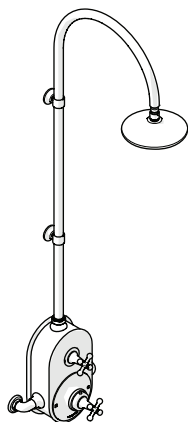


WATERWORKS

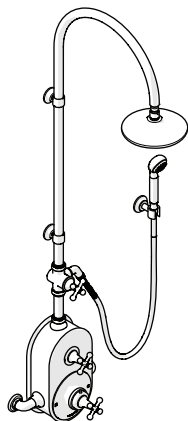
INSTALLATION GUIDELINES



STYLE No. DSXS20

Dash Exposed Thermostatic Shower System with 8" Showerhead and Metal Cross Handles

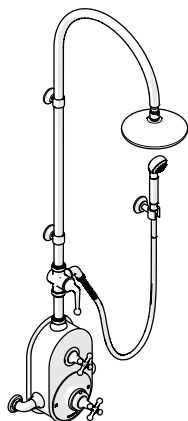
- **STYLE No. DSXS2C**
Dash Exposed Thermostatic Shower System with Metal Cross Handles
- **STYLE No. USH308**
Universal Transitional 8" Rain Showerhead



STYLE No. DSXS40

Dash Exposed Thermostatic Shower System with 8" Showerhead, Handshower, Metal Cross Diverter Handle and Metal Cross Handles

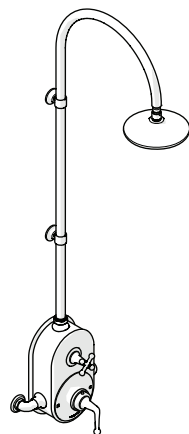
- **STYLE No. DSXS2C**
Dash Exposed Thermostatic Shower System with Metal Cross Handles
- **STYLE No. DSHS20**
Dash Handshower on Hook with Diverter and Metal Cross Handle
- **STYLE No. USH308**
Universal Transitional 8" Rain Showerhead



STYLE No. DSXS50

Dash Exposed Thermostatic Shower System with 8" Showerhead, Handshower, Metal Lever Diverter Handle and Metal Cross Handles

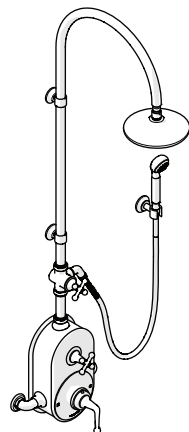
- **STYLE No. DSXS2C**
Dash Exposed Thermostatic Shower System with Metal Cross Handles
- **STYLE No. DSHS30**
Dash Handshower on Hook with Diverter and Metal Lever Handle
- **STYLE No. USH308**
Universal Transitional 8" Rain Showerhead



STYLE No. DSXS30

Dash Exposed Thermostatic Shower System with 8" Showerhead, Metal Lever and Cross Handle

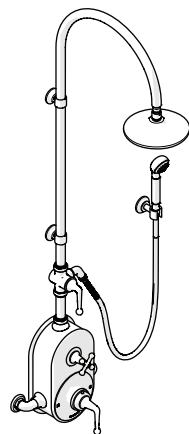
- **STYLE No. DSXS3C**
Dash Exposed Thermostatic Shower System with Metal Lever Handle
- **STYLE No. USH308**
Universal Transitional 8" Rain Showerhead



STYLE No. DSXS60

Dash Exposed Thermostatic Shower System with 8" Showerhead, Handshower, Metal Cross Diverter Handle, Metal Lever and Cross Handle

- **STYLE No. DSXS3C**
Dash Exposed Thermostatic Shower System with Metal Lever Handle
- **STYLE No. DSHS20**
Dash Handshower on Hook with Diverter and Metal Cross Handle
- **STYLE No. USH308**
Universal Transitional 8" Rain Showerhead



STYLE No. DSXS70

Dash Exposed Thermostatic Shower System with 8" Showerhead, Handshower, Metal Lever Diverter Handle, Metal Lever and Cross Handle

- **STYLE No. DSXS3C**
Dash Exposed Thermostatic Shower System with Metal Lever Handle
- **STYLE No. DSHS30**
Dash Handshower on Hook with Diverter and Metal Lever Handle
- **STYLE No. USH308**
Universal Transitional 8" Rain Showerhead

WATERWORKS

INSTALLATION GUIDELINES

STYLE No. DSXS20, DSXS30, DSXS40, DSXS50, DSXS60, DSXS70
Dash Exposed Thermostatic Shower System

IMPORTANT:

- **WARNING:** This product is large and extremely heavy. It is **STRONGLY** recommended that 2 or more persons install this product.
- To ensure this product is installed properly, you must read and follow these guidelines.
- The owner/user of this product must keep this information for future reference.
- This product must be installed by a professional licensed contractor and must be onsite prior to rough-in. This allows the installer to visualize the installation and verify the center inlet supply spread.
- Install accessible hot and cold service stop valves (not supplied) to facilitate servicing.
- This product is supplied with a THERMOSTATIC VALVE which features anti-scald protection. The risk of scalding exists until the installer has properly calibrated/adjusted the temperature setting during final trim installation.
- Adequate blocking in the wall is recommended for mounting the THERMOSTATIC VALVE and the SUPPORT BRACKETS using the 1-1/2" length WOOD SCREWS provided.
 - DRYWALL ANCHORS, intended for use in a typical 1/2" drywall installation, are provided for situations where blocking is not installed.
- 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.
- Inspect this product to ensure you have all the parts required for proper installation. Product is sold partially assembled but shown fully disassembled for illustrative and service purposes only.
- 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.

TECHNICAL DETAILS:

DETAIL	SPECIFICATION
ADJUSTABLE VERSUS FIXED SPRAY	FIXED
DIAMETER OF SHOWERHEAD	7-3/4" [197mm]
DIAMETER OF HANDSHOWER HEAD (DSXS40, DSXS50, DSXS60, DSXS70 ONLY)	2-3/8" [60mm]
DIAMETER OF TUBES	1-1/8" [28mm]
THERMOSTATIC HANDLE TURN ANGLE	ONE AND A HALF TURNS
SHUTOFF HANDLE TURN ANGLE	QUARTER TURN
DIVERTER HANDLE TURN ANGLE (DSXS40, DSXS50, DSXS60, DSXS70 ONLY)	QUARTER TURN
HANDSHOWER HOSE LENGTH (DSXS40, DSXS50, DSXS60, DSXS70 ONLY)	69" [1.75m]
INLET CONNECTION	3/4" COPPER COMPRESSION
INTEGRATED DIVERTER (DSXS40, DSXS50, DSXS60, DSXS70 ONLY)	YES
NUMBER OF HOLES	TWO
PIVOT (SHOWERHEAD ONLY)	YES
THERMOSTATIC VALVE MATERIAL	WAX ELEMENT
WATER PRESSURE RANGE	20psi [1.5 bar] MIN 85psi [6.0 bar] MAX
WATER PRESSURE RECOMMENDED	45psi [3.0 bar]

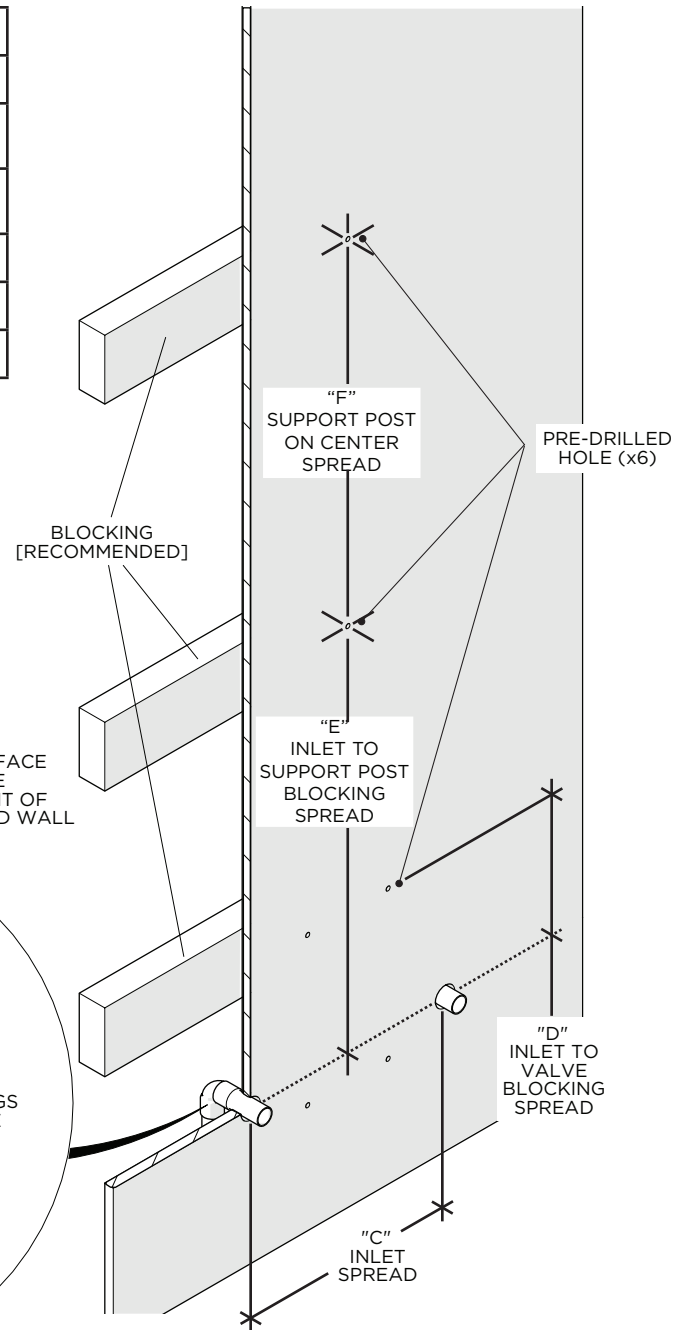
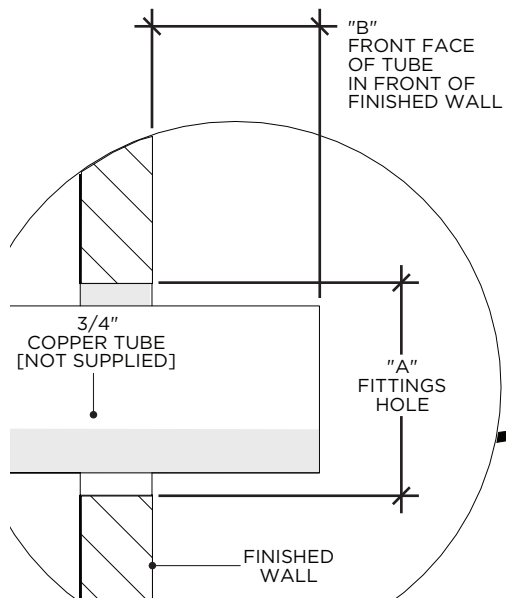
WATERWORKS INSTALLATION GUIDELINES

