

**PAG** *///*™

# ORBITOR

Advanced Camcorder Support System



Instruction Manual





**Professional Broadcast Equipment**

# **PAG ORBITOR**

Advanced Camcorder Support System

## Instruction Manual

### **CONTENTS**

<b>SECTION</b>	<b>PAGE</b>
1 SAFETY	2
2 ASSEMBLY & OPERATION	3
3 PARTS AND ASSEMBLIES	9
4 ACCESSORIES	11
5 WARRANTY	12

## SECTION 1

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# SAFETY

- 1.1 This booklet contains important safety and operating instructions. Please read these fully before using the PAG Orbitor and any of its component parts.

**ATTENTION:**

THE TELESCOPIC SUSPENSION ROD CONTAINS POWERFUL SPRINGS AND IS POTENTIALLY DANGEROUS. OPERATE ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.

Keep the telescopic suspension rod out of the reach of children.

Never release the restraining cord unless the rod is in position for use. Do not release the restraining cord with the rod held loose in the hands.

Only collapse the suspension rod when it is in position on the PAG Orbitor. Loop the red restraining cord around the lug on the side of the rod before removing the Orbitor.

The counterbalance weight must be secured to the back plate of the shoulder support assembly in accordance with the instructions on Page 7.

## SECTION 2

# ASSEMBLY & OPERATION

### 2.1 Parts List:

Remove the packaging and check that all the component parts have been supplied:

- \* Camcorder support assembly.
- \* Shoulder support assembly.
- \* Telescopic suspension rod.
- \* Belt assembly.

### 2.2 System Philosophy:

To obtain the best result the PAG Orbitor Camcorder Support System has to be correctly assembled and adjusted to suit the weight and balance of the camcorder, and the individual user. When this has been achieved the camera will feel weightless and control of its 3-axis movement will be effortless. It will enable hours of use without fatigue and provide the most mobile, yet stable, shooting platform available from this type of device.

### 2.3 Assembly Sequence:

#### Step 1 - The Camcorder Support Assembly

Release the clutch assembly **A**, rotate the horizontal rod **C** 90° and re-tighten **A**.

Release adjustment knob **B** and slide the cross bar **D** to the position shown in Fig. 1.

Lock adjustment knob **B**, but do not overtighten.

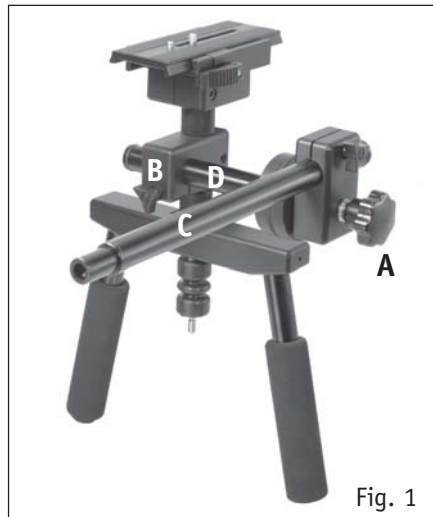


Fig. 1



- |                                     |                          |
|-------------------------------------|--------------------------|
| <b>1</b> Camcorder Support Assembly | <b>A</b> Clutch Assembly |
| <b>2</b> Shoulder Support Assembly  | <b>B</b> Adjustment knob |
| <b>3</b> Telescopic Suspension Rod  | <b>C</b> Horizontal Rod  |
| <b>4</b> Waist Belt Assembly        | <b>D</b> Cross Bar       |
| <b>5</b> Camcorder Mounting Plate   | <b>E</b> Adjustment knob |
| <b>6</b> Shoulder Straps            | <b>F</b> Vertical Rod    |
| <b>7</b> Support Plate              |                          |

*See Page 9 for ordering replacement parts and assemblies.*

**Fig. 2**

Release adjustment knob **E** on the shoulder support assembly and insert stepped portion of rod **C** fully into the shoulder support assembly and lock **E** (see Fig. 2 opposite).

### **Step 2 - The Waist Belt Assembly**

The waist belt can be adjusted to fit users of all sizes. Place the belt around your waist, with the support plate positioned at the front. Note that the belt will carry the weight of the camera and should be adjusted to fit tightly, but comfortably, without restricting your normal body movements.

