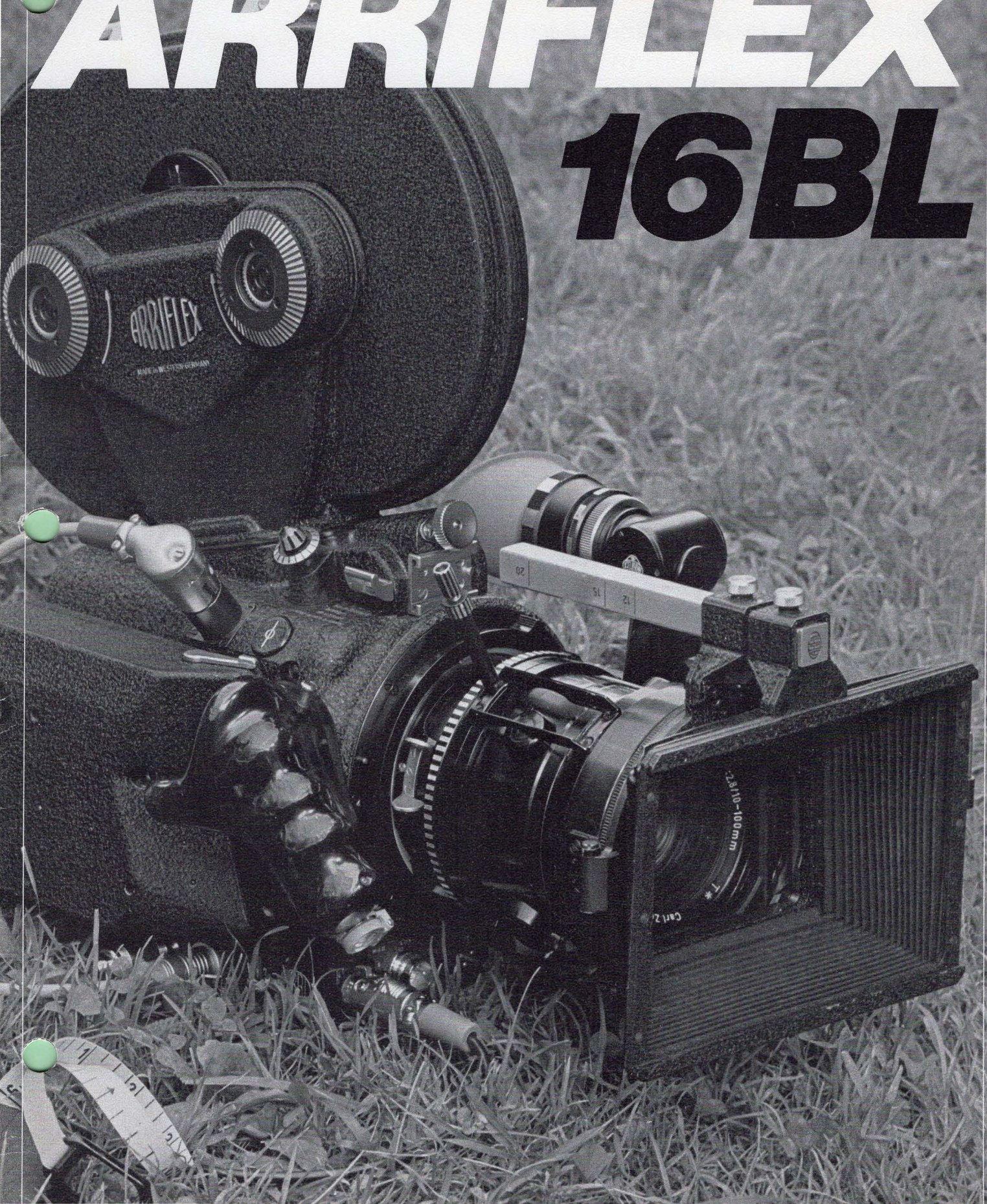




ARRIFLEX 16BL

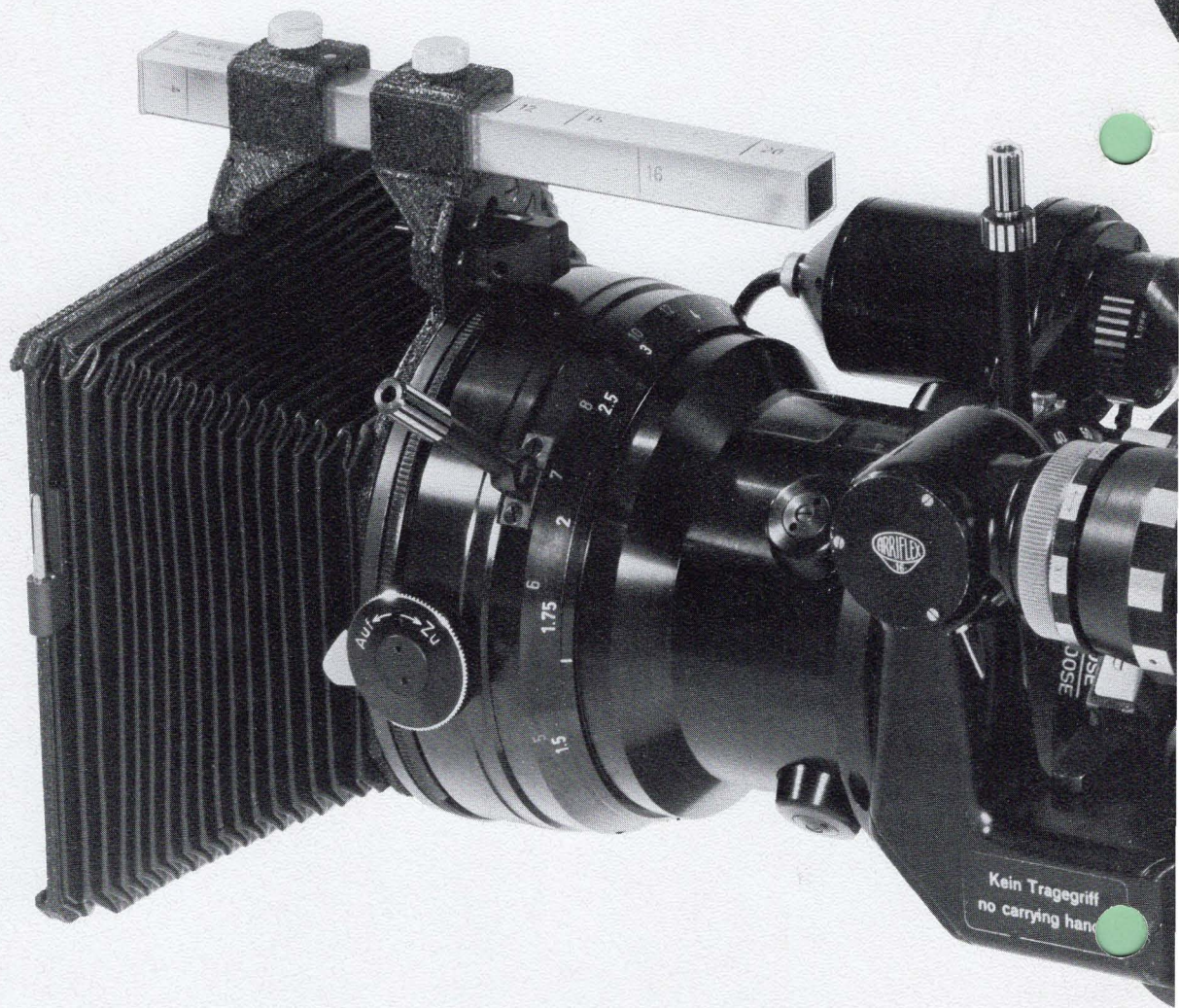


ARRIFLEX 16 BL Came

Designed and built in West Germany by precision engineers to meet a world wide demand.

The ARRIFLEX 16 BL camera with its unsurpassed picture steadiness, guaranteed by its precision engineered film transport and registration pin system, ensuring that each successive frame is correctly positioned while the exposure is made, can be truly said to be the camera for the discerning professional user and to set a standard of quietness and reliability by which others are judged.

The low noise level of the self-blimped ARRIFLEX 16 BL with built-in Pilotone sync-pulse Generator makes the camera ideal for "double system" sound recording. Single system sound recording is also possible.

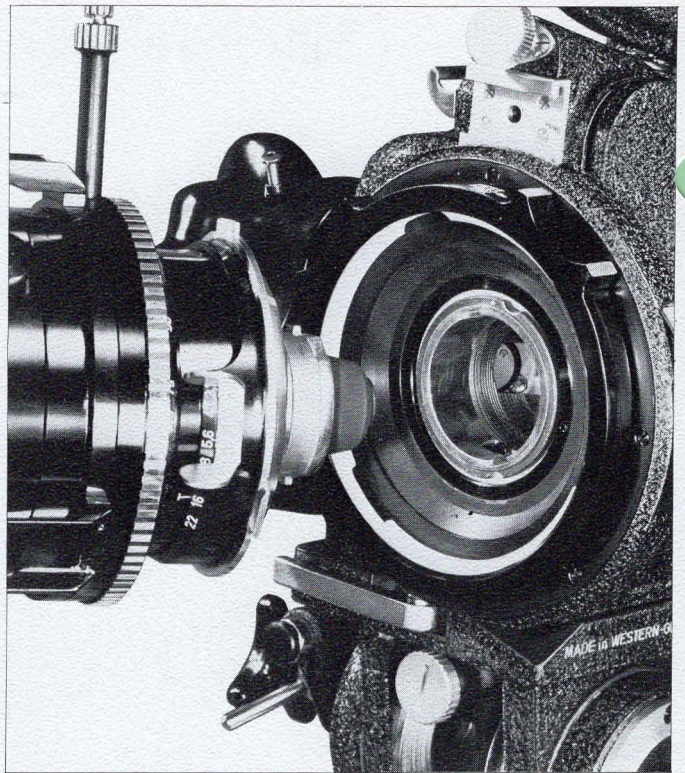


ra



The Reflex Viewfinder System

The reflex viewfinder system as used in the ARRIFLEX 16 BL camera, produces an image of unsurpassed clarity and brightness. The optical system incorporates an interchangeable ground glass screen, or a fibre optic screen, two alternative viewfinders for use when the camera is either tripod mounted or hand held, an eyepiece with automatic closure mechanism, dioptre adjustment, and facilities for prescription lens.



In order to ensure the correct location of the lens relative to the focal plane of the camera, all Zoom lenses are fitted with an ARRIFLEX bayonet lens mount of specially hardened steel.

Zeiss Super Speed Lenses

The Zeiss range of Super Speed T * multi-coated lenses, max. aperture T 1.3 have been developed for the ARRIFLEX 16 mm cameras to meet the increasing demand for high quality lenses to allow filming in poor light conditions and to economise in the use of artificial lighting (**).

