

**MAGNETIC TAPE SYSTEMS
REFERENCE DOCUMENTS
FOR ALL "A" AND "P" SYSTEMS**

SDS 901040 A

August 1965

This revision when collated into Binder II of existing publications 900033, 900598, 900599, 900600, 900601, 900602, 900603, and 900604 creates a new publication, SDS 901040. The new publication supersedes Binder II of publications 900033, 900598, 900599, 900600, 900601, 900602, 900603, and 900604.

SDS

SCIENTIFIC DATA SYSTEMS/1649 Seventeenth Street/Santa Monica, California/UP 1-0960

MASTER INDEX
(SDS 901040)

TITLE	SDS NUMBER
LOGIC DIAGRAMS, MAGNETIC TAPE CONTROL UNIT	103257E
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ZK51 TERMINATION MODULE	101714
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ILLUSTRATED PARTS CATALOG, SEE MODULE DATA SHEETS (SDS 900623 AND SDS 980034) TM-4 MANUAL AND MT-120 MANUAL	
SUPPLIERS CODE INDEX	900036

REVISIONS				
REV.	DESCRIPTION	CHK	DATE	APPROVED
A	REL TO MFG			
B	SEE REV. E.O.	CLP	8/17/63	
C	SEE REV. E.O.	GR	7/10/63	
D	SEE REV E.O.	ES	7/10/63	

PAGE	CHG	PAGE	CHG	PAGE	CHG	PAGE	CHG	PAGE	CHG
1	D								
2	D								
3	D								
4	D								
5	D								
* 6	D								
** 7	D								
8	D								
9	D								
10	D								
11	D								
12	D								
13	D								
14	D								
15	D								
16	D								
17	D								
18	D								
19	D								
20	D								
21	D								
22	D								
23	D								
24	D								
25	D								
26	D								
27	D								
28	D								
29	D								
30	D								
31	D								
32	D								
33	D								
34	D								
35	D								
36	D								
37	D								
38	D								
39	D								
40	D								

REFERENCE DESIGNATIONS
ARE ABBREVIATED.
PREFIX THE DESIGNATION
WITH UNIT NUMBER
OR ASSEMBLY DESIGNATION
OR BOTH. (MIL. STD. 168)

9348,
92483,9248,92481,92482
MAG TAPE CONTROL UNIT
PAGE 1
D

NOTES:
1. REV LETTERS LISTED INDICATE STATUS OF EACH SHEET OF THIS MULTIPLE SHEET DRAWING.
2. CHECK INDIVIDUAL SHEETS FOR REVISION LETTER AGAINST THIS SHEET BEFORE USING THIS DRAWING.

* NOT USED ON 92481.

** NOT USED ON 92481, 9248.

NO. REV.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN <i>with</i> 7/11/63	SDS SCIENTIFIC DATA SYSTEMS 1548 FIFTEENTH STREET SANTA MONICA, CALIFORNIA	
1. TOLERANCES 20 ±.000 ANGULAR 130 ±.010 2.5°		CHECK <i>CLP</i> 7/18/63		
2. BREAK ALL SHARP EDGES .010 APPROX.		APPR. <i>WKT</i> 7/18/63	TITLE DIAGRAM, LOGIC MAG TAPE CONTROL UNIT	
3. MACH. SURFACES ✓ 4. ALL DIM. IN INCHES				
MODEL NO.	9248		SIZE D	DWG. NO. 103257
NEXT ASBY.			SCALE	SHEET

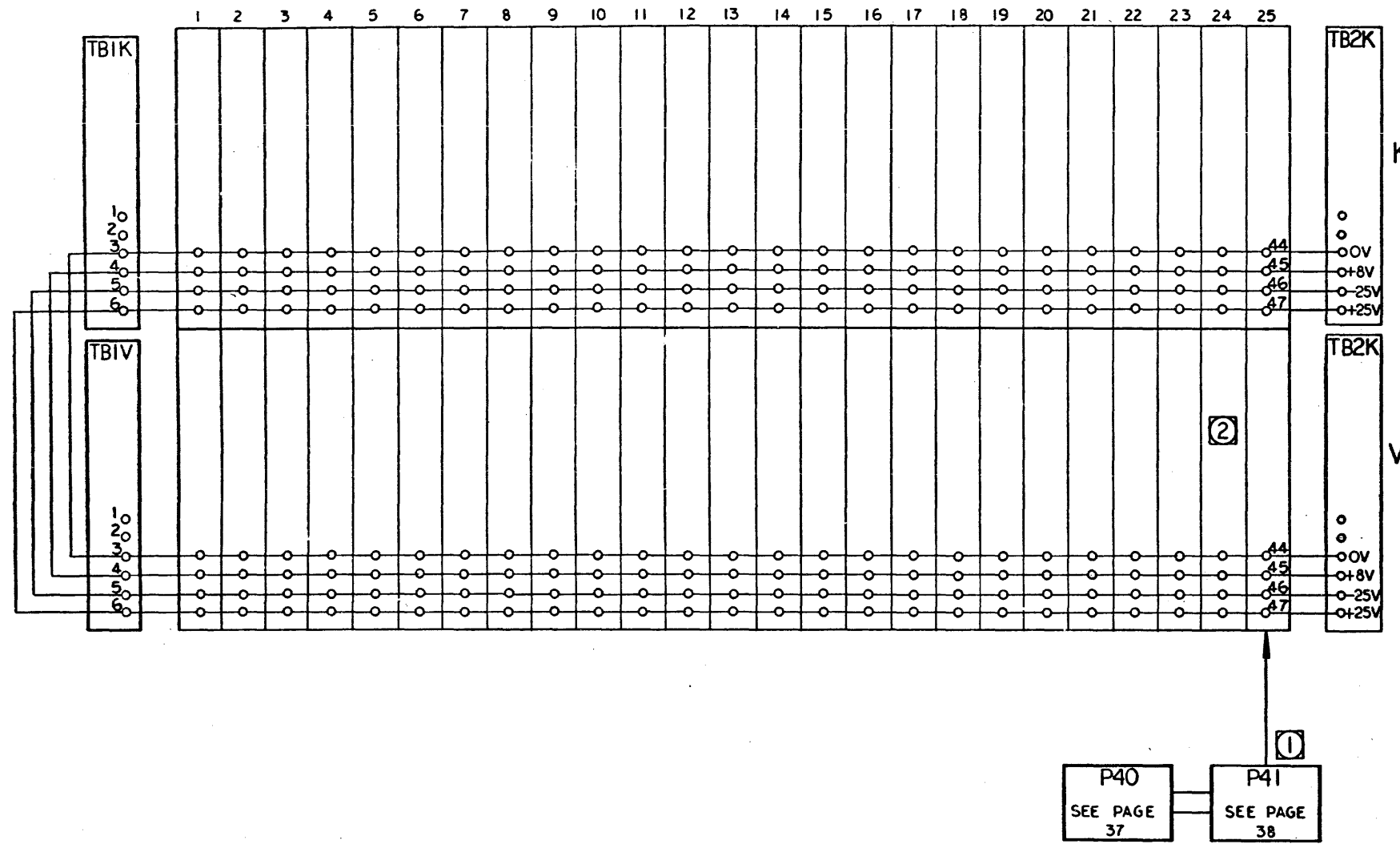
103257 | D | 1

REVISIONS				103257	D
REV.	DESCRIPTION	CHK	DATE	APPROVED	
A	RELEASED TO MFG.	CLB	7/18/63	[Signature]	
D	SEE REV E.O.	CLB	7/15/64	[Signature]	

NOTES: UNLESS OTHERWISE SPECIFIED

② RECEPTACLE J(24V) IS PROVIDED FOR P43 FROM A MODEL 9246 MAG TAPE UNIT.

① RECEPTACLE J(25V) IS PROVIDED FOR THE P41 TO P40 CABLE. P40 IS CONNECTED TO J(1G) OF THE MODEL 910 OR 920 COMPUTER, OR J(38X) OF THE MODEL 9120 Y BUFFER, OR TO J(1H) OR J(6H) OF THE MODEL 9126 SIGNAL COUPLER.



92483, 9348, 9248, 92481, 92482.
MAG TAPE CONTROL UNIT

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NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN <i>Jack</i> 7/12/63	SDS SCIENTIFIC DATA SYSTEMS 1042 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA	
1. TOLERANCES XX 2.000 ANGULAR XXX 2.000 2.00		CHECK <i>CLB</i> 7/18/63		
2. BREAK ALL SHARP EDGES AND APPROX.		APPR. <i>WKT</i> 7/19/63		
3. MACH. SURFACES ✓			TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT	
4. ALL DIM. IN INCHES				
MODEL NO. 9248			SIZE D	DWG. NO. 103257
NEXT ASSY. 101872			SCALE	SHEET D
			DO NOT SCALE DRAWING	

9248 TAPE CONTROL UNIT DIRECTORY

Term	Page	Term	Page	Term	Page
Ae	27	Mgl	13	Rpm	18
		Ml	30	Rpw	28
		Mpe	21	[Rpw]	19
Bor	27	Mp	14	(Rpw)	20
		(Mp)	33	Rae	9
		Mr	10	Rak	29
Cr	31	(Mr)	34	Rkm	14
Crb	5, 6, 7	(Mrs)	32	Rsw	20
Cgr	5, 6, 7	(Mrs)	32	R5w	28
Cge	5, 6, 7	Metart	29	(R5w)	19
Cr	8	Metart	25	(R5w)	20
Cr + Co	8	Metart Rbl	8		
Cr + W9 W11 Mc	8	Metart Q2	30		
Ch	22	(Metart Q2)	34	Slo	28
Ch + Metart	28	Mig	10	[Slo]	30
Ca	27	(Mtg)	36	(Slo)	36
Ca	28	(Mw)	32	Slot	26
C12	28	M1	14		
CT2	24	(M1)	33	Woe	22
(CT2)	34	M2	14	(Woe)	36
CT2 C13 C15 C16	29	(M2)	33	(Whe)	36
(CT3)	35	M3	15	[Whe]	31
C14	28	(M3)	33	Whe	27
CT4	24	M4	15	(Whe)	32
(CT4)	34	(M4)	33	W0	25
(CT5)	35	M5	15	W0	24
(CT5)	35	(M5)	33	W0 Rbl	28
CT7 C20	24	M6	15	[W0 W9 W11 D1 D2 D5 D6]	31
(CT7)	28	(M6)	33	W0 W5 W6 W9 W11	11
(CT7)	35	Q2	31	W0 W5 W6 W9 W11	11
(CT7)	35			W5	28
(CT7)	35			W3	28
		R1	21	(W3 W9 W11 Red + W9 W11 Mc Rd)	8
Da	26	R1	27	W6	25
D2	25	R2	21	W6	24
D2	26	R2	27	W9	25
D2	25	R3	21	W9	24
Dc	26	R3	27	W9 W11	29
Dc	25	R4	21	W9 W11*	24
Dc	13	R4	27	W9 W11**	24
Dc	13	R5	21	W9 W11	24
D1	13	R5	27	(W9 W11)	32
D1	25	R6	21	W9 W11	29
D1	25	R6	27	W9 W11*	25
D1 D2 D5 Dc	31	R1a	26	W9 W11**	26
D1 D2 D3 Dc	31	R2a	26	(W9 W11)	32
D2	11	R3a	26	W10	25
D2	25	R4a	26	W10	24
D3	11	R5a	26	W11	24
D3	25	R6a	26	W11	24
D4	12	R7a	26	W11 D1 D2 D3 D4 Rbl + D5	31
D4	25	R1b	16	W11 Metart	28
D5	12	R2b	16	Zp	23
D5	30	R3b	17	Zp	21
D6	12	R4b	17		
(Ecm)	32	R5b	17		
		R6b	17		
Fb	4	R1m	18		
		R2m	18		
Cap	4	R3m	18		
(Cap + W9 W10 W11 R2b)	21	R4m	18		
		R5m	18		
(b)	36	R6m	18		
(e)	36	R1w	24		
(g)	35	[R1w]	19		
[s]	28	(R1w)	20		
[s]	31	(R2w)	20		
Mc	22	R3w	26		
(Mc)	36	[R3w]	19		
Mca	4	(R3w)	20		
(Mca)	34	(R4w)	20		
Mcb	4	Rbl	16		
Mcc	4	Rcd	9		
Mcd	4	Rbt	9		
Mcontrol	30	Rdm	18		
(Mcontrol)	34	Rfb	13		
[Mer]	29	Rfd	9		
Mer	28	Rfm	21		
Me	10	Rl	29		
Mf	10	Rp	21		
(Mf)	34	Rq	27		
Mf + Mr	11	Rr	16		
	27	Rp	16		

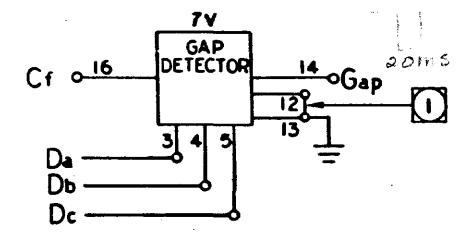
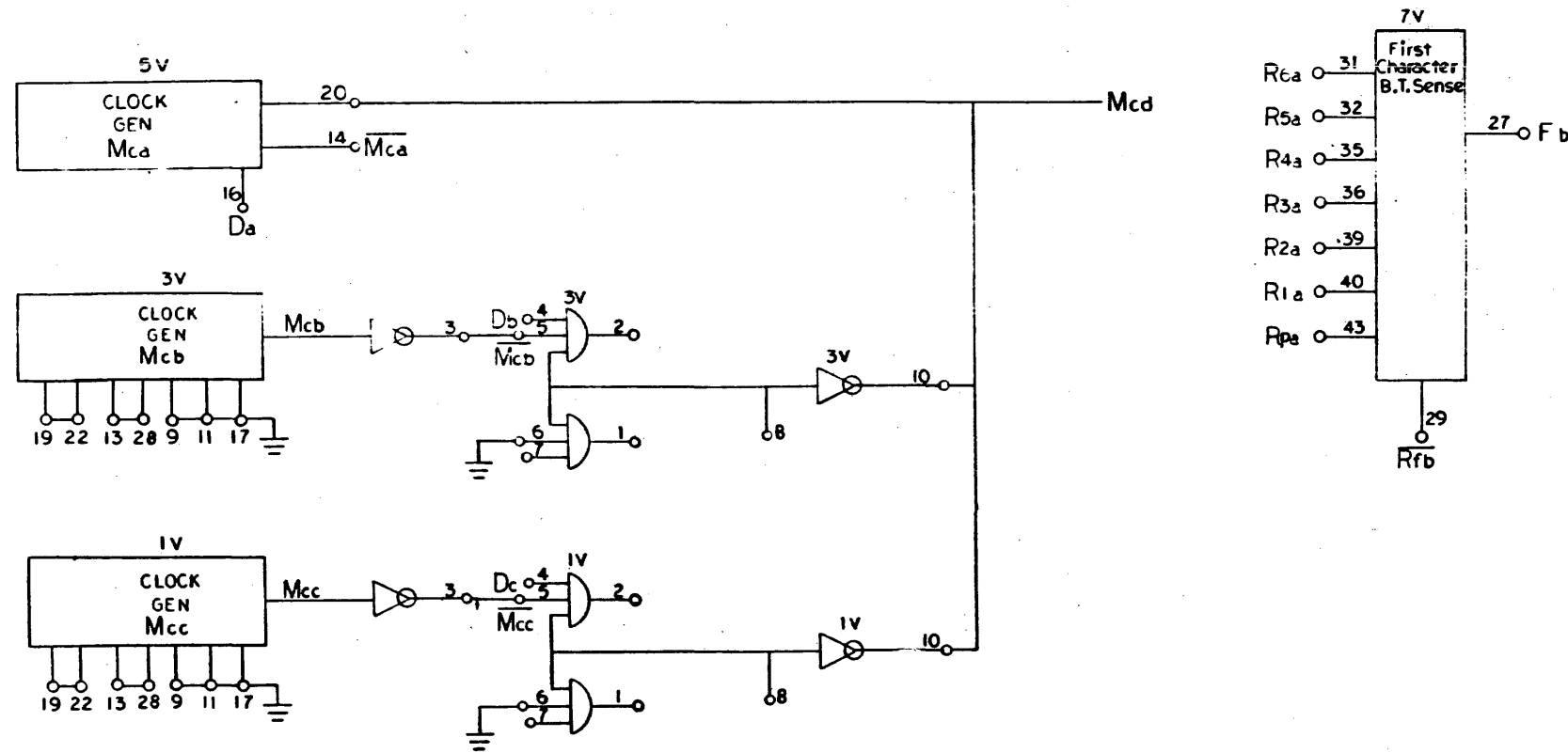
9348, 92483, 9248, 92481, 92482
MAG TAPE CONTROL UNIT

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NO. 9248	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION
MATERIAL LIST		TITLE	
1. MATERIALS SPECIFICATIONS 2. DIMENSIONS 3. FINISHES 4. ALL DIM. IN INCHES		S/D/S SCIENTIFIC DATA SYSTEMS 1441 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA	
9248	7	7/11/63	DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT
SCALE	SIZE	DWG. NO.	SHEET
	D	103257	D

REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL TO MFG			
B	SEE REV EO			

REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.	C/D	7/18/53	JL
B	SEE REV E.O.	C/D	8/7/53	SL
D	SEE REV E.O.	C/R	7/1/54	



① REMOVE JUMPER FOR MODEL 92483.

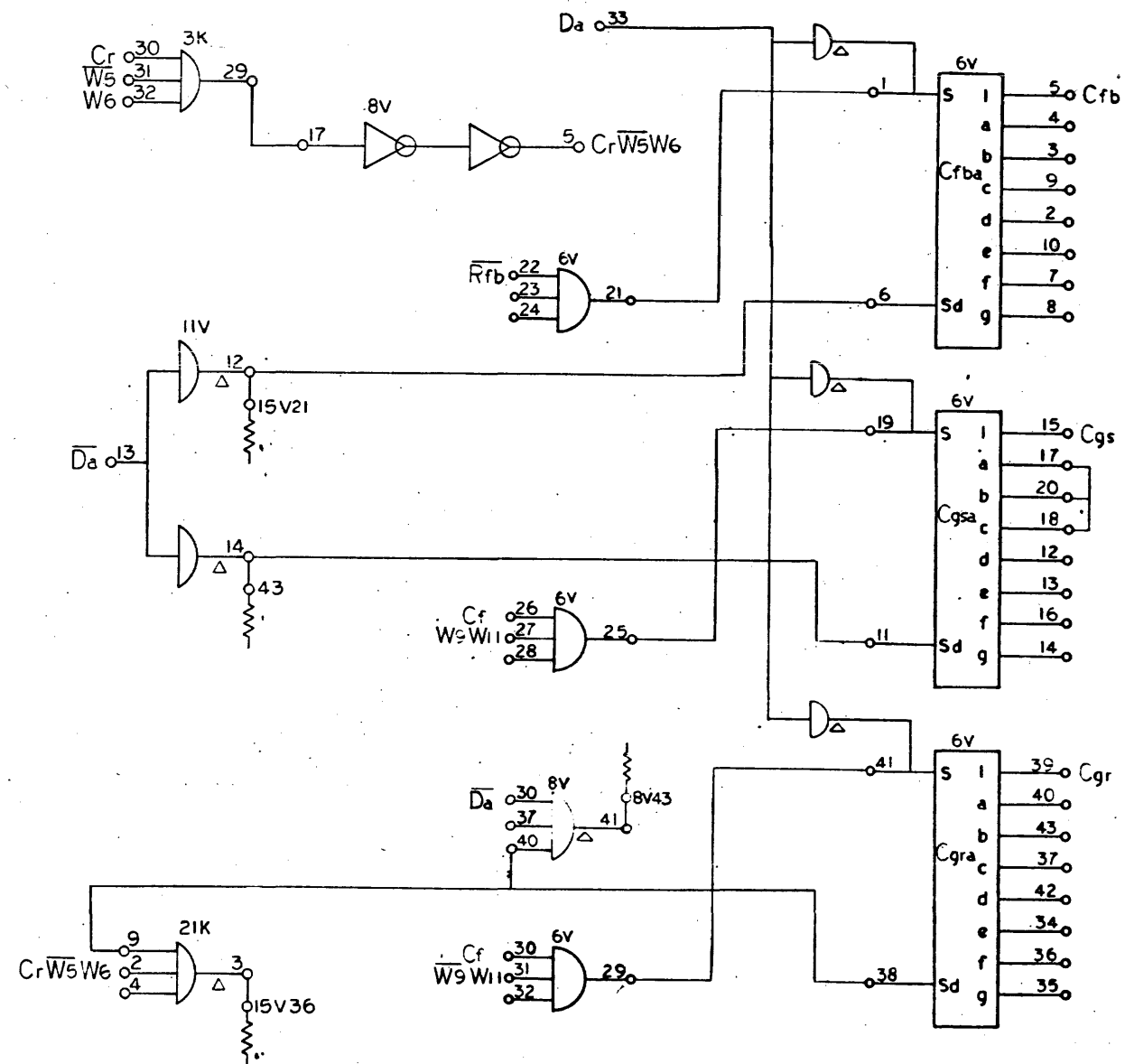
MODEL	FREQUENCY/PERIOD μs			GAP DETECTOR SETTING IN μs		
	POSITION 5V Mca	POSITION 3V Mcb	POSITION 1V Mcc	Da	Db	Dc
9248	15KC 67 μs	41.7 KC 24 μs	NOT USED	150	54	NOT USED
92481	15KC 67 μs	NOT USED	NOT USED	150	NOT USED	NOT USED
92482	15KC 67 μs	41.7 KC 24 μs	60KC 16.7 μs	150	54	37
92483	24KC 41.6 μs	66.72KC 15 μs	96KC 10.4 μs	95	34	23
9346	12KC 83.2 μs	33.36KC 30 μs	48KC 20.8 μs	185	67	46

9348,
92483, 9248, 92481, 92482
TAPE CONTROL
PAGE 4
D

103257 D1

NO. REG.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	 1542 FIFTEENTH STREET SANTA MONICA, CALIFORNIA	
1. TOLERANCES XX ±.000 ANGULAR .XX ±.010 2. BREAK ALL SHARP EDGES .010 APPROX. 3. MACH. SURFACES ✓ 4. ALL DIM. IN INCHES		CHECK		
MODEL NO. 9248		APPR.	DATE	TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT
NEXT ASSY.		SCALE		SIZE DWG NO. D 103257 D
		DO NOT SCALE DRAWING		SHEET

REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.			
C	SEE REV. E.O.			
D	SEE REV EQ.			

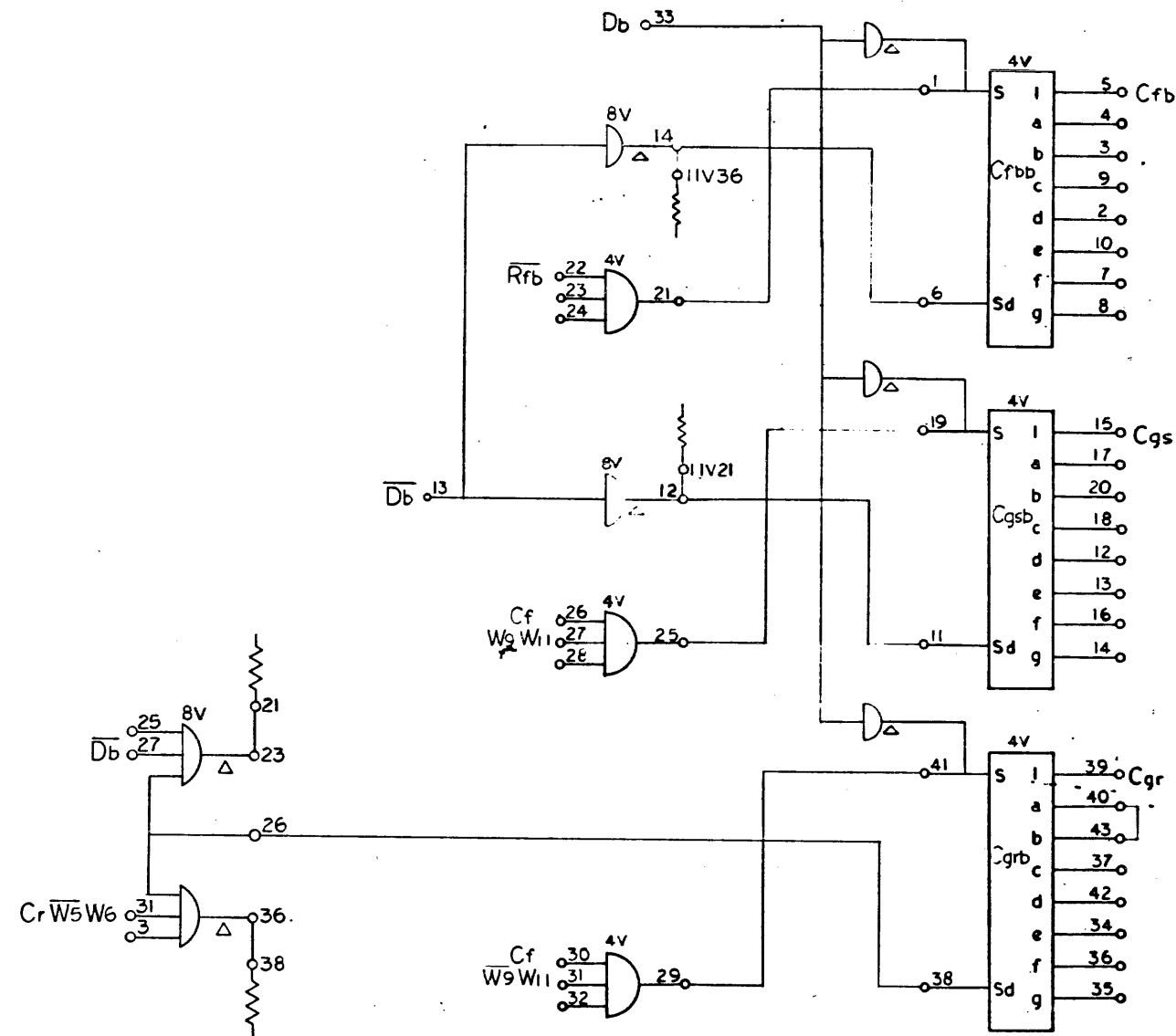


MODEL	Cfba	Cgsa	Cgra
9248	17μs	40μs	13μs
92481	17μs	40μs	13μs
92482	17μs	40μs	13μs
92483	11μs	20μs	8μs
9346	20μs	40μs	15μs

9348, 9248, 92481, 92482, 92483
 TAPE CONTROL
 PAGE 5
 D

NO. REG	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED		MATERIAL LIST		
1 TOLERANCES XX - DIM ANGULAR SEE - DIM 2 BREAK ALL SHARP EDGES 3 90 APPROX 4 MACH SURFACES 5 ALL DIM IN INCHES		DRAWN: [Signature] CHECK: [Signature] APPR: [Signature]	7/16/63 7/16/63	SDS SCIENTIFIC DATA SYSTEMS 1542 BIRKENHEAD STREET, SANTA MONICA, CALIFORNIA
MODEL NO. 9248		TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT		
NEXT ASSY.		SIZE D	DWG NO. 103257	D
SCALE		DO NOT SCALE DRAWING		SHEET

REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.	SW	7/18/63	[Signature]
C	SEE REV. E.O.	SW	7/18/63	[Signature]
D	SEE REV E.O.	SW	7/18/63	[Signature]



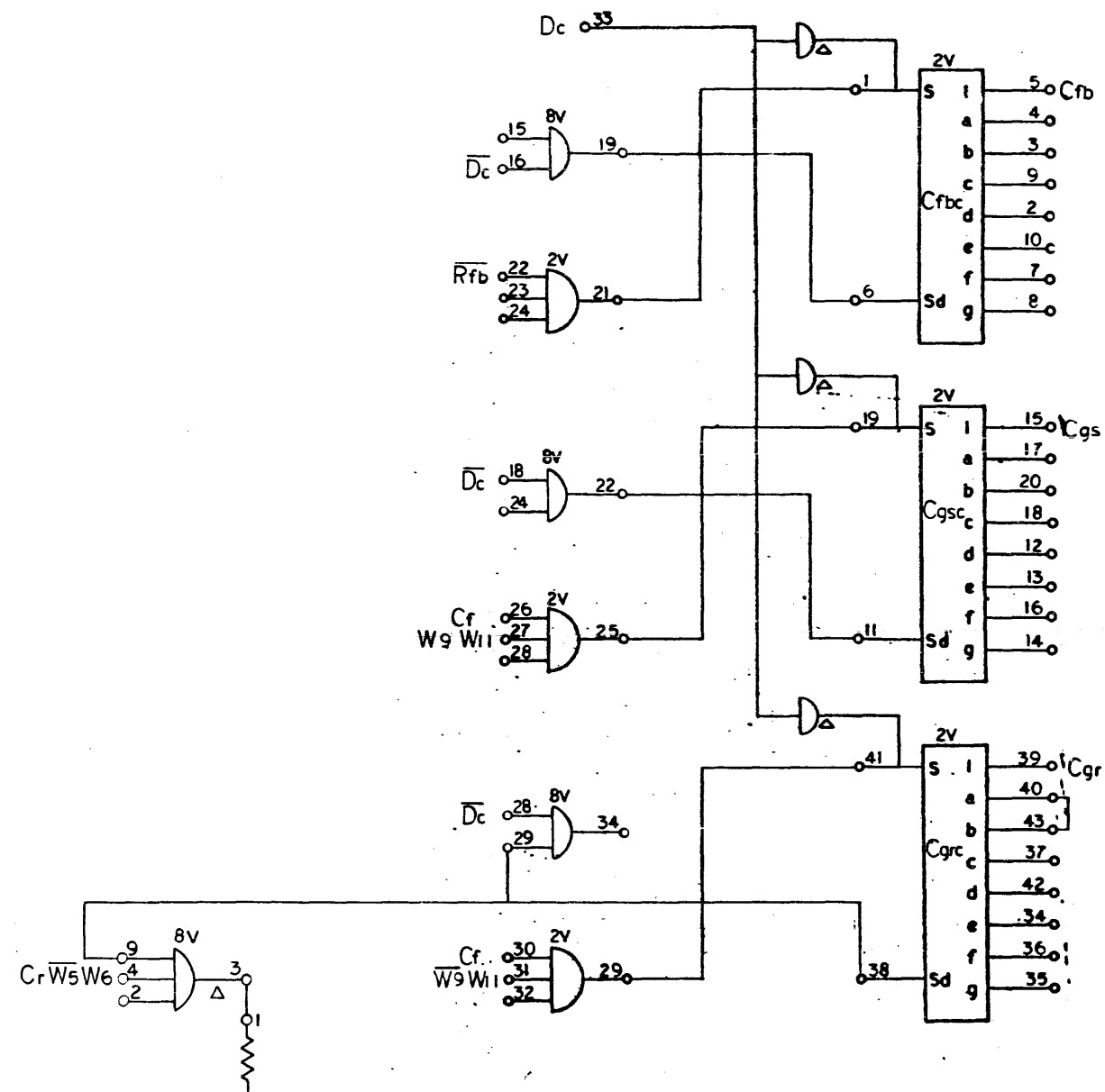
MODEL	Cfbb	Cgsb	Cgrb
9248	7μs	10μs	4μs
92481	NOT USED		
92482	7μs	10μs	4μs
92483	5μs	6μs	2.5μs
9348	10μs	12μs	6μs

9348,9248,92482,92483
TAPE CONTROL
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D

NO. REV.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES DIM ± 0.005 ANGULAR DIM ± 0.005 ± 1/16"		DRAWN CJB	DATE 7/18/63	 1747 FIFTEENTH STREET SANTA MONICA CALIFORNIA
2. BREAK ALL SHARP EDGES BY APPROX.		CHECK WCF	DATE 7/18/63	
3. HATCH SURFACES 4. ALL DIM. IN INCHES		APPR.		
DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT				
MODEL NO. 9248		SEE D	DWG NO. 103257	ITEM NO. D
NEXT ASSY.		SCALE		DO NOT SCALE DRAWING SHEET

103257 D1

REV		DESCRIPTION	CHK	DATE	APPROVED
A		REL. TO MFG.			
C		SEE REV. E.O.			
D		SEE REV E.O.			



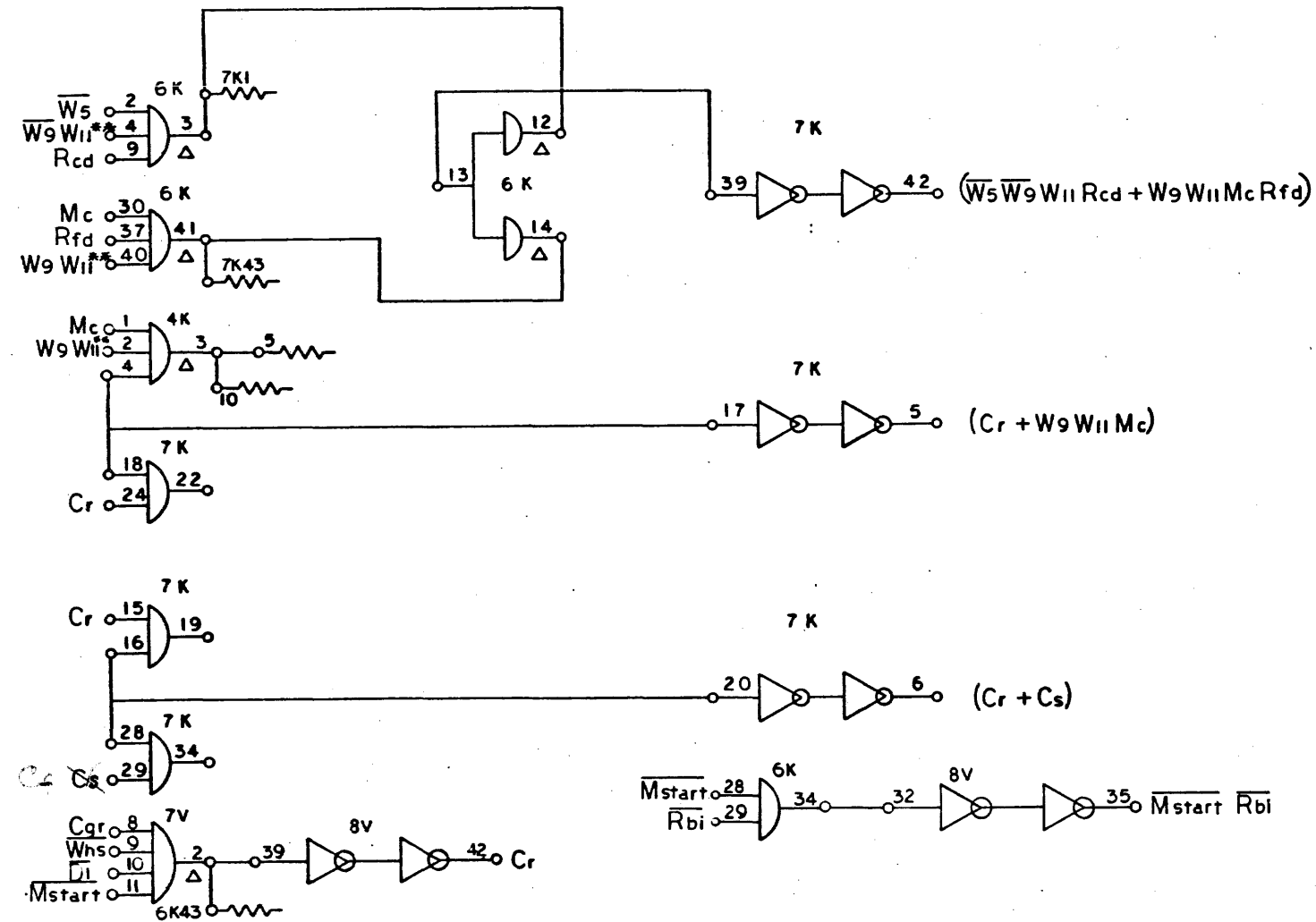
MODEL	Cfbc	Cgsc	Cgrc
9248	NOT USED		
92481	NOT USED		
92482	7μs	5μs	2μs
92483	4μs	2μs	1μs
9348	7μs	8μs	3μs

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92482,92483
TAPE CONTROL
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NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN <i>[Signature]</i> 7/1/63	SDS SCIENTIFIC DATA SYSTEMS 1545 FIFTEENTH STREET SANTA MONICA CALIFORNIA	
1. TOLERANCES DIM ±.000 ANGULAR DIM ±.010 ± 1/2°		CHECK <i>[Signature]</i> 7/18/63		
2. BREAK ALL SHARP EDGES 3. 90° APPROX 4. MACH. SURFACES ✓ 5. ALL DIM. IN INCHES		APPR <i>[Signature]</i> 7/18/63		
MODEL NO. 9248			SIZE D	DWG NO. 103257
NEXT ASSY.			SCALE	SHEET

103257 101

REVISIONS				
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.			
C	SEE REV. E.O.			
D	SEE REV E.O.			



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92483,9248,92481,92482

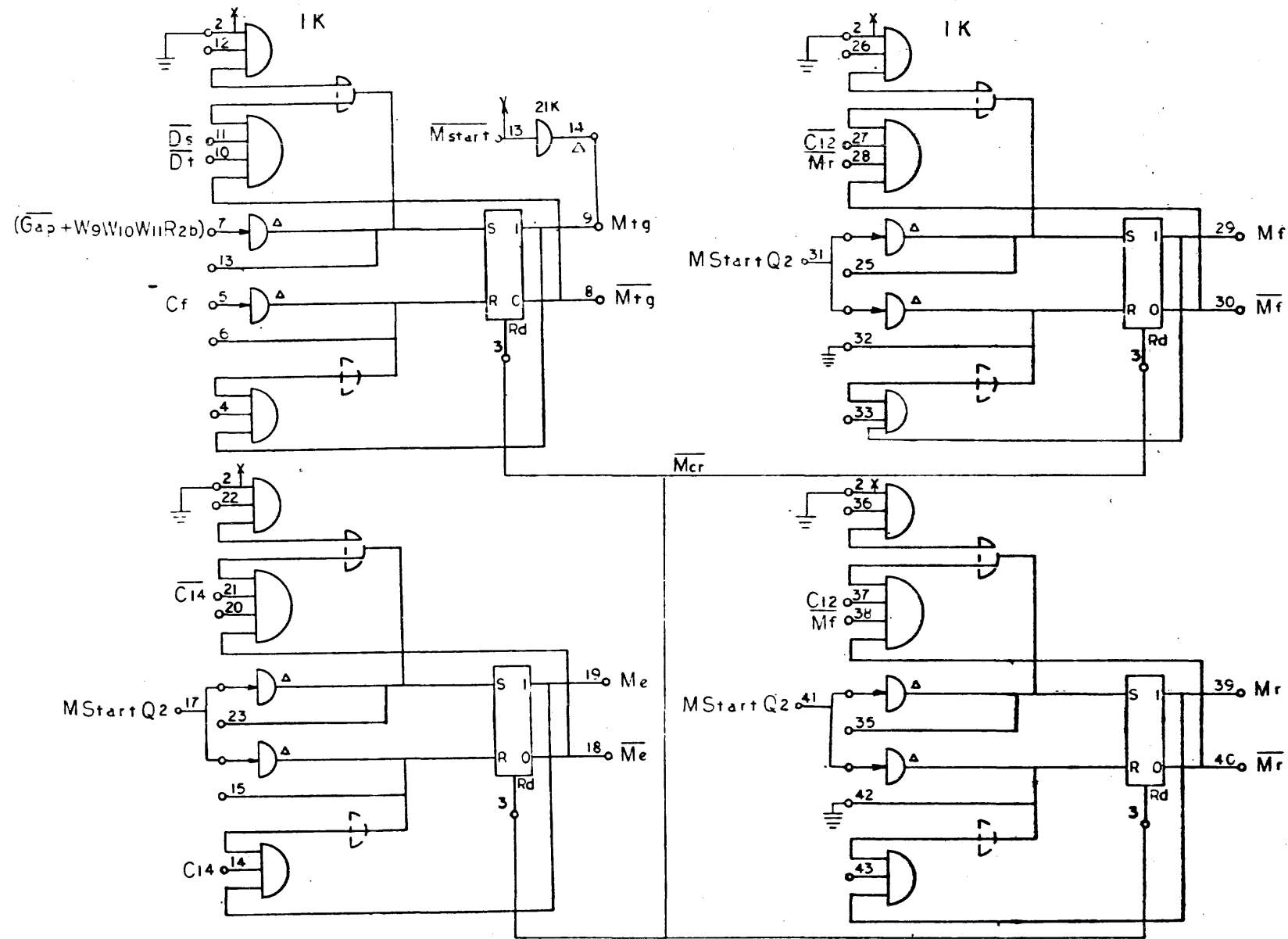
TAPE CONTROL

PAGE 8
D

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NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN <i>W. J. ...</i> 7/1/63	SDS SCIENTIFIC DATA SYSTEMS 1545 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA	
1. TOLERANCES JE 2-500 JEK 2-510	ANGULAR 2 1/2°	CHECK <i>C. B. ...</i> 7/1/63	TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT	
2. BREAK ALL SHARP EDGES .510 APPROX.		APPR. <i>W. J. ...</i> 7/1/63		
3. HATCH SURFACES <input checked="" type="checkbox"/>			MODEL NO. 9248 NEXT ASSY.	
4. ALL DIM. IN INCHES				

REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.			
D	SEE REV. E.O.			

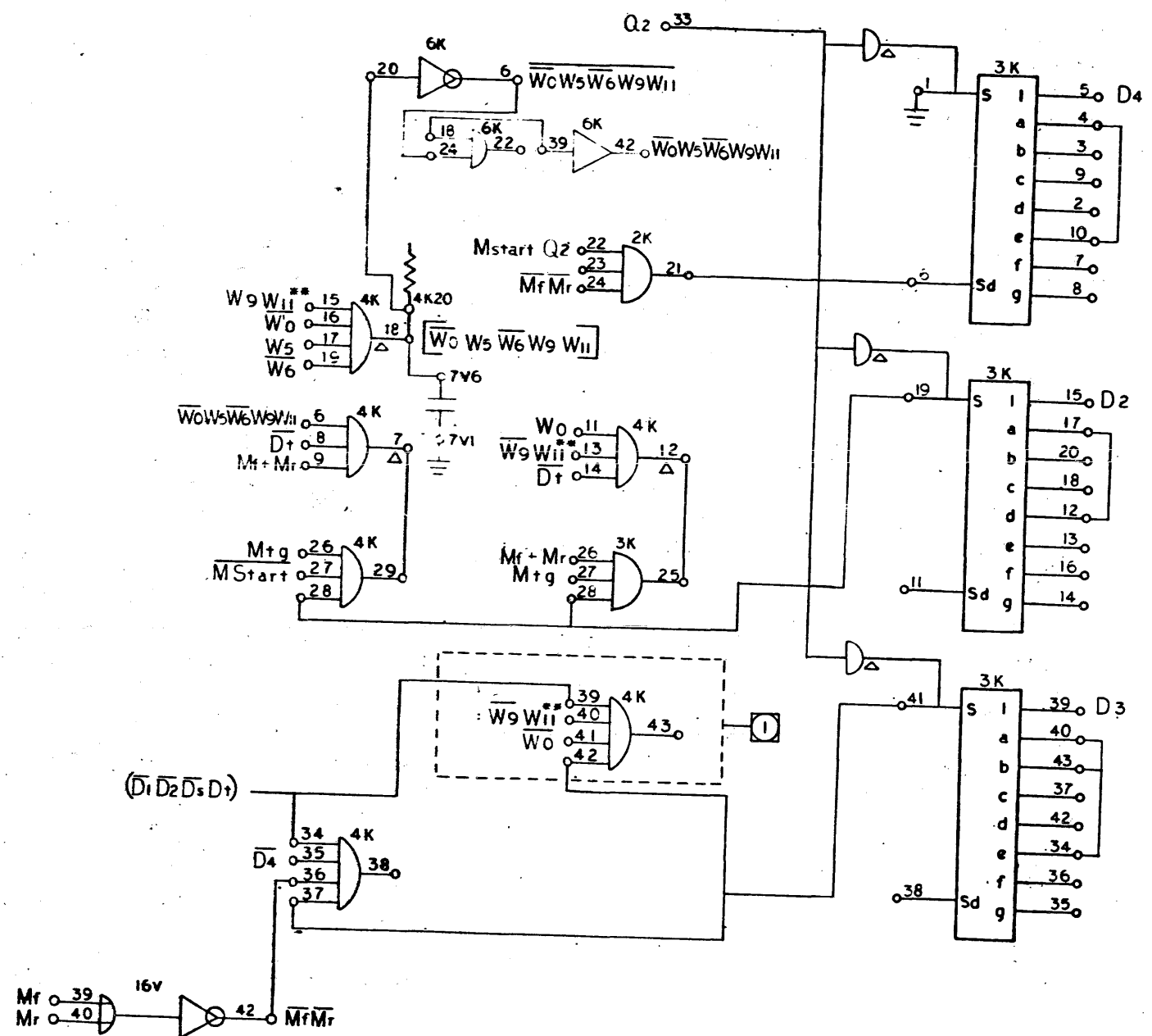


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92483,9248,92481,92482
TAPE CONTROL
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C3257 | D1

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED 1 TOLERANCES EE ± 0.00 ANGULAR EE ± 0.10 ± 1/2° 2 BREAK ALL SHARP EDGES 0.10 APPROX. ✓ 3 HACH SURFACES 4 ALL DIM. IN INCHES				
DRAWN: <i>W. R. F.</i> CHECK: <i>C. B.</i> APPR: <i>W. R. F.</i>		MATERIAL LIST 7/16/63 7/18/63 SDS SCIENTIFIC DATA SYSTEMS 1547 FIFTEENTH STREET SANTA MONICA CALIFORNIA		
MODEL NO. 9248 NEXT ASSY.		TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT SIZE D DWG NO. 103257 SHEET D		
SCALE		DO NOT SCALE DRAWING SHEET		

REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.	CAB	7/13/63	
D	SEE REV E.O.	CAB	7/15/63	



① NOT USED WITH MODEL 92483 (120 IPS), SEE PAGE 13.

ONE SHOT SETTING

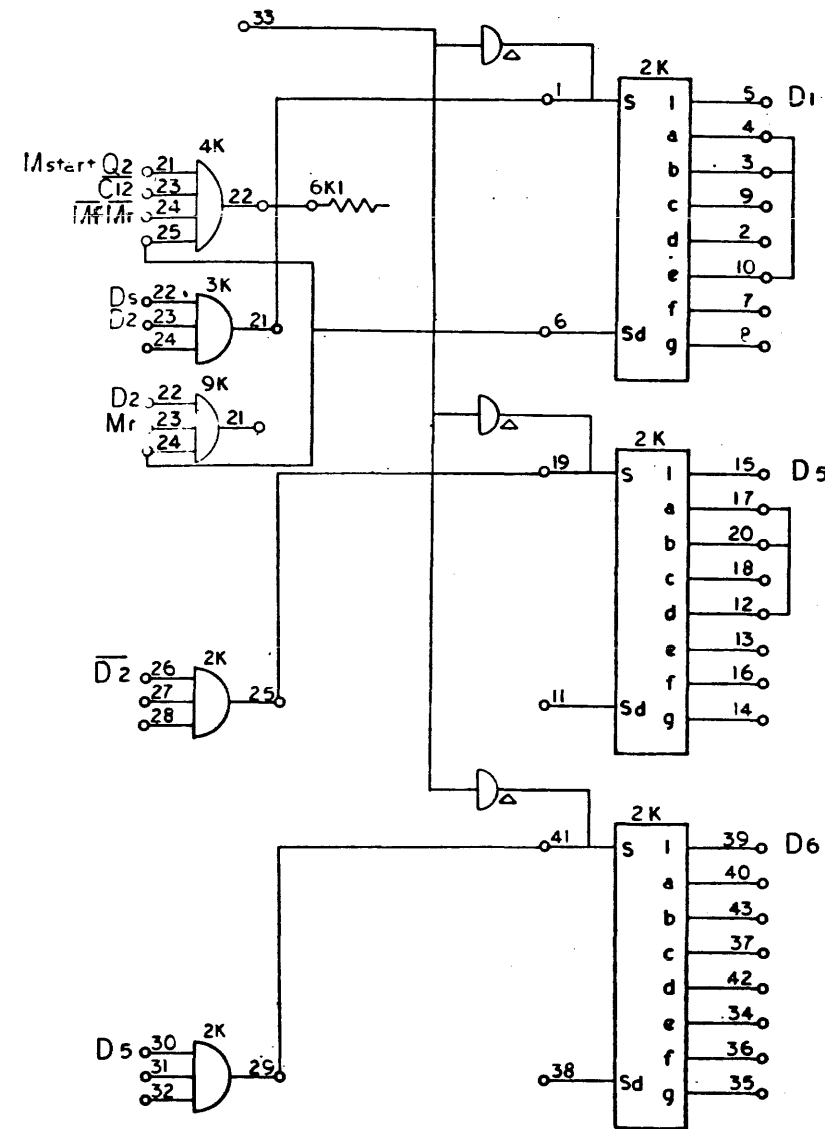
MODEL	D4	D2	D3
9248	14ms	1.6ms	2.5ms
92481			
92482		1.6ms	
92483		1.0ms	
9348	14ms	1.6ms	2.5ms

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92483, 9248, 92481, 92482
TAPE CONTROL
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NO. REQ	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1 TOLERANCES		DRAWN	DATE	
2 BREAK ALL SHARP EDGES		CHECK	DATE	
3 MACH SURFACES		APPR	DATE	
4 ALL DIM. IN INCHES		MATERIAL LIST		
		1525 STEINBOCK STREET, SANTA MONICA, CALIFORNIA		
		TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT		
MODEL NO. 9248		SIZE	DWG NO.	
NEXT ASSY.		D	103257	D
SCALE		DO NOT SCALE DRAWING		SHEET

103257 B1

REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.	CID	7/18/63	[Signature]
D	SEE REV E.O.	[Signature]	7/18/63	[Signature]



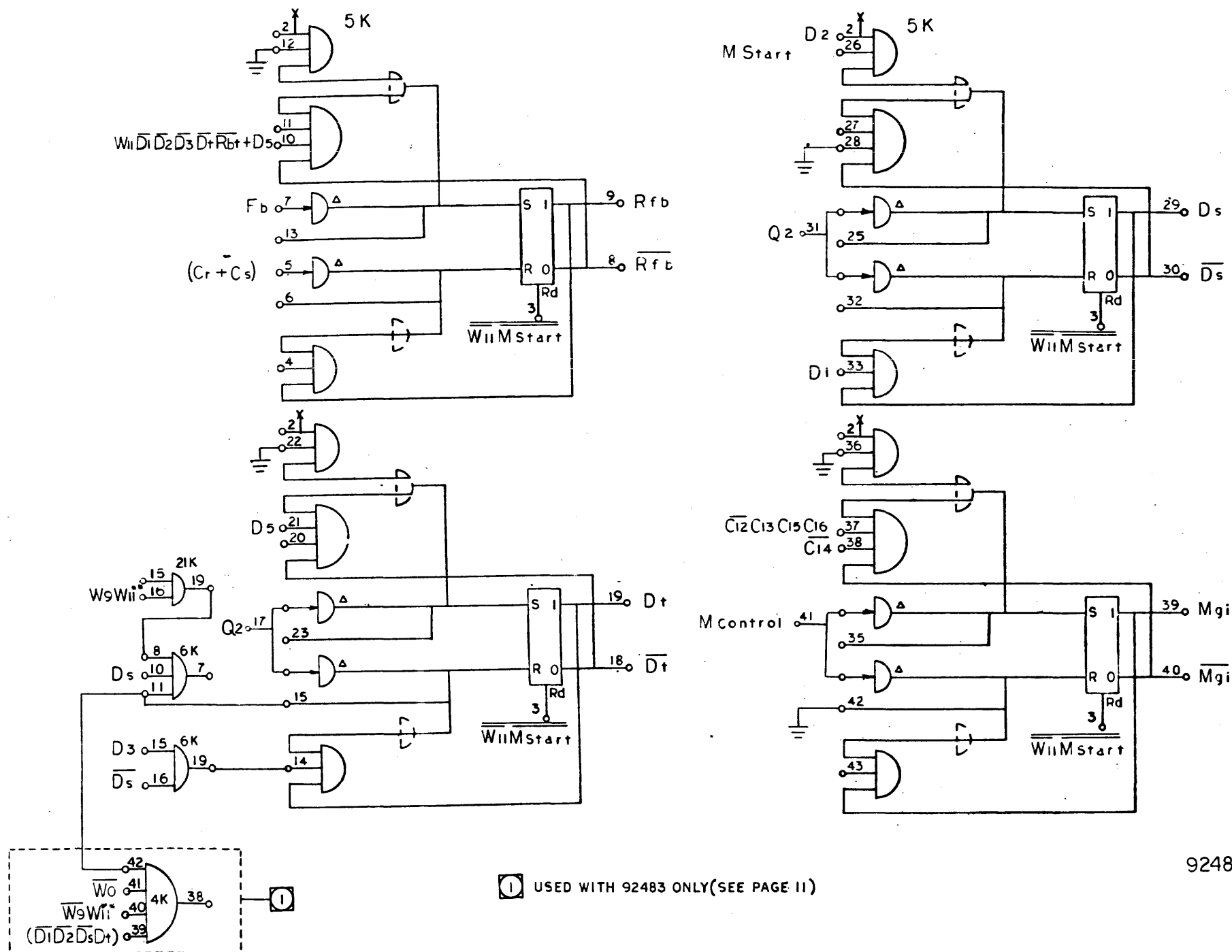
MODEL	D1	D5	D6
9248	4.7ms	350us	10us
92481	4.7ms	350us	
92482	4.7ms	350us	
92483	3.8ms	250us	
9348	6 ms	425us	10us

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TAPE CONTROL
PAGE 12
D.

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.	
MATERIAL LIST					
NOTES UNLESS SPECIFIED		DRAWN	SDS SCIENTIFIC DATA SYSTEMS 1542 FIFTEENTH STREET SANTA MONICA CALIFORNIA		
1. TOLERANCES XX ± 0.00 ANGLE SEE 2.010 2.11		CHECK			7/18/63
2. BREAK ALL SHARP EDGES .010 APPROX.		APPR.			7/18/63
3. HATCH SURFACES ✓ 4. ALL DIM. IN INCHES					
MODEL NO. 9248		TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT			
NEXT ASSY.		SIZE D DWG NO. 103257		D	
		SCALE DO NOT SCALE DRAWING		SHEET	

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REVISIONS				103257	D
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL. TO MFG.	SKD	7/18/63	<i>[Signature]</i>	
C	SEE REV. E.O.	SKD	7/18/63	<i>[Signature]</i>	
D	SEE REV E.O.	SKD	7/18/63	<i>[Signature]</i>	

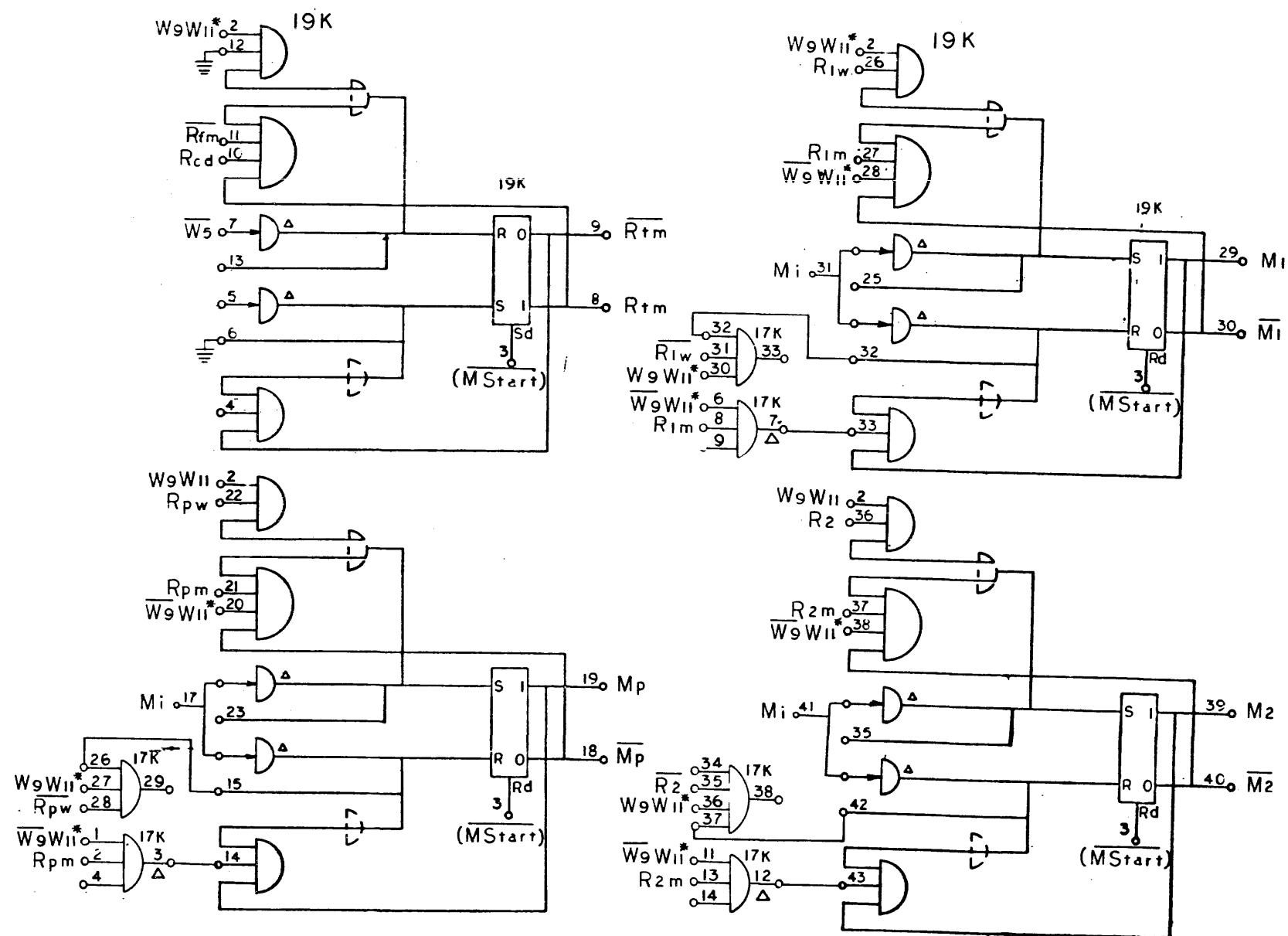


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TAPE CONTROL
PAGE 13
D

NO. REV.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	FORM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES UNLESS SPECIFIED		DRAWN	MATERIAL LIST	
2. ANGULAR ± 0.10		CHECK	SDS SCIENTIFIC DATA SYSTEMS	
3. BREAK ALL SHARP EDGES 0.10 APPROX		APPR	1742 EASTERN AVENUE, LITTLE ROCK, ARKANSAS	
4. MACH SURFACES ✓		TITLE		
5. ALL DIM IN INCHES		DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT		
MODEL NO.	9248	SEE DWG. NO.	D	103257
NEXT ASSY.		SCALE	1/8" = 1" SCALE DRAWING	

C3257 D1.1

REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.	A.P.	7/18/65	
D	SEE REV E.O.	(Signature)	7/18/66	

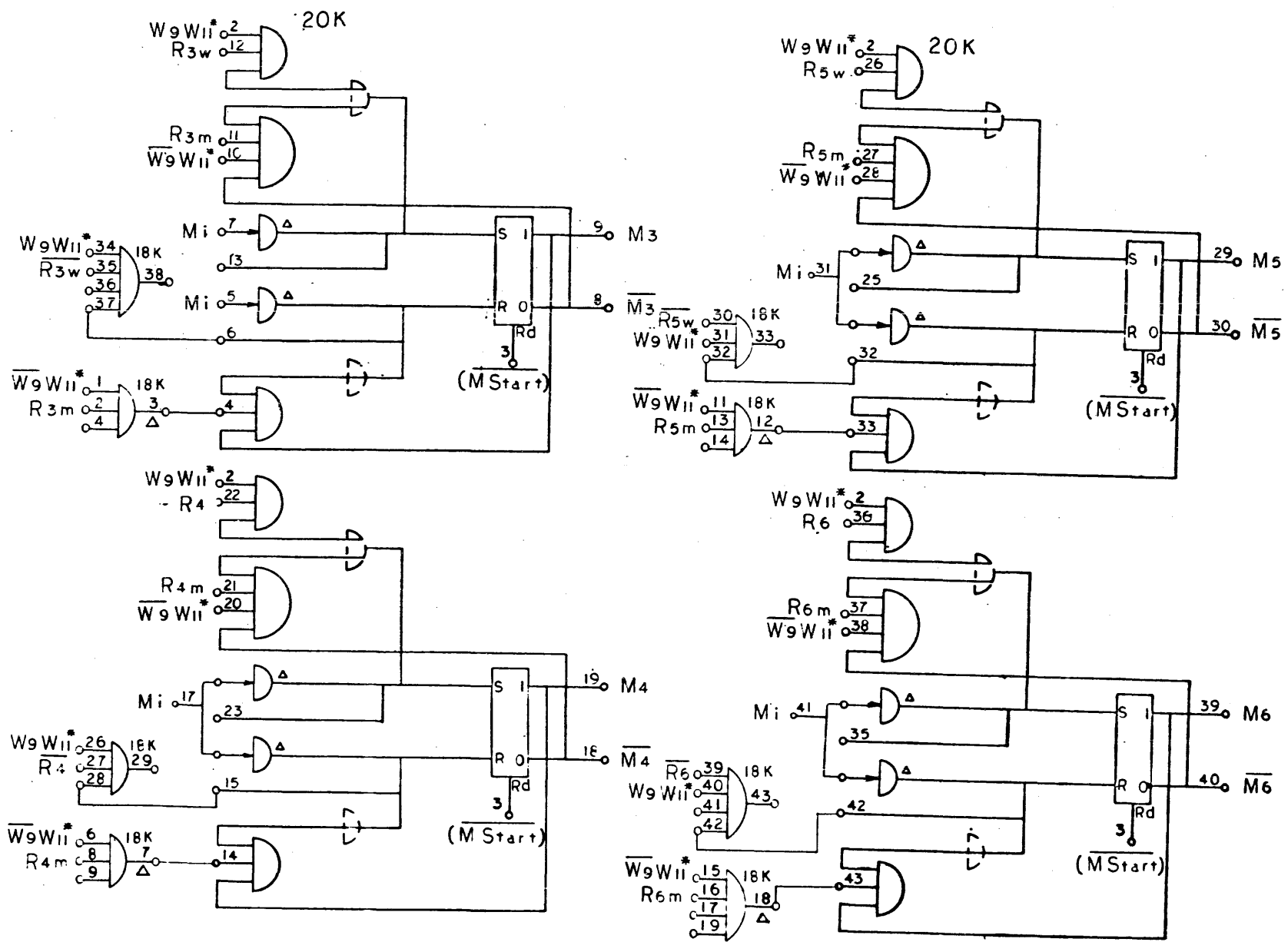


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 92483,9248,92481,92482
 TAPE CONTRCL
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 D

103257 1D1

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED 1 TOLERANCES: .030 ANGULAR .15" .010 .010 2 BREAK ALL SHARP EDGES .010 APPROX. 3 HACH. SURFACES ✓ 4 ALL DIM. IN INCHES				
DRAWN: <i>M. J. ...</i> 7/16/65 CHECK: <i>P. B.</i> 7/16/65 APPR: <i>W. K. F.</i> 7/18/66		SDS SCIENTIFIC DATA SYSTEMS 1542 EASTERN STREET, SANTA MONICA, CALIFORNIA DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT		
MODEL NO. 9248		SIZE D	DWG NO. 103257	D
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING	SHEET

REV		REVISIONS		CHK	DATE	APPROVED
A		REL. TO MFG.				
D		SEE REV E.O.				

