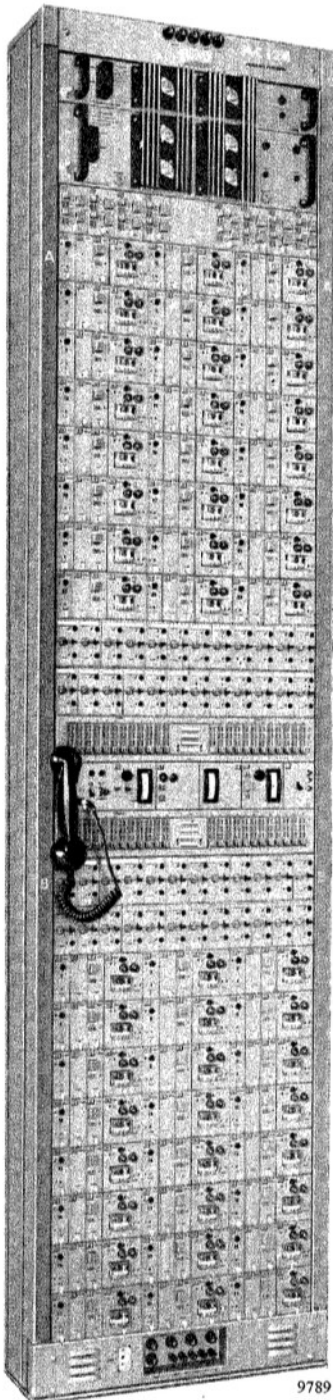




24-Channel V.F Telegraph Equipment (Line)

MC 124 series

Designed and produced by Marconi Italiana, Genoa, Italy



9789

THIS series is designed for transmitting 24 voice-frequency telegraph channels over a line telephone channel, conforming to C.C.I.T.T specifications.

There are independent frequency-modulated oscillators for each telegraph channel and the equipment is of printed-circuit construction, using miniaturized components. Its characteristics are in line with C.C.I.T.T specification.

48 channels are fitted in a standard rack, including metering, power supplies and provision for order-wire telephone.

Telegraph distortion: Less than 5%.

Power supplies: 110–240 V ($\pm 2\%$), single-phase a.c., or 24 V ($\pm 2\%$) d.c.

Dimensions (two groups of 24 channels on a standard rack):

Height	Width	Depth
8 ft 6½ in.	2 ft 9 in.	9 in.
(260 cm)	(60 cm)	(22.5 cm)

Features

The 24 telegraph channels are completely independent.

No common group circuits are used.

Sub-equipped systems of 6, 12 or 18 channels capacity can be supplied.

High-stability oscillators, with very low distortion.

CIRCUIT

The independent oscillators are frequency-modulated by the telegraph signals. Limiters are used to ensure a constant level of current before modulation.

At the output of the modulator oscillator stage, a filter limits the band of the frequency-modulated signals to avoid interference with the other channels.

Temperature-compensating networks maintain the signal frequency constant when ambient conditions change.

In the receiver a limiter amplifier supplies a constant output signal at the input of the discriminator. The d.c. signal obtained at the output of the discriminator is amplified in a balanced d.c. amplifier and the telegraph signals are transferred to line by means of a high-quality relay.

Data Summary

Audio bandwidth: 420 c/s to 3180 c/s.

Keying speed: 50 bauds.

V.F.T carrier separation: 120 c/s.

Frequency shift: ± 30 c/s.

Transmitter frequency stability: Better than ± 1.5 c/s.

Telegraph input: ± 10 to ± 30 mA.

Telegraph output: ± 20 to ± 2 mA.

Marconi

The Marconi Company Limited
Marconi House, Chelmsford, Essex
Telephone: Chelmsford 3221 · Telex: 1953
Telegrams: Expanse Chelmsford Telex