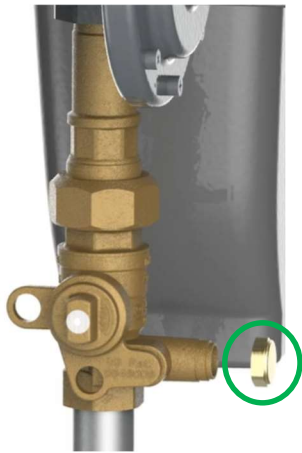


Bypass Procedure Instructions

The following guide is intended to assist with the bypass operation of Jomar Valve's Bypass Lockwing Ball Valves. If there is a different riser or customer valve on the meter set other than Jomar's, consult with your natural gas company for amended instructions.

Take a moment to familiarize yourself with the components that make up a Jomar Bypass Valve



Shutter Valve Cap – This cap is NOT under pressure at any time. Nor should it ever expel gas. **If pressure or gas is expelling from this area, do not proceed with these instructions as there is damage to the shutter valve.**

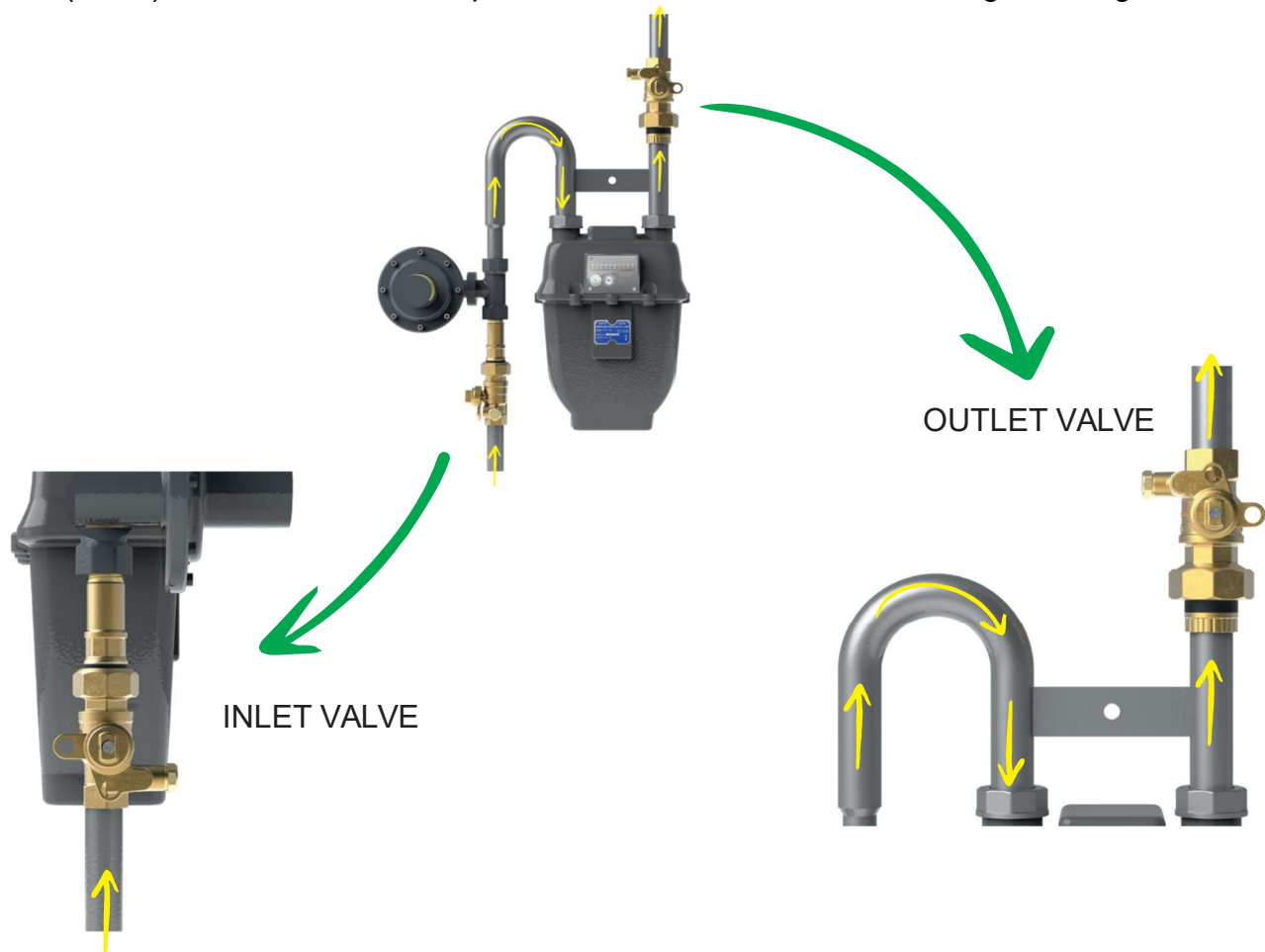


Shutter Valve – Is located behind the shutter valve cap and is only operational when using Jomar's proprietary Allen wrench.



Outlet Port of Bypass Valve – Currently shown With the **Outlet Security Plug** currently threaded into the Valve Body

1: Prior to starting the bypass procedure, verify that the customer's meter set is undergoing *normal operational conditions* and that both valves are in the open position. Normal operation means that the customer is actively receiving natural gas to their building through the MSA. If either the riser (inlet) or customer (outlet) valve is in the closed position, the customer is not receiving natural gas.



