



Solid State 'Sentinel' Television Camera Type 8047

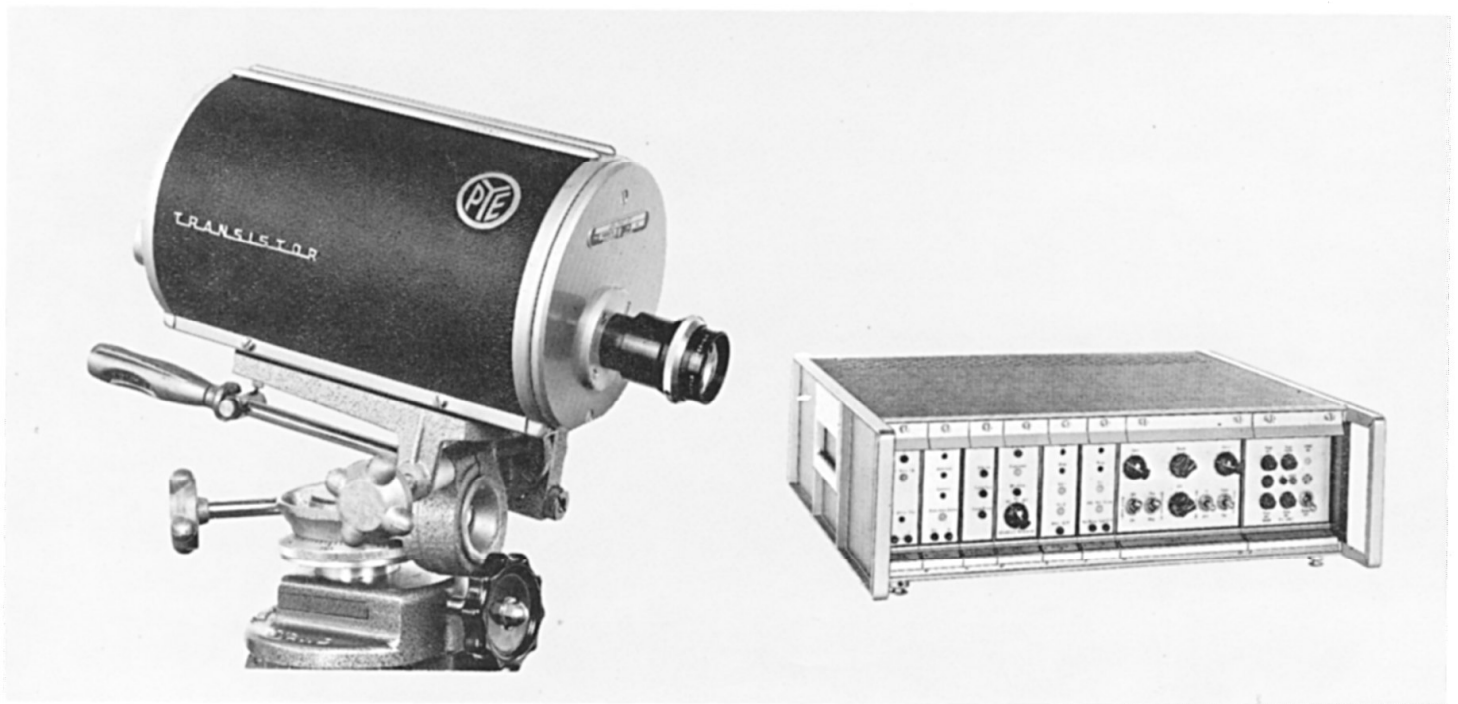
Completely solid-state, modular construction, employing separate mesh vidicon tube

Suitable for all high-definition applications

Aperture and gamma correction

Up to eight camera channels from one drive camera

Completely flexible design with simplicity of operation



The new solid state Sentinel is a high resolution camera for closed circuit industrial applications, or as a caption camera and for similar functions in broadcast studios.

Equipment comprises a camera head which may be fitted with a wide range of attachments, and a camera control unit. Remote control panels are also available.

Built-in facilities are extremely comprehensive: positive/negative picture switching aperture

and gamma correction controls, dark current compensation, and ability of sync generator to lock to crystal, mains or an external reference.

