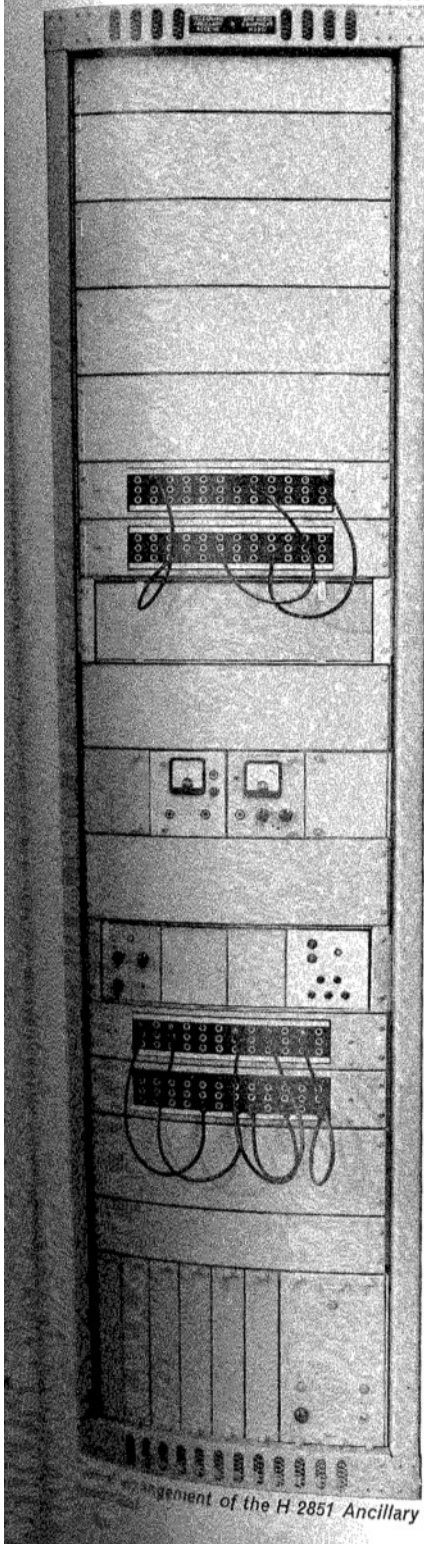


# Marconi Patching, Monitoring and Ancillary Equipments for Receiver Stations Type H 2851

Y1053



This range of telegraph and audio equipment provides a flexible system for matching the output of a radio receiver to the characteristics of the associated line system, and for patching and monitoring as necessary.

## General Design

Construction is identical to that of the H 1851 equipment (page 278), except that the cabinet matches the M.S.T receiver range. Any unit of the range may be used in either system. The 10½ in. high shelf, standard 19 in. rack mounting like the others, is normally used in one of the standard forms.

## DATA SUMMARY

**Restorer:** Consists of three separate printed cards. A 6 kHz audio band is divided into two separate channels, each 250 Hz to 3 kHz. Nominal input and output levels are 0dBm into 600 Ω. Requires a 6.25 kHz drive.

**Crystal Oscillator:** A single card giving 6.25 kHz  $\pm 1$  Hz at 900 mV from a 150 Ω source, capable of driving up to four restorers.

**D.C. Amplifier:** A single card driven by a 6–0–6 V input into 1 kΩ, providing up to 80–0–80 V (from a suitable signalling supply) at 60 mA. A suitable signalling supply is available as a 3½ in. full-width unit.

**Distribution Unit:** A 3½ in. full-width panel giving signalling supply distribution to 24 outlets, each with barretter visible through the front panel.

**Tone Sender:** A single card giving two-tone or f.s.k output from  $\pm 6$  V,  $\pm 80$  V or  $-80$  V single-current input. Input impedance is 1 kΩ (6 V) or 4 kΩ (80 V). Output is 0dBm into 600 Ω at 1020 Hz or 1500 Hz (two-tone), or at one of these tones with  $\pm 85$  Hz frequency shift.

**Distortion Monitor:** Up to eight of these units can be fitted in a 10½ in. shelf. Handling a d.c. telegraph signal of known element rate, the unit operates an alarm if distortion persistently exceeds a switch-selected value. This threshold may be 15% to 35% or 25% to 45% at 5% intervals; baud speeds available range from 37.5 to 192, again switch selected. The unit also allows signal inhibition if a distortion alarm is given, and signal failure indication. Input may be  $\pm 6$  V into 10 kΩ or  $\pm 80$  V into 33 kΩ.

**Synchronous Regenerator:** Up to four of these double-book units can be housed in a 10½ in. shelf. With inputs from a high-

stability Master Clock and (at  $\pm 6$  V into 1 kΩ or  $\pm 80$  V into 4 kΩ) from a telegraph circuit, output distortion is less than 3% for input distortion up to 45%. Output is  $\pm 6$  V or, using an external signalling supply,  $\pm 80$  V. Baud speeds of 1/50, 1/56, 1/100 and 1/112 of Master Clock frequency are catered for; e.g. using a 9.6 kHz clock, speeds are 192, 171½, 96 and 85½ bauds.

**Master Clock:** Two of these oscillators, or one and a Large Power Supply, can be fitted in a 10½ in. shelf. Output can drive up to ten Synchronous Regenerators, normally at 9.6 kHz. Other frequencies are available to special order to suit a variety of telegraph speeds.

Power Supplies and Patching Panel are as for the H 1851 equipment (page 278).

## Standard Shelves

Certain of the available combinations, the most commonly required, have been given separate titles.

### Tone Sender Panel H 5200

A 5½ in. shelf containing a Small Power Supply and up to eight on/off or f.s.k Tone Senders.

### D.C. Amplifier Panel H 5202

A 5½ in. shelf containing up to twelve D.C. Amplifiers. An external  $\pm 80$  V supply is required.

### A.F. Restorer Panel H 5501

A 5½ in. shelf containing a Small Power Supply, a Crystal Oscillator and either one or two Restorers.

### Telegraph Panel H 5020

A 10½ in. shelf available in a variety of editions, wired for various combinations of Large Power Supply, Master Clock, Synchronous Regenerator and Distortion Monitor.

Further units and standard shelves in the same range, but normally associated with radio transmission, are described as part of the H 1851 system on page 278.

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