

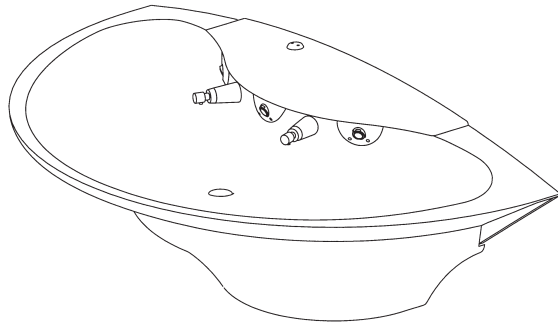
# Installation

## CRS-2/IR, CRS-3/IR

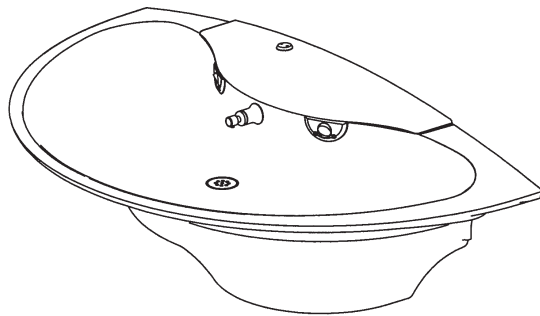
Express® Crescent® Lavatory System

CRS-Series

Complies with Texas  
Accessibility Standards (TAS)  
for Juvenile Height applications.



CRS-3/IR/LSD



CRS-2/IR/LSD

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*3-station unit is shown throughout. 2-station is similar.*



*For soap system installation, refer to installation manual 215-1583.*

## WARNING

**Flush all the water supply lines before making connections. Debris in supply lines will cause the valves to malfunction.**

**Hardware supplied by installer must be appropriate for wall construction. Wall anchors used must have a minimum pull-out rating of 1,000 lb.**

## IMPORTANT

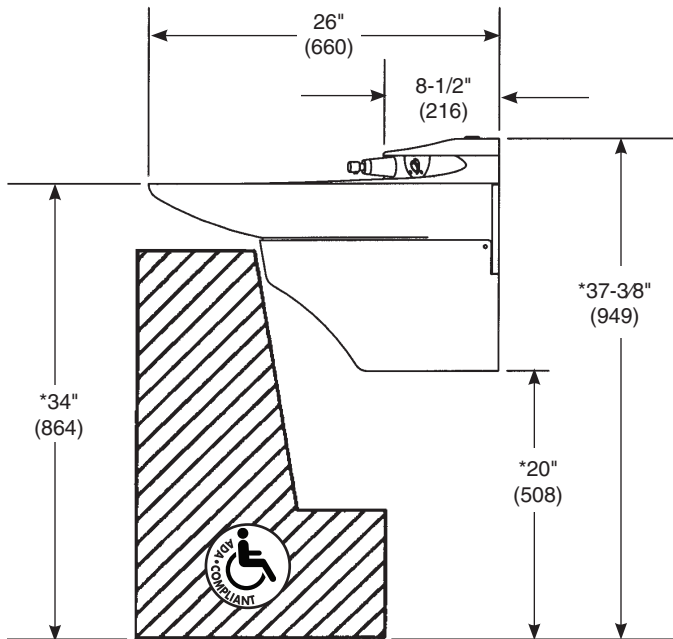
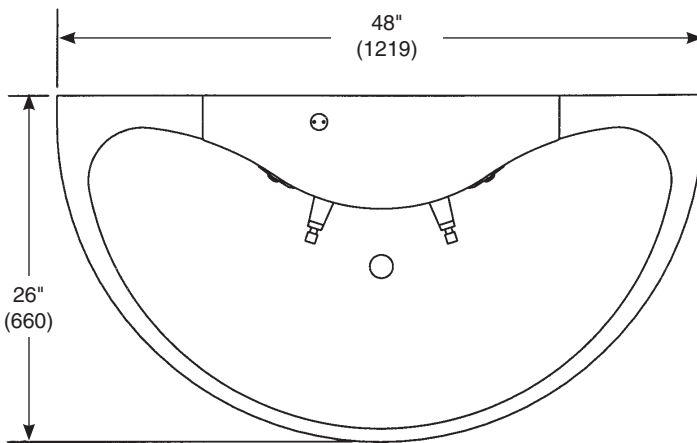
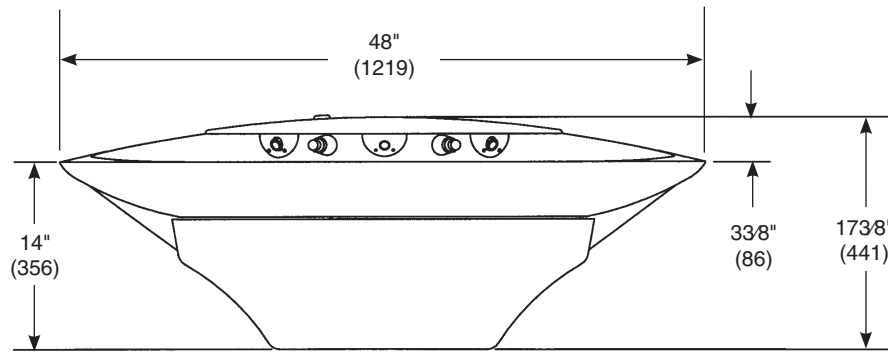
**Read this entire installation manual to ensure proper installation, then file these instructions with the owner or maintenance department.**

