BEHAVIORAL SAFETY

INNOVATION NEVER RESTS

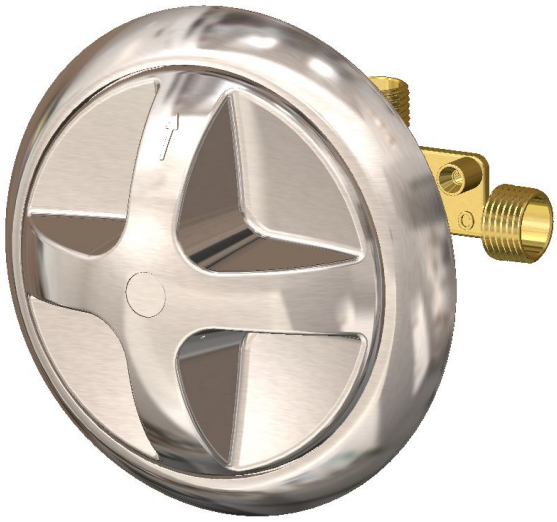
LIGATURE RESISTANT DIVERTER VALVE, HANDLE AND ESCUTCHEON PLATE #SV245

Installation, Maintenance & Operation Instructions

The SV245 ligature resistant diverter valve features an easy grip, ligature resistant handle that meets ADA pull force requirements, and does not require pinch and grasp to turn. The included escutcheon plate and handle allow for variable rough-in installations. An anti-friction ring on the handle maintains a tight fit with the escutcheon plate for smooth handle operation. The ASSE 1016, UPC & CUPC tested valve is ADA compliant. The heavy, all metal construction is designed for maximum strength and protection from abuse. The polished chrome finish will maintain the valve's good looks for years to come.

Specifications

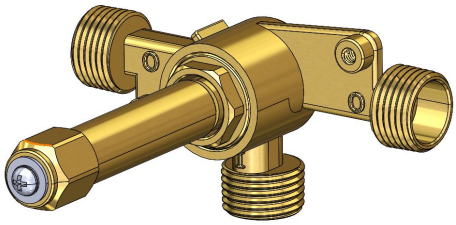
- Easy grip, ligature resistant handle.
- Anti-friction ring maintains tight fit with smooth handle operation.
- Redundant sealing to prevent moisture migration.
- Escutcheon plate & handle with variable rough-in installation plate.
- Brass valve body, zinc handle and escutcheon plate, with polished chrome finish.
- Two port valve with ½" NPT/female copper sweat inlets and outlets.
- Maximum operating water pressure: 80 PSI static.
- Minimum operating water pressure: 20 PSI flowing.



Certifications

- ADA Compliant
- This product is certified to meet
  - UPC/CUPC
  - ASME A112.18.1-2012 /CSA B125.1-12

- Under review by the NYS Office of Mental Health Patient Safety Standards, Materials and Systems Guidelines.



Care & Cleaning

Your new Product is designed for years of trouble-free performance. Keep it looking new by cleaning it periodically with a soft cloth. The use of harsh chemicals and abrasives on any of the custom finish products may damage the finish and void the product warranty. Please be sure to only use approved cleaners.

Waiver & Disclaimer

This waiver-disclaimer is attached to and made a part of the written contract to purchase these products for use in psychiatric and correctional facilities. Such fixtures and products are purchased to reduce the risk of self-imposed death or injury to patients or clients in such facilities, but are NOT represented as able to prevent such death or injury.

Behavioral Safety Products, LLC ("BSP") as the seller has not, and will not represent or warrant to the purchaser shown in this contract ("Purchaser") that its fixtures and products will prevent death or injury in any case whatsoever.

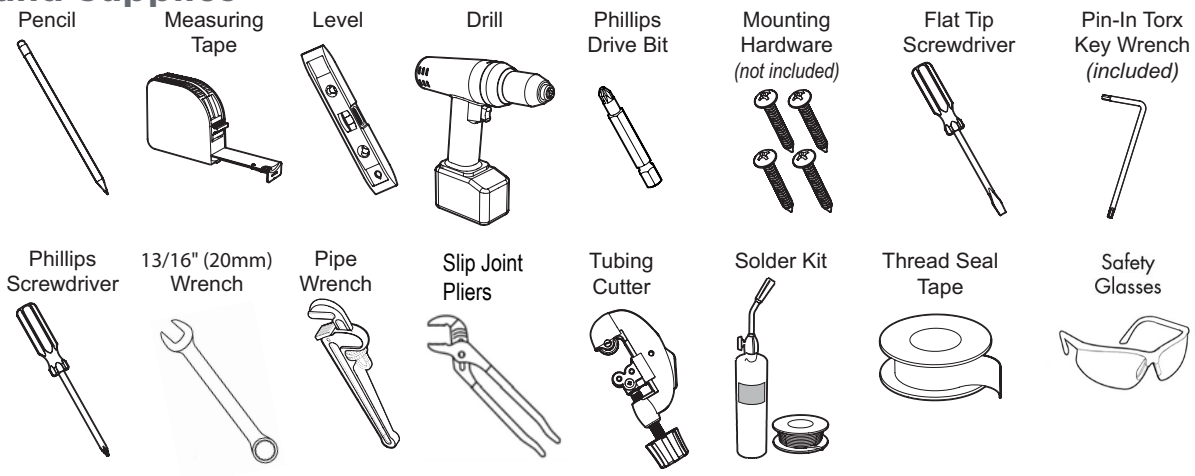
BSP makes no express or implied warranty with respect to the preventative quality of its products, but merely represents that the use of such products tends to reduce deaths and injuries by patients or clients who are subject to meticulous screening processes and diligent supervision on the part of the facility housing them.

Purchaser acknowledges the foregoing disclaimer and waives any and all claims against BSP as to express or implied warranties of fitness for any purpose whatsoever.