Zoom Lenses, Filter Holder and Matte Box

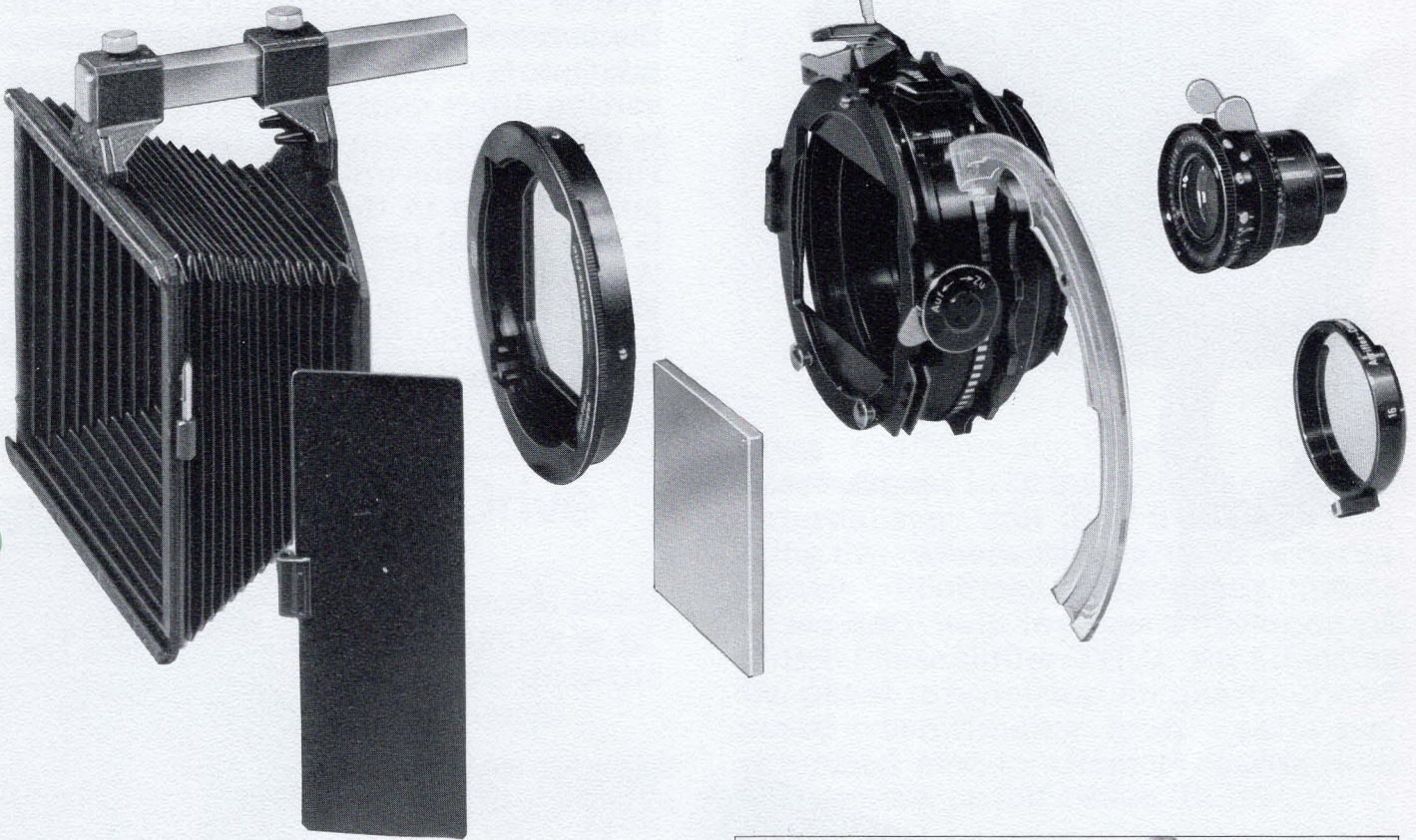
A range of Zoom lenses (*) by prominent manufacturers, each in their own individual sound blimp housing are available for use with the ARRIFLEX 16 BL camera. Each lens is fitted with a filter holder and optical flat and provision is made for mounting a leather bellows matte box.



Universal Lens Blimp Housing

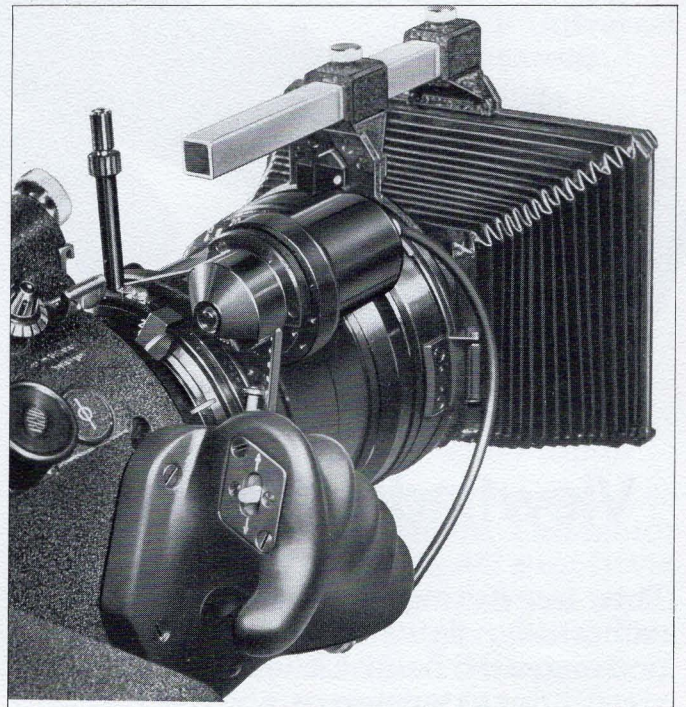
The universal sound insulated housing is used when the ARRIFLEX 16 BL camera is fitted with fixed focal length lenses. The housing is equipped with a filter holder and an optical flat, 75 mm x 75 mm and can accept lenses from 8 to 85 mm and, with a

special adapter, Zeiss Super Speed lenses can also be accommodated. Facilities are provided to fit a matte box and to allow the lens controls to be operated conveniently from outside the blimp housing.



