



Optical Multiplexer Type BD872

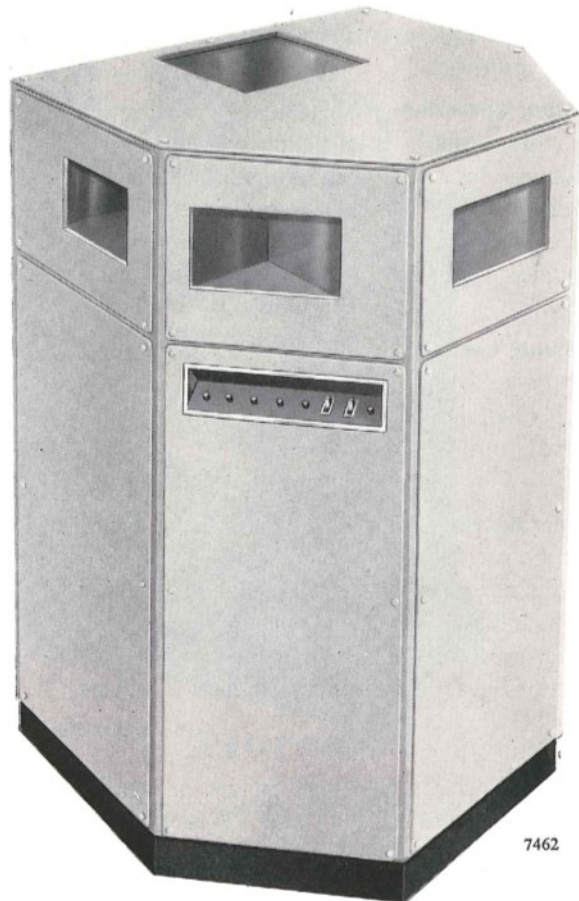
THE TYPE BD 872 multiplexer is an optical switching device designed for use with Vidicon Telecine Equipment Type BD 844. It enables the picture output from any one of four projectors or from an opaque viewing device to be selected and presented to the telecine camera. The standard arrangement of the multiplexer is designed for operation with two film projectors, two slide projectors and an opaque projector.

FEATURES

- Vertical-wipe changeover action involving no picture movement.
- Preview of next picture for selection, presented on a ground-glass screen on the side of the multiplexer.
- Remote or local control for projectors and multiplexer.
- High-precision optics and extreme rigidity for stability of operation.
- Accommodation of the vidicon camera (monochrome) within the multiplexer pedestal.
- Suitable for use in colour or monochrome systems.

CONSTRUCTION

The multiplexer optical system is housed in a strong cast box which is mounted on a pedestal to bring the optical centre-line to a level of 48 in. from the floor. The projectors are directed into the box through windows in the side and a system of plane mirrors mounted at 45° to the optical centre-line reflects the required picture into the vidicon camera via a field lens. The camera is normally fixed to an adjustable mount-



7462

ing inside the multiplexer mounting pedestal in order to reduce space requirement as much as possible. Switching is effected by vertical movement of the mirrors into and out of the optical paths as required. The mirror movements for switching between the film and slide projectors are operated electro-mechanically. The action is positive and efficient and the time taken is

equivalent to 1 to 2 film frames (1/25 to 1/12 of a second). Introduction of the opaque projector is effected manually.

Dimensions (approx.):

Height	Width	Depth	Weight
54 in.	26 in.	23 in.	250 lb
(137 cm)	(66 cm)	(59 cm)	(114 kg)

OPTIONAL EXTRA FACILITIES

Remote previewing. The ground-glass screen for previewing can be substituted by a field lens and an additional vidicon camera channel used to convey the picture to any number of remote preview monitors.

Colour operation. The multiplexer is designed to operate equally successfully using a 3-colour vidicon channel, subject to adequate intensity of illumination of the projectors. The Company can incorporate suitable lamp units in the recommended types of projectors, when this is necessary.

Remote control. Operation of the projectors and of the multiplexer (apart from the opaque projector switching) can be remotely controlled, additional units being available to provide this facility.

Superimposing. If specially required, semi-mirrors can be used in certain positions in place of fully-reflecting mirrors so that the optical outputs from a film projector and a slide projector are superimposed. This will result in a 45% reduction of the light reaching the vidicon camera.

PROJECTORS

The following projectors are recommended for use with Types BD 844 and BD 872.

G.B.-Kalee Type GK 19, is suitable for projecting all types of standard 35 mm film prints with a maximum spool capacity for 6000 ft of film. Either optical or magnetic sound tracks are catered for.

Philips Type EL 5000 projector for 16 mm film contains a unique film transport mechanism incorporating an intermittent drive sprocket with which six perforations of film are continuously in contact. This reduces to a minimum the likelihood of torn perforations. Spools holding a maximum of 4000 ft of film may be fitted if required; normally 2000 ft spools are supplied.

Bell and Howell, Type 614 CBVM. This projector will accommodate spools holding up to 2000 ft of 16 mm film; it may be run in both forward and reverse directions. Push button control of changeover from optical to magnetic sound replay is provided on the projector.

Gray Teloprojector Type TP-3B, will hold up to six 2×2 in. transparent slides in each of its two rotating slide wheels. Each of the slide wheels has a separate illuminating system but both are fed to a common projector lens. 'On Air' slide changing is possible, without movement of the image, by switching alternately the lamps behind the two slide wheels.

Opaque Caption Equipment. With this equipment, still captions up to 12×9 in., roller captions up to 12 in. wide or a clock-face caption may be televised. It consists of a sturdy framework to which is fitted a pair of motor driven rollers carrying the caption belt. The assembly holding the rollers may be rotated through 90° to allow vertical or horizontal moving captions to be used. In addition, caption cards of up to 12×9 in. in size may be fitted to the twelve metal caption frames. These frames are made to drop in sequence so that the effect on the final picture is that of one caption being replaced by another with a very rapid, vertical, downwards wipe. A clock may be mounted behind the roller and viewed through an aperture in the roller belt.

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