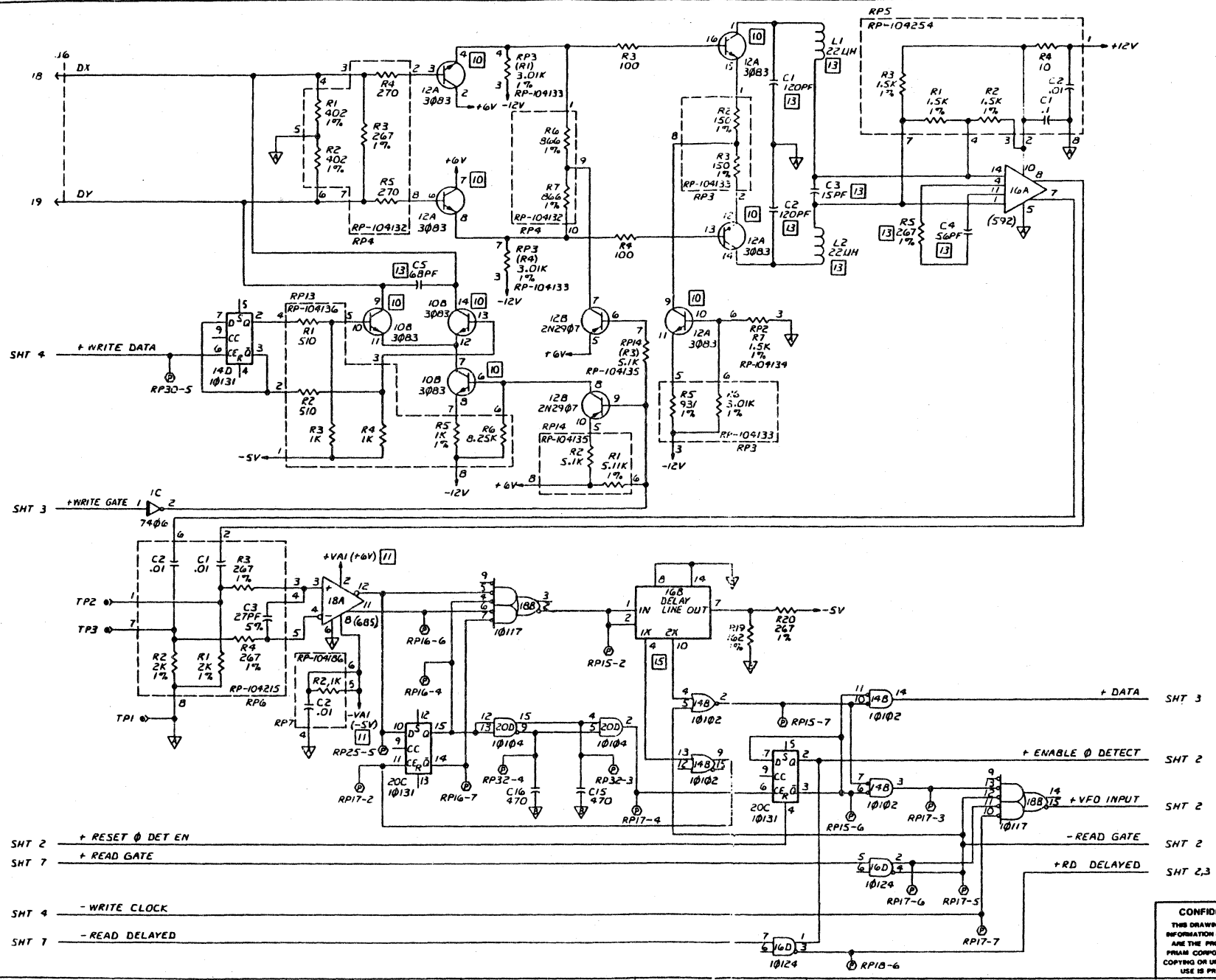




DATE	E/C NO	DATE	E/C NO	200439
1/22/73	1818	12/4/73	1896	
6/12/73	1897			RELEASED FOR ASSEMBLY
6/14/73	1922			
1/17/73	1929			

SHEET AND REVISION TABLE									
SHT	1	2	3	4	5	6	7	8	9
REV	E	B	B	B	B	A	B	A	C



- [15] FOR 3450 (200438-01) AND 7050 (200438-02) 1X IS 60WS AND 2X IS 105NS. FOR 804 (200438-03) AND 803 (200438-04), 1X IS 50NS AND 2X IS 91.5NS.
- [14] PINS 5, 12 ARE FOR 3450 (200438-01), 7050 (200438-02), AND 803 (200438-04), 1X IS 50NS AND 2X IS 91.5NS.
- [13] VALUES SHOWN ARE FOR 3450 (200438-01) AND 7050 (200438-02). VALUES FOR 804 (200438-03) AND 803 (200438-04). SEE TABLE ON SHT 9 OF 9.
- [12] JUMPERS SHOWN ARE FOR (200438-01) 3450. FOR REFERENCE SEE JUMPER TABLE ON SHT 9 OF 9.
- [11] ±VA1, ±VA2, ±VA3 REPRESENTS RESISTOR PACK (RP1, RP7, RP20). FOR REFERENCE SEE TABLE ON SHT 9 OF 9.
- [10] PIN 5 IS TIED TO -12V (SEE TABLE ON SHT 9 OF 9).
- [9] HEATSINK IS REQUIRED FOR Q1.
- 8. ALL IC'S ARE 74LSXXX.
- 7. ALL DIODES ARE IN4454.
- 6. THIS SYMBOL ⊕ REPRESENTS PULL-DOWN RESISTOR 470 OHMS TO -5V (RP15 - RP19, RP25 - RP39). (SEE SHT 9 OF 9).
- 5. ALL "PF" CAPACITORS ARE 5%.
- 4. ALL CAPACITORS ARE IN MICROFARADS.
- 3. CR4 AND R40 ARE FOR 803 (200438-04), 40B TO -5V IS FOR 3450 (200438-01), 7050 (200438-02), AND 804 (200438-03). 40B TO VREF. IS FOR 803 (200438-04).
- 2. ALL RESISTORS ARE 1/4W, 5% AND ARE IN OHMS.
- 1. THIS SCHEMATIC DIAGRAM REPRESENTS ASM 200438-01 AT EC LEVEL 1929, ASM 200438-02 AT EC LEVEL 1929, ASM 200438-03 AT EC LEVEL 1929, ASM 200438-04 AT EC LEVEL 1996.

