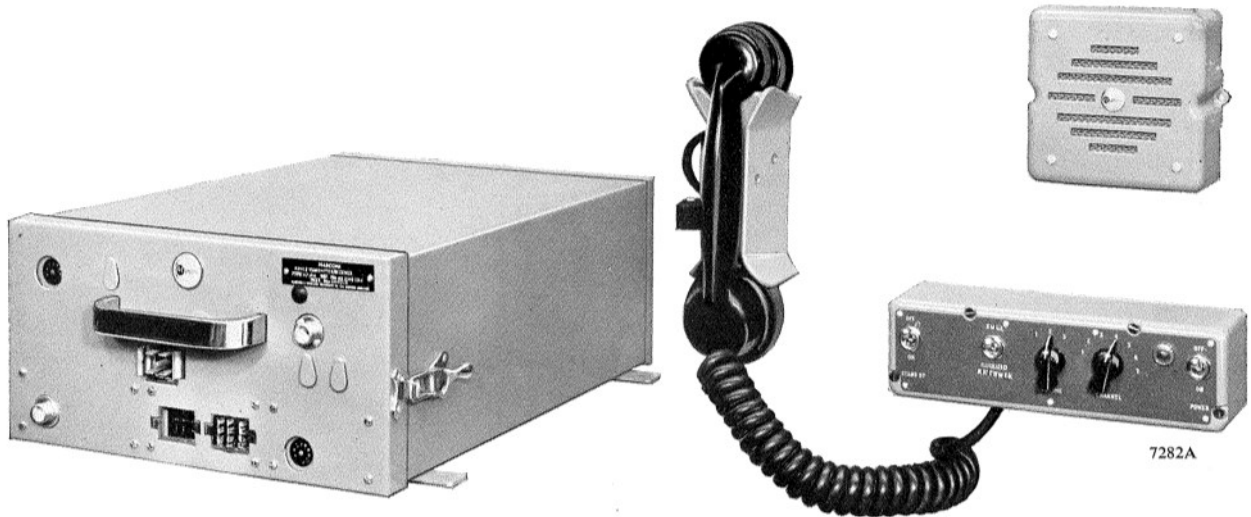




8-10 W VHF Mobile Radio-telephones (FM) Types HP 85B and HP 86B



THESE mobile-type radio telephone equipments find their application in vehicles, harbour craft and naval vessels etc., and may also be used for general point-to-point communication links.

Features

- High order of frequency stability permits close channel operation.
- Switching facilities between up to seven crystal-controlled channels.
- Common or dual-frequency simplex, or press-to-talk duplex operation available.
- Suitable for operation in tropical climates.
- Type approved by British General Post Office.

EQUIPMENT

The transmitter-receiver and power units are enclosed in a robust easily removable case. The control unit and handset retainer are separate items. A telephone handset is used and transmit-receive change-over switching is effected by means of a pressel switch. A loudspeaker is also provided.

The equipments are arranged for extended control over a limited distance, and facilities are provided to enable a loudhailer to be used. An external meter can be provided to give full metering facilities and enable correct aerial matching to be achieved.

Data Summary

GENERAL

Service: FM telephony.

Frequency range:

Type	Range Mc/s	Channels Any one of
HP 85B	70-100	7
HP 86B	156-184	7

Frequency tolerance: 30 parts in 10⁶.

Ambient temperature range: 0-50°C.

Aerial input impedance: 40-50 Ω.

Power supplies: 6 or 12 V DC.

Power consumption: On 12 V DC.

Receiver only 3 A.

Stand-by 4.5 A.

Transmit (Simplex) 11 A.

Transmit (Duplex) 12.5 A.

These figures should be doubled for 6 V supplies.

Dimensions:

Height	Width	Depth	Weight (max.)
<i>Transmitter/receiver</i>			
6½ in. (16 cm)	14¾ in. (38 cm)	18½ in. (46 cm)	32 lb (14.5 kg)

Control unit

2¾ in. (7 cm)	8½ in. (21.5 cm)	3 in. (7.6 cm)	3 lb (1.4 kg)
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Loudspeaker

4¾ in. (12 cm)	5 in. (12.7 cm)	2½ in. (6.4 cm)	1 lb (0.5 kg)
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TRANSMITTER

RF power output: 10 W.

Modulation: FM.

Spurious radiation: Not less than -70 dB relative to carrier level.

Maximum deviation: ±15 kc/s but adjustable to suit the system.

Frequency response (pre-emphasis characteristic): Within +1 or -3 dB of a true 6 dB per octave characteristic between 300 and 3000 c/s. (A flat response curve is available on some sets if desired.)

Modulation limiter: Limits deviation to a pre-set maximum, regardless of speech input level.

Loudhailer: 8 W.

RECEIVER

Audio output: 1 W (max.) to loudspeaker.

Audio response: ±6 dB over the range 300-3000 c/s with respect to a true 6 dB per octave curve centred at 1000 c/s. (Also flat response on some sets if desired.)

Spurious responses: Not less than 70 dB below wanted signal.

Selectivity: Wide or narrow bandwidth as required.

Oscillator radiation: Less than 0.02 μW.

Marconi

Marconis' Wireless Telegraph Company Limited
Marconi House, Chelmsford, Essex
Telephone: Chelmsford 3221 · Telex: 1953
Telegrams: Expanse Chelmsford Telex



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The operating room of Calshot signal station, showing some of the special VHF Radiotelephone equipment installed by Marconi's as part of the Southampton Harbour Board's Port Operation and Information service.

Specially made transportable VHF Radiotelephone Equipment Type HP 86B, used by Southampton Harbour Board in their aircraft control launch.

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