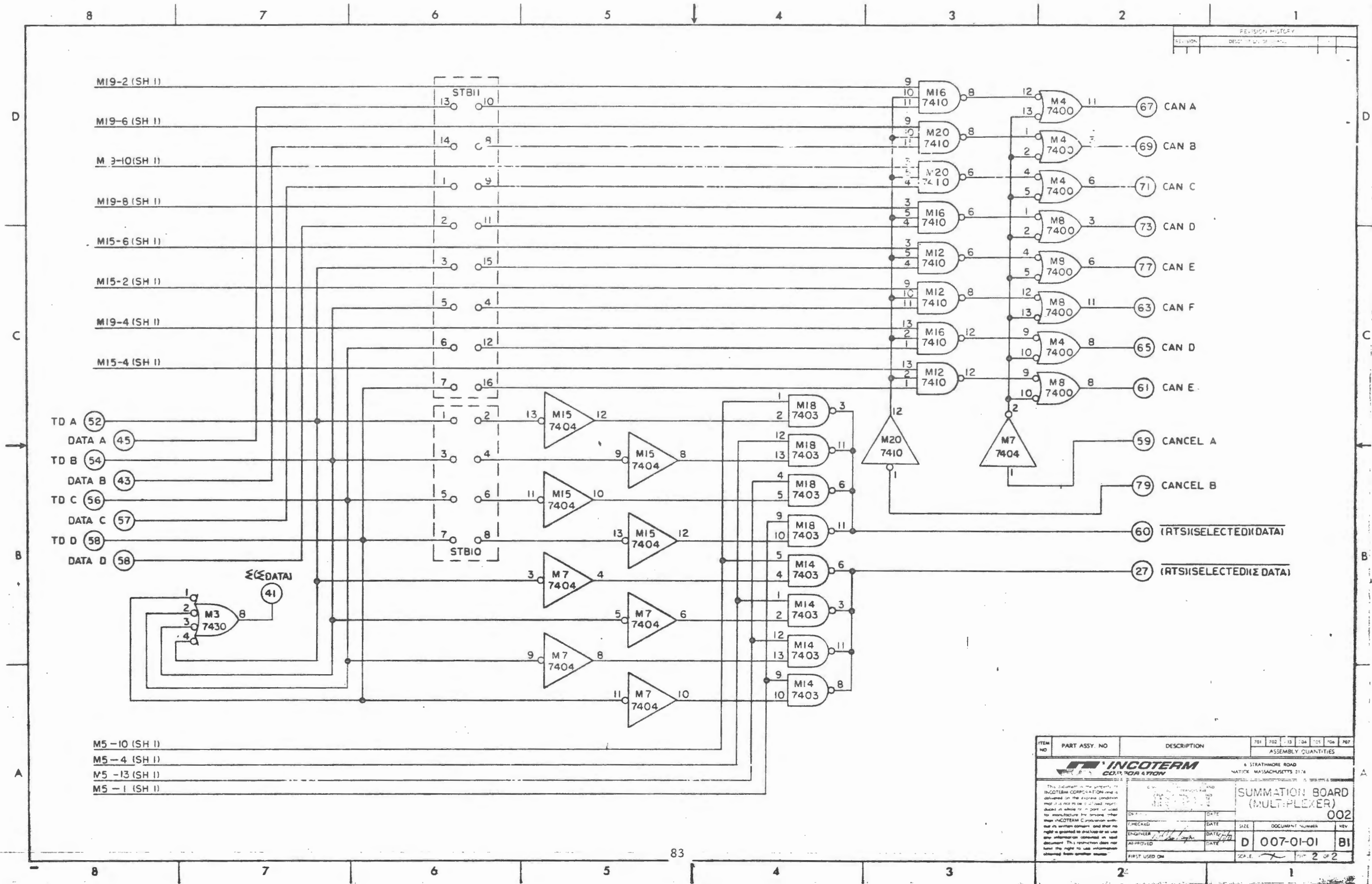
REVISION HISTORY	
REVISION	DESCRIPTION OF CHANGES

ITEM NO.	PART ASSY NO.	DESCRIPTION	ASSEMBLY QUANTITIES						
			F01	F02	F03	F04	F05	F06	F07
			6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01780						
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CHECKED	DATE	SCALE	D 007-01-01						
ENGINEER	DATE	SCALE	2 2						
APPROVED	DATE	SCALE	2 2						
FIRST USED ON	DATE	SCALE	2 2						



REVISION HISTORY			
REVISION	DESCRIPTION	DATE	BY
BI	REV. / REDRAWN / ECO 2471		Rm Rm

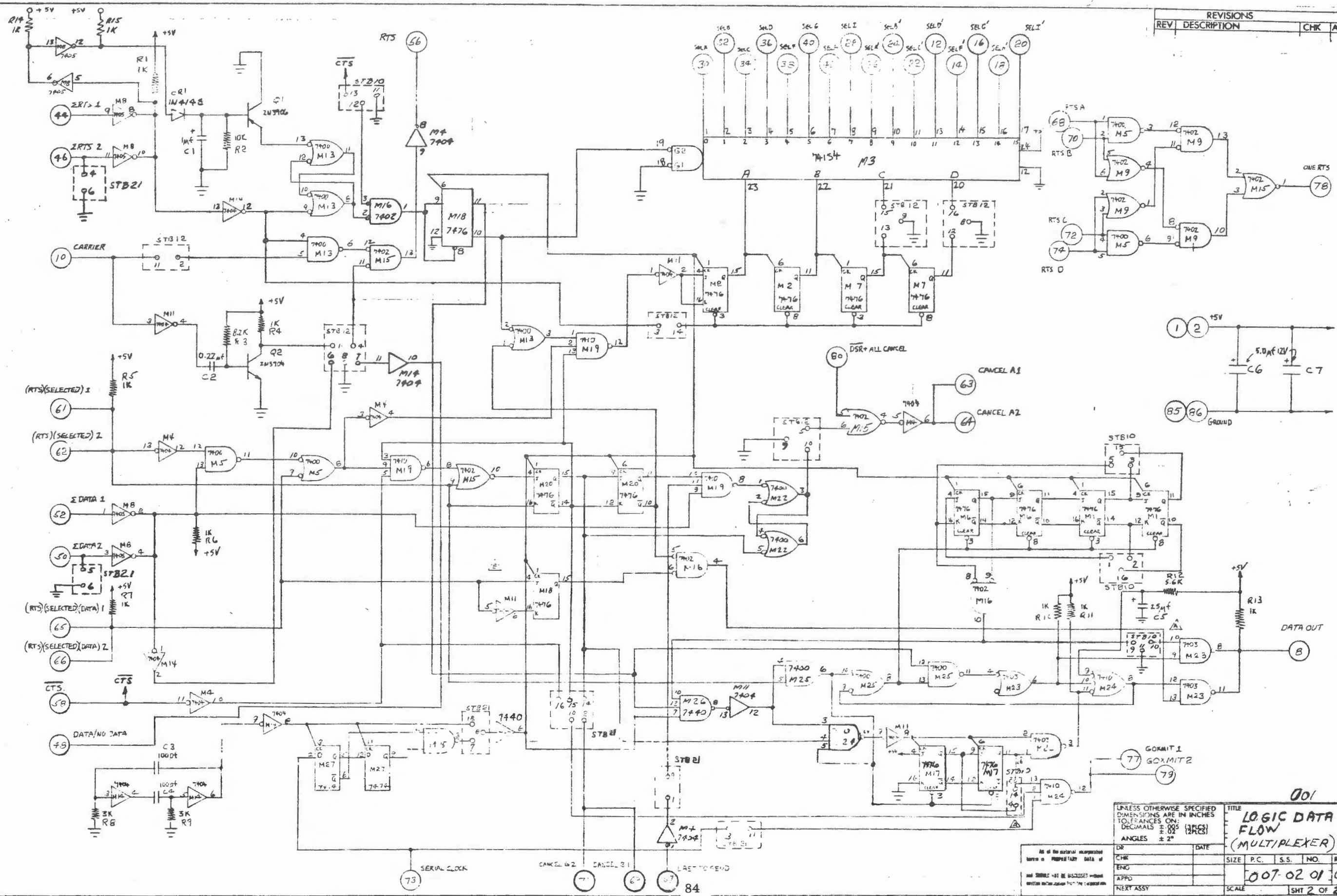
ITEM NO.	PAR. ASSY NO.	DESCRIPTION	701	702	703	704	705	706	707
			ASSEMBLY QUANTITIES						
			9 STRATHAM ST. NATICK, MASSACHUSETTS 01909						
SUMMATION BOARD (MULTIPLEXER) 002									
DATE: 5/11/78 APPR. BY: [Signature] DATE: 5/11/78			DOCUMENT NUMBER: D 007-01-01 SCALE: 1 of 2						
FIRST USED ON: 007-01-02-702									



REVISION HISTORY	
NO.	DESCRIPTION

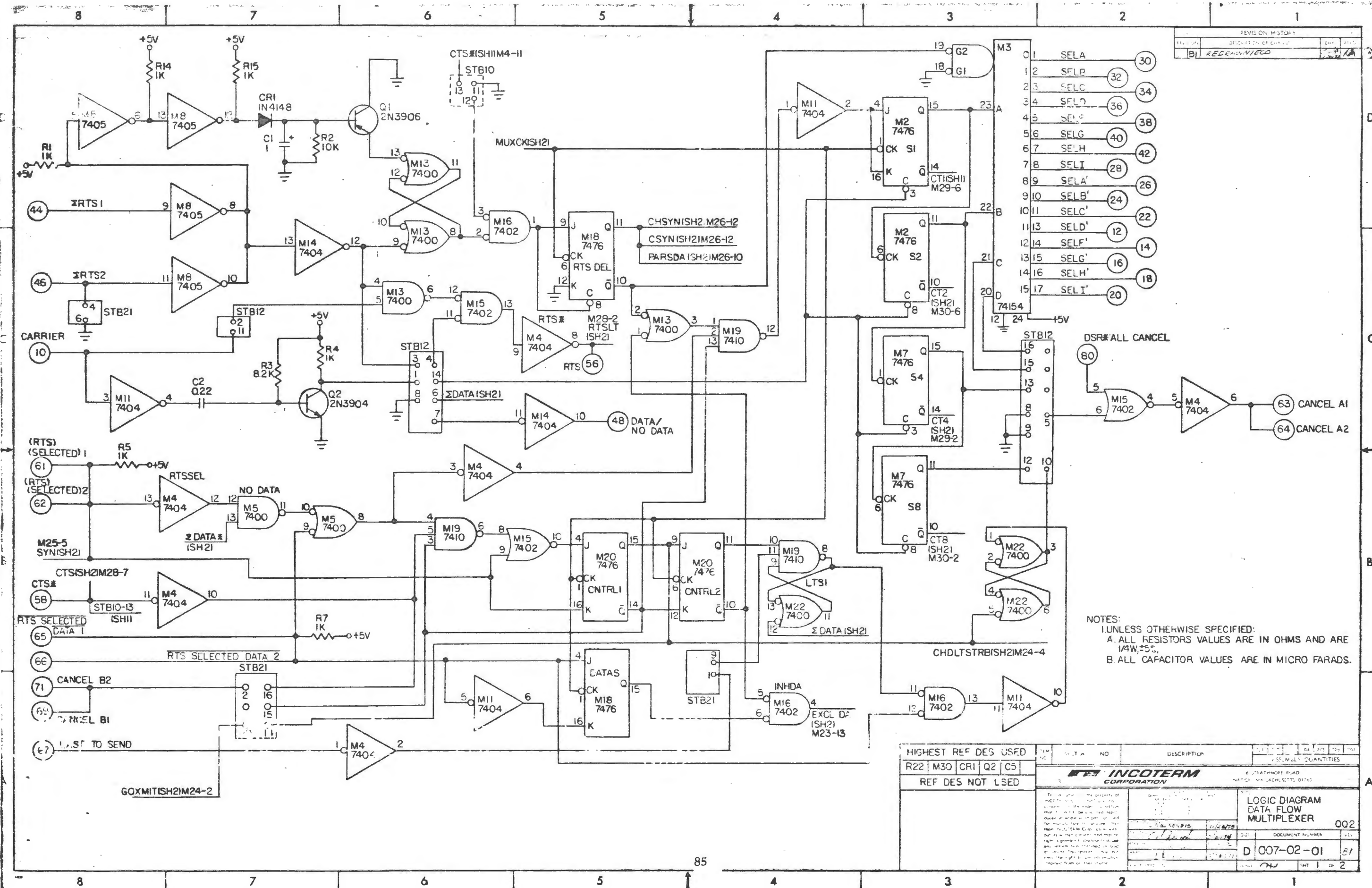
ITEM NO.	PART ASSY. NO.	DESCRIPTION	701	702	703	704	705	706	707
INCOTERM CORPORATION			6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01746						
SUMMATION BOARD (MULTI-PLER)			002						
CHECKED	DATE	SIZE	DOCUMENT NUMBER		REV				
ENGINEER	DATE	D	007-01-01		B1				
APPROVED	DATE	SCALE		2 OF 2					
FIRST USED ON									

REVISIONS		CHK	APPD
REV	DESCRIPTION		



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS ± .005 (3PLCS) ANGLES ± 2°		TITLE LOGIC DATA FLOW (MULTIPLEXER)			
DR	DATE	SIZE	P.C.	S.S.	NO.
ENG					007-02 01 C
APPD					
NEXT ASSY		SCALE	SHT 2 OF 2		

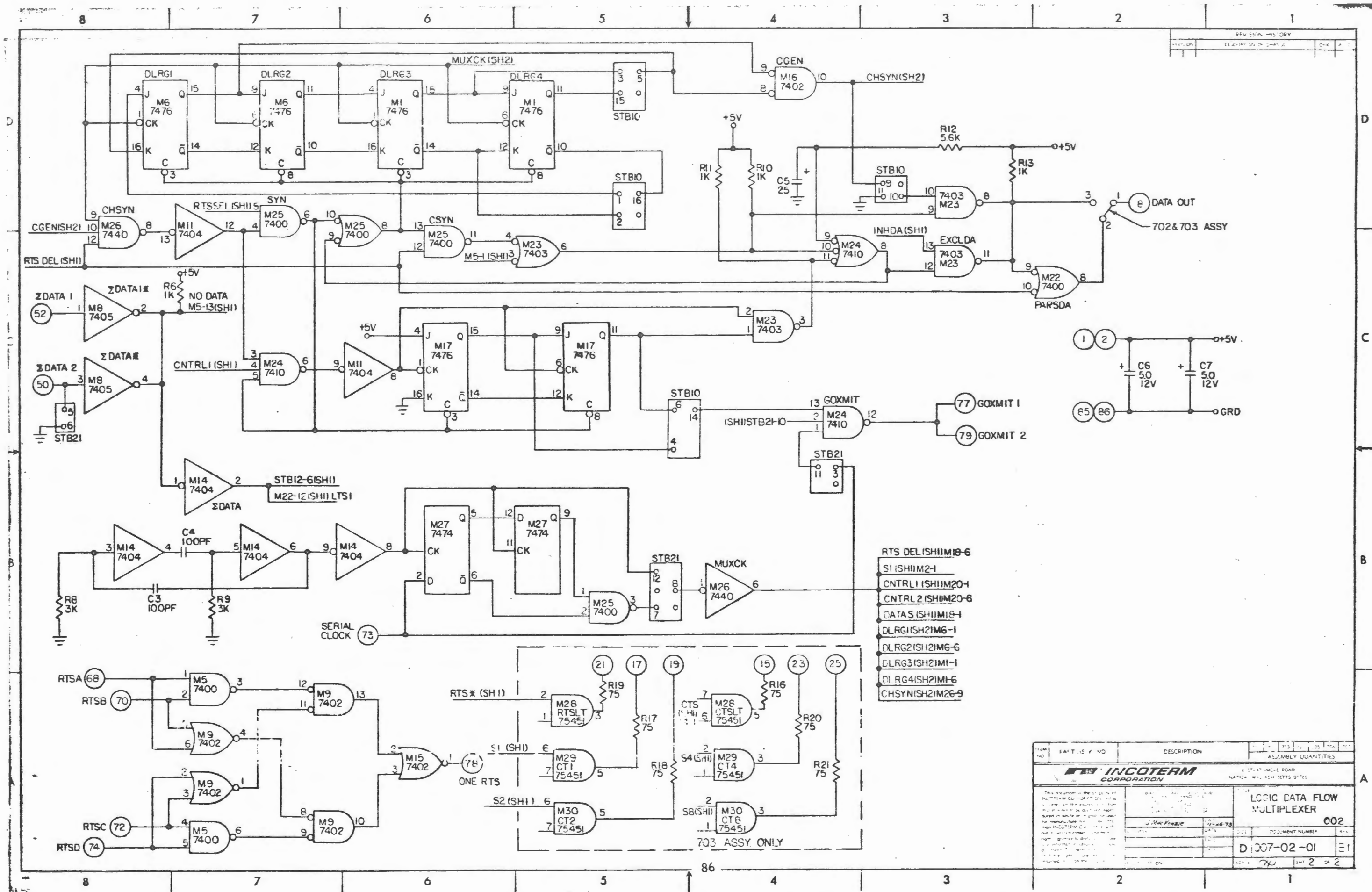
REVISION HISTORY		CHK	DATE
1	REDESIGNED	JA	1/2/75



NOTES:
 1. UNLESS OTHERWISE SPECIFIED:
 A. ALL RESISTOR VALUES ARE IN OHMS AND ARE 1/4W, ±5%.
 B. ALL CAPACITOR VALUES ARE IN MICRO FARADS.

HIGHEST REF DES USED	NO	DESCRIPTION	ASSEMBLY QUANTITIES
R22 M30 CRI Q2 C5			
REF DES NOT USED			

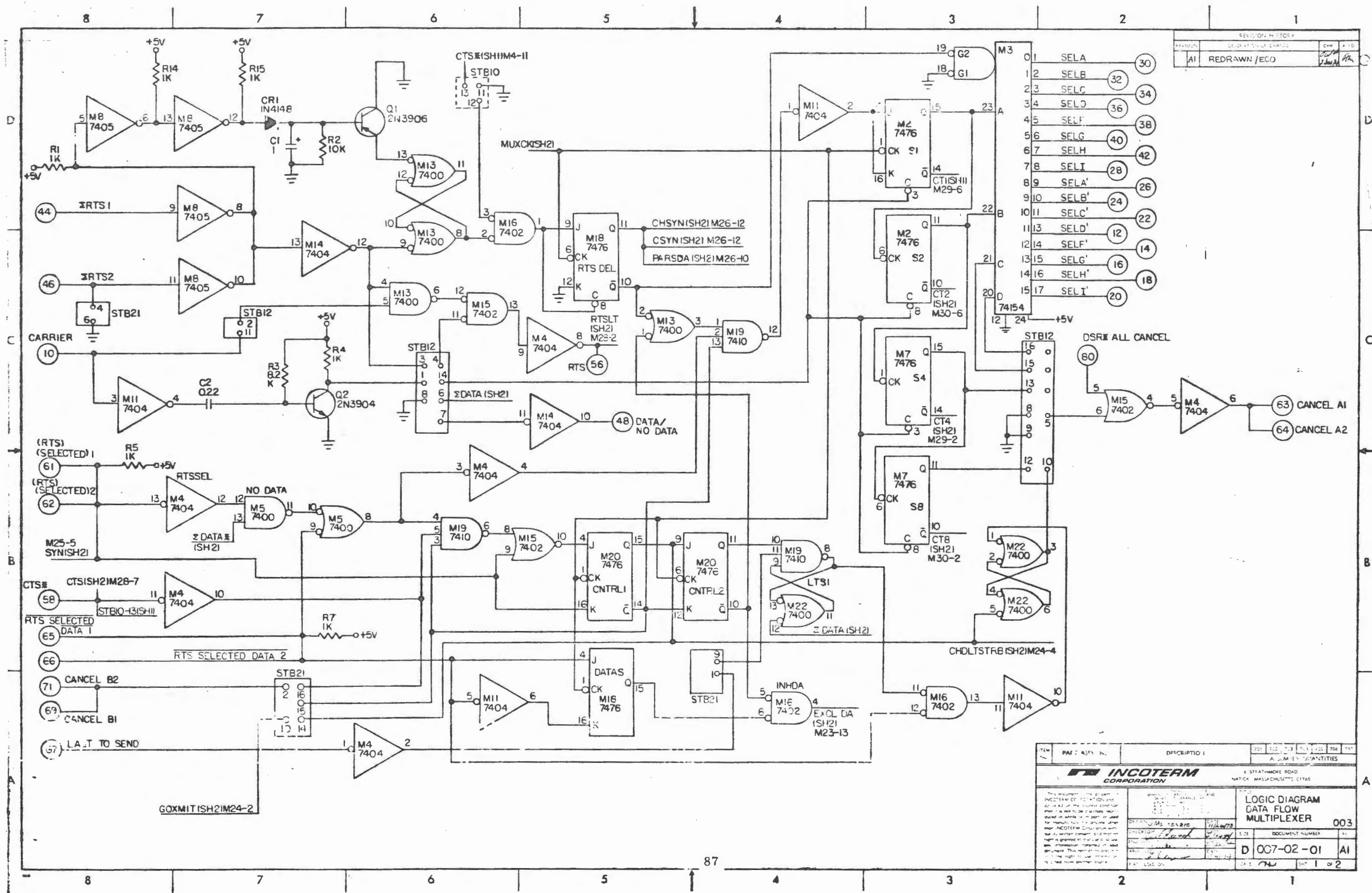
INCOTERM CORPORATION		6 BATHWATER ROAD NATICK, MASSACHUSETTS 01740	
LOGIC DIAGRAM DATA FLOW MULTIPLEXER		DOCUMENT NUMBER	002
D 007-02-01		REV	1 of 2



REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	DATE

- RTS DEL (SH1) M18-6
- SI (SH1) M2-1
- CNTRL1 (SH1) M20-1
- CNTRL2 (SH1) M20-6
- DATA (SH1) M18-1
- DLRG1 (SH2) M6-1
- DLRG2 (SH2) M6-6
- DLRG3 (SH2) M1-1
- DLRG4 (SH2) M6-6
- CHSYN (SH2) M26-9

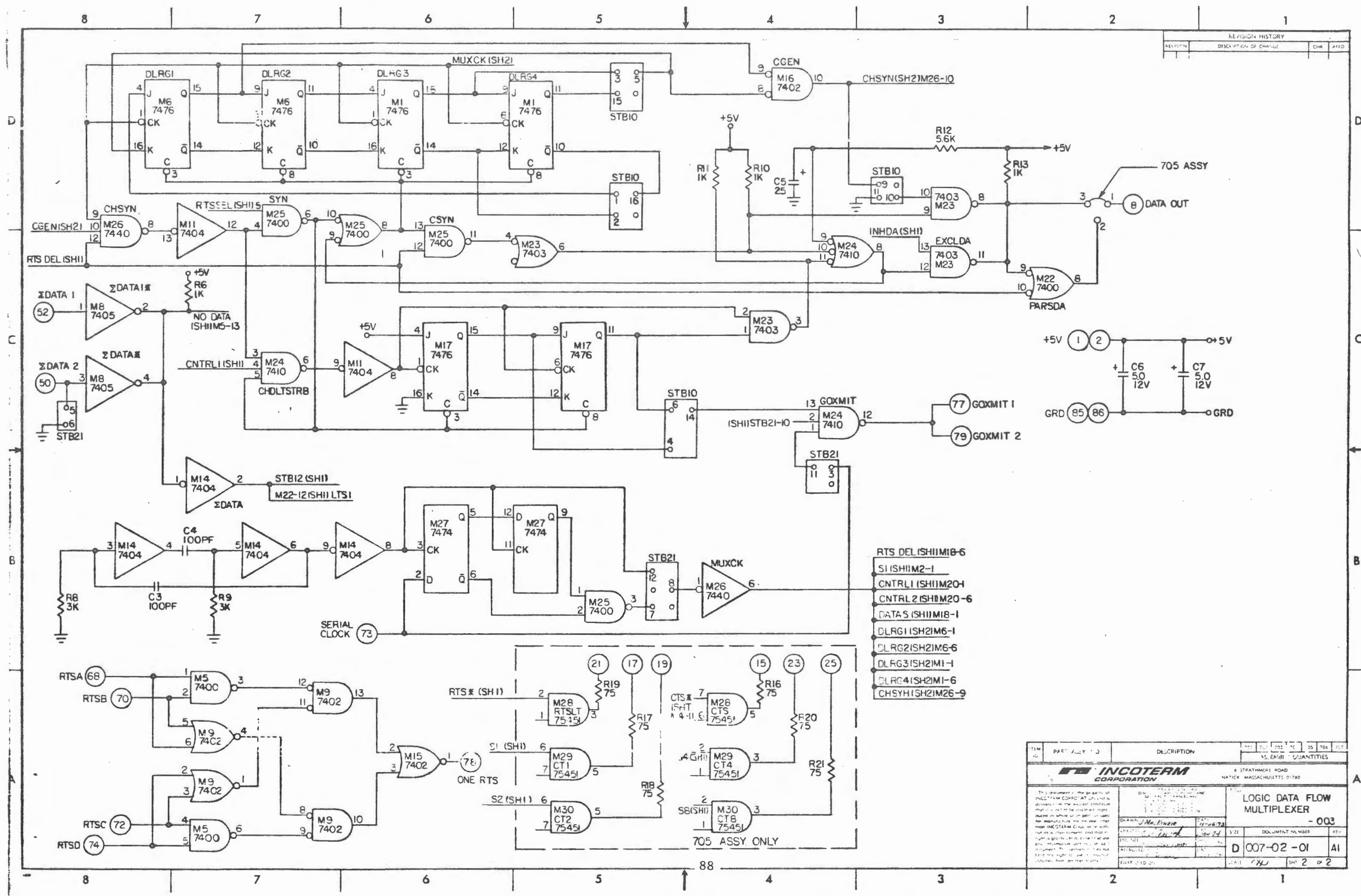
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LOGIC DATA FLOW MULTIPLEXER			
DOCUMENT NUMBER		002	
D 007-02-01		E1	
PAGE 2 OF 2			



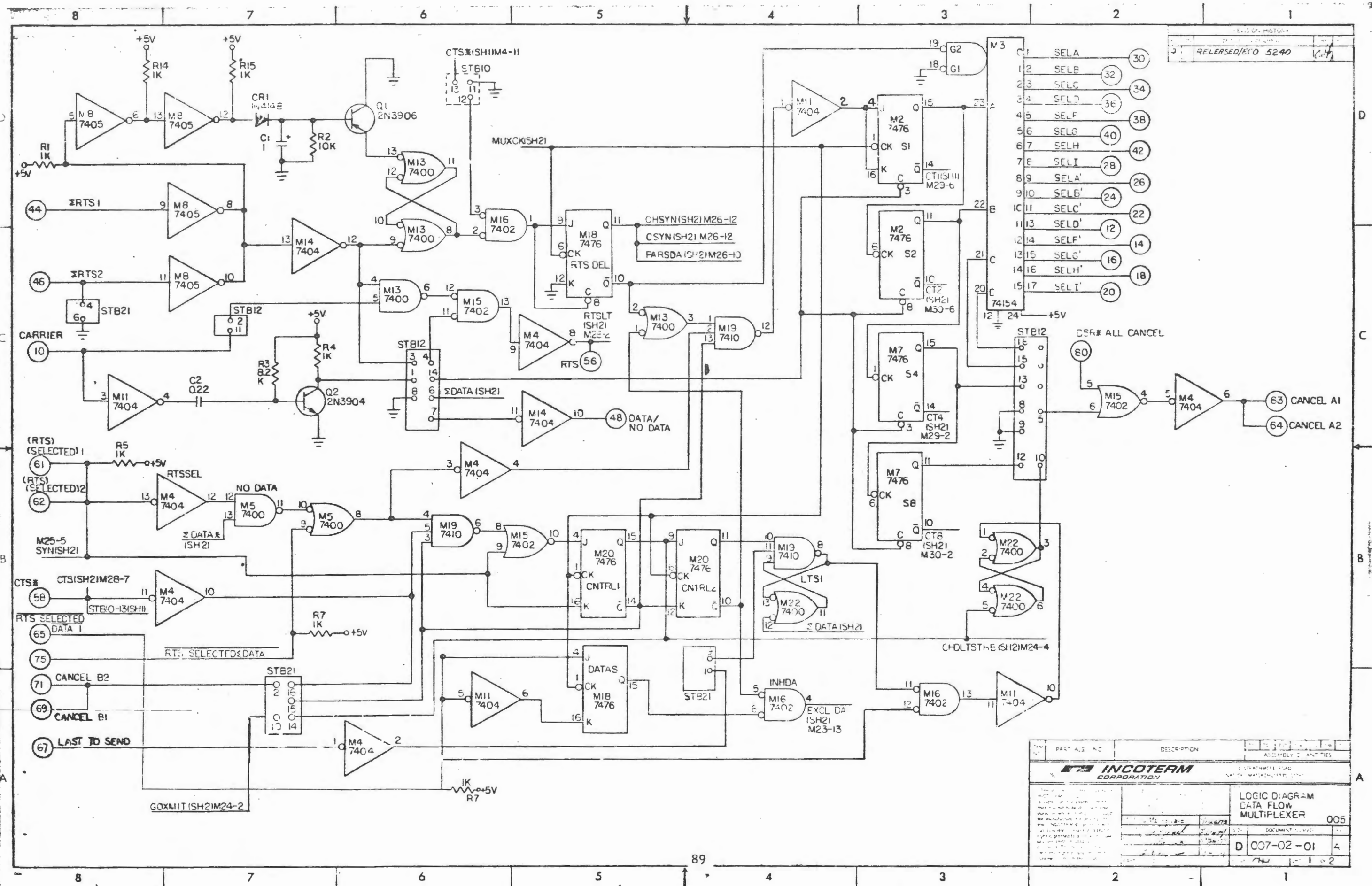
REVISION HISTORY			
NO.	DESCRIPTION	CHK.	DATE
AI	REDRAWN / ECO		

ITEM	PART ASSY. N.	DESCRIPTION	QTY	UNIT	QTY	UNIT	QTY	UNIT
INCOTERM CORPORATION								
4 STEATHORE ROAD, NATICK, MASSACHUSETTS 01908								
LOGIC DIAGRAM DATA FLOW MULTIPLEXER			003					
D 007-02-01			AI			1 of 2		

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD

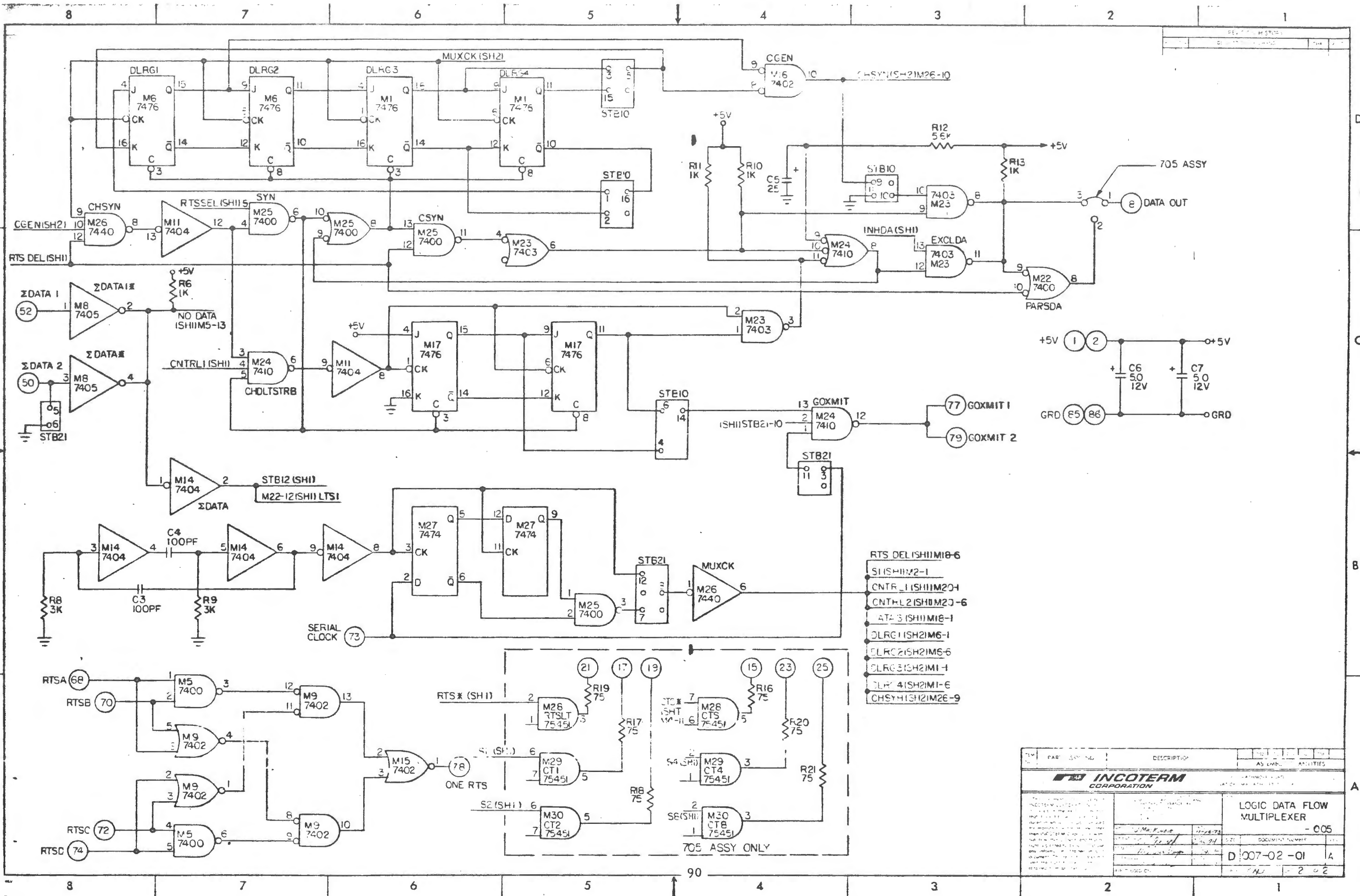


ITEM NO.	PART NUMBER	DESCRIPTION	QTY	UNIT	QTY	UNIT	QTY	UNIT	QTY	UNIT
INCOTERM CORPORATION 6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01780										
LOGIC DATA FLOW MULTIPLEXER			- 003							
DRAWN: J. M. P. / DATE: 11-26-73			DOCUMENT NUMBER: D 007-02-01							
CHECKED: / DATE: /			REV: A1							
APPROVED: / DATE: /			SHEET 2 OF 2							



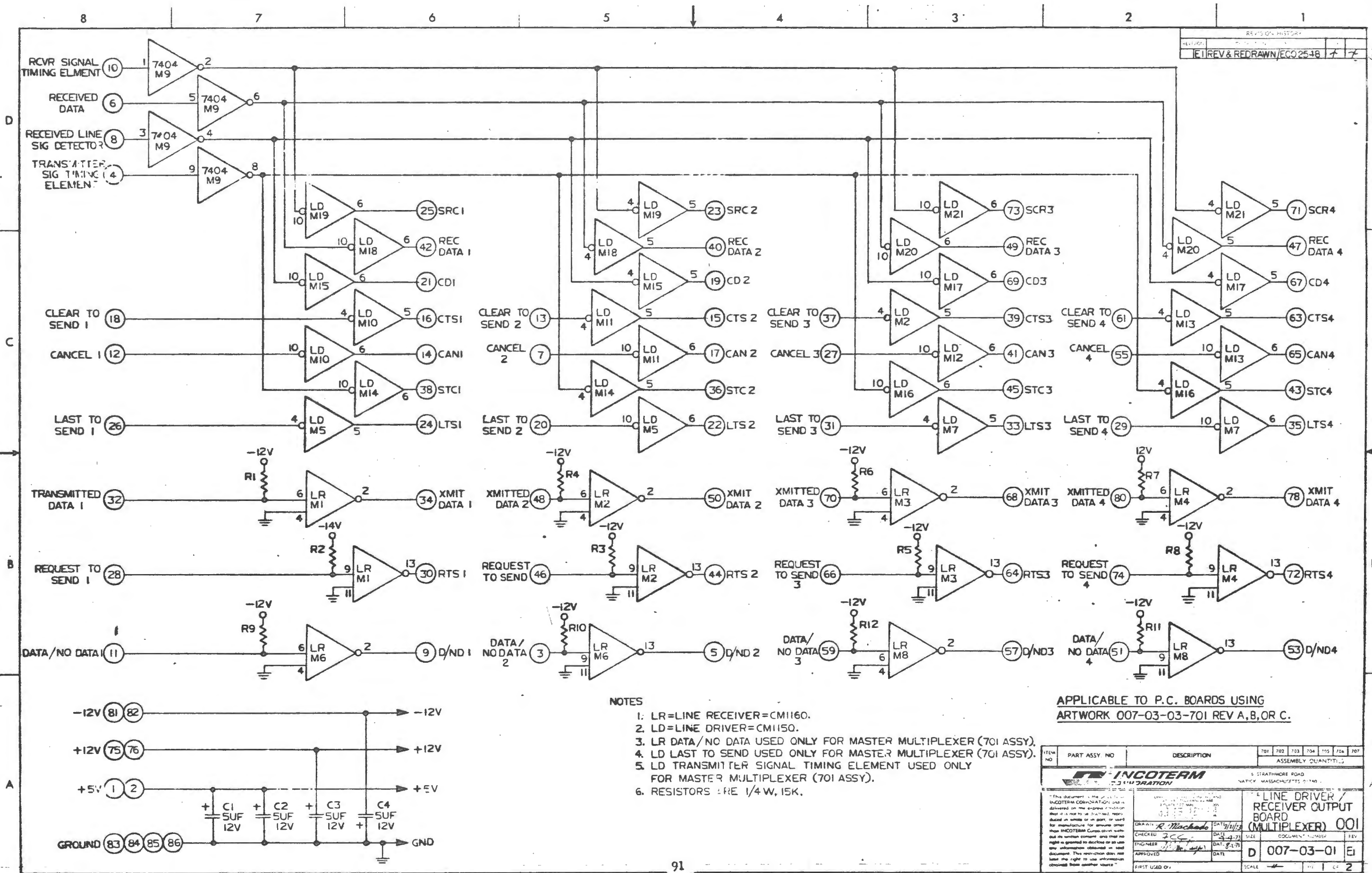
REVISION HISTORY	
7	RELEASED/ECO 5240

PART NO.	DESCRIPTION	ASSEMBLY QTY
INCOTERM CORPORATION		
LOGIC DIAGRAM DATA FLOW MULTIPLEXER 005		
DOCUMENT NO. D 007-02-01		



PART NUMBER		DESCRIPTION	REV	DATE	BY	CHKD
705 ASSY		LOGIC DATA FLOW MULTIPLEXER				
INCOTERM CORPORATION						
DOCUMENT NUMBER		D 007-02 -01				
REV		2				

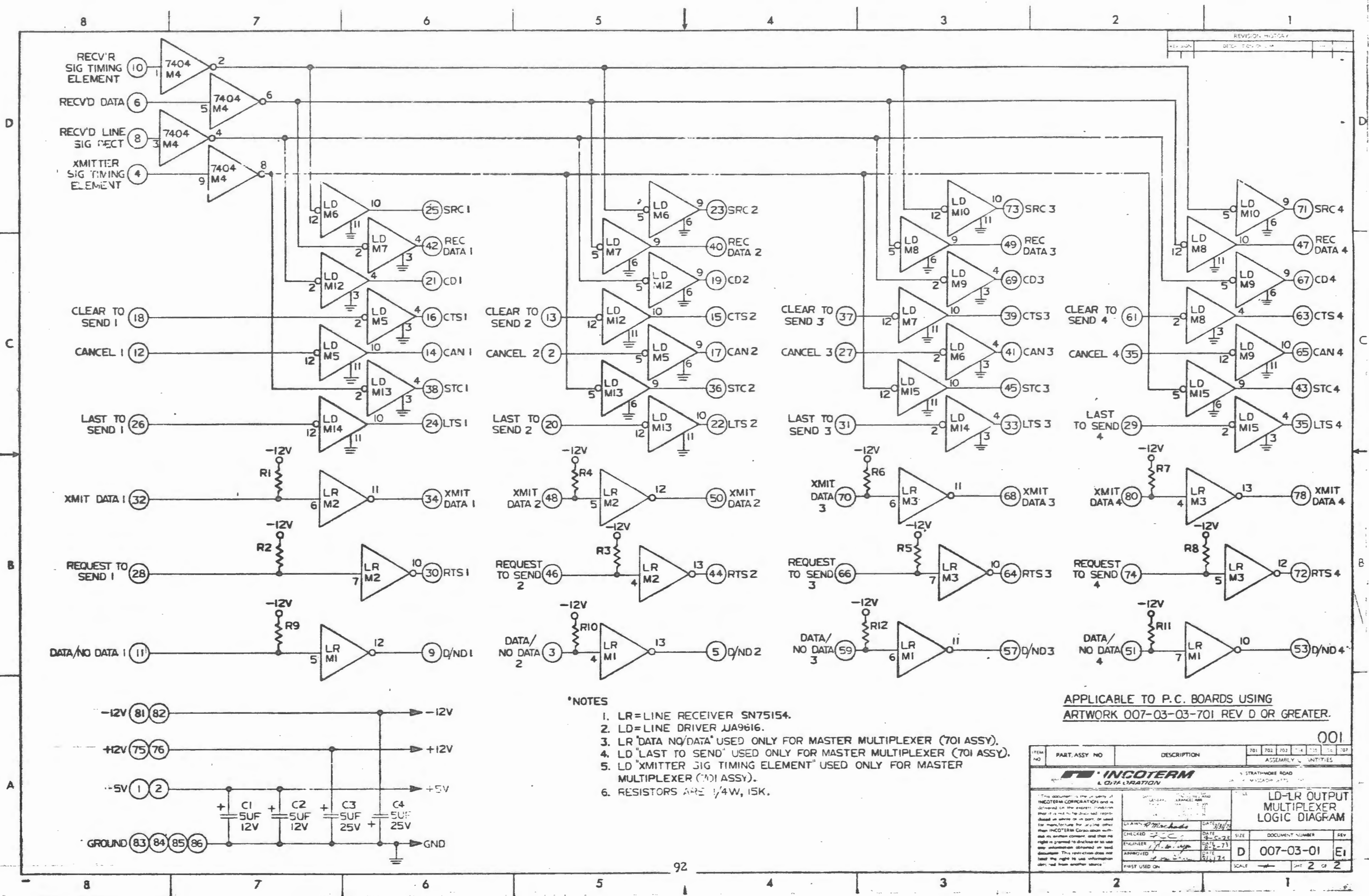
REV'S OF HISTORY			
REV	DATE	BY	REASON
E1			REV & REDRAWN/ECO 2548



- NOTES**
1. LR=LINE RECEIVER=CM1160.
 2. LD=LINE DRIVER=CM1150.
 3. LR DATA/NO DATA USED ONLY FOR MASTER MULTIPLEXER (701 ASSY).
 4. LD LAST TO SEND USED ONLY FOR MASTER MULTIPLEXER (701 ASSY).
 5. LD TRANSMITTER SIGNAL TIMING ELEMENT USED ONLY FOR MASTER MULTIPLEXER (701 ASSY).
 6. RESISTORS ARE 1/4W, 15K.

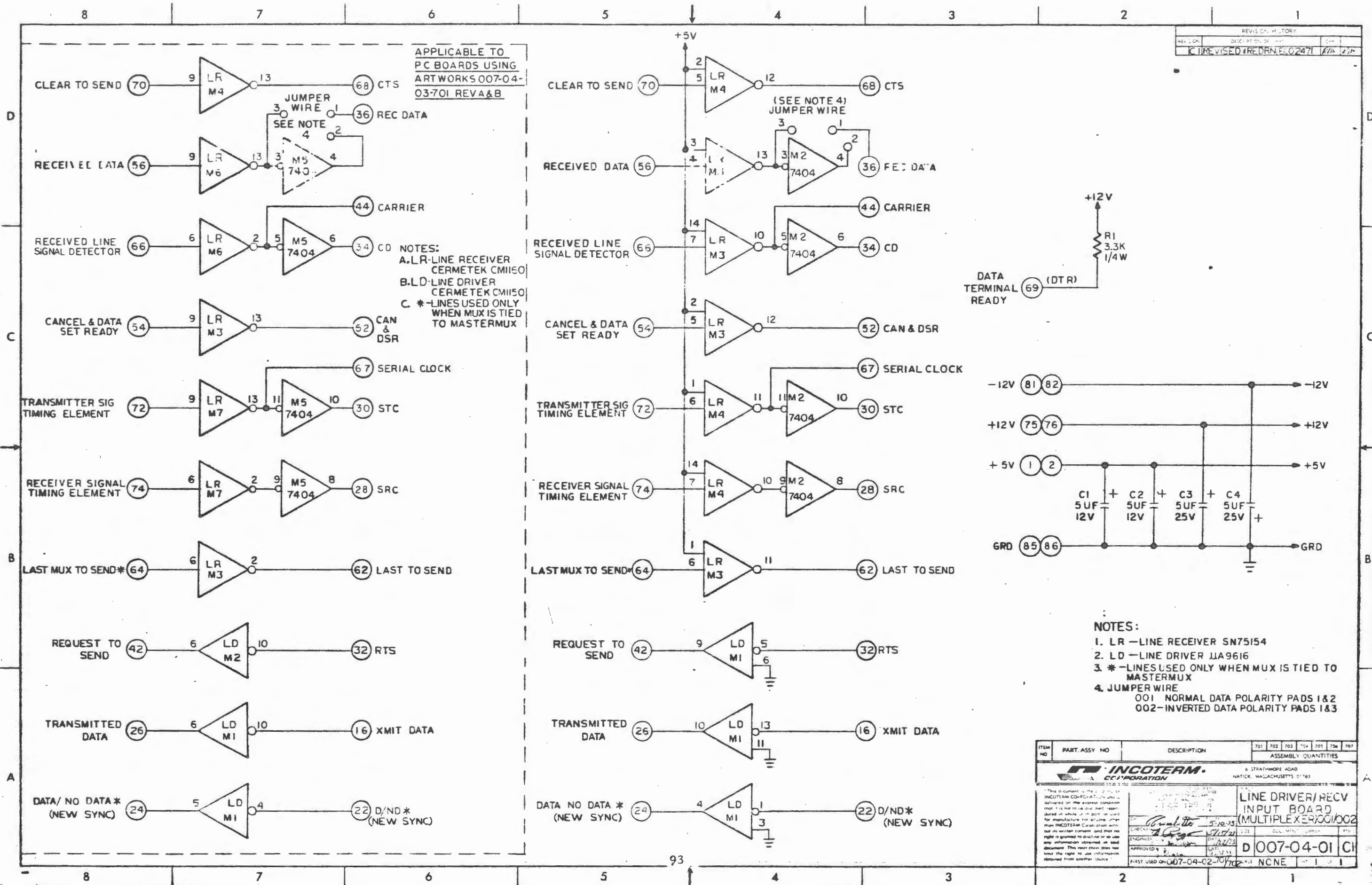
APPLICABLE TO P.C. BOARDS USING
ARTWORK 007-03-03-701 REV A,B,OR C.

ITEM NO	PART ASSY. NO	DESCRIPTION	701	702	703	704	705	706	707
INCOTERM CORPORATION									
5 STRATHMORE ROAD, WATUW, MASSACHUSETTS 01740									
LINE DRIVER / RECEIVER OUTPUT BOARD (MULTIPLEXER) 001									
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DRAWN	DATE	CHECKED	DATE	ENGINEER	DATE	APPROVED	DATE	FIRST USED ON	SCALE
R. Machado	11/1/73	R. Machado	11/1/73		11/1/73				
D 007-03-01 E1							REV 2		



APPLICABLE TO P.C. BOARDS USING
ARTWORK 007-03-03-701 REV D OR GREATER.

ITEM NO		PART ASSY NO	DESCRIPTION	701	702	703	704	705	706	707
ASSEMBLY UNITIES										
INGOTERM CORPORATION										
LD-LR OUTPUT MULTIPLEXER LOGIC DIAGRAM										
DRAWN BY		DATE	SIZE	DOCUMENT NUMBER			REV			
CHECKED BY		DATE	SIZE	007-03-01			E1			
ENGINEER		DATE	SIZE	D			E1			
APPROVED		DATE	SIZE	D			E1			
FIRST USED ON										
SCALE		SHEET 2 OF 2								

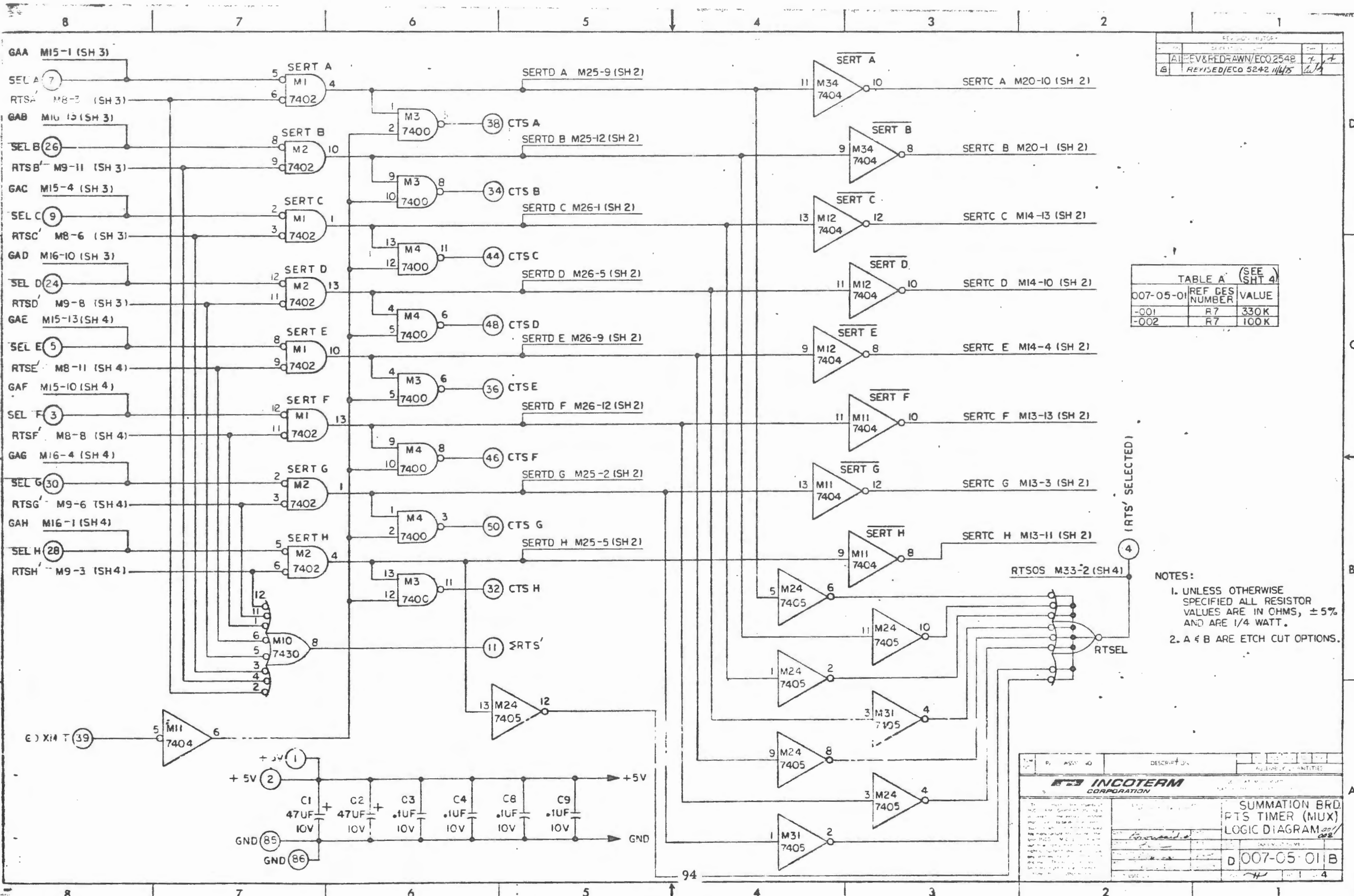


APPLICABLE TO
PC BOARDS USING
ARTWORKS 007-04-
03-701 REVA&B

NOTES:
A. LR - LINE RECEIVER
CERMETEK CM1150
B. LD - LINE DRIVER
CERMETEK CM1150
C. * - LINES USED ONLY
WHEN MUX IS TIED TO
MASTERMUX

NOTES:
1. LR - LINE RECEIVER SN75154
2. LD - LINE DRIVER UA9616
3. * - LINES USED ONLY WHEN MUX IS TIED TO
MASTERMUX
4. JUMPER WIRE
001 - NORMAL DATA POLARITY PADS 1&2
002 - INVERTED DATA POLARITY PADS 1&3

ITEM NO	PART ASSY NO	DESCRIPTION	701	702	703	704	705	706	707
			ASSEMBLY QUANTITIES						
			6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01903						
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			D 007-04-01			CI			
FIRST USED ON 007-04-02-701			NCNE						



REVISED/ECO 5242 11/15	DATE	BY
REVISED/ECO 5242 11/15	DATE	BY

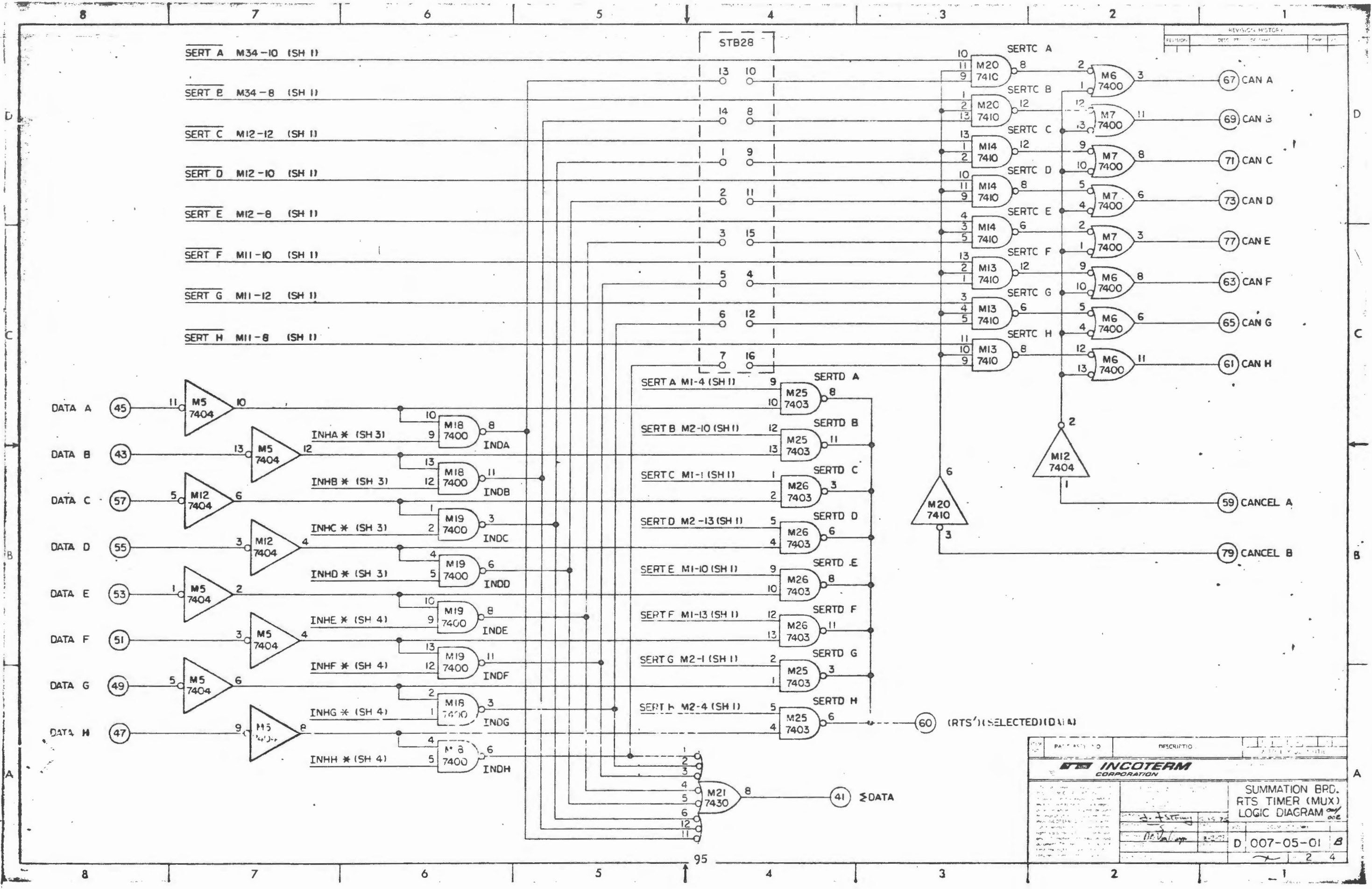
TABLE A (SEE SHT 4)		
REF DES NUMBER	RES	VALUE
007-05-01	R7	330K
-001	R7	100K

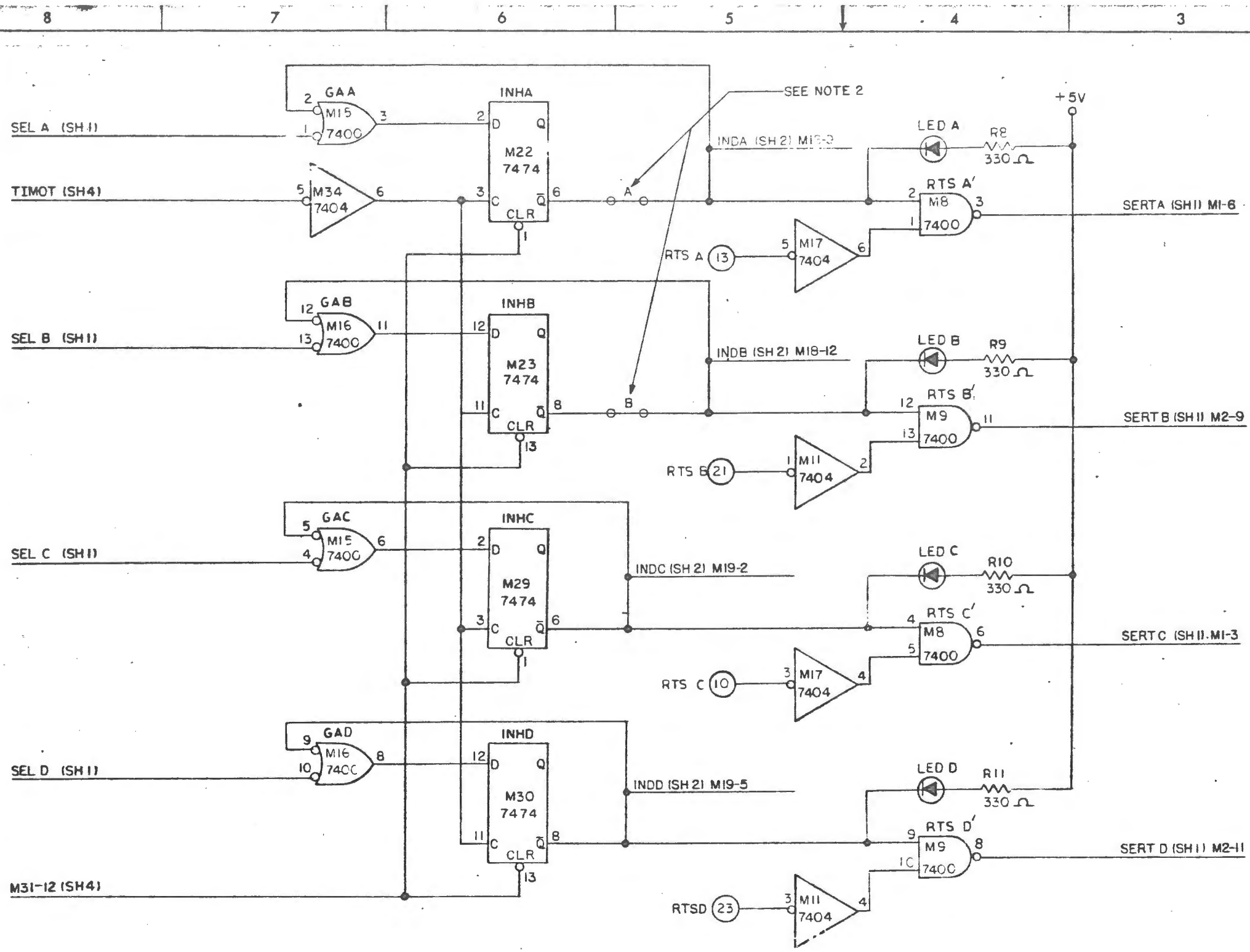
- NOTES:
- UNLESS OTHERWISE SPECIFIED ALL RESISTOR VALUES ARE IN OHMS, $\pm 5\%$ AND ARE 1/4 WATT.
 - A & B ARE ETCH CUT OPTIONS.

INCOTERM CORPORATION

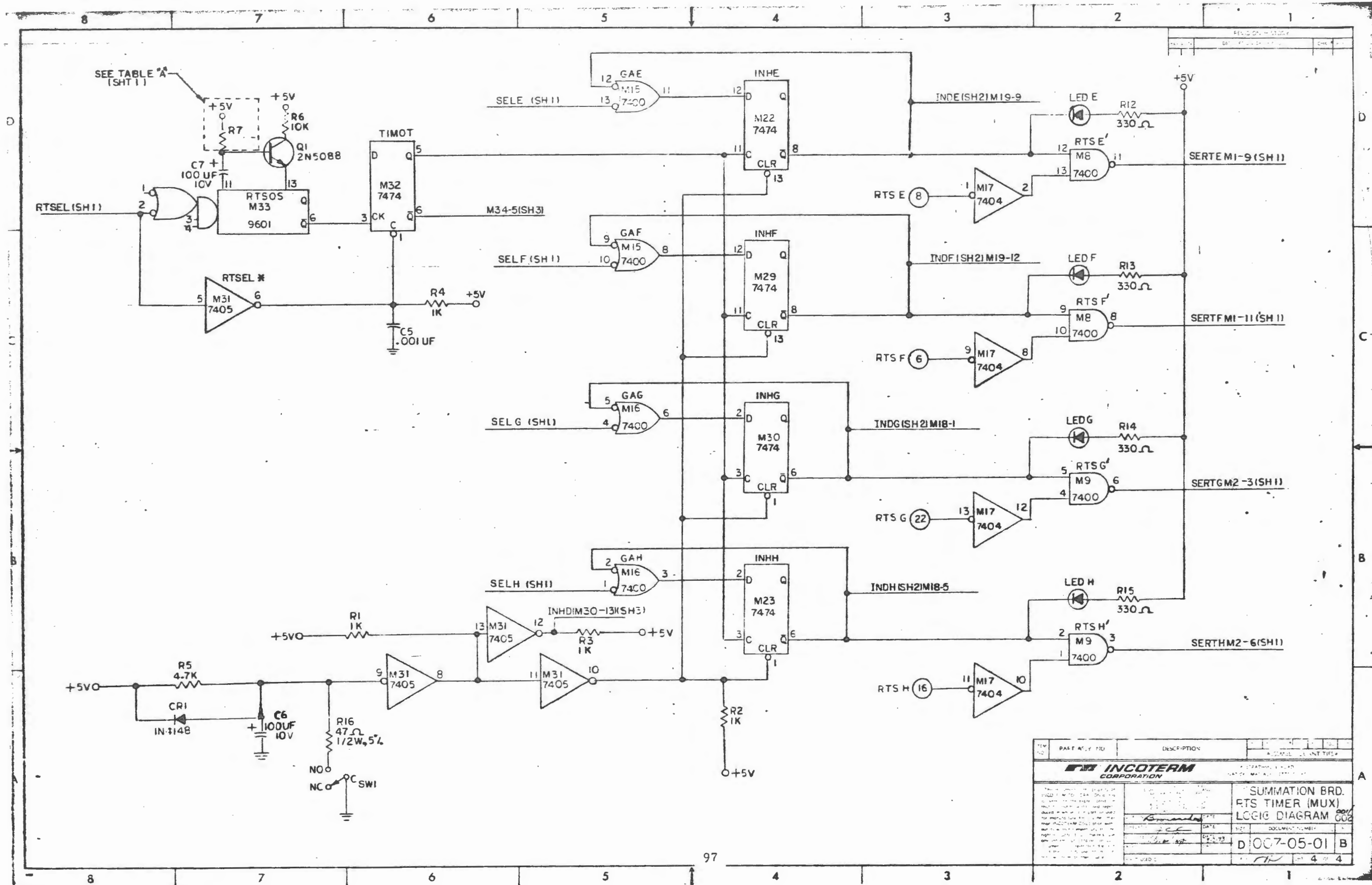
SUMMATION BRD
RTS TIMER (MUX)
LOGIC DIAGRAM

007-05-01 B

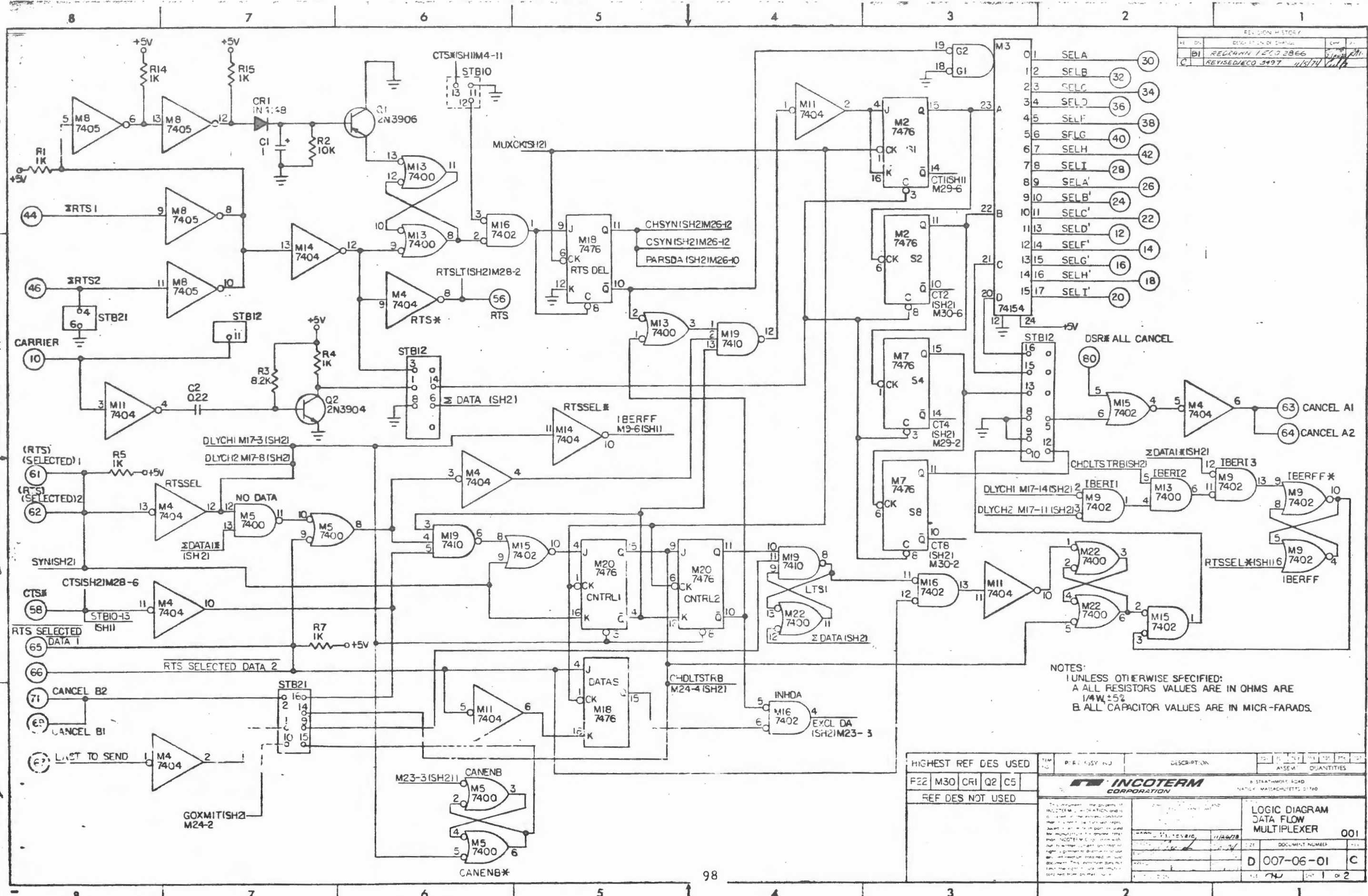




REV	PART	REV	NO	DESCRIPTION	REV	DATE	ASSEMBLY QUANTITIES
INCOTERM CORPORATION							
				SUMMATION BRD. RTS TIMER (MUX) LOGIC DIAGRAM			
				D 007-05-01 B			
				3 of 4			



REV. NO.	PART NO. / FIG.	DESCRIPTION	DATE	BY	CHK.
		SUMMATION BRD. RTS TIMER (MUX) LOGIC DIAGRAM	05-73		
INCOTERM CORPORATION			DOCUMENT NO. 007-05-01 B		
4 OF 4			002		



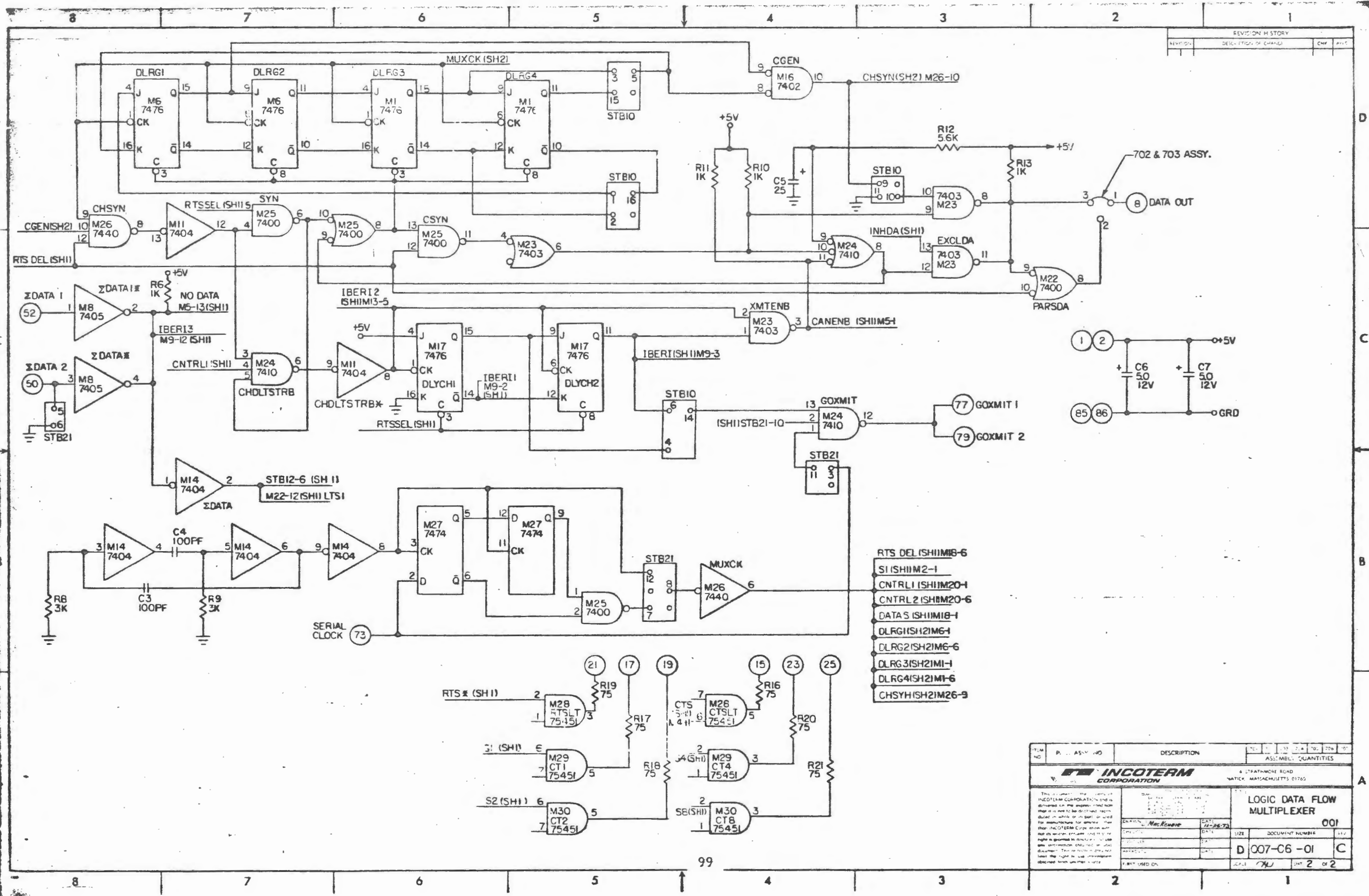
REVISION HISTORY			
REV	DESCRIPTION OF CHANGE	DATE	BY
B1	REDESIGN 1/10/78	1/10/78	...
C	REVISED/ECO 5497	4/5/78	...

NOTES:
 1 UNLESS OTHERWISE SPECIFIED:
 A ALL RESISTOR VALUES ARE IN OHMS ARE 1/4W ±5%
 B ALL CAPACITOR VALUES ARE IN MICR-FARADS.

HIGHEST REF DES USED	TEMP	PART ASSY INJ	DESCRIPTION	QTY	UNIT	QTY	UNIT
F22 M30 CRI Q2 C5							
REF DES NOT USED							

INCOTERM CORPORATION 8 STANTFORD ROAD NANTUCKET, MASSACHUSETTS 01908		LOGIC DIAGRAM DATA FLOW MULTIPLEXER	001
D 007-06-01		DOCUMENT NUMBER	

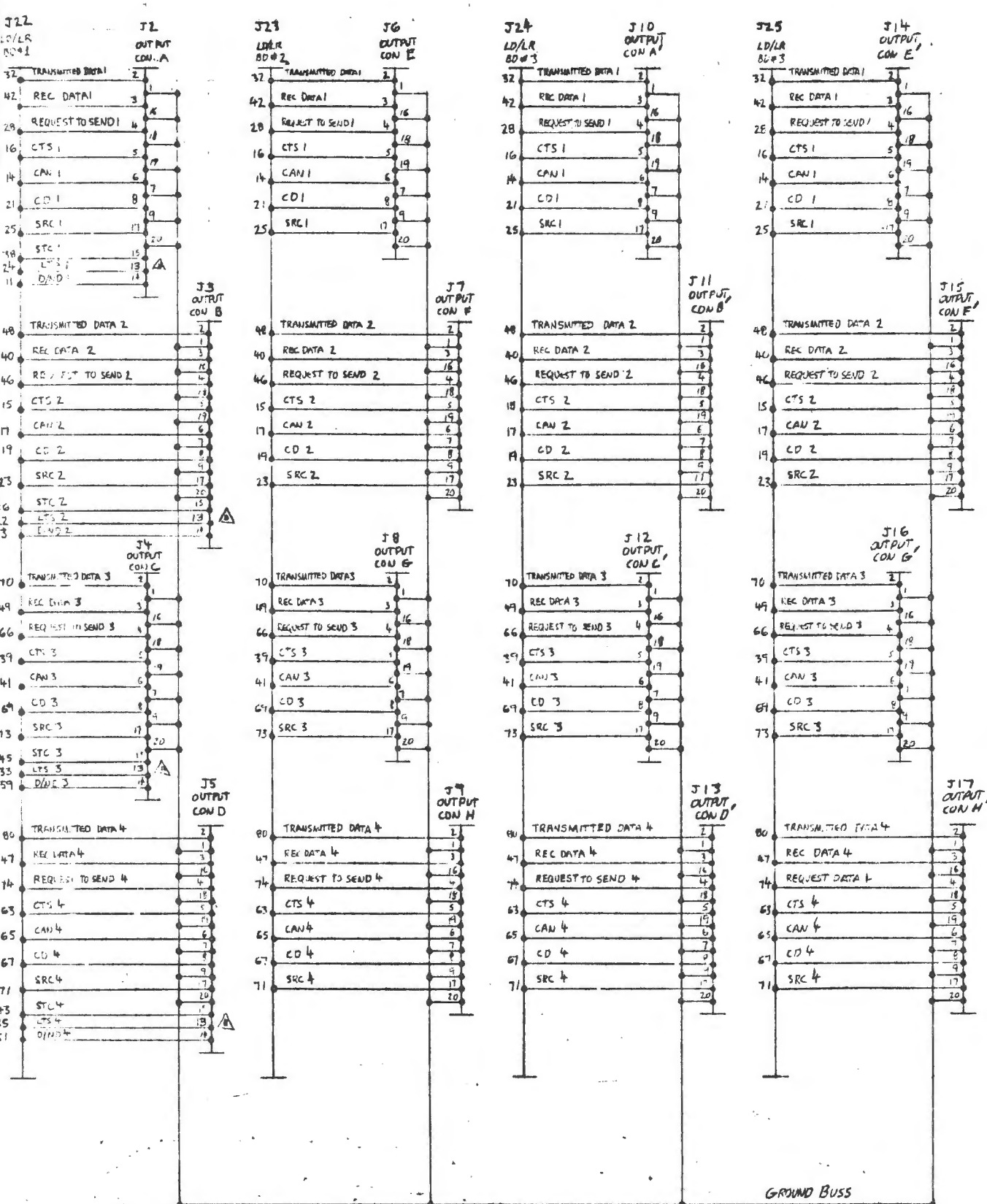
REVISION HISTORY		
REVISION	DESCRIPTION OF CHANGE	CHK



- RTS DEL (SH1) M26-6
- SI (SH1) M2-1
- CNTRL1 (SH1) M20-1
- CNTRL2 (SH1) M20-6
- DATA S (SH1) M18-1
- DLRG1 (SH2) M6-1
- DLRG2 (SH2) M6-6
- DLRG3 (SH2) M1-1
- DLRG4 (SH2) M1-6
- CHSYH (SH2) M26-9

ITEM NO.	REV.	ASSEMBLY NO.	DESCRIPTION	DATE	BY	CHKD.	APP'D.	ASSEMBLY QUANTITIES
INCOTERM CORPORATION 6 SPATHWICK ROAD WATICK, MASSACHUSETTS 01765								
LOGIC DATA FLOW MULTIPLEXER								001
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DATE	SIZE	DOCUMENT NUMBER	REV.					
11-26-73		D 007-C6-01	C					
FIRST USED ON	SCALE	SHEET 2 OF 2						

REV	DESCRIPTION	CHK	APPRO
A	RELEASED BY 2/11/70		
B	UPDATED ECG 1177 9/27/70		
C	REVISED ECG 12/23/71		
D	REVISED ECG 1/15/72		
E	REVISED ECG 2/7/73		

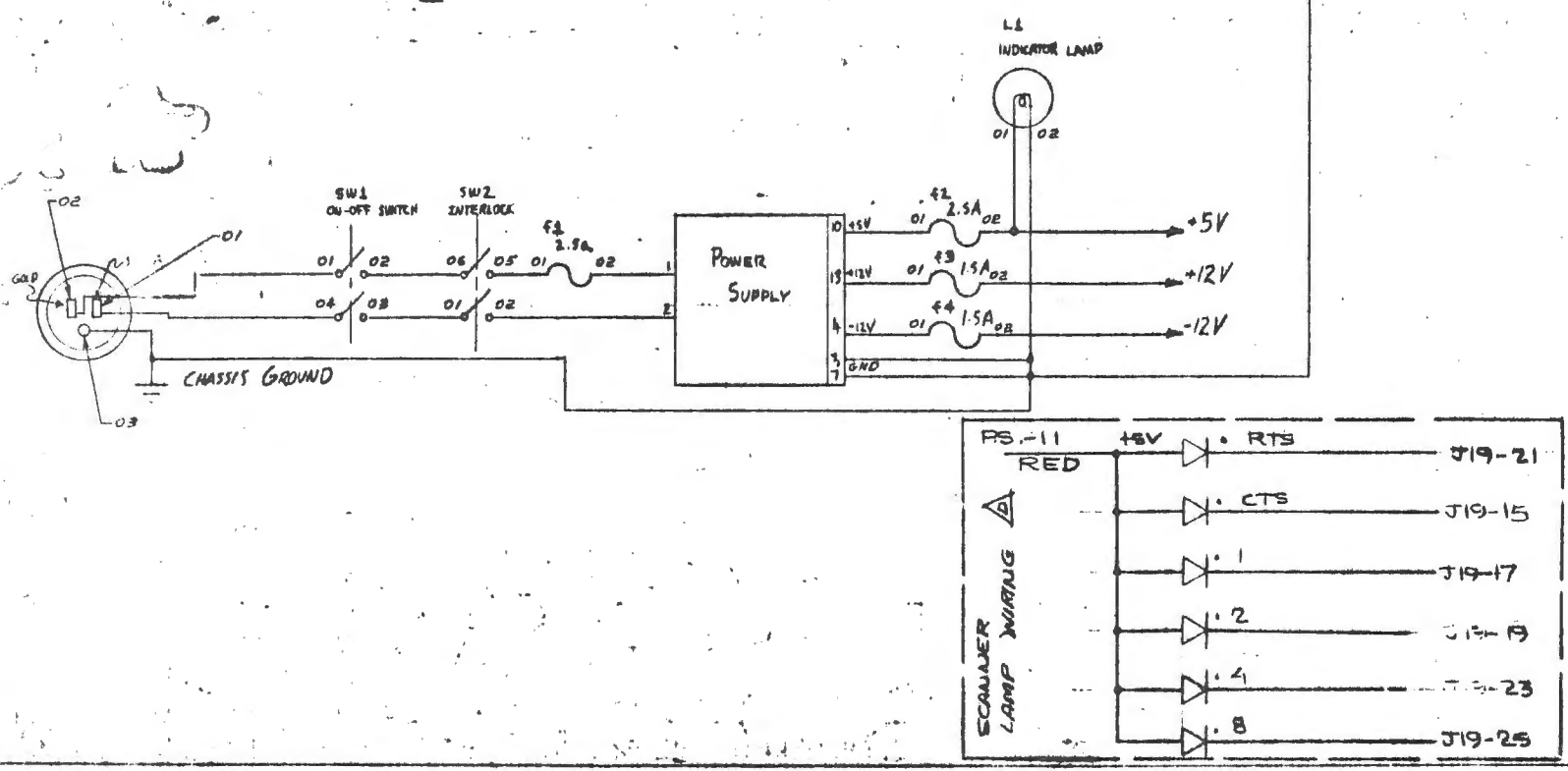


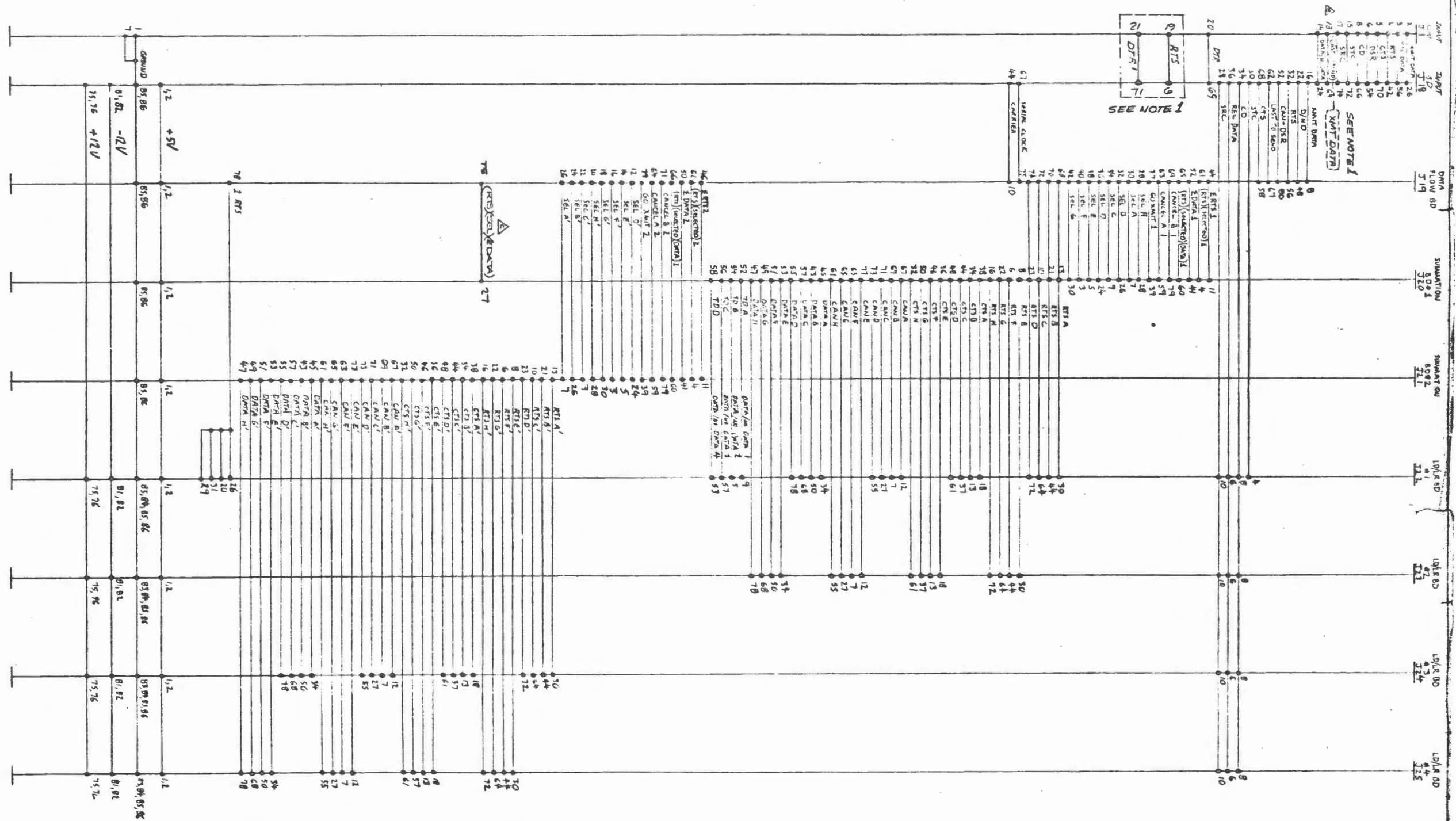
NO. 65:
 1. SIGNAL NAME (LAST TO SEND) CAN (CTS)
 TC (RT DATA) AND 2 WIRES ADDED
 WITH SIGNAL NAMES (PTS) AND (DTR)
 WHEN MUX IS USED IN DUAL MODE.

