



What is the LCC27 Fitting?

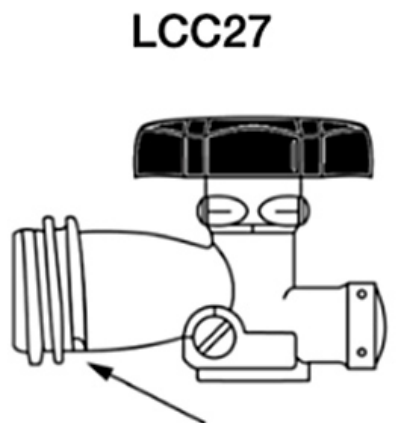
The LCC27 is a new gas cylinder connection, replacing the existing Type 21 (or POL) fitting on common 4-kilogram and 9-kilogram LPG gas cylinders for BBQs and leisure gas appliances. This new fitting has an impact on both the cylinder valve and gas hose fittings.

Why do we need it?

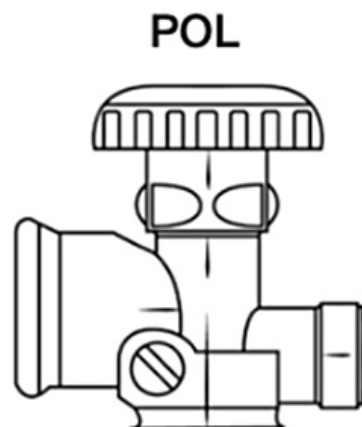
POL gas fittings have always posed a risk of gas leaks, where:

- A safe connection was entirely dependent on the user tightening the connection adequately,
- The thread was counterintuitive, in that it tightened in the opposite direction to most other threaded connections used in everyday life, and
- Gas could flow whenever the valve was opened, regardless of whether an appliance was attached.

All these things increased the risk of a poor connection, resulting in a gas leak.



**LCC27 Valve has
a visible external
thread on the valve**



**POL Valve does NOT
have an external
thread on the valve**

Credit: Gasmate

What does the new fitting offer?

The LCC27 fitting increases safety, is much easier to use, and features:



- An integrated 'check-valve' that does not allow gas to flow when the valve is opened, unless an appliance is securely attached to the cylinder,
- A gas seal achieved at the connection point prior to the check-valve being opened by the fitting of the appliance, irrespective of how tightly the 'nut' has been fastened by the user,
- An intuitive and visible external right-handed ACME thread, far easier to connect and tighten with a large plastic 'nut', and
- A large plastic 'nut' designed to soften in the event of a fire at or near the cylinder. This allows the appliance fitting to eject, in turn triggering the check-valve to stop gas flow.

Which LPG cylinders have the new LCC27 fitting?

This change impacts the 9kg and 4-4.5kg cylinders that currently have a POL valve connection. Camping cylinders with upright 3/8 BSP fitting and large 45kg domestic cylinders are not impacted. This change is not applicable to Natural Gas or small disposable Butane canisters.

For more information on gas cylinder types and fittings, see [here](#).

When will the change to LCC27 valves occur?

There has been a staged approach to this change, which negates the need to update everything straight away.

From April 1, 2021, gas cylinder suppliers began fitting the LCC27 valve to new LPG cylinders - but by October 1, 2021, it became mandatory. New LPG cylinders with the POL valve could no longer be sold, but cylinders that were in circulation could retain the POL fitting until their re-test date was reached. At this point, as part of the re-test process, they are required to have the LCC27 valve fitted.

It was also as of October 1, 2021, that manufacturers could start fitting the LCC27 fitting to new gas appliances and hoses at the time of manufacture; this became mandatory by April 1, 2022. New appliances in circulation with the POL fitting could and still can be sold, compatible with cylinders fitted with the LCC27 valve.

What does it mean for POL appliances and hoses?

If you have an appliance and cylinder with POL fittings, you can continue to use it as normal until your cylinder reaches its 10-year testing date, at which point it will need to be fitted with a new LCC27 valve. The LCC27 valve is backwards-compatible, so you can continue to use the POL fitting on your appliance.

