ARRIFLEX 435 ADVANCED



ARRI

ARRIFLEX 435 ADVANCED

The ARRIFLEX 435 Advanced was developed to meet the most demanding requirements of today's production methods. Comprehensive accessories and new interfaces allow the camera to be perfectly integrated in a large variety of applications – from motion control to in-camera effects with speed ramps, not to mention classic second-unit applications, which profit from the particularly compact design. Using the electronically adjustable mirror shutter, exposure programs can be created and, with the push of a single button, recalled. A newly designed, high-performance shutter drive cuts adjustment time in half, allowing for much quicker speed-ramps. The new minimum frame rate has been reduced to 0.1 fps. Additionally, a Single Frame / Capping Shutter is available that can also be accessed and controlled directly through the motion control software. The reworked IVS II defines the new standard of quality for video taps. The PL-Mount is ready for the Lens Data System. Equipped with the FEM-2 Module the same functionality and accessory is available, that is already a succesful feature with the ARRICAM system.

The ARRIFLEX 435 Advanced utilizes all the possibilities of the existing modular 435 camera system but incorporates a completely new electronic design, a modified mirror shutter drive and an interface for external motion control systems.

MCI-1



ARRIMOTION

MOTION CONTROL

Together with the new ARRIMOTION system, the ARRIFLEX 435 Advanced interface allows camera and lenses to be used in the familiar fashion, but adds the feature of being able to repeat camera moves at any time and at any speed.

The Motion Control Interface (MCI-1) is equipped with interfaces for step and direction, for CAN-Bus and for the ARRIMOTION system.

The ARRIFLEX 435 Advanced operates in three different modes:

- The shutter angle is adjusted on the camera; mirror shutter and movement remain in-sync and are controlled externally.
- The shutter angle is adjusted by a motion control system; mirror shutter and movement remain in-sync and are controlled externally.
- Mirror shutter, movement and shutter angle are independently controlled by the motion control system.


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ARRIFLEX 435



PL-MOUNT WITH LDS-CONTACTS

LDS – LENS DATA SYSTEM

In this newly designed system, ULTRA PRIME lenses have been equipped with contact-free sensors that measure the exact lens settings and communicate these to the camera via an interface in the PL-Mount. This information can be accessed by external systems such as the Lens Data Display or motion control and lens control systems.



INTEGRATED VIDEO SYSTEM IVS II

Like the original version, the new improved IVS 435 II is completely integrated into the camera body. No cumbersome external boxes are necessary. Thanks to internal connectors, only a cable to the monitor or VTR is required. Features of the IVS II include:

- Brilliant image quality with extremely high sensitivity.
- On-screen display.
- Video inserter for displaying frame-lines, camera status information, time code, etc.
- Optimized color reproduction through individual controls for the red and blue.
- Up to 6 settings can be stored and recalled.
- When the film camera is running, the light for the video assist is only available for 50 % of the time. In the past, this has made half field resolution technically unavoidable. With the new electronics, the missing fields can be regenerated, enabling an image quality close to full resolution. The image appears very steady on the monitor.
- New ”film-like” exposure mode
  The video assist camera can optionally be set to the same shutter time as the film camera itself.
- Flicker-free from 1 to 150 fps in Manual Gain Control Mode. In time-critical situations, the frame-store can optionally be switched off in order to eliminate any delay between the live-action and its depiction on the video monitor. This enables e.g. lip-sync for music video shooting to be evaluated on the video assist.
- 1.1 Amp power supply from the mini-monitor output
- Compare function. Video images can be stored and superimposed over the current video image.





MOVEMENT | STEADINESS | DRIVE TRAIN

Perfect image steadiness is guaranteed by the virtually maintenance-free 5-link movement with its double-sided registration pins and pull-down claws. Throughout the entire speed range of 0.1 to 150 fps, forward and reverse, the register pins, located in the industry standard position of optical printers, ensure that the film is precisely oriented in each and every exposure – an absolute prerequisite for serious effects work. A dedicated 435-three-perf version is also available.

A newly designed, high-performance shutter drive cuts adjustment time in half, allowing for much quicker speed-ramps. The new minimum frame rate has been reduced to 0.1 fps. Additionally a Single Frame / Capping Shutter is available that can also be accessed and controlled directly through the motion control software. Additionally the run-up time can be adjusted in three steps to reduced power consumption during run-up.

The ARRIFLEX 435 employs separately controlled DC-motors for film transport and mirror shutter, replacing the complex drive trains of older high-speed cameras with simply, dedicated drives. The improved efficiency of the individual drives translates into decisive advantages with regards to weight, size and configuration. This is reflected in the compact and ergonomic design of the ARRIFLEX 435.

The separate drive systems offer superior control of camera functions and are less susceptible to damage in the event of a film jam.





LCD-DISPLAY

FINDER SYSTEM WITH ARRIGLOW

Unsurpassed image quality, highest flexibility and ergonomically optimized operation were the design objectives of the viewfinder system.

