

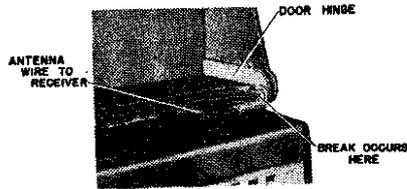
Zenith 4G800 Chassis 4E41

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.

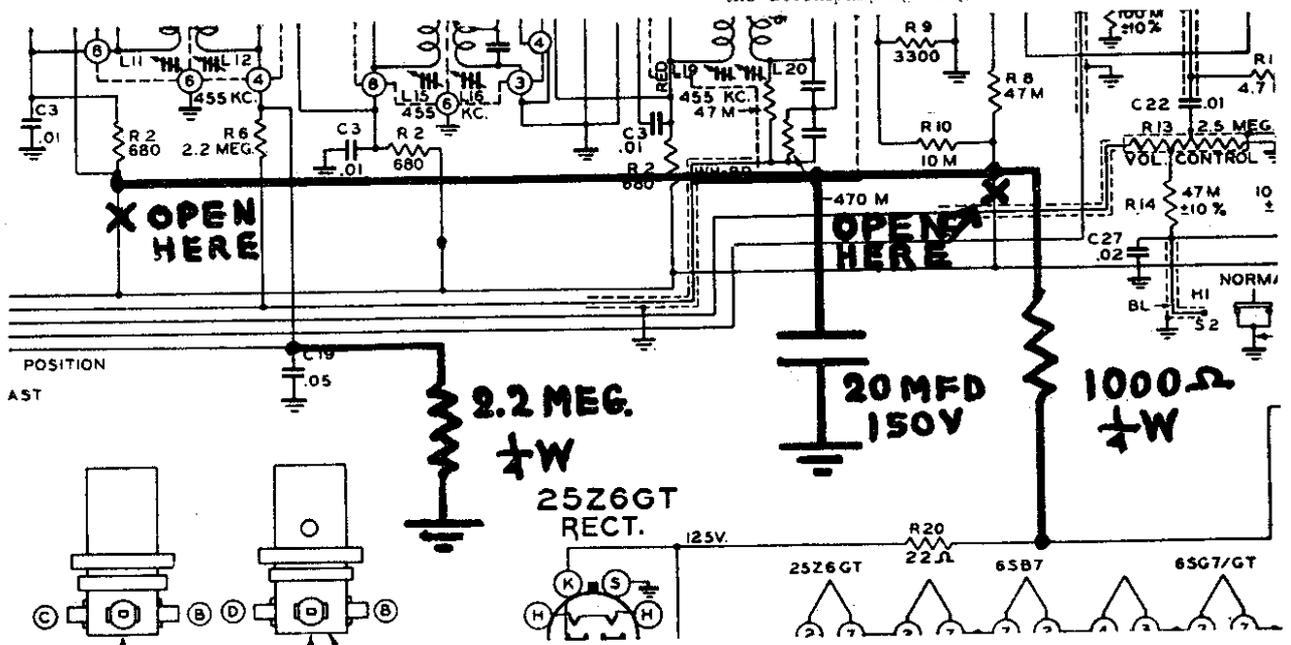
Zenith 6G801, Chassis 6E40

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.