2: Using a Box Wrench remove the **shutter valve cap** on the **inlet valve**



3: Using the proprietary Allen key, engage the **shutter valve** and rotate the wrench clockwise to ensure that the **shutter valve** is fully closed



4: Partially close the **inlet valve** just enough to expose the **security plug & port** of the inlet bypass. This is approximately a 45-degree rotation.

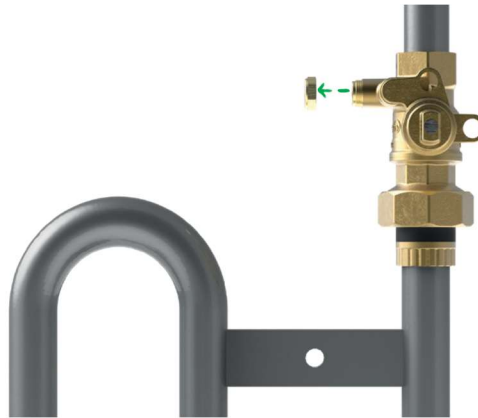


Note: Overtravel may shut off gas to the customer. Additionally, at this point of the operation the **outlet security plug** should be present in the **outlet port**.

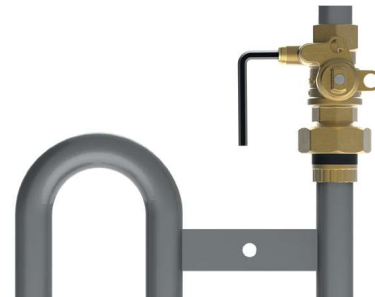
5: Using the proprietary Allen key, remove the security plug from the bypass **outlet port**. This is done by rotating the wrench counterclockwise. This is where the **high-pressure** side of your bypass hose assembly (BPHA) will be connected in a later step.



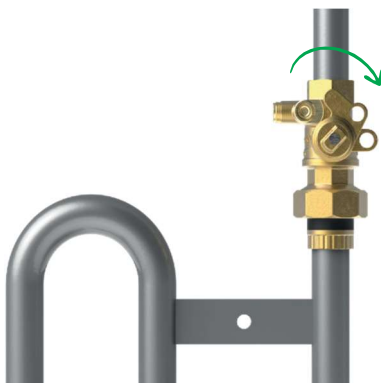
6: Using a box wrench, remove the **shutter valve cap** of the outlet valve.



7: Using the proprietary Allen key, engage the **shutter valve** and rotate the wrench clockwise to ensure that the **shutter valve** is fully closed



8: Partially close the outlet valve just enough to expose the **outlet security plug & port**. This is approximately a 45-degree rotation.

