

**Caution:** Once the blowtorch has been used it should be put in a safe place away from any sources of ignition and allowed to cool down.

### To turn off the beacon:

Close the cylinder valves first and allow the beacon flame to die away, and then close the on/off valve.

Allow the beacon to cool down before dismantling.

Once dismantled, replace the protective covers in the gas cylinders and the 'Y' piece manifold, pigtail hose assembly and regulator.

### Gas:

- It is recommended that the propane gas cylinders are purchased from Flogas Britain Ltd.
- The disposable gas cartridge for the Bullfinch FirePower torch can be purchased from Bullfinch (Gas Equipment) Ltd.

The propane safety data sheet can be downloaded from the Flogas website:-

[https://assets.flogas.co.uk/uploads/PROPANE-Safety-Data-Sheet\\_1-11.pdf](https://assets.flogas.co.uk/uploads/PROPANE-Safety-Data-Sheet_1-11.pdf)

For the safety data sheet for the Bullfinch 400g Disposable propane cylinder No. 1644 go to:-

<https://bullfinch-gas.co.uk/download/data-sheets-certificates>

### **BULLFINCH (GAS EQUIPMENT) LIMITED**

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# *Bullfinch*

**D-DAY 80  
BEACON  
No. 2024**

For propane only at 37 mbar  
Heat input 48 kW  
Gas consumption 3.5kg/h



## Assembly and lighting instructions.

**Important!**  
**For Outdoor Use Only**  
**Read these instructions before using the Beacon.**

Please read these instructions carefully, it is the responsibility of the event organisers to ensure the correct assembly and safe operation of the beacon along with an appropriate risk assessment before siting and using the beacon.

Two competent persons are required to assemble and operate the beacon, which must be attended at all times when lit. The beacon will burn for approximately 45 minutes using one 19kg cylinder of propane, for longer periods you will need two 19 kg cylinders or a single 47 Kg cylinder. You will also need a Disposable 400g Propane gas cartridge, please refer to the FirePower torch instructions for the correct type of gas cartridge.

**CAUTION**

Care should be taken when handling heavy gas cylinders, if in doubt refer to the HSE Manual Handling guidelines and seek assistance.

The beacon is supplied complete with Gas hose and pressure regulator fitted and tested at the factory, also supplied is a 'Y' piece manifold and a Pigtail hose assembly enabling the Beacon to be connected to two cylinders of Propane. The 'Y' piece manifold and the pigtail hose assembly will not be required if you are using a single gas cylinder. A regulator spanner and a bottle of leak detecting fluid plus a ground anchor and rope are also included. You will need to assemble the beacon before it can be used, refer to the section "**Assembly and Setting up the Beacon**". A Bullfinch FirePower Torch is provided for igniting the beacon.

The beacon requires a flat area of 1320 mm diameter for erection plus space to place the propane gas cylinders; the tripod can be extended to a height of 2 metres to the lower edge of the burner head. The gas cylinders must stand upright and be secured to a suitable stable support.

**Safety Notes:**

Read these notes before assembling and using the equipment.

- Ensure that a Dry Powder Type Fire Extinguisher is available at the beacon site.
- **Assemble and test the beacon prior to the main event to ensure that it functions correctly and is leak free.**

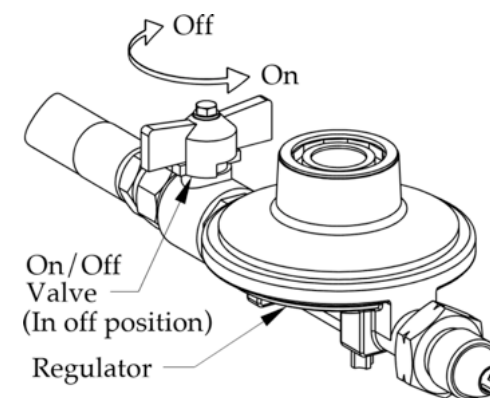
**To light the beacon:**

When lighting the beacon a large flame is produced, and so in the interests of safety the Bullfinch FirePower Torch provided with the beacon should be used. Two people are required to light the beacon, one person to turn on the gas supply and the other to ignite the beacon.

**Lighting procedure:**

Person 1.

