

Installation Instructions for MER-472 & 473

LP-Gas demands respect and understanding if it is to be used safely. It is important to read all instructions before installing your kit. Please observe all cautions and warnings that we have given throughout these instructions. They are for your safety.

The Stay-Longer kit is designed to give you new flexibility on how you use your LP-Gas. You can stay longer by hooking up auxiliary LP-Gas cylinders, or you can tap into the RV's LP-Gas system to fuel portable high-pressure appliances. The tee fitting must be installed between the vapor withdrawal valve on your RV's LP-Gas container and the pressure regulator. This properly places the tee fitting in the high pressure portion of the LP-Gas system. Gas connections to the tee fitting are not designed for movement or rotation after installation. Flexing, twisting or vibration should be avoided.

The Stay-Longer tee and associated pigtail hose both contain a flow limiting feature designed to reduce the flow of gas should it detect an excess flow condition. This device may activate each time you open a cylinder valve, or transfer the gas system usage from one supply source to another. Follow the general lighting instructions herein, to allow these flow limiting devices to properly reset.

CAUTION: The Stay-Longer tee and associated hose assemblies are intended for RV and outdoor use only, with approved DOT cylinders or ASME tanks with a 350 psi pressure relief valve. These components must only be connected to cylinder valves supplying LP-Gas vapor. DO NOT connect to any valve delivering liquid propane. DO NOT allow cylinders to lie on their side or become physically oriented in such a manner as to allow liquid propane to be withdrawn. DO NOT attempt to transfer liquid propane through Stay-Longer hose or fittings to fill cylinders or your ASME tank.

WARNING: LP-Gas is flammable, under pressure, and can freeze skin. Liquid propane introduced into the Stay-Longer components, or the RV pressure regulator would result in damage to both the regulator and the LP-Gas appliance controls inside your RV. Failure to follow these instructions could result in a LP-Gas leak, which if ignited, could result in fire, explosion, severe personal injury, property damage or death.



WARNING: These products contain a chemical known to the state of California to cause cancer and birth defects or reproductive harm

INSTALLATION PROCEDURE:

- 1) Turn off all gas appliances in the RV.
- 2) Close the vapor withdrawal valve on the RV's LP-Gas container. (clockwise rotation).
- 3) With a 7/8 inch open end wrench, unthread the brass POL nut that connects the propane vapor withdrawal valve to the RV's pressure regulator. This is a left-hand threaded connection, so turn the brass nut clockwise to loosen.
- 4) It will be necessary to move the POL fitting and the attached pressure regulator away from the vapor withdrawal valve far enough to place the Stay-Longer tee between them. This may require moving the regulator cover.
- 5) Thread the male POL fitting on the Stay-Longer tee, into the vapor withdrawal valve. Turn this left-hand nut counter clockwise to tighten, but before tightening, be sure to position the fitting's top outlet port and side inlet port where you want them for best access. Use a 7/8 inch wrench to tighten the POL nut into the vapor withdrawal valve.
- 6) Thread the male POL fitting attached to the pressure regulator, into the female POL fitting on the **Stay-Longer** tee. Again, turn the left-hand POL nut counter-clockwise. Two (2) wrenches are required to tighten this connection properly, but before tightening, be sure to orient your pressure regulator in its original position. It is important not to break the factory seal on the threaded inlet and outlet connections on the Stay-Longer tee. Use one wrench to securely hold the Stay-Longer female fitting while tightening the male POL nut with a second wrench. Prevent rotating the Stay-Longer tee while tightening this connection.
- 7) Securely fasten the pressure regulator and its accompanying low-pressure outlet hose to the vehicle, to avoid possible damage or loosening due to over the road vibration. Depending upon the particular layout of your vehicle's LP-Gas container compartment, it may be necessary to have an LP-Gas dealer or RV service technician fabricate brackets or supporting hardware.

LEAKAGE CHECK for the Stay-Longer tee:

After all connections are tightened securely, the installation must be checked for leaks. Make sure all gas appliances are off, and then slowly open the RV's propane cylinder withdrawal valve counter-clockwise to its full open position. Using an ammonia-free soap, prepare a soapy water solution and check for leakage at all connections from the valve including the low-pressure outlet of the regulator. If a leak is found at one of the POL connections, tighten until the bubbles stop. If leakage is found at a pipe thread connection at the Stay-Longer tee, or at the pressure regulator, close the cylinder valve immediately and contact your LP-Gas dealer. Attempting to eliminate the leak at these threaded connections with additional tightening will not work. These threaded connections must be resealed if the original factory seal is broken.

