

SPEAKMAN®

SM-8401-P

Installation, Operation & Maintenance Instructions

RAINIER COLLECTION COMBINATION SERIES

DESCRIPTION

Speakman Rainier Collection Combination Series unites the best products included in our Rainier Series. The combination begins with our anti-scald balanced pressure valve with integral diverter/volume control and integral stops, featuring a brass body and adjustable temperature limit stop. The metal construction wall plate, handle, and diverter/volume control handle are designed with definitive Rainier Collection styling. Piston type pressure balancing/ceramic regulating cartridge assembly with built-in check valves. Meets ASME A112.18.1 / CSA B125.1 & ASSE 1016 standards.

SPECIFICATIONS

SM-8401-P ANTI-SCALD BALANCED PRESSURE VALVE:

CONNECTIONS: ½" Female Copper Sweat Inlets & Shower Outlet
½" NPT Female tub outlet

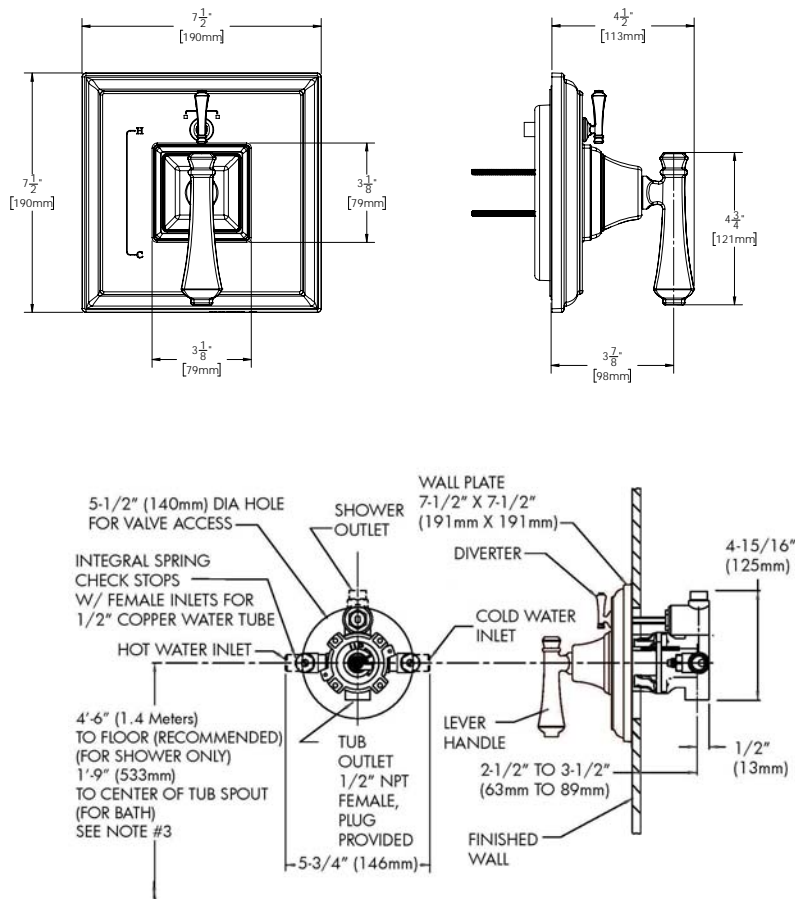
FLOW RATE: For use with Shower Heads rated at 2.0 gpm (7.6 L/min.) or higher.

MEETS: ASME A112.18.1 / CSA B125.1 & ASSE 1016 standards

INSTRUCTIONS

See individual product manuals for installation of the components and warranty information.

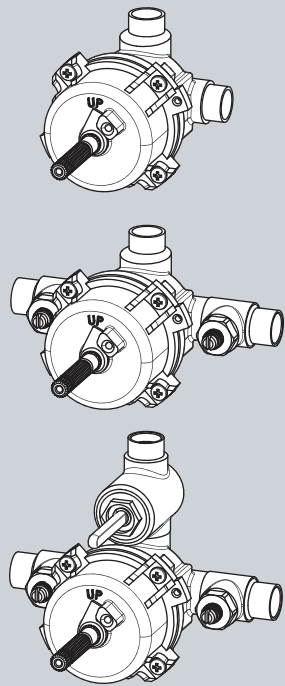
ROUGH-IN



SPEAKMAN®

INSTRUCTIONS FOR MODELS

CPV-P-IS
CPV-P-DV
CPV-3000
CPV-3000-IS
CPV-3400



NEED HELP?

For additional assistance or service please contact:

SPEAKMAN® Company
400 Anchor Mill Road
New Castle, DE 19720

800-537-2107

customerservice@speakman.com

www.speakman.com

92-CPV-P-03

TOOLS AND SUPPLIES



HELPFUL TOOLS & SUPPLIES:



IMPORTANT

- Be sure to read instructions thoroughly before beginning installation.
- Be sure to have properly adjusted the Temperature Limiting Stop (TLS) as outlined in this Installation Manual.
- Inspect all connections after installation of valve.
- This valve has an operating range of 20-80 Psi.
- This valve is designed to be used in conjunction with a shower-head rated at 2.0 gpm (7.5 L/min) or higher flow rate.
- **NOTE:** This installation manual covers several models of valves. While the appearance of your valve may differ from those shown, the installation method is the same.

SAFETY TIPS

Cover your drain to prevent loss of parts. Be sure to wear eye protection while cutting pipe.

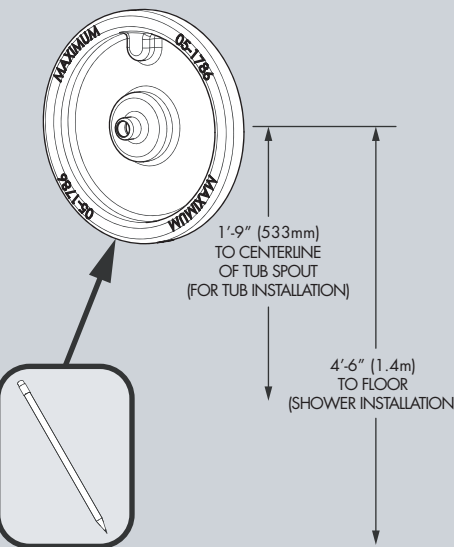
MAINTENANCE

Your new Shower/Bath Valve 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 Speakman custom finish products may damage the finish and void the product warranty. Please be sure to only use approved cleaners. Please contact Speakman for any clarification of acceptable cleaners.

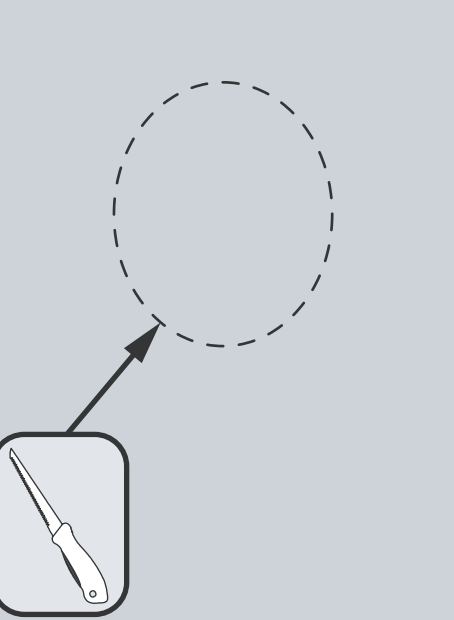
WARRANTY

Additional warranty information can be found at:
www.speakman.com

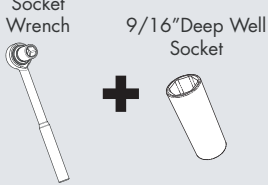
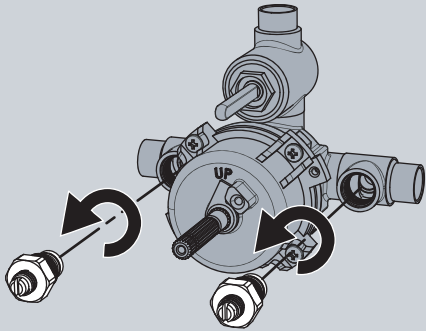
1 Referencing the supplied rough-in dimensions (located at the end of this manual), determine the preferred location of valve. Align the supplied rough-in template with this location and trace outline of template onto wall.



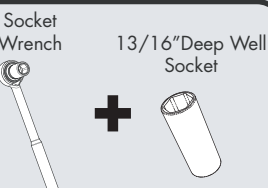
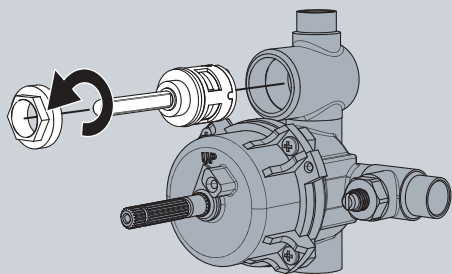
2 Using a keyhole saw or similar tool, cut along traced line and remove this section of wall.



