LAFLAYETTE RADIO MFG. CO.

Model J-11

LAFAYETTE MODEL J-II

FOUR TUBE - AC - D.C. - TR.F. - RADIO RECEIVER

110-120 Volts

A.C. or D.C.

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This receiver is a 5 tube Alternating Current operated superheterodyne. The tubes used are a 6A7 as oscillator modulator, a 6G6 as I.F. Amplifier, a 75 as A.V. and Audio rectifier and audio voltage amplifier, a 41 as power audio amplifier and an 80 as a power rectifier. The receiver is made to cover two tuning bands, the standard broadcast band which ranges from 1750 KC to 555 KC and the middle or police band which has a frequency range of from 64 MD to 21 MC.

TUBE LOCATION

Connect the signal generator to the grid cap of the 6A7 tube through a 1 M.F. condenser. Connect the ground of the generator to the ground lead of the receiver. With the wave switch on broadcast position and the dial set to about 1000 K.C., feed in a 456 K.C. signal. Adjust the trimmers on top of the first and second I.F. transformers until the maximum output is obtained. Connect output meter thru a .5 mf. dummy. total resistance 7000 ohms to speaker plug.

Leaving the wave switch on broadcast position turn the dial to the extreme high frequency end. Feed a 1730 K.C. signal to the receiver antenna lead through a .00025 M.F. mica condenser. Adjust the 1730 K.C. broadcast oscillator trimmer until maximum output is shown. Set the generator to 1400 K.C. and tune this signal on the receiver. Then adjust the 1400 K.C. broadcast antenna trimmer to maximum output. Set the generator to 600 K.C. and adjust the 800 K.C. broadcast oscillator pad to maximum output while tuning the receiver back and forth across the signal from the generator. This completes the alignment of the broadcast band.

The short wave band is aligned while feeding a 6.0 M.C. signal to the receiver antenna lead through a .00025 M.F. mica condenser. Turn the wave switch to short wave position and tune in the 6.0 M.C. signal. Adjust the 6.0 M.C. short wave trimmer to maximum output.
ALIGNING FREQUENCIES

BC-OSC ...... 1700 KC
BC-ANT ...... 1400 KC
FADDER ...... 600 KC
CHECK BC ... 1000 KC
PULSER(SW switch) .......... 6 SC

IF PEAK
456 KC.
INSTRUCTIONS AND SERVICE NOTES FOR THE MODEL C-17

2 AND 3 VOLT BATTERY SUPERHETEROODYN

Frequency Range - 540 - 1500 Kilocycles, 1.5-4.2 Megacycles and 5.6-
15 Megacycles.

TUBE COMPLEMENT

1 TYPE 106 Det.-Dec. 2
2 TYPE 14 I.F. Amplifier
1 TYPE 185 Diode Detector and Amp.
1 TYPE 30 Audio Amplifier
1 TYPE 19 Class B Twin Amplifier
1 TYPE 6-1 Ballast Tube

ANTENNA AND GROUND

For best reception, an antenna 75 to 100 feet long and erected high
and clear of surrounding objects should be used.

A good ground connection is essential with this receiver, preferably
to a water pipe with the ground wire as short as possible.

BATTERY CONNECTIONS

Red Lead 441 or 3 Volts
Blue Lead B+35 Volts
Black Lead A-(connected to A-)
Black Lead B-

"G" BATTERY CONNECTIONS

A "G" battery should be connected to leads extending from the top of
the chassis. Provision is made for mounting "G" battery within the

For aligning the police band, set test oscillator to 4.2 megacycles and
switch to the police band position on the set. With the condenser
rotated to this frequency setting as indicated on the dial, adjust
oscillator trimmer located on the right side of the chassis, second
position from the front. Set test oscillator to 4.0 megacycles and
rotate condenser to the corresponding dial reading. Now adjust anten-
na trimmer located on the front of the chassis, center position to re-
sonance. Then set oscillator to 2.0 megacycles and rotate the con-
denser to the 2 megacycle reading. Adjust padding located on top of
chassis, first position from the front.

The short wave band is aligned by setting the condenser to 15 mega-
cycles and adjust the oscillator trimmer located on the right side of
the chassis, third position from the front to resonance with a 15
megacycle signal from the test oscillator. At the same time adjust
the antenna trimmer located in front of the chassis, third position
from the left.

Use a test oscillator and connect an output meter from plate to plate
of the 19 output tube.

I.F. ALIGNMENT - Connect the oscillator through a .00025 condenser
to the grid of the 106 tube and set the oscillator to 456 kilocycles.
Peek each I.F. stage to resonance as indicated by maximum output or
the output meter.

