

# NOTES:

1. ALL RELAYS & SOLENOIDS SHOWN DE-ENERGIZED.
2. ALL RESISTORS IN OHMS & RATED 1/2 WATT, 10 % UNLESS OTHERWISE SPECIFIED.
3. ALL CAPACITORS IN MICROFARADS & RATED 400V UNLESS OTHERWISE SPECIFIED.
- 4.
5. CAPACITOR VALUES VARY WITH MFG. OF DRIVE MOTOR.

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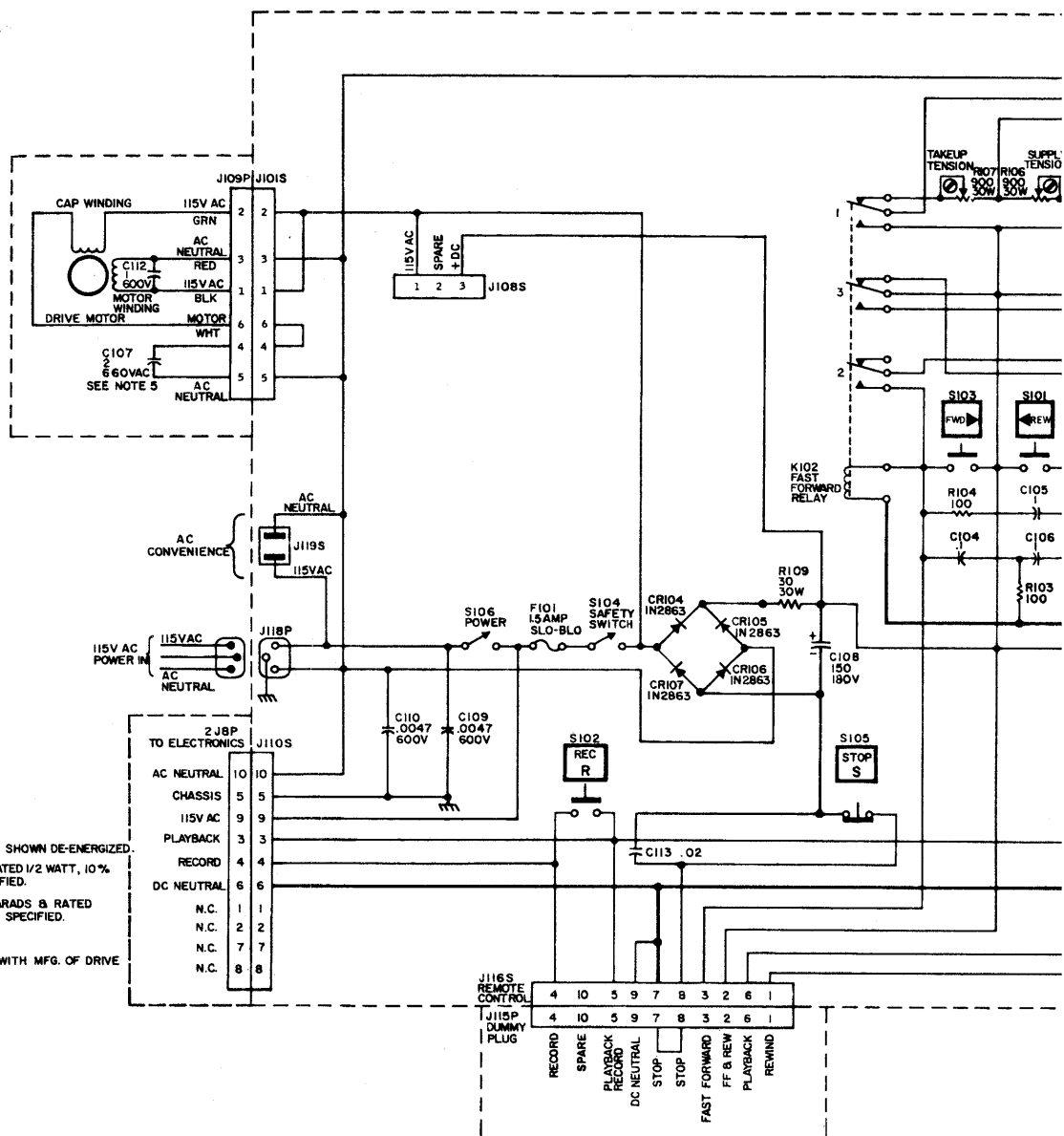


Fig.

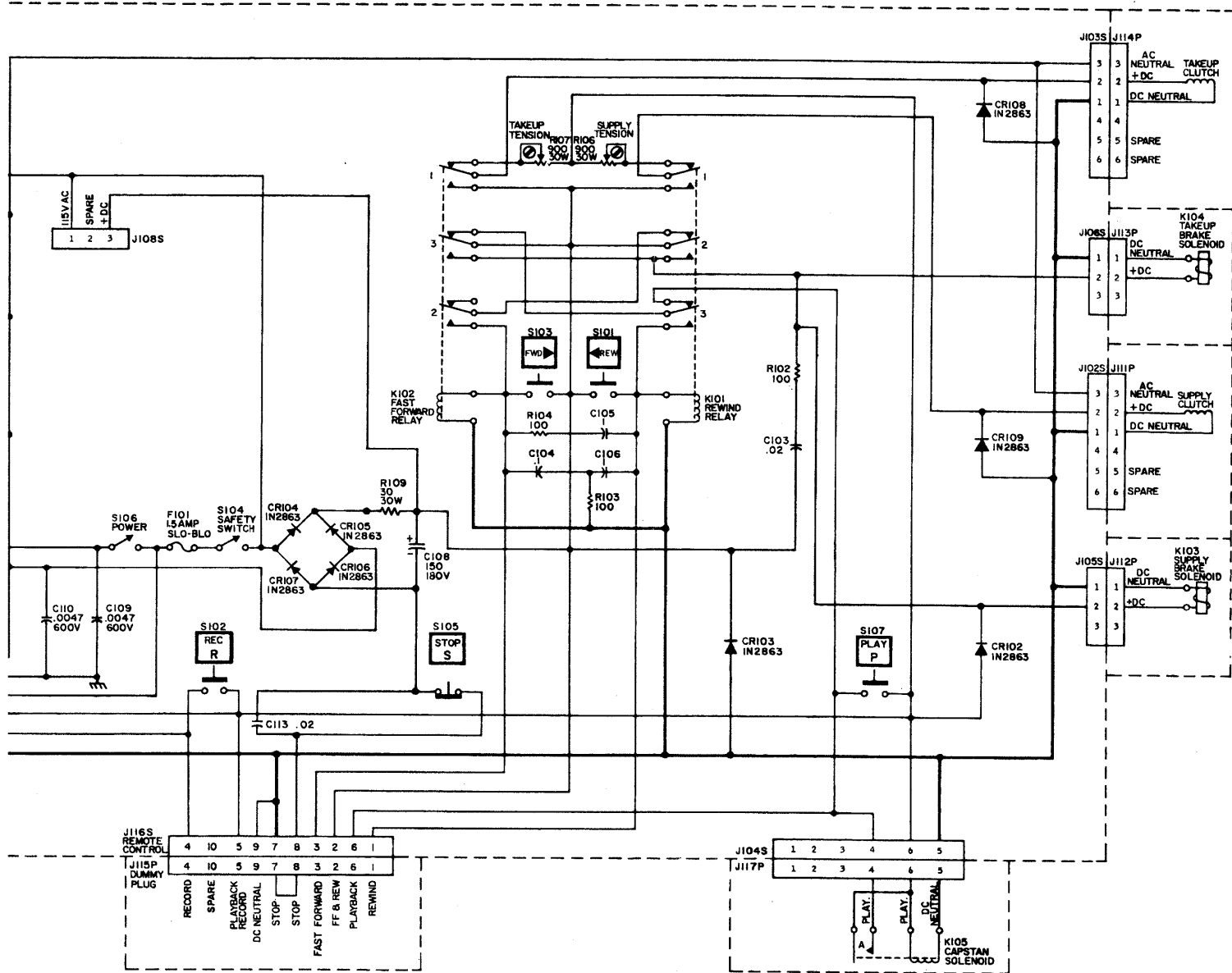
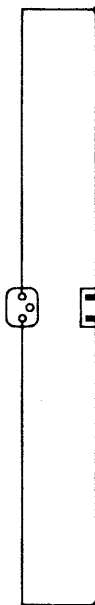


Fig. 7-1. Tape Transport Schematic Diagram,  
Domestic Equipment

J118P  
115VAC  
POWER IN





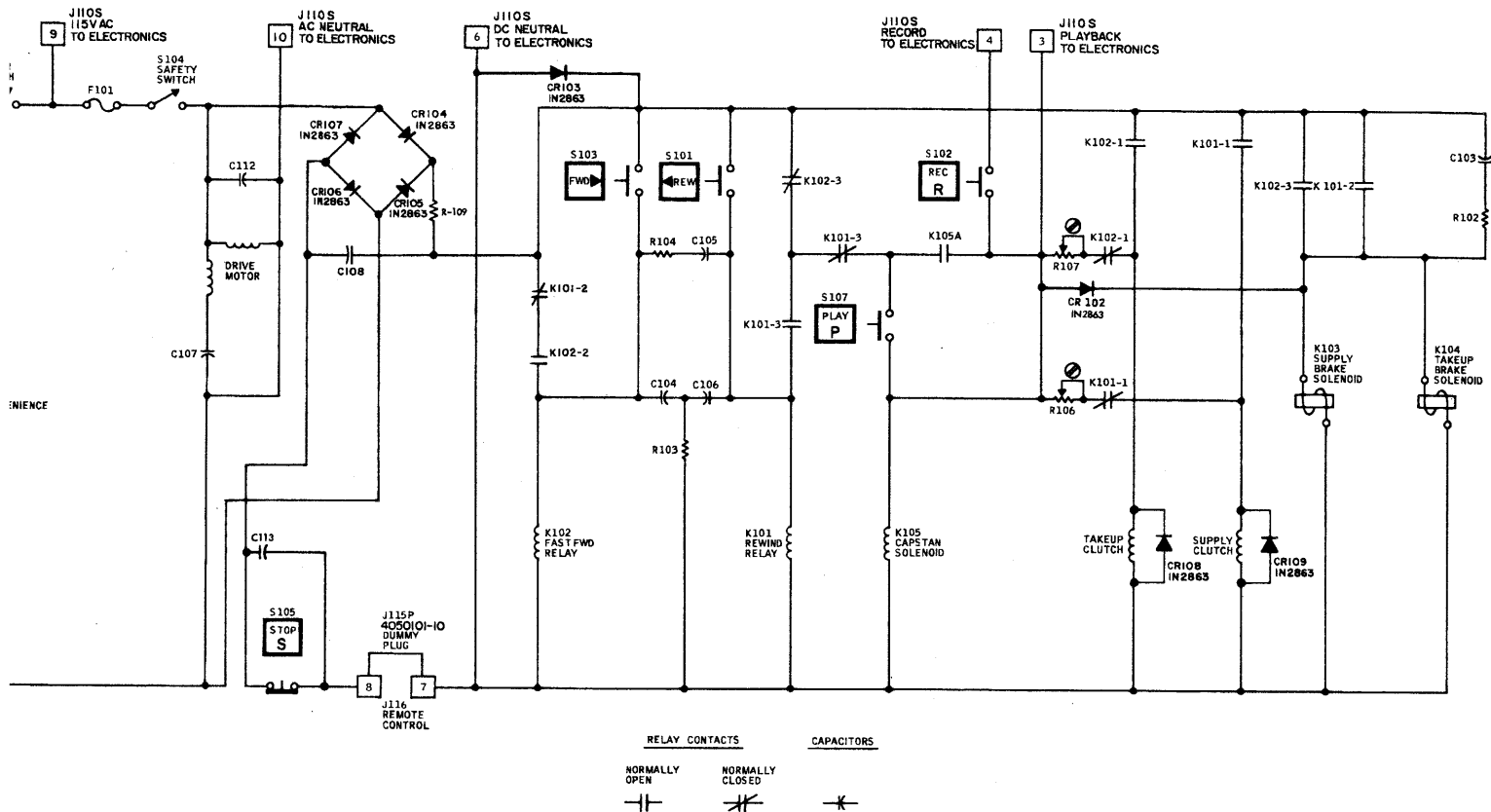


Fig. 7-2. Tape Transport Simplified Schematic Diagram, Domestic Equipment



NOTES:

1. ALL RELAYS & SOLENOIDS SHOWN DE-ENERGIZED.
2. ALL RESISTORS IN OHMS & RATED 1/2 WATT, 10% UNLESS OTHERWISE SPECIFIED.
3. ALL CAPACITORS IN MICROFARADS & RATED 400V UNLESS OTHERWISE SPECIFIED.
- 4.
5. CAPACITOR VALUES VARY WITH MFG. OF DRIVE MOTOR.
6. FUSE; 1-1/2 AMP FOR 115V, 3/4 AMP FOR 230V.

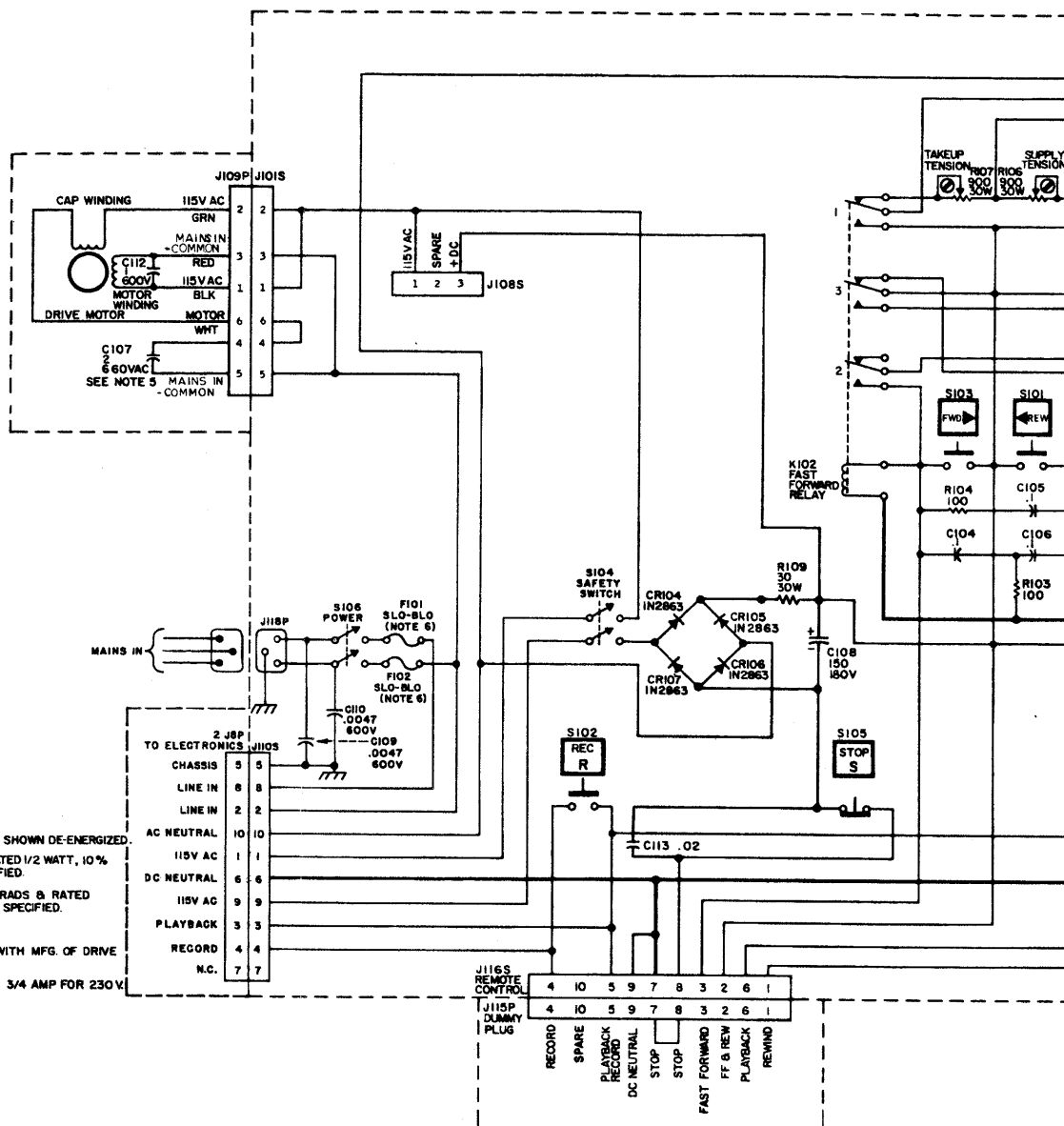


Fig. 7



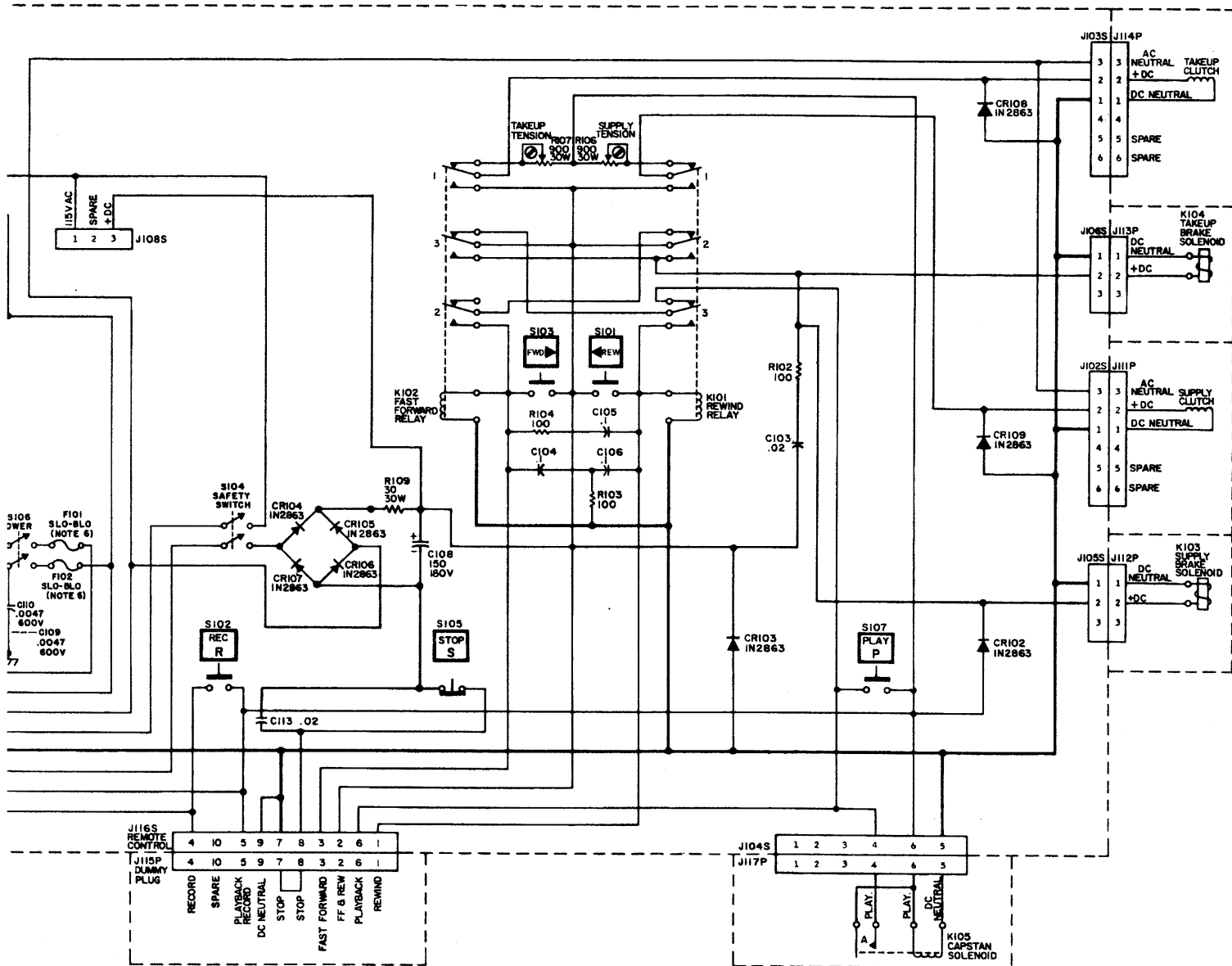
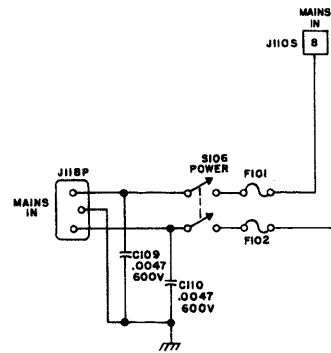


