


S-76

# the hallicrafters co.

MANUFACTURERS OF RADIO AND ELECTRONIC EQUIPMENT, CHICAGO 24, U. S. A.

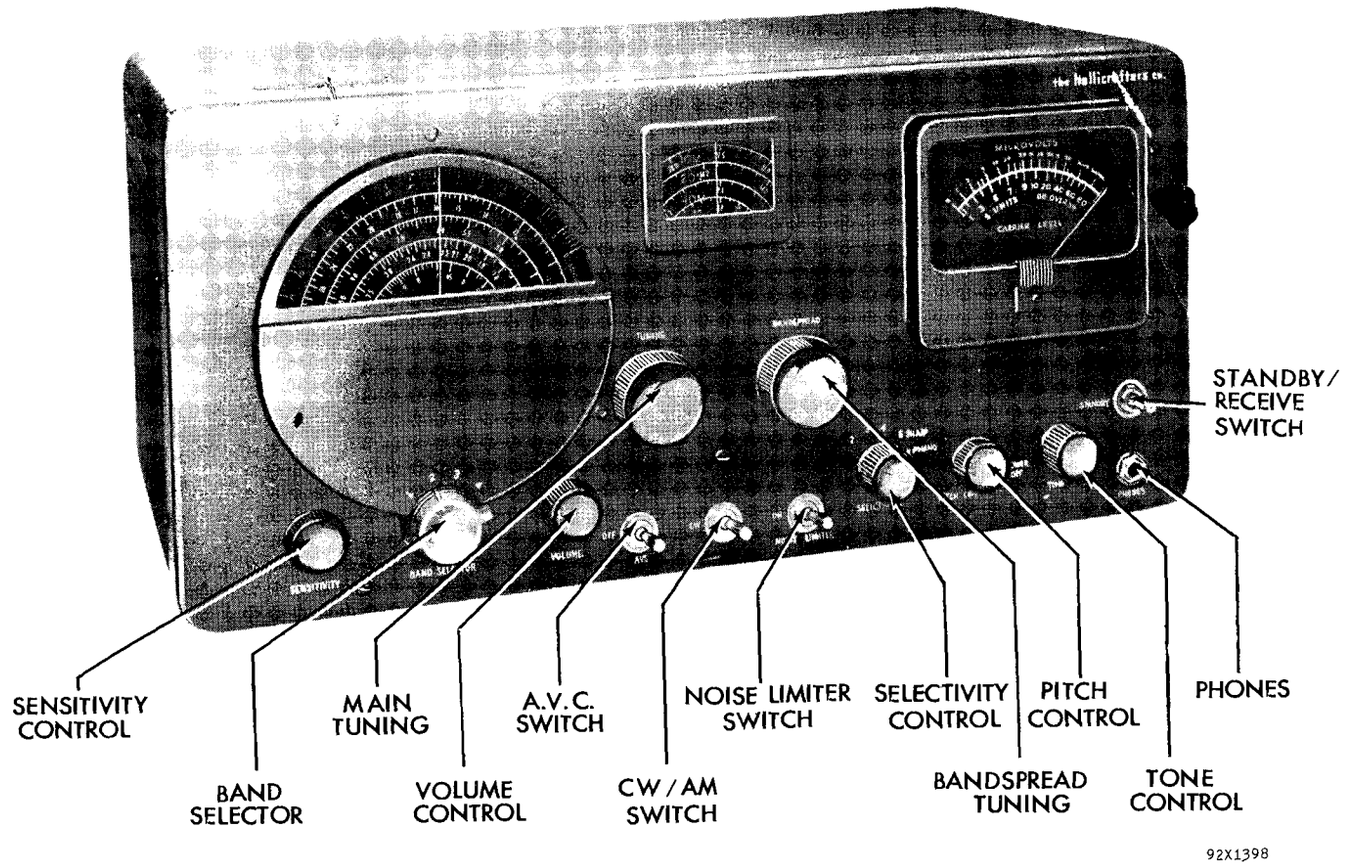



FIG. 1. COMMUNICATIONS RECEIVER MODEL S-76

## GENERAL SPECIFICATIONS

| | |
|---|---|
| Tubes | 9 plus voltage regulator and rectifier |
| Power Supply - Model S-76 | 105-125 volts, 50/60 cycles AC |
| Model S-76U | 105-250 volts, 25/60 cycles AC |
| Power Consumption | 77 watts |
| Speaker Output Impedances | 3.2 and 500 ohms |
| Headset Output Impedance | 500 ohms |
| Antenna Input Impedance | 300 ohms |
| Phono Input Impedance | High Impedance |
| 1st Intermediate Frequency | 1650 KC |
| 2nd Intermediate Frequency | 50 KC |

## FREQUENCY COVERAGE

| Band | Frequency Range | Reception |
|---|---|---|
| 1 | 538 KC - 1580 KC | AM/CW |
| 2 | 1720 KC - 4.9 MC | AM/CW |
| 3 | 4.6 MC - 13 MC | AM/CW |
| 4 | 12 MC - 34 MC | AM/CW |

## RESTRINGING DIAL CORD

The dial drive system of the S-76 consists of three separate string drives: (1) bandspread tuning gang drive (2) main tuning gang drive and (3) large bandspread ratio pulley drive. Refer to Fig. 2 for diagram of dial stringing. All restringing should be done with the main tuning and bandspread gangs full-meshed.

BANDSPREAD TUNING GANG DRIVE - Tie one end of a 36" length of 30 lb. test dial cord to position 1 of the bandspread gang drive pulley. Follow the stringing procedure 1 through 12. At position 12, stretch the tension spring and tie the cord securely to the spring.

MAIN TUNING GANG DRIVE - Tie one end of a 25" length of 30 lb. test dial cord to the tension spring at position A on the main tuning gang drive pulley. Follow the stringing procedure A through H. At position H, stretch the tension spring and tie the cord securely to the spring. Note that 2 1/2 turns of dial cord are wrapped around the main tuning drive shaft for proper traction.

LARGE BANDSPREAD RATIO PULLEY DRIVE - Tie one end of a 23" length of 30 lb. test dial cord to the tension spring at position A on the large bandspread ratio pulley. Follow the stringing procedure A through F. At position F, stretch the tension spring and tie the cord securely to the spring. Note that 2 1/2 turns of dial cord are wrapped around the bandspread tuning drive shaft for proper traction.

## "S" METER ADJUSTMENTS

MECHANICAL ADJUSTMENT - Turn the receiver OFF. The "S" meter mechanical adjustment screw is located on the "S" meter escutcheon. Carefully rotate this screw until the pointer is in line with the right hand index mark on the "S" meter.

ELECTRICAL ADJUSTMENT -

1. Short the antenna terminals to the chassis.

2 Set the STANDBY/RECEIVE switch at RECEIVE, AM/CW switch at AM, AVC switch at ON, NOISE LIMITER SWITCH at OFF and the SENSITIVITY control fully clockwise.

3. Turn the receiver ON.

4. The electrical adjustment control for the "S" meter is located on the rear apron of the chassis. Turn this control slowly until the "S" meter pointer indicates 0 on the microvolt scale.

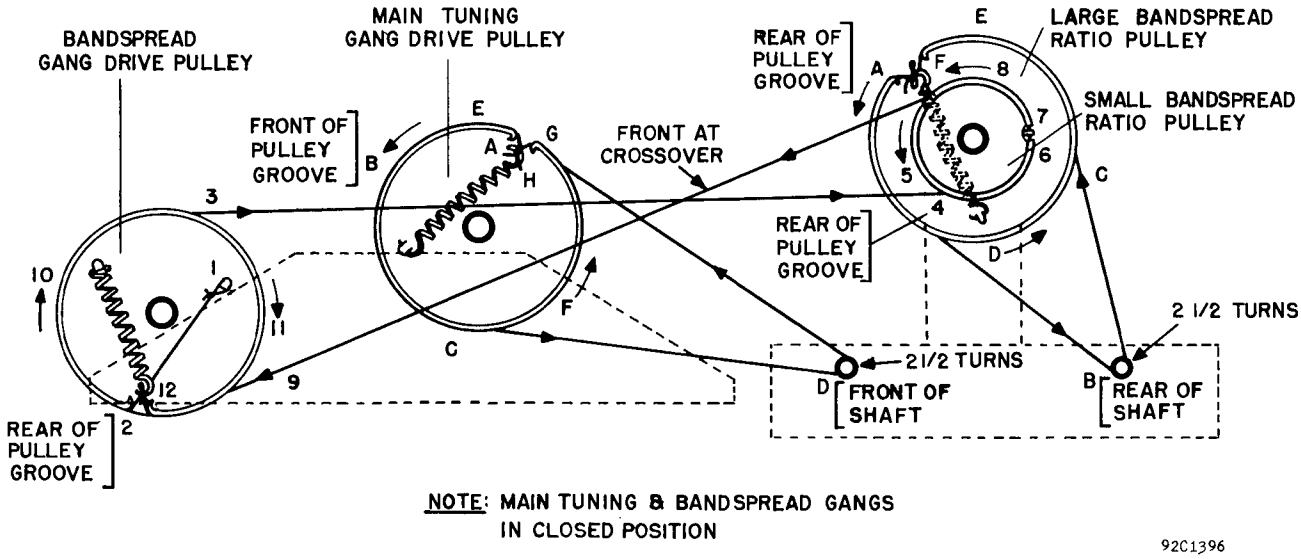



FIG. 2. DIAL CORD STRINGING PROCEDURE

## DIAL LAMP REPLACEMENT

Refer to Fig. 9 for the location of the dial lamps used in the receiver. To gain access to defective lamps, raise the hinged top cover of the cabinet.

