SECTION VIII
ALIGNMENT PROCEDURE

8-1 GENERAL

The Model SR-150 Transceiver has been accurately aligned and calibrated at the factory and, with normal usage, will not require realignment for extended periods of time. Service or replacement of a major component or circuit may require subsequent realignment, but under no circumstances should realignment be attempted unless the malfunction has been analyzed and definitely traced to mis-alignment. Alignment should only be performed by persons experienced in this work, using the proper test equipment.

NOTE

Do not make any adjustments unless the operation of this transceiver is fully understood and adequate test equipment is available. Refer to figures 11 and 12, the top and bottom views of the transceiver, for the locations of all adjustments.

8-2. EQUIPMENT REQUIRED.

1. RF Signal Generator; Measurements Corporation, Model 65B or an equivalent signal generator having up to 1 volt output at an impedance of 70 ohms or less (a 100 micro-microfarad DC blocking capacitor must be placed in series with the RF lead).

2. A Vacuum Tube Voltmeter (VTVM); Hewlett-Packard Model 410B, or equivalent VTVM having an RF probe good to 30 MC.

3. A Dummy Load; 50 ohms non-reactive, rated at 100 watts. Bird Wattmeter or equivalent. The load may be made up of carbon resistors totaling 100 watts dissipation.

4. A DC Voltmeter having a 2.5-volt or 3.0-volt scale for final plate current measurements when using the Model PS-150-120 Power Supply or a 0-300 MA DC milliammeter when using the Model PS-150-12 Power Supply.

5. A general-coverage receiver covering the frequency range from 3 MC to 30 MC with a 100-KC calibrator.

8-3. BIAS ADJUSTMENT.

The final amplifier bias must be properly set before any extensive checks are made on the transmitter portion of the SR-150.

When using the AC power supply (PS-150-120), proceed as follows. Before turning the transceiver on, connect a DC voltmeter to the two tip jacks on the power supply (see figure 14), positive to red and negative to blue. Set the voltmeter on a low scale (2.5 volts or 3.0 volts). There is a 10-ohm resistor across the tip jacks so that the meter will indicate 1 volt for 100 MA.

Set the OPERATION switch to STBY and allow the unit to warmup about 5 minutes. Then set the FUNCTION switch to USB or LSB, MIC GAIN to "0", and OPERATION switch to MOX. Plug in a microphone and press the microphone switch. Adjust BIAS ADJ control, R206 on the power supply, for 0.7 volt (70 MA plate current) on voltmeter.

When using the DC power supply (PS-150-12) the high voltage (red/white) lead must be disconnected from the power supply terminal strip (pin 1) and a DC milliammeter, having a full-scale deflection of not less than 300 MA, connected between the lead and the high voltage terminal on the power supply. Follow the procedure outlined in the preceding paragraph and set the BIAS ADJ control, R308 on the power supply, for 70 MA.

8-4. IF ALIGNMENT (1650 KC)

Connect the signal generator to pin 7 of V4 and tune it to 1650 KC. Set the OPERATION switch to STBY and the FUNCTION switch to USB or LSB. Increase the signal generator output until the S-meter shows a small indication and rock the signal generator frequency to the approximate center of the crystal-filter passband. The output level may be monitored at the speaker terminals with an appropriate output meter. A VTVM may be used to monitor the AGC level or the S-meter may be used to indicate IF output.

Adjust the top and bottom slugs of T3 and the slug of T6 for maximum. Reduce the signal generator output to keep the S-meter reading below S9, thus, preventing possible overload and inaccurate adjustments.