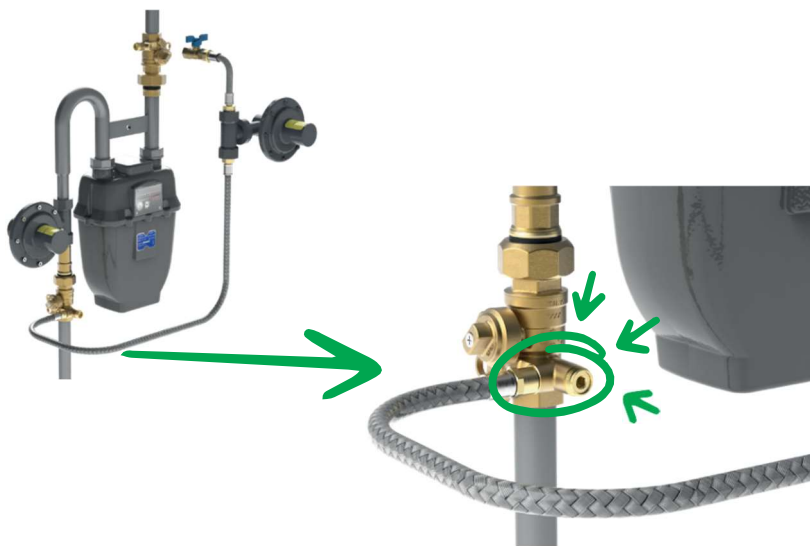


Note: Overtravel may shut off gas to the customer. Additionally, at this point of the operation a plug should be present in the outlet port.

9: Using the proprietary Allen key, remove the **security plug** from the **bypass outlet**. This is done by rotating the wrench counterclockwise. This is where the **low-pressure** side of your bypass hose assembly (BPHA) will be connected in a later step.



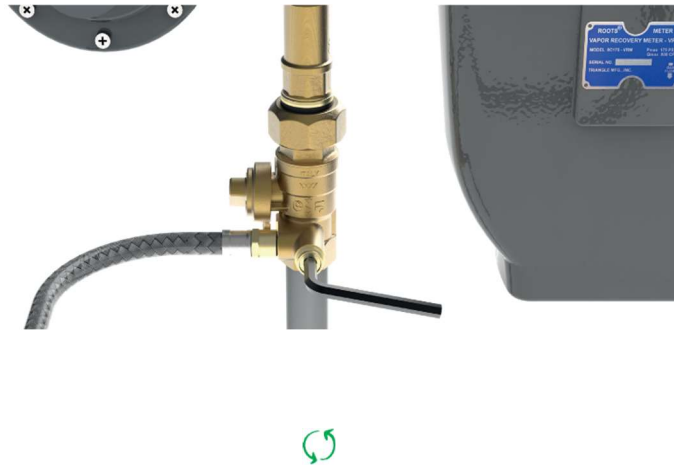
10: Connect the High-Pressure side of your BPHA kit to the inlet bypass valve as shown below.



11: Verify that the gas cock on your bypass hose kit is in the closed position.



12: Using the proprietary Allen wrench, engage the **shutter valve** that is located on the **inlet valve** and rotate the wrench counterclockwise **6-7** times to fully open the shutter valve

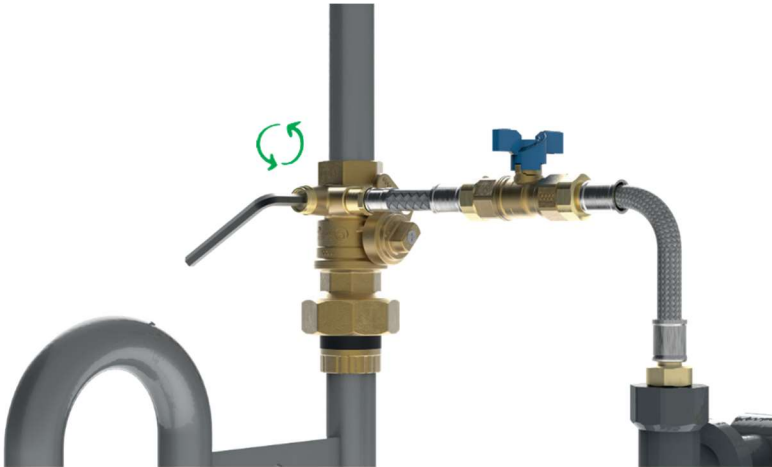


Currently gas is still being serviced to the customer through the MSA, as well as is flowing through the bypass hose assembly. It is important to purge the bypass hose assembly of air using the procedures established by the natural gas utility. Prior to connecting the BPHA to the **outlet valve**, it is suggested that as much air is eliminated from the BPHA as possible. Once the purge is completed, verify that the gas cock on the BPHA is again fully closed.

