

compass^x

16
CB PLUS™

Fluid Head

OPERATOR'S MANUAL

1090 Compass^x 2 Fluid Head
1092 Compass^x 6 Fluid Head
1093 Compass^x 8 Fluid Head
1096 Compass^x 10 Fluid Head
1097 Compass^x 14 Fluid Head



Features and Controls

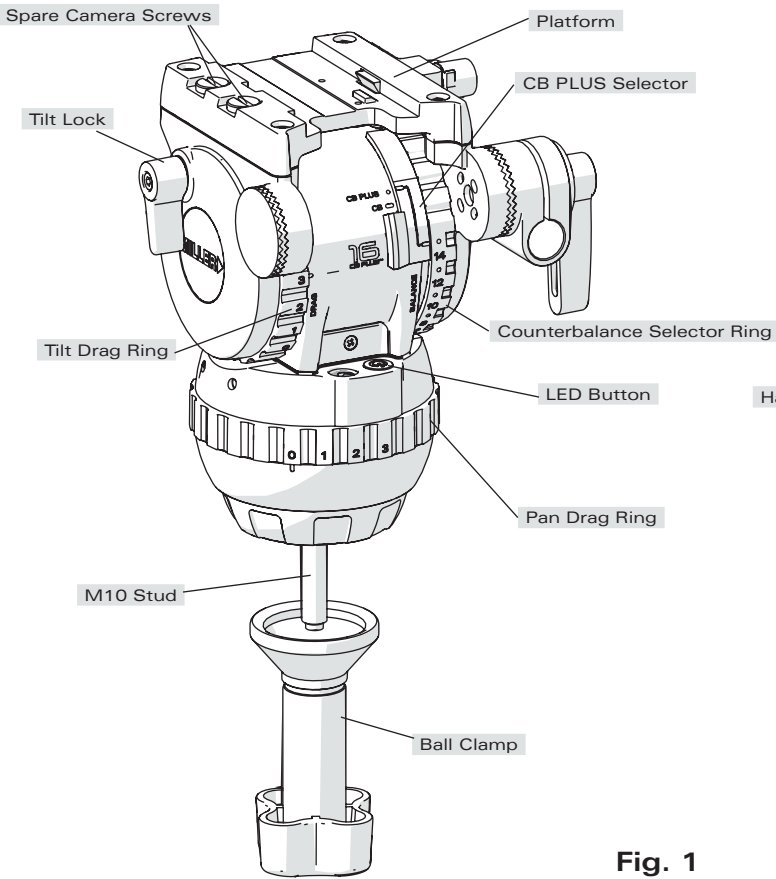


Fig. 1

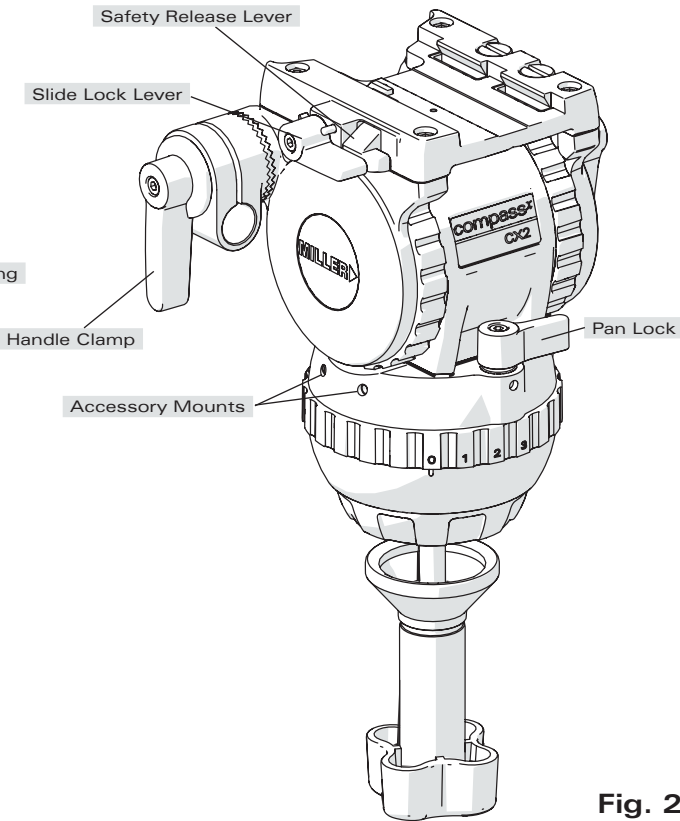


Fig. 2

Introduction

Thank you for purchasing the Compass^x Fluid Head. The Compass^x Fluid Head has been designed to suit a wide range of cameras, lenses and accessories as demanded by professional users.

The robust design and construction of the Compass^x Fluid Head offers maximum stability and durability and includes a precision drag plate system in the pan and tilt assembly to deliver true fluid drag performance over the entire temperature and payload range.

The fluid drag and the counterbalance system were designed to provide excellent control and repeatability and offer progressive equal increments of drag and torque through the unique radial ring design.

The Compass^x Fluid Head will give best performance when used on a wide range of Miller tripods, including SOLO, Toggle, Sprinter II and HD Tripods (depending on bowl size). This will ensure maximum system stability to suit any professional set-up. The Compass^x Fluid Head will suit most industry standard 75mm and 100mm tripods as well, please refer to manufacturers' manual for mounting details.

Safety Instructions

Please use this manual to familiarise yourself with the operation of the Compass^x Fluid Head and observe these instructions to prevent any damage to your equipment. Ensure that all equipment is operating correctly and free from defects and damage, also please ensure that the tripod is steady, secure and that the bowl is approximately horizontal when attaching the camera. The operator is responsible for the safe operation of this piece of equipment.

