Hallicrafters, Inc.

Model: S-38A	Chassis:	Year: Pre 1951
Power:	Circuit:	IF:
Tubes:		
Bands:		

Resources
Riders Volume 21 - HALLICRAFTERS 21-1
Riders Volume 21 - HALLICRAFTERS 21-2
Riders Volume 21 - HALLICRAFTERS 21-3
Riders Volume 21 - HALLICRAFTERS 21-4
Riders Volume 21 - HALLICRAFTERS 21-5
Riders Volume 21 - HALLICRAFTERS 21-6

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MODELS S-38A, S-38B

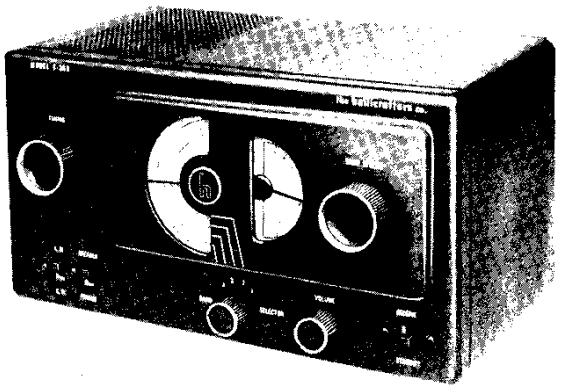
GENERAL

Tubes	Four plus rectifier.
Speaker	5-inch PM.
Voice Coil Impedance	3.2 ohms.
Headset Output	Low impedance.
Antenna	Provisions for external antenna with transmission line or single wire feed.
Tuning	Manual

Tuning Range

Band Selector Position	Frequency Range
1	550 kc - 1650 kc.
2	1.7 mc - 5.1 mc.
3	5 mc - 14.5 mc.
4	13 mc - 31 mc.

Intermediate Frequency	455 kc.
Power Supply	105-125 V. DC or 60 cycles AC.
Power Consumption	30 Watts



92X1153

CAUTION - The four rubber grommets insulate the chassis from the cabinet. Check the condition of these grommets and replace if necessary.

ALIGNMENT PROCEDURE

Holes in the bottom cover permit minor adjustment of the oscillator and mixer stage trimmers, however for complete alignment, the chassis will have to be removed from the cabinet. To separate the chassis from the cabinet, remove the back cover and bottom plate. The chassis is fastened to the cabinet by four front panel screws located near the slide switches and two cabinet screws located at the bottom rear of the cabinet.

The standard RMA dummy antenna specified in the alignment chart consists of a 200 mmf condenser in series with a 20 uh r-f choke which is shunted by a 400 mmf condenser in series with a 400 ohm carbon resistor.

Set the following controls before alignment.

AM/CW	Set at AM
SPEAKER/PHONES	Set at SPEAKER
VOLUME	Set at maximum
RECEIVE/STANDBY	RECEIVE
BAND SPREAD	Set at zero

For the settings of the remaining controls, see alignment chart.

ALIGNMENT CHART

Step	Dummy Antenna	Signal Generator Coupling	Signal Generator Frequency	Band Selector Setting	Receiver Dial Setting	Adjust	Remarks
1	.01 mfd cap.	Stator plates, front section of tuning gang.	455 kc	1	1000 kc	A,B,C,D	Adjust for max. audio output at speaker voice coil. Use just enough signal generator output to obtain a 50 mw signal level.
2**	See step 1	See step 1	455 kc (No modulation)	1	1000 kc	E	Set the AM/CW switch at CW. (Reset the switch at AM when step 2 is completed.) Correct BFO operation is obtained by varying the coupling between the wire "E" and the 12SK7 tube grid and plate terminals (Pins 4 and 8.) Pushing the wire toward the grid terminal increases the capacity and the strength of the beat.
3	Std. RMA dummy	High side to term. A1 on antenna strip. Jumper wire between A2 and G	30 mc	4	30 mc	*F,G	Max. output as in step 1.
4	Std. RMA dummy	See step 3.	14 mc	3	14 mc	*H,J	Max. output as in step 1.
5	Std. RMA dummy	See step 3	5 mc	2	5 mc	*K,L	Max. output as in step 1.
6	Std. RMA dummy	See step 3	1500 kc 600 kc	1	1500 kc 600 kc	*M,N *P	Max. output as in step 1.