> CAUTION - To avoid electrical shock, disconnect the receiver from the power source before making any dial lamp replacement.

To replace the bandspread and main tuning dial lamps, unclip the dial light assembly from the mounting bracket. This enables bringing the defective lamp out into the open where it may be replaced. Make replacements with a 6-8 volt, 250 ma (blue bead) Mazda #44 pilot lamp or equivalent.

To replace the pilot lamps which illuminate the "S" meter, remove either socket assembly from the meter by pulling it slightly sideways. The socket assembly and defective lamp may then be brought out into the open for service. Make replacements with a 6-8 volt, 1 c.p. (pink bead) Mazda #51 pilot lamp or equivalent.

## TUBE REPLACEMENT

The tube types and their relative location in the receiver are shown in Fig. 9. Raise the hinged top cover of the cabinet to gain access to all tubes. When installing a replacement octal tube, insert the center guide pin into the center hole of the tube socket, rotate the tube until the key on the guide pin drops into the notch in the socket hole and push down until the base of the tube rests firmly on the socket. A slightly different technique must be used on the miniature tubes. They have seven small pins which must be lined up with the socket holes before pushing the tube into place. Handle all tubes with care as they are fragile and will not withstand mechanical abuse.

## I-F ALIGNMENT PROCEDURE

EQUIPMENT REQUIRED:

1. Vacuum tube voltmeter (VTVM)
2. Signal generator (unmodulated) covering 50 KC and 1650 KC. If a 50 KC signal generator is not available, use two separate generators to provide a 50 KC beat frequency. Set the frequency of one generator to 700 KC and the other to 750 KC.
3. 3.2 or 500 ohm speaker

It is necessary to remove the receiver chassis from the cabinet to make the I-F alignment. The chassis is held in the cabinet by three screws along both the bottom edge of the front panel and the rear of the cabinet and by two screws on each side of the front panel.

The I-F alignment should be made with the main tuning and bandspread tuning capacitors meshed half way, VOLUME, TONE and SENSITIVITY controls fully clockwise, NOISE LIMITER and AVC switches at OFF, RECEIVE/STANDBY switch at RECEIVE, CW/AM switch at AM and the BAND SELECTOR switch at 2. Refer to Figs. 3 and 4 for the location of all adjustments.

Connect the high side of the VTVM to the junction of C-75, R-38, R-43, R-44 and R-59. See Fig. 7. Connect the common side of the VTVM to the chassis. Use just enough signal generator output to give a 1 volt indication on the VTVM.

| STEP | SIGNAL GENERATOR COUPLING | SIGNAL GEN. FREQUENCY | SELECTIVITY CONTROL SETTING | ADJUST | REMARKS |
|---|---|---|---|---|---|
| 1 | Connect the high side of the generator to terminal 1 of transformer T2 (see Fig. 7) and the ground side to the chassis. | 50 KC (No Mod.) | 5 | 1 | Maximum output |
| | | | 5 | 2 | Maximum output |
| | | | 5 | 3 | Maximum output |
| | | | 5 | 4 | Maximum output |
| | | | 5 | 1 | Maximum output |
| | | | 5 | 2 | Maximum output |
| | | | 5 | 3 | Maximum output |
| | | | 5 | 4 | Maximum output |
| 2 | Connect the high side of the generator to stator plates of center section of main tuning capacitor. Connect the ground side of the generator to frame of main tuning capacitor. | 1650 KC (No Mod.) | 5 | 5 | Maximum output. After making adjustment 5 retune the generator for a maximum indication on the VTVM. |
| | | | 5 | 6 | Maximum output |
| | | | 5 | 7 | Maximum output |
| | | | 5 | 8 | Maximum output |
| | | | 5 | 9 | Maximum output |
| | | | | | Rotate the SELECTIVITY control from position 5 to 1. The VTVM reading should decrease progressively with each position of the SELECTIVITY control. If this does not occur, it is an indication that the 50 KC I-F system is not properly aligned. This indicates that steps 1 and 2 must be repeated. |
| 3 | Connect the high side of the generator to terminal 1 of transformer T2 (see Fig. 7) and the ground side to the chassis. | 50 KC (No Mod.) | 4 | 10 | Disconnect the VTVM. Set the CW/AM switch at CW. Remove the PITCH CONTROL knob. Using a speaker as an indicating device, adjust 10 for a zero beat. After completing this adjustment, replace the knob with the index mark in the top center position. |

## R-F ALIGNMENT PROCEDURE

EQUIPMENT REQUIRED:

1. Output meter. The AC scale of a vacuum tube voltmeter (VTVM) or other suitable meter may be used.
2. Signal generator covering 600 KC to 30 MC. Generator must have amplitude modulated output.
3. Alignment tool made of polystyrene or other similar material.

It is not necessary to remove the chassis from the cabinet for the R-F alignment. All R-F alignment adjustments can be made through the holes in the bottom of the cabinet.

The R-F alignment should be made with the BANDSPREAD, VOLUME, TONE and SENSITIVITY controls fully clockwise, NOISE LIMITER and AVC switches at OFF, RECEIVE/STANDBY switch at RECEIVE, CW/AM switch at AM and the SELECTIVITY control at 3. Refer to Figs. 3 and 4 for the location of all adjustments.

CONNECTING THE TEST EQUIPMENT:

1. Connect the output meter between the 500 ohm speaker terminal and the chassis. Properly load the output of the receiver with a speaker or dummy load. Speaker loading will enable the operator to monitor the signal and result in better alignment.
2. Connect the high side of the signal generator to antenna terminal A1 through a 330 ohm carbon resistor. Place the jumper between antenna terminals A2 and G. Connect the ground side of the generator to the chassis. Keep the output of the signal generator as low as possible at all times to prevent overloading of the receiver.

| STEP | SIGNAL GENERATOR FREQUENCY (MOD.) | BAND SELECTOR SETTING | MAIN TUNING DIAL SETTING | ADJUST | REMARKS |
|---|---|---|---|---|---|
| 1 | 30 MC | 4 | 30 MC | A | Maximum output |
| | 30 MC | 4 | 30 MC | B | Maximum output |
| | 30 MC | 4 | 30 MC | C | Maximum output |
| | 14 MC | 4 | 14 MC | D | Maximum output |
| | 14 MC | 4 | 14 MC | E | Maximum output |
| | 14 MC | 4 | 14 MC | F | Maximum output |
| 2 | 11.5 MC | 3 | 11.5 MC | G | Maximum output |
| | 11.5 MC | 3 | 11.5 MC | H | Maximum output |
| | 11.5 MC | 3 | 11.5 MC | J | Maximum output |
| | 5.1 MC | 3 | 5.1 MC | K | Maximum output |
| | 5.1 MC | 3 | 5.1 MC | L | Maximum output |
| | 5.1 MC | 3 | 5.1 MC | M | Maximum output |
| 3 | 4.6 MC | 2 | 4.6 MC | N | Maximum output |
| | 4.6 MC | 2 | 4.6 MC | P | Maximum output |
| | 4.6 MC | 2 | 4.6 MC | Q | Maximum output |
| | 1.925 MC | 2 | 1.925 MC | R | Maximum output |
| 4 | 1400 KC | 1 | 1.4 MC | S | Maximum output |
| | 1400 KC | 1 | 1.4 MC | T | Maximum output |
| | 1400 KC | 1 | 1.4 MC | U | Maximum output |
| | 600 KC | 1 | .6 MC | V | Maximum output |