Fig. 7-3. Tape Transport Schematic Diagram, International Equipment



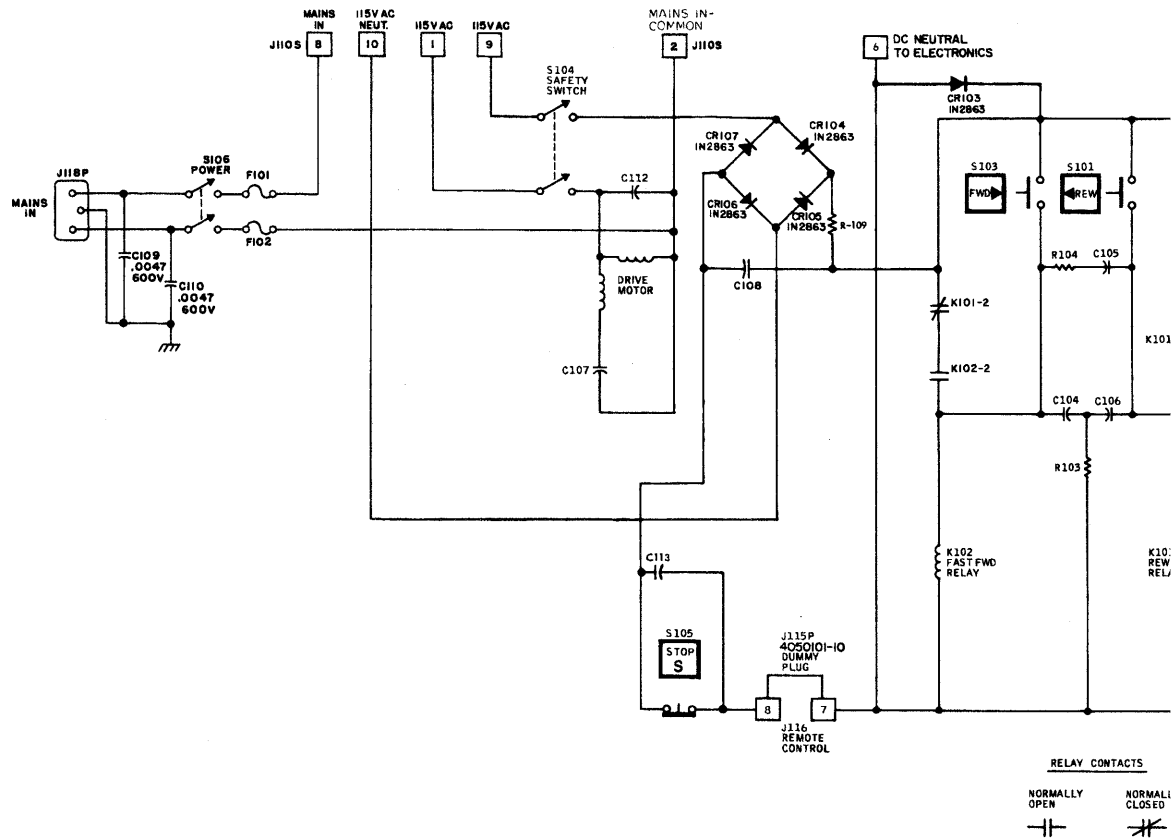


Fig. 7

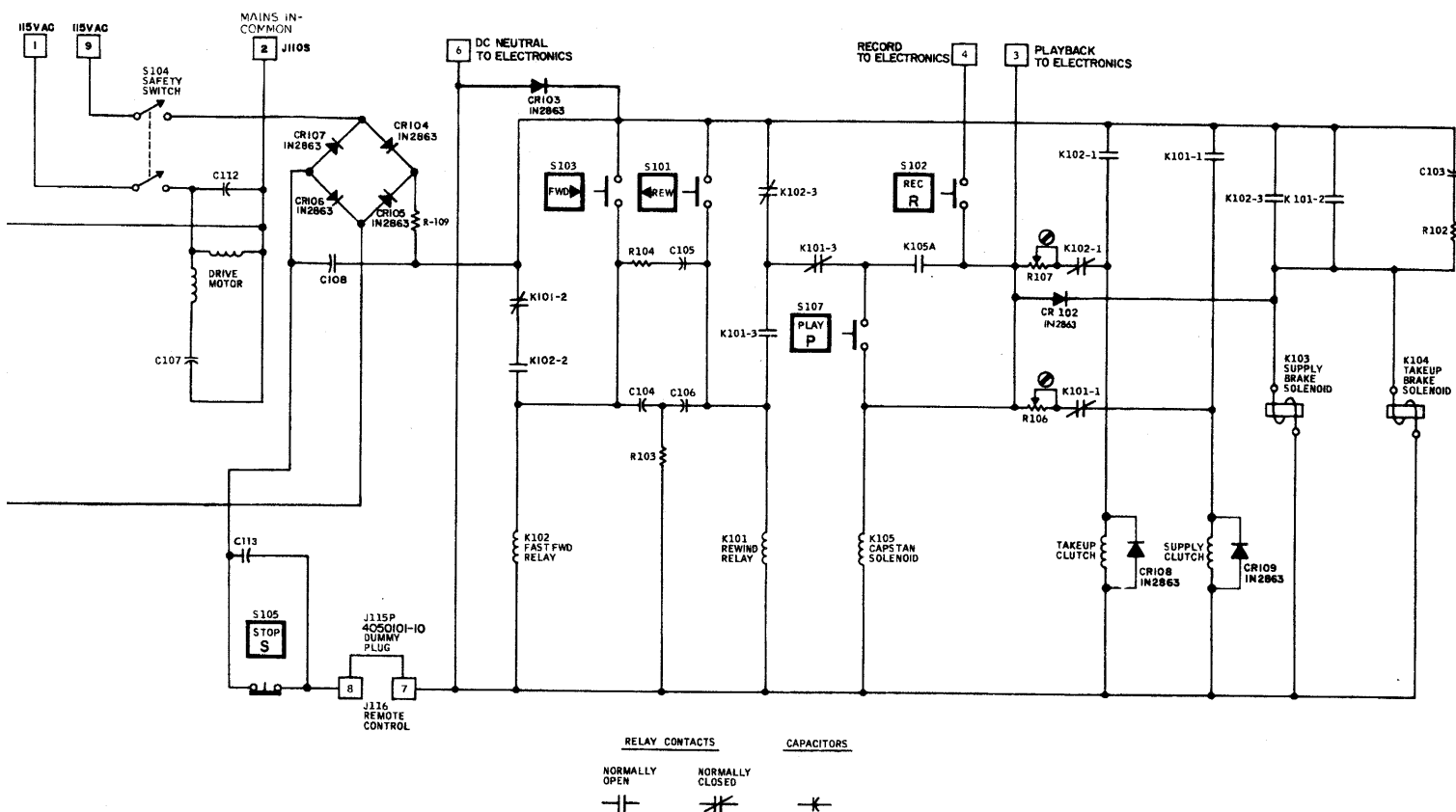
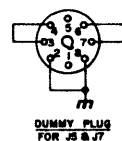
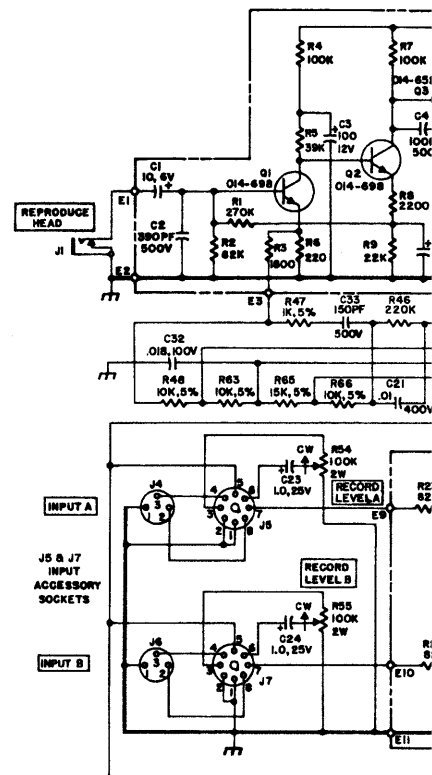
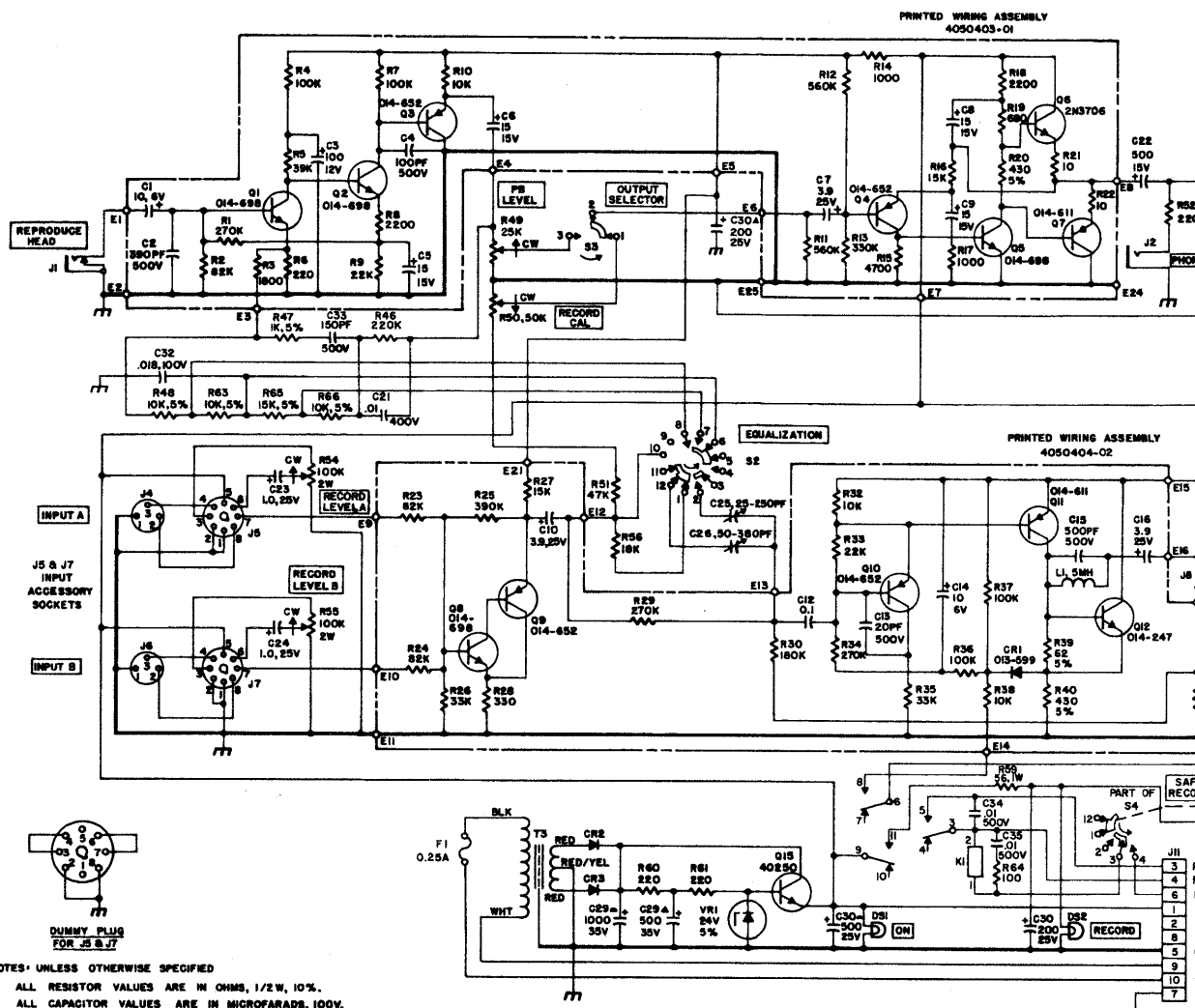


Fig. 7-4. Tape Transport Simplified Schematic Diagram, International Equipment



# NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL RESISTOR VALUES ARE IN OHMS, 1/2W, 10%.
2. ALL CAPACITOR VALUES ARE IN MICROFARADS, 100V.
3. ALL DIODES ARE TYPE 013-678.
4. ALL SWITCHES ARE IN GCW OR OFF POSITION.
5. FOR FIELD SERVICE ONLY:  
Q1, Q2, Q3, Q4 MAY BE 2N3665 OR 2N3617.  
Q5, Q6, Q7, Q8 MAY BE 2N3608.  
Q9, Q10 MAY BE 2N3638.  
Q11, Q12, Q13, Q14 MAY BE 2N2219.



LAST REF DES USED	REF DES NOT USED
R66	F1
C35	P4
CR3	J10
L2	S1
T3	C11
S4	R51
VR1	R53
J11	
M1	
E25	
DS2	

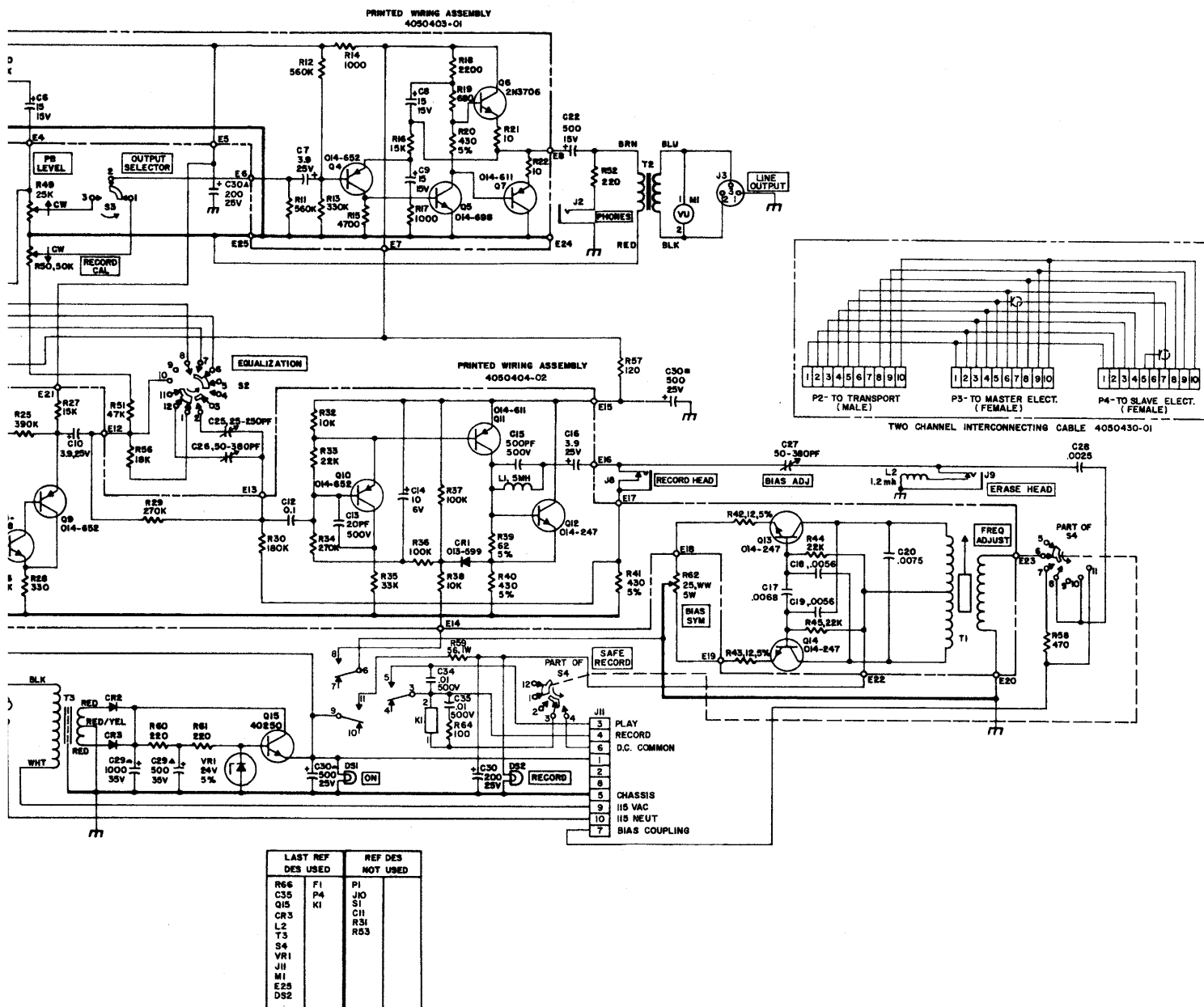
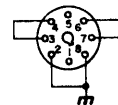
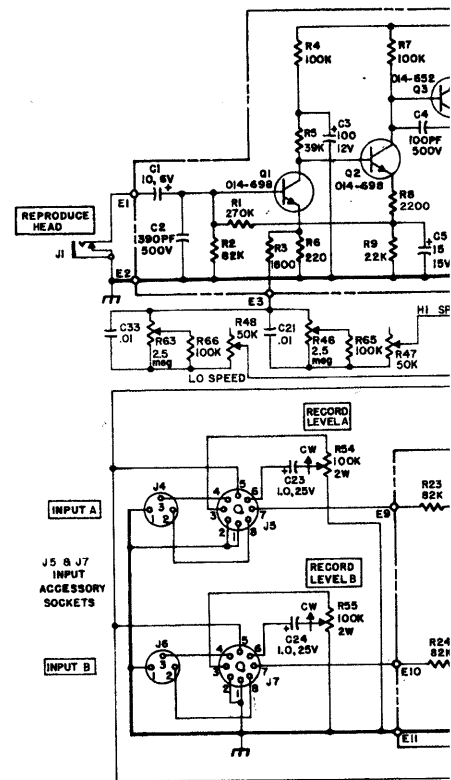


Fig. 7-6. Record/Reproduce Schematic Diagram, 15/16 and 1-7/8 ips, Domestic Equipment



DUMMY PLUG  
FOR J5 & J7

NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL RESISTOR VALUES ARE IN OHMS, 1/2W, 10%.
2. ALL CAPACITOR VALUES ARE IN MICROFARADS, 100V.
3. ALL DIODES ARE TYPE 013-678.
4. ALL SWITCHES ARE IN CCW OR OFF POSITION.
5. FOR FIELD SERVICE ONLY:  
Q1, Q2, Q5, Q8 MAY BE 2N3565 OR 2N3117.  
Q3, Q4, Q9, Q10 MAY BE 2N3906.  
Q7, Q11 MAY BE 2N3638.  
Q12, Q13, Q14 MAY BE 2N2219.





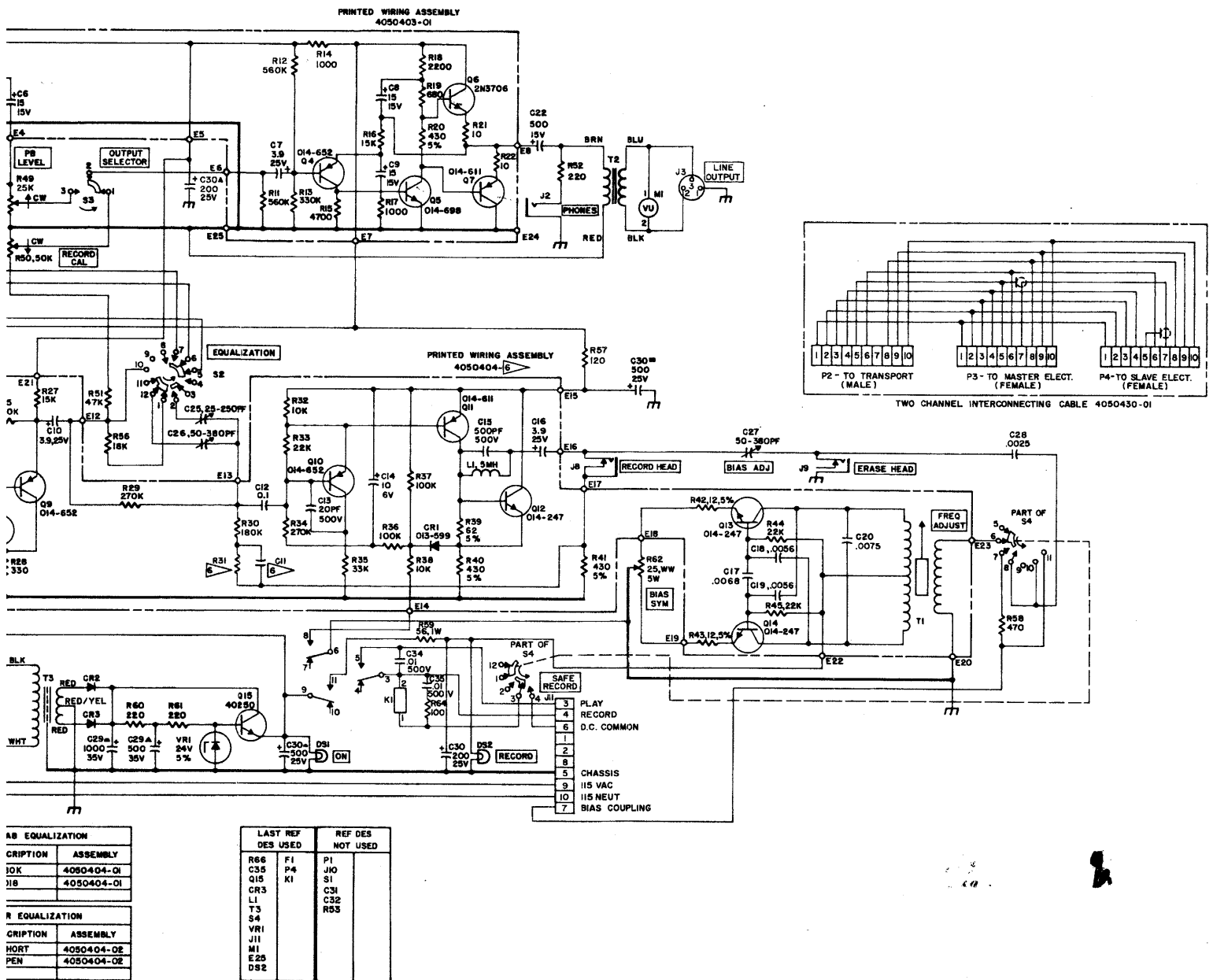
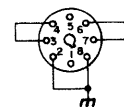
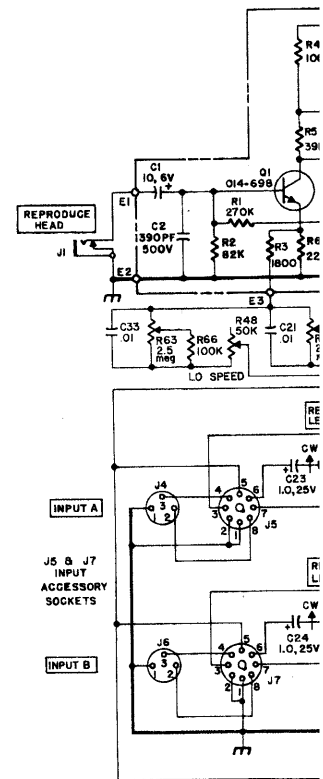


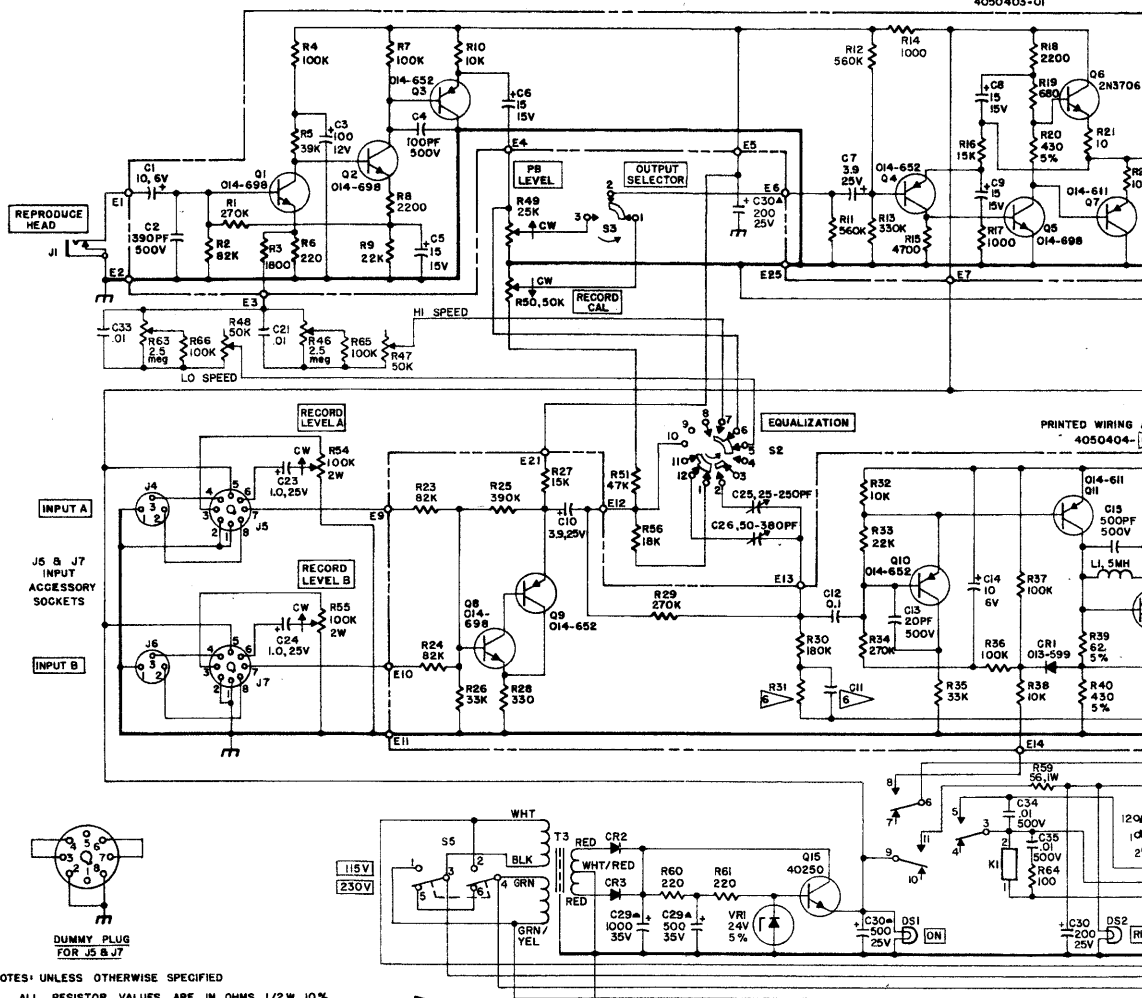
Fig. 7-5. Record/Reproduce Schematic Diagram, 3-3/4 to 15 ips, Domestic Equipment



DUMMY PLUG  
FOR J5 & J7

NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL RESISTOR VALUES ARE IN OHMS, 1/2 W.
2. ALL CAPACITOR VALUES ARE IN MICROFARADS.
3. ALL DIODES ARE TYPE 013-678.
4. ALL SWITCHES ARE IN CCW OR OFF POSITION.
5. FOR FIELD SERVICE ONLY:
  - Q1, Q2, Q5, Q8 MAY BE 2N3565 OR 2N3117.
  - Q3, Q4, Q9, Q10 MAY BE 2N3906.
  - Q7, Q11 MAY BE 2N3638.
  - Q12, Q13, Q14 MAY BE 2N2219.



- NOTES: UNLESS OTHERWISE SPECIFIED
1. ALL RESISTOR VALUES ARE IN OHMS, 1/2W, 10%.
  2. ALL CAPACITOR VALUES ARE IN MICROFARADS, 100V.
  3. ALL DIODES ARE TYPE 013-678.
  4. ALL SWITCHES ARE IN CGW OR OFF POSITION.
  5. FOR FIELD SERVICE ONLY:
    - Q1, Q2, Q5, Q8 MAY BE 2N3565 OR 2N3117.
    - Q3, Q4, Q9, Q10 MAY BE 2N3906.
    - Q7, Q11 MAY BE 2N3638.
    - Q12, Q13, Q14 MAY BE 2N2219.