- Do not exceed the maximum payload capacity of the Fluid Head.
- Do not leave the camera unattended on the Fluid Head.
- Do not release the SLIDE LOCK LEVER whilst the camera is at an angle.
- Do not adjust the tripod whilst the camera is attached to the Fluid Head.
- Ensure PAN HANDLE CLAMP and CLAMP NUT is securely tightened.
- Apply TILT LOCK when adding/removing equipment from the camera or when attaching/removing the camera from the Fluid Head.
- Hold camera securely whilst changing Counterbalance, Pan Drag or Tilt Drag settings.
- Hold the camera securely whilst releasing the SAFETY RELEASE LEVER.
- Hold camera securely whilst adjusting the CLAMP NUT to level the Fluid Head.

Operating Instructions

2. Mounting Your Camera

2.1 Remove the CAMERA PLATE by lifting the SAFETY RELEASE LEVER on the PLATFORM (SLIDE LOCK LEVER must be unwound (clockwise)) (Fig. 3a).

2.2 Attach the CAMERA PLATE to the camera¹ such that the Centre of Gravity (C of G)² mark on the camera is approximately in the middle of the camera plate.

2.3 Tighten PAN/TILT LOCKS, mount the CAMERA PLATE to the PLATFORM non-locking side first. The side load lock mechanism will capture camera plate (distinct click sound will be made when CAMERA PLATE is retained). CAMERA PLATE will be able to slide freely (60mm) until SLIDE LOCK LEVER is tightened.

2.4 Untighten TILT LOCK, slide the CAMERA PLATE such that the camera's C of G is directly above the centre axis of the Fluid Head (fig. 3b), camera should be balanced (if not slide camera backward or forward). Once balanced tighten the SLIDE LOCK LEVER (anti-clockwise)³ and tighten TILT LOCK.

If this cannot be achieved then reposition the CAMERA PLATE on the Camera – step 2.2.

NOTES:

¹Refer to the camera's owners manual for correct method of attachment to the CAMERA PLATE. Remove the 1/4" screw or 3/8" screw as required.

