

# PAG *h/i*™

Professional Broadcast Equipment

## *Paglight C6*

Professional 6V Lighting Kit



Instruction Manual



# Have you got everything?

Your Paglight C6 lighting kit should contain the following components:

- \* Paglight C6 and plug-in lamp holder (assembled).
- \* Accessory ring, daylight filter, diffuser and barn doors (assembled).
- \* 20W lamp.
- \* Camera Shoe Plate.
- \* PAG C6 Power Pack and shoulder strap.
- \* PAG Power Charger and primary plug.

*The following components can be purchased individually from your nearest PAG dealer, on-line at [www.paguk.com/C6](http://www.paguk.com/C6), by emailing [sales@paguk.com](mailto:sales@paguk.com) or by telephoning +44 (0)20 8543 3131.*

- 1002 PAG Power Charger (includes primary plug).
- 1003 Primary plug for charger (Europe).
- 1004 Primary plug for charger (UK).
- 1005 Primary plug for charger (US/Japan).
- 1006 Primary plug for charger (Australia).
- 1008H PAG C6 PowerPack (includes shoulder strap).
- 1009 Lamp holder & lamp protector.
- 1010 Lamp (6V 10W).
- 1011 Lamp (6V 20W).
- 1012 Lamp (6V 30W).
- 1013 Daylight conversion filter.
- 1014 Diffuser.
- 1016 Accessory mounting ring.
- 1019 Barndoor (single item).
- 1020 Accessory/Extender Arm (short).
- 1021 Accessory Mounting Bracket.
- 1022 Belt Clip for C6 Power Pack.
- 9983 Softlight Diffuser Kit.
- 9971 Stud Adaptor 1/4" Whit.
- 9972 Shoe Plate 1/4" Whit.



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## **CONTENTS**

<b>SECTION</b>		<b>PAGE</b>
1	INTRODUCTION	2
2	PAGLIGHT C6	8
3	C6 POWER PACK	14
4	C6 POWER CHARGER	15
5	SERVICE & WARRANTY	17

# INTRODUCTION

### **PAG Stands for Broadcast Quality**

PAG Ltd. is a British company, that has been designing and manufacturing high quality equipment for the film and television industries for 40 years. In that time many PAG products have broken technical boundaries and set new standards, worldwide.

The limited choice of high-quality, on-board camera lighting for hand-held camcorders prompted PAG to develop a miniaturised version of its professional Paglight. Paglight is a camera-top light that can be seen in action regularly on TV news bulletins all over the world.

### **Professional Features**

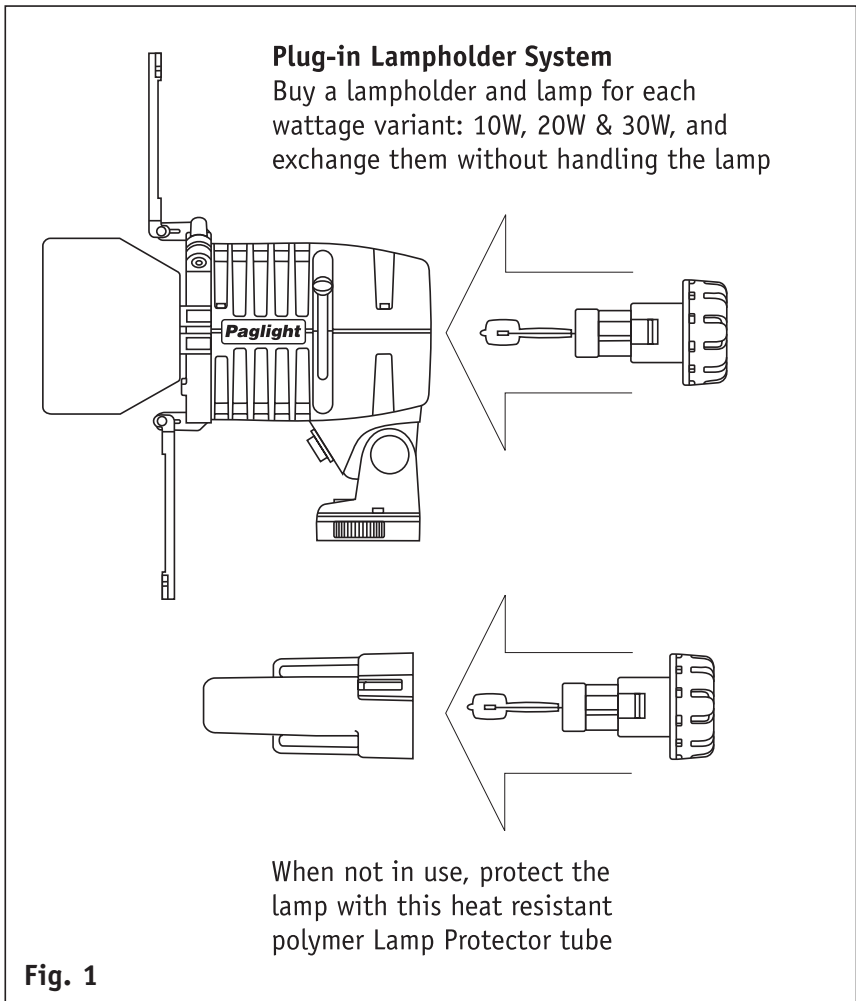
The Paglight C6 incorporates many features of the larger 12V Paglight, including a focusable beam angle, and a patented system that makes lamp-changing quick and easy. The C6 is designed to complement available light as a 'fill' or 'front light'. It will add vibrancy to the colour in your images, bring them out of the shadows, and give your videos that professional touch.