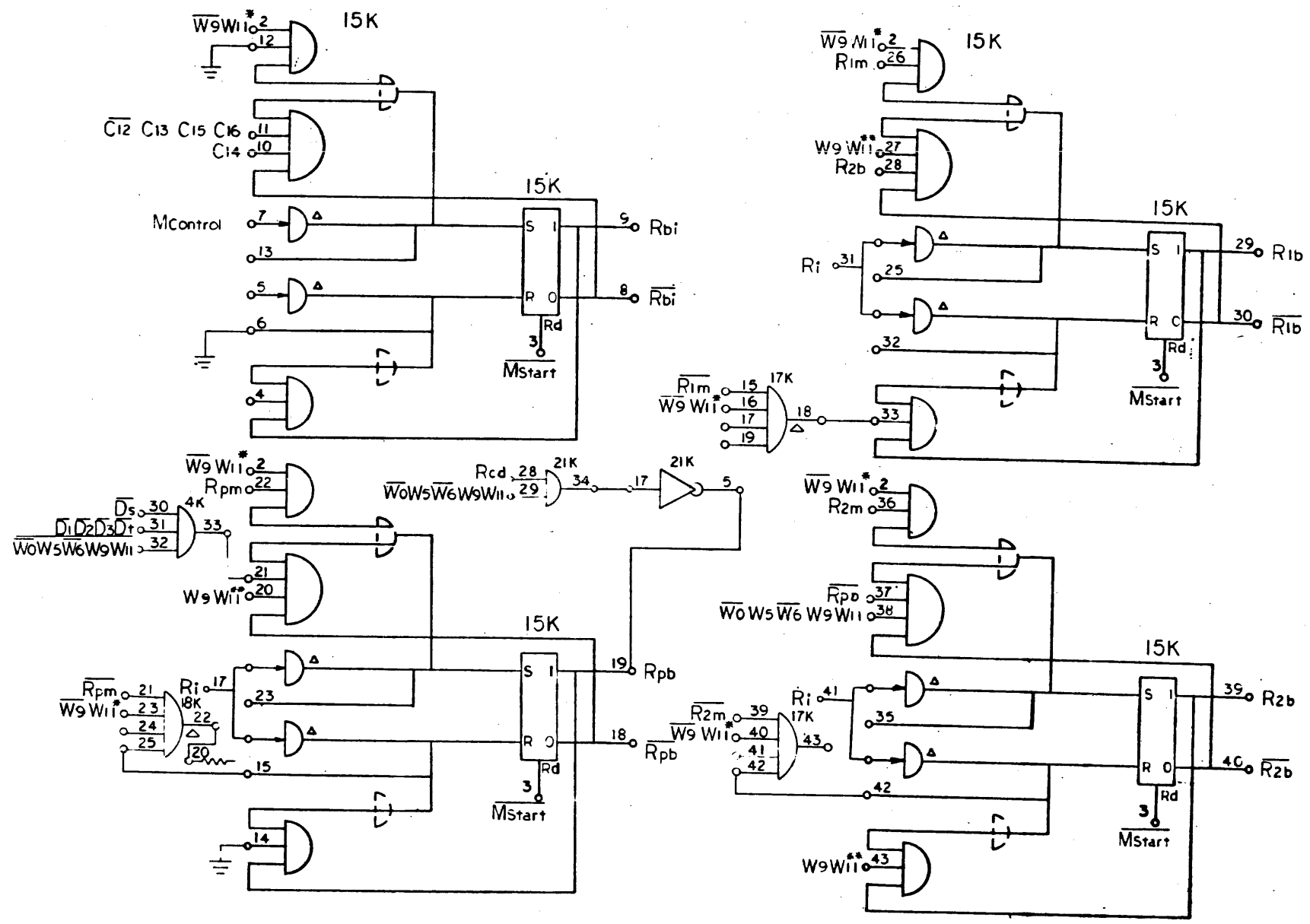


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 92483, 9248, 92481, 92482
 TAPE CONTROL
 PAGE 15
 D

NO	REG	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED					
1. TOLERANCES UNLESS SPECIFIED					
2. BREAK ALL SHARP EDGES 0.10 APPROX					
3. HATCH SURFACES ✓					
4. ALL DIM. IN INCHES					
DRAWN		CHECK		APPR	
7/11/63		C.B.		7/11/63	
MATERIAL LIST					
SDS SCIENTIFIC DATA SYSTEMS					
DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT					
MODEL NO.		SIZE		DWG NO.	
9248		D		103257	
NEXT ASSY.		SCALE		SHEET	
		DO NOT SCALE DRAWING		D	

103257 | D1

REVISIONS				103257	D
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL. TO MFG.	ELB	7/18/63		
D	SEE REV E.O.	ED	7/18/63		

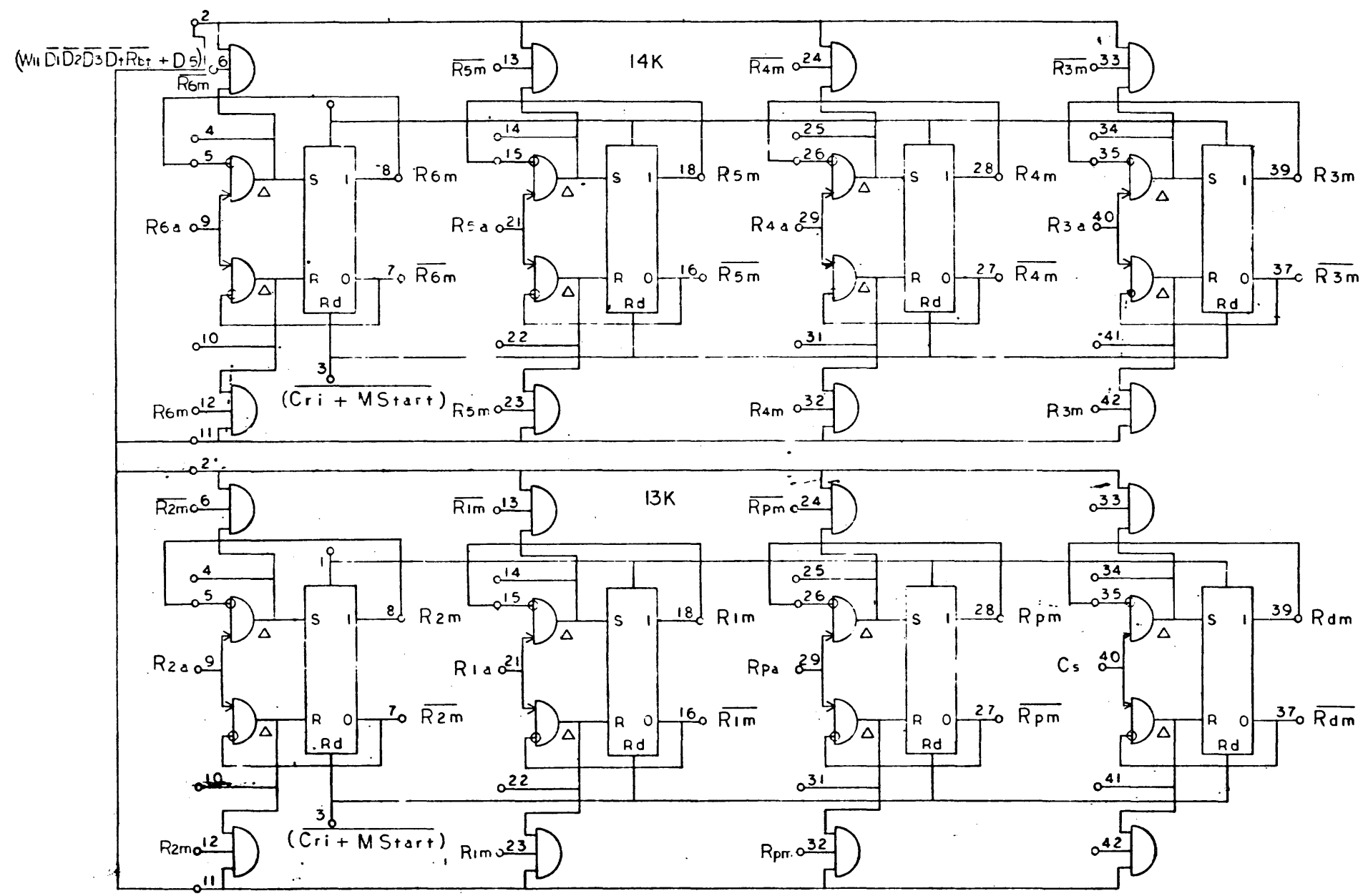


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 92483, 9248, 92481, 92482
 TAPE CONTROL
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 D

103257 | D |

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	7/11/63	
1. TOLERANCES FR ± .030 ANGULAR DIE ± .010		CHECK	7/18/63	
2. BREAK ALL SHARP EDGES S10 APPROX		APPR.	7/18/63	
3. MACH. SURFACES ✓				
4. ALL DIM. IN INCHES				
MODEL NO. 9248		SDS SCIENTIFIC DATA SYSTEMS 1442 THIRTEENTH STREET, SANTA MONICA, CALIFORNIA		
NEXT ASSY.		DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT		
		SIZE	DWG NO.	
		D	103257	D
		SCALE	DO NOT SCALE DRAWING	SHEET

REVISIONS				
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.	AKB	7/18/63	[Signature]
D	SEE REV E.O.	[Signature]	7/18/63	[Signature]

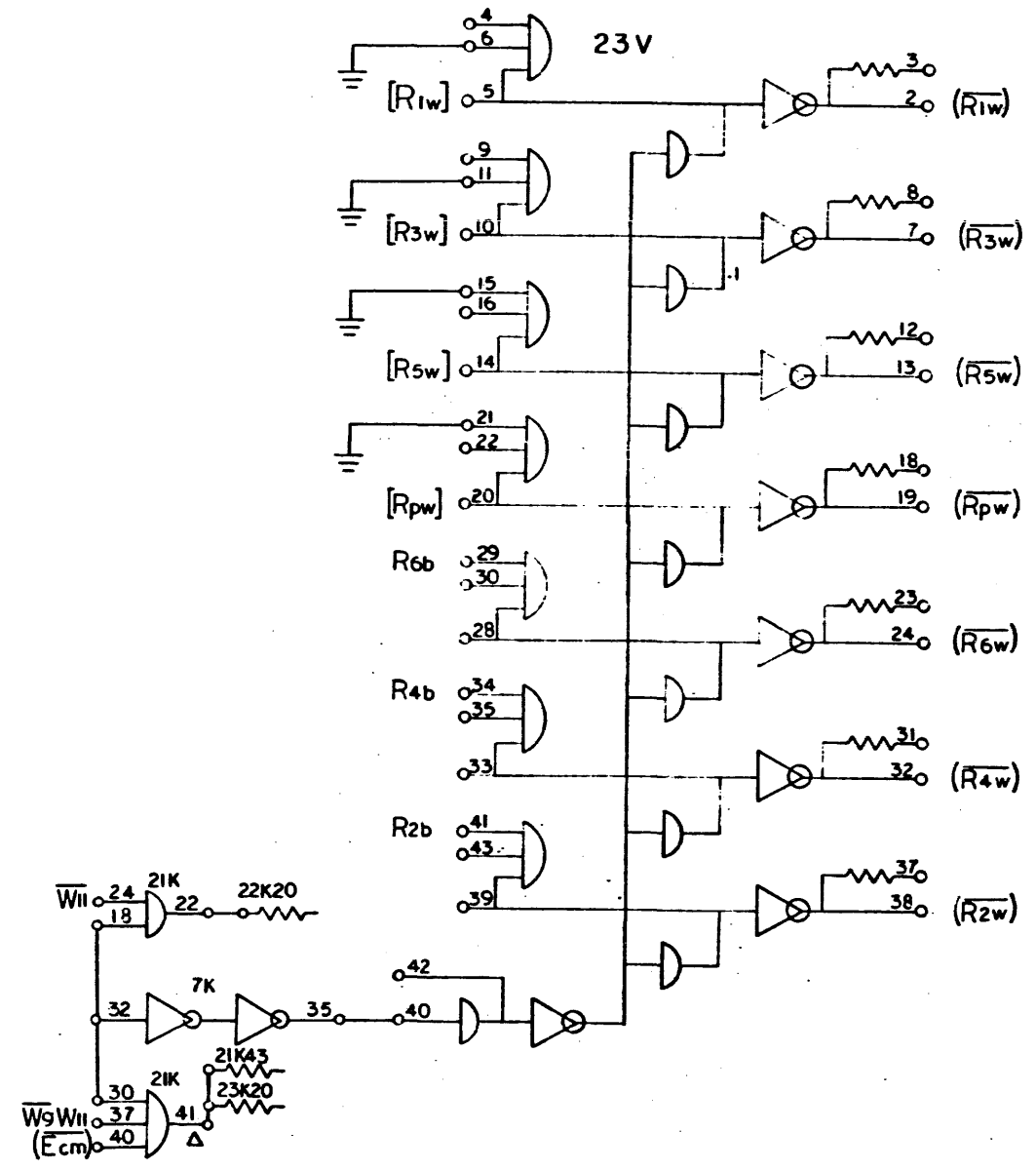


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92483,9248,92481,92482
TAPE CONTROL
PAGE 18
D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	SDS SCIENTIFIC DATA SYSTEMS	
1. TOLERANCES XX ± .030 ANGLULAR XXX ± .010 2 1/2°		CHECK	1542 FIFTEENTH STREET SANTA MONICA CALIFORNIA	
2. BREAK ALL SHARP EDGES 3.10 APPROX		APPR.	TITLE	
3. MACH. SURFACES ✓			DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT	
4. ALL DIM. IN INCHES				
MODEL NO.	9248	SIZE	DWG NO.	D
NEXT ASSY.		D	103257	D
SCALE		DO NOT SCALE DRAWING SHEET		

103257 1D1

REVISIONS				103257	D
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL. TO MFG.				
D	SEE REV E.O.				

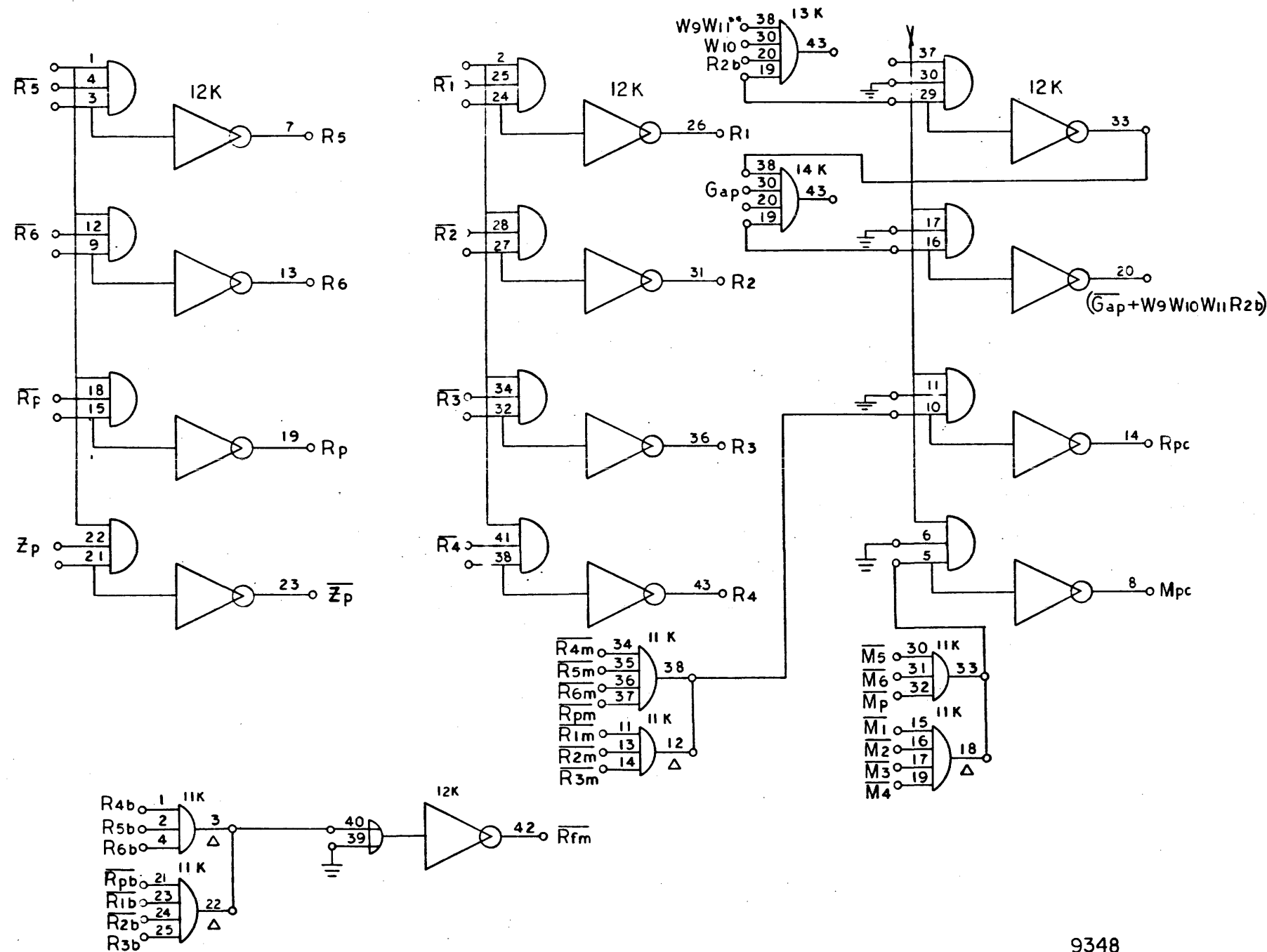


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 92483,9248,92481,92482
 TAPE CONTROL
 PAGE 20
 D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES XX 2.000 XXX 2.510		ANGULAR ±14°	DRAWN <i>W. K. K. / 7/10/69</i>	
2. BREAK ALL SHARP EDGES BY APPROX.		3. HATCH SURFACES	CHECK <i>C.L.B.</i>	7/10/69
4. ALL DIM. IN INCHES		4. ALL DIM. IN INCHES	APPR. <i>W.K.K.</i>	7/10/69
MATERIAL LIST			SDS SCIENTIFIC DATA SYSTEMS 1545 FIFTEENTH STREET SANTA MONICA CALIFORNIA	
MODEL NO. 9248			TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT	
NEXT ASSY.			SIZE D	DWG NO. 103257
SCALE			DO NOT SCALE DRAWING	SHEET D

103257 D

REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.			
D	SEE REV E.O.			

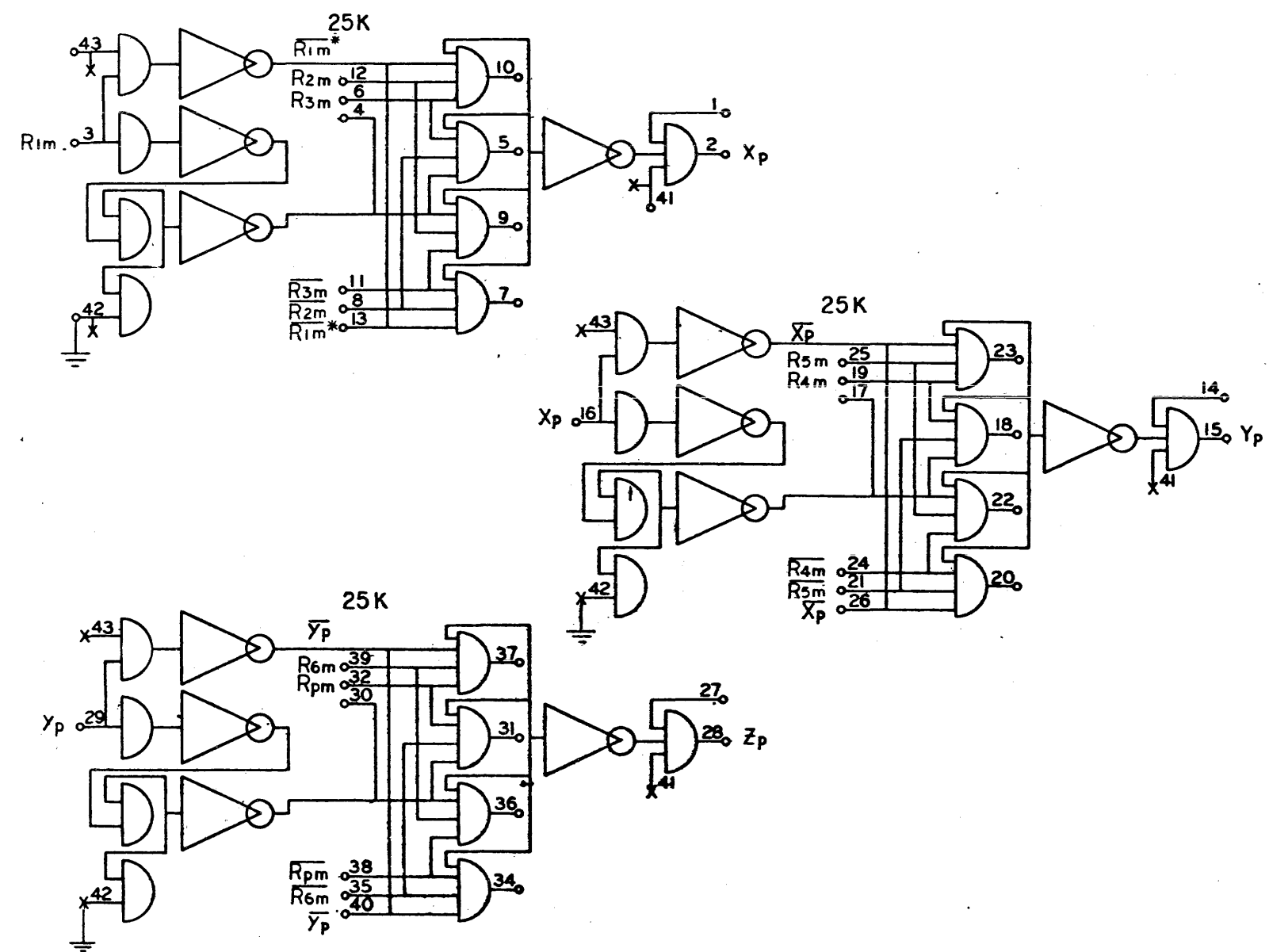


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 92483,9248,92481,92482
 TAPE CONTROL
 PAGE 21
 D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED: 1. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED. 2. BREAK ALL SHARP EDGES. 3. MACH. SURFACES. 4. ALL DIM. IN INCHES.				
DRAWN: [Signature] CHECK: [Signature] APPR: [Signature]		MATERIAL LIST SDS SCIENTIFIC DATA SYSTEMS 1742 EIGHTH STREET, SANTA MONICA, CALIFORNIA		
MODEL NO. 9248 NEXT ASSY.		TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT		
SIZE D DWG NO. 103257 SHEET D		SCALE DO NOT SCALE DRAWING		

103257 1D1

REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.	CLB	1/18/63	
D	SEE REV E.O.	CLB	1/15/63	

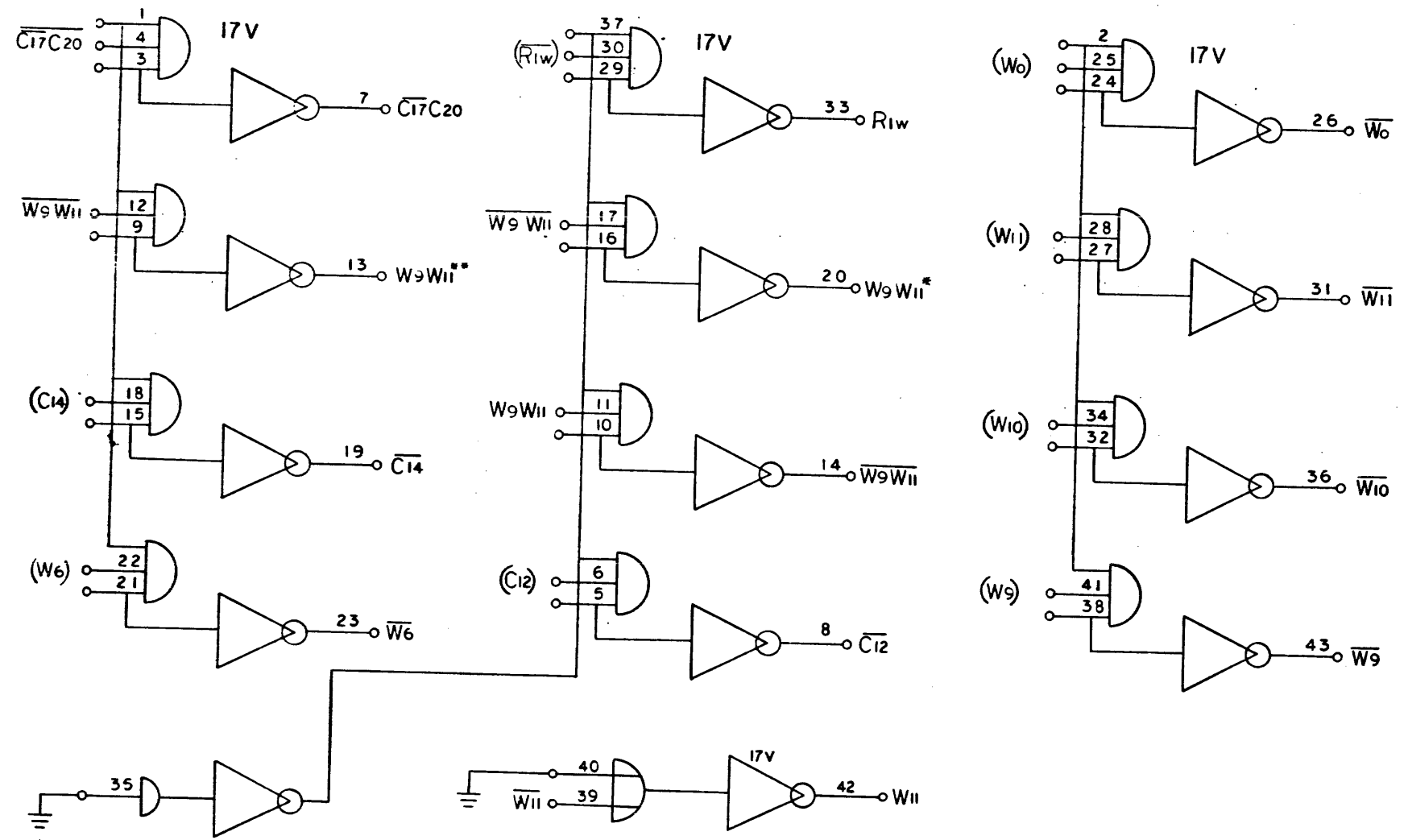


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 92483,9248,92481,92482
 TAPE CONTROL
 PAGE 23
 D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	DATE	SDS SCIENTIFIC DATA SYSTEMS 1540 FIFTEENTH STREET SANTA MONICA CALIFORNIA TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT
1. TOLERANCES XX ± .030 ANGULAR XX ± .010 ± 1/4" 2. BREAK ALL SHARP EDGES BY APPROX. 3. HATCH SURFACES ✓ 4. ALL DIM. IN INCHES		CHECK	DATE	
		APPR.	DATE	
MODEL NO.	9248	SIZE	DWG NO.	D
NEXT ASSY.		SCALE	103257	D
			DO NOT SCALE DRAWING	SHEET

103257 | D1

REVISIONS				103257	D
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL. TO MFG.		8/20/63		
D	SEE REV ED.				

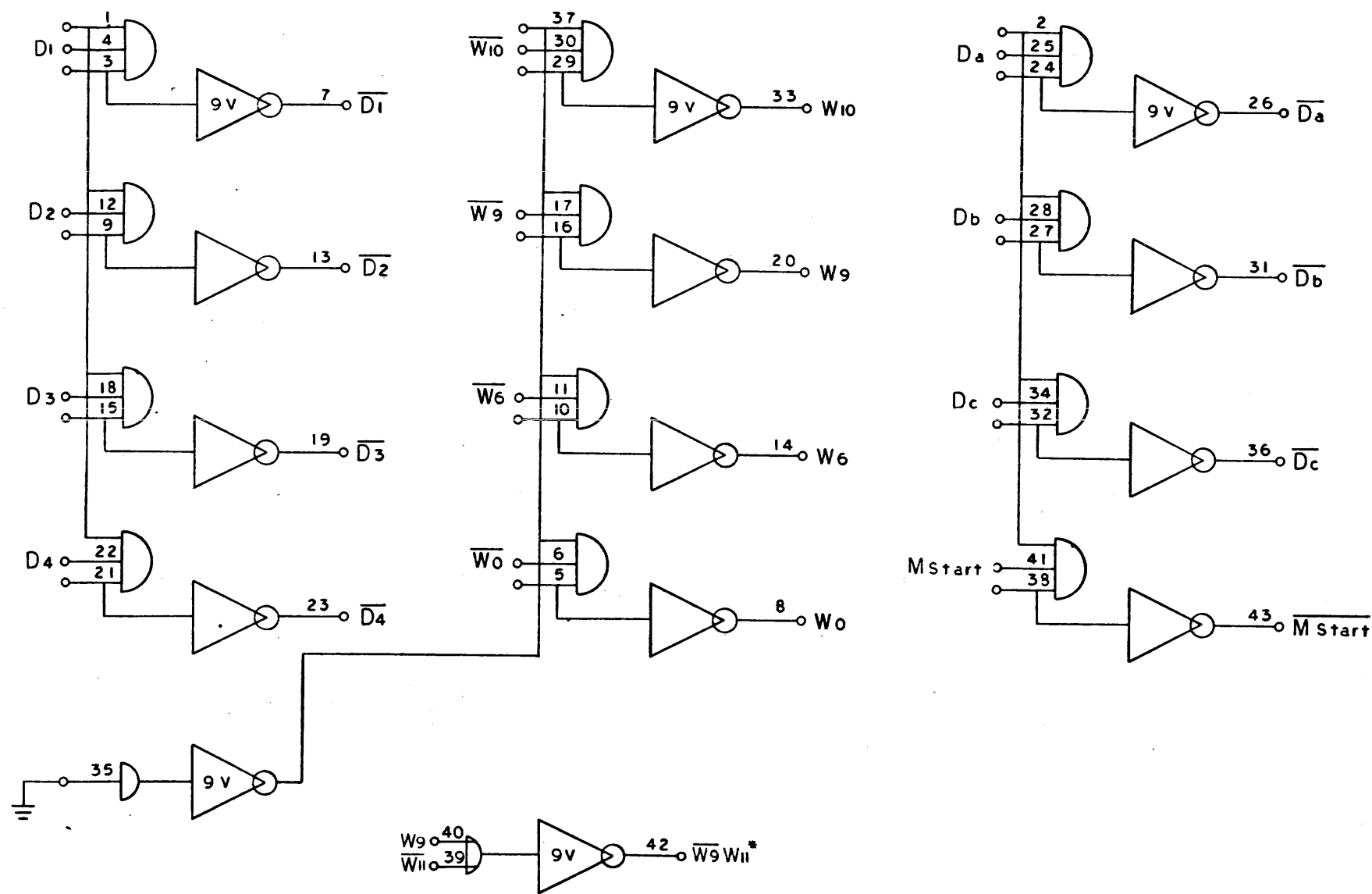


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92483,9248,92481,92482
TAPE CONTROL
PAGE 24
D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN: <i>[Signature]</i> 7/2/63 CHECK: <i>[Signature]</i> 7/18/63 APPR: <i>[Signature]</i> 7/18/63	SDS SCIENTIFIC DATA SYSTEMS <small>1742 EIGHTH STREET, SANTA MONICA, CALIFORNIA</small>	
1. TOLERANCES XX ± .010 ANGULAR XXX ± .010 ± 1/2° 2. BREAK ALL SHARP EDGES .010 APPROX 3. MACH. SURFACES ✓ 4. ALL DIM. IN INCHES		TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT		
MODEL NO. 9248		SIZE D	DWG NO. 103257	D
NEXT ASSY.		SCALE	IN:MM SCALE DRAWING	SHEET

103257 | D

REVISIONS				
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.			
D	SEE REV E.O.			



9348,9248,92481,92482,92483

TAPE CONTROL

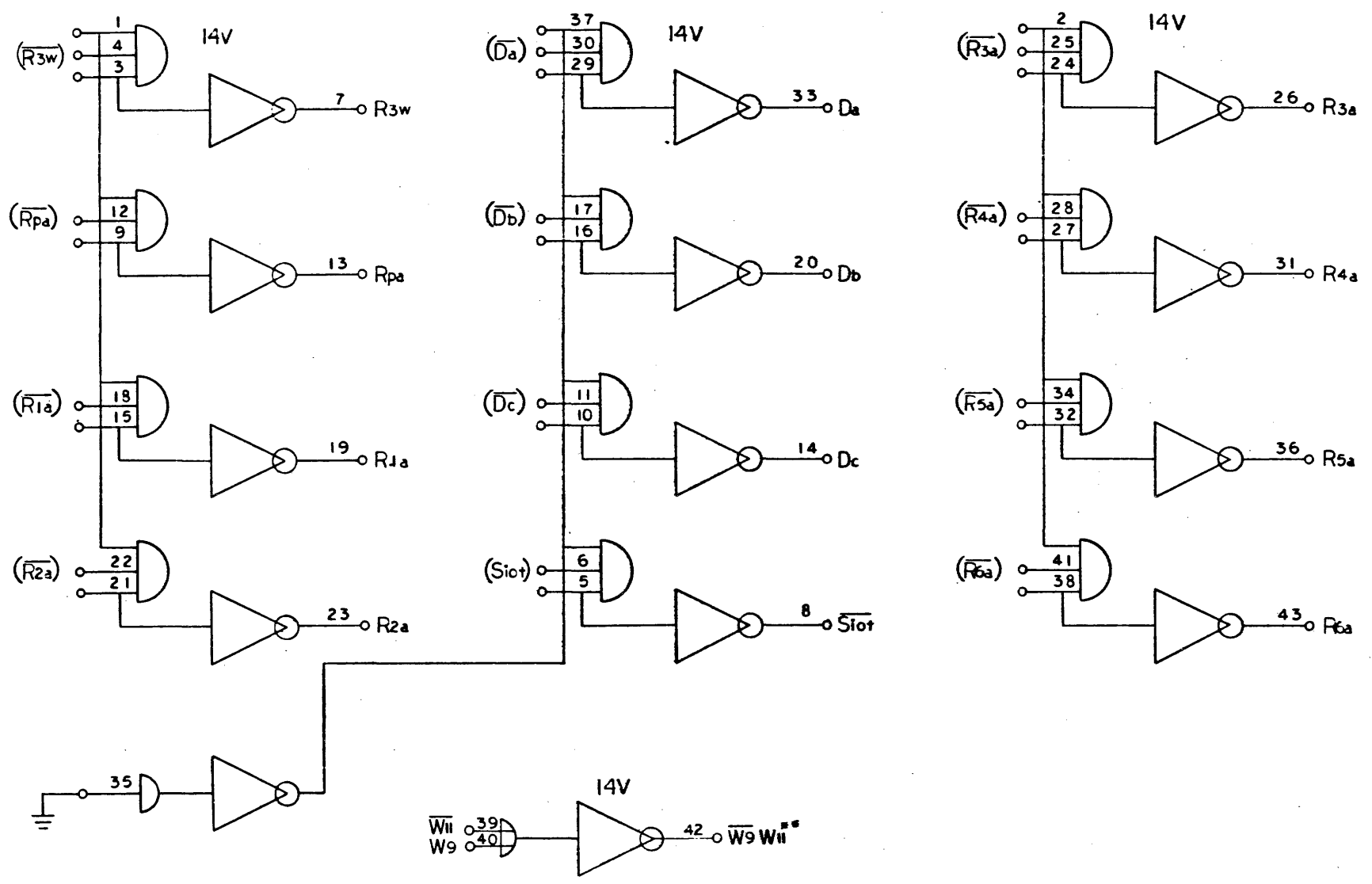
PAGE 25

D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED: 1. TOLERANCES: 25 ± 0.00 ANGULAR ± 15' 30 ± 0.10 ± 15' 2. BREAK ALL SHARP EDGES .010 APPROX. 3. HADL. SURFACES ✓ 4. ALL DIM. IN INCHES				
DRAWN: <i>[Signature]</i> CHECK: <i>[Signature]</i> APPR: <i>[Signature]</i> 7/12/63		SDS SCIENTIFIC DATA SYSTEMS 1542 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA		
MODEL NO. 9248 NEXT ASSY.		TITLE: DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT SIZE: D DWG NO. 103257 SHEET: D		
SCALE		DO NOT SCALE DRAWING		

103257 D

REVISIONS				103257
REV	DESCRIPTION	CHR	DATE	APPROVED
A	REL. TO MFG.		7/18/63	
D	SEE REV E.O.		7/18/63	

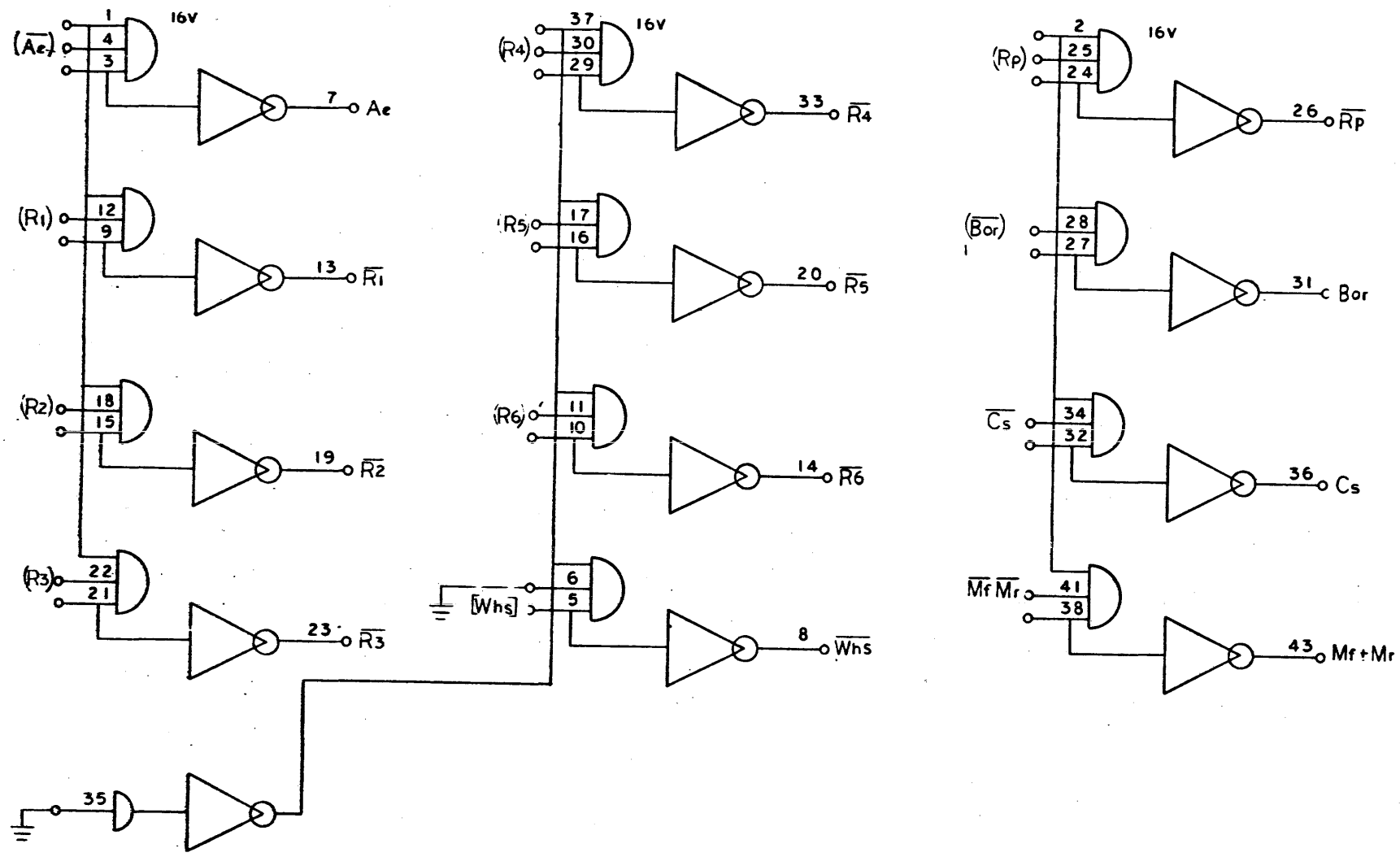


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92483,9248,92481,92482
TAPE CONTROL
PAGE 26
D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES SEE 2.010		ANGULAR ± 1/2°	DRAWN: [Signature] 7/18/63	
2. BREAK ALL SHARP EDGES .010 APPROX.		✓	CHECK: [Signature] 7/18/63	APPR: [Signature] 7/18/63
3. HATCH SURFACES			TITLE: DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT	
4. ALL DIM. IN INCHES			MODEL NO. 9248	
NEXT ASSY.			SIZE D	DWG NO. 103257
SCALE		DO NOT SCALE DRAWING	SHEET D	

103257 | D1

REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.	edp	7/18/63	
D	SEE REV E.O.	gk	7/18/63	

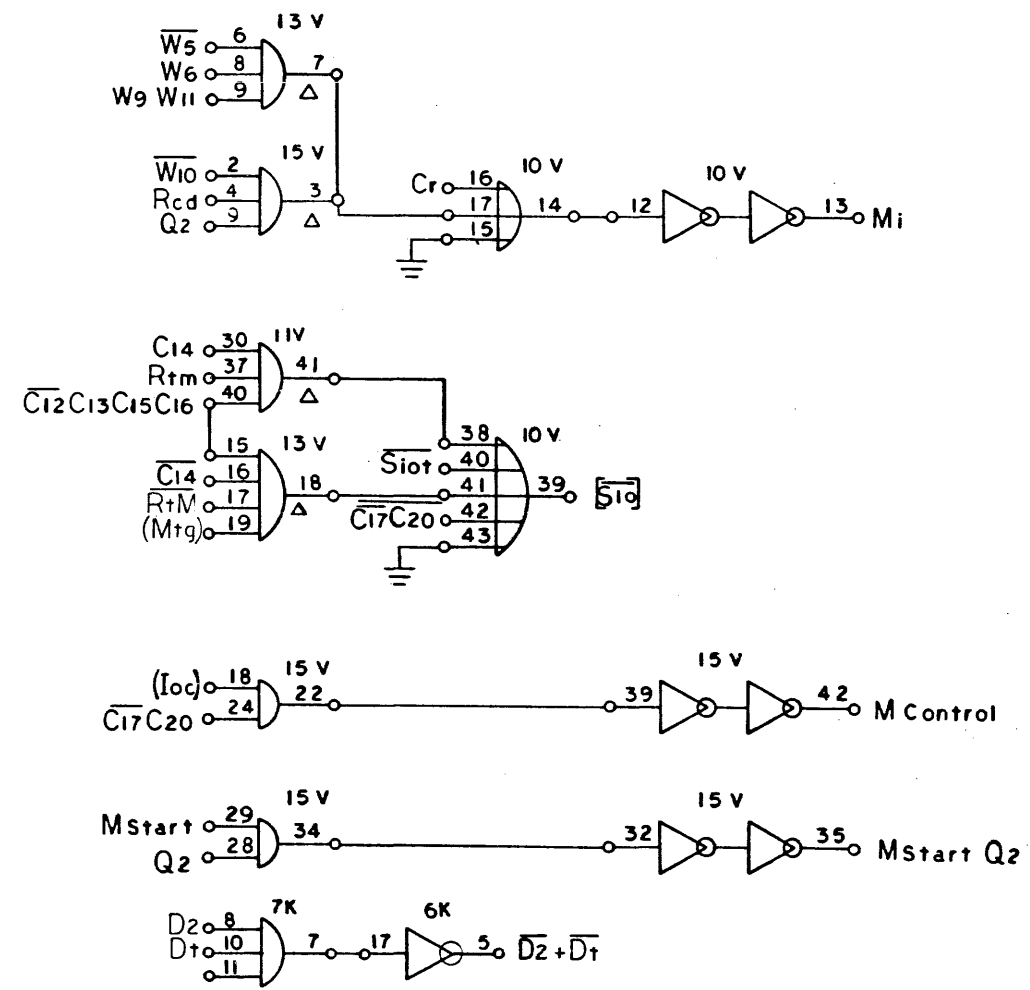


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92483,9248,92481,92482
TAPE CONTROL
PAGE 27
D

NO. REQ	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	SDS SCIENTIFIC DATA SYSTEMS 1542 FIFTEENTH STREET SANTA MONICA CALIFORNIA	
1. TOLERANCES UNLESS SPECIFIED ANGULAR ± 0.000 ± 0.010	CHECK	edp	7/18/63	
2. BREAK ALL SHARP EDGES 0.10 APPROX.	APPR.	WEP	7/18/63	
3. HATCH SURFACES				
4. ALL DIM. IN INCHES				
MODEL NO. 9248		SIZE	DWG NO. 103257	D
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING	SHEET

103257 | D1

REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.	JTB	7/10/62	
C	SEE REV. E.O.	JTB	7/10/62	
D	SEE REV E.O.	JTB	7/10/62	

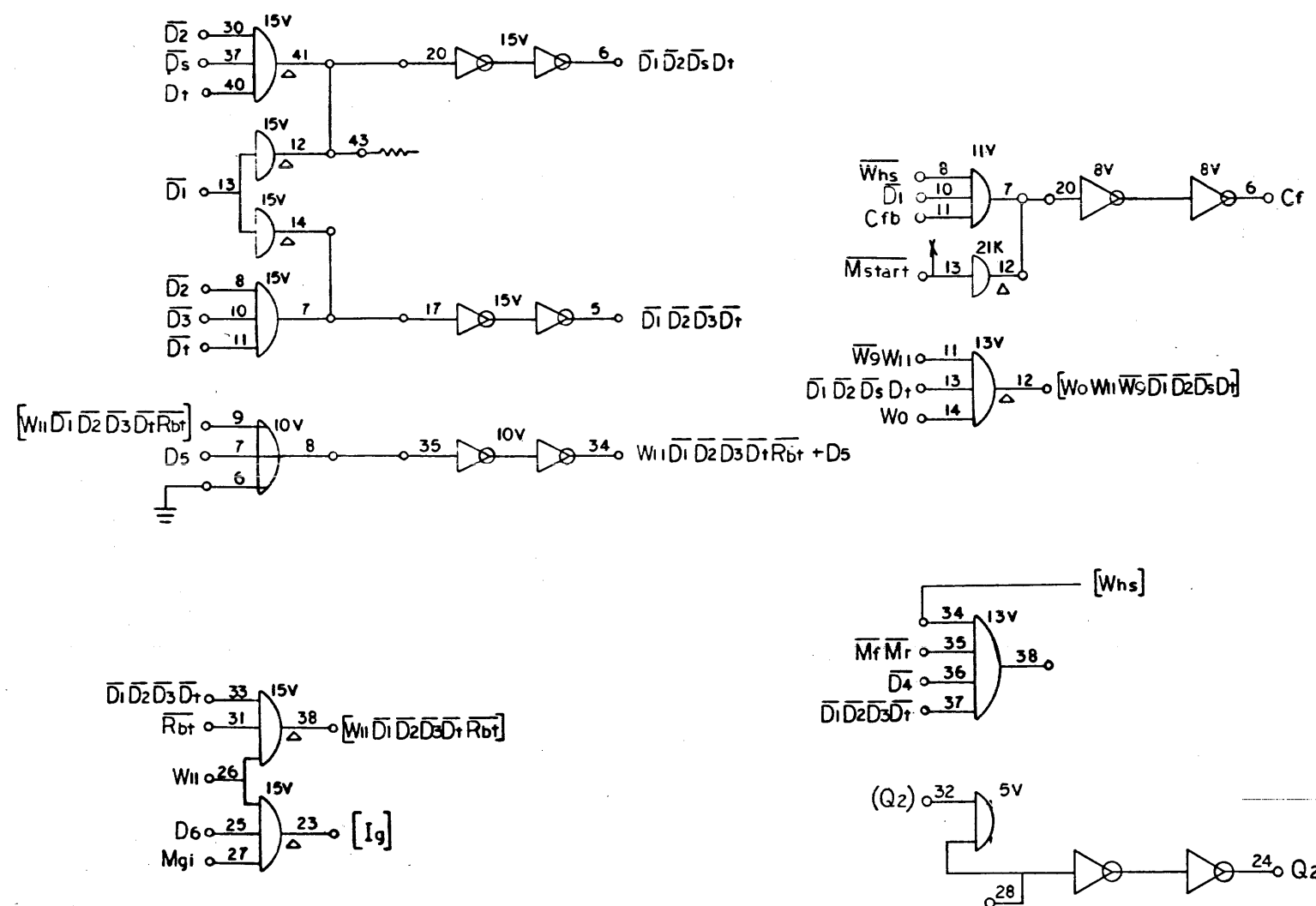


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92483,9248,92481,92482
TAPE CONTROL
PAGE 30
D

103257 101

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	SDS SCIENTIFIC DATA SYSTEMS	
1. TOLERANCES XX ±.030 ANGULAR XXX ±.010 ±1/2°		CHECK	1242 FIFTEENTH STREET SANTA MONICA, CALIFORNIA	
2. BREAK ALL SHARP EDGES .010 APPROX.		APPR.	TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT	
3. MACH. SURFACES ✓				
4. ALL DIM. IN INCHES				
MODEL NO.	9248	SIZE	DWG NO.	D
NEXT ASSY.		SCALE	103257	D
			DO NOT SCALE DRAWING	SHEET

REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.	SPD	1/15/63	
C	SEE REV. E.O.	SPD	1/15/63	
D	SEE REV E.O.	SPD	1/15/63	

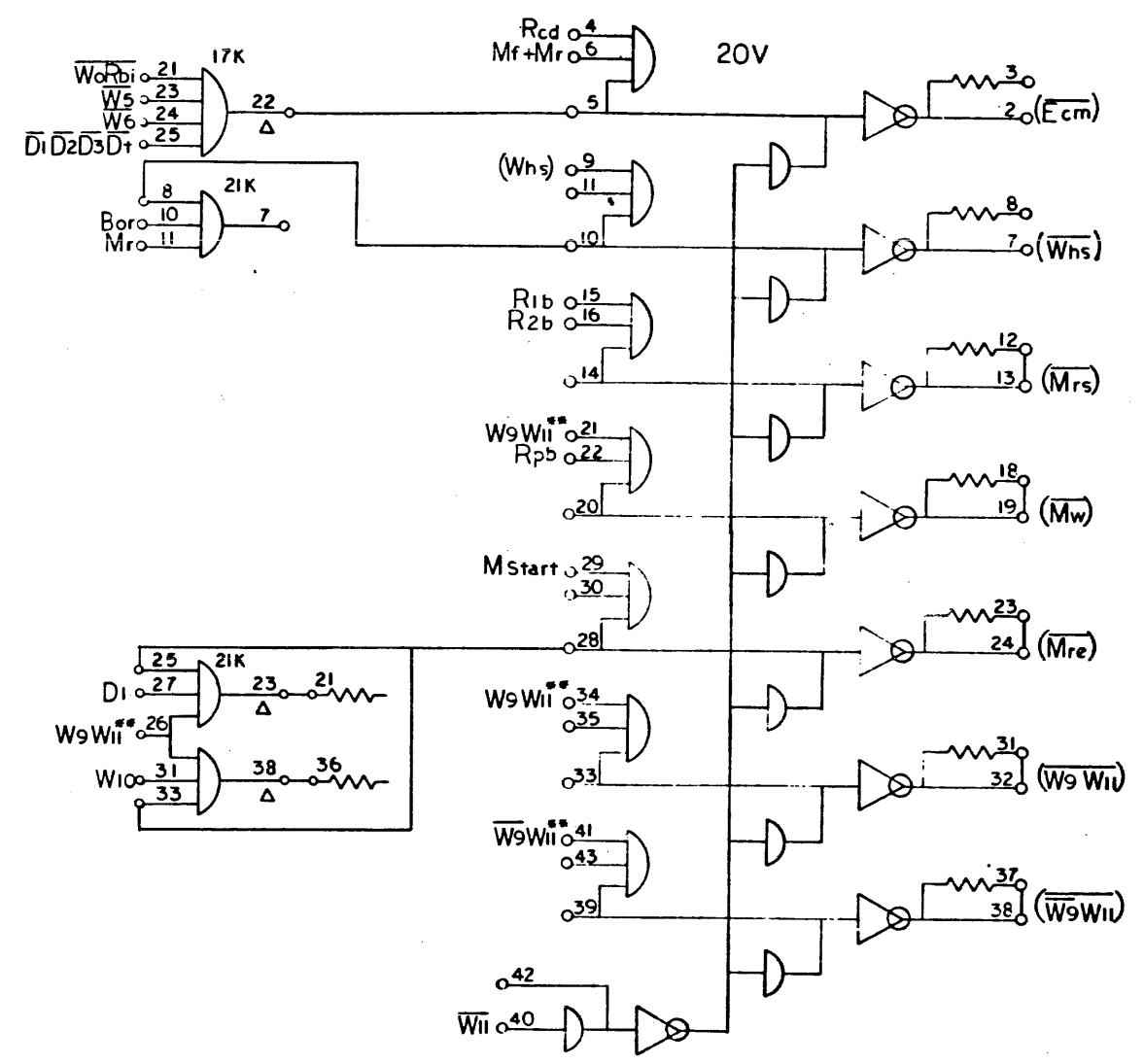


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92483 9248,92481,92482
TAPE CONTROL
PAGE 31
D

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NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES DIM ±.005 ANGULAR SEE ±.010		2. BREAK ALL SHARP EDGES .010 APPROX.	3. MATCH SURFACES ✓	4. ALL DIM. IN INCHES
DRAWN: [Signature]		CHECK: [Signature]	APPR: [Signature]	DATE: 1/15/63
MODEL NO. 9248		TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT		SIZE D
NEXT ASSY.		DWS NO. 103257		SHEET D
SCALE		DO NOT SCALE DRAWING		SHEET

REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.	Chb	7/18/63	
C	SEE REV. E.O.	Bu	7/18/63	
D	SEE REV E.O.	Chb	7/18/63	

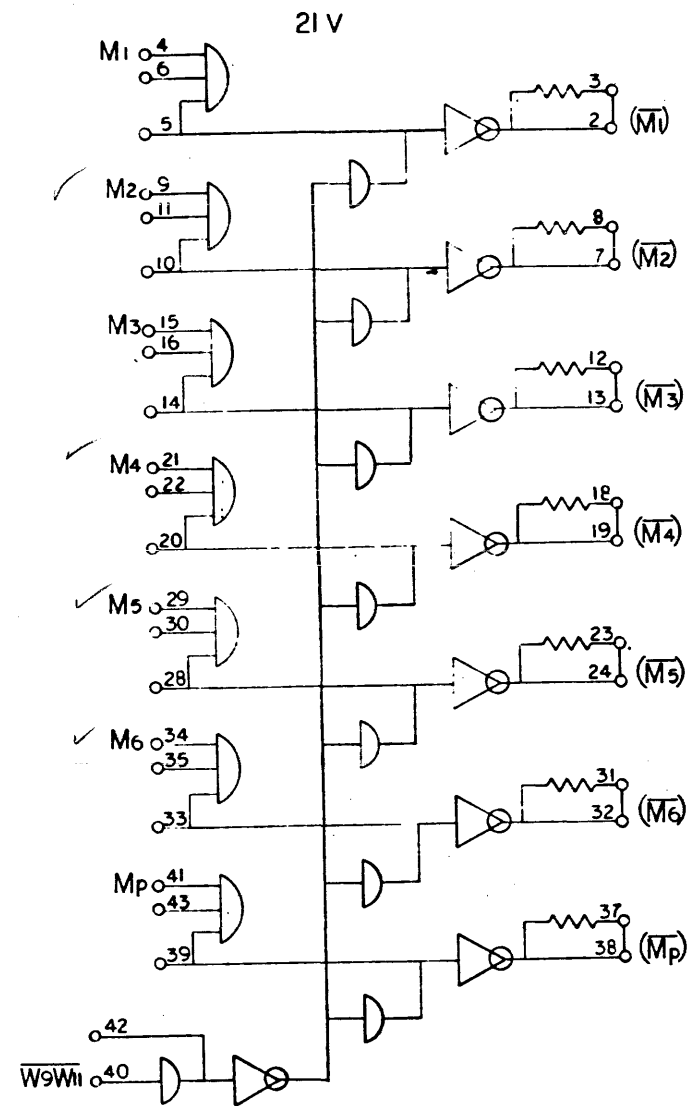


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92483 9248,92481,92482
TAPE CONTROL
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D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	 1542 FIFTEENTH STREET SANTA MONICA CALIFORNIA	
1. TOLERANCES XX ± 0.00 ANGULAR XXX ± 0.10 ± 1/16"		CHECK		
2. BREAK ALL SHARP EDGES 0.10 APPROX.		APPR.		
3. HATCH SURFACES ✓			TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT	
4. ALL DIM. IN INCHES				
MODEL NO. 9248		SIZE D	DWG NO. 103257	
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING SHEET	

103257 D

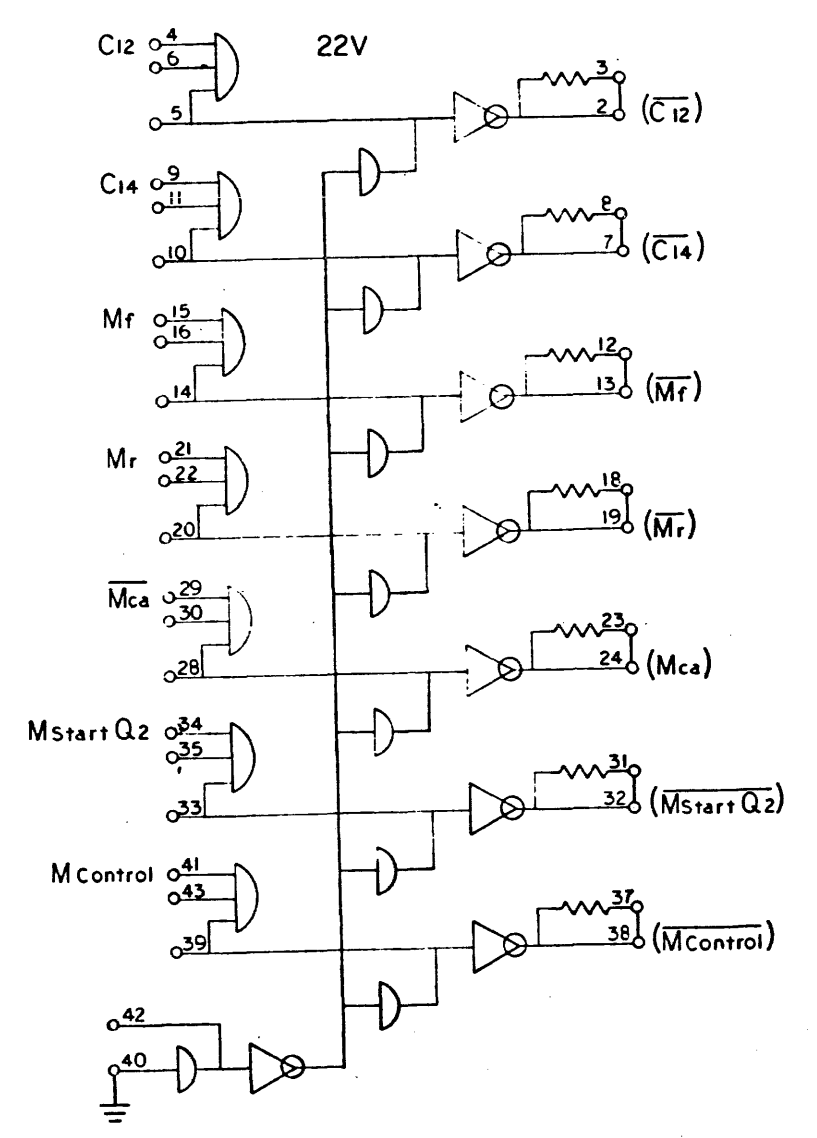
REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.	CLB	1/18/63	[Signature]
D	SEE REV E.O.	[Signature]	1/16/60	[Signature]



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TAPE CONTROL
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D

NO. REQ.	DRAWING NO.	DESCRIPTION	REVISIONS OR ORIGINATOR
NOTES UNLESS SPECIFIED		DRAWN: [Signature]	DATE: [Date]
1. DIMENSIONS: 12 - 0.00 ANGULAR 1/16 - 0.00		CHKD: CLB	DATE: 1/19/63
2. BREAK ALL SHARP EDGES 0.02 APPROX		APPR: [Signature]	
3. HATCH DIMENSIONS			
4. ALL DIM IN INCHES			
MODEL NO. 9248		TITLE: DIAGRAM, LOGIC MAG TAPE CONTR	
NEXT ASSY:		SIZE: D	DWG NO: 103
		SCALE:	ENGINNER: [Signature]

REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.	CLB	7/11/63	[Signature]
D	SEE REV E.O.	18	1/2 7/6/64	[Signature]

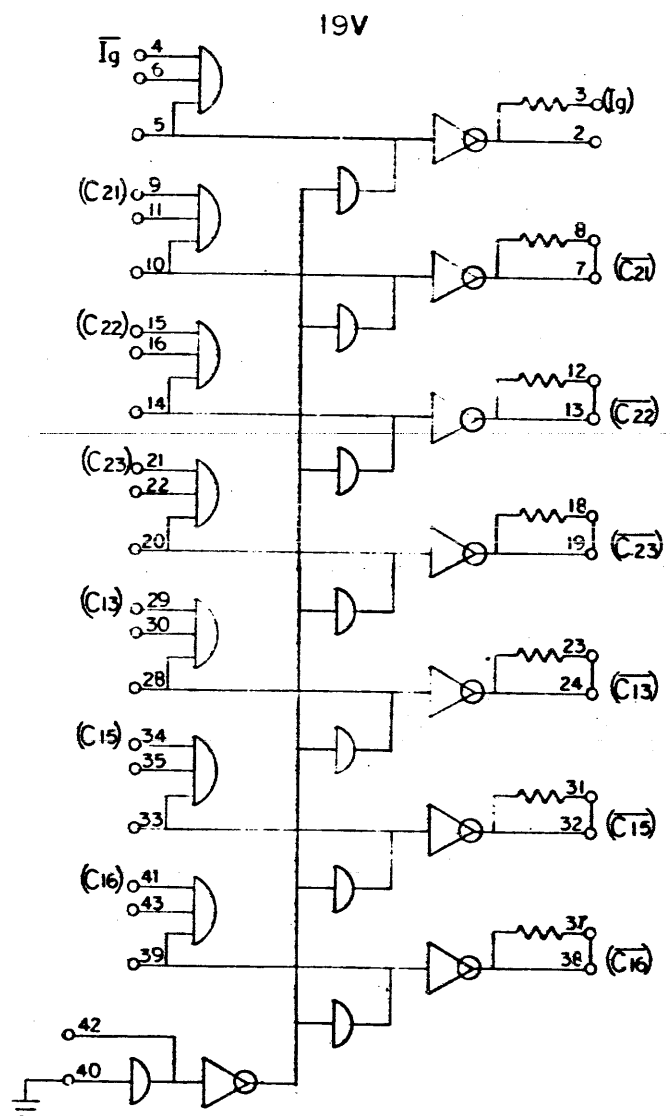


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 92483,9248,92481,92482
 TAPE CONTROL
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 D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN <i>W. J. [Signature]</i>	7/11/63	SDS SCIENTIFIC DATA SYSTEMS <small>1742 TWENTIETH STREET, SANTA MONICA, CALIFORNIA</small>
1 TOLERANCES XX ± 0.00 ANGULAR SEE 1 010 3/4		CHECK <i>CLB</i>	7/8/63	
2 BREAK ALL SHARP EDGES 010 APPROX		APPR <i>[Signature]</i>	7/11/63	
3 MACH. SURFACES ✓				DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT
4 ALL DIM. IN INCHES				
MODEL NO.	9248	SIZE	D	DWG NO.
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING	SHEET
				D

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REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.	SA	9/18/63	[Signature]
D	SEE REV E.O.	SA	1/6/64	[Signature]

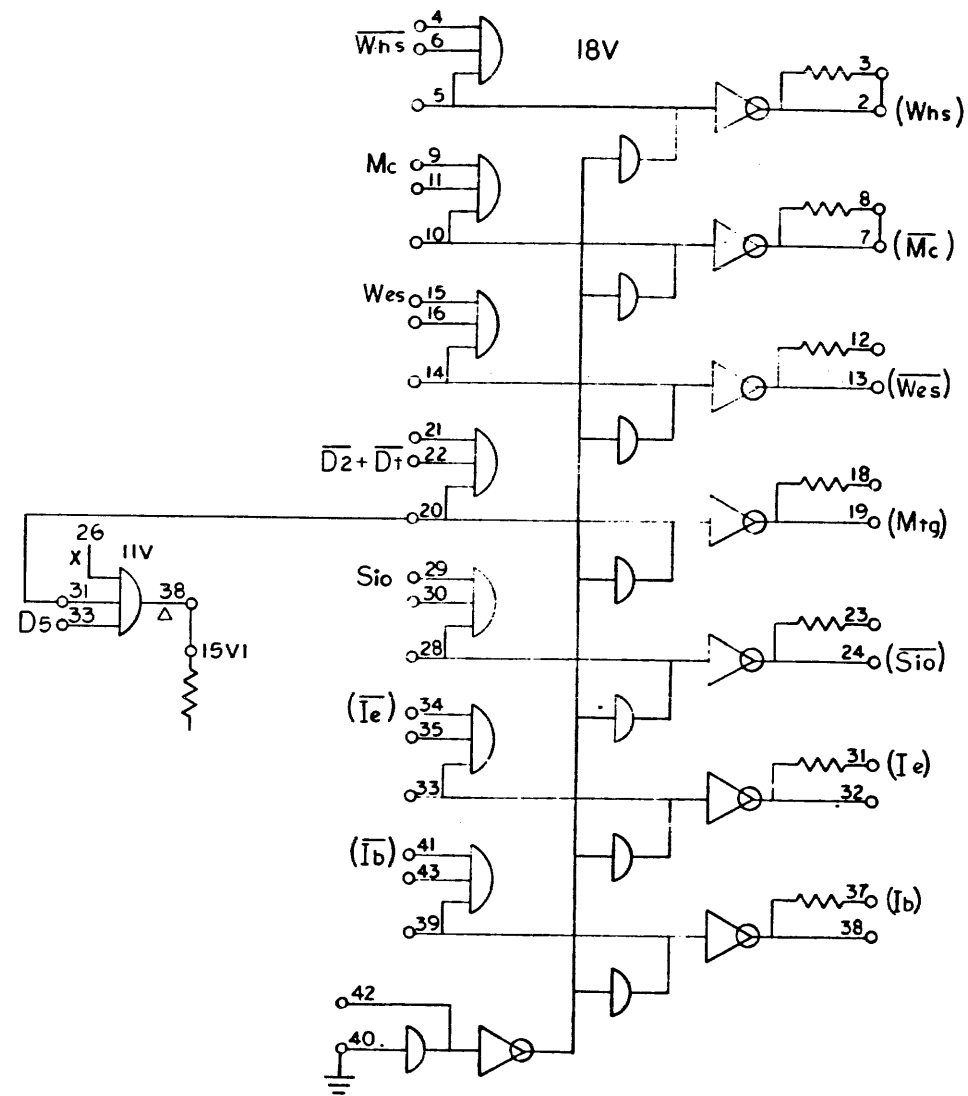


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92483,9248,92481,92482
TAPE CONTROL
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D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES XX ± .030 ANGULAR XXX ± .010 ± .015"		DRAWN: [Signature]	DATE: 7/10/63	SDS SCIENTIFIC DATA SYSTEMS <small>1542 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA</small> TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT
2. BREAK ALL SHARP EDGES AND APPROX		CHECK: [Signature]	DATE: 7/11/63	
3. HATCH SURFACES ✓		APPR: [Signature]	DATE: 7/11/63	
4. ALL DIM. IN INCHES				
MODEL NO.	9248	SIZE	DWG NO.	D
NEXT ASSY		SCALE	D	103257
			DO NOT SCALE DRAWING	SHEET

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REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.	CLB	7/18/63	
C	SEE REV. E.O.	FJH	7/18/63	
D	SEE REV E.O.	WAK	7/18/63	



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92483,9248,92481,92482
TAPE CONTROL
PAGE 36
D

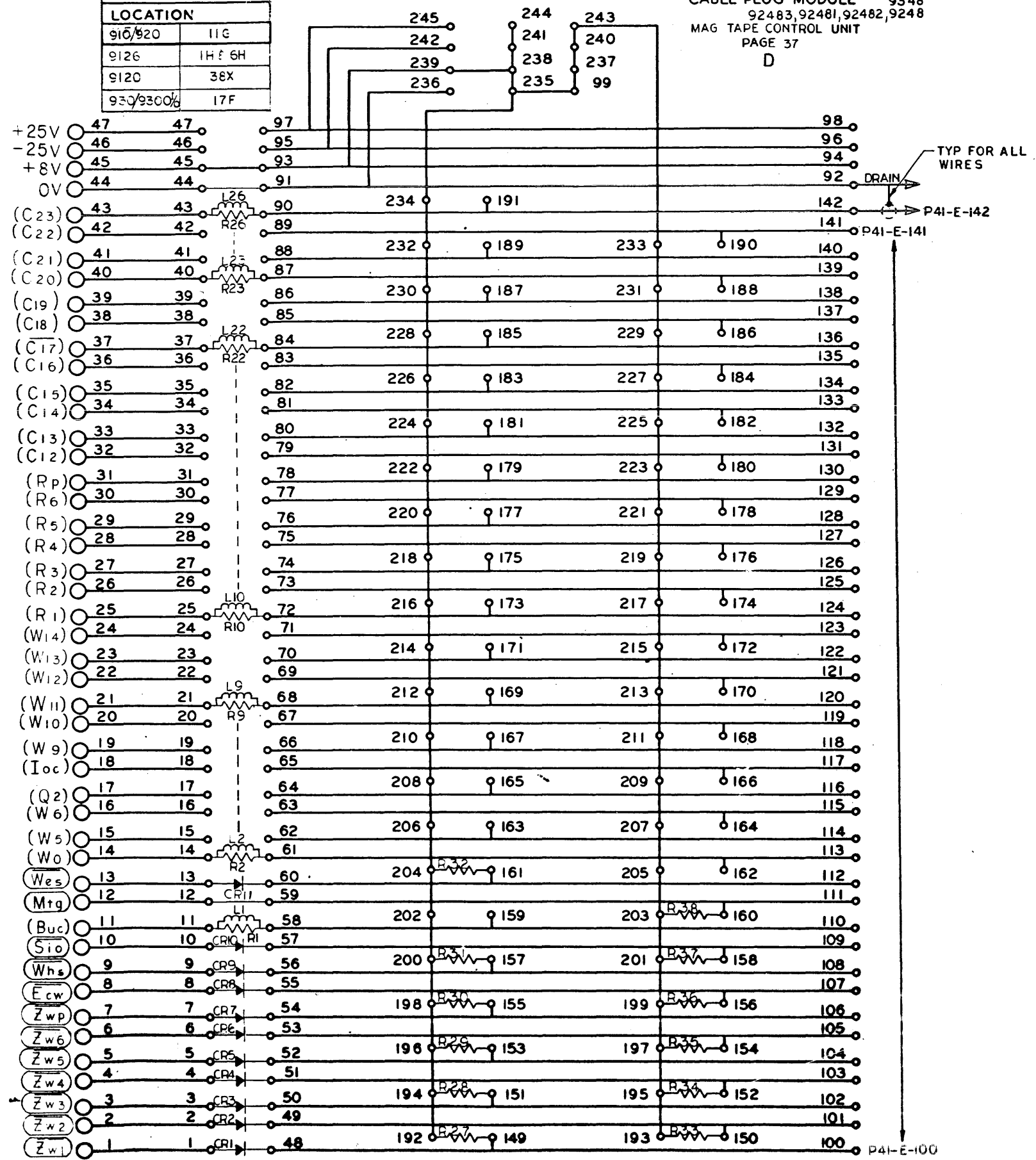
103257 101

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	DATE	
1. TOLERANCES XX ± .030 ANGULAR SEE 2.010 ± .15°		CHKD	7/18/63	
2. BREAK ALL SHARP EDGES .010 APPROX.		APPR.	7/18/63	
3. HATCH SURFACES ✓				
4. ALL DIM. IN INCHES				
		 1542 FIFTEENTH STREET SANTA MONICA CALIFORNIA		
		TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT		
MODEL NO. 9248		SIZE D	DWG NO. 103257	D
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING	SHEET

REVISIONS				103257
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.			
D	SEE REV E.O.			

