

Information

For more information, advice and tips concerning our products contact your photo dealer, the distributor of NOVOFLEX products in your country (have a look at the "Where to buy" section at our website to find your distributor) or visit our website www.novoflex.com

For personal advice about possible accessories which is suitable for your NOVOFLEX product please contact the following phone number or send us an E-mail.

NOVOFLEX Phone: +49 8331 88888

NOVOFLEX E-Mail: mail@novoflex.com

Double Gimbal FALCON

USER MANUAL

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© Novoflex Präzisionstechnik GmbH
Brahmsstraße 7
D-87700 Memmingen
Phone +49 8331 88888, Fax +49 8331 47174
Email mail@novoflex.com, Internet www.novoflex.com

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NOVOFLEX

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Nomenclature

1	Friction control for horizontal rotation “Friction”
2	Rotary knob/transport lock - horizontal rotation “Block”
3	Rotary knob/transport lock - vertical rotation
4	Rotary knob for friction control or clamping the vertical rotation (2x)
5	Swing arm with dovetail guide and height scale (2x)
6	Locking lever for height of Extension arm and folding mechanism (2x)
7	Quick release unit for Q=Plate (ARCA Swiss-UniQ/C compatible, 2x)
8	Locking screw of the quick release unit (2x)
9	Extension arm (can be folded, 2x)
10	Angle fixing and retaining screw for quick release unit (2x)
11	Locking screw for horizontal rotation “Lock”
12	Bubble for leveling



Applicable clamping plates of type Q=PLATE



Clamping plate QPL-PANORAMA with lateral scale for reproducible positioning of the equipment on the FALCON. The removable stop end can be used to prevent twisting of the lens on the plate.

Technical data FALCON

Height	195 mm (7.68")
Depth	100 mm (3.94")
Width (with unfolded extension arms)	350 mm (13.8")
Width (with folded extension arms)	150 mm (5.91")
Height adjustment of the extension arms	100 mm (3.94")
Weight: (complete)	2,4 kg (5.3 lbs)
Weight: (with disassembled arms)	1,7 kg (3.8 lbs)

Recommended accessories

Clamps

To mount the camera equipment on the FALCON double gimbal head, a large number of Q-PLATE clamping plates can be used. These are available in different sizes, with different thread screws and with and without anti-twist pins.

To balance the equipment on the FALCON, however, we recommend a relatively long clamping plate such as the NOVOFLEX QPL3, QPL4 or QPL-PANORAMA below the tripod collar of your telephoto lens. Details can be found on our website www.novoflex.com.

Tripod and leveling unit

Please use a sufficiently stable tripod, which is able to carry the weight of the complete equipment. Recommendation: NOVOFLEX TrioPod PRO 75 with the leveling unit MBAL-PRO75. The carrying capacity here is 65 kg (143 lbs).

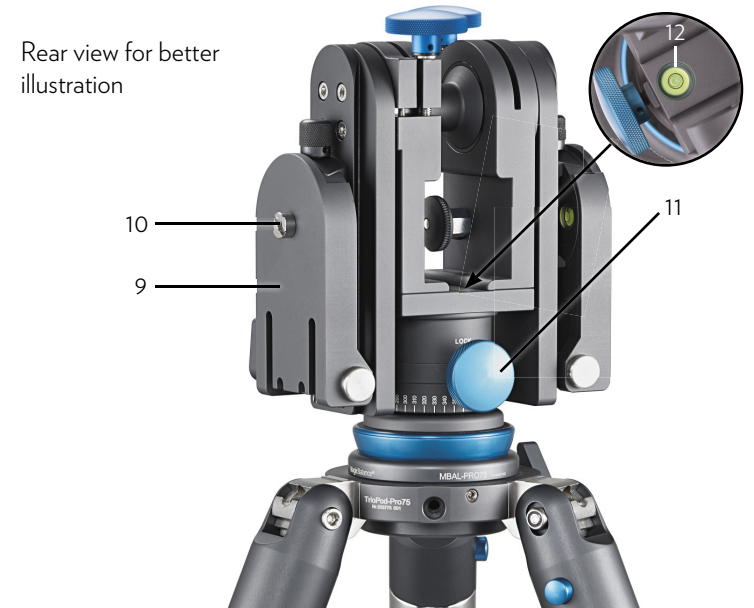


MBAL-PRO75

TrioPod PRO 75



Tripod not included. Recommendation: NOVOFLEX TrioPod PRO 75 with leveling ball MBAL-PRO75



Rear view for better illustration

Congratulations on your purchase of the double gimbal head FALCON. Even if the operation is very simple, we want to give you some tips on how to use your FALCON right from the beginning.

