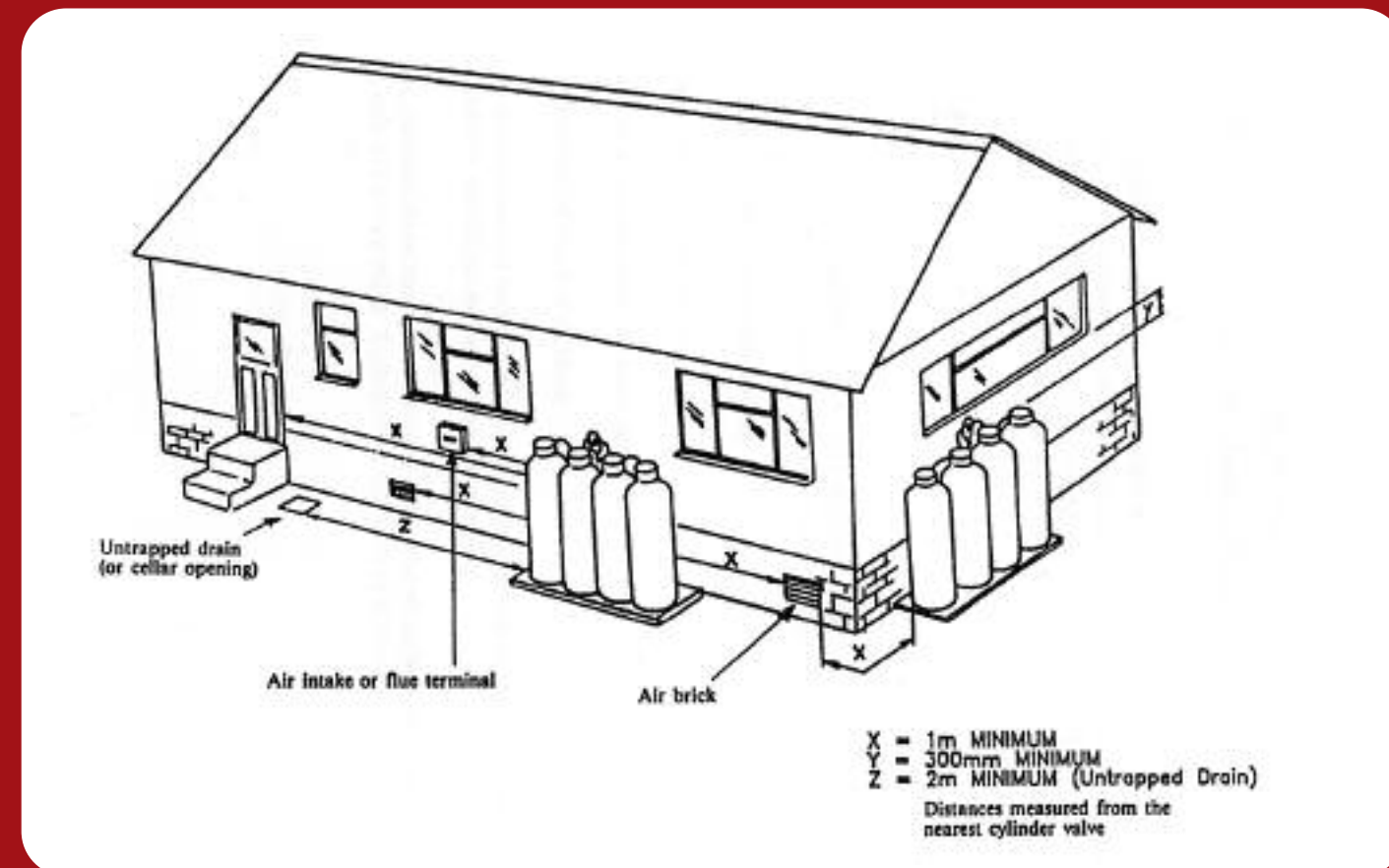


### Cylinders must be located:

1. In a stable upright position with valves uppermost. When laid horizontally, liquid gas could get into the supply pipes with serious consequences. If necessary, tall cylinders should be secured to protect against being toppled;
2. Where they remain readily accessible at all times;
3. Where they do not obstruct any means of entrance, exit, passageways, stairwells or emergency exits.
4. Where they are reasonably protected from accidental damage. Where necessary, suitable protection should be provided against possible damage or interference by persons, animals or vehicles.