**Product warranties may be found under “Products” on our web site at [www.bradleycorp.com](http://www.bradleycorp.com).**



# Express® Crescent® Lavatory System Dimensions

(mm)



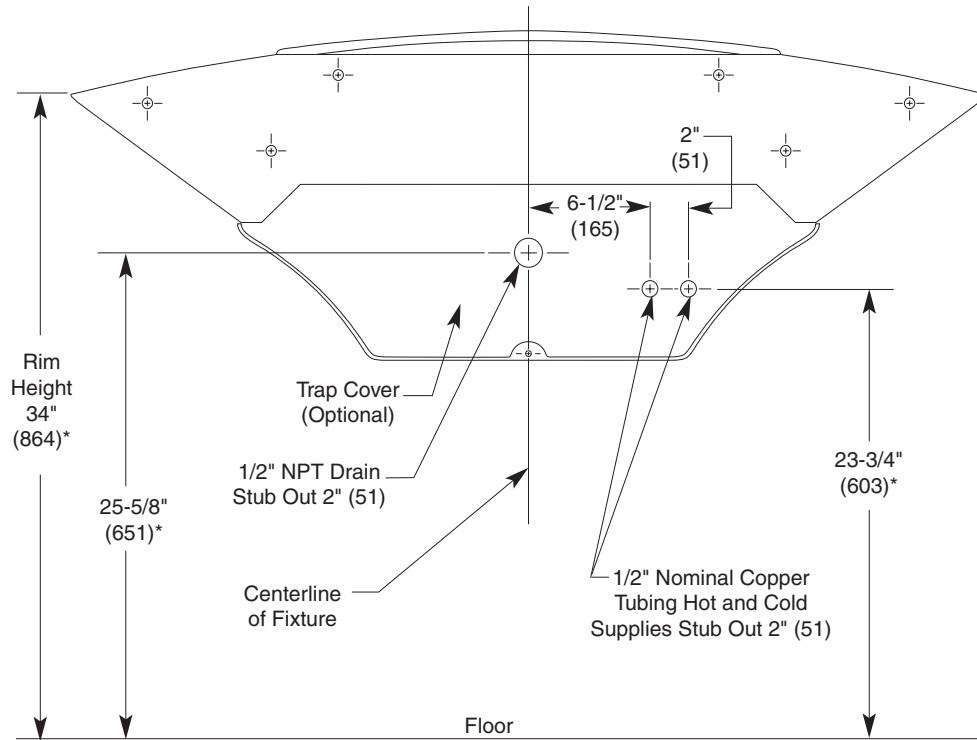
*Adjustments to Vertical Dimensions for Various Rim Heights		
Rim Height	Application	Adjustment
34"	Adult Height ADA, TAS Adult Height	None, as shown
32"	TAS Ages 11 thru 14 or 15, Grades 6 thru 8 or 9	Subtract 2"
30"	TAS Ages 4 thru 10 or 11, Grades Pre-K thru 5 or 6 & Proposed Juvenile Height ADA	Subtract 4"
24"	Preschool (required by some local codes)	Subtract 10"

# Rough-ins

**⚠ WARNING** Flush all the water supply lines before making connections. Debris in supply lines will cause valves to malfunction.

