



Gas Safety Week A Quick Guide to LPG Maintenance and Servicing

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If LPG installations are not properly maintained and managed, the results can be disastrous e.g. major explosions, fires and carbon monoxide production.

Take steps to ensure that your installation is as safe as possible.

Check your hoses and connections

• Orange hose may only be used commercially if the manufacturer has preinstalled it with a regulator

and is a single appliance connected to a single cylinder. Orange hose is designed for occasional domestic use and is not suitable for rigors of commercial use.

• Flexible hoses for use in commercial installation should be PVC wrapped or metallic over braided hoses. They are hardwearing and will better withstand the rigors of continuous use and being repeatedly set up and then packed away. They are less likely to split or become subject to the



A flexible orange hose that is cracking and splitting. This hose must not be in use and must be replaced straight away! (The Gas Industry Unsafe Situations Procedure have categorised this as "At Risk" and must not be used). type of damage that results in dangerous gas leaks. These hoses will last longer than orange hosing and therefore could save money in the long run.

• Check your hoses. There should be no tears, or kinks. If hoses are damaged, then gas could leak from them creating an ignition risk that could be catastrophic.

• Flexible hoses should be no longer then 1.5m long. If the hose it too long then this will reduce the gas pressure delivered to the appliance leading to incomplete combustion and the risk of poisonous Carbon monoxide gas.

• If still using orange hoses as part of your LPG set up, then arrange for these to be replaced with either PVC wrapped or metallic over braided hoses during the next routine Gas Safety Inspection carried out by a Gas Safe Engineer. If showing signs of damage, then hoses should be replaced straight away without delay.

Check the Cylinders

Refer to the NCASS Quick Gude to Cylinders for advice on how to safely maintain cylinders. In addition, make sure: • Cylinders are not showing signs of frosting - if there is a layer of frost on the outside of the cylinder this is an indication that the cylinder is undersized for the appliances in use (they are demanding too much gas from the cylinder). This is dangerous as it can lead to incomplete combustion and the production of Carbon Monoxide. If frosting is occurring, then arrange for a Gas Safe engineer competent in LPG to review the set up and the sizing of the cylinders in use.

• If using a fixed pipe installation (e.g. in a vehicle, trailer or brick and mortar premises) with a multiple



A fixed installation with an unconnected pigtail

cylinder supply, make sure that all pigtails are connected to a cylinder. This is in case should the non-return valve fail, it could let gas escape during normal working conditions on the automatic changeover device. Do not leave a pigtail unconnected.

Check the gas appliances

• The appliances must be in good condition, stable and complete. Ensure that the base or feet of an appliance is secure and unbroken which will allow the appliance to be sited level and secure.

• Ensure that the pan support or top of the appliance is unbroken and complete. Often commercial cooking involves larger pans and pots, so this is essential for ensuring the safe working environment.

 Gas taps and control knobs must be present on all gas taps or valves. If the control knobs are not present, then the appliance cannot be used correctly or safely.
Refer to the NCASS Quick Gude to Appliances for advice on how to select suitable appliances.

In addition:

• Check the gas flame - it should

be blue and not yellow. A blue flame is a good thing! It indicates that an appliance is working correctly, and that complete combustion is occurring.





An yellow flame is a warning sign that the appliance is not receiving enough oxygen for complete combustion of the gas to occur. It may be an indication that poisonous Carbon Monoxide gas is being produced.

Check the ventilation

Air - The only thing in abundance that is completely FREE. So why not utilise it as much as possible!

• Mechanical extraction canopies must be in place in fixed installation e.g. vehicles, trailers, cabins, kiosks and bricks and mortar premises. This must adequately cover the appliances in use and be interlocked to the gas supply.

• Look for combustion spillage from appliances, flues and chimneys – this can be immediately dangerous and should be assessed by a competent Gas Safe Engineer and the necessary repair works carried out.

• If using LPG in a gazebo then make sure there is plenty of natural ventilation. Avoid shutting up all sides of the gazebo and instead remove the side and/or back panels of the gazebo as appropriate to enable plenty of air circulation.

Gas Servicing

LPG installations must be checked

and serviced annually by a qualified Gas Safe Registered Engineer who is competent in LPG and the applicable appliances. In line with the Gas Safety (Installation and Use) Regulations 1998 all appliances, whether brand new or reconditioned must be certified for the environment in which they are going to be used.



Combustion spillage from a water heater unit in mobile catering premises

Gas safety certification should be provided by the Gas Safety engineer and retained by your business as evidence that the gas installation and appliances have been properly checked.

Engineer Qualifications and Competency

For advice on locating an appropriate LPG certified Gas Safe engineer contact NCASS. We can link our members to a Gas Engineer Partner, trusted engineers who work to the correct interpretations and high standards of LPG.

To check if an individual engineer is currently Gas Safe registered you will need to know their unique 7-digit licence number. You will find this on the engineer's Gas Safe ID card. <u>You can then check</u> <u>their details here.</u>

Examples of Gas Engineer competencies:

- LPG Conversion
- COMCAT 1-5 depending on what appliances they want to work on.
- Commercial Mobile Catering 1 (CMC1) transferrable to the appliances in mobile LPG.
- LEILP1 Leisure appliances to

cover those domestic appliances that are used in mobile catering and are not covered by the COMCATS.

- CKR1 -for cookers.
- CGLP1 non-domestic gas fired generators

For further information:

Further information on how to properly maintain LPG installations is covered in the <u>NCASS Safe Use</u> of <u>LPG in Mobile and Outdoor</u> <u>Catering</u> online training course. This is essential training for anyone using LPG.



Additional resources for members – gas safety checklist >>

Gas Hub >>

LPG training course >>

LPG training for EHOS >>

Call us: 0300 124 6866

Email us: info@ncass.org.uk.

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