

# INSTALLATION INSTRUCTIONS FOR 1/2" PRESSURE BALANCE VALVE

PART# DFPHY & DFPHYID

# PHYLIRICH®

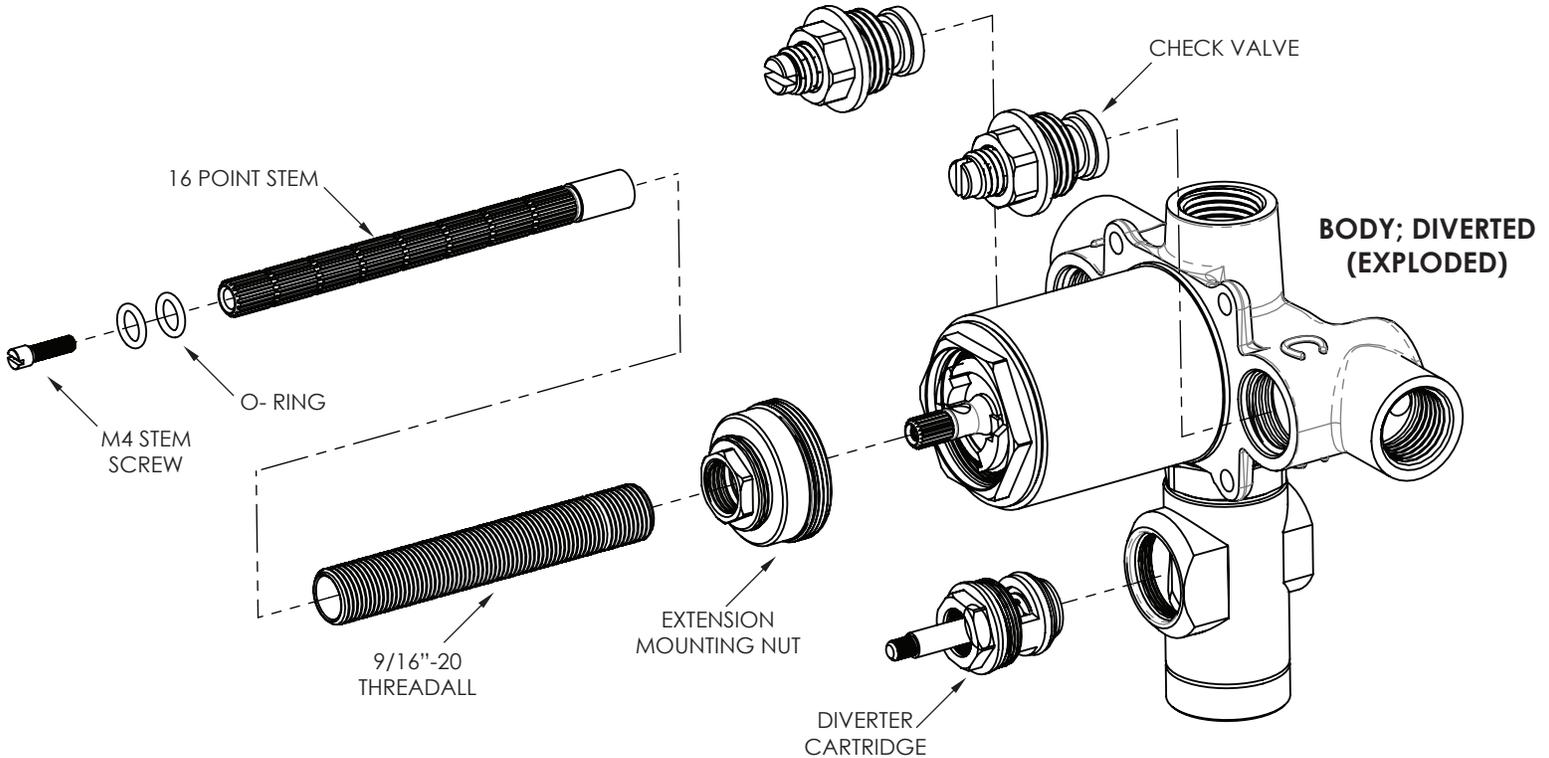
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## GENERAL CHARACTERISTICS

