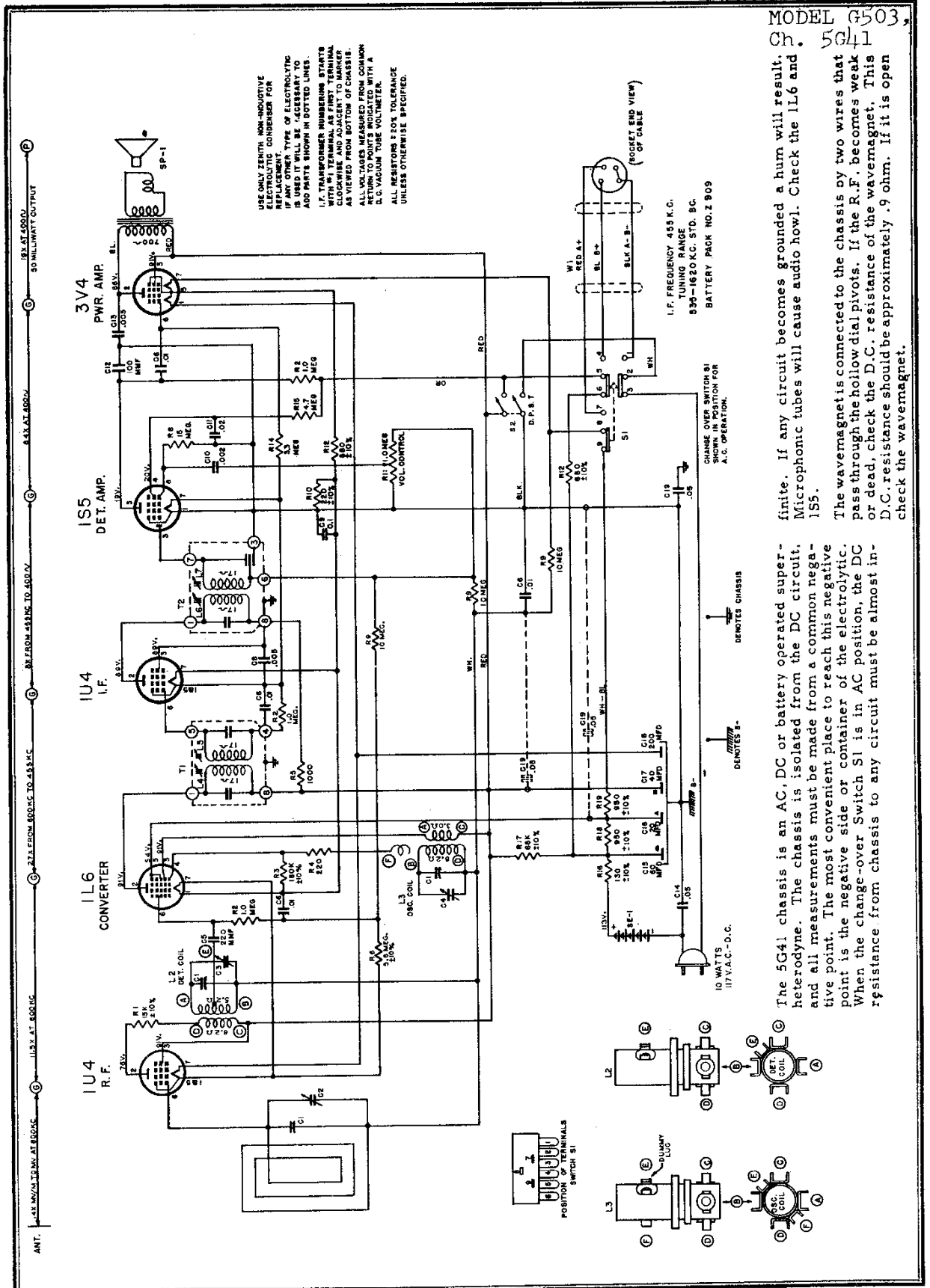


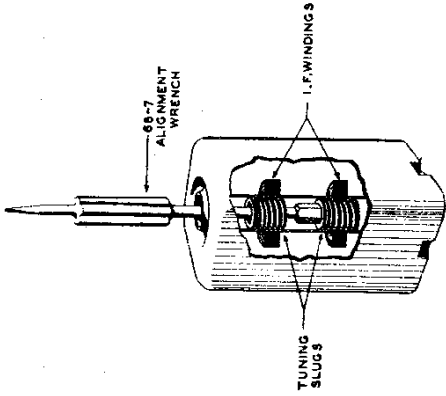
MODEL G503,
Ch. 5041

The 5G41 chassis is an AC, DC or battery operated super-heterodyne. 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 negative side or container of the electrolytic. 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 1L6 and 1S5.

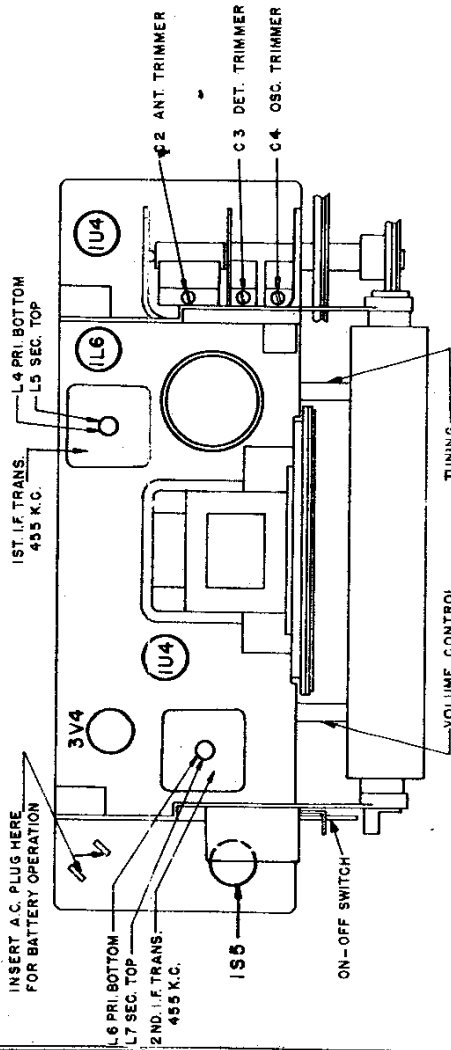
The wave magnet is connected to the chassis by two wires that pass through the hollow dial pivots. If the R.F. becomes weak or dead, check the D.C. resistance of the wave magnet. This D.C. resistance should be approximately .9 ohm. If it is open check the wave magnet.

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DETAILED VIEW OF I. F. TRANSFORMERS.



