




## INSTRUCTIONS

519

		
15 cm 5.9"	2.9 kg 6.4 lbs	9 kg 19.8 lbs

### NOTE

The head is provided with threaded housing for the screw not used, see figure 5 (hole "B" for 3/8" screw "K" and hole "C" for 1/4" screw "P")


Fix the camcorder onto plate "L" (fig. 6) by screwing camera 1/4" screw "K" or 3/8" screw "P" into the camcorder's threaded hole WITHOUT APPLYING FORCE (using for example a coin)

If the camcorder has a hole for anti-rotation, insert the pin "H" (fig. 1) on the hole before screwing camera screw

Before fully locking, align the camcorder lens with mark "LENS" on the camera plate "L"

### MOUNTING THE CAMCORDER ON THE HEAD 1 7 8 & 9

Insert the camera plate "L" as shown in figure 7 on top of the head until locking button "N" clicks.

 Hold the camcorder during the follow operation to prevent it from slipping backwards and forwards.

Find the balance point for the horizontally positioned camcorder:

Level the head on the tripod using the spirit level "Q" (fig. 1)

With the locking knob "M" (fig. 1) unlocked and the friction control "G" at minimum, slide the camcorder until find the horizontal position (fig. 8 and 9) Lock the plate "L" (fig. 1) in the position reached by screwing the locking knob "M" (fig. 1)


The head is supplied with two balance springs:

- the one mounted is suitable for camera weights from 5 to 9 kg (11 to 19.8 lbs) and it is yellow colour
- the other one on the plastic bag is suitable for camera weights from 1.5 to 5 kg (3,3 to 11 lbs) and it is blue colour


The figure 10 shows the complete range of balancing of the two springs: weight figures are relative to a height of Center of Gravity of the Camera = 125 mm from the camera base: this is an average height estimated for most ENG cameras.

### HOW TO CHANGE THE SPRING 1 11 & 12

If your camcorder weight is less than 5 kg you must change the balance spring

 The counterbalance adjustment "AC" (fig. 1) needs to be at minimum (completely turned at anticlockwise direction)

- adjust the friction control "G" (fig. 1) at minimum and lock the head in horizontal position
- remove the cap "V" (fig. 11)
- with one hand locks the knob "AC" and with the other hand unscrew yellow special screw "AH" with coin
- extract yellow special screw "AH" and the yellow spring "AY"
- mount the blue spring "AB" and fix it with blue special screw "AD" with coin keeping lock the knob "AC" with the other hand
- fix the cap "V"

 Remember to use:  
- blue special screw with blue spring  
- yellow special screw with yellow spring


When you have correctly mounted the chosen spring, balance the camera (fig. 12):

- with one hand tilt the head back forwards and forwards
- with the other hand turn knob "AC" clockwise until the head, when released, balances.

### NOTE

If the adjustment described has been done at any angle between the horizontal and the point of greatest tilt, the camera will, on being further tilted, return at a lesser angle.

### REMOVE THE CAMCORDER FROM THE HEAD 13

 Whenever the camcorder needs to be removed from the head, unlock lever "M", hold the camera securely in one hand while operating safety button "N" with the other hand.