**WE RECOMMEND THAT ALL PLUMBING PRODUCTS BE INSTALLED BY A LICENCED PROFESSIONAL**

**IMPORTANT:** Thoroughly read instructions before installation

Please note that the valve is engraved with an "H" and "C" on **top** of the valve. The valve is designed with two outlets for ease of installation, but are not intended to be used concurrently with each other. Using both outlets will reduce the performance of the valve. Determine which outlet port will be used for the installation and plug the other outlet with a 1/2" NPT plug (not provided).



## VALVE SPECIFICATIONS

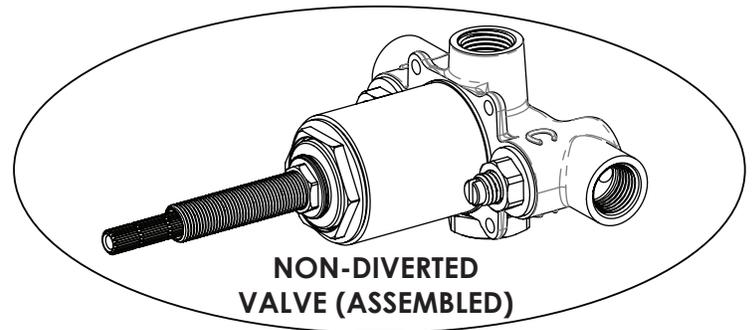
Male 1/2" NPT inlets and outlets  
Recommended temperature setting = 39°F~180°F (3,9°C~82°C)  
Max. Temperature = 194°F (90°C)  
Min. Temperature = 39°F (3,9°C)  
Temperature stability = ±32°F (0°C)

Recommended supply pressure = 20 to 80 psi (1,38-5,52 bar)  
Recommended hot water supply temperature = 120°F to 140°F (48°C-60°C)

Operating pressures between hot and cold supplies should vary no more than 30 psi (2,07 bar).  
If water pressure exceeds 70 psi (4,83 bar), install a pressure reducing valve.

Ensure the mixing valve is in compliance with local plumbing codes when setting the temperature on the water heater.

It is the installer's responsibility to verify correct temperature setting to prevent any risk of scalding prior to consumer use.

