Unit Specifications

STANDARD CAMERA TYPE BC600

This camera is suitable for most applications where physical size is not of the utmost importance. Its rigid cast aluminium body makes it ideal for use in some of the tough industrial applications. It can be fitted with a wide range of remote controls, details of which will be found on the following pages.

Valves and Tube
10667 Vidicon camera tube
E88CC Cascode head amplifier
ECF80 (2) Video amplifiers
OA70 Line blanking restorer

Ventilation Natural flow.

Operating Temperature Maximum ambient temperature: 122°F. (50°C.)

Cable Connections Plug on camera to mate with cable socket. Plessey Mk. 4 25-way coarse thread brass type.

Controls Hand (optical) focus of camera by knob situated at rear of camera.

Dimensions (less cable and lens)

Height	7 in	(18 cm)
Width	4 in	(10 cm)
Depth	12 in	(30 cm)

Weight (less cable and lens) 10 lb (4·5 Kg)

Power Supply Taken from C.C.U. along camera cable.

Lens Mount Either 16 mm "C" or Dallmeyer Vidiac and Taylor, Taylor & Hobson "Vidital".

Camera Base Mount Threaded to take $\frac{1}{4}$ in B.S.W. Stud, ($\frac{5}{16}$ in long).

Cable 25-way 7A/B4303.

System Specification

System The equipment can be supplied for operation on any one of the following standards:
405 lines 50 fields interlaced
525 lines 60 fields interlaced
625 lines 50 fields interlaced

Resolution 650 lines over useful area of picture.

Bandwidth 8 Mc/s over the complete system.

Linearity Better than 2% positional error for both line and field scans.

Sensitivity With a scene illumination of 1 foot candle (50% subject reflection) and lens aperture at F2 a fully contrasted picture is obtained.

Camera Tube EMI 10667 or equivalent.

Spectral Response The spectral response of the vidicon tube is similar to panchromatic film. Ultra-violet and infra-red sensitive tubes are available to special order.

Ambient Temperature The maximum ambient temperature for continuous operation is:
Standard Camera, C.C.U. 122°F. (50°C.)
Monitor 100°F. (38°C.)
Mini-camera 149°F. (65°C.)
Mini-camera pre-amplifier 122°F. (50°C.)

Power Supply *Camera Control Unit* 110–115 and 195–255 volts 50/60 c/s 300 watts. (The fan motor must be changed for low voltage operation). The voltage range is selected by plug and socket connectors.
Standard Camera, Mini-camera and pre-amplifier All supplies are taken from the C.C.U.
Monitors 110–115 and 195–255 volts 50/60 c/s 150 watts.

Signal Output 1·4V composite video signal. 70/30 picture/sync ratio, white positive into 75 ohms.
R.F. output (when fitted with CM601 R.F. Modulator Unit) 100 mV.
For frequencies see detailed specification on R.F. Modulator Unit.

Dimensions and Weight Refer to the detailed specifications for each unit given on the following pages.

Finish Two tone hammer grey.

Lenses A wide variety of interchangeable lenses is available, for details see lens list and angle chart on pages 17 and 18.

Cables
Standard Camera to C.C.U. Type SC145
Mini-camera Pre-amplifier to C.C.U
18 – 14/0076 conductors
2 – 40/0076 conductors
1 – 75 ohm co-axial Capacitance 17 pF per ft.
Attenuation at 5 Mc/s. 0·9 dB per 100 ft.
1 – 50 ohm co-axial Capacitance 29 pF per ft.
Attenuation at 5 Mc/s. 0·7 dB per 100 ft.
Overall diameter: 0·6 in (15 mm). Maximum recommended length: 500 ft (152 m). If slight picture degradation can be tolerated max. length is 1000 ft (305 m).

Mini-camera to Pre-amplifier Type SC273
13 – 14/0076 conductors
6 – 23/0076 conductors
2 – 40/0076 conductors
1 – 125 ohm co-axial. Capacitance 0·7 pF per ft.
Attenuation at 5 Mc/s. 0·48 dB per 100 ft.
1 – 50 ohm co-axial Capacitance 29 pF per ft.
Attenuation at 5 Mc/s. 0·7 dB per 100 ft.
Overall diameter 0·8 in (22 mm). Maximum recommended length 500 ft (152 m).

C.C.U. to Monitors Co-axial cable only is used for this connection; two types are available, the standard cable T1057 and the low loss cable T1058. Cable Type T1058 is recommended for the best picture definition, where the cable length exceeds 500 ft.

T.1057 Characteristic impedance: 75 ohms (nominal). Attenuation per 100 ft (30·5 m) at 45 Mc/s: 2·3 dB. Overall diameter: 0·21 in (5·3 mm). Maximum recommended length: 500 ft (152 m).

