

NOTE: UNLESS OTHERWISE SPECIFIED
REFERENCE DRAWINGS
 44D0232 G ASSEMBLY
 91C0032 R LOGIC DIAGRAM
 97D0099 PHOTOMASTER



DR <i>W. J. ...</i>	9-12-68	PARTS LIST — 3 TRACK MAG. TAPE CONTROLLER BOARD # 1			
CHK <i>W. J. ...</i>	12-12-68				
DSGN <i>W. J. ...</i>	3-12-68	CODE IDENT NO. 21101 SIZE A 44P0232 REV R			
ENGR <i>W. J. ...</i>	12-13-68				
PROJ <i>W. J. ...</i>	12-15-68				
REL <i>W. J. ...</i>	12-15-68	GOVT OR CUSTOMER APPD		SCALE	SHEET 1 OF 5

↓

REVISIONS

SYM	SHEET	DESCRIPTION	APPROVED	DATE
X		PROTOTYPE RELEASE	<i>[Signature]</i>	10-21-68
A		PROD. RELEASE PER EN #2733	<i>[Signature]</i>	
B		ITEM 21, QTY WAS 18, REMARKS COL. DELETED IC 84; ADD ITEM 20, QTY 1, 49A0007-000, INT. CKT (7400), IC 84; EN #2855	<i>[Signature]</i>	3-11-69
C		ITEM 3- QTY WAS: 104, ITEM 27- QTY WAS 8, ADDED IC 93 TO REMARKS EN #2897	<i>[Signature]</i>	3-20-69
-		UPDATED REV LTR OF 91C0032 ON SHT 1 EN 2946	<i>[Signature]</i>	3-21-69
D		UPDATED REV LTR OF 91C0032 & ADDED REV LTR TO 95W0201 (ITEM 31) PER EN 3046	<i>[Signature]</i>	5-17-69
E		UPDATED REV LEVEL 95 W0201 TO H EN. 3507, ADDED REV A TO 95W0224	<i>[Signature]</i>	11/1/69
F	NR	UPDATED REV LEVEL OF 91C0032 AND 95W0201 PER EN 3738	<i>[Signature]</i>	2-17-70
G	YB	UPDATED REV LTR OF REF DWG SHT 1, EN 3921	<i>[Signature]</i>	
H	JG	UPDATED REV LTR OF REF DWGS, EN 4332	<i>[Signature]</i>	1/26/70
-		ADDED FIN 30 & 31 PER EN 4602	<i>[Signature]</i>	1/27/70
J	CW	REVISED PER EN 80195	<i>[Signature]</i>	11/2/71
K	WAO	REVISED PER EN 80213	<i>[Signature]</i>	1/14/72
L	Sm	UPDATED PER EN 80453	<i>[Signature]</i>	3/16/72
M	Sm	UPDATED PER EN 80839	<i>[Signature]</i>	11/1/72
N	JH	REVISED PER EN 81261	<i>[Signature]</i>	4-26-73
P		REVISED PER EN 81777	<i>[Signature]</i>	4-26-73
-	TU	FIN 27 PART NO. WAS 4951088-000 PER EN 82016	<i>[Signature]</i>	6/4/73
2	R	ADDED FIN NO 34 AND 35. REV LTR OF 44D0292 WAS F PER EN 82517	<i>[Signature]</i>	1/7/74


CODE



CODE IDENT NO.	SIZE	44P0232	REV
	A		R
SCALE			SHEET 2 OF 5



QUANTITY REQD PER DASH NO.							FIND NO.	PART NUMBER	NAME/CLATURE	ZONE	REMARKS
						000	1	40D0175-000	BOARD DETAIL		
							4	22A0039-001	WASHER FLAT NYLON		
						108	3	58A0060-000	SOCKET, 14 PIN		
						206	4	58A0062-002	POST		
							1	04D0140-000	COVER		
							4	21A0062-020	SCREW 4-40 X 1.0		
							4	22N4401-008	LOCKWASHER #4		
							4	22A0018-010	STAND-OFF, FIBER		
							8	22A0089-004	WASHER, FLAT #4		
							4	23A0025-001	NUT-HEX, 4-40		
							1	01C0293-000	COMPONENT ASSY-RES		RBI
							1	01C0302-000	COMP. ASSY-RESISTOR		RBZ
							1	01C0305-000	COMP. BD. ASSY		RCBI
							1	01C0306-000	COMP. BD. ASSY.		RCBZ
DASH NO.	NEXT ASSEMBLY	N/A QTY	DASH NO.	NEXT ASSEMBLY	N/A QTY	DASH NO.	NEXT ASSEMBLY	N/A QTY	DASH NO.	NEXT ASSEMBLY	N/A QTY
DRAFTSMAN	DATE	CHECK	DATE	DESIGN	DATE	ENGR.	DATE	RELEASE	DATE	44PO232	
											R
(dc) DECISION CONTROL		TITLE PARTS LIST-							SHEET 3 OF 5		

QUANTITY REQD PER DASH NO.							FIND NO.	PART NUMBER	NOMENCLATURE	ZONE	REMARKS	
						000						
						1	15	01C0307-000	COMP. BD. ASSY		RCB3	
						1	16	01C0304-000	COMP. BD. ASSY		RCB4	
						1	17	01C0303-000	COMP. BD. ASSY.		RCB5	
						11	18	71ND200-225	CAPACITOR		C1-C11	
						9	19	64A0008-253	POTENTIOMETER, 25K		R1-9	
						1	20	49A0007-000	INT. CKT (7400)		IC84	
						18	21	49A0008-000	INT. CKT (846)		IC1, 7, 22, 23, 24, 26, 35, 49, 62, 74, 77, 81, 96, 82, 85, 86, 91 & 92	
						16	22	49A0009-000	INT. CKT. (862)		IC 2, 4, 15, 17, 33, 40, 43, 52, 55, 57, 58, 61, 69, 71, 72 & 87	
						14	23	49A0023-000	INT. CKT. HEX. INVERT. (3016)		IC 5, 6, 8, 10, 13, 29, 31, 36, 45, 47, 51, 59, 76 & 80	
						4	24	49A0012-000	INT. CKT. (SN7474N)		IC 11, 18, 30 & 39	
DASH NO.	NEXT ASSEMBLY		N/A QTY	DASH NO.	NEXT ASSEMBLY		N/A QTY	DASH NO.	NEXT ASSEMBLY		N/A QTY	
DRAFTSMAN	DATE	CHECK	DATE	DESIGN	DATE	ENGR.	DATE	RELEASE	DATE	44P0232		REV R
 DECISION CONTROL										TITLE		PARTS LIST-
										SHEET 4 OF 5		

QUANTITY REQD PER DASH NO.							FIND NO.	PART NUMBER	NOMENCLATURE	ZONE	REMARKS
						000					
						12	25	49A0002-000	INT. CKT. (5N7473N)		IC 3, 9, 16, 32, 34, 41, 50, 53, 60, 63, 70 & 94
						9	26	49A0011-000	INT. CKT. (830)		IL 14, 25, 42, 44, 54, 64, 65, 73 & 79
						9	27	49A0010-000	INT. CKT		IC 12, 19, 20, 21, 27, 28, 38, 67 & 93
						9	28	49A0146-000	INT. CKT. (9600)		IC 37, 46, 56, 66, 75, 83, 88, 89 & 90
						2	29	49A0004-000	INT. CKT. (7440)		IC 48 & 68
						0	30	53A0333-040	WIRE SOLID KYNAR		YELL 30 AWG
						REF	-	95W0201N	WIRE LIST		
						REF	-	95W0224 A	WIRE LIST-HAND	WIRING	
						0	31	53A0333-090	WIRE SOLID KYNAR		WHT 30 AWG
						1	32	49A0093-001	INT CKT (74H50N)		IC 95
						1	33	49A0036-000	INT CKT		IC 78
						1	34	86C0008-000	IDENT LABEL		
						1	35	86C0015-000	IDENT LABEL		

DASH NO.	NEXT ASSEMBLY	N/A QTY	DASH NO.	NEXT ASSEMBLY	N/A QTY	DASH NO.	NEXT ASSEMBLY	N/A QTY	DASH NO.	NEXT ASSEMBLY	N/A QTY

DRAFTSMAN	DATE	CHECK	DATE	DESIGN	DATE	ENGR.	DATE	RELEASE	DATE	44P0232	REV. R
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REVISIONS

REV	EN	CHG CODE	DESCRIPTION	DR	APPD
-	83268	-	REVISED & REDRAWN, ADDED -001 VERSION	Wm Jell	R 8-22-74
-	83264	-	ADDED REF DWG 95W0201 & 95W0224	-	Wm Jell

DWG NO. 44P0232

DWG NO.

NEXT ASSEMBLY
01P0313, 01P0869

MODEL NO.
620-30



varian data machines / a varian subsidiary
2722 michelson drive / irvine / california / 92664

DR	Charley	9-12-68
CHK	EVERS	12/12/68
DSGN	Charley	9-12-68
ENGR	Whitcomb	12-13-68
APPD	Whitcomb	12-13-68
APPD	L.E. Taylor	2-30-68

CODE IDENT NO. **21101**

THIS DOCUMENT MAY CONTAIN PROPRIETARY INFORMATION AND SUCH INFORMATION MAY NOT BE DISCLOSED TO OTHERS FOR ANY PURPOSE OR USED TO PRODUCE THE ARTICLE OR SUBJECT, WITHOUT PERMISSION FROM VDM.

TITLE PARTS LIST
9-TRACK MAG. TAPE CONTROLLER BOARD #1

SIZE A	DWG NO. 44P0232	REV R
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SHEET 1 OF 4

96A0153 0000

QUANTITY REQ'D PER DASH NO.							PARTS LIST			CODE IDENT: 21101
					001	000	FIND NO.	PART NUMBER	DESCRIPTION	REMARKS
					Ref	Ref	-	44D0232 G	Assembly	
					Ref	Ref	-	97D0099	Photomaster	
					-	Ref	-	91C0032 S	Logic Diagram	
					Ref	-	-	91C0482 A	Logic Diagram	
					Ref	Ref	-	95W0224 A	Hand Wire List	
					-	Ref	-	95W0201 R	Wire List	
					Ref	-	-	95W1052 A	Wire List	
					REF	-	-	95W1103 A	HAND WIRE LIST	
					1	1	1	40D0175-000	Board Detail	
					4	4	2	22A0039-000	Washer Flat Nylon	
					106	108	3	58A0060-000	Socket, 14 Pin	
					206	206	4	58A0062-002	Post	
					1	1	5	04D0140-000	Cover	
					4	4	6	21A0062-020	Screw 4-40 x 1.0	
					4	4	7	22N4401-008	Lockwasher #4	
					4	4	8	22A0018-010	Stand-off, Fiber	
					8	8	9	22A0089-004	Washer, Flat #4	
					4	4	10	23A0025-001	Nut-Hex, 4-40	
					1	1	11	01P0293-000	Component Assy-Res	RB1
					1	1	12	01P0302-000	Comp. Assy. Resistor	RB2

NOTES:

DWG NO. 44P0232

REV R

SHEET 2 OF 4

96A0017-001C

QUANTITY REQ'D PER DASH NO.							PARTS LIST				CODE IDENT: 21101
					001	000	FIND NO.	PART NUMBER	DESCRIPTION	REMARKS	
					1	1	13	01P0305-000	Comp. Bd. Assembly	RCB1	
					1	1	14	01P0306-000	Comp. Bd. Assembly	RCB2	
					1	1	15	01P0307-000	Comp. Bd. Assembly	RCB3	
					1	1	16	01P0304-000	Comp. Bd. Assembly	RCB4	
					1	1	17	01P0303-000	Comp. Bd. Assembly	RCB5	
					11	11	18	71N0200-225	Capacitor	C1-C11	
					9	9	19	64A0008-253	Potentiometer, 25K	R1-9	
					1	1	20	49A0007-000	Int. Ckt (7400)	IC84	
					18	18	21	49A0008-000	Int. Ckt (846)	IC1, 7, 22, 23, 24, 26, 35, 49, 62, 74, 77, 81, 96, 82, 85, 86, 91, 92	
					16	16	22	49A0009-000	Int. Ckt. (862)	IC2, 4, 15, 17, 33, 40, 43, 52, 55, 57, 58, 61, 69, 71, 72, 87	
					14	14	23	49A0023-000	Int. Ckt. Hex, Invert (9016)	IC5, 6, 8, 10, 13, 29, 31, 36, 45, 47, 51, 59, 76, 80	
					4	4	24	49A0012-000	Int. Ckt. (SN7474N)	IC11, 18, 30, 39	
					12	12	25	49A0002-000	Int. Ckt. (SN7473N)	IC3, 9, 16, 32, 34, 41, 50, 53, 60, 63, 70, 94	
					9	9	26	49A0011-000	Int. Ckt. (830)	IC14, 25, 42, 44, 54, 64, 65, 73, 79	
					-	9	27	49A0010-000	Int. Ckt.	IC12, 19, 20, 21, 27, 28, 38, 67, 93	
					9	9	28	49A0146-000	Int. Ckt. (9601)	IC37, 46, 56, 66, 75, 83, 88, 89, 90	
					2	2	29	49A0004-000	Int. Ckt. (7440)	IC48 and 68	

NOTES:

DWG NO. 44P0232	REV R
SHEET <u>3</u> OF <u>4</u>	

96A0017-001C

QUANTITY REQ'D PER DASH NO.							PARTS LIST				CODE IDENT: 21101
					001	000	FIND NO.	PART NUMBER	DESCRIPTION	REMARKS	
					0	0	30	53A0333-060	Wire Solid Kynar	BLUE 30 AWG.	
					0	0	31	53A0333-090	Wire Solid Kynar	WHT 30 AWG	
					1	1	32	49A0093-001	Int. Ckt. (74H50N)	IC95	
					1	1	33	49A0036-000	Int. Ckt.	IC78	
					1	1	34	86C0008-000	Ident Label		
					1	1	35	86C0015-000	Ident Label		
					2	-	36	49A0022-000	Int. Ckt.	IC27 and 67	
					5	-	37	49A0128-001	Int. Ckt.	IC12, 19, 28, 38, 93	

NOTES:

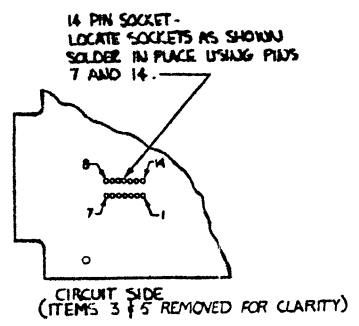
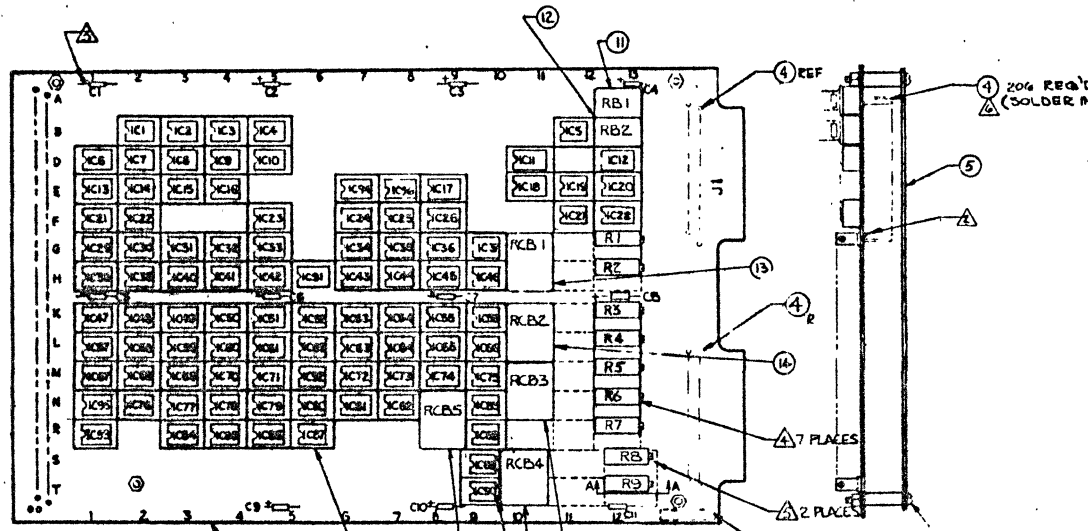
DWG NO. 44P0232

REV
R

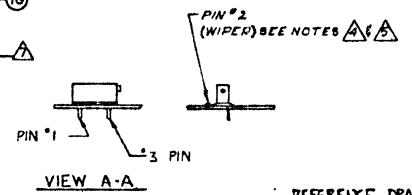
SHEET 4 OF 4

96A0017-001C

REV. NO.	DESCRIPTION	APPROVED	DATE
X	PROTOTYPE RELEASE	ALC	11/22/68
A	PRODUCTION RELEASE PER 820232		
-	NOTE: PINS 8 & 9 NOT CONNECTED PER EN 820232 AT LOCATION PI-11 & PI-12. VIEW A-A PER EN 820232		
B	ADDED R 82 (NOT SELECTED FROM 0) W/1024 820232		
C	REVISED PER EN 820232		
D	ADDED IC AT LOCATION E7 PER EN 80195		
E	ON BACK OF DRAWING REMOVED PINS J1-1 THRU J1-4, ADDED 14 PIN SOCKET TO LOCATION M1 ADDED IC 85 AT M1 UPDATED FILE EN 820232		
F	REVISED PER EN 820232		



- ⚠ PINS 8 & 9 NOT USED WHEN INSTALLING 14 PIN SOCKETS IN ROWS "S" & "T".
- ⚠ DO NOT INSTALL ITEM 4 (58A006Z-002) IN LOC. PI-11 & PI-12.
- ⚠ CONNECT POTS R-8 & R-9 AS FOLLOWS: WIPER (LEAD *2) TO BE SOLDERED TO +5V GND. PLANE AS SHOWN IN VIEW A-A, LEAD *3 TO BE CONNECTED AT LOCATION *X12-11, LEAD *1 TO BE CONNECTED AT LOCATION *X12-16.
- ⚠ CONNECT POTENTIOMETERS R1 THRU R7 AS FOLLOWS: WIPER (LEAD *2) TO BE SOLDERED TO +5V VOLTAGE PLANE AS SHOWN IN VIEW A-A, LEAD *3 TO BE CONNECTED AT LOCATION *X13-9 (*X INDICATES LETTER LOCATION DESIGNATOR), LEAD *1 TO BE CONNECTED AT LOCATION *X13-14.
- ⚠ RUBBER STAMP CAPACITOR POLARITY WITH BLACK ACID ETCH INK. LOCATE APPROX. AS SHOWN.
- ⚠ SOLDER ON ALL PINS NOT TO EXCEED .06
- ⚠ RUBBER STAMP CURRENT PL. NO. VERSION & REV. LTR. APPROX. WHERE SHOWN. USE .12 HIGH CHARACTER'S AND BLACK ACID ETCH INK. NEARSIDE.

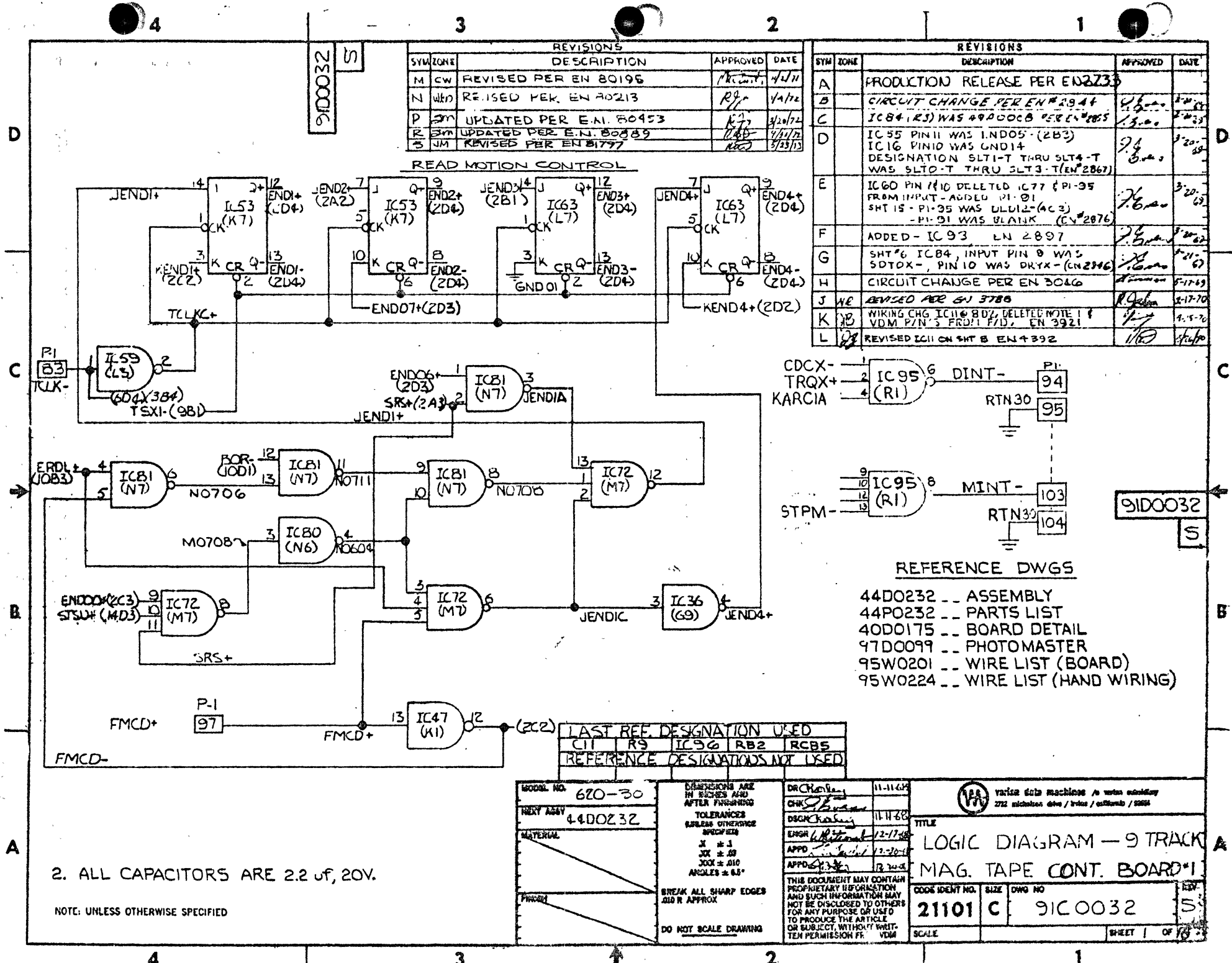


- REFERENCE DRAWINGS:
 4400232 - PARTS LIST
 4000175 - BOARD DETAIL
 5100032 - LOGIC DIAGRAM
 9700099 - PHOTOMASTER
 95W0201 - WIRE LIST (BOARD)
 95W0224 - WIRE LIST (HAND WIRING)

CAUTION: EN 82519 AFFECTS THIS DWG.

