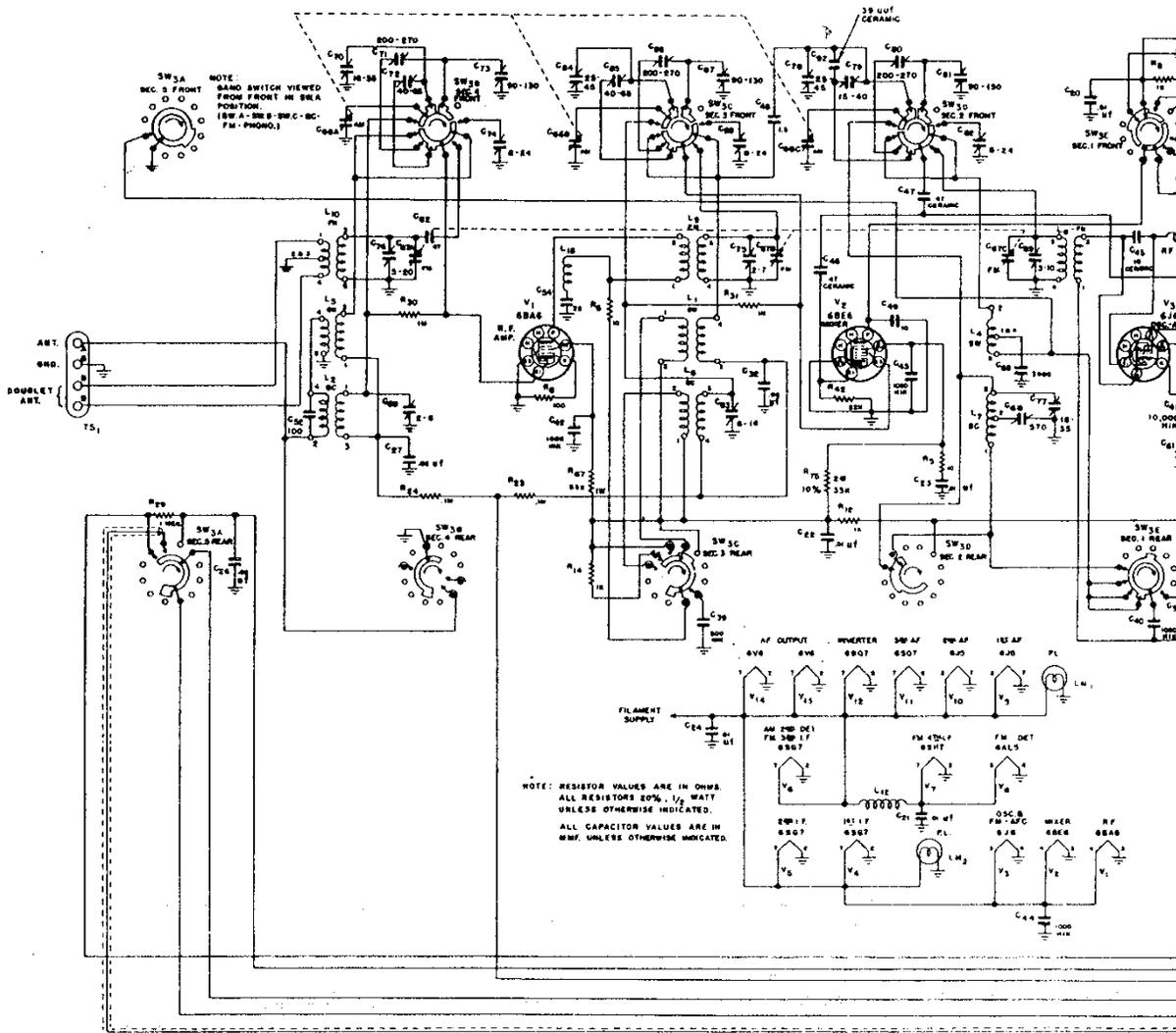


17-1718

THE HAI



- Tubes Fifteen
- Speaker output impedance 500 ohms.
- Antenna Provisions for external long wire antenna for AM bands and a folded dipole (300-ohm) for FM band.
- Tuning Manual and mechanical push buttons. (Five channels for AM and five channels for FM.)
- Tuning Range (BC) 540kc - 1700 kc.
 - (A) 15 mc - 18 mc.
 - (B) 9 mc - 12 mc.
 - (C) 5.8 mc - 18 mc.
 - (FM) 88 mc - 108 mc.

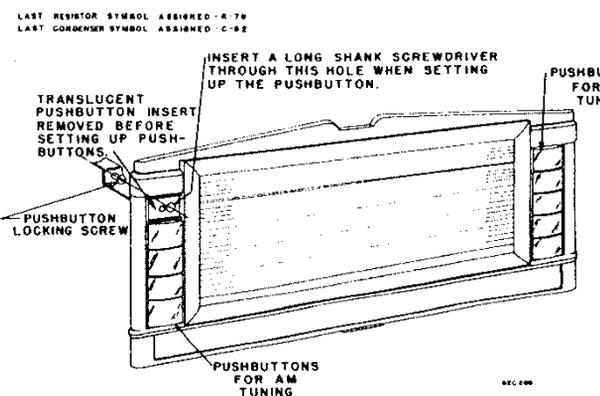
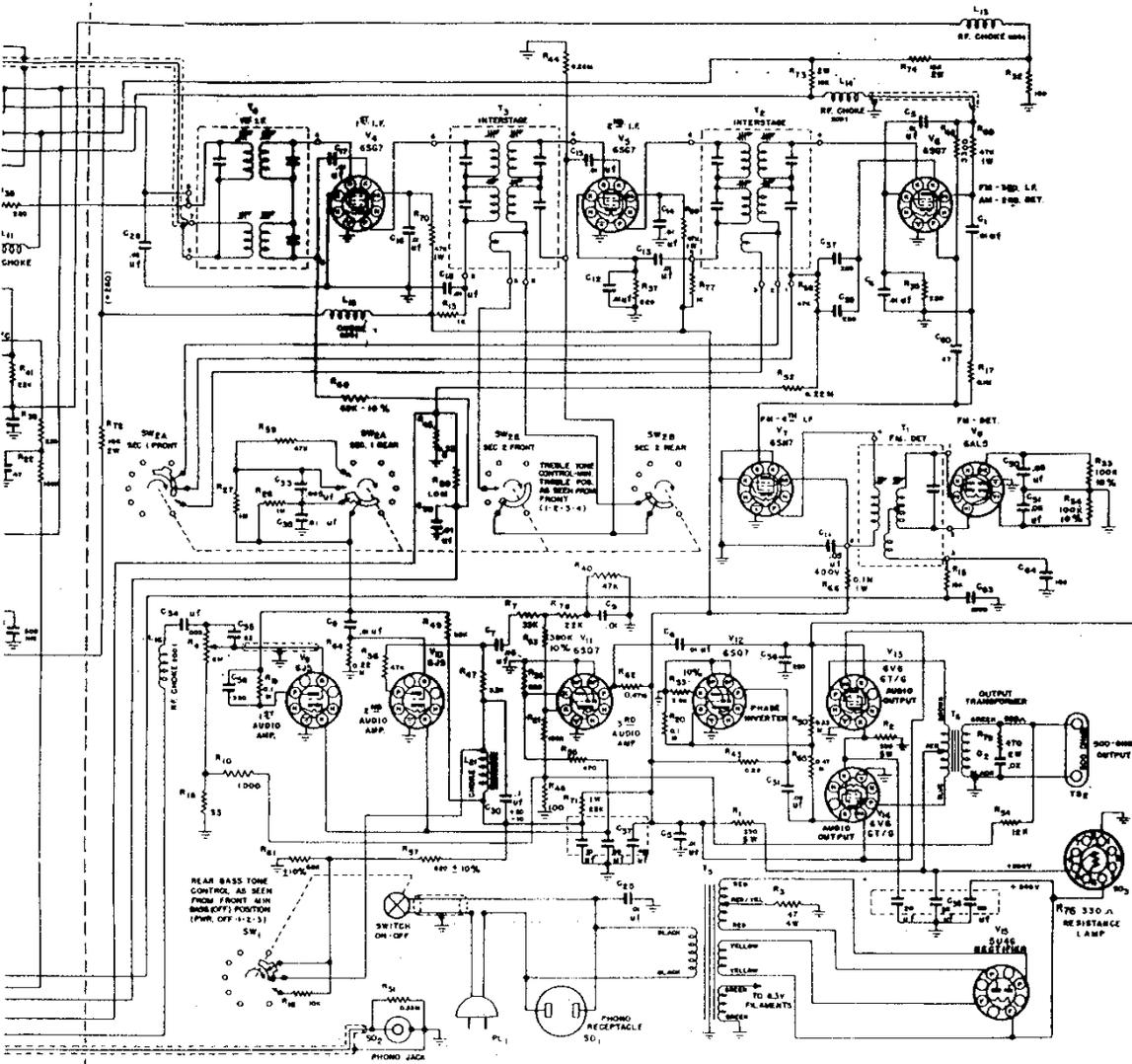


