

Figure 27. Radio Receiver R-390/URR, block diagram.

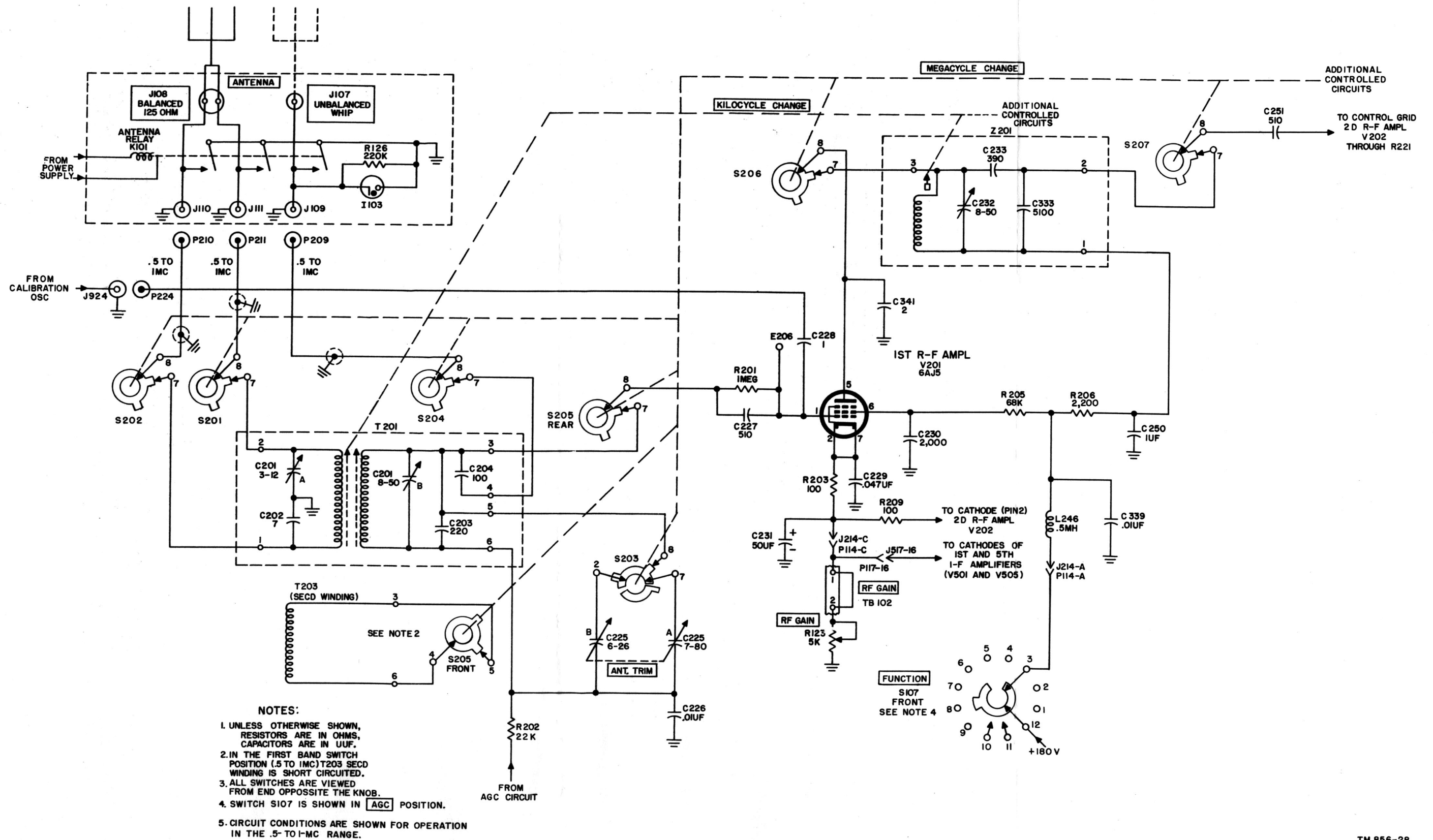
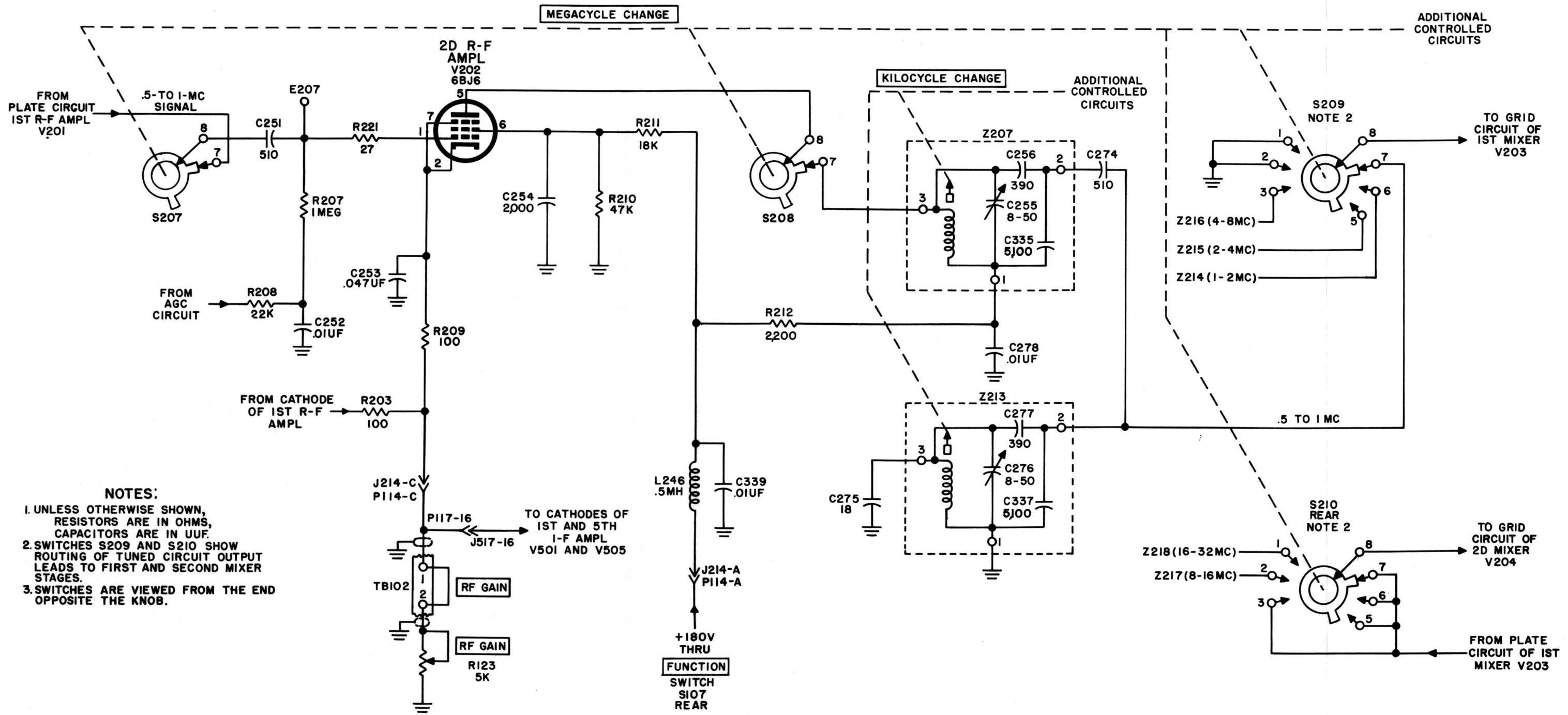
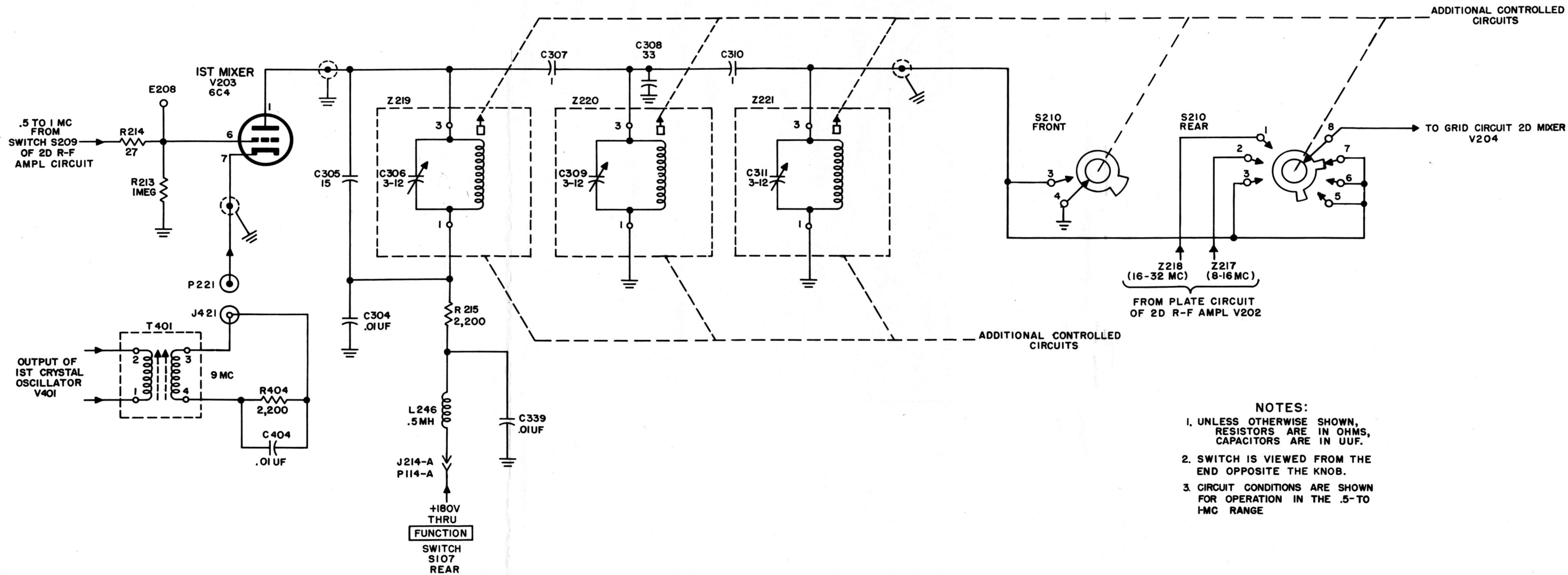


Figure 28. Antenna circuit and first rf amplifier, schematic diagram



- NOTES:**
- 1. UNLESS OTHERWISE SHOWN, RESISTORS ARE IN OHMS, CAPACITORS ARE IN UUF.
 - 2. SWITCHES S209 AND S210 SHOW ROUTING OF TUNED CIRCUIT OUTPUT LEADS TO FIRST AND SECOND MIXER STAGES.
 - 3. SWITCHES ARE VIEWED FROM THE END OPPOSITE THE KNOB.

Figure 29. Second rf amplifier, schematic diagram.



- NOTES:**
1. UNLESS OTHERWISE SHOWN, RESISTORS ARE IN OHMS, CAPACITORS ARE IN UUF.
 2. SWITCH IS VIEWED FROM THE END OPPOSITE THE KNOB.
 3. CIRCUIT CONDITIONS ARE SHOWN FOR OPERATION IN THE .5-TO 1-MC RANGE

Figure 30. First mixer stage, schematic diagram.

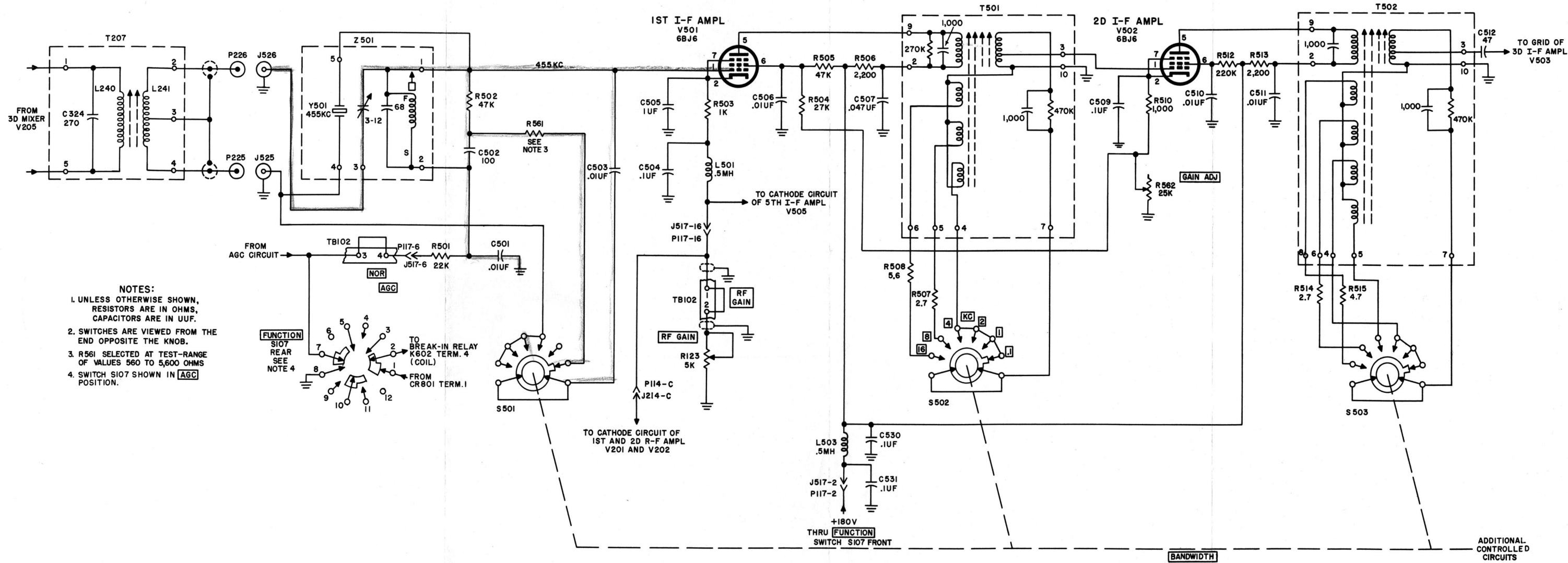


Figure 37. First and second if. amplifiers, schematic diagram.

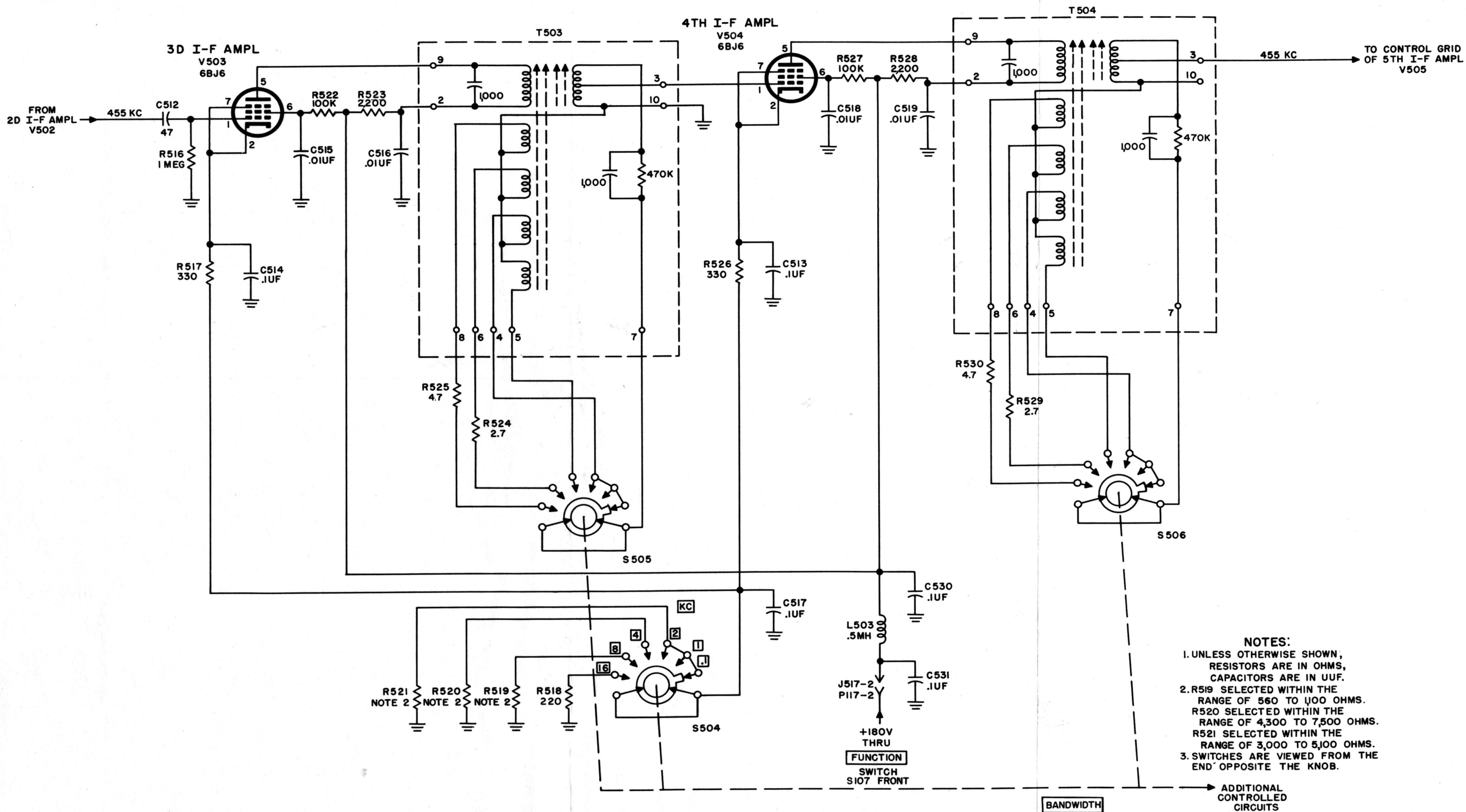


Figure 38. Third and fourth if. amplifiers, schematic diagram.

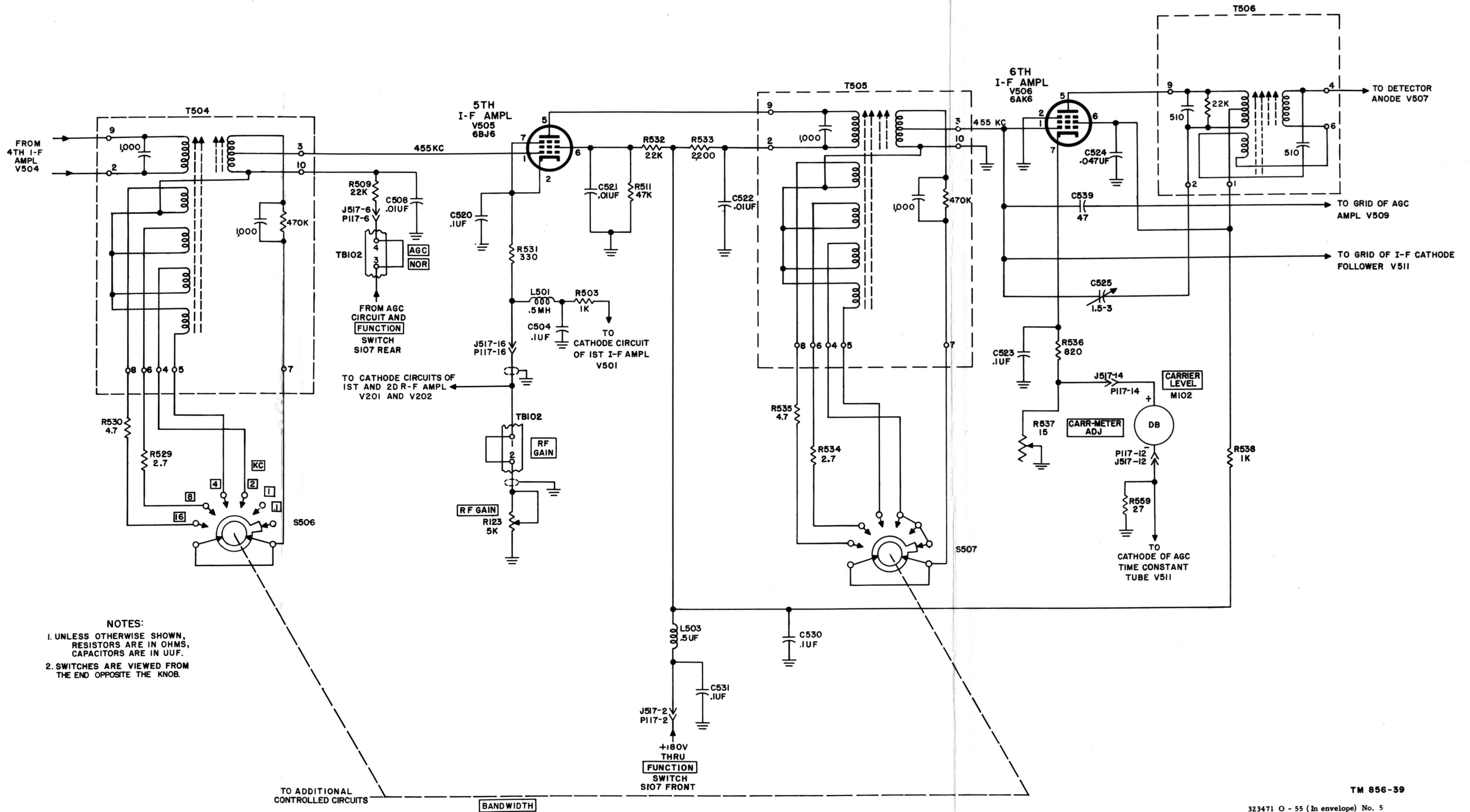


Figure 39. Fifth and sixth if. amplifiers, schematic diagram.

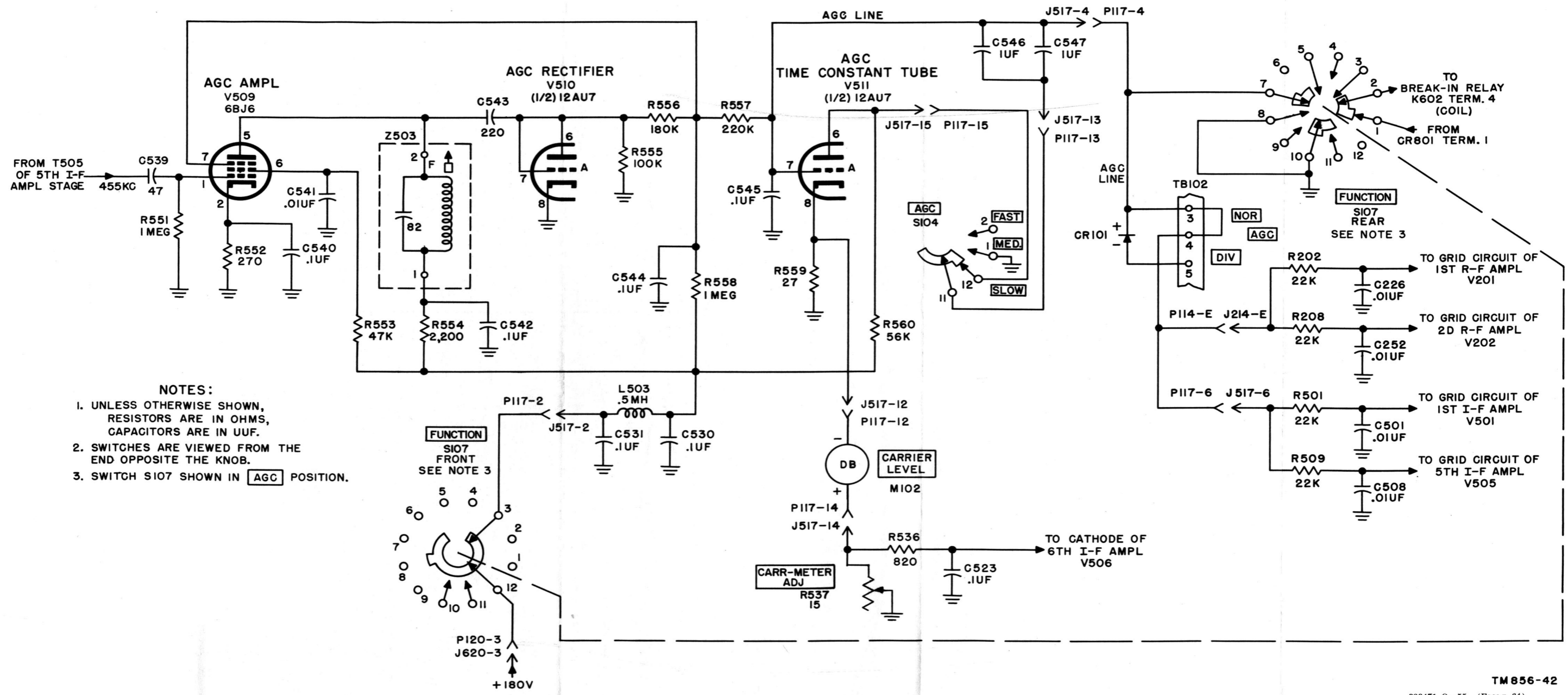
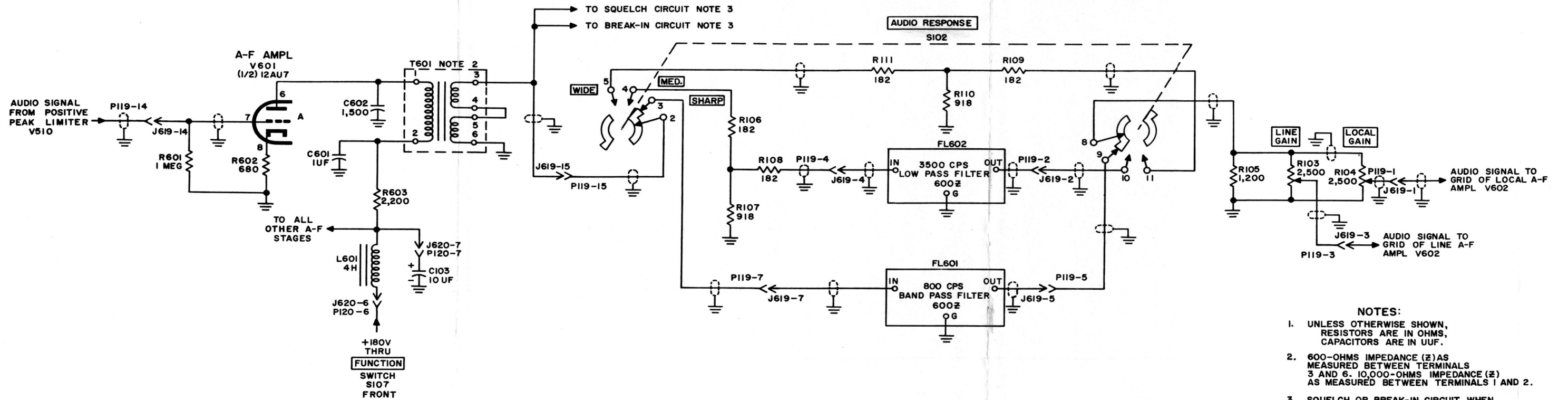


Figure 42. Agc circuit, schematic diagram.



- NOTES:
1. UNLESS OTHERWISE SHOWN, RESISTORS ARE IN OHMS, CAPACITORS ARE IN UUF.
 2. 600-OHMS IMPEDANCE (Z) AS MEASURED BETWEEN TERMINALS 3 AND 6. 10,000-OHMS IMPEDANCE (Z) AS MEASURED BETWEEN TERMINALS 1 AND 2.
 3. SQUELCH OR BREAK-IN CIRCUIT WHEN ENERGIZED GROUNDS OUTPUT OF V601.
 4. SWITCH IS VIEWED FROM THE END OPPOSITE THE KNOB.
 5. SWITCH SIO2 SHOWN IN **SHARP** POSITION.

