



Radio Microphone TM3/3

This pocket-sized transmitter is intended for radio-microphone use in outside broadcasts, where the distances to be covered may be as great as one mile. The power output of 250mW is high for this type of equipment. The TM3/3 replaces the earlier BBC radio microphone type TM3/1 and can be used with the existing Portable Radio-link Receiver RC4/1, or the new receiver now being developed for this purpose, the RC1/6.

Either a low-impedance dynamic microphone or a Sony "Electret" microphone type ECM-50 can be used; in the latter case, the necessary power is supplied by the transmitter and the battery/transformer holder normally used with this type of microphone is not required. A high-fidelity audio limiter, based on that used in the BBC's Commentator-operated OB Equipment (EP11/1) is provided to minimise distortion due to overloading. Frequency-modulation is employed, with a deviation of $\pm 75\text{kHz}$ corresponding to 100% modulation. The transmitter is tunable over the range 45MHz - 65MHz. The RF output stage utilises a field-effect transistor in the earthed-gate mode to ensure stable operation under all loading conditions.

Moulded plastic material is used for the transmitter case. A mer-



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cury battery is used, giving a working duration on the transmitter of six hours.

For further information, please contact A.H.B. Bower, Room 211, Western House (PABX BH 3708).

GENERAL DATA

Power Requirement	DC at 14V, supplied by Crompton-Parkinson mercury battery type G1495
Microphone Connector	LEMO size O (for low-impedance dynamic and Sony "Electret" ECM-50 microphones)
Tuning-range	45MHz - 65MHz
Modulation	Frequency; 100% = ± 75 kHz deviation
Distortion (3rd harmonic)	Less than 1% at full deviation
RF Output Power	250mW
Dimensions	125mm x 82mm x 26mm
Weight	0.3kg