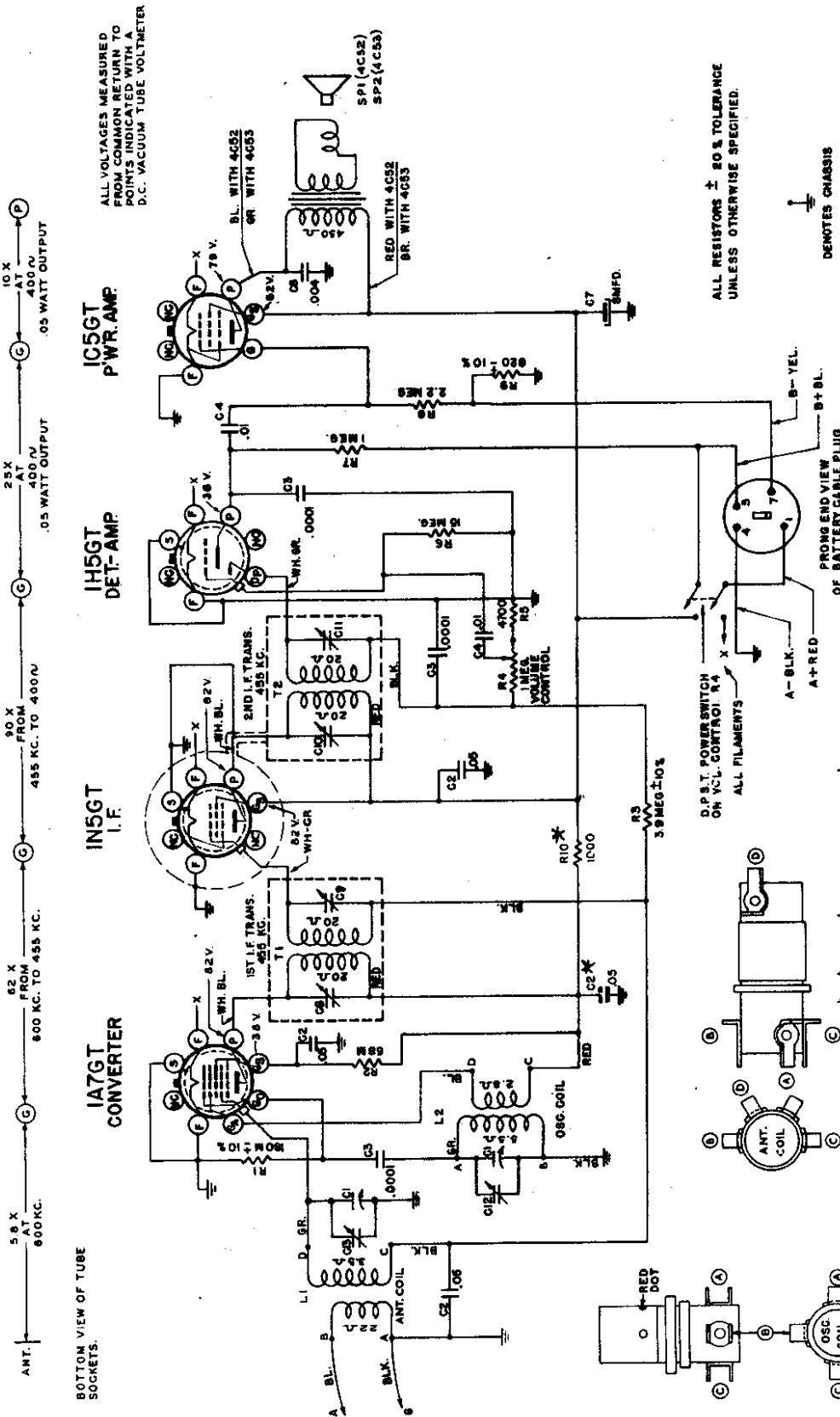


ZENITH RADIO CORP.

MODELS 4K016, Ch. 4C52,
4K035, Chas. 4C53



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

ALL RESISTORS ± 20% TOLERANCE UNLESS OTHERWISE SPECIFIED.