New appliances with the LCC27 fitting, however, will not connect to a cylinder with a POL valve. This is important to note if you utilise an exchange program for your cylinders, as there may be a mixture of valves available for swap until they have all surpassed their 10-year re-testing requirements.



LCC27 VALVE + LCC27 REGULATOR CONNECTION



POL VALVE + POL REGULATOR CONNECTION



LCC27 VALVE + POL REGULATOR CONNECTION



POL VALVE + LCC27 REGULATOR CONNECTION

Credit: Gasmate

There is likely to be a mixture of LCC27 and POL valves available at cylinder exchange services for years to come – so if you have an appliance with the new LCC27 fitting, make sure you swap your cylinder for one with the LCC27 valve.

If your POL fitting is the type with a rubber 'nose' on the end, check to ensure it doesn't get left behind in the LCC27 valve when the hose is removed. This can jam the valve and render your POL hose fitting useless the next time you wish to use it.

Theoretically, flexible gas hoses should be replaced every 10 years, before they start to crack and leak. If yours is older than this, it's a good time to switch over to the new LCC27 fitting.

Can adaptors be used with the LCC27 valve?

Any adapter added into the system is a potential leakage point, so it's recommended to avoid the use of them where possible. Further to this, for gas installations in caravans, campers, and motorhomes covered by the standard AS/NZS 5601, adaptors are specifically prohibited. Portable recreational appliances that are attached directly to a cylinder, i.e. camp stoves and BBQs, are not covered by this standard, but the use of adaptors is still a bit of a grey area. It is commonly stated that adaptors must not be used to connect an appliance with a new LCC27 connection to a cylinder with a POL valve. The primary concern here is that the change of thread direction on the LCC27 valve means that tightening one side of the adaptor could potentially result in the loosening of the other side.

An adaptor will work to connect a small appliance with a 3/8 BSP fitting to the new LCC27 valve via a POL – 3/8 LH BSP adaptor... but consider that once you have attached the adaptor to the LCC27 valve, you have opened the check valve and gas will flow anytime the valve is



opened. For this reason, it's recommended to remove the adaptor for transport. On the flip side, you could also connect a large appliance with an LCC27 hose to a small camping cylinder via a 3/8 LH BSP - POL adaptor, if one becomes available - but it's not recommended. Firstly, it introduces another potential leak point, and secondly, a small cylinder may struggle to supply enough gas on account of something called 'gas evaporation rate limitation'. There's a little more information on that in this article [<https://www.snowys.com.au/blog/understanding-gas-for-camping-caravan-appliances/>].

Replacement Hoses for LCC27 Valve

Replacement hoses are and will be available; they fall within the same timeframes mentioned above regarding the introduction of the LCC27 fitting on appliances.

Gas Cylinder Re-fills with the LCC27 Gas Valve

There is no change here, apart from the fitting used by gas re-fillers in the decanting process. Gas cylinders with the POL valve that are still in date can be refilled.

Caravans and the LCC27 Gas Valve

Caravans manufactured after April 1, 2022, are required to have the LCC27 fitting. Older caravans should, in theory, have their flexible hoses replaced every 10 years - so the next time you take your caravan to a service centre, it's worth having the hoses and fittings changed over at the same time. Keep in mind that you'll also need to change your gas cylinders when you do this... so maybe make sure they are as good as empty first.

More Information

Gas Energy Australia is the national peak body encompassing Australia's leading gas providers, and is a good reference for [rules and regulations](#) on LPG gas. Further to this, most gas providers and state regulatory bodies provide information specific to your location. There are many good reasons for switching your gas appliances over to the LCC27 fitting, but safety and ease of use are the most significant. Next time you need to re-fill your cylinder, or replace a gas fitting on your leisure gas appliance, consider changing your entire system over to the LCC27 gas fitting.

We've discussed gas cooking at the campsite in more detail on the [Snowys Camping Show](#):

A very big thank you to Ben Greeneklee who, with over 20 years of experience in gas appliance manufacturing and testing, assisted with the technical accuracy of the information in this article.



Have you switched to the new gas fitting?