



CALOR

Technical Publication

Guidelines for the Safe Use of Mobile Heaters

Important! Please read and follow these few simple guidelines for the use of your mobile heater to ensure the Health and Safety of yourself and others who may be affected.

Mobile gas heaters are a safe economical source of winter warmth if looked after, properly serviced and used in accordance with manufacturer's instructions. They should comply with the requirements of **BS:EN:449** "Specification for dedicated liquefied petroleum gas appliances. Domestic flueless space heaters (including diffusive catalytic combustion heaters)" and carry a CE or UKCA certification mark.

N.B. Appliances prior to 1992 complied with the requirements of BS:5258 Parts 10 & 11 and carried the BSI Kite Mark. These old appliances should be replaced with newer ones.

Mobile Heaters Should

- **NOT** be located so as to restrict means of escape
- **NOT** have clothes or other items placed over the heater.
- **NOT** be positioned near to chairs or other furnishings, alongside a wall or near to curtains. Always face the heater towards the centre of the room.
- **NOT BE MOVED WHILST LIT**
- **BE USED with suitable** fire guards to provide additional protection, especially where children and the elderly are likely to be present.
- **ALWAYS** be turned off before going to bed or leaving your property.
- **HAVE** all the component parts well maintained e.g., the heater, regulator hose, hose connectors.
- **NEVER** have aerosols or flammable cleaning liquids or sprays used in close proximity to the heater.
- **NEVER** be sat on or stood too close to.
- **ALWAYS** be used in a room that is well ventilated; if it becomes stuffy open windows and doors to allow fresh air in immediately.
- **ALWAYS** be used according to the manufacturer guidelines.
- **ALWAYS** be positioned away from any flammable materials and not blocking any escape routes.

If you suspect a gas leak or there is a fire follow our emergency guidelines

Mobile Heaters should NOT be used in

- **Garages** - as petrol vapour may be present, nor should they be used wherever highly flammable materials are commonly stored.
- **Bathrooms** or shower rooms
- **Bedrooms** - where there are ready combustible materials such as bed coverings, clothes, curtains etc.
- **Leisure vehicles and motor caravans**
- **Hairdressing Salons** due to the large amount of aerosol sprays which are commonly used.

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Use of Mobile Heaters in Schools & Hospitals

- If mobile heaters are not the normal source of heating, they should only be brought into a room when required and should be removed when normal heating is restored.
- Mobile heaters should only be handled, lit and controlled by a trained and authorised person(s).
- The mobile heaters should only be obtained from reputable suppliers. If the equipment is hired, again it should be from a reputable supplier who has adequate facilities to ensure proper service and maintenance.
- The mobile heaters should be carefully examined prior to use after a spell in storage.
- The number of mobile heaters in a room should be kept to a minimum.
- The mobile heater should not be exposed to drafts or located in corridors.
- The mobile heater should be positioned with at least one metre clear space around it. It can be placed adjacent to a wall provided that the hot surface is facing away from the wall and there are no curtains or other combustible materials within the space.
- The location of mobile heaters in laboratories, art rooms or workrooms where highly flammable materials may be used requires special consideration. If a safe location cannot be found a mobile heater should not be used.
- It is essential that adequate ventilation is provided and maintained in rooms where heaters are used.

Use of Mobile Heaters in High Rise Buildings and Flats

- Mobile heaters may only be used in flats of traditional construction with up to four storeys (including any basement storey)
- Mobile Heaters must **not** be used in high rise un-strengthened large panel system-built flats.
- Not more than 15kg of Calor butane should be kept per unit dwelling

Service and Maintenance

Like all LPG appliances, mobile heaters should be serviced regularly to the manufacturer's instructions and by a competent person to ensure that it is working correctly.

Use only marked and certified hoses **BS:EN:16436-1 Class 2/3** which bear the year and name of the manufacturer as LPG attacks and erodes natural rubber. Keep hose lengths as short as possible and **all flexible hoses must be secured with proper hose clips** (see Liquid Gas UK Consumer Guidance Sheet No.17: 'Use of Clips to Secure Vapour Phase LPG Hose and Tubing to BS EN 16436-1 (Classes 1, 2 and 3) to End Fitting'). Make sure that the hoses are kept clear of 'hot spots' and inspect them from time to time. Replace any hose that shows signs of stiffness, wear, cracking, soft spots or other damage. **BS: EN:16436-1 Class 2 hose has superseded those marked to BS:3212 Type 2.** It is recommended that rubber hoses should be replaced after 5 years' service life.

