

SERVICE DATA

If the receiver lacks sensitivity after having checked the tubes and the tube voltages (see voltage chart) the alignment should be carefully checked in the following manner. Use only an insulated screwdriver with a small metal end.

- (a) Remove the chassis from the cabinet and remove the bottom pan.
- (b) Connect a suitable output meter from plate to plate of the output (53) tube or across the speaker voice coil terminals.
- (c) Connect a 370 K.C. oscillator between the grid cap of the 6A7 tube and ground to align the IF. Make sure that there is a series condenser (approximately .02MFD) in the oscillator leads so as not to ground the A.V.C. system at the 6A7 detector grid.
- (d) With the volume and Easy Chair Controls, full on align the two IF transformers beginning with the second stage and aligning the upper condenser before the lower in each case. If the alignment was badly out repeat this operation. Always keep the signal from the oscillator as low as possible, still maintaining a steady readable indication on the output meter. This alignment should be carried out with the range switch in the Broadcast position and the dial pointer at about 1400 K.C.
- (e) Then align the Broadcast band as follows:
NOTE: For Broadcast and short wave alignment it may be necessary to turn down the Easy Chair control slightly to obtain a readable signal on the output meter. Don't turn it down any more than necessary.

Remove the oscillator leads from the 6A7 tubes and connect a 1400 KC oscillator to the antenna and ground terminals, (through a standard dummy antenna or 200 MMF condenser). Do not rely on the calibration of the service oscillator at 1400 K.C. but use a Broadcast station to check it with. First make sure that the dial pointer has not moved by checking that when the tuning knob is turned all the way to the right the pointer lines up with the two black marks on the dial. Then set the dial and the service oscillator at 1400 K.C. and adjust the oscillator pad C32 (see diagram) for maximum output. Make sure that you set

the oscillator on the proper one of the two peaks, that is with the pad screwed farthest out. Then adjust the R.F. and antenna trimmers C35 and C33 in that order for maximum output.

(f) Next set the dial pointer and service oscillator in tune at 600 K.C. and adjust the series pad C3 for maximum output. Then turn the tuning knob slightly and if the output increases readjust C3 repeating these operations until a peak is obtained.

(g) If C3 had to be altered appreciable, re-align the R.F. and antenna trimmers C35 and C33 at 1400 K.C. Do not readjust C32 as this will upset the calibration.

(h) Short-wave alignment:—Connect the antenna lead of the oscillator through a 400 ohm resistor to the yellow wire and ground the other oscillator lead to the grounded clip. Connect a jumper across the two clips. With the range switch in the short wave position, set the dial pointer at a 15000 K.C. oscillator (20 Meters) in tune at 15 megacycles on the dial. This is the long scale division in the 19 M Band. If you have not a 15000 K.C. oscillator available use the second harmonic of a 7500 K.C. or the third harmonic of a 5000 K.C. or the fourth harmonic of a 3750 K.C. oscillator etc. Next carefully adjust the shortwave oscillator trimmer C31 for maximum output making sure to select the highest peak viz. the one with the trimmer farthest out. A strong signal may be necessary to locate this peak but cut it down as low as possible when it is tuned in. Then with a strong signal still at 15000 K.C. turn the dial pointer down to 14260 K.C. and check for the other peak. If no signal is heard here and one is heard at 15740 K.C. the oscillator trimmer has been set on the wrong peak.

(i) With the oscillator and dial in tune at 15000 K.C. adjust the R.F. trimmers and antenna trimmer C35, C30 and C34 in that order for maximum output using again the weakest possible signal consistent with a readable output. The R.F. trimmer C30 may be found to have two peaks in which case choose the one with the trimmer screwed farthest in. Note that C30 is on the top of the gang condenser.

When placing the chassis back in the cabinet make sure that it floats nicely on the rubber washers and that the dial lines up properly in the window.

FIG. 1 Bottom Backview

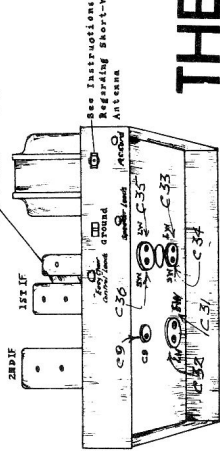


FIG. 1 Bottom Backview

THE "DAVENTRY"

Incorporating Model 179 Chassis

1934-35

- COURTESY