## Standard Height Mounting

(mm)

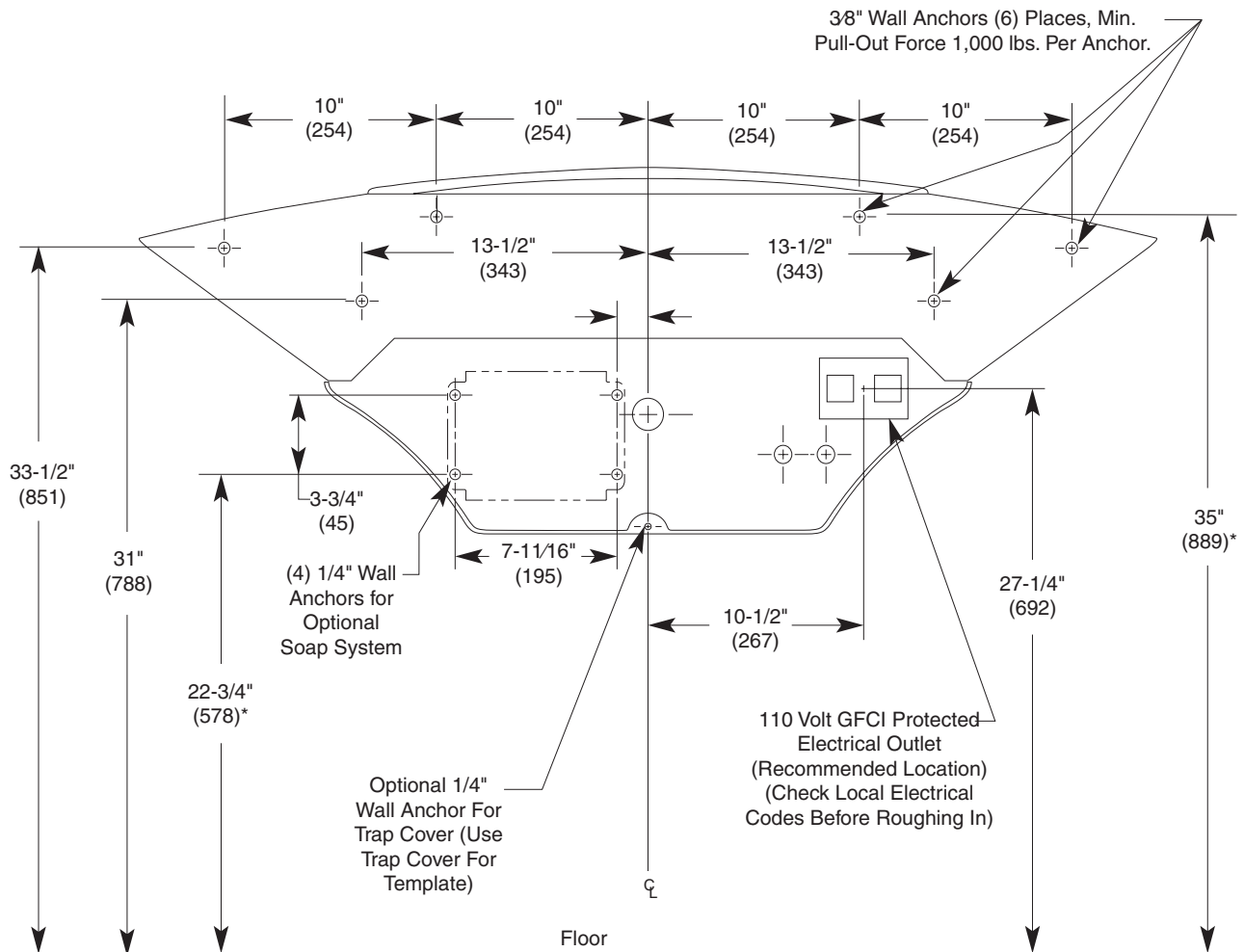


*Adjustments to Vertical Dimensions for Various Rim Heights		
Rim Height	Application	Adjustment
34"	Adult Height ADA, TAS Adult Height	None, as shown
32"	TAS Ages 11 thru 14 or 15, Grades 6 thru 8 or 9	Subtract 2"
30"	TAS Ages 4 thru 10 or 11, Grades Pre-K thru 5 or 6 & Proposed Juvenile Height ADA	Subtract 4"
24"	Preschool (required by some local codes)	Subtract 10"

