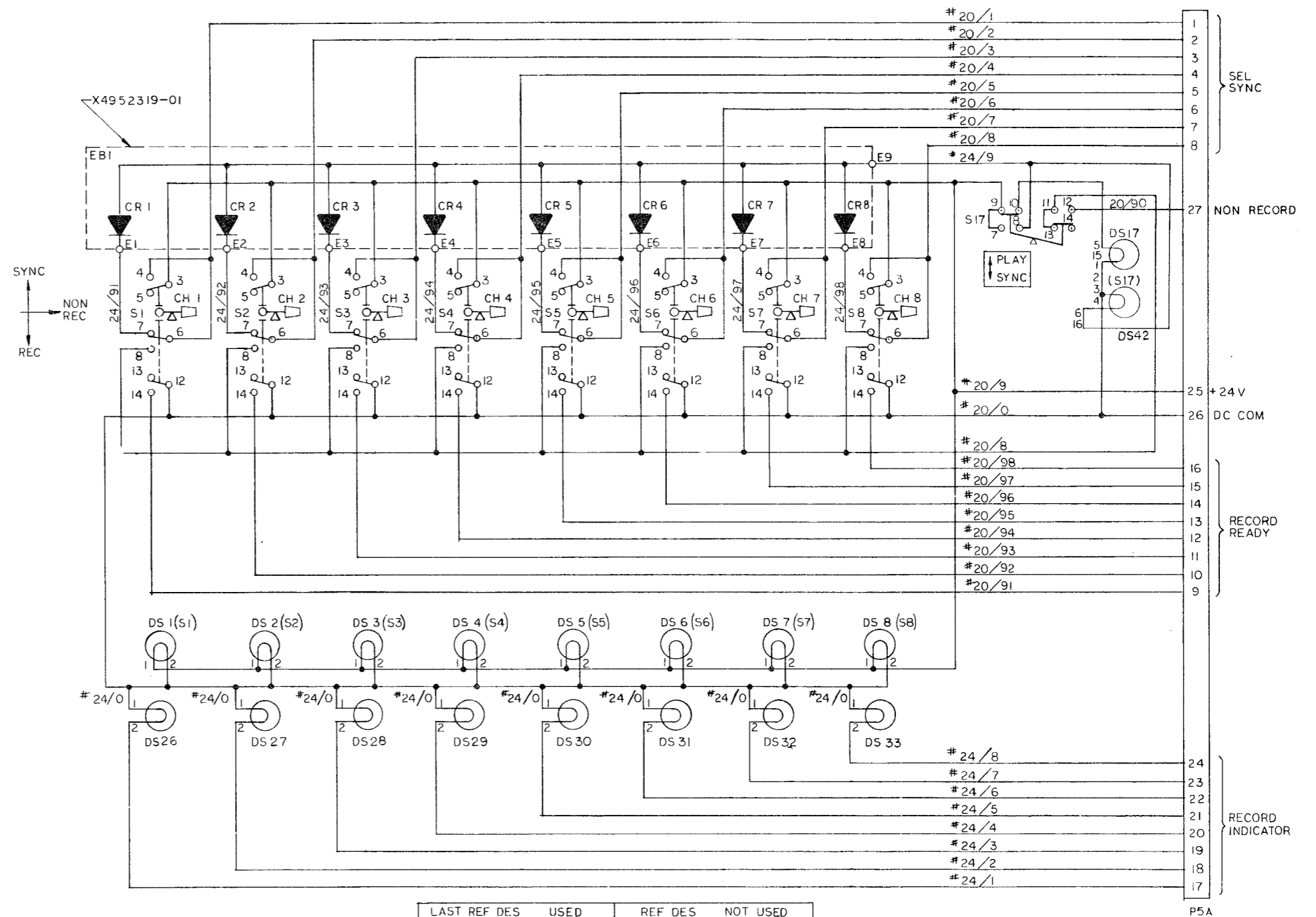


NOTES

- 1 ONLY ONE CHANNEL SHOWN FOR CLARITY.
- 2 MAY BE ON DIFFERENT CONNECTORS (J701 THRU J704) DEPENDING ON CHANNEL NO.
- 3 REMOTE CONNECTORS NOT SHOWN.

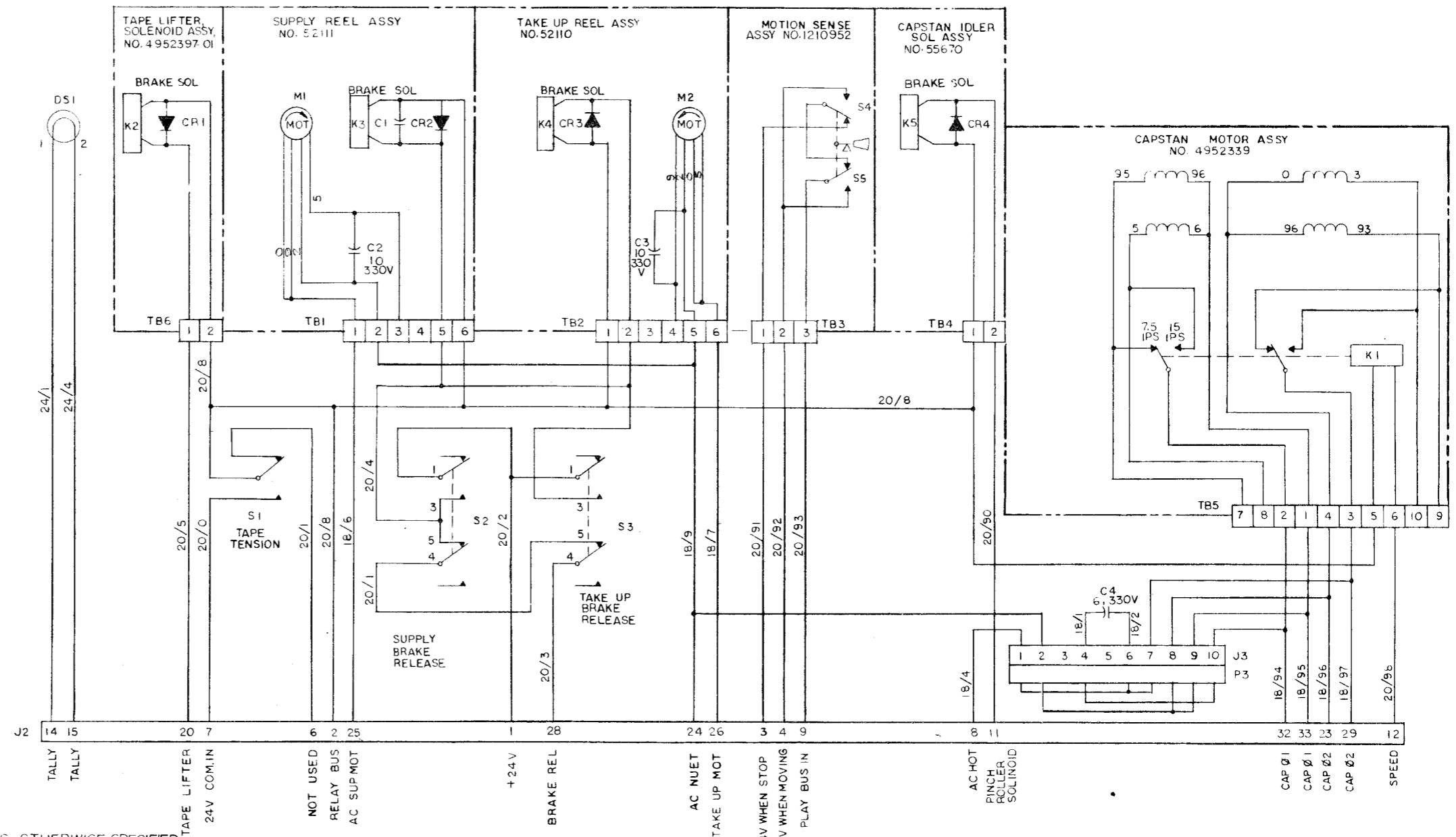
FIGURE 6-1  
MM1000 SYSTEM CONTROL  
SCHEMATIC



