

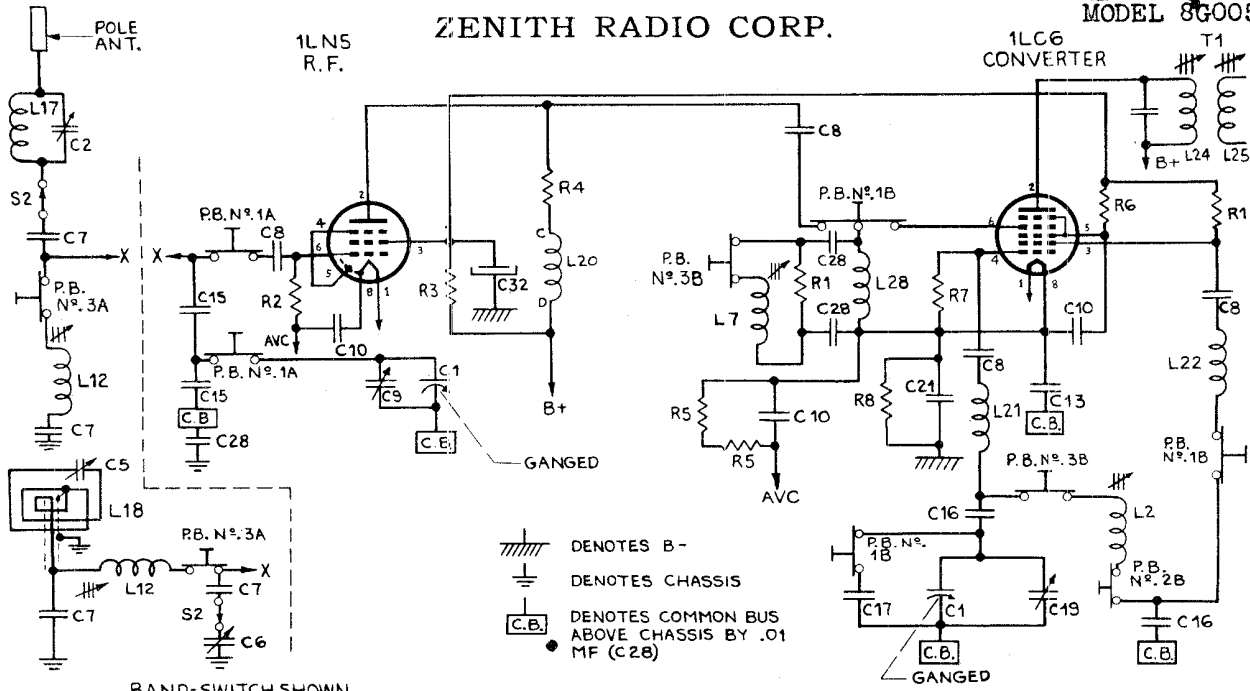
PUSHBUTTON SWITCH LABELED IA, IB, ETC. FOR REFERENCE TO CLARIFIED SCHEMATICS

MICROPHONICS: Howl caused by a microphonic 1LD5 tube. These tubes have been improved, and all tubes after F6E (June '46) are non-microphonic and should replace the older type.

"clarified schematics"

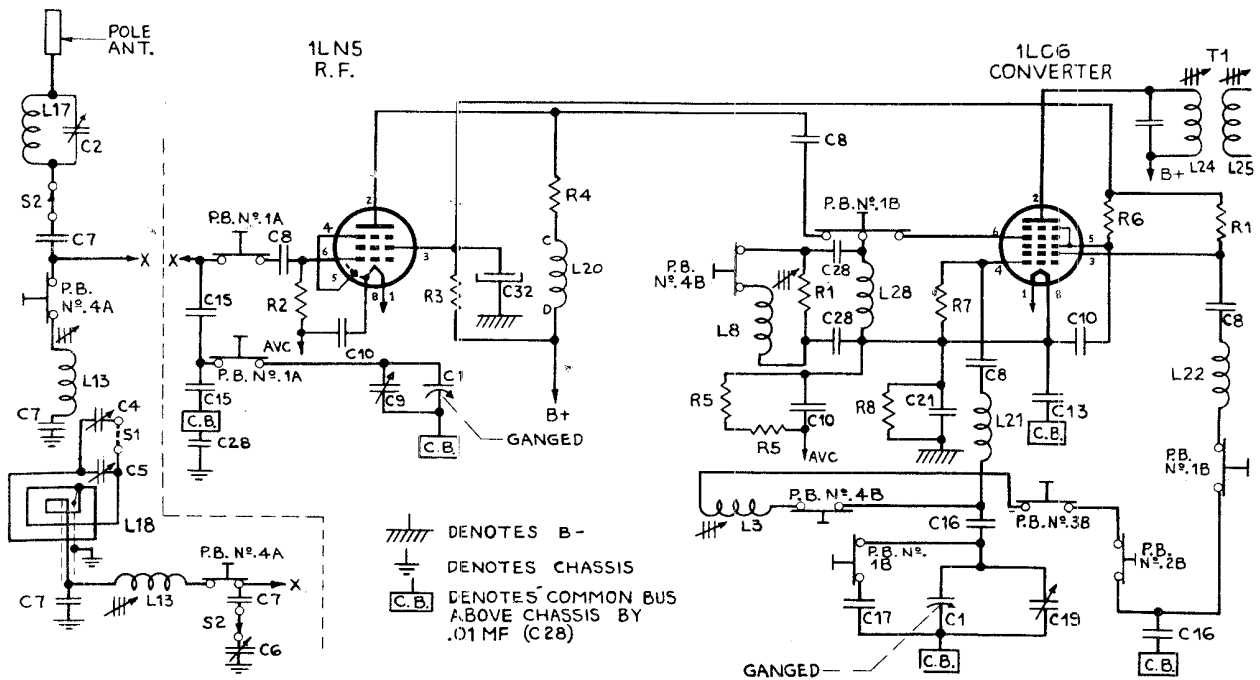
ZENITH RADIO CORP.