B.F. ALIGNMENT - With the wave change switch in the broadcast position,
set oscillator to 1500 kilocycles and connect in series with a .00025
condenser to the antenna of the receiver. Rotate the variable con-
denser to the 1500 setting of the dial and adjust the trimmer conden-
sor of the broadcast oscillator to resonance. This trimmer is locat-
ed on the right side of the chassis, third position from the front.
Reset the test oscillator to 1400 kilocycles and adjust antenna trim-
er located in front of the chassis, first position from the left. Now
set oscillator to 600 kilocycles and adjust padding located on top of
the chassis, second from the front. Check alignment at 1000 kilo.
LAFAYETTE RADIO MFG. CO. MODEL D-28

SW: Osc. trim 18 mc, on right side of chassis, 3rd position from front. SW: Ant. trim 16 mc, thru right hand hold in front of chassis.

PADDERS: 600 kc. Located on top of chassis. CHECK: BC at 1000 kc, trim 5 mc., on right side of chassis, 1st position from front.

ALIGNMENT:

IF: 456 kc. EC-osc: 1000 kc. Trimmer located under Ant. trim 5 mc., on front of chassis, left position.

EC-ANT: 1400 kc. Trimmer located under Ant. trim 5 mc., on front of chassis, left position.

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I. F. ALIGNMENT:

With volume control turned on full and variable gang condenser at maximum capacity, attach test oscillator lead in series with a .1 mfd. condenser to grid of 6A7 tube. Set test oscillator 456 KC and adjust L.F. trimmers for maximum output as indicated on an output meter connected across voice coil of speaker or from plate and screen of 41 tube.

R. F. ALIGNMENT:

Set test oscillator at 1500 KC and connect to antenna of receiver through a 150 mmm. condenser. Rotate variable gang condenser to minimum capacity and back off slightly. Adjust trimmer on oscillator section of gang condenser (first section from shaft end) to resonance indicated by maximum output. Re-set test oscillator at 1400 KC and rotate variable condenser until oscillator signal is picked up. Adjust antenna (rear section) to resonance. Check alignment at 1400, 1000, 600 and 550 kilocycles by setting test oscillator to these frequencies and rotate condenser until signal is picked up. Off tracking at 1000 and 600 kilocycles may be compensated for by slightly bending the slotted plates of the antenna section of gang condenser. DO NOT BEND PLATES OF OSCILLATOR SECTION.
## ALIGNMENT PROCEDURE

For alignment procedure read tabulations from left to right. If more than one adjustment is required on any one band, make the adjustment marked (1) first, (2) next, (3) third. IMPORTANT: BEFORE ALIGNING, PLACE LOOP ANTENNA IN THE SAME POSITION IT WILL BE IN WHEN THE SET IS IN THE CABINET.

### When adjusting 1600 kilocycle oscillator trimmer 600 K.C.: paddler, 455 K.C. R.F. trimmer and 1400 kilocycle antenna trimmer, do not connect test oscillator to loop. Couple test oscillator to receiver loop by: (a) Make a loop consisting of five to ten turns of No. 28 to 30 size wire wound on a three inch form and attach across output of test oscillator. (b) Place test oscillator loop near net loop—BE SURE THAT NEITHER MOVES WHILE ALIGNING.

### TEST OSCILLATOR

<table>
<thead>
<tr>
<th>Place band switch for operation on:</th>
<th>Set receiver dial to:</th>
<th>Adjust test oscillator frequency to:</th>
<th>Use dummy antenna in series with output of test oscillator consisting of:</th>
<th>Attach output of test oscillator to:</th>
<th>Refer to parts layout diagram for location of trimmers mentioned below:</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.F. alignment use any band position.</td>
<td>Any point where no interference signal is received</td>
<td>455 K.C.</td>
<td>0.8 MHz condenser</td>
<td>High side to grid cap of 12KAT tube, Low side to frame of condenser through 61 MHz condenser</td>
<td>Adjust each of the second I.F. transformer trimmer for maximum output, then adjust each of the first I.F. transformer trimmers for maximum output</td>
</tr>
<tr>
<td>1800 to 2400 K.C. Band</td>
<td>1</td>
<td>Rotate gang condenser to maximum capacity</td>
<td>Exactly 125 K.C.</td>
<td>None</td>
<td>Use small loop to couple test oscillator to receiver loop. Low side to frame of condenser through 61 MHz condenser</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Exactly 1250 K.C.</td>
<td>Exactly 1250 K.C.</td>
<td>None</td>
<td>Use small loop to couple test oscillator to receiver loop. Low side to frame of condenser through 61 MHz condenser</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Almost</td>
<td>Almost</td>
<td>None</td>
<td>Use small loop to couple test oscillator to receiver loop. Low side to frame of condenser through 61 MHz condenser</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Almost</td>
<td>Almost</td>
<td>None</td>
<td>Use small loop to couple test oscillator to receiver loop. Low side to frame of condenser through 61 MHz condenser</td>
</tr>
<tr>
<td>5.7 to 18.3 M.C. Band</td>
<td>1</td>
<td>Exactly</td>
<td>19.3 M.C.</td>
<td>500 Ohm carbon resistor</td>
<td>High side to Blue Ant. Lead, Low side to frame of condenser through 61 MHz condenser</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Almost</td>
<td>Almost</td>
<td>100 Ohm</td>
<td>Use small loop to couple test oscillator to receiver loop. Low side to frame of condenser through 61 MHz condenser</td>
</tr>
</tbody>
</table>
When adjusting 1600 kilocycle oscillator trimmer, 600 K.C. Padder and 1400 kilocycle antenna trimmer, do not connect test oscillator to loop. Couple test oscillator to receiver loop by: (a) Make a loop consisting of five to ten turns of No. 20 to 30 size wire wound on a three inch form and attach across output of test oscillator. (b) Place test oscillator loop near set loop—BE SURE THAT NEITHER MOVES WHILE ALIGNING.