Figure 45. A-f amplifier, schematic diagram.

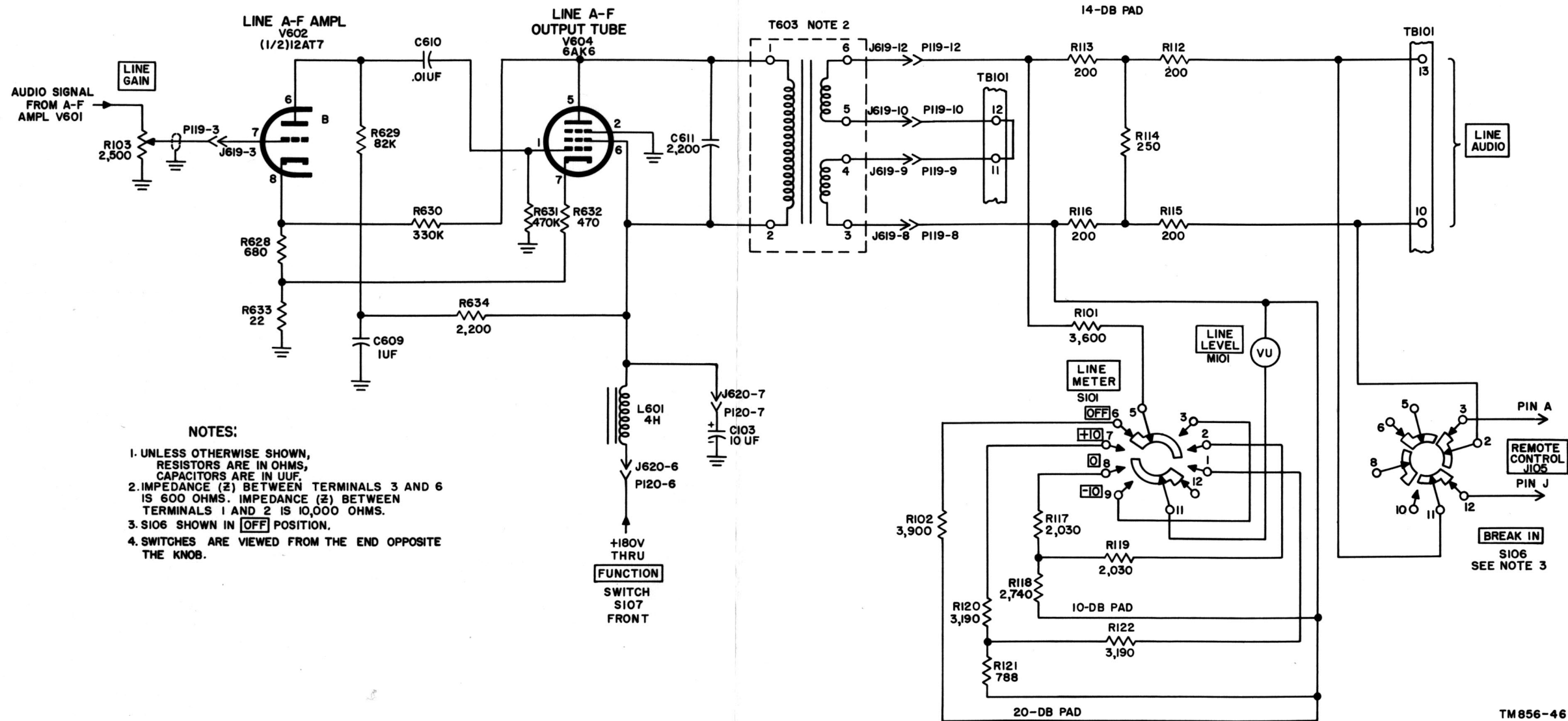


Figure 47. Line audio channel, schematic diagram.

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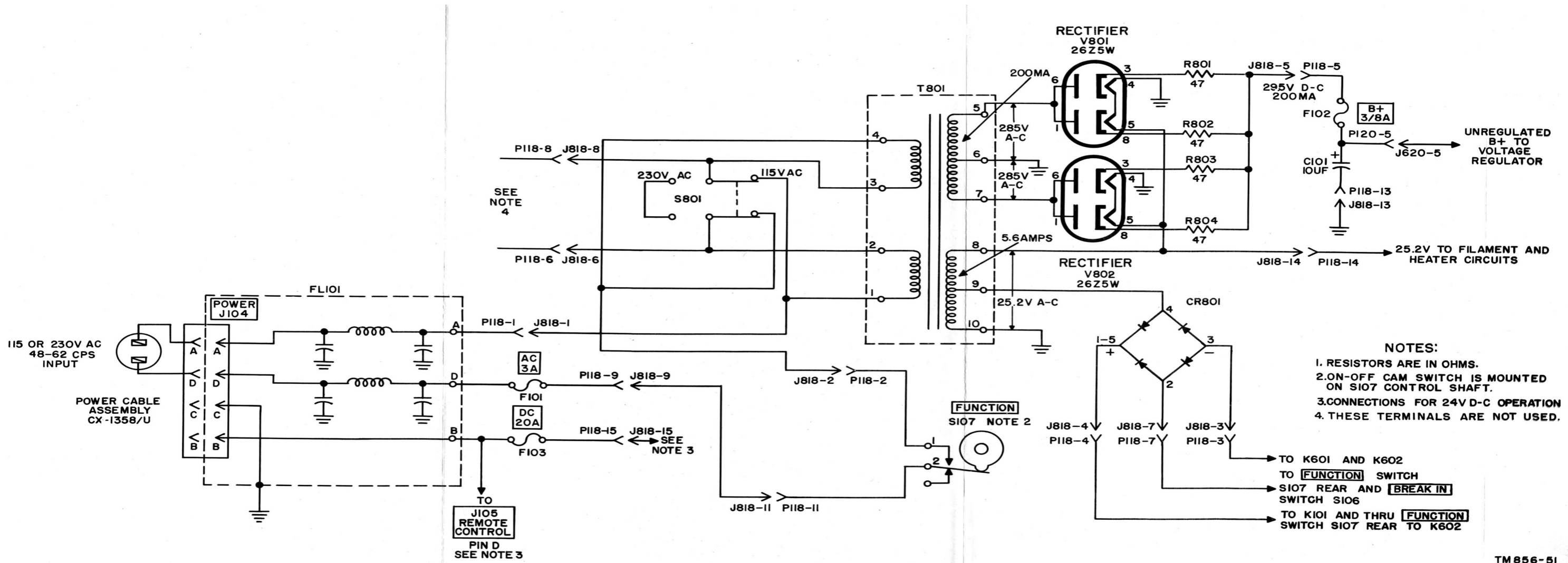


Figure 52. Power Supply PP-621/URR, schematic diagram.

- NOTES:**
1. UNLESS OTHERWISE SHOWN, RESISTORS ARE IN OHMS, CAPACITORS ARE IN UUF.
 2. SWITCHES ARE VIEWED FROM THE END OPPOSITE THE KNOB.
 3. SWITCH S107 IS IN **AGC** POSITION.

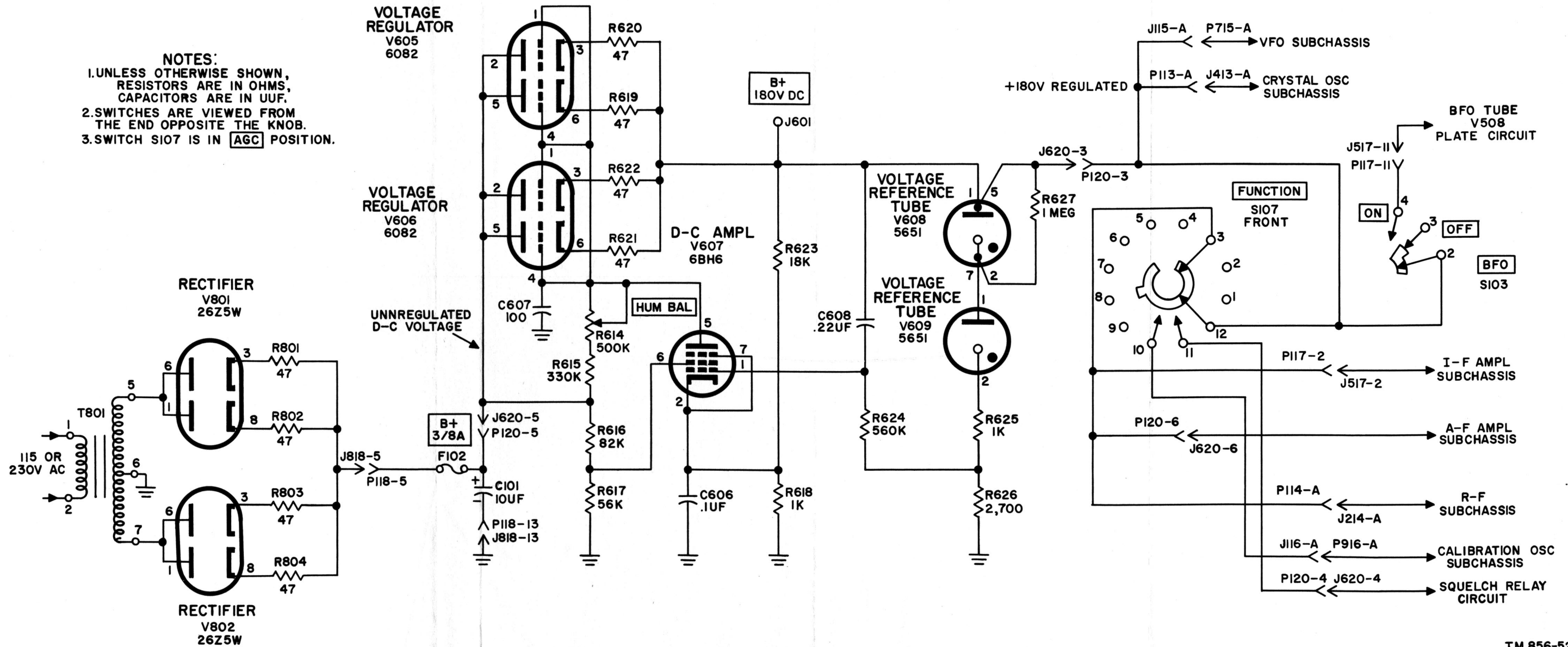


Figure 53. Voltage regulator circuit, schematic diagram.

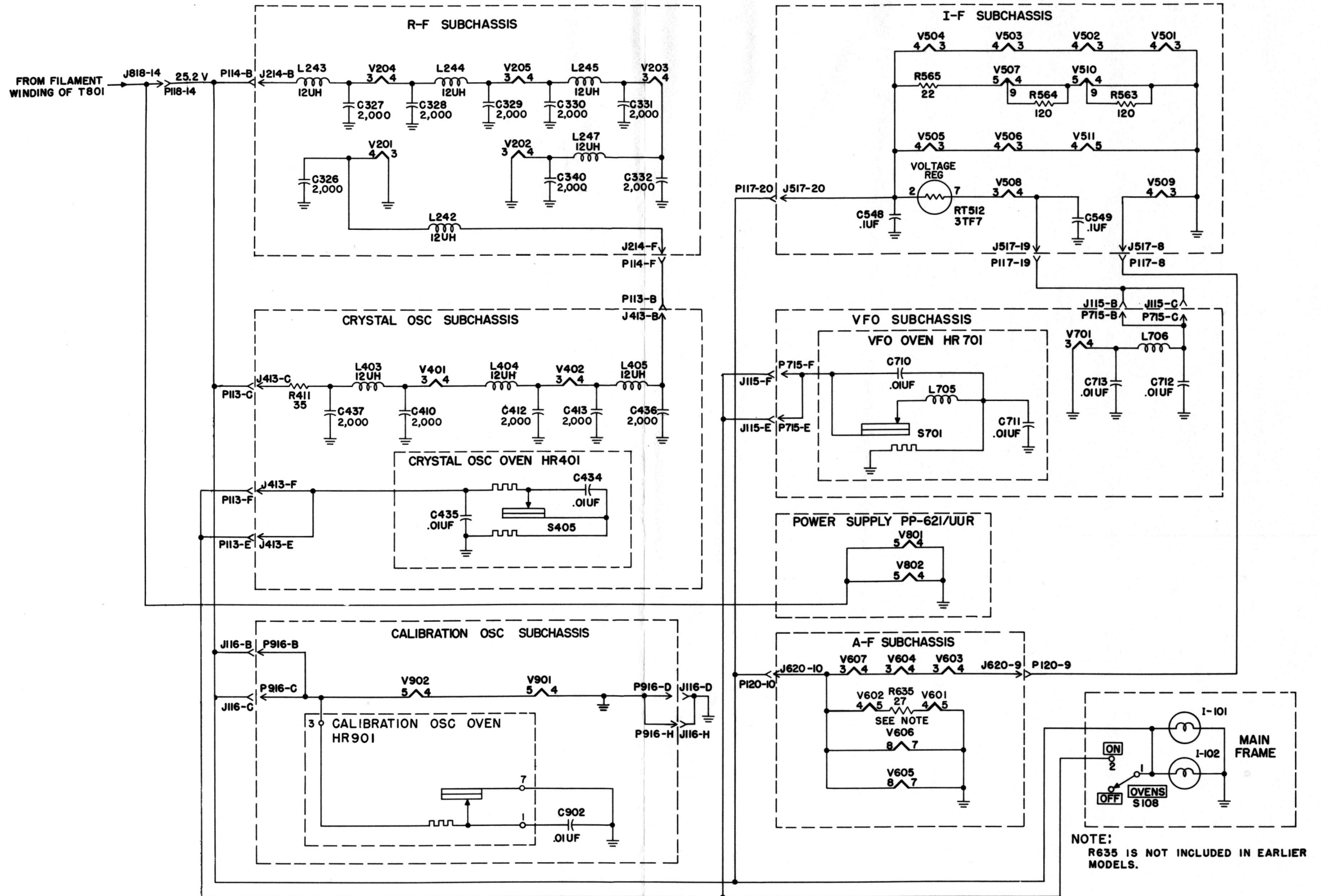


Figure 54. Filament and oven heater circuits, schematic diagram.

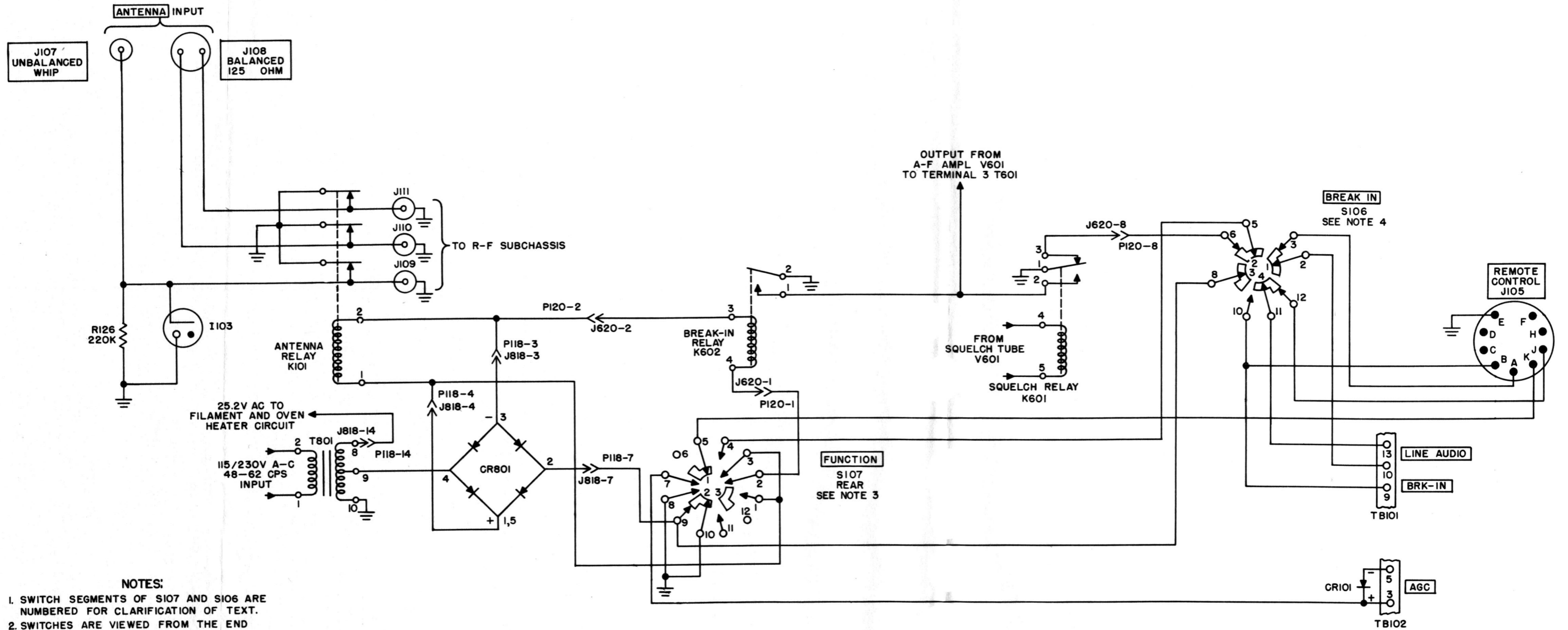


Figure 56. Break-in circuit, schematic diagram.

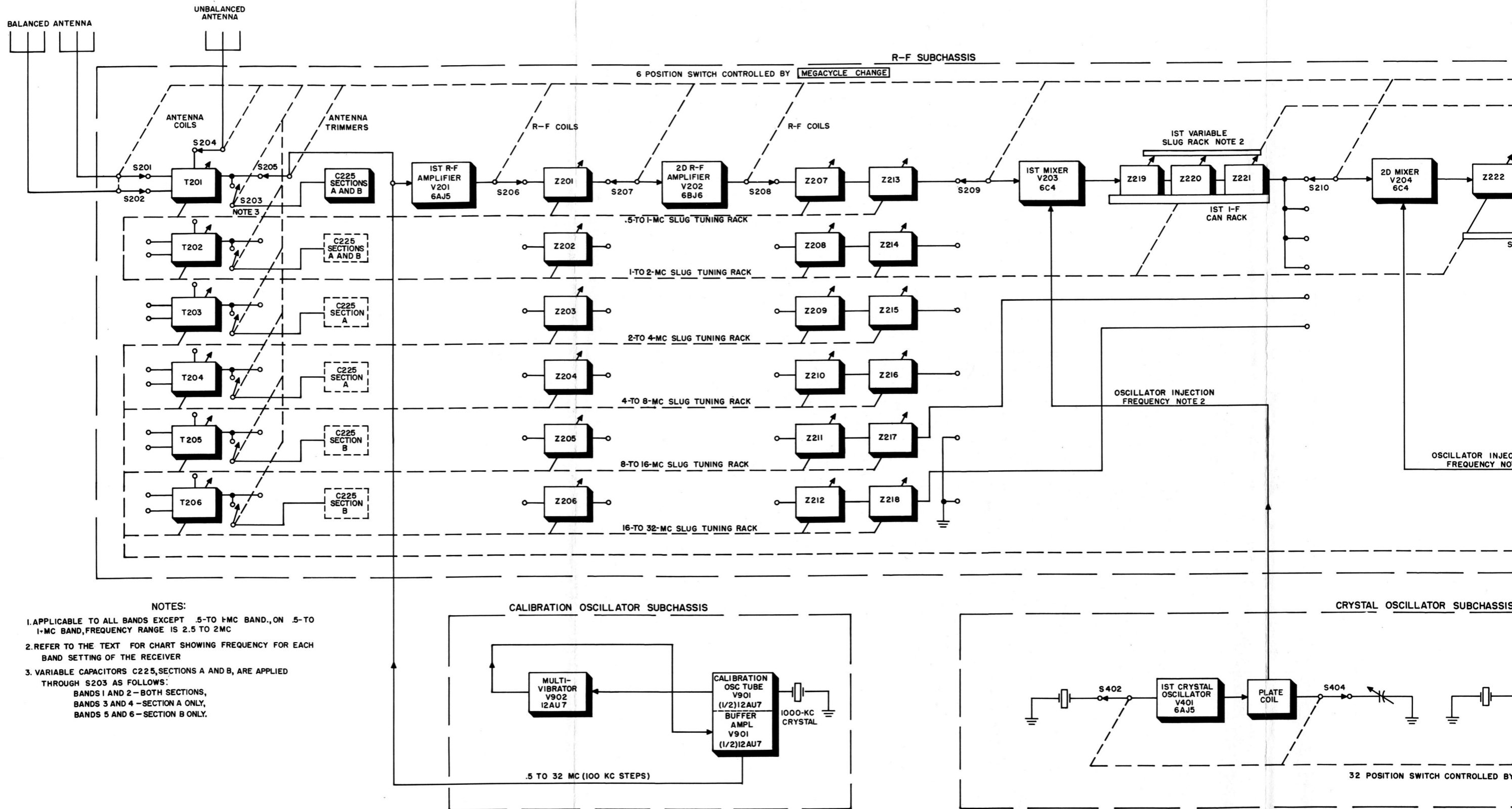


Figure 58. Mechanical tuning system with associated stages, block diagram.

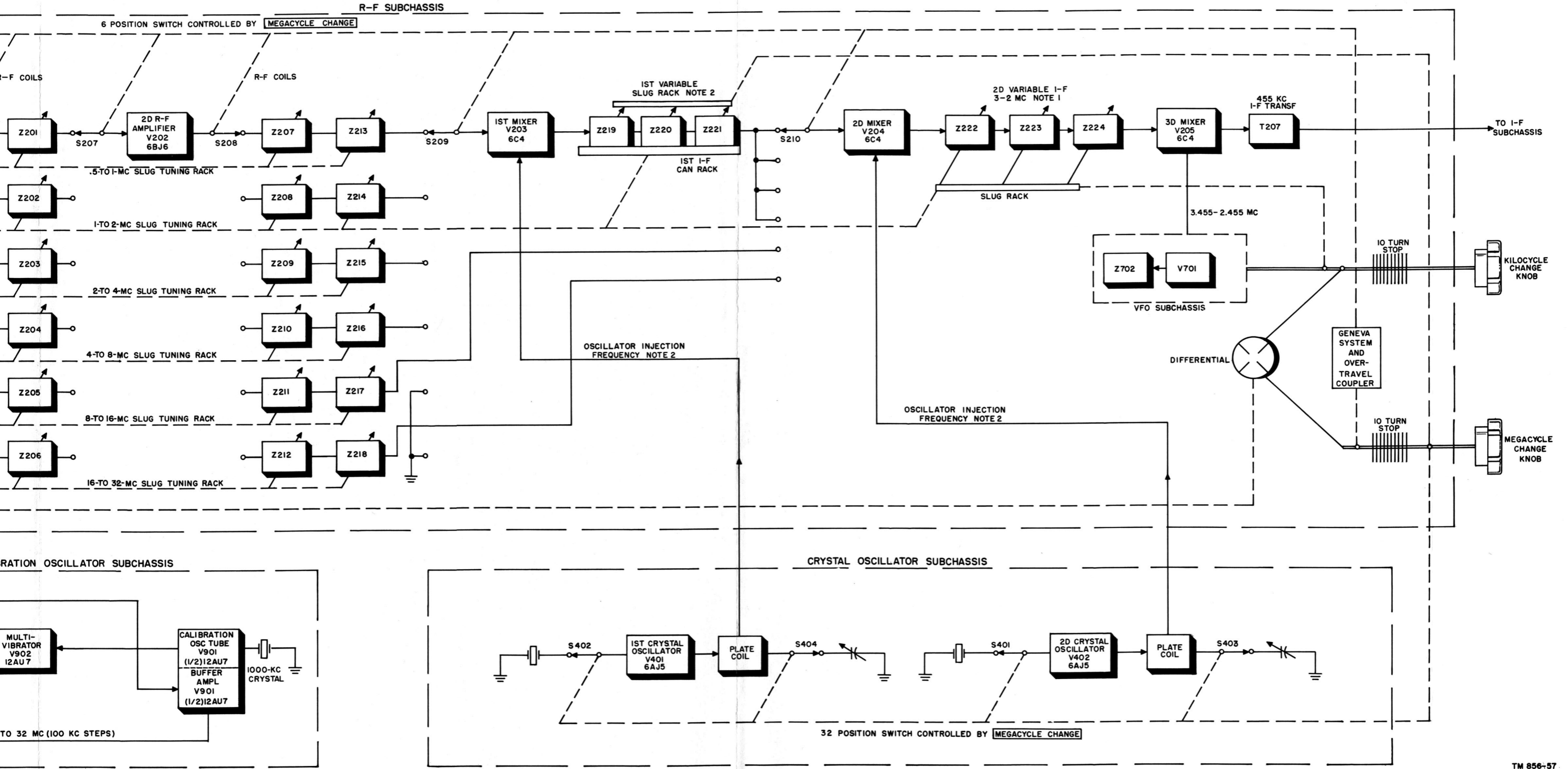


Figure 58. Mechanical tuning system with associated stages, block diagram.