DESIGNATION P40	
KEY 6-2E	
LOCATION	
910/920	11G
9126	1H & 6H
9120	38X
930/9300/6	17F

CABLE PLUG MODULE 9348
 92483, 92481, 92482, 9248
 MAG TAPE CONTROL UNIT
 PAGE 37
 D



NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN <i>Walt</i> 8/2/67	SDS SCIENTIFIC DATA SYSTEMS 1545 FIFTEENTH STREET SANTA MONICA, CALIFORNIA TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT	
1. TOLERANCES UNLESS SPECIFIED		CHECK <i>Walt</i> 7/17/67		
2. BREAK ALL SHARP EDGES .010 APPROX.		APPR. <i>Walt</i> 7/18/67		
3. BREAK ALL SHARP EDGES .010 APPROX.				
4. ALL DIM. IN INCHES				
MODEL NO. 9248		REV. NO. D	DWG. NO. 103257	ITEM NO. D
NEXT ASSY.		SCALE DO NOT SCALE DRAWING SHEET		

103257

REVISIONS				103257	7
REV	DESCRIPTION	CHKD	DATE	APPROVED	
A	REL. TO MFG.	ELB	8/8/63	[Signature]	
D	SEE REV E.O.	[Signature]	7/17/67	[Signature]	

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
	FH17	OX13	OX13	GC10	FH17	IC10	BH10	FH15	OX13	GC10	GC10	IC12	FH15	FH15	FH17	FC17	GC10	GC10	FH17	FH 7	IC10	GC10	GC10	GH11	IK52	
K									3																	K
	CX13	OX13	CX13	OX13	CX13	OX13	SK59	PC10	IC12	EH11	EC10	IH12	GC10	IH12	BC10	IC12	IC12	AX14	AX14	AX14	AX14	AX14	AX14	P43	P41	
V	2 1 1	2 1 3	1	1	4																					V

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92483,
92482,
92481,
9248
TAPE CONTROL
PAGE 39
D

1 NOT USED ON 92481. 2 NOT USED ON 9248. 3 OX14 IS USED FOR 92483 4 CK55 USED 9348,CK56 USED ON 92483.

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED		DRAWN	DATE	
1. TOLERANCES XX ± .000 ANGULAR XXX ± .000 2.5°		CHECKED	7/18/63	
2. BREAK ALL SHARP EDGES 3. HATCH SURFACES ✓		APPR	7/17/67	
4. ALL DIM. IN INCHES				
MODEL NO. 9248		TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT		
NEXT ASSY.		SIZE D	DWG NO. 103257	SHEET D
SCALE		DO NOT SCALE DRAWING SHEET		

103257 | D |

REVISIONS			
REV.	DESCRIPTION	CHK	DATE
A	REL TO MFG	9/12	1964
D	SEE REV E.O.	9/12	1964

MODULE LIST

ITEM	DESCRIPTION	MODEL	QTY				
			9248	92481	92482	92483	9348
1	CABLE DRIVER	AX14	6	6	6	6	6
2	AND/OR BUFFER AMP	BC10	3	3	3	3	3
3	AND/OR BUFFER AMP	BH10	1	1	1	1	1
4	OR GATE BUFFER AMP	BH11	1	1	1	1	1
5	CRYSTAL CLOCK GEN	CX13	1	-	2	2	2
6	COUNTER F.F.	FH15	3	3	3	3	3
7	UNIVERSAL F.F.	FH17	5	5	5	5	5
8	GATE EXPANDER	GH11	1	1	1	1	1
9	GATE EXPANDER	GC10	8	8	8	8	8
10	AND/OR INVERT.	IC10	2	2	2	2	2
11	AND INVERTER	IC12	4	4	4	4	4
12	AND INVERTER	IH12	2	2	2	2	2
13	ADDER MODULE	IK52	1	1	1	1	1
14	ONE SHOT MULT.	OX13	5	4	6	4	6
15	CLOCK & GAP DETECTOR	SK59	1	1	1	1	1
16	UNIVERSAL F.F.	FC17	1	1	1	1	1
17	ONE SHOT MULT.	OX14	-	-	-	2	-
18	CLOCK GEN	CK52	1	1	1	-	-
19	CLOCK GEN	CK55	-	-	-	-	1
20	CLOCK GEN	CK56	-	-	-	1	-

REPLACEMENT PARTS LIST

ITEM	DESCRIPTION	DESIGNATION	QTY	SUPPLIER CODE (SEE INDEX)
1	RESISTOR, 470Ω ± 2%	(P40)R27 THRU R38	12	16, 17
2	INDUCTOR, MOLDED 220μH ± 5%	(P40)L1 THRU L26 (P41)L1 THRU L14	40	42, 90, 91
3	DIODE, SILICON SWITCHING IN 914A	(P40)CR1 THRU CR11	11	4, 12, 13, 14
4	CONNECTOR, SOLDER TAIL AT CONTACT *700B-4T	J(1K) THRU J(25K) J(1V) THRU J(25V)	50	82

CABLE LENGTH

ITEM	DESCRIPTION	CABLE LENGTH				DESIGNATION	QTY	SUPPLIER CODE (SEE INDEX)
		11'	20'	30'	40'			
5	RESISTOR	390Ω ± 2%	330Ω ± 2%	270Ω ± 2%	220Ω ± 2%	(P40)R1 THRU R26 (P41)R1 THRU R14	40	16, 17

9348,
92483, 9248, 92481, 92482
MAG TAPE CONTROL UNIT
PAGE 40
D

103257 | D

NO. REV.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	7/16/64	
1. TOLERANCES UNLESS SPECIFIED		CHECK	7/16/64	
2. ANGULAR ± 1/2°		APPR.	7/16/64	
3. BREAK ALL SHARP EDGES 3/16 APPROX.				
4. HATCH SURFACES				
5. ALL DIM. IN INCHES				
MODEL NO. 9248			SIZE D	DWG. NO. 103257
NEXT ASSY.			SCALE	DO NOT SCALE DRAWING SHEET



DIAGRAM, LOGIC
MAG TAPE CONTROL UNIT

INTRODUCTION

This is an updating packet for all Ampex and Potter Magnetic Tape Systems shipped.

It is to be integrated into and used in conjunction with the following documents:

1. Logic Diagrams, Magnetic Tape Control unit SDS 103257 D
2. Logic Diagrams, Magnetic Tape Unit SDS 103258 D

These two documents have been supplied as BINDER II of the respective Magnetic Tape Technical Manuals.

The "E" revision pages and Addendum sheets supplied in this package reflect the configurations of all magnetic tape systems presently in the field.

History logic configurations can be determined by the Addendum pages with the corresponding schematics affected. These Addendum pages are for reference only and are not to be used for reworking. The respective Engineering Change Order numbers are referenced to the changes.

Subsequent updating packets will be supplied to be collated by the user.

REVISIONS				103257	E
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL TO MFG				
B	SEE REV. E.O.				
C	SEE REV. E.O.				
D	SEE REV. E.O.				
E	SEE REV. E.O.				

PAGE	CHG	PAGE	CHG	PAGE	CHG	PAGE	CHG	PAGE	CHG
1	E								
2	D								
3	D								
4	D								
5	E								
* 6	E								
** 7	E								
8	E								
9	E								
10	E								
11	E								
12	D								
13	E								
14	D								
15	D								
16	E								
17	D								
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24	D								
25	D								
26	D								
27	D								
28	D								
29	E								
30	D								
31	D								
32	E								
33	E								
34	E								
35	E								
36	E								
37	D								
38	D								
39	E								
40	E								

REFERENCE DESIGNATIONS
ARE ABBREVIATED.
PREFIX THE DESIGNATION
WITH UNIT NUMBER
OR ASSEMBLY DESIGNATION
OR BOTH. (MIL. STD. 168)

9348,
92483,9248,92481,92482
MAG TAPE CONTROL UNIT
PAGE 1
E

NOTES:
1. REV LETTERS LISTED INDICATE STATUS OF EACH SHEET OF THIS MULTIPLE SHEET DRAWING.
2. CHECK INDIVIDUAL SHEETS FOR REVISION LETTER AGAINST THIS SHEET BEFORE USING THIS DRAWING.

* NOT USED ON 92481.
** NOT USED ON 92481, 9248.

NO. 103257	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	103257 E
MATERIAL LIST				
NOTES UNLESS SPECIFIED				
1. UNLESS OTHERWISE SPECIFIED: A. DIMENSIONS ARE IN INCHES B. BREAK ALL SHARP EDGES C. HIDDEN SURFACES D. ALL DIM. TO CENTER				
DRAWN: <i>WKT</i> 7/11/62		CHECK: <i>WKT</i> 7/18/62	APPR: <i>WKT</i> 7/18/62	
SDS			SIGNATURE DATA SYSTEMS 1248 FIFTEENTH STREET SANTA MONICA, CALIFORNIA	
TITLE			DIAGRAM, LOGIC MAG TAPE CONTROL UNIT	
MODEL NO.	9248	REV.	D	DWG. NO. 103257 E
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING SHEET 1 OF 40	

103257 | E

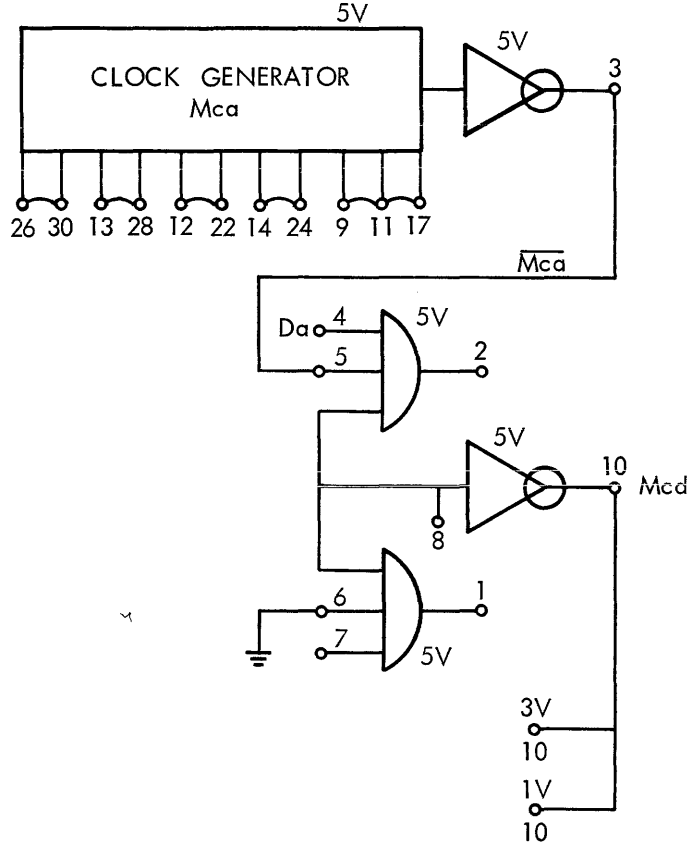
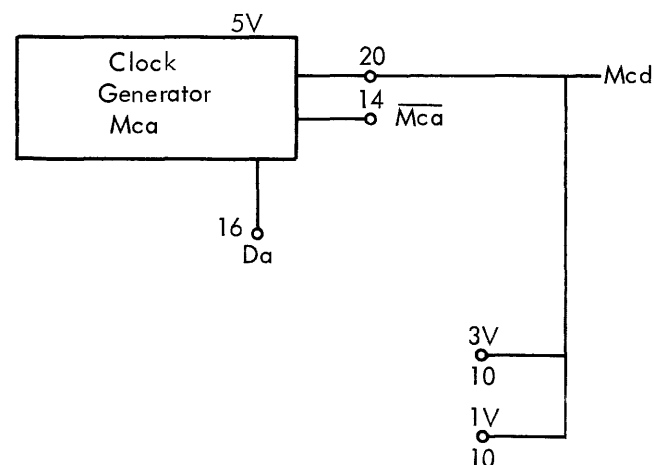
Signal	Logic Pages	Signal	Logic Pages	Signal	Logic Pages	Signal	Logic Pages	Signal	Logic Pages
Ae	27 22	(C17)	37 28, 38	→ W11 R2b	21 10	(Mrs)	32	R5	21
(Ae)	27	C17 C20	24 29, 30, 34, 35	(Ib)	36 38	M Start	29 8A, 13, 25, 28, 20, 32	(R5)	37 27, 38
Bor	27 9, 32	C17 C20	28 24, 30	(Ib)	36	M Start	25 8, 10, 11, 15, 16, 17, 28, 31	R5	27 19, 21
(Bor)	27	(C20)	37 28, 38	(Ie)	36 38	M Start Rb1	8 9	R6	21 15
Buc	37 29, 38	(C21)	37 35, 38	(Ie)	36	M Start Q2	30 10, 11, 12, 34	(R6)	37 27, 38
Cf	31 4, 5, 6, 7, 8, 10, 22	(C21)	35	Ig	28	(M Start Q2)	34	R6	27 19, 21
Cfba	5	(C22)	37 35, 38	(Ig)	35 38	Mtg	10 11, 38	[R1 R2]	19
Cfbb		(C22)	35	Ig	35	Mfg	10	R1a	26 4, 18, 29
Cfbc		(C23)	37 35, 38	[Ig]	31 28	(Mtg)	36 30, 37	(R1a)	26
Cfb	31	(C23)	35	Ioc	37 30	(Mw)	32	R2a	26 4, 18, 29
Cfra	5	Da	26 4, 5, 25	Mc	22 8, 9, 29, 36	M1	14 33	(R2a)	26
Cfrb	6	Da	25 5	(Mc)	36	M1	14 21	R3a	26 4, 18, 29
Cfrc	7	(Da)	26	Mca	4	(M1)	33	(R3a)	26
Cfr	8	Db	26 4, 6, 25	(Mca)	34	M2	14 33	R4a	26 4, 18, 29
Cfsa	5	Db	25 6	Mca	4 34	M2	14 21	(R4a)	26
Cfsb	6	(Db)	26	Mcb	4	(M2)	33	R5a	26 4, 18, 29
Cfsc	7	Dc	26	Mcb	4	M3	15 33	(R5a)	26
Cfs	28	DC	25 7	Mcc	4	M3	15 21	R6a	26 4, 18, 29
Cr	8 5, 29	(DC)	26	Mcc	4	(M3)	33	(R6a)	26
Cr W5 W6	5 6, 7	Ds	13 12	Mcd	4 22	M4	15 33	R1b	16 19, 32
Cr + Cs	8D	Ds	13 10, 16, 31	M Control	30 13, 16, 34	M4	15 21	R1b	16 19, 21
Cr + W9 W11 Mc	8 9	Dt	13 10, 11, 30, 31	M Control	34	(M4)	33	R2b	16 19, 21, 22, 32
Cr + Cf W9 W11	8 13	Df	13 11, 31	[Mcr]	29 28	M5	15 33	R2b	16 19, 21
Cri	22 28	D1	12 13, 22, 24, 32	Mcr	28 10	M5	15 21	R3b	17 19, 21
Cri + M Start	28 18	D1	25 8, 28, 31	Me	10 19, 22	(M5)	33	R3b	17
Cs	27 8A, 9, 18, 22	D1 D2 D3 Df	31 16, 21, 31, 32	Me	10 19, 22	M6	15 33	R4b	17 20, 21
Cs	28 9, 27	D1 D2 Ds Dt	31 11, 13, 29	Mf	10 11, 34	M6	15 21	R4b	17 19
C12	28 10, 34	D2	11 12, 13, 25, 30	Mf	10	(M6)	33	R5b	17 19, 21
(C12)	37 24, 34, 38	D2	25 12, 31	(Mf)	34	Q2	31 11, 13, 30	R5b	17
C12	24 10, 12, 28, 29	D2 + Df	30 36	Mf Mr	11 12, 27, 31	(Q2)	37 31	R6b	17 20, 21
(C12)	34	D3	11 13, 25	Mf + Mr	27 11, 31	R1	21 19	R6b	17 19
C12 C13 C15 C16	29 13, 16, 30	D3	25 31	Mgi	13 31	(R1)	37 27, 38	[R1b R2b]	19
(C13)	37 29, 35, 38	D4	11 25	Mgi	13	R1	27 19, 21	[R2b R1b]	19
(C13)	35	D4	25 11, 31	Mi	30 14, 15	R2	21 14, 19	R1m	18 14, 16, 23
C14	28 10, 16, 30, 34	D5	12 13, 31, 36	Mpc	21 22	(R2)	37 27, 38	R1m	18 16, 21, 23
(C14)	37 24, 38	D5	30A	Mp	14 33	R2	27 14, 19, 21	R1m*	23
C14	24 10, 13, 28, 30	D6	12 22, 31	Mp	14 21	R3	21	R2m	18 14, 16, 23
(C14)	34	(Ecm)	32 38	(Mp)	33	(R3)	37 27, 38	R2m	18 14, 16, 23
(C15)	37 29, 35, 38	(Ecm)	37	Mr	10 11, 12, 29, 32, 34	R3	27 19, 21	R3m	18 15, 17, 23
(C15)	35	Fb	4 9, 13	Mr	10	R4	21 15	R3m	18 17, 21, 23
(C16)	37 29, 35, 38	Gap	4 21	(Mr)	34	(R4)	37 27, 38	R4m	18 15, 17, 23
(C16)	35	Gap + W9 W10		(Mr)	32	R4	27 15, 19, 21	R4m	18 17, 21, 23

SIGNAL DIRECTORY (Continued)

Signal	Logic Pages	Signal	Logic Pages	Signal	Logic Pages	Signal	Logic Pages	Signal	Logic Pages
R5m	18 15, 17, 23	Rbt	9	[Rpw]	19, 20	[W0 W9 W11 DT →		W9 W11	32 24, 33
R5m	18 17, 21, 23	Rbt	9 31	Rpw	14, 28	D2 Ds Df]	31 29	W9 W11 Me	19
R6m	18 15, 17, 23	Rdm	18 22	(Rpw)	20 38	W0 W5 W6 W9 W11	11 16	W9 W11 Me	19
R6m	18 17, 21, 23	Rdm	18 22	Rse	9 22	W0 W5 W6 W9 W11	11	W9 W11 Me	19
R1w	24 14	Rfb	13	Rse	9	W5	28 11	(W9 W11)	32
(R1w)	24	Rfb	13 4, 5, 6, 7, 29	Rsk	29	(W5)	37 28, 38	W9 W11 Me	19
[R1w]	19, 20	Rfd	9 8, 22, 29	RtM	30	W5	28 5, 8, 9, 14, 29, 30, 32	W10	25 21, 32
R1w	14	Rfd	9	Rtm	14 29, 30	W5	28	(W10)	37 24, 38
(R1w)	20 38	Rfm	21 14	Rtm	14	(W5 W9 W11 Rcd +		W10	24 10, 25, 30
(R2w)	20 38	Ri	29 16, 17, 22	Rwe	20	W9 W11 Mc Rfd)	8 9	W11	24 29, 31
R3w	26 15	Rpa	26 4, 18, 29	Sio	28 36	W5	25 5, 9, 30	(W11)	37 24, 38
[R3w]	19, 20	(Rpa)	26	(Sio)	36 37, 38	(W6)	37 24, 38	W11	24 20, 25, 28, 32
R3w	15	Rp	21 19	[Sio]	30 28	W6	24 11, 25, 32	W11 D1 D2 D3 →	
(R3w)	20 26, 38	(Rp)	37 27, 38	(Siot)	26	W9	25 29	→ Df Rbt + D5	31 13, 18
(R4w)	20 38	Rp	27 19, 21	Siot	26 30	(W9)	37 24	[W11 M Start]	29
R5w	28 15	[Rp R2]	19	Wes	22 36	W9	24 10, 25, 29	W11 M Start	28 13
[R5w]	19, 20	[Rp R2]	19	(Wes)	36 37, 38	W9 W11	29 4, 5, 6, 7, 8, 14, 19, 29, 30	Xp, Xp, Yp, Yp	23 23
R5w	15, 28	Rpb	16 19, 22, 32	(Whs)	36 32	W9 W11*	24 14, 15, 19, 22	Zp	23 22
(R5w)	20 38	Rpb	16 19, 21, 29	[Whs]	27	W9 W11**	24 8, 9, 11, 13, 16, 21, 29, 32	Zp	22
(R6w)	20 38	[Rpb R2b]	19	Whs	27 8, 28, 31, 36	W9 W11	29 6, 7, 8, 31	(W12), (W13),	
Rbi	16 8A, 28	[Rpb R2b]	19	(Whs)	32	W9 W11*	29 14, 15, 16, 19	(W14)	37
Rbi	16 8	Rpb	21 22	W0	25 11, 28, 31	W9 W11*	25 9, 11, 13, 16, 22, 32	(Zw1) thru (Zw6)	37
Rcd	9 8, 14, 16, 22, 29, 30, 31	Rpm	18 16, 23	(W0)	37 24, 28	W9 W11**		(Zwp)	37
Rcd	9 29	Rpm	18 16, 21, 23	W0	24 13, 25				
		Rpw	28 14, 20	W0 Rbi	28 32				

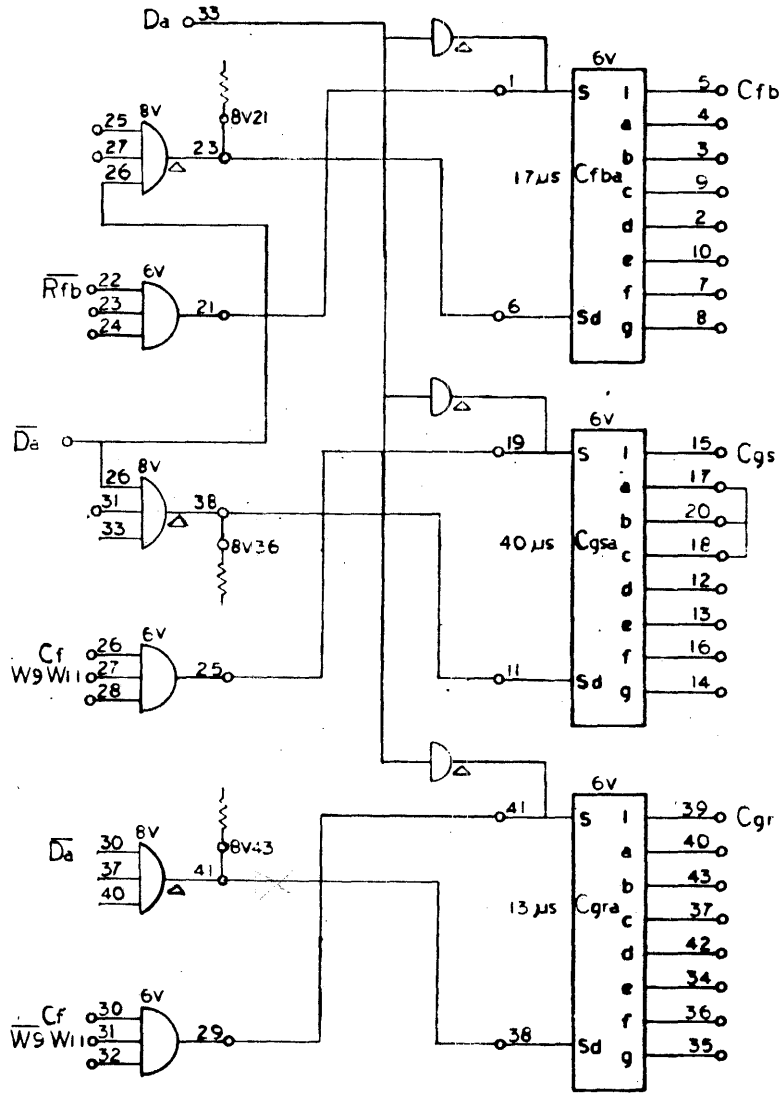
First logic page listed is signal source

Change	Reason
<p data-bbox="541 281 645 310"><u>103257A</u></p> <p data-bbox="269 378 948 436">Remove Resistor R1 (47 K Ω) from location 9K from Pin 40 to Pin 47.</p> <p data-bbox="269 470 778 499">Add wire from Pin 40 to Pin 43 location 9K.</p> <p data-bbox="269 533 530 562">Refer to Logic page 22</p> <p data-bbox="269 588 695 617">OX14 Module used for 92483 models</p>	<p data-bbox="1202 281 1344 310"><u>EO 103140C</u></p> <p data-bbox="1202 331 1344 361"><u>EO 103403J</u></p> <p data-bbox="1095 378 1460 562">800 BPI Operation Cri Timing Change. 200 KΩ Resistor in OX13 is used instead of 47 KΩ external. See page 22 Addendum for One Shot Timing Adjustment change.</p>
<p data-bbox="550 651 645 680"><u>103257E</u></p> <p data-bbox="277 760 905 819">Added resistor 220 Ω 1/2 watt part #100111-221 from Pin 10V26 to 10V44 on back of chassis.</p>	<p data-bbox="1210 651 1352 680"><u>EO 103140D</u></p> <p data-bbox="1210 701 1352 730"><u>EO 107512B</u></p> <p data-bbox="1095 760 1422 852">Resistor added for Digital to stair case test point. See page 29E for logic change.</p>

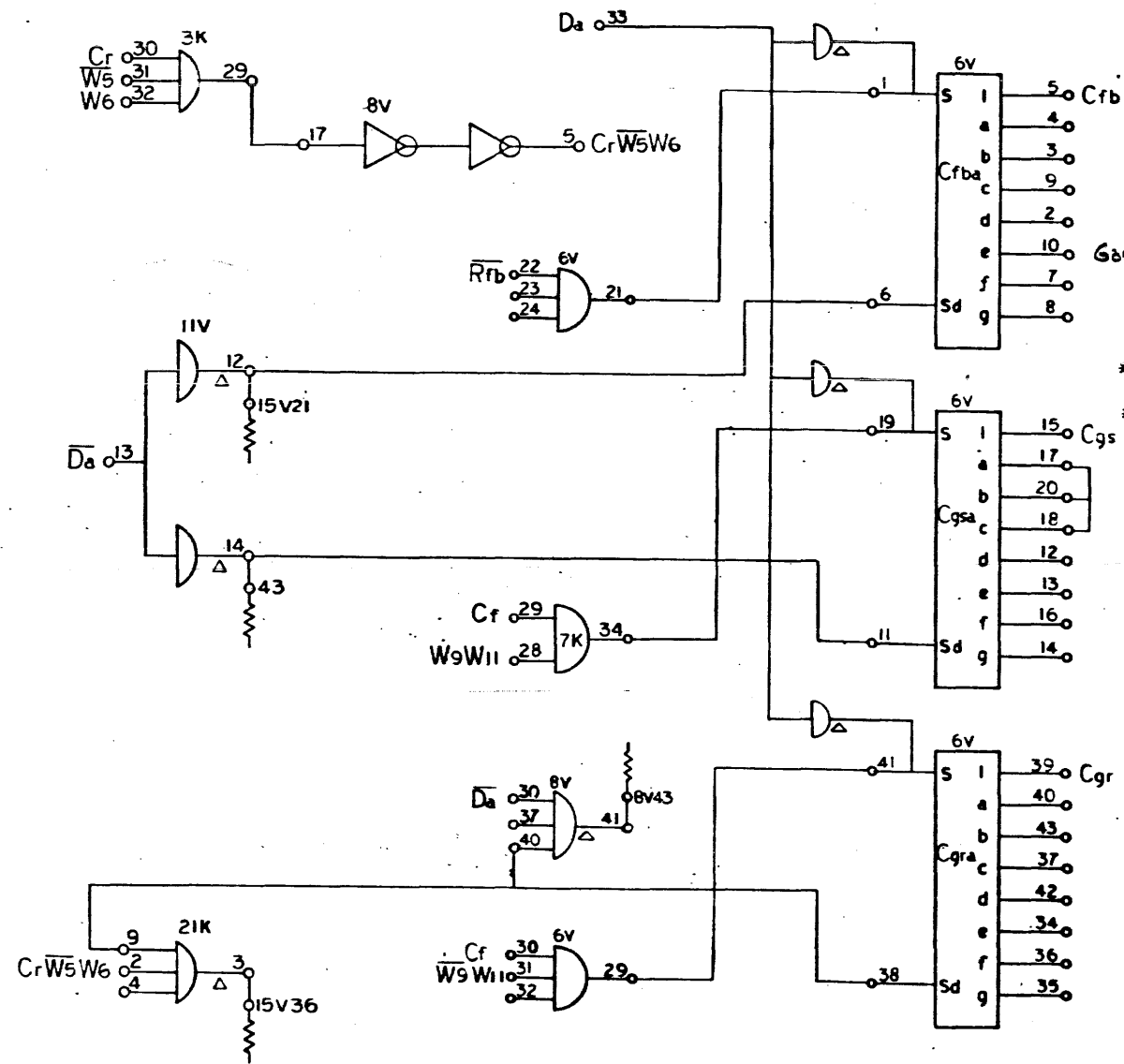
Change	Reason
<p style="text-align: center;"><u>103257A</u> 5V is CX13</p>  <p style="text-align: center;"><u>103257B</u> 5V is CK52</p> 	<p style="text-align: center;"><u>EO 103403B</u></p> <p style="text-align: center;"><u>EO 103514B</u></p> <p>CX13 Clock Generator is not stable at 15KC. CX13 in location 5V was changed to a CK52.</p> <p>9248 S/N 101 is only unit built with CX13.</p>

Change	Reason
<p>Major logic change from A to C logic revision level. Change D adds timing chart.</p> <p>See Page 5 A and D revision.</p>	<p><u>EO 103403F</u></p> <p>In earlier systems, characters were lost when reading high density (556 Bpi) tapes without Interlace. That is reading the remaining characters in a long block when the interlace count had reached "0".</p> <p>Cr and $\overline{W5}$ W6 Q2 were setting and resetting Rcd at the same time.</p>
<p>Relocation of Cf W9 W11 Gate on D Revision to E Revision. Location 6V to 7K.</p> <p>Also added new timing adjustment chart on the E revision logic level.</p>	<p><u>EO 103403S</u> (for 92483) <u>EO 107514H</u></p> <p>To insure compatibility between tape units at 800 Bpi operation. Change tightens the allowable write character skew.</p>

OX-11



REVISIONS		103257	E
REV	DESCRIPTION	DATE	APPROVED
A	REL TO NFG		
C	SEE REV. E.O.		
D	SEE REV EQ.		
E	SEE REV EO		



SIGNAL	12KC	15KC	24KC	33.3KC	41.7KC	66.7KC	48KC	60KC	96KC	
CHARACTER TIME	83.2us	67us	41.6us	30us	24us	15us	20.8us	16.7us	10.4us	
GAP DETECTOR	185us	150us	95us	67us	54us	34us	46us	37us	23us	7V14
DENSITY SPEED	200/60	200/75	200/120	556/60	556/75	556/120	800/60	800/75	800/120	
Cfb	20us	17us	11us	8us	6us	4us	5us	4us	2us	2V5 800 2V5 500 2V5 200
* Cfb } SUM	60us	51us	32us	23us	18us	11us	15us	12us	8us	2V5 800 2V5 500 2V5 200
* Cgs } SUM	40us	34us	22us	16us	12us	8us	10us	8us	5us	2V5 800 2V5 500 2V5 200
D5	425us	350us	250us	425us	350us	250us	425us	350us	250us	2K15
D1	6ms	4.7ms	3.8ms	6ms	4.7ms	3.8ms	6ms	4.7ms	3.8ms	2K5
D2	1.6ms	1.6ms	1.0ms	1.6ms	1.6ms	1.0ms	1.6ms	1.6ms	1.0ms	3K15
D3	20ms	20ms	8ms	20ms	20ms	8ms	20ms	20ms	8ms	3K39
Cr1	0.5us								0.5us	9K39
D4	14ms								14ms	3K5
D6	10us								10us	2K39

* TIMES GIVEN FOR Cgs & Cgr ARE TIMED TO FALL OF Cgs OR Cgr FROM RISE OF Cfb.

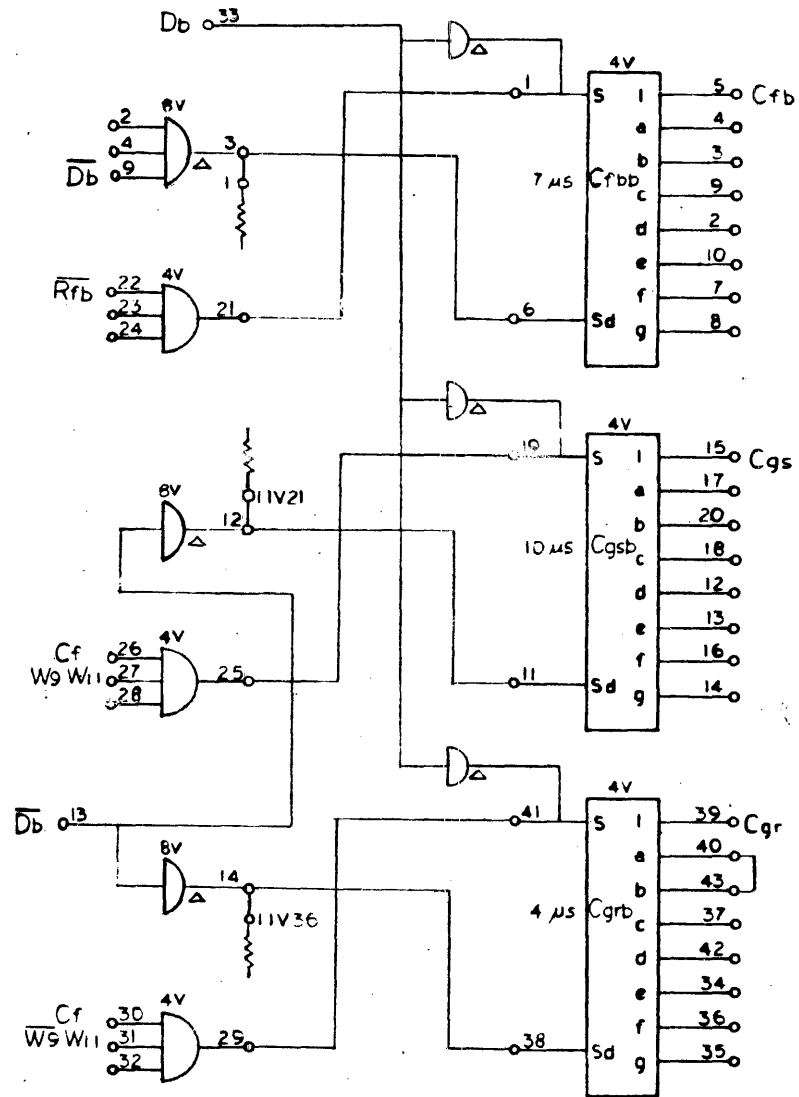
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TAPE CONTROL
PAGE 5
E

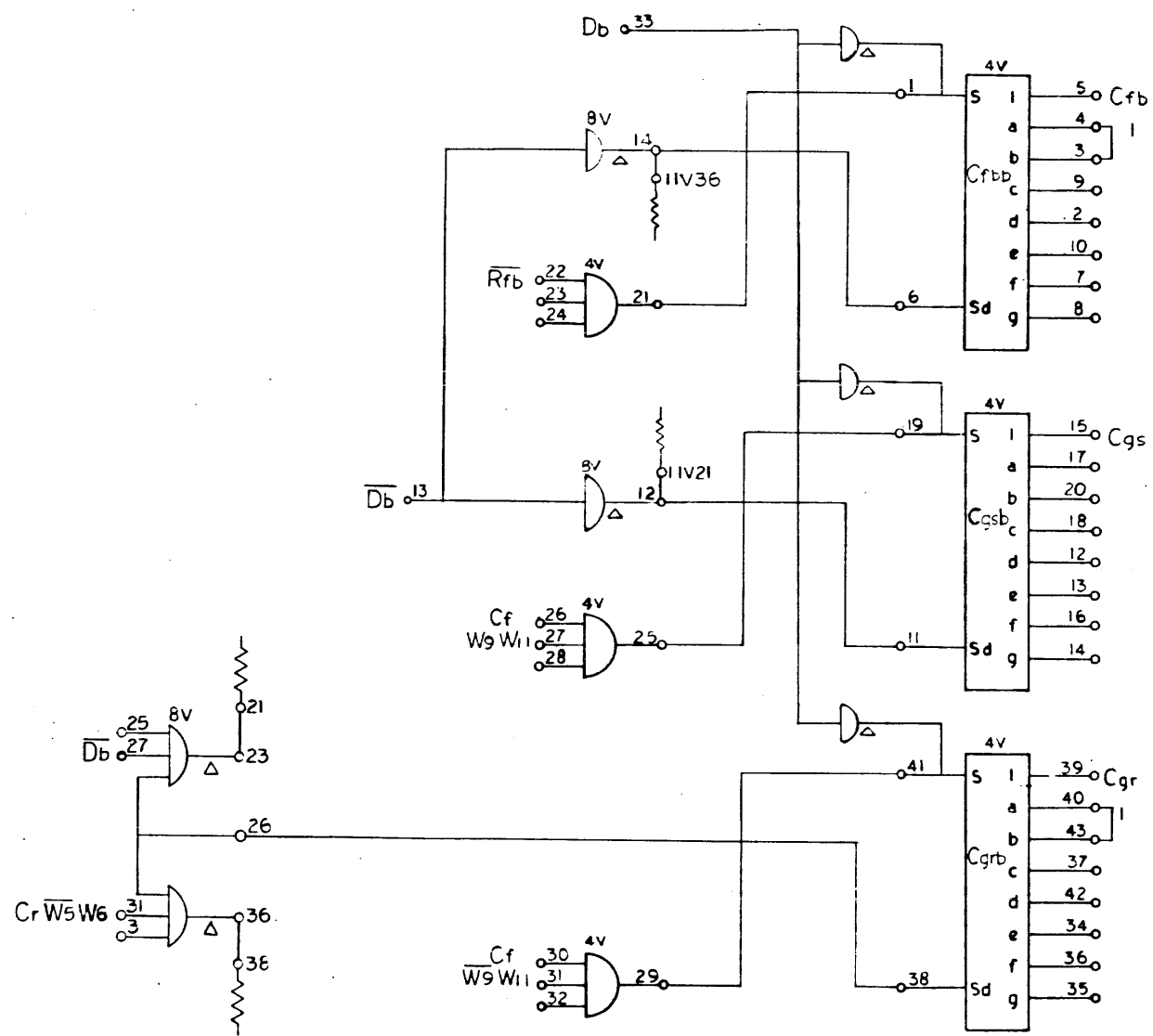
NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES UNLESS SPECIFIED		DRAWN: [Signature]		
2. DIMENSIONS SHOWN UNLESS SPECIFIED		CHECK: [Signature]		
3. HATCH SURFACES		APPR: [Signature]		
4. ALL DIM IN INCHES		DATE: 7/10/63		
MODEL NO. 9248		TITLE: DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT		
NEXT ASSY.		REV. NO. D, DWG. NO. 103257, SHEET E		
SCALE		DO NOT SCALE DRAWING, SHEET 5 OF 10		

103257 E

Change	Reason
<p>Major logic change from A to C logic revision. Change D adds timing chart.</p> <p>See Page 5 A & D revision.</p> <p>Added jumper between 4V4 and 4V3 on D revision to E revision.</p> <p>Deleted jumper between 4V40 and 4V43 on D revision to E revision.</p> <p>Also added new timing adjustment chart on the E revision logic level.</p>	<p><u>EO 103403F</u></p> <p>See Page 5 addendum sheet Item 1 for reason.</p> <p><u>EO 107514H</u> for 92483 only allows adjustment of Cfbb to new range.</p> <p>EO 103403S for all but 92483 allows adjustment of Cgrb to new range.</p> <p>EO 103403S EO 107514H (92483 only).</p> <p>See Page 5 addendum sheet Item 2 for reason.</p>

CX-II





SIGNAL	12KC	15KC	24KC	33.3KC	41.7KC	66.7KC	48KC	60KC	96KC	
CHARACTER TIME	63.2us	67us	41.6us	30us	24us	15us	20.8us	16.7us	10.4us	
GAP DETECTOR	185us	150us	95us	67us	54us	34us	46us	37us	23us	7V14
DENSITY SPEED	200/60	200/75	200/120	556/60	556/75	556/120	800/60	800/75	800/120	
Cfb	20us	17us	11us	8us	6us	4us	5us	4us	2us	2V5 800 2V5 555 6V5 200
* Cfb + Cgs SUM	60us	51us	32us	23us	18us	11us	15us	12us	8us	2V5 800 2V5 555 6V5 200
* Cfb + Cgr SUM	40us	34us	22us	16us	12us	8us	10us	8us	5us	2V5 800 2V5 555 6V5 200
D5	425us	350us	250us	425us	350us	250us	425us	350us	250us	2K15
D1	6ms	4.7ms	3.8ms	6ms	4.7ms	3.8ms	6ms	4.7ms	3.8ms	2K5
D2	1.6ms	1.6ms	1.0ms	1.6ms	1.6ms	1.0ms	1.6ms	1.6ms	1.0ms	3K15
D3	20ms	20ms	8ms	20ms	20ms	8ms	20ms	20ms	8ms	3K39
Cr1	0.5us								0.5us	9K39
D4	14ms								14ms	3K5
D6	10us								10us	2K39

* TIMES GIVEN FOR Cgs & Cgr ARE TIMED TO FALL OF Cgs OR Cgr FROM RISE OF Cfb

92483 ONLY

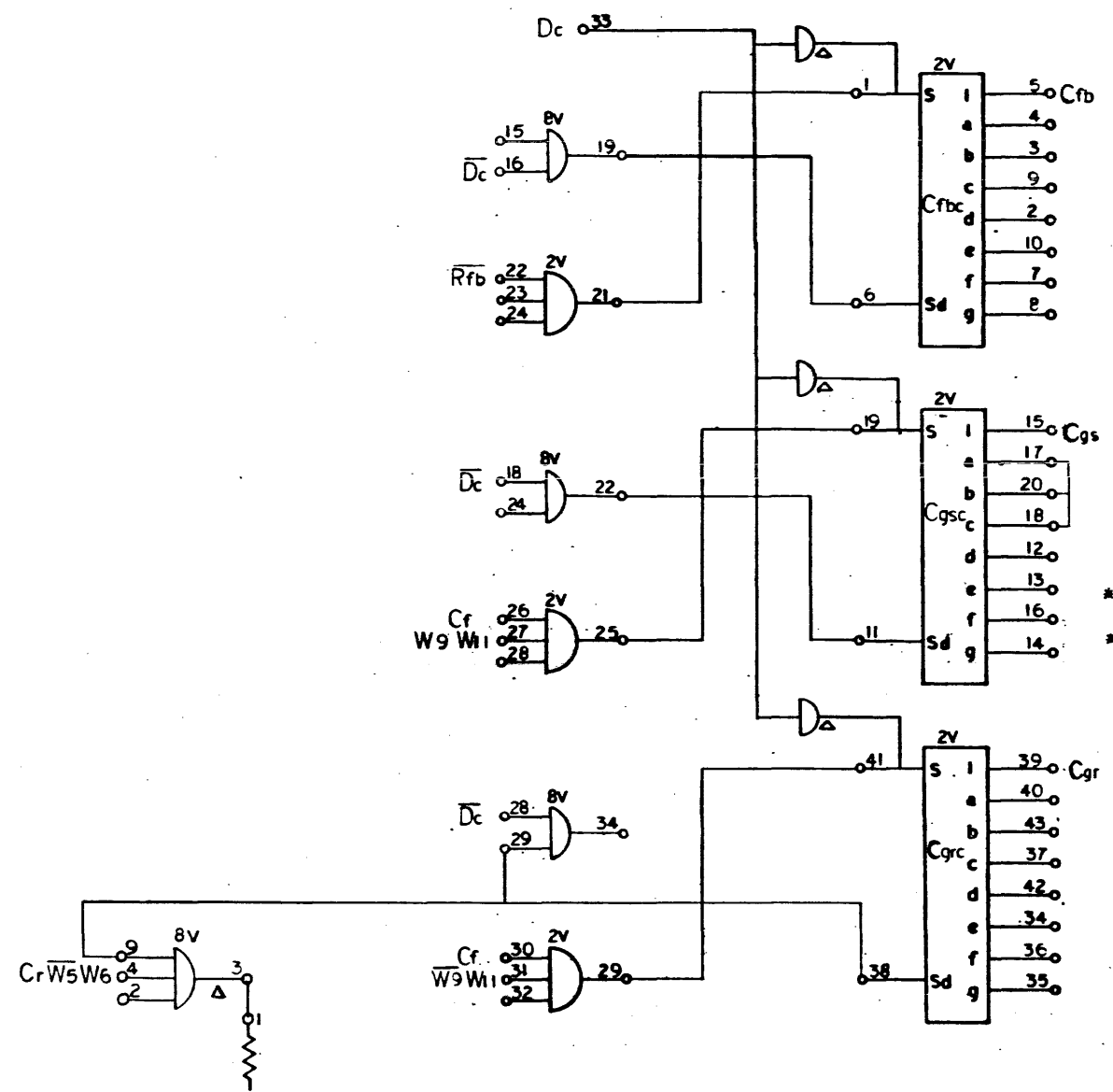
9348, 9248, 92482, 92483
TAPE CONTROL
PAGE 6
E

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES XX ± 0.30 XXX ± 0.10	ANGULAR ± 0.1	CHECK		
2. BREAK ALL SHARP EDGES 0.125 MIN		APPR		
3. HATCH SURFACES				
4. ALL DIM IN INCHES				
MODEL NO. 9248		SIZE D		DWG NO. 103257
NEXT ASSY		SCALE		SHEET

SDS SCIENTIFIC DATA SYSTEMS
1425 FIFTEENTH STREET SANTA MONICA, CALIFORNIA
DIAGRAM, LOGIC,
MAG TAPE CONTROL UNIT

103257 E1

REVISIONS				103257	E
REV	DESCRIPTION	DATE	APPROVED		
A	REL TO MFG.				
C	SEE REV. E.O.				
D	SEE REV E.O.				
E	SEE REV E.O.				



SIGNAL	12KC	15KC	24KC	33.3KC	41.7KC	66.7KC	48KC	60KC	96KC	
CHARACTER TIME	63.2us	67us	41.6us	30us	24us	15us	20.8us	16.7us	10.4us	
GAP DETECTOR	185us	150us	95us	67us	54us	34us	46us	37us	23us	7V14
DENSITY SPEED	200/60	200/75	200/120	556/60	556/75	556/120	800/60	800/75	800/120	
Cfb	20us	17us	11us	8us	6us	4us	5us	4us	2us	2V3 800
* Cfb } SUM	60us	51us	32us	23us	18us	11us	15us	12us	8us	2V3 800
* Cgs } SUM	40us	34us	22us	16us	12us	8us	10us	8us	5us	2V3 800
* Cgr } SUM	40us	34us	22us	16us	12us	8us	10us	8us	5us	2V3 800
D5	425us	350us	250us	425us	350us	250us	425us	350us	250us	2K15
D1	6ms	4.7ms	3.8ms	6ms	4.7ms	3.8ms	6ms	4.7ms	3.8ms	2K5
D2	1.6ms	1.6ms	1.0ms	1.6ms	1.6ms	1.0ms	1.6ms	1.6ms	1.0ms	3K15
D3	20ms	20ms	8ms	20ms	20ms	8ms	20ms	20ms	8ms	3K39
Cri	0.5us								0.5us	9K39
D4	14ms								14ms	3K5
D6	10us								10us	2K39

* TIMES GIVEN FOR Cgs & Cgr ARE TIMED TO FALL OF Cgs OR Cgr FROM RISE OF Cfb

9348,
92482,92483
TAPE CONTROL
PAGE 7
E

NO. REV.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED				
1. TOLERANCES UNLESS SPECIFIED				
2. DIMENSIONS UNLESS SPECIFIED				
3. HOLE SURFACES UNLESS SPECIFIED				
4. ALL DIMENSIONS UNLESS SPECIFIED				
DRAWN: <i>[Signature]</i>		CHECK: <i>[Signature]</i>		
APPR: <i>[Signature]</i>		DATE: <i>[Date]</i>		
SDS SCIENTIFIC DATA SYSTEMS 1542 FIFTEENTH STREET SANTA MONICA CALIFORNIA				
DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT				
MODEL NO. 9248		SIZE D		DWG NO. 103257
NEXT ASSY.		SCALE		SHEET 7 of 1

103257 E

REVISIONS			
REV	DESCRIPTION	CHK	DATE
A	REL TO MFG		
C	SEE REV. E.O.		
D	SEE REV E.O.		
E	SEE REV EO		

Addendum

Reason

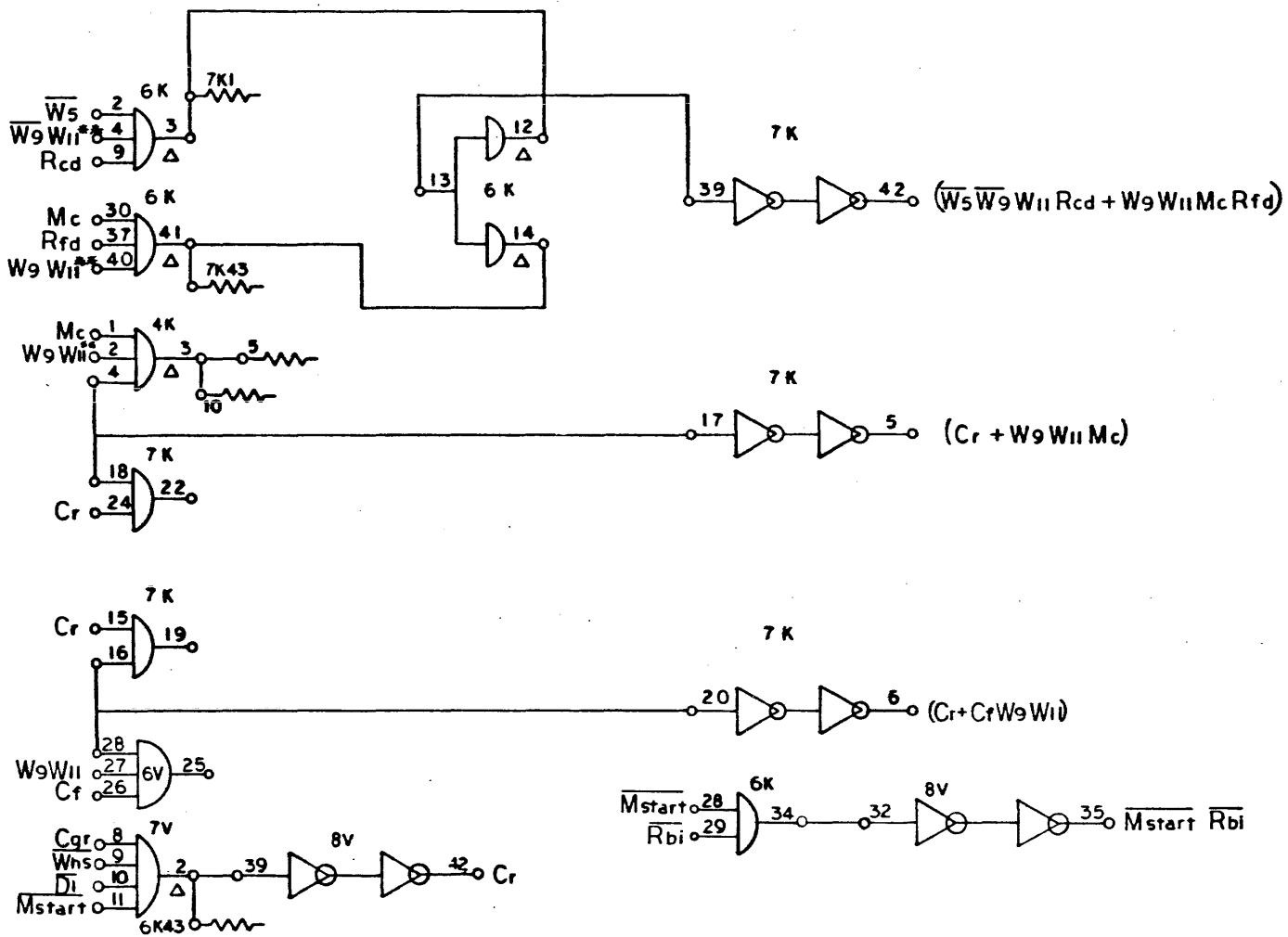
EO 103403F

page 5 Addendum Sheet
m 1 for reason.

EO 103403S

EO 107514H

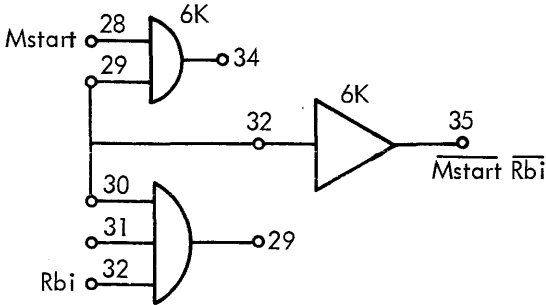
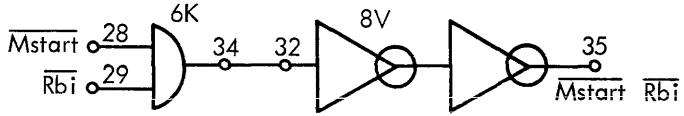
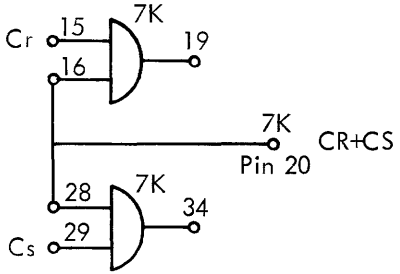
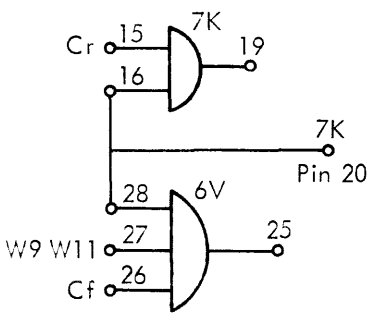
page 5 Addendum Sheet
m 2 for reason



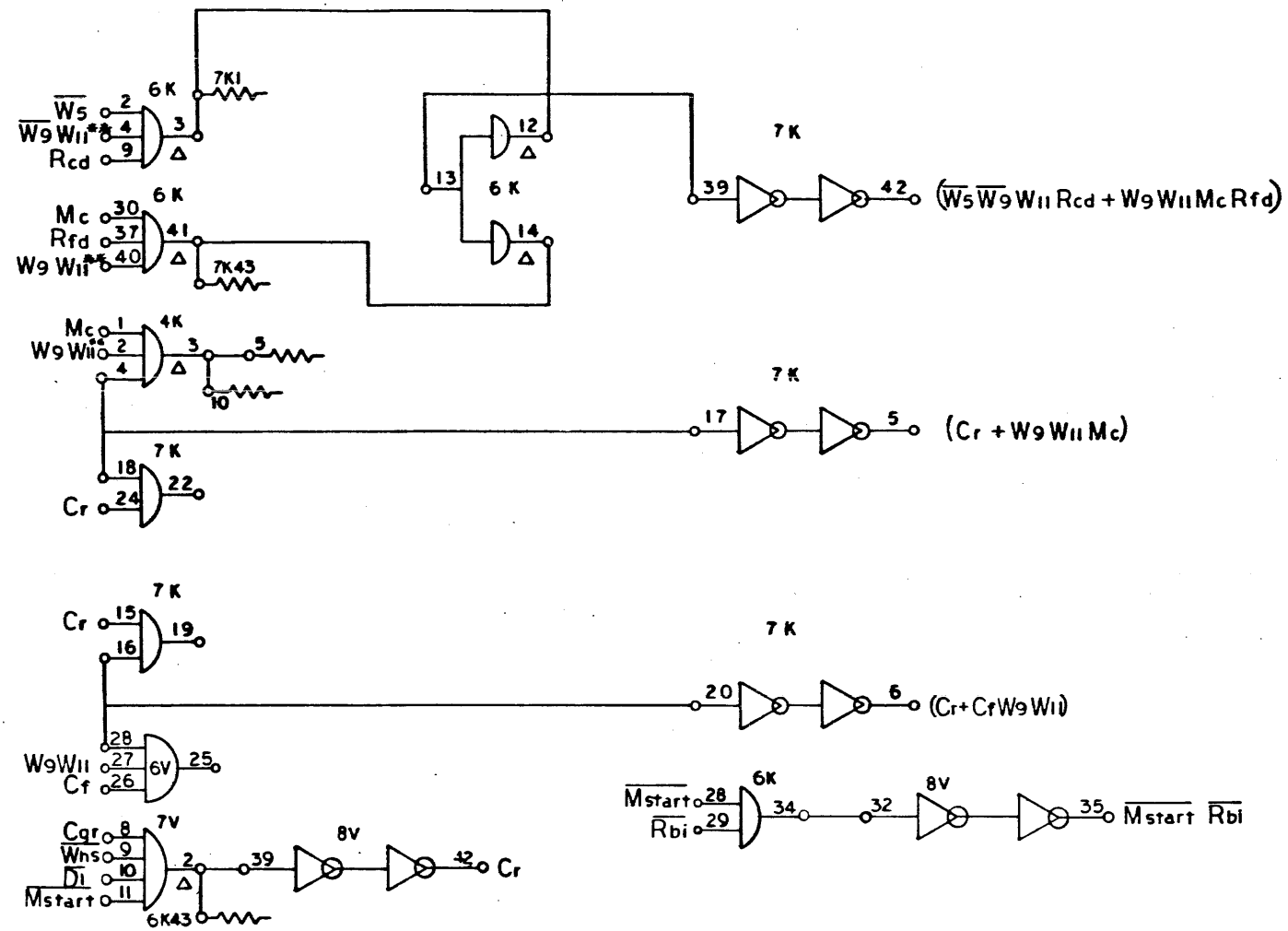
9348,
92483,9248,92481,92482
TAPE CONTROL
PAGE 8
E

103257 E1

NO. REV.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED				
1. TELEPHONE				
2. 1.000 ANGULAR				
3. 2.000 2.500 3.500				
4. BREAK ALL SHARP EDGES				
5. 2ND APPROX				
6. EACH SURFACE ✓				
7. ALL DIM IN INCHES				
MODEL NO.		TITLE		
9248		DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT		
NEXT ASSY.		SIZE	DWG NO.	
		D	103257	E
		SCALE	DO NOT SCALE DRAWING	SHEET 8 OF 40

Change	Reason
<p style="text-align: center;"><u>103257A</u></p>  <p style="text-align: center;"><u>103257C</u></p> 	<p style="text-align: center;"><u>EO 103403F</u></p> <p>See page 5 Addendum Sheet Item 1 for reason.</p>
<p style="text-align: center;"><u>103257C</u></p>  <p style="text-align: center;"><u>103257E</u></p> 	<p style="text-align: center;"><u>EO 103403S</u></p> <p style="text-align: center;"><u>EO 107514H</u></p> <p>See page 5 Addendum Sheet Item 2 for reason</p>

REVISIONS				103257	E
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL TO MFG				
C	SEE REV. E.O.				
D	SEE REV E.O.				
E	SEE REV EO				



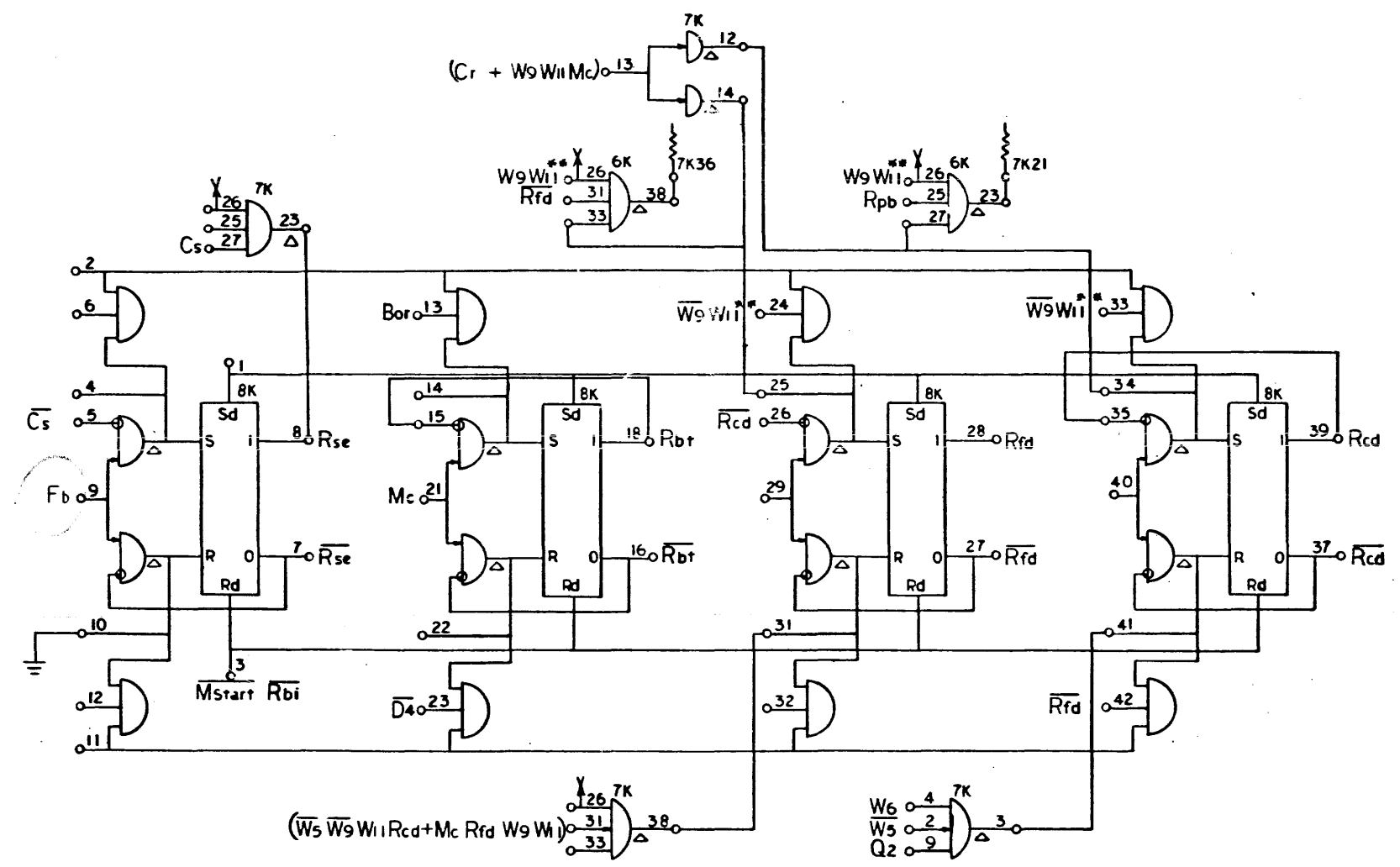
9348,
92483,9248,92481,92482
TAPE CONTROL
PAGE 8
E

103257 | E

NO. REV.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TELEGRAPHIC				
2. 1.000 ANGULAR				
3. 2.000 2.50				
4. SPECIFY ALL SHARP EDGES				
5. 0.10 APPROX				
6. BACK SURFACES				
7. ALL DIM. IN INCHES				
MATERIAL LIST				
DRAWN		CHECK		DATE
APPR.		DATE		DATE
SDS SCIENTIFIC DATA SYSTEMS				
1542 FIFTEENTH STREET SANTA MONICA CALIFORNIA				
TITLE				
DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT				
MODEL NO.		SIZE		DWS NO.
9248		D		103257
NEXT ASSY.		SCALE		SHEET
		DO NOT SCALE DRAWING		3 OF 40

Change	Reason
<p>No logic changes made from A revision thru D revision.</p> <p>From D revision to E revision changed clock input signal to Rse flip-flop from Rsk to Fb.</p>	<p>EO 103403S EO 107514H (92483 only).</p> <p>See Page 5 addendum sheet Item 2 for reason.</p>

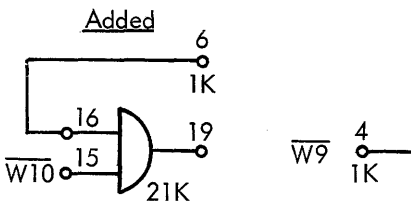
REV	DESCRIPTION	DATE	BY	CHKD	APPROVED
A	REL TO MFG.				
D	SEE REV E.O.				
E	SEE REV E.O.				



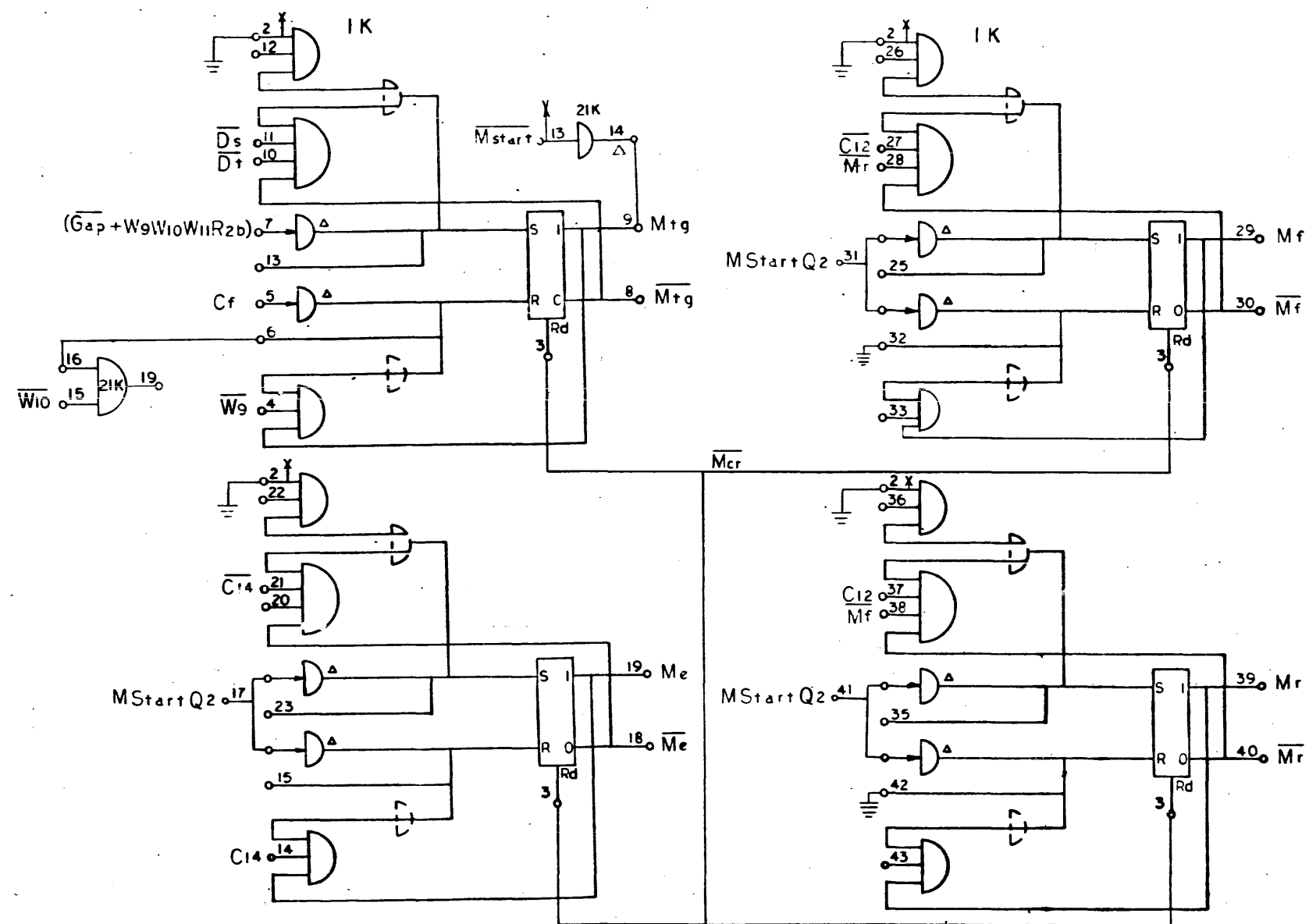
9348,
92483,9248 92481,92482
TAPE CONTROL
PAGE 9
E

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN: <i>W. A. ...</i>	 1642 FIFTEENTH STREET SANTA MONICA CALIFORNIA	
1. TOLERANCES DIM 2.000 ANGOULAR DIM 2.000 2 1/2°		CHECK: <i>S. J. B.</i> <i>7/18/63</i>		
2. BREAK ALL SHARP EDGES 3/16 APPROX		APPR: <i>S. J. B.</i> <i>7/18/63</i>		
3. MACH. SURFACES ✓ 4. ALL DIM. IN INCHES				
MODEL NO. 9248			SIZE D	DWG NO. 103257
NEXT ASSY.			SCALE	SHEET E

103257 | E

Change	Reason
<p>No logic changes made from A thru D revision.</p> <p>On E revision added $\overline{W10}$ or $\overline{W9}$ input to reset Mtg flip-flop.</p>  <p>The diagram shows an AND gate with two inputs: pin 15 (labeled $\overline{W10}$) and pin 16. The output is pin 19. A 21K resistor is connected between pin 16 and pin 19. Pin 6 is connected to pin 19 through a 1K resistor. To the right, pin 4 (labeled $\overline{W9}$) is shown with a 1K resistor connected to it.</p>	<p><u>EO 103403M</u> <u>EO 107514D</u> (92483 only).</p> <p>To correct logic timing error in erase reverse operation.</p>

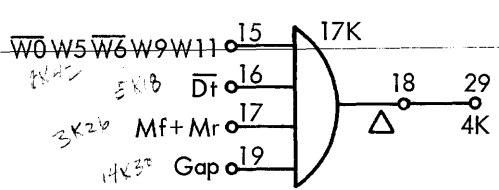
REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG		
D	SEE REV E.O.		
E	SEE REV E.O.		