NOTES  
 UNLESS OTHERWISE SPECIFIED  
 1. ALL DIODES ARE 013-678

LAST REF DES	USED	REF DES	NOT USED
CR 8		P1, P2, P3	P5B
DS 44		CR9-16	
S 25		DS9-16	
P5A		DS34-41	
EB1		S9-16	

FIGURE 6-2  
 MM1000 CONTROL PANEL  
 PARTIAL SCHEMATIC



NOTES UNLESS OTHERWISE SPECIFIED

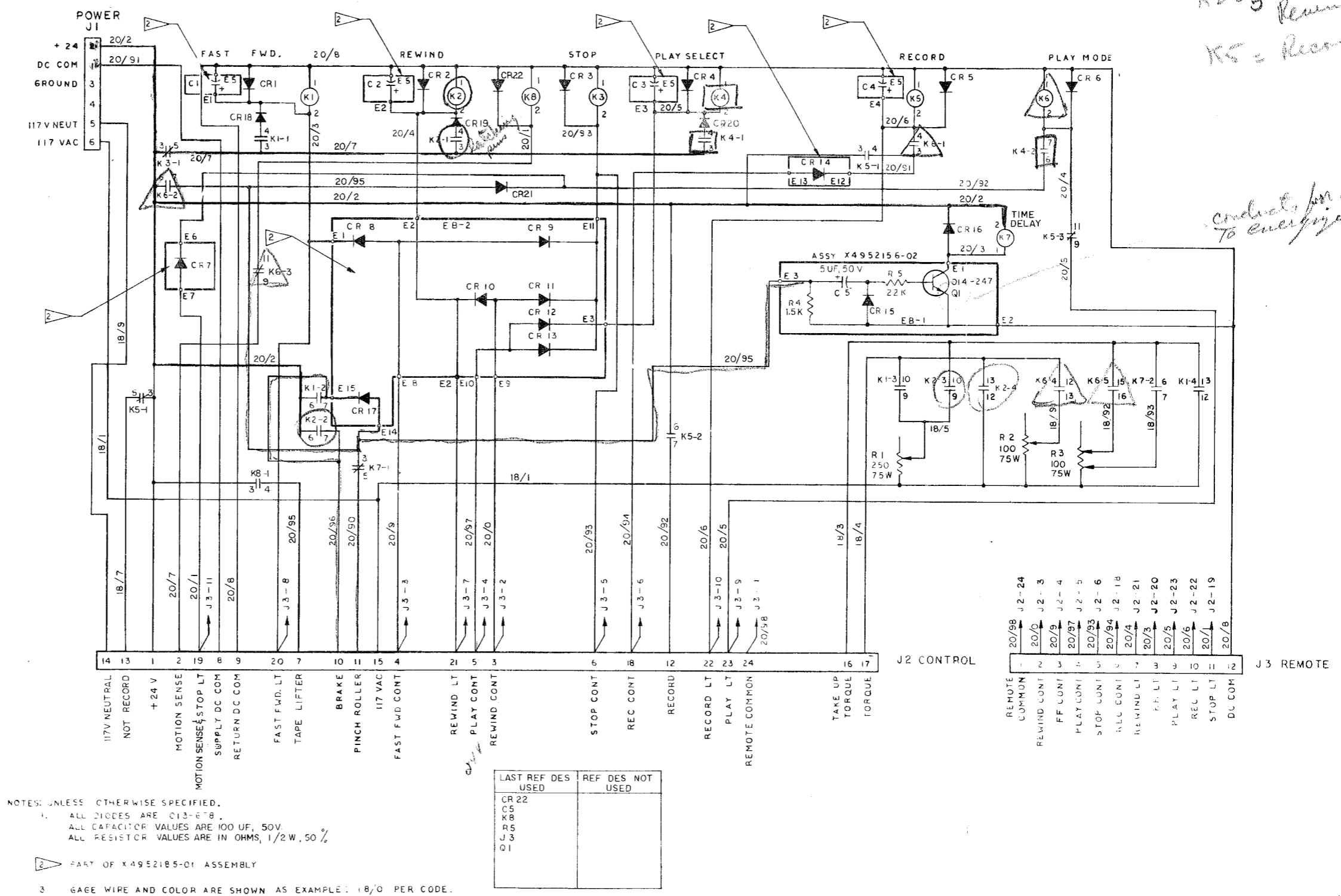
1. ALL CAPACITOR VALUES ARE IN MICROFARADS.
2. ALL DIODES ARE PART NO 013-678.
3. S1 SHOWN WITH NO TAPE THREADED.
4. S2 AND S3 SHOWN IN NORMAL TENSION ARM POSITION
5. S4-S5 SHOWN WITH NO MOTION

LAST REF DES USED	REF DES NOT USED
K5	P1, P2
C5	J1
CR4	
C4	
TB6	
J3	
P3	
DS1	

FIGURE 6-3  
MM1000 TRANSPORT SCHEMATIC

*K1 = Fast Forward  
K2 = Rewind  
K5 = Record*

*conduct 1.5 sec  
to energize K7*



NOTES: UNLESS OTHERWISE SPECIFIED.  
 1. ALL DIODES ARE 013-E-8.  
 ALL CAPACITOR VALUES ARE 100 UF, 50V.  
 ALL RESISTOR VALUES ARE IN OHMS, 1/2W, 50%  
 2. PART OF X4952185-01 ASSEMBLY  
 3. GAGE WIRE AND COLOR ARE SHOWN AS EXAMPLE: 18/0 PER CODE.

FIGURE 6-4  
MM1000 CONTROL BOX SCHEMATIC

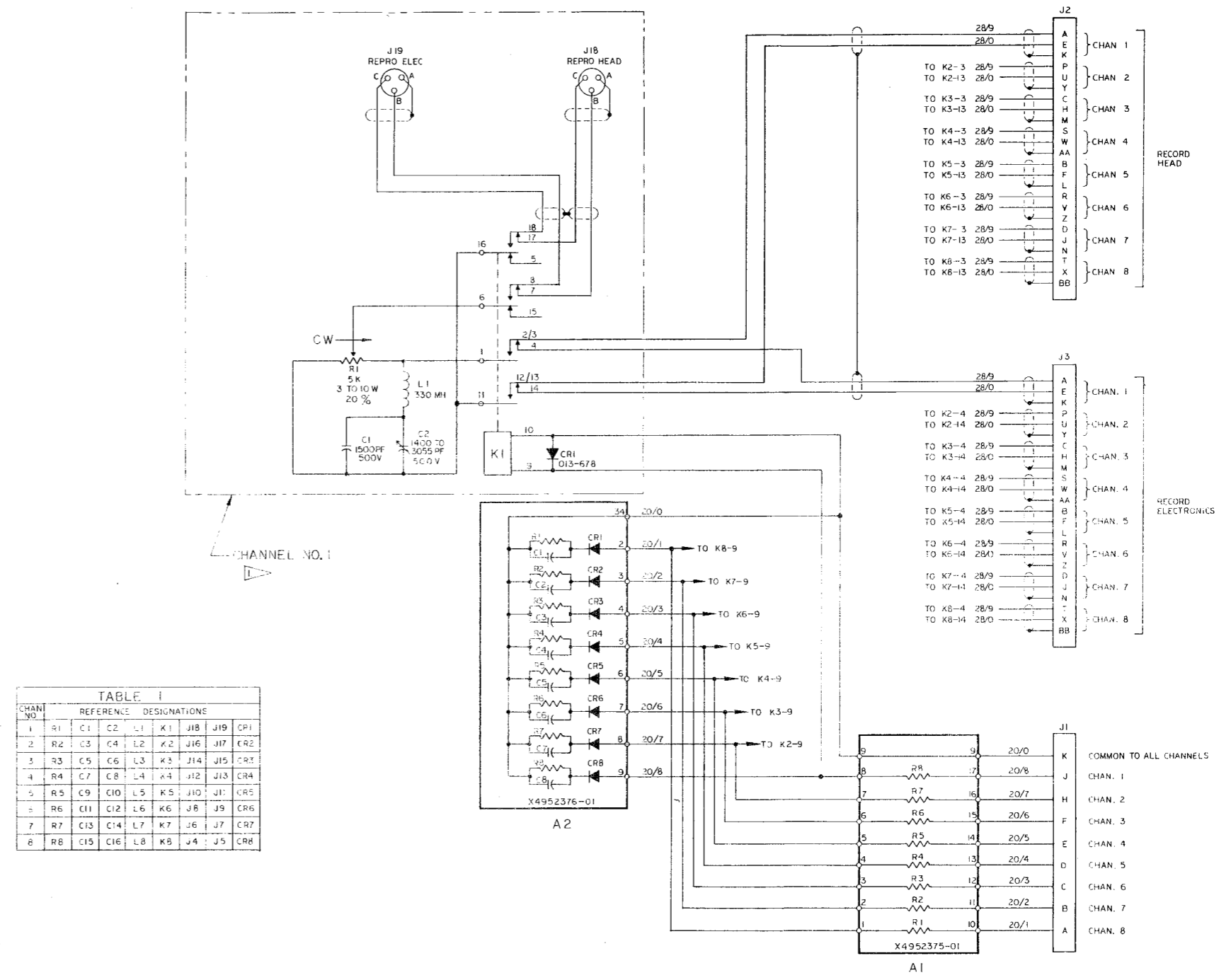
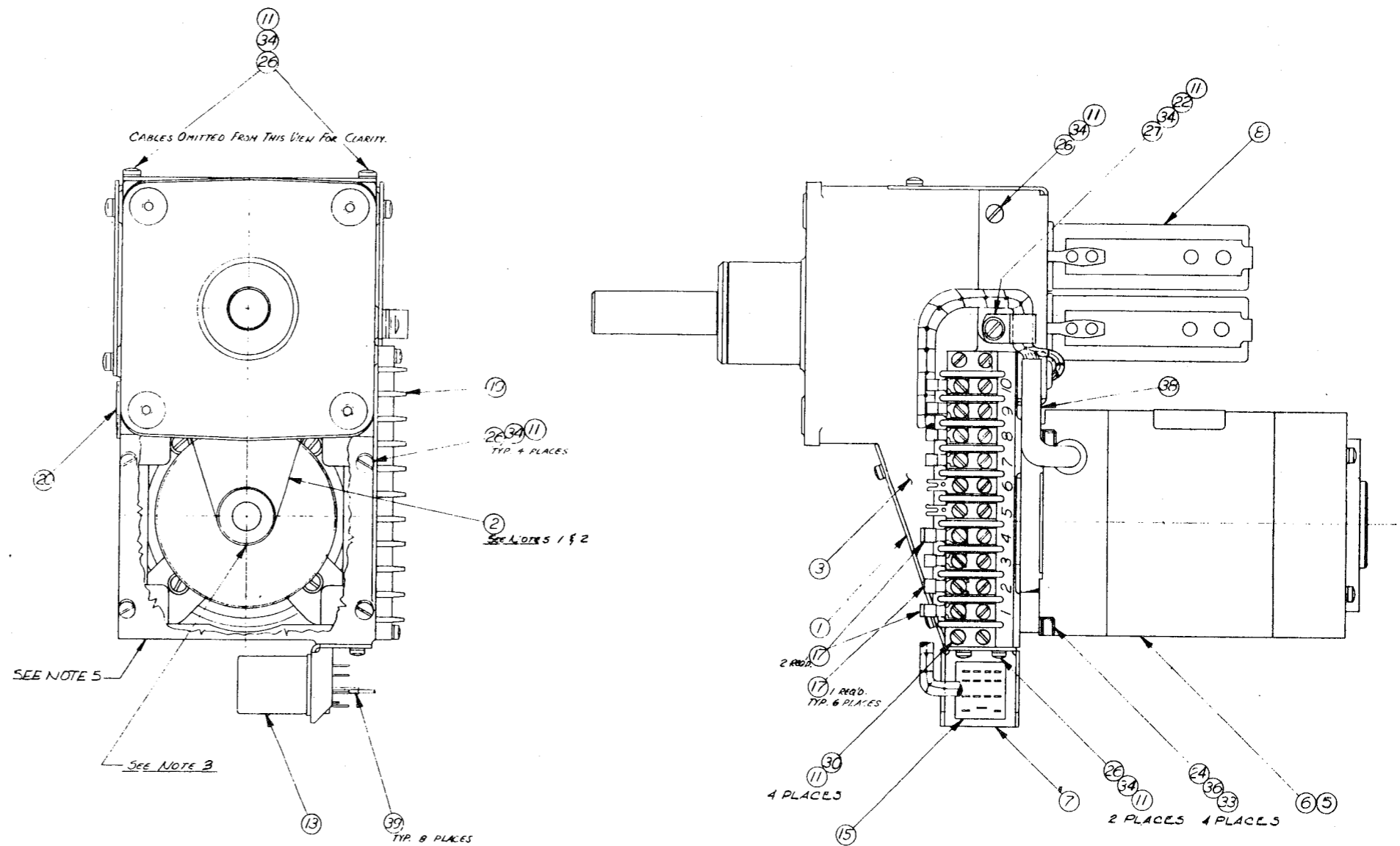