# Rough-ins cont'd.

## Standard Height Mounting

(mm)



*Adjustments to Vertical Dimensions for Various Rim Heights		
Rim Height	Application	Adjustment
34"	Adult Height ADA, TAS Adult Height	None, as shown
32"	TAS Ages 11 thru 14 or 15, Grades 6 thru 8 or 9	Subtract 2"
30"	TAS Ages 4 thru 10 or 11, Grades Pre-K thru 5 or 6 & Proposed Juvenile Height ADA	Subtract 4"
24"	Preschool (required by some local codes)	Subtract 10"

## Supplies required for installation

- (6) 3/8" wall anchors, bolts and washers to mount bowl to wall (min. pull-out force of 1,000 lbs.)
- 1/2" nominal copper tubing hot and cold or tempered supply piping
- 1-1/2" drain piping and P-Trap (available from Bradley, p/n 269-1697)
- 110 VAC power source for 110/12VDC regulated wall adapter (supplied)
- OPTIONAL TRAP COVER: 1/4" wall anchor, bolt and washer to mount trap cover to wall
- OPTIONAL: Bradley recommends installing an electrical cut-off switch to the unit (this feature prevents accidental water delivery during regular maintenance and service)

### 1 Mount Bowl to the wall

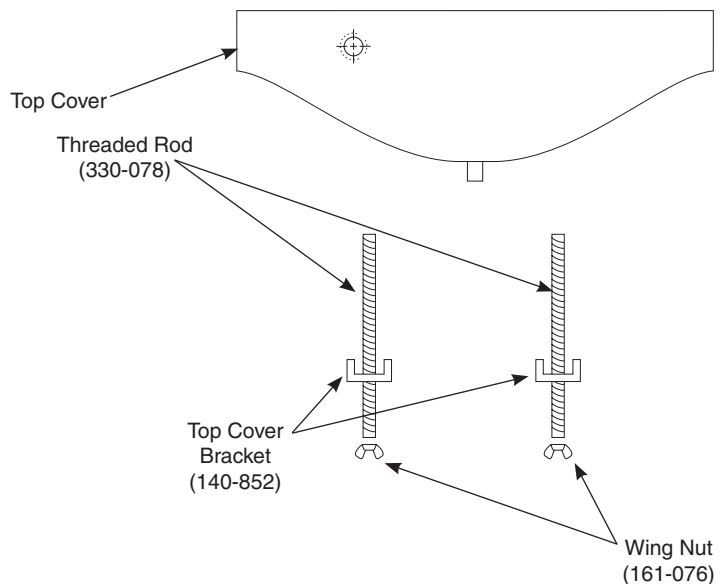
**⚠ WARNING** Do not attempt to install the bowl alone. To prevent serious injury, install the bowl with the assistance of another person and always use appropriate lifting procedures.



**A** Unpack bowl and cover assembly. Remove wing nuts on the two threaded rods which retain the cover. Remove the top cover bracket and lift the cover off and set aside.

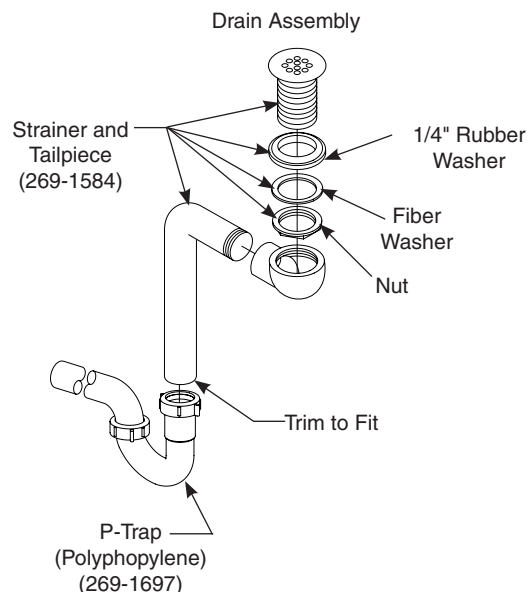
**B** With 2 people, move the bowl assembly to the wall using appropriate lifting procedures, secure the bowl to the wall.

