

This new Studio/OB camera is based on the already successful 120 series Multi-mode camera and retains the comprehensive operational facilities for which Link cameras are well known.

A compact attractively styled case incorporates a base casting which supports the integral lens and forms the main structure. A cast end supports the fully tiltable, rotatable viewfinder. The unique integral lens feature preserves the good camera handling and short front to back distance, which have become associated with Link cameras. A wide range camera balancing adjustment is provided.

Developed around 25mm lead oxide tubes, the camera offers highlight protection of five stops and individual Red and Blue bias lighting, enabling a wide range of demanding lighting conditions to be handled with ease. Digital automatic control of colour balance and auto Master Lift and Iris is provided, with a novel weighting system for optimum control of exposure. Manual operation is, of course, also possible.

Full production facilities are provided. Comprehensive talkback offers three separate circuits to the camera head and one return. This is routable by separate speak keys to either the Production or Engineering areas. Communication between the cameraman or a tracker/swinger is also provided. In addition the tracker has available all the other talkback signals, ON AIR signal and a feed of viewfinder video. A headphone output with individual level controls for Programme sound and mixed talkback is provided for use by a floor manager.

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There are two high quality Programme microphone inputs at the head and 3/8" Whitworth threads are provided for mounting effects microphones on the camera.

The 7" viewfinder, besides providing adjustable peaking and Normal/External/Mix facilities, also has adjustable horizontal and vertical cursor lines for use in aiding line up of captions etc. An adjustable brightness "picture frame" enables low key scenes to be accurately framed, while a zoom angle indicator is available, running across the top of the display. A 4" long cue lamp gives excellent ON AIR visibility.

Two filter wheels having three positions plus cap are provided. One wheel can be controlled by the cameraman and contains effects filters. The other wheel is permanently controlled from the CCU and provides Neutral density filtering.

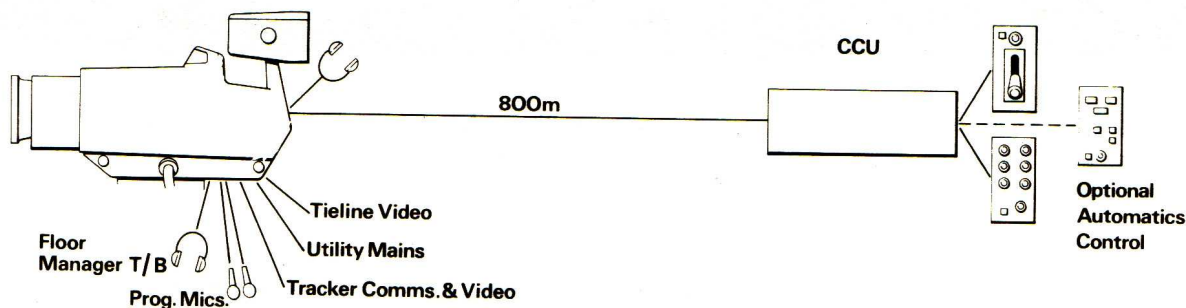


DIAGRAM SHOWING CAMERA FACILITIES

SYSTEMS

625 lines, 50 field or 525 line 60 field. PAL; NTSC or Secam coders available.

PICK-UP TUBES

Three 25mm Lead Oxide Vidicon tubes, incorporating Anti-Comet Tail guns and light bias. Philips type XQ1080 or XQ1500G, EEV type P8145 or equivalent.

POWER INPUT

115V \pm 10% or 230V \pm 10% at approximately 300VA.

CHANNEL OUTPUTS

Two sets R G and B 0.7V into 75 Ω from 75 Ω source. One colour separation overlay signal output of 0.7V into 75 Ω . B-Y, G-Y or R-Y depending on setting of pluggable link.

MONITORING OUTPUTS

2 x monitor outputs of 1V composite into 75 Ω for picture and waveform. 1 x colour step waveform for parade display on waveform monitor of -5, 0, +5V from 1K source.

CHANNEL INPUTS

Syncs and blanking 0.5V to 6V negative going. Ext. test signal, 1V composite. Ext. viewfinder signal, 1V composite. Bridging connectors provided with all inputs.

SENSITIVITY

With scene illumination of 800 lux and peak white scene reflectance of 60%, lens aperture is f/2.8.

SIGNAL/NOISE

48dB unweighted w.r.t. a peak signal current of 300nA per channel, with unity gamma, and linear matrix, no contour correction.

GEOMETRY

Inside a circle having diameter 0.8 picture height, better than 0.5% of picture height. Outside this circle better than 1%.

REGISTRATION

Inside a circle diameter 0.8 picture height, deviations less than .05%. Inside circle picture width deviations less than .1%. Outside this circle deviations less than .2%.

FREQUENCY RESPONSE

\pm 0.5dB to 5MHz.

RESOLUTION

Adjustable with contour corrector to 100% depth of modulation at 5MHz.