* Note - Calibration adjustments.

** Note - This step is generally unnecessary. Adjustment should be made if a weak beat note is obtained on strong c-w signals indicating lack of coupling between wire "E" and tube socket wiring.

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MODELS S-38A,
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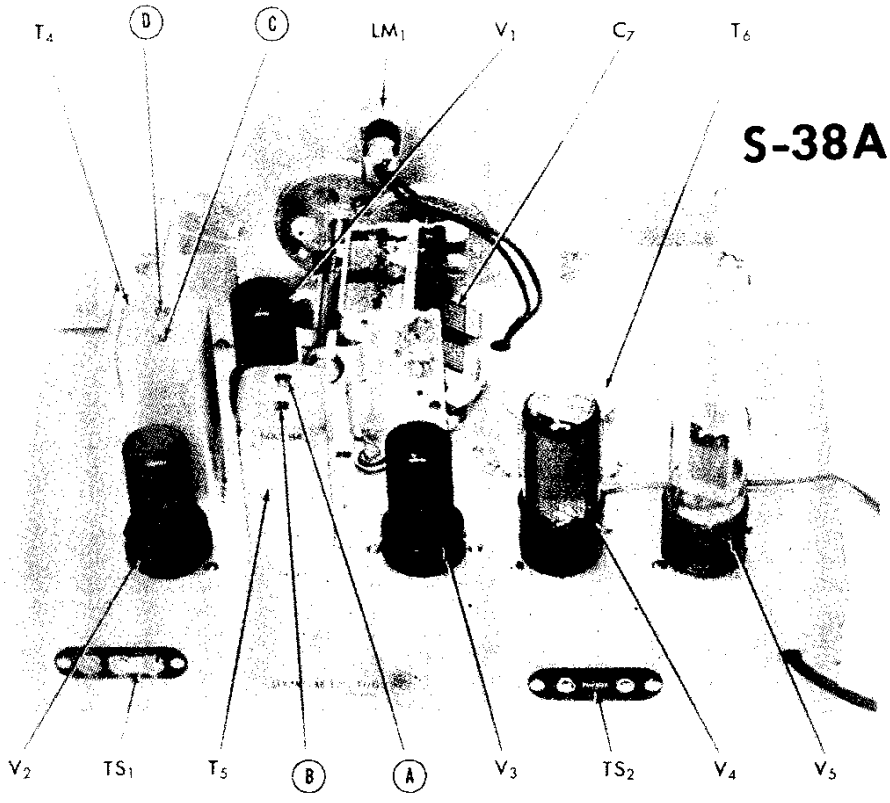


