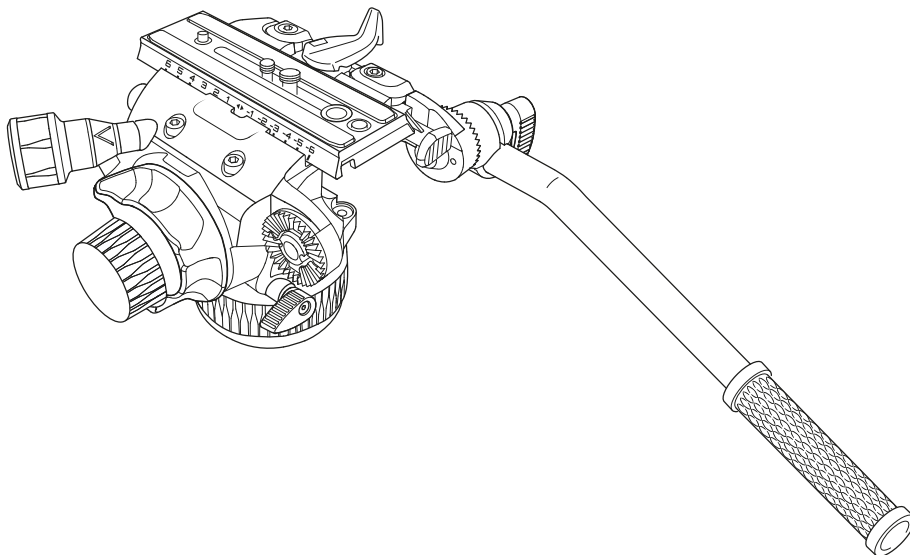




Manfrotto

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INSTRUCTIONS

MVH608AH



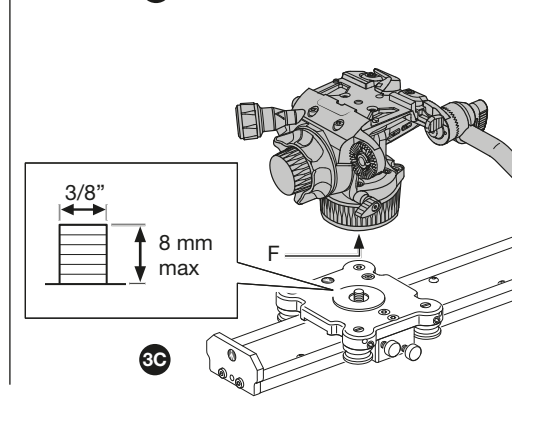
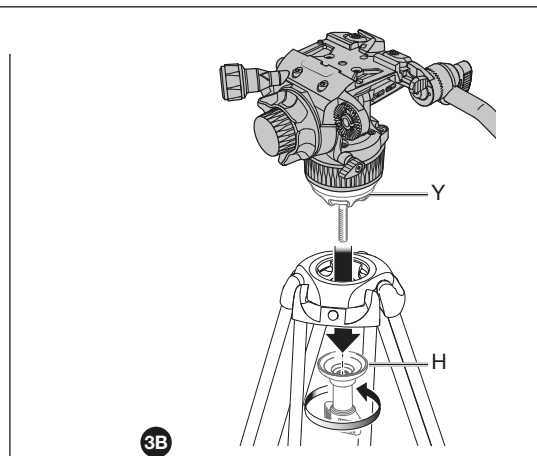
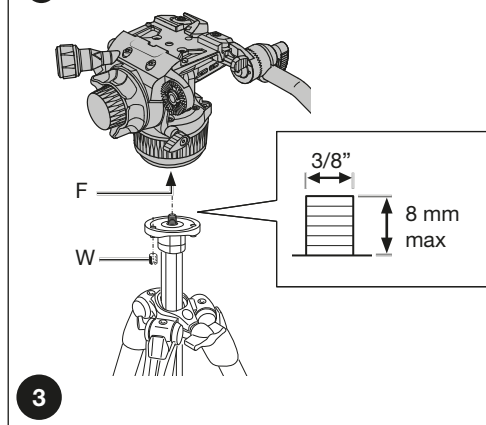
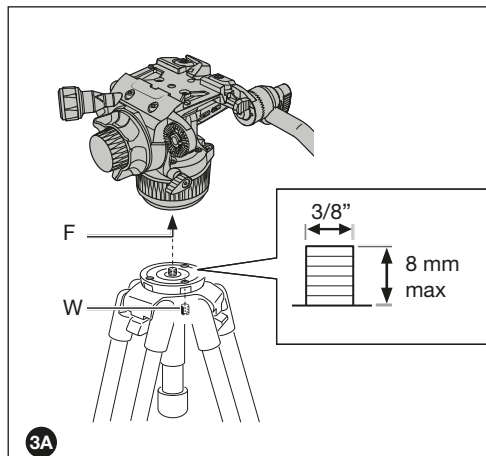
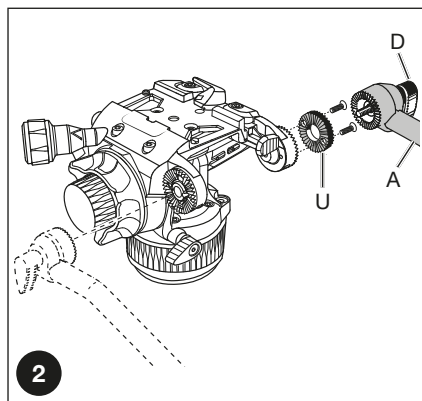
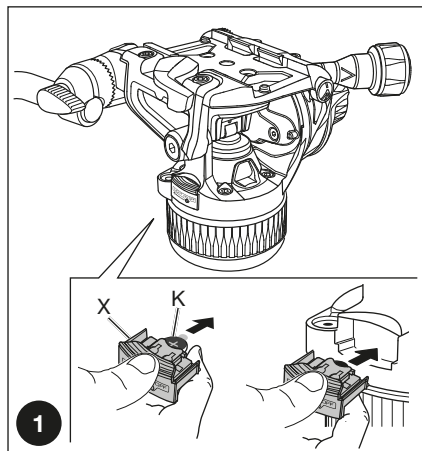
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5.9"