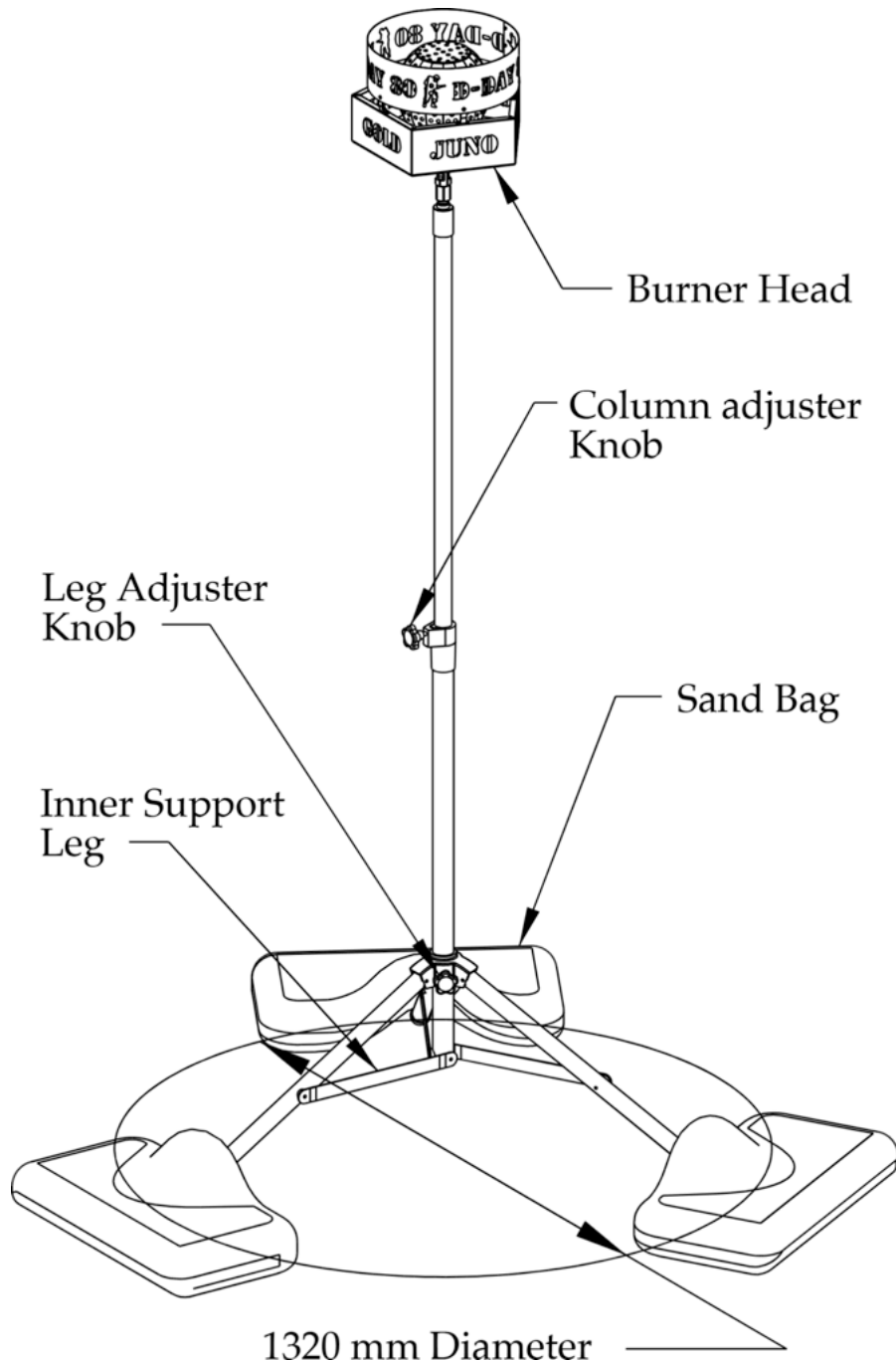
- Assemble and light the blowtorch as per the instructions provided with the blowtorch, engage the ignition lock to provide a continuous flame. Holding the blowtorch by the lower edge of the gas cylinder, apply the flame to the lower edge of the circular band around the burner head.



Person 2.

- With the On/Off valve fully closed (see diagram) open the cylinder valve(s) one full turn (this is so that in an emergency the valves can be shut off quickly).
- Once the ignition flame has been offered to the beacon, open the On/Off very slightly (to allow a small amount of gas to the burner), once the main burner has lit then the valve can be fully opened.