Fig. 2. Top view, alginment adjustments and component location

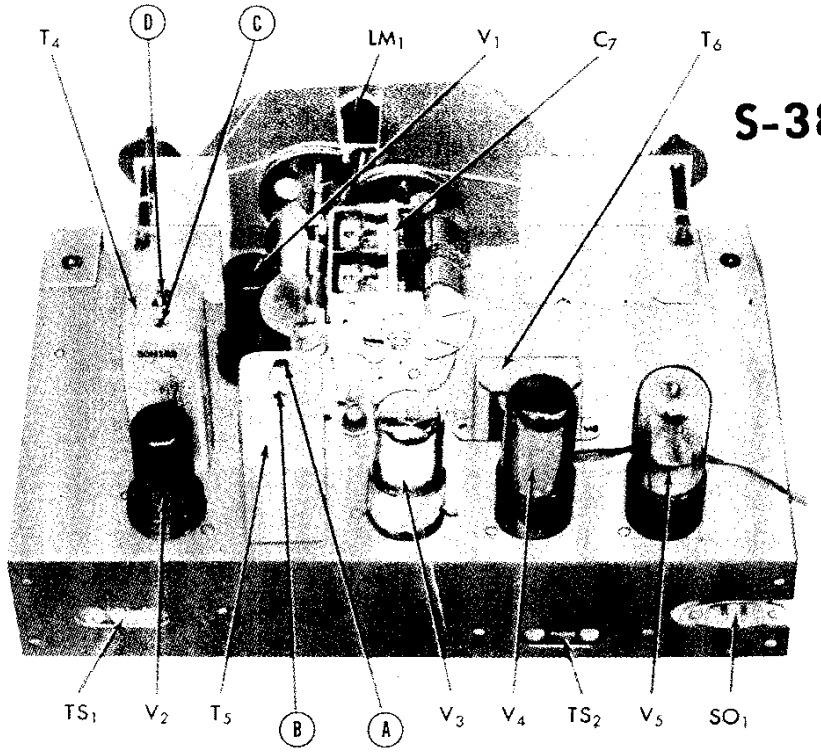


Fig. 2. Top view, alginment adjustments and component location