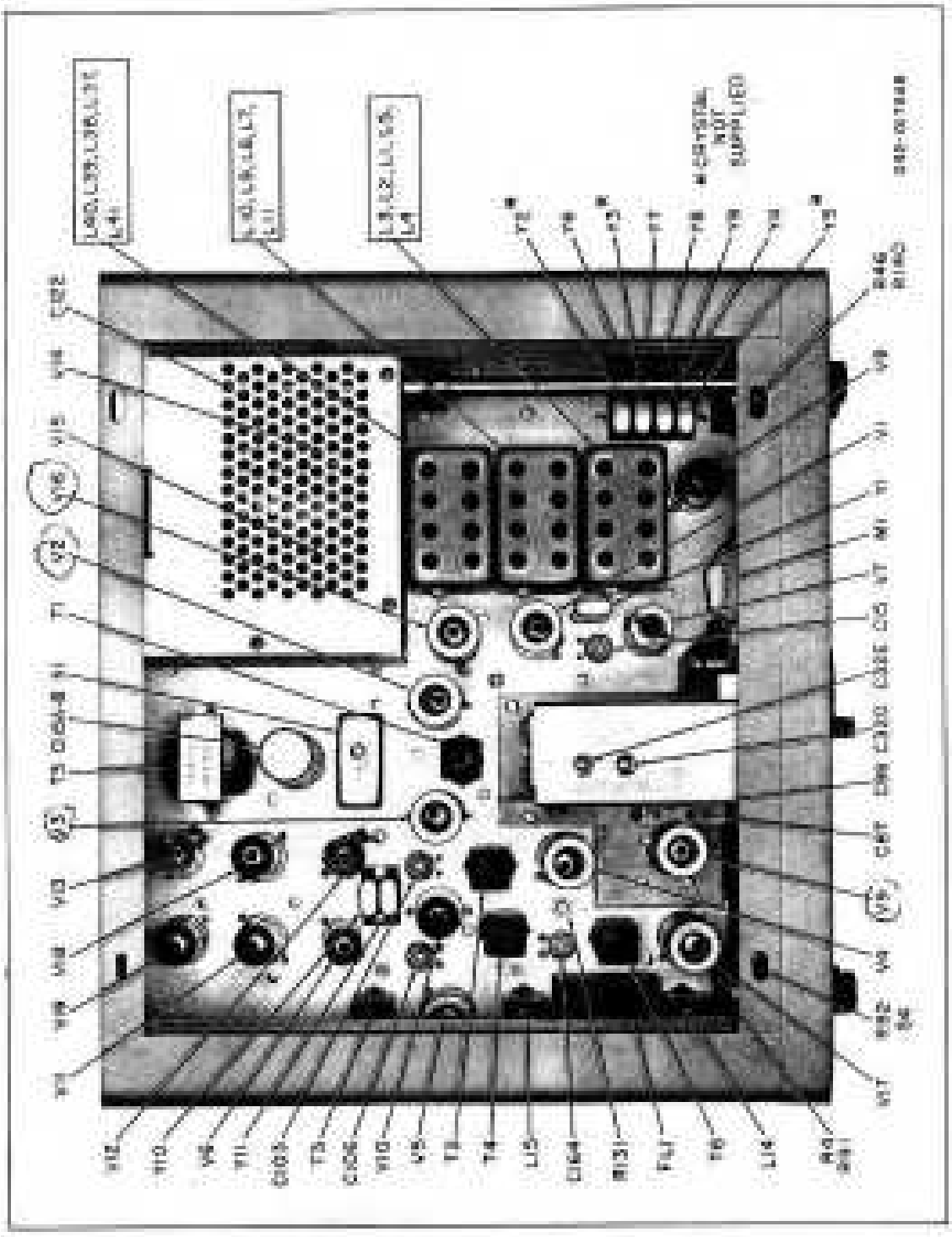

Figure 11. Top Chassis View of Transmitter

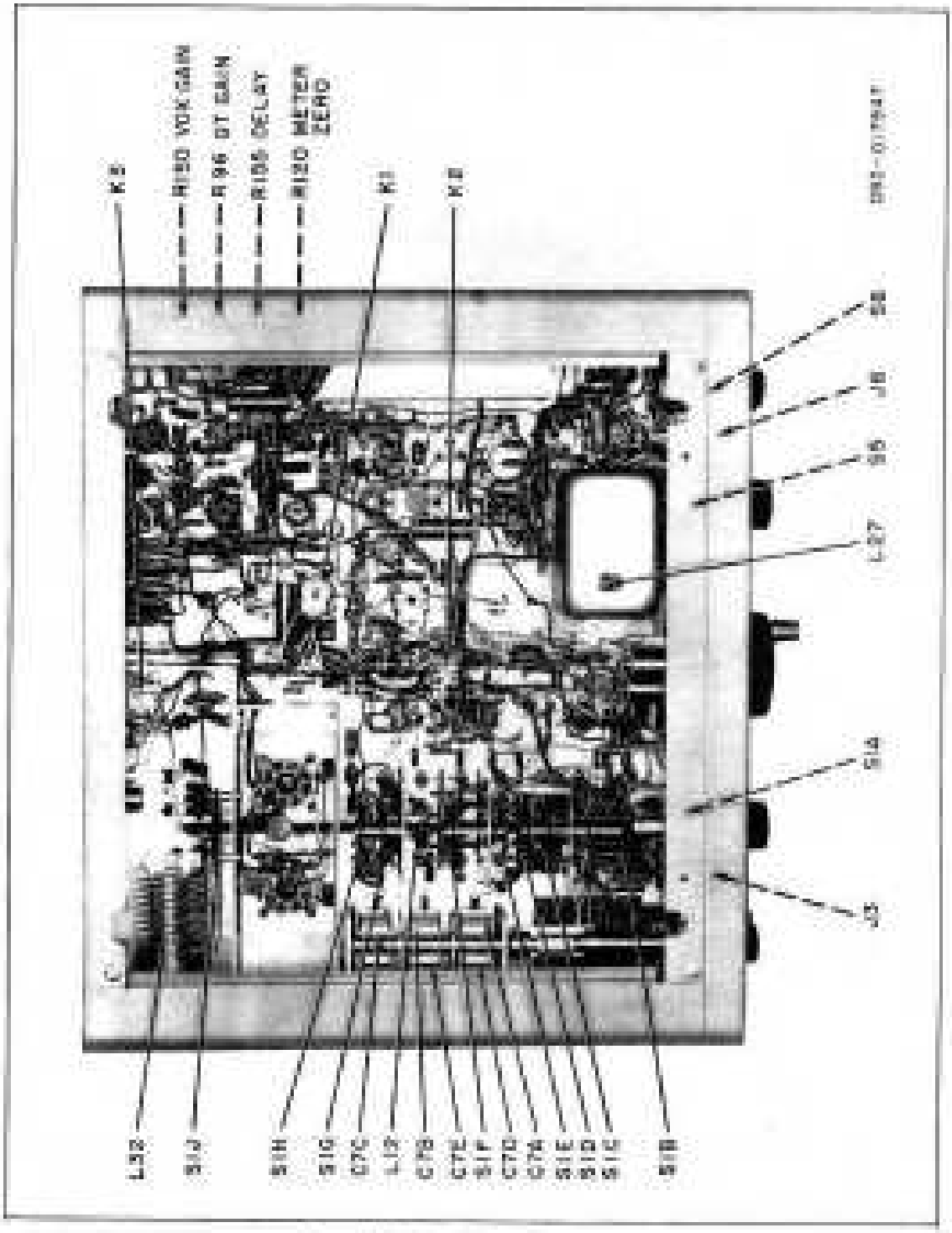

Figure 12. Bottom Chassis View of Transceiver

8-5. CRYSTAL FILTER ALIGNMENT

Because of the specialized techniques and test equipment required, it is recommended that realignment of the crystal-filter termination coils, L14 and L15, be handled through The Hallicrafters Company Service Department. However, the operation of the filter can be checked out as follows to determine whether or not the filter requires realignment.

1. Tune the transmitter into a 50-ohm load and switch to lower sideband (LSB).
2. With an audio generator connected to the microphone input at 1000 CPS, adjust the transmitter output for S9 on the S-meter.
3. Set the audio generator frequency to 600 CPS and the transmitter output should drop no more than approximately 3 DB, or to S7 on the S-meter.
4. Set the audio generator frequency to 2700 CPS and the transmitter output should drop no more than approximately 3 DB, or to S7 on the S-meter.

If the response of the transmitter does not meet these requirements, the SR-150 Transceiver should be returned for filter realignment.

8-6. IF ALIGNMENT (6.0 TO 6.5 MC)

Connect the signal generator to pin 2 of V2. Set the OPERATION switch to STBY (receive) and tune the VFO (TUNING control) to the low-frequency end of the dial (black 0, red 500). Set the signal generator to 6.5 MC and adjust trimmers C32D and C32E, located on the top of the center and rear sections of the VFO TUNING capacitor, for maximum receiver output. Keep the signal level low to prevent overload. Set the signal generator to 6.0 MC and tune the VFO to the high end of the dial (black 500 and red 1000). Tune the slugs of the IF transformers, T1 and T2, for maximum output, reducing signal generator output as required to prevent overload. Repeat adjustments of C32D, C32E, T1, and T2 until tracking is accomplished.

8-7 RECEIVER RF ALIGNMENT

Connect the signal generator to the antenna jack, J1, at the rear of the chassis. Set the antenna switch to the receive only (up) position.

Set the OPERATION switch to STBY (receive), RF GAIN to maximum, AF GAIN as required, BAND SELECTOR to 29.5, and the PRESELECTOR to slightly above the high-frequency or right-hand edge of the 10-meter segment.

Tune the signal generator to 30.0 MC and tune the VFO to the high end (black 500). Tune the signal in and adjust trimmers C7D and C7E for maximum output, reducing signal generator output as required. Tune the signal generator to 28.0 MC. Set the PRESELECTOR to the low-frequency edge of the 10-meter segment, the BAND SELECTOR to 28, and tune the VFO to the low end of the dial (black 0). Tune the signal in and adjust the slugs of coils L5 and L7 for maximum output. Repeat the adjustments of C7D, C7E, L5, and L7 until tracking is accomplished.

Tune the signal generator to 21.3 MC and set the BAND SELECTOR to 21. Tune the VFO to 300 on the dial. Tune in the signal and adjust the slugs of coils L1 and L8 for maximum output.

Tune the signal generator to 14.3 MC and set the BAND SELECTOR to 14. Tune the VFO to 300 on the dial. Tune in the signal and adjust the slugs of coils L2 and L9 for maximum output.

Tune the signal generator to 7.3 MC and set the BAND SELECTOR to 7. Tune the VFO to 300 on the dial. Tune in the signal and adjust the slugs of coils L3 and L10 for maximum output.

Tune the signal generator to 3.8 MC and set the BAND SELECTOR to 3.5. Tune the VFO to 300 on the dial. Tune in the signal and adjust the slugs of coils L4 and L11 for maximum output.

8-8 6.5-MC TRAP ADJUSTMENT.

With the signal generator connected to the antenna jack (J1), at the rear of the chassis, tune the signal generator to 6.5 MC. Set the BAND SELECTOR to 7.0 and tune the VFO to the low end of the dial (black 0). Tune the signal in and adjust the slug of coil L12 (6.5-MC trap) for minimum output.

NOTE

A slight readjustment of the 40-meter RF coil slug, L10, may be required after the 6.5-MC trap, L12, is tuned.

8-9 DRIVER PLATE CIRCUIT RF ALIGNMENT.

After the final amplifier bias has been properly adjusted (see paragraph 8-3) and the receiver alignment has been completed (see paragraphs 8-4 through 8-8), the driver plate circuit coils may be aligned.