²The camera's C of G can be estimated by placing the camera on to a round rod and then shifting it backwards or forwards until a balance point – C of G - is achieved. It is recommended to identify this point on the camera as it will be useful in step 2.2.

³Ensure SLIDE LOCK LEVER is tightened at all times when you are not finding C of G or mounting/dismounting camera.

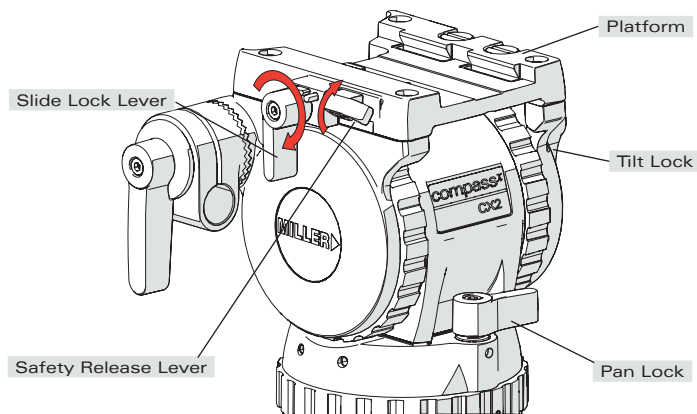


Fig. 3a

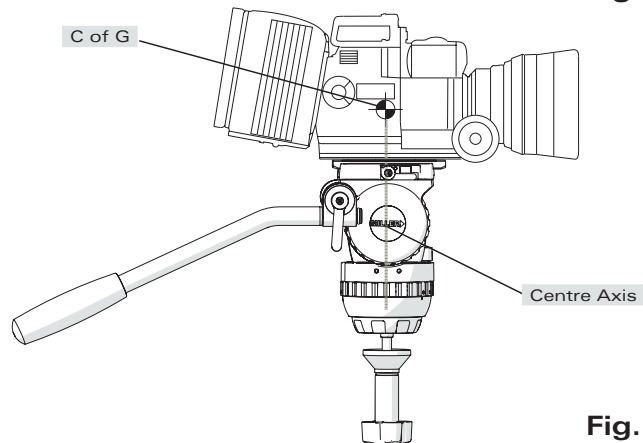


Fig. 3b

Operating Instructions

3. Counterbalance Control

The counterbalance system was designed to neutralise the effect of the camera weight when it is tilted. The Compass^x Fluid Head offers a 16 position counterbalance system which is operated with the CB SELECTOR RING and the CB PLUS SELECTOR (Fig. 4). With the Compass^x systems it is also possible to disengage counterbalance (position zero),

NOTE:

Be careful when disengaging counterbalance as you could damage your equipment with an unwanted tilt drop.

The CB SELECTOR RING and the CB PLUS SELECTOR must be operated when the BASE PLATE is in a horizontal position.

After changing the counterbalance setting it may be necessary to tilt the camera back and forth to ensure that the CB spring has engaged.

- 3.1 For safety it is generally better to start at a higher counterbalance position (e.g. position 14) and work your way to the correct setting, this is to reduce any chance of unwanted tilt drops (Fig. 4).
- 3.2 Hold the camera and release the TILT LOCK, then gently tilt the camera from the horizontal position forward then backward and observe its response. If the camera 'springs back' to the horizontal position then a lower counterbalance setting is required, use the CB SELECTOR RING to cycle through all even number positions (eight positions including zero).
- 3.3 Finer adjustments can be made by engaging the CB PLUS SELECTOR (upward direction).
- 3.4 Correct counterbalance setting has been achieved when the camera does not spring back or drop when pan handle is released.