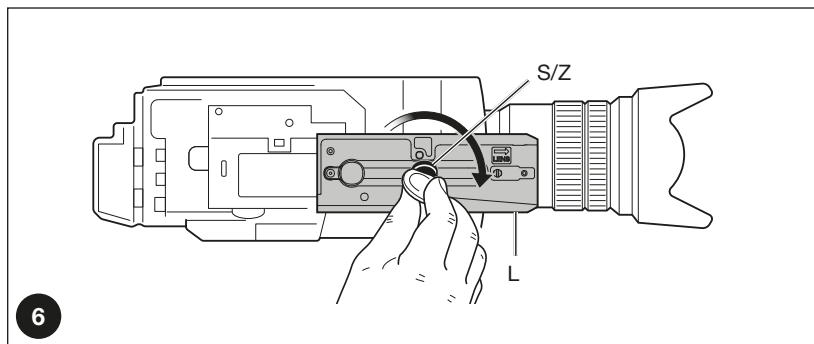
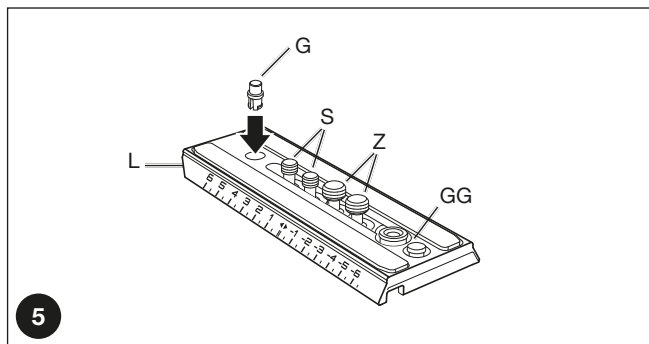
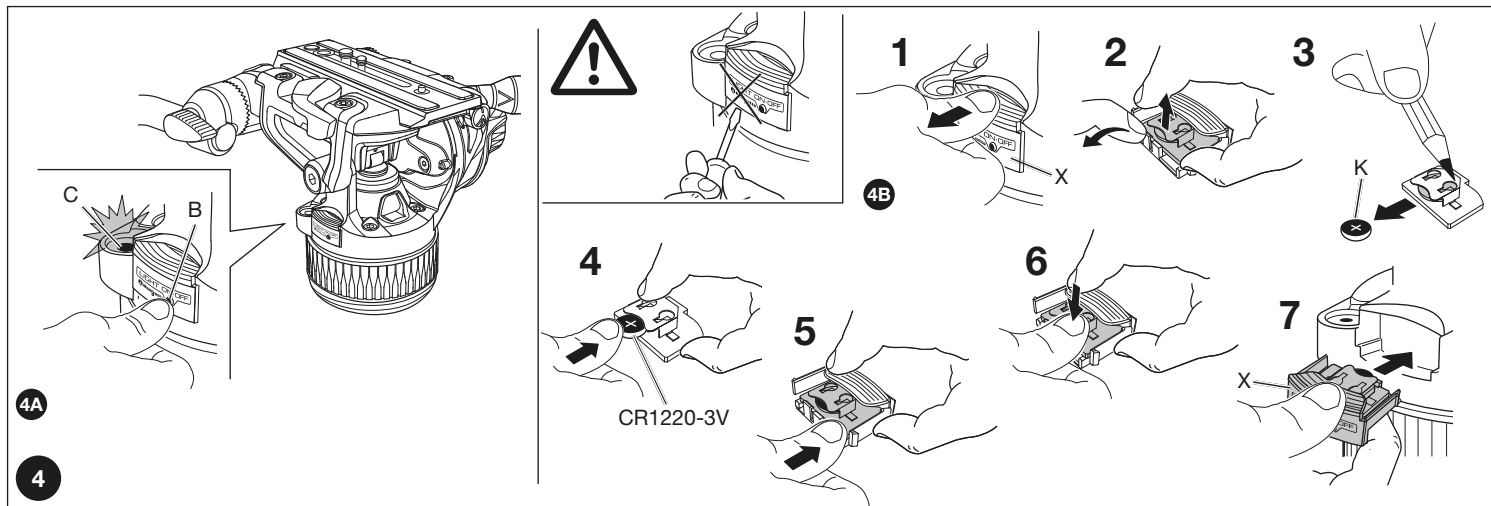