FOR HAS EQUALIZATION		
REF DES	DESCRIPTION	ASSEMBLY
R31	180K	4050404-01
C11	.018	4050404-01

FOR CGIR EQUALIZATION		
REF DES	DESCRIPTION	ASSEMBLY
R31	SHORT	4050404-02
C11	OPEN	4050404-02

LAST REF DES USED	REF DES NOT USED
K1	R53
	S1
	C31
	C32
	J10
	T3
	S5
	VRI
	J11
	M1
	E25
	DS2

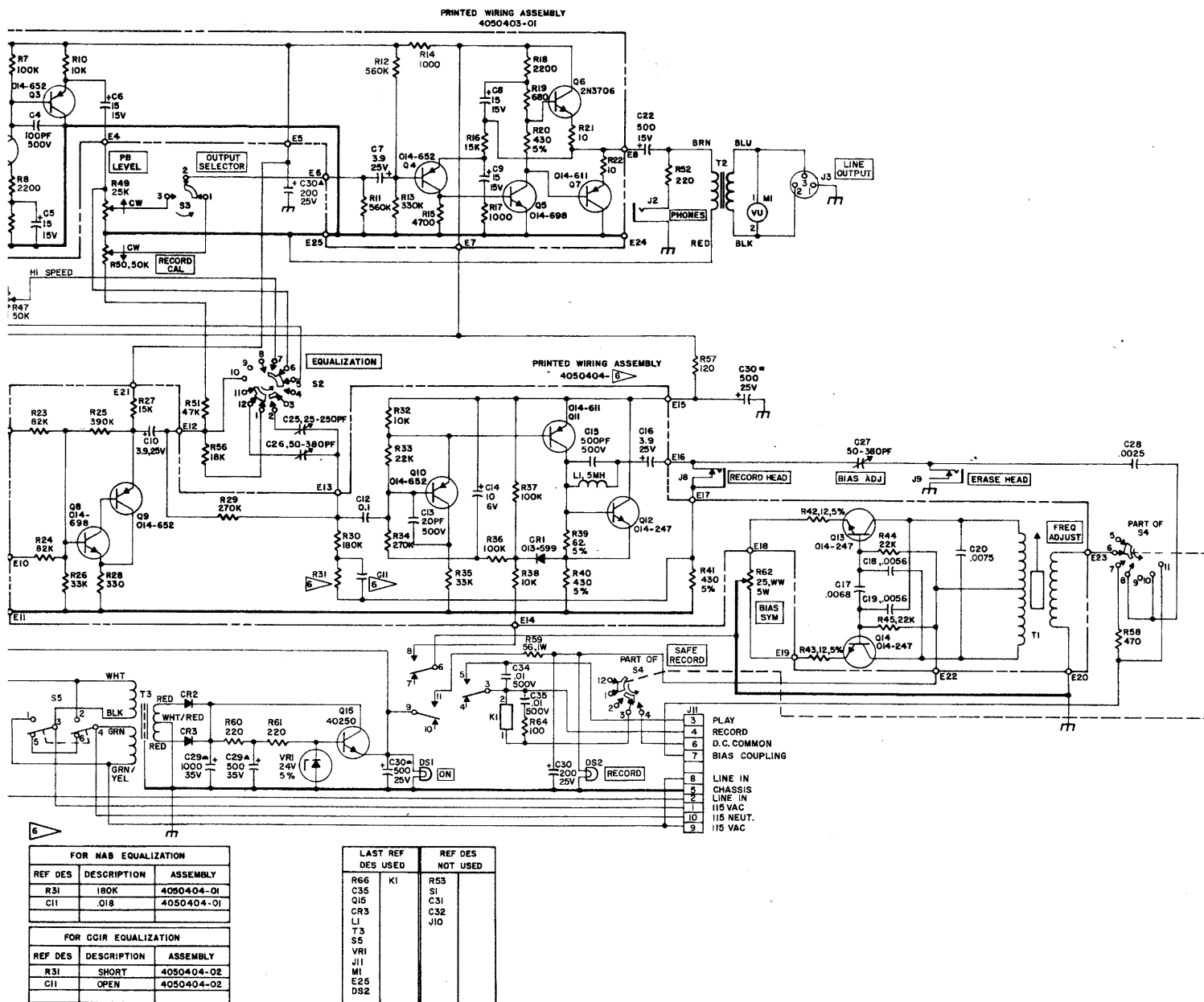
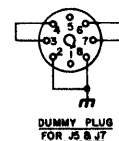
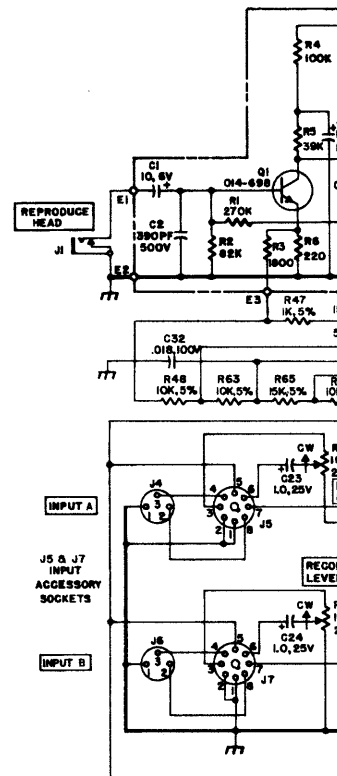
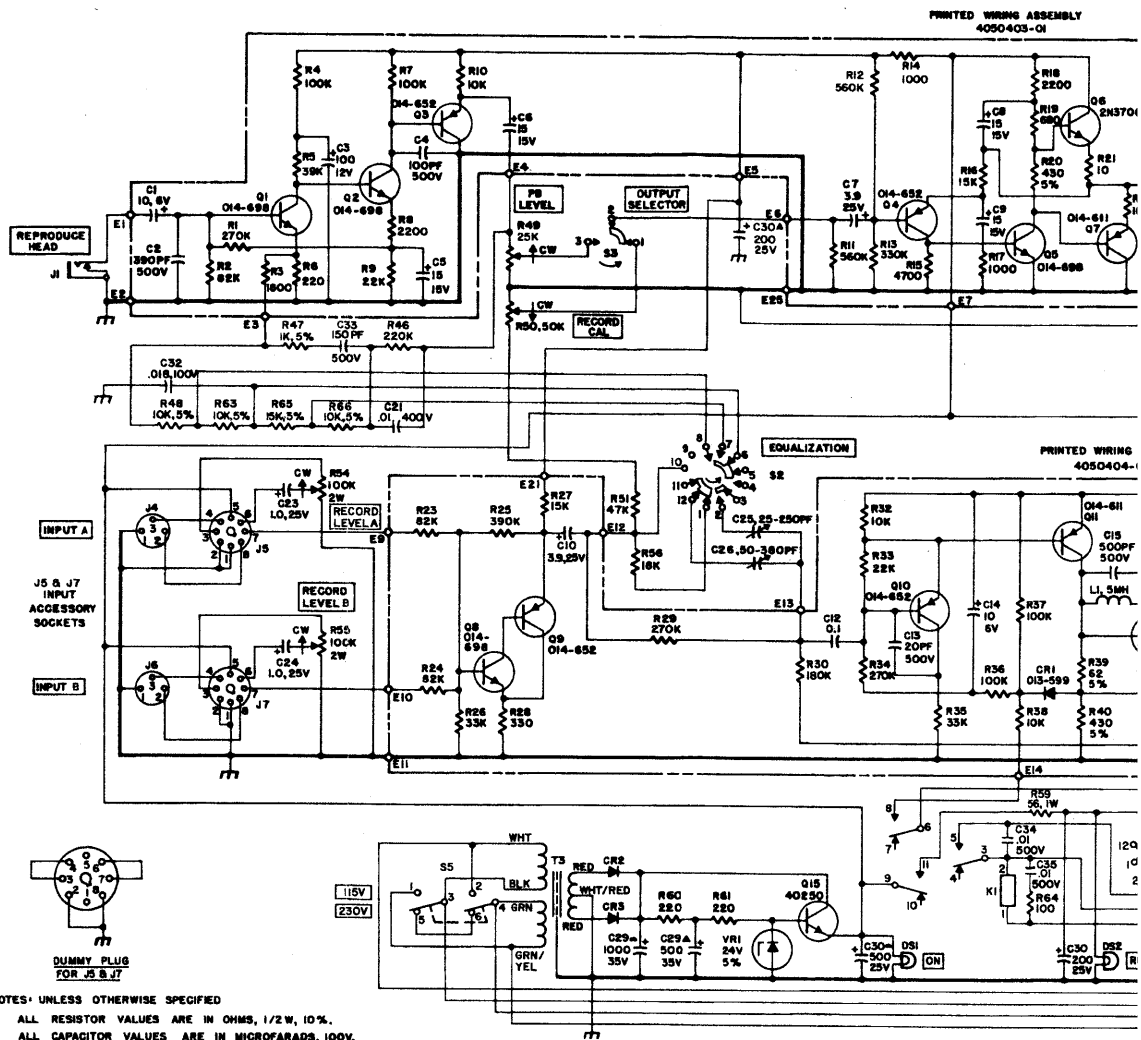


Fig. 7-7. Record/Reproduce Schematic Diagram,  
3-3/4 to 15 ips, International Equipment



- NOTES: UNLESS OTHERWISE SPECIFIED
1. ALL RESISTOR VALUES ARE IN OHMS, 1/2W, 10%.
  2. ALL CAPACITOR VALUES ARE IN MICROFARADS, 10%.
  3. ALL DIODES ARE TYPE 013-678.
  4. ALL SWITCHES ARE IN CW OR OFF POSITION.
  5. FOR FIELD SERVICE ONLY:
    - Q1, Q2, Q3, Q4 MAY BE 2N3565 OR 2N3117.
    - Q5, Q6, Q7, Q8 MAY BE 2N3906.
    - Q9, Q10 MAY BE 2N3638.
    - Q11, Q12 MAY BE 2N2219.

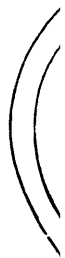


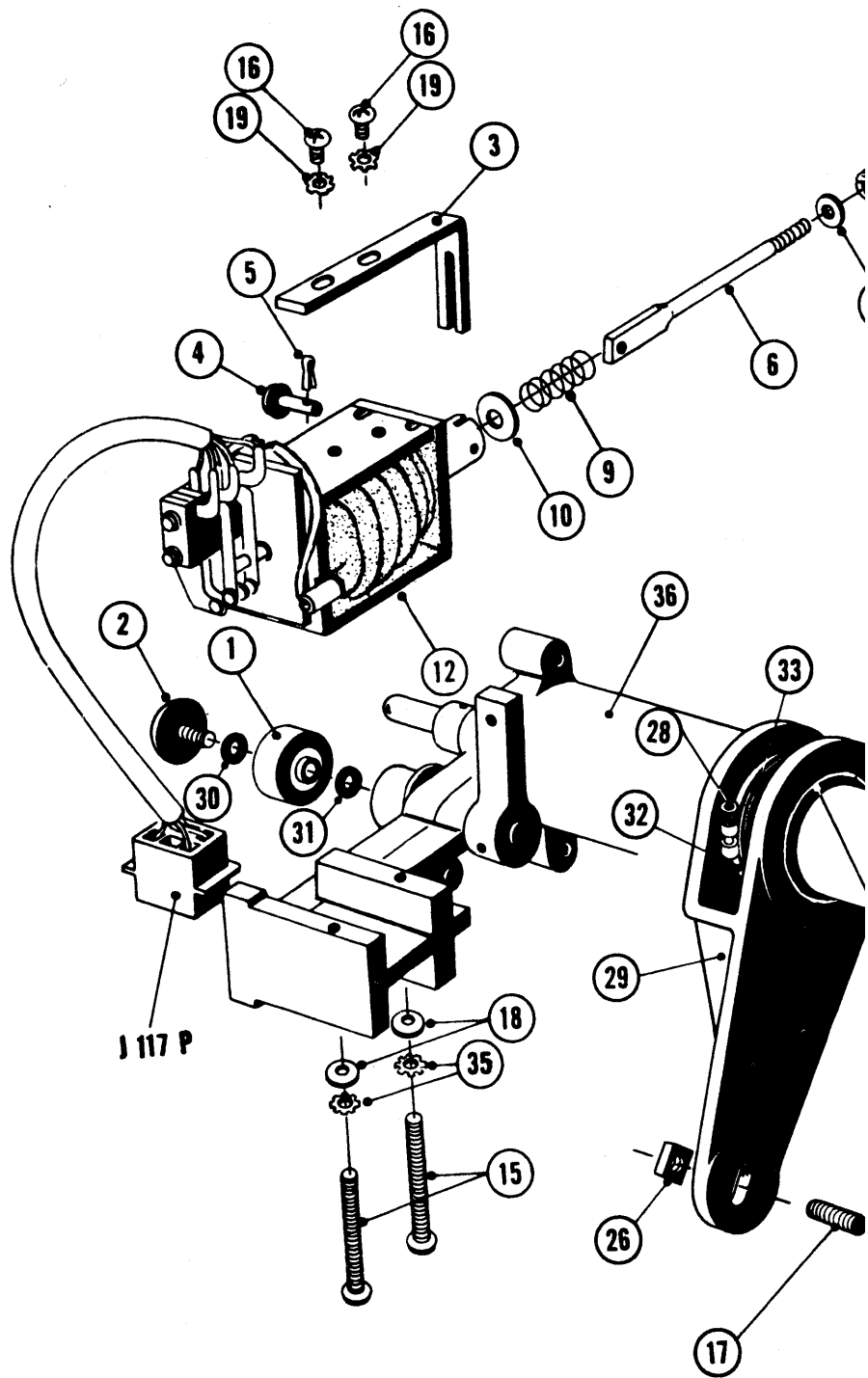
LAST REF DES USED	REF DES NOT USED
R66	K1
C35	S1
Q15	R31
CR3	CH
L2	J10
T3	
S5	
VRI	
J11	
M1	
E25	
DS2	

Fig. 7









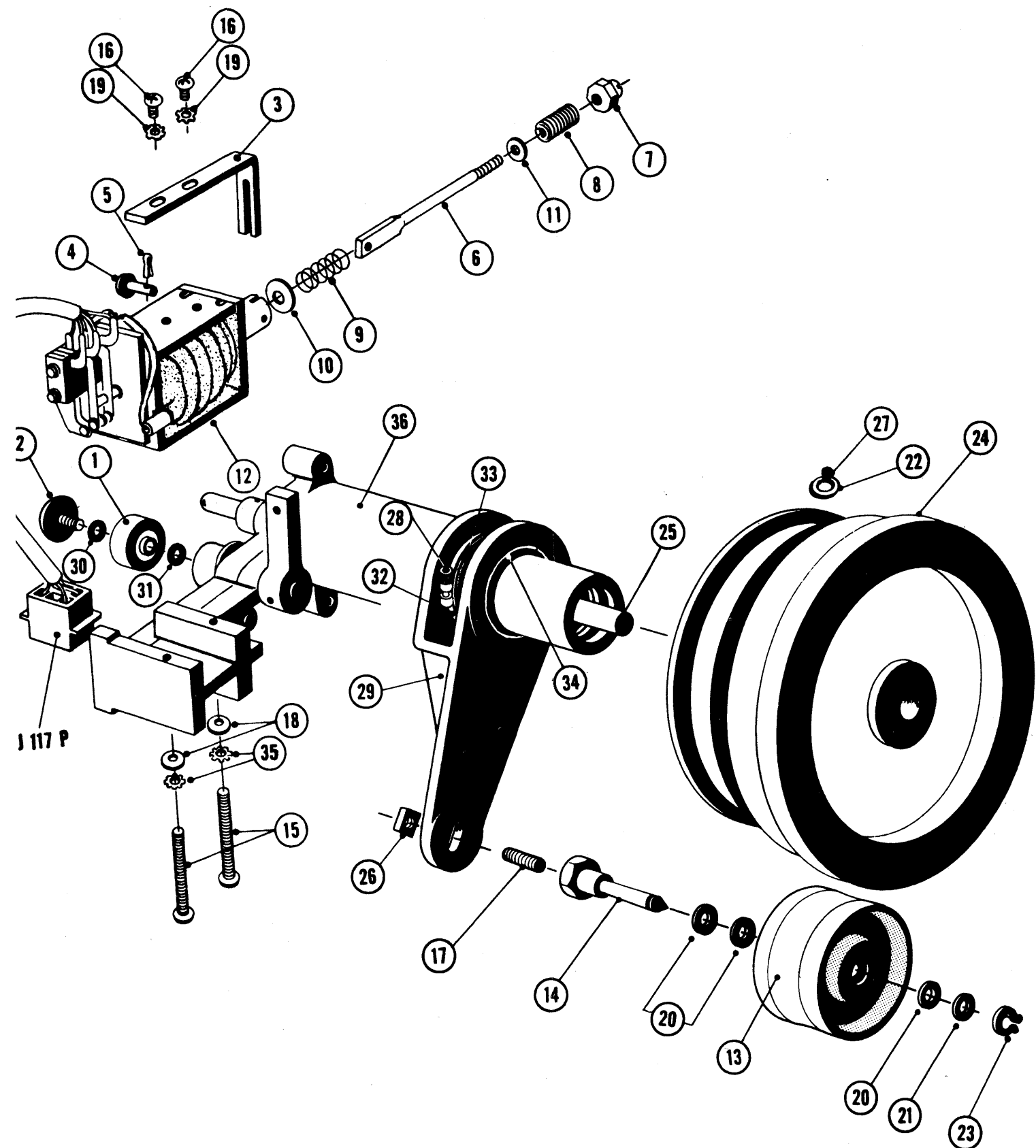
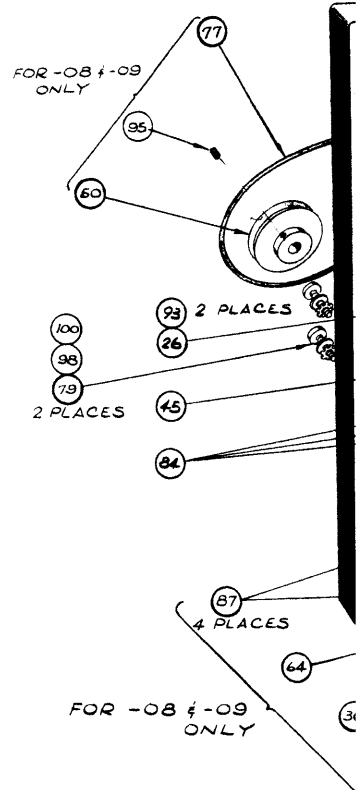


Fig. 7-15. Capstan Assembly



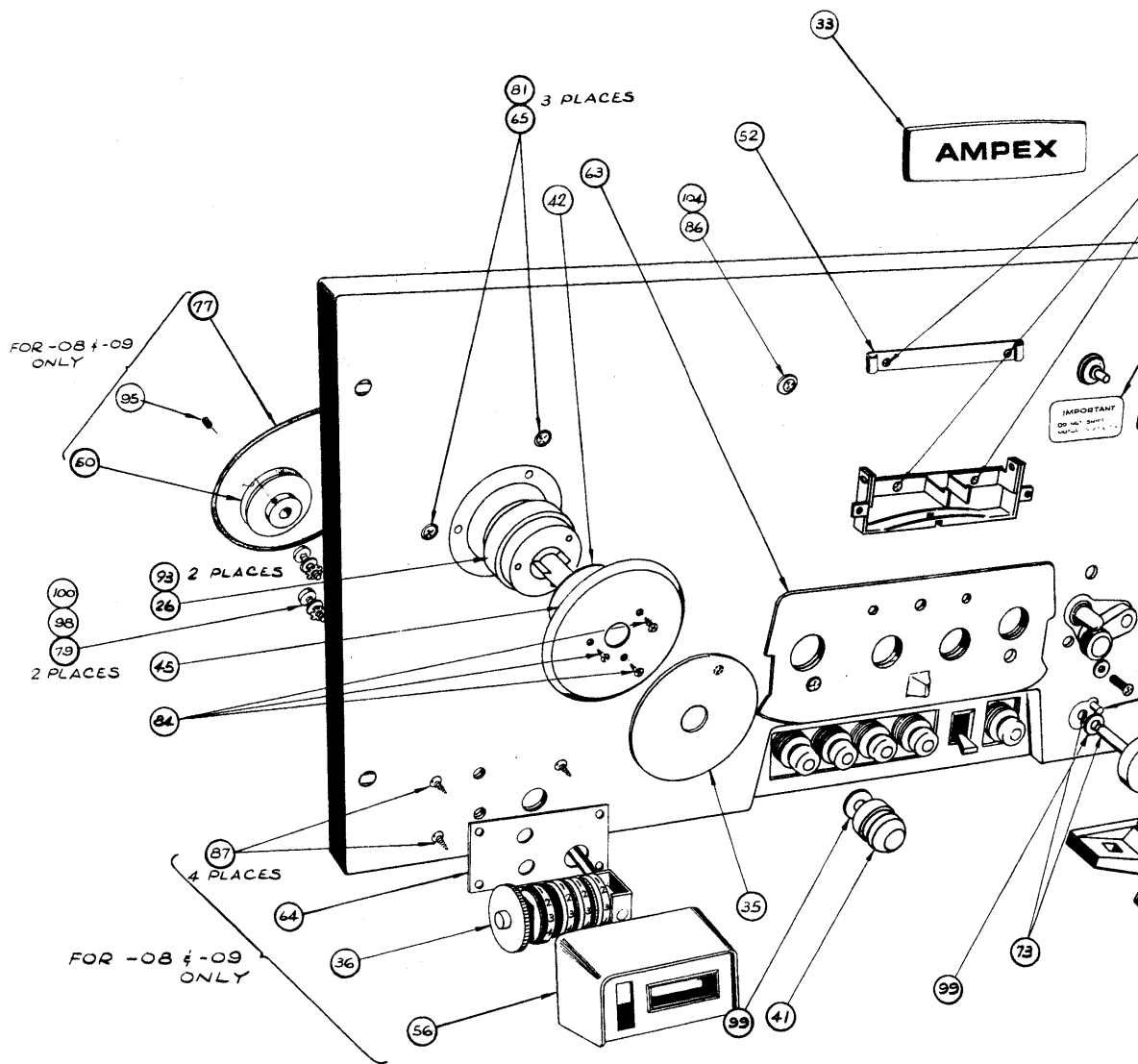


TABLE I			
ASSY NO.	SPEED	CYCLE	USED ON
4020061-01	7 1/2 ~ 15	60	DOM.
4020061-02	7 1/2 ~ 15	50	INT.
4020061-03	3 3/4 ~ 7 1/2	60	DOM.
4020061-04	3 3/4 ~ 7 1/2	50	INT.
4020061-05	7 1/2 ~ 15	60	INT.
4020061-06	3 3/4 ~ 7 1/2	60	INT.
4020061-07	1 7/8 ~ 3 3/4	60	DOM.
4020061-08	15/16 ~ 1 7/8	60	DOM.
4020061-09	15/16 ~ 1 7/8	50	INT.
4020061-10	7 1/2 ~ 15	50	DOM.
4020061-11	3 3/4 ~ 7 1/2	50	DOM.
4020061-12	7 1/2 ~ 15	60	DOM. (PD-10)
4020061-13	7 1/2 ~ 15	50	DOM. (PD-10)

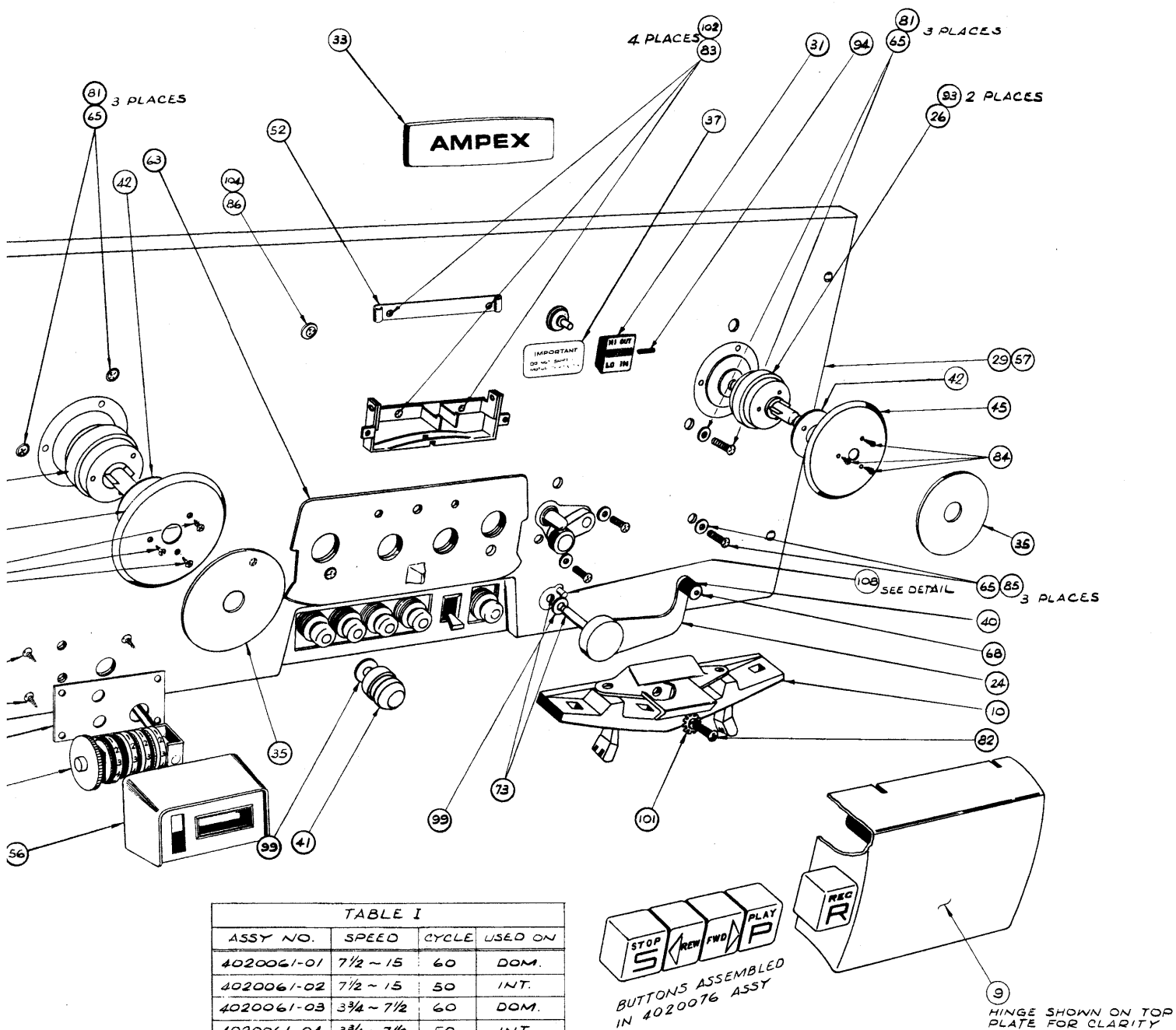


TABLE I			
ASSY NO.	SPEED	CYCLE	USED ON
4020061-01	7 1/2 ~ 15	60	DOM.
4020061-02	7 1/2 ~ 15	50	INT.
4020061-03	3 3/4 ~ 7 1/2	60	DOM.
4020061-04	3 3/4 ~ 7 1/2	50	INT.
4020061-05	7 1/2 ~ 15	60	INT.
4020061-06	3 3/4 ~ 7 1/2	60	INT.
4020061-07	1 1/3 ~ 3 3/4	60	DOM.
4020061-08	15/16 ~ 1 1/8	60	DOM.
4020061-09	15/16 ~ 1 1/8	50	INT.
4020061-10	7 1/2 ~ 15	50	DOM.
4020061-11	3 3/4 ~ 7 1/2	50	DOM.
4020061-12	7 1/2 ~ 15	60	DOM. (PD-10)
4020061-13	7 1/2 ~ 15	50	DOM. (PD-10)

