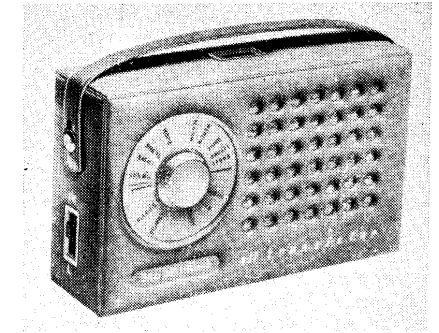
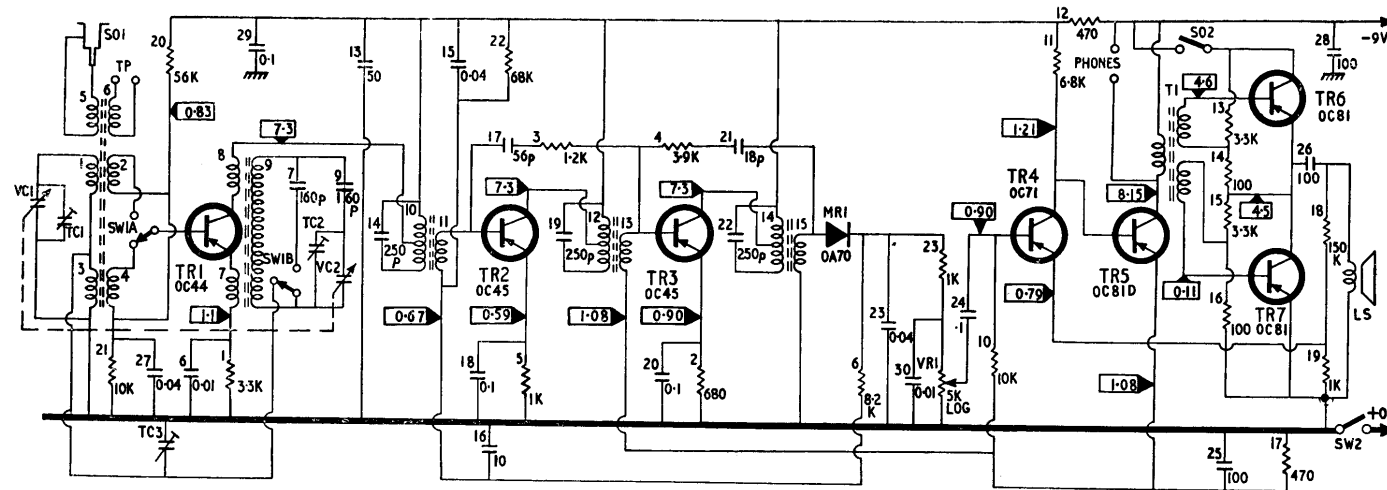


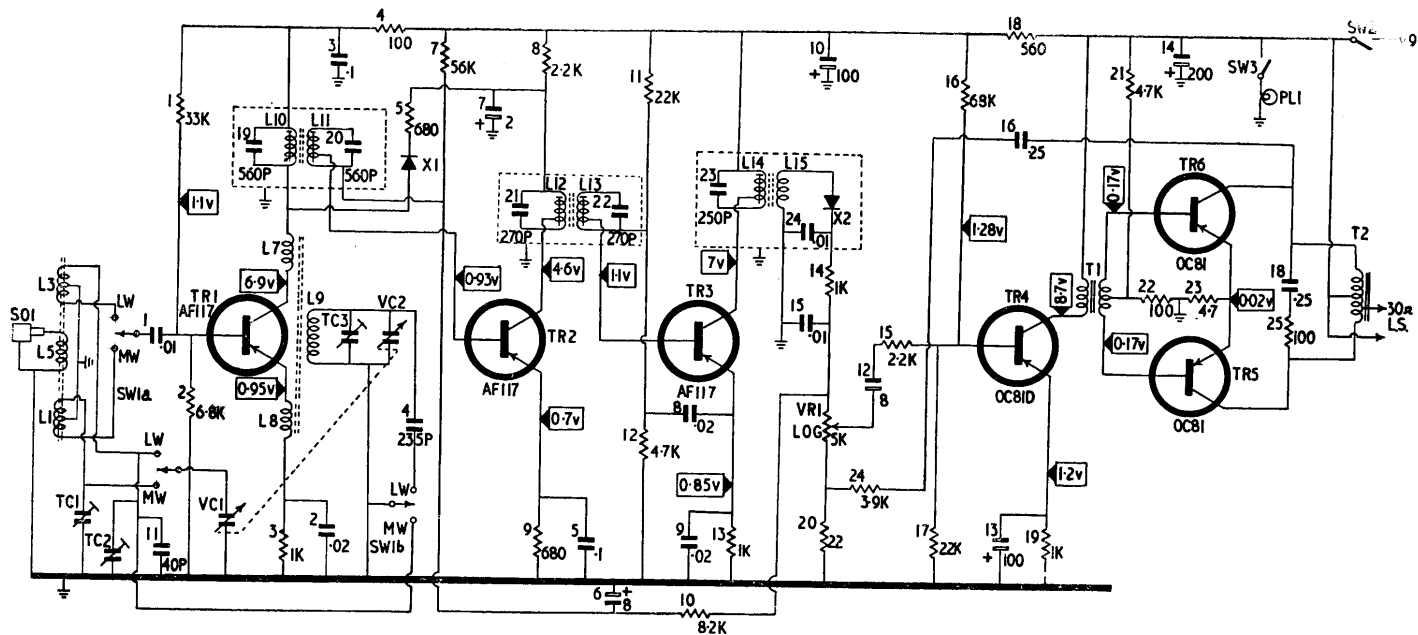
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ERT SERVICE CHART