STYLE No. DSXS20, DSXS30, DSXS40, DSXS50, DSXS60, DSXS70
Dash Exposed Thermostatic Shower System

ROUGH-IN:

- **WARNING:** The inlet supply spread **MUST BE** between 11-1/8" [283mm] **MINIMUM** and 11-5/8" [295mm] **MAXIMUM**. The installation will be difficult or impossible if the rough-in is not accurate.
- Determine the ideal location for the VALVE and INLET ELBOWS based on user preference then, with the HOT supply on the left and the COLD supply on the right, run well supported 3/4" copper supply lines for **MAXIMUM** water flow.
- Verify the supply lines are:
 - Securely anchored/strapped
 - Level
 - Perpendicular to the finished wall
 - Parallel to each other
 - At the proper spread
 - At the appropriate and equal depths
- Adequate blocking in the wall is recommended for mounting the THERMOSTATIC VALVE and the SUPPORT BRACKETS using the 1-1/2" length WOOD SCREWS provided.
 - DRYWALL ANCHORS, intended for use in a typical 1/2" drywall installation, are provided for situations where blocking is not installed.
- Cap off the supply lines and check for leaks.
- **CAUTION:** Make sure when supply lines are cut, the cuts are straight and the edges are free of any burrs.

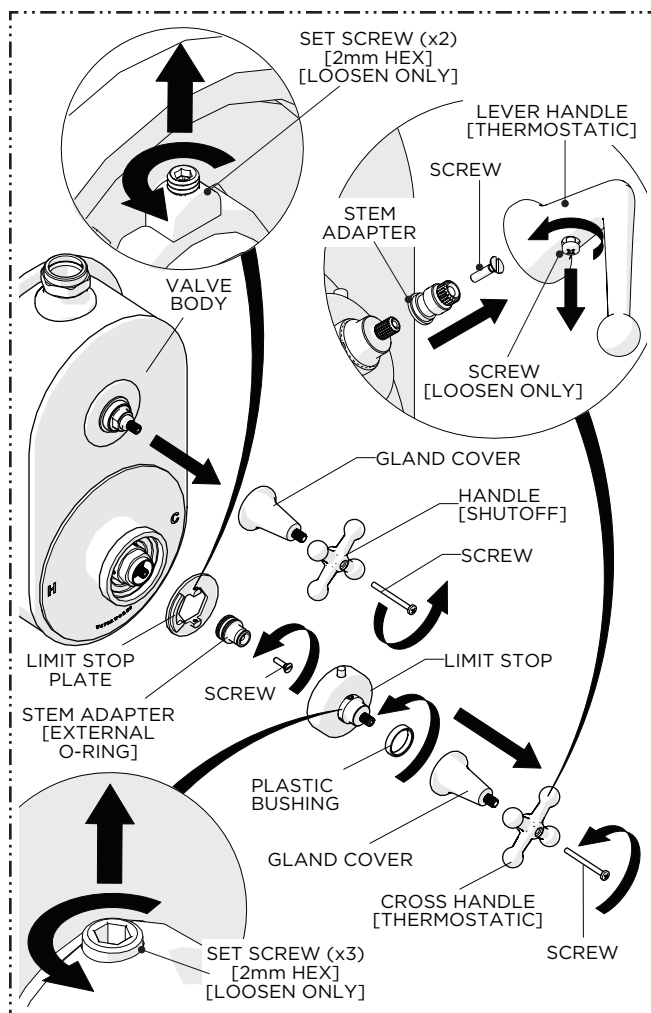
DIM	VALUE
A	1-1/8" [29mm]
B	15/16" [24mm] MAXIMUM 5/8" [16mm] MINIMUM
C	11-5/8" [295mm] MAXIMUM 11-1/8" [283mm] MINIMUM
D	7-1/8" [181mm]
E	21-11/16" [551mm]
F	19-11/16 [500mm]



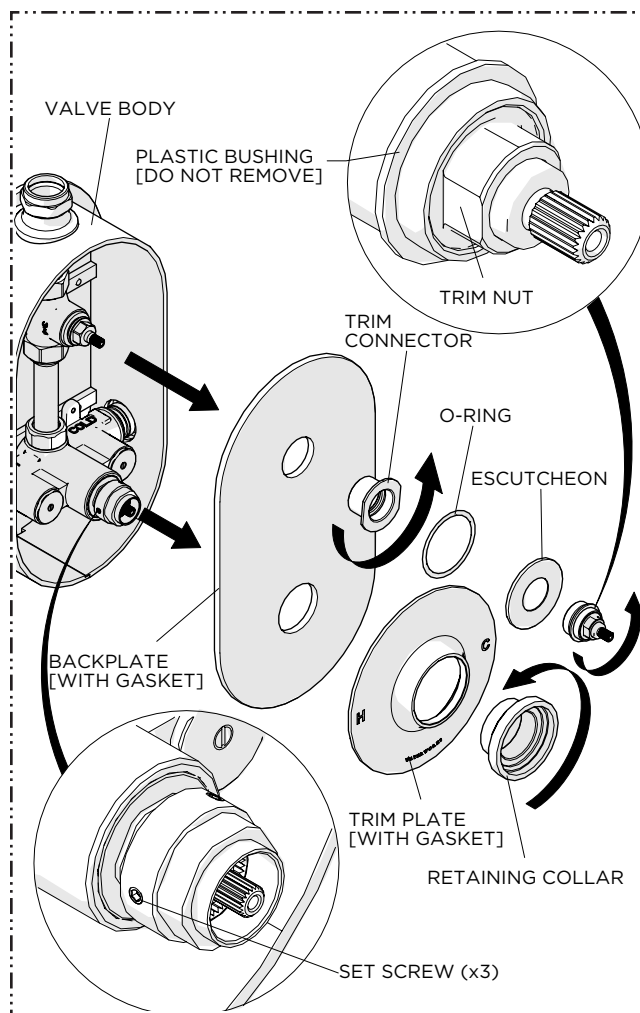
WATERWORKS

INSTALLATION GUIDELINES

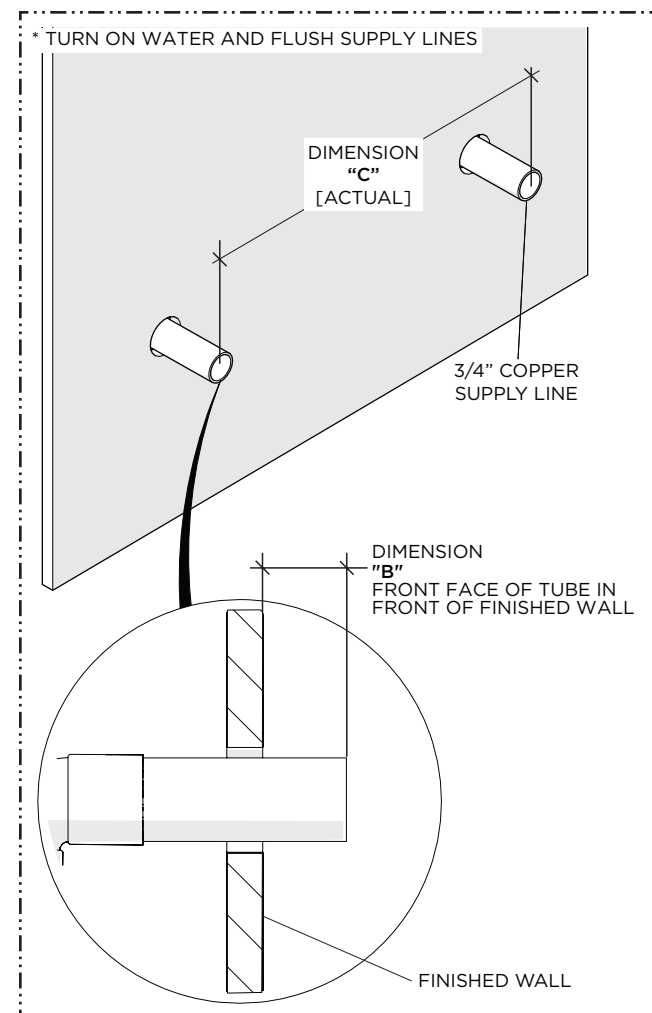
STYLE No. DSXS20, DSXS30, DSXS40, DSXS50, DSXS60, DSXS70
Dash Exposed Thermostatic Shower System



1. THERMOSTATIC HANDLE:
 - a. **CROSS:** Unthread the SCREW then remove the HANDLE and GLAND COVER or, **LEVER:** Unthread the SCREW and remove the HANDLE then unthread the SCREW and remove the STEM ADAPTER.
 - b. **LIMIT STOP:** Unthread and remove the PLASTIC BUSHING, loosen, but do NOT remove, the SET SCREWS, pull off the LIMIT STOP, unthread the SCREW, remove the STEM ADAPTER, loosen, but do NOT remove, the SET SCREW then remove the LIMIT STOP PLATE.
 - c. **SHUTOFF HANDLE:** Unthread the SCREW then remove the HANDLE and GLAND COVER.