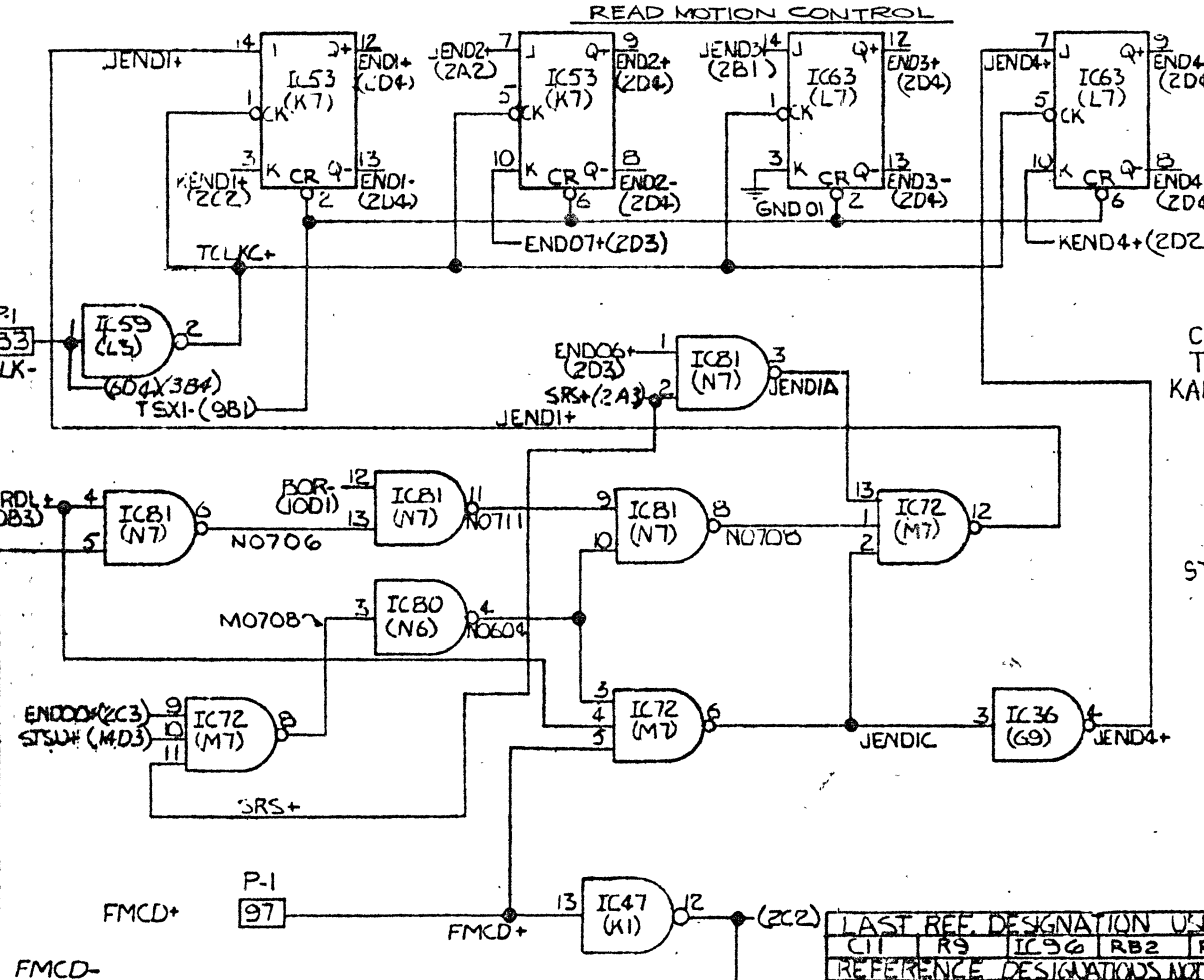
DRAWING NO. 680-30 REV. 10/20/68 DATE 10/20/68	DESIGNED BY: [Signature] CHECKED BY: [Signature] APPROVED BY: [Signature]	DATE: 10/20/68 TIME: 10:00 AM SCALE: 1:1	TITLE: ASSEMBLY 9 TRACK MAG TAPE CONTROLLER BOARD * 1 DRAWING NO. 21101 D REV. 4400232
------------------------------------------------------	---------------------------------------------------------------------------------	------------------------------------------------	-------------------------------------------------------------------------------------------------

4400232 F



REVISIONS			
SYN	ZONE	DESCRIPTION	APPROVED DATE
M	CW	REVISED PER EN 80196	<i>[Signature]</i> 4/2/71
N	WED	REVISED PER EN 80213	<i>[Signature]</i> 4/1/72
P	SM	UPDATED PER E.N. 80453	<i>[Signature]</i> 3/20/74
R	SM	UPDATED PER E.N. 80889	<i>[Signature]</i> 4/11/75
S	JM	REVISED PER EN 81777	<i>[Signature]</i> 3/23/75

REVISIONS			
SYM	ZONE	DESCRIPTION	APPROVED DATE
A		PRODUCTION RELEASE PER EN 28233	
B		CIRCUIT CHANGE PER EN 2894	<i>[Signature]</i> 3-20-69
C		IC 84 (K3) WAS 49000CB PER EN 2825	<i>[Signature]</i> 3-20-69
D		IC 55 PIN 11 WAS 1ND05-(2B3) IC 16 PIN 10 WAS GND14 DESIGNATION SLT1-T THRU SLT4-T WAS SLT0-T THRU SLT3-T (EN 2867)	<i>[Signature]</i> 3-20-69
E		IC 60 PIN 10 DELETED IC 77 & PI-95 FROM INPUT - ADDED PI-91 SHT 15 - PI-95 WAS ULD12-(AC3) - PI-91 WAS BLANK (EN 2876)	<i>[Signature]</i> 3-20-69
F		ADDED - IC 93 LN 2897	<i>[Signature]</i> 3-20-69
G		SHT #6 IC 84, INPUT PIN 8 WAS SDTOX, PIN 10 WAS DRYX-(EN 2896)	<i>[Signature]</i> 3-21-69
H		CIRCUIT CHANGE PER EN 3066	<i>[Signature]</i> 5-17-69
J	WE	REVISED PER EN 3788	<i>[Signature]</i> 2-17-70
K	JB	WIRING CHG IC 11 @ 8DZ, DELETED NOTE 1 & VDM PIN 3 FROM P 1/D, EN 3921	<i>[Signature]</i> 1-5-70
L	JB	REVISED IC 11 ON SHT B EN 4392	<i>[Signature]</i> 4/1/70



- REFERENCE DWGS
- 44D0232 -- ASSEMBLY
 - 44P0232 -- PARTS LIST
 - 40D0175 -- BOARD DETAIL
 - 97D0099 -- PHOTOMASTER
 - 95W0201 -- WIRE LIST (BOARD)
 - 95W0224 -- WIRE LIST (HAND WIRING)

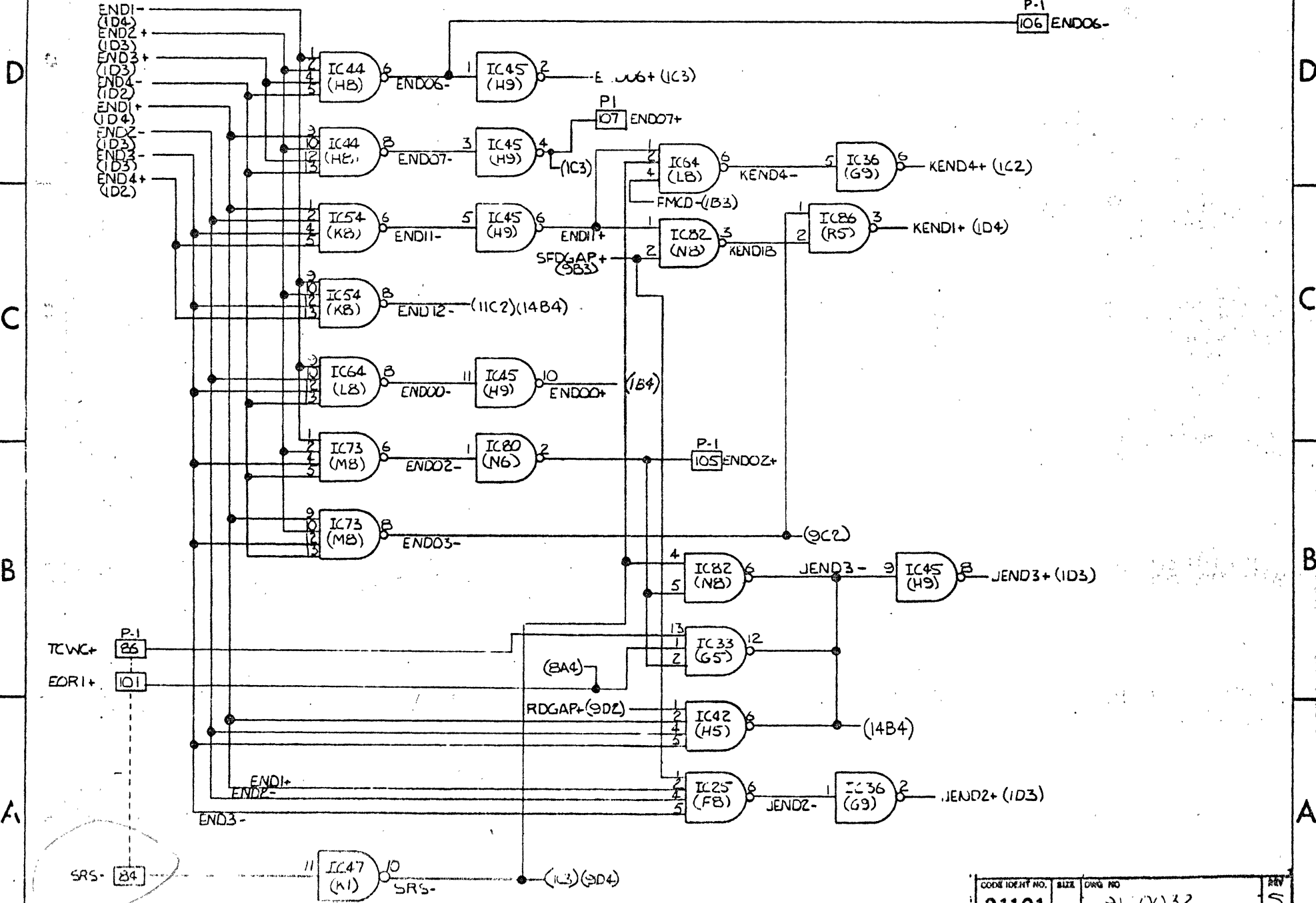
LAST REF. DESIGNATION USED				
C11	R9	IC 96	RB2	RCB5
REFERENCE DESIGNATIONS NOT USED				

MODEL NO. 620-30	DIMENSIONS ARE IN DECIMALS AND AFTER FINISHING TOLERANCES UNLESS OTHERWISE SPECIFIED X ± .1 XX ± .05 XXX ± .010 ANGLES ± .65°	DR CHN <i>[Signature]</i> 11-11-69	VARIATION MACHINE / WITH MODULAR 272 MICRONS DIA / INDS / OUTSIDE / 2884
NEXT ASSY 44D0232		CHK <i>[Signature]</i> 11-11-69	
MATERIAL		ENGR <i>[Signature]</i> 12-17-69	TITLE LOGIC DIAGRAM - 9 TRACK
		APPD <i>[Signature]</i> 12-20-69	MAG. TAPE CONT. BOARD #1
		APPD <i>[Signature]</i> 12-20-69	
	BREAK ALL SHARP EDGES AND APPROX DO NOT SCALE DRAWING	THIS DOCUMENT MAY CONTAIN PROPRIETARY INFORMATION AND SUCH INFORMATION MAY NOT BE DISCLOSED TO OTHERS FOR ANY PURPOSE OR USED TO PRODUCE THE ARTICLE OR SUBJECT, WITHOUT WRITTEN PERMISSION FROM VDM	
		CODE IDENT NO. 21101 C	SIZE DWO NO 91C0032
		SCALE	SHEET 1 OF 1

2. ALL CAPACITORS ARE 2.2 uF, 20V.

NOTE: UNLESS OTHERWISE SPECIFIED

READ MOTION CONTROL

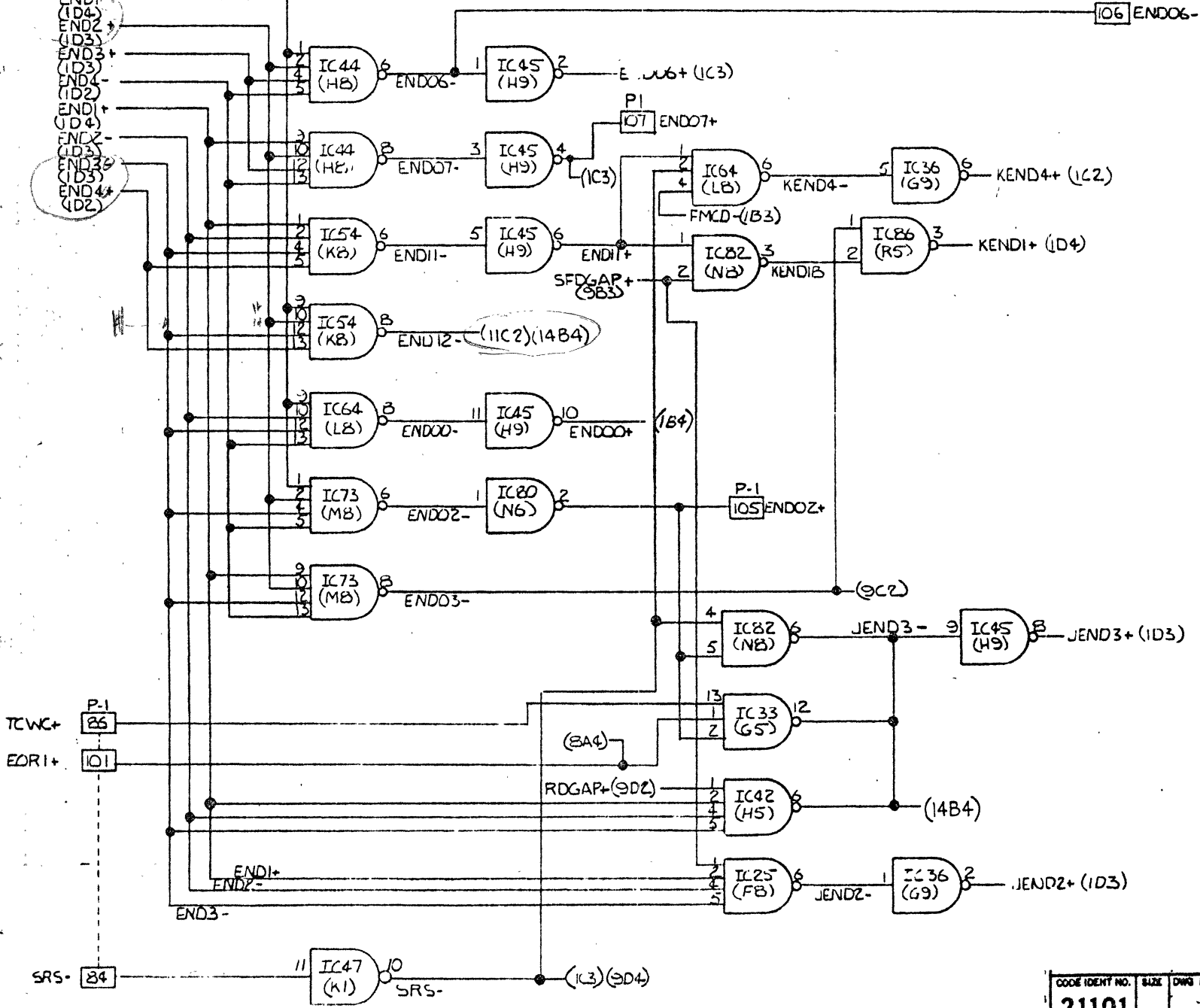


CODE IDENT NO.	SIZE	DWG NO	REV
21101		310032	5
SCALE		SHEET 2 OF 16	

READ MOTION CONTROL

P-1
106 ENDO6-

END1- (1D4)
END2- (1D3)
END3+ (1D3)
END4- (1D2)
END1+ (1D4)
END2+ (1D3)
END3+ (1D3)
END4+ (1D2)



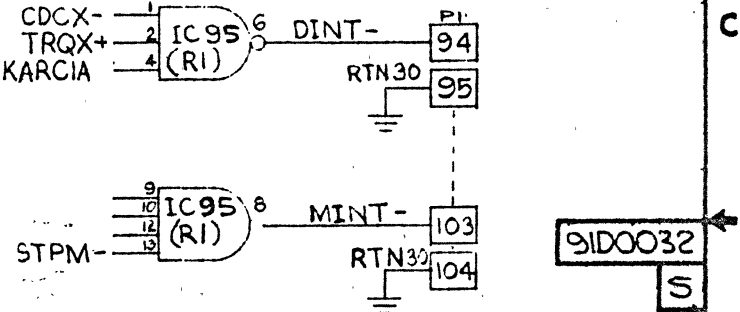
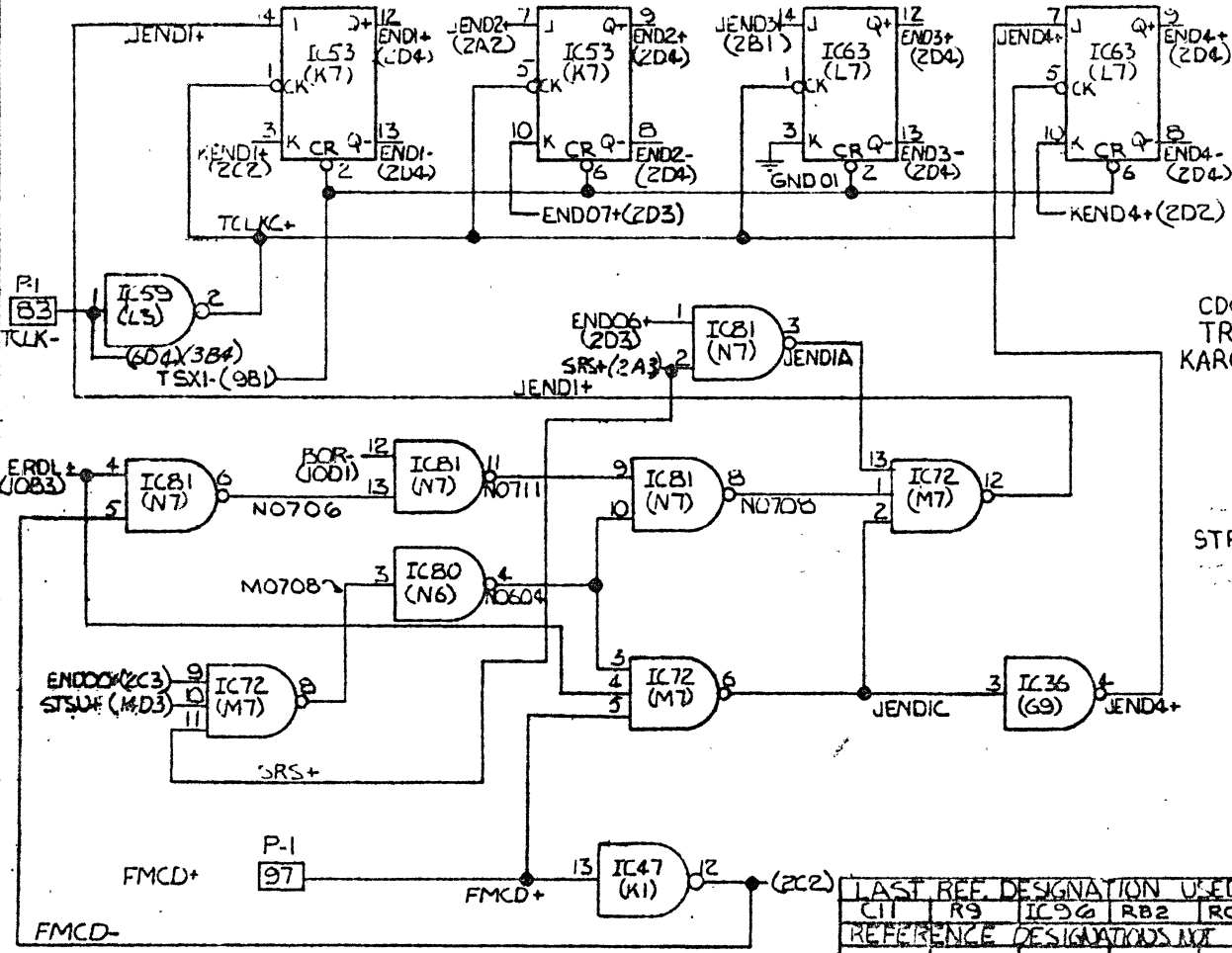
CODE IDENT NO.	SIZE	DWG NO.	REV
21101		910032	S
SCALE	SHEET 2 OF 16		

9100032
S

SYM	ZONE	DESCRIPTION	APPROVED	DATE
M	CW	REVISED PER EN 80195	R. G. ...	4/2/71
N	WLD	REVISED PER EN 80213	R. G. ...	1/1/72
P	SM	UPDATED PER E.N. 80453	R. G. ...	3/20/72
R	SM	UPDATED PER E.N. 80889	R. G. ...	9/1/72
S	NM	REVISED PER EN 81797	R. G. ...	5/23/73

SYM	ZONE	DESCRIPTION	APPROVED	DATE
A		PRODUCTION RELEASE PER EN 2733		
B		CIRCUIT CHANGE PER EN 2844		2-20-72
C		IC 84 (K3) WAS 49400008 PER EN 2855		2-20-72
D		IC 55 PIN 11 WAS LND05 (2B3) IC 16 PIN 10 WAS GND14 DESIGNATION SLT1-T THRU SLT4-T WAS SLT0-T THRU SLT3-T (EN 2867)		3-20-72
E		IC 60 PIN 14/16 DELETED IC 77 (PI-35 FROM INPUT - ADDED PI-31 SHT 15 - PI-35 WAS ULU12-(AC3) - PI-31 WAS BLANK (CV 2876)		3-20-72
F		ADDED - IC 93 LN 2897		3-20-72
G		SHT 6 IC 84 INPUT PIN 8 WAS SDTOX-, PIN 10 WAS DRYX- (EN 2846)		3-21-72
H		CIRCUIT CHANGE PER EN 3046		5-17-73
J	WE	REVISED PER EN 3785		2-17-70
K	78	WIRING CHG. IC 11 & 8 DZ, DELETED NOTE 1 VDM P/N'S FROM F/D, EN 3921		1-5-70
L	78	REVISED IC 11 ON SHT 8 EN 4392		4/2/70

READ MOTION CONTROL



REFERENCE DWGS

- 44D0232 -- ASSEMBLY
- 44P0232 -- PARTS LIST
- 40D0175 -- BOARD DETAIL
- 97D0099 -- PHOTOMASTER
- 95W0201 -- WIRE LIST (BOARD)
- 95W0224 -- WIRE LIST (HAND WIRING)