Fig. 7-9. Tape Transport Assembly, Sheet 1

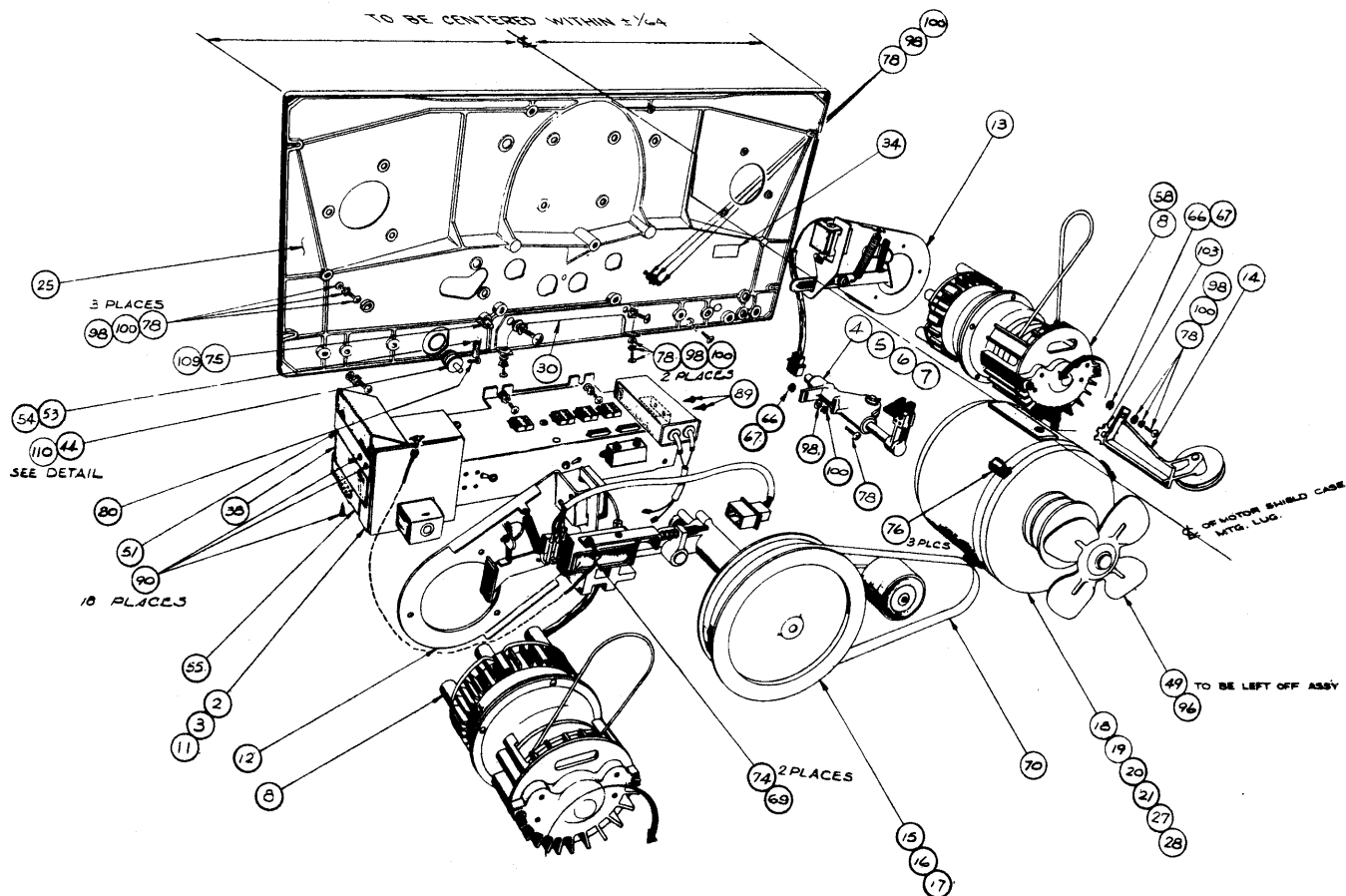
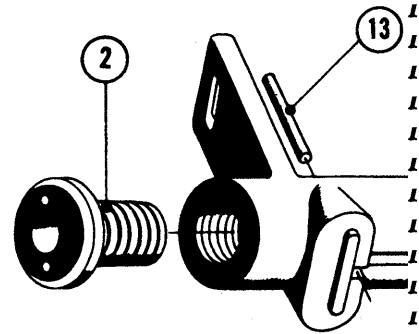
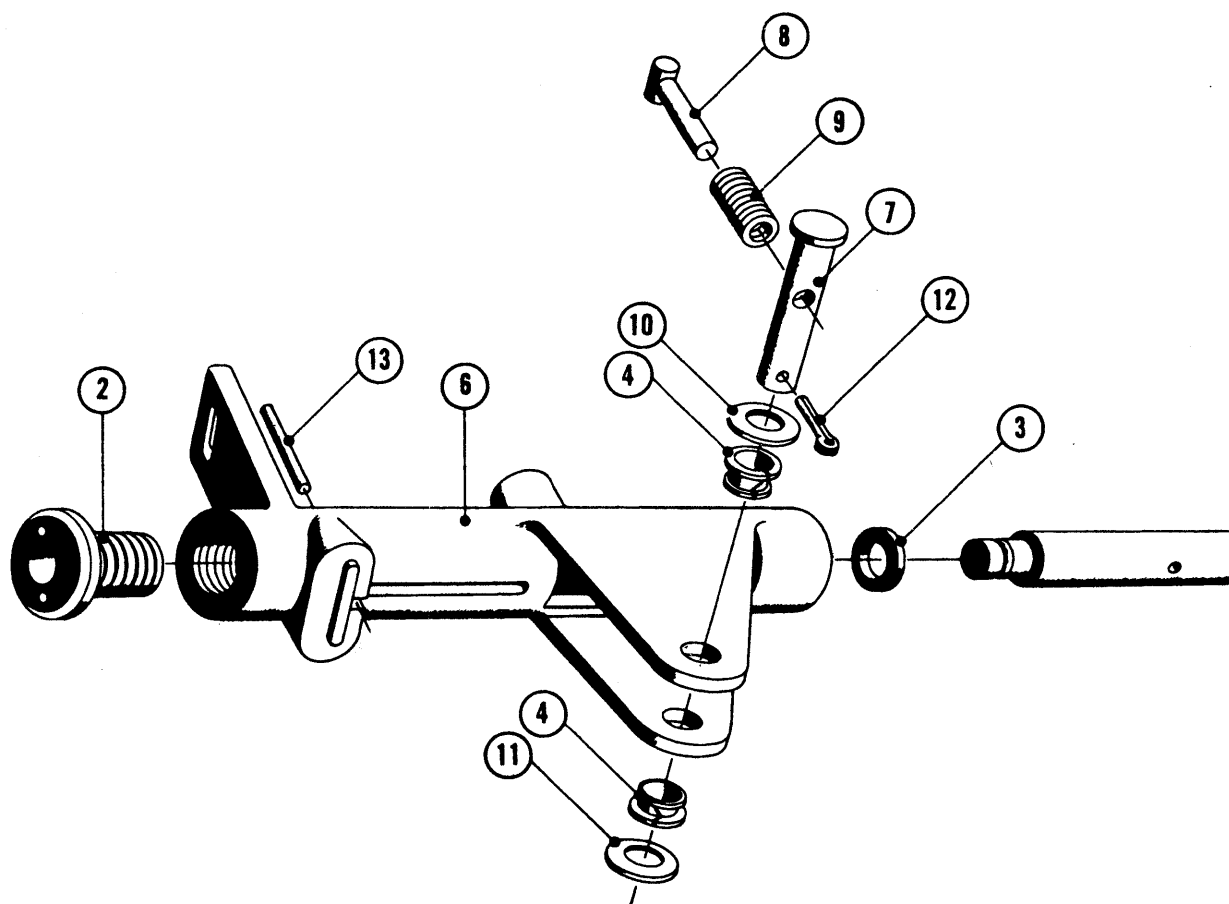


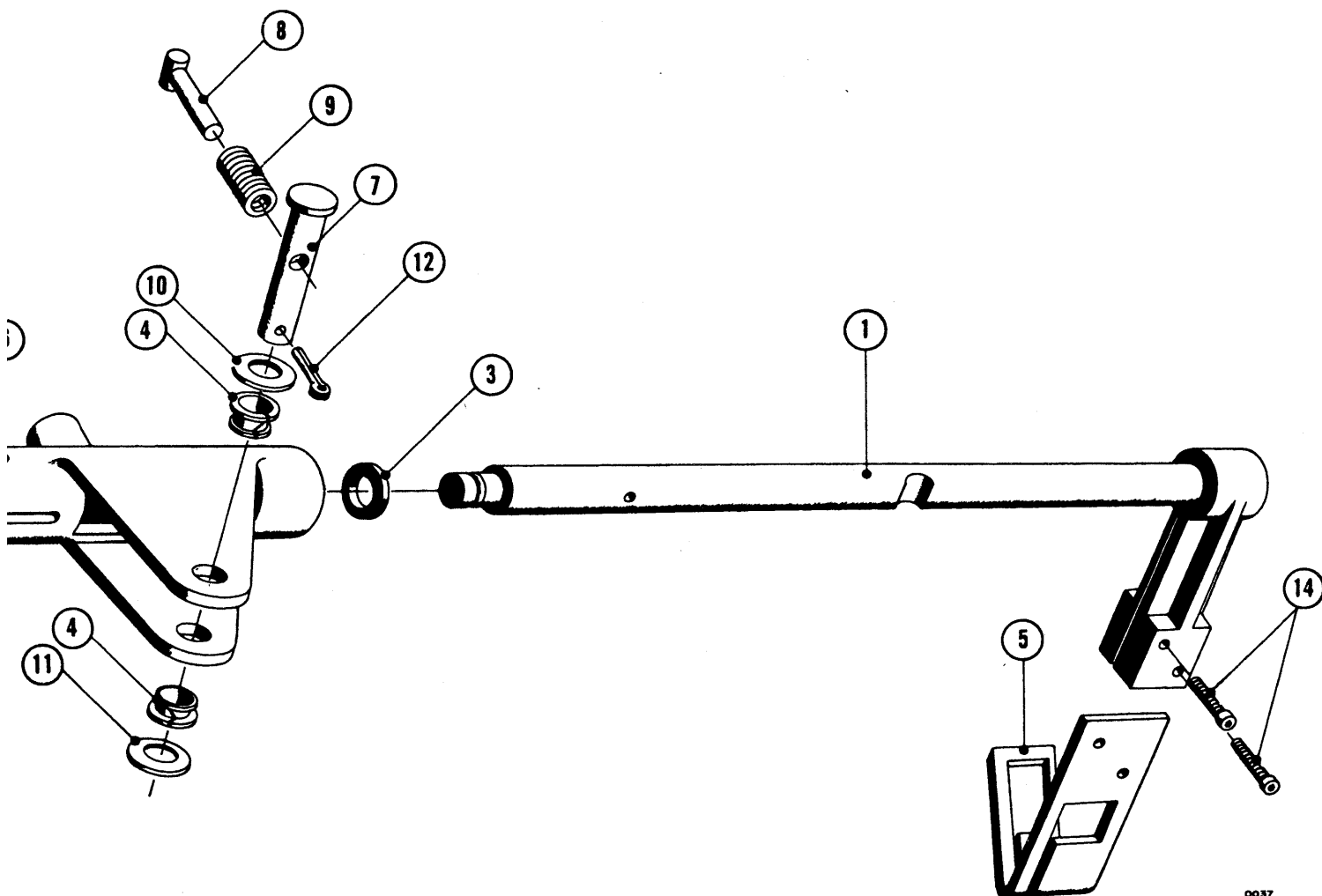
Fig. 7-10. Tape Transport Assembly, Sheet 2





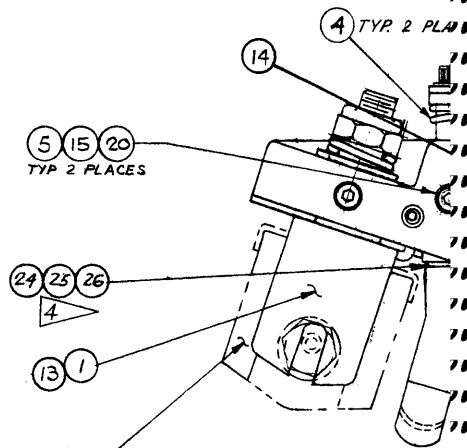
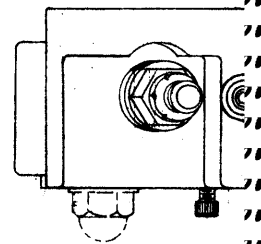


*Fig.*

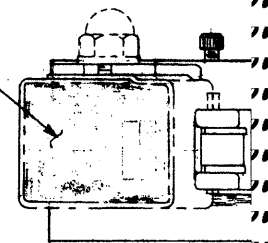


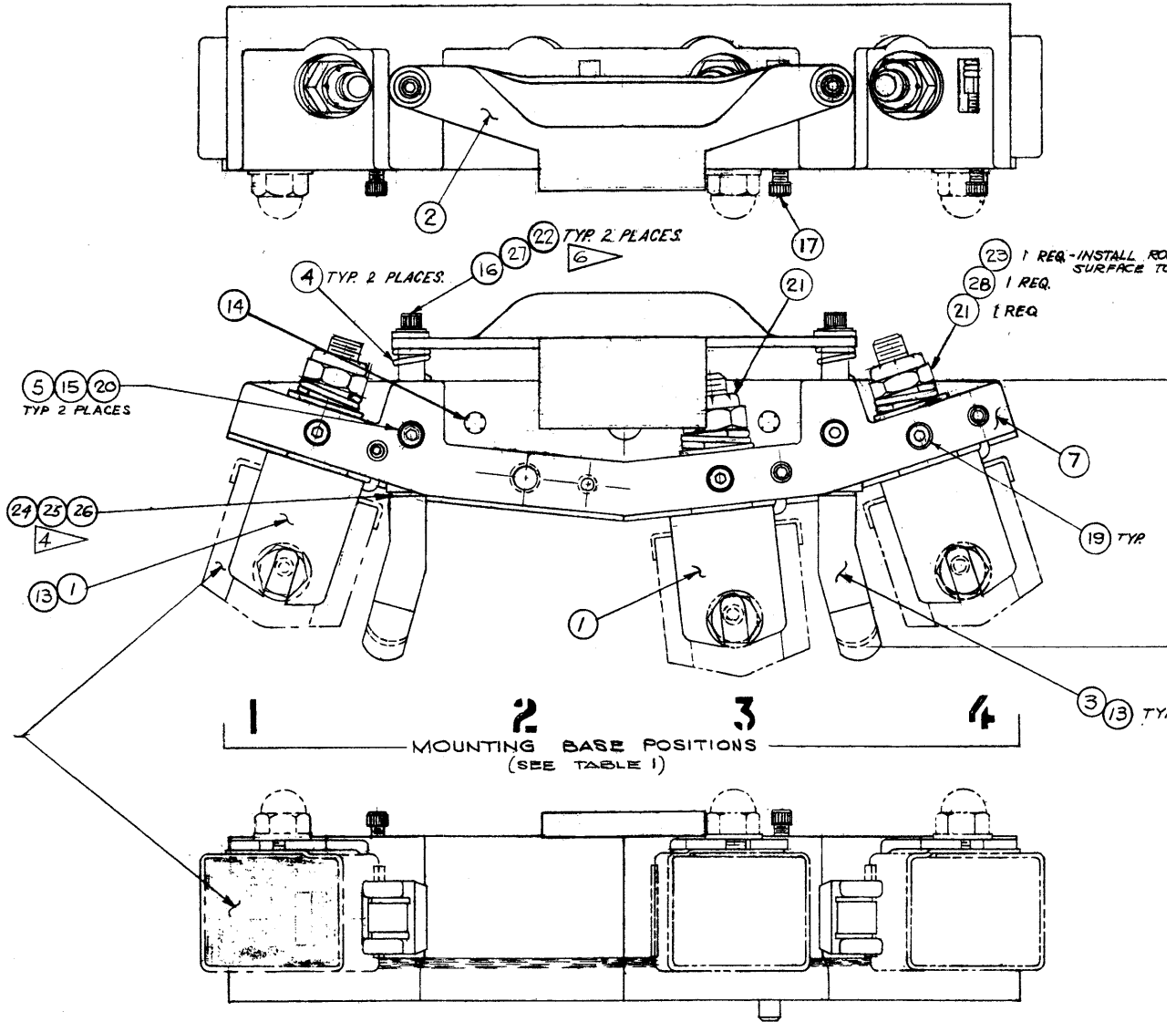
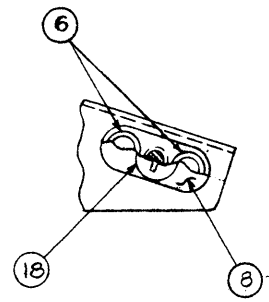
0037

Fig. 7-11. Speed Change Mechanism Assembly



LOCATION OF HEADS &  
HARDWARE SHOWN FOR  
CLARITY.





LOCATION OF HEADS &  
HARDWARE SHOWN FOR  
CLARITY.

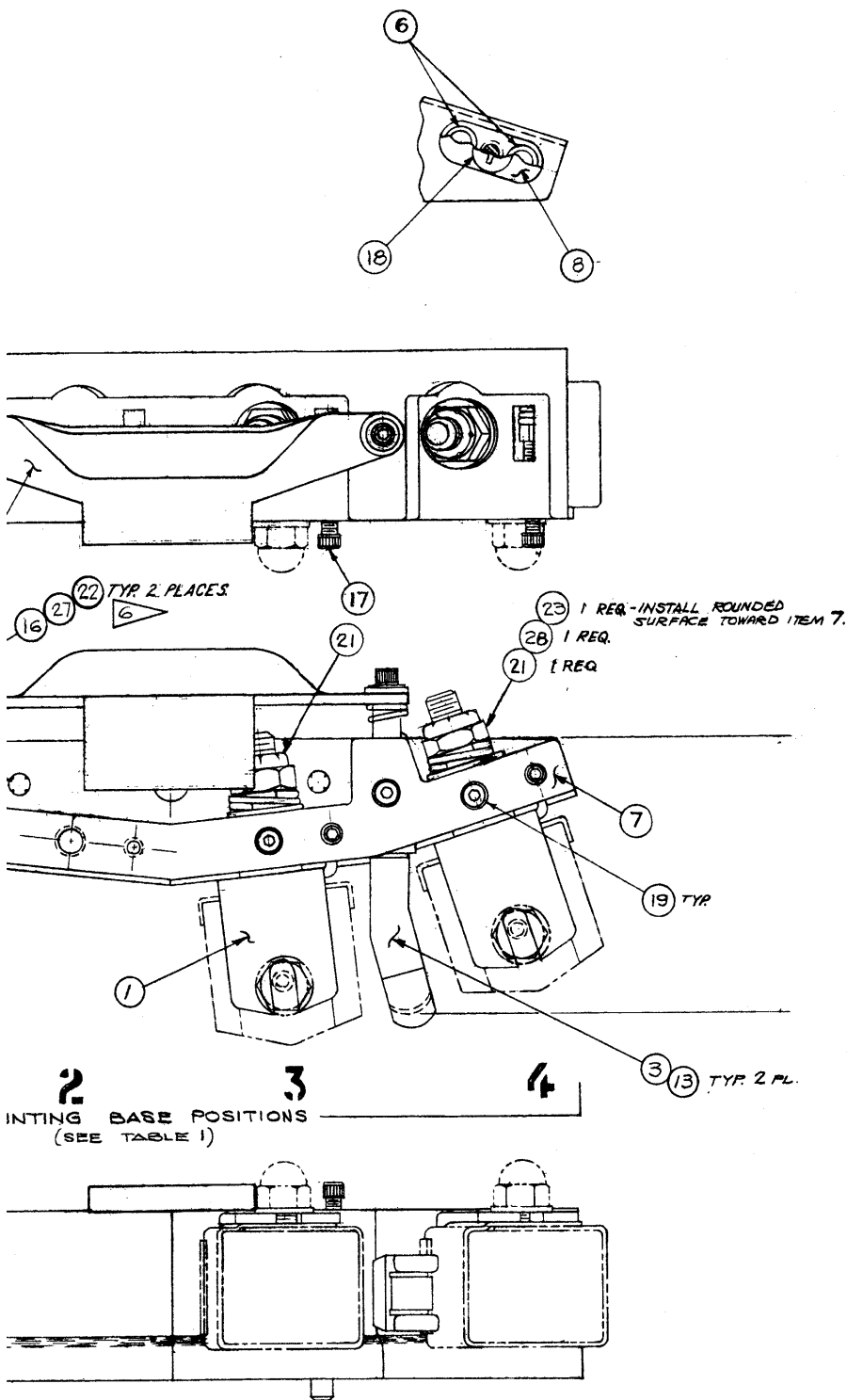


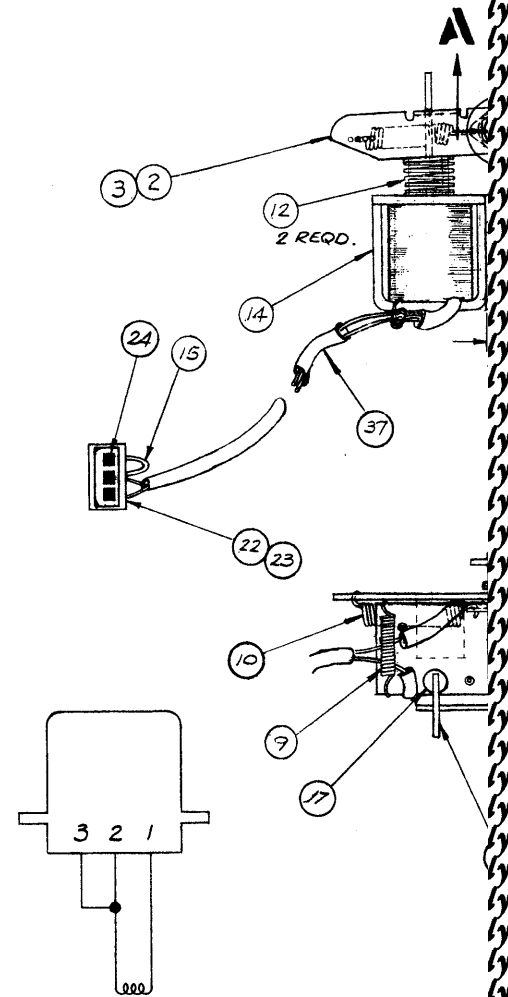
TABLE II

MODEL	NEXT ASSEMBLY
PR-10 CL-18	02-96200
AG-500 AL-500	4020061
GS-80	4020238
AG-300 HEAD 364 HEAD	02-96620

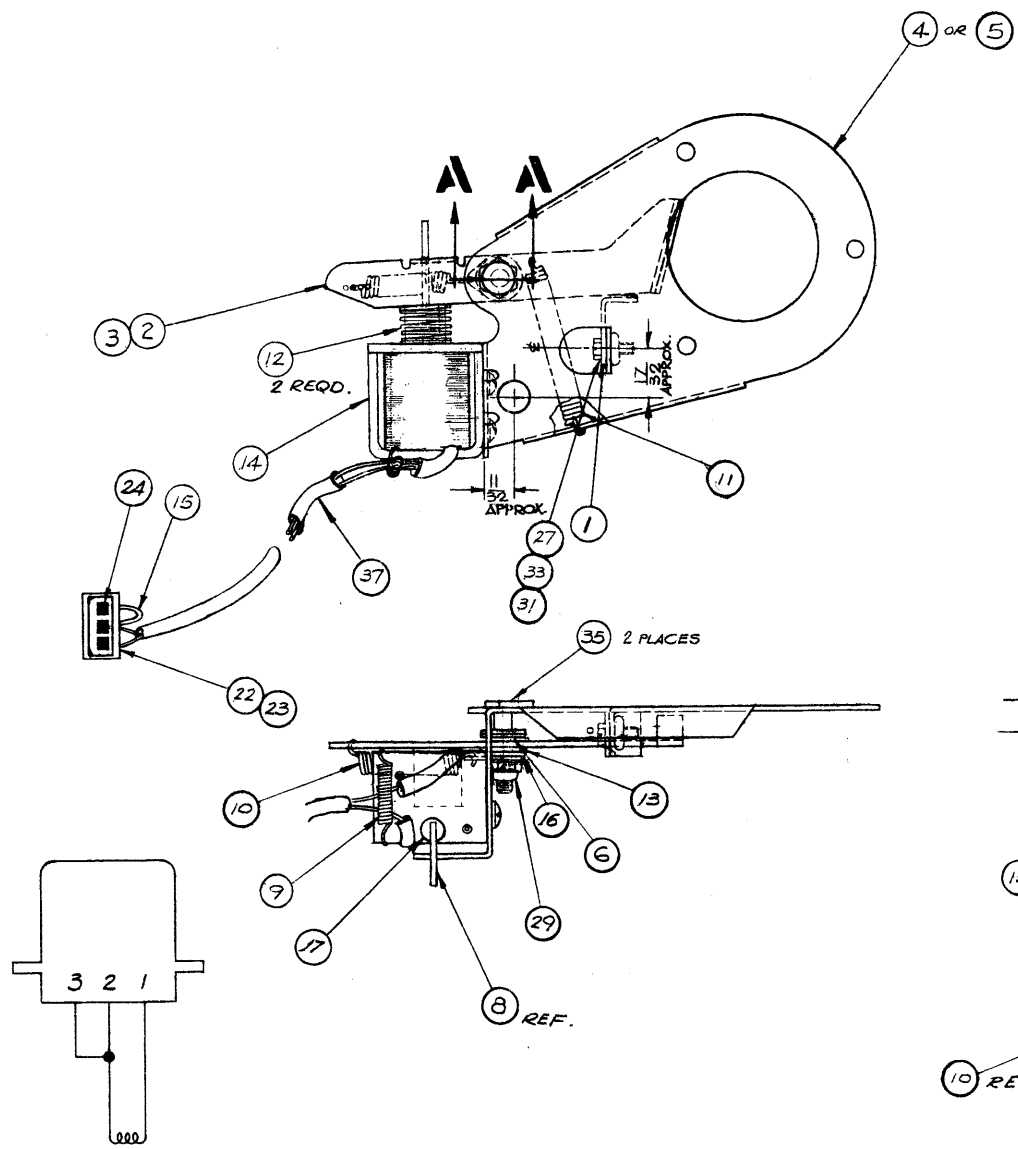
TABLE I

DASH N°.	POSITIONS			
	1	2	3	4
-40	X	-	X	X
-50	X	X	X	X
-60	-	X	X	-

'X' INDICATES INSTALLATION, IN THIS POSITION OF ITEMS 1, 6 (2 PL), 8, 18, 19, 17, 21, 23 & 28.