### **Fully Focusable**

The light output is fully-focusable. A lever mechanism on each side of the lamp head provides a smooth transition from spot (narrow angle) to flood (wide angle). The ability to change the beam angle allows you to compensate for light loss over distance.

### **PAG's Unique Plug-in Lamp Holder System**

The Paglight C6 features a patented plug-in lamp holder system that makes fitting a lamp (bulb) quick and easy. The Paglight C6 is supplied with a plug-in lamp holder and a 20W 6V, G4-size tungsten halogen lamp (10W, 20W and 30W lamps are available). Additional lamp holders enable change between lamps of varying wattages, quickly and easily, without directly handling the lamp (see Fig. 1). When not in use, lamp holders can be stored in their heat-resistant polymer lamp protector.



### Professional Accessories

The accessory holding ring fits onto the front of the Paglight C6. It accommodates a range of accessories: a frosted diffuser, a dichroic filter and barndoors. The accessory ring can be rotated and secured in the desired position.

### Diffuser

When filming in subdued light conditions, or poor daylight, it is all too easy to over-light your subject. In order to avoid this you can use the frosted diffuser to soften the light. You can also use it

to soften the harsh shadows caused by a bright light source, such as direct sunlight. The spot-and-flood facility helps give you further control over light intensity.

### Dichroic Filter

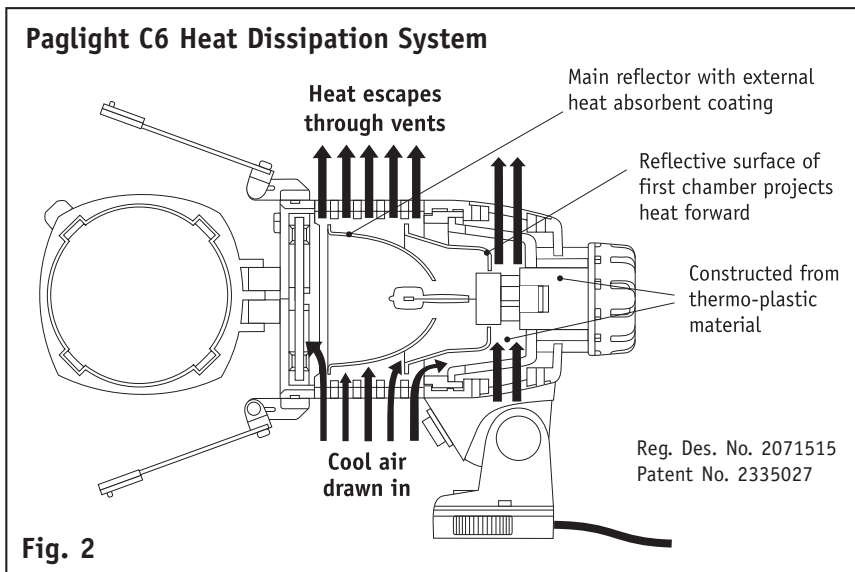
When supplementing daylight with your Paglight C6, the colour temperature must be corrected to match daylight. You can do this by using the dichroic filter to raise the colour temperature of the light output from 3200°K (halogen) to 5600°K (daylight). Colour temperature is a measurement of the colour of light, not the brightness.