Motorized Zoom Controls

An electrically operated power zoom control can be fitted either as original equipment, or as a later modification. The motor is controlled from a special camera hand-grip which provides facilities for forward and reverse operation, and also variable stepless speed control. Zooming by hand is also possible.



Fluid Damped Zoom Drive

A mechanical fluid damped zoom control system is available for use with the Angénieux 10x12 zoom lens. This unit enables a continuous smooth zoom movement by hand throughout the whole zoom range.



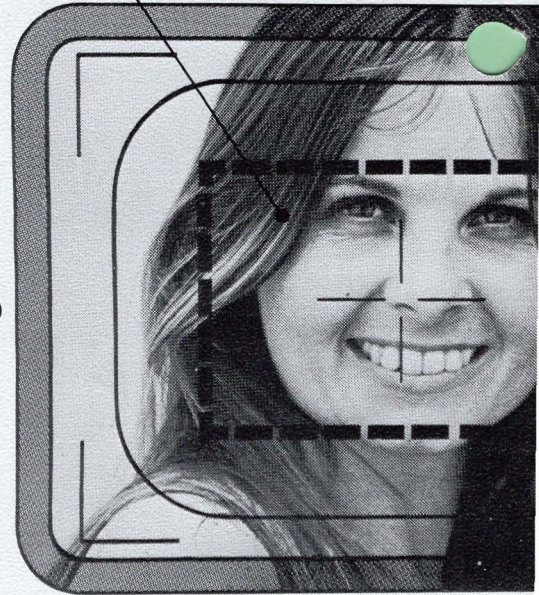
Built-in Exposure Counter

The ARRIFLEX 16 BL camera can be supplied with a "through the-lens" exposure meter system as an integral part of the camera body. This system can also be fitted to an existing camera as a later modification. (**)

The heart of the system is a CdS cell, powered by the camera supply, located behind the camera lens; thus the light readings take into consideration any colour or conversion filters used. The correct exposure is obtained by adjusting the iris control ring on the lens until the exposure meter pointer, seen in the camera viewfinder, is in a central position; measured is ca. $\frac{1}{3}$ of film format area. Film speeds from 16-500 ASA/13-28 DIN and camera framing speeds from 24-50 fps are set on a dial mounted on the camera door.

Measured image area

Safe action area according to ISO

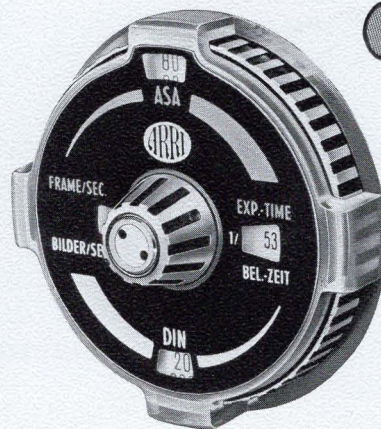
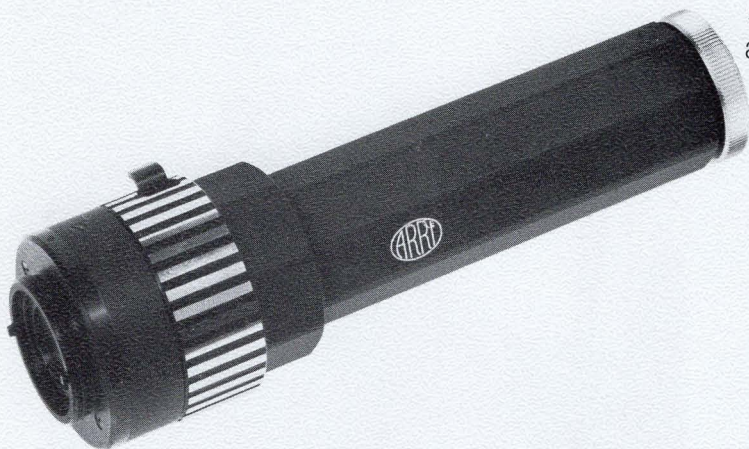


Exposure indication



Viewfinder Extension

This interesting accessory enables the cameraman to work comfortably with tripod or geared head. Either 16 SR or 35 BL II viewfinder extension can be used.



Precision Control System

Automatic compensation for:

Temperature and camera stop/running/condition.

Filters (except Polarizing)

Differences between f and T stops

Possible mechanical iris variations within lenses

Geometric light variations by close ups

Errors occurring in various angles of conventional exposure meters

Infrared difference between artificial and daylight.

a) Coloured outer field

b) Measured picture portion

c) Exposure index

d) Essential part of a picture (ISO)

Subdued surround

Camera Drive

Crystal Motor Control BLEQ

This latest ARRIFLEX 16 BL motor drive system gives the following operational facilities.

Crystal controlled camera drive for cableless sync sound filming to a speed accuracy of $\pm \frac{1}{2}$ frame per 120 m (400 ft) of film.

