



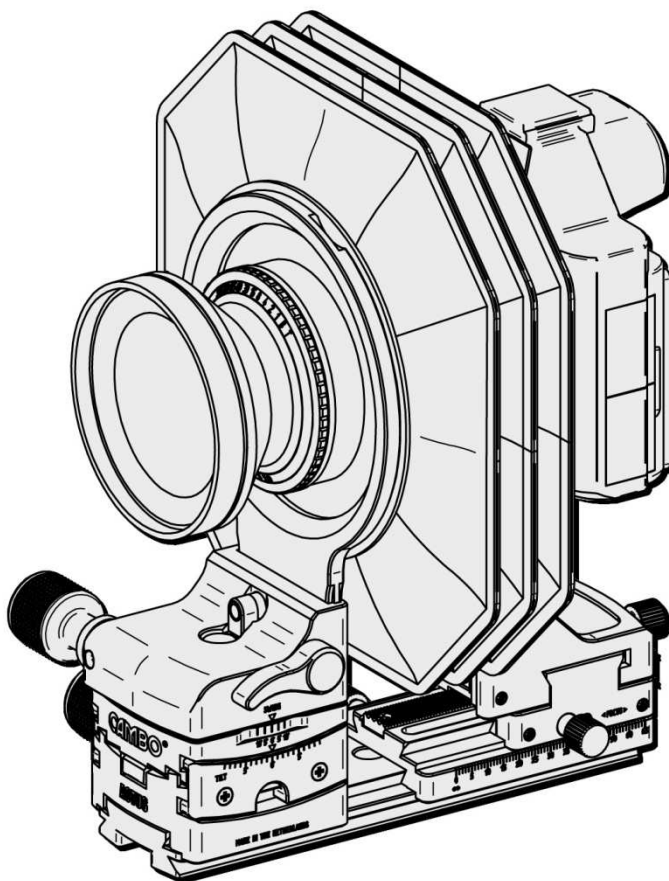
Actus

Compact View Camera

INSTRUCTION MANUAL

EN

Please read this manual carefully before using the Cambo Actus!



Thank you for purchasing a Cambo product.

The **Actus** is a compact view camera system camera featuring lateral and vertical shift of the rear standard as well as a swing and tilt movement of the front standard. The **Actus** 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 tilt and swing movement of the lens enables the photographer to optimize spatial sharpness.

Key Features:

- Small size¹ 150 x 98 x 149mm (L x W x H)
- Lightweight, only 1.1 kg (excl. lens)
- 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 30² degrees (15°/15°)
- Quick change between landscape and portrait orientation
- Interchangeable camera mount, lenspanel and bellows
- Millimetre/degree movement indicator
- Precision geared movements (focus, tilt, swing and rise/fall)
- Zero position click indication
- Wide adjustment focus range (0-65mm)
- Telescopic rail system for macro photography
- Ability to set the infinity position stop
- Durable genuine leather bellows
- 3/8" and 1/4" tripod mounting option
- Integrated Arca® dovetail

¹ With the lens-plate and bellows detached

² Dependant on camera, lens and bellows combination

Warnings:

- ⚠ Due to the modularity of the Actus camera system, many camera-lens combinations are possible. Please beware that there is a possibility, with some camera-lens combinations, that the rear element of the lens collides with the rear standard or attached camera. 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.
- ⚠ For the fixation of the bellows to the Actus disc magnets are used. 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 with some extreme camera adjustments the bellows can dismount from the Actus unintentionally.

