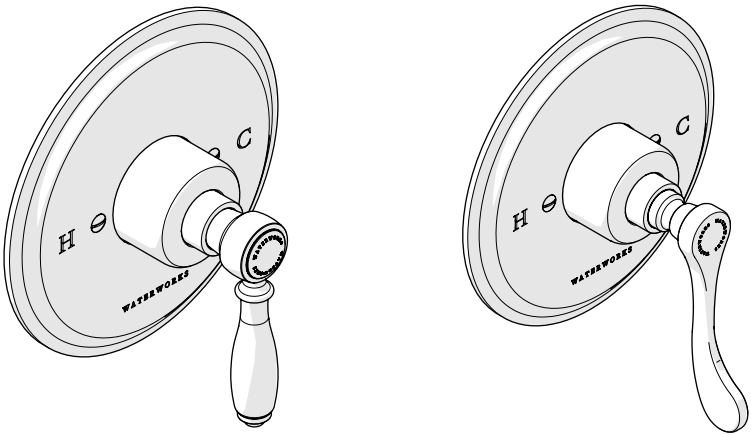


INSTALLATION GUIDELINES

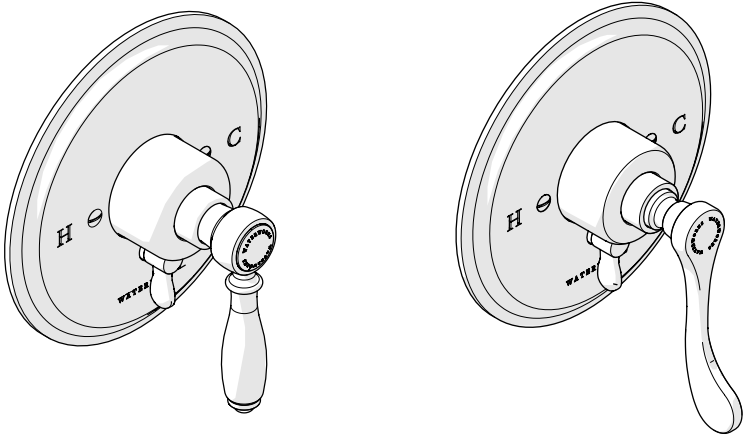
EASTON PRESSURE BALANCE SHOWER SYSTEM

EASTON PRESSURE BALANCE CONTROL VALVE TRIM WITH HANDLE



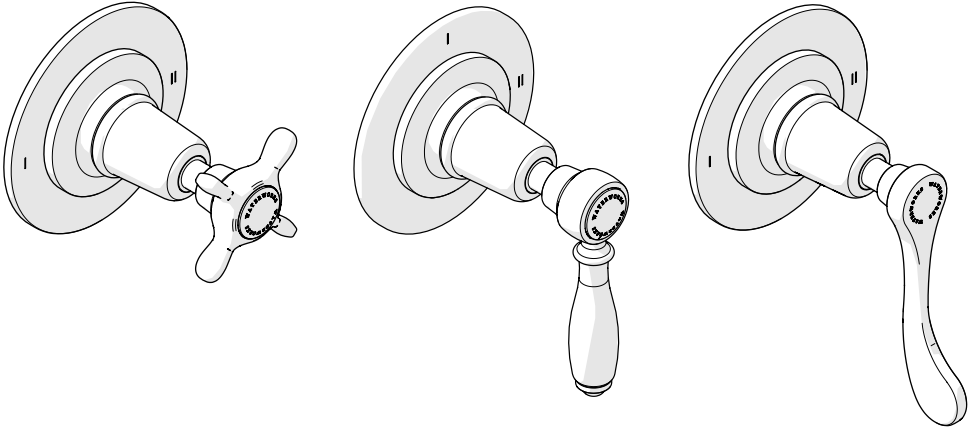
STYLES			
EPB120 [SHOWN]	EPB160 [SHOWN]	EPB12W	EPB12B
EPB12V	EPB12K	EPB1R1	EPB1R2