Pre-selected filming speeds of 6, 12, 24, 48 or $6\frac{1}{4}$, $12\frac{1}{2}$, 25, 50 fps. Quickly switchable from pre-selected speeds for 24 or 25 fps depending on motor drive gears. Camera mirror shutter always stops in the viewing/reflex position.

An audible out-of-sync warning is fitted as a standard feature, or a specially ordered optical warning signal can be fitted.

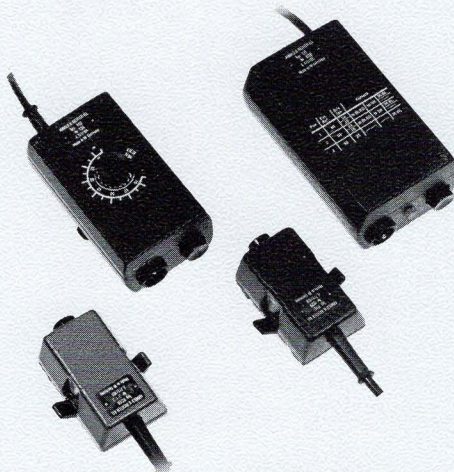
Accessories Available for Cameras Fitted with the BLEQ System

Via a socket, the following accessories can be used –

Variable speed control (VSU) The VSU



gives continuously variable framing speeds from 5 to 50 fps. With on/off switch. External sync unit (EXS II) for synchronizing the camera with 50/60 Hz external signals. (Pilotone, transformed mains, Video-BAS). Built-in phase adjuster, on/off switch Phase shifter (PHU). For adjusting the phase relationship for quartz crystal motor when filming from quartz synchronized monitors. Remote control cable and camera on/off switch (RCSR)



12 V Universal Governor Motor

Alternatively 24 or 25 fps by changing of drive gears, with pilotone generator 50 Hz.

Synchronous Drive Motor

A mains synchronous motor is available for the ARRIFLEX 16 BL camera. This motor is powered by a 42 V 50 Hz AC supply via a stepdown transformer with an input of 240/110 V 50 Hz AC single phase. This system can be supplied for 60 Hz operation. Interchangeable gears give 24 or 25 fps.

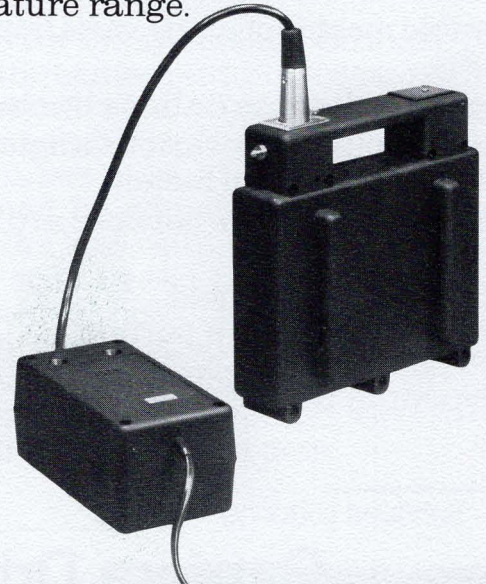
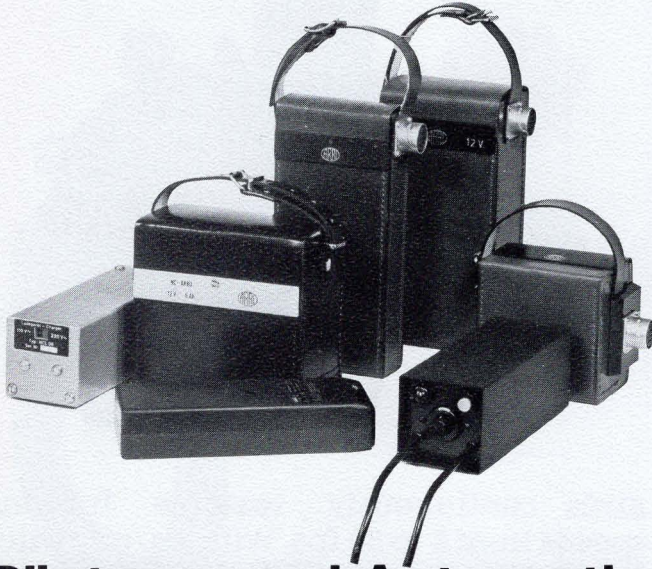
Power Supply

A wide range of 12 V batteries of varying capacities are available, either Dryfit (*) or Nickel Cadmium, together with the appropriate charger units and interconnecting cables.

The new energy set (**) consists of a short-circuit proof 12 V 4 Ah impact-resistant

battery and a corresponding charger for rapid charging with automatic charging control and limit switch.

For extreme situations e. g. expeditions, throw-away 12 V dry batteries are available. These are not re-chargeable, but have great filming capacity within a wide temperature range.