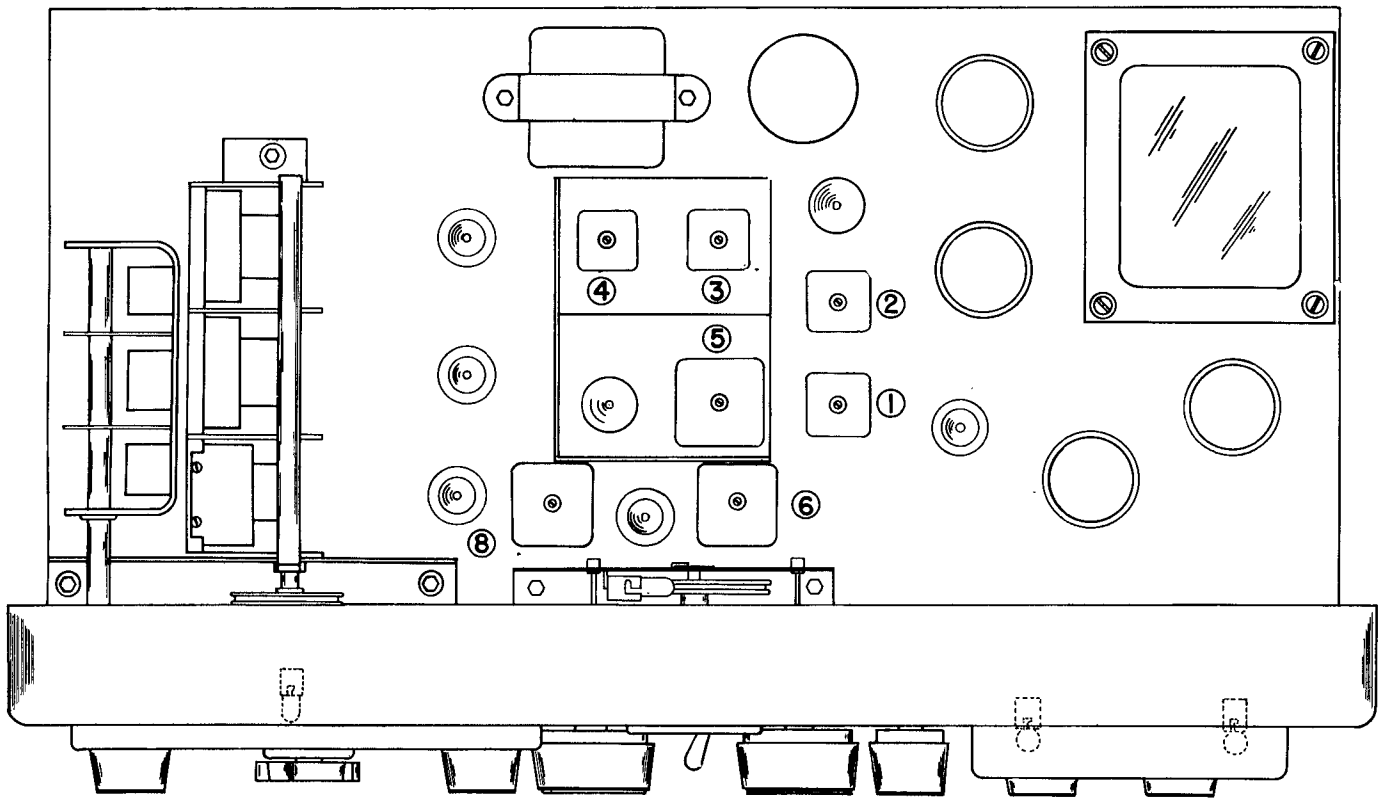
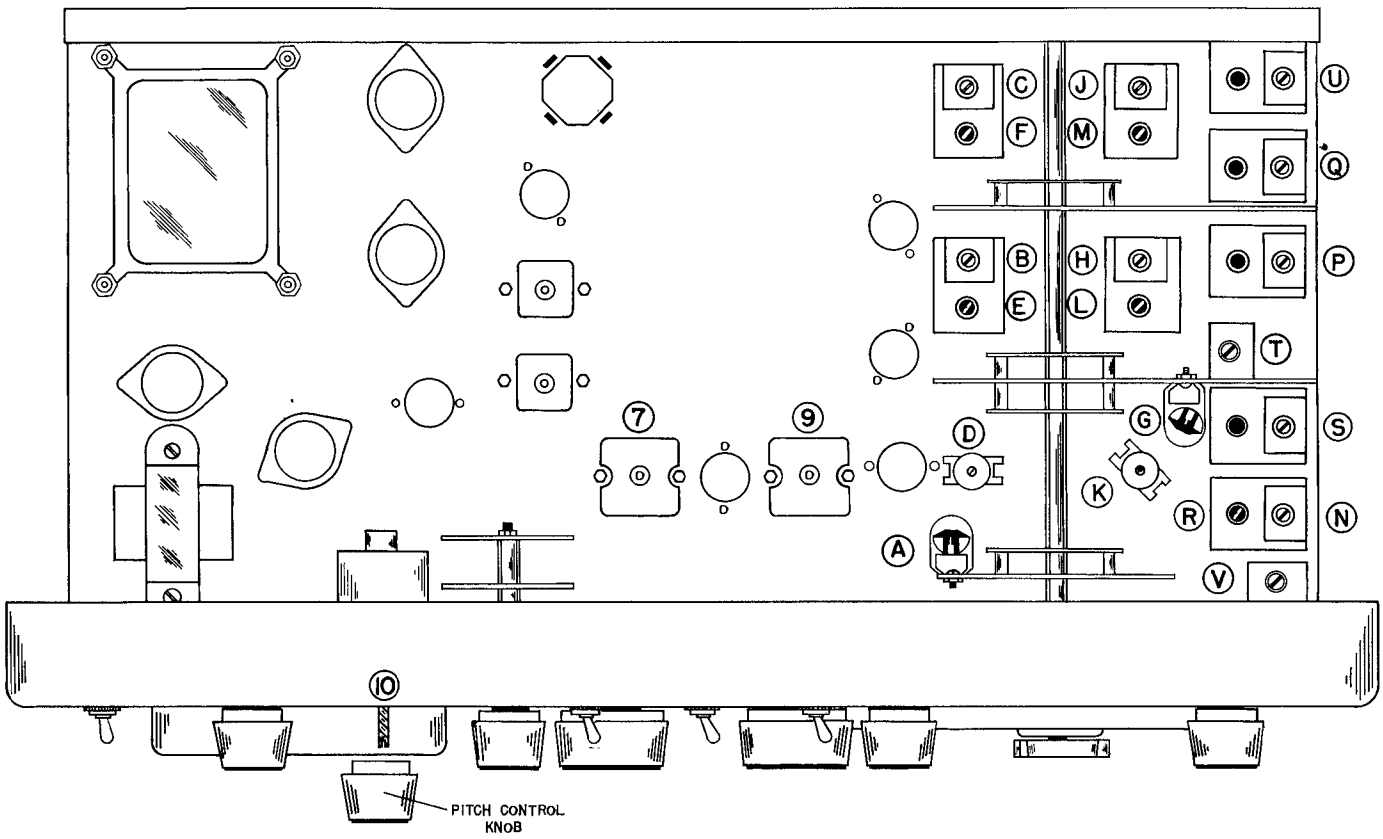


