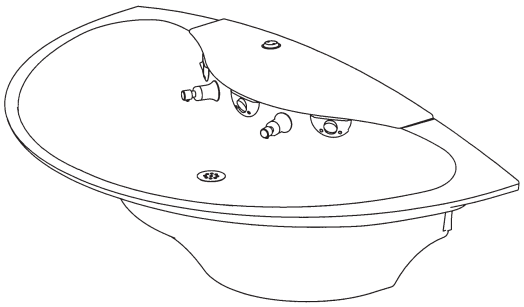
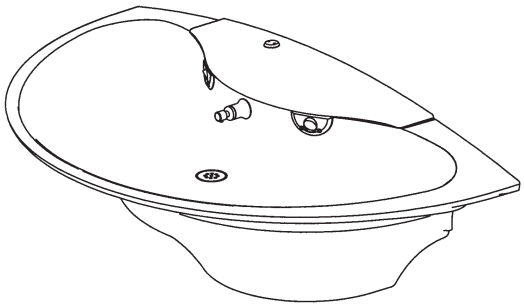
Installation



CRS-3/BIR3/LSD



CRS-2/BIR3/LSD

CRS-2/BIR3, CRS-3/BIR3

Express® Crescent® Lavatory System CRS-Series

Table of Contents

NOTE: Refer to installation manual 215-1583 for soap system installation.

NOTE: 3-station unit is shown throughout. 2-station is similar.

WARNING

Turn OFF electrical power to the electrical outlets, then unplug all electrical units prior to installation. Electrical power MUST remain off until installation is complete.

Installer's hardware must be appropriate for wall construction. Wall anchors must have a minimum pull-out rating of 1,000 lb.

NOTICE

Make sure that all water supply lines have been flushed and then completely turned off before beginning installation. Debris in supply lines can cause valves to malfunction.

IMPORTANT

Read this entire installation manual to ensure proper installation. When finished with the installation, file this manual with the owner or maintenance department. Compliance and conformity to local codes and ordinances is the responsibility of the installer. Product warranties may be found under "Products" on our website at bradleycorp.com.

Separate parts from packaging and make sure all parts are accounted for before discarding any packaging material. If any parts are missing, do not begin installation until you obtain the missing parts.

For standard height mounting, do not exceed the recommended 33.5" distance from the fixture rim to the finished floor.