### Cylinders must not be located:

1. In any cellars, basements or in a sunken area. Propane is denser than air, so leaked gas will accumulate at low level, with the possibility of ignition;
  2. Less than 1m from fixed sources of ignition, electrical equipment, excessive heat sources and combustible materials etc. and openings in your properties, such as doors, openable windows, ventilation ducts, air bricks or flue terminals etc.
  3. Less than 0.3 metres from the top of the cylinder from those items listed in (2) unless a non-combustible hood which does not hinder access to the valves is used.
  4. Closer than 2 metres from untrapped drains or unsealed gullies or openings to cellars unless a dividing wall not less than 0.25 metres high is used.
  5. Within 3 metres of any corrosive, toxic or oxidising materials, unless a dividing wall is used.
- Any queries regarding safety distances contact your cylinder stockist or Calor Gas.

## CHANGING A CYLINDER

The cylinder installation should be examined, paying particular attention to the hoses for damage or deterioration. If the installation is satisfactory the cylinders may be changed. Any minor defects should be brought to the attention of the gas user before changing the cylinder. Replacement of the defective parts should be advised. If the fault is significant it should be brought to the attention of the gas user and advice should be given that the system should be shutdown until the defective part is replaced.

Cylinders should be changed out of doors in a well ventilated area. Make sure there are no sources of ignition, in the vicinity of the cylinders.

Outlet valves on the empty and the replacement cylinders must be firmly closed before disconnection or removal of the cylinder outlet plug.

All appliances should be turned off, except when an automatic changeover pressure regulator to BS3016 is fitted. Where an automatic changeover pressure regulator is fitted and the cylinder regarded as containing gas is also off, do not replace the empty cylinder unless the appliances are confirmed to be off.

The valve of the empty cylinder must be closed before disconnecting the cylinder and the valve of the new full cylinder closed before removal of the protective plug and not opened until the cylinder has been connected.

The cylinder valve, mating connections and sealing washers (where applicable) must be clean and undamaged before making the connection. Jointing compounds must not be used.

After changing a cylinder, the valve and connection should be checked for leaks. Leaks may be detected by brushing connections and joints with a leak detection fluid. Bubbles will immediately form at the leak. If unable to make a leak free connection do not connect the cylinder and contact the gas supplier. If the cylinder is connected to another cylinder via an automatic changeover regulator, manual changeover valve or manifold then reconnect the empty cylinder i.e. do not leave the pigtail / hose unconnected.

Valves on nominally empty cylinders should be kept firmly closed to prevent air getting into the cylinder, which could form a flammable mixture with the vapour. Therefore a nominally empty cylinder should be treated as full.

## EMERGENCIES

As LPG is odourless Calor Gas and Blugas add a special additive to give the gas a distinctive smell and so help the detection of leaks.

### NEVER LOOK FOR A LEAK WITH A NAKED FLAME!

In the event of **GAS LEAKAGE** or **SUSPECTED LEAKAGE**:

- Extinguish all naked flames and ignition sources.
- Turn off all appliances.
- Do not switch on or off any electrical equipment.
- Open all doors and windows to increase ventilation.
- Turn off the gas supply at the cylinder.
- **NOTIFY** Calor Gas
- Do not use any appliance until it has been made safe.

In the event of **FIRE**:

- Immediately raise the alarm.
- **DO NOT** go near any cylinder in the vicinity of the fire.
- Call the Fire Brigade immediately and inform them that LPG cylinder(s) are on the premises.
- Turn off the gas supply if practicable and safe to do so.



### Emergency Telephone Numbers:

NORTHERN IRELAND:  
**Business hours:** 028 9045 8466  
**Outside business hours:** 028 9044 2422

REPUBLIC OF IRELAND:  
**Business hours:** 01 450 5000  
**Outside business hours:** 01 269 4800

**Calor Gas**  
**Airport Road West**  
**Belfast BT3 9EE**

**Calor Gas**  
**Long Mile Road**  
**Dublin 12**

# Using propane cylinders safely

This leaflet is for the safe use of Calor Gas and Blugas propane cylinders. If you have any queries please contact your local retailer.