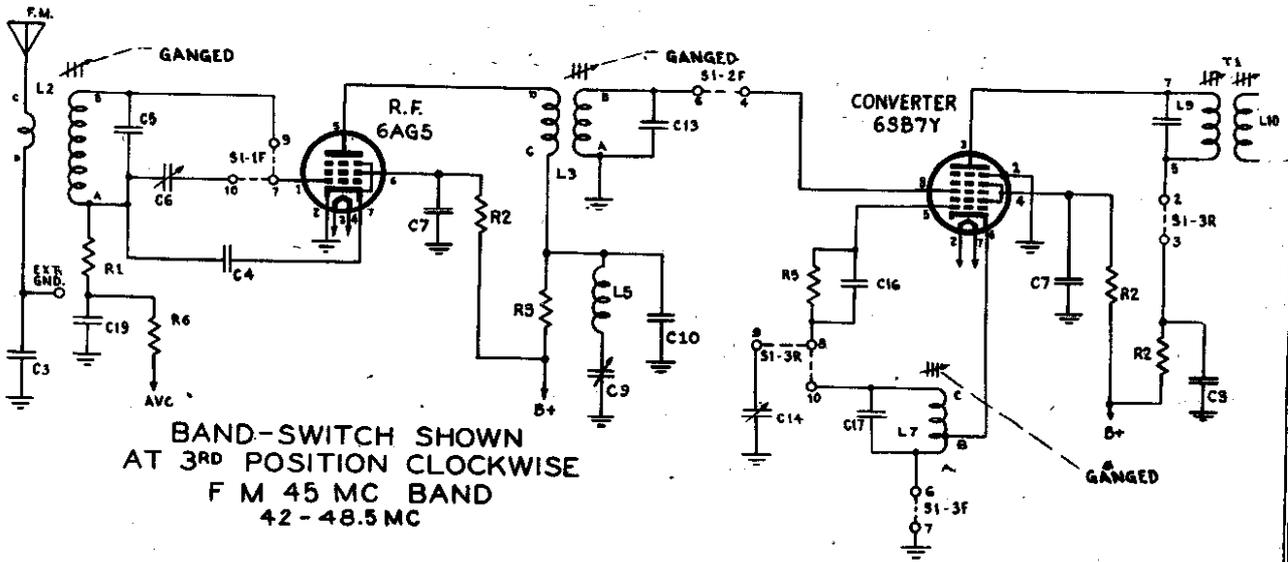
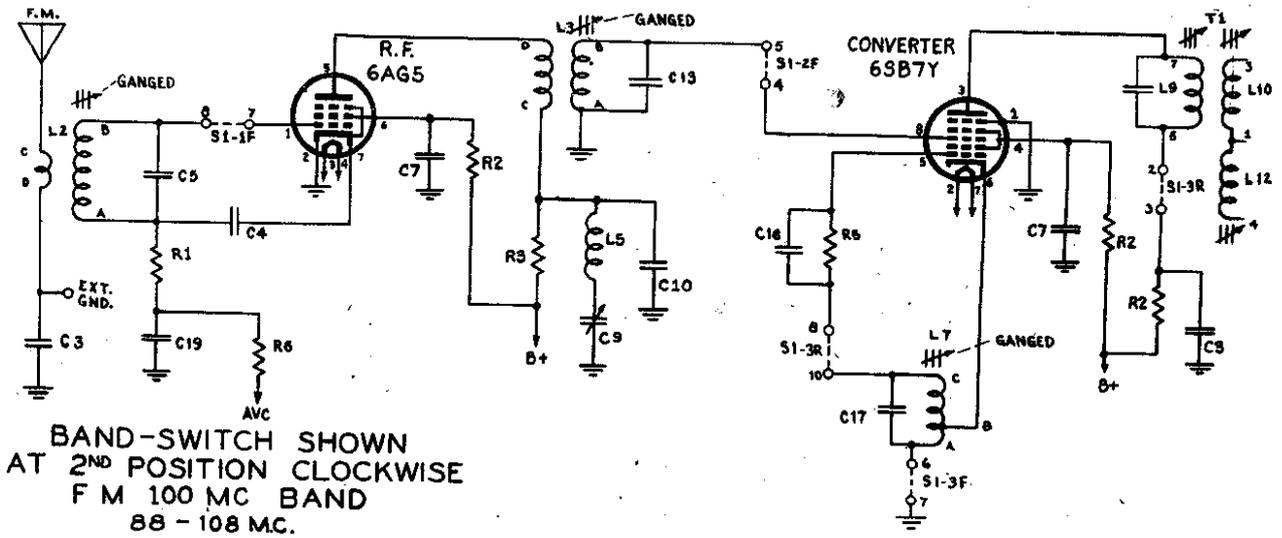
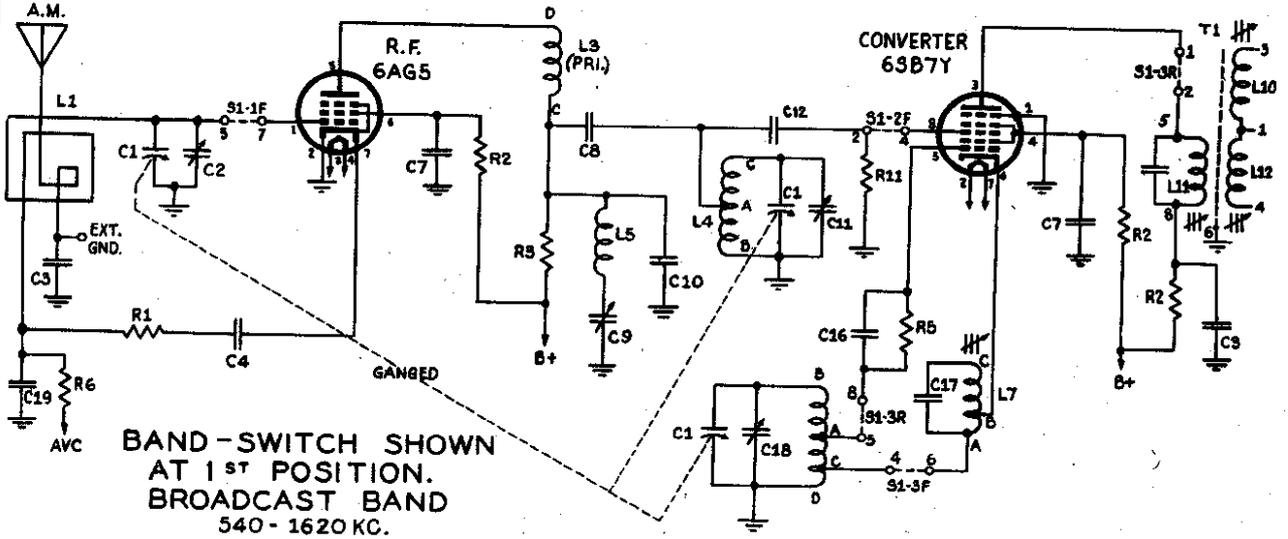
If the f-m oscillator drifts, check for a red dot on the oscillator tuning-slug wire. If the wire is unmarked, replace with one which has a red dot. If the receiver flutters on f.m., this may be cured by installing a 22-1635, 20- μ f, 150-V capacitor and two 1/4-watt resistors, 63-583, 1000 ohms, and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