Pilotone and Automatic Start Marking

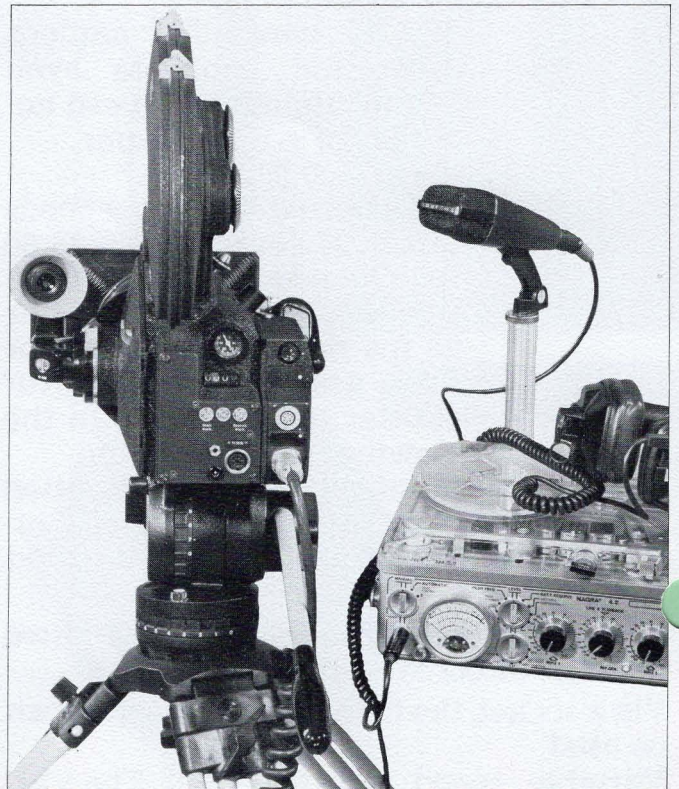
The ARRIFLEX 16 BL camera, in its standard form is equipped with the Pilotone sync-pulse Generator system which produces a 1.5 V 50 Hz pulse at either 24 or 25 fps, according to the motor gearing, which is fed to a suitable sound tape recorder, via an interconnecting pulse cable. A built-in automatic start marking facility produces a start mark on the film and accompanying sound recording tape. The same facilities are available on cameras fitted with a 60 Hz Pilotone system.

When the camera is fitted with a BLEQ motor, the interconnecting pulse cable is unnecessary, provided that the tape recorder used is itself quartz crystal speed controlled. Start marking is then done by clapper board.

the edge of the film, three frames below the camera film gate, to indicate any desired scene. At the same time a 1000 Hz audible buzz is made on the sound tape, provided that the tape recorder is equipped with a 1000 Hz signal generator

Scene Marking

By means of a manually operated push switch and cable, a mark can be made on

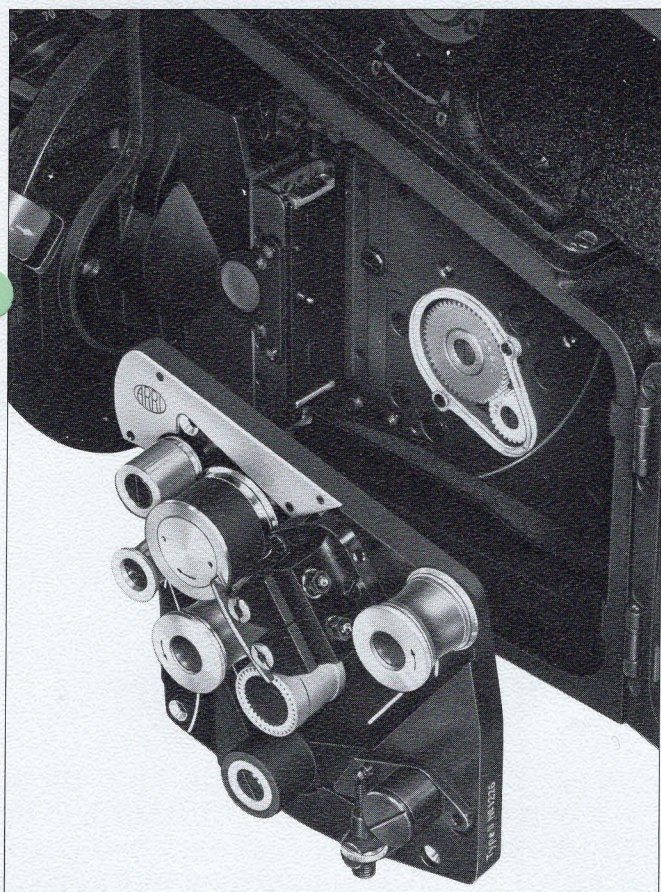
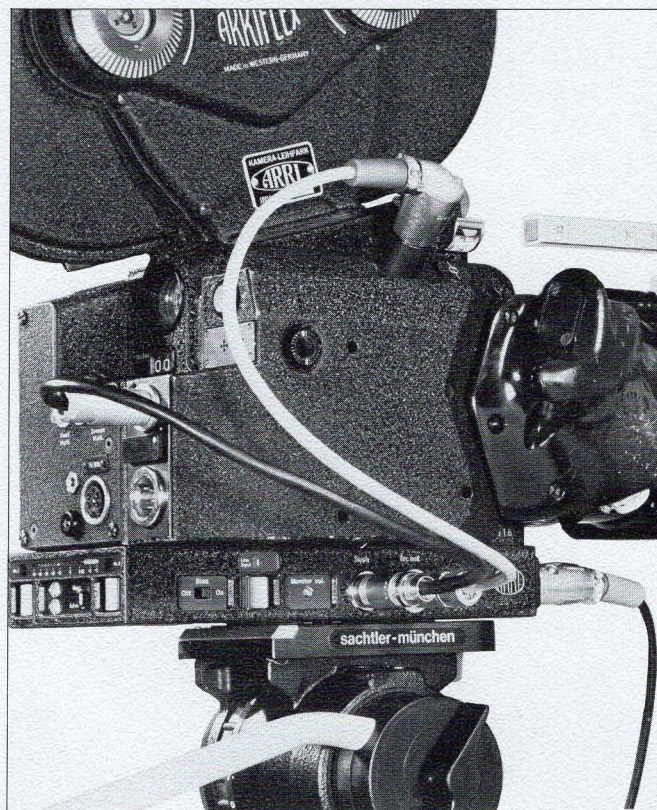