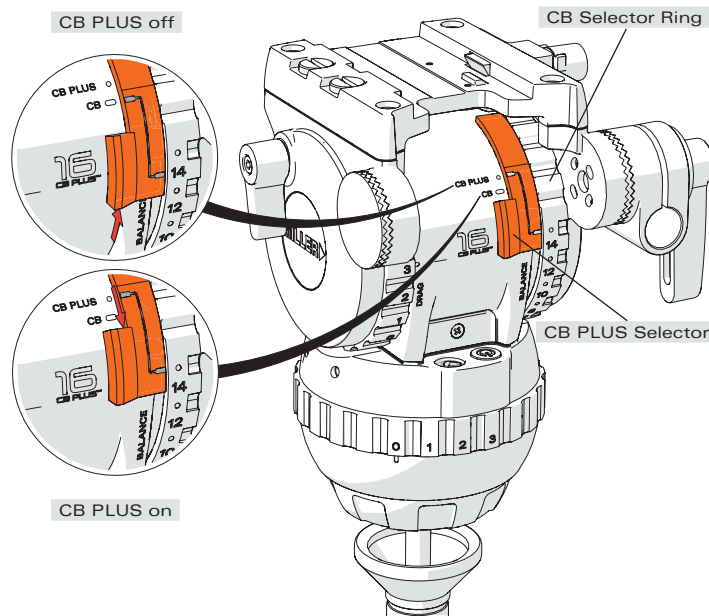


Fig. 4

Maintenance

The Compass^x Fluid Head offers high quality surface coatings, dust and moisture seals. Miller recommends keeping the Fluid Head clean at all times by using soft brushes and lint free cloth to wipe over the surfaces.

- Do not immerse the Fluid Head in any liquid.
- Do not use stiff brushes, abrasives, harsh detergents and solvents.

Battery Replacement

The Compass^x Fluid Head uses a single 11A type - 6 Volt battery for Illumination. Miller recommends the following batteries to provide long life performance – GP11A, Duracell MN11 or Vinnic L1016.

1. Using a Phillips Head #1 screw driver, remove the RETAINING SCREW and the BATTERY COVER.
2. Using a small flat screw driver remove the battery.
3. Align the new battery as shown on the back of the BATTERY DOOR and place into the BATTERY HOUSING, then push down the battery into place. A small flat screw driver may be used to push down the battery into the BATTERY HOUSING.
4. Align the BATTERY DOOR into the body then tighten the screw lightly.

