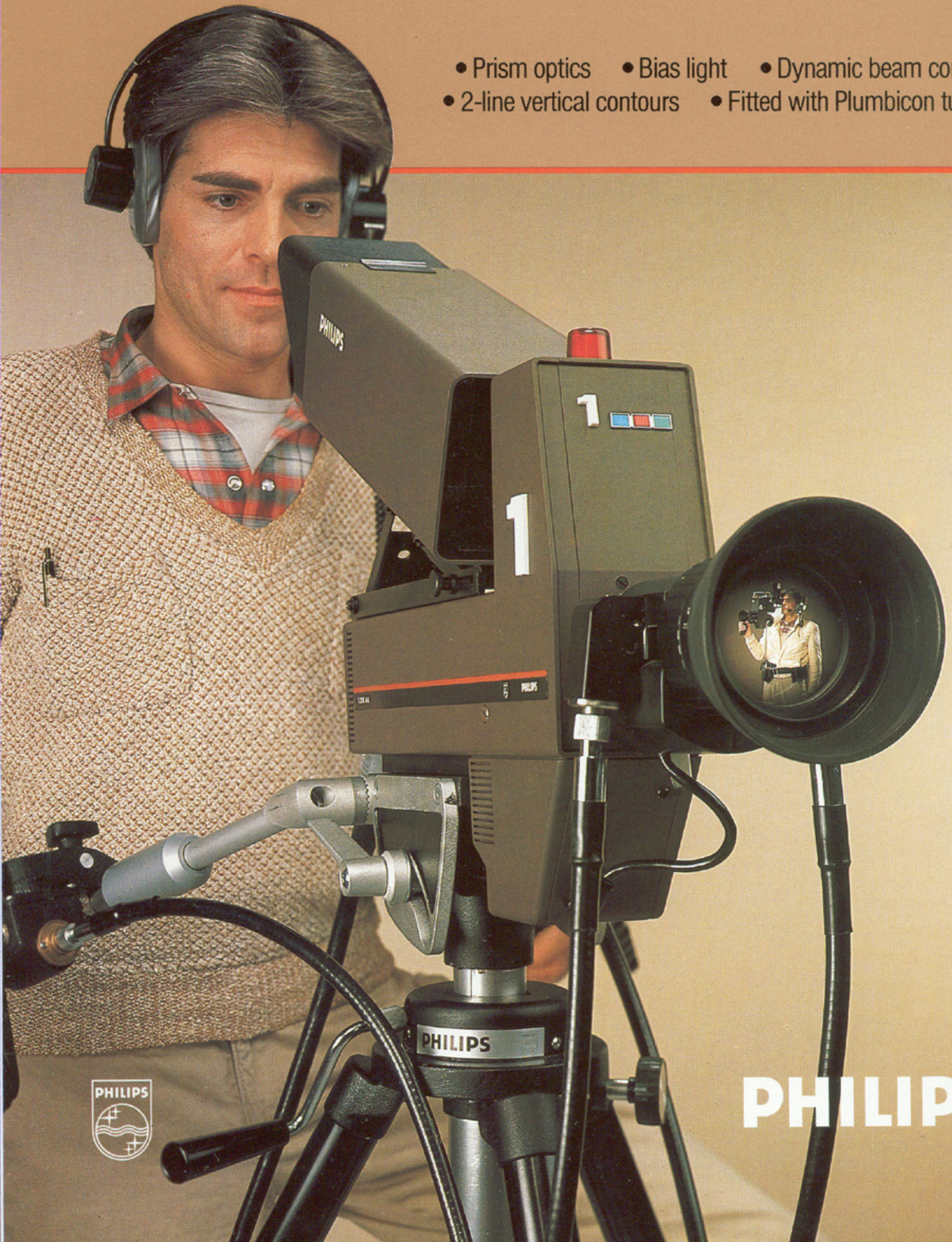


LDK 44 Colour Camera System

- Prism optics
- Bias light
- Dynamic beam control
- 2-line vertical contours
- Fitted with Plumbicon tubes



