STEAMIST®

ShowerSense Valve (Product Code 9370) — Model: TSSH

Specifications:

Pressure, Max inlet: 125 psi, 862 kPa, 8.6 bar

Max Inlet Temperature: 158°F (70°C), recommended inlet temperature 122°F (50°C)

Temperature Setting: Max 120°F (49°C), Min 60°F (16°C)

Max Temperature Limit is adjustable 81-120°F (27-49°C)

Temperature Stability: +/- 2°F (1°C)

Minimum Flow: For use with shower heads rated at 1.0 gpm (3.8 lpm) or higher.

Maximum Free Flow Characteristic Test conditions:
- Outlet Temperature 100°F (38°C)
- Cold Water Inlet Temperature 59°F (15°C)
- Hot Water Inlet Temperature 149°F (65°C)
- Inlet 45 PSI

1 Outlet Free Flow outlet 6.5 GPM
2 Outlets Free Flow outlet 8.7 GPM*
3 Outlets Free Flow outlet 9.1 GPM*

*Due to CALGreen limitations only 1 outlet at a time may be used.

Electrical power: 120V, 15A outlet required

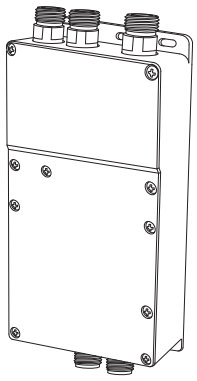
Shower Valve input voltage: 12 – 15 VDC

Power consumption:

- Operating Mode – 1-12 W
- Shower Valve Off – 50 mW

IP Protection Rating: IPX5

Figure 1



TSSH
Shower Valve

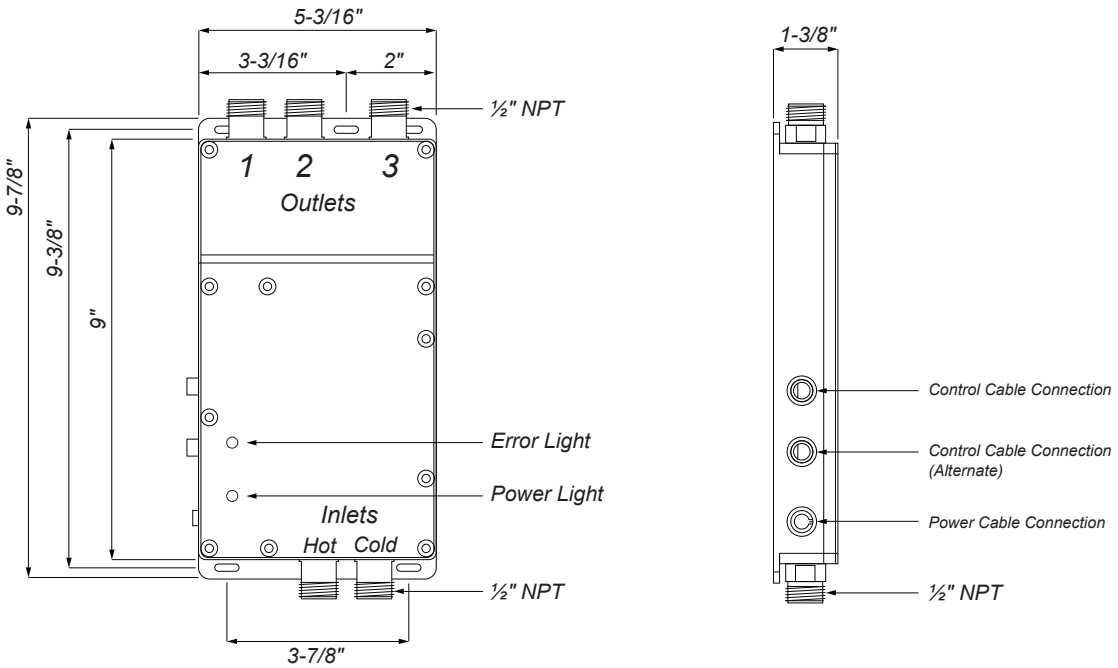
Compliance: Shower Valve is cUL listed, ASSE listed and complies with ASME A112.16 2011/CSA B125.3-11, ASSE 1016-2011, and EN1111

WARNING!: Prior to installing the Digital Shower Valve, flush pipes completely eliminating any debris in the lines.

For long life it is highly recommended to install high flow filters to the hot and cold inlet or a whole house filter.

All plumbing and electrical work MUST conform to the applicable local codes and all work is intended to be performed by licensed contractors.

