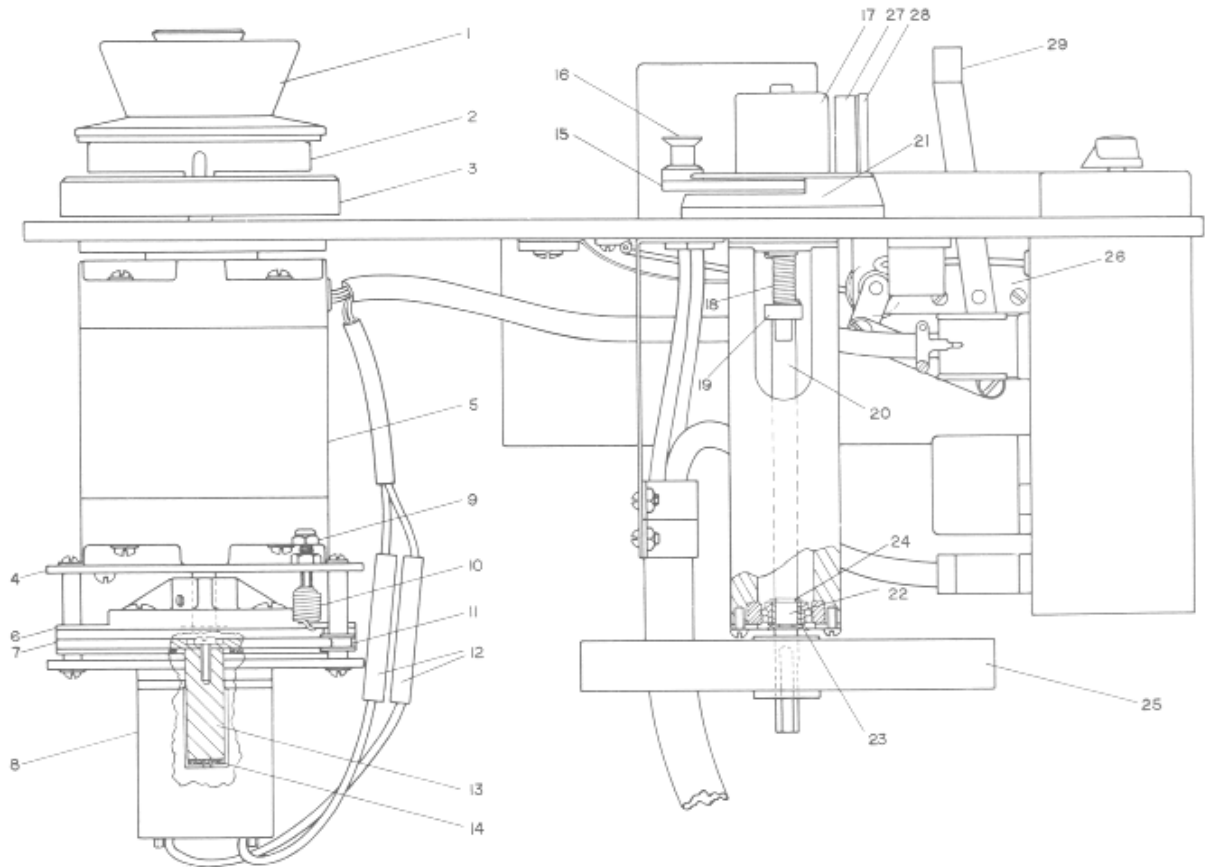


SECTION 8

REFERENCE DRAWINGS

REFERENCE DRAWINGS



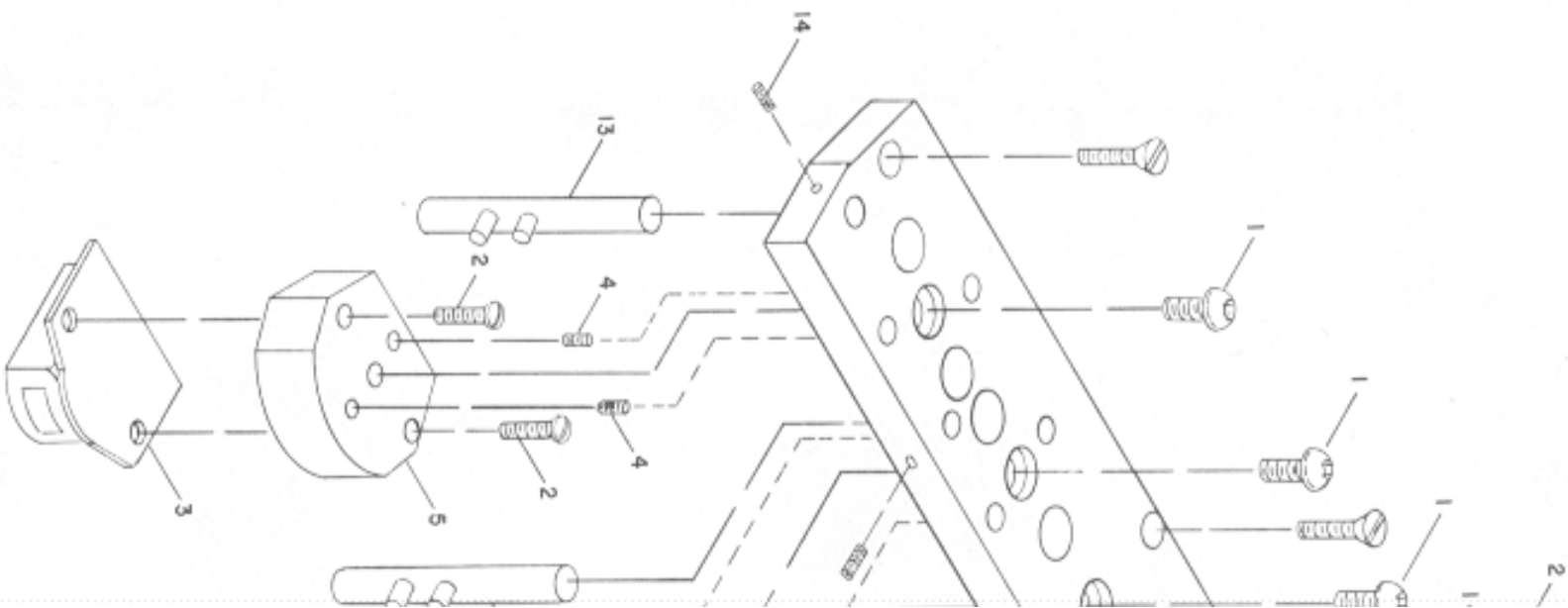
LEGEND

- | | |
|---------------------------------|------------------------------------|
| 1. Hold down knob | 17. Reel stabilizer pulley |
| 2. Reel centering hub | 18. Tension spring |
| 3. Reel platform assy | 19. Spring adjustment collar |
| 4. Torque motor brake plate | 20. Stabilizer shaft |
| 5. Torque motor | 21. Reel stabilizer top bearing |
| 6. Brake disc assy | 22. Reel stabilizer lower bearing |
| 7. Brake plate assy | 23. Lower bearing retainer, curved |
| 8. Brake plate solenoid assy | 24. Lower bearing retainer, flat |
| 9. Brake spring adjustment nut | 25. Flywheel, cast iron |
| 10. Brake spring | 26. Tape lift toggle assy |
| 11. Teflon brake guide | 27. Manual tape lifter guide assy |
| 12. Motor solenoid connector | 28. Pyrex guide rod |
| 13. Brake plate plunger | 29. Dress knob |
| 14. Felt plunger | |
| 15. Reel stabilizer tension arm | |
| 16. Tape guide, 1/4 inch | |

Figure 8-1. Side View of Tape Transport

LEGEND

1. Machine screw
2. Machine screw, azimuth adj
3. Erase head stack assy
4. Machine screw, zenith adj
5. Erase or record head mounting sub-plate
6. Record head stack assy
7. Scrape filter assy
9. Co-netic housing
10. Playback head stack assy
11. Playback head mounting sub-plate
13. Carbide tape guide
14. Set screw
15. Head bridge assy top plate



REFERENCE DRAWINGS

KEY ADJUSTMENTS

- 1. HEAD ROTATION ADJ.
- 2. AZIMUTH ADJ.
- 4. ZENITH ADJ.

NOTES:

CAT. NUMBER 502010000-01, (FULL TRACK)
 1/4 INCH, -02 (HALF TRACK) 1/4 INCH, - 03
 (2 TRACK) 1/4 INCH, - 04 (QUARTER TRACK)
 1/4 INCH, -05 (3 CHANNEL) 1/2 INCH, - 06
 (4 CHANNEL) 1/2 INCH.

