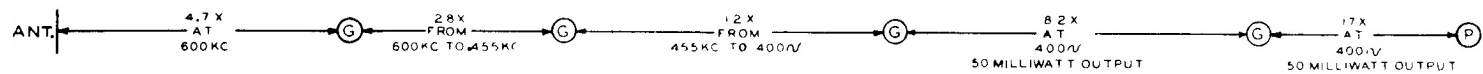


# ZENITH RADIO CORPORATION

MODEL H401 CHASSIS 4H40

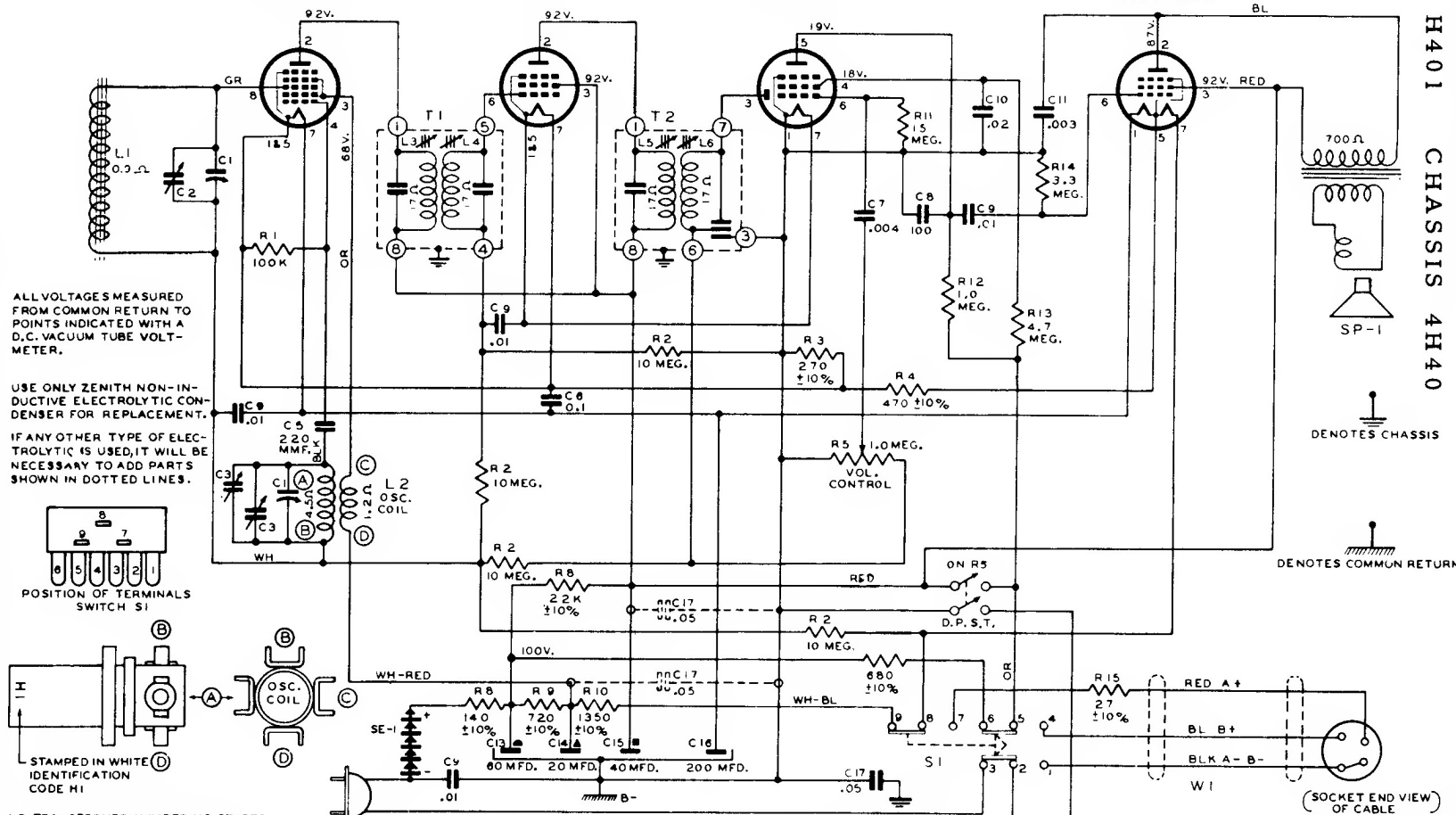


1R5 CONVERTER

1U4 I.F.