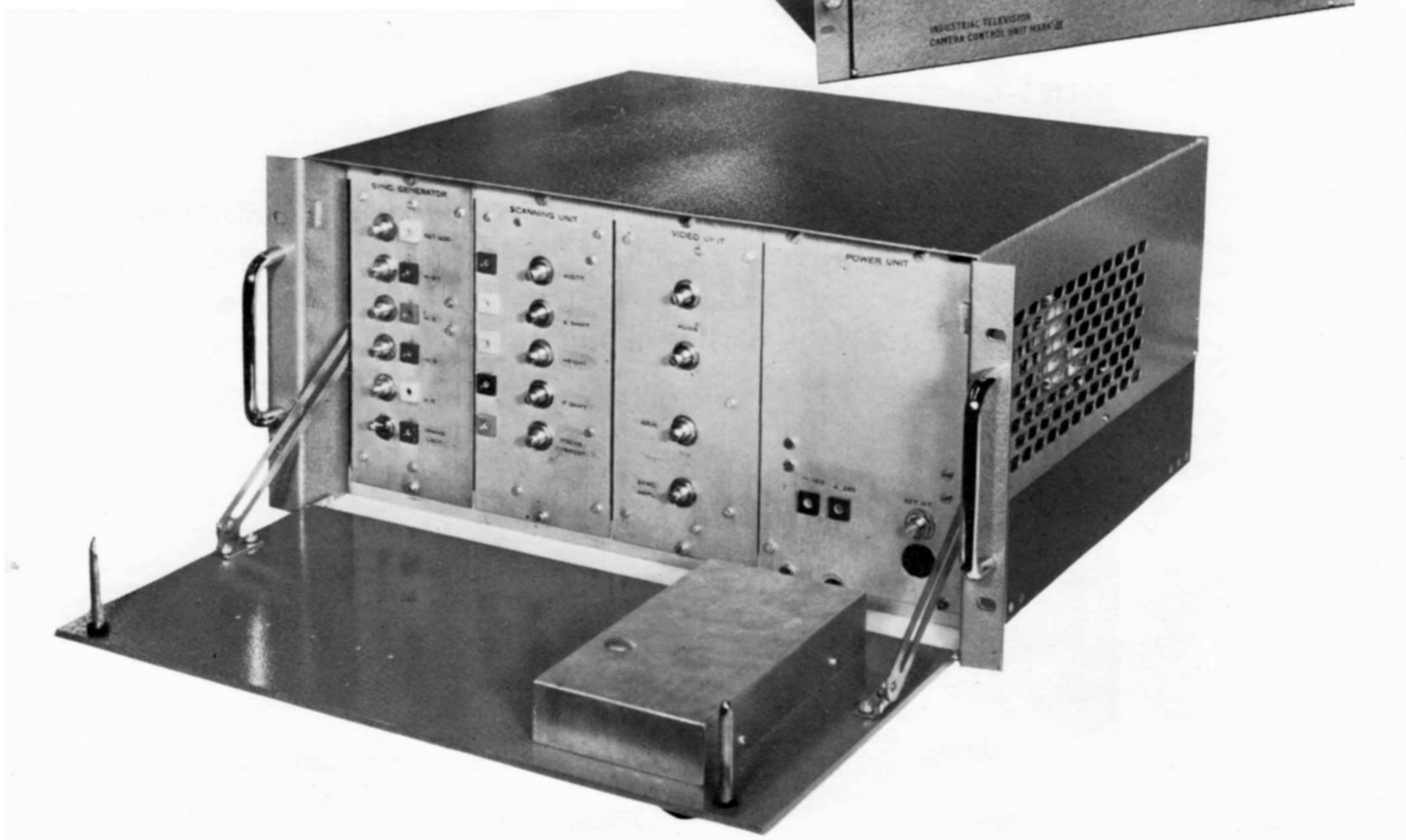
T.1058 Characteristic impedance: 75 ohms (nominal). Attenuation per 100 ft (30·5 m) at 45 Mc/s: 1·2 dB. Overall diameter: 0·21 in (5·3 mm). Maximum recommended length: 1000 ft (305 m).

Which ever type of cable is used, the cable end connector required is Belling-Lee Screenector plug type L788/PP.

Remote Units Cables required for the remote control units are described in the technical specification on each unit.

Maximum distance remote control unit from camera 500 ft (152 m) unless otherwise stated.

Camera Control Unit Type CC600 continued



on to the front panel for servicing purposes, or quickly changed when speed of servicing is of prime importance: the faulty unit can then be serviced at leisure. The normal operating controls and mains supply switch are mounted on the hinged front panel, behind which, on the sub-units, are the occasional and pre-set controls together with waveform monitoring points.

Valves

Sync Generator Type CC600GA (625 lines) CC600GB (525 lines) CC600GC (405 lines)
ECC82/12AU7 (3) Master Oscillator and Dividers
6F33 (3) Dividers
EB91 Mains Lock Discriminator
OA70 Restoring Diode
OA81 Restoring Diode
ECC81/12AT7 Divider

Scanning Generator Type CC600H
ECC83/12AX7 Field Blanking and Scanning
ECC82/12AU7 Field Blanking and Scanning
ECC81/12AT7 Field Scanning and Sawtooth Discharger
ECC81/12AT7 Line Sawtooth Discharger and Amplifier
ECL83 Line Linearising and Focus Stabiliser
EL84 Line Output
ECC81/12AT7 (2) Line and Field Sync Mixing
OA81 Field Sync Clipper

Video Amplifier Type CC600J
E180F Video Amplifier
ECC81/12AT7 Video Amplifier and Clamp Pulse Splitter
ECC81/12AT7 Aperture Corrector
ECC81/12AT7 Video and Sync Mixer
EL84 Video Output
OA81 (2) Black Level Clamp

Power Supply Type CC600K
GZ34 (3) h.t. Rectifier
EF91 h.t. Control
EL81 (4) Series Stabiliser
150C4 Negative h.t. Neon Reference Stabiliser