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

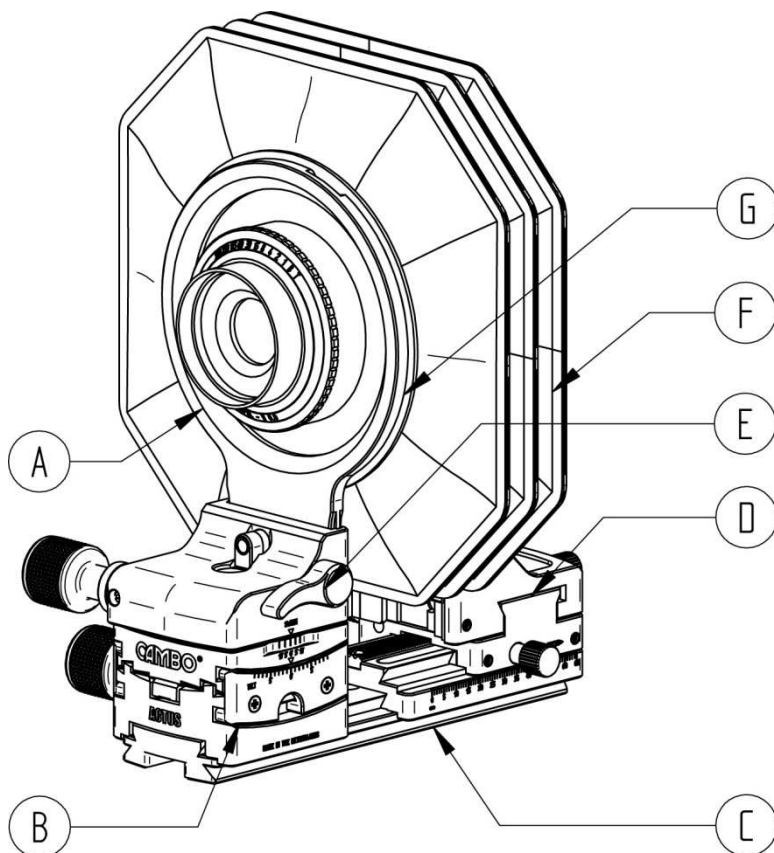


Figure 1: Cambo Actus front view

- | | |
|---|-----------------------------|
| A | Actus lenspanel |
| B | Front standard |
| C | Base rail (Arca compatible) |
| D | Rear standard |
| E | Lenspanel (un)locking lever |
| F | Bellows (genuine leather) |
| G | Front bellows frame |

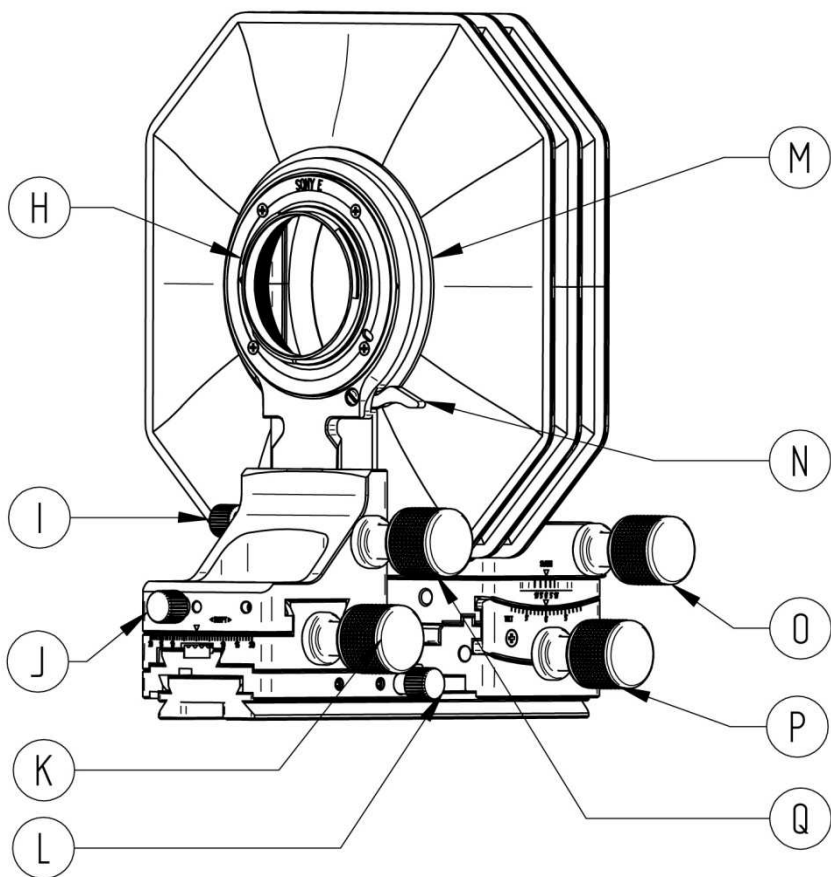


Figure 2: Cambo Actus rear view

H Camera mount (interchangeable bayonet)