215-1328 Rev. Q: ECO 21-08-008

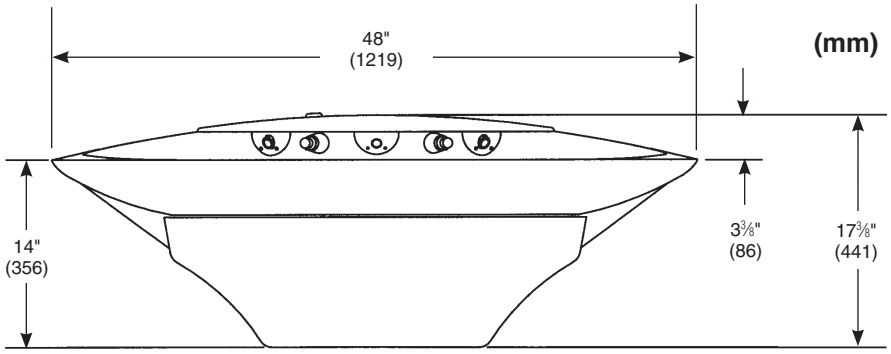
ADA COMPLIANT

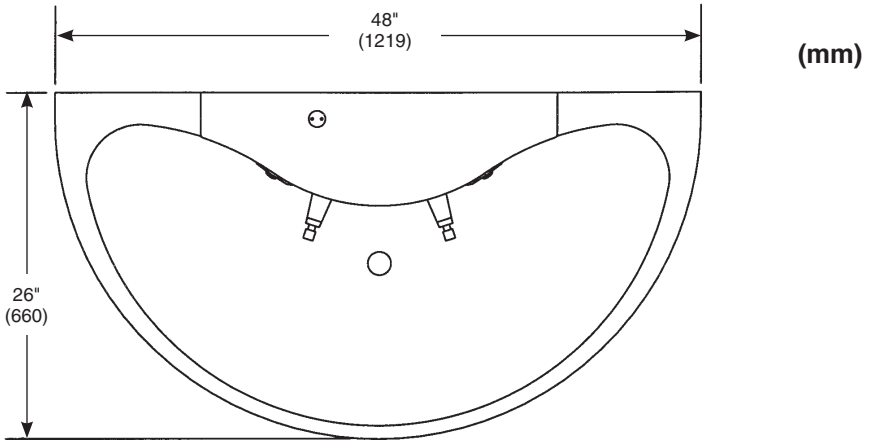
TAS

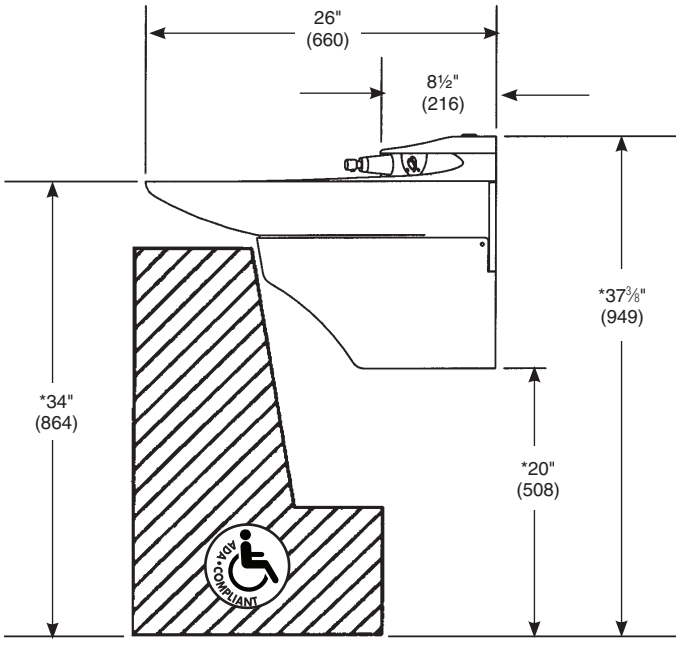
P.O. Box 309
Menomonee Falls, WI 53052 USA
800 BRADLEY (800 272 3539)
+1 262 251 6000
bradleycorp.com

Bradley®

Express® Crescent® Lavatory System Dimensions







* 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”

Installation Instructions

Supplies required for installation:

- (6) 3/8" wall anchors, bolts and washers to mount bowl to wall (min. pull-out force of 1,000 lb)
- ½" Nominal copper tubing hot and cold or tempered supply piping
- 1½" drain piping and P-Trap (available from Bradley, part no. 269-1697)
- OPTIONAL: 1/4” wall anchor, bolt and washer to mount trap cover to wall

Step 1: Rough-Ins

NOTE: Refer to Figure 1 below and Figure 2 on page 4 for Express® Crescent® Lavatory System rough-ins and dimensions.

1. Rough in ½" nominal copper tubing hot and cold supply lines and 1½" NPT drain waste connection through wall at dimensions shown in Figure 1.

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

Standard Height Mounting (mm)