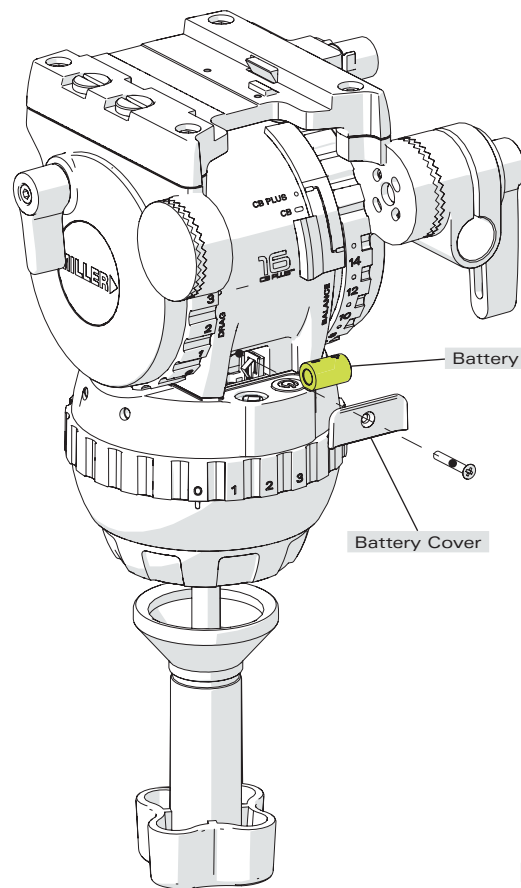


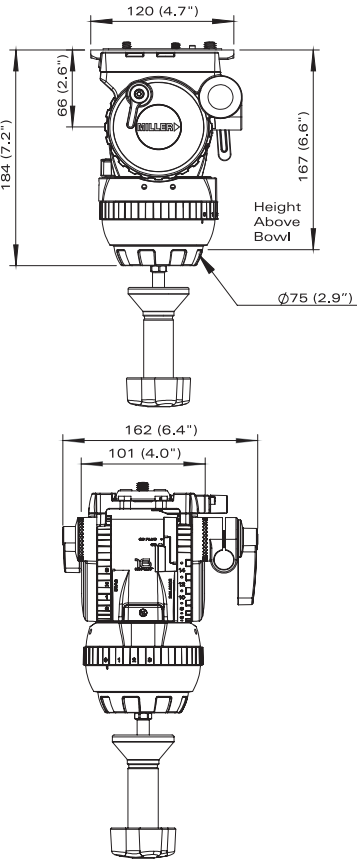
Fig. 6

Specifications

	1090 Compass ^x 2	1092 Compass ^x 6	1093 Compass ^x 8	1096 Compass ^x 10	1097 Compass ^x 14
Weight	2.3kg (5.1lbs)	2.3kg (5.1lbs)	2.5kg (5.5lbs)	2.5kg (5.5lbs)	2.5kg (5.5lbs)
Payload range	0-8kg (0-17.5lbs)	0-12kg (0-26.4lbs)	0-12kg (0-26.4lbs)	0-12kg (0-26.4lbs)	0-14kg (0-30.9lbs)
Pan-tilt drag	3 selectable fluid drag positions + 0	3 selectable fluid drag positions + 0	5 selectable fluid drag positions + 0	5 selectable fluid drag positions + 0	5 selectable fluid drag positions + 0
Pan range	360°	360°	360°	360°	360°
Pan-tilt locks	Positive lock calliper brake system	Positive lock calliper brake system	Positive lock calliper brake system	Positive lock calliper brake system	Positive lock calliper brake system
Tilt angle	+90°/-75°	+90°/-75°	+90°/-75°	+90°/-75°	+90°/-75°
Counterbalance	16 selectable positions (0 +15 position)	16 selectable positions (0 +15 position)	16 selectable positions (0 +15 position)	16 selectable positions (0 +15 position)	16 selectable positions (0 +15 position)
Camera platform	Side loading, 60mm balance travel camera plate with 1/4" and 3/8" screws	Side loading, 60mm balance travel camera plate with 1/4" and 3/8" screws	Side loading, 60mm balance travel camera plate with 1/4" and 3/8" screws	Side loading, 60mm balance travel camera plate with 1/4" and 3/8" screws	Side loading, 60mm balance travel camera plate with 1/4" and 3/8" screws
Sliding range	60mm (2.4")	60mm (2.4")	60mm (2.4")	60mm (2.4")	60mm (2.4")
Height above bowl	167mm (6.6")	167mm (6.6")	167mm (6.6")	150mm (6.0")	150mm (6.0")
Mounting base	75mm (2.9") ball levelling	75mm (2.9") ball levelling	75mm (2.9") ball levelling	100mm (3.9") ball levelling	100mm (3.9") ball levelling
Illuminated controls	Bubble Level	Bubble Level	Bubble Level	Bubble Level	Bubble Level
Temperature range	-40° to +65°C (-40° to +149°F)	-40° to +65°C (-40° to +149°F)	-40° to +65°C (-40° to +149°F)	-40° to +65°C (-40° to +149°F)	-40° to +65°C (-40° to +149°F)
Pan handle	Fixed 390mm (15.4")	Fixed 390mm (15.4")	Fixed 390mm (15.4")	Fixed 390mm (15.4")	Fixed 390mm (15.4")

