Courtesy Nostalgia Air

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TO THE SERVICE MAN:

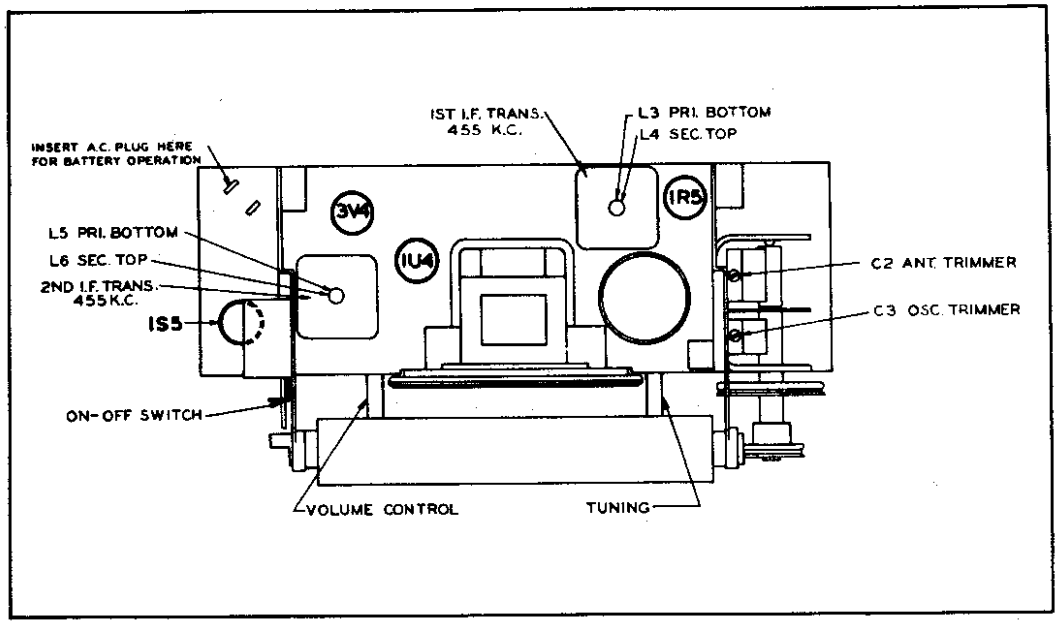
The 4F40 chassis is an AC, DC or battery operated superheterodyne. The chassis is isolated from the DC circuit, and all measurements must be made from a common negative point. The most convenient place to reach this negative point is the terminal strip to which C17 is connected. When the change over Switch S1 is in AC position, the DC resistance from chassis to any circuit must be almost infinite. If any circuit becomes grounded a hum will result. Microphonic tubes will cause audio howl. Check the 1R5 and 1S5.

The wavemagnet is connected to the chassis by two wires that pass through the hollow dial pivots. If the R.F. becomes weak or dead, check the D.C. resistance of the wavemagnet. This D.C. resistance should be approximately .9 ohm. If it is open check the wavemagnet.

IF Alignment: Remove the chassis from the cabinet and arrange the units so that the wavemagnet can be connected. All the connections and adjustments can be made from the top of the chassis. Connect a signal generator, through a .1 mfd. dummy antenna, to the converter grid and B - (common return). Connect an output meter across the voice coil of the speaker (two lugs provided). Set the signal generator to 455 Kc. and adjust L3, L4, L5 and L6 for maximum indication on the output meter. Always keep the signal output from the generator just high enough to get an indication, otherwise excessive loading may result.

RF Alignment: Connect a two turn loop across the leads of the signal generator, loosely couple this loop to the wavemagnet. Set the signal generator and the dial pointer of the receiver to 1600 Kc. and adjust C3 oscillator trimmer to resonance. Set the signal generator and dial pointer to 1400 and adjust C2 antenna trimmer to resonance. These trimmers are on the top of gang condenser. Check operation and re-install set in cabinet. Tune in a weak station near 1400 Kc. or use background noise and readjust antenna trimmer for maximum sensitivity.