"clarified schematics"

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ALIGNMENT PROCEDURE

Opera- tion	Connect Oscillator to	Dummy Antenna	Input Signal Frequency	Band	Set Dial To	Adj. Trimmers	Purpose
1	Pin 8 on Converter Tube 6SB7 Socket	.05 Mfd.	455 Kc. Modulated	BC	600 Kc.	L-11,12,15,16, 19 and 20	Align I.F. channel for maximum output
2	Pin 1 on R.F. tube 6AG5 socket 2 turns loosely cpld. to wavemagnet	.05 Mfd.	455 Kc. Modulated	BC	600 Kc.	C9	Adjust wavetrap for minimum output
3	2 turns loosely cpld. to wavemagnet		1600 Kc. Modulated	BC	1600 Kc.	C18	Set oscillator to dial scale
4	2 turns loosely cpld. to wavemagnet	.05 Mfd.	1400 Kc. Modulated	BC	1400 Kc.	C11 & C2	Align det. and ant. stages.
5 (a)	Pin 4 (grid) on 6SH7 limiter socket	.05 Mfd.	8.3 Mc. Unmodulated	FM		L21 coil slug Primary disc.	Align primary of discriminator for maximum reading
6 (b)	Pin 4 (grid) on 6SH7 limiter socket	.05 Mfd.	8.3 Mc. Unmodulated	FM		L22 coil slug sec. of disc.	Adjust secondary of discrimi- nator for zero reading
7 (c)	Pin 4 (grid) on 6SH7 2nd IF tube socket	.05 Mfd.	8.3 Mc. Unmodulated	FM		L17 & L18 Prim. & Sec. of 3rd IF trans.	Align 3rd IF transformer for maximum reading
8 (c) (d)	Pin 4 (grid) on 6SG7 1st IF tube socket	.05 Mfd.	8.3 Mc. Unmodulated	FM		L13 & L14 Primary and sec. of 2nd IF transformer	Align 2nd IF transformer for maximum reading
9 (c) (d)	Pin 8 (grid) on 6SB7 converter tube socket	.05 Mfd.	8.3 Mc. Unmodulated	FM		L9 & L10 Primary & Sec. of 1st IF transformer	Align 1st IF transformer for maximum reading
10 (c)	Antenna Post (Re- move line ant.)	270 ohms	98 Mc. Unmodulated	FM	98 Mc.	L7 Osc. Coil slug	Set oscillator to dial scale
11 (c)	Antenna Post (Re- move line ant.)	270 ohms	98 Mc. Unmodulated	FM	98 Mc.	L3 & L2 Det. and RF coil slugs	Align det. and ant. stages to maximum reading
12 (c)	Antenna Post (Re- move line ant.)	270 ohms	45 Mc. Unmodulated	FM	45 Mc.	C14	Set oscillator to dial scale
13 (c)	Antenna Post (Re- move line ant.)	270 ohms	45 Mc. Unmodulated	FM	45 Mc.	C15 & C6	Align detector & ant. stages for maximum reading

IMPORTANT: Alignment of this chassis will in most cases be unnecessary unless an IF or RF transformer is replaced or the adjustments have been tampered with.

Correct alignment can only be made if the following procedure is followed:

A vacuum tube voltmeter with an isolation resistor of 200,000 ohms in series with the hot lead will serve for FM adjustments. This lead should be shielded.

An AC output meter connected across the primary or secondary of the output transformer will be satisfactory for all AM adjustments.

The signal generator output should be kept just high enough to get an indication on the meter.

(a) Vacuum Tube Voltmeter pin 5 on discriminator transformer to chassis (half discriminator load.)

(b) Vacuum Tube Voltmeter pin 7 on discriminator transformer to chassis (full discriminator load.)

(c) Vacuum Tube Voltmeter 6SH7 limiter grid (pin 4) to chassis.

(d) 300 ohm $\frac{1}{2}$ watt carbon resistor soldered across the secondary L14 (pin 2 and 3 of 2nd, IF trans.). The leads to the resistor must be as short as possible and the resistor removed before operation 10 is started.