WARNING: An LP-Gas leak, if ignited, could result in fire, explosion, severe personal injury, property damage, or death. Matches, candles, or other sources of open flame must NEVER be used to test for leaks.

CONNECTING TO THE AUXILIARY CYLINDER:

- 1) Remove the brass plug that protects the Stay-Longer's auxiliary inlet located on the side of the tee.
- 2) Thread the small end of the 5 foot pigtail hose into this inlet fitting. Use two (2) wrenches to tighten this threaded connection securely. It is important not to break the factory seal by rotating the inlet fitting on the tee.
- 3) Position the auxiliary cylinder close enough to the RV so that there will be no stress or pulling on the 5 foot pigtail hose. Most LP-Gas cylinders are designed to stand vertically on their base for vapor withdrawal. NEVER lay such a cylinder on its side. This could allow liquid propane rather than propane vapor to enter the gas system causing a very dangerous situation!

WARNING: Liquid propane introduced into the Stay-Longer components, or the RV pressure regulator would result in damage to both the regulator and the appliance controls inside your RV. Failure to follow these instructions could result in a LP-Gas leak, which if ignited, could result in fire, explosion, severe personal injury, property damage or death.

- 4) Thread the male POL end of the 5 foot pigtail hose into the auxiliary cylinder valve. Turn this left-hand nut counter-clockwise and tighten securely with a 7/8 inch wrench.

LEAKAGE CHECK for the Pigtail supply hose:

After the auxiliary supply hose is installed, both end connections must be checked for leaks. Make sure all gas appliances are off, and then slowly open the auxiliary cylinder valve counter-clockwise to its full open position. Using an ammonia-free soap, prepare a soapy water solution and check for leakage at the cylinder valve and threaded connections at the Stay-Longer tee. If a leak is found at the cylinder valve POL connection or, the inverted flare connection on the end of the pigtail hose tighten until bubbles stop. If however, leakage is found at the pipe thread connections into the Stay-Longer tee body, close the cylinder valve immediately and contact your RV service department.

- 5) Close the cylinder valve on your RV's LP-Gas container to operate from the auxiliary supply cylinder. Re-light pilots on your gas appliances and check that they remain lit. Air that was initially trapped within the pigtail hose may cause pilots to flicker and go out as the gas pushes this air from the system.

GENERAL LIGHTING INSTRUCTIONS:

There are flow limiting devices located within both the on-board and auxiliary cylinder valve male POL connections of the Stay Longer system, in addition to the one inside your original male POL fitting connected to your regulator. These components are designed to reduce the flow of LP-Gas should any one of them detect an excess flow condition. They may also activate if a cylinder valve is opened quickly enough to cause a surge of gas flow. Once a flow limiting device activates, it will reset automatically only if the flow of gas stops.

- 1) Turn off all gas appliances in the RV. If there are any standing pilot lights, these must be turned off completely.
- 2) Slowly open the valve on the LP-Gas container selected to supply the RV system. Then, wait 1 minute before re-lighting pilot lights or attempting to operate any gas appliance. This waiting period without any gas flow is necessary to allow the pressure across the excess flow device to equalize allowing it to reset.
- 3) Re-light any pilot lights and operate each gas appliance as directed by the manufacturer's instructions. If the gas appliances do not receive an adequate flow of gas, repeat these lighting instructions again using a 2 minute waiting period. If the flow limiting device fails to reset, there may be a leak in your gas system. Close the LP-Gas container valve immediately and contact your LP-Gas dealer or RV service department to check all system connections for leaks.

DISCONNECTING THE AUXILIARY CYLINDER:

WARNING: Make sure there are no open flames or other sources of ignition near the auxiliary cylinder or pigtail hose while connecting or disconnecting any auxiliary supply fitting. LP-Gas is flammable and if ignited, could result in fire, explosion, severe personal injury, property damage or death.