Calor Gas and Blugas supply Liquefied Petroleum Gas (LPG) which is obtained during the process of refining crude oil or direct from oil wells. There are two types of LPG – Propane and Butane. Many appliances are designed to be used with either, but it is important to use the correct pressure reducing device (regulator) as the operating pressure for the two types of gas are different.



For identification PROPANE is supplied in RED, GREEN or GREY (Patio Gas) cylinders. BUTANE is supplied in YELLOW or BLUE cylinders.

The cylinders are specially made to store the fuel in its liquid state under moderate pressure. The liquid turns to gas vapour, which fills the space above the liquid. As gas is drawn off in use more liquid turns to gas to replace it. A regulator fitted in the supply line to the appliance(s) keeps the gas pressure constant as the cylinder empties – until there is no liquid left to turn to gas.

- ✓ Do treat a cylinder with care to ensure the valve is not damaged. A damaged valve could result in a leak with serious consequences.
- ✓ Do use a cylinder upright. When horizontal, liquid gas could get into the supply pipes with serious results.
- ✗ Don't store or use cylinders in cellars, below ground level or near drains or gullies, because propane and butane are heavier than air. If there is a leak the gas will collect at low level and become dangerous in the presence of a flame or a spark.
- ✗ Don't use propane cylinders indoors residentially, because propane is contained under higher pressure and should only be kept outside. Butane can be used indoors in cabinet heaters, and when installed to the required standard by qualified gas fitters (CORGI registered in Northern Ireland). Propane cylinders can be used internally in Commercial and Industrial premises but their use should comply with the requirements of LPGA Code of Practice 24 Part 6: 2000.
- ✗ Don't use any cylinder for any purpose other than that for which they are intended.
- ✗ Don't store cylinders where they would obstruct means of access, passageways, stairwells or emergency exits.
- ✗ Don't attempt to disconnect a regulator if the flame does not go out when the pressure regulator switch or cylinder valve is turned off (applicable to appliances isolated directly by the pressure regulator switch or cylinder valve). Leave the appliance appliance alight and call your Gas retailer.
- ✗ Don't use cylinders in high rise flats.
- ✗ Don't subject a cylinder to heat because pressure inside the cylinder could build up to a point beyond the designed safety limit.



## THE REGULATOR

A regulator will be included in the connection between the cylinder(s) and appliance(s).

Different propane cylinders will have different valves and it is essential that the regulator cylinder connection is compatible with the cylinder valve.

The regulator is precisely set to control the pressure of the supply and must not be adjusted.

Some industrial appliances operate at high pressure and are designed to operate at varying pressures depending on the heat output required. For these a special high pressure regulator must be used which incorporates a means of manual adjustment.

If the regulator shows signs of wear it should be replaced.

## FLEXIBLE HOSES

- All flexible hoses should have manufacturers' connections or be secured with proper hose clips.

- The hose diameter must be compatible with the hose connection nozzles.

- Make sure that the hoses are kept clear of "hot spots".

- All flexible hoses should be replaced after 5 years of service or if showing signs of wear or damage. Inspect them frequently.

- Make sure that where hose end sealing washers are used they are in good condition.

- Hose length should be as short as practicable and shall not extend from one room to another, nor pass through any walls, partitions, ceilings or floors.

- Use only hose approved for use with LPG. For patio heaters and barbecues the hose should be to BS3212 Type 2. This standard

of hose is also used for high pressure connections including

connecting propane cylinders to wall mounted regulators.

BS3212 Type 1 hose can be used for low pressure connections

to portable appliances. Quick connection hoses to

BS669 Part 1 (warranted for use with LPG by the manufacture) are used for domestic cooker connections.



### SWITCH ON VALVE (10.88kg/Towns Gas)

These cylinders take a connection which incorporates a switch for the control of the gas supply. No Spanner is required.