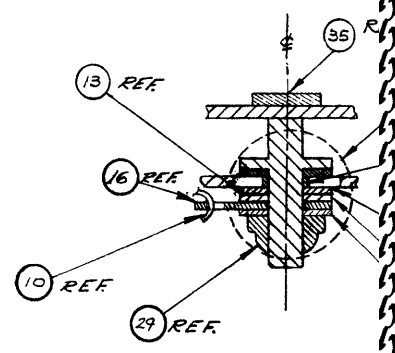


SCHEMATIC

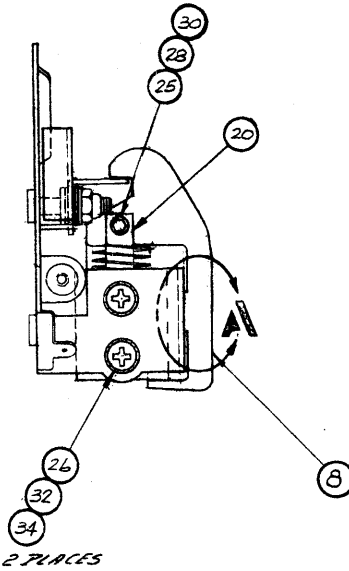
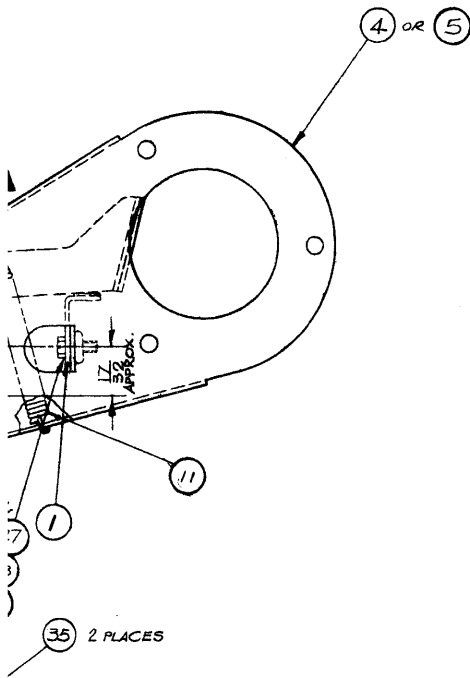


SCHEMATIC

-40 SUPPLY BR.  
-30 TAKE UP BR.



SECTION A-A  
SCALE 2/1



-40 SUPPLY BRAKE ASSY SHOWN  
-30 TAKE UP BRAKE ASSY OPPOSITE

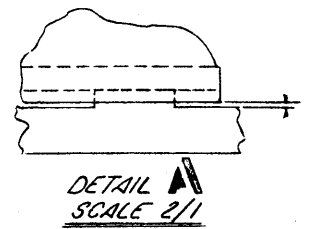
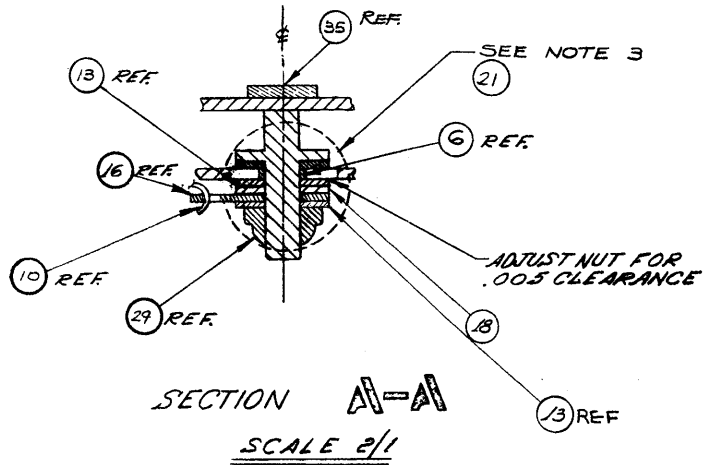
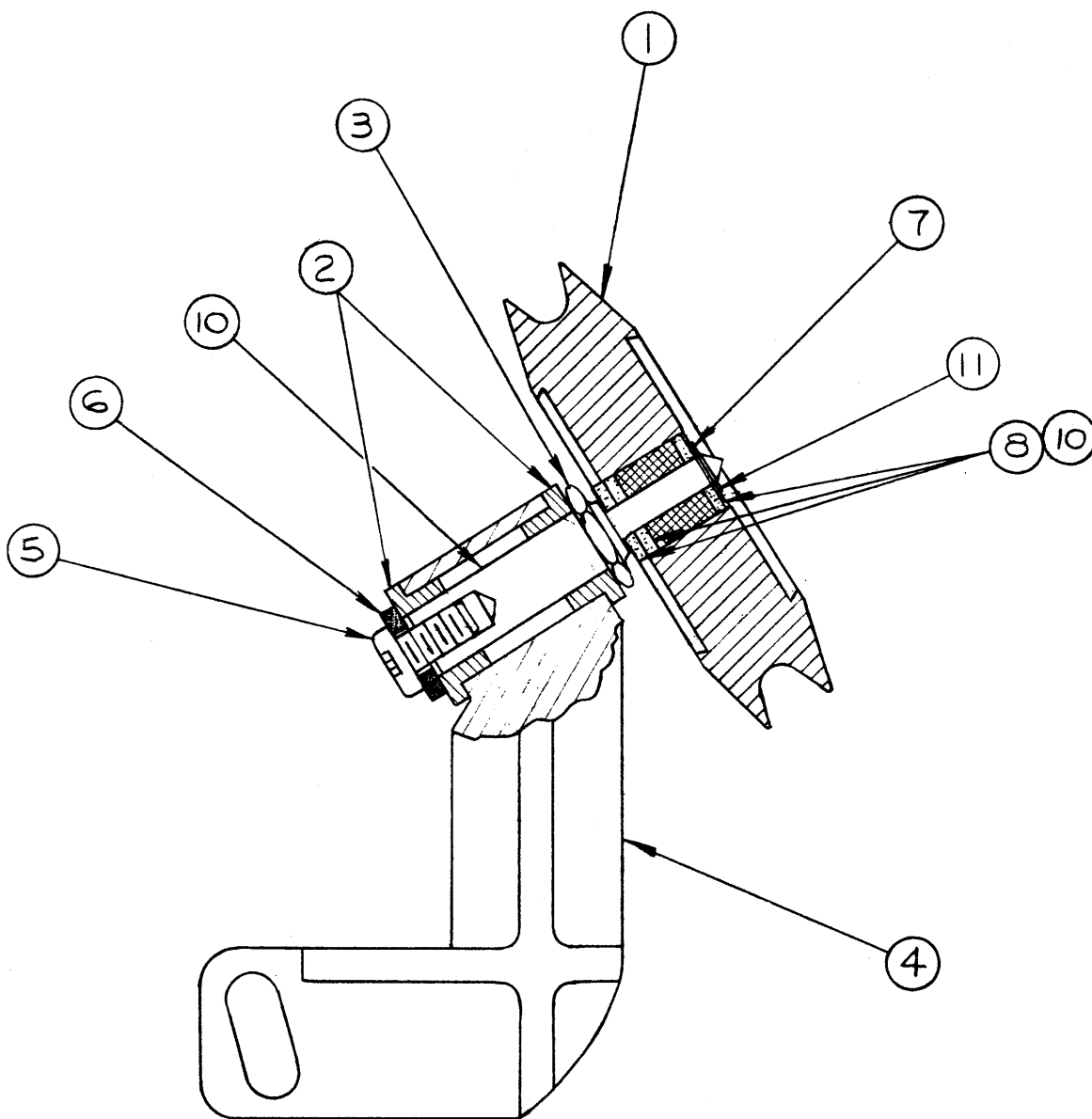
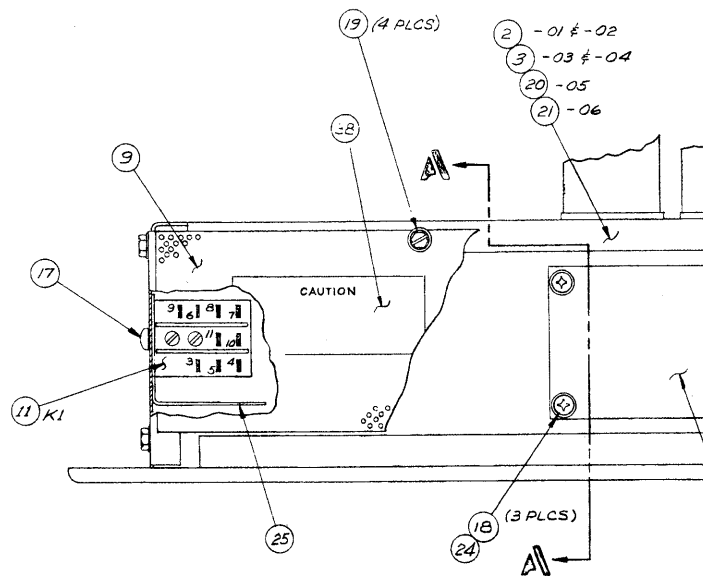


Fig. 7-13. Brake Assembly.

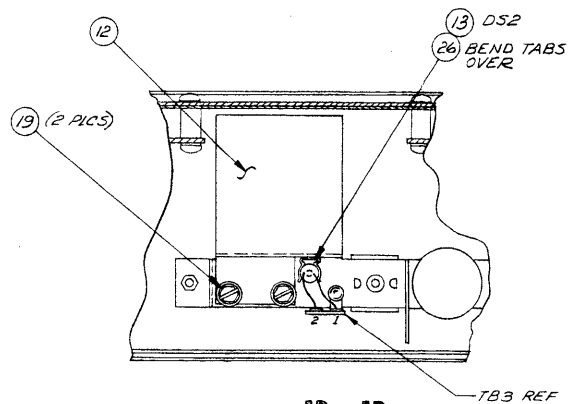




**Fig. 7-14. Belt Separator Assembly**

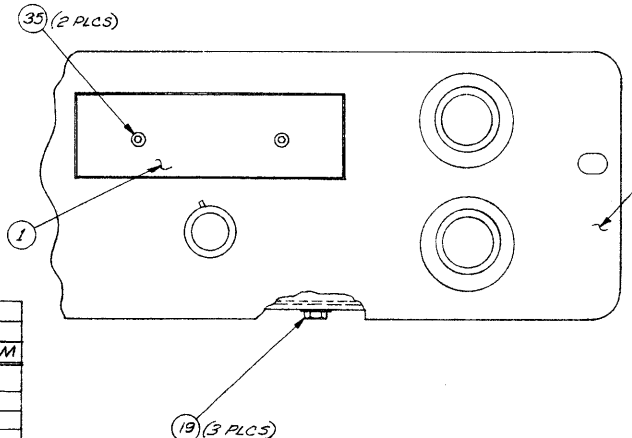
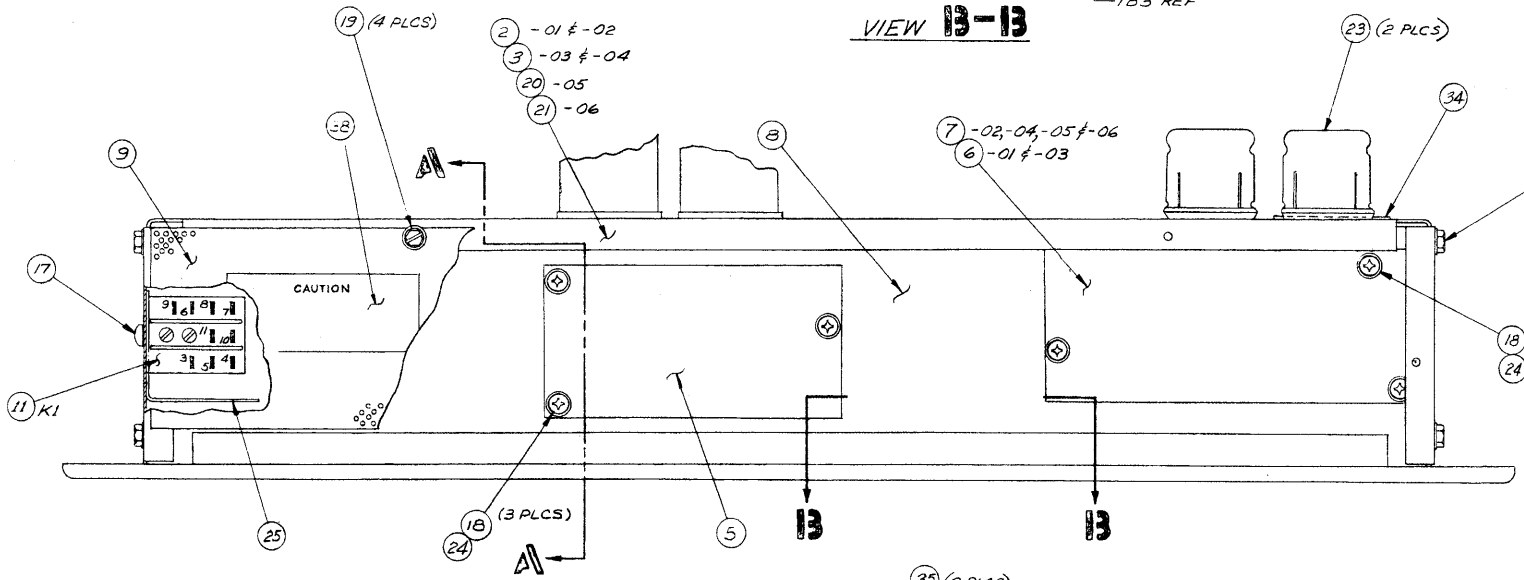


CONNECTION		
ITEM NO.	SCHEM. REF	COMPC
14	C34	KI
14	C35	KI
15	R64	KI
36	R59	KI
37	JUMPER	KI
37	JUMPER	KI

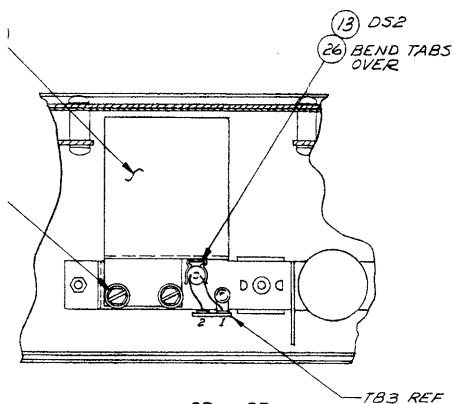


PART NO.	DESC
4020256-01	DOMEST
4020256-02	DOMEST
4020256-03	INT'L N
4020256-04	INT'L C
4020256-05	DOMEST
4020256-06	INT'L 15

VIEW 13-13

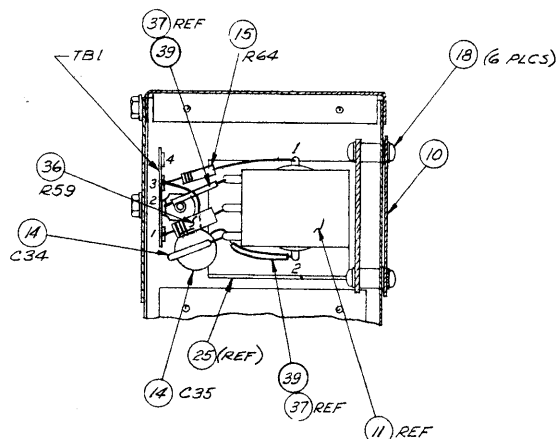
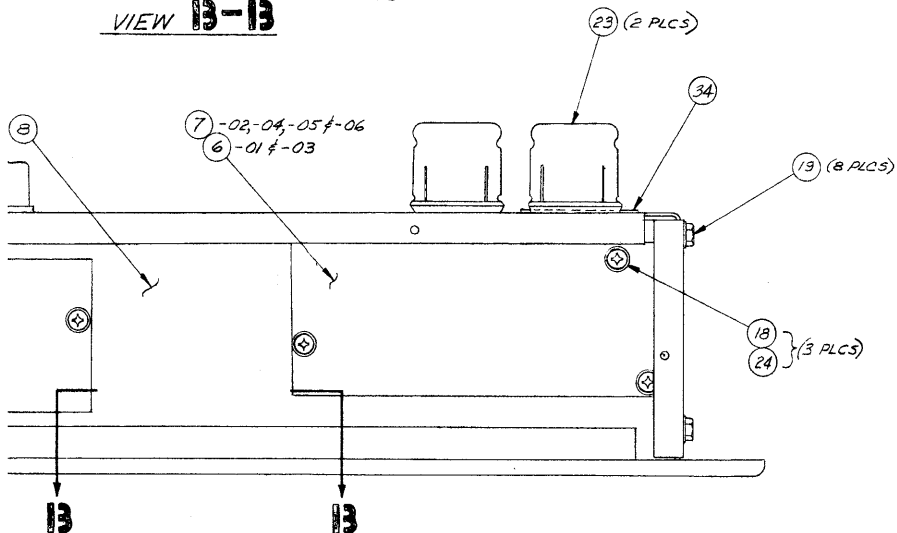


CONNECTION TABLE					
ITEM NO.	SCHEM. REF.	FROM		TO	
		COMPON.	TERM	COMPON.	TERM
14	C34	KI	3	KI	5
14	C35	KI	3	TBI	3
15	R64	KI	1	TBI	3
36	R59	KI	11	TBI	1
37	JUMPER	KI	2	KI	3
37	JUMPER	KI	6	TBI	2

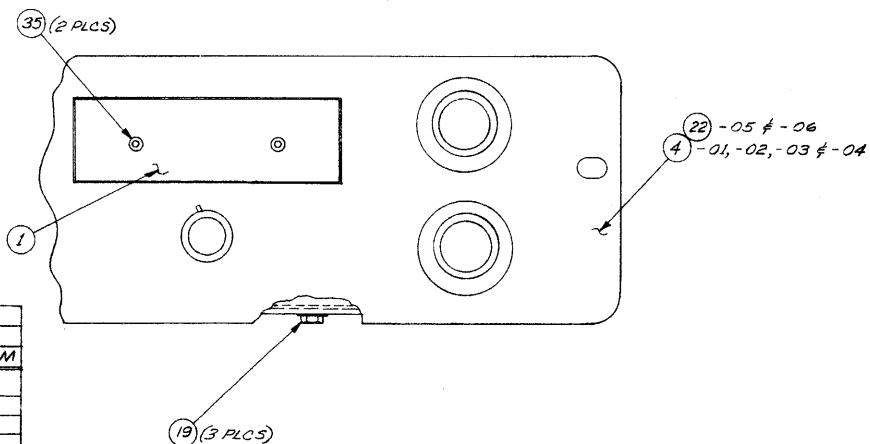


PART NO.	DESCRIPTION
4020256-01	DOMESTIC NAB 3 3/4 TO 15 I.P.S.
4020256-02	DOMESTIC CCIR " "
4020256-03	INT'L NAB " "
4020256-04	INT'L CCIR " "
4020256-05	DOMESTIC 15/16 - 1 7/8 IPS
4020256-06	INT'L 15/16 - 1 7/8 IPS

VIEW 13-13

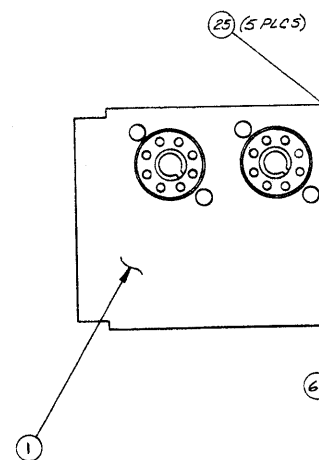


SEC A-A



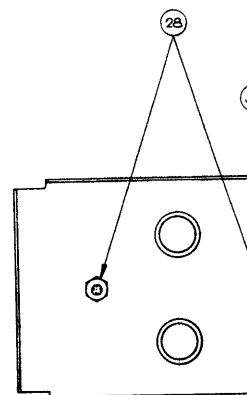
FILE	TO
VI	COMPN. TERM
KI	5
TBI	3
TBI	3
TBI	1
KI	3
TBI	2