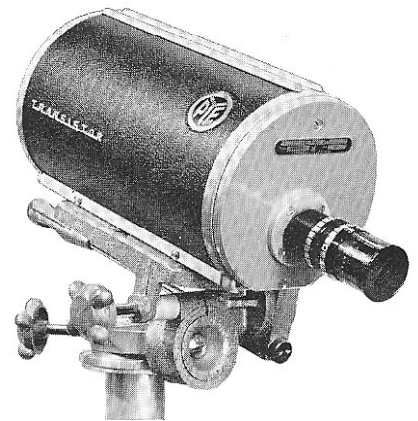
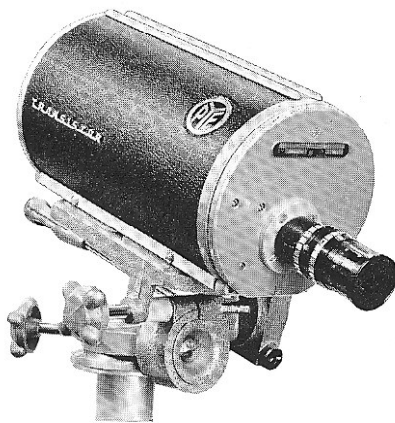
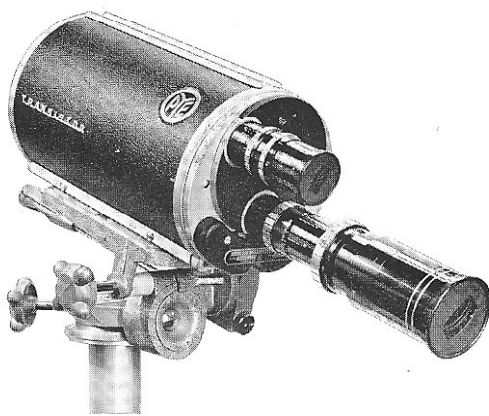
Installations may be simply a camera head, control unit and a monitor screen, or up to eight camera chains may be driven from one master control unit.

Protective housings can be fitted for industrial application where conditions demand protec-

tion, cleaning, etc.

Although the camera system is designed for maximum flexibility of use, and provided generously with controls and test points, its operation is extremely simple. Ruggedness and reliability of operation have also been adequately catered for.

Information on mountings is provided on a separate leaflet.



CAMERA HEAD

This extremely compact camera head uses a sensitive photo-conductive camera tube to achieve the high definition required.

It can be adapted to a variety of user requirements by means of interchangeable front attachments. These include remote control of optical focus, lens change (illustrated), lens iris and zoom lens. Remote control of camera panning and tilting is catered for and these units are standard accessories.

The camera head may be located up to 1,000 ft (300 m) from the camera control unit, all power and control circuits being carried by a single multi-way cable.

REMOTE LENS CHANGE AND FOCUS (TYPE 8027)

Remote Lens Change and Focus Attachment, Type 8027, provides for either of two lenses to be remotely focused. A second key switch on the camera control panel enables the operator to select the lens required, which may then be focused as in Type 8026. Any 16 mm 'C' mount lenses may be used.

A manually operated version of this attachment (Type 8030) is also available.

MANUAL FOCUS (TYPE 8025)

Lens Plate Attachment, Type 8025, is suitable for use when it is possible to operate the focus control manually, or when the camera is installed to observe a scene which is static. Any focal length lens may be used.

Focusing is effected by a knurled thumb-wheel at the rear of the camera. A locking device secures the focus position against vibration.

REMOTE FOCUS (TYPE 8026)

Remote Focus Attachment, Type 8026, enables the operator to control the optical focus of the camera from a remote viewing point.

A key switch on the camera control panel operates a reversible a.c. motor working through a reduction gearbox to focus the lens. Limit switches prevent over-running.

The unit is suitable for use with any 16 mm 'C' mount lens.

REMOTE ZOOM AND FOCUS (TYPE 8029)

Remote Zoom and Focus Attachment, Type 8029, is used when it is necessary to provide a continuously variable field of view. Separate motors and gear boxes are used to drive the zoom and focus controls of an Angenieux 20-80 mm (0.79-3.15 in) F/2.2 zoom lens.

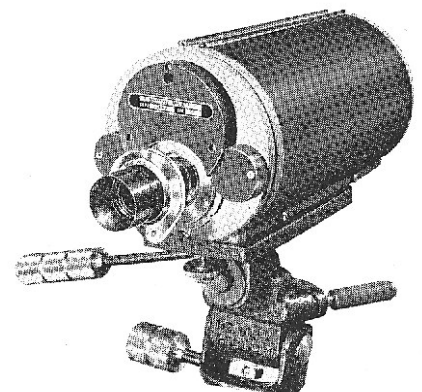
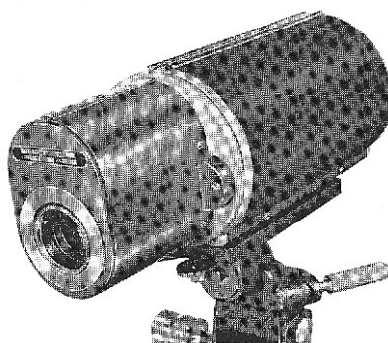
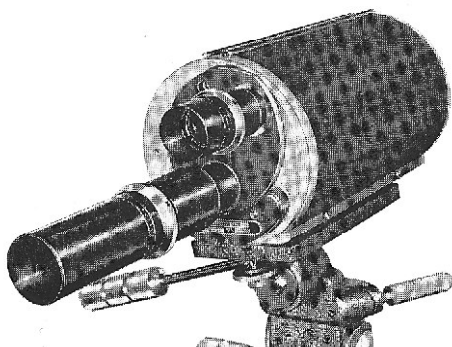
Variation of viewing angle is obtained over the range 9°-36° and the range time between limits is 12-15 seconds.