\*1S5 DET. AMP.

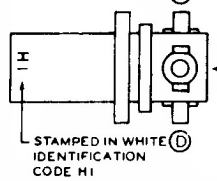
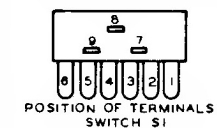
3V4 PWR. AMP.



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

USE ONLY ZENITH NON-INDUCTIVE ELECTROLYTIC CONDENSER FOR REPLACEMENT.

IF ANY OTHER TYPE OF ELECTROLYTIC IS USED, IT WILL BE NECESSARY TO ADD PARTS SHOWN IN DOTTED LINES.



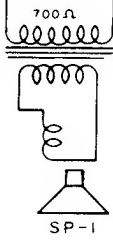
I.F. TRANSFORMER NUMBERING STARTS WITH #1 TERMINAL AS FIRST TERMINAL CLOCKWISE AND ADJACENT TO RED DOT AS VIEWED FROM BOTTOM OF CHASSIS.  
BATTERY PACK NO. Z909

9 WATTS  
117V. A.C.-D.C.

ALL RESISTORS ±20% TOLERANCE UNLESS OTHERWISE SPECIFIED.

CHANGE OVER SWITCH S1 SHOWN IN POSITION FOR A.C. OPERATION.

I.F. FREQUENCY 455 KC.  
TUNING RANGE  
535-1620 K.C. STD. B.C.



DENOTES CHASSIS  
DENOTES COMMON RETURN

(SOCKET END VIEW) OF CABLE

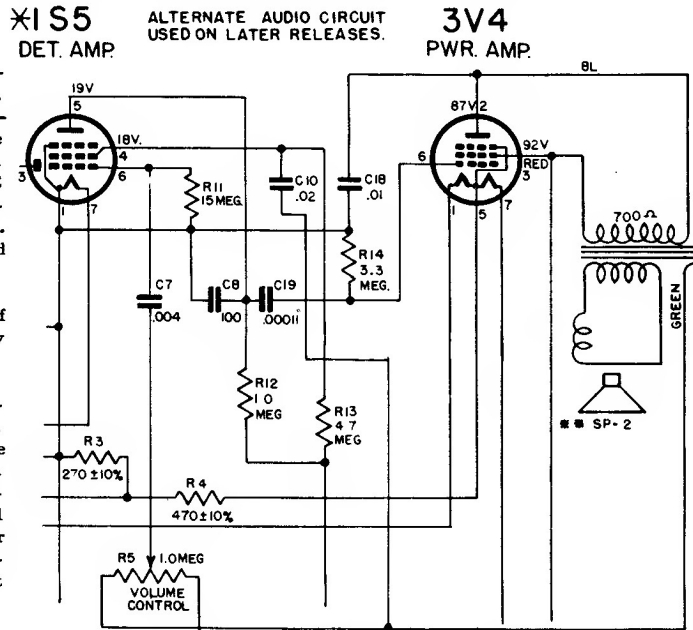
# Zenith Model H401, Chassis 4H40

The 4H40 chassis is an AC, DC or battery operated super-heterodyne. The chassis is isolated from the DC circuit, and all measurements must be made from a common negative point. The most convenient place to reach this negative point is the negative side or container of the electrolytic. When the change-over Switch S1 is in AC position, the DC resistance from chassis to any circuit must be almost infinite. If any circuit becomes grounded a hum will result. Microphonic tubes will cause audio howl. Check the 1R5 and 1S5.

If the R.F. becomes weak or dead, check the DC resistance of the wavemagnet. This DC resistance should be approximately .9 ohm. If it is open check the wavemagnet.