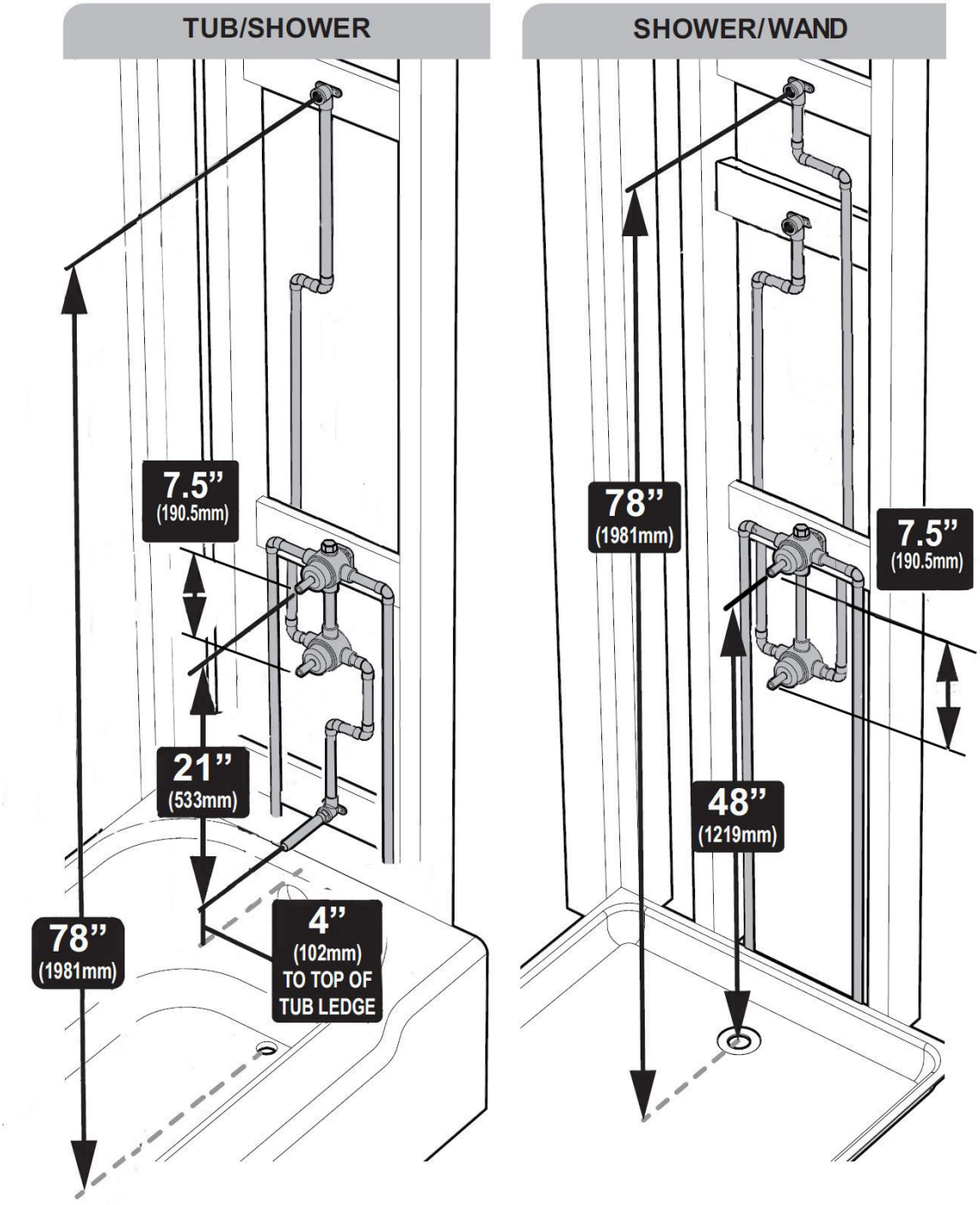
IMPORTANT

- Be sure to read instructions thoroughly before beginning installation.
- Inspect all connections after installation of valve.
- This valve has an operating range of 20-80 psi.
- Ensure the valve has been installed plumb and level to the wall. Alignment issues may interfere with handle operation.

Tools and Supplies



Rough In Vertical Reference



IMPORTANT

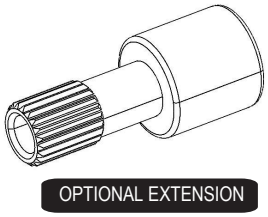
- Rough in the diverter valve approximately 7.5″ (190.5mm) minimum below shower valve for handle clearance.
- Ensure the valve has been installed correctly for proper activation of the tub and shower, or shower and wand before closing the wall.

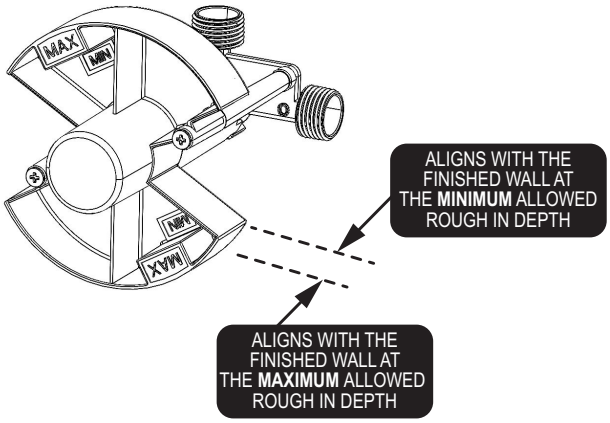
NOTE:

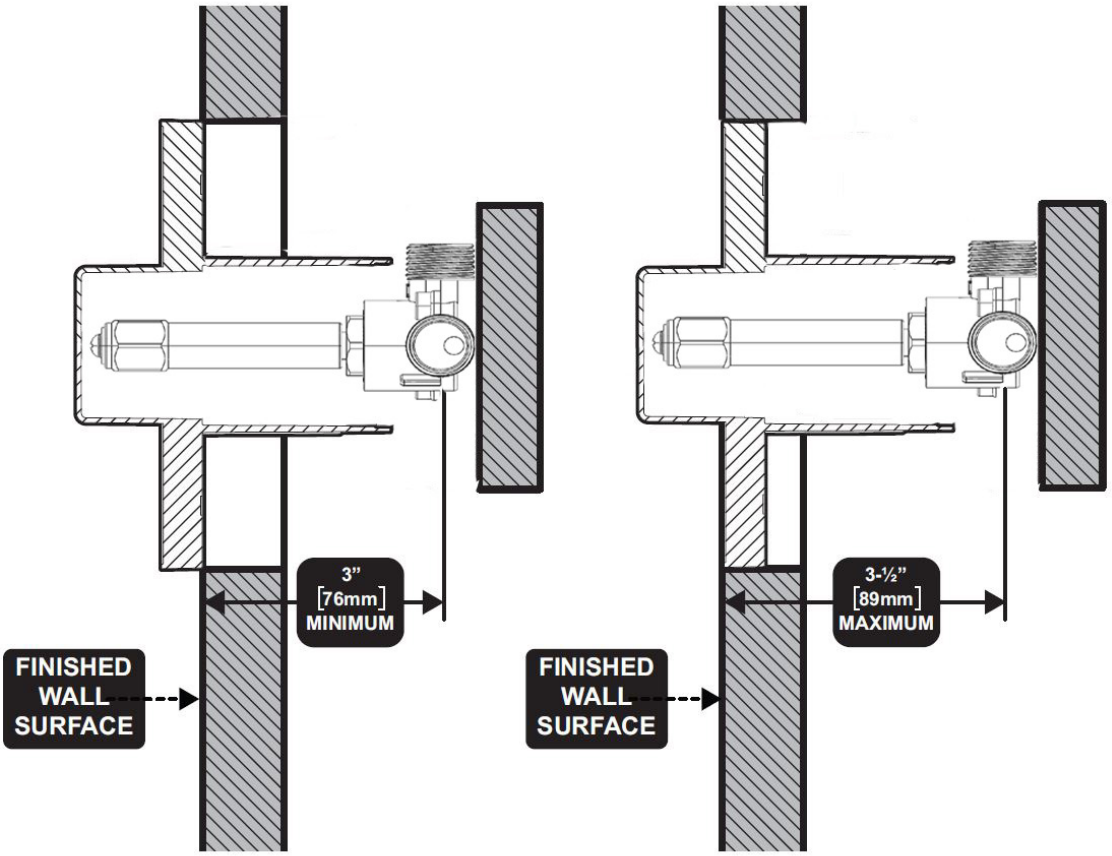
When the valve is installed per the instructions, water will flow from the right side of the valve first.

Rough In Depth Reference

Determine the mounting depth of the valve referencing the diagrams below. The protective cover on the valve has reference markings showing where the valve should align with the finished wall surface. The distance from the finished wall surface to the ***centerline*** of the valve inlets/outlets should fall between the minimum and maximum depth. An optional 5/8" (15.9mm) extension and screw are provided for deeper mounting. Add 5/8" (15.9mm) to all dimensions when using the extension.