### USE 1

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

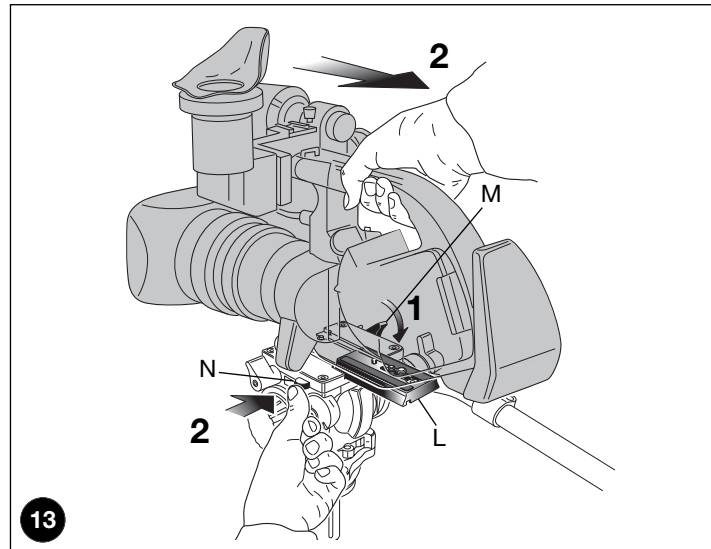
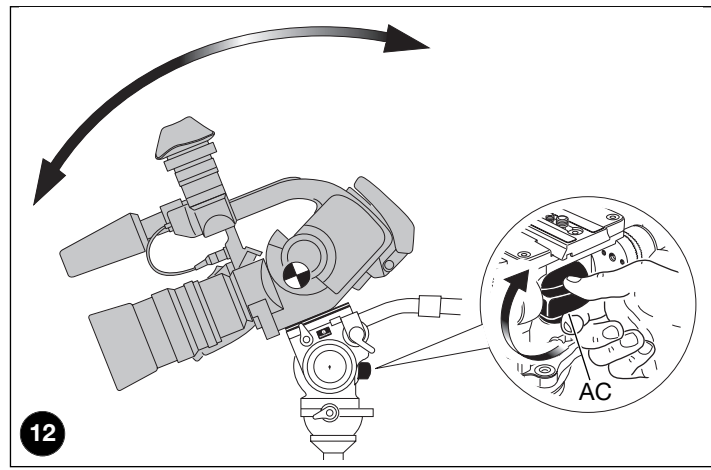
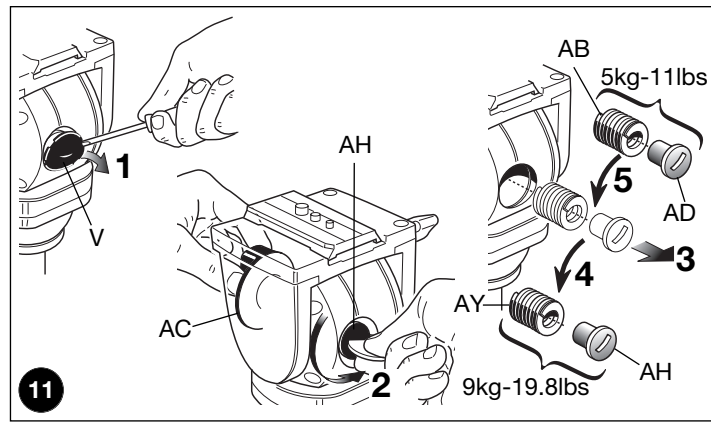
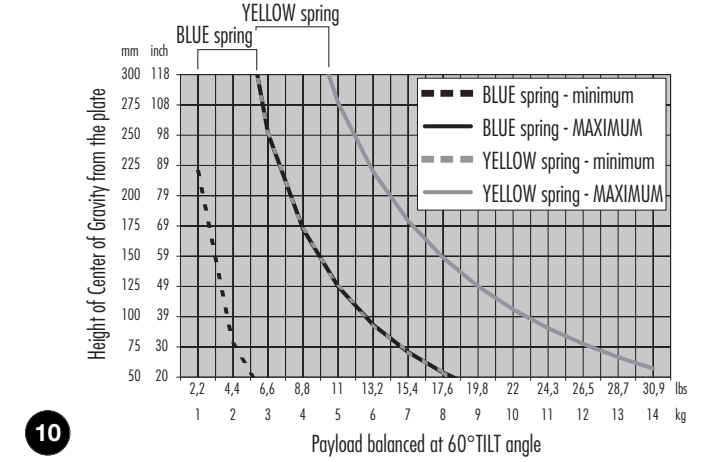
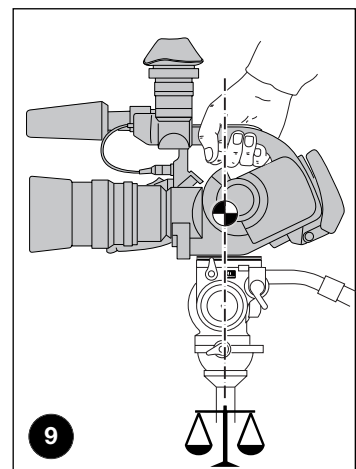
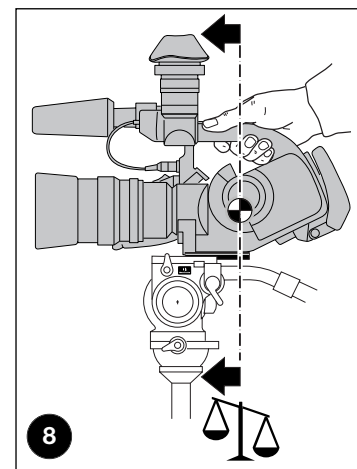
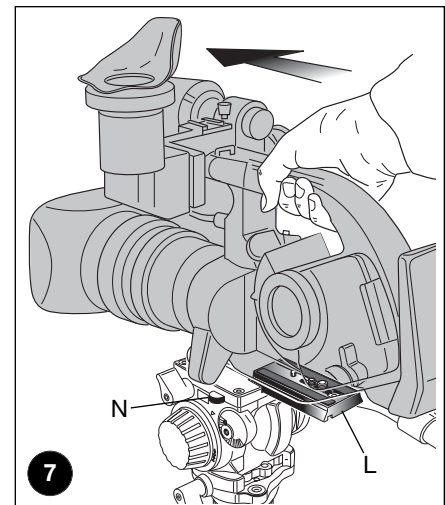
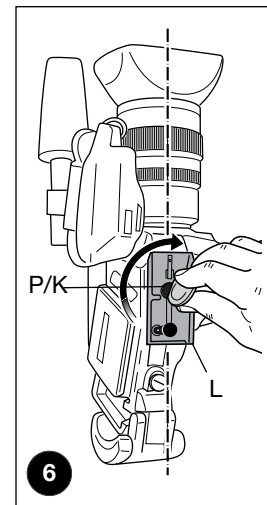
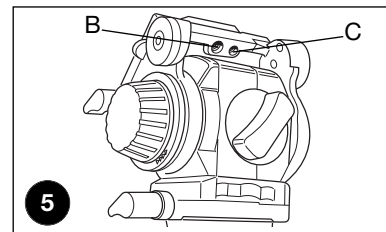
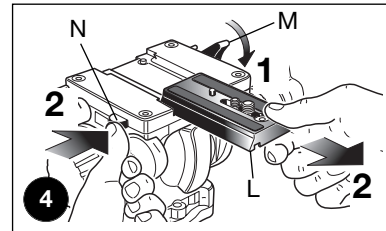
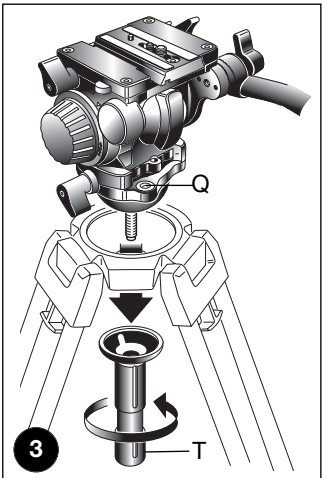
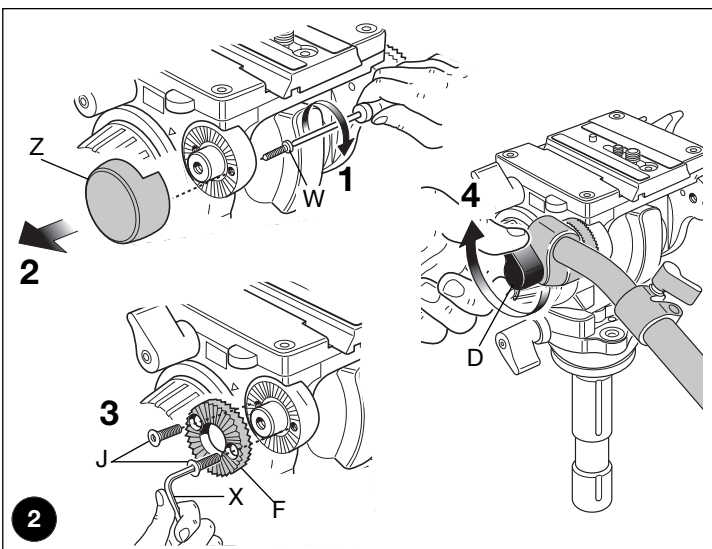