NOTES: (UNLESS OTHERWISE SPECIFIED)

CONFIDENTIAL THIS DRAWING AND THE INFORMATION IT CONTAINS ARE THE PROPERTY OF PERM CORPORATION. ANY COPYING OR UNAUTHORIZED USE IS PROHIBITED.	TYPE	SCHEMATIC DIAGRAM		
	REV	R/W & DIGITAL ANSI B		
	ISSUED	1/18/76	SCALE	INT
	DETAIL	OLA	10-26/76	SHEET 1 OF 9 E
	DATE CHG	6/17/73	11/21/73	200439

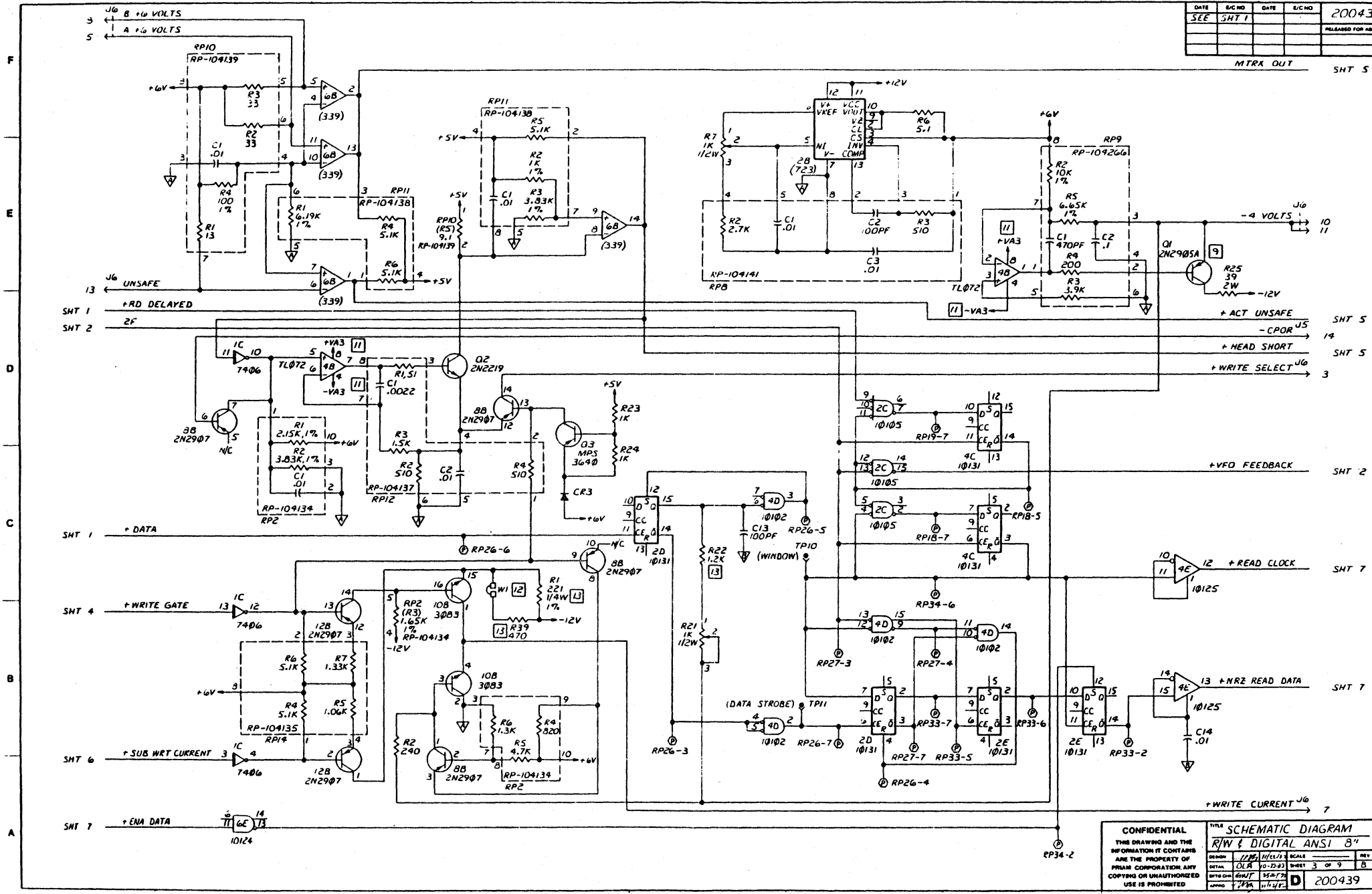
F  
E  
D  
C  
B  
A

4 5 4 3 2 1



DATE	E/C NO	DATE	E/C NO	200439
SEE	SHT 1			RELEASED FOR ARCHIVE

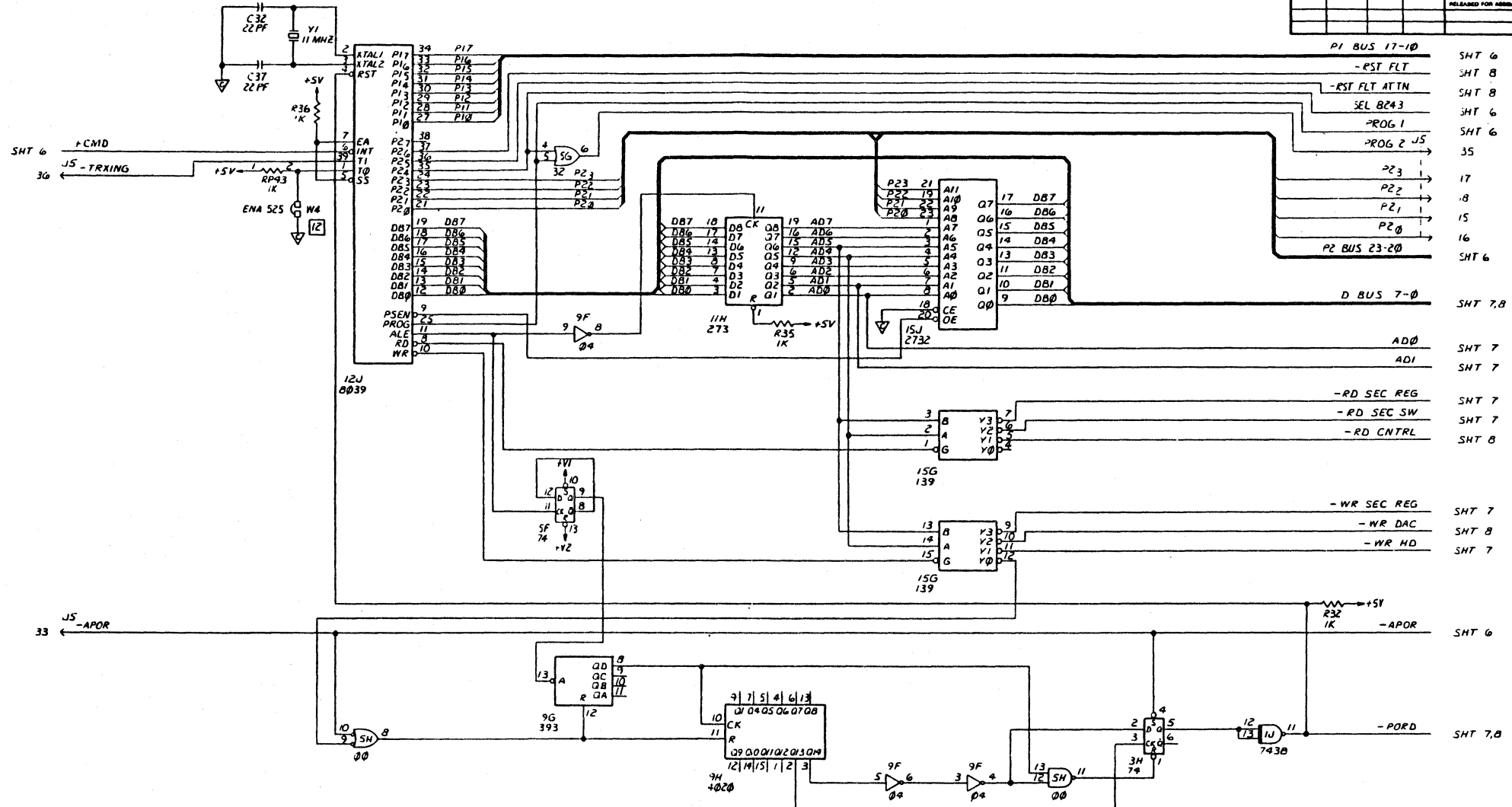
MTRX OUT SHT 5



<b>CONFIDENTIAL</b> THIS DRAWING AND THE INFORMATION IT CONTAINS ARE THE PROPERTY OF PERM CORPORATION, ANY COPYING OR UNAUTHORIZED USE IS PROHIBITED	<b>TITLE</b> SCHEMATIC DIAGRAM <b>R/W &amp; DIGITAL ANSI 8"</b>			
	DESIGN <u>11/28/63</u> DETAIL <u>OLA</u> DATE CHG <u>6/11/73</u> APPR <u>11/11/73</u>	SCALE SHEET <u>3</u> OF <u>9</u>	REV <u>B</u>	200439
	D			
	1			