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MODELS S-38A, S-38B

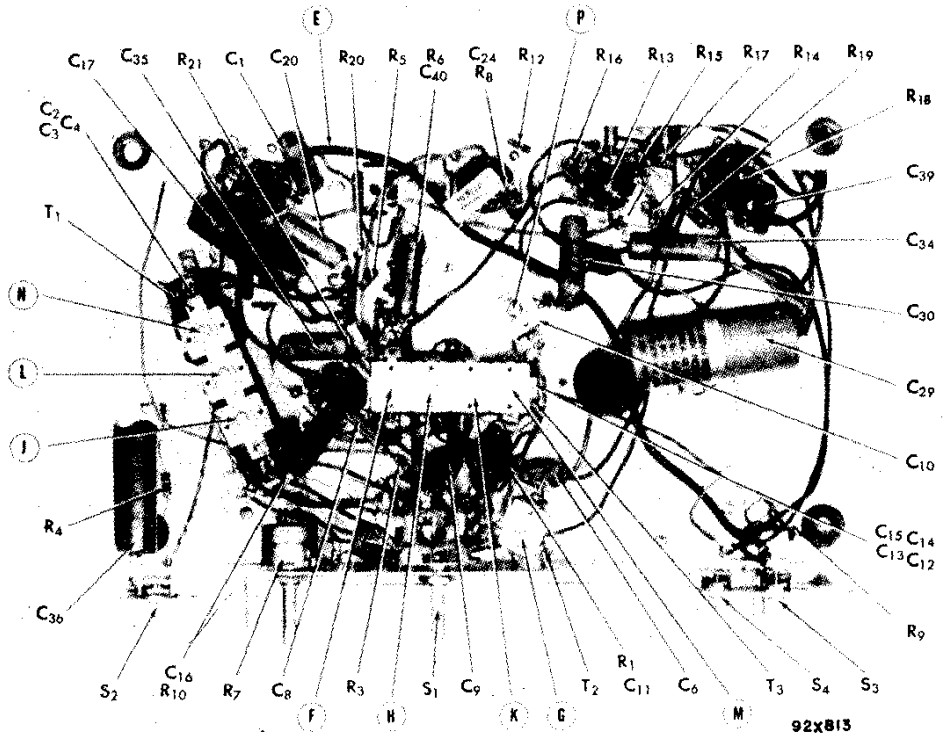


Fig. 3. Bottom view, alignment adjustments and component location