Product description

The modular double gimbal head FALCON allows the simultaneous use of two cameras with different focal lengths. Thus, for example, from the same perspective, parallel and simultaneous pictures with a telephoto and wide-angle lens can be taken. An effect that is desired, among others, in nature and wildlife photography. The same applies to the combination of motion and still image. For example, you can start a video recording from a still image, or you can end a video recording in a still image. The two camera platforms are also independently height-adjustable, enabling interesting possibilities for perspective effect and image design.

Both extension arms (9) use the well-known NOVOFLEX Q=MOUNT (7) quick release units with integral safety pins to prevent unintentional slipping out of the clamping plates. Both quick release units accept ARCA-UniQ / C-compatible clamping plates, can be rotated +/- 10° horizontally and can be removed completely from the extension arm with 4 allen bolts as required, so that they can be mounted directly in the upper axis. This type of mounting allows a direct coupling of long focal length lenses with the help of their rotatable tripod collars in the upper horizontal axis. This eliminates not only 700g weight by the removal of the two arms but also allows a very direct rotation of the mounted equipment compared to the relatively large and precise way when pivoting in the side arms (gimbal set-up).

To reduce the packed size for transport, both extension arms can be folded. In addition, the rotary and tilt modules are lockable (2 and 3), which facilitates the assembly of the FALCON on a tripod and is also very helpful for safe changing of the equipment or when the FALCON is being transported. In addition, the horizontal and vertical rotations each have a friction adjustment option „pre-brake“ (1 and 4). A built-in spirit level (12) allows a quick and accurate alignment on the tripod.

Safety instructions

Read these safety instructions carefully before putting the device into operation. Observe warnings and notes in this manual. If you sell or distribute this product, be sure to hand over this manual as well.

When operating the double gimbal head, be aware that there is a risk of pinching during operation. When panning, keep both hands on the camera(s) and do not grasp into the middle segment, for example, to adjust the friction. These settings should be made before panning.

Be sure to use the horizontal (2) and vertical (3) locking during transport and separate the camera equipment from the extension arms using the two quick release units.

When mounting or dismounting the FALCON on a device underneath e.g. a tripod or leveling unit, be sure to use the transport lock, that blocks the horizontal rotation (2). Otherwise, there is a risk, that the double gimbal will not be connected firmly enough to the device below it. Dismounting is difficult without locking.

Symmetrical structure: Controls on the right side are identical to those on the left side.



The FALCON in action

In the following we assume that you have preset the double gimbal head for your equipment(s) as already described or know the optimal positions.

Transport

For transport use the previously mentioned locks for horizontal (2) and vertical (3) rotation. On the way to the scene we strongly recommend disconnecting the FALCON from the camera equipment with the quick release units. This results in several parts:

- Tripod (e.g. NOVOFLEX TrioPod PRO 75) with leveling unit (e.g. MBAL-PRO75) and pre-set FALCON.
- Telephoto lens with tripod collar and preassembled clamping plate (e.g. QPL4) and camera, once or twice.



Set up

Make sure the tripod is secure on the ground. With the help of the spirit level (12) and a leveling device mounted under the FALCON you can move the head to a horizontal leveled position.

On-site installation

When mounting any equipment on the FALCON using the clamping plates, make sure that both jaws of the quick-release unit (7) engage into the profile of the respective plate. Insert the clamping plates at the previously determined positions (forward and backward). To do this, open and tighten the locking screws (8) and adjust the height (if necessary) with the levers (6). Then check the secure hold of the equipment on the quick release units.

