

MODEL R-1216
MODEL R-1217

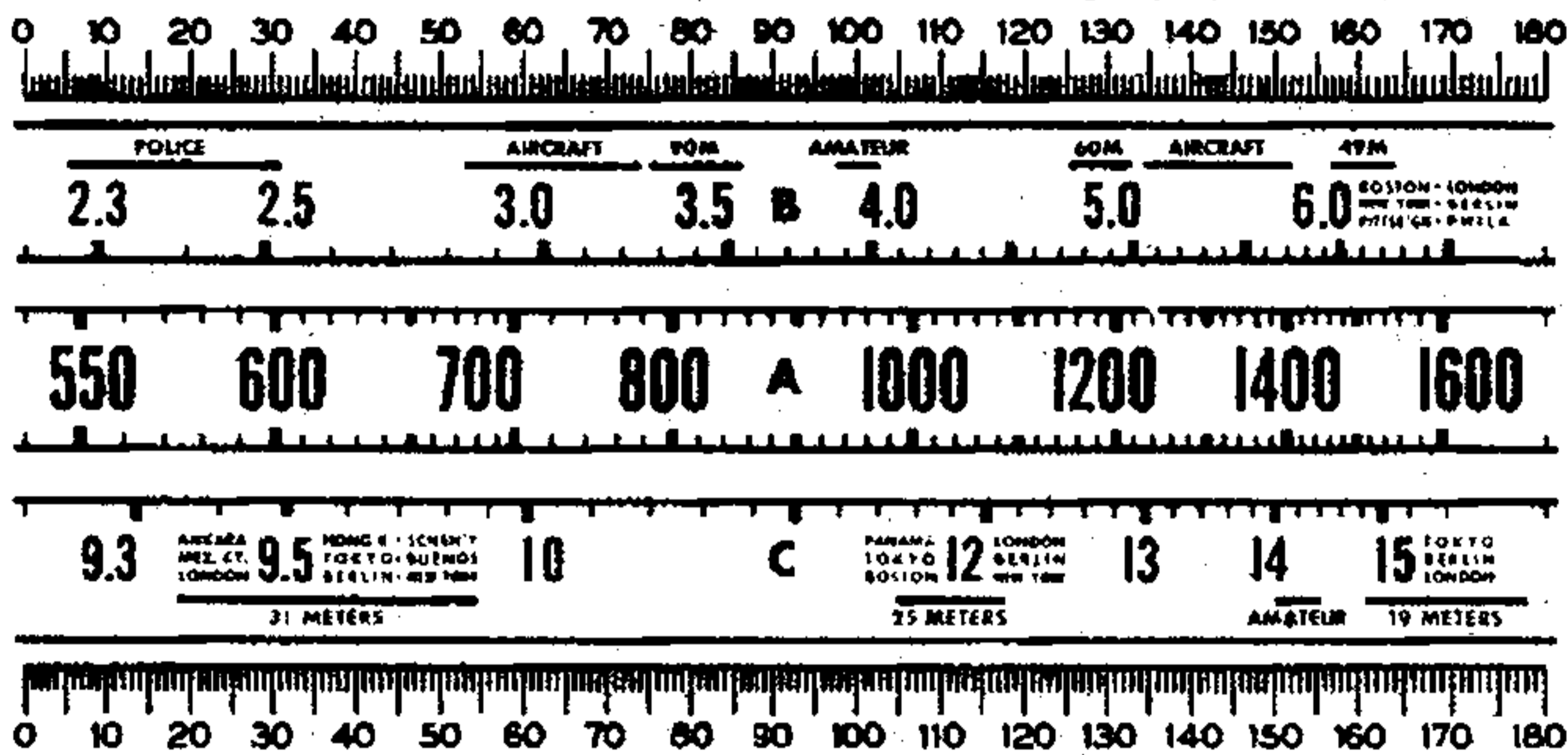
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Steps	Connect the high side of test-osc. to—	Tune test-osc. to—	Range Switch	Turn radio dial to—	Adjust the following for max. peak output
1	6SK7 I-F grid in series with .01 mfd.	456 kc	"A"	Quiet Point near 180°	L17 and L18 (2nd I-F Trans.)
2	6SA7 Det. grid in series with .01 mfd.				L-15 and L-16 (1st I-F Trans.)
3	Ant. section of Gang Condenser	1,500 kc	"A"	180°	C-12 (osc.)
4		600 kc		30.5°	L-7 (osc.)
5	Ant. terminal "A" in series with 47 mmf. link open	6,100 kc	"B"	161°	C-11 (osc.)* C-5 (ant.)
6		15,200 kc	"C"	167°	C-10 (osc.)* C-4 (ant.)
7		9,500 kc		32°	C-3 (ant.) (Rock Gang)
8	Repeat steps 6 and 7.				
9	Fasten chassis in cabinet, see that link is closed on antenna terminal board, indicator at left end of dial scales with gang at maximum capacity.				
10	A radiation loop consisting of two turns of wire 18 inches in diameter located 4 to 6 feet from receiver	1,500 kc	"A"	1,500 kc signal	C-1 (ant.) on loop
11		600 kc		600 kc	L-7 (osc.) (Rock Gang)
12	Repeat steps 10 and 11.				