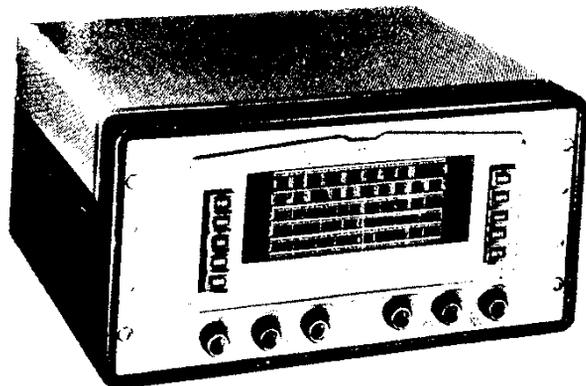
Fig. 1. View showing pushbutton setup.



| | |
|-----------------------------|---------------------------|
| I. F. (AM) | .455 kc. |
| I. F. (FM) | 10.7 mc. |
| Power Supply | 105-125 V. 60 cycles A.C. |
| Power Consumption | 180 watts. |

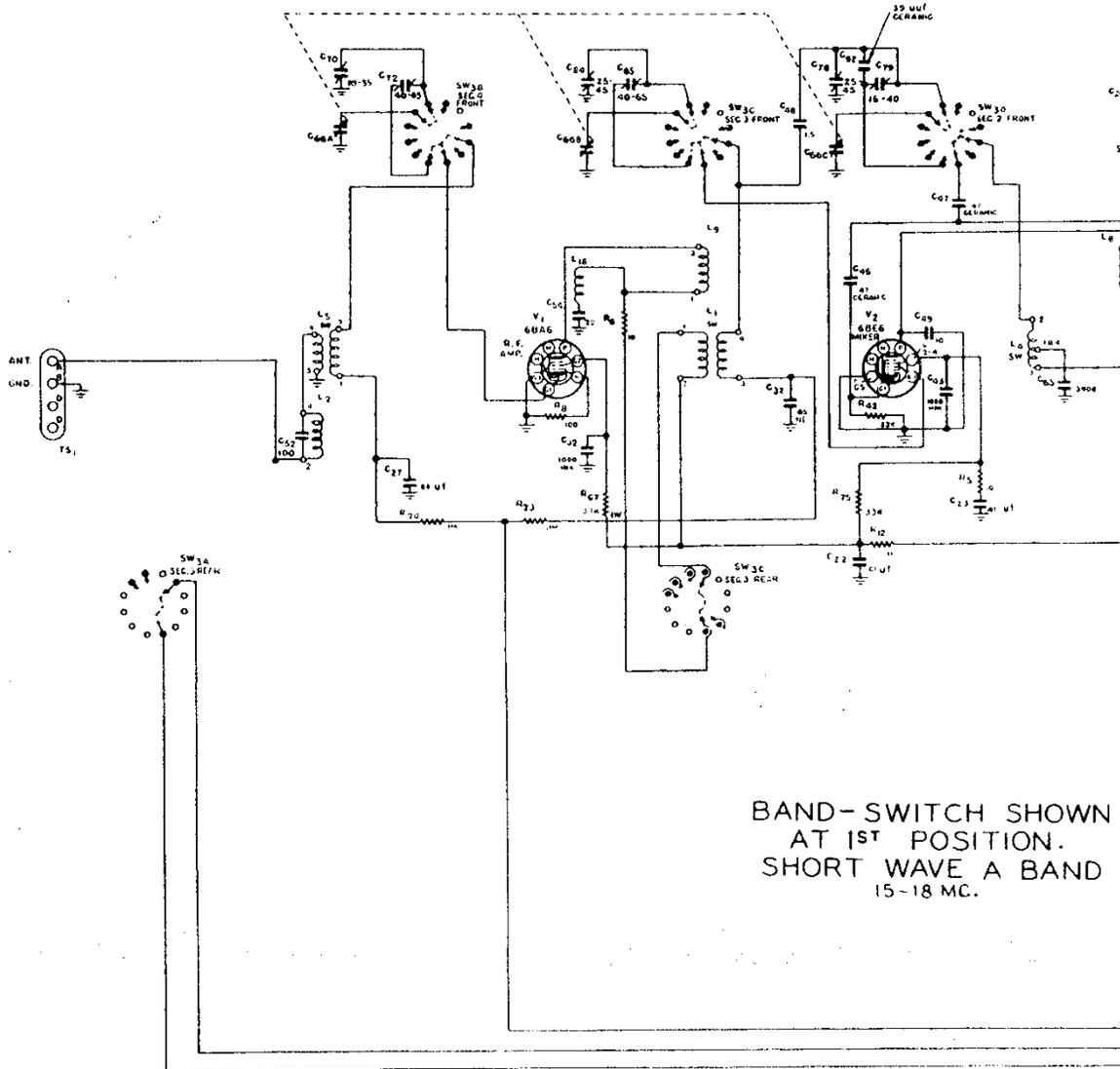
BUTTON SETTING:

- TTONS**
F M
ING
- Note - Insulate the muting switch springs before setting the AM buttons.
1. Select any one pushbutton.
 2. Pull translucent insert straight out.
 3. Insert screw driver blade through large hole of pushbutton into slot of locking screw. (See Fig. 1).
 4. Loosen locking screw about one-half turn. (Not more than one full turn.)
 5. With pushbutton depressed, carefully tune in desired station with the manual control and tighten the locking screw.



