

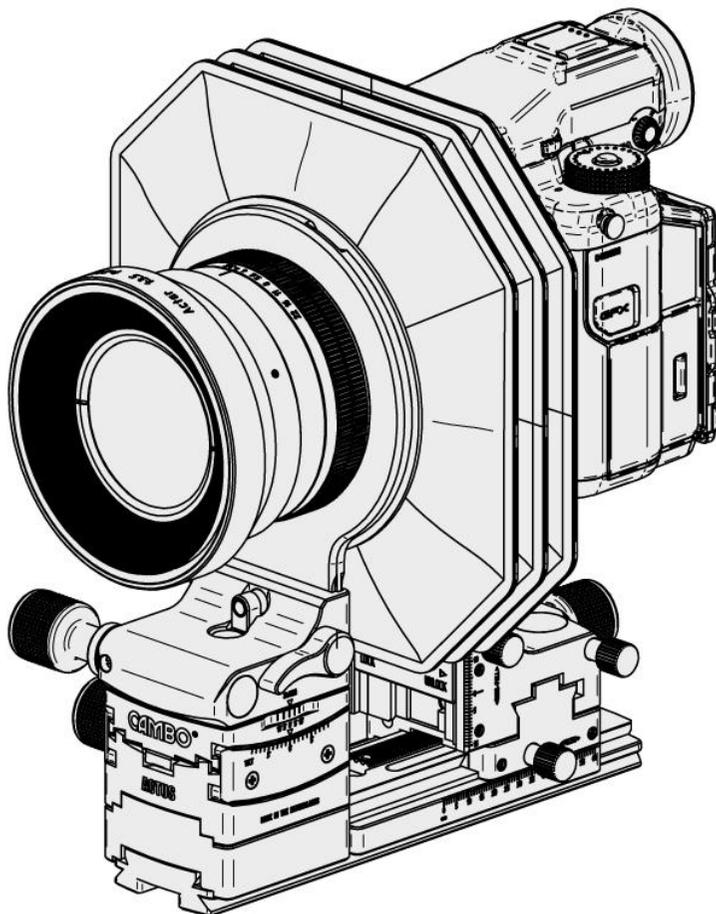


Actus-G

Compact View Camera

INSTRUCTION MANUAL EN

Please read this manual carefully before using the Cambo Actus-G!



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Thank you for purchasing a Cambo product

The **Actus-G** is a compact view camera system featuring lateral and vertical shift of the rear standard as well as a swing and tilt movement of the front standard. The **Actus-G** is compatible with a wide range of mirrorless and mirror reflex system cameras.

The precision gearing enables a fine rear shift/rise and fall control which is ideal for perspective control, image displacement and high quality panoramic stitching. The precision gearing tilt and swing movement of the lens enables the photographer to optimize spatial sharpness.

1. Key Features Actus

- Small size¹ 153 x 114 x 203mm (L x W x H)
- Lightweight, only 1.2 kg (excl. lens and digital back)
- High grade CNC milled aluminum camera body
- Horizontal shift 40mm (20mm left/20mm right)
- Vertical shift 27mm (15mm / 12mm)
- Stitching possibilities (2-way / 4-way)
- Tilt 19 degrees (9°/10°)
- Swing 30 degrees² (15°/15°)
- Interchangeable interface plate, lenspanel, rails and bellows
- Millimetre/degree movement indicator
- Precision geared movements (tilt, swing, shift and rise/fall)
- Zero position click indication
- Wide fine focus range (0-60mm)
- Telescopic rail system, standard extension 115mm
- Ability to set the infinity position stop
- Optional adjustable safety stop to prevent collision of the rear lens element
- Durable genuine leather bellows
- 3/8" and 1/4" tripod mounting option
- Integrated Arca® dovetail