EASTON PRESSURE BALANCE DIVERTER TRIM WITH HANDLE



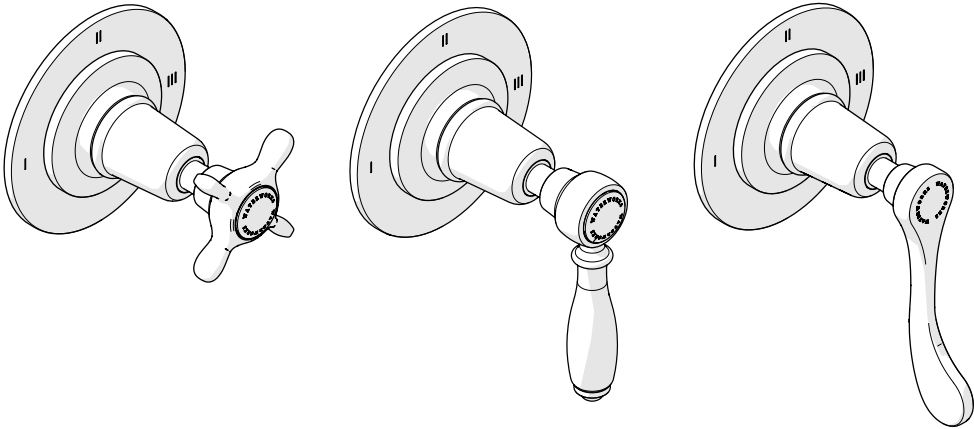
STYLES			
EPB220 [SHOWN]	EPB260 [SHOWN]	EPB22W	EPB22B
EPB22V EPB22V	EPB22K	EPB2R1	EPB2R2

EASTON TWO WAY PRESSURE BALANCE DIVERTER TRIM WITH ROMAN NUMERALS AND HANDLE



STYLES			
ES2P10 [SHOWN]	ES2P20 [SHOWN]	ES2P20 [SHOWN]	ES2P2W
ES2P2B	ES2P2V	ES2P2K	ES2PR1
ES2PR1	ES2PR2		

EASTON THREE WAY PRESSURE BALANCE DIVERTER TRIM WITH ROMAN NUMERALS AND HANDLE



STYLES			
ES3P10 [SHOWN]	ES3P20 [SHOWN]	ES3P20 [SHOWN]	ES3P2W
ES3P2B	ES3P2V	ES3P2K	ES3PR1
ES3PR2			

INSTALLATION GUIDELINES

EASTON PRESSURE BALANCE SHOWER SYSTEM

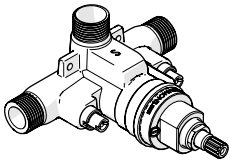
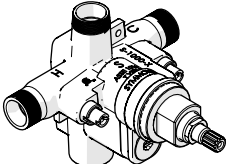
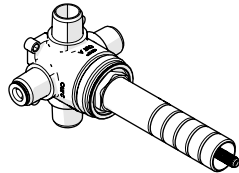
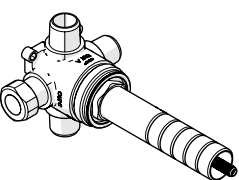
IMPORTANT:

- 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.
- **ALL VALVES AND TRIMS SOLD SEPARATELY.**
- **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		GUBP01	EPB120 EPB160 EPB12W EPB12B EPB12V EPB12K EPB1R1 EPB1R2	2
		GUPB02	EPB220 EPB260 EPB22W EPB22B EPB22V EPB22K EPB2R1 EPB2R2	2
DIVERTER VALVE		GUDV2P	ES2P10 ES2P20 ES2P60 ES2P2W ES2P2B ES2P2V ES2P2K ES2PR1 ES2PR2	2
		GUDV3P	ES3P10 ES3P20 ES3P60 ES3P2W ES3P2B ES3P2V ES3P2K ES3PR1 ES3PR2	3

VALVE FUNCTION:

- PRESSURE BALANCE VALVES control on/off and mix **hot** and **cold** water.
 - The bottom outlet of the **GUPB01** is intended for use with a **diverting** tub spout only,
 - The bottom outlet of the **GUPB02** 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 showerhead and handshower together).

