indieASSIST 435

HD video assist for ARRIFLEX 435

User Manual

FW 1.0.9

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Contents

Important Safety Instructions

Note: Operational Error possible!

- Read all of these instructions carefully.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions to ensure against injury to yourself and damage to the system or other devices objects.
- Avoid operational errors!
- Assembly and initial operation should be carried out only by persons who are familiar with the equipment!
- Install in accordance with the manufacturer's instructions.
- Only install this unit on the film-camera model it is intended for.
- Closely follow the safety instructions for the film-camera model that this unit is intended for.
- Operate the system using only the type of power source indicated in the manual.
- In wet weather the normal safety precautions for handling electrical equipment should be taken.
- Do not operate the system in high humidity areas or expose it to water or moisture.
- Clean optical surfaces only with a lens brush or a clean lens cloth! In cases of solid dirt moisten a lens cloth with pure alcohol or an adequate, professional lens cleaning solution.
- Clean only with dry cloth.
- Do not cover surfaces with cloth or other insulating material.
- Do not install near any heat sources as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Protect all cables from being walked on or pinched.
- Only use attachments/accessories specified by the manufacturer.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Repairs should be carried out only by authorized service personnel!
- Operate the unit only in the advised temperature range from 0° to +40° Celsius / 32°-104° Fahrenheit

Before using the indieASSIST 435 be sure to read and understand all relevant instructions. If there are any questions please contact Indiecam for technical support at office@indiecam.com.

Legal Disclaimer

Be aware that the indieASSIST 435 is a system of assistance. indieASSIST 435 records the image of the ground glass. Indiecam is not responsible for any errors on film stock like wrong colours, focus, focal depth, ground glass settings etc.

The modification from 3 to 4 perf has to be done by an experienced technician in an appropriate environment. Please be aware that the modification takes some time and should not be done on set.

Introduction

indieASSIST 435 is an HD video assist for ARRIFLEX 435 35mm film cameras. It provides exceptional image quality for all crew on set, allowing to judge images far better than before. The high-resolution Full-HD images show true colours and have sharp, high contrast.

The system mounts on the original mounting positions for video systems of the ARRIFLEX 435 camera.

The indieASSIST 435 is powered by the ARRIFLEX 435 camera. Settings can be changed on the integrated controls display. The menu is navigated with a rotary-push-button (“select”) and a second push-button (“back”).

indieASSIST 435 has an integrated iris and focus control and the image position can be adjusted as well. Furthermore, the system can be set up for output of 16:9 or 4:3 images by inserting a step-ring without the need to change optical components inside.

Additional accessories such as monitors or wireless HDSDI transmission systems can be powered by the integrated 12V(2A) power output. When the ARRIFLEX 435 camera is operated out of reach, indieASSIST 435 can be remote-controlled with indieREMOTE through the CTRL-port. Original ARRI RCU/CCU units can be used for controlling the ARRIFLEX 435 by connecting them directly to the indieASSIST 435 and enabling their use in the menu (menu setting is obligatory!).

Technical Data

General

- Dimensions: 216 x 119 x 51mm (8.5” x 4.7” x 2”)
- Weight: Approx. 800g (1.76lb)
- Power: by connection to ARRIFLEX 435 camera (24-30V depending on camera battery/PSU)

Image Sensor

- Size: 1/1.2”
- Resolution: 1920 x 1080
- Readout: progressive
- Shutter: global
- Pixel size: 5.86 µm
- Sensitivity: ISO 125-12800
- Dynamic range: 12 stops

Image Processing Features

- Flicker free
- White balance presets, Auto, RGB-gains
- Automatic and manual exposure control
- LUT
- Image Flip
- Hue
- Saturation
- Brightness
- Contrast
- Denoise
- Detail
- Framelines
- REC-indicator (automatic change of frameline colour)
- Timecode-trigger external recorder
- Exposure shutter compensation

Video Output

- YUV 4:2:2, 10 bit
- 1080p23.98
- 1080p24
- 1080p25
- 1080p29.97
- 1080p30

System Functions

- Auto start with last settings
- Store and recall settings
- Embedded time code
- Remote control with indieREMOTE & RS485
- Factory presets
- Custom preset

Compatible ARRIFLEX 435 versions

indieASSIST 435 is compatible with the following cameras:

- 435ES
- 435 advanced

Furthermore, it is compatible with all 435 versions, when they are fitted with the

- FEM Module
- FEM-1 Module

indieASSIST 435 is not compatible with very early versions of the ARRIFLEX 435, when they only have the plain right cover fitted, because these covers lack the CCU socket, that the indieASSIST is connected to.

indieASSIST 435 is also not compatible with ARRIFLEX 435 EXTREME cameras, when they are fitted with the FEM-2 cover, which has lens motor control sockets protruding. However, these cameras can be retrofitted with the FEM-1 or FEM cover and then they are compatible with the indieASSIST 435.

To sum up, indieASSIST 435 is compatible with the majority of ARRIFLEX 435 cameras, except when cameras

- are lacking a CCU-socket
- have the FEM-2 cover installed with protruding lens motor sockets

Connectors

indieASSIST 435 has 6 connectors at the rear side and one on the right side.

Back

indieASSIST 435 connectors on back-side

435 connector

This connector (LEMO 7pin) powers the indieASSIST 435 through the ARRIFLEX 435 camera with a special included cable from the ARRIFLEX 435 CCU socket. All communication with the ARRIFLEX 435 passes through this connection.

