

INSTALLATION GUIDELINES

LUDLOW PRESSURE BALANCE SHOWER SYSTEM

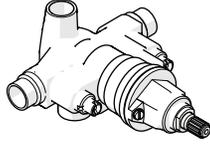
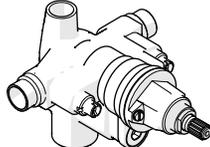
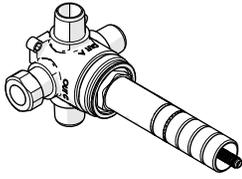
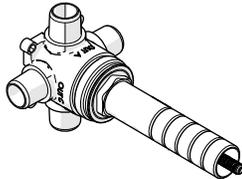
IMPORTANT:

- **ALL VALVES AND TRIMS SOLD SEPARATELY.**
- To ensure these products are installed properly, you must read and follow these guidelines.
- The owner/user of these products must keep this information for future reference.
- These products must be installed by a professional licensed contractor and must be on-site prior to rough-in. This allows the installer to visualize the installation.
- Be sure your installation conforms to all federal, state, and local codes. In the State of Massachusetts, all installations must comply with the rules and regulations set forth within 248 CMR.
- **WARNING:** PRESSURE BALANCE VALVES are equipped with an adjustable LIMIT STOP SCREW. The LIMIT STOP DEVICE is used to limit the temperature control HANDLE from being turned to undesired hot water discharge temperatures. Failure to adjust the LIMIT STOP SCREW properly increases the chances for serious injury.
- These products are sold partially assembled but shown fully disassembled for illustrative and service purposes only. Inspect these products to ensure you have all the parts required for proper installation.
- Use only a strap wrench or protected/smooth-jaw wrench on any finished surface.
- The use of certain plumber's putty may stain stone or tile surfaces.
- If further assistance is required, please contact Product Support at 1-800-927-2120 Monday through Friday, 8am - 6pm EST.
- Refer to the separate Service Parts Documents for available replacement parts.

CARE AND MAINTENANCE:

- If these products will remain unused for an extended period of time (over 3 months), then the water to the PRESSURE BALANCE VALVE should be shut off (via service stops or system control valve) and the VALVE should be opened to allow the remaining water in the VALVE to evaporate. This is to keep the PISTON in the CARTRIDGE from sticking, due to stagnant or hard water, once the VALVE is in use again. If the PISTON does stick, soak the CARTRIDGE in household vinegar.
- **WINTERIZE:** If this product will remain unused during the WINTER months then the water to the VALVE should be shut off (via service stops or system control valve) and the CARTRIDGE should be removed and replaced with the FLUSH PLATE.
- Refer to the Installation Guidelines provided with the PRESSURE BALANCE VALVE for:
 - Complete maintenance instructions, parts breakdown and related information.
 - Instructions on how to properly remove and re-install the CARTRIDGE.

REQUIRED PLUMBING DETAILS:

		VALVE	TRIM	NUMBER OF OUTLETS
PRESSURE BALANCE VALVE		GUPB81	LDPB11	2
		GUPB87	LDPB31	2
DIVERTER VALVE		GUDV2P	LD2P01, LD2P10	2
		GUDV3P	LD3P01, LD3P10	3

VALVE FUNCTION:

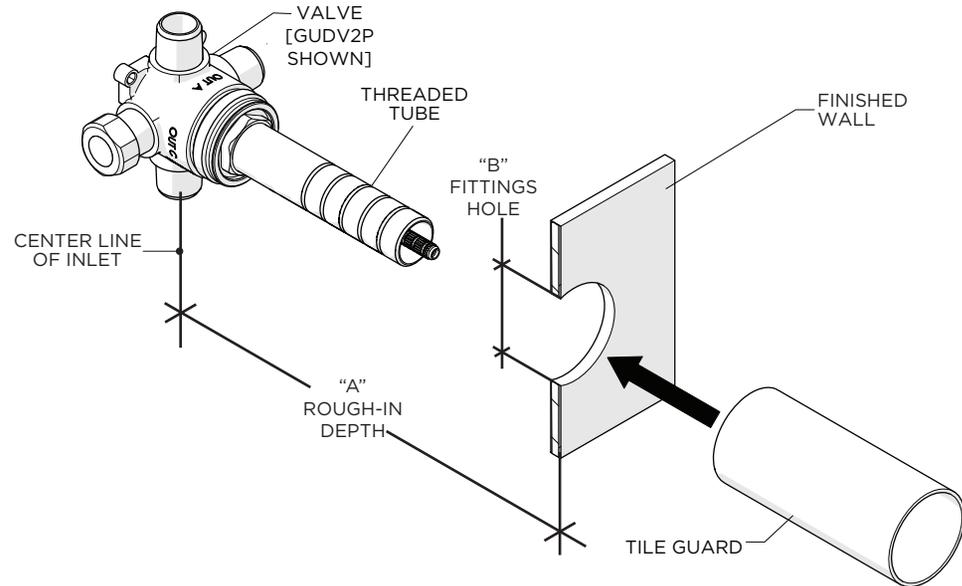
- PRESSURE BALANCE VALVES control on/off and mix hot and cold water.
 - The bottom outlet of the GUPB81 is intended for use with a **diverting** tub spout only.
 - The bottom outlet of the GUPB87 is intended for use with a **non-diverting** tub spout only and the use of any fitting with a restricted flow such as a handshower, will cause the integrated diverter to malfunction.
- DIVERTER VALVES can direct mixed water at a fixed volume to multiple devices. Water **cannot** flow out of the devices simultaneously (i.e. out of the shower head AND handshower together).

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ROUGH-IN AND VALVE PREPARATION:

- Refer to the Installation Guidelines provided with each VALVE for complete rough-in installation details and related information.
- **CAUTION:** The rough-in depth is measured from the centerline of the inlets to the surface of the finished wall. If the VALVES are roughed-in too shallow, the associated TRIMS cannot be installed correctly.
- The DIVERTER VALVE can ONLY be connected to the top outlet port of the PRESSURE BALANCE VALVE.
- Do **NOT** use:
 - The bottom (tub) outlet port of the PRESSURE BALANCE VALVE for any fittings with restricted flow, such as a handshower or body spray. The back pressure created would cause water to flow out through the top (shower) outlet port.
 - PEX piping from the VALVE to the tub spout. It will create too much back pressure and cause the VALVE to malfunction.
 - A shut-off device on either side of the PRESSURE BALANCE VALVE. The installation of any such device may create a cross-flow condition at the VALVE and affect water temperature.
- **IMPORTANT:** Make sure the supply lines are flushed prior to final TRIM installation using the FLUSH PLATE provided with the PRESSURE BALANCE VALVE.
- Remove and discard the TILE GUARDS only when the finished wall surface (TILE or SLAB) is completed and TRIMS are ready for installation.

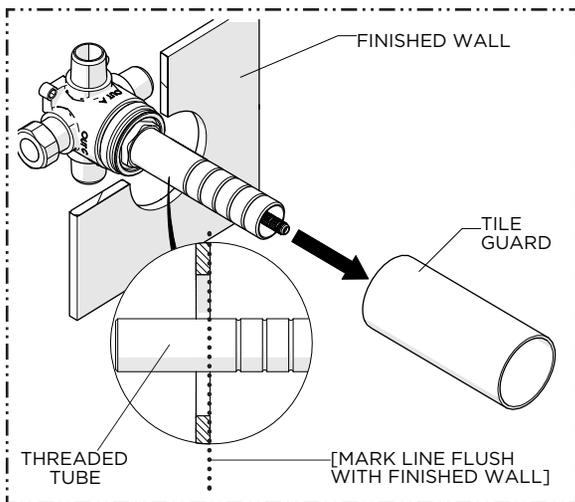


VALVE	DIMENSION	VALUE
GUDV2P, GUDV3P	A	5-7/8" [149mm] MAX 2-1/2" [64mm] MIN
	B	Ø2" [51mm]

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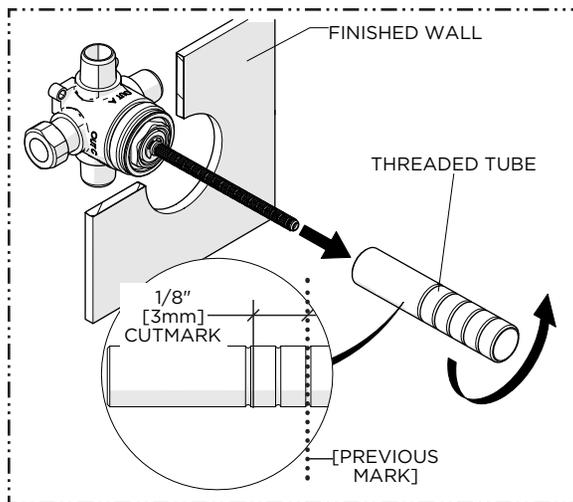
DIVERTER TRIM INSTALLATION