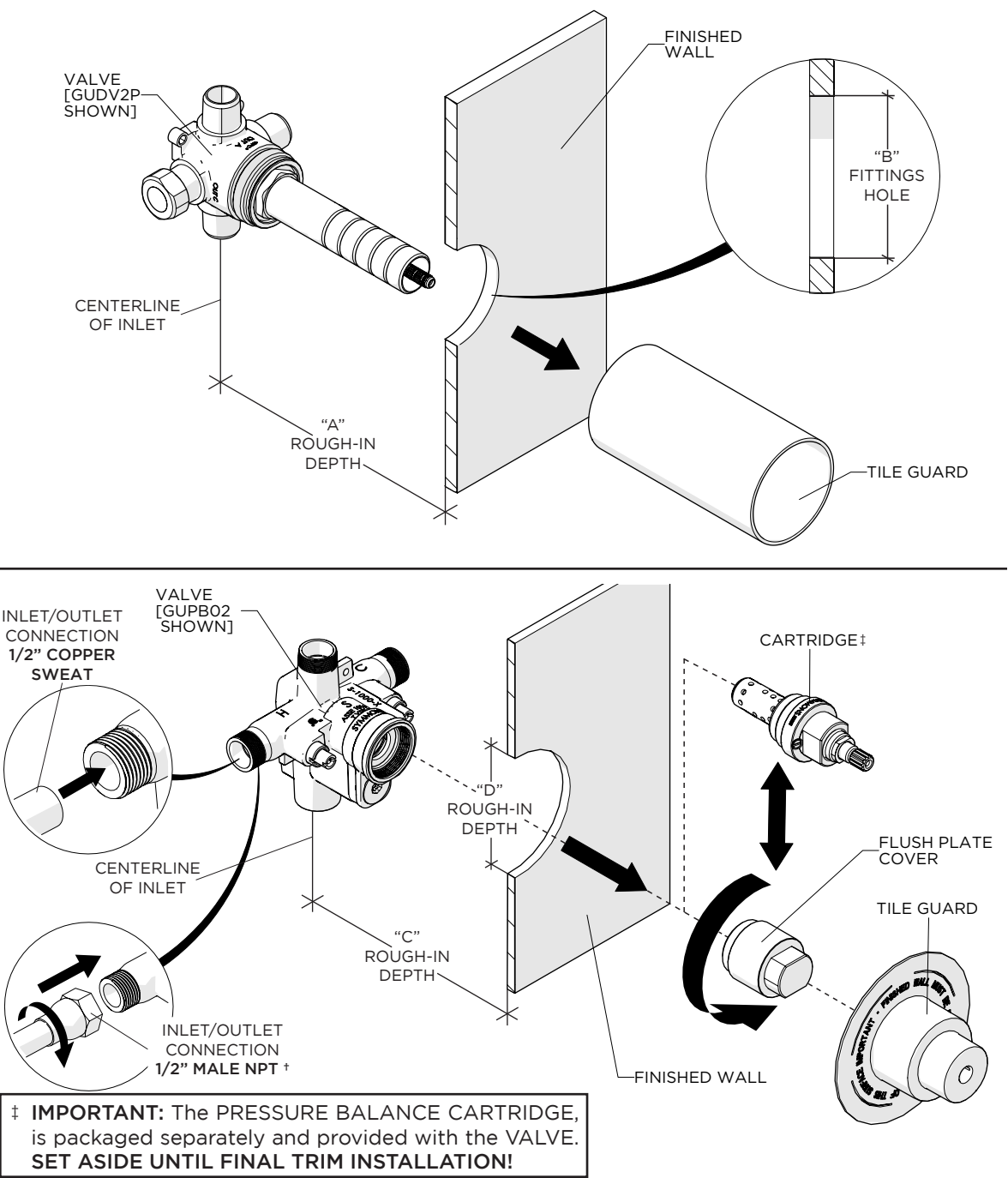
INSTALLATION GUIDELINES

EASTON PRESSURE BALANCE SHOWER SYSTEM

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.

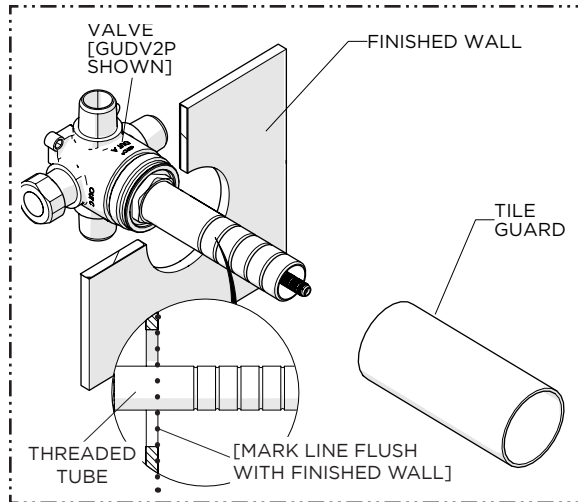
VALVE	DIMENSION	VALUE	
GUDV2P, GUDV3P	A	4-1/2" [114mm] MAXIMUM 2" [51mm] MINIMUM	
	B	Ø2" [51mm]	
GUPB01, GUPB02	C	3" [76mm] MAXIMUM 2-1/2" [64mm] MINIMUM	
	D	GUPB01	Ø3-1/2" [Ø89mm]
		GUPB02	Ø3-3/4" [Ø95mm]