CCU connector

Enables CCU operation of the ARRIFLEX 435 camera through the indieASSIST 435 with a special included cable (LEMO 7pin to Fischer). For remote operation an additional long cable can be ordered. When using a RCU/CCU with the indieASSIST 435, menu item **"CCU CON"** needs to be set to **ON** (see **page 25**).

CTRL connector

The control connector is a (Lemo 9) pin connector. By connecting the remote control-unit **indieREMOTE** the settings of the indieASSIST 435 can be adjusted even when operated out of reach.

Power Out connector

The power out connector is a standard Lemo 2 pin power connector and outputs 12V@2A max (Pin1: GND, Pin2: 12V). It can be used for powering accessories like an external onboard monitor.

SDI 1 connector

SDI 1 is the main video port providing an HDSDI-signal with 4:2:2 colour sampling and framerates of 23.98, 24, 25, 29.97 or 30fps. The mode is progressive.

SDI 2 connector

SDI 2 is the secondary video port. It outputs the same signal as SDI 1. Frameline-overlays can be deactivated for this port separately and an individual LUT can be selected.

Side

USB-Connector

indieASSIST 435 has 1 x USB-Connector on the right side. The USB-Connector is a type USB2.0 Micro-B socket. It can be used to update the firmware of indieASSIST 435

Setting up the indieASSIST 435

indieAssist 435 can be used in 3perf or 4perf setup. You can read how to do the conversion on **page 25** of this manual.

On/Off switch

The indieASSIST 435 can be switched on and off independently from the film camera, as long as the film camera is powered on. Turning off the ARRIFLEX 435 will also shut down the video assist. The switch actuator is illuminated green, when in ON position.

When powered on, the indieASSIST 435 will automatically start in its last saved configuration.

Status LED

- Blue: idle / ready
- Green-blinking: loading / saving adjustments
- Red blinking: firmware update running or error

Focus

The focus of the indieASSIST 435 can be manually adjusted by turning the focus screw located on the right-hand side using a hex-screwdriver (tip size 2mm).

Caution: Do not use excessive force!

Iris

The Iris can be manually adjusted by turning the thumb wheel on the right hand side.

Caution: Do not use excessive force!

Alignment of the image position

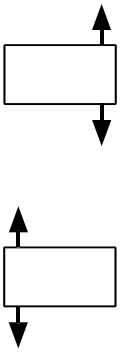
The position of the image on the CMOS chip and its focus can vary slightly from film camera to film camera. The video image on the monitor may appear not centred or rotated. It can be adjusted using a hex-screwdriver (tip size 2mm).

First, remove the protection caps inside the openings for the adjustment screws. Be sure to re-install them after you have finished adjustments.

Caution: Do not use excessive force when turning the adjustment screws!

X-Axis

The adjustment-screw “X-axis” located on the top side of the indieASSIST 435 moves the video image on the monitor horizontally.



Y-Axis

Adjustment-screw “right-swing” located on the right-hand side of the indieASSIST 435 shifts the right side of the image up and down and rotates the image around a point, which is located in the middle of the left side of the image.

Adjustment-screw “left-swing” located on the right-hand side of the indieASSIST 435 shifts the left side of the image up and down and rotates the image around a point, which is located in the middle of the right side of the image.

Rotation

Therefore, screws “right-swing” and “left-swing” work as a Y adjustment as well as an adjustment for rotation.

Lock Image Position

Caution: Do not use excessive force when tightening the locking screw!

First, remove the protection cap inside the opening for the locking screw. Be sure to re-install it after you have finished locking/unlocking.

With the locking-screw on the top back side image alignment can be locked. Do not use excessive force as it might damage the internals of your indieASSIST 435. Do not try to adjust the image position while the lock screw is tightened!

Installation

L-Bracket

The indieASSIST 435 system mounts onto the original mounting positions of the ARRIFLEX 435 with the adapter flange and mounting L-bracket provided.

L-Bracket mounted on indieASSIST

adapter flange

To do so, it is necessary to remove any other IVS System that might be pre-installed and to remove the viewfinder, top handle as well as the right-side cover of the ARRIFLEX 435, as described below.

Caution: It is advised to install the IndieAssist435 in a controlled service environment. Do not do this on set!

Caution: Do not touch any glass surfaces during installation!

The indieASSIST 435 is powered directly from the ARRIFLEX 435 camera CCU socket with the “CAM” cable that is included.