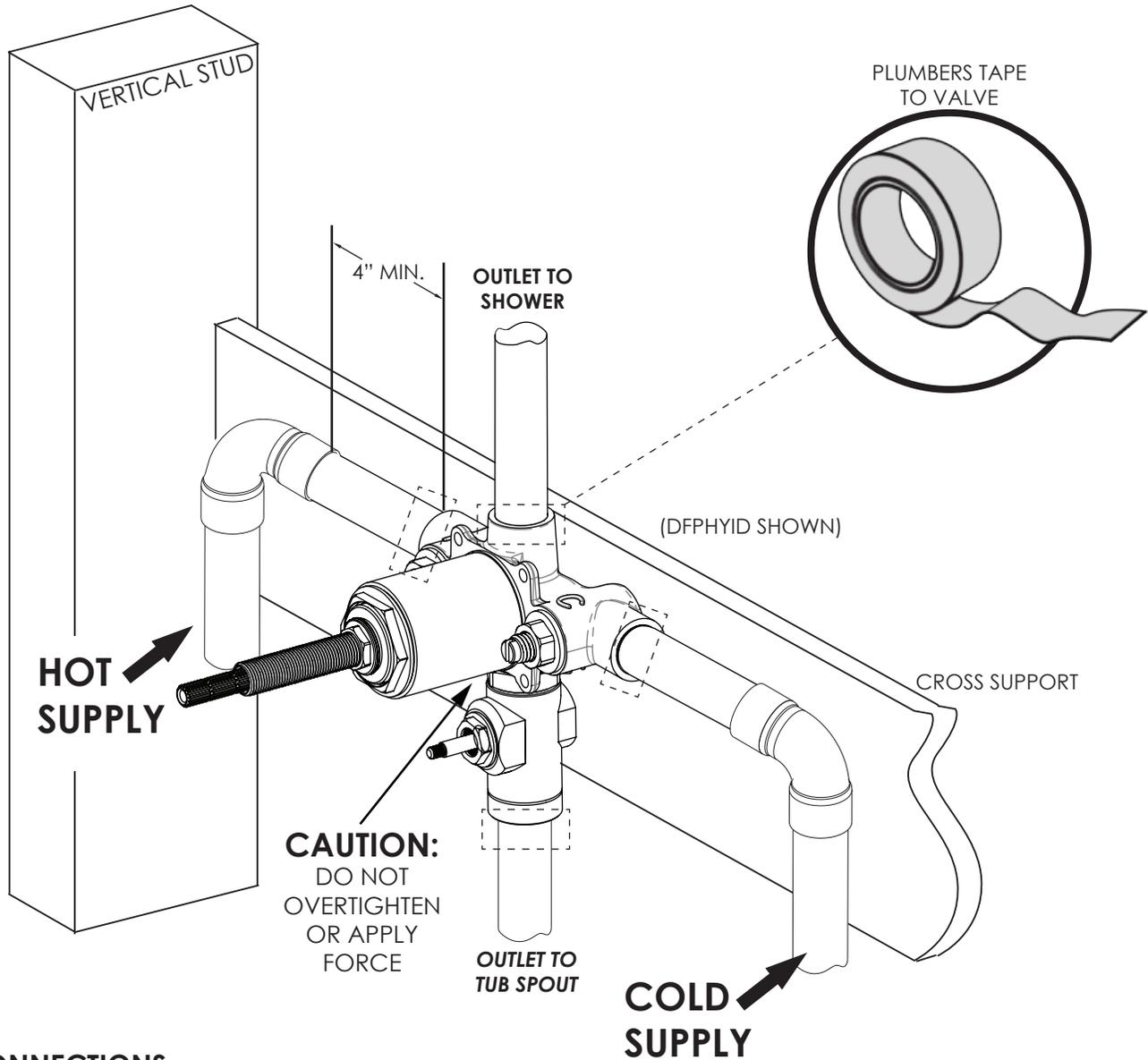


# ROUGH VALVE TO FRAME

Once the desired location has been determined, install a cross support beam to wall studs.

Make sure to level the valve and secure to the cross support. The valve should be level horizontally, vertically and parallel to finished wall.

Placement of valve and cross support within the wall shall be determined by the MIN/MAX limits. For complete detailed valve dimensions see ROUGH-IN DIMENSIONS.



## WATER CONNECTIONS

Pre-assemble fittings before attaching to valve. Attach the "COLD" INLET to the COLD SUPPLY and "HOT" INLET to the HOT SUPPLY using copper supply lines and 1/2" NPT male adapters. **Use plumbers tape in areas shown on above figure.**

**IMPORTANT:** Thoroughly flush supply lines to remove any debris prior to installation, preventing possible damage and malfunction of pressure balance cartridge.