### **Step 3 - The Telescopic Suspension Rod**

Place the telescopic suspension rod into the well on the support plate. **DO NOT RELEASE IT AT THIS STAGE.**

### **Step 4 - Adjusting the Assembly**

It is important that the first fitting should be carried out before the camera is mounted to the PAG Orbitor.

The shoulder assembly incorporates two straps that provide stability during operation. The straps must be adjusted to fit the individual user, but must not be too tight.

1. Bring the right-hand shoulder strap forward over the assembly. Lift the Orbitor onto your right shoulder, and leave the left-hand shoulder strap hanging down your back.
2. Connect the telescopic suspension rod to the rubber coupling-pin located between the handles on the underside of the camcorder support assembly.
3. The PAG Orbitor is now in position, supported between your shoulder and your waist. Using both hands you can now adjust each strap to the required length.
4. Left-hand strap.  
Reach behind your back with your left hand and bring the strap forward. Plug it into the left-hand socket on the support pad of the waist belt and adjust the length **with light tension**. This strap prevents the shoulder pad assembly from slipping off your shoulder.

#### 5. Right-hand strap

Pull the right-hand strap over your chest and plug it into the right-hand socket on the support pad and adjust the length ***with light tension***. The function of this strap is to prevent the assembly slipping backwards.

### **Step 5- Familiarisation**

It is advisable to familiarise yourself with the fluid mobility of the PAG Orbitor before fitting the camcorder. This sequence should always be followed in use as well as practice:

Release the locking tension of the vertical rod **F** (see Fig. 2 on Page 4), followed by clutch assembly **A**, and finally, holding a degree of back tension against the telescopic suspension rod, carefully release its restraining loop.

When you are familiar with the fluid motion of the camcorder support assembly, and the adjustment of tensions required for panning, tilting and rolling, you can remove the assembly (Step 6) before mounting the camera (Step 7).

### **Step 6 - Removing the PAG Orbitor**

This sequence should always be followed, as it allows a free hand to support the camera, when mounted:

1. Press down and secure the suspension rod with the restraining loop.
2. Centre the panning assembly and lock the adjustment knob.
3. Adjust and lock the tilt clutch assembly approximately 90° to the horizontal rod.
4. Release the left-hand shoulder strap followed by the right.
5. Carefully lift the camcorder support assembly off the suspension rod and place on the floor or table.
6. Remove the suspension rod from the waist belt.



## **Step 7 - Mounting the Camcorder**

The professional camera mounting system is fully adjustable and universal.

1. First, remove the sliding camcorder plate by releasing the small lever.
2. Slide the plate up to the safety lock, then press the safety button to continue to remove the plate.
3. Choose the appropriate camcorder screw or screws to suit the bush or bushes on the underside of the camcorder. Extra screws may be provided for this. To remove the unwanted screws from the sliding plate push the captive rubber bung, or retaining spring, clear of the hole at the end of the slot. The screws can be slid up to the hole and removed. Remember to reposition the bung. NOTE: some camcorders have a location hole to prevent the rotation of the mounting plate. The sliding plate incorporates a brass spring-loaded pin that should be aligned with the hole in this instance. Secure the plate to the bottom of the camcorder using a coin to tighten the screws.

### **A USEFUL TIP:**

Always consider the centre of gravity of the camcorder when mounted to the plate. Before sliding it into the camcorder support assembly, place a pencil at an angle of 90° beneath the sliding plate under the camcorder, and move the camcorder up and down until you find the centre of gravity. Note the position, and endeavour to align this point just behind the centre line of the handles when sliding the camcorder onto the mounting block, and locking it in position.

## **Step 8 - Final Adjustments**

Once the camcorder has been mounted you can return the camcorder support assembly to your shoulder. Fine adjustments can then be made to the camcorder's point of balance, i.e. if the camcorder tends to tip forward, release the lock and slide it back until it stabilises. Sideways instability can be eliminated by adjusting the position of the block below the camcorder mount on clutch rod **D**. (see Fig. 2 on Page 4). Ensure that the well for the suspension rod is central to your body and the camcorder support assembly. You are then ready to experience the full benefits of the PAG Orbitor Camcorder Support System.