2. THERMOSTATIC HANDLE: Unthread and remove the RETAINING COLLAR then remove the TRIM PLATE.
SHUTOFF HANDLE: Unthread and remove the TRIM NUT, remove the ESCUTCHEON and O-RING, unthread and remove the TRIM CONNECTOR, and remove the BACKPLATE.

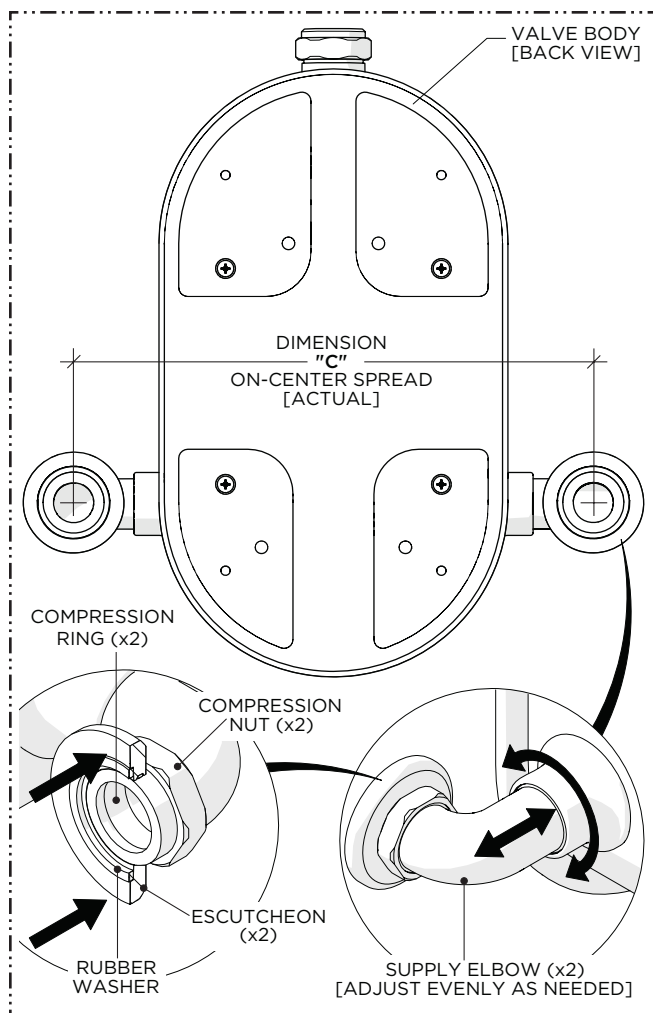


3. Measure the actual on-center spread (DIMENSION C) of the SUPPLY LINES, which MUST be between 11-1/8" [283mm] and 11-5/8" [295mm], and ensure the SUPPLY LINES protrude (DIMENSION B) between 5/8" [16mm] and 15/16" [24mm] from the surface of the finished wall.
DIMENSION C [ACTUAL]: _____

WATERWORKS

INSTALLATION GUIDELINES

STYLE No. DSXS20, DSXS30, DSXS40, DSXS50, DSXS60, DSXS70
Dash Exposed Thermostatic Shower System

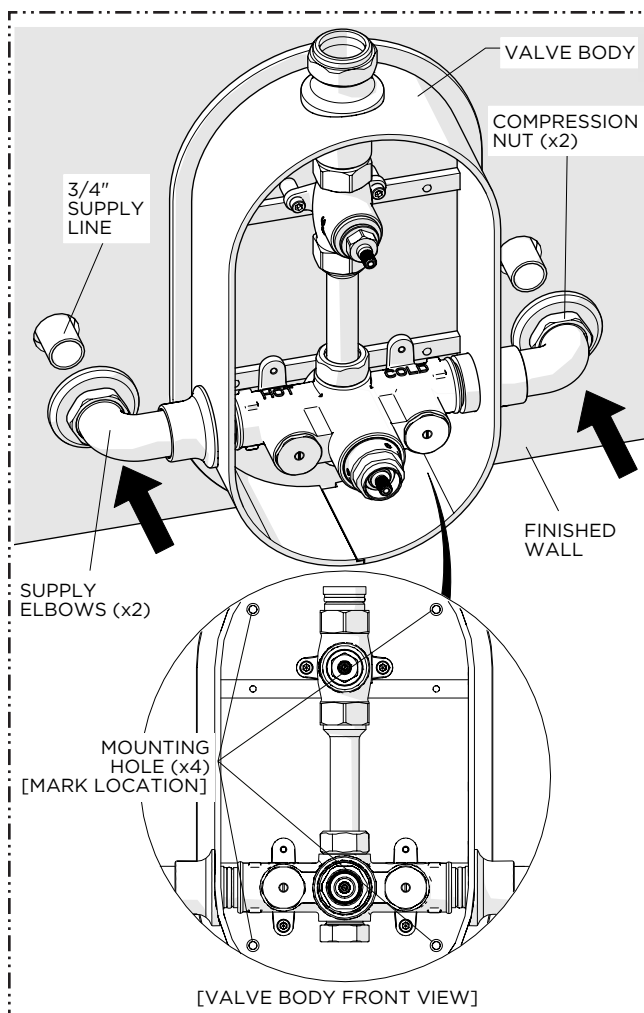


4. Push the ESCUTCHEONS against the COMPRESSION NUTS then measure the on-center spread of the SUPPLY ELBOWS (DIMENSION C).

DIMENSION C [ACTUAL]: _____

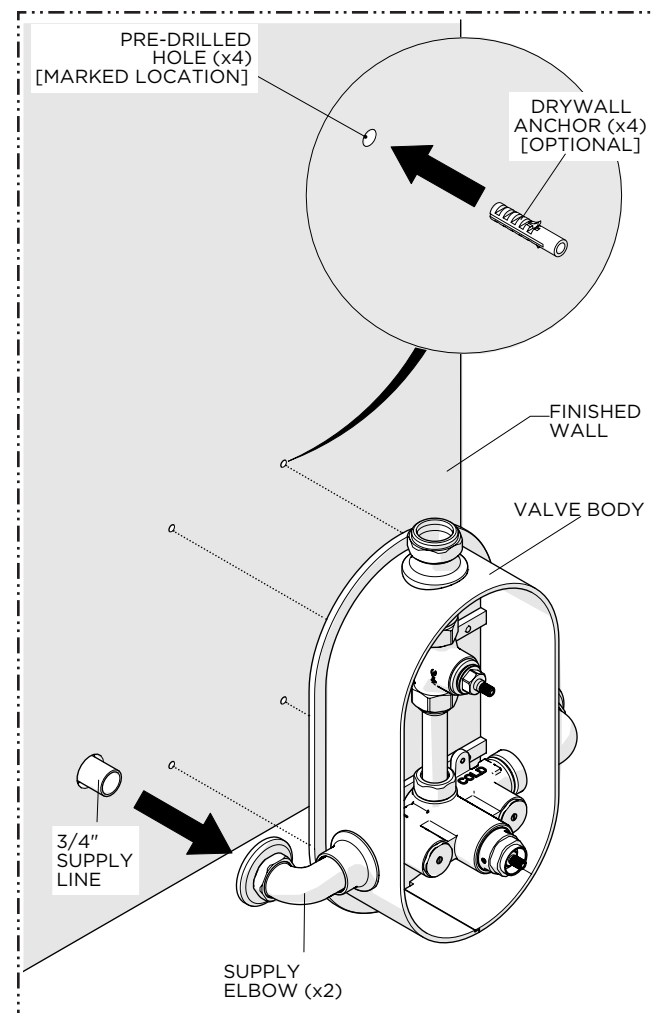
IMPORTANT: Verify the ELBOW spread is the same as the SUPPLY LINE spread and, if necessary, adjust the spread by threading and unthreading the ELBOWS from the VALVE BODY.

CAUTION: Do NOT thread or unthread one ELBOW more than the other. Adjust the ELBOWS evenly and do NOT exceed the MINIMUM or MAXIMUM spread dimensions.



5. Dry-fit the SUPPLY ELBOWS onto the SUPPLY LINES making sure the VALVE BODY sits flush against the finished wall then mark the location of the MOUNTING HOLES (x4).

NOTE: Do NOT tighten the COMPRESSION NUTS.

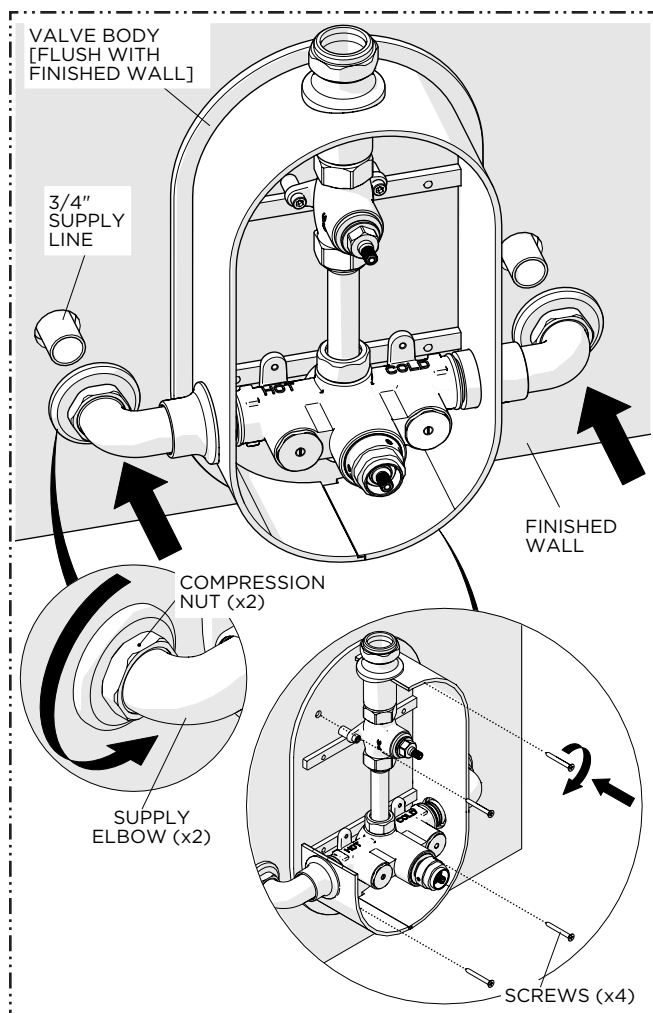


6. Remove the VALVE BODY and, using the previous marks, pre-drill holes (pilot holes) to accommodate the MOUNTING SCREWS. If necessary, install the DRYWALL ANCHORS provided where blocking is not installed.