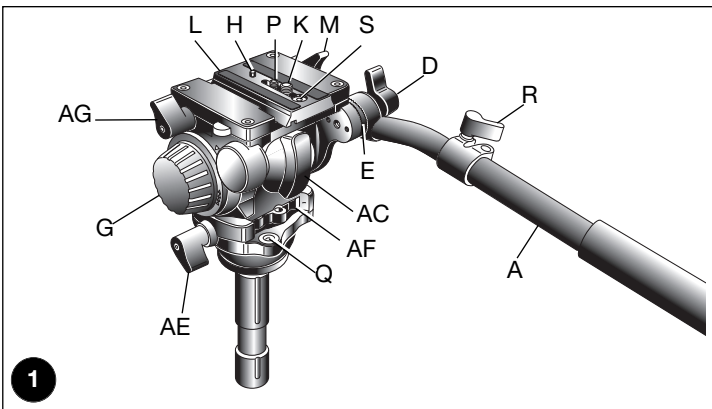
- The pan movement can be locked using the knob "AE"
- The pan movement has also a continuously variable steps drag adjustment which can be set with gear "AF": the numbers from 1 to 7 provided can be used as a reference of the drag level
- The tilt movement can be locked using the knob "AG"
- The tilt movement has also a continuously variable steps drag adjustment which can be set with knob "G": the numbers from 1 to 7 provided can be used as a reference of the drag level