MODEL S-47

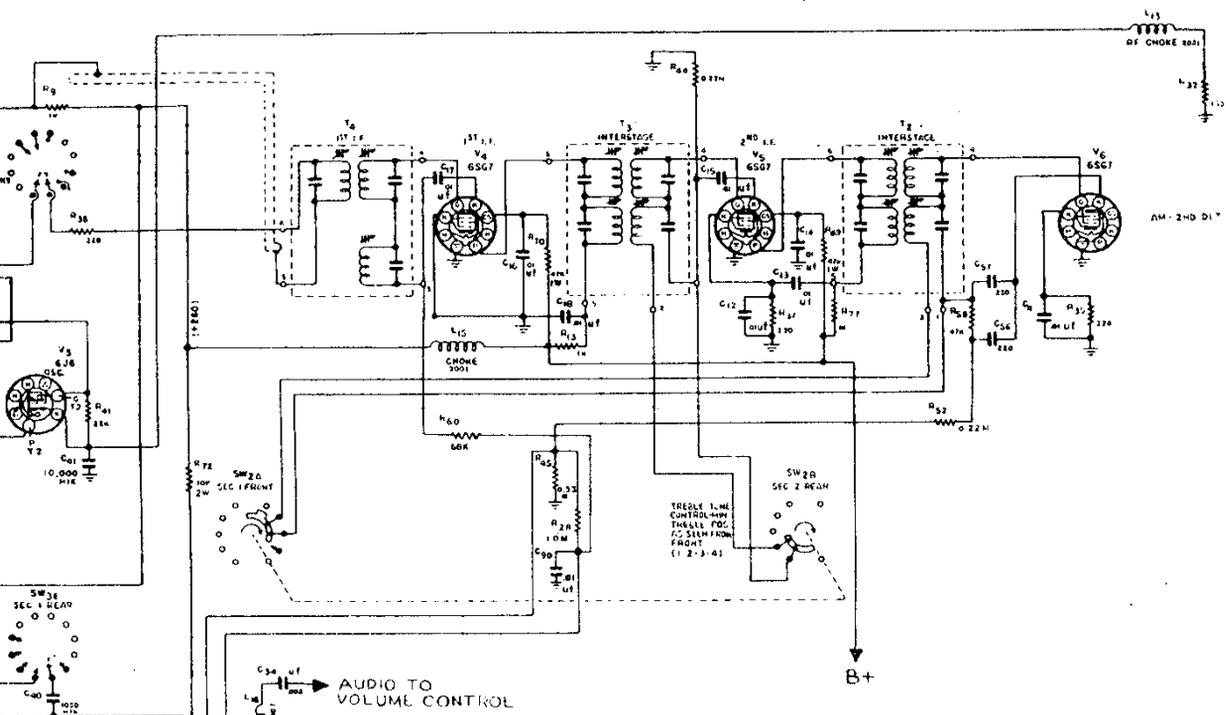
THE HA



BAND-SWITCH SHOWN AT 1ST POSITION. SHORT WAVE A BAND 15-18 MC.

SERVICE PARTS LIST

| REF. NO. | DESCRIPTION | HALLICRAFTERS' PART NUMBER |
|---|---|----------------------------|
| CAPACITORS | | |
| C-1, 3, 4, 5, 6, 8, 9, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 35, 90 | .01 mfd 600 v., tubular paper | 46A7103F |
| C-2, 26, 27, 28 | .02 mfd 600 v., tubular paper | 46AY203F |
| C-7, 11, 31, 32, 50, 51 | .05 mfd 600 v., tubular paper | 46AY503F |
| C-25 | .01 mfd 600 v., molded paper | 46AG103J |
| C-30 | .1 mfd 200 v., tubular paper | 46AU104H |
| C-33 | .005 mfd 600 v., tubular paper | 46AZ502J |
| C-34 | .003 mfd 600 v., tubular paper | 46AZ302J |
| C-36 | 60-20 mfd 450 V., 20 mfd. 30 v. electrolytic | 45B099 |
| C-37 | 40-10 mfd 450 V., 20 mfd. 30 v., electrolytic | 45B100 |
| C-38, 39 | 500 nmf 50 v. | |
| C-40, 42, 43, 44 | 10,000 nmf 50 v. | |
| C-41 | 100 nmf 50 v. | |
| C-45 | 10 nmf 50 v. | |
| C-46, 47 | 47 nmf 50 v. | |
| C-48 | 1.5 nmf., 50 v. | |
| C-49 | 10 nmf 50 v. | |
| C-52, 64 | 100 nmf 50 v. | |
| C-54 | 22 nmf 50 v. | |
| C-55 | 22 mfd 50 v. | |
| C-56, 57, 58 | 220 nmf 50 v. | |
| C-59 | 330 nmf 50 v. | |
| C-60, 61, 62 | 47 nmf 50 v. | |
| C-63 | .001 mfd | |
| C-65 | .0039 mfd | |
| C-66 | Tuning coil | |
| C-67 | Tuning coil | |
| C-68 | 570 nmf. 50 v. | |
| C-69, 70, 71, 72, 73, 74 | Trimmer capacitor | |
| C-75 | Trimmer capacitor | |
| C-76 | Trimmer capacitor | |
| C-77, 78, 79, 80, 81, 82 | Trimmer capacitor | |
| C-83, 84, 85, 86, 87, 88 | Trimmer capacitor | |