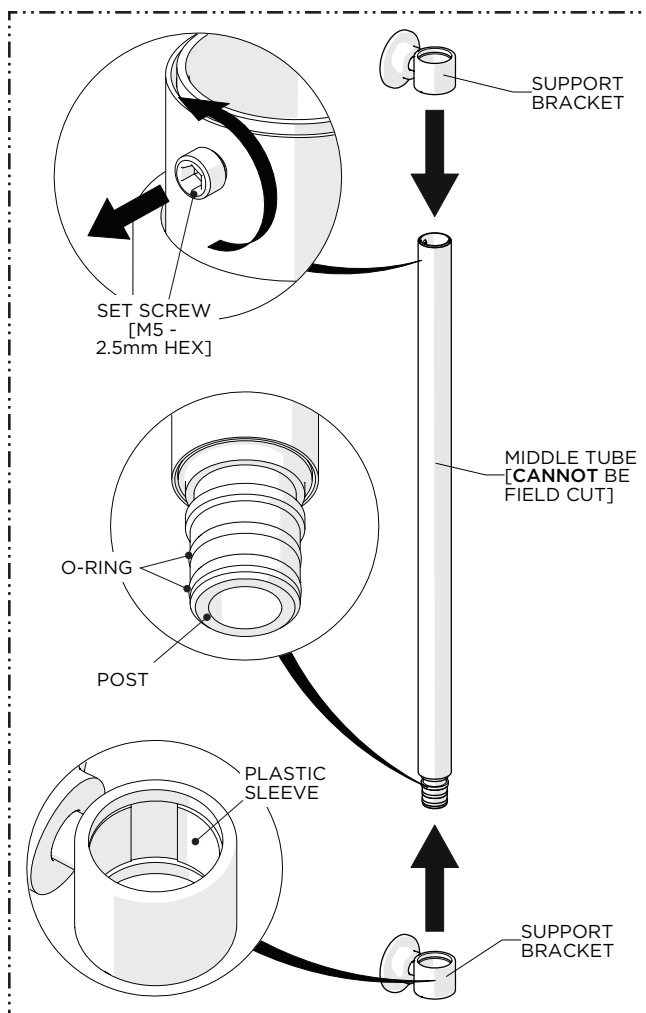
WATERWORKS

INSTALLATION GUIDELINES

STYLE No. DSXS20, DSXS30, DSXS40, DSXS50, DSXS60, DSXS70
Dash Exposed Thermostatic Shower System

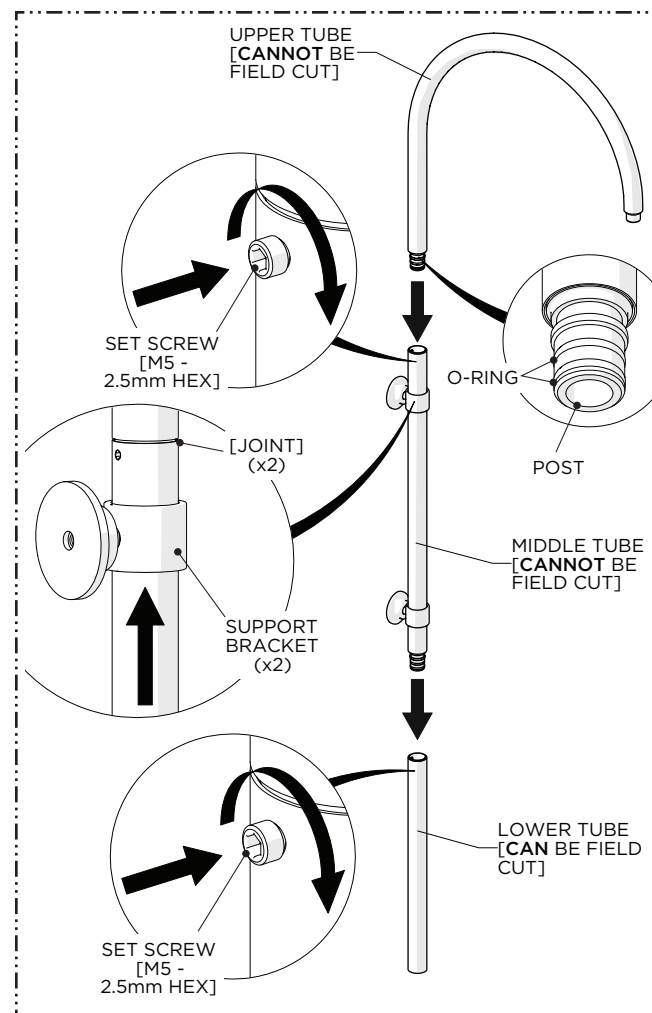


7. Fit the SUPPLY ELBOWS onto the SUPPLY LINES making sure the VALVE BODY sits flush against the finished wall and secure the VALVE BODY to the wall using the SCREWS (x4) provided then thread and securely tighten the COMPRESSION NUTS onto the ELBOWS.



8. Slide the SUPPORT BRACKETS onto the MIDDLE TUBE and loosen, but do not remove, the SET SCREW.

NOTE: The MIDDLE TUBE **cannot** be field cut.



9. **SHOWER ARM ASSEMBLY:**

- a. Assemble the LOWER, MIDDLE, and UPPER TUBES.
- b. Securely tighten the SET SCREWS.
- c. Slide the SUPPORT BRACKETS over the connection joints.

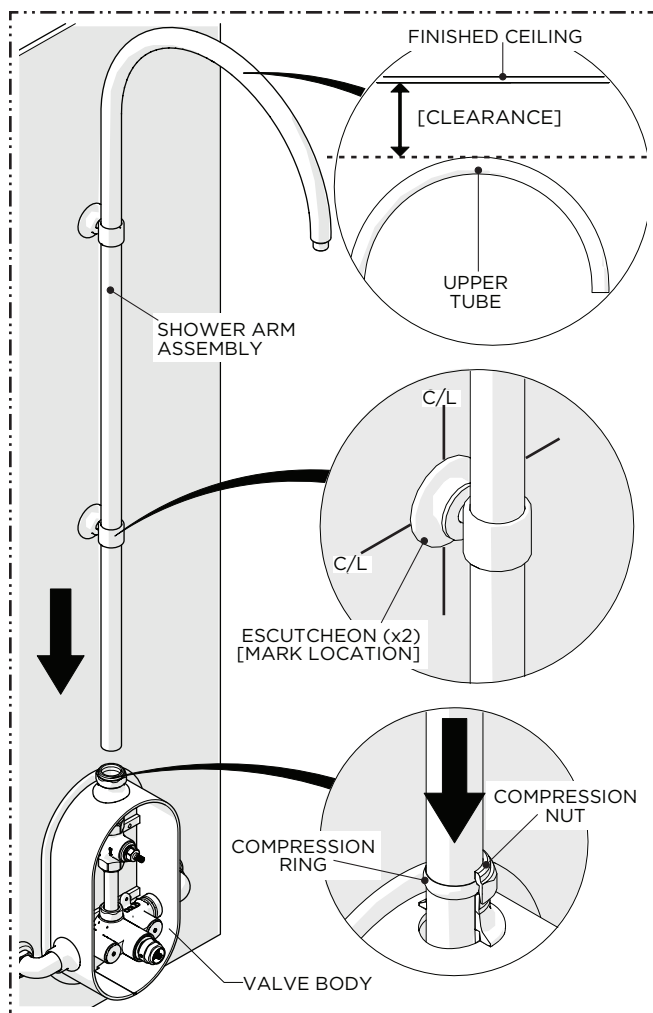
NOTE: The UPPER TUBE **cannot** be field cut.

WATERWORKS

INSTALLATION GUIDELINES

STYLE No. DSXS20, DSXS30, DSXS40, DSXS50, DSXS60, DSXS70

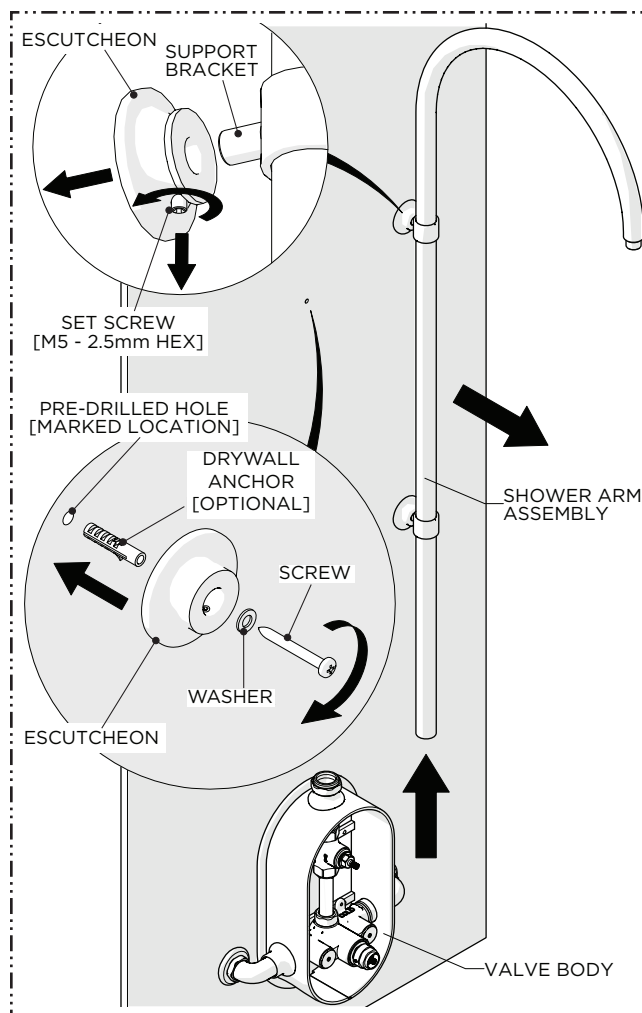
Dash Exposed Thermostatic Shower System



10. Fully insert the SHOWER ARM ASSEMBLY into the top of the VALVE BODY making sure there is enough clearance between the top of the ASSEMBLY and the finished ceiling.