Preparation before mounting

Removal of pre-installed view finder system

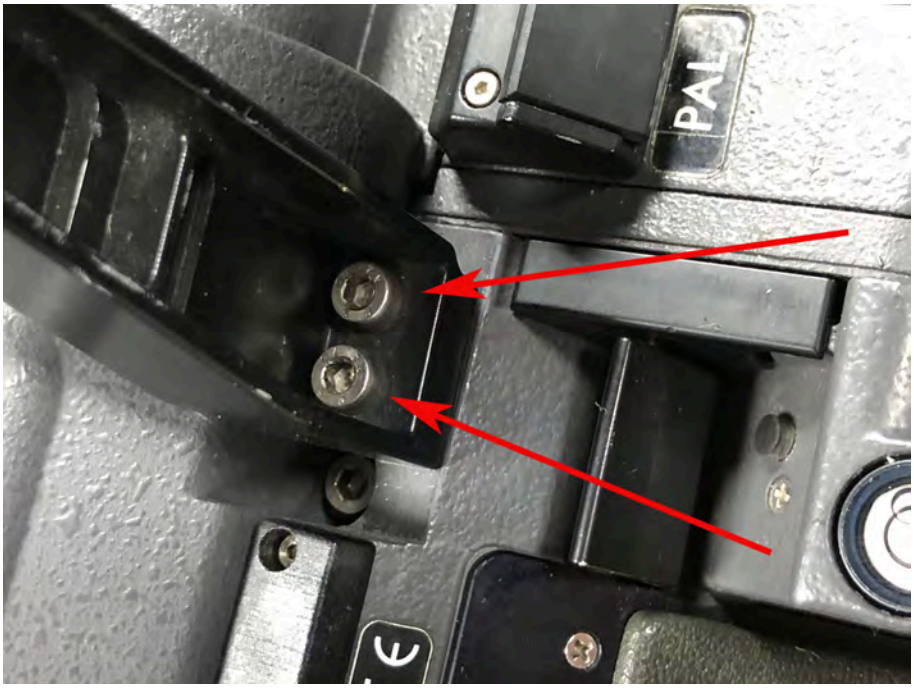
To install the indieASSIST-435 any kind of IVS-system that is installed needs to be removed.

Tools required:

- hex-screwdriver tip size 3mm
- hex-screwdriver tip size 2,5mm
- hex-screwdriver tip size 1,5mm
- slot-screw driver tip-size 0,3x2,5mm max

Removal carrying handle

First, remove the carrying handle from the ARRIFLEX 435 camera by loosening both mounting screws (hex 3mm).



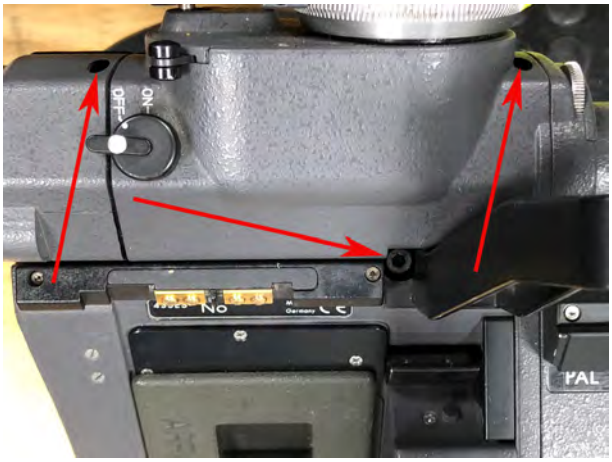
Removal Side-Cover and RS double-socket

Take the FEM cover off from the right side of the camera body. To do so open the fastening screw (hex 3mm) and swing the FEM side module off.

To remove the RS double-socket loosen the fastening screw indicated in the picture above (hex 2,5mm) and pull the entire unit carefully out.

Removal Viewfinder

Remove the viewfinder system by loosening the three fastening screws on top.



Caution: Support the viewfinder top when it is released! The viewfinder top will fall forward otherwise.

Removal original IVS

Remove the IVS by opening the square mounting screw. You can now carefully swing the IVS off.

Attach the FEM cover back on the ARRIFLEX 435 camera without the IVS in between, using the 3mm hex screw.

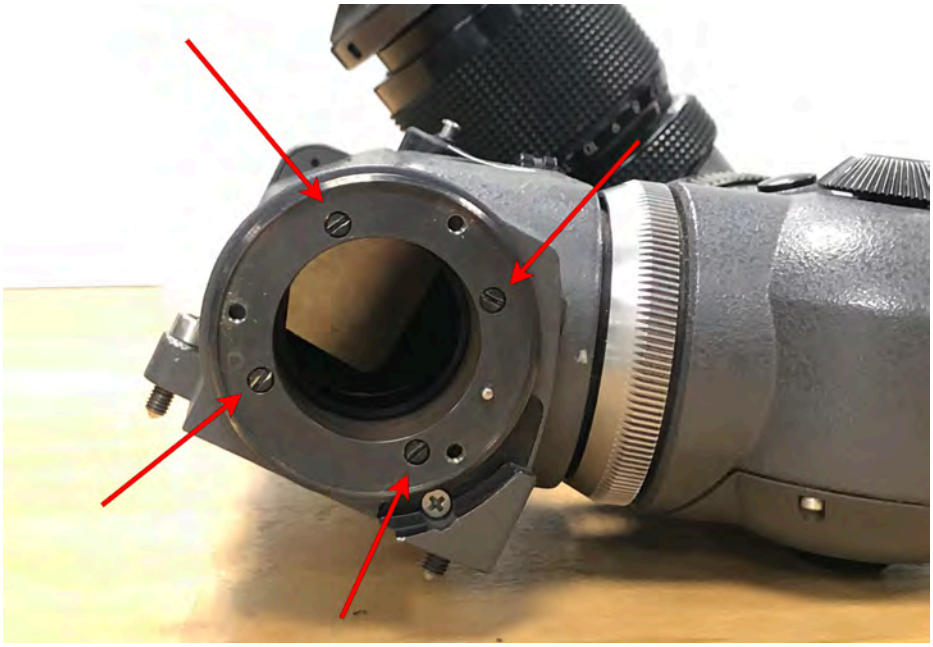
Removal original IVS-CCD from Viewfinder

Now the original IVS video optics have to be removed from the viewfinder system in the VFtop. Loosen the three fastening

hex-screws that hold the video optic-block to the viewfinder system and remove the original video optics.