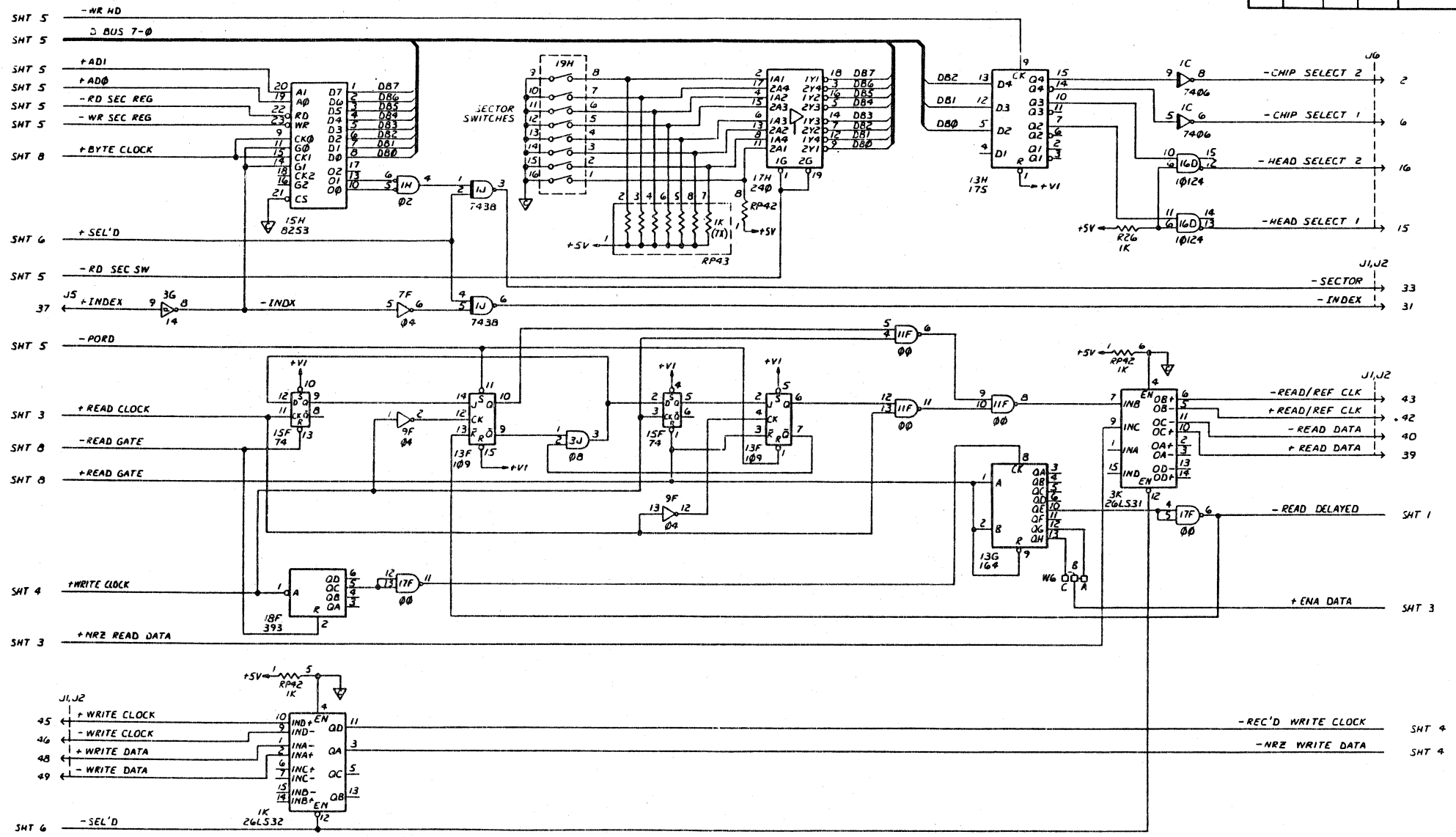
DATE	E/C NO	DATE	E/C NO	200439
SEE	SMT 1			RELEASED FOR ASSEMBLY



P1 BUS 17-10	SHT 6
-RST FLT	SHT 8
-RST FLT ATTN	SHT 8
SEL B243	SHT 6
-PROG 1	SHT 6
-PROG 2 JS	35
-P23	17
-P22	18
-P21	15
-P20	16
P2 BUS 23-20	SHT 6
D BUS 7-0	SHT 7,8
AD0	SHT 7
AD1	SHT 7
-RD SEC REG	SHT 7
-RD SEC SW	SHT 7
-RD CNTRL	SHT 8
-WR SEC REG	SHT 7
-WR DAC	SHT 8
-WR HD	SHT 7
-APOR	SHT 6
-PORD	SHT 7,8

CONFIDENTIAL	TITLE	SCHEMATIC DIAGRAM
THIS DRAWING AND THE INFORMATION IT CONTAINS ARE THE PROPERTY OF PRIMA CORPORATION. ANY COPYING OR UNAUTHORIZED USE IS PROHIBITED.	R/W	DIGITAL ANSI B77
DATE	SCALE	REV
02A	5 of 9	E
DATE CHG	BY	REV
02/11/77	11/11/77	D
APP'D	200439	





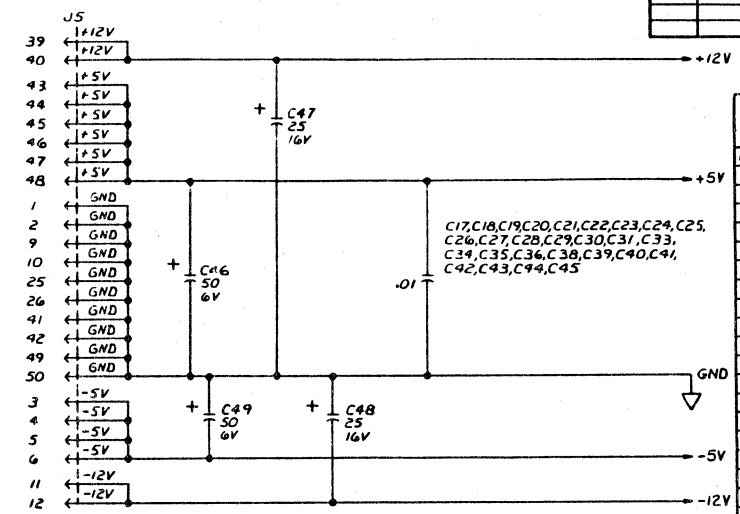
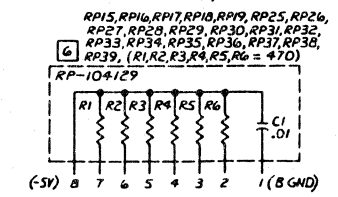
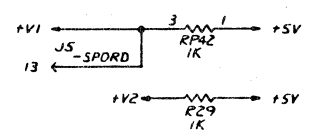




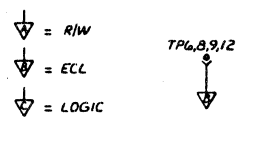
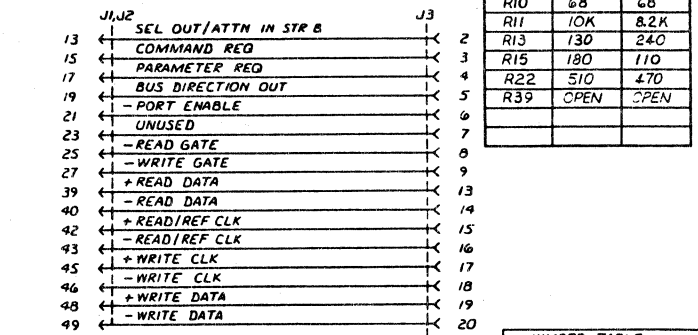
IC TYPE	IC LOCATION & GND			BUS USED	UNUSED ELEMENTS	+5V	GND	-5V	+12V	-12V
	BUS A	BUS B	BUS C							
74LS00			11F,17F,5H	11F1,17F1	14	7				
74LS02			1H	1H1,3	14	7				
74LS04			7F,9F,19J		14	7				
74LS08			3J,5J		14	7				