Calibration Scale on Indicator-Drive-Cord Drum.— The tuning dial is fastened in the cabinet and cannot be used for reference during alignment, therefore a calibration scale is attached to the indicator-drive-cord drum which is mounted on the shaft of the gang condenser. The setting of the gang condenser is read on this scale, which is calibrated in degrees. The correct setting of the gang in degrees, for each alignment frequency, is given in the alignment table.

As the first step in R.F. alignment, check the position of the drum. The 135° mark on the drum scale must be vertical, and directly over the center of the gang-condenser shaft when the plates are in minimum capacity position. The drum is held to the shaft by means of plastic cement which must be securely fastened when the drum is in the correct position.

To determine the corresponding frequency for any setting of the calibration scales, refer to the accompanying drawing



*Use minimum capacity peak if two peaks can be obtained.
Note: Oscillator tracks above signal on all bands.

External Antenna.— When using an External Antenna, peak C3 for max. output on a station in the 31 meter band.

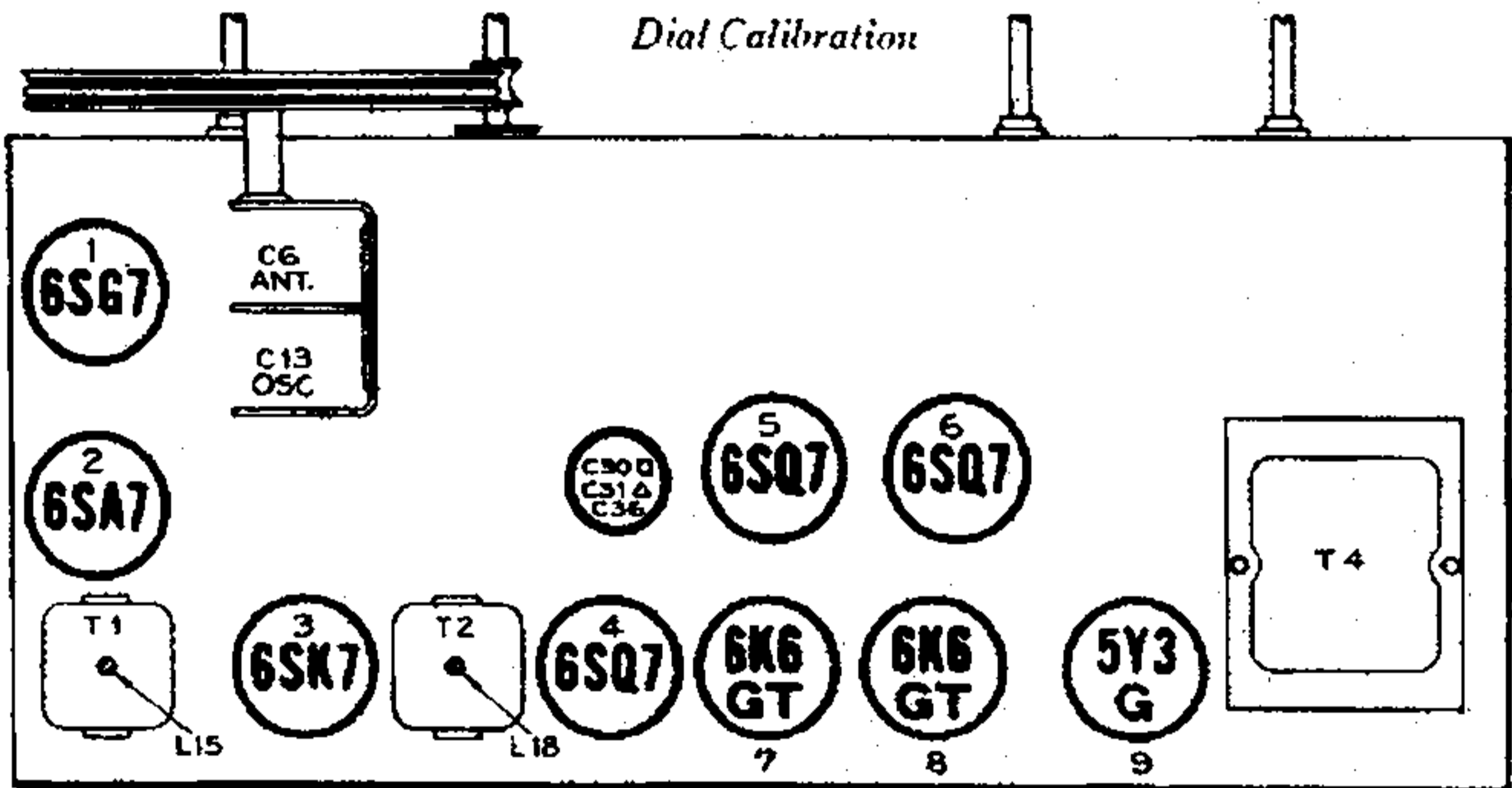
ADJUSTMENT FOR ELECTRIC TUNING

This model has six push buttons for electric tuning. The buttons connect to separate magnetite-core oscillator coils and separate antenna trimmers which must be adjusted for the desired stations. Use an insulated screwdriver or alignment tool, and allow at least five minutes warm-up period before making adjustments.

The procedure is as follows:

1. Make a list of the six desired stations, arranged in order from low to high frequencies.
2. Turn Range Control knob to "A" position, and manually tune in the first station on the list.
Turn the Loop Antenna to give minimum pickup of signal, no outside antenna should be used and link on antenna board should be closed.
3. Turn Range Control knob to "PB" and press push button No. 1 and adjust No. 1 oscillator core to receive this station. Screw the core all the way in, to lowest frequency, and then unscrew slowly until station is received.
4. Adjust No. 1 antenna trimmer for maximum output on this station.

Owing to the relatively high R-F gain, it may be found that there are several settings of each push-button magnetite core that will bring in any particular station. In such cases it is advisable to unscrew the push button