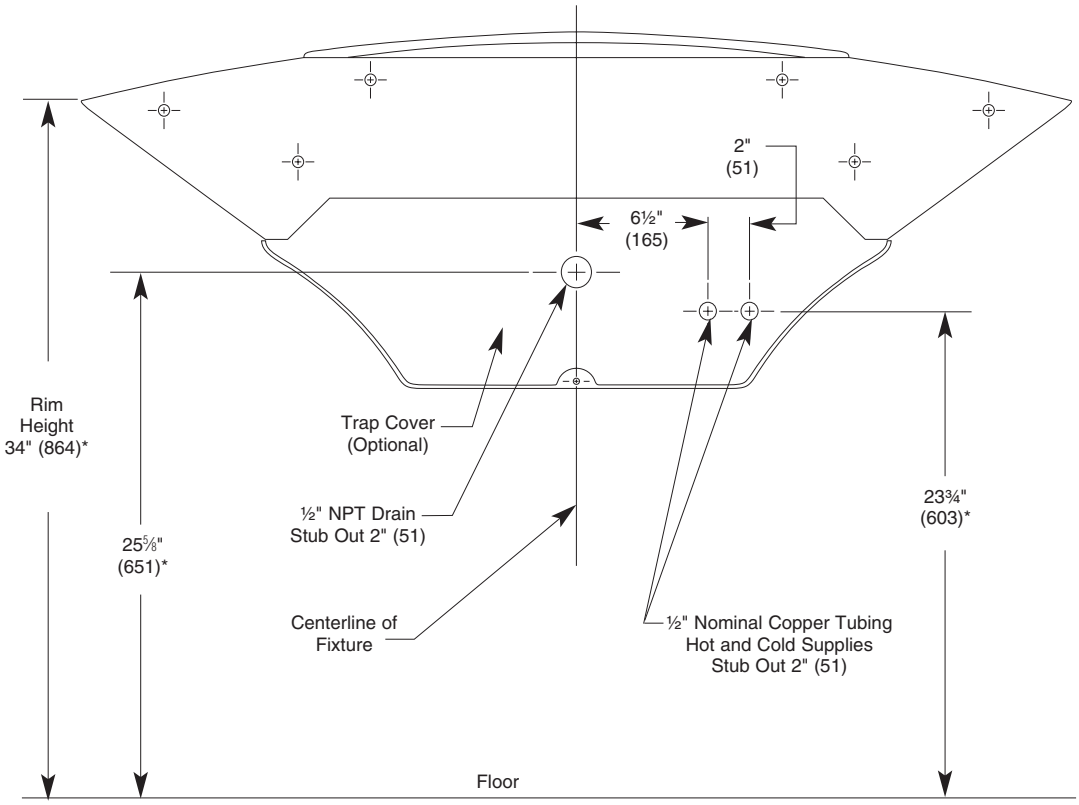


Figure 1

* ADJUSTMENTS TO VERTICAL DIMENSIONS FOR VARIOUS RIM HEIGHTS		
Rim Height	**Application**	**Adjustment**
34”	Adult Height ADA, TAS Adult Height 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”

Installation Instructions *continued . . .*

Step 1: Rough-Ins cont'd.

2. Install six 3/8" wall anchors with a minimum pull-out rating of 1,000 lb (supplied by installer) at the locations marked in Figure 2.
3. OPTIONAL TRAP COVER: Install one ¼" wall anchor at the location marked in Figure 2.