**McMICHAEL M103BT, M105BT
SOBELL S303BT, S305BT**



M103BT, S303BT. Seven transistor personal portable receivers, released March, 1961, at 12½ gns (M103BT) and 13gns (S303BT), both later increased to 13½gns.
Batteries. Ever Ready PP6 or equivalent.
Consumption. 7-9mA under no signal conditions.



M105BT, S305BT. Six transistor portable receivers with switchable dial light, released April, 1961, at 17gns., later increased to 17½gns.
Batteries. Ever Ready PP9 or equivalent.
Consumption. 12mA under no signal conditions.
Wavebands. LW, 1130-2000m; MW, 188-565m
Transistors. OC170 (3), OC81D, OC81 (2).
Diodes. OA79, OA70.
Pilot light. Operated by press button, Sw3.
IF. 470kc/s.
Output. 500mW.
Speaker. 5in. round, 30ohms.

McMICHAEL M103BT, SOBELL S303BT

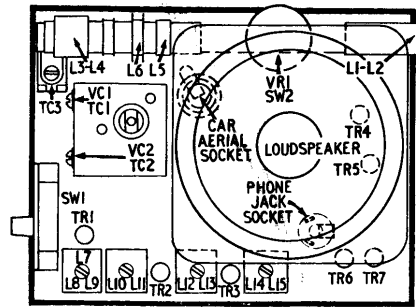
Wavebands. LW, 1220-1940m; MW, 200-540m.
Transistors. OC44, OC45 (2), OC71, OC81D, OC81 (2).
Diode. OA70.
IF. 470kc/s.
Output. 400mW.
Speaker. 3in. round, 30ohms.
Aerial. Internal ferrite rod, with socket for car aerial.
Manufacturer. Radio and Allied Industries, Ltd.
Service Department. Langley House, Hanger Lane, London, W5.

ALIGNMENT

Equipment required. AC output meter or DC milliammeter (50mA range). Signal generator covering LW and MW bands with 30 per cent AM modulation.

Setting up. If the output meter is used, it should be connected across the speaker, and the output restricted to 20mW (0.8V in 30ohms) during alignment. If the DC meter is used, it should be inserted in the battery supply lead, and the current restricted to 18mA.

When input is specified to L6, the direct output of the generator should be connected to the two spare tags to which this winding (a single turn) is connected. Correct peak in all cases is the outer one.



Procedure. Switch to MW, inject a 470kc/s modulated signal at base of Tr1, then adjust L14, L12 and L10 for maximum output. Repeat this operation.

Transfer generator to L6, inject 580kc/s, set dial to 540m and adjust L9 for maximum output. Change input to 1500kc/s and dial to 200m, then adjust TC2 for maximum output. Repeat these two operations.

Change input to 600kc/s and dial to 500m, adjust L1 for maximum. Change input to 1400kc/s and dial to 214m, adjust TC1 for maximum. Repeat these two operations.

Switch to LW, set generator to 170kc/s and dial to 1760m, adjust L3 for maximum. Change to 240kc/s and 1250m and adjust TC3 for maximum. Repeat these two operations.