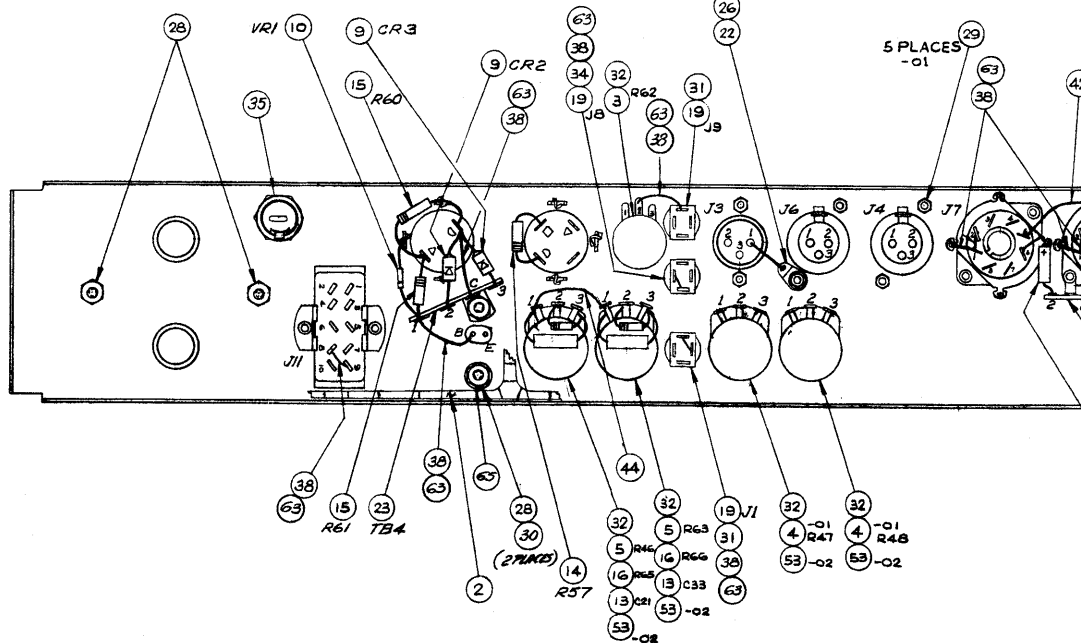
Fig. 7-16. Electronic Assembly

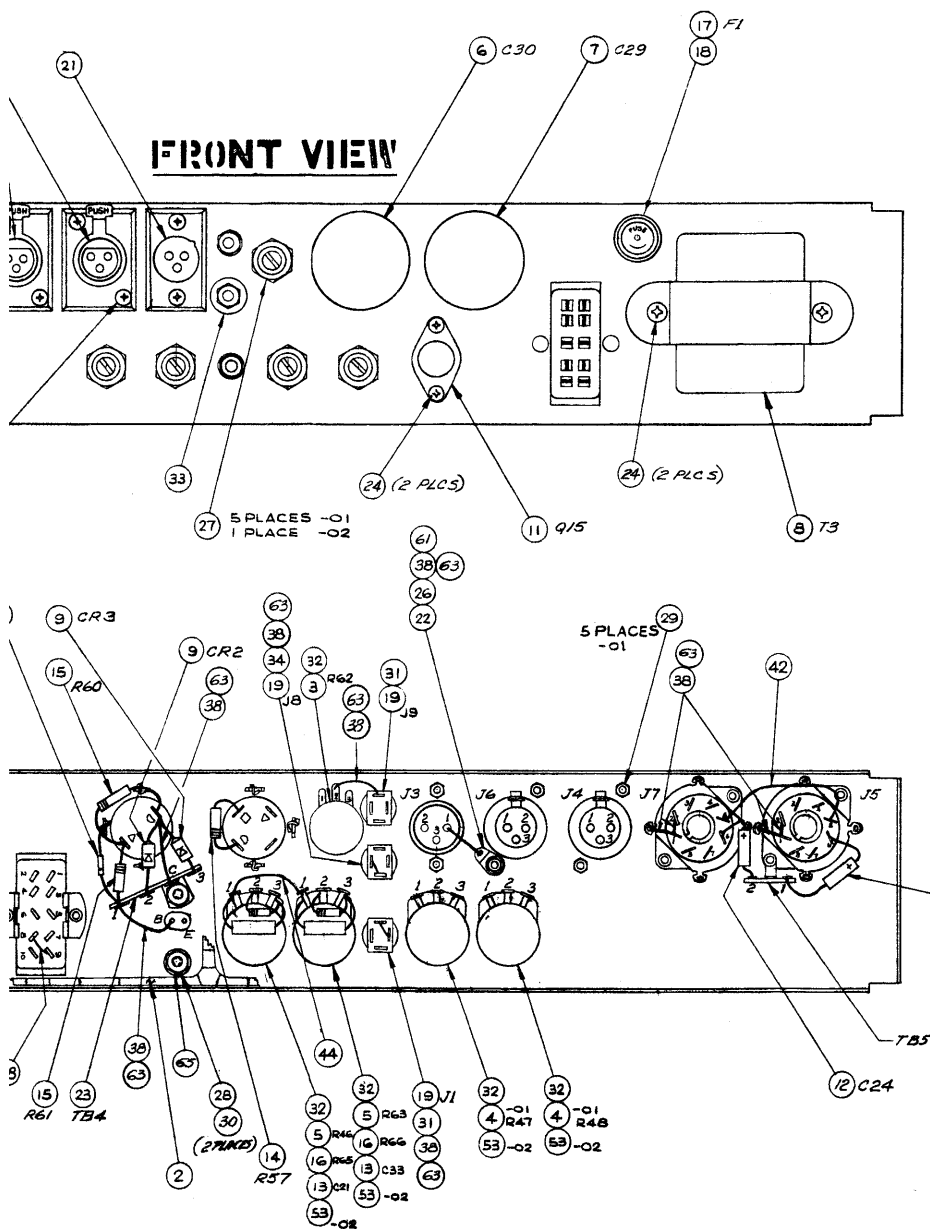


**-01 SHOWN**  
 3 3/4 TO 15 LRS.

**REAR VIEW**  
 (ROTATED 180°)

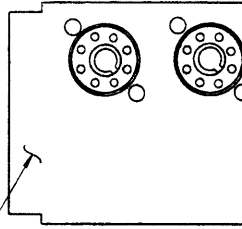






**Fig. 7-17. Panel Assembly, rear (Domestic)**

**FRONT VIEW**

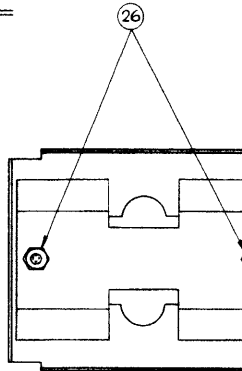


**-OI SHOWN**

*3 3/4 TO 15 I.P.S.*

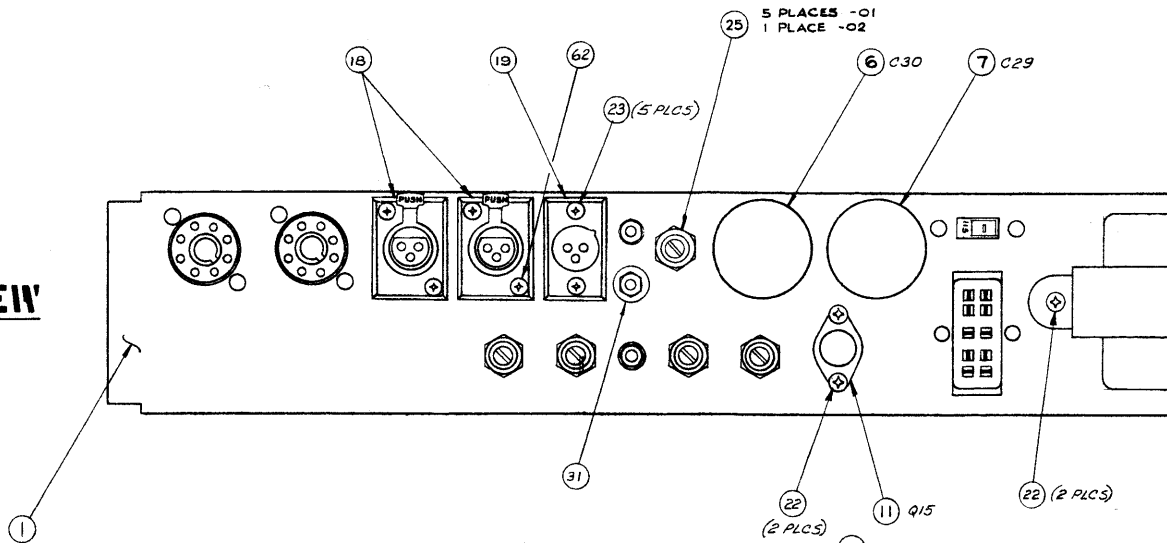
**REAR VIEW**

*ROTATED 180°*





# FRONT VIEW

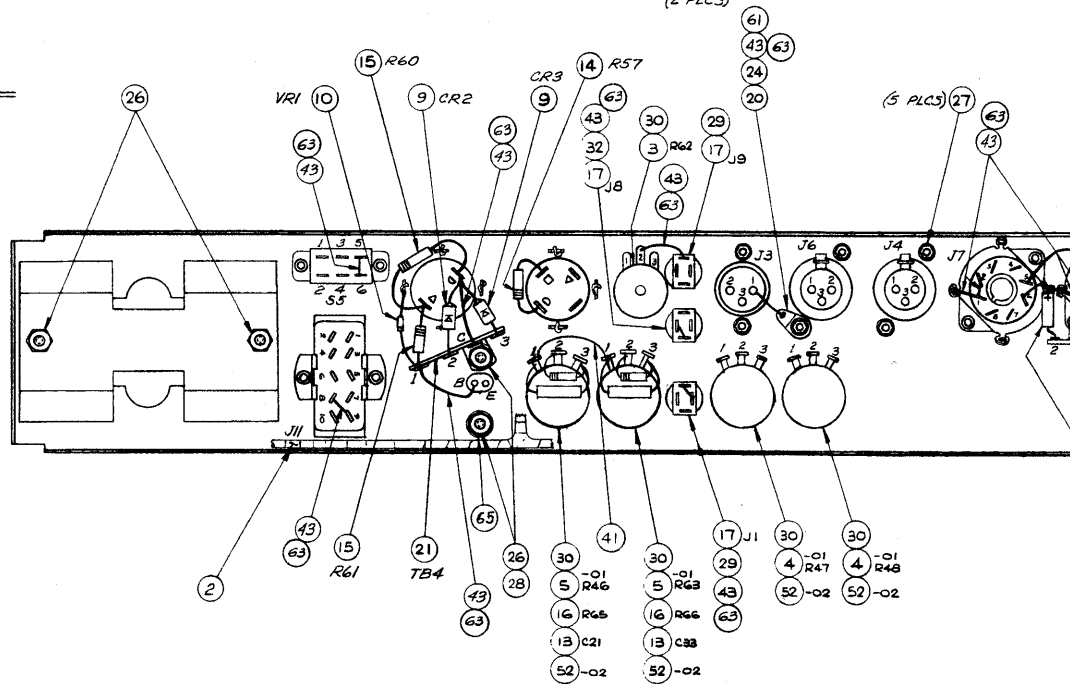


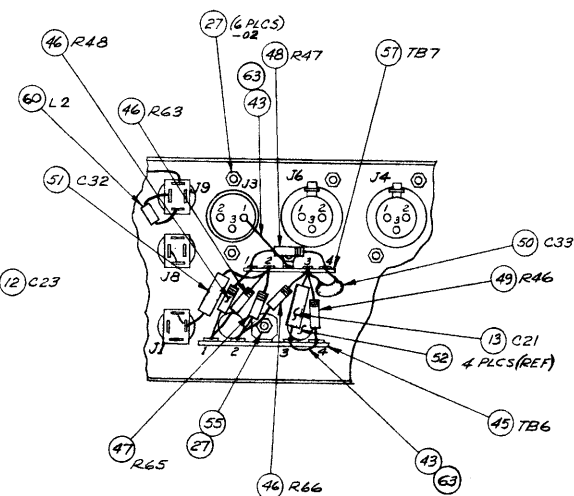
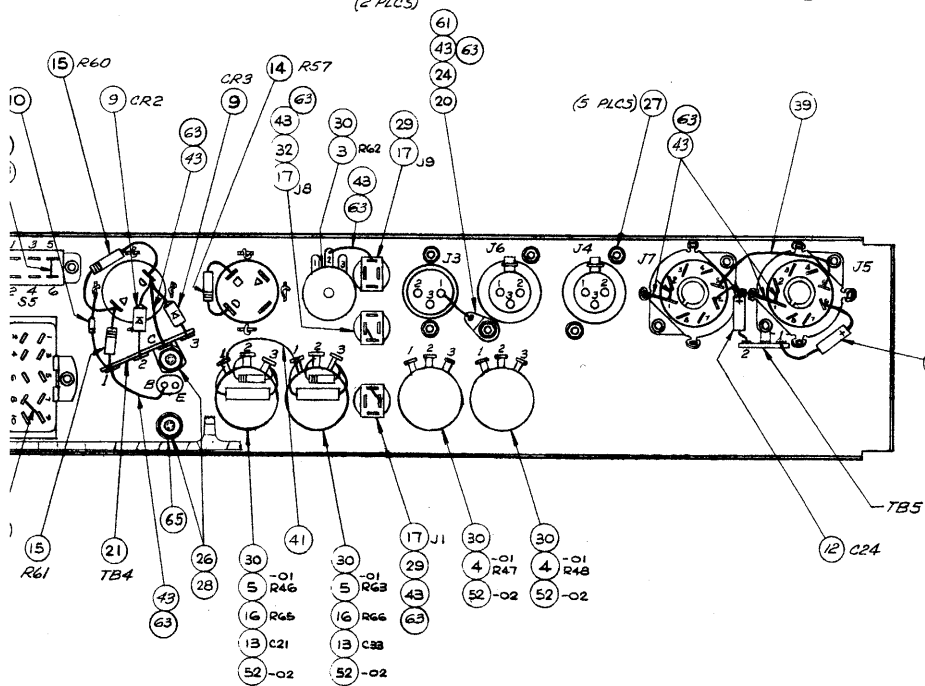
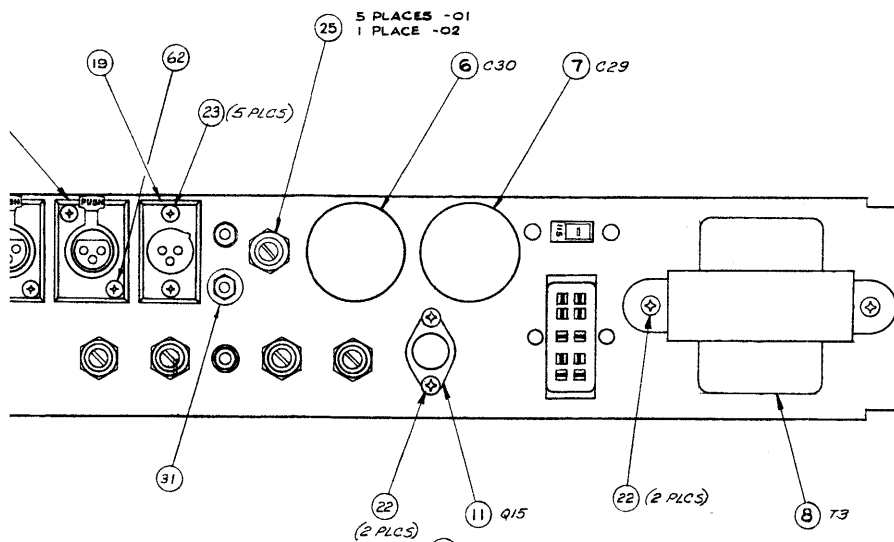
## -01 SHOWN

3 3/4 TO 15 I.P.S.

# REAR VIEW

ROTATED 180°

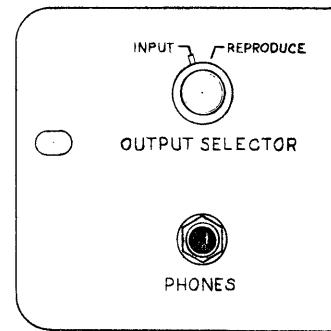




-02  
15/16 AND 17/8 IPS.

Fig. 7-18. Panel Assembly, rear (International)

**FRONT**



**REAR**  
 ROTATED 180°

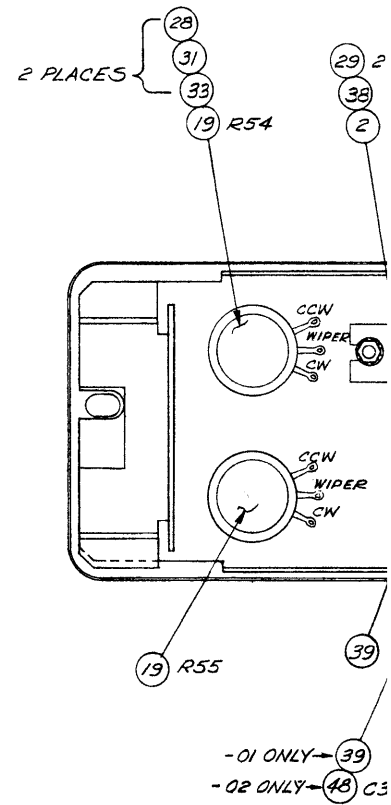
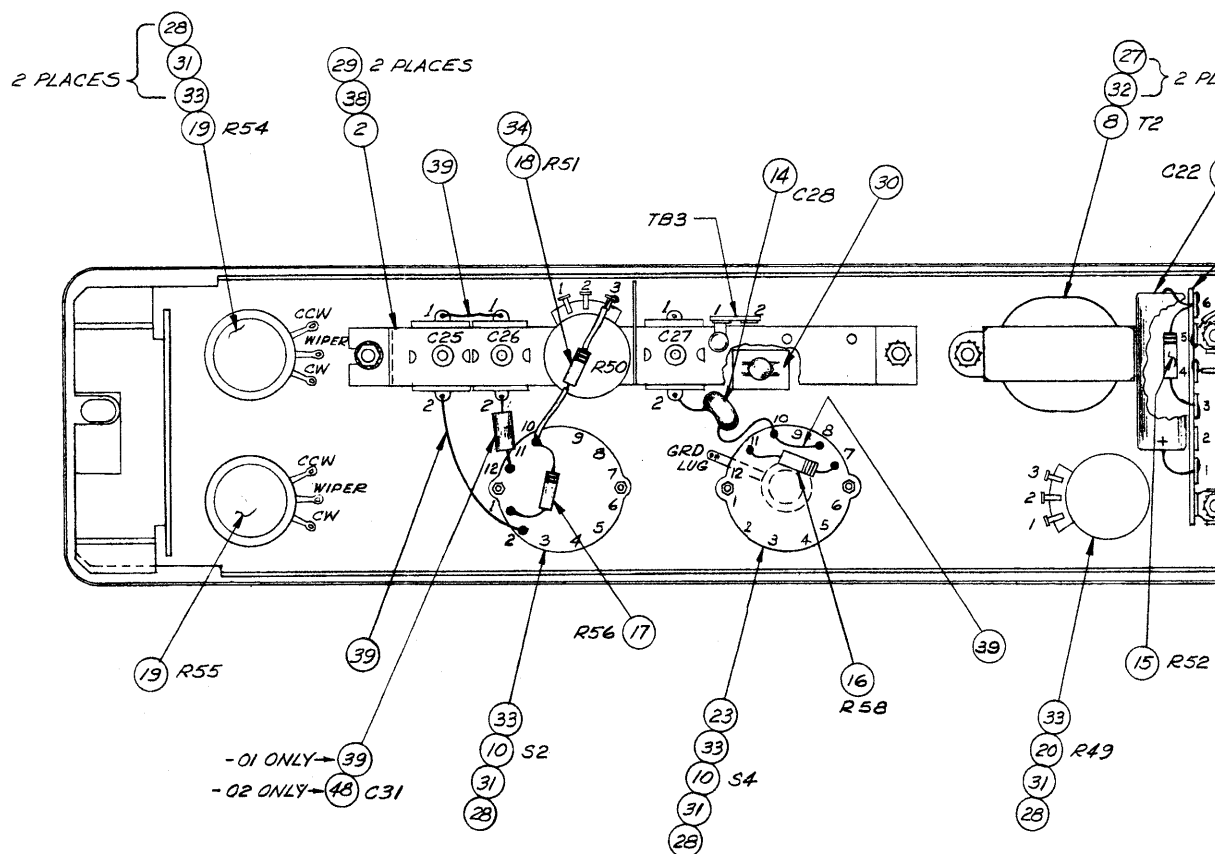


Diagram of the front panel of a radio receiver. The panel includes the following controls and features:

- INPUT REPRODUCE**: A switch with two positions.
- OUTPUT SELECTOR**: A switch with two positions.
- PHONES**: A circular jack for headphones.
- REPRODUCE LEVEL**: A circular dial with a needle, ranging from 0 to 10.
- RECORD SELECTOR**: A switch with two positions: **SAFE** and **RECORD**.
- BIAS ADJ.**: A small knob for bias adjustment.

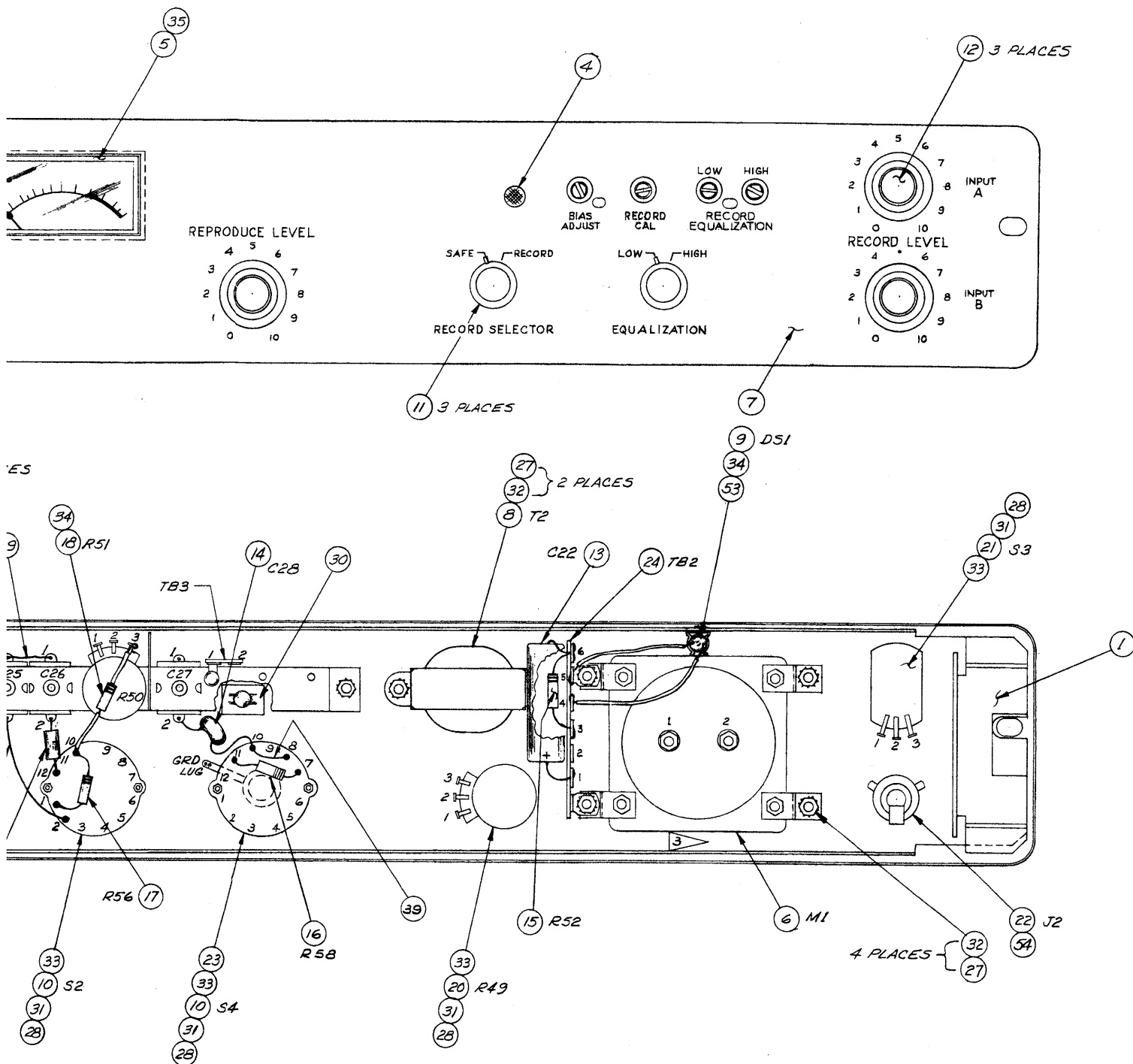
Numbered callouts (1-11) point to specific components:

- INPUT REPRODUCE switch
- OUTPUT SELECTOR switch
- PHONES jack
- REPRODUCE LEVEL dial
- RECORD SELECTOR switch
- BIAS ADJ. knob
- REPRODUCE LEVEL dial (needle)
- REPRODUCE LEVEL dial (scale)
- REPRODUCE LEVEL dial (scale)
- REPRODUCE LEVEL dial (scale)
- REPRODUCE LEVEL dial (scale)



**-02 SHOWN**

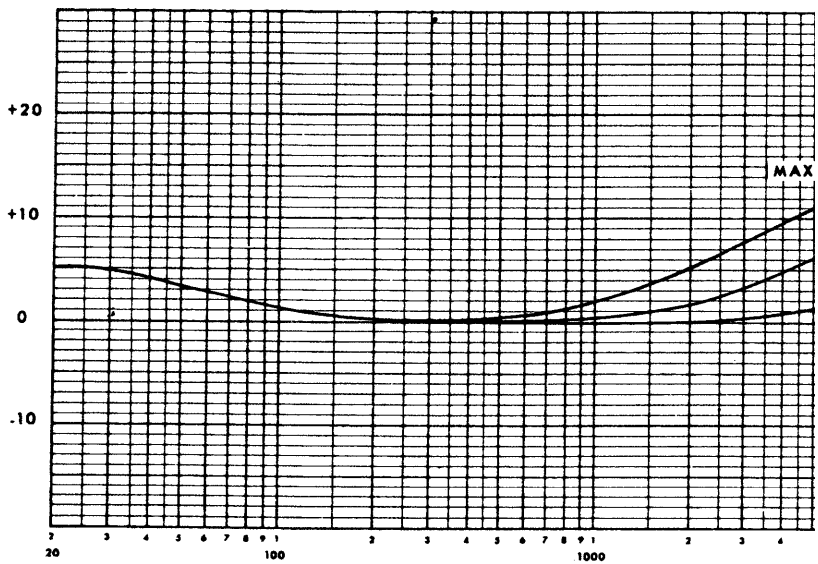
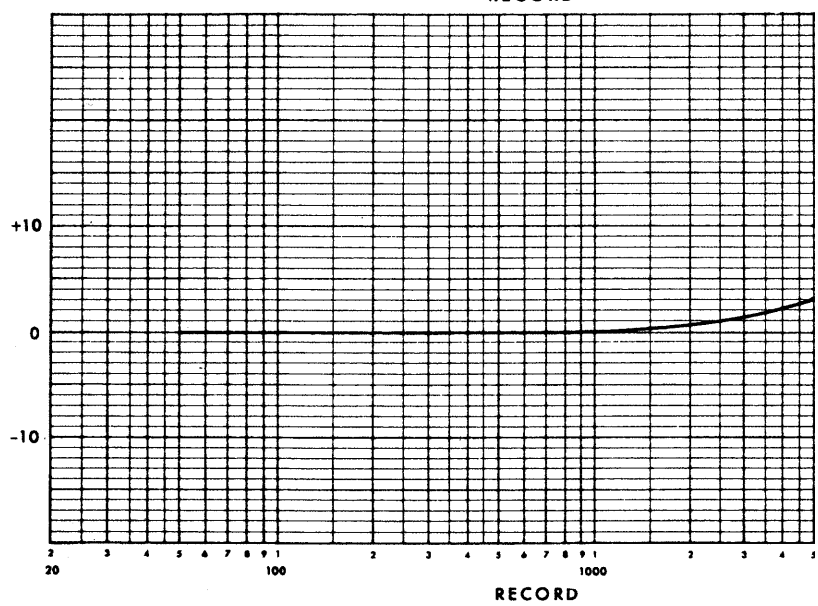
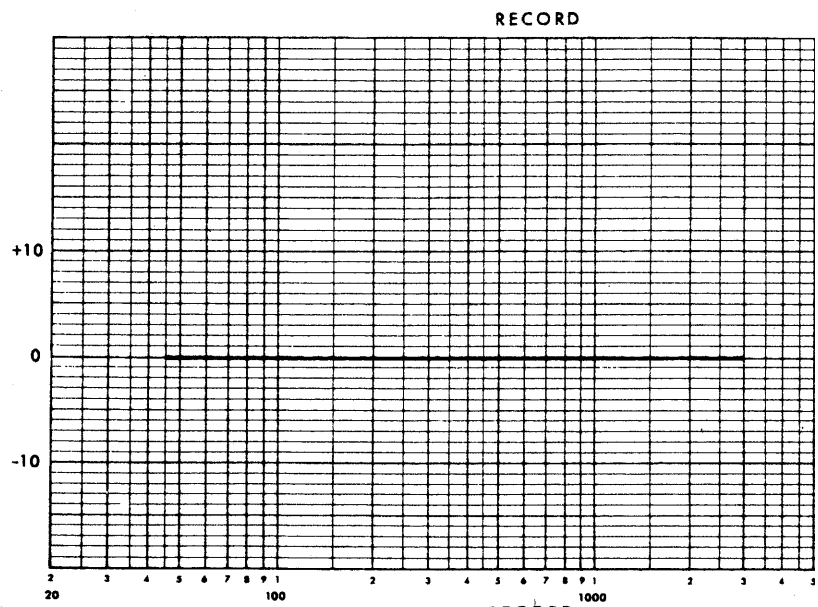
15/16 - 1  $\frac{7}{8}$  I.P.S.