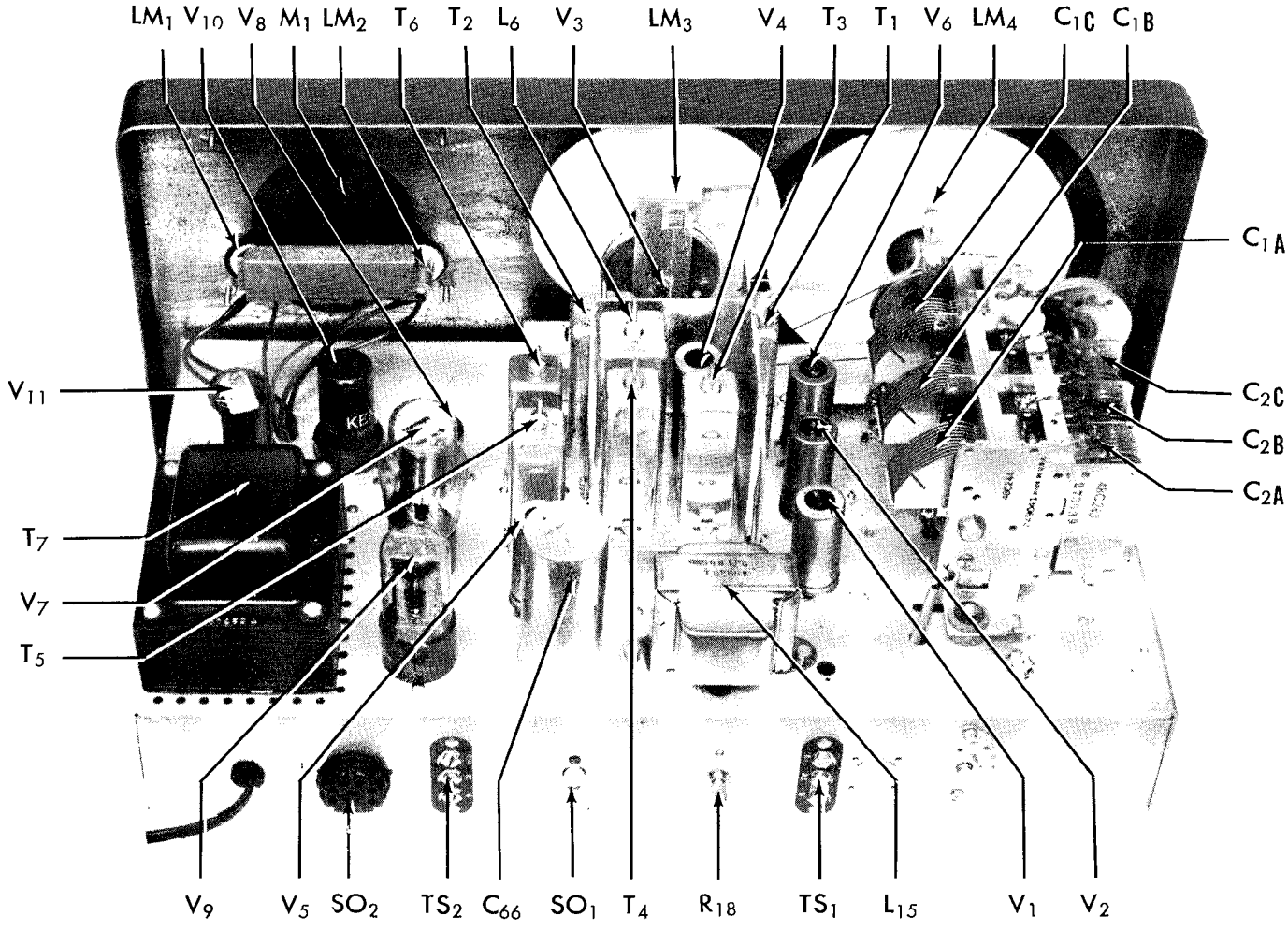

FIG. 3 TOP VIEW - LOCATION OF ALIGNMENT ADJUSTMENTS

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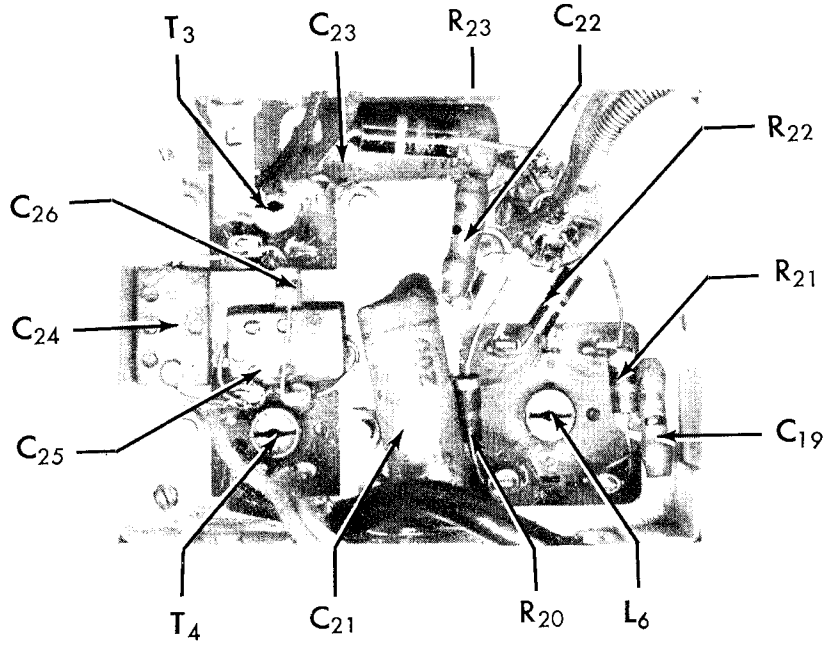

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FIG. 4 BOTTOM VIEW - LOCATION OF ALIGNMENT ADJUSTMENTS



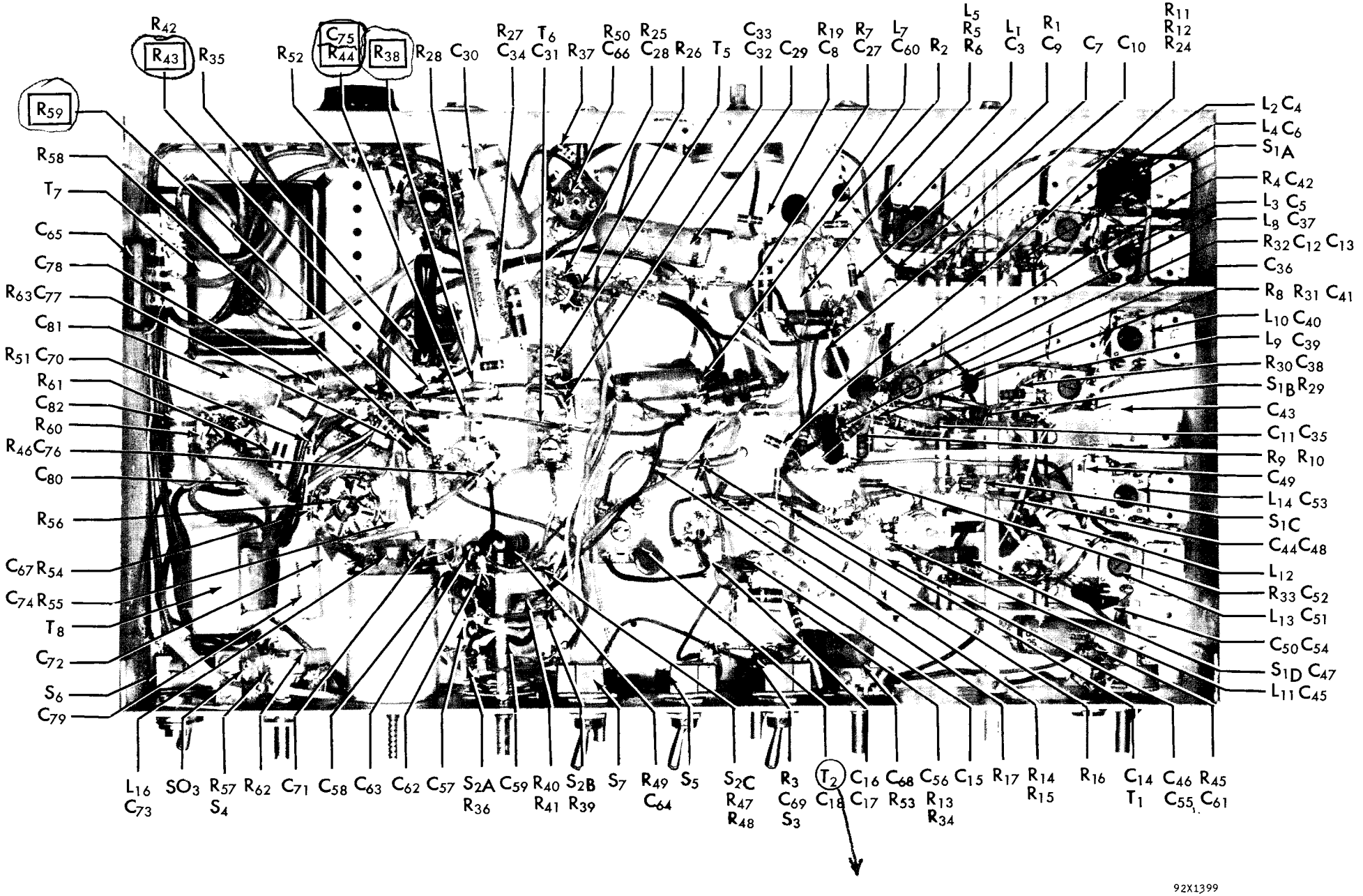

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FIG. 5 TOP VIEW - COMPONENT LOCATION




92X1416

FIG. 6 BOTTOM VIEW OF 2ND CONVERTER UNIT - COMPONENT LOCATION




92X1399

FIG. 7 BOTTOM VIEW - COMPONENT LOCATION

# SERVICE PARTS LIST

| Schematic Symbol | Description | Hallicrafters Part Number |
|---|---|---|
| | **CAPACITORS** | |
| C-1A,B,C | Capacitor, MAIN TUNING; 3 section | 48C244 |
| C-2A,B,C | Capacitor, BANDSPREAD; 3 section | 48C243 |
| C-3,4,5,6 | Trimmers (part of antenna coils L-1,2,3, and 4) | ---------- |
| C-7,41,67, 75,76 | 220 mmf. 500 V., ceramic | 47B20221K5 |
| C-8,9,10,12, 13,14,15, 16,17,18, 42 | 5000 mmf. 450 V., ceramic | 47A168 |
| C-11,19,22, 52,55 | 100 mmf. 500 V., ceramic | 47X20UJ101K |
| C-20 | 2200 mmf. 500 V., mica (part of osc. coil, L-6) | ---------- |
| C-21,23,27, 78 | .05 mfd. 200 V., tubular paper | 46AU503J |
| C-24,25,31, 32 | 390 mmf. 500 V., mica | 47X20D391J |
| C-26,33,35, 38,44 | 2.2 mmf. 450 V., ceramic | 47A160-4 |
| C-28,72 | 470 mmf. 500 V., mica | 47X20B471K |
| C-29,61 | .25 mfd. 200 V., tubular paper | 46AT254J |
| C-30,34 | .05 mfd. 600 V., tubular paper | 46AY503J |
| C-36,45 | 25 mmf. 500 V., ceramic | 47X20UK250K |
| C-37,39,40 | Trimmers (part of RF coils L-8,9 and 10) | ---------- |
| C-43 | Trimmer (for RF coil L-10, band 1) | 44A399 |
| C-46 | Trimmer, 7-35 mmf. (for osc. coil L-11) | 44A378 |
| C-47 | 2400 mmf. 500 V., mica | 47X30D242J |
| C-48 | 1000 mmf. 500 V., mica | 47X25D102J |
| C-49 | Trimmer, 7-35 mmf. (for osc. coil L-12) | 44A378 |
| C-50 | 470 mmf. 500 V., mica | 47X20B471G |
| C-51,53 | Trimmers (part of osc. coils L-13 and 14) | ---------- |
| C-54 | Padder, 170 mmf. (for osc. coil L-14) | 44B398 |
| C-56 | Capacitor, temperature compensated | 44A158 |
| C-57,62 | 4700 mmf. 600 V., molded tubular paper | 46A181 |
| C-58,63 | .01 mfd. 600 V., molded tubular paper | 46A179 |
| C-59,64 | .022 mfd. 600 V., molded tubular paper | 46A180 |
| C-60,68,69, 70,71,77, 80 | .02 mfd. 600 V., tubular paper | 46AY203J |
| C-65 | .01 mfd. 600 V., molded paper | 46X35X103J |
| C-66A,B,C | 60-20-20 mfd. 450 V., electrolytic | 45B113 |
| C-73 | 560 mmf. 500 V., mica | 47X20D561J |
| C-74 | 47 mmf. 500 V., ceramic | 47X20UK470K |
| C-79 | .005 mfd. 600 V., tubular paper | 46AY502J |
| C-81 | 10 mfd. 25V., electrolytic | 45A121 |
| C-82 | .01 mfd. 600 V., tubular paper | 46AY103J |