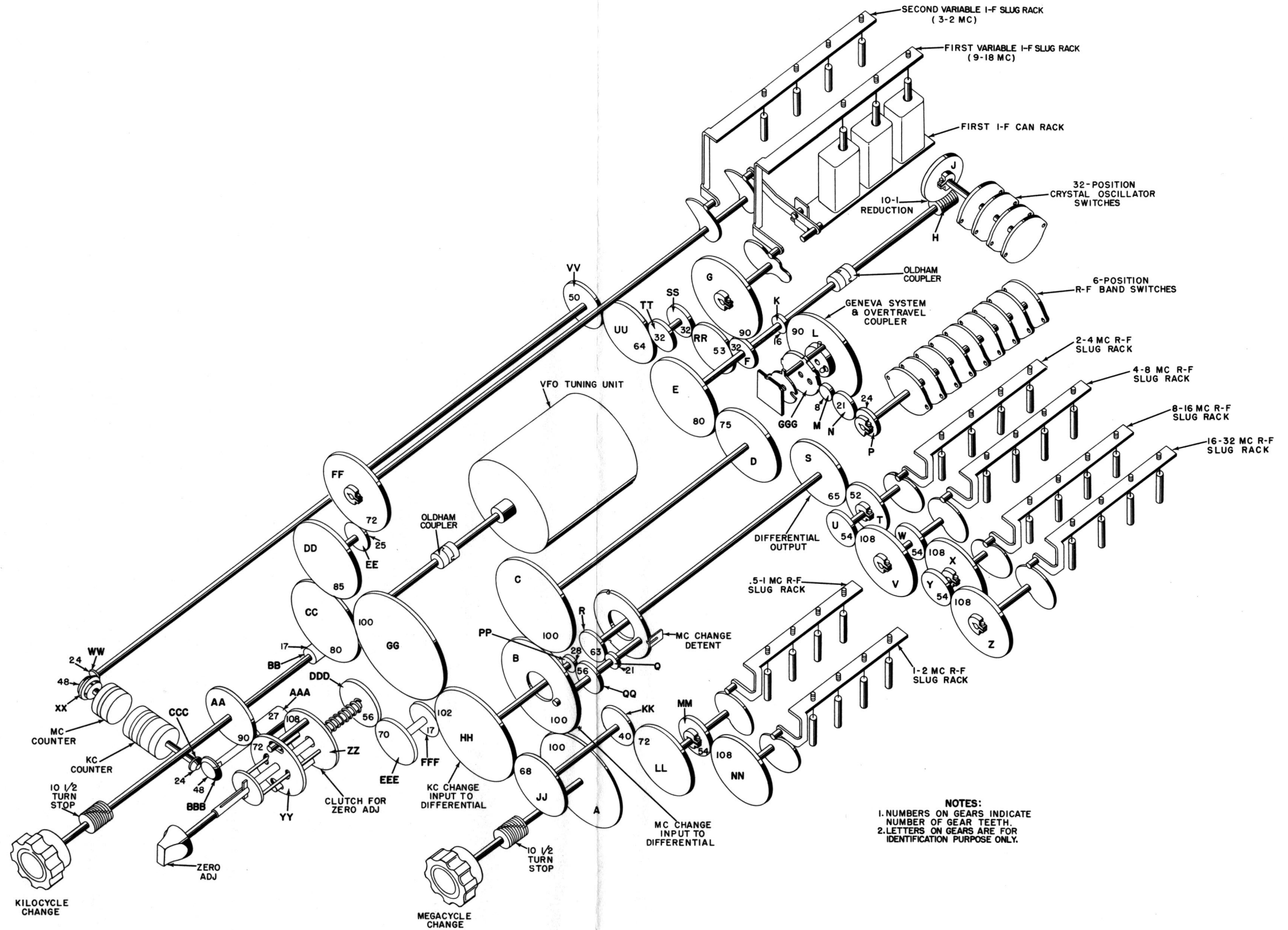
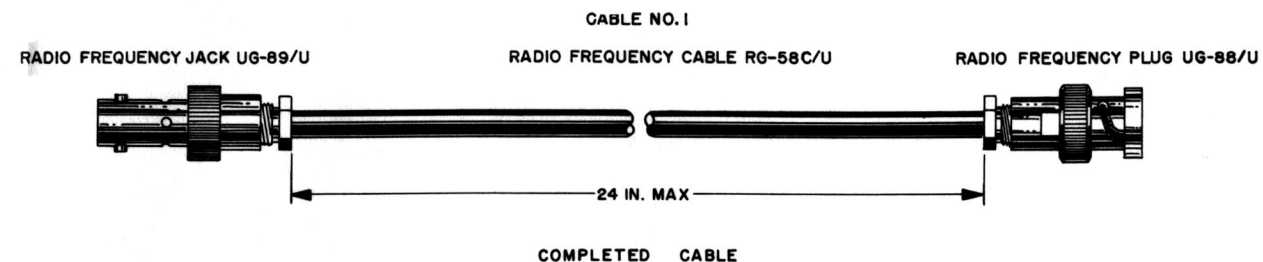


Figure 59. Tuning system, exploded view.

NOTE:

INSTRUCTIONS ARE GIVEN BELOW, IN STEP-BY-STEP SEQUENCE, FOR ATTACHING RADIO FREQUENCY JACK UG-89/U TO ONE END OF THE CABLE. RADIO FREQUENCY PLUG UG-88/U IS ATTACHED TO OTHER END OF CABLE BY FOLLOWING SAME PROCEDURE AS FOR FEMALE CONNECTOR, EXCEPT THAT A MALE CONTACT AND PLUG BODY ARE SUBSTITUTED.

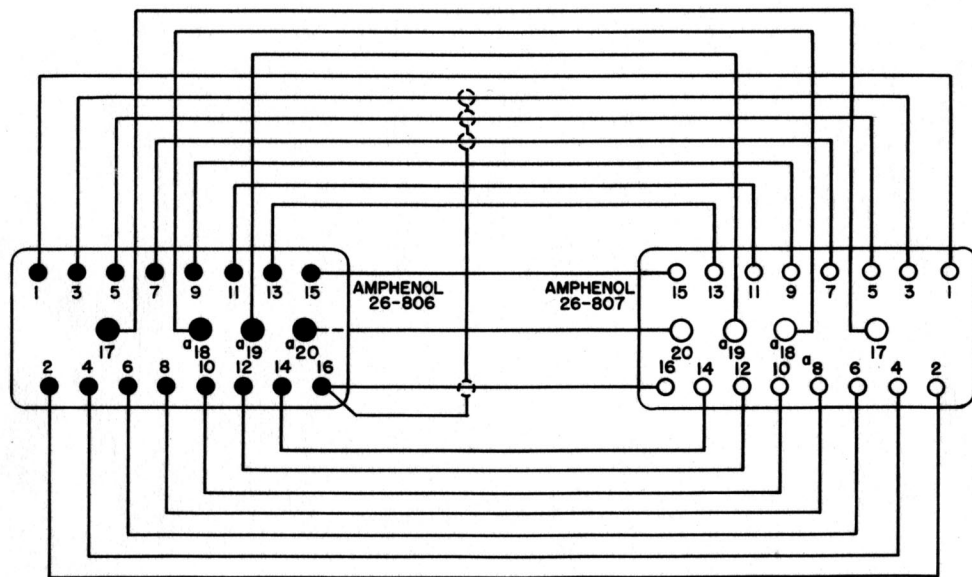
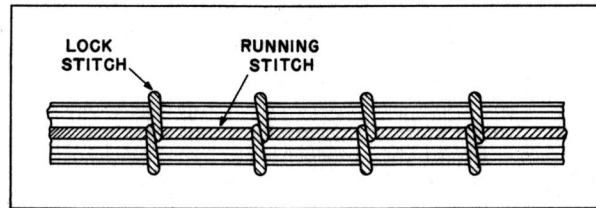


ASSEMBLING RADIO FREQUENCY JACK UG-89/U		NUT	SLEEVE	FEMALE CONTACT	JACK BODY				
STEP 1						CUT END OF CABLE EVEN.	STEP 6		WITH SLEEVE IN PLACE, COMB OUT BRAID, FOLD BACK SMOOTH AS SHOWN, AND TRIM 3/32".
STEP 2						REMOVE OUTER JACKET 1/2" - DON'T NICK BRAID.	STEP 7		BARE CENTER CONDUCTOR 1/8" - DON'T NICK CONDUCTOR.
STEP 3						PUSH BRAID BACK, AND REMOVE 1/8" OF INSULATION AND CONDUCTOR.	STEP 8		TIN CENTER CONDUCTOR OF CABLE. SLIP FEMALE CONTACT IN PLACE AND SOLDER. REMOVE EXCESS SOLDER. BE SURE CABLE DIELECTRIC IS NOT HEATED EXCESSIVELY AND SWOLLEN SO AS TO PREVENT DIELECTRIC ENTERING BODY.
STEP 4						TAPER BRAID.	STEP 9		PUSH INTO BODY AS FAR AS IT WILL GO. SLIDE NUT INTO BODY AND SCREW INTO PLACE, WITH WRENCH, UNTIL MODERATELY TIGHT. HOLD CABLE AND SHELL RIGIDLY AND ROTATE NUT.
STEP 5						SLIDE SLEEVE OVER TAPERED BRAID. FIT INNER SHOULDER OF SLEEVE SQUARELY AGAINST END OF JACKET.	STEP 10		ASSEMBLED CONNECTOR.

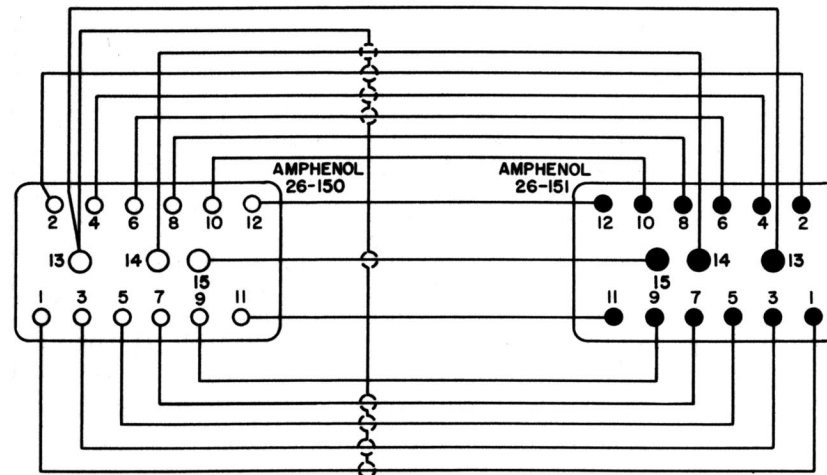
Figure 60. Assembly instruction for cable No. 1

NOTES:

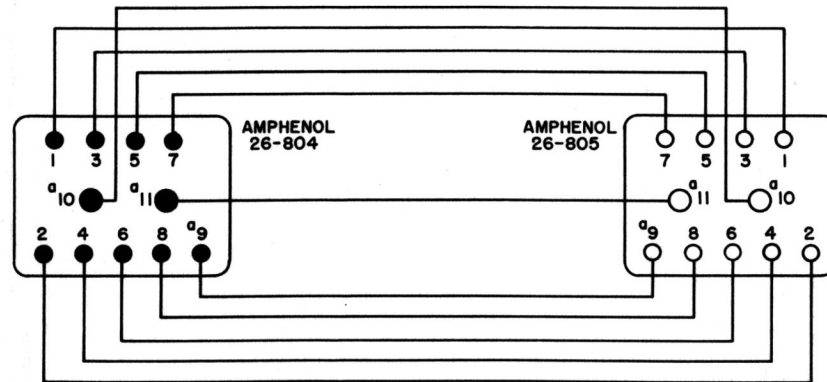
1. THE MULTI-CONDUCTOR EXTENSION CABLES ARE TO BE FABRICATED OF NO. 18 TO 22 GAGE SHIELDED, STRANDED WIRE FOR AUDIO CONDUCTORS INDICATED BY ○, NO. 18 GAGE STRANDED WIRE FOR CONDUCTORS MARKED ^a, AND NO. 22 GAGE STRANDED WIRE FOR ALL OTHER CONDUCTORS. INSULATION MUST BE RATED AT 600V.
2. CONNECTORS SHOWN VIEWED FROM REAR. COVERS TO BE USED WITH FEMALE CONNECTORS. AMPHENOL 86-834 COVER USED WITH 26-192 CONNECTOR.
3. CABLES TO BE LACED WITH NO. 6 VINYLITE LACING CORD AS SHOWN IN INSERT.
4. MAXIMUM LENGTH OF ALL CABLES IS 24 IN.
5. CHECK CONTINUITY AFTER COMPLETING FABRICATION.
6. LABEL EXTENSION CABLES FOR IDENTIFICATION.
7. NORMALLY, ONE EACH OF EXTENSION CABLES IS REQUIRED. IF VFO AND CALIBRATION OSC SUBCHASSIS ARE OPERATED OUTSIDE RECEIVER AT SAME TIME, TWO NO. 7 CABLES ARE NEEDED.



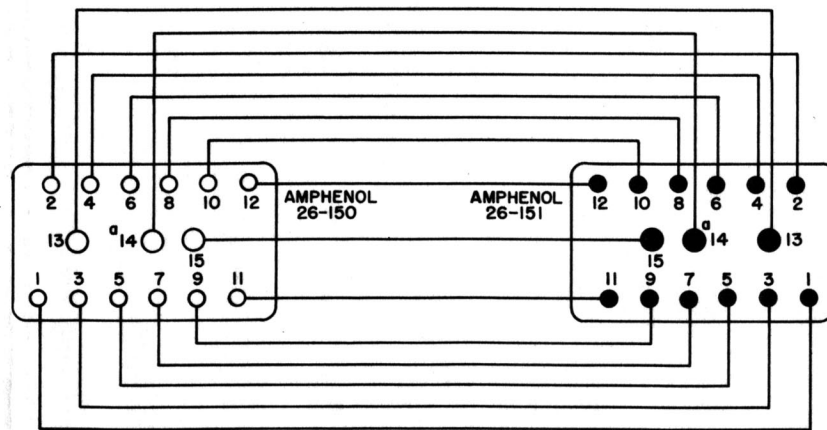
CABLE NO.8



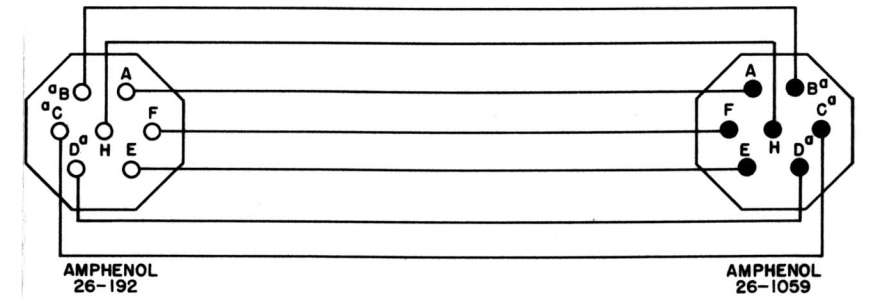
CABLE NO.3



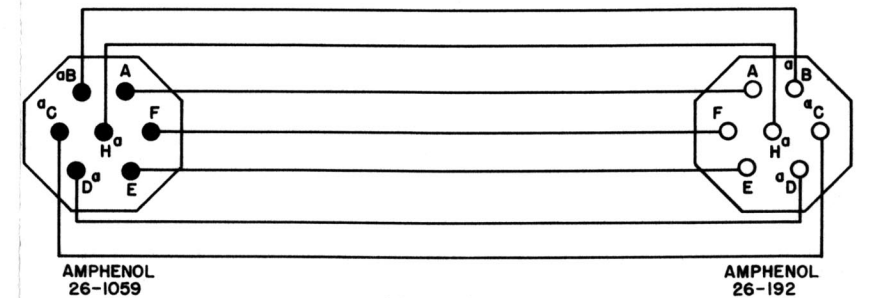
CABLE NO.4



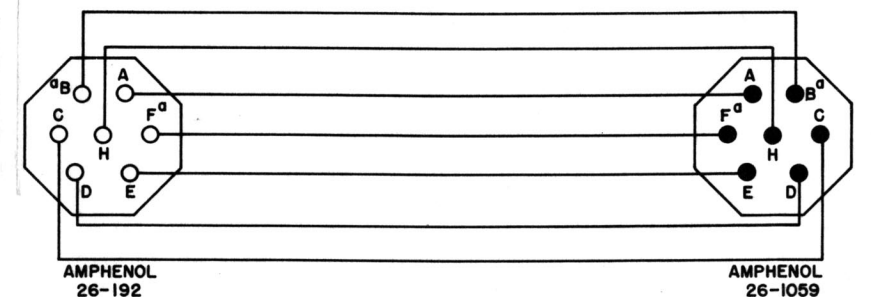
CABLE NO.5



CABLE NO.6

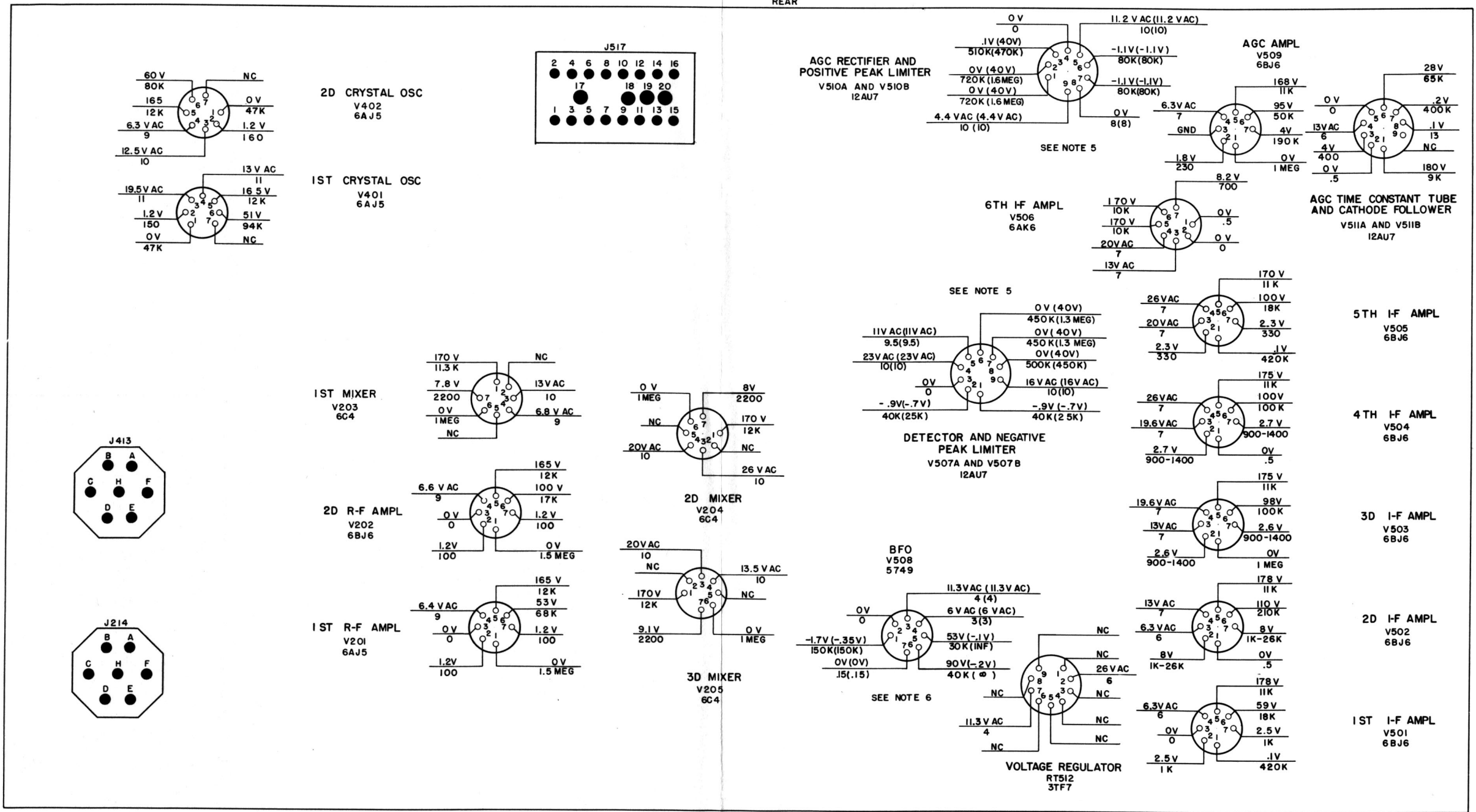


CABLE NO.7



CABLE NO.2

Figure 61. Assembly instructions for multiconductor cables.



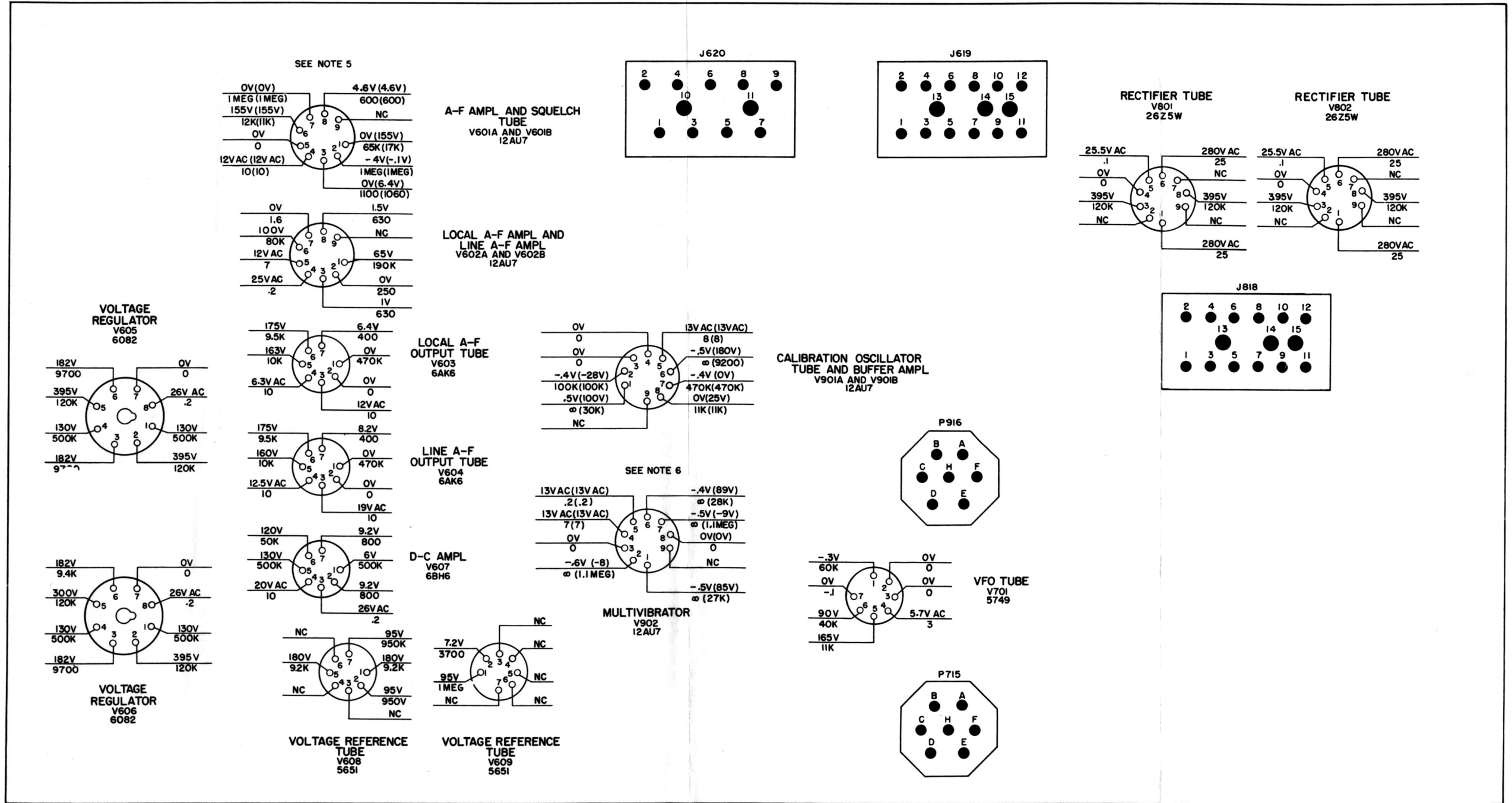
1. UNLESS OTHERWISE SHOWN, RESISTORS ARE IN OHMS AND ARE MEASURED FROM PIN SOCKET TO GROUND WITH A 20,000 OHMS-PER-VOLT METER (SUCH AS MULTIMETER TS-352/U), VOLTAGES ARE DC AND ARE MEASURED FROM PIN SOCKET TO GROUND WITH A VTVM (SUCH AS ELECTRONIC MULTIMETER TS-505/U). READINGS ARE THE SAME ON ALL BANDS.
 2. NC INDICATES NO CONNECTION
 3. ∞ INDICATES INFINITY

NOTES:

4. UNLESS OTHERWISE NOTED, SET CONTROLS AS FOLLOWS:
 SET S801 TO 115 VOLTS AC, **FUNCTION** TO **AGC**, **AUDIO RESPONSE** TO **MED**, **RF GAIN** TO **10**, **LOCAL GAIN** TO **10**, AND **BANDWIDTH** TO **8 KC**.
5. READINGS IN PARENTHESES ARE MADE WITH **LIMITER** AT **OFF**, OTHER READINGS ARE WITH **LIMITER** AT **10**.
6. READINGS IN PARENTHESES ARE MADE WITH **BFO** AT **OFF**.
7. RECEPTACLE RESISTANCE READINGS ARE TAKEN WITH PLUG DISCONNECTED.

Figure 82. Radio Receiver R-390/URR, tube voltage and resistance and subchassis receptacle resistance diagram, top deck.

REAR



FRONT

NOTES:

1. UNLESS OTHERWISE SHOWN RESISTORS ARE IN OHMS AND ARE MEASURED FROM PIN SOCKET TO GROUND WITH A 20,000 OHM-PER-VOLT METER (SUCH AS MULTIMETER TS-352/U). VOLTAGES ARE DC AND ARE MEASURED FROM PIN SOCKET TO GROUND WITH A VTVM (SUCH AS TRIPLETT ELECTRONIC MULTIMETER TS-505/U). READINGS ARE THE SAME ON ALL BANDS.
2. NC INDICATES NO CONNECTION.
3. ∞ INDICATES INFINITY.
4. UNLESS OTHERWISE NOTED, SET CONTROLS AS FOLLOWS: SET S801 TO 115 VOLTS AC, [FUNCTION] TO [AGC] [AUDIO RESPONSE] TO [MED], [RF GAIN] TO [10] [LOCAL GAIN] TO [10], AND [BANDWIDTH] TO [BKC].
5. READING IN PARENTHESES ARE MADE WITH [SQUELCH] AT [ON].
6. READINGS IN PARENTHESES ARE MADE WITH [FUNCTION] AT [CAL].
7. RECEPTACLE RESISTANCE READINGS ARE TAKEN WITH PLUG DISCONNECTED.

Figure 83. Radio Receiver R-390/URR, tube voltage and resistance and subchassis receptacle resistance diagram, bottom deck.

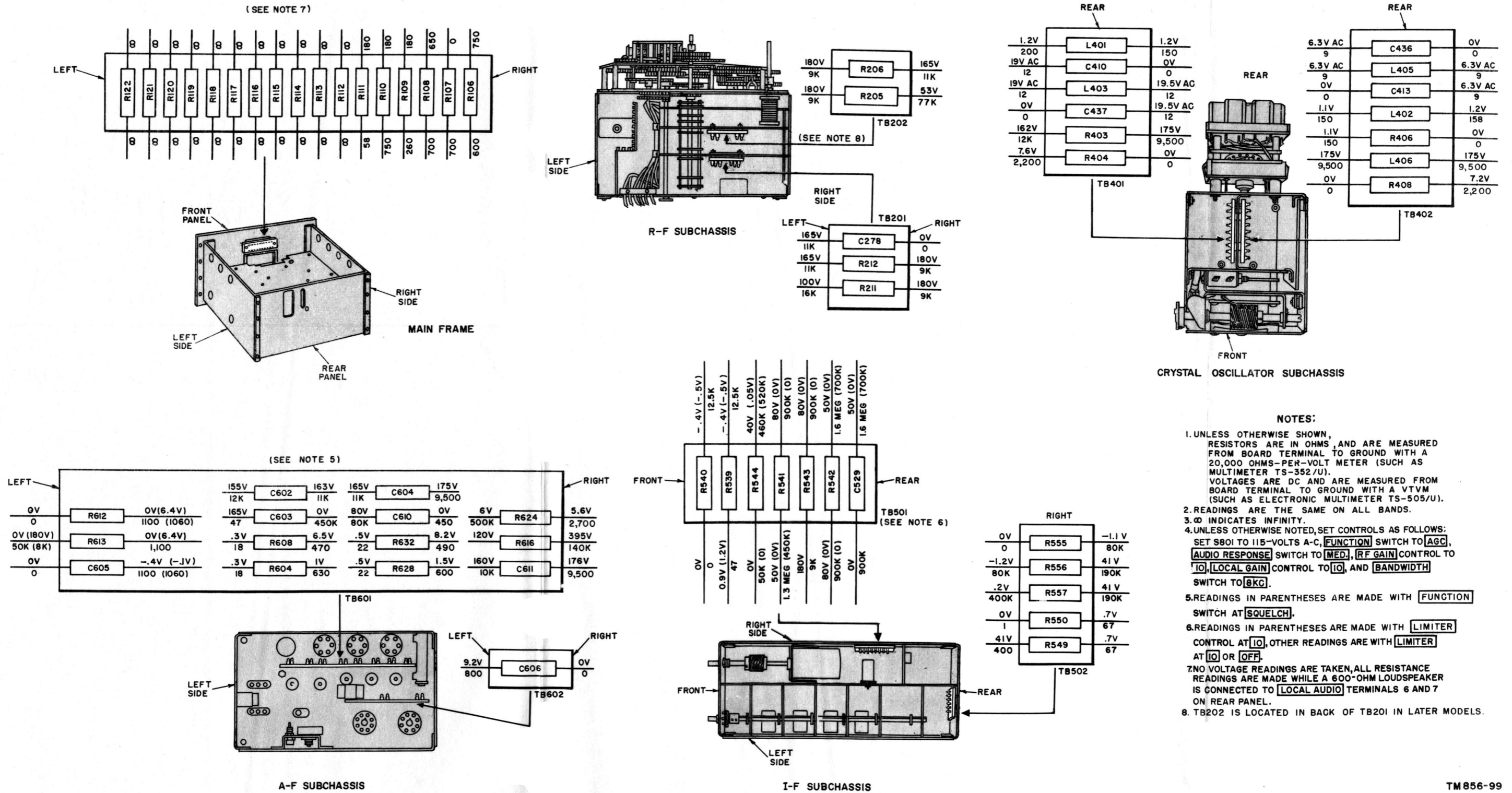


Figure 84. Radio Receiver R-390/URR, terminal boards voltage and resistance diagram.