MODEL 8G005
MODEL 8G005BT



BAND-SWITCH SHOWN
WITH PUSHBUTTON N° 3 OF S3 DEPRESSED
19 METER BAND
15.0-15.6 MC.

NOTE: Where the pole antenna is not effective, such as on steel buildings, trains automobiles, etc., the shortwave wavemagnet is then used and placed in a corner of the window. The shortwave wavemagnet is equipped with a plug which, when inserted into the receptacle on the rear of the set, automatically disconnects the pole antenna by operating switch S2 in the circuit. It is simply pulled out and switch S2 then automatically reconnects the pole antenna.



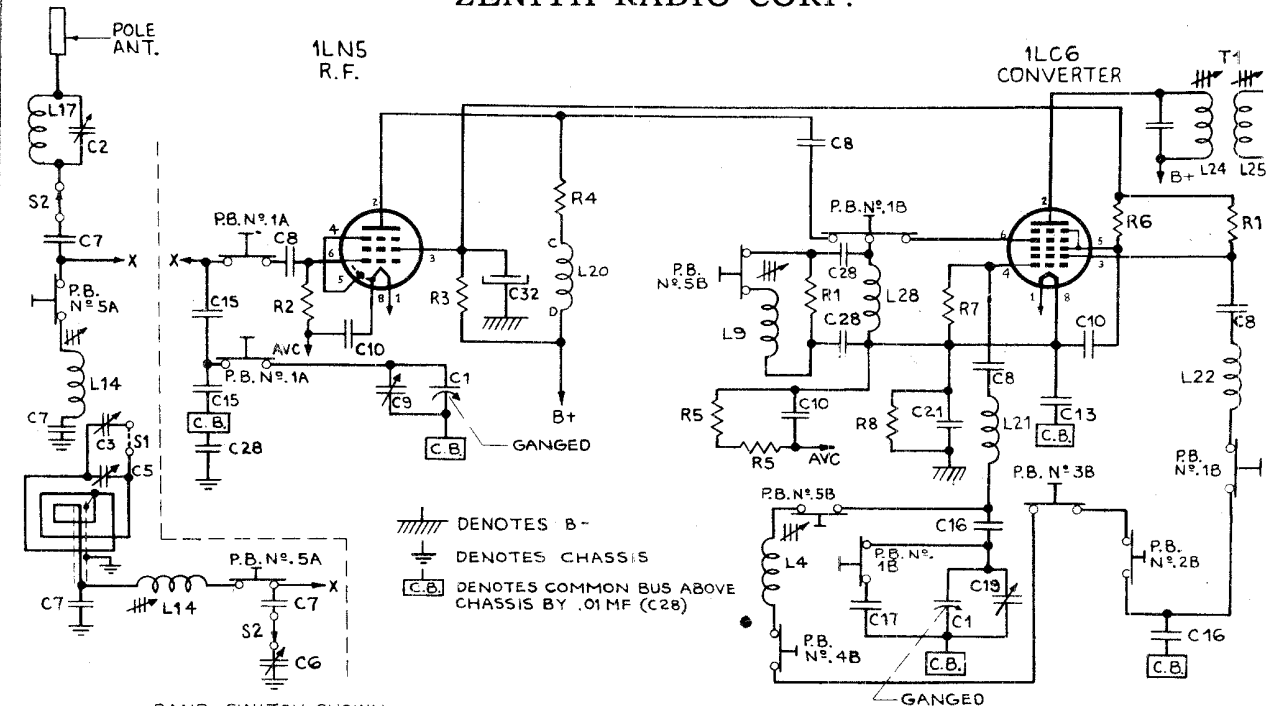
BAND-SWITCH SHOWN
WITH PUSHBUTTON N° 4 OF S3 DEPRESSED
25 METER BAND
11.6-12.1 MC.