Single System Sound Recording

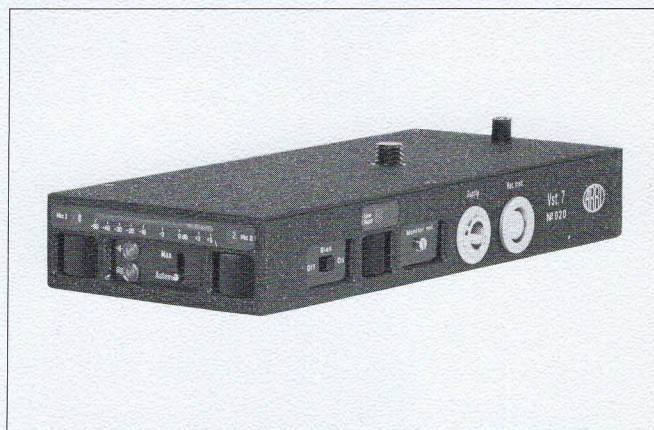
An easily operated magnetic sound recording module, is available for use with the ARRIFLEX 16 BL camera. The module comprises a complete self contained unit with miniature plug-in electrical connector and record and replay magnetic heads.

The module is positioned on the camera mechanism plate within the camera door, in the standard position of 28 frames from the camera gate.

Two magnetic heads for recording and playback monitoring. Flutter and wow characteristics are excellent – less than 0,4 %.



Amplifier with two low impedance microphone inputs with individual gain controls, speech/music switches, line input/output, headphone connection, monitoring before (direct) or after recording (through playback head). Equalization either for CCIR (European) or SMPTE (USA) standards. Recording level meter with battery- and bias control.

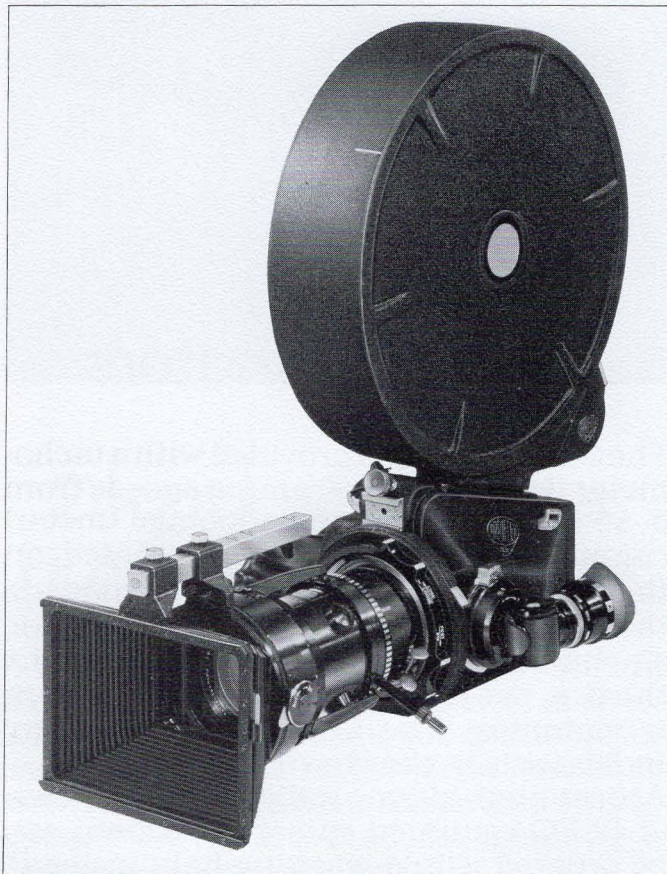
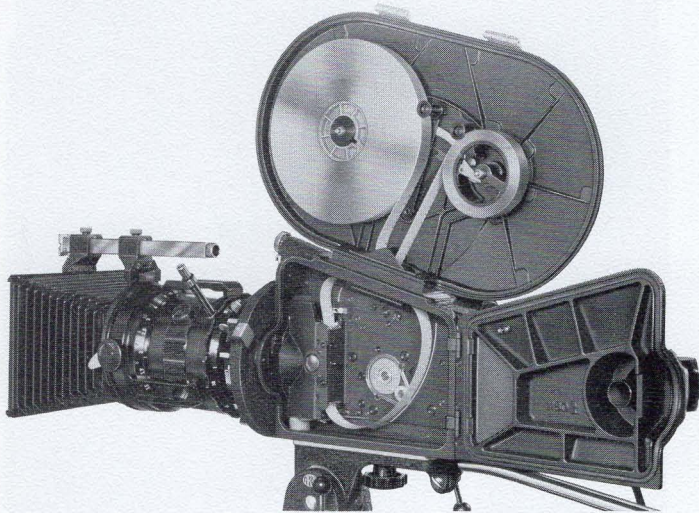