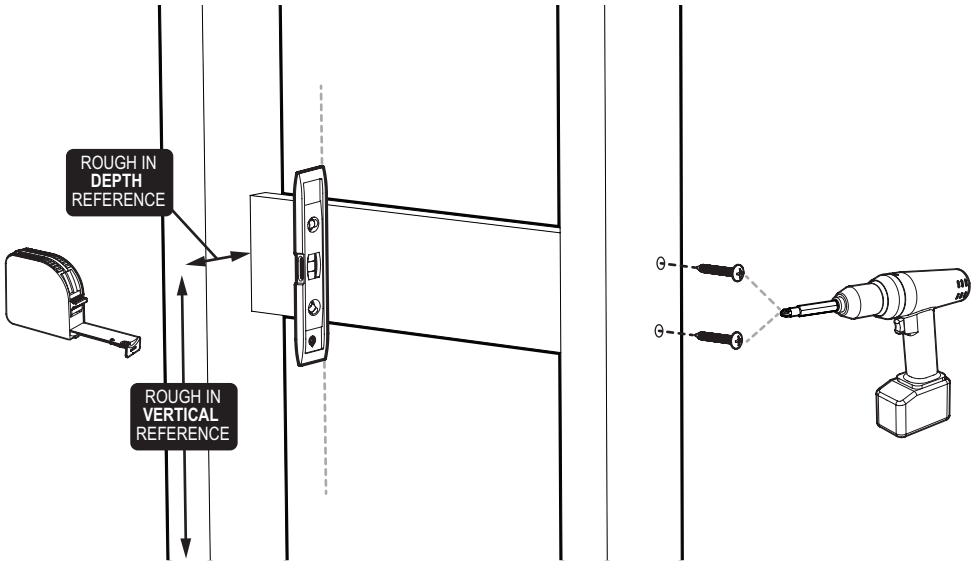




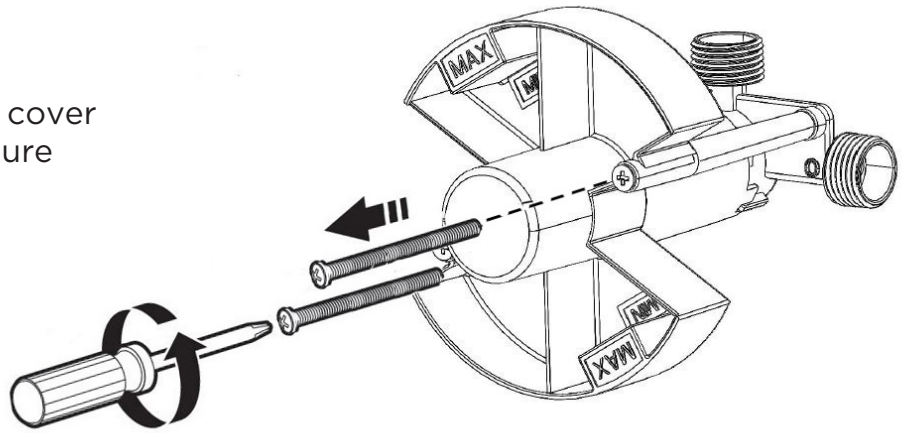
Installation Instructions

1. Install your chosen shower per the manufacturer's instructions.

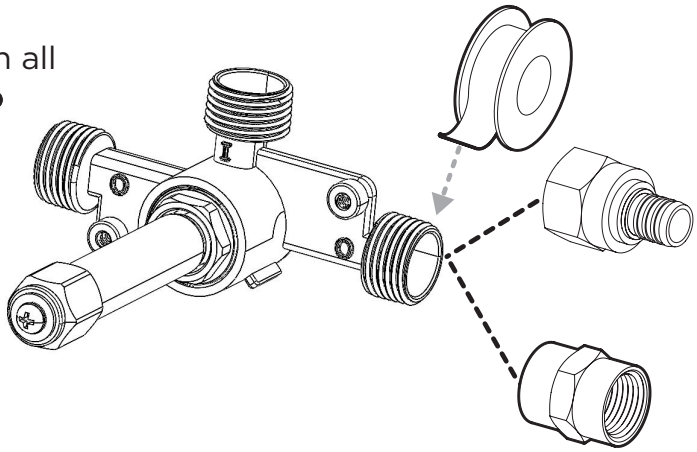
2. Referencing the rough in guides, install a 1" x 4" cross brace between the vertical studs at the proper height and depth outlined. Use a level to ensure the front surface of the cross brace is perfectly vertical.



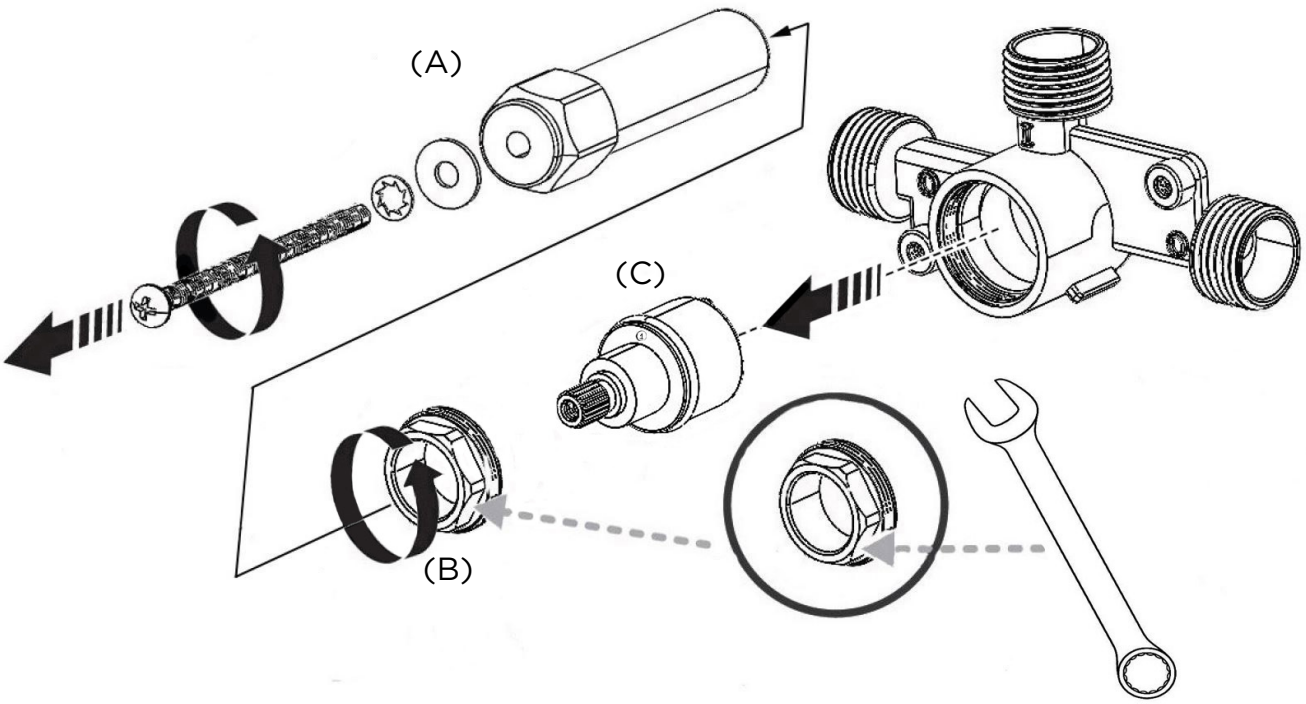
3. Remove screws and protective cover from valve and set aside for future use.



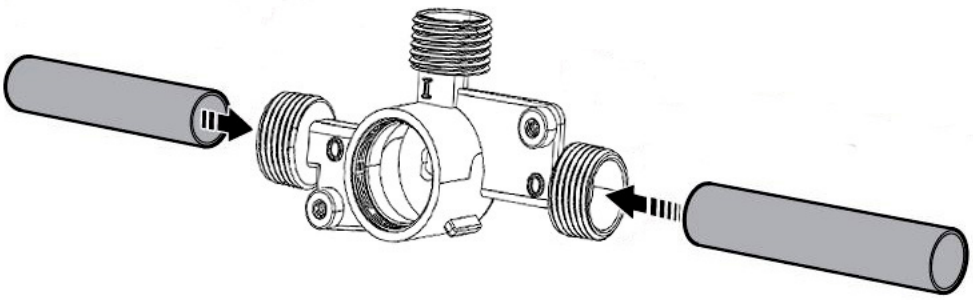
4. If performing a **non-sweat installation**, attach necessary adapters to valve. Thread seal tape is recommended on all threaded connections. **Skip ahead to step 6 when complete.**