Removal original IVS-flange

Then remove the original flange from the videoport on the 435 VFtop by releasing the 4 slotted fastening screws indicated in the picture above.



Re-Attach Viewfinder

Place the 435 viewfinder top back on the camera body and tighten the three mounting screws on top.

Mounting the indieASSIST 435

Mount the indieASSIST 435 Flange

Attach the included new adapter flange for the indieASSIST-435 on the original mounting points of the ARRIFLEX 435, using a slot-screw driver (tip-size 0,3x2,5mm max) with the original screws.

indieASSIST 435 adapter flange

Mount the indieASSIST 435 onto the adapter flange with the three provided captive screws. Two screws reside in the indieASSIST 435, one resides in the flange itself and is tightened from the back.

Caution: Be careful not to touch or scratch the cover glass!

Mount the indieASSIST 435 L-Bracket

Finally, attach the mounting L-bracket at the magazine side with the 3 provided M4x8 screws, connecting and securing the indieASSIST 435 and the ARRIFLEX 435 with each other.

L-Bracket

L-Bracket mounted to back of indieASSIST 435 in 4perf configuration with step-ring

When in 3perf mode without step-ring, use the back mounting sockets for the L-bracket. When in 4perf mode with step-ring installed (picture above), use the front mounting sockets for the L-bracket.

The camera handle can be re-attached now and the fastening screws tightened with a 3mm hex-screwdriver.

Connecting the indieASSIST 435

CAM-Cable

Connect the indieASSIST 435 to the ARRIFLEX 435 with the provided **“CAM”** cable.
Insert the 7pin Lemo plug into the socket **“435 “** of the indieASSIST-435. The other end is placed on the ARRIFLEX 435 camera CCU socket.

SDI-Cable(s)

Connect an SDI cable with BNC plug to connector “SDI 1” or “SDI 2” – or connect two cables to both connectors depending on your monitoring needs. After the unit is powered on, a live signal is available on these connectors after about 5 seconds.

CCU-Cable

When operating the ARRIFLEX 435 camera with an RCU/CCU unit and the indieASSIST 435 in place you need to use the dedicated “CCU” cable which is included. The original CCU socket is in use by the indieASSIST 435 and RCU/CCU operation has to go through the indieASSIST 435.

As the CCU socket is used by the indieASSIST-435 you can connect the RCU/CCU for the ARRIFLEX 435 camera on the indieASSIST-435 with the **“CCU”**-cable provided. Make sure that the “CCU-Con” function is turned on in the settings menu.

Limitations when using the RCU / CCU

- Timecode footage counter (SDI) is not showing correct values (i.e. they do not correspond to the internal frame-counter of the 435)
- we advise against using Auto-fps when working in ramp-mode, since the system will try to match every fps-change instantly and there will be blackouts on the SDI-feed during fps- switches

There might be an increased delay for automatic functions:

- frameline REC-indicator
- timecode-trigger
- exposure shutter compensation

Conversion to 4 perf

Caution: The modification from 3perf to 4perf has to be done by an experienced technician in an appropriate environment!

Please be aware that the modification takes some time and should not be done on set. Also make sure to use the correct ground glass in the ARRIFLEX 435 when in 3 perf or 4 perf mode.

In order to convert the indieASSIST 435 to use with ARRIFLEX 435 cameras that are set up for 4 perf, a step ring that is inserted into the chassis of the indieASSIST 435 unit is used.

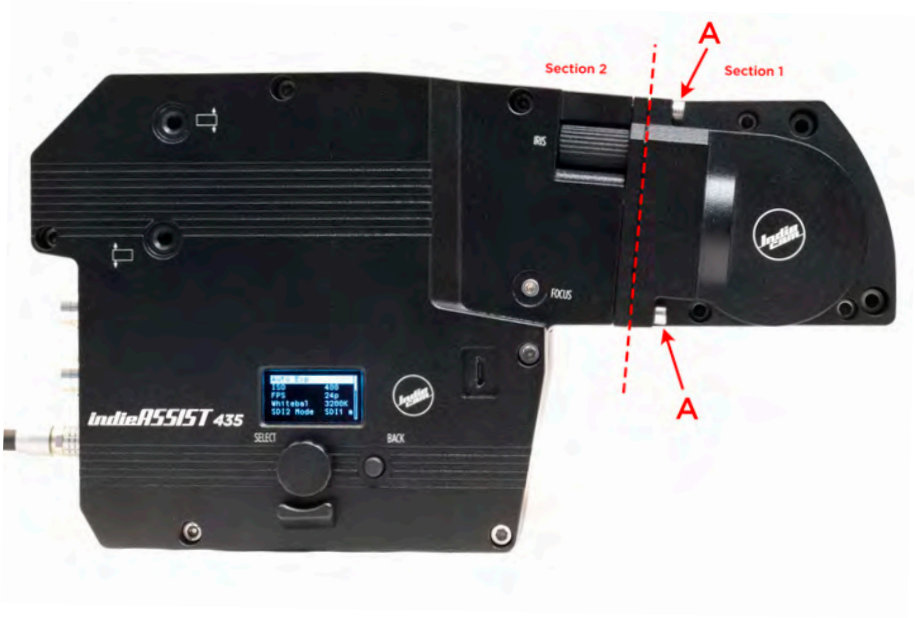
Make sure to follow the steps below closely for best results and correct optical alignment.