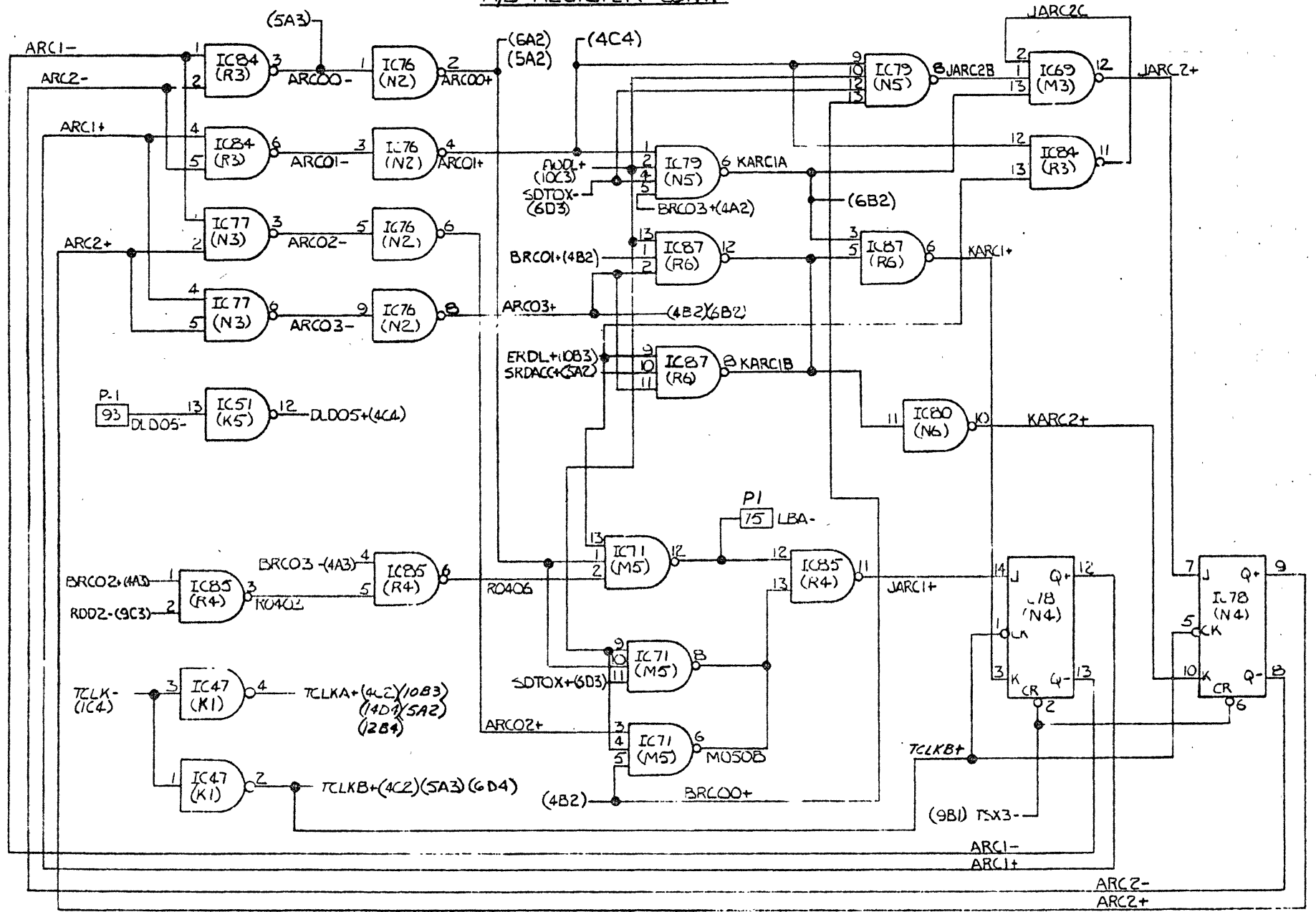
LAST REF. DESIGNATION USED				
C11	R9	IC95	RB2	RCB5
REFERENCE DESIGNATIONS NOT USED				

2. ALL CAPACITORS ARE 2.2 uF, 20V.

NOTE: UNLESS OTHERWISE SPECIFIED

ASSEMBLY NO. 620-30	DATE 11-11-68	various data machines / various auxiliary 2722 synchronous drive / drives / controllers / 2884
PRY ASSY 44D0232	CHK'D 11-11-68	
MATERIAL	ENGR 12-17-68	TITLE LOGIC DIAGRAM - 9 TRACK MAG. TAPE CONT. BOARD #1
APPROVED 12-20-68	APPROVED 12-20-68	CORR IDENT NO. 21101 C
DO NOT SCALE DRAWING	THIS DOCUMENT MAY CONTAIN PROPRIETARY INFORMATION AND SUCH INFORMATION MAY NOT BE DISCLOSED TO OTHERS FOR ANY PURPOSE OR USED TO PRODUCE THE ARTICLE OR SUBJECT, WITHOUT WRITTEN PERMISSION FROM VDM	SIZE C
		DWG NO. 91C0032
		SHEET 1 OF 10

A/B REGISTER CONT.



CODE IDENT NO.	SIZE	DISK NO.	REV
21101		91C0032	S
SCALE		SHEET 3 OF 1.	

INTERFACE & CONTROL

D

C

B

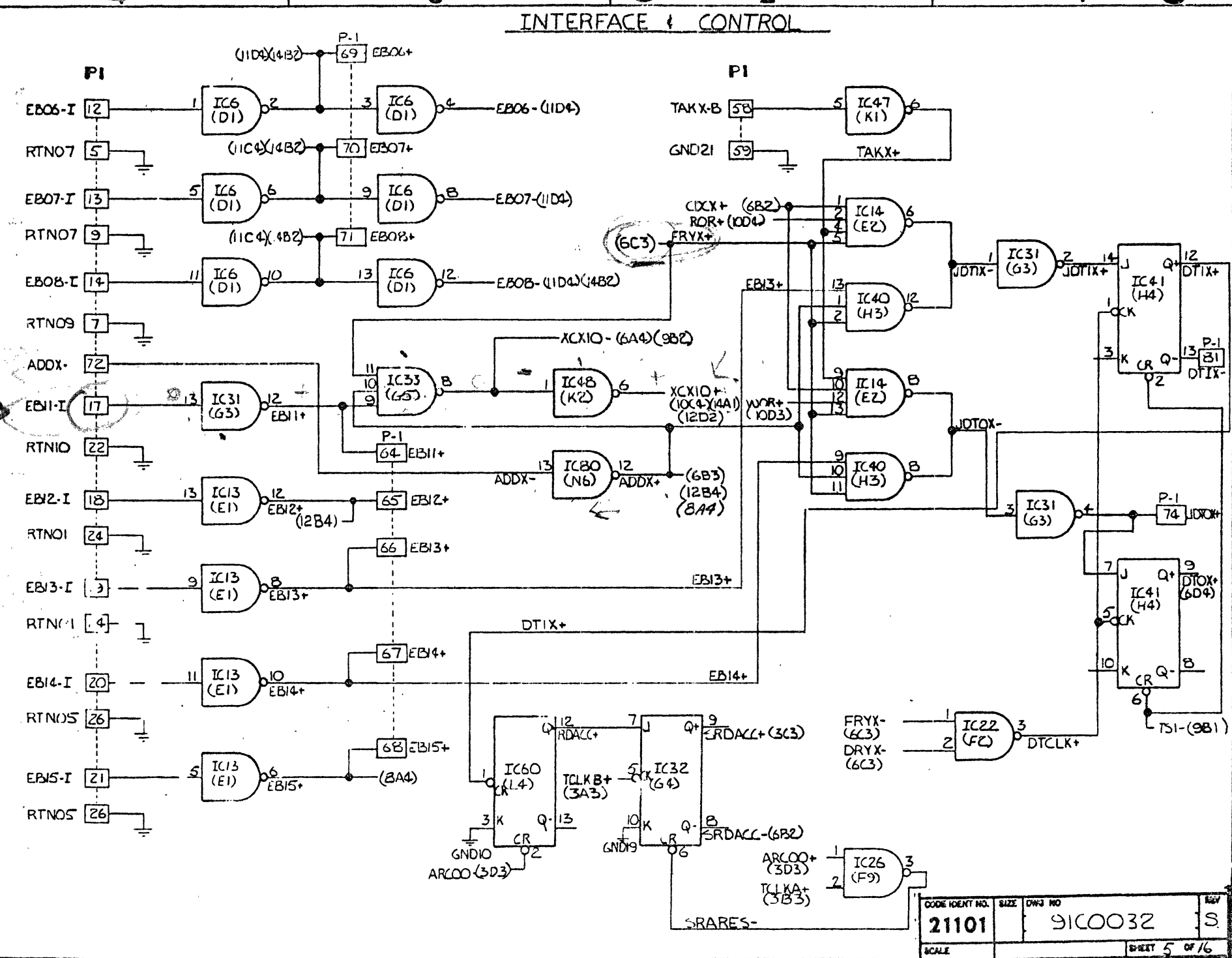
A

D

C

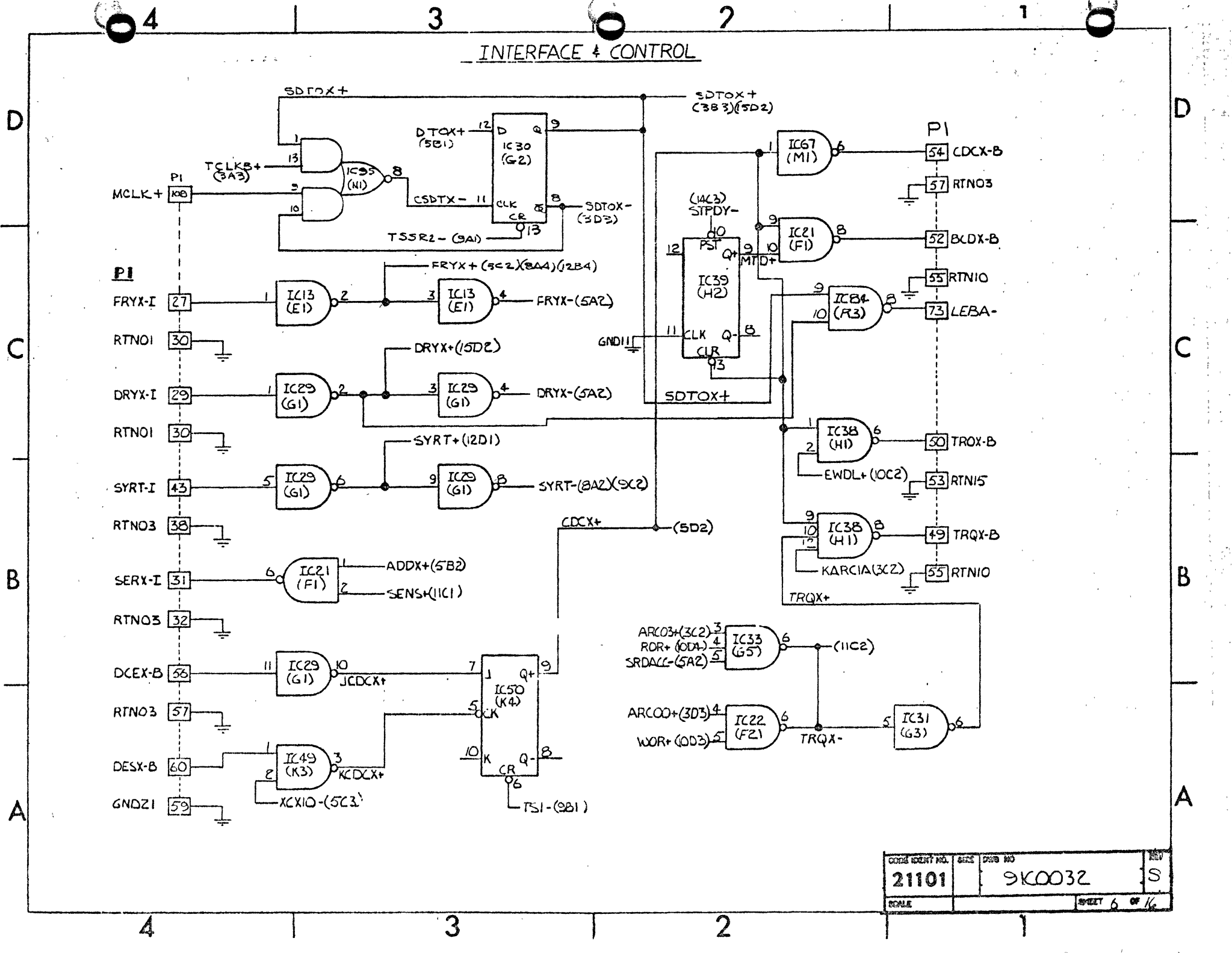
B

A



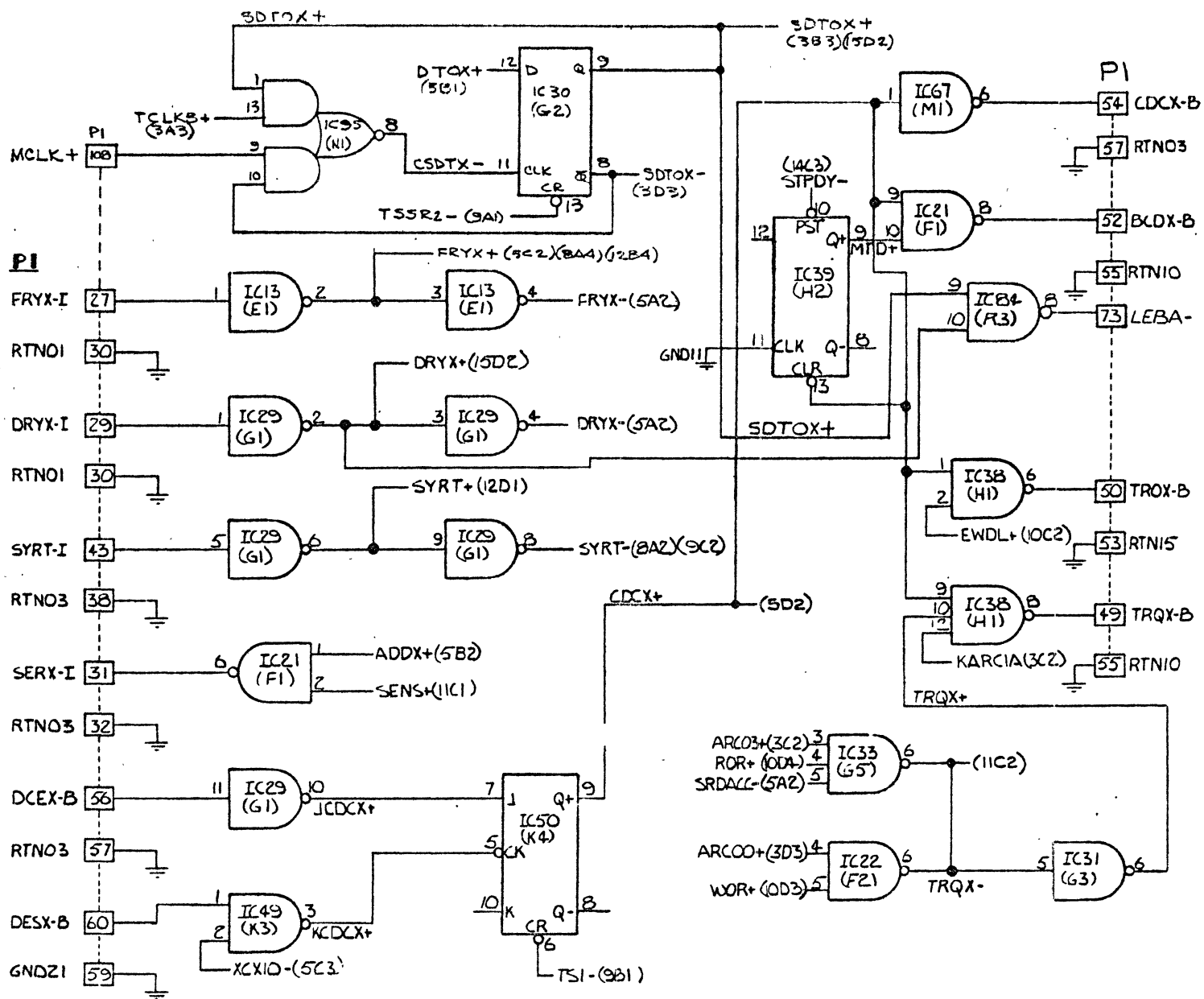
CODE IDENT NO.	SIZE	DWG NO	REV
21101		910032	S
SCALE		SHEET 5 OF 16	

INTERFACE & CONTROL



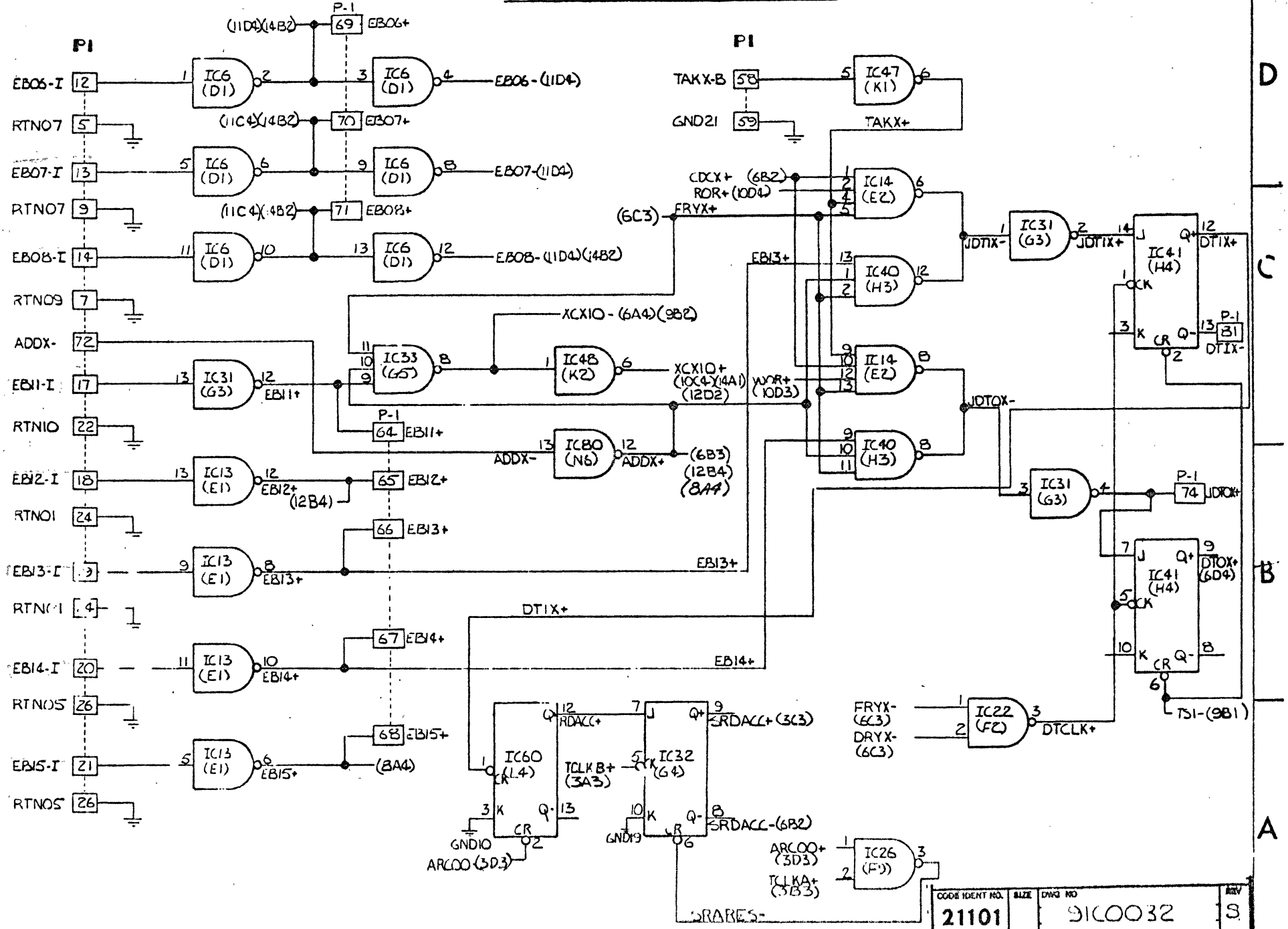
CONTRACT NO.	SIZE	DSB NO.	REV.
21101		9K0032	S
SCALE	SHEET 6 OF 16		

INTERFACE + CONTROL



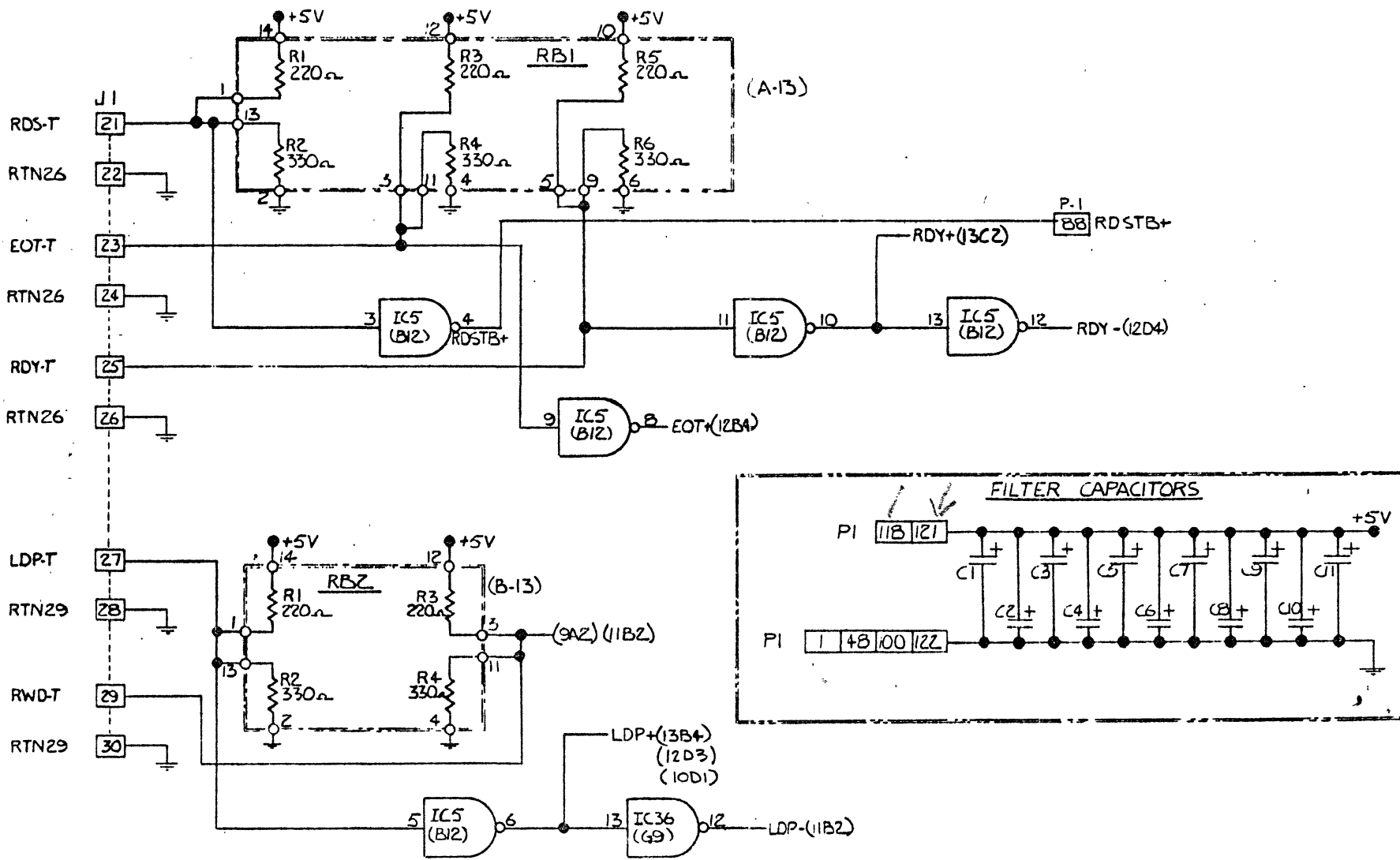
CODE IDENT NO.	SIZE	DWG NO.	REV.
21101		9K0032	S
SCALE	SHEET 6 OF 16		