Standard Height Mounting

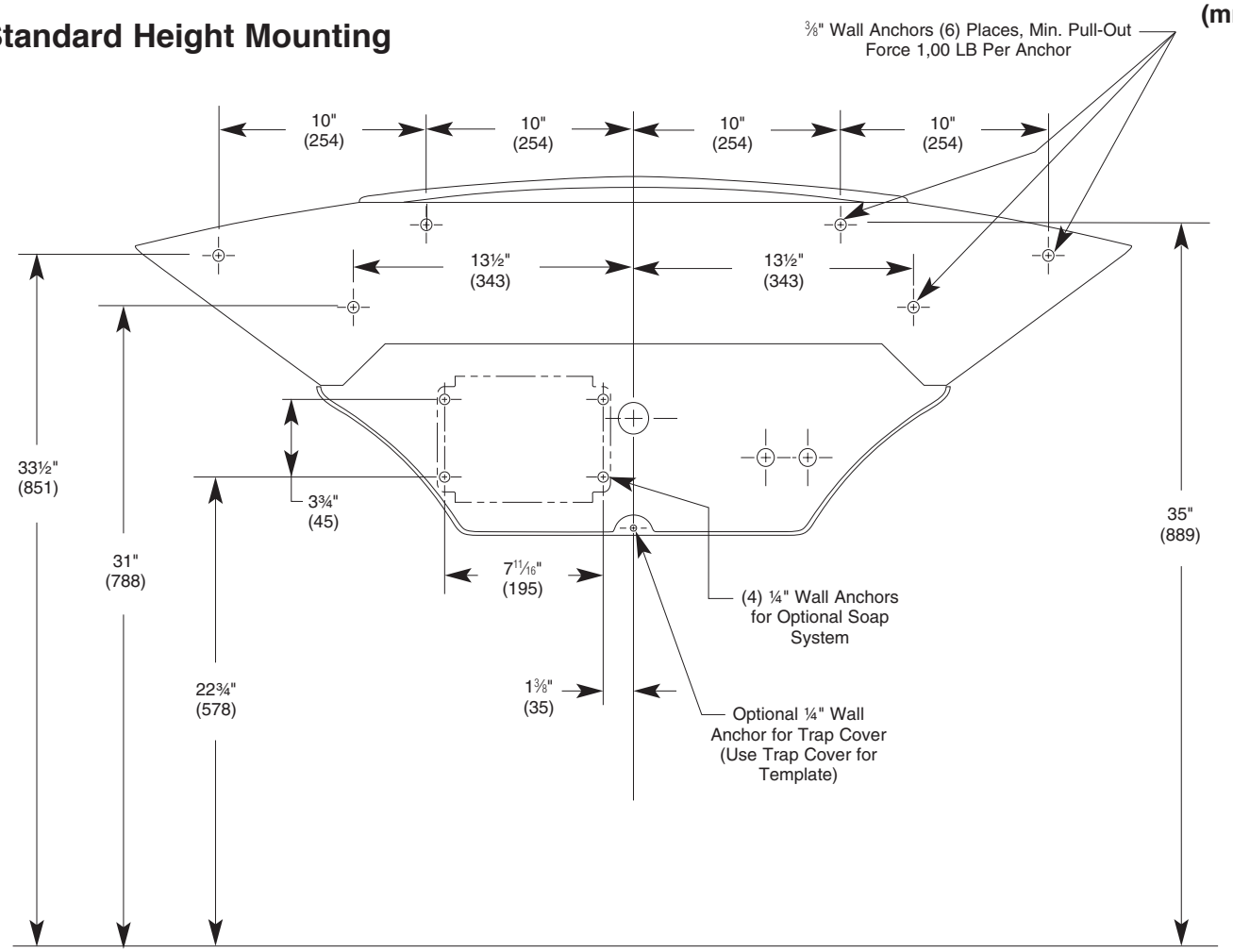


Figure 2

* ADJUSTMENTS TO VERTICAL DIMENSIONS FOR VARIOUS RIM HEIGHTS		
Rim Height	**Application**	**Adjustment**
34"	Adult Height ADA, TAS Adult Height 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"

Installation Instructions *continued . . .*

Step 2: Install Wall Anchors

1. Measure and mark the centerline of the lavatory system on the wall.
3. Using cardboard template 186-1311 provided, mark six mounting holes on wall.
3. Drill holes in the wall and install the six 3/8" wall anchors with a minimum pull-out rating of 1,000 lb (supplied by installer) at the locations shown in Figure 1 on page 3.

NOTE: The six 3/8" anchors will be used to mount the Crescent® bowl to the wall.

4. OPTIONAL TRAP COVER: Install the ¼" wall anchor for the Trap Cover (supplied by installer) as shown on Figure 1. Use Trap Cover to locate.
5. OPTIONAL SOAP TANK: Install ¼" anchors for soap tank installation (refer to soap system installation manual #215-1583 for further instructions).

Step 3: Remove cover from bowl assembly

1. Unpack the bowl and cover assembly.
2. Remove the wing nuts on the two threaded rods which retain the cover (see Figure 3).
3. Remove the top cover bracket.
4. Lift the cover off and set aside.

Step 4: Mount the Bowl to the Wall

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

1. With someone to assist you, move the bowl assembly to the wall using appropriate lifting procedures, secure the bowl to the wall.
2. Level the bowl assembly with shims if necessary and then tighten anchors.

