

IMPORTANT INSTALLATION INSTRUCTIONS FOR STURGI-STAY KIT 103608 & STURGIS STAY KIT DELUXE 103610

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 **Sturgi-Stay** kit is designed to give you new flexibility on how you use your LP-Gas. You can stay longer by hooking up to 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 vibrations should be avoided.

The **Sturgi-Stay** tee and associated pigtail hose both contain a flow limiting device 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 the flow limiting devices to properly reset.

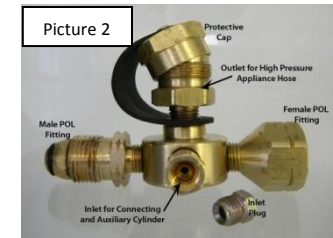
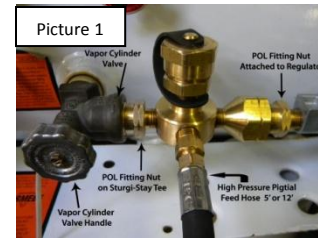
CAUTION: The **Sturgi-Stay** tee and associated hose assemblies are intended for RV & outdoor use only, with approved DOT cylinders or ASME tanks with a 350 psi pressure relief valve. These components must only be connected to cylinder valves supplying LP-Gas vapor. DO NOT connect to any valve delivering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cylinders to lie on their side or become physically oriented in such a manner as to allow liquid propane to be withdrawn.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

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" 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-handed 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 **Sturgi-Stay** tee between the two (vapor withdrawal valve and POL/regulator). This usually requires moving the regulator cover also. See pictures #1 & #2 below.



- 5) Thread the male POL fitting on the **Sturgi-Stay** tee, into the vapor withdrawal valve. Turn this left-hand nut counter-clockwise to tighten, but before tightening, be sure to position your fitting's top outlet port and side inlet port where you want them to be for best access. Use a 7/8" wrench to tighten the POL nut into vapor withdrawal valve.
- 6) Thread male POL fitting attached to the pressure regulator into the female POL fitting on the **Sturgi-Stay**. Again, turn the left hand POL nut counter-clockwise. Two 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 in the threaded inlet and outlet connections on the **Sturgi-Stay** tee. Use one wrench to securely hold the **Sturgi-Stay** female fitting while tightening the male POL nut with a second wrench. Prevent rotating the **Sturgi-Stay** 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 vehicles 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 OF THE STURGI-STAY TEE:

Once all connections are tightened securely, the installation must be checked for leaks. Be sure all gas appliances are off, then turn the RV's propane vapor withdrawal valve counter-clockwise to its full open position. Using an ammonia free soapy water solution or leak detecting solution, apply the solution to all the connections from the tank valve to and including the outlet of the regulator. If a leak is found at the POL connections, tighten again.

until the bubbles stop. If however, leakage is found at the pipe connections on the **Sturgi-Stay** tee, or at the pressure regulator outlet, close the LP-Gas valve immediately and contact your LP-Gas dealer or RV service dealer or MB Sturgis Inc.

WARNING: An LP-Gas leak, which 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 try to detect a leak.

CONNECTING TO THE AUXILIARY CYLINDER:

With the RV's vapor cylinder valve in the closed position (turn the cylinder valve clockwise until the valve is completely closed) remove the brass plug that protects the **Sturgi-Stay's** auxiliary inlet on the side of the tee.

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 rotate the inlet fitting on the tee.

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 lie such a cylinder on its side. This could allow liquid propane rather than propane vapor to enter the gas system which could result in a very dangerous situation.

WARNING: Liquid propane introduced into the **Sturgi-Stay** 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.

