# ARRI

## ARRIFLEX 35 III




ARRI
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# THE ARRIFLEX 35 III

The 35 III is the top model, non-silent camera system from ARRI: provides outstanding image quality – with speeds to 130 fps – and accepts a full line of ARRIFLEX accessories. The ARRIFLEX 35 III was awarded a 1988 technical OSCAR for its "concept and engineering."

# AT A GLANCE

- Features 24/25 or 30 fps crystal speeds: 30 fps crystal speed provides precise frame rate when filming for video transfer to NTSC systems.
- Forward/reverse run with pin registration for frame rates from 5-130 fps in both directions.
- Selection of 2 interchangeable viewfinder-doors: pivoting finder door, and the offset viewfinder "hand-held" door.
- Variable reflex shutter has 12 preset openings between 15° and 180°. Can be synchronized to the ARRI External sync unit (EXSII) or external power source.
- Includes digital tachometer and footage counter switchable for both feet/meters and 4/3 perforation pulldown.
- Film gate has special finish for reduced film friction at high speeds.
- Accepts short, long, and anamorphic viewfinder extensions and is fully equipped for operation from the ARRIHEAD.
- All lenses and most accessories are compatible with those of the ARRIFLEX 35 BL system.
- Camera movement interchangeable between 4 and 3 perforation pulldown versions.

# ROTATING MIRROR SHUTTER

The adjustable rotating mirror shutter has 12 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.
135° – 15° – variable in 15 ° increments.

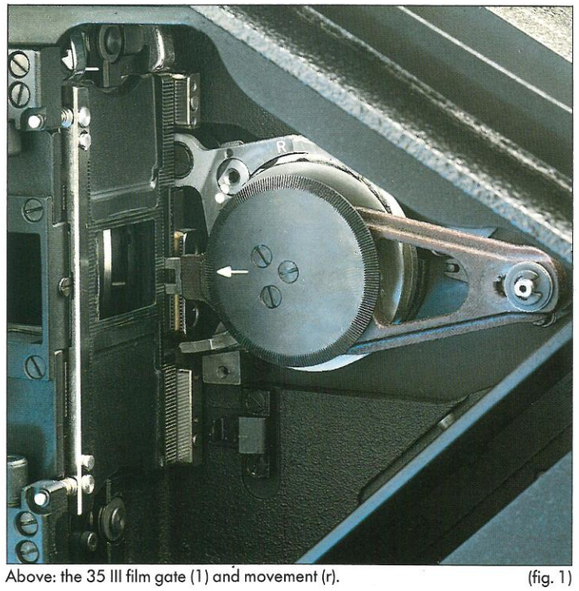
# THE MOVEMENT

A cam-controlled movement transports and registers the film precisely at all speeds. Picture steadiness is better than 0.1 % of the frame height.

The 35 III can expose film in both forward and reverse: registration pin can be easily switched over to reverse run mode. A separate 3-perforation pulldown movement can be installed with a standard service operation.

# THE FILM GATE

A fixed gap film channel keeps the film flat between the film gate and the film guide in an optimal position for focus. The special finish of the film gate guarantees minimum friction at all filming speeds. Film gates for differing formats are quickly interchangeable. Available formats include:
Full aperture (1.33:1), Academy (1.37:1), Widescreen (1:85:1 and 1.66:1), Anamorphic (2.35:1).



Above: the 35 III film gate (1) and movement (r). (fig. 1)

# THE VIEWFINDER SYSTEM

Accepts the ARRI 35 mm super-wide angle eyepiece, short, long, and anamorphic viewfinder extensions, and heated eyecup. Two interchangeable viewfinder doors provide for a bright image and comfortable operating:

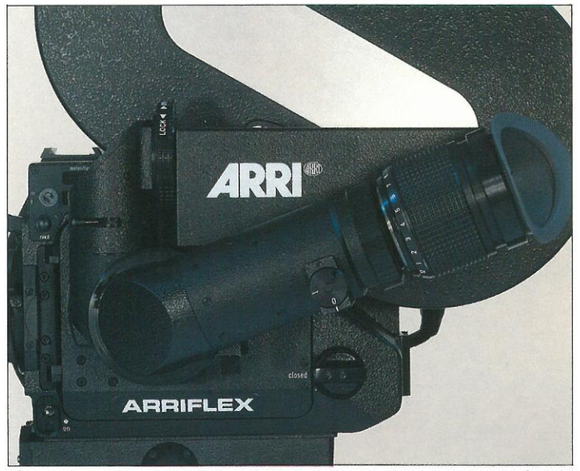
- Pivoting finder door: eyepiece rotates through 210° – accepts video pick-up when used with (90°) black and white optical adapter. Finder door includes pivoting contrast viewing filter (ND.6) and switchable beam splitter.
- Offset viewfinder door: accomodates hand-held operating by shifting the camera's center of gravity backwards, over the operator's shoulder.