74LS10			3F		14	7				
74LS11			1G		14	7				
74LS14			3G,5K		14	7				
74LS32			5G,19K	5G1,19K3	14	7				
74LS54			7G,7H		14	7				
74LS74			5F,15F,3H		14	7				
74LS109			13F		16	8				
74LS139			15G		16	8				
74LS175			13H		16	8				
74LS240			17H		20	10				
74LS244			13L		20	10				
74LS273			11H		20	10				
74LS280			7J		14	7				
74LS374			15L		20	10				
74LS393			18F,9G	18F2	14	7				
10102		14B,19C,4D				1,16	8			
10104		20D				1,16	8			
10105		2C,12E				1,16	8			
10106		10D,12D				1,16	8			
10116		6C,18E		6C2,18E2,3		1,16	8			
10117		18B				1,16	8			
10124		16D,6E				9	16	8		
10125		4E				9	16	8		
10131		4C,14C,20C,2D,6D,8D,14D,2E,6E,10E,14E,16E				1,16	8			
74LS164		13G				14	7			
26LS31		3K				16	8			
26LS32		1K				16	8			
2732		15J				24	12			
2N2907		8B,12B								
3083		12A,10B								
4020		9N				16	8			
(592)		16A								
(685)		18A					1,16			
(723)		2B								
7406		1C				14	7			
7438			1J,17L			14	7			
75462			19G,19L			8	4			
8039			12J			26,40	20			
8243			17J			24	12			
8253			15H			24	12			
8303			7K			20	10			
DELAY LINE		16B,18D								
(310)		9C								
(339)		6B					12			3
7L072		4B								

