



**BULLFINCH  
HANDILIGHT  
No. 1616**

A non domestic, portable lantern for LP gas,  
Propane or butane at 1 bar.  
For use in GB

**OPERATING,  
MAINTENANCE AND SERVICING  
INSTRUCTIONS**

**CONTENTS**

Section No.

- 1 Operating Instructions
  - 1 Introduction
  - 2 Assembly
  - 3 Connection to the Gas Supply
  - 4 Positioning
  - 5 Lighting the Handlight
  - 6 Safety Checks
- 2 Maintenance and Servicing
  - 7 Routine Maintenance
  - 8 Servicing
  - 9 Spare Parts & Technical data

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**Section 1**  
**Operating Instructions**

**1 Introduction**

The No. 1616 Handlight is a small portable lantern for use with propane or butane at 1 bar, to provide an all round flood of brilliant light. When fitted to a 47 kg cylinder of propane it will provide over 500 hours of continuous operation. The Handlight should only be used in accordance with these instructions and the safety precautions leaflet.

**2 Assembly**

The Handlight is packed with the handle and the gas valve separated from the main body of the lantern.

- 1 Lift away the black top section from the guard.
- 2 lift the glass globe from the guard and remove the packing from around the glass, replace the globe into the guard.,
- 3 Screw the gas valve securely into the mixing tube.
- 4 Refit the black top section to the guard ensuring that the two legs of the guard protrude through the top. Attach the handle by springing the ends into the ends of the legs.
- 5 Using a suitable length of 4,8 mm bore high pressure LPG hose to BS 3212 (Bullfinch No. 1299) connect the Handlight to a 1 bar fixed pressure regulator and secure both ends of the hose with suitable hose clips. A suitable regulator for propane is Bullfinch No. 1041. Consult your dealer for a 1 bar regulator for butane.

**3 Connection to the gas supply**

- 1 Check that the regulator connection and the inside sealing face of the cylinder valve are clean and undamaged, connect the regulator to the cylinder and spanner tighten the nut. It has a left hand thread.
- 2 Ensure that the hose is not touching the lantern.

**4 Positioning**

The Handlight can be hung from its handle or it can be stood on a non combustible surface. When the Handlight is used in the hanging position the handle will become hot so allow the

lantern to cool down before handling it. To avoid burning yourself do not carry the Handlight when it is lit. Care should be taken to position the lantern so that it cannot overheat the gas cylinder or any combustible materials (150 mm minimum clearance and 300 mm from the ceiling). Avoid twisting or kinking the flexible hose. Do not use in basements or below ground level. Use only in a well ventilated area.

The minimum room size should not be less than 15 m<sup>3</sup> with a free ventilation area of more than 50 cm<sup>2</sup> divided equally between high and low levels.

**5 Lighting the Handlight**

When the Handlight is used for the first time or when a new mantle has been fitted, the mantle will require burning off as follows:

- 1 Position the lantern to allow access through the bottom of the glass globe.
- 2 Distribute the fabric of the new mantle evenly as shown in the diagram.
- 3 Ensure that the lantern control valve is in the off position, then open the cylinder valve.
- 4 Hold a flame under the mantle until it begins to smoulder then slowly open the lantern control valve to allow a very small flow of gas to assist the initial burning off. Too much gas will distort the mantle and may blow a hole in it. Avoid touching a burned off mantle, it is very fragile.
- 5 Allow the mantle to burn off into its fully formed shape then turn off the lantern valve.
- 6 Locate the lamp in the required position when cool.

**To relight.**

- 1 Turn on the lantern control valve and apply a flame under the mantle.

**To turn off.**

- 1 First turn off the gas at the cylinder valve and allow the gas to burn away then close the lantern control valve.

**6 Safety checks**

With the lantern lit, check for gas leaks using a soap solution or a leak detecting fluid as described in the safety precautions. If any leaks are found, turn off the gas immediately and rectify the leak before further use.

Never look for leaks with a naked flame.



Check that the mantle is burning with a brilliant even light, but avoid looking directly at the mantle as its brightness may temporarily affect your vision.

If you are in any doubt about the use of your Handlight, turn off the gas at the cylinder valve and consult your dealer.

## Section 2 Maintenance and Servicing Instructions

### 7 Routine maintenance

The following routine maintenance checks should be carried out if the lantern has not been used for some time. If the lantern is in regular use more frequent inspections may be required.

**Cleaning :-** The metal surfaces and the glass globe can be wiped, when cold, with a damp cloth. Avoid touching the mantle, it is very fragile. Occasionally, especially if the lantern has not been used for some time, unscrew the control valve and ceramic nozzle and with a high pressure airline blow through the gas mixing tube to clear any dust or insect debris that may have lodged there.

**Mantle replacement :-** The mantle should be replaced if it develops splits or holes.

- 1 Remove the handle, lift off the black top section and remove the remains of the old mantle and any ash that may be inside the glass globe. Take care not to breath in the dust, wrap the remains of the old mantle in paper and place in garbage disposal. If the ceramic nozzle is cracked or broken replace it with a new one.
- 2 Place the open end of the new mantle over the lip of the ceramic nozzle; pull the drawstring tight, knot it and cut off any excess string.
- 3 Distribute the fabric evenly and if the lantern is to be used immediately, burn off the mantle as described in the Operating instructions section, after reassembling the lantern.

**Note:** Always wash your hands after handling mantles.

**Hose :-** The hose should be inspected at

regular intervals. If it is cut, split or damaged it should be replaced. Use only orange coloured 4.8 bore high pressure rubber hose to BS 3212/2 (Bullfinch No. 1299).

