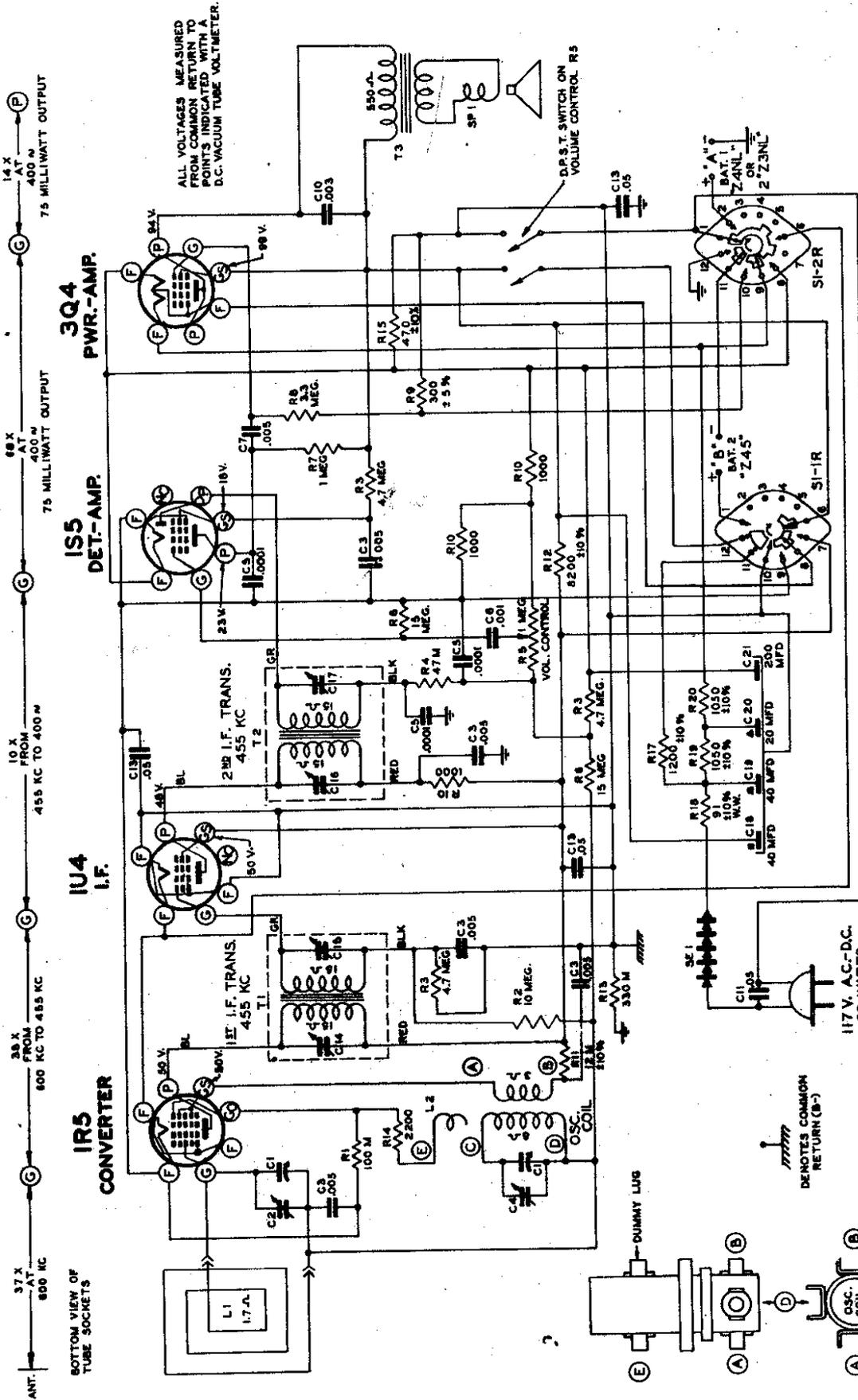


ZENITH RADIO CORP.

MODEL 4G800
Chassis 4E41



ANT. 37 X AT 800 KC
 10 X FROM 455 KC TO 400 M
 69 X AT 400 M
 75 MILLIWATT OUTPUT
 14 X AT 400 M
 75 MILLIWATT OUTPUT

IR5 CONVERTER
 IU4 I.F.
 2 I.F. TRANS. 455 KC
 IS5 DET.-AMP.
 3Q4 PWR.-AMP.

