ARRI

ARRIFLEX 35 BL 4s



ARRI
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Technical data subject to change without notice.
Printed in West-Germany · RD 379-0489-30

ARRIFLEX 35 BL 4s

Technical Data

Film format	35 mm
Adjustable mirror-shutter opening	180°, 172.8°, 144°
Lens mount	54 mm diam. PL
Viewfinder image magnification	6.5 times
Filming speeds	24/25 or 30 fps quartz controlled, 6–50 fps variable
Magazines	400 ft (120 m) and 1000 ft (300 m) coaxial double compartment magazines
Drive	quartz-controlled d.c. disc-type motor
Noise level	below 20 dB (A)
Power supply	12 V



Temperature range	–4°F to 122°F (–20° to 50°C)
Dimensions with 1000 ft (300 m) magazine, without lens	l: 21.5″; w: 12.0″; h: 12.4″ l: 545 mm; w: 305 mm; h: 315 mm
Dimensions with 400 ft (120 m) magazine, without lens	l: 17.3″; w: 12.0″; h: 9.0″ l: 400 mm; w: 305 mm; h: 230 mm
Weight of camera ready for operation with 400 ft (120 m) magazine, without lens, without film	approx. 31.9 lbs (14,5 kg)

"The ARRI 35 Book" – a comprehensive technical guide describing the entire ARRIFLEX 35 mm camera system – is now available.

ARRIFLEX 35 BL 4s

The ARRIFLEX 35 BL 4s is the top model in the 35 BL series. With sound level below 20 dB(A), it is also the quietest.

AT A GLANCE

- 7-link compensating movement reduces noise level and provides exceptional picture steadiness with all camera films.
- Separate adjustments for transport pitch and magazine sprocket timing compensate for film perforation variations and ensure quieter running.
- Magazine film loop adjustment – easily set for quietest loop length – accessible with magazine on camera.
- ARRIGLOW viewfinder provides illuminated frame outline for low-light filming.
- Features 24/25 or 30 fps crystal speeds. 30 fps crystal speed provides precise frame rate when filming for video transfer to NTSC systems.
- Includes digital tachometer and footage counter switchable for both feet/meters and 4/3 perforation pulldown.
- Camera provided with 80/20 video beam splitter (50/50 version on request).
- Camera body prepared to accept 112-bit optical serial time code recording signal (SMPTE RP 136).
- 2 warning lamps – indicate blown fuse and reverse polarity power source.
- Accepts 3 viewfinder extensions and is fully equipped for operation from the ARRIHEAD.
- Optical center of the lens carrier is easily adjusted for the Super-35 format.
- Camera movement interchangeable between 4 and 3 perforation pulldown versions.

THE MOVEMENT

The 7-link compensating movement, sealed switches, plugs and connectors, and quieter driving system, have lowered the ARRIFLEX 35 BL 4s operating sound level to less than 20 dB(A).

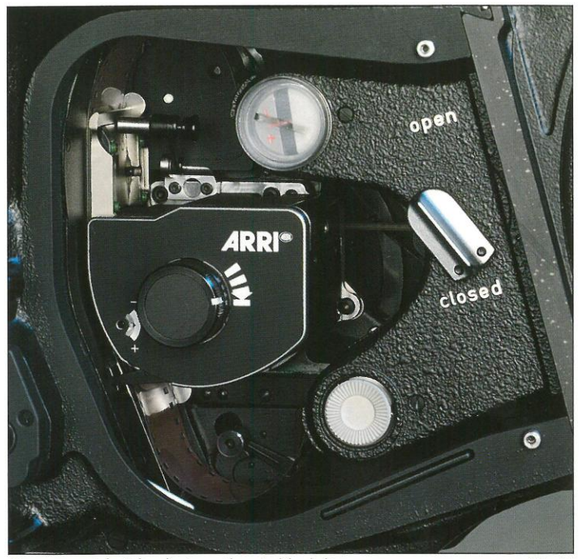
Pulldown claws and movement pitch can now be precisely adjusted for variations in film stock perforation pitch. Result: a quieter camera and picture steadiness better than 0.1 % of the frame height.

Noise reduction is achieved while maintaining the mechanical link between film gate and lens mount that ensures a steady image. The ARRIFLEX BL 4s dry-running movement needs just annual lubrication – no longer requires service in the field. A separate 3-perforation pulldown movement can be installed with a standard service operation.