PHILIPS

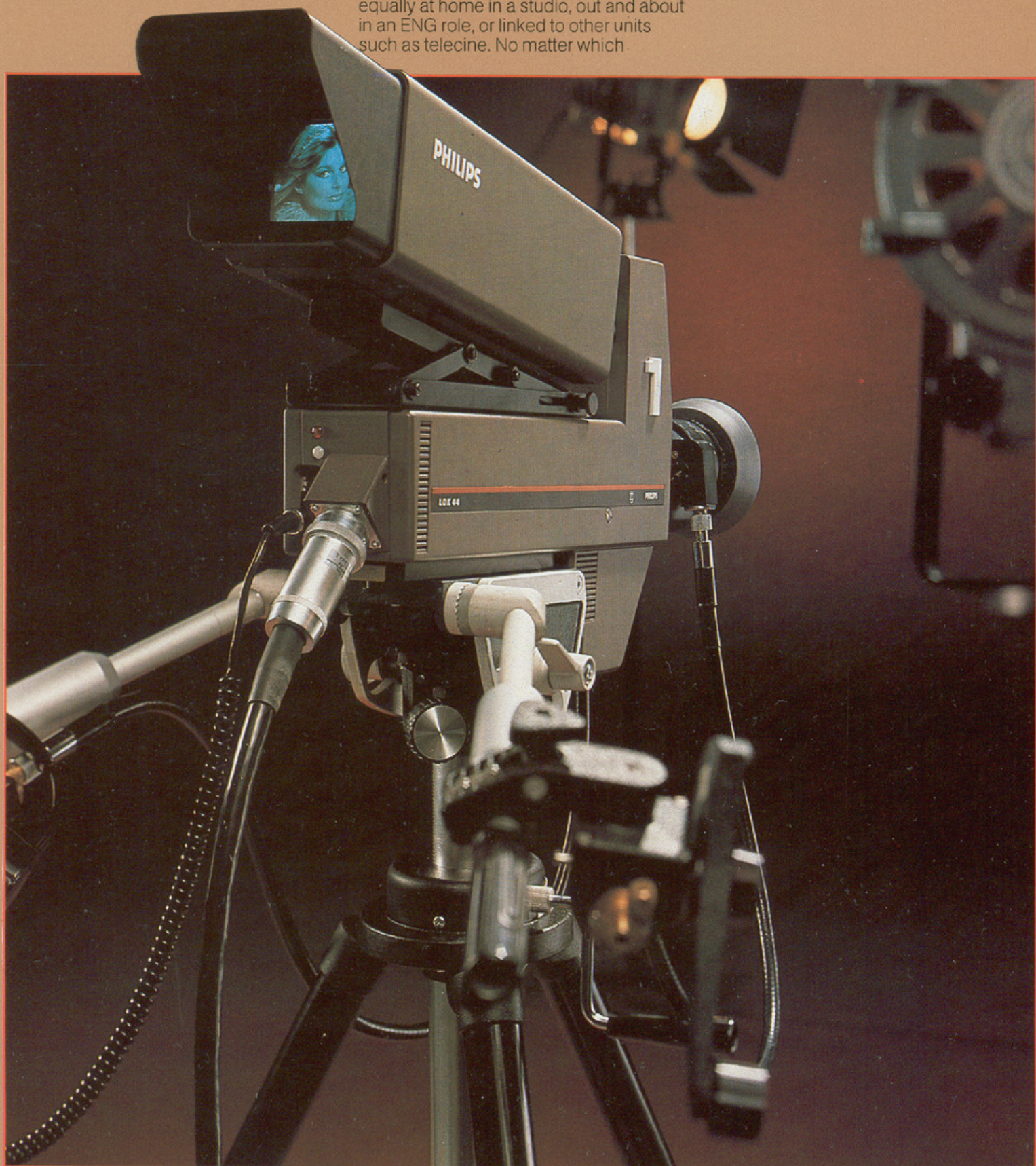
- Prism optics
- Bias light
- Dynamic beam control
- 2-line vertical contours
- Fitted with Plumbicon tubes
- Flexible and versatile through modular construction
- Broadcast quality pictures
- Excellent price/performance ratio
- Easy installation and operation

The LDK 44 is the outstanding new colour camera system from Philips. For institutional and professional users alike, it provides a simple, versatile and economic means of obtaining broadcast quality pictures.