Now release the locks (2) and (3) as already described.

Taking photos

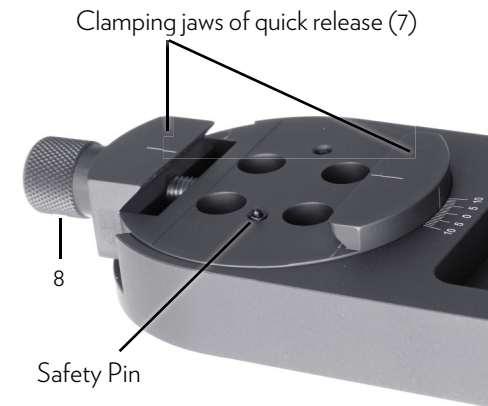
The FALCON is now ready for use. The pre-brakes (friction) can be adjusted with the rotary knob (1) for the horizontal rotation and with one of the two upper rotary knobs (4) for the vertical rotation. Use the other knob (4) to fix the vertical rotation. Which knob you use for which function does not matter. Fix the horizontal position with the large blue knob (11) labeled "Lock". The current angular position can be read on the lower scale.

We wish you lots of success and great shots when using your double gimbal head FALCON!

To mount the camera equipment on the quick release units (7) with the help of clamping plates (optional accessories), you have to tighten the locking screw (8). Always make sure that both clamping jaws of the quick release unit (7) engage in the profile of the camera plate to prevent slipping out of the equipment.

Both quick release units (7) have a safety pin, which prevents the NOVOFLEX clamping plate from slipping away in both directions when the locking screw (8) isn't completely tightened. ARCA Swiss-UniQ / C compatible third-party plates can be used, but do not have this feature.

With equipment installed, never open one of the clamping screws (8) while other screws or levers are open.

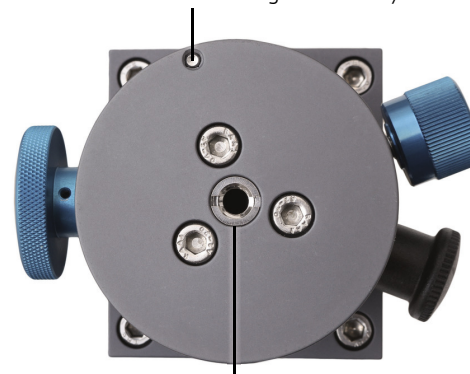


Mounting on a tripod or leveling unit

Please use a sufficiently stable tripod, which is able to carry the weight of the complete equipment. Ideal is the NOVOFLEX TrioPod PRO 75 with the leveling ball MBAL-PRO75. The carrying capacity here is 65 kg (143 lbs). Pay attention to a stable and secure stand.

On the bottom of the FALCON sits a 3/8"-16 thread with 1/4"-20 reducer bushing. This allows the double gimbal head to be mounted on almost any tripod or leveling unit. As already mentioned, be sure to use the lock for horizontal (2) rotation during assembly. In order to secure the head against twisting while operating, it can be additionally fixed from above by means of a grub screw.

View from below: Grub screw as anti-twisting lock, to be screwed from above using an allen key.



3/8" threaded hole with 1/4" adapter

Handling of the controls

Rotary knob for locking the horizontal rotation “Block” (2)

The black rotary knob (2) is spring-loaded and can be pulled out. There is a white dot on its sleeve (Fig. 1). In the locked state, this mark is exactly at the 12 o’ clock position and the sleeve touches the housing.

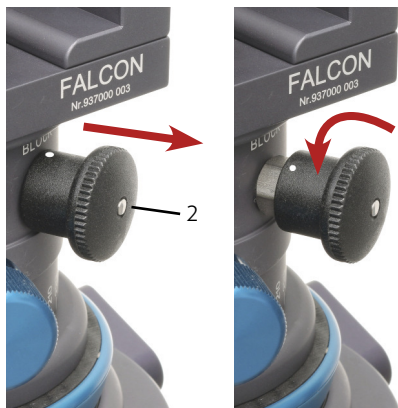


Fig. 1: locked

Fig. 2: unlocked

To release the lock, pull out the knob and turn it about 15° to the right or left (Fig. 2). The knob will stay in this position and the horizontal rotation is unlocked. You can now freely pan the head.