The standard finder, which covers the full Super 35 format, pivots in two axes enabling use on either side of the camera, giving an upright image in all positions. A telescoping tube allows easy adjustment of the eyepiece for both left and right eye viewing. The bright viewfinder image can thus be viewed comfortably from almost any conceivable operating position. Furthermore, the compact dimensions of the ARRIFLEX 435 allow for viewing in extremely tight situations e.g. directly next to a wall or in vehicles. Also incorporated is an ND 6 contrast filter, which can be swung into the optical path.

The entire viewfinder module can be removed and re-placed with a lightweight 100 % video-top. In this configuration the camera body weighs only 5.9 kg – ideal for motion control, Steadicam, helicopter mounts and all other applications where compact dimensions and low weight are essential.

An ARRIGLOW-module is available as an option. Using slide-in masks, the ground-glass format can be superimposed on to the viewfinder image as illuminated format markings with adjustable brightness. Additionally, warnings for asynchronous running, low battery and film end are displayed in the viewfinder.



ARRIGLOW

LCD CONTROL PANEL

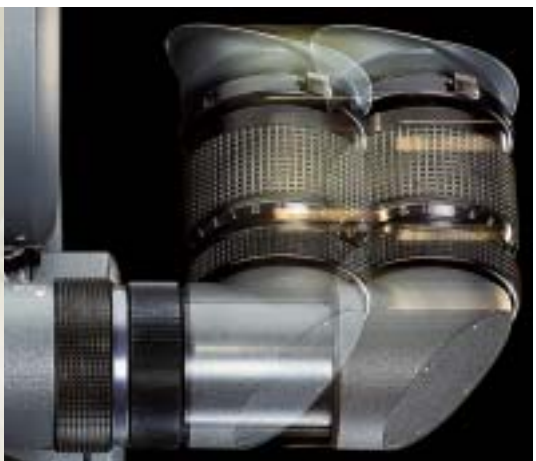
A large display on the left side of the camera clearly shows all chosen settings. The control panel next to the display offers easy and precise access to all camera functions. The control panel can be locked mechanically to protect chosen settings.

The following parameters can be displayed and / or set:

- Frame rate
- Footage counter (switchable from m to ft)
- Shutter angle
- Time code, user bits, time code sensitivity
- Battery voltage, with warning for low battery voltage
- Film end and async camera running
- Special menus for motion control

As an option, most functions can be controlled via the remote control unit (RCU-1).

VIEWFINDER



MAGAZINES

Carbon-fiber magazines offer superior ergonomics. The range of magazines includes the standard mechanical 400 ft magazine and a motorized 1000 ft magazine, both of which are capable of being used over the entire speed range of 0.1 to 150 fps, forward or reverse. A lightweight 400 ft Steadicam magazine is also available.

ARRIFLEX 435 III and older magazines can be used (without TC recording and with a maximum speed restricted to 130 fps). Even the loop length is compatible, a fact that greatly simplifies handling when an ARRIFLEX 435 is used together with an ARRIFLEX 435 III.



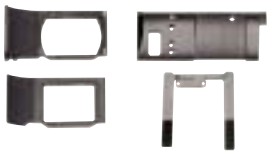
MAGAZINES

ERGONOMIC DESIGN

Despite the comprehensive range of functions that are already available in the standard configuration, the ARRIFLEX 435 body weighs in at only 6.5 kg. The lightweight and ergonomic design represents a new standard in operating comfort. Without special preparation, the camera can easily be hand-held with the standard 400 ft magazine.



SINGLE FRAME / CAPPING SHUTTER









WRC-1

Technical Data

Film format:	35 mm DIN 15 501
Lens mount:	54 mm PL-mount with LDS-contacts adjustable for Super 35 format
Flange focal distance:	51.98 – 0.01 mm
Reflex mirror shutter:	can be locked mechanically or electronically and adjusted continuously from 11.2° – 180° while the camera is running
Frame rate:	0.1 – 150 fps, forward and reverse (quartz-accurate to 0.001 fps)
Viewfinder indicator:	asynchronous film running, low battery voltage, film end
Contrast filter:	selectable, ND 0.6
Phase shifter:	integrated into the camera by pressing the PHASE key while camera is running
Sensors:	shown on the camera display are: film end, incorrect movement position. If the camera is not ready for operation, the control lamp illuminates red
Temperature range:	-4° F to 122° F (-20° C to + 50° C)
Video-assist:	IVS II
Beamsplitter:	interchangeable with ratios of 80/20 % and 50/50 %

Magazines:	400 ft and 1000 ft displacement magazines as well as 35 III-type magazines
Steadicam magazine:	400 ft
Movement system:	5-link movement with double-sided pull-down claws and registration pins for 35 mm-negative-film DIN 15501
Drive system:	quartz-controlled DC motors
Power supply:	24 V DC – 35 V DC
Accessory:	24 V, 3/5 A and 12 V, 3/5 A
Battery:	NC 24/7 R
Weight:	6.5 kg (14.3 lbs) without magazine
Dimensions:	with 400 ft magazine, without lens,
Length:	400 mm (101.6 in)
Width:	250 mm (63.5 in)
Height:	331 mm (83.8 in)
Time Code:	format SMPTE RP 136, form C 80 bit. TC-quartz accuracy ± 1 ppm (0 – 50° C)

TECHNICAL DATA ARE SUBJECT TO CHANCE WITHOUT NOTICE.

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