⊥ DENOTES CHASSIS

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

1 1/2 V. BATTERY PACK NO. Z-22

*Not in early model

MODELS 4K016-4K035
CHASSIS Nos. 4C52-4C53

R1	63-654	180M OHM	1/4W
R2	63-094	68M OHM	1/4W
R3	63-649	3.9 MEG.	1/4W
R4	63-1236	VOLUME CONTROL (4C53)	1/4W
R5	63-1361	VOLUME CONTROL (4C52)	1/4W
R6	63-978	15MEG.	1/4W
R7	63-271	1 MEG.	1/4W
R8	63-600	2.2 MEG.	1/4W
R9	63-630	820 OHM	1/4W
R10	63-363	1000 OHM	1/4W
L1	512024	ANTENNA COIL	
L2	512014	OSC. COIL ASSY.	
T1	95-814	1ST I.F. TRANSFORMER	
T2	95-839	2ND I.F. TRANSFORMER	
SP1	49-519	5" SPEAKER (with 4C52)	
SP2	49-450	6" SPEAKER (with 4C53)	

DIAG. NO.	PART NO.	DESCRIPTION
C1	22-145.3	TWO GANG VARIABLE (4C53)
C2	22-145.4	TWO GANG VARIABLE (4C52)
C3	22-829	200V.
C4	22-198	0.001 MFD.
C5	22-446	0.004 MFD.
C6	22-884	0.004 MFD. ELECTRO 150V.
C7	ON T1	1ST I.F. TRANS. PRI.
C8	ON T1	1ST I.F. TRANS. SEC.
C9	ON T2	2ND I.F. TRANS. PRI.
C10	ON T2	2ND I.F. TRANS. SEC.
C11	ON C1	BROADCAST ANT. (on 4C52)
C12	ON C1	BROADCAST ANT. (on 4C53)

MODELS 4K016, 4K035
MODELS 6D015, 6D030

ZENITH RADIO CORP.

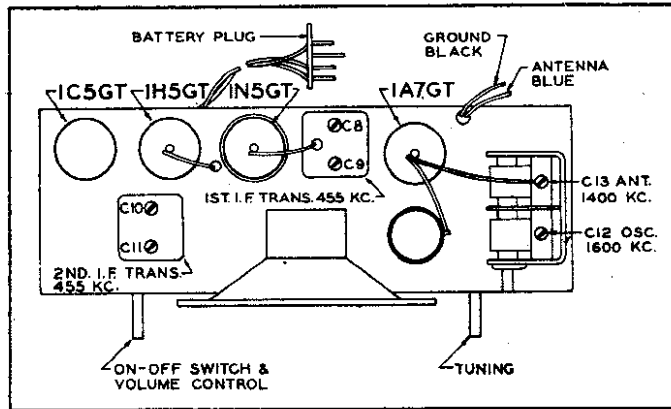
MODELS 4K016-4K035
CHASSIS Nos. 4C52-4C53

TO THE SERVICE MAN:

The alignment of this chassis is conventional.

A 4700 ohm resistor R5 between the low end of the volume control and ground allows some audio output with normal signal input when the volume control is in counter clockwise positions. This is the Guardian Reminder circuit.

If the audio output is objectionably high (with the volume control in counter clockwise position) resistor R5 may be reduced in value to 2500 ohms or removed from the circuit and the low end of the control grounded.



TUBE AND TRIMMER LOCATION

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-8, C-9, C-10, C-11	Align I. F.
2	Antenna and Ground	200 mmfd.	1600 Kc.	1600 Kc.	C-12	Set Oscillator to Dial Scale.
3	Antenna and Ground	200 mmfd.	1400 Kc.	1400 Kc.	C-13	Align antenna stage.

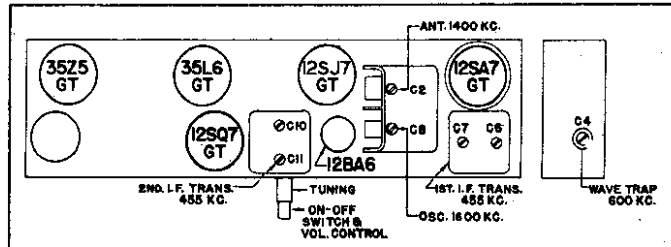
MODELS 6D015-6D030
CHASSIS No. 6C05

TO THE SERVICE MAN:

The filter circuits of chassis 6C05 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 R11 and capacitor C19 off the cathode of the rectifier 35Z5 to the 35L6 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 35L6 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 R10 and 12 and capacitors C17 and 18.

This development in filtering systems allows a higher effective plate voltage on the 35L6 for increased power output.

NOTE: The output transformer must be replaced with an exact duplicate, Part No. 206-547. Be sure to add the speaker code letter to the transformer part number.



TUBE AND TRIMMER LOCATION

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-10, C-11	I. F. Alignment
2	Single Turn Loosely Coupled to Wave Magnet		455 Kc.	600 Kc.	C-4	Adjust Wave Trap to minimum.
3			1600 Kc.	1600 Kc.	C-8	Set Oscillator to Dial Scale.
4			1400 Kc.	1400 Kc.	C-2	Antenna Alignment