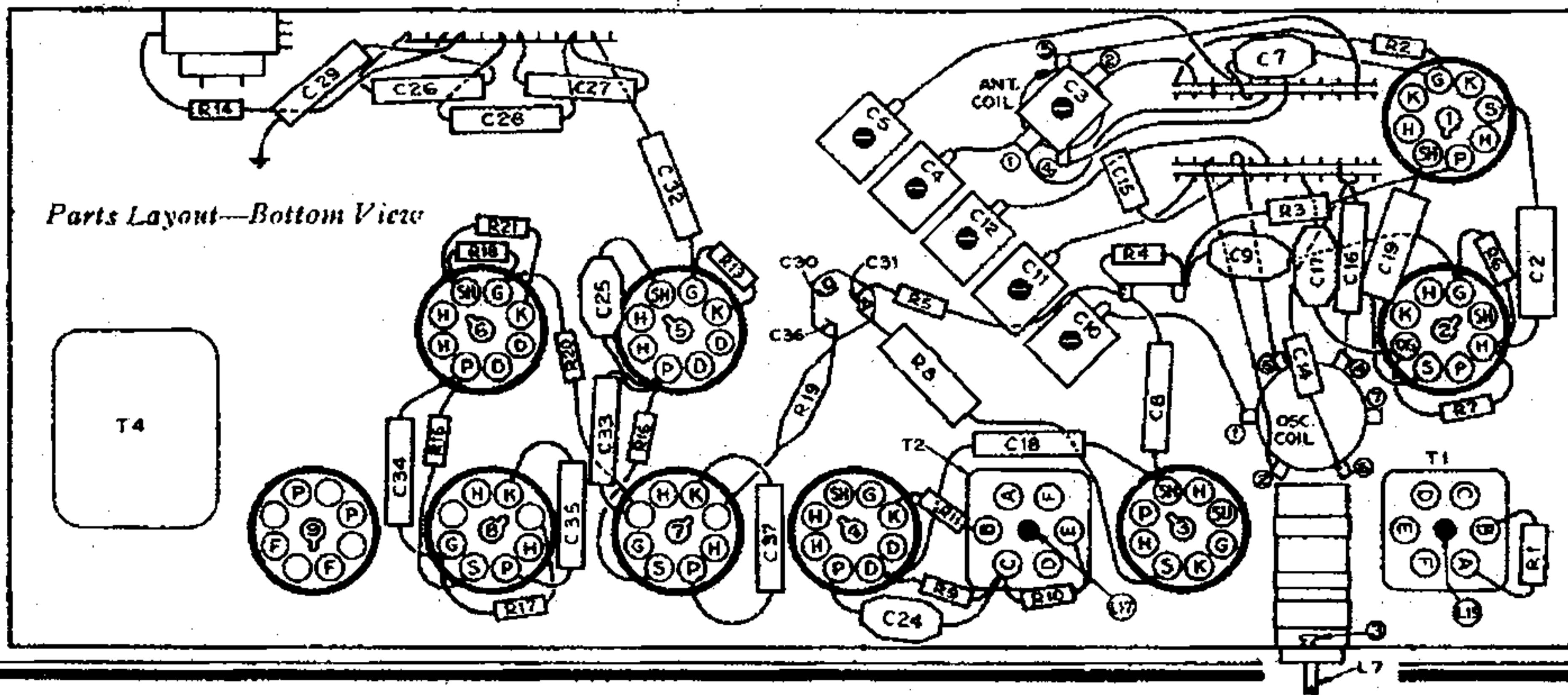
Parts Layout—Top View

antenna trimmers to minimum capacity before adjusting the oscillator cores.

Clockwise adjustment of cores and trimmers tunes the circuits to lower frequencies.

5. Adjust for each of the remaining five stations in the same manner.