Connect a 50-ohm to 52-ohm resistive load to the antenna jack, J2. Set the OPERATION switch to STBY (receive) and the FUNCTION switch to CW. Set the BAND SELECTOR to 28.5 and the VFO to 300 on the dial. Set the FINAL

TUNING to the 10-meter segment. Turn the CAL switch to ON and tune the calibrator signal to at 28.8 MC. Adjust the FREQUENCY for maximum S-meter indication. Set the OPERATION switch to MOX and advance the RF LEVEL control until a small indication is noted on the S-meter. Adjust the FINAL TUNING for maximum output. Do not change the setting of the FREQUENCY. Adjust the slug of coil L37 for maximum output (S-meter indication), reducing the setting of the RF LEVEL control as required to keep the output at a low value to prevent flat-topping.

Repeat the above paragraph for each band, referring to the tuning chart for the appropriate settings and adjustments.

TRANSMITTER DRIVER TUNING CHART

Band			
80	80		
40	40		
20	20		
15	15		
11	11		
10	10		
6	6		
2	2		

6-13. FINAL AMPLIFIER NEUTRALIZATION.

The final amplifier may be neutralized as follows. Tune the transmitter up on 21.1 MC (15-meter band) in CW function. This should be done with a meter in the high voltage line to read final plate current. (See paragraph 5-2 for meter insertion.) Adjust the RF output level to about 50 volts or about 30 on the S-meter with the RF LEVEL control. Carefully tune the FINAL TUNING and observe the plate current dip and the output voltage peak. If both occur at the same setting, the amplifier is neutralized. If both do not occur together, adjust the neutralizing capacitor, C139, in small increments (1/4 to 1/2 turn) until neutralization is accomplished.

6-11. CARRIER BALANCE.

Tune the transmitter up on 3.9 MC (80-meter band) in CW function into a dummy load. Switch to upper sideband (USB on FUNCTION switch) and adjust capacitor, C138, and potentiometer, R131, for minimum RF output. An RF voltmeter with a one-volt scale at the dummy load can be used to indicate minimum output. If a voltmeter is not available, a receiver tuned to the carrier frequency may be used to indicate carrier balance.

6-12. BFO, CARRIER OSCILLATOR OUTPUT TRANSFORMER ALIGNMENT.

Connect an RF voltmeter to pin 7 of V6 (product detector). Adjust the slug of T6 for approximately 3.0 volts at the product detector (grid 3). This adjustment must be made on the high frequency side of the peak setting of the transformer; that is, turning the slug counter-clockwise from peak output.

NOTE

This adjustment should not be attempted unless T6 has been replaced, as it has an effect on carrier oscillator frequency.

6-13. BFO, CARRIER OSCILLATOR FREQUENCY ADJUSTMENT.

The BFO/carrier oscillator frequency has been accurately set at the factory. The settings of the two warping trimmers, C105 and C106, should not be changed.

In the event that replacement of one of the VFO/carrier crystals, Y10 or Y11, is required, the VFO corrector trimmer may require re-adjustment. See paragraph 6-14 for procedure.

6-14. VFO CORRECTOR.

The VFO corrector trimmer, C98, shifts the VFO frequency approximately 3800 CPS to correct for the difference in frequency between the upper and lower sideband BFO/carrier crystals. The trimmer is switched into the VFO circuit in upper sideband. It is set in the following manner. With the receiver in lower sideband, tune the 100-KC calibrator signal to zero beat at 3.9 MC. Switch to upper sideband and there should be less than a 3 CPS change in frequency. If the change is greater, carefully adjust the trimmer (C98, on the VFO assembly) until the frequency change between sidebands is less than 3 CPS.

6-15. CRYSTAL CALIBRATOR ADJUSTMENT.

The crystal calibrator trimmer is used to set the internal 100-KC crystal exactly to frequency by comparison to a signal transmitted by WWV.

With another receiver, tune in WWV and connect a lead between the 50-150 antenna connector and the antenna connector of the external receiver. Turn the calibrator on in the 50-150 and carefully adjust the calibrator trimmer, C18, until the 100-KC oscillator harmonic is in zero beat with WWV.

NOTE

This adjustment should be made only during periods of NO modulation on station WWV.

8-16 VFO CALIBRATION ALIGNMENT

If the electrical index check at the 100-KC check points on all bands shows that the calibration marks consistently fall to one side of the pointer, a trimmer adjustment is indicated. (This will be necessary only if the calibration is beyond tuning range of the CAL ADJ control.)

Proceed as follows:

a. Adjust the TUNING control until the dial is at 500 (3.5 MC).

b. Set the BAND SELECTOR at 3.5, FUNCTION to USB, and CAL-OFF to CAL.

c. Carefully adjust trimmer C87 in very small increments until a zero beat is heard. Care should be exercised to make sure that the correct 100-KC beat note is tuned-in with the trimmer.

d. Check across the dial at the 100-KC check points. If the frequency error is less than 3000 CPS, the calibration is within acceptable limits. If the error at the high-frequency end of the dial (4.0 MC) is greater than 3000 CPS, the VFO may require a coil adjustment in addition to the trimmer adjustment.

8-17 CONDITIONS REQUIRING COIL AND TRIMMER ADJUSTMENT

If the dial error progressively increases in the same direction with the high-frequency end, running out more than 3000 CPS, at this end, both L27 and C87 should be adjusted.

a. Adjust the TUNING dial to 1000 (4.0 MC) and adjust L27 to zero beat.

b. Adjust the TUNING dial to 500 (3.5 MC) and adjust C87 to zero beat.

c. Repeat steps a and b until both 3.5 MC and 4.0 MC are exactly on frequency.

d. Check across the dial at the 100-KC points. If the frequency error is less than 3000 CPS, the calibration is within acceptable limits. If the error is in excess of 3000 CPS at any of the mid-points, with the end limits at zero error, the VFO capacitor (C32A) should be knifed. This operation should not be attempted by other than qualified personnel thoroughly familiar with the technique.

SECTION IX
AC POWER SUPPLY MODEL PS-150-120

Figure 11. Hallicrafters Model PS-150-120 AC Power Supply

9.1. DESCRIPTION.

Hallicrafters' Model PS-150-120 Power Supply is a complete, self-contained power unit designed to permit Hallicrafters' Model SR-150 Transceiver to be operated from a nominal 117-volt AC source. This power supply, through a 12-pin power plug and cable at the rear, will furnish all the supply voltages necessary for optimum performance of the SR-150.

Hallicrafters' Model PS-150-120 operates from a 105-volt to 125-volt, 50/60-cycle, AC source. The power supply also contains a 3.2-ohm permanent-magnet type speaker which connects to the SR-150 through the 12-pin power plug and cable.

9.2. BIAS ADJUSTMENT.

After connecting the power supply to the SR-150 and to the proper power source, the transmitter bias must be adjusted to achieve optimum performance of the transceiver.

1. Connect a voltmeter to the tip jacks at the top rear of the power supply chassis. (Connect the positive lead from the meter to the red jack.)
2. Turn the Model SR-150 on; OPERATION switch to MOX - FUNCTION switch to USB.
3. With no signal applied to the transmitter, adjust the BIAS ADJ potentiometer, R206 on the rear of the power supply chassis, for 0.7 volt on the meter.
4. Disconnect the meter.

This adjustment is not necessary each time the SR-150 is used; however, it should be checked periodically and whenever the transmitter driver and/or final amplifier tubes are replaced.

9.3. CHASSIS REMOVAL.

To remove the PS-150-120 chassis from the cabinet, remove the six hex-head screws on the bottom (four are in the feet and two are at the center front and rear) and disconnect the speaker leads on the top rear of the chassis. The chassis will slide out the rear of the cabinet.