| Schematic Symbol | Description | Hallicrafters Part Number |
|---|---|---|
| | **RESISTORS** | |
| R-1 | 22 ohms 1/2 watt, carbon | 23X20X220K |
| R-2,25,58,59 | 1 megohm 1/2 watt, carbon | 23X20X105K |
| R-3,15,26 | 100 ohms 1/2 watt, carbon | 23X20X101K |
| R-4,8,14,21 | 15 ohms 1/2 watt, carbon | 23X20X150K |
| R-5,39,47 | 180 ohms 1/2 watt, carbon | 23X20X181K |
| R-6 | 1000 ohms 1/2 watt, carbon (part of L-5) | ---------- |
| R-7,27 | 39,000 ohms 1 watt, carbon | 23X30X393K |
| R-9 | 2.2 megohms 1/2 watt, carbon | 23X20X225K |
| R-10 | 2200 ohms 1/2 watt, carbon | 23X20X222K |
| R-11,42,52 | 330,000 ohms 1/2 watt, carbon | 23X20X334K |
| R-12,17,24, 28,29,30,32 | 3300 ohms 1/2 watt, carbon | 23X20X332K |
| R-13,56 | 100,000 ohms 1/2 watt, carbon | 23X20X104K |
| R-16 | 8200 ohms 1/2 watt, carbon | 23X20X822K |
| R-18 | Resistor; variable; 500 ohms ("S" METER ADJUSTMENT) | 25C022 |
| R-19 | 270 ohms 1/2 watt, carbon | 23X20X271K |
| R-20 | 150 ohms 1/2 watt, carbon | 23X20X151K |
| R-22,33 | 22,000 ohms 1/2 watt, carbon | 23X20X223K |
| R-23,34 | 10,000 ohms 1 watt, carbon | 23X30X103K |
| R-31 | 6800 ohms 1 watt, carbon | 23X30X682K |
| R-35 | 3000 ohms 10 watts, WW | 24BG302E |
| R-36 | 470 ohms 1/2 watt, carbon | 23X20X471K |
| R-37,60 | 470,000 ohms 1/2 watt, carbon | 23X20X474K |
| R-38 | 3.3 megohms 1/2 watt, carbon | 23X20X335K |
| R-40,48 | 220 ohms 1/2 watt, carbon | 23X20X221K |
| R-41,49 | 390 ohms 1/2 watt, carbon | 23X20X391K |
| R-43 | 82,000 ohms 1/2 watt, carbon | 23X20X823K |
| R-44,55 | 47,000 ohms 1/2 watt, carbon | 23X20X473K |
| R-45 | Resistor, variable; 10,000 ohms (SENSITIVITY control) | 25B590 |
| R-46 | 1.5 megohms 1/2 watt, carbon | 23X20X155K |
| R-50 | 10,000 ohms 1/2 watt, carbon | 23X20X103K |
| R-51 | 220,000 ohms 1/2 watt, carbon | 23X20X224K |
| R-53 | Resistor, variable; 500,000 ohms (VOLUME control) | 25B534 |
| R-54 | 15 megohms 1/2 watt, carbon | 23X20X156K |
| R-57 | Resistor, variable; 500,000 ohms (TONE control) | 25B605 |
| R-61 | 390 ohms 1 watt, carbon | 23X30X391K |
| R-62 | 560 ohms 1 watt, carbon | 23X30X561K |
| R-63 | 6.8 ohms 1 watt, carbon | 23X30X068K |
| | **TRANSFORMERS AND COILS** | |
| T-1,2 | Transformer, 1st and 2nd IF (1650 KC) | 50B488 |
| T-3,4,5,6 | Transformer, IF (50 KC) | 50B489 |
| T-7 | Transformer, power (model S-76) | 52C221 |

# SERVICE PARTS LIST (Cont.)

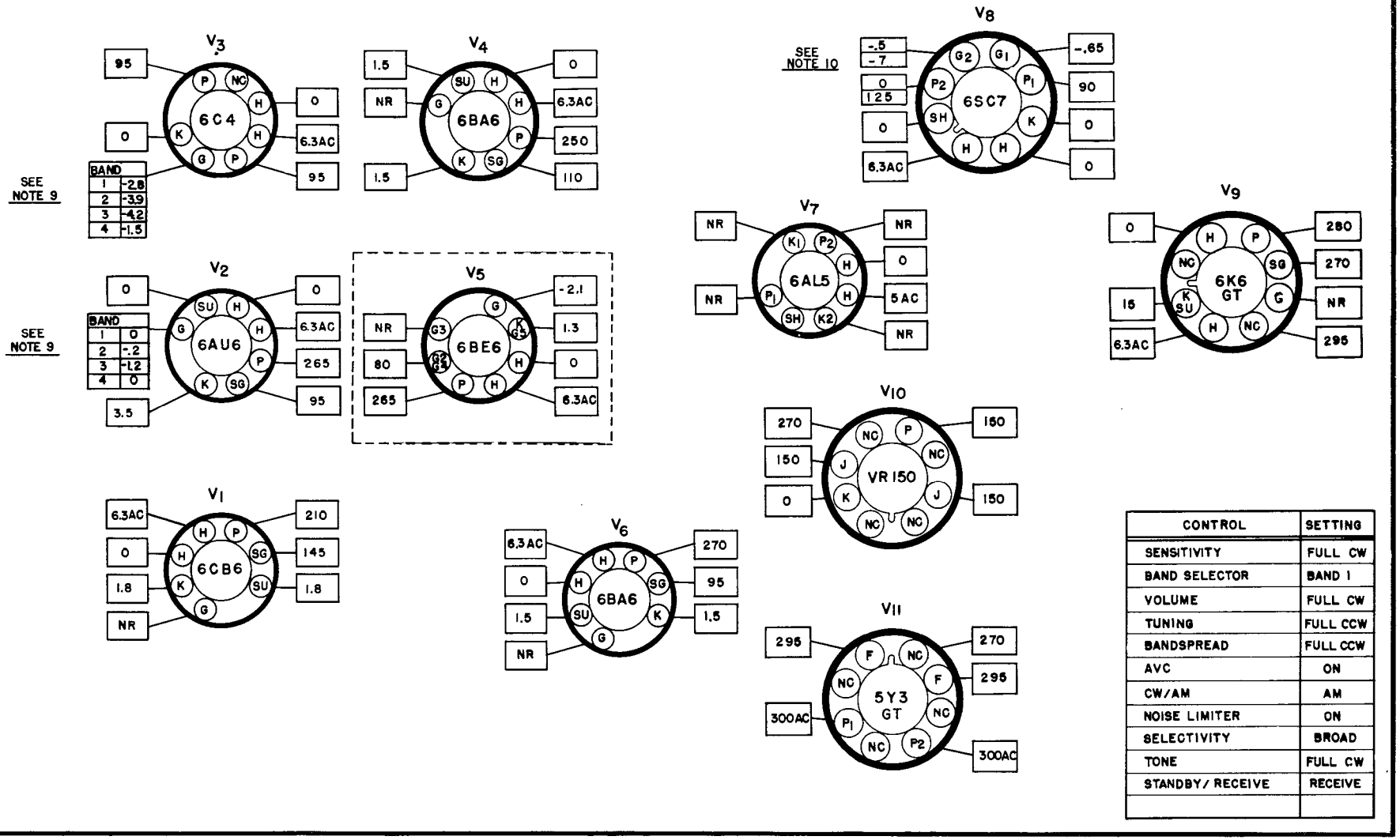
| Schematic Symbol | Description | Hallicrafters Part Number |
|---|---|---|
| | **TRANSFORMERS AND COILS (Cont.)** | |
| T-7 | Transformer, power (model S-76U) | 52C222 |
| T-8 | Transformer, output | 55B120 |
| L-1 | Coil, antenna (band 4) | 51B1325 |
| L-2 | Coil, antenna (band 3) | 51B1324 |
| L-3 | Coil, antenna (band 2) | 51B1323 |
| L-4 | Coil, antenna (band 1) | 51B1322 |
| L-5 | Choke, RF | 53A215 |
| L-6 | Coil, 1600 KC oscillator | 50B490 |
| L-7 | Choke, RF | 53A107 |
| L-8 | Coil, RF (band 4) | 51B1327 |
| L-9 | Coil, RF (band 3) | 51B1326 |
| L-10 | Coil, RF (bands 1 and 2) | 51B1319 |
| L-11 | Coil, oscillator (band 4) | 51B1321 |
| L-12 | Coil, oscillator (band 3) | 51B1320 |
| L-13 | Coil, oscillator (band 2) | 51B1329 |
| L-14 | Coil, oscillator (band 1) | 51B1328 |
| L-15 | Choke, filter | 56B107 |
| L-16 | Coil, BFO | 54B045 |
| | **SWITCHES** | |
| S-1A | Wafer, BAND SELECTOR switch; antenna section | 62B053 |
| S-1B | Wafer, BAND SELECTOR switch; RF section | 62B053 |
| S-1C | Wafer, BAND SELECTOR switch; osc. grid section | 62B054 |
| S-1D | Wafer, BAND SELECTOR switch; osc. plate section | 62B055 |
| S-2 | Switch, rotary wafer; SELECTIVITY control | 60B399 |
| S-3,5,7 | Switch, toggle; spst (AVC, CW/AM & NOISE LIMITER | 60A138 |
| S-4 | Switch, power (part of TONE control, R-57) | |
| S-6 | Switch, toggle; dpst RECEIVE/STANDBY) | 60A192 |
| | **PLUGS AND SOCKETS** | |
| PL-1 | Line cord and plug | 87A1669 |
| PL-2 | Plug, octal; JUMPER PLUG | 35A003 |
| SO-1 | Jack, PHONO | 36A041 |
| SO-2 | Socket, octal; DC POWER SOCKET | 6B296 |
| SO-3 | Jack, PHONES | 36B048 |
| | Socket assembly, band-spread dial lamp | 86A109 |
| | Socket assembly, main tuning dial lamp | 86B108 |
| | Socket assembly, "S" meter pilot lamp | 86B107 |
| | Socket, miniature 7 pin tube; molded mica filled | 6A347 |
| | Socket, octal tube | 6B296 |
| | **TUBES, RECTIFIERS AND LAMPS** | |
| V-1 | 6CB6: RF amplifier | 90X6CB6 |
| V-2 | 6AU6: 1st mixer | 90X6AU6 |
| V-3 | 6C4: oscillator | 90X6C4 |
| V-4,6 | 6BA6: 1650 KC IF amplifier and 50 KC IF amplifier | 90X6BA6 |
| V-5 | 6BE6: 2nd mixer and oscillator | 90X6BE6 |
| V-7 | 6AL5: detector, AVC and ANL | 90X6AL5 |