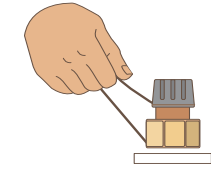


### CONNECTING A CYLINDER

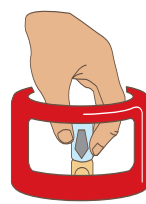
1. Turn the plastic cap so that the arrow is pointing to the gap in shroud.



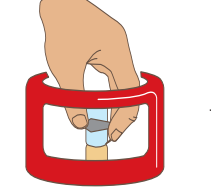
2. Remove the plastic cap by pulling the lanyard out, then up. Do not use tools. Leave the cap hanging.



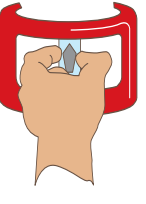
3. Check that the black sealing washer is fitted inside the cylinder valve. Place the connection down over the 6 O'clock position.



4. Turn the switch clockwise to the OFF (9 o'clock position)

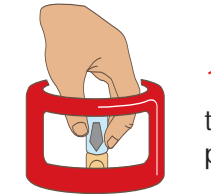


5. Turn the switch clockwise to the ON (12 o'clock) position

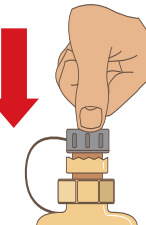


### DISCONNECTING A CYLINDER

1. Turn the Switch anticlockwise to the disconnect (6 o'clock) position and lift off the connection



2. REPLACE the plastic cap onto the empty cylinder or part full cylinder if not in use.



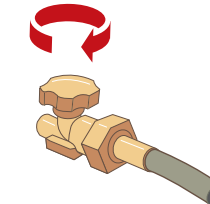
### POL CONNECTION LEFT HAND FEMALE THREAD (47, 19.05, 13.15, 3.9kg - all have hand - wheel valve)

(EXAMPLE SHOWN Twin cylinder automatic change over with pigtails. INSTRUCTIONS also apply for single cylinder installation.)

These cylinders have a female valve connection. Check that the connection is clean and undamaged. Always use the correct size spanner and fully tighten (left hand thread)

### CONNECTING A FULL CYLINDER

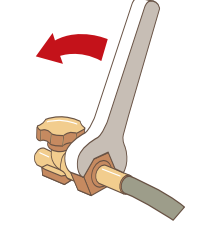
1. Check that the valve handwheel is OFF by turning clockwise



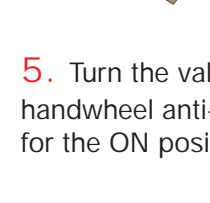
2. Remove protective plug from full cylinder, keep and replace later



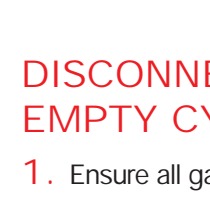
3. Inspect the bullnose connection for damage before connecting



4. Fit the connecting nut (left hand thread) to the cylinder using a Calor Gas spanner. Fully tighten



5. Turn the valve handwheel anti-clockwise for the ON position



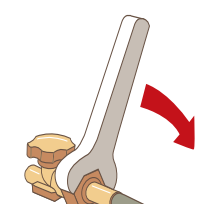
### DISCONNECTING AN EMPTY CYLINDER

1. Ensure all gas taps are turned off.

2. Turn the valve handwheel OFF (clockwise rotation)



3. NEVER REMOVE THE CONNECTING NUT WITH THE CYLINDER VALVE OPEN



4. REMOVE the connecting nut (left hand thread) with the spanner.



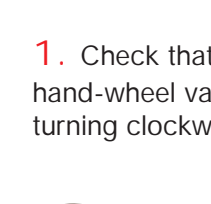
5. Replace protective plug into valve outlet.



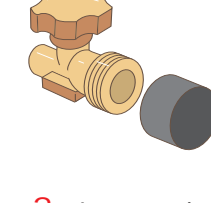
### F TYPE CONNECTION LEFT HAND FEMALE NUT

### CONNECTING A CYLINDER

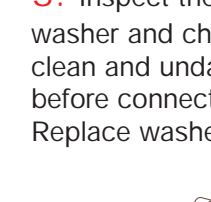
1. Check that the cylinder hand-wheel valve is off by turning clockwise.



