

MODEL RT 222

The DANSETTE portable employs a superhetrodyne circuit. The aerial is built in, and is of the ferrite rod type. An aerial socket is provided for use with a car aerial.

Signals are fed from the aerial to the base of the frequency changer stage (OC44) which produces its own oscillation by means of feedback from collector to emitter. Tracking of the aerial and oscillator circuits is obtained by using a tuning condenser with shaped oscillator vanes.

The intermediate frequency is extracted from the collector of the (OC44) by the first I.F. transformer. The I.F. amplifier uses two (OC45s) operating in unilateralised grounded emitter circuits. The third I.F. transformer is connected to an (OA70) detector diode, which supplies an audio output, and a D.C. output.

The D.C. is fed back to control the operating current of the first I.F. transistor, so providing A.G.C.

The audio output from the (OA70) is fed via the volume control to the base of the L.F. amplifier (OC78D) the amplified audio signals are transformer coupled to a matched pair of (OC78s) which form the output stage.

The output transistors are connected in a common emitter class "B" Push-pull circuit. A Push-pull output transformer terminates the output with a 3 ohm loudspeaker wired to the secondary.

ALIGNMENT INSTRUCTIONS

Apparatus Required.

Signal Generator covering Long and Medium Waves.

A sensitive D.C. voltmeter measuring 0-2.5 volts.

Radiator Loop. (A suitable loop consists of 3 turns of copper wire wound on a diameter of .25 metres with a series resistor of 430 ohms, situated about .6 metres from the ferrite aerial.)

Connect voltmeter across test points P1-P2.

For all I.F. measurements connect a .5 ufd capacitor and a 820 ohm resistor in series with the generator direct.

I.F. Alignment.

1. Connect signal generator to test point "A", set generator to 470 Kc/s adjust T.3. for max. output.
2. Transfer signal generator to test point "B", adjust T.2. for max. output.
3. Connect generator to test point "C". (Shunt "CX" with 1 ufd capacitor) then adjust T.1. for max. output.
4. With generator connected as in 3. Receiver switched to Medium wave, the gang condenser set to max. capacity, set generator to 540 Kc/s, now adjust "LX" for max. output.
5. Set gang condenser to min. capacity reset the generator to 1640 Kc/s, adjust "CY" for max. output. Repeat 4 and 5 until no further improvement can be achieved.

Remove 1. ufd condenser from test point "CX".

Aerial Alignment.

1. Connect loop to generator termination. set generator to 600 Kc s, Tune receiver to 600 Kc s on dial, and adjust "LY" for max. output.
2. Set generator to 1300 Kc s, tune receiver to 1300 Kc s, and adjust "CZ" to max. output. Repeat 1. and 2. until no further improvement can be achieved.
3. Switch receiver to Long Waves. Set generator to 220 Kc s. tune receiver to 220 Kc/s, adjust "LZ" for max. output.

Removal from Cabinet.

1. Remove the back of the cabinet.
2. Unscrew the two hexagonal studs situated at each side of the cabinet.
3. Remove the tuning dish by inserting two small screwdrivers under each side and levering upwards. On early models a $\frac{1}{4}$ " packing bush is loaded in the spindle hole. Leave pointer in position.
4. Remove the back by unscrewing the two brass headed screws.
5. Remove and disconnect the battery.
6. Loosen the two screws retaining the car aerial bracket.
7. Remove by unscrewing the two hex. pillars situated on each side of the cabinet.
8. Lift out the complete equipment by holding the speaker magnet.

