



16 mm Telecine Channel Type B 3400

THE Marconi range of telecine equipment has been streamlined, and the B 3400 telecine now uses a B 3097 vidicon camera channel, a slide projector Type B 3441 and one or two 16 mm film projectors Type B 3421. These are multiplexed using the B 3412 Multiplexer. The vidicon camera is housed in the base of the multiplexer pedestal.

16mm Telecine Projector Type B 3421

The mechanism is a modified Philips EL 5001 equipment. Magnetic and optical sound heads are fitted, and an integral control panel carries a volume control, and treble and bass lift and cut controls.

Quick and easy film threading is a feature of this projector, operation of a

single lever giving sliding access for threading the film for the whole of its run between the spools. The spool arm will accommodate spools holding up to 4000 ft (1600m) of film.

A separate blower is fitted to cool the gate and film when still frame viewing is employed.

When the projector is used on a 50 c/s field system a two bladed shutter is fitted. For 60 c/s field operation this is replaced by a five bladed shutter. The shutter design is such as to ensure that light loss and flicker are minimised.

Telojector Type 3441

The telojector is a slide projector of the rotating disc type. Two discs, each holding up to six 2x2 in. (5x5 cm) slides, are mounted in a vertical plane, one each side

of the central optical assembly. Slides in each disc are illuminated alternatively by independent optical systems and the image formed is deflected by mirrors to a single projection lens.

Electro-mechanical latching ensures accurate location of each slide.

The local control panel is mounted on the pedestal. The pedestal is designed to maintain the standard optical height of 48 in. (122 cm).

Optical Multiplexer Type B3412

The Multiplexer uses two pellicle semi-mirrors and a fully silvered mirror. By using these, it has been possible to eliminate the need for moving parts within the multiplexer. The mirrors and field lens are housed

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in a sealed box fitted with silica-gel desiccators.

Outside the sealed box, and immediately below the field lens, is fitted a test slide holder. This will take any 3.6×4.8 in. (9×12.2 cm) test slide (such as Marconi Resolution No. 1). With light provided from any projector this then affords a convenient way of setting up the camera channel.

The pedestal normally contains the B 3097 camera head, which is fitted with the vidicon yoke mounted vertically. The pedestal ensures that the multiplexer inputs are at the correct optical height, and use of the pedestal to house the camera head saves valuable floor space. The camera head can be easily removed for servicing, and no realignment of the optical system is required when the camera is replaced.

CONTROL SYSTEM

The remote control panel carries a row of

illuminated push buttons. These are labelled 'RUN, SHOW, OFF' for each film projector and 'ON, OFF, CHANGE' for the slide projector. The remote control panel may be mounted at any reasonable distance from the machines.

Each machine also has its own local control panel and a LOCAL, REMOTE switch is included on it. The film projectors have sound controls mounted on them.

SOUND

In the simplest arrangement, sound outputs are taken direct from the projector pre-amplifiers at 0 dBm. The projectors are fitted with VOLUME, TREBLE and BASS controls. As an optional extra a separate Sound Control Panel is also available, and this, used in conjunction with the main control system, provides selection of up to four inputs. The selected input, which may be at -20 dBm or 0 dBm is