3 If your model of shower valve has Integral Stops, unthread and remove them using a socket wrench equipped with a 9/16" deep well socket.

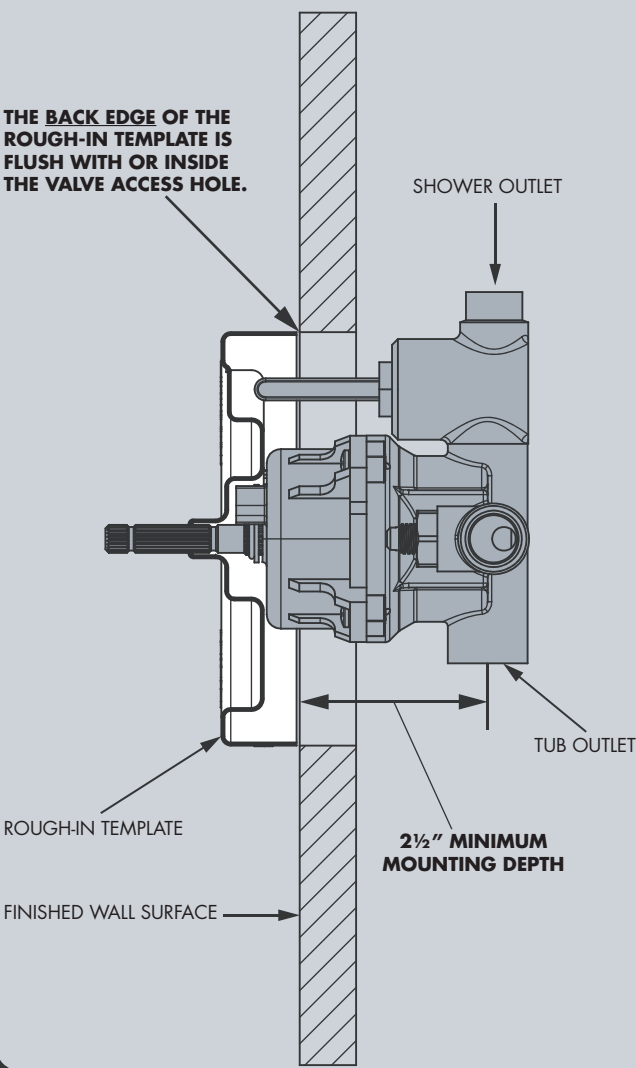


4 If your Shower Valve is equipped with an integral diverter, remove the Diverter Nut using a socket wrench and a 13/16" deep well socket. Remove Diverter Cartridge to prevent damage during soldering.

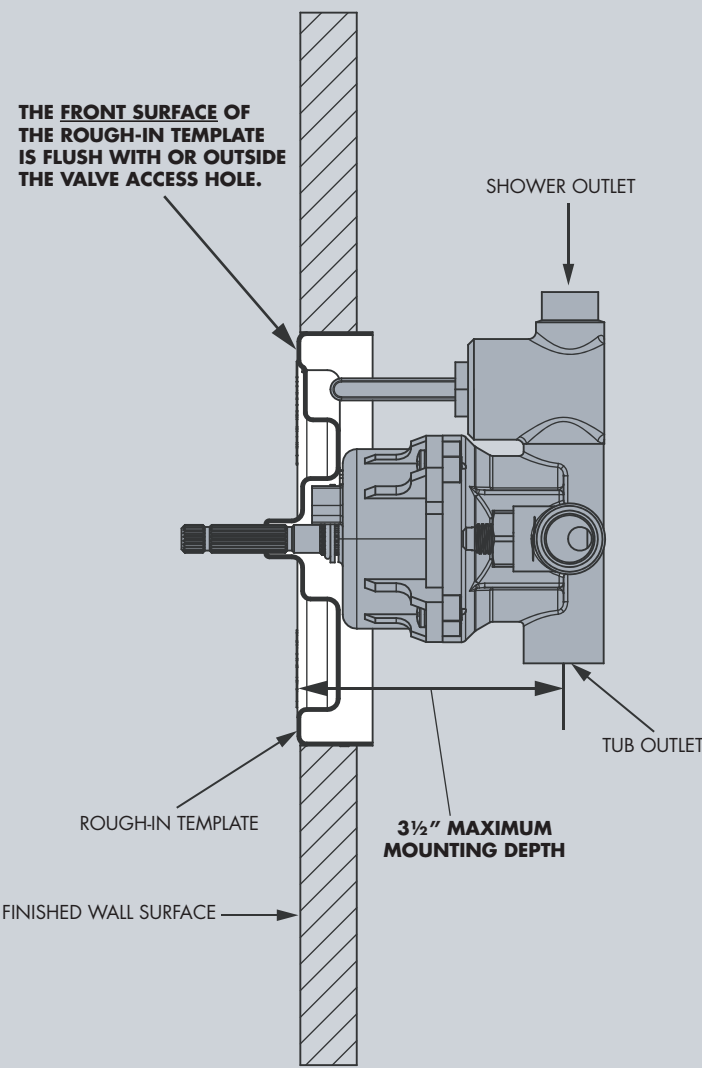


5 Install the Rough-In Template over the Shower Valve being sure the Rough-In Template sits flush against Shower Valve Bonnet. Following the rough-in dimensions for your model of valve (located at the end of this manual) as well as the markings on the supplied rough-in template, install valve at proper depth. The distance from the centerline of the inlet/outlet ports of the valve assembly to the finished wall **MUST** be between **2½" - 3½"**. See images below for reference.

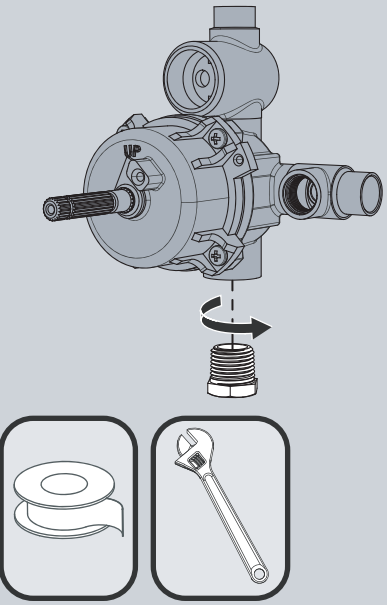
MINIMUM MOUNTING DEPTH



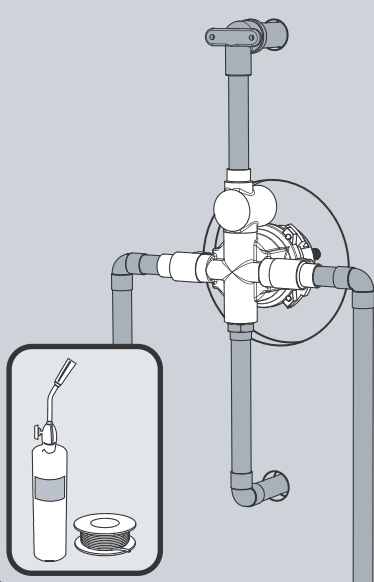
MAXIMUM MOUNTING DEPTH



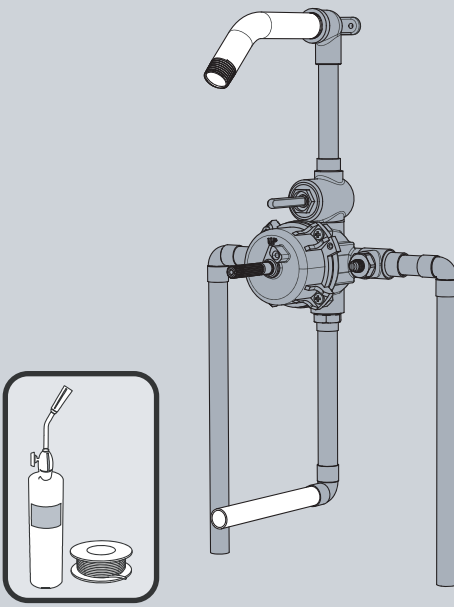
6 If your installation is for a shower only, apply thread seal tape to the included 1/2" Pipe Plug and install into the lower port of the shower valve. Wrench tighten.



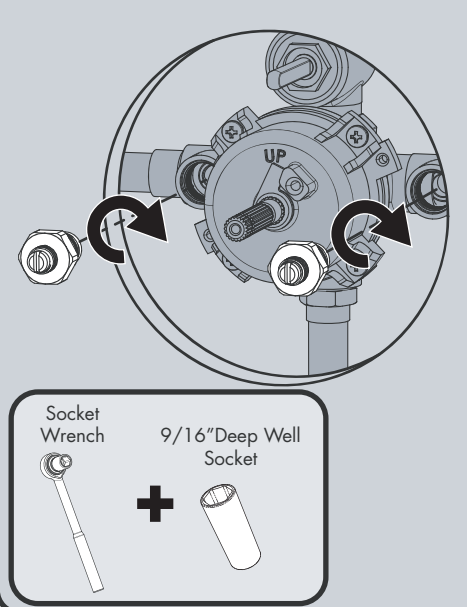
7 Ensure Valve is positioned plumb and level. Remove Rough-In Template from Valve. Plumb and solder all joints and fittings. Take care to protect surrounding area when soldering. Secure piping to surrounding structure.