9348,
92483,9248,92481,92482
TAPE CONTROL
PAGE 10
E

NO. REV.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	SDS SCIENTIFIC DATA SYSTEMS	
1. TOLERANCES		CHECK	747 LITTLETON STREET SANTA MONICA, CALIFORNIA	
2. BREAK ALL SHARP EDGES		APPR	DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT	
3. HATCH SURFACES				
4. ALL DIM. IN INCHES				
MODEL NO. 9248		SIZE	DWG NO. 103257	E
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING	SHEET 10 OF 11

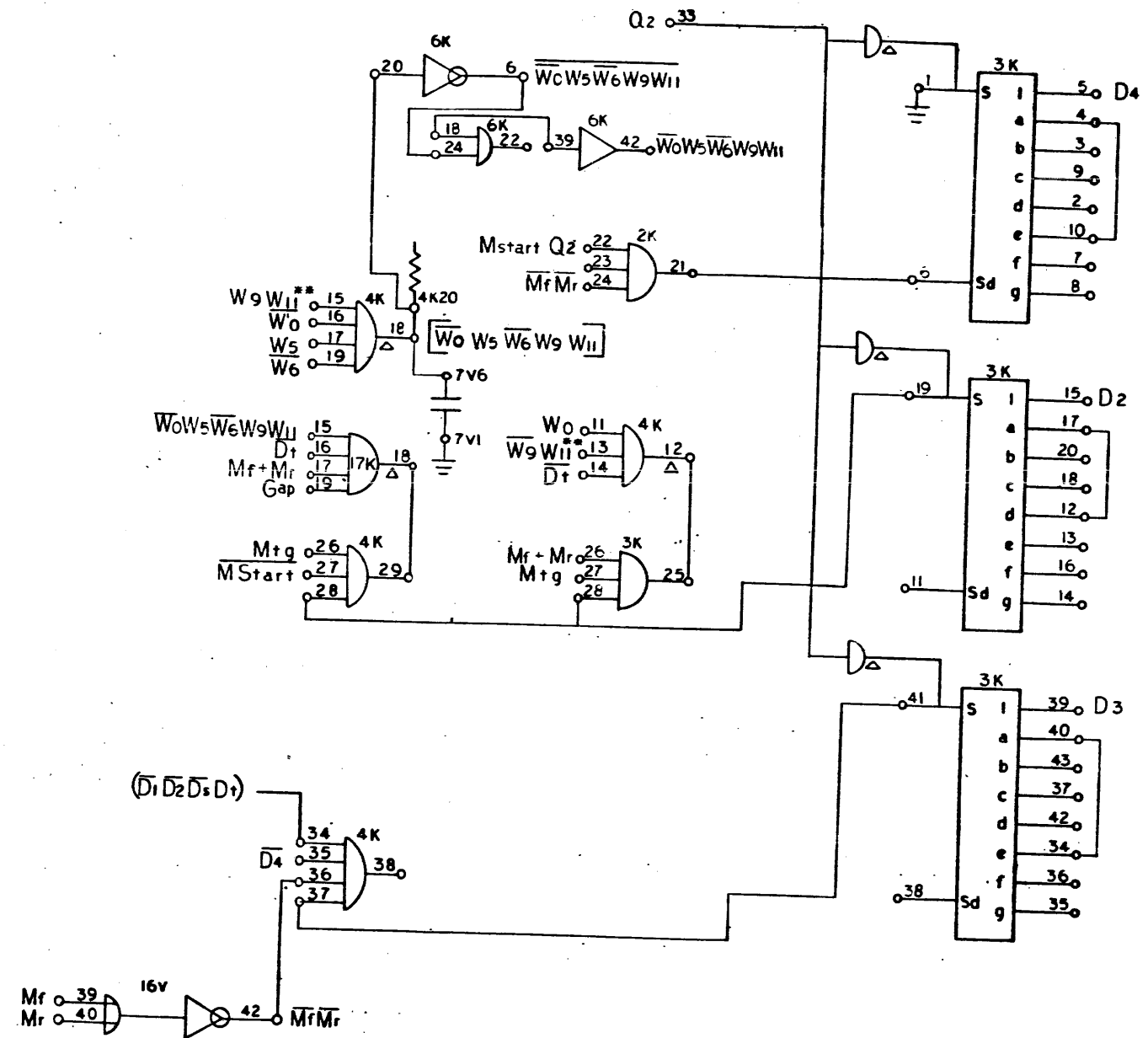
103257 | E |

Change	Reason
<p>From A to D logic change switched input to D4 onshot from auxiliary input (pin 1) to D.C. set input (pin 6). Added ground to pin 1 location 3K.</p> <p>From A to D logic change eliminated OR function to auxiliary set of D3 one-shot for model 92483 Also added timing chart for one shot settings.</p> <p>Refer to D Logic revision.</p>	<p><u>EO 103403E</u></p> <p>To trigger D4 on leading edge of M start Q2 avoiding timing race condition.</p> <p><u>EO 107514A</u></p> <p>Effective with first release and shipment of 92483 model Nos.</p>
<p>From D to E logic change.</p> <p>(A) Changed timing adjustment chart for D3 one shot.</p> <p>(B) Removed time select connection to 3K Pin 43 D3 one-shot.</p> <p>(C) Removed $\overline{W9}$ $\overline{W11}$ $\overline{W0}$ and gate circuitry OR function circuit from setting D3 and deleted note 1.</p> <p>(D) Relocated AND gate to location 17K to pick up Gap.</p>	<p><u>EO 103403R</u> <u>EO 107514G</u> (92483 only).</p> <p>On reverse erase, unit is stopping prematurely and leaving previously written information. This change keeps unit erasing until read head sees Gap and buffer clocking is finished.</p> <p><u>EO 103403P</u></p> <p>Not listed on left from D to E logic level, deletes circuitry covered by note (1) and transfers circuitry to Page 13.</p>
<p>relocation was 4K</p> 	

BEE
DONE

(8) 3/1/73
DONE

REVISIONS			103257	E
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.			
D	SEE REV E.O.			
E	SEE REV E.O.			



ONE SHOT SETTING

MODEL	D4	D2	D3
9248	14ms	1.6ms	20ms
92481			20ms
92482		1.6ms	1*
92483		1.0ms	8ms
9348	14ms	1.6ms	20ms

* 92482A - 20ms
92482P - 8ms

9348,
92483, 9248, 92481, 92482
TAPE CONTROL
PAGE 11
E

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
DRAWN		MATERIAL LIST		
CHECK		TITLE		
APPR		SCALE		
MODEL NO.		SIZE		DWG NO.
NEXT ASSY.		SCALE		SHEET

1 TOLERANCES UNLESS SPECIFIED: ANGULAR 0.1°
2 BREAK ALL SHARP EDGES
3 HATCH SURFACES
4 ALL DIM IN INCHES

SDS ENGINEERING DATA DIVISION
1247 EIGHTH STREET, SANTA MONICA, CALIFORNIA

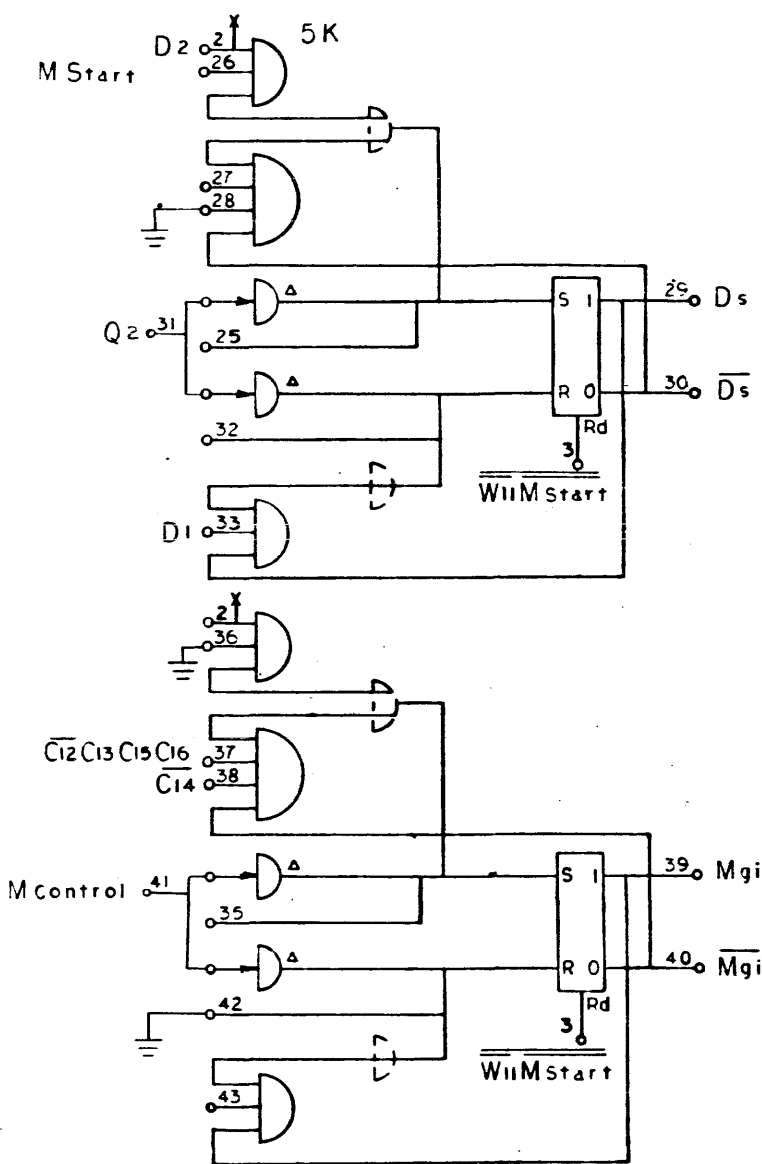
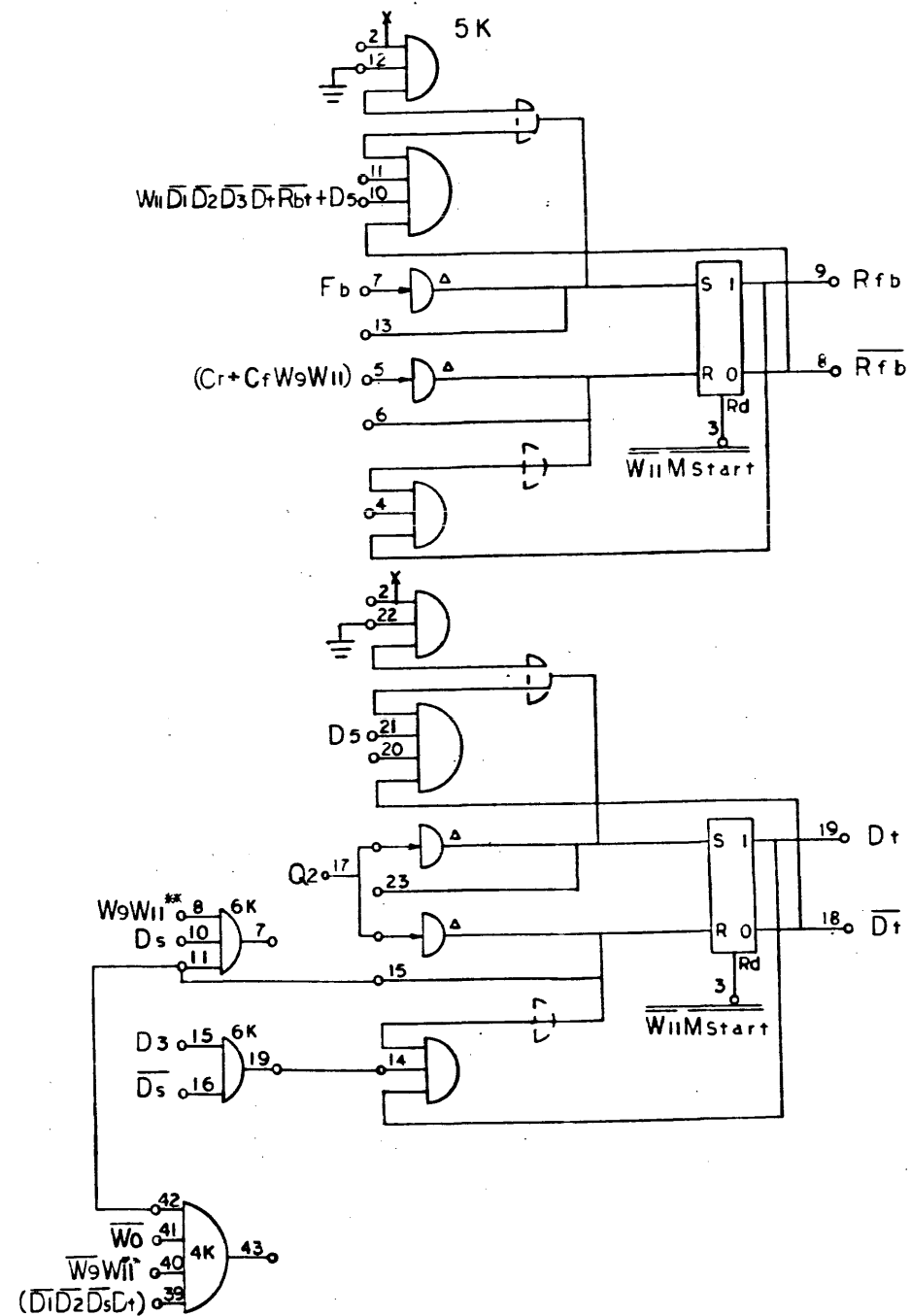
DIAGRAM, LOGIC,
MAG. TAPE CONTROL UNIT

9248
D 103257 E
11 of 49

103257 | E |

Change	Reason
<p>From A to C logic revision removed $\overline{W10}$ to Pin 15 location 21K. Reset term Dt flip-flop.</p>	<p>EO 103403E To trigger D4 or leading edge of M start Q2 avoiding timing race condition.</p>
<p>From C to D logic revision added additional OR function to reset term of Dt flip-flop for 92483 models only.</p>	<p>EO 107514A Effective with release and shipment of first 92483 model Nos. See D revision logic.</p>
<p>From D to E revision logic deleted 21K Pins 15, 16 & 19 and added W9 W11 term to 6K Pin 8.</p>	<p>EO 103403M Relocation of components only, no logical change.</p>
<p>Adds circuitry covered by note (I) D revision logic to all model Nos. on E revision.</p>	<p>EO 103043P Relocated from logic revision level D Page 11 for all models. To overcome tape creep problems.</p>

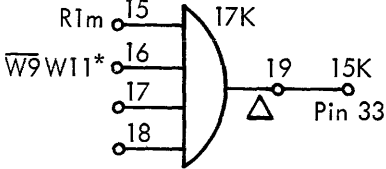
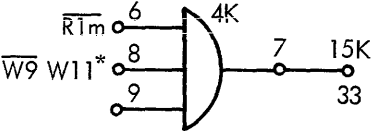
REVISIONS				103257	E
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL TO MFG				
C	SEE REV E.O.				
D	SEE REV E.O.				
E	SEE REV E.O.				



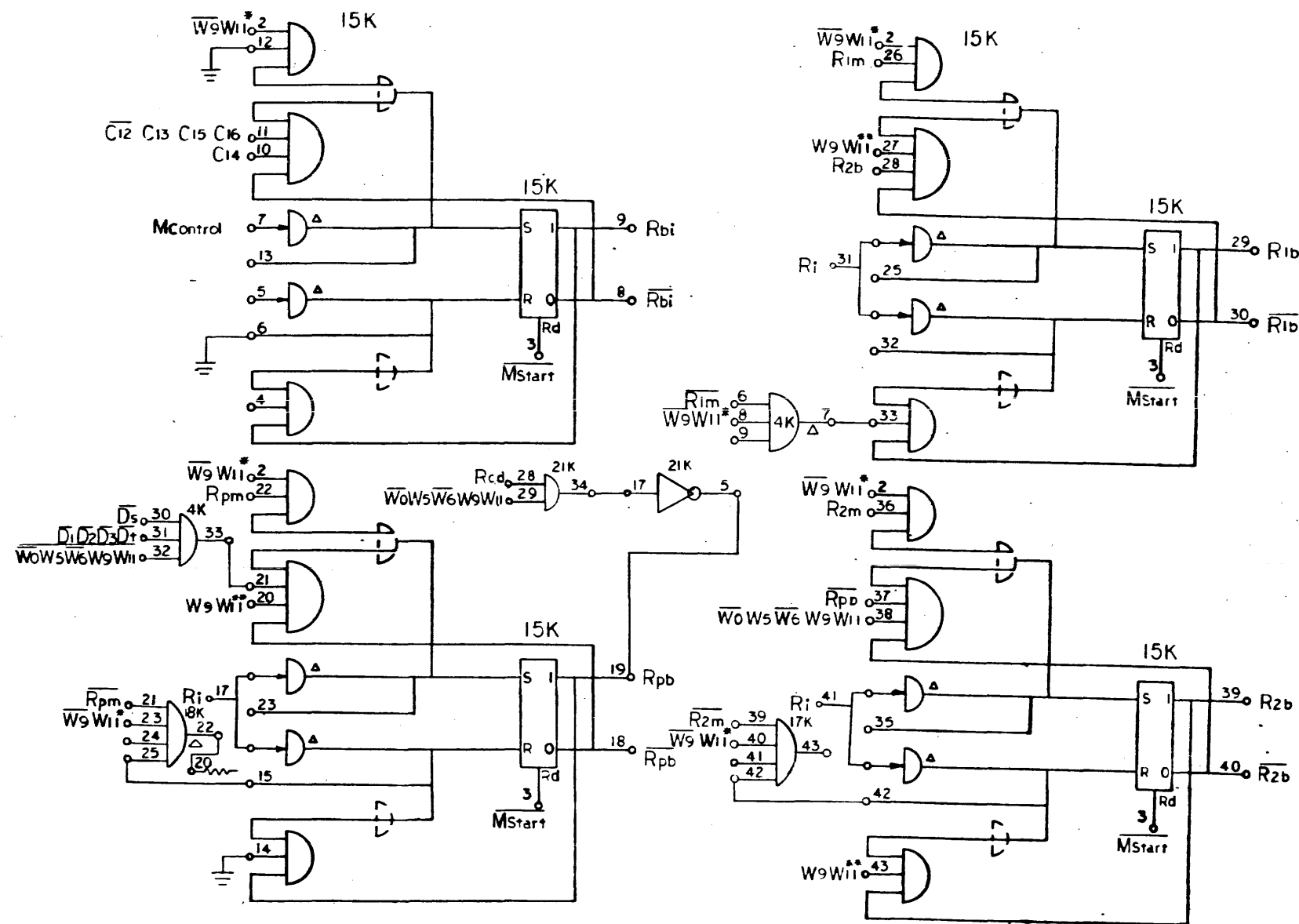
9348.
92483, 9248, 92481, 92482
TAPE CONTROL
PAGE 13
E

NO	REG	DRAWING NO	DESCRIPTION	REFERENCE DESIGNATION	ITEM
NOTES UNLESS SPECIFIED					
1. TOLERANCES		DRAWN	4/10	4/10	
2. DIM. ± 0.005		CHECK	4/10	4/10	
3. BREAK ALL SHARP EDGES		APPR	4/10	4/10	
4. DIM APPROX					
5. HATCH SURFACES					
6. ALL DIM IN INCHES					
DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT					
MODEL NO		9248		SIZE	DWG NO
NEXT ASSY				D	103257
				E	
SCALE: 1:1 (IF NOT SHOWN)					
SHEET 13 OF 41					

103257 | E

Change	Reason
<p>From A through D revision level of logic, no changes.</p> <p>From D to E revision level of logic:</p> <p style="text-align: center;"><u>103257D</u></p>  <p style="text-align: center;"><u>103257E</u></p> 	<p style="text-align: right;"><u>EO 103403R</u> <u>EO 107514G</u> (92483 only)</p> <p>Rearrangement of components to pick up extra diode. No logic change.</p> <p>Part of reverse erase problem leaving previously written information.</p> <p style="text-align: right; font-size: 2em; font-style: italic;">DONE</p>

REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL TO MFG			
D	SEE REV E.O.			
E	SEE REV E.O.			



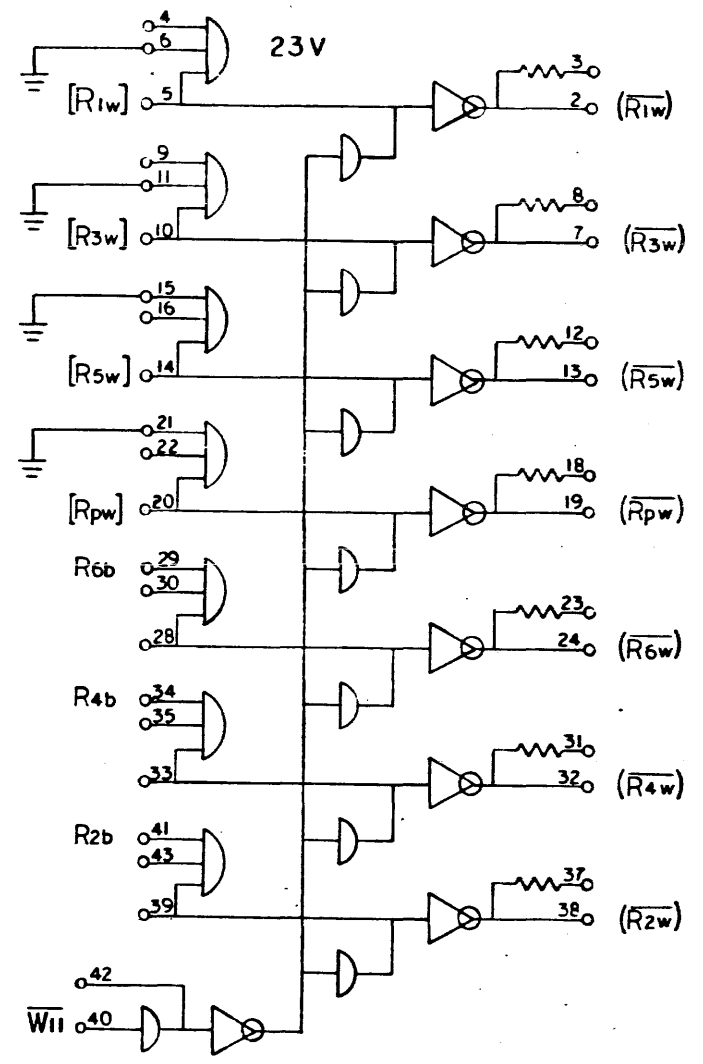
9348
 92483,9248,92481,92482
 TAPE CONTROL
 PAGE 16
 E

103257 E

NO. REG.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	REV.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		CHECK	DATE	BY
1. TOLERANCES XX ± 0.00 ANGULAR XXX ± 0.00 90°		APPR		
2. BREAK ALL SHARP EDGES BY APPROX				
3. MACH SURFACES ✓				
4. ALL DIM IN INCHES				
MODEL NO. 9248		SIZE D	DWG NO. 103257	E
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING	SHEET 6 OF 14

Change	Reason
<p>From A thru D logic revisions, no changes.</p> <p>From D to E logic revision, major logic change in gating RW signals.</p> <p>Compare logic revisions D & E.</p>	<p>EO 103403M</p> <p>EO 107514D (92483 only)</p> <p>To correct logic timing error on erase reverse operation</p>

REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG		
D	SEE REV E.O.		
E	SEE REV E.O.		



9348
 92483,9248,92481,92482
 TAPE CONTROL
 PAGE 20
 E

103257 | E

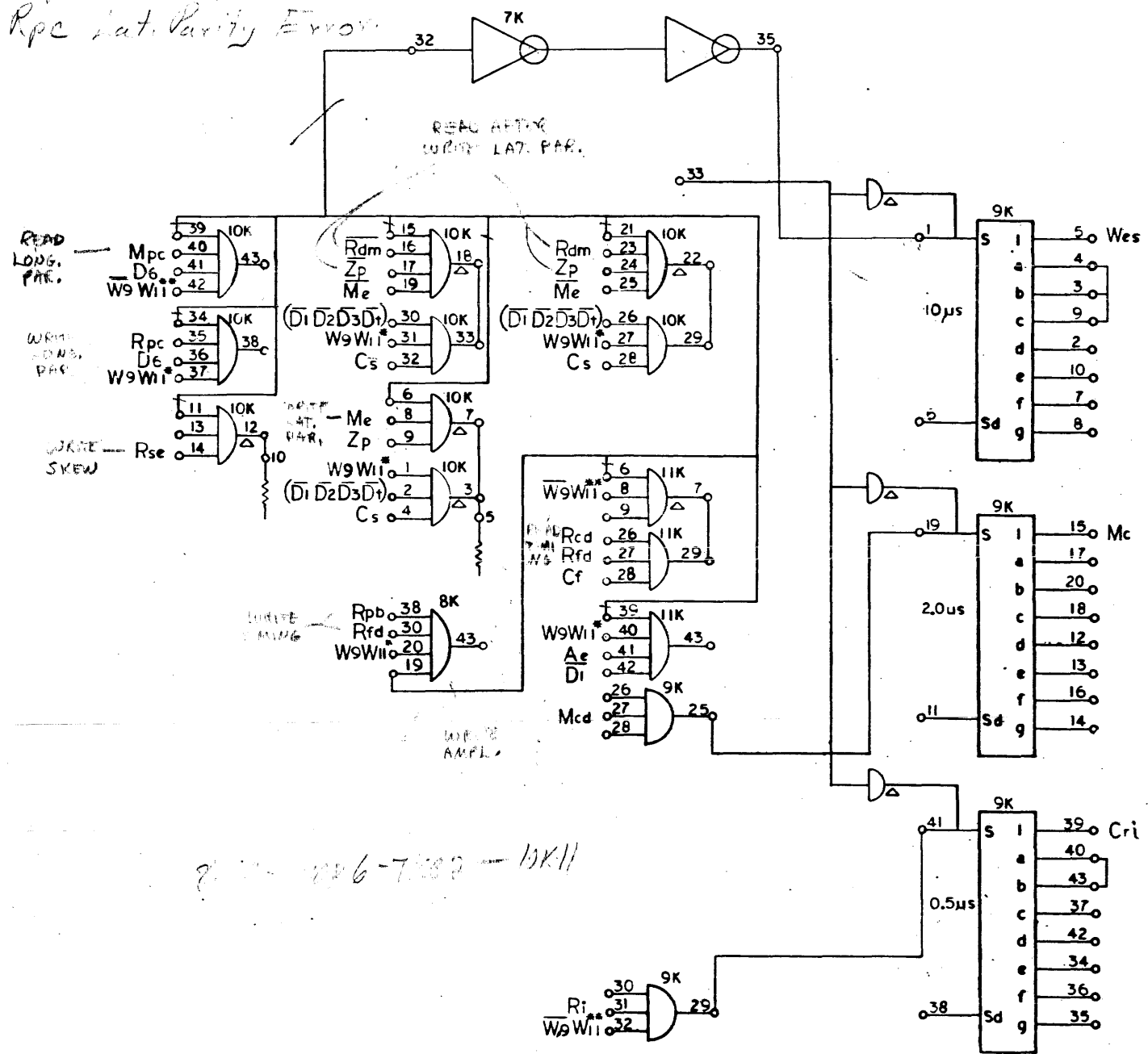
NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES 20 ± 0.00 ANGULAR 25 ± 0.00 2. SURFACE FINISH 3. HATCH SURFACES ✓ 4. ALL DIM. IN INCHES				
DRAWN: [Signature]		MATERIAL LIST		
CHECK: [Signature]		SDS SCIENTIFIC DATA SYSTEMS 1540 FIFTEENTH STREET SANTA MONICA, CALIFORNIA		
APPR: [Signature]		TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT		
MODEL NO. 9248		SIZE D		DWG NO. 103257
NEXT ASSY.		SCALE		SHEET 20 of 20

Change	Reason
<p>From A to D logic change deleted 47KΩ resistor from 9K pin 40 to pin 47 (+25v).</p> <p>Added jumper from 9K pin 40 to 9K pin 43.</p> <p>.5 μsec time change to 2.0 μs except for 92483 which uses OX14 module in 9K. With 92483 use .5 μsec.</p>	<p><u>EO 103140C</u> <u>EO 103403J</u> <u>EO 107514A</u></p> <p>Uses 220K resistor in OX13 module instead of 47K external for timing increase change.</p> <p>OX14 module effective on first 92483 shipped.</p>
<p>From D to E logic change all models use OX14 in location 9K and hence all have Cri signal set at .5 μsec.</p>	<p><u>EO 103403L</u> <u>EO 103140D</u> <u>EO 103403S</u></p>
<p>Deleted jumper between 9K17 and 9K20. Added jumpers between 9K pins 3, 4 and 9.</p>	<p>OX13 module in location 9K changed to OX14.</p> <p><u>EO 107514H</u> (92483 only)</p> <p>92483 has OX14 and is not affected.</p> <p>Cri now .5 μsec on all models.</p>
<p>From D to E</p> <p>Adds buffered signal to set Wes one-shot. Set side was DC input, is now auxiliary input.</p> <p>Compare D and E logic.</p>	<p><u>EO 103403L</u> <u>EO 107514C</u></p> <p>One-shot (Wes) being triggered by noise causing false errors in multi unit systems.</p>

DONE 3/20/73

REVISIONS				103257	E
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL TO MFG				
D	SEE REV E0				
E	SEE REV E0				

Mpc Latency Error
Rpc Latency Error



7-11-66-7:00-10K11

W BUT CHECK PERIOD AT 1000

9348
92483,9248 92481,92482
CONTROL
PAGE 22
E

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES UNLESS SPECIFIED		DRAWN <i>W. J. B.</i>	DATE <i>7/18/63</i>	SDS SCIENTIFIC DATA SYSTEMS <small>442 GILBERT STREET SANTA MONICA, CALIFORNIA</small> TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT
2. BREAK ALL SHARP EDGES AND SURFACES		CHECK <i>W. J. B.</i>	DATE <i>7/18/63</i>	
3. HATCH SURFACES		APPR <i>W. J. B.</i>	DATE <i>7/18/63</i>	
4. ALL DIM. IN INCHES				
MODEL NO.	9248	SIZE	DWG NO.	E
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING	SHEET 22 OF 40

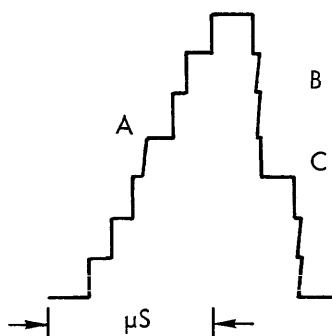
103257 | E |

Change	Reason
<p>No logic changes from A logic to D logic revision level.</p> <p>From D to E logic revision levels major changes were made. Compare D and E logic.</p> <p>Added additional OR gate input to Ri at pin 31 10v, removed ground to pin 31.</p>	<p><u>EO 103403M</u> <u>EO 107514D</u> (92483 only)</p> <p>To correct timing error in erase reverse operation.</p>
<p>Eliminated Rsk signal and combined Rpa and R1a through R6a into an analog test gate. Resistor added from 10v pin 26 to ground is 220 Ω.</p> <p>An explanation of the test gate is offered on page 29 Addendum B.</p>	<p><u>EO 103043S</u> <u>EO 103140D</u></p> <p><u>EO 107514H</u> 92483 only <u>EO 107512B</u></p> <p>To insure interchangeability between tape units at 800 BPI. Write skew error detection was tightened to tighten allowable write character skew.</p>

10V Pin 26 Analog to Staircase Converter

The "OR" gate which was once RSK, is now used to detect the quality of the electrical deskew. The driven logic has been replaced with a 220 ohm resistor load. The value has been adjusted such that each bit as it occurs will cause a step of about one volt in amplitude. In the case of an all "ones" frame the converter will generate a signal staircase with a maximum of seven volts.

The leading edge of the waveform reflects the head mechanical misalignment, (gap scatter and gap are differential), for both the read and write head. The trailing edge shows how well the electrical compensation for these characteristics was accomplished.



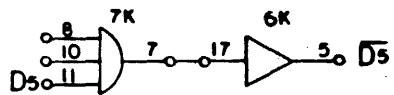
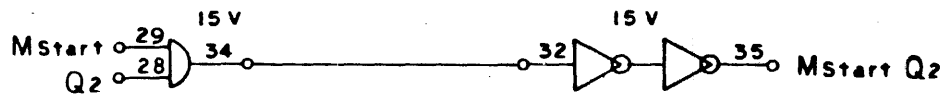
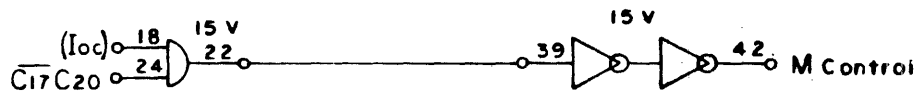
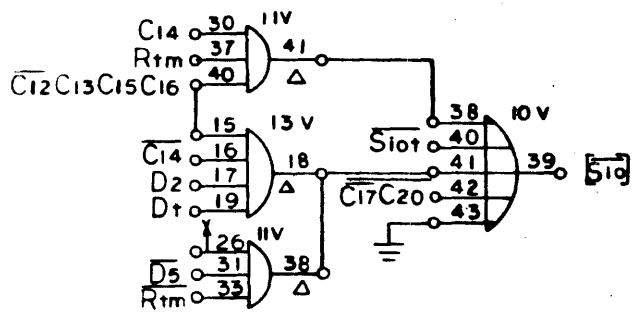
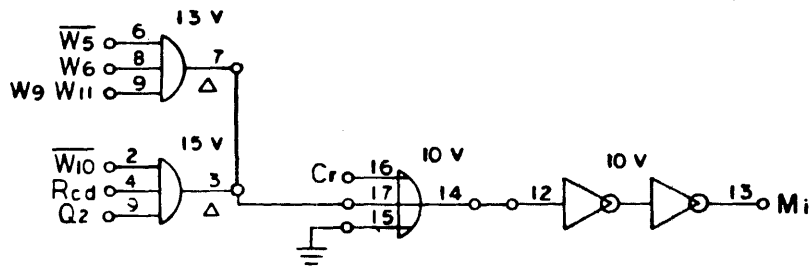
Staircase A, during the read pass of an "all ones" tape, is a measure of the skew in microseconds. This value will be in the order of up to 2 or 3 microseconds.

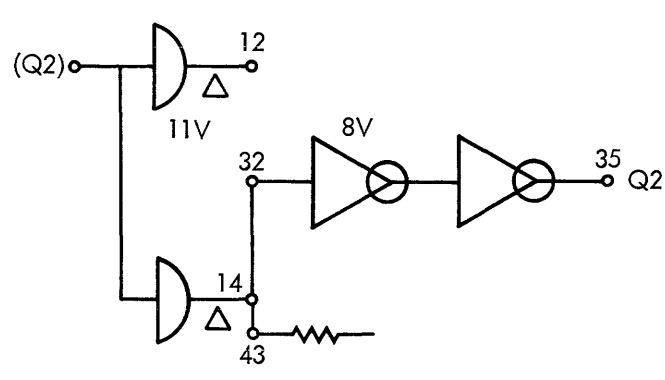
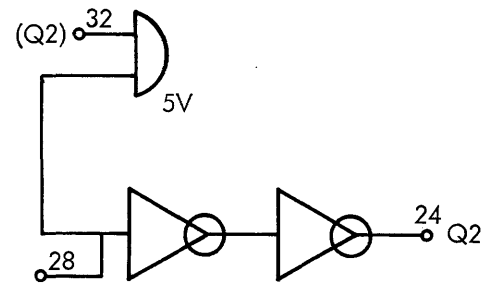
Staircase B exclusive of Point C would show how well the read deskew has been done. Point C would exist if one adjustment has been missed or incorrectly done. Although this differential is easily seen at the test point, re-adjustments are quite inaccurate and should not be attempted using only the test point. It is basically for qualitative checking.

If the tape unit is put in the "test mode" after read deskew, the write head scatter can be seen. This measurement would show if the misalignment is too bad to respond to any compensation.

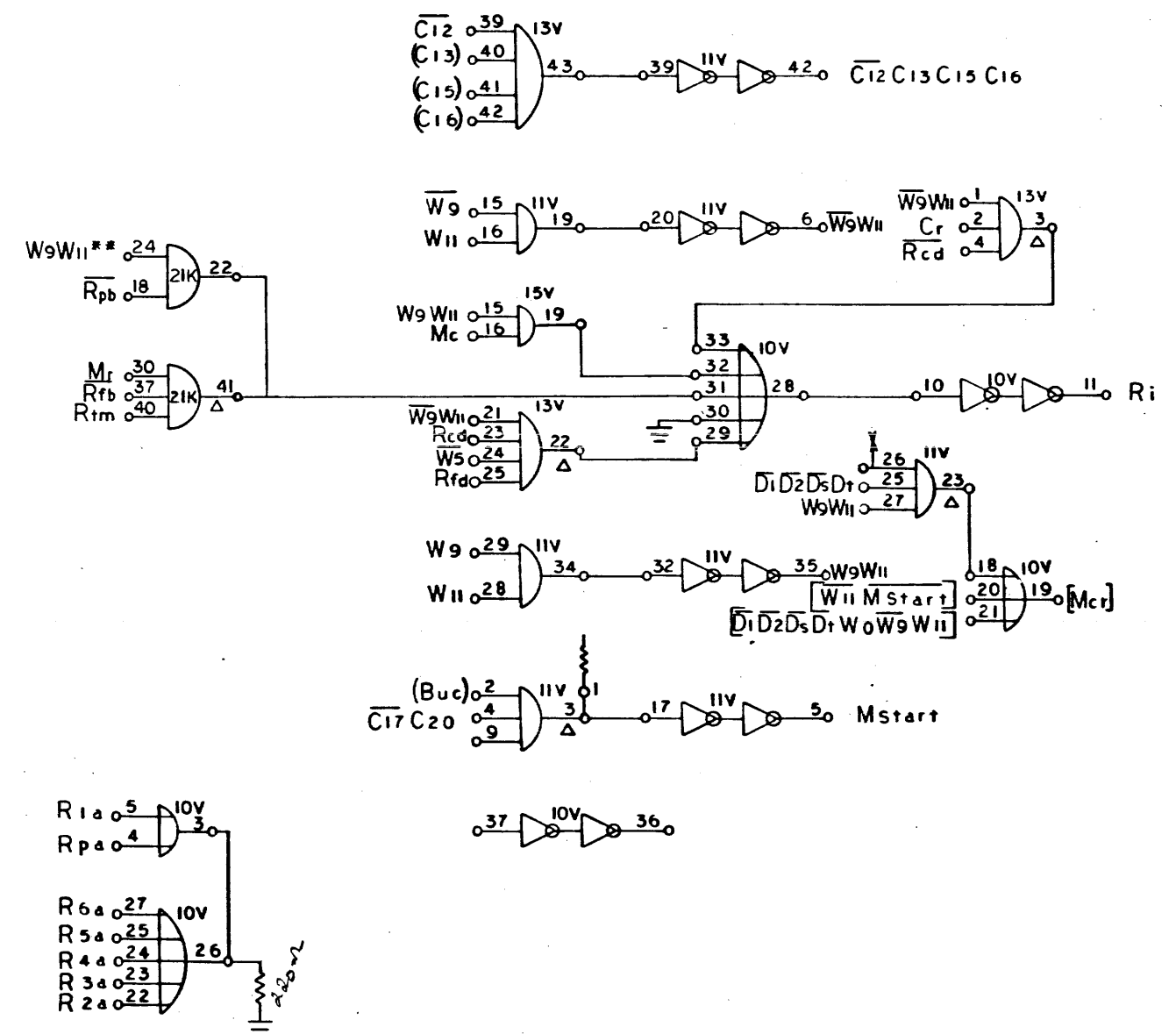
After the alignment of write deskew, the test point will again show the quality of deskew. At 800 BPI this uncompensated deskew should be less than 1.5 μ s when observing the signal developed by an exerciser pass.

Change	Reason
<p>From A to C logic revision level major changes made to gating terms making up $\overline{[SiO]}$</p> <p>Also $\overline{D5}$ signal eliminated and $\overline{D2} + \overline{Dt}$ added.</p> <p>Compare A and D logic revisions.</p>	<p><u>EO 103403D</u></p> <p>Forward search failures were noted when running 15KC system programs on 15KC/42.7KC tape systems. An EOM to convert a scan to a read could result in Rcd locking on due to the longitudinal check character. As a result, the I/O Buffer would receive an erroneous clock prior to the first data character of the ensuing block.</p>



Change	Reason
<p>From A to C logic revision level, Q2 buffer relocated</p> <p><u>103257A</u></p>  <p><u>103257C & D</u></p> 	<p><u>EO 103403F</u></p> <p>Relocation of (Q2) to Q2 signal no logic change. Diode gates in 11V were required in revising gates to Cfba and Cgsa on C level logic change page 5.</p>

REVISIONS				103257	E
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL TO MFG				
D	SEE REV ED				
E	SEE REV EC				



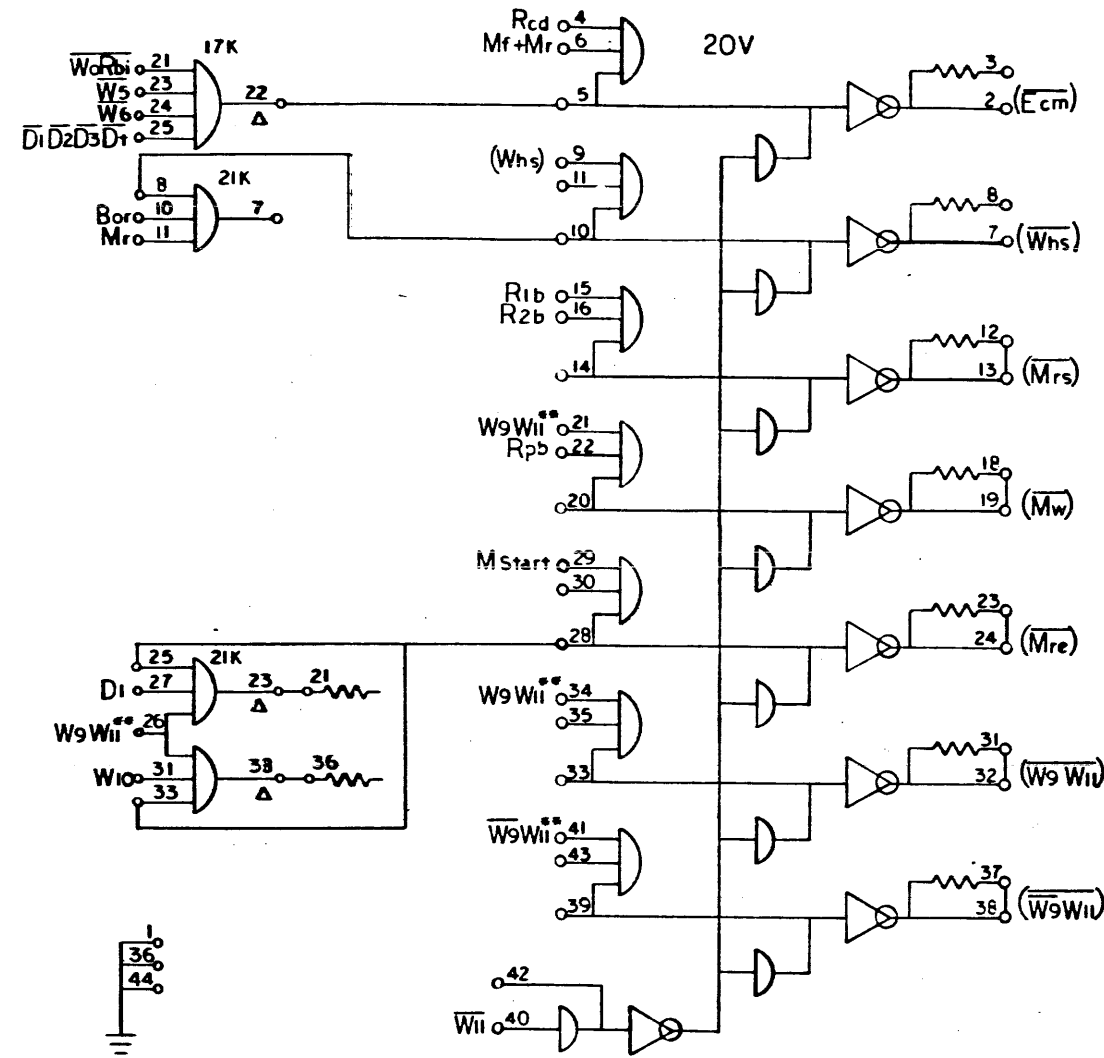
9348,
92483,9248,92481,92482
TAPE CONTROL
PAGE 29
E

103257 | E |

NO	REV	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST					
NOTES UNLESS SPECIFIED		DRAWN	7/1/65		
1. TOLERANCES UNLESS SPECIFIED ARE AS SHOWN		CHECK	7/1/65		
2. BREAK ALL SHARP EDGES BY APPROX. 1/8"		APPR	7/1/65		
3. HATCH SURFACES					
4. ALL DIMS IN INCHES					
MODEL NO.			SIZE	DWG NO.	ITEM NO.
9248			D	103257	E
NEXT ASSY.			SCALE	DO NOT SCALE DRAWING	SHEET 29 of 41

SDS SCIENTIFIC DATA SYSTEMS
1545 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA
TITLE
DIAGRAM, LOGIC,
MAG TAPE CONTROL UNIT

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG		
C	SEE REV. E.O.		
D	SEE REV E.O.		
E	SEE REV E.O.		

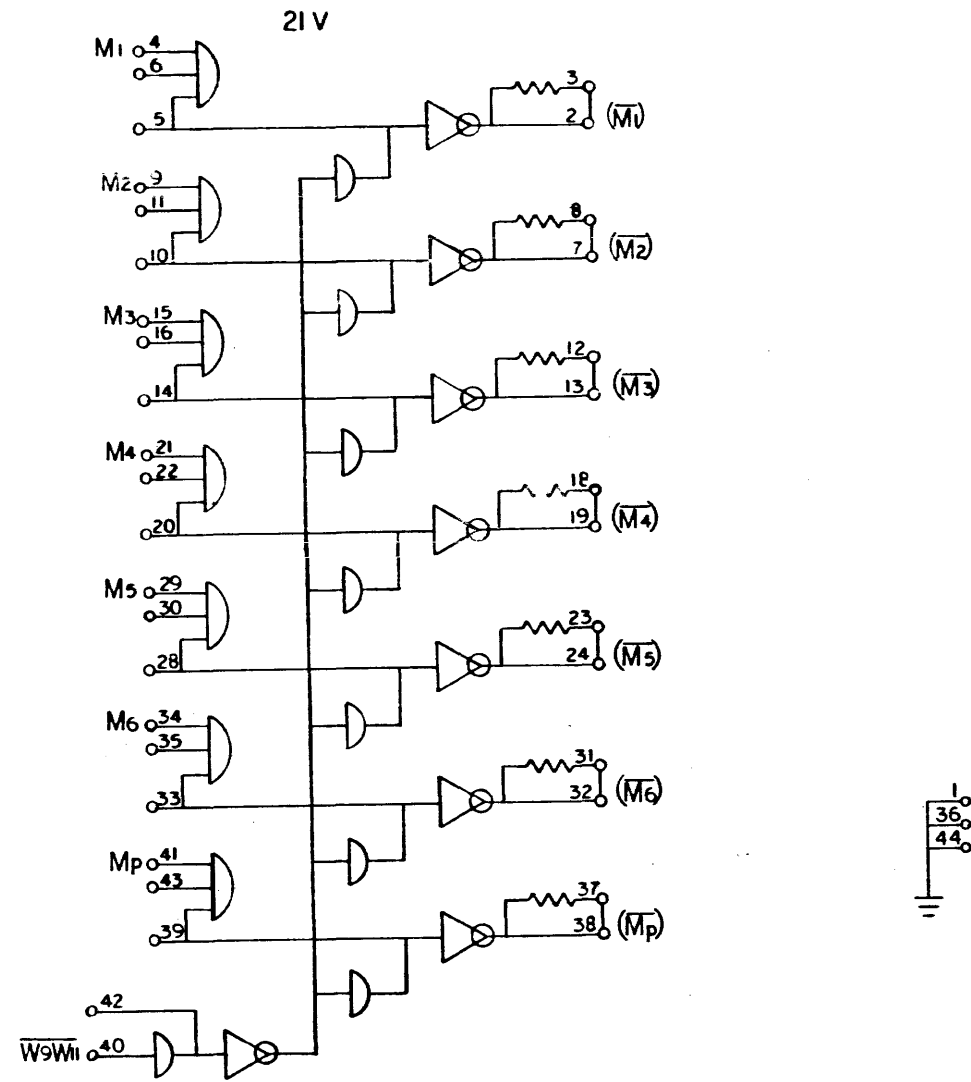


9348.
92483 9248, 92481, 92482
TAPE CONTROL
PAGE 32
E

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		BROWN	SDS SCIENTIFIC DATA SYSTEMS 1242 FIFTEENTH STREET SANTA MONICA, CALIFORNIA	
1. TOLERANCES XX ± 0.00 ANGULAR XX ± 0.00		CHECK	TITLE	
2. SPIN ALL DRAPPEDED 3.00 APPROX		APPR	DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT	
3. BACK SURFACE ✓				
4. ALL DIM. IN INCHES				
MODEL NO.	9248	SIZE	DWG NO.	E
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING	SHEET 32 - F 10

103257 | E |

REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG		
D	SEE REV E.O.		
E	SEE REV E.O.		



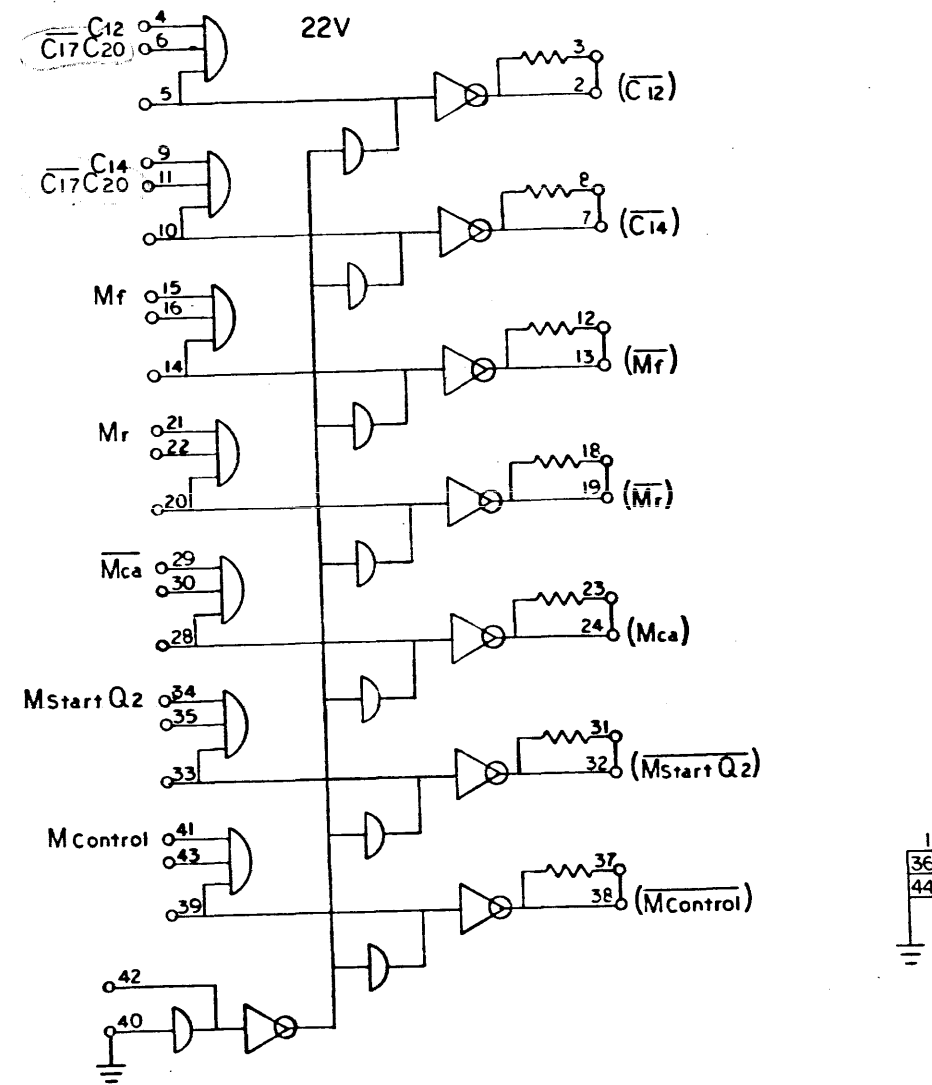
9348,
92483,9248,92481,92482
TAPE CONTROL
PAGE 33
E

NO. REG.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.																												
<table border="1"> <thead> <tr> <th colspan="2">NOTES UNLESS SPECIFIED</th> <th colspan="2">MATERIAL LIST</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>TOLERANCES</td> <td>DRAWN</td> <td>7/10/63</td> </tr> <tr> <td>2</td> <td>SEE 1-10</td> <td>ENGR.</td> <td>7/8/63</td> </tr> <tr> <td>3</td> <td>BREAK ALL SHARP CORNERS</td> <td>APPR.</td> <td>7/10/63</td> </tr> <tr> <td>4</td> <td>CHAMFER</td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>RADIUS</td> <td></td> <td></td> </tr> <tr> <td>6</td> <td>ALL DIM IN INCHES</td> <td></td> <td></td> </tr> </tbody> </table>					NOTES UNLESS SPECIFIED		MATERIAL LIST		1	TOLERANCES	DRAWN	7/10/63	2	SEE 1-10	ENGR.	7/8/63	3	BREAK ALL SHARP CORNERS	APPR.	7/10/63	4	CHAMFER			5	RADIUS			6	ALL DIM IN INCHES		
NOTES UNLESS SPECIFIED		MATERIAL LIST																														
1	TOLERANCES	DRAWN	7/10/63																													
2	SEE 1-10	ENGR.	7/8/63																													
3	BREAK ALL SHARP CORNERS	APPR.	7/10/63																													
4	CHAMFER																															
5	RADIUS																															
6	ALL DIM IN INCHES																															
MODEL NO. 9248 NEXT ASSY		TITLE DIAGRAM LOGIC MAG TAPE CONTROL UNIT																														
SCALE DO NOT SCALE DRAWING		SHEET 33 OF 46		CHANGING LETTER E																												

103257 E

Change	Reason
<p>From A through D logic revision levels no changes were made.</p> <p>On E revision logic $\overline{C17}$ C20 was added to gate $(\overline{C12})$ and $(\overline{C14})$ signals.</p>	<p>EO 103403N EO 107514E (92483 only)</p> <p>To reduce noise between master control unit and slaves by keeping Cs quiet, except during Mag Tape EOM's and SKS's.</p>

REVISIONS				
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL TO MFG.			
D	SEE REV E O			
E	SEE REV E O			

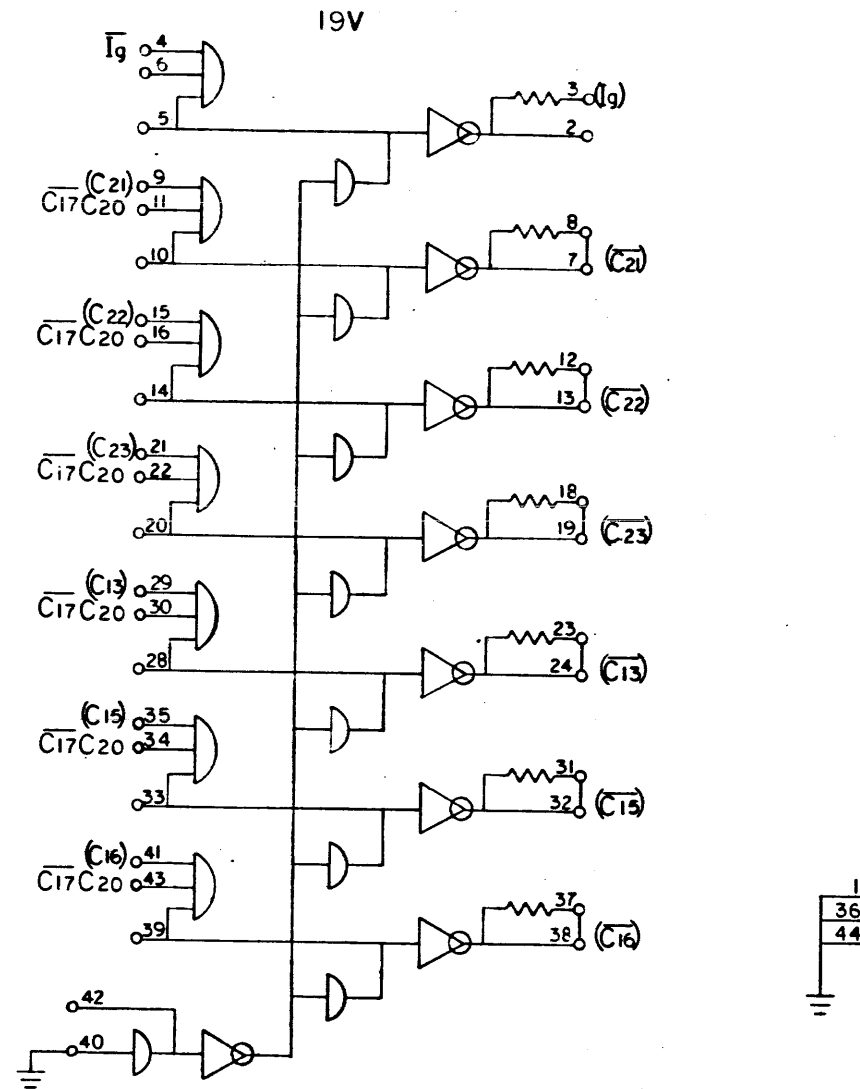


9348
92483,9248,92481,92482
TAPE CONTROL
PAGE 34
E

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES XX ± 0.30 ANGULAR XXX ± 0.10		DRAWN 2/16	DATE 7/1/53	SDS SCIENTIFIC DATA SYSTEMS 3401 LITTLETON STREET, SANTA MONICA, CALIFORNIA
2. BREAK ALL SHARP EDGES 0.10 APPROX		APP'D 2/16		TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT
3. MACH SURFACES ✓				
4. ALL DIM IN INCHES				
MODEL NO.	9248	SIZE	DWG NO.	E
NEXT ASSY.			D	103257
		SCALE	DUPLICATE DRAWING	SHEET 34 of 41

103257 E

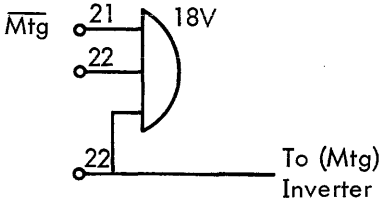
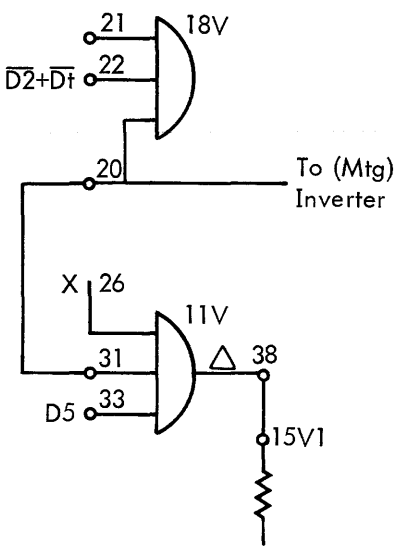
REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG		
D	SEE REV E.O.		
E	SEE REV E.O.		



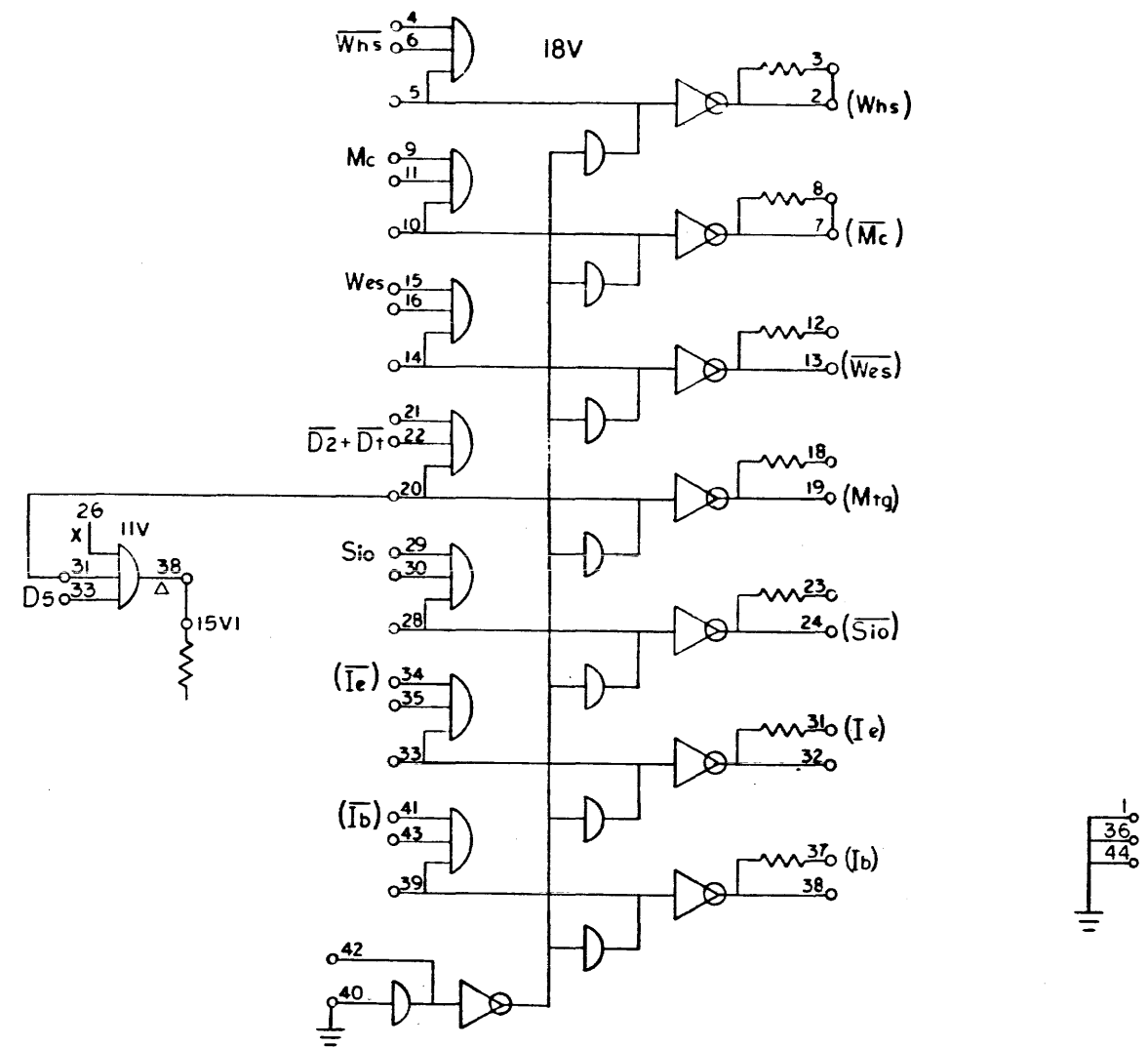
9348,
92483,9248,92481,92482
TAPE CONTROL
PAGE 35
E

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	CHECK	APPR.
1. TOLERANCES 2. 0.000 ANGULAR 3. 0.000 ± 1/2° 4. BREAK ALL SHARP EDGES 5. 2/16 APPROX 6. MACH. SURFACES ✓ 7. ALL DIM. IN INCHES		7/11/63	7/18/63	7/17/63
		SDS SCIENTIFIC DATA SYSTEMS 1542 FIFTEENTH STREET SANTA MONICA, CALIFORNIA		
		TITLE DIAGRAM, LOGIC, MAG TAPE CONTROL UNIT		
MODEL NO. 9248		SIZE	DWG NO.	REV.
NEXT ASSY.		D	103257	E
		SCALE	DO NOT SCALE DRAWING	SHEET 35 of 40

103257 | E

Change	Reason
<p>From A to C logic revision gating for (Mtg) signal changed.</p> <p><u>103257A</u></p>  <p><u>103257C, D & E</u></p> 	<p><u>EO 103403D</u></p> <p>See page 30 Addendum Sheet for reason.</p>

REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG		
C	SEE REV. E.O.		
D	SEE REV E.O.		
E	SEE REV E.O.		



9348,
92483,9248 92481,92482
TAPE CONTROL
PAGE 36
E

103257 | E

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	CHECK	APPR.
1. TOLERANCES XX - .000 ANGLULAR XX - .010 2. BREAK ALL SHARP EDGES 3. HATCH SURFACES ✓ 4. ALL DIM. IN INCHES		H. L. S. 7/1/63 S. L. 7/1/63 J. H. 7/1/63	SDS SCIENTIFIC DATA SYSTEMS 1545 FIFTEENTH STREET SANTA MONICA CALIFORNIA	
MODEL NO. 9248			SIZE DWS NO. D 103257	E
NEXT ASSY.			SCALE	DO NOT SCALE DRAWING SHEET 36 OF 40

Module Changes

9248	92481	92482	92483	9348	Coordinate With EO	Module Change		
EO 103514	EO 107535	EO 107536	EO 107537	EO 107538		From	To	Loca.
B					EO 103403B	OX13	CK52	5V
D					NONE	OX11	OX13	2K
D					NONE	OX11	OX13	3K
D					NONE	OX11	OX13	9K
D					NONE	OX11	OX13	4V
D					NONE	OX11	OX13	6V
E					EO 103403S	FC17	FH17	1K
E					EO 107514H	FC17	FH17	15K
E					↕	FC17	FH17	19K
E						FC17	FH17	20K
F	B	B	B	B		GC10	GH10	10K
F	B	B	B	B		GC10	GH10	11K
G	B	B	C	B		GC10	GH10	17K
G	B	B	C	B		GC10	GH10	18K
G	B	B	C	B		IC12	IH12	16V
H	C				EO 107514H	OX13	OX14	9K
		C	A	C	EO 103043S	OX13	OX14	2V
		C	A	C	EO 107514H	OX13	OX14	9K

REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG		
D	SEE REV E		
E	SEE REV E		

MODULE LIST

ITEM	DESCRIPTION	MODEL	QTY				
			9248	92481	92482	92483	9348
1	CABLE DRIVER	AX14	6	6	6	6	6
2	AND/OR BUFFER AMP	BC10	3	3	3	3	3
3	AND/OR BUFFER AMP	BH10	1	1	1	1	1
4	OR GATE BUFFER AMP	BH11	1	1	1	1	1
5	CRYSTAL CLOCK GEN	CX13	1	-	2	2	2
6	COUNTER F.F.	FH15	3	3	3	3	3
7	UNIVERSAL F.F.	FH17	5	5	5	5	5
8	GATE EXPANDER	6H11	1	1	1	1	1
9	GATE EXPANDER	6C10	8	8	8	8	8
10	AND/OR INVERT.	1C10	2	2	2	2	2
11	AND INVERTER	1C12	4	4	4	4	4
12	AND INVERTER	1H12	2	2	2	2	2
13	ADDER MODULE	1K52	1	1	1	1	1
14	ONE SHOT MULT.	OX13	4	3	4	4	4
15	CLOCK & GAP DETECTOR	SK59	1	1	1	1	1
16	UNIVERSAL F.F.	FC17	1	1	1	1	1
17	ONE SHOT MULT.	OX14	1	1	2	2	2
18	CLOCK GEN	CK52	1	1	1	-	-
19	CLOCK GEN	CK55	-	-	-	-	1
20	CLOCK GEN	CK56	-	-	-	1	-


REPLACEMENT PARTS LIST

ITEM	DESCRIPTION	DESIGNATION	QTY	SUPPLIER CODE (SEE INDEX)
1	RESISTOR, 470Ω ± 2%	(P40)R27 THRU R38	12	16, 17
2	INDUCTOR, MOLDED 220μH ± 5%	(P40)L1 THRU L26 (P41)L1 THRU L14	40	42, 90, 91
3	DIODE, SILICON SWITCHING IN 914A	(P40)CR1 THRU CR11	11	4, 12, 13, 14
4	CONNECTOR, SOLDER TAIL 47 CONTACT #700B-47	J(1K) THRU J(25K) J(1V) THRU J(25V)	50	82

CABLE LENGTH

ITEM	DESCRIPTION	CABLE LENGTH				DESIGNATION	QTY	SUPPLIER CODE (SEE INDEX)
		11'	20'	30'	40'			
5	RESISTOR 390Ω ± 2% 330Ω ± 2% 270Ω ± 2% 220Ω ± 2%					(P40)R1 THRU R26 (P41)R1 THRU R14	40	16, 17

9348,
92483, 9248, 92481, 92482
MAG TAPE CONTROL UNIT
PAGE 40
E

NO. 9248	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	TYPE
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	CHECK	APPR.
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES 2. BREAK ALL SHARP CORNERS AND SPICES 3. HATCH SURFACES 4. ALL DIM. TO CENTER		ROYSTER HERRING RYAN	HERRING HERRING HERRING	HERRING HERRING HERRING
MODEL NO. 9248 NEXT ASSY.		 TITLE DIAGRAM, LOGIC MAG TAPE CONTROL UNIT		SHEET NO. D DWG NO. 103257 CHANGE LETTER E
SCALE		DO NOT SCALE DRAWINGS		SHEET 40

103257 E

REVISIONS				103258	D
REV.	DESCRIPTION	CHK	DATE	APPROVED	
A	REL TO MFG				
B	SEE REV. E.O.				
C	SEE REV E.O.				
D	SEE SEE E.O.				