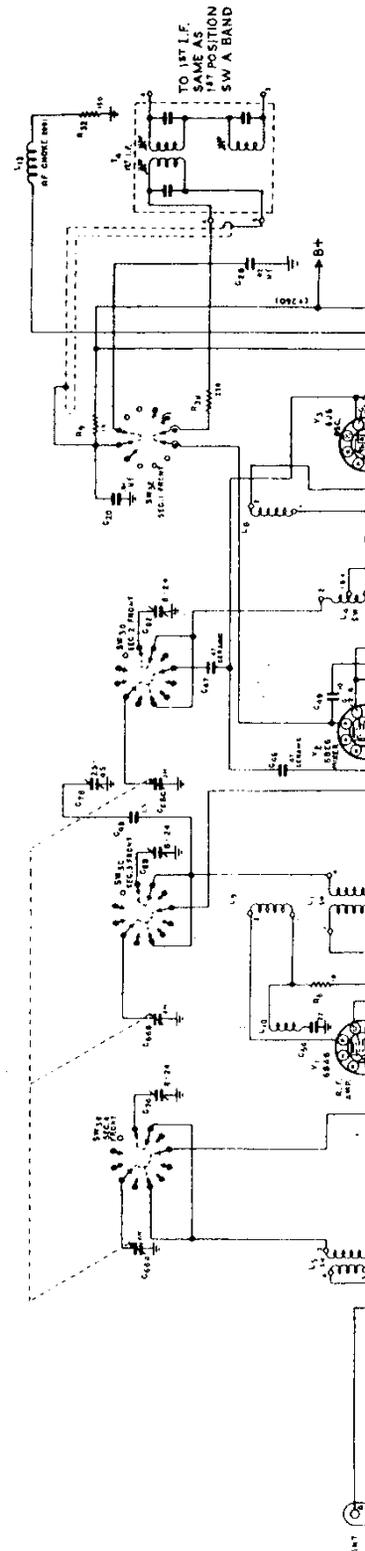
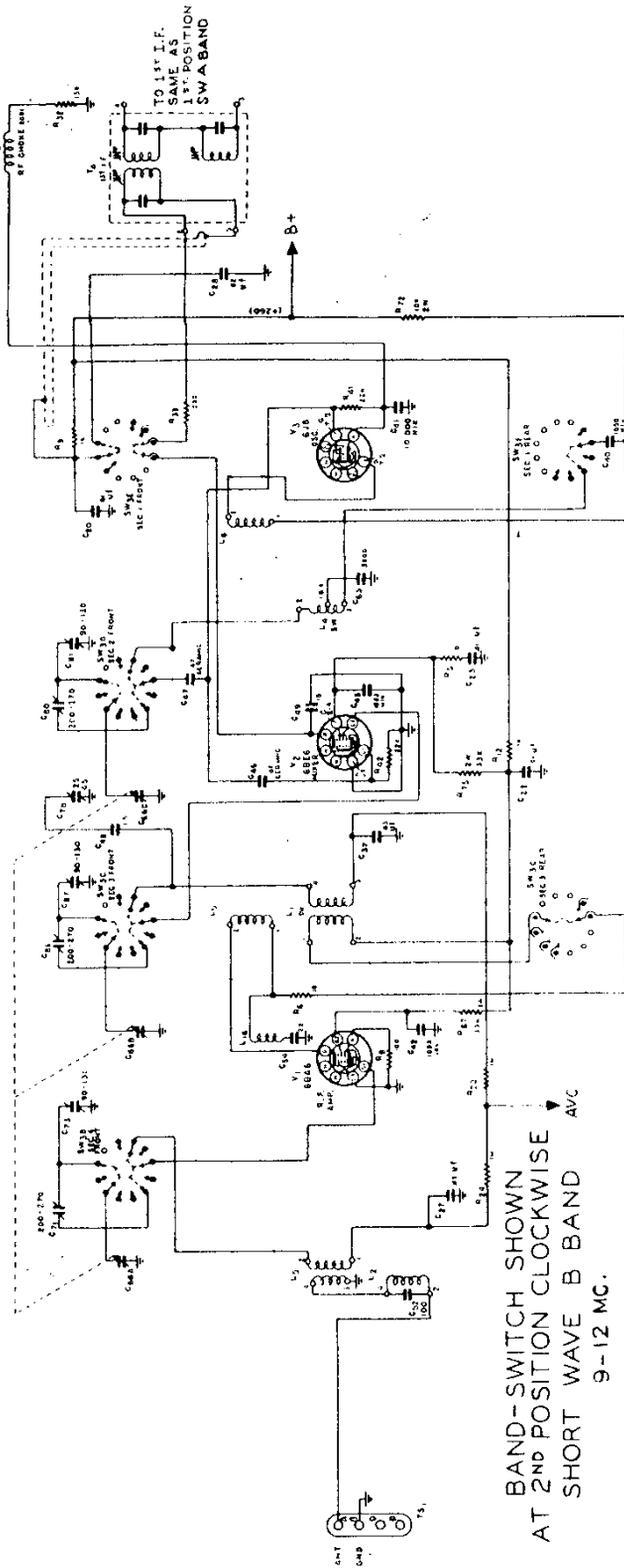
- v., ceramic 47A147
- v., ceramic 47A148
- 50 v., ceramic 47B32103N1
- ., ceramic 47A149
- ., ceramic 47A150
- amic 47A160-3
- ., mica CM20A100K
- v., mica CM20A101M
- ., mica CM20A220K
- ., mica CM20A220M
- v., mica CM20A221M
- v., mica CM20A331M
- v., mica CM20A470M
- 0 v., mica CM30A102M
- 0 v., mica CM35A392J
- user, "AM" 48C176
- user, "FM" 48C175
- mer. 44A189
- ntly, ant. 44B190
- mixer stage. 44A192
- ant. stage. 44A194
- ntly, osc. 44B195
- ntly, mixer 44H196

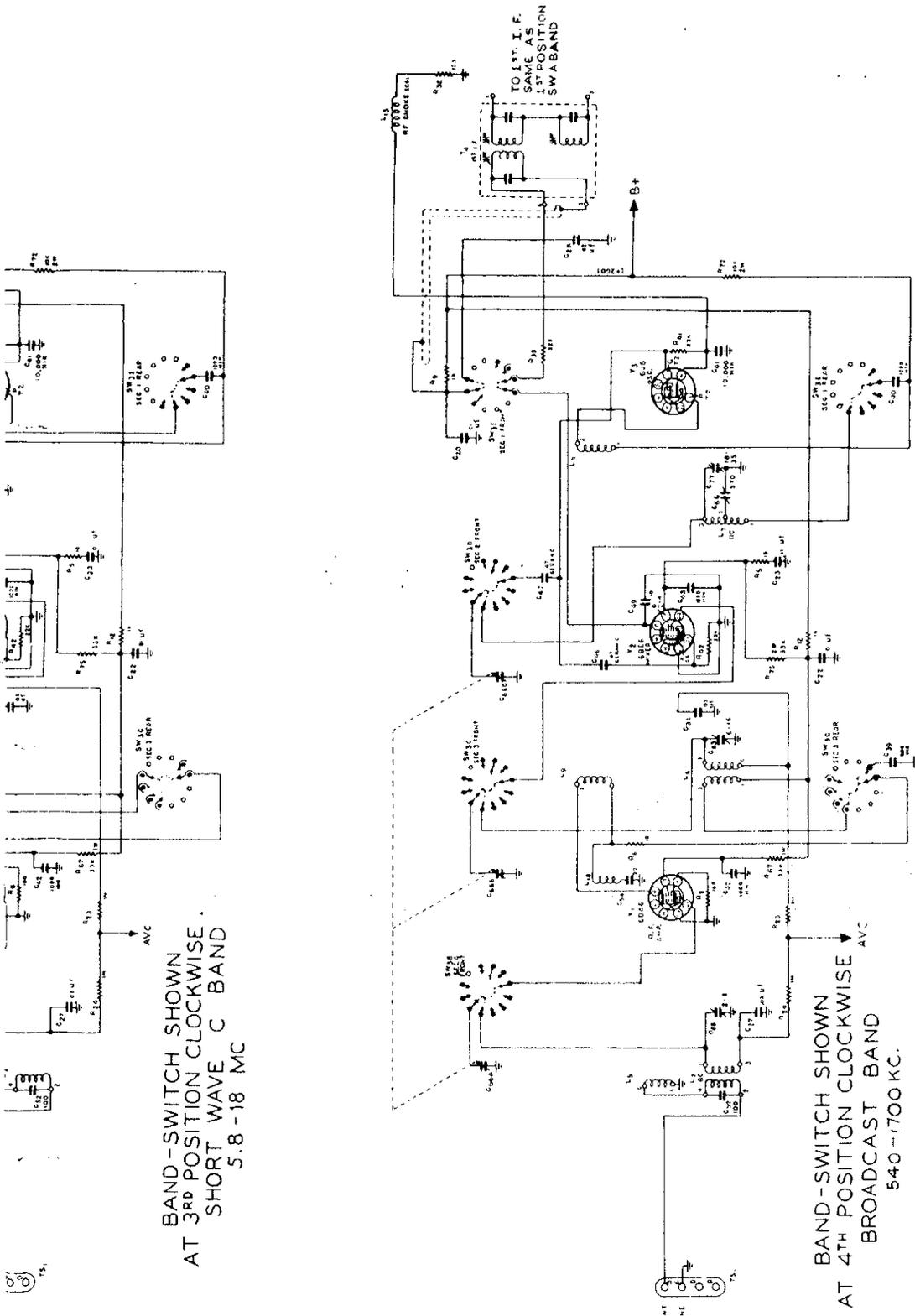
- C-89 Trimmer, FM, osc. stage 44A218
- C-92 39 mmf. 500 V., ceramic CC30SH390M