REPAIR PARTS LIST

Schematic Symbol	Description	Hallicrafters Part Number
C201,202	Capacitor, 0.01 µf, 1400V, Ceramic Disc	[illegible]
C203	Capacitor, 0.005 µf, 1000V, Ceramic Disc	[illegible]
C204A,B,C	Capacitor, 3 x 40 µf, 350V, Electrolytic	[illegible]
C205,206	Capacitor, 8 µf, 450V, Electrolytic	[illegible]
C207,208	Capacitor, 20 µf, 150V, Electrolytic	[illegible]
CR201,202, 203,204	Diode, Silicon, Type [illegible]	[illegible]
CR205	Diode, [illegible]	[illegible]
F201	Fuse, 5 Ampere, 125 Volts, 3AG, Slow Blow	[illegible]
J201	Connector, Power (12-pin)	[illegible]
L201	Choke, Filter	[illegible]
L202	Choke, Filter	[illegible]
L203	Choke, Filter	[illegible]
R201,202	Resistor, 225 Ohms, 10%, 10 watts, Wire Wound	[illegible]
R203	Resistor, 330 Ohms, 10%, 1/2 watt, Carbon	[illegible]
R204	Resistor, 4700 Ohms, 10%, 2 watts, Carbon	[illegible]
R205	Resistor, 100 Ohms, 10%, 1 watt, Carbon	[illegible]
R206	Resistor, Variable, 100 Ohms, 30%, 1/4 watt, [illegible]	[illegible]
R207	Resistor, 10 Ohms, 10%, 1 watt, Carbon	[illegible]
T201	Transformer, Power	[illegible]
TP201	Tip Jack, Red	[illegible]
TP202	Tip Jack, Black	[illegible]
	Baffle Board	[illegible]
	Baffle, Felt	[illegible]
	Cabinet	[illegible]
	Cable (Interconnecting)	[illegible]
	Cable Assembly	[illegible]
	Cable Clamp	[illegible]
	Foot, Plastic (4)	[illegible]
	Front Panel	[illegible]
	Fuse Holder	[illegible]
	Line Cord	[illegible]
	Lock, Line Cord	[illegible]
	Rear Panel	[illegible]
	Speaker, 4 x 6 inch, PM, 3.2 Ohms	[illegible]

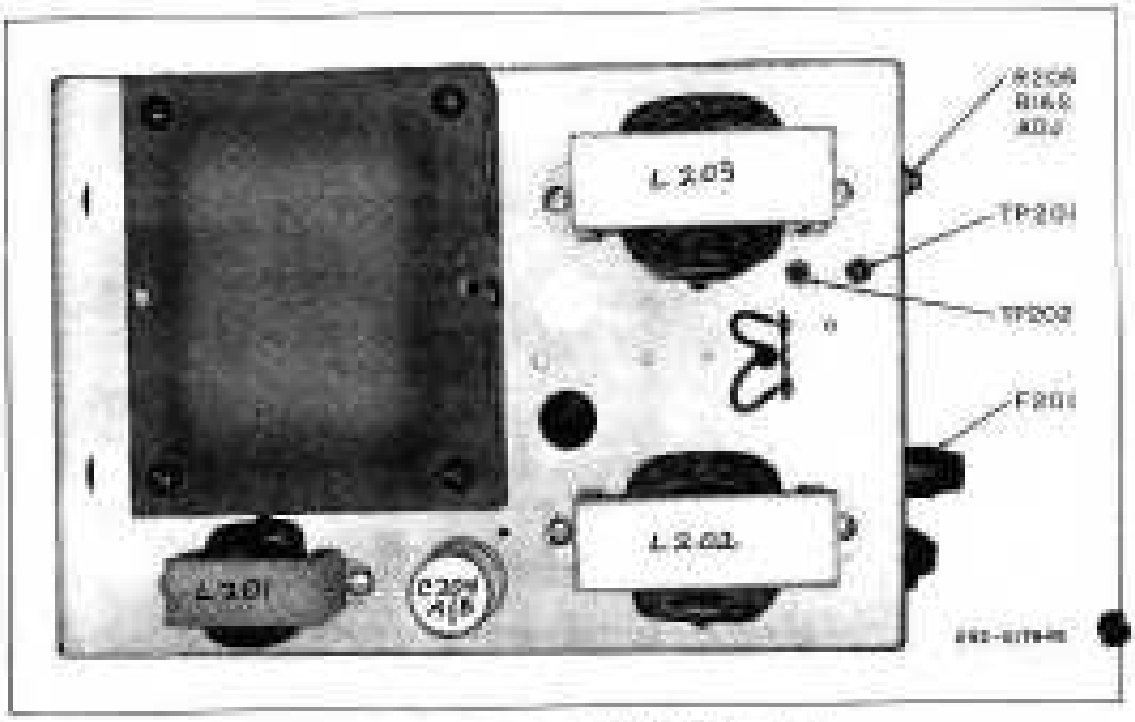

Figure 14. Top Chassis View of Model PS 150-5W AC Power Supply

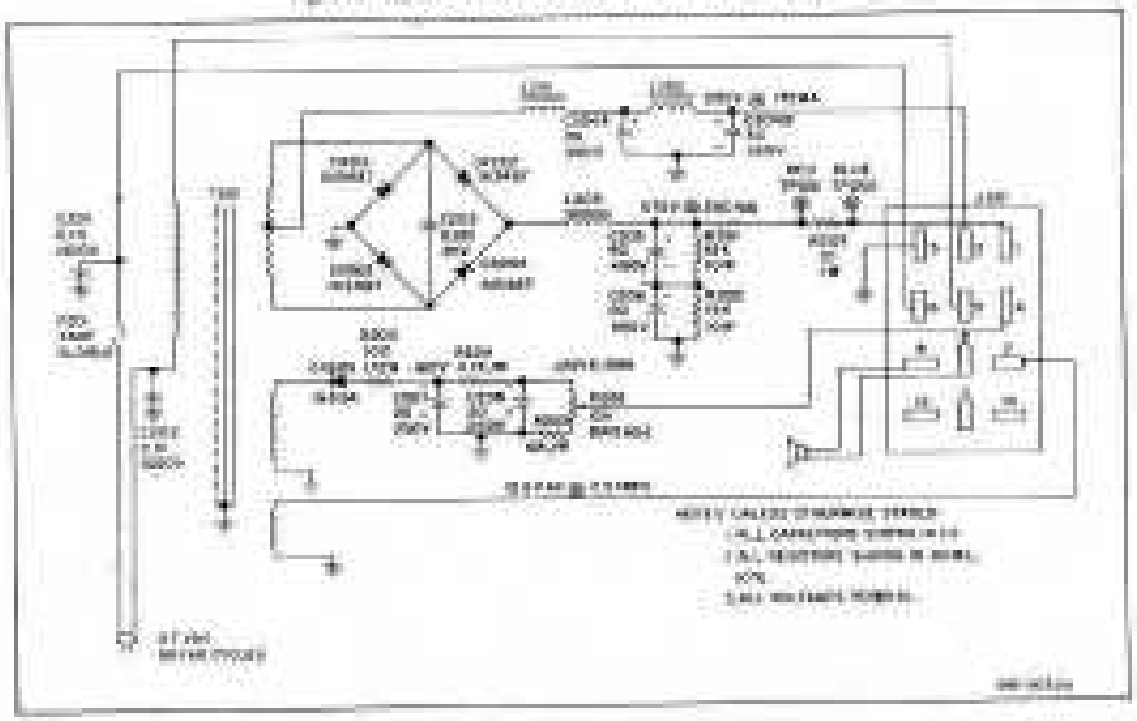

Figure 15. Schematic Diagram of Model PS 150-5W AC Power Supply

SECTION X
DC POWER SUPPLY MODEL PS-150-12

Figure 14. Hallicrafters Model PS-150-12 DC Power Supply

10-1. DESCRIPTION

Hallicrafters' Model PS-150-12 Power Supply is a complete, compact, self-contained power unit designed to permit Hallicrafters' Model SR-150 Transceiver to be operated from a nominal 12-volt DC source. This power supply is shipped for operation in connection with a negative-grounded power source. However, it is operable with a positive grounded source by changing two internal soldered connections as described in figure 15.

