



Vidicon Telecine Channel Type BD 844

THE SUCCESSFUL USE of films in television programming depends on the ability to produce from a film a picture indistinguishable in quality from that obtained with a 'live' production.

The Type BD 844 has been developed to promote this achievement and will produce standard composite video signals from a 16 or 35 mm film using a vidicon camera which occupies only about one eighth of a cubic foot. It will operate on 405, 525 or 625-line systems.

FEATURES

- High signal-to-noise ratio.
- Aperture response correction.
- Excellent resolution.
- Low light source requirement.
- Shading controls are not necessary.
- Wide film reproduction range and latitude offers possibilities for 'unattended operation'.
- Small size and compactness of design.
- A number of projectors may be employed, using an optical multiplexer.
- Fully comprehensive talkback facilities are incorporated.

EQUIPMENT

The basic equipment is made up of the following items:

- 1 Vidicon camera Type 2825A.
- 2 Camera control unit Type 2826A.
- 3 Picture and waveform monitor Type BD 627.
- 4 Vidicon processing chassis Type 2827A.



The Vidicon Camera

- 5 Vidicon deflection chassis Type 2828A.
- 6 Regulated power supply unity Type BD 630.

Vidicon camera. The camera is simple and compact and contains the vidicon pick-up tube, its deflection yoke, a signal pre-amplifier and a blanking amplifier and clipper.

The pre-amplifier is a four-valve circuit with a low noise-level cascode input. The signal output from the camera is fed to the vidicon deflection chassis through a standard 34-way camera cable.

The camera can be fixed to the film projector when only one projector is being employed, but in most cases an optical Multiplexer Type BD 872 (see page 161) is supplied with the equipment. This unit provides for instant switching between four projectors and also for the viewing of opaques.

Camera control unit. The operational controls for the camera and processing circuits are contained in this unit which is mounted in a Studio Console Housing Type BD 650 (see page 189) together with the picture and waveform monitor.

Vidicon processing chassis. This recessed-type chassis contains the circuits for

- (a) signal correction for camera cable lengths up to 500 feet
- (b) white signal clipping
- (c) black signal stretching (controllable; normally set up to +6 dB for the first 10% of picture signal)
- (d) aperture correction (switchable; up to a maximum of 10 dB rise at 6.5 Mc/s).

There are two separate signal outputs from the unit, each of which may be connected independently for composite or non-composite output at the standard levels on 405, 525, or 625-line

systems. Both outputs are fed from matched source impedances of 75 Ω .

Vidicon deflection chassis. The scanning circuits for the deflection of the vidicon beam are contained in another rack-mounting type unit. The scanning waveforms are fed to the camera over a 34-way cable which also carries the DC power and valve heater current.

Regulated power supply unit, Type BD 630. The main DC requirements of the system are supplied by this unit which is also a rack-mounted recessed chassis. The unit is described on page 167. The associated projectors and caption equipment are self-contained and require only AC mains supplies.

Remote control. Additional units can be incorporated in the studio console housing (with the picture and waveform monitor and the camera control unit) permitting remote control of the camera and of the projectors.

DATA SUMMARY

Inputs:

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> (a) Line drive pulses (b) Field drive pulses (c) Mixed sync. pulses (d) System blanking pulses | } | at between 1.5 and
6 V peak-to-peak on
405, 525 or 625-line
system standards |
| (e) 115 V or 230 V, 50–60 c/s AC mains | | |

Outputs: Two vision signals 1 to 1.4 V peak-to-peak composite or 0.7 to 1 V peak-to-peak non-composite. (The two may be independently connected for composite or non-composite output signal.)

Output impedance: 75 Ω

Transfer characteristic (γ): 0.65 nominal. Constant over a wide range of film contrasts.

Vidicon tubes: English Electric Type P813, RCA Type 6326 or their equivalents.

Dimensions (approx.):

	Height	Width	Depth	Weight
<i>Vidicon camera</i>	7½ in. (19 cm)	4¾ in. (12 cm)	12 in. (30.5 cm)	8 lb (3.6 kg)
<i>Camera control unit</i>	5 in. (12.6 cm)	14 in. (36 cm)	24 in. (60 cm)	38 lb (17.2 kg)
<i>Vidicon processing chassis</i>	19¼ in. (49 cm)	19 in. (48 cm)	8 in. (20.3 cm)	30 lb (13.6 kg)
<i>Vidicon deflection chassis</i>	12¼ in. (31 cm)	19 in. (48 cm)	8½ in. (21.5 cm)	24 lb (11 kg)
<i>Regulated power supply unit</i>	15¾ in. (40 cm)	19 in. (48 cm)	10 in. (25.4 cm)	65 lb (30 kg)

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