| Schematic Symbol | Description | Hallicrafters Part Number |
|---|---|---|
| | **TUBES, RECTIFIERS AND LAMPS (Cont.)** | |
| V-8 | 6SC7: audio amplifier and BFO | 90X6SC7 |
| V-9 | 6K6GT: audio output | 90X6K6GT |
| V-10 | VR150: voltage regulator | 90XVR150 |
| V-11 | 5Y3GT: rectifier | 90X5Y3GT |
| LM-1,2 | Lamp, "S" meter; Mazda #51 | 39A030 |
| LM-3,4 | Lamp, main tuning and band-spread dial; Mazda #44 | 39A003 |
| | **MISCELLANEOUS** | |
| | Bottom cover, cabinet | 63B352 |
| | Cabinet | 66D652 |
| | Cabinet front panel | 68E159 |
| | Cabinet top cover | 66D616 |
| | Cord, dial; 84 inches | 38A019 |
| | Dial, scale, bandspread | 83B388 |
| | Dial scale, main tuning | 83B387 |
| | Escutcheon, main tuning dial | 7C033 |
| | **Extension, shaft | 74B471 |
| | Foot, rubber | 16A007 |
| | Gasket, main tuning dial glass | 12A040 |
| | Glass, bandspread dial | 22A321 |
| | Glass, main tuning dial | 22A315 |
| | Grommet, rubber; main tuning gang | 16A180 |
| | Insulator, "S" meter | 8A1289 |
| | Iron core, RF (for coils L-1,2,8,9 and 13) | 77A068 |
| | Iron core, RF (for osc. coils L-11 and 12) | 3A1543 |
| | ⊙ Knob, BAND SELECTOR; black phenolic or | 15B421 |
| | ** Knob, BAND SELECTOR; black phenolic or | 15B422 |
| | * Knob, BAND SELECTOR; aluminum | 15B053 |
| | Knob, TUNING and BAND-SPREAD | 15A048 |
| | Knob, PITCH CONTROL | 15A334 |
| | Knob; SENSITIVITY, VOLUME, TONE and SELECTIVITY | 15A335 |
| | Lock, line cord | 76A397 |
| | Pulley, bandspread ratio; 2 1/8" O.D. | 28A093 |
| | Pulley, bandspread ratio; 1.14" O.D. | 28A094 |
| | ** Shaft and index plate, BAND SELECTOR switch or | 74B472 |
| | * Shaft and index plate, BAND SELECTOR switch | 74B172 |
| | Shield, miniature tube | 69A306 |
| M-1 | "S" meter | 82C183 |
| | Spring, dial cord | 75A163 |
| TS-1 | Terminal strip, antenna | 88A032 |
| TS-2 | Terminal strip, speaker | 88A578 |

⊙ When knob 15B421 is used, shaft and index plate 74B472 must be used in conjunction with it.

** When Knob 15B422 is used, shaft and index plate 74B472 and shaft extension 74B471 must be used in conjunction with it.

* When Knob 15B053 is used, shaft and index plate 74B172 must be used in conjunction with it.




| CONTROL | SETTING |
|---|---|
| SENSITIVITY | FULL CW |
| BAND SELECTOR | BAND 1 |
| VOLUME | FULL CW |
| TUNING | FULL CCW |
| BANDSPREAD | FULL CCW |
| AVC | ON |
| CW/AM | AM |
| NOISE LIMITER | ON |
| SELECTIVITY | BROAD |
| TONE | FULL CW |
| STANDBY/ RECEIVE | RECEIVE |
| | |

## NOTES

92D1389

1. SOCKET VIEWS ARE BOTTOM VIEWS.
2. ALL VOLTAGES ARE MEASURED BETWEEN TUBE SOCKET TERMINALS AND THE CHASSIS WITH ZERO SIGNAL INPUT.
3. LINE VOLTAGE - 117 VOLTS, 60 CYCLES AC.
4. ALL VOLTAGES SHOWN ARE DC AND POSITIVE UNLESS OTHERWISE SPECIFIED
5. DC VOLTAGES WERE MEASURED WITH A VACUUM TUBE VOLTMETER (VTVM).
6. "NC" - NO CONNECTION. VOLTAGE SHOWN FOR THIS TERMINAL ONLY WHEN TERMINAL IS USED AS A TIE LUG.
7. "NR" - NOT READABLE. VOLTAGES MEASURED AT THESE TERMINALS GENERALLY MEANINGLESS.
8. "CW" - CLOCKWISE. "CCW" - COUNTERCLOCKWISE
9. VOLTAGE AT THIS TERMINAL VARIES WITH SETTING OF BAND SELECTOR SWITCH.
10. AM / CW WHERE TUBE SOCKET VOLTAGES CHANGE FROM AM TO CW OPERATION, TWO READINGS ARE SHOWN. THE UPPER READING IS WITH THE AM/CW SWITCH IN THE AM POSITION WHILE THE LOWER READING IS WITH THE SWITCH IN THE CW POSITION.