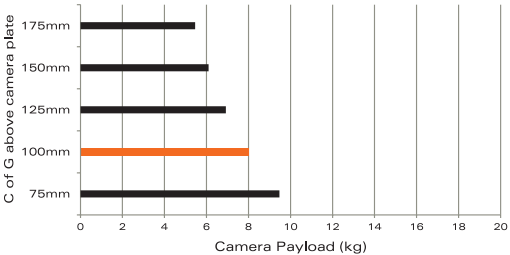
Specifications

75mm

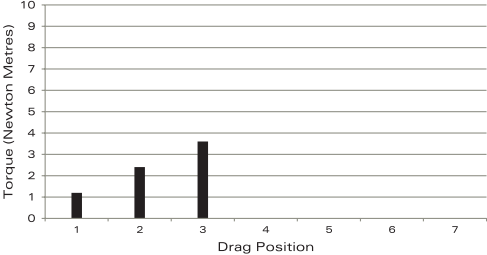


CX2

Payload Range

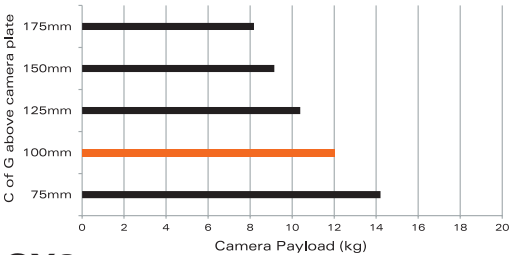


Drag Torque

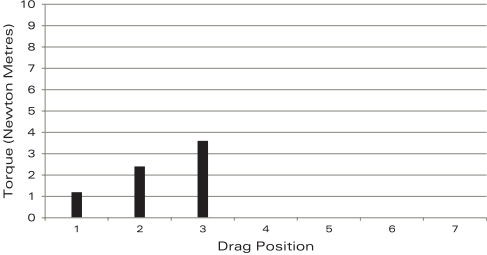


CX6

Payload Range

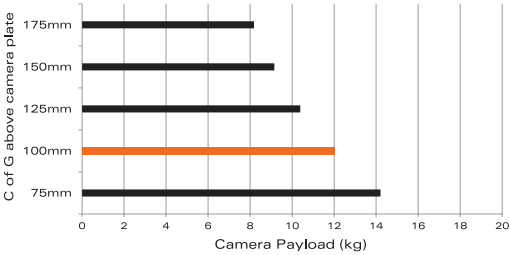


Drag Torque

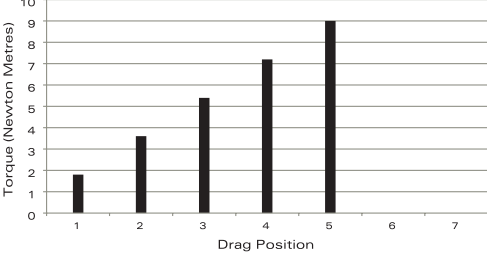


CX8

Payload Range

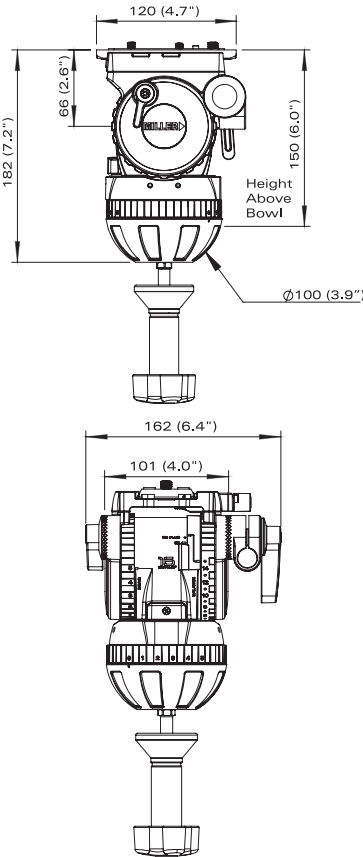


Drag Torque

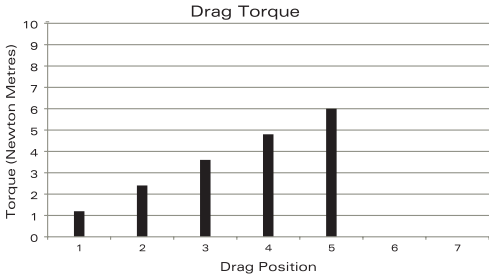
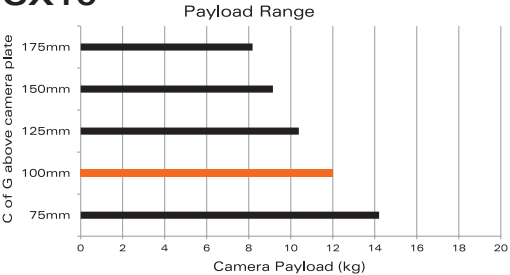


Specifications

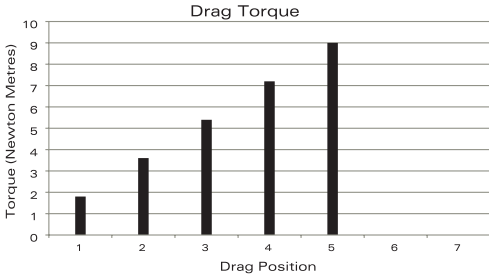
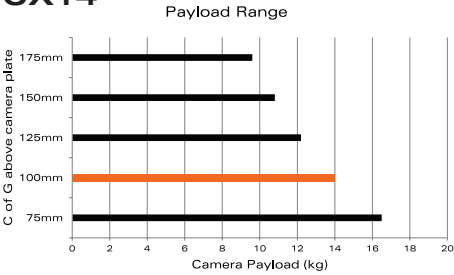
100mm



CX10



CX14



Storage

The Compass^x Fluid Head can be stored for extended periods; Miller recommends storage in a Miller case and the following:

- Clean the external surfaces.
- Keep in a dry place away from direct sunlight.
- Loosen off PAN & TILT LOCK.

Spare Parts and Accessories

ITEM	ITEM NO.
Battery	P3798
Camera screw 3/8"	P0037
Camera screw 1/4"	P0036
Serrated washer	PN12501
Pan handle - fixed with clamp	679
Pan handle - telescopic with clamp	696
Accessory mounting block	1255
Sliding plate assembly (Euro)*	1210X
Sliding plate assembly (Mini Euro)*	1206X
1/4" screw and pin carriage	493
Camera plate	1205
Camera plate (short)	1209
Camera plate (long)	1207

Warranty