The flexibility of the LDK 44 system stems from its modular construction – a separate camera head, a universal electronic pack which carries out all video processing functions, and remote control units. They are complemented by a wide range of associated equipment and accessories. The LDK 44 system is equally at home in a studio, out and about in an ENG role, or linked to other units such as telecine. No matter which

configuration is required, the LDK 44 is the ideal TV production system for application fields such as broadcasting, education, commerce and industry.

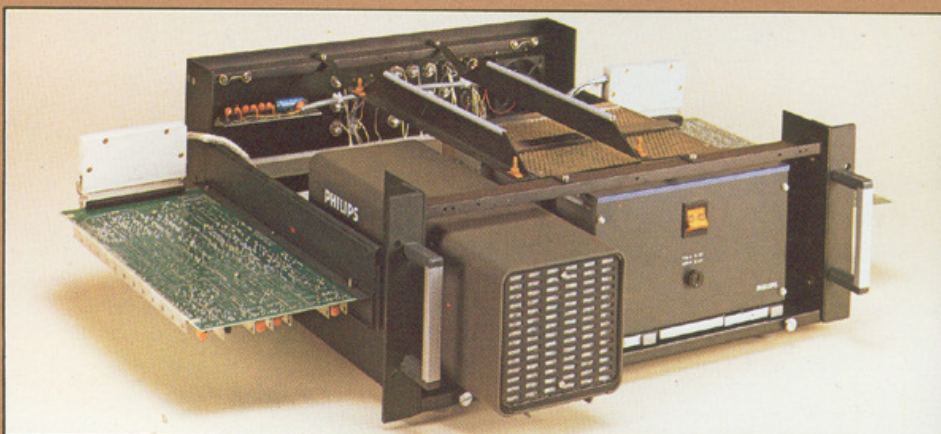
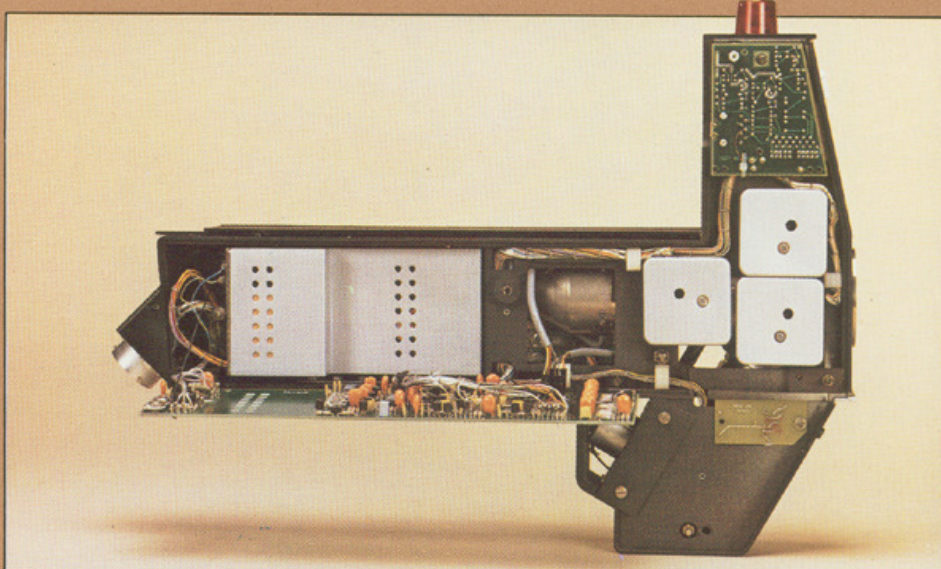
Whatever the application, reliability is essential. That reliability is assured through Philips' in-depth experience and expertise in all aspects of TV production equipment. And these vital qualities are supported by our worldwide after sales service network, ensuring that the highest standards, synonymous with the name of Philips, are always maintained.