RESISTOR PACK DESIGNATION	PIN NUMBER							
	1	2	3	4	5	6	7	8
RP1	N/C	+VA3	+12V	A GND	-12V	-VA3	N/C	N/C
RP7	N/C	+VA(4V)	+4V	B GND	-5V	-VA(-5V)	N/C	N/C
RP20	N/C	+VA2	+2V	B GND	-12V	-VA2	N/C	N/C

V DESIGNATION	CONNECTED TO
+V1	SF2,4,10,13F,15,15F,4,10,3H10,13H1
+V2	SF13,6E6

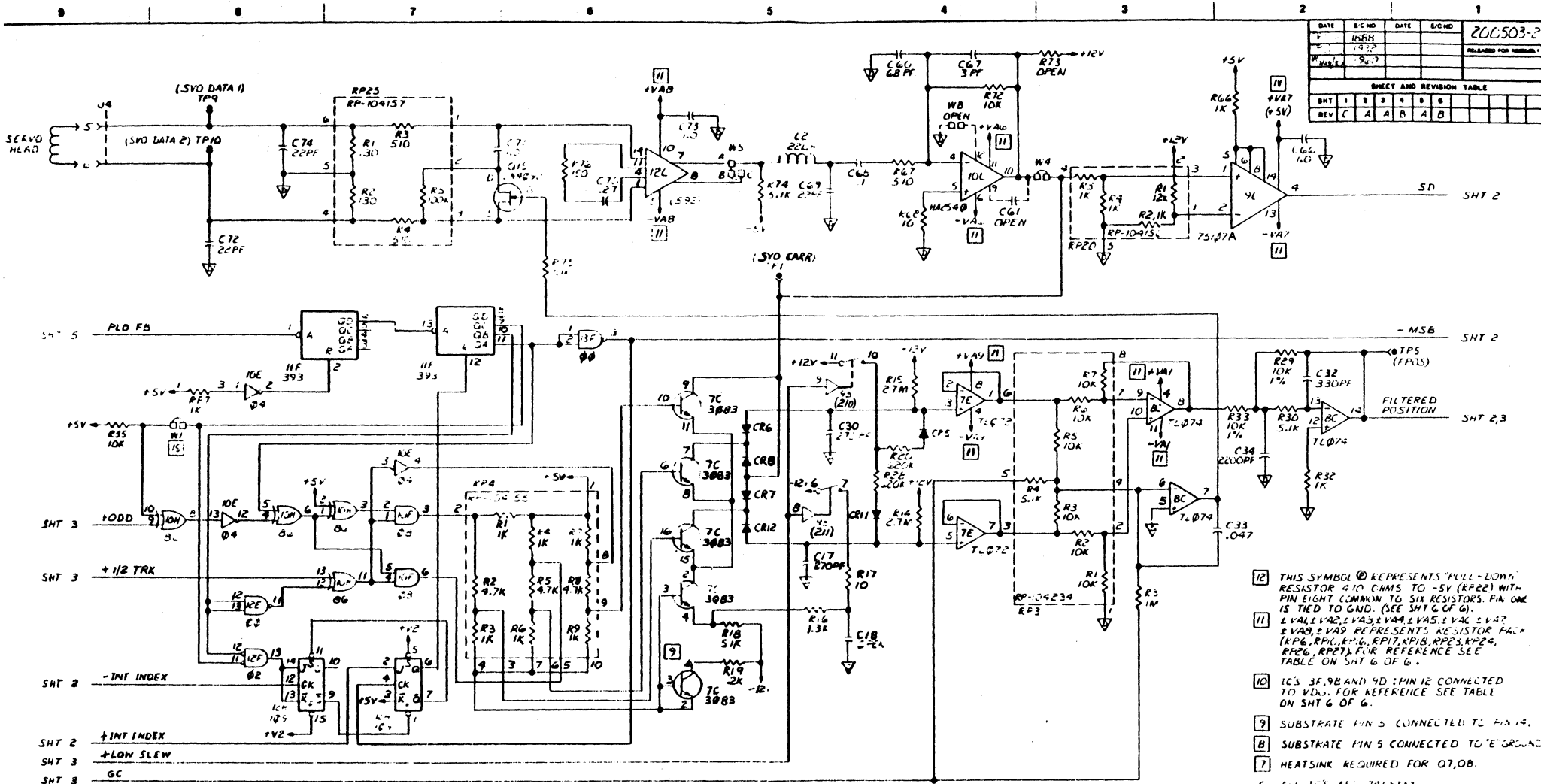


VALUES FOR 804 (200438-03) AND 803 (200438-04)			
REF DES	VALUE -03	VALUE -04	
C1	82PF	68PF	
C2	82PF	68PF	
C3	10PF	15PF	
C4	27PF	56PF	
C5	47PF	56PF	
C8	.022	.022	
C9	OPEN	1000PF	
C10	680PF	470PF	
C11	680PF	1000PF	
L1	15μH,5%	15μH,5%	
L2	15μH,5%	15μH,5%	
L3	2.2μH	2.2μH	
R1	261,1%	261,1%	
R5	470	200	
R10	68	68	
R11	10K	8.2K	
R13	130	240	
R15	180	110	
R22	510	470	
R39	OPEN	OPEN	