RESISTORS

- R-1,2 330 ohms 5 watts, WW. 24AB64
- R-3 47 ohms 4 watts, Carbon. RC20AE470M
- R-4 2 meg-ohms, volume control 25A685
- R-5, 6 10 ohms 1/2 watt, carbon RC20AE100M
- R-7, 49 33,000 ohms 1/2 watt, carbon RC20AE333M
- R-8 100 ohms 1/2 watt, carbon RC20AE101M
- R-9, 10, 12, 13, 14, 77 1000 ohms 1/2 watt, carbon RC20AE102M
- R-15, 16 10,000 ohms 1/2 watt, carbon RC20AE103M
- R-17, 19, 20, 21, 22, 23, 24 100,000 ohms 1/2 watt, carbon RC20AE104M
- R-18 33 ohms 1/2 watt, carbon RC20AE330M
- R-26, 27, 28, 29, 30, 31 1 meg-ohm 1/2 watt, carbon RC20AE105M
- R-32 150 ohms 1/2 watt, carbon RC20AE151M
- R-33, 34 100,000 ohms 1/2 watt, carbon RC20AE104K
- R-35, 36, 37, 38, 39 220 ohms 1/2 watt, carbon RC20AE221M
- R-40, 58, 59 47,000 ohms 1/2 watt, carbon RC20AD473M
- R-41, 42, 78 22,000 ohms 1/2 watt, carbon RC20AE223M
- R-43, 44, 52, 64 220,000 ohms 1/2 watt, carbon RC20AE224M
- R-45, 50, 51 330,000 ohms 1/2 watt, carbon RC20AE334M
- R-46 100 ohms 1/2 watt, carbon RC20AE101K
- R-47, 48 3300 ohms 1/2 watt, carbon RC20AE332M
- R-53 3900 ohms 1/2 watt, carbon RC20AE392K
- R-54 12,000 ohms 1/2 watt, carbon RC20AE123K
- R-55 470 ohms 1/2 watt, carbon RC20AE471M
- R-56 470 ohms 1/2 watt, carbon RC20AE472M
- R-57 820 ohms 1/2 watt, carbon RC20AE821K
- R-60, 61 68,000 ohms 1/2 watt, carbon RC20AE683K
- R-62, 65 470,000 ohms 1/2 watt, carbon RC20AE474M
- R-63 390,000 ohms 1/2 watt, carbon RC20AE394K
- R-66 100,000 ohms 1 watt, carbon RC30AE104M
- R-67 33,000 ohms 1 watt, carbon RC30AE333M
- R-68, 69, 70 47,000 ohms 1 watt, carbon RC30AE473M
- R-71 22,000 ohms 1 watt, carbon RC30AE223M
- R-72, 73, 74 10,000 ohms 2 watt, carbon RC40AE103M

17-21,22





BAND-SWITCH SHOWN
AT 3RD POSITION CLOCKWISE
SHORT WAVE C BAND
5.8 - 18 MC

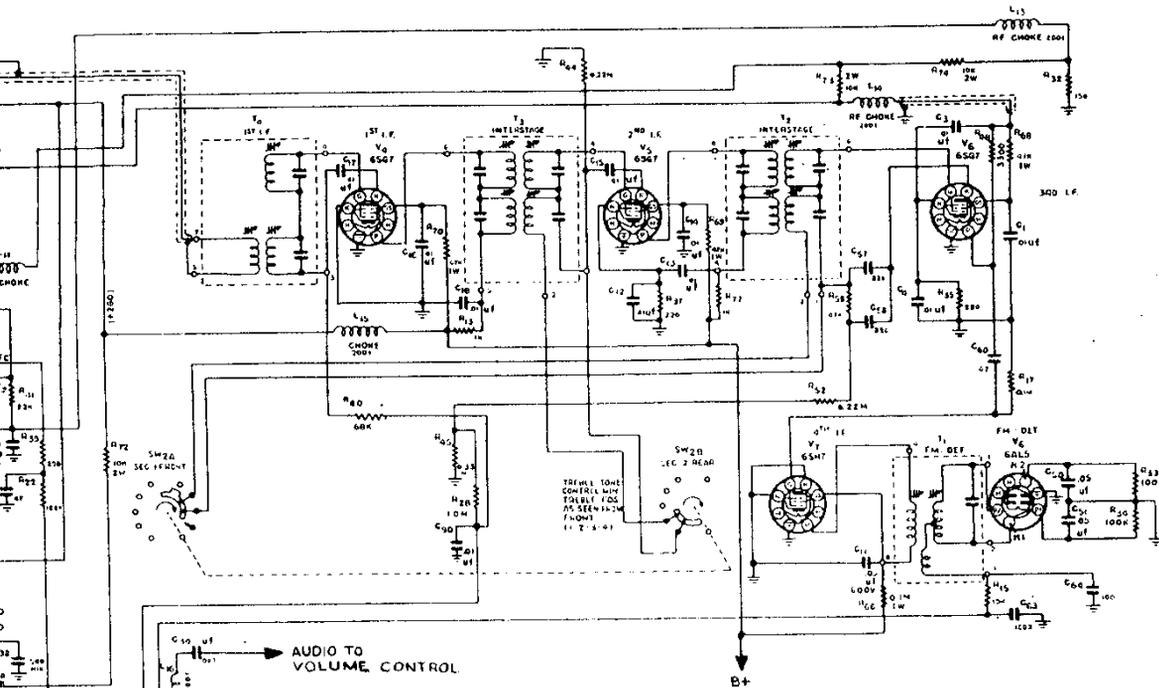
BAND-SWITCH SHOWN
AT 4TH POSITION CLOCKWISE
BROADCAST BAND
540 - 1700 KC.

TO 1ST I. F.
SAME AS
1ST POSITION
SW BAND

151

TS1

AFTERS CO.