The Model PS-150-12 Power Supply, through interconnection with the Model MR-150 Mobile Mounting Rack, will furnish all the supply voltages necessary for optimum performance of the SR-150.

All connections are made to the power supply through two terminal strips on one side of the unit (see figures 5 and 17). The two-connector strip (TS201) is used for connection to the 12-volt source through the wires supplied. The seven-connector strip (TS202) is used to supply the operating voltages to the transceiver and connects to the mounting rack through the cable supplied with the mounting rack.

10-2. BIAS ADJUSTMENT

After interconnecting the power supply to its proper power source and to the transceiver, the transmitter bias must be adjusted to achieve optimum performance of the transceiver.

1. Disconnect the high voltage (red/white) lead from pin 1 of TS202.
2. Connect an ammeter, with a full-scale deflection of 0-300 MA, between the high voltage lead and pin 1 of TS202.
3. Turn the transceiver on: OPERATION switch to MOX - FUNCTION switch to USB.
4. With no signal applied to the transceiver, adjust the BIAS ADJ potentiometer, R208 on the side of the power supply chassis, for a reading of 70 MA on the meter.
5. Disconnect the meter and reconnect lead to pin 1 of TS202.

This adjustment is not necessary each time the SR-150 is used; however, it should be checked periodically and whenever the transmitter driver and/or final amplifier tubes are replaced.

10-3. COVER REMOVAL

Remove the nine screws on the top and one side of the unit and lift the cover off. This will provide easy access to all the components in the power supply.

REPAIR PARTS LIST

Schematic Symbol	Description	Hallicrafters Part Number
C201	Capacitor, [illegible] µF, [illegible], Electrolytic	[illegible]
C202	Capacitor, [illegible] µF, [illegible], Ceramic Disc	[illegible]
C203, 204, 205	Capacitor, [illegible] µF, [illegible], Electrolytic	[illegible]
C206	Capacitor, [illegible] µF, [illegible], Mylar	[illegible]
C207, 208	Capacitor, [illegible] µF, [illegible], Electrolytic	[illegible]
CR202, 203, 204, 205	Diode, Silicon, Type [illegible]	[illegible]
CR206	Diode, Type [illegible]	[illegible]
F201	Fuse, [illegible] Amperes, [illegible] Volts, 3AG	[illegible]
F202	Fuse, [illegible] Amperes, [illegible] Volts, 3AG	[illegible]
K201, 202	Relay	[illegible]
L201	Choke, Filter	[illegible]
Q201, 202, 203, 204	Transistor, Type [illegible]	[illegible]
R201	Resistor, [illegible] Ohms, [illegible], [illegible] Watts, Wire Wound	[illegible]
R202	Resistor, [illegible] Ohms, [illegible], [illegible] watts, Carbon	[illegible]
R203	Resistor, [illegible] Ohms, [illegible], [illegible] watts, Wire Wound	[illegible]
[illegible]	Resistor, [illegible] Ohms, [illegible], 1/2 watt, Carbon	[illegible]
[illegible]	Resistor, [illegible] Ohms, [illegible], [illegible] watt, Carbon	[illegible]
[illegible]	Resistor, [illegible] Ohms, [illegible], [illegible] watts, Carbon	[illegible]
R208	Resistor, Variable, [illegible] Ohms, [illegible], [illegible] watt, Bias Adj.	[illegible]
[illegible]	Resistor, [illegible] Ohms, [illegible], 1 watt, Carbon	[illegible]
T201	Transformer, Power	[illegible]
	Cabinet Cover	[illegible]
	Cable Clamp	[illegible]
	Clamp, [illegible]	[illegible]
	Cover, Terminal Strip [illegible]	[illegible]
	Fuse Holder	[illegible]