I Locking knob rise and fall movement

J Locking knob shift movement

K Focus adjustment knob

L Locking knob fast focus adjustment

M Rear bellows frame

N Unlock lever camera orientation

O Swing adjustment knob

P Tilt adjustment knob

Q Rise and fall adjustment knob

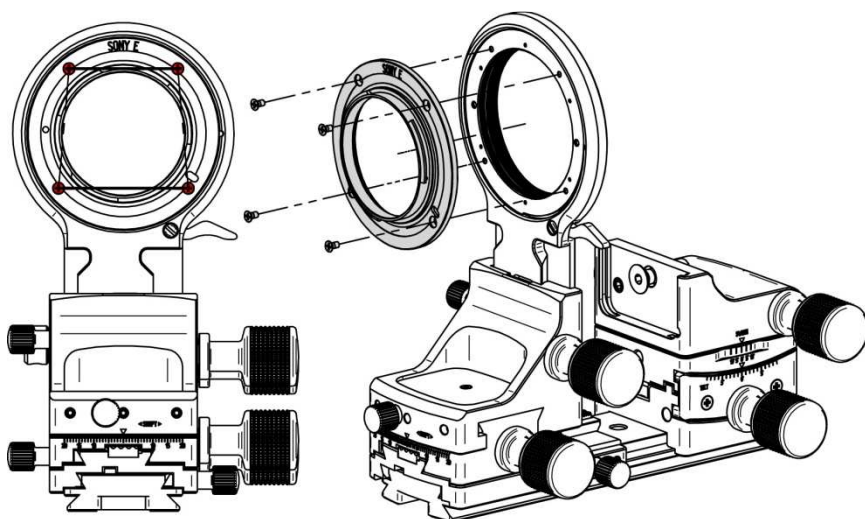


Figure 3: Camera mount (bayonet) installation

Camera mount installation

The camera (bayonet) mount, fits only one way as indicated in the image above. 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 ⁵	Camera model
Sony E	α7(R/S), α6000, α5000, NEX-3, NEX-5, NEX-6, NEX-7
Fujifilm X	X-T1, X-Pro1, X-E2, X-E1, X-M1, X-A1
Panasonic MFT	GM1, GX7, GX1, GF6, GF5
Olympus MFT	E-P5, E-PL6, E-PL5, EPM2
Canon EF	5D II, 5D III, 6D, 7D, 70D, 60D
Nikon F	D810, D800(E), Df, D610, D600, D300(s)

⁴ When the ring is in portrait orientation the pattern is turned 90° counter-clockwise

⁵ Available Actus camera mounts (July 2014)

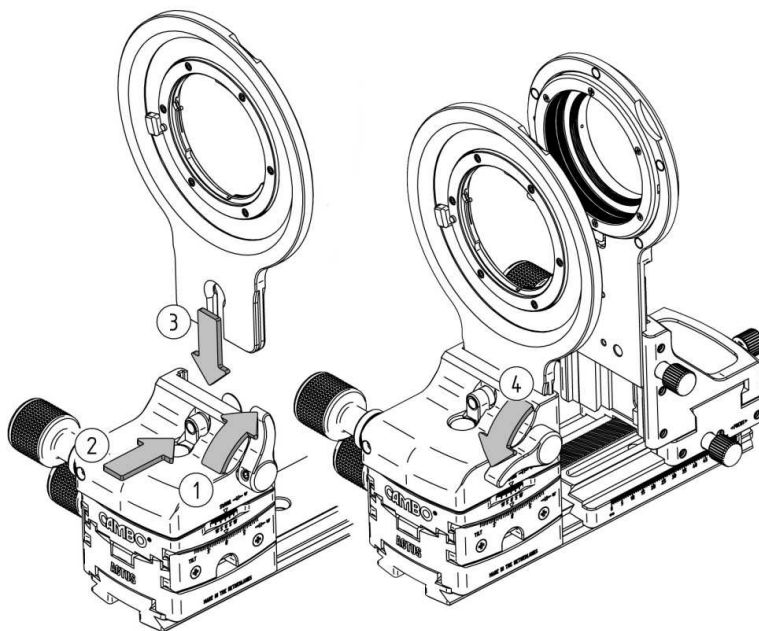


Figure 4: Mounting the lenspanel

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

Lens-plate	Camera type compatible	
	Mirrorless	Mirror reflex
Copal #0/ NK-0 mount*	•	•
M39 (Leica thread)	•	•
Hasselblad CF	•	•
Mamiya RZ/RB	•	•
Mamiya 645 Pro	•	
Leica R	•	
Nikon F	•	

