

## Zenith Radio Corp.

**Model:** 5R086

**Chassis:**

**Year:** Pre 1948

**Power:**

**Circuit:**

**IF:**

**Tubes:**

**Bands:**

### Resources

**Riders Volume 15 - ZENITH 15-9**

**Riders Volume 15 - ZENITH 15-20**

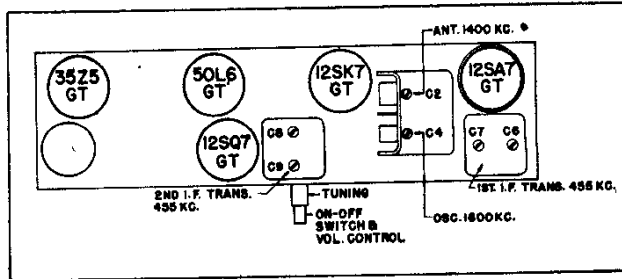
ZENITH RADIO CORP.

MODELS 5D011 Series,  
5D011Z Series  
MODELS 5R080, 5R086

TO THE SERVICE MAN:

The filter circuits of chassis 5C01 incorporate new features that should be well understood by the service man. An examination of the schematic drawing will show the output transformer tapped slightly off center. This tap is the B+ connection from filter resistor R10 and capacitor C18 off the cathode of the rectifier 35Z5 to the 50L6 plate. The lower connection of the output transformer feeds B+ to the rest of the tubes in the receiver. Current flowing through the upper windings of the output transformer to the 50L6 produces a magnetic field which is 180° out of phase with the magnetic field produced by current flowing in the opposite direction through the output transformer to the rest of the receiver, therefore, most of the AC hum is cancelled. Further reduction of hum is accomplished by filtering through resistor R9 and 11 and capacitors C16 and 17. Capacitor C15 across the primary of the output transformer by passes high frequency back to ground.

This development in filtering systems allows a higher effective plate voltage on the 50L6 for increased power output.



TUBE AND TRIMMER LOCATION

NOTE: The output transformer must be replaced with an exact duplicate Part No. 202-549. Be sure to add the speaker code letter to the transformer Part number.

MODELS 5D011-5D027  
CHASSIS No. 5C01  
ALIGNMENT PROCEDURE

OPERATION	CONNECT OSCILLATOR TO	DUMMY ANTENNA	INPUT SIG. FREQUENCY	SET DIAL AT	TRIMMERS	PURPOSE
1	Converter Grid	.5 Mfd.	455 Kc.	600 Kc.	C-6, C-7, C-8, C-9	Align I. F.
2	One Turn Loop Coupled Loosely to Wave Magnet	--	1600 Kc.	1600 Kc.	C-4	Set Oscillator to Dial Scale.
3		--	1400 Kc.	1400 Kc.	C-2	Align Antenna Stage

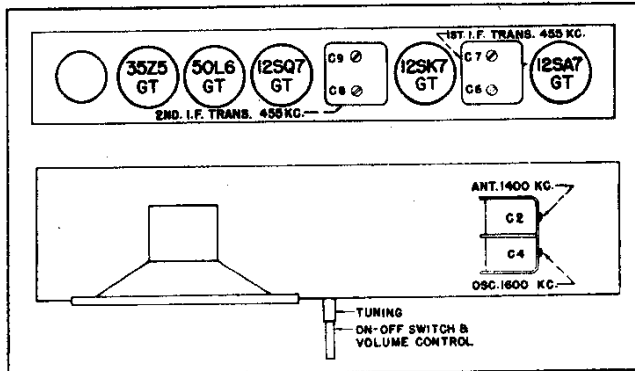
TO THE SERVICE MAN:

The 5C02 and 5C04 chassis are identical electrically. Chassis 5C02 has a Record Reject push button switch on the receiver control panel to reject records.

The socket P1 is used to connect the automatic record changer to the receiver.

The Phono-Radio switch is a two position double acting push-button switch and when in the "in" position connects the changer for playing records.

Chassis 5C04 has the same Phono-Radio switch arrangement. However, the 5C04 does not have socket P1 and the Record Reject switch. The record player is connected to the receiver by a shielded cable and socket arrangement.



