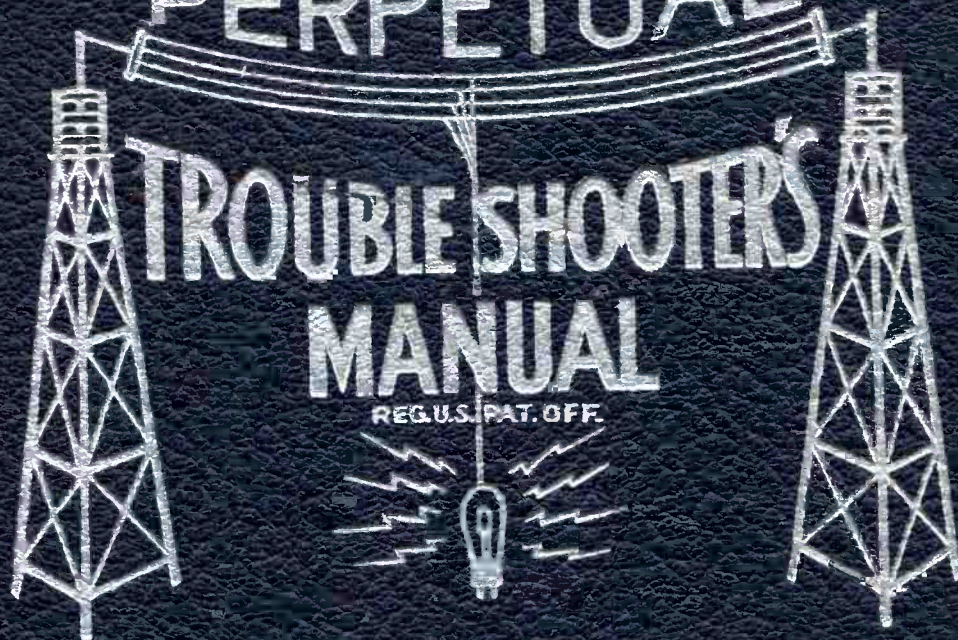


VOLUME XII

PERPETUAL



**TROUBLE SHOOTER'S
MANUAL**

REG. U.S. PAT. OFF.

JOHN F. RIDER

LAFAYETTE RADIO MFG. CO.

MODEL FE-5

RESISTORS

- R1 130218 5M ohm—1/4 w.
- R2 13020 100M ohm—1/4 w.
- R3 130176 20M ohm—1/4 w.
- R4 130295 25 ohm—1 watt
- R5 130295 25 ohm—1 watt
- R6 130100 150M ohm—1/4 w.
- R7 130203 40 ohm—1/4 w.
- R8 1304 3 megohm—1/4 w.
- R9 13012 50M ohm—1/4 w.
- R10 101127 1 megohm volume control
- R11 130257 5 megohm—1/4 w.
- R12 13011 250M ohm—1/4 w.
- R13 1303 500M ohm—1/4 w.
- R14 130166 150 ohm—1/4 w.

CONDENSERS

- C1 102104B 2 gang variable condenser
- C2 12951 .000125 Mica
- C3 12912 .00025 Mica
- C4 .02 x 400 v.
- C5 Antenna Trimmer on gang
- C6 Oscillator trimmer on gang
- C7 .1 x 400 v.
- C8 .25 x 200 v.
- C9 .0001 Mica
- C10 .0001 Mica
- C11 .05 x 200 v.
- C12 .0001 Mica
- C13 .003 x 600 v.
- C14 100012 .2 x 400 v.
- C15 11953E 30 mid. lyric—150 w. v.
- C16 11953E 30 mid. lyric—150 w. v.
- C17 1295 .0001 Mica
- C18 10078 .01 x 200 v.
- C19 11953E 40 mid—25 w. v. lyric
- C20 10026 .02 x 400 v.

CONNECTIONS

- T1 111139 Loop Antenna
- T2 110128 Oscillator Coil
- T3 108140F Input I. F. Coil
- T4 108145B Output I. F. Coil
- T5 10888B Output Transformer
- T6 11416G 5" Dynamic Speaker (450 ohm field)
- L1 1237 Antenna Loading Coil
- P1 107249 6-8 volt, Pilot light . T-47
- S1 Off-on Switch on Volume Control

PARTS

- C1 102104B 2 gang variable condenser
- C2 12951 .000125 Mica
- C3 12912 .00025 Mica
- C4 .02 x 400 v.
- C5 Antenna Trimmer on gang
- C6 Oscillator trimmer on gang
- C7 .1 x 400 v.
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- C17 1295 .0001 Mica
- C18 10078 .01 x 200 v.
- C19 11953E 40 mid—25 w. v. lyric
- C20 10026 .02 x 400 v.