**) Please note: the lens compatibility is focal length dependant*

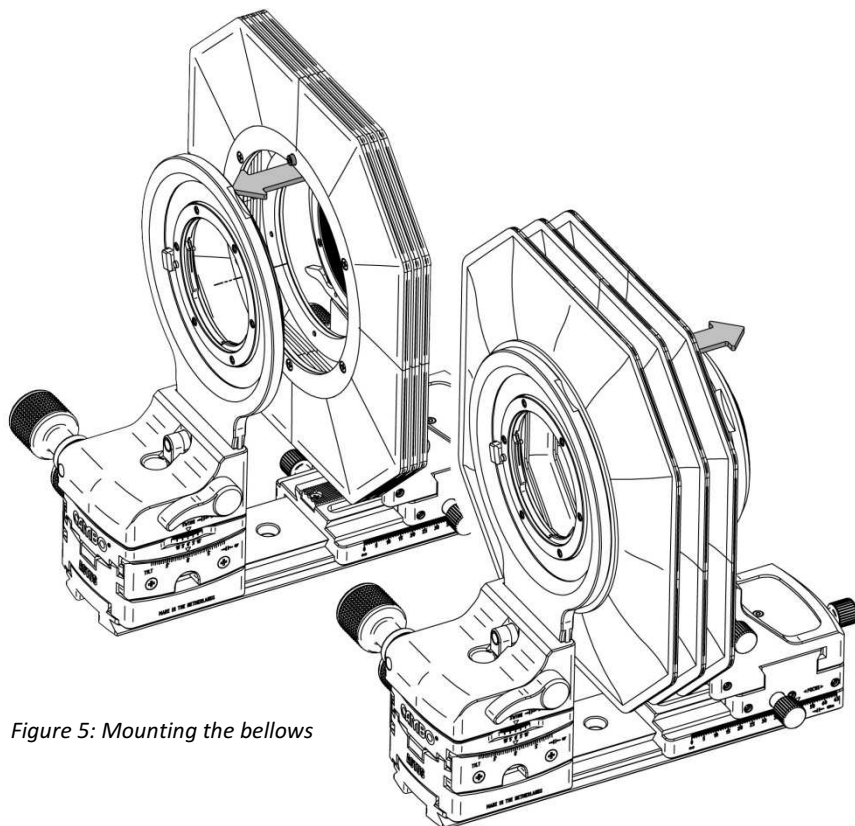


Figure 5: Mounting the bellows

Mounting the bellows

The bellows front-end (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 ring of the rear standard until it snaps into place.

Please note; with first use the bellows could behave stiff, overtime because of 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 moisturised to retain the smooth behaviour.