TABLE I

CHAN. NO.	REFERENCE	DESIGNATIONS
1	R1 C1 C2 L1 K1 J18 J19 CP1	
2	R2 C3 C4 L2 K2 J16 J17 CR2	
3	R3 C5 C6 L3 K3 J14 J15 CR3	
4	R4 C7 C8 L4 K4 J12 J13 CR4	
5	R5 C9 C10 L5 K5 J10 J11 CR5	
6	R6 C11 C12 L6 K6 J8 J9 CR6	
7	R7 C13 C14 L7 K7 J6 J7 CR7	
8	R8 C15 C16 L8 K8 J4 J5 CR8	

NOTES  
 ▽ FOR APPROPRIATE REFERENCE DESIGNATIONS OF COMPONENTS FOR CHANNELS 2 THRU 8 SEE TABLE I

FIGURE 6-5  
 MM1000 SEL-SYNC SCHEMATIC



- NOTES:**
1. CLEAN SURFACE OF PULLEYS & BELT BEFORE INSTALLING.
  2. INSTALL BELT TO 5 LBS TENSION.
  3. TOTAL EDGE RUNOUT OF BELT DUE TO CAMBERED EDGE SHALL NOT EXCEED .050 ON MOTOR PULLEY.
  4. TOTAL RMS FLUTTER FROM 0.6 CPS TO 250 CPS NOT TO EXCEED THE FOLLOWING, WHEN INSTALLED ON A VR 1000 SERIES TRANSPORT:  
 AT 7 1/2 IPS : 0.15%  
 AT 15 IPS : 0.10%
  5. MARK PERMANENTLY, ASSY. 55570-D1 OR ASSY 55570-02, WHICHEVER APPLICABLE, APPROXIMATELY AS SHOWN.

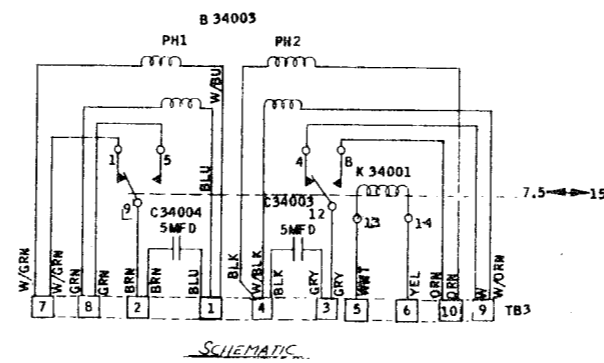
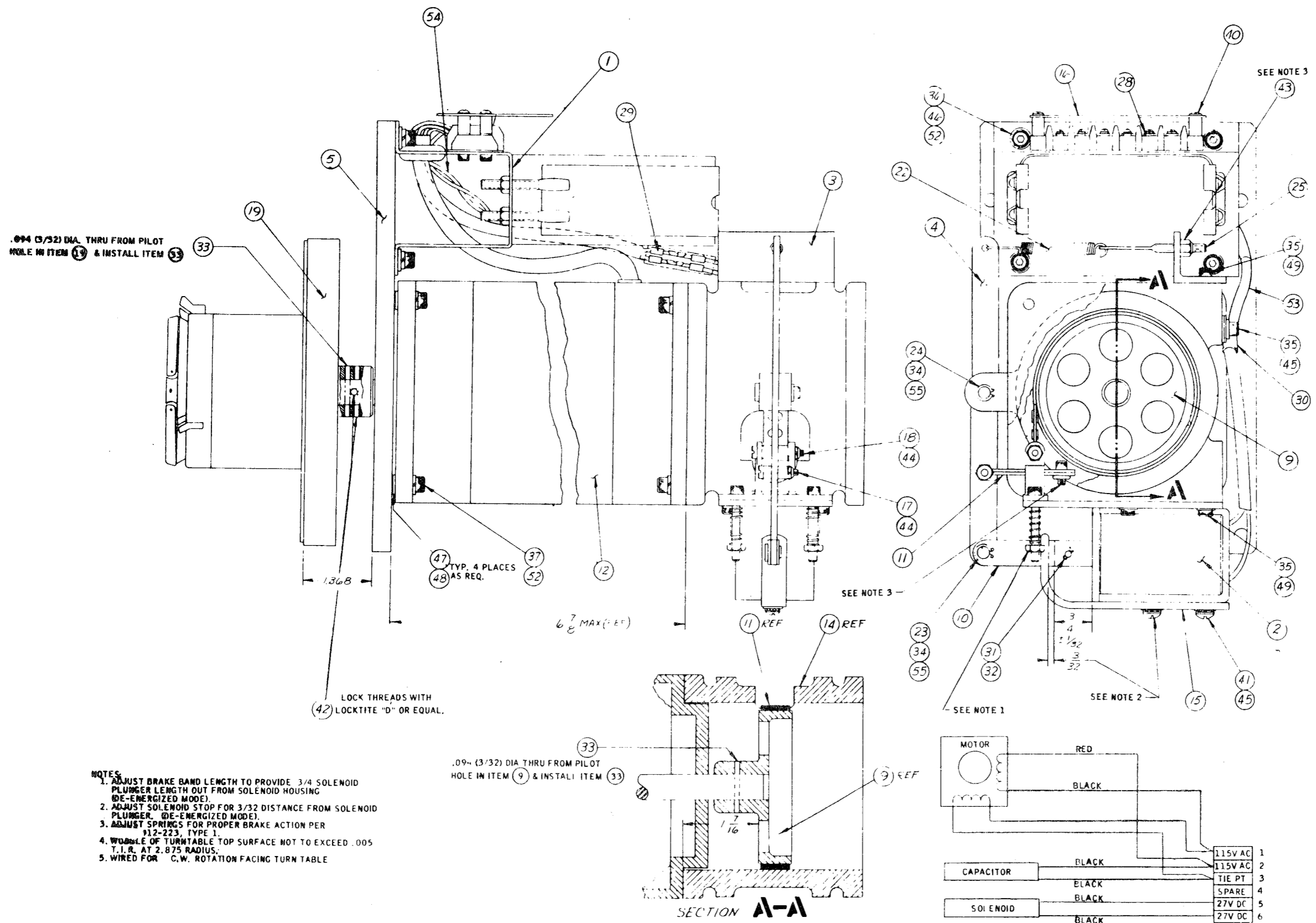


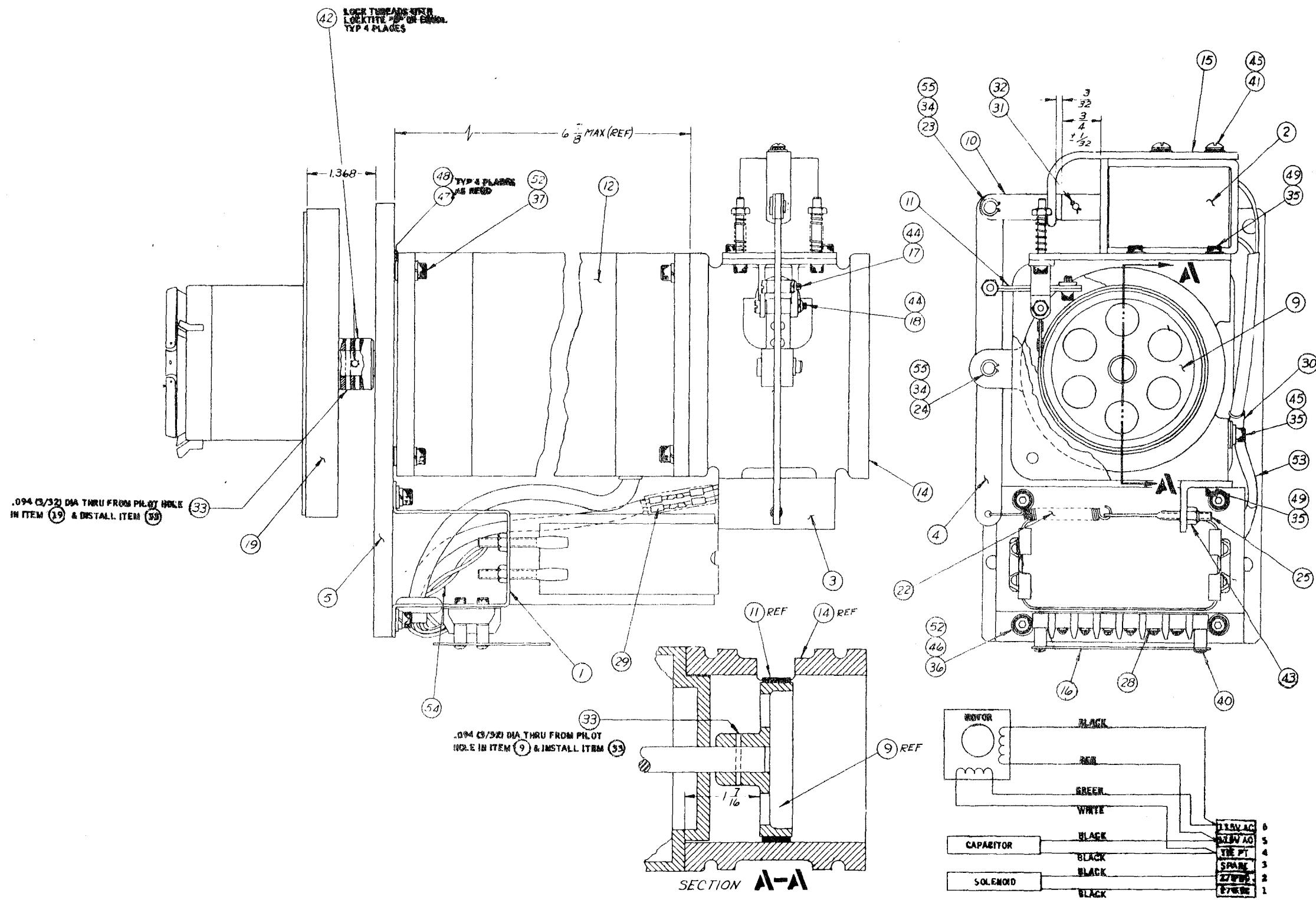
FIGURE 6-6  
CAPSTAN MOTOR ASSEMBLY



- NOTES
1. ADJUST BRAKE BAND LENGTH TO PROVIDE 3/4 SOLENOID PLUNGER LENGTH OUT FROM SOLENOID HOUSING (DE-ENERGIZED MODE).
  2. ADJUST SOLENOID STOP FOR 3/32 DISTANCE FROM SOLENOID PLUNGER. (DE-ENERGIZED MODE).
  3. ADJUST SPRINGS FOR PROPER BRAKE ACTION PER #12-223, TYPE 1.
  4. WOBBLE OF TURNTABLE TOP SURFACE NOT TO EXCEED .005 T.I.R. AT 2.875 RADIUS.
  5. WIRED FOR C.W. ROTATION FACING TURN TABLE