"clarified schematics"

PAGE 15-66 ZENITH

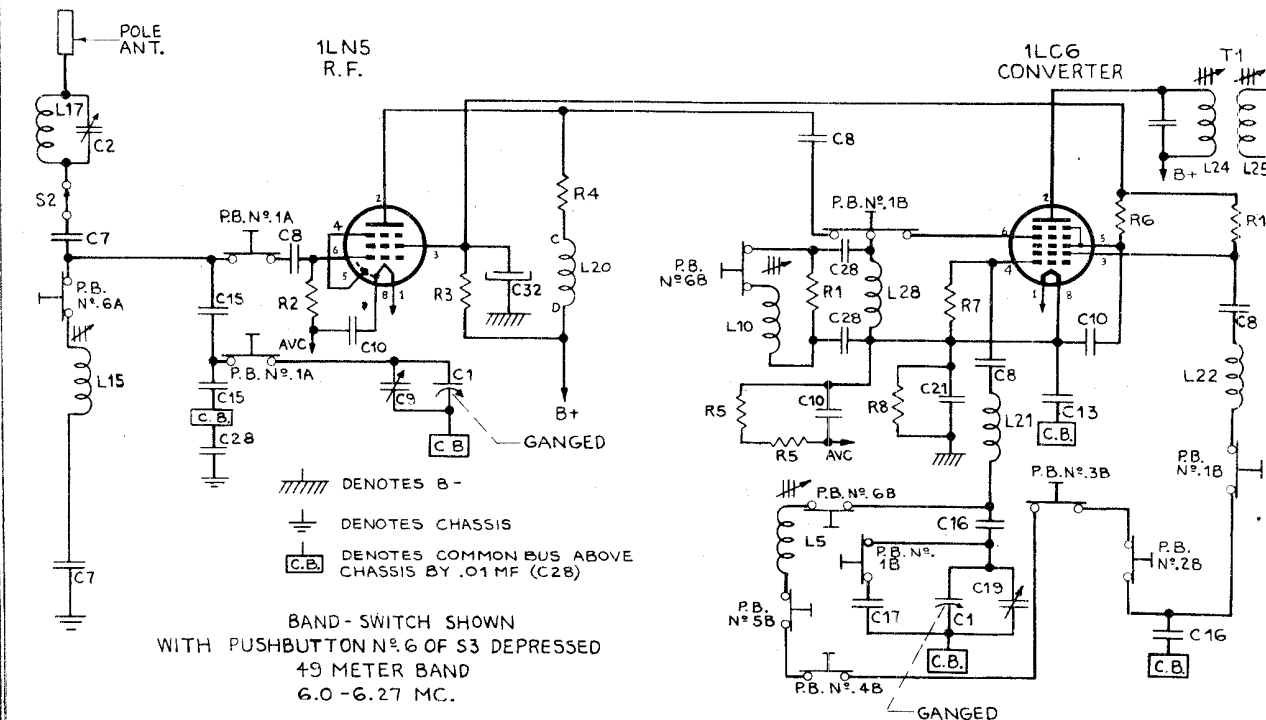
MODEL 8G005
MODEL 8G005BT

ZENITH RADIO CORP.



BAND-SWITCH SHOWN
WITH PUSHBUTTON N° 5 OF S3 DEPRESSED
31 METER BAND
9.4 - 9.9 MC.