**C** Level the bowl assembly with shims if necessary and then tighten anchors.



### 2 Install Drain Spud

**A** Assemble the P-trap (supplied by installer) by connecting the 1-1/2" tubular pipe to the 1-1/4" tailpiece and to the 1-1/2" drain pipe stubbed out of the wall



### 3 Connect Supply

**A** Connect the 1/2" compression female end of the stop valves to the rough-ins.

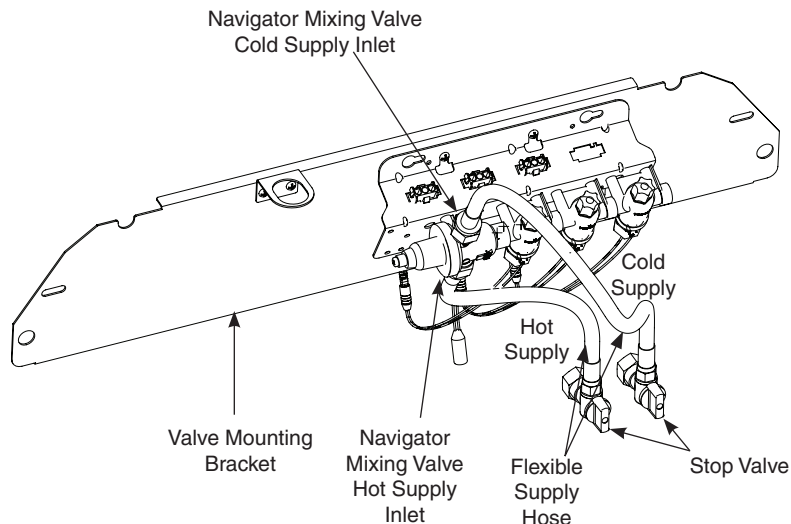
**B** Connect one end of the supply hoses to the stop valves.

*The hose attached to the hot water inlet of the Navigator® TMV valve must be connected to the hot water rough-in.*

**C** Connect the other end of the supply hoses to the Navigator TMV valve assembly.

**D** Optional Single Tempered Supply: Attach the stop valve to the 1/2" tempered supply line. Connect the stop valve to the solenoid valve with the flexible supply hose.

*The thermostatic mixing valve requires at least 115° water from the hot water side from proper operation. As with all lavatories, there will be a delay in obtaining warm water. If the hot water is too far away from the unit, a circulating pump may be required.*



### 4 Electrical and Supply Connections

**⚠ CAUTION** The adaptive infrared control must be connected with a 12VDC regulated wall adapter. Connections to 110VAC will result in damage to the electronics and can cause personal injury.

**NOTICE!** Connection of leads other than shown may cause permanent damage to the sensor.

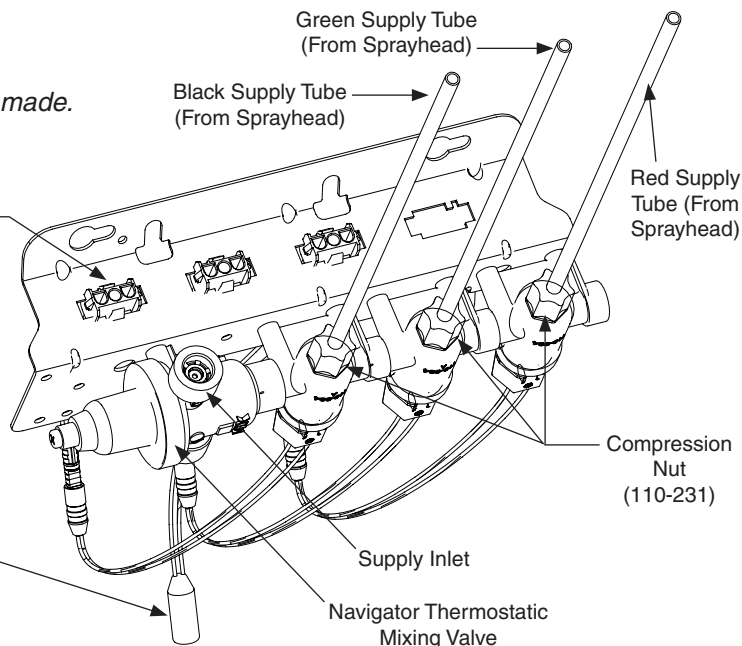
*Compliance and conformity to local codes and ordinances is the responsibility of the installer.*