**IF Alignment:** Remove the chassis from the cabinet and arrange the units so that the wavemagnet can be connected. All the connections and adjustments can be made from the top of the chassis. Connect a signal generator, through a .1 mfd. dummy antenna, to the converter grid and B-(common return). Connect an output meter across the voice coil of the speaker (two lugs provided). Set the signal generator to 455 Kc. and adjust L3, L4, L5 and L6 for the maximum indication on the output meter. Always keep the signal output from the generator just high enough to get an indication, otherwise excessive loading may result.

**RF Alignment:** Connect a two turn loop across the leads of the signal generator, loosely couple this loop to the wavemagnet. Set the signal generator and the dial pointer of the receiver to 1600 Kc. and adjust C3 oscillator trimmer to resonance. Set the signal generator and dial pointer to 1400 and adjust C2 antenna trimmer to resonance. These trimmers are on the top of gang condenser. Check operation and re-install set in cabinet. Tune in a weak station near 1400 Kc. or use background noise and readjust antenna trimmer for maximum sensitivity.

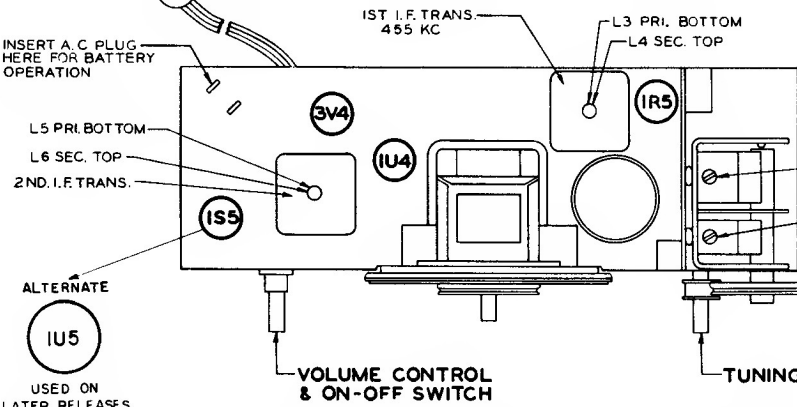


\*\* WHEN SP-2 IS USED, C-18 AND C-19 MUST ALSO BE USED.

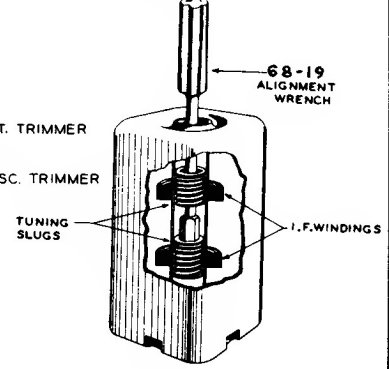
The I.F. transformers incorporated in this receiver are of the new permeability tuned type. The advantage of an I.F. transformer of this type is its extreme stability under various humidity and temperature conditions. The upper coil is the secondary and the lower the primary. When adjusting these I.F. transformers the tuning wrench 68-19 can be inserted into the top slug, rotated until maximum output is obtained and then dropped down to the lower slug and the same operation repeated. The tuning wrench is so designed that turning one slug does not affect the adjustment of the other.

BATTERY CABLE & PLUG

## TUBE AND TRIMMER LOCATION

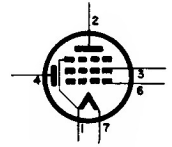


## I. F. TRANSFORMER



ALTERNATE  
 I U 5  
 USED ON LATER RELEASES

\* I U 5



USED ON LATER RELEASES

OPERATION	CONNECT OSCILLATOR TO	DUMMY ANTENNA	INPUT SIG. FREQUENCY	BAND	SET DIAL TO	TRIMMERS	PURPOSE
1	Converter Grid	.1 Mfd	455 Kc.	BC	600 Kc.	L3, 4, 5 & 6	I.F. Alignment
2	Two turns loosely coupled to Wavemagnet		1600 Kc.	BC	1600 Kc.	Osc. Trim. C3	Set Oscillator to scale
3	Two turns loosely coupled to Wavemagnet		1400 Kc.	BC	1400 Kc.	Ant. Trim. C2	Align Wavemagnet