

## Industry Information Sheet 028

Formerly LPGA Information Sheet 24 – June 2007

### FILLING OF USER OWNED, PORTABLE REFILLABLE LPG CYLINDERS AT AUTOGAS REFUELLING SITES

**It is our advice that user owned, portable LPG cylinders should not be refilled at autogas refuelling sites.**

- Vessels which are attached to a vehicle for heating or cooking (on camper vans or similar) present similar risks on filling to those for propulsion purposes and may be permitted to be re-filled at autogas refuelling sites **provided they:**
  - remain in-situ for refilling; and
  - are fitted with a device to physically prevent filling beyond 80%; and
  - are connected to a fixed filling connector which is not part of the vessel.

UK Health and Safety law, particularly the Health and Safety at Work Act, the Dangerous Substances and Explosive Atmospheres Regulations and the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations, impose significant duties on the site operator to ensure safety. Autogas refuelling sites are places of work and their personnel have responsibility for safety to everyone on the site, including the general public. They authorise the flow of gas from the dispenser and they may be considered, in law, the filler.

Safe filling of LPG cylinders requires appropriate expertise and/or equipment. Staff at autogas refuelling sites cannot fulfil statutory obligations as they have neither.

Were there to be any accident the site operator could be liable to prosecution.

This view has been confirmed in the Minutes of the HSE Petroleum Enforcement Liaison Group meeting of 7<sup>th</sup> July 2005 which states "PLAs should consider issuing a prohibition notice if their inspectors discover a site which allows members of the public to refill gas cylinders".



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## GASLOW REFILLABLE CYLINDER SYSTEMS

### INSTALLATION INSTRUCTIONS for Filling and Transfer Kits including 2nd cylinder Connection Hose

#### Filling Kits

01-4100 1.5m Kit - WHITE  
 01-4150 1.5m Kit - BLACK

01-4106 0.6m Kit - WHITE  
 01-4156 0.6m Kit - BLACK

UK Autogas Bayonet Filling Kits in white or black finish together with screws for mounting on the side of your caravan or motorhome. Connection to the cylinder(s) is with the super safe rubber-free Stainless Steel flexible hose with 3/4" UNF connections.



#### Transfer Kits

01-4110 WHITE  
 01-4151 BLACK

These transfer kits come without a hose and have been designed for customers wishing to transfer their existing Gaslow Refillable System to a new motorhome or caravan and leave the original filling point in place. The kits come with a blanking cap to go onto the old filler to prevent someone inadvertently trying to fill without a Gaslow cylinder connected.



#### Connector Hose

01-4200 Connector Hose

2nd Cylinder 600mm Connector Hose. Turning a single cylinder system into a twin could not be easier. This 0.6m Stainless Steel hose with 3/4" UNF connections connects the Gaslow Cylinder 1 and Cylinder 2 together. When you go to fill up, both cylinders will be automatically filled.

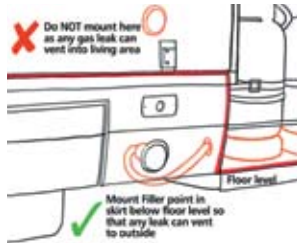


**PLEASE ENSURE THESE INSTRUCTIONS REMAIN WITH THE SYSTEM**

## Where to fit the Filler

When deciding where to fit the filling point, it is important to take into consideration:

- 1.... that a relatively heavy gas gun has to be connected and disconnected for filling.
- 2.... what would happen if the hose connection onto the back of the filler should leak. Under no circumstances should gas be able to penetrate the living area but should vent to the outside.



Fit in the skirt of the vehicle, below the floor level as any escaping gas can then vent freely to the atmosphere



Use the Filling Point Mounting Bracket in the cylinder compartment - either between the cylinders or top mounted.



**IMPORTANT**  
Opening the locker door to fill up may cause some stations to refuse filling...  
...particularly in FRANCE

## Fitting the Filler Point in the door

It is absolutely critical that the hose is free from stress. The door should be able to close naturally at all times. To avoid stress and strain on the hose, we recommend using the 01-4210 (90 degree fill adapter) which will allow the hose to fold back naturally with the fold of the door (see below left). NB. By aiming the adapter at an inclined angle above the horizontal, the hose can clear the top of the cylinders.



01-4210 Right Angled Adapter

## Do NOT!....



**DO NOT** fit the filling point in this manner in a door as movement and closure of the door can compress or fracture the hose.

Door closing can cause ruptures to hose due to extreme kinking and compression

## Installation in a Caravan



Decide which side you would like the filling point. We would suggest either above or below the barbecue point (if fitted) or the same side as the petrol filler on your car.



Mark out and cut a 70mm hole for the filler point



Using a file, create 2 small cutouts top and bottom for the lugs on the filler bracket.