- 53A106
- 53A115
- 56B082
- 60B307
- 60B264
- 60C266
- 18A092
- 87B1625
- 10A015
- 36A034
- 6A190
- 6A190
- 6A276
- 86A046
- 86A047
- 90X6BA6
- 90X6BE6

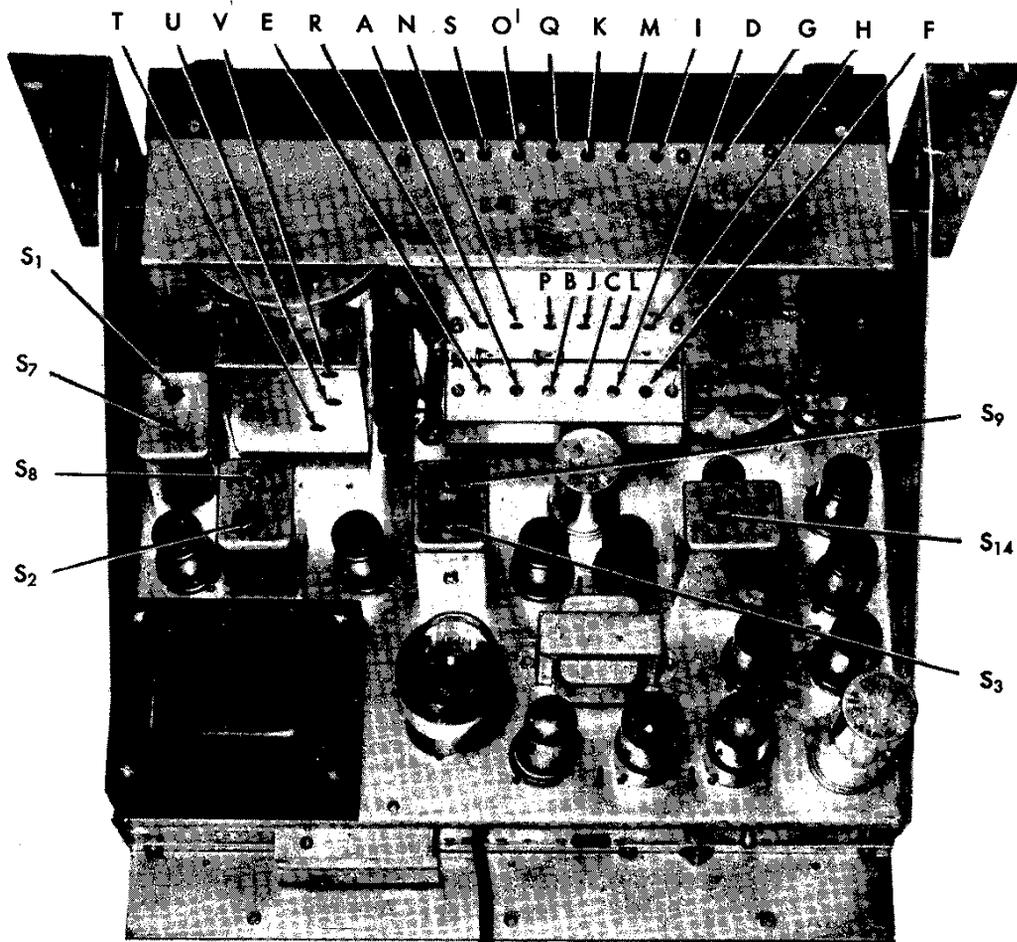
- V-3 Type 6J6, Oscillator and A.F.C. 90X6J6
- V-4, 5, 6 Type 6SG7, I.F. amplifier 90X6SG7
- V-7 Type 6SH7, I.F. amplifier 90X6SH7
- V-8 Type 6AL5, F.M. detector 90X6AL5
- V-9, 10 Type 6J5, A.F. amplifier 90X6J5
- V-11, 12 Type 6SQ7, Phase inverter 90X6SQ7
- V-12, 14 Type 6Y6GT/G, A.F. power amplifier 90X6Y6GT
- V-15 Type 5U4G, Rectifier 90X5U4G
- LM-1, 2 Lamp, 6-8 V., 150 MA. G.E. #47 39A004

MISCELLANEOUS COMPONENTS

- Shield base, tube (miniature tube) 69A169
- Shield, tube (miniature tube) 69A104
- Spring, tube retainer 75A076
- Carriage, pointer 67B645
- Pointer, FM 82B138
- Pointer, AM 82B143
- Spring, pointer 75A132
- Push-button (black) 17B028-1
- Insert, push-button, lucite 17A027
- Insert, push-button, metal 17A029
- Call letters 17A025-1
- Spring, dial 75A006
- Cord, dial 38A017
- Escutcheon 70039-1
- Dial glass, upper 22B184
- Dial glass, lower 22B193
- Knob 15A131
- Terminal strip, antenna 88A277
- Terminal strip, speaker 88A334-1
- Shield, speaker terminal 69C173

THE HALLICRAFTERS CO.

MODEL S-47



Top view showing alignment points.

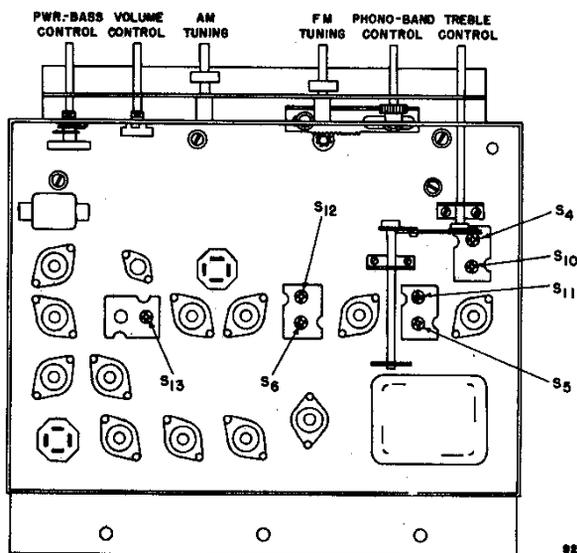
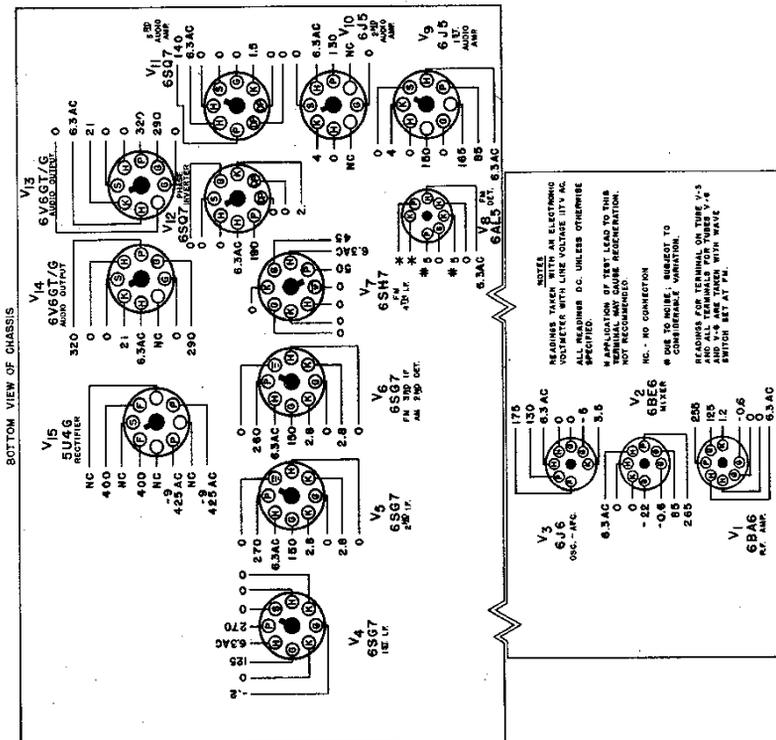


Fig. 5. Bottom view showing alignment points.