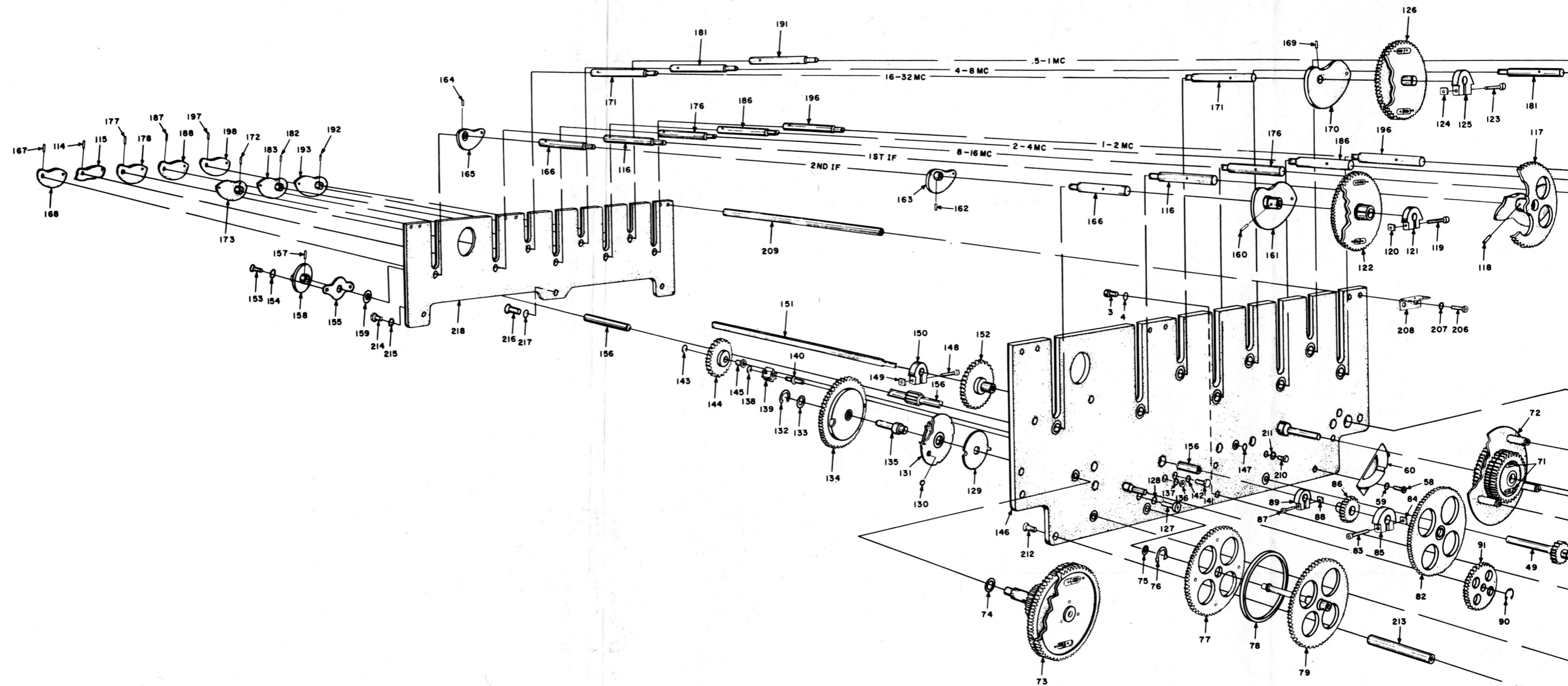
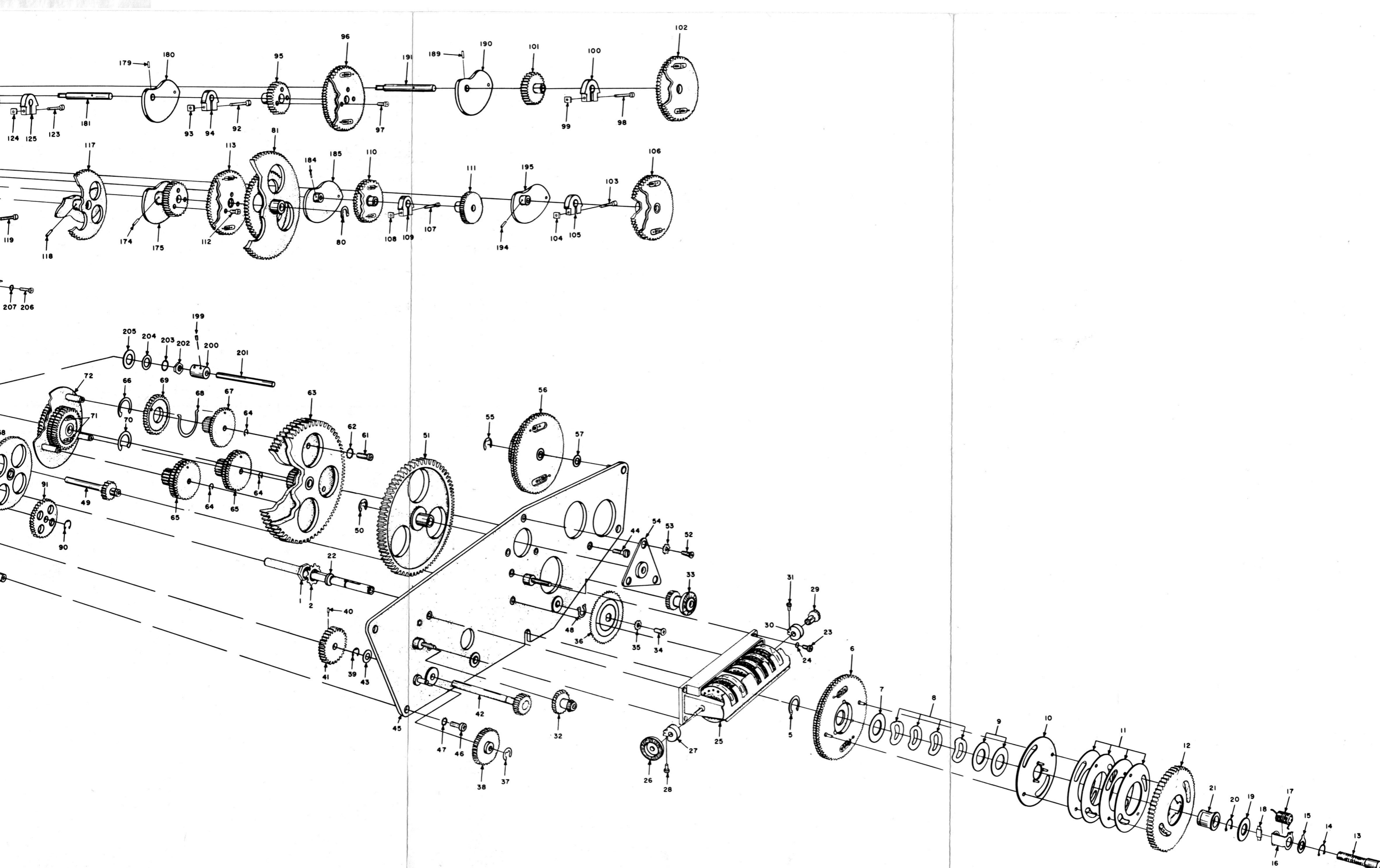


Figure 88.1. (Added) RF gear



88.1. (Added) RF gear train, exploded view.

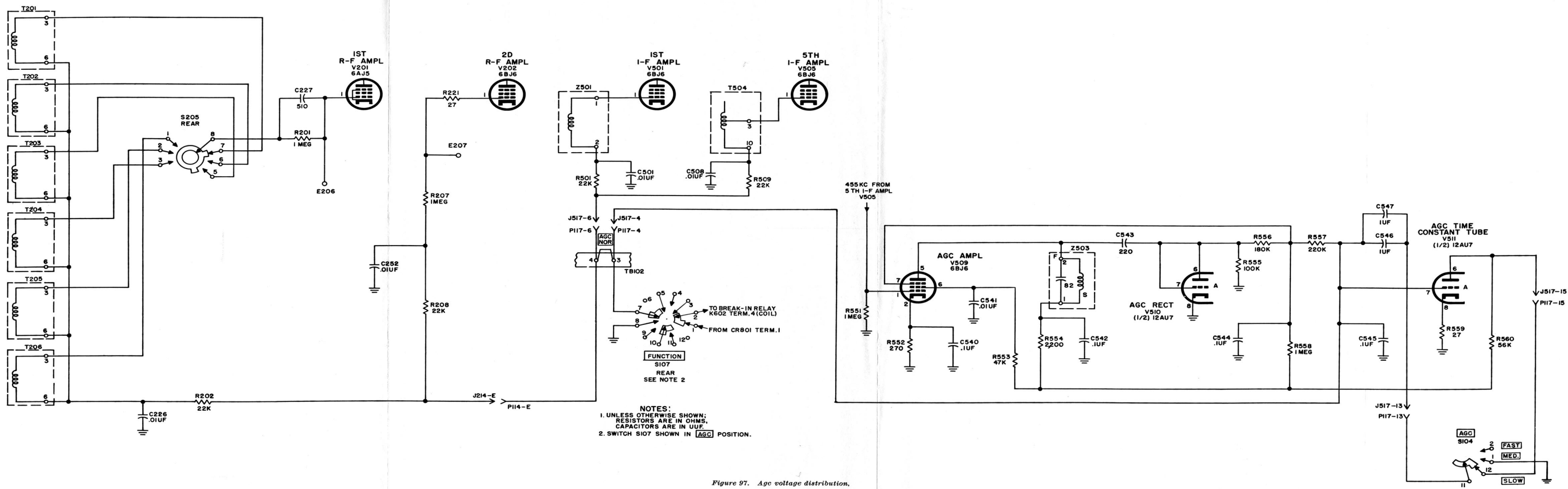


Figure 97. Agc voltage distribution.

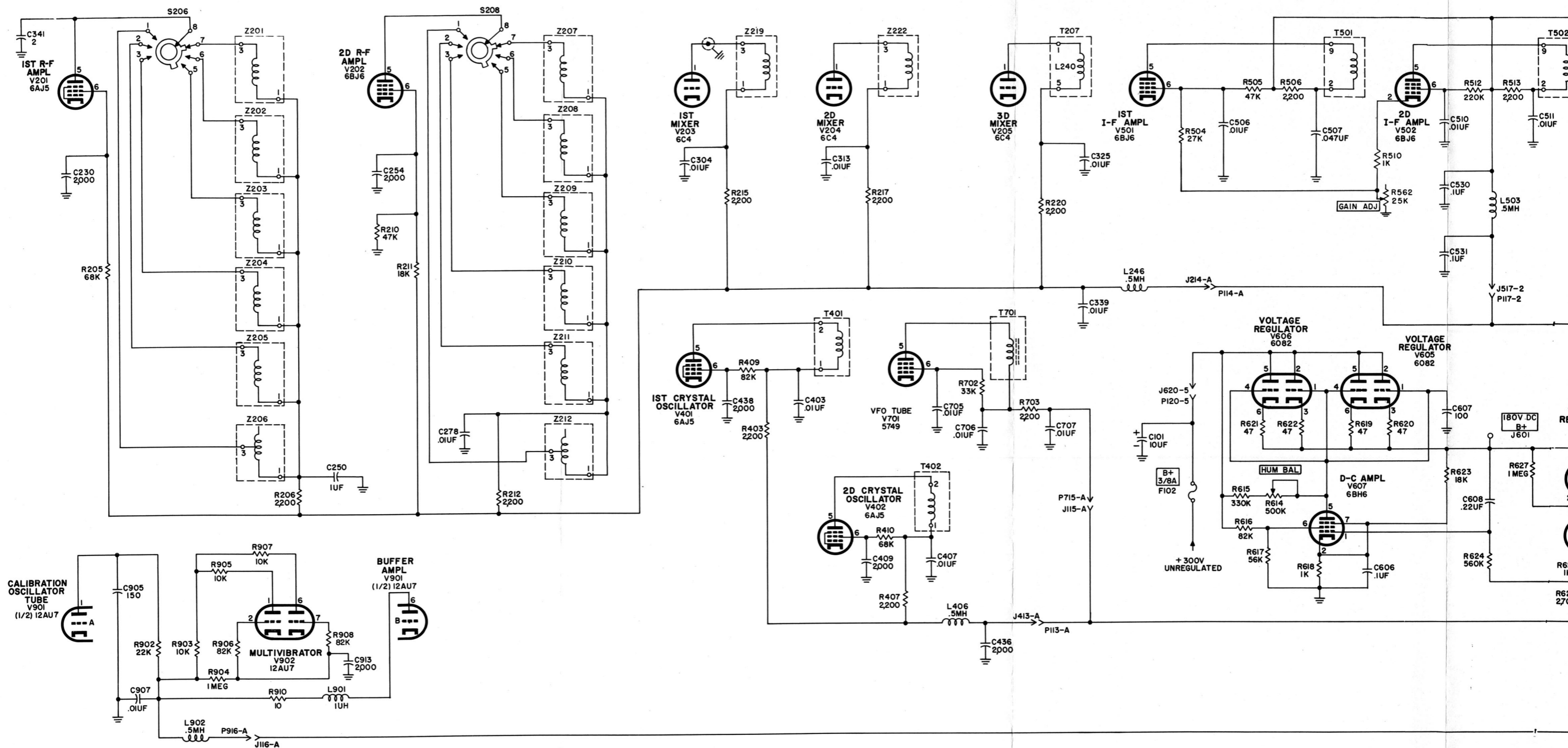
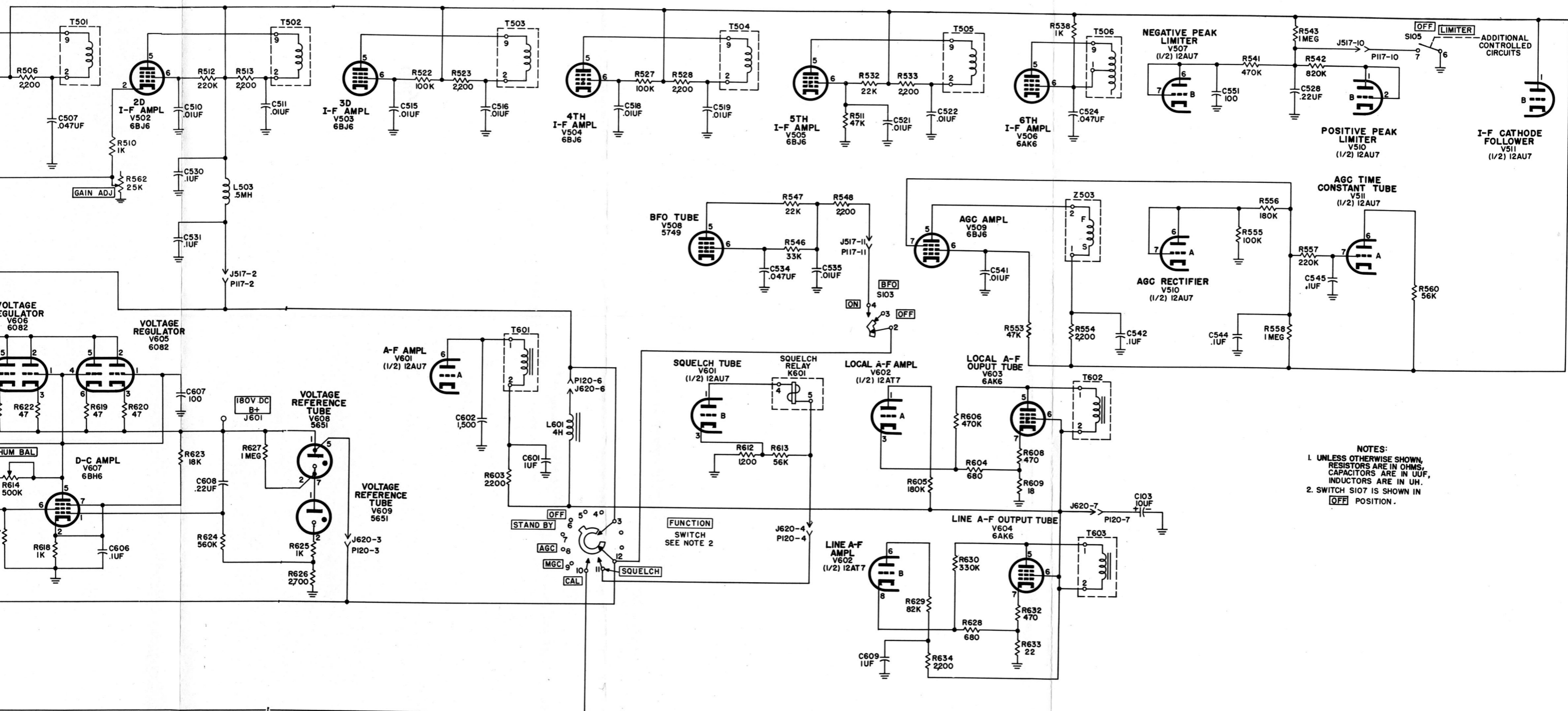
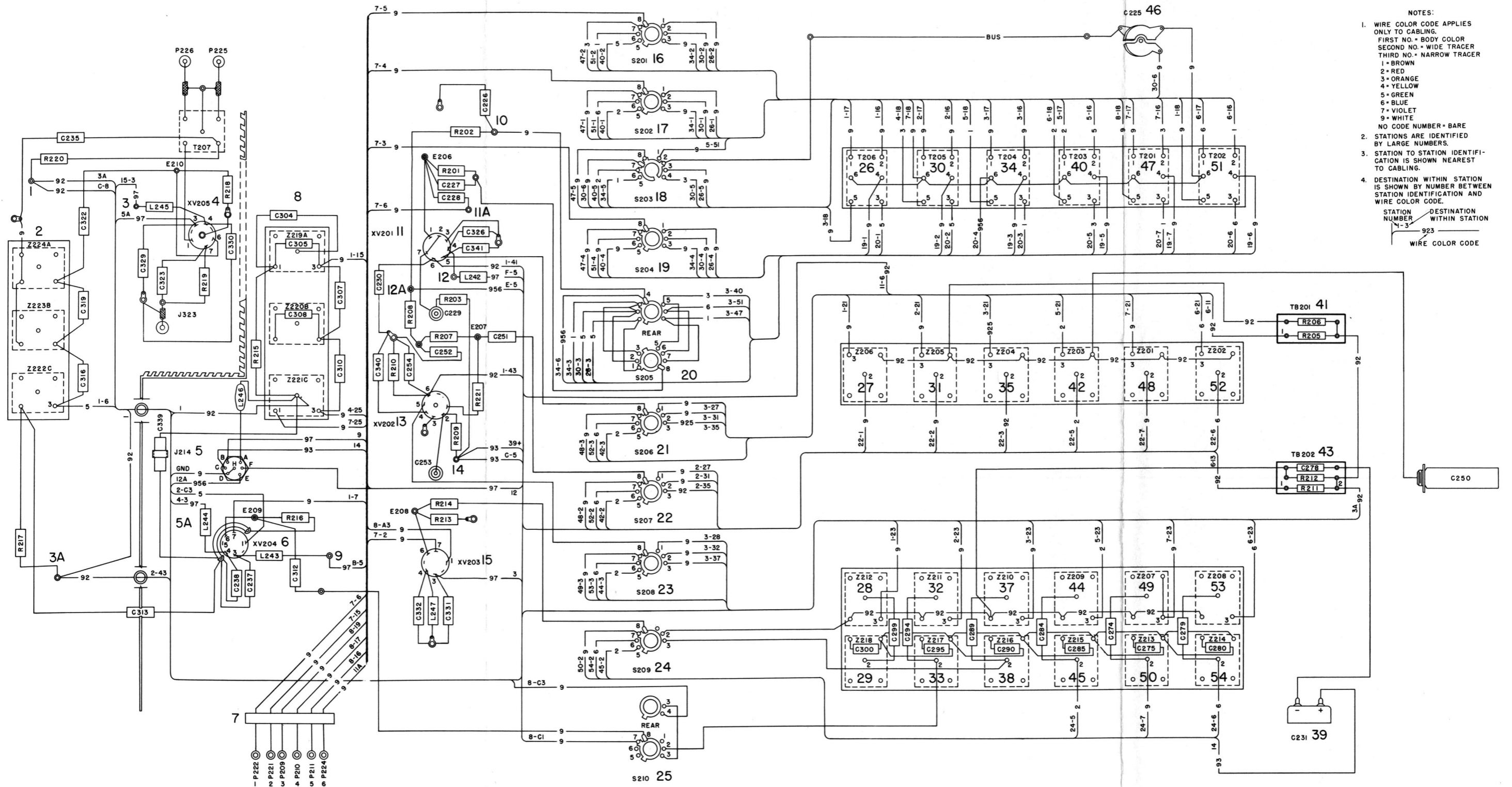


Figure 98. B+ voltage distribution.



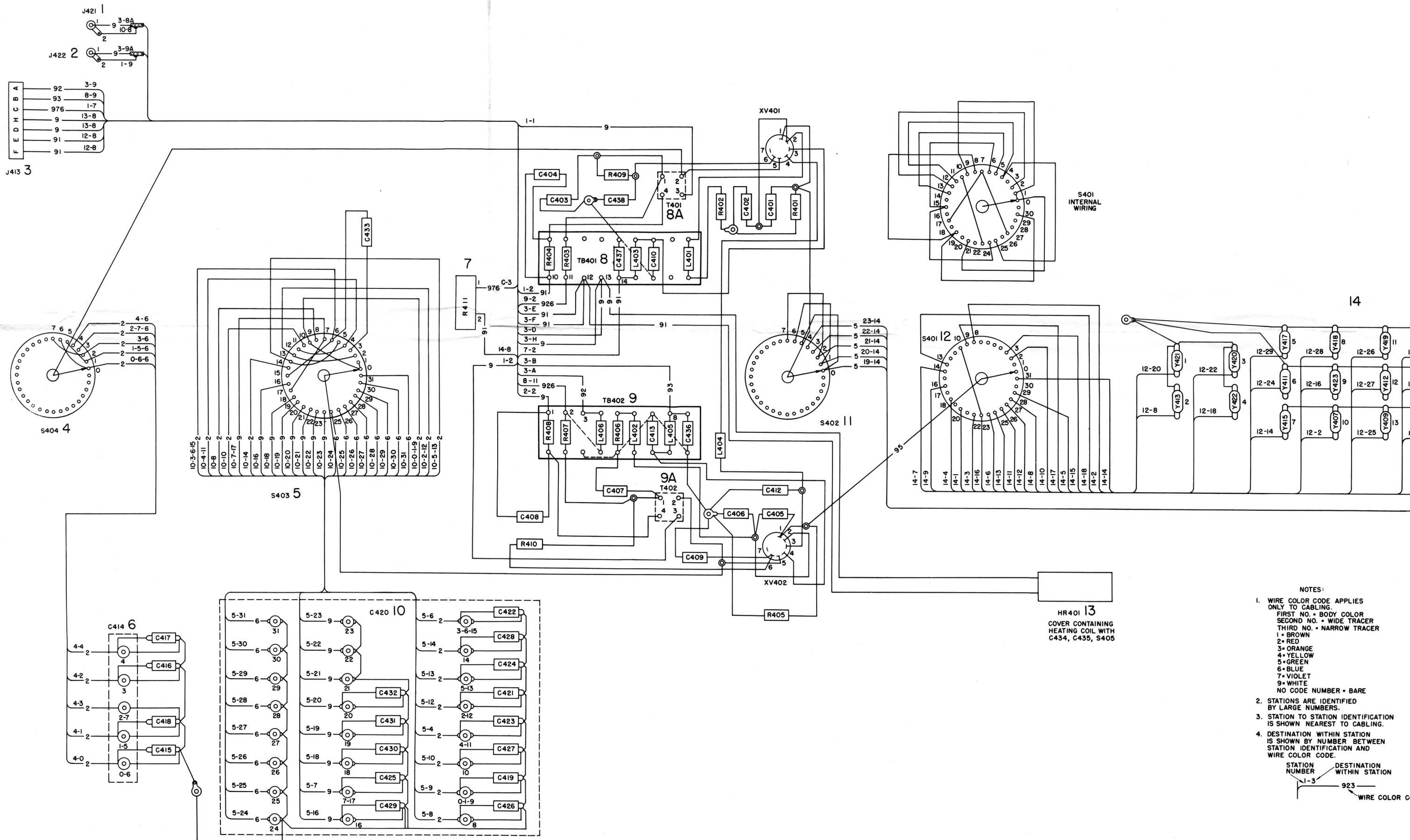
- NOTES:
1. UNLESS OTHERWISE SHOWN, RESISTORS ARE IN OHMS, CAPACITORS ARE IN UUF, INDUCTORS ARE IN UH.
 2. SWITCH S107 IS SHOWN IN OFF POSITION.

Figure 98. B+ voltage distribution.