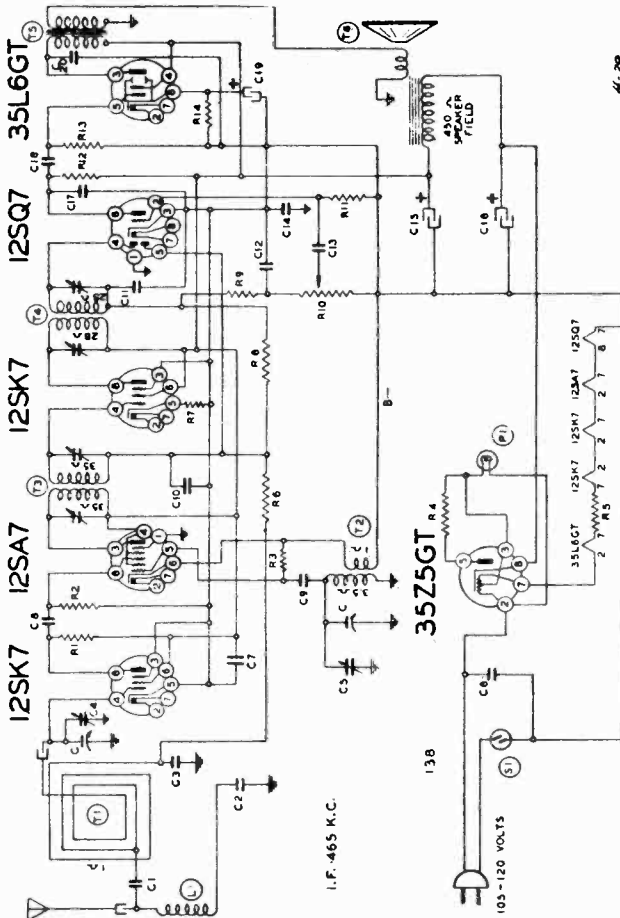
ALIGNMENT

Connect P- of radio chassis to ground post of signal generator through .1 mf condenser.

I. F. peak 465 KC. I. F. alignment conventional---see Vol. VIII, Special Sect.

Trim oscillator at 1650 KC.

Trim antenna at 1400 KC. (Lay signal generator lead near, but not on, loop---when adjusting trimmer.)



- 1—Type 12SK7 R. F. Amplifier.
- 1—Type 12SA7 Mixer, First Detector-oscillator.
- 1—Type 12SK7 I. F. Amplifier.
- 1—Type 12SQ7 Second Detector, A.V.C. and First Audio.
- 1—Type 35L6GT Beam Output Amplifier.
- 1—Type 35Z5GT High Vacuum Rectifier.

ALIGNMENT

Connect P- of radio chassis to ground post of signal generator through .1 mf condenser.

I. F. peak 465 KC. I. F. alignment conventional---see Vol. VIII, Special Sect.

Trim oscillator at 1650 KC.

Trim antenna at 1400 KC. (Lay signal generator lead near, but not on, loop---when adjusting trimmer.)

BOTTOM VIEW OF CHASSIS

VOLTAGES MEASURED WITH 500 OHM PER VOLT VOLTMETER BETWEEN SOCKET TERMINALS AND (1) CHASSIS OR (2) SHIELD.

* OSCILLATOR VOLTAGE SHOULD BE MEASURED WITH .1% ERROR IN BENCH.