INTERNATIONAL COMPUTER TERMINALS CORP.	
TITLE	MULTI-PLEXER WIRING DIAGRAM
DATE	001
SIZE	P.C.
NO.	007-10-39
REV	F
SCALE	
SHEET	OF 2

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS ± 0.01 ANGLES ± 7°

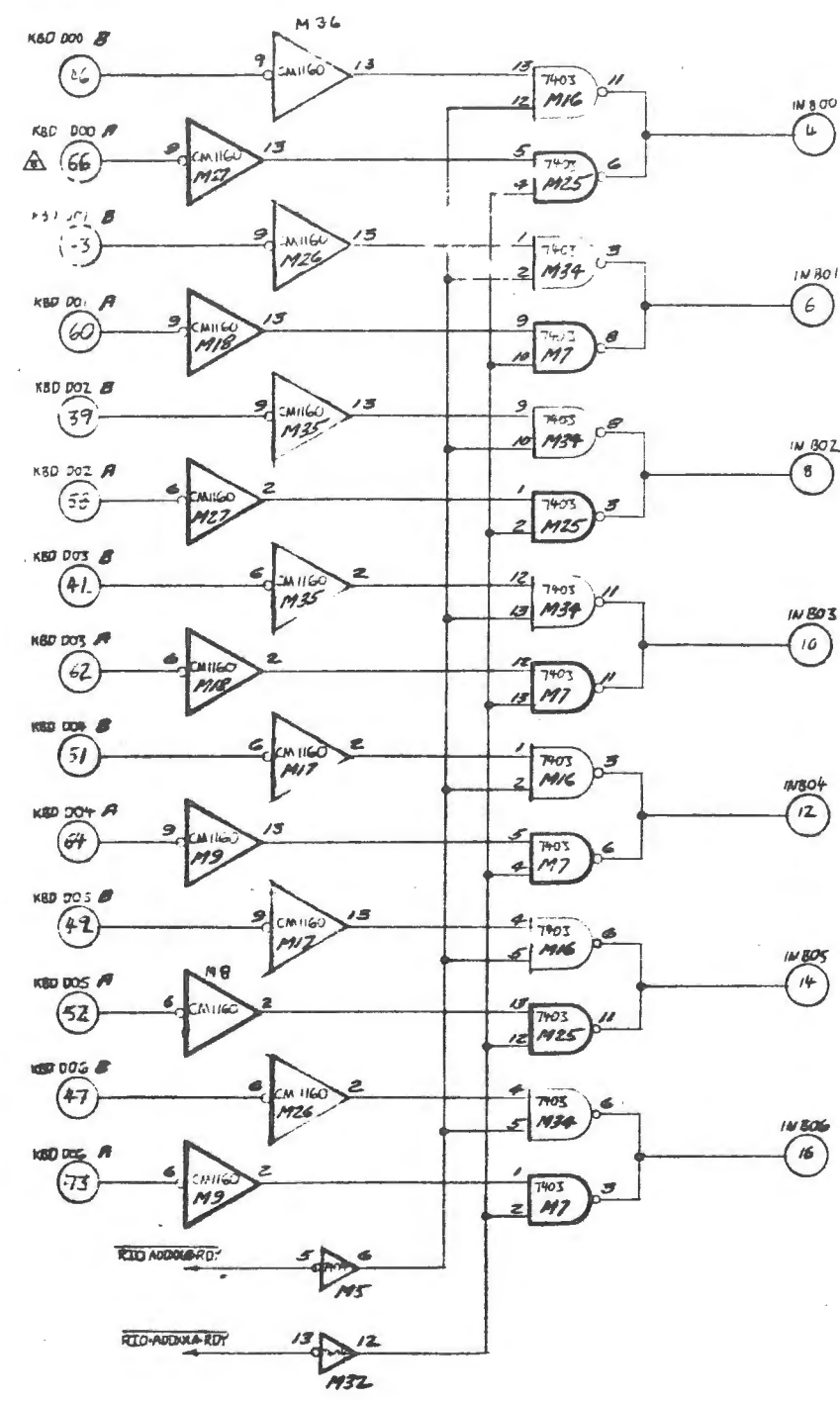
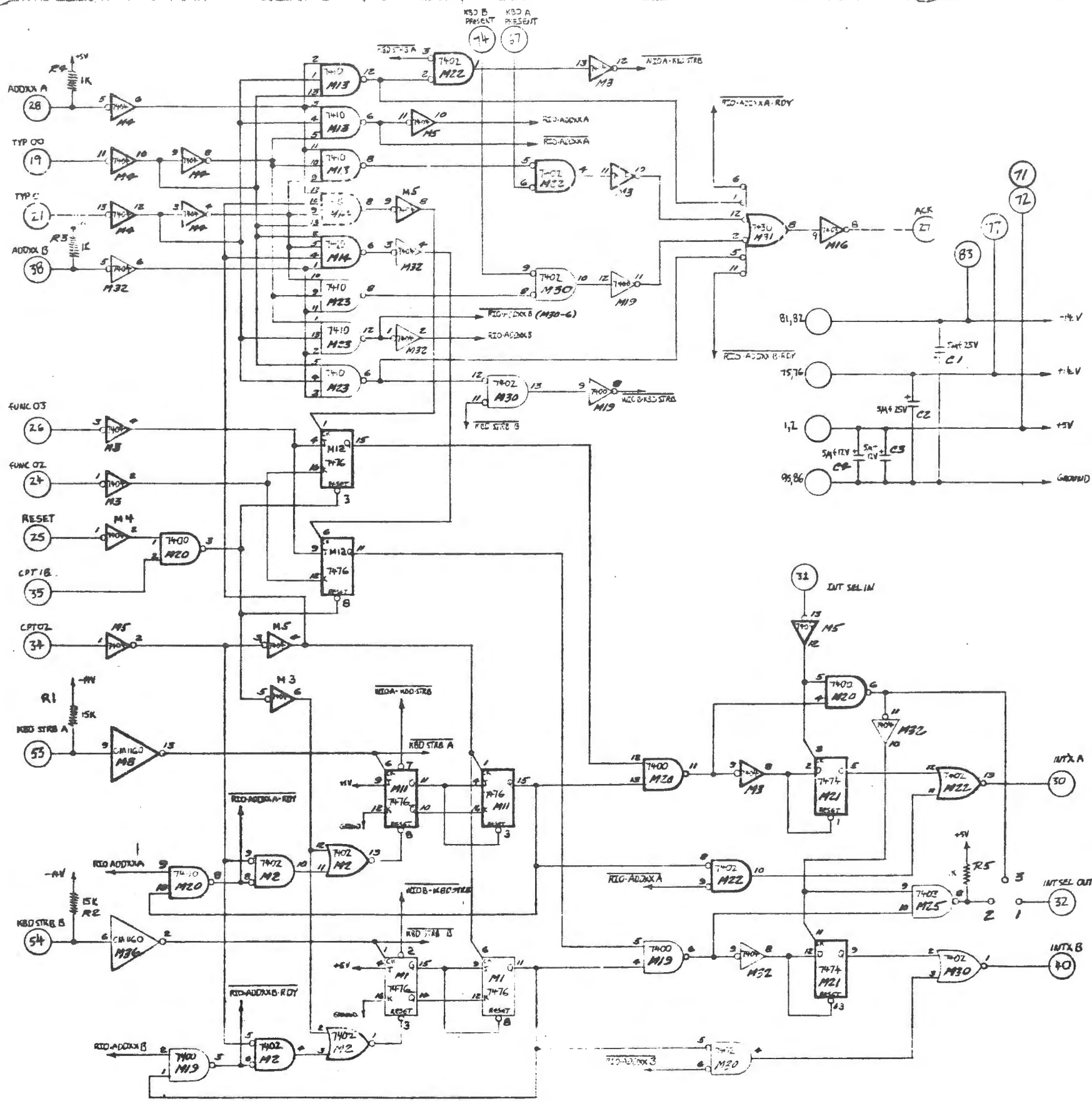
USE THE FOLLOWING DIMENSIONS FOR THE COMPONENTS LISTED BELOW





INTERNATIONAL COMPUTER TERMINALS CORP.		TITLE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS ± .005		MULTIPLXER WIRING DIAGRAM	
ANGLES ± 2°		001	
DR	DATE	SIZE	P.C. S.S. NO. REV
CHK		007-10-39	E
ENG			
APPD			
NEXT ASSY		SCALE	SHT 2 OF 2

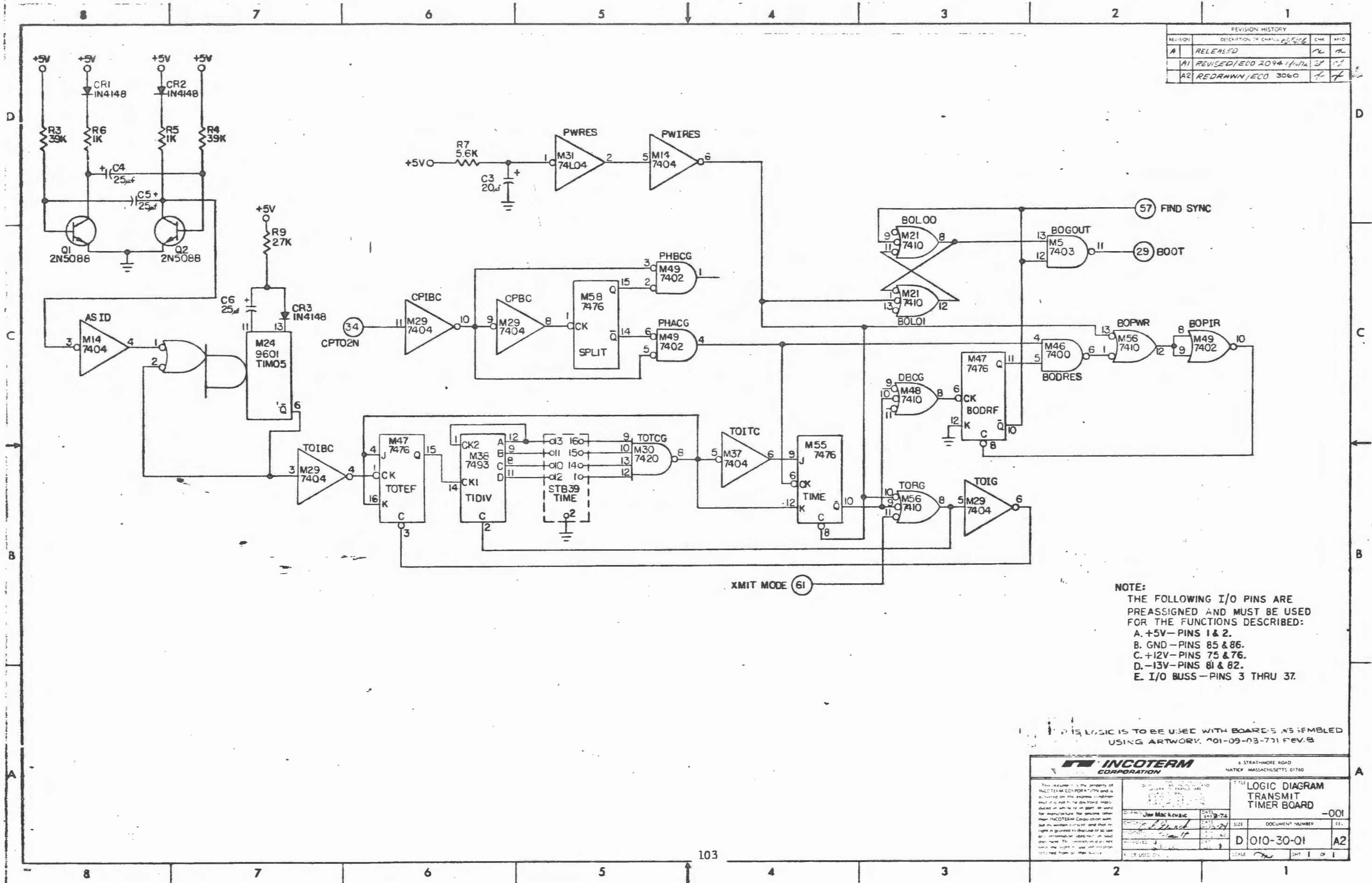
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KEY BOARD
CONTROLLER

SIZE	P.C.	S.S.	REV.
D	009-03-01	B	
DATE	2	2	

REVISION HISTORY				
REVISION	DESCRIPTION OF CHANGE	DATE	CHK	APP'D
A	RELEASED			
A1	REVISED/ECO 2094	1/17/74	J	C
A2	REDRAWN/ECO 3060		L	F

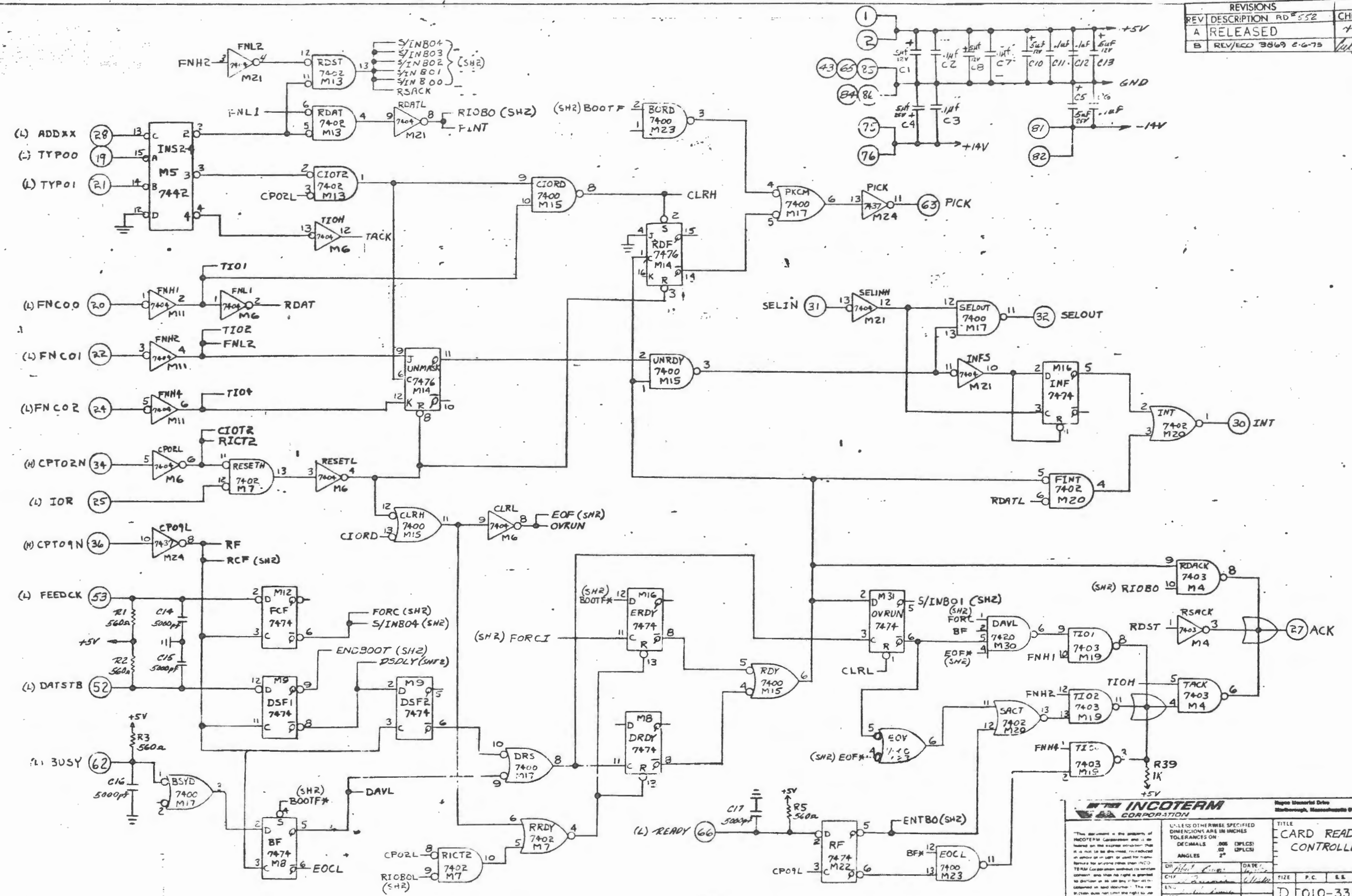


NOTE:
 THE FOLLOWING I/O PINS ARE PREASSIGNED AND MUST BE USED FOR THE FUNCTIONS DESCRIBED:
 A. +5V—PINS 1 & 2.
 B. GND—PINS 85 & 86.
 C. +12V—PINS 75 & 76.
 D. -13V—PINS 81 & 82.
 E. I/O BUSS—PINS 3 THRU 37.

THIS LOGIC IS TO BE USED WITH BOARD'S ASSEMBLED USING ARTWORK 001-09-03-771 REV. B

		6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01700	
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DRAWN: Joe MacKeugic CHECKED: [Signature] APPROVED: [Signature]	DATE: 1-19-74 SIZE: [Blank] CASE: [Blank]	DOCUMENT NUMBER: D 010-30-01	REV.: A2
103		SHEET 1 OF 1	

REVISIONS			
REV	DESCRIPTION	RD#	CHK APPD
A	RELEASED	552	✓ ✓
B	REV/ECO 3869	2-6-75	✓



INCOTERM CORPORATION
 Digital Instrument Drive
 Marlborough, Massachusetts 01752

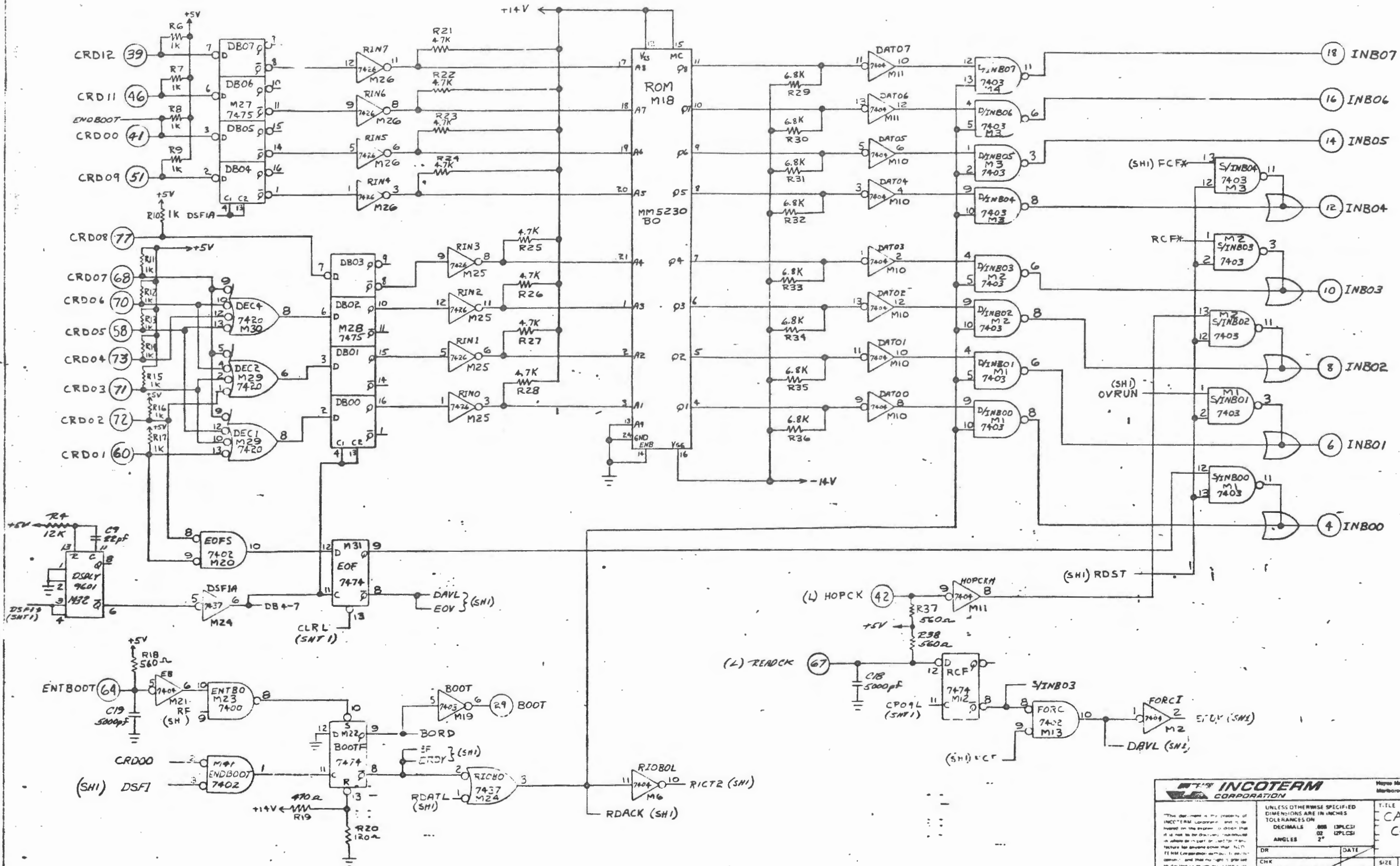
UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN INCHES
 TOLERANCES ON
 DECIMALS .005 (DPLCS)
 ANGLES 2°

DR: *[Signature]* DATE: *[Date]*
 EN: *[Signature]*
 APP: *[Signature]*

TITLE: **CARD READER CONTROLLER**
 NO. 001

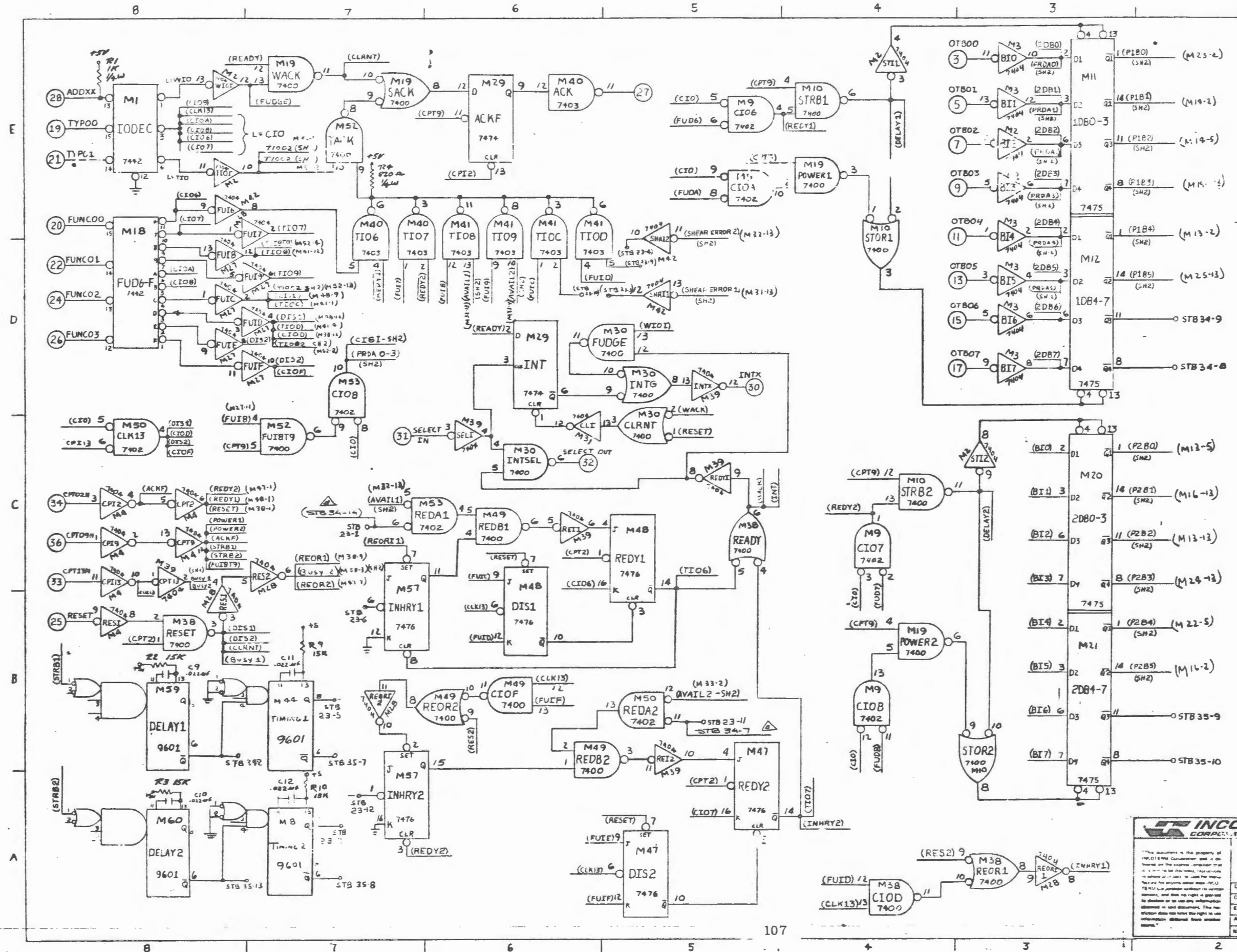
SIZE: D P.C. S.S. NO. REV
 D 1010-33-01 B

NEXT ASSY: JNO-33-02-701 SCALE: 1/8" = 1" SHY 1 OF 2



		Hayes Memorial Drive Marlborough, Massachusetts 01752	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS .005 (3PLCS) ANGLES .02 (2PLCS) 2°		TITLE CARD READER CONTROLLER	
DR	DATE	SIZE	P.C. S.E. NO. REV
CHK		D	010-33-01 B
APP'D		SCALE	SHT 2 OF 2

REVISIONS			
REV	DESCRIPTION	CHK	APPD
1	RELEASED TO FILE		
A	RELEASED RD#537 10/27/72		
B	REVISED/ECO2188 11/1/72		



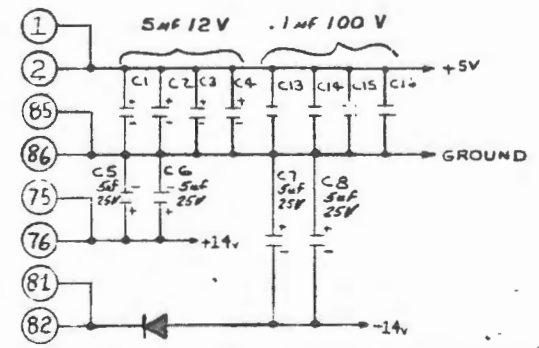
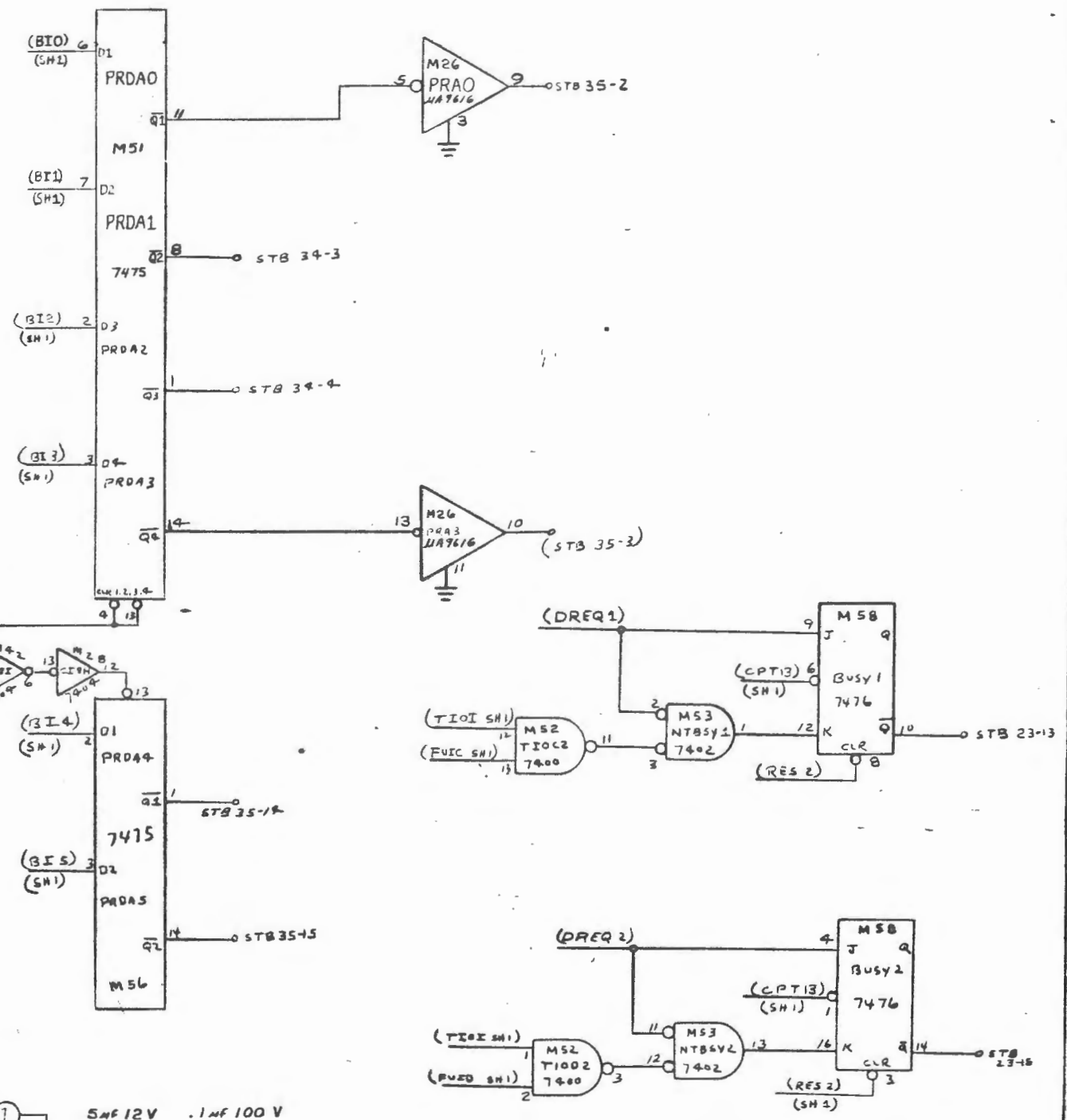
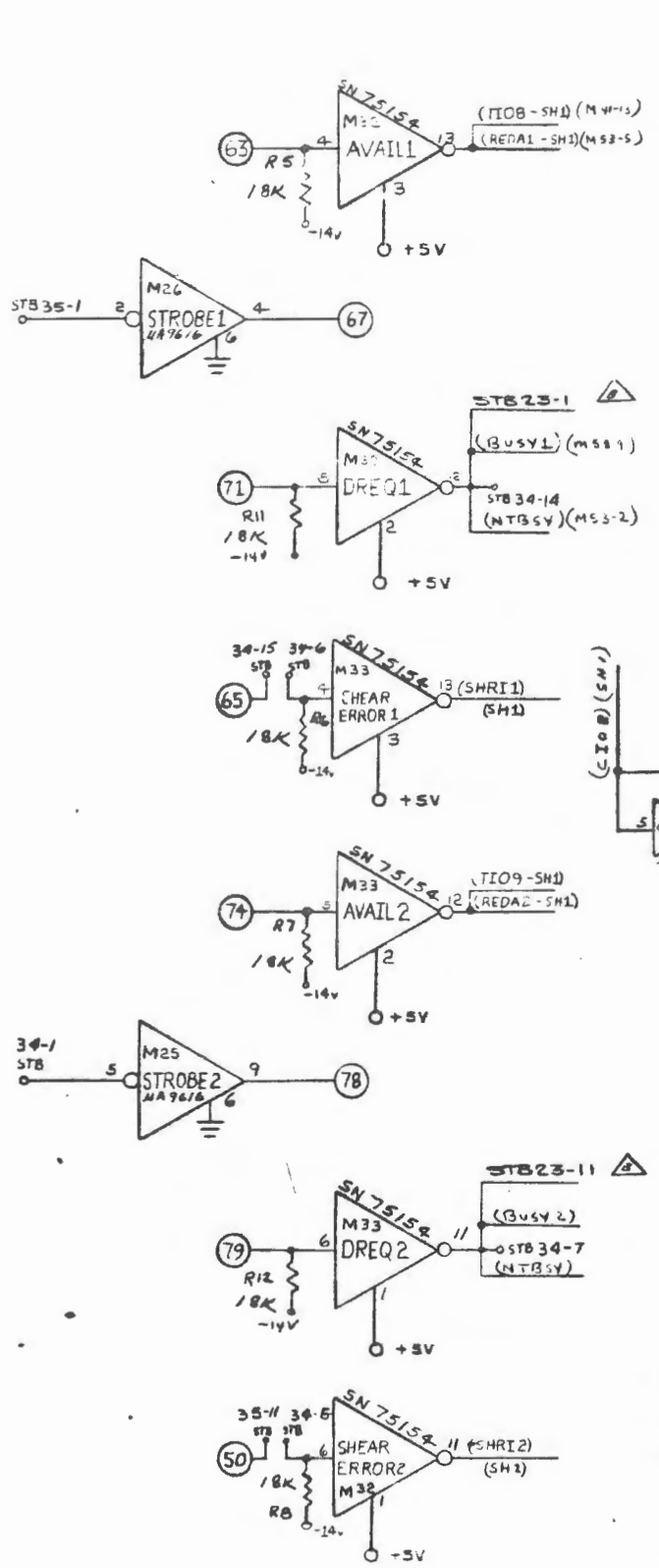
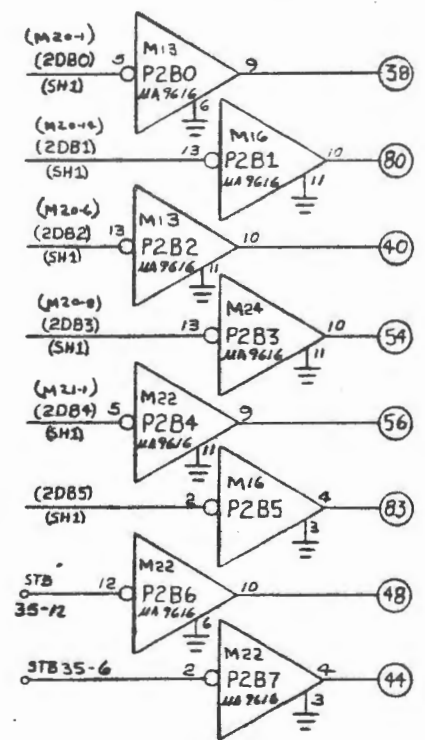
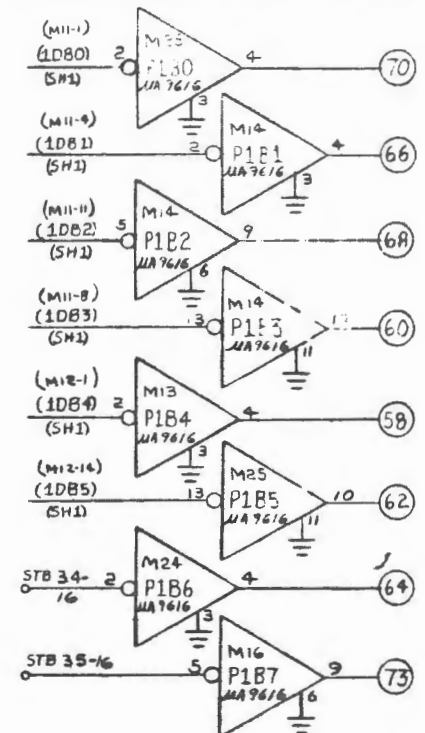
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INCOTERM CORPORATION, 177C1
 10000 WILSON AVENUE, BOSTON, MASSACHUSETTS 02116

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DR	R. PARKER	DATE	
CHK	R. PARKER	DATE	10/27/72
APPD		DATE	11/1/72
NEXT ASSY	CIO-34-02	SCALE	1:1

LOGIC DIAGRAM
 EQUAL PITCH
 PRINTER CONTROLLER

SIZE	P.C.	R.E.	NO.	REV.
D	010-34-01	3		
NEXT ASSY		CIO-34-02	SCALE	1:1
SHEET		1	OF	2



00!

INCOTERM CORPORATION
Haverhill, Massachusetts 01708

INCOTERM CORPORATION
1000 STATE STREET
HAVERHILL, MASSACHUSETTS 01708

DATE: _____

CHECKED BY: _____

ENGINEER: _____

APP'D: _____

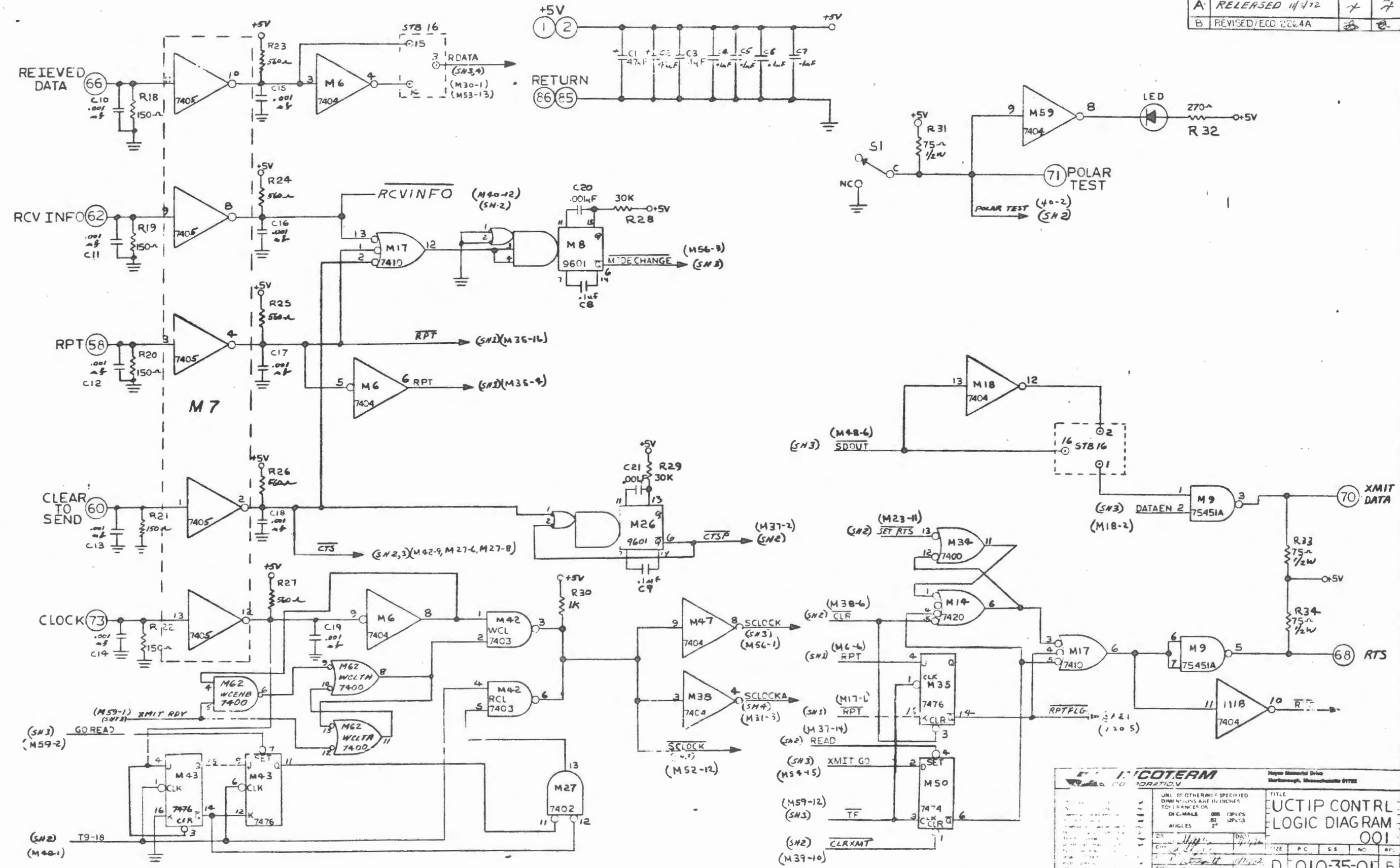
SCALE: 1:1

SHEET 2 OF 2

TITLE: LOGIC DIAGRAM
DUAL (PRINTEC)
PRINTER CONTROLLER

NO. 010-34-01-B

REVISIONS			
REV	DESCRIPTION	CHK	APPD
A	RELEASED 11/7/72	X	7
B	REVISED/ECD 2264A	2	2



ICOTERM
 Honeywell Drive
 Marlborough, Massachusetts 01752

JUL 88 OTHERS AS SPECIFIED
 DIMENSIONS ARE IN INCHES
 TOL. DIMENSIONS ARE IN INCHES
 ON DIMALS .005 13PLCS
 .010 12PLCS
 ANGLES 2°

TITLE
**UCTIP CONTRL
 LOGIC DIAGRAM**
 001

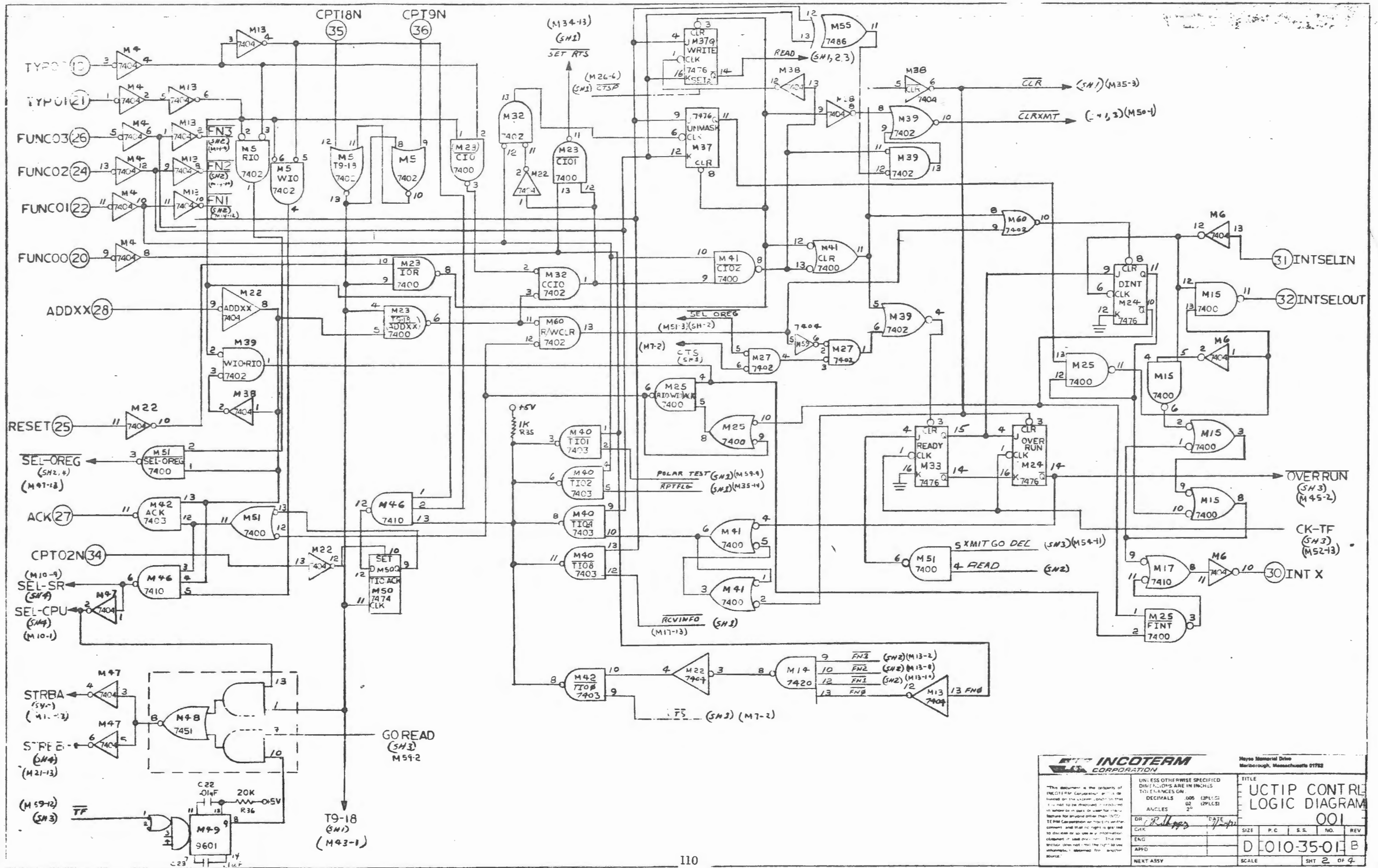
DATE
 11/7/72

CHKD
 APPD
 7

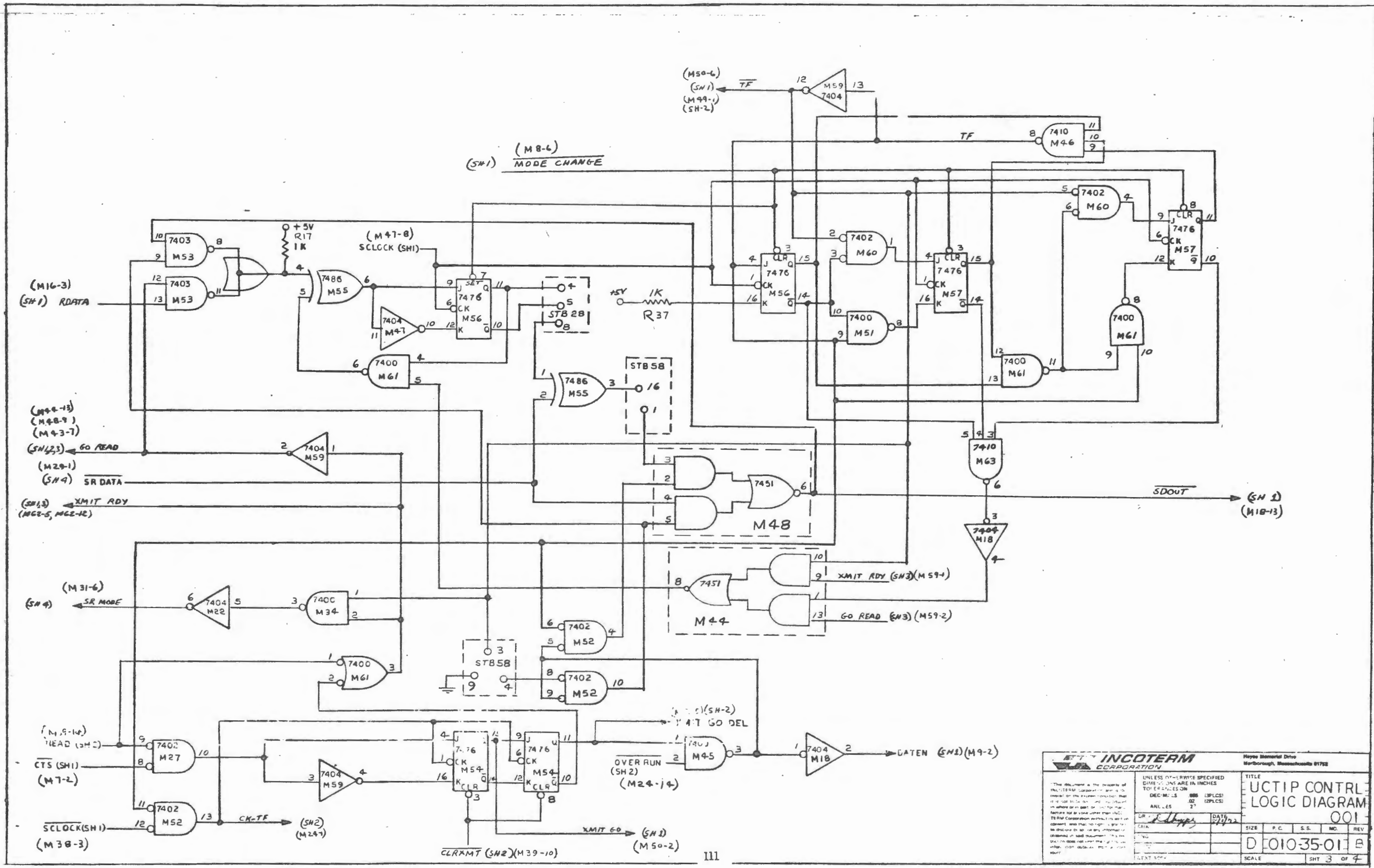
SIZE P.C. S.S. NO. BY

D. 010-35-01 B

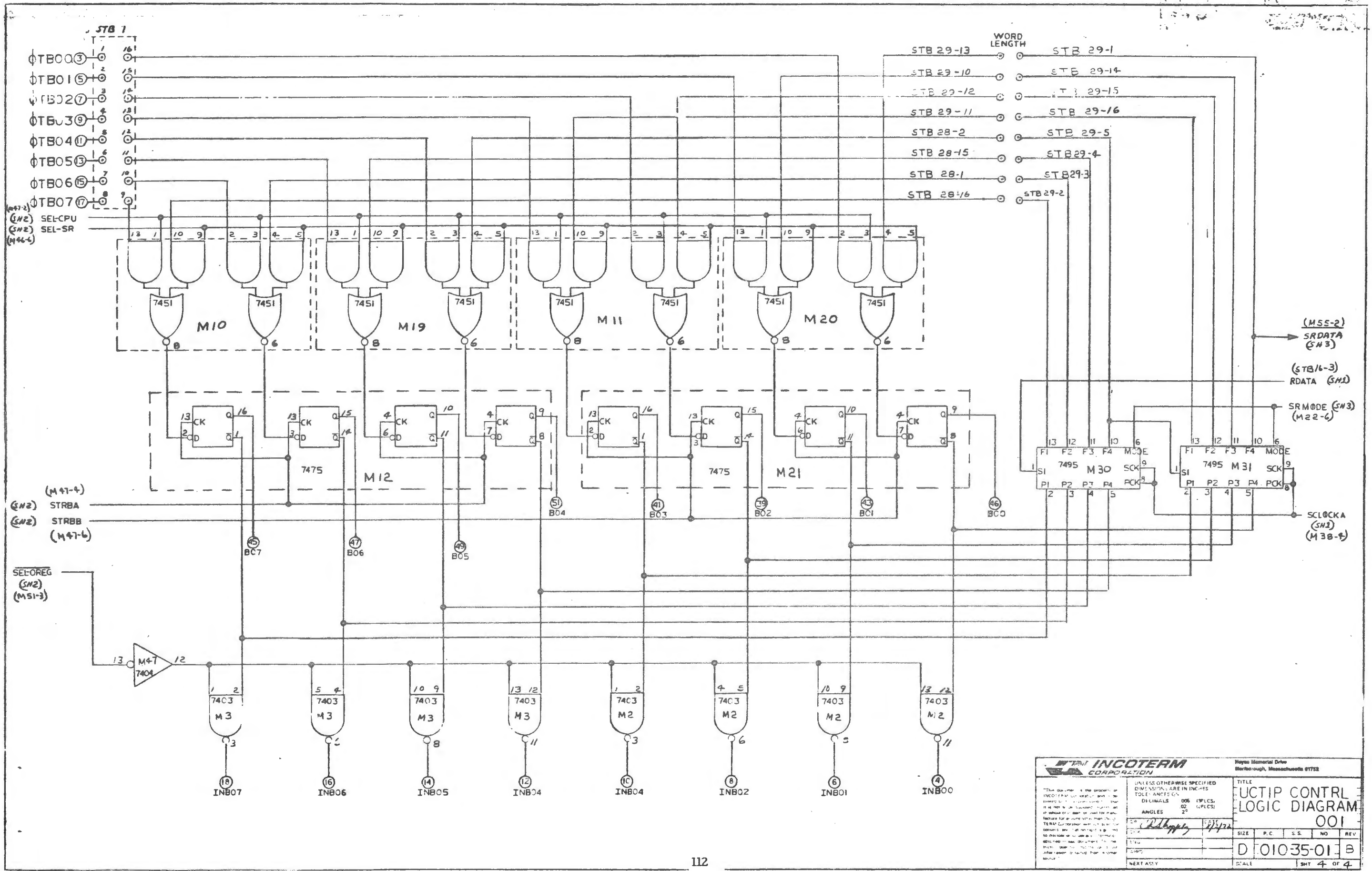
SCALE SHT 1 OF 2



INCOTERM CORPORATION <small>Raytheon Memorial Drive Marlborough, Massachusetts 01752</small>		TITLE UCTIP CONTROL LOGIC DIAGRAM 001	
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DR: <i>Ball...</i> CHK: ENG: APP'D:	DATE: <i>7/2/71</i>	SIZE: P.C. S.S. NO. REV.	D-010-35-01 B SCALE: SHT 2 OF 4

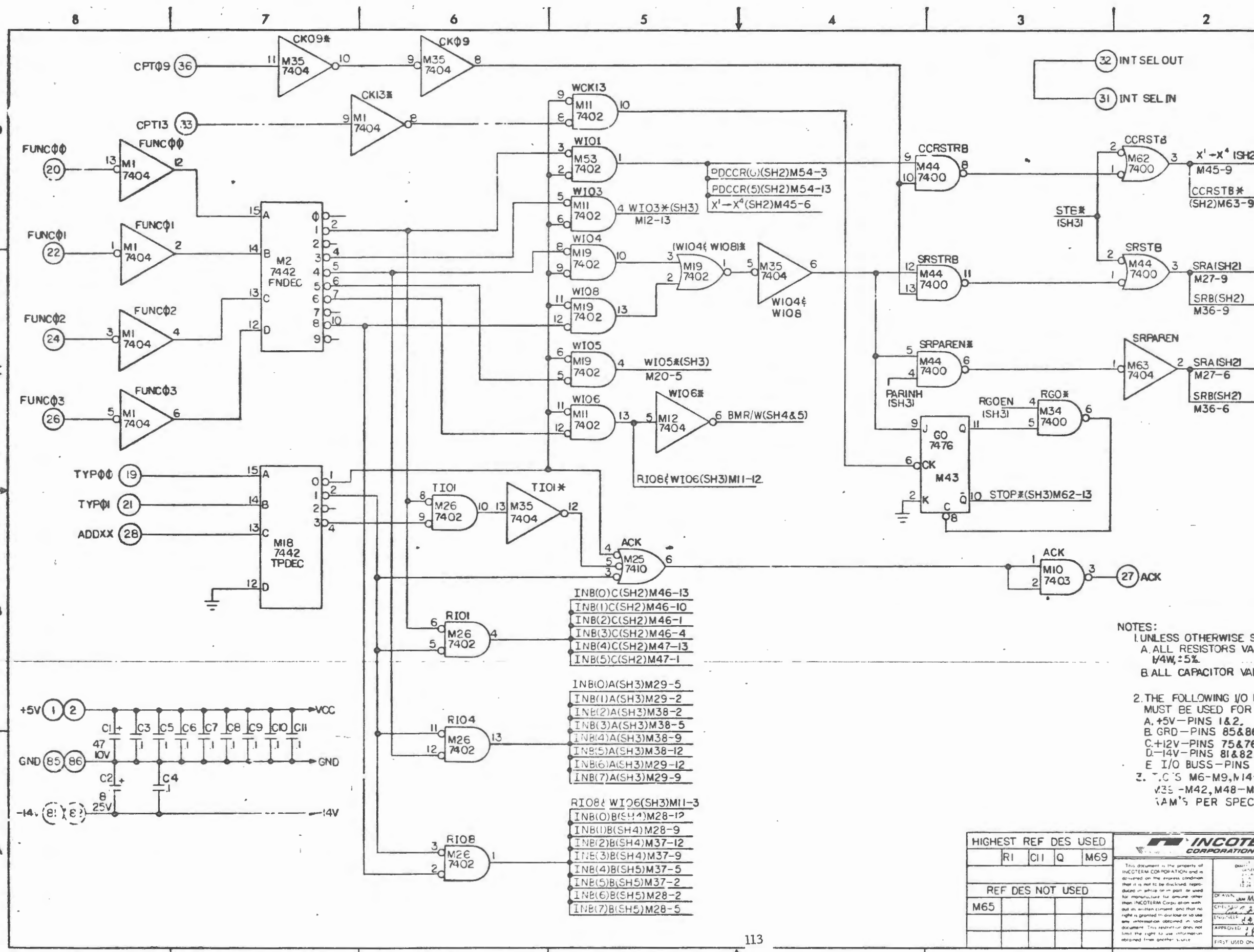


INCOTERM CORPORATION <small>Holyoke Industrial Drive Holyoke, Massachusetts 01722</small>		TITLE UCTIP CONTROL LOGIC DIAGRAM 001	
<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS .005 (3PLS) ANGLES .2°</small>		<small>DATE 2/1/72</small>	
<small>GR. BY [Signature]</small>		<small>DATE 2/1/72</small>	
<small>SCALE</small>		<small>SHT 3 OF 4</small>	
<small>CLIENT NO.</small>		<small>SIZE P.C. S.S. NO. REV</small> D 010-35-01 B	



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DATE <i>1/1/72</i>	DRAWN <i>1/1/72</i>	SIZE D	P.C. 01035-01
NEXT ASSY	SCALE	S.S. B	REV 4 OF 4

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APRD
B	REV/ECO 3082 5/7/74		
B1	REDRAWN/ECO 3284		
C	REVISED/ECO 8224		

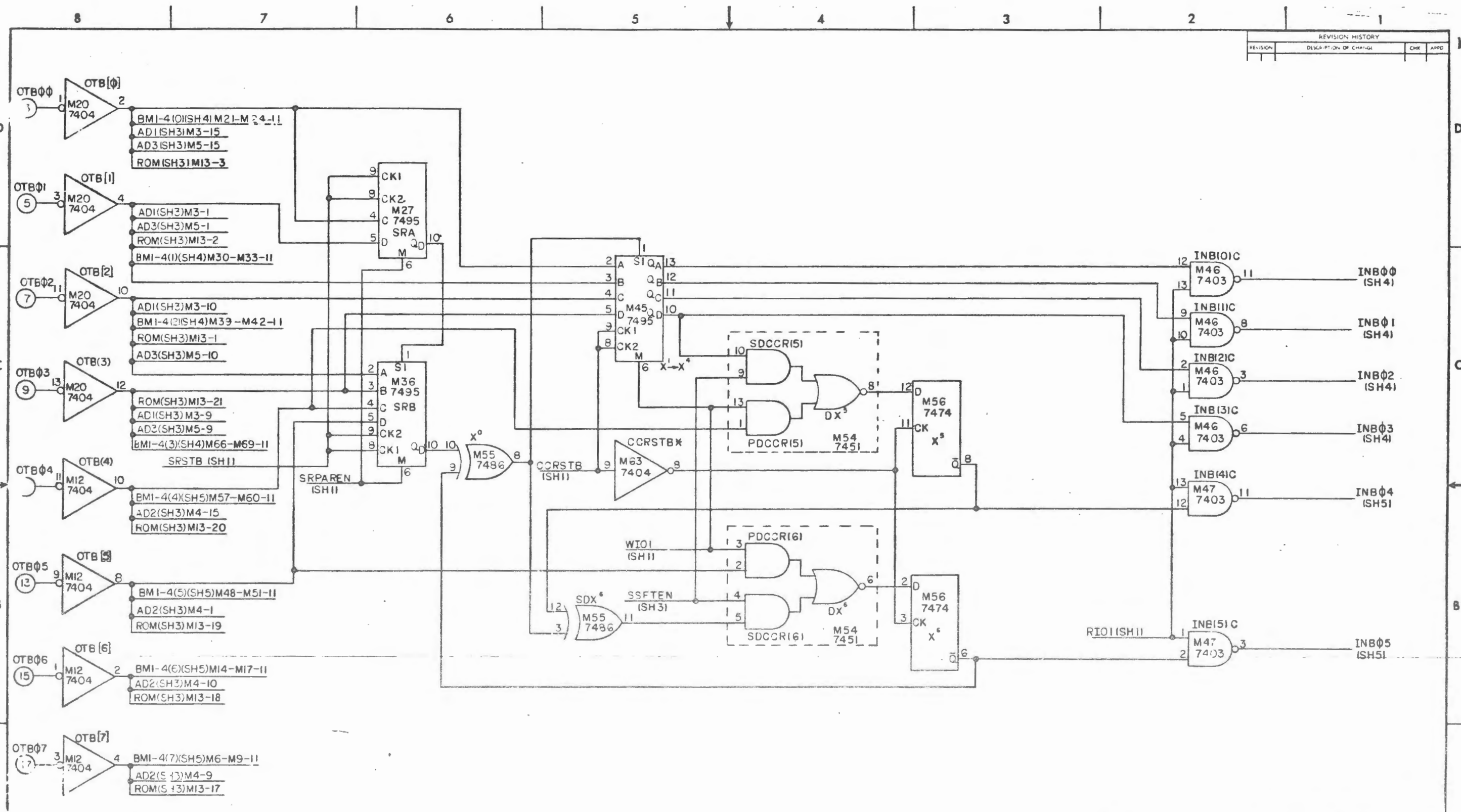


- NOTES:
- UNLESS OTHERWISE SPECIFIED:
 - A. ALL RESISTOR VALUES ARE IN OHMS AND ARE 1/4W, ±5%.
 - B. ALL CAPACITOR VALUES ARE IN MICRO FARADS.
 - THE FOLLOWING I/O PINS ARE PRE-ASSIGNED AND MUST BE USED FOR THE FUNCTIONS DESCRIBED:
 - A. +5V—PINS 1 & 2.
 - B. GRD—PINS 85 & 86.
 - C. +12V—PINS 75 & 76.
 - D. -14V—PINS 81 & 82.
 - E. I/O BUSS—PINS 3 THRU 37.
 - T.C.'S M6-M9, M14-M17, M21-M24, M30-M33, M35-M42, M48-M51, M57-M60, M66-M69, M71-M74, M'S PER SPECIFICATION NUMBER 9.2-1-07-001.

HIGHEST REF DES USED			
RI	CI	Q	M69
REF DES NOT USED			
M65			

		4 STRATHMORE ROAD NATICK, MASSACHUSETTS 01760	
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DRAWN: J. MacKinnon CHECKED: J. MacKinnon ENGINEER: J. MacKinnon APPROVED: J. MacKinnon	DATE: 8/27/74 SIZE: 11x17 DOCUMENT NUMBER: D 010-36-01 REV: C	FIRST USED ON:	SHEET 1 OF 5

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD



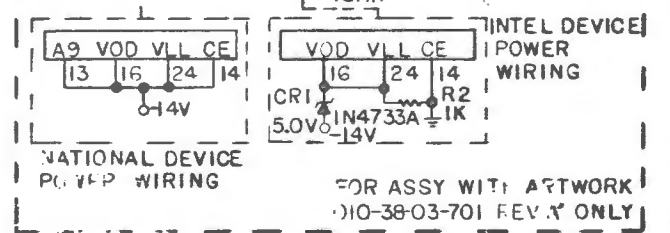
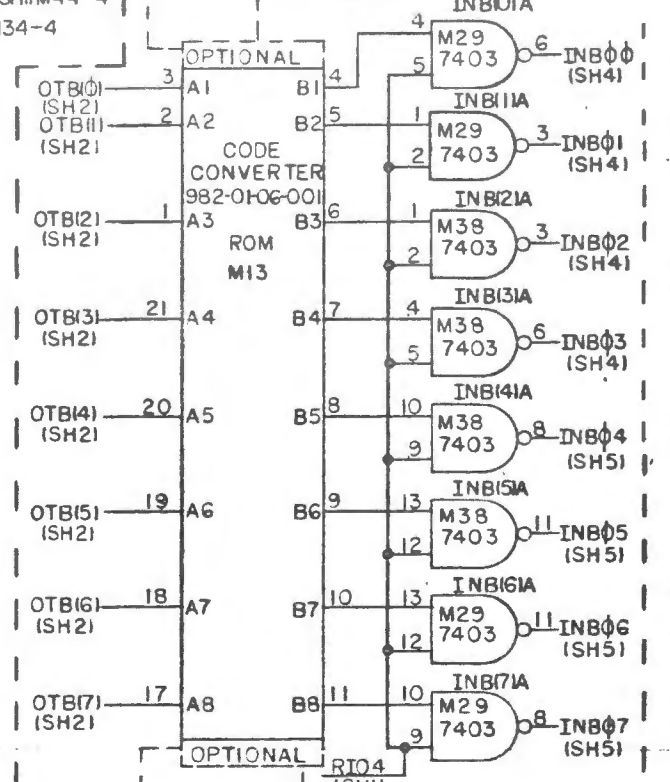
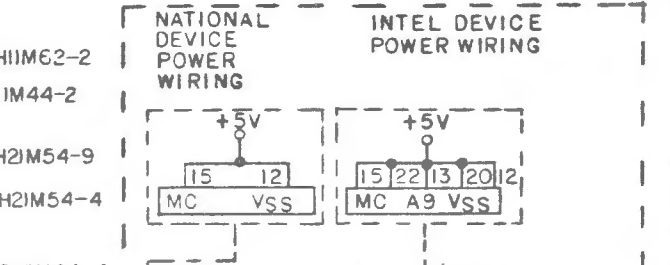
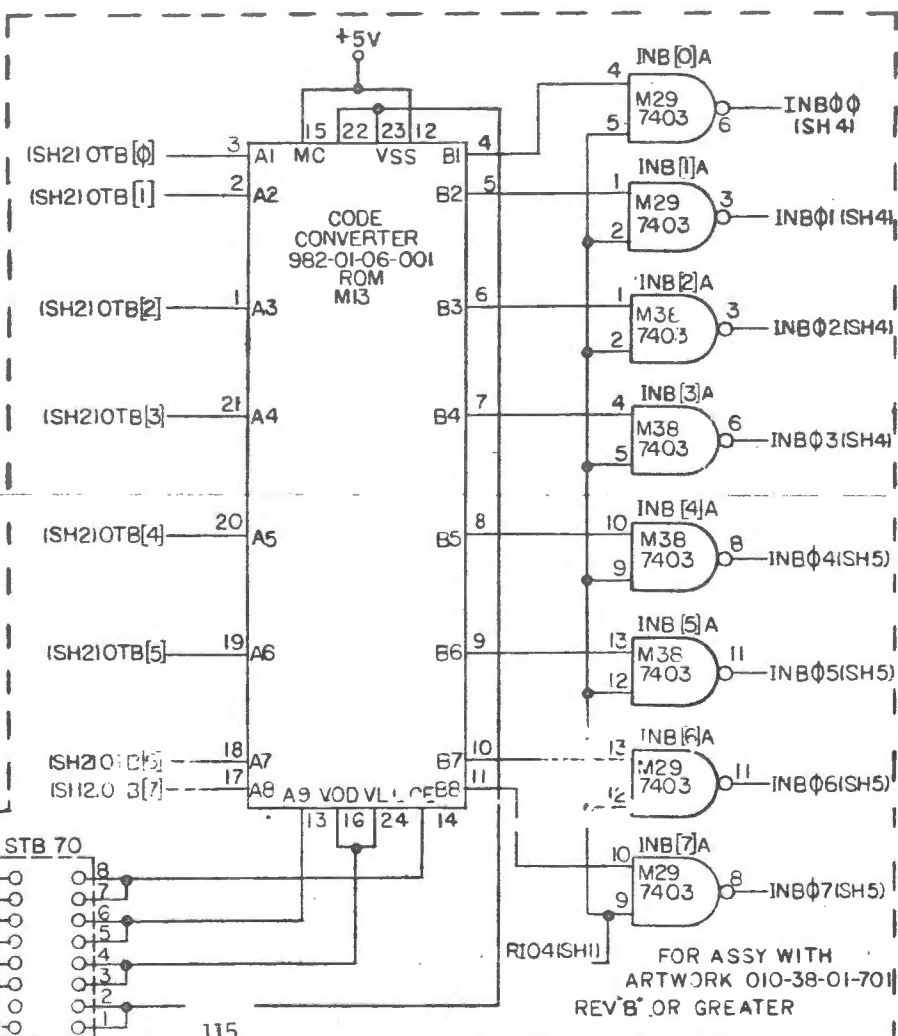
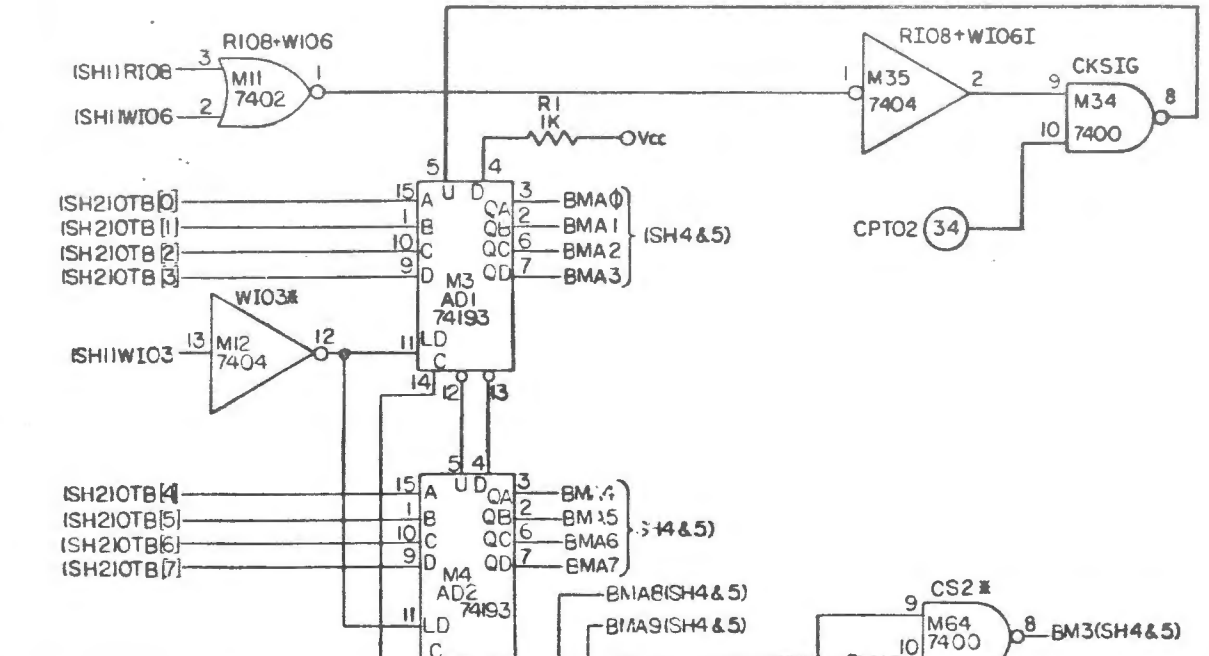
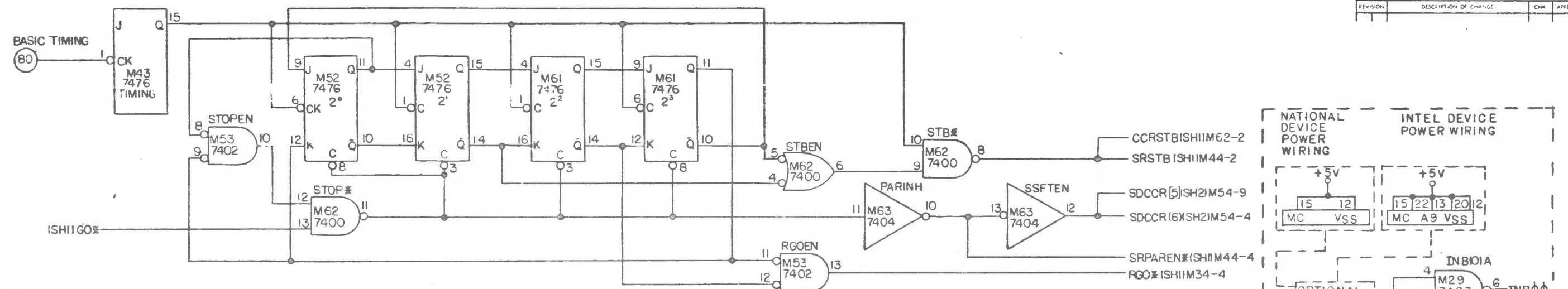
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 NATICK, MASSACHUSETTS 01740

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DATE: 8-30-78	TITLE: LOGIC DIAGRAM CYCLIC CHECK CODE CONV. BUFFER	SIZE: C	DOCUMENT NUMBER: 010-38-01	REV: C
DRAWN: Jim Mac Kevell	DATE: 8-30-78	ENGINEER: [blank]	DATE: [blank]	APPROVED: [blank]
CHECKED: [blank]	DATE: [blank]	APPROVED: [blank]	DATE: [blank]	FIRST USED ON: [blank]

SCALE: 1:1 SHEET: 2 of 5

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD



INCOTERM CORPORATION
8 STRATHMORE ROAD
NATICK, MASSACHUSETTS 01760

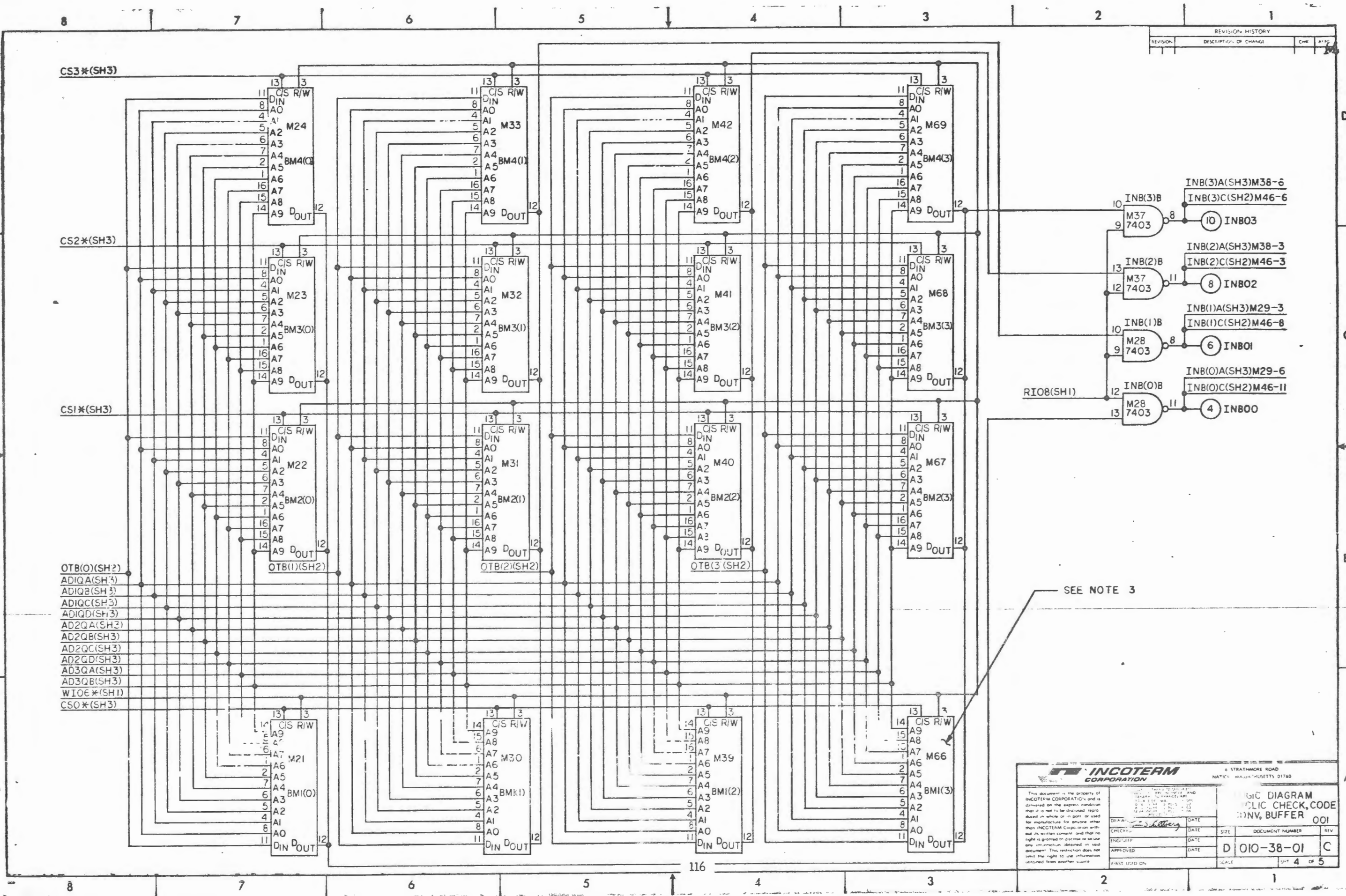
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DATE: 01-28-74	TITLE: LOGIC DIAGRAM CYCLIC CHECK CODE CONV. BUFFER - 001
DRAWN: Jim Theobald	DATE: 01-28-74
CHECKED: [Signature]	DATE: []
ENGINEER: []	DATE: []
APPROVED: []	DATE: []
FIRST USED ON: []	SCALE: 1/2" = 1"

REV: D 010-38-01 C

SHT 3 OF 5

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APP



CS3*(SH3)

CS2*(SH3)

CS1*(SH3)

OTB(0)(SH2)

AD1QA(SH3)

AD1QB(SH3)

AD1QC(SH3)

AD1QD(SH3)

AD2QA(SH3)

AD2QB(SH3)

AD2QC(SH3)

AD2QD(SH3)

AD3QA(SH3)

AD3QB(SH3)

WIOE*(SH1)

CS0*(SH3)

INCOTERM CORPORATION
 6 STRATHMORE ROAD
 NATICK, MASSACHUSETTS 01740

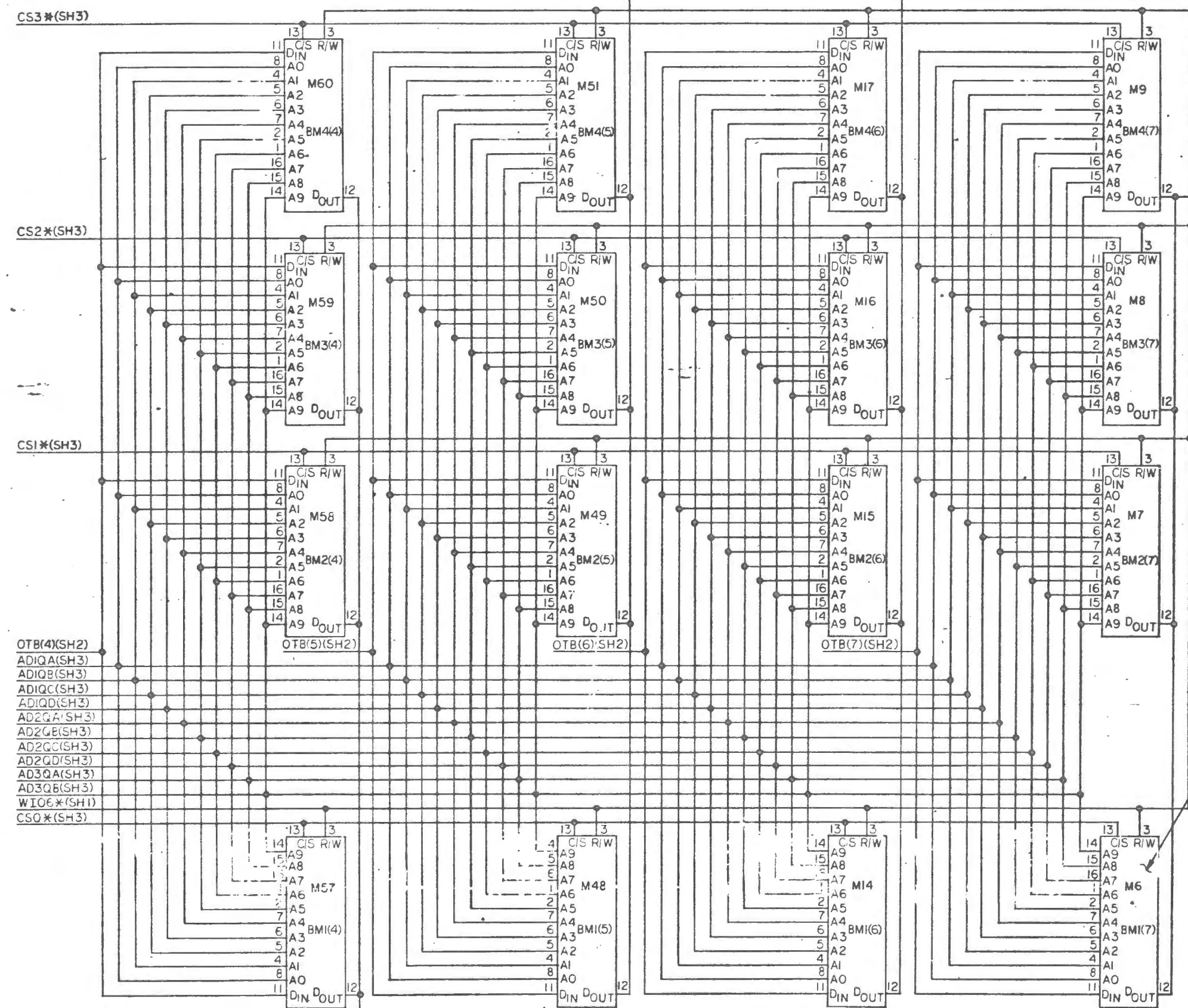
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LOGIC DIAGRAM
PLC CHECK, CODE
CONV. BUFFER

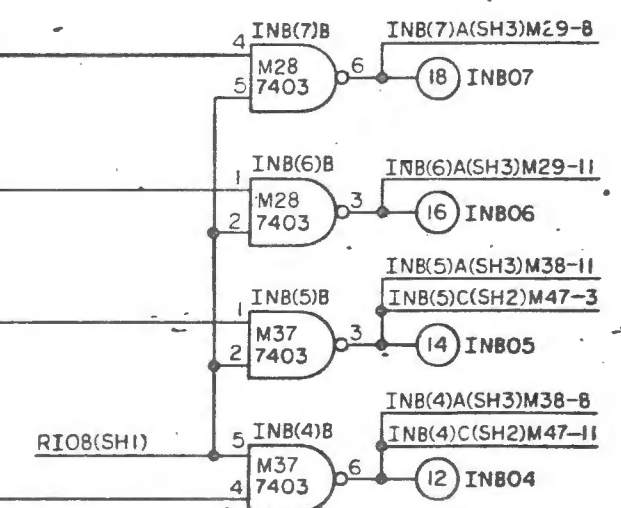
DATE	DATE	DATE	DATE
DESIGNER	CHECKED	ENGINEER	APPROVED

DOCUMENT NUMBER: **D 010-38-01**
 REV: **C**
 SHEET: **4** OF **5**

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	DATE

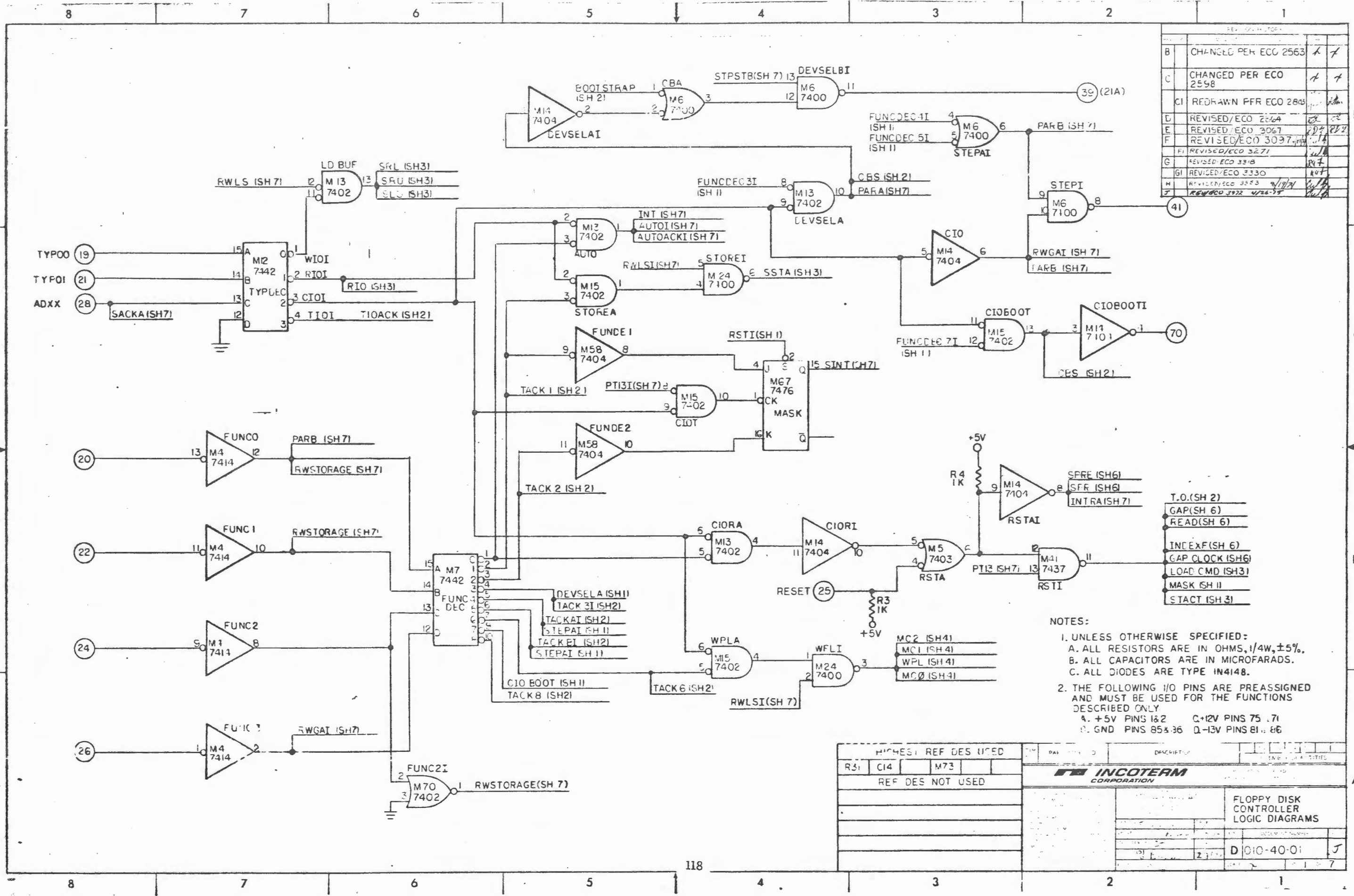


- CS3*(SH3)
- CS2*(SH3)
- CS1*(SH3)
- OTB(4)(SH2)
- ADIQA(SH3)
- ADIQB(SH3)
- ADIQC(SH3)
- ADIQD(SH3)
- AD2QA(SH3)
- AD2QB(SH3)
- AD2QC(SH3)
- AD2QD(SH3)
- AD3QA(SH3)
- AD3QB(SH3)
- WI06*(SH1)
- CS0*(SH3)



SEE NOTE 3

		6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01760	
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DRAWN: <i>S. J. O'Brien</i> CHECKED: _____ ENGINEER: _____ APPROVED: _____ FIRST USED ON: _____	DATE: _____ DATE: _____ DATE: _____	LOGIC DIAGRAM CYCLIC CHECK, CODE CONV, BUFFER 001	SIZE: _____ DOCUMENT NUMBER: D 010-38-01 REV: C SHEET: 5 OF 5