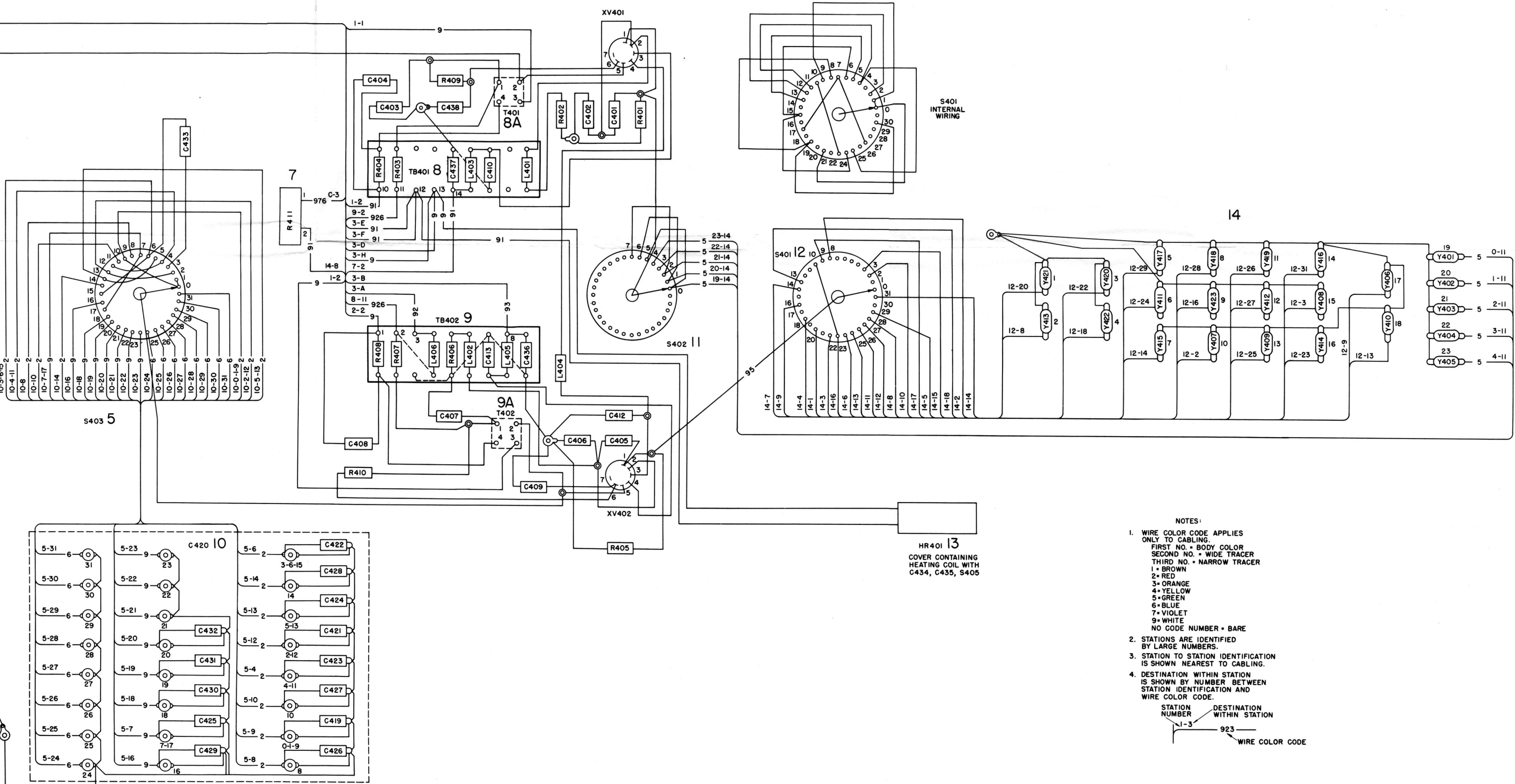
- NOTES:
1. WIRE COLOR CODE APPLIES ONLY TO CABLING. FIRST NO. - BODY COLOR SECOND NO. - WIDE TRACER THIRD NO. - NARROW TRACER
1 - BROWN
2 - RED
3 - ORANGE
4 - YELLOW
5 - GREEN
6 - BLUE
7 - VIOLET
8 - WHITE
9 - WHITE
NO CODE NUMBER - BARE
 2. STATIONS ARE IDENTIFIED BY LARGE NUMBERS.
 3. STATION TO STATION IDENTIFICATION IS SHOWN NEAREST TO CABLING.
 4. DESTINATION WITHIN STATION IS SHOWN BY NUMBER BETWEEN STATION IDENTIFICATION AND WIRE COLOR CODE.
- STATION NUMBER DESTINATION WITHIN STATION
 1-3 923
 WIRE COLOR CODE

Figure 99. Radio Receiver R-390/URR, rf subchassis, wiring diagram.



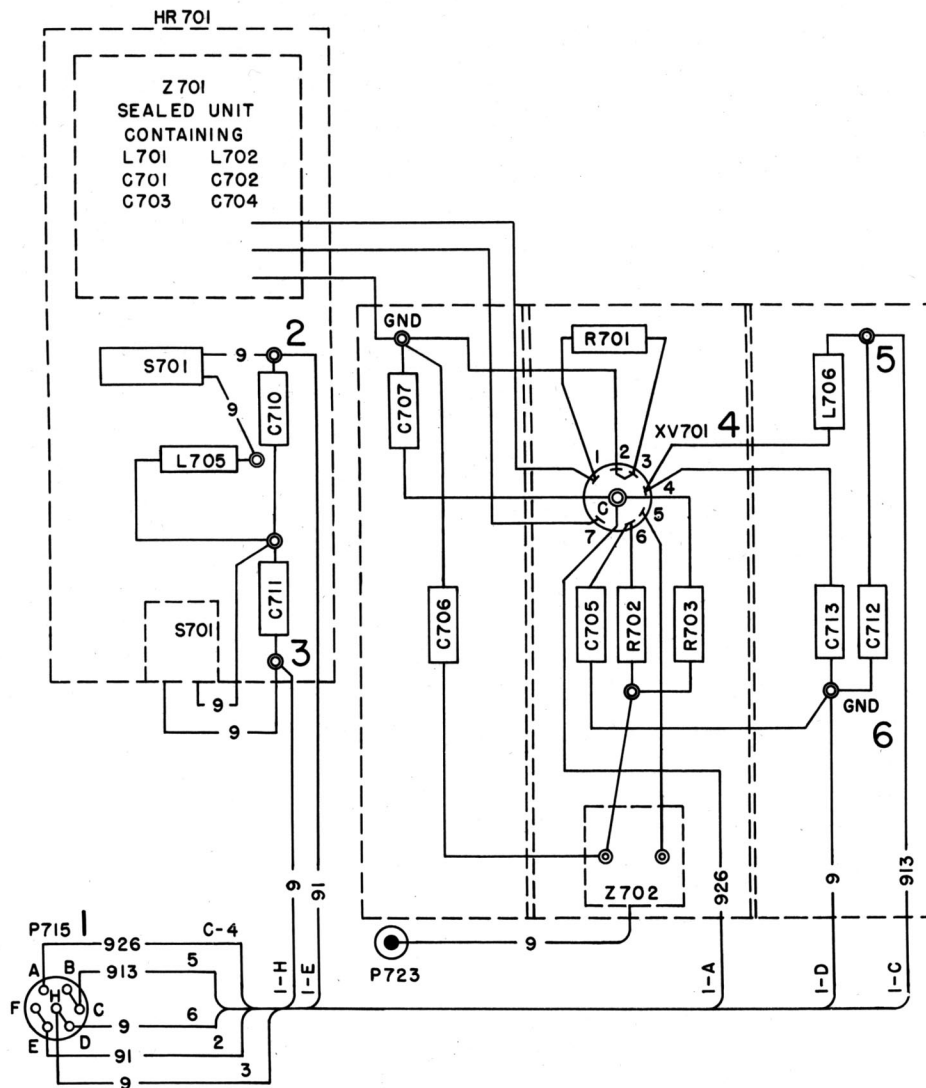
- NOTES:
1. WIRE COLOR CODE APPLIES ONLY TO CABLING.
FIRST NO. = BODY COLOR
SECOND NO. = WIDE TRACER
THIRD NO. = NARROW TRACER
1 = BROWN
2 = RED
3 = ORANGE
4 = YELLOW
5 = GREEN
6 = BLUE
7 = VIOLET
9 = WHITE
NO CODE NUMBER = BARE
 2. STATIONS ARE IDENTIFIED BY LARGE NUMBERS.
 3. STATION TO STATION IDENTIFICATION IS SHOWN NEAREST TO CABLING.
 4. DESTINATION WITHIN STATION IS SHOWN BY NUMBER BETWEEN STATION IDENTIFICATION AND WIRE COLOR CODE.
- STATION NUMBER DESTINATION WITHIN STATION
 1-3 923
 WIRE COLOR CODE

Figure 100. Radio Receiver R-390/URR, crystal oscillator subchassis, wiring diagram.



- NOTES:
- WIRE COLOR CODE APPLIES ONLY TO CABLING.
FIRST NO. = BODY COLOR
SECOND NO. = WIDE TRACER
THIRD NO. = NARROW TRACER
1 = BROWN
2 = RED
3 = ORANGE
4 = YELLOW
5 = GREEN
6 = BLUE
7 = VIOLET
9 = WHITE
NO CODE NUMBER = BARE
 - STATIONS ARE IDENTIFIED BY LARGE NUMBERS.
 - STATION TO STATION IDENTIFICATION IS SHOWN NEAREST TO CABLING.
 - DESTINATION WITHIN STATION IS SHOWN BY NUMBER BETWEEN STATION IDENTIFICATION AND WIRE COLOR CODE.
- STATION NUMBER DESTINATION WITHIN STATION
 1-3 923
 WIRE COLOR CODE

Figure 100. Radio Receiver R-390/URR, crystal oscillator subchassis, wiring diagram.



- NOTES:
1. WIRE COLOR CODE APPLIES ONLY TO CABLING.
FIRST NO. = BODY COLOR
SECOND NO. = WIDE TRACER
THIRD NO. = NARROW TRACER
1 = BROWN
2 = RED
3 = ORANGE
4 = YELLOW
5 = GREEN
6 = BLUE
7 = VIOLET
9 = WHITE
NO CODE NUMBER = BARE
 2. STATIONS ARE IDENTIFIED BY LARGE NUMBERS.
 3. STATION TO STATION IDENTIFICATION IS SHOWN NEAREST TO CABLING.
 4. DESTINATION WITHIN STATION IS SHOWN BY NUMBER BETWEEN STATION IDENTIFICATION AND WIRE COLOR CODE.
- STATION NUMBER DESTINATION WITHIN STATION
 1-3 923
 WIRE COLOR CODE

TM 856-106

Figure 101. Radio Receiver R-390/URR, variable frequency oscillator subchassis, wiring diagram.

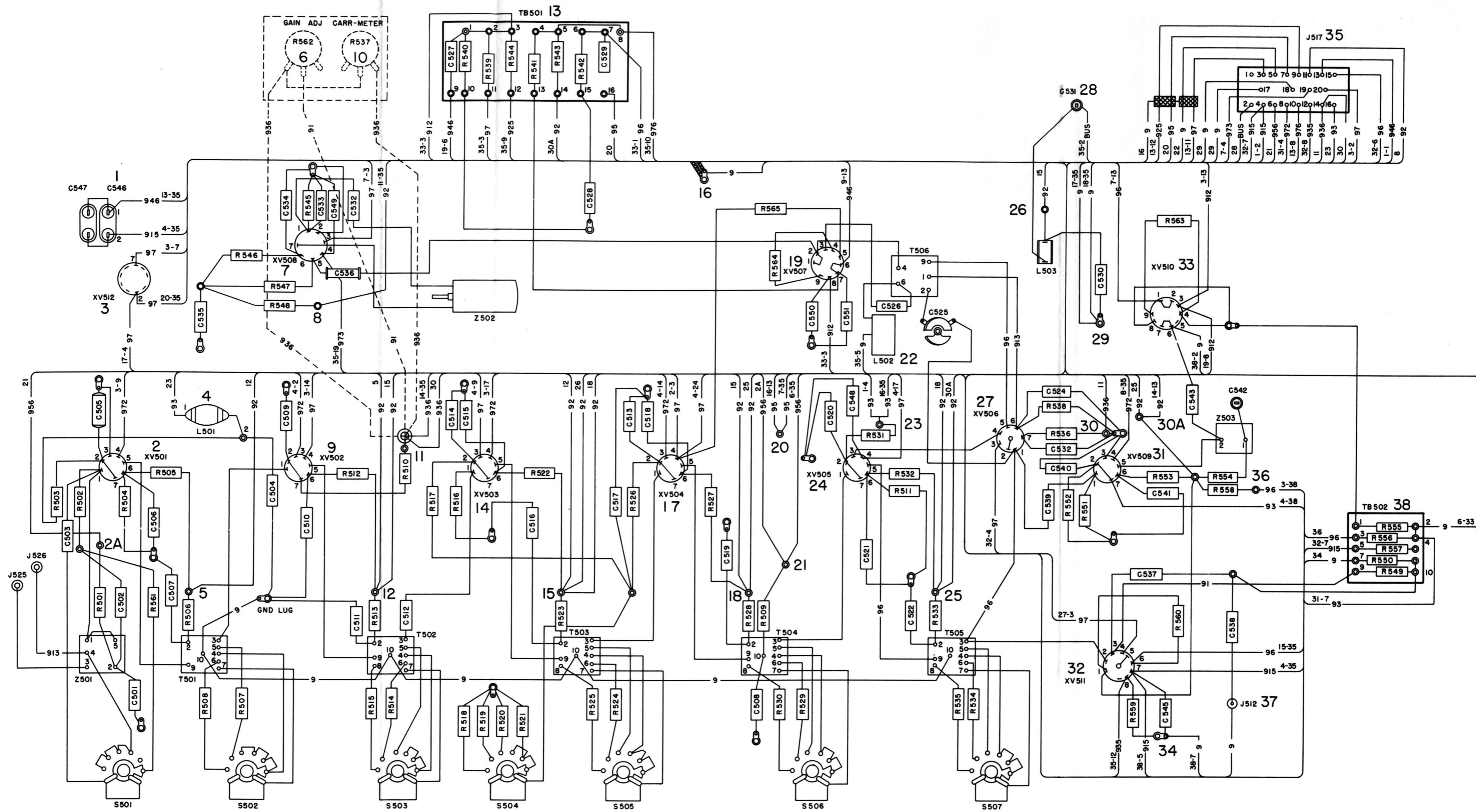
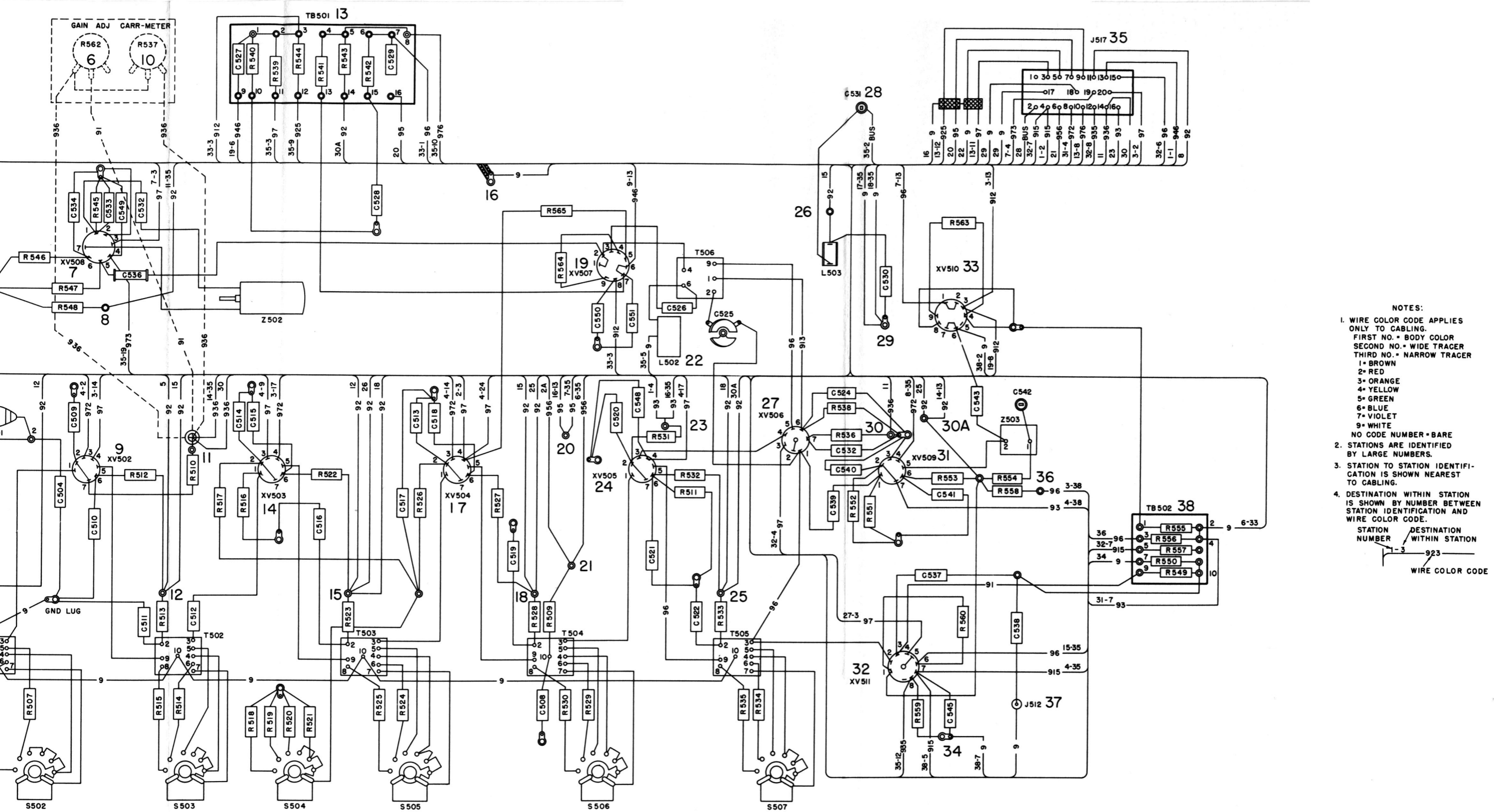
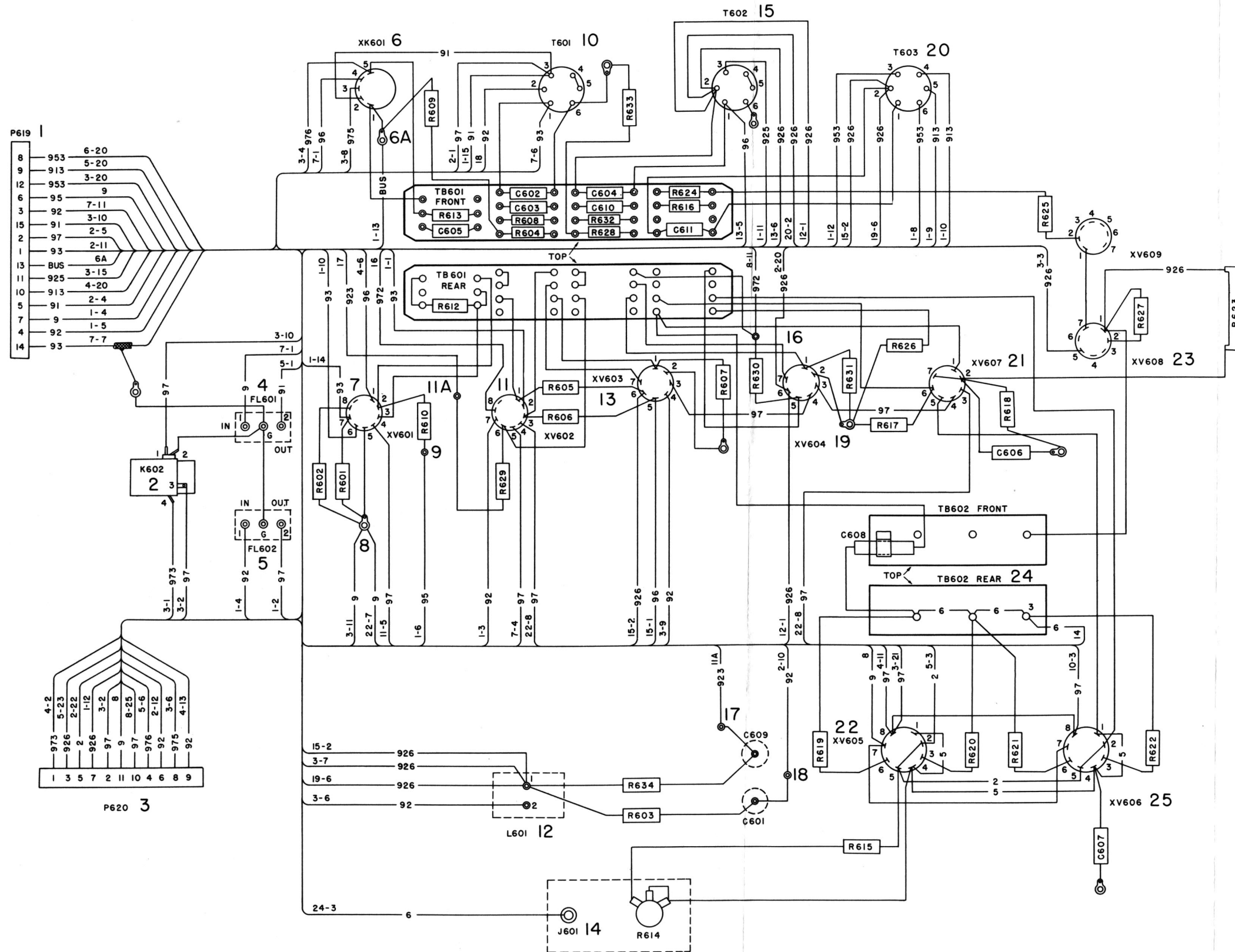


Figure 102. Radio Receiver R-390/URR, if. subchassis. wiring diagram.



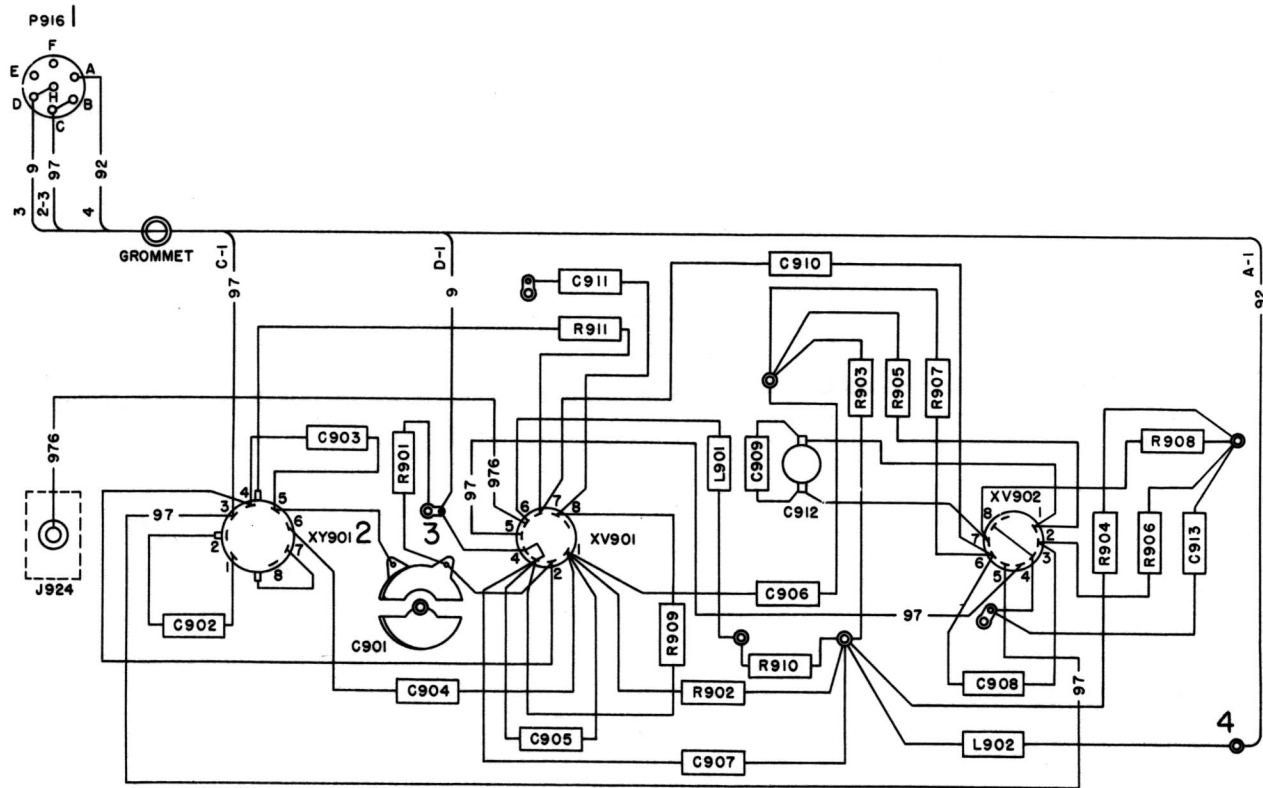
- NOTES:
1. WIRE COLOR CODE APPLIES ONLY TO CABLING. FIRST NO. - BODY COLOR SECOND NO. - WIDE TRACER THIRD NO. - NARROW TRACER
 1- BROWN
 2- RED
 3- ORANGE
 4- YELLOW
 5- GREEN
 6- BLUE
 7- VIOLET
 9- WHITE
 NO CODE NUMBER - BARE
 2. STATIONS ARE IDENTIFIED BY LARGE NUMBERS.
 3. STATION TO STATION IDENTIFICATION IS SHOWN NEAREST TO CABLING.
 4. DESTINATION WITHIN STATION IS SHOWN BY NUMBER BETWEEN STATION IDENTIFICATION AND WIRE COLOR CODE.
- STATION NUMBER DESTINATION WITHIN STATION
- WIRE COLOR CODE

Figure 102. Radio Receiver R-390/URR, if. subchassis wiring diagram.



- NOTES:
1. WIRE COLOR CODE APPLIES ONLY TO CABLING.
FIRST NO. - BODY COLOR
SECOND NO. - WIDE TRACER
THIRD NO. - NARROW TRACER
1 - BROWN
2 - RED
3 - ORANGE
4 - YELLOW
5 - GREEN
6 - BLUE
7 - VIOLET
9 - WHITE
NO CODE NUMBER - BARE
 2. STATIONS ARE IDENTIFIED BY LARGE NUMBERS.
 3. STATION TO STATION IDENTIFICATION IS SHOWN NEAREST TO CABLING.
 4. DESTINATION WITHIN STATION IS SHOWN BY NUMBER BETWEEN STATION IDENTIFICATION AND WIRE COLOR CODE.
STATION NUMBER DESTINATION WITHIN STATION
1-3 923
 WIRE COLOR CODE

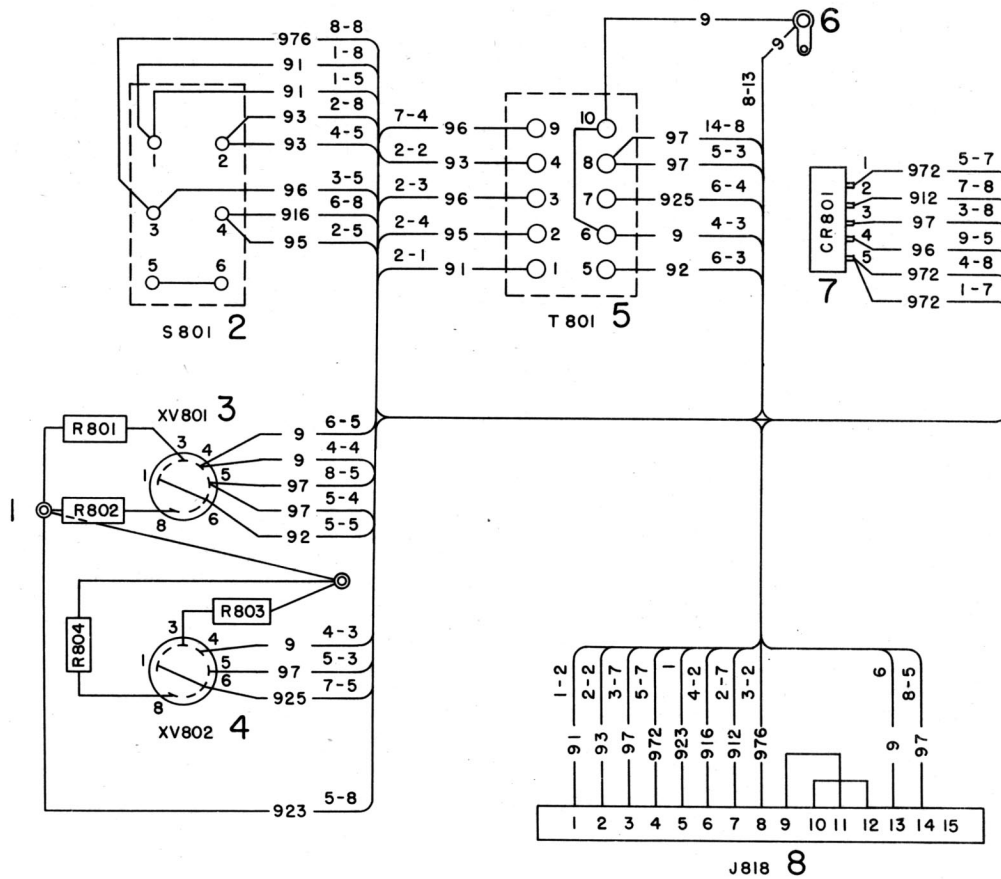
Figure 103. Radio Receiver R-390/URR, of subchassis, wiring diagram.