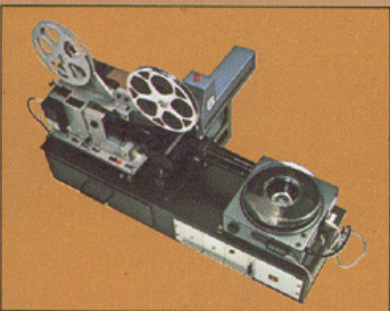
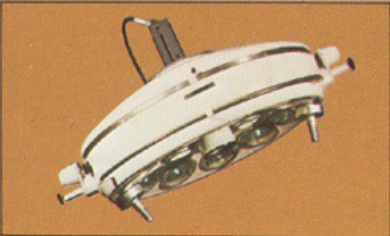
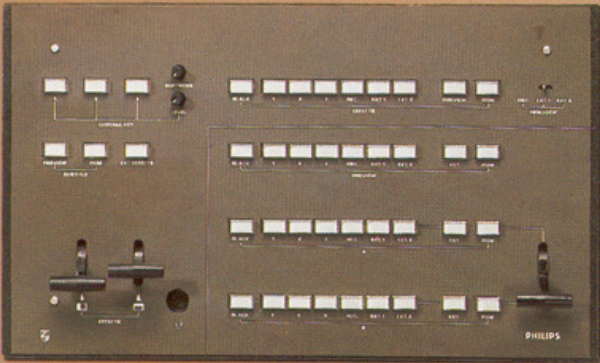
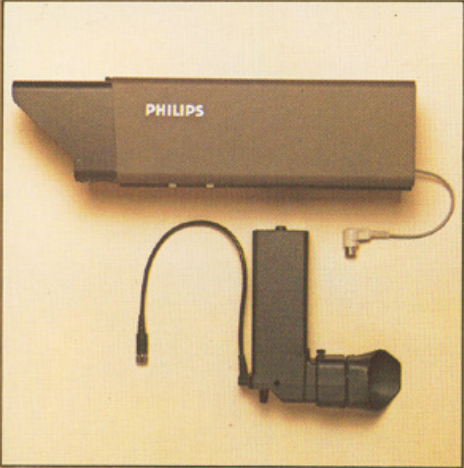
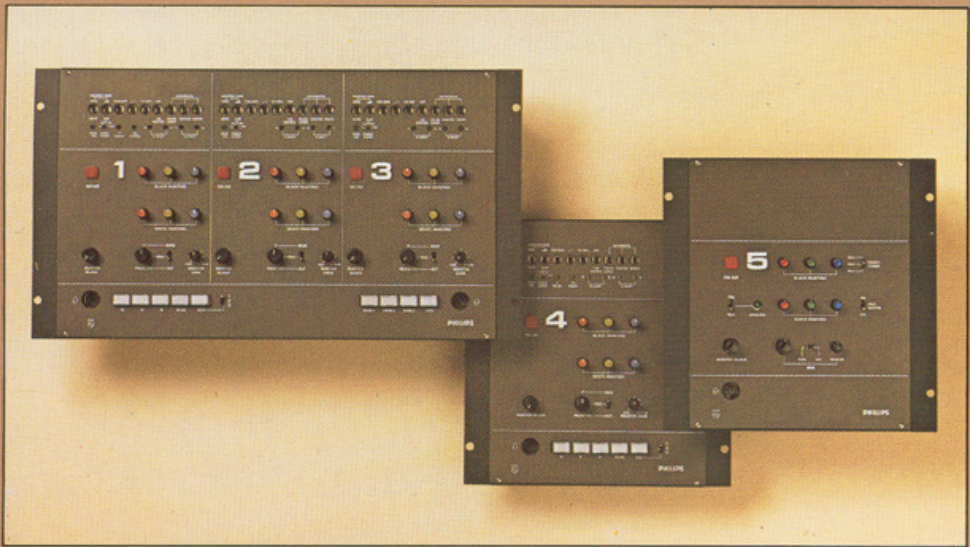