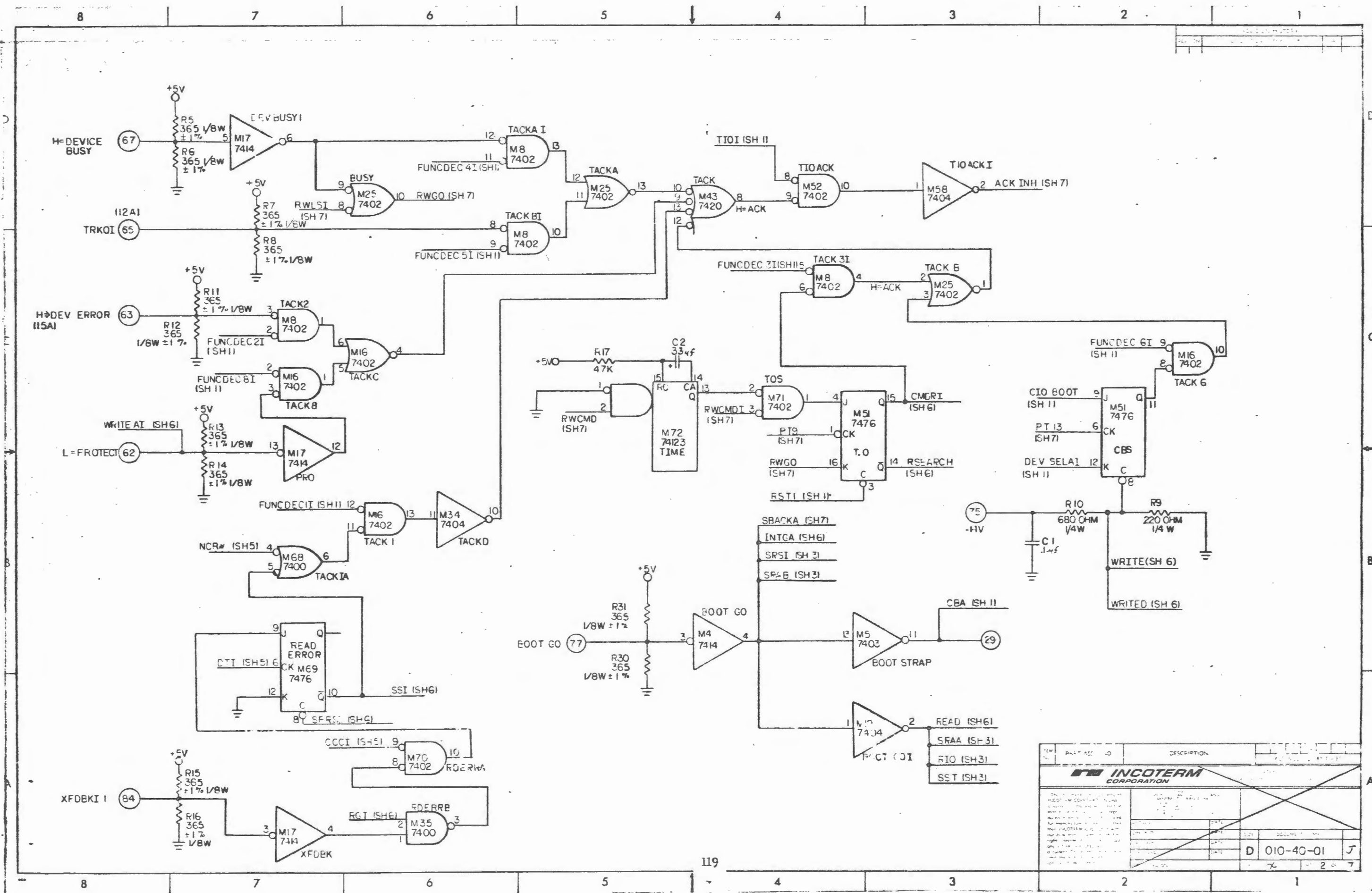
REV	DESCRIPTION	DATE	BY
B	CHANGED PER ECO 2563		
C	CHANGED PER ECO 2598		
CI	REDRAWN PFR ECO 2803		
D	REVISED/ECO 2864		
E	REVISED/ECO 3067		
F	REVISED/ECO 3097		
FI	REVISED/ECO 3271		
G	REVISED/ECO 3318		
GI	REVISED/ECO 3330		
H	REVISED/ECO 3553		
I	REVISED/ECO 3972		

T.O.(SH 2)
GAP(SH 6)
READ(SH 6)
INCEXF(SH 6)
GAP CLOCK(SH6)
LOAD CMD(SH3)
MASK(SH 2)
STACT(SH 3)

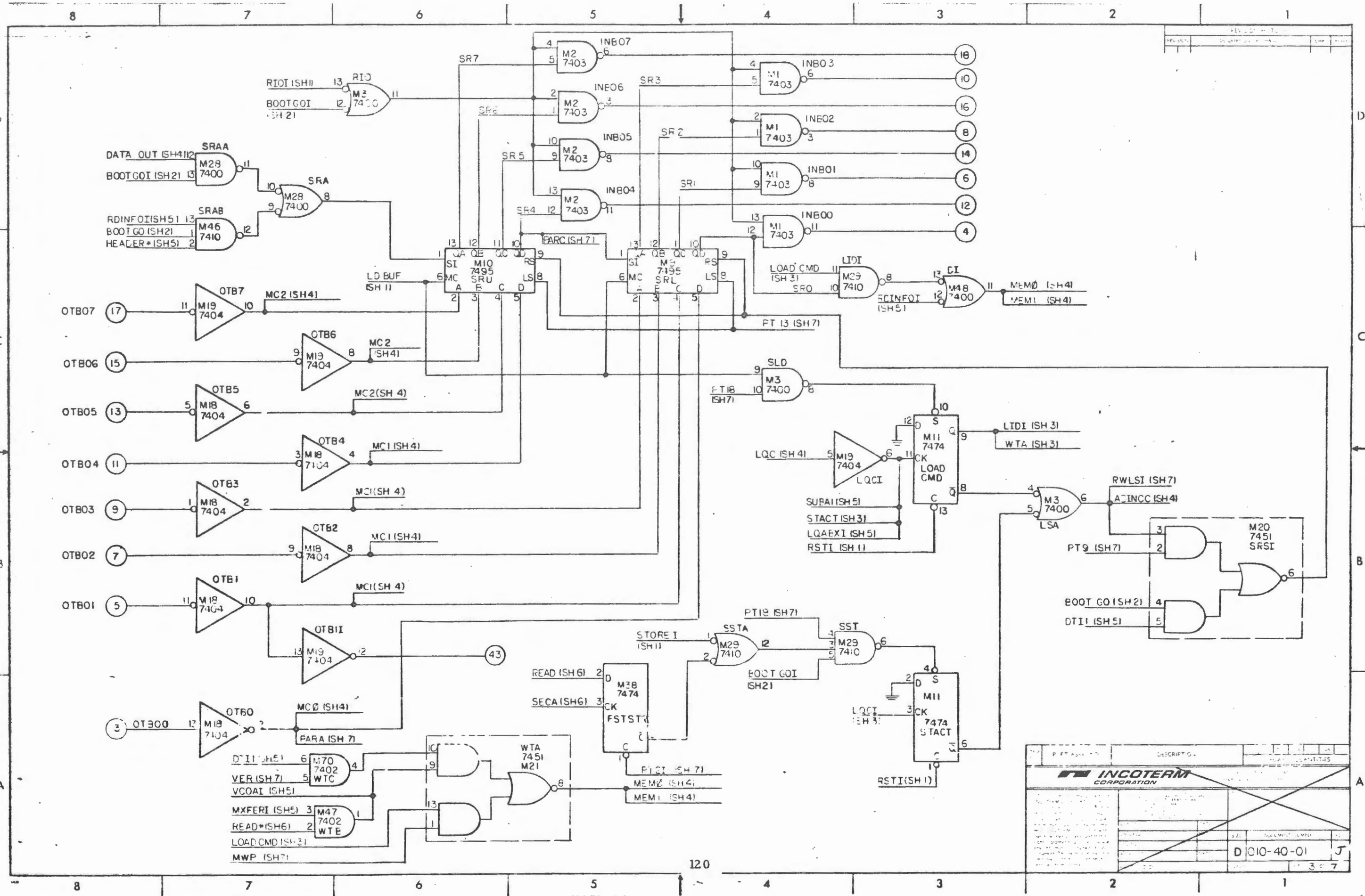
- NOTES:
- UNLESS OTHERWISE SPECIFIED:
 - ALL RESISTORS ARE IN OHMS, 1/4W, ±5%.
 - ALL CAPACITORS ARE IN MICROFARADS.
 - ALL DIODES ARE TYPE 1N4148.
 - THE FOLLOWING I/O PINS ARE PREASSIGNED AND MUST BE USED FOR THE FUNCTIONS DESCRIBED ONLY

A. +5V PINS 1&2	C. +12V PINS 75, 71
B. GND PINS 85&36	D. -13V PINS 81, 86

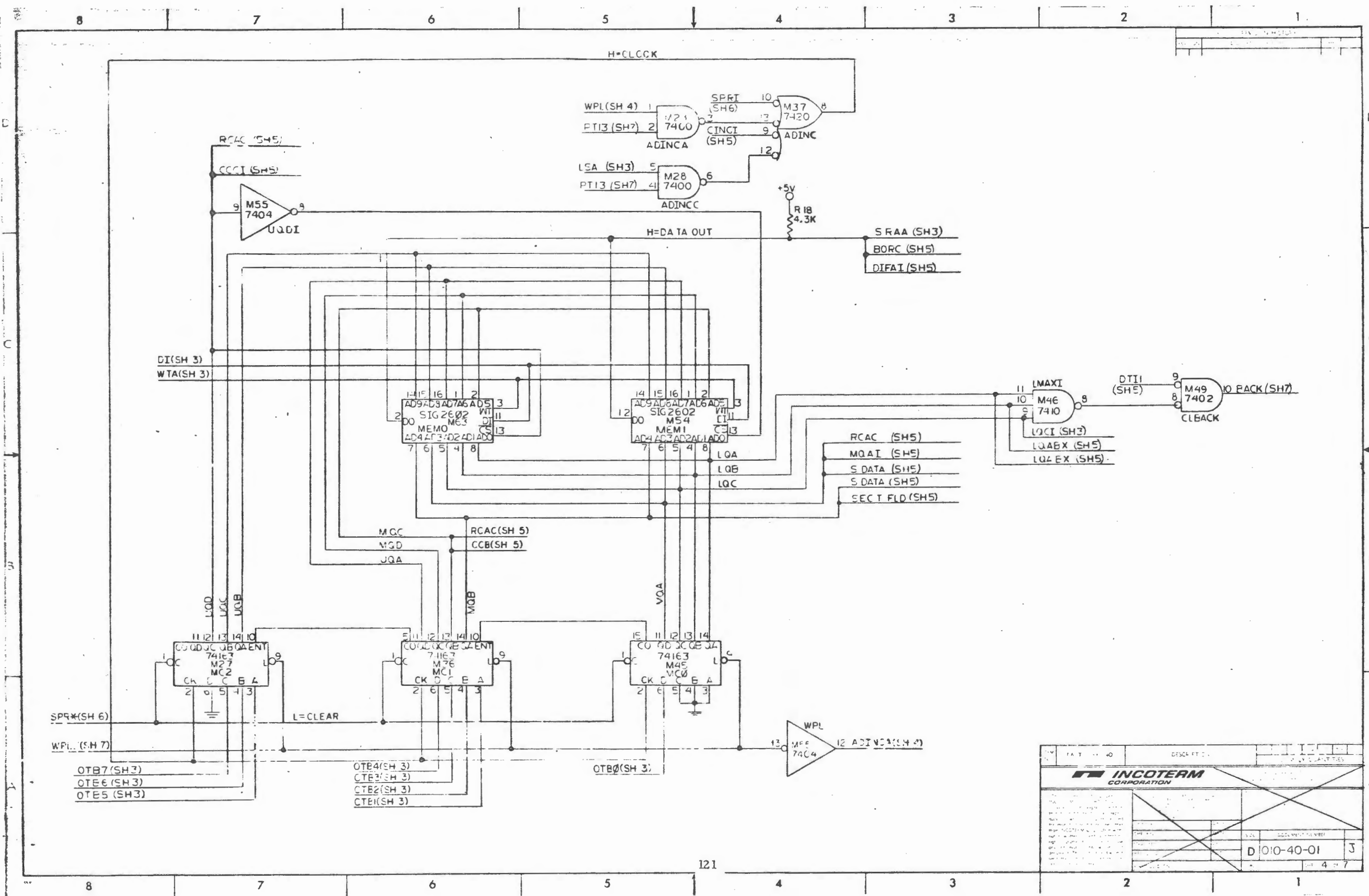
HIGHEST REF DES USED	DATE	DESCRIPTION	REV
R31, C14, M73			
REF DES NOT USED			
INCOTERM CORPORATION			
FLOPPY DISK CONTROLLER LOGIC DIAGRAMS			
D 010-40-01 J			



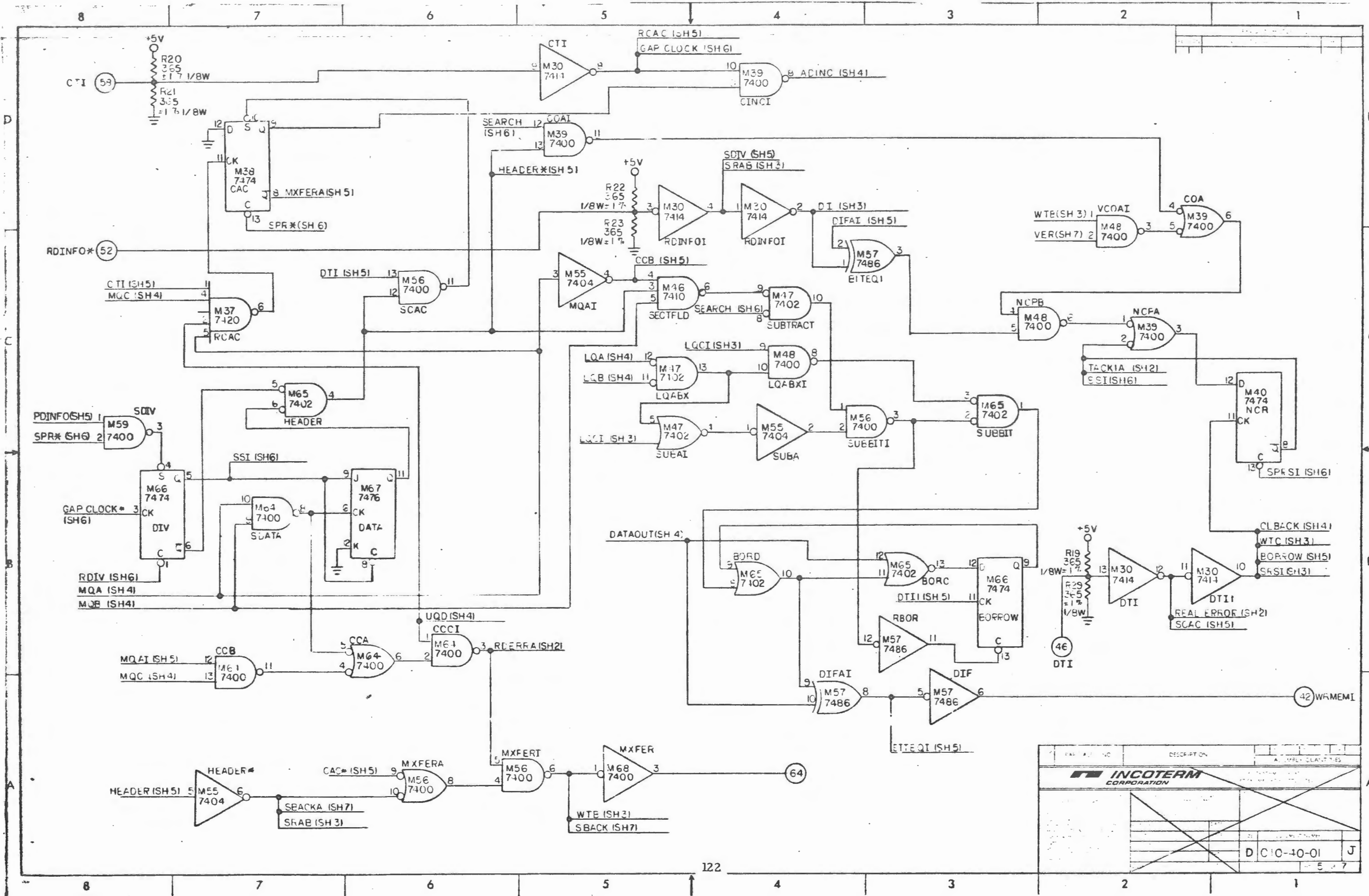
ITEM	PART NO.	DESCRIPTION
INCOTERM CORPORATION		
<small>INCOTERM CORPORATION 10000 WILSON BLVD WASHINGTON, D.C. 20037 TEL: (202) 462-1000 FAX: (202) 462-1001 WWW: WWW.INCOTERM.COM</small>		
<small>REVISION HISTORY</small>		
REV	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
<small>DESIGN APPROVAL</small>		
DESIGNER	DATE	APPROVED
<small>MANUFACTURING APPROVAL</small>		
MANUFACTURER	DATE	APPROVED
<small>TESTING APPROVAL</small>		
TESTER	DATE	APPROVED
<small>ISSUE DATA</small>		
ISSUE NO.	DATE	ISSUED BY
<small>REVISIONS</small>		
REV	DATE	DESCRIPTION
<small>CONTROL NO.</small>		
D 010-40-01 J		



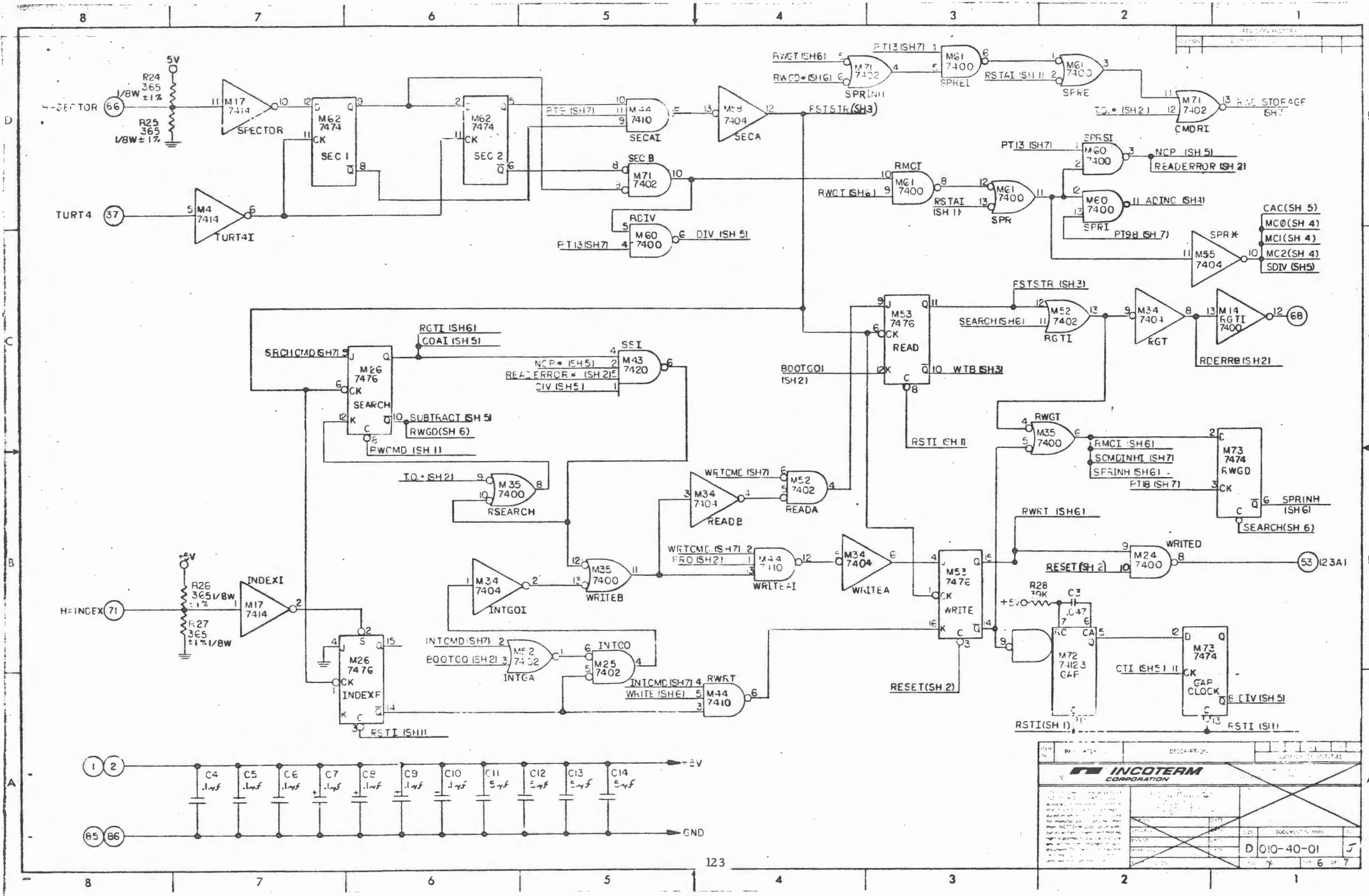
REV.	DESCRIPTION	DATE	BY	CHKD
INCOTERM CORPORATION				
D 010-40-01 J				
3 of 7				



PART NO		DESCRIPTION		QUANTITY	
INCOTERM CORPORATION					
DATE		REV		DRAWN	
BY		CHKD		APP'D	
TITLE		SHEET NO		SHEET TOTAL	
PROJECT		DOCUMENT NUMBER		DATE	
D 010-40-01		3		4 of 7	



REV. NO.	DESCRIPTION	DATE	BY	CHKD.
INCOTERM CORPORATION				
<div style="display: flex; justify-content: space-between;"> DCIC-10-01 J </div>				

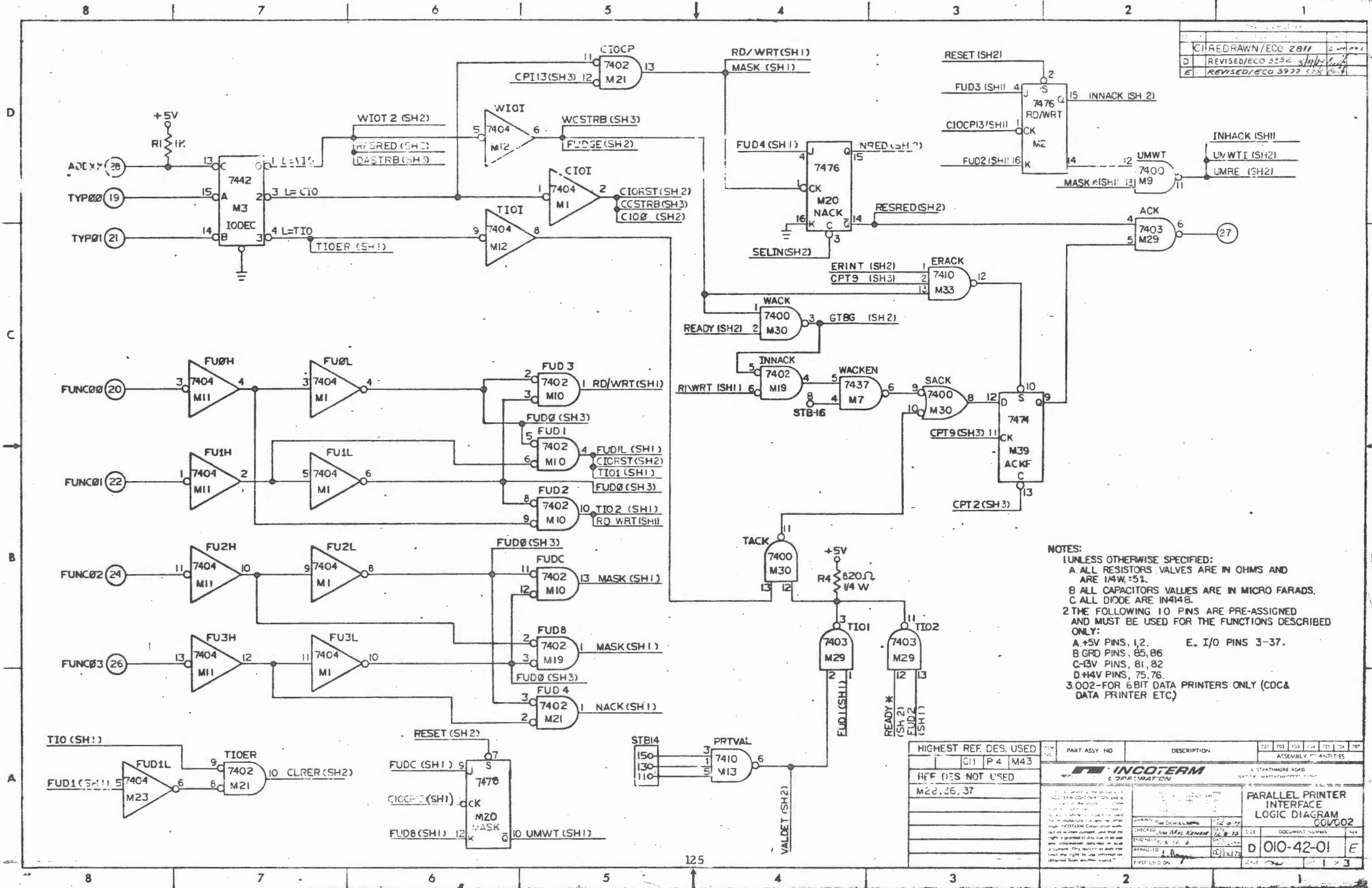


REV. NO.	DATE	DESCRIPTION	REVISIONS TO SPECIFICATIONS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

INCOTERM CORPORATION

DOCUMENT NO. D 010-40-01

REV. 6 OF 7

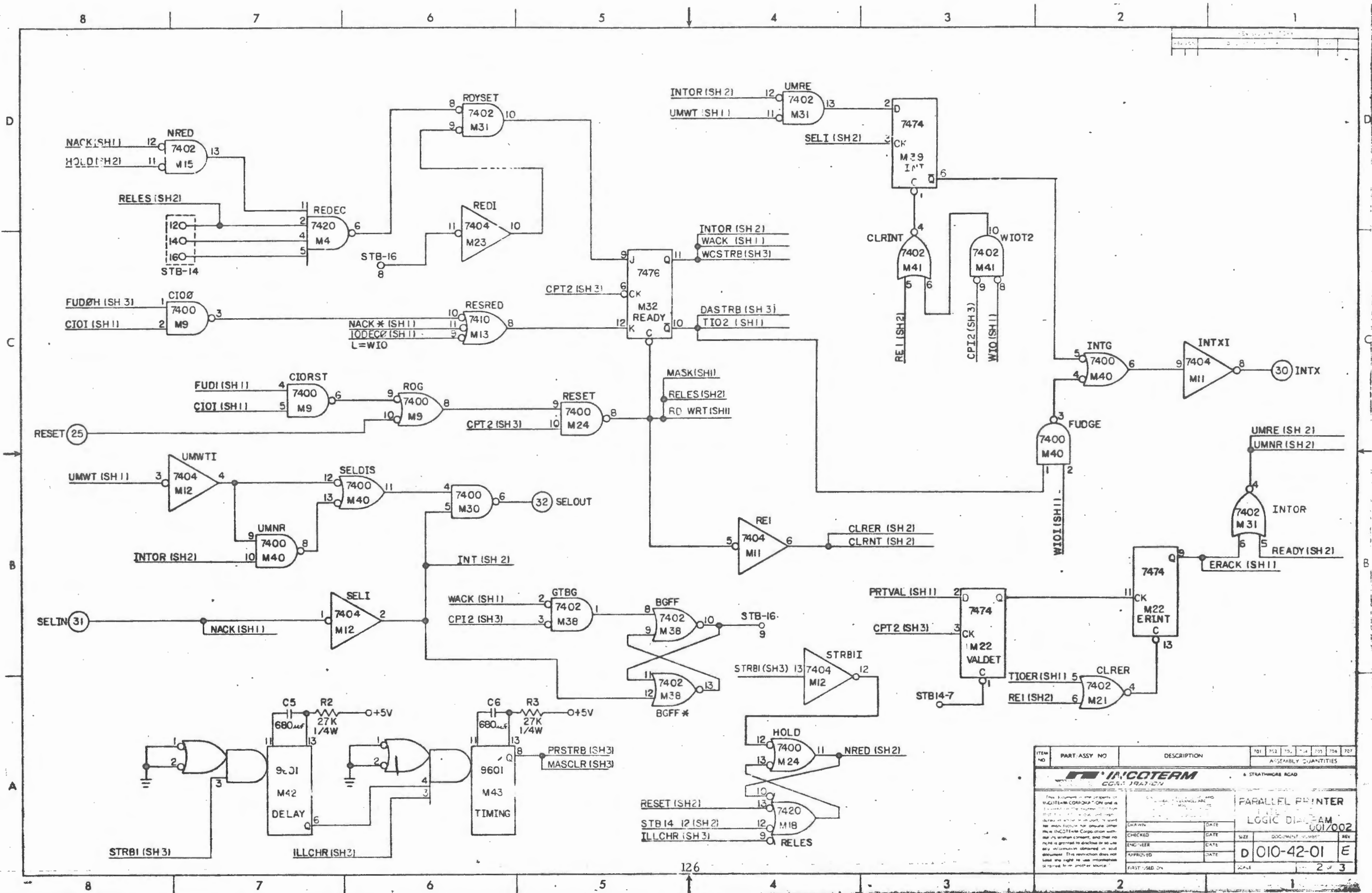


C	REDRAWN/ECO 2811	10/78
D	REVISED/ECO 3352	5/80
E	REVISED/ECO 3977	5/83

NOTES:
 1 UNLESS OTHERWISE SPECIFIED:
 A ALL RESISTORS, VALVES ARE IN OHMS AND ARE 1/4W, 5%.
 B ALL CAPACITORS VALUES ARE IN MICRO FARADS.
 C ALL DIODE ARE IN4148.
 2 THE FOLLOWING 10 PINS ARE PRE-ASSIGNED AND MUST BE USED FOR THE FUNCTIONS DESCRIBED ONLY:
 A. +5V PINS, 1, 2. E. I/O PINS 3-37.
 B. GRD PINS, 85, 86.
 C. -3V PINS, 81, 82.
 D. +4V PINS, 75, 76.
 3. 002-FOR 6BIT DATA PRINTERS ONLY (CDC & DATA PRINTER ETC)

HIGHEST REF. DES. USED	PART ASSY NO	DESCRIPTION	701	702	703	704	705	706	707
C11 P 4 M43									
REF DES NOT USED									
M28, 26, 37									

		PARALLEL PRINTER INTERFACE LOGIC DIAGRAM	
		COW002	
CHECKED: <i>Jim MacKenzie</i> DATE: 12-8-78 ENGINEER: <i>J. M. A.</i> DATE: 12-8-78 APPROVED: <i>J. M. A.</i> DATE: 12/13/78 FIRST USED ON:	DATE: 12-8-78 SIZE: D DOCUMENT NUMBER: 010-42-01 SHEET: 1 OF 3	PART ASSY NO:	DESCRIPTION:

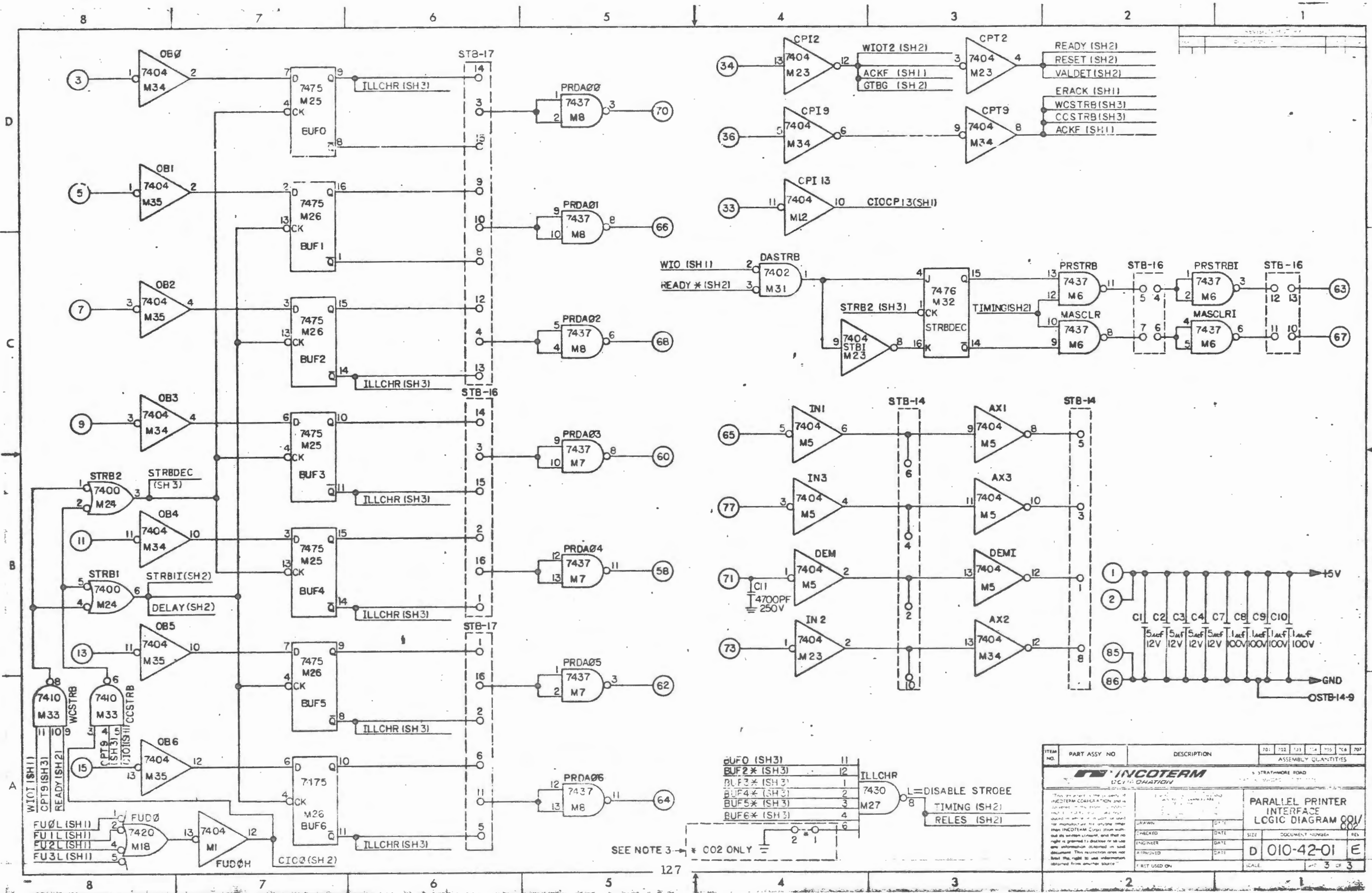


ITEM NO	PART ASSY NO	DESCRIPTION	ASSEMBLY QUANTITIES				
			T01	T02	T03	T04	T05
		INCOTERM CORPORATION	8 STRATHMORE ROAD				
PARALLEL PRINTER LOGIC BOARD - AM							
			001/002				
CHECKED	DATE	SIZE	DOCUMENT NO.				
ENGINEER	DATE						
APPROVED	DATE						
FIRST USED ON							

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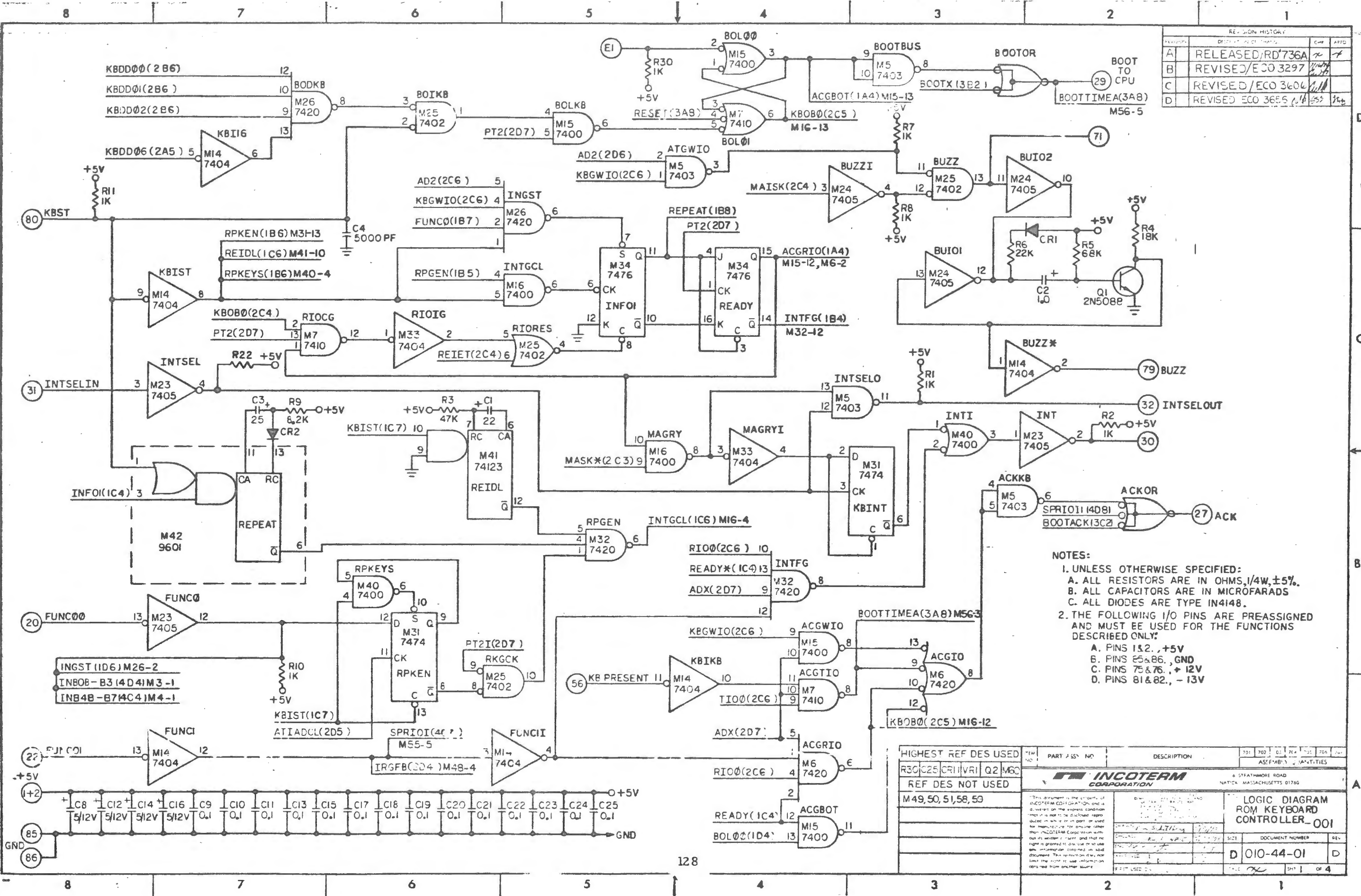
D 010-42-01 E

2 of 3



SEE NOTE 3 - * CO2 ONLY

ITEM NO.	PART ASSY NO.	DESCRIPTION	701	702	703	704	705	706	707
INCOTERM									
PARALLEL PRINTER INTERFACE LOGIC DIAGRAM 001/002									
DRAWN	DATE	SIZE	DOCUMENT NUMBER	REV.					
ENGINEER	DATE	D	010-42-01	E					
APPROVED	DATE								
FIRST USED ON	SCALE								



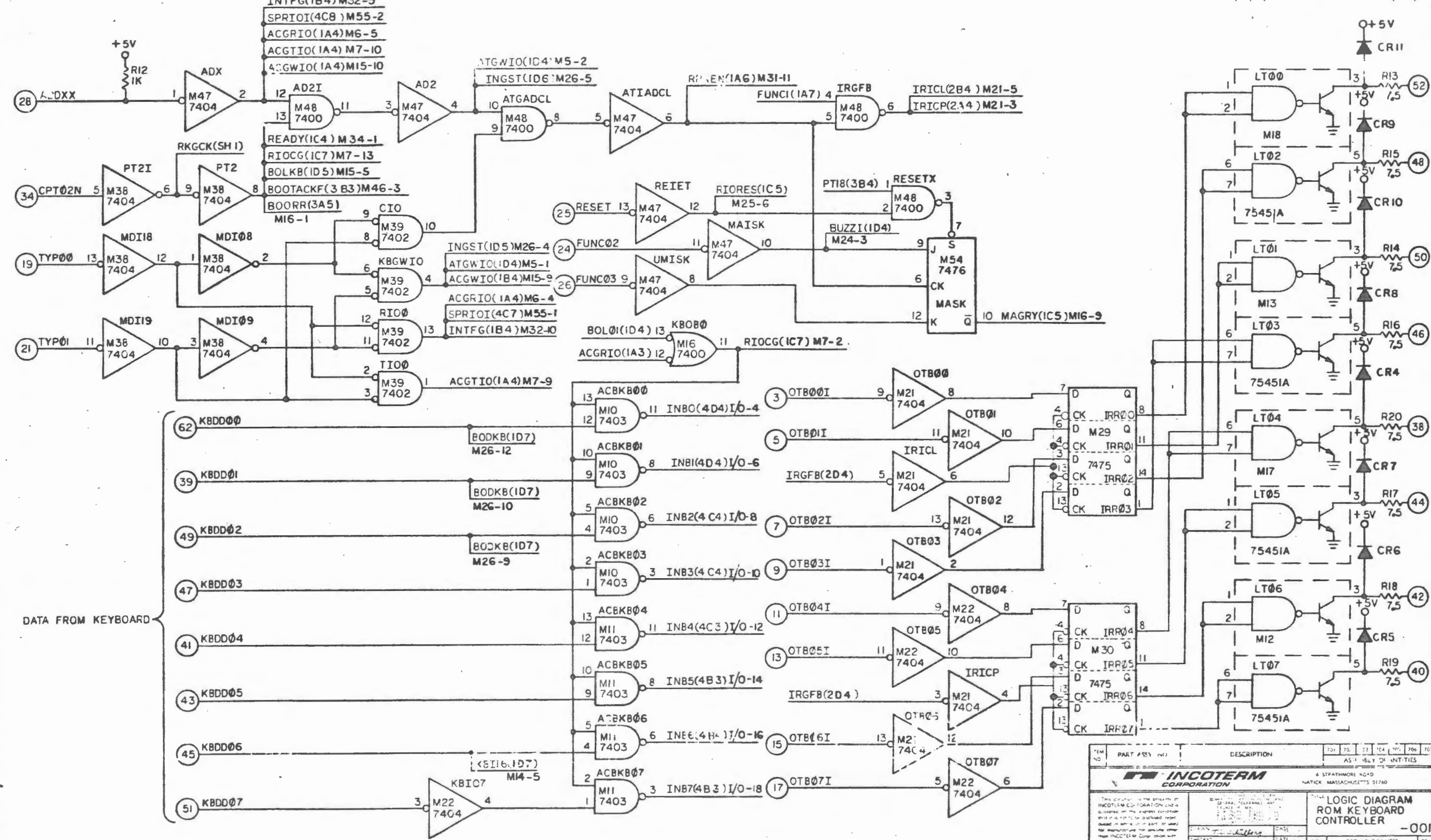
REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED/RD736A		
B	REVISED/ECO 3297		
C	REVISED/ECO 3606		
D	REVISED ECO 3655		

- NOTES:**
- UNLESS OTHERWISE SPECIFIED:
 - A. ALL RESISTORS ARE IN OHMS, 1/4W, ±5%.
 - B. ALL CAPACITORS ARE IN MICROFARADS
 - C. ALL DIODES ARE TYPE IN4148.
 - THE FOLLOWING I/O PINS ARE PREASSIGNED AND MUST BE USED FOR THE FUNCTIONS DESCRIBED ONLY:
 - A. PINS 132, +5V
 - B. PINS 65&86, GND
 - C. PINS 75&76, +12V
 - D. PINS 81&82, -13V

HIGHEST REF DES USED	TEMP	PART ASSY NO	DESCRIPTION	T01	T02	T03	T04	T05	T06	T07
R30, C25, CR1, VRI, Q2, M60										
REF DES NOT USED										
M49, 50, 51, 58, 59										

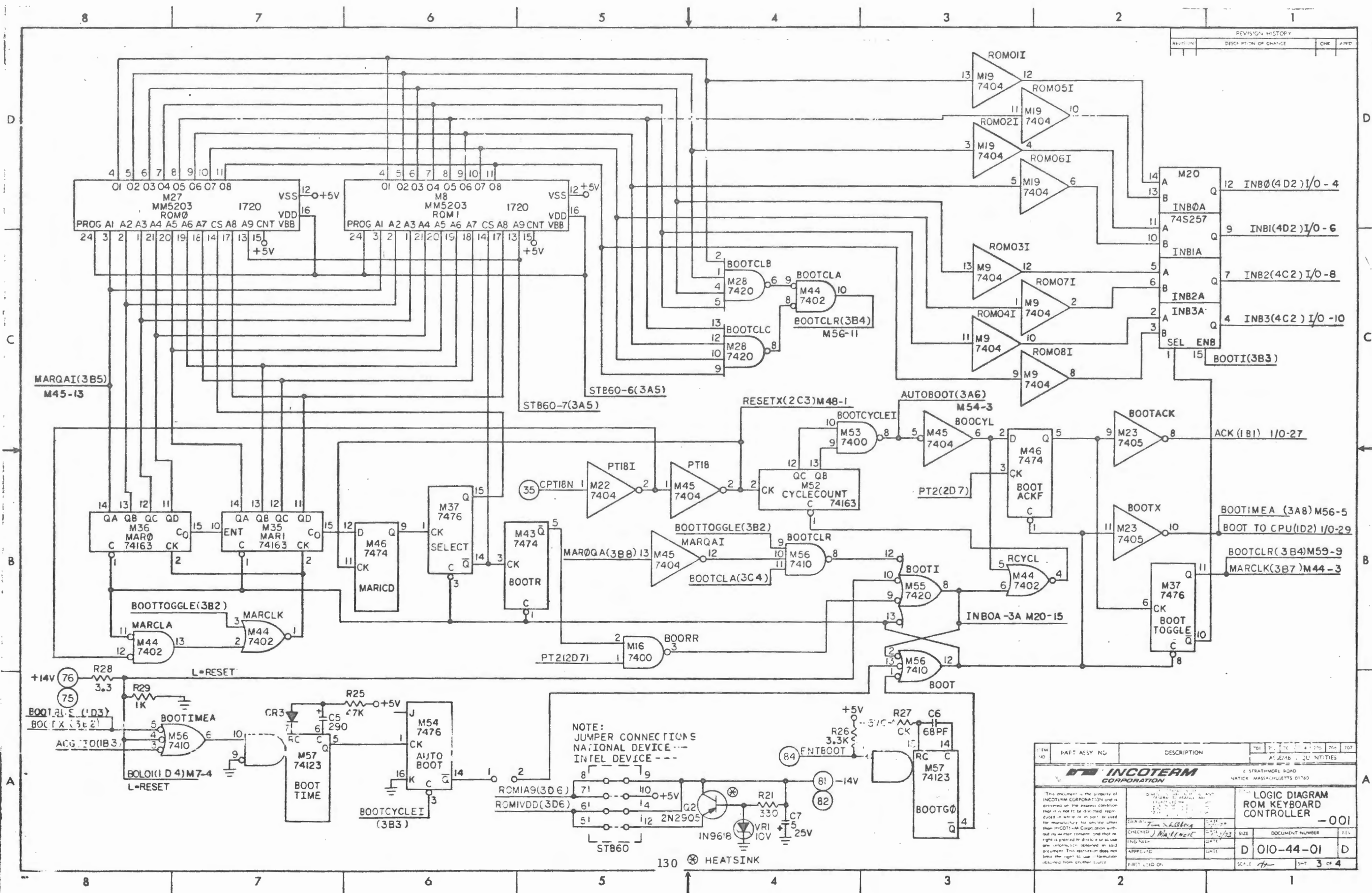
			6 STEATHMORE ROAD NATICK, MASSACHUSETTS 01740		
LOGIC DIAGRAM ROM KEYBOARD CONTROLLER_001			SIZE D	DOCUMENT NUMBER 010-44-01	REV D
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REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD



ITEM NO.	PART ASSY	DESCRIPTION	701	702	703	704	705	706	707

INCOTERM CORPORATION 6 SPRATHMORE ROAD NATICK, MASSACHUSETTS 01740		LOGIC DIAGRAM ROM KEYBOARD CONTROLLER -001
CHECKED	DATE	SIZE
DESIGNED	DATE	DOCUMENT NUMBER
APPROVED	DATE	D 010-44-01 D
FILED	DATE	SCALE
		SHEET 2 OF 4

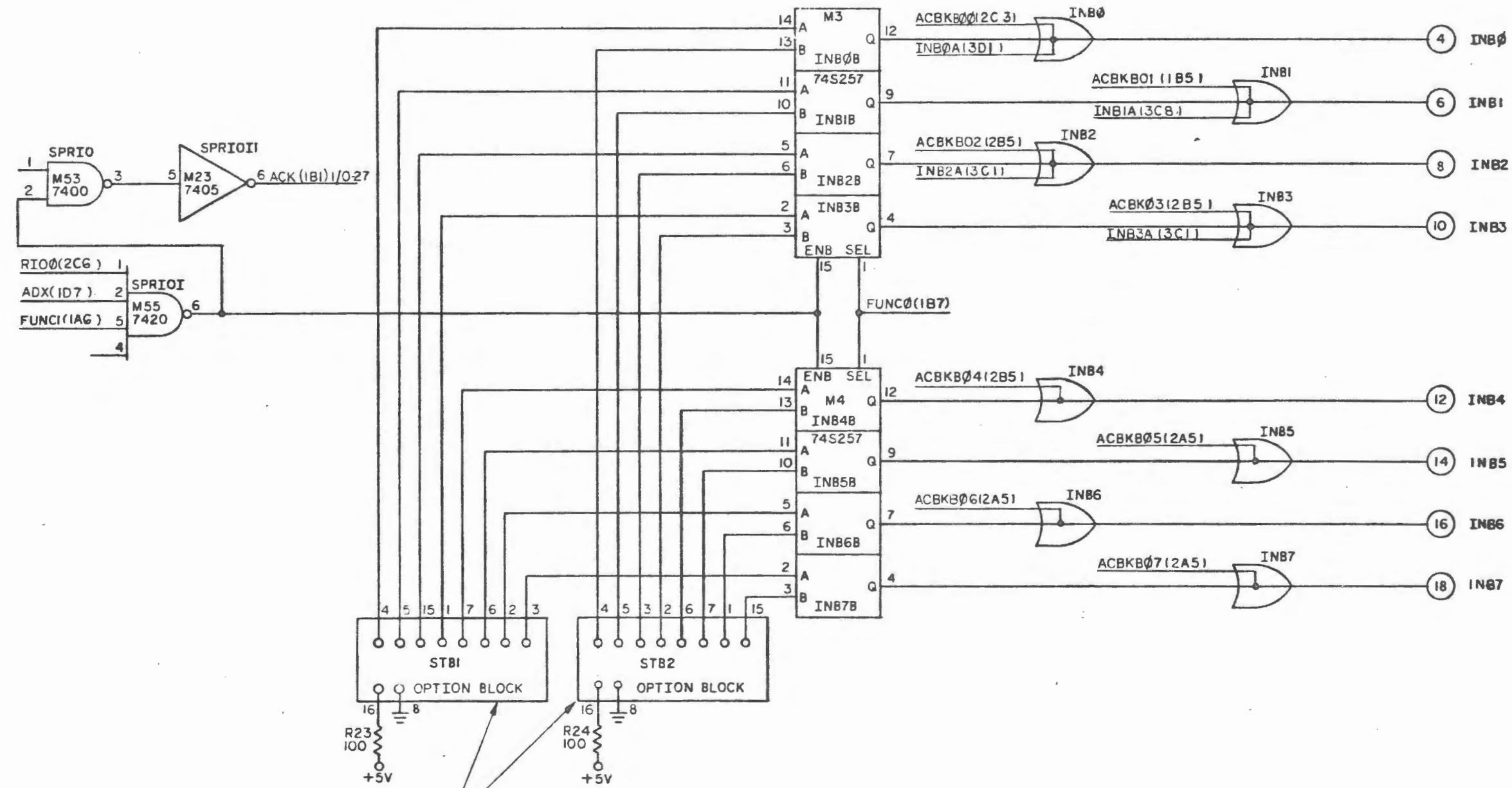


REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPV

NOTE:
 JUMPER CONNECTIONS
 NATIONAL DEVICE ---
 INTEL DEVICE ---

ITEM NO.	PART ASSY NO.	DESCRIPTION	QTY	UNIT	QTY	UNIT
INCOTERM CORPORATION						
6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01740						
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DESIGNED BY	DATE	SIZE	DOCUMENT NUMBER	REV.		
CHECKED BY	DATE					
APP'D BY	DATE					
FIRST USED ON		SCALE	SHT	3 OF 4		

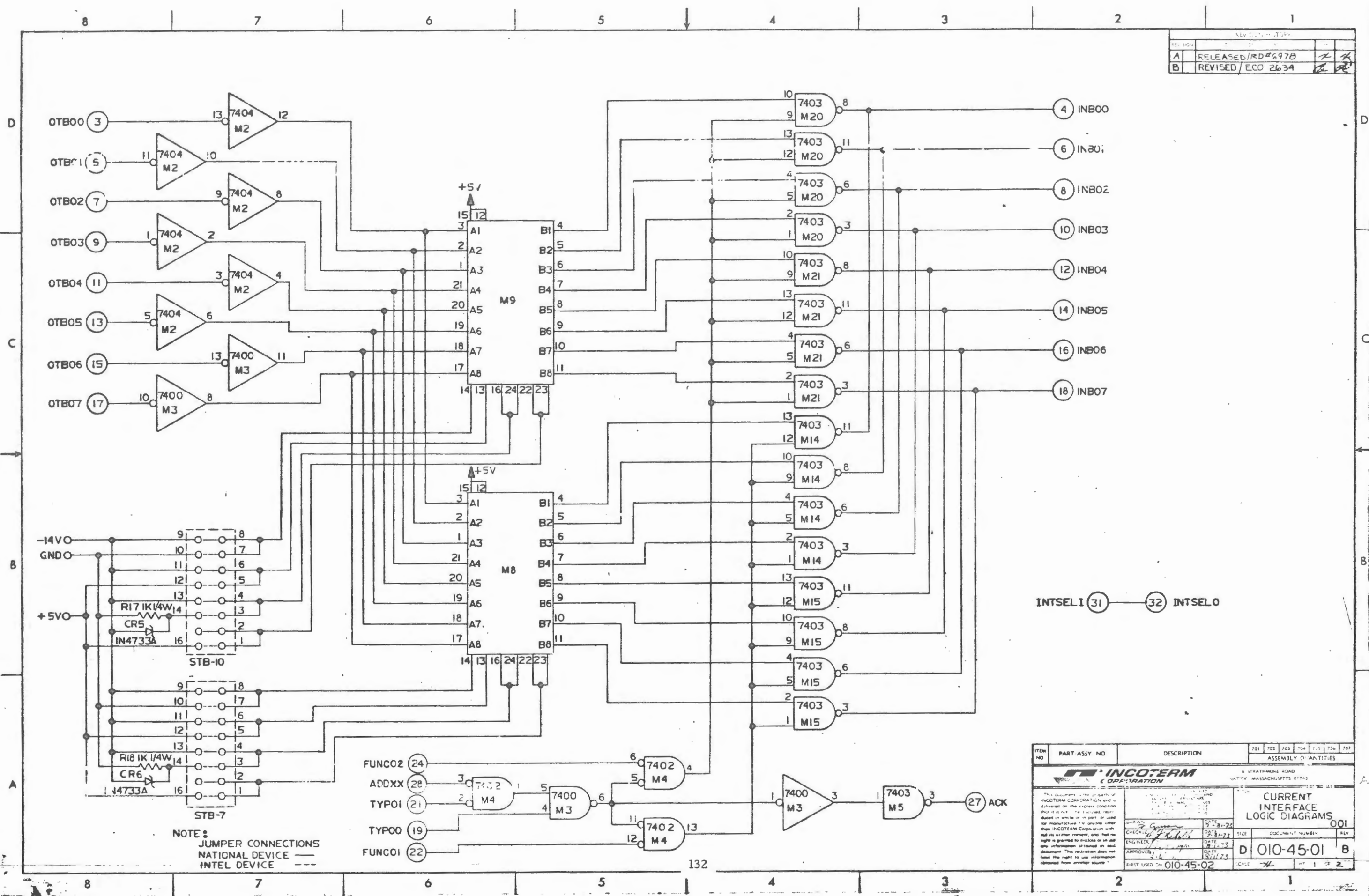
REV. SIGN. H. J. GIBBY		CHK.	APPD.
REV. NO.	DESCRIPTION OF CHANGES		



GROUND EQUALS A LOGICAL ONE

PA (T, A) Y INL	DESCRIPTION	TOT	OF	ISS	REV	USE	NOT
		ASSEMBLY QUANTITIES					
		8 STATHMORE ROAD NATICK, MASSACHUSETTS 01760					
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DATE:	DATE:	DATE:	DATE:	DATE:	DATE:	DATE:	DATE:
SIZE:	DOCUMENT NUMBER:	REV:					
D	OIO-44-01	D					
PAGE		SHT 4 OF 4					

REV. HISTORY	
A	RELEASED/RD#6978
B	REVISED/ECO 2634

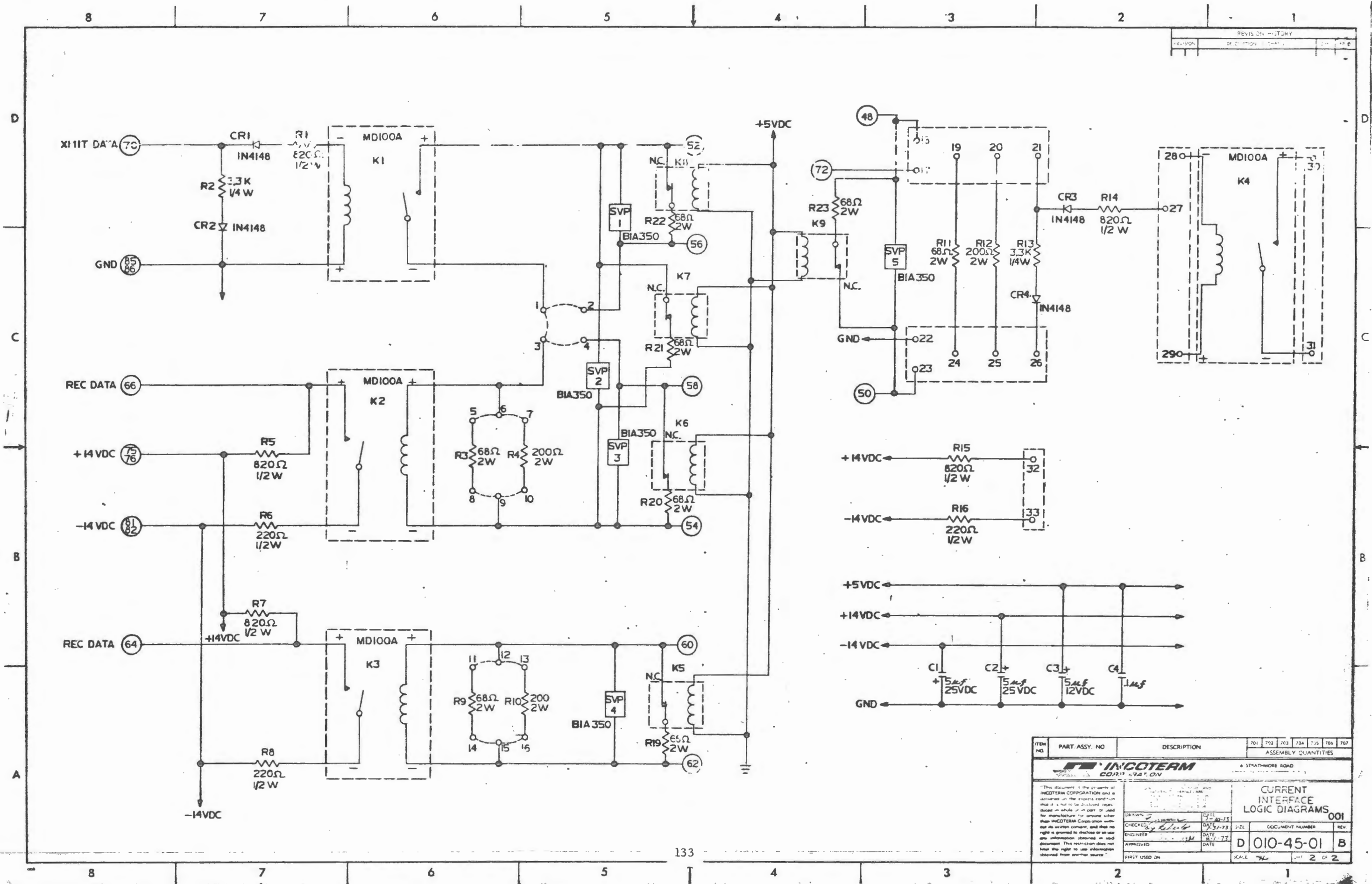


NOTE:
 JUMPER CONNECTIONS
 NATIONAL DEVICE ———
 INTEL DEVICE - - -

INTSELI (31) — (32) INTSELO

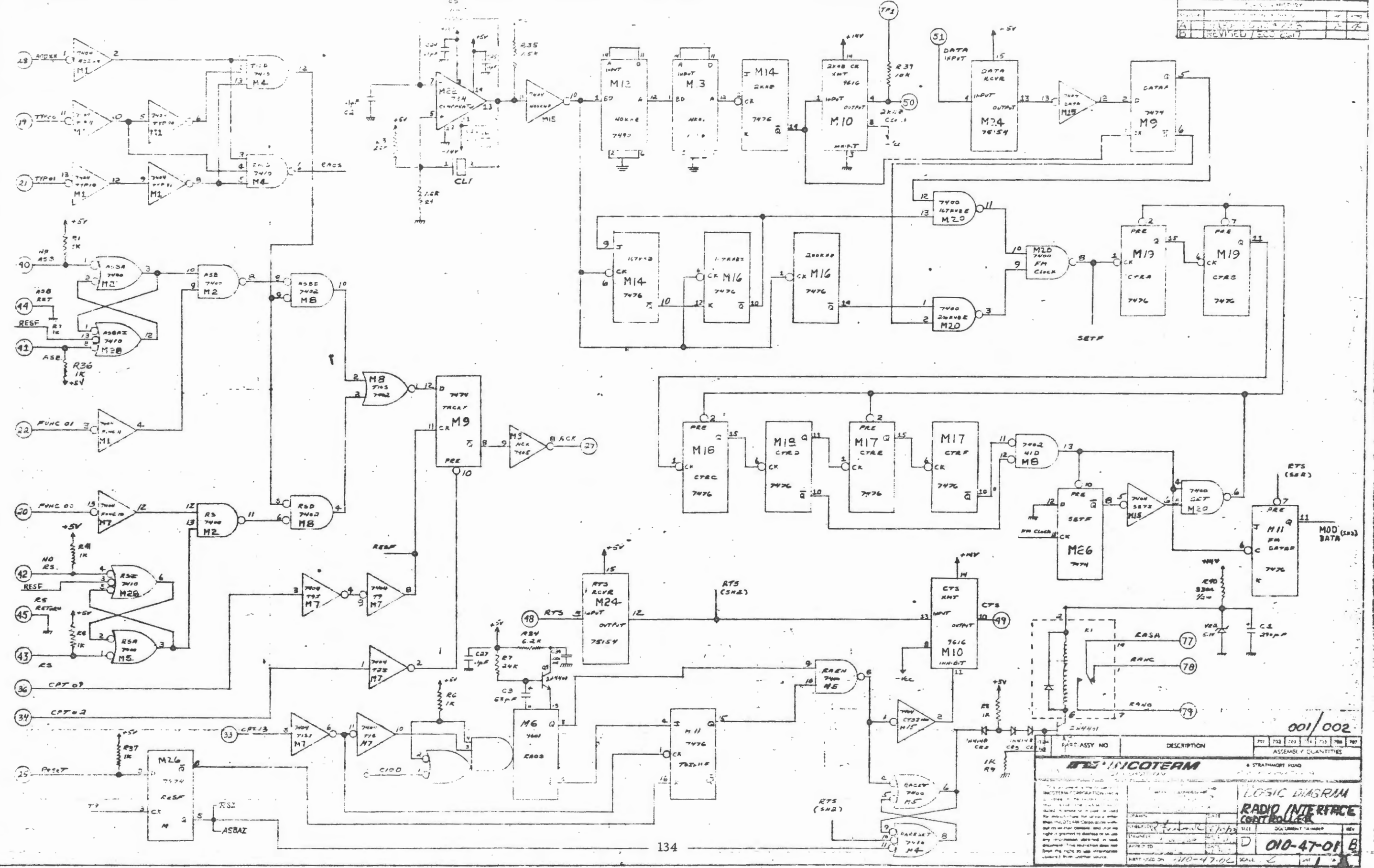
ITEM NO	PART ASSY NO	DESCRIPTION	701	702	703	704	705	706	707
			ASSEMBLY QUANTITIES						
			6 STRATHMORE ROAD NORTON, MASSACHUSETTS 01943						
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DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
CHECKED	ENGINEER	APPROVED	DATE	DATE	DATE	DATE	DATE	DATE	DATE
FIRST USED ON 010-45-02			SIZE	DOCUMENT NUMBER	REV				
			D	010-45-01	B				
			CASE	1	2				

REVISION HISTORY	
REV. NO.	DESCRIPTION



ITEM NO.	PART ASSY. NO.	DESCRIPTION	701	702	703	704	705	706	707	
			ASSEMBLY QUANTITIES							
			8 STRATHMORE ROAD							
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DRAWN	DATE	CHECKED	DATE	DESIGNED	DATE	DOCUMENT NUMBER	REV.			
						D 010-45-01	B			
APPROVED	DATE	FIRST USED ON		SCALE						
					2 OF 2					

REVISED	BY	DATE
A	REVISED	10/23/73
B	REVISED	1/20/77

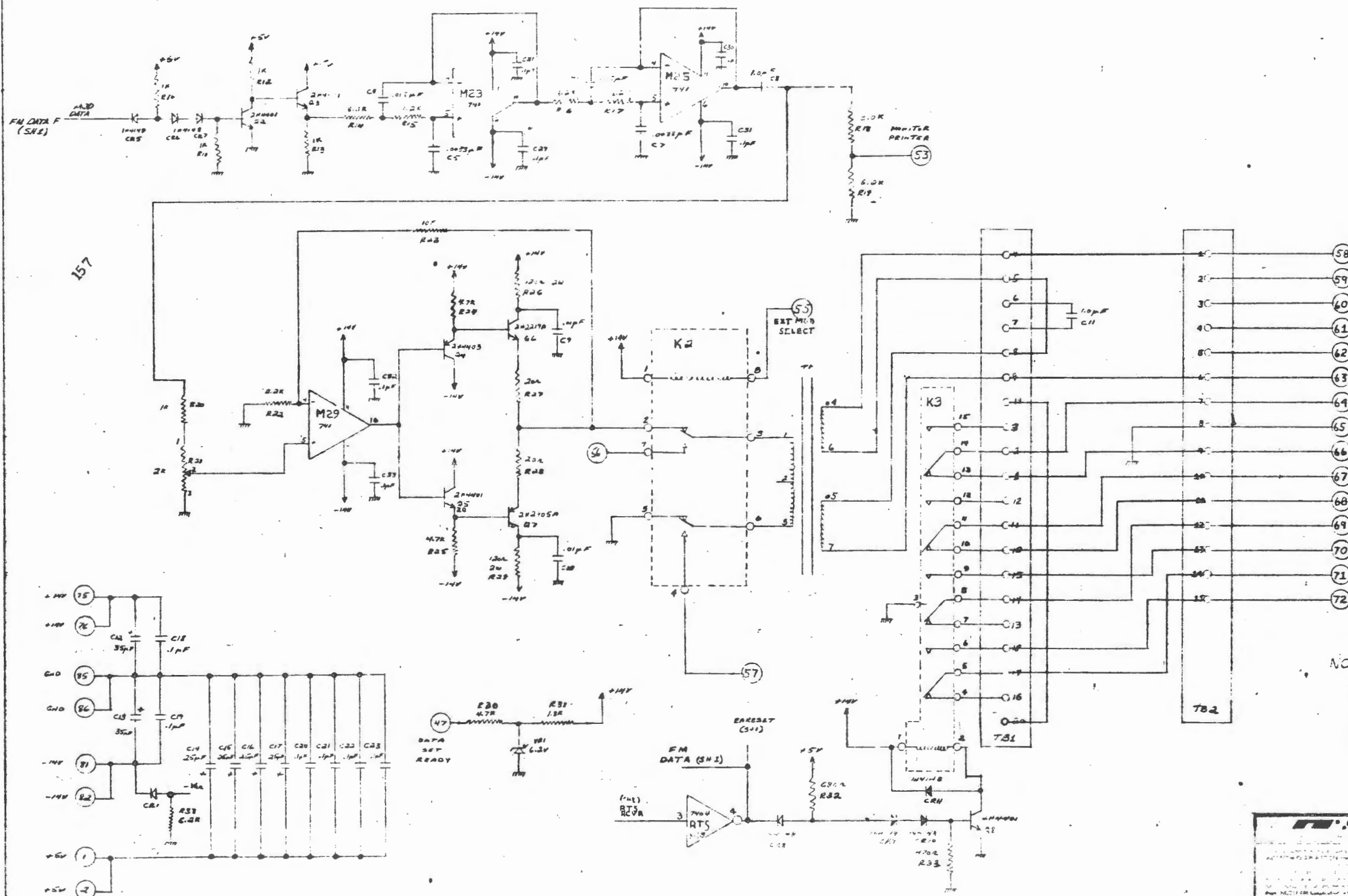


001/002

REV	QTY	DESCRIPTION	REV	QTY	DESCRIPTION
1	1	7410 3-8 DECODER	1	1	7418 3-8 DECODER
2	1	7415 2-4 DECODER	1	1	7416 2-4 DECODER
3	1	7417 3-8 DECODER	1	1	7419 4-16 DECODER
4	1	7418 3-8 DECODER	1	1	7420 4-16 DECODER
5	1	7419 4-16 DECODER	1	1	7421 4-16 DECODER
6	1	7420 4-16 DECODER	1	1	7422 4-16 DECODER
7	1	7421 4-16 DECODER	1	1	7423 4-16 DECODER
8	1	7422 4-16 DECODER	1	1	7424 4-16 DECODER
9	1	7423 4-16 DECODER	1	1	7425 4-16 DECODER
10	1	7424 4-16 DECODER	1	1	7426 4-16 DECODER

LOGIC DIAGRAM
RADIO INTERFACE
CONTROLLER

010-47-01 B



157

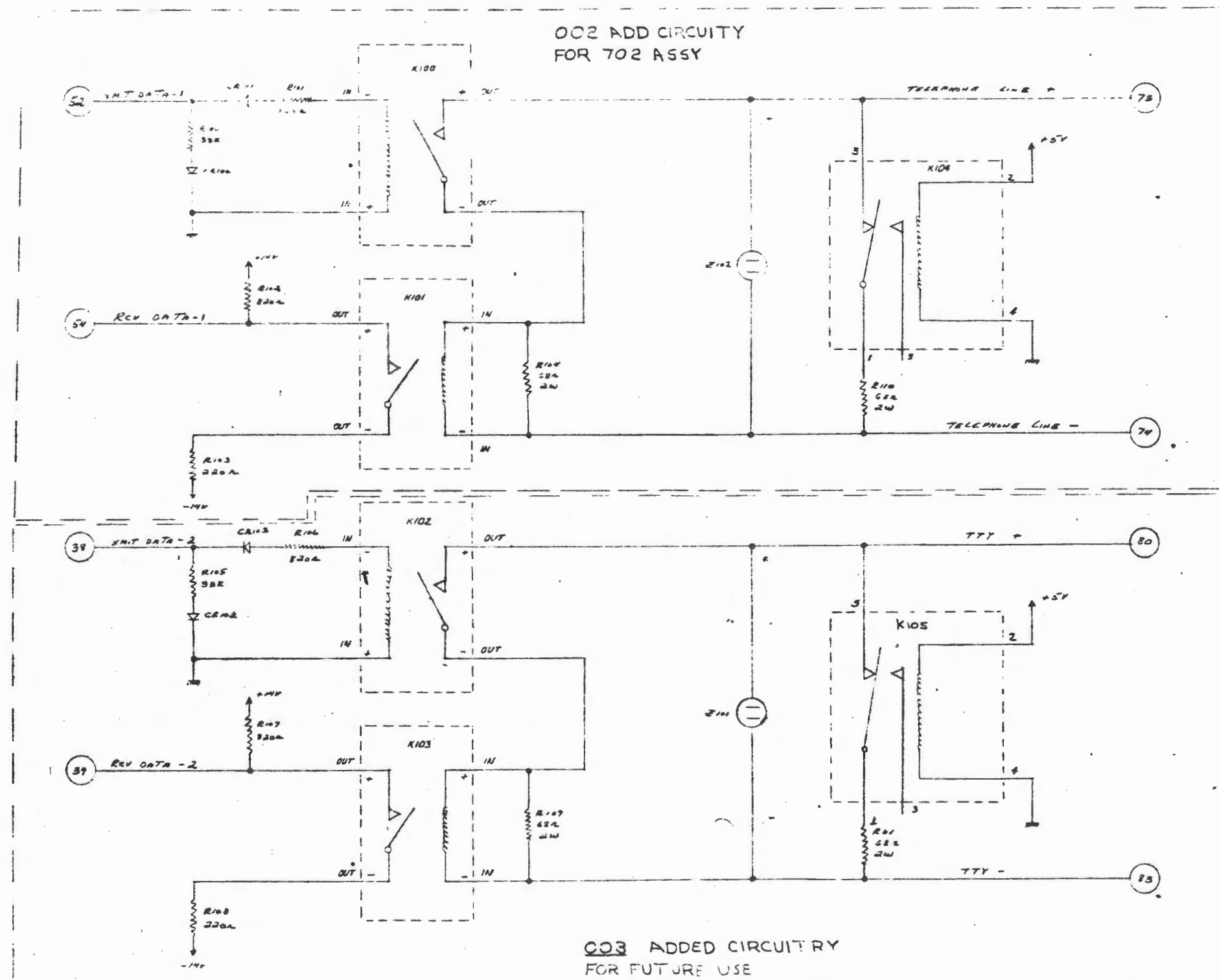
NOTE:
 JUMPER ARRANGEMENT SHOWN
 ARE FOR TEST PURPOSES ONLY.
 THE JUMPERS MAY BE REARRANGED
 IN THE FIELD BY CUSTOMER
 FOR EACH UNIQUE APPLICATION.

001/002

INCOTERM

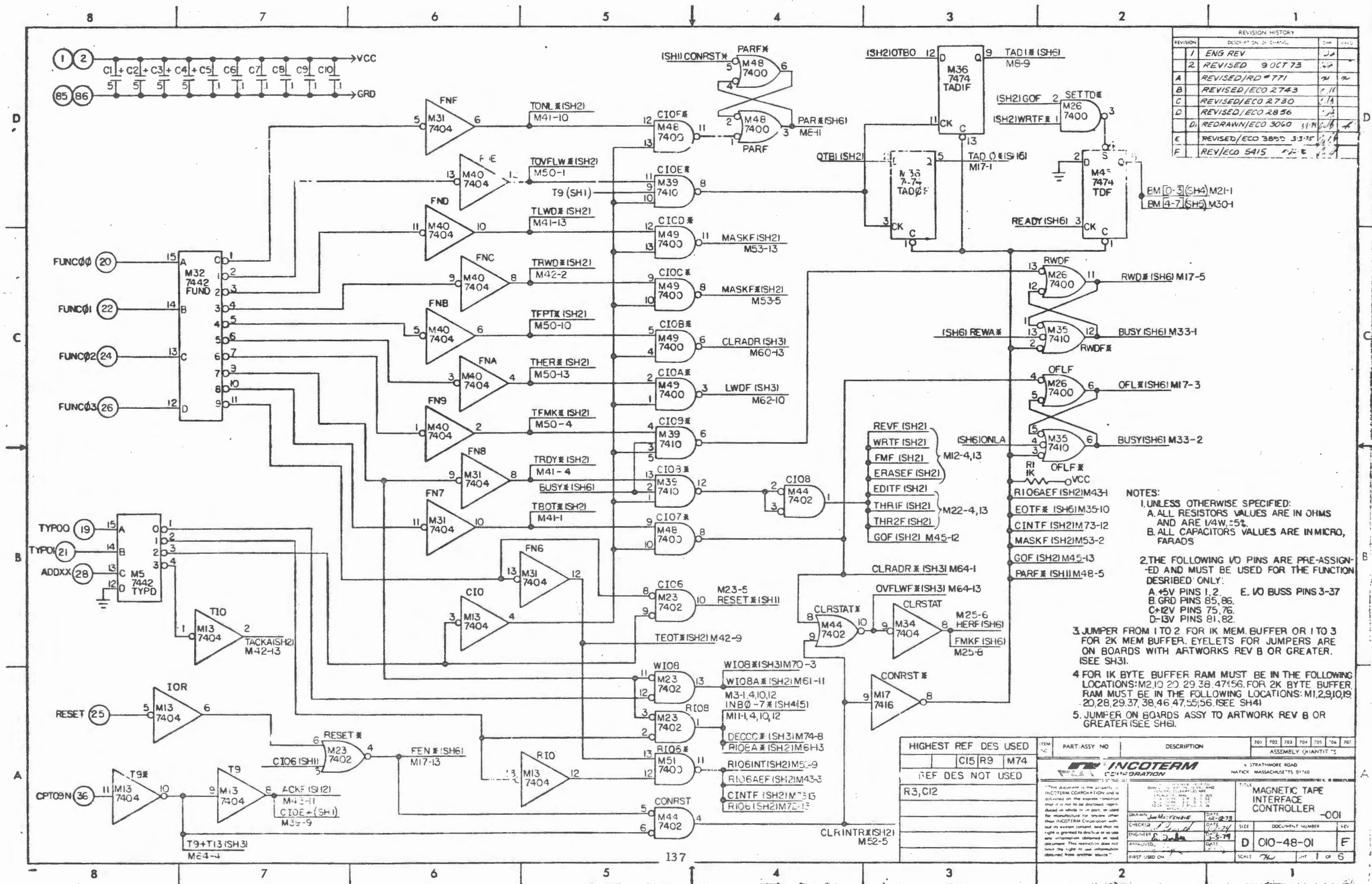
**RADIO INTERFERENCE
 CONTROLLER**

010 47-01



ITEM NO.	PART/ASSY NO.	DESCRIPTION	ASSEMBLY QUANTITIES						
			701	702	703	704	705	706	707
INCOTERM COMMUNICATIONS			8 STATIONHOLE ROAD MILFORD, MASSACHUSETTS 01948						
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<small>FIRST USED ON</small>			<small>DATE</small>		<small>SCALE</small>		<small>REV.</small> 303		

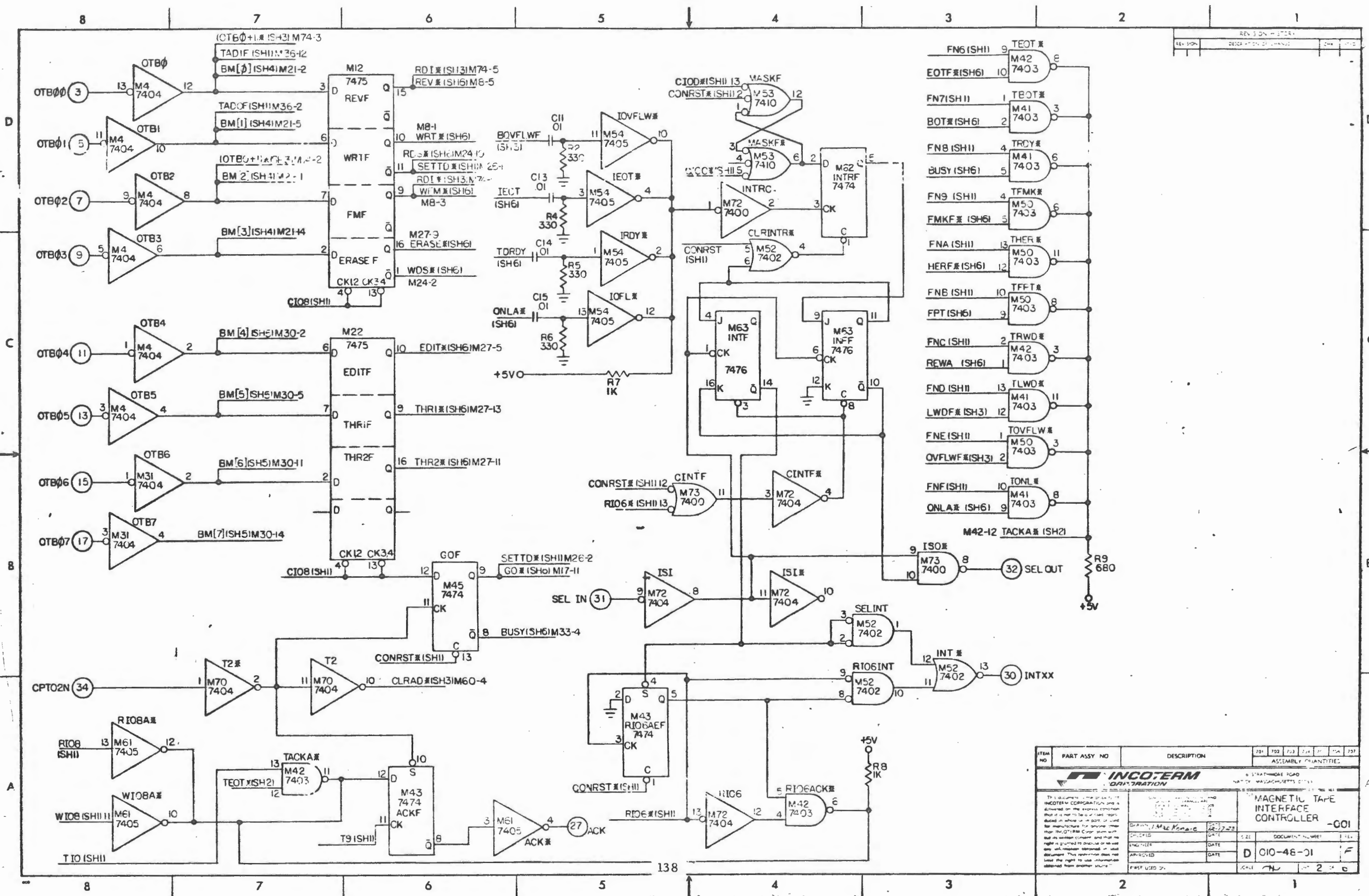
REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	DATE	BY
1	ENG REV		
2	REVISED 9 OCT 73		
A	REVISED/RD #771		
B	REVISED/ECO 2743		
C	REVISED/ECO 2730		
D	REVISED/ECO 2856		
D1	REDRAWN/ECO 3060		
E	REVISED/ECO 3895		
F	REV/ECO 5415		



- NOTES:
- UNLESS OTHERWISE SPECIFIED:
 A. ALL RESISTOR VALUES ARE IN OHMS AND ARE 1/4W, 5%
 B. ALL CAPACITOR VALUES ARE IN MICRO, FARADS
 - THE FOLLOWING I/O PINS ARE PRE-ASSIGNED AND MUST BE USED FOR THE FUNCTION DESCRIBED ONLY:
 A. +5V PINS 1, 2 E. I/O BUSS PINS 3-37
 B. GRD PINS 85, 86
 C. +12V PINS 75, 76
 D. -13V PINS 81, 82
 - JUMPER FROM 1 TO 2 FOR 1K MEM. BUFFER OR 1 TO 3 FOR 2K MEM BUFFER. EYELETS FOR JUMPERS ARE ON BOARDS WITH ARTWORKS REV B OR GREATER. (SEE SH3).
 - FOR 1K BYTE BUFFER RAM MUST BE IN THE FOLLOWING LOCATIONS: M2, 10, 20, 29, 38, 47, 56. FOR 2K BYTE BUFFER RAM MUST BE IN THE FOLLOWING LOCATIONS: M1, 2, 9, 10, 19, 20, 28, 29, 37, 38, 46, 47, 55, 56. (SEE SH4)
 - JUMPER ON BOARDS ASSY TO ARTWORK REV B OR GREATER (SEE SH6).