- NOTES:
1. WIRE COLOR CODE APPLIES ONLY TO CABLING.
FIRST NO. - BODY COLOR
SECOND NO. - WIDE TRACER
THIRD NO. - NARROW TRACER
1 - BROWN
2 - RED
3 - ORANGE
4 - YELLOW
5 - GREEN
6 - BLUE
7 - VIOLET
8 - WHITE
9 - WHITE
NO CODE NUMBER - BARE
 2. STATIONS ARE IDENTIFIED BY LARGE NUMBERS.
 3. STATION TO STATION IDENTIFICATION IS SHOWN NEAREST TO CABLING.
 4. DESTINATION WITHIN STATION IS SHOWN BY NUMBERS BETWEEN STATION IDENTIFICATION AND WIRE COLOR CODE.
- STATION NUMBER 1-3
 DESTINATION WITHIN STATION 923
 WIRE COLOR CODE

Figure 104. Radio Receiver R-390/URR, calibration oscillator subchassis, wiring diagram.

TM 856-91



- NOTES:
1. WIRE COLOR CODE APPLIES ONLY TO CABLING.
FIRST NO. = BODY COLOR
SECOND NO. = WIDE TRACER
THIRD NO. = NARROW TRACER
1 = BROWN
2 = RED
3 = ORANGE
4 = YELLOW
5 = GREEN
6 = BLUE
7 = VIOLET
9 = WHITE
NO CODE NUMBER = BARE
 2. STATIONS ARE IDENTIFIED BY LARGE NUMBERS.
 3. STATION TO STATION IDENTIFICATION IS SHOWN NEAREST TO CABLING.
 4. DESTINATION WITHIN STATION IS SHOWN BY NUMBER BETWEEN STATION IDENTIFICATION AND WIRE COLOR CODE.

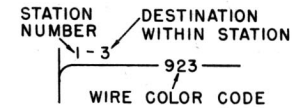


Figure 105. Power Supply PP-621/URR, wiring diagram.

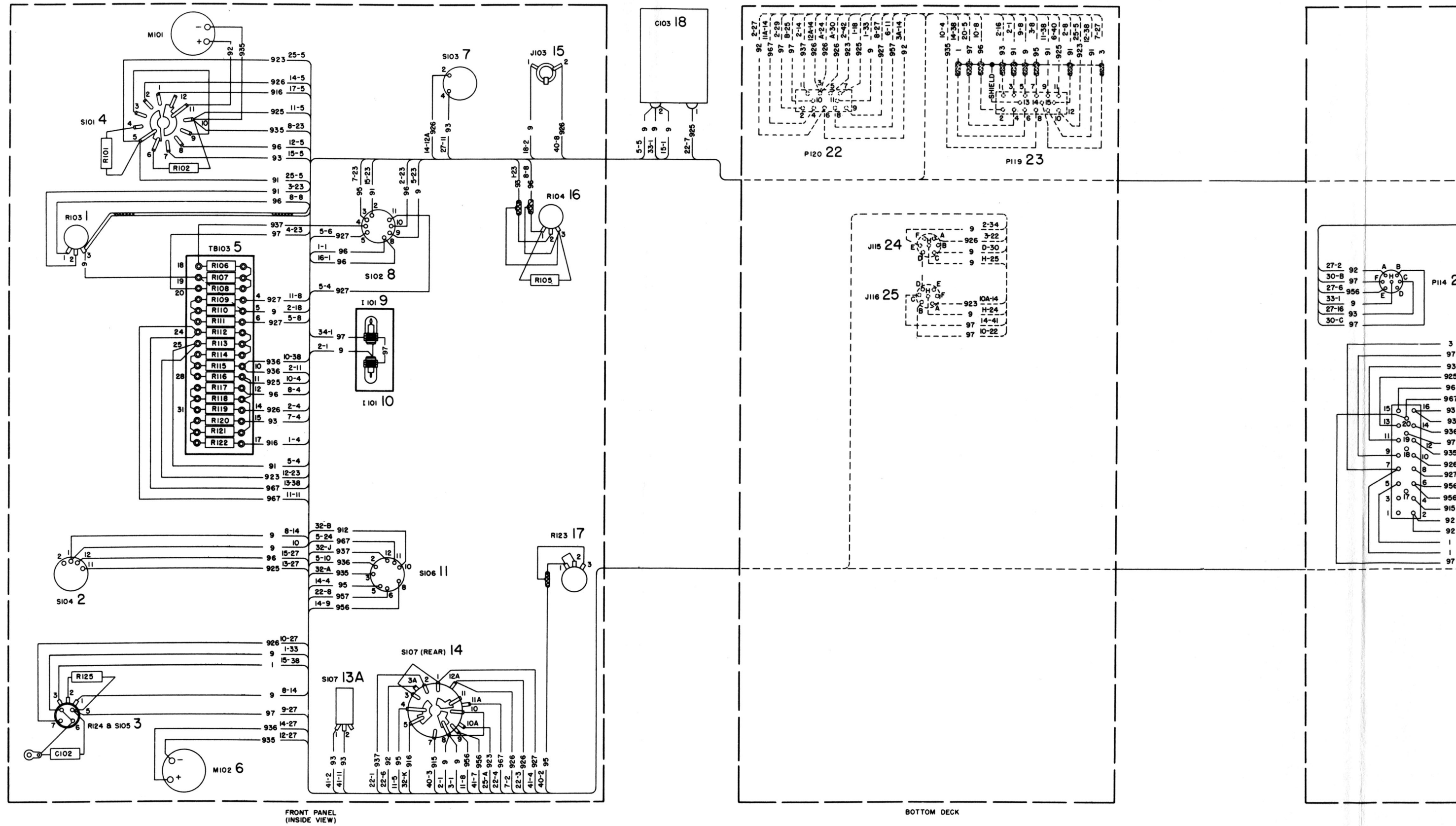
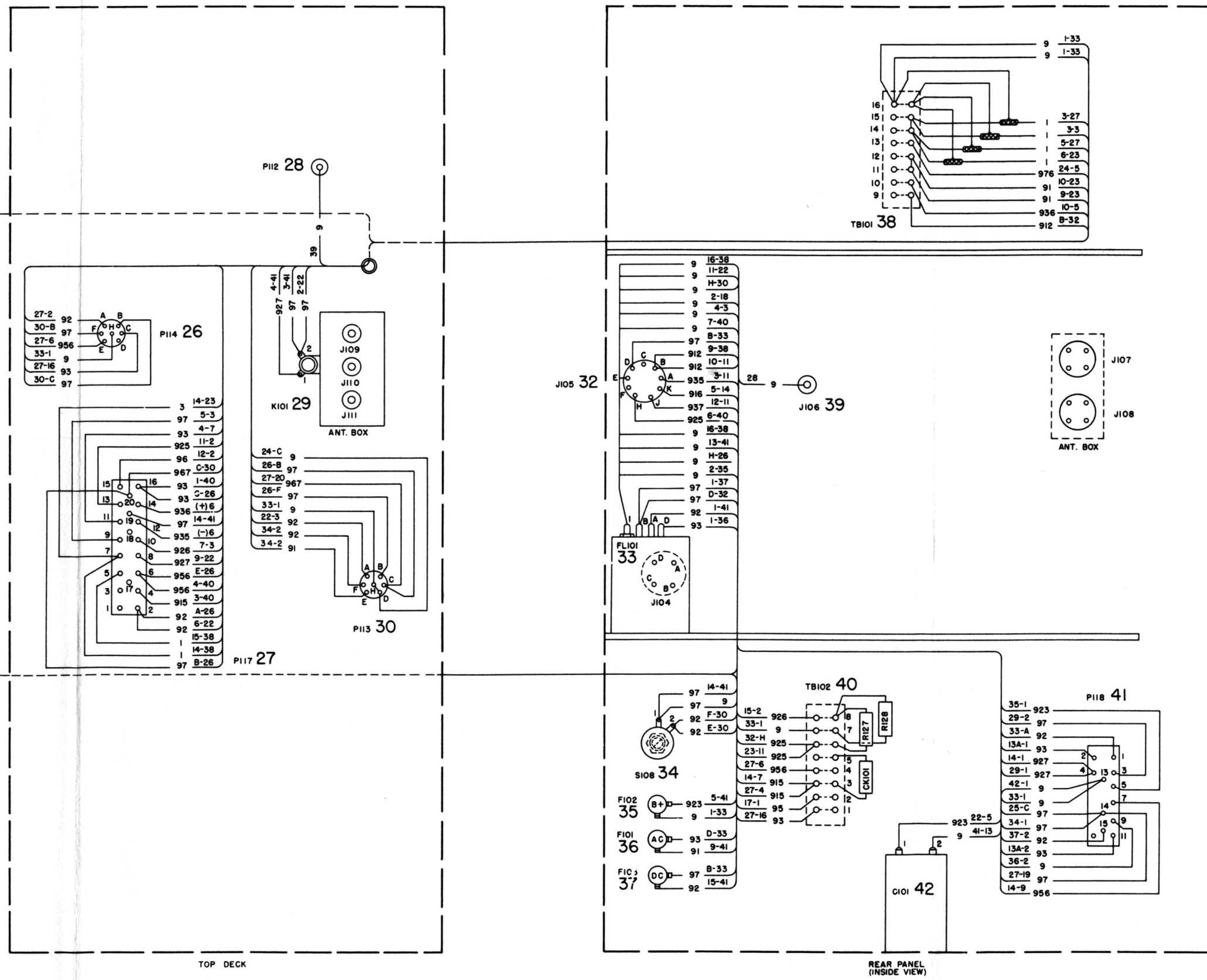


Figure 106. Radio Receiver R-390/URR, main frame, wiring



NOTES

WIRE COLOR CODE APPLIES ONLY TO CABLING.

FIRST NO. - BODY COLOR
 SECOND NO. - WIDE TRACER
 THIRD NO. - NARROW TRACER

1 - BROWN
 2 - RED
 3 - ORANGE
 4 - YELLOW
 5 - GREEN
 6 - BLUE
 7 - VIOLET
 9 - WHITE
 NO CODE NUMBER - BARE

2. STATIONS ARE IDENTIFIED BY LARGE NUMBERS.

3. STATION TO STATION IDENTIFICATION IS SHOWN NEAREST TO CABLING.

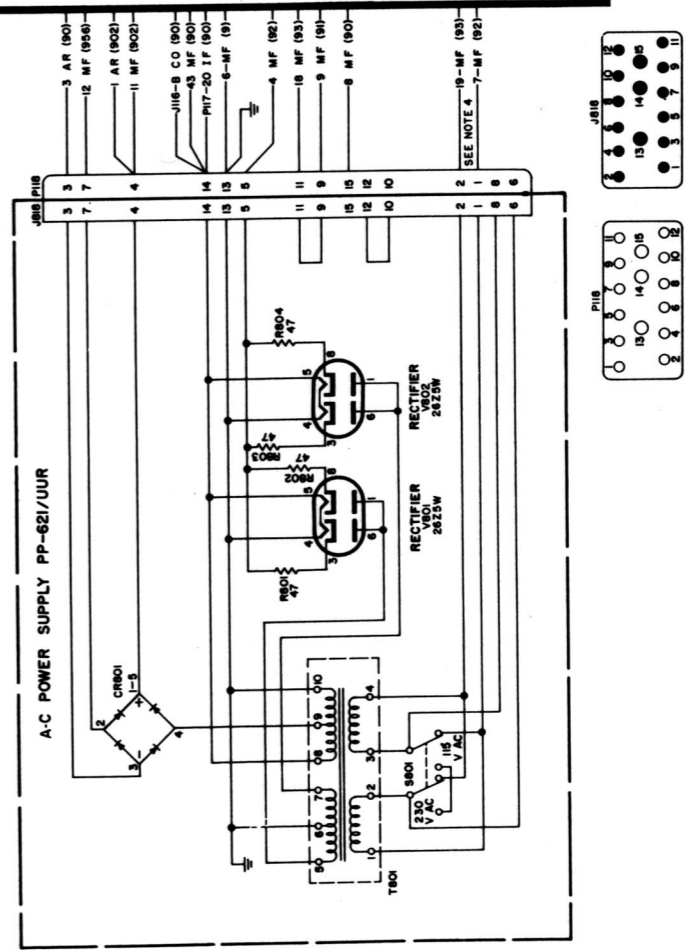
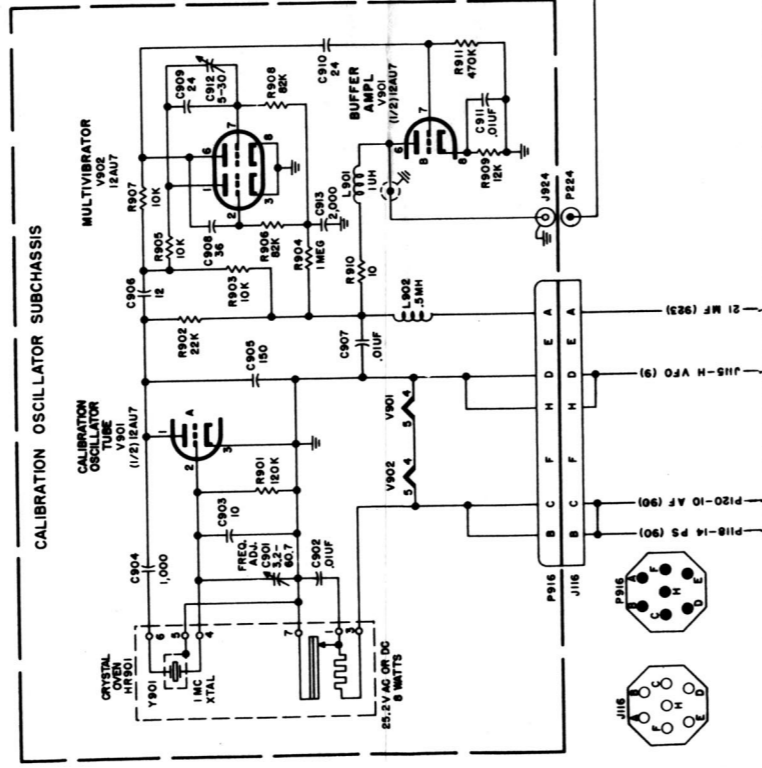
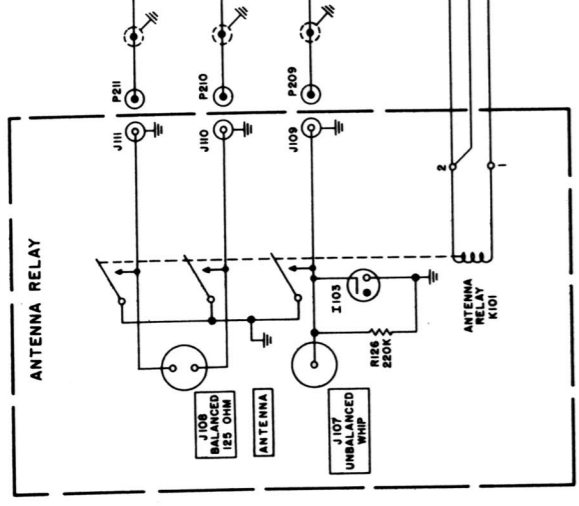
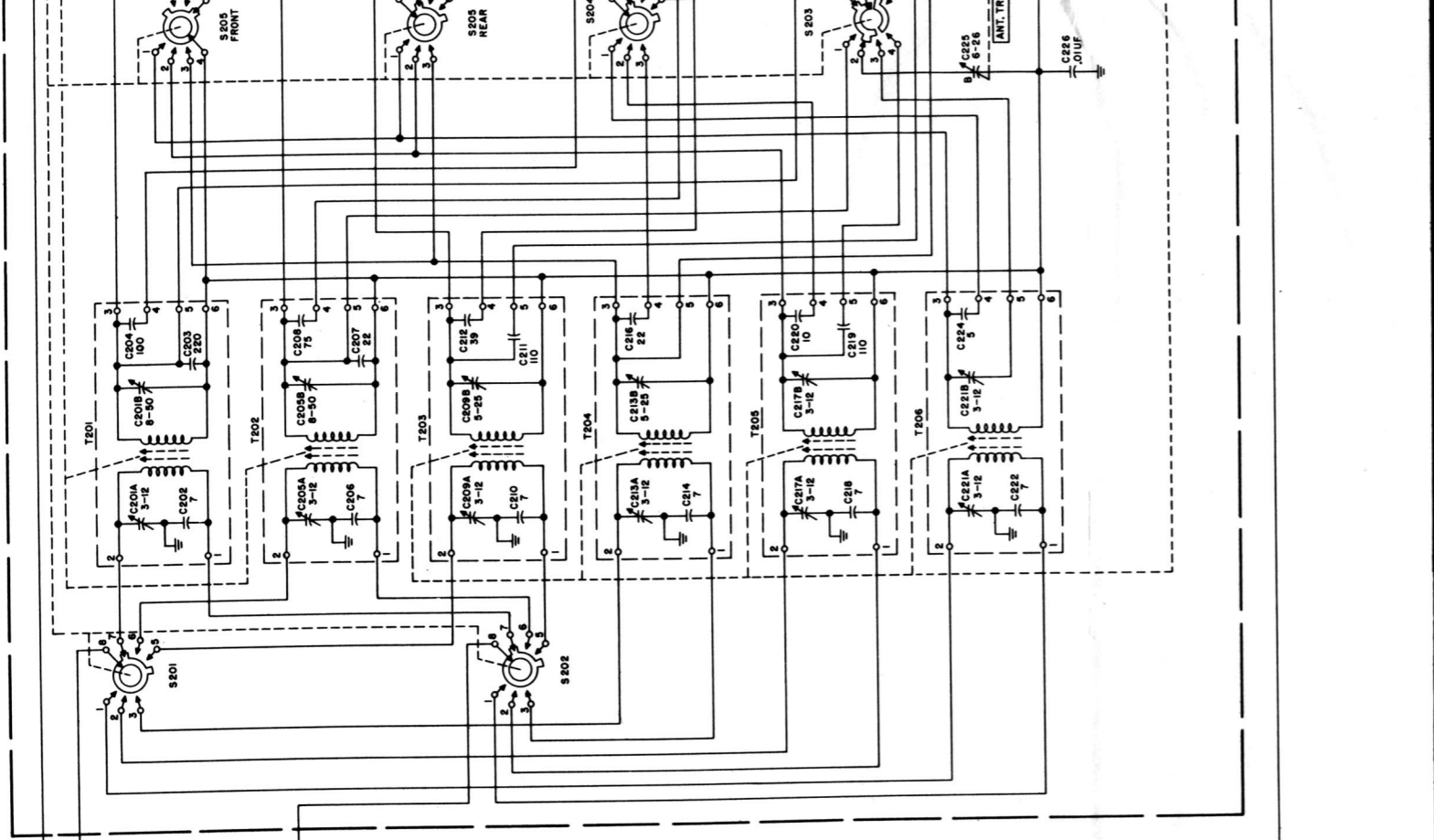
4. DESTINATION WITHIN STATION IS SHOWN BY NUMBER BETWEEN STATION IDENTIFICATION AND WIRE COLOR CODE.

STATION NUMBER DESTINATION WITHIN STATION

1-3 923

WIRE COLOR CODE

Figure 106. Radio Receiver R-390/URR, main frame, wiring diagram.



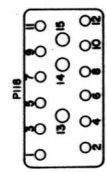
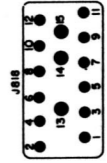
P18-4 PS (902)
 P18-2 AF (90)
 P18-3 PS (90)

J15-H VFO (9)
 J15-I H VFO (9)

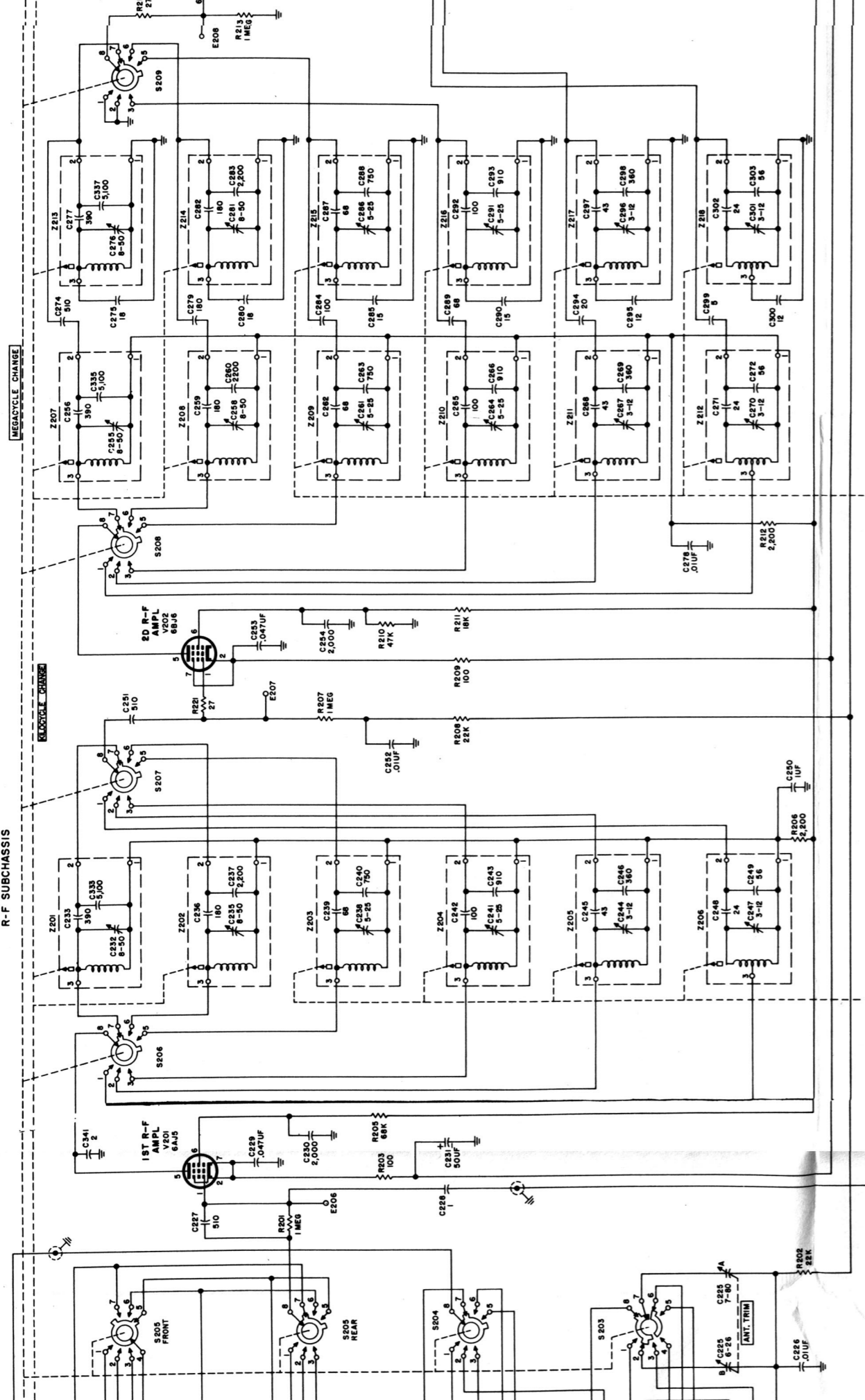
P12-10 AF (90)
 P12-14 PS (90)

J116
 J115

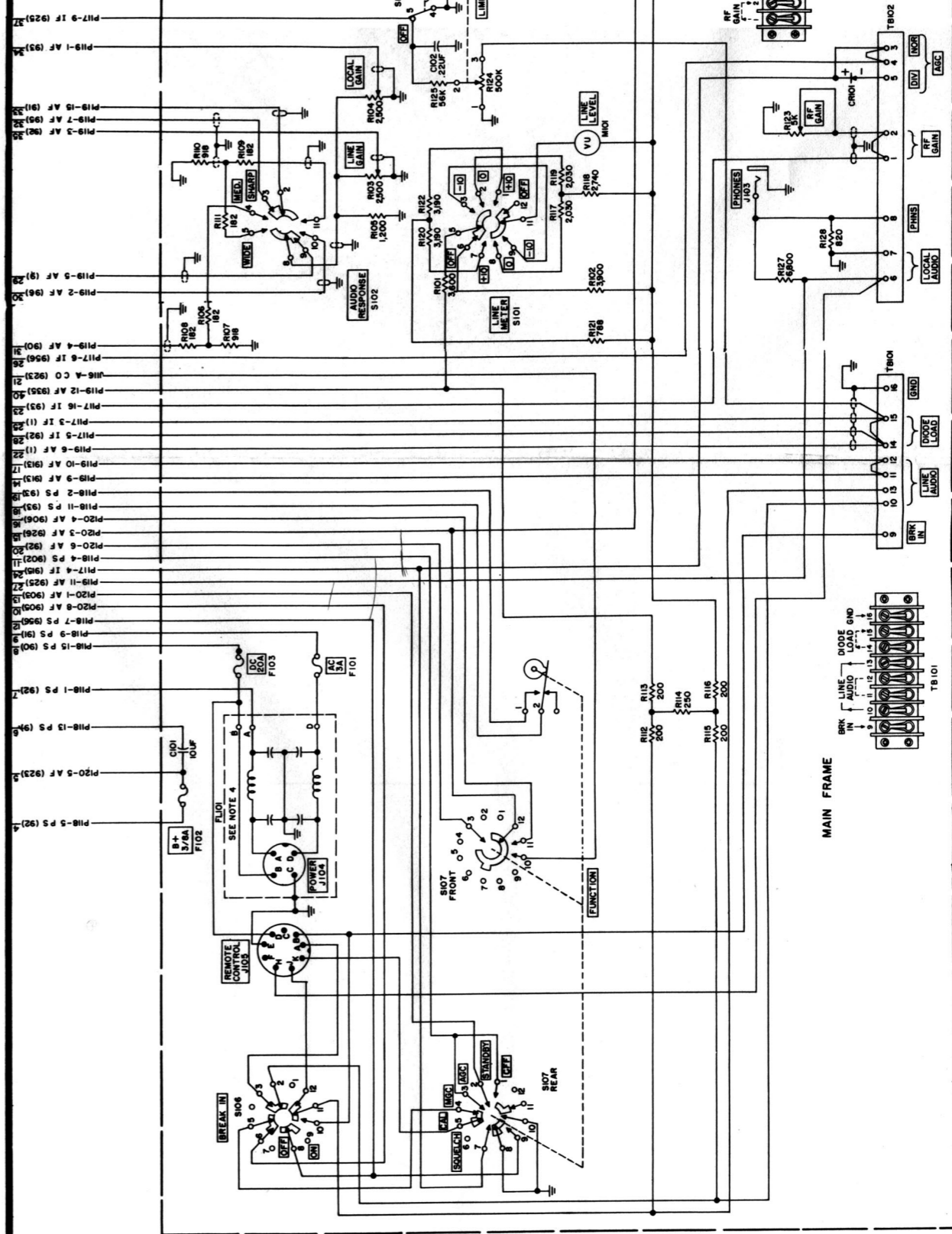
SEE NOTE 4
 19-MF (93)
 7-MF (92)