CONTOUR CORRECTION

In band and out of band with level dependence on V and H correction; noise coring and comb filter. Separate controls for horizontal/vertical mix and gain.

GAMMA LAWS

Switchable. 0.4, 0.5, 0.6 and unity.

MASTER GAIN

Switchable at CCU from 0 to +12dB in 3dB steps.

COLOUR BALANCE

\pm 8dB, allowing \pm 6dB for colour temperature variations and \pm 2dB for tube variations.

MASTER LIFT

Before gamma correction, range +10% to -30%.

INDIVIDUAL LIFTS

Range \pm 5%.

LINEAR MATRIX

Reversible plug-in module provides two alternative co-efficients for daylight or studio conditions.

TAKING CHARACTERISTICS

Prism optical crossovers are matched to within $\pm 5\text{nm}$.

FLARE CORRECTION

Switchable in-out.

SHADING CORRECTION

Additive and multiplicative compensation with sawtooth and parabolic waveforms introduced before the action of the variable gain circuits.

MONITORING FACILITIES

Pushbutton selection of the following signals at CCU input or output: Luminance; Red; Green; Blue; R minus G; B minus G; R/G or B/G CLUE or at $\frac{1}{4}$ field; RGB line parade, ext. test minus green, local sawtooth injected at CCU input or head amp input. Bridging out of green facilities provided.

AUTOMATIC FACILITIES

Auto Black and White balance and Auto Master Lift and Iris are available as optional extras.

LINEAR LOOPED OUTPUTS

0.7V, 75Ω non-composite, clamped R, G and B signals looped through at rear of CCU.

CAMERA CABLE

Diameter 13mm. BIW TV36 or BICC 5677 or equivalent. Max. length usable is 800m. Auto length correction. No volts above 12 on cable with head disconnected.

REMOTE CONTROLS

3 multiway outputs for master lift and iris, colour balance and automatic controls.

STANDBY FACILITIES

Switch at CCU reduces tube heaters to 4V, caps up and cuts off beams and hours counter. When released normal operation achieved after 30 second delay on beam currents. Lamp at head indicates standby condition and flashes when camera is coming out of standby.

VIEWFINDER

Screen size 7" - Brightness at least 2000 lm/m^2 . Resolution at least 700TV lines/picture height. Tilttable $\pm 60^\circ$. Rotation $\pm 90^\circ$. Normal/ext-ernal/mix switch provided (can also be remotely operated from pan bar). Electronic zoom angle indicator. Adjustable horizontal and vertical cursor lines for aiding caption line-up and picture area frame for aiding framing of low key shots.

CAMERA HEAD

TIE LINE OUTPUT

1V comp into 75Ω .

TRACKER OUTPUT

1V composite 75Ω feed of viewfinder video.

UTILITY MAINS

LNE socket. 100W available.

PROGRAMME MICROPHONES

2 Inputs.

Input impedance : $1k\Omega$.

Sensitivity : -10 to -60dB.

S/Noise > 56dB.

25dB input attenuator may be switched in.

SIGNALLING AND COMMUNICATIONS

SIGNALLING

On air input. Calling loop. External call cancel loop. External call loop.

COMMUNICATIONS

3 circuits provided to the Head and one to CCU. Cameraman has individual level control of Producer, Engineering, Tracker/Swinger and Programme sound. Cameraman's headset outlet provided at the head together with one headphone socket with level controls for programme sound and talk-back. Full communications facilities with individual level controls available on multiway socket for tracker etc. Communications interface with the channel at zero level, balanced. Separate Speak Producer, Speak Engineering and call keys at the camera. SPEAK PROD may be operated from the Pan Bar. Call camera key at the CCU flashes the On-Air Cue lights.

EACH CHANNEL HAS

Input Impedance	10K Ω .
Output Impedance	600 Ω .
Input/Output	zero level
S/Noise	>46dB
F. Response	100Hz to 8KHz ± 3 dB.

CAMERA RIG FACILITY

Switch on camera allows only communications to the CCU and utility mains socket to be powered.

FILTER WHEELS

2 motorised filter wheels, having 3 positions plus cap, allowing combinations of filters to be simply employed. One wheel can be operated by the cameraman for optical effects etc.

CENTRE OF GRAVITY

Adjustment provided at camera rear.

ON-AIR LAMPS

Dual recessed, visible from camera front and sides and dome at centre front, inside viewfinder hood on rear panel, at CCU, OCP, automatics and colour balance panels. On-Air command available from tracker output.

ENVIRONMENTAL

Camera will operate between -10°C to $+40^{\circ}\text{C}$ up to 85% relative humidity. Negligible drift will occur for variations of $\pm 10^{\circ}\text{C}$ within this temperature range.

LENSES

A full range of lenses will operate with the camera including Angenieux, Schneider, Canon and Fuji.

CONNECTORS

XLR-LNE power.
BNC coaxial.
Canon "D" and Varicon multiways.
XLR-Audio.

www.tvcameramuseum.org