Ensure the ESCUTCHEONS for the SUPPORT BRACKETS sit flush against the finished wall then mark the location of the ESCUTCHEONS.

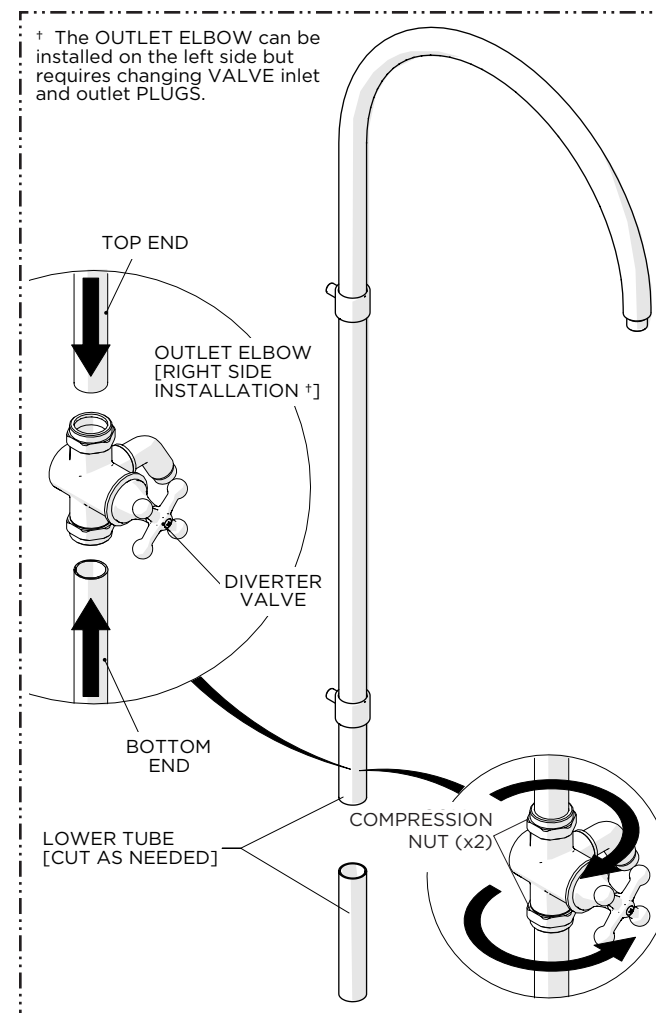
NOTE: If necessary, the LOWER TUBE of the SHOWER ARM ASSEMBLY **CAN** be field cut to a desired height, based on the user preference or to ensure enough ceiling clearance.



11. Remove the SHOWER ARM ASSEMBLY and loosen, but do NOT remove, the SET SCREW on the bottom of the SUPPORT BRACKET ESCUTCHEONS. Then, using the previous marks, pre-drill a hole (pilot hole) to accommodate the MOUNTING SCREWS and, if blocking is not installed, install the DRYWALL ANCHORS provided.

Mount the ESCUTCHEONS to the finished wall using the SCREWS and WASHERS provided.

NOTE: The ESCUTCHEONS should be installed with the SET SCREWS towards the bottom but the orientation may be changed to accommodate difficult installations.



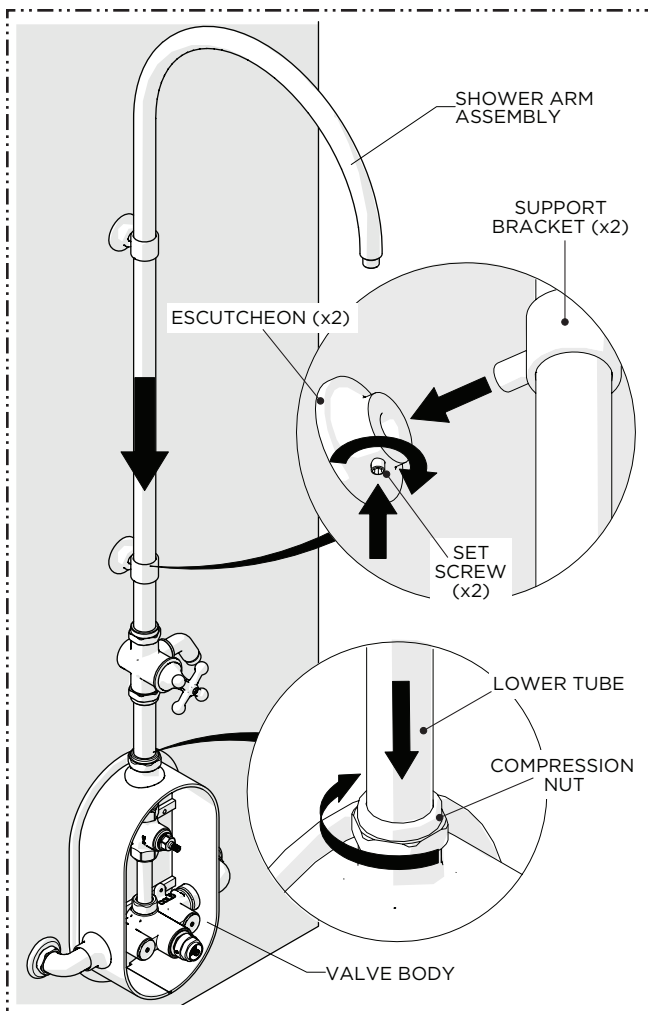
- **STEPS 12 - 16 OPTIONAL: DIVERTER VALVE WITH HANDSHOWER (PACKAGED SEPARATELY)**

12. The DIVERTER VALVE can only be installed on the LOWER TUBE. Determine the desired location for the DIVERTER VALVE and cut the LOWER TUBE making sure the cuts are straight and the edges are free of any burrs then fully insert the ENDS into the DIVERTER VALVE and securely tighten the COMPRESSION NUTS.

WATERWORKS

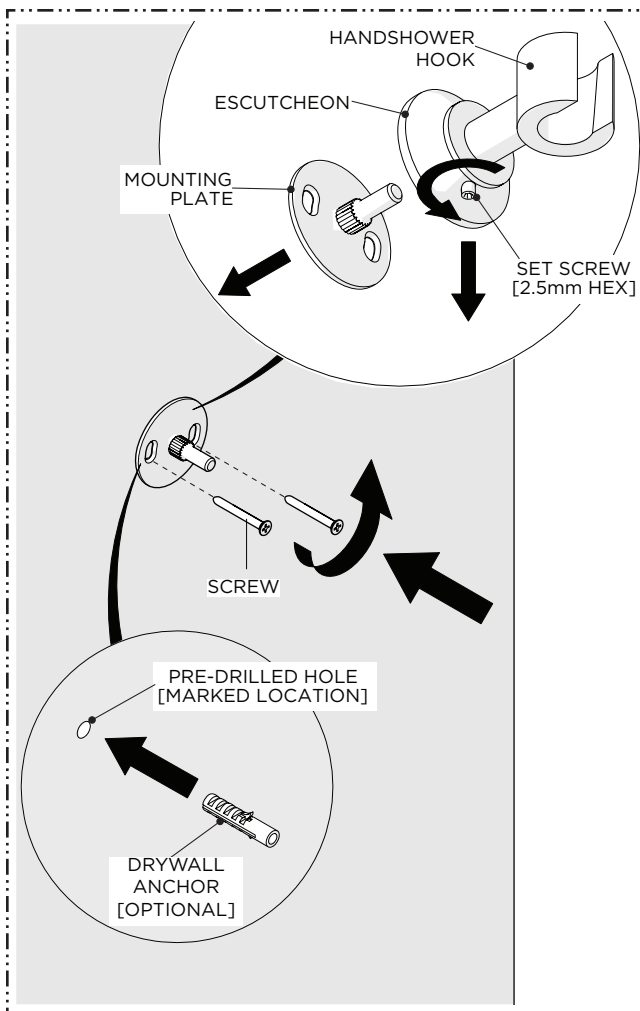
INSTALLATION GUIDELINES

STYLE No. DSXS20, DSXS30, DSXS40, DSXS50, DSXS60, DSXS70
Dash Exposed Thermostatic Shower System

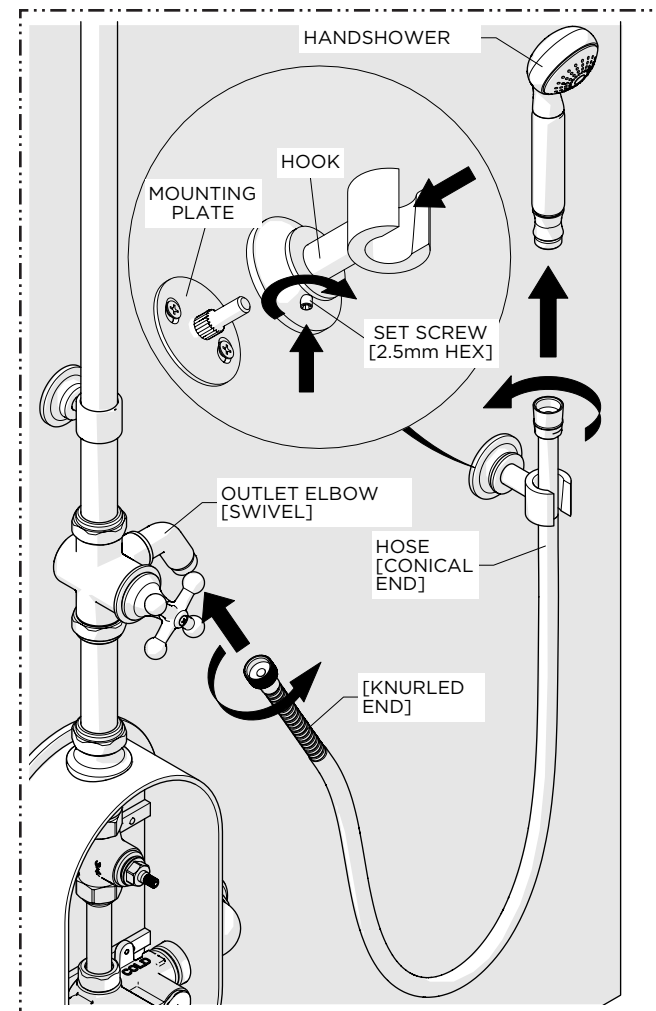


13. Fully insert the **SHOWER ARM ASSEMBLY** back into the top of the **VALVE BODY** making sure the **SUPPORT BRACKETS** are fully inserted into the **ESCUTCHEONS** then thread and securely tighten the **SET SCREWS**.