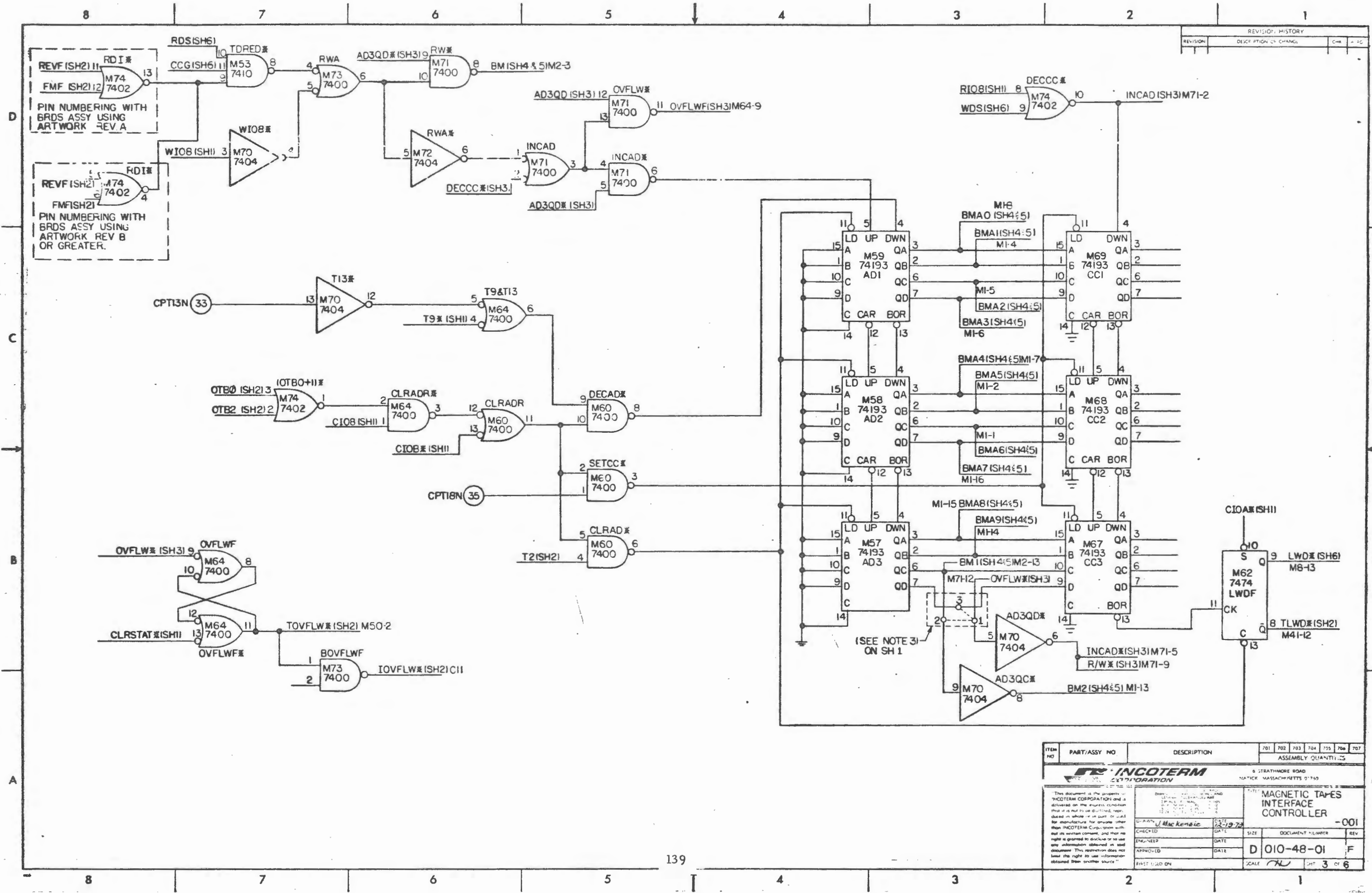
HIGHEST REF DES USED	ITEM NO	PART. ASSY NO	DESCRIPTION	701	702	703	704	705	706	707
REF DES NOT USED										
R3, C12										

INCOTERM CORPORATION		MAGNETIC TAPE INTERFACE CONTROLLER	
DATE: 10-27-73	CHECKED: J. FENNIE	DATE: 10-27-73	SIZE: 11x17
ENGINEER: J. FENNIE	DATE: 10-27-73	DOCUMENT NUMBER: D CIO-48-01	REV: F
FIRST USED ON:		SCALE: 1/16"	SHEET 1 OF 6



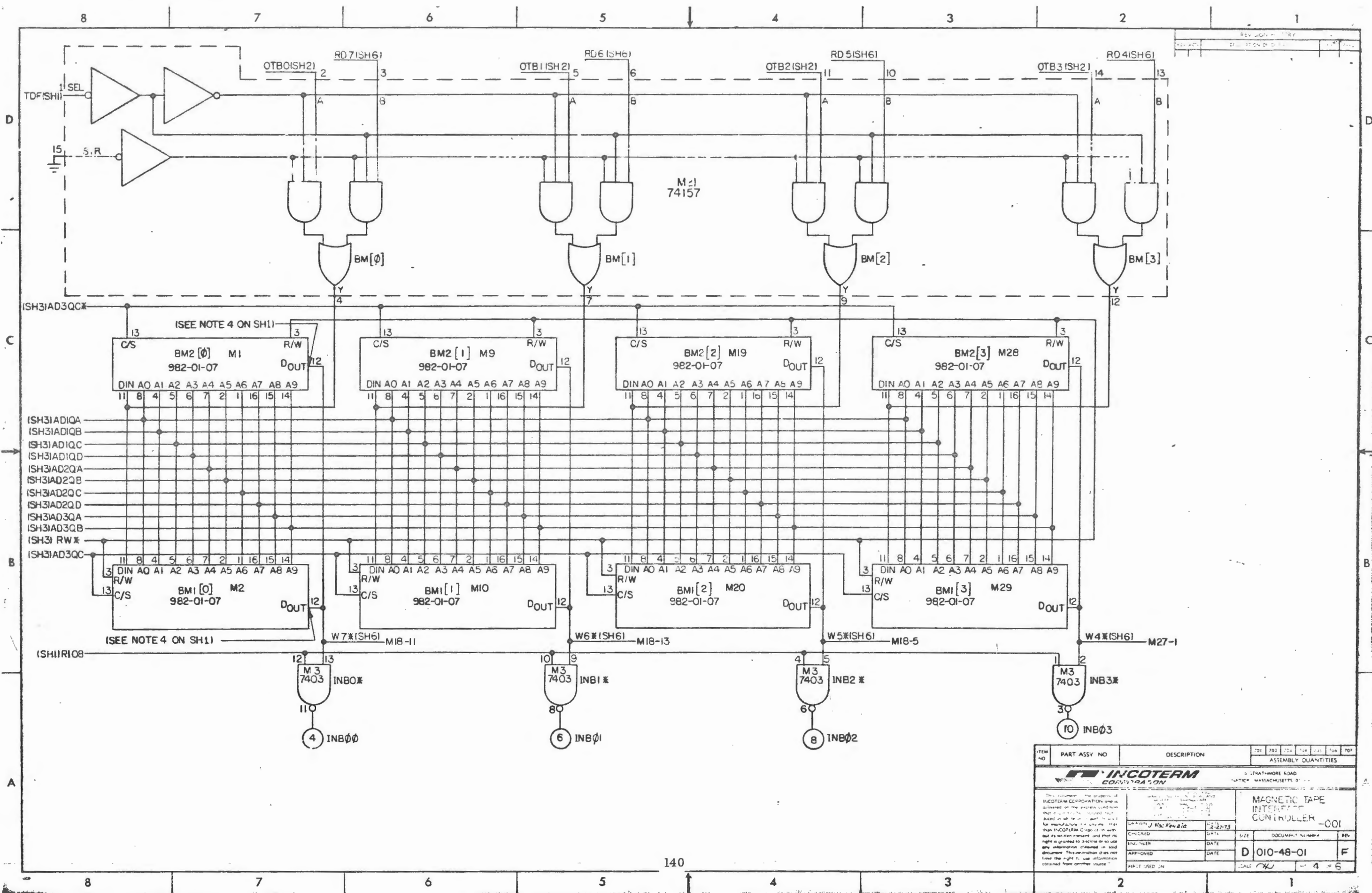
REV. NO.	DESCRIPTION OF CHANGE	DATE	BY

ITEM NO.	PART ASSY NO.	DESCRIPTION	701	702	703	704	705	706	707
INCOTERM CORPORATION									
MAGNETIC TAPE INTERFACE CONTROLLER -001									
DRAWN: MacKinnon		DATE: 02-17-73		CHECKED:		DATE:		SCALE: 1/2"	
ENGINEER:		DATE:		APPROVED:		DATE:		FIRST USED BY:	

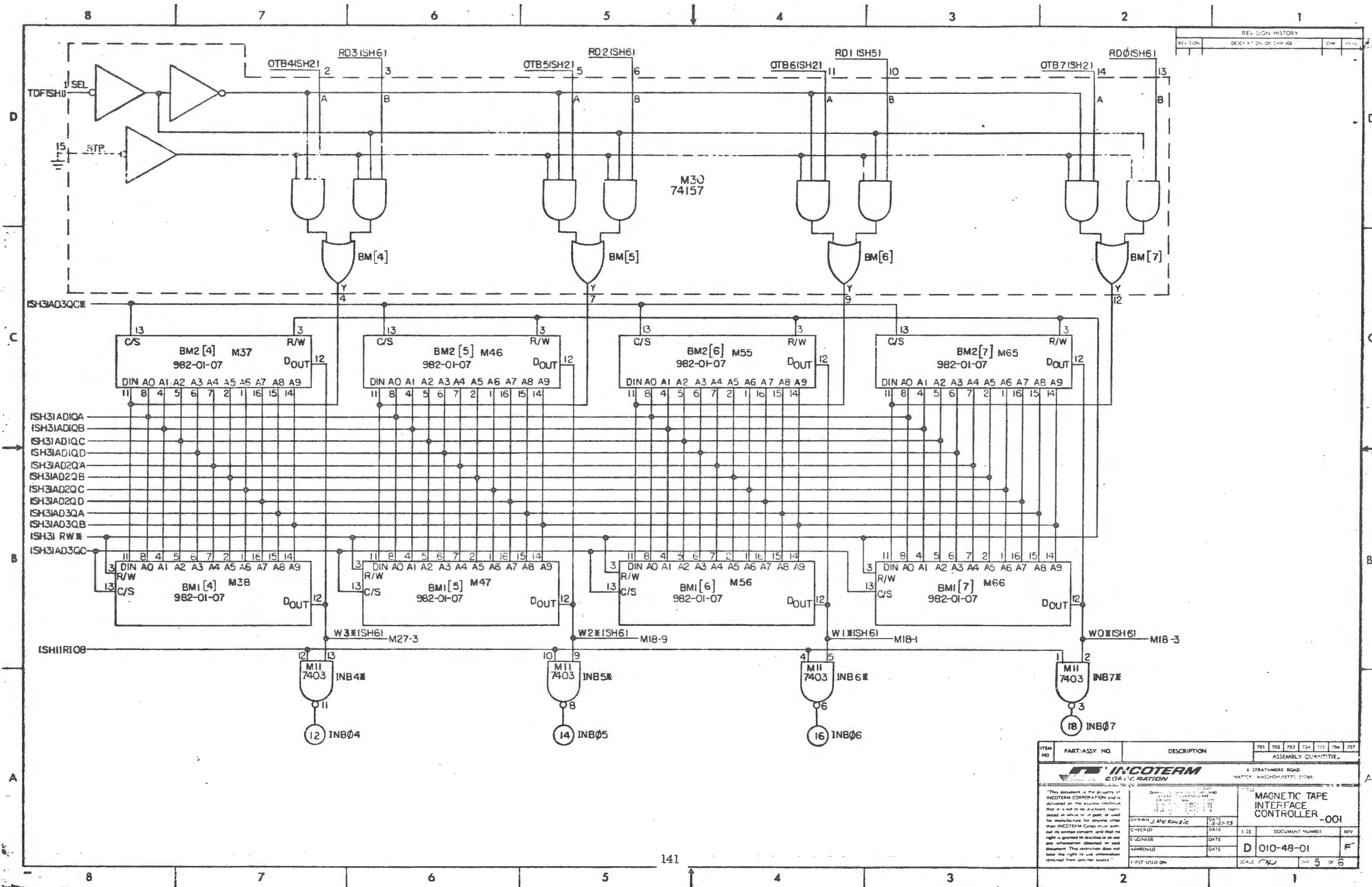


REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	DATE

ITEM NO	PART/ASSY NO	DESCRIPTION	701	702	703	704	705	706	707
INCOTERM CORPORATION 6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01945									
MAGNETIC TAPES INTERFACE CONTROLLER -001									
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
CHECKED	DATE	SIZE	DOCUMENT NUMBER	REV					
			D 010-48-01	F					
APPROVED	DATE								
FIRST USED ON	SCALE								

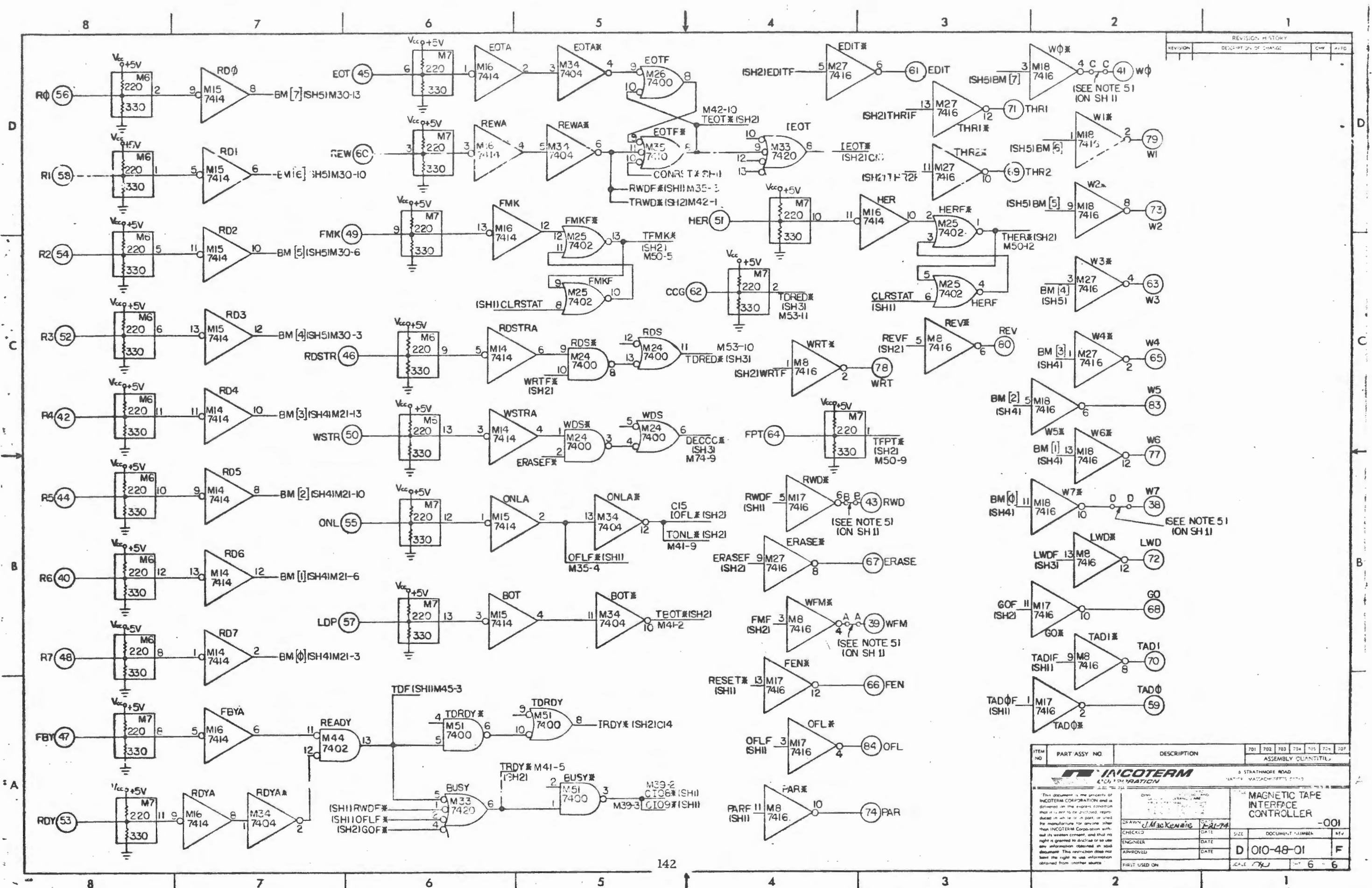


ITEM NO	PART ASSY NO	DESCRIPTION	701	702	703	704	705	706	707
			ASSEMBLY QUANTITIES						
			5 WEAVER ROAD WATICE, MASSACHUSETTS 01913						
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CHECKED DATE		DATE 12-22-73		SIZE DOCUMENT NUMBER		REV F			
APPROVED DATE		DATE		D 010-48-01		F			
FIRST USED IN			SCALE 4 x 6						



REV. SIGN HISTORY			
REV. NO.	DESCRIPTION OF CHANGE	CHK	AS-CD

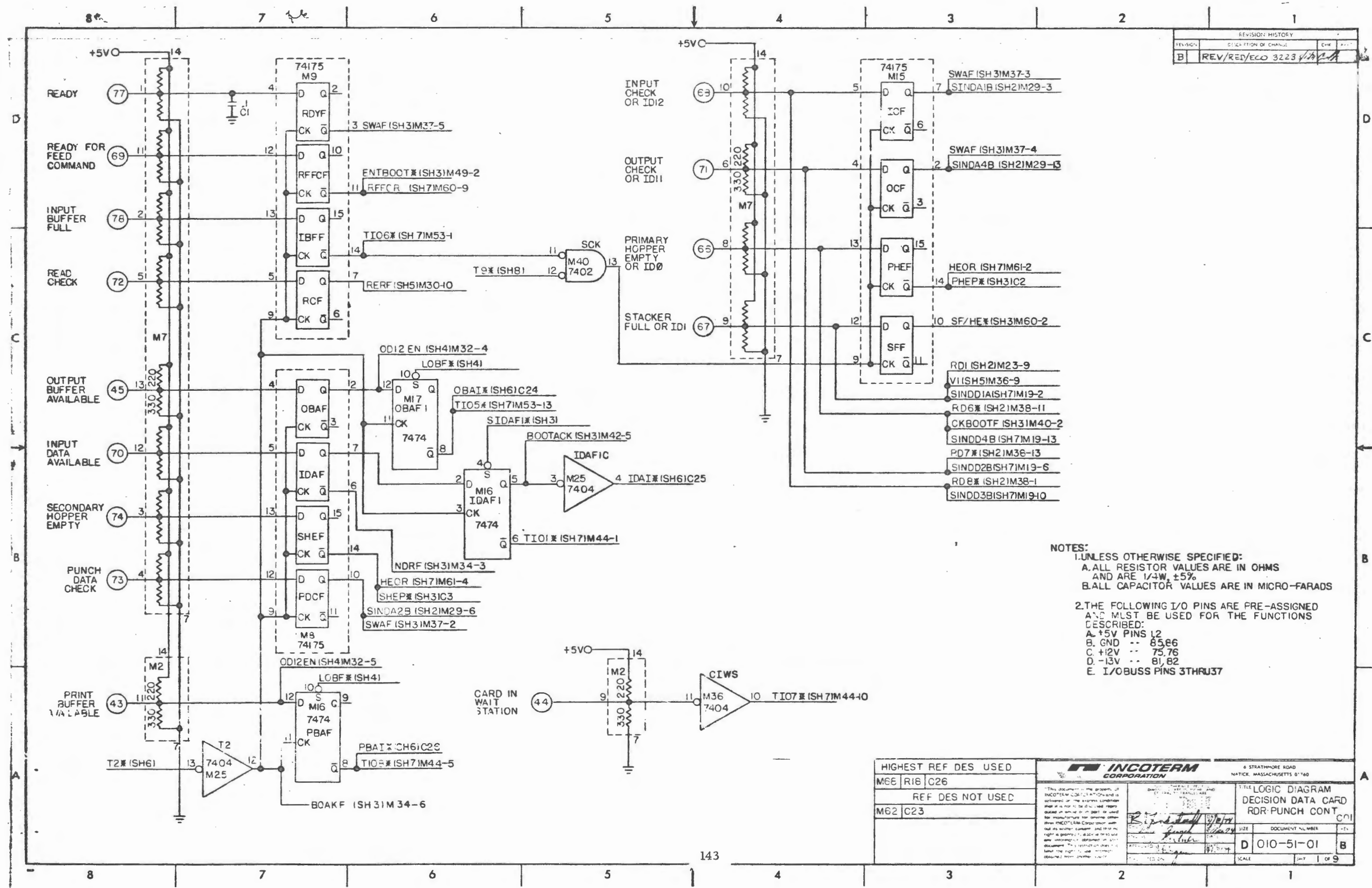
ITEM NO.	PART/ASSY. NO.	DESCRIPTION	701	702	703	704	705	706	707
			ASSEMBLY QUANTITIES						
			8 STRATHMORE ROAD NATICK, MASSACHUSETTS 01760						
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REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD

ITEM NO	PART ASSY NO	DESCRIPTION	701	702	703	704	705	706	707
ASSEMBLY QUANTITIES									
INCOTERM CORPORATION									
8 STRATHMORE ROAD MAGNIFICENT, NEW YORK, N.Y. 10022									
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DRAWN	J. MacKenzie	DATE		SIZE		DOCUMENT NUMBER	MAGNETIC TAPE INTERFACE CONTROLLER -001		
CHECKED		DATE					REV		
ENGINEER		DATE							
APPROVED		DATE							
FIRST USED ON									

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	DATE
B	REV/REV/ECO 3223	1/74	1/74

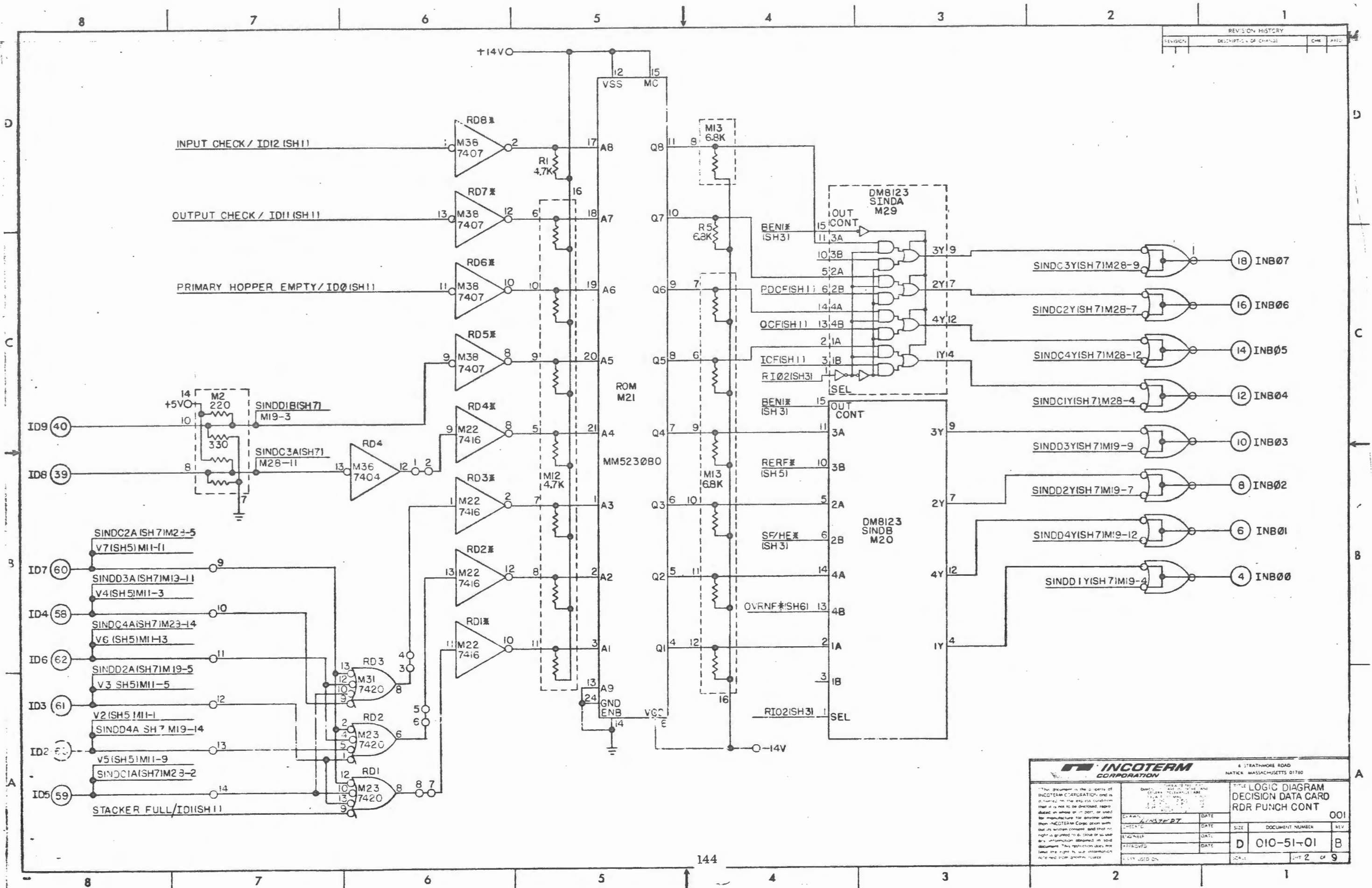


- NOTES:**
- UNLESS OTHERWISE SPECIFIED:
 - A. ALL RESISTOR VALUES ARE IN OHMS AND ARE 1/4W, ±5%
 - B. ALL CAPACITOR VALUES ARE IN MICRO-FARADS
 - THE FOLLOWING I/O PINS ARE PRE-ASSIGNED AND MUST BE USED FOR THE FUNCTIONS DESCRIBED:
 - A. +5V PINS 12
 - B. GND -- 85,86
 - C. +12V -- 75,76
 - D. -13V -- 81,82
 - E. I/O BUSS PINS 3 THRU 37

HIGHEST REF DES USED	M6E R18 C26
REF DES NOT USED	M62 C23

		6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01740	
TITLE LOGIC DIAGRAM DECISION DATA CARD RDR-PUNCH CONT.		DOCUMENT NUMBER D 010-51-01	
SCALE 1:1		SHEET 1 OF 9	

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD



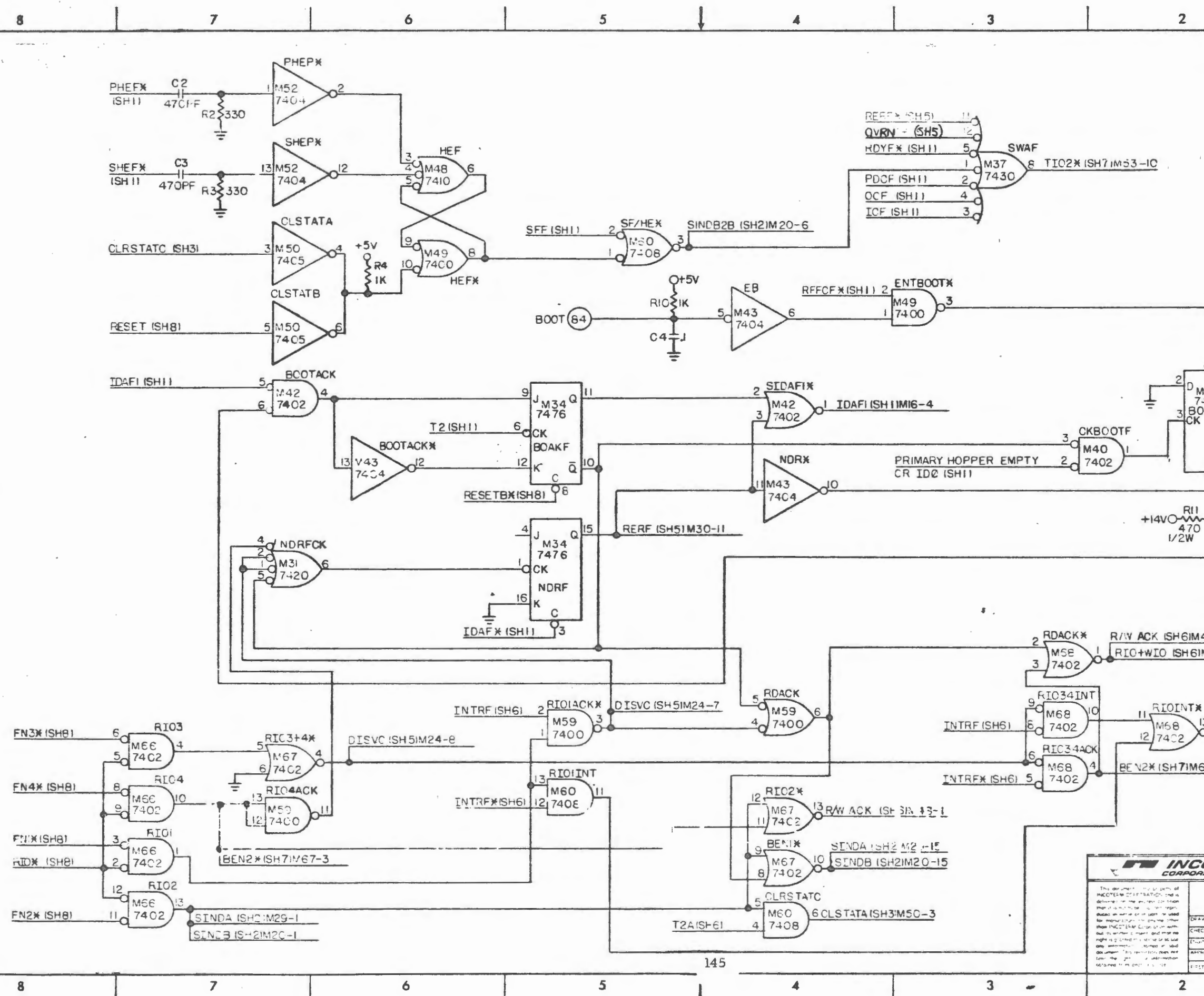
INCOTERM CORPORATION
 4 STRATHMORE ROAD
 NAYICK, MASSACHUSETTS 01760

**THE LOGIC DIAGRAM
 DECISION DATA CARD
 RDR PUNCH CONT**

DATE: 10/1/61	DATE: 10/1/61	DATE: 10/1/61	DATE: 10/1/61
BY: J. W. BERT	DATE: 10/1/61	DATE: 10/1/61	DATE: 10/1/61
APPROVED: [Signature]	DATE: 10/1/61	DATE: 10/1/61	DATE: 10/1/61
SIZE: 11x17	DOCUMENT NUMBER: 010-51-01	REV: B	001
DATE USED ON: 10/1/61	DATE: 10/1/61	DATE: 10/1/61	DATE: 10/1/61

REV 2 of 9

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APP



INCOTERM CORPORATION
 6 STRATHMORE ROAD
 NATICK, MASSACHUSETTS 01760

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DATE	DATE	DATE	DATE

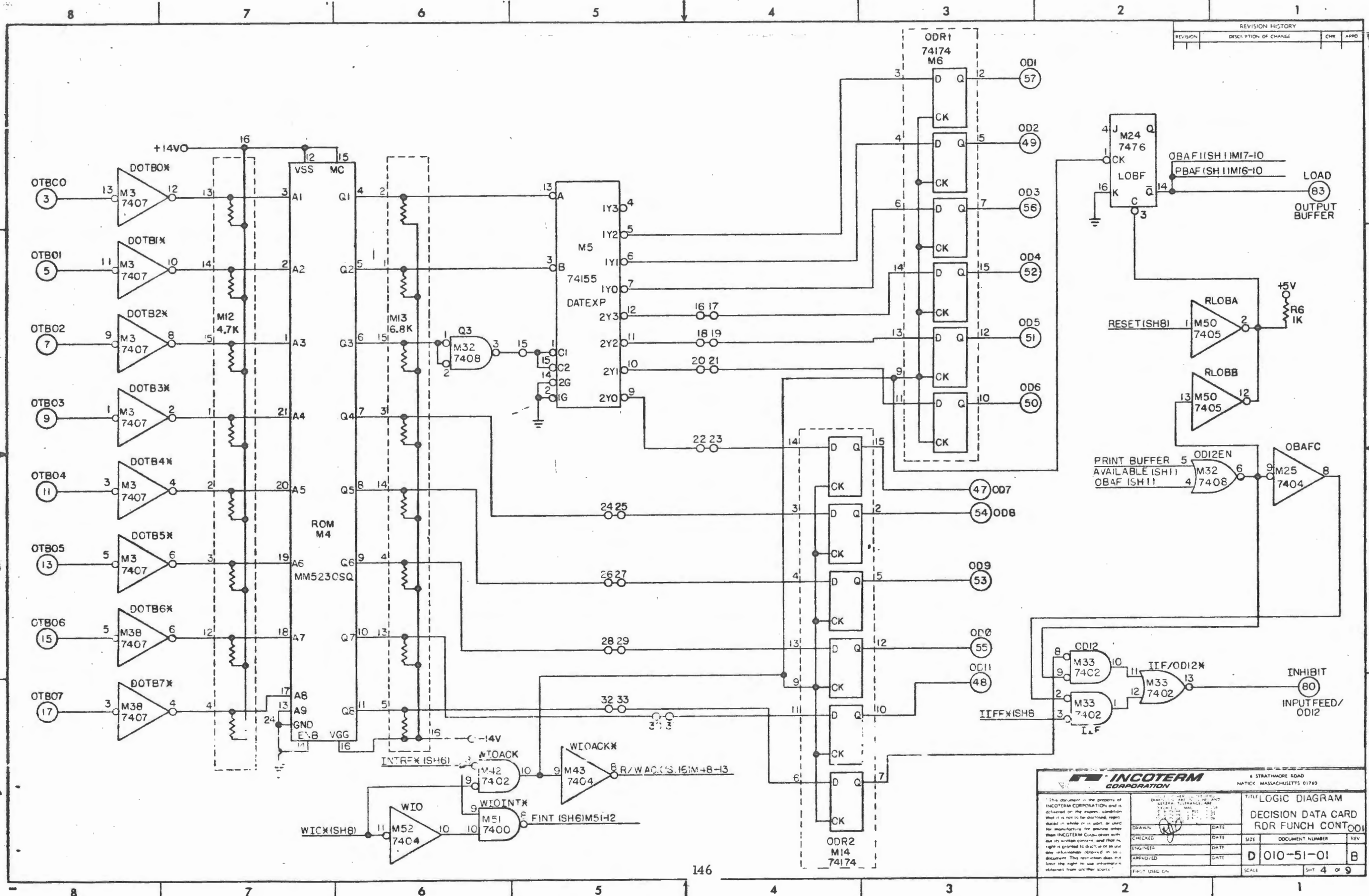
LOGIC DIAGRAM
 DECISION DATA CARD
 RDR PUNCH CONT.

DESIGN	DATE	SIZE	DOCUMENT NUMBER	REV
CHECKED				
ENGINEER				
APPROVED				

D 010-51-01 B

FIRST USE ON: _____

SHEET 3 OF 9



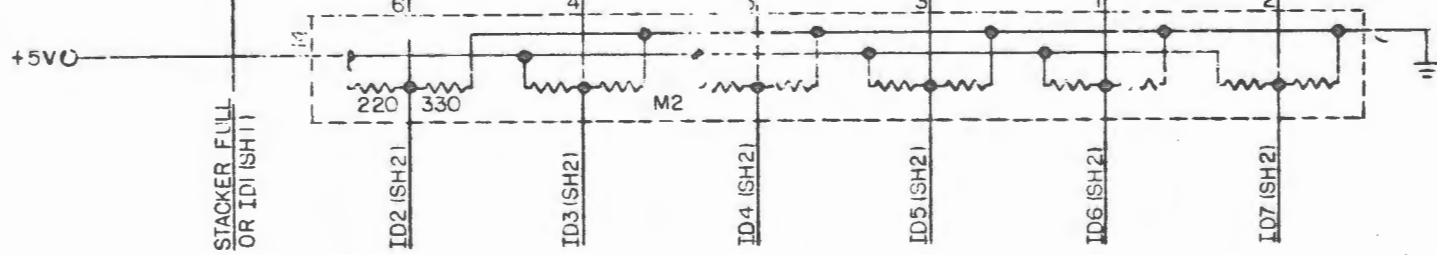
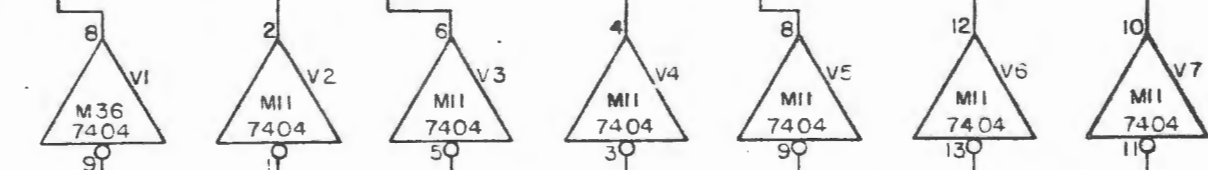
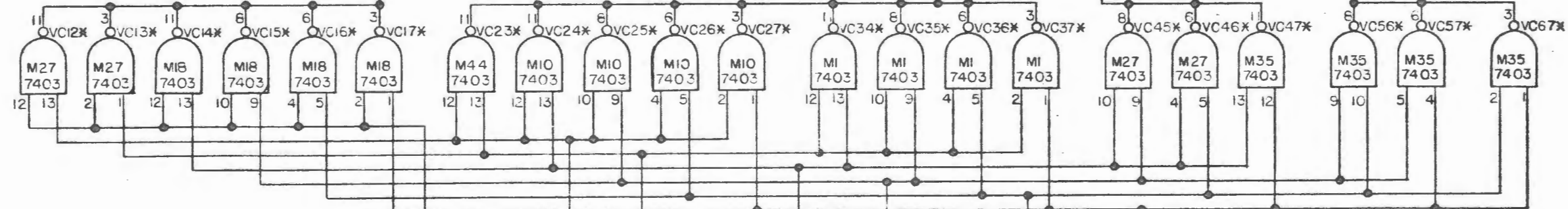
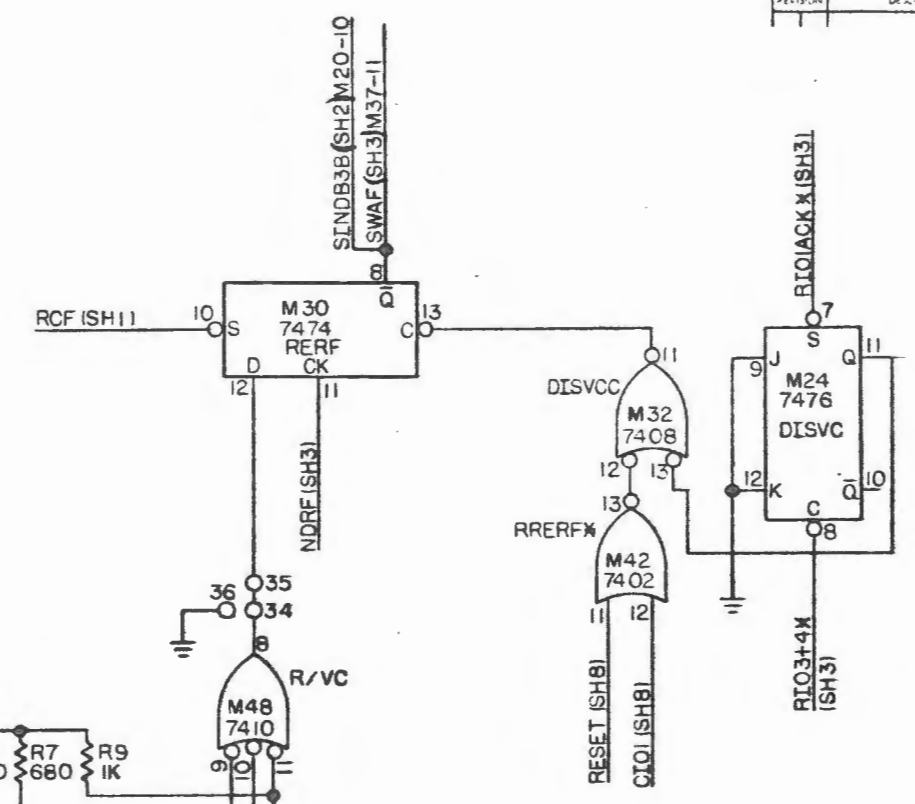
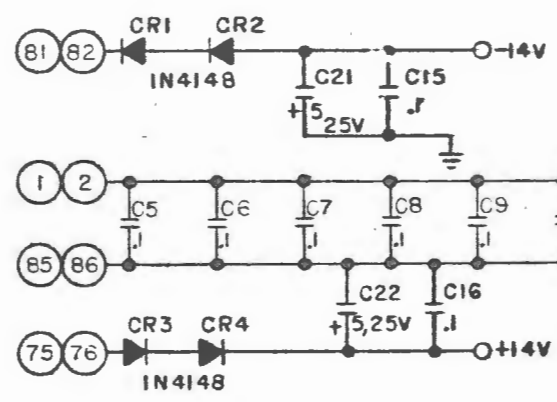
REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPR

INCOTERM CORPORATION
 4 STRATHMORE ROAD
 NATICK, MASSACHUSETTS 01740

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DRAWN	DATE	TITLE	SIZE	DOCUMENT NUMBER	REV
CHECKED	DATE	LOGIC DIAGRAM			
ENGINEER	DATE	DECISION DATA CARD			
APPROVED	DATE	RDR FUNCH CONT		D 010-51-01	B
PRINT USE ON	SCALE				Sht 4 of 9

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	DATE



INCOTERM CORPORATION
 8 STRATHMORE ROAD
 WATICK, MASSACHUSETTS 01760

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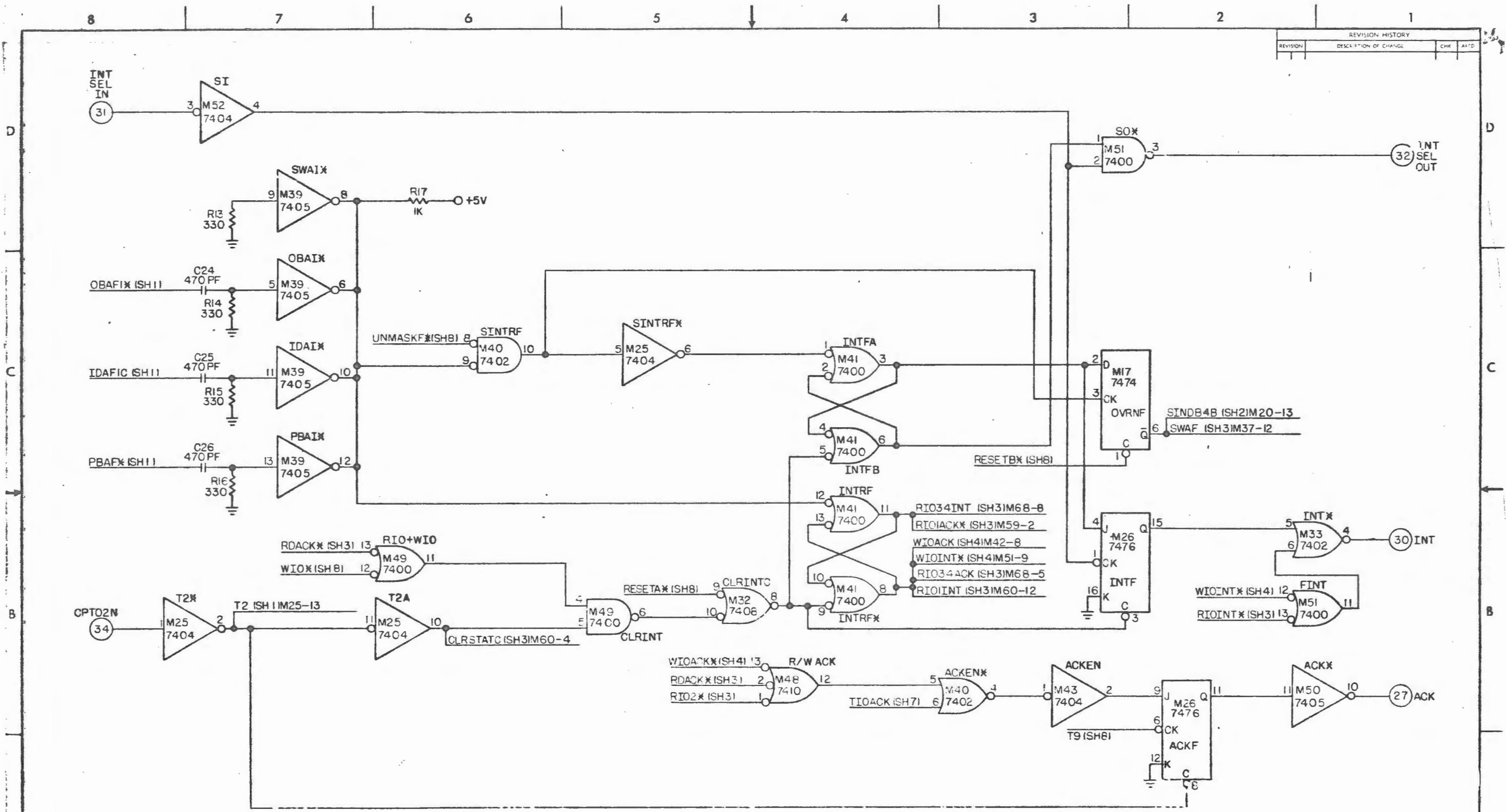
DATE	DATE	DATE	DATE

TITLE LOGIC DIAGRAM
DECISION DATA CARD
RDR PUNCH CONT

DRAWN	DATE	SIZE	DOCUMENT NUMBER
APPROVED	DATE	SCALE	SHT 5 OF 9

D 010-51-01 B

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	DATE

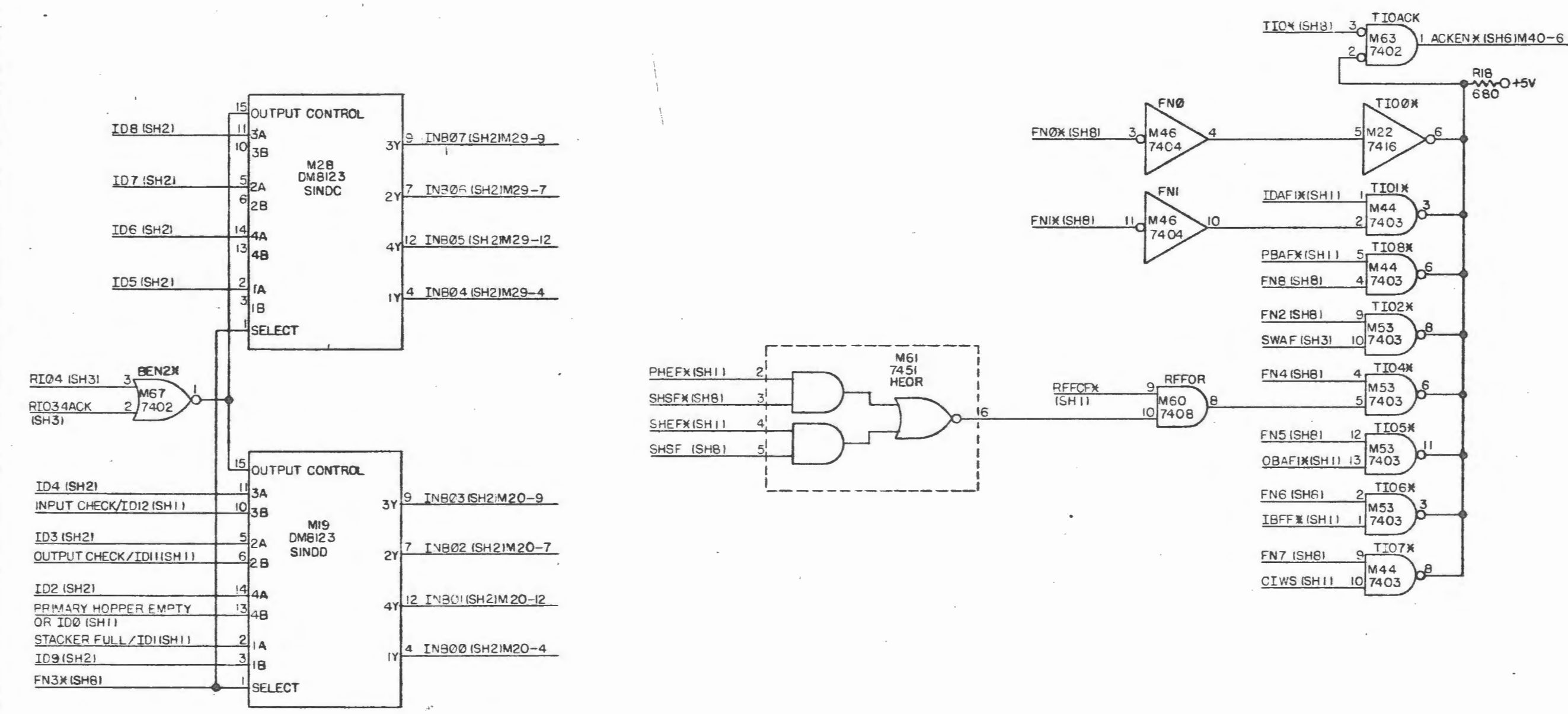


INCOTERM CORPORATION
 6 STRATHMORE ROAD
 NATICK, MASSACHUSETTS 01760

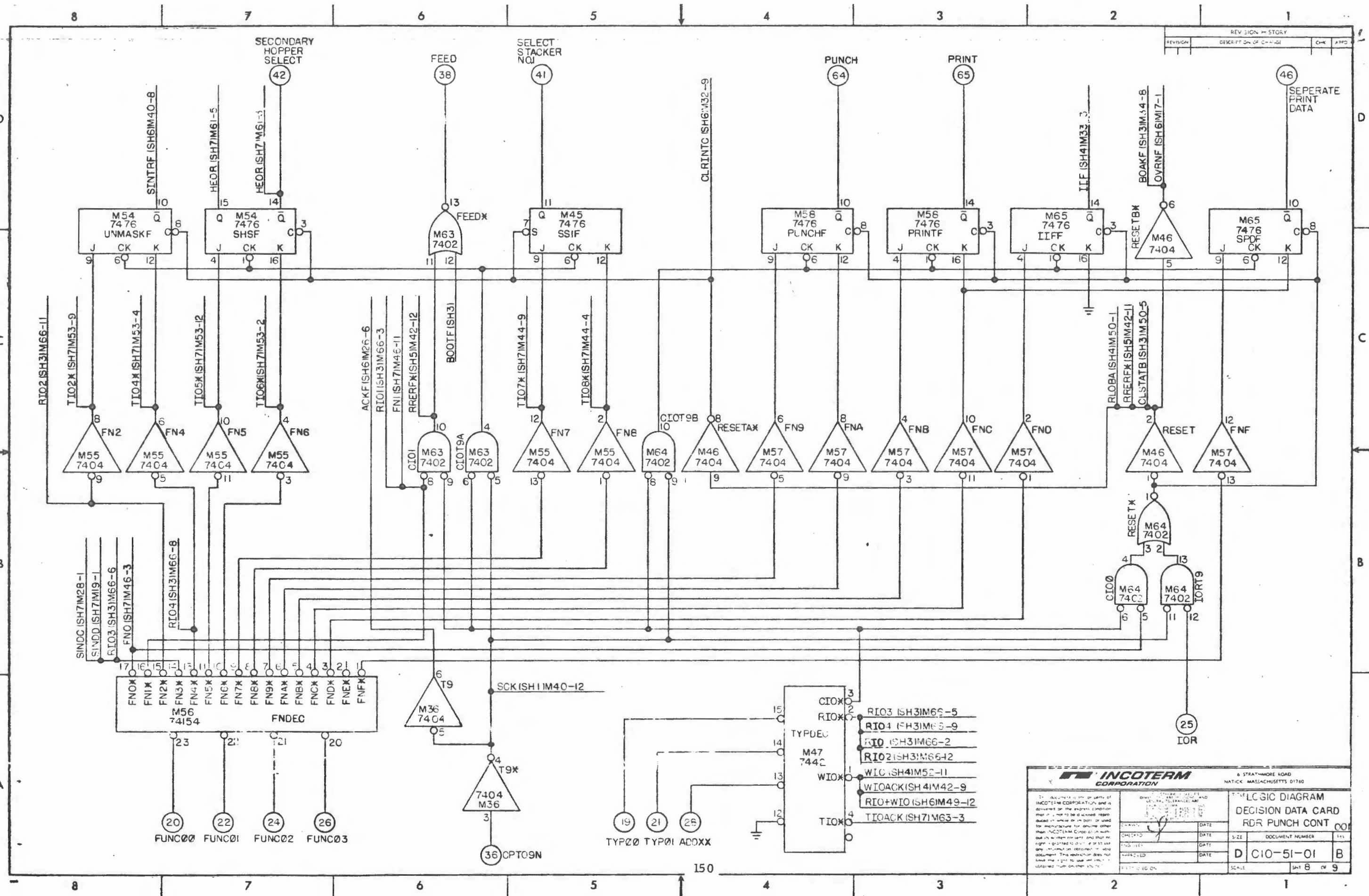
LOGIC DIAGRAM
DECISION DATA CARD
RDR PUNCH CONT

DRAWN: <i>LINA T. PT</i>	DATE:	SIZE:	DOCUMENT NUMBER:	REV:
CHECKED:	DATE:	SIZE:	DOCUMENT NUMBER:	REV:
APPROVED:	DATE:	SIZE:	DOCUMENT NUMBER:	REV:
DATE USED ON:	SCALE:	SHEET:	6 of 9	

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APP'D



INCOTERM CORPORATION		6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01760	
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DRAWN: [Signature] CHECKED: [Signature] ENGINEER: [Signature] APPROVED: [Signature]	DATE: [Date] DATE: [Date] DATE: [Date]	SIZE: [Size] DOCUMENT NUMBER: D 010-51-01 SCALE: [Scale]	REV: [Rev] B SHEET 7 OF 9



REV. SIGN. HISTORY			
REV. NO.	DESCRIPTION OF CHANGE	CHK.	APPD.

INCOTERM CORPORATION
 8 STRATHMORE ROAD
 NATICK, MASSACHUSETTS 01760

LOGIC DIAGRAM
DECISION DATA CARD
RDR PUNCH CARD

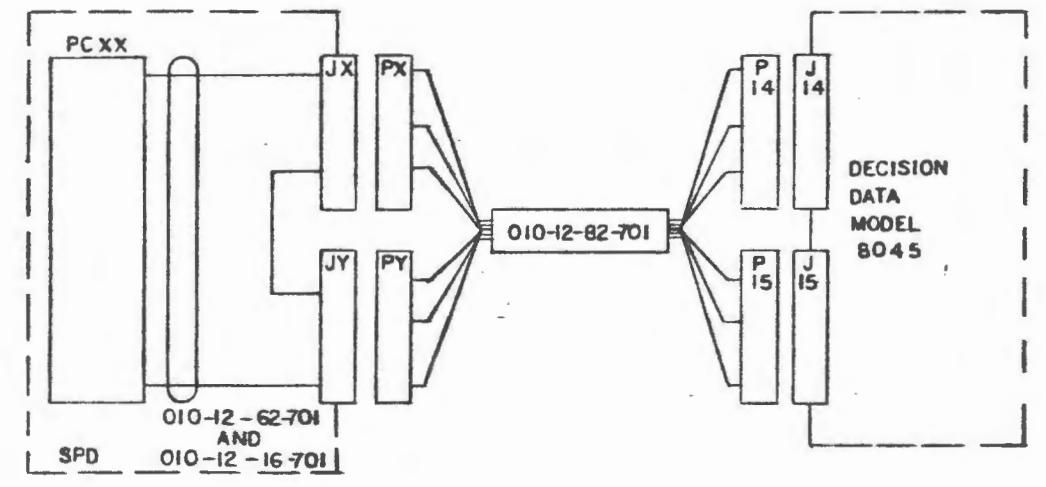
CHECKED	DATE	SIZE	DOCUMENT NUMBER
DESIGNED	DATE		
APPROVED	DATE		

SCALE: SHEET 8 OF 9

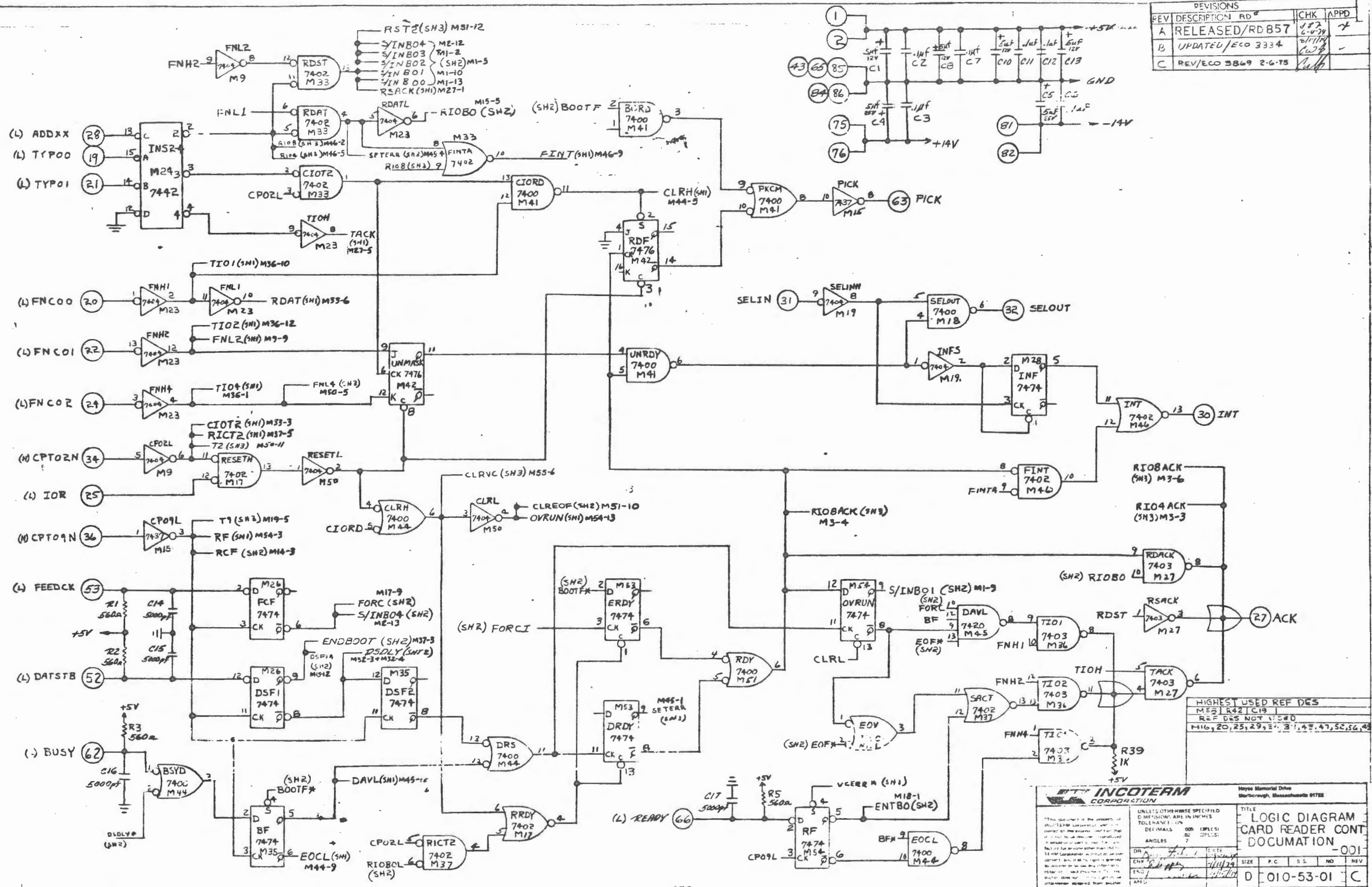
REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPL

	C	JX
GROUND	GND	1
INPUT DATA AVAILABLE	70	2
IC 0	66	3
ID 12	68	4
ID 7	60	5
IC 4	58	6
GROUND	GND	7
ID 6	62	8
SHS	42	9
BOOT SWITCH	84	10
SSI	41	11
OD 5	51	12
SEP. PRINT	46	13
ID 11	71	14
PUNCH	64	15
OD 4	52	16
PUNCH CHECK	73	17
READY	77	18
ID 2	63	19
ID 1	67	20
PRINT	65	21
OD 9	53	22
PRINT BUF. AVAILABLE	43	23
ID 8	39	24
READ CHECK	72	25
GROUND	GND	JY
FEED	38	2
ID 9	40	3
CARD IN WAIT	44	4
OUTPUT BUF. AVAIL.	45	5
OD 7	47	6
GROUND	GND	7
OD 11	48	8
OD 2	49	9
OD 6	50	10
OD 8	54	11
OD 0	55	12
OD 3	56	13
OD 1	57	14
ID 5	59	15
ID 3	61	16
READY FOR FEED	69	17
SEC. HOPPER EMPTY	74	18
IB FULL	78	19
NEW DATA REG.	79	20
OD 12	80	21
LOAD OUTPUT BUF.	83	22
GROUND	GND	23
GROUND	GND	24
GROUND	GND	25

010-12-82-701		PIN DESTINATION
PX	1	14-1
2	2	14-V
3	3	14-X
4	4	14-L
5	5	14-d
6	6	14-D
7	7	14-7
8	8	14-e
9	9	15-R
10	10	—
11	11	14-J
12	12	15-X
13	13	15-J
14	14	14-a
15	15	15-N
16	16	15-Y
17	17	15-T
18	18	14-K
19	19	14-A
20	20	14-N
21	21	15-P
22	22	15-Z
23	23	15-c
24	24	14-b
25	25	14-M
PY	1	15-1
2	2	14-P
3	3	14-C
4	4	14-T
5	5	15-d
6	6	15-b
7	7	15-7
8	8	15-H
9	9	15-f
10	10	15-d
11	11	15-W
12	12	15-B
13	13	15-e
14	14	15-A
15	15	14-f
16	16	14-B
17	17	14-W
18	18	15-S
19	19	14-U
20	20	14-S
21	21	15-V
22	22	15-U
23	23	15-23
24	24	15-24
25	25	14-F



		6 STRATHMORE ROAD NATICK, MASSACHUSETTS 01760	
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DATE 10/20/64	DATE 10/20/64	SIZE D	DOCUMENT NUMBER 001
CHECKED [Signature]	DATE 10/20/64	APPROVED [Signature]	REV B
SCALE NONE		SHT 9 OF 9	



REVISIONS			
REV	DESCRIPTION	RD #	CHK APPD
A	RELEASED/RDB57	1/17/74	LWJ
B	UPDATED/ECO 3334	2/11/74	LWJ
C	REV/ECO 3869 2-6-75		LWJ

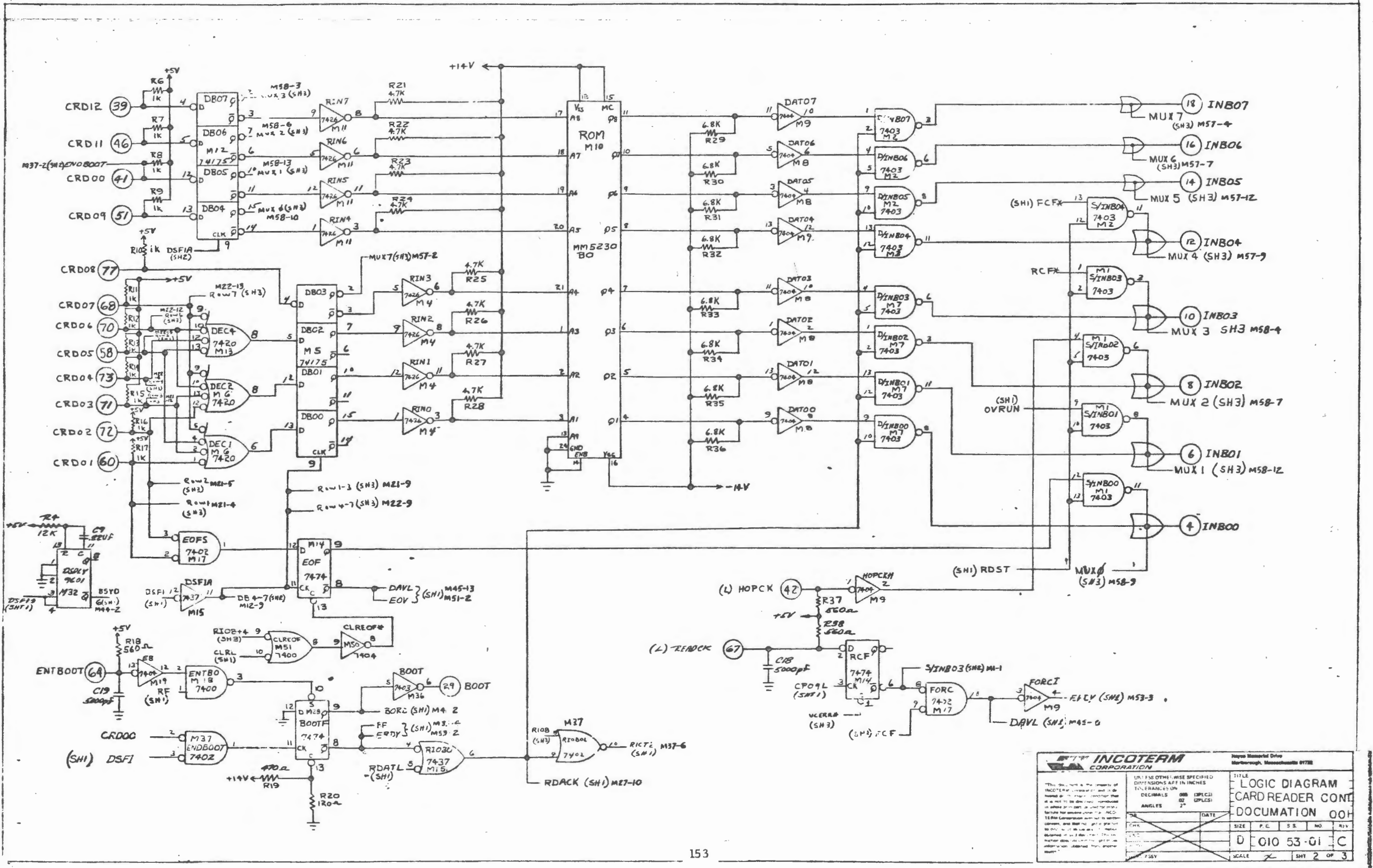
HIGHEST USED REF DES	
M55	R42 C19
REF DES NOT USED	
M16, 20, 25, 29, 31, 34, 47, 52, 56, 68	

INCOTERM CORPORATION
 Maynard Memorial Drive
 Marlborough, Massachusetts 01752

TITLE: LOGIC DIAGRAM
 CARD READER CONT
 DOCUMENTATION -001

DR	DATE	SIZE	P.C.	S.S.	NO	REV
CHK	DATE					
END	DATE					
APPD	DATE					

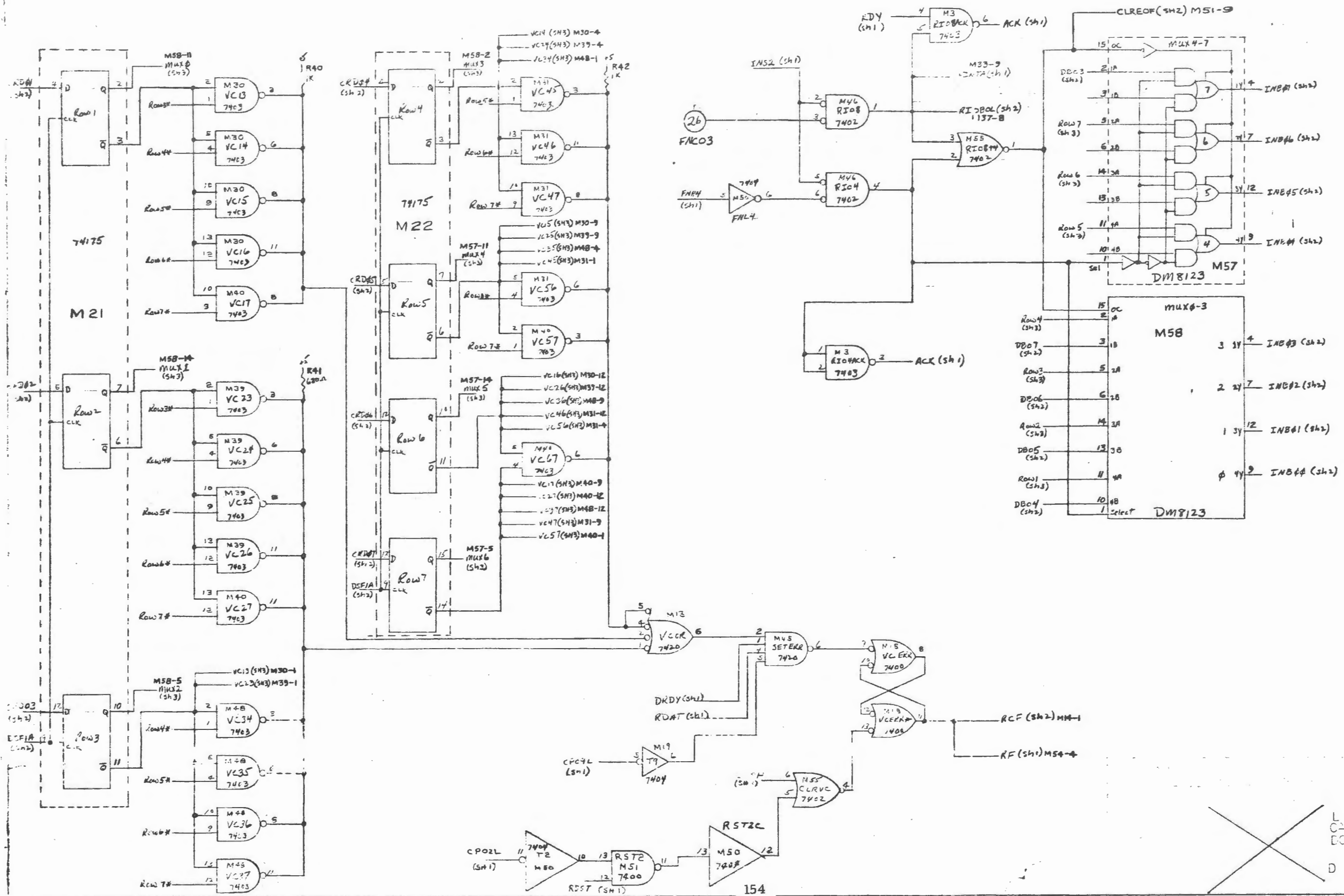
NEAT ASSEMBLY SCALE: 1/8" = 1" SHEET 1 OF 3



INCOTERM CORPORATION
 1000 Memorial Drive
 Marlborough, Massachusetts 01758

UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN INCHES
 TOLERANCES ON
 DECIMALS .005 (3PLCS)
 ANGLES 2°

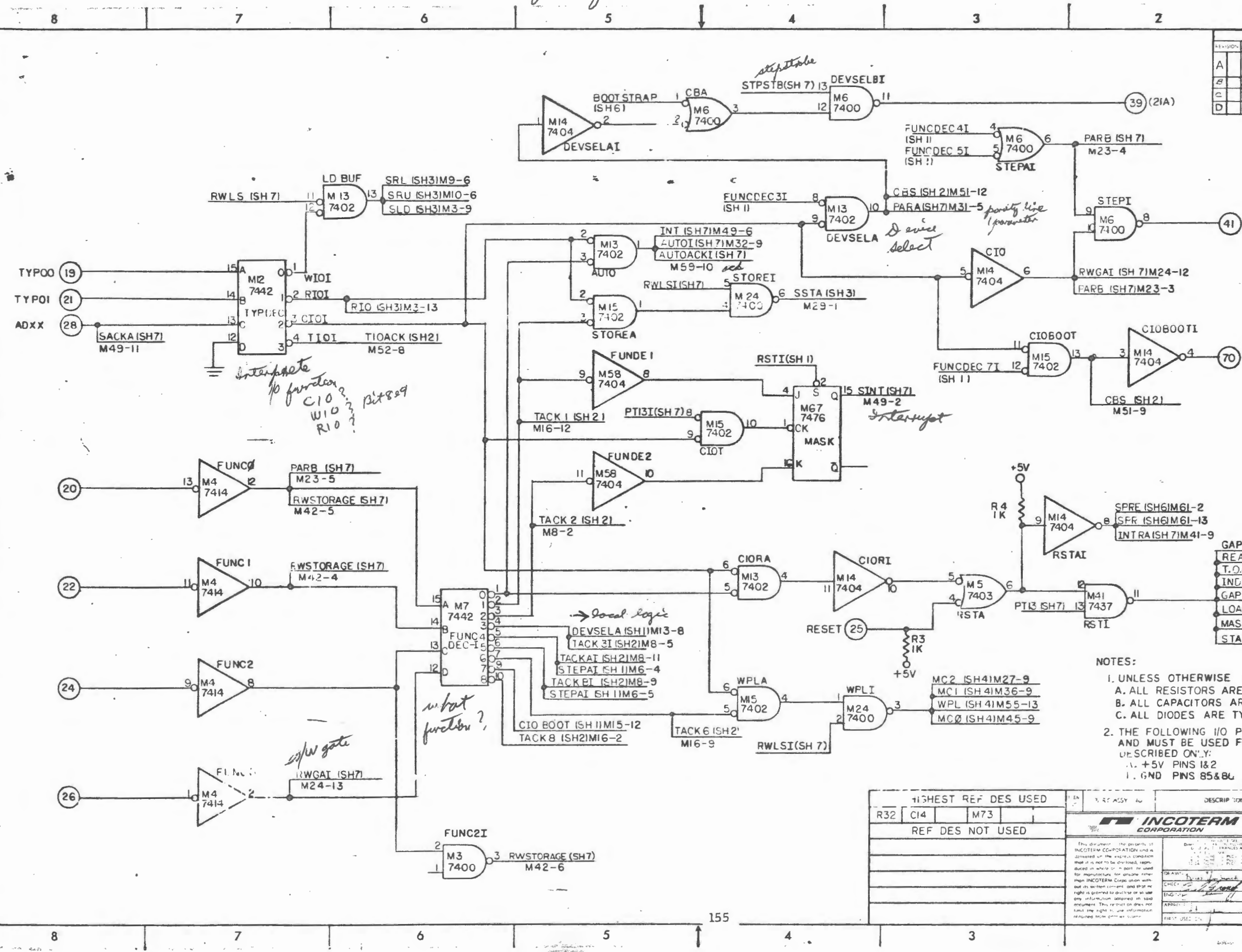
DATE: _____
 SIZE: P.C. S.S. NO. REV.
 D 010 53-01 C
 SCALE: 1:1 SH 2 OF 3



LOGIC DIAGRAM
CARD READER CONT
DOCUMENTATION 001
D J10-53-01
3 3

Decode and Timing Logic

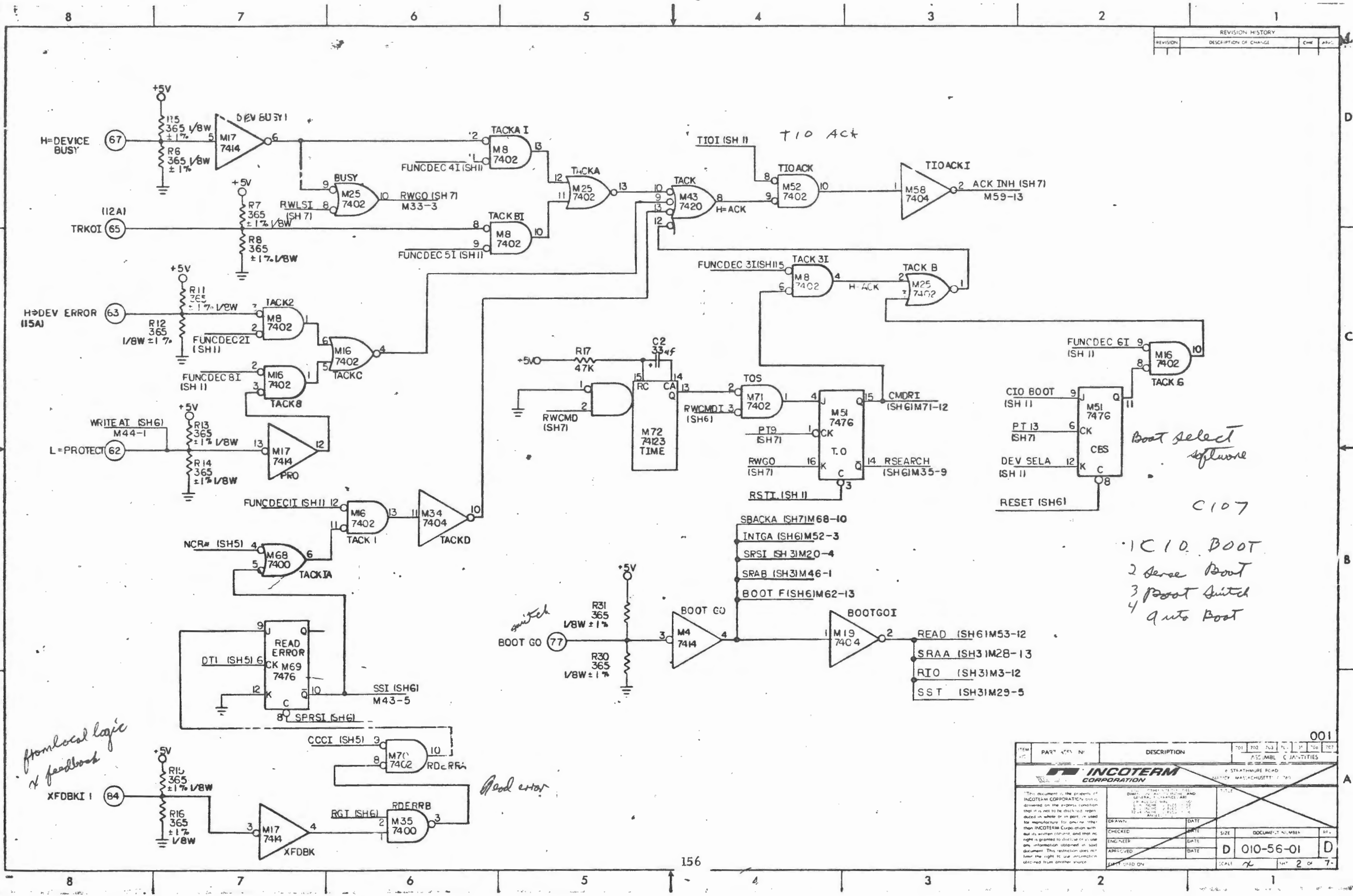
REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD
A	RELEASED/RD#878		
B	REV/ECO 3922 4-16-75		
C	REV/ECO 3021 6-18-75		
D	REV/ECO 8247 5-13-76		



- NOTES:
- UNLESS OTHERWISE SPECIFIED:
 - A. ALL RESISTORS ARE IN OHMS, 1/4W, ±5%.
 - B. ALL CAPACITORS ARE IN MICROFARADS.
 - C. ALL DIODES ARE TYPE IN4148.
 - THE FOLLOWING I/O PINS ARE PREASSIGNED AND MUST BE USED FOR THE FUNCTIONS DESCRIBED ONLY:
 - +5V PINS 1&2 +12V PINS 7&8
 - GND PINS 85&86 -43V PINS 81 & 86

HIGHEST REF DES USED	REF DES NOT USED	INCOTERM CORPORATION	FLOPPY DISK CONT LOGIC DIAGRAM FOR SPD 10/20 & 20/20
R32	C14, M73	INCOTERM CORPORATION	DOCUMENT NUMBER: D 010-56-01
REF DES NOT USED		DRAWN: [Signature] 11/1/74 CHECKED: [Signature] 11/1/74 APPROVED: [Signature] 11/1/74 FIELD USE ONLY	SHEET 1 OF 7 DATE: [] [] []

T10 Acknowledge & Bootstrap



REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APP

Boot select software
C107

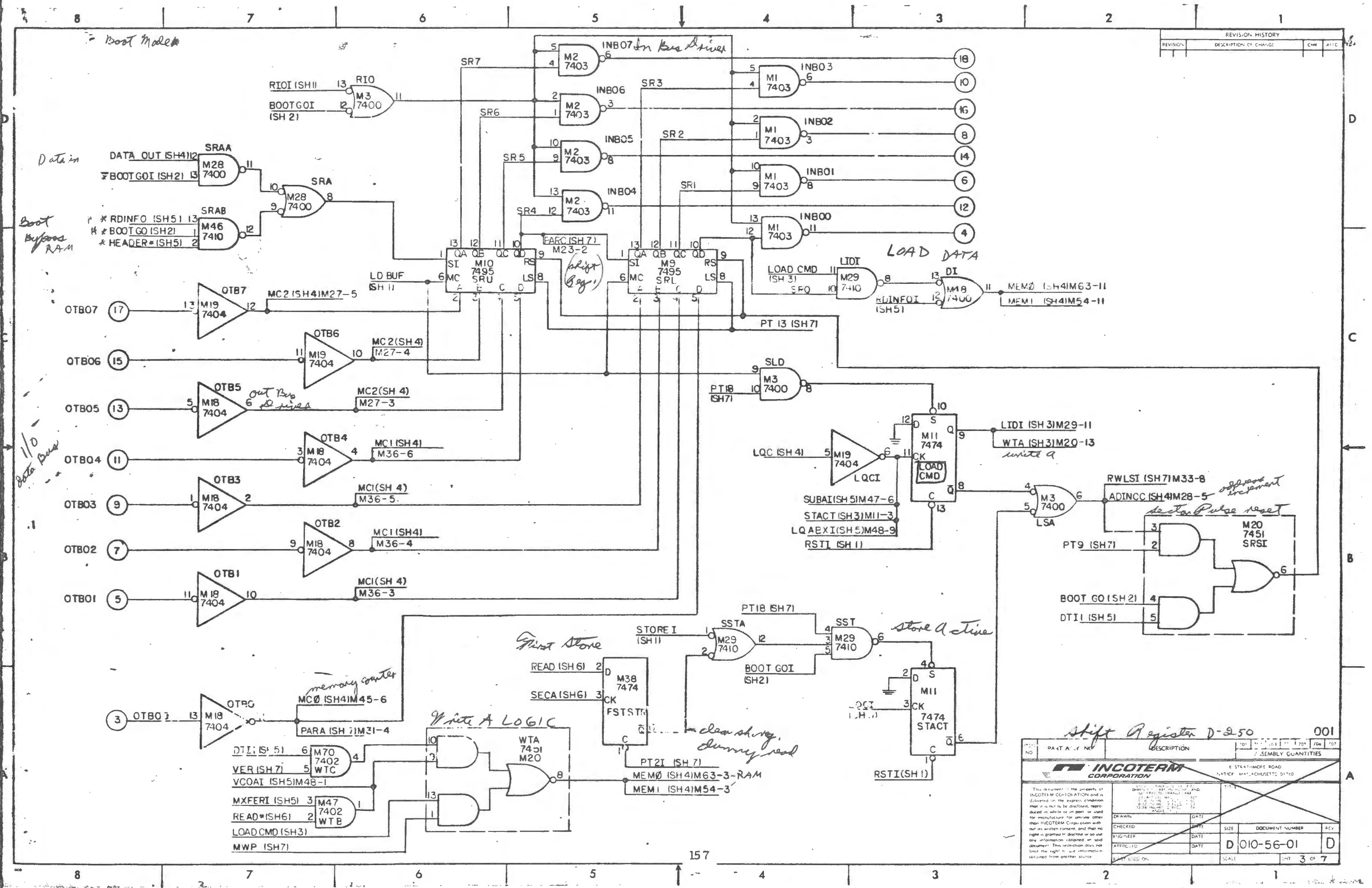
- 1 C10 BOOT
- 2 Sense Boot
- 3 Boot Switch
- 4 Auto Boot

From local logic & feedback

Read error

ITEM NO.	PART NO.	DESCRIPTION	T01	T02	T03	T04	T05	T06	T07
INCOTERM CORPORATION									
4 STATEHOUSE ROAD LITTLE MASSACHUSETTS 01903									
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DRAWN	DATE	SIZE	DOCUMENT NUMBER	REV.					
ENGINEER	DATE		D 010-56-01	D					
APPROVED	DATE								
DATE DIED ON		SCALE		SHEET	2 OF 7				

I/O Shift Register



REVISION HISTORY				
REVISION	DESCRIPTION OF CHANGE	CHK	DATE	

Shift Register D-950 001

REV. NO.	PART NO. & REV.	DESCRIPTION	DATE	SIZE	DOCUMENT NUMBER	REV.