INSTALLATION GUIDELINES

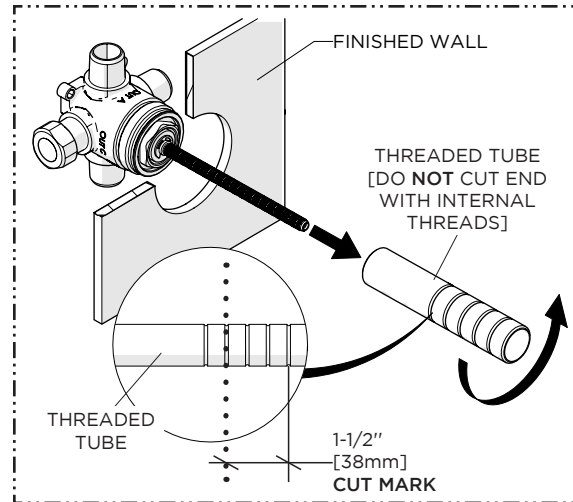
DIVERTER TRIM INSTALLATION

WATERWORKS

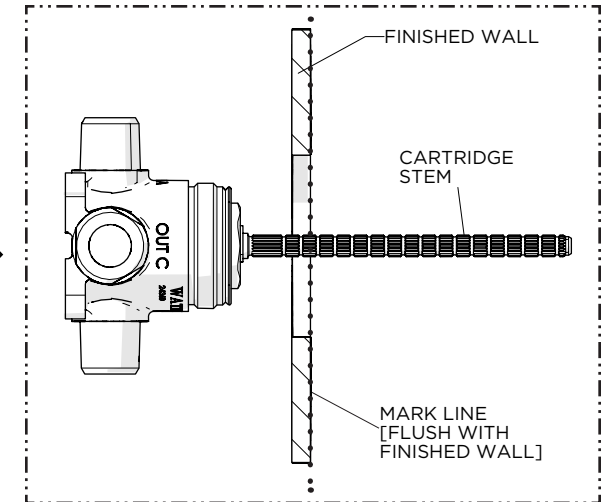


1. Remove the TILE GUARD when ready to install the TRIM then mark the THREADED TUBE where it protrudes past the FINISHED WALL.

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

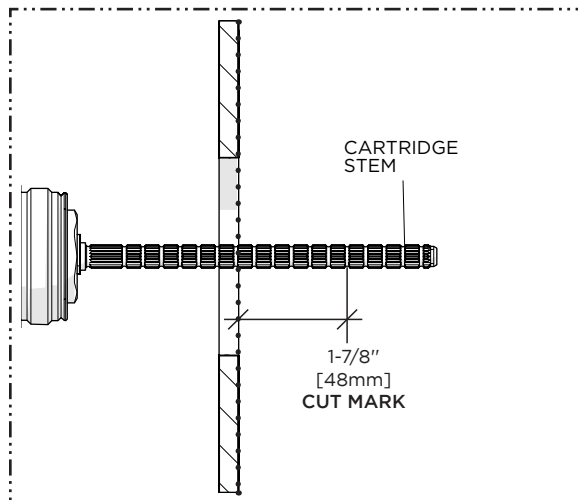


2. Remove the THREADED TUBE then cut it 1-1/2" [38mm] in front the previous mark so the STEM will protrude 1-1/2" [38mm] from the FINISHED WALL surface.



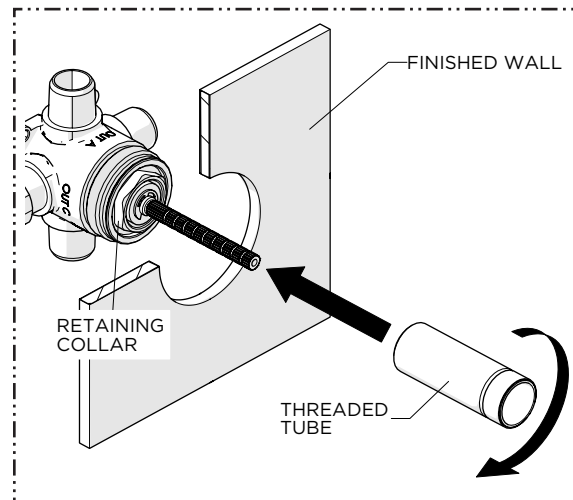
3. Mark the CARTRIDGE STEM where it protrudes past the FINISHED WALL.

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

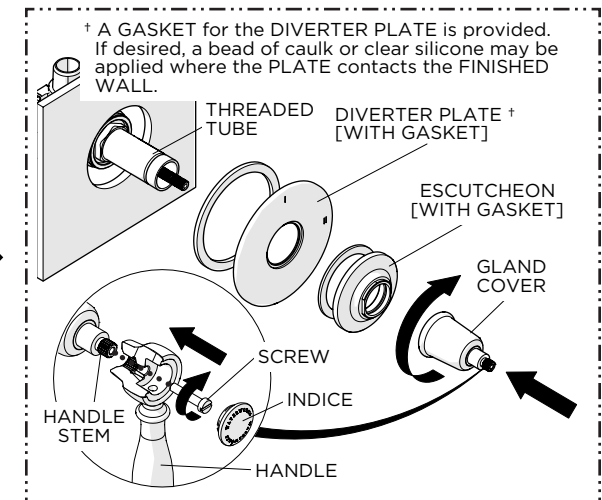


4. Carefully cut the CARTRIDGE STEM 1-7/8" [48mm] in front of the previous mark so the STEM will protrude 1-7/8" [48mm] from the finished wall surface.