Ensure the **SHOWER ARM ASSEMBLY** is properly aligned then thread and securely tighten the **COMPRESSION NUT** on the top of the **VALVE BODY**.



14. Loosen, but do NOT remove, the **SET SCREW** on the **HANDSHOWER HOOK** to remove the **MOUNTING PLATE** then determine the ideal and/or desired location for the **HOOK** and secure the **MOUNTING PLATE** using the **SCREWS** provided. If blocking is not installed, install the **DRYWALL ANCHOR** [OPTIONAL].



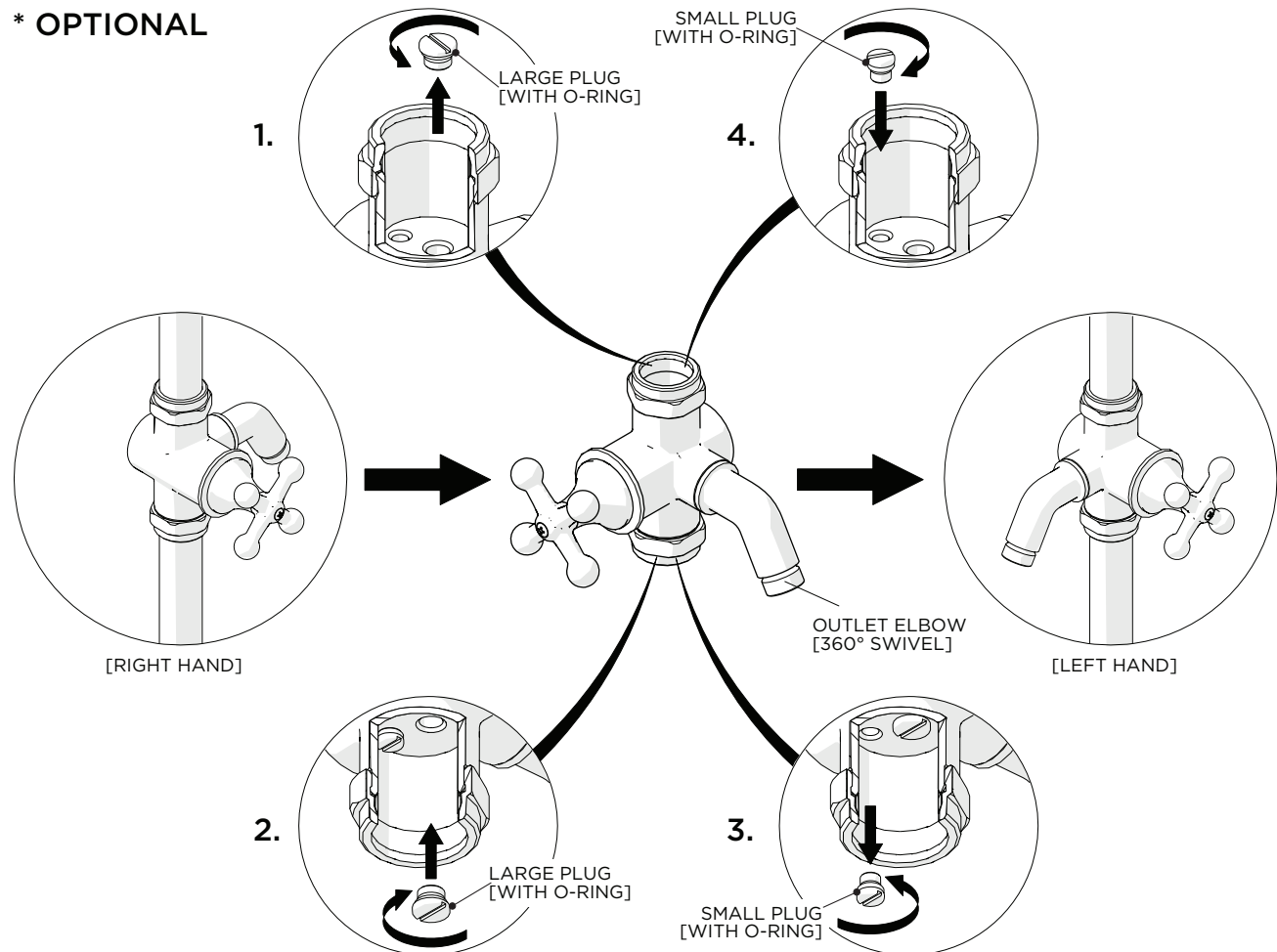
15. Place the **HOOK** onto the **MOUNTING PLATE** and securely tighten the **SET SCREW** then connect the **HOSE** to the **HANDSHOWER** and **DIVERTER VALVE** and place the **HANDSHOWER** on the **HOOK**.

WATERWORKS

INSTALLATION GUIDELINES

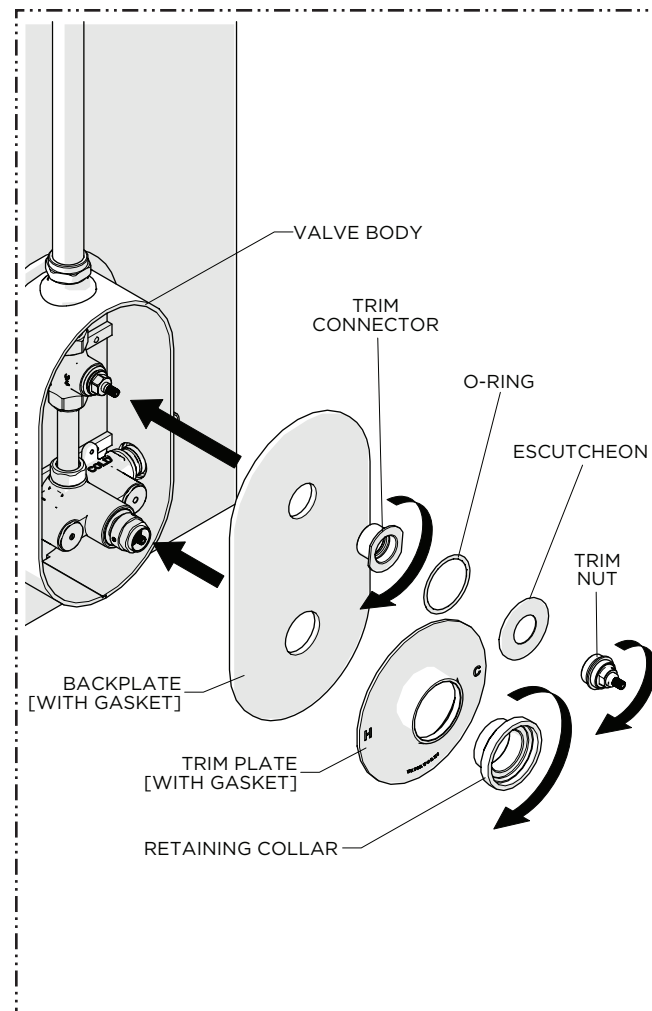
STYLE No. DSXS20, DSXS30, DSXS40, DSXS50, DSXS60, DSXS70
Dash Exposed Thermostatic Shower System

* OPTIONAL



➤ **NOTE: THE DIVERTER VALVE IS SET FOR A RIGHT HAND INSTALLATION OF THE OUTLET ELBOW. IF A LEFT HAND INSTALLATION IS DESIRED, THE LARGE AND SMALL PLUGS MUST BE SWAPPED.**

16. Unthread and remove the LARGE PLUG then thread and securely tighten it into the OPPOSITE side of the VALVE. Unthread and remove the SMALL PLUG then thread and securely tighten it into the OPPOSITE side of the VALVE. Ensure both PLUGS are securely tightened to prevent leaks then rotate the OUTLET ELBOW to the correct position.