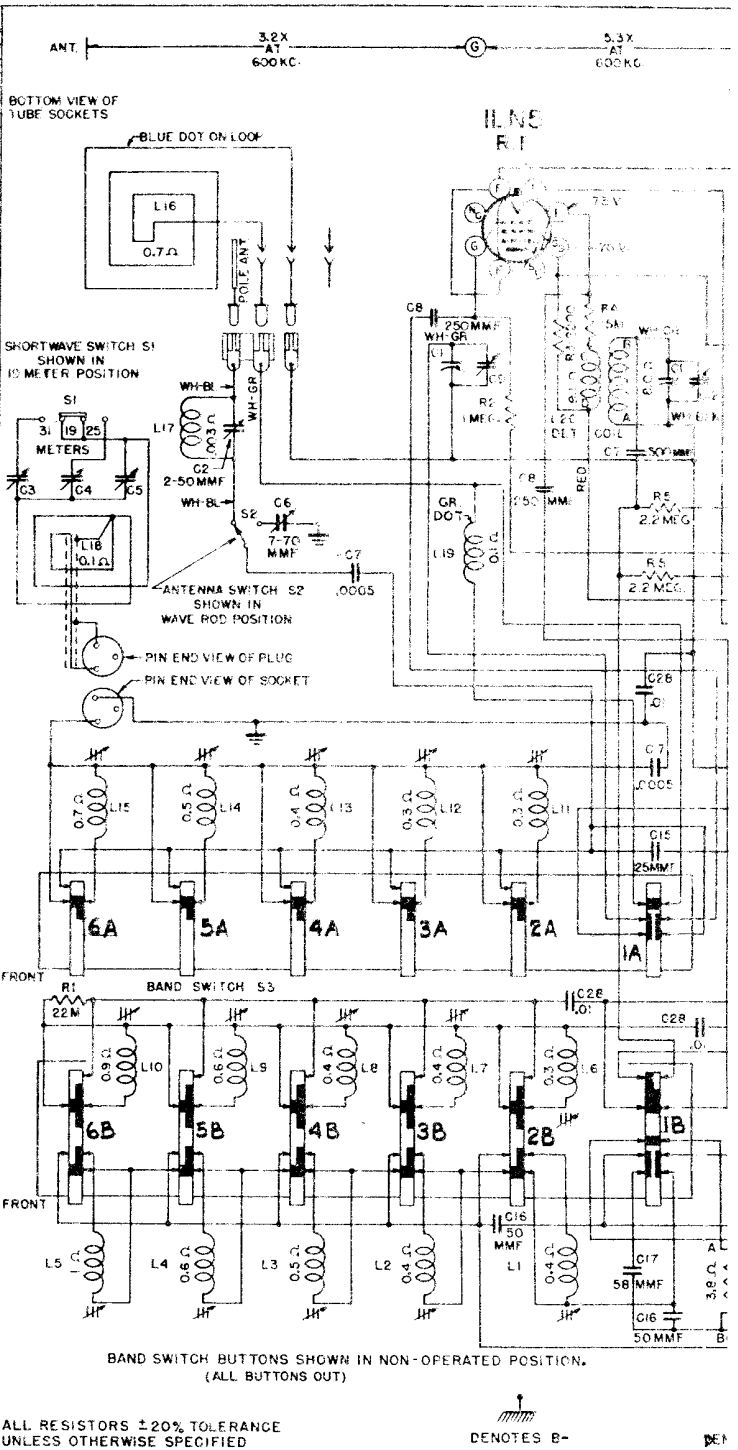
NOTE: Where the pole antenna is not effective, such as on steel buildings, trains, automobiles, etc., the shortwave wavemagnet is then used and placed in a corner of the window. The shortwave wavemagnet is equipped with a plug which, when inserted into the receptacle on the rear of the set, automatically disconnects the pole antenna by operating switch S2 in the circuit. It is simply pulled out and switch S2 then automatically reconnects the pole antenna.



BAND-SWITCH SHOWN
WITH PUSHBUTTON N° 6 OF S3 DEPRESSED
49 METER BAND
6.0 - 6.27 MC.