Figure 2



ShowerSense Valve Installation Instructions — Model: TSSH

Rough-In *(Figure 7)*

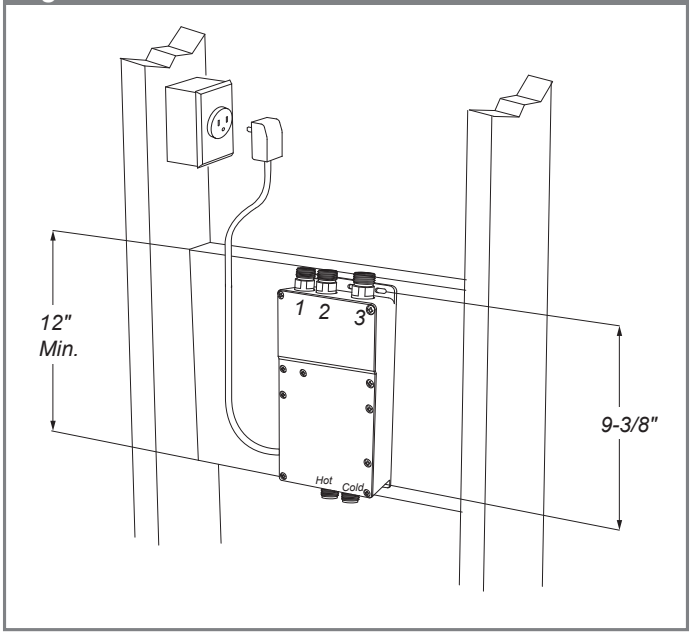
IMPORTANT: Do not install this valve under a whirlpool tub or any area which the ambient temperatures may exceed 104°F (40°C). Also do not install the valve in an area subject to freezing. If the valve is installed in a wall cavity or any type of enclosure an access door MUST be provided for service.

IMPORTANT: Do not solder any pipes connected to the inlets or outlets. To do so will damage the valve and void warranty. Sweat all fittings prior to threading them on the inlet and outlet connections.

IMPORTANT: Do not use anything on the pipe threads that may get into the valve. Do not use oil based products or plumbers putty on the threaded connections.

1. *Select a mounting location for the digital shower valve. This should be located in close proximity to the outlets in the shower. The location MUST be accessible for service and MUST NOT be buried inside a wall. The location requires a power outlet to plug the power adapter into. This location MUST NOT be subject to freezing or temperatures in excess of 104ºF (40ºC). The shower valve outlets are configurable to match the installation and do not need to be arranged in any particular order. Note: If mounted between the studs of a wall as shown (Figure 3), a service door MUST be used to close the wall and allow for access.*
2. *Pipe a dedicated ½" min hot and cold water supply to this location.*
3. *Plumb the shower outlet connections with ½" pipe to this location.*
4. *Install an electrical outlet near the valve mounting location.*
5. *Select a location for the TSC-450 control. This location should be convenient while using the shower and also be convenient while sitting down and enjoying the steam bath. Recommended height is approximately 4-1/2 feet when used for both.*

Figure 3



6. *Routing the control cable from the TSC-450 location directly to the valve before connecting the control to any other accessory or steam generator is strongly recommended. Routing the control this way permits the use of an uninterruptable power supply to power the digital shower valve if there is a power failure to the home.*

Installation

1. *After the walls are completed securely fasten digital shower valve in the intended location.*
2. *Before connecting the hot and cold supply lines, flush out the lines thoroughly to prevent any debris in the lines from getting into the shower valve. The hot and cold connections may be plumbed with copper pipe or other approved water supply lines. For maximum flow ½" minimum ID MUST be maintained. When using copper pipe, unions are required to facilitate service and to allow the connection to be screwed to the shower valve after it is sweated together. Never sweat any fittings attached to the valve.*

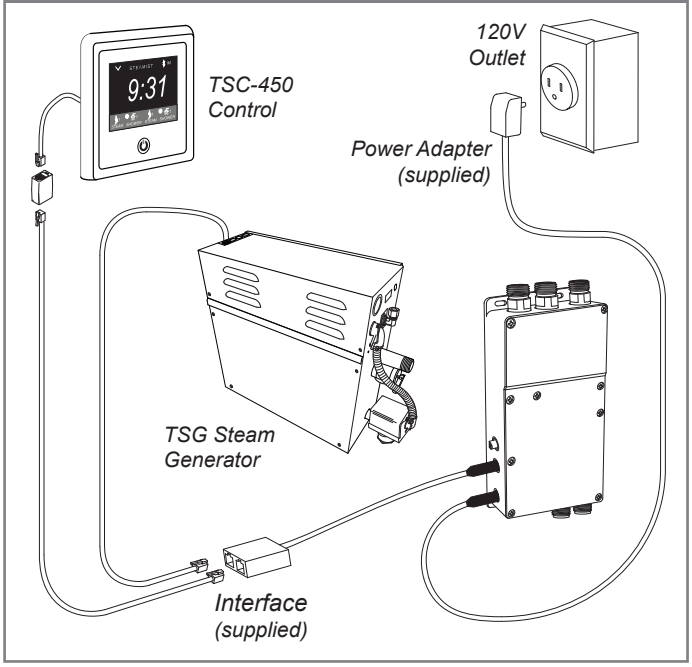
IMPORTANT: Provided strainer must be used on water inlet connections, or warranty is void.