The elements to meet all requirements

The camera head is fitted with three 2/3" plumbicon tubes and operates on the prismatic beam-splitting principle, providing professional standards of resolution and colour separation. Excellent highlight handling, up to three lens stops, is assured by the dynamic beam control feature, and lag at low light levels is minimised by the bias light. The prism is contained in a one-piece cast aluminium block which ensures mechanical strength and accurate alignment with the lens. An audio pre-amplifier is built into the camera head to allow connection of a programme microphone. On-air lamps are fitted on the top of the camera and at the rear. An intercom headset connection socket is also mounted at the rear of the camera head.

Electronic pack features include cable compensation for camera cables up to 150 metres long. Different gain control options are made possible by the use of advanced circuitry in the input stages. Noise reduction techniques are employed in the input stages and gamma circuitry. Symmetrical horizontal contours and two line delay processed vertical contours are added for optimum resolution. Circuits are provided for the camera's automatic functions. They include a memory store, that maintains





the camera settings for a prolonged period after switch-off. In addition, the electronic pack contains a sync pulse generator with gen. lock facility, and circuits for colour coding. The electronic pack can quickly be adapted for any configuration; a slide-on rail system allows it to be easily fitted into the 19" rack-mounting frame assemblies, or simply slid onto the camera head.

The frame assembly units include VLS (Video Line Sampling) and CLUE (Colour Line-Up Equipment), which simplify setting up and enable easy matching of the cameras without the need for additional measuring equipment. Inputs and outputs are provided for all camera and control signals.

A choice of remote control units – single, triple or ENG – is also provided to suit the selected camera configuration. These offer switching facilities for a wide range of functions and have control over setting up and operating procedures. All controls are logically laid out for ease of operation, and the units are equally suited for desk mounting, or use in a 19" rack system.

Extending the system

The appeal of the LDK 44 can be extended even further by the wide selection of accessories and associated equipment available: a video mixer with chroma-keying; lenses; cables; microphones; monitors . . . in fact everything that's needed to complete an efficient, yet simple to operate system. The LDK 44 camera can also assist in research and development, and medical areas, by its use in conjunction with microscopes and operating theatre lamps. And the scope of commercial and educational activities is increased by combining it with film and slide projectors to provide an efficient telecine unit.



Building a system to suit your needs

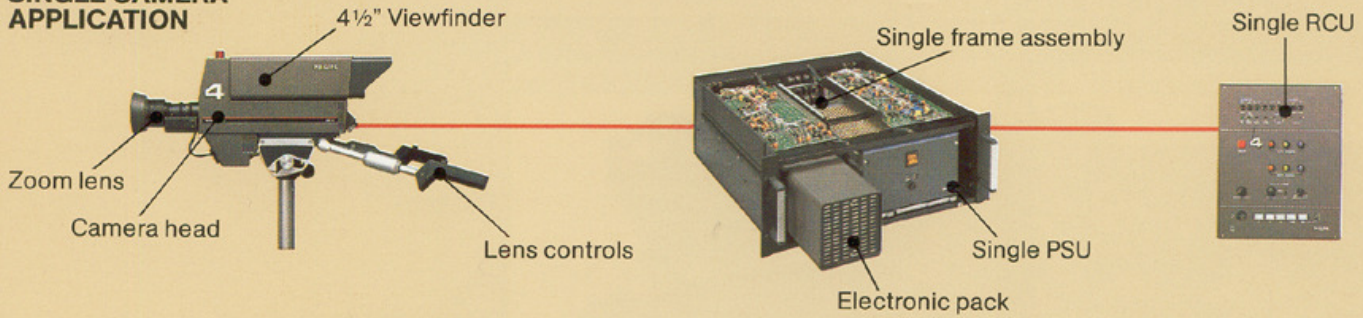
The LDK 44 camera system, through its modular construction, enables fast and simple conversion from one configuration to another. In a single camera studio application, the system comprises a camera head, to which can be fitted either a 4 1/2" tilting viewfinder for tripod use or a 1 1/2" viewfinder for portable use. Both viewfinders feature high brightness and resolution. A range of quick release, bayonet-mounting lenses is available, with either motorised or manual operation. The camera head is linked to a 19" rack-