INCOTERM CORPORATION
6 STEADHORE ROAD
LITTLE FALLS, MASSACHUSETTS 01760

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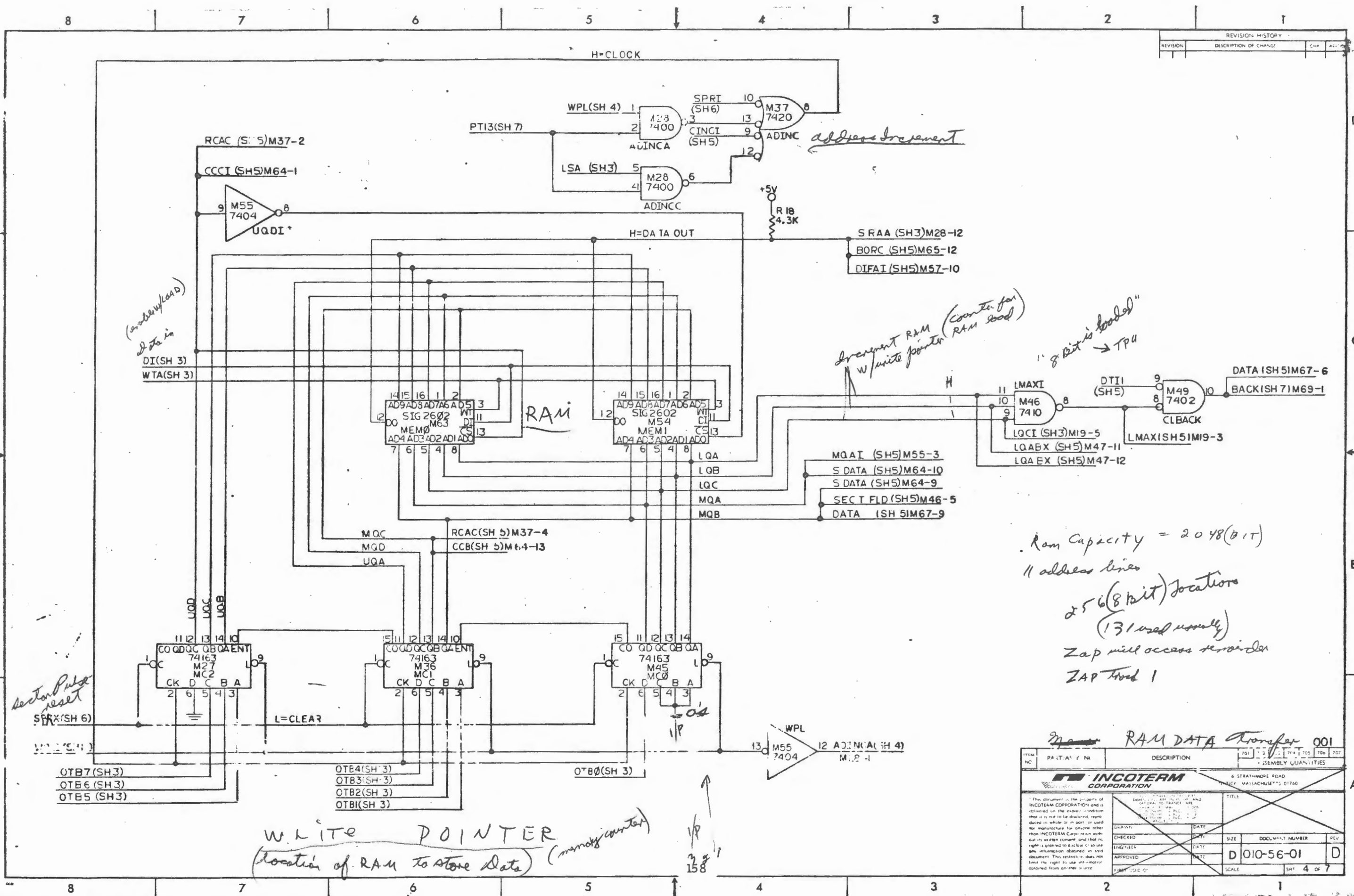
DRAWN	DATE				
CHECKED	DATE				
ENG'NEER	DATE				
APPROVED	DATE				

D 010-56-01 D

SCALE: 1:1
SHEET 3 OF 7

Ram & Buffer Pointer Counter

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	DATE



Ram Capacity = 2048 (bit)
 11 address lines
 256 (8 bit) locations
 (131 used usually)
 Zap will access remainder
 ZAP Prod 1

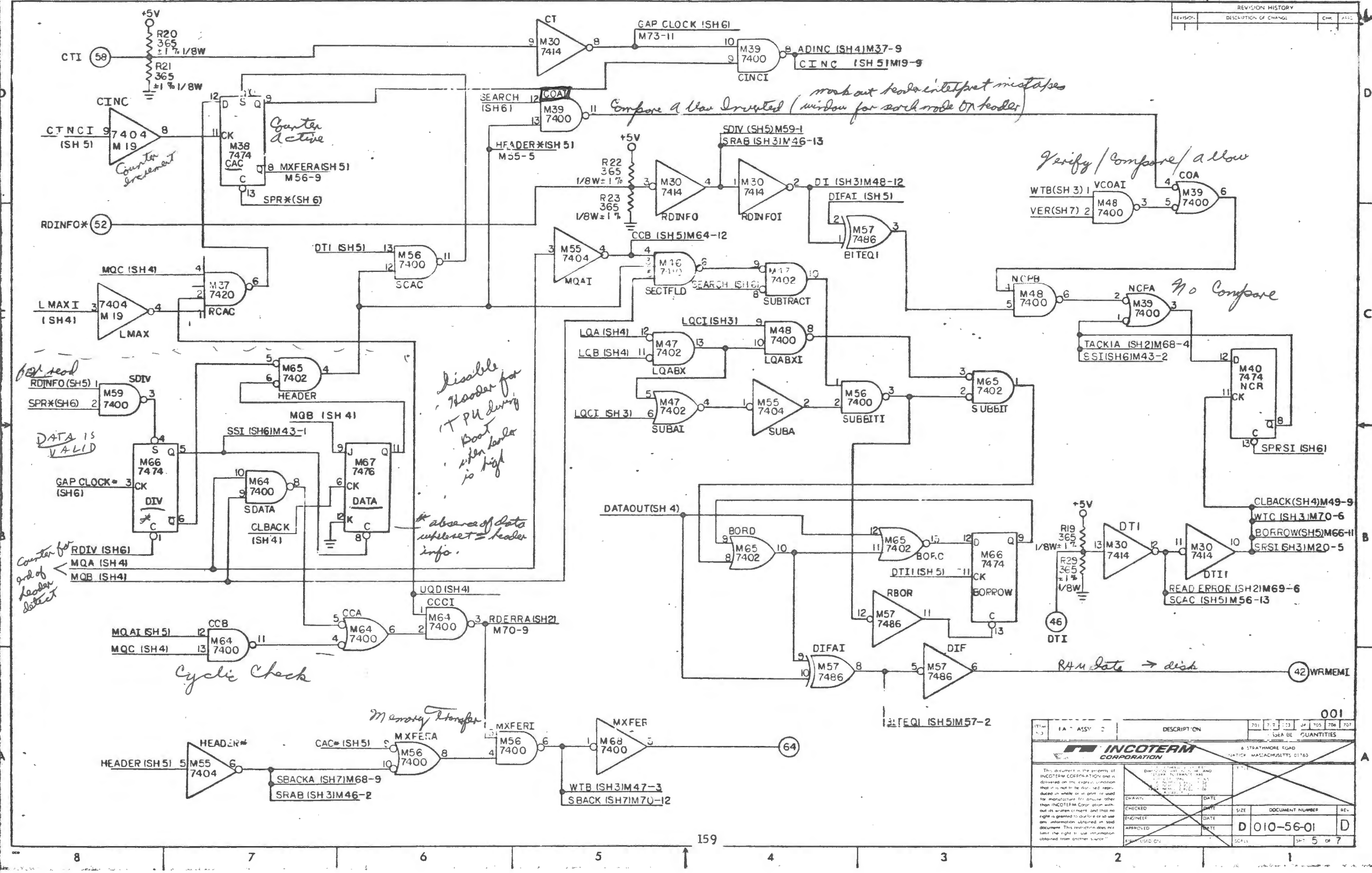
RAM DATA Transfer 001

ITEM	PACTAS & NR	DESCRIPTION	701	702	703	704	705	706	707
INCOTERM CORPORATION									
6 STRATHMORE ROAD TRUCKEE, MASSACHUSETTS 01760									
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DRAWN	DATE	CHECKED	DATE	SIZE	DOCUMENT NUMBER	REV			
					D 010-56-01	D			
APPROVED	DATE	SCALE							

SHT 4 OF 7

*Subtractor & Comparator (used only in search mode)
(flow through registers & other lines)*

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	DATE

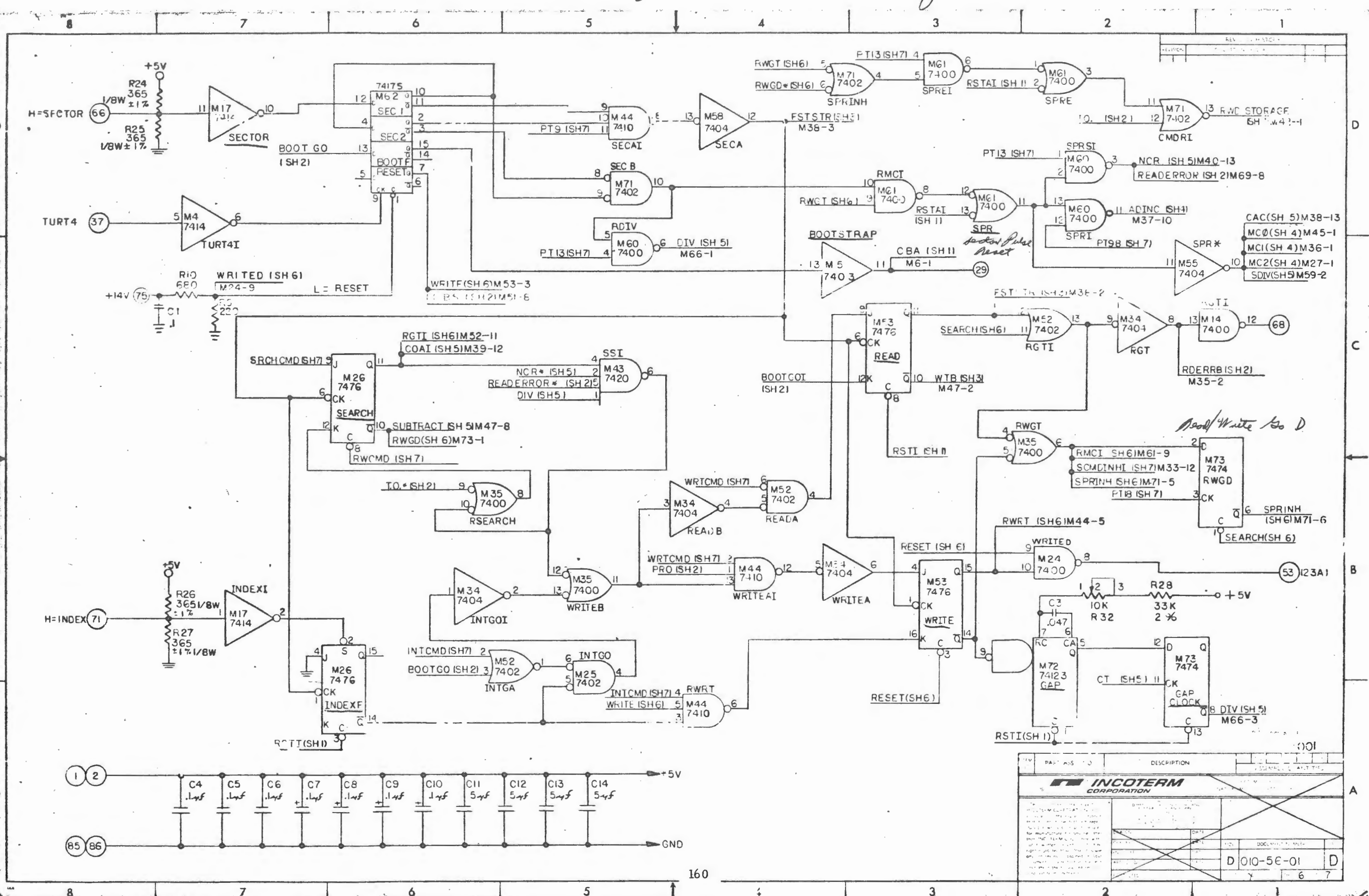


INCOTERM CORPORATION			701	702	703	704	705	706	707
DESCRIPTION						QUANTITIES			

D 010-56-01

SHEET 5 OF 7

Sector Timing and State Control Logic



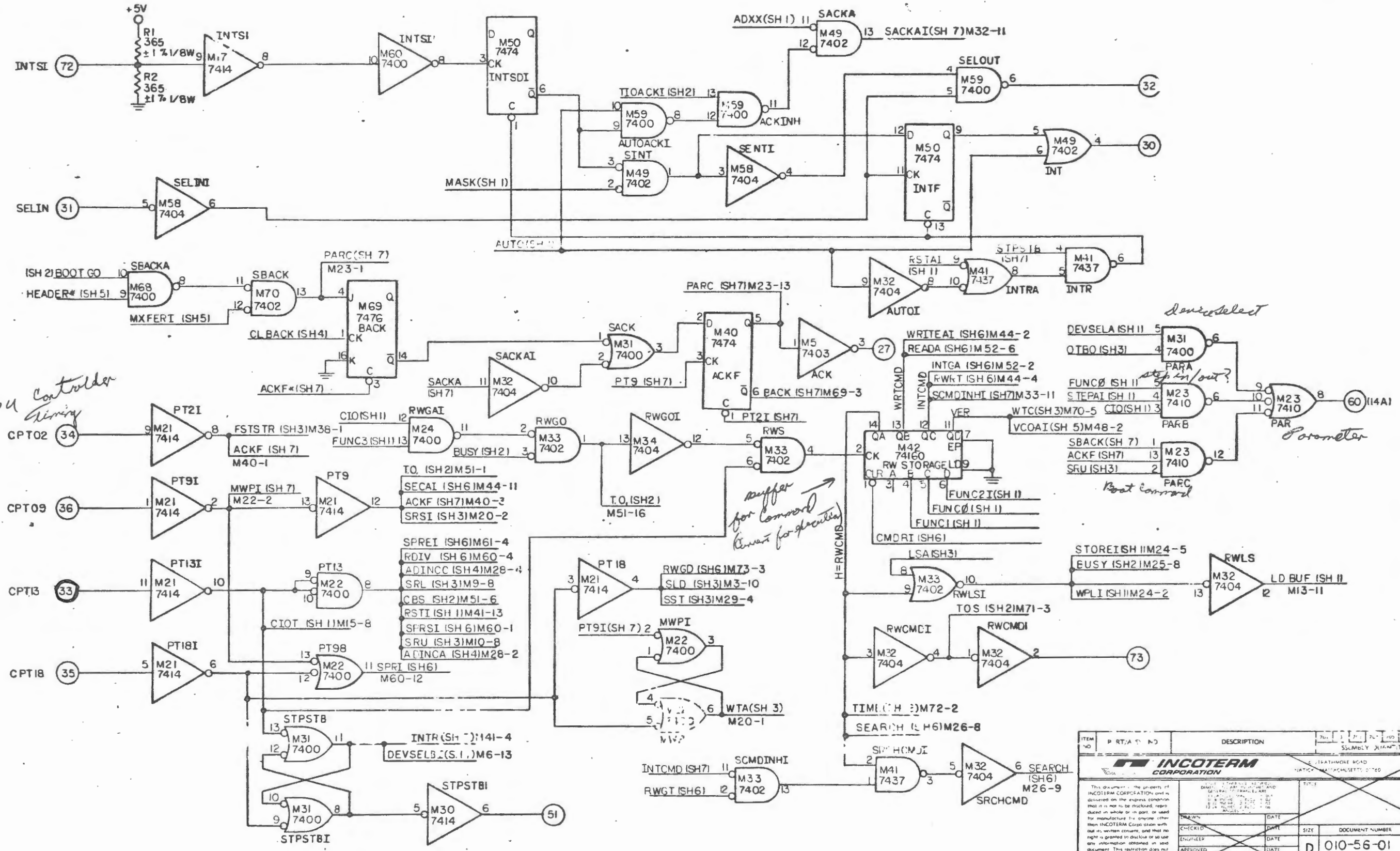
REV	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		

INCOTERM CORPORATION

D 010-5E-01

Timing Cont'd

REVISION HISTORY		
REVISION	DESCRIPTION OF CHANGE	CHK



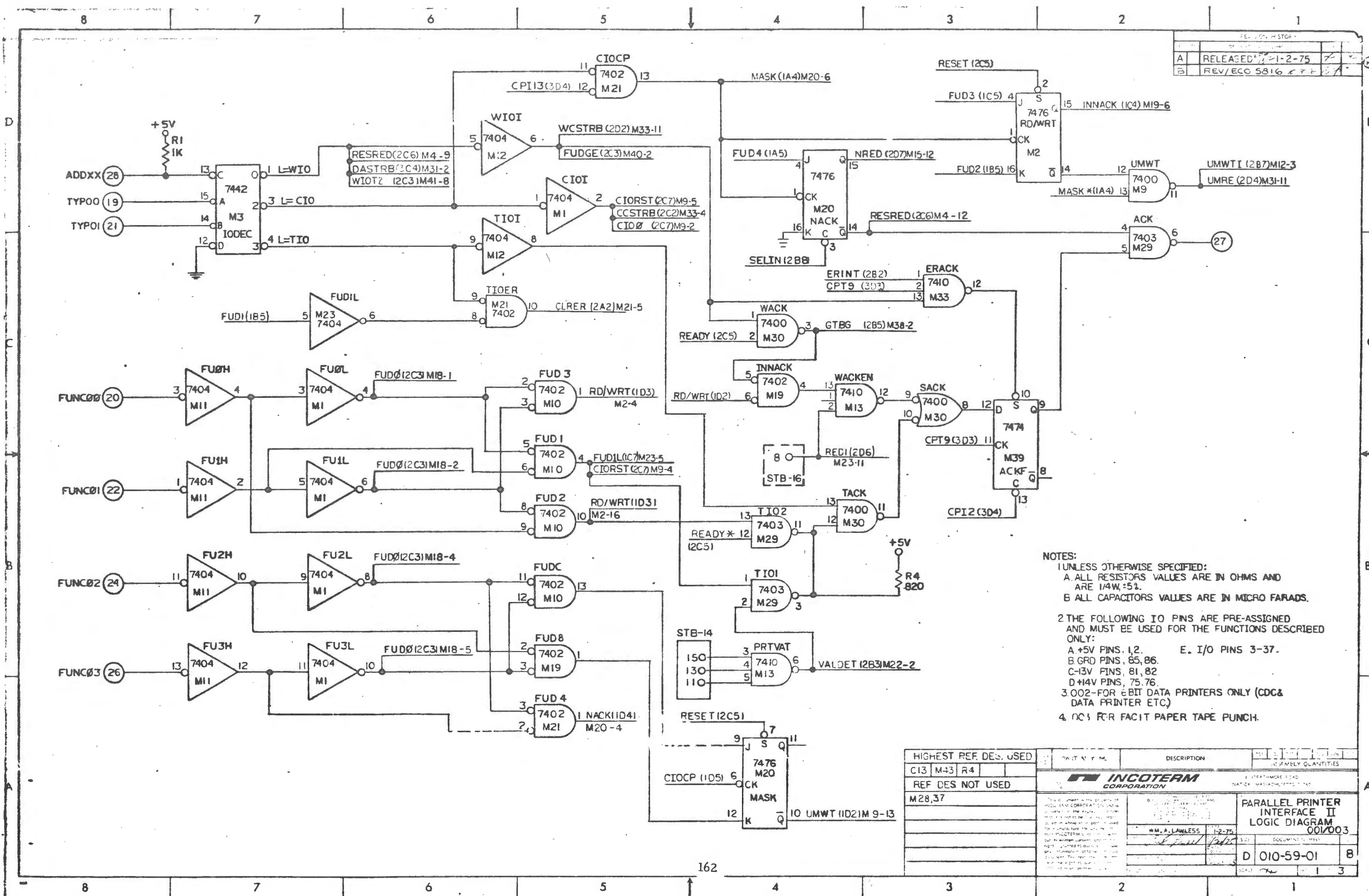
TPU Controller Timing

buffer for command (reset for deassert)

Device Select

Parameter

ITEM NO	PART NO	DESCRIPTION	QTY	UNIT	ASSEMBLY QUANTITIES
INCOTERM CORPORATION					
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CHECKED	DATE	SIZE	DOCUMENT NUMBER	REV	
			D 010-56-01	D	
APPROVED	DATE				
DESIGNED BY		SCALE		SHT	7 OF 7



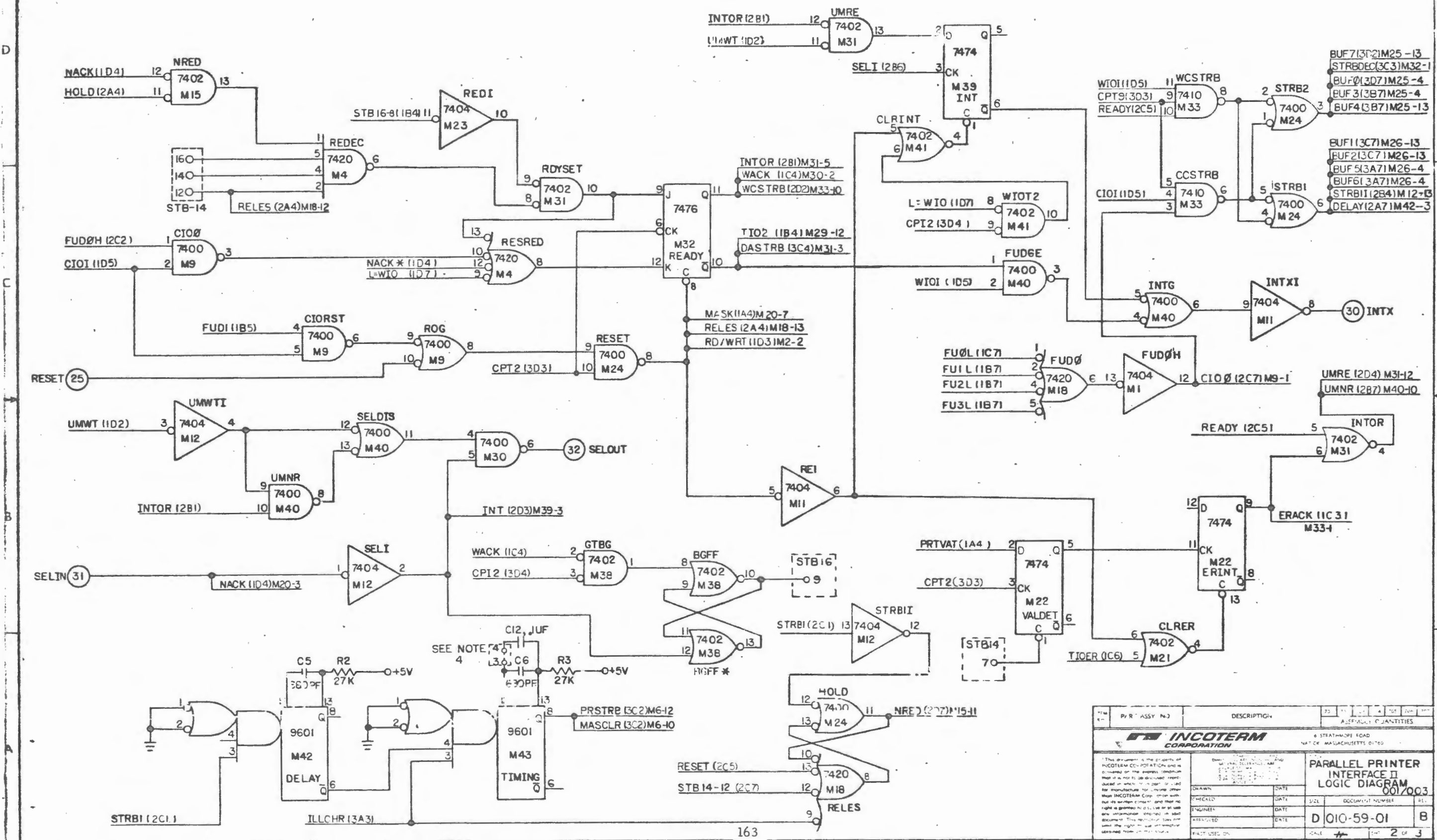
RELEASED		1-2-75
REV/ECO		5816

- NOTES:
- UNLESS OTHERWISE SPECIFIED:
 A. ALL RESISTORS VALUES ARE IN OHMS AND ARE 1/4W, ±5%.
 B. ALL CAPACITORS VALUES ARE IN MICRO FARADS.
 - THE FOLLOWING I/O PINS ARE PRE-ASSIGNED AND MUST BE USED FOR THE FUNCTIONS DESCRIBED ONLY:
 A. +5V PINS, 1, 2. E. I/O PINS 3-37.
 B. GND PINS, 85, 86.
 C. -13V PINS, 81, 82.
 D. +4V PINS, 75, 76.
 - 002-FOR 6BIT DATA PRINTERS ONLY (CDC & DATA PRINTER ETC)
 - 003 FOR FACIT PAPER TAPE PUNCH.

HIGHEST REF. DES. USED	DESCRIPTION	ASSEMBLY QUANTITIES
C13, M43, R4		
REF DES NOT USED		
M28, 37		

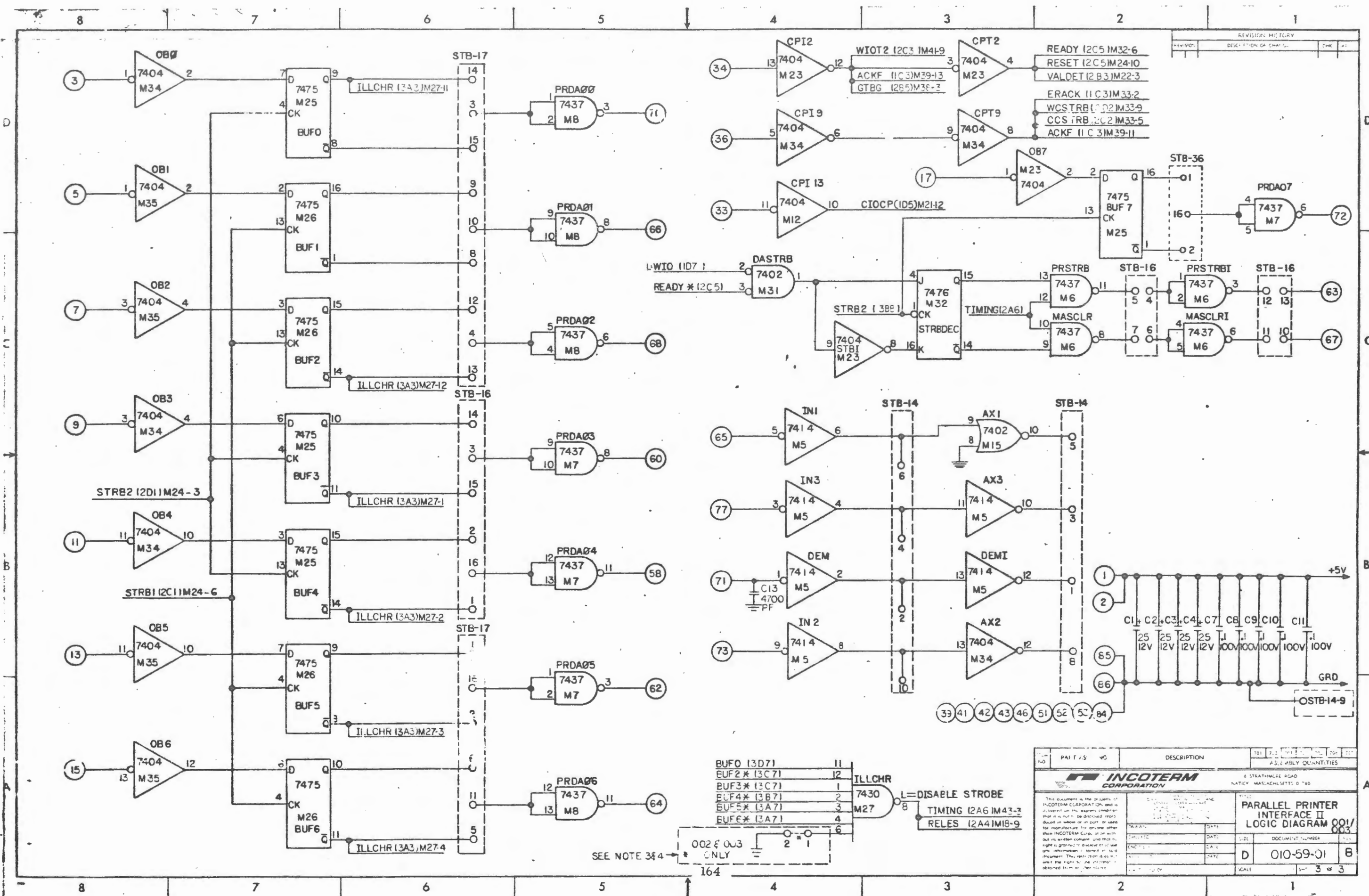
INCOTERM CORPORATION		PARALLEL PRINTER INTERFACE II LOGIC DIAGRAM	
W. A. LAWLESS		001/003	
1-2-75		DOCUMENT NO. 010-59-01	
SCALE 1:3		8	

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	DATE



REV	DATE	BY	CHK	APP	QTY

P/R ASSY NO		DESCRIPTION		ALTERNATE QUANTITIES	
6 STRATHMORE ROAD, NATICK, MASSACHUSETTS 01930					
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DRAWN	DATE	CHECKED	DATE	SIZE	DOCUMENT NUMBER
ENGINEER	DATE	APPROVED	DATE	SCALE	REV
FIRST USE ON			SCALE: 1/2" = 1"		
			2 OF 3		

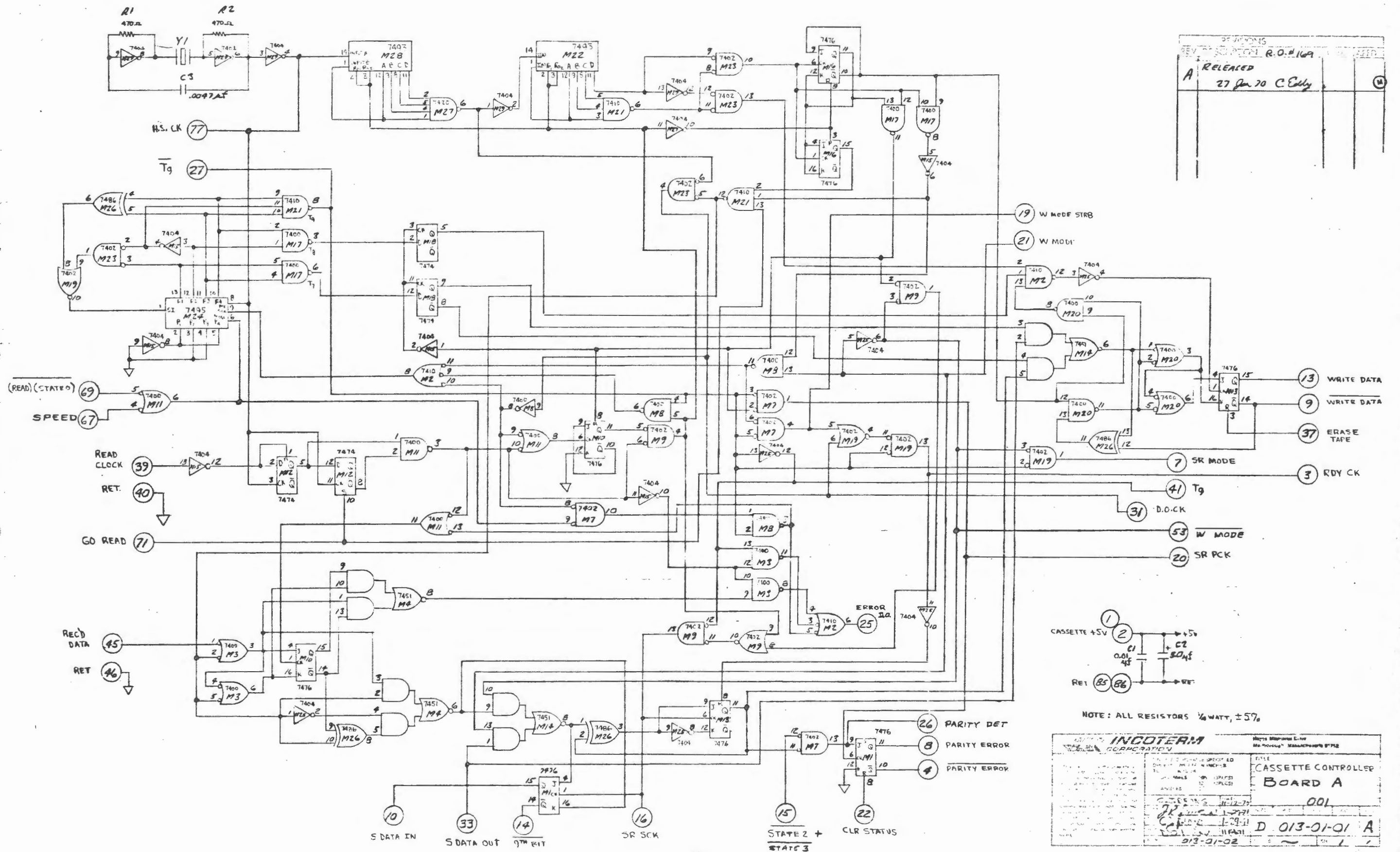


REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	DATE

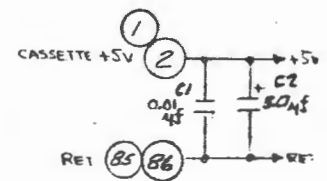
- BUFO (3D7) 11
 - BUF2 * (3C7) 12
 - BUF3 * (3C7) 1
 - BUF4 * (3B7) 2
 - BUF5 * (3A7) 3
 - BUF6 * (3A7) 4
- ILLCHR 7430 M27
- L=DISABLE STROBE
- TIMING (2A6)IM43-3
- RELES (2A4)IM8-9

SEE NOTE 344

NO.	PART #	QTY	DESCRIPTION	701	702	703	704	705
INCOTERM CORPORATION				8 STRATHMORE ROAD NATICK, MASSACHUSETTS 01908				
PARALLEL PRINTER INTERFACE II LOGIC DIAGRAM 001/003				DOCUMENT NUMBER D 010-59-01 B				
SCALE				3 of 3				



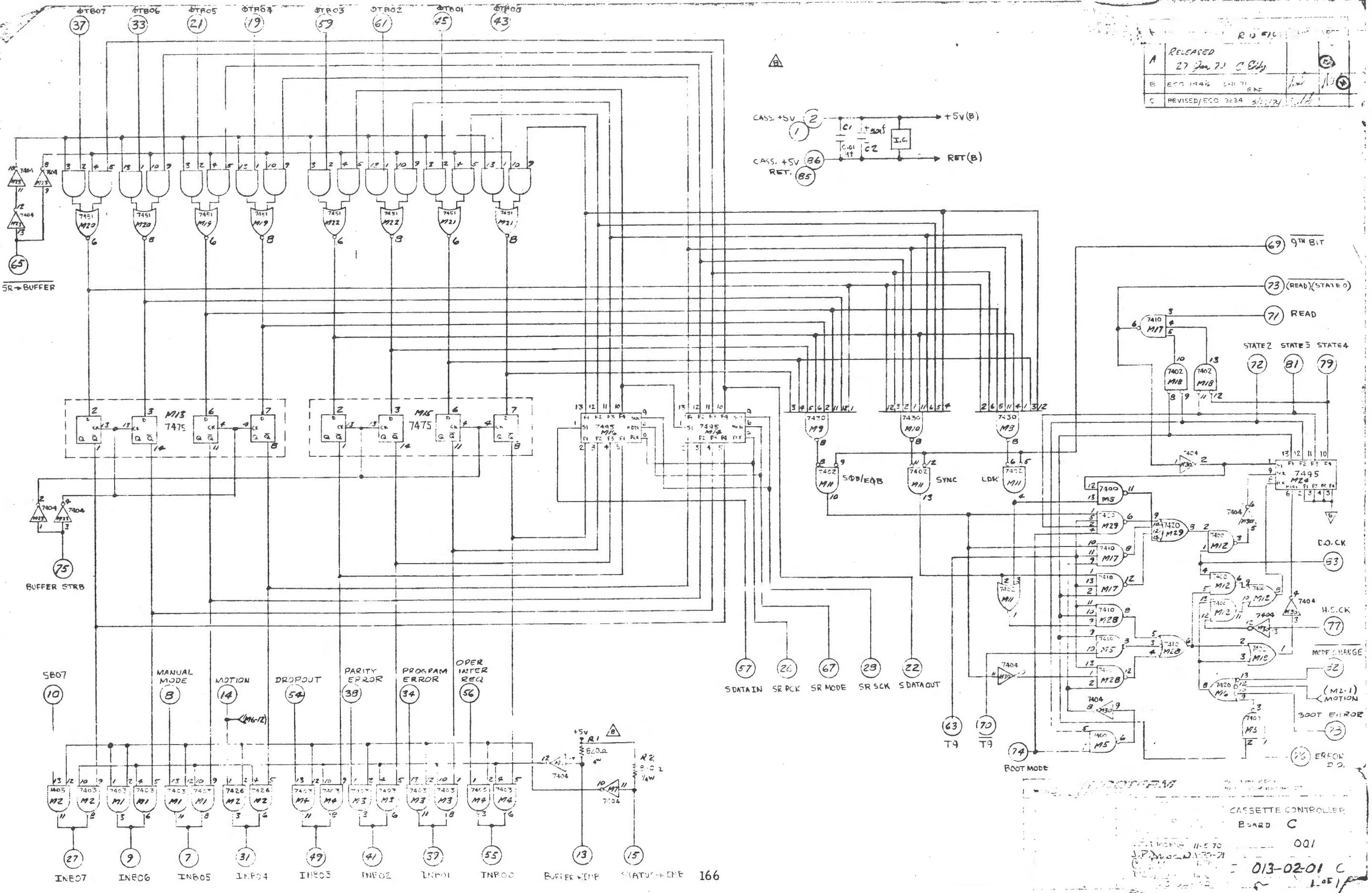
REV. 130 POINT R.O. #169
 A RELEASED
 27 Jan 70 C. Eddy



NOTE: ALL RESISTORS 1/4 WATT, ±5%

INCOTERM CORPORATION <small>INCOTERM CORPORATION, 1000 WEST 12TH AVENUE, DENVER, COLORADO 80202</small>		<small>DATE: 01-12-70</small> <small>FILE: CASSETTE CONTROLLER BOARD A</small> <small>001</small>
<small>DESIGNED BY: J. J. ...</small> <small>CHECKED BY: J. J. ...</small> <small>DATE: 1-29-70</small> <small>BY: J. J. ...</small>	<small>DATE: 013-01-02</small> <small>BY: J. J. ...</small>	<small>D 013-01-01 A</small>

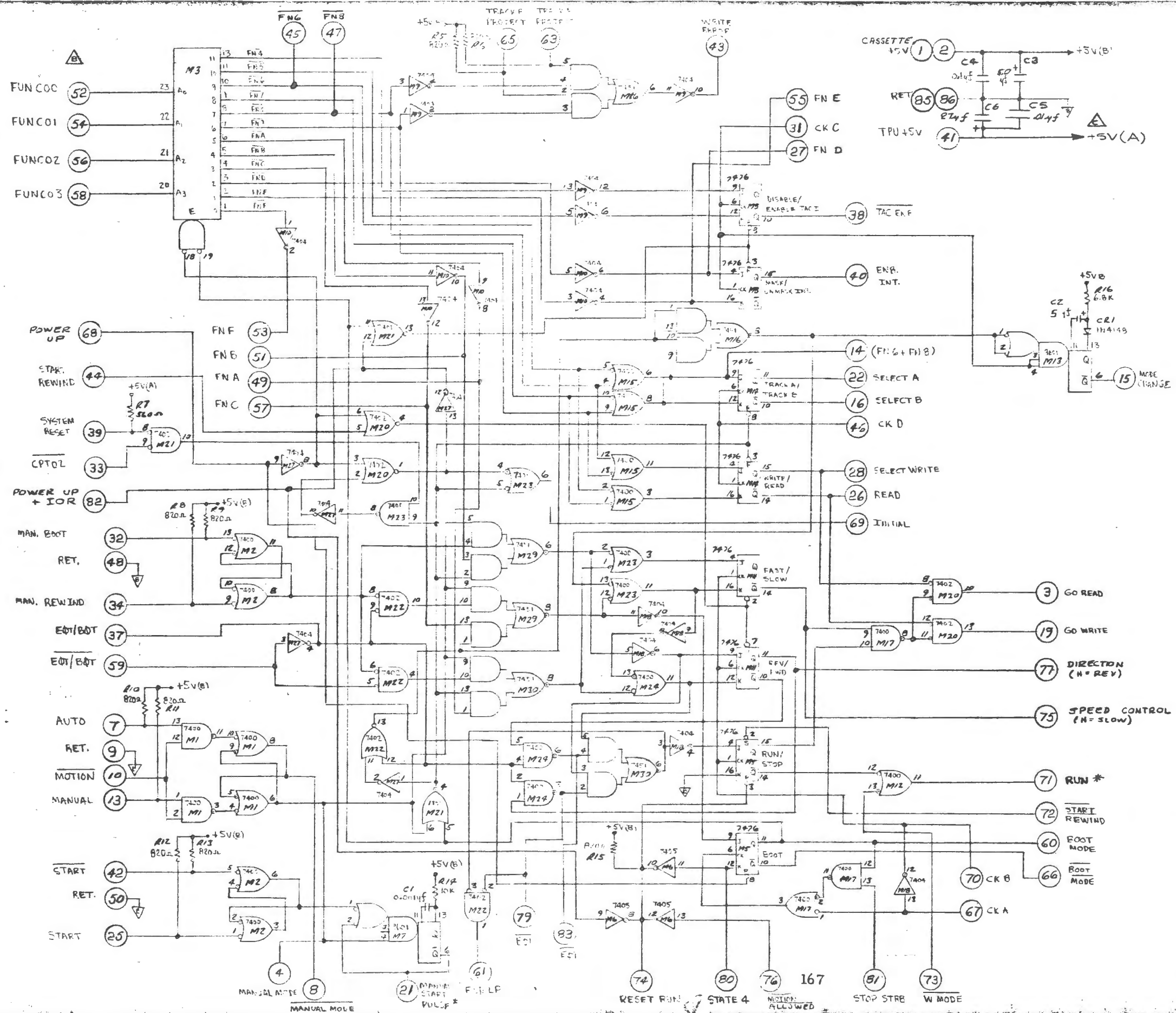
RELEASED		R 10 #10	
A	27 Jan 71	C	Chly
B	ECC 1446	L	71
C	REVISED/ECC 3634	S	5/1/71



CASSETTE CONTROLLER BOARD C

001

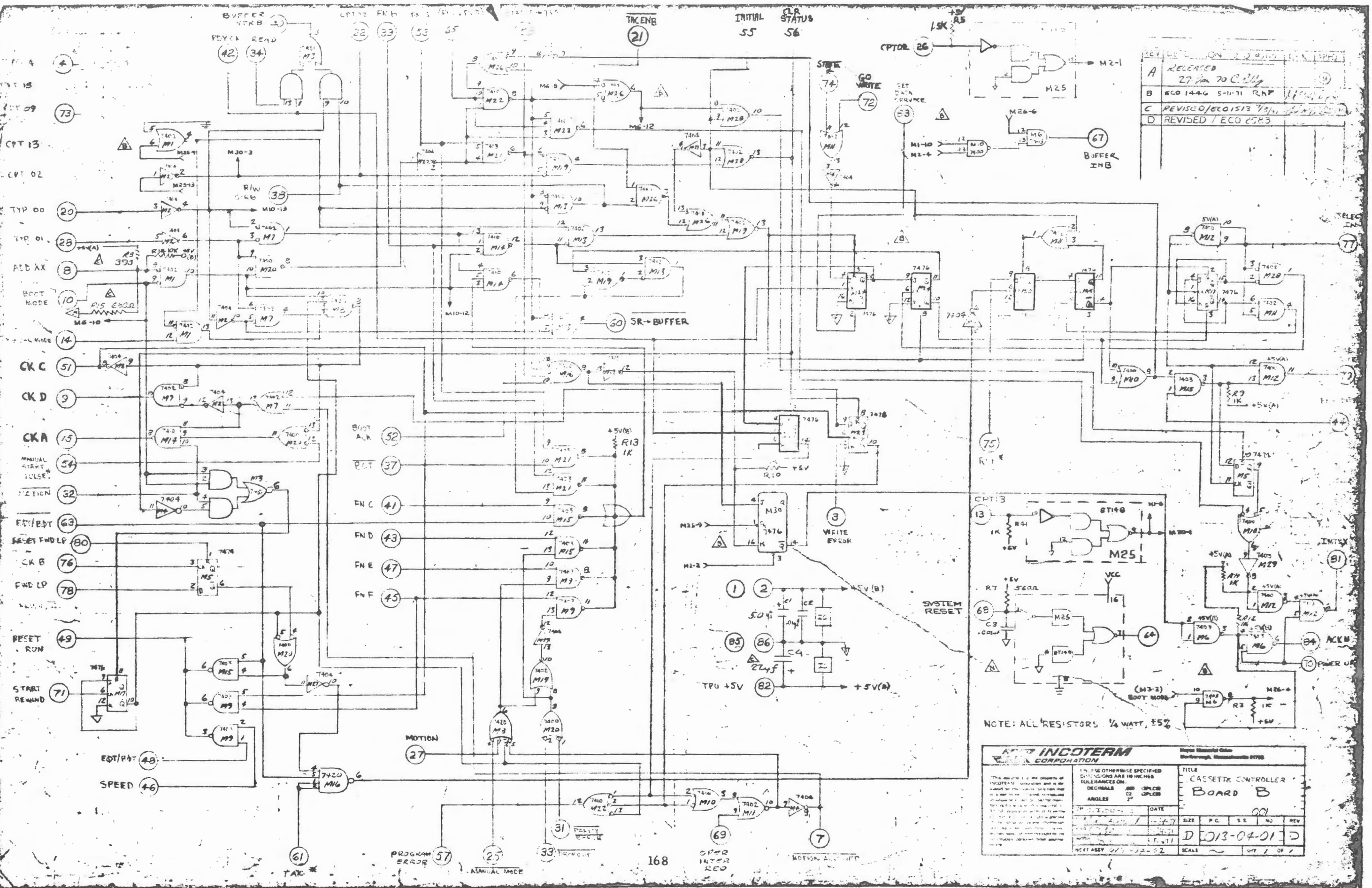
013-02-01 C



R.D. #169	
A	RELEASED 10 FEB 1971 C. Colby
B	ECO 1446 5-11-71 RAE
C	REVISED/ECC 1513 7/1/71

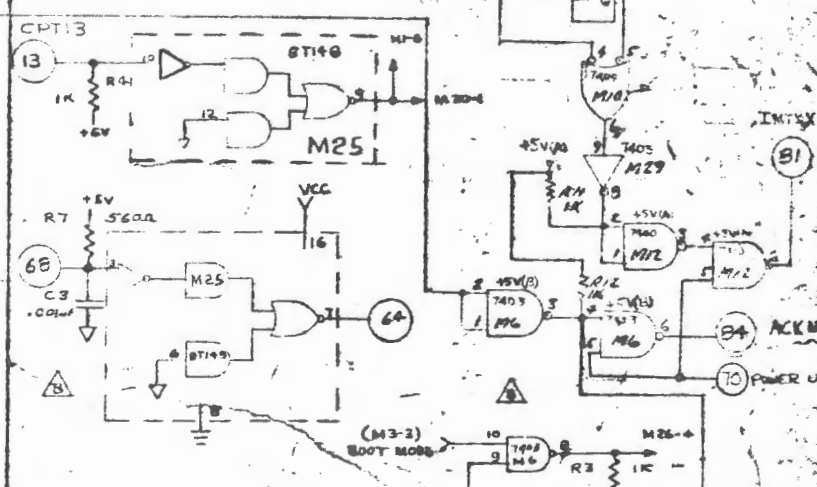
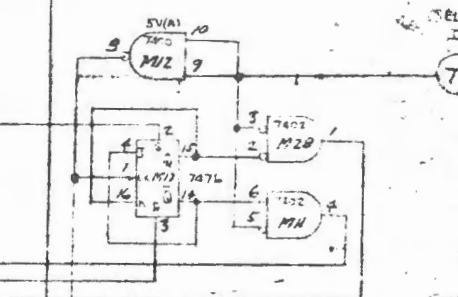
NOTE: ALL RESISTORS 1/4w, ±5%

INCOTERM CORPORATION 11000 Wilshire Blvd Culver City, California 90230	
TITLE CASSETTE CONTROLLER BOARD D	PART NO. 001
DATE 1-29-71	DRAWN BY JR DAWSON
CHECKED BY CO...	APPROVED BY ...
PROJECT NO. D 013-03-01 C	DATE 013-03-02



REV. 1.0 ON 2-2-70

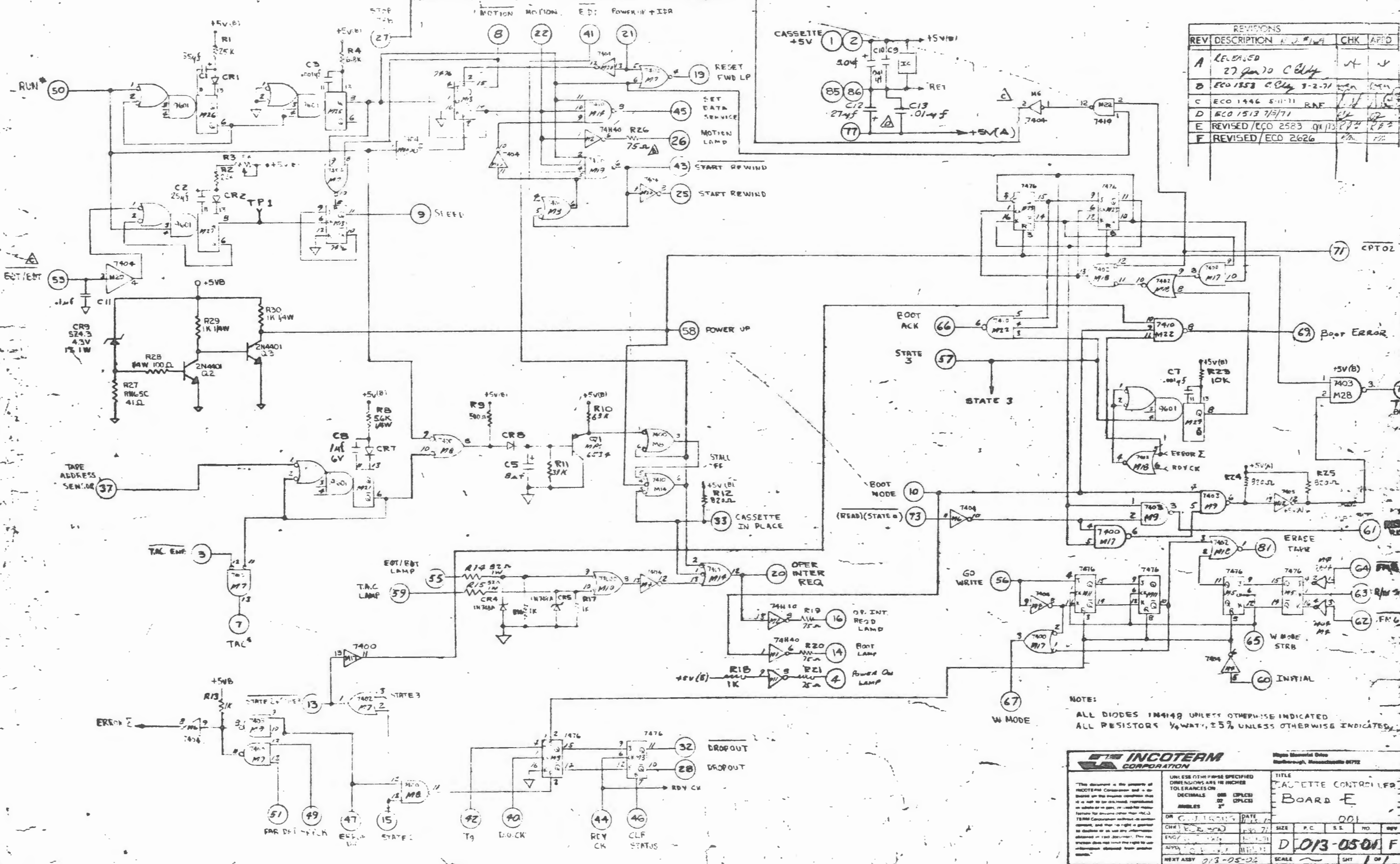
A	RELEASED
B	ECO 1446 5-11-71 RNF
C	REVISED / ECO 1513 7-2-71
D	REVISED / ECO 2593



NOTE: ALL RESISTORS 1/4 WATT, 5%

INCOTERM CORPORATION		MILITARY GRADE	
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ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED		DATE 1-1-77	
ANGLES ARE 90° UNLESS OTHERWISE SPECIFIED		SIZE P.C. 55 NO. REV	
NEXT ASSY 1-2-72		SCALE 1 OF 1	

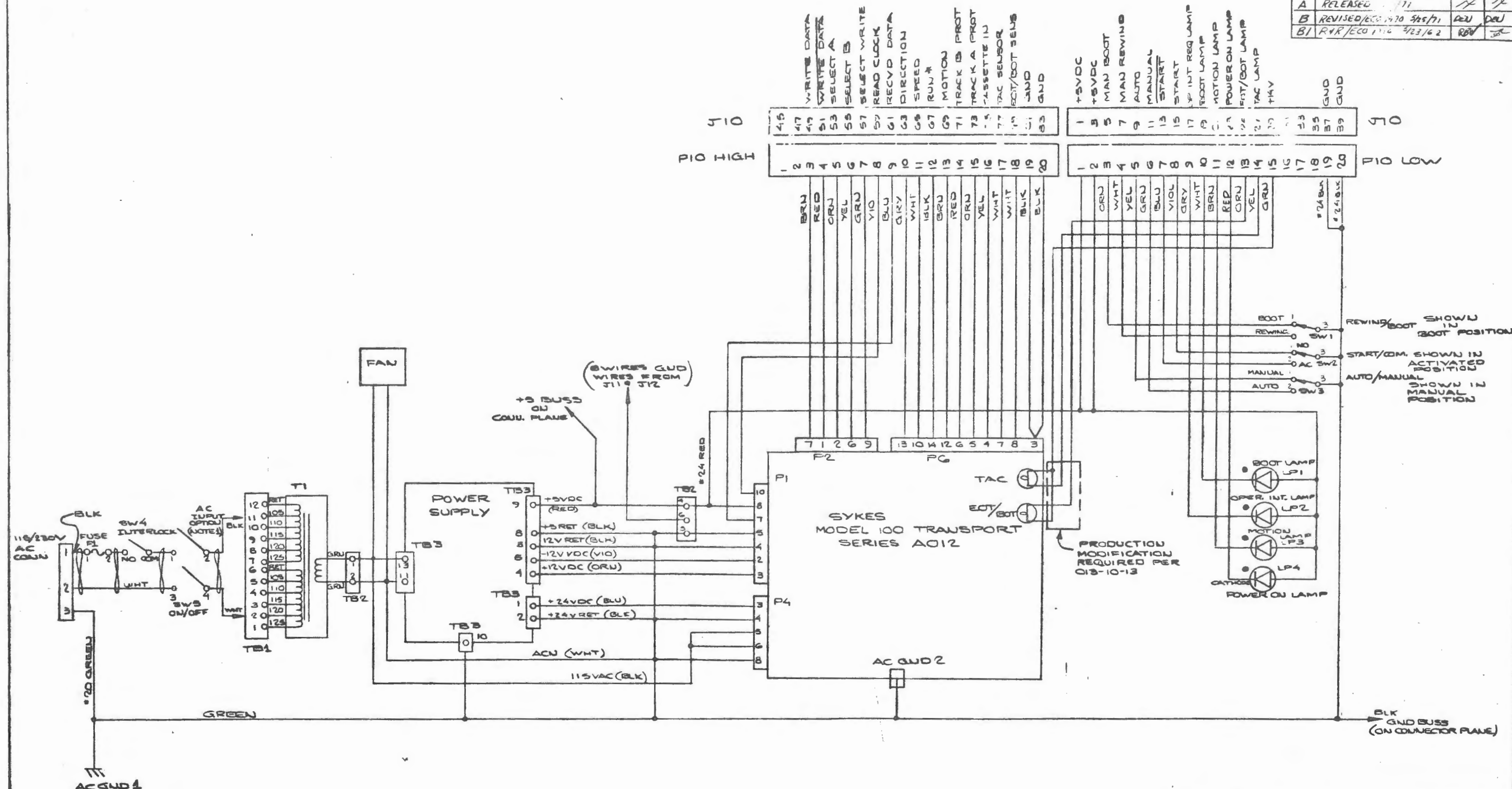
REVISIONS				
REV	DESCRIPTION	BY	CHK	APTD
A	RELEASED	27 Jun 70 C. Bly		
B	ECO 1553 C. Bly 3-2-71			
C	ECO 1446 S. H. H.	RNF		
D	ECO 1513 7/5/71			
E	REVISED/ECO 2583 QM 1/13/72	P. B. F.		
F	REVISED/ECO 2626			



NOTE:
 ALL DIODES 1N4148 UNLESS OTHERWISE INDICATED
 ALL RESISTORS 1/4 WATT, 5% UNLESS OTHERWISE INDICATED

INCOTERM CORPORATION		TITLE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS		CASSETTE CONTROLLER BOARD - E	
OR CONTROLLING DATE		D. 013-0501 F	
CHG	BY	SIZE	P.C. S.E. NO. REV.
ENG	DES	D. 013-0501 F	
APPV	CHK		
NEXT ASSY	DATE	SCALE	SHT 1 OF 1

REV	DESC	DATE	CHK	APPD
A	RELEASED	7/1		
B	REVISED/ECO 1110 4/85/71	4/85/71	DLU	DLU
B1	R1/R/ECO 1110 4/23/62	4/23/62	RDU	RDU



NOTES:
 1 AC INPUT IS WIRED TO TB1 PER TABLE 1
 DWD 013-10-01-701

INCOTERM
 CORP: 717 171V

Standard Detail
 Partograph, Manufacturing: 1982

DR: DAUGOU DATE: 2/8/71
 CHKD: NORQUIST 2/8/71
 ENGD: NORQUIST 2/8/71
 APPD: J. DICKINSON 2/1/71

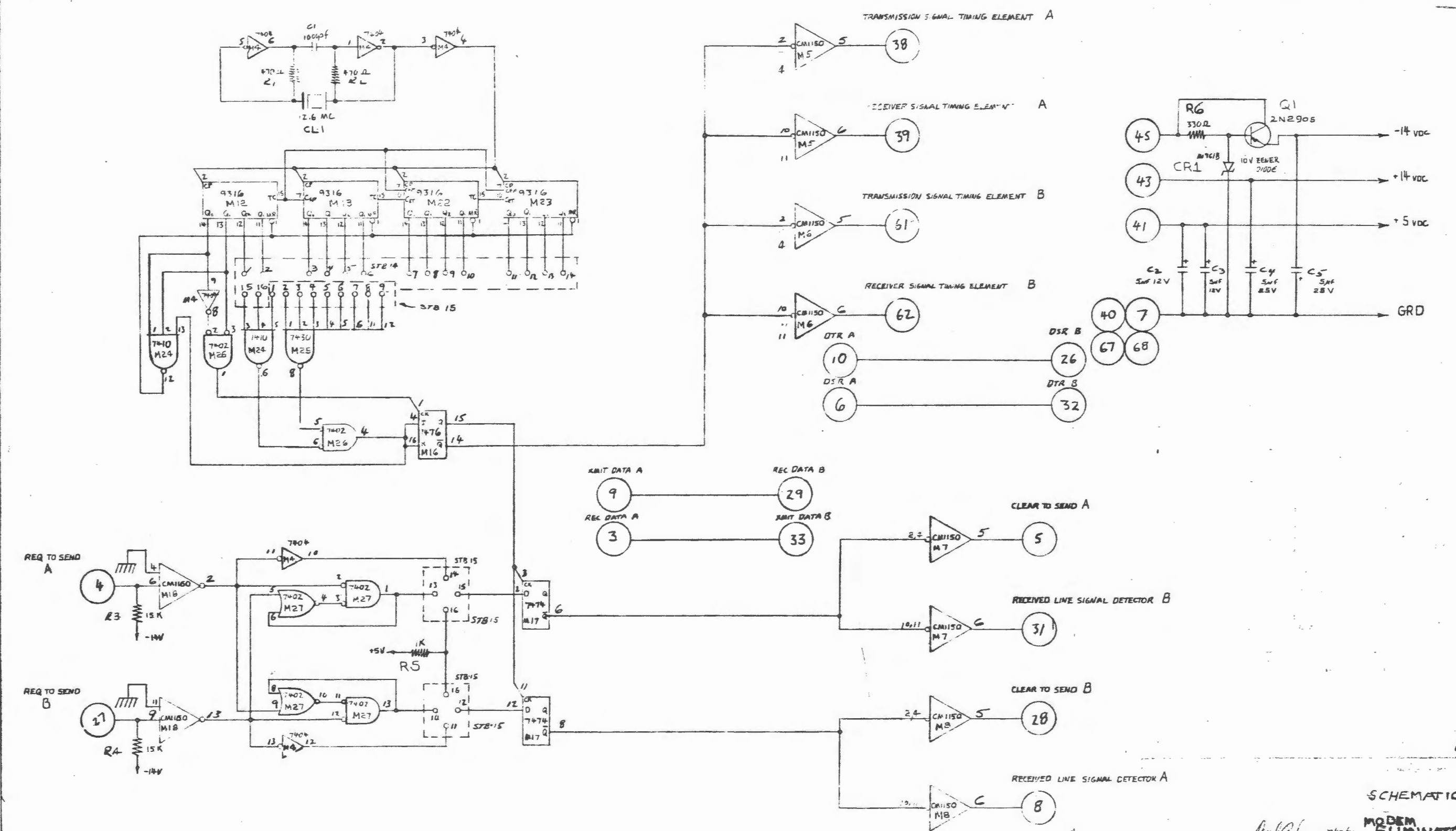
REVISIONS SPECIFIED
 DIMENSIONS ARE IN INCHES
 TOLERANCES ON DECIMALS .005 (FPLCS)
 ANGLES 2°

SCHEMATIC
 TAPE
 CASSETTE

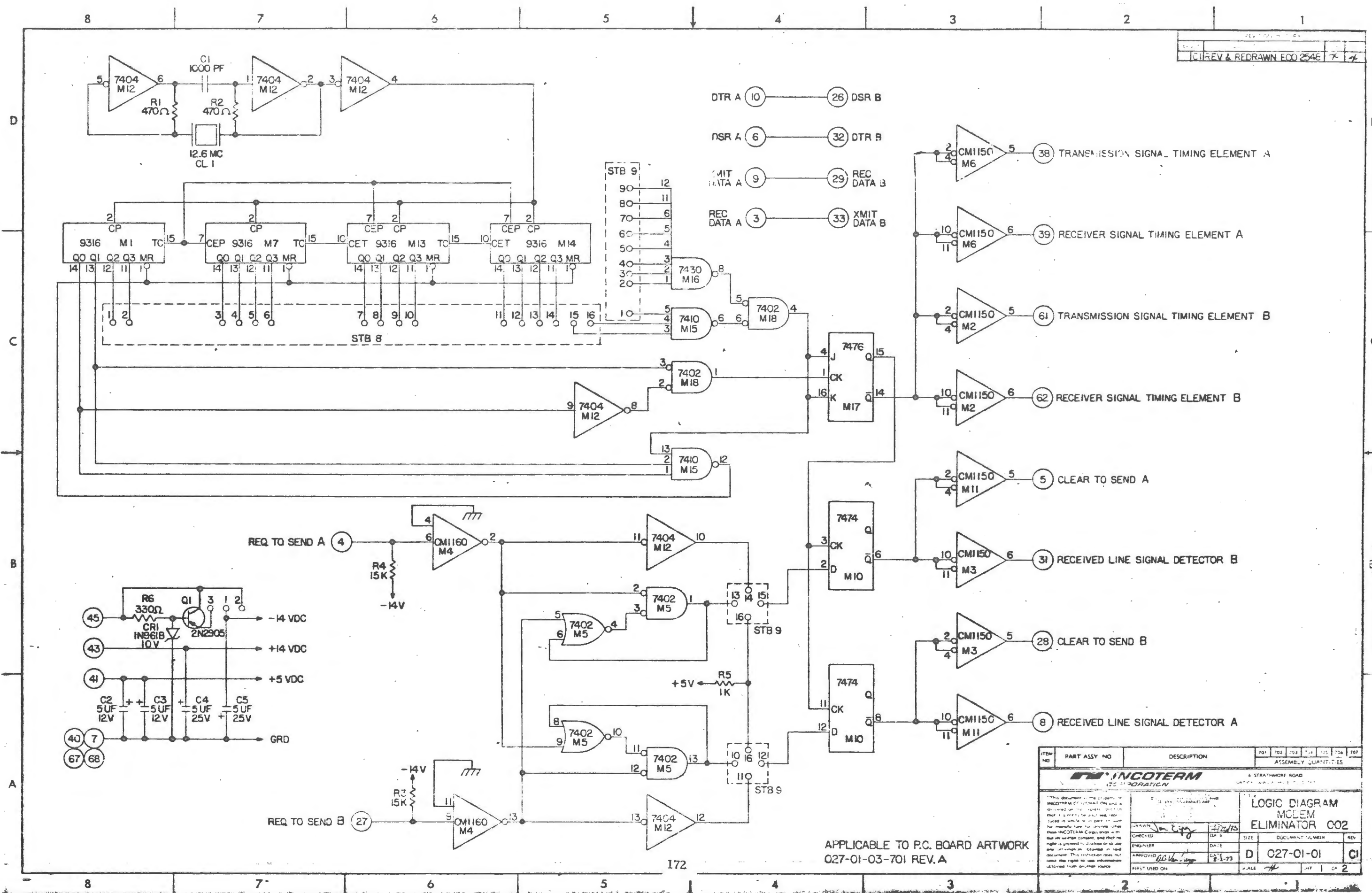
001

SIZE	PC	SS	NO	REV
D	013-10-29	B1		

SCALE: 2 SHY 1 OF 1

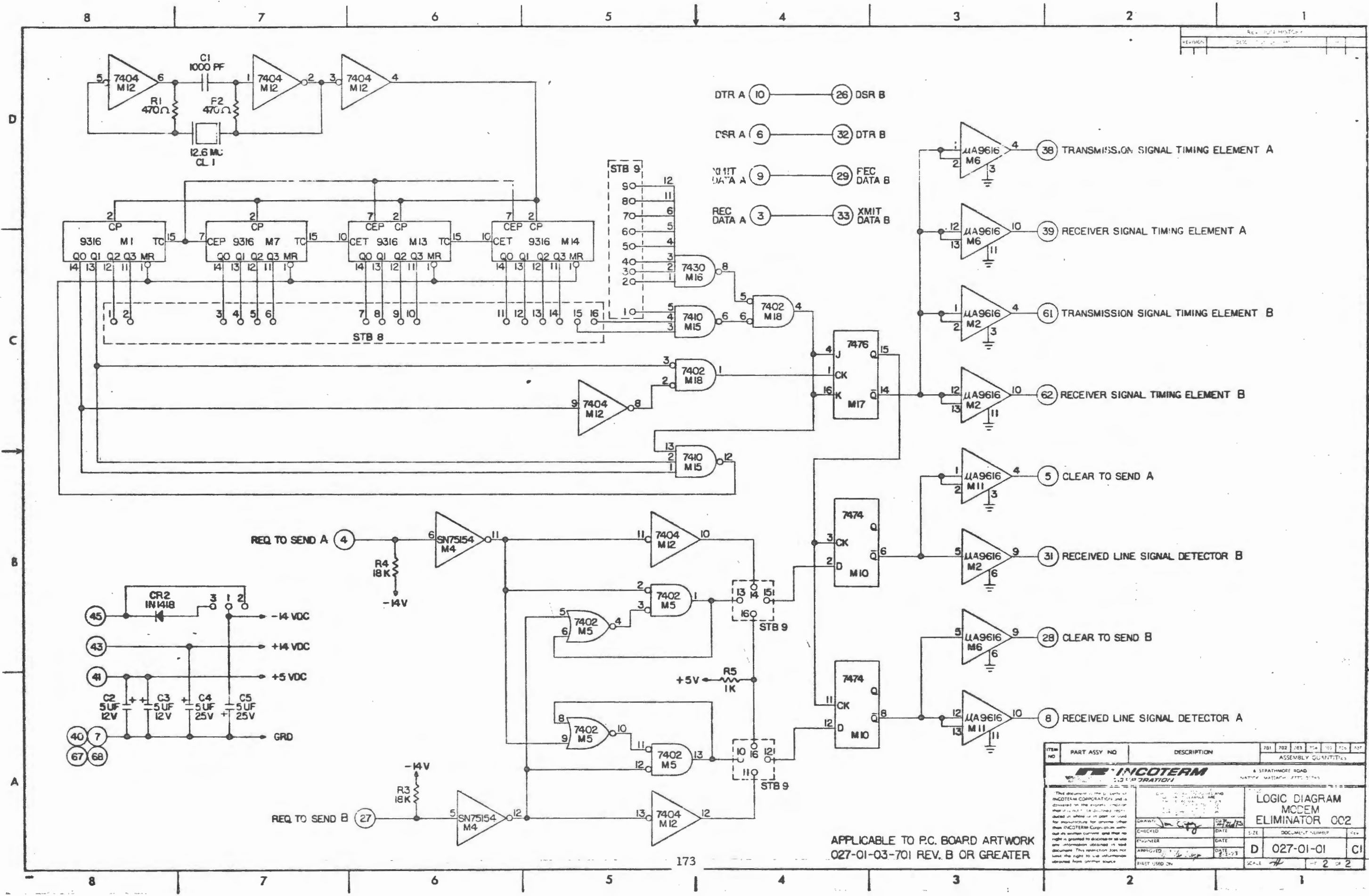


001
 SCHEMATIC
 MODEM
 ELIMINATOR
 7/19/71
 D. 027-01-01 A
 02-01-02



APPLICABLE TO P.C. BOARD ARTWORK
 027-01-03-701 REV. A

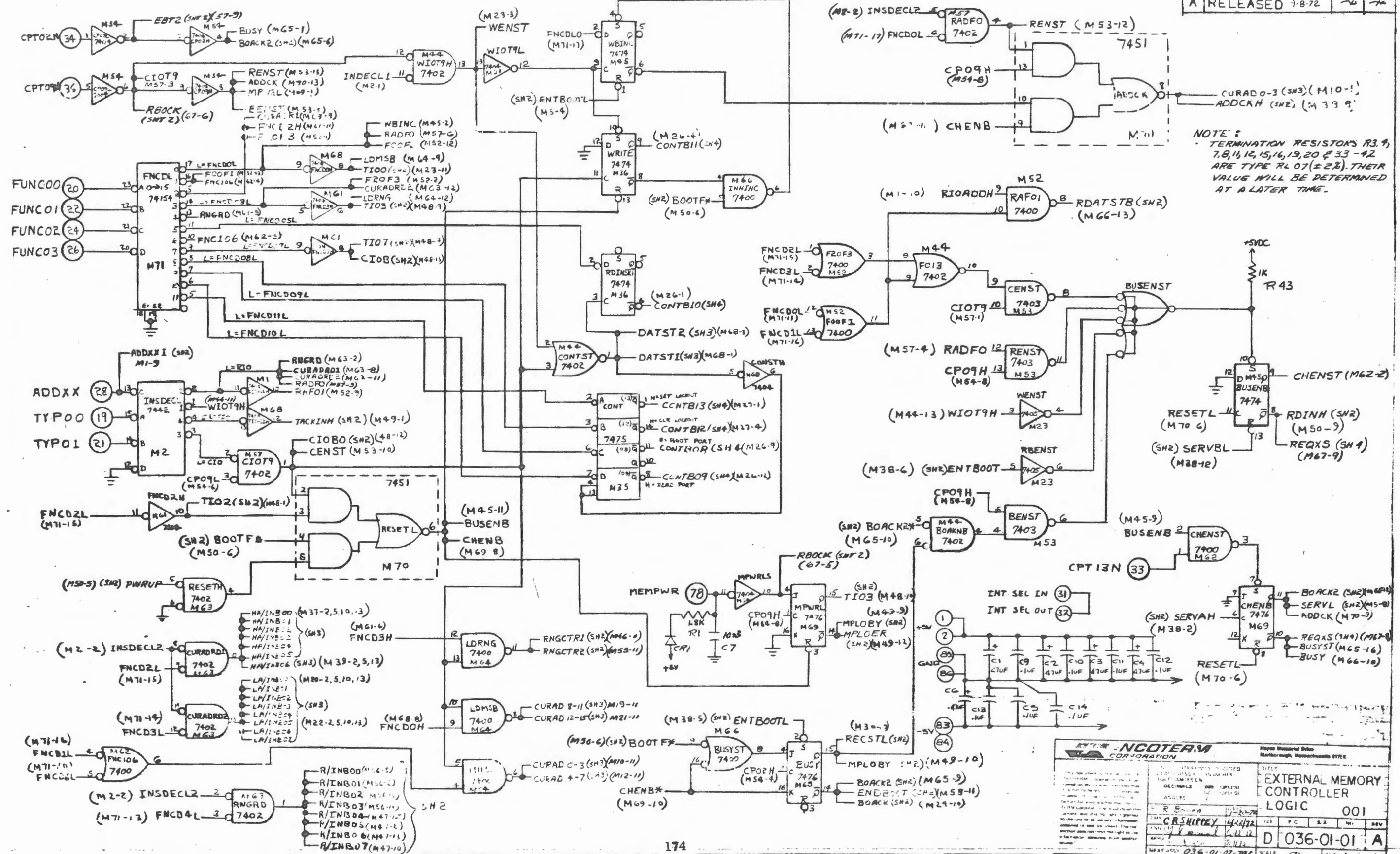
ITEM NO	PART ASSY NO	DESCRIPTION	701	702	703	704	705	706	707
			ASSEMBLY QUANTITIES						
INCOTERM CORPORATION 5 STRATHMORE ROAD									
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CHECKED	DATE	SIZE	DOCUMENT NUMBER						
ENGINEER	DATE	D		027-01-01		REV			
APPROVED	DATE	D		027-01-01		CI			
FIRST USED ON	DATE	D		027-01-01		REV			



APPLICABLE TO P.C. BOARD ARTWORK
027-01-03-701 REV. B OR GREATER

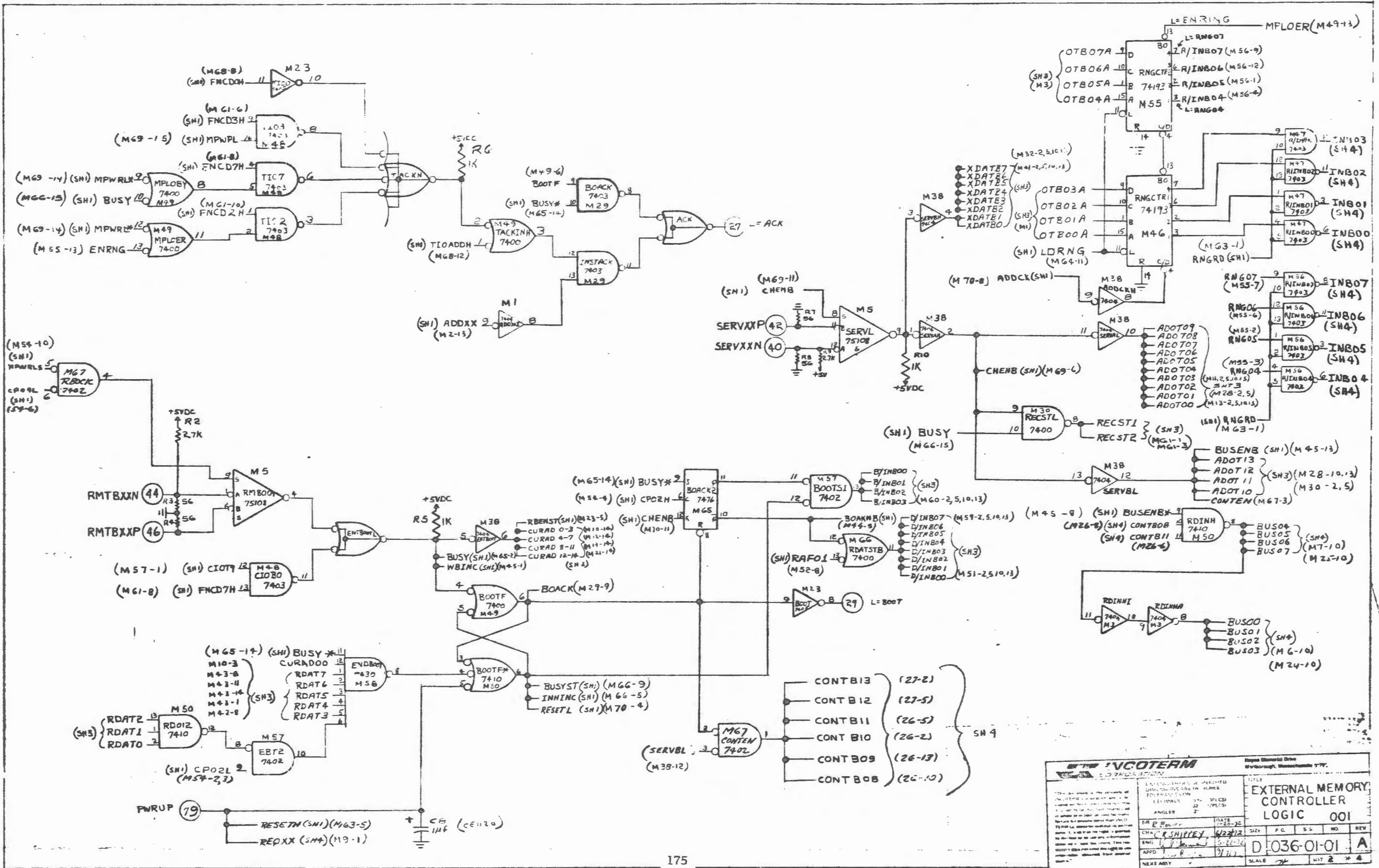
ITEM NO.	PART ASSY NO.	DESCRIPTION	701	702	703	704	705	706	707
INCOTERM CORPORATION 8 STRATHMORE ROAD NATICK, MASSACHUSETTS 01908									
DRAWN: <i>[Signature]</i>		DATE: 02/27/75	SCALE: <i>[Handwritten]</i>		DOCUMENT NUMBER: D 027-01-01		REV: C1		
CHECKED: <i>[Signature]</i>		DATE: 03-23	SCALE: <i>[Handwritten]</i>		DOCUMENT NUMBER: D 027-01-01		REV: C1		
APPROVED: <i>[Signature]</i>		DATE: 03-23	SCALE: <i>[Handwritten]</i>		DOCUMENT NUMBER: D 027-01-01		REV: C1		
FIRST USED ON: <i>[Blank]</i>		DATE: <i>[Blank]</i>	SCALE: <i>[Handwritten]</i>		DOCUMENT NUMBER: D 027-01-01		REV: C1		

REV	DESCRIPTION	P.O.	CHK	APPD
A	RELEASED	7-8-72		



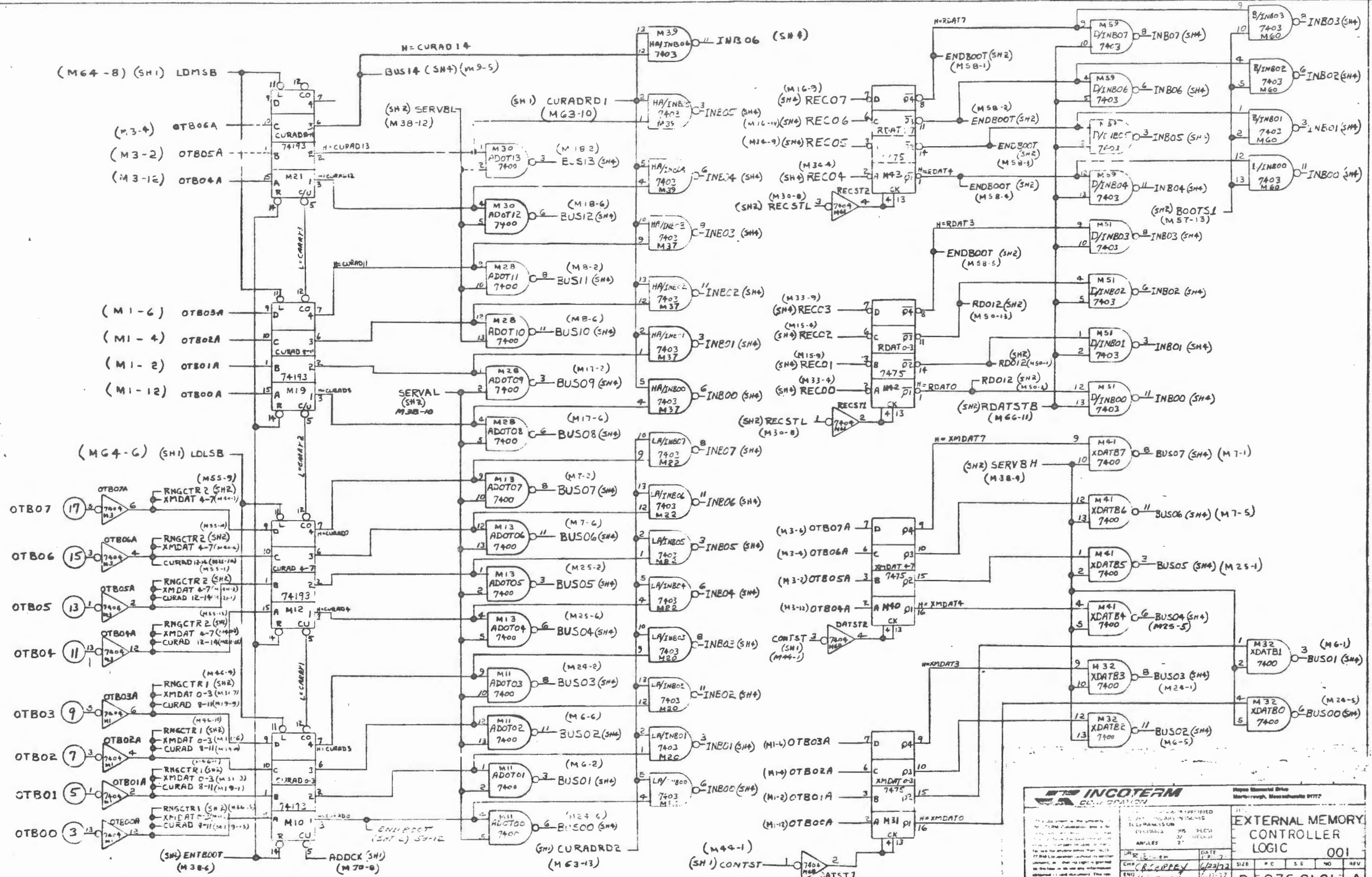
NOTE:
 TERMINATION RESISTORS R3, 4,
 7, 8, 11, 12, 15, 16, 19, 20 & 33-42
 ARE TYPE RL 07 (± 2%). THEIR
 VALUE WILL BE DETERMINED
 AT A LATER TIME.

MEMBERSHIP LISTED		TITLE
C.R. SHIPLEY	1/22/72	EXTERNAL MEMORY CONTROLLER LOGIC 001
D 036-01-01 A		

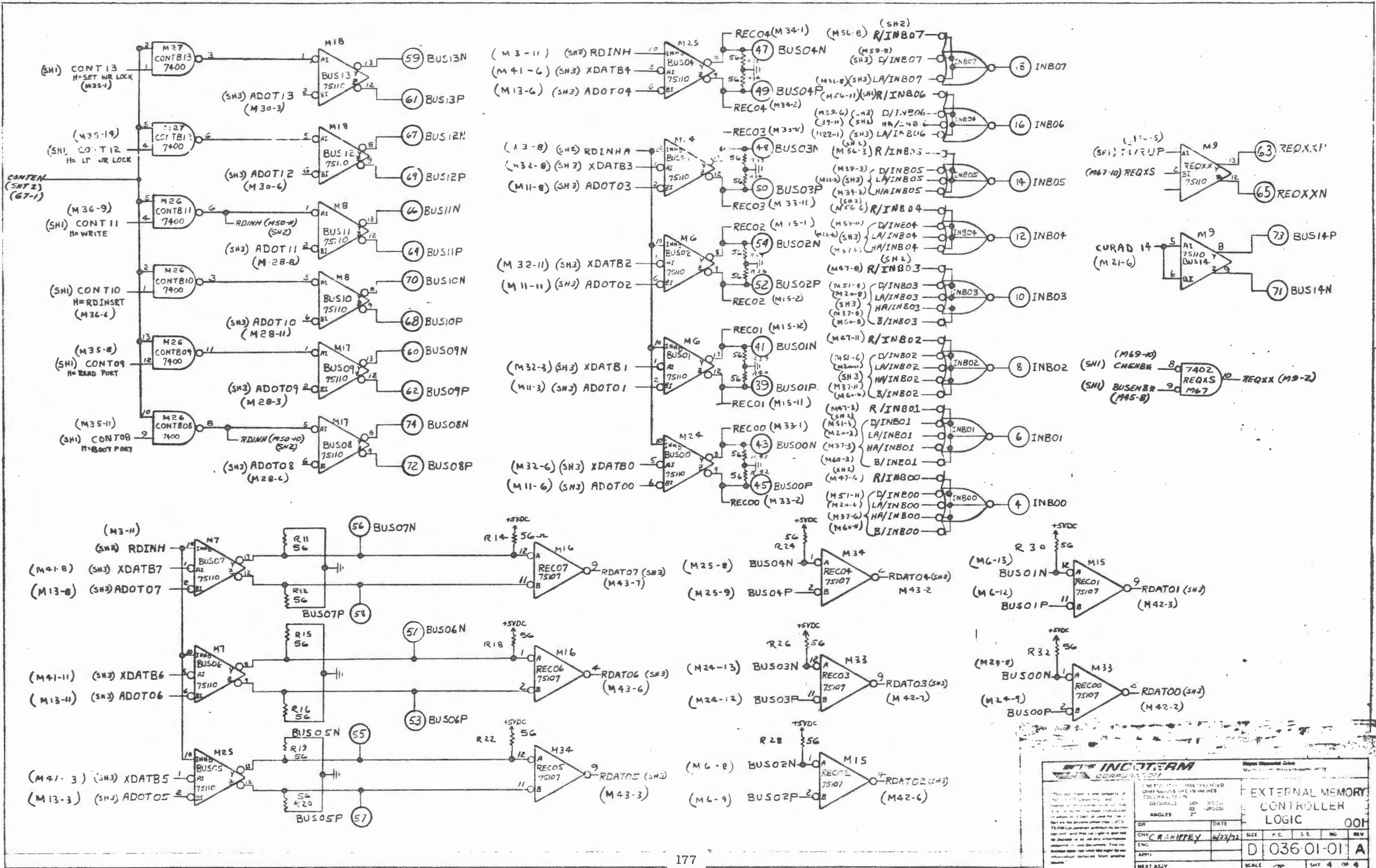


VCOTERM				Revision History			
DATE	BY	REASON	DATE	BY	REASON	DATE	BY
7-20-76	R. SHIPLEY	INITIAL DESIGN	7-20-76	R. SHIPLEY	REVISION	7-20-76	R. SHIPLEY
8-26-76	R. SHIPLEY	REVISION	9/2/76	R. SHIPLEY	REVISION	9/2/76	R. SHIPLEY

TITLE		EXTERNAL MEMORY CONTROLLER LOGIC 001			
DATE	7-20-76	SIZE	P.C.	B.S.	NO.
CHAR.	R. SHIPLEY	4/2/76			
ENG.	R. SHIPLEY	5-26-76			
APP'D		9/2/76			
NEXT ASSY		SCALE	SHEET 2 OF 4		



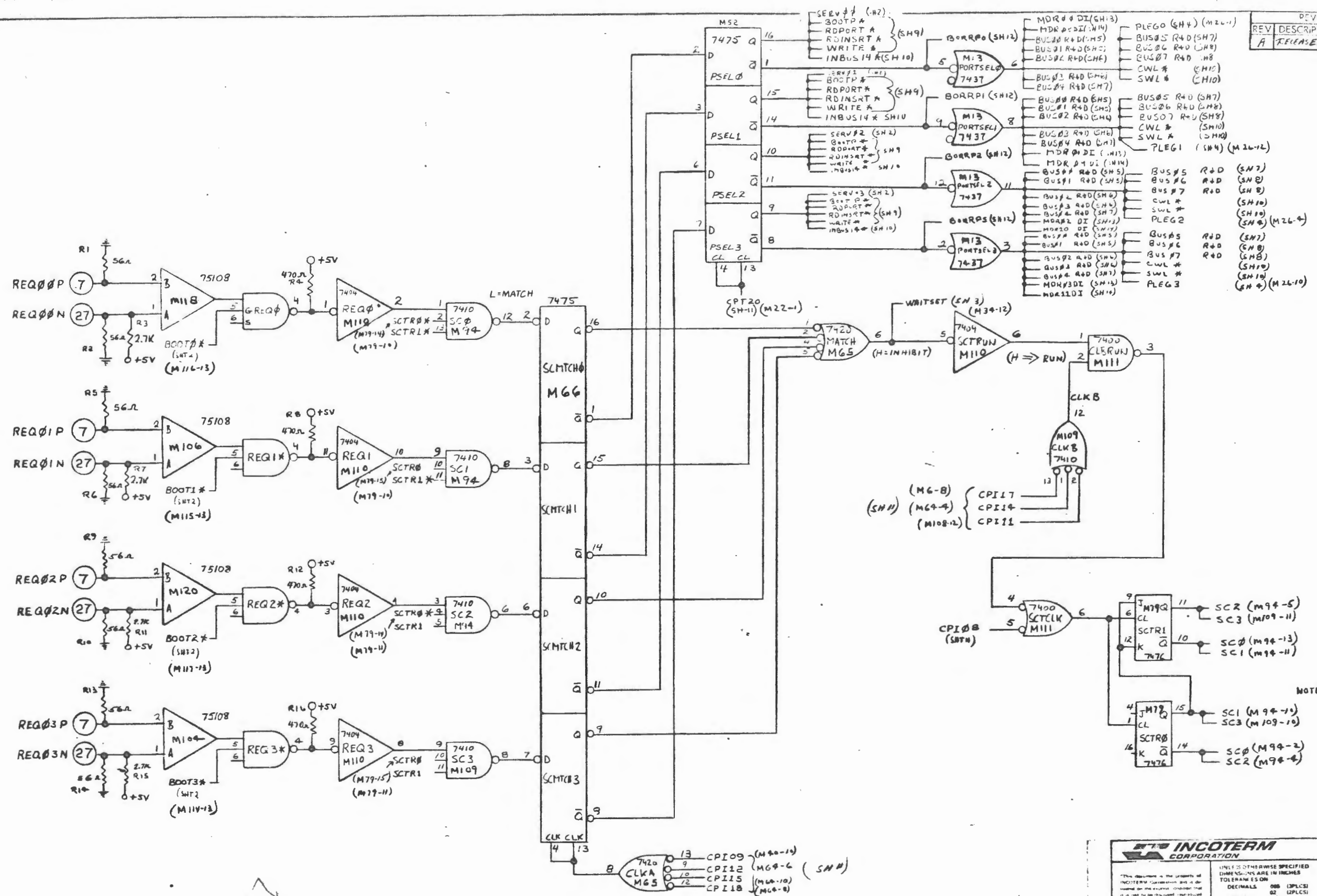
INCOTERM		EXTERNAL MEMORY CONTROLLER LOGIC	
REVISED SPECIFICATION		001	
DATE	12/77	SIZE	3.5
CHG	REPPY	NO	REV
ENT	12/77	D	036-01-01
APP		SCALE	3 OF 4



DATE		SCALE		SHEET	
CHK	C.R. SHIPLEY	DATE	4/23/72	SIZE	P.C.
ENG				S.S.	NO.
APP				REV	
NEXT ASSY				SCALE	
SCALE				SHEET 4 OF 4	

EXTERNAL MEMORY CONTROLLER LOGIC		00H
D 036-01-01		A

REVISIONS				
REV	DESCRIPTION	P.D.#	CHK	APPD
A	RELEASED	7-8-72	4	4



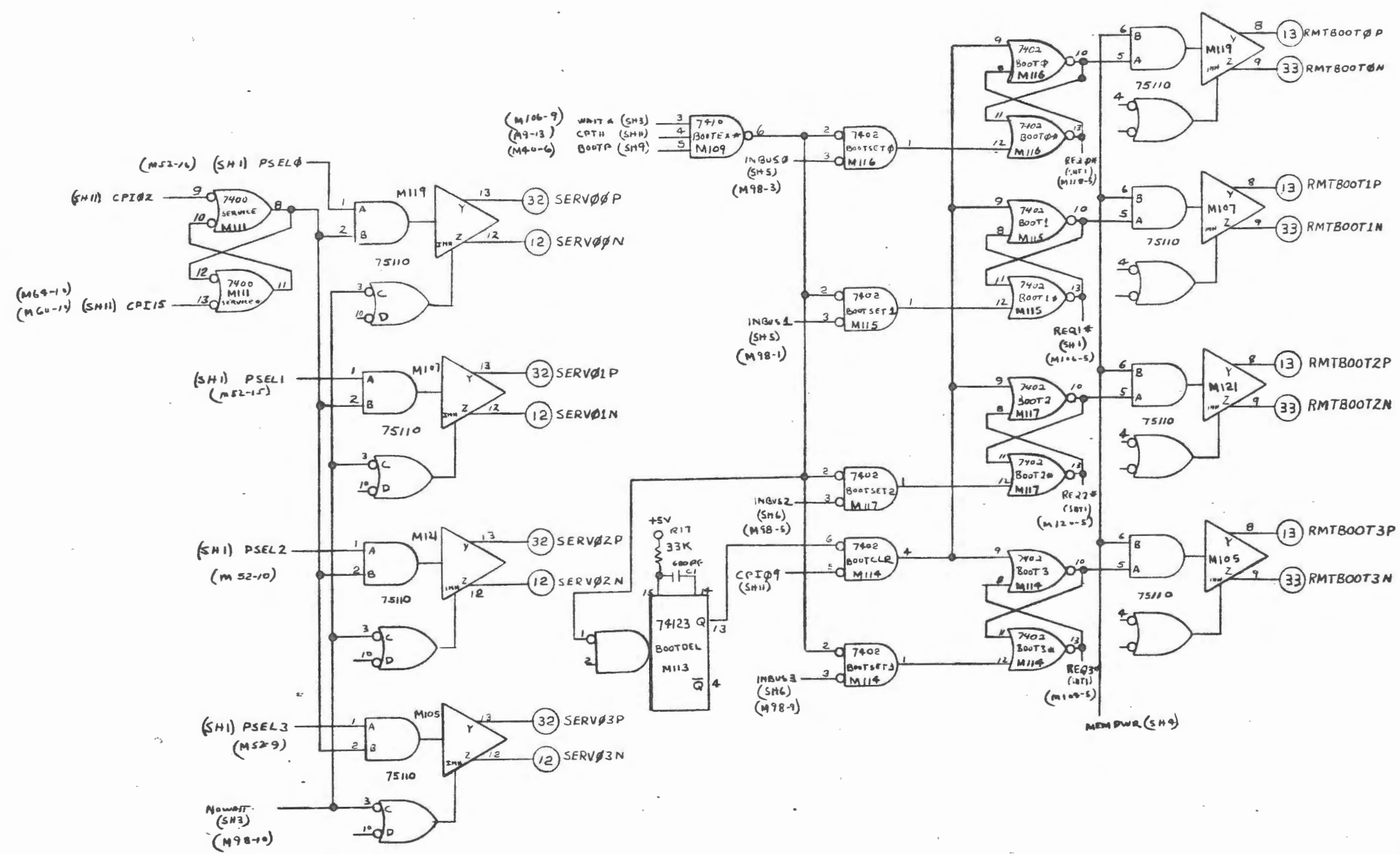
NOTE: ALL 56 Ω RES ARE THE RNS5D 5600F

INCOTERM CORPORATION
 HAYES MEMORIAL DRIVE
 MARLBOROUGH, MASSACHUSETTS 01752

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
 DECIMALS .001 (2PLCS)
 ANGLES 2°

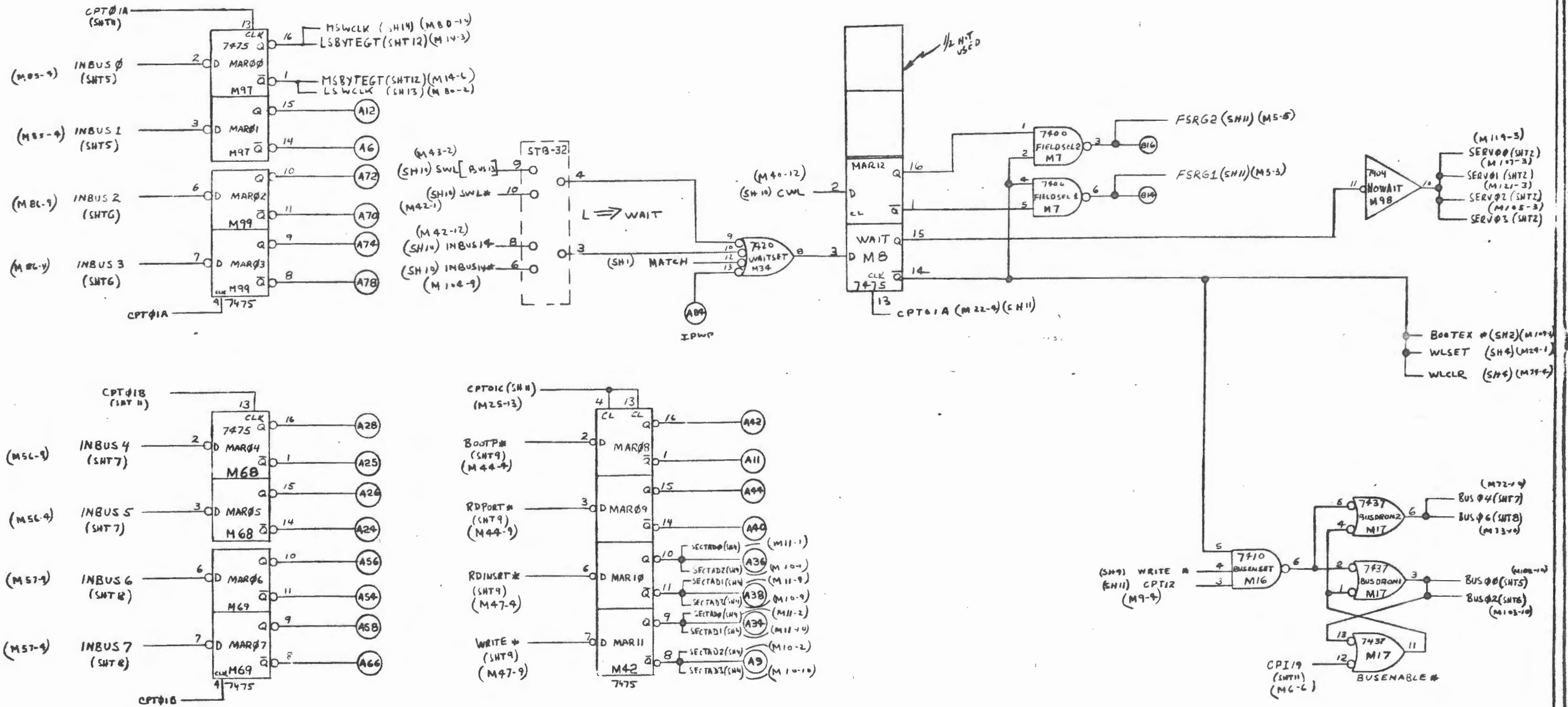
TITLE: **MLU: PORT SELECTION LOGIC**
 DRAWN: *[Signature]* DATE: *[Date]*
 CHECKED: *[Signature]* DATE: *[Date]*
 ENG: *[Signature]* DATE: *[Date]*
 APPD: *[Signature]* DATE: *[Date]*

SCALE: *[Scale]* SHEET: 1 OF 4

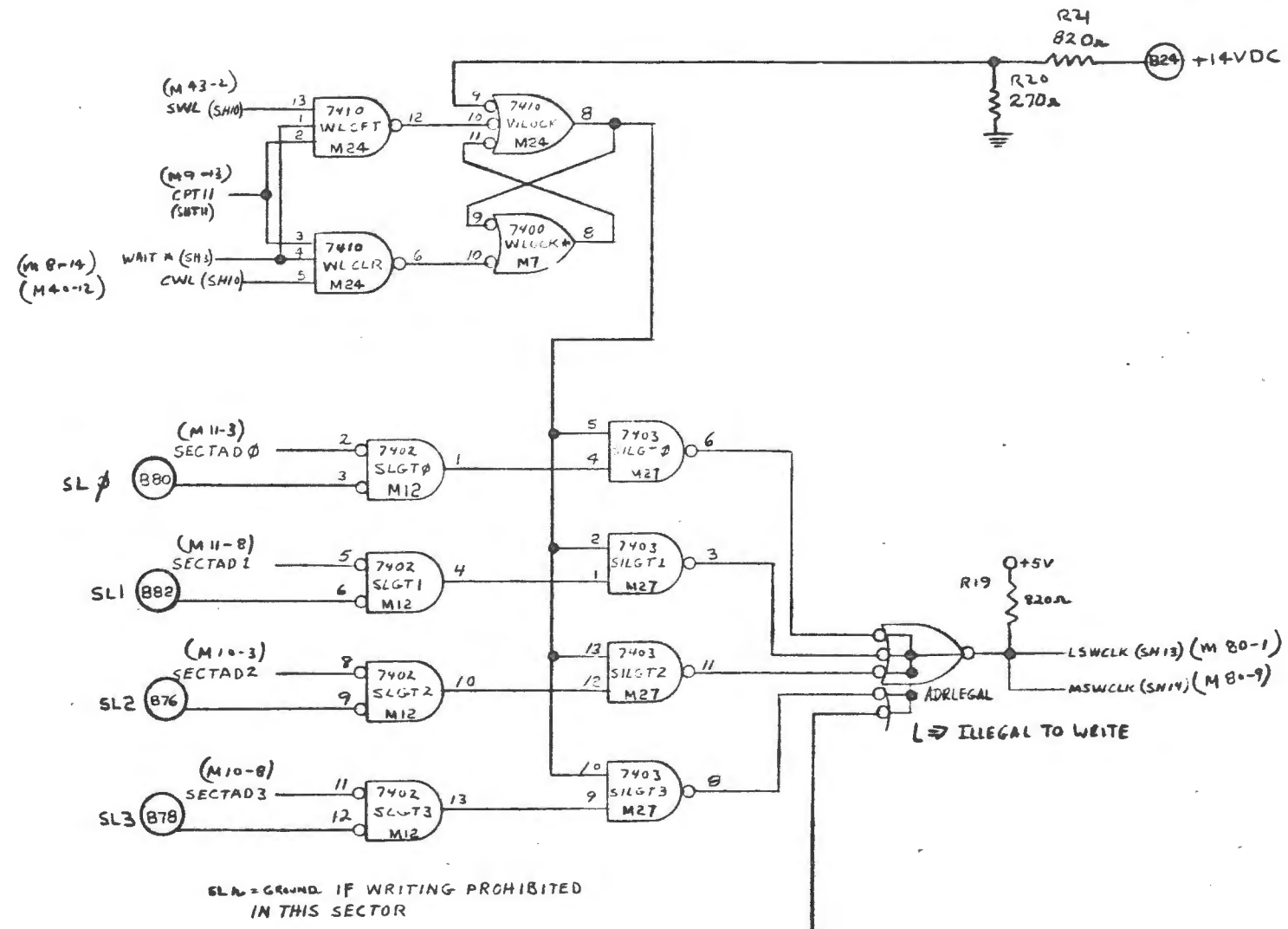


NOTE: 75110 DLD - INH 0, PIN10, IS COMMON INPUT TO BOTH DRIVERS.