JUMPER TABLE				
W'DES	-01	-02	-03	-04
W1	IN	OUT	OUT	OUT
W2	OPTL	OPTL	OPTL	OPTL
W3	OPTL	OPTL	OPTL	OPTL
W4	IN	OUT	OUT	IN
W5	OPTL	OPTL	OPTL	OPTL
W6	A-B	A-B	B-C	B-C

REFERENCE DESIGNATIONS	
LAST USED	NOT USED
C49	
CR4	
R40	
RP43	
L3	
TP13	TP7
W6	
Q15	
Y1	
J6	



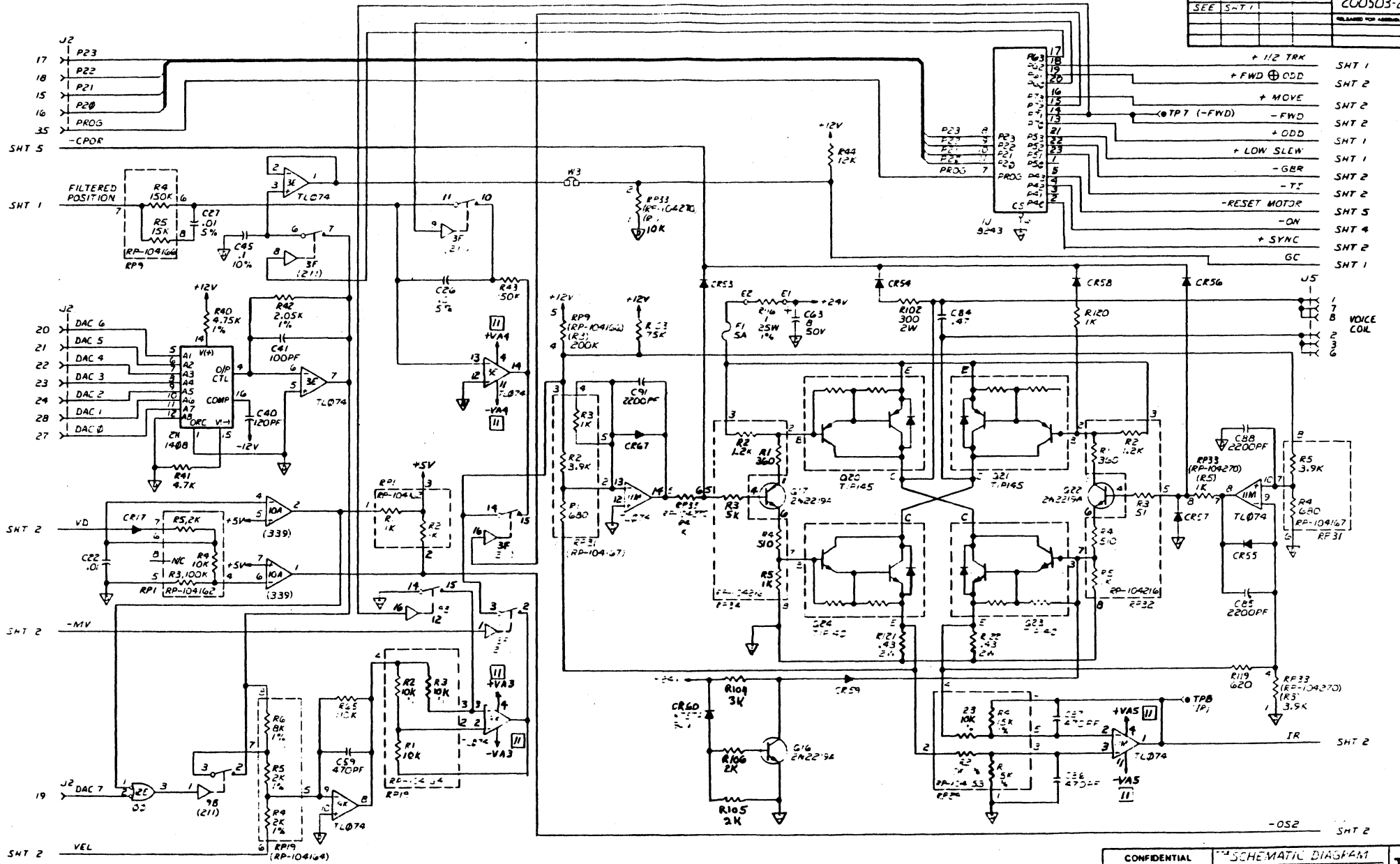
DATE	S/C NO	DATE	S/C NO	206503-2		
1968	1013			RELEASED FOR REVISION 1		
SHEET AND REVISION TABLE						
SHT	1	2	3	4	5	6
REV	C	A	A	A	A	B