Remove the indieASSIST 435 from the ARRIFLEX 435 camera body.

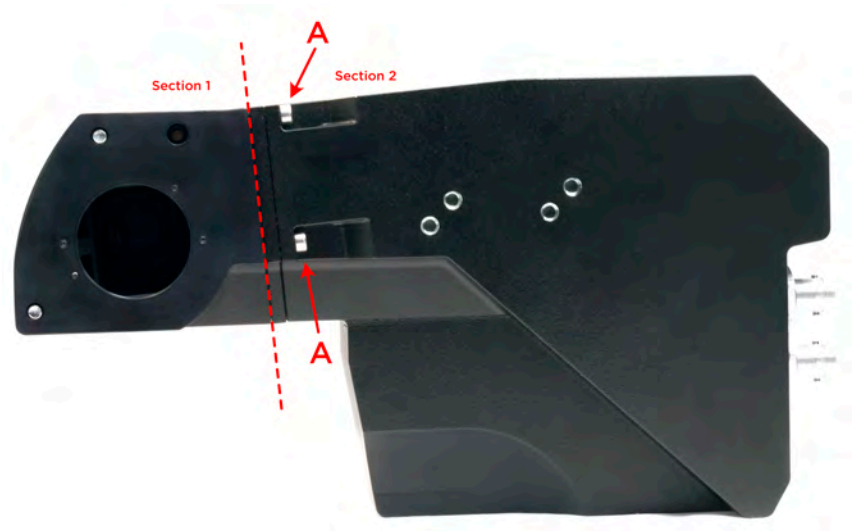
Disassembly

Caution: Place the indieASSIST 435 on a stable ESD work surface that is suited for work with electronic components.

Carefully remove all four screws A on the front of the chassis (Section 1) of the indieASSIST 435. Make sure not to scratch or damage any surfaces while you loosen screws A.



indieASSIST 435 in 3perf configuration, assistant side



indieASSIST 435 in 3perf configuration, operator side

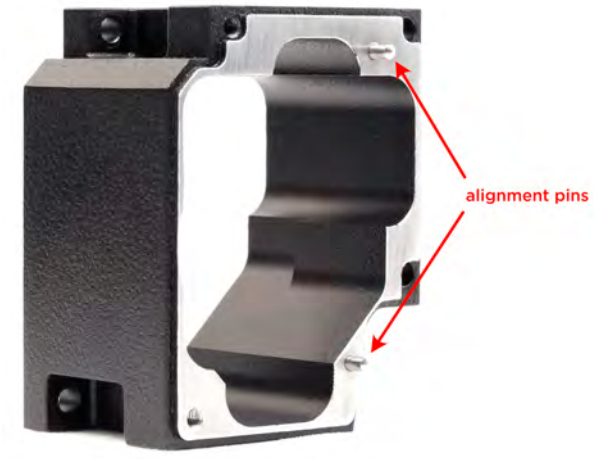
Once all 4 screws A are removed, separate the back of the chassis (Section 2) from the front of the chassis (Section 1).

Caution: Fitting of the parts can be very tight.

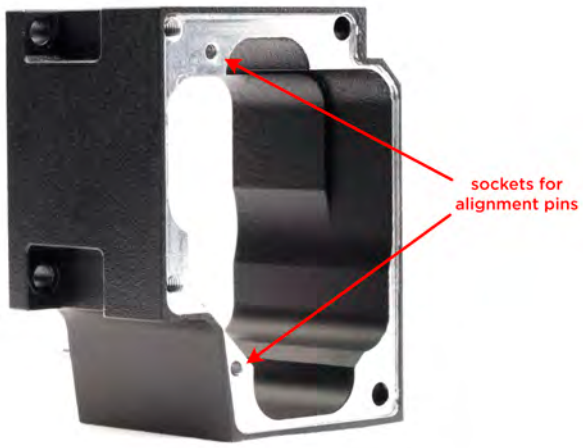
Try to apply force carefully and in such a way, that you are not separating the parts over a large distance.

Assembly with 4perf Step-Ring

- Make yourself familiar with all parts.
- Locate front and back of the step ring:
  - Front: alignment pins installed
  - Back: Sockets for alignment pins visible



step-ring front



step-ring back

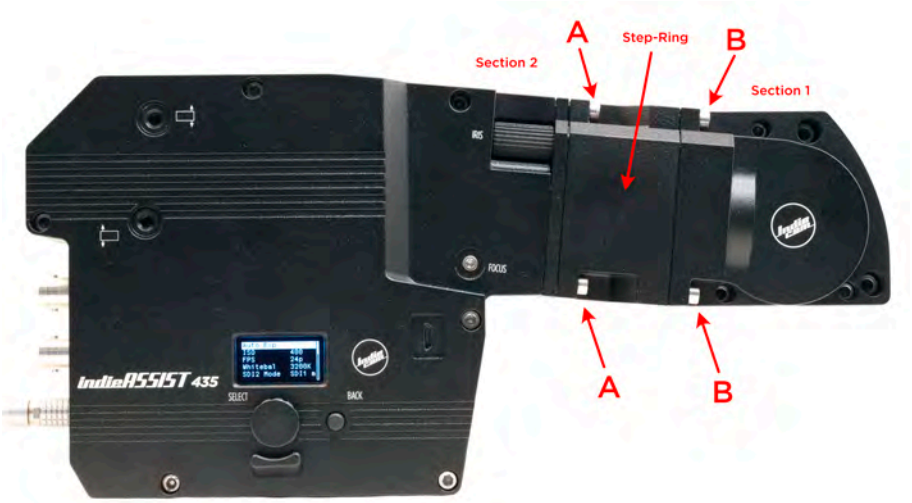
Mount step-ring on section 2 (back)