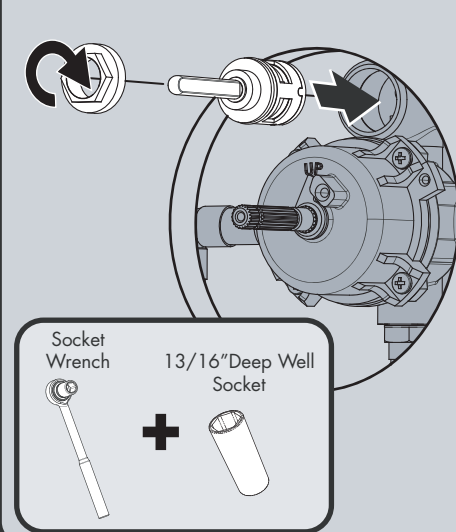
8 Make piping connections for all accessories. Take care to protect surrounding area when soldering. Secure piping to surrounding structure.



9 If your model of shower valve has Integral Stops, reinstall them using a socket wrench equipped with a 9/16" deep well socket or crescent wrench.



10 If your Shower Valve is equipped with an integral diverter, reinstall the Diverter Cartridge taking care to align mounting posts of cartridge with the corresponding holes in the valve body. Install Diverter Nut and tighten with a Ratchet Wrench and 13/16" Socket. Take care to not over-tighten connections.



11 Your Shower Valve has the ability to be mounted back-to-back with another Valve in a shared space. This means the hot and cold inlets may be reversed. Please see the following steps to adapt your valve for back-to-back mounting or reversed inlet supplies.

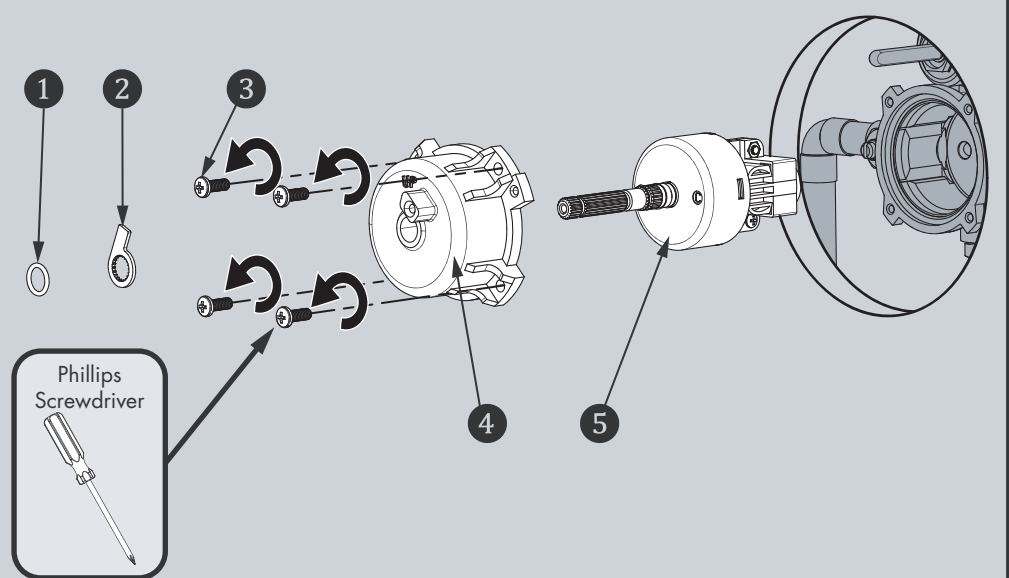
If you are performing a **Standard Installation**, please proceed to **Step 14**

OR

If you are performing a **Back to Back Installation**, or have reversed inlet supplies, please proceed to **Step 12**

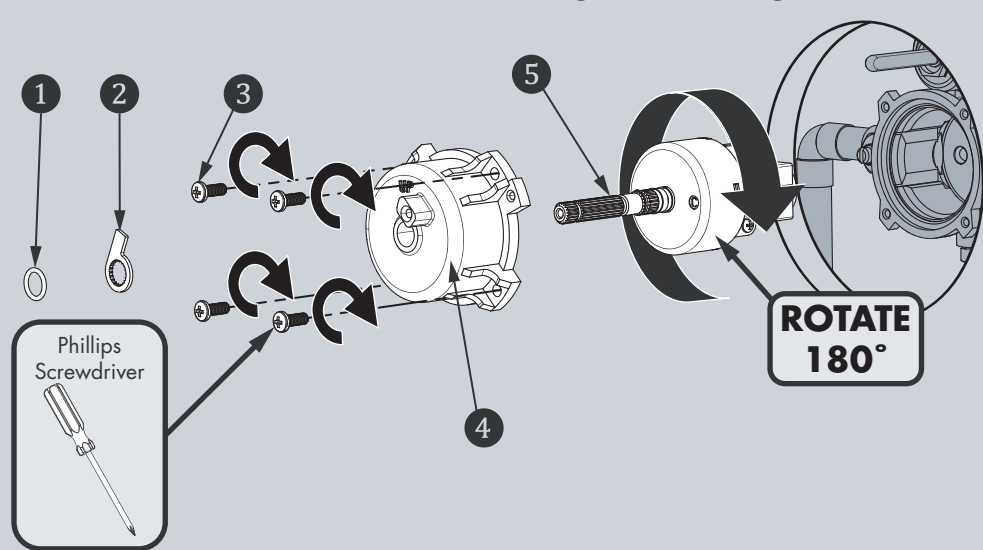
12 BACK-TO BACK INSTALLATION 1

To adapt your shower valve for back to back installation, remove spindle O-ring **1**, TLS plate **2**, and four (4) Bonnet Screws **3**. Then remove Bonnet **4** and Cartridge Assembly **5** from valve body.

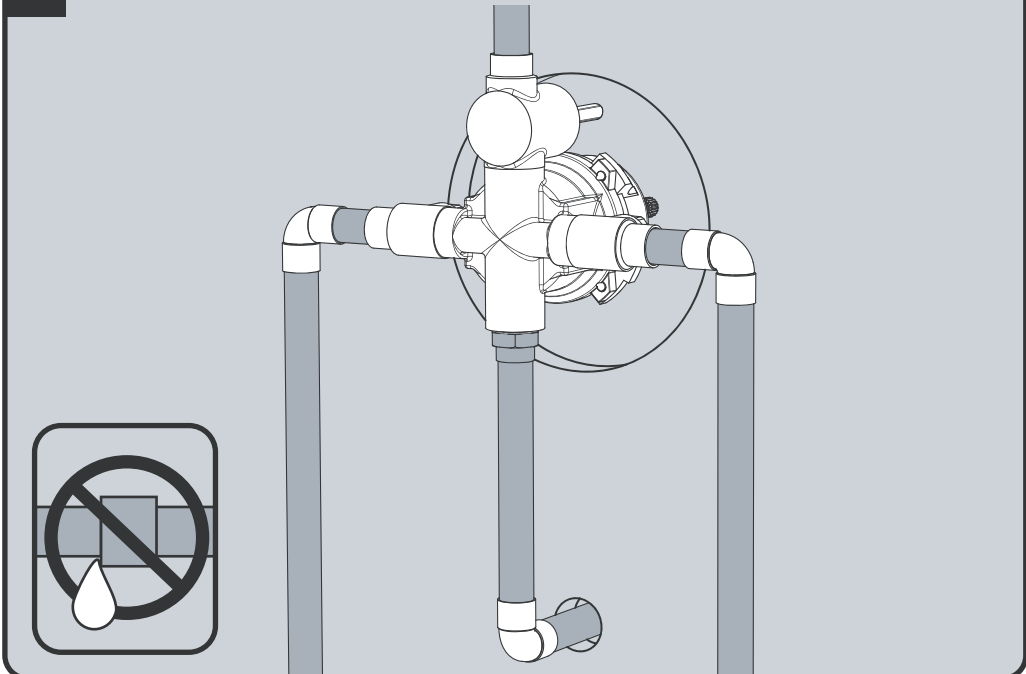


13 BACK-TO BACK INSTALLATION 2

Rotate Valve Cartridge **5** 180° and reinstall into Valve Body. The "H" marking on the blue Valve Cartridge cover should now be on the right hand side. Reinstall Bonnet **4** and four (4) Bonnet Screws **3**, making sure the Large Bonnet O-Ring is in place within the Valve Body. Reinstall TLS Plate **2** and Spindle O-Ring **1**.



