



Image Orthicon Camera Channels

Type BD 808 Mobile

Type BD 809 Studio

REPRESENTING a significant advance in television camera channel design the Types BD 808 and BD 809 employ an Image Orthicon Camera Type BD 687. This camera incorporates many novel electrical and mechanical features which combine technical excellence with maximum operating facilities. Versions are available with either a 4½-inch or 3-inch tube.

The channels comprise these main items:

Camera (Type BD 687).

Camera Control and Preview Monitor (consisting of a Camera Control Unit, Type BD 626 and a Picture and Waveform Monitor, Type BD 627).

Regulated Power Supply Unit (Type BD 629 or BD 630).

Focus Supply Unit (Type 1881 or 2137).

Both channels are identical electrically and differ only in respect of mechanical mounting arrangements.

Camera Type BD687

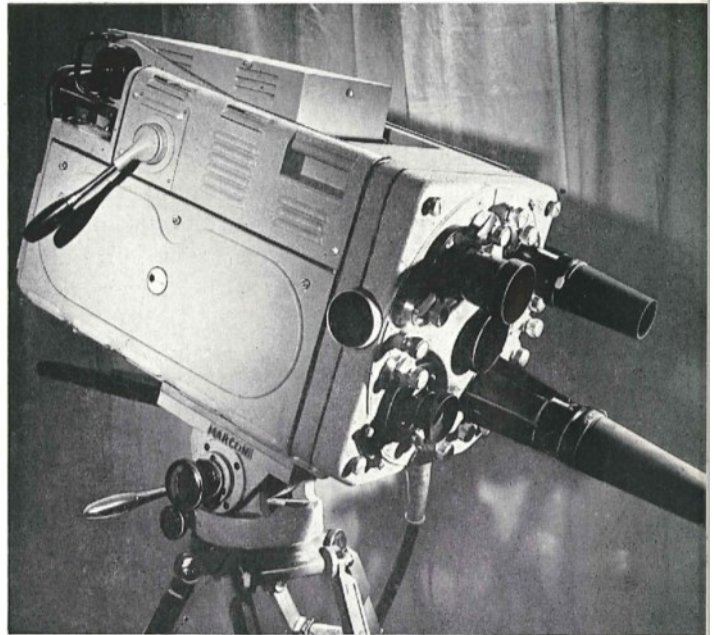
The camera is housed in a substantial sheet-metal case, with its viewfinder mounted separately on the top, and has a V-block underneath for sliding into a panning head.

FEATURES

Superlative picture quality.

Extreme accessibility and the use of plug-in units gives rapid and easy servicing facilities and provides greater spares utility.

Greater resolution making camera easy to handle and less 'marginal' in performance.



6473

High sensitivity permits operation with as low as 1 ft-candle incident illumination.

The four-position turret is capable of carrying any combination from 2 to 40 in. lenses. 80 in. and zoom lenses may also be used.

Light intensity control by variable graded filter replaces conventional remote iris control methods.

Viewfinder may be set at any desired angle irrespective of camera elevation.

'Rehearsal' facility giving 5% pick-up tube over-scan.

Panning handle may be fitted at either side on the body of the camera.

Camera Control and Preview Monitor

This unit is assembled in either a mobile case or a console housing according to the application (see page 189).

The camera control unit contains the control and amplifier circuits necessary for the operation of the camera and performs the following functions:

1. Provides control of the operating potentials of the image orthicon.
2. Provides gain and black level control for the picture signal.
3. Mixes the system blanking signal with the signal from the camera.
4. Establishes black level at the beginning of each scanning line by means of a 'clamp' circuit.
5. Provides for the addition of the synchronising signal when only a single camera channel is used.
6. Feeds processed picture signals back over a fourth coaxial line in the camera cable to the viewfinder, thereby avoiding the difficulty of

continuously varying brightness in the viewfinder.

7. The monitor is fed from the line output, which ensures true presentation of the output signal both in quality and amplitude.
8. Communication facilities are provided with various points in the camera channel.

The picture and waveform monitor is fully described on page 117.

Regulated Power Supply Unit

This unit may be housed in either a mobile case or assembled as part of a rack-mounted equipment depending on the application. See pages 167 and 169.

Focus Supply Unit

This is a small panel suitable for rack-mounting in studio installations, whilst for mobile use two such units are assembled in a mobile case. It provides power supplies to the camera focus coils.

DATA SUMMARY

Inputs:

- (a) Mains and DC supplies (standard).
- (b) Line and field drives, system blanking and sync. when single camera channel only in use.
- (c) Picture signal.
- (d) Cue and communication signals.

Output: Composite or non-composite signal, as required, at standard level.

Sensitivity: 20–40 ft-candles incident illumination at $f/5.6$ gives good picture quality.

Signal-to-noise ratio: Better than 35 dB.

Scan linearity: Less than 2% positional error.

Camera tubes:

Type	Image Section Diameter	Signal-to-noise Ratio	Limiting Resolution (lines per picture height)
P. 807	3 in. (7.6 cm)	29 dB	500
P. 811	4½ in. (11.4 cm)	35 dB	700

Colour response: Close to that of human eye with slight excess response in blue and red.

Power consumption: 1.5 kVA (approx.)

Dimensions: Height Width Length Weight

Camera	17¼ in. (44 cm)	15¾ in. (40 cm)	26½ in. (67 cm)	157 lb approx. (71.4 kg)
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