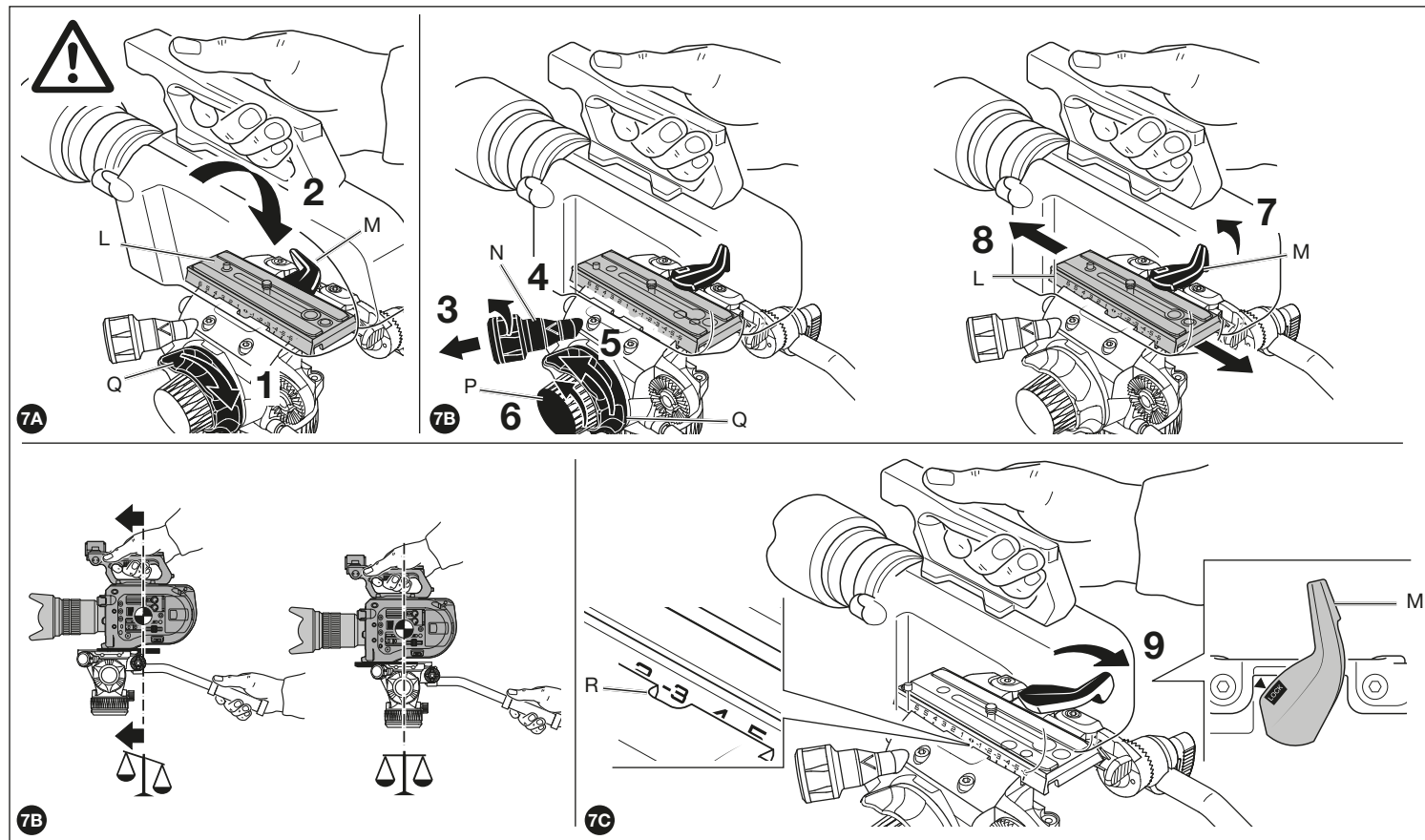
2,22 kg
4.9 lbs

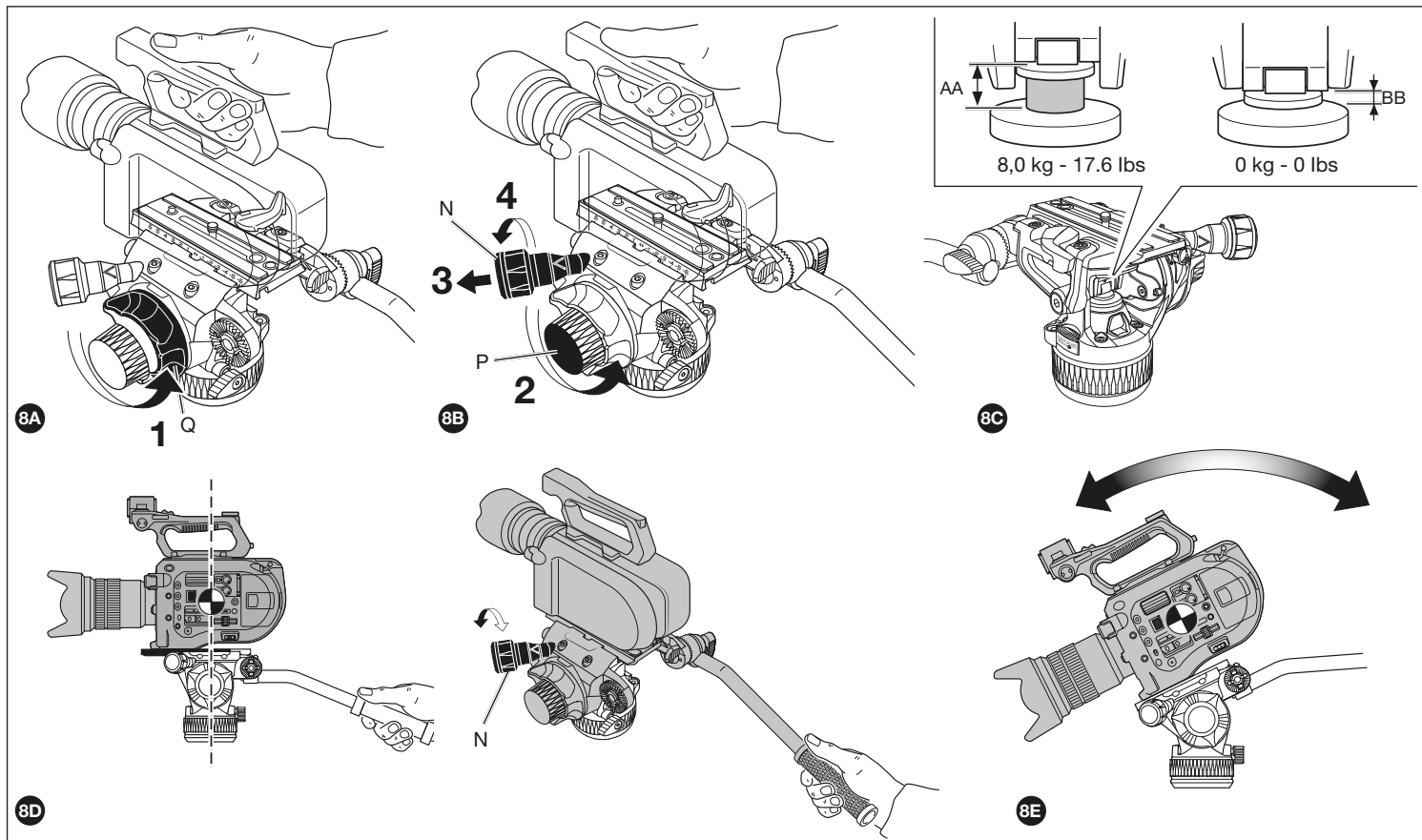


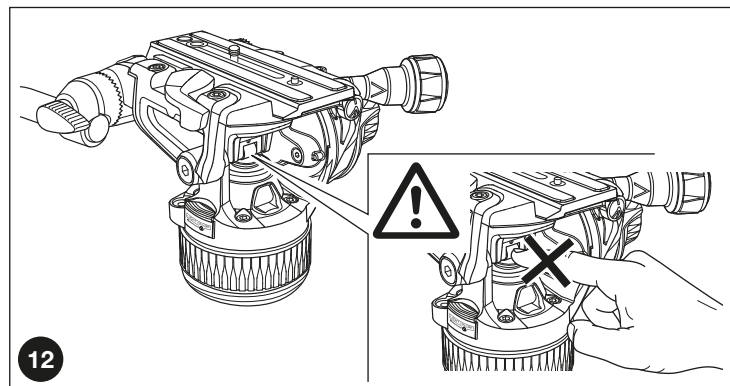
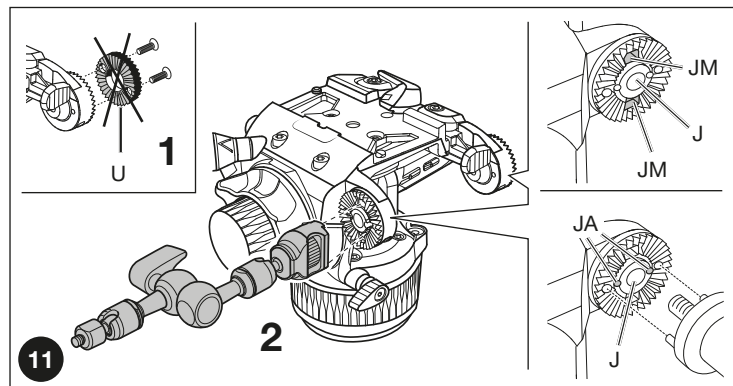
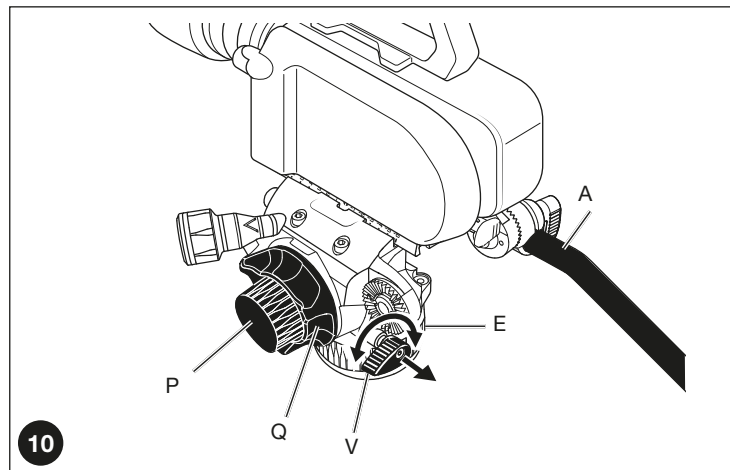
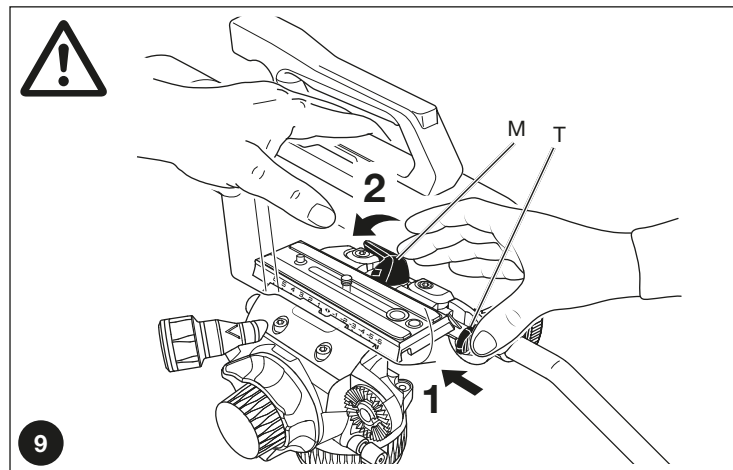
8 kg
17.6 lbs











INDEX

GB		pag. 8 - 10
I		pag. 11 - 13
D		pag. 14 - 16
F		pag. 17 - 19
E		pag. 20 - 22
CN		pag. 23 - 25
KO		pag. 26 - 28
J		pag. 29 - 31
RU		pag. 32 - 34
KOREA CERTIFICATION		pag. 35
EU DECLARATION OF CONFORMITY		pag. 35

INTRODUCTION

Designed for ENG video cameras and interchangeable lens camcorders or DSLRs up to 8 kg (17.6 lbs). Declared at 20°C and 55mm C.o.g.

For any uses other than those intended, in order for proper performance and safety of use to be guaranteed, please contact your reseller or the manufacturer directly via the Contact us section on manfrotto.com.

The product is intended for professional use.

KEY FEATURES

- Quick release sliding plate for balancing the camcorder
- 2 x 1/4" camera screws "S" and 2 x 3/8" camera screws "Z" for all camera types
- 3/8" female tripod attachment or for fixing the half ball adapter
- PAN and TILT drag adjustment
- Pan bar can be fitted either side
- Spirit level (with backlight) for accurate levelling
- Incredibly precise, continuous counterbalance system

TEMPERATURE RANGE

Working Temperatures between -20°C and +50°C.