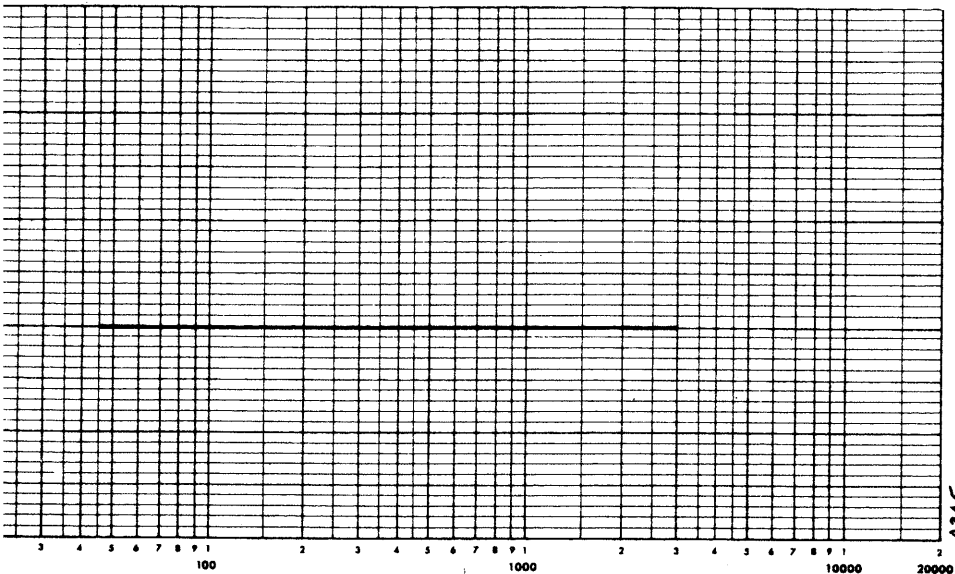
**-02 SHOWN**

15/16 - 1 7/8 I.R.S.

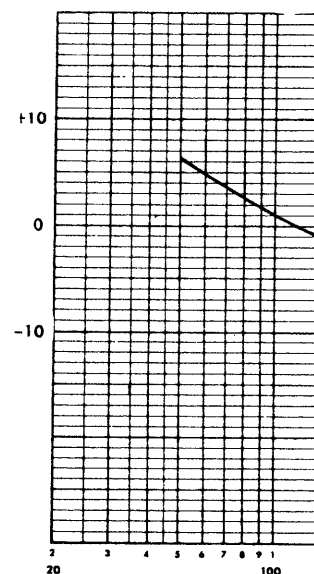
Fig. 7-19. Panel Assembly, front



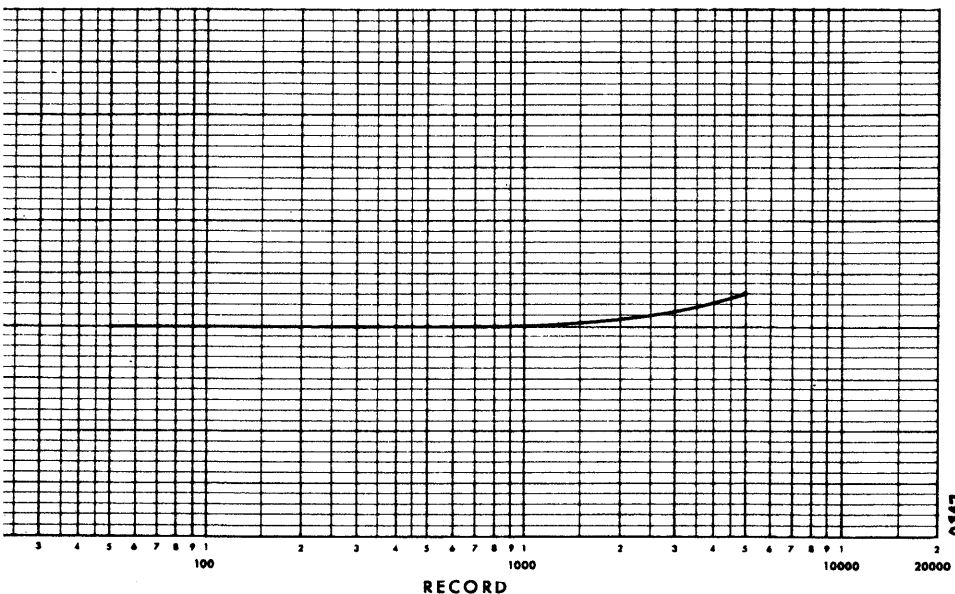
RECORD



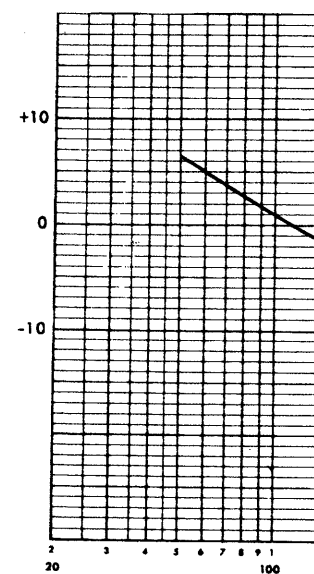
15/16 ips



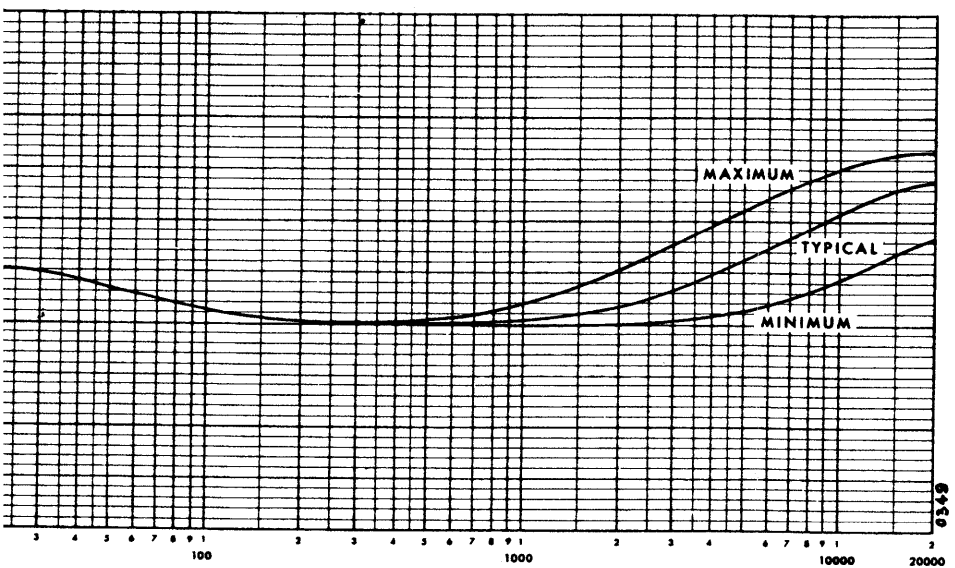
RECORD



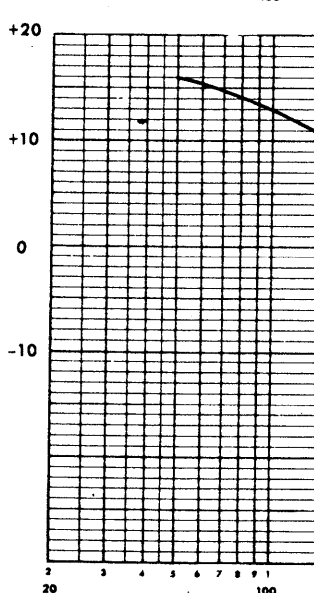
1-7/8 ips



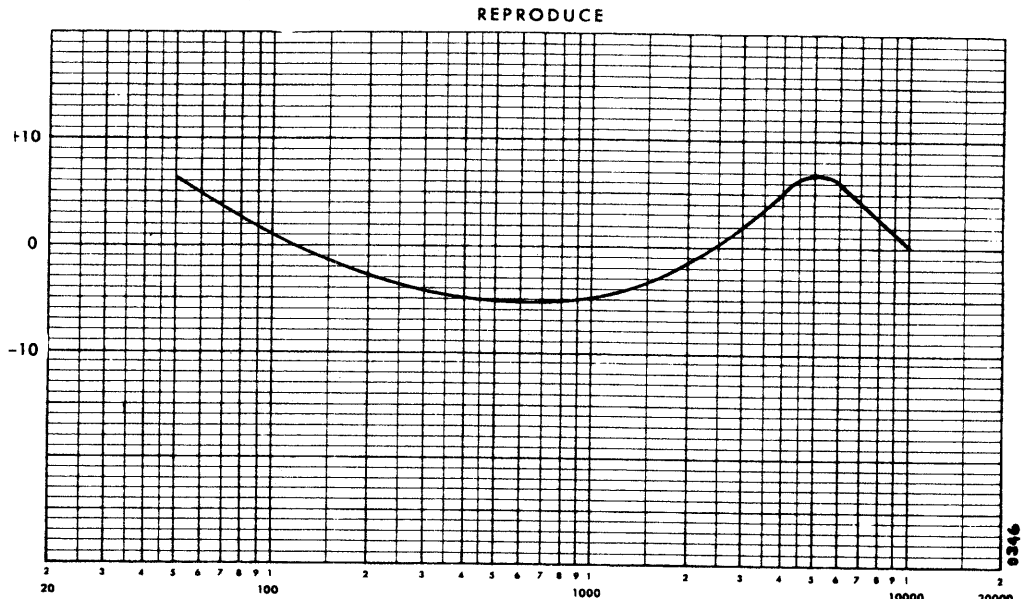
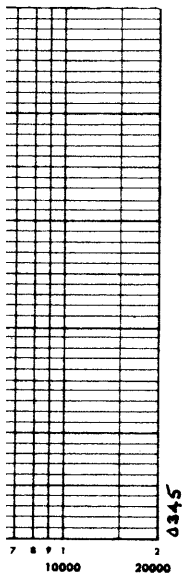
RECORD



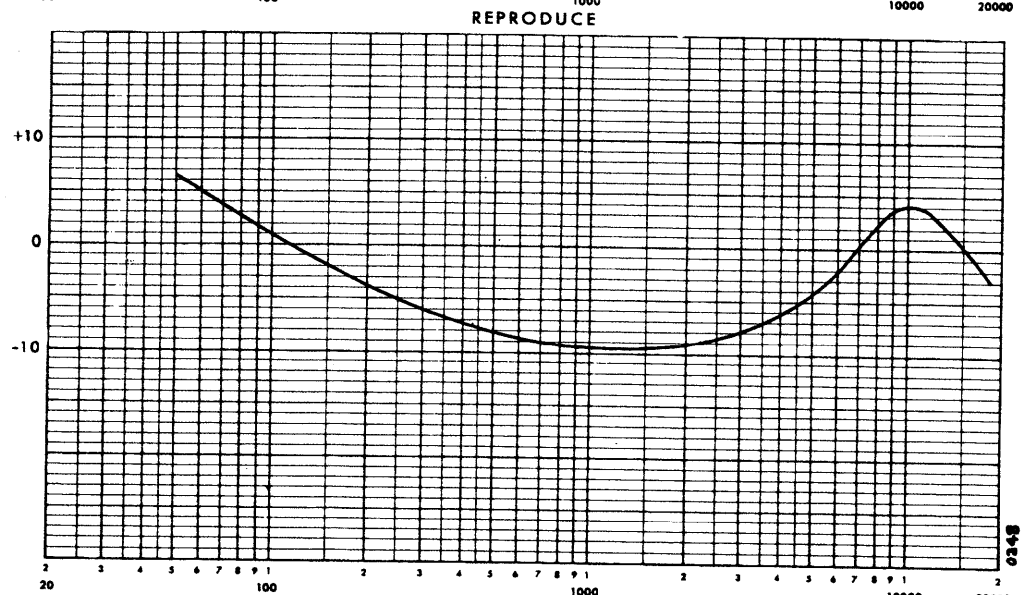
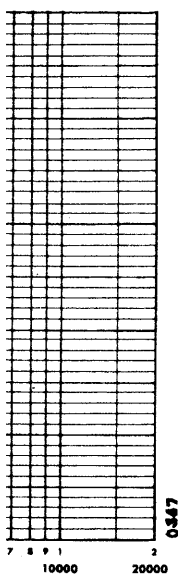
3 3/4 ips (200 usec)



15/16 ips



1-7/8 ips



3 3/4 ips (200 usec)

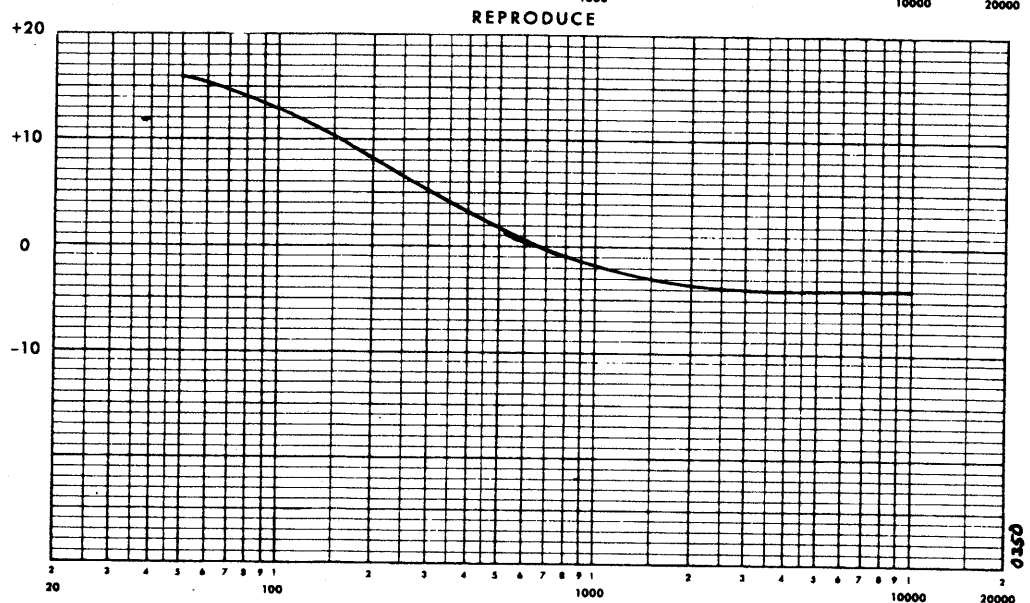
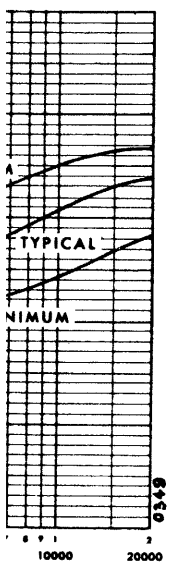
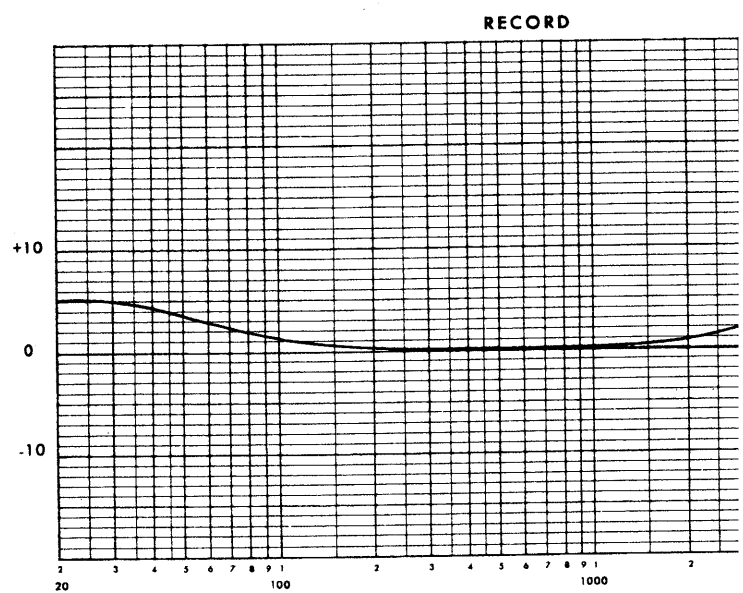
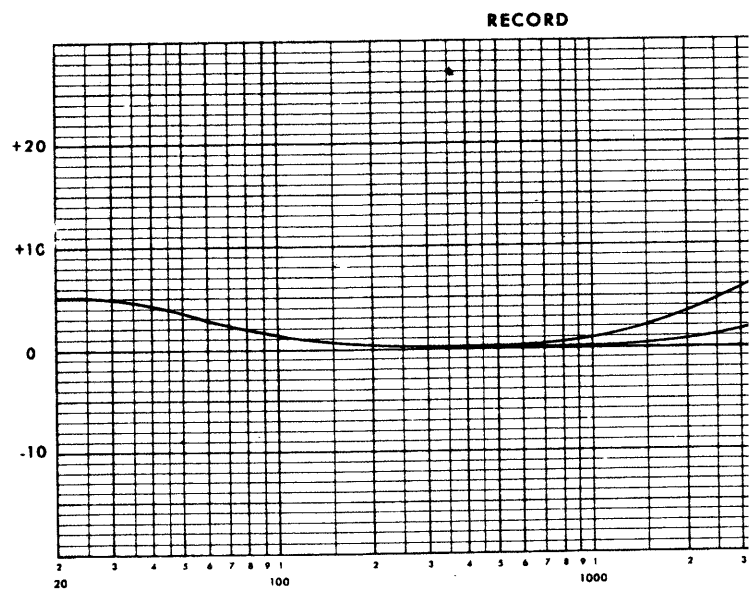
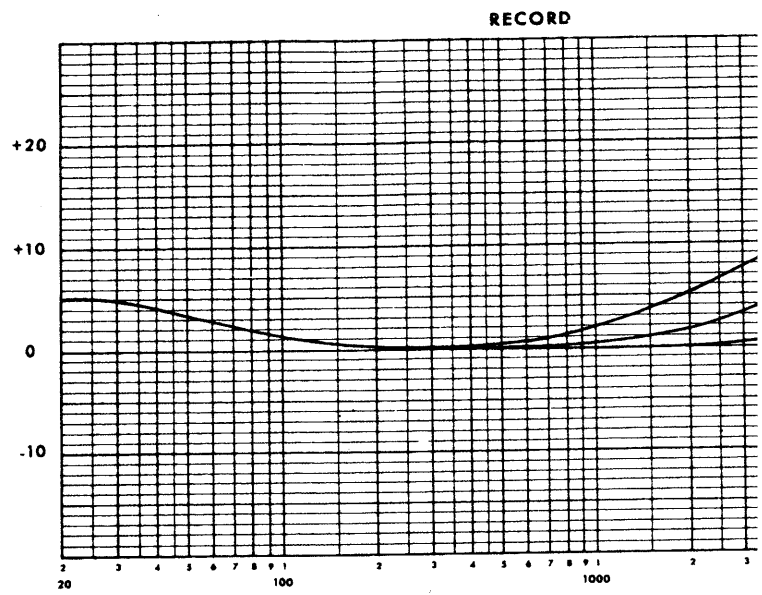
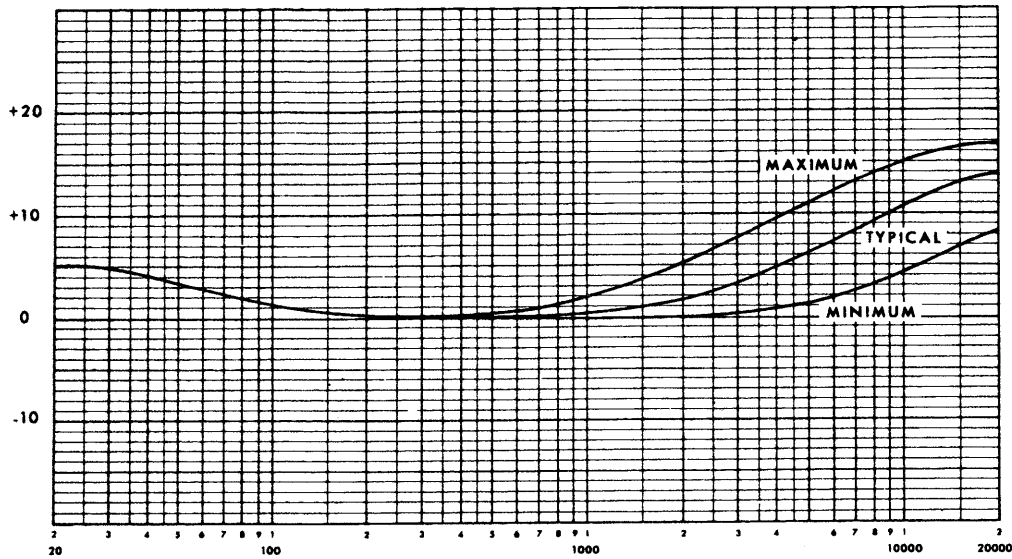


Fig. 7-20. Response Curves, Sheet 1

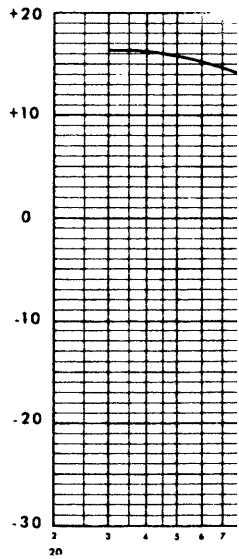




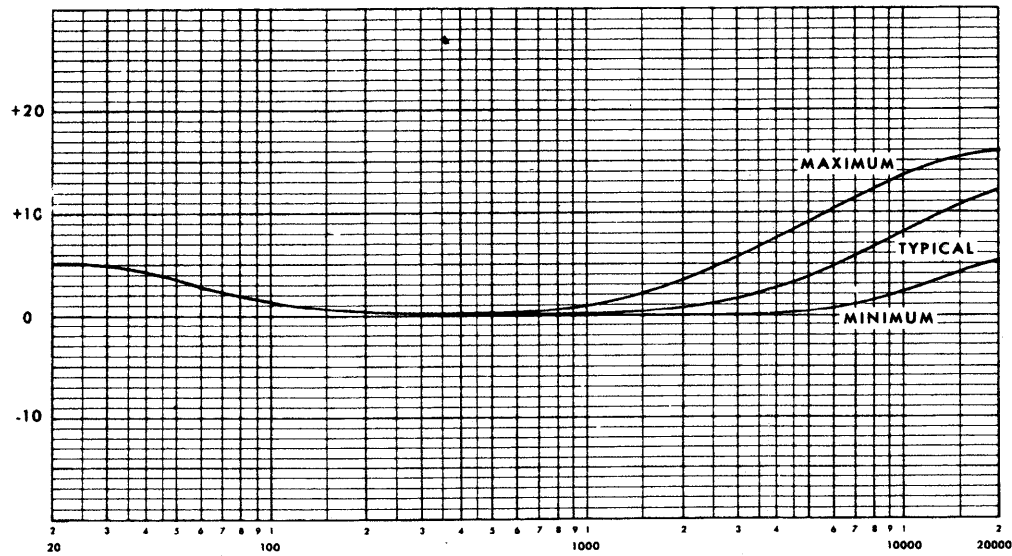
# RECORD



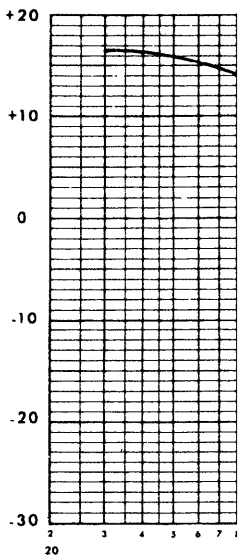
3 3/4 ips (120 usec)