mounting, single-frame assembly containing an electronic pack and built-in power supply unit. The electronic pack is the heart of the LDK 44 system. It contains all the advanced circuitry necessary to ensure that the highest standards of picture quality are consistently maintained. This, in turn, is connected to a single remote control unit, via the frame assembly unit.

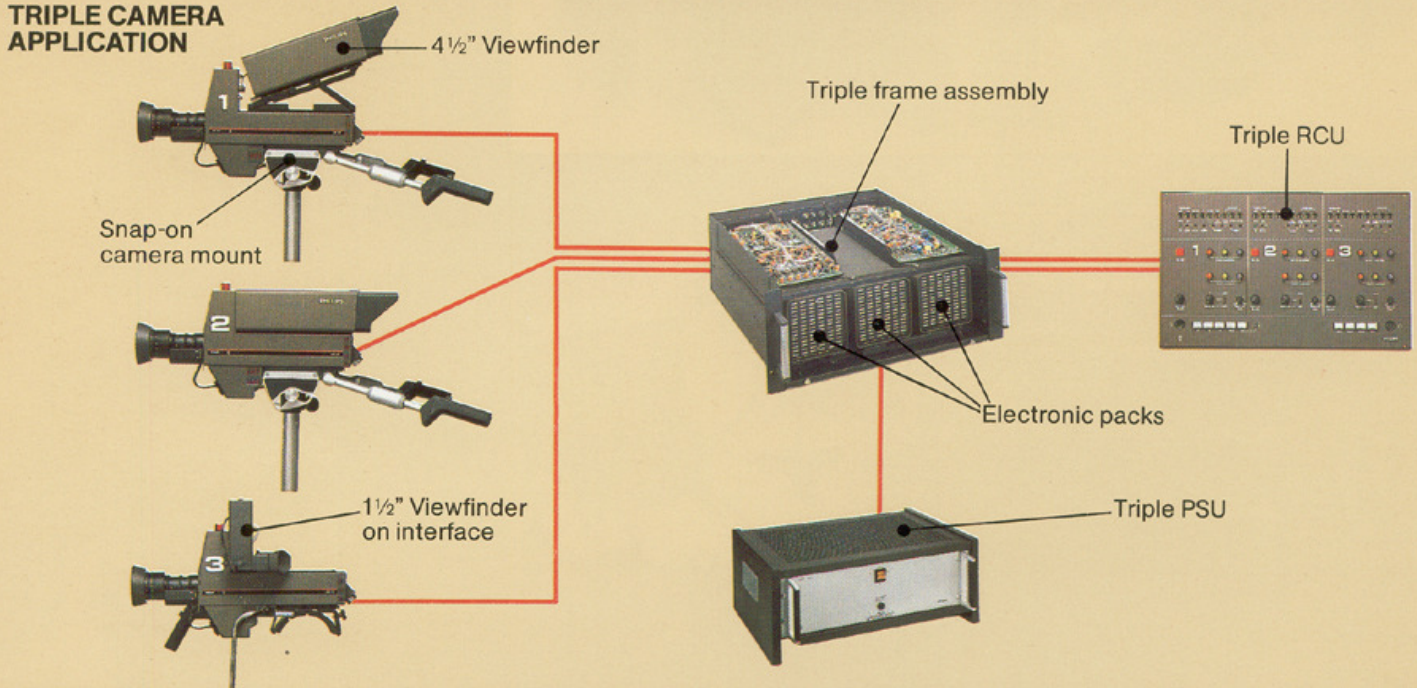
For larger studio configurations, such as a three camera system, the frame assembly contains three electronic packs. Power is derived from a separate supply unit. A triple remote control unit is linked to the system, and all output signals are precisely timed and phased.