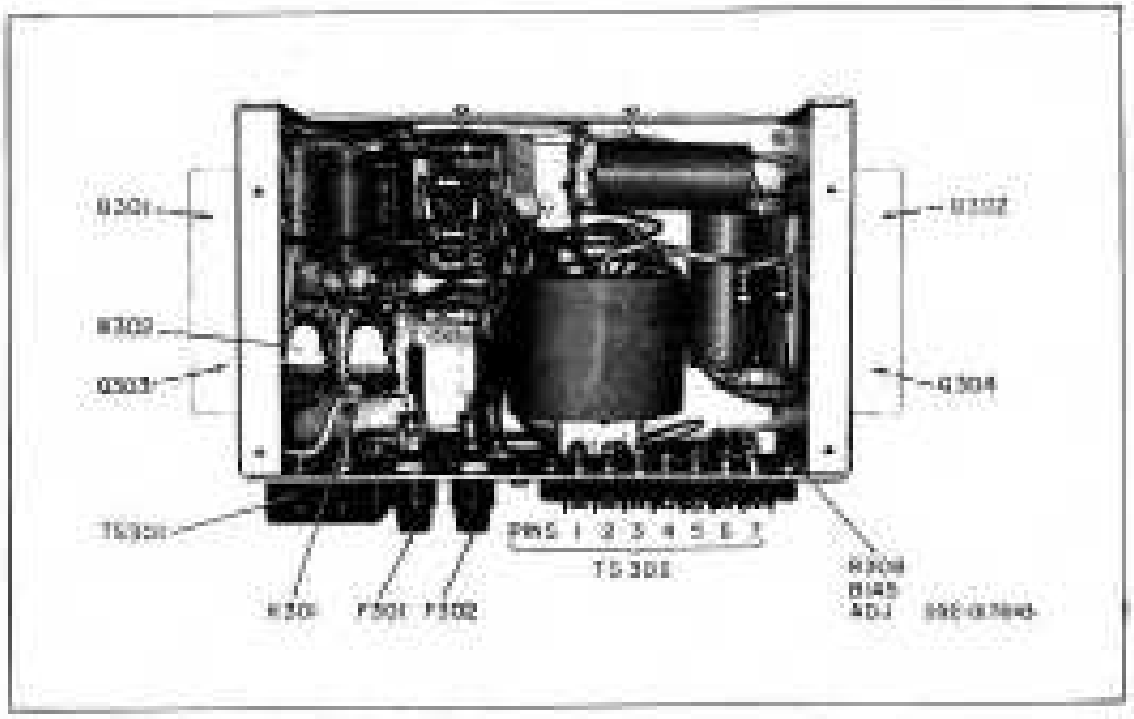

Figure 17. Internal Top View of Model PS-150-13 DC Power Supply

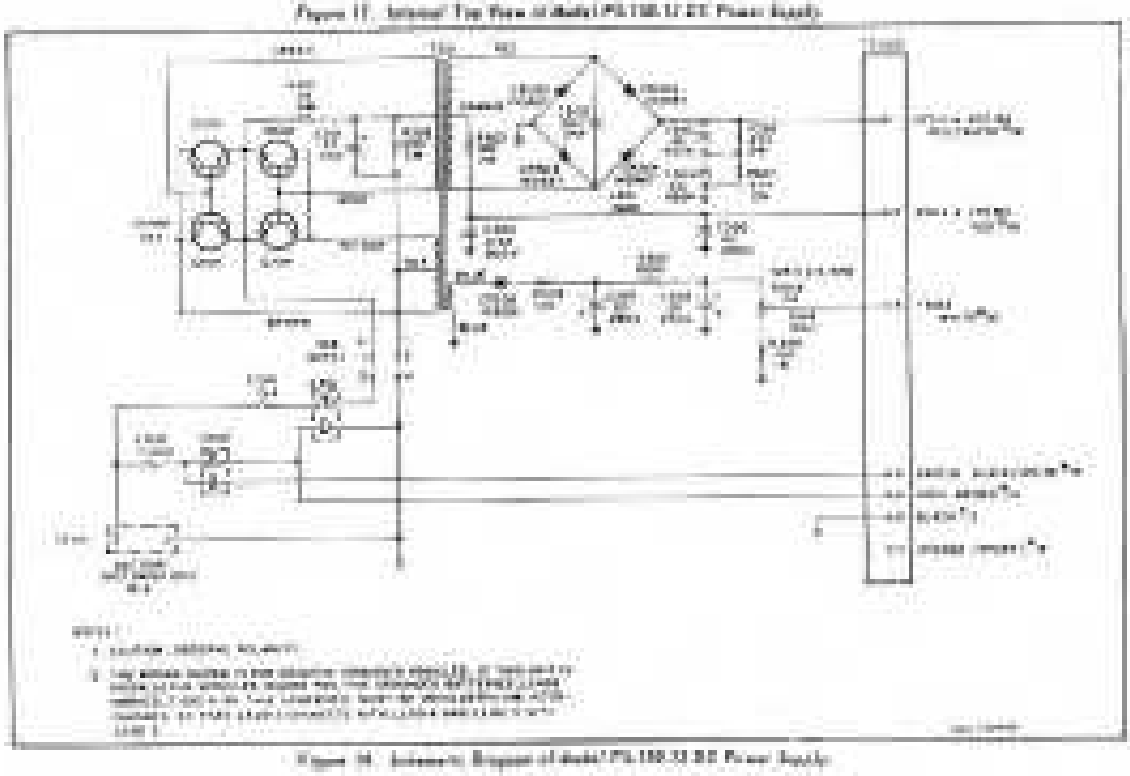

Figure 18. Schematic Diagram of Model PS-150-13 DC Power Supply

SECTION XI
MOBILE MOUNTING RACK MODEL MR-150

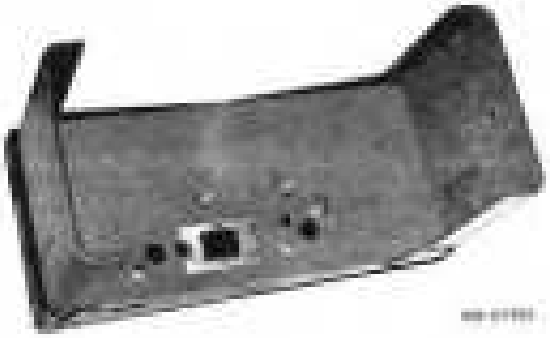

Figure 10. Motorola Model MR-150 Mobile Mounting Rack

11.1 DESCRIPTION

Motorola Model MR-150 Mobile Mounting Rack is a sturdy, compact unit designed to facilitate mobile installation of the Model SR-150 Transceiver. This mounting rack, with mounting bracket and straps supplied, permits transceiver hang, floor, and/or under dash mounting of the transceiver (see figures 4 and 5).

This rack is equipped with a cable for connection to the PS-150-12 Power Supply, an audio connector brought out to the side for connection to speaker, and provisions for a direct connection to a suitable antenna.

The side panels of the mounting rack fit snugly against the transceiver for a secure installation. Wing screws are supplied to attach the transceiver to these side panels.

Details for installing this equipment in a vehicle are described in paragraph 3.4 and in figures 4 and 5 of this handbook.

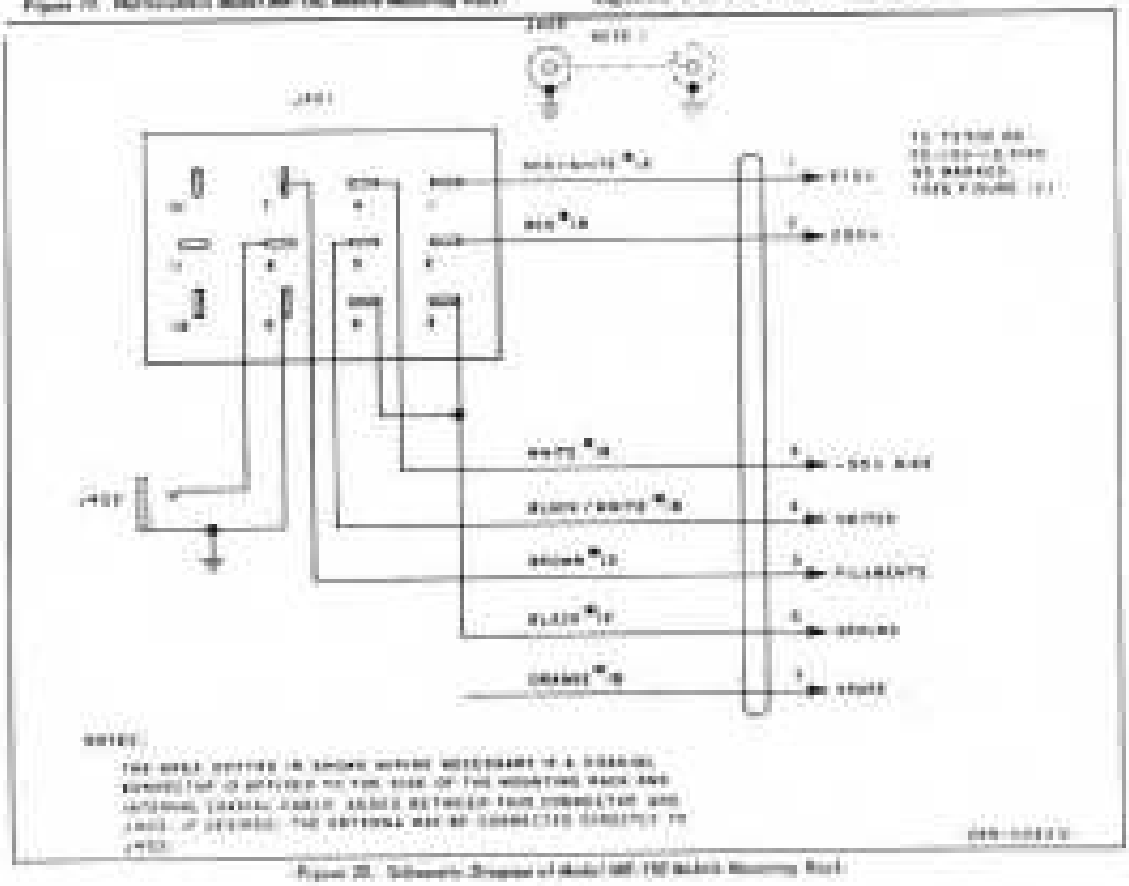

Figure 20. Schematic Diagram of Model MR-150 Mobile Mounting Rack

Bracket, Mounting	067-010870
Cable Assembly	087-007656
Clamp, Cable	076-002744
Connector, Phone Type (Speaker)	036-000338
Connector, Power (12-pin)	010-002585
Connector, RF Type (Antenna)	035-000084
Guide Pin	074-002792
Knob, Decorative, Wing-Screw	015-001768
Pad, Side Bracket (Left)	014-000475
Pad, Side Bracket (Right)	014-000483
Strap, Mounting (2)	076-003202