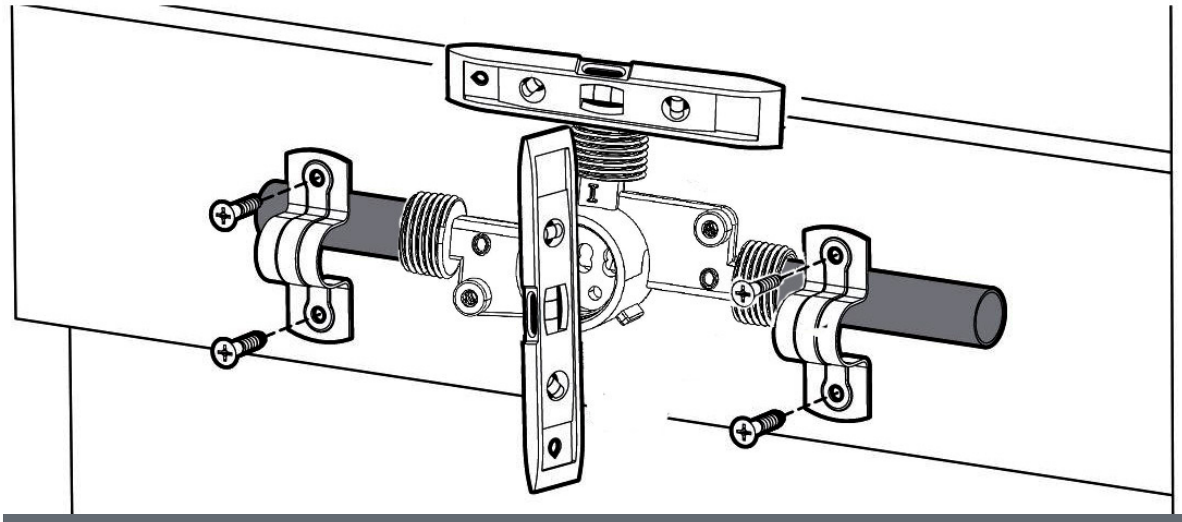
5. If you are planning for a **copper sweat installation,** remove the hex shaft retaining screw, lock and flat washer, and hex shaft (A). Then remove the cartridge retaining nut (B) using a 13/16" (20mm) wrench or deep socket. Finally remove the cartridge (C) by pulling the cartridge out of the valve housing by the stem. Verify that the lower cartridge seal is in place on the valve cartridge, and not left within the valve body. (see page 16 for detailed information)



6. Plumb horizontal inlets to valve.



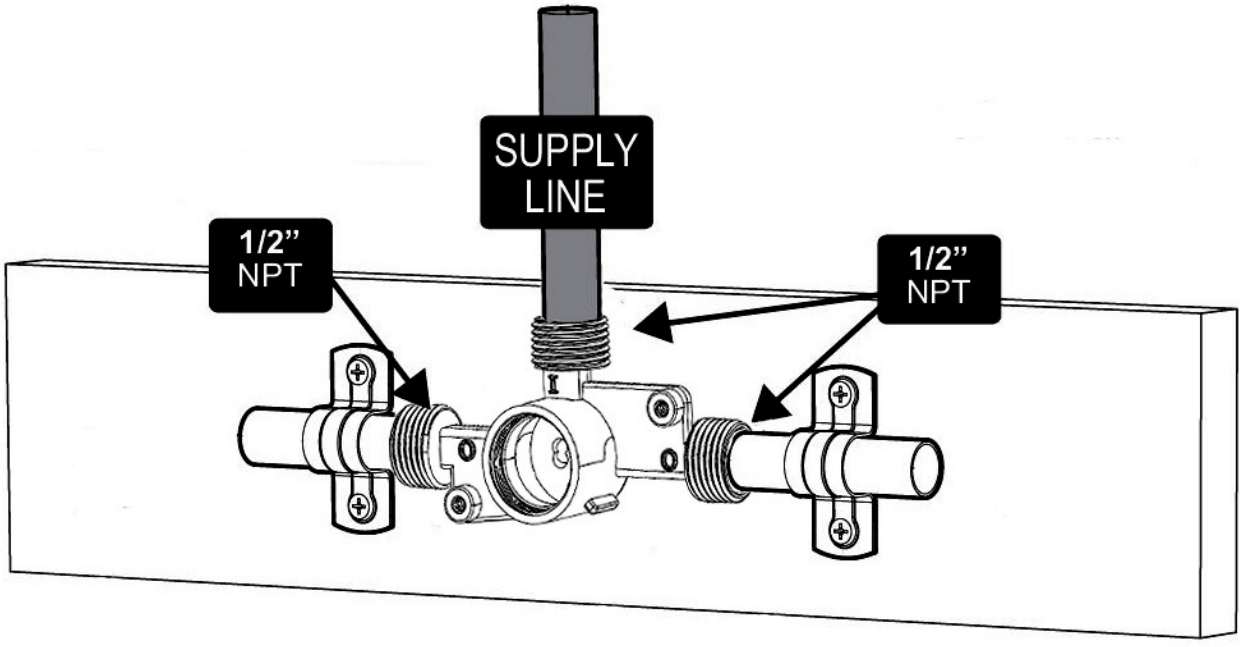
7. Using a level, align valve into position and secure to cross beam using pipe straps or similar method.



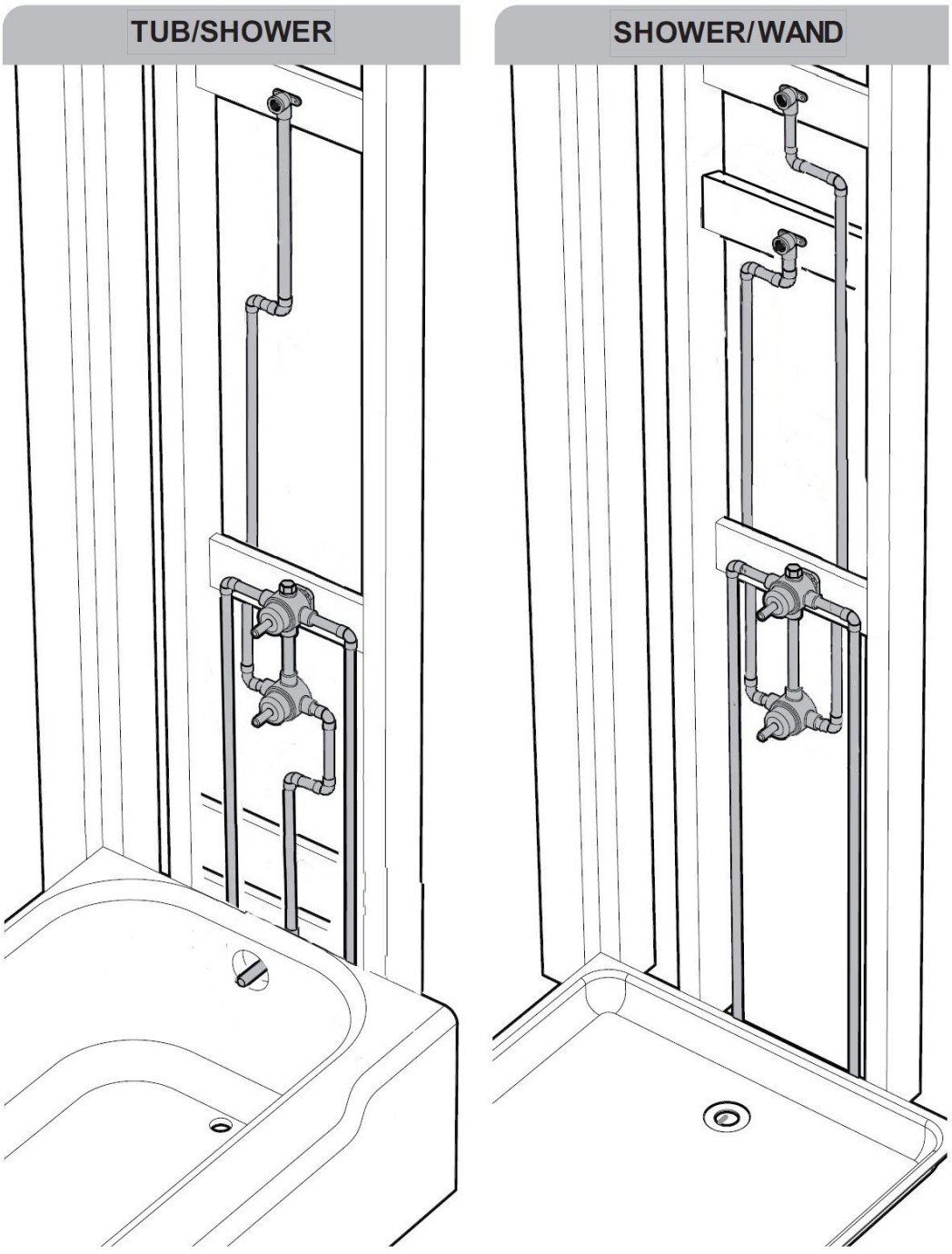
IMPORTANT!

Before mounting, ensure valve is perfectly level and plumb. Valves that are not level and plumb will affect trim handle operation.