MATERIALS LIST			
QTY	ITEM NO.	AMPEX PART NO.	DESCRIPTION
1	1	C-13952-01	BRACKET ASSY.
1	2	B-13954-01	SOLENOID ASSY.
1	3	A-13958-01	PLATE, BRAKE SPRING
1	4	B-13959-01	LEVER, BRAKE
1	5	C-13961-01	FLANGE, MOTOR
1	6		
1	7		
1	8	B-13964-01	PAD, TURNTABLE
1	9	B-13966-01	DRUM, BRAKE
2	10	A-13968-01	LINK, SOLENOID
1	11	B-14331-01	BRAKE BAND ASSY.
1	12	D-14349-01	MOTOR, TORQUE
1	13		
1	14	D-14418-01	HOUSING, BRAKE
1	15		STOP, SOLENOID
1	16	A-50236-01	GUARD, TERM. STRIP
1	17	B-50630-01	PIN, BRAKE LOOP
1	18	B-50630-02	PIN, BRAKE LOOP
1	19	D-52120-01	KNOB ASSY - REEL HOLD DOWN
1	20		
1	21		
1	22	B-52172-01	SPRING, BRAKE ADJ.
1	23	B-52173-01	PIN, LINK
1	24	B-52173-02	PIN, LINK
1	25	B-52174-01	BOLT, EYE
1	26		
1	27		
6	28	171-001	SOLDERLESS CONNECTOR
2	29	171-009	SOLDERLESS CONNECTOR
1	30	302-007	CLAMP, CABLE 1/4 I.D. PLASTIC
1	31	400-009	PIN, CLEVIS 1/8 DIA X 17/32 LONG
1	32	401-007	PIN, COTTER 1/16 DIA X 1/2 LNG.
2	33	406-012	PIN, ROLL PIN .094 DIA X 1 LNG.
2	34	430-004	RING, RETAINING
7	35	470-029	SCREW, CAP, #8-32 X 1/2 LONG
4	36	470-037	SCREW, CAP, #10-32 X 7/16 LONG
8	37	470-040	SCREW, CAP, #10-32 X 3/4 LONG
1	38		
1	39		
4	40	471-563	SCREW, MACH. #6-32 X 3/16 LONG
2	41	475-038	SCREW, SEM. #8-32 X 1/16 LONG
1	42	477-067	SCREW, SET #8-32 X 1/4 LONG
1	43	493-00F	NUT, SELF LOCKING #10-32
2	44	493-009	NUT, SELF LOCKING #6-32
3	45	501-010	WASHER, FLAT, #8
1	46	501-011	WASHER, FLAT #10
A/R	47	501-054	WASHER-SHIM, .001 THK
A/R	48	501-064	WASHER-SHIM, .003 THK
8	49	502-003	WASHER, LOCK, #8 SPRING
1	50		
1	51		
12	52	502-004	WASHER, LOCK #10 SPRING
A/R	53	600-011	TUBING #6 (.166 I.D.) B&K. PLASTIC
A/R	54		WIRE - #20 AWG (BLACK)
A/R	55		GREASE-AVIATION #1 STD OR EQUIV.

FIGURE 6-7  
SUPPLY REEL ASSEMBLY



MATERIALS LIST

QTY	ITEM NO.	AMPEX PART NO.	DESCRIPTION
1	1	C-13952-01	BRACKET ASSY.
1	2	B-13954-01	SOLENOID ASSY.
1	3	A-13958-01	PLATE, BRAKE SPRING
1	4	B-13959-01	LEVER, BRAKE
1	5	C-13961-01	FLANGE, MOTOR
	6		
	7		
1	8	B-13964-01	PAD, TURNABLE
1	9	B-13966-01	DRUM, BRAKE
2	10	A-13968-01	LINK, SOLENOID
1	11	B-14331-01	BRAKE BAND ASSY.
1	12	D-14349-01	MOTOR, TORQUE
	13		
1	14	D-14418-01	HOUSING, BRAKE
1	15	A-14585-01	STOP, SOLENOID
1	16	A-50236-01	GUARD, TERM. STRIP
1	17	B-50630-01	PIN, BRAKE LOOP
1	18	B-50630-02	PIN, BRAKE LOOP
1	19	D-52120-01	KNOB ASSY - REEL HOLD DOWN
	20		
	21		
1	22	B-52172-01	SPRING, BRAKE ADJ.
1	23	B-52173-01	PIN, LINK
1	24	B-52173-02	PIN, LINK
1	25	B-52174-01	BOLT, EYE
	26		
	27		
4	28	171-001	SOLDERLESS CONNECTOR
2	29	171-009	SOLDERLESS CONNECTOR
1	30	302-007	CLAMP, CABLE 1/4 I.D. PLASTIC
1	31	400-009	PIN, CLEVIS 1/8 DIA X 17/32 LONG
1	32	401-007	PIN, COTTER 1/16 DIA X 1/2 LMG.
2	33	406-012	PIN, ROLL PIN .094 DIA X 1 LMG.
2	34	430-004	RING, RETAINING
7	35	470-029	SCREW, CAP, #8-32 X 1/2 LONG
4	36	470-037	SCREW, CAP, #10-32 X 7/16 LONG
8	37	470-040	SCREW, CAP, #10-32 X 3/4 LONG
	38		
	39		
4	40	471-563	SCREW, MACH. #6-32 X 3/16 LONG
2	41	475-038	SCREW, SEM, #8-32 X 5/16 LMG.
4	42	477-067	SCREW, SET #8-32 X 1/4 LONG
1	43	493-008	NUT, SELF LOCKING #10-32
2	44	493-009	NUT, SELF LOCKING #6-32
3	45	501-010	WASHER, FLAT, #8
1	46	501-011	WASHER, FLAT #10
A/R	47	501-054	WASHER-SHIM, .005 THK.
A/R	48	501-064	WASHER-SHIM, .003 THK.
8	49	502-004	WASHER, LOCK, #8 SPRING
	50		
	51		
12	52	502-005	WASHER, LOCK #10 SPRING
A/R	53	606-011	TUBING #6 (1.60 I.D.) BLK. PLASTIC
A/R	54		WIRE - #20 AWG BLACK
A/R	55		GREASE-AVIATION #1 S'CO OR EQUIV.