Focusing screens are easily removable and interchangeable. Available formats include: Full aperture (1.33:1), Academy (1.37:1), Widescreen (1.85:1 and 1.66:1), Anamorphic (2.35:1), TV (1.33:1) and various TV/theatrical combined formats.

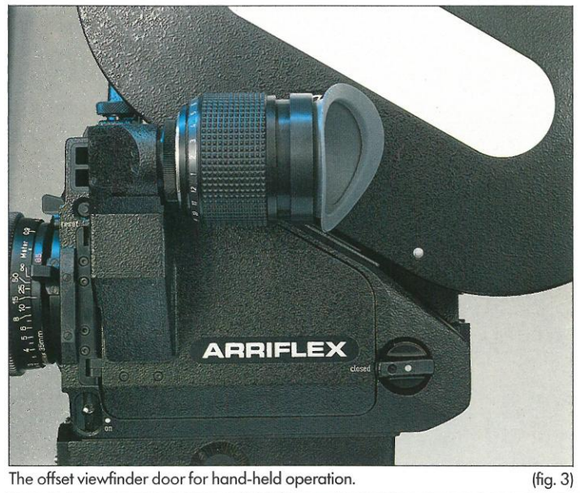
ARRIFLEX 35 III




Above: The pivoting finder door . (fig. 2a)




Above: The pivoting finder door with ARRIFLEX CCD video assist camera. (fig. 2b)

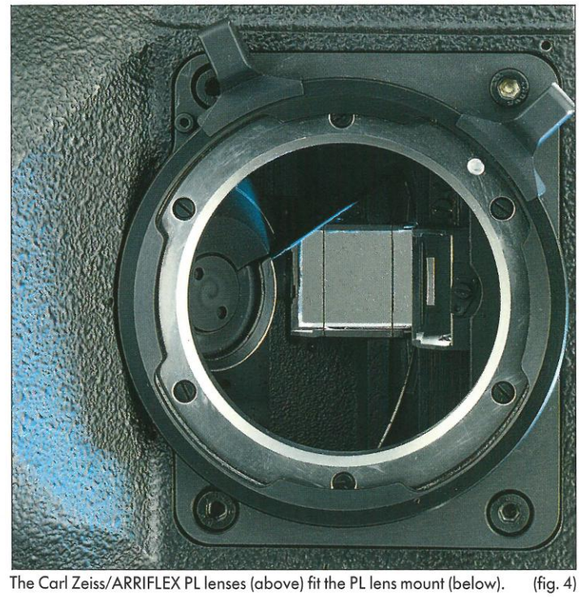



The offset viewfinder door for hand-held operation. (fig. 3)

# CARL ZEISS/ ARRIFLEX LENSES

- PL-mount Super speed prime lenses (18–85 mm) and Standard prime 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 III.
- A complete range of Cooke zoom lenses available on request.





The Carl Zeiss/ARRIFLEX PL lenses (above) fit the PL lens mount (below). (fig. 4)

# THE ARRIFLEX 35 III

## Technical data:

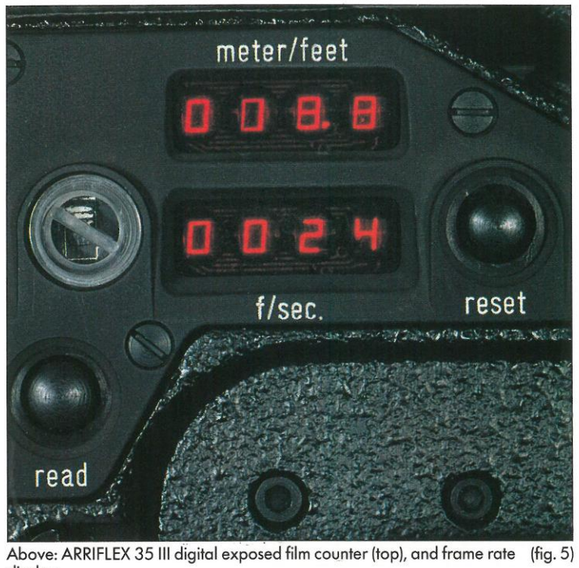
| | |
|---|---|
| Film format | 35 mm |
| Shutter sector opening | 180°, 172.8°, 144°, and in 15° increments from 135° through 15° |
| Lens mount | 54 mm diam, PL |
| Viewfinder magnification | 6.5 times |
| Viewfinder system | mirror-reflex system with interchangeable camera doors with:<br>– Pivoting finder door<br>– Offset viewfinder door |
| Frame speeds | 24/25 or 30 fps quartz stabilized; 5–50 fps variable (internal);<br>5–130 fps variable (external via HSU 120) |
| Frame speed display | electronic digital LED display |
| Film length counter | electronic digital LED display |
| Drive | quartz-controlled d.c. disc-type motor |
| Power supply | 12 V for frame speeds of 5 to 50 fps<br>24 V for frame speeds of 5 to 130 fps |
| Battery operation | 12 V 7 Ah NC |
| Temperature range | –13° to 122° F (–25° to 50° C) |
| Single-compartment magazines | 400 ft (150 m) forward and reverse, 1000 ft (300 m) |
| Dimensions (without lens), with 400 ft (150 m) magazine and rigid viewfinder | l: 12.7 in; w: 7.2 in; h: 13.2 in<br>l: 322 mm; w: 183 mm; h: 335 mm |
| Weight (without film) | |
| With 400 ft (150 m) magazine | 14.8 lbs (6.7 kg) |
| With 1000 ft (300 m) magazine | 19 lbs (8.6 kg) |