- Align step ring to section 2
- Apply a drop of mild thread locker onto the tip of each screw A.
- Carefully mount the step ring to section 2. Make sure that the sockets for alignment pins on the step ring slide correctly onto the alignment pins on Section 2.
- Carefully tighten screws A (hex 2,5mm). Make sure you insert them straight and not angled into the threads of Section 2.
- Make sure there are no gaps between the step ring and Sections 2 left.

Mount section 1 (front) on step-ring/section 2 assembly

- Align section 1 to step ring
- Use screws B (M3x10), which are provided with the step ring
- Apply a drop of mild thread locker onto the tip of each screw B.
- Carefully mount section 1 onto the step ring. Make sure that the alignment pins on the step ring slide correctly into the sockets on Section 1.
- Carefully tighten screws B (hex 2,5mm). Make sure you insert them straight and not angled into the threads of the step ring.
- Make sure there are no gaps between the step ring and Sections 1 left.

Finally, adjust framing and focus accordingly.



indieASSIST 435 in 4perf configuration

indieASSIST 435 in 4perf configuration, assistant side

indieASSIST 435 in 4perf configuration, assistant side - detail

Re-Assembly without 4perf Step-Ring for 3perf

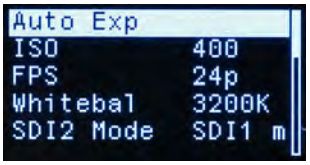
To remove the step-ring and to bring the indieASSIST 435 back to 3perf configuration, carefully perform the steps above in reverse.

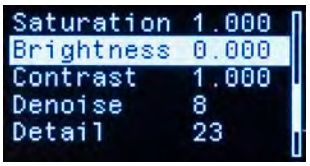
Menu navigation

- Navigate the menus by turning the SELECT knob.
- Enter a menu item or confirm your selection by pressing the SELECT knob.
- Change values by turning the SELECT knob.
- Confirm the selected values by pressing the SELECT knob.
- Return to previous menu by pressing the BACK button.

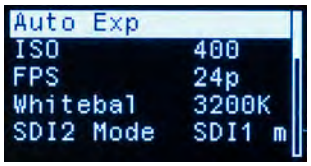
HOME Menu

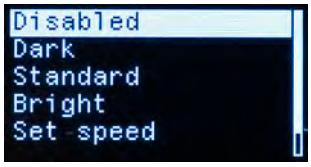
In the home-menu you can select the following settings:

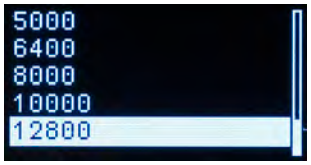




- Auto Exposure
- ISO
- FPS
- White balance
- SDI2 Mode
- LUT
- Image Flip
- Hue
- Saturation
- Brightness
- Contrast
- Denoise
- Detail
- Framelines
- Settings
- Info





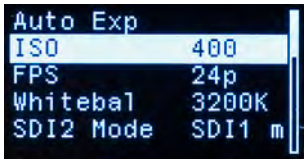


Auto-Exposure

Select *Auto Exp* with the SELECT knob and confirm by pressing the SELECT knob. Choose between disable (Disabl), standard (Std), dark (Dark) or bright (Bright). Standard is for normal scenes, bright for light, high key scenes and dark for dark/night, low-key scenes. Auto-Exposure only changes the ISO, the shutter stays the same. Maximum ISO in Auto-Exposure is 12800.

The auto exposure can be tweaked further. You have the choice of:

- Setting the attack speed, how fast auto exposure will adjust values.
- Setting the max ISO that the auto algorithm will use as maximum.

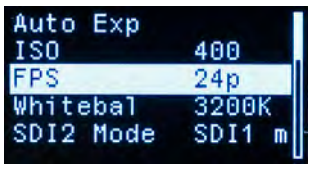


ISO

Select *ISO* with the SELECT knob and confirm by pressing the SELECT knob. You can choose from the following options:

125	160	200	250	320	400	500
640	800	1000	1250	1600	2000	2500
3200	4000	5000	6400	8000	10000	12800

Caution: Be aware that the ISO can only be changed when Auto-Exposure is disabled.



FPS

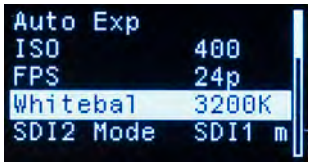
You can choose from the following options:

23.98p 24p 25p 29.97p 30p

For flicker free operation, set the fps of the indieASSIST 435 to match the fps of the ARRIFLEX 435.