### Barn Doors

The barn doors can be used to flag off unwanted light. When folded across the face of the reflector they also act as protectors for the glass filters, when the light is not in use.

### Cool Running

The Paglight C6 is constructed from a glass-reinforced engineering polymer that provides impact-resistance and temperature stability (see Fig. 2). The combination of this modern material and the patented heat dissipation system ensures the Paglight C6 is cool-running and comfortable to handle, at all times.



## **Perfect Positioning**

The support base of the lamp head is a multi-directional mounting which allows the light to be adjusted vertically and horizontally. The pivot points are friction-adjustable to maintain the desired position in all situations of use.

## **Mounting**

The Paglight C6 Kit is supplied with a square shoe plate, allowing the unit to be mounted to camcorders with an accessory shoe.

The light base incorporates a ¼" Whitworth bush that enables it to be used with other PAG mounting options, such as a ¼" Whitworth stud adaptor (Model 9971), a handle for hand-held operation (Model 9906) and a camera clamp for mounting to non-standard fittings (Model 9807).

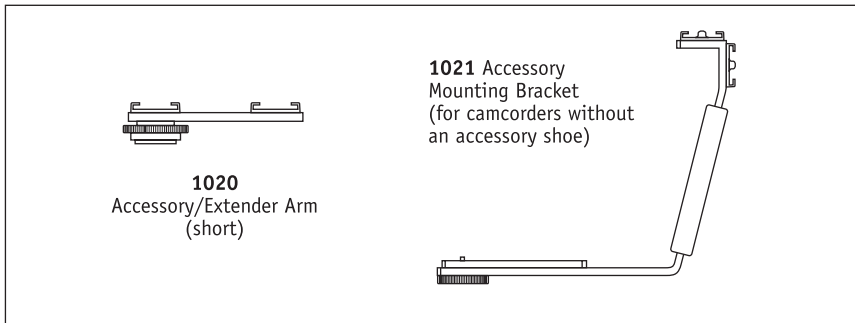
The Paglight C6 base is fitted with a flying lead terminated with a professional-quality connector, incorporating gold-plated contacts, for connection to the C6 Power Pack.

## **PAG C6 Power Pack**

Paglight C6 is powered from its own 6V 8Ah battery, supplied as part of the kit. This rechargeable Ni-MH battery, weighing little more than 1kg, has a detachable shoulder strap. The battery, when fully charged, will provide 2 hours and 35 minutes run-time with a 20W lamp. An additional battery will enable you to shoot for a whole day. A belt clip (Model 1022) can be used in place of the shoulder strap. Once fitted to the back of the battery it can be worn on your trouser waistband or belt.

## **PAG C6 Power Charger**

A battery charger is supplied that will charge the battery in three to four hours, from fully discharged. It will automatically recover the battery, prior to fast-charging, if the battery has been deeply discharged. The charger also provides a maintenance top-up charge after full charge. These automatic functions are indicated by a single LED. The charger has an interchangeable AC power plug. UK, Euro, US/Japan and Australia plug options are available.



### **Accessory/Extender Arm (Model 1020)**

This short extender arm can be fitted to the accessory shoe of the camcorder. It incorporates two accessory shoes that allow both the Paglight C6 and a microphone to be mounted to the camcorder.

### **Accessory Mounting Bracket (Model 1021)**

For camcorders without an accessory shoe PAG provides an Accessory Mounting Bracket that can be fitted to the 1/4" Whit. bush on the base of the camcorder. It incorporates two accessory shoes that allow both the Paglight C6 and a microphone to be mounted to the camcorder.

