



## 'Autospec' Equipment Type H 5100

AUTOSPEC (automatic single path error correcting telegraph equipment) is connected between the teleprinter, or other telegraph equipment, and the radio equipment at each end of a circuit, to detect errors caused in the circuit by noise, interference or fading.

Unlike error correcting systems using the ARQ principle, no return path is necessary as correction is obtained by using an error-correcting code. With this code, each character is represented by ten elements instead of the five used in the ordinary teleprinter code. The ten elements contain sufficient information to enable the receiving Autospec terminal to detect errors in a mutilated character and, in the majority of cases, to correct them. When an error is detected which cannot be corrected, Autospec causes a special character to be printed in the received copy. The code is chosen to give the greatest improvement in performance with the minimum increase in

signalling speed. An improvement in error rate of over 1000 to 1 may be expected under typical conditions.

Synchronous transmission is used and phasing and synchronization take place automatically within a few seconds of the circuit's being established.

### Features

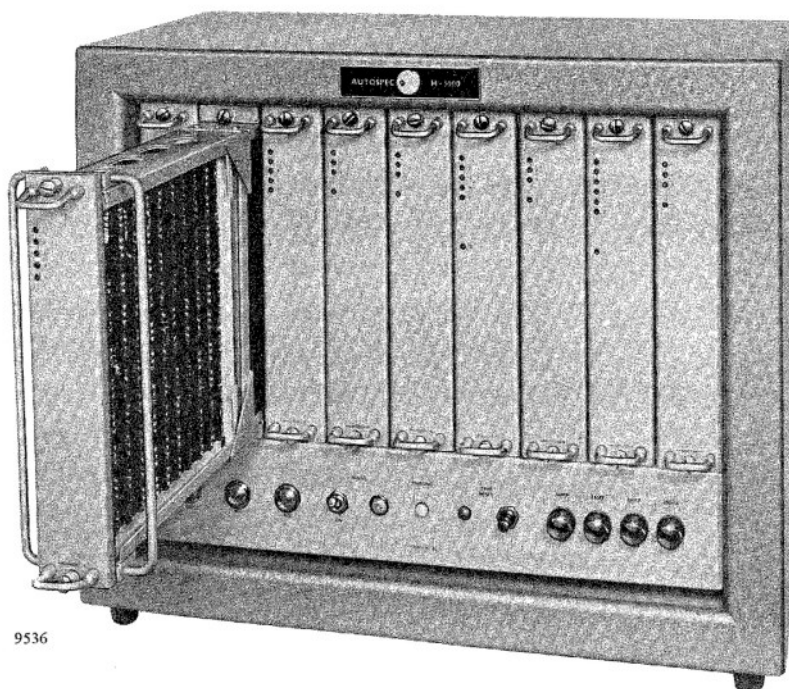
Suitable for one-way or both-way circuits as error correction is obtained without a return path.

May be used with standard teleprinters or tape transmitters.

Normal telegraph circuits used for transmission.

No controls or adjustments – operation is entirely automatic.

Transistors, printed boards and modular construction used throughout.



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### EQUIPMENT

Autospec is available in versions suitable for transmission only, reception only or for both. The equipment is normally supplied in a bench-mounting cabinet complete with power unit.

It may be added to existing circuits and no modifications or changes in operating procedure are required.

### Data Summary

#### Five-unit input:

(a) Sequential:  $\pm 6V$  into 1 k $\Omega$  or  $\pm 20V$  to  $\pm 80V$  into 4 k $\Omega$ .\*

(b) Simultaneous (from tape reader controlled by drive pulses):

–10V for start polarity and earth for stop polarity on 5 traffic wires; earth for 'traffic' and open circuit for 'no traffic' on 6th wire.

**Drive pulses:**  $\pm 6V$ , or other voltages from internal relay and external signalling supply.

**Five-unit output:**  $\pm 6V$ , or other voltages from internal relay and external signalling supply.\*

**Receiver input:**  $\pm 6V$  into 1 k $\Omega$  or  $\pm 20V$  to  $\pm 80V$  into 4 k $\Omega$ .\*

**Transmitter output:**  $\pm 6V$  or other voltages from internal relay and external signalling supply.\*

#### Working speeds:

Words/min.	Teleprinter speed (bauds)	Transmission speed (bauds)
100	75	102
66	50	68.5
60	45.45	62.3

**Power supplies:** 100–125V or 200–250V, 45–65 c/s single-phase a.c., d.c. signalling supply if required.

**Power consumption:** 50 VA approx.

#### Dimensions:

Height	Width	Depth
1 ft 6½ in.	1 ft 10¼ in.	1 ft 0½ in.
(46.5 cm)	(56.2 cm)	(31.1 cm)

\* Equipment also available for single-current input and output.

### Marconi

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