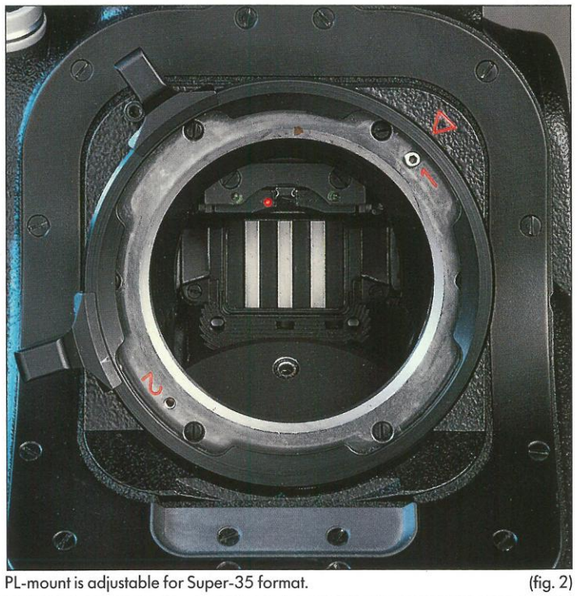
ROTATING MIRROR SHUTTER

The single-blade rotating mirror shutter is adjustable between three settings:

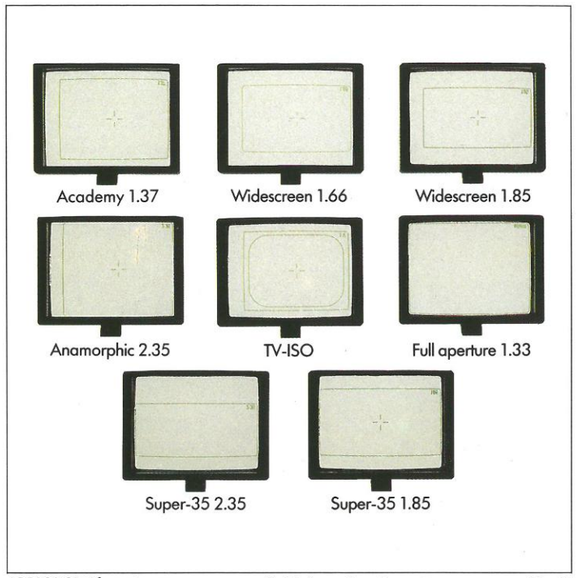
180° – For normal filming conditions.
144° – For filming with HMI luminaires with 60 Hz power, and from 60 Hz television monitors.
172.8° – For filming with HMI luminaires and 50 Hz AC power.



Above: special pitch adjustment located far left. (fig. 1)



PL-mount is adjustable for Super-35 format. (fig. 2)



ARRIGLOW focusing screens are available in various formats. (fig. 3)

THE VIEWFINDER SYSTEM

The ARRIFLEX 35 BL 4s viewfinder system is flexible: 360° rotatable – includes super-wide angle eyepiece for wider view of the focusing screen. Available with short, long, and anamorphic viewfinder extensions. Long extension has 2x zoom function and (ND.6) contrast viewing filter. Optional heated eyecup prevents eyepiece fogging.

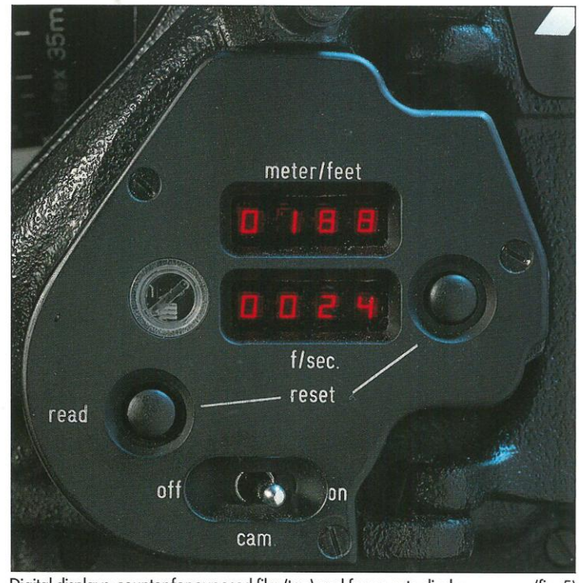
Fluorescent-illuminated focusing screen markings have variable intensity (ARRIGLOW), provide bright frame outline for low-light and night filming. Focusing screens are interchangeable and available in many projection aspect ratios (see fig. 3).



Carl Zeiss/ARRIFLEX Super speed and Standard PL lenses come in focal lengths from 12–600 mm. (fig. 4)

CARL ZEISS/ ARRIFLEX LENSES

- PL-mount Super speed lenses (18–85 mm) and Standard lenses (12–600 mm) are designed specifically for the ARRIFLEX 35 mm system.
- Super speeds provide maximum aperture of T1.3, most Standard lenses: T2.1.
- All ARRISCOPE and ARRI Macro lenses fit the ARRIFLEX 35 BL 4s.
- A complete range of Cooke zoom lenses available on request.



Digital displays: counter for exposed film (top) and frame rate display. (fig. 5)

DIGITAL DISPLAYS

Digital footage counter is convertible between feet/meters and between 4 and 3 perforation pulldown. Uses a 5-year lithium battery to retain exposed footage total after camera is shut off. Digital tachometer displays camera running speed automatically. Both LED's recessed for easy legibility in bright light.

THE ACCESSORIES:

CAMERA AND LENS SUPPORT

The ARRI bridge plate BP-4 is a one-piece, quick-release camera support which mounts atop the ARRIHEAD, or other tripod head with its own balancing feature. It also releases camera from head for easy transport.
The ARRI bridge plate BP-3 supports the ARRIFLEX 35 BL 4s on tripod heads with or without a balancing feature: Its 2-plate system provides easy balance, and quick removal of camera system for transport.