INTERFACE & CONTROL



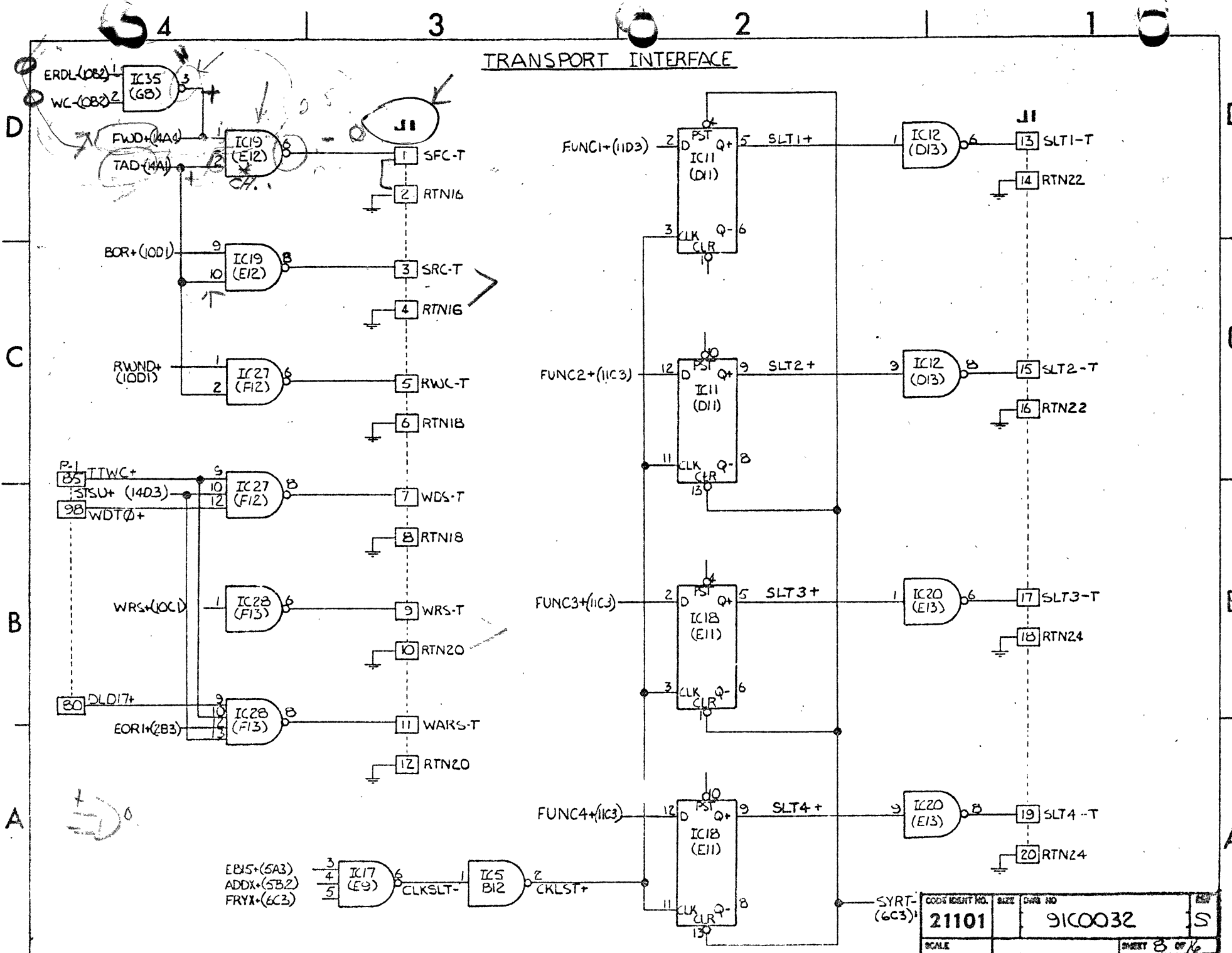
CODE IDENT NO.	SIZE	DWG NO.	REV.
21101		91C0032	3
SCALE	SHEET 5 OF 16		

TRANSPORT INTERFACE



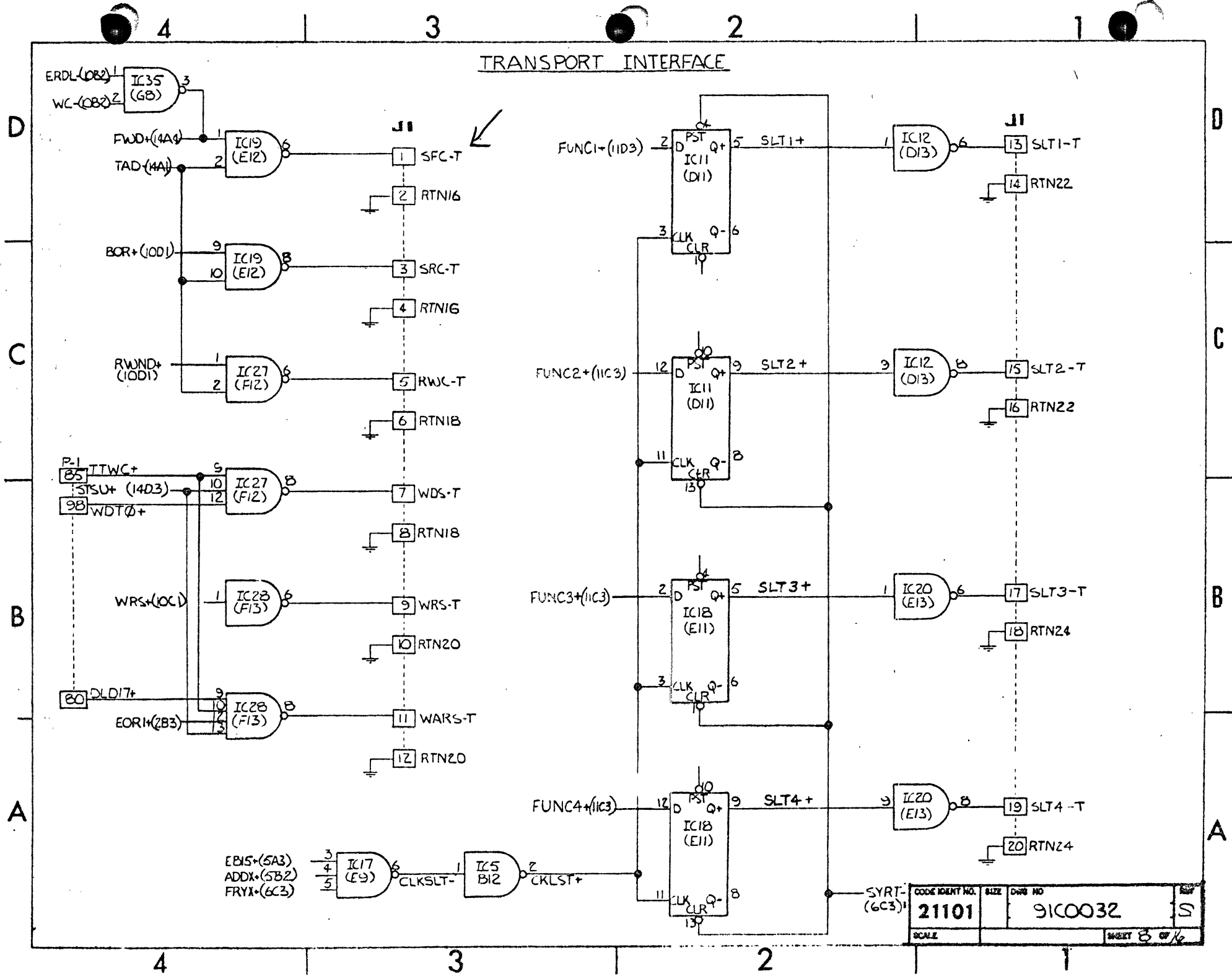
DATE IDENT NO.	SIZE	DRWG NO.	REV
21101		910032	S
SCALE	SHEET 7 OF 16		

TRANSPORT INTERFACE



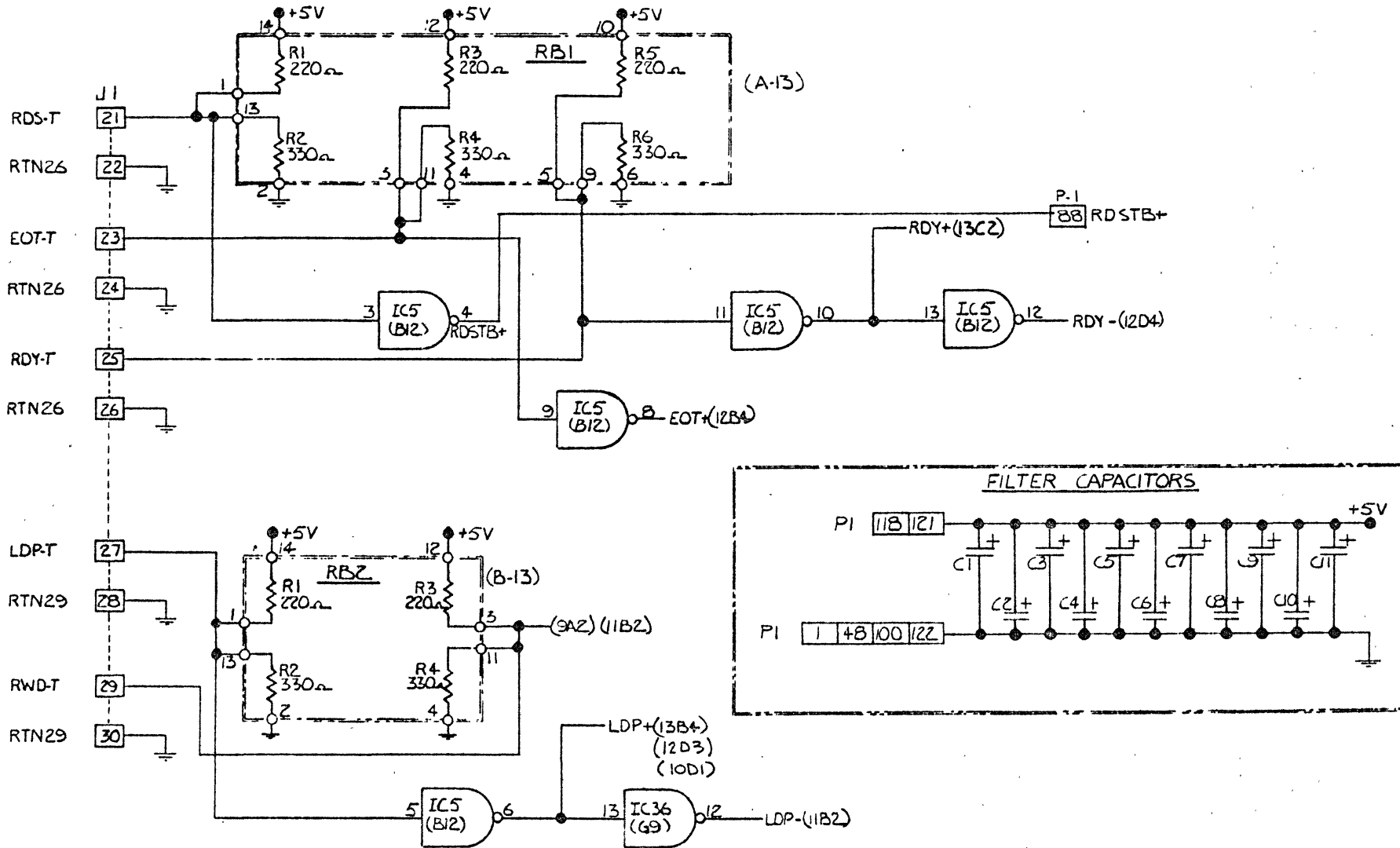
CODE IDENT NO.	SIZE	DRAW NO.	REV.
21101		9100032	S
SCALE	SHEET 8 OF 16		

TRANSPORT INTERFACE



CODE IDENT NO.	SIZE	DWG NO	
21101		91C0032	S
SCALE		SHEET 8 OF 16	

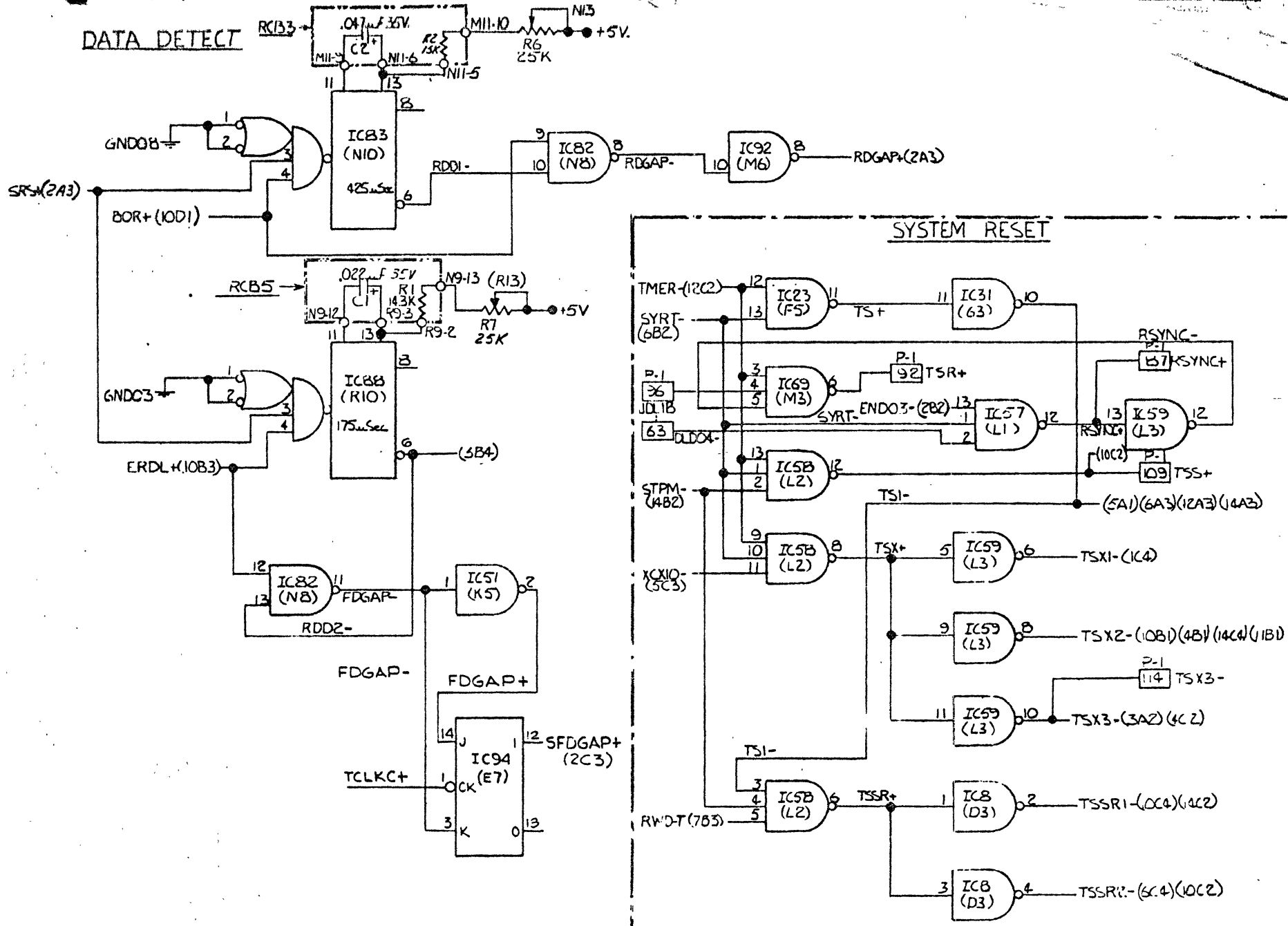
TRANSPORT INTERFACE



CODE IDENT NO.	SIZE	DRWG NO.	REV
21101		9100032	S
SCALE	SHEET 7 OF 16		

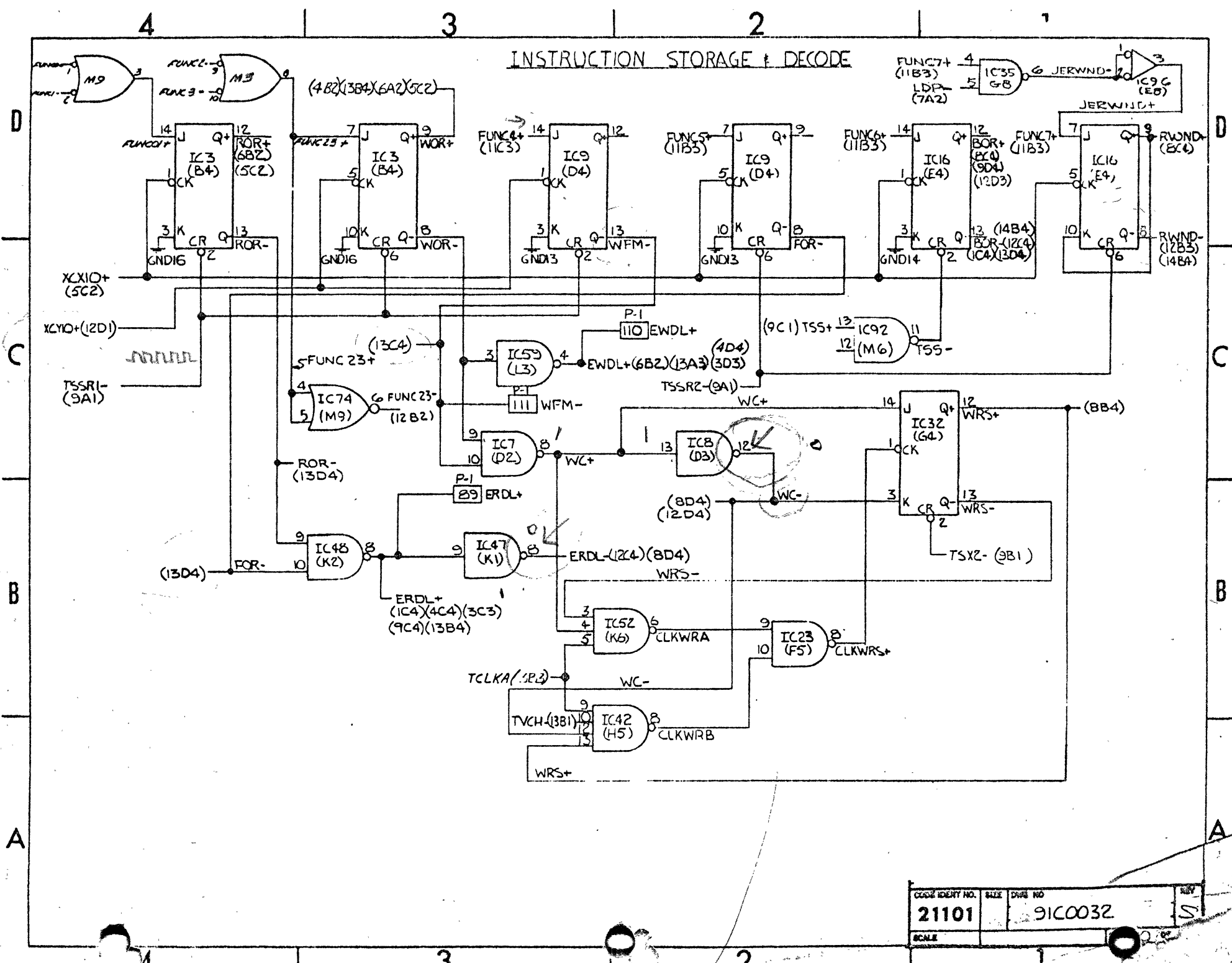
DATA DETECT

SYSTEM RESET



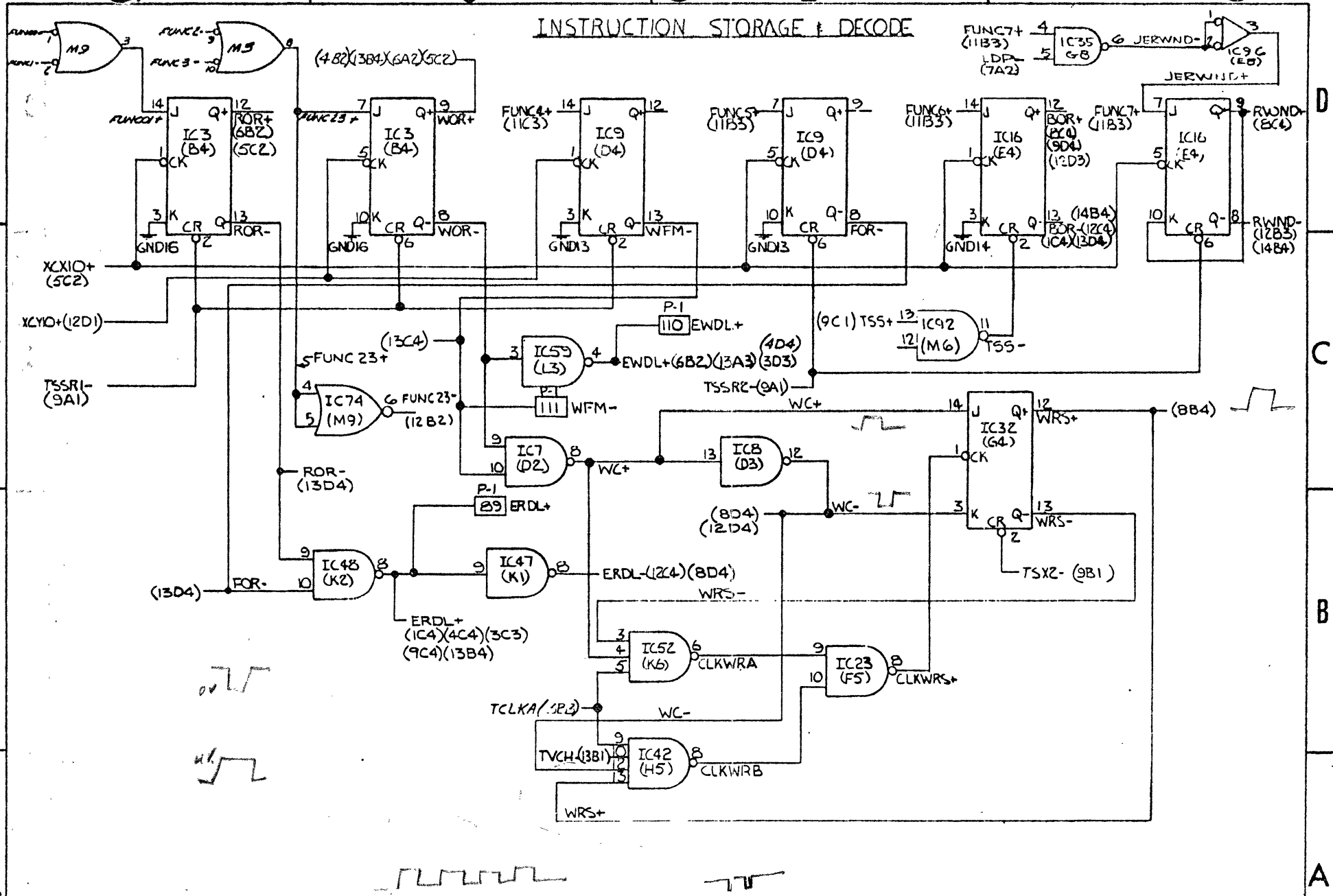
DOC IDENT NO.	SIZE	DRG NO.	
21101		9100032	S
SCALE		SHEET 9 OF 16	