6. After all six stations are tuned-in on the buttons, turn the Loop Antenna to a position giving the best signal pickup and make a final careful adjustment of all core rods until best reception is obtained for each. Outdoor antenna should now be reconnected if used.

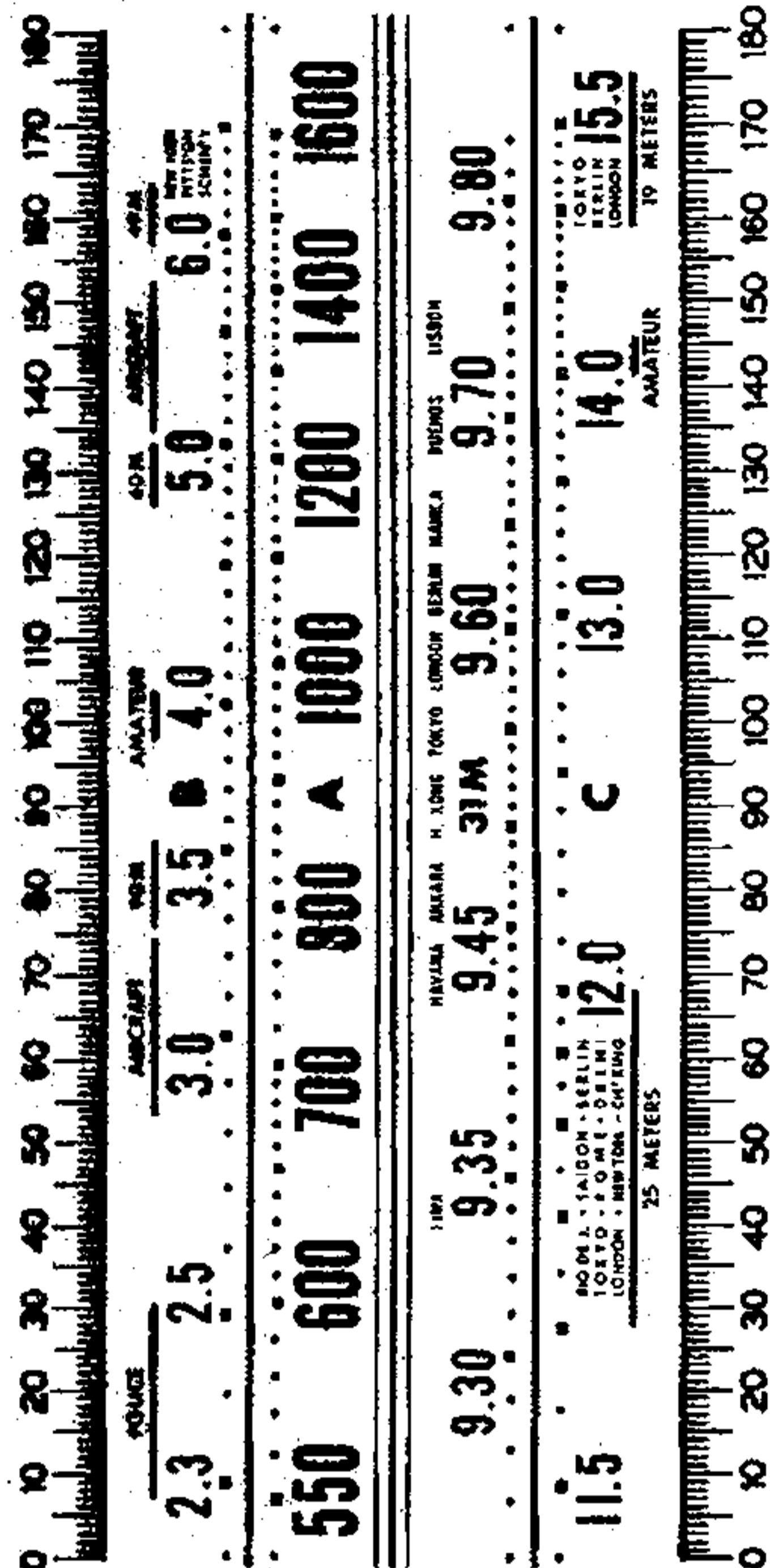
PUSH-BUTTON DATA ON THE LEFT FOR MODELS R-1216 and R-1217