*The solenoid valves have been pre-wired.*

*Do not apply power unless all connections are made.*

**A** Snap each sensor circuit plug into the associated solenoid circuit plug located on the valve bracket.

**B** Snap the wall adapter barrel plug into the barrel plug located on the valve bracket wire harness.



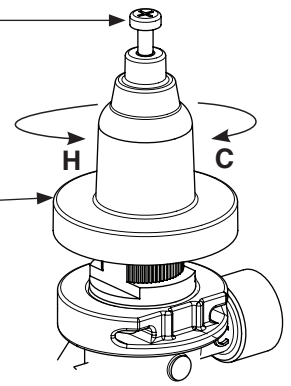
## 5 Adjust the Temperature

**⚠ WARNING** This valve is NOT factory preset. Upon installation, the temperature of this valve must be checked and adjusted to ensure delivery of a safe water temperature. Water in excess of 110°F (43°C) may cause scalding.

**A** Loosen Cap Screw about 1/4" (4-6 turns) and lift up cover (do not remove).

**B** Using cover, turn cartridge gently until desired water temperature is reached. Do not turn past stops as this may damage unit. Push cover down and tighten screw.

**C** After testing is complete, reinstall panel to frame.



## 6 Install the Optional Soap Dispenser

For Express Crescent Lavatory System units with an optional soap dispenser, see installation manual 215-1583 for instructions on installing the soap dispenser.

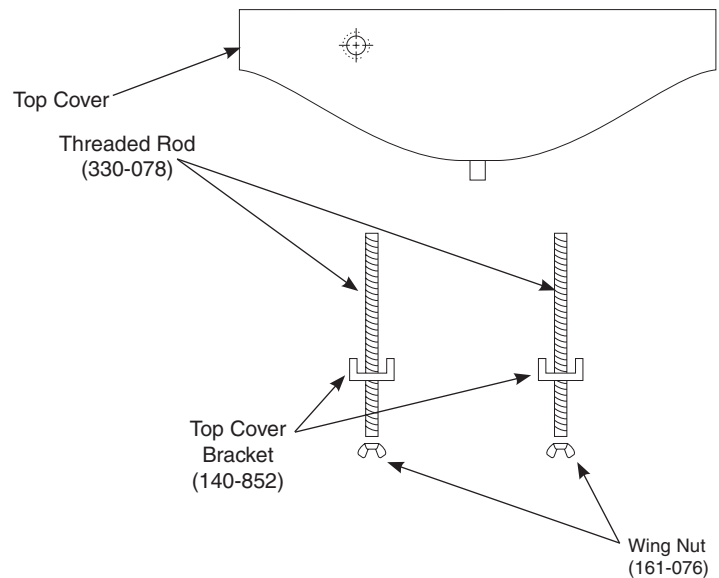
## 7 Install the Top Cover

**A** Carefully place the top cover on top of the lavatory system bowl.

**B** Install the threaded rods into the holds on the bottom of the top cover.

**C** Slide the anchor plate onto the threaded rods and secure anchor plate against bowl using the wing nuts provided.

**D** Optional Soap Dispenser: Install soap filler assembly in mounting bracket previously installed. Tighten the optional soap filler cap nut with a spanner wrench.



## Cleaning and Maintenance for Terreon® (Basin)

**Material Description:** Terreon is a densified solid surface material composed of bio-based resin and is resistant to chemicals, stains, burns, and impact. Surface can be easily repaired with everyday cleansers or fine grit abrasives. Because Terreon is a unique cast material, its aggregate flow and distribution, and shades of color can vary from product to product creating natural characteristics.

**Routine Cleaning:** For regular cleaning, use mild neutral base cleaners.

**Stubborn Stains:** Remove tough stains with Soft-Scrub® and a green Scotch-Brite® pad or lightly sand in a circular motion with 240 grit wet/dry sandpaper. The finish can then be renewed with a maroon Scotch-Brite pad.

**Scratches:** Remove scratches with a green Scotch-Brite pad. The finish can then be renewed with a maroon Scotch-Brite pad.

**Hard Water Deposits:** Remove hard water deposits with a mild solution of vinegar and water. Always rinse the unit thoroughly after cleaning.