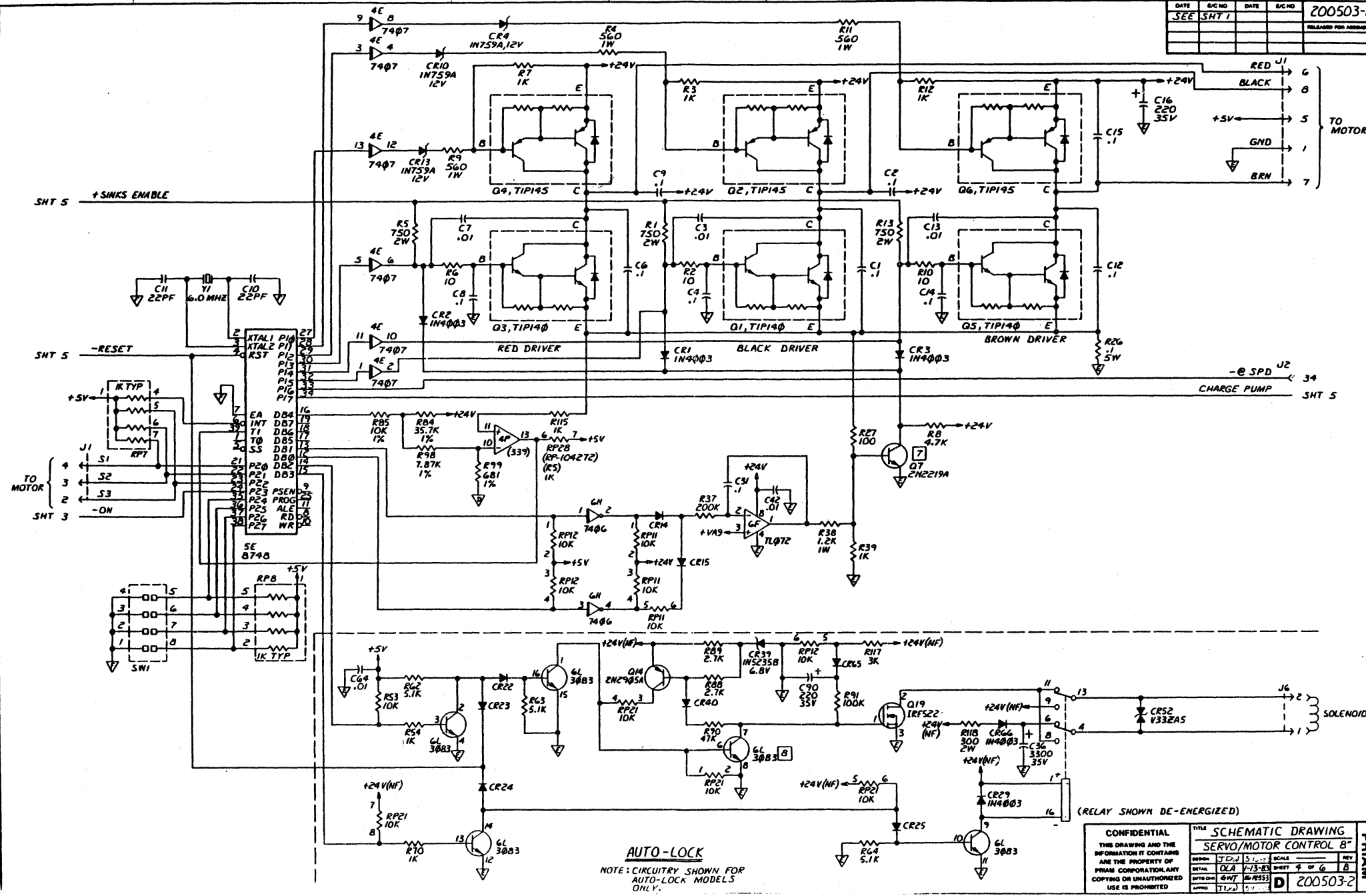
- 12 THIS SYMBOL  $\text{\textcircled{D}}$  REPRESENTS "PULL-DOWN" RESISTOR AND COMES TO -5V (R22) WITH PIN EIGHT COMMON TO SIX RESISTORS. PIN ONE IS TIED TO GND. (SEE SHT 6 OF 6).
- 11 1 V<sub>A1</sub>, 2 V<sub>A2</sub>, 3 V<sub>A3</sub>, 4 V<sub>A4</sub>, 5 V<sub>A5</sub>, 6 V<sub>A6</sub>, 7 V<sub>A7</sub>, 8 V<sub>A8</sub>, 9 V<sub>A9</sub>, 10 V<sub>A10</sub>, 11 V<sub>A11</sub>, 12 V<sub>A12</sub> REPRESENTS RESISTOR PACK (R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27) FOR REFERENCE SEE TABLE ON SHT 6 OF 6.
- 10 IC'S 3F, 9B AND 4D: PIN 12 CONNECTED TO V<sub>DD</sub>. FOR REFERENCE SEE TABLE ON SHT 6 OF 6.
- 9 SUBSTRATE PIN 5 CONNECTED TO PIN 19.
- 8 SUBSTRATE PIN 5 CONNECTED TO "E" GROUND.
- 7 HEATSINK REQUIRED FOR Q7, Q8.

- 6. ALL IC'S ARE 74LSXXX.
- 5. ALL DIODES ARE 1N4145A.
- 4. ALL CAPACITORS ARE IN MICROFARADS.
- 3. ALL "PF" CAPACITORS ARE 5%.
- 2. ALL RESISTORS ARE 1/4W, 5%, AND ARE IN OHMS.
- 1. THIS SCHEMATIC DIAGRAM REPRESENTS: ASM 200504-2 AT EC LEVEL 136; ASM 200505-2 AT EC LEVEL 136; ASM 200506-2 AT EC LEVEL 136; ASM 200507-2 AT EC LEVEL 136.
- NOTES: (UNLESS OTHERWISE SPECIFIED)
- [ ] FOR 804, 200504-2, SEE JUMPER TABLE ON SHT 6 OF 6.
- [ ] JUMPERS SHOWN ARE FOR 3450/705C (MSAL) 200505-2. FOR REFERENCE SEE JUMPER TABLE ON SHT 6 OF 6.
- M. FOR 3450/705C USE 200504-2, FOR 3450/705C (MSAL) USE 200505-2, AND FOR 804 USE 200506-2.
- [ ] CUSTOMER OPTION: CAPACITOR C6 (LOCATED ON SHEET 6 OF 6) INSTALLED BY CUSTOMER AS REQUIRED.