### **Softlight Diffuser and Filter Kit (Model 9983)**

This filter holding assembly fits onto the barn doors. The kit incorporates two softlight diffuser screens and 6 colour filters that enable you to create supersoft lighting or colour lighting effects.

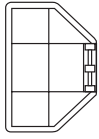
### **6V DC Adaptors**

With the aid of a PAG DC Adaptor Model 1023/- the 6V output of the C6 PowerPack can be boosted to power both the 6V Paglight and a variety of hand-held camcorders.

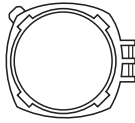
- 1023/01** for Canon XL1, XL2, XL-H1.
- 1023/02** for Sony DSR200.
- 1023/03** for Sony PD150, PD170, and A1.
- 1023/04** for Panasonic DVX100 and HVX200.
- 1023/05** for Sony Z1.

*These can be purchased individually from your nearest PAG dealer, on-line at [www.paguk.com/C6](http://www.paguk.com/C6), or by emailing [sales@paguk.com](mailto:sales@paguk.com)*

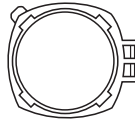
## Paglight C6 Parts:



**1019**  
Barndoor  
(single)



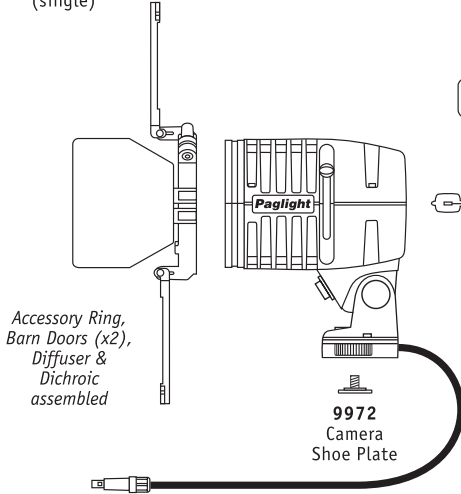
**1013**  
Daylight Filter



**1014**  
Diffuser

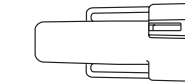


**1016**  
Accessory Ring



*Accessory Ring,  
Barn Doors (x2),  
Diffuser &  
Dichroic  
assembled*

**9972**  
Camera  
Shoe Plate



**1009**  
Lampholder  
& Protector  
(lamp not included)



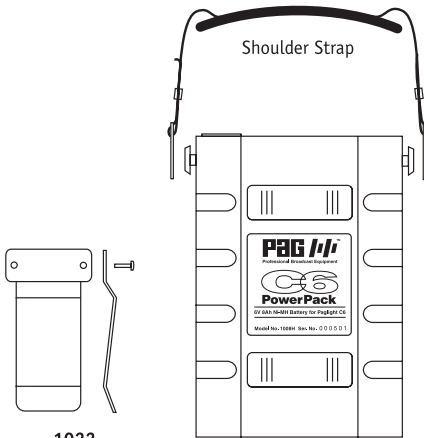
**1010**  
6V 10W  
Halogen Lamp



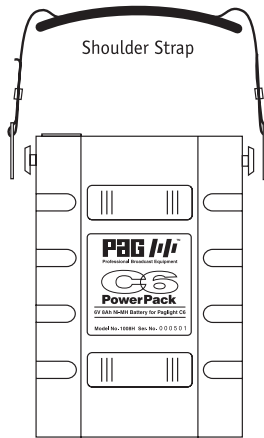
**1011**  
6V 20W  
Halogen Lamp



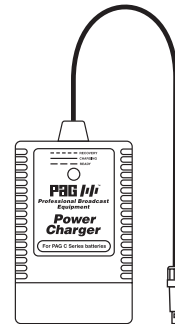
**1012**  
6V 30W  
Halogen Lamp



**1022**  
Belt Clip for  
C6 Power Pack



**1008H**  
C6 Power Pack



**1002**  
C6 Power Charger



**1003**  
Euro plug



**1004**  
UK plug



**1005**  
USA/Japan Plug



**1006**  
Australia Plug

**Fig. 3**

# PAGLIGHT C6

### **SAFETY INSTRUCTIONS:**

**Please read these important safety and operating instructions fully before using the Paglight C6.**

6V INPUT ONLY. DO NOT CONNECT TO INCORRECT SUPPLIES.