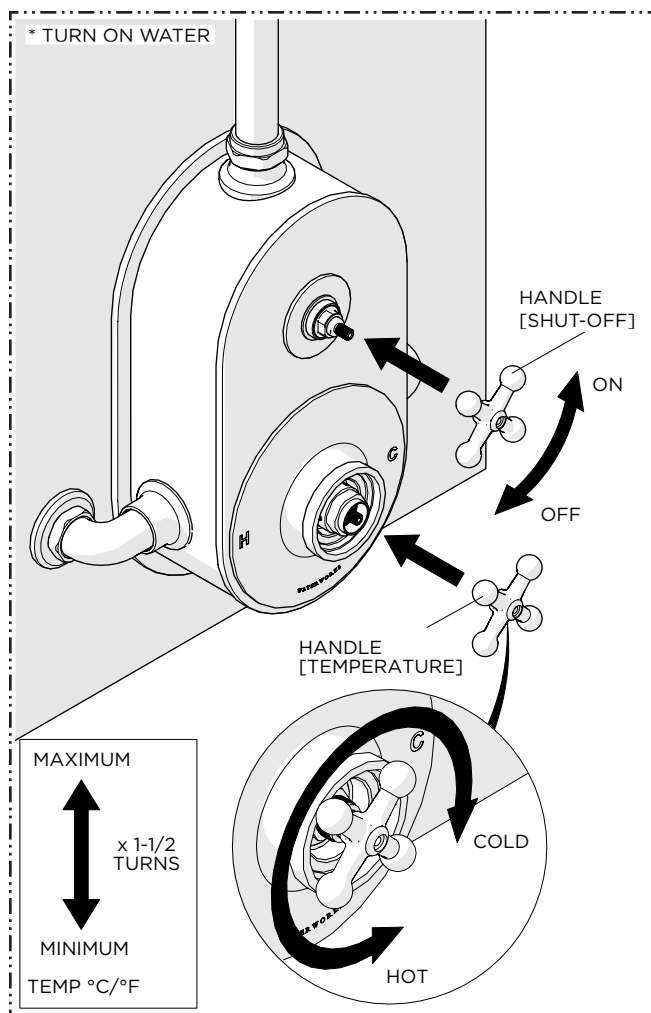
17. Slide the BACKPLATE over the VALVE BODY with the larger hole towards the bottom then:

- Thread and hand-tighten the TRIM CONNECTOR onto the VALVE.
- Hold the TRIM PLATE against the BACKPLATE then thread and securely tighten the RETAINING COLLAR onto the VALVE.
- Securely tighten the TRIM CONNECTOR and place the ESCUTCHEON and O-RING over the CONNECTOR then thread and securely tighten the TRIM NUT into the TRIM CONNECTOR.

WATERWORKS

INSTALLATION GUIDELINES

STYLE No. DSXS20, DSXS30, DSXS40, DSXS50, DSXS60, DSXS70
Dash Exposed Thermostatic Shower System

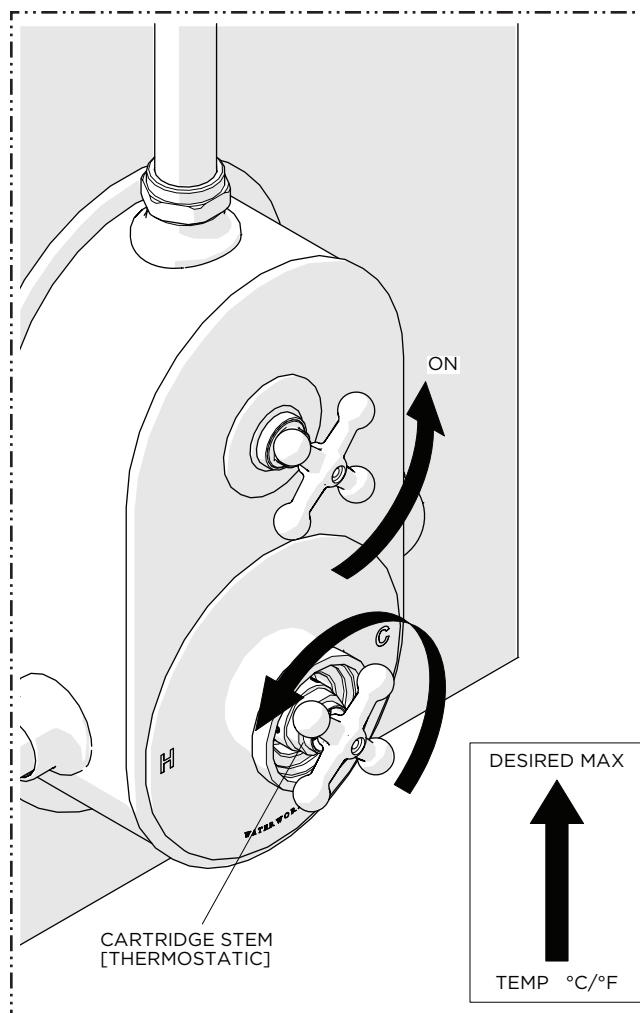


18. Turn on the water supply and open the SHUTOFF VALVE to run water through the THERMOSTATIC VALVE, flush out any debris in the SUPPLY LINES, and check for leaks.

Slowly rotate the CARTRIDGE STEM on the THERMOSTATIC VALVE clockwise to attain full cold then counterclockwise to attain full hot. It's approximately 1-1/2 rotations. Verify a full range of temperatures exists.

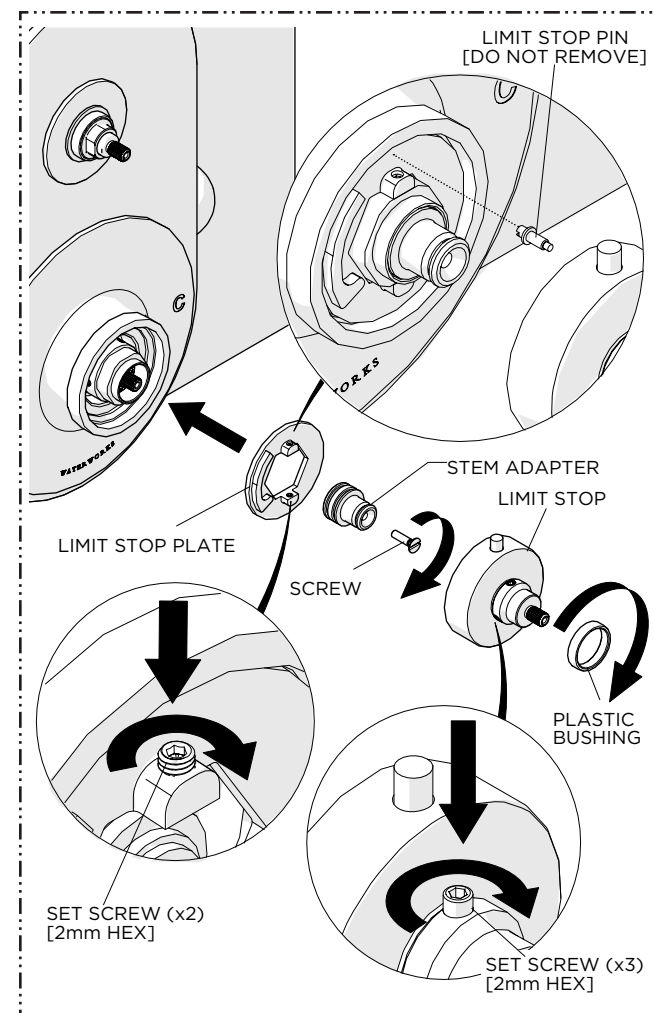
MAXIMUM TEMPERATURE: _____

MINIMUM TEMPERATURE: _____



19. With water running, rotate the CARTRIDGE STEM on the THERMOSTATIC VALVE to adjust the temperature to the **maximum** desired bathing temperature, verified with a thermometer. Turn the water off and make sure not to change this setting.

DESIRED MAXIMUM TEMPERATURE: _____



20. Place the LIMIT STOP PLATE onto the THERMOSTATIC VALVE in the desired orientation, securely tighten the SET SCREW (x2), place the STEM ADAPTER onto the CARTRIDGE then secure it using the SCREW provided.

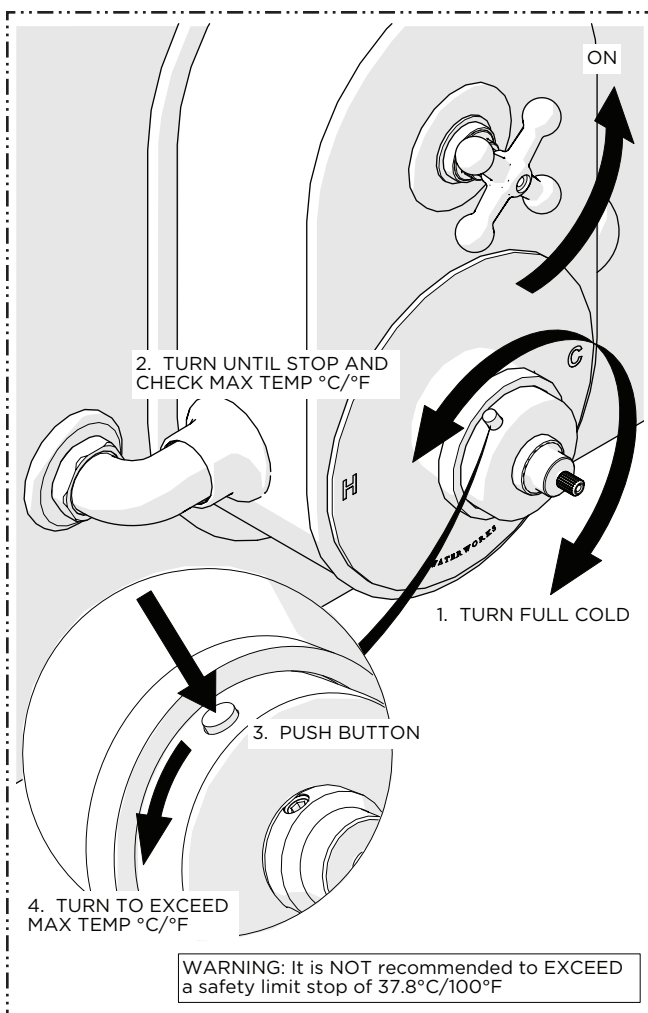
Place the LIMIT STOP over the STEM ADAPTER making sure the LIMIT STOP PIN makes contact with the LIMIT STOP PLATE then securely tighten the SET SCREWS and thread the PLASTIC BUSHING onto the LIMIT STOP.

NOTE: Adjust the position of the LIMIT STOP PLATE to achieve the desired orientation of the LIMIT STOP BUTTON.