TUBE AND TRIMMER LOCATION

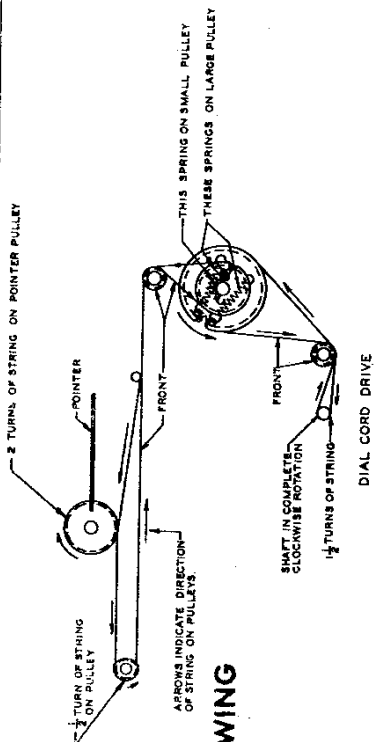


OPERATION	CONNECT OSCILLATOR TO ANTENNA	DUMMY INPUT FREQUENCY	BAND	SET DIAL TO	TRIMMERS	PURPOSE
1	Converter Grid	.1 Mfd	BC	600 Kc.	L4, 5, 6 & 7	I.F. Alignment
2	Two turns loosely coupled to Wavemagnet	1600 Kc.	BC	1600 Kc.	Osc. Trim. C4	Set Oscillator to scale
3	Two turns loosely coupled to Wavemagnet	1400 Kc.	BC	1400 Kc.	Ant. & Det. Trims C2 & C3	Align 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 L4, L5, L6, and L7 for the 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 C4 oscillator trimmer to resonance. Set the signal generator and dial pointer to 1400 and adjust C2 and C3 antenna detector trimmers 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 re-adjust antenna trimmer for maximum sensitivity.

The I.F. transformers incorporated in this receiver are of the new permeability tuned type. The advantage of an I.F. transformer of this type is its extreme stability under various humidity and temperature conditions. The upper coil is the secondary and the lower the primary. When adjusting these I.F. transformers the tuning wrench 68-7 can be inserted into the top slug, rotated until maximum output is obtained and then dropped down to the lower slug and the same operation repeated. The tuning wrench is so designed that turning one slug does not affect the adjustment of the other.