Zoom and focus are remotely controlled by the two key switches on the camera control panel.

REMOTE IRIS AND FOCUS (TYPE 8028)

Remote Iris and Focus Attachment, Type 8028, provides for remote optical focus as before, but also for the remote adjustment of the lens iris or aperture to provide for changing light intensities. Lenses of various focal lengths can be fitted and the unit may be used with or without automatic sensitivity control.

This attachment is particularly useful when the object to be viewed varies in brightness, or in outdoor viewing where light intensities vary considerably.





SPECIFICATION

Scanning Standards :

- (a) 625 lines, 50 fields interlaced
(b) 405-50 fields or 625-60 fields or 525-60 fields } using external S.P.G.

Bandwidth :

-3dB to 10 MHz, ± 1 dB 8 MHz

Picture Resolution :

Exceeding 1000 pictures points at centre of picture, to full 625 lines transmission standards

Picture Geometry :

No part of the picture will depart by more than $\pm 2\%$ from a rectangle averaged over the picture

Scanning Linearity :

Less than $\pm 2\%$ departure from the ideal

L.F. Tilt :

Less than 5% on a 50 c/s square wave

Light Sensitivity :

High definition pictures are obtained at 20 ft candles (200 lux) and upwards. Satisfactory pictures may be obtained at 5-10 ft candles (50-100 lux) at $f/1.9$

Automatic Sensitivity : 500 : 1 minimum

Operating Temperature :

Maximum ambient 50°C. Camera temperature should not fall below 0°C

Signal to Noise Ratio :

Better than 40dB unweighted p-p signal to r.m.s. noise for a linear 5 MHz channel and 300 nano-amp signal current

Power Supply :

100-125 V or 200-250 V a.c. at 47-63 Hz depending on standard used. Permissible voltage variation $\pm 10\%$

Power Consumption :

68 W approx 75 VA

CAMERA HEAD UNIT

Pick-Up Tube :

Vidicon Type 849
Stationon Type 9132A
or equivalent max. heater rating
6.3 V 0.35 A

CAMERA

Spectral Response :

Similar to panchromatic film. Suitable for daylight or artificial light

Lens Mounting :

Standard 16 mm 'C' type (1 in dia 31 t.p.i. fixing, rear focal register 0.69 in)

Connectors :

37-way plug :
Cannon Type MS3102R-28-21P
14-way socket :
Cannon Type MS3102R-20-27P

Part Number :

(less front plate attachment) 848014

Dimensions :

12.7 cm dia x 25.4 cm long (4 in x 10 in) overall (excl. lens)

Weight :

With average (remote focus) attachment :
3.1 kg (7 lb)

CAMERA CONTROL UNIT

Output Signals :

1 volt p-p composite video signal of 70/30 picture/sync ratio (white positive) into 75 ohms, and/or 0.7 V non composite from two separate output points

Connectors :

23-way socket :
Painton 74/10/2356/10
For Remote CCP if used
37-way socket :
Cannon Type MS3102R-28-21S
Video Output :
Films and Equipments Type SO-239
Two outputs
Sync-Out :
Painton 8 W — S8MFS
Sync-In :
Painton 8 W — P8MFS

Auxiliary Controls :

14-way plug :
Cannon Type MS3102R-20-14S

Part Numbers :

Portable : 848015/00
Rack Mounting : 848015/01
Combined Camera and Control Unit
848047

Dimensions :

Portable Type :
46.5 cm long x 15.3 cm high x 46.0 cm deep (18½ in x 6 in x 18 in) (excluding plugs) overall
Rack Mounting Type :
48 cm long x 1.33 cm high x 46 cm deep (19 in x 5¼ in x 18 in) (excluding plugs)

Weight :

Portable Type :
13.6 kg (30 lb) approx
Rack Mounting Type :
13.6 kg (30 lb) approx

REMOTE CONTROL PANEL

Camera Control Panel shown above or to customer's order if required. The C.C.P. is removed and mounted in the Control Desk for Remote operation

Specification details subject to change without notice



PYE TVT LIMITED

CAMBRIDGE CB1 3JU ENGLAND TELEPHONE CAMBRIDGE 45115 TELEX 81103

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