REAR OF CHASSIS

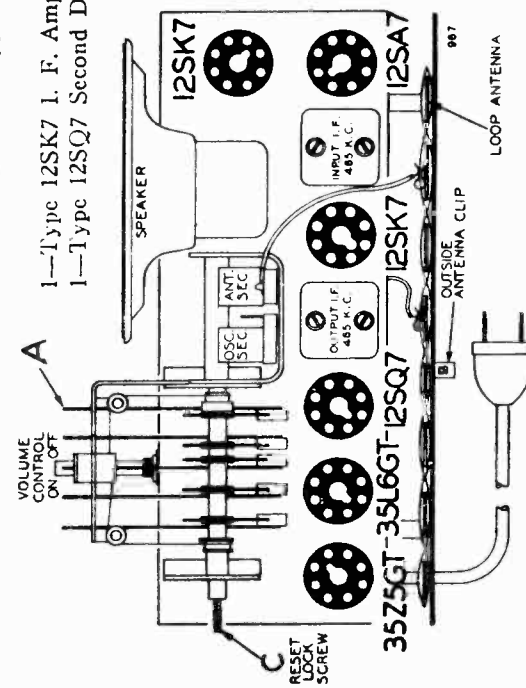
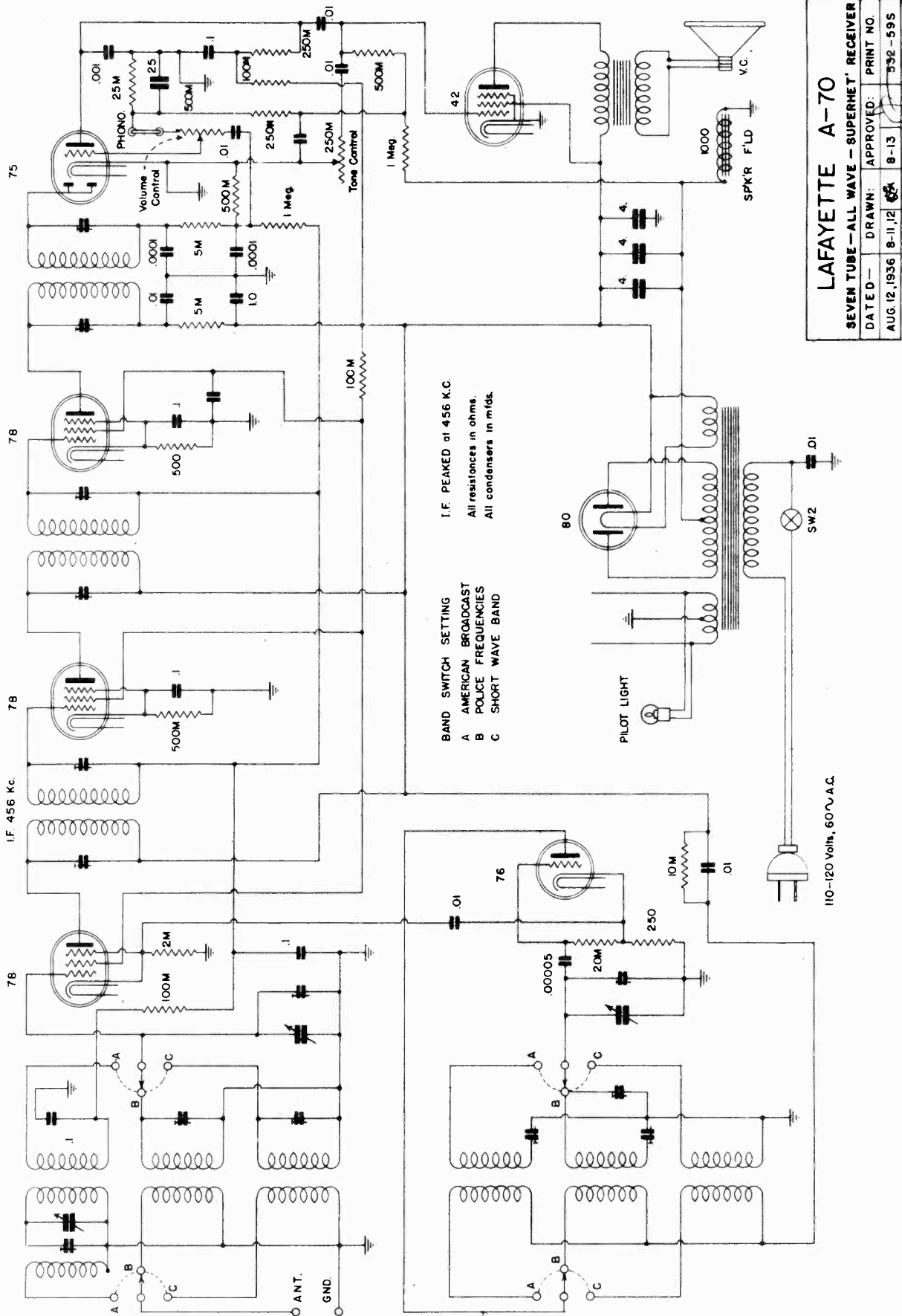