**Restoring the surface:** Use Hope's® Perfect Countertop to refresh and protect the Terreon Solid Surface material. Dark Terreon colors may require additional care and maintenance. For complete instructions on this additional maintenance, visit [bradleycorp.com](http://bradleycorp.com).

**Repair Kits:** Terreon repair kits are available. Contact your Bradley representative or distributor for part numbers and pricing. Repair kits are made to order and have a shelf life of 30 days.

**NOTICE!** *Do not use strong acid or alkaline chemicals and cleansers to clean Terreon. If these chemicals come in contact with the surface, wipe them off immediately and rinse with soapy water. Avoid contact with harsh chemicals such as paint remover, bleach, acetone, etc. Avoid contact with hot pans and objects.*

## Cleaning and Maintenance for Stainless Steel

**Material Description:** Stainless steel is extremely durable, and maintenance is simple and inexpensive. Proper care, particularly under corrosive conditions, is essential. Always start with the simplest solution and work your way toward the more complicated.

**Routine cleaning:** Daily or as often as needed use a solution of warm water and soap, detergent, or ammonia. Apply the cleaning solution per the manufacturer's instructions and always use a soft cloth or sponge to avoid damaging the finish.

**Stubborn Stains:** To remove stains from stainless steel use a stainless steel cleaner and polish such as Ball® stainless steel cleaner or a soft abrasive. Always follow the manufacturer's instructions and apply in the same direction as the polish lines.

**NOTICE!** *Never use ordinary steel wool or steel brushes on stainless steel. Always use stainless steel wool or stainless steel brushes.*

**Fingerprints and Smears:** To remove fingerprints or smears use a high quality stainless steel cleaner and polish in accordance with the manufacturer's instructions. Many of these products leave a protective coating that helps prevent future smears and fingerprints.

**Grease and Oil:** To remove grease and oil use a quality commercial detergent or caustic cleaner. Apply in accordance to the manufacturer's instructions and in the direction of the polish lines.

**Precautions:** Avoid prolonged contact with chlorides (bleaches, salts), bromides (sanitizing agents), thiocyanates (pesticides, photography chemicals, and some foods), and iodides on stainless steel equipment, especially if acid conditions exist.

**NOTICE!** *Do not permit salty solutions to evaporate and dry on stainless steel.*

The appearance of rust streaks on stainless steel leads to the belief that the stainless steel is rusting. Look for the actual source of the rust in some iron or steel particles which may be touching, but not actually a part of the stainless steel structure.

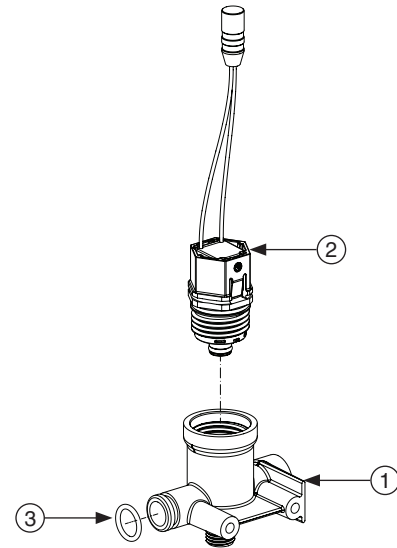
**NOTICE!** *Strongly acidic or caustic cleaners may attack the steel causing a reddish film to appear. The use of these cleaners should be avoided.*

## Troubleshooting – Solenoid Valve: Part nos. S07-067-DC (closed body) & S07-067A-DC (thru body)



Turn off water supplies to the unit before troubleshooting.

Item	Qty.	Part No.	Description
1	1	118-334	Valve Body, ¼" Closed
1	1	118-334A	Valve Body, ¼" Thru
2	1	S27-352	12VDC Valve Cartridge
3	1	125-165	O-Ring, #2-013