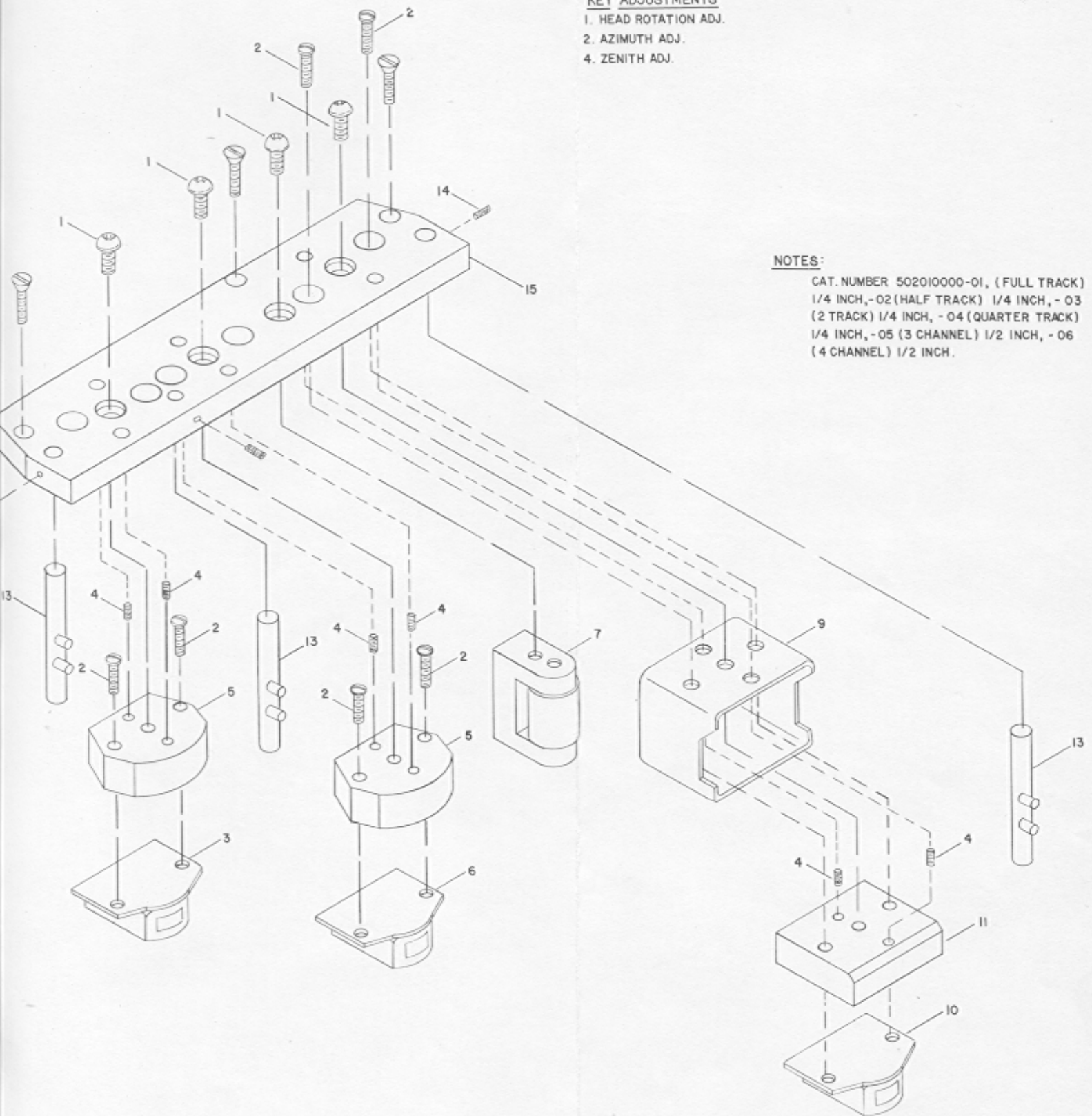
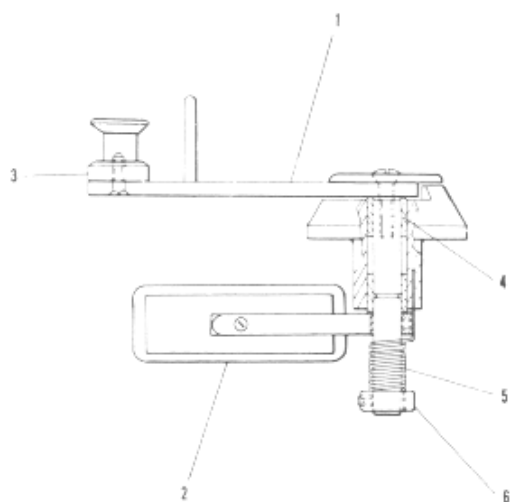


Figure 8-2. Magnetic Head Assembly, Exploded View

REFERENCE DRAWINGS



LEGEND

- 1. Tape break arm
- 2. Tape break microswitch
- 3. Tape guide, 1/4 inch
- 4. Sleeve bearing
- 5. Spring
- 6. Spring adjusting collar

Figure 8-3. Tape Break Arm Assembly

REFERENCE DRAWINGS

Automatic Front Shield Assembly

1. Automatic front shield hinge
2. Automatic front shield spring retainer screw
3. Front shield
4. Automatic front shield hinge plate
5. Automatic front shield positioning screw
6. Automatic front shield spring retainer
7. Automatic front shield spring
8. Automatic front shield plunger
9. Automatic front shield micro switch
10. Automatic front shield micro switch mounting plate
11. Automatic front shield solenoid
12. Automatic front shield air pot
13. Automatic front shield air port adjusting valve

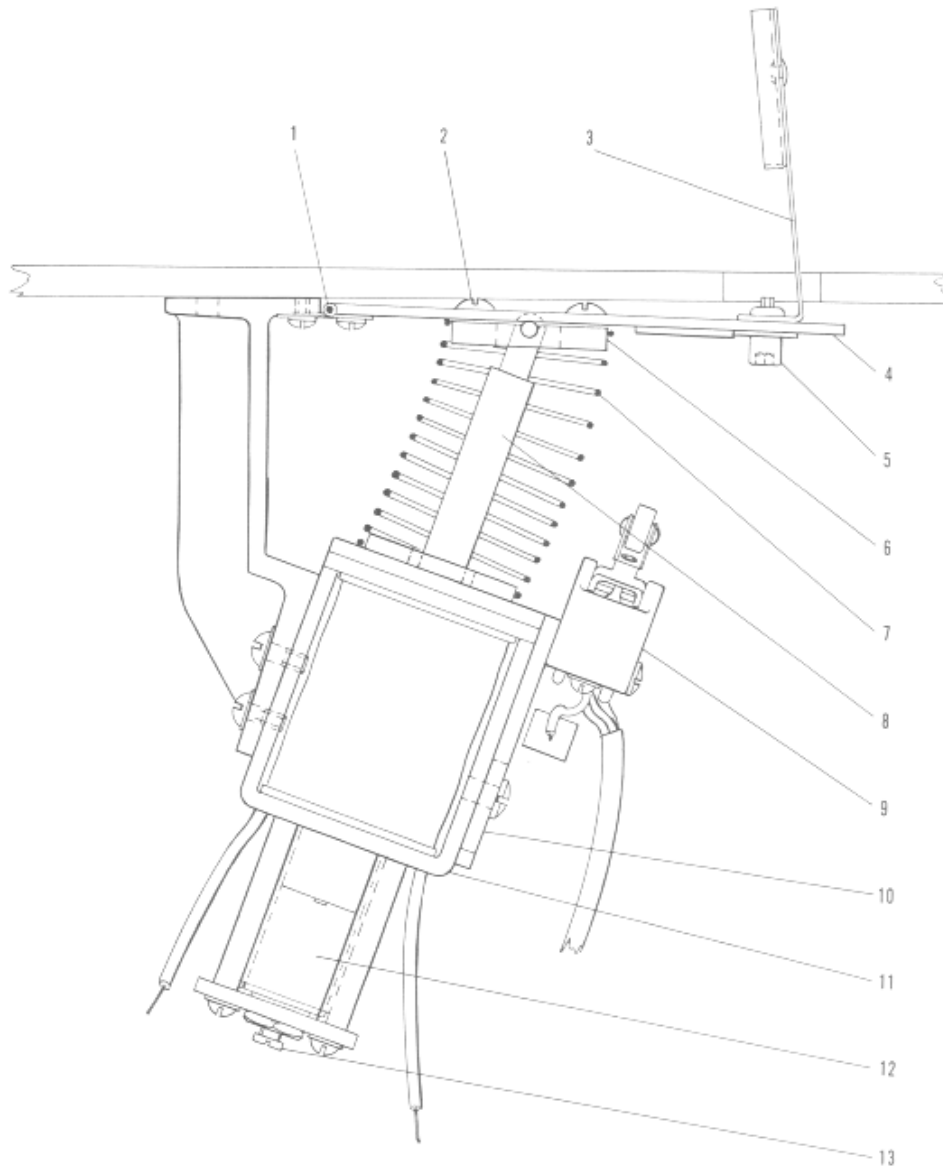


Figure 8-4. Automatic Front Shield Assembly

Automatic Tape Lifter Assembly

1. Automatic tape lifter defeat knob
2. Automatic tape lifter defeat lever
3. Automatic tape lifter defeat lever linkage
4. Automatic tape lifter arm
5. Automatic tape lifter finger
6. Automatic tape lifter bearing housing
7. Automatic tape lifter connecting rod
8. Automatic tape lifter actuating arm
9. Automatic tape lifter compression spring
10. Automatic tape lifter plunger stop
11. Automatic tape lifter small felt pads
12. Automatic tape lifter plunger stop collar
13. Automatic tape lifter large felt pads
14. Automatic tape lifter solenoid plunger
15. Automatic tape lifter solenoid
16. Automatic tape lifter damping piston
17. Automatic tape lifter damping adjustment