- 1) If gas appliances have been operating properly and you are going to refill the auxiliary cylinder or transfer gas usage back to the onboard RV system, slowly open the RV's LP-Gas container valve to prevent activation of the excess flow device at this location. Then, close the valve on the auxiliary cylinder and check all pilot lights on your appliances.
- 2) With the auxiliary cylinder valve closed, it may now be disconnected by turning the POL nut clockwise using a 7/8 inch wrench. Once removed protect the POL fitting surface from scratches or damage that may prevent gas-tight sealing.
- 3) If another auxiliary cylinder is going to be connected while the gas appliances have been operating from the RV's LP Gas container follow the connecting to auxiliary cylinder instructions, then slowly open the auxiliary cylinder valve to prevent activation of the excess flow device at that location. Then, close the valve on the RV's LP-Gas container and check all pilot lights on your appliances.

4) If it is time to move on, remove the 5 foot auxiliary pigtail hose from the tee fitting. Use two wrenches to loosen this threaded connection to prevent rotating the inlet at the tee. Protect this auxiliary inlet by replacing the brass plug and store the pigtail hose for later use.

If, while attempting to transfer the gas system usage from one supply source to another, an excess flow device activates; turn off all gas appliances in the RV and follow the general lighting instructions section above.

The Stay-Longer Plus (MER473) comes with a 12 foot, high-pressure appliance hose, that features easy to use swivel fittings on each end.

CONNECTING HIGH-PRESSURE LP-GAS APPLIANCES:

CAUTION: Portable heaters, lanterns, stoves, and grills are for outdoor use only. Use only the Marshall Excelsior MER421-144 (12 foot) or MER421-60 (5 foot) high-pressure appliance hose. Connect only to appliances designed for high-pressure LP-Gas vapor. These appliances have a female threaded inlet that mates with small throw-away style 1lb. cylinders. This is the same inlet connection that the appliance hose threads into.

WARNING: Use of hoses other than the high-pressure appliance hoses specified may cause component failure and LP-Gas leaks, which if ignited, could result in fire, explosion, severe personal injury, property damage, or death. Connection to appliances not originally equipped with a CGA-600 type connection will likely cause immediate appliance failure, resulting in possible fire, explosion, severe personal injury, property damage, or death.

1) Turn the portable appliance gas valve off and thread the male end of the appliance hose into the appliance connection. (Standard right-hand thread). No tools are required for this connection. Hand tighten only.

2) Remove the brass protective cap from the tee fitting and thread in the female end of the appliance hose. No tools are required for this connection. Hand tighten only.

LEAK CHECK for appliance hose:

The **Stay-Longer** tee and appliance end fitting of the hose are equipped with O-ring seals. After the appliance hose is installed, both end connections must be checked for leaks. Make sure the gas appliance is **OFF**, and then turn the LP gas vapor withdrawal cylinder valve counter-clockwise to its open position. Using an ammonia-free soap, prepare a soapy water solution and check the hose connections for leakage at the appliance and the **Stay-Longer** tee. If a leak is found at either connection, an O-ring may have been damaged. Close the cylinder valve immediately and contact your LP-Gas dealer.

3) Light appliance according to the manufacturers instructions.

TO DISCONNECT APPLIANCE HOSE:

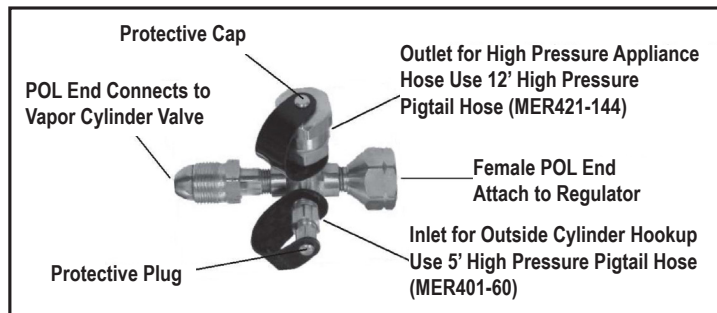
WARNING: Make sure there are no open flames or other sources of ignition near the appliance hose while disconnecting. Lp-gas pressurized within this hose during use is flammable and if ignited, could result in fire, explosion, severe personal injury, property damage, or death.

1) Turn off appliance

2) Unthread hose at tee fitting end, (not at appliance end) and replace the brass protective cap. Some LP-gas will escape from this exposed end of the hose, so be sure to keep it away from flames or any source of ignition.

3) Disconnect hose from appliance

4) Coil the hose and thread ends together for protection during storage.



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