WATERWORKS

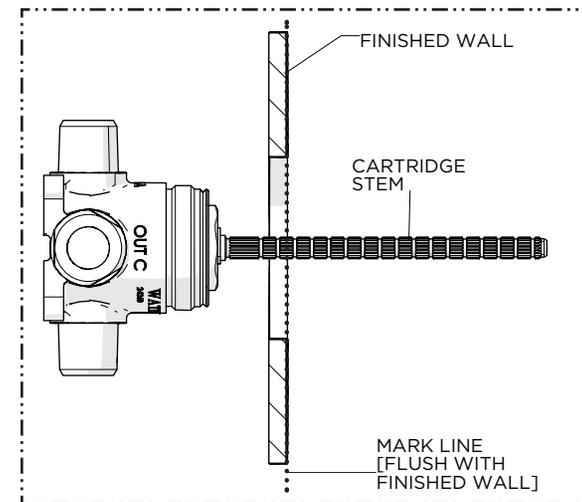


1. Remove the TILE GUARD when ready to install the TRIM then mark the THREADED TUBE where it protrudes past the finished wall.

NOTE: A straight edge (not supplied) can be used to mark the TUBE.

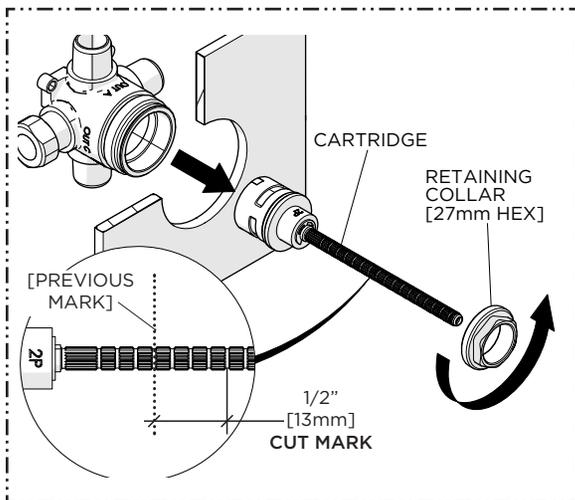


2. Remove the THREADED TUBE then cut it 1/8" [3mm] behind the previous mark so the TUBE will recess 1/8" [3mm] into the finished wall surface.

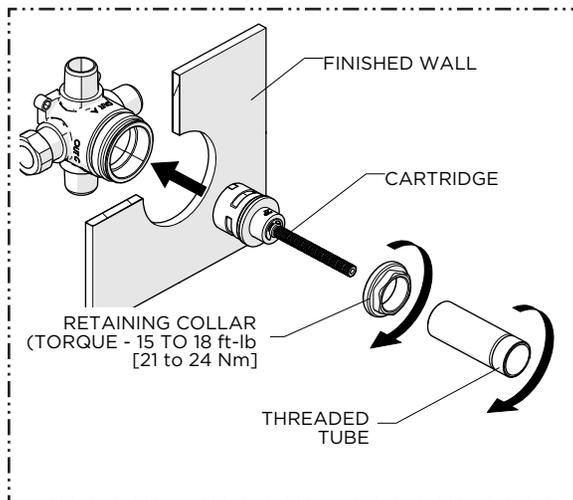


3. Mark the CARTRIDGE STEM where it protrudes past the finished wall.

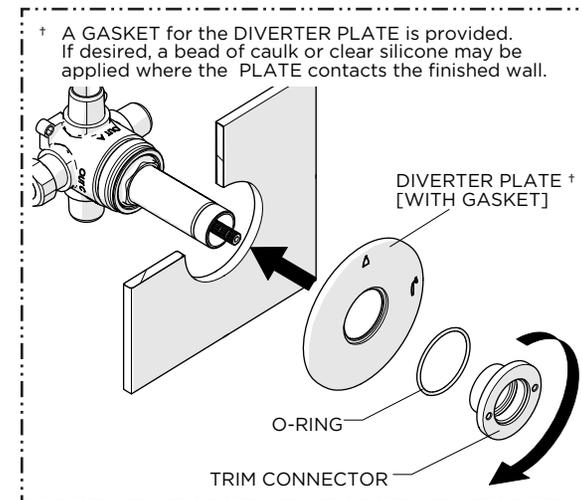
NOTE: A straight edge (not supplied) can be used to mark the CARTRIDGE STEM.