ALL VOLTAGES MEASURED FROM COMMON RETURN TO POINTS INDICATED WITH A D.C. VACUUM TUBE VOLTMETER.

117V. AC-DC. 20 WATTS
 D.P.S.T. SWITCH ON VOLUME CONTROL R5
 CHANGE-OVER SWITCH S1 SHOWN IN POSITION FOR A.C.-D.C. OPERATION.

RESISTOR VALUES:
 R1 100 M, R2 10 MEG, R3 550 Ω, R4 4.7 M, R5 1 MEG, R6 15 MEG, R7 1 MEG, R8 3.3 MEG, R9 300 Ω, R10 1000 Ω, R11 330 M, R12 310 Ω, R13 330 M, R14 2200 Ω, R15 470 Ω, R16 4.7 M, R17 1200 Ω, R18 9 Ω, R19 1050 Ω, R20 1050 Ω, R21 4.7 M, R22 310 Ω, R23 310 Ω, R24 310 Ω, R25 310 Ω, R26 310 Ω, R27 310 Ω, R28 310 Ω, R29 310 Ω, R30 310 Ω, R31 310 Ω, R32 310 Ω, R33 310 Ω, R34 310 Ω, R35 310 Ω, R36 310 Ω, R37 310 Ω, R38 310 Ω, R39 310 Ω, R40 310 Ω, R41 310 Ω, R42 310 Ω, R43 310 Ω, R44 310 Ω, R45 310 Ω, R46 310 Ω, R47 310 Ω, R48 310 Ω, R49 310 Ω, R50 310 Ω, R51 310 Ω, R52 310 Ω, R53 310 Ω, R54 310 Ω, R55 310 Ω, R56 310 Ω, R57 310 Ω, R58 310 Ω, R59 310 Ω, R60 310 Ω, R61 310 Ω, R62 310 Ω, R63 310 Ω, R64 310 Ω, R65 310 Ω, R66 310 Ω, R67 310 Ω, R68 310 Ω, R69 310 Ω, R70 310 Ω, R71 310 Ω, R72 310 Ω, R73 310 Ω, R74 310 Ω, R75 310 Ω, R76 310 Ω, R77 310 Ω, R78 310 Ω, R79 310 Ω, R80 310 Ω, R81 310 Ω, R82 310 Ω, R83 310 Ω, R84 310 Ω, R85 310 Ω, R86 310 Ω, R87 310 Ω, R88 310 Ω, R89 310 Ω, R90 310 Ω, R91 310 Ω, R92 310 Ω, R93 310 Ω, R94 310 Ω, R95 310 Ω, R96 310 Ω, R97 310 Ω, R98 310 Ω, R99 310 Ω, R100 310 Ω