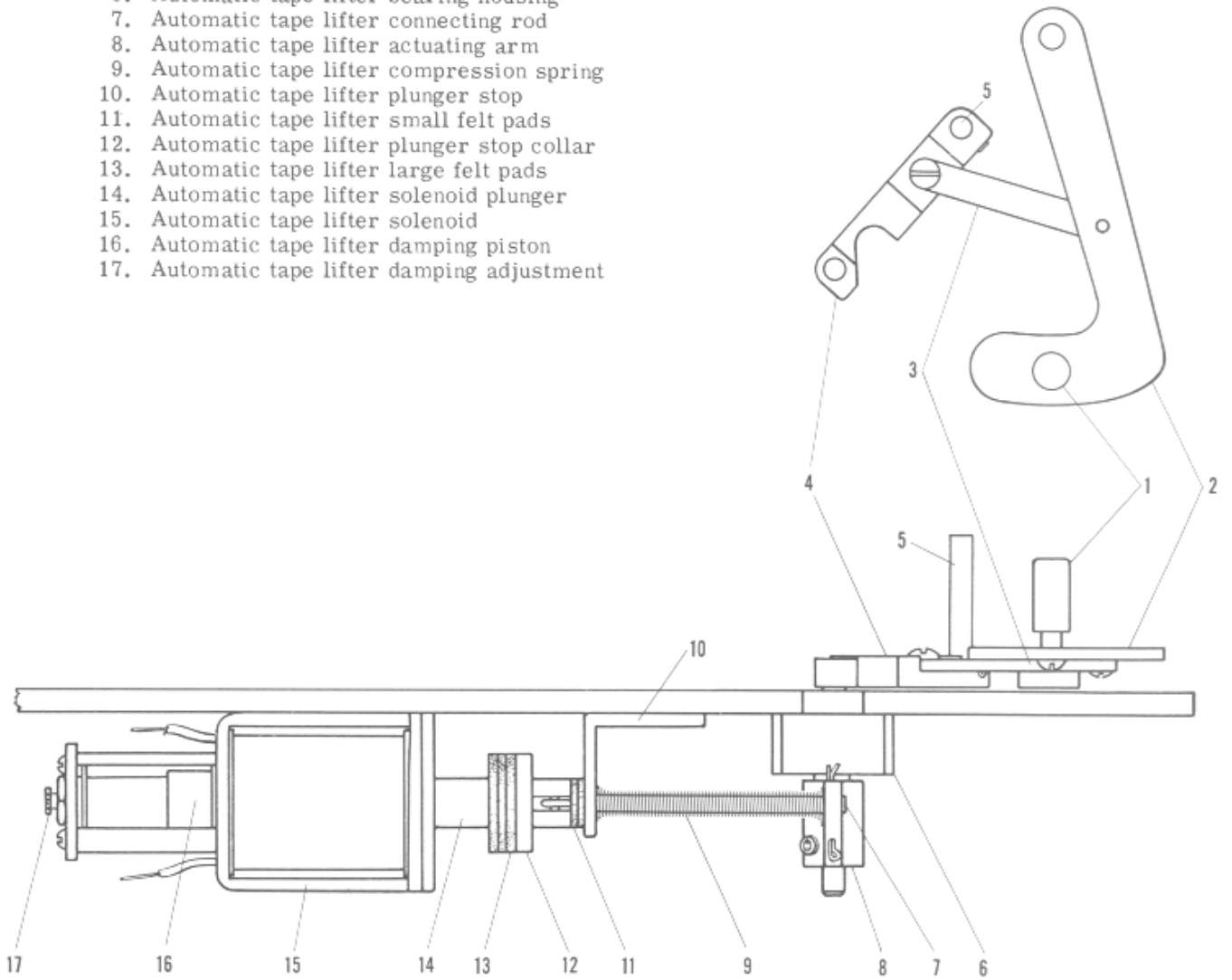


Figure 8-5. Automatic Tape Lifter Assembly

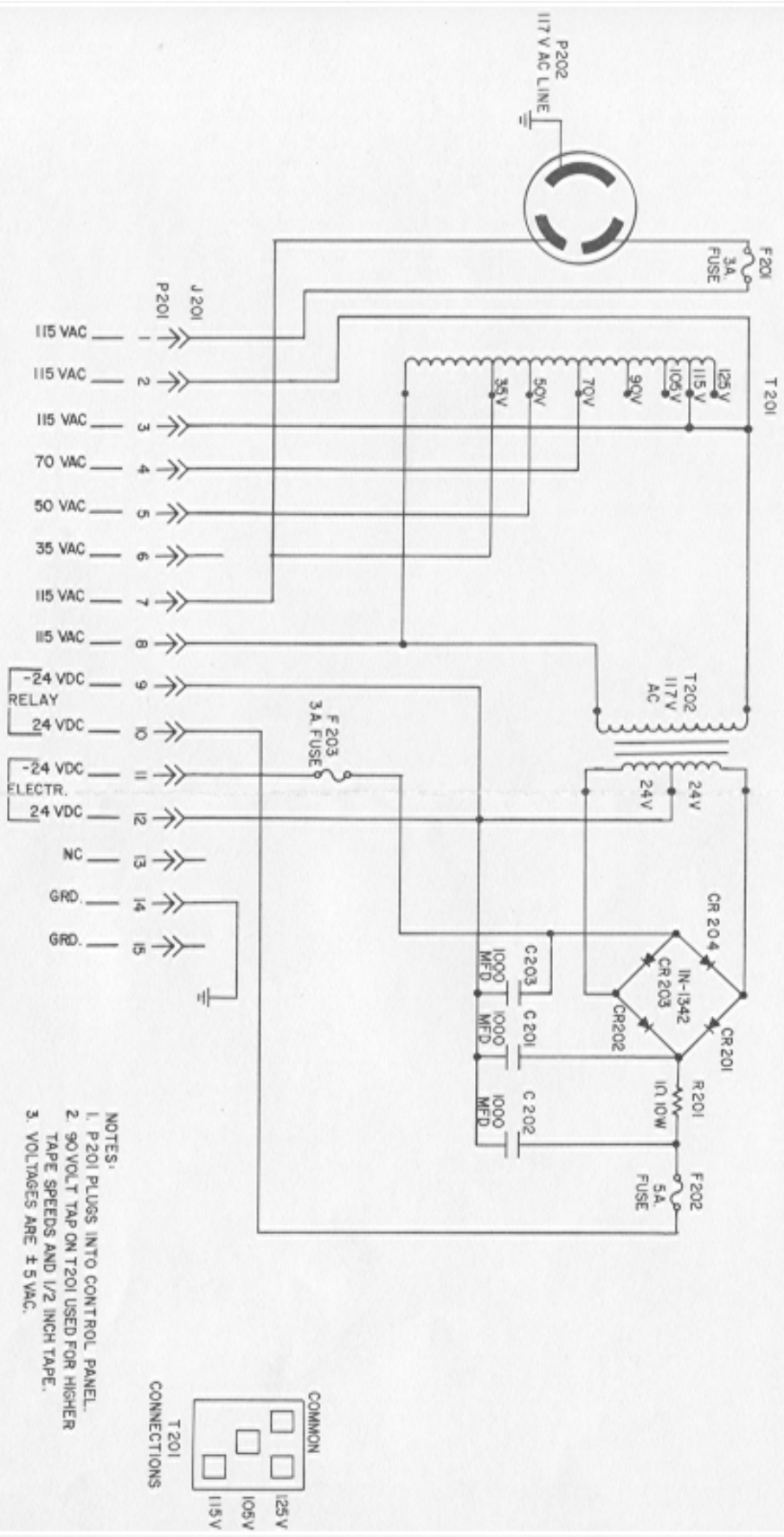
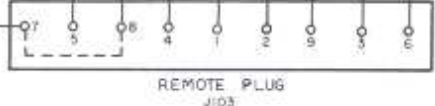
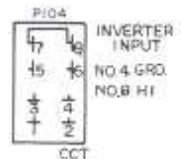
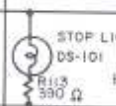
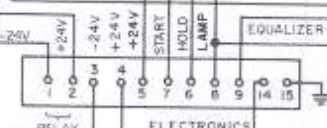
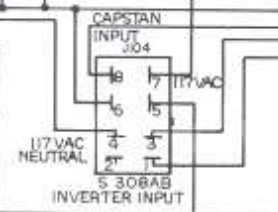
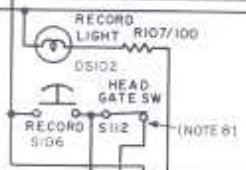
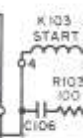
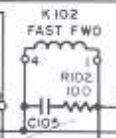
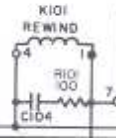
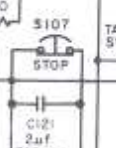
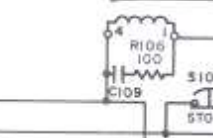
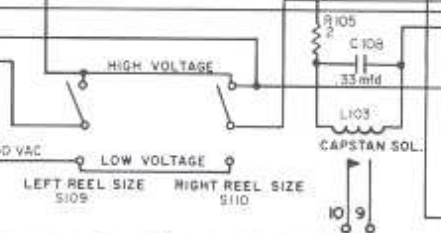
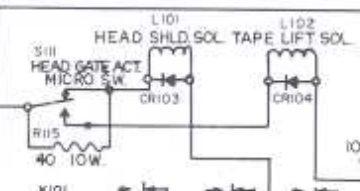
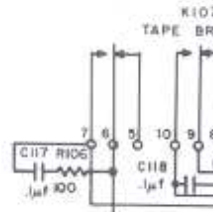
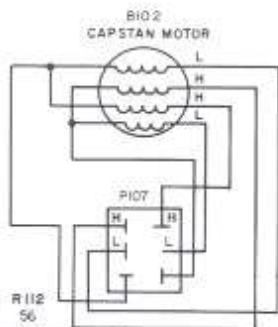
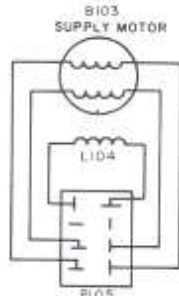
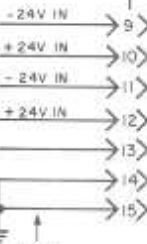


Figure 8-6. Dc Power Supply, Schematic Diagram

S101
AC POWER SWITCH

* ALTERNATIVE WIRING ON P101
FOR 1/2" TAPE MACHINES

- 3 = 115 VAC
- 4 = 90
- 5 = 70
- 6 = 35
- 8 = N



FROM POWER SUPPLY

SPEED /
-24V (4 DIR)

70VAC

50 VAC

LEFT REEL SIZE S109

RIGHT REEL SIZE S110

(NOTE 61)