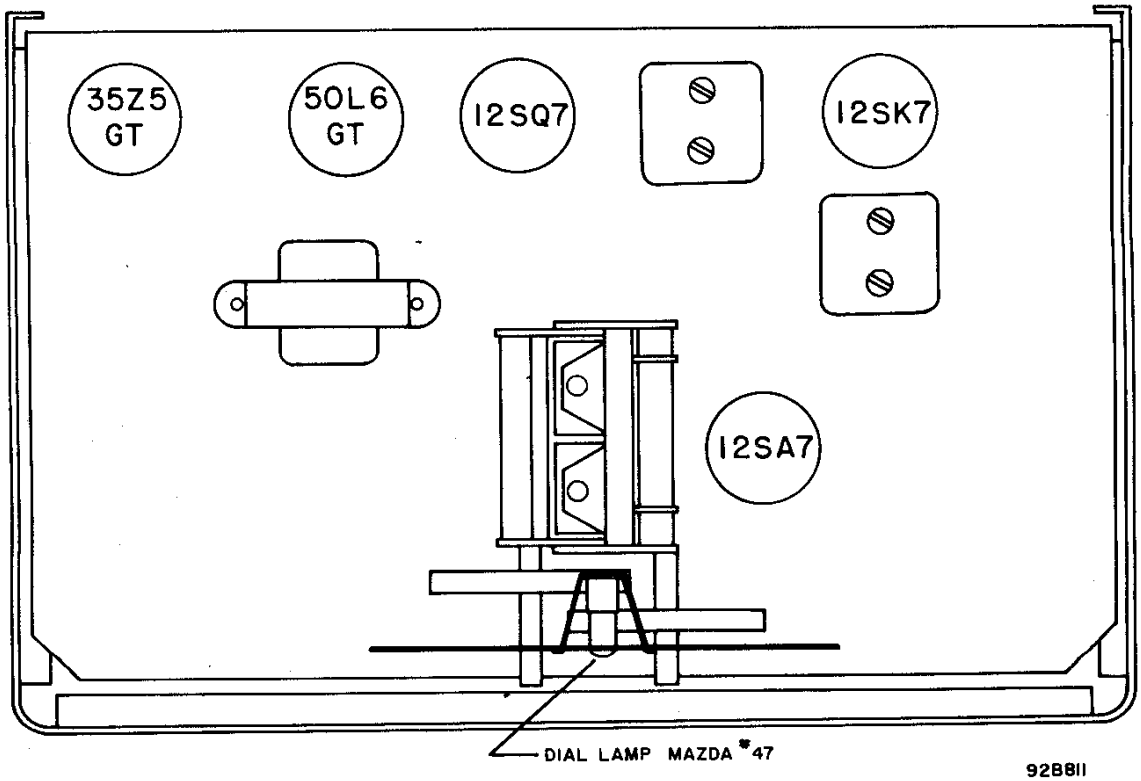


Fig. 4. Top view, location of tubes and dial lamps.

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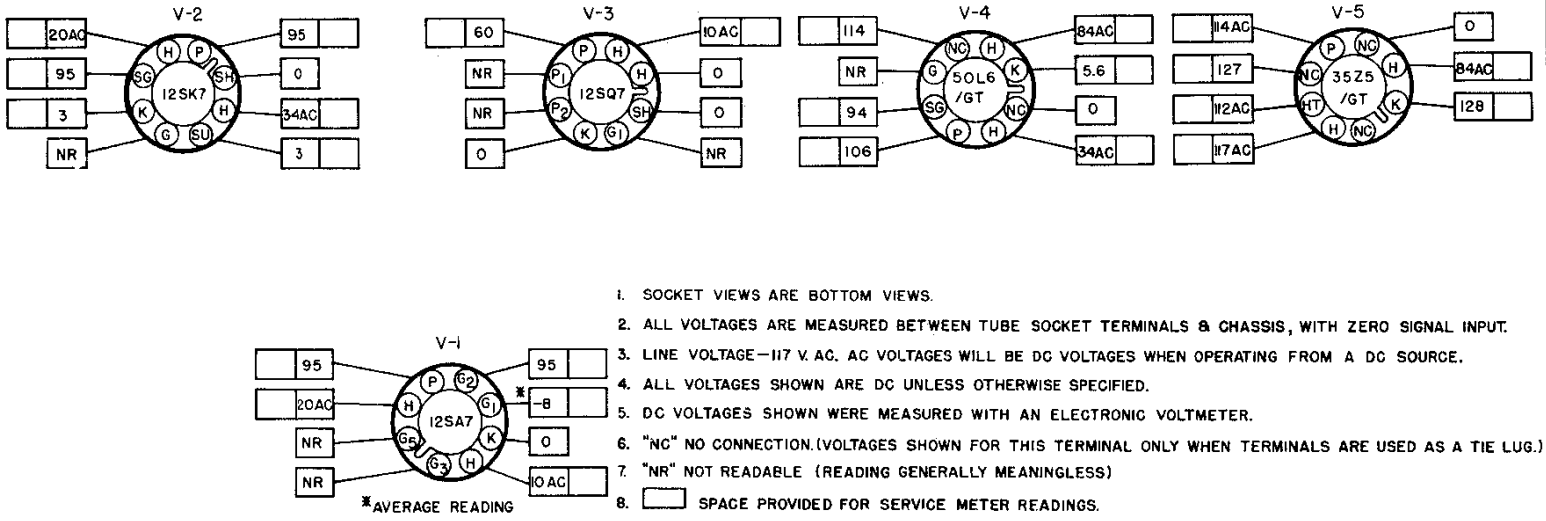