FIGURE 6-8  
TAKE-UP REEL ASSEMBLY



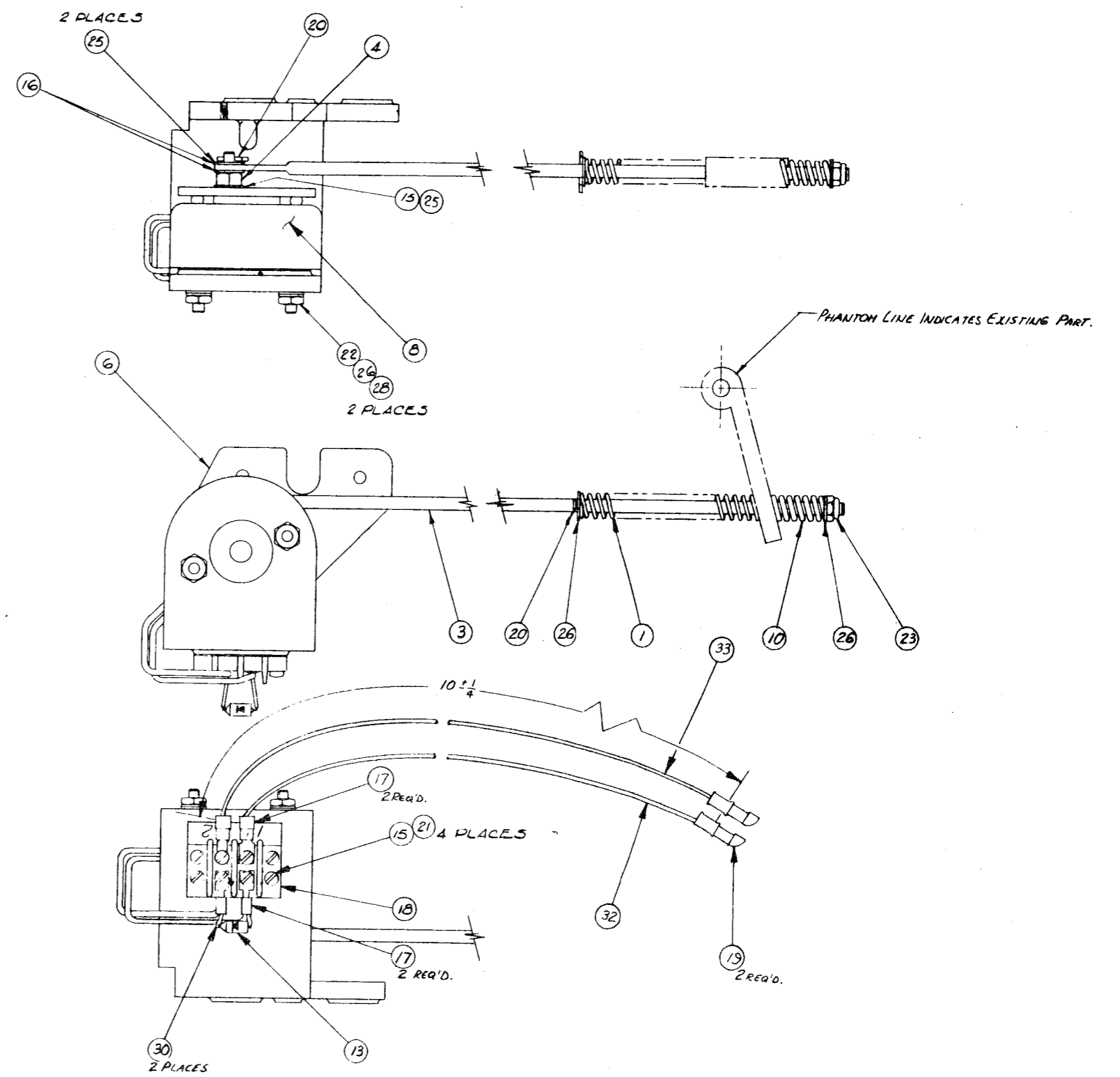
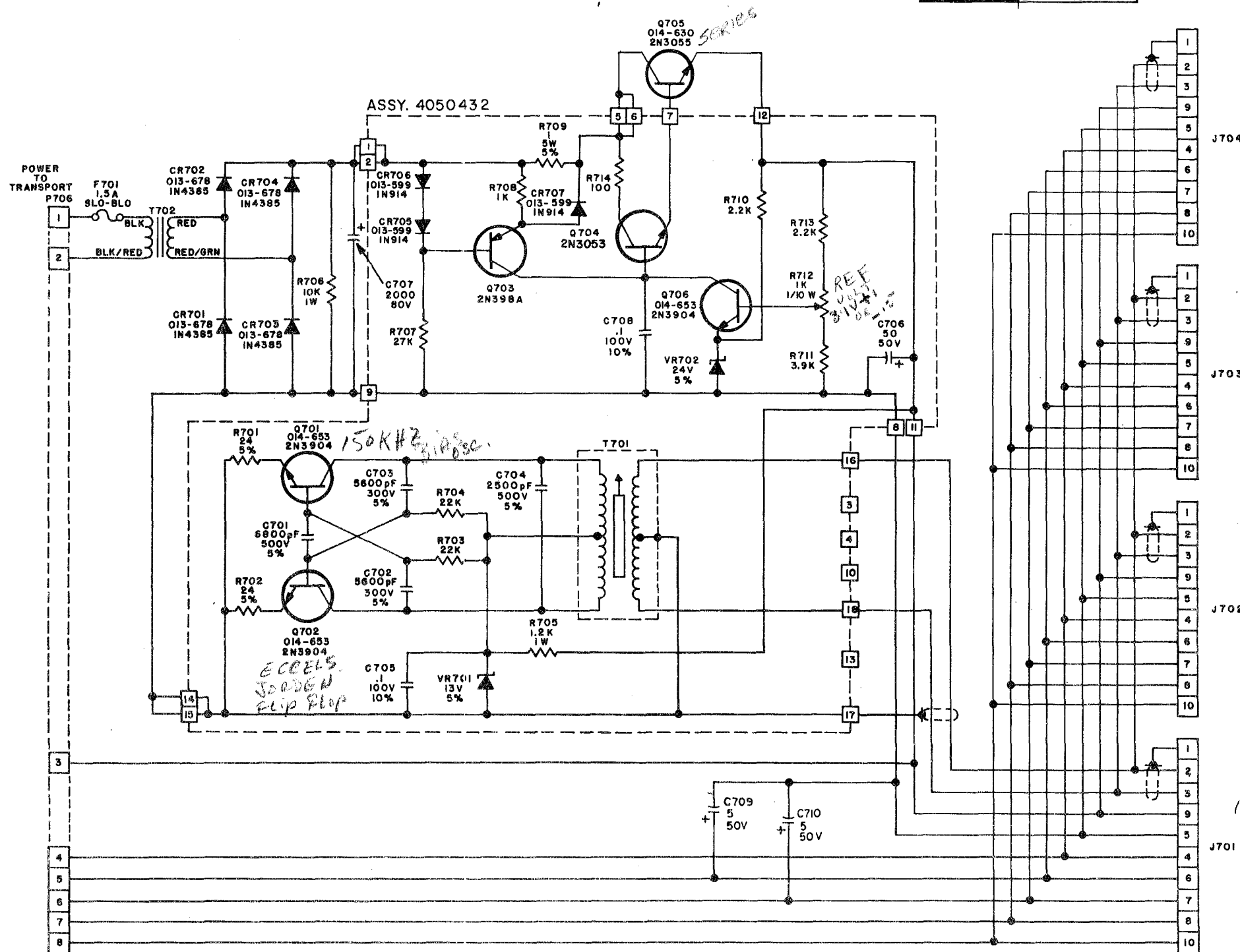


FIGURE 6-9  
CAPSTAN SOLENOID ASSEMBLY

RECORD/REPRODUCE  
POWER SUPPLY ASSEMBLY  
CATALOG NO. 4020274-01

Ref. No.	Qty	DESCRIPTION	Ampex Part No.
C701	1	Capacitor, mica; 6800 pfd, ±5%, 500 vdcw	056-108
C702	2	Capacitor, mica; 5600 pfd, ±5%, 300 vdcw	034-507
C703	-	Same as C702	
C704	1	Capacitor, mica; 2500 pfd, ±5%, 500 vdcw	034-994
C705	2	Capacitor, mylar; 0.1 mfd, ±10%, 100 vdcw	055-106
C706	1	Capacitor, electrolytic; 50 mfd, -10+75%, 50 vdcw	031-187
C707	1	Capacitor, electrolytic; 2000 mfd, -10+250%, 80 vdcw	* 4550147-03
C708	-	Same as C705	
C709	2	Capacitor, electrolytic; 5 mfd, -10+75%, 50 vdcw	031-205
C710	-	Same as C709	
CR701	4	Diode, silicon, large signal rectifier	* 013-678
CR702	-	Same as CR701	
CR703	-	Same as CR701	
CR704	-	Same as CR701	
CR705	3	Diode, silicon, small signal switching	* 013-599
CR706	-	Same as CR705	
CR707	-	Same as CR705	
F701	1	Fuse, slo-blo; 1.5 amp, 125v	* 070-075
J701	4	Connector, receptacle; 10 sockets, female	* 146-018
J702	-	Same as J701	
J703	-	Same as J701	
J704	-	Same as J701	
P706	1	Connector, plug; 8 pins, male	* 145-013
Q701	3	Transistor, silicon	014-653
Q702	-	Same as Q701	
Q703	1	Transistor, Germanium, 2N398A	014-704
Q704	1	Transistor, silicon; 2N3053	014-590
Q705	1	Transistor, silicon, power	014-630
Q706	-	Same as Q701	
R701	2	Resistor, fixed, comp; 24 ohms, ±5%, 1/2w; RC20GF240J	041-533
R702	-	Same as R701	
R703	2	Resistor, fixed, comp; 22,000 ohms, ±10%, 1/2w; RC20GF223K	041-064
R704	-	Same as R703	
R705	1	Resistor, fixed, comp; 1,200 ohms, ±10%, 1w; RC32GF122K	041-147
R706	1	Resistor, fixed, comp; 10,000 ohms, ±10%, 1w; RC32GF103K	041-158
R707	1	Resistor, fixed, comp; 27,000 ohms, ±10%, 1/2w; RC20GF273K	041-065
R708	1	Resistor, fixed, comp; 1,000 ohms, ±10%, 1/2w; RC20GF102K	041-048
R709	1	Resistor, fixed, wirewound; 1 ohm, ±5%, 5w	059-016
R710	2	Resistor, fixed, comp; 2,200 ohms, ±10%, 1/2w; RC20GF222K	041-052
R711	1	Resistor, fixed, comp; 3,900 ohms, ±10%, 1/2w; RC20GF392K	041-055
R712	1	Resistor, variable, comp; 1,000 ohms, ±30%, 1/10w	044-370
R713	-	Same as R710	
R714	1	Resistor, fixed, comp; 100 ohms, ±10%, 1/2w; RC20GF101K	041-038
T701	1	Coil, bias oscillator	4580123-01
T702	1	Transformer, power supply	* 4580156-01
VR701	1	Diode, silicon, zener; 13 volt, ±5%	013-747
VR702	1	Diode, silicon, zener; 24 volt, ±5%	013-712
	2	Card Guide	530-102
	1	Fuse holder, short body	085-001
	1	Kit, transistor mounting (for Q705)	014-630
	2	Pad, transistor (for Q703, Q704)	280-131

NOTE: All items except those marked \* are on printed circuit board



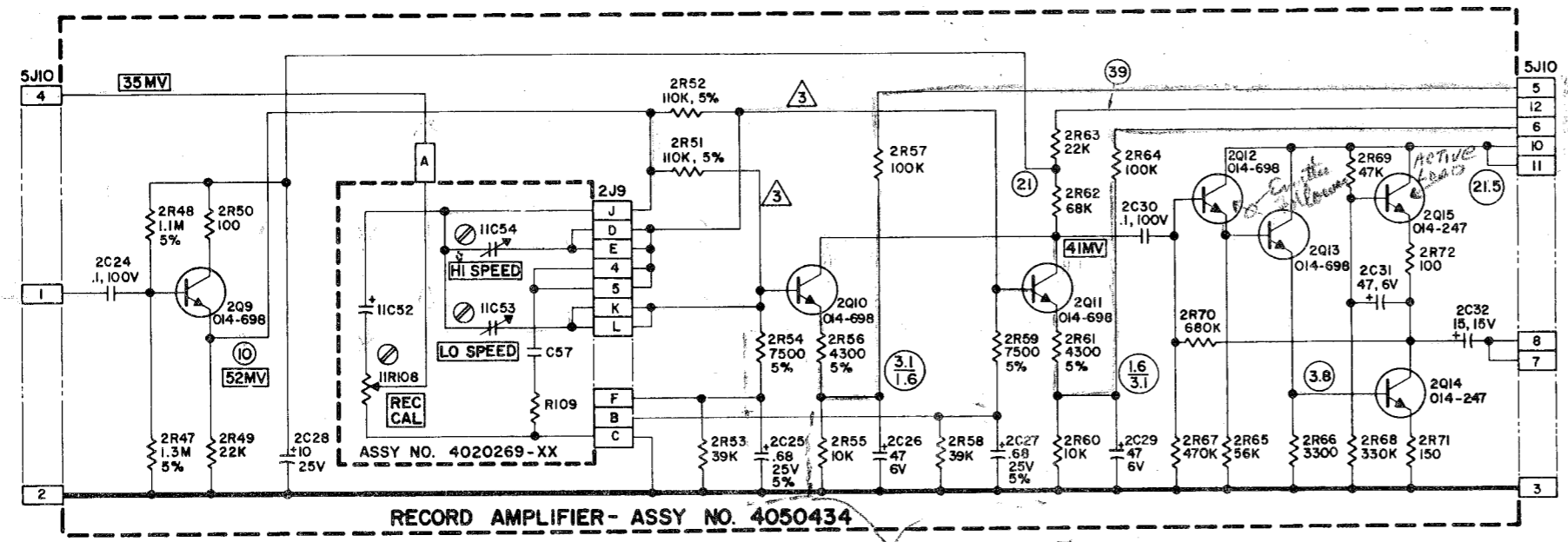
NOTES:  
UNLESS OTHERWISE SPECIFIED  
1. ALL CAPACITOR VALUES ARE IN MICROFARADS, RATINGS AS IND' CATED.  
2. ALL RESISTORS VALUES ARE IN OHMS, 1/2 WATT, 10%.