INSTRUCTION STORAGE & DECODE



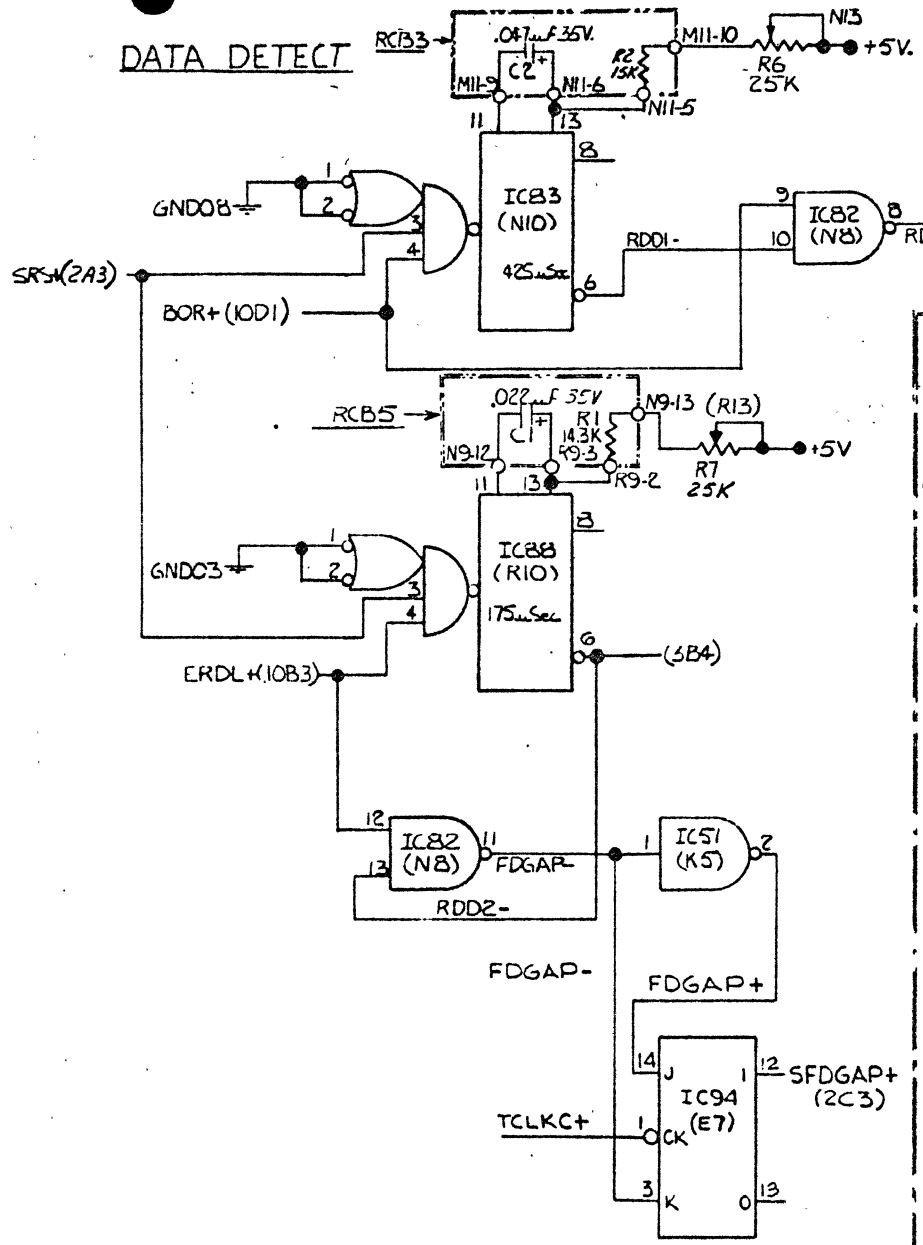
CODE IDENT. NO.	SIZE	DATE NO.	REV.
21101		91C0032	S
SCALE			

INSTRUCTION STORAGE & DECODE

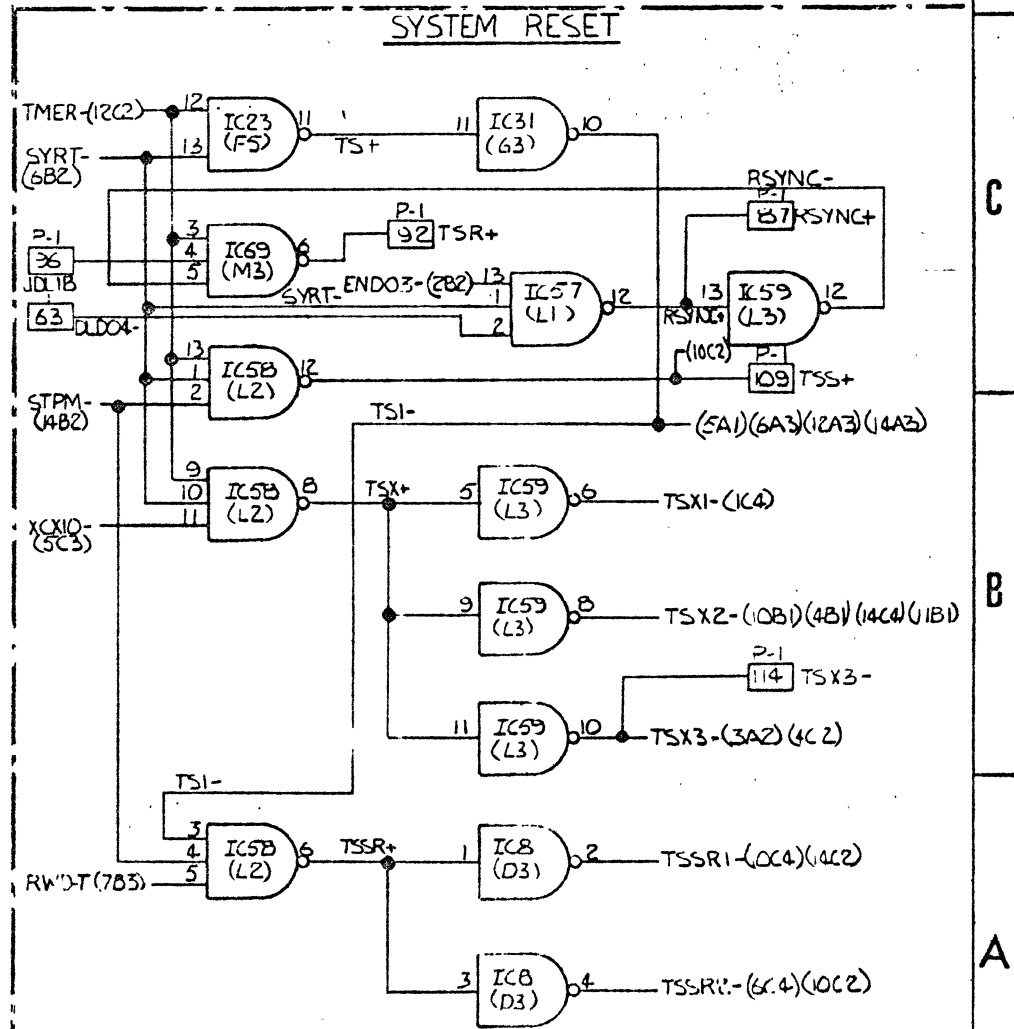


CODE IDENT NO.	SIZE	DWG NO.	REV
21101		91C0032	S
SCALE		SHEET 10 OF 16	

DATA DETECT



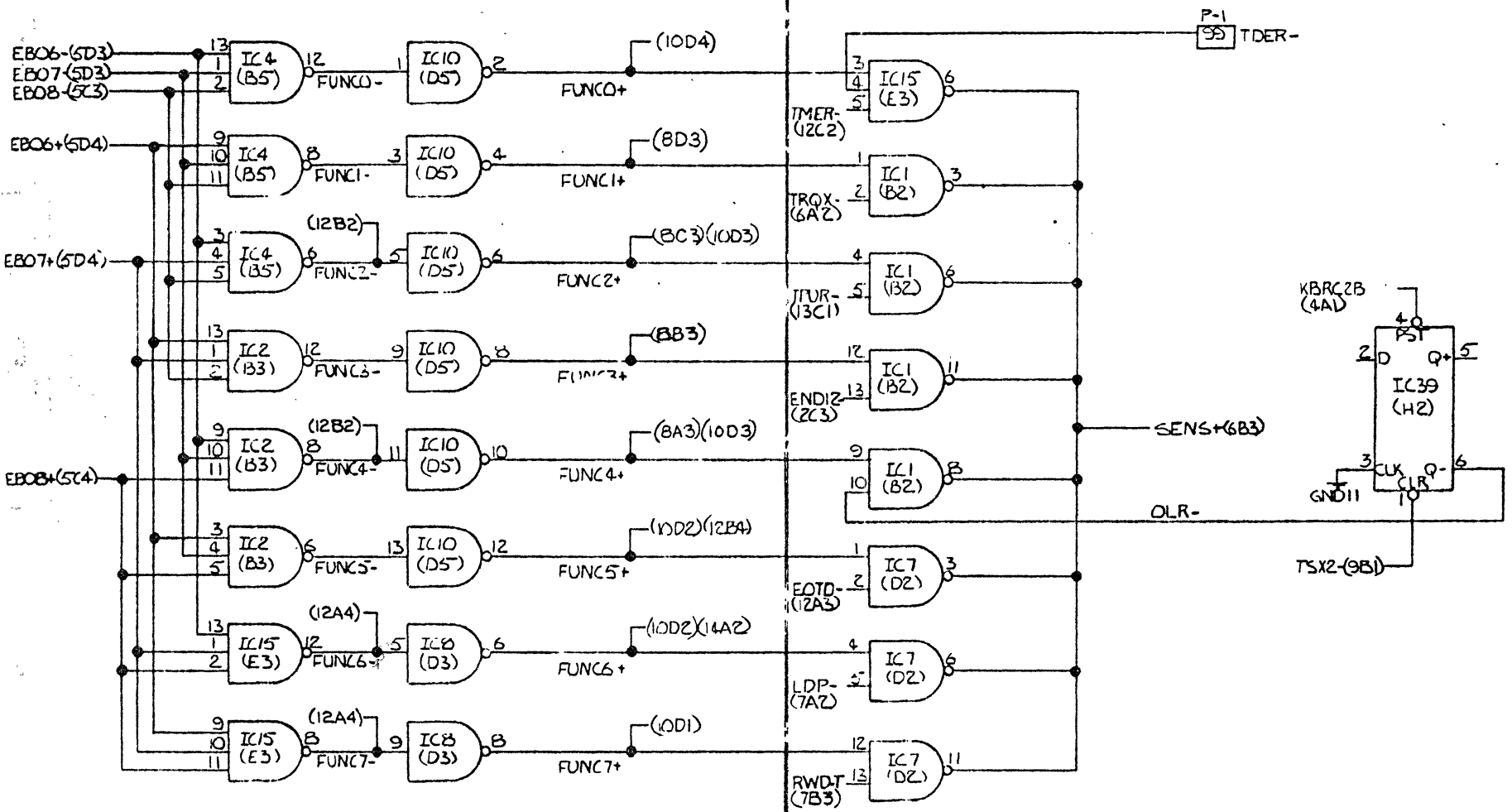
SYSTEM RESET



CODE IDENT NO.	SIZE	DWG NO.	REV
21101		9100032	S
SCALE	SHEET 9 OF 16		

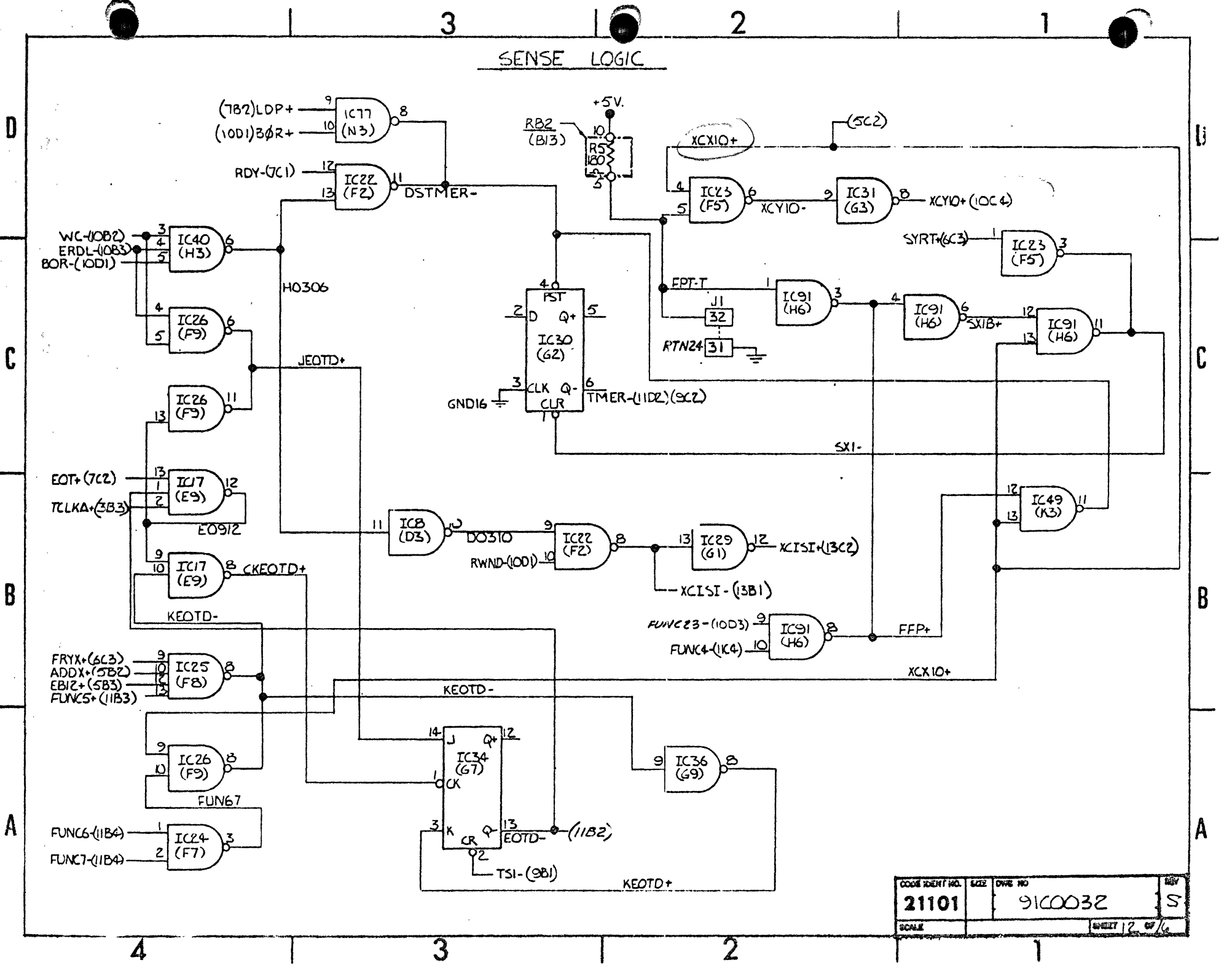
INSTRUCTION STORAGE & DECODE

SENSE LOGIC



CODE IDENT NO.	SIZE	DATE NO	REV
21101		91C003Z	S
SCALE	SHEET 11 OF 16		

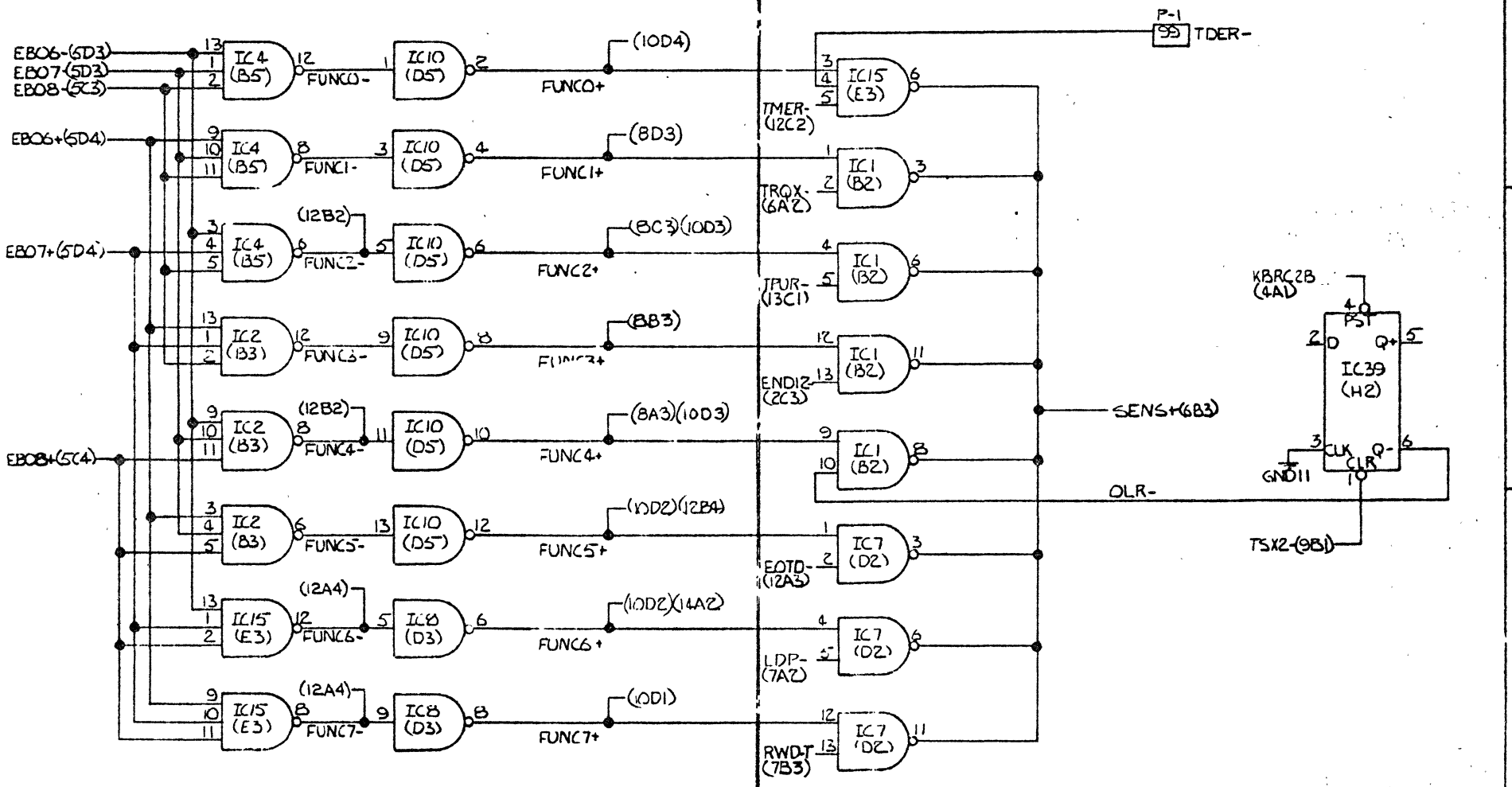
SENSE LOGIC



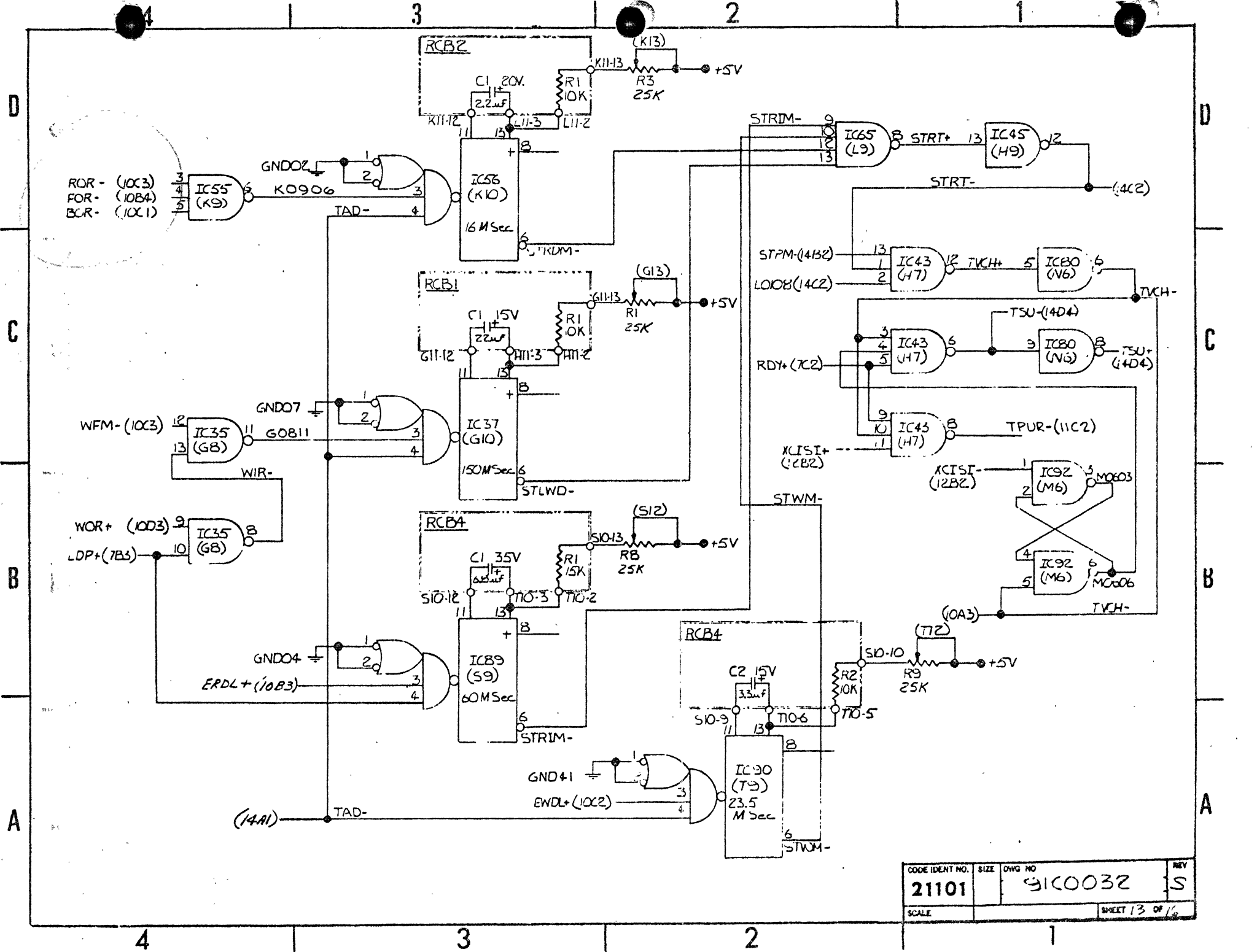
DOC# IDENT NO.	SIZE	DRWG NO.	REV
21101		9100032	S
SCALE	SHEET 12 OF 16		