REMOTE PLUG
J103

CCT

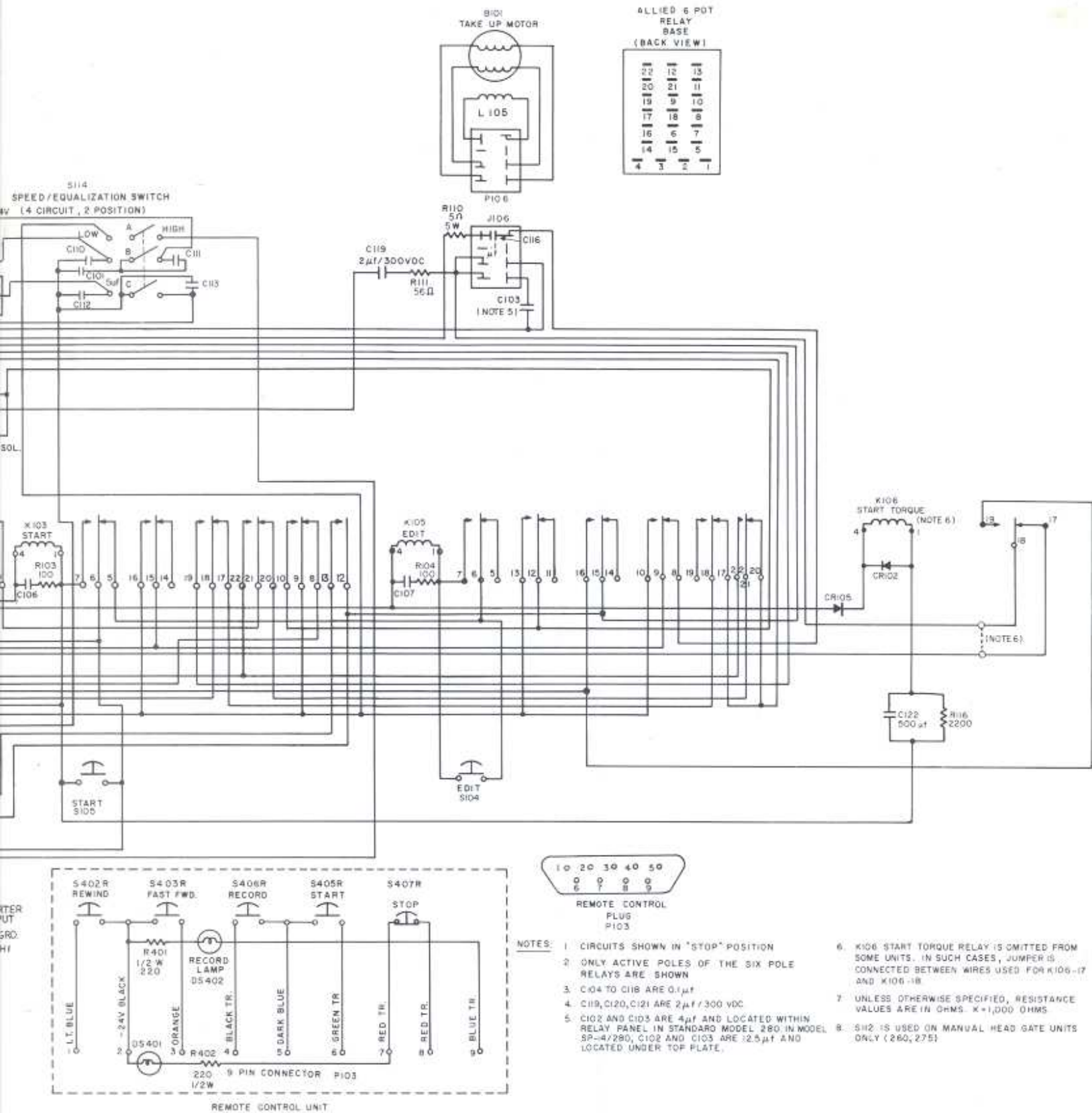
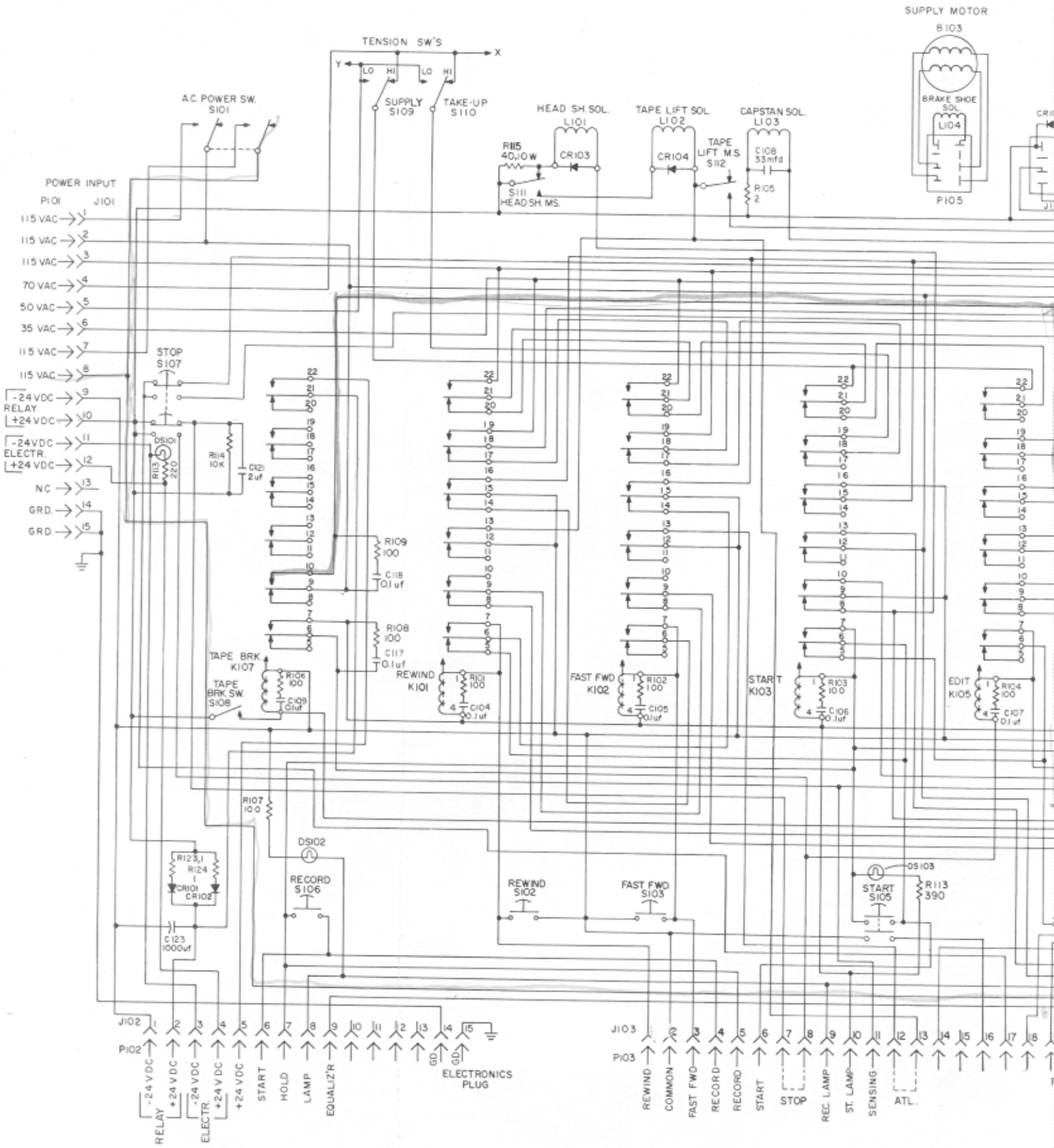


Figure 8-7. Model 280 and Early Model 280/SP-14 Power and Control Circuits, Schematic Diagram