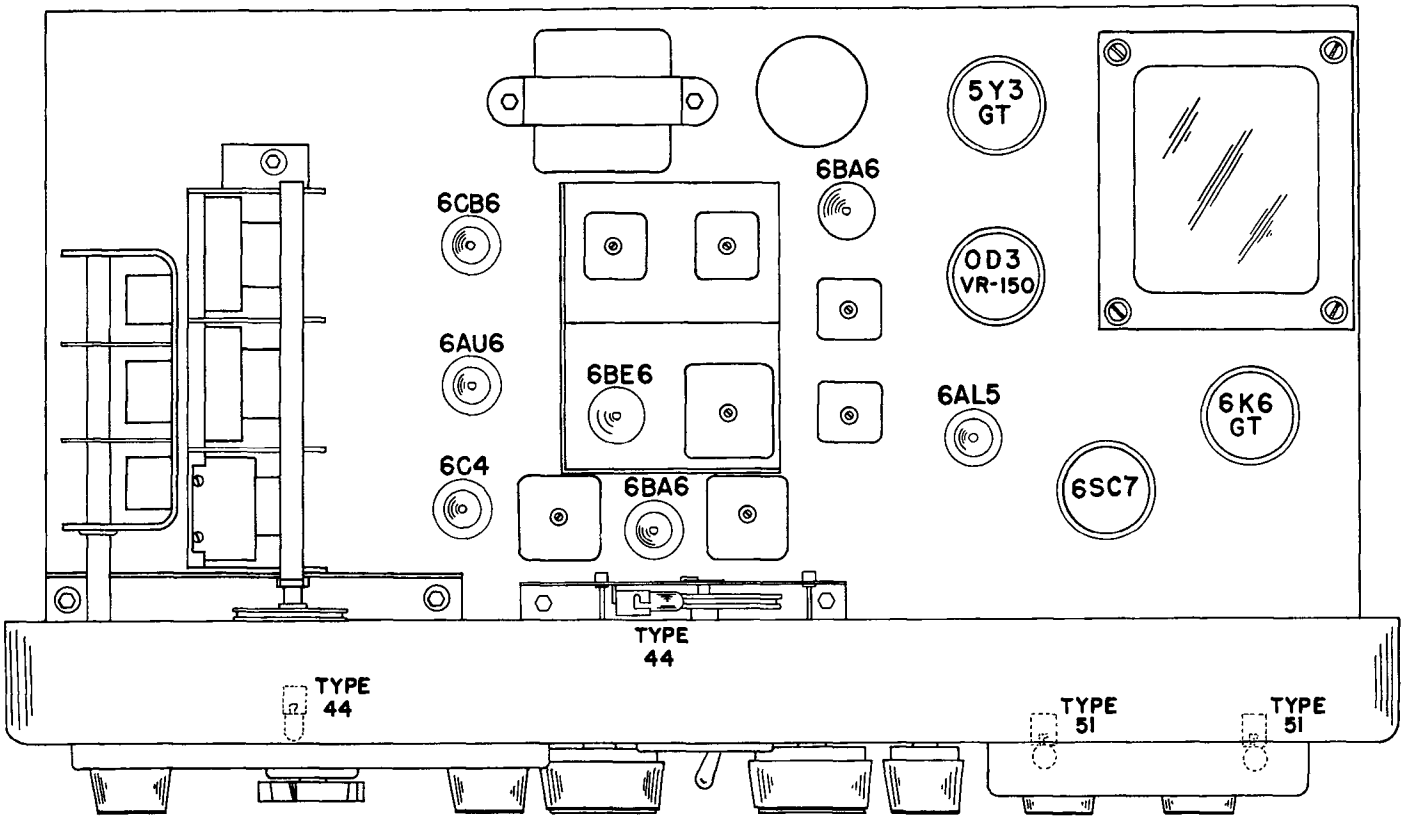
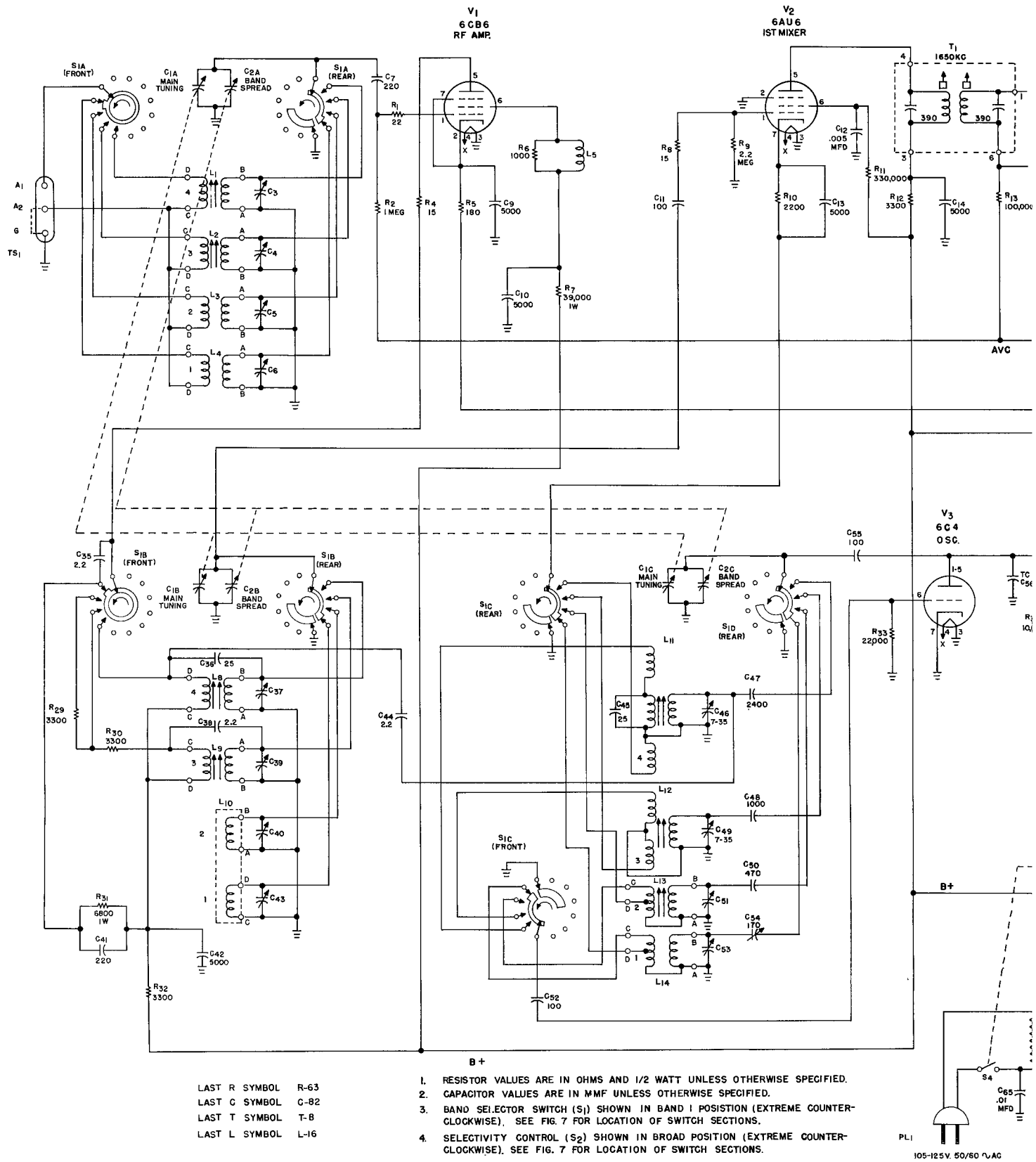



FIG. 9 TOP VIEW - LOCATION OF TUBES AND DIAL LAMPS




LAST R SYMBOL R-63
LAST C SYMBOL C-82
LAST T SYMBOL T-8
LAST L SYMBOL L-16

1. RESISTOR VALUES ARE IN OHMS AND 1/2 WATT UNLESS OTHERWISE SPECIFIED.
2. CAPACITOR VALUES ARE IN MMF UNLESS OTHERWISE SPECIFIED.
3. BAND SELECTOR SWITCH ($S_1$) SHOWN IN BAND 1 POSISTION (EXTREME COUNTER-CLOCKWISE). SEE FIG. 7 FOR LOCATION OF SWITCH SECTIONS.
4. SELECTIVITY CONTROL ($S_2$) SHOWN IN BROAD POSITION (EXTREME COUNTER-CLOCKWISE). SEE FIG. 7 FOR LOCATION OF SWITCH SECTIONS.

VALUES AND TOLERANCES SHOWN ARE NOMINAL AND VARIATIONS MAY BE FOUND. IT IS RECOMMENDED THAT THE VALUE OF ANY REPLACEMENT CORRESPOND TO THE NOMINAL VALUE OF THE PART BEING REPLACED.