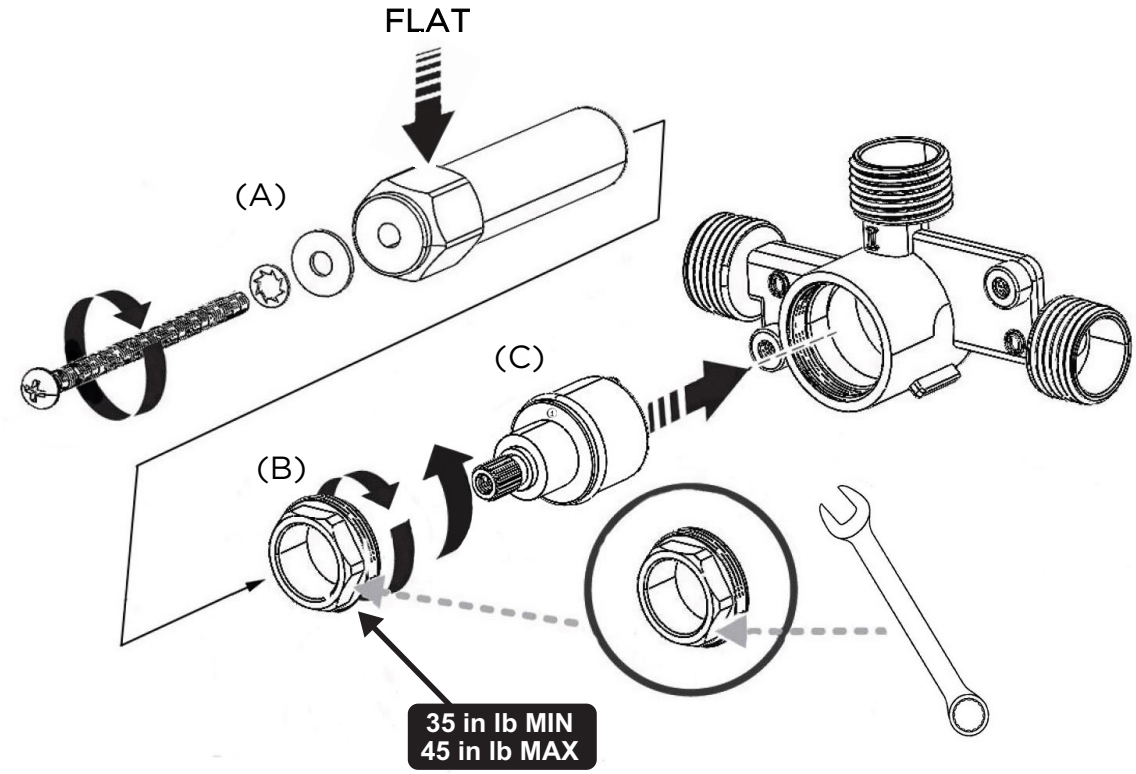
8. Make supply plumbing connections to the valve. Valve connections are 1/2” sweat or 1/2" NPT male. Thread sealant tape is recommended on all threaded connections.



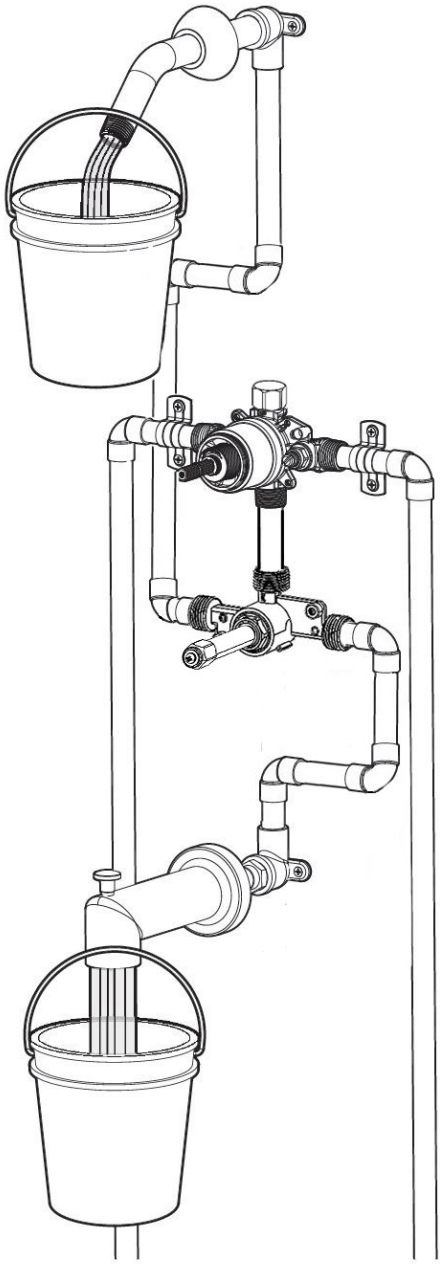
9. Make plumbing connections to the shower head, tub or hand-held wand. Outlet connections are 1/2” NPT male or 1/2 sweat. See “Rough In Vertical Reference” for the proper mounting height of the shower head and diverter valve with reference to the shower handle. Ensure proper wall bracing is in place to support the plumbing and shower/ wand connection. Thread sealant tape is recommended on all threaded connections.



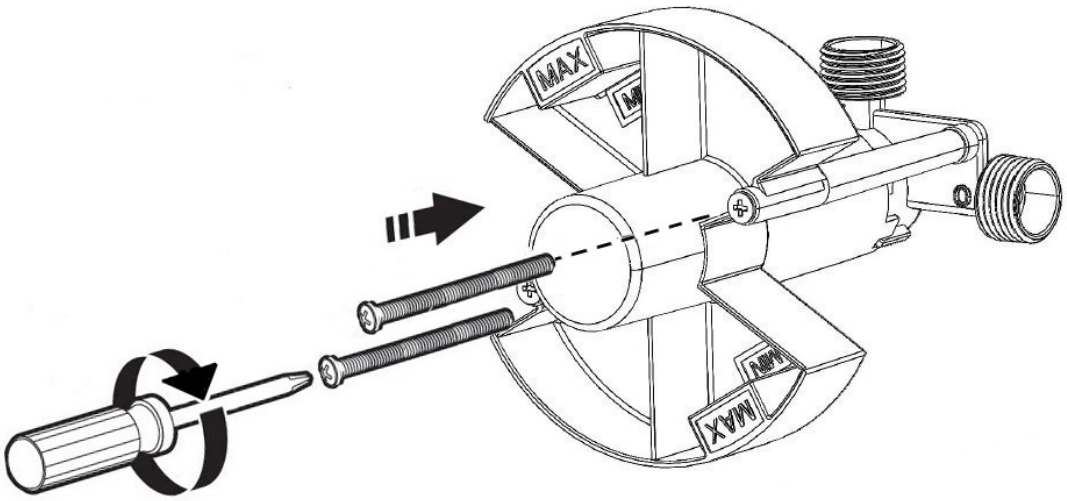
10. If you removed the hex shaft retaining screw, lock and flat washer, and hex shaft (A), the retaining nut (B) and valve cartridge (C) to perform a **copper sweat installation**, reinstall those components at this time. (see page 16 for detailed installation information)



11. **Temporarily** place the valve handle on to the valve spindle and turn “ON” water supplies and inspect for leaks. Place a bucket at the shower/tub outlets. Turn the valve handle to each “ON” position. Flush each outlet for 1 minute.



