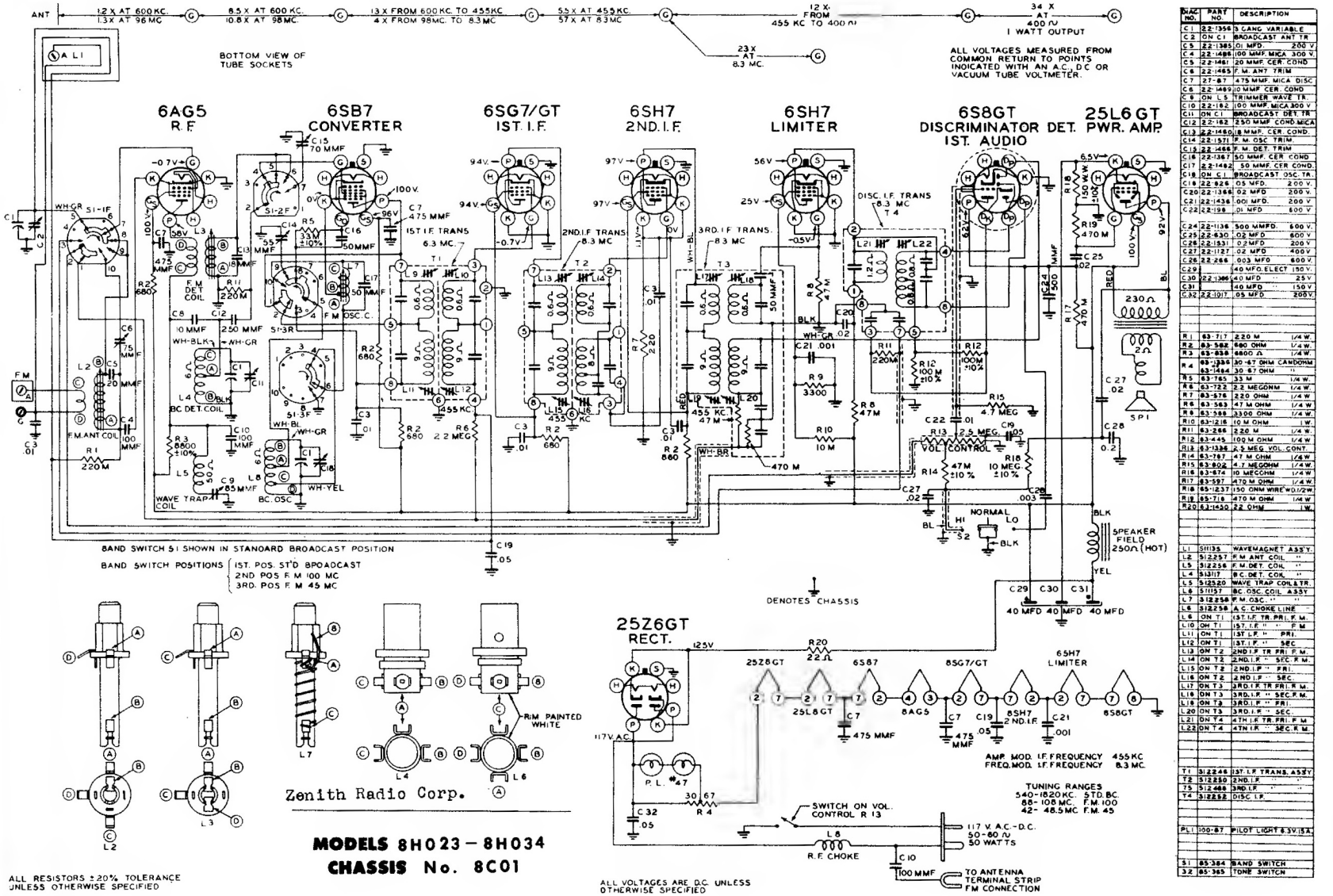


DIAG. NO.	PART NO.	DESCRIPTION
C1	22-1356	3 GANG VARIABLE
C2	ON C1	BROADCAST ANT TR
C5	22-1385	.01 MFD. 200 V.
C4	22-1486	100 MMF. MICA 300 V.
C5	22-1481	20 MMF. CER. COND.
C6	22-1465	F.M. ANT TRIM
C7	27-87	475 MMF. MICA DISC
C8	22-1469	10 MMF. CER. COND.
C9	ON L5	TRIMMER WAVE TR.
C10	22-1182	100 MMF. MICA 300 V.
C11	ON C1	BROADCAST DET. TR.
C12	22-1182	250 MMF COND. MICA
C13	22-1460	8 MMF. CER. COND.
C14	22-1571	F.M. OSC. TRIM
C15	22-1488	F.M. DET. TRIM
C16	22-1367	50 MMF. CER. COND.
C17	22-1482	50 MMF. CER. COND.
C18	ON C1	BROADCAST OSC. TR.
C19	22-926	.05 MFD. 200 V.
C20	22-1366	.02 MFD 200 V.
C21	22-1436	.001 MFD. 200 V.
C22	22-198	.01 MFD 600 V.
C24	22-1136	500 MMFD. 600 V.
C25	22-630	.02 MFD 600 V.
C26	22-1531	.02 MFD 200 V.
C27	22-1181	.02 MFD 400 V.
C28	22-266	.003 MFD 600 V.
C29		40 MFD. ELECT 150 V.
C30	22-1366	40 MFD " 25 V.
C31		40 MFD " 150 V.
C32	22-1017	.05 MFD. 200 V.
R1	63-717	220 M 1/4 W.
R2	63-582	680 OHM 1/4 W.
R3	63-838	6800 Ω. 1/4 W.
R4	63-1338 63-1464	30-47 OHM CARBOHM 30 67 OHM "
R5	63-765	33 M 1/4 W.
R6	63-722	2.2 MEGOHM 1/4 W.
R7	63-576	220 OHM 1/4 W.
R8	63-563	47 M OHM 1/4 W.
R9	63-588	3300 OHM 1/4 W.
R10	63-1218	10 M OHM 1W.
R11	63-266	2.20 M 1/4 W.
R12	63-1530	100 M OHM 1/4 W.
R13	63-1336	2.5 MEG VOL. CONT.
R14	63-787	47 M OHM 1/4 W.
R15	63-802	4.7 MEGOHM 1/4 W.
R16	63-574	10 MEGOHM 1/4 W.
R17	63-597	470 M OHM 1/4 W.
R18	65-1237	150 OHM WIRE W.O. 1/2 W.
R19	65-718	470 M OHM 1/4 W.
R20	63-1430	22 OHM 1W.
L1	511135	WAVEMAGNET ASS'Y.
L2	512257	F.M. ANT COIL "
L3	512256	F.M. DET. COIL "
L4	513117	B.C. DET. COIL "
L5	512520	WAVE TRAP COIL & TR.
L6	511157	BC. OSC. COIL ASS'Y
L7	512258	F.M. OSC. " "
L8	512258	A.C. CHOKE LINE "
L9	ON T1	1ST. I.F. TR. PRI. F.M.
L10	ON T1	1ST. I.F. " " F.M.
L11	ON T1	1ST. I.F. " PRI.
