

# Marconi Large-screen Tri-colour Projector

## Type SD 2000

The SD 2000 projects a synthetic radar picture, consisting of symbol groups in three colours, on to a screen and can provide comfortable viewing for conference use. The three colours enable categories to be easily coded.

### FEATURES

Long-term reliability and performance stability.

Suitable for continuous operation.

Rapid fault rectification.

Ease of transportation with minimum effort.

Continuous attendance by a skilled operator is unnecessary.

### Equipment

Pictures are derived from three 5 in. (12.7 cm) projection tubes each mounted in a conventional Schmidt optical system. The three optical assemblies are mounted on a common rigid bed which eliminates unwanted movement and ensures precise relocation after removal. Replacement of a cathode-ray tube is of such simplicity that normal operation can be re-established within three minutes of a tube failure.

The electronic circuits are housed in three similar cabinets placed side-by-side beneath the optical bed. The centre cabinet contains the 50 kV generator which is oil-immersed and sealed.

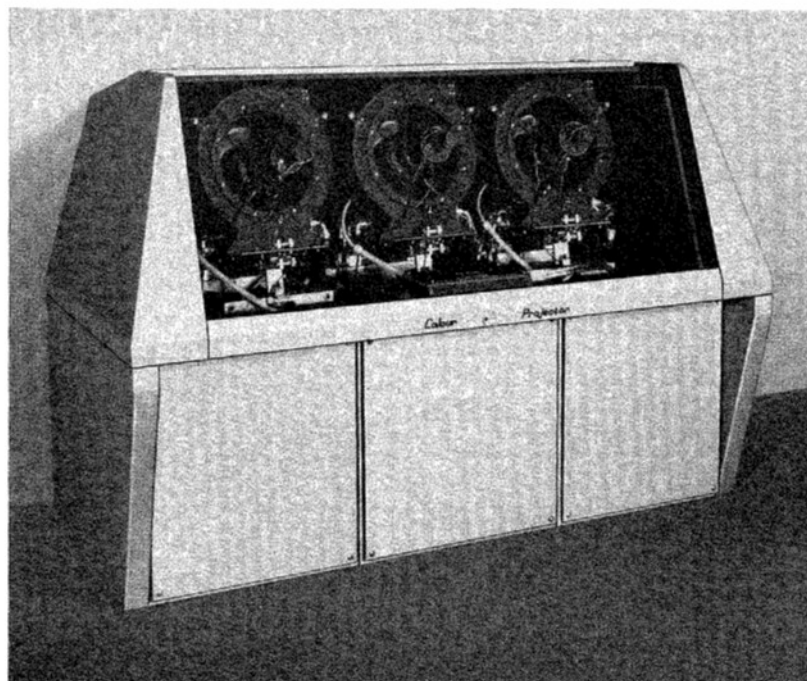
Circuits use printed-wiring boards, mounted in easily withdrawable trays, allowing rapid replacement in the event of failure. Careful circuit design and choice of components ensure long-term reliability and performance stability. All supply voltages are regulated. In the event of deflection waveform failure the cathode-ray tubes are blanked off to prevent burning. Power failure results in the projector being tripped out. Scale expansions  $\times 1$ ,  $\times 2$  and  $\times 4$  are provided and the picture may be off-centred by up to 80% of picture size on the  $\times 1$  scale and correspondingly on the other expansions.

Forced-air cooling is used to maintain the tube faces at the correct temperature and to cool the cabinets.

For transportation the projector can be dismantled into basic units none of which weighs more than 200 lb (91 kg).

### DATA SUMMARY

**Cathode-ray tubes:** 5 in. (12.7 cm) English Electric Valve Co. Type T940. Anode voltage, 50 kV.



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### Optical performance:

Optic,  $\times 25.5, f1.2$ .

Throw-distance, 16 ft 8 in. (5.1 m).

Picture size, 6 ft 6 in.  $\times$  6 ft 6 in. (2 m  $\times$  2 m).

Brightness, adequate for viewing in subdued lighting, with no direct light on the screen.

**Resolution:** The smallest character size is clearly readable at a distance of twice the throw distance.

**Expansion:**  $\times 1, \times 2, \times 4$ .

**Off-centring:** Up to 80% of picture size on  $\times 1$  scale and correspondingly on the other expansions.

**Symbol size:** Variable  $\frac{3}{4}$  in. to  $1\frac{1}{2}$  in. (1.9 cm  $\times$  3.8 cm) on the screen.

**Symbol colours:** Red, green, white.

**Power supplies:** D.C. supplies from associated stabilizer.

230 V, 50 Hz, a.c.

**Inputs:** X and Y main deflection waveforms,  $\pm 50$  V about E. X and Y symbol deflection waveforms,  $\pm 2$  V about E. Video signals (one per channel), positive-going  $\leq 2$  V.

(Note. The SD 2000 may be fed from the same back-up equipment as the SD 1015).

### Dimensions:

Height	4 ft 3 in.	(129 cm)
Width	6 ft $1\frac{1}{2}$ in.	(187 cm)
Depth	2 ft 9 in.	(83.3 cm) at sides
Weight	(approx.) 1000 lb	(454 kg)
Depth	3 ft 3 in.	(99 cm) at centre

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