NOTE:
 THIS DWG APPLIES TO BOTH THE AMPEX (A) & POTTER (P) MAG TAPE UNITS. FOR SIMPLICITY ONLY 9246A AND/OR 9246P DESIGNATIONS ARE SHOWN ON INDIVIDUAL PAGES. 9246A IMPLIES 9246A, 9246IA, 92462A, & 9346A. 9246P IMPLIES 9246P, 9246IP, 92462P & 92463P. THE FOLLOWING CHART INDICATES THE EFFECTIVITY OF INDIVIDUAL PAGES.

PAGE	CHG	PAGE	CHG	PAGE	CHG	PAGE	CHG	PAGE	CHG
1	D								
2	D								
3	D								
4	D								
5	D								
6	D								
7	D								
8	D								
9	D								
10	D								
11	D								
12	D								
13	D								
14	D								
15	D								
16	D								
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19	D								
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26	D								
27	D								
28	D								
29	D								
30	D								
31	D								
32	D								
33	D								
34	D								
35	D								
36	D								
37	D								
38	D								
39	D								

PAGE NO.	AMPEX ONLY	POTTER ONLY	BOTH	92463P VARIATIONS
1			X	
2	X			
3			X	
4			X	
5			X	
6			X	
7			X	
8			X	
9			X	
10			X	
11			X	
12			X	
13			X	X
14			X	
15			X	
16			X	
17			X	
18			X	
19			X	
20			X	
21			X	
22			X	
23			X	
24			X	
25			X	
26			X	X
27	X			
28	X			
29	X			
30	X			
31			X	
32			X	
33			X	
34	X			
35	X			
36		X		X
37		X		
38		X		
39		X		

- NOTES:
 1. REV LETTERS LISTED INDICATE STATUS OF EACH SHEET OF THIS MULTIPLE SHEET DRAWING.
 2. CHECK INDIVIDUAL SHEETS FOR REVISION LETTER AGAINST THIS SHEET BEFORE USING THIS DRAWING.

REFERENCE DESIGNATIONS ARE ABBREVIATED. PREFIX THE DESIGNATION WITH UNIT NUMBER OR ASSEMBLY DESIGNATION OR BOTH. (MIL. STD. 16B)

9246A, 9246P
 MAG TAPE UNIT
 PAGE 1
 D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES 28 2.000 ANGULAR 300 2.010 2 1/2'		CHECK	7/18/63	
2. BREAK ALL SHARP EDGES .010 APPROX.		APPR.	7/18/63	
3. MACH. SURFACES ✓				
4. ALL DIM. IN INCHES				
MODEL NO. 9246		TITLE DIAGRAM, LOGIC MAG TAPE UNIT		
NEXT ASSY.		SIZE D	DWG NO. 103253	D
SCALE		DO NOT SCALE DRAWING SHEET		

103258(D)

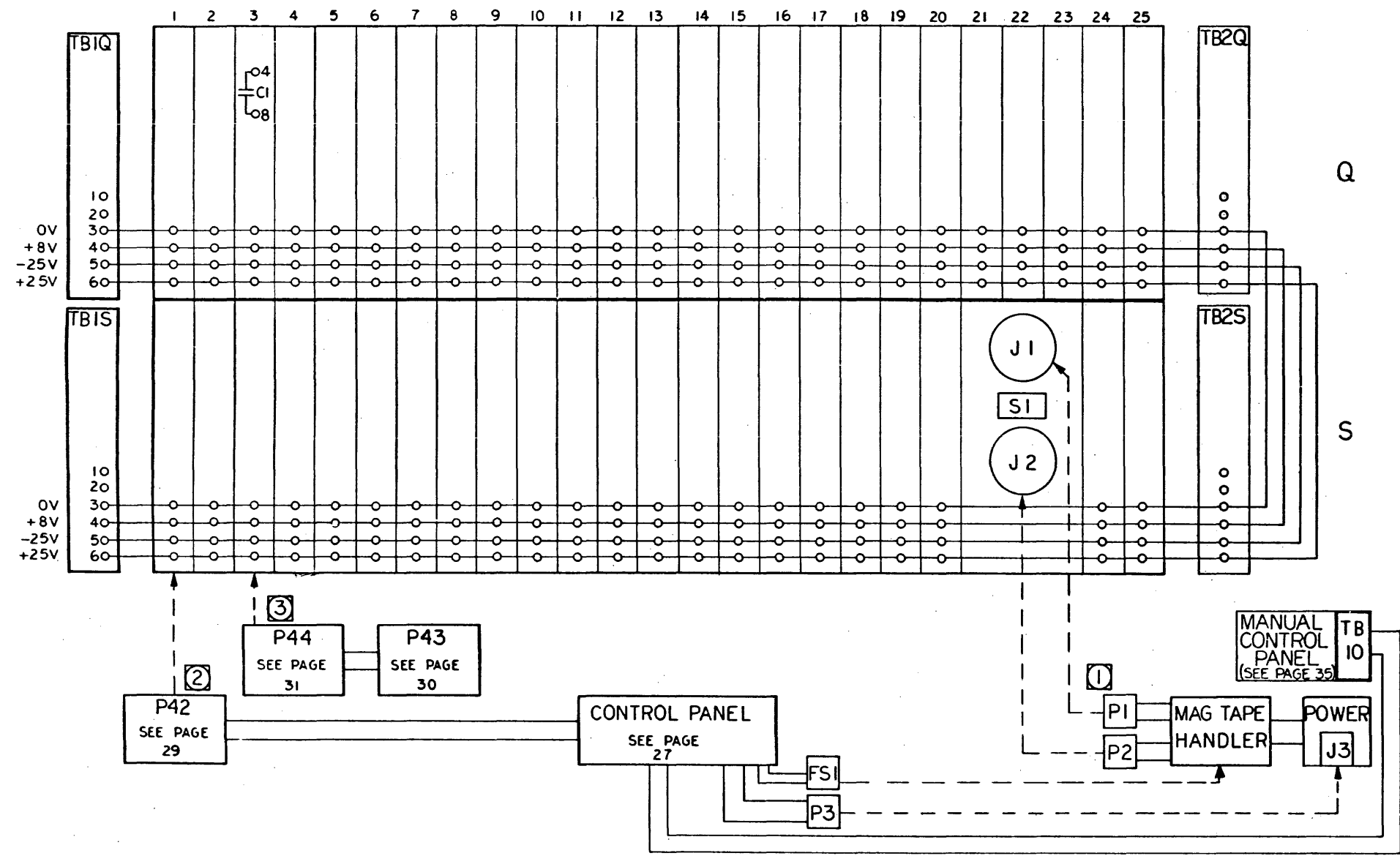
REVISIONS			
REV.	DESCRIPTION	CHK.	DATE
A	REL TO MFG		
C	SEE REV. E.O.		
D	SEE REV E.O.		

NOTES: UNLESS OTHERWISE SPECIFIED

① RECEPTACLES J1&J2 ARE PROVIDED FOR CONNECTION TO THE READ & WRITE HEADS OF THE MAG TAPE UNIT.

② RECEPTACLE J(S) IS PROVIDED FOR P42 FROM CONTROL PANEL.

③ RECEPTACLE J(3S) IS PROVIDED FOR THE P44 TO P43 CABLE. P43 CONNECTS TO RECEPTACLE J(24V) OF THE MODEL 9248 CONTROL UNIT OR TO J(2S) OF A SECOND MODEL 9246.



9246 A
MAG TAPE
PAGE 2
D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES XX ±.030 ANGULAR XXX ±.010 2°		DRAWN <i>Jack</i> 7/10/63	SDS SCIENTIFIC DATA SYSTEMS 1542 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA	
2. BREAK ALL SHARP EDGES 0.10 APPROX.		CHECK <i>C/LB</i> 7/17/63	TITLE DIAGRAM, LOGIC MAG TAPE	
3. MACH. SURFACES ✓		APPR. <i>WLS</i> 7/17/63	MODEL NO. 9246	
4. ALL DIM. IN INCHES			SIZE DWG NO. D 103258	
NEXT ASSY.			SCALE DO NOT SCALE DRAWING SHEET	

1103258/D1

REVISIONS				103258
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.			
C	SEE REV. E.O.			
D	SEE REV E.O.			

9246 DIRECTORY

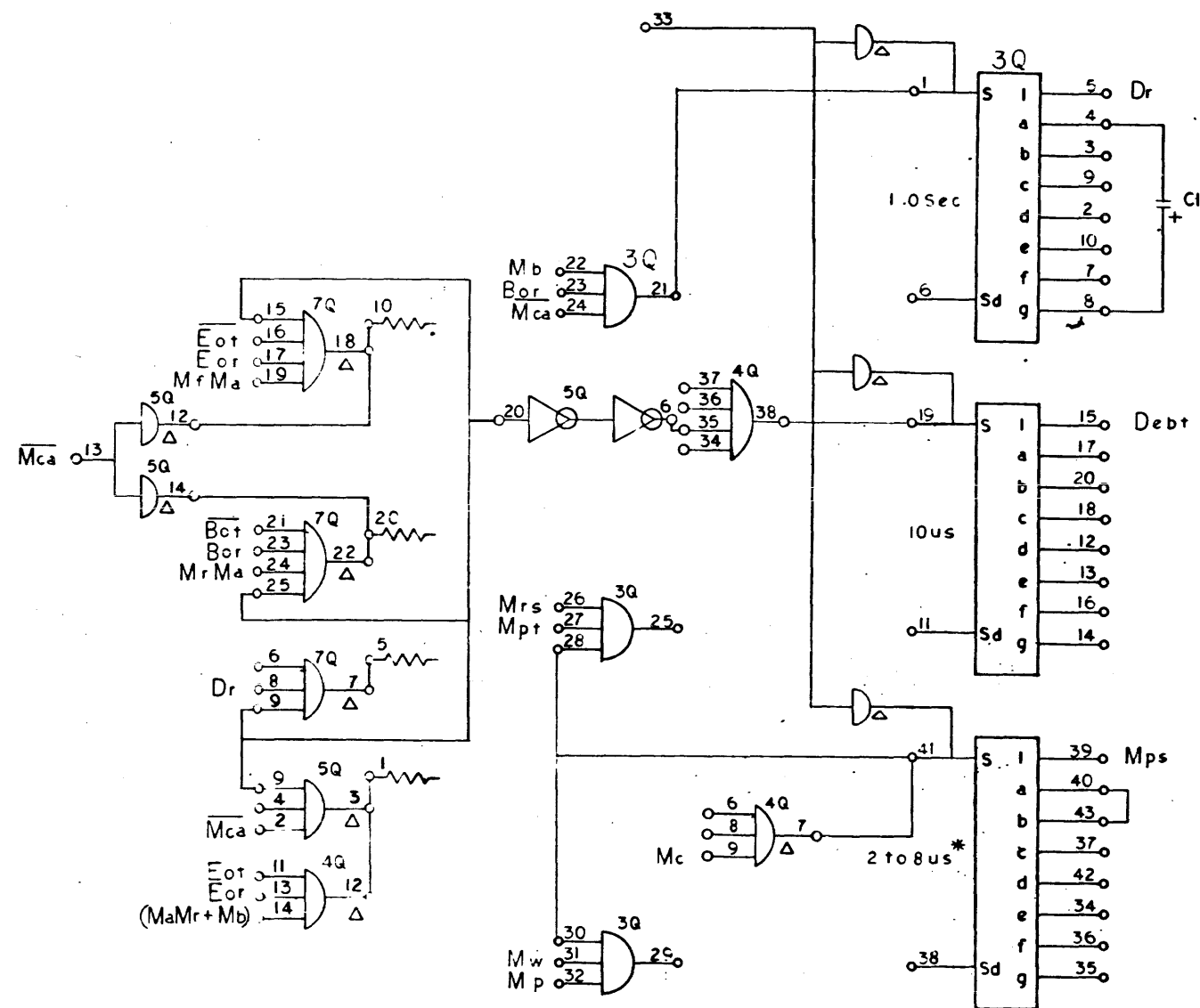
Ae	13	(Eor)	28	M1a	9	(R5a)	26
(Ae)	24	Eor	22	M2a	9	(R1a)	26
Aes	26	Eor	22	M3a	9	R1af	16
Aee	26	Eor + Dor	22	M4a	10	R2af	16
Aux. Contr. Panel	27	Eor Dor	19	M5a	10	R3af	16
(Bor)	28	Eot	4	M6a	10	R4af	14
Bor	6	Eot Indicate	6	M11t	11	R5af	14
(Bor)	22	File Protect Indicate	8	M2t	11	R6af	14
Bot	4	Forward Actuate	13	M3t	12	R1ar	17
Bot Indicate	8	(Ib)	23	M4t	12	R2ar	17
Ch1 Read	26	(Ie)	23	M5t	12	R3ar	17
Ch2 Read	26	K1 Set	8	M6t	12	R4ar	17
Ch3 Read	26	K2 Set	8	M1w	13	R5ar	15
Ch4 Read	26	Ma	4	M2w	13	R6ar	15
Ch5 Read	26	Mad	22	M3w	13	R1y	26
Ch6 Read	26	Mad	22	M4w	13	R2y	26
Ch7 Read	26	(Mad)	24	M5w	13	R3y	26
Ch1 Write	13	Ma	19	M6w	13	R4y	26
Ch2 Write	13	Ma Mr	19	Ready	6	R5y	26
Ch3 Write	13	Ma Mr + Mb	19	(Ready)	6	R6y	26
Ch4 Write	13	Ma Test	19	Ready Indicate	8	R1z	26
Ch5 Write	13	Ma Test*	19	Reverse Actuate	13	R2z	26
Ch6 Write	13	Ma Test	19	Rpa	18, 19	R3z	26
Ch7 Write	13	Ma Test	19	(Rpa)	25	R4z	26
C12	20	Mb	4	(Rpa)	26	R5z	26
C13	20	Mc	6	Rpaf	18	R6z	26
C14	20	(Mca)	21	Rpar	18	(Slot)	23
C15	20	M Control	20	Rpy	26	(Slot)	7
C16	20	Mf	21	Rpz	26	Test	13
C17	20	Mp	21	R1a	16, 17, 19	Test	13
C21	22	Mpe	5	R2a	16, 17, 19	Tha	26
C22	22	Mpt	11	R3a	16, 17, 19	Thd	26
C23	22	Mpw	13	R4a	14, 15, 19	Unit Select	6
(Da)	24	Mr	21	R5a	14, 15, 19	Write Activate	13
(Db)	24	(Mre)	11	R6a	14, 15, 19	W9 W11	21
(Dc)	24	M Start Q2	20	(R1a)	25	W9 W11	21
Debt	5	Mw	6	(R2a)	25		
Dr	5	M1	21	(R3a)	25		
(Dr)	6	M2	21	(R4a)	25		
		M3	21	(R5a)	25		
		M4	21	(R6a)	25		
		M5	21	(R1a)	26		
		M6	21	(R2a)	26		
				(R3a)	26		
				(R4a)	26		

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MAG TAPE UNIT
PAGE 3
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NO. REG.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES XX ± 0.00 ANGLULAR SEE 2.010 ± 1/2°		DRAWN A/B	DATE 7/17/63	SDS SCIENTIFIC DATA SYSTEMS 242 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA
2. BREAK ALL SHARP EDGES 0.10 APPROX.		CHECK WKF	DATE 7/18/63	
3. HATCH SURFACES 4. ALL DIM. IN INCHES		APPR		TITLE DIAGRAM, LOGIC, MAG TAPE UNIT
MODEL NO.	9246	SIZE	DWG NO.	D
NEXT ASSY.		SCALE	103258	D
			DO NOT SCALE DRAWING	SHEET

103258 | D |

REVISIONS				103258	D
REV	DESCRIPTION	CHR	DATE	APPROVED	
A	REL. TO MFG.		11/19/63		
C	SEE REV. E.O.				
D	SEE REV E.O.				



* SEE CALIBRATION PROCEDURE

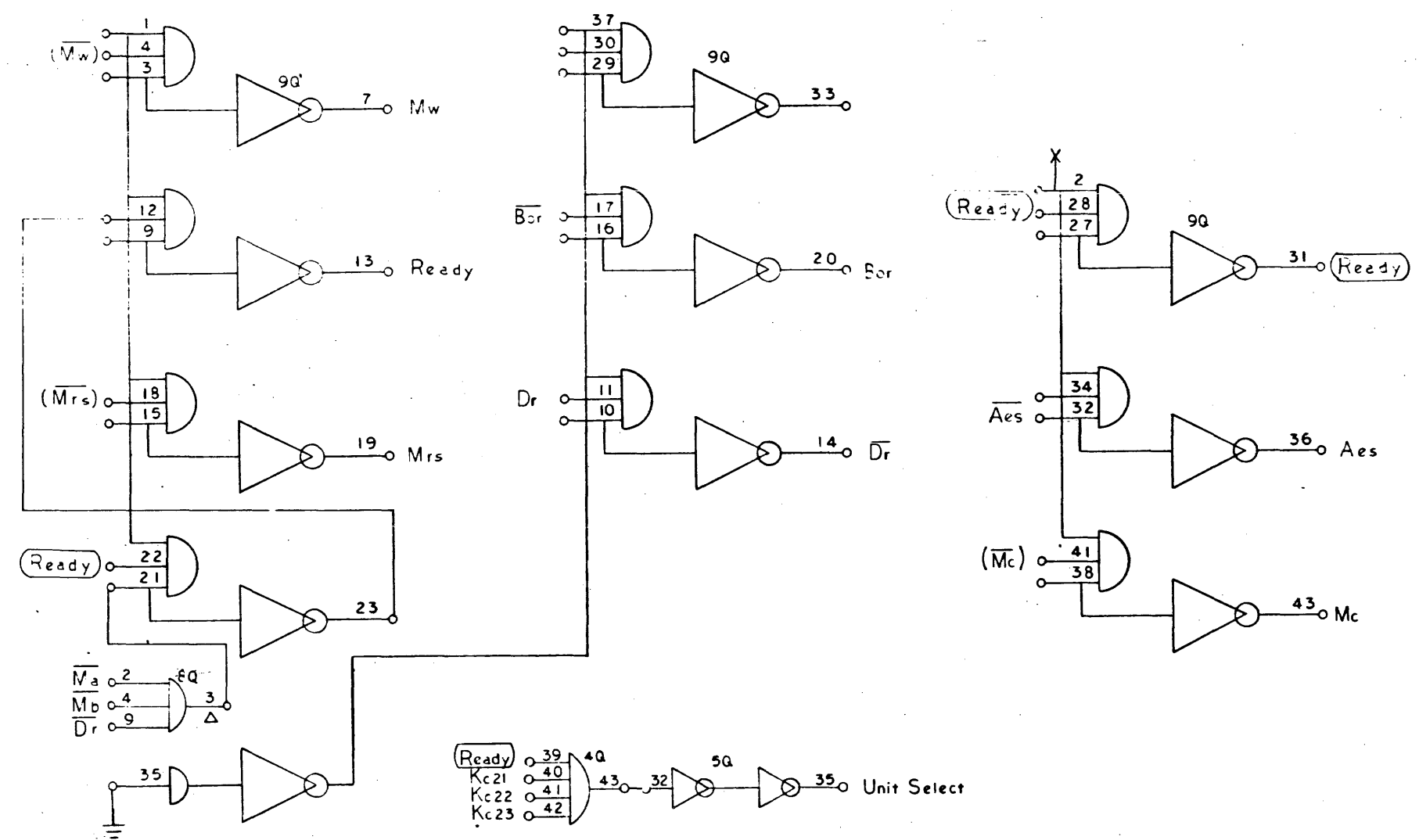
9246A
9246P
TAPE ELECTRONICS
PAGE 5
D

NO. REQ.	DRAWING NO.	DATE	DESCRIPTION	REVISIONS	ITEM NO.
NOTES UNLESS SPECIFIED		DATE	BY	APPROVED	
1. TO FRANCHISEE		DATE	BY	APPROVED	
2. BREAK ALL SHARP EDGES		DATE	BY	APPROVED	
3. MACH SURFACES		DATE	BY	APPROVED	
4. ALL DIM IN INCHES		DATE	BY	APPROVED	
MODEL NO.	9246	DATE	11/19/63	APPROVED	
NEXT ASSY.		DATE		APPROVED	
		DATE		APPROVED	

SDS SCIENTIFIC DATA SYSTEMS
DIAGRAM, LOGIC,
MAG TAPE UNIT

103258 D

REVISIONS		DATE	APPROVED
REV	DESCRIPTION		
A	REL. TO MFG.		
C	SEE REV. E.O.		
D	SEE REV E.O.		

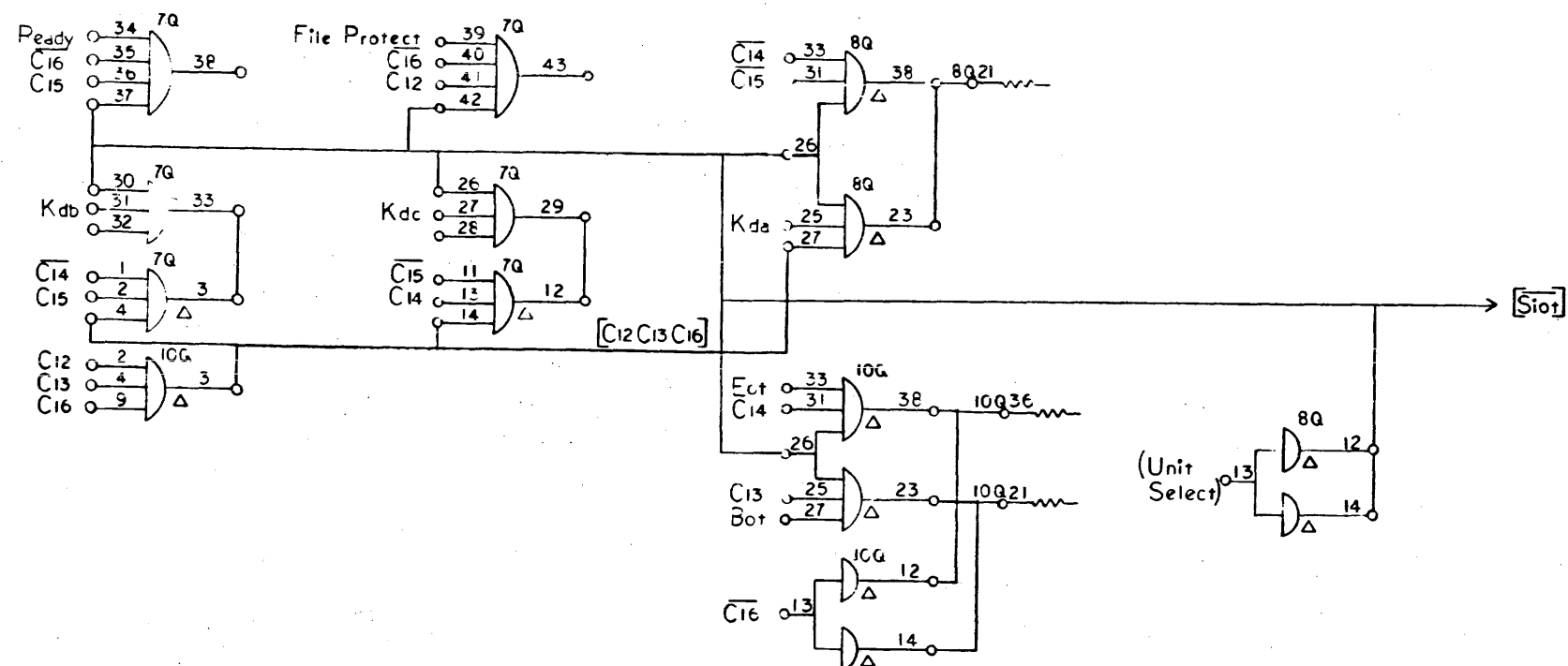


9246A
 9246P
 TAPE ELECTRONICS
 PAGE 6
 D

103258 | D |

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	SDS SCIENTIFIC DATA SYSTEMS <small>142 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA</small>	
1 TOLERANCES <small>ES ± 0.00 ANGULAR <small>SEE ± 0.10</small></small>		CHECK		
2 BREAK ALL SHARP EDGES <small>0.10 APPROX</small>		APPR		
3 HATCH SURFACES ✓			DIAGRAM, LOGIC, MAG TAPE UNIT	
4 ALL DIM IN INCHES				
MODEL NO.	9246	SIZE	DWG NO.	D
NEXT ASSY		SCALE	103258	D
			DO NOT SCALE DRAWING	SHEET

REV		DESCRIPTION	CHK	DATE	APPROVED
A		REL. TO MFG.			
C		SEE REV. E.O.			
D		SEE REV E.O.			

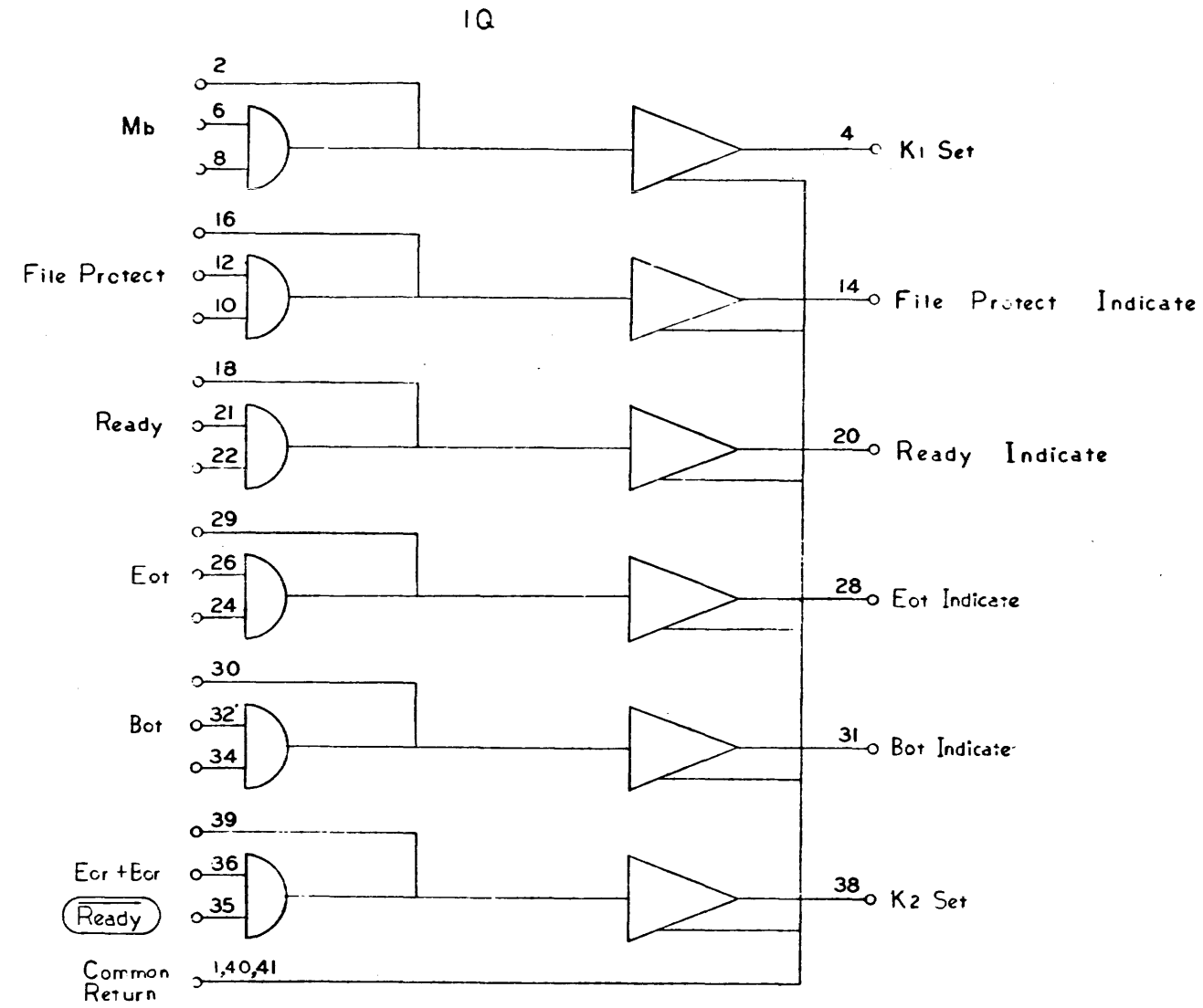


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TAPE ELECTRONICS
PAGE 7
D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	SDS SCIENTIFIC DATA SYSTEMS	
1. TOLERANCES XX ± .030 ANGULAR XXX ± .010 1/16"		CHECK	1542 FIFTEENTH STREET SANTA MONICA CALIFORNIA	
2. BREAK ALL SHARP EDGES BY APPROX		APPR	TITLE	
3. MACH SURFACES ✓			DIAGRAM, LOGIC, MAG TAPE UNIT	
4. ALL DIM IN INCHES				
MODEL NO.	9246	SIZE	DWG NO.	D
NEXT ASSY		SCALE	103258	D
			DO NOT SCALE DRAWING	SHEET

103258 | D |

REVISIONS				103258	D
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL. TO MFG.				
C	SEE REV. E.O.				
D	SEE REV E.O.				

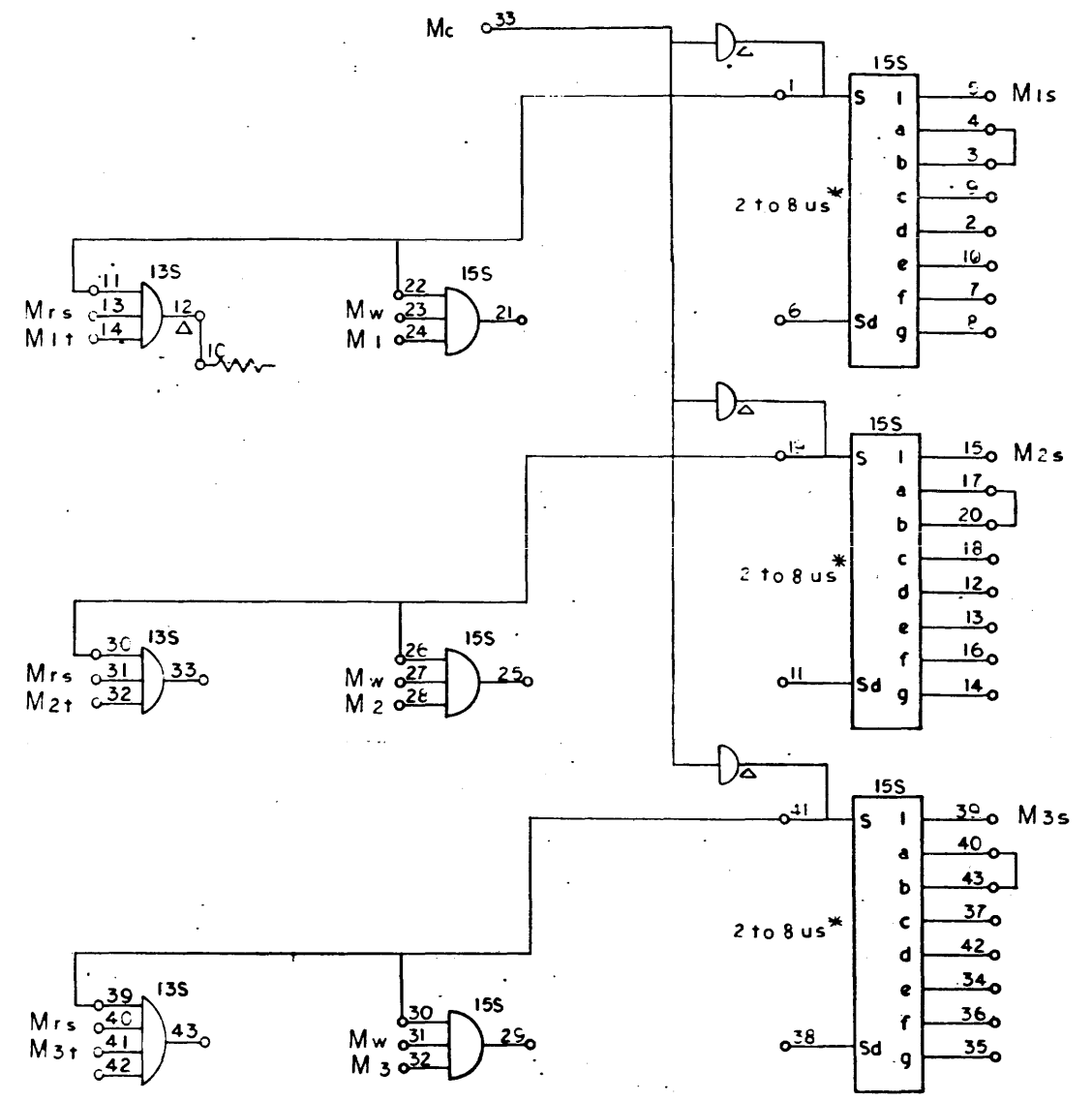


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9246P
TAPE ELECTRONICS
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D

NO. REG.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
		DIAGRAM, LOGIC, MAG TAPE UNIT		
NOTES UNLESS SPECIFIED: 1 TOLERANCES: XX ± .000 ANGULAR ± .5° SEE DIM 2 BREAK ALL SHARP EDGES DIM APPROX 3 HATCH SURFACES ✓ 4 ALL DIM IN INCHES		DRAWN: C/13 CHECKED: [Signature] APPR: [Signature] DATE: 7/18/63	MATERIAL SPEC: 11112 S/D/S DESIGN DATA SYSTEMS 1245 EASTERN STREET, SUITE 1000, CHICAGO, ILL. 60611	
MODEL NO.	9246	SIZE	D	103258
NEXT ASSY				

103258 D

REVISIONS		103258	D
REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG		
C	SEE REV. E.O.		
D	SEE REV E.O.		



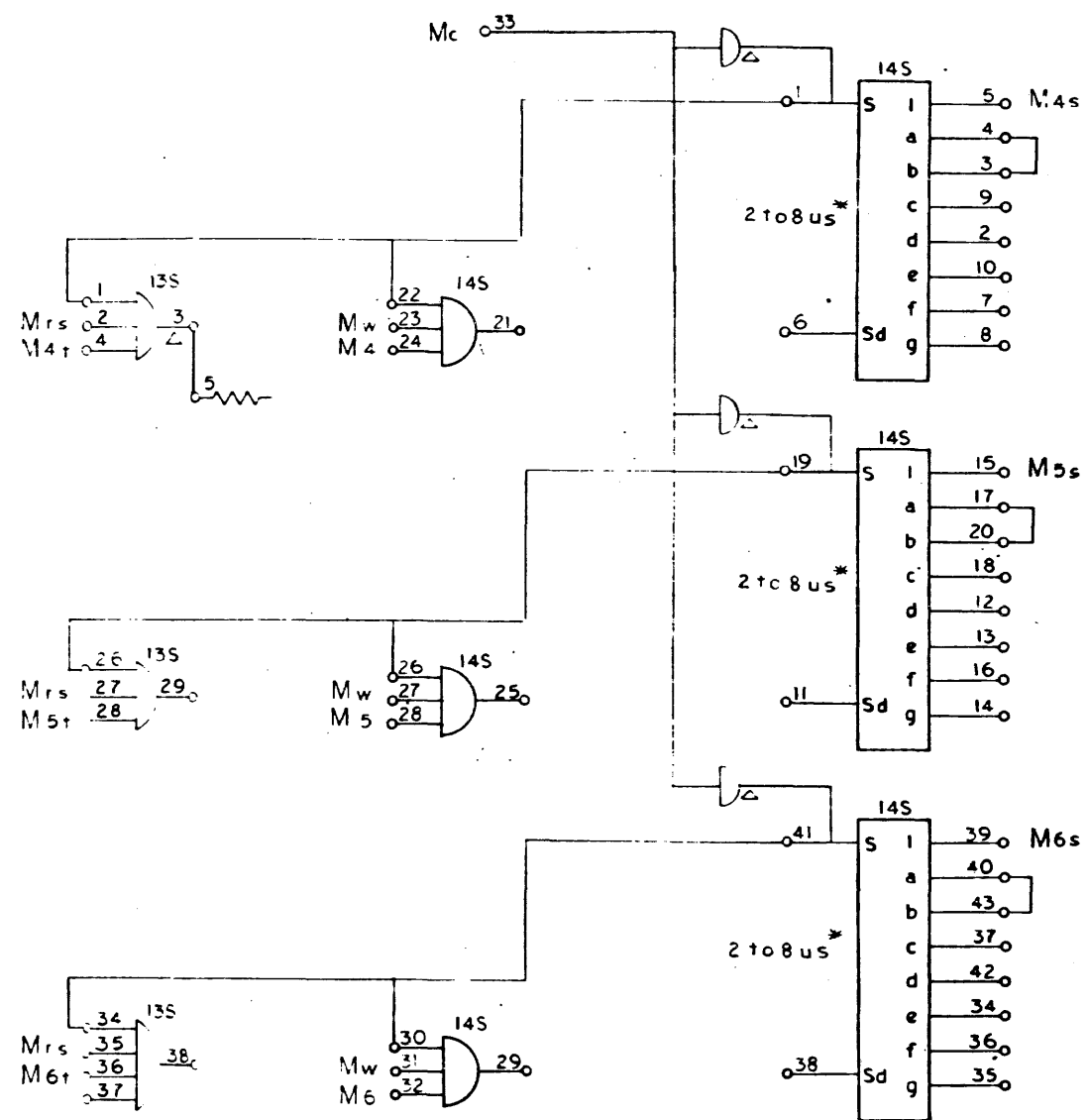
* SEE CALIBRATION PROCEDURE

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 9246P
 TAPE ELECTRONICS
 PAGE 9
 D

NO REQ	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	DATE	
1 TOLERANCES FF : 0.50 SEE 2.040		CHKD	DATE	
2 BREAK ALL SHARP EDGES SHD APPROX		APPR	DATE	
3 MACH SURFACES ✓				
4 ALL DIM. IN INCHES				
MODEL NO. 9246		SIZE D		DWG NO. 103258
NEXT ASSY.		SCALE		SHEET

103258 | D |

REVISIONS				
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.		7/13/63	
C	SEE REV. E.O.		7/15/63	
D	SEE REV E.O.		7/15/63	



* SEE CALIBRATION PROCEDURE

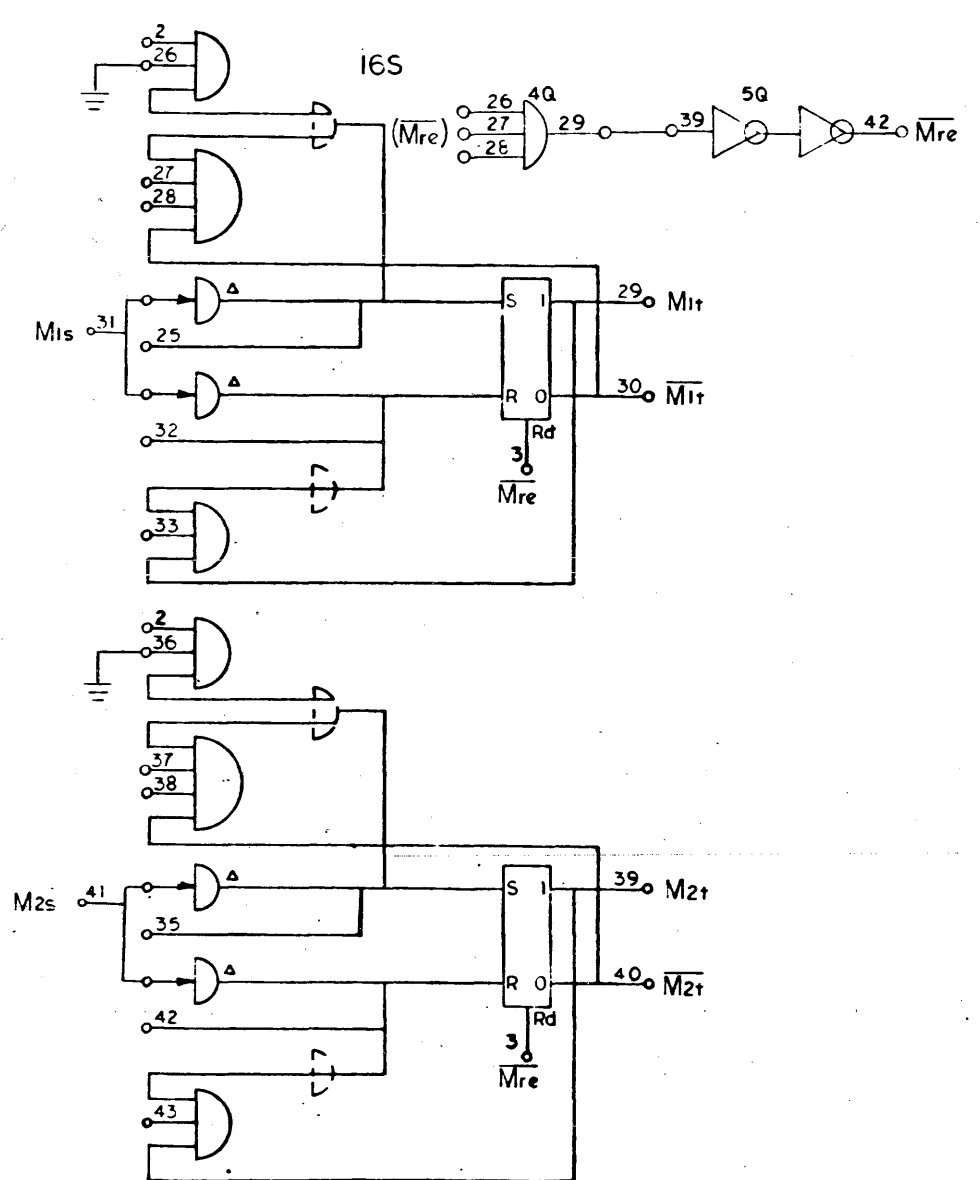
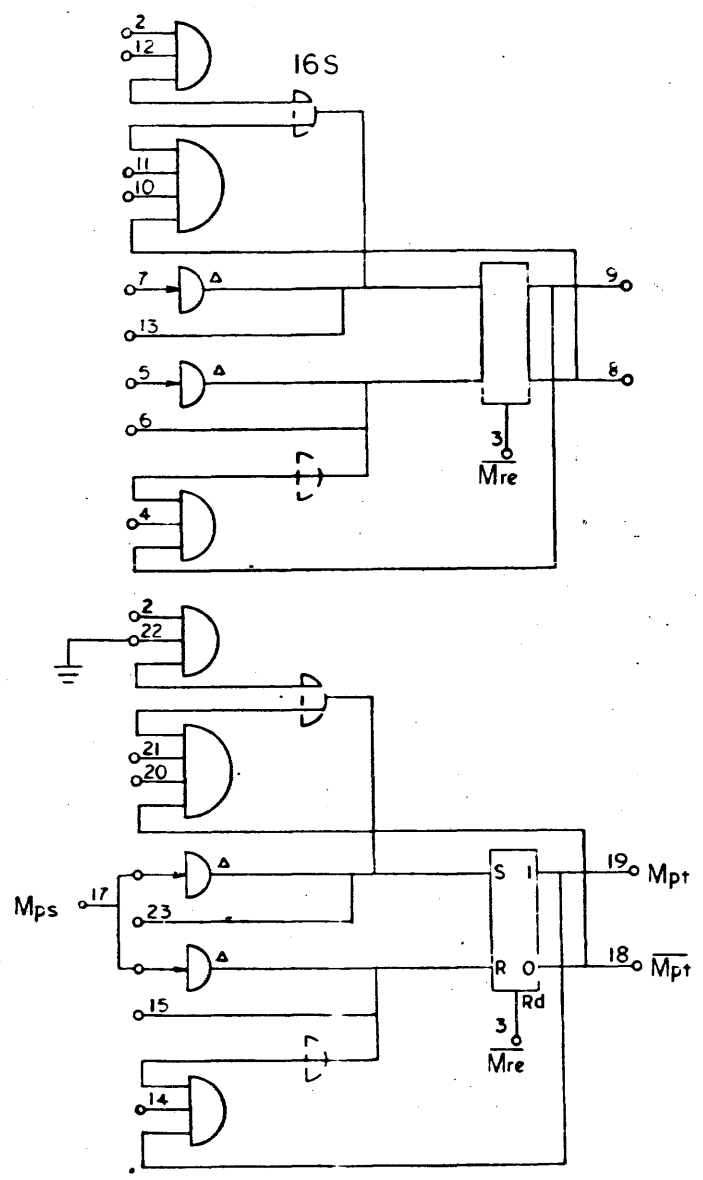
9246A
9246P
TAPE ELECTRONICS
PAGE 10
D

103258 | D |

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	7/19/63	
1 TOLERANCES SE ± 0.00 ANGULAR SEE ± 0.10		CHECK	7/17/63	
2 BREAK ALL SHARP EDGES 0.10 APPROX		APPR	7/19/63	
3 HATCH SURFACES ✓				
4 ALL DIM IN INCHES				
MODEL NO. 9246		SIZE DWG NO. D 103258		D
NEXT ASSY.		SCALE DO NOT SCALE DRAWING SHEET		

SDS SCIENTIFIC DATA SYSTEMS
1745 FIFTEENTH STREET SANTA MONICA, CALIFORNIA

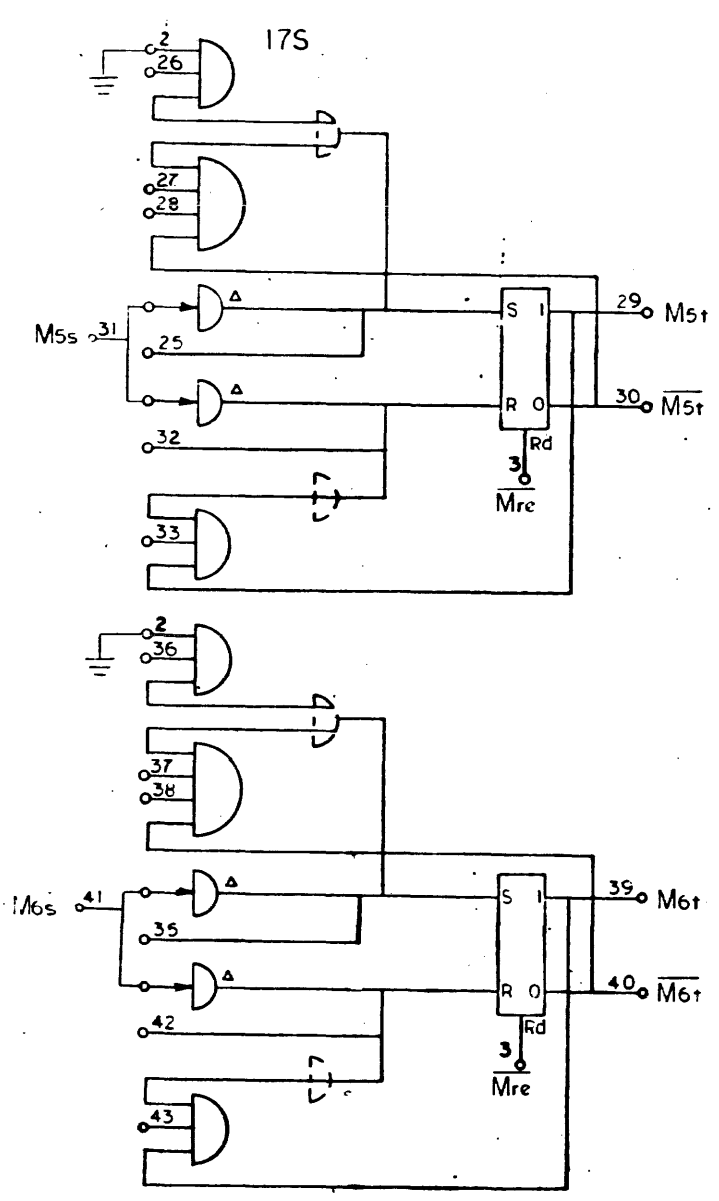
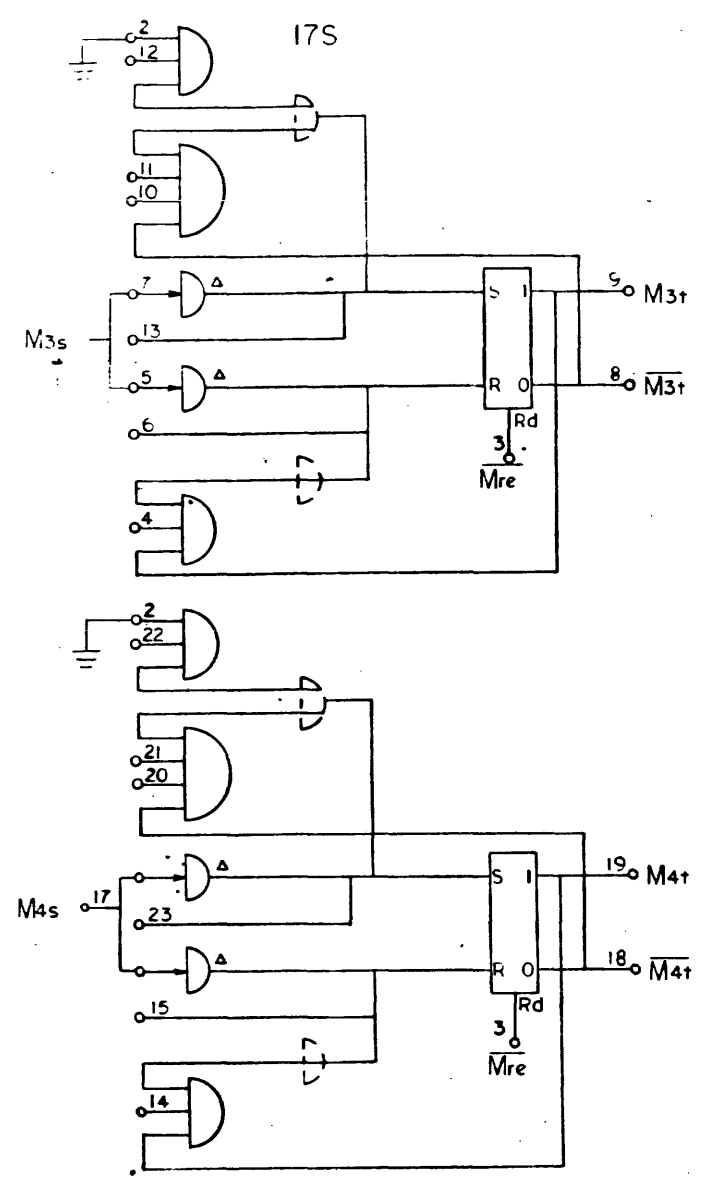
TITLE
DIAGRAM, LOGIC,
MAG TAPE UNIT



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TAPE ELECTRONICS
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D

NO	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM
NOTES UNLESS SPECIFIED				
1 TOLERANCES		DRAWN	MATERIAL LIST	
2 BREAK ALL SHARP EDGES		CHECK	TITLE	
3 HATCH SURFACES		APPR	SDS SCIENTIFIC DATA SYSTEMS	
4 ALL DIMS IN INCHES		DIAGRAM, LOGIC, MAG TAPE UNIT		
MODEL NO.	9246	SIZE	DWG NO.	D
NEXT ASSY.		SCALE	103258	D

REVISIONS				103258	D
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL. TO MFG.				
C	SEE REV. E.O.				
D	SEE REV E.O.				

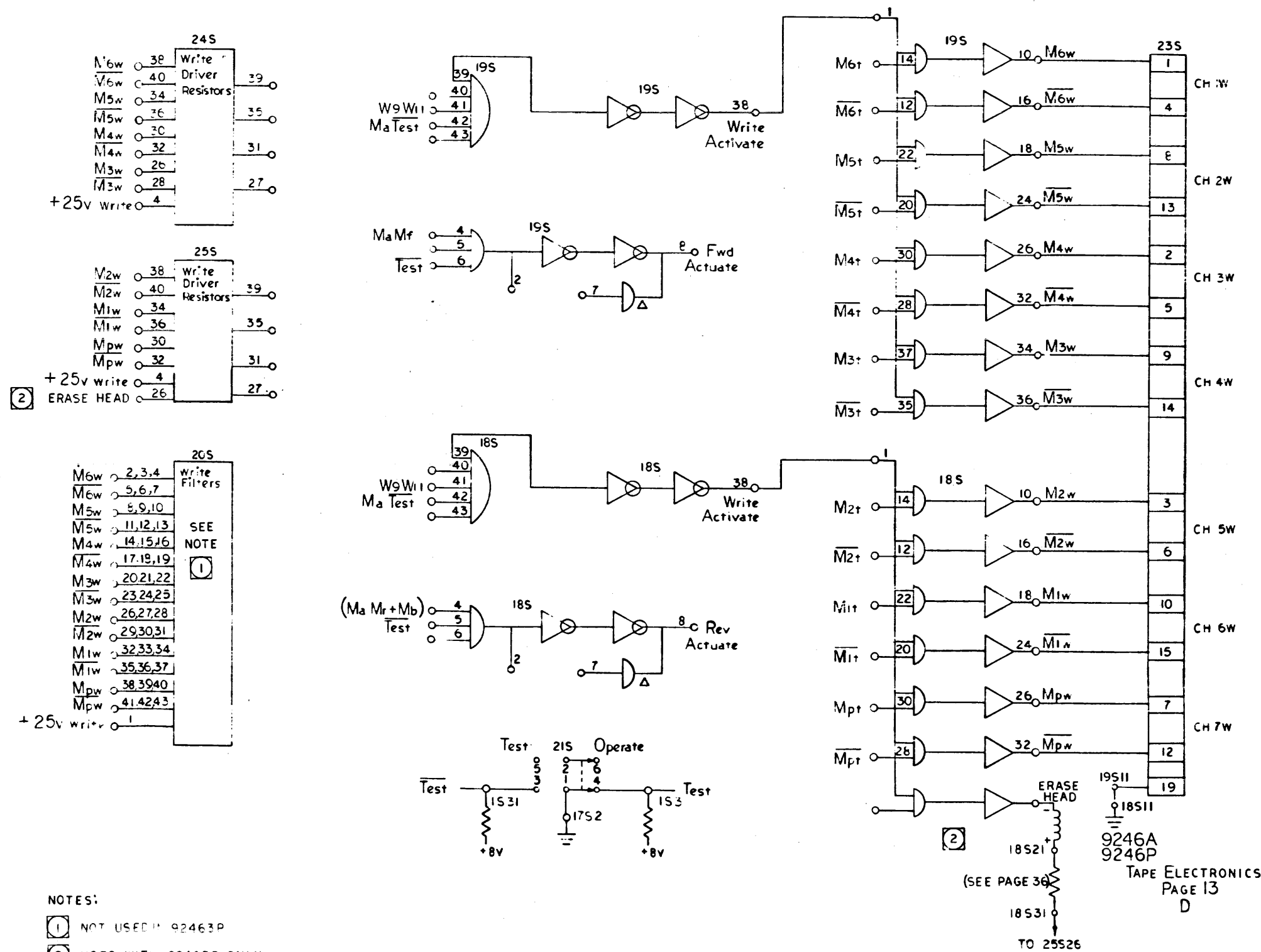


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TAPE ELECTRONICS
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103258 | D |

NO. REQ	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1 TOLERANCES XX ± 0.00		DRAWN		MATERIAL LIST
2 BREAK ALL SHARP EDGES 0.10 APPROX		CHECK		
3 HATCH SURFACES		APPR.		SDS SCIENTIFIC DATA SYSTEMS 1742 FIFTEENTH STREET SANTA MONICA CALIFORNIA TITLE DIAGRAM, LOGIC, MAG TAPE UNIT
4 ALL DIM. IN INCHES				
MODEL NO. 9246		SIZE DWG NO. D 103258		D
NEXT ASSY.		SCALE		DO NOT SCALE DRAWING SHEET

REV		DESCRIPTION		DATE	APPROVED
A		REL. TO MFG.			
C		SEE REV. E.O.			
D		SEE REV. E.O.			



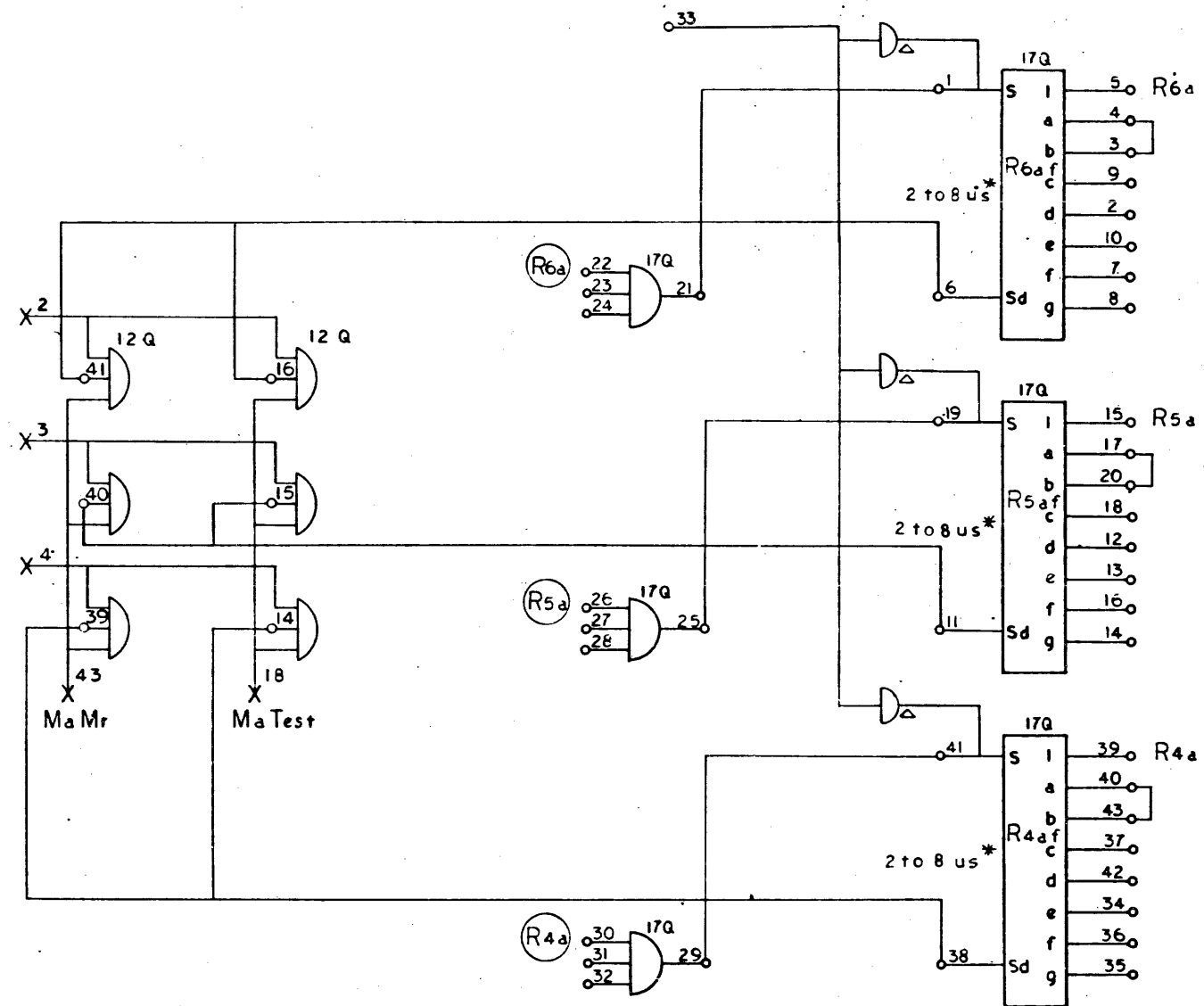
NOTES:
 ① NOT USED IN 92463P
 ② USED WITH 92463P ONLY.

(SEE PAGE 30)
 18521
 18531
 TO 25S26
 TAPE ELECTRONICS
 PAGE 13
 D

NO.	REV.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST					
NOTES UNLESS SPECIFIED					
1		TOLERANCES	AS SHOWN		
2		ANGULAR	2 1/2°		
3		BREAK ALL SHARP EDGES	0.015 APPROX		
4		RACH. SURFACES	✓		
5		ALL DIM. IN INCHES			
MODEL NO. 9246			SIZE DWS NO. D 103258		
NEXT ASSY.			SCALE DO NOT SCALE DRAWING SHEET		

103258 | D

REVISIONS				103258	D
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL. TO MFG.		7/10/63		
C	SEE REV. E.O.		7/10/63		
D	SEE REV E.O.		7/10/63		



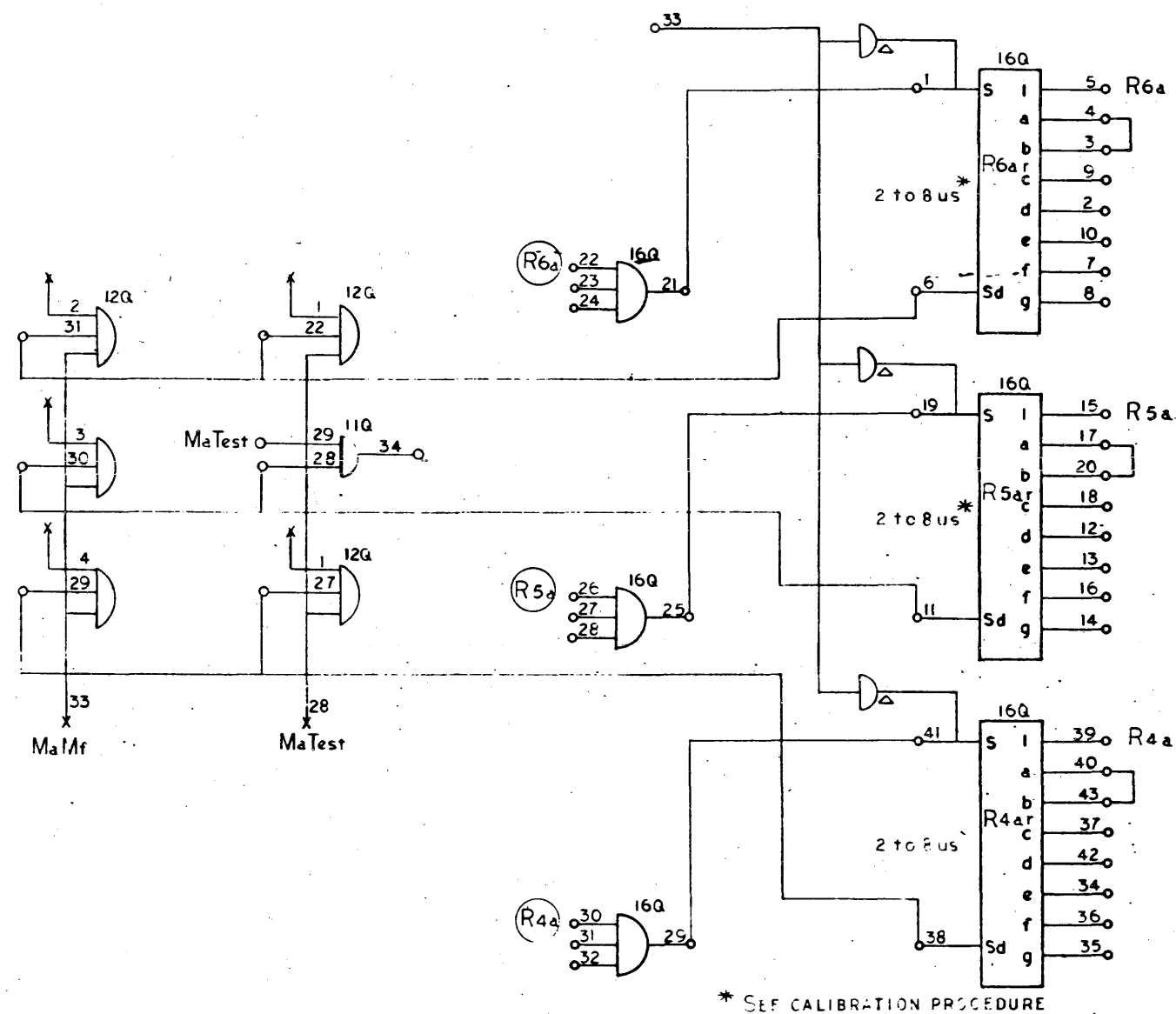
* SEE CALIBRATION PROCEDURE

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TAPE ELECTRONICS
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D

103258 | D |

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED 1. TOLERANCES XX ± 0.00 ANGULAR XXX ± 0.10 ± 1/16" 2. BREAK ALL SHARP EDGES BY APPROX. ✓ 3. HATCH SURFACES 4. ALL DIM. IN INCHES				
DRAWN		7/10/63	SDS SCIENTIFIC DATA SYSTEMS 1542 FIFTEENTH STREET SANTA MONICA CALIFORNIA	
CHECK		7/10/63	TITLE	
APPR.		7/10/63	DIAGRAM, LOGIC, MAG TAPE UNIT	
MODEL NO.		9246	SIZE	DWG NO.
NEXT ASSY.			D	103258
			SCALE	DO NOT SCALE DRAWING SHEET

REVISIONS				103258	D
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL. TO MFG.				
C	SEE REV. E.O.				
D	SEE REV E.O.				



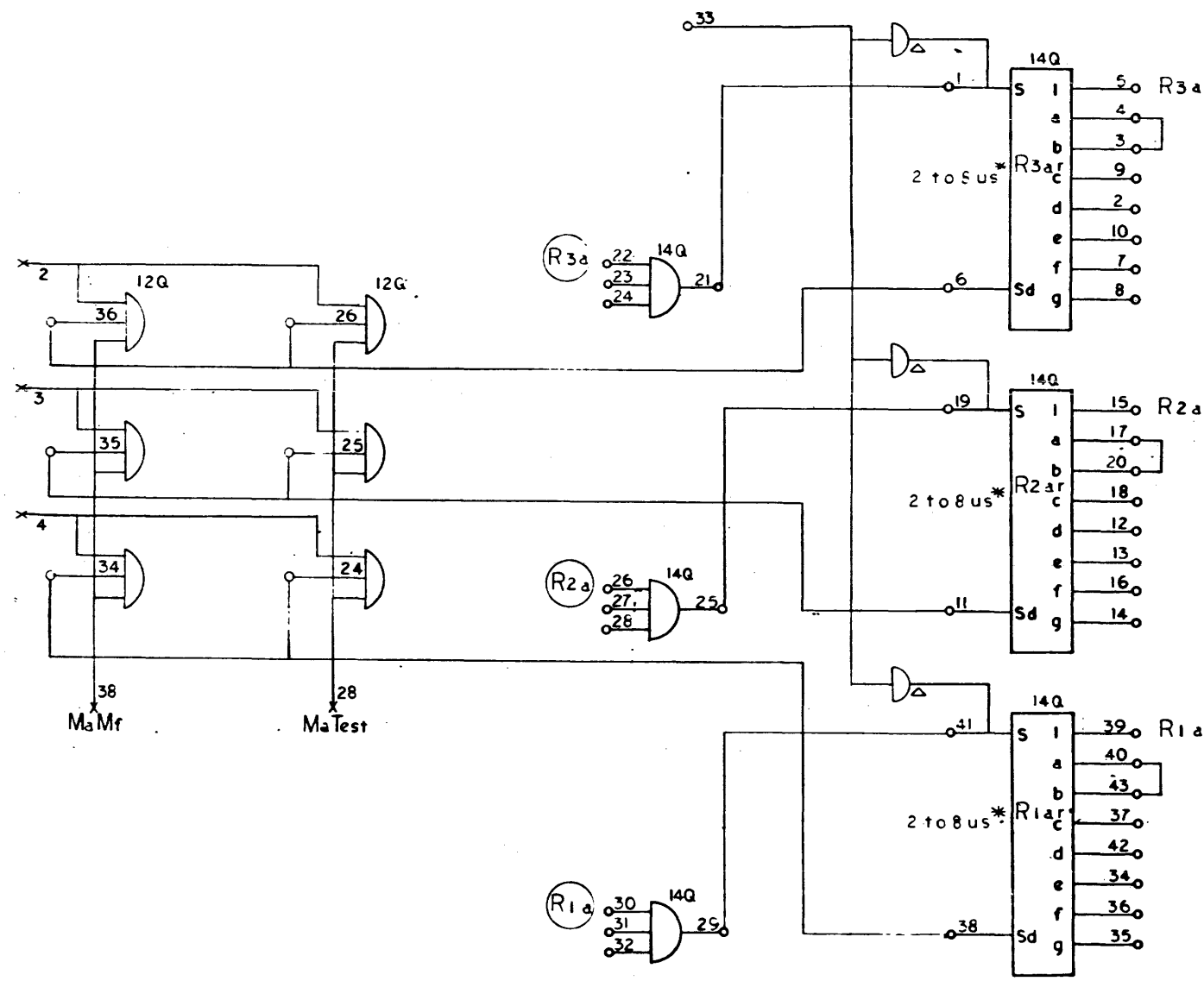
* SEE CALIBRATION PROCEDURE

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9246P
TAPE ELECTRONICS
PAGE 15
D

NO. REQ	DRAWING NO	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1 TOLERANCES AS SHOWN		2 DRAWN 7/1/65	SDS SCIENTIFIC DATA SYSTEMS 1707 FIFTEENTH STREET SANTA MONICA CALIFORNIA	
2 BREAK ALL SHARP EDGES 0.10 APPROX		3 CHECK RJB 7/17/65	TITLE DIAGRAM, LOGIC, MAG TAPE UNIT	
3 MACH SURFACES 4 ALL DIM IN INCHES		4 APPR RJB 7/17/65	MODEL NO. 9246	
NEXT ASSY		SIZE DWG NO. D 103258		D
SCALE		ORIGINAL DRAWING		SHEET

103258 D

REV		DESCRIPTION	DATE	APPROVED
A		REL TO MFG.		
C		SEE REV. E.O.		
D		SEE REV E.O.		