L12	ON T1	1ST. I.F. " SEC.
L13	ON T2	2ND. I.F. TR. PRI. F.M.
L14	ON T2	2ND. I.F. " SEC. F.M.
L15	ON T2	2ND. I.F. " PRI.
L16	ON T2	2ND. I.F. " SEC.
L17	ON T3	3RD. I.F. TR. PRI. F.M.
L18	ON T3	3RD. I.F. " SEC. F.M.
L19	ON T3	3RD. I.F. " PRI.
L20	ON T3	3RD. I.F. " SEC.
L21	ON T4	4TH. I.F. TR. PRI. F.M.
L22	ON T4	4TH. I.F. " SEC. F.M.
T1	512246	1ST. I.F. TRANS. ASS'Y.
T2	512250	2ND. I.F. " "
T3	512486	3RD. I.F. " "
T4	512252	DISC. I.F. " "
PL1	100-87	PILOT LIGHT 6.3V. .15A.
S1	85-384	BAND SWITCH
S2	85-365	TONE SWITCH

Zenith Radio Corp.

MODELS 8H023 – 8H034
CHASSIS No. 8C01

Operation	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	.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 45		L21 coil slug Primary discr.	Align primary of discrimator for maximum reading
6 (b)	Pin 4(grid)on 6SH7 limiter socket	.05 Mfd.	8.3 Mc. Unmodulated	FM 45		L22 coil slug sec. of disc.	Adjust secondary of discriminator for zero reading
7 (c)	Pin 4 (grid) on 6SH7 2nd IF tube socket	.05 Mfd.	8.3 Mc. Unmodulated	FM 45		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 45		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 45		L9 & L10 Primary & Sec. of 1st IF transformer	Align 1st IF transformer for maximum reading
10 (c)	Antenna Post (Remove line ant.)	270 ohms	98 Mc. Unmodulated	FM 100	98 Mc.	L7 Osc. Coil slug	Set oscillator to dial scale
11 (c)	Antenna Post (Remove line ant.)	270 ohms	98 Mc. Unmodulated	FM 100	98 Mc.	L3 & L2 Det. and RF coil slugs	Align det. and ant. stages to maximum reading
12 (c)	Antenna Post (Remove line ant.)	270 ohms	45 Mc. Unmodulated	FM 45	45Mc.	C14	Set oscillator to dial scale
13 (c)	Antenna Post (Remove line ant.)	270 ohms	45 Mc. Unmodulated	FM 45	45 Mc.	C15 & C6	Align detector & ant. stages for maximum reading

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.