FIG. 1--TOP VIEW



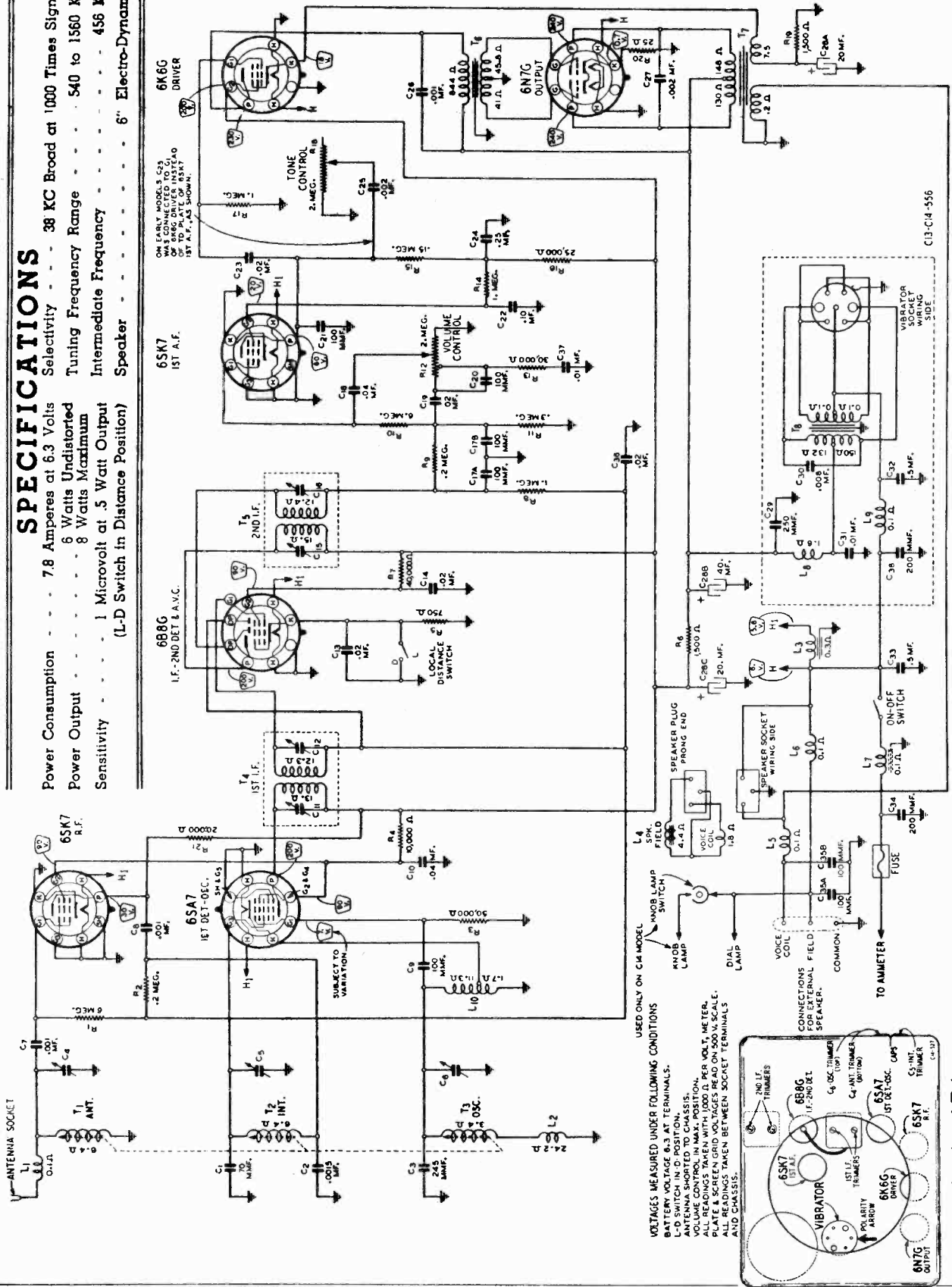
LAFAYETTE A-70			
SEVEN TUBE - ALL WAVE - SUPERHET' RECEIVER			
DATED -	DRAWN:	APPROVED:	PRINT NO.
AUG. 12, 1936	8-11, 12	8-13	532-595

LAFAYETTE RADIO MFG. CO.