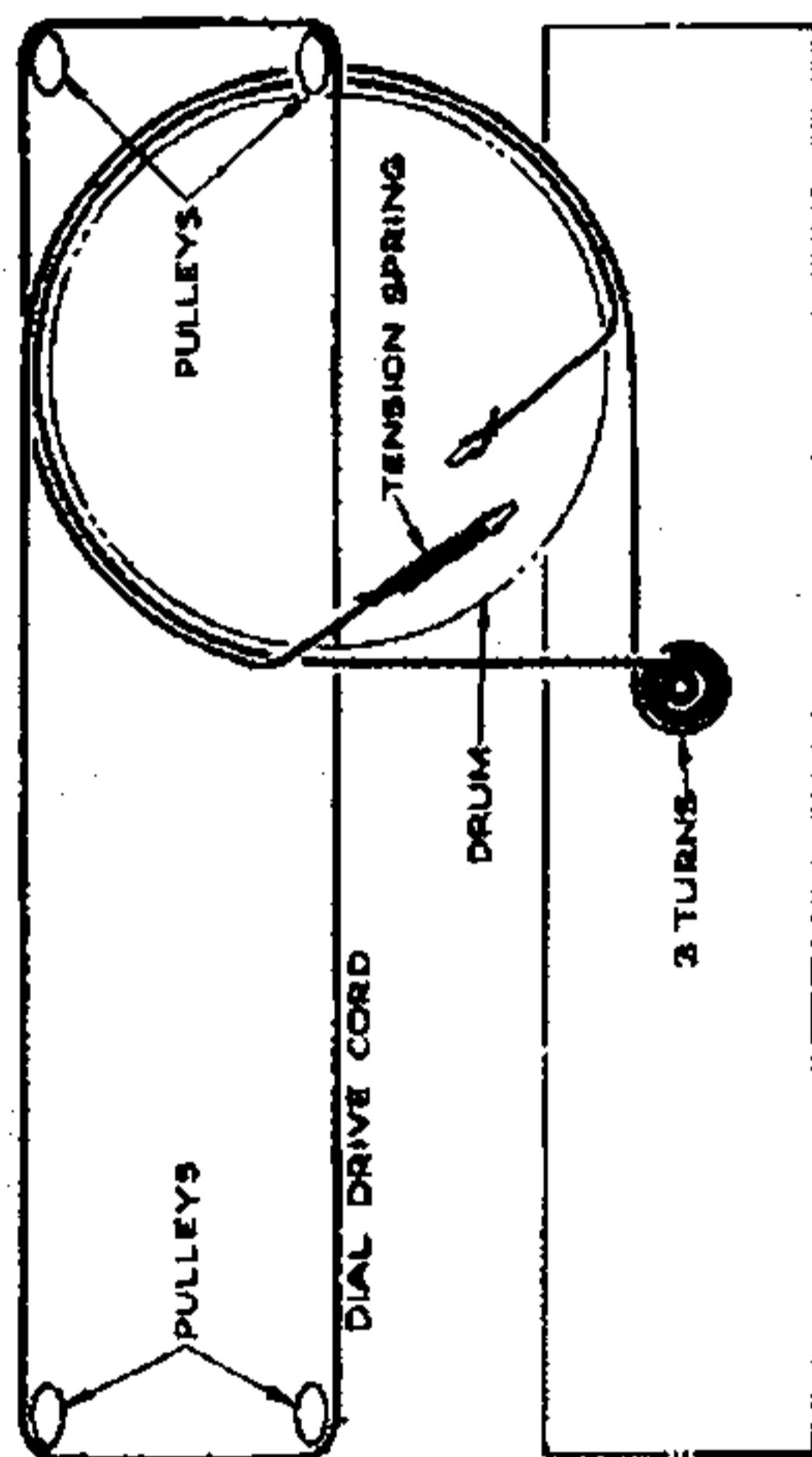
Parts Layout—Bottom View

MODEL R-1217

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Dial Calibration

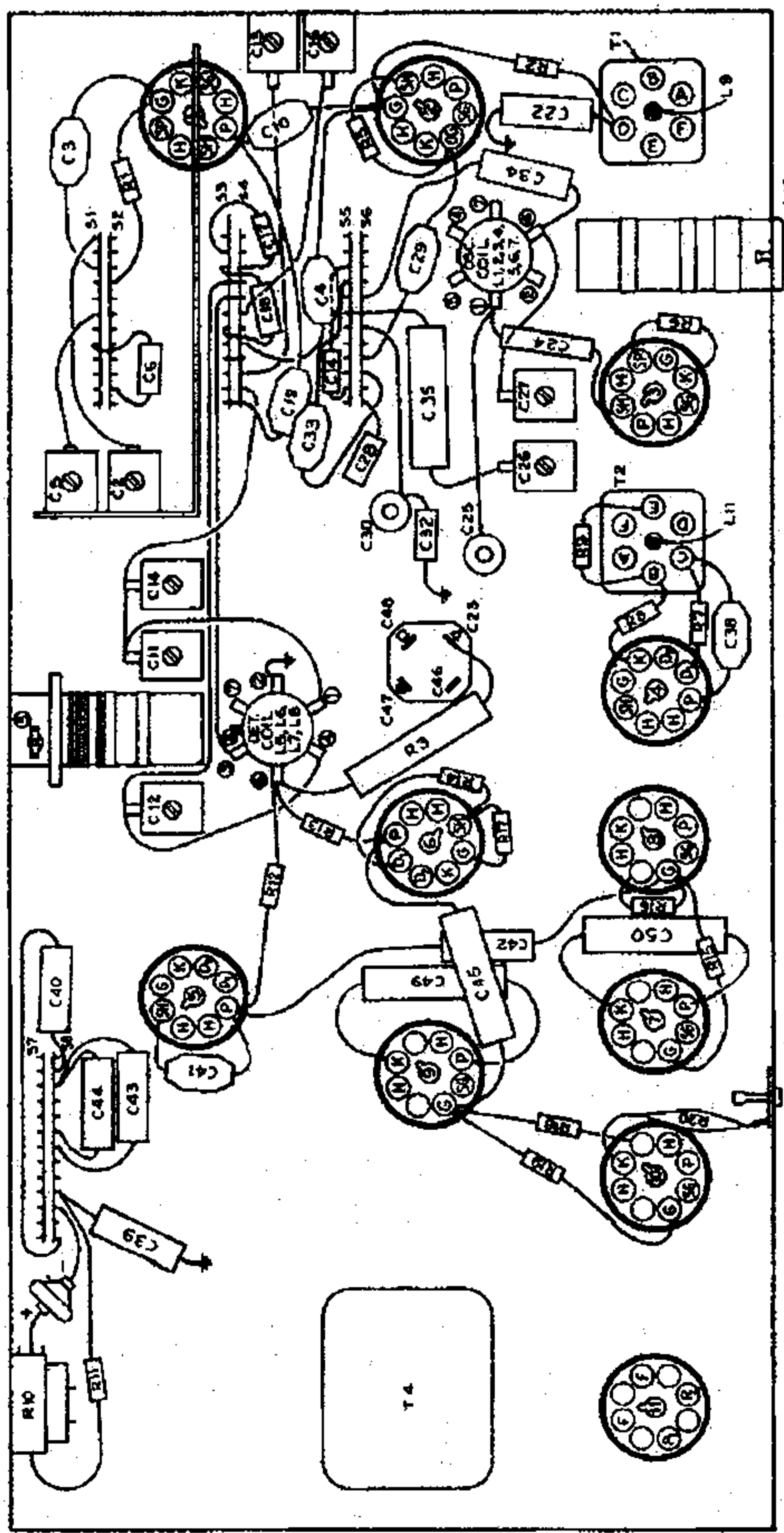


Pointer for Calibration Scale.—Improvise a pointer for the calibration scale by fastening a piece of wire to the gang-condenser frame, and bend the wire so that it points to the "0" mark on the calibration scale when the plates are fully meshed.

Dial-Indicator Adjustment.—After fastening the chassis in the cabinet, attach the dial indicator to the drive cable with indicator at the 540 kc mark, and gang condenser fully meshed. The indicator has a spring clip for attachment to the cable.

