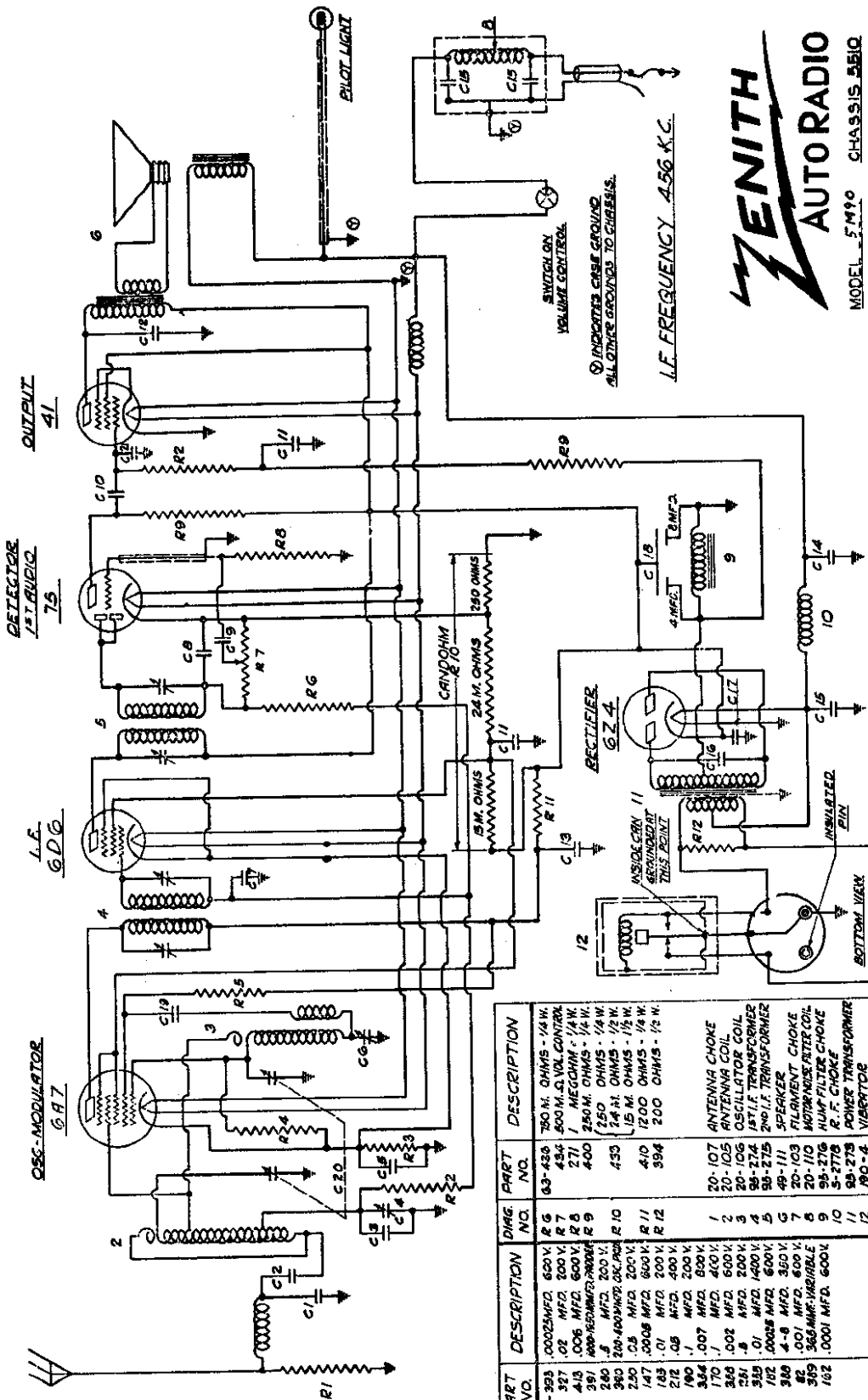


ZENITH RADIO CORP.