¹ With the Lensplate and bellows detached

² Dependant on camera, lens and bellow combination

2. Warnings

- ⚠ Due to the modularity of the Actus camera system, many camera-lens combinations are possible. Please beware of the possible collision of the rear lens element and the rear standard and/or the sensor. Please note that Cambo is not responsible for any damage done to the Actus, lens or camera, due to improper or careless use.
- ⚠ Before changing the camera orientation from landscape to portrait or vice-versa, ensure that there is enough clearance between the camera body and the rear housing of the Actus. If necessary (this depends on the camera body is used) use the vertical shift to lift the camera to gain more clearance.
- ⚠ Ensure that there is enough clearance between the camera body and the rear housing of the Actus, before dismounting the camera body.
- ⚠ (Over)exposure to direct sunlight or heat sources will damage the leather bellows. Keep/store the leather bellows in a cool, dry, dust-free and ventilated place.
- ⚠ The Actus uses disc magnets to mount the bellows. These permanent magnets (magnetism N45) could cause temporary or permanent damage to equipment³ sensitive to magnetism like magnetic cards (credit card, ATM card).
- ⚠ Beware that the some combinations of swing, tilt, shift and focus adjustments can dismount the bellows.

³ Please note that memory cards are not magnetic data carriers and will therefore not be damaged by static magnetic fields.

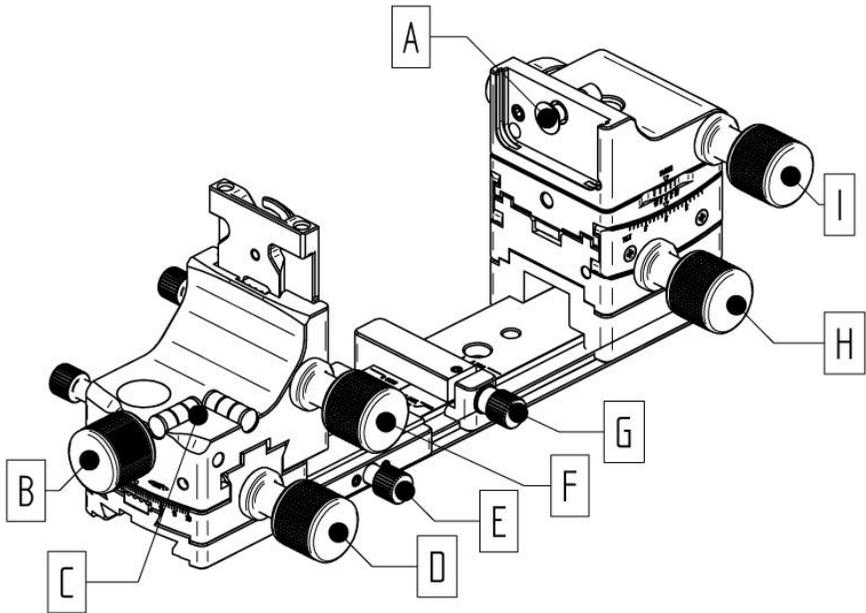


Figure 1: Cambo Actus rear view

- | | |
|---|----------------------------------|
| A | Lenspanel slot |
| B | Shift adjustment knob |
| C | Spirit level |
| D | Focus adjustment knob |
| E | Lock telescopic rail |
| F | Rise and fall adjustment knob |
| G | Lock safety stop unit (optional) |
| H | Tilt adjustment knob |
| I | Swing adjustment knob |