McMICHAEL M105BT, SOBELL S305BT

Aerial. Internal ferrite rod, with socket for car aerial.
Manufacturer and service department. As for other models on this chart.

ALIGNMENT

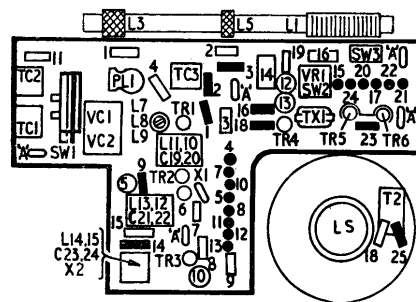
Equipment required. As for other models on this Chart.

Setting up. If output meter is used it should be connected across the speaker, and the output restricted to 50mW (1.2V in 30ohms) during alignment. If the DC meter is used it should be inserted in the battery supply lead, and the current restricted to 20mA.

Procedure. Switch to MW, feed generator output (via 0.1mF) across L1, set to 470kc/s, damp L11 and L13, then adjust L10, 11, 12, 13 and 14 for maximum output. Transfer damping to L10 and L12, then readjust L11 and L13.

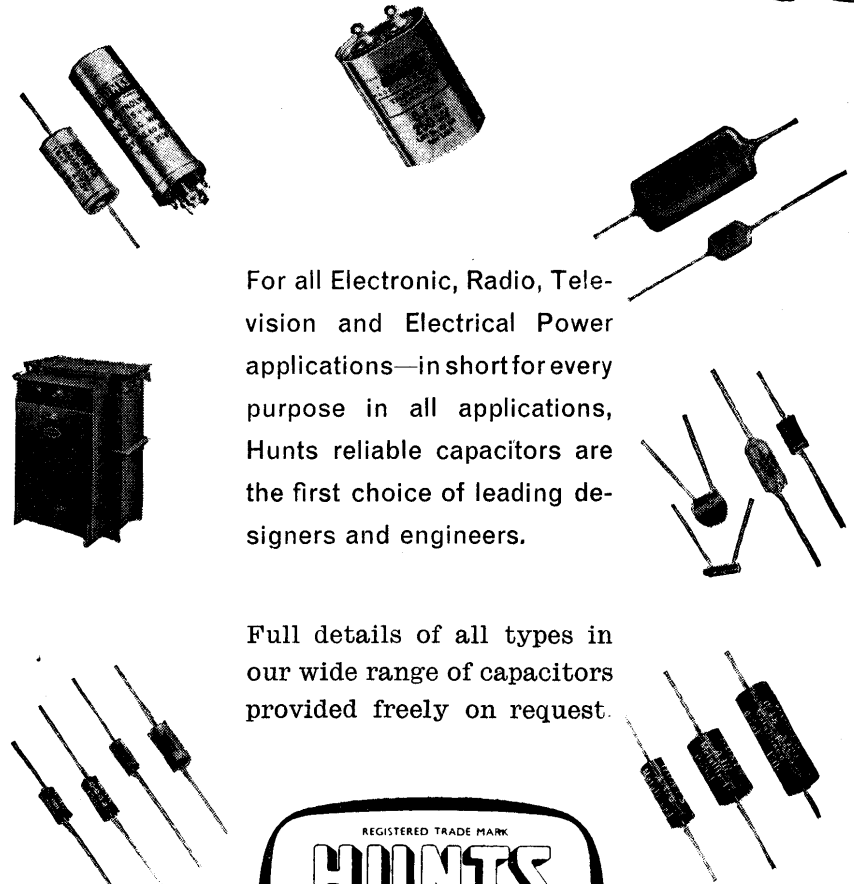
Turn tuning gang to maximum capacity, loosely couple the generator to ferrite rod, apply 530kc/s and adjust L9 for maximum output. Turn gang to minimum, change input to 1600kc/s and adjust TC3 for maximum. Repeat these two operations until no further adjustment is required.

Change input to 600kc/s, set tuning dial to



500m, then adjust L1 for maximum output, checking that receiver remains tuned to maximum at 500m. Change input to 1400kc/s and dial to 214m, then adjust TC1 for maximum, checking receiver tuning at same time. Repeat these two operations until no further adjustment is required.

Switch to LW, apply 170kc/s, set dial to 1760m, then adjust L3 for maximum, ensuring that receiver remains on tune. Change input to 230kc/s and dial to 1300m, then adjust TC2 for maximum, tuning receiver for maximum as necessary. Repeat these two operations until no further adjustment is required.



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