UNIVERSAL FOLLOW FOCUS

The universal follow focus (FF-2) mounts on the bridge plate support rods and allows precise focus control. Can be operated from either side of the camera with standard focus knob, optional lever or flexible focus extension.

MATTE BOXES

The 4 matte boxes designed for the ARRIFLEX BL 4s differ according to the lens and filter sizes they accept, and the particular filming conditions.



Matte boxes: (l to r) 6.6″ × 6.6″, 5″ × 6″ and 4″ × 4″. (fig. 6)

- The 6.6″ × 6.6″ production matte box contains 3 rotatable filter stages. It accepts a rotatable filter ring for either a 6″ or 138 mm round filter.
- The 5″ × 6″ production matte box has one rotatable stage that holds two filters. Another rotatable stage for 138 mm round filters is available. An additional rotatable stage for a 5″ × 6″ filter, with a flexible drive for graduated filters can be attached. Matte box swings open 90° for lens changing.
- The 4″ × 4″ production matte box has 2 rotatable filter stages. An additional rotatable filter ring for a 4–½″ round filter can be attached. Matte box swings open 90° for lens changing.
- The lightweight matte box (LMB-2) attaches directly to the lens. Accompanies new series prime lenses from 16–180 mm. Accepts two 3″ × 3″ filters, and one series 9 filter (with adapter ring).
- All production matte boxes are mounted on the bridge plate support rods.

FILM MAGAZINES

For quieter running, the BL 4s magazines have both adjustable sprocket timing and adjustable film loop size. The timing adjustment is matched to the film stock before production. Loop adjustment is set with the magazine on board the camera. Both 1000 ft (300 m) and 400 ft (120 m) magazines are available for the ARRIFLEX BL 4s.

VIDEO ASSIST

The ARRIFLEX black and white CCD video assist camera is designed to compliment the ARRIFLEX 35 BL 4s (with optical adapter). CCD chip provides less image bloom and lag than tube cameras, and a longer life. Flicker reduction processor reduces flicker considerably at speeds above 20 fps. CCD camera includes standard BNC connection, and miniplug for use with on-board monitors. Available in 60 Hz and 50 Hz versions.

ELECTRICAL ACCESSORIES

- Variable speed unit (VSU) for 6–50 fps.
- Panhandle remote control on/off switch (RCSR) allows easy camera start/stop for the operator.
- Phase shifter (PHU II) allows filming of crystal-controlled television monitors.
- Electronic tachometer/footage counter switchable between feet and meters.
- Accessory distributor (ZV) allows simultaneous connection of two accessories through one socket.
- External synchronizing attachment (EXS II) allows synchronization of camera with another camera, AC power, or the BAS signal of a monitor.
- External pilotone unit for 50 or 60 Hz operation.
- Mains synchronizing transformer (NSYTR2) supplements EXS II, synchronizes camera to AC house power.

ARRIFLEX 35 BL 4s



The special ARRIFLEX BL 4s magazines come in 400 ft (120 m) and 1000 ft (300 m) sizes. (fig. 7)

THE NICKEL-CADMIUM BATTERIES

All ARRI batteries are available in both 4 and 5-pin versions. The ARRI nickel-cadmium battery, type NC 12/7 R-1, powers the camera throughout its entire speed range. It is protected by an impact resistant, plastic-coated housing that is water tight at the base. A temperature sensor in each cell protects the battery from damage while charging.
The camera also uses a 12 V (14 Ah)/24 V (7 Ah) NC battery. In 12-volt mode, the NC 24 R provides the ARRIFLEX BL 4s with longer running time – convenient when using multiple accessories.



The ARRIFLEX NC 12/7 R-1 battery (front) pictured with the single and double battery chargers. (fig. 8)

THE ARRI BATTERY CHARGERS

ARRI has 3 chargers in the ARRIFLEX 35 BL system.
The NCL 08/R-1 features a normal charging time of 14 hours – batteries with temperature monitoring (R series) can be quick-charged in 3.5 hours.

The NCL 08 D double battery charger handles two batteries simultaneously. It features a residual discharger for re-charging of batteries not completely discharged. This helps preserve the batteries' full re-charging capacity. Both units can be operated between 4–7 Ah, with 8 V, 12 V, and 16 V batteries, and both include automatic AC voltage change-over from 110 V to 240 V.

The 12/24 V NCL 24 R charger compliments the NC 24 R battery - features a 3.5 hour charging time. Includes pilot lamps indicating: power, discharge, and charge status. Also includes built-in discharge cycle.

ARRI FLUID HEADS AND TRIPODS

ARRI Fluid heads 150 H (heavy) and 150 M (medium) have a ball base for simple leveling. ARRI dural type and carbon-fiber tripod legs come in long, medium-long, medium and short lengths. The rubber spider secures all tripods and is quickly engaged and removed.

ARRI CASES

ARRI offers a wide variety of rugged, foam-lined aluminum cases for protection and safe transport of all ARRIFLEX cameras and accessories.