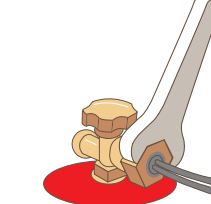
2. Remove protection plug & keep it for later use.



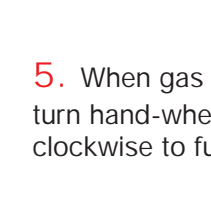
3. Inspect the sealing washer and check that it is clean and undamaged before connection. Replace washer if faulty.



4. Fit the connection to the cylinder using the correct spanner (left hand thread). The connection must be tight.

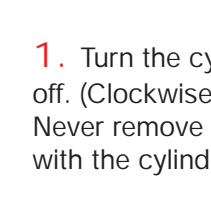


5. When gas is required turn hand-wheel valve anti clockwise to full extent.

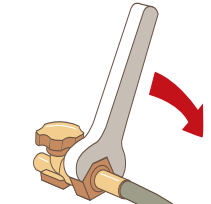


### DISCONNECTING A CYLINDER

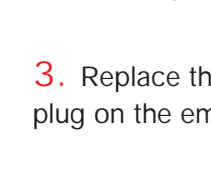
1. Turn the cylinder valve off. (Clockwise Rotational) Never remove the connection with the cylinder valve open.



2. Remove the connection with the spanner (left-hand thread)



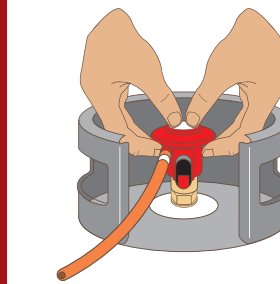
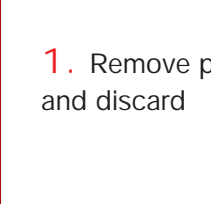
3. Replace the protection plug on the empty cylinder.



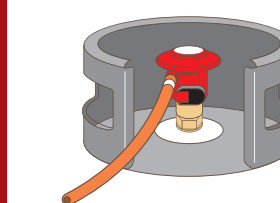
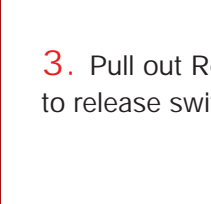
### PATIO GAS CONNECTION

### CONNECTING A CYLINDER

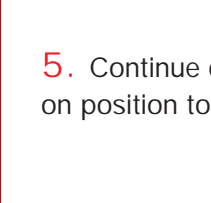
1. Remove plastic Cap and discard



3. Pull out Red lever to release switch.

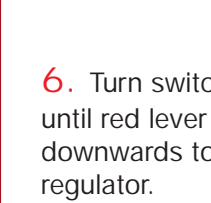


5. Continue clockwise to on position to release gas.



### DISCONNECTING A CYLINDER

6. Turn switch clockwise until red lever is facing downwards to release regulator.



## APPLIANCES

Please read the instructions and labels provided with your appliance and keep them handy for future reference.

New appliances should bear a CE mark and indicate that they are suitable for use with propane, and must comply with European, British and Irish Standards.

Modifications to appliances, or their installation, should only be made by a competent person in accordance with the appliance manufacturer's instructions.

All burning processes require oxygen, so there must be an adequate supply of fresh air for your appliance. Ventilators or grilles should never be blocked.

Please observe the manufacturer's requirements for ventilation.

All gas appliances must be correctly installed, maintained and regularly serviced to the manufacturer's instructions by a competent person (CORGI registered in NI)

Appliances shall not be installed in cellars or basements (which have no natural floor level ventilation).

Only room sealed appliances may be installed in bathrooms or shower rooms.

Above 14kW only room sealed appliances may be installed in any room with sleeping accommodation.

Appliances rated below 14kW may be installed in any room with sleeping accommodation,

provided they are either:

(a) room sealed

or:

(b) of a design which incorporates a safety control designed to shut down the appliance before there is a build up of dangerous substances in the room concerned.