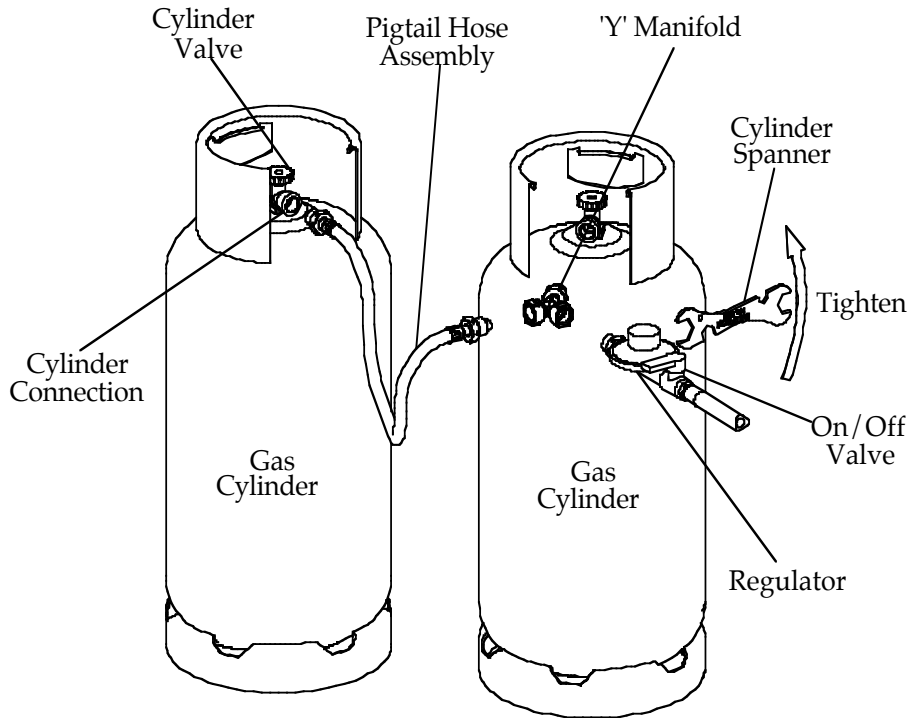
**Caution:** If the burner fails to ignite after 10 seconds turn off the gas supply, wait for 3 minutes and repeat lighting procedure.



Uncoil the hose taking care not to drag the regulator across the ground. Slacken off the leg adjuster knob and spread the legs until the inner support legs are horizontal (this is the maximum footprint position), tighten the adjuster to ensure good stability. Slacken the column adjuster knob and adjust the tripod to the correct height, taking care to feed the gas hose through the lower central column to prevent damage to the hose from edge of the tripod. Do not raise the central column beyond the red band around the column, secure in position by tightening the column adjuster knob. If the beacon is to be used on hard ground it is advisable to use sand bags to weigh down the tripod to prevent it from being accidentally tipped over, position sand bags as shown in the diagram and identify area as a potential trip hazard. On soft ground it is recommended that you use the ground anchor provided then secure the beacon using webbing straps or suitable rope.

### Connection to the gas supply:

Ensure that the cylinder valve (or valves if using two cylinders) is in the off position (turned fully clockwise) then remove and keep the protective plug from the gas cylinder (replace after use) and check that the sealing surface is free from any debris. Remove the protective cover from the regulator (replace after use) and connect to the gas cylinder. Ensure that the connection is spanner tight; the connections have left hand threads. Always ensure that trailing hose between the gas cylinder and the Beacon is allowed to run along the ground/floor to avoid a trip hazard. If two cylinders are to be used, then the 'Y' piece manifold and the pigtail hose assembly will be required. In this case remove the protective covers from the 'Y' piece manifold and the pigtail hose assembly (replace after use), check that the sealing faces are free from debris or damage. Assemble the 'Y' piece manifold to one of the cylinder valve outlet connections and one end of the pigtail hose assembly, connect the other end of the pigtail to the to other cylinder valve outlet connection. The regulator

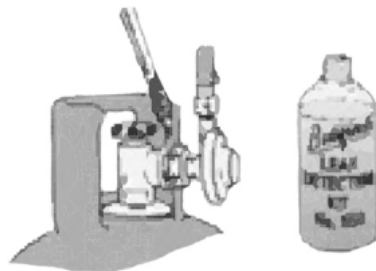


should be connected to the remaining outlet on the 'Y' piece manifold. Ensure that all connections are spanner tight, all connection threads are left hand.

### Check for gas leaks.

**NEVER SEARCH FOR A GAS LEAK WITH A NAKED FLAME.**

Ensure that the on/off valve (after the regulator) is in the off position (See Diagram). Open both cylinder valve slightly and using a leak detecting fluid, check that all connections are free from leaks. If a leak is detected at any time, turn off the cylinder valves and rectify the leak.



Keep the burner head at least 2 metres away from any building, roof, wall or combustible material including trees and bushes and ensure that people are kept at least 3 metres away

- Gas cylinders should be at least 3 metres away from the Beacon.
- Check to ensure the gas connections are leak free, following the procedure detailed in the section "Check for Gas Leaks".

In the event of a fire or emergency if it is safe to do so, try to turn off the On/Off valve by the regulator first, then if possible turn off the cylinder valves. Remove the cylinders from the immediate fire and extinguish the fire with a dry powder fire extinguisher. If this is too dangerous call the fire brigade and evacuate the area.

### Assembly and setting up the Beacon:

The beacon is supplied in two cartons, one containing the burner head and the other the tripod complete with the hose and regulator along with the other accessories.

On removal of the beacon from the packaging remove the red protective cover from the top of the tripod, then assemble the burner head as shown in the diagram. This joint is not part of the pressurized gas supply system and will not require any leak testing, but should be assembled spanner tight. Ensure that the joints in the area of the burner and tripod are tight; avoid using the burner head to tighten the assembly.