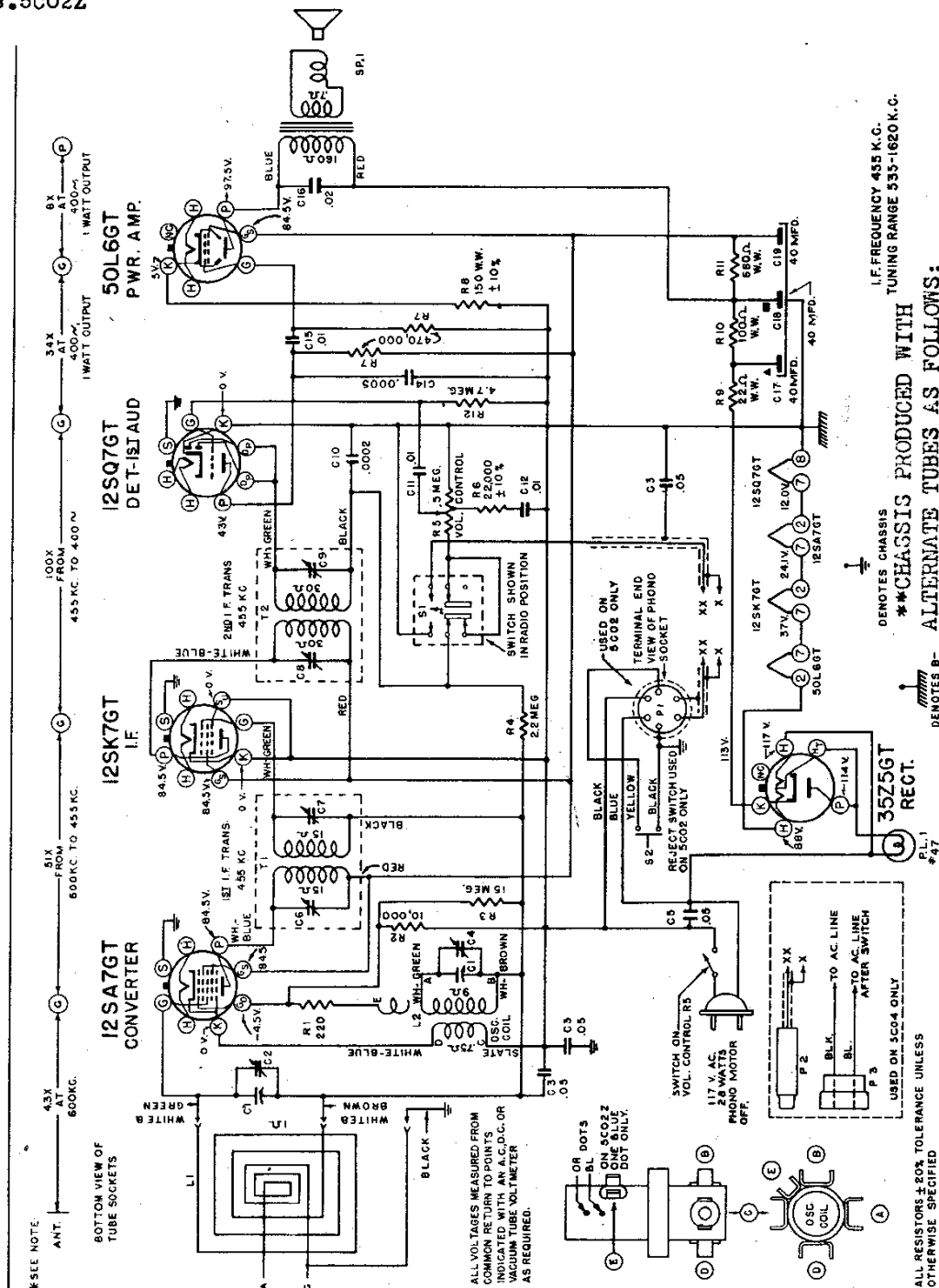
TUBE AND TRIMMER LOCATION

MODELS 5R080-5R086  
CHASSIS Nos. 5C02-5C04  
ALIGNMENT PROCEDURE

OPERATION	CONNECT OSCILLATOR TO	DUMMY ANTENNA	INPUT SIG. FREQUENCY	SET DIAL AT	TRIMMERS	PURPOSE
1	Converter Grid	.5 Mfd.	455 Kc.	600 KC.	C-6, C-7, C-8, C-9	Align I. F.
2	Single Turn Loop Loosely Coupled to Wave magnet		1600 Kc.	1600 Kc.	C-4	Set Oscillator to Dial Scale.
3			1400 Kc.	1400 Kc.	C-2	Align Ant

MODELS 5R080, Ch. 5C04,  
5R086, Ch. 5C02, 5R086Z,  
Chas. 5C02Z

ZENITH RADIO CORP.