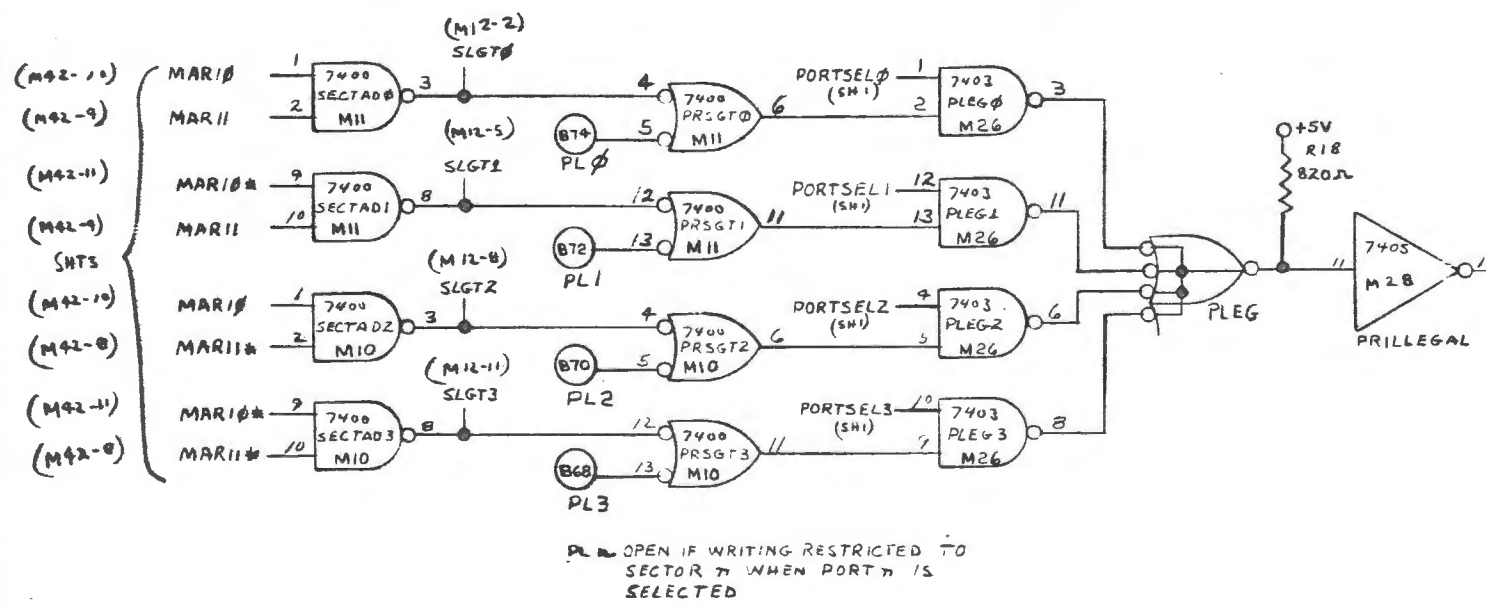
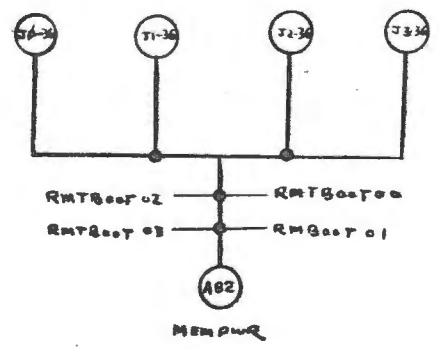
		TITLE MLU: SERVICE AND BOOT LOGIC	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS .005 (3PLCS) .01 (2PLCS) ANGLES .2°		OR BY Read DATE 7-21-72	SIZE P.C. S.S. NO. REV D 036-02-01 A
CWR ENG APPD NEXT ASSY	SCALE SHEET 2 OF 14		



		Hayes Memorial Drive Marlborough, Massachusetts 01758	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS ARE TO .001 ANGLES ARE TO 1°		TITLE MLU: MEMORY ADDRESS REGISTER	
DR <i>P. Park</i> CHK ENG APPD NEXT AMY	DATE 7-12-72	SIZE P.C. S.S. NO. REV D-036-02-01-A	SCALE SHT 3 OF 14

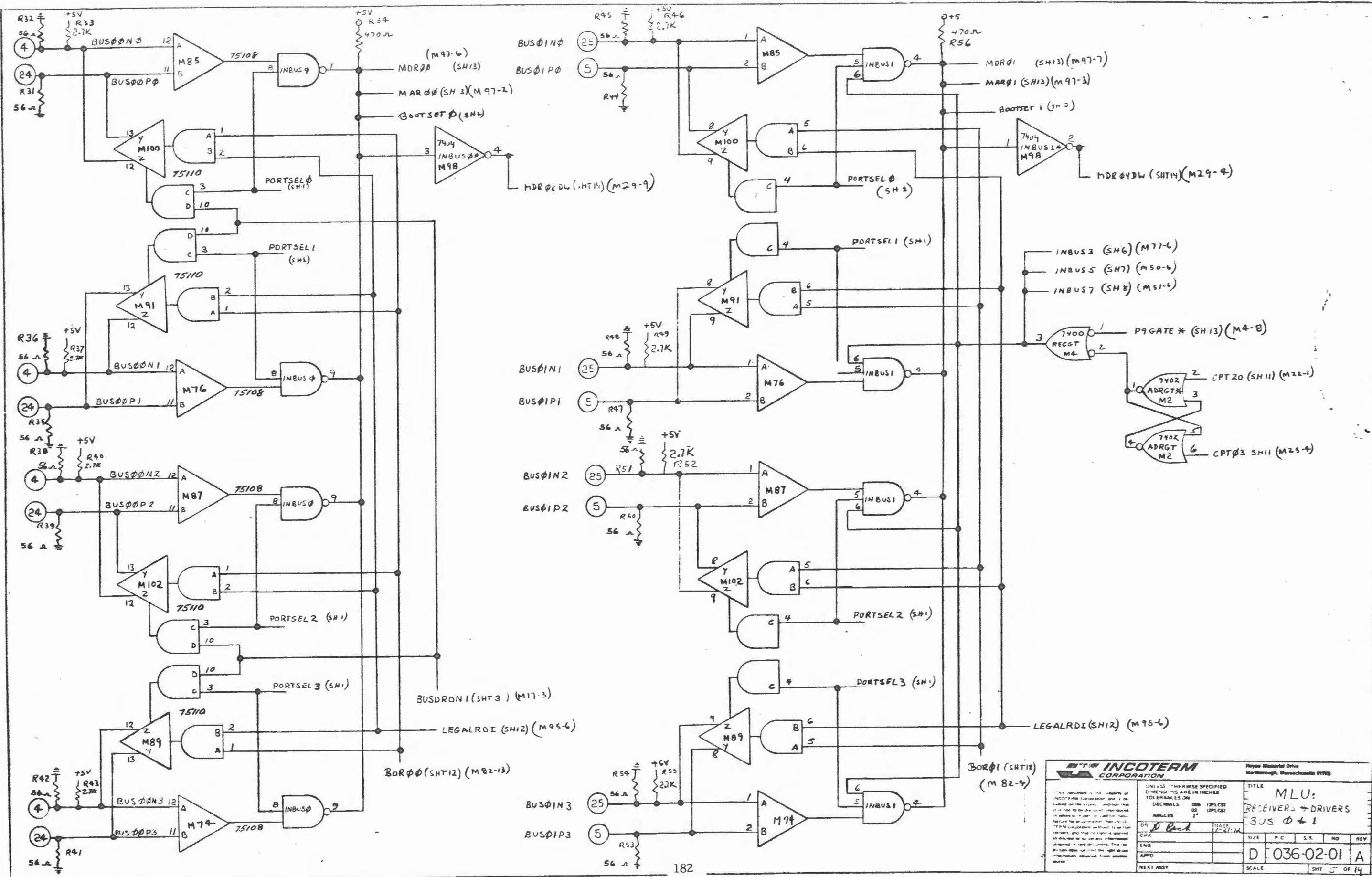


SL_n = GROUND IF WRITING PROHIBITED IN THIS SECTOR

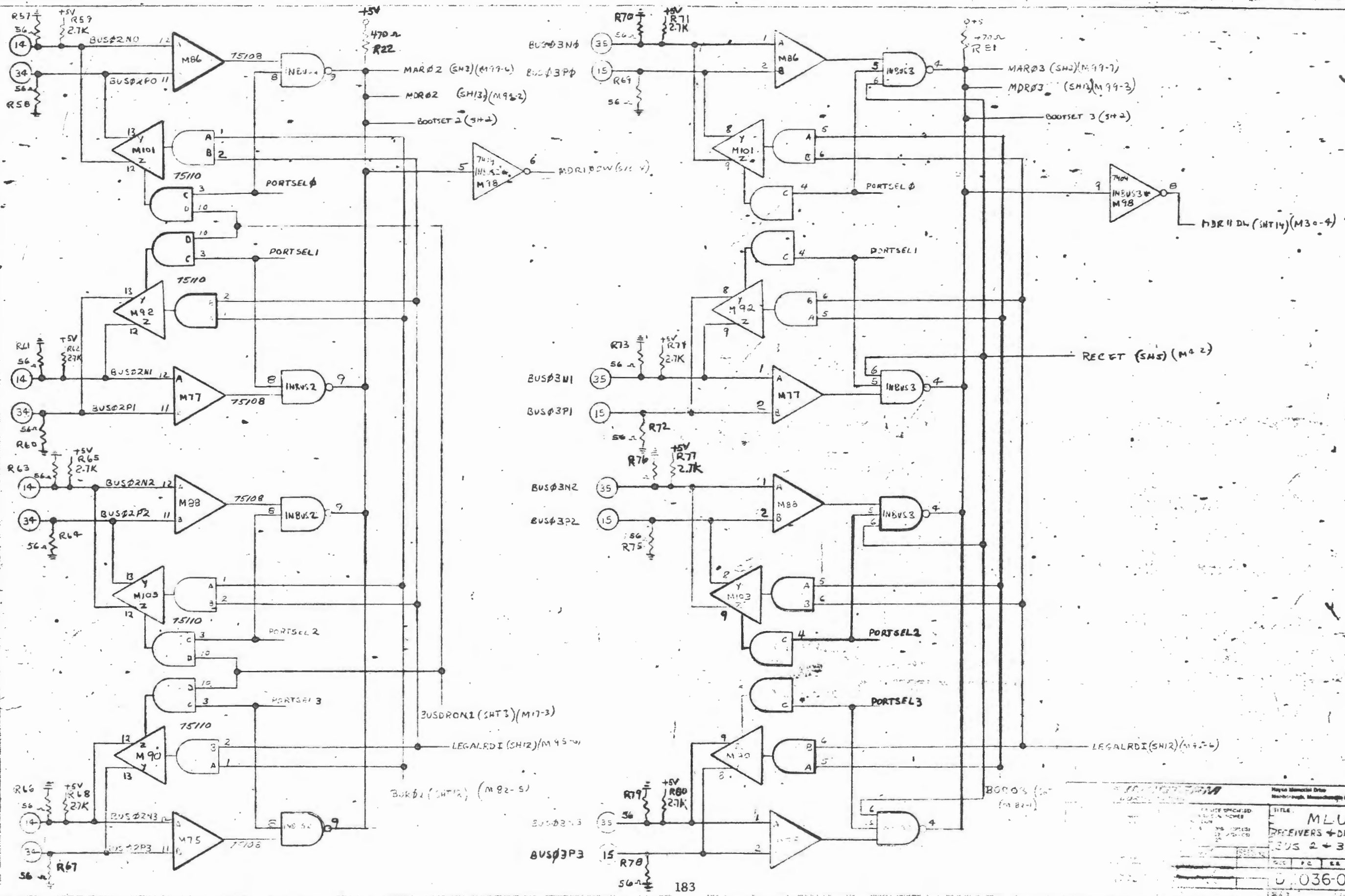


PL_n OPEN IF WRITING RESTRICTED TO SECTOR *n* WHEN PORT *n* IS SELECTED

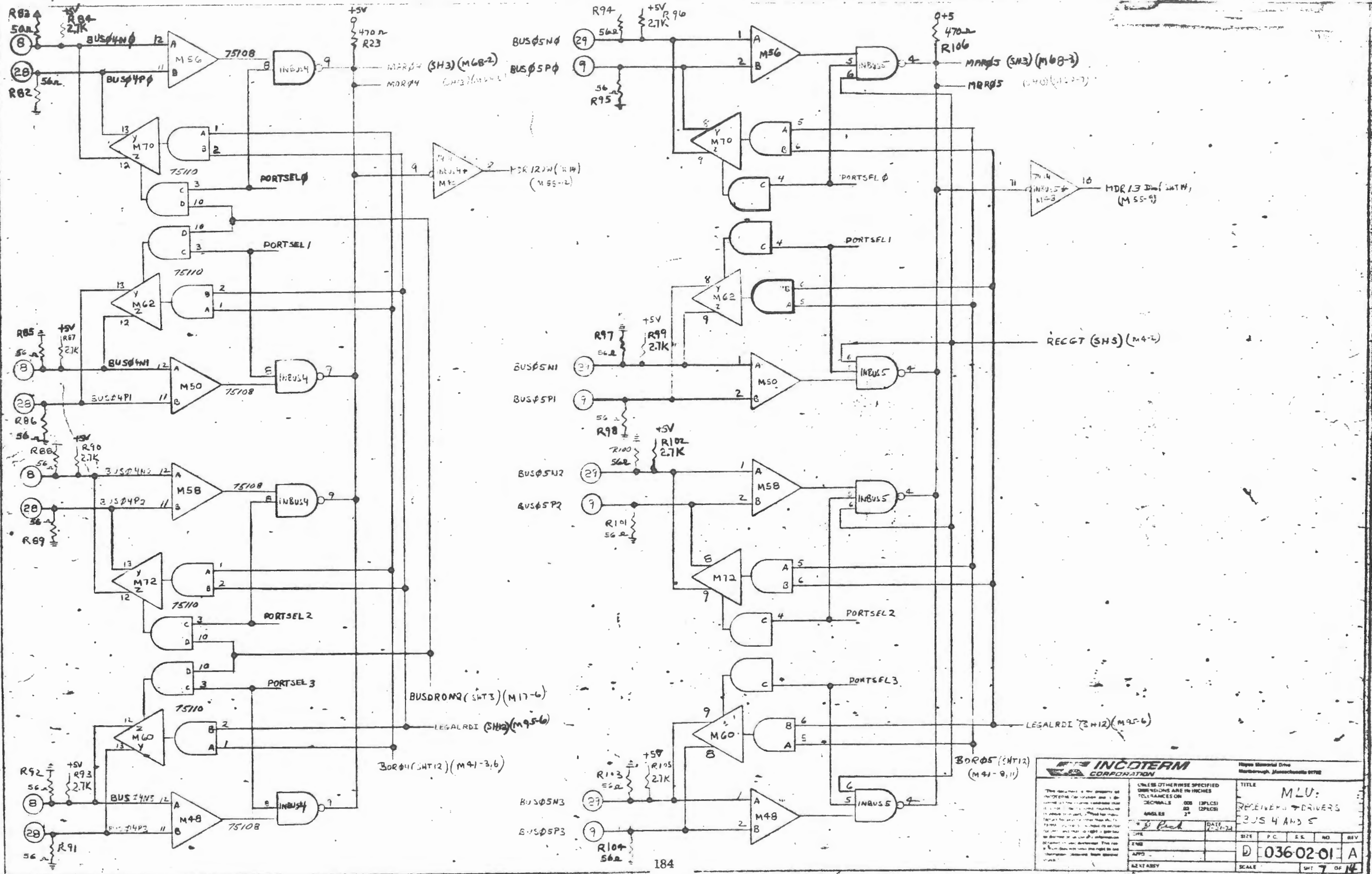
INCOTERM CORPORATION <small>Rayon Memorial Drive Marlborough, Massachusetts 01750</small>		TITLE <h1>MLU</h1> WRITE LOCK	
<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS .005 (PLCS) ANGLES 2°</small>		DATE 1/24/74	SIZE P.C. S.S. NO. REV.
OR S. P. R.	CHK ENG APPD NEXT ASSY	D 036-02-01 A	SCALE SHT 6 OF 14



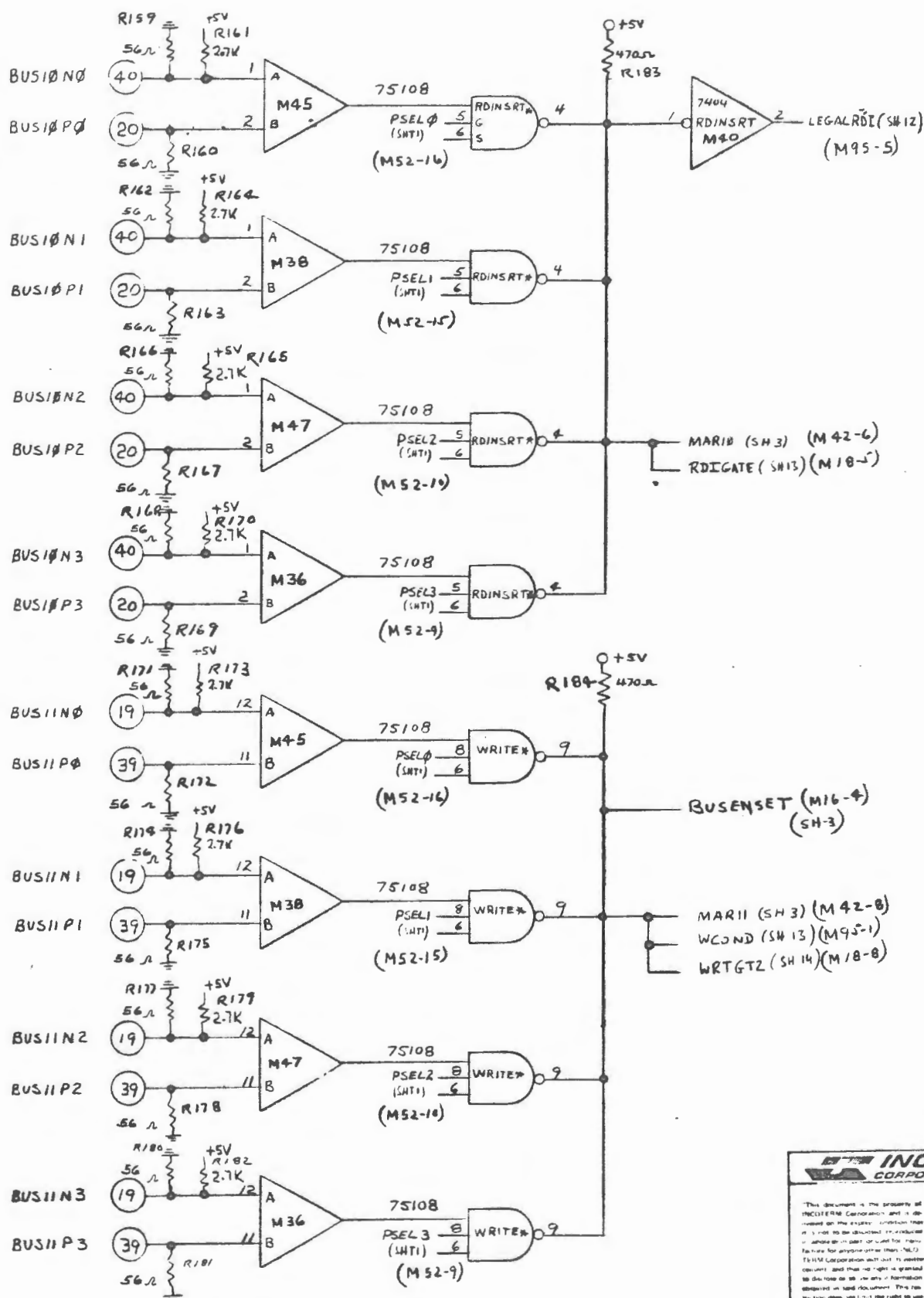
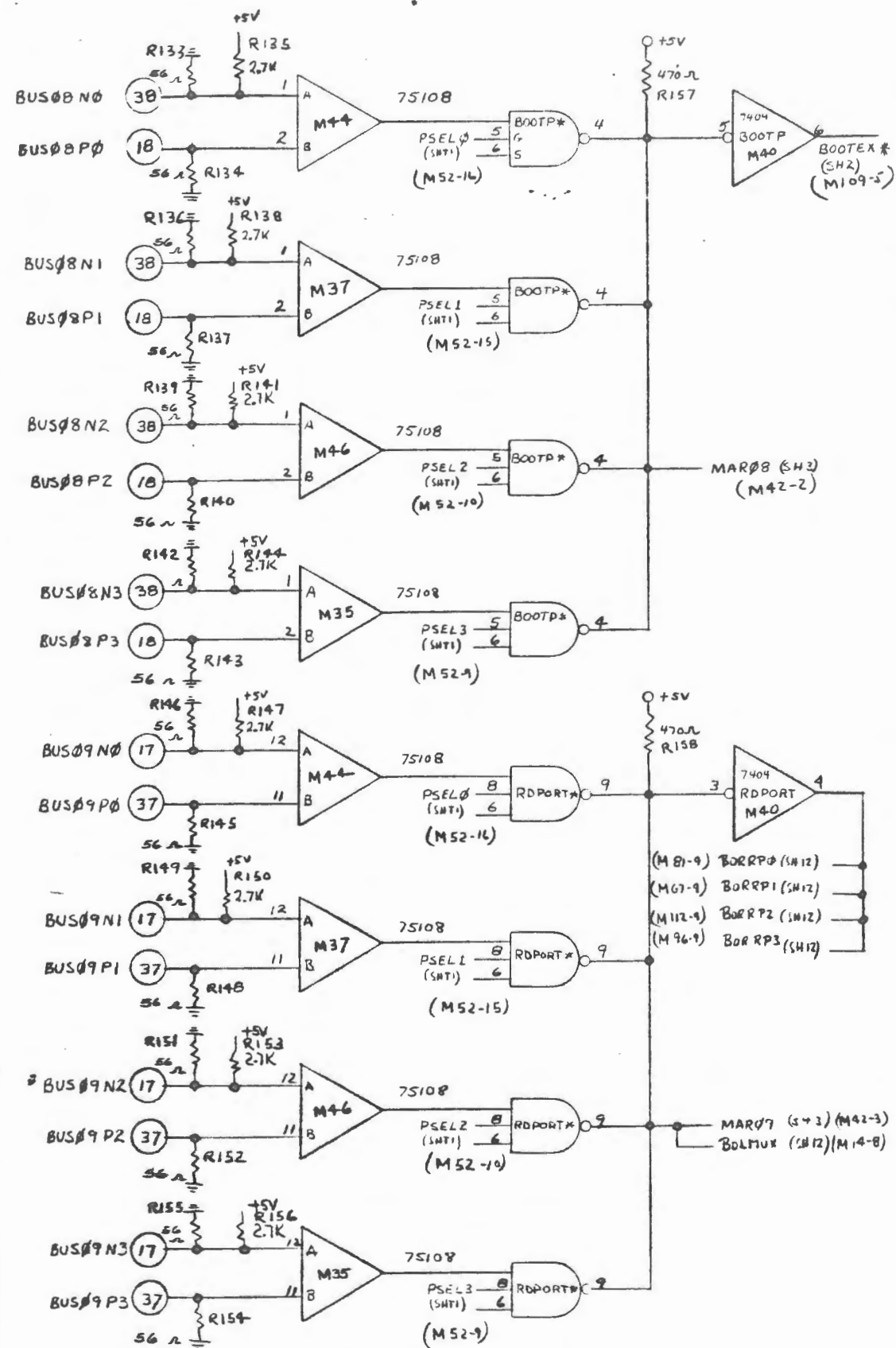
INCOTERM CORPORATION 11000 Massachusetts Drive Marlborough, Massachusetts 01758		TITLE MLU: RECEIVERS + DRIVERS BUS 0 & 1	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS .005 (2PLCS) ANGLES 2°	DATE 7-31-74	SIZE D 036-02-01	REV A
DR D Beck	ENG	SCALE	SHT 5 OF 14
NEXT ASSY	NO	NO	NO



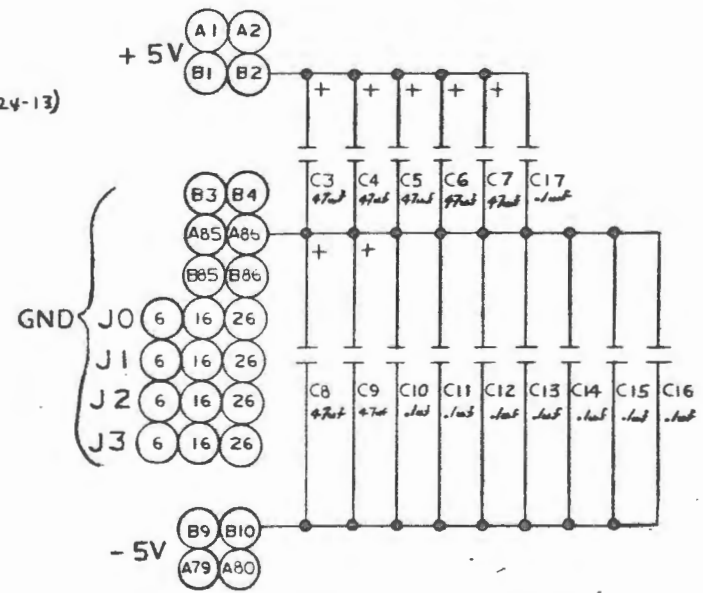
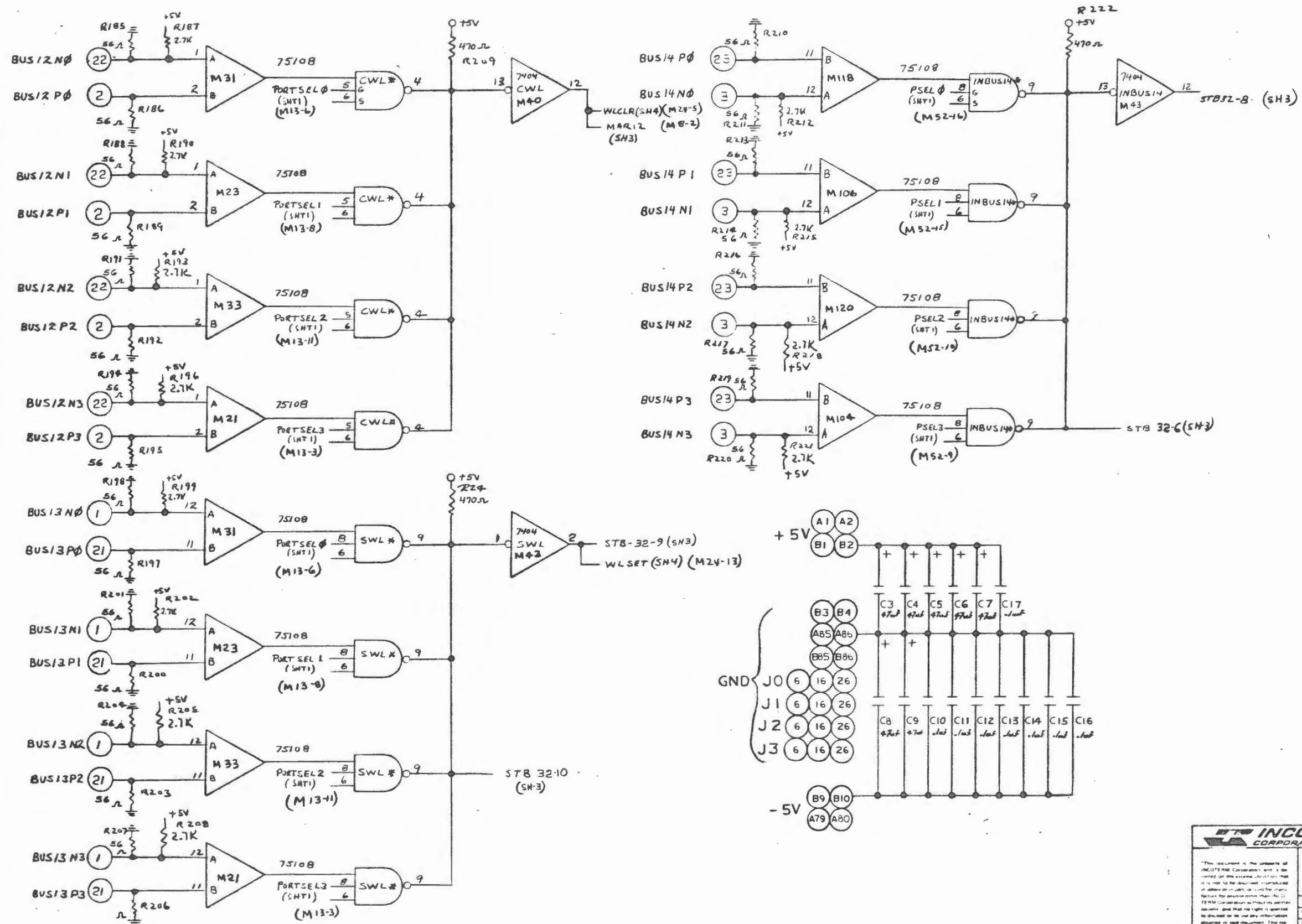
TITLE MLU: RECEIVERS + DRIVERS BUSES 2 + 3	
DATE SPECIFIED DESIGNED BY CHECKED BY APPROVED BY	DATE NAME NAME NAME
036-02-01A	



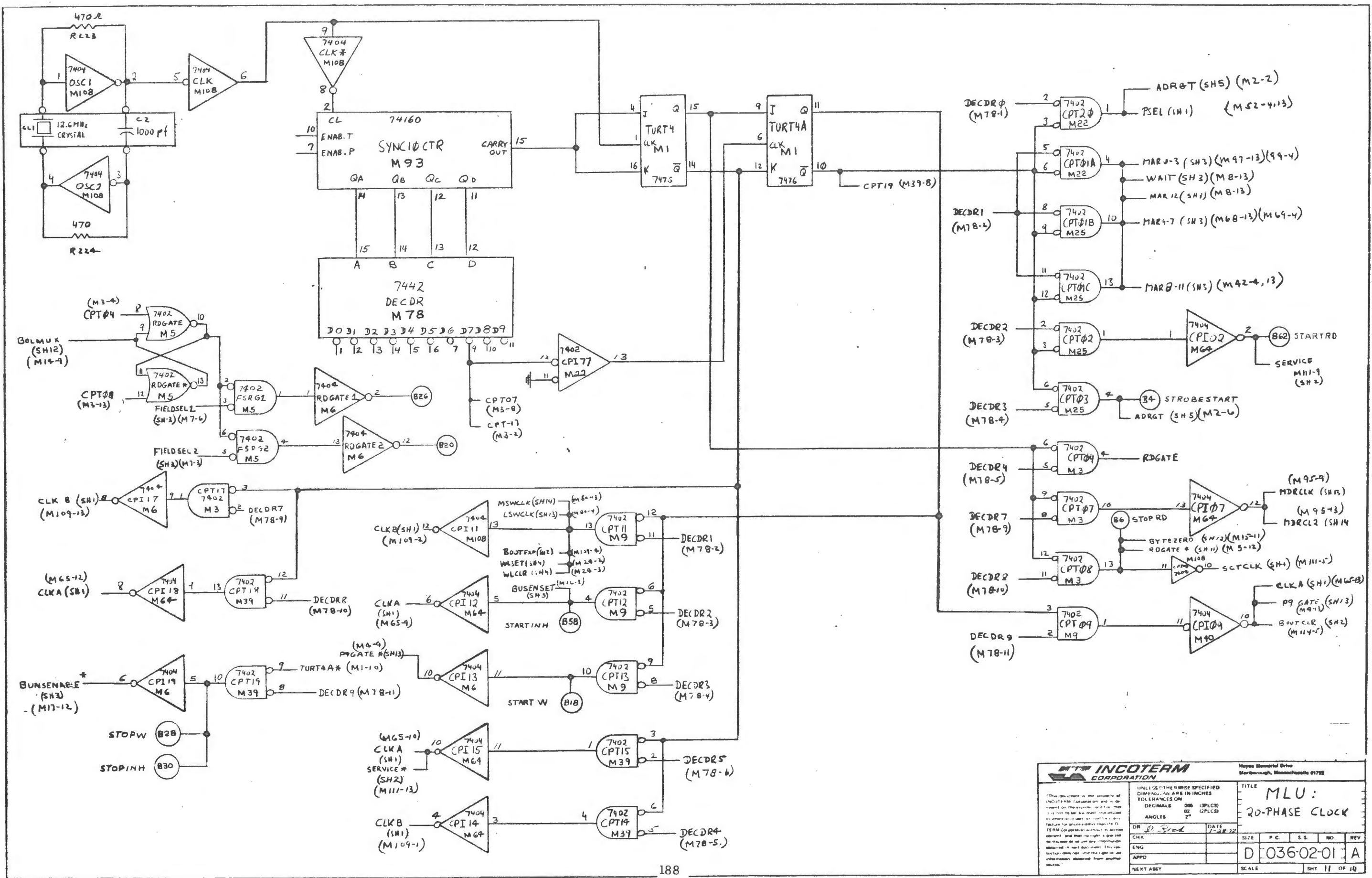
INCOTERM CORPORATION <small>INCOTERM CORPORATION, 1000 Main Street, Northborough, Massachusetts 01532</small>		<small>Unless otherwise specified dimensions are in inches</small>		TITLE MLU: RECEIVERS DRIVERS BUS 4 AND 5	
<small>DATE</small> 7-21-74	<small>SCALE</small> 1:1	<small>SIZE</small> D	<small>P.C.</small> 036-02-01	<small>REV</small> A	<small>NO</small> 7 OF 14



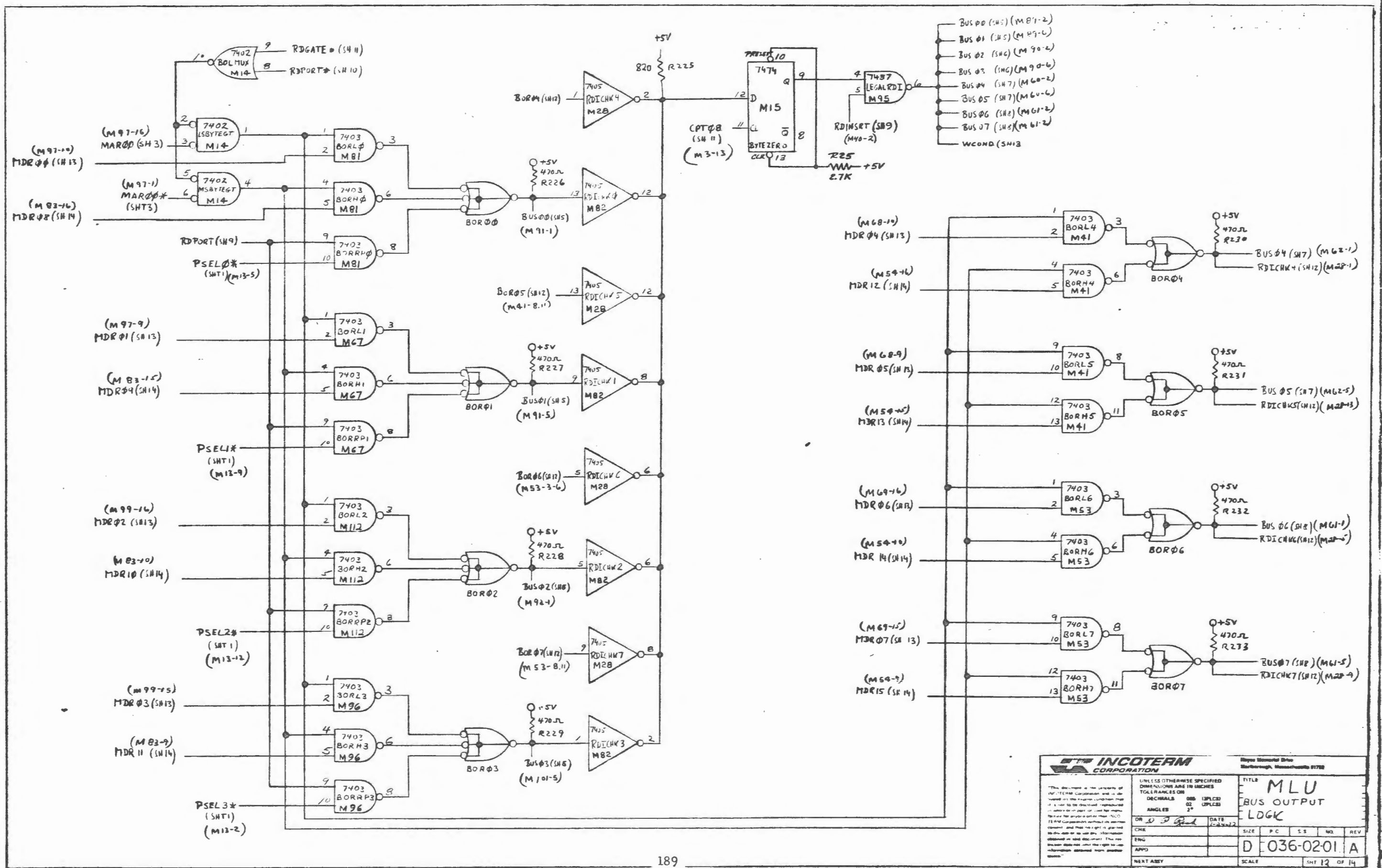
INCOTERM CORPORATION		High Speed Drive Marlborough, Massachusetts 01750	
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DATE	12-8-78	SIZE	P.C. S.S. NO. REV.
CHK			
ENG			
APPD			
NEXT ASSY		SCALE	SHT 9 OF 14



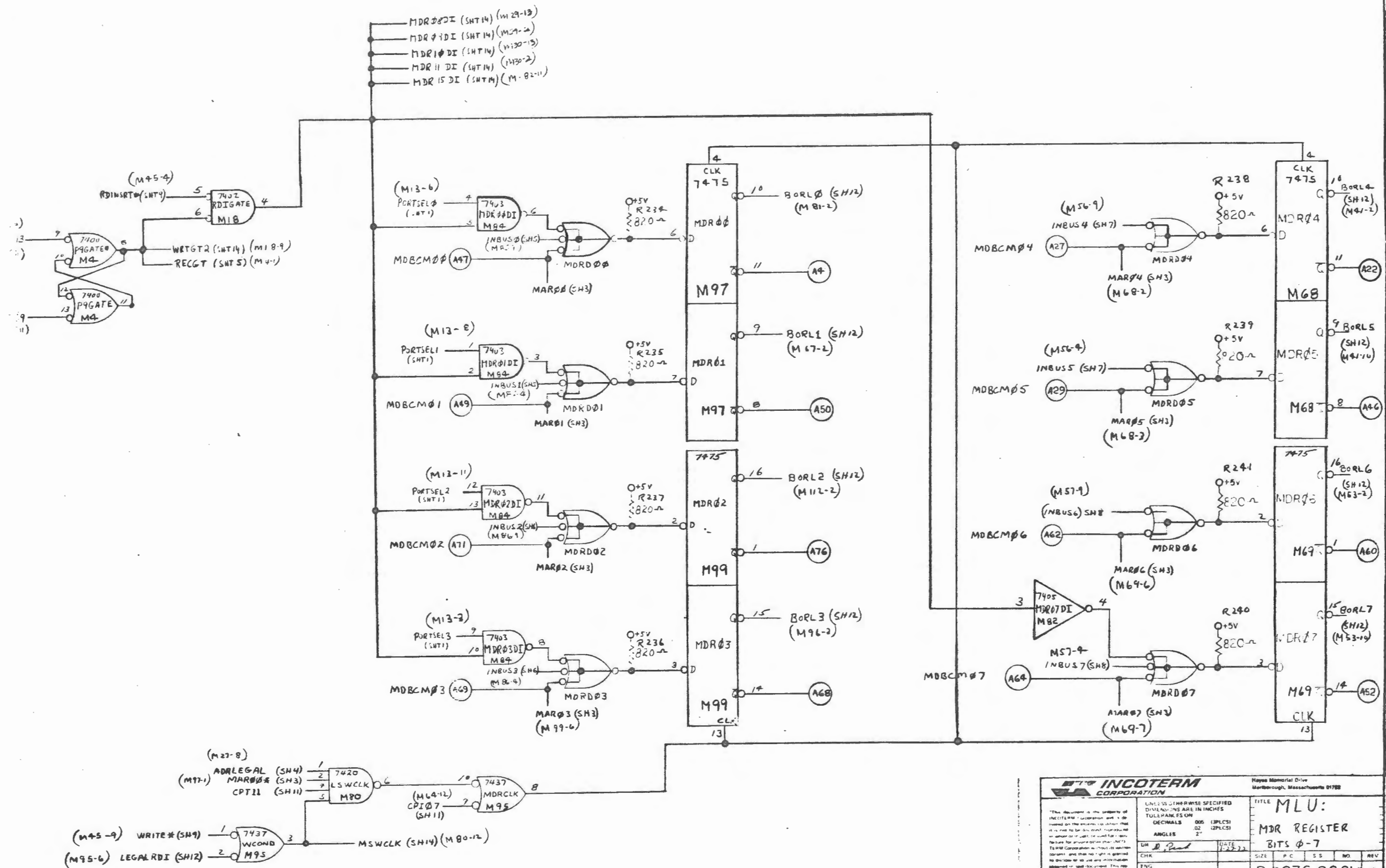
		TITLE MLU: RECEIVERS + DRIVERS FOR BUS 12, 13, 14	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES UNLESS OTHERWISE SPECIFIED DECIMALS .01 (PLCS) ANGLES 2° (PLCS)		DATE: 1-26-72	
DR: D.P. Beck	ENGR:	P.C.	S.S.
APPD:	SCALE:	D 036-02-01	A
NEXT ASSY:		SHEET 10 OF 14	



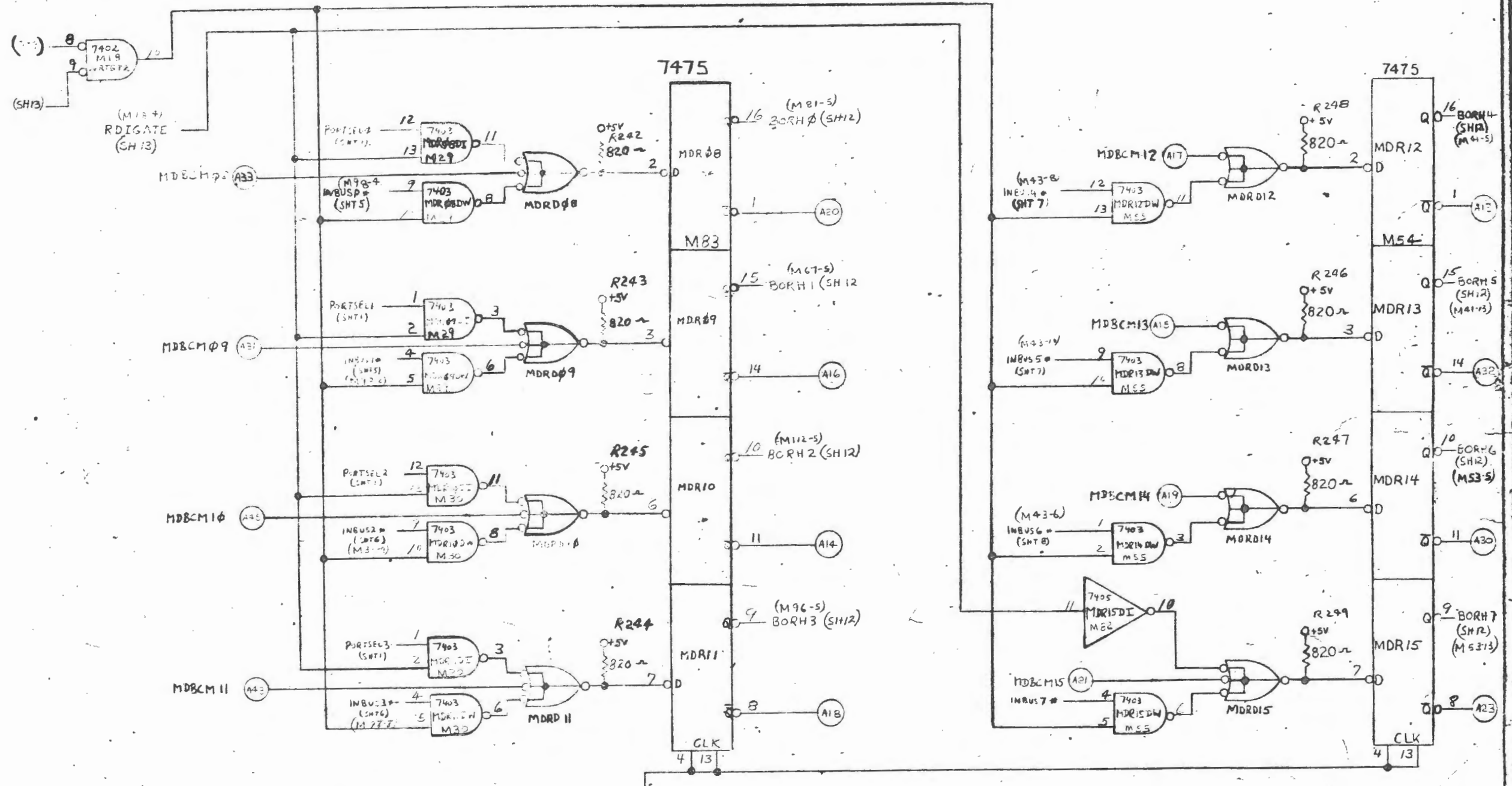
INCOTERM CORPORATION <small>INCOTERM CORPORATION</small> <small>1000 WEST 10TH AVENUE, SUITE 1000, DENVER, COLORADO 80202</small>		<small>Worcester Memorial Drive</small> <small>Marlborough, Massachusetts 01758</small>	
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DR <i>D. Speck</i> CHK ENG APPD NEXT ASST	DATE <i>1-28-72</i>	SIZE P.C. S.S. NO. REV	SCALE SHT 11 OF 14
<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS .005 (3PLCS) .010 (2PLCS) ANGLES 2°</small>		D 036-02-01 A	



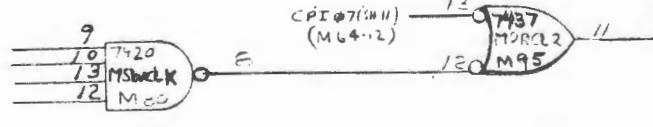
INCOTERM CORPORATION <small>Bayshore Industrial Drive, Marlborough, Massachusetts 01752</small>		TITLE MLU BUS OUTPUT LOGIC	
<small>"This document is the property of INCOTERM Corporation and is loaned to the recipient on the condition that it is not to be distributed, reproduced, or altered in any way without the written consent of INCOTERM Corporation. The recipient shall not have the right to copy or reproduce any information contained herein without the written consent of INCOTERM Corporation."</small>		<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES</small> <small>TOLERANCES ON DECIMALS ARE UNLESS OTHERWISE SPECIFIED</small> <small>ANGLES ARE UNLESS OTHERWISE SPECIFIED</small>	
<small>DR</small> <small>CHE</small> <small>ENG</small> <small>APPD</small> <small>NEXT ASSY</small>	<small>DATE</small> <small>12-22-72</small>	<small>SIZE</small> <small>P C</small> <small>SS</small> <small>NO</small> <small>REV</small>	<small>SCALE</small> <small>SHT 12 OF 14</small>



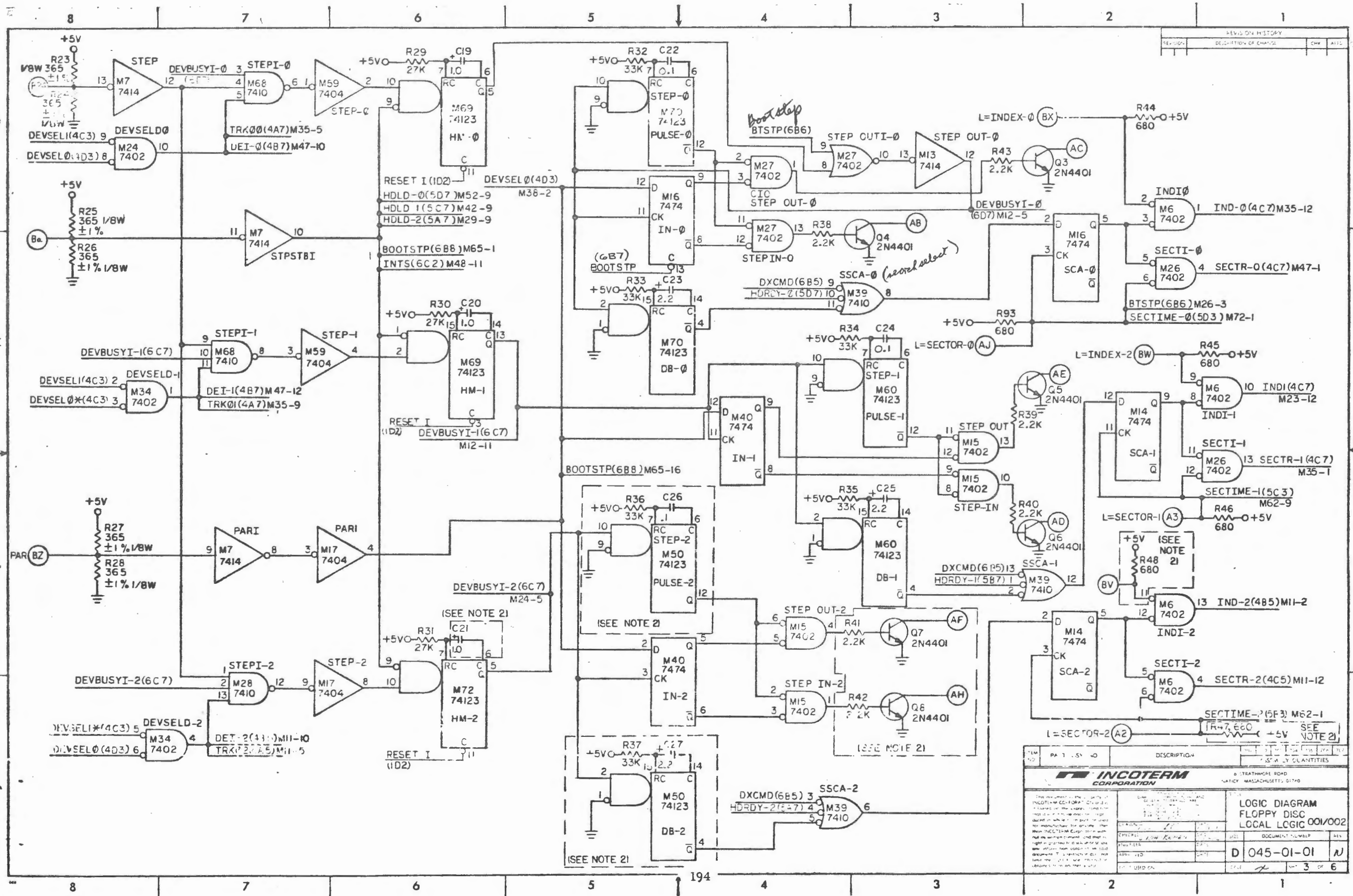
INCOTERM CORPORATION <small>Hays Memorial Drive Waltham, Massachusetts 01988</small>		TITLE MLU: MDR REGISTER BITS 0-7	
<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS .02 (2PLCS) ANGLES 2°</small>		DATE 1/23/77	
CHK D. Paul	SCALE 1:1	SIZE PC 5.5	NO. 036-0201
ENG D. Paul	APPD D. Paul	SCALE 1:1	REV A
NEXT ASSY		SHT 13 OF 14	



(M273, 6, 8, 11)
 (M97-6) ADLEGAL (SHT 4)
 (M97-6) MAKOP (SHT 3)
 (M108-3) CRTIP (SHT 8)
 (M95-3) WCONZ (SHT 13)



		TITLE MLU: MDR REGISTER BITS 2-15	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS .005 (2PLCS) ANGLES .02 (2PLCS)		DATE	SIZE P C S S MD 4EV
DR	DATE	APPD	SCALE
NEXT ASSY		D-036-02-01	A



REVISION HISTORY			
REV. NO.	DESCRIPTION OF CHANGE	CHK	DATE

ITEM NO.	PA 1	REV. NO.	DESCRIPTION	QUANTITY

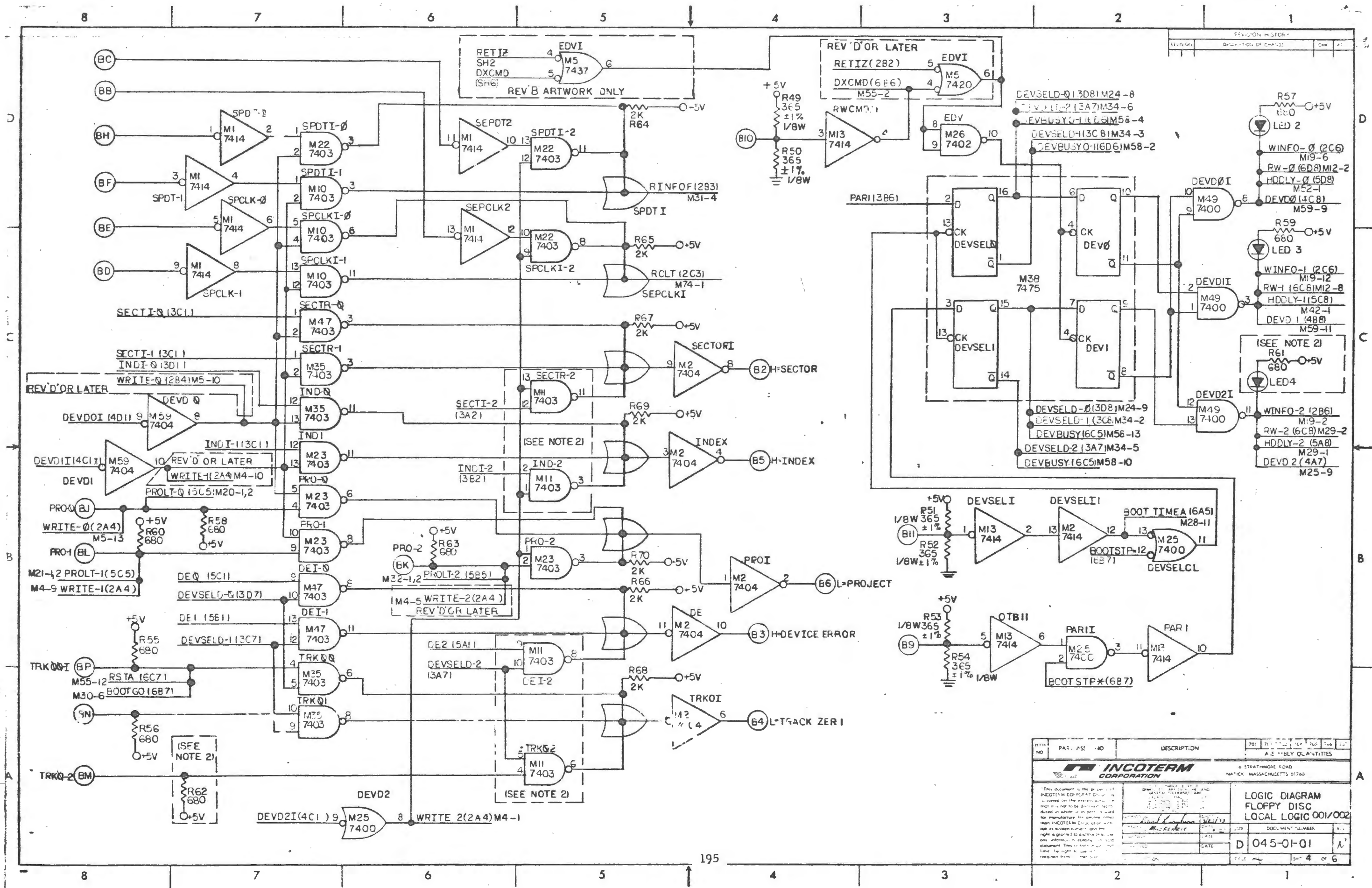
INCOTERM CORPORATION
 100 STREATHMORE ROAD
 NATICK, MASSACHUSETTS 01770

DATE	BY	REVIEWED	DATE	DOCUMENT NUMBER	REV.

LOGIC DIAGRAM
FLOPPY DISC
LOCAL LOGIC 001/002

DATE	BY	REVIEWED	DATE	DOCUMENT NUMBER	REV.

D 045-01-01
 3 OF 6



NO	PAR	ISS	NO	DESCRIPTION	701	702	703	704	705	706	707

INCOTERM CORPORATION
6 STRATHMORE ROAD
NATICK, MASSACHUSETTS 01760

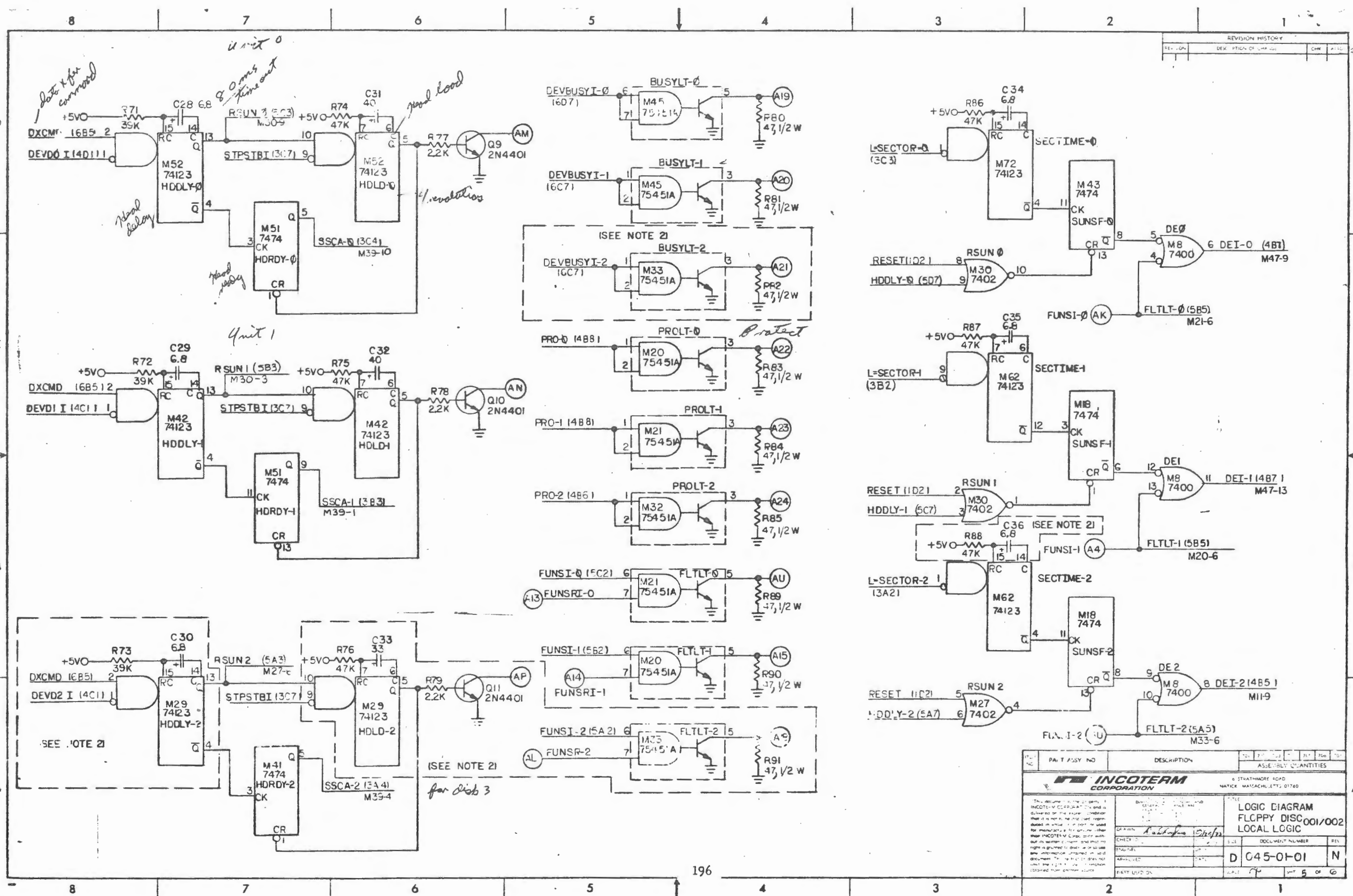
LOGIC DIAGRAM
FLOPPY DISC
LOCAL LOGIC 001/002

DATE			

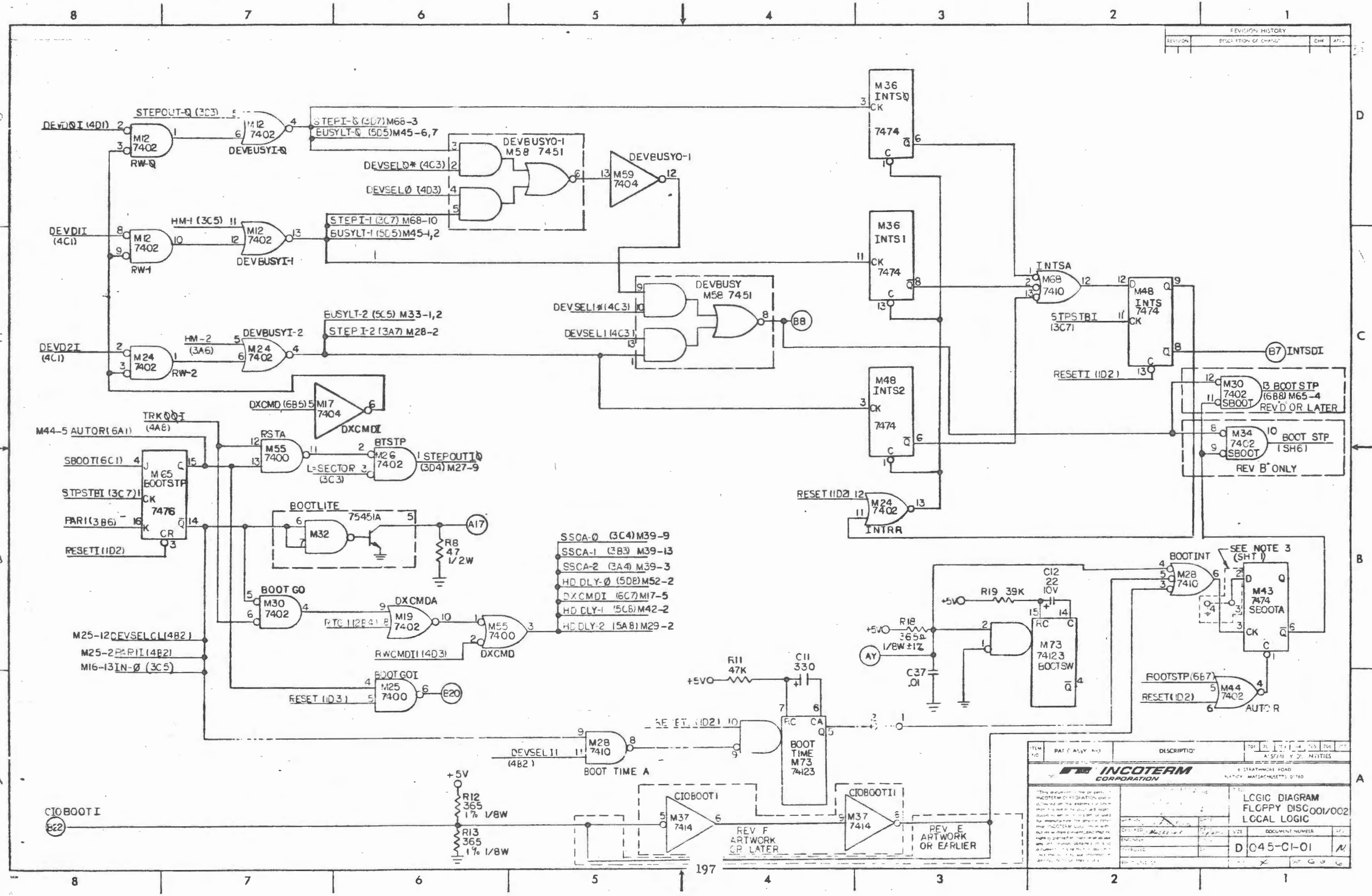
D 045-01-01

SM-4 OF 6

REVISION HISTORY			
REV. NO.	DESCRIPTION OF CHANGE	CHK.	DATE

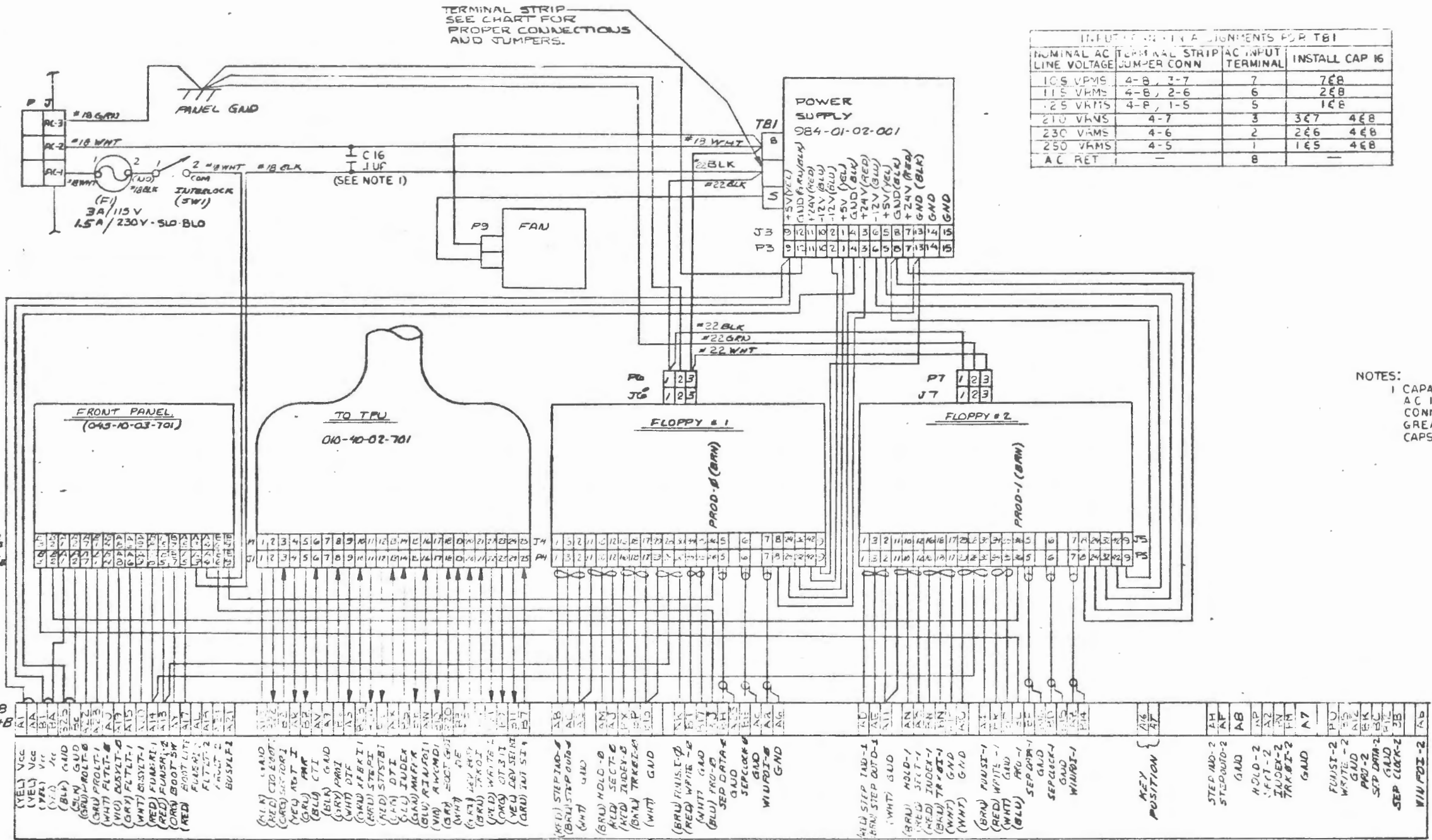


PART ASSY NO	DESCRIPTION	REV	QTY	UNIT	ASSEMBLY QUANTITIES
INCOTERM CORPORATION					
6 STATHAM ROAD, NAYICK, MASSACHUSETTS 01740					
<small>This document is the property of INCOTERM CORPORATION and is loaned to the customer. It is not to be reproduced, stored in a retrieval system, or used for any purpose other than that for which it is loaned. INCOTERM CORPORATION reserves the right to modify this document without notice. The user assumes all responsibility for any damage to the original document.</small>			LOGIC DIAGRAM FLCppy DISC001/002 LOCAL LOGIC		
DATE	BY	CHKD	DATE	DOC. NO.	REV.
				D 045-01-01	N



REVISIONS			
REV	DESCRIPTION	CHK	APPD
B	NEW PARTS TO RELEASE. PLATE TYPE ASST TO REV A WHICH IS IN TO FILE DRAWN RELEASED RD# 259E	✓	✓
C	REVISED/ECO 2612	✓	✓
D	REV/ECO 3639 12-74	✓	✓
E	REV/ECO 5369	✓	✓
E1	REV/ECO 5564 5-83	✓	✓

NOMINAL AC LINE VOLTAGE	TERMINAL STRIP JUMPER CONN	AC INPUT TERMINAL	INSTALL CAP 16
105 V RMS	4-8, 3-7	7	76B
115 V RMS	4-8, 2-6	6	26B
125 V RMS	4-8, 1-5	5	16B
210 V RMS	4-7	3	367 46B
230 V RMS	4-6	2	266 46B
250 V RMS	4-5	1	165 46B
AC RET	-	8	-

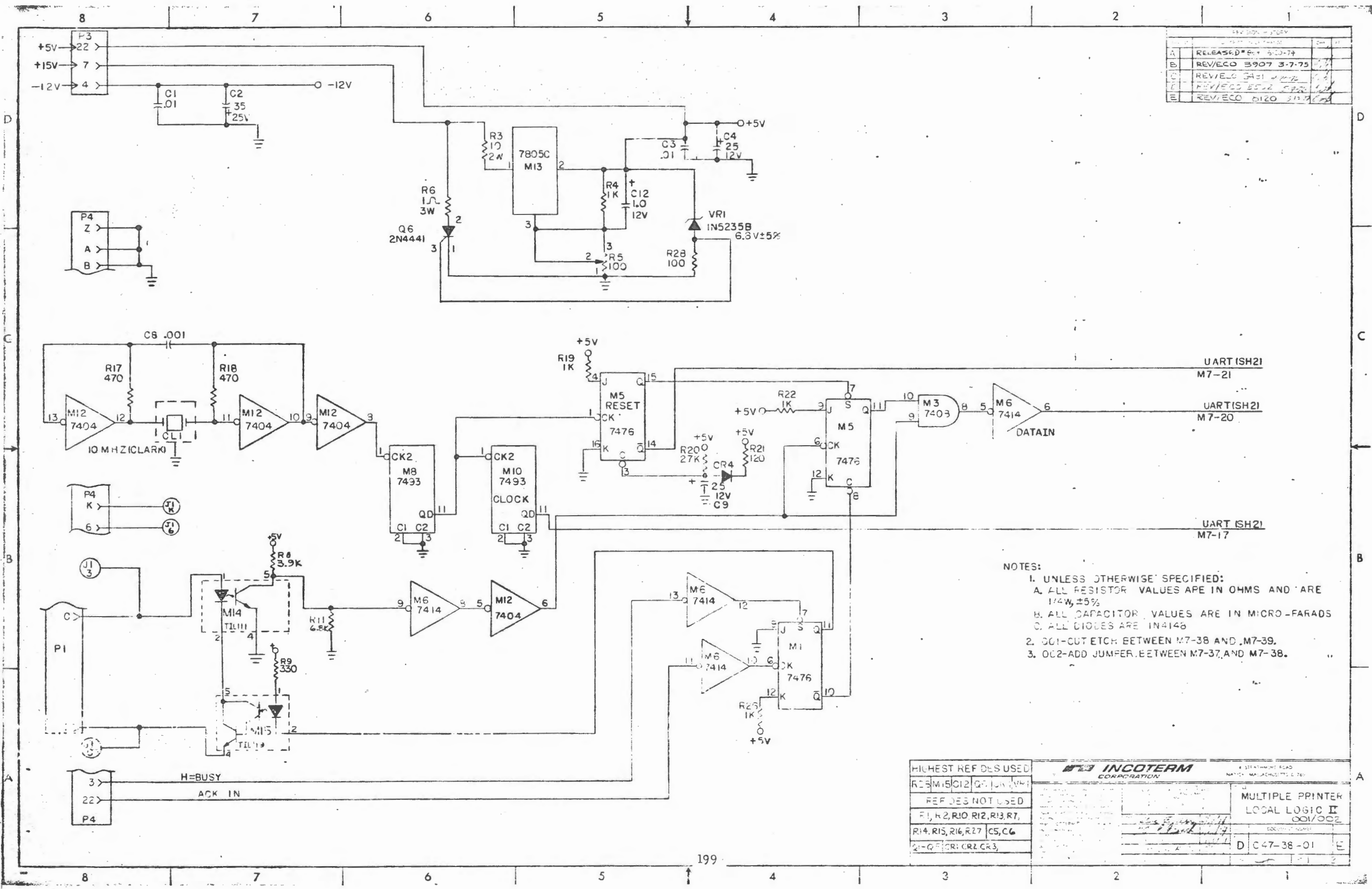


NOTES:
 1 CAPACITOR (C16) SHALL BE ACROSS THE AC INPUT TERMINALS TBI PER INTER-CONNECTION TABLE. FOR INPUT VOLTAGES GREATER THAN OR EQUAL TO 210 VRMS 2 CAPS (C16) ARE REQUIRED.

PC BOARD ASSY 045-01-03-C1

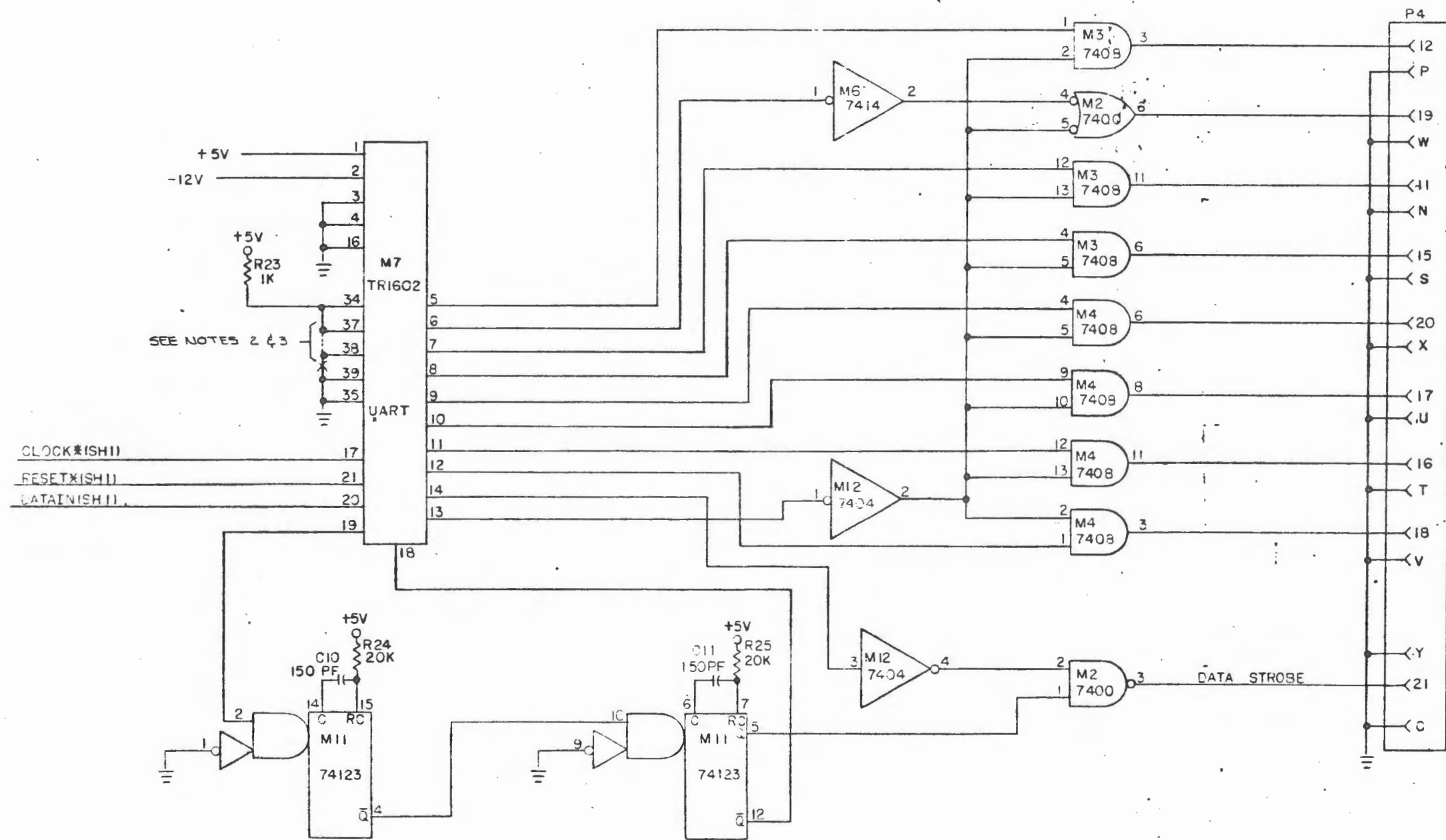
INCOTERM CORPORATION Unless otherwise specified dimensions are in inches. Tolerances on DECIMALS .005 (2PLCS) .01 (2PLCS) ANGLES 2°		TITLE POWER WIRING SCHEMATIC (FLOPPY DISC)
DATE: 10/23/73 DRAWN BY: [Signature]	SIZE: F C S E NO: DEL:	D 045-10-23 E1
SCALE: X SHY: / OF: 1		198

A	RELEASED 5-10-74	
B	REV/ECO 3907 3-7-75	
C	REV/ECO 3481 4-11-75	
D	REV/ECO 5512 5-20-75	
E	REV/ECO 6120 3-17-76	



- NOTES:
- UNLESS OTHERWISE SPECIFIED:
 - ALL RESISTOR VALUES ARE IN OHMS AND ARE 1/4W, ±5%
 - ALL CAPACITOR VALUES ARE IN MICRO-FARADS
 - ALL DIODES ARE 1N4148
 - OC1-CUT ETCH BETWEEN M7-38 AND M7-39.
 - OC2-ADD JUMPER BETWEEN M7-37 AND M7-38.