These prevent the filler from rotating when fitted



Ensure side lugs are kept Horizontal



Install the Brass Filler head into the bracket using the 4 screws and bracket provided

NOTE: Before fixing the housing to your Caravan/Motorhome, it is better to fit the connection hose onto the outlet of the brass filler using a spanner and a set of grips which avoids putting too much rotational pressure onto the housing when tightening up the connection.

Using a small amount of silicon sealant around the front flange of the housing, push into the hole and secure using the rear-mounting bracket with 6 self-tapping screws. **VERY IMPORTANT:** Select the optimum screw length from one of the three sets supplied, making sure the screw ends do not protrude into the filling box as this can prevent the filling gun connecting properly - if necessary, cut off any excess.



Connect the filler hose to the cylinder filler valve and securely fasten. To turn your system into a twin cylinder system you require a Cylinder-2 and Stainless Steel Connection Hose.



## Installation in a Motorhome

The Installation principles used in a caravan should be followed when fitting to a motorhome



Installation in the skirt below the floor level of a motorhome will require the use of a 1.5metre hose.



Installation using a bracket in the cylinder compartment should use a 0.6 metre hose

## Typical Motorhome Installations



Installation using Mounting Bracket but with a 1.5metre hose and no right angle adaptor



Installation using Mounting Bracket with a 0.6metre hose and right angle adaptor (01-4210)



Skirt Installation using a 1.5metre hose.



Installation using a Mounting Bracket set in the top right corner of the compartment.



Installation using Mounting Bracket with a 0.6metre hose and right angle adaptor



Installation in a Timberland.

## Transferring, removing or adding a cylinder

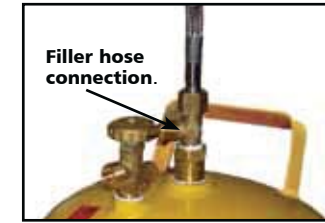
When transferring a system to a new van, a transfer kit should be used (see cover).

Fitted non-return valves allow full or empty cylinders to be removed.

When adding a cylinder no.2, a 2nd cylinder connection hose should be used (see cover).



The Non-return filler valve allows the hose to be disconnected. It will take a while for the gas trapped in the hose to dissipate.



Install cylinder No.2 by connecting the filler hose to the horizontal inlet and the 2nd cylinder connection hose to the top inlet.

Due to the position of the float level mechanism, the gauge is monitoring the last 50% of liquid level in the cylinder.

Halfway in the green, the cylinder is approximately 40% full.

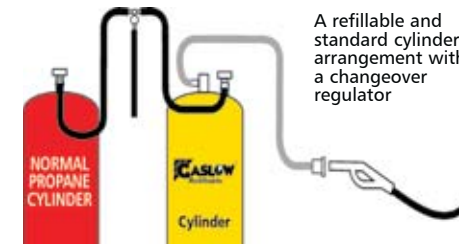
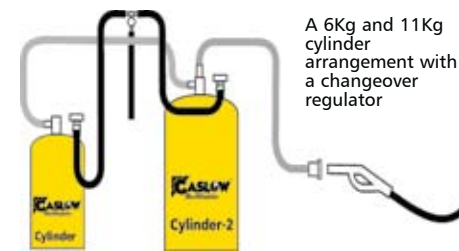
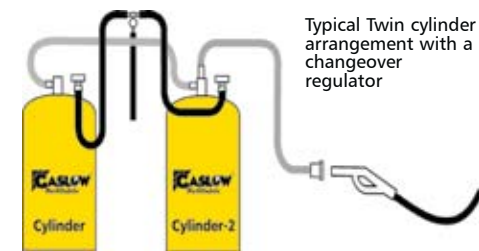
In the yellow, the cylinder is approximately 30% full.

In the red, the cylinder has 18% or less gas.

Filler Valve with 80% shut-off device

**PLEASE NOTE**  
The detachable contents gauge will ONLY fit the LEFT side of the valve (see

### Operation of the Gaslow Contents Gauge



### Connecting To The Refillable Gas Supply

Autogas is Propane, however, on the continent, a small amount of Butane is added - so for pre-2004 vans using Butane, you will need to change your regulator and fit one of the following:

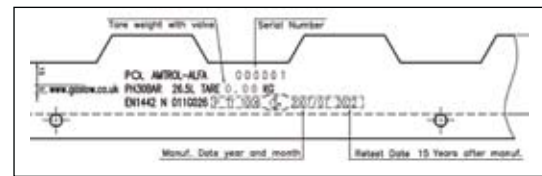
Propane Manual Changeover (01-1650-refill)

Propane Auto Changeover (01-1655-refill)

If you are already using Propane you can convert your existing regulator with a Propane Adapter and Gauge (01-4330). If you have a Propane changeover, simply change the high pressure hoses.

For new vans fitted with a 30mbar caravan regulator and using 7Kg Butane cylinders, simply remove the clip-on adapter. If using Propane, change the high pressure hose(s) to an 01-6010SS.

