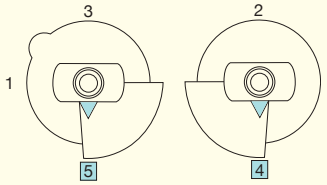
Natural Gas
6410 By-Pass Procedure

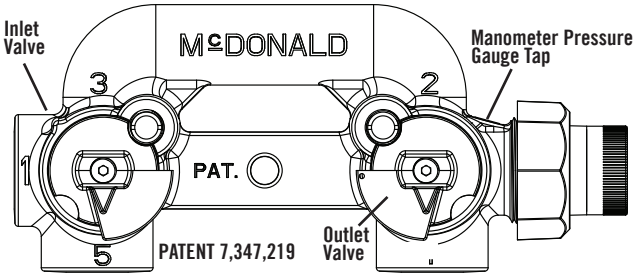
NOTE: Failure to follow this procedure may result in interrupted gas service and loss of pilot lights.
NOTE: It is recommended that a manometer be installed at the downstream pressure tap prior to operating the bypass. The manometer will monitor the downstream pressure. In the event the pressure drops below your stated system requirements, an improper sequence may have occurred. The valves should be returned to normal operation immediately to restore flow of gas. Once pressure is restored, the bypass procedure can then be started again. If the pressure drops below your stated system requirements at any time, pilots need to be checked and possibly relit.

- Bypass application only at regulated pressure.
- Follow all applicable codes and procedures.

Normal Operating Flow Mode

Inlet valve at position 5, outlet valve at position 4 (both arrows toward meters).

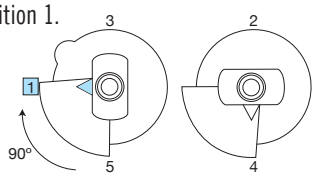




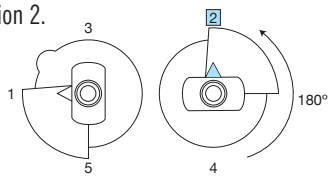
PROCESS 1

Bypass Flow Mode

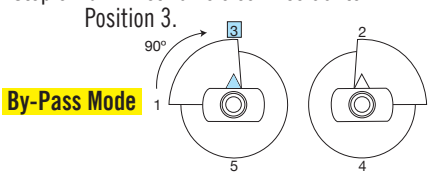
Step 1. Turn inlet valve 90º clockwise to Position 1.



Step 2. Turn outlet valve 180º counter clockwise to Position 2.



Step 3. Turn inlet valve clockwise 90º to Position 3.



PROCESS 2

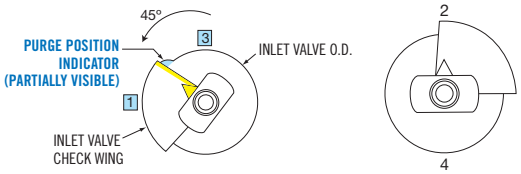
Meter Maintenance

Perform required maintenance to the meter, when the meter change out or meter maintenance has been completed, purge the air out of the new meter before taking the meter bar out of bypass mode. Do this by attaching the meter inlet swivel nut to the meter inlet, hand tight only. Then attach the meter outlet swivel nut to the meter outlet, but very loosely, 1-2 turns. This will allow an exit for the air/gas mixture to leave the meter during purging.

PROCESS 3

Purge Mode

Step 4. ***Slowly*** turn the inlet valve counterclockwise 45º until plug arrow will split position 3 and position 1 and the check wing is even with hashmark (purge position indicator raised bump on iron bar casting) This means that gas is now starting to enter the meter and will push the air in the meter to the meter outlet nut where it can escape to atmosphere. Once you see the 1/2 cubic foot dial on the meter begin to move, continue to purge the meter for 20-30 seconds. DO NOT PURGE IN A CONFINED SPACE! Once the meter is purged, tighten both inlet and outlet meter nuts completely to the meter.

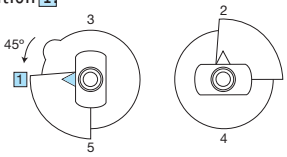


Purge process begins once you see the 1/2 cubic foot dial turn. Purge per your requirements.

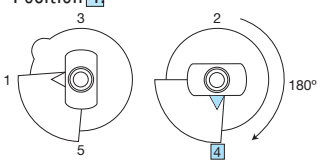
PROCESS 4

Back To Normal Operation Flow Mode

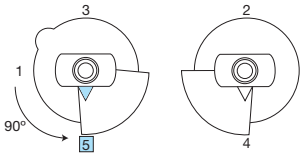
Step 5. Turn the inlet valve 45º counterclockwise to Position 1.



Step 6. Turn outlet valve 180º clockwise to Position 4.



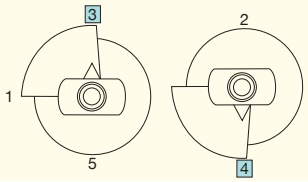
Step 7. Turn inlet valve 90º counterclockwise to Position 5.



SHUT OFF POSITION

To stop the flow of Gas to meter and structure, turn valves to Position 3 & 4.

WARNING: This position will shut-off the flow of gas and require shut-off procedure and pilots re-lit.