### NOTE

The level of pan and tilt drag required, will depend on:

- the weight of the camera used
- the speed of movement required
- the environment temperature

The position of the locking knobs "M", "AE" and "AG" can be modified by unscrewing the screw at the edge of the knob, with Allen key "X" supplied with head, extracting the knob and reinserting it rotated 1/6 of turn in a more comfortable position.



**INTRODUCTION**  
 Designed for digital ENG and DVD camcorder and the use of telescopes for loads up to 9kg (19.8 lbs).  
**KEY FEATURES**

- Quick release sliding plate for balancing the camcorder with secondary safety latch
- 1/4" W and 3/8" W camera screws and pin
- 75 mm head bowl
- Continuously variable pan and tilt drag adjustment
- Telescopic pan bar can be fitted left or right
- Spirit level for fine levelling
- Variable balance control operated by two interchangeable and adjustable springs

**SET UP 1 & 2**  
 The head is supplied with the telescopic pan bar "A" dismantled. It can be mounted as shown in figure 1 by screwing knob "D" in the teeth-washer "E".  
 The teeth-washer "E" is specially designed to allow the pan bar to be positioned at intervals of 10 degrees. The pan bar "A" is telescopic and can be extended by means of knob "R" (fig. 1).

The head is supplied with second teeth-washer in order to mounted the pan bar "A" in the other side or to mount a second pan bar (available as an optional):

- unscrew the screw "W" (fig. 2)
- remove plastic protection "Z"
- fix the second teeth-washer "F" by screwing the two screws "J" using Key Allen "X" supplied with the head
- mount the pan bar "A" (or a second pan bar) by screwing knob "D"

The additional teeth-washer "F" can be used also as a spare part to replace teeth-washer "E" (fig. 1) already mounted in case of damaging

**MOUNTING THE HEAD ON A TRIPOD 3**  
 The head can be mounted on tripods with 75 mm diameter bowl. To mount the head on tripod head see fig. 3:

- unscrew grip "T"
- place the head into the tripod bowl
- screw grip "T" up against the bowl, but do not tighten it
- hold grip "T" and level the tripod head using the spirit level "Q" as a reference
- tighten grip "T" fully to lock head to tripod

To mount the head on a tripod with 3/8" screw fixing, use MANFROTTO 325 (USA 3114) adaptor which is an optional extra.  
 To mount the head on a tripod with 100 mm diameter bowl, use MANFROTTO 319 (USA 3426) adaptor which is an optional extra.

**REMOVE QUICK RELEASE PLATE FROM HEAD 4**  
 Extract plate "L" realising the locking knob "M" whilst pushing button "N" at the same time as shown in figure 4.

**ASSEMBLING CAMCORDER ON PLATE 4 & 5**  
 The head (fig. 1) is supplied with 1/4" camera screw "P" and 3/8" camera screw "K" on the plate "L". To remove the screw not used proceed as follow (fig. 1)

- lightly press the rubber cap "S" with your finger
- remove the screw not used
- reposition the cap "S" to prevent the screw from being lost