LAST REF. DES. USED	REF. DES. NOT USED
C710	
CR707	
Q706	
VR702	
T702	
R714	

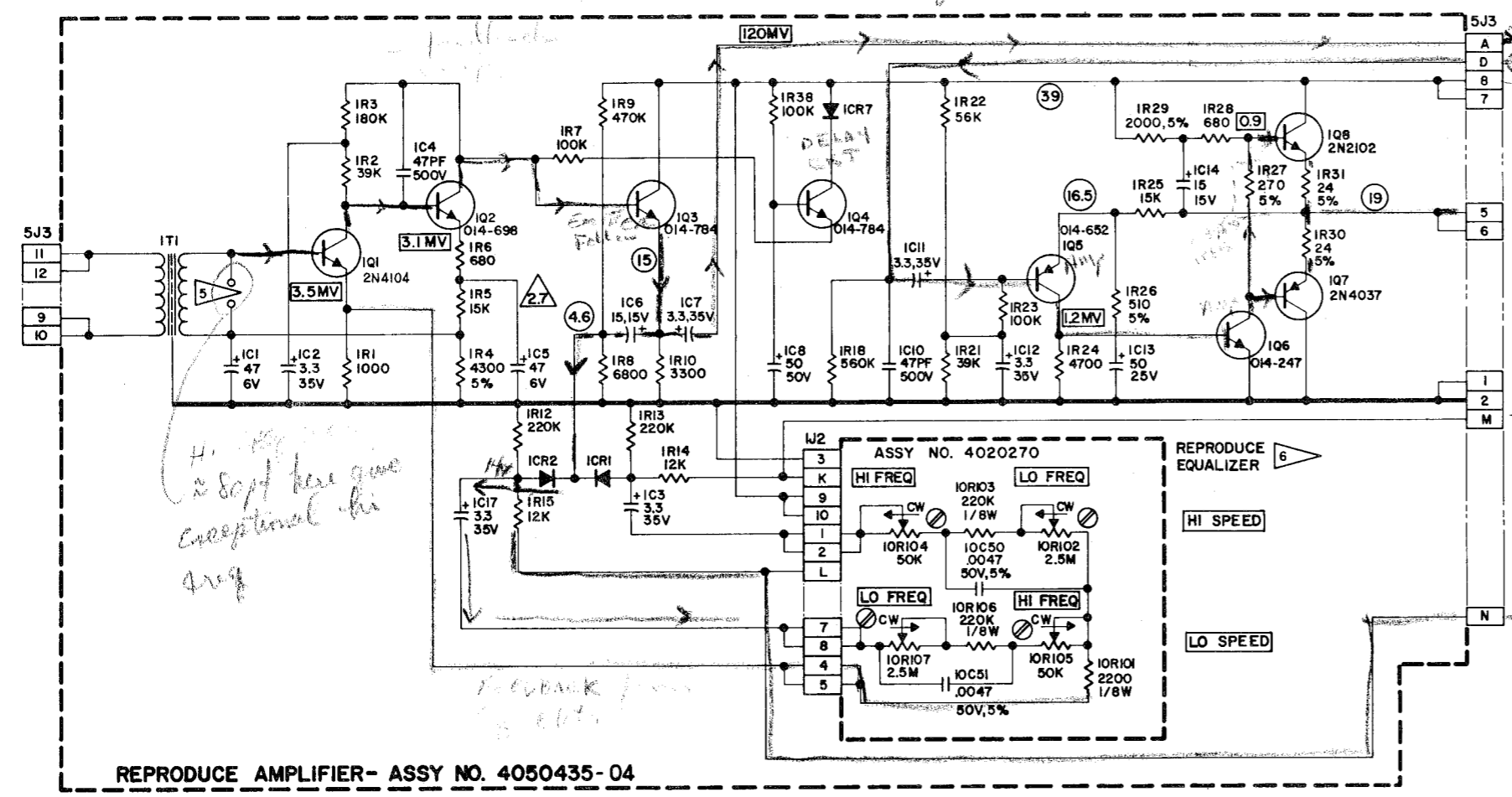
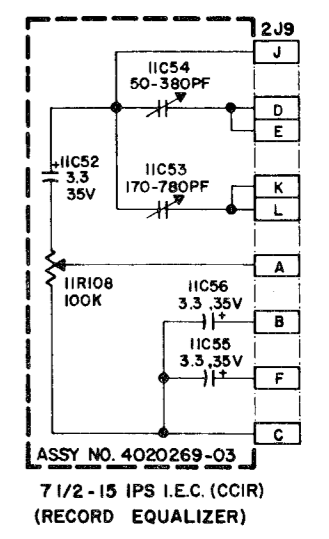
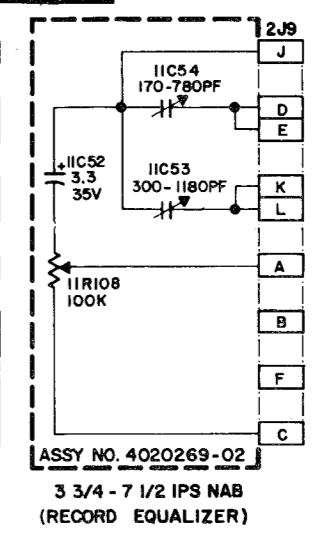
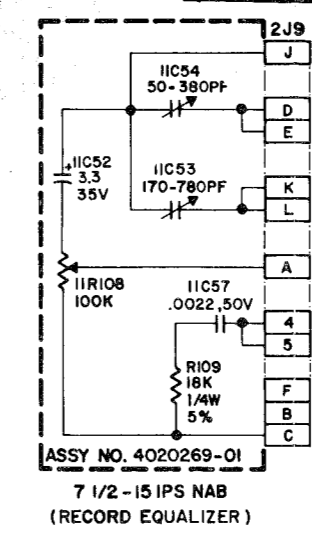
FIGURE 6-10  
POWER SUPPLY SCHEMATIC,  
RECORD/REPRODUCE



Mail Stop 7-1  
860 Charter Street, Redwood City, California, 94063  
(415) 367-3701