Storage Temperatures between -20°C and +60°C.

SET UP 1 & 2

Mounting the battery holder (fig. 1)

The head is equipped with a battery holder "X" and included battery "K" (for the spirit level), sold unmounted from the head.

Remove the film from the battery. Mount the "battery holder" on the head by simply pushing it into place onto the head.

Mounting the control lever (fig. 2)

The head is supplied complete with control lever "A" and serrated rosette "U". Neither are assembled on the product.

Once you have chosen the side on which you intend to use control lever "A", first secure the rosette "U" using the screws included in the packaging, then secure the control lever onto the serrated rosette by tightening handle "D".

The rosette "U" is serrated to allow rotation and positioning of the control lever at 10° intervals, avoiding accidental displacement.



Ensure that knob "D" is firmly closed and that there is no play between rosette "U" and the sleeve of drive bar "A" so that continuity of movement is not compromised during shooting.

MOUNTING THE HEAD 3

3A - Mount the head onto the photo/video tripod using 3/8" female thread "F".

The top plate on Manfrotto tripods are equipped with screw/s "W" which clamp against the base of the head to ensure effective and secure locking.

3B - Mounting the head on tripods with a 75mm diameter bowl:

- mount the half ball "Y" (optional) onto the head
- place the head into the tripod bowl so the male thread comes out below the bowl
- screw grip "H" (optional) onto the male thread until it is resting up against the bowl.

3C - Assemble the head on the slider using 3/8" female thread "F".



Do not use screws that can enter into the base of the head more than 8 millimetres, as this may compromise the counterbalance system's performance or, in the worst cases, the product's safety.

LEVELLING BUBBLE 4

Spirit level "C" (fig. 4A) has a backlight that can be lit by pressing button "B":

- press button "B" for 1 second to light the spirit level for 10 seconds
 - press button "B" for more than 1 second to light the spirit level for 60 seconds
- NOTE: the light turns off automatically after 10 or 60 seconds. To switch it off manually, press button "B" again.

The light also has an LED battery indicator: the red LED battery symbol next to button "B" will light when the battery level drops.

To change the battery (fig. 4B):

- remove the battery holder "X" (with two fingers)
 - remove the electronic card + battery from their support: to do this, pull back the rear catch slightly while lifting the battery gently and removing it from its holder.
 - insert the card + new battery (CR1220-3V) into the holder, slide it forward by pressing on the right side of the card (as shown in the figure)
 - push the card + new battery downwards so that the catch locks it into place
 - insert the battery holder + battery into the head
- Avoid rubbing the bubble level: any electrostatic charge the bubble acquires may temporarily compromise its accuracy.

FITTING THE QUICK RELEASE PLATE TO A CAMCORDER 5 & 6

The quick release plate "L" (fig. 5) is supplied with:

- 2 x 1/4" camera screws "S"
- 2 x 3/8" camera screws "Z"
- anti-rotation pins "G" (not mounted)

Check the size of the attachment hole on your camcorder, and select the correct screw "Z" or "S" to fit to the quick release plate (fig. 5).

To remove the screw not used proceed as follow (fig. 5)

- lightly press the rubber cap "GG" with your finger
- remove the screw not used

- reposition the cap to prevent the screw from being lost

If the camcorder also has an anti-rotation hole, insert the anti-rotation pin "G" into the plate as shown in figure 5. Align the camera on the plate "L" ensuring the pin "G" is correctly inserted into the camera before fastening the plate.

Fix the camcorder onto the plate "L" (fig. 6) by tightening screw "Z" or "S" into the threaded hole in the camcorder. You can use a coin to tighten the screw, but WITHOUT APPLYING FORCE.

If the camcorder does not have an anti-rotation hole, align the camcorder lens with the arrow marked "LENS" on the underside of camera plate "L" before tightening fully.

ATTACHING THE CAMCORDER TO THE HEAD 7

Before attaching the camcorder on the head, make sure the tripod is in a stable and secure position and that the legs are locked. Bring the head to 0° as in figure 7A (horizontal plate) and lock the tilt movement by means of the brake "Q". Hold the camcorder and angle it so the plate "L" (fig. 7A) slots into the head, with the long edge furthest from lever "M" dropping in first. Then push down so that the plate drops in fully, and lever "M" clicks shut.



Hold the camera throughout this operation to prevent it from slipping backwards and forwards.