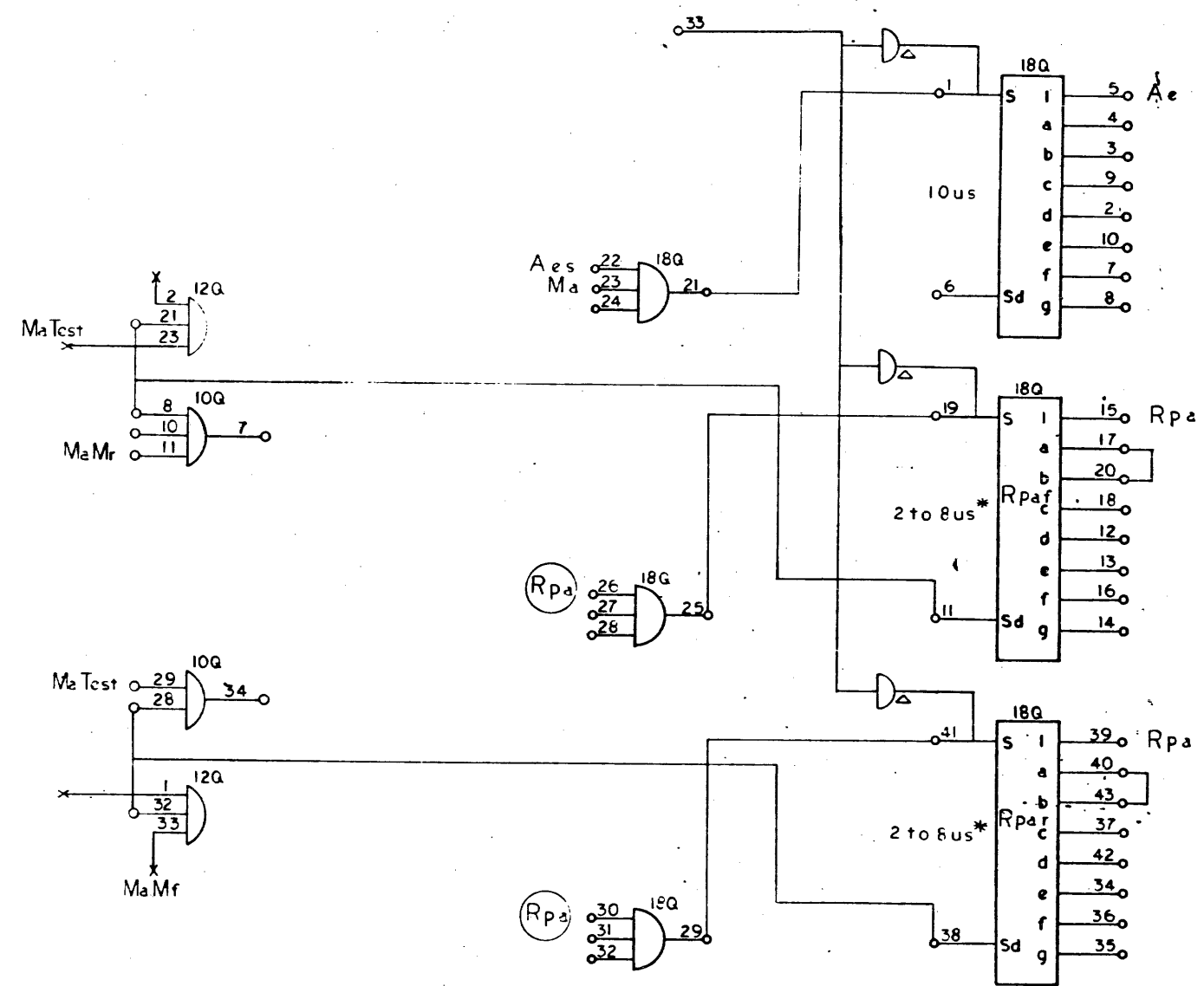
* SEE CALBRATION PROCEDURE

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9246P
TAPE ELECTRONICS
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D

NO. REV.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED 1. TOLERANCES XX ± 0.10 ANGULAR XXX ± 0.10 ± 1/16" 2. BREAK ALL SHARP EDGES 0.10 APPROX 3. MACH SURFACES ✓ 4. ALL DIM IN INCHES				
DRAWN: [Signature] CHECK: [Signature] APPR: [Signature]		MATERIAL LIST SDS SCIENTIFIC DATA SYSTEMS 1440 CLEVELAND STREET, SANTA MONICA, CALIFORNIA		
MODEL NO. 9246 NEXT ASST.		TITLE DIAGRAM, LOGIC, MAG TAPE UNIT		
SCALE		DO NOT SCALE DRAWING		SHEET D 103258 D

103258 | D |

REVISIONS				
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.			
C	SEE REV. E.O.			
D	SEE REV E.O.			



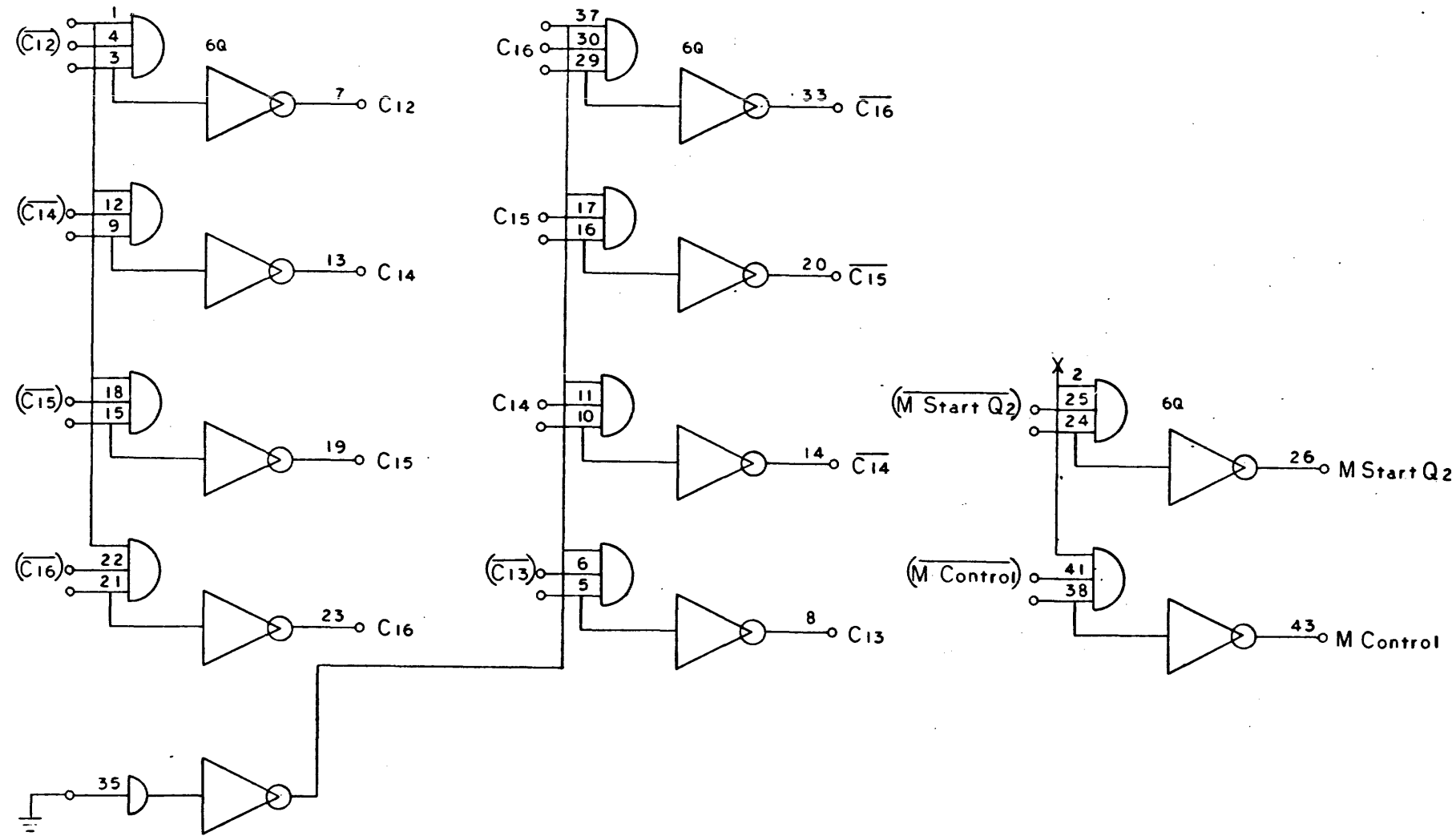
*SEE CALIBRATION PROCEDURE

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9246P
TAPE ELECTRONICS
PAGE 18
D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE IDENTIFICATION	FORM NO.
		NOTES UNLESS SPECIFIED		
		1. TOLERANCES XX - .010 XXX - .010		
		2. BREAK ALL SHARP EDGES 0.10 APPROX		
		3. MACH SURFACES <input checked="" type="checkbox"/>		
		4. ALL DIM IN INCHES		
		DATE: 7/17/63 DRAWN: [Signature] CHECKED: [Signature] APPR: [Signature]	SDS SCIENTIFIC DATA SYSTEMS	
			DIAGRAM, LOGIC, MAG TAPE UNIT	
	9246		D 103258	D

103258 D1

REVISIONS		103258	D
REV	DESCRIPTION	CHKD	APPROVED
A	REL TO MFG.		
C	SEE REV. E.O.		
D	SEE REV E.O.		

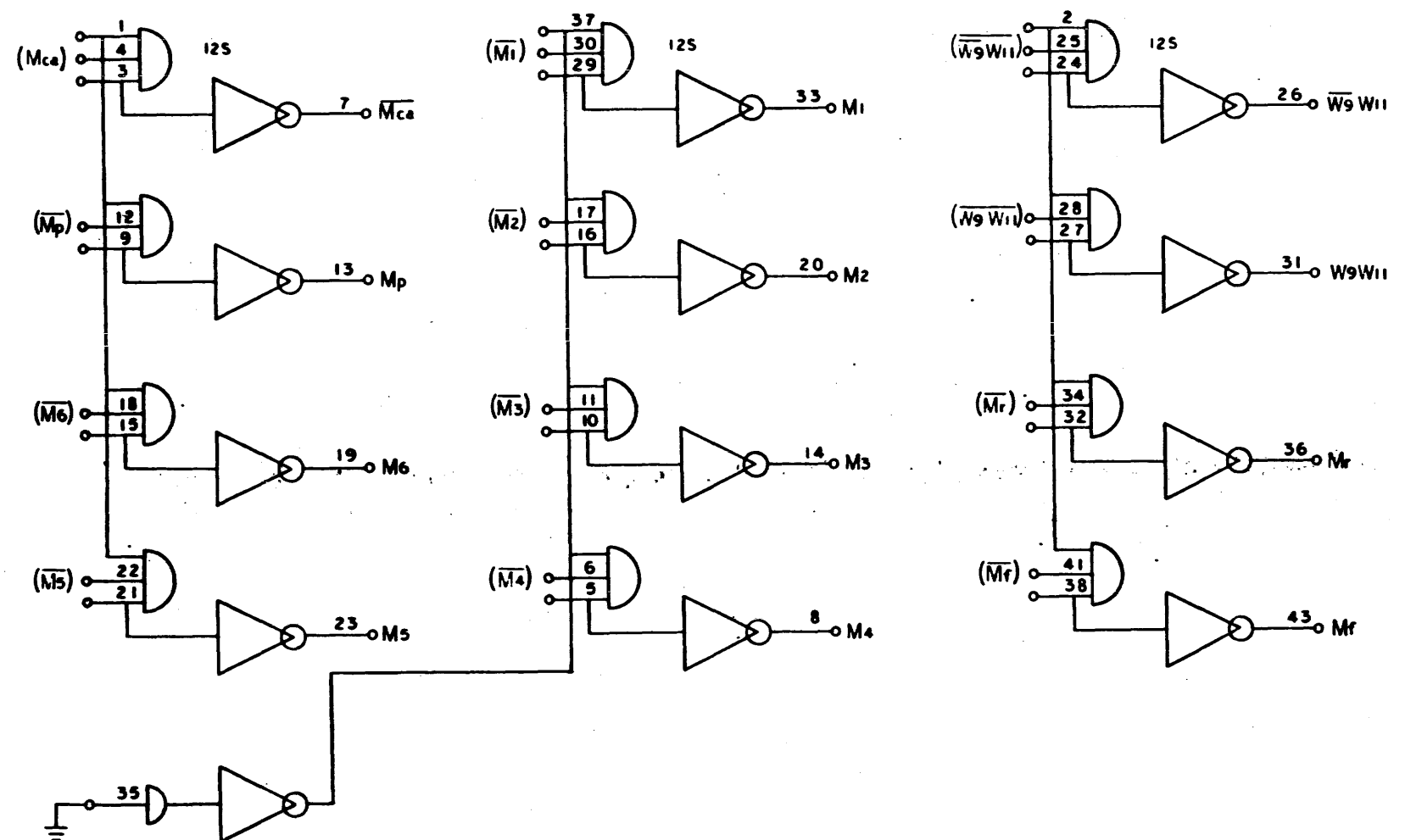


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TAPE ELECTRONICS
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D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	SDS SCIENTIFIC DATA SYSTEMS 1542 FIFTEENTH STREET SANTA MONICA CALIFORNIA	
1 TOLERANCES XX ± 0.00 XXX ± 0.01	ANGULAR ± 1°	CHECK C/13	7/12/63	TITLE DIAGRAM, LOGIC, MAG TAPE UNIT
2 BREAK ALL SHARP EDGES 0.10 APPROX	3 MACH. SURFACES ✓	APPR WKF	7/12/63	
4 ALL DIM IN INCHES				
MODEL NO. 9246	SIZE D	DWG NO. 103258	D	
NEXT ASSY.	SCALE	DO NOT SCALE DRAWING	SHEET	

103258 D

REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG.		
C	SEE REV. E.O.		
D	SEE REV E.O.		

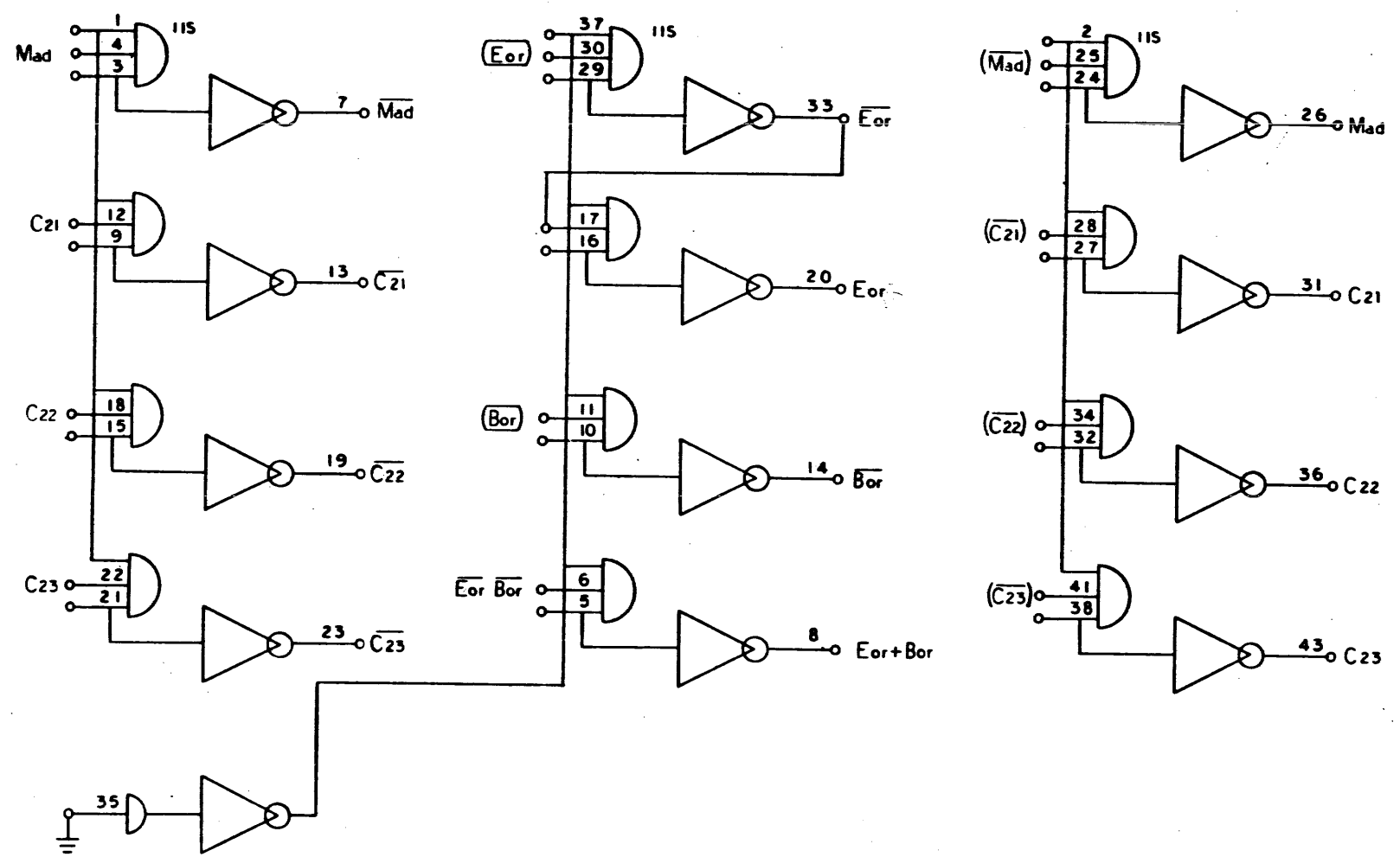


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TAPE ELECTRONICS
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D

NO	DRAWING NO	DESCRIPTION	REFERENCE DESIGNATION	REV
MATERIAL LIST				
1. UNLESS OTHERWISE SPECIFIED 2. DIMENSIONS IN INCHES 3. DIMENSIONS IN MILLIMETERS 4. ALL DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED 5. ALL DIMENSIONS TO SURFACE UNLESS OTHERWISE SPECIFIED		DESIGNED: [Signature] CHECKED: C/J [Signature] 7/17/63 APPROVED: [Signature] 7/17/63	SDS IDENTIFIED DATA SYSTEMS 1700 17TH STREET, SPRING BRIDGE, CALIFORNIA	
DIAGRAM, LOGIC, MAG TAPE UNIT			MODEL NO. 9246	REV. NO. D
NEXT ASSY.			DRAWING NO. 103258	REV. D
SCALE:			AS SHOWN ON DRAWING	CHECKED:

103258 103258

REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG	7/13/63	[Signature]
C	SEE REV. E.O.	7/13/63	[Signature]
D	SEE REV. E.O.	7/13/63	[Signature]

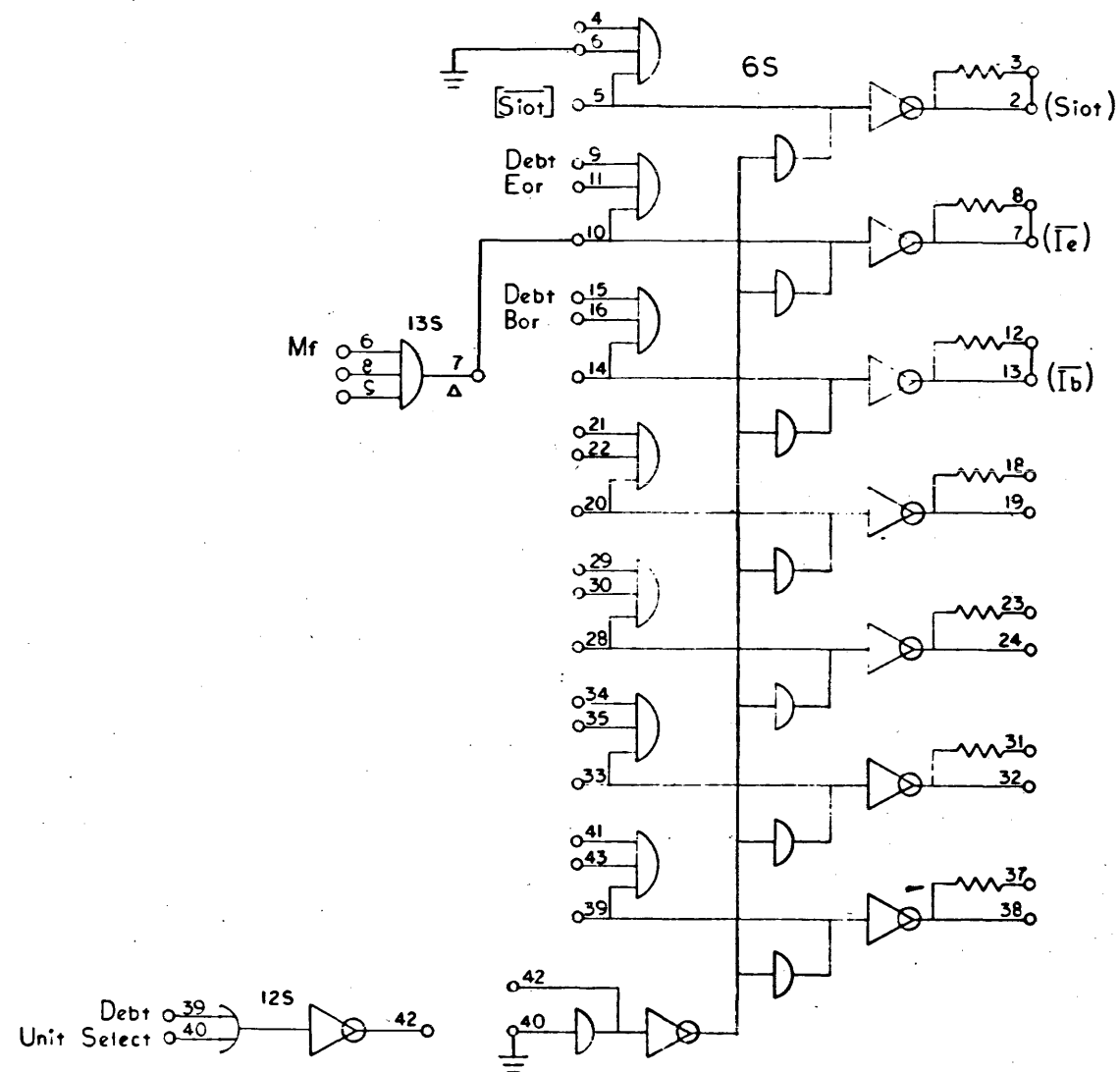


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TAPE ELECTRONICS
PAGE 22
D

103258 D 1

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE INFORMATION	ISSUE NO.
NOTES UNLESS SPECIFIED		DRAWN: [Signature]	DATE: 7/13/63	
1. TOLERANCES XX - DIM ANGULAR XXX - DIM °' "		CHECK: [Signature]	DATE: 7/17/63	
2. BREAK ALL SHARP POINTS AND APPROX.		APPV: [Signature]	DATE: 7/13/63	
3. HATCH SURFACES ✓				
4. ALL DIM TO CENTER				
MODEL NO.	9246		SIZE: Dwg No. 103258	D
NEXT ASSY				

REVISIONS				103258	D
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL. TO MFG				

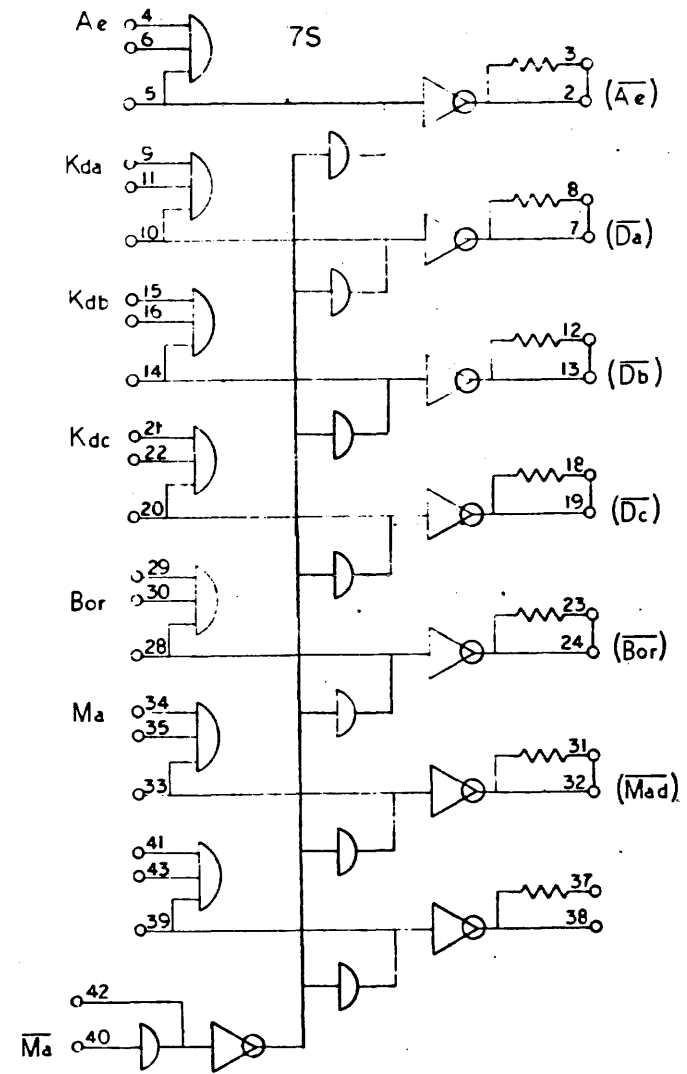


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9246P
TAPE ELECTRONICS
PAGE 23
D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN: <i>[Signature]</i> 1/12/63 CHECK: <i>[Signature]</i> 2/12/63 APPR: <i>[Signature]</i> 2/12/63	SDS SCIENTIFIC DATA SYSTEMS <small>142 FIFTEENTH STREET SANTA MONICA CALIFORNIA</small>	
1. TOLERANCES AS SHOWN 2. BREAK ALL SHARP EDGES 3. HATCH SURFACES 4. ALL DIM IN INCHES		TITLE DIAGRAM, LOGIC, MAG TAPE UNIT		
MODEL NO.		9246	SIZE	D
NEXT ASSY			DWG NO.	103258
			SHEET	D
			SCALE	DO NOT SCALE DRAWING

103258 | D

REVISIONS				
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.		2/17/63	[Signature]
C	SEE REV. E.O.			
D	SEE REV E.O.			

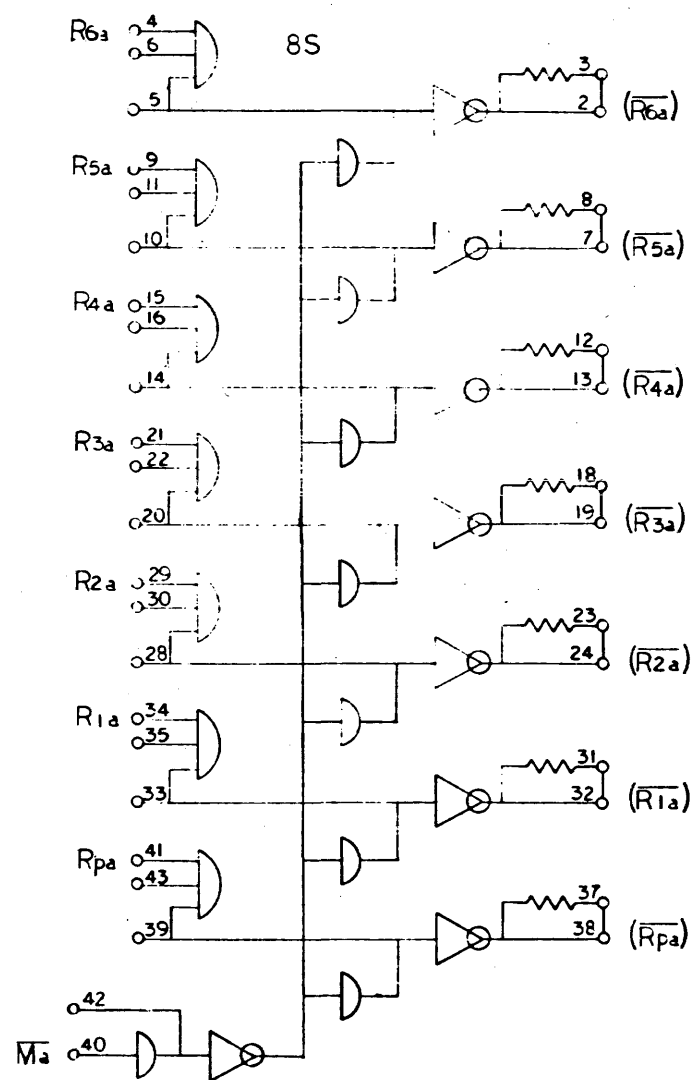


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TAPE ELECTRONICS
PAGE 24
D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN: [Signature] 7/17/63 CHECK: [Signature] 7/17/63 APPR: [Signature] 7/17/63	SDS SCIENTIFIC DATA SYSTEMS 1042 FIFTEENTH STREET SANTA MONICA, CALIFORNIA	
1 TOLERANCES XX ± .030 ANGULAR XX ± .010 ± 1/16" 2 BREAK ALL SHARP EDGES 310 APPROX. 3 HATCH SURFACES ✓ 4 ALL DIM. IN INCHES		TITLE DIAGRAM, LOGIC, MAG TAPE UNIT		
MODEL NO. 9246		SIZE D	DWG NO. 103258	ITEM NO. D
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING	SHEET

103258 | D |

REVISIONS		103258	D
REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG.	7/17/63	[Signature]
C	SEE REV. E.O.	7/18/63	[Signature]
D	SEE REV E.O.	7/18/63	[Signature]

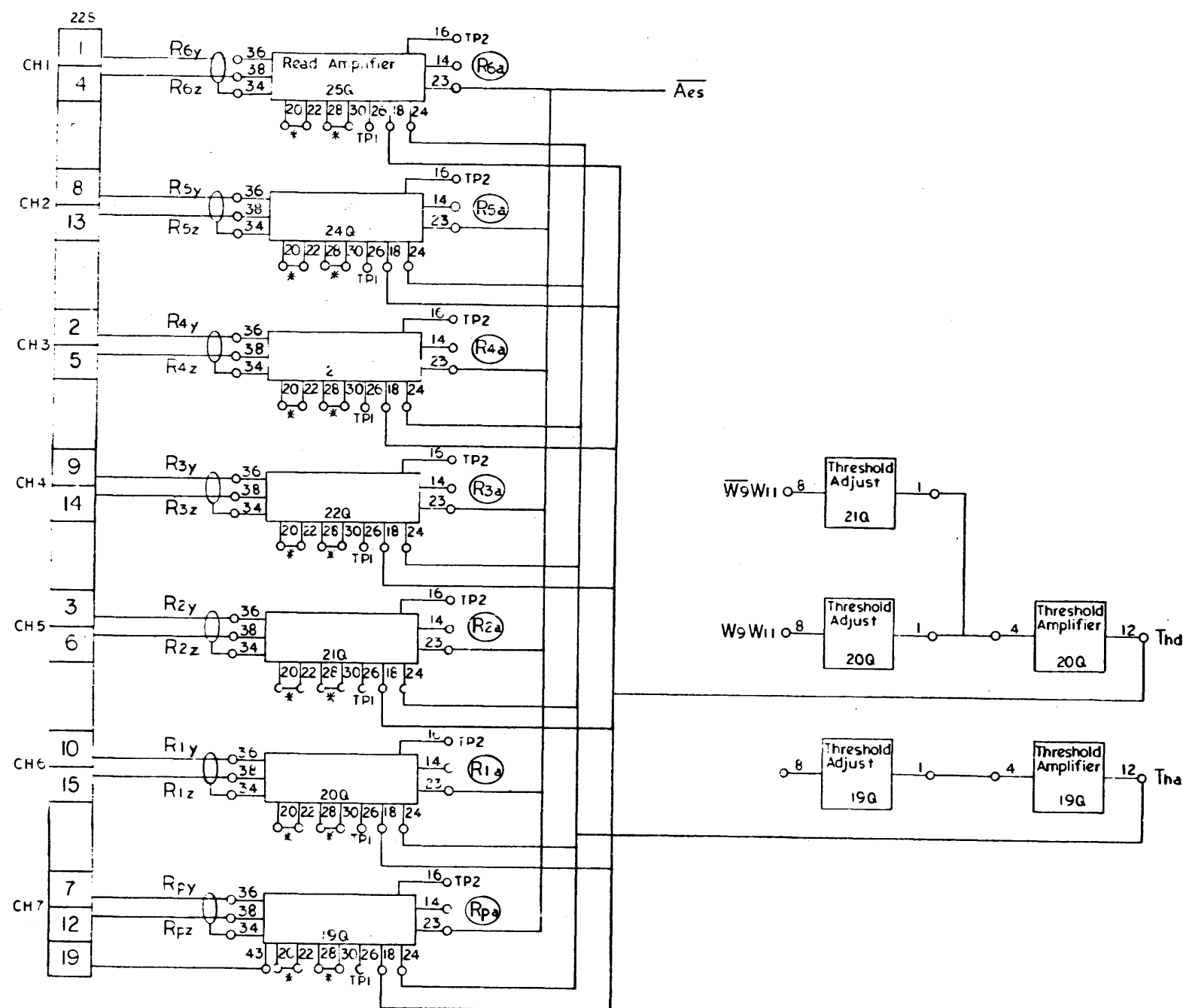


9246A
9246P
TAPE ELECTRONICS
PAGE 25
D

NO REQ	DRAWING NO	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO
NOTES UNLESS SPECIFIED 1 UNLESS OTHERWISE SPECIFIED 2 BREAK ALL SHARP EDGES 3 MACH SURFACES 4 ALL DIM IN INCHES				
DRAWN: [Signature] 7/17/63 CHECK: [Signature] 7/17/63 APPR: [Signature] 7/18/63		MATERIAL LIST SDS SCIENTIFIC DATA SYSTEMS 1742 SHERBORN STREET, SANTA MONICA, CALIFORNIA		
MODEL NO 9246		TITLE DIAGRAM, LOGIC, MAG TAPE UNIT		
NEXT ASSY		SIZE D	DWG NO 103258	ITEM NO D
SCALE		DO NOT SCALE DRAWING		

103258 | D |

REV	DESCRIPTION	DATE	APPROVED
A	REL TO MEQ		
C	SEE REV. E.O.		
D	SEE REV E.O.		



* JUMPERS 20-22 AND 28-30 ARE NOT USED IN 92463P.

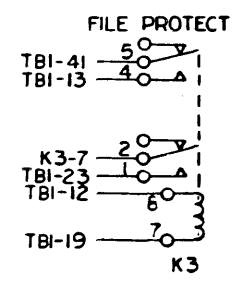
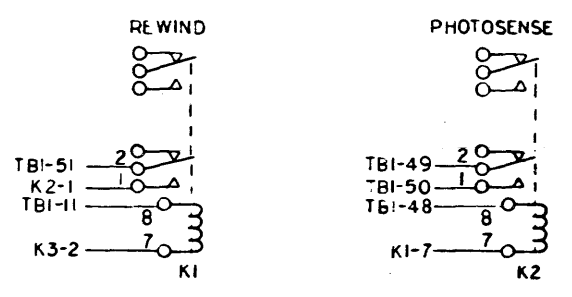
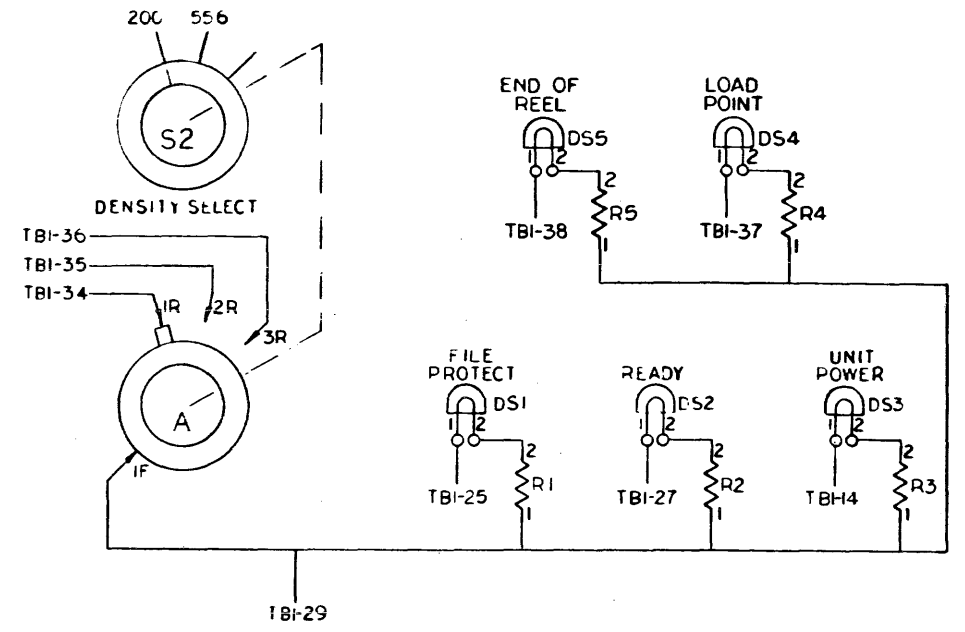
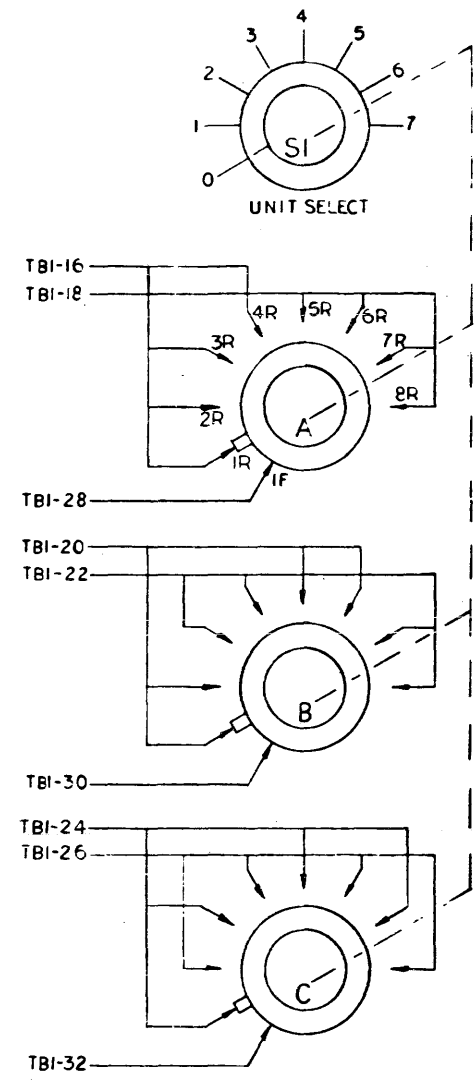
9246A
9246P
TAPE ELECTRONICS
PAGE 26
D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1 TOLERANCES RE : DIM SEE : DIM		2 DRAWN 7/10/63	3 CHECK C/B	4 DATE 7/17/63
2 BREAK ALL SHARP EDGES BY APPROX		3 MACH SURFACES ✓		
3 ALL DIM IN INCHES		4		
MODEL NO. 9246		SIZE D		DWG NO. 103258
NEXT ASSY.		SCALE		SHEET

3258 D

REVISIONS				103258	D
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL. TO MFG.				
C	SEE REV. E.O.				
D	SEE REV. E.O.				

TBI		TBI
	1	
	2	
	3	
	4	
P42-119	5	TBI-6
P3-R	6	
P42-121	7	TBI-8
P3-M	8	
P42-115	9	TBI-10
P3-X	10	
P42-116	11	
P3-J	12	
P42-100	13	
P3-A	14	TBI-15
P42-92	15	TBI-39
P42-140	16	
P42-98	17	TBI-19
P4-39	18	
P42-96	19	
P42-138	20	
P42-131	21	TBI-23
P42-137	22	
P42-129	23	
P42-136	24	
P42-142	25	
P42-135	26	
P42-141	27	
P42-134	28	
P42-94	29	
P42-133	30	
P3-K	31	
P42-132	32	
	33	
P42-127	34	
P42-125	35	
P42-123	36	
P42-103	37	
P42-101	38	
FSI-5	39	TBI-41
FSI-6	40	
FSI SHIELD	41	TBI-14
P42-104	42	
TBI0-4	43	
P42-105-FSI-1	44	
P42-109-FSI-2	45	
P42-107-FSI-3	46	
P42-111-FSI-4	47	
P42-114	48	
TBI0-2	49	
TBI0-1	50	
TBI0-3	51	



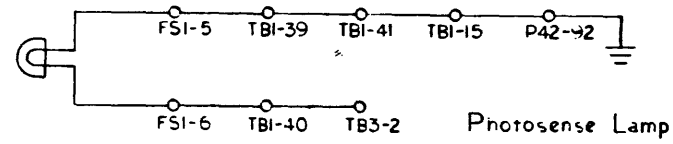
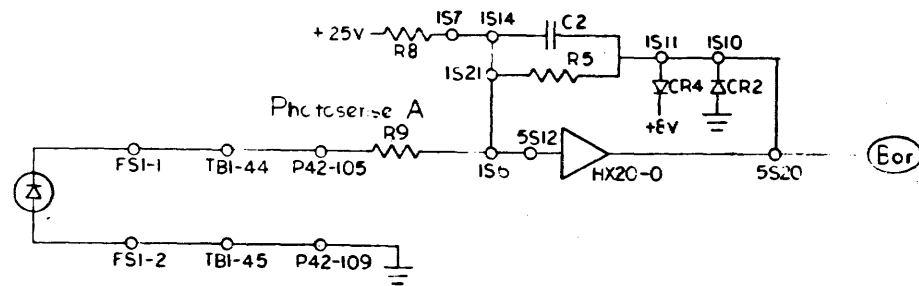
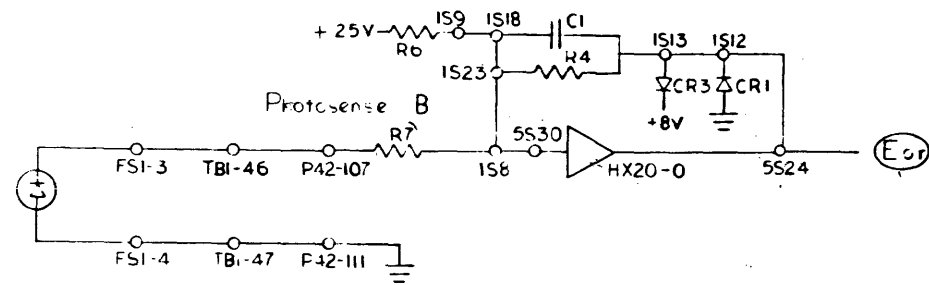
TB2
PHOTOSENSE
CONTROL
ASSY.
(SEE PAGE
29)

9246A
TAPE ELECTRONICS
PAGE 27
D

REV. REF.	DRAWING NO.	DATE	DESCRIPTION	ITEM NO.
1. THE DRAWING IS TO BE USED AS SHOWN. 2. BREAK ALL SHOWN DIMENSIONS WITH APPROVAL. 3. MAKE ALL DIMENSIONS CLEAR. 4. ALL DIMENSIONS ARE IN INCHES.		DRAWN: <i>[Signature]</i> CHECKED: <i>[Signature]</i> APPR: <i>[Signature]</i>	MATERIAL: <i>[Handwritten]</i> DATE: <i>[Handwritten]</i>	MODEL NO. 9246
MODEL NO. 9246		TITLE DIAGRAM, LOGIC, MAG TAPE UNIT		ITEM NO. 103258
NEXT ASSY.		REV. REF.		ITEM NO. D

103258 / D1

REVISIONS				
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.		7/17/63	NPS
C	SEE REV. E.O.		7/18/63	
D	SEE REV E.O.			

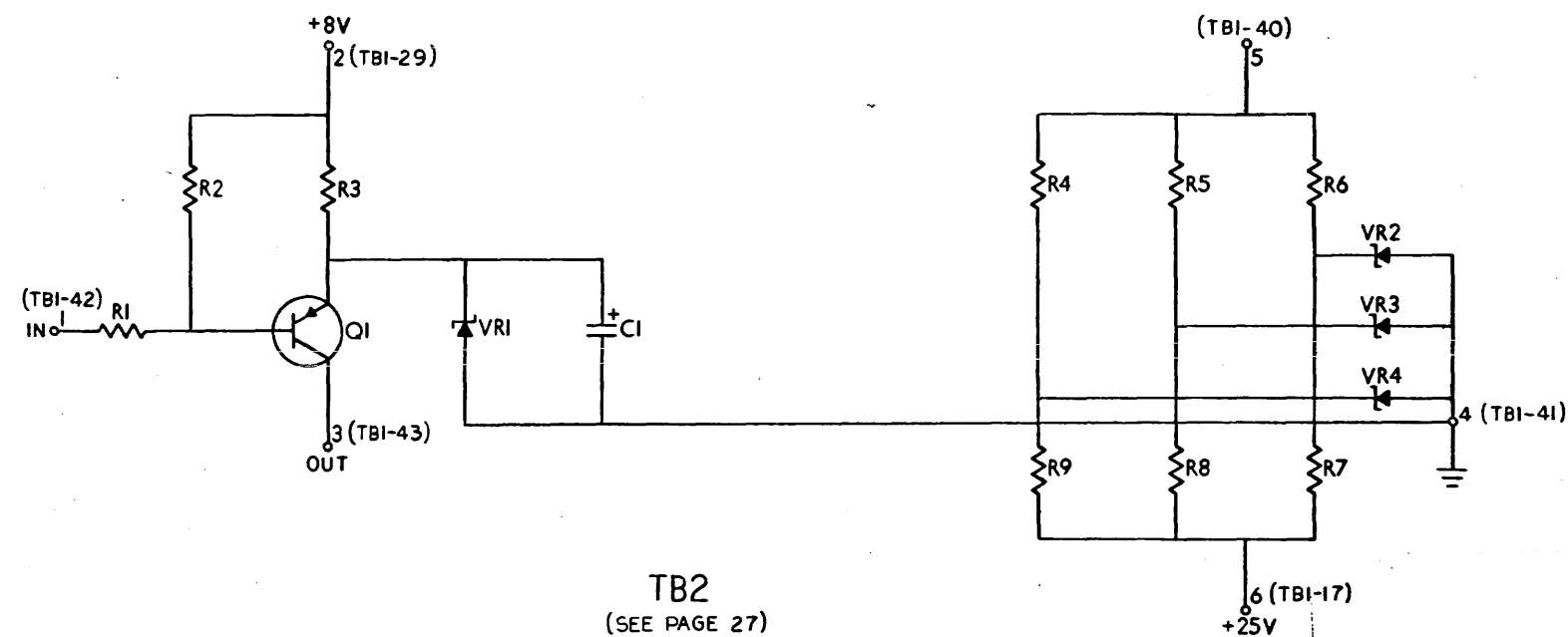


9246A
TAPE ELECTRONICS
PAGE 28
D

NO. REG.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN: <i>[Signature]</i> 7/17/63 CHECK: <i>[Signature]</i> 7/17/63 APPR: <i>[Signature]</i> 7/18/63	SDS SCIENTIFIC DATA SYSTEMS <small>1542 FIFTEENTH STREET SANTA MONICA CALIFORNIA</small>	
1 TOLERANCES XX ± 0.00 ANGULAR XX ± 0.10 ± 1/2° 2 BREAK ALL SHARP EDGES @10 APPROX. 3 HACH SURFACES ✓ 4 ALL DIM. IN INCHES		TITLE DIAGRAM, LOGIC, MAG TAPE UNIT		
MODEL NO. 9246		SIZE D	DWG NO. 103258	D
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING	SHEET

103258 | D |

REVISIONS				103258	D
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL TO MFG				
C	SEE REV. E.O.				
D	SEE REV E.O.				



TB2
(SEE PAGE 27)

9246A,
MAG TAPE UNIT
PAGE 29
D

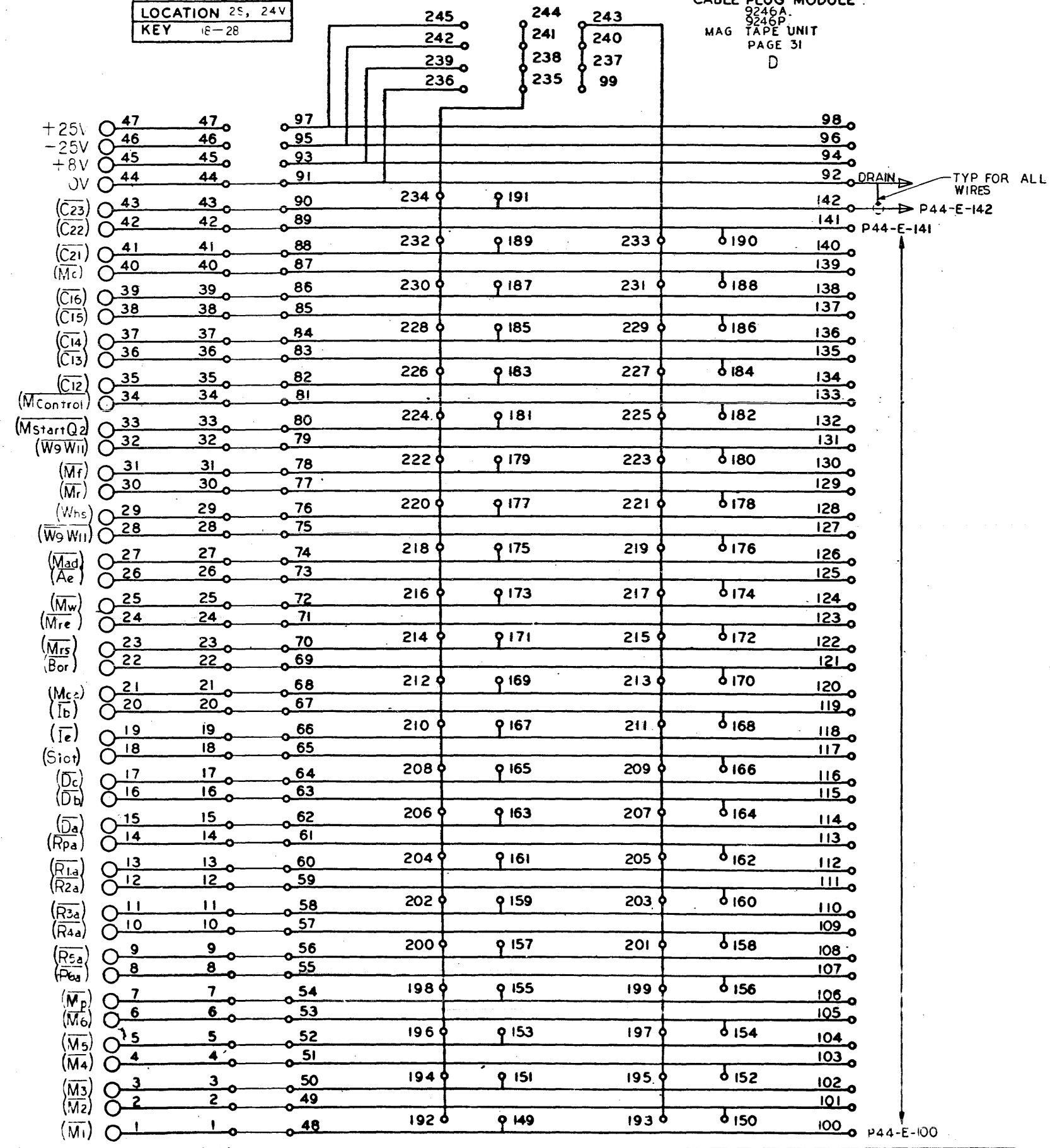
NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN <i>WJA</i> 7/1/63 CHECK <i>CJB</i> 7/1/63 APPR <i>WJA</i> 7/1/63	SDS SCIENTIFIC DATA SYSTEMS <small>1542 FIFTEENTH STREET SANTA MONICA CALIFORNIA</small>	
1 TOLERANCES XX ± .030 ANGULAR X ± .010 ± 90° 2 BREAK ALL SHARP EDGES DIM APPROX. 3 HATCH SURFACES ✓ 4 ALL DIM. IN INCHES		TITLE DIAGRAM, LOGIC MAG TAPE UNIT		
MODEL NO. 9246		SIZE D	DWG NO. 103258	D
NEXT ASSY.		SCALE	DO NOT SCALE DRAWINGS	SHEET

103258 D

REVISIONS				103258	D
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL. TO MFG.				
C	SEE REV. E.O.				
D	SEE REV E.O.				

DESIGNATION P43
 LOCATION 2S, 24V
 KEY 18-28

CABLE PLUG MODULE
 9246A
 9246P
 MAG TAPE UNIT
 PAGE 31
 D



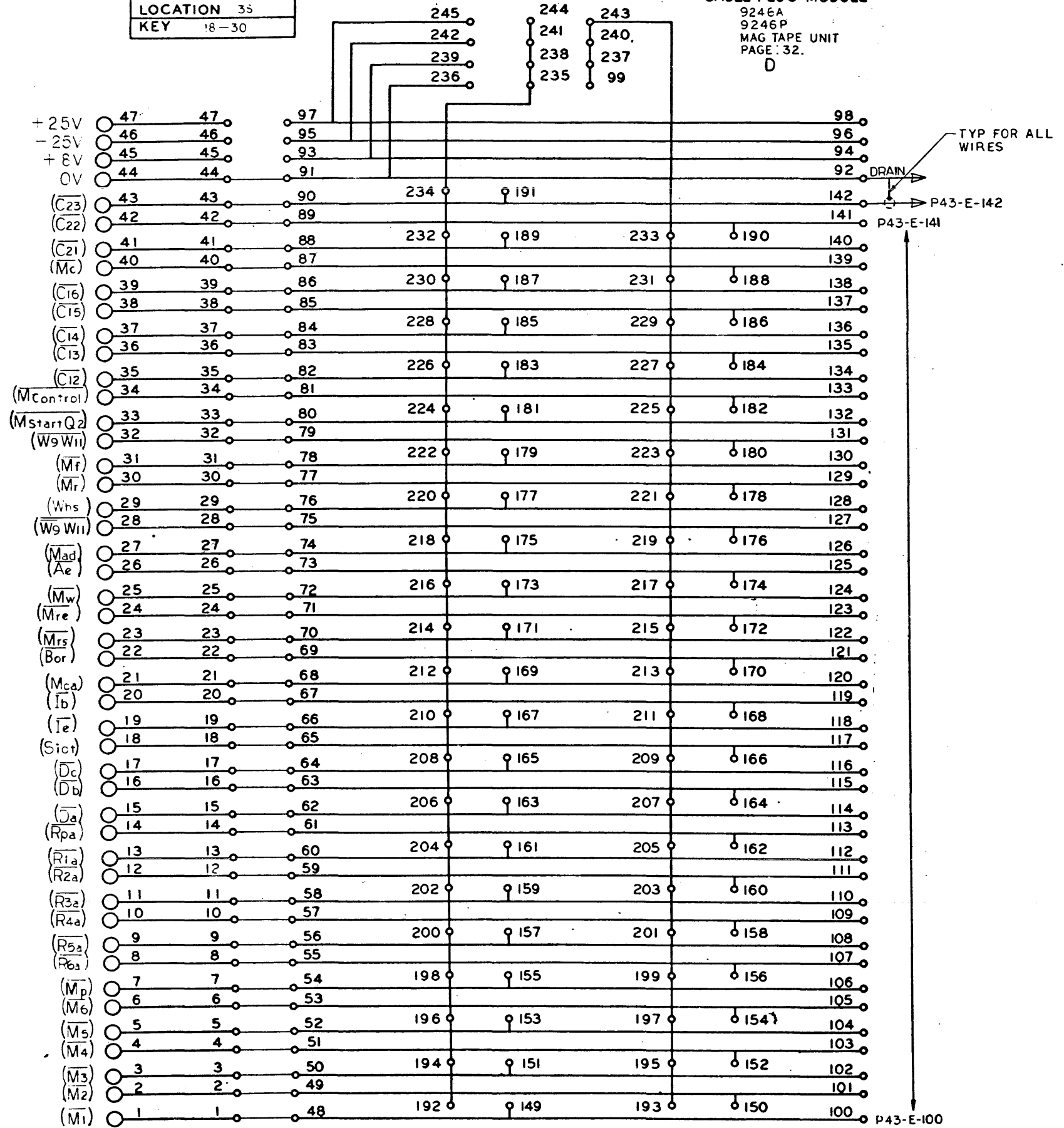
NO	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.										
NOTES UNLESS SPECIFIED														
1. TOLERANCES UNLESS OTHERWISE SPECIFIED		2. BREAK ALL SHARP EDGES D10 APPROX	3. HATCH SURFACES											
4. ALL DIM. IN INCHES		<table border="1"> <tr> <td>DRAWN</td> <td>7/4/73</td> <td rowspan="2"> SDS SCIENTIFIC DATA SYSTEMS 1742 FIFTEENTH STREET SANTA MONICA, CALIFORNIA </td> <td rowspan="2"> TITLE DIAGRAM, LOGIC, MAG TAPE UNIT </td> </tr> <tr> <td>CHECK</td> <td>7/17/73</td> </tr> <tr> <td>APPR</td> <td>7/17/73</td> <td colspan="2"></td> </tr> </table>			DRAWN	7/4/73	SDS SCIENTIFIC DATA SYSTEMS 1742 FIFTEENTH STREET SANTA MONICA, CALIFORNIA	TITLE DIAGRAM, LOGIC, MAG TAPE UNIT	CHECK	7/17/73	APPR	7/17/73		
DRAWN	7/4/73	SDS SCIENTIFIC DATA SYSTEMS 1742 FIFTEENTH STREET SANTA MONICA, CALIFORNIA	TITLE DIAGRAM, LOGIC, MAG TAPE UNIT											
CHECK	7/17/73													
APPR	7/17/73													
MODEL NO.	9246	SIZE	DWG NO.	D										
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING	SHEET										

103258 | D | 1

REVISIONS				103258	D
REV	DESCRIPTION	CHK	DATE	APPROVED	
A	REL. TO MFG.				
C	SEE REV. E.O.				
D	SEE REV. E.O.				

DESIGNATION P44
 LOCATION 35
 KEY 18-30

CABLE PLUG MODULE
 9246A
 9246P
 MAG TAPE UNIT
 PAGE: 32.
 D



NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES XX - 0.00 ANGULAR SEE 2.010 2.10"		DRAWN <i>Went</i> 7/27/63	CHECK <i>SLB</i> 7/27/63	SDS SCIENTIFIC DATA SYSTEMS 1542 FIFTEENTH STREET SANTA MONICA, CALIFORNIA
2. BREAK ALL SHARP EDGES 0.10 APPROX		APPR. <i>SLB</i> 7/27/63	TITLE	
3. MACH. SURFACES ✓		DIAGRAM, LOGIC, MAG TAPE UNIT		
4. ALL DIM. IN INCHES				
MODEL NO.	9246	SIZE	DWG NO.	D
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING	SHEET

103258 | D |

REVISIONS				103258	D
REV.	DESCRIPTION	CHK	DATE	APPROVED	
A	REL TO MFG				
C	SEE REV. E.O.				
D	SEE REV E.O.				

MODULE LIST

ITEM	DESCRIPTION	MODEL	QTY.
1	WRITE DRIVER	AK52	2
2	CABLE DRIVER	AX14	3
3	AND/OR BUFFER AMP	BC10	4
4	UNIVERSAL F.F.	FC17	2
5	GATE EXPANDER	GC10	3
6	GATE EXPANDER	GC11	1
7	OPERATIONAL AMP	HX20-0	1
8	READ AMP	HK60	7
9	AND INVERTER	IC12	3
10	ONE SHOT MULT.	OX13	8
11	RELAY DRIVER	RX10	1
12	RESISTOR	ZK51	2
13	TERM. MODULE	ZK56	1
14	TERM. MODULE	ZK57	1
15	TERM. MODULE	ZK58	1
16	AND INVERTER	IH12	1
17	UNIVERSAL F.F.	FH17	1

REPLACEMENT PARTS LIST

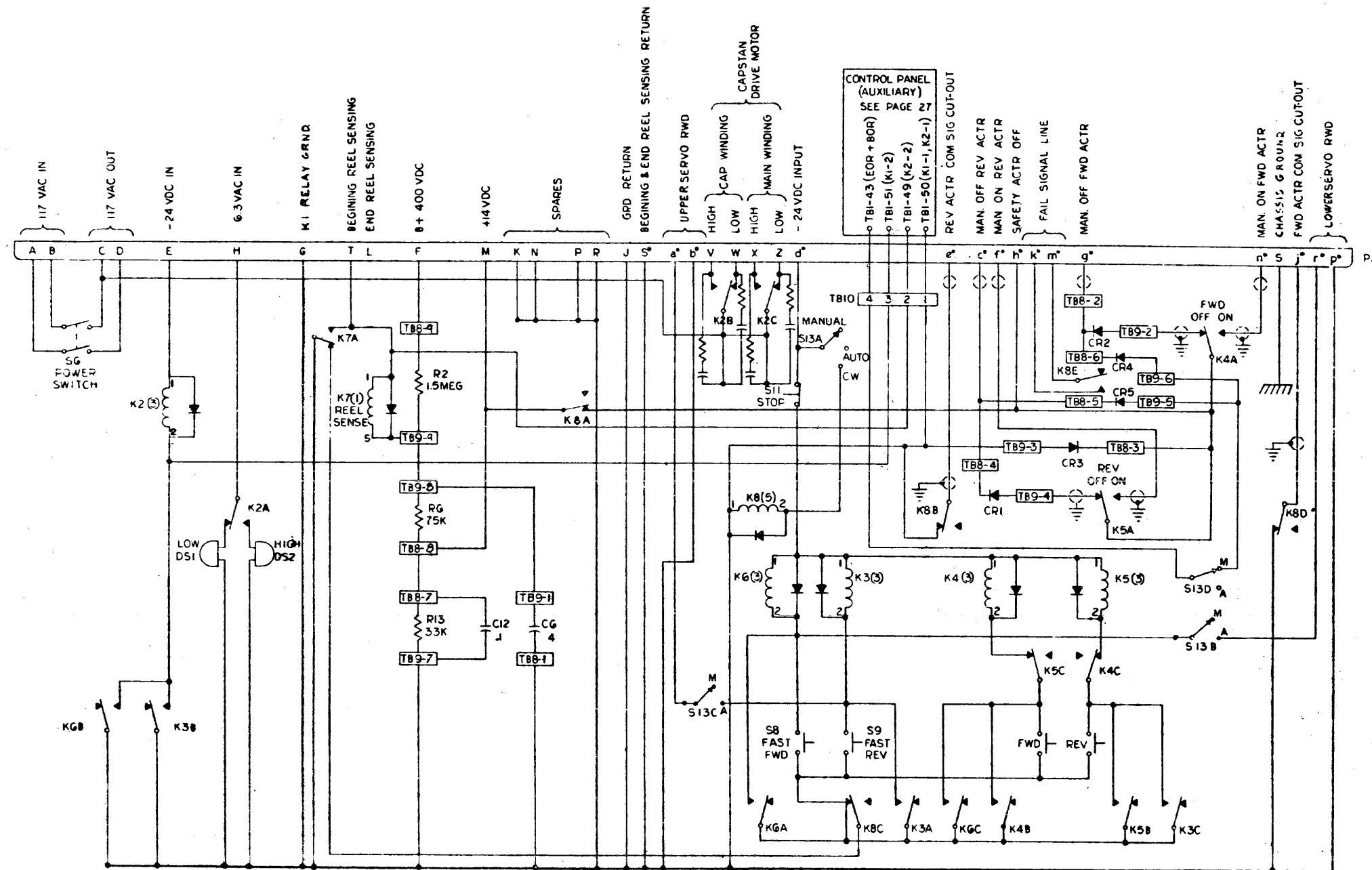
ITEM	DESCRIPTION	DESIGNATION	QTY.	SUPPLIER CODE (SEE INDEX)
1	RESISTOR, 3.3K ± 2%	(P42) R1, R2, R3	3	16, 17
2	↑ 1 MEGΩ ↑	(P42) R4, R5, R6, R8	4	16, 17
3	↓ 1K ↓	(P42) R7, R9	2	16, 17
4	RESISTOR, 8.2K ± 2%	(P42) R10, R11, R12, R13	4	16, 17
5	CAPACITOR, MYLAR .0033μF ± 10%	(P42) C1, C2	2	26, 27, 74
6	CAPACITOR, MYLAR .0068μF ± 10%	(P42) C3, C4	2	26, 27, 74
7	CAPACITOR, TANTALUM .47 μF ± 20% 50V	(P42) C5	1	23, 77
8	DIODE, SILICON SWITCHING 1N914A	(P42) CR1 THRU CR7	7	4, 12, 13, 14
9	CONNECTOR, SOLDER TAIL 47 CONTACT # 7008-47	J(1Q) THRU J(25Q) J(1S) THRU J(20S) J(24S), J(25S)	47	82
10	RESISTOR, 1.8K ± 2%	(TB2) R1	1	16, 17
11	↑ 15K ↑	(TB2) R2	1	↑
12	↓ 180Ω ↓	(TB2) R3	1	↓
13	↑ 390Ω ↓	(TB2) R4, R5, R6	3	↓
14	RESISTOR, 470Ω ± 2%	(TB2) R7, R8, R9	3	16, 17
15	DIODE, VOLTAGE REGULATOR 1N752	(TB2) VR1	1	2, 12, 13, 14
16	DIODE, VOLTAGE REGULATOR 1N964A	(TB2) VR2, VR3, VR4	3	2, 6, 14, 65
17	CAPACITOR, TANTALUM 4.7μF ± 20%, 50V	(TB2) C1	1	23, 77
18	TRANSISTOR, SILICON SWITCHING 2N1132	(TB2) Q1	1	3, 10, 11
19	RECEPTACLE, 19 PIN # RSK 19-31SL	J1	1	134
20	PLUG, 19 PIN # SK19-32S	J2	1	134
21	SWITCH, ROTARY # 102163	S1, S2	2	SDS
22	LAMP, INCANDESCENT # 47	DS1 THRU DS5	5	84
23	RESISTOR, WW 10Ω ± 5%	R1 THRU R5	5	99, 100
24	RELAY, DPDT # DOSX-7T # 80-6A/115 VAC	K1 THRU K4	4	78 79
25	SWITCH, TOGGLE DPDT # 83054-SE	S1(S)	1	106
26	CAPACITOR, TANTALUM 4.7μF ± 20% 50V	C1(a)	1	23, 77

9246A,
MAG TAPE UNIT
PAGE 34
D

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN <i>Walt</i> 7/9/67	SDS SCIENTIFIC DATA SYSTEMS 1542 FIFTEENTH STREET SANTA MONICA CALIFORNIA	
1. TOLERANCES UNLESS SPECIFIED ANGULAR ± 15° HOLE ± .010 2. BREAK ALL SHARP EDGES .010 APPROX. 3. MACH. SURFACES <input checked="" type="checkbox"/> 4. ALL DIM. IN INCHES		CHECK <i>Walt</i> 7/17/67		
MODEL NO. 9246		APPR. <i>Walt</i> 7/17/67	SIZE D	DWG NO. 103258
NEXT ASSY.			SCALE	SHEET D
			DO NOT SCALE DRAWING	

103258 | D1

REVISIONS				
REV	DESCRIPTION	CHK	DATE	APPROVED
A	HEL TO MFG			
C	SEE REV. E.C.			
D	SEE REV E.C.			