INSTRUCTION STORAGE & DECODE

SENSE LOGIC

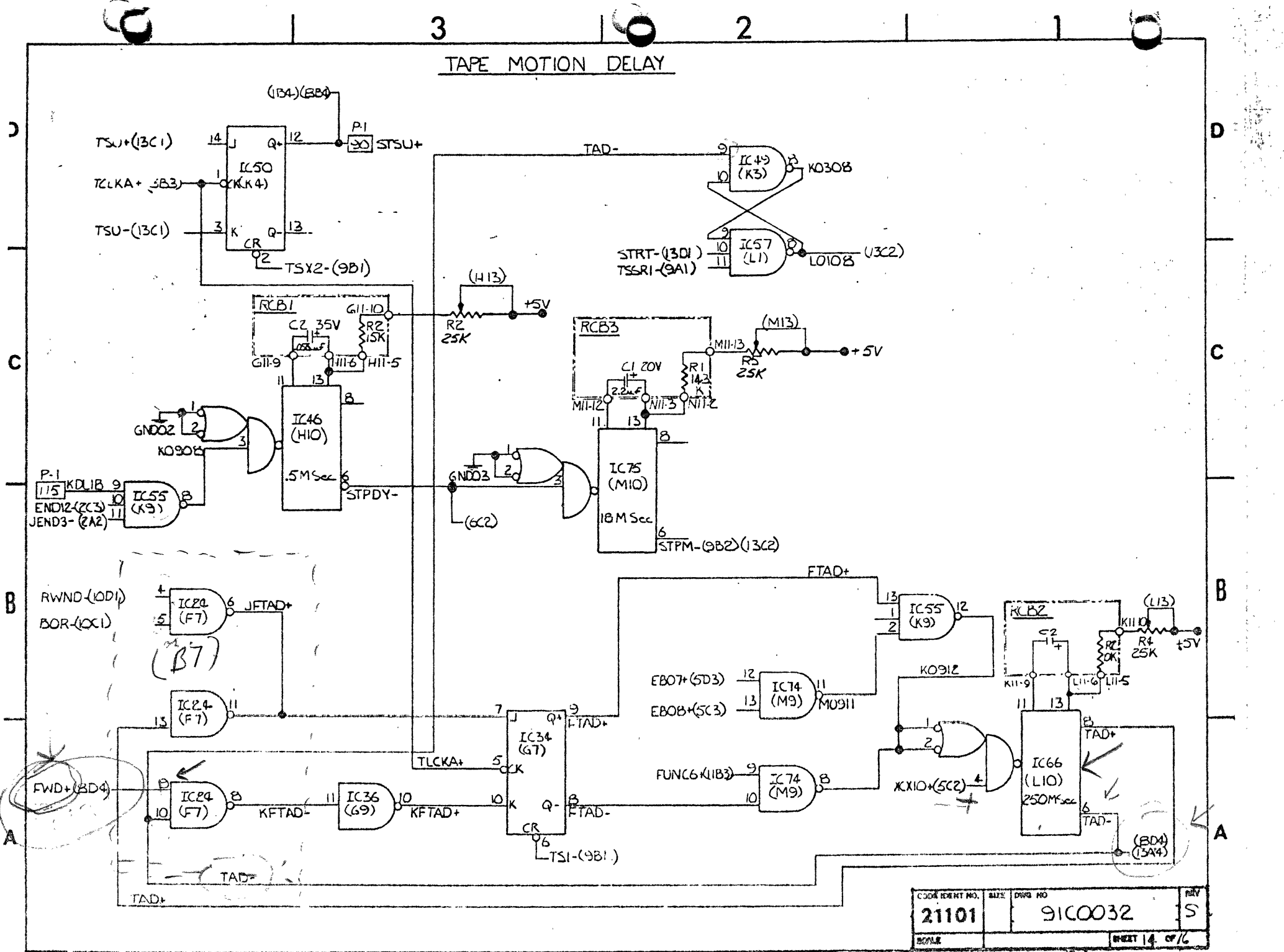


CODE IDENT NO.	SIZE	DWG NO	REV
21101		91C003Z	S
SCALE	SHEET 11 OF 16		



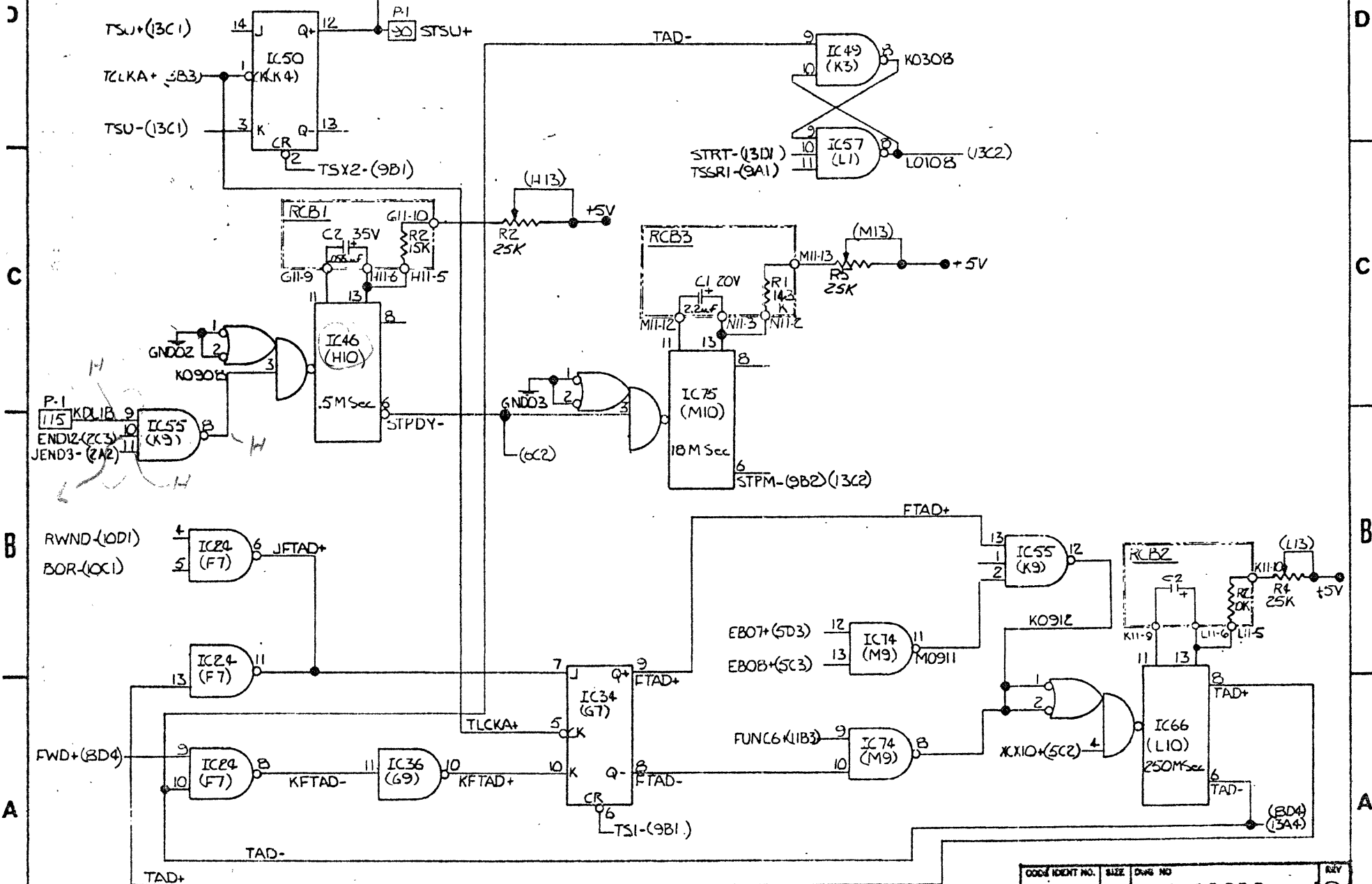
CODE IDENT NO.	SIZE	DRG NO	REV
21101		9100032	S
SCALE			SHEET 13 OF 16

TAPE MOTION DELAY

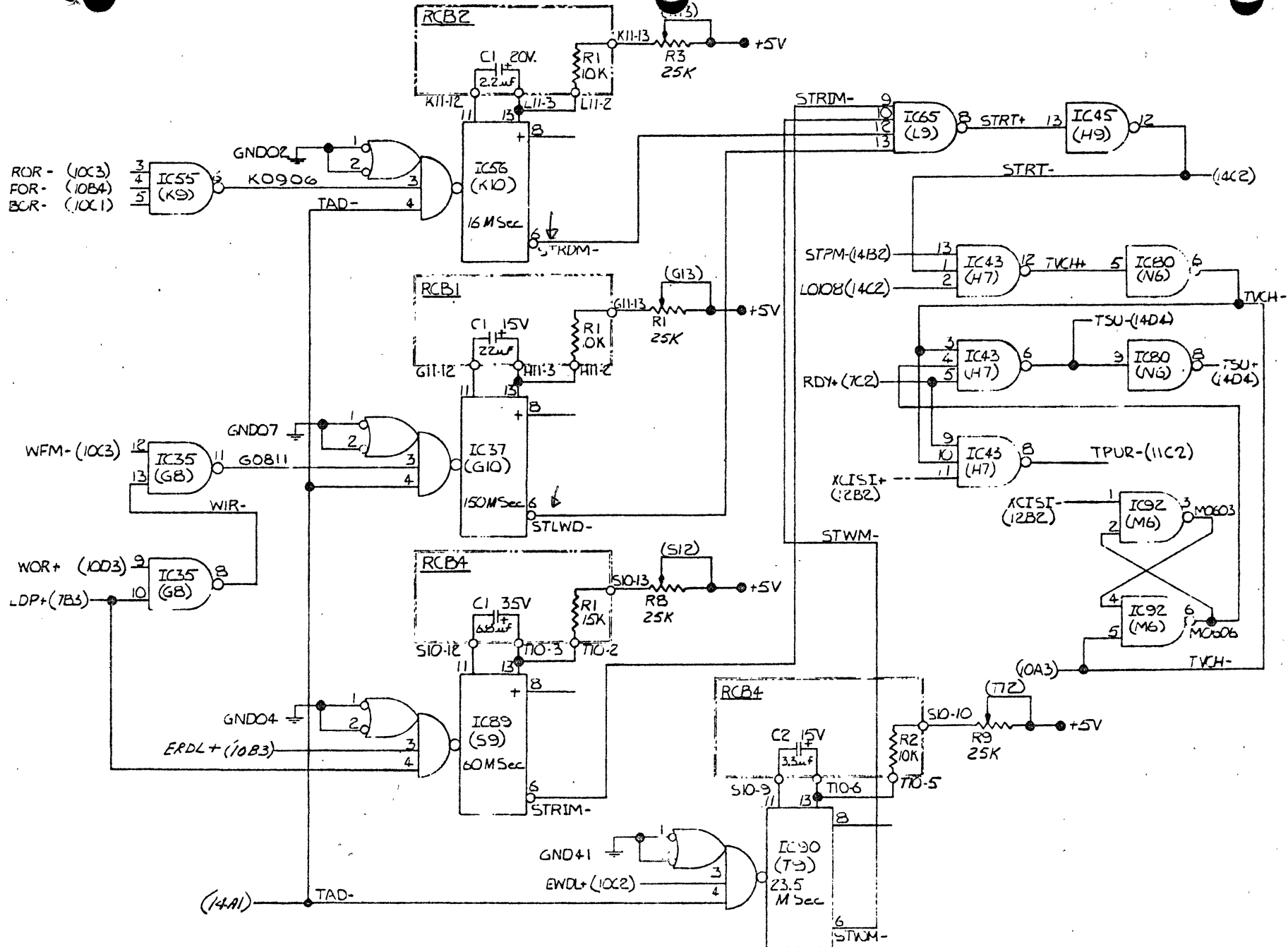


CIRCUIT IDENT. NO.	DATE	DRAW. NO.	REV.
21101		91C0032	S
SCALE	SHEET 14 OF 16		

TAPE MOTION DELAY



CODE IDENT NO.	SIZE	DWG NO	REV
21101		91C0032	S
SCALE	SHEET 14 OF 16		



CODE IDENT NO.	SIZE	DWG NO	REV
21101		9100032	S
SCALE		SHEET 13 OF 14	

121

- 1 GND (7B2)
- 2
- 3
- 4
- 5 RTN07 (5D4)
- 6
- 7 RTN09 (5C4)
- 8
- 9 RTN07 (5C4)
- 10
- 11
- 12 EBO6-I (5D4)
- 13 EBO7-I (5D4)
- 14 EBO8-I (5C4)
- 15
- 16
- 17 EB11-I (5C4)
- 18 EB12-I (5B4)
- 19 EB13-I (5B4)
- 20 EB14-I (5B4)
- 21 EB15-I (5A4)
- 22 RTN10 (5C4)
- 23
- 24 RTN01 (5B4)
- 25

- 26 RTN05 (5A4)
- 27 FRYX-I (6C4)
- 28
- 29 DRYX-I (6C4)
- 30 RTN01 (6C4)
- 31 SERX-I (6B4)
- 32 RTN03 (6B4)
- 33
- 34
- 35
- 36
- 37
- 38 RTN03 (6B4)
- 39
- 40
- 41
- 42
- 43 SYRT-I (6B4)
- 44
- 45
- 46
- 47
- 48 GND (7B2)
- 49 TROX-B (6B1)
- 50 TROX-B (6C1)

- 51
- 52 BCDX-B (6C1)
- 53 RTN15 (6B1)
- 54 CDCX-B (6D1)
- 55 RTN10 (6C1)
- 56 DCX-B (6B4)
- 57 RTN03 (6A4)
- 58 TAKX-B (5D2)
- 59 GND21 (6A4)
- 60 DESX-B (6A4)
- 61
- 62
- 63 DLDO4- (6C2)
- 64 EB11+ (5C3)
- 65 EB12+ (5B3)
- 66 EB13+ (5B3)
- 67 EB14+ (5B3)
- 68 EB15+ (5A3)
- 69 EBO6+ (5D3)
- 70 EBO7+ (5D3)
- 71 EBO8+ (5C3)
- 72 ADOX- (5C4)
- 73 LFBA- (6C1)
- 74 JDT04+ (5B1)
- 75 LFBA- (6B2)

- 76 LAB- (4B1)
- 77 RBRH- (4B1)
- 78 RBRL- (4B1)
- 79 DLD16+ (4D4)
- 80 DLD17+ (6B4)
- 81 D11X- (5C1)
- 82 CBYNT- (4B1)
- 83 ICLK- (1C4)
- 84 SRS- (2A4)
- 85 TTWC+ (8C4)
- 86 TCWC+ (2B4)
- 87 RSYNC+ (6C1)
- 88 RDSTB+ (7C1)
- 89 ERDL+ (0B3)
- 90 STSU+ (14D3)
- 91 LCRCG+ (4C2)
- 92 TSR+ (9C2)
- 93 DLDO5- (3C4)
- 94 DINT- (1C1)
- 95 RTN30 (1C1)
- 96 JDLIB (9C2)
- 97 EMCD+ (1B4)
- 98 WDT04+ (6B4)
- 99 TDER- (1D1)
- 100 GND (7B2)

- 101 FOR1+ (2B4)
- 102 DLDO6+ (4C4)
- 103 MINT- (1B1)
- 104 RTN30 (1B1)
- 105 ENDO2+ (2B2)
- 106 ENDO6- (2D1)
- 107 ENDO7+ (2D3)
- 108 MCLK+ (6D4)
- 109 TSS+ (9C1)
- 110 EWD1+ (10C2)
- 111 WEM- (10C3)
- 112
- 113 BR03- (4A3)
- 114 TSX3- (6B1)
- 115 KDLIB (14B4)
- 116
- 117
- 118 +5V (7B2)
- 119
- 120
- 121 +5V (7B2)
- 122 GND (7B2)

REVISIONS			
SYM	DATE	DESCRIPTION	DATE

CODE IDENT NO.	SIZE	DWG NO.	REV
21101		91003Z	S

4

3

2

D

D

↓ J1
 1 SFC-T (8D3)
 2 RTN16 (8D3)
 3 SRC-T (8C3)
 4 RTN16 (8C3)
 5 RWL-T (8C3)
 6 RTN18 (8C3)
 7 WDS-T (8B3)
 8 RTN18 (8B3)
 9 WRS-T (8B3)
 10 RTN20 (8B3)
 11 WARS-T (8A3)
 12 RTN20 (8A3)
 13 SLT1-T (8D1)
 14 RTN22 (8D1)
 15 SLT2-T (8C1)
 16 RTN22 (8C1)
 17 SLT3-T (8B1)
 18 RTN24 (8B1)
 19 SLT4-T (8A1)
 20 RTN24 (8A1)
 21 RDS-T (7D4)
 22 RTN26 (7D4)

J1 END OF TAPE
 23 EOT-T (7C4)
 24 RTN26 (7C4)
 25 ^{READY} RDY-T (7C4)
 26 RTN26 (7C4)
 27 ^{LOAD POINT} LDP-T (7B4)
 28 RTN29 (7B4)
 29 ^{REWIND} RWD-T (7B4)
 30 RTN29 (7B4)
 31 RTN24 (12C2)
 32 ^{FILE PROTECT} FPT-T (12C2)
 33 _____
 34 _____
 35 _____
 36 _____
 37 _____
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J2
 1 _____
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J2
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 44 _____

C

C

B

B

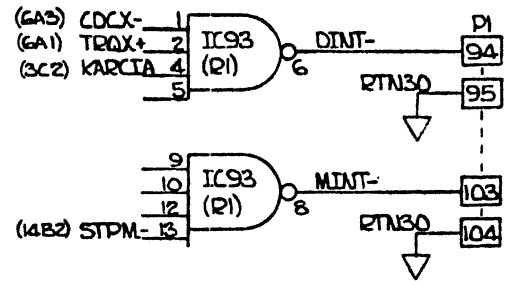
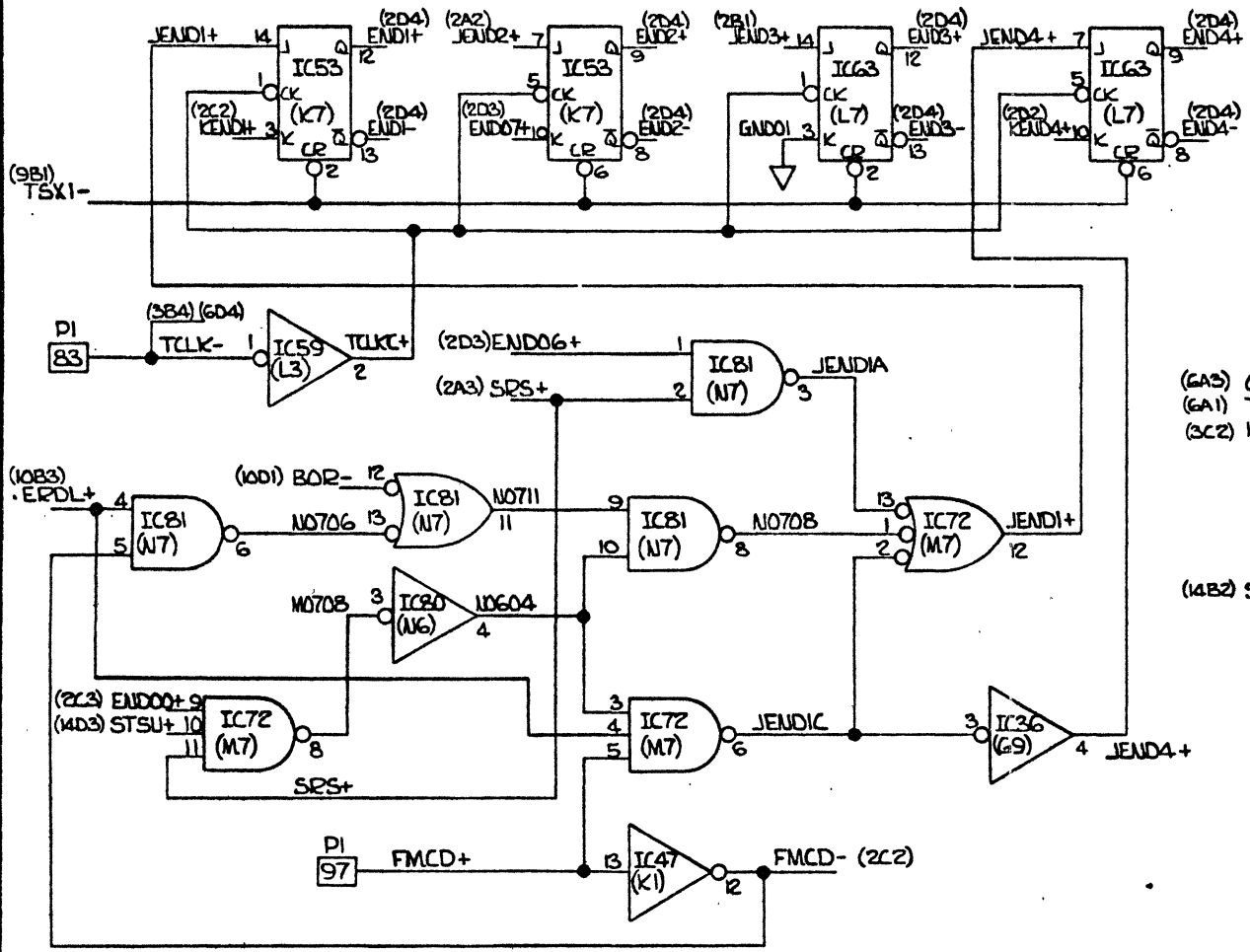
A

A

CODE IDENT NO.	SIZE	DRUM NO.	
21101		91C0032	S
SCALE			

READ MOTION CONTROL

REVISIONS					
CODE	SYM	ZONE	DESCRIPTION	APPROVED	DATE
-	A		PRODUCTION RELEASE PER EN 71563	<i>[Signature]</i>	11/17/72
-	B		REVISED SWT. 7 PER EN 82535-01	<i>[Signature]</i>	12-7-72