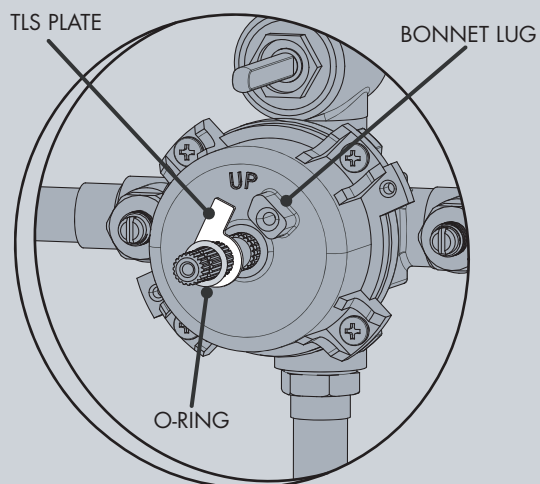
14 Ensure the Valve is in the "OFF" position. Turn "ON" water supplies and check all connections for leaks.



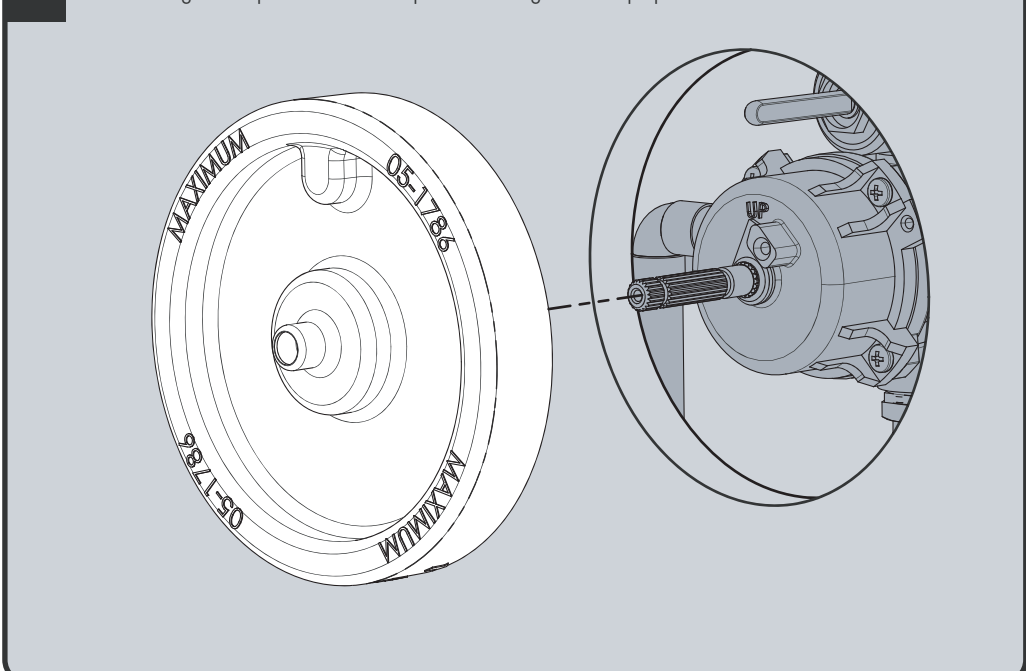
15 TEMPERATURE LIMIT ADJUSTMENT

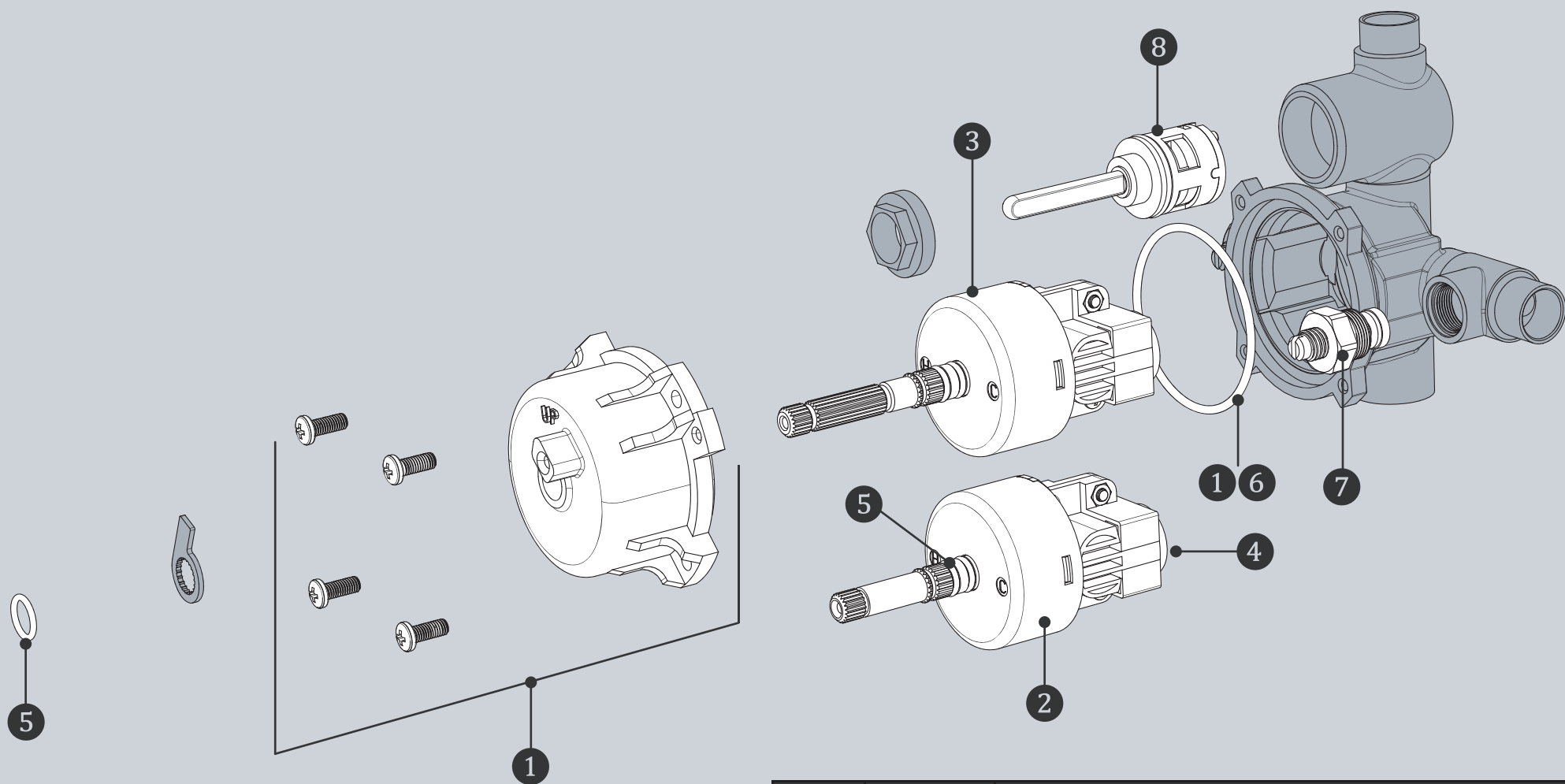
The maximum hot water temperature setting adjustment (Temperature Limit Stop (TLS)) of the valve has been factory set at 110° F. Important- Check each valve installation with a thermometer to make sure the maximum hot water temperature is set to the recommended setting of 110° F maximum. To lower the limit of the maximum hot water temperature the valve delivers, adjust the valve's temperature limit stop (TLS) plate.

- Slip the retaining O-ring and the TLS plate towards the end of the spindle.
- With the water supplies on, rotate the valve spindle clockwise to the maximum desired hot water temperature.
- Position the TLS plate so it contacts the lug on the valve bonnet and therefore restricts the clockwise rotation of the spindle.
- Slip the retaining O-ring back into the groove of the spindle to hold the TLS plate in place.
- Rotate the spindle counter-clockwise to the "Off" position.



16 Reinstall Rough-In Template over Valve to protect it during final wall preparation.





ITEM NO.	PART NO.	DESCRIPTION
1	RPG05-0718	4 SCREWS, BONNET, AND BONNET O-RING
2	RPG05-0884	REPLACEMENT CARTRIDGE FOR MODELS CPV-P-IS, CPV-P-DV
3	RPG05-0843	REPLACEMENT CARTRIDGE FOR MODELS CPV-3000, CPV-3000-IS, CPV-3400
4	RPG49-0005	CARTRIDGE LOWER QUAD RINGS
5	RPG49-0076	SPINDLE O-RINGS
6	RPG49-0126	LARGE BONNET O-RING
7	RPG05-0876	INTEGRAL STOP REPAIR KIT
8	RPG05-0897	REPLACEMENT DIVERTER CARTRIDGE

CPV-P-IS ROUGH-IN DIAGRAM

NOTES:

COMPLIANCE:

ASME A112.18.1/CSA B125.1

Shower Valve ASSE1016

CONNECTIONS:

Hot/Cold Inlets: 1/2" Female Copper Sweat

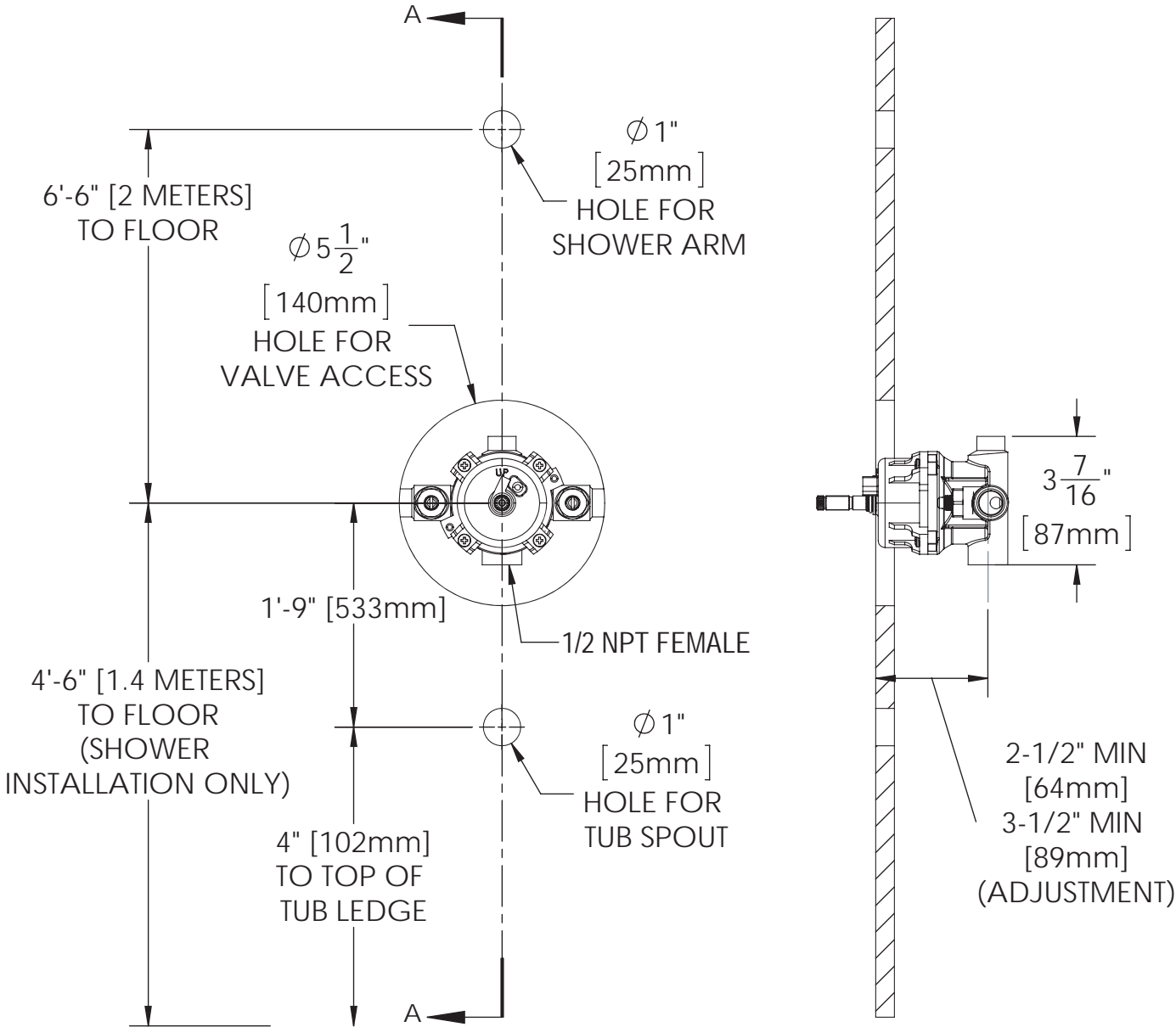
Shower Outlet: 1/2" Female Copper Sweat

Tub Outlet: 1/2" NPT Threaded Connection
(Plug included for Shower Only Connections)

NOTES:

This valve is designed to be used in conjunction with a shower-head rated at 2.0 gpm (7.5 L/min) or higher flow rate

Contractor to supply necessary inlet connections.



DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.
FOR ADA MOUNTING LOCATIONS, CONSULT ADAAG, ANSI A117.1, AND STATE REGULATIONS.

CPV-P-DV ROUGH-IN DIAGRAM

SPEAKMAN®

NOTES:

COMPLIANCE:

ASME A112.18.1/CSA B125.1

Shower Valve ASSE1016

CONNECTIONS:

Hot/Cold Inlets: 1/2" Female Copper Sweat

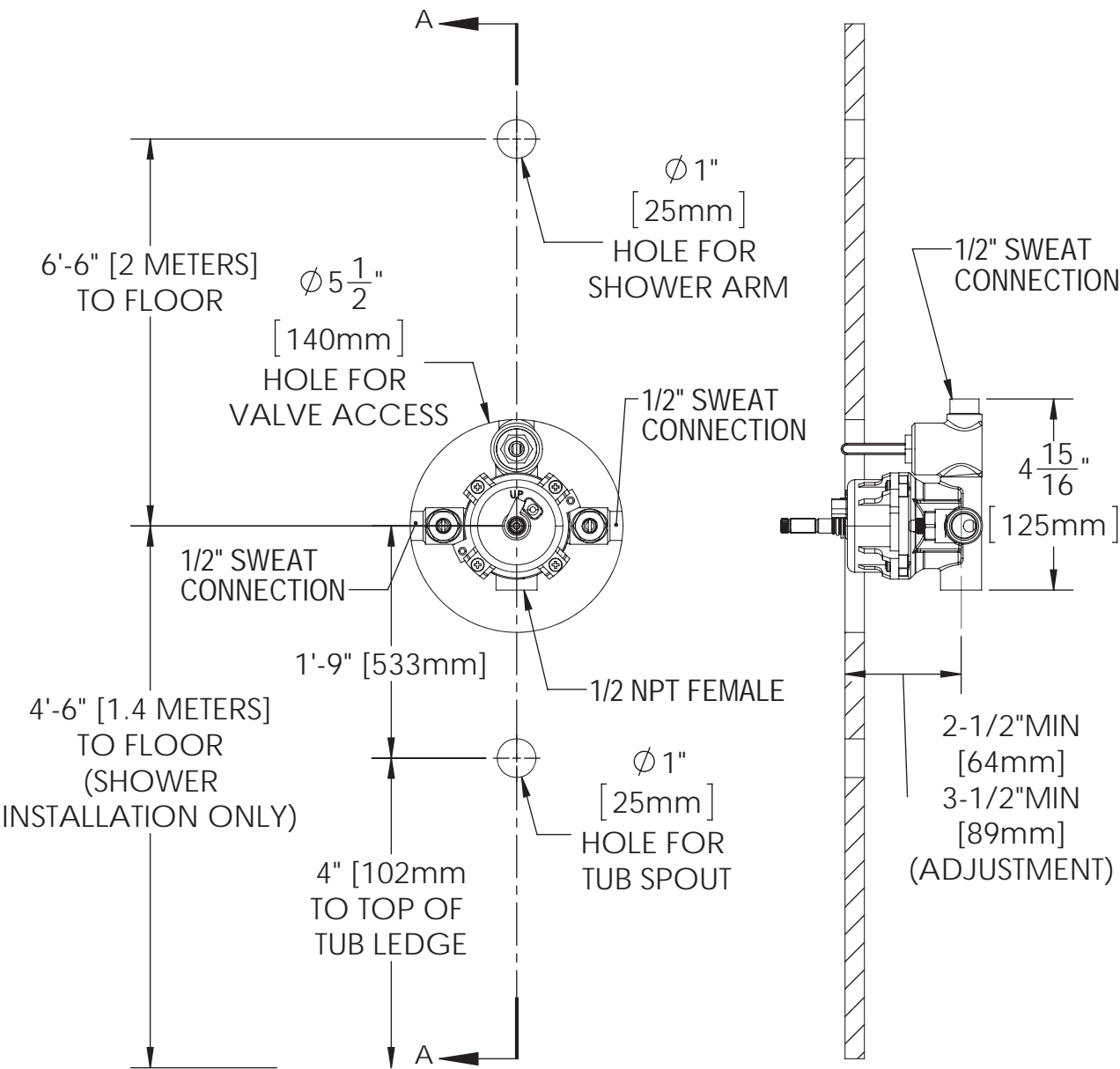
Shower Outlet: 1/2" Female Copper Sweat

Tub Outlet: 1/2" NPT Threaded Connection
(Plug included for Shower Only Connections)

NOTES:

This valve is designed to be used in conjunction with a shower-head rated at 2.0 gpm (7.5 L/min) or higher flow rate

Contractor to supply necessary inlet connections.



DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.
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CPV-3000 ROUGH-IN DIAGRAM

SPEAKMAN®

NOTES:

COMPLIANCE:

ASME A112.18.1/CSA B125.1

Shower Valve ASSE1016

CONNECTIONS:

Hot/Cold Inlets: 1/2" Female Copper Sweat

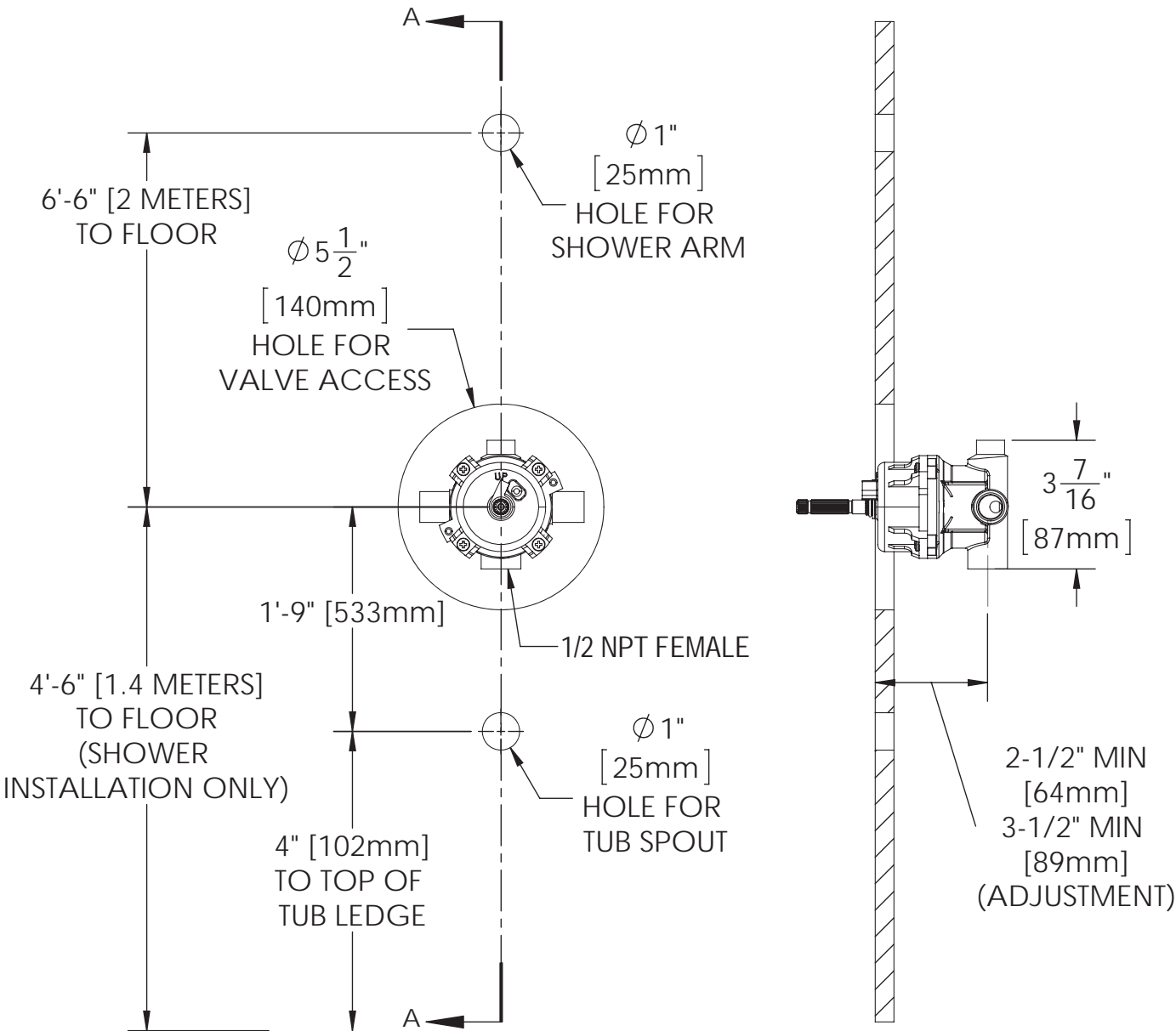
Shower Outlet: 1/2" Female Copper Sweat

Tub Outlet: 1/2" NPT Threaded Connection
(Plug included for Shower Only Connections)

NOTES:

This valve is designed to be used in conjunction with a shower-head rated at 2.0 gpm (7.5 L/min) or higher flow rate

Contractor to supply necessary inlet connections.



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CPV-3000-IS ROUGH-IN DIAGRAM

SPEAKMAN®

NOTES:

COMPLIANCE:

ASME A112.18.1/CSA B125.1

Shower Valve ASSE1016

CONNECTIONS:

Hot/Cold Inlets: 1/2" Female Copper Sweat

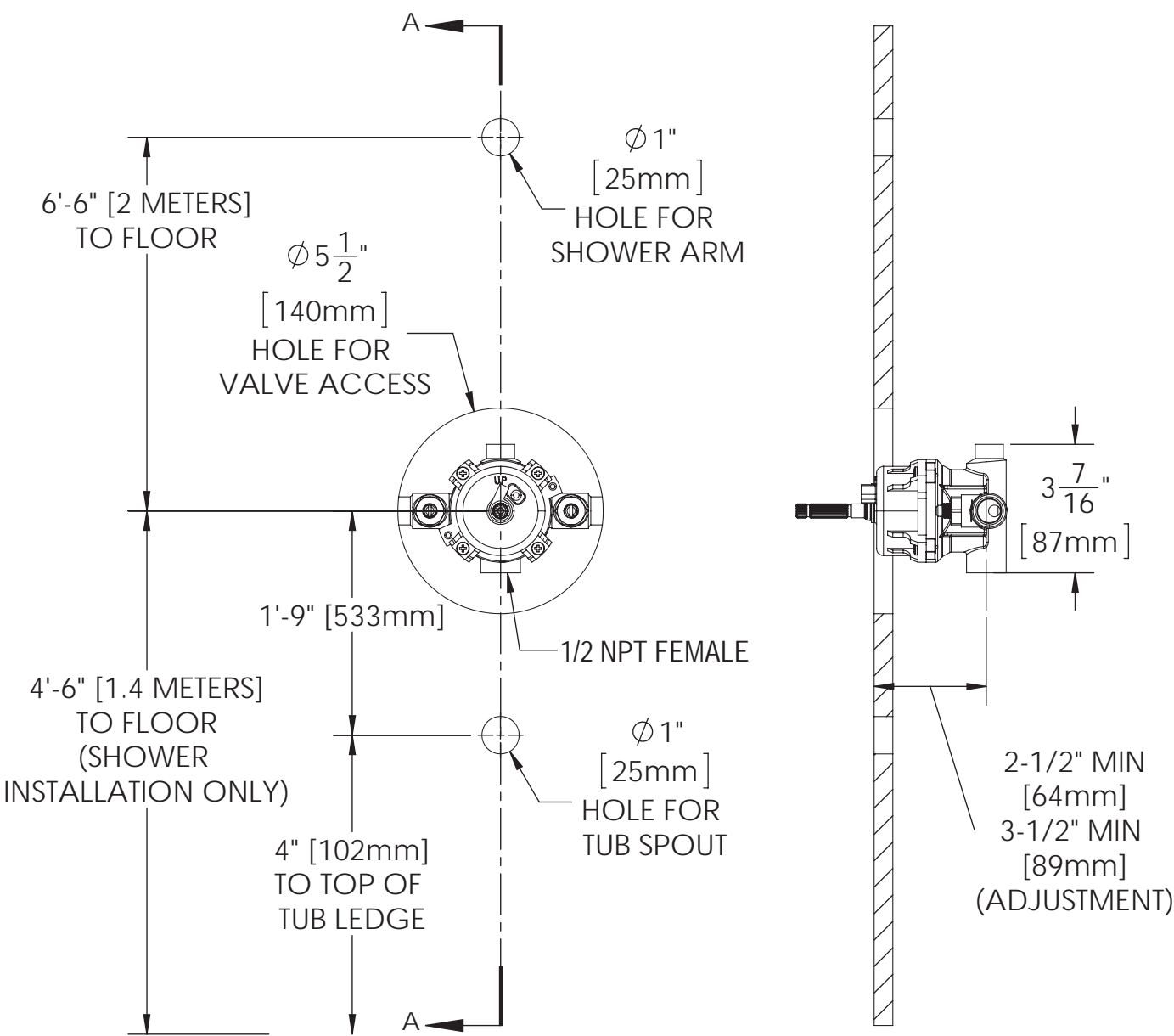
Shower Outlet: 1/2" Female Copper Sweat

Tub Outlet: 1/2" NPT Threaded Connection
(Plug included for Shower Only Connections)

NOTES:

This valve is designed to be used in conjunction with a shower-head rated at 2.0 gpm (7.5 L/min) or higher flow rate

Contractor to supply necessary inlet connections.



DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.
FOR ADA MOUNTING LOCATIONS, CONSULT ADAAG, ANSI A117.1, AND STATE REGULATIONS.