13: Connect the low-pressure side of your BPHA to the **outlet valve** as shown below.



14: Using the proprietary Allen wrench, engage the **shutter valve** that is located on the outlet side of the MSA and rotate the wrench counterclockwise 6-7 times to fully open the **shutter valve** on the outlet side of your MSA



15: Fully open the gas cock on the BPHA.



Now that both shutter valves and the BPHA valve are open and connected, gas is flowing from the riser, through the BPHA as well as through the MSA Piping.

16: Fully close the outlet Valve



17: Fully close the riser/ inlet valve.



With both the inlet and outlet valves now closed, the bypass hose assembly is providing gas to the customer. Maintenance to the regulator, meter, or any piping between the inlet or outlet valve can now be done.



Once the replacement or maintenance has been completed, proceed with the following instructions.

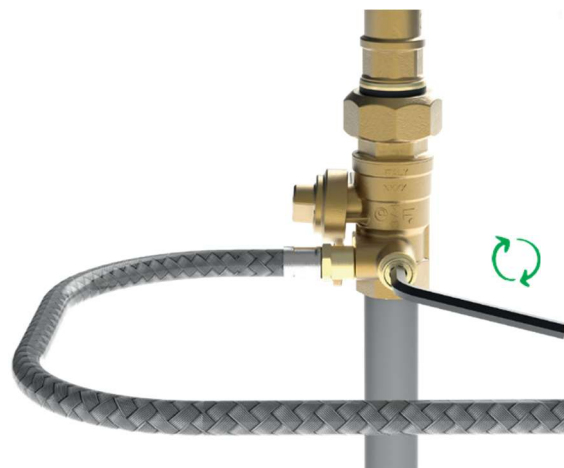
18: Follow the meter and regulator purging procedures outlined by the natural gas utility. To start the purge process, the **inlet valve** must be partially opened, or gas will not flow through the MSA. Do not proceed until the purge procedures are completed and all air is out of the MSA.



19: Partially open the **outlet valve**.



20: Using the proprietary Allen key, close the **shutter valve** on the **outlet side** of the MSA. This is done by turning the Allen key clockwise until it is tight (6-7 Turns). Follow the same procedure on the **shutter valve** on the **inlet side** of the MSA.



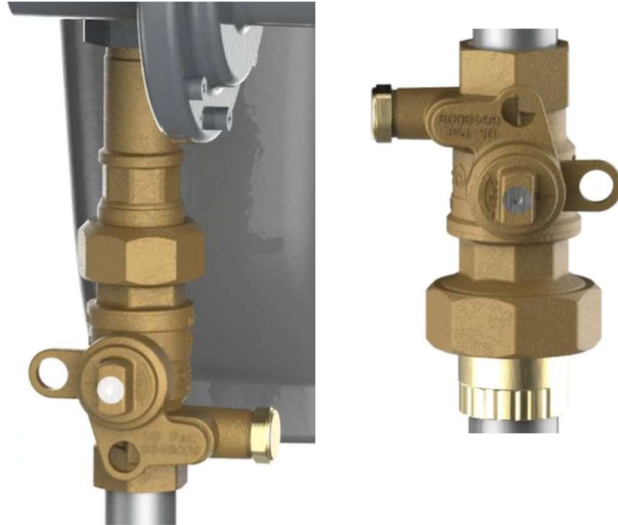
21: Remove the regulated bypass hose kit.



22: Re-install and tighten the **outlet security plugs** and **outlet security caps** into the inlet and outlet valves. Note that a Gas Utility Approved 'Soft Setting' sealant must be used on the threads of the **outlet security plugs**. No sealant is required on the shutter valve caps.



23: Open both the inlet and outlet valves to the fully opened position to restore full flow to the MSA.



Now the MSA has been repaired and both the inlet and outlet valves are functioning under normal operational conditions.



Please reach out to Jomar Customer Service at 586-268-1220 with any additional questions.