MODEL 5-M-90
Chassis 5510
Schematic, Part



ZENITH
AUTO RADIO
MODEL 5-M-90 CHASSIS 5510
ZENITH RADIO CORPORATION
CHICAGO, ILL.

L.F. FREQUENCY 456 K.C.

DIAG. NO.	PART NO.	DESCRIPTION	DIAG. NO.	PART NO.	DESCRIPTION
C 1	22-393	.00025 MFD. 600 V.	R 6	63-438	200 M. OHMS - 1/4 W.
C 2	327	.02 MFD. 200 V.	R 7	434	500 M. OHMS - 1/4 W.
C 3	418	.006 MFD. 600 V.	R 8	271	1 MEG OHM - 1/4 W.
C 4	391	AMP-RESUMING VARIABLE	R 9	400	250 M. OHMS - 1/4 W.
C 5	240	.5 MFD. 200 V.	R 10	453	250 M. OHMS - 1/4 W.
C 6	390	200-400 MFD. 250 V.	R 11	410	15 M. OHMS - 1/2 W.
C 7	250	.05 MFD. 200 V.	R 12	394	1200 OHMS - 1/4 W.
C 8	147	.0005 MFD. 600 V.			
C 9	183	.01 MFD. 200 V.			
C 10	212	.05 MFD. 400 V.			
C 11	190	.1 MFD. 200 V.			
C 12	354	.007 MFD. 600 V.			
C 13	170	.1 MFD. 400 V.			
C 14	350	.002 MFD. 600 V.	1	20-107	ANTENNA CHOKE
C 15	251	.8 MFD. 200 V.	2	20-105	ANTENNA COIL
C 16	319	.01 MFD. 400 V.	3	20-106	OSCILLATOR COIL
C 17	182	.0005 MFD. 600 V.	4	98-274	1ST I.F. TRANSFORMER
C 18	380	4-8 MFD. 300 V.	5	98-275	2ND I.F. TRANSFORMER
C 19	42	.001 MFD. 600 V.	6	49-111	SPEAKER
C 20	319	360 MFD. VARIABLE	7	20-103	FILAMENT CHOKE
C 21	182	.0001 MFD. 600 V.	8	98-276	HUM FILTER COIL
			9	5-278	R. F. CHOKE
			10	98-273	POWER TRANSFORMER
			11	90-4	VIBRATOR
R 1	63-216	15 M. OHMS - 1/4 W.	12		
R 2	451	500 M. OHMS - 1/4 W.	13		
R 3	257	800 M. OHMS - 1/4 W.			
R 4	260	600 M. OHMS - 1/4 W.			
R 5	283	30 M. OHMS - 1/2 W.			

MODEL 5-M-90
Voltage, Socket
Trimmers, Alignment

ZENITH RADIO CORP.

MODELS 6-M-90,
6-M-91, 6-M-92
Alignment

ALIGNMENT

Every Zenith receiver is balanced, and the sensitivity measured on accurate crystal controlled signal generators before leaving the factory, and unless a part is changed, or the receiver otherwise altered, the adjustment should not be tampered with.

When alignment is thus required, an accurately calibrated service oscillator and output meter are essential. The proper procedure is as follows:

MODEL 5M90

"A" Connect the service oscillator output leads to the control grid of the 6A7 tube, and to the chassis. If the oscillator output is a single shielded lead the shield should connect to the chassis.

Connect the output meter across the primary of the speaker transformer.

Set the service oscillator at 456 K.C., and adjust the trimmers on the I. F. transformers to the point giving the greatest reading on the output meter. These, as well as the following adjustments should be made using as small an output from the signal generator as possible so that the A.V.C. action will be least effective.

"B" Change the service oscillator connection from the grid of the 6A7 to the antenna wire, leaving the other lead attached to the chassis.

Set the service oscillator at 1600 K.C. and rotate the gang condenser until the plates are entirely out of mesh. Adjust the oscillator section trimmer until the 1600 K.C. signal is tuned in.

Change the service oscillator to 1400 K.C. Rotate the gang condenser until this signal is tuned in, and then adjust the ANTENNA trimmer on the gang condenser to the point given the greatest output reading.