**Operation :-** Light the lantern in accordance with Operating instructions and ensure that the lantern is burning with a brilliant even light, but avoid looking at the mantle as it may temporarily affect your vision.

**Gas soundness:-** Check the gas soundness of all the joints with a leak detecting fluid (Bullfinch No. 550 is suitable) and rectify any leaks before using the lantern.

### 8 Servicing

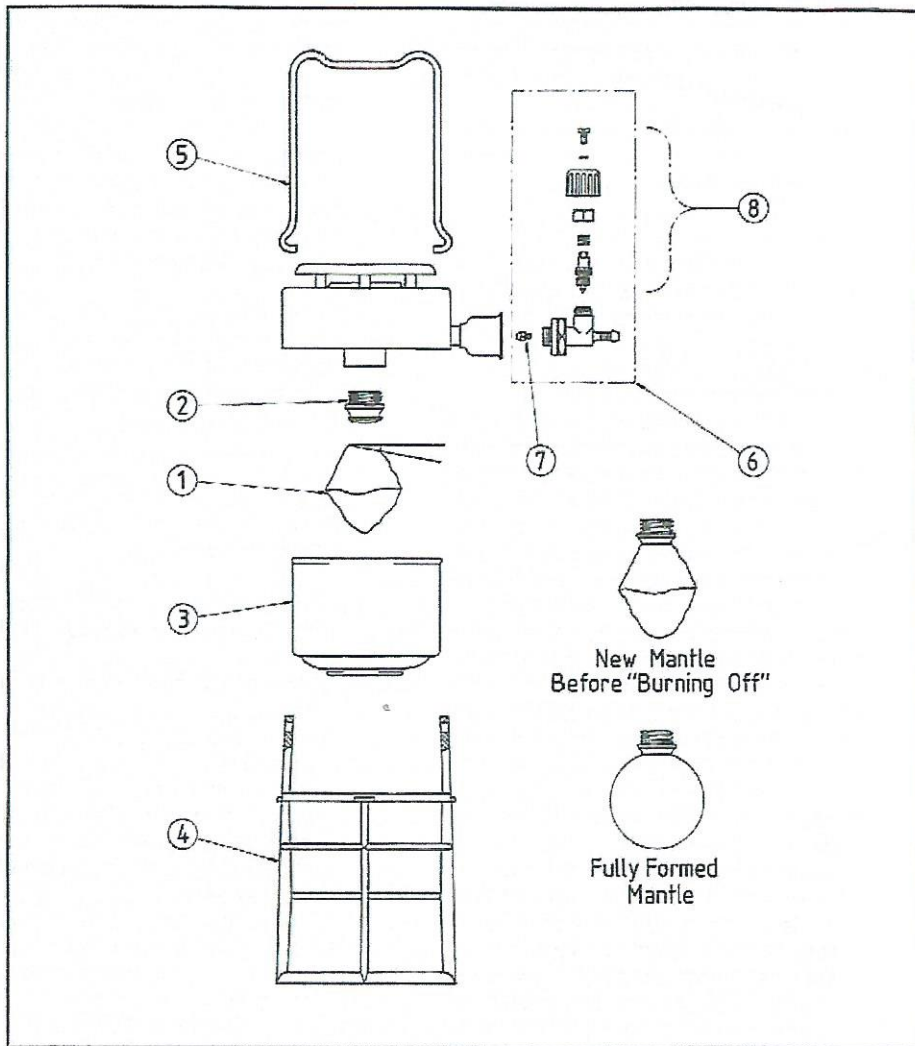
**Note:-** If you are in any doubt about the operation or servicing of your Handlight please consult your dealer.

**8.1 Control Valve:-** Should be serviced if excessive force becomes necessary to shut off the valve.

- 1 Remove the knob screw, washer and valve knob.
- 2 Remove cap nut with 5/8 AF spanner (right hand thread).
- 3 Unscrew and inspect the valve needle. Renew it if the cone is damaged or if the 'O' ring seal is worn. Lightly lubricate the 'O' ring seal with a molybdenum disulphide grease before reassembly.
- 4 Clear the valve body of any dirt or swarf.
- 5 Reassemble the valve needle fully, followed by the valve spring and the cap nut, tighten the cap nut firmly but without force. Refit valve knob, screw and lockwasher.

### 8.2 Gas Jet:- No. 6

- 1 Unscrew the control valve from the lantern.
- 2 Remove the jet and clean or renew.  
**Note:** Jets should only be cleaned with a solvent or compressed air. If they cannot be cleaned easily they should be renewed. Never poke out a jet orifice; it will damage the jet and affect the safety and performance.
- 3 Use PTFE tape or a small amount of sealing compound on the jet threads and replace the jet into the control valve.
- 4 Reassemble the control valve to the lantern.



9 Spare parts :- (See diagram) & Technical Data

No.	Part	Description	No.	Part	Description
1	1617	Mantle	5	SP 1616D	Handle
2	SP 1147M	Ceramic Nozzle	6	SP 1616T	Control Valve Assy.
3	1618	Glass Globe	7	SP 6	Jet
4	SP 1616N	Guard	8	SP 100A	Std. Control Valve Components

Technical data									
Jet	Operating pressure bar	Gas consumption		Light output of mantle	Dimensions mm			Weight kg	
		g/h	dm <sup>3</sup> /h		Ht.	W	D		
6	1	propane	85	45	Approx. equivalent to a 150W light bulb	220	250	150	1.4
		butane	98	39					

All data are approximate and, in line with our product improvement policy, may be subject to revision without notice