CAUTION: Cutting the STEM longer than the specified dimension may result in the HANDLE being damaged when installed.



5. Thread the THREADED TUBE back onto the RETAINING COLLAR until snug.

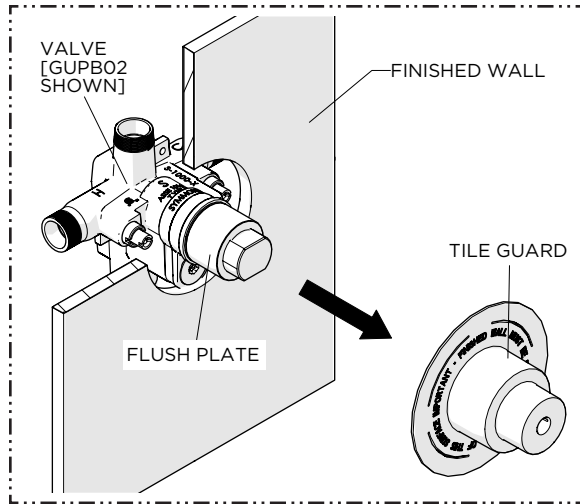


6. Firmly hold the DIVERTER PLATE and ESCUTCHEON with GASKET against the FINISHED WALL, then thread the GLAND COVER onto the THREADED TUBE then position the HANDLE on the HANDLE STEM at the 6 o'clock position and thread the SCREW onto the CARTRIDGE STEM until snug, then push fit the INDICE to the top of the HANDLE to enclose the SCREW.

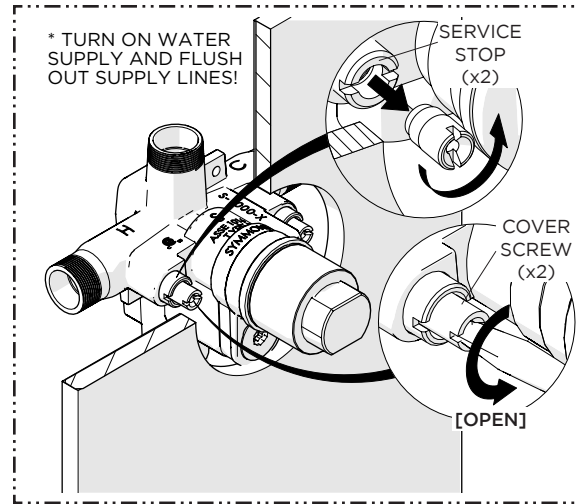
INSTALLATION GUIDELINES

PRESSURE BALANCE TRIM INSTALLATION

WATERWORKS

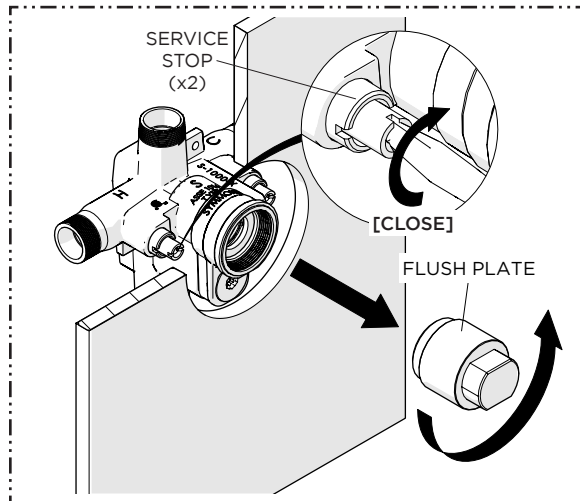


1. Remove the TILE GUARD from the VALVE when the TRIM is ready to be installed.

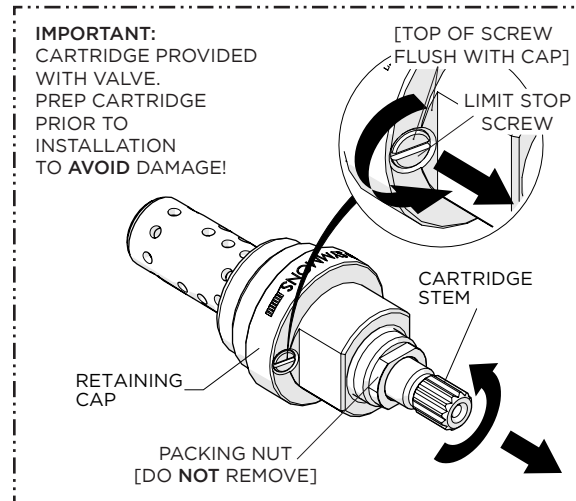


2. Turn on the water supplies then remove the COVER SCREWS (x2) and **OPEN** the SERVICE STOPS (hot & cold) to flush out the SUPPLY LINES.