ZENITH RAD

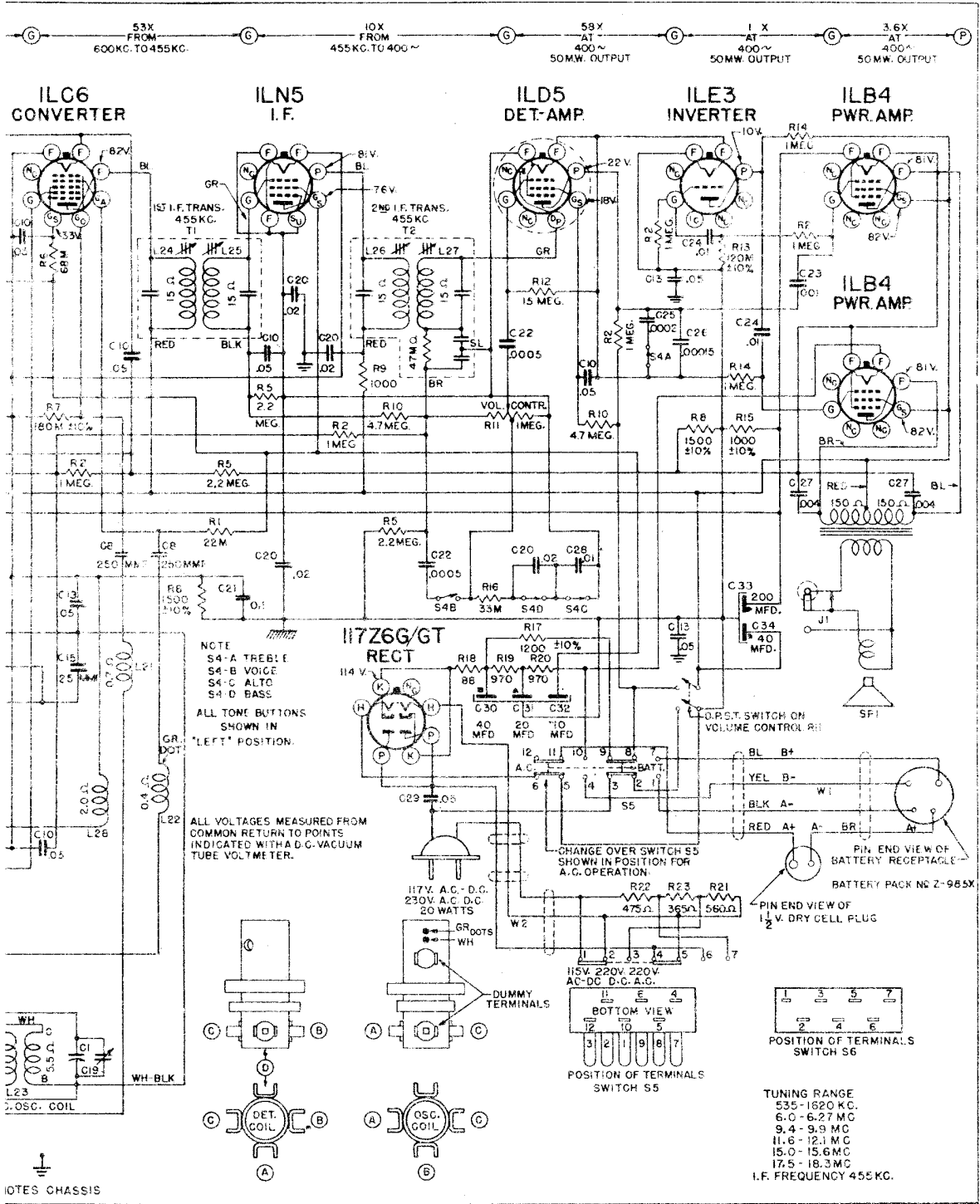
PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
28-325	Dial Scale	E2-1375	3 GANG VARIABLE
58-155	Dial Pointer	22-1425	ANT. WAVE TRAP TRIM.
58-156	"On-Off" Indicator	22-1425	51M SHORT WAVE ANT. TRIM.
58-157	"On-Off" Indicator	22-1395	25M
72-414	Turning Control Switch	22-1415	WAVE BOOSTER
80-209	Drive Control Transformer	22-1390	7-70 MMFD. TRIMMER
80-217	Transformer (Antenna 20 Mc)	22-1390	0.0005 MFD. 600 V.
108-32	Retaining Ring	22-1391	250 MMFD. 600 V.
5107-202	Drive Pulley & Rivet Assm. (10 Gang)	ON C1	BROADCAST ANT. TRIM.
11511204	Dial Drive Cord & Spring Assm.	22-817	0.5 MFD. 200 V.
11511205	Indicator Pulley Cord & Pulley Assm.	ON C1	BROADCAST DET. TRIM.
11511206	Indicator Drive Shaft & Pulley Assm.	22-1430	0.5 MFD. 200 V.
117511207	Indicator Lever & Housing Assm.	22-1392	25 MMFD. 500 V.
117511208	Indicator Lever & Housing Assm.	22-1393	50 MMFD. 500 V.
117511209	Indicator Lever & Housing Assm.	22-1394	58 MMFD. 500 V.
15-30	Antenna Cable Plug Cap	ON C1	BROADCAST OSC. TRIM.
49-517	Phone Jack	22-813	0.2 MFD. 200 V.
49-517	50" P. M. Shearer	22-820	1 MFD. 200 V.
206-817	Output Transformer	22-147	0.0005 MFD. 600 V.
206-817	Cone & Spring Coil	22-1065	0.01 MFD. 600 V.
73-8	Set Screw (Screw Drive Pulley)	22-811	0.1 MFD. 600 V.
78-221	Socket - Electrolytic	22-955	0.0005 MFD. 600 V.
78-289	Socket - Female Battery (112500)	22-810	0.0005 MFD. 600 V.
78-548	Socket - Female (112500)	22-800	0.004 MFD. 600 V.
78-549	Socket - Female (112500)	22-1437	0.1 MFD. 200 V.
78-549	Socket - Female (112500)	22-818	0.5 MFD. 400 V.
78-549	Socket - Female (112500)	ON C1	40 MMFD. ELECTRO. 150 V.
78-549	Socket - Female (112500)	22-1426	20 " " " 150 V.