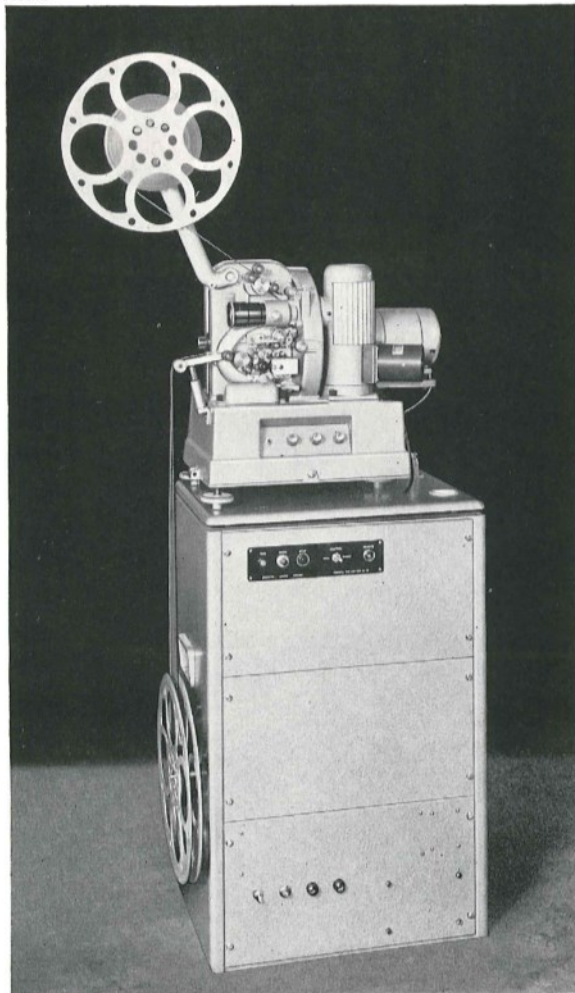
monitored by a programme meter and an equalizer giving 10 dB of cut and lift at 60 c/s and 10 kc/s can be switched in if required. A headphone monitoring jack is provided on the front panel and the main output can be taken at 600 ohms or at 75 ohms, at +20 dBm.

A high quality monitor loudspeaker with amplifier, such as the Marconi Type LE2/AS can be connected to the sound output whether the optional Sound Control Panel is used or not.

OPTICAL ARRANGEMENT

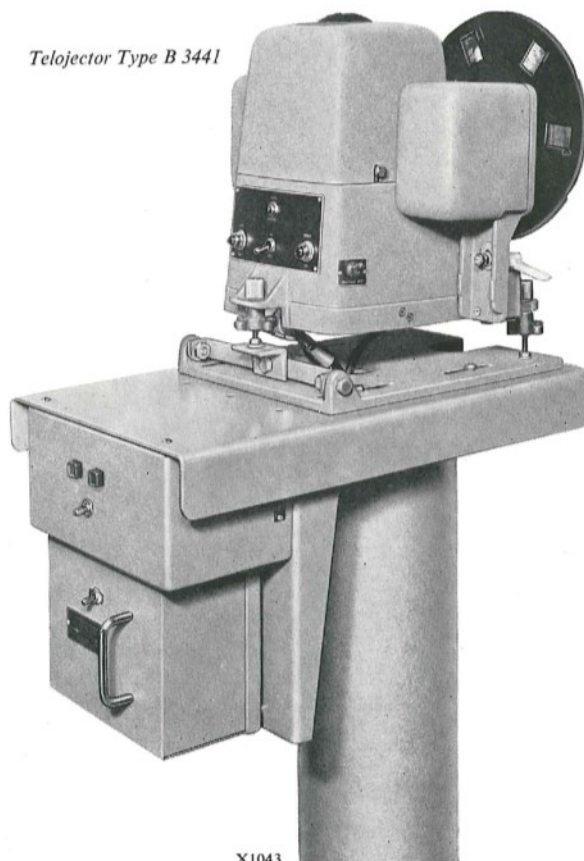
The equipment is arranged as shown in the sketch opposite. The Console housing the Picture and Waveform Monitor and camera controls can be situated some distance away from the projectors.

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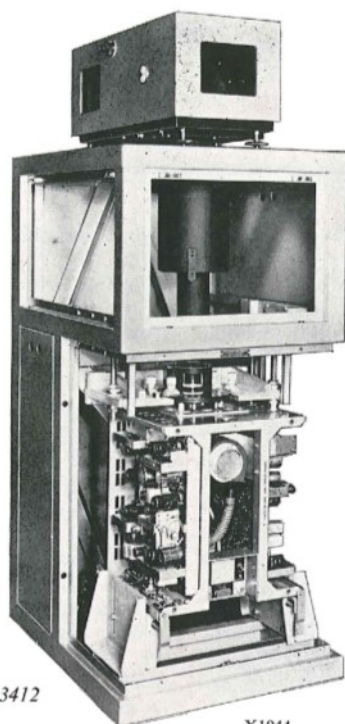