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

LEAKAGE CHECK OF THE PIGTAIL SUPPLY HOSE:

When the auxiliary supply hose is installed, both end connections must be checked for leaks. Be sure all appliances are off, then slowly turn the auxiliary cylinder valve counter clockwise to its full open position. Using an ammonia free soapy water solution or leak detecting solution, check for leakage at the cylinder valve and threaded connections at the **Sturgi-Stay** tee. If a leak is found at the cylinder POL connection or the inverted flare connection on the end of the pigtail hose, tighten it again until bubbles stop. If however, leakage is found at the

pipe thread connections into the **Sturgi-Stay**, close the cylinder valve and contact your RV service department or MB Sturgis Inc.

Close the cylinder valve on your RV's LP-Gas container to operate from the auxiliary supply cylinder. Re-light pilot 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 **Sturgi-Stay** 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 or there is equalization in pressure.

- 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, thereby allowing it to reset.
- 3) Re-light any pilot lights and operate each gas appliances as directed by the manufacturer's instructions. If your gas appliance does not receive an adequate flow of gas, repeat these lighting instructions again using a 2 minute waiting period. If the flow limiting device still 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 on board RV system, close the valve on the auxiliary cylinder to cut off all gas flow to the unit. All pilot lights should burn out from the remaining gas in the system.

- 2) With the RV's cylinder valve still closed and the auxiliary cylinder valve also now closed, it may now be disconnected by turning the POL nut clockwise. Once removed, protect the POL fitting surface from scratches that may prevent gas-tight sealing.
- 3) If a large period of time will pass where the **Sturgi-Stay** will not be connected to an auxiliary cylinder, remove the 5' or 12' pigtail feed hose from the inlet fitting on the **Sturgi-Stay**. Use two wrenches to loosen this threaded connection to prevent rotating the inlet fitting at the tee and re-insert the male inverted flare plug into the female inverted flare auxiliary inlet fitting. If reconnecting quickly to another auxiliary cylinder, this step can be skipped.
- 4) Once reconnection to an auxiliary cylinder is complete, slowly open the auxiliary cylinder valve to avoid activating the flow limiting device. 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, thereby allowing it to reset.
- 5) Re-light any pilot lights and operate each gas appliances as directed by the manufacturer's instructions. If your gas appliance does not receive an adequate flow of gas, repeat these lighting instructions again using a 2 minute waiting period.

If it is time to move on to your next location, remove the 5' or 12' auxiliary pigtail fill hose from the tee fitting. Use two wrenches to loosen this threaded connection to prevent rotating the inlet fitting at the tee. Protect this auxiliary inlet by replacing the brass plug and store the pigtail hose for later use.

DELUXE STURGI-STAY KIT (P/N 103610) – comes with a 12', high pressure appliance hose with swivel fittings on each end

CAUTION: Portable heaters, lanterns, stoves & grills are for outdoor use only. Use only the MB Sturgis Inc. 100284-60 (5 foot) or 100286-144 (12 foot) high pressure appliance hoses. Connect only to appliances designed for high pressure LP-Gas vapor. These appliances have a female threaded inlet that mates with small throw-away 1 lb. 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 12' appliance hose into the appliance connection (standard right hand thread). No tools are required for this connection, hand tighten only.
- 2) Remove the protective cap from the tee fitting and thread in the female end of the appliance connection (standard right hand thread). No tools are required for this connection, hand tighten only.

LEAKAGE CHECK OF THE APPLIANC HOSE:

The **Sturgi-Stay** 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. With the gas appliance off, turn the LP-Gas vapor withdrawal valve counter-clockwise to its full open position. Using an ammonia free soapy solution or leak detecting solution, check the hose connections for leakage at the appliance connection and the **Sturgi-Stay** 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 or RV service company.

- 3) Once the leak check has been performed and no leaks are found, light the gas appliance according to the manufacturer's instructions.

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, sever personal injury, property damage or death.

- 1) Leave appliance burning. If appliance is off, re-light
- 2) Unthread hose at thee fitting end (not appliance end) and replace the 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) Allow appliance to burn itself out, using up gas that was trapped in the hose.
- 4) Turn appliance off and disconnect the hose.
- 5) Coil the hose and thread the ends together for storage.