78-549	Socket - Female (112500)	13	10 " " " 150 V.
78-549	Socket - Female (112500)	C3	200 " " " 150 V.
80-132	Tone Control Switch	22-1234	40 " " " 150 V.
85-131	Power Change - Over Switch		
118-02	Tube Shield		
118-90	Moist. COOT Cabinet (Last Lb. & 4" High Panel)		
63-271	500 OHM	1/4 W	
63-271	1 MEG OHM	1/4 W	
63-583	2200 OHM	1/4 W	
63-590	15 M OHM	1/4 W	
63-600	2.2 MEG OHM	1/4 W	
63-594	68 OHM	1/4 W	
63-604	180 M OHM	1/4 W	
63-645	1500 OHM	1/4 W	
63-583	1000 OHM	1/4 W	
63-602	4.7 MEG OHM	1/4 W	
63-1344	MEG VOL. CONTROL		
63-1093	1 MEG OHM	1/4 W	
63-721	100 M OHM	1/4 W	
63-742	1 MEG OHM	1/4 W	
63-234	1000 OHM	1/4 W	
63-592	33 M OHM	1/4 W	
63-1226	1200 OHM	1/4 W	
63-591	88 OHM	2 W	
63-243	570 OHM	2 W	
63-1396	970 OHM	3 W	
67-1822	BR2. SEE BELOW		
80-225	SHORT WAVE SWITCH		
80-355	ANTENNA SWITCH		
80-354	BAND SWITCH		
80-355	TOUR CONTROL SWITCH		
80-355	CHANGE OVER SWITCH		
90-312	100 OHM		
90-313	250 OHM		
24-17	PHONE JACK		
49-517	5/4 DYNAMIC SPEAKER		
810-107	18 MC OSC. COIL		
810-107	15 MC		
81-214	12 MC		
81-215	9 MC		
81-216	6 MC		
81-217	18 MC. DET. COIL		
81-218	15 MC		
81-219	12 MC		
81-220	9 MC		
81-221	6 MC		
81-222	18 MC ANT. COIL		
81-223	15 MC		
81-224	12 MC		
81-225	9 MC		
81-226	6 MC		
81-226	BROADCAST WAVEMAGNET		
81-221	WAVE TRAP COIL		
81-222	SHORT WAVE WAVEMAGNET		
81-223	ANT. LOADING COIL		
81-224	DETECTOR COIL		
81-225	R. F. CHOKE		
81-226	R. F. CHOKE		
81-221	B. C. OSC.		
ON T1	100 OHM		
ON T1	100 OHM		
ON T1	250 OHM		
ON T1	250 OHM		
ON T1	R. F. CHOKE		
ON T1	R. F. CHOKE		
ON T1	BATTERY CABLE		
ON T1	BRACKET & CABLE ASSEM.		
83-380	LINE VOLTAGE SWITCH		
83-1443	560 OHM	3 W.	
83-1444	470 OHM	15 W.	
83-1444	360 OHM	8 W.	