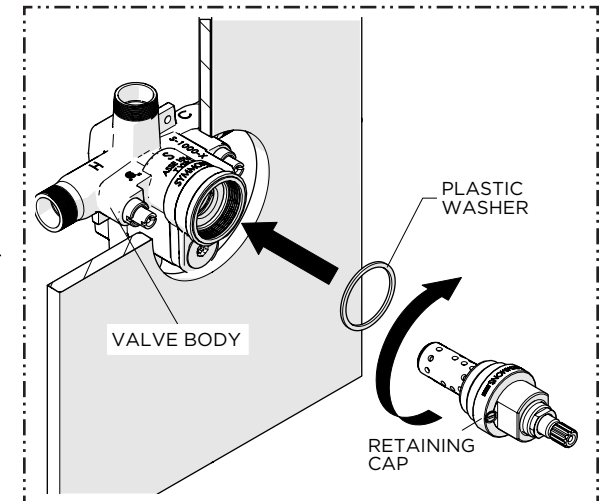
CAUTION: FAILURE TO FLUSH THE SUPPLY LINES WILL PERMANENTLY DAMAGE THE CARTRIDGE AND VOID THE WARRANTY! REPEAT THE FLUSHING PROCESS AS NEEDED BEFORE FINAL TRIM INSTALLATION.



3. After the lines have been fully flushed, **CLOSE** the SERVICE STOPS (hot & cold) then unthread and remove the FLUSH PLATE.



4. **IMPORTANT:** Leaving the PACKING NUT in place, unthread the LIMIT STOP SCREW until the O-RING is fully exposed then rotate the CARTRIDGE STEM counterclockwise to ensure the CARTRIDGE is drawn as close as possible to the RETAINING CAP.

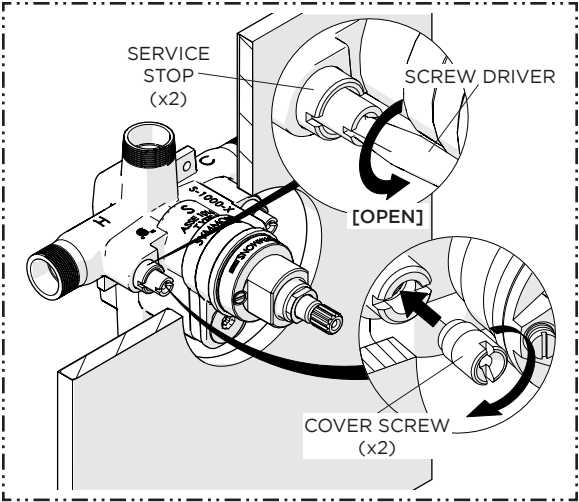


5. Using the PLASTIC WASHER provided, insert the CARTRIDGE into the VALVE then thread and securely tighten the RETAINING CAP.

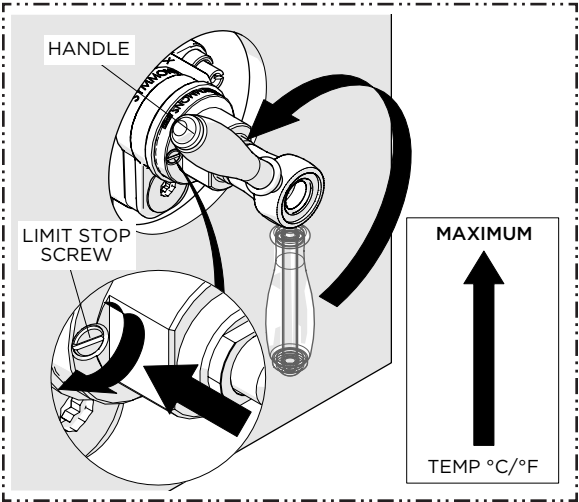
NOTE: The CARTRIDGE controls on/off and temperature only, **not** volume.

INSTALLATION GUIDELINES

PRESSURE BALANCE TRIM INSTALLATION

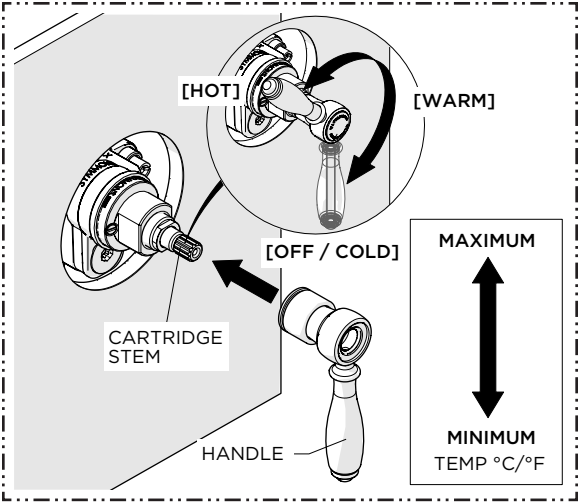


6. **OPEN** the SERVICE STOPS (hot & cold) then re-install the COVER SCREWS (x2).
- NOTE:** The VALVE will **not** operate unless both hot and cold supplies are turned on.