How to find the right balance point for your camcorder:

- level the head on the tripod using the spirit level "C" (fig. 4)

- pull out the counterbalance lever "N" (fig. 7B)
 - turn the counter-balance lever "N" anti-clockwise until it reaches the minimum counterbalance weight, keeping the head in a level position
- To be sure that the head is completely fluidity-free, proceed as follows:
- unlock the tilt brake "Q"
 - turn the tilt drag knob "P" anti-clockwise all the way
 - loosen the lever "M" (fig. 7B) and keep it pressed down as you slide the camcorder until you reach the balance point in which the head remains level under the camcorder load.
 - with the camcorder at the balance point, lock plate "L" in position by locking knob "M" as shown in figure 7C: the arrow must remain inside the LOCK rectangle.
- NOTE: once the correct position has been found, it can be memorized by taking note of plate "L"'s position on the graded scale "R" (fig. 7C).

COUNTERBALANCING THE CAMERA ON THE HEAD ⁸

The head features a nitrogen piston counterbalance system for counterbalancing the weight of your equipment. To set it up correctly, make sure that the piston is positioned in the appropriate payload position. Please proceed as follows:

1. unlock the tilt brake "Q" (fig. 8A)
 2. turn the tilt drag knob "P" anti-clockwise all the way to be sure that the head is completely fluidity-free (fig. 8B)
 3. pull out the counterbalance lever "N" (fig. 8B)
 4. turn counter-balance lever "N" anti-clockwise until it reaches the minimum counterbalance weight
 5. slightly turn counter-balance lever "N" clockwise keeping the head in a level position (fig. 8D)
- With one hand on the pan bar, tilt the camcorder forwards and backwards (fig. 8E):
- If the camera also moves forward when tilting forward, the head has not been properly counterbalanced. To fix this, turn lever "N" clockwise again, keeping the head in a level position to increase piston power.
 - If the camera moves forward into a level position when tilting backwards, the piston is too powerful. To fix this, turn lever "N" anticlockwise again, keeping the head in a level position to decrease piston power.

If the camera stays locked into place for each tilt angle, counterbalance has been correctly set.

N.B. The "N" lever modifies the balanced load. Please note that it is a control system, not a lock. Once the fluid movement's limit switch positions AA (Maximum weight) and BB (Minimum weight) have been reached (see figure 8C), do not force the lever's rotation. Approximately 11 complete rotations of counterbalance lever "N" are required to move from position "BB", equivalent to a counterbalanced load of 0 kg to position "AA", equivalent to a balanced load of 8kg @55 c.o.g.



A higher number of rotations may compromise the counterbalance system's performance or, in the worst cases, the product's safety.

REMOVING THE CAMCORDER FROM THE HEAD ⁹



Whenever the camcorder needs to be removed from the head, hold the camcorder securely with one hand and press "M" to release the plate and camera with the other hand, while keeping the "T" button pressed down.

The purpose of the "T" Security Button is to ensure that the video camera is not released accidentally.

USE ¹⁰

For correct use, the head must be adequately levelled.

The head features 360° pan and vertical tilt (+90°/-70°) which are controlled using the pan bar "A" (fig. 10).

- the pan movement can be locked using the knob "V" and has adjustable drag control: friction is increased by turning gear "E".
- the tilt movement can be locked using the knob "Q" and has adjustable drag control: friction is increased by turning gear "P".

NOTE: the lever angle "V" can be positioned as required without affecting the lock itself. Pull the lever outwards, turn as required and release: it will be set to the new position.

ATTACHING ACCESSORIES ¹¹

In order to connect accessories please do not use the serrated rosettes "U". The head has a 3/8" female thread "J" on both side with anti-rotation attachments "JM" which can be used to attach accessories such as Manfrotto arms equipped with an anti-rotation system and anti-rotation attachments "JA" to attach arms equipped with ARRI locating pins.

PLEASE NOTE: fitting additional accessories may require adjusting the head's balance and counterbalance settings. An excessive load imbalance could compromise the tripod's stability and invalidate the quality of the pan and tilt movements. In the worst cases, it could also compromise product safety.

USAGE ADVICE

Prior to using the product, especially after an extended period of disuse, it is advisable to restore proper lubrication of the gas spring gaskets. This is done by rotating the head 3 times with the "A" lever through the entire TILT travel range. Before use, please ensure that the central counterbalance system area is free of any components that could affect the device's correct operation (dust, sand, etc.). Gas piston performance is affected by varying temperatures: to maintain correct counterbalance with high temperature variations, the counterbalance knob must be appropriately adjusted.

STORAGE

The product is NOT SUBJECT TO specific provisions for the carriage of dangerous goods by road (ADR), rail (RID), inland waterway (ADN), sea (IMDG) and air (ICAO/ IATA).