REFERENCE DRAWINGS

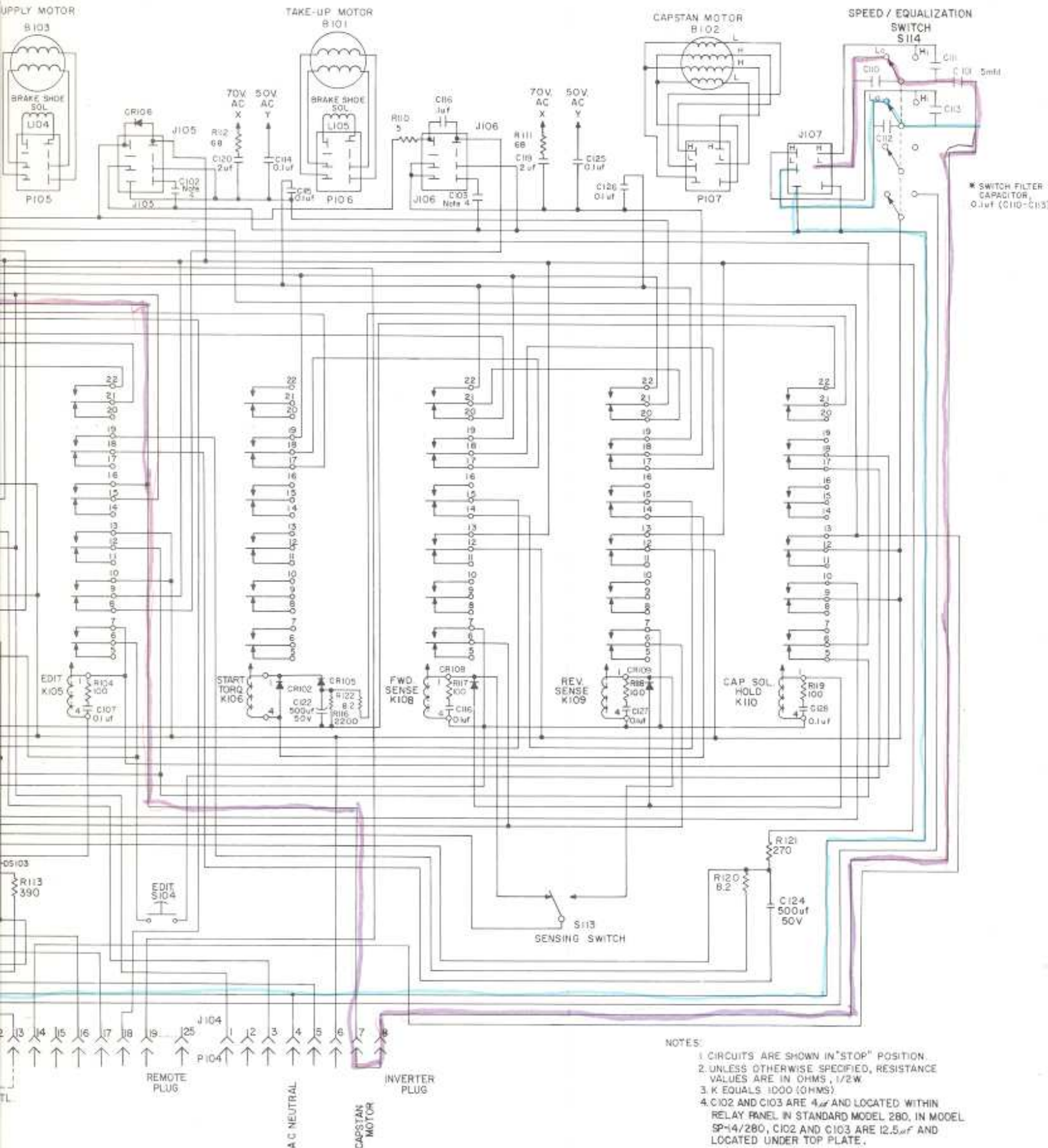
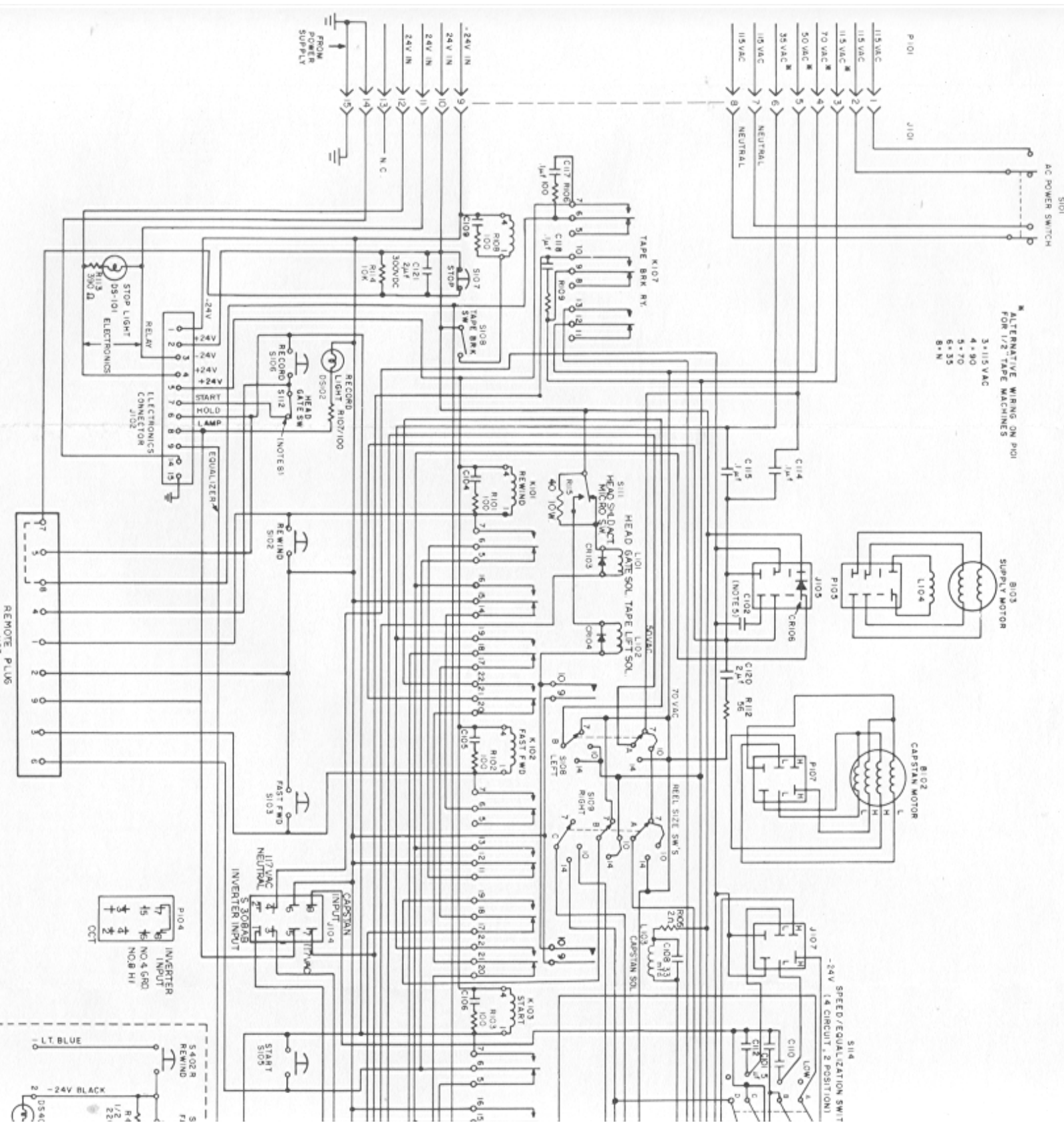


Figure 8-8. Model 280 with Motion Sensing, Power and Control Circuits, Schematic Diagram

ALTERNATIVE WIRING ON P101 FOR 1/2" TAPE MACHINES

- 3-115VAC
- 4-90
- 5-70
- 6-33
- 8-N



S101

M103
SUPPLY MOTOR

M102
CAPSTAN MOTOR

S114
SPEED/EQUALIZATION SWITCH
(A CIRCUIT - 2 POSITIONS)

S102
RECORD LIGHT

S101
STOP LIGHT

J103
REMOTE PLUG

P101

J101

115 VAC

115 VAC

70 VAC

50 VAC

35 VAC

115 VAC

115 VAC

NEUTRAL

NEUTRAL

NEUTRAL

FROM POWER SUPPLY

24V IN

24V IN

24V IN

24V IN

24V IN

N.C.

1

2

3

4

5

6

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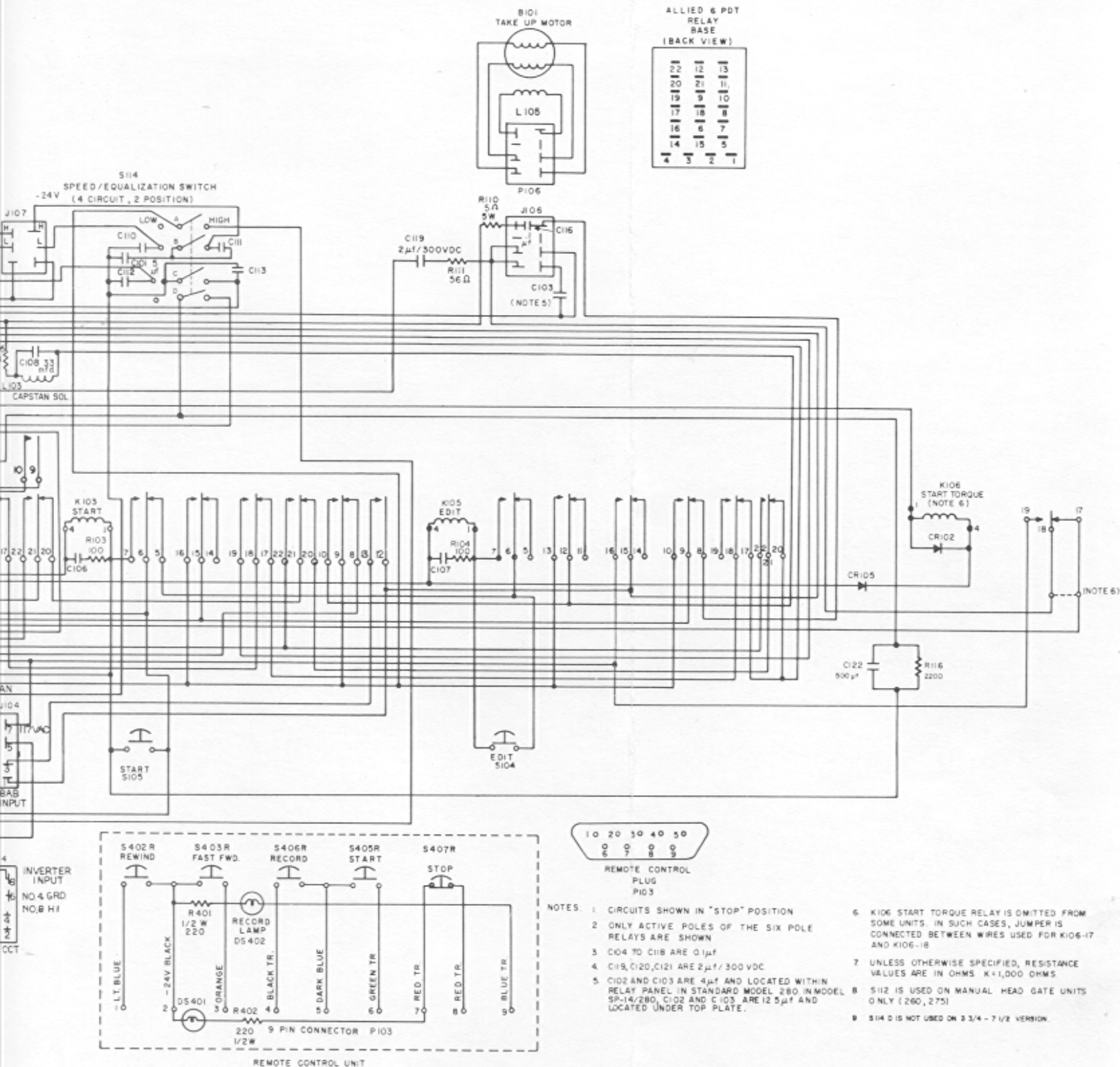