Auto-FPS

when you select **„Auto“** in the FPS menu, the indieASSIST 435 will slave to the FPS setting of the ARRIFLEX 435. When setting off-values in the ARRIFLEX 435, the indieASSIST 435 will fall back to the closest standard value (23.98, 24, 25, 29,97 or 30).



White Balance

Select *Whitebal* with the SELECT knob and confirm by pressing the SELECT knob. You can choose from the following options:

One shot

One time auto white balance

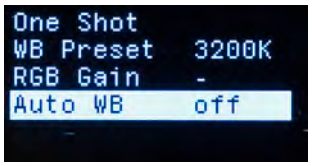
WB Preset

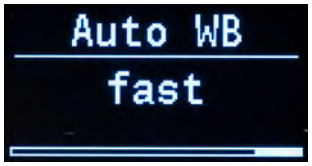
Select a white balance preset ranging from 2200K to 6500 K

RGB Gain

Select RGB Gain manually. To do so, navigate to R,G or B by turning the select knob and then pressing the select knob. You can now change the corresponding 10bit value (0-1024) and confirm by pressing the select knob.

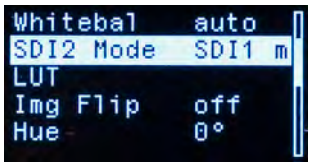
Repeat with all primaries until you reach your target whitebalance.

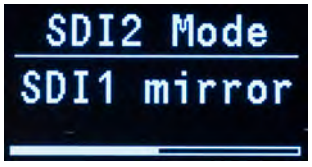




Auto WB

Select “off” or change the speed to “slow”, “medium” or “fast”, in order to enable it.





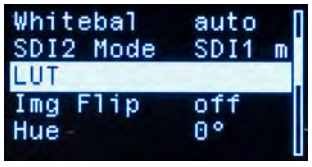
SDI2 Mode

The SDI-2 connector on the indieASSIST 435 can be assigned an individual LUT if desired.

By selecting SDI-1 (mirror), SDI-2 output behaves as an entire duplicate of SDI-1 with all its settings.

By selecting SDI-2 LUT, you can now assign a different LUT to this output, which is defined under settings menu **“LUT”** (see below)

Note: when selecting “SDI-2 LUT” framelines will be deactivated on SDI-2 output!



LUT

You can choose between 2 different LUTs

- REC709
- Low-Con

Low-Con is a low contrast LUT with higher latitude that displays the entire dynamic range of the sensor.

Different LUTs can be selected for the two SDI outputs individually.

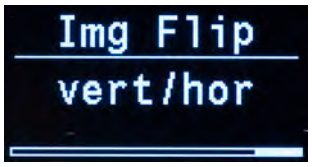


Image Flip

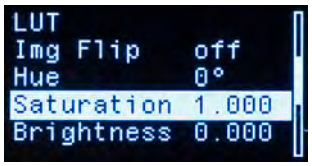
You can flip the image in the following ways:

- Flip off (off)
- Flip vertical (vert.)
- Flip horizontal (hor.)
- Flip vertical & horizontal (vert./hor.)

Hue

Hue adjustment ranges from -90 to 90 degrees.

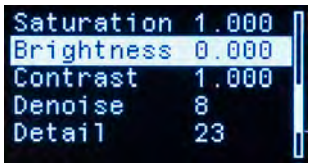
Default value is 0°

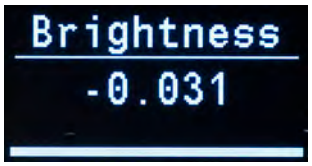


Saturation

Saturation can be set in steps of 0.008 from 0.000 to 1.992.

Default value is 1.000

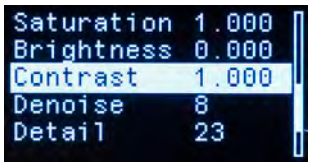




Brightness

Brightness can be set in steps of 0.008 from -1.000 to 0.992.

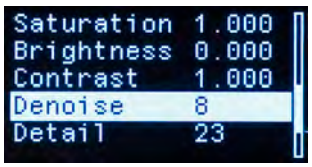
Default value is 0.000



Contrast

Select *Contrast* with the SELECT knob and confirm by pressing the SELECT knob. The white mark on the horizontal bar is what you want to select. Contrast can be set in steps of 0.008 from 0.000 to 1.992.

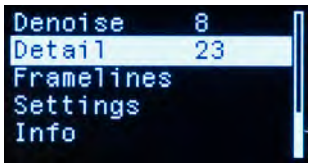
Default value is 1.000



Denoise

Select *Denoise* with the SELECT knob and confirm by pressing the SELECT knob. The white mark on the horizontal bar is what you want to select. Denoise can be set from 0 to 65.

Default value is 8



Detail

Detail can be set from 0 to 65.

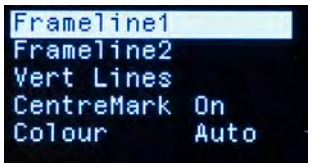
Default value is 23.

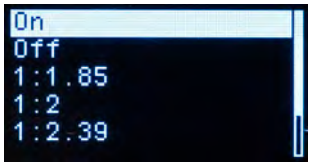
Note: Denoise and Detail settings influence each other. Extremely high values of one function will reduce the effect of the other one and vice versa!