Schematic Symbol	Description	Hallicrafters Part Number
	CAPACITORS	
C1,18,145	18 μμF, 5%, 500V, Plastic Mica	482-132180
C2,19,147	85 μμF, 2%, 500V, Plastic Mica	482-161850
C3,20,148	135 μμF, 2%, 500V, Plastic Mica	493-121350-334
C4,24,25,143	15 μμF, 5%, 500V, Plastic Mica	482-132150
C5,70	22 μμF, 5%, 500V, Plastic Mica	482-152220
C6,23	3900 μμF, 2%, 500V, Plastic Mica	482-361392
C7A,B,C, D,&E	Variable, PRESELECTOR	048-000526
C8,33,59,108	10 μμF, 5%, 500V, Plastic Mica	482-132100
C9,50,71	47 μμF, 2%, 500V, Plastic Mica	482-151470
C10,12,13, 29,30,35,36, 37,41,68,69, 75,79,102, 116,132,133, 146,149,150, 151,162,166, 167	0.005 μF, 20%, 500V, Ceramic Disc	047-100442
C11,55,61, 112,117,137, 168,169,170, 171,179	0.02 μF, 20%, 500V, Ceramic Disc	047-100471
C15,164	Variable, Trimmer, 5 μμF to 25 μμF	044-100473
C16	125 μμF, 2%, 500V, Plastic Mica	493-121250-334
C17,22,26, 27,57,74,78, 81,126,130, 135,136,173, 174	100 μμF, 2%, 500V, Plastic Mica	482-161101
C21	33 μμF, 2%, 500V, Plastic Mica	482-151330
C28,31,34, 39,40,42,43, 44,46,51,53, 54,56,64,67, 82,84,107, 110,113,152, 154,159,160, 177	0.01 μF, 20%, 500V, Ceramic Disc	047-100354
C32A,B,C, D,&E	Variable, TUNING	048-000522
C38	39 μμF, 2%, 500V, Plastic Mica	482-151390
C45,47,49, 80,83,99,111, 134,153,155, 161,172,176	0.001 μF, 20%, 500V, Ceramic Disc	047-001671
C48	36 μμF, 2%, 500V, Plastic Mica	482-151360
C52,72	82 μμF, 2%, 500V, Plastic Mica	482-161820
C58,157, 185,178	0.22 μF, 10%, 500V, Paper Tubular	048-001298-04
C60,62,65, 109	470 μμF, 2%, 500V, Plastic Mica	482-281471
C63,100	5 μF, 25V, Electrolytic	045-000938
C66,118, 120,158	0.1 μF, +80%,-20%, 100V, Ceramic Disc	047-001428
C73	120 μμF, 2%, 500V, Plastic Mica	482-161121
C76	4.7 μμF, ±0.5 μμF, 500V, Plastic Mica	493-140470-531
C77	6.8 μμF, ±0.5 μμF, 500V, Plastic Mica	493-140680-531
C85,91,98, 101,156	1000 μμF, GMV, Ceramic Feed-Through	047-001308
C86	3.3 μμF, ±0.5 μμF, 500V, Plastic Mica	493-140330-521
C87	Variable, Trimmer, 1 μμF to 12 μμF, 000V (Piston type)	044-000568
C88	27 μμF, 2%, 300V, Plastic Mica	481-151270
C89	51 μμF, 2%, N30, Ceramic Tubular	491-024510-31
C90	12 μμF, 0%, N470, Ceramic Tubular	491-005120-83
C92	43 μμF, 2%, 300V, Plastic Mica	481-151430
C93,94	910 μμF, 2%, 300V, Plastic Mica	481-261911
C95	18 μμF, 5%, 300V, Plastic Mica	481-132180
C96,139	Variable, Trimmer, 0.8 μμF to 13 μμF, 3000V (Piston type with hardware)	044-000520
C97	68 μμF, 2%, 300V, Plastic Mica	481-161680
C103,106	Variable, Trimmer, 8 μμF to 50 μμF	044-200437
C104,105	330 μμF, 2%, 500V, Plastic Mica	482-161331
C114	10 μF, 50V, Electrolytic	045-000755
C115 A&B	2 x 30 μF, 350V, Electrolytic	045-000902
C119,123	0.001 μF, 20%, 3000V, Ceramic Disc	047-100397
C121	5 μμF, ±0.5 μμF, 500V, Plastic Mica	493-(10050-531
C122	Variable, FINAL TUNING	048-000525
C124	220 μμF, 2%, 500V, Plastic Mica	482-161221
C125	150 μμF, 2%, 500V, Plastic Mica	482-161151
C127,128, 129	390 μμF, 2%, 500V, Plastic Mica	482-(61391
C131	0.01 μF, +80%,-20%, 500V, Ceramic Disc	047-100224
C138	1000 μμF, 2%, 500V, Plastic Mica	482-261102
C140,141	510 μμF, 2%, 500V, Plastic Mica	482-261511
C142	270 μμF, 2%, 500V, Plastic Mica	482-(6127)
C144	680 μμF, 2%, 500V, Plastic Mica	482-26(681
C163	27 μμF, 2%, 500V, Plastic Mica	482-151270
C175	0.002 μF, 20%, 500V, Ceramic Disc	047-100395
	*RESISTORS	
R1,2,8,139, 143,145,149, 152,158	1 Megohm	451-252105
R3	180 Ohms	451-25218(
R4 and 91, R46 and 140	Variable, Dual: 10K Ohms, 30%, 1 watt, RF GAIN and 500K Ohms, 20%, 1/4 watt, AF GAIN; 10K Ohms, 30%, 1 watt, RF LEVEL and 500K Ohms, 30%, 1/4 watt, MIC GAIN	025-002063
R5,11,17,24, 31,36,37,39, 40,49,52,84, 77,113,136, 137,159	47K Ohms	451-252473
R6,81	180K Ohms	451-252184
R7,27,30	15K Ohms	451-252153
R9	150K Ohms	451-252154
R10,38,43, 141	2200 Ohms	451-252222
R12	100 Ohms	451-252101
R13,23	15K Ohms, 2 watts	451-652153
R14,15,16, 28,33,42,45, 50,53,54,55, 56,57,59,60, 63,69,73,114, 126,154	1000 Ohms	451-252102
R16,22,32	220 Ohms	451-252221
R19,29,51,86, 79,112,148	470K Ohms	451-252474
R20,34,67,74, 92,93,94,132	220K Ohms	451-252224
R21,65,124	22K Ohms	451-252223
R25	82 Ohms	451-252820
R26,35,41,75, 84,87,102,110, 115,125,135, 142,147,151, 157	100K Ohms	451-252104
R47,88,98,105	10K Ohms	451-252103
R48,100,108, 138	4700 Ohms	451-252472
R58	22K Ohms, 1/4 watt	451-152223
R61	12K Ohms, 1/4 watt	451-152183
R62	27K Ohms, 1/4 watt	451-152273
R68	4700 Ohms, 2 watts	451-652472
R70,83,101, 130	2700 Ohms	451-252272
R71,129	68K Ohms	451-252683
R72	680 Ohms	451-252681
R76	2200 Ohms, 1/4 watt	451-152222
R78	27K Ohms	451-252273
R80	Variable, 25K Ohms, 30%, 1/3 watt, CAL ADJ	025-002001
R82	Variable, 25K Ohms, 30%, 1/3 watt, RIT (Inc. S4)	025-002062
R85,86,121	820 Ohms	451-252221
R89,90	4.7 Megohms	451-252475
R95	2500 Ohms, 10 watts, Wire Wound	453-082252
R96,150	Variable, 1 Megohm, 30%, 0.2 watt, QT Gain and VOX Sensitivity	025-002067
R97,156	8.2 Megohms	451-252825
R99	47 Ohms, 1 watt	451-352470

LIST MODEL SR-150

Schematic Symbol	Description	Hallicrafters Part Number
	* RESISTORS (CONT)	
R103,133, 134,145	470 Ohms	451-252471
R104	2700 Ohms, 1 watt	451-352273
R107	470 Ohms, 1 watt	451-352471
R109	47K Ohms, 2 watts	451-652473
R111	270K Ohms	451-252274
R116	1.5 Megohms	451-252155
R117	2.2 Megohms	451-252225
R118,122	3300 Ohms	451-252332
R119	82K Ohms, 1 watt	451-352823
R120	Variable, 50K Ohms, 20%, 0.2 watt, Meter Zero	025-002065
R123	150 Ohms	451-252151
R126	33K Ohms	451-252333
R127	56K Ohms	451-252563
R131	Variable, 250 Ohms, 0.3 watt, Balance	025-002064
R144	3900 Ohms	451-252392
R153	330K Ohms	451-252334
R155	Variable, 10 Megohms, 20%, 0.2 watt, Delay	025-002066
R160	1500 Ohms	451-252152

* All RESISTORS are carbon type, 10%, 1/2 watt unless otherwise stated.