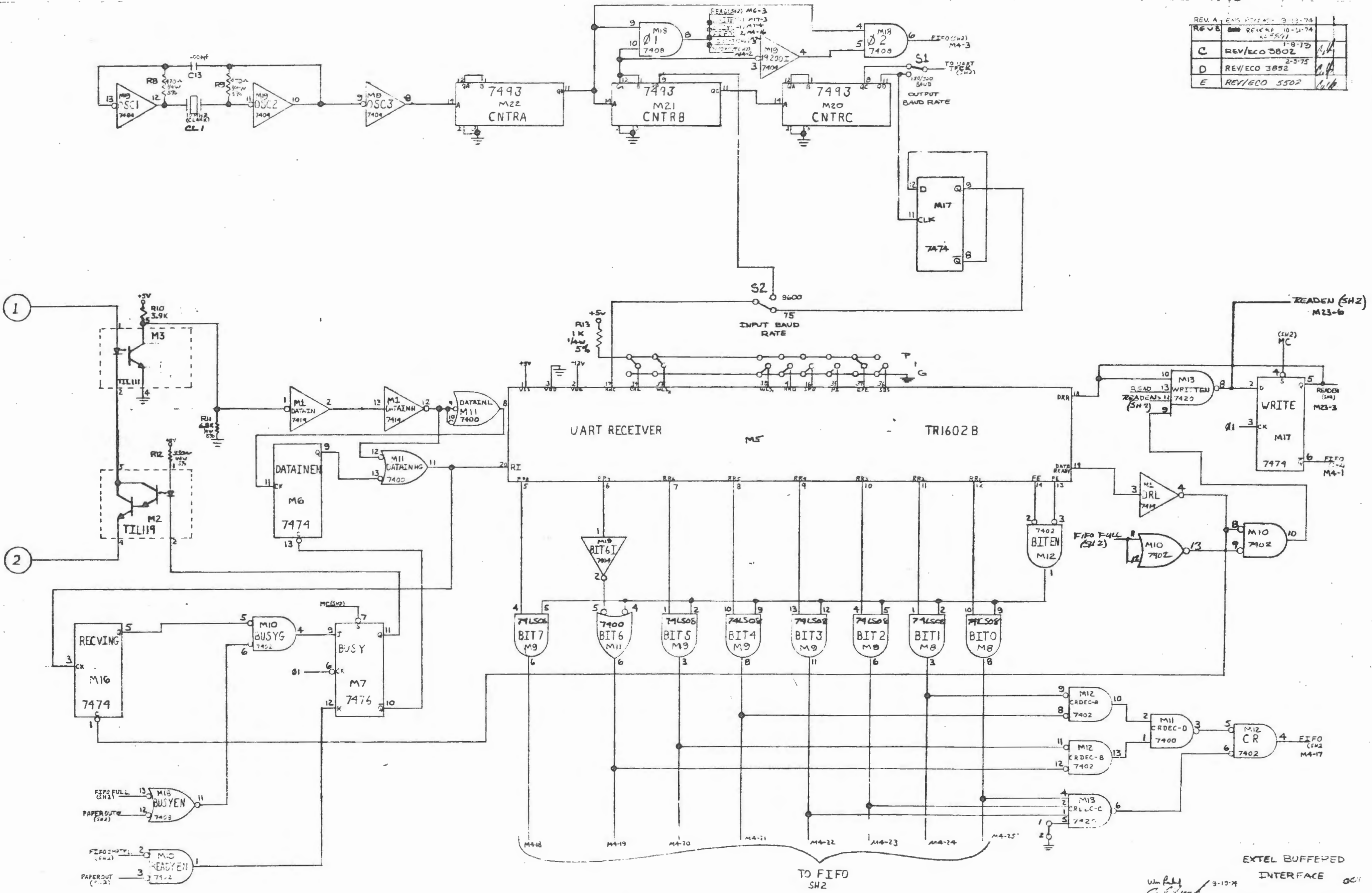
HIGHEST REF DES USED	INCOTERM CORPORATION	MULTIPLE PRINTER LOCAL LOGIC II
R1, R2, R10, R12, R13, R7, R14, R15, R16, R27, C5, C6		001/002
Q1-Q7, CR1, CR2, CR3		D C 47-38-01



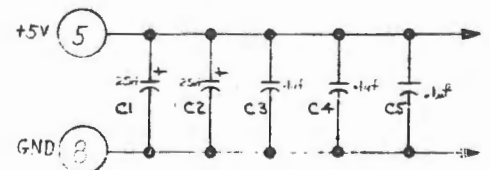
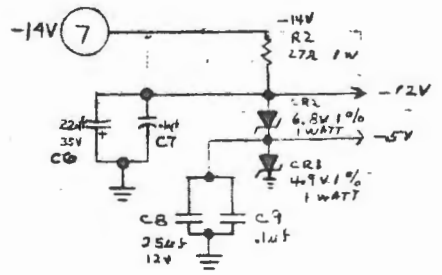
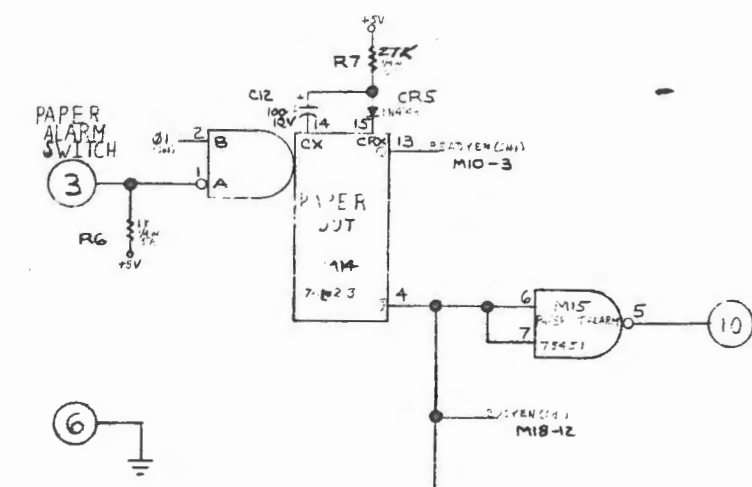
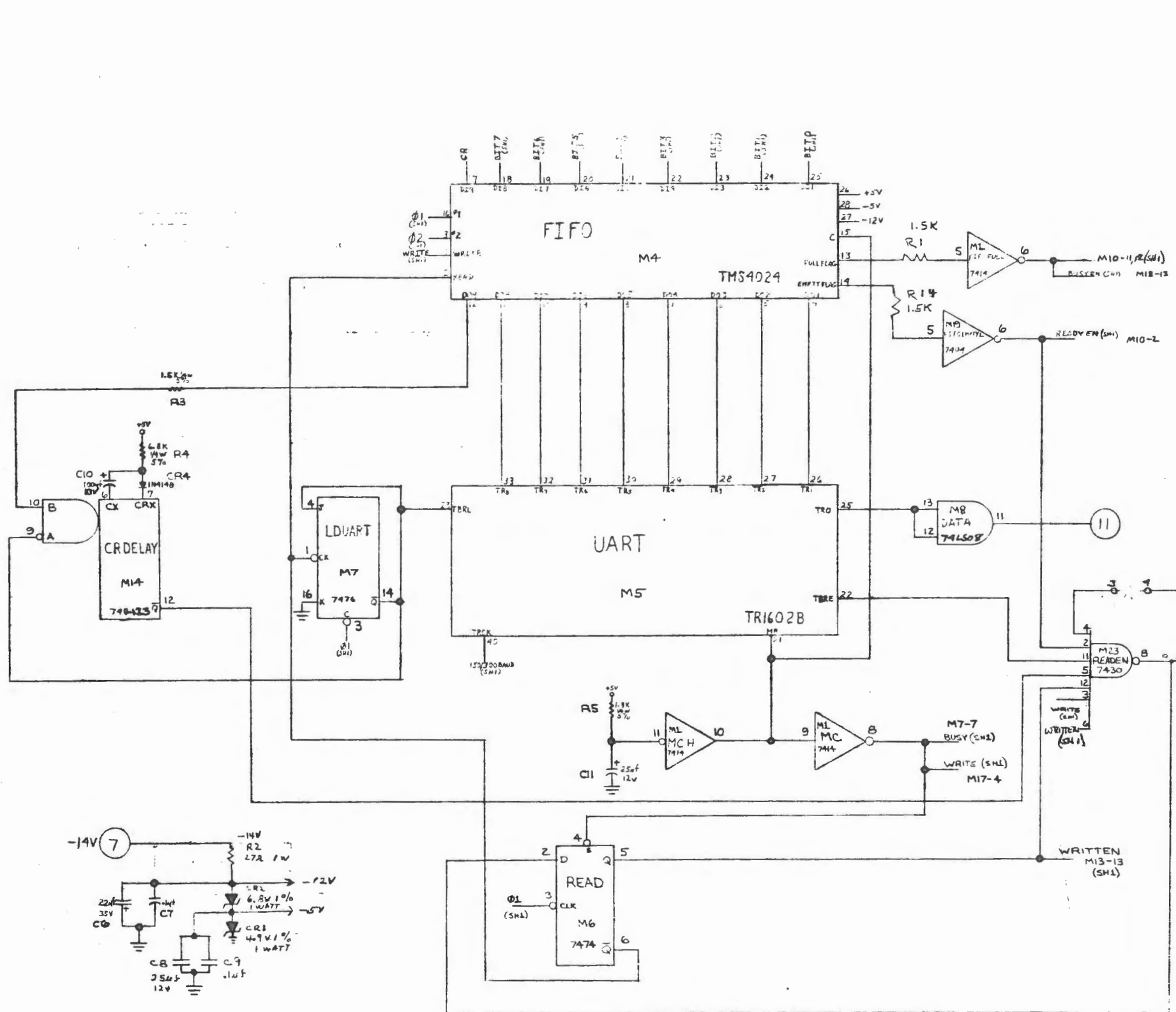
SEE NOTES 2 & 3

INCOTERM CORPORATION <small>5 STRATHMORE ROAD NANTUCKET, MASSACHUSETTS 02546</small>		MULTIPLE PRINTER LOCAL LOGIC II 001/002	
<small>THIS DOCUMENT IS THE PROPERTY OF INCOTERM CORPORATION. IT IS TO BE USED ONLY FOR THE PROJECT AND NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.</small>	<small>DATE</small> 11/11/77	<small>DOC. NO.</small> D1047-38-01	<small>REV.</small> E
<small>200</small>		<small>2 - 2</small>	

REV A	ENG REVISED 9-12-74	
REV B	REV/ECO 10-21-74	
C	REV/ECO 3802	1-8-75
D	REV/ECO 3852	2-3-75
E	REV/ECO 5502	1-1-76



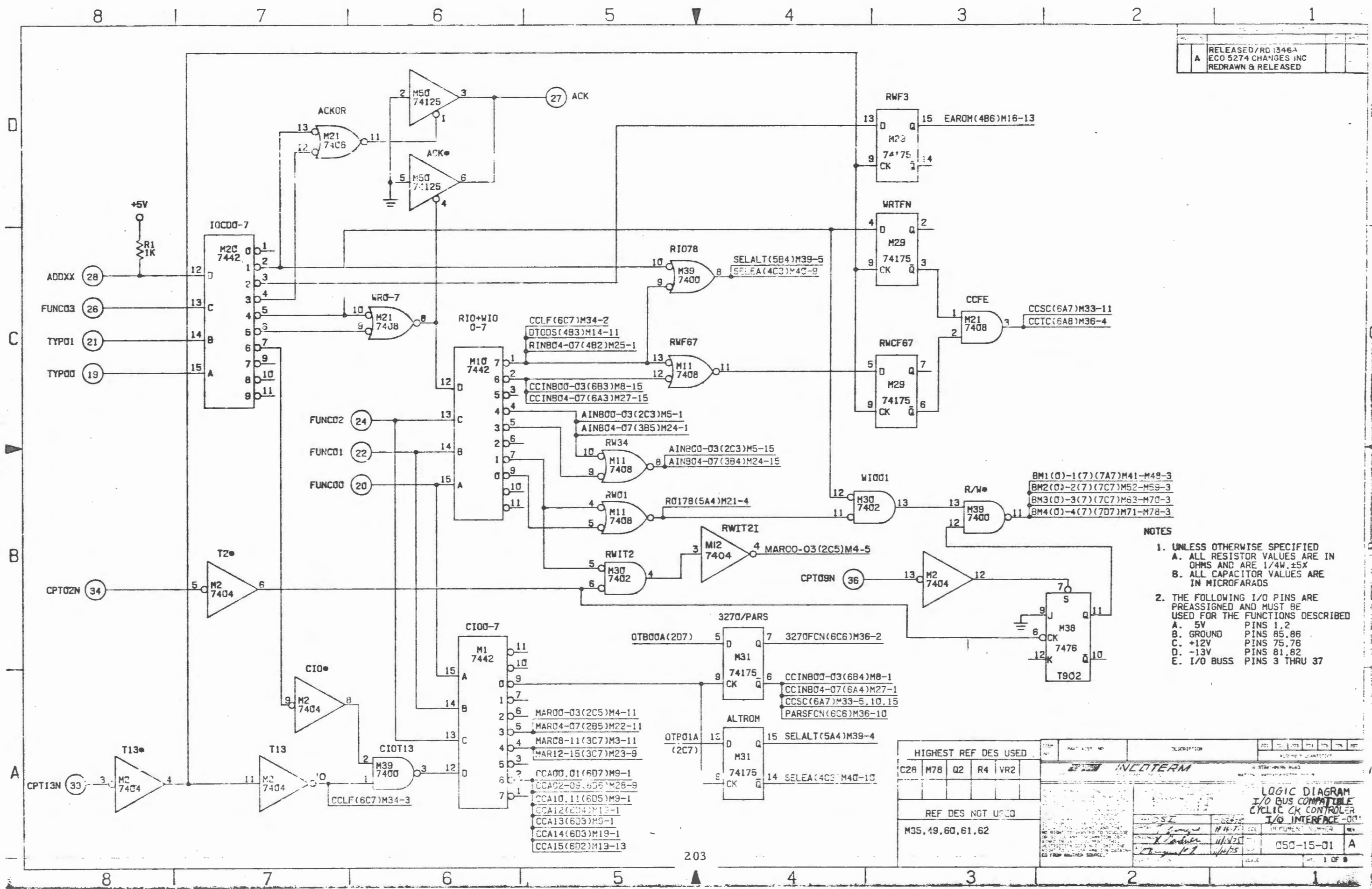
EXTENDED BUFFERED
INTERFACE
Wm Rly
9-12-74
D 049-13-01
1 2



HIGHEST REF DES USED
M23 CR'S C14 R13
REF DES NOT USED
CR3

W. A. R. H. 9-19-74
C. J. H. O.

EXTEL BUFFERED
INTERFACE 001
049-13-01
SH2

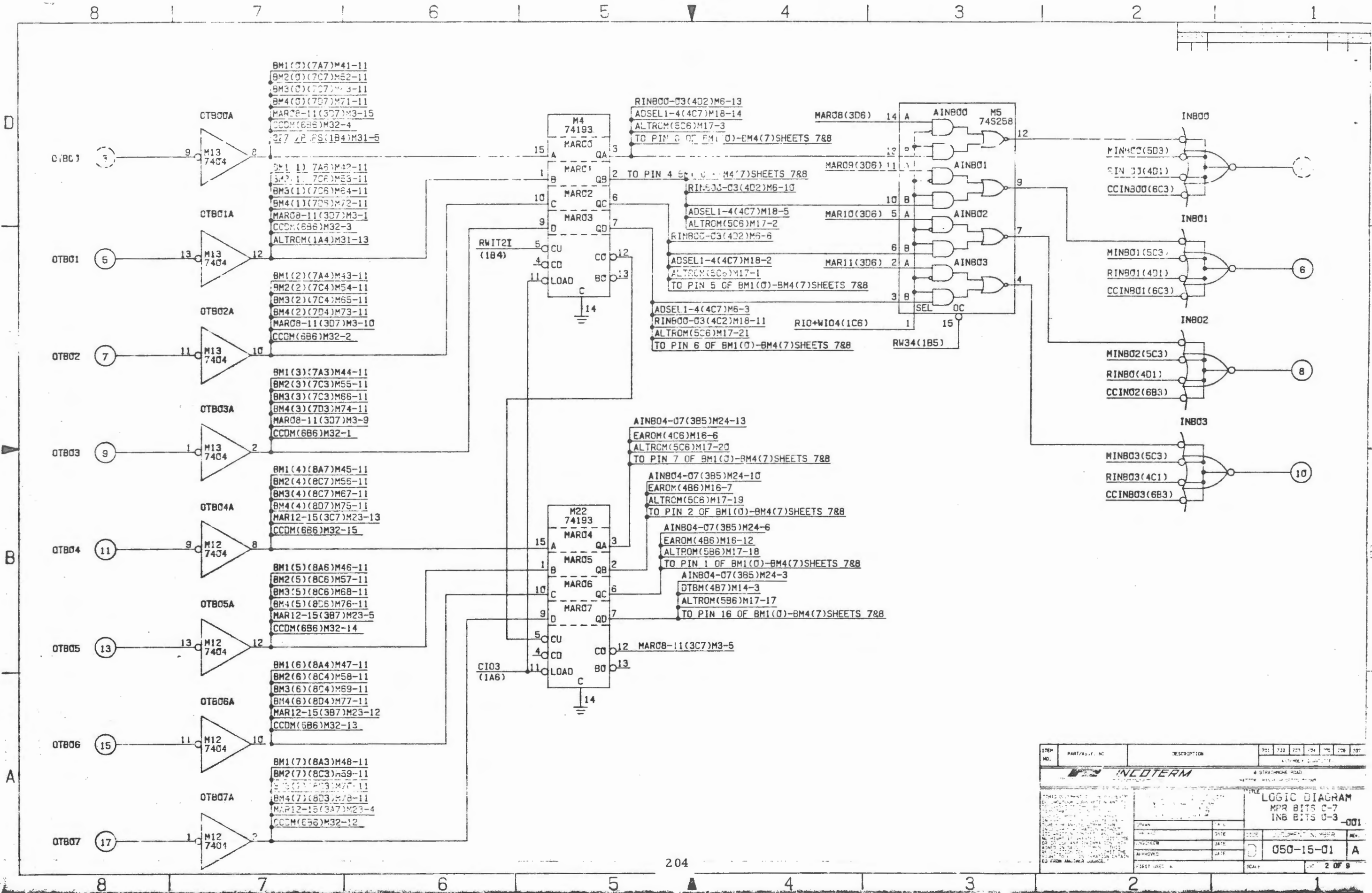


- NOTES**
- UNLESS OTHERWISE SPECIFIED
 - A. ALL RESISTOR VALUES ARE IN OHMS AND ARE 1/4W, ±5%
 - B. ALL CAPACITOR VALUES ARE IN MICROFARADS
 - THE FOLLOWING I/O PINS ARE PREASSIGNED AND MUST BE USED FOR THE FUNCTIONS DESCRIBED
 - A. 5V PINS 1,2
 - B. GROUND PINS 85,86
 - C. +12V PINS 75,76
 - D. -13V PINS 81,82
 - E. I/O BUSS PINS 3 THRU 37

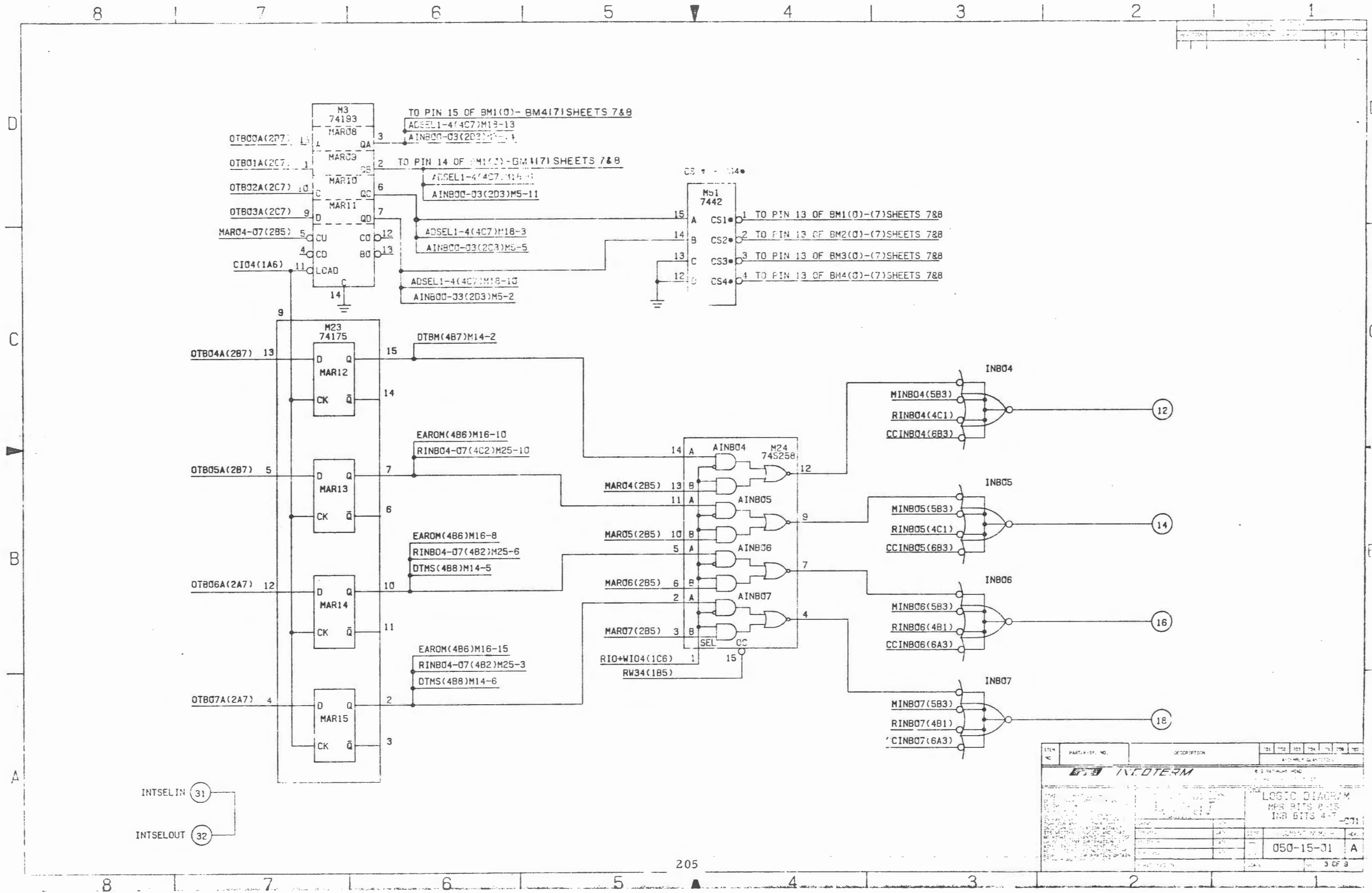
HIGHEST REF DES USED					PART LIST NO		DESCRIPTION		QUANTITY	
C28	M78	Q2	R4	VR2	INCOTERM		SCALE		REV	
					M35, 49, 60, 61, 62		SCALE		REV	
REF DES NOT USED					M35, 49, 60, 61, 62		SCALE		REV	
					M35, 49, 60, 61, 62		SCALE		REV	

LOGIC DIAGRAM
I/O BUS COMPATIBLE
CYCLIC CK CONTROLLER
I/O INTERFACE-001

DATE: 11/18/75
SCALE: 1 OF 8

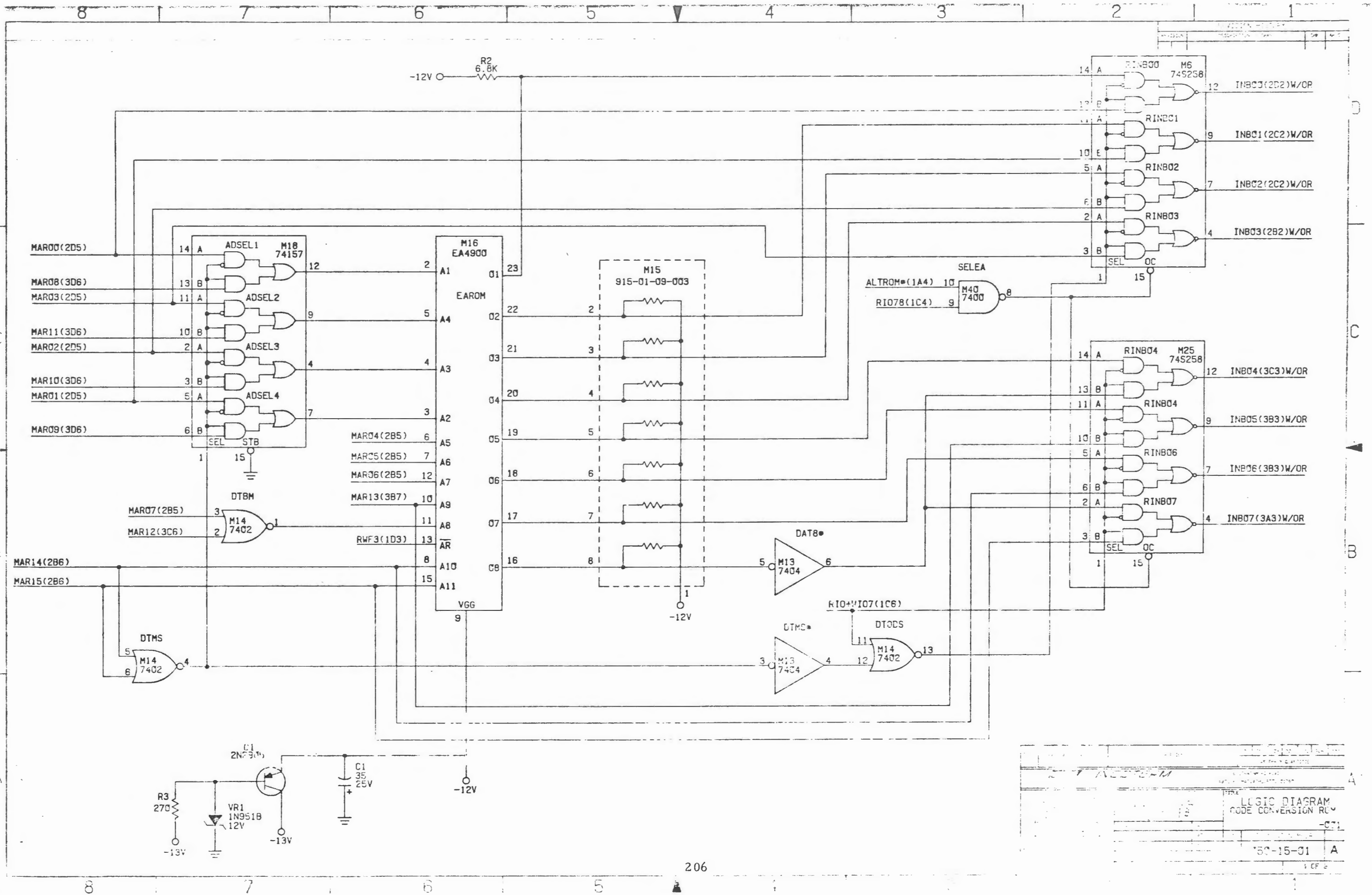


ITEM NO.	PART/ALT. NO.	DESCRIPTION	701	722	723	724	725	726	727
		INCOTERM							
		LOGIC DIAGRAM							
		MPR BITS C-7							
		INB BITS 0-3							
		050-15-01							
		A							
		2 OF 9							



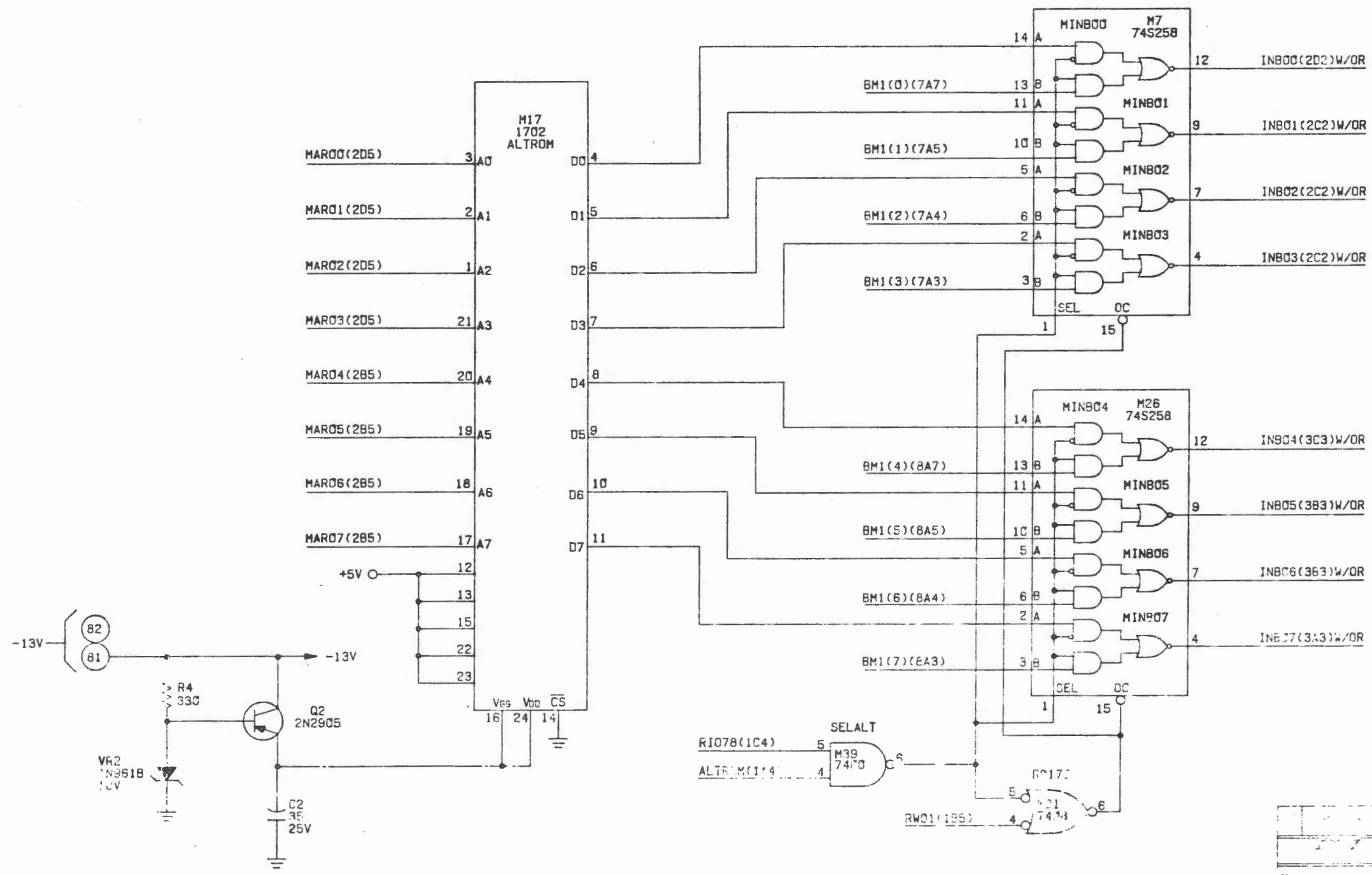
INTSELIN (31)
INTSELOUT (32)

ITEM NO.	PART/ASY. NO.	DESCRIPTION	QTY	UNIT	REV.	DATE
INCOTERM						
LOGIC DIAGRAM						
MFR BITS 0-35						
INB BITS 4-7						
050-15-31 A						
3 OF 9						



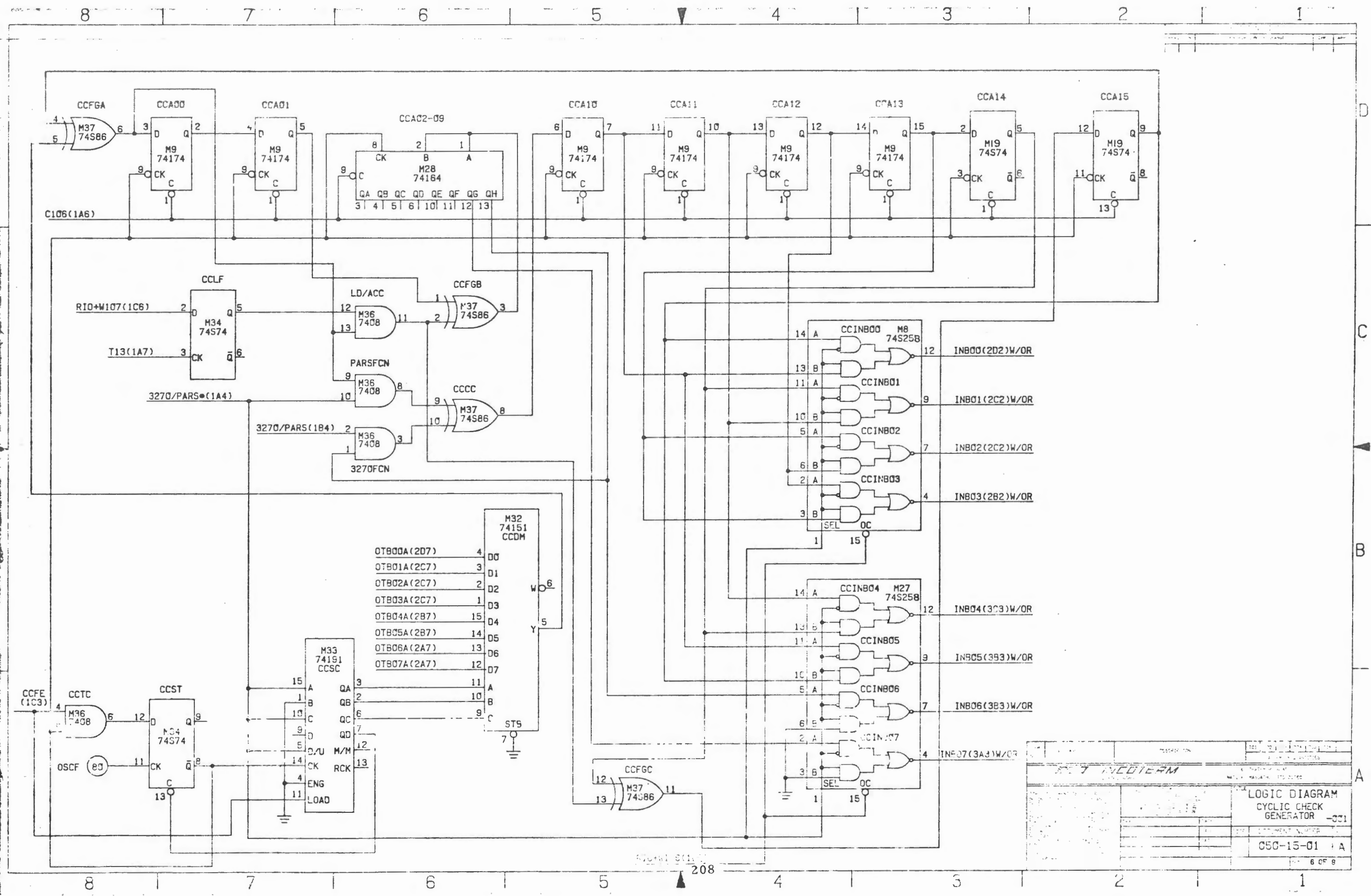
TITLE LOGIC DIAGRAM CODE CONVERSION RC	
DATE 15-01	REV -01
15-01 A	

8 7 6 5 4 3 2 1

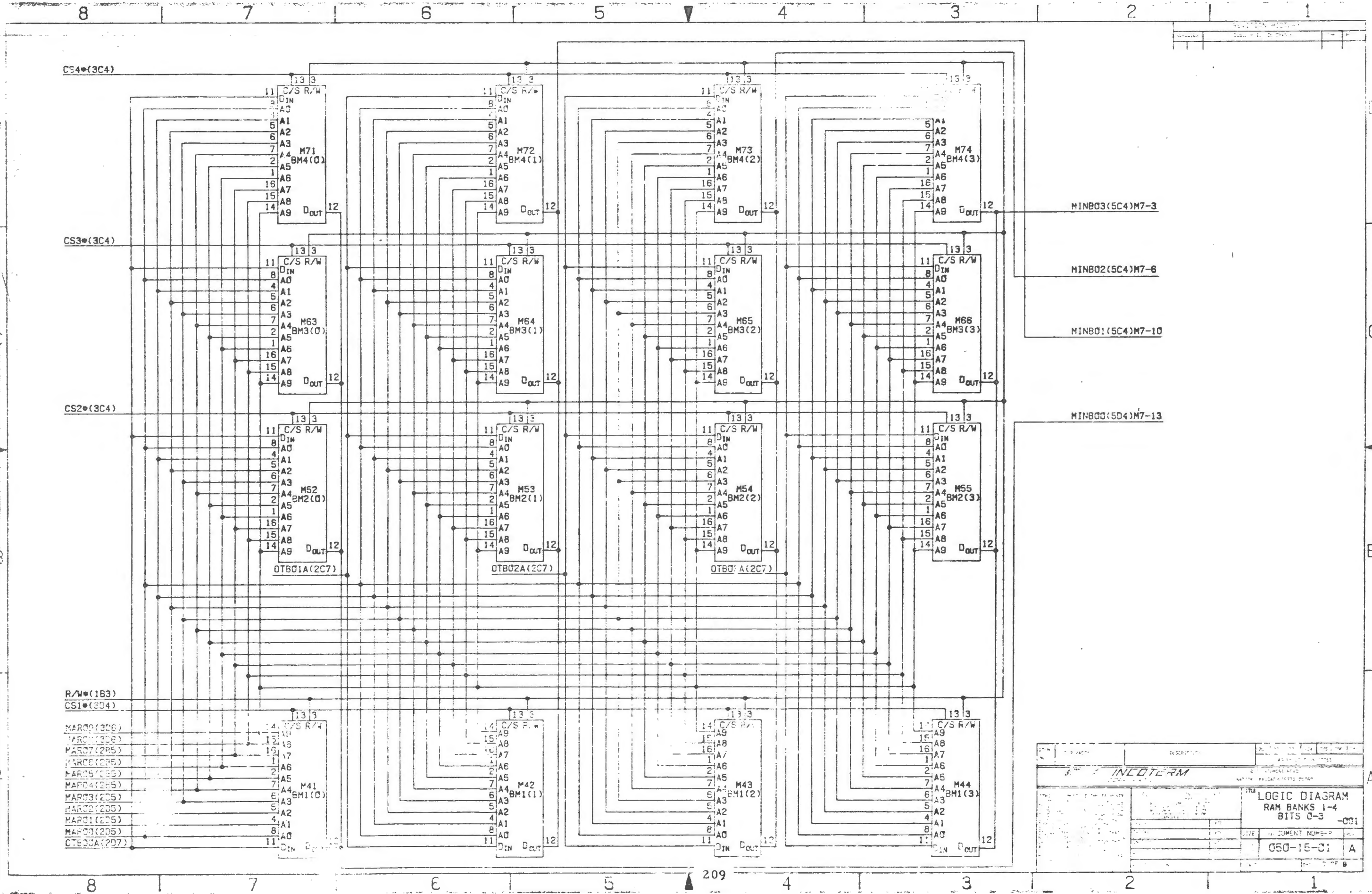


INB00(2D2)W/OR		INB01(2C2)W/OR		INB02(2C2)W/OR		INB03(2C2)W/OR	
INB04(3C3)W/OR		INB05(3B3)W/OR		INB06(3B3)W/OR		INB07(3A3)W/OR	
LOGIC DIAGRAM ALTERNATE ROM							
050-15-01 A							
5 OF 6							

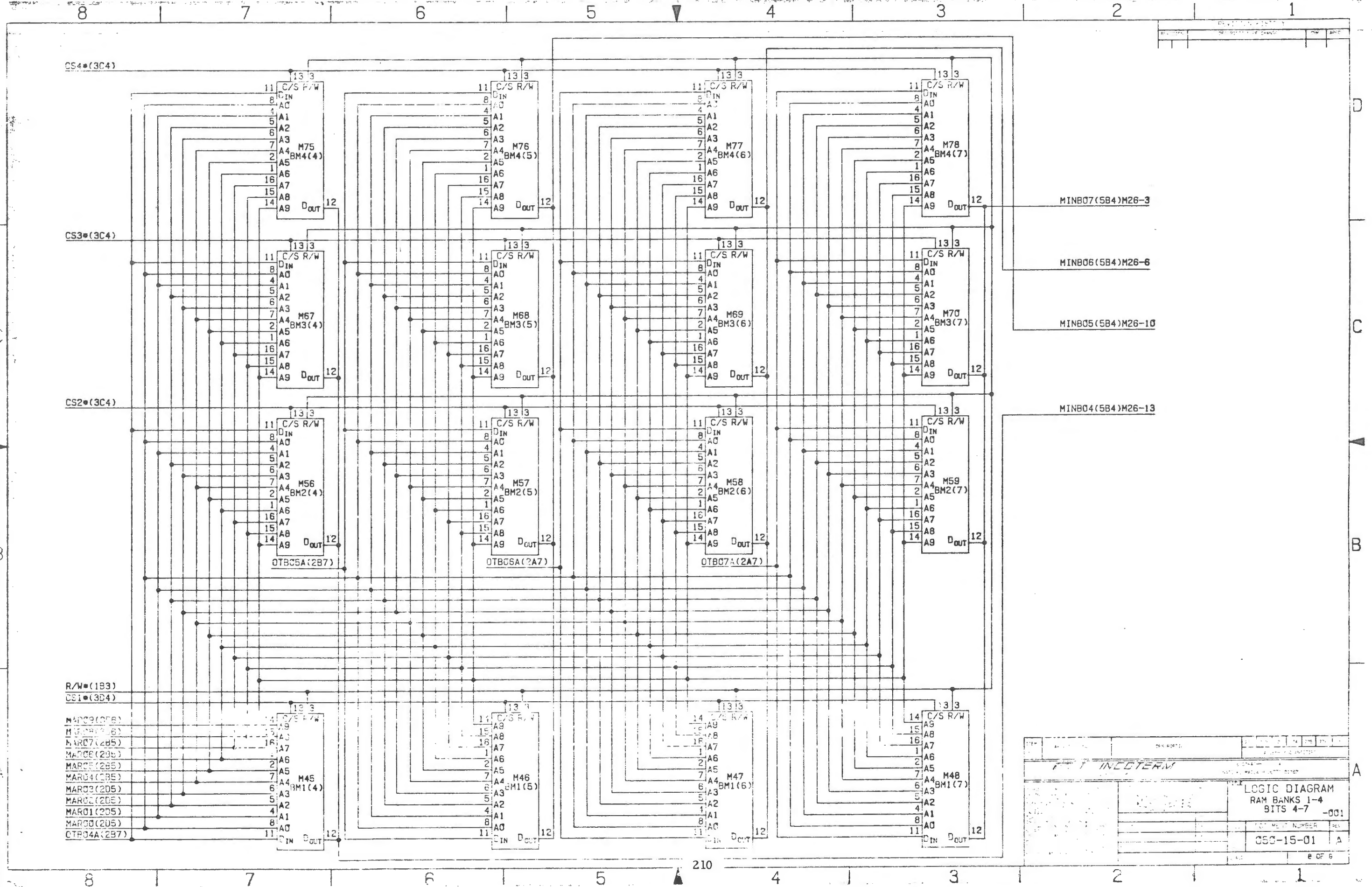
8 7 6 5 4 3 2 1



LOGIC DIAGRAM	
CYCLIC CHECK GENERATOR -331	
C50-15-01 A	
6 OF 8	



DESCRIPTION		DATE	BY	CHK	APP
INCOTERM					
LOGIC DIAGRAM					
RAM BANKS 1-4					
BITS 0-3					
-001					
DATE	DRAWING NUMBER	REV.			
	050-15-01	A			



CS4*(3C4)

CS3*(3C4)

CS2*(3C4)

R/W*(1B3)

CS1*(3D4)

- MARC9(2B5)
- MARC8(2B5)
- MARC7(2B5)
- MARC6(2B5)
- MARC5(2B5)
- MARC4(2B5)
- MARC3(2D5)
- MARC2(2D5)
- MARC1(2D5)
- MAR00(2D5)
- OTBC4A(2B7)

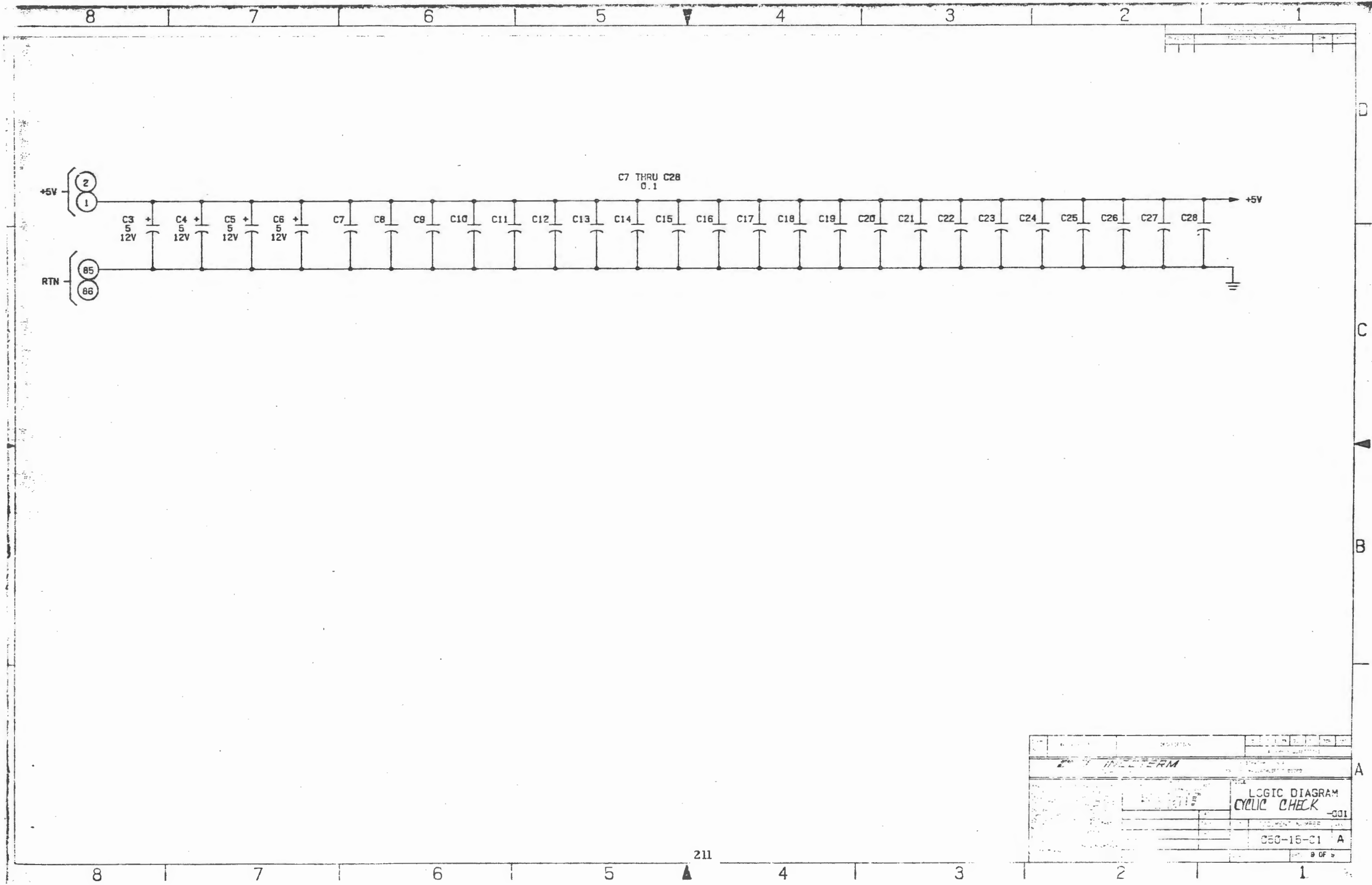
MINB07(5B4)M26-3

MINB06(5B4)M26-6

MINB05(5B4)M26-10

MINB04(5B4)M26-13

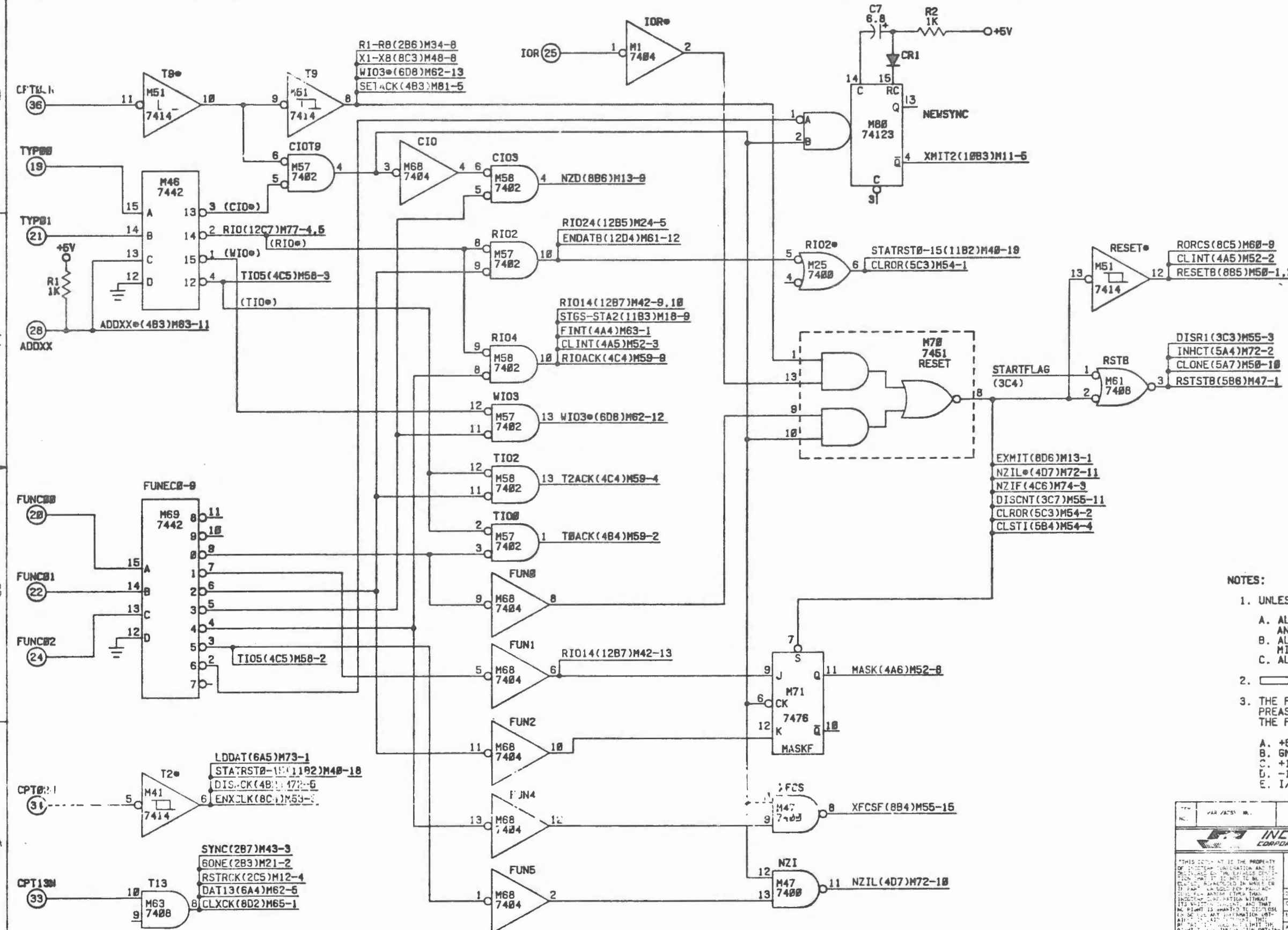
INCORPORATED		DATE: 1965	
INCORPORATED			
LOGIC DIAGRAM			
RAM BANKS 1-4			
BITS 4-7 -001			
FORM NO. 100-100		REV. 1	
CSC-15-01		A	
8 OF 8			



REVISION		NO.	DATE	BY	CHKD.
INLET TERM					
LOGIC DIAGRAM				Cyclic Check	
-331					
DOCUMENT NUMBER				C50-15-C1 A	
				9 OF 9	

211

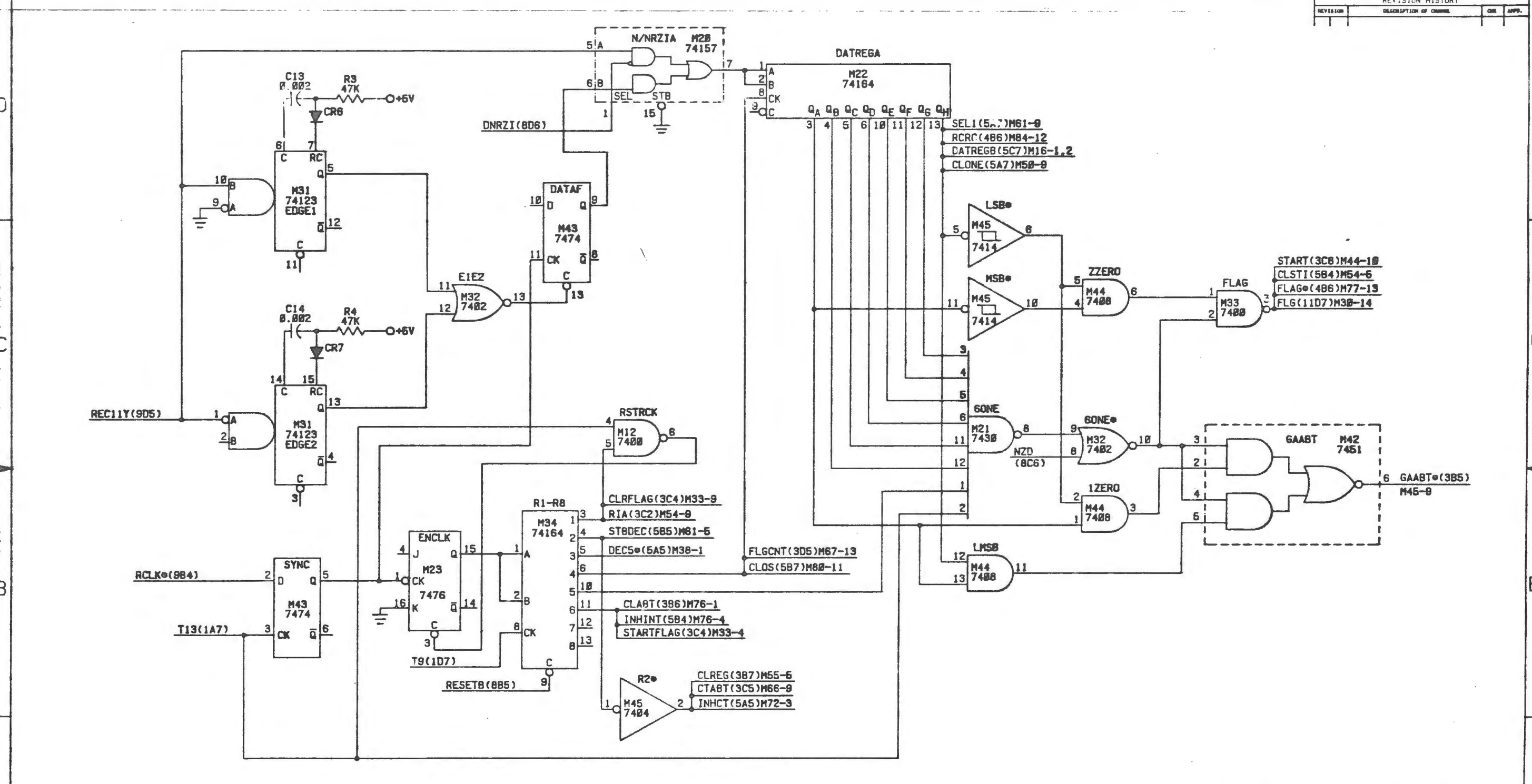
REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APP'D.
A	RELEASED/RD 1377		



- NOTES:
- UNLESS OTHERWISE SPECIFIED:
 - ALL RESISTOR VALUES ARE IN OHMS AND ARE 1/4W, ±5%
 - ALL CAPACITOR VALUES ARE IN MICROFARADS
 - ALL DIODES ARE 1N4148
 - INDICATES PC BOARD MARKING
 - THE FOLLOWING I/O PINS ARE PREASSIGNED AND MUST BE USED FOR THE FUNCTIONS DESCRIBED:
 - +5V - PINS 1,2
 - GND - PINS 85,86
 - +14V - PINS 75,76
 - 14V - PINS 81,82
 - I/O BUSS PINS 3 THRU 37

REV	PAR	DATE	BY	DESCRIPTION	QTY	UNIT	QTY	UNIT

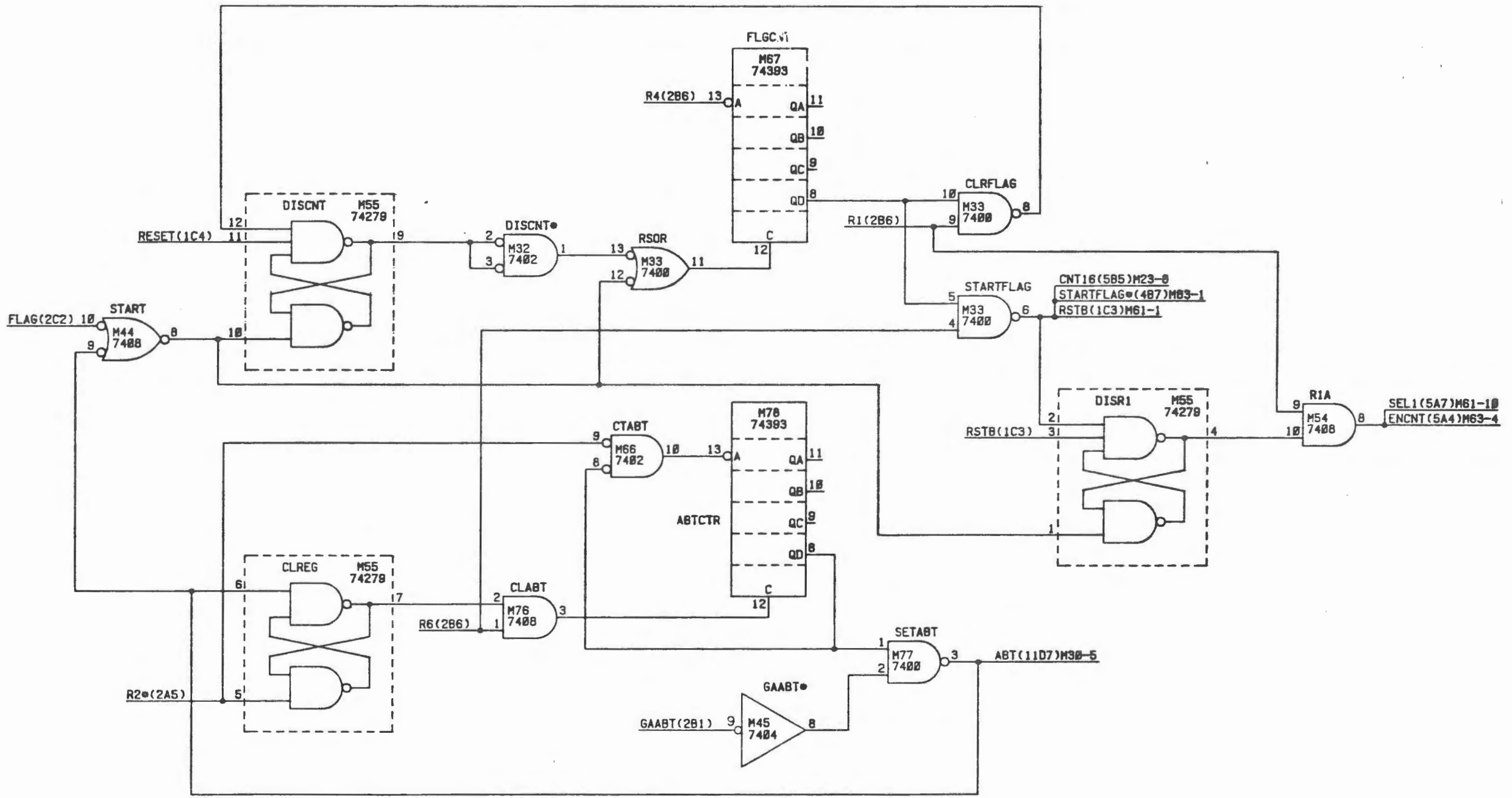
INCOTERM CORPORATION		88 VALMUT STREET MOLLETT, MASSACHUSETTS 02181	
TITLE: LOGIC DIAGRAM IDLC CONTROLLER		SIZE: D	QTY: 1 OF 12
PART NO: 050-17-01		SCALE:	DATE:



REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APP.

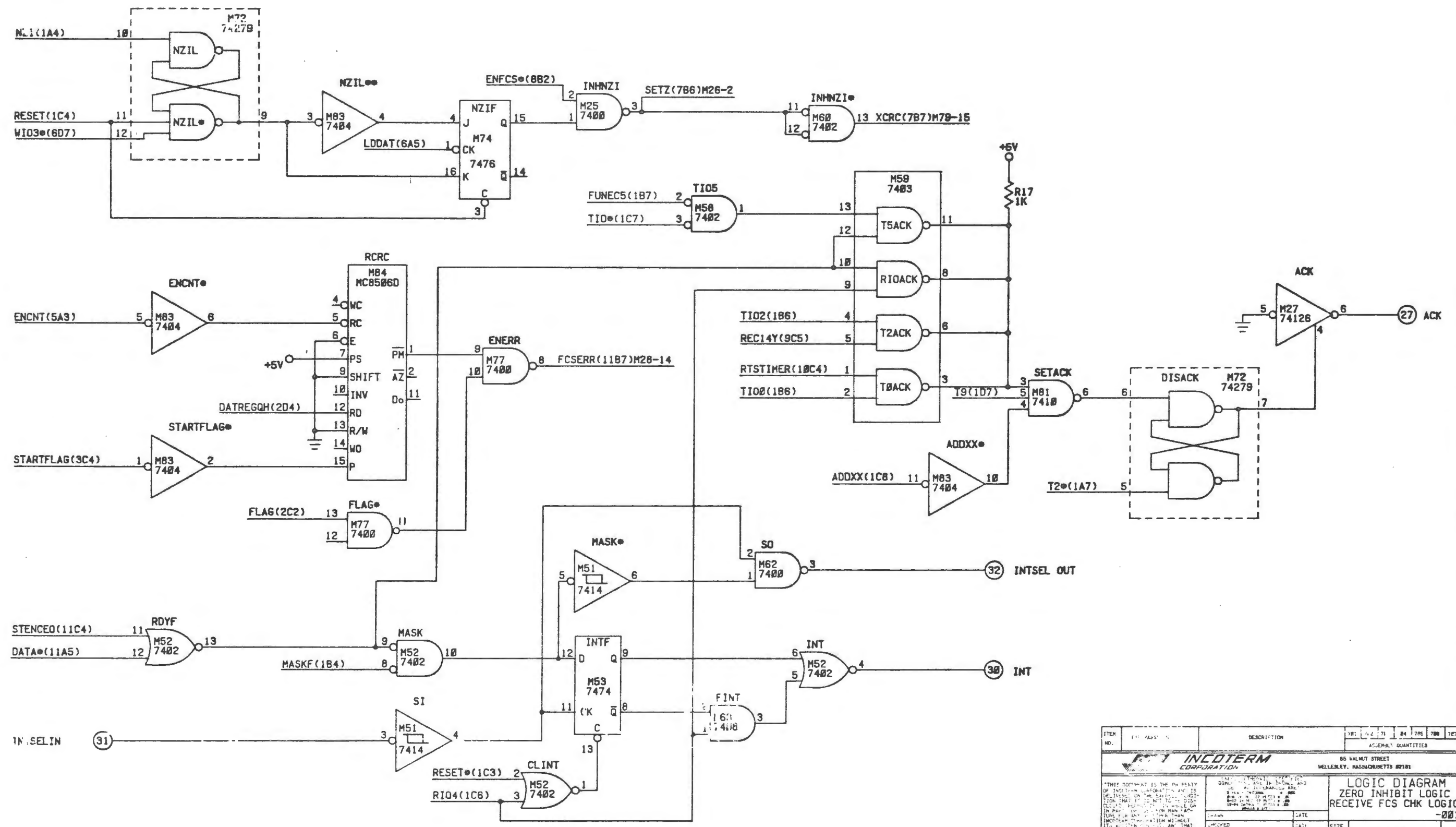
ITEM NO.	PA. T/REV. NO.	DESCRIPTION	781	2	785	787
65 WALMIT STREET WELLESLEY, MASSACHUSETTS 02151						
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LOGIC DIAGRAM RECEIVER TIMING GENERATOR FLAG AND ABORT DETECTION LOGIC			050-17-01			
2 OF 12			1			

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD.



ITEM NO.	P. ASSY. NO.	DESCRIPTION	781	782	783	784	785	786	787
INCOTERM CORPORATION 85 WALNUT STREET WELLESLEY, MASSACHUSETTS 02181			ASSEMBLY QUANTITIES						
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DRAWN	DATE	CHECKED	DATE	SIZE	APPROVED		D 050-17-01 A		
ENGINEER	DATE	APPROVED	DATE	SCALE		SHT. 3 OF 12			
FIRST USED ON	SCALE		SHT. 3 OF 12						

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD.

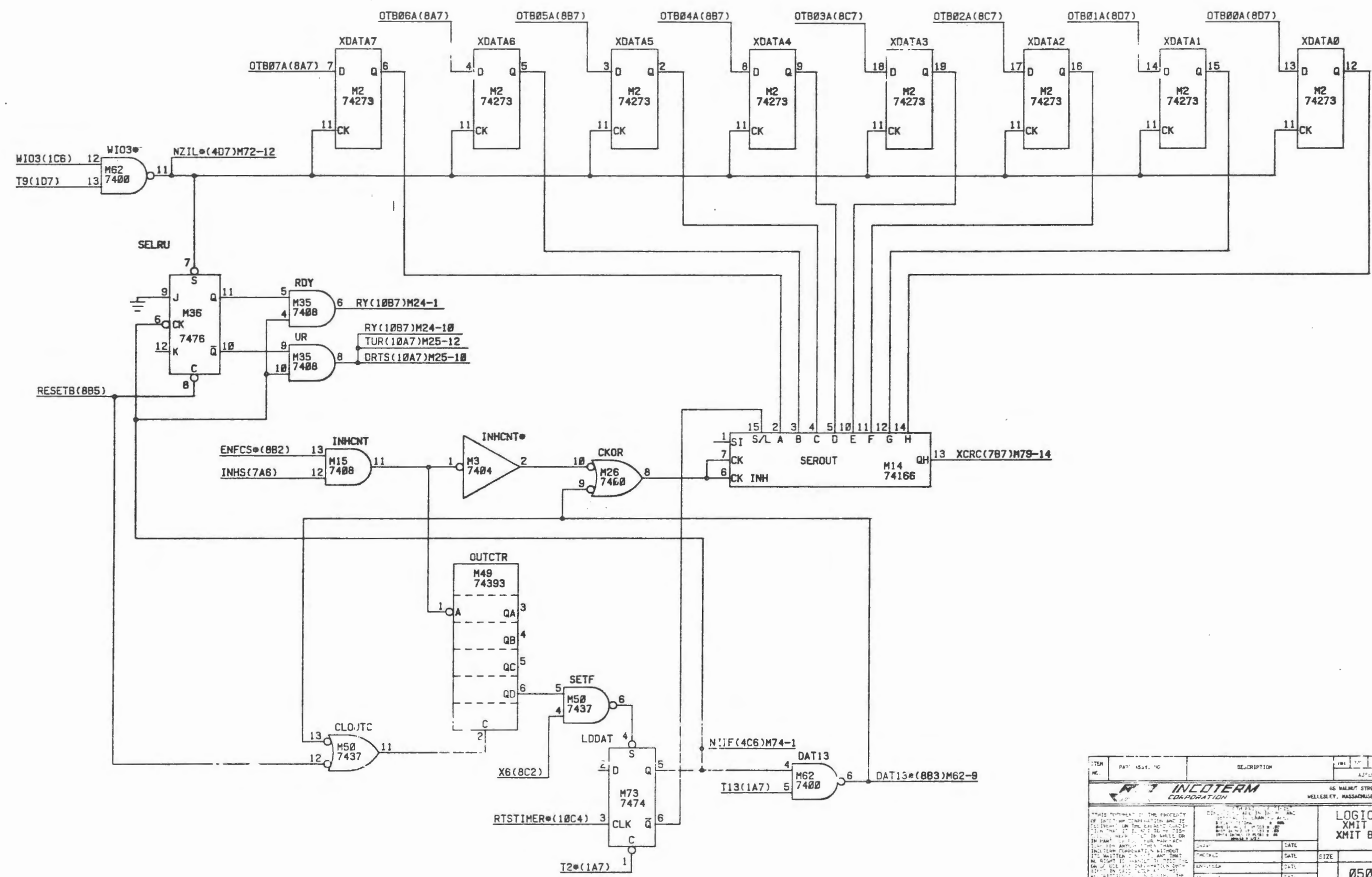


ITER NO.	REV	DESCRIPTION	781	782	783	784	785	786	787
			ASSEMBLY QUANTITIES						
INCOTERM CORPORATION									
85 WALNUT STREET WELLESLEY, MASSACHUSETTS 02151									
THIS DOCUMENT IS THE PROPERTY OF INCOTERM CORPORATION AND IS LOANED TO YOU FOR YOUR USE ONLY. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF INCOTERM CORPORATION.			DRAWN		DATE		SIZE		
DRAWN			DATE		SIZE				
ENGINEER			DATE		SIZE				
APPROVED			DATE		SIZE				
FIRST USED ON			SCALE		SMT		4 OF 12		

LOGIC DIAGRAM
ZERO INHIBIT LOGIC
RECEIVE FCS CHK LOGIC
-001

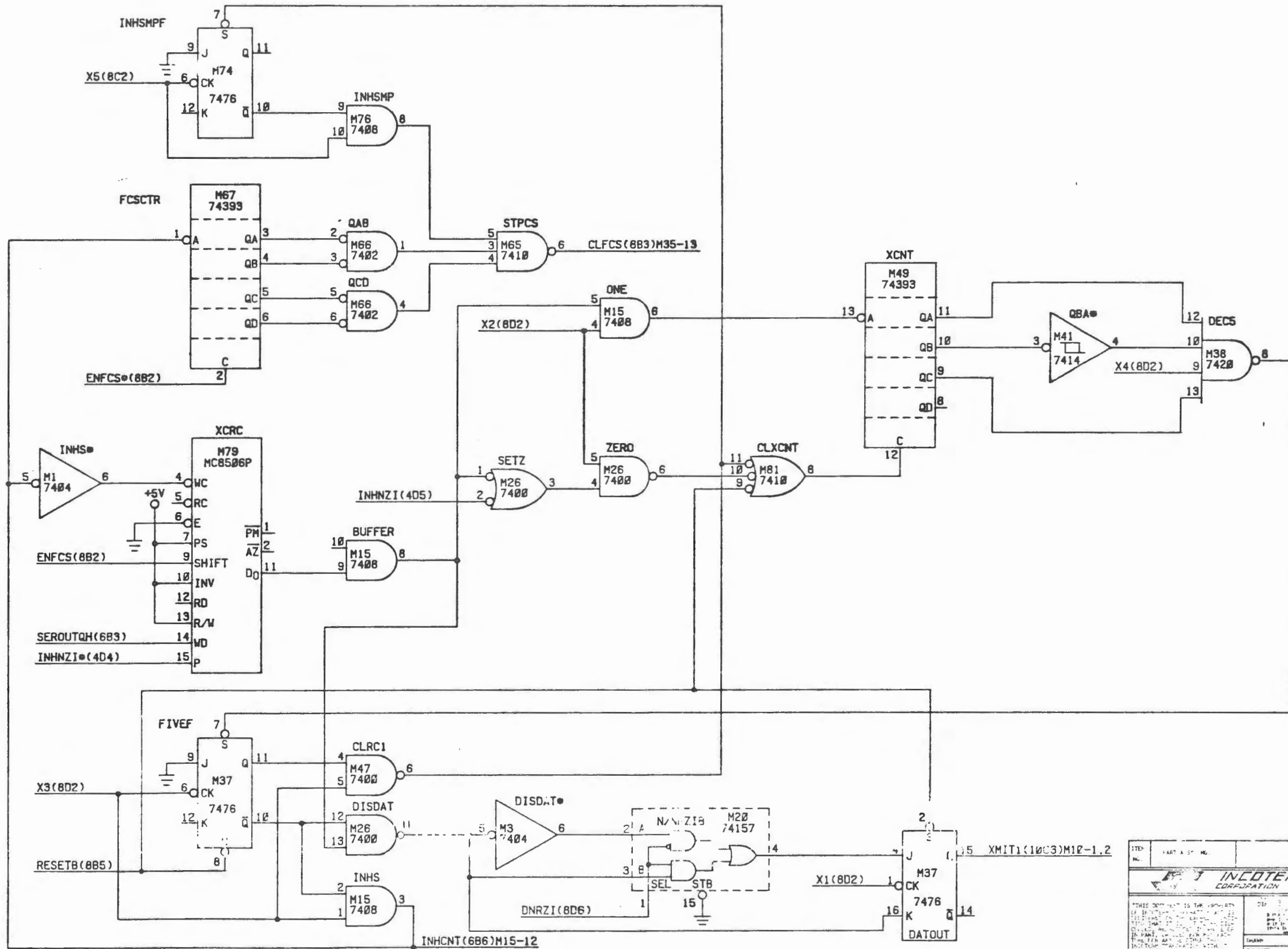
D 050-17-01 A

REVISION HISTORY			
REV. NO.	DESCRIPTION OF CHANGE	CHK	APP.



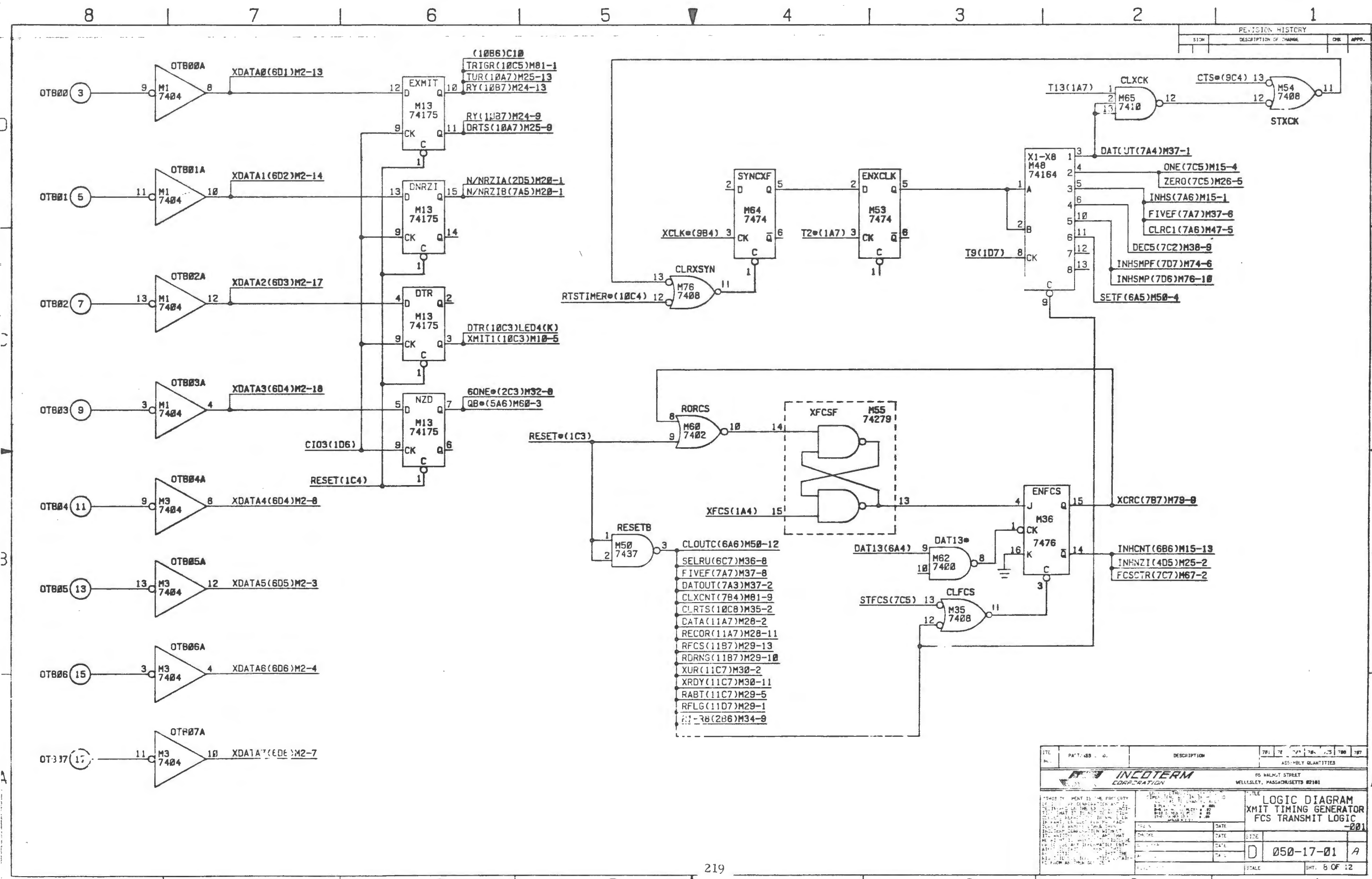
ITEM NO.	PART ASSY. NO.	DESCRIPTION	REV. 1	REV. 2	REV. 3	REV. 4	REV. 5	REV. 6	REV. 7	REV. 8	REV. 9	REV. 10	REV. 11	REV. 12
INCOTERM EDAPORATION 65 WALNUT STREET WELLESLEY, MASSACHUSETTS 02181												LOGIC DIAGRAM XMIT SHIFT REG XMIT BIT COUNTER -001		
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DATE: _____ SIZE: _____ DATE: _____ SIZE: _____ DATE: _____ SIZE: _____ DATE: _____ SIZE: _____												SCALE: _____ SHY. 6 OF 12		

REVISION HISTORY		
REVISION	DESCRIPTION OF CHANGE	CHK APPD.



INCOTERM CORPORATION 25 WAHNET STREET WELLESLEY, MASSACHUSETTS 02151	TITLE LOGIC DIAGRAM FCS BIT COUNTER, FCS GENERATOR, ZERO INSERT LOGIC -001
DRAWN: _____ DATE: _____ CHECKED: _____ DATE: _____ ENGINEER: _____ DATE: _____ APPROVED: _____ DATE: _____ FIRST USEL ON: _____	SCALE: _____ SHEET: 7 OF 12

REVISION HISTORY			
SYM	DESCRIPTION OF CHANGE	CHK	APP.



ITE	PA	ISS	D	DESCRIPTION	781	78	78	78	78	78

INCOTERM CORPORATION
 90 WALKER STREET
 WELLESLEY, MASSACHUSETTS 02181

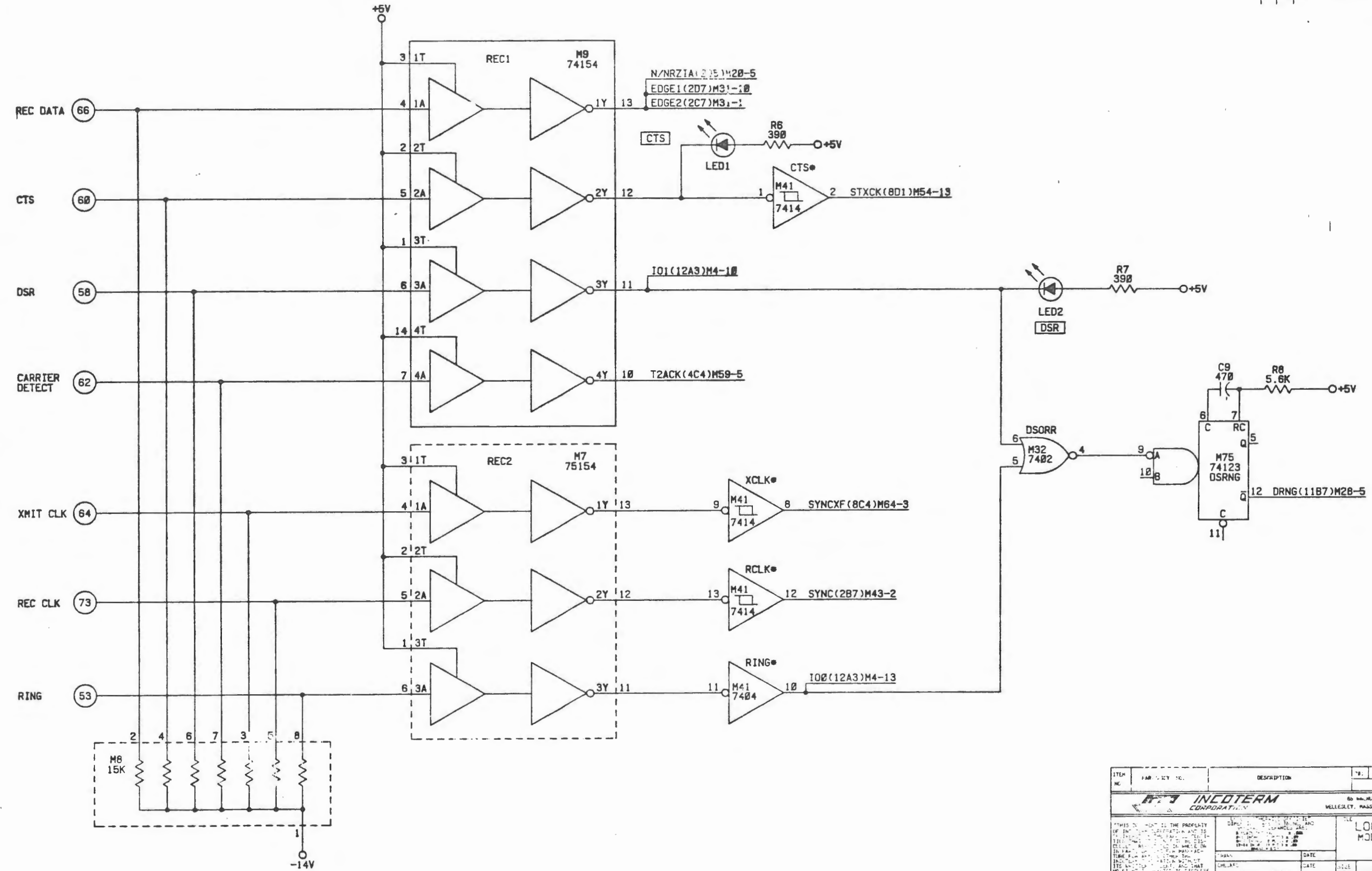
LOGIC DIAGRAM
XMIT TIMING GENERATOR
FCS TRANSMIT LOGIC
 -001

DATE	DATE	DATE	DATE	DATE	DATE

D 050-17-01 A

SCALE: INT. 5 OF 12

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD.



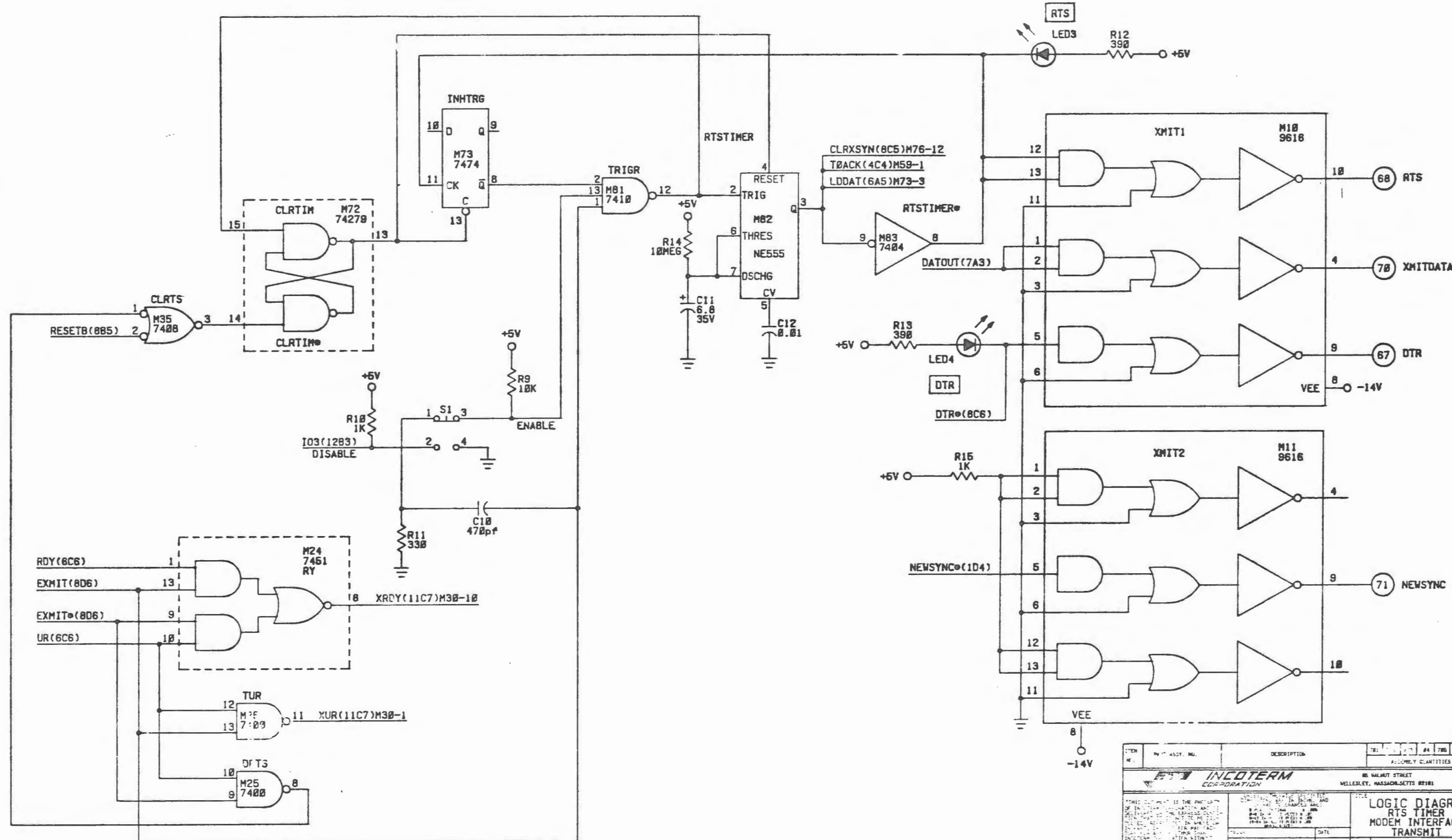
ITEM NO.	PART NO.	DESCRIPTION	QTY	DATE	BY

INCOTERM CORPORATION
80 HAWLEY STREET
MELLETT, MASSACHUSETTS 02181

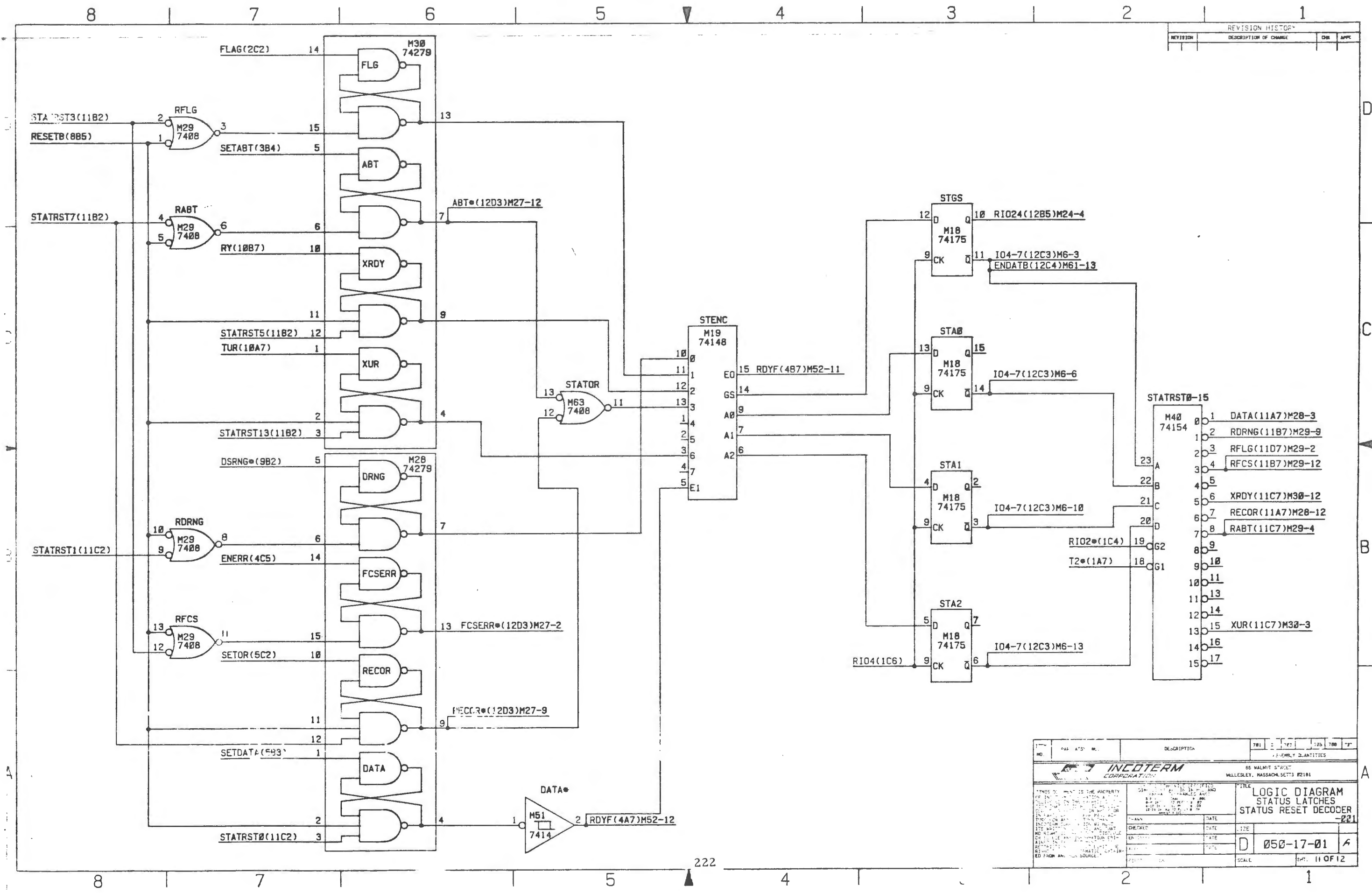
LOGIC DIAGRAM
MODEM INTERFACE
RECEIVE -001

DATE: 052-17-01
SCALE: 9 OF 12

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPV.