Figure 8-9. Model 280/SP-14, Power and Control Circuits, Schematic Diagram

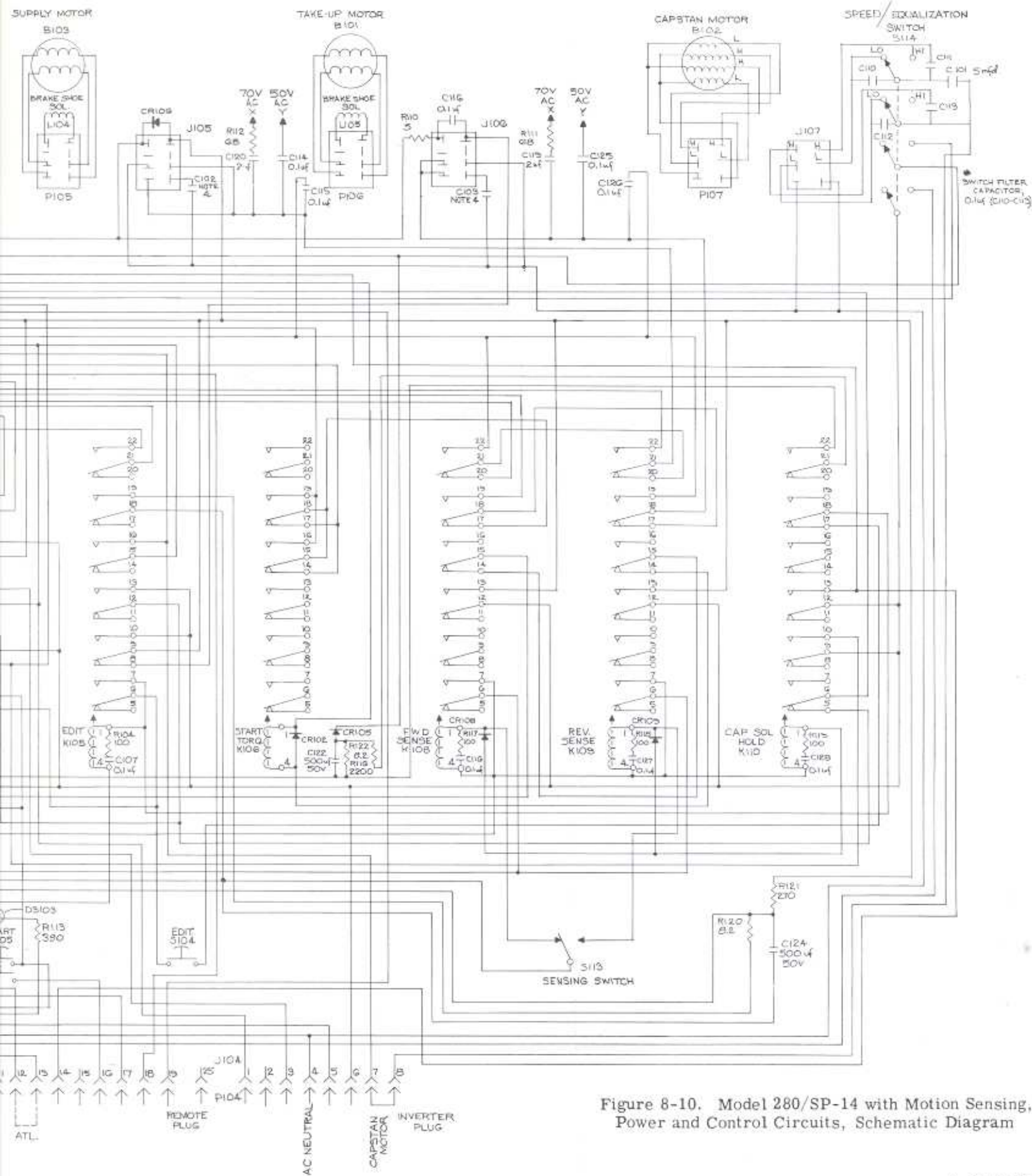


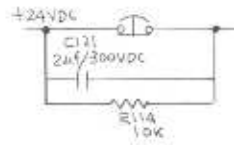
Figure 8-10. Model 280/SP-14 with Motion Sensing, Power and Control Circuits, Schematic Diagram

* ALTERNATE WIRING ON J101 FOR 1/2 TAPE MACHINES

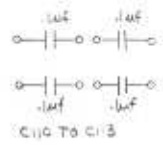
- 3- 117VAC
- 4- 90VAC
- 5- 70VAC
- 6- 50VAC
- 8- 35VAC
- 0- N

PART OF J101 (TO POWER SUPPLY)

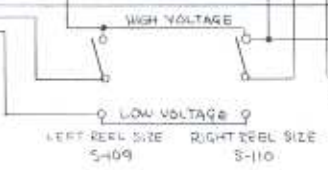
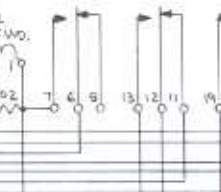
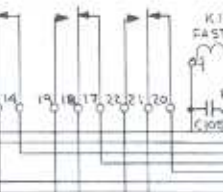
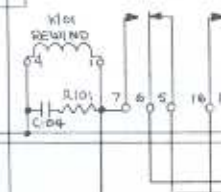
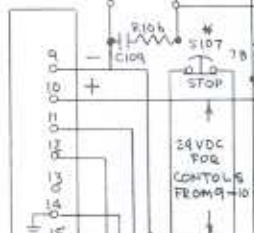
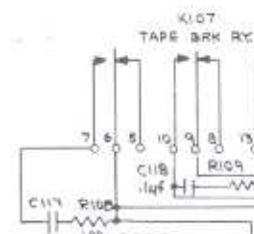
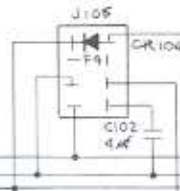
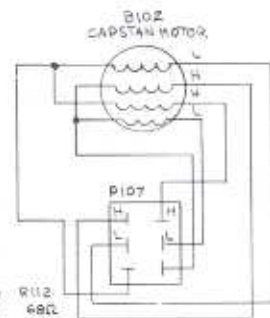
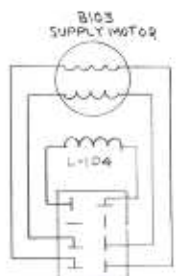
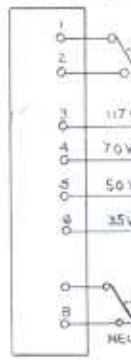
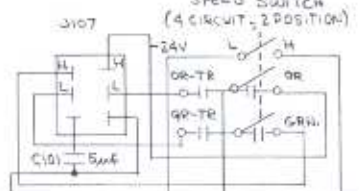
S107 DETAIL (STOP)



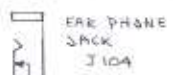
S114 DETAIL (SPEED)



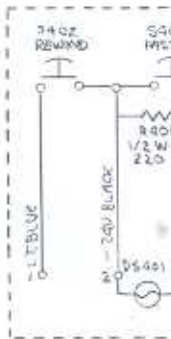
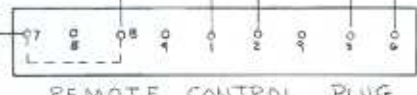
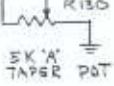
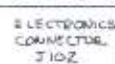
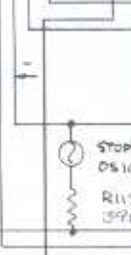
* S114 SPEED SWITCH (4 CIRCUIT, 2 POSITION)



PART OF J101 (TO POWER SUPPLY)



24VDC + FOR ELECTRONICS (FROM 11413)