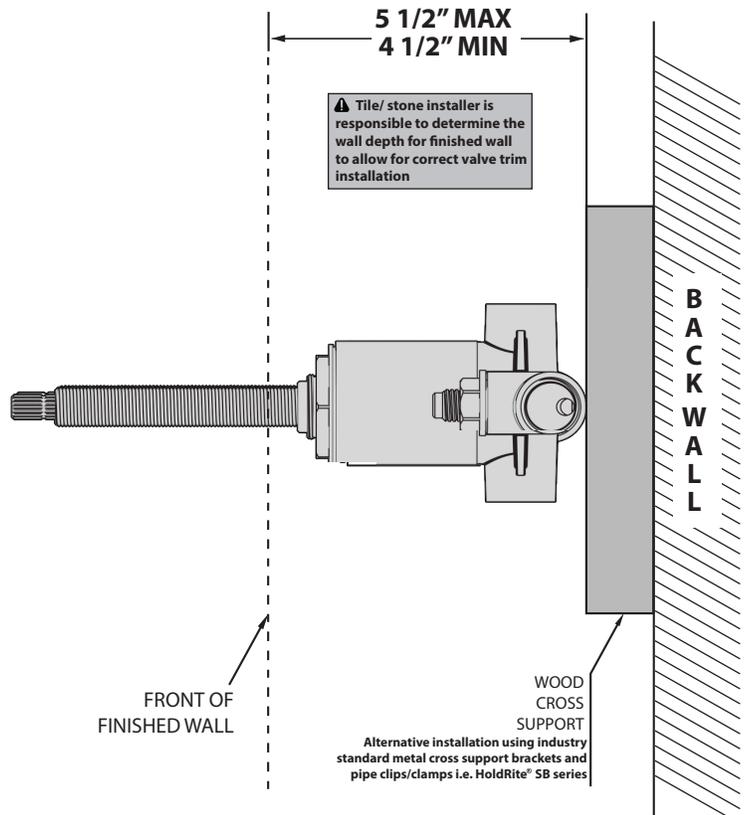
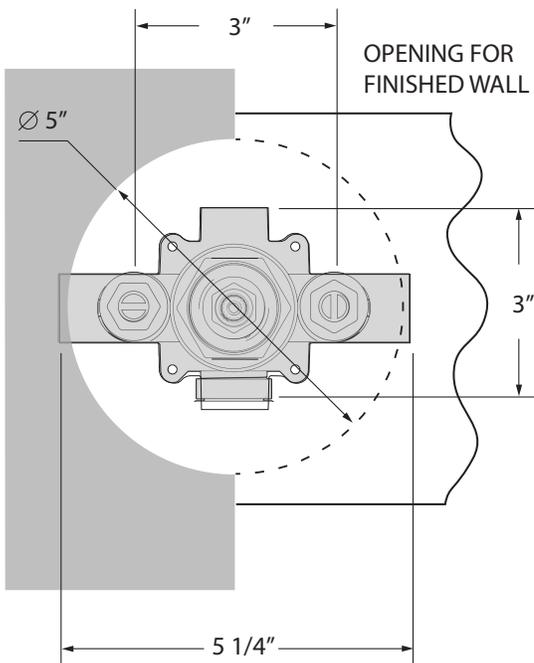
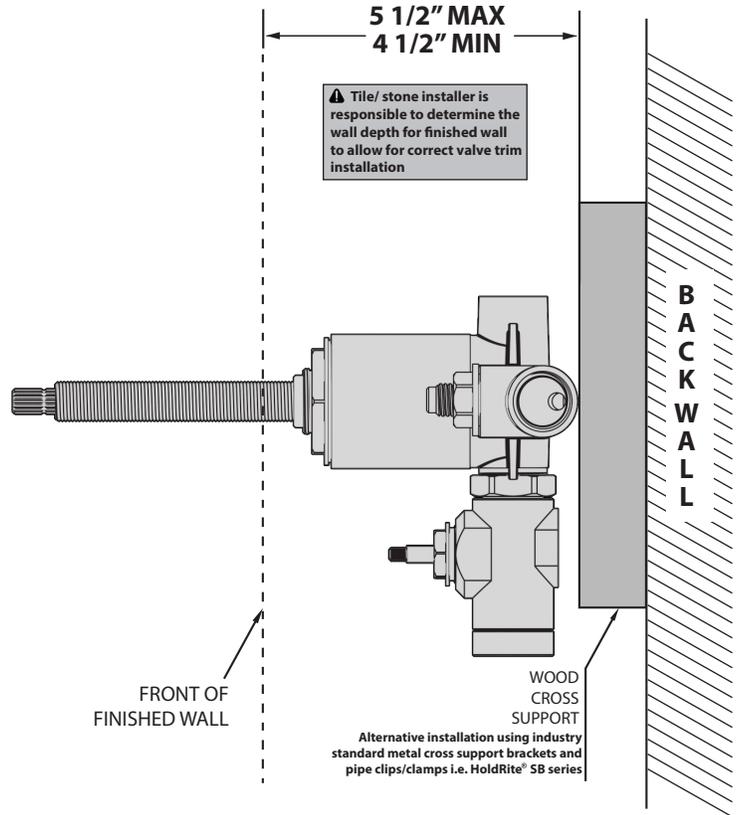
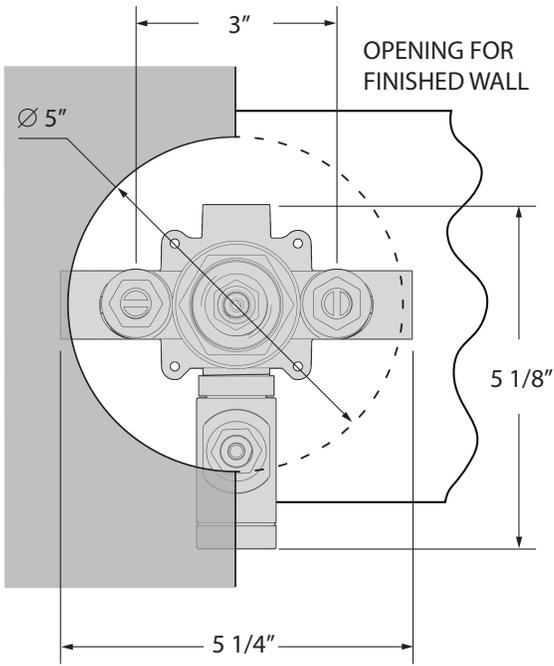
**ATTENTION:** Use plumbers tape or thread sealant to all threaded port joints and attach to valve. All soldering/brazing of fittings a minimum of 4" away from valve.