Natural Gas

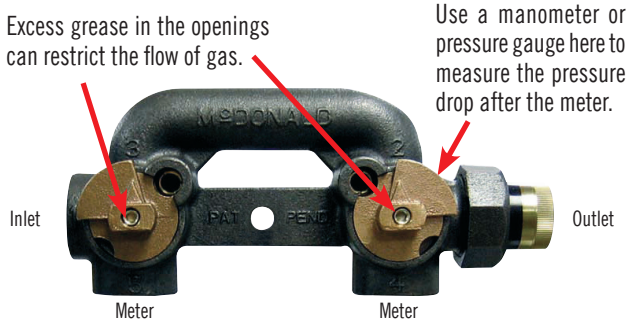
6410 By-Pass Procedure

Valve Rating 5 PSIG | Plug Style Instructions

NOTE: These valves are designed for use with natural, manufactured or LP gas only.

All A.Y. McDonald plug style gas valves are factory set.
DO NOT TAMPER WITH BOTTOM NUT.

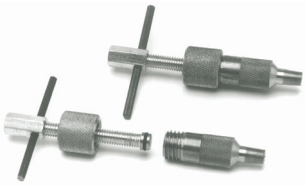
1. Read instructions and reference pressure rating on integral valves before valve installation or maintenance of meter bar.
2. Inspect valves for foreign material. Remove any foreign material, being careful not to disturb grease on the plug face.
3. Always apply a quality grade pipe thread sealant to the pipe before installation - do not use teflon tape. Excess pipe sealant contacting the plug surface may cause the valve to leak.
4. Always wrench nearest to connection point. Never insert a tool into the port area of the valves to thread bar onto the pipe. Incorrect tightening or overtightening of the bar on installation can cause valve failure.
5. Installation torques should be reduced when using pipe heavier than schedule 40.
6. Reference the bypass procedure shown below and on reverse side.
   DO NOT INSTALL IN A CONFINED SPACE.
7. Lock the valves to prevent unwanted operation or access.



A gas meter will normally reduce the pressure about 1/2" of water column. If the manometer or gauge reads a pressure loss greater than 1/2" of water column, blockage may be present within the bar or meter.

Recommended method to remove grease: To remove excess grease, first shut off the riser valve. Then remove the meter from the swivels. Turn the valves in the normal operating positions. Insert a flexible tool, such as a wire, up the swivels until it is in the middle of the plug valve. Use the wire to remove the grease. If unable to get a wire to the valves, remove the bar to clean.

RE-LUBRICATION TOOL



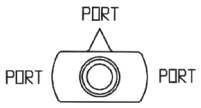
- 558 - Grease Tool / - 558GR - Grease Sticks for use with 588 Re-Lubrication tool. 24 sticks/box.

A.Y. McDonald Mfg. Co. model number 558 Re-Lubrication Tool is an easy and economical way to lubricate 175 PSIG gas meter valves.

The tool is machined from steel alloy for durability and has an Allen wrench mounted to the body for convenience. It can be used to re-lubricate A.Y. McDonald valves in the full open or the full closed position when the valve is pressurized or unpressurized. It will also lubricate valves of other manufacturers. Check with them for their recommended procedures.

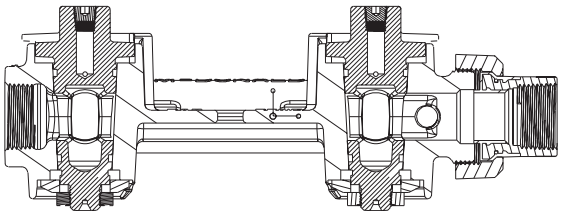
INTEGRAL VALVE FEATURES

1. Valves can be locked in "NORMAL FLOW" (through the meter) or in "BYPASS MODE" to prevent unwanted operation.
2. An arrow notch on top of the outlet plug indicates the direction (or location) of the third (odd) port in the plug.
3. The bypass meter bars are designed to provide uninterrupted gas service to a home during gas meter maintenance. The ability to maintain gas flow to the home comes from the valves' oversized ports, which allow for a minimum-flow condition during valve operation.



RELUBRICATION INSTRUCTIONS

NOTE: These valves are designed for use with natural, manufactured or LP gas only.



1. Bypass meter bar valves may be re-lubricated in any full open or full closed position when the valve is pressurized or unpressurized.
2. Remove the 1/8" NPT Allen Head pipe relube plug from the re-lubrication port in the head of the valve plug.
3. Fill the lube port with A.Y. McDonald approved lubricant and re-tighten the 1/8" pipe relube plug to move grease into the lubrication channels of the valve. Repeat as required to allow the valve to turn freely.

NOTE: Replacing the 1/8" relube plug with a standard 1/8" grease zerk will also allow easy re-lubrication of these valves. In either event, care should be taken to prevent over-lubrication.

4. After re-lubrication, the 1/8" Allen Head pipe relube plug should be securely replaced in the relube port in the head of the valve plug.
5. A small amount of gas leakage may be observed during this procedure, depending on the amount of lubrication already in the valve body.

NOTE: Other commercially available relube tools may be used. Check with A.Y. McDonald before using.

WARNING: This product can expose you to chemicals including lead, which is known to the State of **CALIFORNIA** to cause cancer and birth defects or other reproductive harm. For more information go to: www.P65Warnings.ca.gov.