REFERENCE DRAWINGS

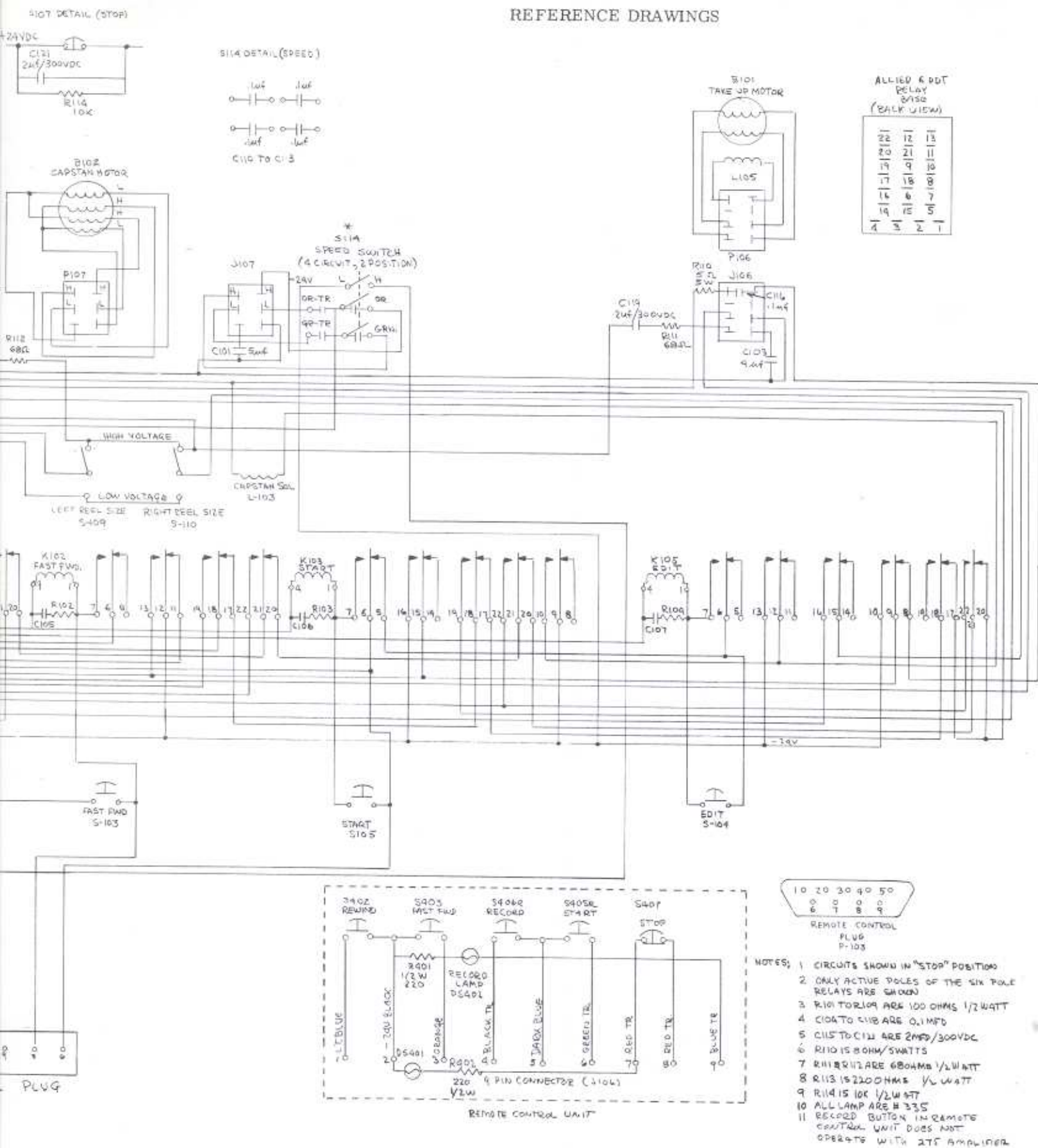
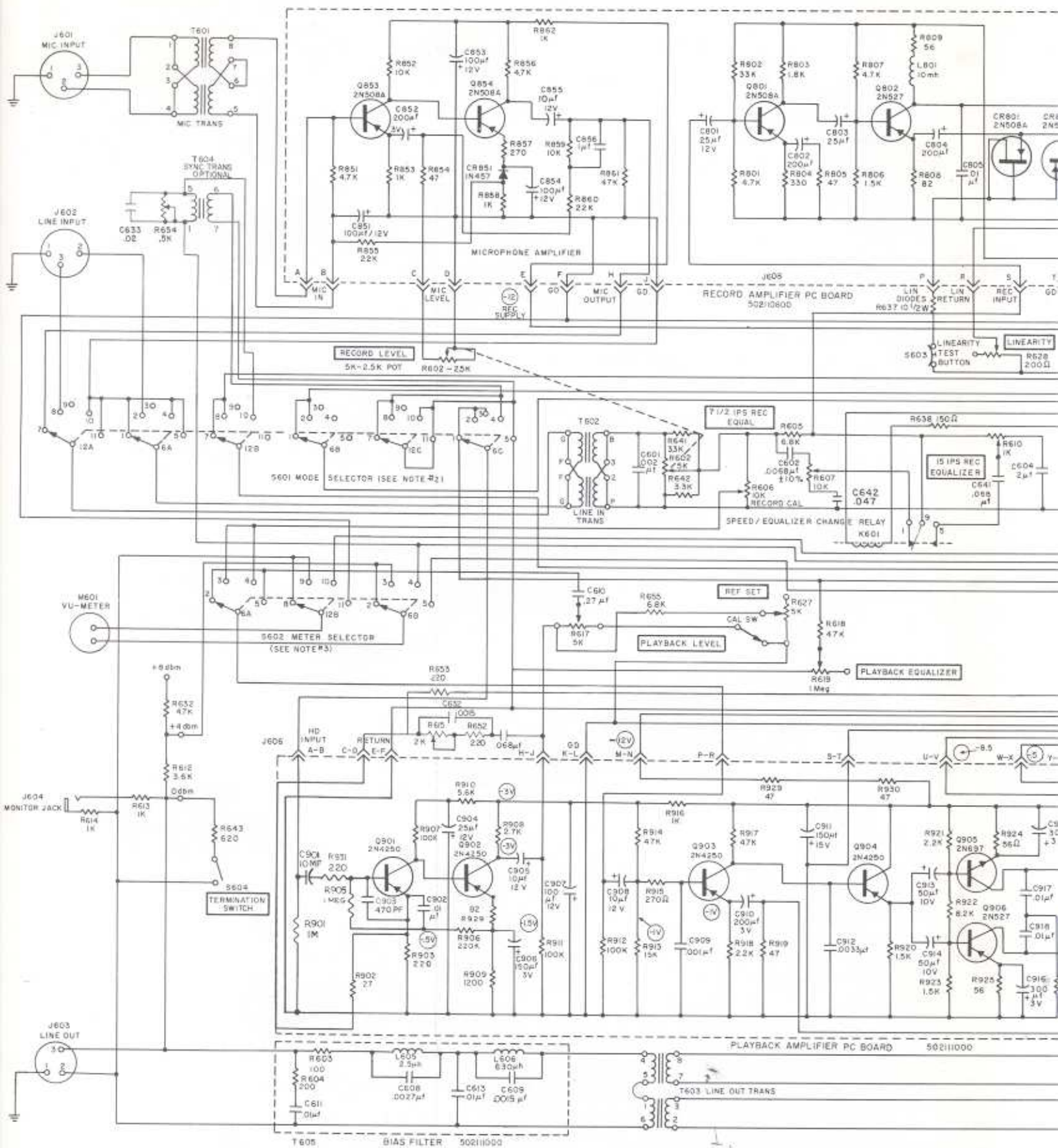


Figure 8-11. Model 275 Reproducer, Power and Control Circuits, Schematic Diagram



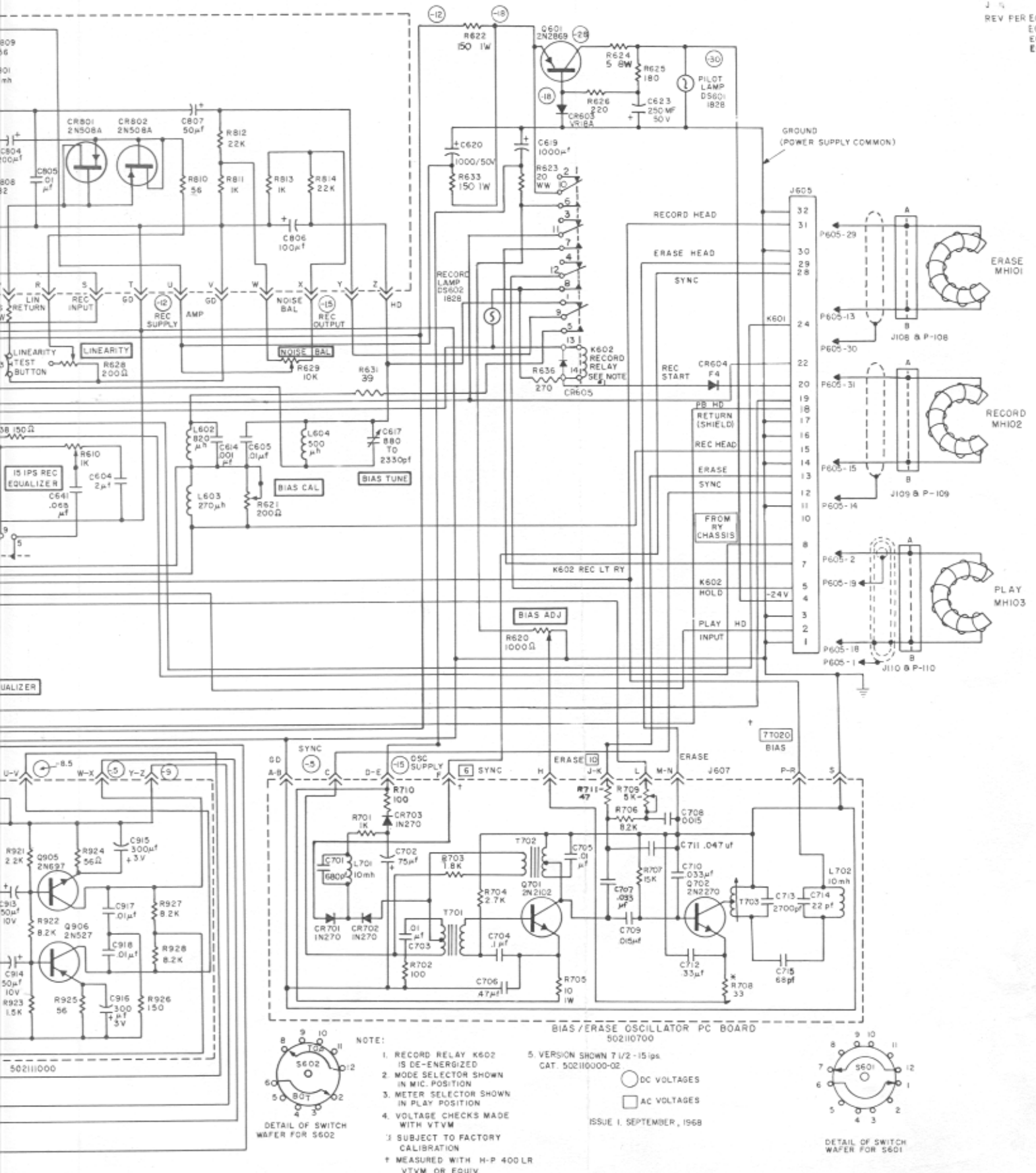
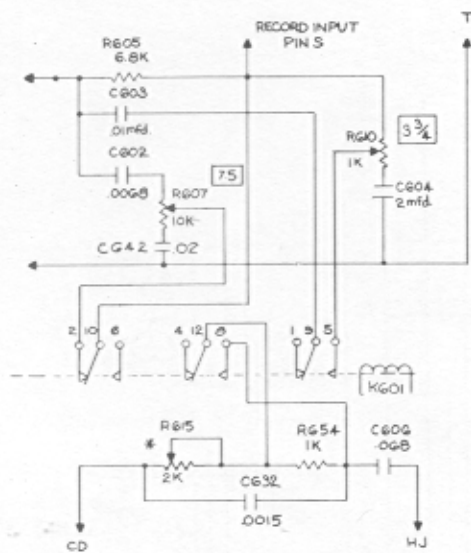
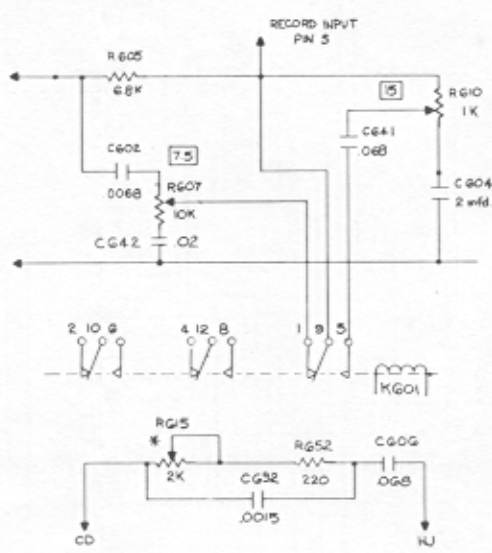