Fig. 5. Tube socket voltage chart.

RESTRINGING DIAL CORD

To restring the general coverage tuning dial cord cut a 14-inch length of 30 lb. test dial cord and tie one end to the tension spring at position "1" on the diagram. Follow the sequence "1" through "15", and at position "15" stretch the tension spring and tie the cord securely.

To restring the band spread tuning dial cord, cut a 16-inch length of dial cord and follow the procedure as above, starting at position "A" on the diagram. Note that the tuning drive shafts are wrapped with two and a fraction turns of dial cord for proper traction.

REPLACING LAMPS

Refer to Fig. 4, for the location of the dial lamp used in receiver. To gain access to the defective lamp, reach in through the rear of the cabinet (cover removed) and unclip the dial lamp socket by compressing the side springs. The socket may then be brought out into the open to change the defective lamp. Replace defective lamps with 6-8 V. Mazda #47 (Brown bead) lamps or equivalent.

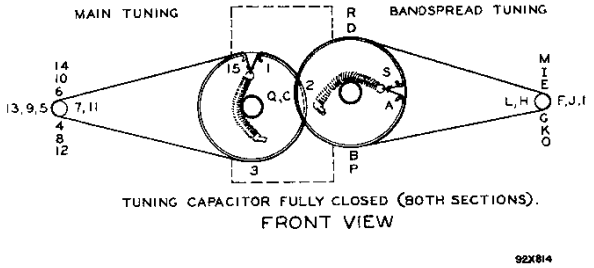
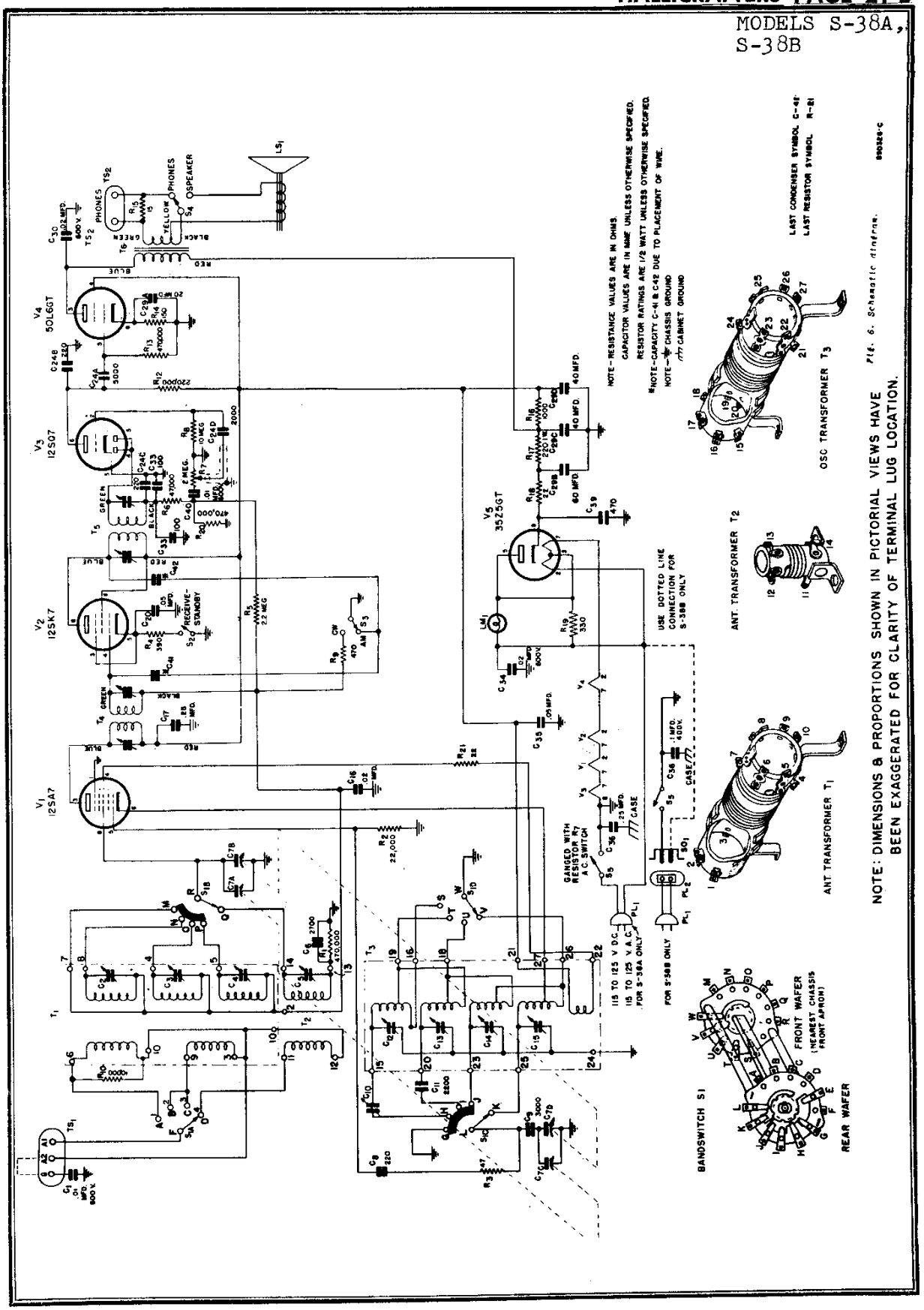


Fig. 1. Dial cable stringing procedure.