We recommend transporting the equipment disassembled from the support and mounted on the head. When not in use, the product must be stored with its PAN & TILT brake and Drag disengaged with the plate holder in a horizontal position. Storage temperatures must range between -20°C and +60°C. In case of extended periods of disuse, remove the battery from the light source (fig.4B).

MAINTENANCE

Clean the product only with non-aggressive detergents and soft cloths. Periodically remove dust and sand from the locking screws and sliding parts. Do not use sharp or metallic tools when carrying out cleaning procedures. After a long period of disuse, if squeaking sounds are heard in the piston area, the cylinder shaft should be lubricated with a PTFE spray (not included).

CAUTION ¹²



While the head is moving, do not put your hands or insert tools in the piston area (fig. 12). Keep the product away from children. Contains detachable parts that could be swallowed.

PRECAUTIONS

- Do not tamper with, modify or disassemble the product or any of its parts to avoid damaging its performance or safety.
- Do not use the product outside the defined scope.

- Using a damaged product, for example, due to accidental knocks or falls, may compromise its operation safety.
- In such cases, contact your reseller or the manufacturer directly via the Contact Us section on manfrotto.com.
- Dry the product after use in damp conditions to avoid corrosion.
- Especially when using the product in the vicinity of a marine environment.
- The product is not designed to be used immersed in liquids.
- Avoid exposing the product to sunshine for long periods or leaving it inside a vehicle, where high temperatures can be reached.
- Do not expose to direct heat sources that may cause temperatures to exceed the maximum temperatures specified in the "Working Temperature" section.

ELECTRICAL PRECAUTION

Never use any battery, power supply or accessory that is not specified by this manual.
Only use CR1220-3V batteries.

DISCLAIMER

The information contained in this document is subject to change without notice. When needed, please check for updates to this manual by visiting the Products section on manfrotto.com or by requesting an updated copy in the Contact Us section. Manfrotto assumes no liability whatsoever for any damage that may, directly or indirectly, result to persons, things or animals as a consequence of failure to comply with all the requirements specified in this document, (in particular with regard to product installation, use and maintenance), as well as injury and damage deriving from incorrect use or purposes that go beyond the normal operating conditions and restrictions. Any changes or modifications to the product not expressly approved by Manfrotto shall automatically result in the exclusion of Manfrotto's liability.

INFORMATION FOR USERS



In accordance with Article 10 of Directive 2012/19/UE of the 04/07/2012 concerning Waste Electrical and Electronic Equipment (WEEE). The above symbol, also present on equipment, indicates that, at such time as the user should decide to dispose of the equipment, it must NOT be disposed of as unsorted municipal waste, but must be collected separately. The same applies to all components of the equipment and any recharge or refill elements that the product may comprise.

For information on the waste collection systems suitable for this equipment, contact the seller or any authorised member of the National Registers in EU countries. Household (or similar) waste may be disposed of via standard municipal differentiated waste collection schemes.

If you purchase a new version of this model or similar equipment - or if your existing equipment measures less than 25 cm - you may return the items you no longer require to your retailer who will take care of contacting the company or organization handling the proper collection and management of used equipment.

Correct separate collection and specific treatment of WEEE are necessary to avoid potential damage to human health and the environment, and favour the recycling and recovery of component materials. Improper or illegal disposal of this product by the user will result in punishments or fines being applied in accordance with national Decrees based on Directive 91/156/EC and 2008/98/EC.

DECLARATION REGARDING PRESSURE RISK ASSESSMENT

The Nitrotech series heads include a gas spring used in their counterbalance system. This component is designed and manufactured according to the best construction practices and complies with the General Product Safety Directive.

TECHNICAL PRODUCT SHEET

Counterbalanced Weight:

C.O.I.G.	Min.	Max.
55 mm	0	8 kg / 17.6 lbs
75 mm		6,8 kg / 15 lbs
100 mm		5,7 kg / 12.6 lbs

Max Gas Pressure: 88bar @20°C

Illuminated Bubble Battery: NO. CR1220-3V

Degree of product protection: IP5X

Weight produced with drive lever: 2,22 kg / 4.9 lbs

Thank you for purchasing a Manfrotto product.

Manfrotto products are warranted to be fit for the purpose for which they have been designed, and to be free from defects in materials and workmanship. This guarantee does not cover the product against subsequent damage or misuse. The period of validity of the Standard Limited Warranty is defined by the law in force in the country, state or region where the product is sold. Please retain your receipt as proof of purchase to repair your product under warranty.

How to get an extra warranty coverage

Beyond the standard compulsory coverage outlined above, this product is eligible for a warranty extension valid up to 5 years from the date of purchase. The Limited Conventional Warranty Extension does not affect the standard compulsory coverage.

To take advantage of the warranty extension scheme, you must register your purchase at warranty.vitecimaginsolutions.com.