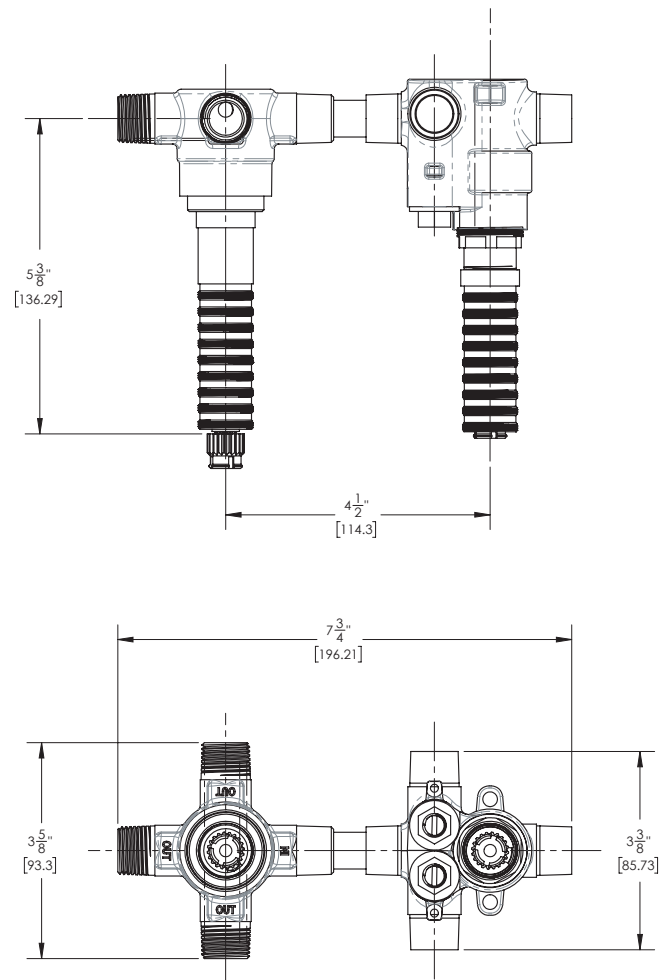


INSTALLATION INSTRUCTIONS

R1050BD- SINGLE FUNCTION OPERATION 1/2" THERMOSTATIC VALVE
R1053BD- SINGLE FUNCTION OPERATION 1/2" THERMOSTATIC VALVE
R1055BD- SHARED FUNCTION OPERATION 1/2" THERMOSTATIC VALVE
For use with shower heads rated at 1.3 gpm - 4.9 L/min or higher

WE RECOMMEND THAT ALL PLUMBING PRODUCTS BE INSTALLED BY A LICENSED PROFESSIONAL

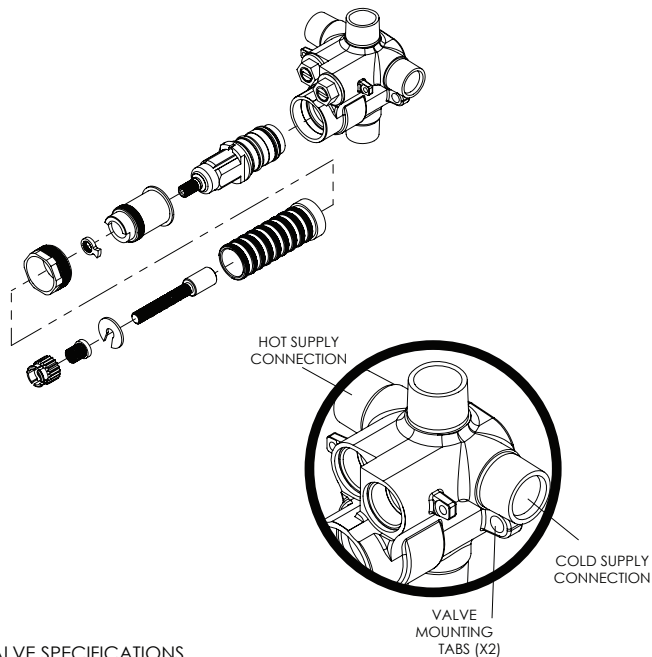
IMPORTANT: Thoroughly read instructions before installation.



INSTALLATION INSTRUCTIONS

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.

WARNING: IF THIS VALVE IS INSTALLED UPSIDE-DOWN A REVERSE CARTRIDGE IS NOT AVAILABLE. CONSEQUENTLY, VALVE MUST BE REMOVED AND REINSTALLED RIGHT-SIDE UP.



VALVE SPECIFICATIONS

Female 1/2" NPT inlets and outlets
 Factory temperature setting = 100°F (38°C)
 Temperature range = 52° to 118°F (11°-48°C)
 Temperature hot supply = 149° to 180°F (65°-82°C)
 Temperature cold supply = 50° to 72°F (10°-22°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° to 140°F (48°-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.