Hoses fitted to cabinet heaters must be marked BS: EN:16436-1 Class 2 (medium pressure up to 10bar) and be of 8mm inside diameter.

A suitable **28-30mbar rated Butane regulator** must be included in the connection between the cylinder and the appliance. The regulator is precisely set to control the pressure of the supply and **Must Not Be Adjusted**. Replace any regulator, which is not working properly, or after 10 years of life. Regulators must be marked and certified to **BS:EN:16129. This Standard has superseded regulators previously marked to BS:3016 or BS:EN:12864.** (N.B. Any regulator marked BS:3016 will be over 10 years old so should be replaced).

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Ventilation & Condensation

The room in which the mobile heater is being used must be well ventilated; this is to ensure that the mobile heater is receiving an adequate supply of fresh air. Ensure that, if the room has ventilators and grilles, they are not blocked. Most rooms have fresh air entering around the doors and windows, however, if the room becomes stuffy open a window or door immediately.

Mobile heaters, in the same way as any process of combustion, produce carbon dioxide and some water vapour during the normal course of operation. In a well-ventilated room, there is generally no problem with condensation.

If the heater is in a room with inadequate ventilation, moisture will be unable to escape and may therefore produce 'condensation' on cold damp surfaces.

From experience, if a room does not have a previous history of dampness, is reasonably well insulated, and has normal adequate ventilation, then the use of a mobile gas heater does not cause any unusual condensation problems.

Carbon Monoxide

Carbon monoxide (CO) is a highly poisonous gas which can be produced if the mobile heater is not working correctly. It is difficult to recognise as it has no colour, smell or taste. Carbon Monoxide detectors (complying with BS:EN:50291) are widely available and it is recommended that every property has one. CO detectors have a lifetime of 5 to 10 years and should be tested regularly. Symptoms of CO poisoning are similar to that of a viral infection. It affects the mental ability causing a person to become incapable without knowing.

Symptoms of exposure to Carbon Monoxide

- Tightness across the forehead and/or headache.
- Severe headache, weakness, dizziness, nausea, vomiting.
- Coma, intermittent convulsions.
- Depressed heart action, slowed respiration.
- If the exposure has been severe, it may cause death.
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If you suspect you are suffering from the symptoms above **call 111** to seek medical advice and call the **Calor Gas Emergency Service** number on **03457 444 999**.

If your mobile heater shows any signs of the following,

- Burner panels which are dull and burn with a blue haze.
- There are soot deposits on the panels.
- The burner panels or cement fixings are damaged.
- The mobile heater does not burn quietly.

It could be producing carbon monoxide, so switch it off and do not use it again until it has been checked.

Remember, gas appliances which are designed, installed and used correctly, regularly serviced, and properly ventilated and flues are completely safe.

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Second-Hand Mobile Heaters

Many accidents are caused by faulty gas appliances involving those which may have been purchased second hand. Special care is needed if you buy a second-hand mobile heater. Have it checked by a competent person to ensure it is operating correctly and that all safety devices are functioning for safety. **If you have any doubts do not buy.**

Emergency Guidelines

In the event of a gas leak or suspected gas leak

- Extinguish all naked flames and ignition sources.
- Turn off the mobile heater and all other gas appliances
- Do not turn 'on' or 'off' any electrical equipment or operate electrical switches
- Open all doors and windows to increase ventilation.
- If safe to do so, turn off gas supply at cylinder
- Call the **Calor Gas Emergency Service 03457 444 999**
- Do not use the mobile heater until it has been made safe and tested.

In the event of fire

- **Dial 999** and call the Fire Brigade immediately and inform them that LPG cylinder(s) are on the premises.
- Turn off the gas supply if possible and **only if safe to do so.**

Please refer to: -

- Liquid Gas UK Code of Practice No. 24, Part 1 2006, which gives more detailed information on the use of cylinders in residential premises. (<https://www.liquidgasuk.org>)

If you require further advice, please contact the Technical Help Desk (01926 318 497)

CALOR GAS EMERGENCY SERVICE – 03457 444 999
(ALL CALLS CHARGED AT LOCAL RATE)

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