4. Unthread the RETAINING COLLAR and remove the CARTRIDGE then cut the CARTRIDGE STEM 1/2" [13mm] in front of the previous mark so the STEM will protrude 1/2" [13mm] from the finished wall surface.



5. Re-insert the CARTRIDGE into the VALVE then thread and securely tighten the RETAINING COLLAR to the specified torque setting shown. Thread the THREADED TUBE back into the RETAINING COLLAR until snug.

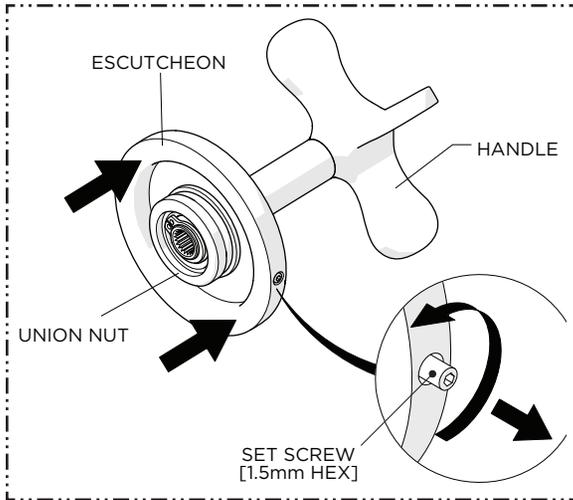


6. Firmly hold the DIVERTER PLATE against the finished wall then thread and securely tighten the TRIM CONNECTOR onto the THREADED TUBE making sure to use the O-RING provided.

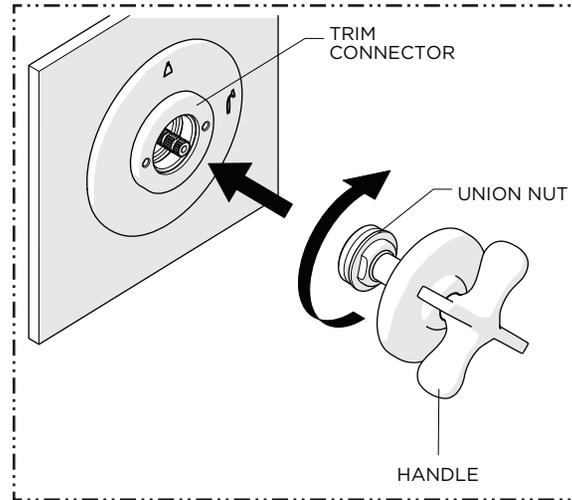
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DIVERTER TRIM INSTALLATION

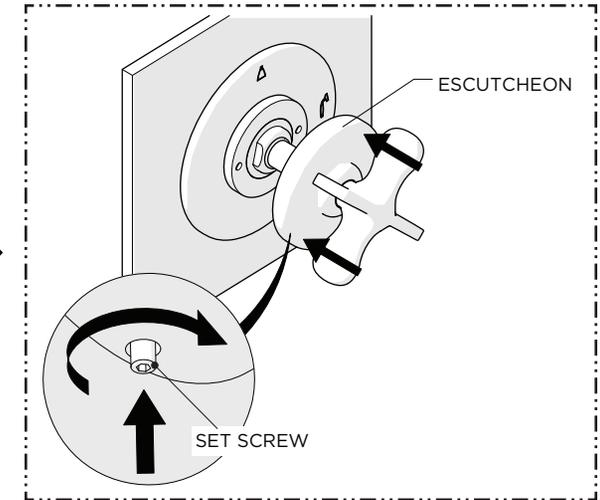
WATERWORKS



7. Loosen [do **NOT** remove] the SET SCREW at the base of the ESCUTCHEON then **CAREFULLY** slide the ESCUTCHEON up the HANDLE to expose the UNION NUT.



8. With the HANDLE in the desired orientation, thread the UNION NUT into the TRIM CONNECTOR until snug.



9. **CAREFULLY** slide the ESCUTCHEON down the HANDLE to conceal the TRIM CONNECTOR, then thread the SET SCREW to secure the position of the ESCUTCHEON.

PROCEED TO
PRESSURE BALANCE
TRIM INSTALLATION
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