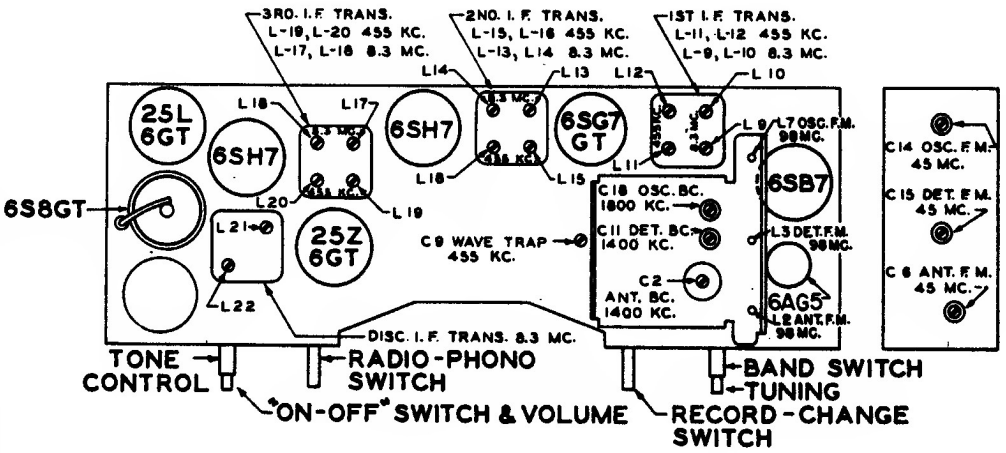
Zenith Radio Corp.

MODELS 8H023 – 8H034
CHASSIS No. 8C01

The 8C01 chassis incorporates a superheterodyne circuit with two stages of IF, and one stage of RF amplification on all bands.

When adjustments are made on the 8C01 or any AC-DC chassis, a line isolation transformer (110 V input to 110 V output) is recommended in order to avoid a "hot" chassis. If an isolation transformer is not available, check the AC voltage between chassis and bench ground, and if there is any indication of voltage, reverse the plug before handling the set.

AM Alignment: The alignment of this chassis on the standard broadcast band is conventional. The alignment slugs in the IF transformers are threaded and screw into the coil forms. The slugs are slotted for a small size fiber screw driver. Do not press hard on the aligning tool(fiber screw driver) or the threads in the coil forms will strip and adjustment will be impossible.



TUBE AND TRIMMER LOCATION

FM RF Alignment: The same coil slug arrangement which tunes the 100 MC FM band also tunes the 45 MC band. However, on 45 MC the band switch connects trimmer condensers in parallel and padding wires in series with the 100 MC coils. The tuning slugs are attached to threaded shafts and the slugs are varied in the field of the coils by turning the shafts clockwise or counter-clockwise. After adjustments the shafts must be secured with a drop of speaker cement.

FM IF Alignment: The same type of tuning slugs for aligning the AM IF Amplifier are used for the FM I.F.'s. Observe the same precautions when making adjustments. The second 8.3 Mc If stage is overcoupled. Overcoupling gives a wide band pass with good sensitivity. When an overcoupled stage is aligned with an unmodulated signal, the stage must be loaded. A 300 ohm carbon resistor soldered across the secondary of the second IF transformer provides a satisfactory load for this circuit. The resistor leads must be kept short to reduce the distributed capacity of the circuit.

When aligning a loaded stage, it will be found that considerable signal from the generator will be required, and that it will tune broadly. THE LOAD RESISTOR MUST BE REMOVED AFTER ALIGNMENT.

If the signal generator used does not have sufficient output to overcome the temporary loss caused by the load resistor, the load resistance may be increased or the signal fed into the preceding stage.

FM Discriminator Alignment: When the secondary of the discriminator is aligned (operation 6) use sufficient signal input to get a good positive and negative indication before setting the slug for zero reading. A center zero indicating meter is recommended for this adjustment, but is not absolutely necessary. Reversing the leads of a non-zero center meter, or observing closely when this meter starts to go to the left (negative) of zero will give the same results.