3. *The outlet connections may be plumbed with copper pipe or other approved water supply lines. For maximum flow ½" minimum ID MUST be maintained. When using copper pipe, unions are required to facilitate service and to allow the connection to be screwed to the shower valve after it is sweated together. Never sweat any fittings attached to the valve. ½" FIP swivel type connections may be used to attach the pipe to the shower valve outlets.*

IMPORTANT: Any unused outlets MUST be capped to prevent damage to the home.

4. *If the TSC-450 is not already installed, install it according to the instructions provided with the control.*
5. *Connect the TSC-450 control to the shower valve as shown. If there are additional Steamist components*

Figure 4



connect them to the control through the shower cable adapter. See the separate instruction that were supplied with the TSC-450 control for additional installation information.

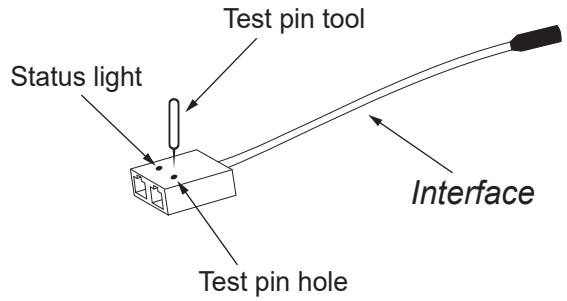
6. Once the installation is complete turn the water supply on and look for leaks. If there are no leaks, follow the pressure test procedure below, before connecting the power Interface for the Digital Shower Valve.

Pressure testing the Digital Shower Valve

1. Make sure that ALL unused outlets are capped.
2. Connect the Interface (cable/connector) to the valve (Figure 5).
3. Do NOT connect other control cable(s) to the Interface.
4. Connect 120Volt power to the valve (it is normal to hear a mechanical sound from the valve on power up).
5. The Interface will display a blinking light, one second on, one second off, indicating power.
6. Pressurize both, Hot and Cold inlet lines to the valve.
7. Depress a switch on the Interface by inserting a pin tool (supplied) into a pin hole of the Interface .
8. The slow blinking light on the Interface will now blink fast and ALL three outlets will open.
9. Outlets will remain open until either the 120V power to the valve is turned off or the User control is plugged into the Interface.
10. After the pressure test is complete, plug the power Interface into the Digital Shower Valve as is it now ready to be used.

Note: The User control cancels the ability to perform the above pressure test and must be disconnected to run the above test procedure.

Figure 5



Testing and operation of the ShowerSense system (for the Contractor)

IMPORTANT: These instructions are to supplement the operating instructions that come with the TSC-450 control.

NOTE: The first time the TSC-450 is used to activate a shower cycle you will be taken directly to the valve set up screen.

1. Select a shower cycle by pressing Shower 1 or Shower 2. You should immediately be taken to the valve set up screen. If not, this screen can be accessed through the tools menu. See the TSC-450 instructions for this.
2. In the shower set up screen press the up arrow button until the icon most closely matches the appropriate fixture. When one or two outlets are not used, select off for the unused outlet(s). Press return and the setup process is done. This screen can always be accessed through the tools menu should you need to make further adjustments.
3. From the shower screen you can test the function of the valve and also check the outlets for leaks.
4. After running water for a minute or two, touch the hot and cold supply lines going to the shower valve and make sure they are not reversed. Check closely for leaks.
5. Continue running the water and make sure the desired temperature is reached.
6. Adjusting the temperature limit setting: The Maximum temperature limit is factory set to 120ºF (49ºC). The limit setting can be lowered to any temperature from 80-120°F (27-49°C). To adjust this setting start a shower by either pressing shower 1 or 2, the adjustment will be made for both. Then Press the thermometer icon and hold it for about 10 seconds until it starts flashing. When it is flashing, it is displaying the maximum limit setting. Use the +/- buttons to adjust it to the desired temperature and press the thermometer icon again to lock it in. The new limit is now set for both users.