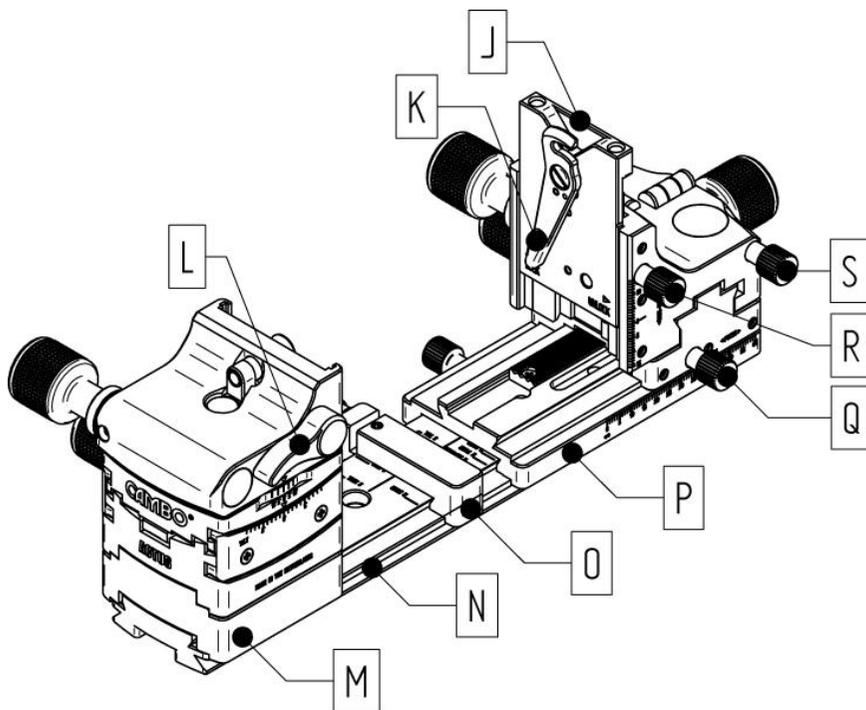


Figure 2: Cambo Actus front view

J	Bayonet holder interface plate
K	Bayonet holder locking knob
L	Lens panel locking knob
M	Actus spacer (16,5mm)
N	Main Actus rail (153mm)
O	Safety stop unit (Optional)
P	Telescopic rail
Q	Lock focus movement
R	Lock rise and fall movement
S	Lock shift movement
T	AC-78E Bayonet holder

3. Cambo AC-78E Bayonet holder installation

The Actus uses the AC-78E bayonet holder for mounting various mirrorless and DSLR camera bodies. To mount the bayonet holder please fully open the locking knob [K]. Place the bayonet holder [T] in the interface plate and close locking knob [K].

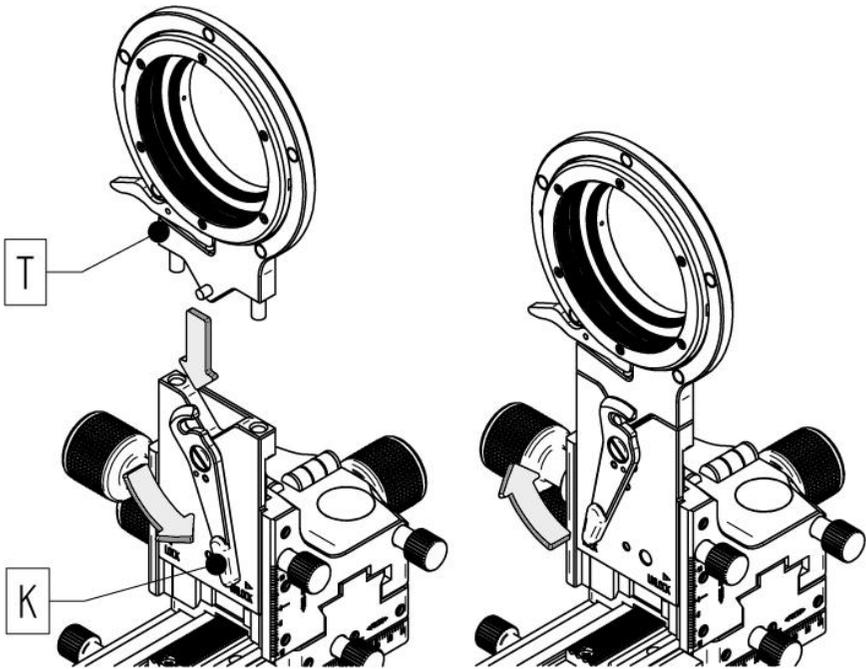


Figure 3: Mounting the Cambo AC-78E Bayonet holder

4. Camera mount installation

The camera (bayonet) mount, fits only one way as indicated in the image below. Please note; the pattern of the holes is not square, the two holes at the top⁴ are closer to each other. Please use the provided M2x4 DIN965 (4x) to fix the camera mount to the Actus rear standard. It is recommended to use a standard Phillips cross screwdriver type PH1 to fasten the screws.

Camera	Mount	
Sony	E	
Leica	M	
Leica	SL	<i>Bayonet already integrated in holder</i>
Fujifilm	X	
Fujifilm	G	<i>Bayonet already integrated in holder</i>
Panasonic	MFT	
Olympus	MFT	
Olympus	MFT-PLUS ⁵	
Canon	EF(s)	
Canon	R	
Nikon	F	
Nikon	Z	<i>Bayonet already integrated in holder</i>
Hasselblad	XCD	<i>Bayonet already integrated in holder</i>

Please see page 18 and 19 for a complete overview of the Actus-G mounting options.