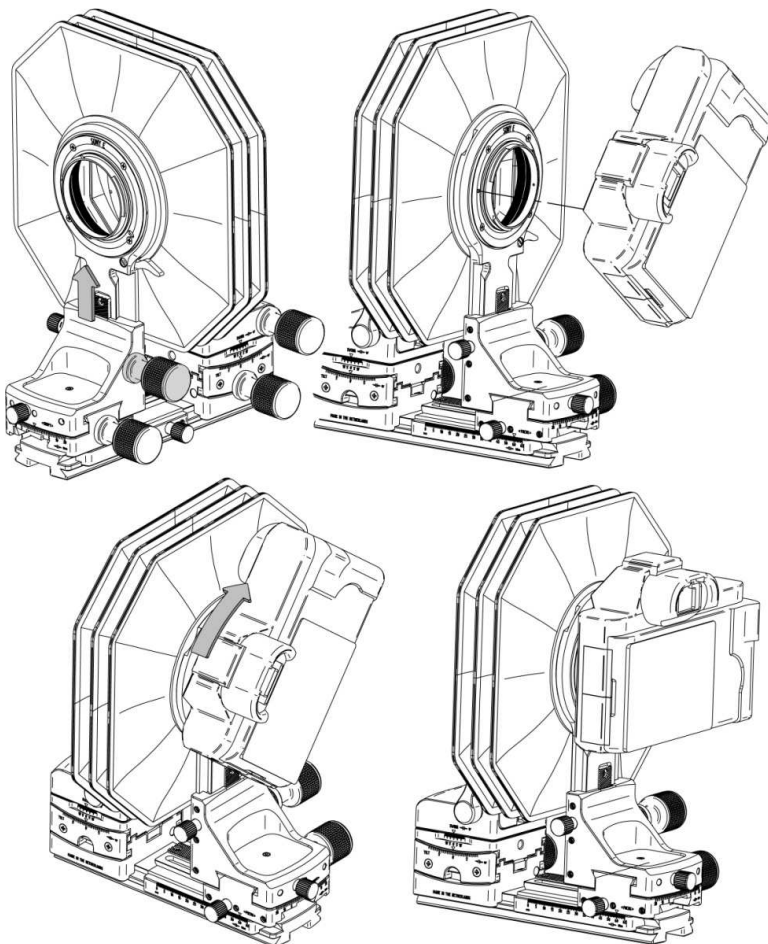


Figure 6: Mounting the camera (clockwise turning camera mount)

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

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 (N) and turn the bayonet (H) 90 degrees counter-clockwise, the ring will snap into place.

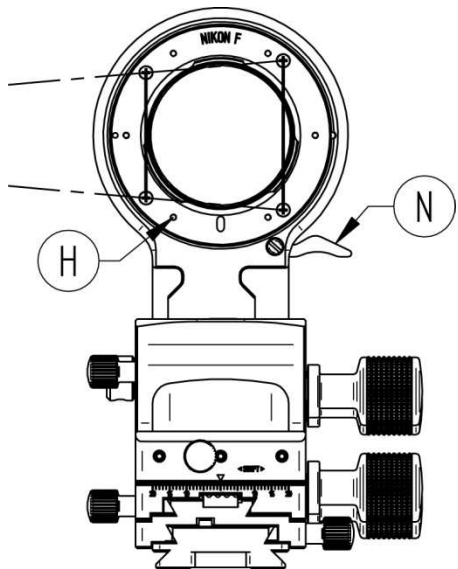


Figure 7: Mounting the camera counter-clockwise turning camera mount

Counter-clockwise 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

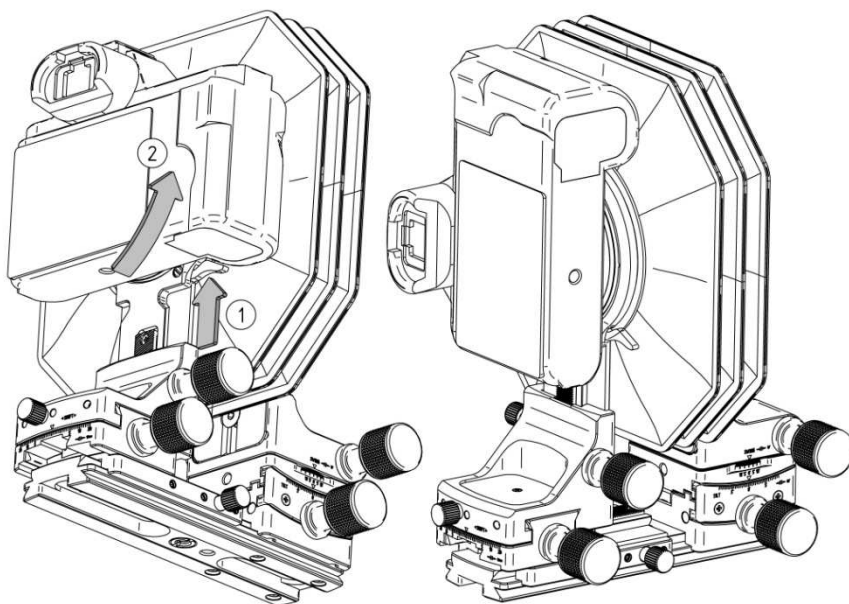


Figure 8: Changing the camera orientation form landscape to portrait

Change the orientation of the camera;

⚠ Before changing the camera orientation form 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 (N, figure 7 page 10).
2. Turn the camera counter-clockwise, the lever can be released. The ring will snap into place at the portrait (or landscape) setting.

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. The focus, swing, tilt and vertical shift are driven by precision geared knobs. The horizontal shift and fast focus is position manually.