R-F SUBCHASSIS

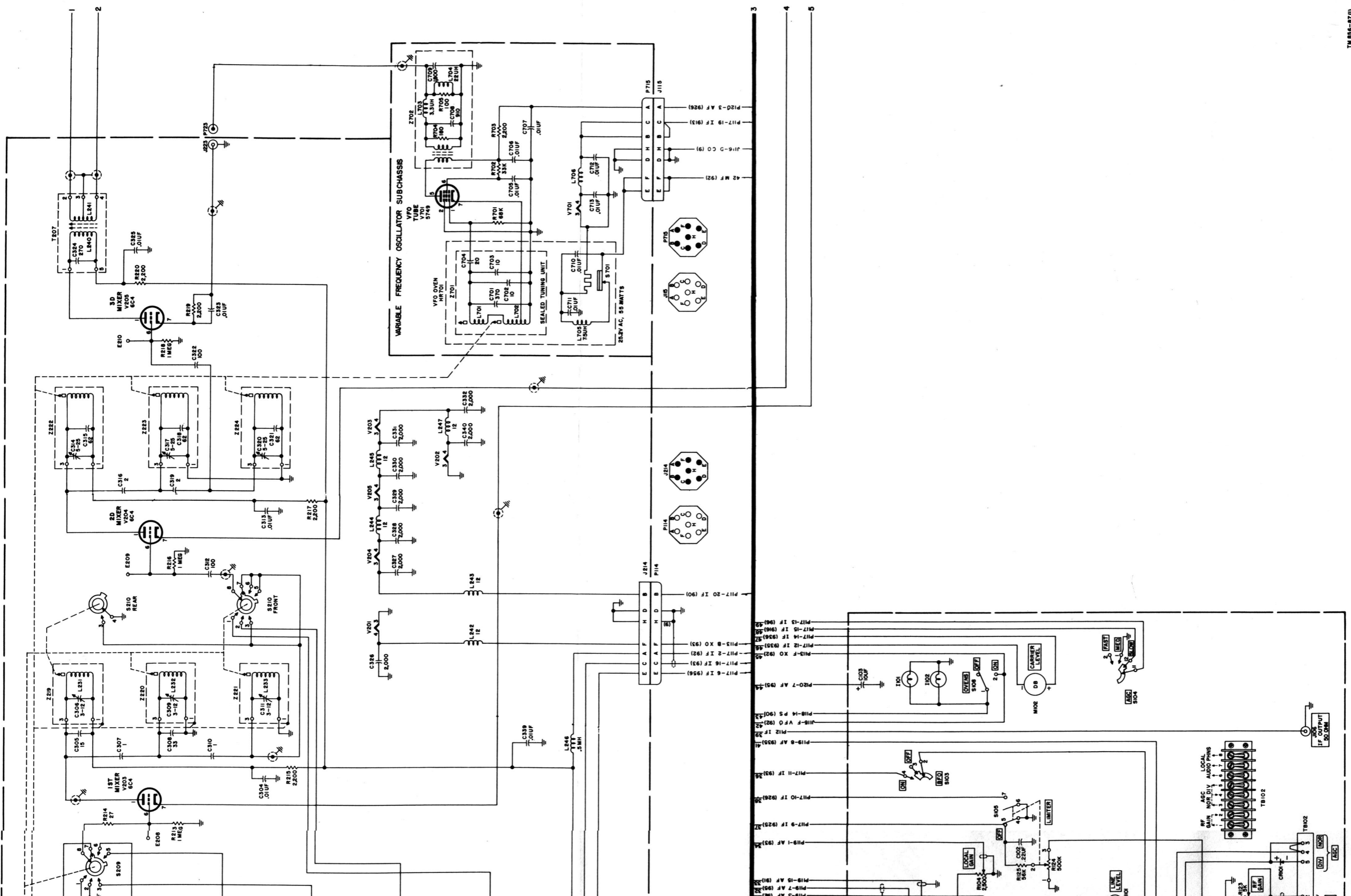


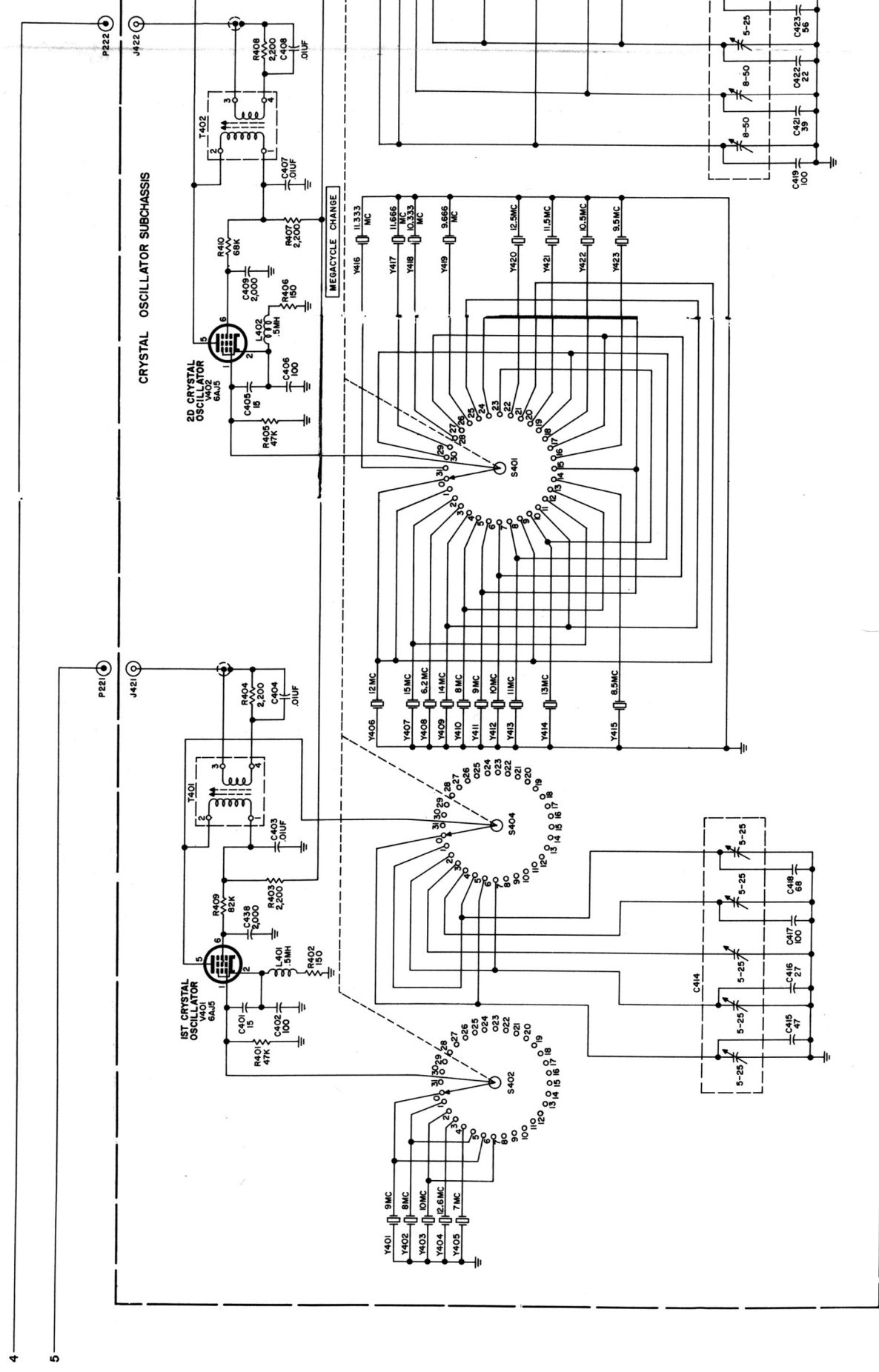
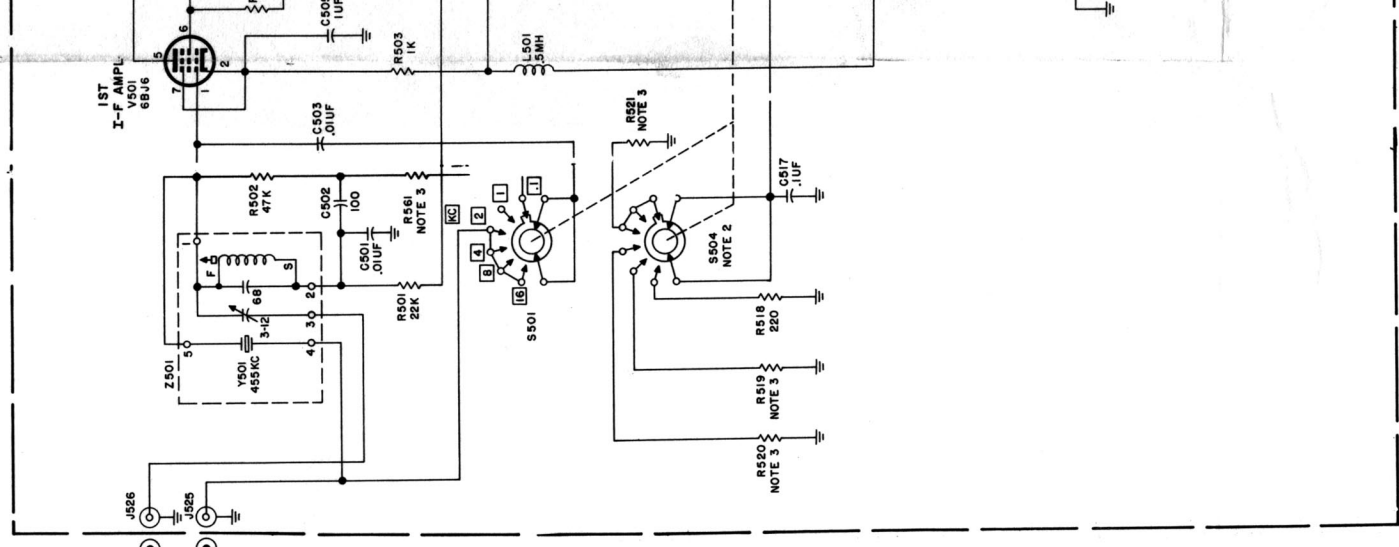
MEGACYCLE CHANGE AND KILOCYCLE CHANGE



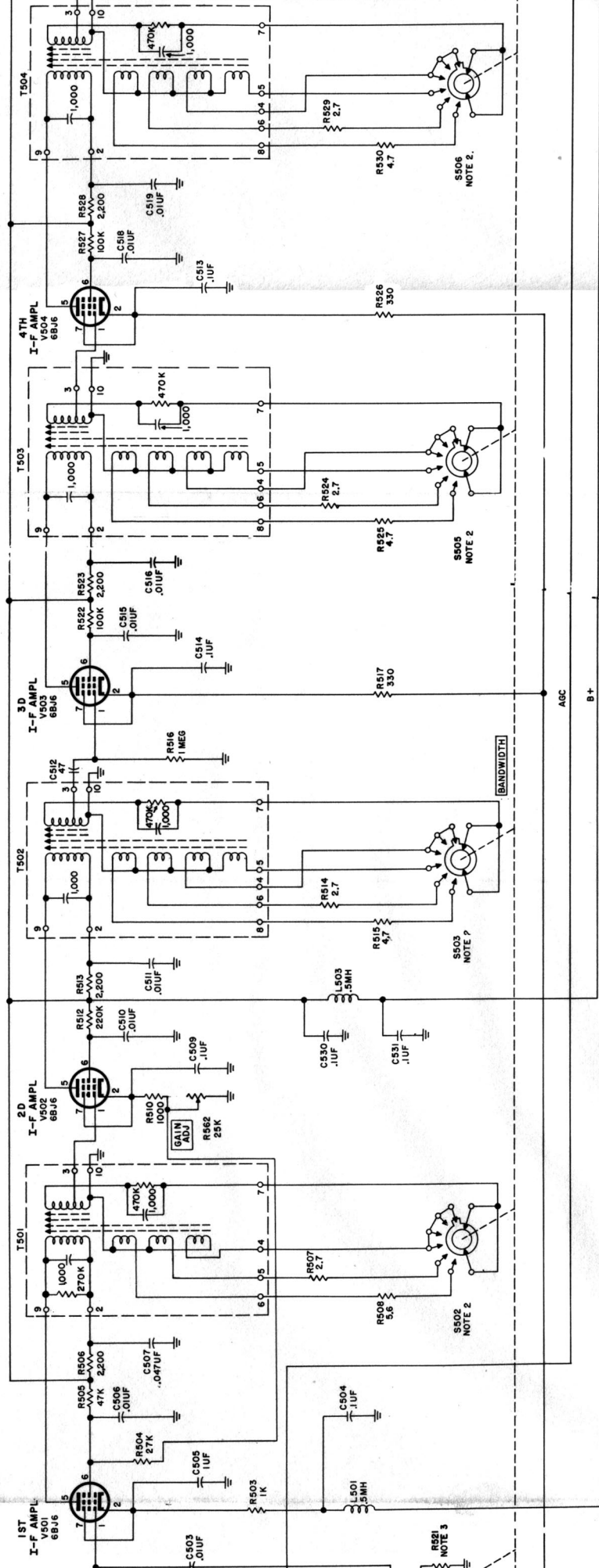
MAIN FRAME

Figure 107 (Part 1). Radio Receiver R-390/URR, subchassis and interconnection diagram.





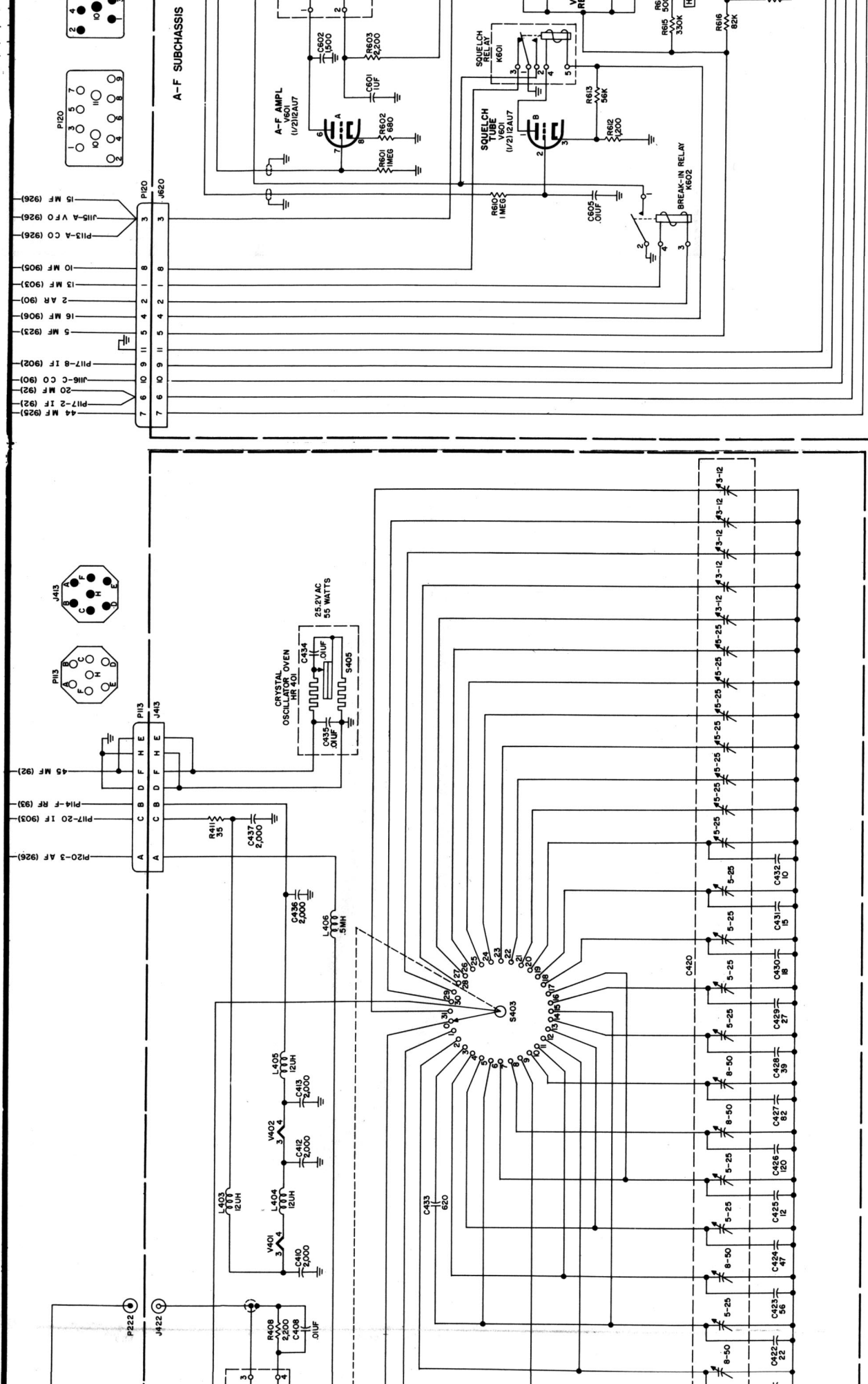
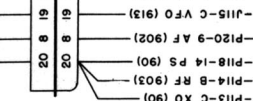
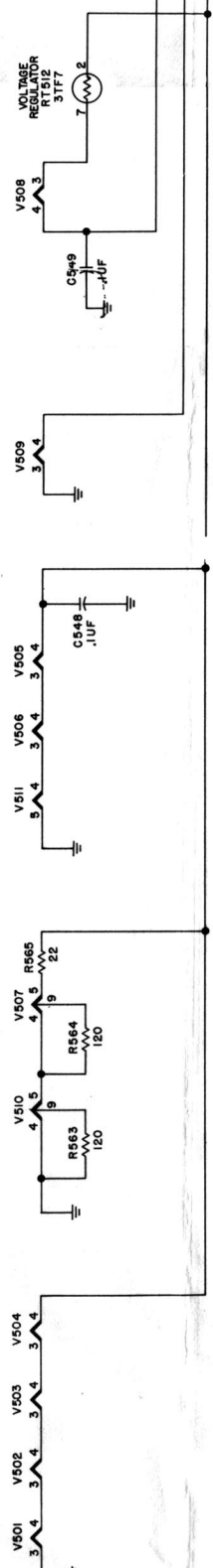
I-F SUBCHASSIS



ABC

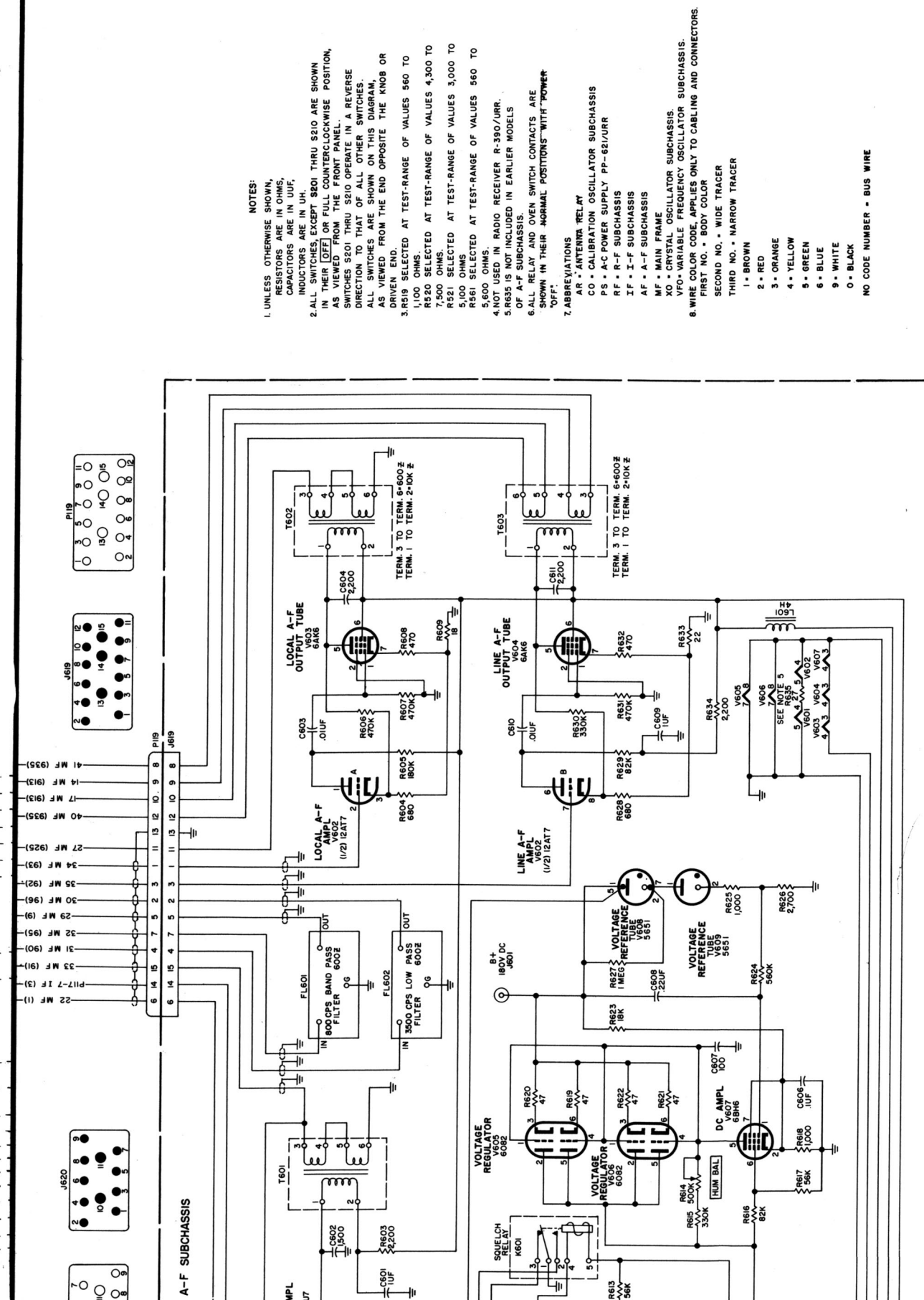
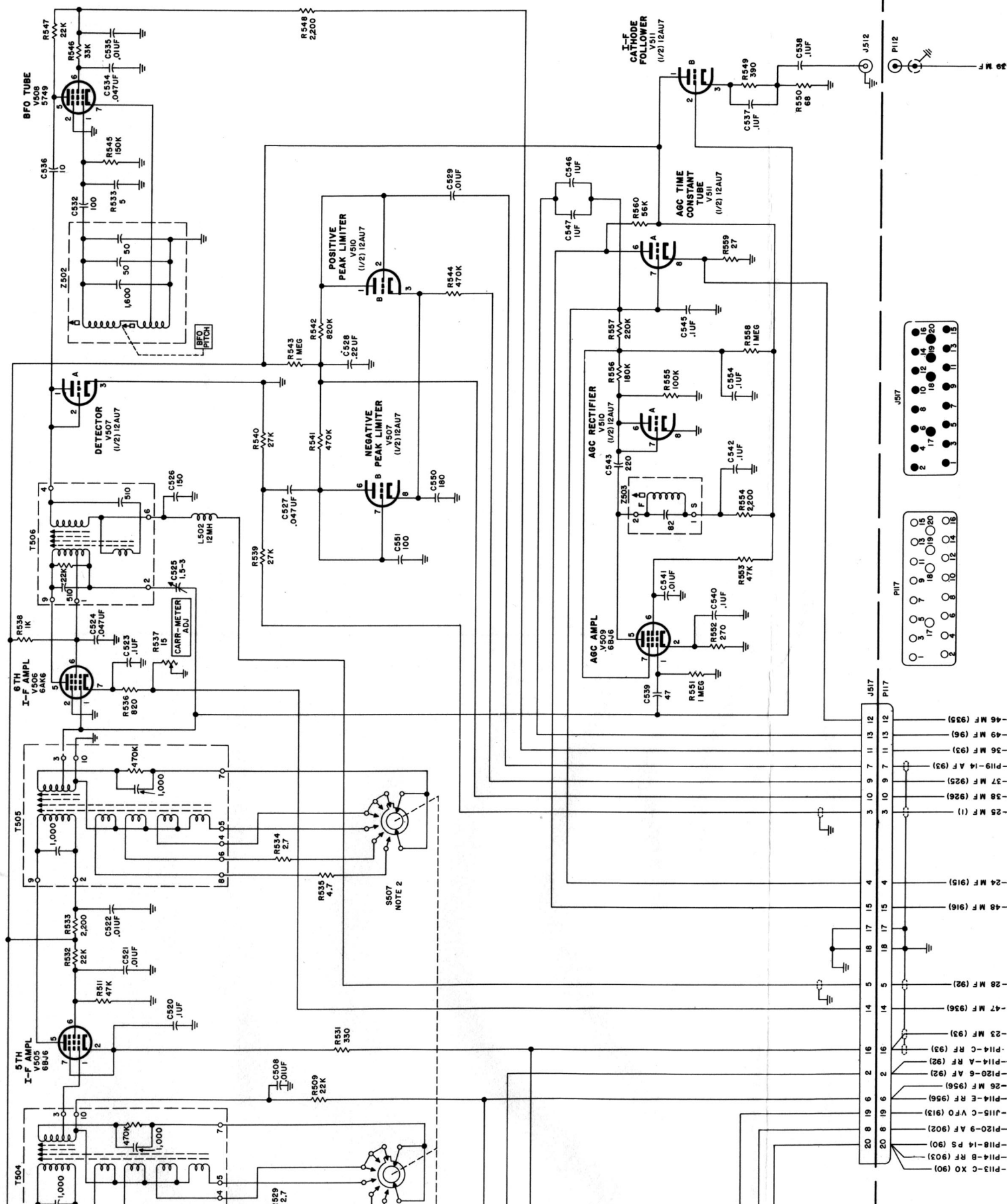
B+

R-F GAN



A-F SUBCHASSIS

Figure 107 (Part 2). Radio Receiver R-390/URR, subchassis and interconnection diagram.



