

PhotonSpot 300T

Operating Instructions

Please read these instructions carefully before using your PhotonSpot unit. By following them you will ensure the maximum performance and life from the unit, and ensure safety for the user.

- A) Accessory lock
- B) Latch plate
- C) Lamp Cover
- D) Mounting Clamp Screw
- E) Focus Control
- F) Tilt Clamp



Before using your PhotonSpot 300T

The PhotonSpot is suitable for use on electrical supplies of 110v to 240v with alternating or direct current (AC or DC). If power is being supplied by a generator it is essential that the chassis of the generator is earthed for the safety of the user.

UK Model Each lamphead is fitted with a fused plug for connection to standard UK 13 amp mains socket.

European Model Each lamphead has a fuse fitted to the switch unit and a Schuko style 16 amp European plug.

If the prewired plug is replaced or a plug is being fitted it should be done by a competent person following the European standard colour code:

BROWN - LIVE BLUE - NEUTRAL GREEN/YELLOW - EARTH (GROUND)

USA Model Each lamphead is fitted with an unfused NEMA5-15P plug. The mains cable uses the USA standard colour code:

BLACK - LIVE WHITE - NEUTRAL GREEN - EARTH (GROUND)

It is essential that the mains supply is earthed and that the PhotonSpot is overload protected by fuse or circuit breaker.

Fusing The correct fuse rating for the PhotonSpot is 5 amps at 220/240v, or 10 amps if used on 110/120v supplies.

UK Model uses standard BS1362 HBC quick acting (F) fuses 1/4 x 1", European Model uses standard BS4265 (IEC127) HBC quick acting (F) fuses 5 x 20mm.

Lamps for the PhotonSpot

The following lamps can be used in your PhotonSpot 650T which uses a GY9.5 base. Most are available in 120V,230V and 240V:

<u>European Ref.</u>	<u>Volts</u>	<u>ANSI Ref.</u>	<u>Watts</u>	<u>Colour Temperature K</u>
CP81	240	FSK	300	3200
CP81	230	FSL	300	3200
M38	240		300	3000
	120	FKW	300	3200

Fitting the lamp

Before your PhotonSpot can be used a lamp must be fitted.

The voltage of the lamp must match the voltage of the electrical supply you are using.

- 1) **Make sure that the mains plug is disconnected from the electrical supply.**
- 2) Slide the latch plate (B) downwards.



- 3) Slide back the lamp cover (C) and turn the focus control to bring the lamp holder back to spot position.
- 5) Insert the lamp, making sure that the thick and thin pins on the lamp base are aligned with the corresponding holes in the lamp holder

NOTE: If the quartz envelope is touched with bare fingers it will be indelibly marked when the lamp is next burned. Always place a paper wrapper around the quartz part of the lamp when handling it, and remove it when the lamp is in place.

- 6) Slide back the lamp cover, and slide the latch plate back into lock position.

Using your PhotonSpot 300T

Always check that the Safety Mesh and Lens are in good condition before use. Your PhotonBeam has 'anti-surge' which protects the lamp and switch contacts from the high surge of current when the lamphead is switched on. This surge, which can be 10 times the normal running current, occurs because a tungsten filament lamp has very low resistance when cold; 'anti-surge' reduces this surge to a safe level and helps to prolong lamp life. Its action is completely automatic, and does not affect the colour temperature of the lamp.

Your PhotonSpot is fitted with the international standard 5/8" (16mm) hollow fitting, so it will fit most types of industry lighting mounts. **Always ensure that the mount you are using is of appropriate strength and stability.**

If your PhotonSpot is hanging from an overhead mount fit a safety bond to prevent the lamphead falling if the mount clamp screw (D) is accidentally loosened.

When using your PhotonSpot do not cover the cooling vents. If using diffusers or colour effect filters make sure they are of a heat resisting type.

You may use your PhotonSpot outdoors, but remember that it is **not** weatherproof. **DO NOT USE IN RAIN OR SPRAY CONDITIONS.** On no account should moisture be allowed to contact glass filters, lamps or any electrical part.

All tungsten lights get hot in use; when making adjustments of pan, tilt or focus always use the heat resistant handles to avoid discomfort.

Take care when using your PhotonBeam close to inflammable or heat sensitive materials, as the beam projects heat as well as light.

Take care with the mains cable. Route it carefully so that people will not trip or push wheeled equipment over it.

Always allow the lamphead to cool for a few minutes before changing a lamp or packing away.

Permitted burning angles

In order to prevent overheating of the PhotonSpot and its lamp there are limitations on the angle at which the unit may be used. Taking horizontal as 0°, the head may be tilted upwards by 60° and downwards by 90°.

Maintenance

BEFORE CARRYING OUT ANY MAINTENANCE DISCONNECT THE PHOTONSPOT FROM THE MAINS SUPPLY BY REMOVING THE MAINS PLUG FROM THE SOCKET.

Your PhotonSpot should be inspected regularly for deterioration of the electrical parts. The mains cable should be free from damage, and the lamp holder contacts should be clean. Blackened or pitted contacts will require new lamp holders to be fitted. These are available as a spare part. All electrical repairs should be carried out by a competent electrician.

Glass filters and the aluminium reflector may be cleaned with a damp cloth when cool. Do not use cleaning agents, which may damage the delicate surfaces.

Under the UK Electricity at **Work Regulations 1989** it is recommended that portable electrical appliances are tested for electrical safety from time to time. It is the practice in many institutions to use an ordinary Portable Appliance Tester (PAT) for this. It should be noted that many of the simpler PATs will give a 'fail' result for the following reasons:

- 1) Earth Continuity Test.
Because the mains cable of a studio light is much longer than most portable appliances its resistance is higher. Most PATs have a fail level of 0.1 or 0.2 ohms using a test current of 20 amps at 6 volts. The actual resistance of a studio light cable may be from 0.2 to 0.3 ohms. The more sophisticated PATs have a trip level adjustable from 0.1 to 0.5 ohm
- 2) Phase/Neutral (Short Circuit) Test.
The tungsten filament of a studio light has a very low resistance when cold, up to seventeen times less resistance than when running. This means that there is a current surge when the lamp is switched on of approximately seventeen times the running current. For a 300 watt lamp at 240v this current can be up to 20 amps for a fraction of a second. PATs can read this as a short circuit and fail the appliance. The lamp should be removed prior to the test and the switch set to the "ON" position. The PAT will then test for short circuit up to and including the lampholder and give a genuine result.

Fitting Accessories

- 1) When looking from the front, press the accessory lock (A) to the left to release.
- 2) Insert the accessory into the mountings..
- 3) Close the accessory lock (A) by pushing down until it locks.

Service & Spare Parts

We operate a full repair service at our factory. We can also supply spare parts for people wishing to carry out their own repairs. When ordering spare parts please quote the Serial No. shown on the mounting yoke.

Conformity

Photon Beard products conform to appropriate European standards, specifically:

- 73/23/EEC 1995 Low voltage directive
- 93/68/EEC 1995 CE marking directive
- 89/336/EEC EMC directive

RoHS

Photon Beard products do not contain more than the maximum permitted levels of hazardous substances as laid down in the European directive on the restriction of use of certain hazardous substance

WEEE

Under the European directive on the disposal of waste electrical and electronic equipment this equipment should only be disposed of through approved recycling facilities and not through landfill waste disposal. Photon Beard is a member of a registered Compliance Scheme in accordance with the WEEE Directive.

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