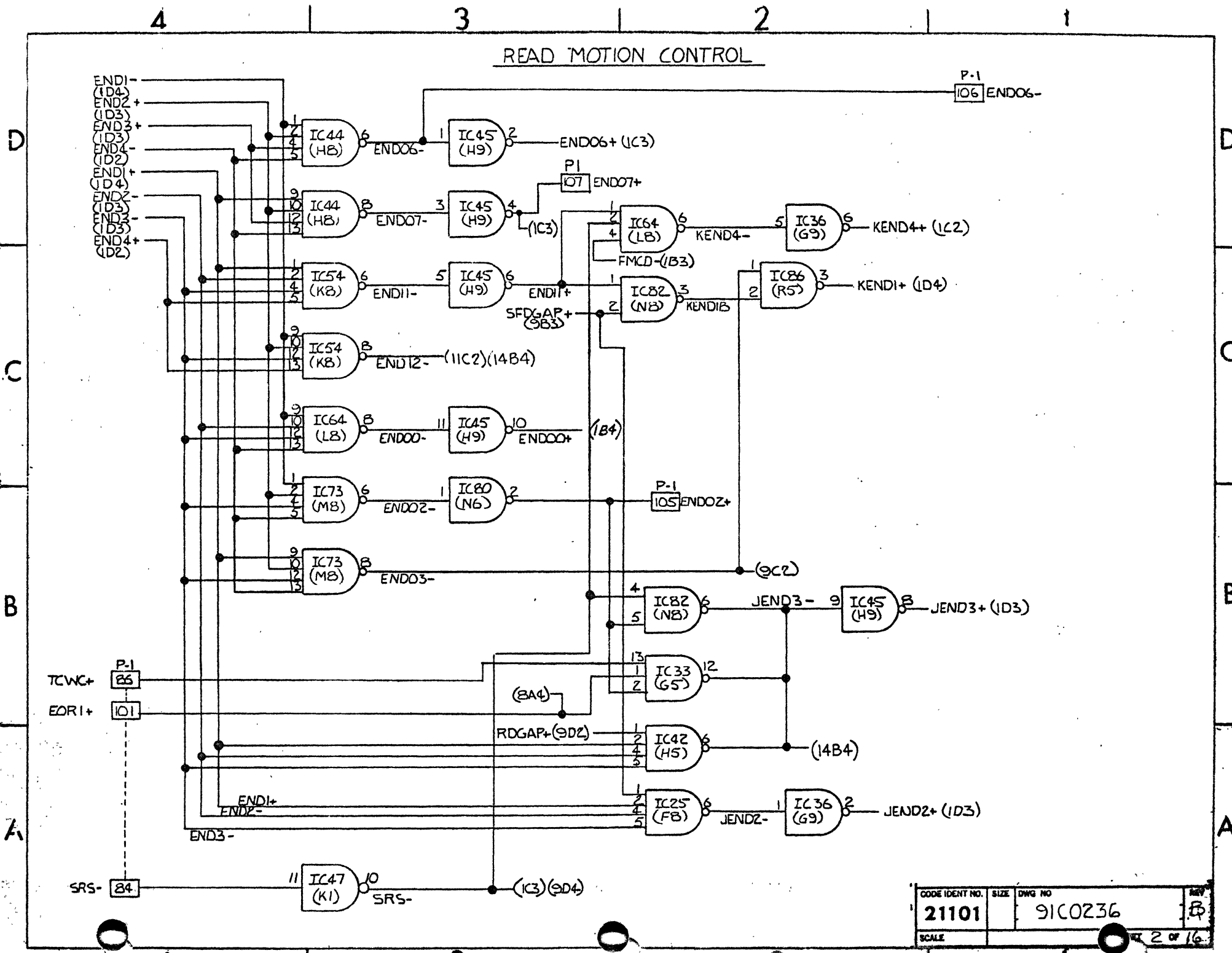
91C0236
B

1. ALL CAPACITORS ARE 2.2 μ F, 20V.
NOTES: (UNLESS OTHERWISE SPECIFIED)

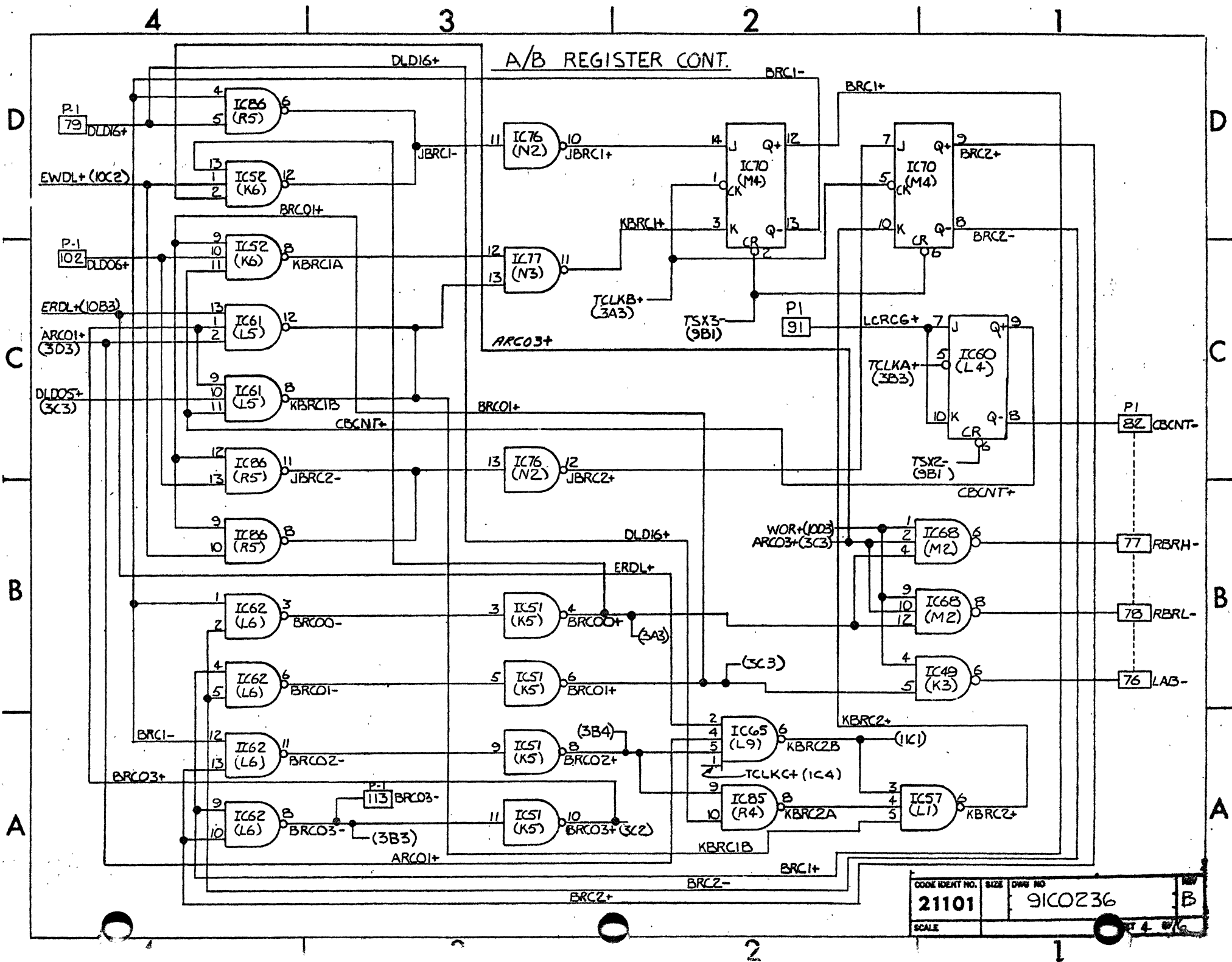
MODEL NO. 620-32 NEXT ASSY Q1A1455 MATERIAL FINISH	DIMENSIONS ARE IN INCHES AND AFTER FINISHING TOLERANCES UNLESS OTHERWISE SPECIFIED X \pm .1 XX \pm .05 XXX \pm .010 ANGLES \pm .5° BREAK ALL SHARP EDGES .010 R APPROX DO NOT SCALE DRAWING
-------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

DRAWN/AMEMBA 4-18-72 CHK <i>[Signature]</i> 4/21/72 DSGN <i>[Signature]</i> ENGR <i>[Signature]</i> 11-30-72 APPD <i>[Signature]</i> 11/15/72 APPD THIS DOCUMENT MAY CONTAIN PROPRIETARY INFORMATION AND SUCH INFORMATION MAY NOT BE DISCLOSED OR USED FOR ANY PURPOSE OR USED TO PRODUCE THE ARTICLE OR SUBJECT, WITHOUT WRITTEN PERMISSION FROM VDM	TITLE LOGIC DIAGRAM - 9 TRK READ AFTER WRITE MAG TAPE CONT. BOARD #1 CODE IDENT NO. 21101 SIZE C DWG NO. 91C0236 REV 1 SCALE SHEET 1 OF 16
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

READ MOTION CONTROL

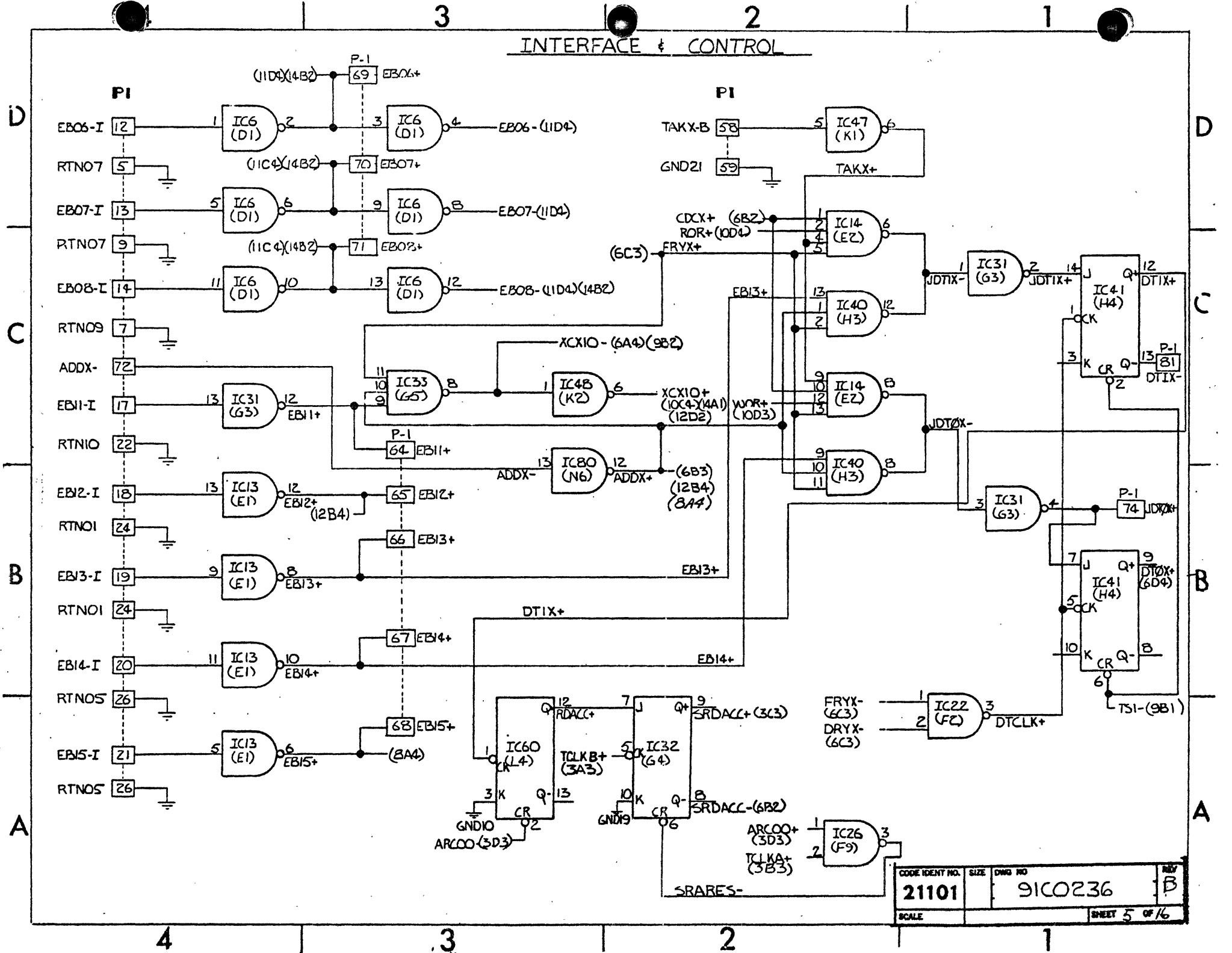


CODE IDENT NO.	SIZE	DWG NO	REV
21101		91C0236	B
SCALE		2 OF 16	



CODE IDENT NO.	SIZE	DRWG NO.	REV
21101		910236	B
SCALE			

INTERFACE & CONTROL



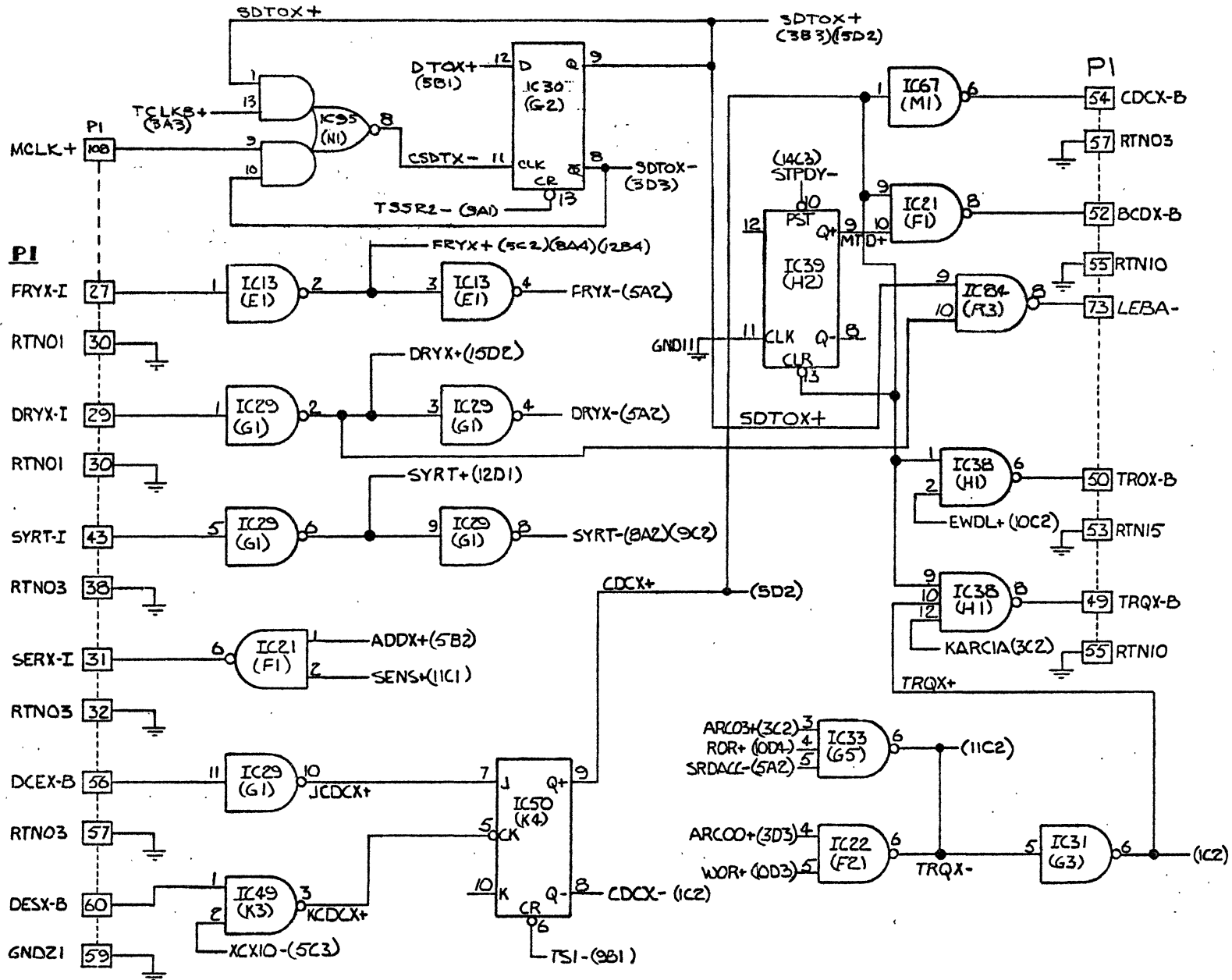
CODE IDENT NO.	SIZE	DWG NO	REV
21101		91C0236	B
SCALE		SHEET 5 OF 16	

4

3

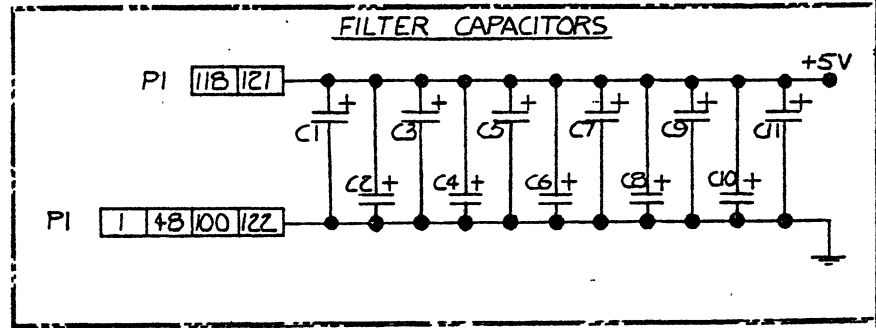
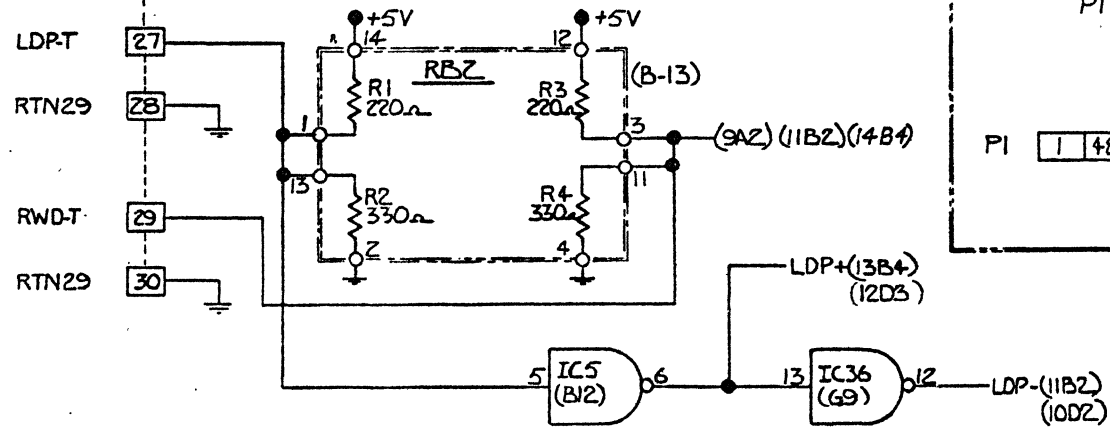
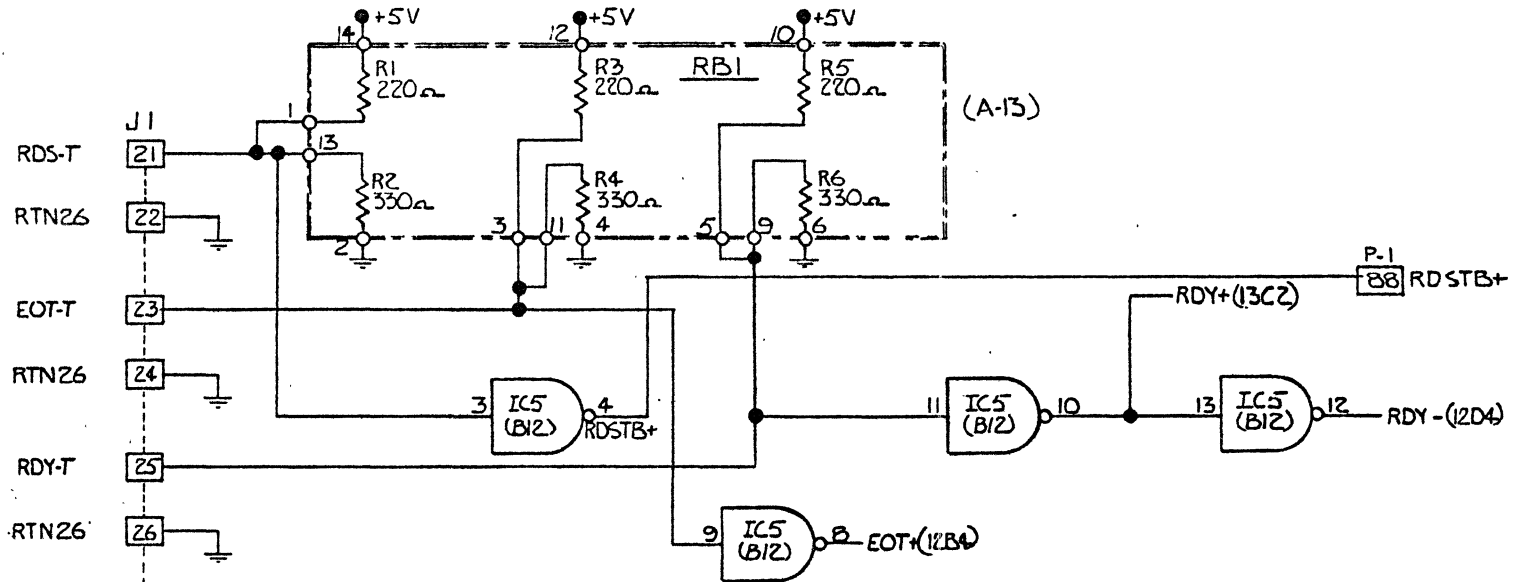
2

INTERFACE & CONTROL



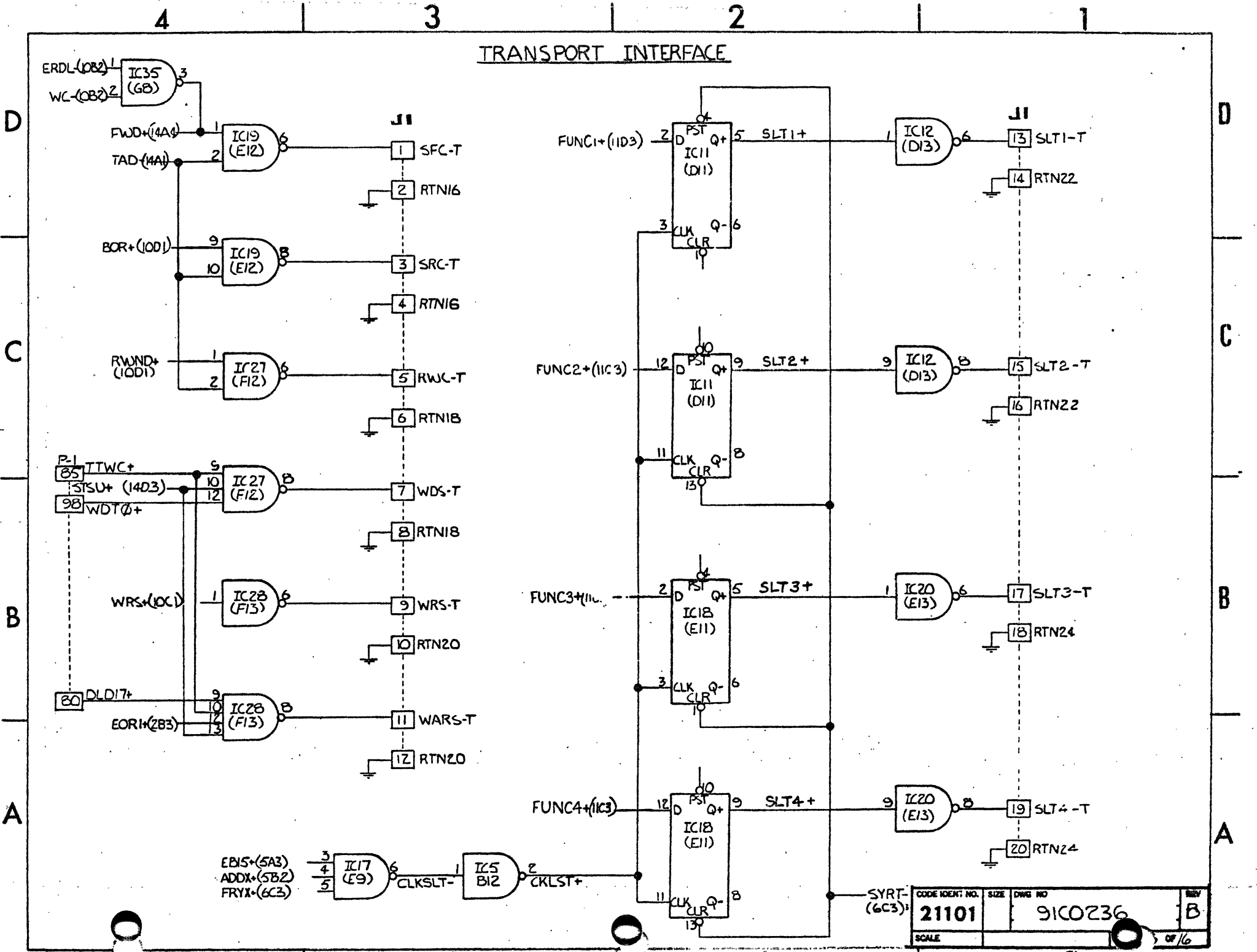
CODE IDENT NO.	SIZE	DWG NO.	REV.
21101		9K0236	B
SCALE		6 of 16	