<table>
<thead>
<tr>
<th>Test Oscillator</th>
<th>Place band switch for operation on:</th>
<th>Set receiver dial to:</th>
<th>Adjust test oscillator frequency to</th>
<th>Use dummy antenna in series with output of test oscillator consisting of:</th>
<th>Attach output of test oscillator to:</th>
<th>Refer to parts layout diagram for location of trimmers mentioned below:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1600 to 3000 K.C. band</td>
<td>Exactly 1600 K.C.</td>
<td>Exactly 1600 K.C.</td>
<td>None</td>
<td>Use Small Loop to couple test oscillator to receiver loop</td>
<td>Adjust 1600 K.C. oscillator trimmer for maximum output.</td>
<td></td>
</tr>
<tr>
<td>2.5 to 7.5 M.C. Band</td>
<td>Exactly 7.5 M.C.</td>
<td>Exactly 7.5 M.C.</td>
<td>600 Ohm carbon resistor</td>
<td>Receiver antenna &quot;A&quot; post</td>
<td>While rocking gang condenser adjust 1400 K.C. loop antenna trimmer for maximum output.</td>
<td></td>
</tr>
<tr>
<td>7.5 to 24 M.C. Band</td>
<td>Exactly 24 M.C.</td>
<td>Exactly 24 M.C.</td>
<td>600 Ohm carbon resistor</td>
<td>Receiver antenna &quot;A&quot; post</td>
<td>While rocking gang condenser adjust 600 K.C. loop oscillator padder for maximum output.</td>
<td></td>
</tr>
</tbody>
</table>

Adjust 24 M.C. oscillator trimmer for maximum output—be sure to use proper peak. If more than one peak is noticed, back off trimmer to minimum capacity, then screw down trimmer (add capacity) until the second peak—which is the proper one to use—is found. While rocking gang condenser adjust 24 M.C. antenna trimmer for maximum output.
**TECHNICAL DATA**

- **Power Consumption Radio Only** - 120 Watts
- **Power Output** - 10 Watts Undistorted

**Sensitivity for 500 Milliwatt Output:** 10 Microvolts Average

**Selectivity - 27 KC Broad at 1000 Times Signal at 1000 KC Tuning Frequency Range Broadcast Band - 540 to 1600 KC**

**49M Band** - 5.9 to 6.1 MC

**31M Band** - 9.1 to 10 MC

**25M Band** - 11.4 to 12.1 MC

**19M Band** - 14.9 to 15.4 MC

**Intermediate Frequency** - 455 KC

**Speaker** - 12 in. Electro Dynamic
### Aligning Instructions

First refer to the "Iron Core Adjustment View" now turn the tuning knob until the drive bar comes within 1/64 to 1/32 from the stops. (A piece of blotting paper is about the right thickness and will serve as a gauge). The clearance of the bar must be the same at both stops. If far off you can raise one drive screw gently and equalize them. Minor adjustments may be made with the drive bar adjustments.

Next rotate each iron core up to the fine score marks are even with the edge of the coil forms.

You are now ready to continue with the trimmer adjustments as shown on the alignment chart.

### Replacing Pushbuttons

Should it ever be necessary to replace a broken or lost pushbutton you will notice they are made in two parts, a clear front and a brown body. To separate the two portions first take off the escutcheon. Push the button in—