The Paglight C6 has been specifically designed as a 6V unit and on no account should any attempt be made to 'convert' it for use with 12V supplies. Such attempts will irreversibly damage the Paglight C6 and invalidate the warranty.

Paglight C6 is designed for use with 10W, 20W and 30W, 6V, G4-sized lamps only. A 6V 20W lamp is included in this kit. Replacement 6V 20W, 10W and 30W lamps are available from PAG Ltd.

The Paglight C6 can be used in light rain and moderately damp environments. However, the internal lamp operates at high temperatures, and direct contact with water should be avoided.

The Paglight C6 is not intended for any use other than video lighting purposes. This product should be kept out of the reach of children.

Do not disassemble. Incorrect reassembly may result in a safety hazard.

Do not operate if the fixed safety glass is cracked or broken.

The Paglight C6 will become warm in use. Do not leave it switched on while unattended. Do not obstruct the cooling vents or operate near combustible materials. Allow the light to cool before storage.

Switch-off the Paglight C6 before removing or replacing the plug-in lamp holder. Allow the lamp to cool before removing it from the lamp holder. Do not handle the lamp envelope directly. If it is touched inadvertently, clean it with a lint-free cloth moistened with methylated spirit.

### **SPECIFICATION:**

Type: Halogen capsule.

Voltage: Nominal 6V.

Watts: 20W (10W and 30W available as accessories).

Colour Temperature: 3200°K at 6V (5600°K when using dichroic filter).

Base: Type G4.

### **OPERATING INSTRUCTIONS:**

#### **Plug-in Lampholder System**

The Paglight C6 features a unique plug-in lampholder system that enables lamp wattage variants to be changed without touching the lamp itself. The lamp holder with lamp can be stored in its heat resistant polymer lamp protector.

#### **Removing the Lampholder**

**IMPORTANT:** First switch-off the Paglight C6. Gently press and turn the lamp holder anti-clockwise and carefully withdraw it from the rear of the unit.

#### **Changing the Lamp**

Remember that the lamp itself may remain hot for a considerable period after being extinguished. It is advisable to use a cloth to remove a failed lamp. The bi-pin lamp is a push fit into the lamp holder. Do not twist or bend the legs when removing or replacing. Do not handle the lamp envelope directly. If it is touched inadvertently, clean it with a lint-free cloth moistened with methylated spirit. Finger marks cause blackening of the glass, and in turn hot spots, which lead to a reduction in life and possible rupture of the glass. For users who change lamp wattages frequently it is recommended that a lamp holder is purchased for each wattage variant.

## **The Lamphead**

The lamphead incorporates a tilting facility with a friction locking mechanism. From the horizontal position, the lamp head can be angled downwards by 15 degrees, and upwards by 60 degrees.

## **Focussing**

Focussing is provided by a lever on each side of the lamp body, and is continuously variable from narrow to wide angle, thereby increasing or decreasing light intensity.

## **Cool-Running**

The lamp head is designed around a patented heat dissipation system, which allows external parts of the light to operate at a far lower temperature than other models currently on the market. However, the light should not be operated with the barn doors fully closed.

A special toughened, heatproof safety glass is provided at the front of the light, for protection. Never operate the light if this glass is broken or missing.

Do not operate the light in the vicinity of highly combustible materials, especially explosive heavy vapours. Never leave the light turned on while unattended. Do not obstruct the airflow through the cooling vanes.

## **The Paglight C6 Base**

The base incorporates a captive locking mechanism. A standard  $\frac{1}{4}$ " Whitworth thread in the base of the Paglight C6 enables, amongst other things, a square shoe plate to be fitted (included). This enables the Paglight C6 to be fitted directly to any camera equipped with an accessory shoe. Always tighten the locking wheel firmly to secure the base, while retaining the swivelling facility.