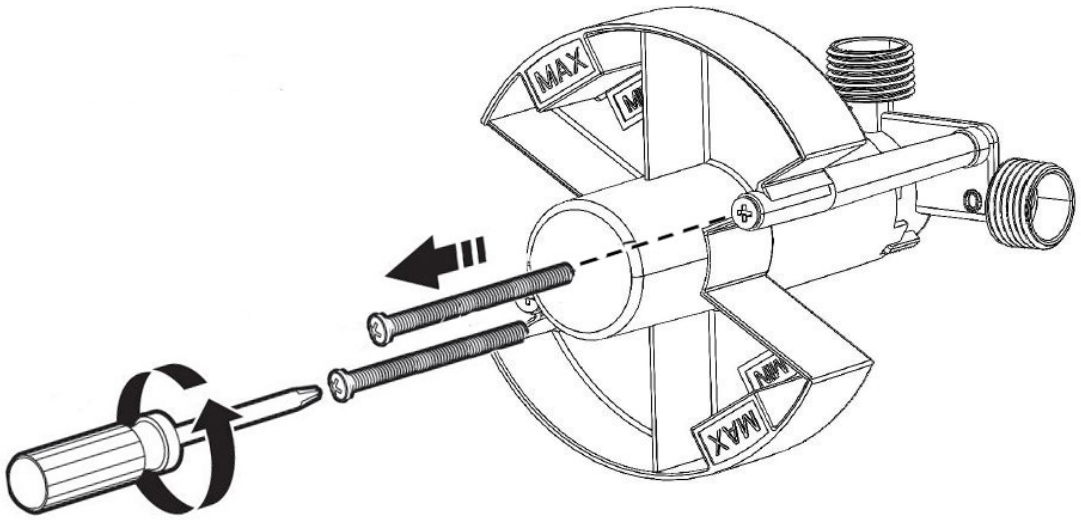
12. Remove valve handle from spindle and reinstall protective cover and screws previously removed. Finish out the wall as desired.



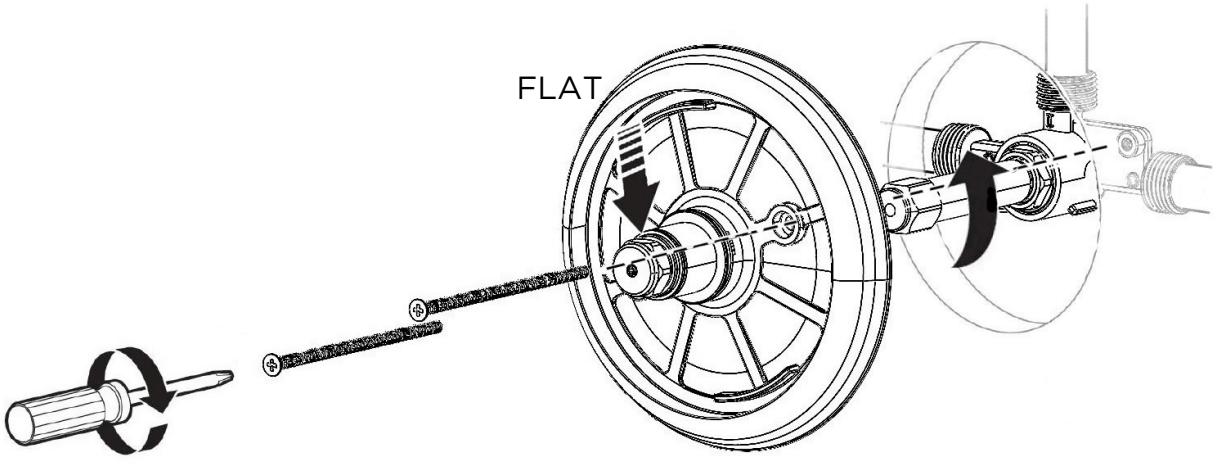
IMPORTANT!

Verify valve has been properly mounted according to the rough in dimensions on page 4 before completing the finished wall construction. Complete installation of both the shower head outlet and tub/accessory outlet. Cut valve access opening using the protective cover as a guide.

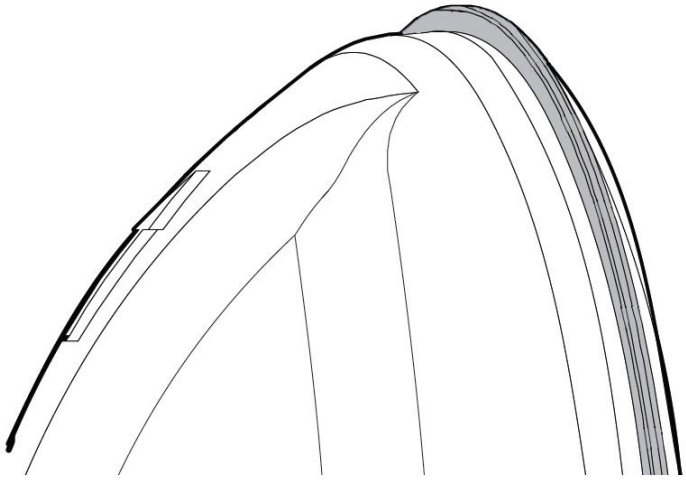
13. Once ready to install the valve trim, remove the protective cover from valve.



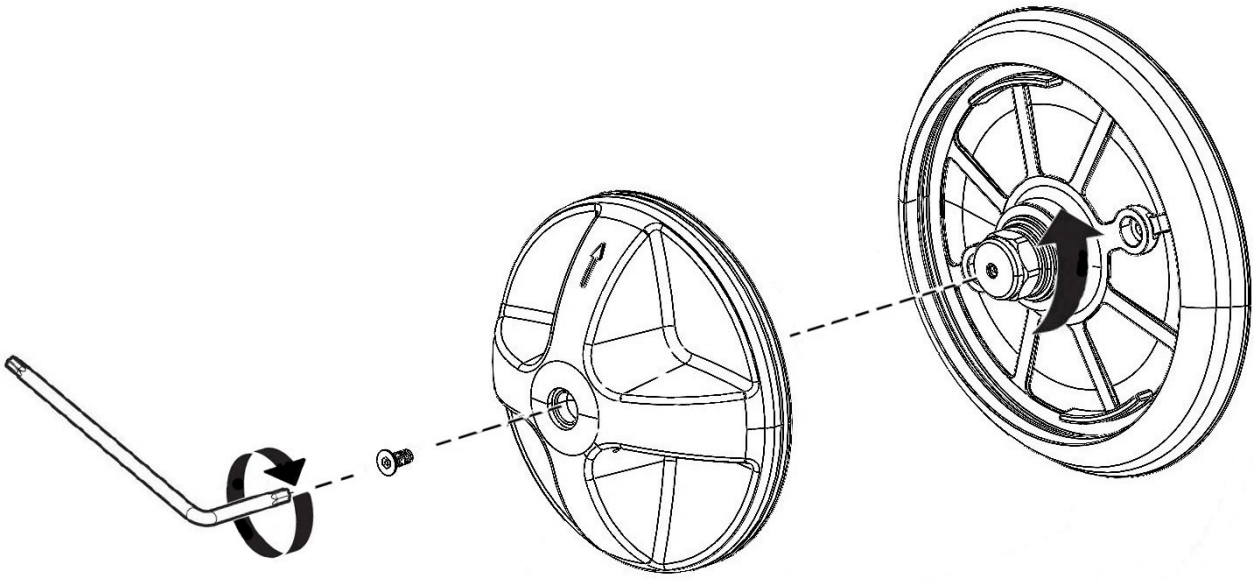
14. Be sure the *valve* is turned all the way to the **left position** and place the wall plate over the hex shaft. Orient the wall plate being sure that a flat is at the top position as shown below. Secure wall plate to the diverter valve with the screws provided.



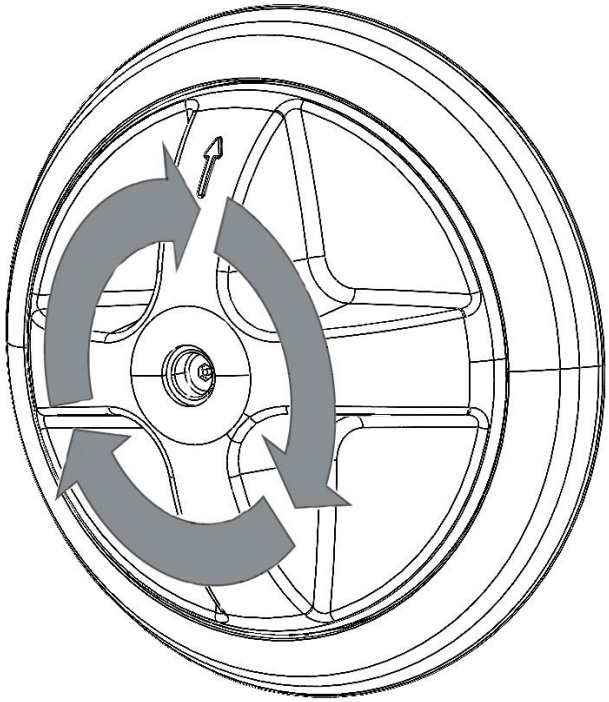
15. Verify that the friction ring is properly seated into the friction ring groove of the diverter handle.