PUSHBUTTON SWITCH LABELED
1A, 1B, ETC. FOR REFERENCE TO
CLARIFIED SCHEMATICS

**MODEL
CHASSIS**

IO CORP.



NOTES CHASSIS

8G005BT
8C40BT

ZENITH RADIO CORP.

MODELS 8G005,
8G005BTMODELS 8G005, 8G005BT
CHASSIS 8C40, 8C40BT

TO THE SERVICE MAN:

CAUTION—Before attempting to operate this receiver, make certain that the Line Voltage Switch is properly set.

1. For 110-125 V. AC or DC operation set the Line Voltage Switch to 115 V. AC-DC.
2. For 210-240 V. AC operation, set the switch to the 220 V. AC position.
3. For 210-240 V. DC operation, set the switch to the 220 V. DC position.

The 8C40BT chassis is an AC, DC or battery operated superheterodyne circuit with a stage of tuned radio frequency amplification and band spread tuning over the 49, 31, 25, 19, and 16 meter bands.

The audio amplifier used in chassis 8C40BT features phase inversion and push-pull power output.

If removal of the chassis from the cabinet becomes necessary, great care must be exercised so that the coil assembly is not damaged.

The 8C40BT chassis is isolated from the DC circuits, and all measurements must be from a common negative point. The most convenient place to reach this point is at the junction where C13 is connected to the filter condenser. The DC resistance from the chassis to any circuit must be almost infinite. If any circuit becomes grounded to the chassis, a hum will appear. Microphonic tubes will cause an audio howl. Check the 1LD5 and 1LC6 tubes.

The wavemagnet is connected to the chassis through the hinges in the cabinet, snaps and flexible leads. If the RF becomes weak or dead, check resistance of wavemagnet at the condenser gang. The DC resistance across the two leads should be approximately 1 ohm. If the circuit is open, unscrew the four wood screws and the two screws which hold the handle. The top can now be removed and connecting leads will be visible for inspection. Also loosen the snap-on socket and check for broken or shorted leads.

The alignment of chassis 8C40BT is conventional. However, care must be exercised when making adjustments, and the alignment procedure must be followed exactly. Set the chassis over a metal plate approximately the same distance the battery pack is from the bottom of the chassis when it is in the cabinet. This procedure will introduce the approximate amount of metal in the field of the RF and oscillator cells as when the chassis is in the cabinet. A signal generator of reasonable accuracy and good attenuation must be used. An output meter (AC) of the copper oxide rectified type with a range of 1 to 30 volts in several steps is necessary to get accurate output readings. Alignment wrenches should be of the non-metallic type, especially when making adjustments at the higher frequencies.

When reinstalling the chassis in the cabinet be careful not to disturb the cabling between the short wave coil assembly and chassis. Tune in a weak broadcast signal near 1400 Kc., and touch up trimmer C9. This will insure maximum performance after alignment.

A LOS MECANICOS

PRECAUCION: Antes de empezar el funcionamiento de este receptor, cerciórese de que el interruptor del Voltaje de la línea esté debidamente ajustado.

1. Para corriente de 110-125 voltios, corriente continua o corriente alterna, ajústese el interruptor del Voltaje de la Línea a 115 voltios C.C. o C.A.

2. Para corriente de 210-240 v. C.A., ajústese el interruptor a 220 v. C.A.

3. Para corriente de 210-240 v. C.C., ajústese el interruptor en la posición de 220 v. C.C. El bastidor 8C40BT es un circuito superheterodino que funciona por corriente alterna o corriente continua o por batería de acumuladores con una etapa de amplificación de radio-frecuencia sintonizada y un ensanche de banda que sintoniza con las bandas de 49, 31, 25, y 16 metros.

La válvula amplificadora de audofrecuencia que se usa en el bastidor 8C40BT da importancia a la inversión de fases y a la salida simétrica de la energía.

Si se hace necesario quitar el bastidor del armario, deberá ejercerse gran cuidado para evitar que se dañe el embobinado.

El bastidor 8C40BT está aislado de los circuitos de corriente continua, y todas las medidas deben hacerse desde un punto negativo común. El lugar más conveniente para alcanzar este punto está en la unión donde C13 está conectado al condensador del filtro. La resistencia de la corriente continua procedente del bastidor a cualquier circuito deberá ser casi infinita. Si uno de los circuitos está a masa (cortocircuito) con el bastidor, se oirá un zumbido. Las válvulas microfónicas producirán un zumbido de audio. Examine las válvulas 1LD5 y 1LC6.

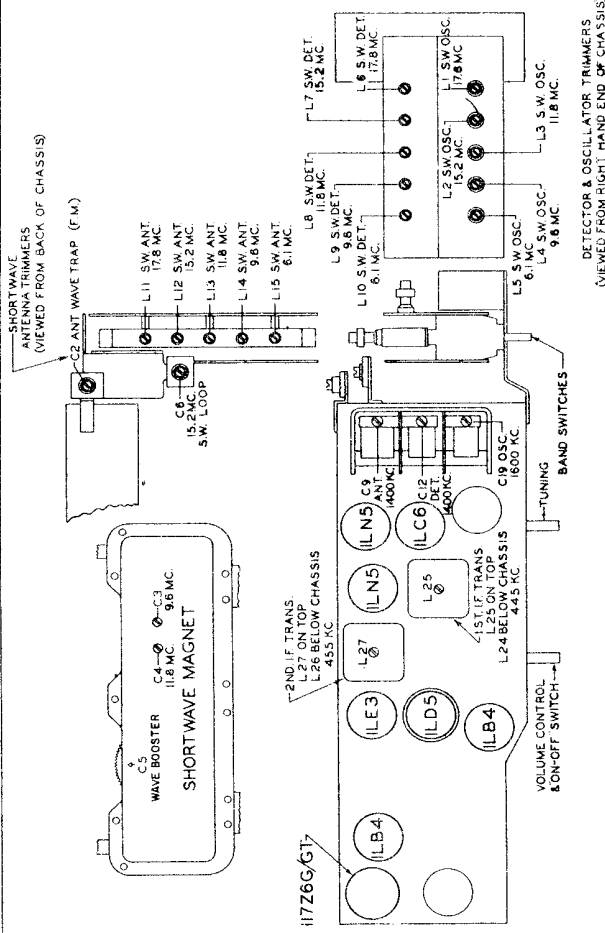
El imán de ondas está conectado al bastidor por medio de las bisagras en el armario, garras, y conductores (plomos) flexibles. Si la energía radiofrecuente se debilita o no existe, inspecciónese la resistencia del imán de ondas en el múltiple del condensador. La resistencia de la C.C. a través de los dos conductores (plomos) deberá ser aproximadamente de 1 ohm. Si el circuito está abierto, añáñense los cuatro tornillos de madera y los dos tornillos que sostienen el mango. Ahora, la tapa se puede quitar, quedando visibles para su inspección los conductores conectadores. Añáñese también el casquillo de resorte y exáminese para ver si hay conductores rotos o un cortocircuito.