7. --- SIGNIFIES CHASSIS GND. --- SIGNIFIES COMMON GROUND.
6. USED WITH ASSY NO 310543710
5. S3- D-E NOT USED.
4. ALL DIODES ARE IN2069
3. ALL RELAYS SHOWN IN DEENERGIZED POSITION
2. ALL RESISTORS IN OHMS
1. ALL CAPACITORS IN MICROFARADS
NOTES: UNLESS OTHERWISE SPECIFIED

MANUAL CONTROL PANEL

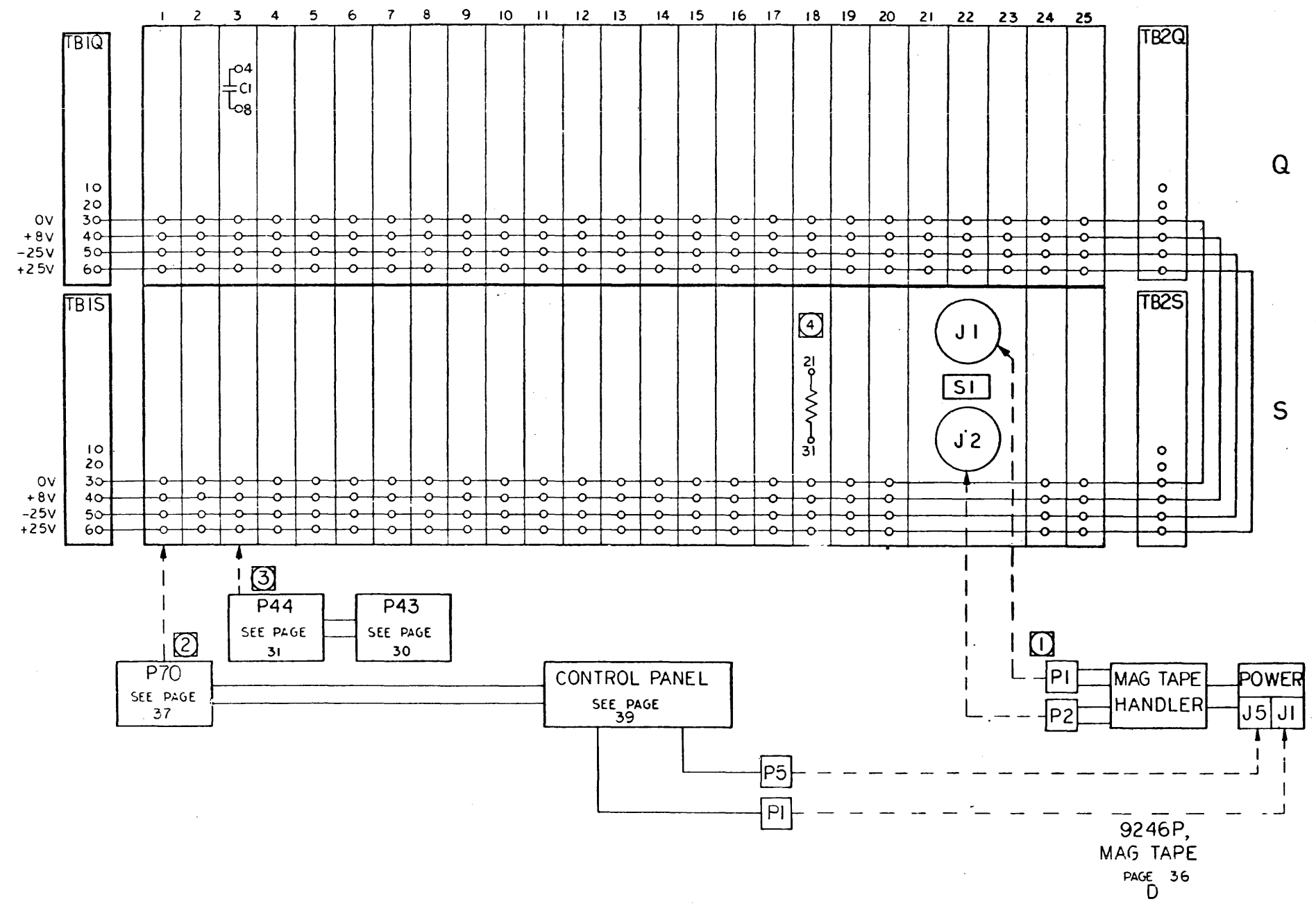
9246A.
MAG TAPE UNIT
PAGE 35
D

103258 1D1

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED:				
TOLERANCES: LINEAR .030 ANGULAR .010				
1. BREAK ALL SHARPEDED 0.015 APPROX				
2. HATCH SURFACES				
3. ALL DIM IN INCHES				
MODEL NO. 9246		SIZE D		DWG NO. 103258
NEXT ASSY		SCALE		SHEET

REVISIONS				103258	D
REV.	DESCRIPTION	CHK	DATE	APPROVED	
C	SEE REV. E.O.				
D	SEE REV. E.O.				

- NOTES: UNLESS OTHERWISE SPECIFIED
- ① RECEPTACLES J1 & J2 ARE PROVIDED FOR CONNECTION TO THE READ & WRITE HEADS OF THE MAG TAPE UNIT.
 - ② RECEPTACLE J(S) IS PROVIDED FOR P70 FROM CONTROL PANEL.
 - ③ RECEPTACLE J(3S) IS PROVIDED FOR THE P44 TO P43 CABLE. P43 CONNECTS TO RECEPTACLE J(24V) OF THE MODEL 9248 CONTROL UNIT OR TO J(2S) OF A SECOND MODEL 9246.
 - ④ USED ON 92463P ONLY, RESISTOR 100680-750.



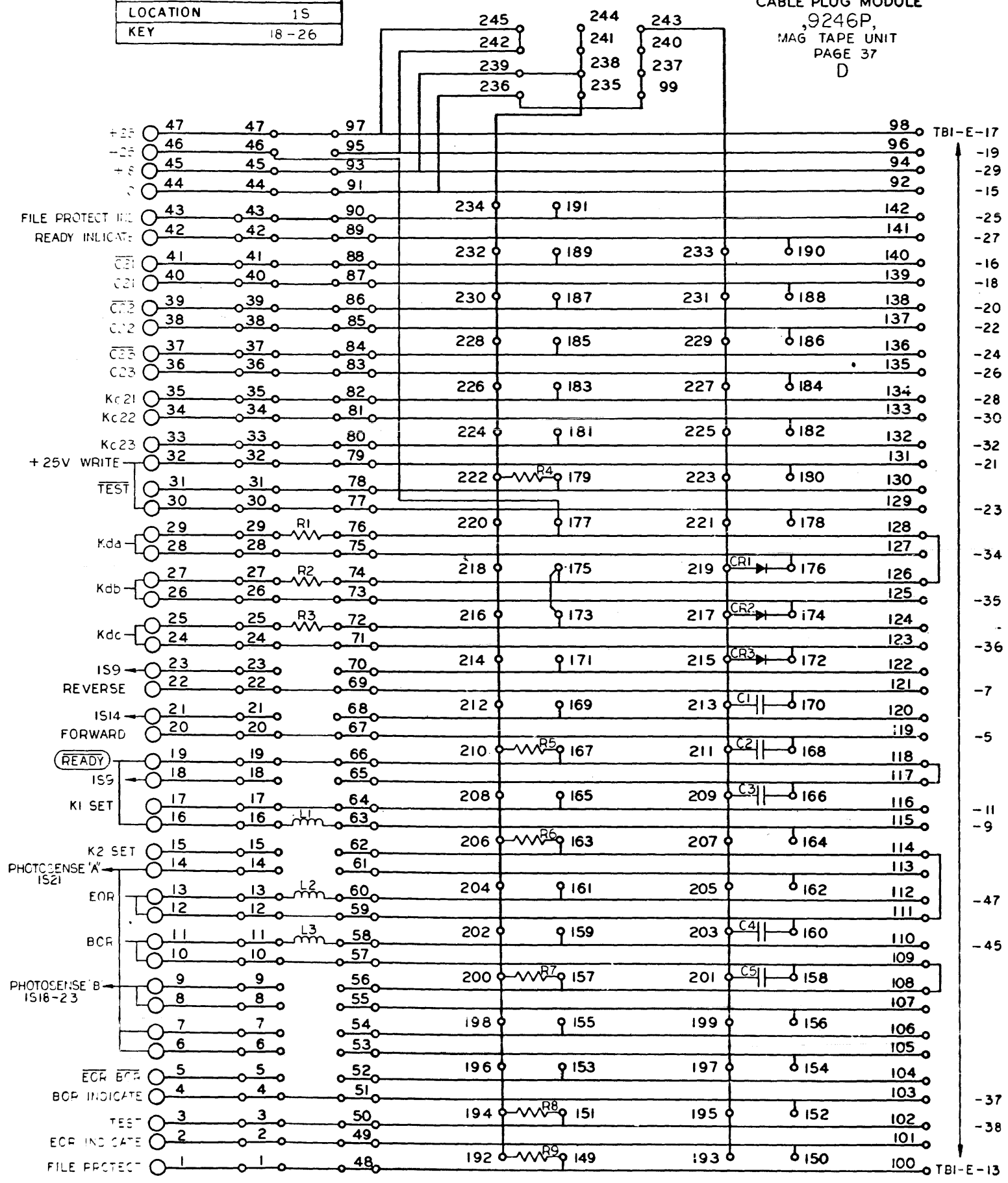
103258|D1

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES FR ± 0.30 ANGLULAR DIM ± 0.10		2. DRAWN 9/7/64	SDS SCIENTIFIC DATA SYSTEMS 1542 FIFTEENTH STREET SANTA MONICA CALIFORNIA	
3. BREAK ALL SHARP EDGES R10 APPROX		4. CHECK 5/5/64	TITLE DIAGRAM, LOGIC MAG TAPE	
5. HATCH SURFACES ✓		6. APPR. 7/2/64	MODEL NO. 9246	
7. ALL DIM. IN INCHES			SIZE DWG NO. D 103258	
NEXT ASSY.			SCALE DO NOT SCALE DRAWING SHEET	

REVISIONS				103258	L
REV	DESCRIPTION	CHK	DATE	APPROVED	
C	SEE REV. E.O.				
D	SEE REV E.O.				

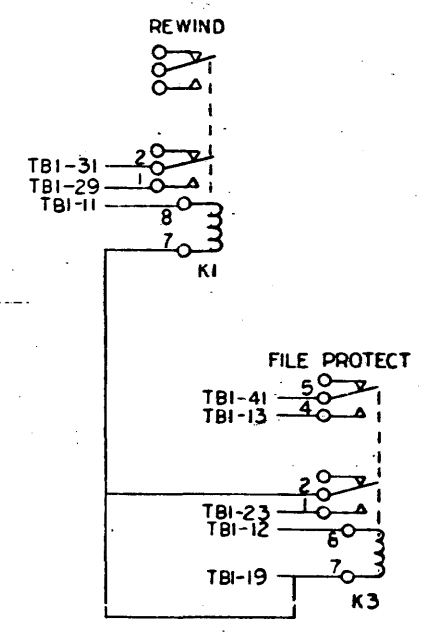
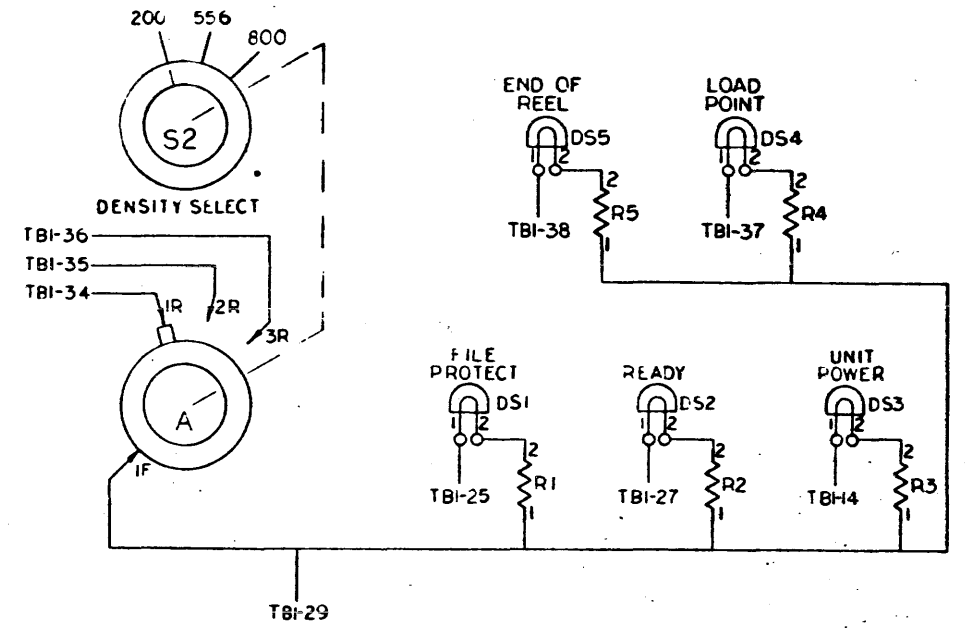
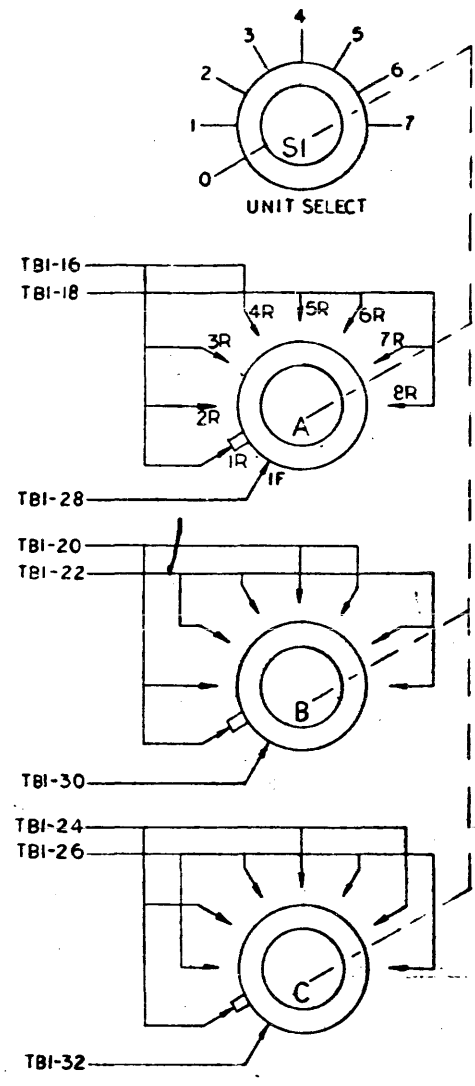
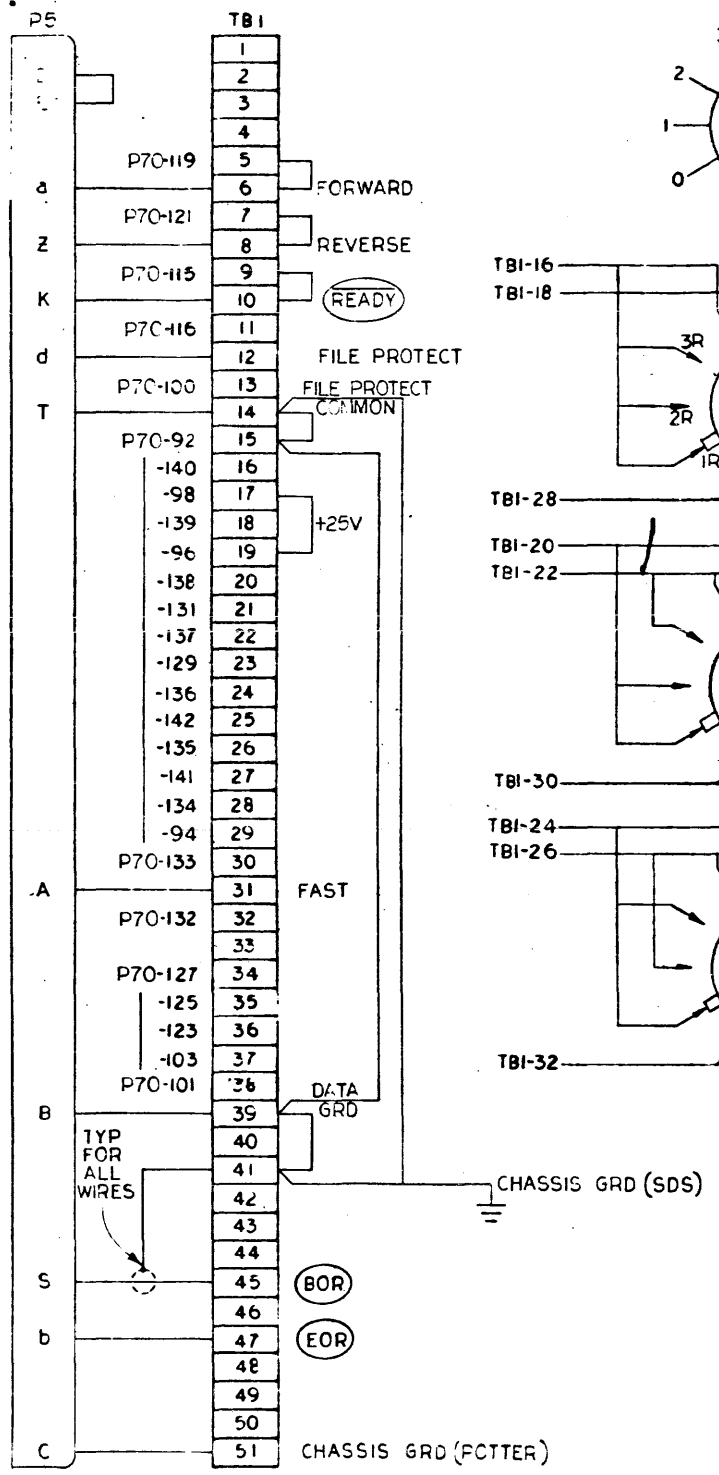
DESIGNATION	P7C
LOCATION	1S
KEY	18-26

CABLE PLUG MODULE
9246P,
MAG TAPE UNIT
PAGE 37
D



NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
UNLESS SPECIFIED				
DRAWN: WINTNER 4/1/68		SDS SCIENTIFIC DATA SYSTEMS		
CHECK: [Signature]		1442 FIFTEENTH STREET SANTA MONICA CALIFORNIA		
APPR: [Signature]		TITLE: DIAGRAM, LOGIC MAG TAPE UNIT		
MODEL NO. 9246		SIZE: D		DWG NO. 103258
NEXT ASSY.		SCALE: DO NOT SCALE DRAWING		SHEET: D

REV		DESCRIPTION		CHK	DATE	APPROVED
C		SEE REV. E.O.				
D		SEE REV E.O.				



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TAPE ELECTRONICS
PAGE 35
D

103258 D1

NO.	REV.	DRAWING NO.	DESCRIPTION	REVISION INFORMATION	FORM NO.
MATERIAL LIST					
MATERIAL LIST		DESIGNER	DATE	SDB	
CHECKED		DATE	DATE	SDB	
APPROVED		DATE	DATE	SDB	
DIAGRAM, LOGIC, MAG TAPE UNIT					
MODEL NO.		DATE		FORM NO.	
9246		D		103258	
NEXT REV.		DATE		FORM NO.	

CONTENTS

Item		Page No.
1.	Revision Level Indicator	1
2.	Cabling Diagram, Ampex System	2
3.	Signal Directory	3
4.	Logic Diagrams	4 thru 26
5.	Auxiliary Control Panel, Ampex System	27 thru 30
6.	Cable P43 - P44	31, 32
7.	Module Locator	33
8.	Replacement Parts, Ampex System	34
9.	Control Panel, Ampex System	35
10.	Cabling Diagram, Potter System	36
11.	Auxiliary Control Panel, Potter System	37 & 39
12.	Replacement Parts, Potter System	38
13.	Termination Modules Schematic	
	a) ZK51	
	b) ZK56	
	c) ZK57	
	d) ZK58	
	e) ZK67 & 68	

EO 103062 REVISION CHASSIS ASSEMBLY

Adds C1 capacitor to chassis Q J3. Capacitor part No. 100311-475.
See logic diagram Page 5.

Reason: To fire 1 second delay (Dr) and hold off ready until delay runs out.

Tape units without capacitor added when performing a reverse scan and reaching load point (Bor) become immediately ready. Forward command can be issued before unit is capable of accepting it and will hang up.

REVISIONS			
REV	DESCRIPTION	CHR	DATE
A	HEL TO MFG		
B	SEE REV. E.O.		
C	SEE REV E.O.		
D	SEE SEE E.O.		
E	SEE REV EO		

NOTE:

THIS DWG APPLIES TO BOTH THE AMPEX (A) & POTTER (P) MAG TAPE UNITS. FOR SIMPLICITY ONLY 9246A AND/OR 9246P DESIGNATIONS ARE SHOWN ON INDIVIDUAL PAGES. 9246A IMPLIES 9246A, 9246IA, 92462A, & 9346A. 9246P IMPLIES 9246P, 9246IP, 92462P & 92463P. THE FOLLOWING CHART INDICATES THE EFFECTIVITY OF INDIVIDUAL PAGES.

PAGE	CHG	PAGE	CHG	PAGE	CHG	PAGE	CHG	PAGE	CHG
1	E								
2	C								
3	C								
4	E								
5	E								
6	C								
7	E								
8	E								
9	D								
10	D								
11	D								
12	D								
13	E								
14	D								
15	D								
16	D								
17	D								
18	D								
19	D								
20	D								
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22	E								
23	E								
24	E								
25	E								
26	D								
27	D								
28	D								
29	D								
30	E								
31	E								
32	E								
33	E								
34	E								
35	D								
36	E								
37	E								
38	E								
39	D								

- NOTES:**
- REV LETTERS LISTED INDICATE STATUS OF EACH SHEET OF THIS MULTIPLE SHEET DRAWING.
 - CHECK INDIVIDUAL SHEETS FOR REVISION LETTER AGAINST THIS SHEET BEFORE USING THIS DRAWING.

REFERENCE DESIGNATIONS ARE ABBREVIATED. PREFIX THE DESIGNATION WITH UNIT NUMBER OR ASSEMBLY DESIGNATION OR BOTH. (MIL. STD. 168)

PAGE NO.	AMPEX ONLY	POTTER ONLY	BOTH	92462P/3P VARIATIONS
1			X	
2	X			
3			X	
4			X	
5			X	
6			X	
7			X	
8			X	
9			X	
10			X	
11			X	
12			X	
13			X	X
14			X	
15			X	
16			X	
17			X	
18			X	
19			X	
20			X	
21			X	
22			X	
23			X	
24			X	
25			X	
26			X	X
27	X			
28	X			
29	X			
30	X			
31			X	
32			X	
33			X	
34	X			
35	X			
36		X		X
37		X		
38		X		
39		X		

9246A, 9246P
MAG TAPE UNIT
PAGE 1
E

LOGIC	WIRE LIST
103258 E	103404 M

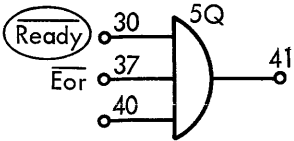
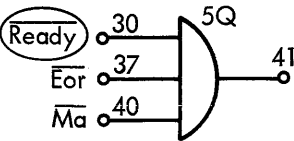
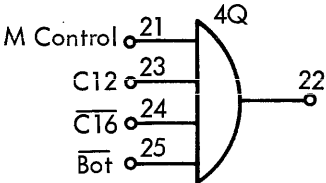
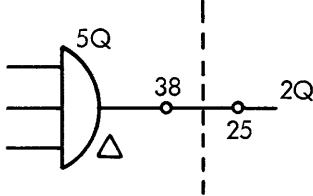
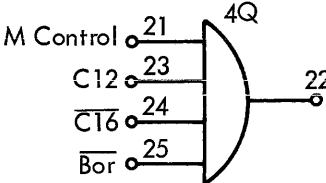
NO. DES.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION
		DIAGRAM, LOGIC MAG TAPE UNIT	
<p>NOTES UNLESS SPECIFIED</p> <p>1. TOLERANCES UNLESS SPECIFIED: ANGULAR .001" 2. DIMS .001" 3. DIMS .001" 4. DIMS .001" 5. DIMS .001" 6. DIMS .001"</p>			
<p>MODEL NO. 9246</p>		<p>SCALE DO NOT SCALE DRAWING</p>	
<p>DATE 7/1/63</p>		<p>DATE 7/1/63</p>	
<p>CHECK 7/1/63</p>		<p>DATE 7/1/63</p>	
<p>APPR. WGT</p>		<p>DATE 7/1/63</p>	
<p>SDS</p>		<p>1045 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA</p>	
<p>REV D</p>		<p>DATE 103258</p>	
<p>REV E</p>		<p>DATE 103258</p>	

103258|E|

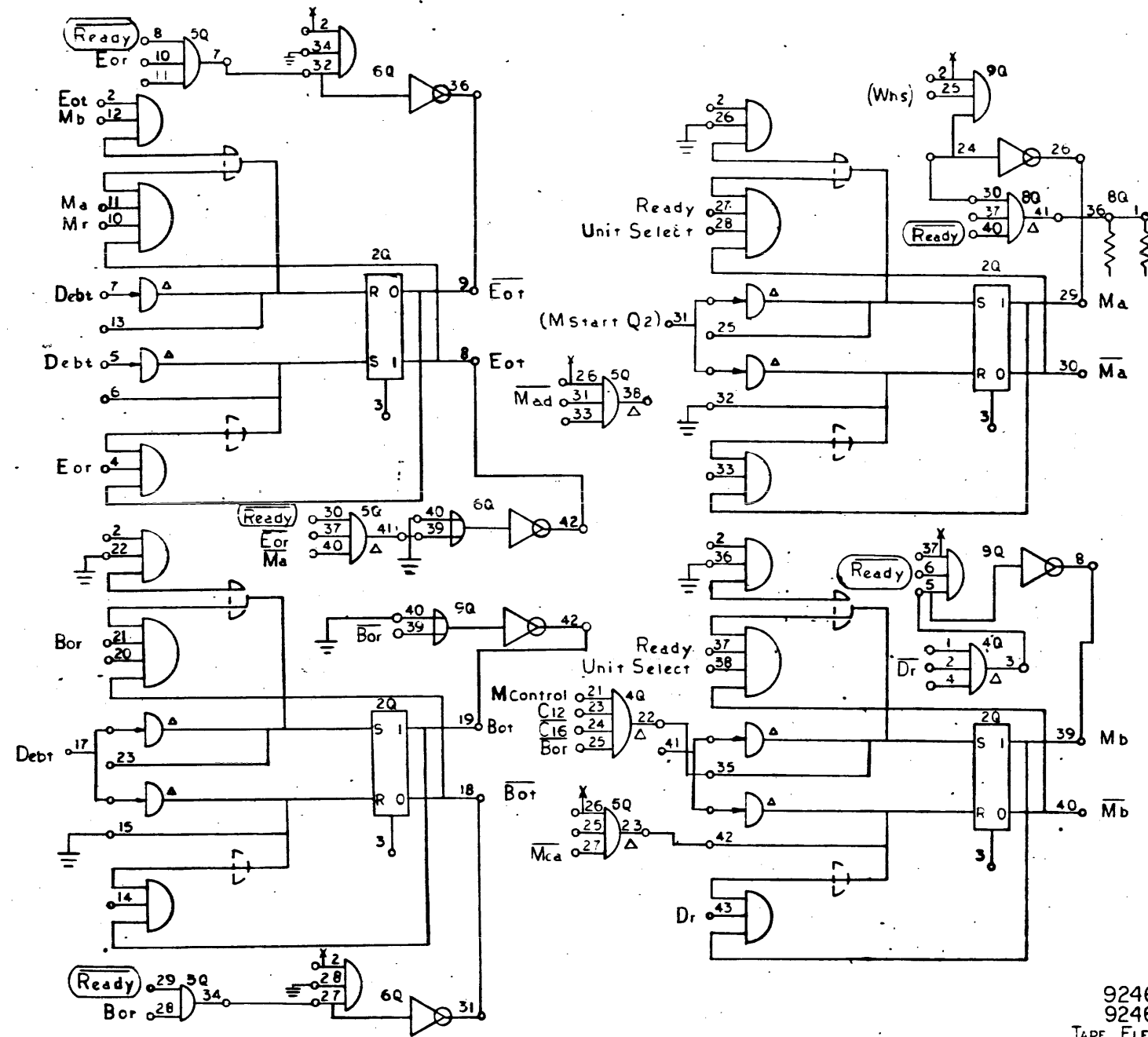
SIGNAL DIRECTORY

Signal	Logic Pages	Signal	Logic Pages	Signal	Logic Pages	Signal	Logic Pages	Signal	Logic Pages
Ae	18, 24	(Db)	24, 31	(Mca)	30, 21	M5	12, 10, 13	R4af	14
Ae	24, 31	(Dc)	24, 31	Mca	4, 5, 21	M6t	12, 10, 13	R5af	14
Aes	6, 18	Debt	4, 5, 23	M Control	20, 4	M1w	13	R6af	14
Aes	6, 26	Dr	5, 4, 6	M Control	31, 20	M2w	13	R1ar	17
(Bor)	22, 28, 31, 37	Dr	6, 4	Mf	30, 21, 23	M3w	13	R2ar	17
Bor	4, 5, 6, 7, 19, 23, 24	(Eor)	28, 30, 22	(Mf)	30, 21	M4w	13	R3ar	17
Bor	4, 22, 30	Eor	4, 5, 19, 22, 23, 30, 37	Mp	31, 21, 5	M5w	13	R4ar	15
(Bor)	24	(Eor)	22	(Mp)	31, 21	M6w	13	R5ar	15
Bot	4, 8	Eor + Bor	22, 8	Mps	5, 11, 19	Photosense A, B	28, 29, 30	R6ar	15
Bot	4, 5	EOR + BOR	29, 35 A only	Mpt	11, 5, 13	(Ready)	30, 4, 6, 8, 37	R1y	26
Bot Indicate	8, 37, 30	(Eor Bor)	19, 22, 29, 30, 37	Mpw	13	Ready	6, 4, 7, 8	R2y	26
Ch 1 Read	26	Eot	4, 5, 7, 8	Mr	30, 4, 19, 21	(Ready)	6	R3y	26
Ch 2 Read	26	(Eot)	4, 5	(Mr)	31, 21	Ready Indicate	8, 30, 37	R4y	26
Ch 3 Read	26	Eot Indicate	8, 30, 37	(Mre)	31, 11, 12	Reverse Actuate	13, 30, 37	R5y	26
Ch 4 Read	26	File Protect	30, 37, 7, 8	Mrs	5, 6, 9, 10	Rpa	18, 19, 25	R6y	26
Ch 5 Read	26	File Protect Indicate	8, 30, 37	(Mrs)	6, 31	(Rpa)	25, 31	R1z	26
Ch 6 Read	26	Forward Actuate	13, 30, 37	M Start Q2	20, 4	(Rpa)	26, 18	R2z	26
Ch 7 Read	26	(Ib)	23, 31	(M Start Q2)	31, 20	Rpaf	18	R3z	26
Ch 1 Write	13	(Ie)	23, 31	Mw	6, 5, 9, 10	Rpar	18	R4z	26
Ch 2 Write	13	Kc21	27, 39, 6, 30, 37	(Mw)	31, 6	Rpy	26	R5z	26
Ch 3 Write	13	Kc22	27, 39, 6, 30, 37	M1	21, 9	Rpz	26	R6z	26
Ch 4 Write	13	Kc23	27, 39, 6, 30, 37	(M1)	31, 21	R1a	16, 17, 19, 25	(Siot)	23, 31
Ch 5 Write	13	Kda	27, 24, 30, 37, 7, 39	M2	21, 9	R2a	16, 17, 19, 25	(Siot)	7, 23
Ch 6 Write	13	Kdb	27, 24, 30, 37, 7, 39	(M2)	31, 21	R3a	16, 17, 19, 25	Test	13, 19, 30, 37
Ch 7 Write	13	Kdc	27, 24, 30, 37, 7, 39	M3	21, 9	R4a	14, 15, 19, 25	Test	13, 19, 30, 37
C12	20, 7	K1 Set	8, 30, 37	(M3)	31, 21	R5a	14, 15, 19, 25	Tha	26
C12	30, 20	K2 Set	8, 30, 37	M4	21, 10	R6a	14, 15, 19, 25	Thd	26
C13	20, 7	Ma	4, 18, 19, 24	(M4)	31, 21	R1a	25, 31	Unit Select	6, 4, 7, 23
C13	30, 20	Ma	4, 6, 24, 25	M5	21, 10	R2a	25, 31	Write Activate	13
C14	20, 7	Mad	22	(M5)	31, 21	R3a	25, 31	W9 W11	21, 13, 26
C14	30, 20, 7	(Mad)	22, 4	M6	21, 10	R4a	25, 31	(W9 W11)	31, 21
C15	20, 7	(Mad)	24	(M6)	31, 21	R5a	25, 31	W9 W11	21, 26
C15	30, 20, 7	Ma Mf	19, 13, 15, 17, 18, 5	M1s	9, 11, 19	R6a	25, 31	(W9 W11)	31, 21
C16	20, 7	Ma Mr	19, 14, 16, 18, 5	M2s	9, 11, 19	(R1a)	26, 16, 17	Whs	32, 4, 31
C16	30, 20, 7, 4	Ma Mr + Mb	19, 5, 13	M3s	9, 12, 19	(R2a)	26, 16, 17		
C21	22, 27, 30, 37, 39	Ma Test	19, 14, 15, 16, 17, 18	M4s	10, 12, 19	(R3a)	26, 16, 17		
C21	31, 27, 37, 39, 22, 30	Ma Test*	19	M5s	10, 12, 19	(R4a)	26, 14, 15		
C22	22, 27, 37, 30, 39	Ma Test	19, 13	M6s	10, 12, 19	(R5a)	26, 14, 15		
C22	31, 37, 30, 39, 27, 22	Mb	4, 5, 8, 19	M1t	11, 9, 13	(R6a)	26, 14, 15		
C23	22, 27, 37, 30, 39	(Mb)	4, 6	M2t	11, 9, 13	R1af	16		
C23	31, 30, 37, 39, 27, 22	Mc	6, 5, 9, 10	M3t	12, 9, 13	R2af	16		
(Da)	24, 31	(Mc)	6	M4t	12, 10, 13	R3af	16		

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9246P
PAGE 3
E

From	To	Reason
<p style="text-align: center;"><u>103258A</u></p> 	<p style="text-align: center;"><u>103758B</u></p> 	<p style="text-align: center;"><u>Wire list EO 103404B</u></p> <p>Adds \overline{Ma} term to eliminate resetting Eot Flip-Flop due to noise on ready line.</p>
<p style="text-align: center;"><u>103258D</u></p>  	<p style="text-align: center;"><u>103258E</u></p>  <p style="text-align: center;">Remove connection 5Q 38 to 2Q 25</p>	<p style="text-align: center;"><u>Wire list EO 103404H</u></p> <p>Changes \overline{Bot} term to \overline{Bor} driving set side of Mb Flip-Flop. For reverse scan and rewind problems at beginning of tape.</p> <p>Noise on the \overline{Mad} line setting Ma. Also \overline{Mad} is redundant. EOM's can only legally select one unit at a time.</p>

REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG		
B	SEE REV. E.O.		
C	SEE REV. E.O.		
D	SEE REV E.O.		
E	SEE REV E.O.		



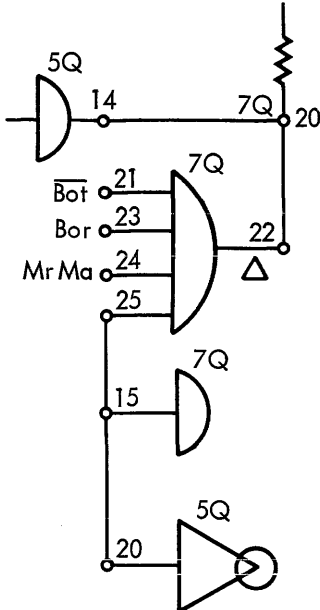
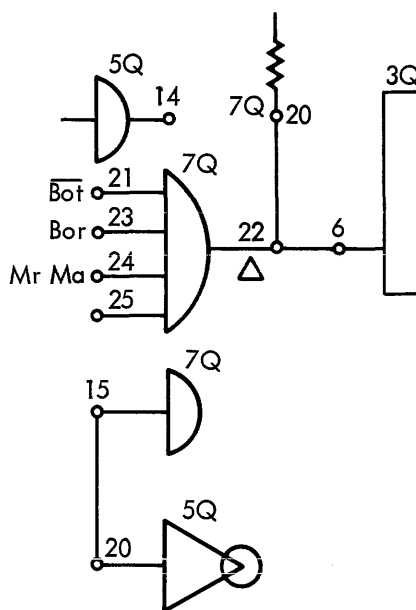
9246A
9246P
TAPE ELECTRONICS
PAGE 4
E

103258 | E |

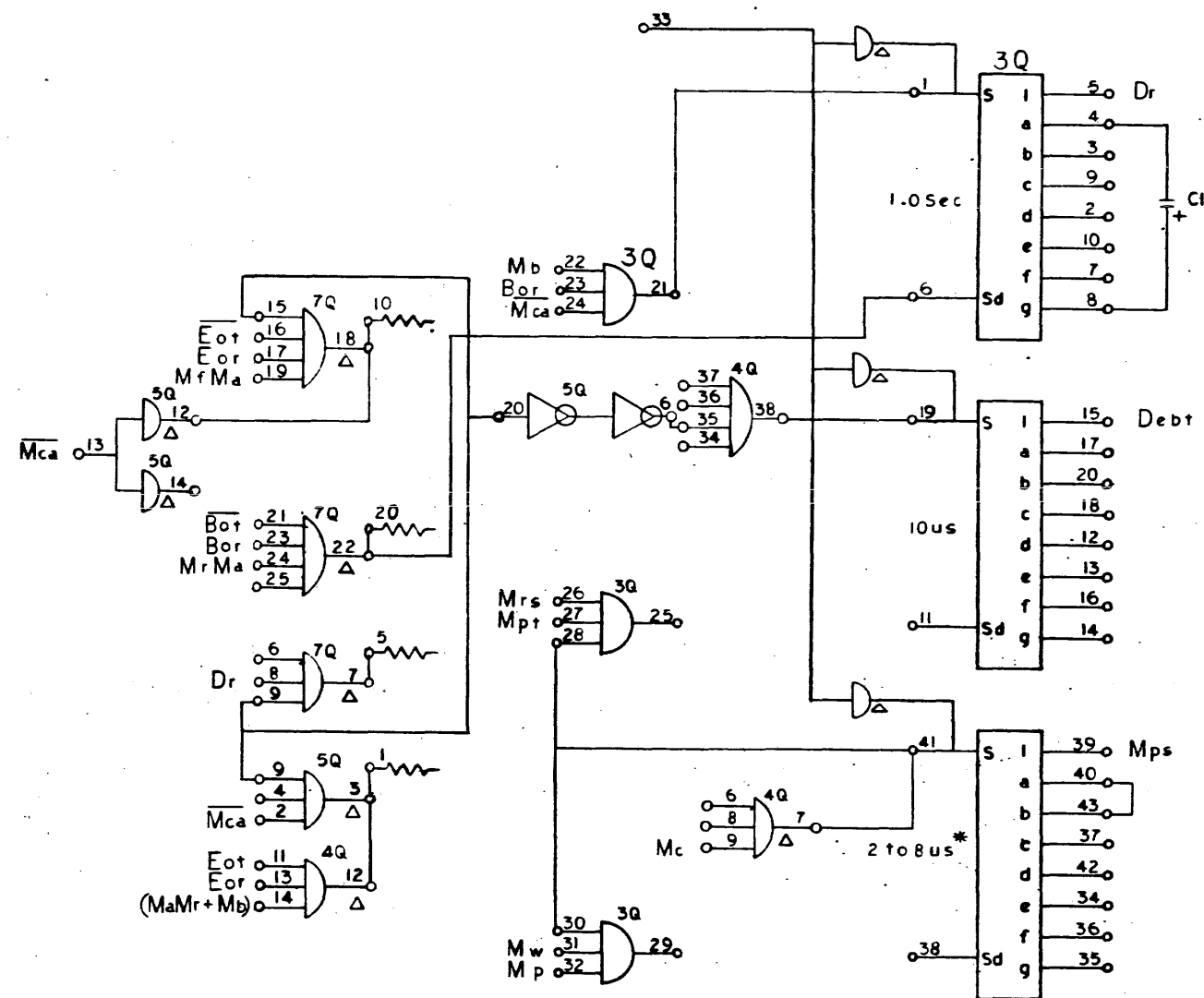
NO	REG	DRAWING NO	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO
NOTES UNLESS SPECIFIED 1 TOLERANCES AS SHOWN 2 BREAK ALL SHARP EDGES AND APPROX 3 HATCH SURFACES 4 ALL DIMS IN INCHES					
DRAWN: [Signature] 7/10/63 CHECK: C/B 7/10/63 APPR: WICK 7/10/63		MATERIAL LIST SDS SCIENTIFIC DATA SYSTEMS 1700 WESTERN AVENUE, SANTA MONICA, CALIFORNIA			
MODEL NO 9246			DATE 1963 NOV D 103258 E		
NEXT ASSY					

DIAGRAM, LOGIC,
MAG TAPE UNIT

4/1/1

From	To	Reason
<p style="text-align: center;"><u>103258D</u></p> 	<p style="text-align: center;"><u>103258E</u></p> 	<p style="text-align: center;"><u>103404H</u></p> <p>\overline{BOT} sets 1 sec delay for reverse scan and rewind problems at beginning of tape.</p>

REVISIONS			
REV	DESCRIPTION	CHK	DATE APPROVED
A	REL TO MFG		7/17/63
C	SEE REV E.O.		
D	SEE REV E.O.		
E	SEE REV E.O.		

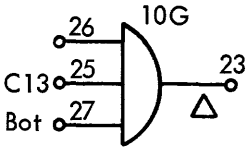
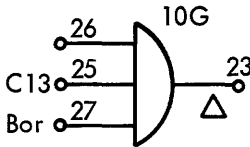


* SEE CALIBRATION PROCEDURE
IN TECHNICAL MANUAL

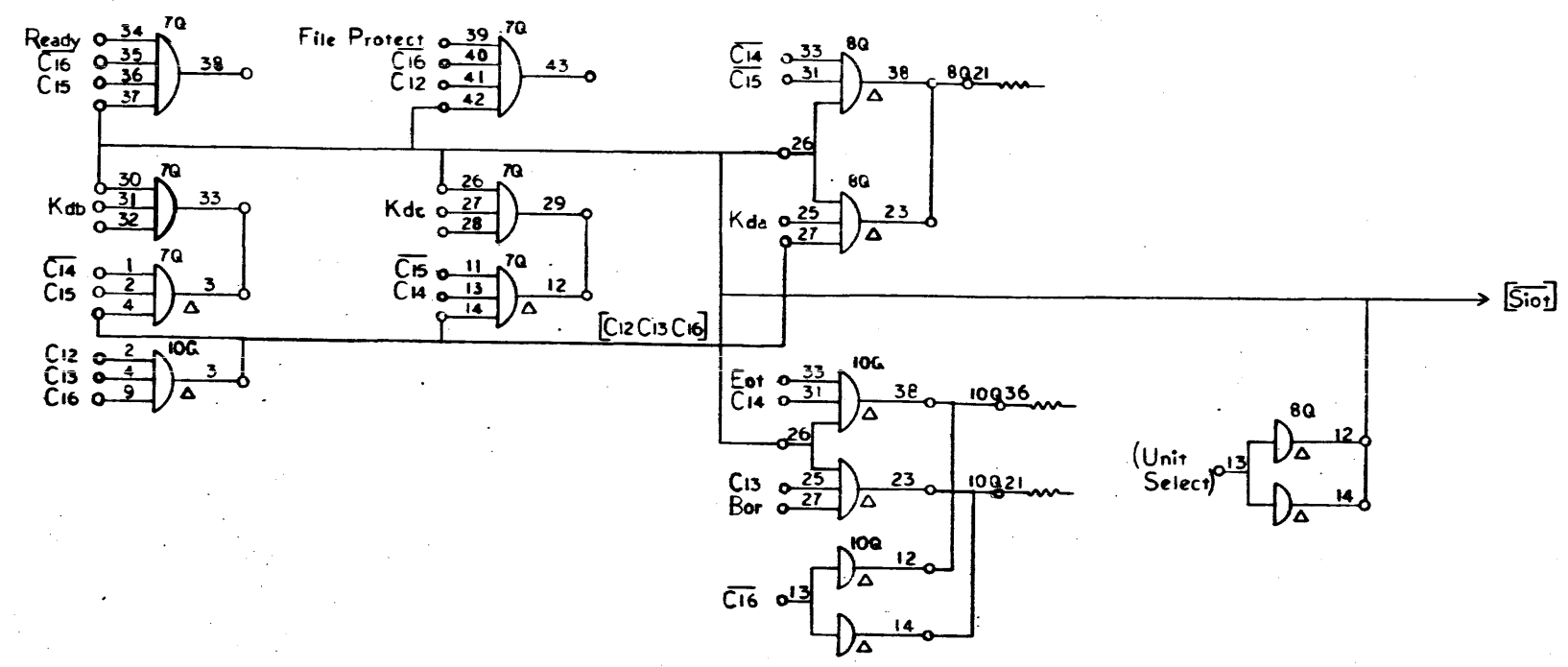
9246A
9246P
TAPE ELECTRONICS
PAGE 5
E

103258 | E

NO	DRAWING NO	DESCRIPTION	REFERENCE IDENTIFICATION	ITEM
NOTES UNLESS SPECIFIED				
1	TOLERANCES		DATE	
2	SEE 1.010		CHKD	
3	BREAK ALL SHARP CORNERS		APPD	
4	RADIUS APPROX			
5	MATCH SURFACES			
6	ALL DIM IN INCHES			
MATERIAL LIST			SDS	
MODEL NO			DIAGRAM, LOGIC, MAG TAPE UNIT	
9246			D 103258 E	
NEXT ASSY			5-31	

From	To	Reason
<p style="text-align: center;"><u>103258D</u></p> 	<p style="text-align: center;"><u>103258E</u></p> 	<p style="text-align: center;"><u>EO 103404L</u></p> <p>Bot term replaced by Bor term for early indication of load point.</p>

REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG		
C	SEE REV. E.O.		
D	SEE REV E.O.		
E	SEE REV E.O.		

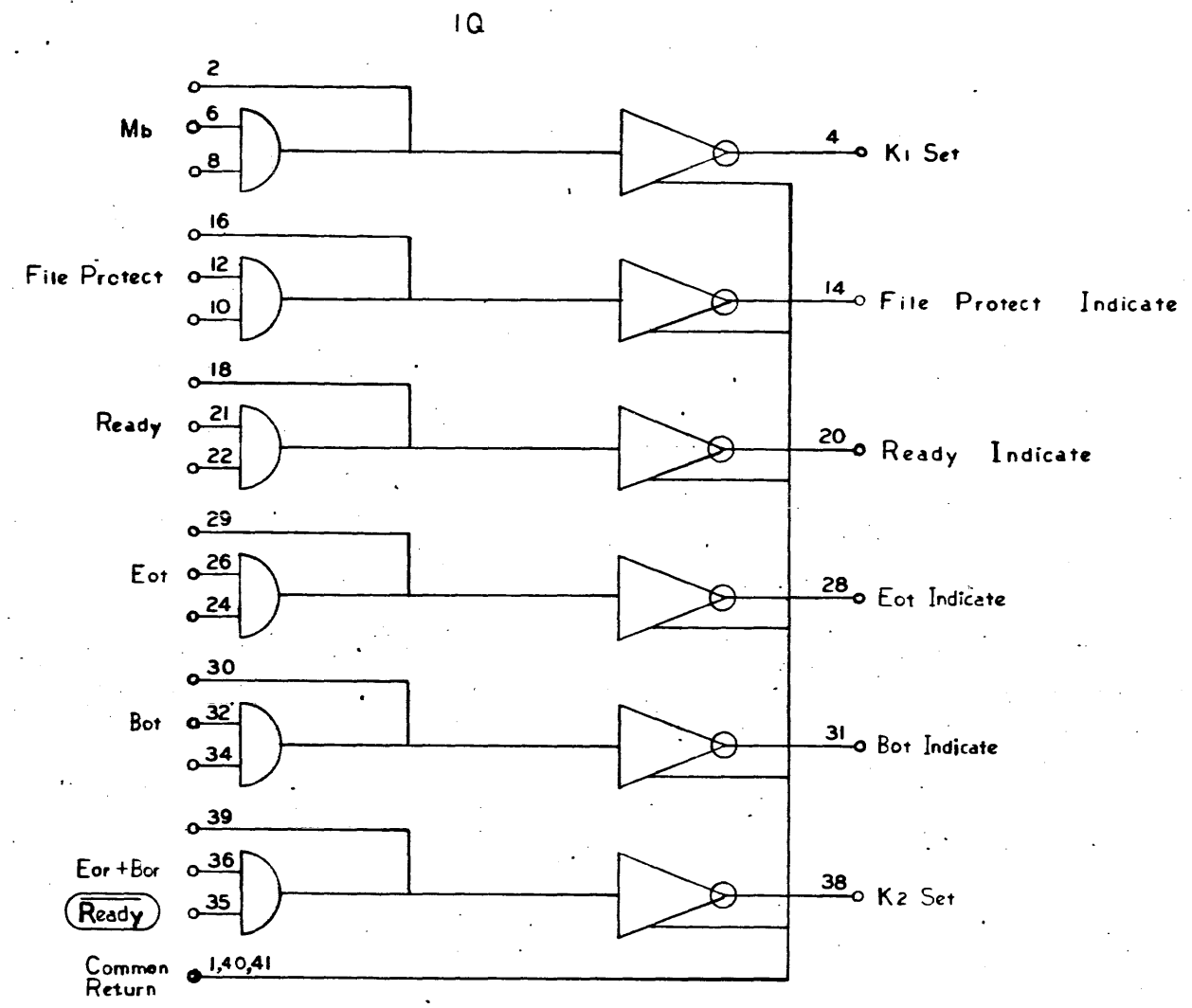


9246A
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TAPE ELECTRONICS
PAGE 7
E

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. UNLESS OTHERWISE SPECIFIED		DRAWN	DATE	
2. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED		CHECKED	DATE	
3. BREAK ALL SHARP EDGES 5/16" RADIUS		APPROVED	DATE	
4. DIMEN SURFACES				
5. ALL DIM IN DECIMALS				
MODEL NO. 9246		SDS SCIENTIFIC DATA SYSTEMS 143 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA		TITLE DIAGRAM, LOGIC, MAG TAPE UNIT
NEXT ASSY.		SIZE D	DWG NO. 103258	E
		SCALE	DO NOT SCALE DRAWING	SHEET 7

103258 E

REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG		
C	SEE REV. E.O.		
D	SEE REV E.O.		
E	SEE REV. E.O.		



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9246P
TAPE ELECTRONICS
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E

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE INFORMATION	ISSUE NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES XX - DIM ANGULAR XX - DIM		CHECK	DATE	
2. BREAK ALL SHARP EDGES DIM APPROX		APP'D	DATE	
3. HATCH SURFACES				
4. ALL DIM IN INCHES				
MODEL NO 9246		DATE D		TYPE, NO. 103258
NEXT ASSY		DATE		ISSUE NO. E

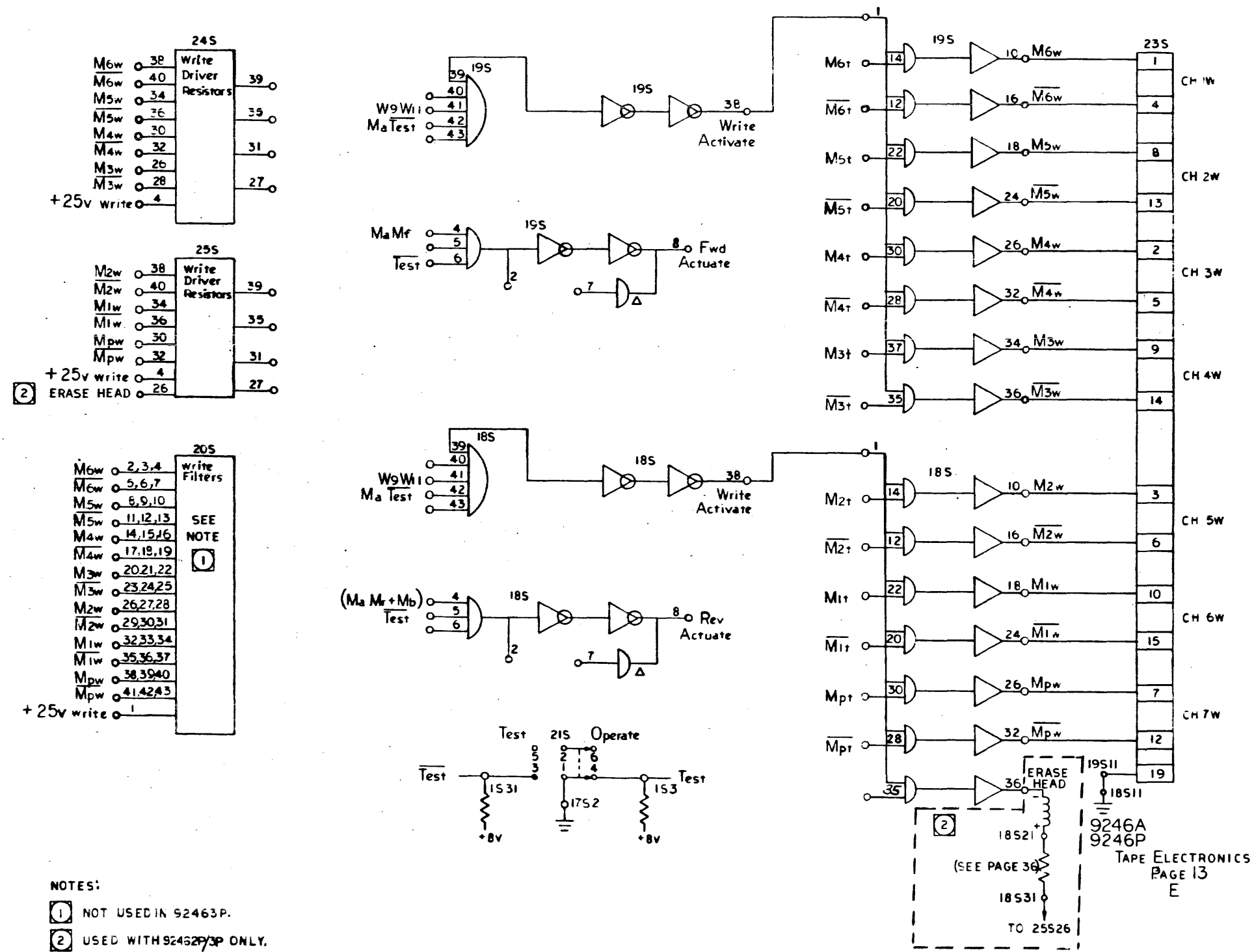
103258 E

The following chart shows the pin numbers for the head wiring on a Potter unit.

(PICO = Potter Instrument Co.)

<u>PICO Channel</u>	<u>PICO Connector</u>	<u>SDS Connector</u>	<u>SDS Channel</u>
1	A - C	7 - 12	7
2	B - D	10 - 15	6
3	E - F	3 - 6	5
4	J - K	9 - 14	4
5	L - M	2 - 5	3
6	R - S	8 - 13	2
7	Y - Z	1 - 4	1
	Blk Wht	Blk Wht	

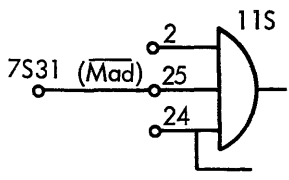
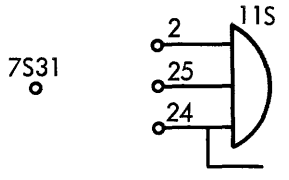
REV	DESCRIPTION	DATE	APPLIED
A	REL TO MFG		
C	SEE REV. E.O.		
D	SEE REV E.O.		
E	SEE REV E.O.		



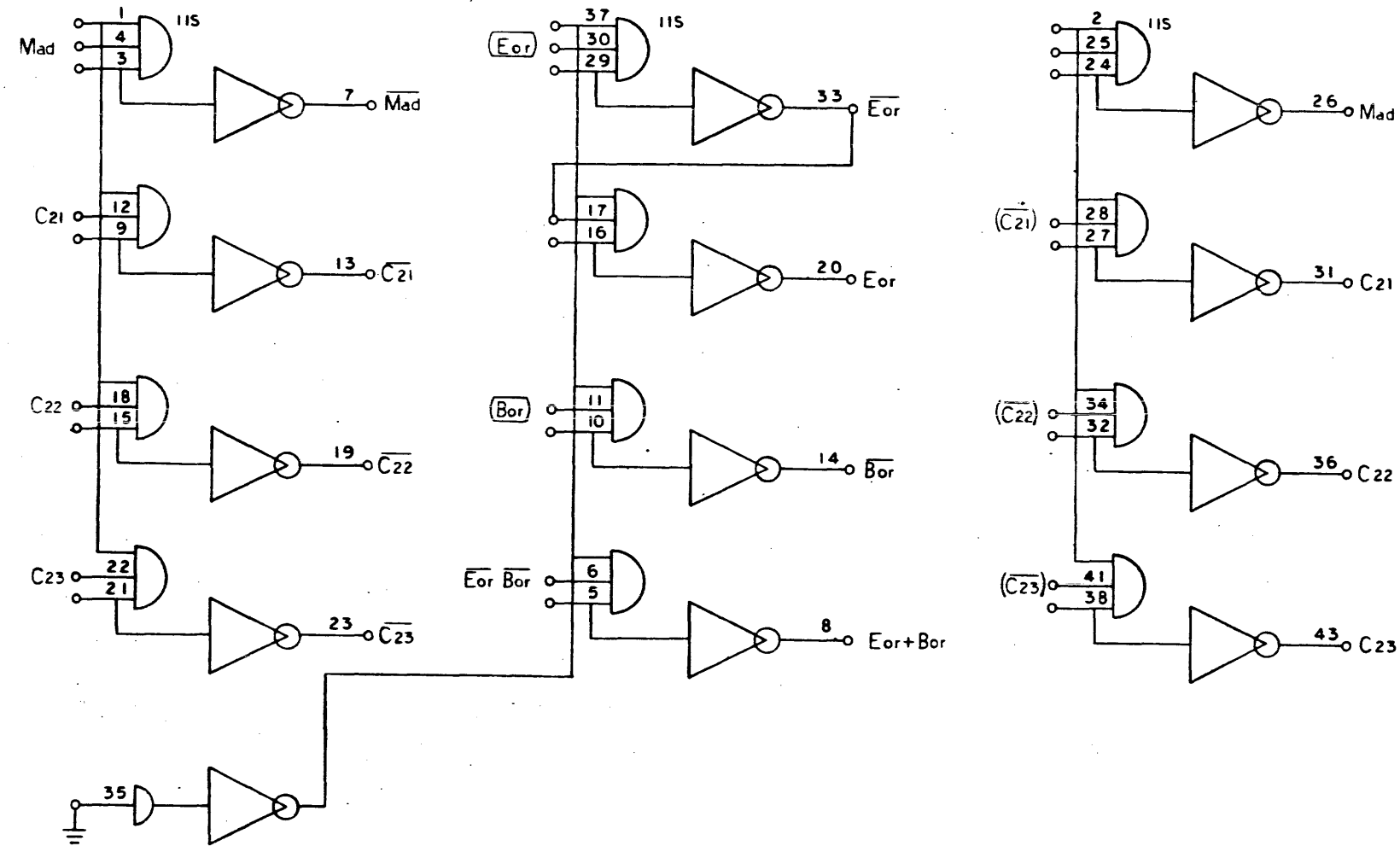
NOTES:
 ① NOT USED IN 92463P.
 ② USED WITH 92462P/3P ONLY.

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN: <i>[Signature]</i> 7/16/64 CHECK: <i>[Signature]</i> 7/17/63 APPR: <i>[Signature]</i> 7/17/63	SDS SCIENTIFIC DATA SYSTEMS 1625 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA	
1. TOLERANCES UNLESS SPECIFIED: 2. DIMENSIONS IN PARENTHESES ARE APPROXIMATE 3. BREAK ALL SHARP EDGES 4. HATCH SURFACES 5. ALL DIMS IN INCHES		DIAGRAM, LOGIC, MAG TAPE UNIT		
MODEL NO. 9246		SIZE D	DWG NO. 103258	E
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING	SHEET 13 OF 24

103258 | E

From	To	Reason
<p style="text-align: center;"><u>103258D</u></p>  <p>The diagram shows a 7S31 component connected to pins 2, 25, and 24 of a 11S component. The 7S31 is connected to pin 2, and its output is connected to pin 25. Pin 24 is also connected to the 11S component.</p>	<p style="text-align: center;"><u>103258E</u></p>  <p>The diagram shows a 7S31 component connected to pins 2, 25, and 24 of a 11S component. The 7S31 is connected to pin 2, and its output is connected to pin 25. Pin 24 is also connected to the 11S component.</p>	<p style="text-align: center;"><u>EO 103404H</u></p> <p>Eliminates \overline{Mad} Buss.</p> <p>See page 4 addendum for explanation.</p>

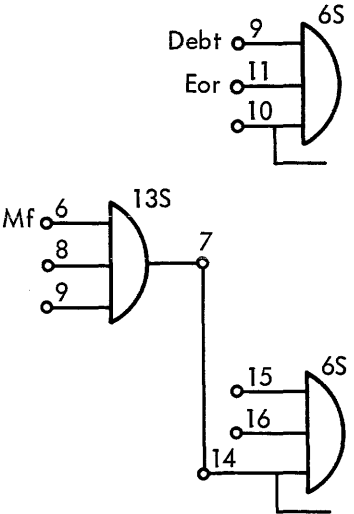
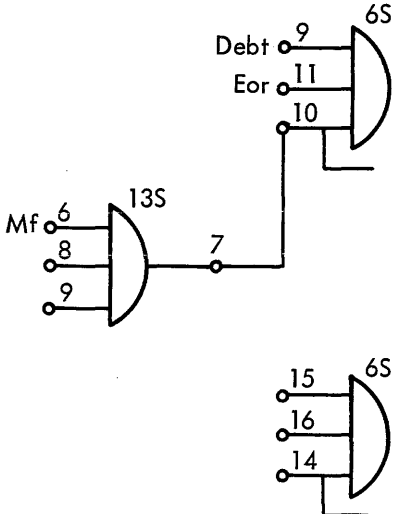
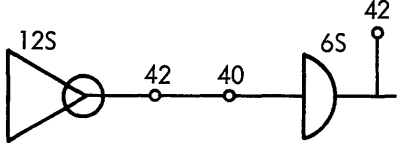
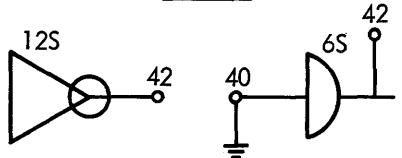
REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG		
C	SEE REV. E.O.		
D	SEE REV E.O.		
E	SEE REV E.O.		



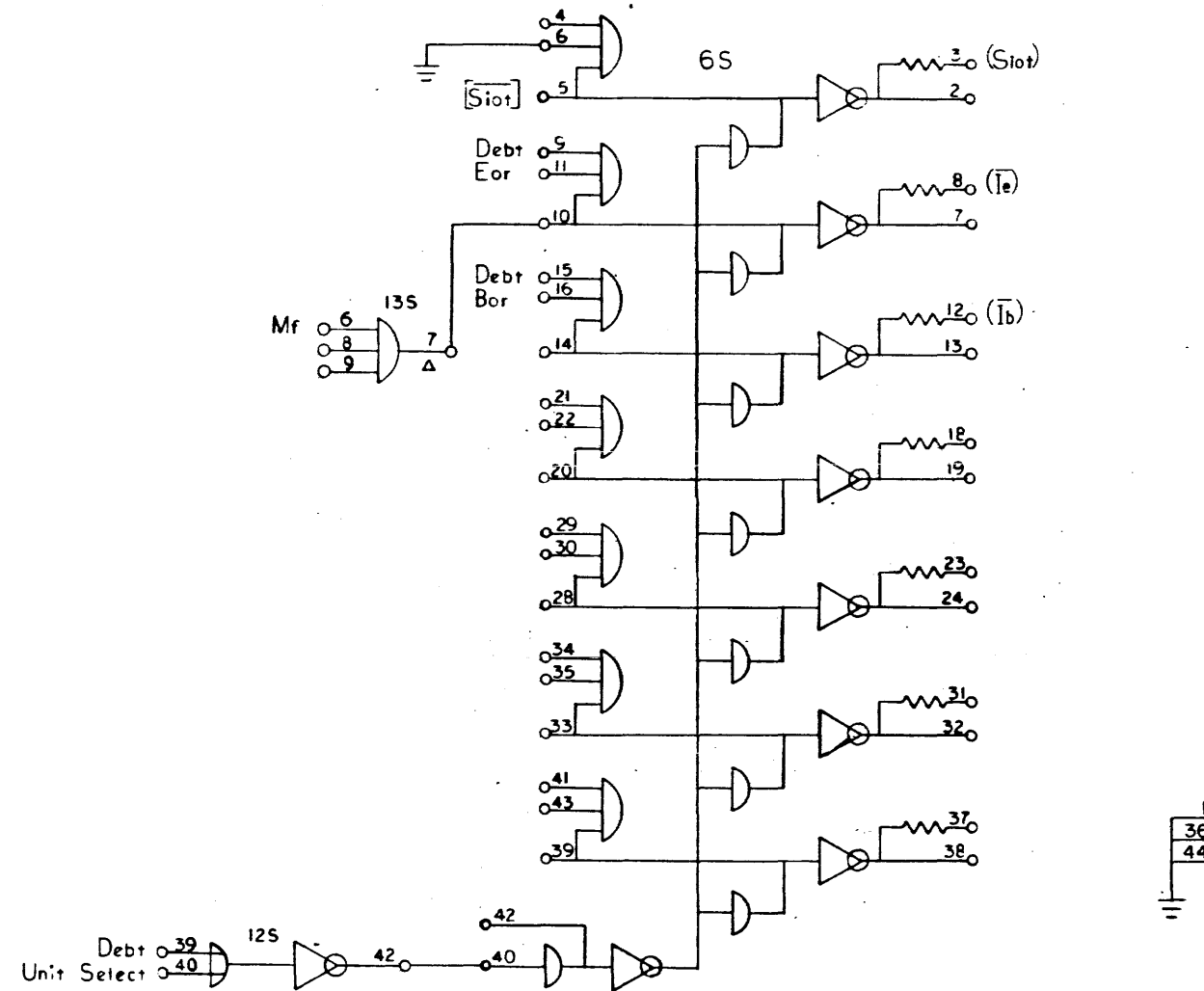
9246A
9246P
TAPE ELECTRONICS
PAGE 22
E

NO REQ	DRAWING NO	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO
NOTES UNLESS SPECIFIED				
TOLERANCES		DRAWN	MATERIAL LIST	
± .030	ANGULAR	CHEK	SDS ACADEMIC DATA EQUIPMENT	
± .010	± .1°	APPR	103258	
1 BREAK ALL SHARP EDGES D18 APPROX		TITLE		
2 BACK SURFACE ✓		DIAGRAM, LOGIC, MAG TAPE UNIT		
3 ALL DIM IN INCHES		MODEL NO 9246		
NEXT ASSY		SIZE D		DWG NO 103258
		SCALE		E
		SHEET 2-2		

103258 E1

From	To	Reason
<p style="text-align: center;"><u>103258A</u></p>  <p>The diagram shows a 6S terminal block with pins 9 (Debt), 11 (Eor), and 10. A 13S terminal block has pins 6 (Mf), 8, and 9. A second 6S terminal block has pins 15, 16, and 14. A 3-input OR gate (13S) has inputs 6, 8, and 9, with output 7. A 3-input OR gate (6S) has inputs 9, 11, and 10. A second 3-input OR gate (6S) has inputs 15, 16, and 14. A wire connects output 7 of the 13S gate to input 10 of the top 6S gate.</p>	<p style="text-align: center;"><u>103258B</u></p>  <p>The diagram is identical to 103258A, but the input 10 of the top 6S gate is connected to ground.</p>	<p style="text-align: center;"><u>EO 103404 B</u></p> <p>Allows Eor interrupt in forward direction only.</p>
<p style="text-align: center;"><u>103258B</u></p>  <p>The diagram shows a 12S terminal block with pin 42. A NOT gate has input 42 and output 40. A 6S terminal block has pins 40, 6S, and 42. An OR gate has inputs 40 and 6S, with output 42.</p>	<p style="text-align: center;"><u>103258D</u></p>  <p>The diagram is identical to 103258B, but the input 40 of the OR gate is connected to ground.</p>	<p style="text-align: center;"><u>EO 103404 E</u></p> <p>Prevents Siot from floating. Eliminating False SKS Answers.</p>
<p style="text-align: center;"><u>103258D</u></p> <p style="text-align: center;">Wires</p> <p style="text-align: center;">6S2 to 6S3 6S7 to 6S8 6S12 to 6S13</p>	<p style="text-align: center;"><u>103258E</u></p> <p style="text-align: center;">Deleted Wires and Added Ground to 6S Pins 1 and 36 from 6S Pin 44</p>	<p style="text-align: center;"><u>EO 103404 H</u></p> <p>To allow Logic operation with new ZK57 and ZK58 Terminators.</p> <p>ZK57 - 103471-D ZK58 - 103474-B</p> <p>See Page 40 and 41</p>

REVISIONS				103258	E
REV	DESCRIPTION	DATE	APPROVED		
A	REL TO MFG				
B	SEE REV. E.O.				
C	SEE REV. E.O.				
D	SEE REV. E.O.				
E	SEE REV. E.O.				