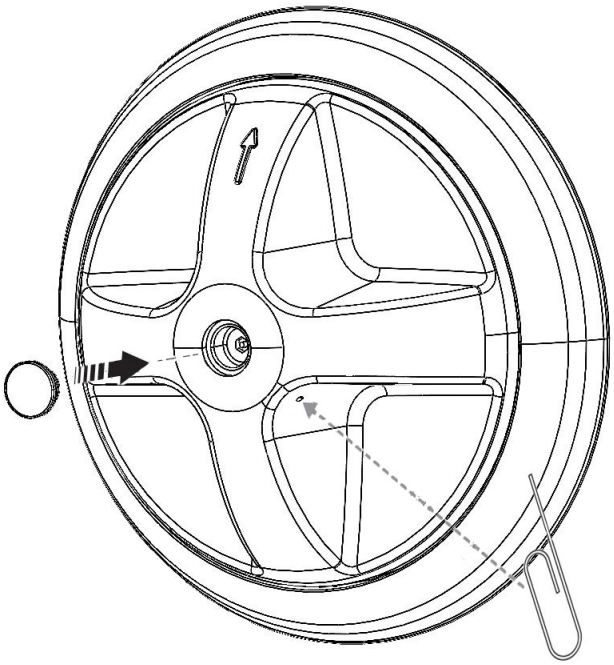
16. With the valve turned all the way to the **left position**, orient the handle assembly as shown below with the arrow facing upwards. Install the handle assembly over the wall plate hex shaft. Secure with the pin-type torx screw using the supplied key wrench. Do not over tighten.



17. Verify that the handle rotates smoothly.



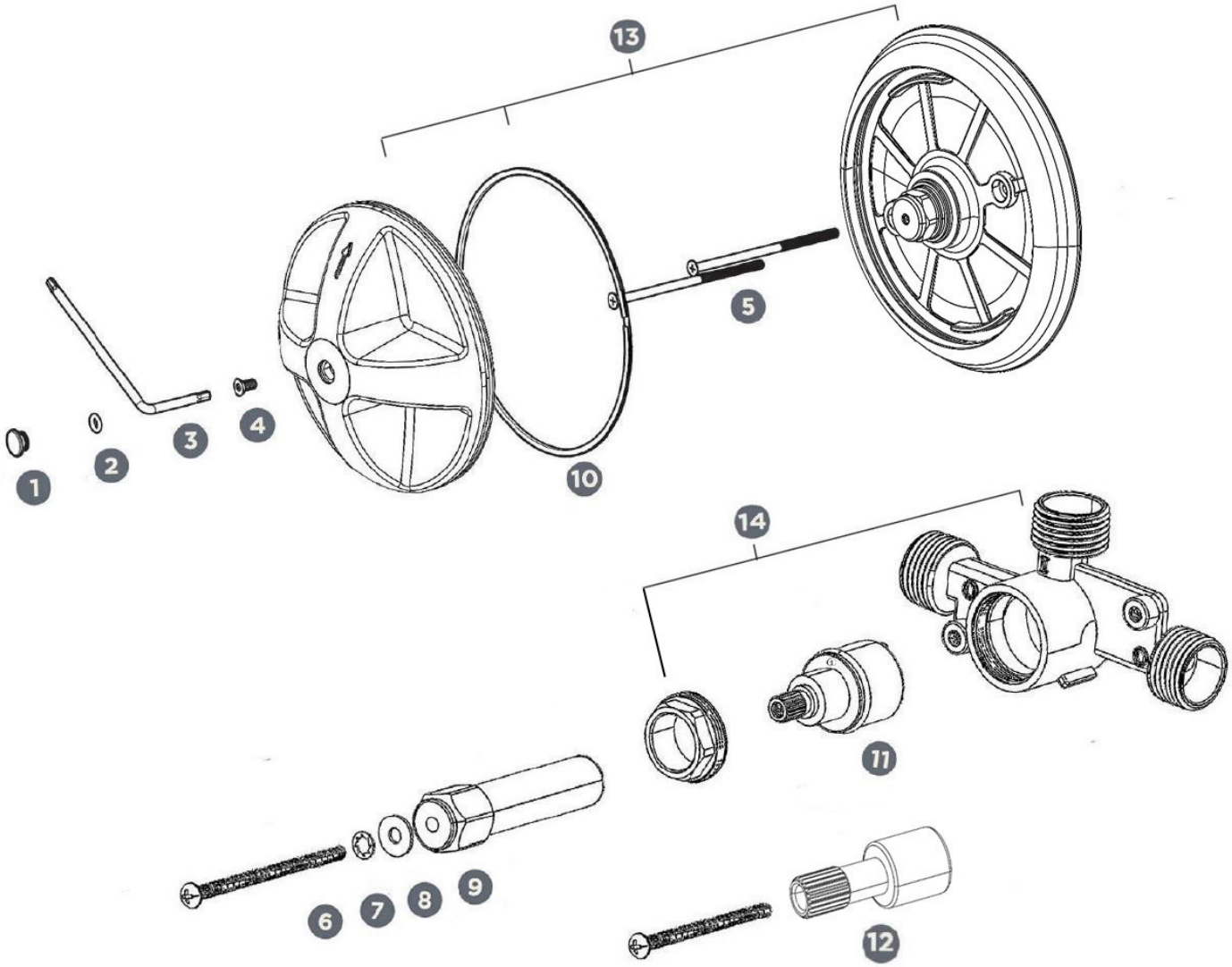
18. Insert screw cover with o-ring installed into the screw recess of the handle.



MAINTENANCE NOTE

To remove the screw cover for maintenance, insert a paper clip or similar item into the .04” access hole in the handle assembly as shown.

Repair / Replacement Parts

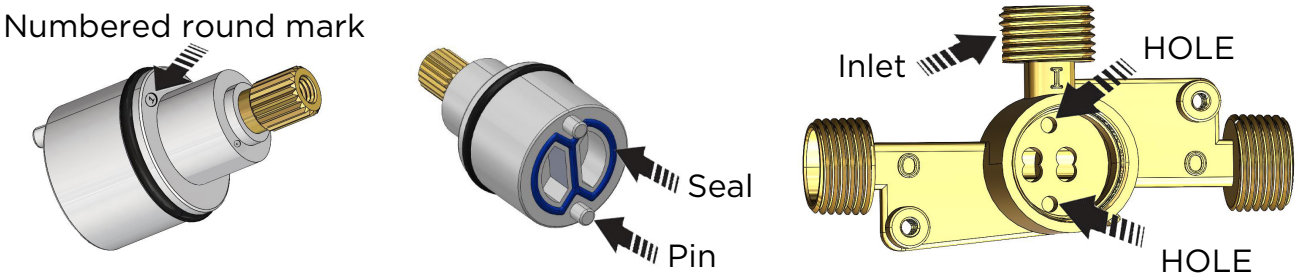


Item	Part No.	Description
1-2	RPG-SV245-1	Screw cover with o-ring
1-9	RPG-SV245-2	Valve trim mounting hardware
10	RPG-SV245-3	Valve trim handle friction ring
11	RPG-SV245-4	Valve cartridge and seal
12	RPG-SV245-5	Optional valve shaft extension and screw
13	RPG-SV245-6	Valve trim kit
14	RPG-SV245-7	Valve body repair kit

