



Colour Television Display Units

A colour television picture may be displayed either directly by a picture monitor, or on a large screen some distance in front of a projector unit.

21 in. Colour Monitor Type BD 875

This unit employs a 21 in. three-gun shadow mask tube which gives a high quality picture of excellent brightness suitable for assessing the colour rendition and quality of a colour signal in a studio, transmitter control room, etc. The monitor consists of two basic units; the display unit which houses the 21 in. tube, video amplifiers, clamp pulse generator and EHT unit, and the control unit which houses the decoder, scanning waveform generators and the power supplies.

The three sub-units of the control unit contain all the operating controls under the removable front panel. These units have a square cross-section and can be orientated in the control unit housing for use in a horizontal or vertical position. In addition the control unit may be mounted a short distance from the display unit.

The monitor will accept an RF signal, composite vision signal, or simultaneous R, G, B, signal inputs. A sound channel is also provided.

Large Screen Colour Projector Type 7137A

Two sizes of picture are available with this unit by using alternative optical heads. One head gives a picture size of 12 ft x 9 ft at a throw distance of 25 ft with a maximum brightness of 4 ft lamberts, the other a picture 8 ft x 6 ft at 13 ft 6 in. with a maximum brightness of 7 ft lamberts.

The optical head, employing three high quality Schmidt 'in-line' systems with 16 in. mirrors, mounted side by side, projects the three component images on to the screen in superimposition. The 'open' construction of these heads allows very rapid tube replacement with minimum disturbance of 'on air' time.

The main cabinet separates into three easily handled and readily transportable pieces, the dimensions of which are approx.

2 ft x 2 ft x 2 ft 8 in. and the weight 150 lb. The electronic circuits use printed wiring and are mounted in their cabinets on sliding runners. Individual units are completely accessible for maintenance.

Owing to the high voltages used on the projection tubes and to allow operation under a wide range of temperature and humidity conditions an external air-conditioning unit is provided. The unit is suitable for applications requiring 24 hours a day operation, where the maintenance period must be reduced to an absolute minimum.

ELECTRICAL FEATURES

Phosphor saturation correction circuits enable each projection tube to be operated with extremely high phosphor loading giving a high screen brightness whilst maintaining the resolution and grey-scale balance.

The video amplifier employs negative feedback giving a bandwidth extending to 10 Mc/s with a high degree of gain stability and a linear phase characteristic.

Keystone correction circuits offset the geometric distortion, introduced by the off-

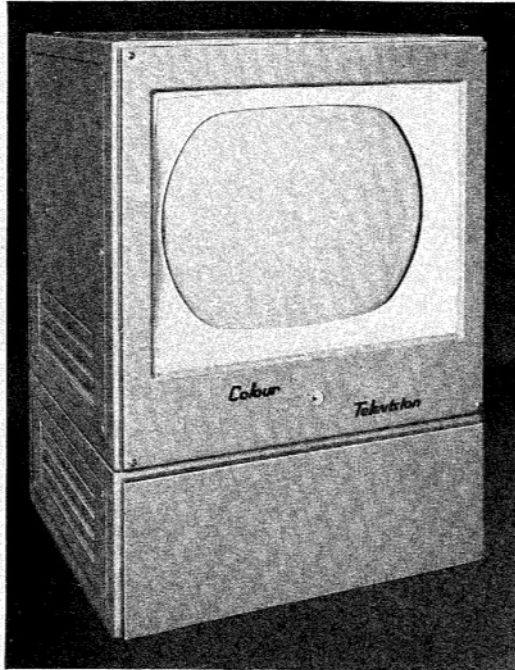
axis operation of the two outer optical heads.

Interlocks on all the units provide protection to operating and maintenance personnel and also protect the unit against supply failure.

The equipment is suitable for operation on the three television line standards of 405, 525 and 625 lines, using either a coded television signal or simultaneous R, G, B signals. Using special deflexion circuits it is suitable for data presentation in the form of tabular displays.

Resolution: Not less than 550 lines/picture height over a centre circle equal in diameter to the picture height. The corner resolution is at least 75% of that at the centre.

Registration: Better than 0.1% of total picture height or width over the centre circle, and 0.25% in the corners.



Type BD 875.

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Marconi

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