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

Setting the infinity hard-stop

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

- Mount the desired lenspanel and lens, bellows and camera
- Set the fine focus to the infinity mark at the focus scale
- Unlock the fast focus slider (knob L, figure 2)
- Frame a (horizon) view point that is clearly an infinity point
- Slide the fast focus slider until the infinity point is in focus
- Lock the fast focus slider (knob L, figure 2)
- Now the fine focus slider for this particular lens is set to infinity corresponding the hard-stop and the infinity mark

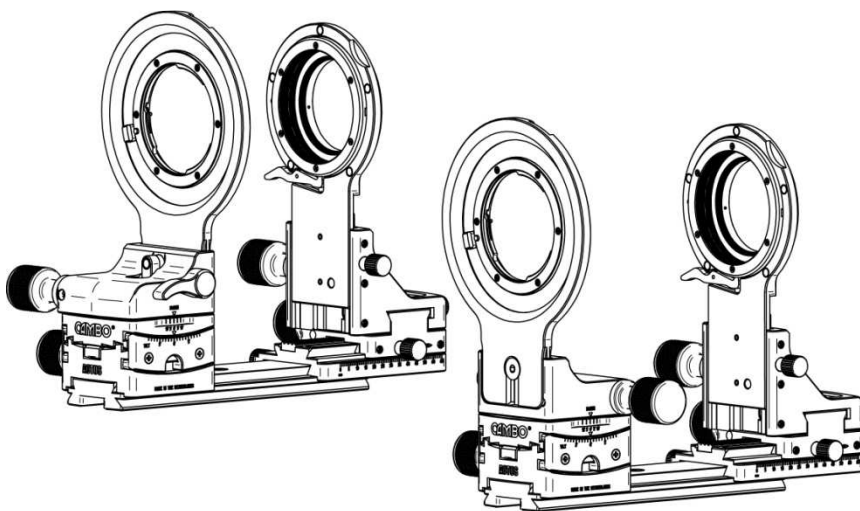


Figure 9: Rotating the swing element and lenspanel 180 degrees

Extend the focus rail (+45mm);

You can extend⁶ the focus range by rotating the swing housing 180 degrees. To complete the setup, dismount the lenspanel, turn it 180 degrees and remount it.

⁶ Not compatible with the wide-angle bellows or short focal length lenses

Additional lensplate, bayonet and bellows parts

Please note that more lens and camera types will be introduced, this list is an overview of the parts available since August 2014

Code:	Name:	Description
99030210	AC-210	Standard bellows (150mm extension)
99030212	AC-212	Wide Angle bellows (40mm extension)
99070710	ACB-0	Lensplate with #0 hole (black finish)
99070713	ACB-39	Lensplate with m39 threading (black finish)
99070714	ACB-LR	Lensplate with Leica-R bayonet (black finish)
99070715	ACB-HA	Lensplate with Hasselblad bayonet (black finish)
99070716	ACB-RZ	Lensplate with Mamiya RB-RZ bayonet (black finish)
99070717	ACB-NF	Lensplate with Nikon F-lens bayonet (black finish)
99070730	ACT-0	Lensplate with #0 hole (titanium finish)
99070733	ACT-39	Lensplate with m39 threading (titanium finish)
99070734	ACT-LR	Lensplate with Leica-R bayonet (titanium finish)
99070735	ACT-HA	Lensplate with Hasselblad bayonet (titanium finish)
99070736	ACT-RZ	Lensplate with Mamiya RB-RZ bayonet (titanium finish)
99070737	ACT-NF	Lensplate with Nikon F-lens bayonet (titanium finish)
99100310	ACB-310	Rear Standard suitable for 32HR/35HR/40HR/35XL/43XL (non-rotating bayonet mount) / (black finish)
99100311	ACT-311	Rear Standard suitable for 32HR/35HR/40HR/35XL/43XL (non-rotating bayonet mount) / (titanium finish)
99100780	AC-780	Bayonet Kit for Canon Eos body
99100783	AC-783	Bayonet Kit for Nikon F-mount body
99100786	AC-786	Bayonet Kit for Sony E-mount body
99100788	AC-788	Bayonet Kit for Micro Four-Third body
99100790	AC-790	Bayonet Kit for Fujifilm X-mount body

Cambo Fotografische Industrie B.V.

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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