RECORD AMPLIFIER - ASSY NO. 4050434  
*Lo Freq Boost*

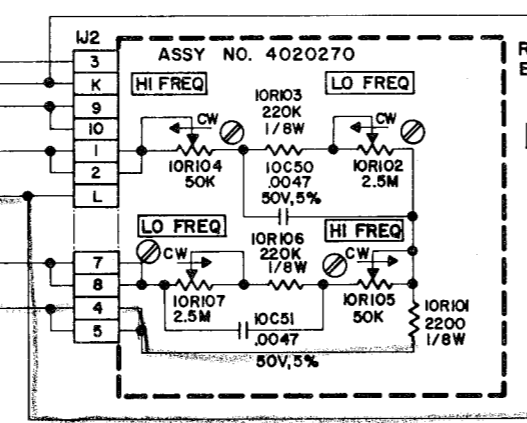


*Hi Freq  
2 soft here give  
exceptional hi  
freq*

*Feedback from  
to 6V*

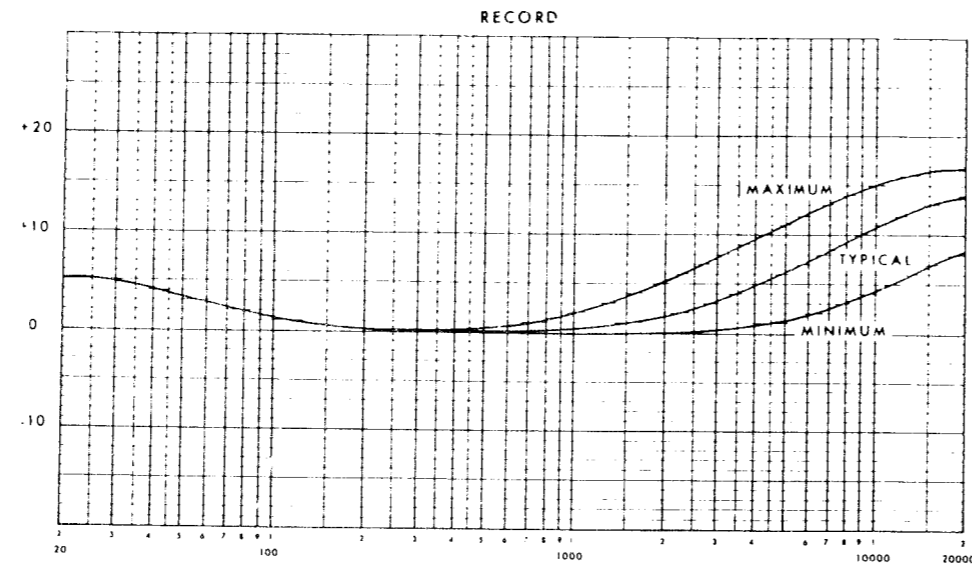
*2 soft from HI  
speed 50V*

*NOTE  
If 2.5M out 9.0V will  
not work*

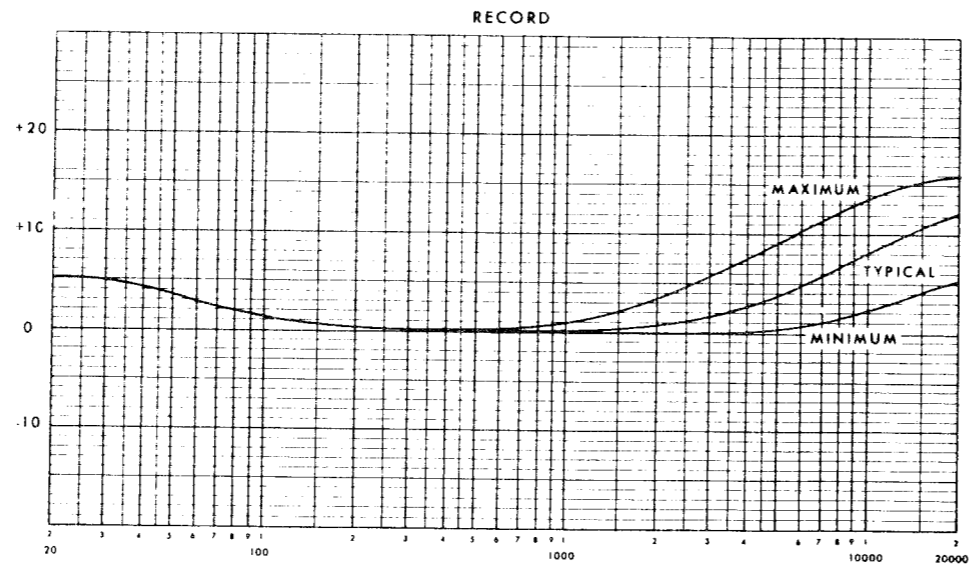
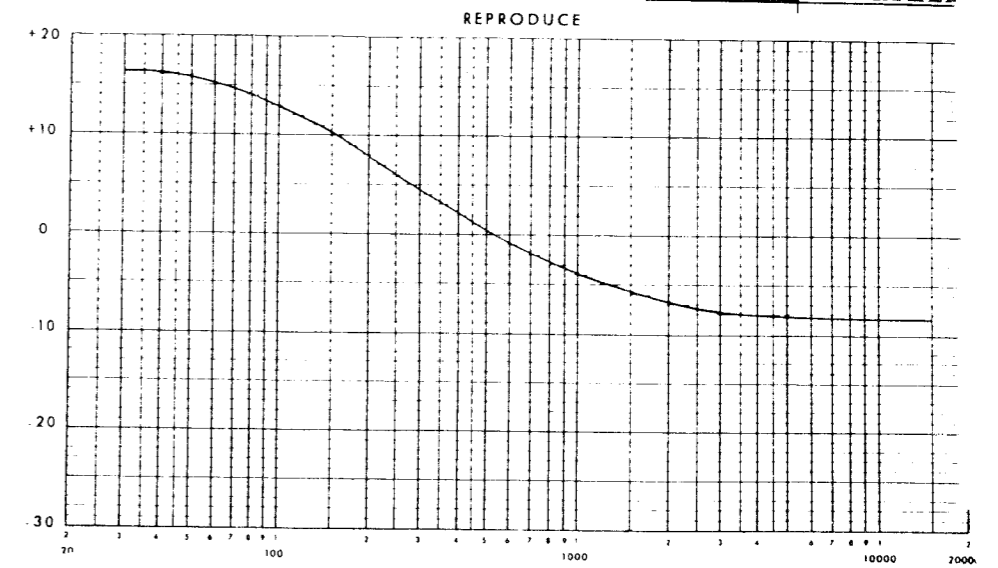


NOTES:  
SEE SHEET 1.

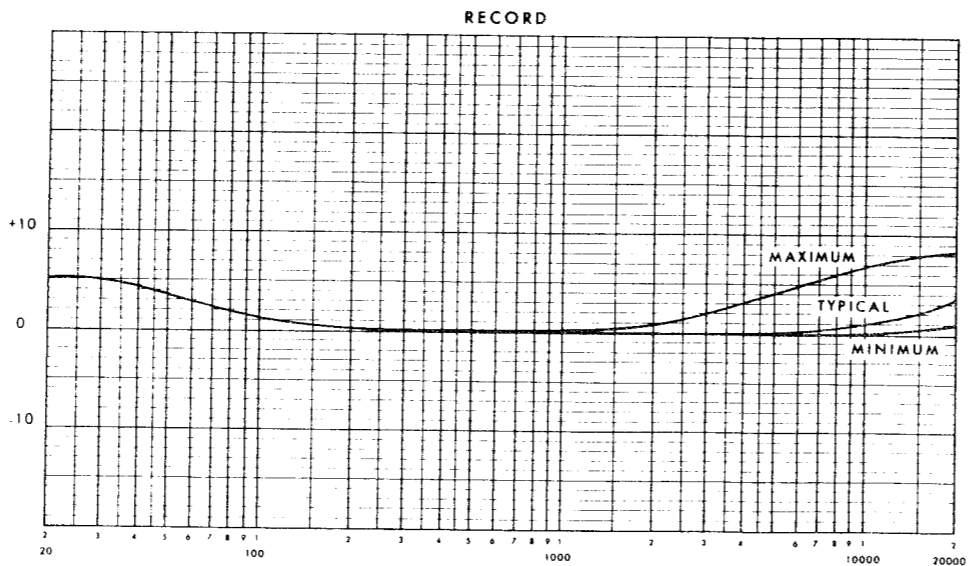
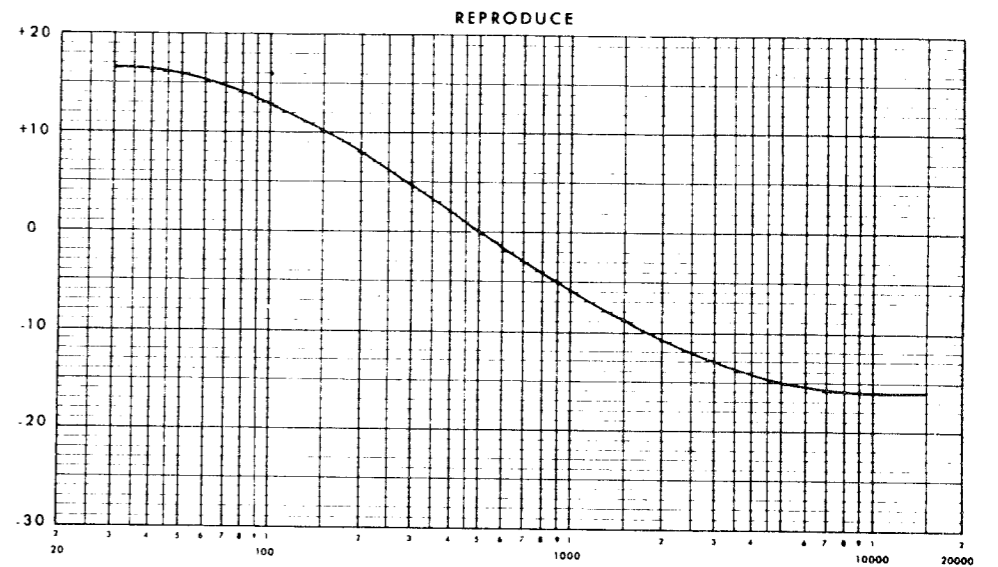
FIGURE 6 - 11 (2)  
SCHEMATIC DIAGRAM  
MM-1000 ELECTRONICS



3 1/4 ips (120 usec)