DIAL CABLE DRAWING

MODEL G503,
Ch. 5G41

PARTS LIST

Part No.	Ref. No.	Description	Part No.	Ref. No.	Description
DIAL ASSEMBLY			MISCELLANEOUS (Continued)		
12-1554		Tuning Shaft Bracket			
26-420		Dial Scale	36-42		Cabinet Handle (Y model only)
57-1630		Escutcheon (Y Model only)	36-43		Cabinet Handle
57-1631		Escutcheon	46-785		Tuning & Vol. Control Knob (2 used)
57-1632		Emblem Plate	49-658	SP-1	4" PM Speaker
57-1633		Emblem Plate (Y Model only)			208-658 Cone & Voice Coil
57-1634		Trim Plate			206-658 Output Trans.
59-225		Dial Pointer	54-34		#6-32 x 1/4" x 3/32 Hex. Nut Steel
76-540		Tuning Shaft			NP (Used on 212-10)
80-209		Dial Cord Tension Spring	54-139		#3/8-32 x 9/16" Palnut Type 9N Cad.
93-978		Felt Washer (2 used)			Pl. (used on 63-2013)
188-32		Retaining Ring (used on 76-540)	93-1004		Fibre Spacer Washer (2 used on ea.
S-15430		Pointer & Pulley Assembly			S-16711 & S-15977)
S-15440		Dial Cord Assembly (Short)	94-295		Gang Cond. Mtg. Bushing (3 used)
S-16106		Dial Cord Assembly (Long)	97-367		Handle Mtg. Stud
			112-800		#2 x 1/4" Phill. R.H.S.T. Screw Brass
					Plate (2 used on 57-1632)
			113-18		#6-32 x 5/16" Hex. Hd. Sl. M.S. Cad. Pl.
					(2 used on 85-450)
			114-26		#8 x 1/4" Hex. Hd. S.T. Screw Cad. Pl.
					(4 used on 57-1480)
			114-295		#8 x 5/16" Hex. Hd. Sl. S.T. Screw
					Shakeproof Cad. Pl. (4 used chassis mtg.)
			114-311		#6-32 x 1" Hex. Hd. Sl. M.S. Steel (used
					on 212-10)
			138-36		Cabinet Grille
			147-166		Speaker Mtg. Spacer (2 used)
			156-41		Door Latch
			166-44		Rubber Bumper (Speaker & Gang)
			192-132		Dial Glass
			202-804		Instruction Book
			212-10	SE-1	Selenium Rectifier
			S-15433		Support Brkt. & Idler Pulley Assy.
			S-15434		Wavemagnet Assembly
			S-15438		Battery Cable & Socket Assy.
			S-15977		Wavemagnet, Pulley & Sleeve Assy.
					(Y model only)
			S-16710		Speaker Baffle & Grill Cloth Assy.
			S-16711		Wavemagnet Pulley & Sleeve Assy.
			Z909		Battery
			54-267		#6-32 x 5/16" Palnut Cad. Pl. (1 ea.
					used on 95-1132 & 95-1133)
			54-282		Spring Nut Cad. Pl. (1 each used on
					26-420 & S-16711)
			54-283		Spring Nut Black Oxide (used on S-16711)
			54-284		Wavemagnet Lead Retaining Nut (2 used)
			54-307		Spring Nut (7 used on Esc. Mtg.)
			57-1480		Chassis Bottom Cover Plate
			57-1491		Latch Plate