**WARNING: DO NOT APPLY HEAT DIRECTLY TO THE VALVE AS THIS MAY DAMAGE RUBBER & PLASTIC SEALS AND WILL RESULT IN VOIDING THE WARRANTY.**

Turn on water supplies to valve and check for leaks.

# ROUGH VALVE TO DIMENSIONS

(All dimensions shown are at the nearest 1/16")



# TEMPERATURE SETTINGS

**WARNING:** The valve is set by the factory to deliver water at the highest temperature possible. It is the installer's responsibility to properly set the desired and/or required maximum temperature setting to prevent risk of scalding or any other severe injury prior to consumer use. The installer is responsible in setting the correct high temperature limit based on user preferences and all local plumbing code requirements.

Remove temperature limit stop from the top of cartridge.

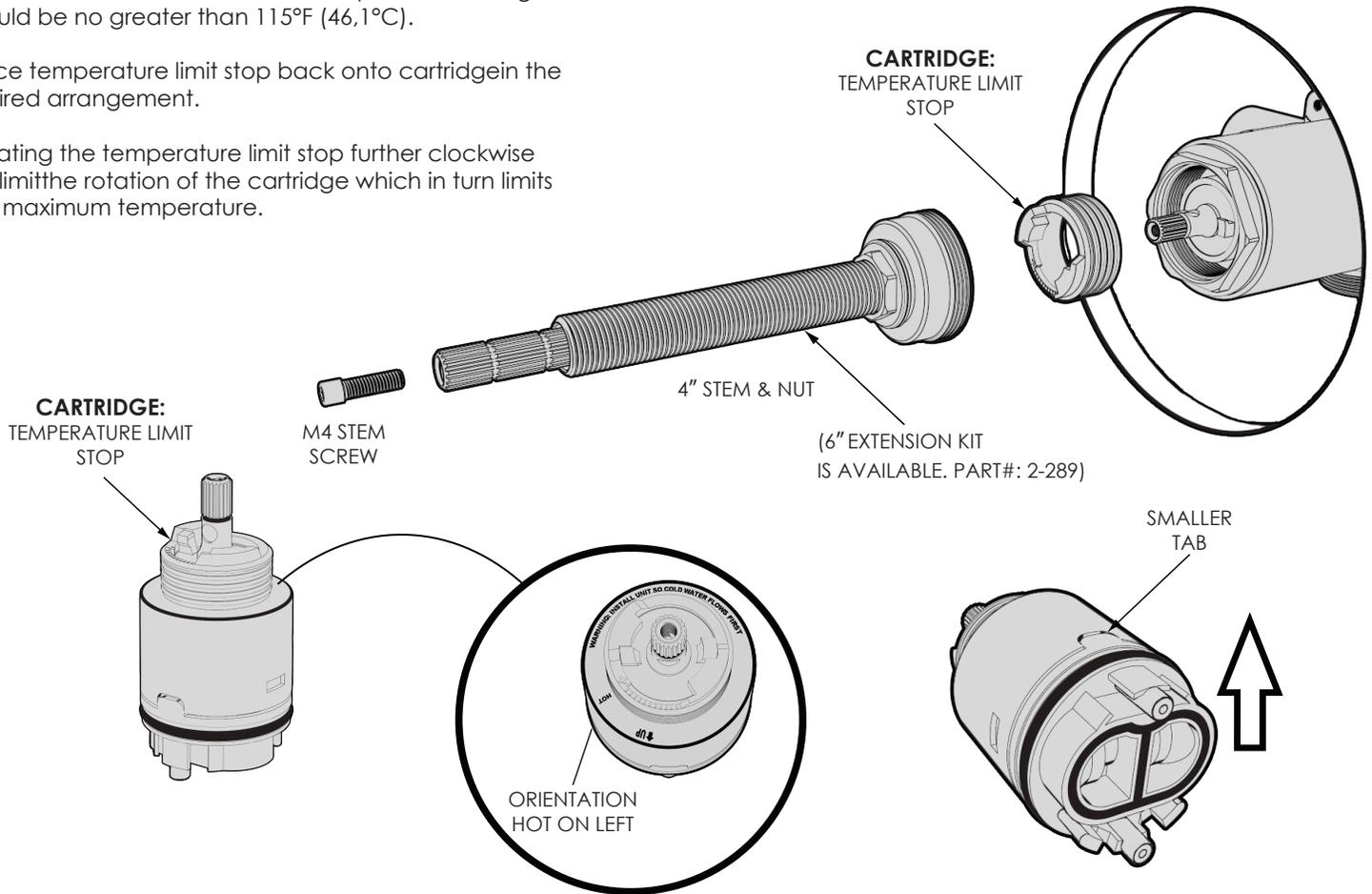
Rotate stem counter-clockwise to start water flow. Temperature will increase when stem is rotated further.

Use a temperature measuring device (thermometer) at the outlet flow to determine desired maximum temperature.

**IMPORTANT:** To prevent any severe injury we recommend that the maximum temperature setting should be no greater than 115°F (46,1°C).

Place temperature limit stop back onto cartridge in the desired arrangement.

Rotating the temperature limit stop further clockwise will limit the rotation of the cartridge which in turn limits the maximum temperature.



# MAINTENANCE

## PRESSURE BALANCE CARTRIDGE

Carefully remove the trim and plate and place in a safe location for the time being.

Use a flat head screwdriver to shut off the water supply to the cartridge by turning the temporary shutoff screws clockwise until screw stops. Ensure to close both the hot and cold sides of the water supplies.

Remove extensions to gain access to the cartridge nut. Unscrew the cartridge nut using a plumbers wrench or adjustable wrench, if possible.

Gently pull the cartridge out of the housing body (wiggling cartridge while pulling may assist in removing).

Clean the cartridge by rinsing it under running water to remove any possible debris. Keep the orientation of the cartridge in mind when reassembling.

Wipe cartridge and housing seat clean and apply a thin film of NON-PETROLIUM GREASE to o-rings.

**NOTE: DO NOT USE OIL BASED LUBRICANTS AS THEY MAY CAUSE THE O-RINGS TO DRY OUT OVER TIME AND CRACK**