## **2.4 The Counterbalance Weight**

The PAG Orbitor is supplied with a counterbalance weight (1.25kg), fitted to the back plate of the shoulder pad assembly. The weight is held in position by a single screw and securing knob.

ALWAYS ENSURE THAT THE WEIGHT HAS BEEN SECURED TO THE BACK PLATE WITH THE SECURING KNOB AND CANNOT FALL FROM THE BACK PLATE.

The webbing strap which is included for the purpose of securing a battery to the back plate, in place of the weight, can be left in position, as extra security.

## **2.5 Service**

If a fault develops please return the product to your dealer or to PAG Ltd. 565 Kingston Road, Raynes Park, London SW20 8SA, UK.  
Tel +44 (0) 20 8543 3131 Fax +44 (0) 20 8540 4797  
E-mail [sales@paguk.com](mailto:sales@paguk.com).

## SECTION 3

# PARTS AND ASSEMBLIES

3.1 The following parts and assemblies are available from PAG Ltd. or your nearest PAG Dealer (in the UK), and your nearest PAG Agent (outside the UK).

3.2 **Parts:**

Y0191	Camcorder Mounting Plate
M4330	Adjustment Knob
Y0180	Shoulder Strap
R3822	Weight Fixing Screw
Y0190	Weight Securing Strap
Y0058	Counterbalance Weight
Y0110	Rubber Support Coupling
Y0051	Clutch Knob
Y0170L	Waist Strap (size XL)

3.3 **Assemblies:**

Y1005	Handle Assembly
Y1001	Telescopic Suspension Rod
Y1002	Shoulder Support Assembly
Y1003	Belt Assembly

*Please refer to Fig. 3 on Page 10.*



## SECTION 4

# ACCESSORIES

- 4.1 The appropriate PAG battery will make the perfect counterbalance, in place of the weight supplied with the PAG Orbitor. The back plate of the shoulder pad assembly can be fitted with the PAGlok Connector professional battery mount. This will enable a 12V to 14.8V PAGlok battery to be used as a means of powering a Paglight M 12V on-board camera light. The camcorder can also be powered from this battery with the appropriate PAG DC Adaptor.
- 4.2 The PAG C6 PowerPack, a 6V battery supplied as part of the Paglight C6 Lighting Kit, Model 1001, also makes a good counterbalance and replacement for the weight supplied as part of the PAG Orbitor. This all-inclusive, miniature on-board camera lighting kit is an excellent product and one that will greatly enhance your system.

If you are based in the UK contact your nearest PAG dealer or the PAG Sales Department for details of PAG products. If you are based outside the UK contact your nearest PAG Agent (visit the PAG website [www.paguk.com](http://www.paguk.com) for details of your nearest PAG Agent).

- 4.3 Remote controls, LCD monitors and other professional camera accessories can be clamped to the lightweight but strong structure.

## SECTION 5

# WARRANTY

- 5.1 Notwithstanding any provision of any agreement the following Warranty is exclusive: PAG Limited warrants each PAG Orbitor it manufactures to be free of defects in material and workmanship under use and service for 1 year from the date of purchase. This warranty extends only to the original purchaser. This warranty shall not apply to fuses or any product or parts which have been subject to misuse, neglect, accident or abnormal conditions of operation.
- 5.2 In the event of failure of a product covered by this warranty, PAG Limited will repair and calibrate equipment returned to an authorised Service Facility within the period of the warranty, provided the warrantor's examination discloses to its satisfaction the product was defective. The warrantor may, at its option, replace the product in lieu of repair. With regard to any equipment returned within this period, said repairs or replacements will be made without charge. If the failure has been caused by misuse, neglect, accident or abnormal conditions of operation, repairs will be billed at a nominal cost. In such a case, an estimate will be submitted before work is started, if requested.
- 5.3 The foregoing Warranty is in lieu of all other warranties, express or implied, including but not limited to any implied warranty or merchantability, fitness or adequacy for any particular purpose or use. PAG Limited shall not be liable for any special, incidental, or consequential damages, whether in contract, tort, or otherwise.



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