- NOTES:**
- UNLESS OTHERWISE SHOWN, CAPACITORS ARE IN OHMS, INDUCTORS ARE IN UH.
 - ALL SWITCHES EXCEPT S201 THRU S210 ARE SHOWN IN THEIR OFF OR FULL COUNTERCLOCKWISE POSITION, AS VIEWED FROM THE FRONT PANEL. SWITCHES S201 THRU S210 OPERATE IN A REVERSE DIRECTION TO THAT OF ALL OTHER SWITCHES. ALL SWITCHES ARE SHOWN ON THIS DIAGRAM, AS VIEWED FROM THE END OPPOSITE THE KNOB OR DRIVEN END.
 - R519 SELECTED AT TEST-RANGE OF VALUES 560 TO 1,100 OHMS.
 - R20 SELECTED AT TEST-RANGE OF VALUES 4,300 TO 7,500 OHMS.
 - R21 SELECTED AT TEST-RANGE OF VALUES 3,000 TO 5,100 OHMS.
 - R61 SELECTED AT TEST-RANGE OF VALUES 560 TO 5,600 OHMS.
 - NOT USED IN RADIO RECEIVER R-380/URR.
 - R635 IS NOT INCLUDED IN EARLIER MODELS OF A-F SUBCHASSIS.
 - ALL RELAY AND OVEN SWITCH CONTACTS ARE SHOWN IN THEIR NORMAL POSITIONS "WITH POWER OFF".
- ABBREVIATIONS**
- AR - ANTENNA RELAY
 - CO - CALIBRATION OSCILLATOR SUBCHASSIS
 - PS - A-C POWER SUPPLY PP-62/URR
 - RF - R-F SUBCHASSIS
 - IF - I-F SUBCHASSIS
 - AF - A-F SUBCHASSIS
 - MF - MAIN FRAME
 - XO - CRYSTAL OSCILLATOR SUBCHASSIS.
 - VFO - VARIABLE FREQUENCY OSCILLATOR SUBCHASSIS.
- WIRE COLOR CODE, APPLIES ONLY TO CABLING AND CONNECTORS.**
- FIRST NO. - BODY COLOR
SECOND NO. - WIDE TRACER
THIRD NO. - NARROW TRACER
- 1 - BROWN
 - 2 - RED
 - 3 - ORANGE
 - 4 - YELLOW
 - 5 - GREEN
 - 6 - BLUE
 - 9 - WHITE
 - 0 - BLACK
- NO CODE NUMBER - BUS WIRE**

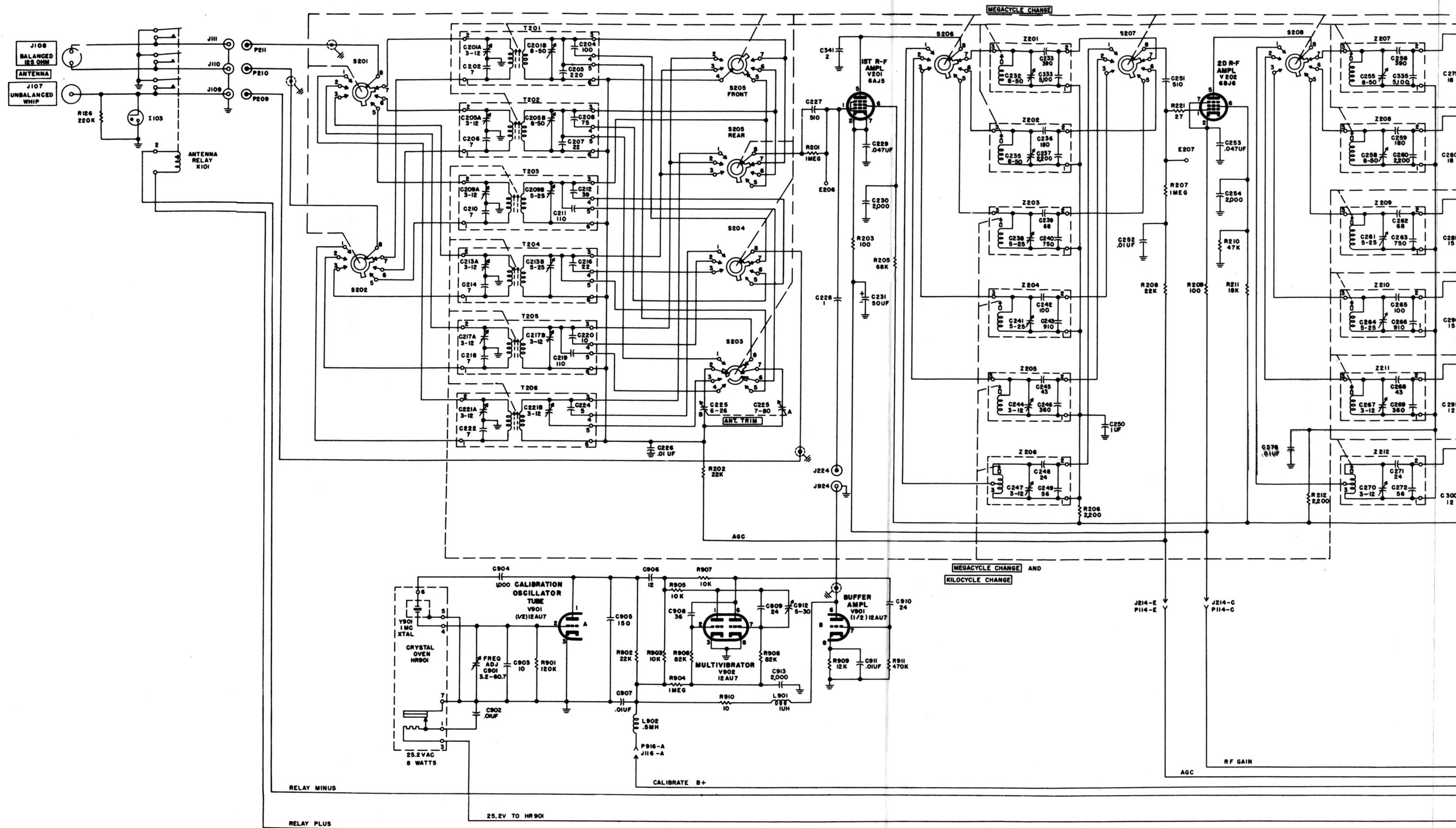


Figure 108 (Part 1)

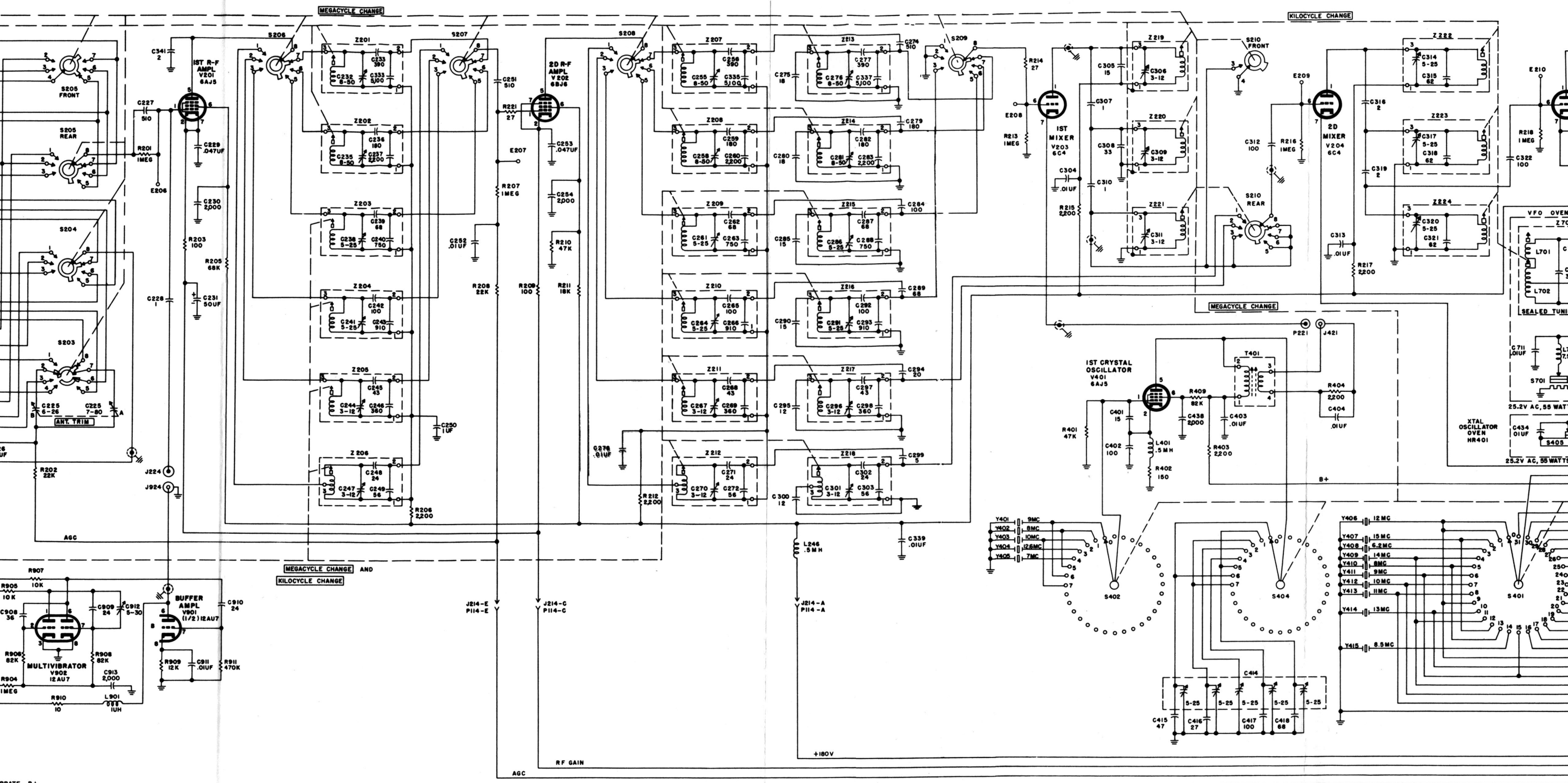
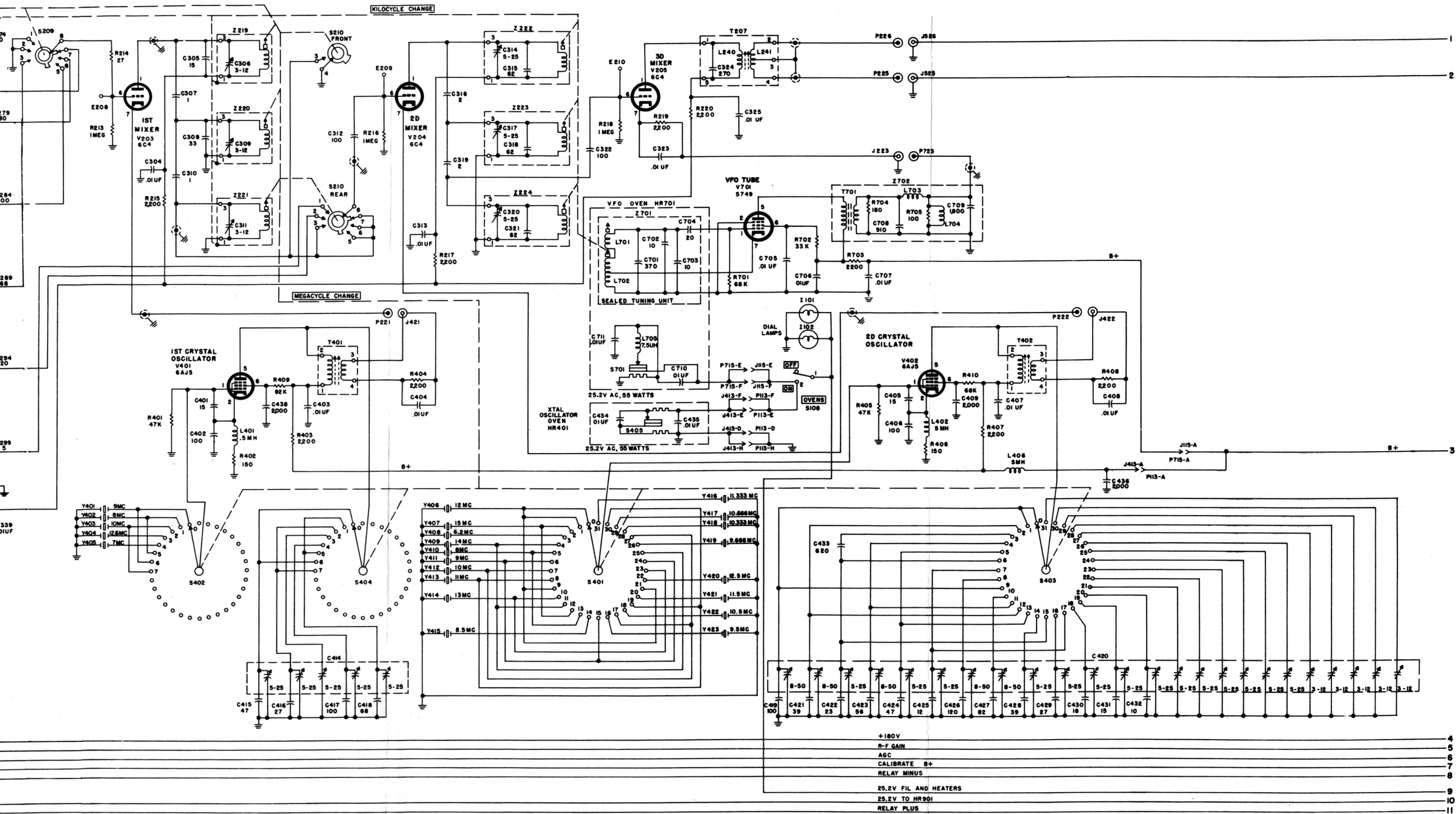
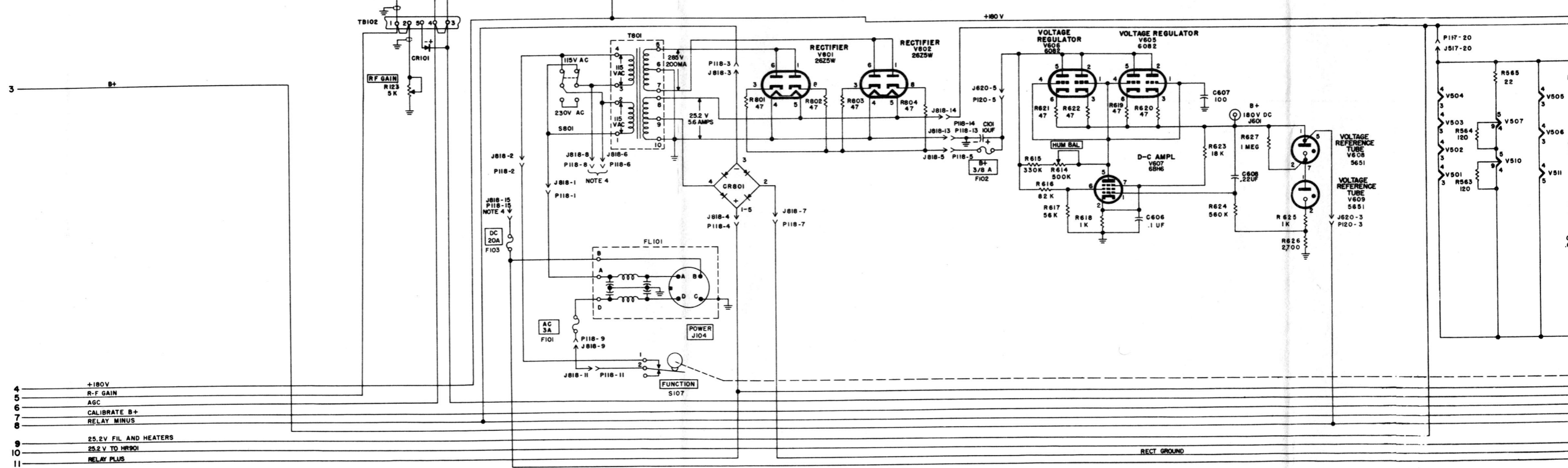
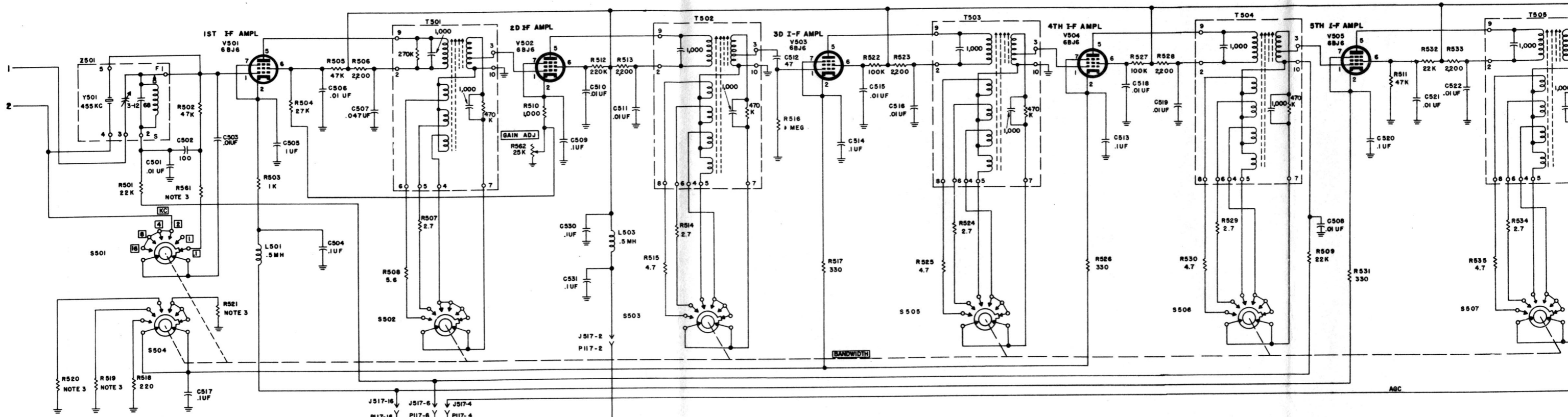


Figure 108 (Part 1). Radio Receiver R-390/URR, schematic diagram.



URR, schematic diagram.



- 4 +180V
- 5 R-F GAIN
- 6 AGC
- 7 CALIBRATE B+
- 8 RELAY MINUS
- 9 25.2V FIL AND HEATERS
- 10 25.2V TO HR901
- 11 RELAY PLUS

RECT GROUND

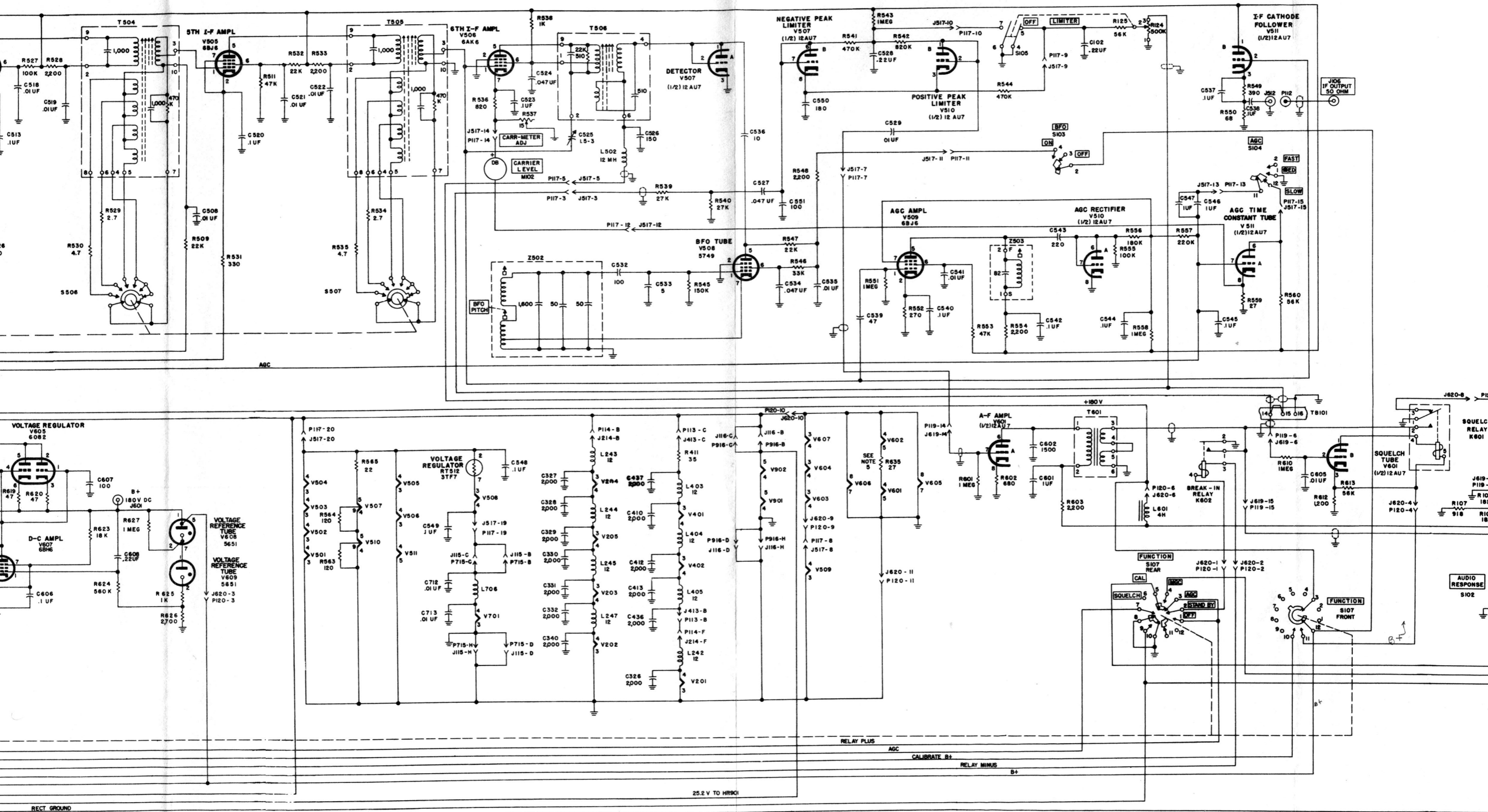
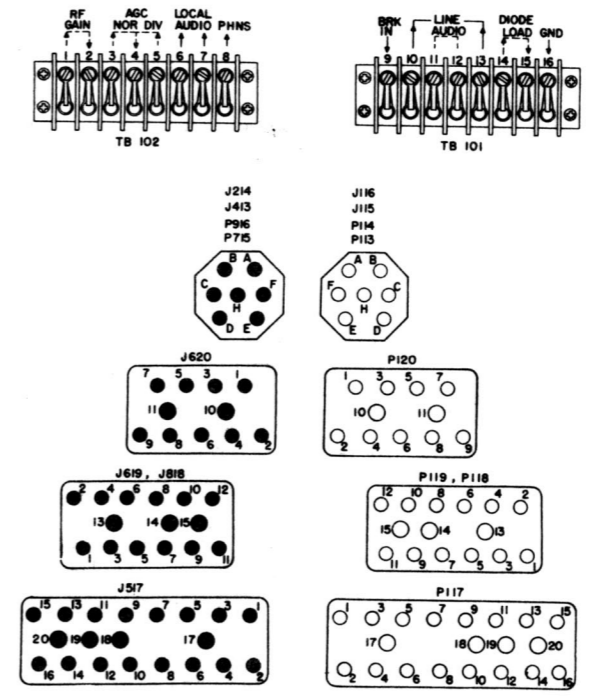
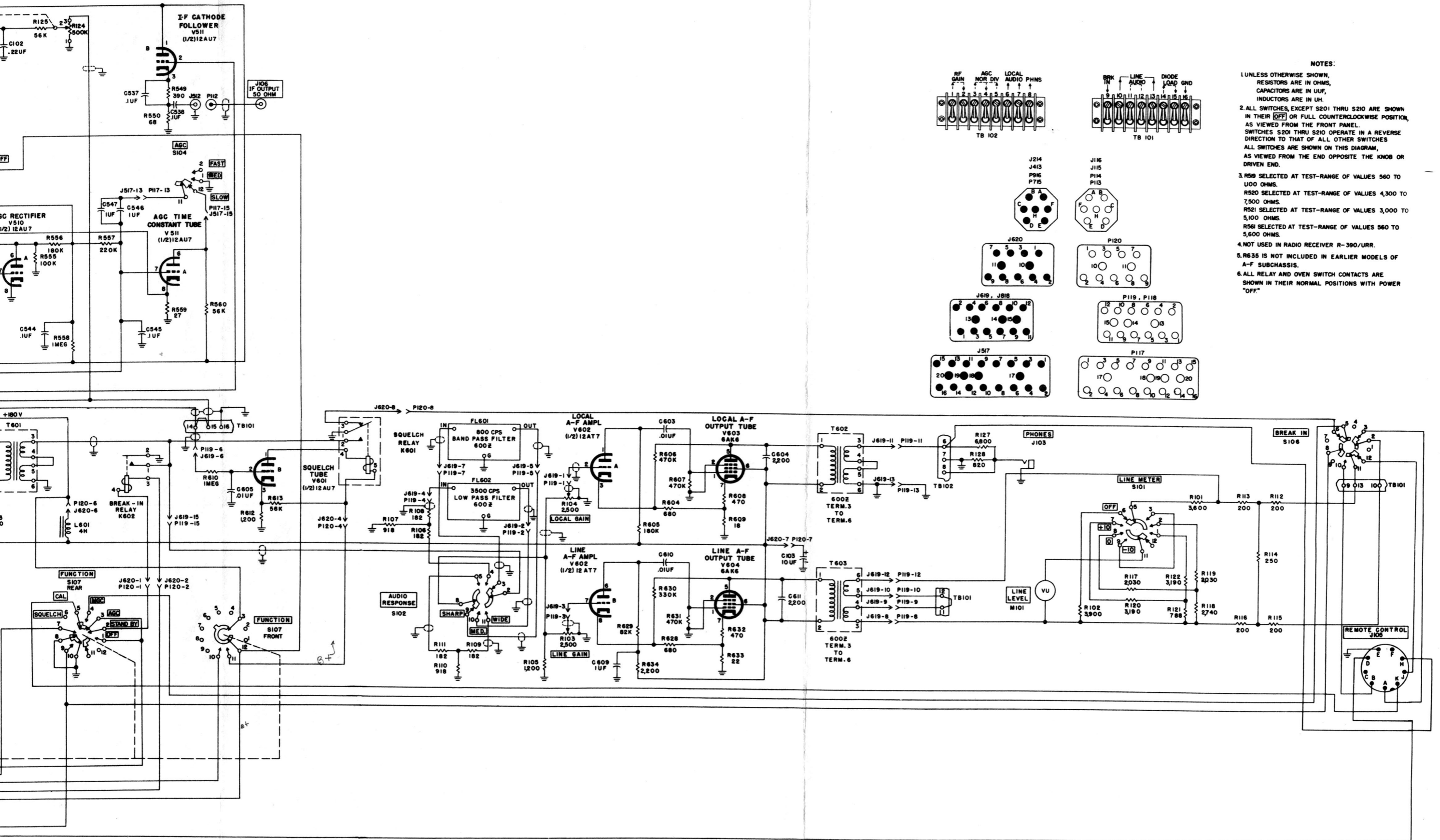


Figure 108 (Part 2). Radio Receiver R-390/URR, schematic diagram.



- NOTES:**
- UNLESS OTHERWISE SHOWN, RESISTORS ARE IN OHMS, CAPACITORS ARE IN UUF, INDUCTORS ARE IN UH.
 - ALL SWITCHES, EXCEPT S201 THRU S210 ARE SHOWN IN THEIR OFF OR FULL COUNTERCLOCKWISE POSITION, AS VIEWED FROM THE FRONT PANEL. SWITCHES S201 THRU S210 OPERATE IN A REVERSE DIRECTION TO THAT OF ALL OTHER SWITCHES. ALL SWITCHES ARE SHOWN ON THIS DIAGRAM, AS VIEWED FROM THE END OPPOSITE THE KNOB OR DRIVEN END.
 - R509 SELECTED AT TEST-RANGE OF VALUES 560 TO 1,000 OHMS. R520 SELECTED AT TEST-RANGE OF VALUES 4,300 TO 7,500 OHMS. R521 SELECTED AT TEST-RANGE OF VALUES 3,000 TO 5,100 OHMS. R561 SELECTED AT TEST-RANGE OF VALUES 560 TO 5,600 OHMS.
 - NOT USED IN RADIO RECEIVER R-390/UUR.
 - R635 IS NOT INCLUDED IN EARLIER MODELS OF A-F SUBCHASSIS.
 - ALL RELAY AND OVEN SWITCH CONTACTS ARE SHOWN IN THEIR NORMAL POSITIONS WITH POWER OFF.