MODEL S-47

THE HALLICRAFTERS CO.



Tube voltage chart.

sis from the cabinet and remove the chassis bottom plate to gain access to some of the I. F. transformer from core adjustments. See Fig. 6.

The receiver is equipped with AUTOMATIC FREQUENCY CONTROL on the FM band to compensate for mechanical variations in the push-button mechanism. Correction factor is approximately 5 times. Make "hold" characteristics are: 0.1% voltage input signal release before 450 kc at a 0.4 volt input signal. Replace pilot lamps with each, 100 ma. made #7 equivalent.

The standard RMA dummy mentioned in the alignment chart consists of a 200 muf condenser in series with a 20 ohm r-choke which is standard in series with a 400 ohm carbon resistor.

ALIGNMENT PROCEDURE:

It will be necessary to remove the receiver chassis from the cabinet.

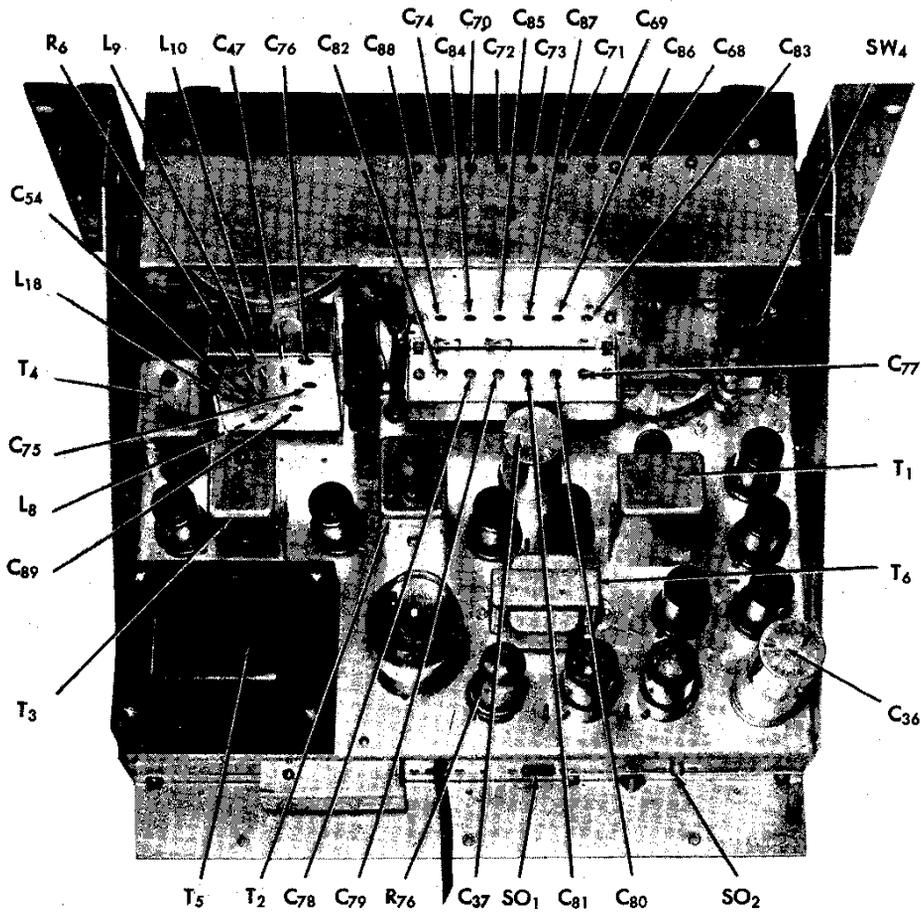
ALIGNMENT PROCEDURE

| Step | Dummy Antenna | Signal Generator Coupling | Signal Generator Frequency | Radio Switch Pos. | Dial Setting | Adjust | Remarks |
|------|---|---------------------------|----------------------------|-------------------|--------------|-------------------------|--|
| 1 | 0.01 mfd cap. To stator plates of center section of AM tuning cap. | To terminals "BC" | 455 kc | "BC" | 1000 kc | S2, S9, S2, S5, S1 & S4 | Adjust for max. output. RESISTORS tone control set at No. 1. |
| 2 | 0.01 mfd cap. To stator plates of center section (no coupling) of FM tuning cap. section | To terminals "A" | 10.7 mc | "FM" | Mid-scale | S9, S12, S13 & S10 | Adjust for max. output between pin #7 of 6AL5 and ground with a 20,000-ohm per volt meter. |
| 3 | 0.01 mfd cap. To stator plates of center section (no modulation) of FM tuning cap. section | To terminals "A" | 10.7 mc | "FM" | Mid-scale | S14 | Adjust for zero measured between junction of L15 and C24 with a 20,000-ohm per volt meter. |
| 4 | Std. RMA dummy. To terminals "A" and "B" on ant. term. strip. | To terminals "A" | 1500 kc | "BC" | 1500 kc | F4, H 840 I | Adjust for max. output |
| 5 | Std. RMA dummy To terminals "A" and "B" on ant. term. strip. | To terminals "A" | 600 kc | "BC" | 600 kc | C4 | Adjust for max. output. |
| 6 | Std. RMA dummy To terminals "A" and "B" on ant. term. strip. | To terminals "A" | 16 mc | "A" | 16 mc | E4, R and S | Adjust for max. output |
| 7 | Std. RMA dummy To terminals "A" and "B" on ant. term. strip. | To terminals "A" | 16 mc | "A" | 16 mc | A*, O and N | Adjust for max. output |
| 8 | Std. RMA dummy To terminals "A" and "B" on ant. term. strip. one 150 ohm resistor in each lead. | To terminals "A" | 15 mc | "A" | 15 mc | B*, P, and Q | Adjust for max. output |
| 9 | Std. RMA dummy To terminals "A" and "B" on ant. term. strip. one 150 ohm resistor in each lead. | To terminals "A" | 12 mc | "B" | 12 mc | C*, J and K | Adjust for max. output |
| 10 | Std. RMA dummy To terminals "A" and "B" on ant. term. strip. one 150 ohm resistor in each lead. | To terminals "A" | 9 mc | "B" | 9 mc | D*, L | Adjust for max. output |
| 11 | Std. RMA dummy To terminals "A" and "B" on ant. term. strip. one 150 ohm resistor in each lead. | To terminals "A" | 108 mc | "FM" | 108 mc | F*, U and V | Adjust for max. output |