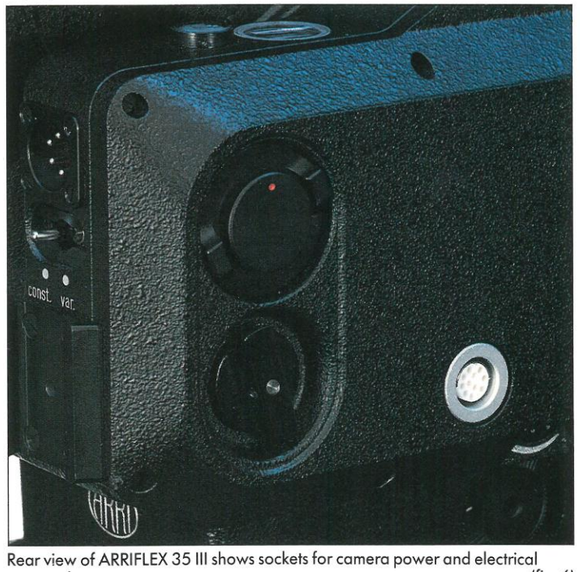

"The ARRI 35 Book" – a comprehensive technical guide describing the entire ARRIFLEX 35 mm camera system – is now available.

# 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.




Above: ARRIFLEX 35 III digital exposed film counter (top), and frame rate display. (fig. 5)




Rear view of ARRIFLEX 35 III shows sockets for camera power and electrical accessories. (fig. 6)

# 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 III on tripod heads with or without a balancing feature: Its 2-plate system provides easy balance, and quick removal of camera system for transport. Both BP-3 and BP-4 include lens support rods.

The lightweight lens support accompanies the lightweight follow focus for greater camera mobility – bridge plate system not required.

# UNIVERSAL AND LIGHTWEIGHT FOLLOW FOCUS SYSTEMS

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. The compact, lightweight follow focus mounts on the lightweight lens support and allows greater camera mobility. Usually accompanies lightweight matte box (LMB-2).

# MATTE BOXES

The 4 matte boxes designed for the ARRIFLEX 35 III differ according to the lens and filter sizes they accept, and the particular filming conditions.

- 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

Single-compartment magazines for film lengths of 400 ft (150 m) and 1000 ft (300 m) are available for the ARRIFLEX 35 III (see fig. 8). Each magazine counter indicates the amount of unexposed film remaining. Reverse running requires the 400 ft magazine.




The ARRIFLEX 35 III film magazines: (Top to bottom) 1000 ft, 400 ft. (fig. 7)

# VIDEO ASSIST

The ARRIFLEX black and white CCD video assist camera is designed to compliment the ARRIFLEX 35 III pivoting finder door. 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

- ARRI high speed cable (HSU) allows forward and (with adapter) reverse running speeds from 5–130 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 TV monitors.
- Electronic tachometer and footage counter (ft/mtr).
- 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.

# THE NICKEL-CADMIUM BATTERIES

All ARRI batteries are available in both 4 and 5-pin versions. A single nickel-cadmium battery, type NC 12/7 R-1, will power the ARRIFLEX 35 III from 5-50 fps. 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. Frame rates above 50 fps require two batteries.

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 35 III with longer running time – convenient when using multiple accessories.

# THE ARRI BATTERY CHARGERS

ARRI has 3 chargers in the ARRIFLEX 35 III 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 tripod models and is quickly engaged and removed.

# ARRI CASES

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