Battery Back-up: If desired, the Digital Shower Valve may be connected to a common uninterruptable power supply (UPS), used for computers and electonics. The Valve uses very little electricity and even a small UPS would last for hours. For extended power interruptions, turn the 450 clock display to Off with the power switch. Setting the display black (Off) will conserve battery life. Stand-by

Figure 6

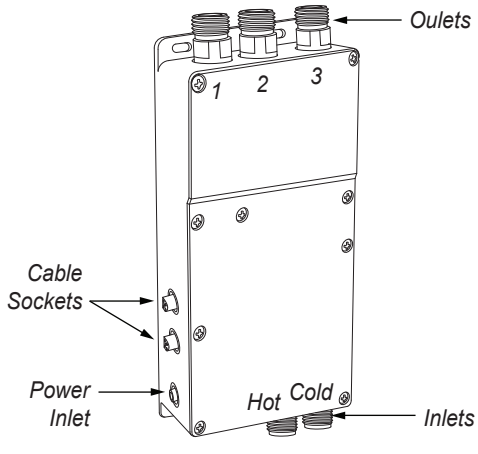
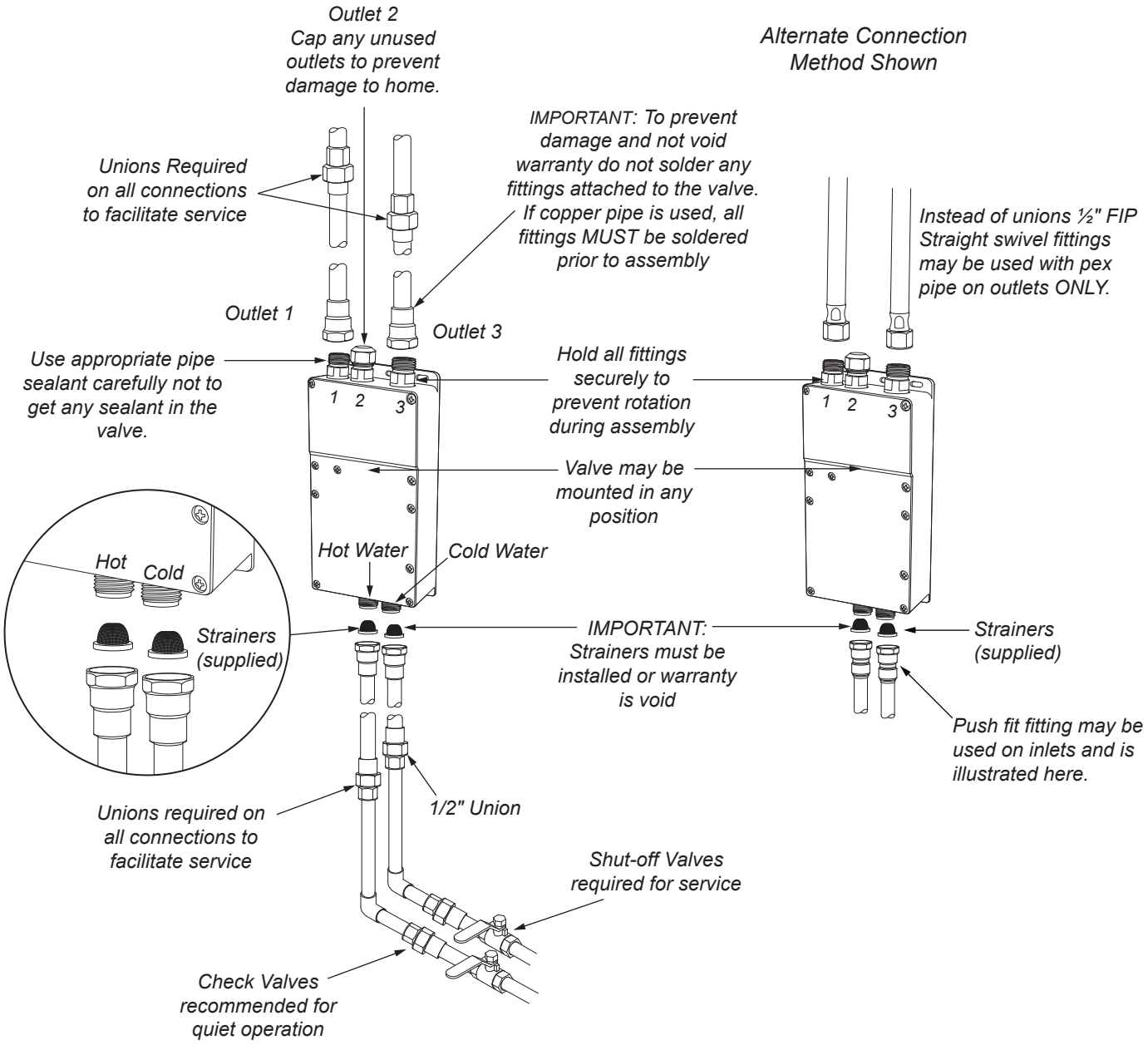


Figure 7 Model: TSSH



IMPORTANT: Shower valve MUST be accessible for service. Unions are required to facilitate replacement. Shower valve MUST be protected from freezing temperatures. Cap any unused outlets.