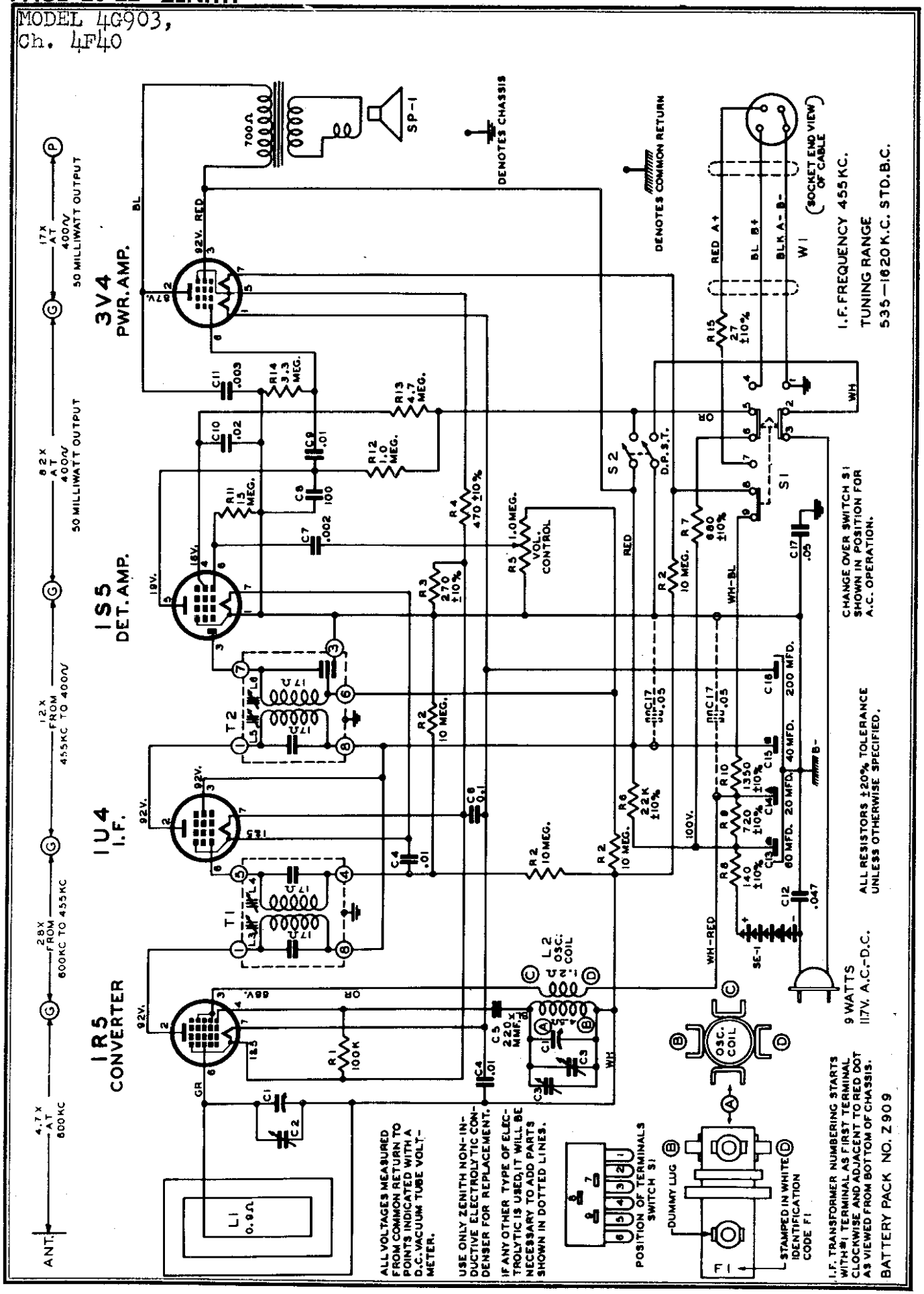
TUBE, TRIMMER LOCATION



ALIGNMENT PROCEDURE

OPERATION	CONNECT OSCILLATOR TO	DUMMY ANTENNA	INPUT SIG. FREQUENCY	BAND	SET DIAL TO	TRIMMERS	PURPOSE
1	Converter Grid	.1 Mfd	455 Kc.	BC	600 Kc.	L3,4, 5& 6	I.F. Alignment
2	Two turns loosely coupled to Wavemagnet		1600 Kc.	BC	1600 Kc.	Osc. Trim. C3	Set Oscillator to scale
3	Two turns loosely coupled to Wavemagnet		1400 Kc.	BC	1400 Kc.	Ant. Trim. C2	Align Wavemagnet