To lock it again, pull on the knob, turn the marking back to the top and let go. Now turn the complete double gimbal head horizontally until the rotary knob snaps back on its own: the horizontal rotation is now locked.

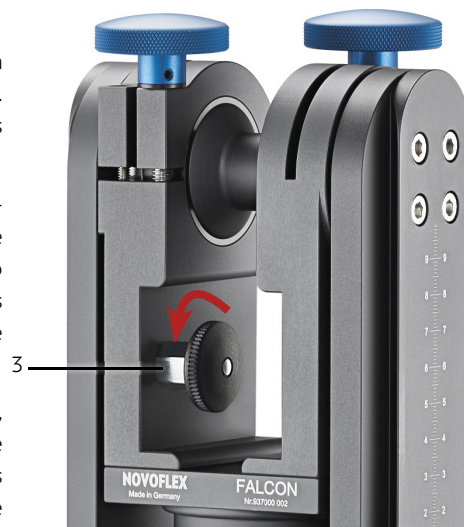
Rotary knob for locking the vertical rotation (3)

The rotary knob on the inside of the housing works in the same way as the knob for the horizontal locking described above. It engages on the other side of the housing wall in a channel on the extension arm.

To release the lock, pull out the knob and turn it about 15° to the right or left (pictured right). After letting go of the knob, it remains in this position

To lock the vertical rotation, move the extension arms to a position parallel to the middle segment (pictured right), then pull the knob (3), turn it up and release it as soon as it clicks into place. Then check the effectiveness of the lock.

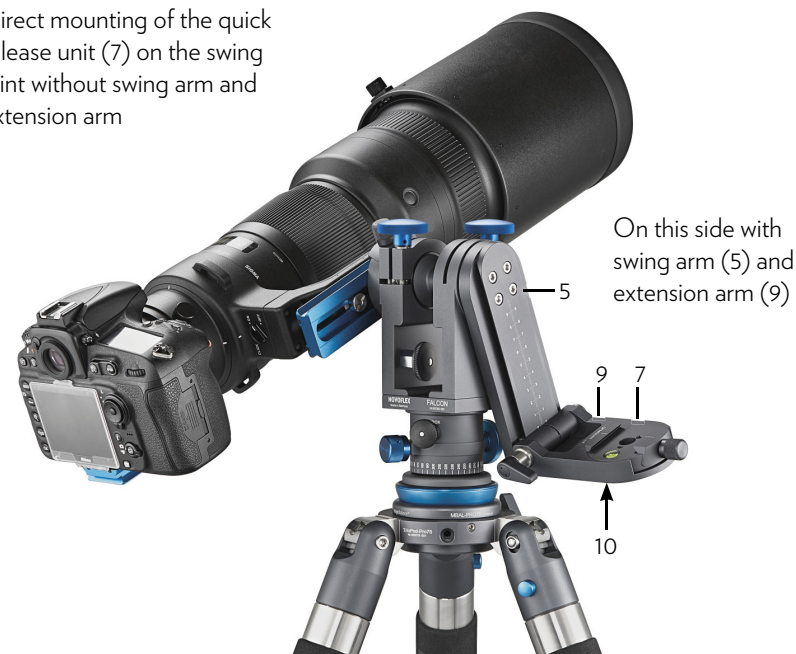
Since single extension arms can be dismantled, the rotary knob can also be mounted on the opposite side with the help of a wrench. In this case, mount the locking mechanism on the side where an extension arm is located.