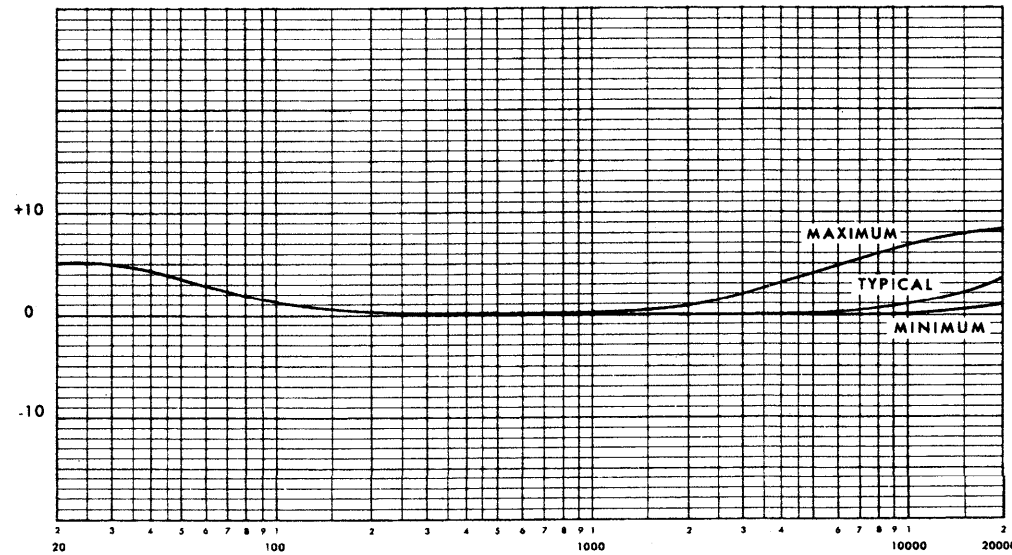
# RECORD



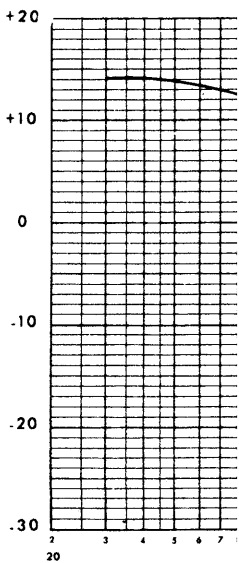
7 1/2 ips NAB

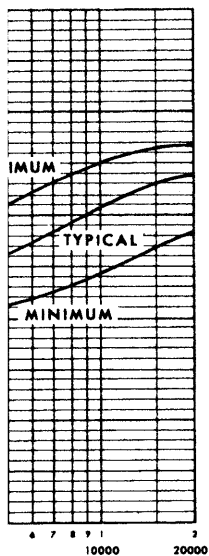


# RECORD

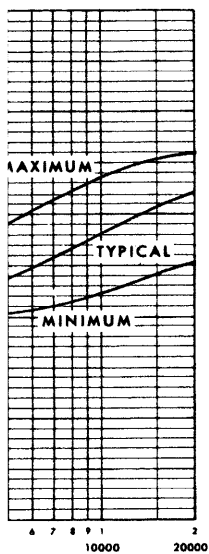
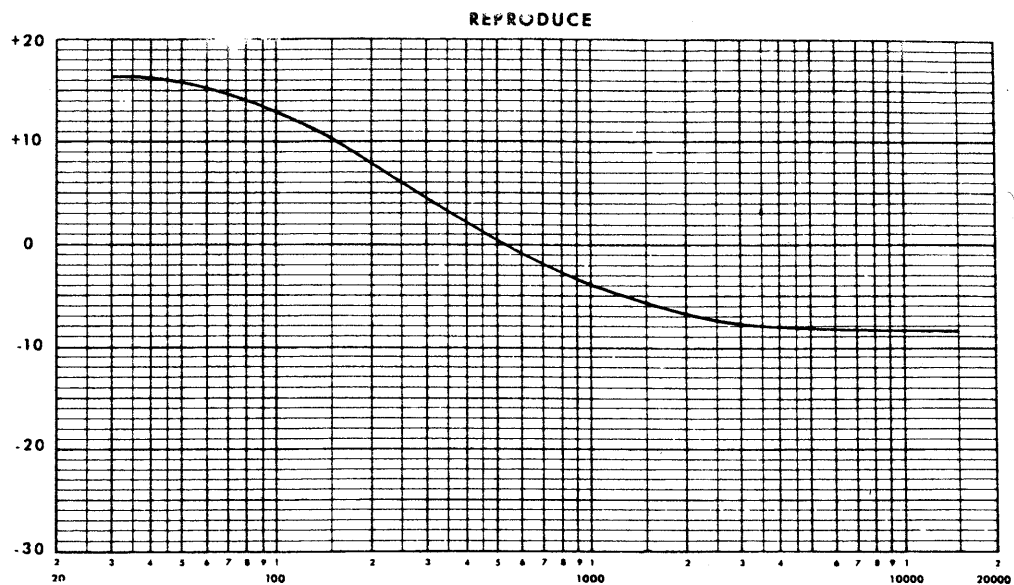


15 ips NAB

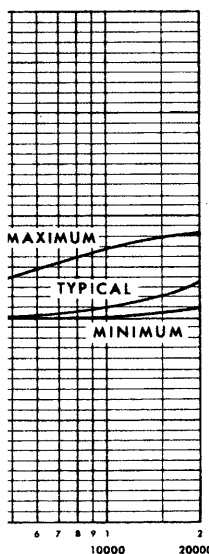
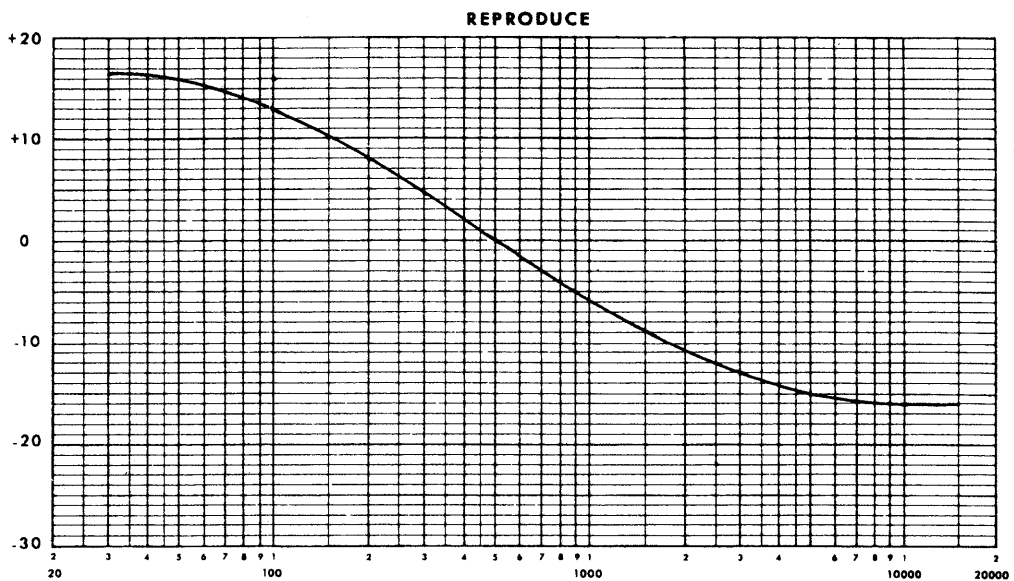




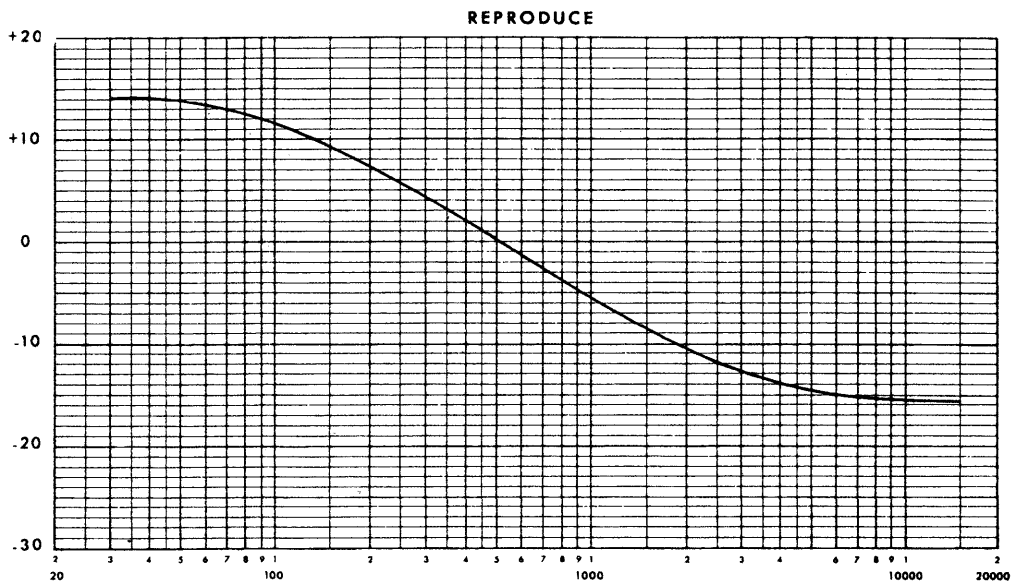
**3 3/4 ips (120 usec)**



**7 1/2 ips NAB**

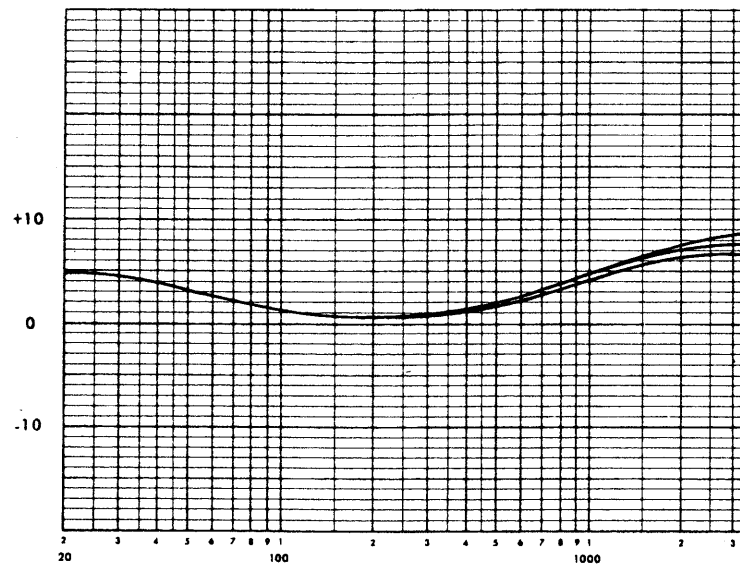


**15 ips NAB**

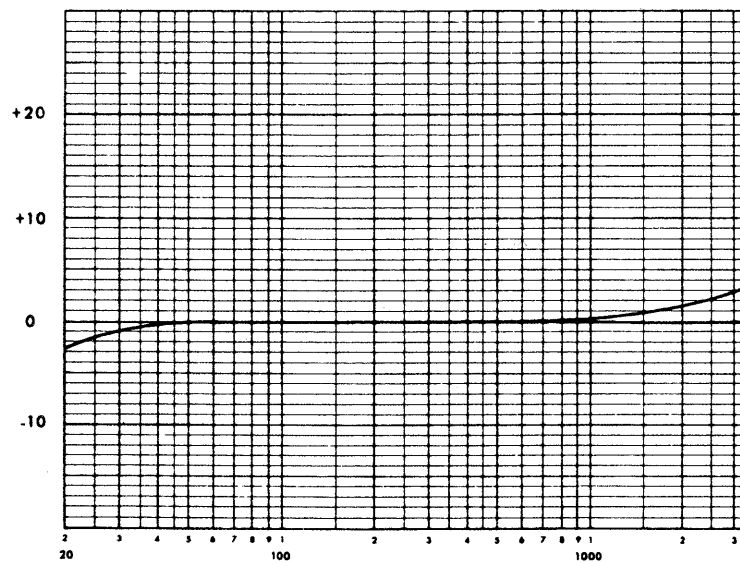


**Fig. 7-21. Response Curves, Sheet 2**

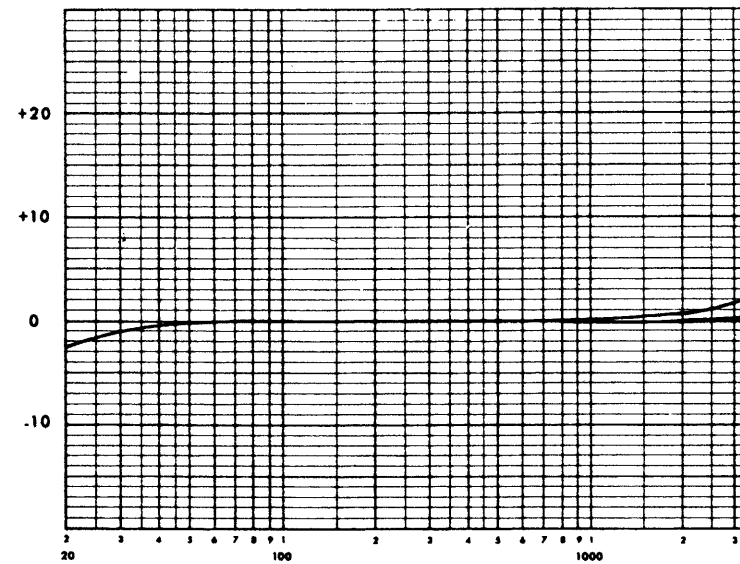
# RECORD



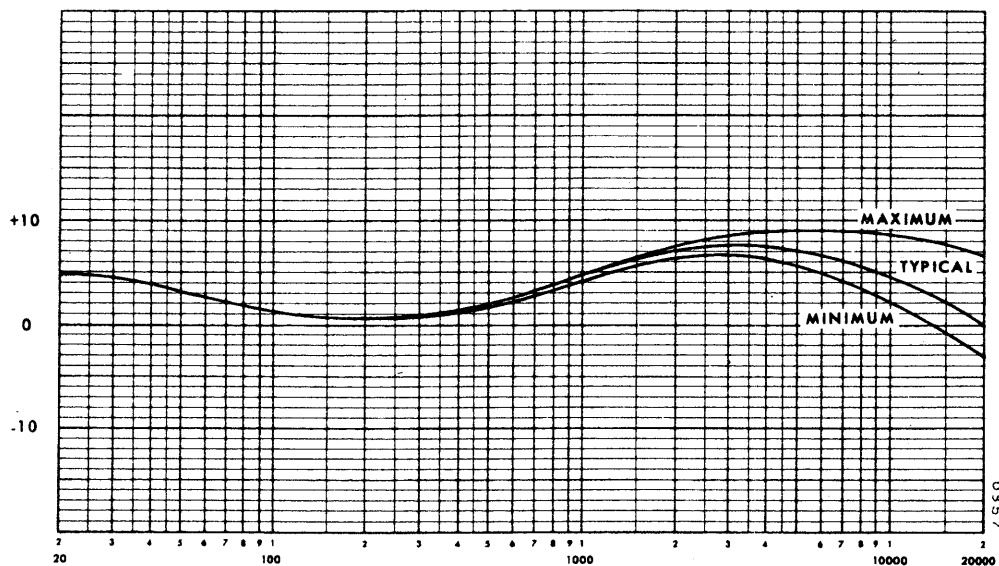
# RECORD



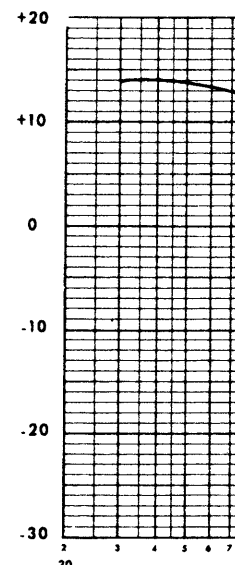
# RECORD



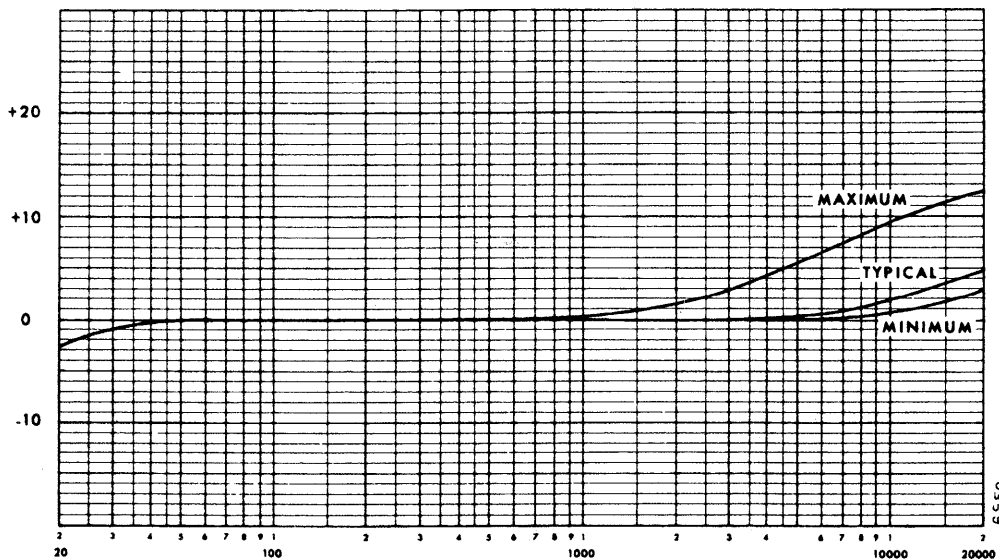
# RECORD



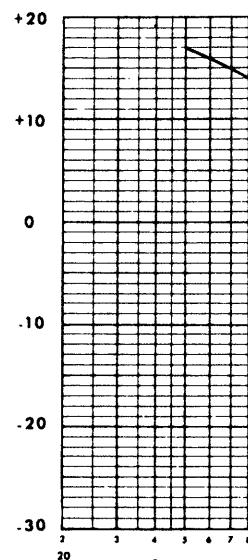
15 ips AME



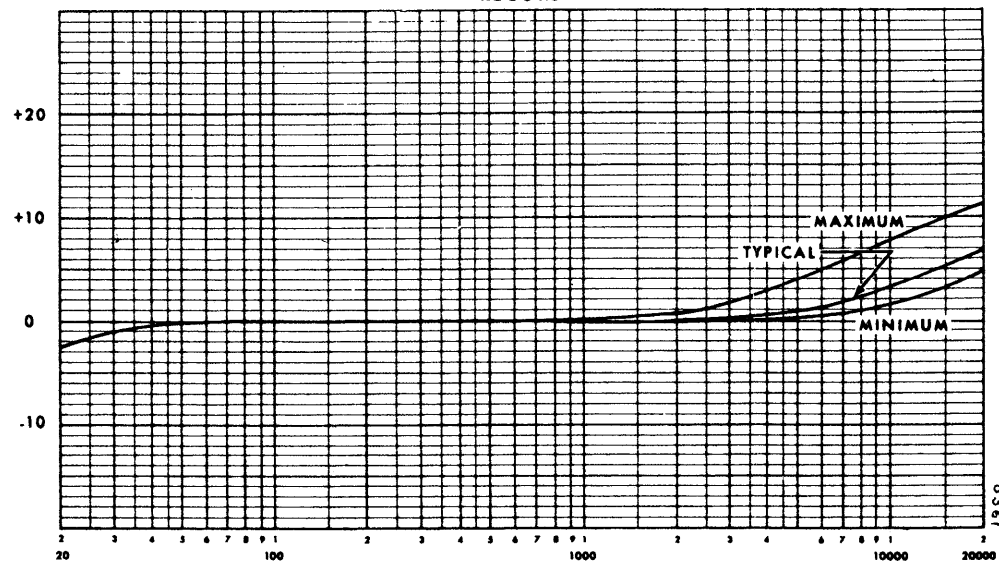
# RECORD



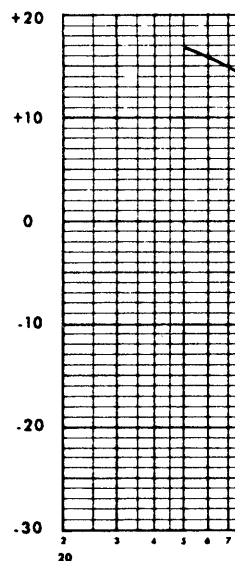
7½ ips CCIR

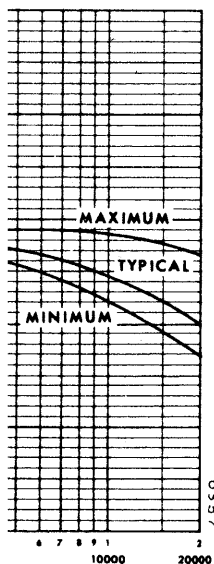


# RECORD

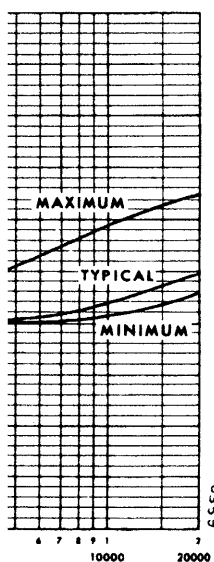
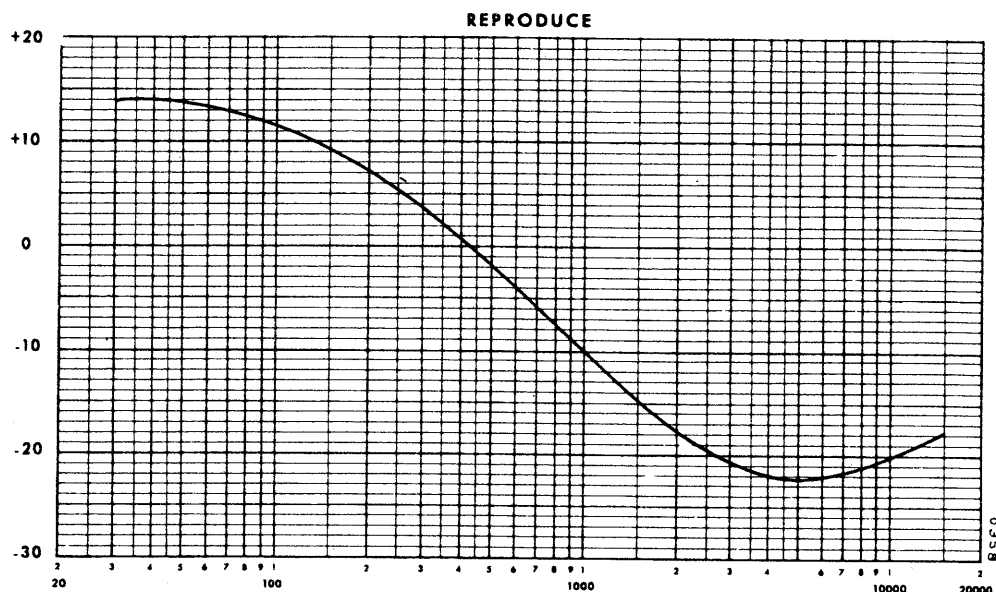


15 ips CCIR

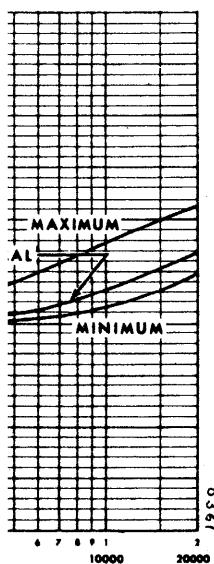
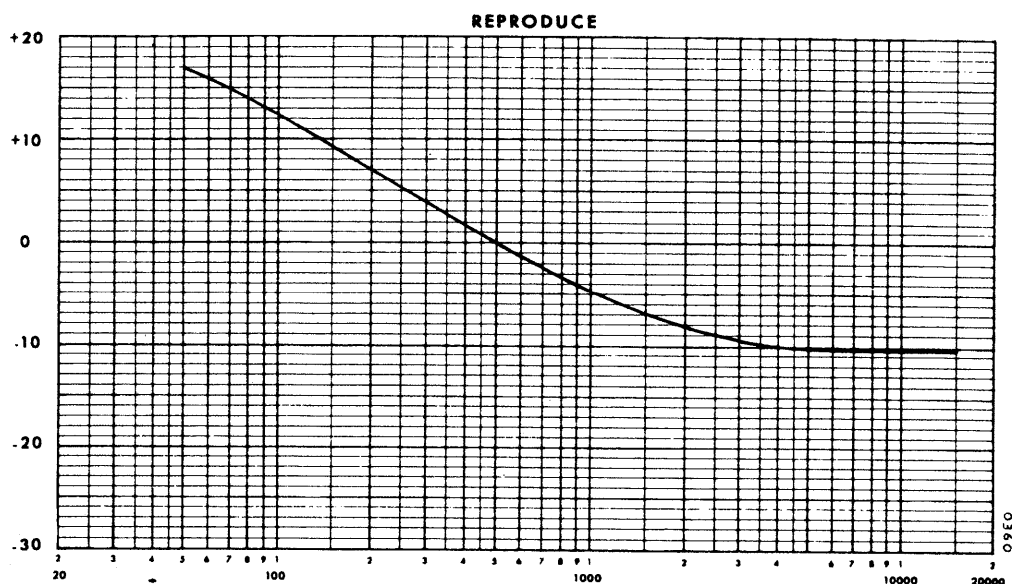




15 ips AME



7½ ips CCIR



15 ips CCIR

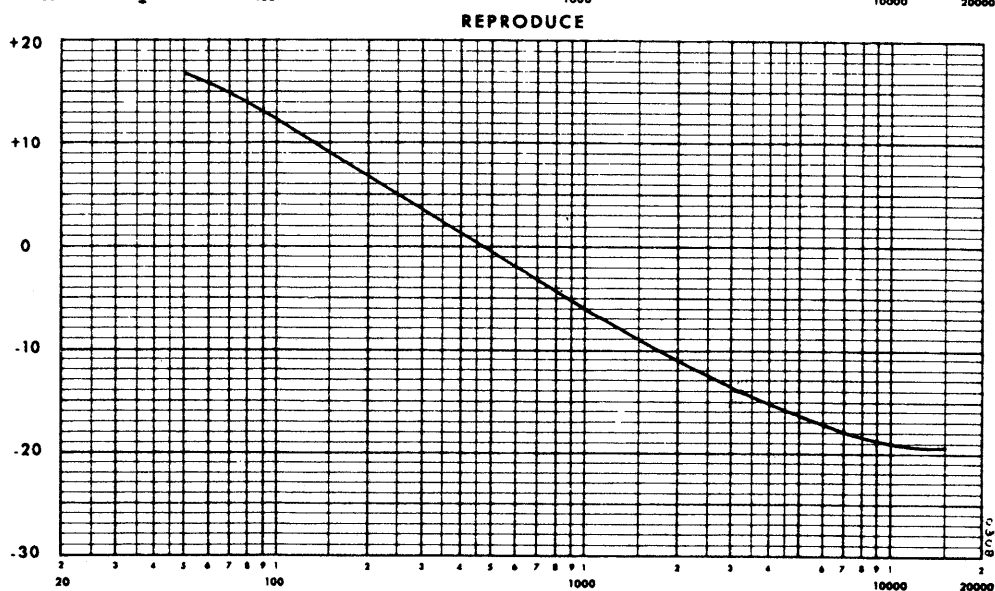


Fig. 7-22. Response Curves, Sheet 3