CPV-3400 ROUGH-IN DIAGRAM

SPEAKMAN®

NOTES:

COMPLIANCE:

ASME A112.18.1/CSA B125.1

Shower Valve ASSE1016

CONNECTIONS:

Hot/Cold Inlets: 1/2" Female Copper Sweat

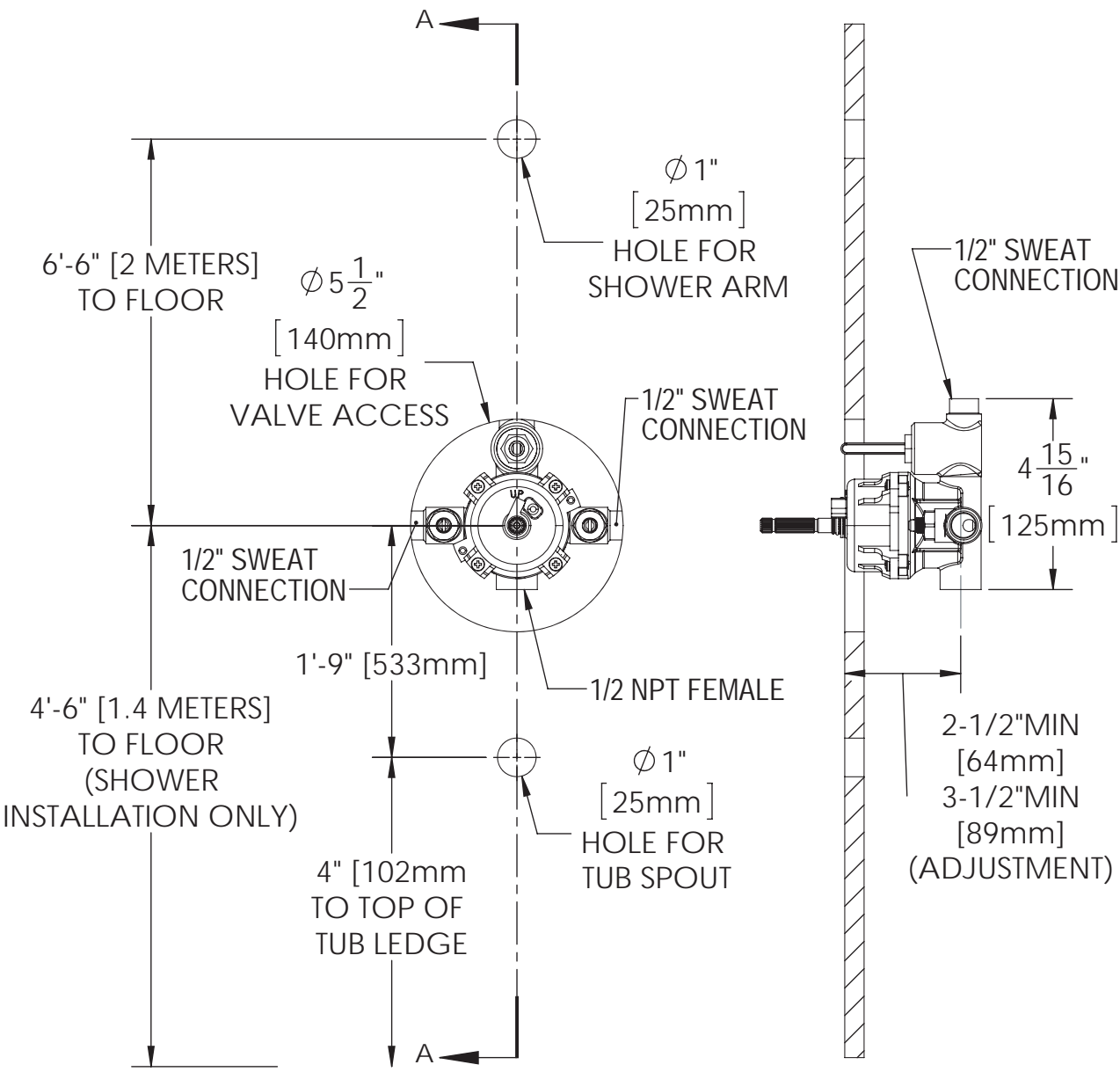
Shower Outlet: 1/2" Female Copper Sweat

Tub Outlet: 1/2" NPT Threaded Connection
(Plug included for Shower Only Connections)

NOTES:

This valve is designed to be used in conjunction with a shower-head rated at 2.0 gpm (7.5 L/min) or higher flow rate

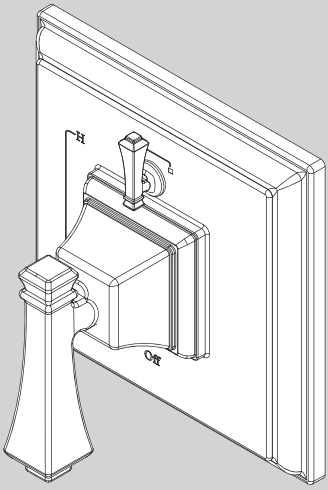
Contractor to supply necessary inlet connections.



DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.
FOR ADA MOUNTING LOCATIONS, CONSULT ADAAG, ANSI A117.1, AND STATE REGULATIONS.

INSTRUCTIONS FOR MODELS

CPT-8401-P



NEED HELP?

For additional assistance or service please contact:

SPEAKMAN® Company
400 Anchor Mill Road
New Castle, DE 19720

800-537-2107

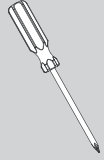
customerservice@speakman.com

www.speakman.com

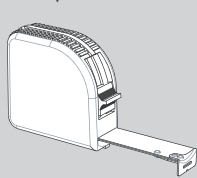
92-CPT-8401-P-01

TOOLS AND SUPPLIES

Phillips
Screwdriver



Measuring
Tape



IMPORTANT



- Do not over-tighten any connections or damage may occur.
- Be sure to read instructions thoroughly before beginning installation.
- Be sure to have properly adjusted the Temperature Limiting Stop (TLS) as per the Valve Installation Instructions before installing Valve Trim.

SAFETY TIPS

Cover your drain to prevent loss of parts.

MAINTENANCE

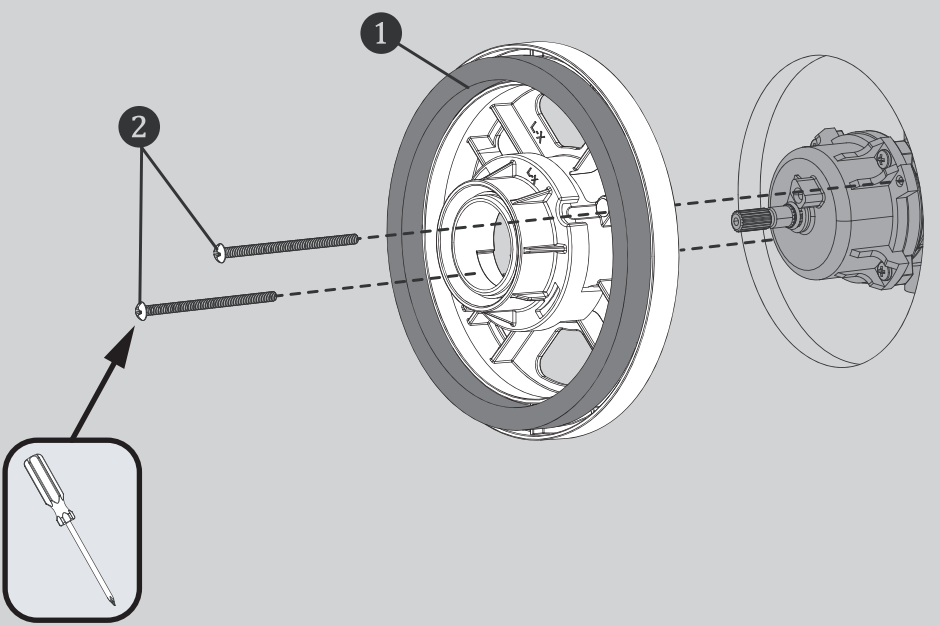
Your new Speakman Product is designed for years of trouble-free performance. Keep it looking new by cleaning it periodically with a soft cloth. The use of harsh chemicals and abrasives on any of the Speakman custom finish products may damage the finish and void the product warranty. Please be sure to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

WARRANTY

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www.speakman.com

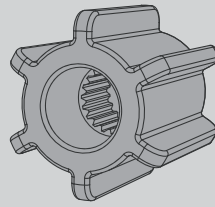
1

Clean wall surface. Place Mounting Base (1) onto the valve, align mounting holes, and secure with supplied screws (2).

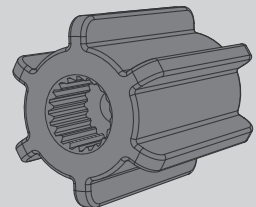


2

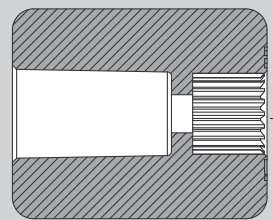
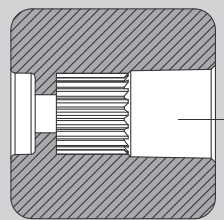
There are two connectors included to allow for both Shallow Mount (Valve Centerline is 2.5"-3.0" from finished wall surface) and Deep Mount (Valve Centerline is 3.0"-3.5" from finished wall surface) applications. Please select Connector appropriate for your installation.