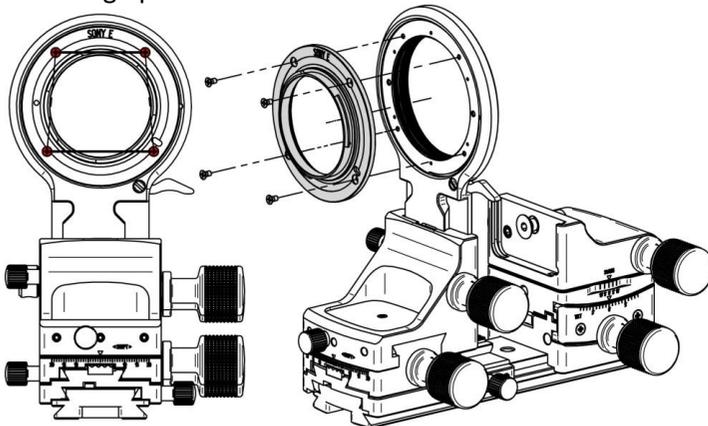


Figure 4: Camera mount (Bayonet) installation

⁴ In portrait position, the pattern is turned 90° counter clockwise

⁵ For MFT camera bodies that need more clearance, like the Olympus OM-D E1, 5 and 10

5. Mounting the lens-panel

To mount the lens-panel please;

1. Unlock the lever
2. Return the locking pin, if necessary
3. Position and slide the lens-panel in the slot
4. Lock the lever to fixate the lens-panel

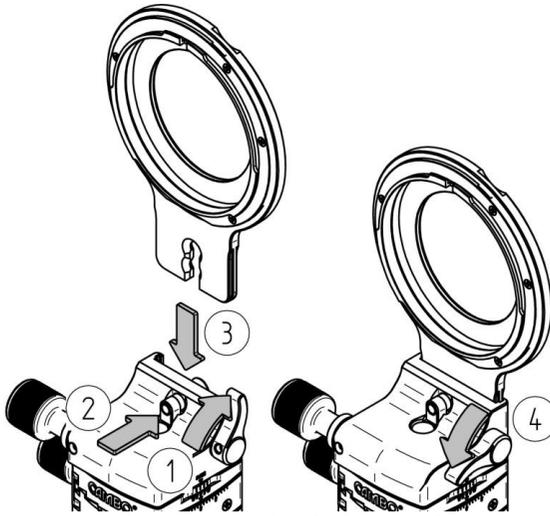


Figure 5: Mounting the lens panel

Lens-plate	Camera type compatible		
	Mirror-less	Rangefinder	Mirror-reflex
Copal #0/ NK-0 mount ⁶	●	●	●
M39 (Leica thread) ⁶	●	●	●
Hasselblad CF	●	●	●
Mamiya RZ/RB	●	●	●
Mamiya 645 Pro	●	●	
Pentax 645	●	●	
Leica R ⁷	●		
Nikon F	●		
Canon EF(s) ⁸	●		

⁶ Please note: the lens compatibility depends on the focal length.

⁷ Leica R, Canon EF and Nikon N not compatible when using the Fujifilm GFX mount

⁸ Only compatible with Sony E or Fujifilm X camera bodies.

6. Mounting the bellows

The front of bellows (the side with the largest ring) features an indication point, this point corresponds to a hole at the top of the lens-panel. When the indication point is aligned correctly the front ring will snap into place. After this please attach the rear-end of the bellows by aligning it with the rear standard until it snaps into place.

⚠ Please note; with first use the bellows could behave stiff, over time with use and movement the leather bellows will behave smoother. If the leather becomes dry over time, it is important to maintain the leather by keeping it moisturized to retain the smooth behavior.