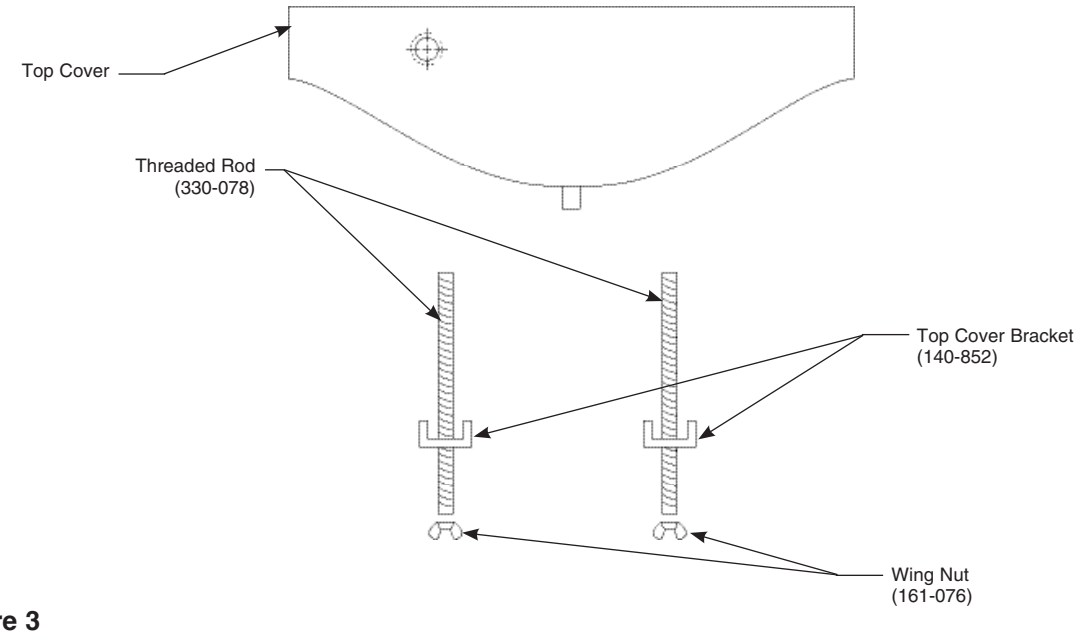


Figure 3

Installation Instructions *continued . . .*

Step 5: Install Drain Spud

1. Assemble the P-trap by (supplied by installer) connecting the 1½" tubular pipe to the 1¼" tailpiece and to the 1½" drain pipe stubbed out of the wall (see Figure 4).

Step 6: Connecting Supply

1. Connect the ½" compression female end of the stop valves to the rough-ins (see Figure 5).
2. Connect one end of the supply hoses to the stop valves.

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

3. Connect the other end of the supply hoses to the Navigator® TMV valve assembly.
4. 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.

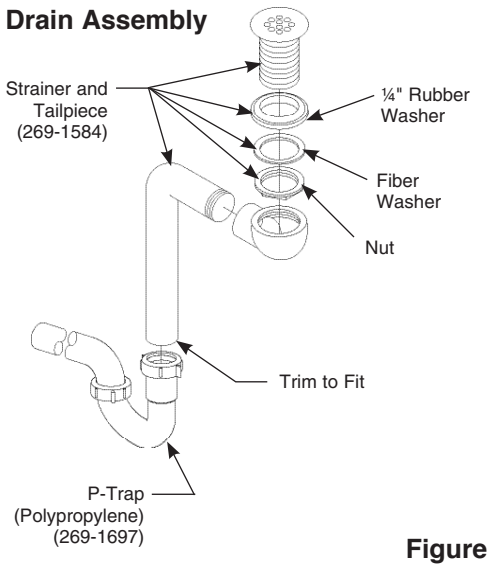


Figure 4

NOTE: The thermostatic mixing valve requires at least 115° F water from the hot water side for 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 washfountain, a circulating pump may be required.