TRANSPORT INTERFACE



CODE IDENT NO.	SIZE	DWG NO.	
21101		910236	18
SCALE		SHEET 7	16

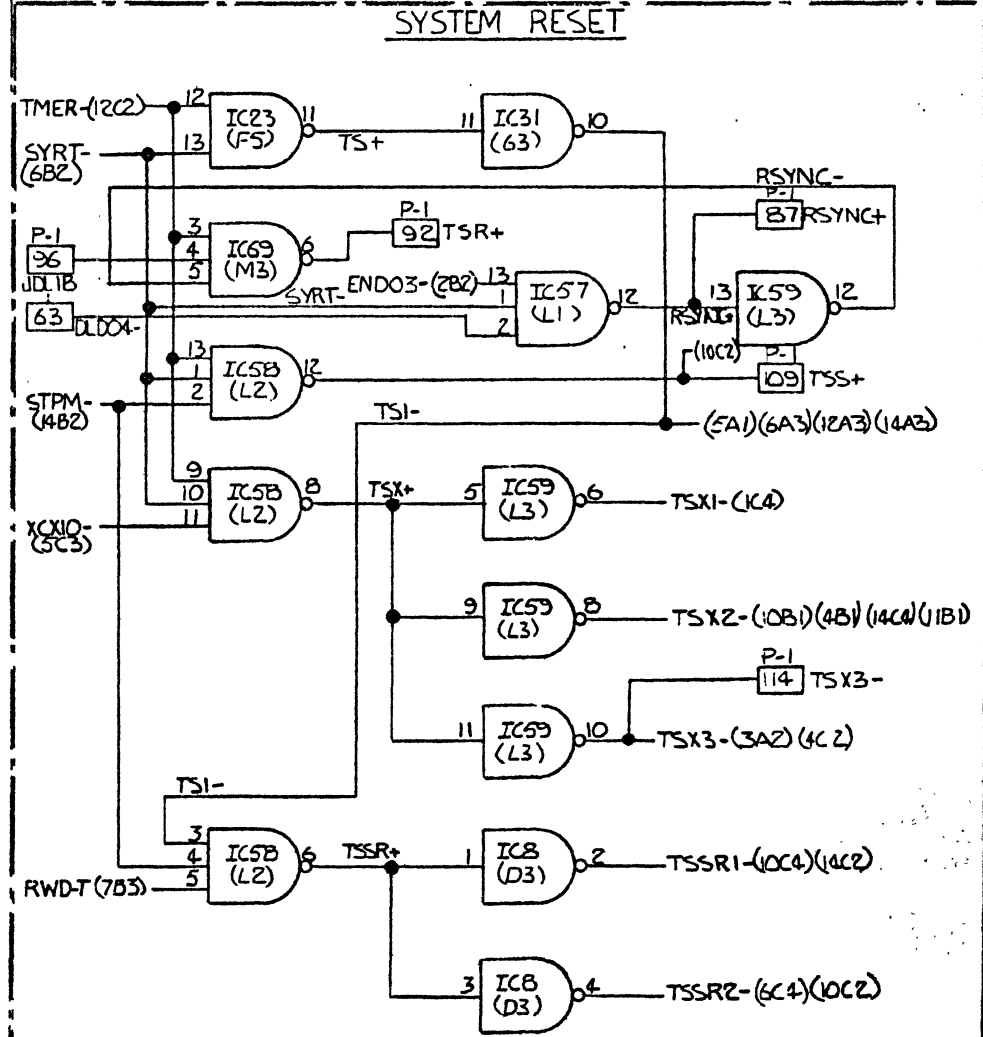
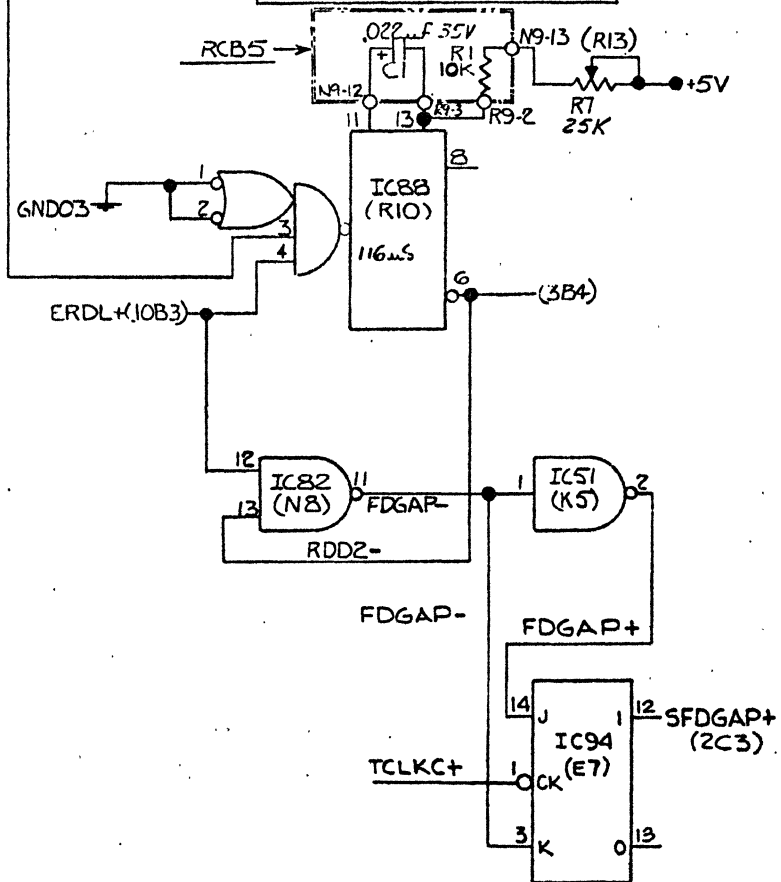
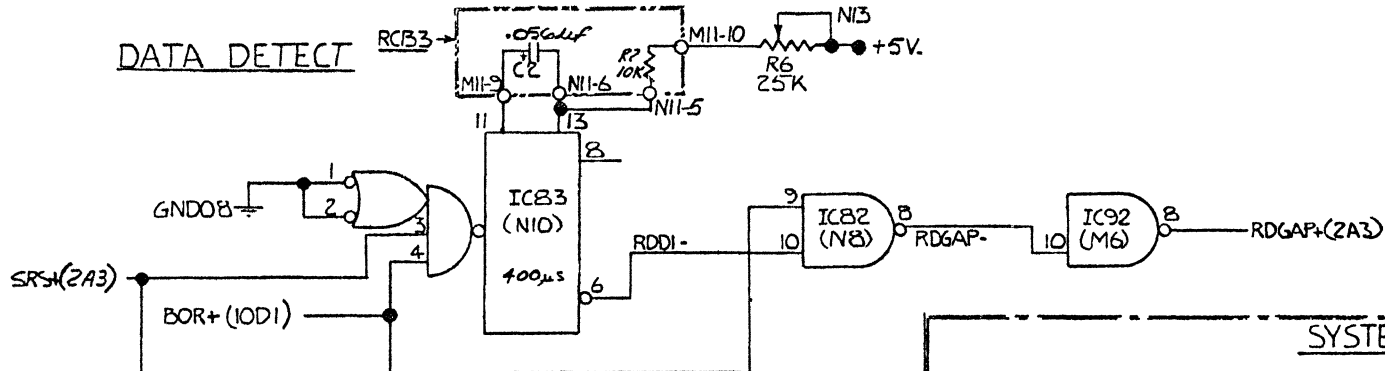
TRANSPORT INTERFACE



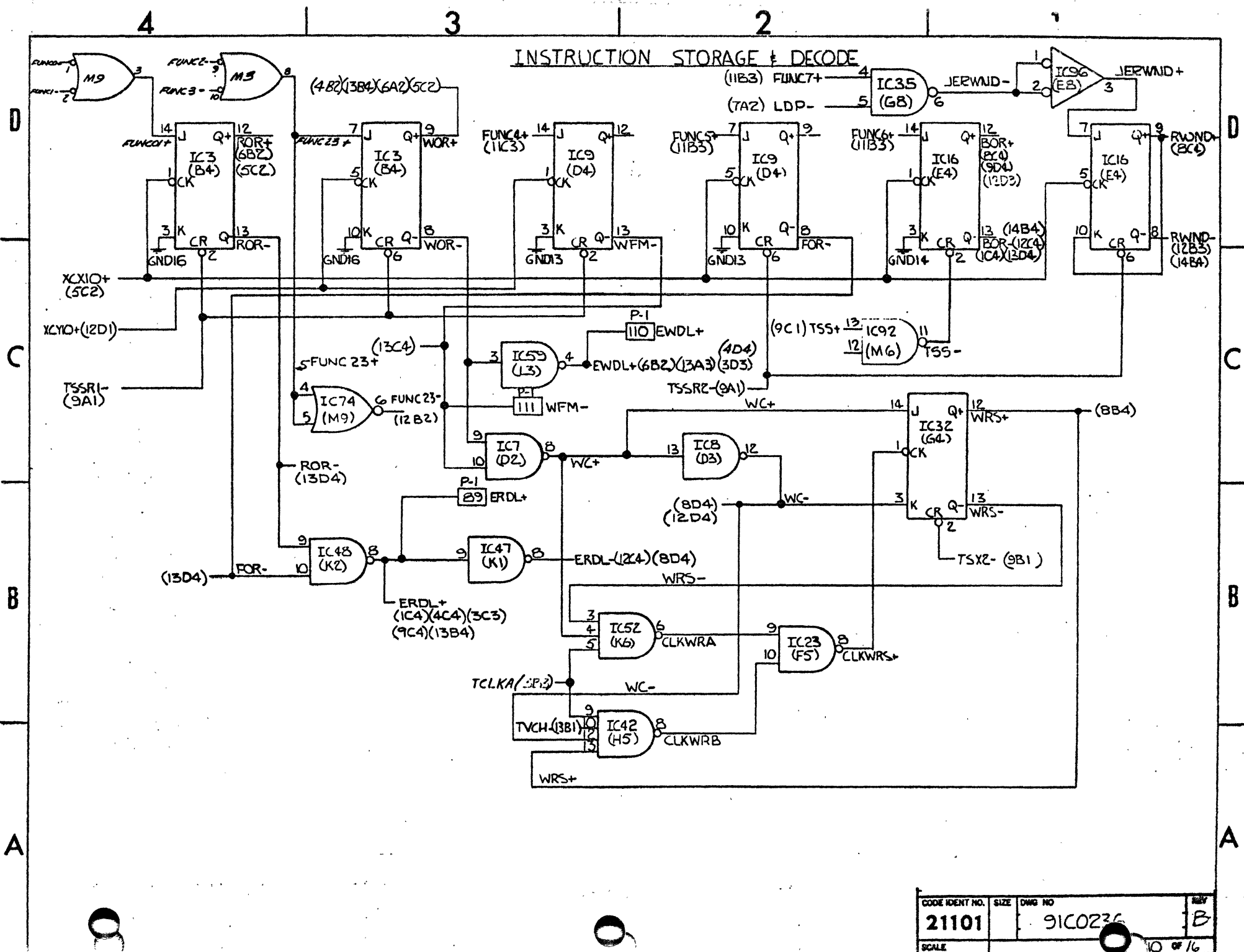
CODE IDENT NO.	SIZE	DWG NO	REV
21101		910236	B
SCALE			OF 16

DATA DETECT

SYSTEM RESET

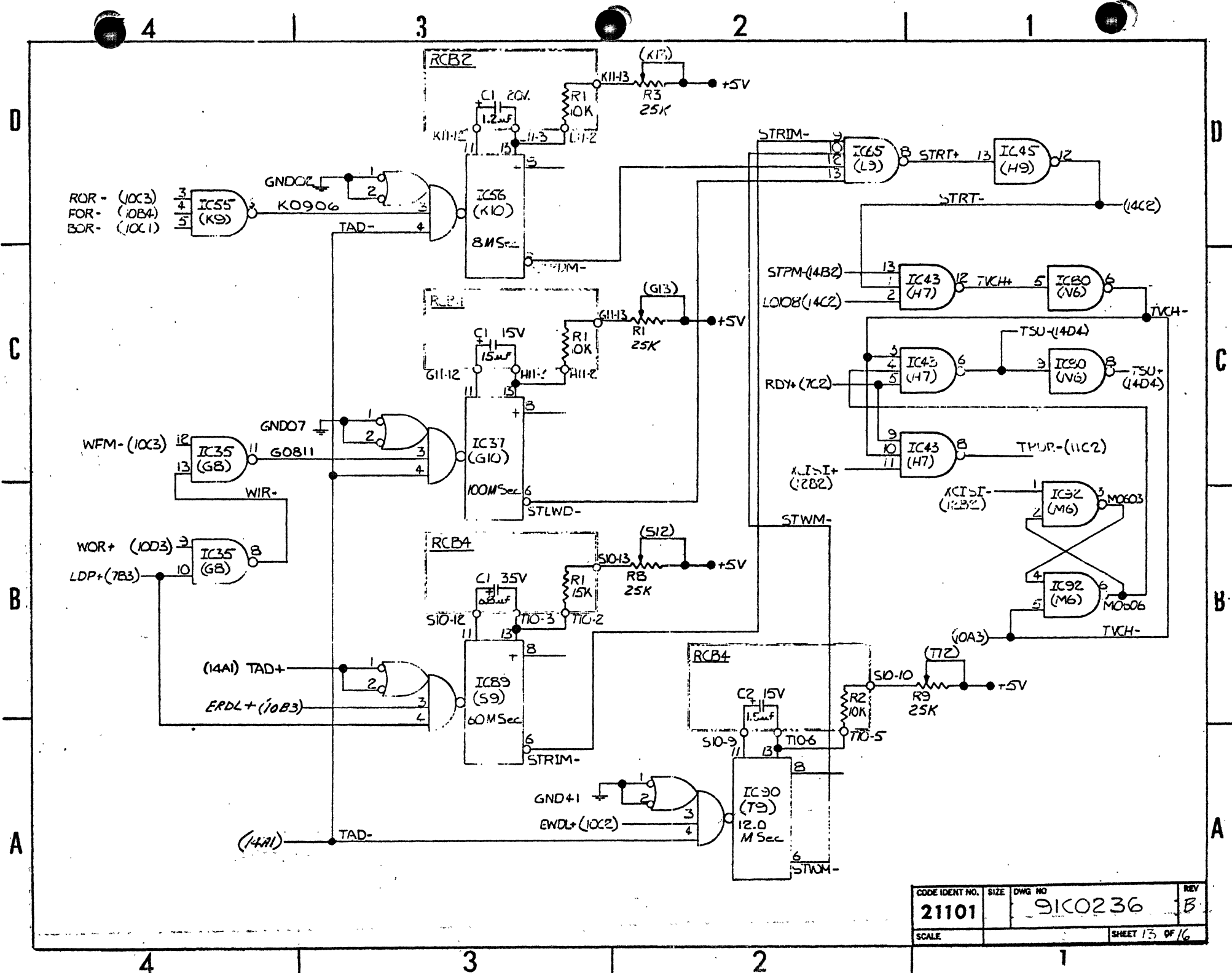


CODE IDENT NO.	SIZE	DWG NO.	
21101		91C0236	B
SCALE		SHEET 9 OF 16	



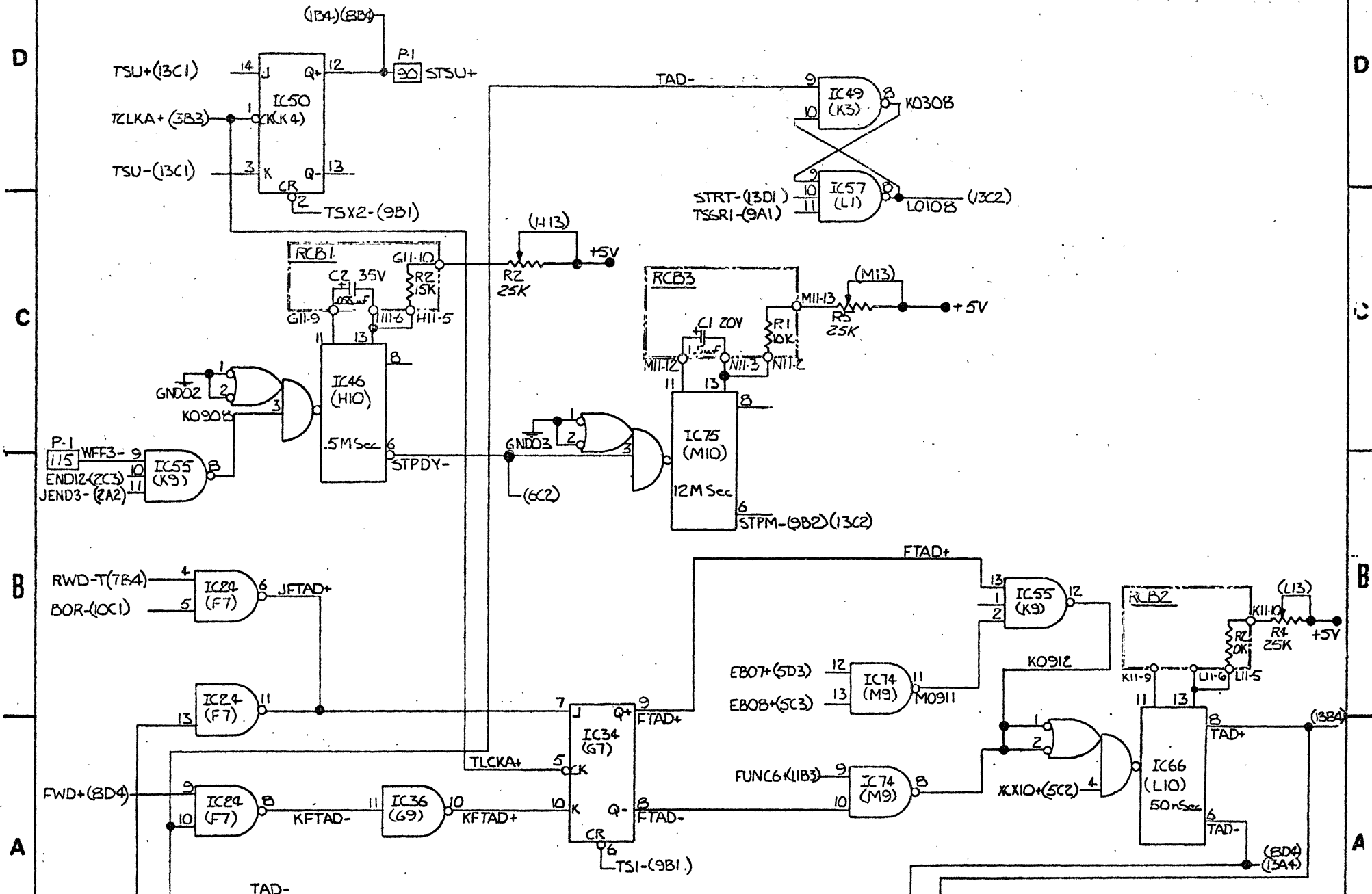
INSTRUCTION STORAGE & DECODE

CODE IDENT NO.	SIZE	DWG NO.	REV
21101		91C0236	B
SCALE			10 of 16



CODE IDENT NO.	SIZE	DWG NO	REV
21101		910236	B
SCALE	SHEET 13 OF 16		

TAPE MOTION DELAY



CODE IDENT NO.	SIZE	DWG NO	REV
21101		91C0236	B
SCALE			14 of 16

P1

1	GND	(7B2)	1	RTNOS	(5A4)
2			2	FRYX-I	(6C4)
3			3		
4			4	DRYX-I	(6C4)
5	RTNO7	(5D4)	5	RTNO1	(6C4)
6			6	SERX-I	(6B4)
7	RTNO9	(5C4)	7	RTNO3	(6B4)
8			8		
9	RTNO7	(5C4)	9		
10			10		
11			11		
12	EB06-I	(5D4)	12		
13	EB07-I	(5D4)	13	RTNO3	(6B4)
14	EB08-I	(5C4)	14		
15			15		
16			16		
17	EB11-I	(5C4)	17		
18	EB12-I	(5B4)	18	SYRT-I	(6B4)
19	EB13-I	(5B4)	19		
20	EB14-I	(5B4)	20		
21	EB15-I	(5A4)	21		
22	RTN10	(5C4)	22		
23			23	GND	(7B2)
24	RTNO1	(5B4)	24	TRQX-B	(6B1)
25			25	TRQX-B	(6C1)

51		
52	BCDX-B	(6C1)
53	RTN15	(6B1)
54	CDCX-B	(6D1)
55	RTN10	(6C1)
56	DCEX-B	(6B4)
57	RTNO3	(6A4)
58	TAKX-B	(5D2)
59	LNQZ1	(6A4)
60	DESX-B	(6A4)
61		
62		
63	DLDO4-	(9C2)
64	EB11+	(5C3)
65	EB12+	(5B3)
66	EB13+	(5B3)
67	EB14+	(5B3)
68	EB15+	(5A3)
69	EB06+	(5D3)
70	EB07+	(5D3)
71	EB08+	(5C3)
72	ADDX-	(5C4)
73	LEBA-	(6C1)
74	JDT0X+	(5B1)
75	LBA-	(3B2)

REVISIONS					
SYM	ZONE	DESCRIPTION	APPROVED	DATE	
76	LAB-	(4B1)			
77	RBRH-	(4B1)			
78	RBRL-	(4B1)			
79	DLDI6+	(4D4)	101	EOR1+	(2134)
80	DLDI7+	(4B4)	102	DLDO6+	(4C4)
81	DTIX-	(5C1)	103	MINT-	(1B1)
82	CBXNT-	(4B1)	104	RTN30	(1B1)
83	ICLK-	(1C4)	105	END02+	(2B2)
84	SRS-	(2A4)	106	END06-	(2D1)
85	TTWC+	(8C4)	107	END07+	(2D3)
86	TCWC+	(2B4)	108	MCLK+	(6D4)
87	RSYNC+	(9C1)	109	TSS+	(9C1)
88	RDSTB+	(7C1)	110	END1+	(10C2)
89	ERDL+	(10B3)	111	WFM-	(10C3)
90	STSU+	(14D3)	112		
91	LCRCG+	(4C2)	113	BRC03-	(4A3)
92	TSR+	(9C2)	114	TSX3-	(3B1)
93	DLDO5-	(3C4)	115	WFF3-	(14B4)
94	DINT-	(1C1)	116		
95	RTN30	(1C1)	117		
96	JDLIB	(9C2)	118	+5V	(7B2)
97	FMCD+	(1B4)	119		
98	WDTO+	(8B4)	120		
99	TDER-	(11D1)	121	+5V	(7B2)
100	GND	(7B2)	122	GND	(7B2)

CODE IDENT NO.	SIZE	DWG NO.	REV
21101		91C0236	B
			15/16

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1 SFC-T (8D3)

2 RTN16 (8D3)

3 SRC-T (8C3)

4 RTN16 (8C3)

5 RWC-T (8C3)

6 RTN18 (8C3)

7 WDS-T (8B3)

8 RTN18 (8B3)

9 WRS-T (8B3)

10 RTN20 (8B3)

11 WARS-T (8A3)

12 RTN20 (8A3)

13 SLT1-T (8D1)

14 RTN22 (8D1)

15 SLT2-T (8C1)

16 RTN22 (8C1)

17 SLT3-T (8B1)

18 RTN24 (8B1)

19 SLT4-T (8A1)

20 RTN24 (8A1)

21 RDS-T (7D4)

22 RTN26 (7D4)

J1

23 EOT-T (7C4)

24 RTN26 (7C4)

25 RDY-T (7C4)

26 RTN26 (7C4)

27 LDP-T (7B4)

28 RTN29 (7B4)

29 RWD-T (7B4)

30 RTN29 (7B4)

31 RTN24 (12C2)

32 FPT-T (12C2)

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J2

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CODE IDENT NO.	SIZE	DWG NO.	REV
21101		910236	B
SCALE			2 of 6