	COILS & TRANSFORMERS	
L1	Coil, Antenna, 15 Meters	051-003350
L2	Coil, Antenna, 20 Meters	051-003347
L3	Coil, Antenna, 40 Meters	051-003345
L4	Coil, Antenna, 80 Meters	051-002346
L5	Coil, Antenna, 10 Meters	051-003531
L6,13,16, 25,26,29, 33,36,42	Coil, 0.7 MH RF Choke	053-000530
L7,37	Coil, Mixer and Driver, 10 Meters	051-003532
L8,38	Coil, Mixer and Driver, 15 Meters	051-003349
L9,39	Coil, Mixer and Driver, 20 Meters	051-003342
L10,40	Coil, Mixer and Driver, 40 Meters	051-003340
L11,41	Coil, Mixer and Driver, 80 Meters	051-003341
L12	Coil, 6.0-MC to 6.5-MC Trap	053-000665
L14,15	Coil, IF, Filter Termination	050-00060.
L17,18	Coil, Crystal Oscillator, 10 Meters	051-003353
L19,20	Coil, Crystal Oscillator, 10 Meters	051-003343
L21	Coil, Crystal Oscillator, 15 Meters	051-002529
L22	Coil, Crystal Oscillator, 20 Meters	051-002344
L23	Coil, Crystal Oscillator, 40 Meters	051-003530
L24	Coil, Crystal Oscillator, 80 Meters	051-003351
L27	Coil, VFO	051-003509
L28	Coil, 27 μH RF Choke	053-000666
L30	Coil, 1 MH RF Choke	053-000580
L31	Coil, Final Amplifier RF Choke	053-200428
L32	Coil, Final Amplifier Pi-Output	051-003348
L34,35	Coil, Parasitic Choke Assembly	053-000878
T1,2	Transformer, Variable IF, 6.5 MC to 5.0 MC	000-000788
T3	Transformer, IF, 1650 KC	068-000690
T4,6	Transformer, BFO and Balanced Modulator Output	050-000661
T5	Transformer, Output	055-000469

	** ELECTRON TUBES & DIODES	
V1	Tube, Type 6AZ8	090-901417
V2,4	Tube, Type 12BA7	090-901474
V3,5,9,17	Tube, Type 6EA8	090-901350
V6	Tube, Type 12BE6	090-900040
V7	Tube, Type 6AN8	090-900793
V8,10,19	Tube, Type 12AT7	090-909034
V11	Tube, Type 6T8A	090-901403
V12	Tube, Type QA2	090-900001
V13	Tube, Type 6AQ5A	090-901331
V14,15	Tube, Type 12DQ6B/12GW8	090-901475
V16	Tube, Type 12BY7A	090-901192
V18	Tube, Type 12AX7/ECC83	090-901230
CR1,2,3,5, 6,7,8,9	Diode, Type 1N295	018-301980
CR4	Diode, Type V-100, Varicap	048-000484
CR10,11	Diode, Type 1N87	018-002941

** See Section II, Page 3 for Tube Functions.

	SWITCHES	
S1	Rotary, BAND SELECTOR (Inc. S1A)	060-002442
S1B,E	Wafer, Crystal Oscillator and Transmitter Mixer	062-000195
S1C,D, F,H	Wafer, Antenna, RF Amplifier, Mixer, and Final Input	062-000196
S1G	Wafer, Driver Output	062-000198
S1J	Wafer, Final Pi-Output	062-000197
S2	SPST, Antenna	060-100440
S3	Rotary, CAL-OFF	060-002555
S4	SPST, RIT-OFF/ON	Part of R82
S5	Rotary, FUNCTION	060-002441
S6	Rotary, OPERATION (Inc. S7)	000-002443
S7	SPST, POWER	Part of S6

	CRYSTALS	
Y1	100 KC, Crystal Calibrate	019-002712
Y2 ***	36.0 MC, 10 Meters	019-002940-08
Y3 ***	35.5 MC, 10 Meters	019-002940-07
Y4	35.0 MC, 10 Meters	019-002940-06
Y5 ***	34.5 MC, 10 Meters	019-002940-05
Y6	27.5 MC, 15 Meters	019-002940-04
Y7	20.5 MC, 20 Meters	019-002940-03
Y8	13.5 MC, 40 Meters	019-002940-02
Y9	10.0 MC, 80 Meters	019-002940-01
Y10	1648.1 KC, LSB	019-002945-01
Y11	1651.7 KC, USB	019-002945-02

*** Not Supplied.

	CONNECTORS	
J1,2,4	Antenna (Receiver and Common), 500-Ohm Output	036-100041
J3,5	PHONES and Key	036-200210
J6	Microphone (Inc. Hardware)	010-101569
J7	Power Input (12-pin Jones type)	010-002586

	MISCELLANEOUS	
	Cainaet	150-000000
	Cable Assembly (Harnessed)	087-007664
	Coupler, Solid	029-100264
	Cover, Cabinet Bottom	000-002141
	Cover, Cabinet Top	066-003140
	Cover, VOX Relay	066-201460
	Dial Window	022-000698
	Disc, Dial (TUNING)	063-001012
	Emblem, Hallicrafters Logo	007-000835
	Escutcheon	007-000812
	Escutcheon Plate	007-000813
FL1	Filter, Crystal Lattice	049-000216
	Foot, Plastic (4)	018-201072
	Front Panel	068-001174
	Gear, Pinion	026-001067
	Gear, Spur (Fixed)	026-001000
	Gear, Spur	026-001069
	Handle, Knob	030-000793
	Iron Core (Coil Slugs)	003-203388
	Iron Core (L27 Only)	003-203306
	Knob, AF GAIN, MIC GAIN, and RIT (Round)	015-001773
	Knob, BAND SELECTOR and FUNCTION	015-001760
	Knob, CAL ADJ and CAL-OFF	015-001755-02
	Knob, FINAL TUNING and PRESELECTOR	015-001000-21
	Knob, OPERATION	015-001775
	Knob, RF GAIN, RF LEVEL, and RIT OFF/ON (Bar)	015-001740-01
	Knob, TUNING (VFO)	015-001789
M1	Meter	082-000566
DS1	Pilot Lamp, NO. 1815	039-000689
	Pointer, FINAL TUNING and PRESELECTOR	082-000576-01
	Pointer, TUNING Dial	082-000567
K2,3	Relay, RF Switching and Antenna	021-000651
K1	Relay, VOX	021-200442
	Screw, Machine (TUNING knob spinner)	003-007650
	Skirt, TUNING Knob	083-001015
	Spring, Anti-Backlash	075-000841
	Switch Wafer (Dummy)	062-000205
	Washer, TUNING Knob Spinner	426-003543