MAINTENANCE (continued)

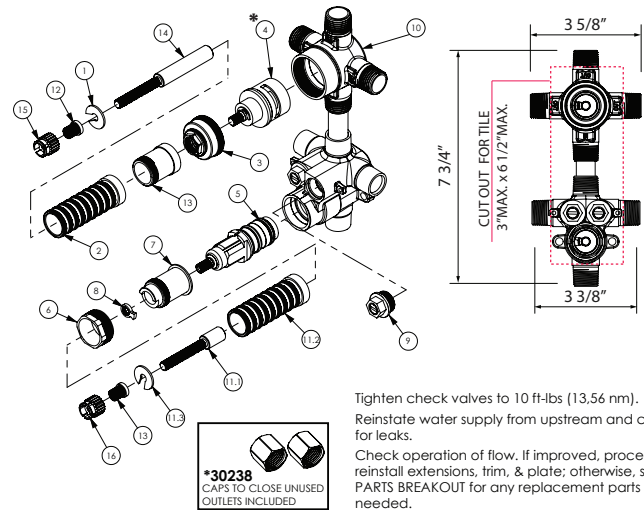
CHECK VALVES

Shut off water supply at main or upstream from valve body.

Remove check valve with a 5/8" (16mm) socket wrench from the body.

Clean check valve by rinsing it under running water to remove any possible debris.

Wipe check valve and housing seat clean and apply a thin film of NON-PETROLEUM GREASE to o-rings.
NOTE: Do NOT use oil based lubricants as this may cause o-rings to dry out over time and crack.



Tighten check valves to 10 ft-lbs (13.56 nm).
 Reinstate water supply from upstream and check for leaks.
 Check operation of flow. If improved, proceed to reinstall extensions, trim, & plate; otherwise, see PARTS BREAKOUT for any replacement parts needed.

| ITEM | PART | DESCRIPTION | QTY. | ITEM | PART | DESCRIPTION | QTY. |
|------|-------|---|------|------|-------|---|------|
| 1 | 10333 | C-WASHER STABILIZER | 1 | 10 | 2-132 | BRAZED THERMO W/ DIVERTER VALVE | 1 |
| 2 | 10334 | M24X1.0 EXTENSION | 1 | 11 | 3-056 | EXTENSION KIT, M24 - 20PT - STABILIZER | 1 |
| 3 | 10349 | NUT CAP FOR 3WAY DIVERTER | 1 | 11.1 | 10332 | 20 POINT BROACH EXTENSION | 1 |
| 4a | 11297 | CARTRIDGE, DIVERTER 3 POSITION NON-SHARED (R1050BD) | 1 | 11.2 | 10334 | M24X1.0 EXTENSION | 1 |
| 4b | 11417 | CARTRIDGE, SHARED DIVERTER (R1055BD) | 1 | 11.3 | 10333 | C-WASHER STABILIZER | 1 |
| 5 | 11573 | CARTRIDGE VALVE, MINI THERM, THERMOSTAR S18 TYP 2 | 1 | 12 | 30230 | STEM ADAPTOR FOR PERRIN & ROWE | 2 |
| 6 | 11318 | RETAINER NUT FOR THERM CARTRIDGE | 1 | 13 | 30232 | EXTENSION SLEEVE, M24 INT./EXT. THERM W/ DIVERTER | 1 |
| 7 | 11319 | CARTRIDGE RETAINER SLEEVE, THERM | 1 | 14 | 30233 | 20 POINT BROACH EXTENSION | 1 |
| 8 | 11320 | SAFETY AND MECHANICAL STOP | 1 | 15 | 30238 | COUNTRY ADAPTOR | 2 |
| 9 | 2-130 | SHUTOFF NUT, MINI THERMO | 2 | | | | |

INSTALLATION INSTRUCTIONS

MAINTENANCE

THERMOSTATIC 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 11/16" adjustable wrench, if possible.

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

Clean the cartridge by rinsing it under running water to remove any possible debris.

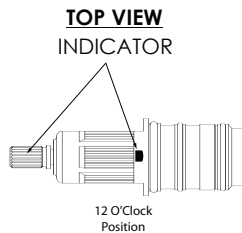
Wipe cartridge and rough housing clean and apply a thin film of NON-PETROLEUM GREASE to o-rings on cartridge.

NOTE: Do NOT use oil based lubricants as this may cause the o-rings to dry out over time and crack.

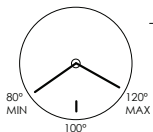
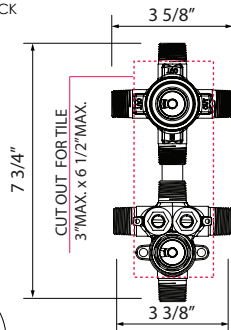
Carefully install the cartridge back into the housing body and tighten nut to 10 ft-lbs (13.56 nm).