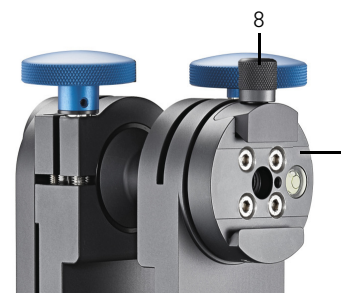
Direct mounting of the quick release unit (7) on the swing joint without swing arm (5) and extension arm (9)

This type of mounting allows for a direct coupling of long focal length lenses with the help of their rotatable tripod collars in the upper horizontal axis. This saves about 700 g in weight by eliminating the extension- and swing arms. Balance the equipment by sliding the plate forward or backward. After releasing the equipment it remains in its current position, since the axis of rotation and the center of gravity are usually at the same height. Note that an adjustment of the yaw angle is not possible. Ideal if you work with very different focal lengths or just one piece of equipment.

Direct mounting of the quick release unit (7) on the swing joint without swing arm and extension arm



On this side with swing arm (5) and extension arm (9)



To detach the swing arms, unscrew the 4 hex bolts that connect the swing arm (5) to the upper hinge using an allen wrench and carefully remove the unit swing arm with extension arm. Disassemble the quick release unit (7) of the detached arm by unscrewing the angle fixing and retaining screw (10). Remove the quick release unit (7) from its holder and mount it at the top of the hinge with the four hexagon screws. The locking screw (8) of the quick release unit (7) can point up- or downward.

Mounting with the locking screw upwards facilitates access, mounting downwards is safer and prevents accidental opening.

Restoring the original state is done in reverse order.

Depending on the task, it may also make sense to mount the equipment so that it returns to the horizontal position when released. Select a low extension arm height so that the center of gravity of the equipment is below the pivot axis. Then you only balance the equipment by moving it forward or backward.

When you have found the optimum position, note the value of the height scale (5) and mark the set position on the clamping plate, e.g. with a waterproof pen. The quick release unit (7) has an engraved marking line for this purpose. It is also very helpful to use a clamping plate with a lateral scale, such as the QPL-PANORAMA.

Setting the yaw angle around the vertical axis of the quick release units

Equip the FALCON with your camera equipment on both sides and balance them as described above. Select a subject that is at the same distance as the subject you plan to shoot later. Aim with the longer focal length of both equipments at the test subject and fix the horizontal rotation with the blue locking screw (11) labeled "Lock". Now look through the viewfinder of the other equipment with the shorter focal length and also aim at the test subject by changing the angle of the quick release unit (7) underneath. To do this, slightly open the angle fixing screw (10) with an allen wrench, adjust the angle and tighten the screw (10) again. The angle set in this way can be read off the unit using the angle scale, see picture below.



Tip: If you need larger yaw angles, work additionally with a pre-set angle on the quick release unit of the longer focal length equipment.

Friction control (1) and blocking of horizontal rotation (11)

By means of the blue friction control knob (1) with the inscription "Friction", the FALCON can be pre-braked, this means you can adjust the force needed for the rotation.

To fix the current position use the blue screw (11) marked "Lock" on the opposite side. When panning this locking screw should be open.



Friction control and blocking of vertical rotation (4)

The two rotary knobs (4) located in the upper part of the middle segment are used for pre-braking (friction control) and locking of the vertical rotation. Either knob can be used for either function.



To adjust the vertical pre-brake, first open the knob (4) that you want to use for locking.

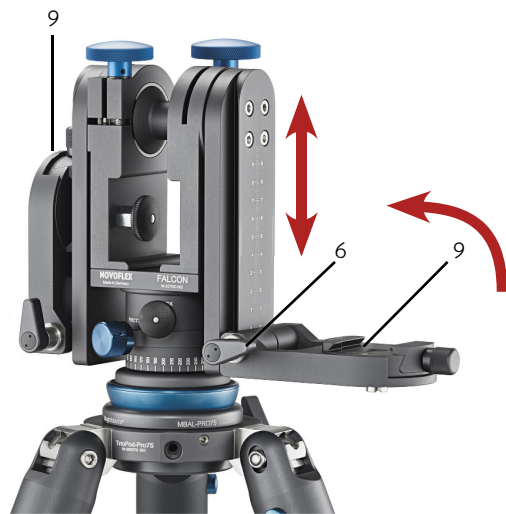
Carefully tilt your equipment and tighten the other knob (4) more or less firmly until the movement meets your expectations.