Parts Layout—Top View

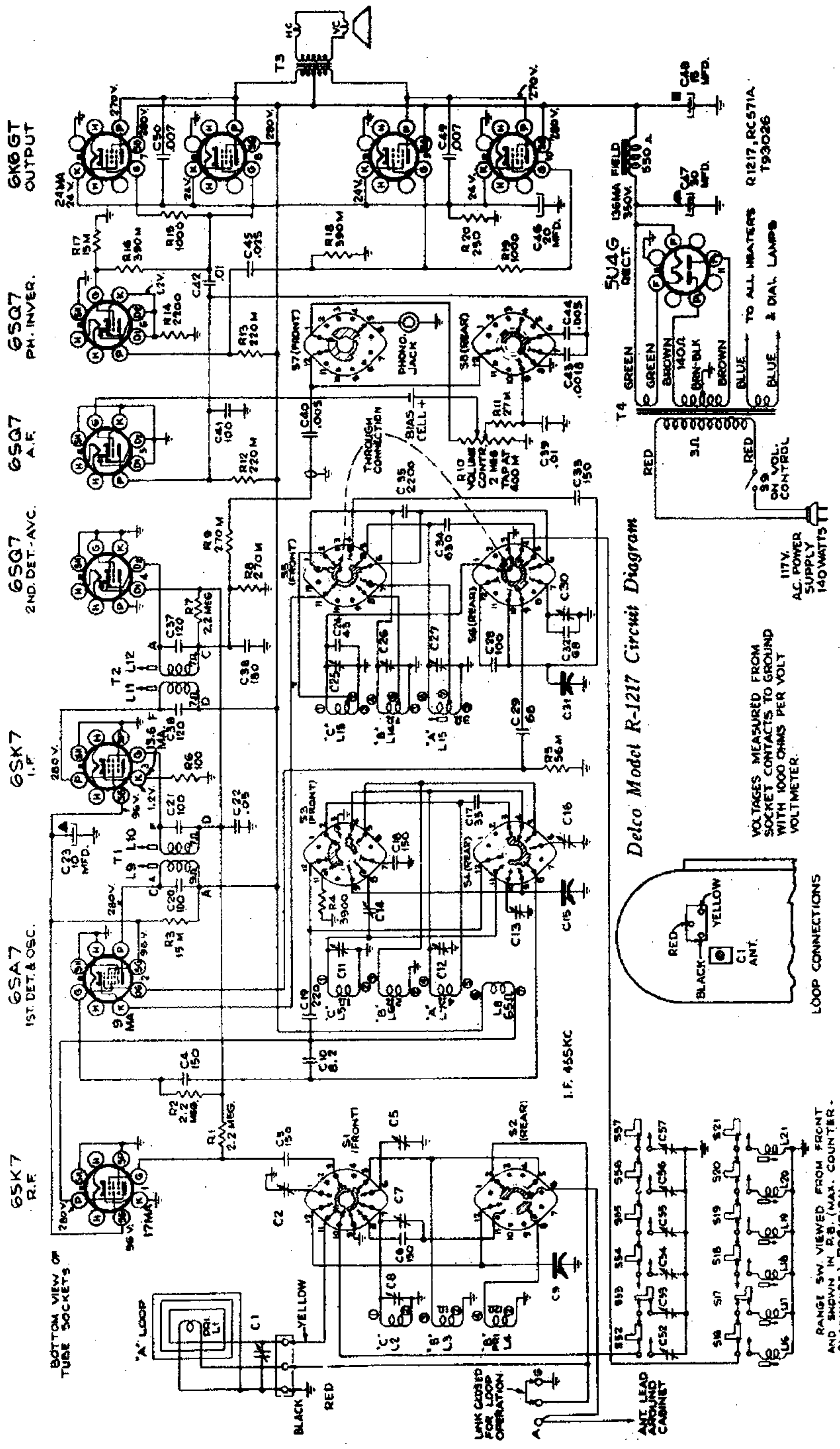
External Antenna.—When using an External Antenna, Peak C7 for max. output on a station in the 31-meter band.



Steps	Connect the high side of the test oscillator to—	Tune test osc. to—	Turn radio dial to—	Adjust the following for maximum peak output—
1	I-F grid in series with .01 mfd.	455 kc	Quiet Point on "A" Band	L-11 and L-12 (2nd I-F Trans.)
2	1st Det. grid in series with .01 mfd.	1,500 kc	1,500 kc (160°) "A" Band	L-9 and L-10 (1st I-F Trans.)
3	Yellow loop lead in series with 200 muf.	600 kc	600 kc (30.5°)	C-27 (osc.) C-12 (det.)
4				L-15 (osc.) Rock
5			Repeat steps 3 and 4.	
6		6,100 kc	6,100 kc (161°) "B" Band	C-26 (osc.)* C-13 (det.) Rock C-2 (ant.) Gang
7		16.2 mc	16.2 mc (165°) "C" Band	C-25 (osc.)* C-11 (det.) Rock C-8 (ant.) Gang
8	Antenna terminal (A) in series with 47 muf. (link open)	11.8 mc	11.8 mc (52°) "C" Band	C-7 (ant.) C-14 (det.) Rock Gang
9			Repeat steps 7 and 8.	
10		9.5 mc	9.5 mc (87.5°) 31M-Band	C-30 (osc.)* C-5 (ant.) Rock C-16 (det.) Gang
11	Fasten chassis in cabinet, close ant. link, adjust indicator to left-hand end of dial scales with gang closed.			
12	Radiation loop consisting of two turns of wire 18 inches in diameter located 4 to 6 feet from receiver	1,500 kc	1,500 kc signal "A" Band	C-1 (ant.) on loop
13		600 kc	600 kc signal "A" Band	L-15 (osc.) Rock Gang
14			Repeat steps 12 and 13.	