MODEL 4G903,
Ch. 4F40



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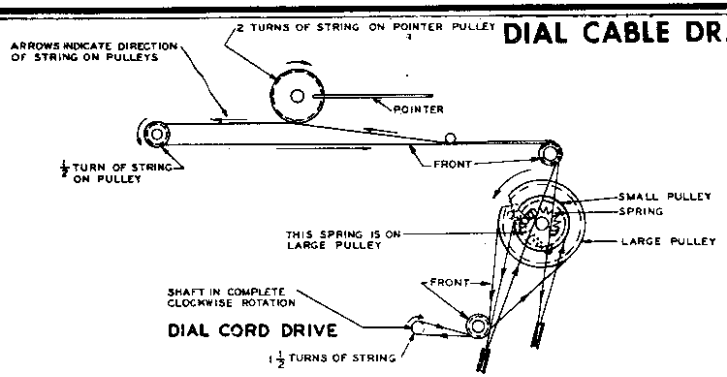
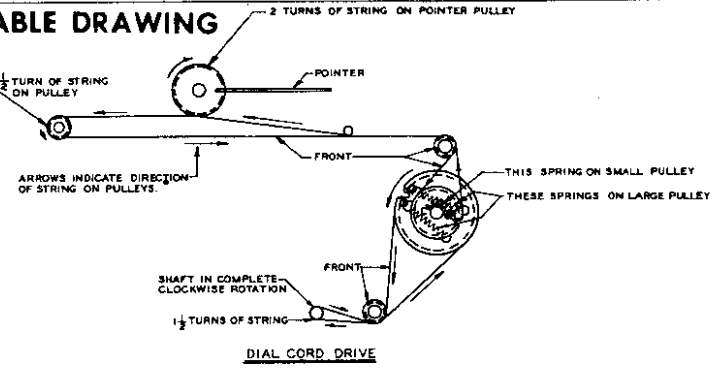
DIAL CABLE DRAWING



On receivers using Tuning Gang #22-2032, Dial String Assemblies #S-15440 (short) and #S-15441 (long) must be used.

DIAL CABLE DRAWING



On receivers using Tuning Gang #22-2108, Dial String Assemblies #S-15440 (short) and #S-16106 (long) must be used.