Service Instructions

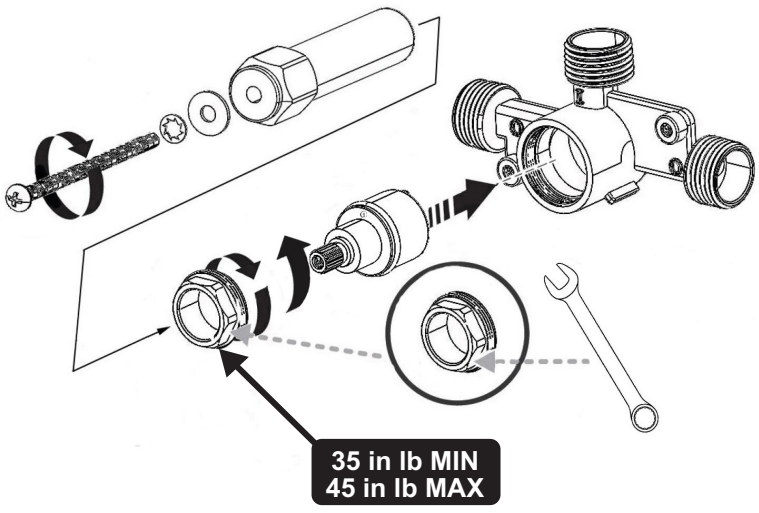
Cartridge Removal

1. Remove the handle and trim from valve with a paper clip (or similar tool) and the supplied key wrench.
2. Remove the splined hex shaft screw and washers with a screw driver and remove the cartridge retaining nut by unthreading with a 13/16" (20mm) wrench or deep socket .
3. Remove the cartridge from the valve body by pulling on the valve spindle of the cartridge. Verify that the lower cartridge seal is in place on the valve cartridge, and not left within the valve body.



Cartridge Replacement

1. When replacing the cartridge, verify that the lower cartridge seal is properly installed in the recess on the bottom of the cartridge. Insert the cartridge into the valve body, with the numbered round mark on the ***top of the cartridge,*** when the ***valve inlet is installed on top***. Ensure the pins on the bottom of the cartridge fit into the holes and the cartridge seal is fully seated to the bottom of the valve body.
2. Reassemble the cartridge retaining nut by threading it into the valve body with a 13/16" (20mm) wrench or deep socket. Final torque should be 35-45 inch pounds.
3. Be sure the valve stem is turned all the way to the left, then turn on the water and check valve for leaks. Check for leaks on both left and right positions.
4. Reassemble the splined hex shaft, again ensuring that the cartridge is turned all the way to the **left**, and then assemble the trim parts and handle with the ***arrow pointing up***.



Rough In Diagrams

NOTES:

COMPLIANCE:

ASME A112.18.1/CSA B125.1

ASSE1016/ASME A112.1016/CSA B125.16

CONNECTIONS:

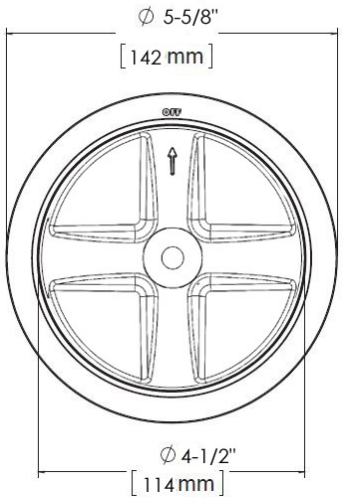
Inlets: ½" Female Copper Sweat
½" NPT Male

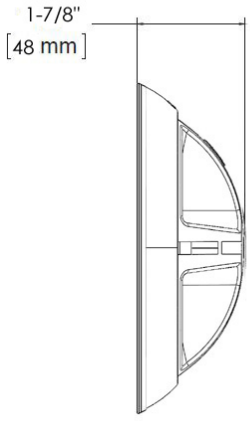
Outlet: ½" Female Copper Sweat
½" NPT Male

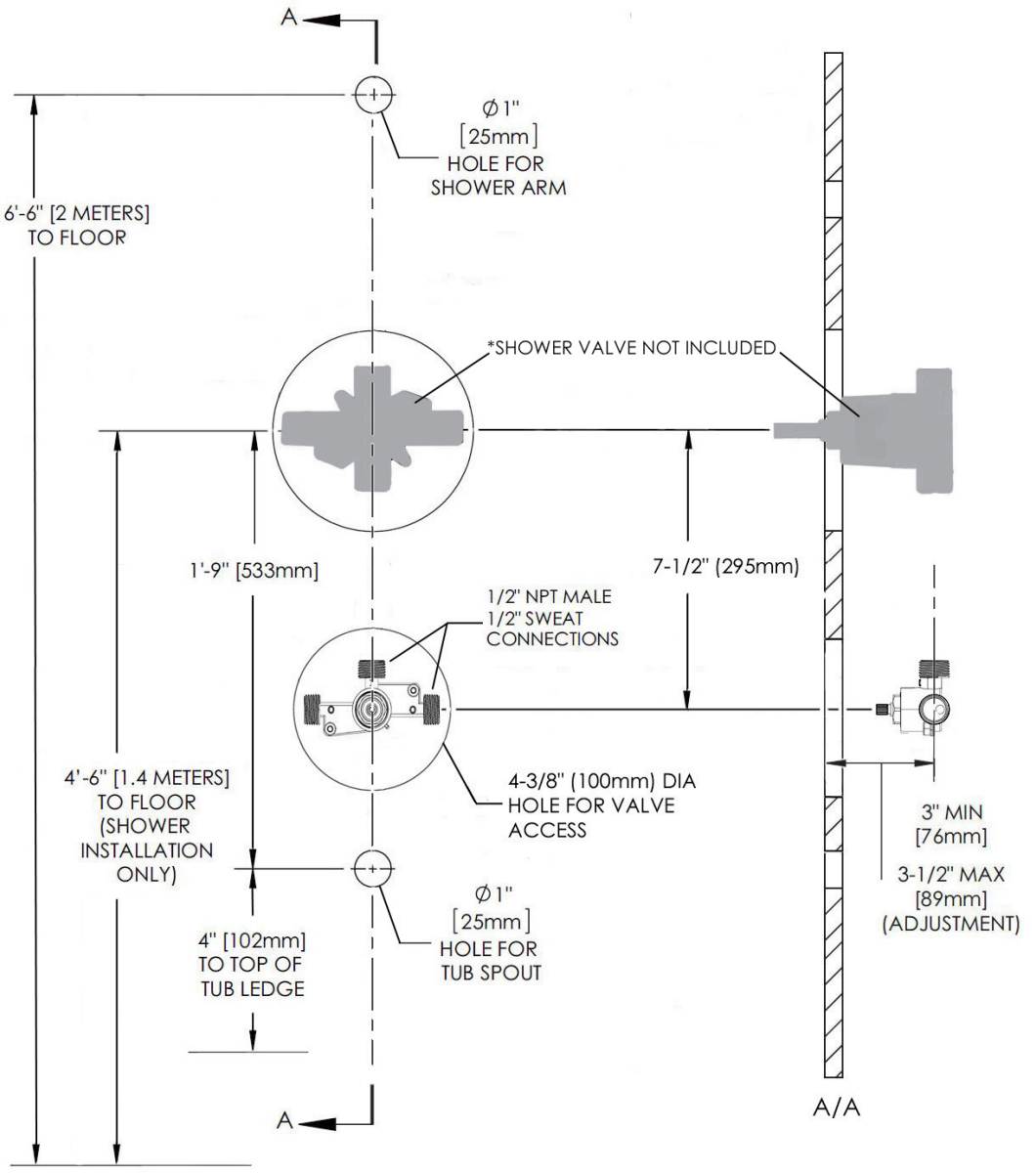
NOTES:

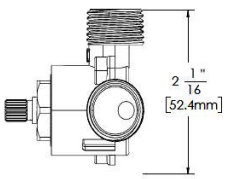
This valve is designed to be used in conjunction with a shower-head rated at 1.75 gpm (6.6 L/min) or higher flow rate

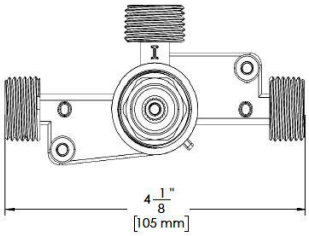
*Contractor to supply necessary connections.

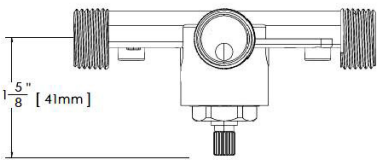












DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

FOR ADA MOUNTING LOCATIONS, CONSULT ADAAG, ANSI A117.1, AND STATE REGULATIONS.