* Use minimum capacity peak if two peaks can be obtained.
Note: Oscillator tracks 455 kc, above signal on all bands.

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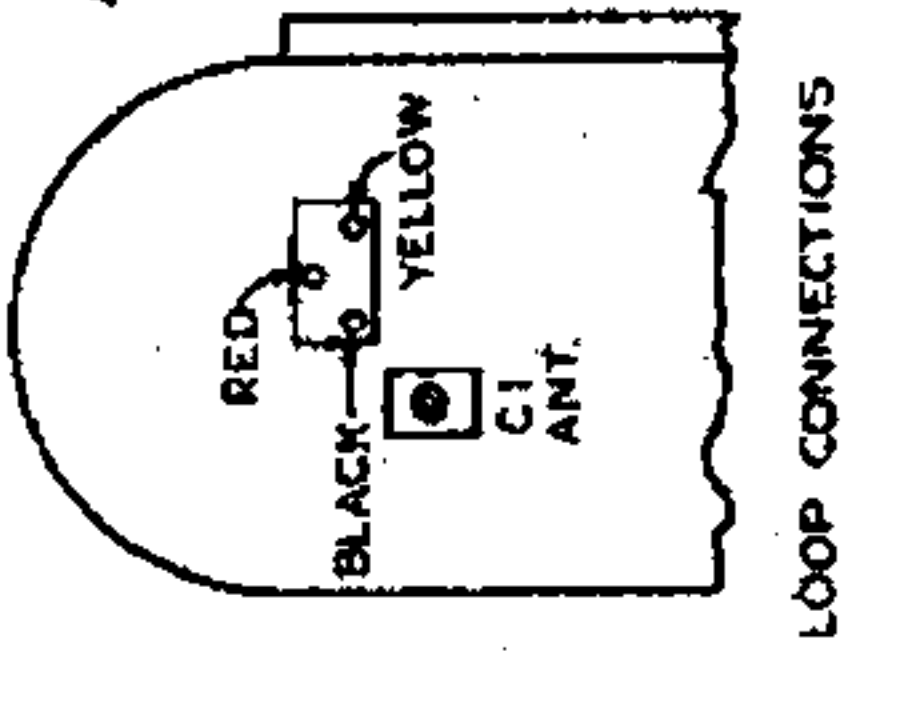
Delco Model R-1217 Circuit Diagram

held to the shaft by means of plastic cement which must be securely fastened when the drum is in the correct position. To determine the corresponding frequency for any setting of the calibration scales, refer to the accompanying drawing which shows the dial with 0-180° calibration scales drawn at top and bottom.

- Speaker..... 12-inch Electrodynamic
- Antenna..... Built-in-Loop or external
- Tuning..... Manual and 6 electric push-buttons
- Tuning Range.....
- Broadcast "A"..... 540-1,600 kc
- Medium Wave "B"..... 2.3-6.3 mc
- Spread Band..... 9.35-9.75 mc
- Short Wave "C"..... 11.7-15.4 mc
- Power Supply..... 105-120 V. 25 cycle AC or 105-120 V. 50-60 cycle AC

IF PEAK 455 KC

9-26-41



LOOP CONNECTIONS

Test-Oscillator.—For all alignment operations, connect the low side of the test-oscillator to the receiver chassis, and keep the output as low as possible to avoid a-v-c action.

Calibration Scale on Indicator-Drive-Cord Drum.—The tuning dial is fastened in the cabinet and cannot be used for reference during alignment, therefore a calibration scale is attached to the indicator-drive-cord drum which is mounted on the shaft of the gang condenser. The setting of the gang condenser is read on this scale, which is calibrated in degrees. The correct setting of the gang in degrees, for each alignment frequency, is given in the alignment table.

As the first step in R.F. alignment, check the position of the drum. The 135° mark on the drum scale must be vertical, and directly over the center of the gang-condenser shaft when the plates are in minimum capacity position. The drum is

RANGE SW. VIEWED FROM FRONT AND SHOWN IN P.B. (MAX. COUNTER. CLOCKWISE) POSITION.

VOLTAGES MEASURED FROM SOCKET CONTACTS TO GROUND WITH 1000 OHMS PER VOLT VOLTMETER.