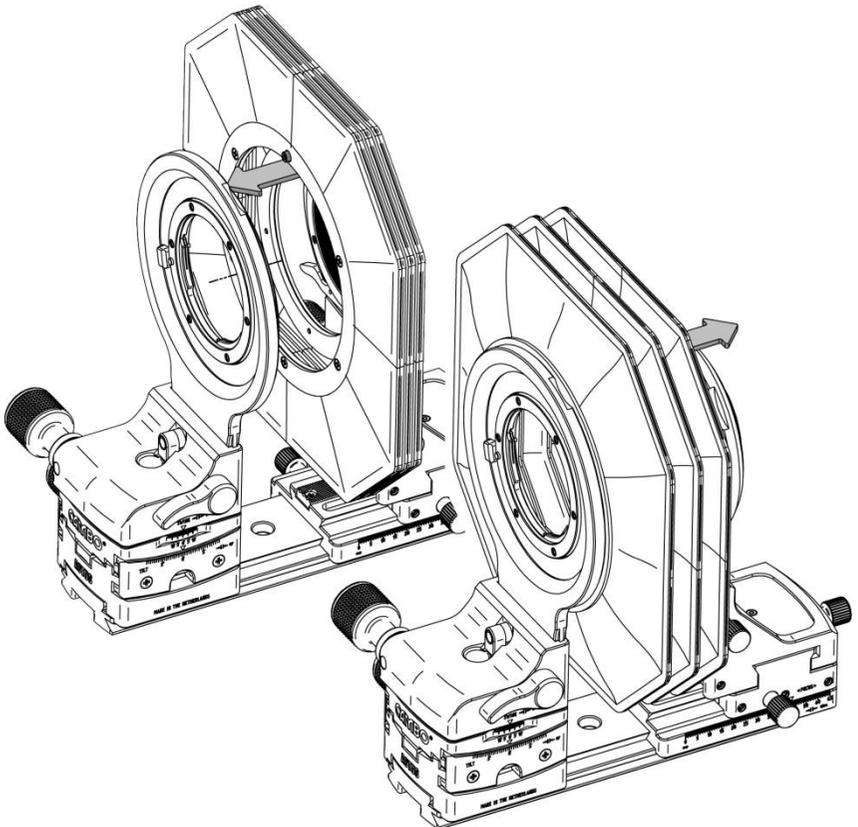


Figure 6: Mounting the bellows

7. Mounting the camera

Mounting the camera (Clockwise turning mounts)

- Ensure that the bayonet is in landscape position
- Rise the rear standard
- Align the indication point of the camera with the bayonet
- Place the camera on the bayonet
- Turn the camera clockwise until it lock into place

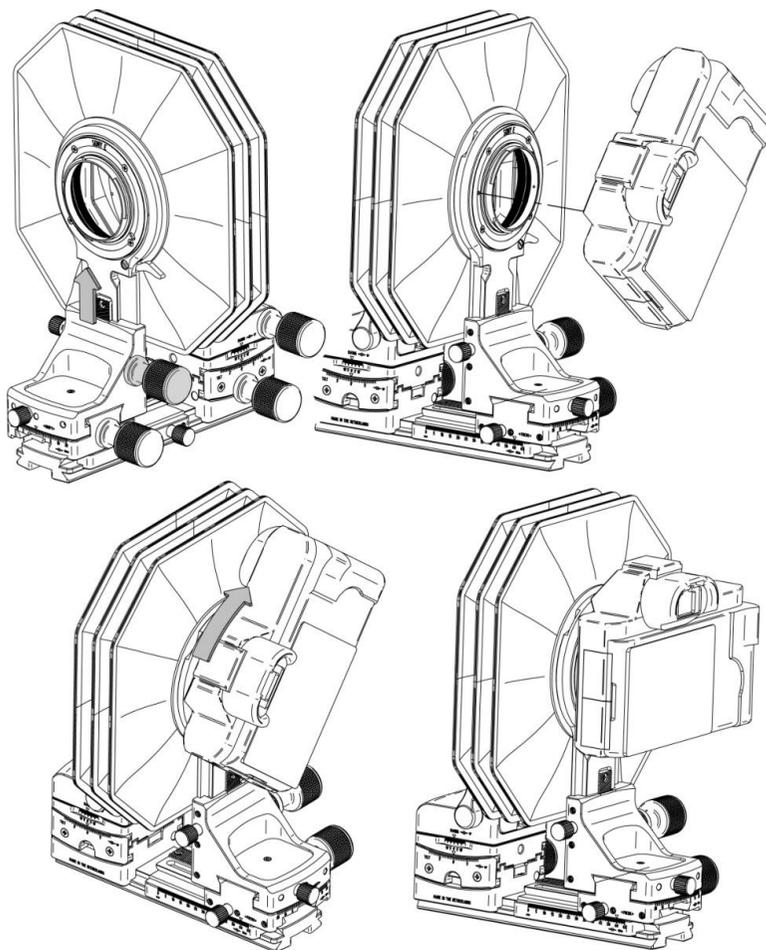


Figure 7: Mounting the camera (clockwise turning camera mount)

Mounting the camera

(Counter-clockwise turning mounts)

For camera's that are mounted counter-clockwise like the Nikon F, the bayonet of the Actus must be in portrait orientation.