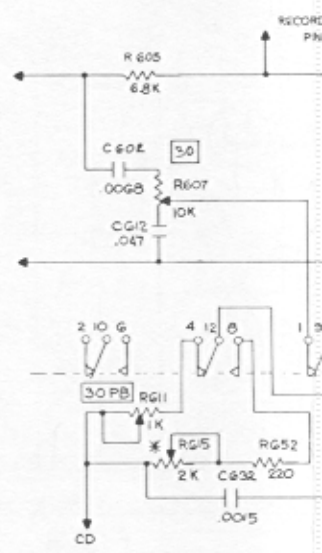
Figure 8-12. Electronics Schematic Diagram, All Versions of Model 280 (Sheet 1 of 2 Sheets)



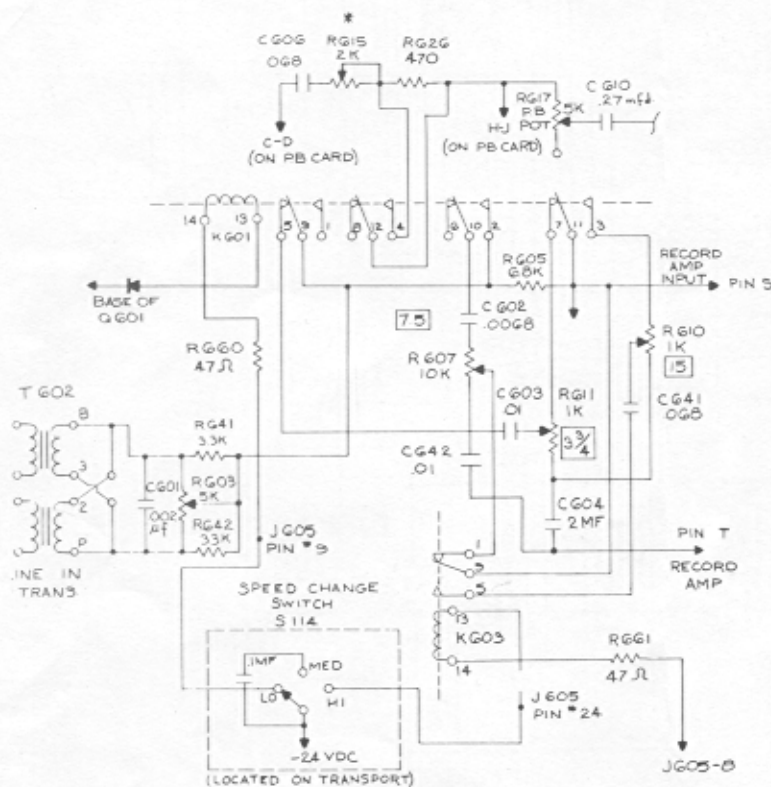
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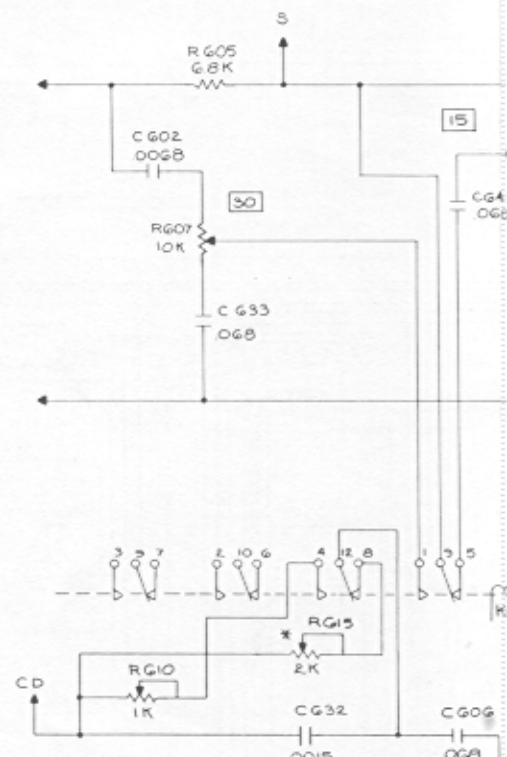
NAB 7 1/2-15 CAT-502110000-02



NAB 15-30 CAT-502110000-03

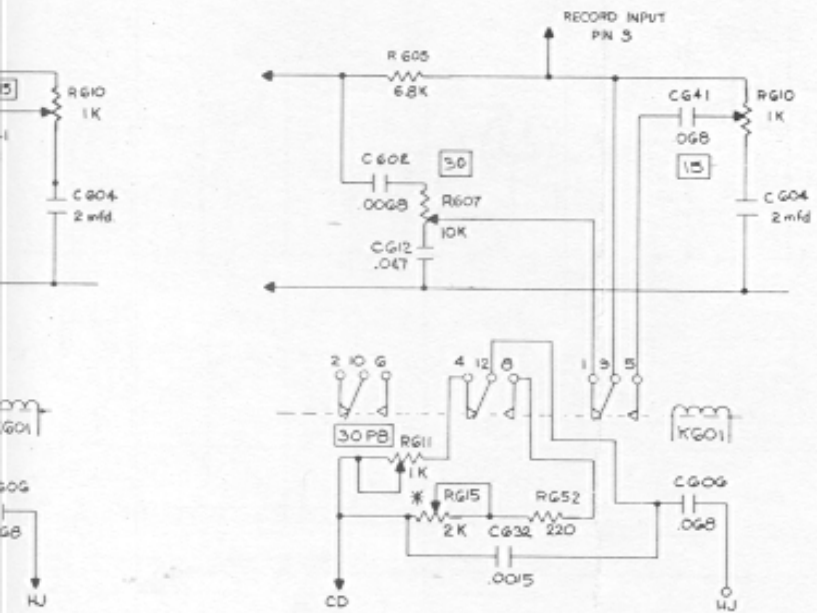


NAB 3 3/4-7 1/2-15 IPS EQUALIZATION CAT-502110000-08

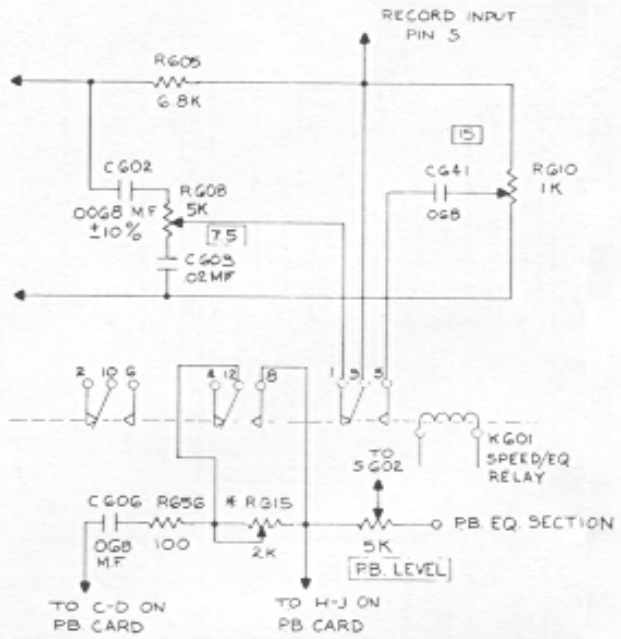


CCIR 15-30 CAT-502110000-09

Figure 8-12. Electronics Schematic Diagram, All Versions of Model 280 (Sheet 2 of 2 Sheets)

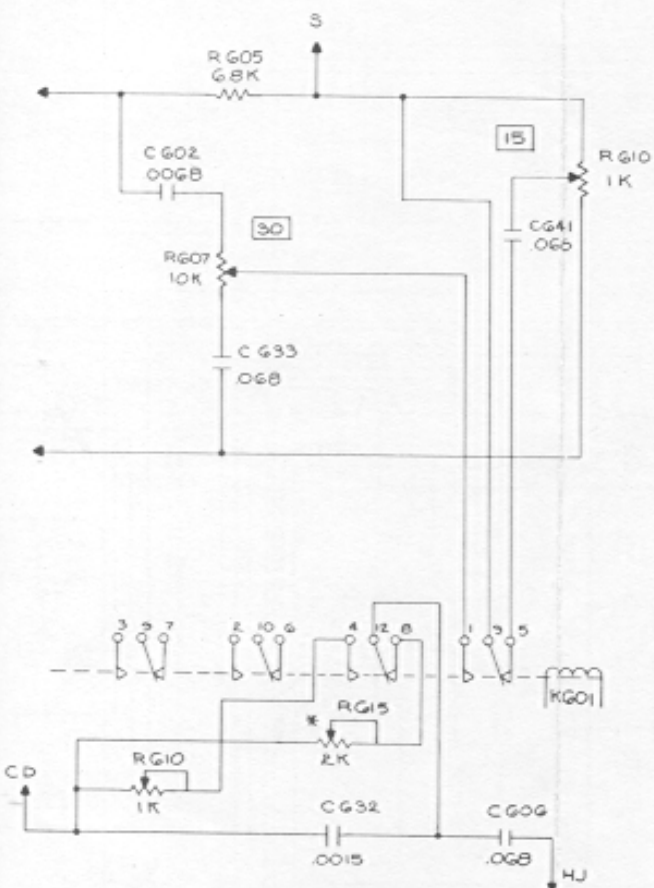


NAB 15-30 CAT.- 502110000-G3



CCIR 7 2-15 CAT.- 502110000-05

EQUALIZATION CIRCUITS
SHOWN IN NORMALLY
OFF POSITION



CCIR 15-30
CAT. - 502110000-0G