El alineamiento del armazón 8C40BT es convencional; sin embargo, debe tenerse cuidado al hacerse ajustes o composuras, y es imperativo hacer el alineamiento siguiendo el procedimiento exactamente. Colóquese el armazón sobre una plancha de metal aproximadamente a la misma distancia que el paquete de los acumuladores está del armazón cuando ésta está en el armario. Este procedimiento introducirá en el campo de las bobinas de R.F. y del oscilador la cantidad aproximada de metal que hay cuando el armazón está en el armario. Hay que usar un generador de señales que funcione con exactitud y buena atenuación. Se necesita un medidor de rendimiento de C.A. del tipo rectificad de óxido de cobre, con una amplitud de 1 a 30 voltios en varias etapas, para obtener medidas correctas del rendimiento. Hay que usar llaves de alineamiento que no sean de metal, especialmente cuando se hagan ajustes o reparaciones en las frecuencias altas.

Cuando se instale otra vez el armazón en el armario, téngase cuidado de no desarrugar la posición de los cables que se extienden entre el conjunto de la bobina de onda corta y el armazón. Sintonícese con una señal de radiodifusión débil cerca de 1400 Kc., y tóquese la pieza C9 (trimmer). Así se obtendrá en funcionamiento máximo después del alineamiento.

MODELS 8G005,
8G005BT

ZENITH RADIO CORP.



ALIGNMENT PROCEDURE

OPERATION	CONNECT OSCILLATOR TO	DUMMY ANTENNA	INPUT SIG. FREQUENCY	BAND	SET DIAL AT	TRIMMERS	PURPOSE
1	Converter Grid (Pin 6-11C6)	.1 mfd.	455 Kc.	BC	600 Kc.	L-24, 25, 26, 27	Align I.F.
2			1600 Kc.	BC	1600 Kc.	C-19	Set Oscillator to Scale
3	One Turn Loop Coupled Loosely to Broadcast Wavemagnet		1400 Kc.	BC	1400 Kc.	C-12	Alignment of Detector Sac.
4			1400 Kc.	BC	1400 Kc.	C-9	Alignment of B.C. Wavemagnet
5*	3 Feet of Wire Approx. 1 foot from Extended Wavered		6.1 Mc.	49 Met.	6.1 Mc.	L-5, L-10, L-15	Alignment of S.W. Antenna, Detector and Oscillator
6*			9.6 Mc.	31 Met.	9.6 Mc.	L-4, L-9, L-14	
7*			11.8 Mc.	25 Met.	11.8 Mc.	L-3, L-8, L-13	
8*			15.2 Mc.	19 Met.	15.2 Mc.	L-2, L-7, L-12	
9*			17.8 Mc.	16 Met.	17.8 Mc.	L-1, L-6, L-11	
10			15.2 Mc.	19 Met.	15.2 Mc.	C-5, C-6	Alignment of Shortwave Magnet
11	One Turn Loop Coupled Loosely to Shortwave Magnet, Wavered Collapsed		11.8 Mc.	25 Met.	11.8 Mc.	C-4	
12			9.6 Mc.	31 Met.	9.6 Mc.	C-3	
13	When Receiving Normal Transmission on the 49, 31, 25, 19 or 16 Meter Bands, if FM Interference is Experienced Adjust Wave Trap Trimmer C-2 for Minimum Response of the Interfering Signal.						

*Note: Rock Tuning Condenser When Making Alignment Under Operations 5, 6, 7, 8 and 9.