MODELS S-38A, S-38B



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MODELS S-38A, S-38B

SERVICE PARTS LIST

Ref. No.	Description	Manufacturer's Part Number
	CONDENSERS	
C-1,40	.01 mfd. 600 V., tubular	46AY103J
C-2,3,4	Trimmers, adjustable (Part of transformer T-1)	
C-5	Trimmer, adjustable (For transformer T-2)	44A039
C-6	2700 mmf 500 V, mica	47X30A272J
C-7	Tuning condenser, 2 sections	48C162-1
C-8	220 mmf 500 V, mica	47X20A221K
C-9	3000 mmf 500 V, mica	47X30A302J
C-10	Padder, adjustable (Band 1)	44A349
C-11	2200 mmf 500 V, mica	47X30A222J
C-12,13, 14,15	Trimmers, adjustable (Part of transformer T-3)	
C-16	.02 mfd 400 V, tubular	46AW203J
C-17	.25 mfd 200 V, tubular	46AT254J
C-20,35	.05 mfd. 200 V, tubular	46AU503J
C-24	Capacitor, composite; 5,000, 2X220, and 2000 mmf; 500 V.; ceramic	46A151
C-29	60-40-40 mfd 150 V, 20 mfd. 25 V, electrolytic	45B091
C-30,34	.02 mfd 600 V, tubular	46AY203J
C-33	100 mmf. 500 V, mica	47X20B101K
C-36	.1 mfd. 400 V., tubular	46AV104J
C-39	470 mmf 500 V, mica	CM20A471M
C-41,42	Wiring capacity	
	RESISTORS	
R-1,13,20	470,000 ohms 1/2 watt, carbon	23X20X474M
R-2	22,000 ohms 1/2 watt, carbon	23X20X223M
R-3	47 ohms 1/2 watt, carbon	23X20X470M
R-4	390 ohms 1/2 watt, carbon	23X20X391K
R-5	2.2 megohms 1/2 watt, carbon	23X20X225M
R-6	47,000 ohms 1/2 watt, carbon	23X20X473M
R-7	Resistor, variable; VOLUME control	25B896
R-8	10 megohms 1/2 watt, carbon	23X20X106M
R-9	470 ohms 1/2 watt, carbon	23X20X471K
R-10	10,000 ohms 1/2 watt, carbon	23X20X103M
R-12	220,000 ohms 1/2 watt, carbon	23X20X224M
R-14	150 ohms 1/2 watt, carbon	23X20X151K
R-15	15 ohms 1/2 watt, carbon	23X20X150M
R-16	1000 ohms 1/2 watt, carbon	23X20X102M
R-17	220 ohms 1 watt, carbon	23X30X221M
R-18,21	22 ohms 1/2 watt, carbon	23X20X220M
R-19	330 ohms 1/2 watt, carbon	23X20X221M
	TRANSFORMERS AND COILS	
T-1	Transformer, antenna stage, Bands 1, 2 and 3	51C821
T-2	Transformer, antenna stage, Band 4	51B1015
T-3	Transformer, oscillator stage, Bands 1, 2, 3 and 4	51C822
T-4	Transformer, i-f amp. stage	50B183
T-5	Transformer, i-f amp. stage (diode)	50B184
T-6	Transformer, audio output	55A127

Ref. No.	Description	Manufacturer's Part Number
	SWITCHES	
S-1	Bandswitch assembly	60C393
S-2	Switch, slide; RECEIVE-STANDBY	60A244
S-3,4	Switch, slide; SPST; AM-CW & SPEAKER-PHONES	60A243
S-5	Switch, power (Part of VOLUME control R-7)	
	CONNECTORS	
PL-1	Line cord (Includes PL-2)	87B1668-1
TS-1	Terminal strip, antenna	88A671
TS-2	Headset, jack	88A071
SO-1	Socket, a-c	10A286
	Socket, octal (tube)	6A250
	Socket, dial light	86A011
	TUBES, RECTIFIERS AND LAMPS	
V-1	Type 12SA7, mixer/oscillator	90X12SA7
V-2	Type 12SK7, i-f amplifier & BFO	90X12SK7
V-3	Type 12SQ7, detector & 1st audio amplifier	90X12SQ7
V-4	Type 50L6GT, audio power amplifier	90X50L6GT
V-6	Type 35Z5GT, rectifier	90X35Z5GT
LM-1	Lamp, dial light, Mazda #47	39A004
	CABINET PARTS	
	Clip, coil mtg (For transformer T-2)	76A362
	Shaft, main tuning	74A318
	Shaft, bandspread	74A319
	Washer, spring (for main tuning and bandspread drive shafts)	4A043
	Spring, retainer ("C" washer type)	75A062
	Dial cord	38A019
	Spring, dial cord	75A012
	Pointer, main tuning	82A177
	Pointer, bandspread tuning	82A103
	Dial scale	83C373
	Knob, VOLUME control and BAND SELECTOR	15A049
	Knob, TUNING and BAND-SPREAD	15A047
LS-1	Speaker, PM	85C030
	Baffle, speaker	78B198
	Cabinet back	8C1139
	Cabinet bottom	8C1140
	Mounting foot, rubber	16A007
	Window, dial	22B311

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