In an ENG configuration, the electronic pack simply slides onto the camera head, together with a 1 1/2" viewfinder interface. An adaptor is fitted to the electronic pack which enables connection to the power supply. This can be a power belt worn by the cameraman, which gives total freedom of operation. Alternatively, connection can be made, via a separate adaptor, to a car battery or to mains. Operation is made easier through the comfortable shoulder bracket, and the camera handgrip, which includes a zoom, and a VTR control. The camera can also be linked to an ENG remote control unit, enabling control from a distance of up to 90 metres.

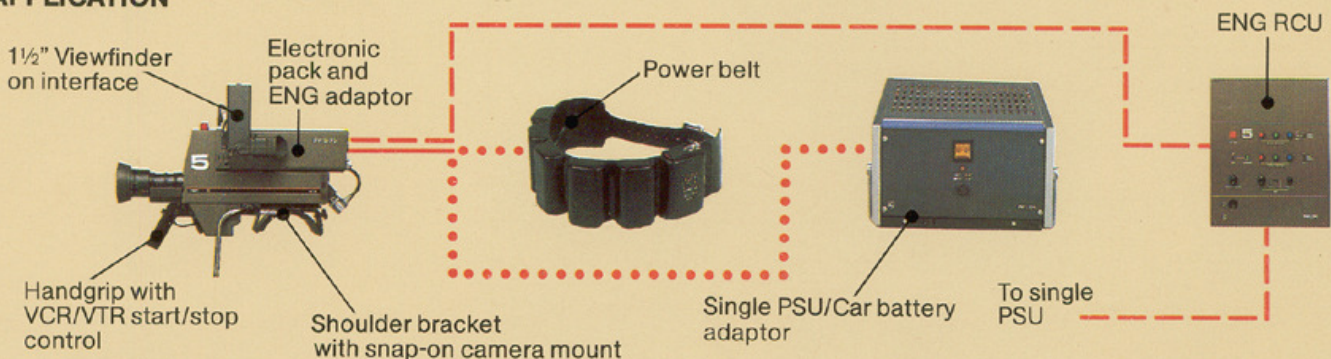
SINGLE CAMERA APPLICATION



TRIPLE CAMERA APPLICATION



ENG CAMERA APPLICATION



Technical data

International colour television standards:

CCIR, PAL;
EIA, NTSC.

Optical system

Prismatic optical beam splitter, relative aperture f 1,8 with bias light assembly.

Pick-up tubes

Three 2/3" (18 mm) plumbicons

Illumination level and S/N ratio

Scene illumination at 60% reflection 1200 lux, 3200°K, lens iris position f 2,8 for 180 nA signal current in the green channel and a S/N ratio of 50 dB at 5 MHz bandwidth and 52 dB at 4,2 MHz bandwidth

Min. illumination level

50 lux for acceptable pictures

Resolution

600 TV lines in the centre of the picture with a Retma standard resolution test chart.

Geometric error

≤ 1% within a circle with diameter equal to the picture height
≤ 2% outside this circle

Registration error

Horizontal and vertical deviations of red and blue with respect to green

≤ 60 nS in zone I

≤ 80 nS in zone II

≤ 150 nS in zone III

Zone I : circle of 0,8 of picture height diameter

Zone II : circle of picture height diameter

Zone III: outside circle I and II

Maximum camera cable length

150 metres



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