Framelines

In the framelines menu you can set up the properties of two individual sets of framelines. You have the following options:

- Frameline1
- Frameline2
- Vert Lines
- Centre Mark
- Colour

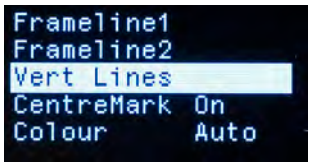


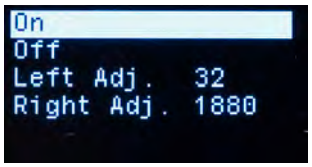


Frameline 1/2

In the *Frameline 1* and *Frameline 2* sub menu you have the following options to enable/disable them, select presets and modify the position individually:

- On
- Off
- Preset 1:1.85 (3 Perf.)
- Preset 1:2 (3 Perf.)
- Preset 1:2.39 (2 Perf.)
- Top (adjust from 0 to 1080 pixel)
- Bottom (adjust from 0 to 1080 pixel)

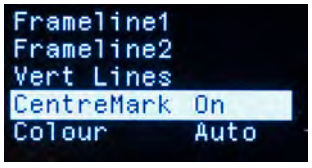




Vertical Lines

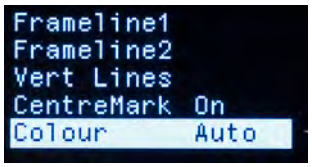
You can configure two independent vertical framelines that can both be positioned at any position from left to right.

- On
- Off
- Left Adj. (adjust from 0 to 1920 pixel, 0=left)
- Right Adj. (adjust from 0 to 1920 pixel, 0=left)



Centre Mark

The *CentreMark* can be disabled (Off) and enabled (On).



Colour

The colour of the framelines can be changed. In the *Colour* menu you have the following options:

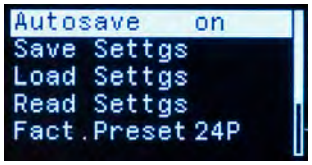
- White
- Red
- Green
- Blue
- Yellow
- Orange
- Violet
- Pink
- Auto (Rec-Indicator, see below)

REC-Indicator

The REC-indicator (tally) works by changing frameline colour. When you select **"Auto"** as colour setting in the frameline menu, the colour of the framelines will change from green to red once the ARRIFLEX 435 starts to run.

Settings

In the *Settings* menu you have the following options:



Autosave

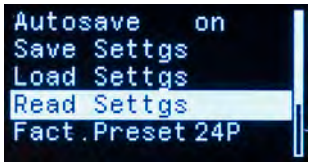
Auto save can be enabled (On) and disabled (Off). If it's enabled every change in the settings is saved automatically.

Save Settgs

If auto save is disabled and you want to save your settings click on "Save Settgs".

Load Settgs

Loads the settings that were last saved with "Save Settgs" or "Autosave – ON".



Read Settgs

This function reads out the current settings of the indieASSIST 435 and displays them on the screen. This function is mainly used to resync the internal controller when settings have been changed with the external remote control unit and you want to be up to date on the integrated screen.

Fact. Preset

You can load 5 different factory presets. Loading one of these presets will load a set of standard setting matching the specified fps well.

- 24p
- 25p
- 30p
- 23.98p
- 29.97p

Exposure Shutter-Compensation

In the settings menu you can activate „shutter compensation“ which compensates for a 1/2 stop of brightness loss in the indieASSIST 435 when the ARRIFLEX 435 starts to run.

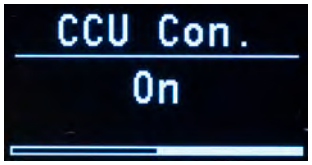
Timecode Trigger

In the settings menu you can activate „timecode trigger“. Now, SDI timecode from the indieASSIST 435 will only run when the ARRIFLEX 435 starts to run. This way, you can automatically start and stop the recording of a compatible recorder, which has the option of triggering recording by timecode. Most current SDI recorders have this option

Timecode Footage Counter (SDI)

When the Timecode Trigger function is enabled the indieASSIST 435 will output timecode values via SDI that correspond to the internal frame counter of the ARRIFLEX 435. These timecode values are reset to the current frame counter of the ARRIFLEX 435 every time the camera is run. The timecode base corresponds to the selected framerate of the ARRIFLEX 435.

Note: This function is not showing correct values when working with a RCU / CCU remote control unit for the ARRIFLEX 435 camera.

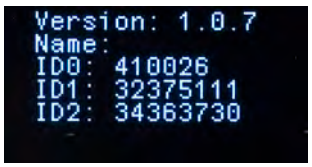


CCU Connection

When using a RCU or CCU remote control unit for the ARRIFLEX 435, you need to activate its use in the „settings“ menu. Set the entry “CCU Con” to value “ON”. Also, make sure that the RCU / CCU is correctly connected with the special adapter cable to the CCU socket on the indieASSIST 435 (see page 11 and 25, Lemo 7pin).

Caution: Limitations when using the CCU:

- Timecode footage counter (SDI) is not showing correct values (i.e. they do not correspond to the internal frame-counter of the 435)
- We advise against using Auto-fps when working in ramp-mode, since the system will try to match every fps-change instantly and there will be blackouts on the SDI-feed during fps- switches
- There might be an increased delay for automatic functions:
    - Frameline REC-indicator
    - Timecode-trigger
    - Exposure shutter compensation



Info

The Info-Menu displays

- Firmware version
- Serial number
- HW-ID (needed for unlocking FW-upgrades)