Insert extension arm, fold in or move up

The extension arms (9) can be inserted from above by means of the dovetail guides on the swing arms, which contains the corresponding quick release units. Two stop screws each limit the path of the extension arms down. These should not be unscrewed for safety reasons.

Each extension arm can be folded for transport to the middle segment to reduce the packing dimensions. To do this, open the locking lever (6), fold the extension arm to the middle segment and tighten the lever again.

When the lever (6) is open, the extension arm can also be moved to any height on the swing arm and locked by tightening the lever. The height in relation to the lower stop is displayed on the scale of the swing arm, and can thus be easily noted and reproduced.



Mounting the equipment

In order to balance your equipment on the FALCON, you will need a relatively long clamping plate such as the NOVOFLEX QPL3, QPL4 or QPL-PANORAMA below the tripod collar of your telephoto lens. Open the locking screw (8) of the quick release unit and insert the clamping plate with the equipment mounted above it into the quick release unit in compliance with the safety instructions (see page 4). Then tighten the locking screw (8) again and check the secure hold of the equipment on the FALCON.



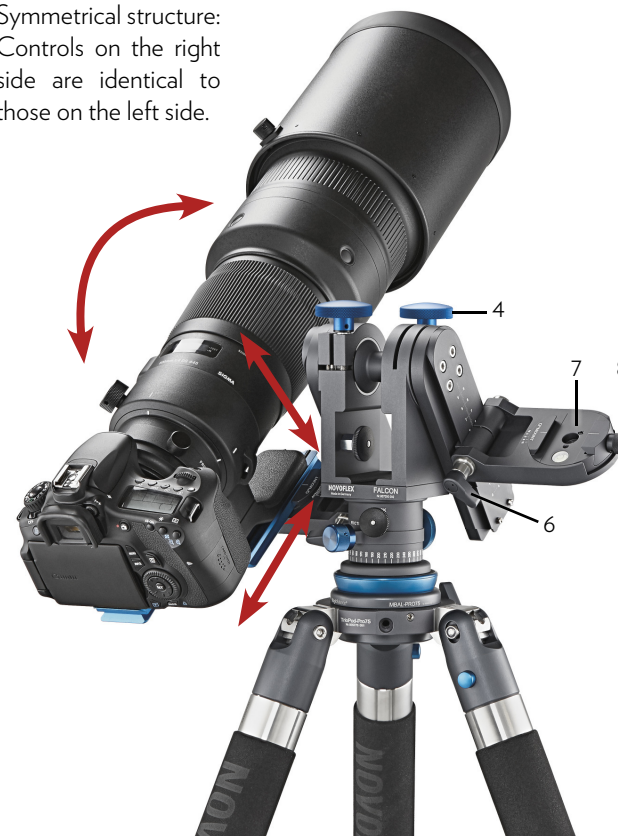
Balancing the equipment

Balancing means that the equipment remains in its current position when taking your hands away. For this, the center of gravity must be mounted exactly in the axis of rotation of the double gimbal head. Adjustment is done by trial and error with the complete equipment, moving it forwards, backwards and upwards.

The right and left equipment of the double gimbal head should be balanced independently, so that operation with only one piece of equipment is possible later.

When balancing, make sure that all attachments you need later, such as the lens hood, battery grip, flash, etc., are mounted for this test. Have a second person assist you in securing the equipment against sudden tilting or slipping out, if the clamping screw (8) was accidentally not tightened.

Symmetrical structure:
Controls on the right side are identical to those on the left side.



First tighten the rotary knob (4) to lock the vertical rotation.

After assembling the equipment and setting the estimated position of the clamping plate on the quick release unit (7) and the height of the extension arm with lever (6), carefully open the rotary knob (4) to check in which direction the system wants to tilt. Secure the equipment with your free hand.

If necessary, correct the set values by moving the equipment in the opposite direction. Repeat the process until the equipment remains in the current position when taking your hands away, regardless of the tilt angle.

Attention: If the extension arm is set too high, the equipment may tilt forward or backward unexpectedly, or too quickly when tilted vertically. Avoid repeating this. In this case, choose a lower position of the extension arm!