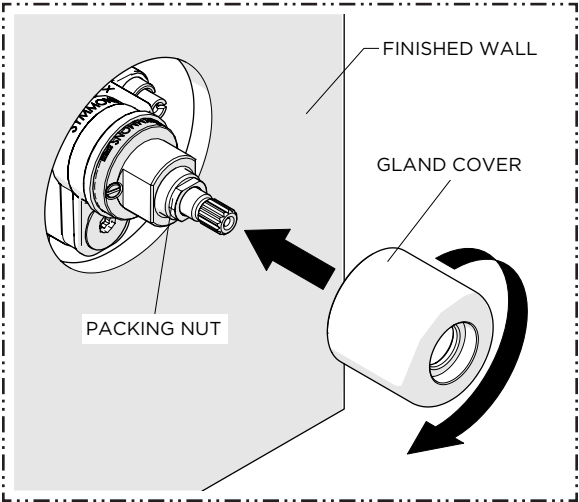


9. Open the VALVE to the **maximum** desired bathing temperature verified with a thermometer then turn the LIMIT STOP SCREW clockwise until it seats.
- Turn the VALVE off then on and verify the temperature previously set.

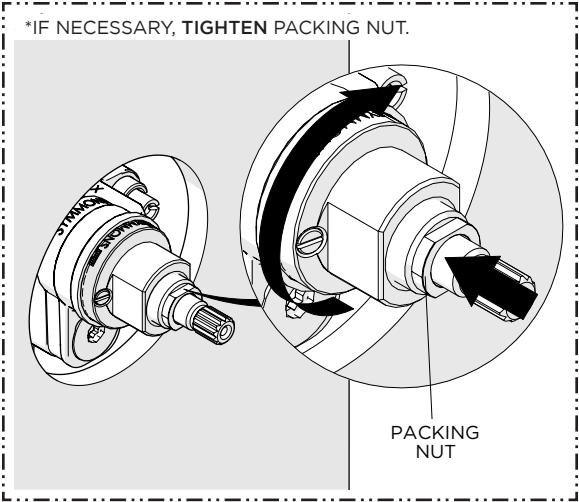
WARNING: It is **NOT** recommended to exceed a safety limit stop of **37.8°C/100°F**.



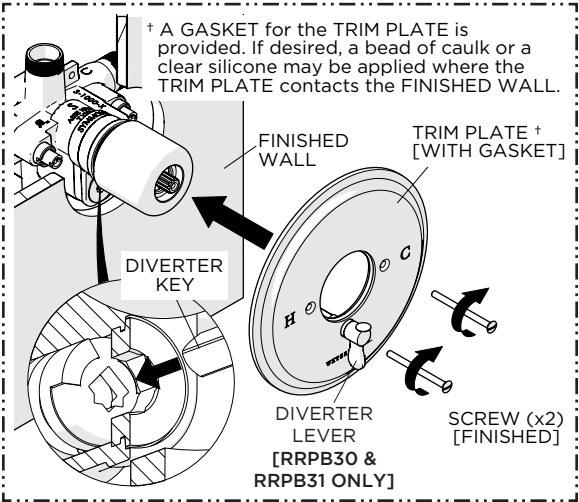
7. With the VALVE turned off, position the HANDLE on the CARTRIDGE STEM at the 6 o'clock position. Then, turn the HANDLE counterclockwise through the cold and warm settings, stopping at the hot position. Verify that a full range of temperatures exists.
- NOTE:** It's approximately 1 complete rotation.



10. Thread and securely tighten the GLAND COVER onto the PACKING NUT.



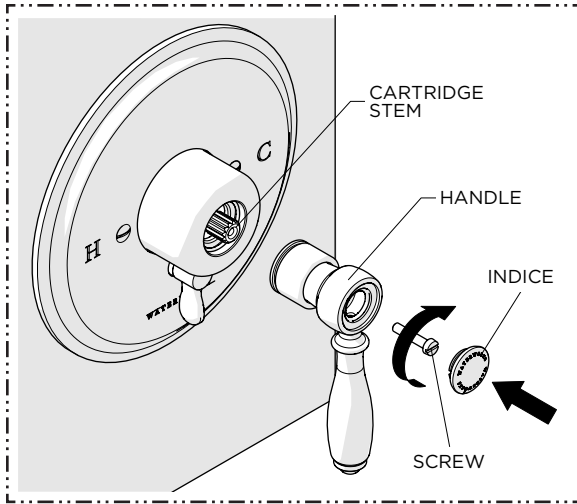
8. The PACKING NUT needs to be **securely** tightened to prevent a water leak from the CARTRIDGE STEM and create adequate rotational friction to maintain HANDLE position.
- If additional friction is required, tighten the NUT further into the RETAINING CAP.