For Shallow Mount Application

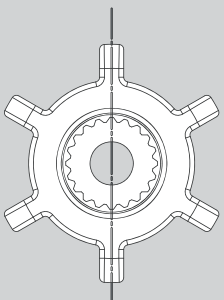


For Deep Mount Application

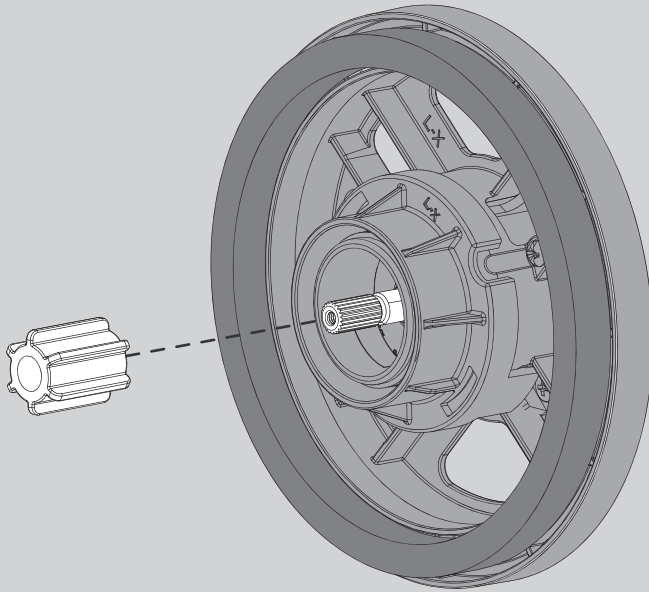


3

Confirm that Valve is in the "Off" position. Place appropriate Connector on to the Spindle of the Valve, making sure to orient the Connector so that one set of Splines are in a perfectly vertical position.



Splines in Vertical Position



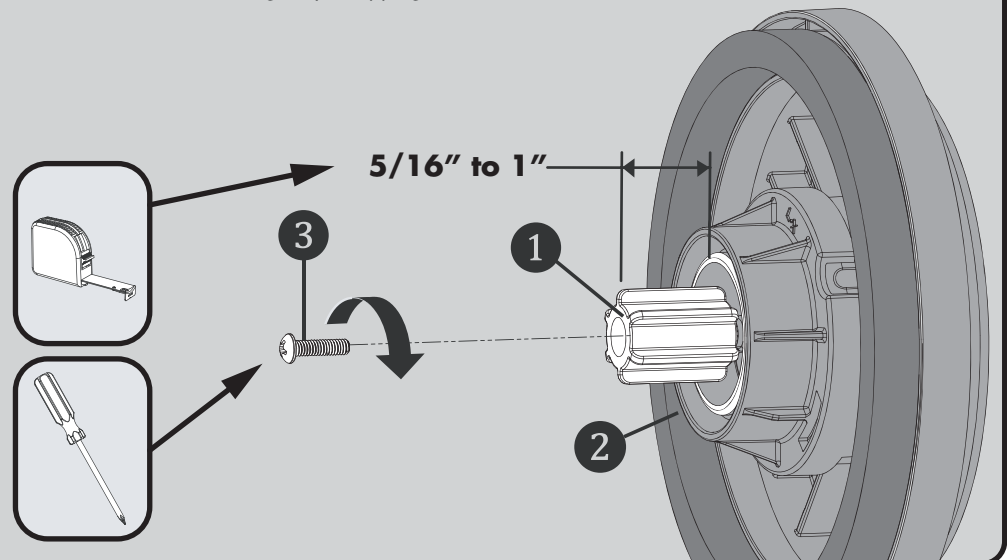
4



IMPORTANT

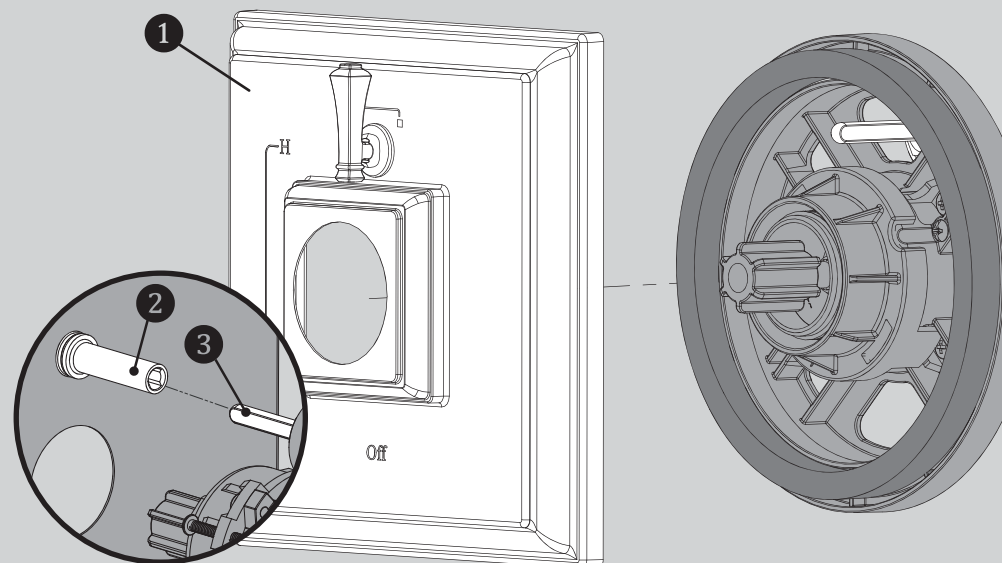


When installed correctly, the Connector (1) should protrude from the Mounting Base (2) in-between 5/16" and 1". Secure Connector with 8-32 screw provided (3). If your installation does not fall within this range, try swapping Connectors.



5

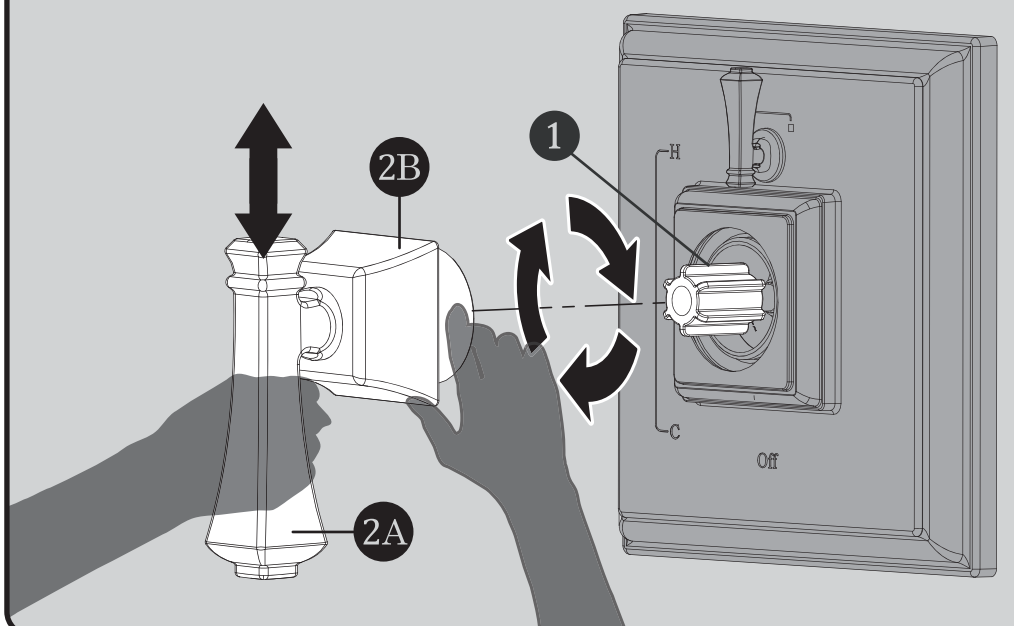
Place Wall Plate (1) on Mounting Base. Take care to orient the Wall Plate as shown below. Verify the Diverter Valve Stem is in the OFF (vertical) position. Align the Diverter Drive Tube (2) on the Wall Plate to the Stem (3) of the Diverter Valve.



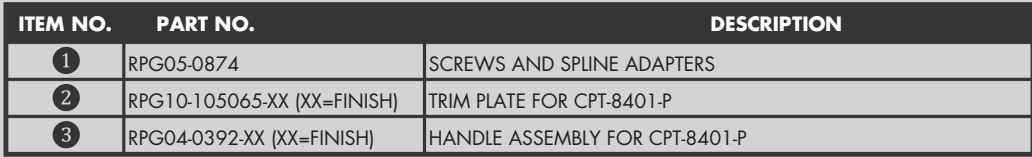
* VIEW FROM BACK OF WALL PLATE

6

Align Handle Assembly with Connector (1) and Escutcheon. Keep Handle (2A) in a stationary vertical position as you thread Handle Hub (2B) onto the Mounting Base. Tighten until snug.



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