Control Indicators

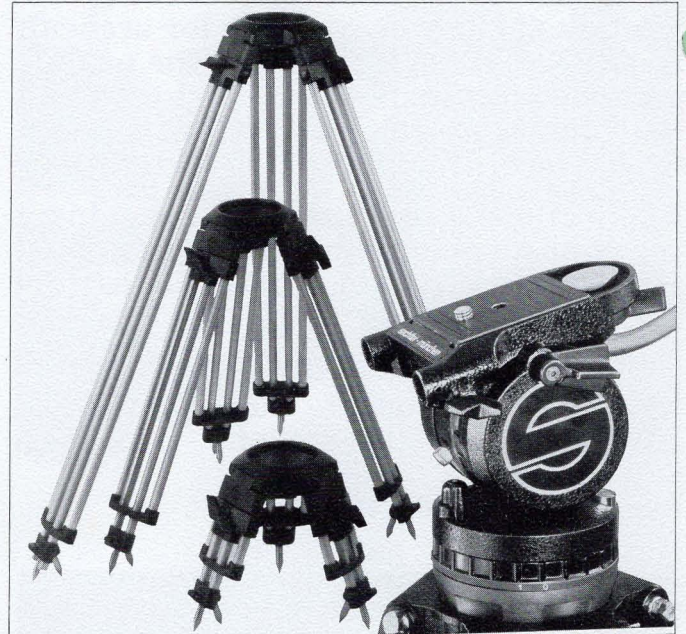
The Camera Body is provided with a tachometer for indicating framing speeds from 0–50 fps and a re-settable footage (meter) counter. Control Lights are situated on the rear of the camera body to indicate the correct operation of the automatic startmarker and scene marker while the third, a red light, shows that the camera is running. The CdS exposure control indicator is in the viewfinder. Acoustic out-of-sync indication in the case of BLEQ-equipped cameras (camera can be ordered with a warning light instead).

Film Magazine

A quiet running single compartment displacement 120 m (400 ft) film magazine with a built-in footage indicator, showing the amount of unexposed film available, is normally used with the ARRIFLEX 16 BL camera. A leather sound barney in either black or white is also available for both magazines. For special purposes a 360 m (1200 ft) co-axial magazine can be supplied. 30 m (100 ft) or 60 m (200 ft) daylight loading spools can be accommodated in the 120 m (400 ft) magazine.



Tripods

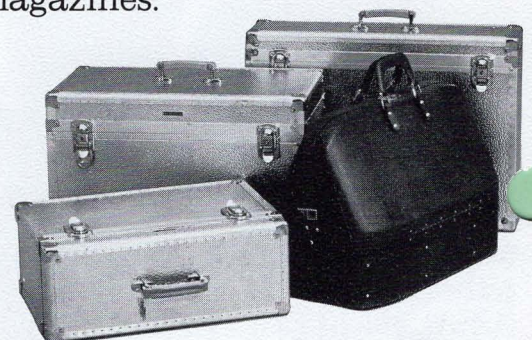


Shoulder pods with or without pistol grip for fast action filming. Tripods with pan and tilt heads, also gyro and fluid heads are available (*) as are rolling spiders, and tripod spiders.



Transport Case

A case of either strong aluminium or leather is available for the ARRIFLEX 16 BL including accessories and also two cases for 4 x 120 m (400 ft) magazines, or 2 x 360 m (1200 ft) magazines.



(*) See price list

(**) Please ask for detailed leaflet

Technical Data

Film format:

16 mm

Film material:

Standard 16 mm negative or reversal film, b & w or colour, with or without magnetic stripe, single or double perforated, winding B.

Noise level:

Camera with 400ft (120 m) magazine, <30 dB (A), measured 3ft (1 m) in front of optical flat.

Professional exposure metering:

CdS TTL exposure meter. Optical data input 13–28 DIN/16–500 ASA. 24 fps to 50 fps. Permanently visible exposure reading. Exposure meter can be fitted to cameras from S/N 50701. For cameras 50501–50700 after prior consultation.

Motors:

12 V battery operated, centrifugal governed DC motor; alternative gears 24 or 25 fps can be fitted. Stepless variable speed from 10 to 40 fps with variable speed control. Integral quartz control BLEQ (can be fitted from camera 50141), with 12 V special motor; quartz reference, mirror shutter stopping device, sync control pre-selected, quartz precise filming. Synchronous motors 50 Hz 25 fps or 60 Hz 24 fps.

Pilotone equipment:

Standard fitted pilotone generator 50 Hz 24 or 25 fps or 60 Hz at 24 fps. Automatic start mark for picture and sound.

Scene marking:

Manual operation, within perforation area light fogging edge mark, signal on tape recorder.

Single system picture/sound filming:

Magnetic sound module for installation in film loop chamber, from camera 50170. Amplifier to CCIR or SMPTE standard, various accessories.

Power supply:

12 V Dryfit or Ni-cad batteries, 12 V special dry battery (not re-chargeable) mains power supply unit 42 V for synchronous motor, input 110–240 V

Film transport:

Combined claw and registration pin system. Mechanical drive camera to magazine.

Film guide:

Spring loaded back pressure plate and side guide, fixed guide on perforation side.

Temperature range:

–13° F to +122° F (–25° C to +50° C)
Increase of temperature range on request.

Tripod thread:

3/8 inch.

Measurements and weights:

With matte box, blimped zoom lens, motor, 400ft (120 m) magazine.

Length	20.30"	(565 mm)
Width	10.60"	(268 mm)
Height	14.50"	(364 mm)
Weight	17 ¼ lb	(7.85 kg)–(without film)

Filming speeds:

24 or 25 fps governor. 10–40 fps variable speed control unit. With quartz control BLEQ fitted 6–12–24–48 or 6 ¼, 12 ½, 25, 50 fps quartz accuracy.

Additional accessories:

These are described in the current applicable price list.



ARNOLD & RICHTER

Cine Technik

Türkenstraße 89 · D-8000 München 40
Telefon 089/3809-1 · Telex 524317 arri d