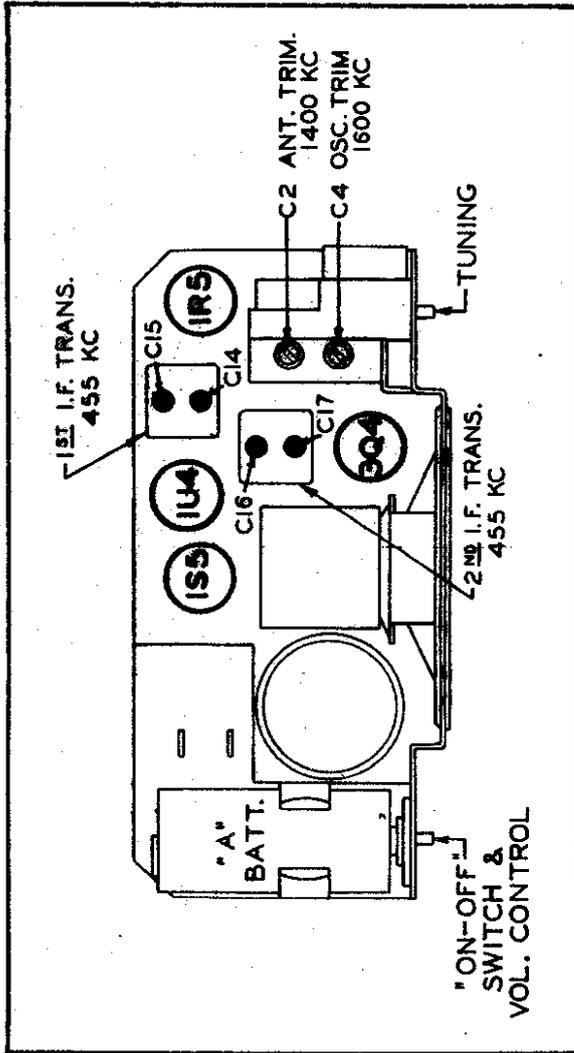
CAPACITOR VALUES:
 C1 100 μF, C2 200 μF, C3 0.005 μF, C4 0.001 μF, C5 0.005 μF, C6 0.005 μF, C7 0.005 μF, C8 0.001 μF, C9 0.001 μF, C10 0.003 μF, C11 20 MFD, C12 500 μF, C13 0.05 μF, C14 0.005 μF, C15 0.005 μF, C16 0.005 μF, C17 0.005 μF, C18 40 MFD, C19 40 MFD, C20 20 MFD, C21 20 MFD, C22 20 MFD, C23 20 MFD, C24 20 MFD, C25 20 MFD, C26 20 MFD, C27 20 MFD, C28 20 MFD, C29 20 MFD, C30 20 MFD, C31 20 MFD, C32 20 MFD, C33 20 MFD, C34 20 MFD, C35 20 MFD, C36 20 MFD, C37 20 MFD, C38 20 MFD, C39 20 MFD, C40 20 MFD, C41 20 MFD, C42 20 MFD, C43 20 MFD, C44 20 MFD, C45 20 MFD, C46 20 MFD, C47 20 MFD, C48 20 MFD, C49 20 MFD, C50 20 MFD, C51 20 MFD, C52 20 MFD, C53 20 MFD, C54 20 MFD, C55 20 MFD, C56 20 MFD, C57 20 MFD, C58 20 MFD, C59 20 MFD, C60 20 MFD, C61 20 MFD, C62 20 MFD, C63 20 MFD, C64 20 MFD, C65 20 MFD, C66 20 MFD, C67 20 MFD, C68 20 MFD, C69 20 MFD, C70 20 MFD, C71 20 MFD, C72 20 MFD, C73 20 MFD, C74 20 MFD, C75 20 MFD, C76 20 MFD, C77 20 MFD, C78 20 MFD, C79 20 MFD, C80 20 MFD, C81 20 MFD, C82 20 MFD, C83 20 MFD, C84 20 MFD, C85 20 MFD, C86 20 MFD, C87 20 MFD, C88 20 MFD, C89 20 MFD, C90 20 MFD, C91 20 MFD, C92 20 MFD, C93 20 MFD, C94 20 MFD, C95 20 MFD, C96 20 MFD, C97 20 MFD, C98 20 MFD, C99 20 MFD, C100 20 MFD

OSC. COIL
 DUMMY LUG
 DENOTES COMMON RETURN (B-)
 DENOTES CHASSIS

I.F. FREQUENCY 455 KC
 TUNING RANGE 535 TO 1620 KC

ALL RESISTORS ±20% TOLERANCE UNLESS OTHERWISE SPECIFIED.

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TUBE AND TRIMMER LOCATION

Final alignment of the 4E41 chassis should be made with the chassis installed in the cabinet. Tune in a weak station in the vicinity of 1400 KC and adjust the antenna trimmer for maximum.

ALIGNMENT PROCEDURE

OPERATION	CONNECT OSCILLATOR TO ANTENNA	DUMMY INPUT SIG. FREQUENCY	SET DIAL AT	TRIMMERS	PURPOSE
1	Converter Grid.1 MFD	455 Kc.	C14, C15, C16, C17	Align I.F.
2	One Turn Loosely Coupled to Wavemagnet.		1600 Kc.	C4	Set Oscillator to Scale --
3			1400 Kc.	C2	Adjust for Maximum.