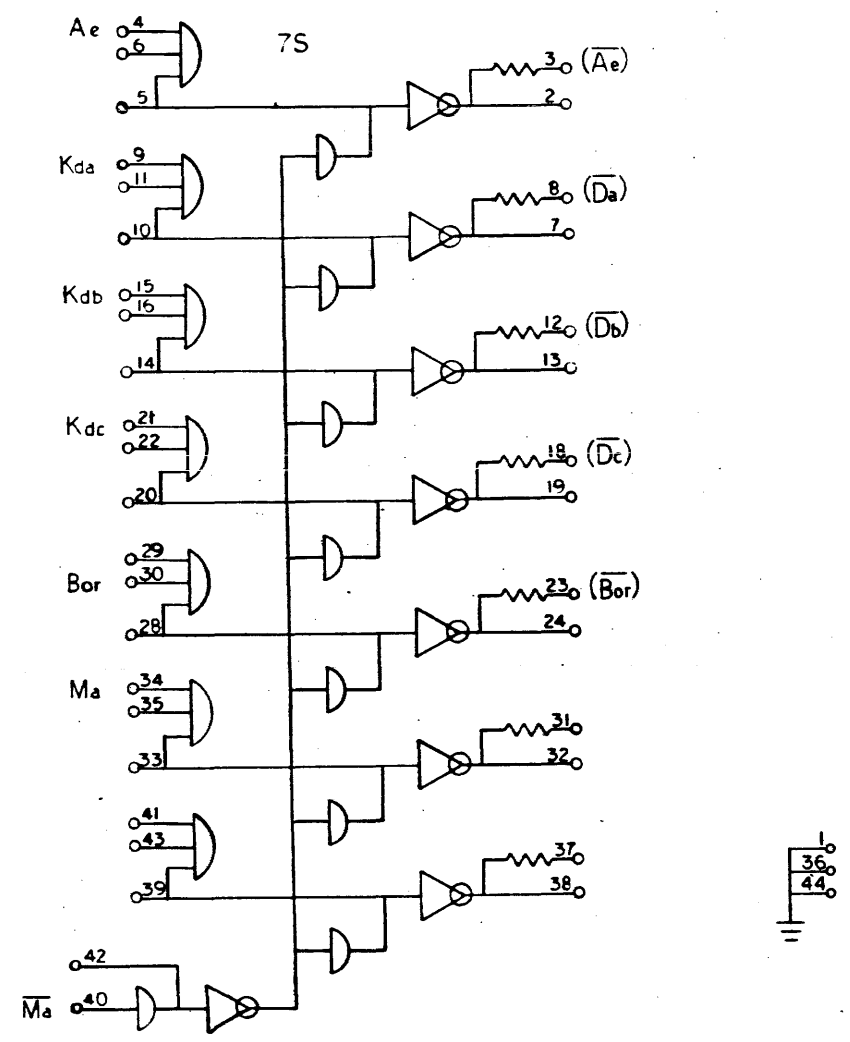
9246A
9246P
TAPE ELECTRONICS
PAGE 23
E

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TELETYPE 2. SEE 9246 3. SEE 9246		DRAWN 7/1/63	CHECK 7/17/63	
4. BREAK ALL SHARP CORNERS 5. EACH SURFACE 6. ALL DIM. IN INCHES		APPR 7/1/63	TITLE	
MODEL NO. 9246		SDS SCIENTIFIC DATA SYSTEMS 1407 FIFTEENTH STREET, SAN DIEGO, CALIFORNIA		
NEXT ASSY.		DIAGRAM, LOGIC, MAG TAPE UNIT		
		SIZE D	DWG. NO. 103258	E
		SCALE	DO NOT SCALE DRAWING	SHEET 2 OF 4

103258 | E

From	To	Reason
<p style="text-align: center;"><u>103258D</u></p> <p style="text-align: center;">Wires</p> <p>7S2 to 7S3 7S7 to 7S8 7S12 to 7S13 7S18 to 7S19 7S23 to 7S24 7S31 to 7S32</p> <p>($\overline{\text{Mad}}$) connected to 7S pin 32</p>	<p style="text-align: center;"><u>103258E</u></p> <p>Deleted wires and added ground to pins 1 & 36 from pin 44. 7S</p> <p>deleted ($\overline{\text{Mad}}$) term from 7S pin 32</p>	<p style="text-align: center;"><u>EO 103404H</u></p> <p>See page 23, Item 3 addendum for explanations.</p> <p>See Page 4 addendum for explanation.</p>

REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG		
C	SEE REV. E.O.		
D	SEE REV E.O.		
E	SEE REV E.O.		



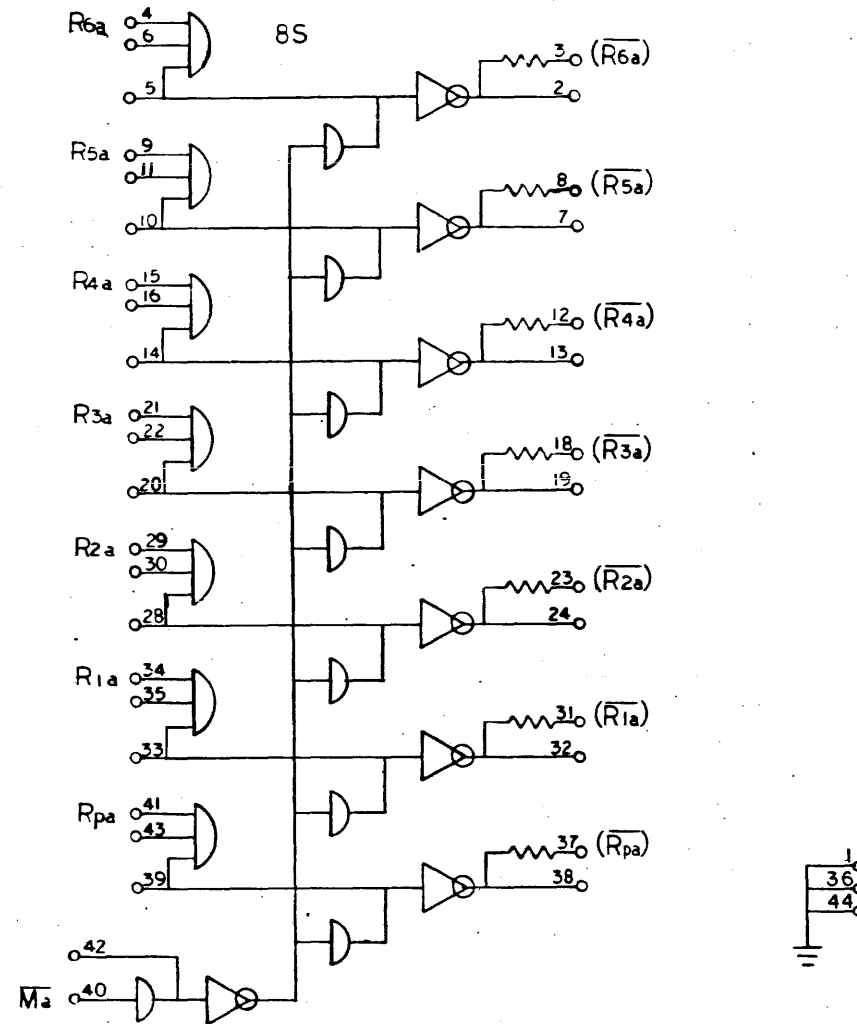
9246A
9246P
TAPE ELECTRONICS
PAGE 24
E

NO. REG.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	SDS SCIENTIFIC DATA SYSTEMS 193 FIFTEENTH STREET SANTA MONICA CALIFORNIA	
1 TOLERANCES XX ± 0.00 XX ± 0.01 XX ± 0.02		CHECK	TITLE	
2 BREAK ALL SHARP EDGES 3 1/8 APPROX		APPR	DIAGRAM, LOGIC, MAG. TAPE UNIT	
4 RACE SURFACES ✓				
5 ALL DIM. IN INCHES				
MODEL NO.	9246	REV	D	DWG NO. 103258
NEXT ASSY.				E
		SCALE	DO NOT SCALE DRAWING	SHEET 24/24

103258 IE

From	To	Reason
<p><u>103258D</u></p> <p>Wires</p> <p>8S2 to 8S3 8S7 to 8S8 8S12 to 8S13 8S18 to 8S19 8S23 to 8S24 8S31 to 8S32 8S37 to 8S38</p>	<p><u>103258E</u></p> <p>} deleted wires and added ground to 8S pins 1 & 36 from pin 44.</p>	<p><u>EO 103404H</u></p> <p>See Page 23 Addendum Item 3 for explanation.</p>

REV	DESCRIPTION	DATE	APPROVED
A	REL TO MFG		
C	SEE REV. E.O.		
D	SEE REV E.O.		
E	SEE REV E.O.		



9246A
9246P
TAPE ELECTRONICS
PAGE 25
E

NO REQ	DRAWING NO	DESCRIPTION	REFERENCE IDENTIFICATION	ITEM NO
NOTES UNLESS SPECIFIED 1 TOLERANCES 22 ± .030 ANGULAR 22 ± .030 2 1/2" 3 BREAK ALL SHARP EDGES 4 90 APPROX 5 EACH SURFACE ✓ 6 ALL DIM IN INCHES				
DRAWN 3/13 7/17/63		MATERIAL LIST SDS SCIENTIFIC DATA SYSTEMS 1427 23RD STREET SANTA MONICA CALIFORNIA		
MODEL NO 9246		TITLE DIAGRAM, LOGIC, MAG TAPE UNIT		
NEXT ASSY		SIZE D DWG NO 103258		SHEET E
SCALE		DO NOT SCALE DRAWING SHEET 5-39		

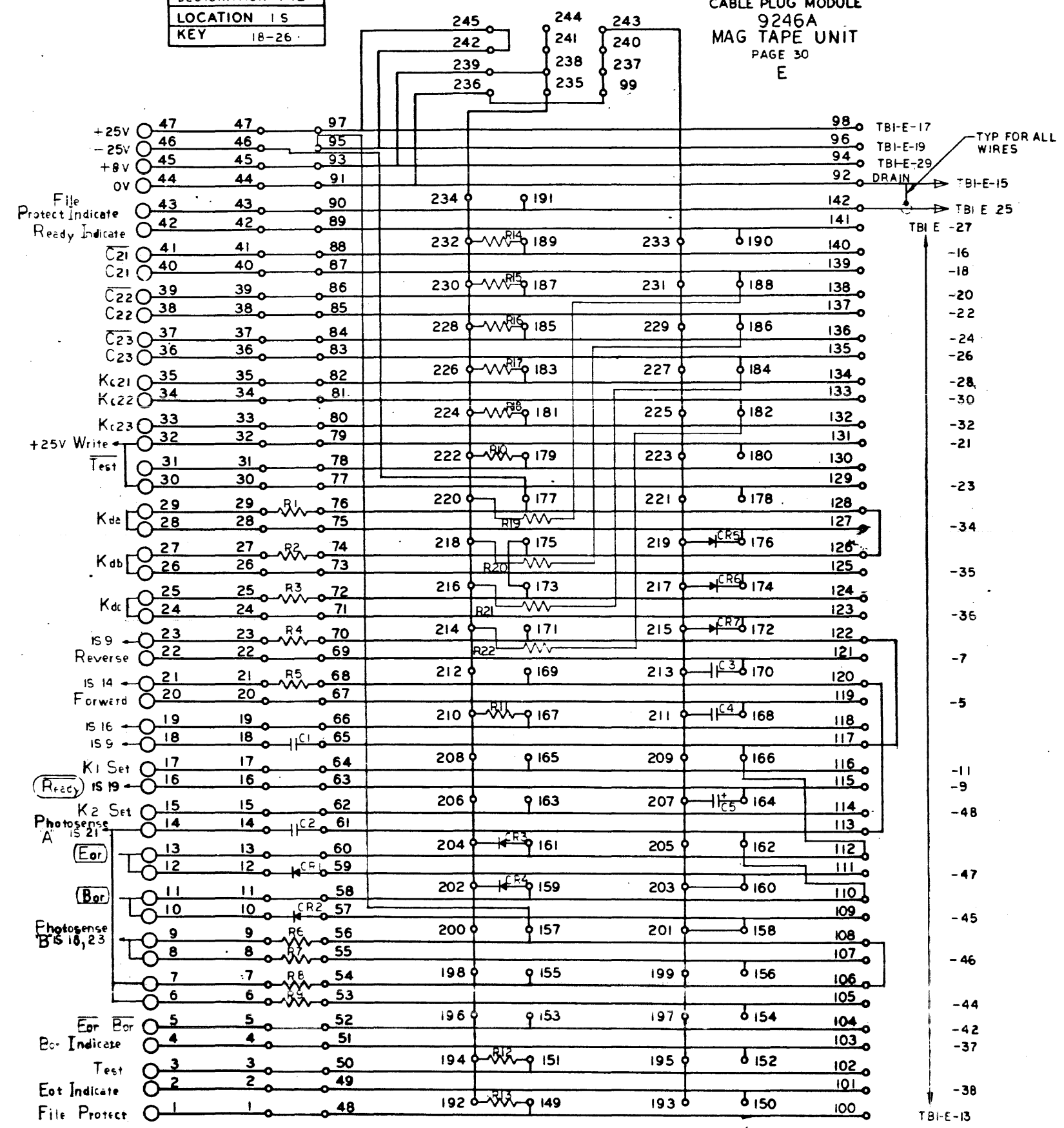
103258 E

From	To	Reason
<u>103258D</u>	<u>103258E</u> Added Resistors R14 thru R22. 470 ohms $\pm 2\%$ SDS Part #100111-471	<u>EO 103140</u> Additional pull-up on C lines, to reduce noise.

REVISIONS				
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL. TO MFG.			
C	SEE REV. E.O.			
D	SEE REV E.O.			
E	SEE REV E.O.			

DESIGNATION P42
LOCATION 1 S
KEY 18-26

CABLE PLUG MODULE
9246A
MAG TAPE UNIT
PAGE 30
E



NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES UNLESS SPECIFIED: .005 ANGULAR .010				
2. BREAK ALL SHARP EDGES AND APPROX.				
3. HATCH SURFACES				
4. ALL DIM. IN INCHES				
DRAWN: <i>[Signature]</i> 6/27/62		SDS DATA SYSTEMS		
CHECK: <i>[Signature]</i> 7/17/63		1545 FIFTEENTH STREET SANTA MONICA CALIFORNIA		
APPR: <i>[Signature]</i> 7/20/62		TITLE		
		DIAGRAM, LOGIC, MAG TAPE UNIT		
MODEL NO. 9246		REV. D		ITEM NO. E
NEXT ASSY.		SCALE		SHEET 30

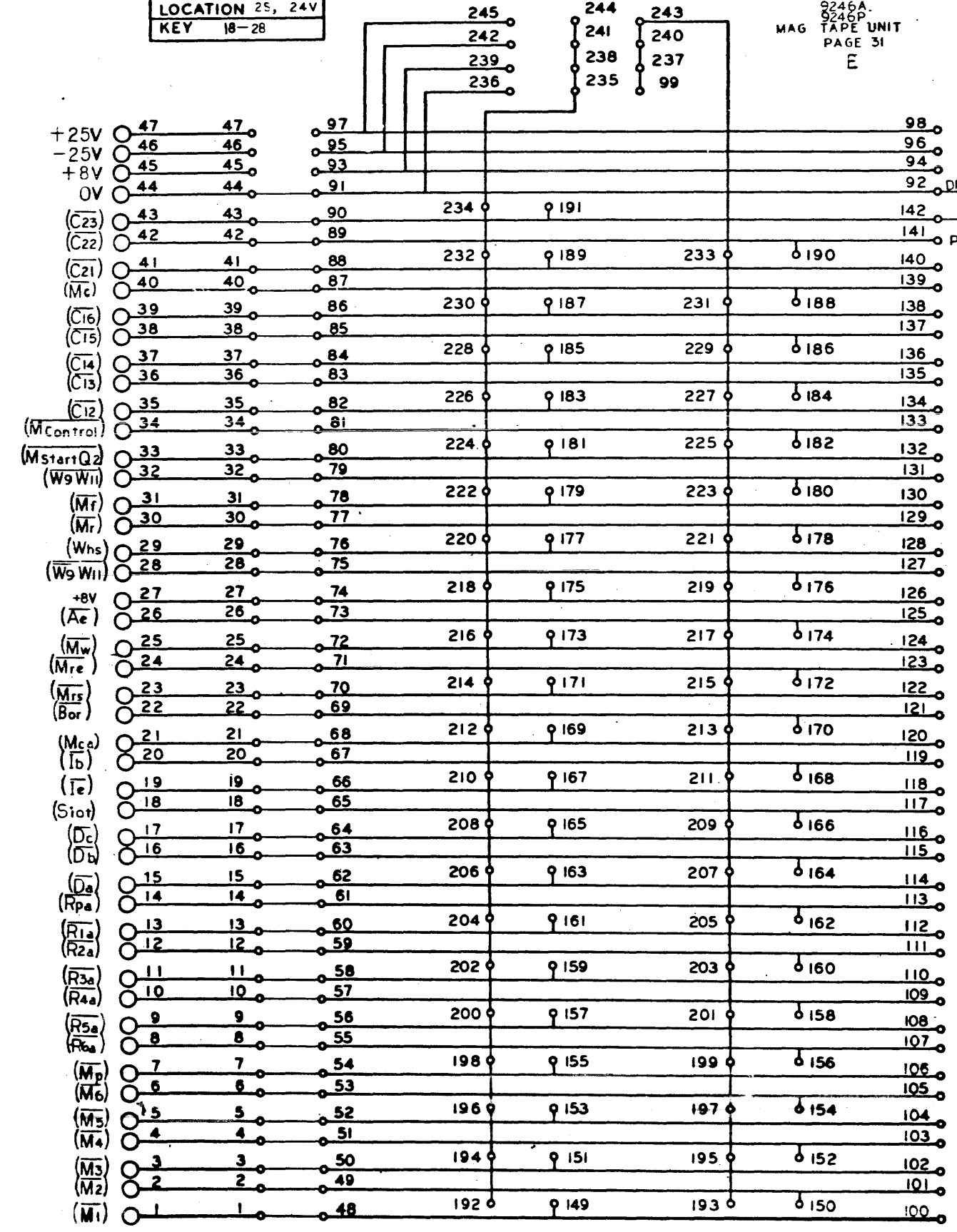
103258 | E |

From	To	Reason
<p>Pin 27 of P43 (\overline{Mad}) signal.</p>	<p>Deleted (\overline{Mad}) signal from pin 27 of P43.</p> <p>Add +8v to pin 27 of P43.</p>	<p>Coordinate with EO 103404H.</p> <p>See Page 23 Addendum Item 3 for explanation.</p>

REVISIONS			
REV	DESCRIPTION	CHK	DATE
A	REL. TO MFG.		
C	SEE REV. E.O.		
D	SEE REV E.O.		
E	SEE REV E.O.		

DESIGNATION P43
LOCATION 2S, 24V
KEY 18-28

CABLE PLUG MODULE
9246A
9246P
MAG TAPE UNIT
PAGE 31
E



TYP FOR ALL WIRES
P44-E-142
P44-E-141

P44-E-100

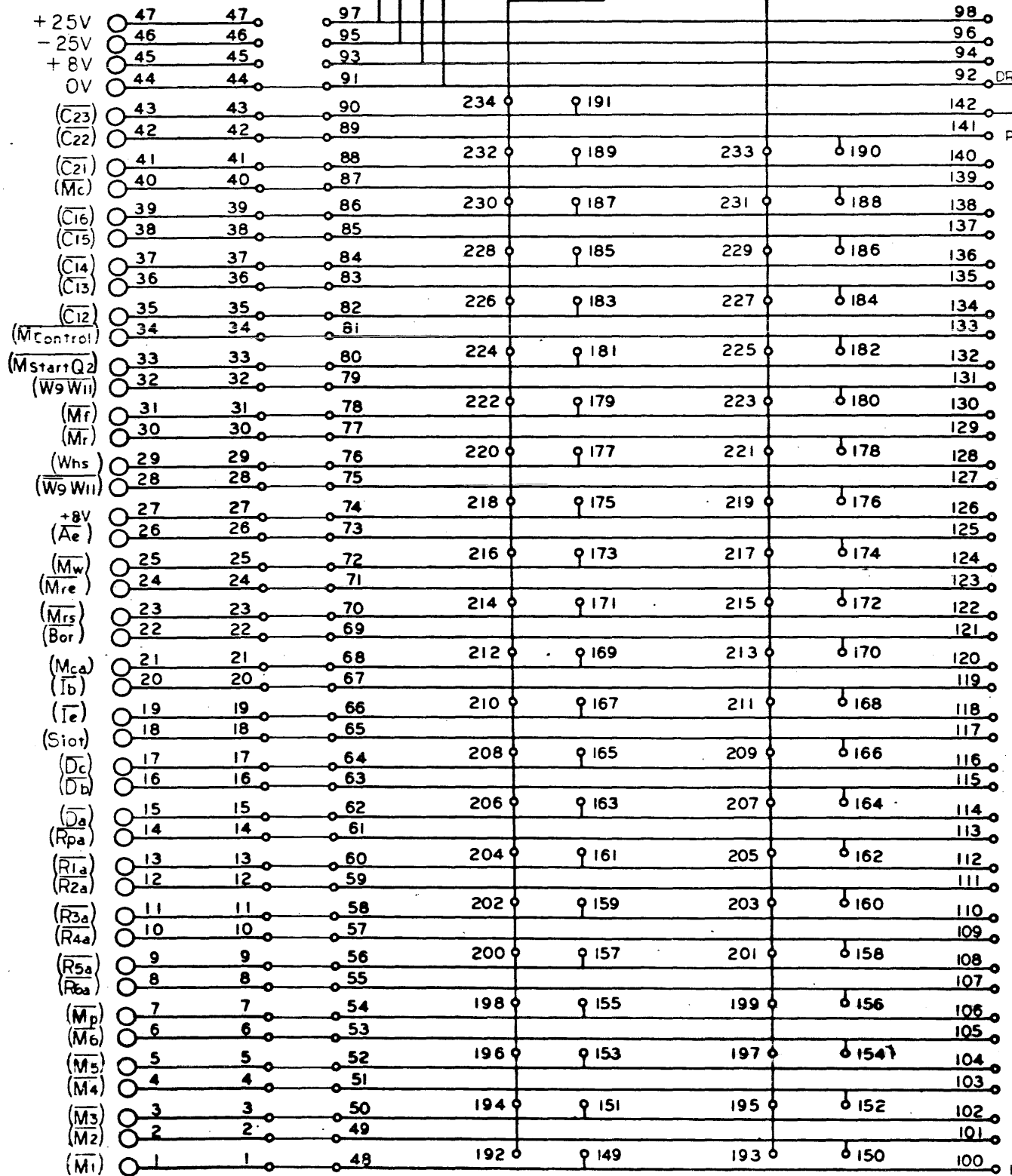
103258 E

NO	REQ	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED					
MATERIAL LIST					
1. TOLERANCES UNLESS SPECIFIED		DRAWN	7/1/72	SDS DATA SYSTEMS	
2. DIMENSIONS UNLESS SPECIFIED		CHECK	7/1/72	1435 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA	
3. SHEET ALL DIMENSIONS		APPR.	7/1/72	TITLE	
4. HOLE DIMENSIONS		DIAGRAM, LOGIC, MAG TAPE UNIT			
5. ALL DIMENSIONS		MODEL NO. 9246		REV. D	DWG. NO. 103258
NEXT ASSY				E	
SCALE		DO NOT SCALE DRAWING		SHEET 3	

REVISIONS			
REV	DESCRIPTION	CHK	DATE
A	REL. TO MFG.		
C	SEE REV. E.O.		
D	SEE REV. E.O.		
E	SEE REV. E.O.		

DESIGNATION P44
 LOCATION 3S
 KEY 18-30

CABLE PLUG MODULE
 9246A
 9246P
 MAG TAPE UNIT
 PAGE 32.
 E



TYP FOR ALL WIRES

P43-E-142
 P43-E-141

P43-E-100

103258 E

NO. REQ.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED				
1. TOLERANCES AS SHOWN		2. ANGULAR SEE 2-PAGE	MATERIAL LIST	
3. BREAK ALL SHARP EDGES 2:10 APPROX		SDS SCIENTIFIC DATA SYSTEMS 1442 FIFTEENTH STREET SANTA MONICA CALIFORNIA		
4. HATCH SURFACES		TITLE DIAGRAM, LOGIC, MAG TAPE UNIT		
5. ALL DIM. IN INCHES		MODEL NO. 9246		
NEXT ASSY.		Dwg No. 103258		E
SCALE		DO NOT SCALE DRAWING SHEET 22		

REV	DESCRIPTION	DATE	APPROVED
A	REF TO MFG		
C	SEE REV. E.O.		
D	SEE REV E.O.		
E	SEE REV EC		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Q	RX 10	FH 17	OX 13	GC 10	BC 10	IH 12	GC 10	BC 10	IC 12	BC 10	BC 10	GC 11		OX 13	OX 13	OX 13	OX 13	OX 13	HK 60	HK 60	HK 60	HK 60	HK 60	HK 60	HK 60
S	P42 ('A' UNITS) P70 ('P' UNITS)	P43 ZK57	P44	ZK 58 UNIT 1 ONLY	HX200 (NOT USED ON 'P' UNITS)	AX 14	AX 14 1-AX18 2-AX18 3-AX18	AX 14 1-AX18 2-AX18 3-AX18		IC 12	IC 12	GC 10	OX 13	OX 13	FC 17	FC 17	AK 52	AK 52	ZK 56 NOT USED ON 9246P					ZK 51	ZK 51
Q		FC17	OX11			IC12								OX11	OX11	OX11	OX11	OX11							
S														OX11	OX11										

Q → ZK51 MODULES TO BE REPLACED FOR 800 BPI OPERATION:
 S → ZK67 FOR "P" UNITS WITH ERASE HEADS.
 S → ZK68 FOR "A" OR "P" UNITS WITHOUT ERASE HEADS.

Q → MODULES IDENTIFIED WERE USED IN EARLY 9246A UNITS.

9246A
9246P

TAPE ELECTRONICS
PAGE 33
E

NO. REC.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN	CHECK	DATE
1. TOLERANCES 2. DIMENSIONS 3. BREAK ALL SHARP CORNERS 4. HATCH SHOWN 5. ALL DIM. IN INCHES		7/10/63	7/10/63	7/10/63
MODEL NO. 9246		TITLE DIAGRAM, LOGIC, MAG TAPE UNIT		
NEXT ASSY		REV.	DWG. NO.	ITEM NO.
		D	103258	E
SCALE		DO NOT SCALE DRAWING		SHEET 33 OF 34

103258 | E |

REVISIONS				
REV	DESCRIPTION	CHK	DATE	APPROVED
A	REL TO MFG			
C	SEE REV. E.D.			
D	SEE REV E.D.			
E	SEE REV E.D.			

MODULE LIST

ITEM	DESCRIPTION	MODEL	QTY.
1	WRITE DRIVER	AK52	2
2	CABLE DRIVER	AX14	3
3	AND/OR BUFFER AMP	BC10	4
4	UNIVERSAL F.F.	FC17	2
5	GATE EXPANDER	GC10	3
6	GATE EXPANDER	GC11	1
7	OPERATIONAL AMP	HX20-0	1
8	READ AMP	HK60	7
9	AND INVERTER	IC12	3
10	ONE SHOT MULT.	OX13	8
11	RELAY DRIVER	ZX10	1
12	RESISTOR	ZK68	2
13	TERM. MODULE	ZK56	1
14	TERM. MODULE	ZK57	1
15	TERM. MODULE	ZK58	1
16	AND INVERTER	IH12	1
17	UNIVERSAL F.F.	FH17	1

REPLACEMENT PARTS LIST

ITEM	DESCRIPTION	DESIGNATION	QTY.	SUPPLIER CODE (SEE INDEX)
1	RESISTOR, 3.3K ± 2%	(P42) R1, R2, R3	3	16, 17
2	↑ 1 MEGΩ ↑	(P42) R4, R5, R6, R8	4	16, 17
3	↓ 1K ↓	(P42) R7, R9	2	16, 17
4	RESISTOR, 8.2K ± 2%	(P42) R10, R11, R12, R13	4	16, 17
5	CAPACITOR, MYLAR .0033 μF ± 10%	(P42) C1, C2	2	26, 27, 74
6	CAPACITOR, MYLAR .0068 μF ± 10%	(P42) C3, C4	2	26, 27, 74
7	CAPACITOR, TANTALUM .47 μF ± 20% 50V	(P42) C5	1	23, 77
8	DIODE, SILICON SWITCHING IN914A	(P42) CR1 THRU CR7	7	4, 12, 13, 14
9	CONNECTOR SOLDER TAIL 47 CONTACT # 7005-47	J(1Q) THRU J(25Q) J(1S) THRU J(20S) J(24S), J(25S)	47	82
10	RESISTOR, 1.8K ± 2%	(TB2) R1	1	16, 17
11	↑ 15K ↑	(TB2) R2	1	↑
12	↓ 180Ω ↓	(TB2) R3	1	↓
13	↑ 390Ω ↓	(TB2) R4, R5, R6	3	↓
14	RESISTOR, 470Ω ± 2%	(TB2) R7, R8, R9 (P42) R14 THRU R22	12	16, 17
15	DIODE, VOLTAGE REGULATOR IN752	(TB2) VR1	1	2, 12, 13, 14
16	DIODE, VOLTAGE REGULATOR IN964A	(TB2) VR2, VR3, VR4	3	2, 6, 14, 65
17	CAPACITOR, TANTALUM 4.7 μF ± 20% 50V	(TB2) C1	1	23, 77
18	TRANSISTOR, SILICON SWITCHING 2N1132	(TB2) Q1	1	3, 10, 11
19	RECEPTACLE, 19 PIN # RSK 19-315L	J1	1	134
20	PLUG, 19 PIN # SK19-325	J2	1	134
21	SWITCH, ROTARY # 102163	S1, S2	2	SDS
22	LAMP, INCANDESCENT # 47	DS1 THRU DS5	5	84
23	RESISTOR, WW 10Ω ± 5%	R1 THRU R5	5	99, 100
24	RELAY, DPDT # DOSX-7T # 80-6A/115 VAC	K1 THRU K4	4	78 79
25	SWITCH, TOGGLE, DPDT # 83054-SE	S1(S)	1	106
26	CAPACITOR, TANTALUM 4.7 μF ± 20% 50V	C1(Q)	1	23, 77

9246A,
MAG TAPE UNIT
PAGE 34
E

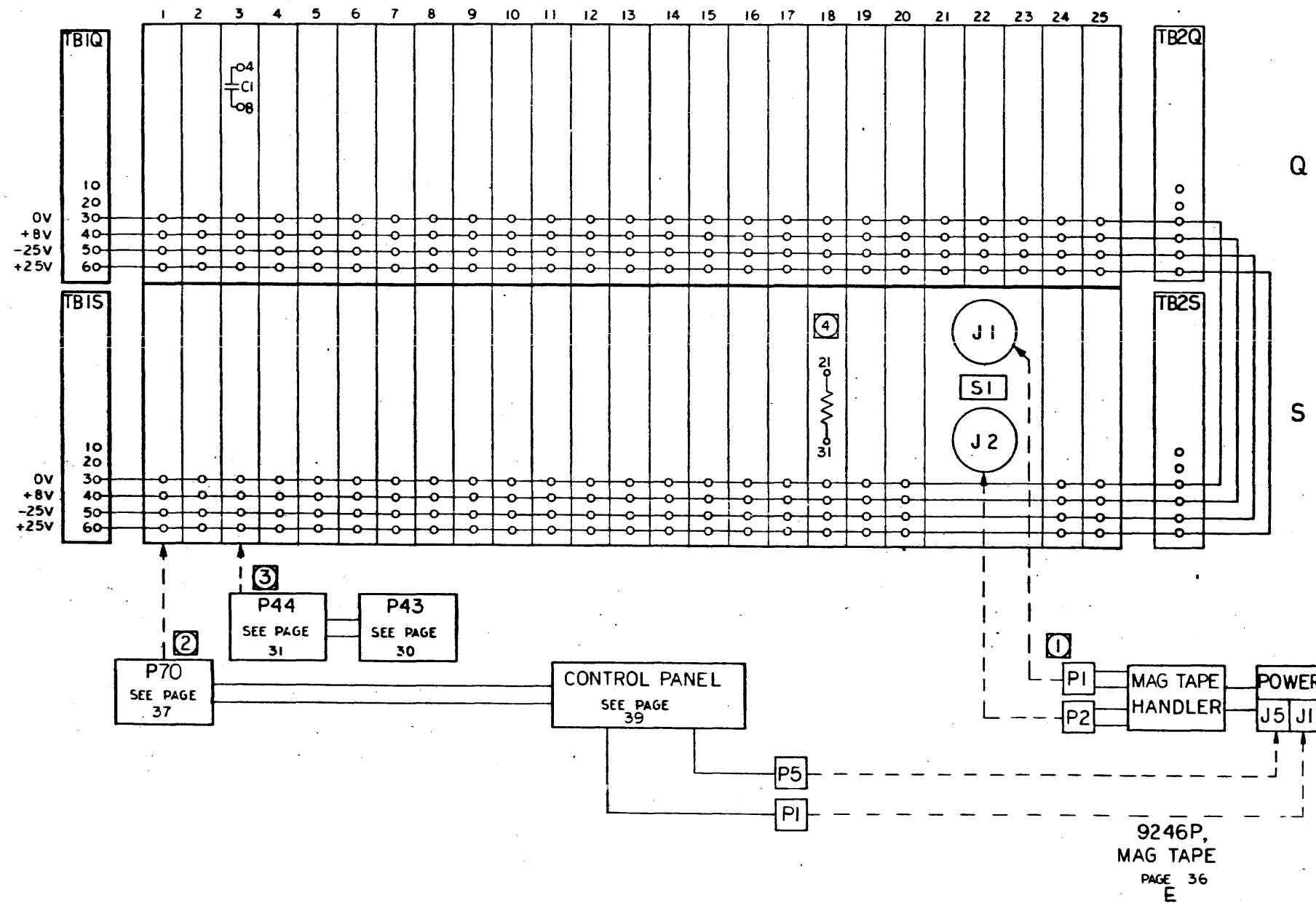
NO. REV.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	FROM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN: <i>W. J. [Signature]</i> 7/9/73	CHECK: <i>[Signature]</i> 7/16/73	APPR: <i>[Signature]</i> 7/17/73
1 TOLERANCES UNLESS SPECIFIED ARE AS SHOWN 2 DIMENSIONS 3 HOLE ALL SHOWN DIMENSIONS 4 HOLE DIMENSIONS 5 ALL DIM. IN INCHES		SDS SCIENTIFIC DESIGN SERVICES 1242 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA		
		DIAGRAM, LOGIC MAG TAPE UNIT		
MODEL NO.	9246	REV.	D	DATE
NEXT ASSY		DATE	103258	E
SCALE		DO NOT SCALE DRAWING		SHEET 34 of 39

103258 | E |

REVISIONS				103258	E
REV	DESCRIPTION	CHK	DATE	APPROVED	
C	SEE REV. E.O.				
D	SEE REV E.O.				
E	SEE REV E.O.				

NOTES: UNLESS OTHERWISE SPECIFIED

- ③ RECEPTACLE J(35) IS PROVIDED FOR THE P44 TO P43 CABLE. P43 CONNECTS TO RECEPTACLE J(24V) OF THE MODEL 9248 CONTROL UNIT OR TO J(25) OF A SECOND MODEL 9246.
- ④ USED ON 9246P/3P ONLY, RESISTOR 100680-750, WITH ERASE HEADS
- ① RECEPTACLES J1&J2 ARE PROVIDED FOR CONNECTION TO THE READ&WRITE HEADS OF THE MAG TAPE UNIT.
- ② RECEPTACLE J(S) IS PROVIDED FOR P70 FROM CONTROL PANEL.



NO. REV.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED				
DRAWN: <i>W. J. ...</i> 9/768		SDS SCIENTIFIC DATA SYSTEMS		
CHECK: <i>Robert ...</i> 5/5/68		333 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA		
APPR: <i>...</i> 7/5/68		TITLE		
		DIAGRAM, LOGIC MAG TAPE		
MODEL NO. 9246		SIZE	DWG NO. 103258	E
NEXT ASSY.		SCALE	DO NOT SCALE DRAWING	SHEET 2 of 1

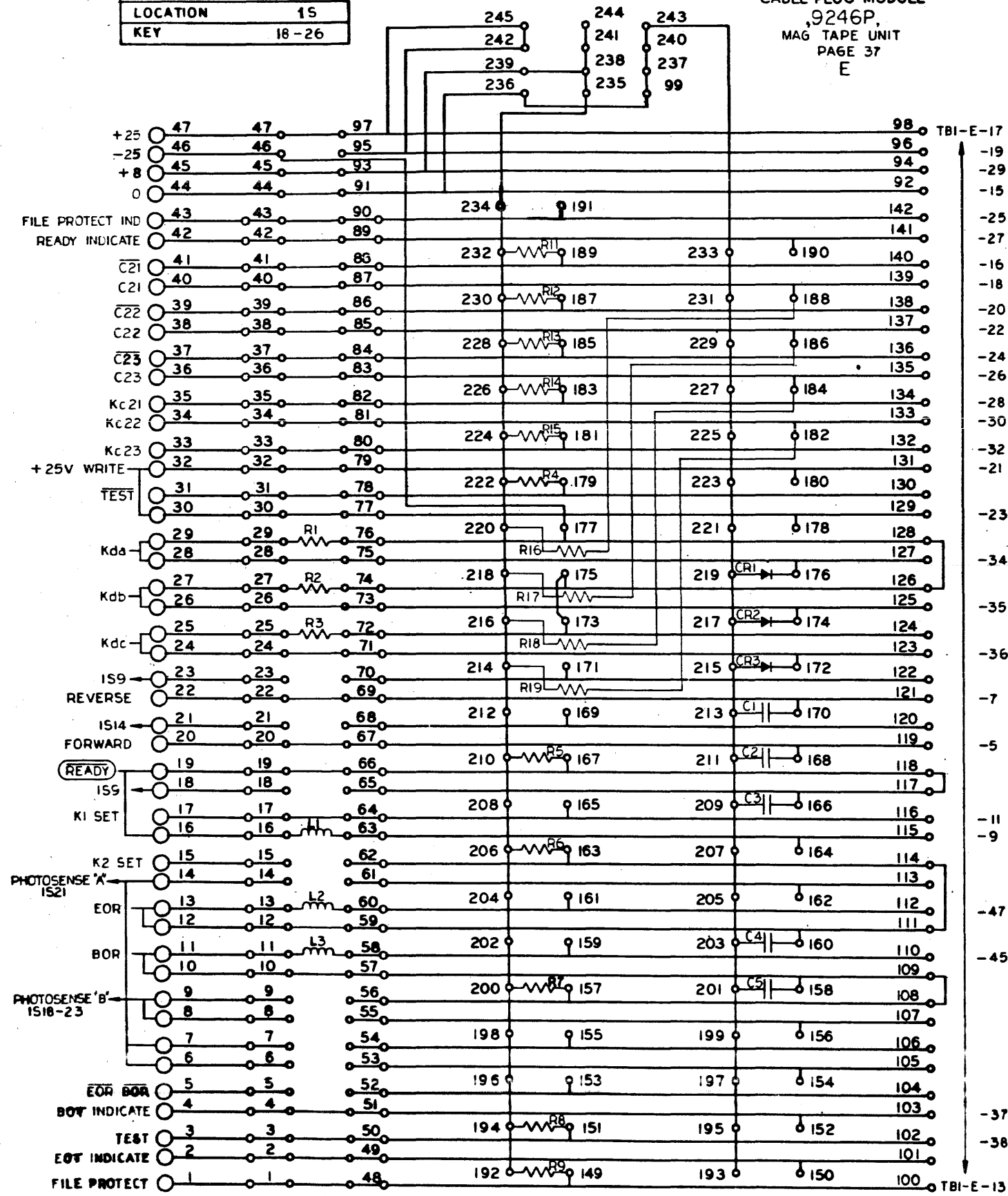
103258/E

From	To	Reason
<p><u>103258D</u></p>	<p><u>103258E</u></p> <p>Added Resistors R11 thru R19. 470 ohms $\pm 2\%$ SDS Part #100111-471</p>	<p><u>EO 103140</u></p> <p>Additional pullups on C lines to reduce noise.</p>

REVISIONS				
REV	DESCRIPTION	CHK	DATE	APPROVED
C	SEE REV. E.O.		1/15/64	[Signature]
D	SEE REV. E.O.		1/15/64	[Signature]
E	SEE REV. E.O.		2/2/64	[Signature]

DESIGNATION	P70
LOCATION	15
KEY	18-26

CABLE PLUG MODULE
9246P,
MAG TAPE UNIT
PAGE 37
E

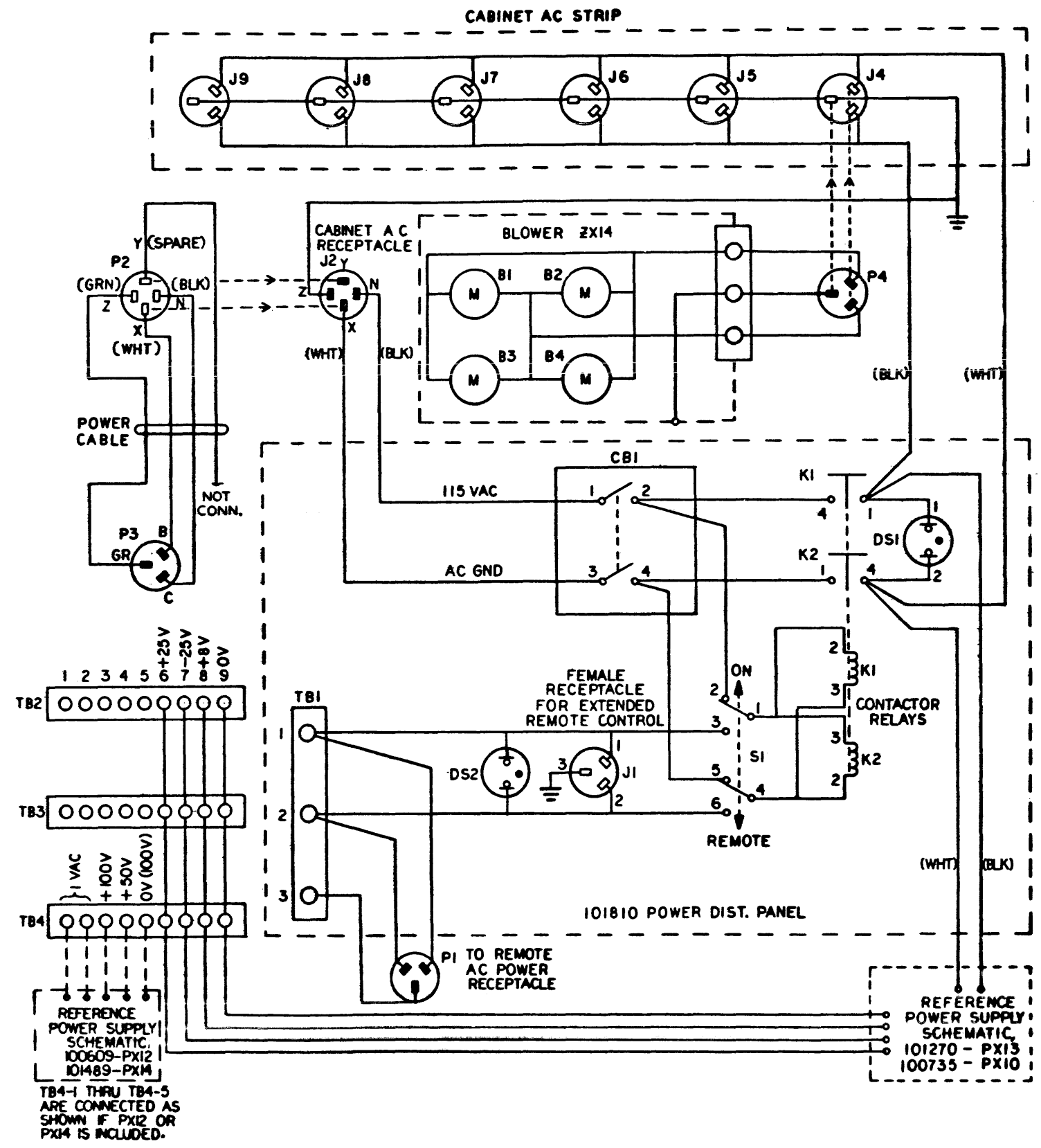


NO	REQ	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
NOTES UNLESS SPECIFIED					
1. TOLERANCES		DRAWN WINTNER A/1/64		MATERIAL LIST	
2. DIMENSIONS		CHECK [Signature] 5/5/64		SDS SCIENTIFIC DATA SYSTEMS	
3. SURFACE FINISH		APPR [Signature] 5/5/64		1542 FIFTEENTH STREET SANTA MONICA CALIFORNIA	
4. ALL DIM. IN INCHES				TITLE	
				DIAGRAM, LOGIC MAG TAPE UNIT	
MODEL NO.		9246		REV. NO.	
				D 103258	
NEXT ASSY				SCALE	
				DO NOT SCALE DRAWING	
				SHEET 37	

103258 E

REVISIONS			
REV.	DESCRIPTION	CHK.	DATE
B	SEE REV. E.O	C/B	5/21/63

REFERENCE DESIGNATIONS ARE ABBREVIATED. PREFIX THE DESIGNATION WITH UNIT NUMBER OR ASSEMBLY DESIGNATION OR BOTH. (MIL. STD. 168)



1 2 3 4 5 6 +25V
7 -25V
8 +8V
9 90V

TB2

TB3

TB4

REFERENCE POWER SUPPLY SCHEMATIC, 100609-PX12, 101489-PX14

TB4-1 THRU TB4-5 ARE CONNECTED AS SHOWN IF PX12 OR PX14 IS INCLUDED.

REFERENCE POWER SUPPLY SCHEMATIC, 101270 - PX13, 100735 - PX10

DWG. NO.	DESCRIPTION	REFERENCE DESIGNATION	DATE
102334	SCHEMATIC, POWER DISTRIBUTION		B

MATERIAL LIST		SDS IDENTIFICATION SYSTEMS	
DESIGNER	KEYTH	DATE	9/16/63
CHECKER	C. B. BROWN	DATE	5/21/63
APPROVER	C. B. BROWN	DATE	5/21/63

MODEL NO.	REV. NO.	SCALE	SHEET
9110, 9114, 9119, 9200, 9204, 9219	D	102334	1 OF 2

11023341B

REVISIONS			102334	B
REV	DESCRIPTION	CHK	DATE	APPROVED
	SEE SHT ONE			

REPLACEMENT PARTS LIST

ITEM	DESCRIPTION	DESIGNATION	QTY	SUPPLIER CODE (SEE INDEX)
1	CORD, A.C. #16/3 SPT-3 CORD WITH #PA-3 PLUG	P1, P4	2	101
2	CONNECTOR, 5 WIRE FEMALE #3523	P2	1	102
3	CONNECTOR, 3 WIRE MALE #3331	P3	1	102
4	RECEPTACLE, 3 WIRE FEMALE #5256	J1	1	102
5	CONNECTOR, 5 WIRE MALE #3525	J2	1	102
6	WIREMOLD, A.C. #G-20GB306	J4 THRU J9	1	103
7	LAMP, NEON #249-7841H-1437	DS1, DS2	2	104
8	RELAY, SPST #CNAS-13A/115 VAC	K1, K2	2	79
9	CIRCUIT BREAKER, DOUBLE POLE #2XAM1516-35-250 VAC 60 CYCLE CURVE 2	CB1	1	105
10	SWITCH, TOGGLE DPDT	S1	1	106

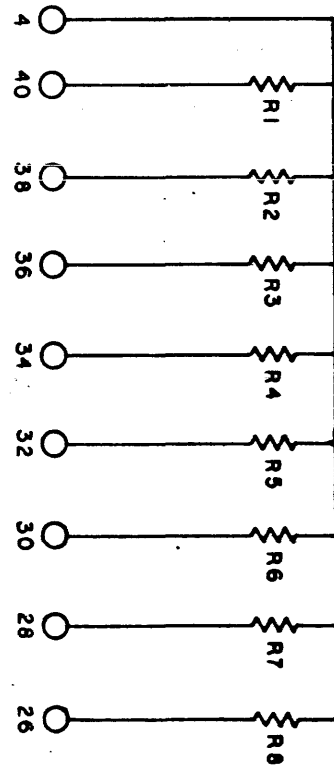
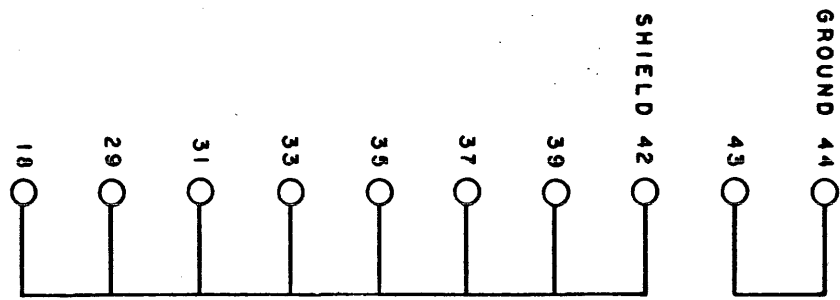
102334 | B |

REV	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN: <i>John H.</i> 5/2/63	SDS IDENTIFIED DATA SYSTEMS 1542 FIFTEENTH STREET, SANTA MONICA, CALIFORNIA	
* TELEPHONES 20 1.000 2.000 20 2.000 2.000		CHECK: <i>Carl P. ...</i> 5/2/63		
A. CHECK ALL DIMENSIONS AND FINISHES B. CHECK DIMENSIONS C. ALL DIM. IN INCHES		APPR: <i>John H.</i> 5/2/63		
MODEL NO. 9110, 9114, 9119, 9210, 9214, 9219 NEXT REV. 101E10, 101C88, 100E85, 100951			TITLE SCHEMATIC POWER DISTRIBUTION	DWG NO. 102334
SCALE			DO NOT SCALE DRAWING	SHEET 2 OF 2

REVISIONS			
REV.	DESCRIPTION	CHK	DATE
A	RELEASED TO MFG	PLB	11/14/62

101714 A

POLARIZING PINS: 12 & 24



101714A1

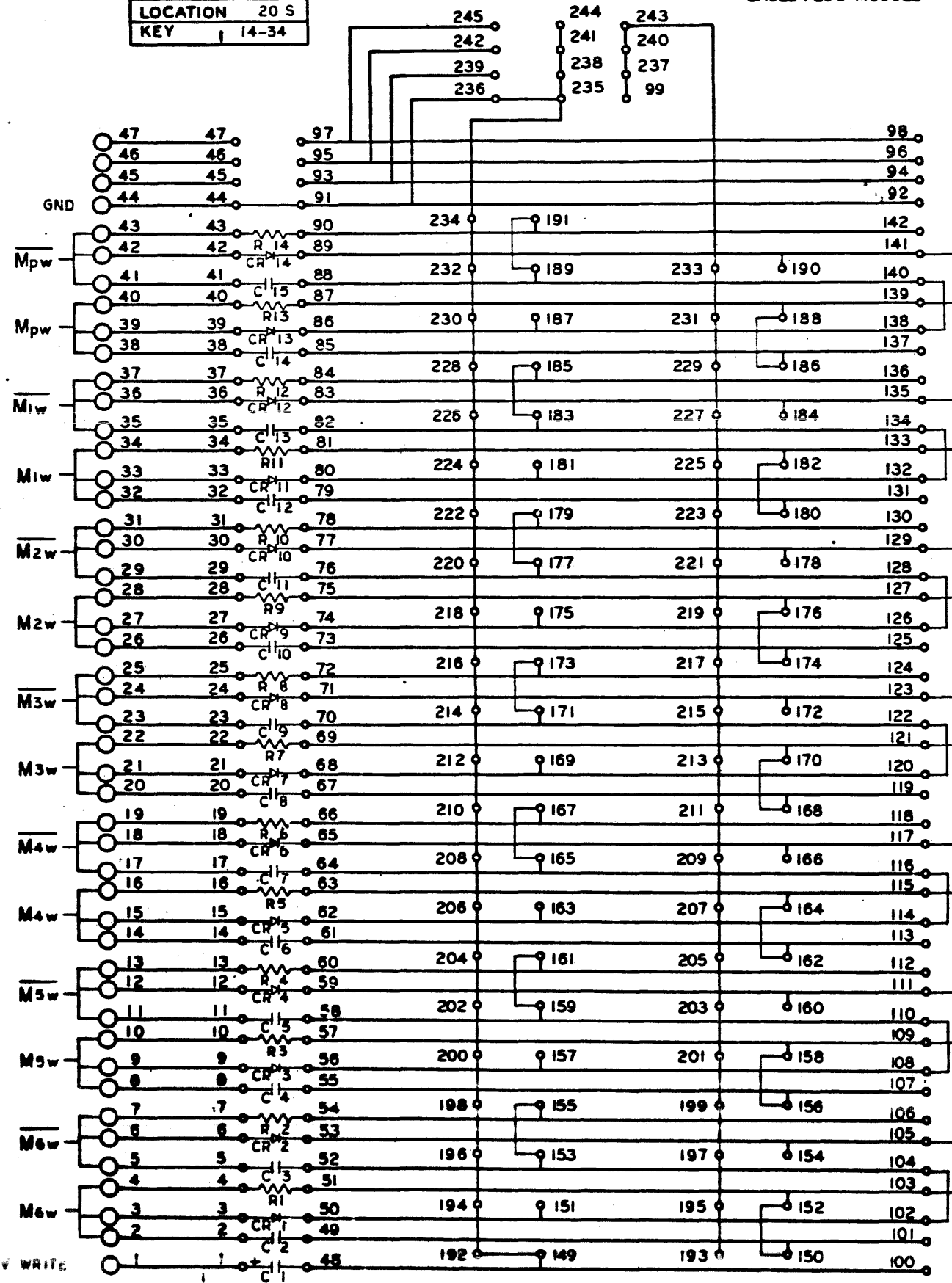
113

NO. REV.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	ITEM NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN: <i>[Signature]</i>	DATE: 10/10/62	 142 FIFTEENTH STREET SANTA MONICA CALIFORNIA
1. TOLERANCES DIM 2.000 ANGULAR 2.16"		CHECK: <i>[Signature]</i>	DATE: 11/14/62	
2. BREAK ALL SHARP EDGES AND CORNERS 3. MARK DIMENSIONS 4. ALL DIM. IN INCHES		APPR: <i>[Signature]</i>	DATE: 11/14/62	
		SCHEMATIC RESISTOR MODULE		
MODEL NO.	ZK51	SIZE	D	101714 A
NEXT REV.		SCALE	DO NOT SCALE DRAWING	SHEET

REVISIONS				
REV	DESCRIPTION	CNR	DATE	APPROVAL
A	RELEASED TO MFG			

DESIGNATION	ZK56
LOCATION	20 S
KEY	14-34

CABLE PLUG MODULE



25V WRITE

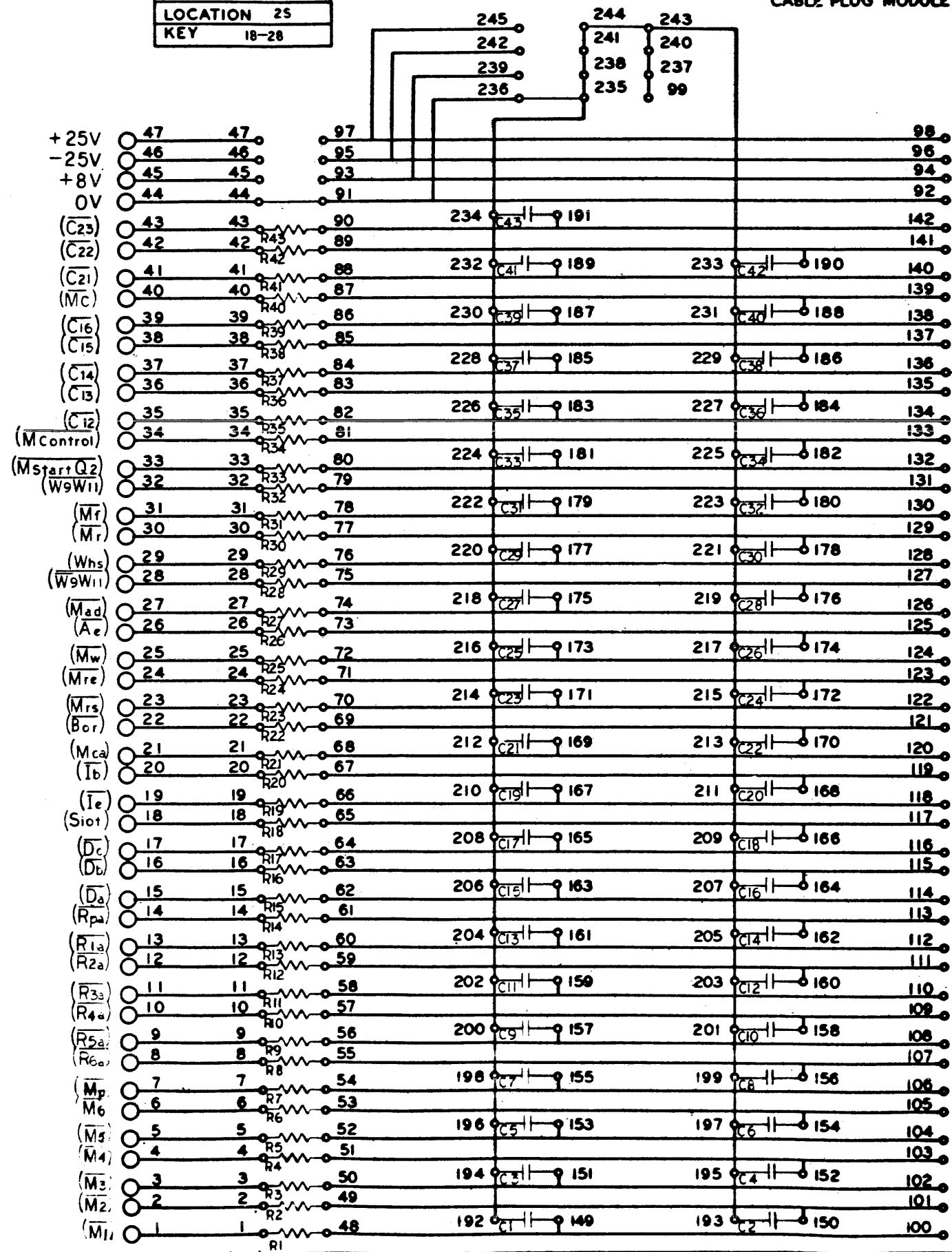
103015 | A |

NO. 103	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	113
MATERIAL LIST				
REVISED PER SPECIFICATIONS	DESIGNED	V.N.	7/27/63	 SCHEMATIC, TERMINATION MODULE (20 S)
<input type="checkbox"/> TELETYPE <input type="checkbox"/> 200 <input type="checkbox"/> 200 <input type="checkbox"/> 200 <input type="checkbox"/> 200	CHECK	APPR.	5/1/63	
MODEL NO. ZK 56	REV. D	DATE	103015	A
SCALE: DO NOT SCALE DRAWING				

REVISIONS			
REV.	DESCRIPTION	CHK	DATE
A	RELEASED TO MFG		

DESIGNATION	ZK57
LOCATION	25
KEY	18-28

CABLE PLUG MODULE



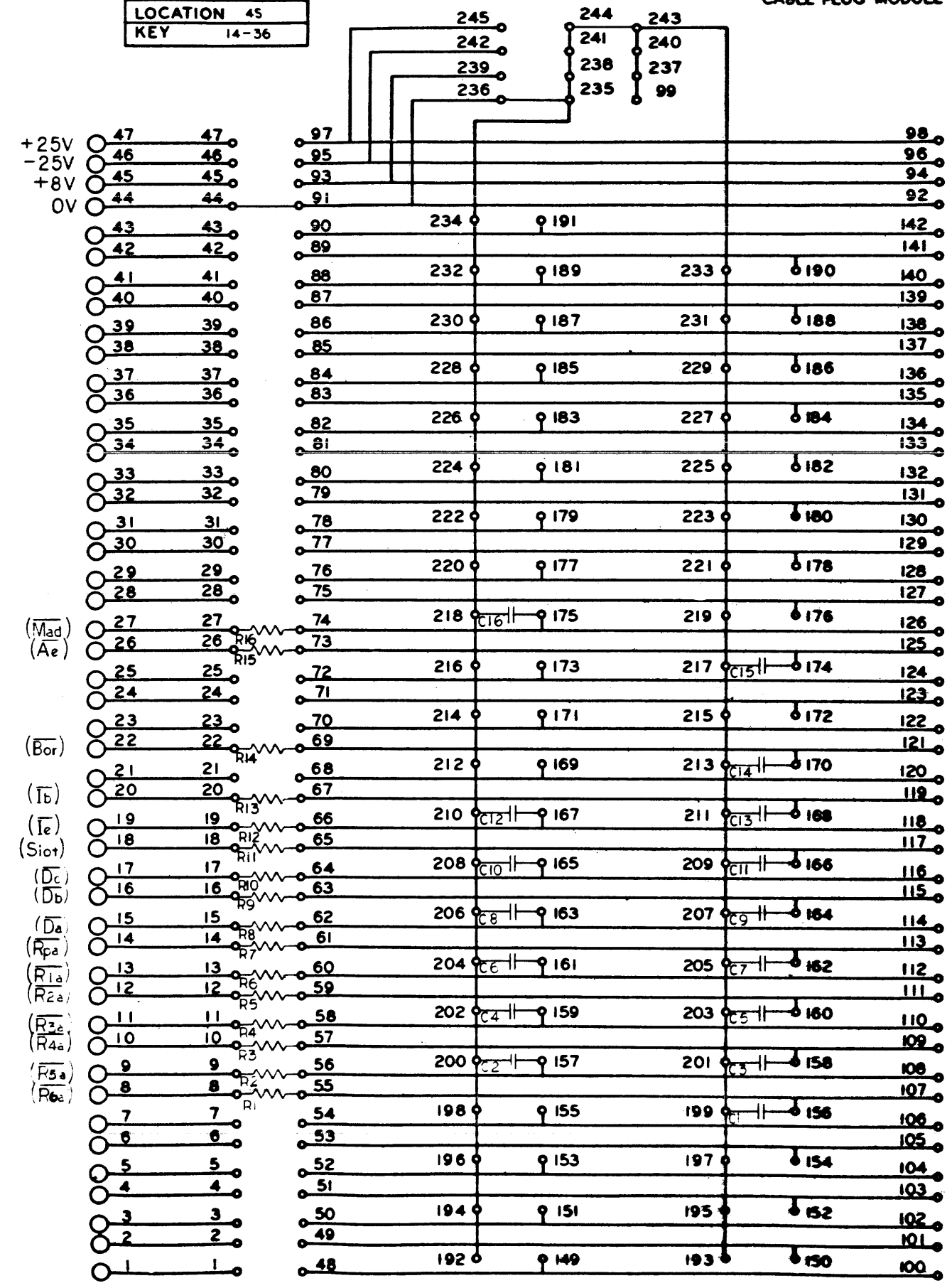
NO.	DESCRIPTION	REFERENCE DESIGNATION
NOTES UNLESS SPECIFIED		
1. TOLERANCES	UNLESS SPECIFIED	
2. DIMENSIONS	UNLESS SPECIFIED	
3. FINISH	UNLESS SPECIFIED	
4. ALL DIMENSIONS	UNLESS SPECIFIED	
MATERIAL LIST		
DRWN	Martin	6-25-63
CHKD	W. K. Smith	7/1/63
APPR	WKS	7/1/63
1000 PATENTED STREET SANTA MONICA, CALIFORNIA		
TITLE SCHEMATIC TERMINATION MODULE (25)		
MODEL NO.	ZK57	
REV. NO.	D	103470
REV. DATE		A
SCALE		
DO NOT SCALE DRAWINGS		

REV	MATERIAL LIST		SDS	SCIENTIFIC DATA SYSTEMS		ML	DWG. NO.	REV
	DWG. TITLE			103471	A			
	ASSY, P. W. TERMINATION MODULE (2S)			MOO # ZK57	DATE/27		SHEET 2	OF 2
ML	DWG. NO.	103471	ITEM	DWG. TITLE	DWG. NO.	NO. REQ.	REMARKS OR CRT, DESIG.	
			1	Board, Printed Wiring	102676-028	1		
			2	Handle, Circuit Card	100016	1		
			3	Rivet, Drive	100278-003	2		
			4	Strip, Marker	100197	1		
			5	Contact, Conn, Upper	100097	23		
			6	Contact, Conn, Lower	100098	24		
			7	Resistor, 1/2 watt	100111-330	43	(1-48) (2-49) (3-50) (4-51)	
							(5-52) (6-53) (7-54) (8-55)	
							(9-56) (10-57) (11-58) (12-59)	
							(13-60) (14-61) (15-62) (16-63)	
							(17-64) (18-65) (19-66) (20-67)	
							(21-68) (22-69) (23-70) (24-71)	
							(25-72) (26-73) (27-74) (28-75)	
							(29-76) (30-77) (31-78) (32-79)	
							(33-80) (34-81) (35-82) (36-83)	
							(37-84) (38-85) (39-86) (40-87)	
							(41-88) (42-89) (43-90)	
			8	Capacitor	100308-682	27	(149-192) (151-194) (153-196)	
							(155-198) (169-212) (171-214)	
							(173-216) (177-220) (179-222)	
							(181-224) (183-226) (185-228)	
							(187-230) (189-232) (191-234)	
							(150-193) (152-195) (154-197)	
							(172-215) (176-219) (178-221)	
							(180-223) (182-225) (184-227)	
							(186-229) (188-231) (190-233)	
			9	Capacitor	100308-332	16	(157-200) (156-199) (158-201)	
							(159-202) (160-203) (161-204)	
							(162-205) (163-206) (164-207)	
							(165-208) (166-209) (167-210)	
							(170-213) (168-211) (174-217)	
							(175-218)	
			10	Tubing, Teflon	100274-022	3 in.		
			11	Wire, Solid Bare	100042-024	3 in.	(44-91) (236-235) (243-244)	

REVISIONS				
REV	DESCRIPTION	CHK	DATE	APPROVED
A	RELEASED TO MFG			

DESIGNATION ZK 58
 LOCATION 45
 KEY 14-36

CABLE PLUG MODULE



NO. REV.	DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION	FIG. NO.
MATERIAL LIST				
NOTES UNLESS SPECIFIED		DRAWN: <i>W. M. ...</i>	DATE: 6/24/63	<p>1045 FIFTEENTH STREET SANTA MONICA CALIFORNIA</p> <p>SCHEMATIC, TERMINATION MODULE (45)</p>
1. TOLERANCES UNLESS SPECIFIED		CHECKED: <i>W. M. ...</i>	DATE: 7/1/63	
2. DIMENSIONS UNLESS SPECIFIED		APPROVED: <i>W. M. ...</i>	DATE: 7/1/63	
3. UNLESS ALL SHOWN DIMENSIONS ARE APPROVED				
4. UNLESS ALL SHOWN DIMENSIONS ARE APPROVED				
5. ALL DIM. IN INCHES				
MODEL NO.	ZK 58	REV.	D	FIG. NO. 103473
NEXT REV.				A
SCALE		DO NOT SCALE DRAWING		SHEET

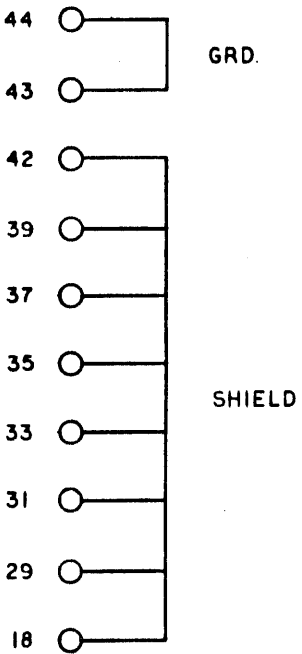
REV.	DESCRIPTION	DATE	APPROVED
A	RELEASED TO MFG.	5-5-53	[Signature]

REV. NO.	DESCRIPTION	REFERENCE DESIGNATION
1	4-13-53	
2	4-15	
3	5-5-53	

DRAWING NO.	DESCRIPTION	REFERENCE DESIGNATION
ZK67		
ZK68		
114064		
114067		

DATE	SCALE	BY
5-5-53	114062	D

POLARIZING PINS 12 & 24



NOTES:
I. R17 THRU R20 DO NOT APPEAR IN ZK68.