WATERWORKS

INSTALLATION GUIDELINES

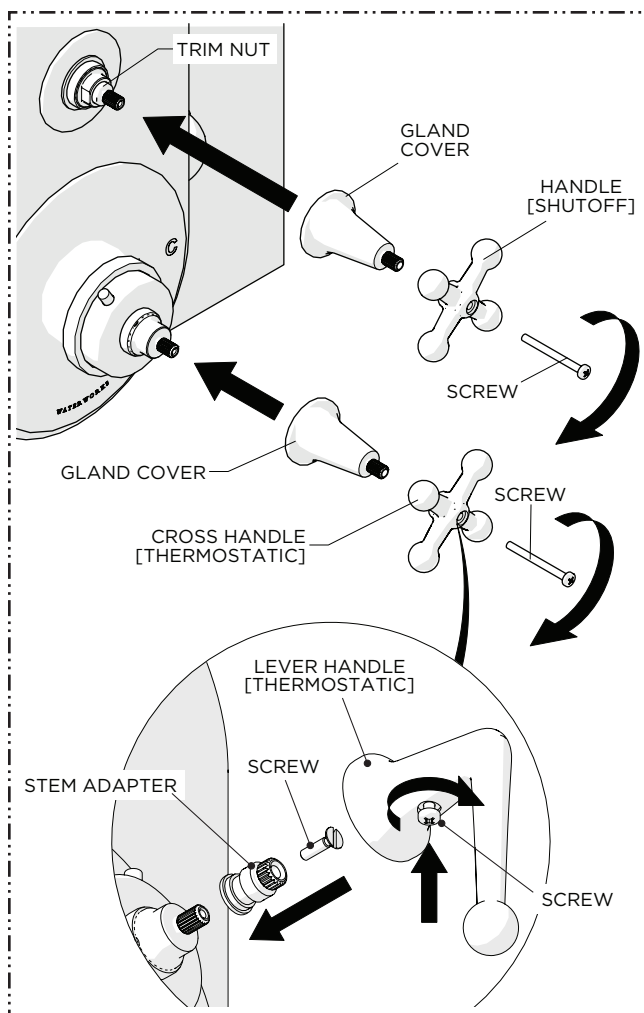
STYLE No. DSXS20, DSXS30, DSXS40, DSXS50, DSXS60, DSXS70
Dash Exposed Thermostatic Shower System



21. Turn the LIMIT STOP to cold then hot and confirm it is functioning properly. Verify the **maximum** desired bathing temperature previously set.

To get a hotter temperature, press and hold the LIMIT STOP BUTTON and turn the LIMIT STOP until it stops. Shut the water off.

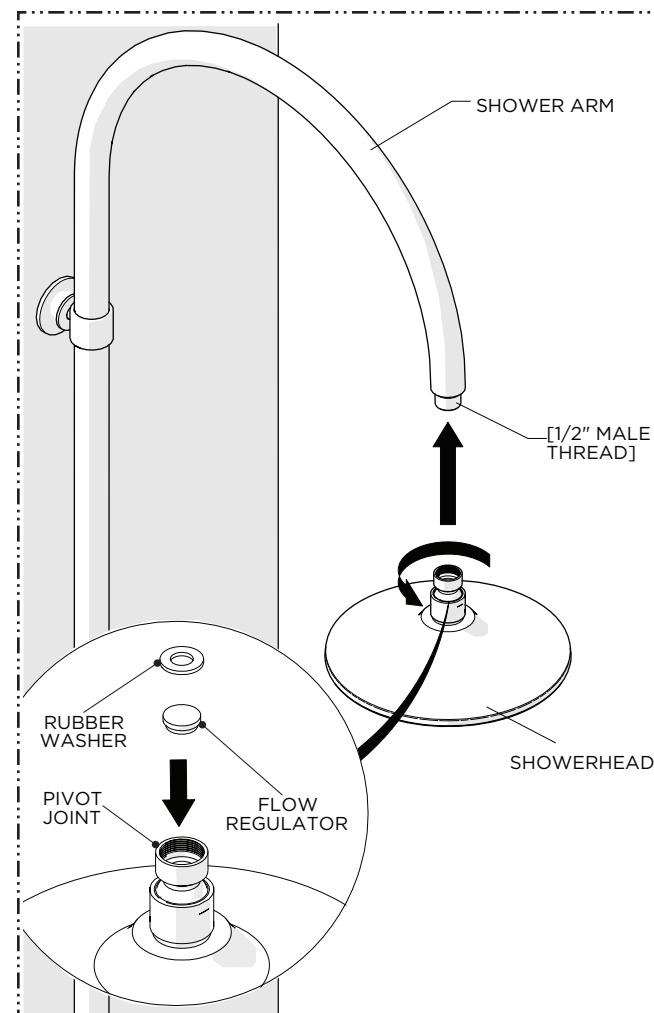
WARNING: It is NOT recommended to exceed a safety limit stop of 37.8°C/100°F.



22. THERMOSTATIC HANDLE:

- a. **CROSS:** Place the GLAND COVER onto the LIMIT STOP making sure it is fully seated and place the HANDLE onto the GLAND COVER in the desired orientation then thread and securely tighten the SCREW.
- LEVER:** Place the STEM ADAPTER onto the LIMIT STOP and secure it using the SCREW provided then place the HANDLE over the ADAPTER in the desired orientation and thread and securely tighten the SCREW.

SHUTOFF HANDLE: Place the GLAND COVER onto the TRIM NUT making sure it is fully seated and place the HANDLE onto the GLAND COVER in the desired orientation then thread and securely tighten the SCREW.



23. Insert the RUBBER WASHER into the PIVOT JOINT on the SHOWERHEAD (packaged separately) then thread and securely tighten the PIVOT JOINT onto the SHOWER ARM.

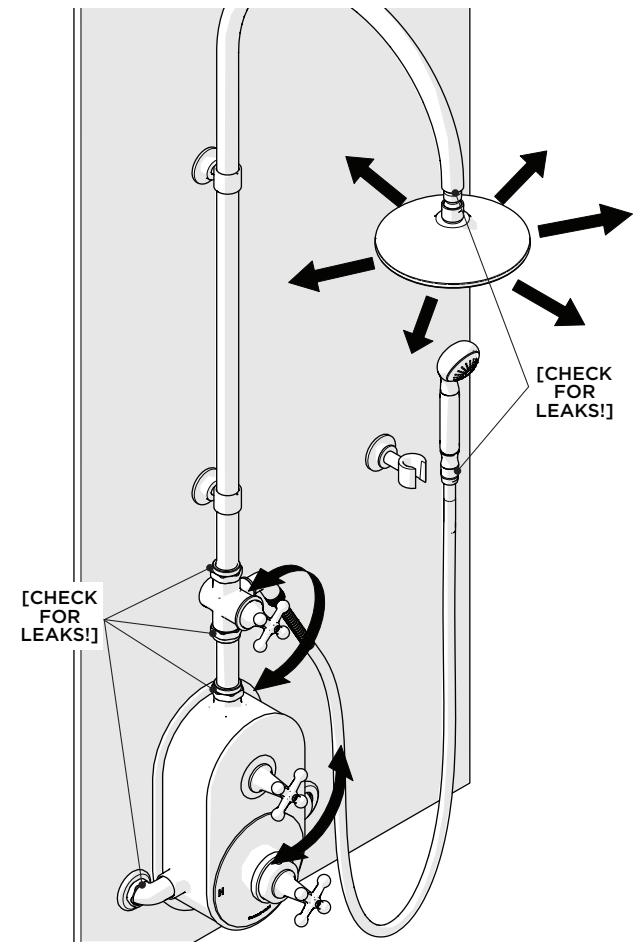
NOTE: A FLOW REGULATOR is located in the PIVOT JOINT.

WATERWORKS

INSTALLATION GUIDELINES

STYLE No. DSXS20, DSXS30, DSXS40, DSXS50, DSXS60, DSXS70
Dash Exposed Thermostatic Shower System

* TURN ON WATER AND CHECK ALL CONNECTIONS FOR LEAKS!

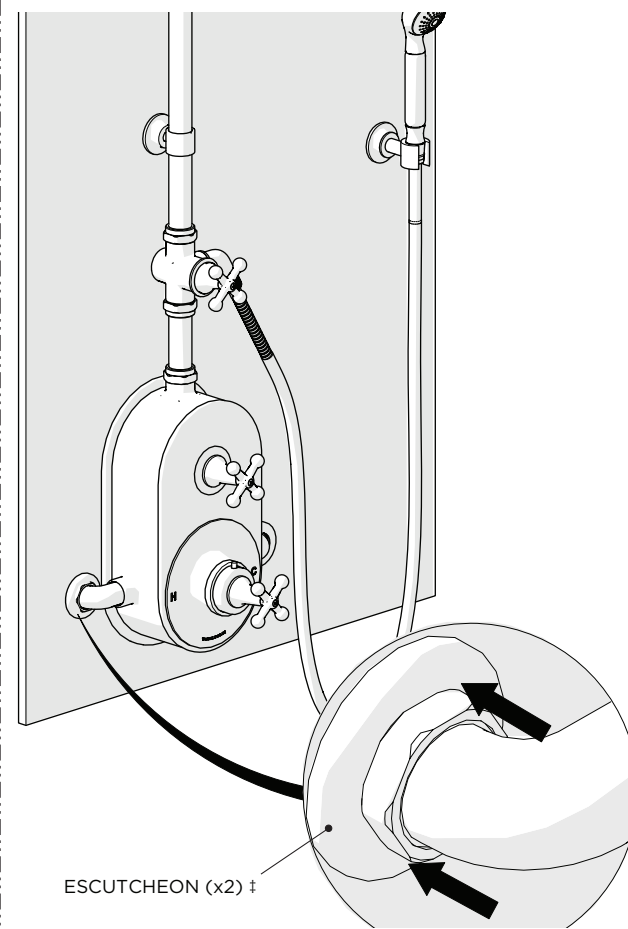


24. Turn on the water and operate the SHOWERHEAD to ensure it pivots and functions properly.

OPTIONAL: Operate the DIVERTER VALVE HANDLE to ensure it diverts and functions properly.

Inspect all connections for leaks then turn the water off.

‡ FOAM WASHERS for the ESCUTCHEONS are provided. If desired, a bead of caulk or a clear silicone may be applied where the ESCUTCHEONS contact the finished wall.



25. Slide the ESCUTCHEONS onto the INLET ELBOWS against the finished wall.