ATTENTION: Ensure the INDICATOR NOTCH on cartridge and GREEN LINE on stem are orientated at the 12 O'Clock position. The Temperature stop must be in the 6 O'Clock position.

Fully open temporary shutoff screws and check for leaks. Check operation of flow. If improved, proceed to reinstall extensions, trim & plate; otherwise, CHECK VALVES.



FRONT VIEW

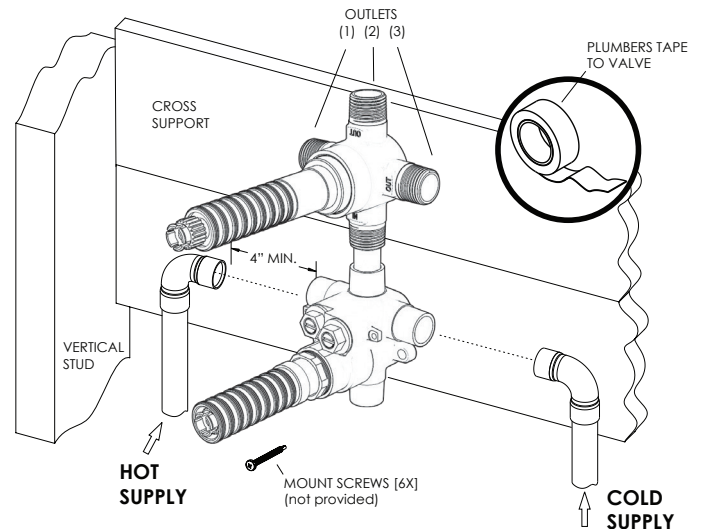


ROUGH IN VALVE TO FRAME

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

Ensure 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 shown on MUDGUARD. For complete detailed valve dimensions see ROUGH-IN DIMENSIONS.



WATER CONNECTIONS

Attach OUTLET (1) to the shower head and outlets (2) and (3) to any optional devices, such as hand shower or body sprays. Any outlet not being used must be plugged.

Pre-assemble fittings before attaching to valve. Attach the "COLD" INLET to COLD SUPPLY and "HOT" INLET to HOT SUPPLY using copper supply lines.

IMPORTANT: Thoroughly flush supply lines to remove any debris prior to installation to prevent damage and malfunction of thermostatic cartridge.

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

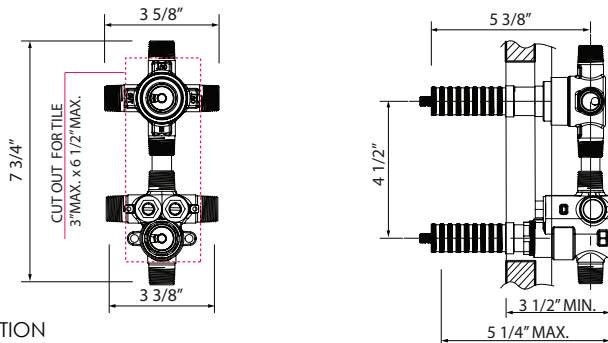
WARNING: DO NOT APPLY HEAT DIRECTLY TO THE VALVE AS THIS MAY DAMAGE RUBBER & PLASTIC SEALS AND WILL VOID WARRANTY.

Turn on water supplies to valve and check for leaks.

INSTALLATION INSTRUCTIONS

ROUGH IN DIMENSIONS

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



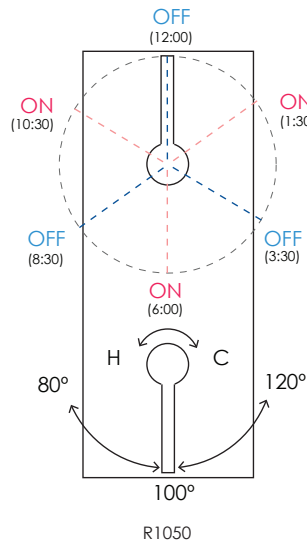
FUNCTION

The R1050BD valve is Calgreen compatible

The operation is dedicated and only one outlet will operate at a time. There are 3 on positions and 3 off positions. It is suggested the 12 O'clock position be the off position.

Installer will need to set:

The on positions will then be 10:30, 6:00 and 1:30
The off positions will be 8:30, 3:30 and 12:00



FUNCTION

The R1055BD valve has two shared positions. The operation is dedicated and only one outlet will operate at a time. There are 5 on positions and 1 off positions. It is suggested the 12 O'clock position be the off position.

Installer will need to set:

The on positions will then be 10:30, 8:30, 6:00, 3:30 and 1:30
The off positions will be 12:00