Problem	Cause	Solution
An individual operating station fails to shut off and drips.	Internal cartridge failure.	Replace S27-352 cartridge.
An individual operating station fails to turn on.	A failed cartridge for the valve or loose electrical connection to the terminal.	<p>Test the station to determine the cause.</p> <ol style="list-style-type: none"> <li>1. Disconnect the wires from the cartridge of an adjacent valve. Disconnect the wires from the problem valve and reconnect to the adjacent valve.</li> <li>2. Turn on electrical and water supplies to the unit. Pass your hand in front of the sensor of the problem station, and the adjacent station should turn on.</li> </ol> <p>If the adjacent station turns on and cycles normally, replace the cartridge on the problem valve.</p> <p>If the adjacent valve fails to turn on, inspect the wires from the sensor cable and do the following:</p> <ul style="list-style-type: none"> <li>• make sure there are no breaks and that the fully insulated disconnect terminals are firmly crimped in place;</li> <li>• turn off the electrical and water supplies;</li> <li>• reconnect to the adjacent valve and turn on the water supplies to the unit;</li> <li>• pass your hand in front of the sensor. If the station still fails to turn on, replace the sensor.</li> </ul>

# Thermostatic Mixing Valve Troubleshooting

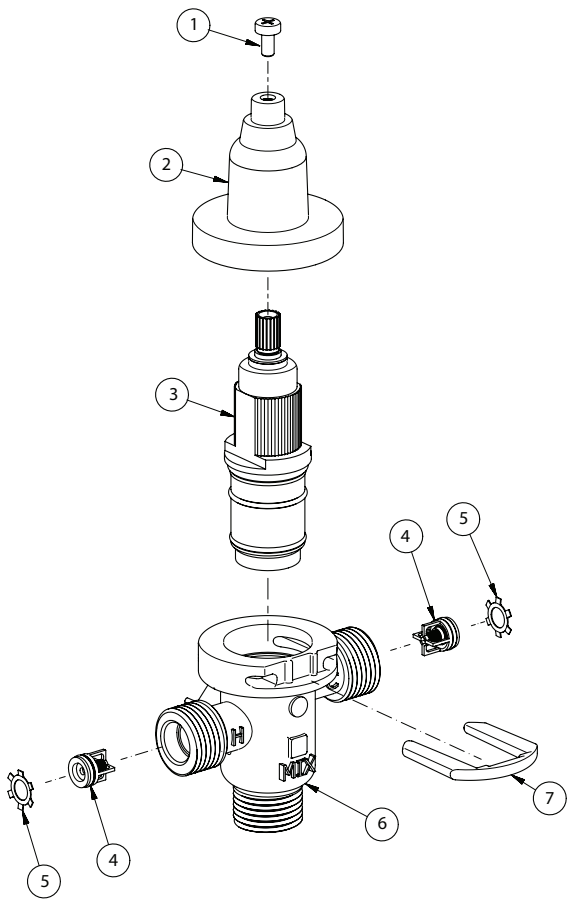
Before attempting to troubleshoot the valve or disassemble the components, check for the following conditions:

- If stop valves are used, make sure that they are fully open.
- Make sure that the hot and cold inlet pipes are connected properly, and that there are no cross-connections or leaking stop valves.
- Check the hot water heater output to make sure that it is at least 10° F above the set temperature.



*Be sure to close the appropriate shut-off valves prior to disassembly of the valve and reopen the valves after inspection and repair is complete.*

Problem	Cause	Solution
External leaks.	Damaged cartridge or O-rings.	Replace cartridge with part number 269-1927
Improper water temperature or temperature fluctuation.	Hot water supply is not 10° above desired set point.	Increase hot water supply temperature
	Valve temperature is not properly set.	Adjust the temperature as shown on page 7, step 5.
Limited water flow.	Dirt and debris have built up in the valve or strainer.	<ol style="list-style-type: none"> <li>1. Check to make sure both hot and cold supplies are connected to the Navigator mixing valve and that they have water flow.</li> <li>2. Remove cover and U-clip. Remove the cartridge and clean the strainer. It is not required to grease cartridge, however if desired, use silicone grease only. Do not use grease on check valves.</li> </ol>



## Parts List

Item	Part No.	Description	Quantity
			S59-4000
1	160-463	Cap Screw	1
2	107-582	Cover	1
3	269-1927	Thermostatic Cartridge	1
4	198-014	Check Valve*	2
5	132-051	Retaining Ring*	2
6	118-319	Valve Body	1
7	146-079	U-Clip	1

\* Included with Prepack S65-326

**Tempered Line Adapter Option**  
**Part no. S39-804**  
 (replaces S59-4000 if tempered line is used)

Strainer (173-028)