			61-71		Idler Pulley (4 used)
			61-133		Pointer Pulley
			61-136		Idler Pulley
			64-290		Shoulder Rivet (used on 61-71)
			64-303		Shoulder Rivet (used on S-15433)
			70-158		#2 x 3/8" Phill. Oval Hd. W. S. Steel
					Black Oxide (3 used on Esc. Mtg.)
			70-159		#5 x 7/16 Phill. R. H. W. S. Steel N.P.
					(2 used on each 12-1433)
			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
			80-742		Door Catch Spring
			80-799		Latch Spring
			85-450		S1 Power Change Over Switch
			85-451		S2 On-Off Switch
			93-869		#6 Split Lockwasher (used on 212-10)
			93-1003		Brass Spacer Washer (used on S-16711
					& S-15977)
COILS & CHOKES					
95-1132	T1	1st IF Transformer			
95-1133	T2	2nd IF Transformer			
S-15811	L2	Detector Coil Assembly			
S-15812	L3	Oscillator Coil Assembly			
CONDENSERS					
22-3	C6	.01 Mfd. Ceramic (Disc)	500V		
22-182	C5	220 Mmfd. Mica (Molded)	500V		
22-229	C13	.005 Mfd.	600V		
22-319	C8	.005 Mfd.	200V		
22-492	C10	.002 Mfd.	600V		
22-827	C9	.1 Mfd.	200V		
22-829	C19	.05 Mfd.	200V		
22-1017	C14	.05 Mfd.	400V		
22-1386	C11	.02 Mfd.	200V		
22-1669	C12	100 Mmfd. Ceramic	500V		
22-1741	C15, 16,				
	17, 18	Four Section Elect. Cond.			
22-2070	C1	Three Section Gang Cond.			
RESISTORS					
63-1362	R18, 19	Two Section Candohm			
63-1757	R10	220 Ohm 1/2W 10% Ins. Res.			
63-1778	R12	680 Ohm 1/2W 10% Ins. Res.			
63-1758	R4	220 Ohm 1/2W 20% Ins. Res.			
63-1786	R5	1000 Ohm 1/2W 20% Ins. Res.			
63-1834	R1	15K Ohm 1/2W 10% Ins. Res.			
63-1862	R17	68K Ohm 1/2W 10% Ins. Res.			
63-1880	R3	180K Ohm 1/2W 10% Ins. Res.			
63-1912	R2	1 Megohm 1/2W 20% Ins. Res.			
63-1933	R14	3.3 Megohm 1/2W 20% Ins. Res.			
63-1940	R15	4.7 Megohm 1/2W 20% Ins. Res.			
63-1943	R6	5.6 Megohm 1/2W 10% Ins. Res.			
63-1954	R9	10 Megohm 1/2W 20% Ins. Res.			
63-1961	R8	15 Megohm 1/2W 20% Ins. Res.			
63-2013	R11	Volume Control 1.0 Meg.			
63-2018	R16	130 Ohm Zipohm 3W 10% Ins. Res.			
MISCELLANEOUS					
11-104		Line Cord & Plug Assembly			
12-1733		Chassis Mtg. Brkt.			
14-1230		Plastic Cabinet for G503			
14-1231		Plastic Cabinet for G503Y			
15-51		Cable Socket Cap & Insulator			
19-185		Speaker Baffle Retaining Clip (2 used)			
24-482		On-Off Switch Cover			
24-543		Front Door (Y model only)			
24-544		Front Door			

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