Unlock the lever [V] and turn the bayonet [U] 90° degrees counter-clockwise, the ring will snap into place.

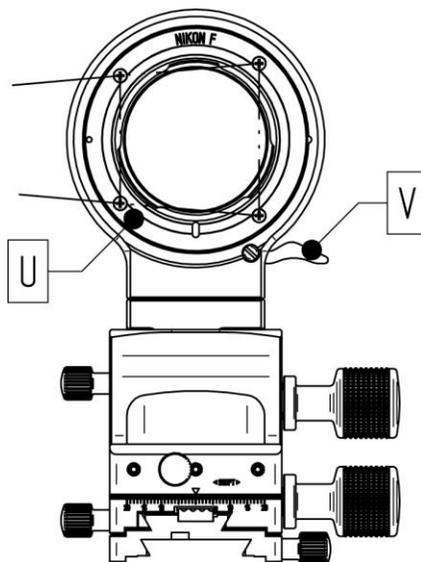


Figure 8: Mounting the camera counter-clockwise turning camera mount

Counter-clock wise mounting camera's

- Ensure that the bayonet is in portrait position
- Rise the rear standard
- Align the indication point of the camera with the bayonet
- Place the camera on the bayonet
- Turn the camera counter-clockwise until it lock into place

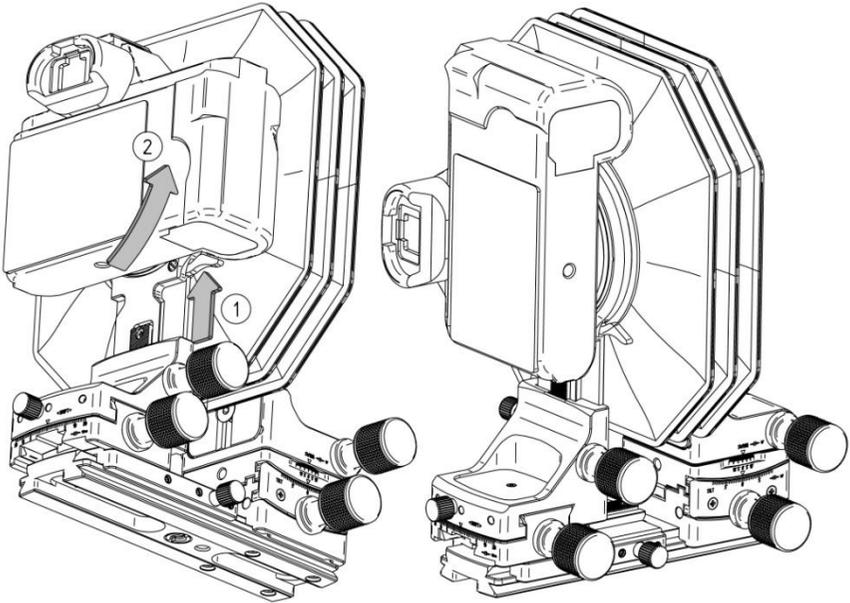


Figure 9: Changing the camera orientation from landscape to portrait

8. Change the orientation of the camera;

⚠ Before changing the camera orientation from landscape to portrait or vice-versa, ensure that there is enough clearance between the camera body and the rear housing of the Actus. If necessary (this depends on the camera body is used) use the vertical shift to lift the camera to gain more clearance.

1. Tilt and hold lever ([V], figure 7).
2. Turn the camera counter-clockwise, the lever can be released. The ring will snaps into place at the portrait (or landscape) setting.

9. Using the Actus

The Cambo Actus view camera features a swing and tilt of the lenspanel, and a horizontal and vertical shift of the rear standard (camera). The focus, swing, tilt, shift and rise/fall are driven by precision geared knobs. The fast focus positioning is manually.

For still images, it is recommended to temporarily fix the shift, tilt, swing and/or focus adjustments using the associated locking knobs.