## **Barn Doors & Filters**

The rotatable accessory ring fits onto the front of the light, and is supplied with two snap-in filters and two barn doors. The accessory ring can be adjusted to rotate or locked in position with the knurled screw. To remove the accessory ring, unscrew the knurled locking screw completely, and expand the ring over the front rim of

the light. Barn doors and filters are a snap-fit onto the accessory ring, and may be assembled in any permutation. To remove, pull firmly forwards from the mounting lugs. Do not twist. Fitting is the reverse of this procedure. The barndoors and filters feature screws to adjust the tension of the hinges.

## SECTION 3

# C6 POWER PACK

### **SAFETY INSTRUCTIONS:**

**In the interest of safety, and the protection of our environment, please read and observe the following health and safety information.**

#### GENERAL:

Do not put in fire or mutilate the battery. The cells may burst or release toxic material.

Do not short-circuit the battery as this may cause burns.

The battery contains no user-serviceable components. Do not attempt to open the case.

Charge using only the recommended charger.

#### CORROSIVE ELECTROLYTE:

The electrolyte can cause chemical burns to human tissue, should leakage occur. Wear protective gloves when handling all contaminated materials. In the event of contact with the skin, flood copiously with clean water. Seek medical attention if significant amounts of electrolyte are involved, or if any has touched the eyes.

#### ACCIDENTAL SHORT-CIRCUITING:

The C6 PowerPack has been designed to withstand reasonable wear and tear, however severe abuse may cause damage to the internal cell assembly. This could result in short circuiting of the battery cells at very high currents, or the venting of combustible gas, with the potential for fire and personal injury. If the battery has been damaged please return it to PAG Ltd.

#### DISPOSAL:

Do not dispose of batteries or cells in a charged condition. Do not mutilate or incinerate batteries. Dispose of in accordance with

local regulations. PAG Ltd. offers a recycling service for expired PAG batteries, which results in the materials being recovered for re-use. Batteries must be in a discharged state, and be clearly marked "FOR RECYCLING".

Return batteries by prior arrangement to:

PAG Ltd. Tel: +44 (0) 20 8543 3131  
565, Kingston Road Fax: +44 (0) 20 8540 4797  
London SW20 8SA E-mail: sales@paguk.com  
United Kingdom

### **SPECIFICATION:**

#### **Model No. 1008H**

Cell type: Nickel-Metal Hydride.

Voltage: 6V nominal.

Capacity: 8Ah nominal.

Output Protection: Fuse and spare rated T10A. Self resetting thermal trip rated 71°C.

Operating Temperature Range: 0°C to +40°C.

### **OPERATING INSTRUCTIONS:**

#### **Charging**

Charge the C6 PowerPack using only the PAG Power Charger Model No. 1002. Other types of charger may not be suitable, and could damage the battery irreparably.

Charge the battery fully before use. Even after one week in storage it is advisable to give it a top-up charge before use.

When a battery has been discharged at a high current it will become warm, and it is advisable to let it cool before charging. The ideal temperature for charging is around 20°C.

#### **Care & Maintenance**

For maximum output, use within the temperature range 0°C to +40°C. Do not over-discharge. The battery is fully discharged when the voltage reaches 5V. Leaving the light switched-on with a discharged battery will irreparably damage the battery.

Protect the battery from severe shock, vibration and intense heat.

Do not immerse the battery in water or expose it to driving rain, steam or condensing humidity. If the battery should get wet, shake out any excess water and allow it to dry naturally in a warm place. Do not attempt to use it until it has dried fully.

The battery is fitted with a self-resetting fuse. If the battery is fully-charged and yet the equipment fails to operate, there is almost certainly a fault within the battery, the equipment, or the cables and connectors. These should all be checked for possible short circuits.

Store in a cool dry place. Maintenance charging is not required during storage. After prolonged storage, 2 or 3 cycles of charge and discharge may be required to return the battery to its maximum available capacity.

## SECTION 4

# C6 POWER CHARGER

### **SAFETY INSTRUCTIONS:**

**Please read these instructions fully and note all warnings before using the C6 Power Charger.**

THIS PRODUCT IS NOT INTENDED FOR ANY USE OTHER THAN THE CHARGING OF PAG 'C' SERIES RECHARGEABLE BATTERIES.