MODEL BB-75

SPECIFICATIONS

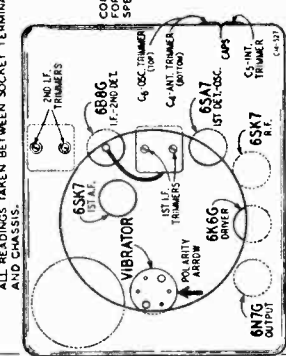
Power Consumption 7.8 Amperes at 6.3 Volts
 Selectivity 38 KC Broad at 1000 Times Signal
 Power Output 6 Watts Undistorted
 Tuning Frequency Range 540 to 1560 KC
 Sensitivity 1 Microvolt at .5 Watt Output
 Intermediate Frequency 458 KC
 Speaker 6" Electro-Dynamic
 (L-D Switch in Distance Position)



USED ONLY ON C14 MODEL

VOLTAGES MEASURED UNDER FOLLOWING CONDITIONS
 BATTERY VOLTAGE 6.3 AT TERMINALS.
 L-D SWITCH IN D POSITION.
 L-D SWITCH IN D POSITION.
 VOLUME CONTROLS IN MAX. POSITION.
 ALL READINGS TAKEN WITH 1000 Ω PER VOLT. METER.
 PLATE & SCREEN GRID VOLTAGES READ ON 500 V. SCALE.
 ALL READINGS TAKEN BETWEEN SOCKET TERMINALS
 AND GRASSIS.

CONNECTIONS FOR EXTERNAL FIELD SPEAKER.
 VOICE COIL
 COMMON
 SPEAKER SOCKET WIRING SIDE



LAFAYETTE RADIO MFG. CO.