Imported vans with German regulator connections will fit directly on to the refillable cylinder (washer required).



Your cylinders are manufactured to European Standard EN1442 and each one has its own unique certificate and identification stamped into the bottom foot shroud of the cylinder.

**IMPORTANT:** Please note the retest date which, on the above example is 2019. This cylinder **MUST** be returned to your local dealer or contact us direct to exchange the cylinder for a new one during that year as it shows that our 15 year warranty has run out.

Each cylinder has two valves - one which allows 80% filling of the cylinder and prevents overfilling. The second valve has a 21.8 x 1/14LH outlet to DIN477 with safety relief and is for vapour draw-off. Both valves have been tested and approved to European Directive 99/36/EC.

### STAINLESS STEEL HOSES

Your stainless steel hose is manufactured to EN 10380, has no perishable rubber in its construction and carries a 15 Year warranty.

**IMPORTANT: FIRST FILLING ONLY.** In some rare instances it is possible that on the FIRST FILL ONLY, the 80% shut-off may fail to activate. It is therefore **IMPORTANT** to pay attention when filling for the first time.

When using the 11kg cylinder - ensure your maximum fill is no more than 22.5litres. With a 6Kg cylinder - the maximum should be 12litres. If you are using a system employing 2 cylinders which are filled together, add the maximum volumes for the cylinders together. e.g. If you are using two 11Kg cylinders - your maximum fill should be no more than 45litres. If you are using an 11Kg and a 6Kg cylinder then your maximum would be no more than 34.5litres. Two 6Kg cylinders would be 24litres.

Air may become trapped inside the cylinder on the first filling. This could cause difficulties in lighting your appliances as, being lighter, it sits on top of the gas. If this happens, open the cylinder valve to atmosphere for a few seconds and vent off some gas. This need only be done once.

After Your first fill, it is recommended that you should carry out a quick leak check by using a soapy water solution brushed over the stainless steel filling hose connections - checking to see if there are any bubbles.

**IMPORTANT:**  
You will need these adaptors when filling abroad!



## FILLING AND REFILLING YOUR CYLINDERS

Journalist Andrew Ditton of Caravan Magazine discovers that topping up with LP Gas is no more difficult than filling a car with petrol!

Gaslow installer CMR filled my gaslow cylinder before fitting the system. It was a few weeks before I had used up some gas. I couldn't wait to see how easy or difficult it would be to fill up again. The gaslow refillable system is a safe, simple and well thought-out product. While it may take years to recoup the installation costs through money saved on refills, the simple fact that it puts an end to lifting heavy gas cylinders makes Gaslow an absolute winner. I cannot fault it.

A quick search on the internet soon revealed the locations of LPG stations en route. For those without wireless internet, CMR can sell you a map showing locations of LPG stations across Britain.

The directions on the web site were spot-on and I easily found this garage just off Junction 9 of the M5. It wasn't as easy to find the LPG pump. Believe it or not, it was concealed within this row of pumps. The attendant assured us the signage would be improved.



**1** This is what to look for - a smaller-than-average pump with a larger-than-average nozzle. The normal safety precautions apply: no smoking, switch off your mobile, and turn off the gas supply to the caravan.

**2** Most gas pumps carry comprehensive instructions like these, so don't worry if you do not have this article to hand.

Once I'd found the pump, it was no more difficult to park alongside than with a regular petrol pump. Remove the filler cap from the caravan, take the nozzle from the pump and check the display resets to zero (as you would a petrol pump).

**3** Here is a close-up of the filler attachment on the caravan. Don't worry about the screw thread inside - it's the two lugs you need to deal with.

Line up the filler nozzle to the two lugs and then give it a third of a turn clockwise to seal it securely.

**4** Now I'm noticing the first major difference between the LPG pump and a petrol pump - you pull the trigger and nothing happens at first. there's nothing to worry about, just keep a grip on the trigger and locate the small clip. Use this clip to keep the trigger in place.

**5** When the clip is holding the trigger, you can let go. If the clip is not engaged fully, the nozzle will release and a small spurt of gas will escape. This is nothing to worry about. Try again and use the clip to keep the nozzle pulled in.

**6** Now everything is set up securely. Double check that the display reads zero and you are ready to start dispensing gas.

**7** There is a big red plunger on the pump that you need to keep depressed to dispense LPG. If you let go, the gas stops. Press again and the pump resumes. Once your Gaslow system has received 80 per cent capacity, the pump will stop automatically. You cannot fill more than that for safety reasons.

After releasing the plunger, unclip the trigger and remove the nozzle by twisting it anti-clockwise one third of a turn. Be careful, as it may be very cold. You'll hear a small rush of gas as the nozzle depressurises. This is normal. All that remains is to replace the nozzle, pay the cashier and try to resist the urge to spend all your savings on chocolate!!

**IMPORTANT**  
Always turn OFF  
cylinder valves  
BEFORE filling