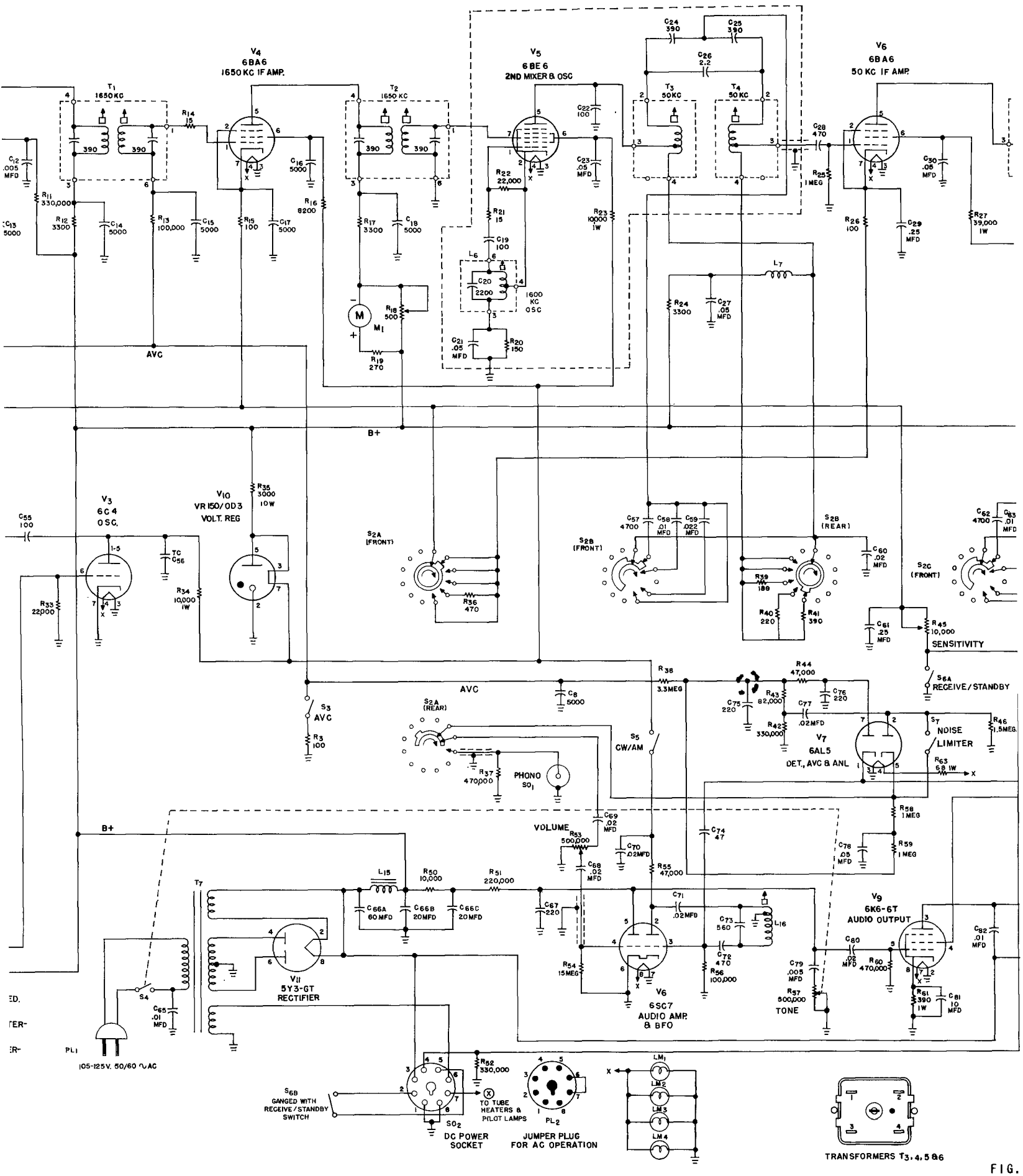

V4
6BA6
1650 KC IF AMP.
V5
6BE6
2ND MIXER & OSC
V6
6BA6
50 KC IF AMP.
T1
1650 KC
T2
1650 KC
T3
50 KC
T4
50 KC
AVC
B+
M1
1600 KC OSC
V3
6C4
OSC.
V10
VR 150/0D3
VOLT. REG
S2A (FRONT)
S2A (REAR)
S2B (FRONT)
S2B (REAR)
S2C (FRONT)
S3 AVC
S5 CW/AM
S6A RECEIVE/STANDBY
S7 NOISE LIMITER
PHONO SO1
V7
6AL5
DET., AVC & ANL
VOLUME
SENSITIVITY
TONE
V8
6SC7
AUDIO AMP. & BFO
V9
6K6-GT
AUDIO OUTPUT
T7
V11
5Y3-GT
RECTIFIER
S4
PL1
105-125V. 50/60 ~AC
S6B GANGED WITH RECEIVE/STANDBY SWITCH
SO2
DC POWER SOCKET
TO TUBE HEATERS & PILOT LAMPS
PL2
JUMPER PLUG FOR AC OPERATION
LM1
LM2
LM3
LM4
TRANSFORMERS T3, 4, 5 & 6

FIG.

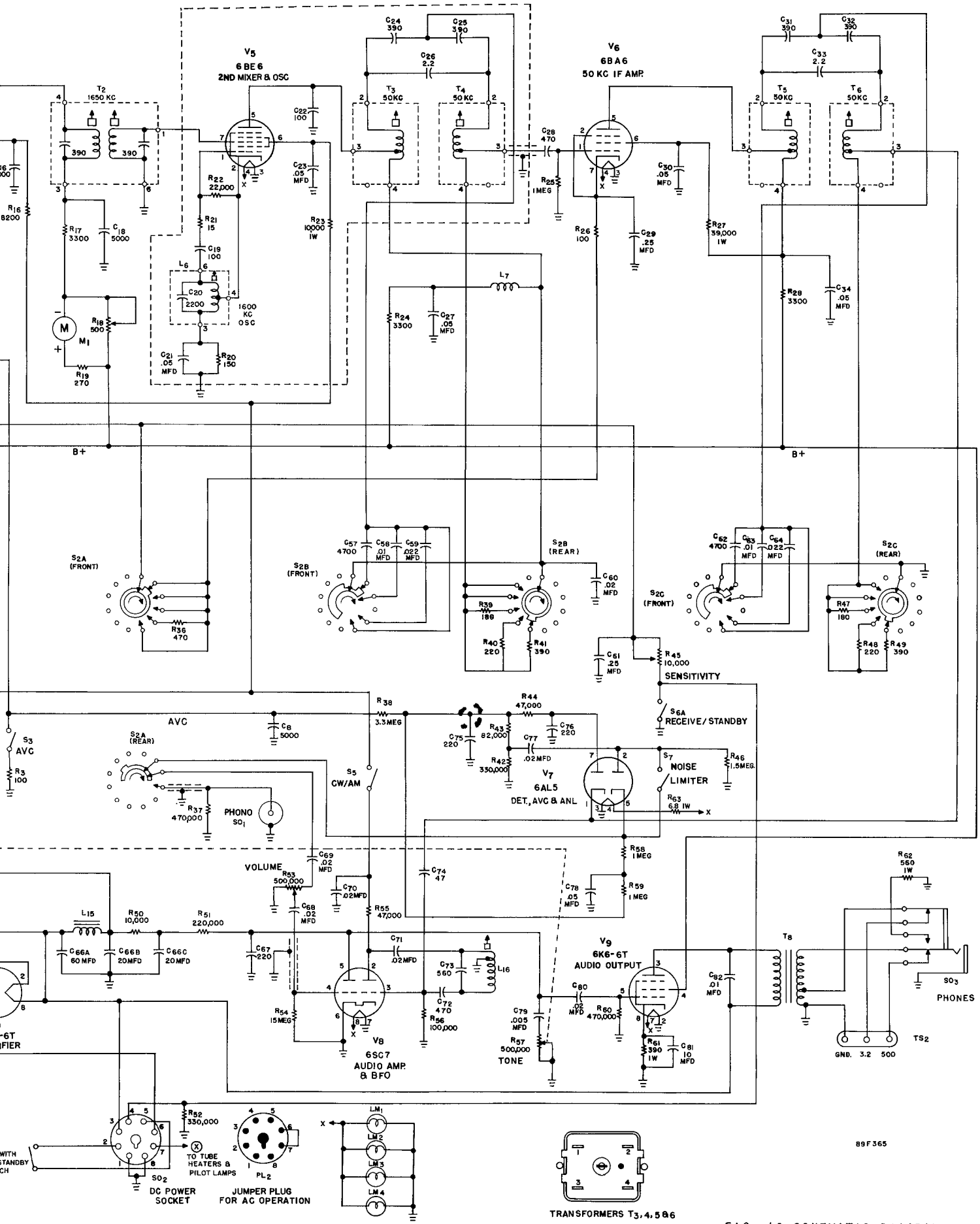



FIG. 10 SCHEMATIC DIAGRAM

# Warranty

*"The Hallicrafter's Company warrants each new radio product manufactured by it to be free from defective material and workmanship and agrees to remedy any such defect or to furnish a new part in exchange for any part of any unit of its manufacture which under normal installation, use and service discloses such defect, provided the unit is delivered by the owner to our authorized radio dealer, wholesaler, from whom purchased, or, authorized service center, intact, for examination, with all transportation charges prepaid within ninety days from the date of sale to original purchaser and provided that such examination discloses in our judgment that it is thus defective.*

*This warranty does not extend to any of our radio products which have been subjected to misuse, neglect, accident, incorrect wiring not our own, improper installation, or to use in violation of instructions furnished by us, nor extend to units which have been repaired or altered outside of our factory or authorized service center, nor to cases where the serial number thereof has been removed, defaced or changed, nor to accessories used therewith not of our own manufacture.*

*Any part of a unit approved for remedy or exchange hereunder will be remedied or exchanged by the authorized radio dealer or wholesaler without charge to the owner.*

*This warranty is in lieu of all other warranties expressed or implied and no representative or person is authorized to assume for us any other liability in connection with the sale of our radio products."*

Form No. 94X622

the Hallicrafters co.