CONFIDENTIAL THIS DRAWING AND THE INFORMATION IT CONTAINS ARE THE PROPERTY OF PHILIP CORPORATION AND COPYING OR UNAUTHORIZED USE IS PROHIBITED	SCHEMATIC DIAGRAM		PRIM
	REV	DATE	
	13	10/15/68	
	1	10/15/68	
	2	10/15/68	
	3	10/15/68	
	4	10/15/68	
	5	10/15/68	
	6	10/15/68	
	7	10/15/68	
	8	10/15/68	
	9	10/15/68	
	10	10/15/68	
	11	10/15/68	
	12	10/15/68	
	13	10/15/68	
	14	10/15/68	
	15	10/15/68	
	16	10/15/68	
	17	10/15/68	
	18	10/15/68	
	19	10/15/68	
	20	10/15/68	
	21	10/15/68	
	22	10/15/68	
	23	10/15/68	
	24	10/15/68	
	25	10/15/68	
	26	10/15/68	
	27	10/15/68	
	28	10/15/68	
	29	10/15/68	
	30	10/15/68	
	31	10/15/68	
	32	10/15/68	
	33	10/15/68	
	34	10/15/68	
	35	10/15/68	
	36	10/15/68	
	37	10/15/68	
	38	10/15/68	
	39	10/15/68	
	40	10/15/68	
	41	10/15/68	
	42	10/15/68	
	43	10/15/68	
	44	10/15/68	
	45	10/15/68	
	46	10/15/68	
	47	10/15/68	
	48	10/15/68	
	49	10/15/68	
	50	10/15/68	

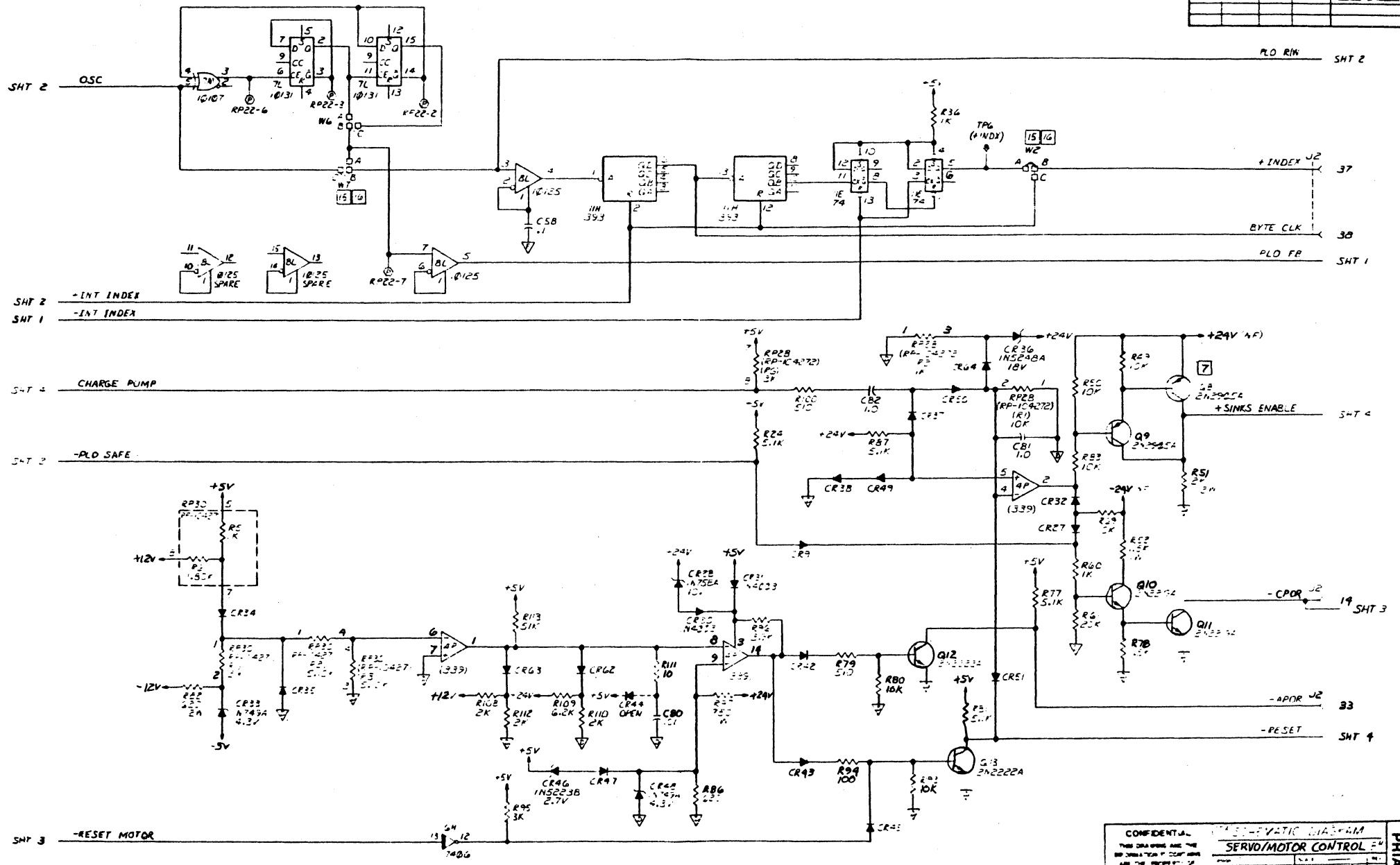






**AUTO-LOCK**  
 NOTE: CIRCUITRY SHOWN FOR  
 AUTO-LOCK MODELS  
 ONLY.

DATE	E.C. NO.	DATE	E.C. NO.	200503-2
SEE	SHT 1			
				RELEASE FOR ASSEMBLY



CONFIDENTIAL  
 THESE DRAWINGS ARE THE  
 PROPERTY OF THE  
 FEDERAL BUREAU OF INVESTIGATION  
 AND ARE NOT TO BE  
 REPRODUCED OR  
 TRANSMITTED IN ANY  
 MANNER WITHOUT  
 EXPRESS PERMISSION  
 OF THE DIRECTOR  
 FBI

DATE: 5-6-61  
 DRAWN BY: D  
 CHECKED BY: P  
 APPROVED BY: P  
 TITLE: SERVO/MOTOR CONTROL EM

PRIAM