PARTS LIST

REFERENCE NO.	DIAGRAM NO.	DESCRIPTION
CABINET ASSEMBLY		
8-13788		Handle Strip Assembly
8-13793		Bottom Cover Assembly
8-13847		Wavemagnet & Cover Assembly
12-1379		Handle Support Bracket (R.H.)
12-1380		Handle Support Bracket (L.H.)
43-149		Handle End Piece
46-683		Front Cover Latch
46-684		Tuning Control Knob
46-685		Volume Control Knob
57-1314		Cabinet Front Plate
57-1315		Chassis Bottom Plate
59-200		Dial Pointer
80-567		Latch Spring
83-1416		Decorative Strip
83-1417		Handle Strip - Rubber
93-870		Fibre Shoulder Washer
110-127		Grille Cloth
199-79		Flexible Handle Sleeve
CONDENSERS		
22-1457		2-gang Variable 450 V.
22-1706		.005 MFD 500 V.
22-1669		.0001 MFD 500 V.
22-1876		.001 MFD 500 V.
22-1343		.001 MFD 300 V.
22-1175		.005 MFD 600 V.
22-326		.005 MFD 400 V.
22-1660		.05 MFD 400 V.
22-1655		.05 MFD 200 V.
ON T1		1st I. F. Trans. Pri. Trim
ON T1		1st I. F. Trans. Sec. Trim
ON T2		2nd I. F. Trans. Pri. Trim
ON T2		2nd I. F. Trans. Sec. Trim
ON T2		40 MFD. Electro. 150 V.
ON T2		40 MFD. Electro. 150 V.
ON T2		200 MFD. Electro. 10 V.
22-1443		100 M Ohm. 1/2 W.
63-1870		10 Megohm. 1/2 W.
63-1954		4.7 Megohm 1/2 W.
63-1940		47 M Ohm 1/2 W.
63-1856		1 Meg. Vol. Control 1/2 W.
63-1553		15 Megohm 1/2 W.
63-1961		1 Megohm 1/2 W.
63-1912		3.3 Megohm 1/2 W.
63-1933		300 Ohm 1/2 W.
63-1762		1000 Ohm 1/2 W.
63-1786		12 M Ohm 1/2 W.
63-1631		620 Ohm 1/2 W.
63-1824		350 M Ohm. 1/2 W.
63-1891		2200 Ohm. 1/2 W.
63-1800		470 Ohm. 1/2 W.
63-1771		1200 Ohm. 1/2 W.
63-1789		91 Ohm 2 W.
63-1564		1050 Ohm 2-1/2 W.
63-1647		1050 Ohm 2-1/2 W.
COILS AND CHOKES		
L1		Wavemagnet Assembly
L2		Oscillator Coil Assembly
T1		1st I. F. Transformer
T2		2nd I. F. Transformer
MISCELLANEOUS		
S1		Change over Switch
SF1		3" P. M. Speaker
T3		Speaker Transformer
SEL		Selenium Rectifier
OR		Selenium Rectifier
212-4		

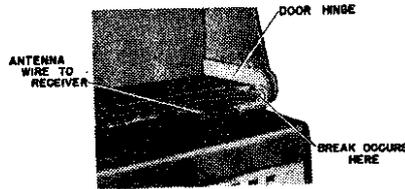
Zenith 4G800 Chassis 4E41

This model appears in *Volume XVII of Rider's Manuals, pages 17-1 and 17-2*. The On-Off switch #85-433 does not completely break contact on some receivers when the lid is closed, causing battery drain. To correct this condition, saw one plastic switch knob 46-736 into 1/16" lengths and place a length on the switch shaft, and then replace the knob. This will force the switch down far enough when the lid is closed to break contact and disconnect the batteries.

In some cases the calibration pointer touches the metal front of the cabinet, thus putting the gang at an a-c potential and causing a hum. To correct this condition place a fibre washer #93-323 between the pointer and the metal dial front. This fibre washer between the metal front panel and the dial pointer, completely prevents this "shorting" condition.

In very rare cases, when hum is encountered and cannot be corrected in any other manner, changing the 1S5 tube is suggested.

On later production runs the 3Q4 tube was replaced with a 3V4 tube. The circuit remains the same in this case. However, the wiring to the tube base has been altered. The 3Q4 is not interchangeable with the 3V4 because of socket connections.



Enough extra lead length should be left when replacing the wavemagnet lead on the Zenith 4G800 so that a break does not occur at the point indicated.