7 1/2 ips NAB



15 ips NAB

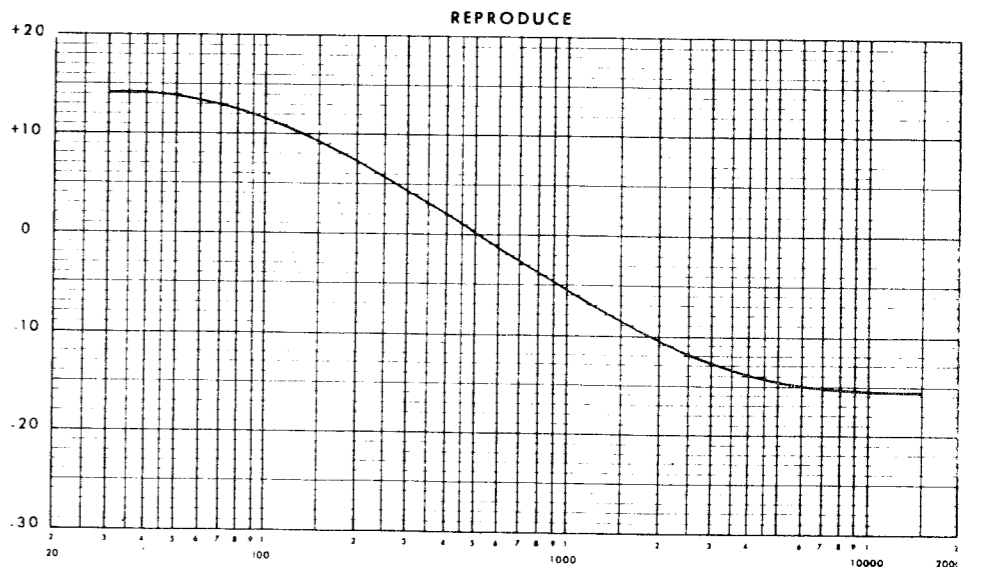
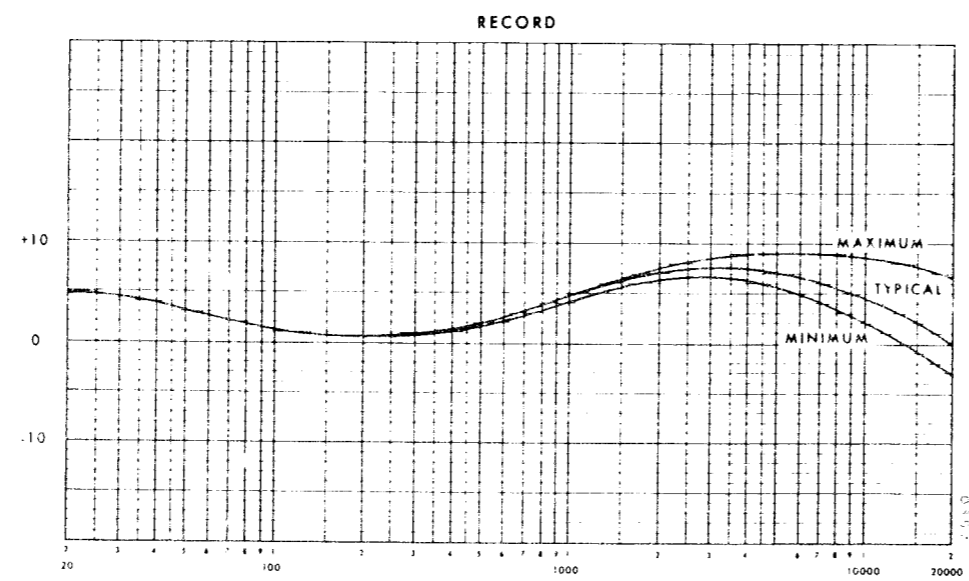
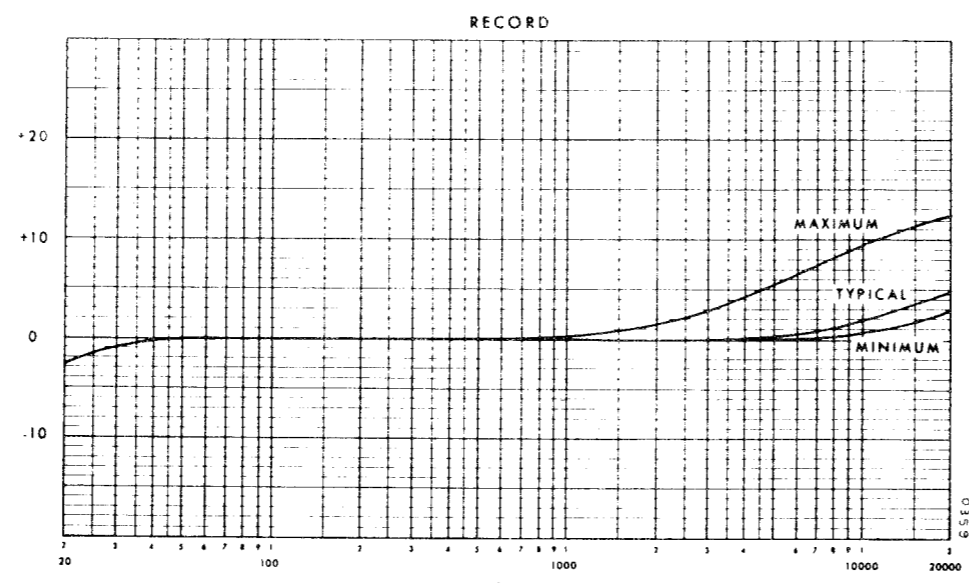
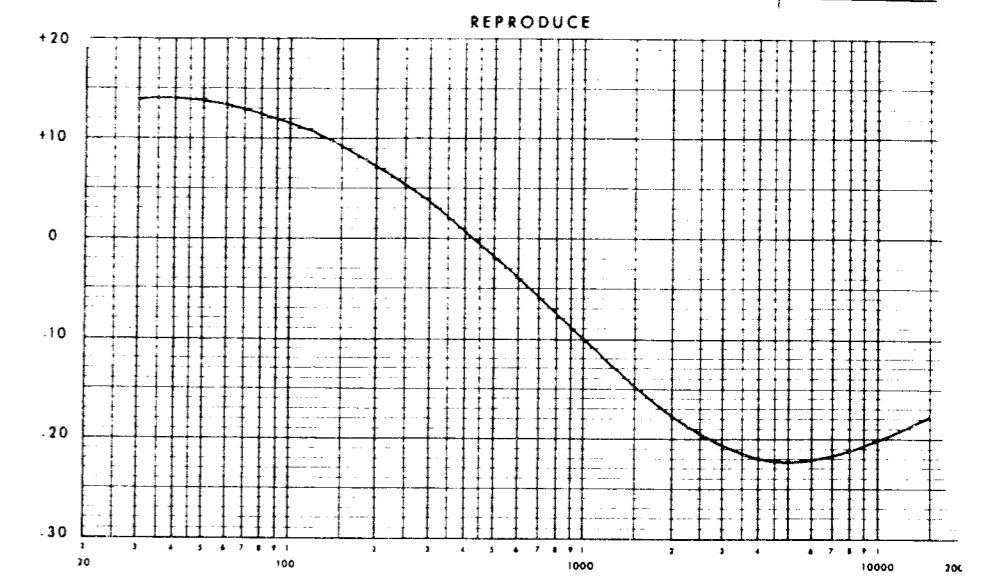


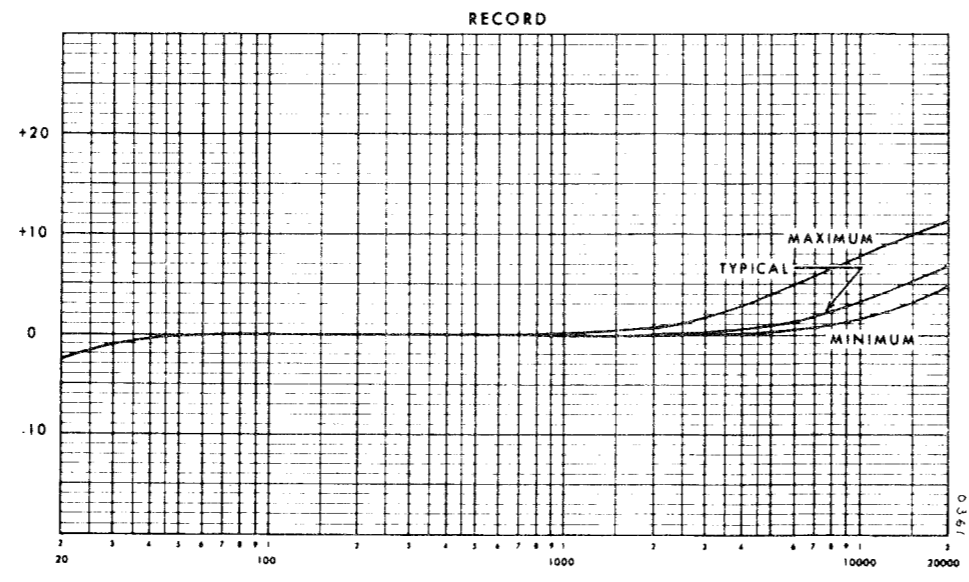
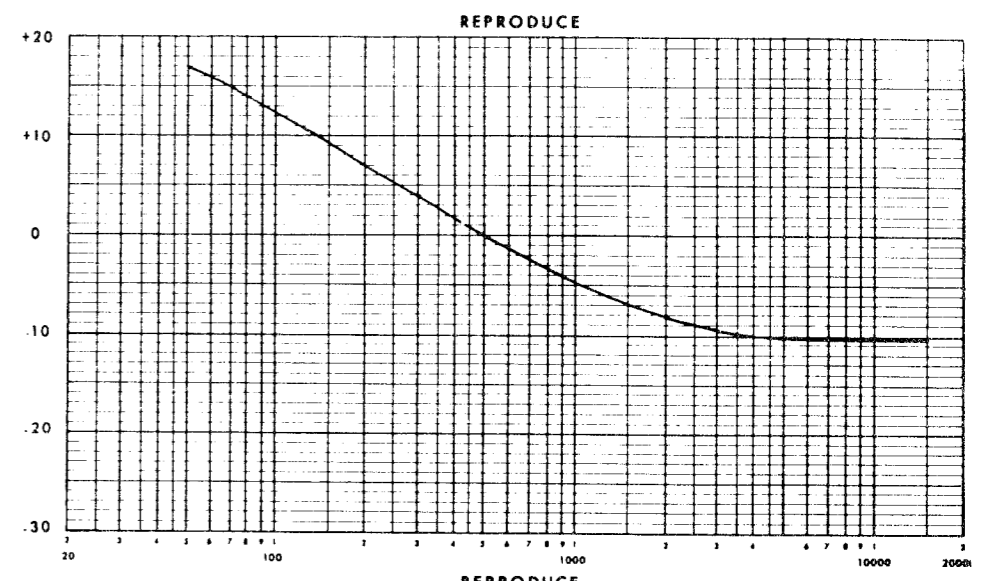
FIGURE 6-12  
RESPONSE CURVES, SHEET



15 ips AME



7 1/2 ips CCIR



15 ips CCIR

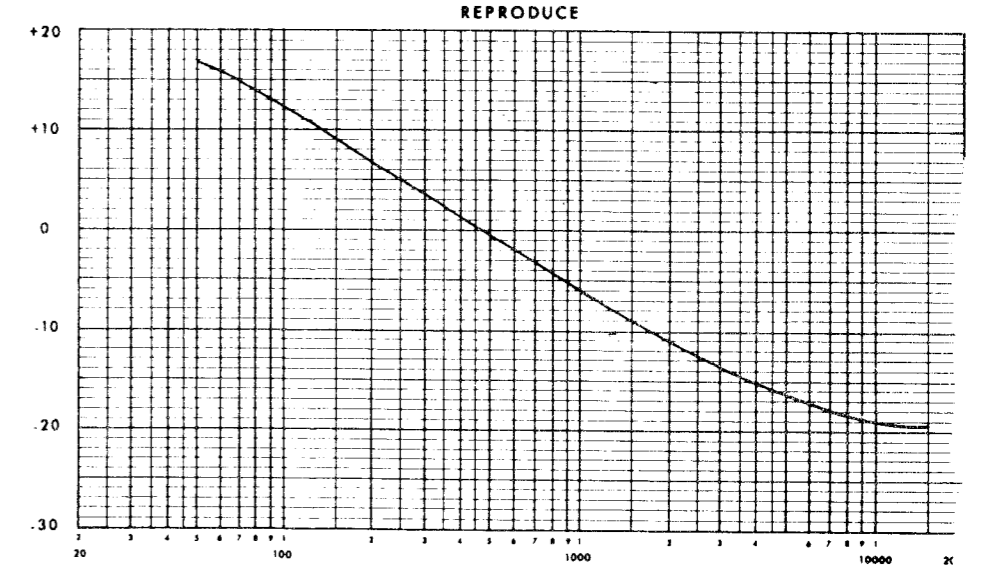


FIGURE 6-13  
RESPONSE CURVES, SHEET