"C" Set the service oscillator to 600 K.C., and rock the gang condenser slowly to and fro past the point where this signal is received, meanwhile adjusting the pecker condenser for a setting which gives the greatest output reading.

"D" Repeat operation "B".

"E" Reset the service oscillator to 456 K.C., leaving it connected to antenna, and adjust the wave trap trimmer to the point giving the MINIMUM output reading.

MODELS 6-M-90, 6-M-91, 6-M-92

"A" Connect the service oscillator to the control grid of the 6A8 tube and the chassis.

Connect the output meter across the primary of the speaker transformer.

Set the service oscillator to 282.5 K.C., and adjust the trimmers on the I. F. transformers for the greatest output reading. These adjustments should be repeated several times using as weak an input signal as possible so as to obtain greater accuracy.

"B" Change the service oscillator lead from the grid of the 6A8 to the antenna connection. A male Delco Remy connector may be used in making a connection to the antenna lead.

Set the service oscillator at 1400 K.C.

Rotate the gang condenser one and one fourth turns from the minimum setting. At the proper position eight teeth on the tuning gear will be visible past the gear bracket.

Adjust the oscillator, R.F. and antenna trimmers in that order to the point giving the greatest output.

"C" Set the service oscillator at 600 K.C. and rotate the gang condenser to tune in this signal. Move the gang condenser to and fro past the signal meanwhile adjusting the oscillator pecker condenser until the combination of adjustments giving the greatest reading of the output meter is obtained.

"D" Repeat operation "B".

For other data see index

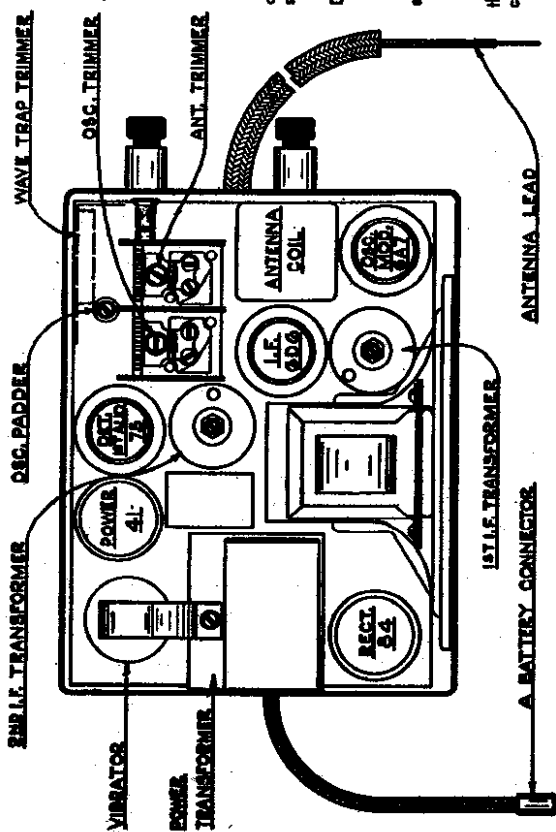
SOCKET VOLTAGES 5-M-90

Tube	Position	Ef	Ek	Eg ¹	Eg ²	Eg ³	Ep
6A7	1st Det.	5.8	4	0	97	—	205
	Osc.	—	—	—	—	—	175
4D6	I. F.	5.8	4	0	97	4	217
75	2nd Det.	5.8	1.1	0	—	—	160
	A. V. C.	—	—	—	—	—	—
	1st Audio	—	—	—	—	—	—
41	P.W.R.	5.8	0	—18	225	—	215
6Z4	RECT.	5.8	—	225	—	—	—

Line Voltage —6V.

Ef—heaters; Ek—cathode; Eg¹—control grid; Eg²—screen grid; Eg³—suppressor grid; Ep—plate.

All measurements taken from point indicated to ground, using a 1000 ohm per volt. D. C. meter.



Tube Position. 5-M-90