10. Setting the optional infinity hard-stop

To set the infinity position of the lens please perform the following steps;

- Mount the desired lenspanel and lens
- Set the fine focus to the infinity mark at the focus scale
- Unlock the telescopic rail [P] (knob [E], figure 1)
- Frame a (horizon) view point that is clearly at infinity
- Slide the fast focus slider until the infinity point is in focus
- Lock the fast focus slider
- Now the fine focus slider for this particular lens is set to infinity, the hard-stop aligned with the infinity mark

11. Extend the focus range (+45mm)

You can extend⁹ the focus range by rotating the swing housing 180° degrees. To complete the setup, dismount the lens panel, turn it 180° degrees and remount

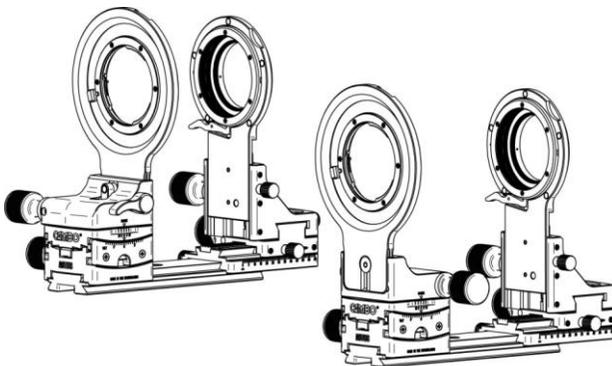


Figure 10: Rotating the swing element and lens panel 180° degrees

⁹ Not compatible with the wide-angle bellows or short focal length lenses

12. Changing the rail

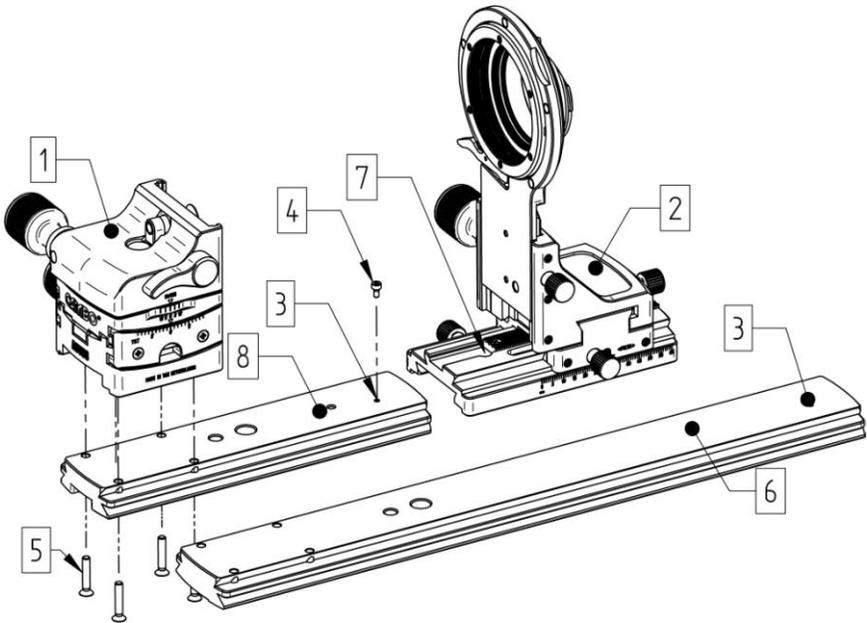


Figure 11: Changing the rail

You can change the rail of the Actus¹⁰. Before you can slide off the rear standard you need to remove the screw indicated as [4] in figure 10 (M2x4 DIN 912). Slide the rear standard [2] until hole [7] and screw [4] align, now you can access and remove the screw using an Allen key (1,5mm). Place the rear standard on the other rail, align hole [7] with hole [3] and screw in screw [4].

To change the front standard [1] please remove the 4 Torx screws, indicated as [5] in figure 11, using a Torx driver TX10.

¹⁰ The rear standard conversion is possible for the Actus models with the serial number C69050 (DEC-2014) and higher.

13. Cambo ACDB SLW-adapter holders For Digital Backs

The Actus uses the ACDB-989 or ACDB-987 SLW-adapter holder for mounting various digital back interface plates. To mount ACDB holder [W] please fully open the locking knob [K]. Place the ACDB holder in the interface plate and close locking knob [K].