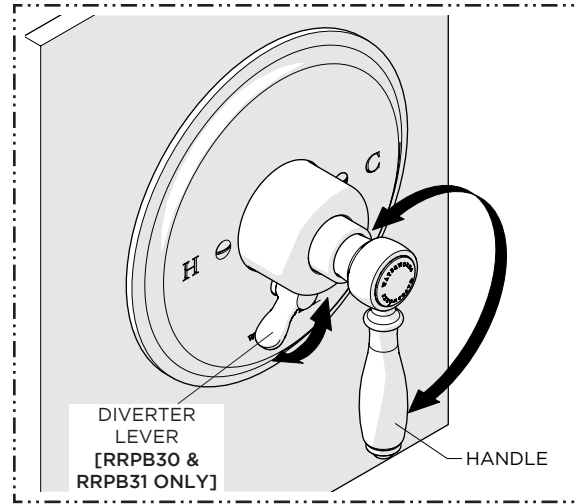
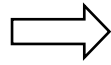
11. Slide the TRIM PLATE over the GLAND COVER then thread and securely tighten the SCREWS.
- RRPB30 & RRPB31 ONLY:** Make sure the DIVERTER LEVER STEM is properly aligned with the DIVERTER KEY inside the VALVE (**GUPB02 ONLY**).

INSTALLATION GUIDELINES

PRESSURE BALANCE TRIM INSTALLATION



12. Place the HANDLE onto the CARTRIDGE STEM and secure it by threading the SCREW into the STEM, then push fit the INDICE to enclose the SCREW.



13. Operate the PRESSURE BALANCE TRIM and DIVERTER TRIM, if used, to ensure they are functioning properly.

TROUBLESHOOTING

1. VALVE will **not** flow water.

- **CAUSE:** Hot and cold water **not** turned on or SERVICE STOPS **not** opened.
- **SOLUTION:** Be sure both supplies are turned on and both SERVICE STOPS are open. The VALVE will **not** operate unless both **hot** and **cold** water inlets have pressure.

2. VALVE leaks when shut-off.

- **CAUSE:** Hot and cold water WASHERS are worn or foreign matter (solder, chips, etc.) are between WASHERS and SEAT surfaces.
- **SOLUTION:** Replace **hot** and **cold** washers and inspect top surface on **hot** and **cold** seats for damage. Refer to the Installation Guidelines provided with the VALVE for more details.

3. VALVE makes loud noise.

- **CAUSE:** PISTON in CARTRIDGE is moving back and forth because of a large pressure differential between **hot** and **cold** water lines.
- **SOLUTION:** Alter the water system such that the pressure differential at all shower valves is no more than 5 psi (0.3 Bar).

4. Temperature out of VALVE reduces gradually during use.

- **CAUSE:** Supply system is running out of **hot** water.
- **SOLUTION:** Reduce **maximum** flow rate out of VALVE or showerhead. This will allow longer period of use before reduction of **hot** water supply.

5. Water volume from VALVE is inconsistent during operation, VALVE delivers an insufficient quantity of **hot** and **cold** water, or temperature fluctuates without moving temperature HANDLE.

- **CAUSE:** CONTROL PISTON housed in the CARTRIDGE is blocked from free movement by foreign matter.
- **SOLUTION:** With VALVE open half way, remove the temperature control HANDLE and tap the CARTRIDGE STEM with a plastic hammer. If problem is **not** solved refer to the Installation Guidelines provided with the VALVE to properly remove the CARTRIDGE then tap the handle end of the CARTRIDGE against a solid object to free the piston and rinse the CARTRIDGE. Soaking in house-hold vinegar will help free debris build up.

6. **GUPB02 ONLY:** When VALVE is set for shower operation, a trickle of water runs from the tub spout.

- **CAUSE:** This is a design function of the VALVE in accordance with national standards. Water is allowed to trickle from the tub spout when the diverter is set to the shower position
- **SOLUTION:** This is a design function in accordance with national standards.

7. Outlet water temperature, in the full **hot** position, from the VALVE is lower than inlet water temperature or lower than another fitting such as a faucet in the same room, opened to full **hot**.

- **CAUSE:** This is a design function of the VALVE. The VALVE will always allow some **cold** water through in the full **hot** position. The difference from the inlet to outlet temperature is related to the pressure balance between the **hot** and **cold** supplies. The more the pressures are imbalanced the more the temperatures will vary.
- **SOLUTION:** If a **hotter** outlet water temperature is needed, the inlet water temperature must be adjusted. Refer to the Installation Guidelines provided with the VALVE for more details.