In some cases when the front lid of the receiver is open, the receiver will cut in and out or sometimes be entirely dead. The wire from the wavemagnet to the front door hinge may break at the hinge connection. To correct this condition, remove the handle and resolder these leads, being quite certain that solder is not allowed to run back on the antenna lead and that enough extra antenna lead is allowed for flexing to prevent breakage when the door is open as illustrated in the accompanying diagram.

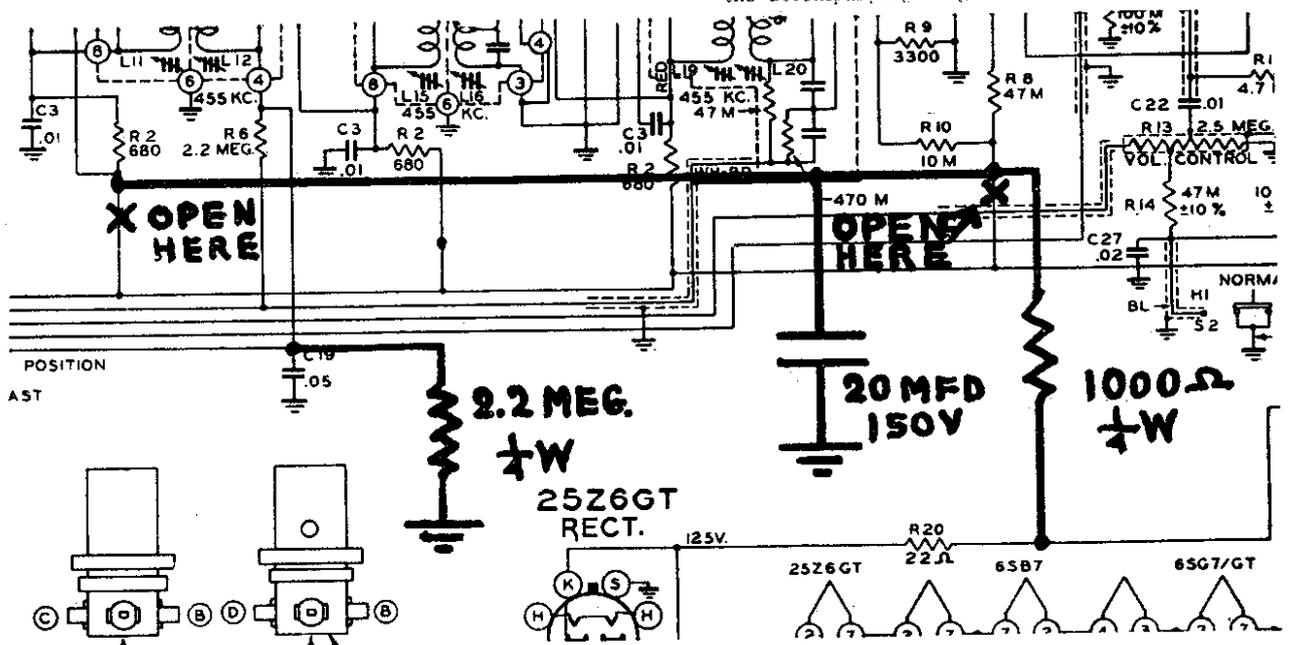
Zenith 6G801, Chassis 6E40

This model appears in *Rider's Volume XVIII, pages 18-7, 18-8, and 18-10*. In some cases when microphonics are encountered they can be eliminated by replacing one or more of the tubes. The offending tube can be located by turning the set on with the volume advanced and the set tuned to an off-station position. Then gently tap each tube, the one emitting the loudest "ping" is the defective item.

Zenith 8H023, 8H034, Chassis 8C01

These models appear on *pages 15-71 to 15-74 of Rider's Volume XV*. The rushing noise that occurs when the volume control is turned to minimum is caused by a poor connection from the grid element to the grid cap of the 6S8GT tube. A hot iron and a little flux on the grid cap will remove the high-resistance solder joint.

If the f-m oscillator drifts, check for a red dot on the oscillator tuning-slug wire. If the wire is unmarked, replace with one which has a red dot. If the receiver flutters on f.m., this may be cured by installing a 22-1635, 20- μ f, 150-V capacitor and two 1/4-watt resistors, 63-583, 1000 ohms, and 63-600, 2.2 Megohms, as indicated in the accompanying diagram.



Drift in the f-m oscillator of the Zenith 8H023 may be corrected by making the changes indicated.