IMPORTANT: Use only on AC supplies 100-240V, 50-60Hz. Supply connection to the unit must be made using only the special mains input plug designed for this equipment. Interchangeable power plugs are available for use in UK, Europe, USA/Japan and Australia.

Unplug this apparatus during lightning storms or when unused for long periods of time.

WARNING: Indoor use only. To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

Do not disassemble or modify any part of the C6 Power Charger. There are no user-serviceable parts inside. Incorrect reassembly may result in a safety hazard.

### **SPECIFICATION:**

#### **Model No. 1002**

For use with PAG 'C' series batteries, Nickel-Cadmium and Nickel-Metal Hydride, 5-6 cells / 2.5-10Ah.

Input: 100-240V~ / 50-60 Hz / 450mA / 31W.

This equipment is double insulated. An earth connection is not required.

Output: 5-10.5V DC / 2A

Charge time (C6 battery): approximately 3½ hours from fully discharged.

## **OPERATING INSTRUCTIONS:**

Fit the mains input plug supplied, to the charger, by pushing it fully onto the charger body. Connect the charger to a suitable AC supply (see Safety Instructions).

### **Charging the Battery**

The charging output lead is terminated with a self-locking connector which is polarised with a keyway to ensure that the correct charging polarity is maintained.

**ON NO ACCOUNT USE FORCE TO ENGAGE THE PLUG INTO THE SOCKET.**

The self-latching system will maintain the connection and only a deliberate pull on the plug's outer shell will release the connector. Do not pull on the lead itself.

**WARNING:** Never carry or suspend the battery from the lead. Never force the plug into the socket when misaligned. A reverse polarity connection will irreparably damage the charger and invalidate the warranty.

Once correctly connected, charging will commence, and the LED will be lit continuously.

When charging is complete a trickle maintenance charge will be applied and the LED will blink steadily.

A low rate recovery charge will be given if the battery is in a poor or over-discharged condition, indicated by the LED flashing rapidly.

# SERVICE & WARRANTY

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### **SERVICE:**

NEVER REPLACE WITH UNAUTHORISED PARTS.

Refer all service enquiries and orders to your nearest PAG dealer or directly to PAG Ltd. 565 Kingston Road, London SW20 8SA, UK.

E-mail: sales@paguk.com Tel: +44 (0)20 8543 3131

Fax: +44 (0)20 8540 4116

### **WARRANTY:**

Notwithstanding any provision of any agreement the following Warranty is exclusive: PAG Limited warrants each Paglight C6 Kit it manufactures to be free of defects in material and workmanship under use and service for **SIX MONTHS** from the date of purchase. This warranty extends only to the original purchaser. This warranty shall not apply to consumables such as fuses, lamps or any product or parts which have been subject to misuse, neglect, accident or abnormal conditions of operation.

In the event of failure of a product covered by this warranty, PAG Limited will repair 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.

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.

PAG Ltd.  
565 Kingston Road  
Raynes Park  
London SW20 8SA

T +44 (0) 20 8543 3131  
F +44 (0) 20 8540 4116  
E sales@paguk.com  
www.paguk.com



## EU DECLARATION OF CONFORMITY

We **PAG Ltd.**  
**London, England.**

hereby declare that the products described below conform to the relevant requirements of the appropriate EU Directives. This declaration shall cease to be valid if modifications are made to the products without our approval.

PRODUCT: C6 Battery Charger

MODEL: 1002

APPLICABLE EU DIRECTIVES: EMC DIRECTIVE 89/336/EU  
LOW-VOLTAGE DIRECTIVE 73/23/EU  
CE MARKING DIRECTIVE 93/68/EU

HARMONISED STANDARDS APPLIED: GENERIC:  
EN 50081 - 1 (EMISSIONS)  
EN 50082 - 1 (IMMUNITY)

PRODUCT SPECIFIC: EN 60335 - 2 - 29

Signed for and on behalf of PAG Ltd.

A handwritten signature in black ink, appearing to read 'Alan Lavender'.

Alan Lavender  
Chief Executive.

Date: 26.09.02.