MODEL BB-75

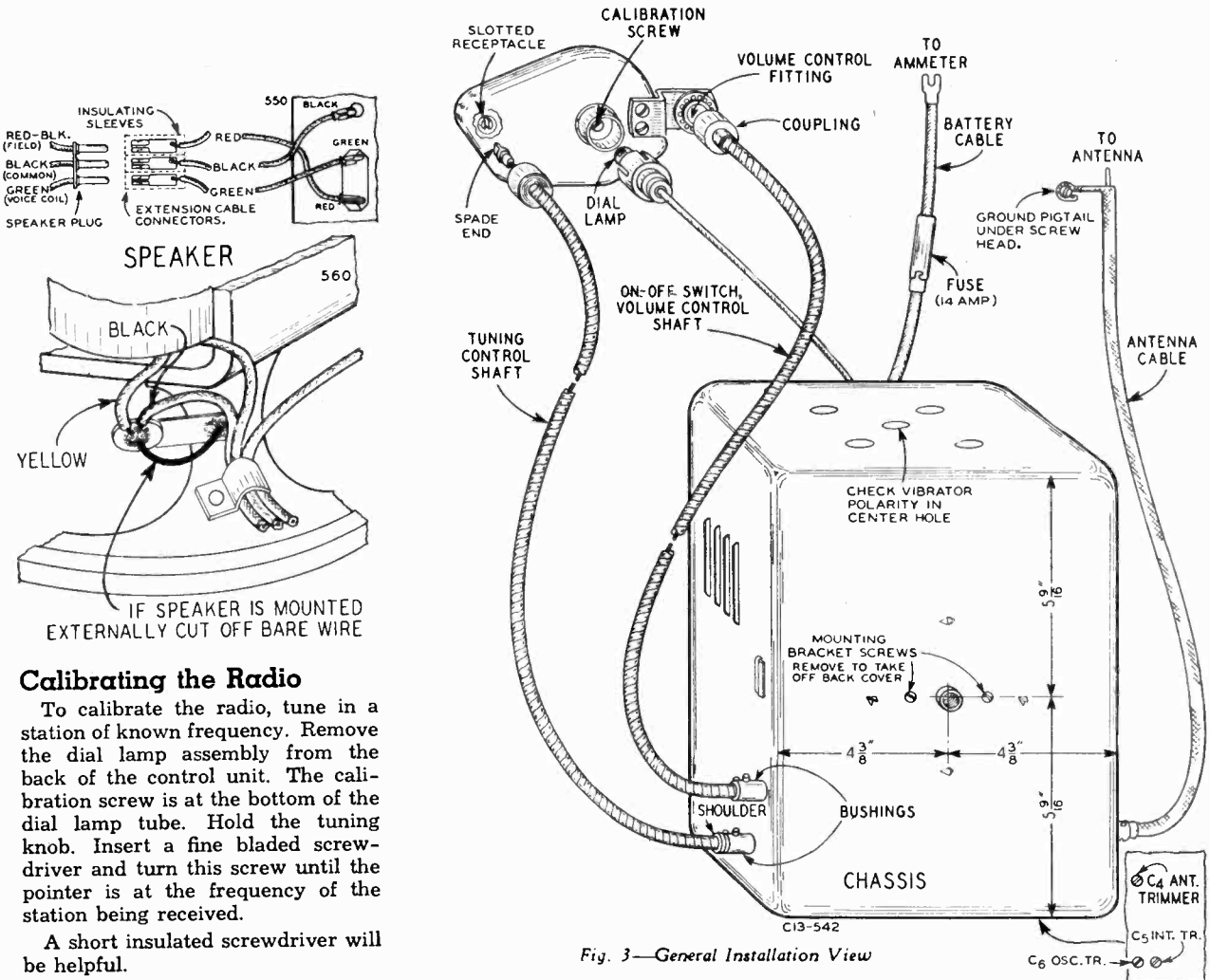


Fig. 3—General Installation View

Calibrating the Radio

To calibrate the radio, tune in a station of known frequency. Remove the dial lamp assembly from the back of the control unit. The calibration screw is at the bottom of the dial lamp tube. Hold the tuning knob. Insert a fine bladed screwdriver and turn this screw until the pointer is at the frequency of the station being received.

A short insulated screwdriver will be helpful.

ALIGNMENT PROCEDURE

Remove Grille, Speaker, Trimmer Caps and Rear Cover From Chassis Case—(See Figs. 3 and 5).

Volume Control—Maximum All Adjustments.

Local-Distance Switch—"Distance" Position.

Connect Radio Chassis to Ground Post of Signal Generator with a Short Heavy Lead.

Allow Chassis and Signal Generator to "Heat Up" for several minutes.

The following equipment is required for aligning:

A Signal Generator which will provide an accurately calibrated signal at the test frequencies as listed.

Output Indicating Meter—Non-Metallic Screwdriver.

Dummy Antenna—.05 mf., See Note A.

SIGNAL GENERATOR		DUMMY ANTENNA	IRON CORE SETTING	ADJUST TRIMMERS TO MAXIMUM (See Figs. 3 and 5)
FREQUENCY SETTING	CONNECTION AT RADIO			
I.F.	Control Grid (prong No. 8) 6SA7 1st Det. Tube	.05 mf.		1st I.F. (C11) & (C12) 2nd I.F. (C15) & (C16)
456 KC				
OSCILLATOR	Antenna Cable See Note A	See Note A	Extreme Position out of Coil	Oscillator (C6)
1560 KC				
1000 KC ADJUSTMENT				
1000 KC	Antenna Cable	See Note A	Tune to Max. Output with Tuning Knob	Int. (C5) Ant. (C4)

Reassemble Radio—Install in Car—Connect Car Antenna to Radio.

Car Antenna Readjustment—Tune in weak signal near 1000 KC—Readjust Antenna Trimmer C4 for maximum output.

NOTE A—Insert the antenna cable plug in the antenna socket on the chassis. The total capacity of the antenna cable and dummy antenna should be 60 mmf. If the cable, for example, has a capacity of 30 mmf., use a 30 mmf. condenser for a dummy antenna. Con-

nect the other end of the antenna cable through the dummy antenna capacity to the output of the signal generator.

CALIBRATION—To calibrate the radio, tune in a station of known frequency. At the

back of the control unit is the calibration screw. Remove the dial lamp assembly. Hold the tuning knob. Insert a fine bladed screwdriver and turn this screw until the pointer on the dial scale is at the frequency of the station being received.

MODELS JS177, JS178
MODELS JS179, JS180

LAFAYETTE RADIO MFG. CO.