MILLER offers 3 years parts and labour warranty.

Please refer to MILLER Warranty card D3993 for complete details.

Service, Sales and Support

Miller Authorised Service Agents must carry out all service and repair work. Failure to observe this requirement may void warranty.

It is advisable to notify Miller or a Miller Authorised Service Agent if a change of performance is observed as a result of dropping or rough usage. For information regarding sales and service of Miller products or for your nearest Miller representative please contact us via our website or at the following:

MILLER CAMERA SUPPORT EQUIPMENT

30 Hotham Parade
Artarmon, Sydney, NSW 2064 Australia
P +61 2 9439 6377
sales@miller.com.au

MILLER Camera Support (LLC) USA

216 Little Falls Road (Unit 2),
Cedar Grove, New Jersey 07009 USA
P +1 (973) 857 8300
F +1 (973) 857 8188
sales@millertripods.us

MILLER FLUID HEADS (EUROPE) LTD.

12A, Shepperton Business Park
Govett Avenue, Shepperton
Middlesex, TW17 8BA
United Kingdom
P +44 (0) 1932 222 888
sales@millertripods-europe.com

millertripods.com



millertripods.com

MILLER CAMERA SUPPORT EQUIPMENT

30 Hotham Parade
Artarmon, Sydney
NSW, 2064, Australia

Tel: +61 2 9439 6377
Fax: +61 2 9438 2819

Email: sales@miller.com.au



Quality
ISO 9001



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