DATE	BY	ASST. NO.	DESCRIPTION	REV.	44	785	788	787
INCOTERM CORPORATION 85 WALNUT STREET WELLESLEY, MASSACHUSETTS 02181				ASSEMBLY QUANTITIES				
LOGIC DIAGRAM RTS TIMER MODEM INTERFACE TRANSMIT -001				DATE				
DATE				D 050-17-01 A				
DATE				SMT. 10 OF 12				



REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APP

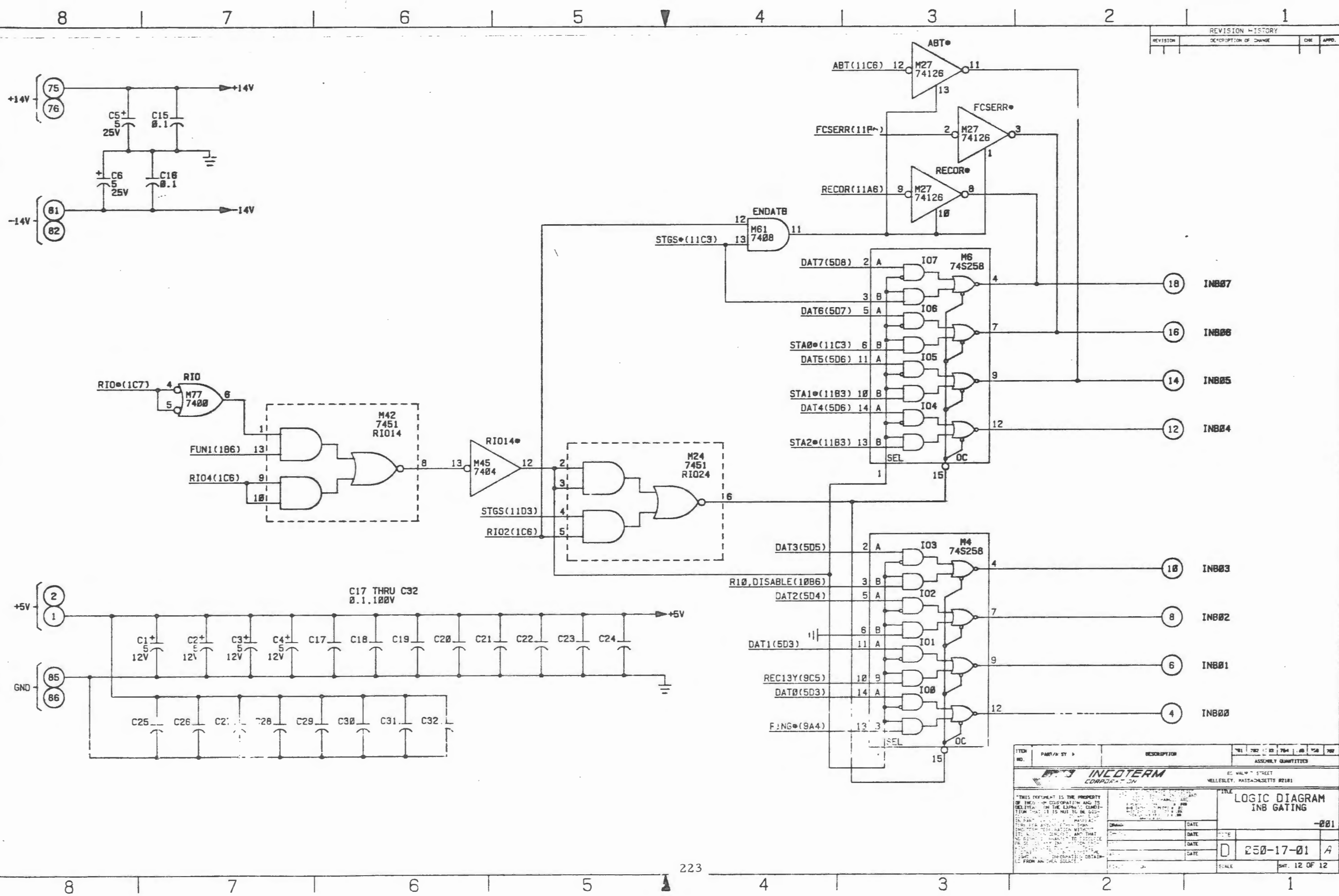
NO.	PART NO.	DESCRIPTION	781	782	783	784	785
INCOTERM CORPORATION 66 WALNUT STREET WELLESLEY, MASSACHUSETTS 02181							
<small>THIS DOCUMENT IS THE PROPERTY OF INCOTERM CORPORATION AND IS LOANED TO YOU FOR YOUR INFORMATION ONLY. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF INCOTERM CORPORATION.</small>		<small>DATE</small> <small>CHECKED</small> <small>DATE</small> <small>DATE</small> <small>DATE</small>		<small>DATE</small> <small>DATE</small> <small>DATE</small> <small>DATE</small>		<small>DATE</small> <small>DATE</small> <small>DATE</small> <small>DATE</small>	
<small>SCALE</small> <small>1:1</small>		<small>SCALE</small> <small>1:1</small>		<small>SCALE</small> <small>1:1</small>		<small>SCALE</small> <small>1:1</small>	

LOGIC DIAGRAM
STATUS LATCHES
STATUS RESET DECODER
-221

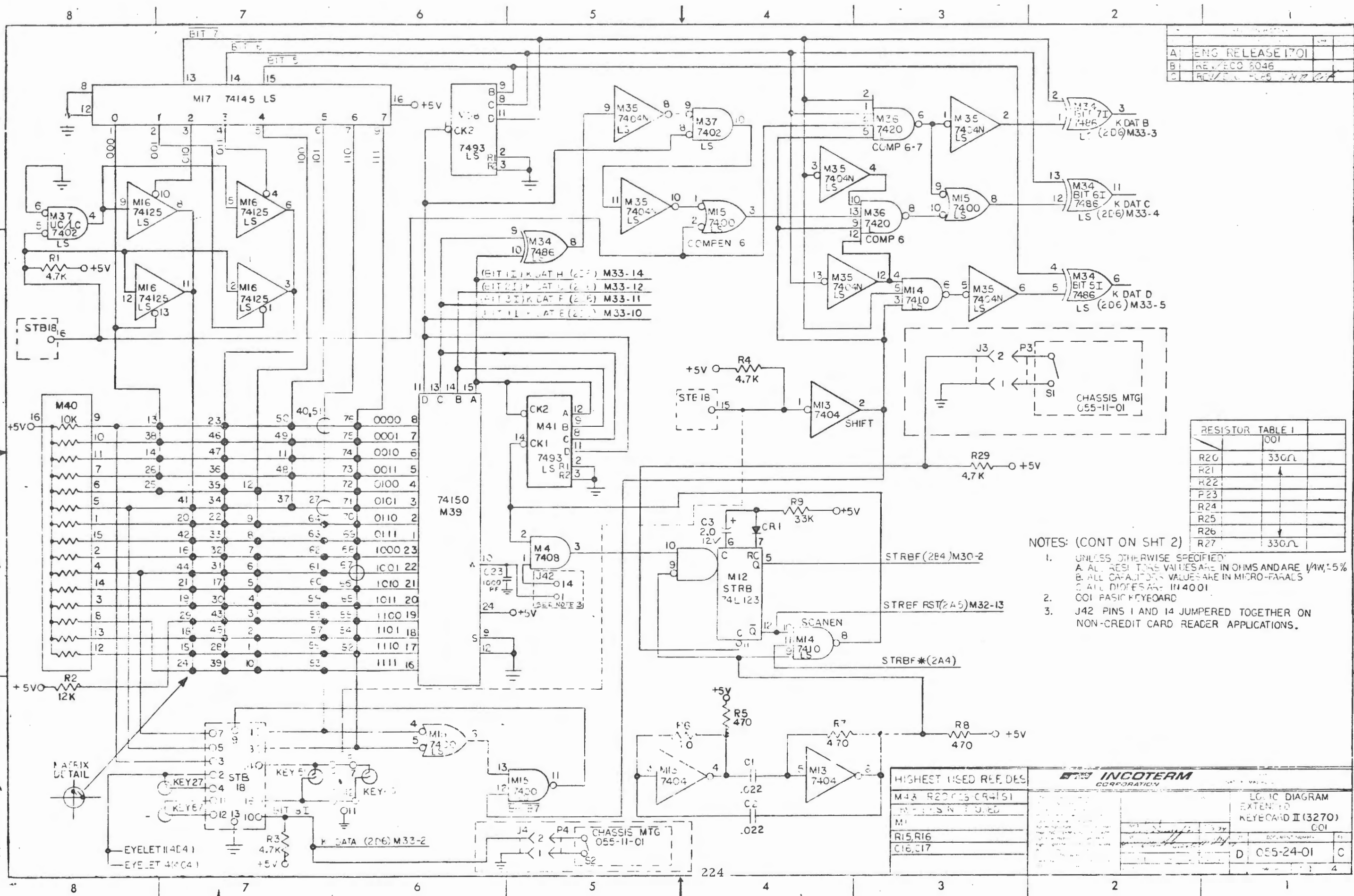
050-17-01 4

11 OF 12

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD.



ITEM NO.	PART/ALT	DESCRIPTION	QTY	UNIT	DATE
INCOTERM CORPORATION 80 WALTON STREET WELLESLEY, MASSACHUSETTS 02181					
TITLE: LOGIC DIAGRAM INB GATING					
DATE: <input type="checkbox"/> 250-17-01					
SCALE: SHY. 12 OF 12					



A	ENG RELEASE (701)
B	REV ECO 8046
C	REV ECO 8046

RESISTOR	VALUE
R20	330Ω
R21	↑
R22	
P23	
R24	
R25	
R26	330Ω
R27	

- NOTES: (CONT ON SHT 2)
- UNLESS OTHERWISE SPECIFIED:
 A. ALL RESISTOR VALUES ARE IN OHMS AND ARE 1/4W, 5%
 B. ALL CAPACITOR VALUES ARE IN MICRO-FARADS
 C. ALL DIODES ARE 1N4001
 - GOI BASIC KEYBOARD
 - J42 PINS 1 AND 14 JUMPED TOGETHER ON NON-CREDIT CARD READER APPLICATIONS.

HIGHEST USED REF. DES
M43, R20, C15, CR4, S1
REFS NOT USED
M1
R15, R16
C16, C17

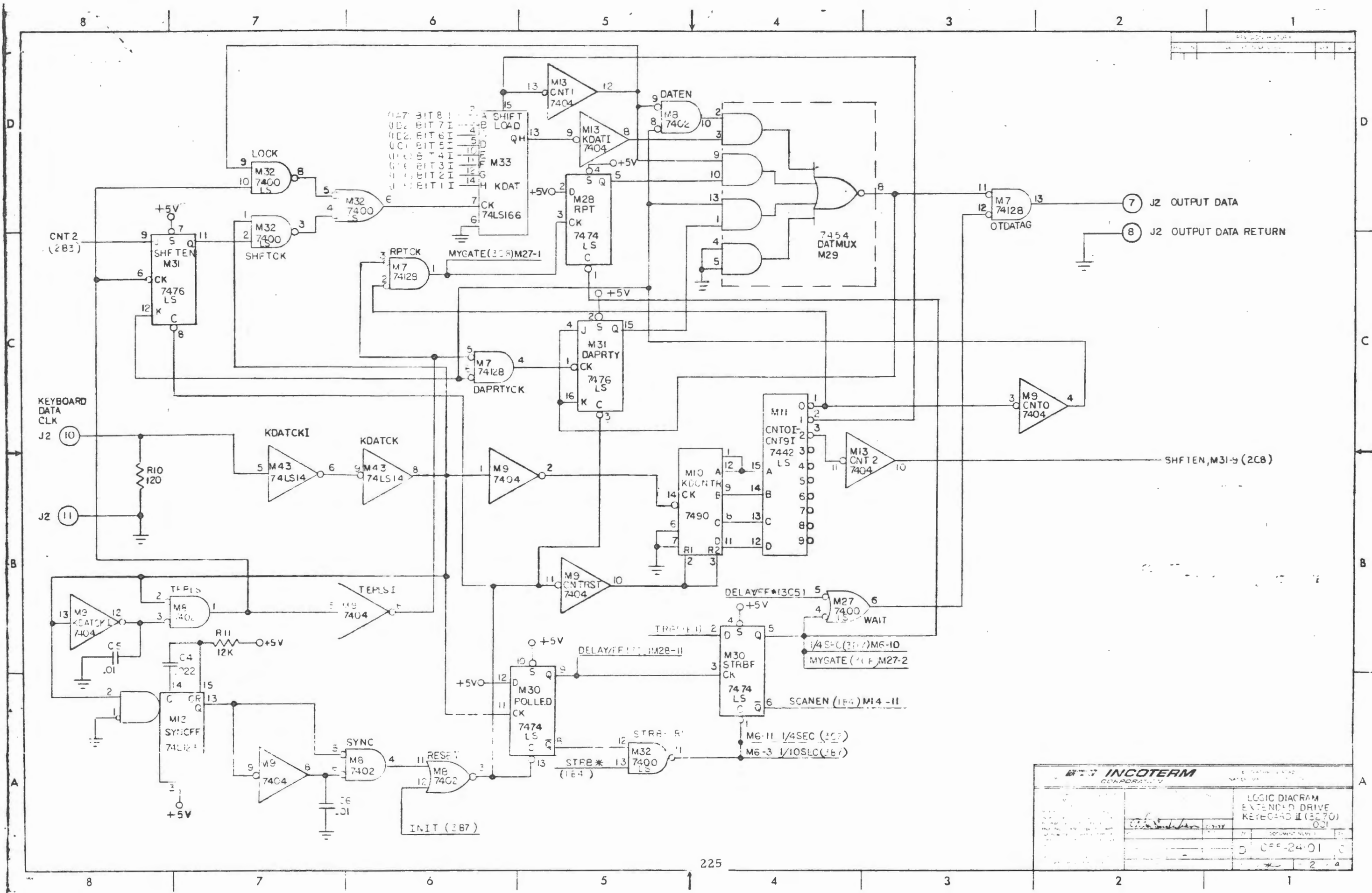
INCOTERM CORPORATION

LOGIC DIAGRAM
EXTENSION
KEYBOARD II (3270)
GOI

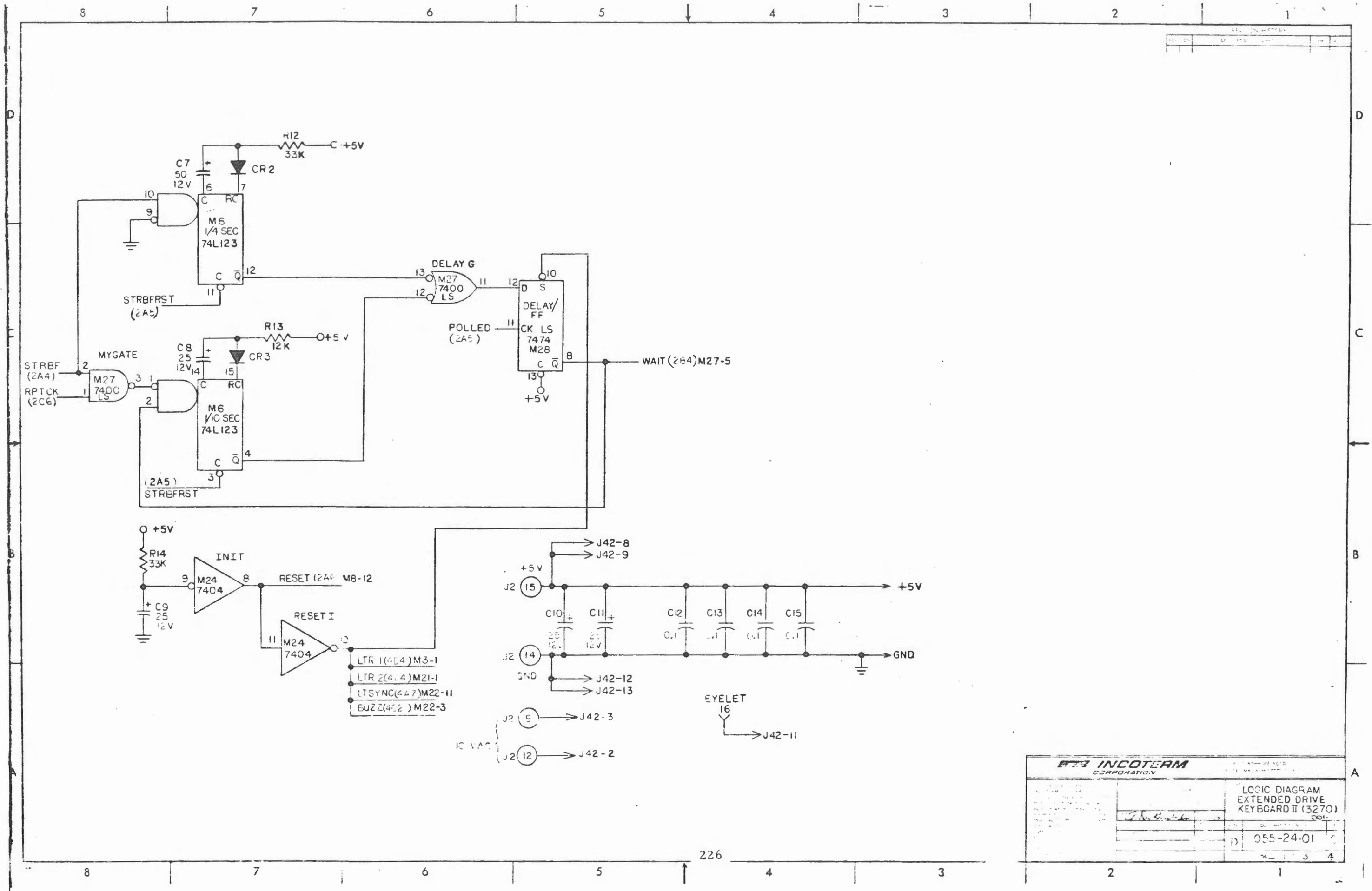
ESD: 11/27/70

D C55-24-01 C

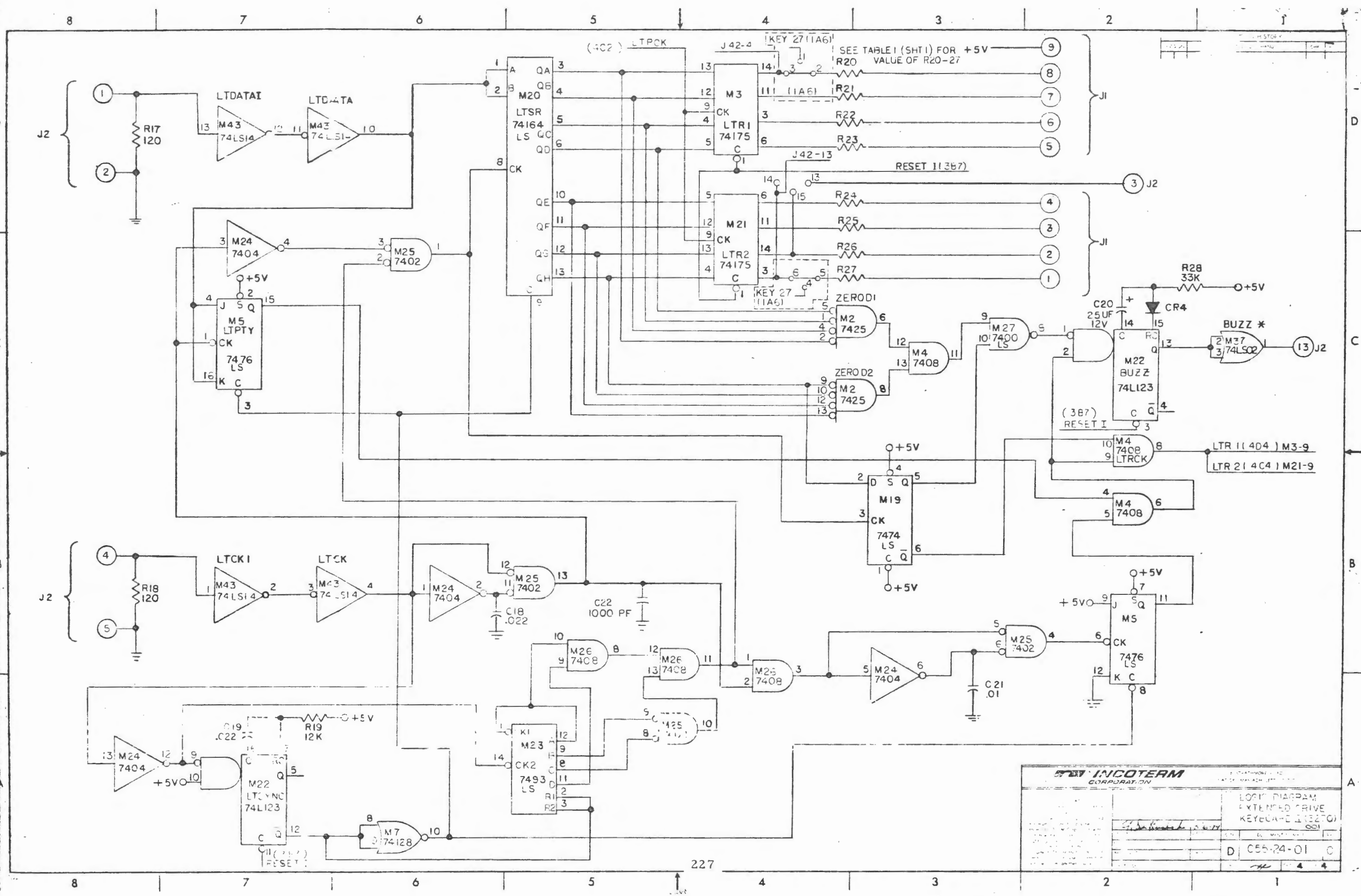
REV	DATE	BY	CHKD



INCOTERM CORPORATION		LOGIC DIAGRAM EXTENDED DRIVE KEYBOARD II (3270)	

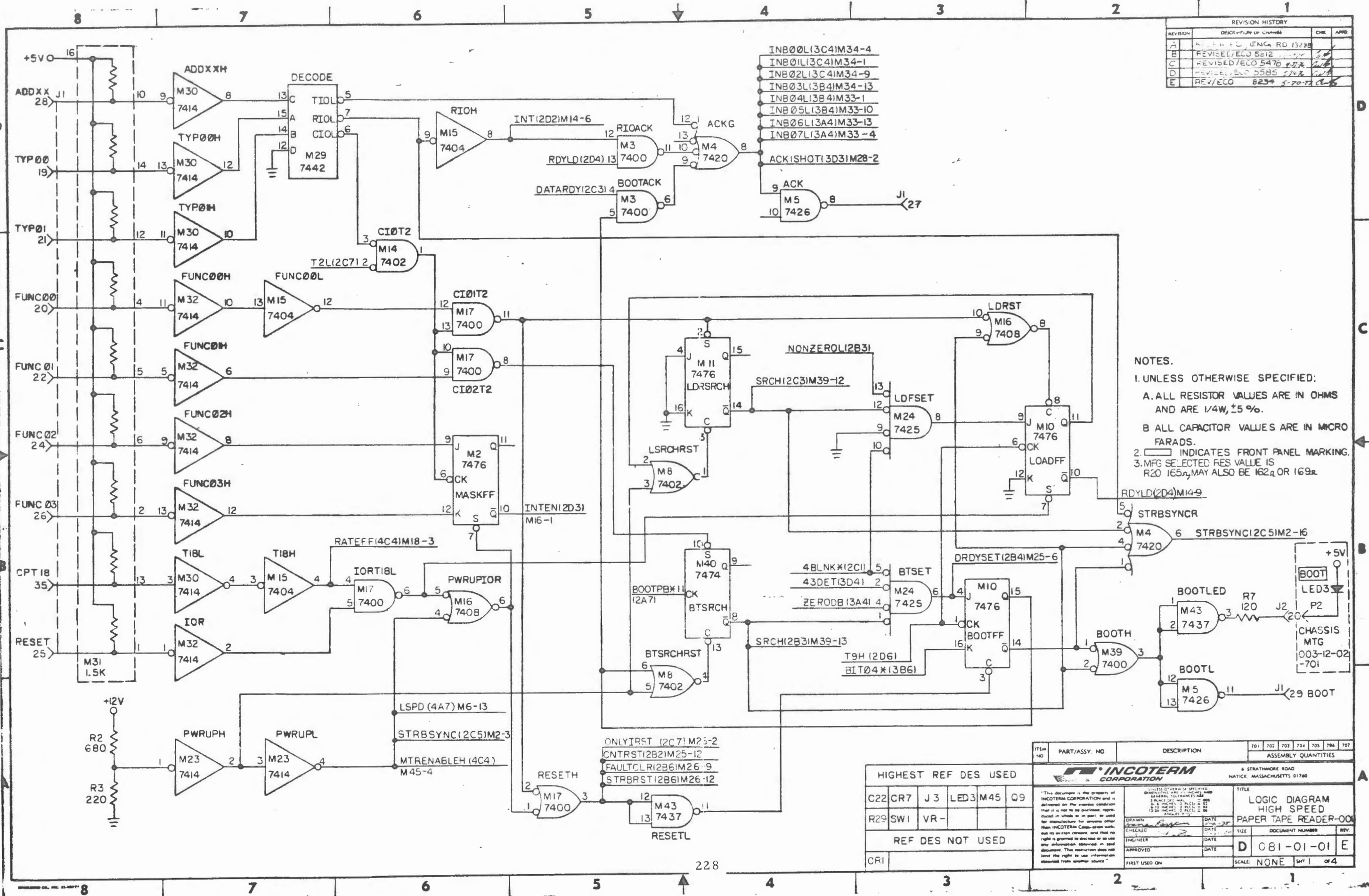


INCOTEAM CORPORATION		LOGIC DIAGRAM EXTENDED DRIVE KEYBOARD II (3270)
DATE:	BY:	055-24-01
1	3	4



INCOTERM CORPORATION		LOGIC DIAGRAM EXTENDED DRIVE KEYBOARD (3270)	
REV.	DATE	BY	CHK
1			
D C55-24-01		C	

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD
A	REVISED/ECO 5212		
B	REVISED/ECO 5476		
C	REVISED/ECO 5585		
D	REVISED/ECO 8234		
E	REVISED/ECO 8234		

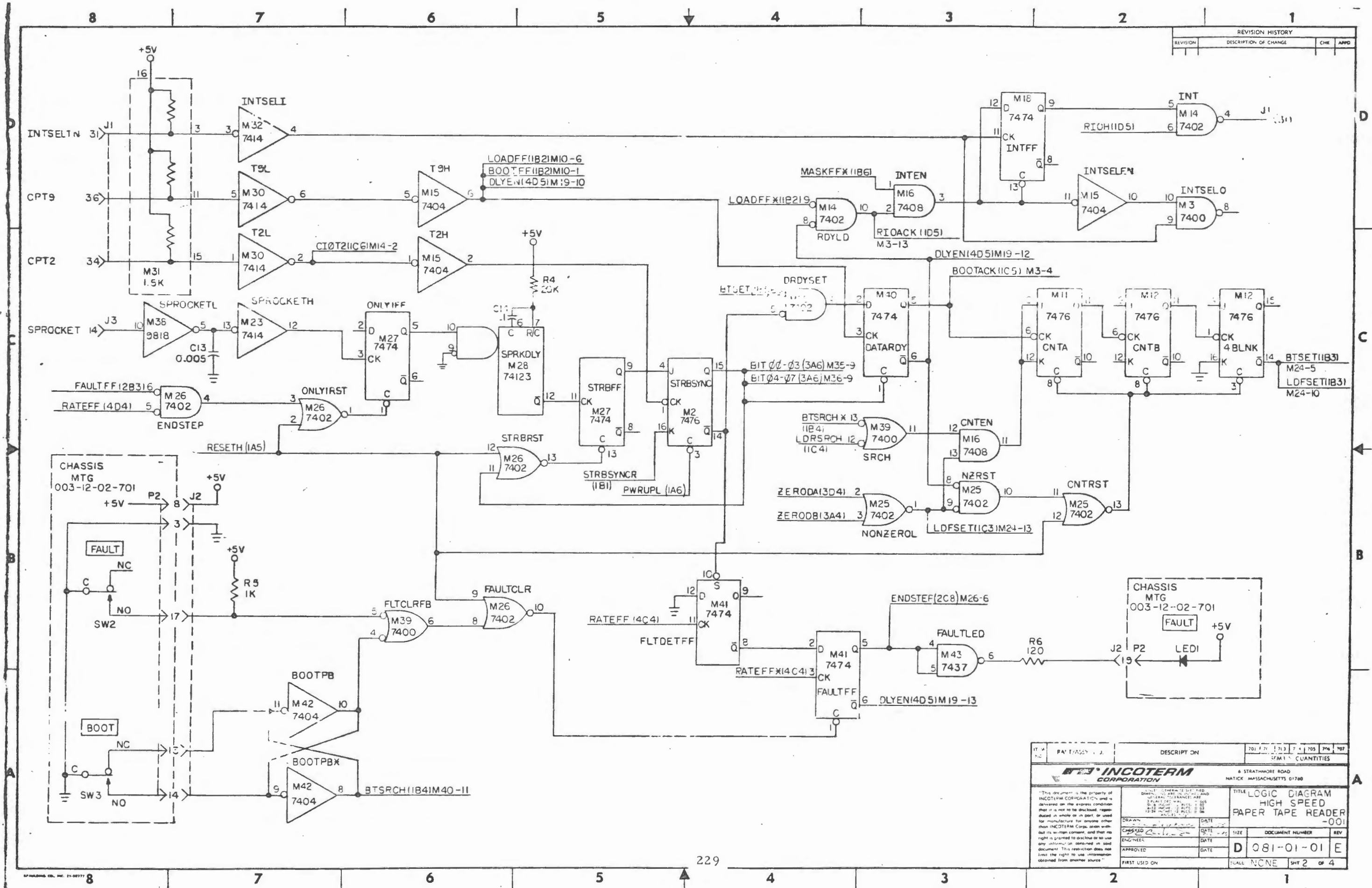


- NOTES.
- UNLESS OTHERWISE SPECIFIED:
 - A. ALL RESISTOR VALUES ARE IN OHMS AND ARE 1/4W, ±5%.
 - B. ALL CAPACITOR VALUES ARE IN MICRO FARADS.
 - INDICATES FRONT PANEL MARKING.
 - MFG SELECTED RES VALUE IS R20 165Ω, MAY ALSO BE 162Ω OR 169Ω.

ITEM NO	PART/ASSY. NO	DESCRIPTION	701	702	703	704	705	706	707
HIGHEST REF DES USED									
C22	CR7	J3 LED3 M45 Q9							
R29	SW1	VR-							
REF DES NOT USED									
CRI									

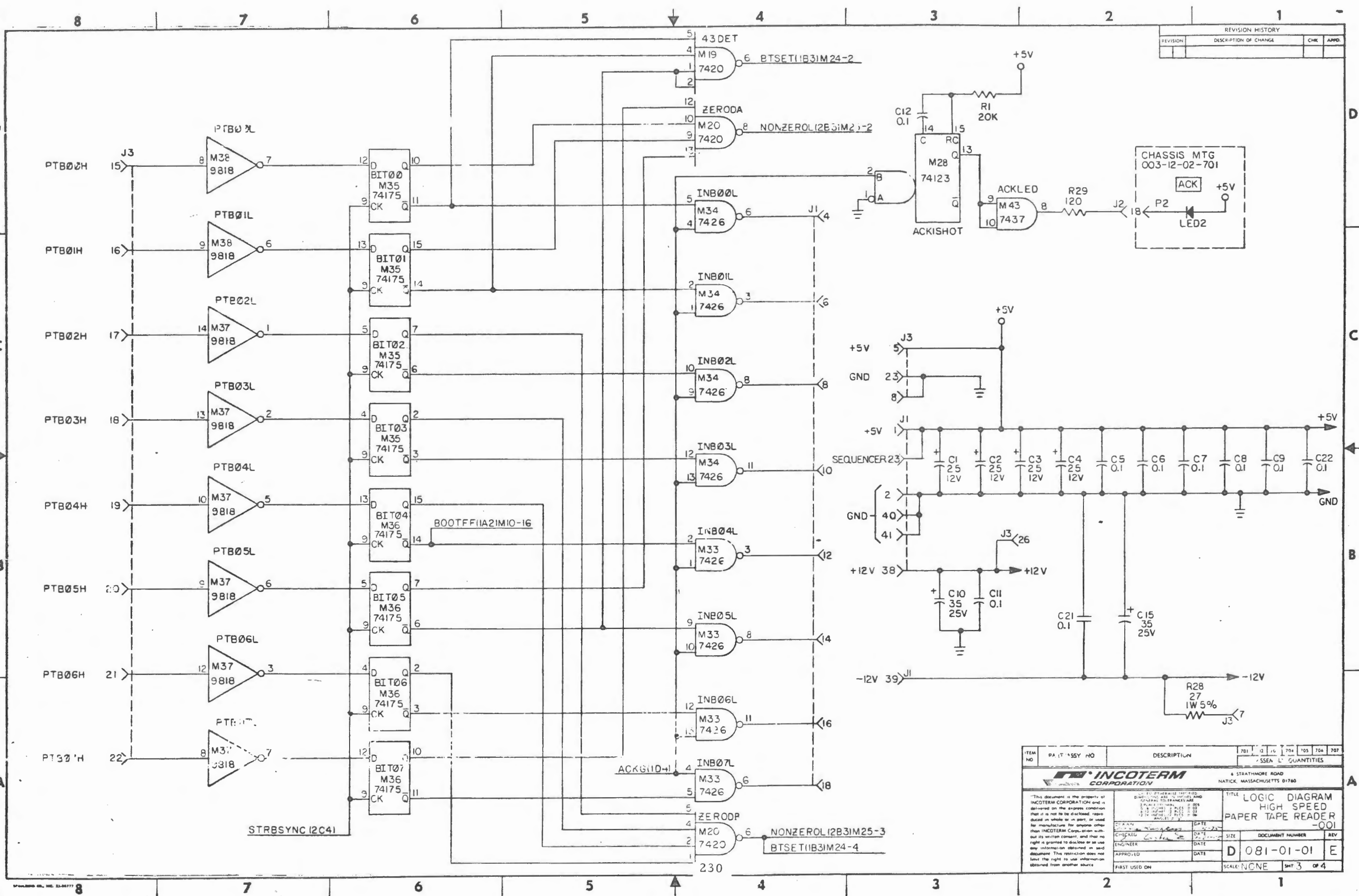
INCOTERM CORPORATION 8 STRATHMORE ROAD NATICK, MASSACHUSETTS 01740		TITLE LOGIC DIAGRAM HIGH SPEED PAPER TAPE READER-00	
DATE	DATE	DATE	DATE
CHECKED	DATE	SIZE	DOCUMENT NUMBER
ENGINEER	DATE		REV
APPROVED	DATE	D	081-01-01 E
FIRST USED ON	SCALE: NONE	SHT 1	OF 4

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD



PARTS LIST		DESCRIPTION		QUANTITIES	

INCOTERM CORPORATION 8 STRATHMORE ROAD NATICK, MASSACHUSETTS 01740		LOGIC DIAGRAM HIGH SPEED PAPER TAPE READER -001	
DRAWN: [Signature] CHECKED: [Signature] ENGINEER: [Signature] APPROVED: [Signature]	DATE: [Date] DATE: [Date] DATE: [Date]	SIZE: [Size] DOCUMENT NUMBER: [Number]	REV: [Rev] DATE: [Date]
FIRST USED ON: [Date]		SCALE: NONE SH 2 OF 4	



REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD.

CHASSIS MTG
003-12-02-701
ACK
+5V
P2
LED2

ITEM NO	PART ASSY NO	DESCRIPTION	701	702	703	704	707

INCOTERM CORPORATION
6 STRATHMORE ROAD
NATICK, MASSACHUSETTS 01740

TITLE: LOGIC DIAGRAM
HIGH SPEED
PAPER TAPE READER
-001

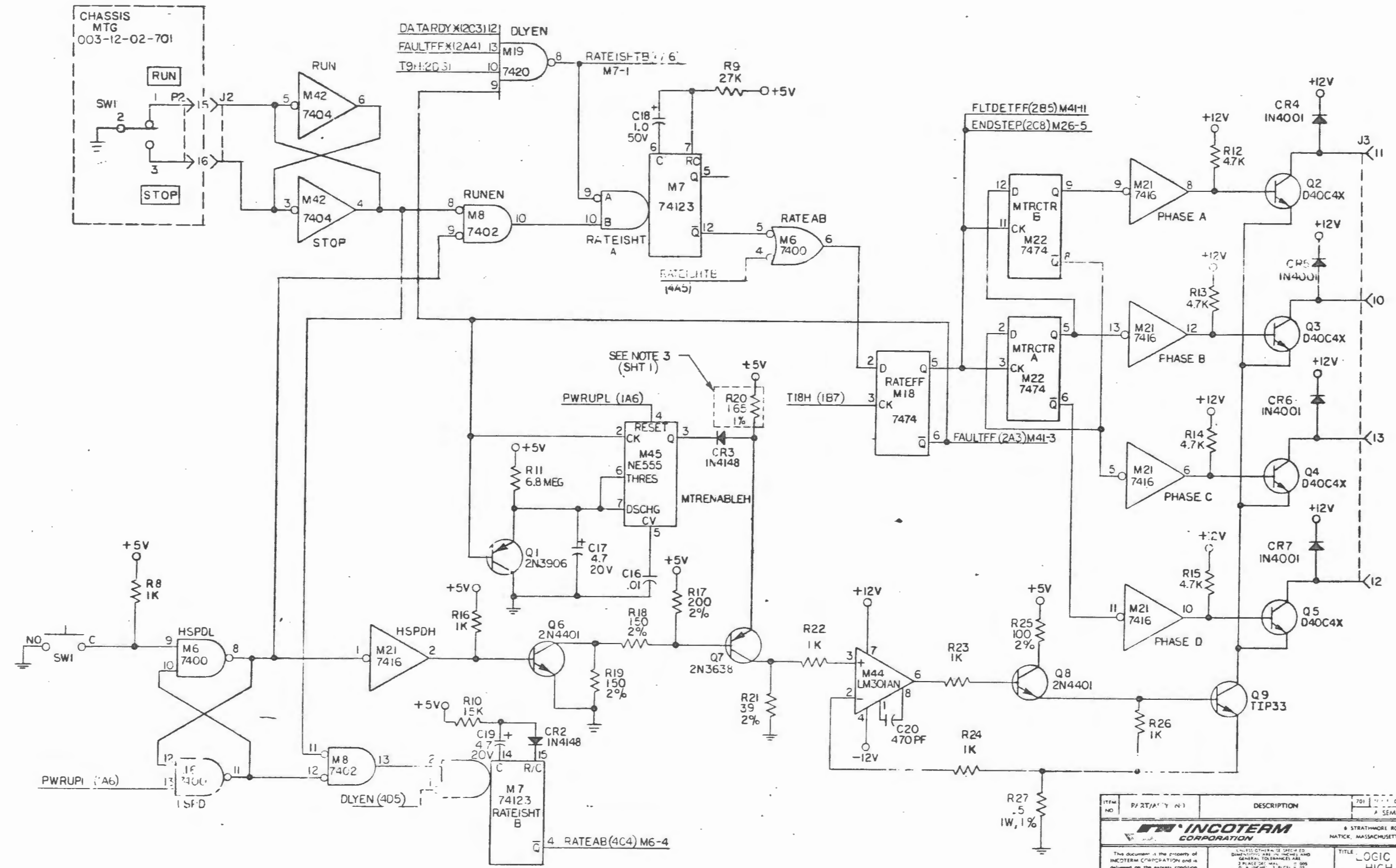
DATE	DATE	DATE	DATE

SIZE: D 081-01-01
DOCUMENT NUMBER: E
REV:

FIRST USED ON:

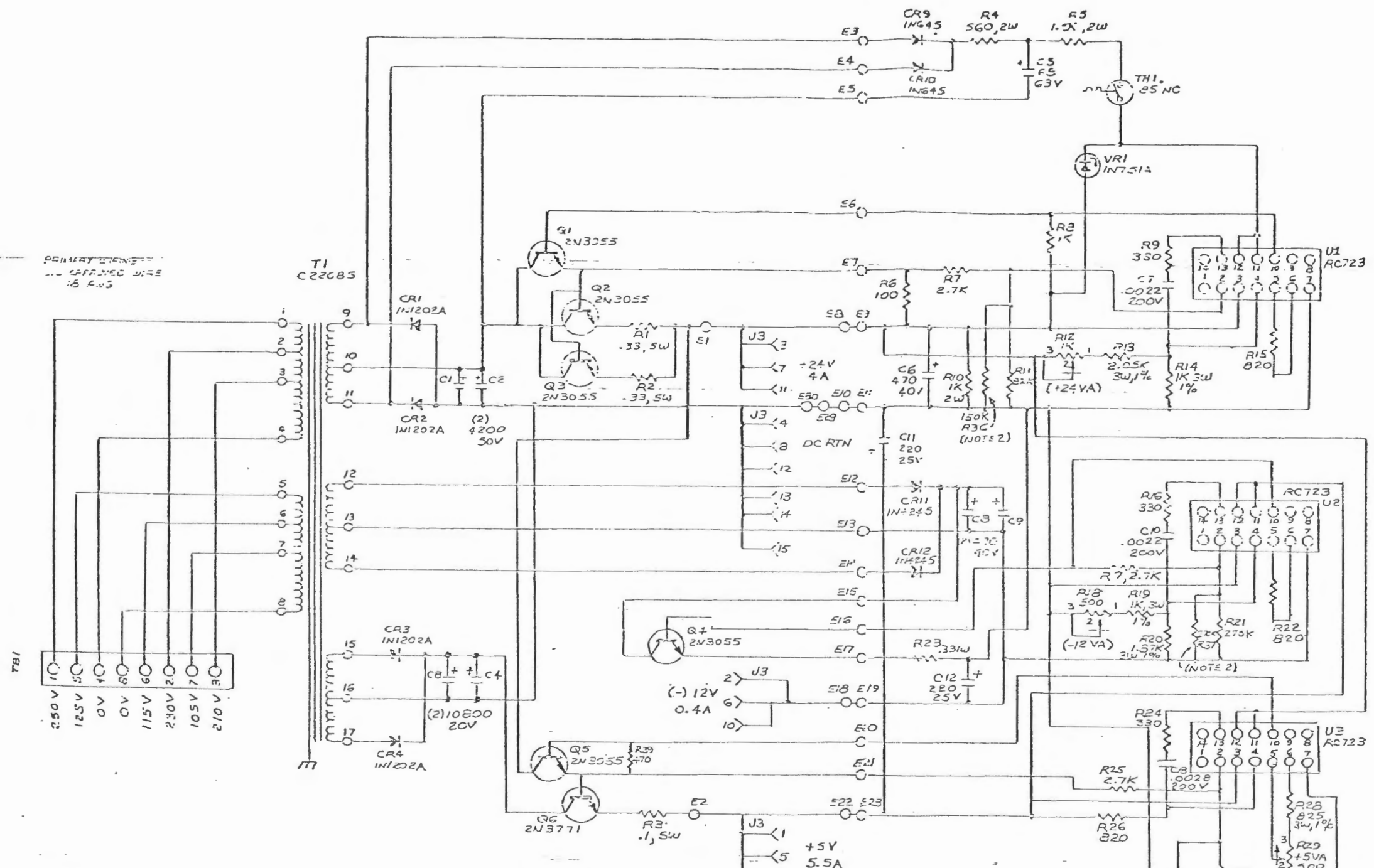
SCALE: NCNE
SHT: 3 OF 4

REVISION HISTORY			
REVISION	DESCRIPTION OF CHANGE	CHK	APPD



ITEM NO.	PART/ALTY	DESCRIPTION	701	702	703	704	705	706	707
INCOTERM CORPORATION 8 STRATHMORE ROAD NATICK, MASSACHUSETTS 01740									
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DRAWN CHECKED ENGINEER APPROVED	DATE 8-20-67	DATE 8-20-67	DATE 8-20-67	DATE 8-20-67	DATE 8-20-67	DATE 8-20-67	DATE 8-20-67	DATE 8-20-67	DATE 8-20-67
FIRST USED ON								SCALE: NONE SHT 4 OF 4	

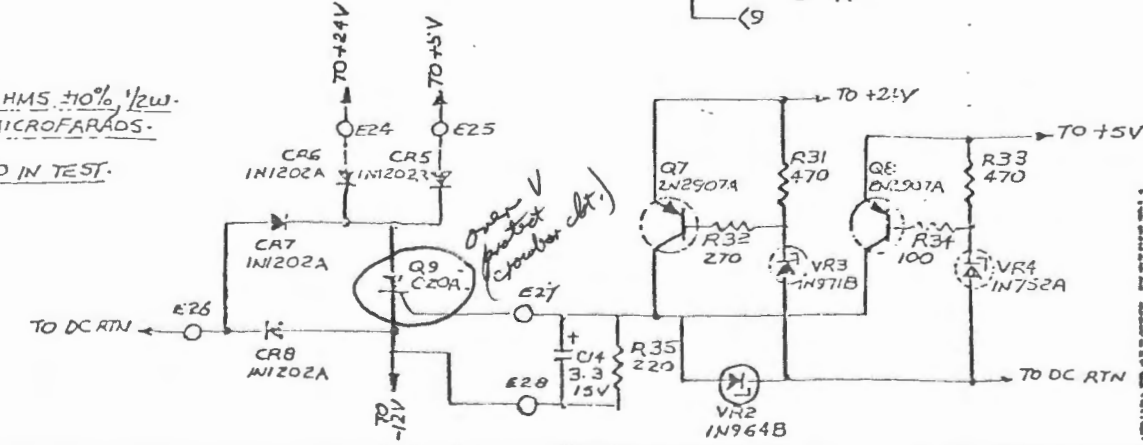
REV.	DESCRIPTION	DATE	BY
1	ISSUED FOR TESTS TO 404 0155	11-17-63	
2	ISSUED FOR TESTS TO 404 0155	11-17-63	
3	ISSUED FOR TESTS TO 404 0155	11-17-63	



+24V
±12V
+5V

Step 24V = PS down
" 5V = 12V "
Test for 5V off logic PCB

NOTES
UNLESS OTHERWISE SPECIFIED:
RESISTANCE VALUES ARE IN OHMS ±10% 1/2W.
CAPACITANCE VALUES ARE IN MICROFARADS.
2. RESISTORS R3, R37 & R35 SELECTED IN TEST.

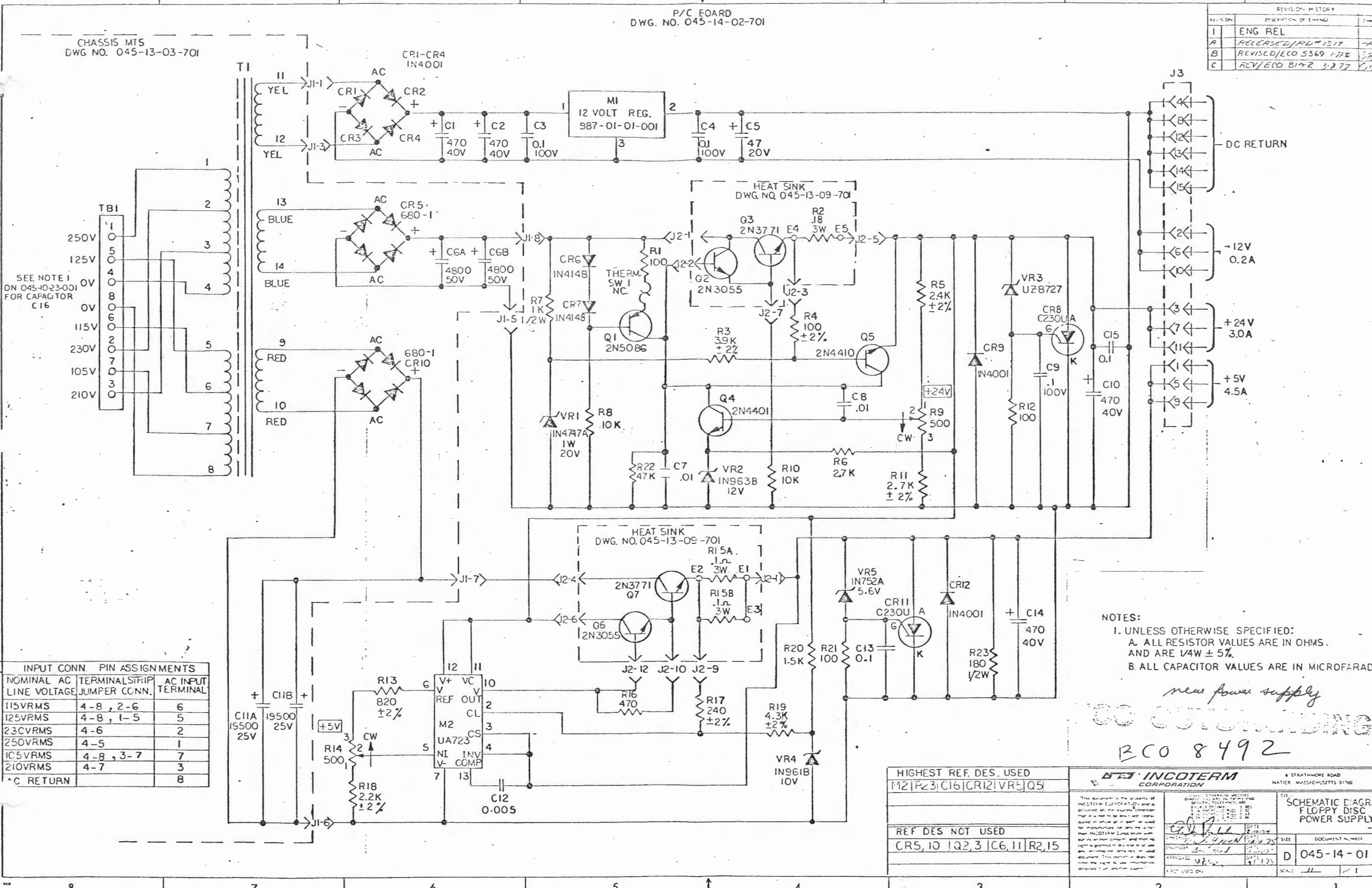


INCOTERM PIN 984-01-02 REV A1
power supply

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES FRACTIONS ± 3 PLACE DECIMALS ± 2 PLACE DECIMALS ± 1 PLACE DECIMALS ± MATERIAL	CONTRACT NO. DRAWING NO. REV. NO. DATE	Transistor Diodes Inc. Schematic Diagram MODEL SPS-1637
DATE BY	DATE BY	D 09004 22686

REVISION	DESCRIPTION OF CHANGE	DATE
I	ENG REL	
A	RELEASED/RD 1517	
B	REVISED/ECO 5369 1-27-72	
C	REV/ECO 8142 3-27-77	

CHASSIS MTS
DWG. NO. 045-13-03-701



SEE NOTE 1
ON 045-10-23-001
FOR CAPACITOR
C16

INPUT CONN. PIN ASSIGNMENTS		
NOMINAL AC LINE VOLTAGE	TERMINAL STRIP JUMPER CONN.	AC INPUT TERMINAL
115VRMS	4-8, 2-6	6
125VRMS	4-8, 1-5	5
230VRMS	4-6	2
250VRMS	4-5	1
105VRMS	4-8, 3-7	7
210VRMS	4-7	3
* C RETURN		8

NOTES:
1. UNLESS OTHERWISE SPECIFIED:
A. ALL RESISTOR VALUES ARE IN OHMS.
AND ARE 1/4W ± 5%.
B. ALL CAPACITOR VALUES ARE IN MICROFARADS.

new power supply
ECO 8492

HIGHEST REF. DES. USED
M2 | P2,3 | C16 | CR12 | VR5 | Q5

REF DES NOT USED
CR5, 10 | Q2,3 | C6, 11 | R2, 15

INCOTERM CORPORATION
6 STRATHMORE ROAD
NATICK, MASSACHUSETTS 01746

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TITLE: SCHEMATIC DIAGRAM FLOPPY DISC POWER SUPPLY -00

DATE: 12/15/77

SIZE: D

DOCUMENT NUMBER: 045-14-01

SCALE: 1/1

INTRODUCTION

THE FLOPPY DISKETTE CONTROLLER P. C. B. GLOSSARY WAS SET UP TO BE USED IN CONJUNCTION WITH THE LOGIC DIAGRAMS (010-40-01).

A DESCRIPTION OF HOW TO USE THE GLOSSARY IS AS FOLLOWS:

FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION FUNCTION FROM-TO	
AS APPEARS ON THE LOGIC DIA.	SHEET NO. ON WHICH THE FUNC. IS LOC.	FUNCTIONS BEING INPUT BY SAID FUNC.	OUTPUT PIN OF SAID FUNC.	INPUT PIN OF INTENDED FUNCTION

THE SYMBOL: @, INDICATES THE FUNCTION IS LEAVING THE BOARD.

PIN NUMBERS IN PARENTHESIS ARE EITHER COMING FROM FUNCTIONS OFF THE BOARD OR GOING TO FUNCTIONS OFF THE BOARD.

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION FUNCTION	FROM-TO
3					
4	ACK	7	ACKNOWLEDGE SIGNAL TO TPU	@	3 (27)
5					
6					
7	ACKF	7	ACKNOWLEDGE F/F	ACK	5 1
8				PARC	5 13
9				BACK	6 3
10					
11	ACKINH	7	ACKNOWLEDGE INHIBIT	SBACKA	11 12
12					
13	ADINC	4	ADDRESS INCREMENT	MC0	8 2
14				MC1	8 2
15				MC2	8 2
16					
17	ADINCA	4	ADDRESS INCREMENT A	ADINC	3 13
18					
19	ADINCC	4	ADDRESS INCREMENT C	ADINC	6 12
20					
21	ADXX	1	ADDRESS LINE FROM TPU	TYPDEC	(28) 13
22				SACKA	(28) 11
23					
24	AUTO	1	AUTO EXEC TO INT. & ACK CIRCUITRY	INT	1 6
25				AUTOI	1 9
26				AUTOACKI	1 10
27					
28	AUTOACKI	7	AUTO EXEC ACKNOWLEDGE INVERTED	ACKINH	8 12
29					
30					
31	AUTOI	7	AUTO EXEC INVERTED	INTRA	8 10
32					
33	BACK	7	BOOT ACKNOWLEDGE	SACK	14 1
34					
35	BITEQI	5	BIT EQUAL INVERTED	NCPB	3 5
36					
37	BOOTGO	2	BOOT IN PROGRESS	SBACKA	4 10
38				INTGA	4 3
39				SRSI	4 4
40				SRAB	4 1
41				BOOTSTRAP4	13
42				BOOTGOI	4 1
43					
44	BOOTGOI	2	BOOT IN PROGRESS INVERTED	READ	2 12
45				SRAP	2 13
46				RIO	2 12
47				SST	2 5
48					
49	BOOTSTRAP	2	SAME, BUT GOES OFF BOARD	@	11 (29)
50					
51					
52	BORC	5	SET BORROW	BORROW	13 12

A 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 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	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION FUNCTION FROM-TO	
		BORD	5	SET BORROW	BORC
	BORROW	5	SERIAL SUBTRACTOR BORROW	BORD	9 9
	BUSY	2	BUSY FROM DEVICE	RWGO	10 3
	CAC	5	COUNTER ACTIVE	MXFERA CINCI	8 9 9 9
	CBA	1	CIO BOOT, DEVICE SELECTION	DEVSELI	3 12
	CBS	2	CIO BOOT F/F	TACK6	11 8
	CCA	5	CYCLIC CHECK CIRCUITRY	CCCI	6 2
	CCB	5	CYCLIC CHECK CIRCUITRY	CCA	11 4
	CCCI	5	CYCLIC CHECK CIRCUITRY	MXFERI RDERRA	3 5 3 9
	CINCI	5	COUNTER INCREMENT INVERTED	ADDINC	8 9
	CIO	1	CONTROL I/O INSTRU- TION DECODE	STPEI RWGAI PARB	6 10 6 12 6 3
	CIOBOOT	1	CIO BOOT (?)	CBS CIOBOOTI	3 9 3 3
	CIOBOOTI	1	CIO BOOT INV.	@	1 (70)
	CIO I	1	CONTROL I/O INSTRU- TION (FROM TYPDEC)	DEVSELA CIO CIOBOOT CIOT CIORA WFLA	3 9 3 5 3 11 3 9 3 6 3 6
	CIORA	1	CIO RESET (0)	CIORI	4 11
	CIORI	1	CIO RESET INVERTED	RSTA	10 5
	CIOT	1	CIO & T13	MASK	10 1

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION FUNCTION	FROM	TO
4	CLBACK	4	CLOCK BOOT ACKNOWLEDGE, SET	BACK	10	1
7	CMDRI	6	COMMAND RESET INVERTED	RWD STOR.	11	1
10	COA	5	COMPARE ALLOW	NCPB	6	4
12	COAI	5	COMPARE ALLOW INVERTED	COA	11	4
15	CTI	5	CLOCK TIME INVERTED	RCAC	8	1
16				GAPCLOCK	8	11
17				CINCI	8	16
19	DATA	5	DATA F/F	HEADER	11	6
21	DATA OUT	4	DATA OUT LINE	SRAA	12	12
22				BORC	12	12
23				DIFAI	12	10
25	DEVBUSYI	2	DEVICE BUSY INVERTED	BUSY	6	9
26				TACKAI	6	12
29	DEVSELA	1	CIO DEVICE SELECT (3)	CBS	10	12
30				PARA	10	5
31				DEVSELAI	10	1
32	DEVSELAI	1	CIO DEVICE SELECT INVERTED	CBA	2	2
35	DEVSELBI	1	(DEV SEL OR BOOT-STRAP) AND STEP STROBE	@	11	(39)
39	DI	3	DATA SIGNAL	MEM0	11	11
40				MEM1	11	11
42	DIF	5	DIFFERENT	@	6	(42)
44	DIFAI	5	DIFFERENT SIGNAL CLOCK PULSE	DIF	8	5
45				BITEQI	8	2
47	DIV	5	DATA IS VALID	HEADER	6	5
48				SSI	5	1
49				DATA	5	9
50				DATA	5	8

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION FUNCTION	FROM	TO
3						
4	DTI	5	DATA TIME INVERTED	DTI1	12	11
5				READ_ERR	12	6
6				SCAC	12	13
7						
8	DTI1	5	DATA TIME INVERTED SET	NCP	10	11
9				CLBACK	10	9
10				WTC	10	6
11				BORROW	10	11
12				SRSI	10	5
13						
14	FST STR	3	FIRST STORE	SSTA	6	2
15						
16	FUNC0	1	FUNCTION BIT 00 FROM TPU	PARB	12	5
17				FUNCDEC	12	15
18				RW STOR.	12	5
19						
20	FUNC1	1	FUNCTION BIT 01 FROM TPU	RW STOR.	10	4
21				FUNCDEC	10	14
22						
23	FUNC2	1	FUNCTION BIT 02 FROM TPU	FUNCDEC	8	13
24				FUNC2I	8	2
25						
26	FUNC2I	1	FUNCTION BIT 02 FROM TPU INVERTED	RW STOR.	1	6
27						
28						
29	FUNC3	1	FUNCTION BIT 03 FROM TPU	RWGAI	2	13
30				FUNCDEC	2	12
31						
32	FUNCDEC 0I	1	FUNCTION DECODE 0 INVERTED	AUTO	1	3
33				CIORA	1	5
34						
35	FUNCDEC 1I	1	FUNCTION DECODE 1 INVERTED	STOREA	2	3
36				FUNDE 1	2	9
37				TACK1	2	12
38						
39	FUNCDEC 2I	1	FUNCTION DECODE 2 INVERTED	FUNDE 2	3	11
40				TACK2	3	2
41						
42	FUNCDEC 3I	1	FUNCTION DECODE 3 INVERTED	DEVSELA	4	8
43				TACK3I	4	5
44						
45	FUNCDEC 4I	1	FUNCTION DECODE 4 INVERTED	TACKAI	5	11
46				STEPAI	5	4
47						
48	FUNCDEC 5I	1	FUNCTION DECODE 5 INVERTED	TACKBI	6	9
49				STEPAI	6	5
50						
51	FUNCDEC 6I	1	FUNCTION DECODE 6 INVERTED	WPLA	7	5
52				TACK6	7	9
53						
54						
55						
56						

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION FUNCTION	FROM-TO
3					
4	FUNCDEC 7I	1	FUNCTION DECODE 7 INVERTED	CIDBOOT	9 12
5					
6					
7	FUNCDEC 8I	1	FUNCTION DECODE 8 INVERTED	TACK8	10 2
8					
9					
10	FUNDE 1	1	FUNCTION DECODE 1	MASK	8 4
11					
12	FUNDE 2	1	FUNCTION DECODE 2	MASK	10 16
13					
14	GAP	6	STATE CONTROL ONE-SHOT	GAPCLOCK	5 11
15					
16					
17	GAPCLOCK	6	STATE CONTROL F/F	DIV	8 3
18					
19	HEADER	5	DATA READY TO BE TRANSFERRED	SCAC	4 12
20				COAI	4 13
21				HEADER*	4 5
22				SECTFLD	4 3
23					
24	HEADER*	5	HEADER INVERTED	MXFERA	6 10
25				SBACKA	6 9
26				SRAB	6 2
27					
28	INB0	3	INPUT BUS 0	@	11 (4)
29					
30	INB1	3	INPUT BUS 1	@	8 (6)
31					
32	INB2	3	INPUT BUS 2	@	3 (8)
33					
34	INB3	3	INPUT BUS 3	@	6 (10)
35					
36	INB4	3	INPUT BUS 4	@	11 (12)
37					
38	INB5	3	INPUT BUS 5	@	8 (14)
39					
40	INB6	3	INPUT BUS 6	@	3 (16)
41					
42	INB7	3	INPUT BUS 7	@	6 (18)
43					
44	INDEXF	6	INDEX F/F	INTGO	14 5
45				RWRT	14 3
46					
47	INDEXI	6	INDEX INVERTED	INDEXF	2 2
48					
49	INT	7	INTERRUPT	@	4 (30)
50					
51					
52					
53					
54					
55					
56					

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION .		
				FUNCTION	FROM	TO
4	INTCMD	7	INTERRUPT COMMAND (FROM RW STORAGE)	INTGA	12	2
5				RWRT	12	4
6				SCMDINHI	12	11
8	INTF	7	INTERRUPT F/F	INT	9	5
10	INTGA	6	SET INTERRUPT IN PROGRESS	INTGO	1	6
13	INTGO	6	INTERRUPT IN PROGRESS	INTGOI	4	1
16	INTGOI	6	INTERRUPT IN PROGRESS INV	WRITEB	2	13
19	INTR	7	INTERRUPT RESET	INTSDI	6	1
20				INTF	6	13
22	INTRA	7	INTERRUPT RESET A	INTR	8	5
24	INTSDI	7	INTERRUPT STORED DELAY INVERTED	AUTOACKI	6	9
25				SINT	6	3
27	INTSI	7	INTERRUPT SELECT INVERTED	INTSI1	8	10
30	INTSI1	7	INTERRUPT SELECT F/F	INTSDI	8	3
32	LD BUF	1	LOAD BUFFER, SETS LOAD COMMAND F/F	SRL	13	6
33				SRU	13	6
34				SLD	13	9
36	LIDI	3	LOAD INPUT DATA	DI	8	13
38	LMAXI	4	COUNT 8 COUNTER	CLBACK	8	8
40	LOAD CMD	3	LOAD COMMAND	LIDI	9	11
41				WTA	9	13
42				LSA	8	4
44	LQA	4	BUFFER POINTER COUNTER, BIT 0	LMAXI	14	11
45				LQABX	14	12
46				MEM0	14	8
47				MEM1	14	8
49	LQABX	5	FACTOR OF COMPARE OPERATION	SUBAI	13	5
50				LQABXI	13	10
52	LQABXI	5	FACTOR OF COMPARE OPERATION	SUBBIT	8	3

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION FUNCTION	FROM-TO
3					
4	LQB	4	BUFFER POINTER COUNTER, BIT 1.	LMAXI	13 10
5				LQABX	13 11
6				MEM0	13 4
7				MEM1	13 4
8					
9	LQC	4	BUFFER POINTER COUNTER, BIT 2	LMAXI	12 9
10				LQCI	12 5
11				MEM0	12 5
12				MEM1	12 5
13					
14	LQCI	3	BUFFER POINTER COUNTER, BIT 2 INVERTED	LOAD CMD	6 11
15				SUBAI	6 6
16				STACT	6 3
17				LQABXI	6 9
18					
19	LSA	3	LOAD/STORE SET	RWLSI	6 8
20				ADINCC	6 5
21				SRSI	6 3
22					
23	MASK	1	MASK F/F (INTERRUPTS)	SINT	15 2
24					
25	MQA	4	BUFFER POINTER COUNTER, BIT 3	MEM1	11 6
26				RCAC	11 4
27				MQAI	11 3
28				SDATA	11 10
29				MEM0	11 6
30					
31	MQAI	5	BUFFER POINTER COUNTER, BIT 3 INVERTED	CCB	4 12
32				SECTFLD	4 4
33					
34					
35	MQB	4	BUFFER POINTER COUNTER, BIT 4	SDATA	14 9
36				SECTFLD	14 5
37				MEM0	14 7
38				MEM1	14 7
39					
40	MQC	4	BUFFER POINTER COUNTER, BIT 5	MEM0	13 2
41				MEM1	13 2
42				RCAC	13 4
43				CCB	13 13
44					
45	MQD	4	BUFFER POINTER COUNTER, BIT 6	MEM1	12 1
46				MEM0	12 1
47					
48	MWP	7	RAM TIMING PULSE	WTA	6 1
49				MWPI	6 1
50					
51					
52					
53					
54					
55					
56					

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION		
				FUNCTION	FROM	TO
3						
4	MWPI	7	RAM TIMING PULSE INVERTED	MWP	3	4
5						
6						
7	MXFER	5	MEMORY TRANSFER	@	3	(64)
8						
9	MXFERA	5	MEMORY TRANSFER SET	MXFERI	8	4
10						
11	MXFERI	5	MEMORY TRANSFER INVERTED	MXFER	6	1
12				WTB	6	3
13				SBACK	6	12
14						
15	NCP	5	NO COMPARE	NCPA	8	2
16				TACK1A	8	4
17				SSI	8	2
18						
19	NCPA	5	SET NO COMPARE	NCP	3	12
20						
21	NCPB	5	SET NO COMPARE	NCPA	6	1
22						
23	OTB 0	3	OUTPUT BUS 0	MC0	12	6
24				PARA	12	4
25				SRL	12	5
26						
27	OTB 1	3	OUTPUT BUS 1	OTB1I	10	13
28				MC1	10	3
29				SRL	10	4
30						
31	OTB 1I	3	OUTPUT BUS 1 INVERTED	@	12	(43)
32						
33						
34	OTB 2	3	OUTPUT BUS 2	MC1	8	4
35				SRL	8	3
36						
37	OTB 3	3	OUTPUT BUS 3	MC1	2	5
38				SRL	2	2
39						
40	OTB 4	3	OUTPUT BUS 4	MC1	4	6
41				SRU	4	5
42						
43	OTB 5	3	OUTPUT BUS 5	MC2	6	3
44				SRU	6	4
45						
46	OTB 6	3	OUTPUT BUS 6	MC2	8	4
47				SRU	8	3
48						
49	OTB 7	3	OUTPUT BUS 7	MC2	10	5
50				SRU	10	2
51						
52	PAR	7	PARAMETER	@	8	(68)

3
4
55
56

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION FUNCTION	FROM	TO
3						
4	PARA	7	SET PARAMETER	PAR	6	9
5						
6	PARB	7	SET PARAMETER	PAR	6	10
7						
8	PARC	7	SET PARAMETER	PAR	12	11
9						
10	PRO	2	PROTECT	TACK8	12	3
11						
12	PT13	7	CLOCK SIGNAL	SPREI	8	1
13				RDIV	8	4
14				ADINCC	8	4
15				SRL	8	8
16				CBC	8	6
17				RSTI	8	13
18				SPRSI	8	1
19				SRU	8	8
20				ADINC	8	2
21						
22	PT13I	7	CLOCK SIGNAL	PT13	10	9
23				CIOT	10	8
24				RWS	10	6
25				STPSTB	10	13
26				PT13	10	10
27						
28	PT18	7	CLOCK SIGNAL	RWGD	4	3
29				SLD	4	10
30				SST	4	4
31						
32	PT18I	7	CLOCK SIGNAL	PT98	6	13
33				STPSTBI	6	9
34				PT18	6	3
35				MWP	6	5
36						
37	PT2I	7	CLOCK SIGNAL	FSTSTR	8	1
38				ACKF	8	1
39						
40	PT9	7	CLOCK SIGNAL	T. O.	12	1
41				SECAI	12	11
42				ACKF	12	3
43				SRSI	12	2
44						
45	PT9I	7	CLOCK SIGNAL	MWPI	2	2
46				PT9	2	13
47				PT98	2	12
48						
49	PT98	7	CLOCK SIGNAL	SPRI	11	13
50						
51	RBOR	5	RESET BORROW	BORROW	11	13
52						

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1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION FUNCTION	FROM-TO
3					
4	RCAC	5	RESET COUNTER ACTIVE	CAC	6 11
5					
6					
7	RDERRA	2	READ ERROR A	RDERROR	10 9
8					
9	RDERRB	2	READ ERROR B	RDERRA	3 8
10					
11	RDINFO	5	READ DATA	RDINFOI	4 1
12				SRAB	4 13
13					
14	RDINFOI	5	READ DATA INVERTED	DIV	2 4
15				DI	2 12
16				BITEQI	2 1
17					
18	RDIV	6	RESET DATA IS VALID	DIV	6 1
19					
20	READ	6	READ F/F	WTB	10 2
21				RGTI	11 12
22				FSTSTR	11 2
23					
24	READA	6	READ A	READ	4 9
25					
26	READB	6	READ B	READA	4 5
27					
28	READ ERROR	2	READ ERROR F/F	SSI	10 5
29				TACK1A	10 5
30					
31	RGT	6	READ GATE	RGTI	9 13
32				RDERRB	8 2
33					
34	RGTI	6	READ GATE INVERTED	@	12 (68)
35					
36	RIO	3	RIO SIGNAL	INB00	11 13
37			INPUT BUS	INB01	11 10
38				INB02	11 2
39				INB03	11 4
40				INB04	11 13
41				INB05	11 10
42				INB06	11 2
43				INB07	11 4
44					
45	RIOI	1	READ I/O INSTRUCTION (FROM TYPDEC)	RIO	2 13
46				AUTO	2 2
47				STOREA	2 2
48					
49	RMCI	6	FACTOR OF SECTOR PULSE RESET OPERATION	SPR	8 12
50					
51					
52					
53					
54					
55					
56					

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION		
				FUNCTION	FROM	TO
3						
4	RSEARCH	6	RESET SEARCH F/F	SEARCH	8	12
5						
6	RSTA	1	SET RESET	RSTAI	6	9
7				RSTI	6	12
8						
9	RSTAI	1	SET RESET INVERTED	SPRE	8	2
10				SPR	8	13
11				INTRA	8	9
12						
13	RSTI	1	RESET INVERTED	T. O.	11	3
14				GAP	11	11
15				READ	11	8
16				INDEXF	11	3
17				GAPCLOCK	11	13
18				LOAD CMD	11	13
19				MASK	11	2
20				STACT	11	1
21						
22	RWCMD	7	READ/WRITE COMMAND (FROM RW STORAGE)	RWLSI	14	9
23				SEARCH	14	8
24				RWCMDI	14	3
25				TIME	14	2
26				SRCHCMDI	14	2
27						
28	RWCMDI	7	READ/WRITE COMMAND INVERTED	TOS	4	3
29				RWCMD1	4	1
30						
31	RWCMD1	7	SET READ/WRITE COMMAND	@	2	(73)
32						
33						
34	RWGAI	7	INPUT, READ/WRITE INVERTED	RWGO	11	2
35						
36						
37	RWGD	6	READ/WRITE GO DELAY	SPRINH	6	6
38						
39						
40	RWGO	7	READ/WRITE GO	RWGOI	1	13
41				T. O.	1	16
42						
43	RWGOI	7	READ/WRITE GO INVERTED	RWS	12	5
44						
45						
46	RWGT	6	READ/WRITE GATE	RWGD	6	2
47				RMCI	6	9
48				SCMDINHI	6	12
49				SPRINH	6	5
50						
51	RWLS	7	READ, WRITE, LOAD, OR STORE	LD BUF	12	12
52						
53						
54						
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56						

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION FUNCTION	FROM	TO
3						
4	RWLSI	7	READ, WRITE, LOAD, OR STORE INVERTED	STOREI	10	5
5				BUSY	10	8
6				RWLS	10	13
7				WPLI	10	2
8						
9	RWRT	6	RESET WRITE	WRITE	6	16
10						
11	RWS	7	READ/WRITE START	RW STOR.	4	2
12						
13	RW STORAGE	7	READ/WRITE STORAGE	N/A		
14						
15	SACK	7	SET ACKNOWLEDGE	ACKF	3	2
16						
17	SACKA	7	SET ACKNOWLEDGE A	SACKAI	13	11
18						
19	SACKAI	7	SET ACKNOWLEDGE A INVERTED	SACK	10	2
20						
21						
22	SBACK	7	SET BOOT ACKNOWLEDGE	PARC	13	1
23				BACK	13	4
24						
25	SBACKA	7	SET BOOT ACKNOWLEDGE A	SBACK	8	11
26						
27						
28	SCAC	5	SET COMPARE ALLOW COMMAND	CAC	11	10
29						
30						
31	SCMDINHI	7	SEARCH COMMAND INHIBIT	SRCHCMDI	13	1
32						
33						
34	SDATA	5	SET DATA CLOCK PULSE	CCA	8	5
35				DATA	8	6
36						
37	SEARCH	6	SEARCH F/F	RGTI	11	11
38				COAI	11	12
39				SSI	11	4
40				SUBTRACT	10	8
41				RWGD	10	1
42						
43	SECA	6	SEARCH CLOCK PULSE	FSTSTR	12	3
44				READ	12	6
45				WRITE	12	1
46				SEARCH	12	6
47				INDEXF	12	1
48						
49	SECAI	6	SEARCH CLOCK PULSE INVERTED	SECA	8	13
50						
51						
52						
53						
54						
55						
56						

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION FUNCTION	FROM	TO
3						
4	SECB	6	SEARCH CLOCK PULSE	RDIV	10	5
5				RMCI	10	10
6						
7	SECTFLD	5	SECTOR FIELD	SUBTRACT	6	9
8						
9	SECTOR	6	SECTOR F/F	SEC1	10	12
10						
11	SEC1	6	SECTOR F/F INPUT	SEC2	9	2
12				SECAI	8	9
13				SECB	9	9
14						
15	SEC2	6	SECTOR F/F INPUT	SECAI	5	10
16				SECB	6	8
17						
18	SELINI	7	SELECT OUT CLOCK PULSE	INTF	6	11
19				SELOUT	6	4
20						
21	SELOUT	7	SELECT OUT CLOCK PULSE	@	6	(32)
22						
23						
24	SINT	7	STORE INTERRUPT	SINTI	1	3
25				INTF	1	12
26						
27	SINTI	7	STORE INTERRUPT INVERTED	SELOUT	4	5
28						
29						
30	SLD	3	LOAD SHIFT REGISTER	LOADCMD	8	10
31						
32	SPR	6	SECTOR PULSE RESET	SPRSI	11	2
33				SPRI	11	12
34				SPR*	11	11
35						
36	SPRE	6	SECTOR PULSE RESET ENABLE	CMDRI	3	11
37						
38						
39	SPREI	6	SECTOR PULSE RESET ENABE INVERTED	SPRE	6	1
40						
41						
42	SPRI	6	SECTOR PULSE RESET INVERTED	ADINCC	11	10
43						
44						
45	SPRINH	6	SECTOR PULSE RESET INHIBIT	SPREI	4	5
46						
47						
48	SPRSI	6	SECTOR PULSE RESET INPUT	NCP	3	13
49				RD ERROR	3	8
50						
51						
52						
53						
54						
55						
56						

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION		
				FUNCTION	FROM	TO
4	SFR*	6	SECTOR PULSE RESET INVERTED	CAC	10	13
5				MC0	10	1
6				MC1	10	1
7				MC2	10	1
9	SRA	3	SET SHIFT REGISTER	SRU	8	1
11	SRAA	3	SET SHIFT REGISTER	SRA	11	10
13	SRAB	3	SET SHIFT REGISTER	SRA	12	9
15	SRCHCMD	7	SEARCH COMMAND	SEARCH	6	9
17	SRCHCMDI	7	SEARCH COMMAND INVERTED	SRCHCMD	3	5
20	SRL	3	SHIFT REGISTER, SERIAL TO PARALLEL	N/A		
24	SRSI	3	SHIFT REGISTER SET INVERTED	SRL	6	9
25				SRU	6	9
27	SRU	3	SHIFT REGISTER, PARALLEL TO SERIAL	N/A		
31	SR0	3	SHIFT REGISTER, BIT 0 TO INPUT BUS	INB00	10	12
32				LIDI	10	10
34	SR1	3	SHIFT REGISTER, BIT 1 TO INPUT BUS	INB01	11	9
37	SR2	3	SHIFT REGISTER, BIT 2 TO INPUT BUS	INB02	12	1
40	SR3	3	SHIFT REGISTER, BIT 3 TO INPUT BUS	INB03	13	5
43	SR4	3	SHIFT REGISTER, BIT 4 TO INPUT BUS	INB04	10	12
44				PARC	10	2
45				SRL	10	1
47	SR5	3	SHIFT REGISTER, BIT 5 TO INPUT BUS	INB05	11	9
50	SR6	3	SHIFT REGISTER, BIT 6 TO INPUT BUS	INB06	12	1
53	SR7	3	SHIFT REGISTER, BIT 7 TO INPUT BUS	INB07	13	5

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION FUNCTION	FROM	TO
4	SSI	6	SET SEARCH	RSEARCH	6	10
5				WRITEB	6	12
7	SST	3	SET STORE	STACT	6	4
9	SSTA	3	SET STORE A	SST	12	3
11	STACT	3	STORE ACTIVE	LSA	6	5
13	STEPAI	1	FUNCTION DECODE 4 OR 5	PARB	6	4
14				STEPI	6	9
16	STEPI	1	FUNCTION DECODE 4 OR 5 AND CIO	@	8	(41)
19	STOREA	1	RIO BUFF (1)	STOREI	1	4
21	STOREI	1	RIO BUFF (1) AND RMLS	SSTA	6	1
24	STPSTB	7	STEP STROBE, (SYNC SIGNAL)	STPSTBI	11	10
25				INTR	11	4
26				DEVSELBI	11	13
28	STPSTBI	7	STEP STROBE INVERTED	STPSTB1	8	5
31	STPSTB1	7	STEP STROBE OUT SIGNAL	@	6	(51)
34	SUBA	5	FACTOR OF COMPARE OPERATION	SUBBITI	2	2
37	SUBAI	5	FACTOR OF COMPARE OPERATION	SUBA	4	1
40	SUBBIT	5	FIRST BIT OF SECTOR BYTE	BORD	1	8
43	SUBBITI	5	FIRST BIT OF SECTOR BYTE INVERTED	RBOR	3	12
44				SUBBIT	3	2
46	SUBTRACT	5	SUBTRACT ACTIVATES SERIAL SUBTRACTOR	SUBBITI	10	1
49	TACK	2	TIO ACKNOWLEDGE	TIOACK	8	9
51	TACKA	2	TIO A ACKNOWLEDGE	TACK	13	10
53	TACKAI	2	TIO A ACKNOWLEDGE INVERTED	TACKA	13	12

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION FUNCTION	FROM-TO
3					
4	TACKB	2	TIO B ACKNOWLEDGE	TACK	1 12
5					
6	TACKBI	2	TIO B ACKNOWLEDGE INVERTED	TACKA	10 11
7					
8					
9	TACKC	2	TIO C ACKNOWLEDGE	TACK	4 9
10					
11	TACKD	2	TIO D ACKNOWLEDGE	TACK	10 13
12					
13	TACK1A	2	SET TIO 1 ACKNOWLEDGE	TACK1	6 11
14					
15					
16	TACK1	2	TIO 1 ACKNOWLEDGE	TACKD	13 11
17					
18	TACK2	2	TIO 2 ACKNOWLEDGE	TACKC	1 6
19					
20	TACK3I	2	TIO 3 ACKNOWLEDGE INVERTED	TACKB	4 2
21					
22					
23	TACK6	2	TIO 6 ACKNOWLEDGE	TACKB	10 3
24					
25	TACK8	2	TIO 8 ACKNOWLEDGE	TACKC	1 5
26					
27	TIME	2	ONE-SHOT, SET T. O. F/F	TOS	13 2
28					
29					
30	TIO ACK	2	TIO ACKNOWLEDGE	TIOACKI	10 1
31					
32	TIO ACKI	2	TIO ACKNOWLEDGE INVERTED	ACKINH	2 13
33					
34					
35	TIOI	1	TEST I/O INSTRUCTION (FROM TYPDEC)	TIOACK	4 8
36					
37					
38	T. O.	2	TIME OUT F/F	CMORI	15 12
39				RSEARCH	14 9
40				TACK3I	15 6
41					
42	TOS	2	TIME OUT STORED	T. O.	1 4
43					
44	TURT4I	6	TIMING UNIT REFRESH TIME 4 INVERTED	SEC1	6 11
45				SEC2	6 11
46					
47	TYP00	1	TYPE 00 BIT FROM TPU	TYPDEC	(19) 15
48					
49					
50	TYP01	1	TYPE 01 BIT FROM TPU	TYPDEC	(21) 14
51					
52					
53	TYPDEC	1	TYPE DECODE	N/A	
54					
55					
56					

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION		
				FUNCTION	FROM	TO
3						
4	UQA	4	BUFFER POINTER COUNTER, BIT 7	MEM0 MEM1	11 11	16 16
5						
6						
7	UQB	4	BUFFER POINTER COUNTER, BIT 8	MEM0 MEM1	14 14	15 15
8						
9						
10	UQC	4	BUFFER POINTER COUNTER, BIT 9	MEM0 MEM1	13 13	14 14
11						
12						
13	UQD	4	BUFFER POINTER COUNTER, BIT 10	RCAC CCCI UQDI MEM0	12 12 12 12	2 1 9 13
14						
15						
16						
17						
18	UQDI	4	BUFFER POINTER COUNTER, BIT 10 INVERTED	MEM1	8	13
19						
20						
21						
22	VER	7	VERIFY	WTC VCOAI	11 11	5 2
23						
24						
25	VCOAI	5	VERIFY COMPARE ALLOW INVERTED	COA	3	5
26						
27						
28	WIOI	1	WRITE I/O INSTRU- TION (FROM TYPDEC)	LD BUF	1	12
29						
30						
31	WPL	4	WRITE POINTER LOW	ADINCA	12	1
32						
33	WPLA	1	CIO WRITE POINTER (6)	WPLI	4	1
34						
35						
36	WPLI	1	RWLS & CIO WRITE POINTER INVERTED	MEL MC1 WPL MC0	3 3 3 3	9 9 13 9
37						
38						
39						
40						
41	WRITE	6	WRITE F/F	RWGT GAP RWRT WRITED	14 14 15 15	5 9 5 9
42						
43						
44						
45						
46	WRITEA	6	WRITE STATE CONTROL	WRITE	6	4
47						
48	WRITEAI	6	WRITE STATE CONTROL	WRITEA	12	5
49						
50	WRITEB	6	WRITE STATE CONTROL	READB WRITEAI	11 11	3 13
51						
52						
53						
54						
55						
56						

1	FUNCTION NAME	DWG LOC	FUNCTION DESCRIPTION	DESTINATION		
				FUNCTION	FROM	TO
2						
4	WRITED	6	WRITE STATE CONTROL	@	8	(53)
5						
6	WRTCMD	7	WRITE COMMAND	WRITEAI	13	2
7				READA	13	6
8						
9	WTA	3	WRITE A, I/O SHIFT REGISTER	MEM0	8	3
10				MEM1	8	3
11						
12	WTB	3	WRITE B, I/O SHIFT REGISTER	VCOAI	1	1
13				WTA	1	9
14						
15	WTC	3	WRITE C, I/O SHIFT	WTA	4	10
16						
17	XFDBK	2	X FEED BACK, (READ ERROR F/F)	RDERRB	4	1
18						
19						
20						
21						
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