16 mm Telecine Projector
Type B 3421

Telojector Type B 3441

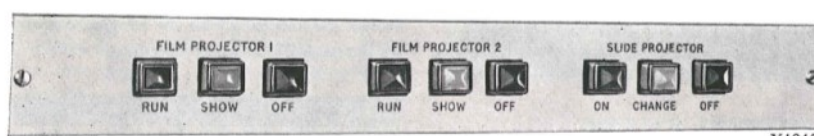


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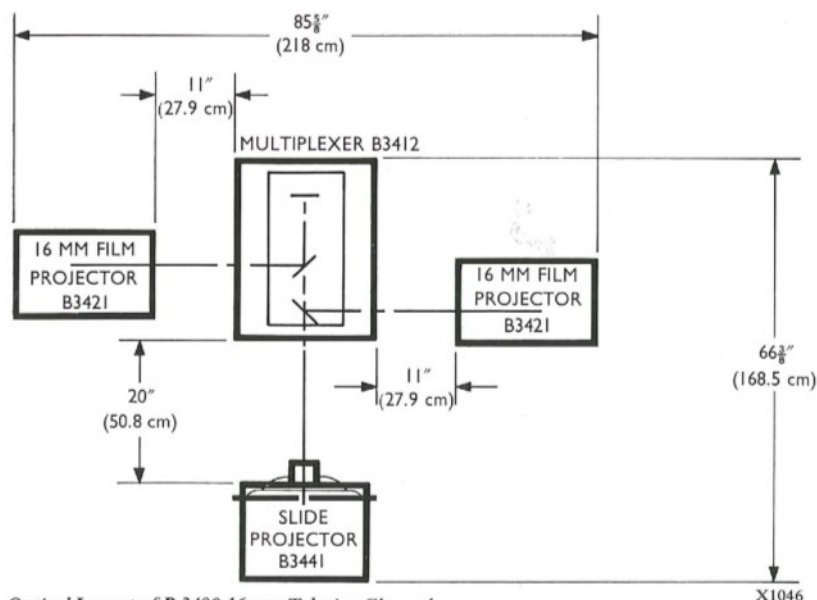
Interior of the
Multiplexer Type B 3412
showing the camera.

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Remote Control Panel.

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Optical Layout of B 3400 16 mm Telecine Channel.

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Data Summary

The B 3400 standard Telecine consists of:

- One B 3097 Vidicon Camera Channel which comprises :
 - One Camera head.
 - One regulated power supply.
 - One camera control unit.
 - One camera control panel.
 - One Studio console Type B 3411.
- One Picture and Waveform Monitor Type B 3900.
- One set of Cables.
- One Camera cable.
- One lens 2 in. (5 cm) f/1.9 'C' mount.
- One B 3412 Pellicle Optical Multiplexer with pedestal giving 48 in. (122 cm) optical Height.
- Two B 3421 16 mm Projectors complete with pedestals, lenses, local control panels, sound amplifiers.
- One B 3441 Telojector complete with lens, pedestal and local control panel.
- One 24 V Power Supply Unit Type B 4203.
- One set of Connectors.
- Also Available if Required :
 - One Sound Control Panel.
 - Spare film reels, test film slides.

Dimensions:

16mm Projector Type B 3421.

Height 5 ft 2 3/4 in. (from floor to spool centre) (159.5 cm).
Width 1 ft 5 in. (Over Controls) (43.2 cm).
Length 2 ft 0 3/16 in. (from rear handle to spool centre) 61.4 cm).

Multiplexer Type B 3412

Height 4 ft 5 7/8 in. (136.5 cm) From floor.
Width 1 ft 7 3/4 in. (50.2 cm).
Length 2 ft 1 1/2 in. (64.8 cm).

Telojector Type B 3441

Height 4 ft 6 1/2 in. (138 cm) (From floor).
Width 1 ft 6 1/2 in. (47 cm) (Over discs).
Length 2 ft 1 3/4 in. (65.4 cm) (Over lens and controls).

Remote control panel:

2 in. high, 14 in. wide Channel panel.

Sound control panel:

3 1/2 in. high 14 in. wide Channel panel.

Camera channel:

The power supply unit and camera control unit are housed in standard cases. For full dimensions, please refer to pages 66 and 67 which describe the B 3097 camera channel in full.

Marconi

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