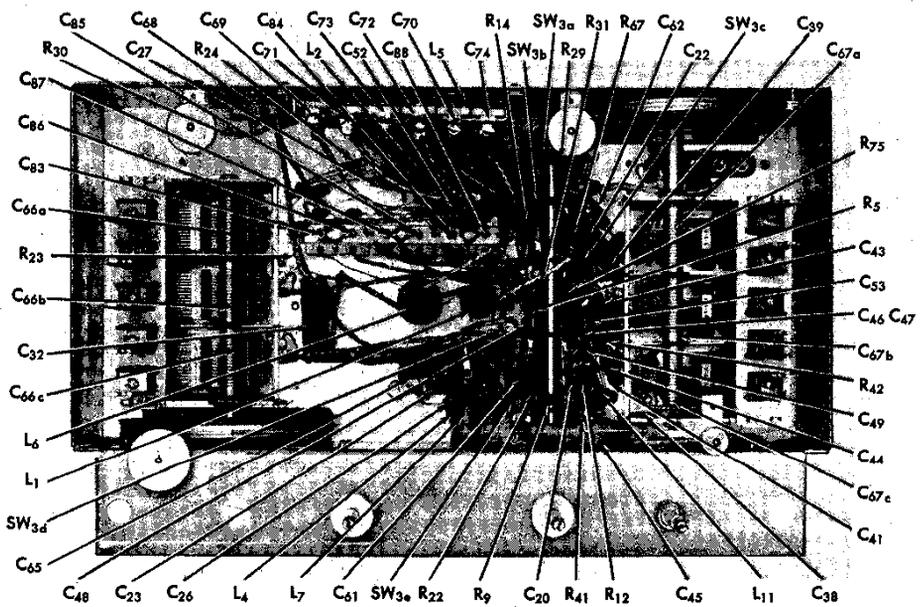
* NOTE - Calibration adjustments.

THE HALLICRAFTERS CO.

MODEL S-47



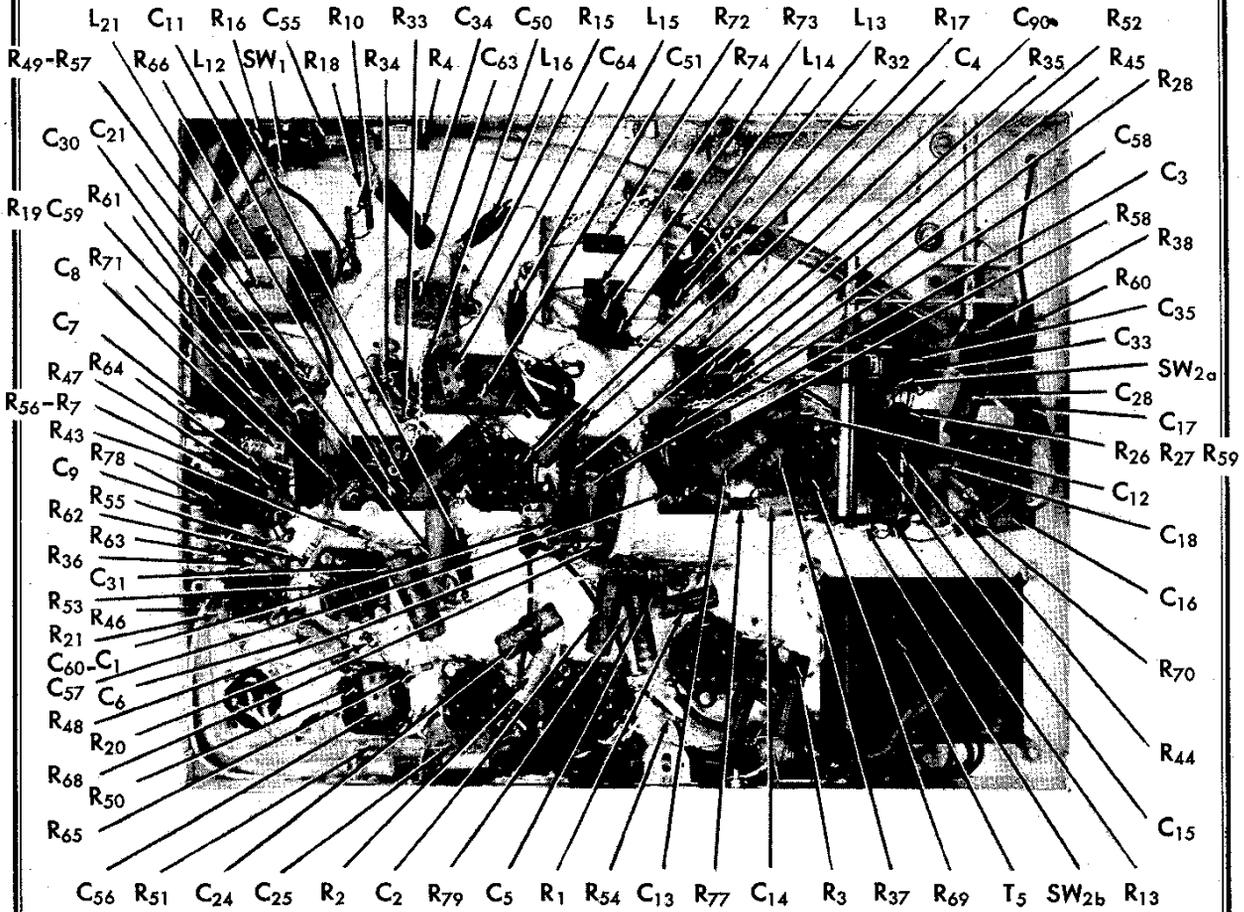
Top view showing component location.



Front view of R.F. chassis showing component location.

MODEL S-47

THE HALLICRAFTERS CO.



Bottom view of receiver showing component location.

INSERTING CALL LETTERS INTO TRANSLUCENT INSERT ASSEMBLY:

1. Slide out metal insert from translucent insert assembly. (See Fig. 2).
2. Insert call letter tab.
3. Replace metal insert.
4. Replace translucent insert assembly into push-button.

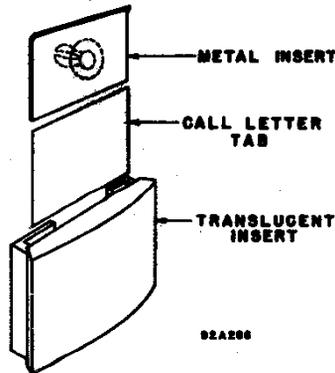
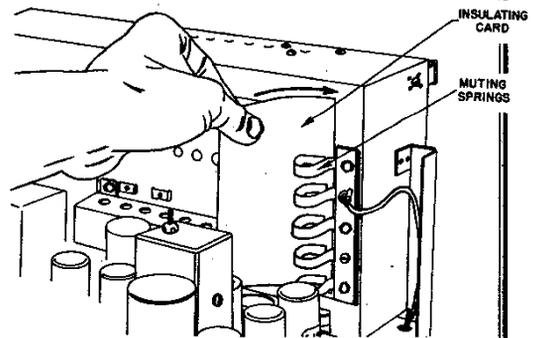


Fig. 2. View showing call letter installation.



Insulating the muting switch contacts