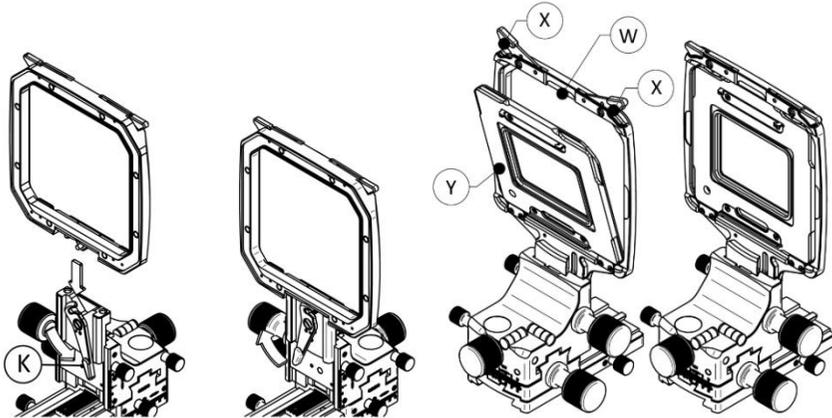


Figure 12: Mounting the Cambo AC-78E Bayonet holder

To mount the interface plate please fully open the two slide locks [X]. Align the SLW interface plate [Y] with the frame [W] and place it in the frame at an angle of +/-15 degrees. When the plate is fully inserted close both slide locks [X].

- ⚠ Note that using the ACDB SLW-adapter holder on the Actus-G system offers a limited amount of rise and fall opposed to the digital back dedicated Actus DB-2.
- ⚠ Lens plates for lenses with large image circles contain a second mounting hole which allows a reduction of this limitation.

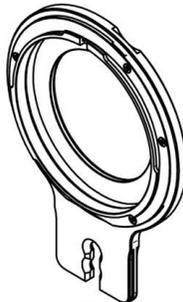


Figure 13 Lens Panel with second mounting hole for high positioning

AC-78E Bayonet mounts

99100780	AC-780	Bayonet Kit for Canon Eos body
99100781	AC-781	Bayonet Kit for Canon M-series body
99100782	AC-782	Bayonet Kit for Canon R-mount body
99100783	AC-783	Bayonet Kit for Nikon F-mount body
99100785	AC-785	Bayonet Kit for Leica M-mount body
99100786	AC-786	Bayonet Kit for Sony E-mount body
99100787	AC-787	Bayonet Kit for Pentax K-mount body
99100788	AC-788	Bayonet Kit for Micro Four-Third body
99100789	AC-789 ¹²	Bayonet Kit for Micro Four-Third body (high flange)
99100790	AC-790	Bayonet Kit for Fujifilm X-mount body

ACDB-98X SLW-adapters

99012111	SLW-80	Interfaceplate With Hasselblad V-mount
99012115	SLW-81	Interfaceplate for Leaf AFi or Sinar HY6
99012117	SLW-83	Interfaceplate for PhaseOne IQ3 and IQ4
99012119	SLW-84	Interfaceplate for Sinar 30/40
99012113	SLW-87	Interfaceplate for Contax 645
99012112	SLW-89	Interfaceplate With Hasselblad H-mount

Actus camera bellows

Code:	Name:	Description
99030210	AC-210	Standard bellows (150mm extension)
99030212	AC-212	Wide angle bellow (40mm extension)
99030214	AC-214	Long bellow (250mm extension)
99030215	AC-215	Extended bellow (300mm extension)
99030216	AC-216	Macro Bellow (450mm extension)

Actus DB camera bellows

99030250	ACDB-250	Standard bellow (150mm extension)
99030252	ACDB-252	Wide angle bellow (50mm extension)
99030254	ACDB-254	Long bellow (250mm extension)
99030256	ACDB-256	Macros bellow (450mm extension)

Actus rails

Code:	Name:	Description
99080315	AC-315	Actus rail 155mm (black finish)
99080330	AC-330	Actus rail 300mm (black finish)
99080345	AC-345	Actus rail 450mm (black finish)

¹² For MFT camera bodies that need more clearance, like the Olympus OM-D E1, 5 and 10.

This instruction manual is prepared with care, although no responsibility, financial or otherwise, is accepted for any consequences related the information stated in this instruction manual. All specifications in this instruction manual are subject to change without notice.

For more information please visit the Cambo web site: www.cambo.com