DWG. PART	DESCRIPTION
C1	22-1419 2-GANG VARIABLE 500P
C2	22-1306 2-GANG VARIABLE 100P
C3	22-1306 2-GANG VARIABLE 100P
C4	22-1306 2-GANG VARIABLE 100P
C5	22-1306 2-GANG VARIABLE 100P
C6	22-1306 2-GANG VARIABLE 100P
C7	22-1306 2-GANG VARIABLE 100P
C8	22-1306 2-GANG VARIABLE 100P
C9	22-1306 2-GANG VARIABLE 100P
C10	22-1306 2-GANG VARIABLE 100P
C11	22-1306 2-GANG VARIABLE 100P
C12	22-1306 2-GANG VARIABLE 100P
C13	22-1306 2-GANG VARIABLE 100P
C14	22-1306 2-GANG VARIABLE 100P
C15	22-1306 2-GANG VARIABLE 100P
C16	22-1306 2-GANG VARIABLE 100P
C17	22-1306 2-GANG VARIABLE 100P
C18	22-1306 2-GANG VARIABLE 100P
C19	22-1306 2-GANG VARIABLE 100P
R1	63-579 220 OHM 1/4W
R2	63-589 10M OHM 1/4W
R3	63-576 15MEG OHM 1/4W
R4	63-600 2.2 MEG OHM 1/4W
R5	63-1348 5 MEG. VOLUME CONTROL
R6	63-644 22K OHM 1/4W
R7	63-597 470M OHM 1/4W
R8	63-686 150 OHM WIREWOUND 1/2W
R9	63-1219 22 OHM WIREWOUND 1/2W
R10	63-1570 500 OHM WIREWOUND 1/2W
R11	63-502 4.7 MEG OHM 1/4W
L1	511296 WAVEMAGNET ASSEMBLY
L2	511284 OSC. COIL
T1	95-919 12 I.F. TRANS.
T2	95-906 29 I.F. TRANS.
S1	100-67 PILOT LIGHT 6.3V 15W
S2	85-338 PHONO-RADIO SWITCH
S3	85-338 PHONO-RADIO SWITCH
P1	511293 PHONO CABLE
P2	511287 PHONO CABLE
P3	52-186 1/2" SPEAKER
SPI	49-518 5" SPEAKER P.M.

ALL RESISTORS ±20% TOLERANCE UNLESS OTHERWISE SPECIFIED

NOTE: ON 5C02Z ALL PARTS MARKED WITH A CHANGE TO THE FOLLOWING.

C1 22-1419 2-GANG VARIABLE

C2 22-1306 2-GANG VARIABLE

C3 22-1306 2-GANG VARIABLE

C4 22-1306 2-GANG VARIABLE

C5 22-1306 2-GANG VARIABLE

C6 22-1306 2-GANG VARIABLE

C7 22-1306 2-GANG VARIABLE

C8 22-1306 2-GANG VARIABLE

C9 22-1306 2-GANG VARIABLE

C10 22-1306 2-GANG VARIABLE

C11 22-1306 2-GANG VARIABLE

C12 22-1306 2-GANG VARIABLE

C13 22-1306 2-GANG VARIABLE

C14 22-1306 2-GANG VARIABLE

C15 22-1306 2-GANG VARIABLE

C16 22-1306 2-GANG VARIABLE

C17 22-1306 2-GANG VARIABLE

C18 22-1306 2-GANG VARIABLE

C19 22-1306 2-GANG VARIABLE

R1 63-579 220 OHM

R2 63-589 10M OHM

R3 63-576 15MEG OHM

R4 63-600 2.2 MEG OHM

R5 63-1348 5 MEG. VOLUME CONTROL

R6 63-644 22K OHM

R7 63-597 470M OHM

R8 63-686 150 OHM WIREWOUND

R9 63-1219 22 OHM WIREWOUND

R10 63-1570 500 OHM WIREWOUND

R11 63-502 4.7 MEG OHM

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L2 511284 OSC. COIL

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T2 95-906 29 I.F. TRANS.

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S2 85-338 PHONO-RADIO SWITCH

S3 85-338 PHONO-RADIO SWITCH

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C6 22-1306 2-GANG VARIABLE

C7 22-1306 2-GANG VARIABLE

C8 22-1306 2-GANG VARIABLE

C9 22-1306 2-GANG VARIABLE

C10 22-1306 2-GANG VARIABLE

C11 22-1306 2-GANG VARIABLE

C12 22-1306 2-GANG VARIABLE

C13 22-1306 2-GANG VARIABLE

C14 22-1306 2-GANG VARIABLE

C15 22-1306 2-GANG VARIABLE

C16 22-1306 2-GANG VARIABLE

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SPI 49-518 5" SPEAKER P.M.

MODELS 5R080-5R086  
CHASSIS Nos. 5C02-5C04