PARTS LIST

PART NO.	REF.NO.	DESCRIPTION	
		DIAL ASSEMBLY	
12-1554		Tuning Shaft Bracket	
26-420		Dial Scale	
46-785		Tuning & Vol. Control Knob (2 Used)	
57-1490		Emblem Plate	
57-1493		Trim Plate	
57-1513		Emblem Plate (Y Model only)	
57-1514		Trim Plate (Y Model only)	
76-540		Tuning Shaft	
80-209		Dial Cord Tension Spring (3 Used)	
93-978		Felt Washer (Used behind Pointer Assem.)	
188-32		Retaining Ring (Used on 76-540)	
S-15430		Pointer & Pulley Assem.	
S-15440		Dial Cord Assem. (Short)	
S-15441		Dial Cord Assem. (Long)	
S-16016		Dial Cord Assem. (Long)	
		COILS & CHOKES	
95-1132	T1	1st. I. F. Transformer	
95-1133	T2	2nd. I. F. "	
S-15429	L2	Osc. Coil Assem.	
		CONDENSERS	
22-3	C9	.01 Mfd. (Ceramic Disc.)	500V
22-182	C5	220 Mmfd. (Molded Mica)	500V
22-326	C11	.003 Mfd.	400V
22-492	C7	.002 "	600V
22-826	C4	.01 "	200V
22-827	C6	.1 "	200V
22-829	C17	.05 "	200V
22-1386	C10	.02 "	200V
22-1669	C8	100 Mmfd.	500V
22-1741	C13,14 15 & 16	Four Section Electrolytic	
22-1775	C12	.047 Mfd. (Molded) (or 22-1914)	400V
22-2032	C1	Two Section Gang	
22-2108	C1	Two Section Gang	
		RESISTORS	
63-1719	R15	27 Ohm 1/2W 10% Ins.	
63-1761	R3	270 " 1/2W 10% Ins.	
63-1771	R4	470 " 1/2W 10% Ins.	
63-1778	R7	680 " 1/2W 10% Ins.	
63-1841	R6	22K " 1/2W 10% Ins.	
63-1870	R1	100K Ohm 1/2W " "	
63-1912	R12	1 Meg Ohm 1/2W 20% Ins.	
63-1933	R14	3.3 Meg Ohm 1/2W 20% Ins.	
63-1940	R13	4.7 " " 1/2W 20% "	
63-1954	R2	10 " " 1/2W 20% "	
63-1961	R11	15 " " 1/2W 20% "	
63-1999	R8	140 Ohm 3W 10% (Zipohm) Ins. (or 63-2014)	
63-2010	R9,10	Two Section Candohm	
63-2013	R5	Volume Control	
		MISCELLANEOUS	
11-104		Line Cord & Plug	
12-1553		Chassis Mtg. Brkt. (2 Used)	
14-1103		Cabinet for 4G903 (Use S-15427)	
14-1103Y		Cabinet for 4G903Y (Use S-15631)	
15-51		Cable Socket Cap & Insulator	
19-99		Coil Mtg. Clip	
19-185		Speaker Baffle Retaining Clip (2 Used)	
24-481		Front Door	
24-482		On-Off Switch Cover	
24-495		Front Door (Y Model only)	
49-658	SP-1	4" P.M. Speaker 208-658 Cone & Voice Coil 206-658 Output Trans.	
54-30		#8-32 X 5/16" X 7/64" Hex Nut Steel N.P.	
54-34		#6-32 X 1/4" X 3/32 Hex Nut - Steel N.P. (Used on Rectifier)	
54-139		#3/8-32 X 9/16" Palnut-Type 9N Cad. Pl. (Used on Vol. Control)	
54-267		#6-32 X 5/16 Palnut Cad. Pl. (2 Used on I. F. Trans.)	
54-282		Spring Nut-Cad. Pl. (2 Used on Dial Scale & Pointer)	
54-283		Spring Nut Black Oxide (3 Used)	
54-284		Wavemagnet Lead Retaining Nut (2 Used)	
57-1480		Chassis Bottom Plate (Metal)	
57-1491		Latch Plate (Behind Latch)	
57-1494		Cabinet Reinforcing Plate	
61-71		Idler Pulley (6 Used)	
61-136		Idler Pulley (Black)	
64-288		Shoulder Rivet (2 Used on S-15595)	
64-290		Shoulder Rivet (1 Used on 61-71)	
64-303		Shoulder Rivet (1 Used on S-15433)	
78-274		Elect. Cond. Socket	
78-543		Battery Cable Socket (4 Contact)	
78-782		Miniature Tube Socket	
78-806		Miniature Tube Socket	
78-807		Miniature Tube Socket (2 Used)	
80-699		Latch Spring	
83-1600		Handle Strip (Slotted)	
83-1610		Wavemagnet Retaining Strip (2 Used)	
85-450	S1	Power Change-Over Switch	
85-451	S2	On-Off Switch	
94-472		Handle Mtg. Bushing (2 Used)	
112-761		#2 X 1/4" Phill. R.H.S.T. Type Z Steel N.P. (2 Used on Emblem Plate)	
113-18		#6-32 X 5/16 Hex. Hd. Slotted M.S. Steel Cad. Pl. Shakeprf. (2 Used on 85-450)	
113-23		#8-32 X 5/16 Hex Hd. Sl. M.S. Steel Cad. Pl. Int. Shakeprf. Lock (2 Used on S-15633)	
114-159		#6 X 1/4" Hex Hd. S.T. Screw Cad. Pl. (4 Used on S-15437)	
114-311		#6-32 X 1" Hex Hd. Slotted M.S. Steel N.P. (1 Used to Mt. Rectifier	
114-319		#8-32 X 11/16" Hex Hd. Slotted M.S. Steel Cad. Pl. (2 Used to Mt. Handle)	
147-156		Speaker Mtg. Spacer	
156-37		Door Latch	
156-38		Rear Cover Catch (2 Used-Black)	
156-39		Door Latch (Y Model only)	
166-44		Rubber Bumper (Speaker & Gang)	
192-124		Dial Glass	
199-115		Flexible Handle Sleeve (With Cardboard Strips)	
199-116		Paper Sleeve (Used on Wavemagnet Lead)	
202-689		Instruction Book	
212-5	SE-1	Selenium Rectifier (or 212-2)	
S-15427		Cabinet Front & Hinge Assem.	
S-15433		Support Brkt. & Idler Pulley Assem. (Gang & Door)	
S-15434		Wavemagnet Winding Assem.	
S-15438	W1	Battery Cable & Socket Assem.	
S-15473		Speaker Baffle & Grille Cloth Assem. (110-137)	
S-15548		Cabinet Rear Cover Assem.	
S-15549		Handle End Pieces Assem. (2 Used)	
S-15595		Brkt. & Idler Pulley Assem. (Lower)	
S-15631		Cabinet Front & Hinge Assem. (Y Model only)	
S-15632		Cabinet Rear Cover Assem. (Y Model only)	
S-15633		Handle End Pieces Assem. (Y Model only)	