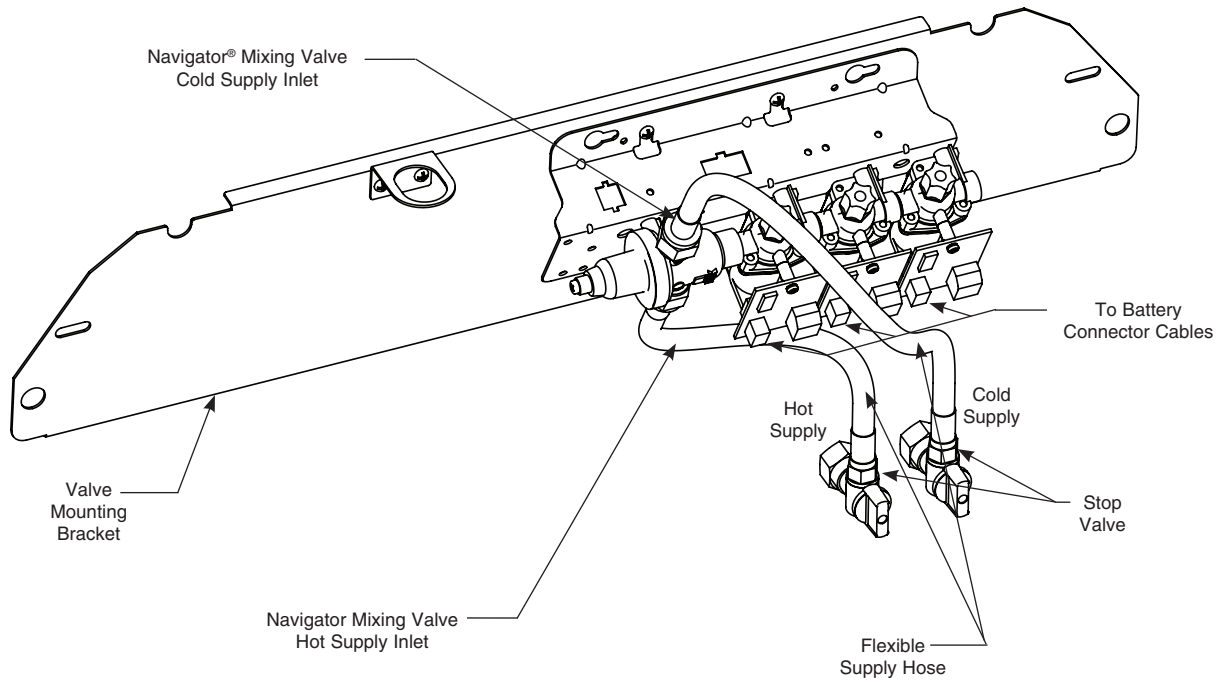


Figure 5

Installation Instructions *continued . . .*

Step 7: Installing the Batteries

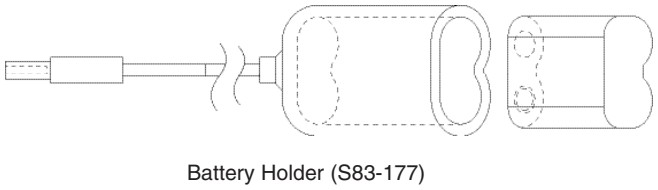
1. Mount the battery holders (with batteries) in a convenient location in the pedestal (ref. Figure 6).

IMPORTANT: Sensor cables must be attached before the battery cables are plugged into the circuit boards.

2. Snap the battery connector cables into the circuit board plugs.

Step 8: Check Operation

1. Check to make sure both stop valves are open
2. Turn on the main water supply to the Express® and check for leaking.
3. Pass your hand in front of each sensor until air is purged from the lines.



Battery Holder (S83-177)

Figure 6

*NOTE: The Navigator® mixing 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.***

4. Check the temperature when approximately 1.0 GPM water flow is reached and adjust if necessary (the range of the valve is 95°F–115°F (35°C–43°C). To adjust the temperature, follow the procedure below:
   - Loosen the cap screw about ¼" (4–6 turns) and lift up the cover (do not remove).
   - Turn on the water supply and check for leaks. After 60 minutes at 700 LUX, the system should be ready to operate. Pass your hand in front of each station's sensor until all the air is purged from the lines and water is flowing smoothly. Reinstall the access panel.

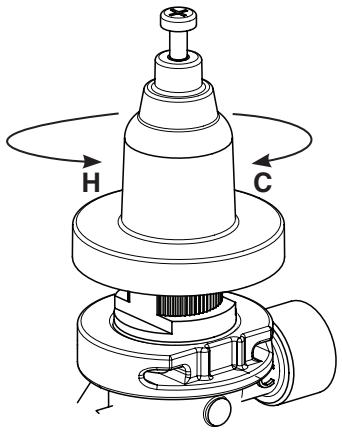


Figure 7

Step 9: Install the Optional Soap Dispenser

NOTE: For Express® Crescent® Lavatory Systems with optional soap dispensers, see 215-1583

Step 10: Install the Top Cover

1. Carefully place the top cover on top of lavatory system bowl.
2. Install the threaded rods into the holes on the bottom of the top cover (see Figure 3).
3. Slide the anchor plate onto the threaded rods and secure the plate against the bowl using the wing nuts provided.

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.

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.

NOTE: Do not use strong acid or alkaline chemicals and cleaners 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.

Troubleshooting BIR3 Components

CAUTION: Turn off water supplies to unit before troubleshooting.

Problem: An individual operating station drips and fails to shut off.
Cause: There is debris trapped between the diaphragm and the valve seat.
Solution: Remove debris between diaphragm and the valve seat.

Disconnect the plug from the battery to the circuit board of the problem valve. Remove the three #8 Phillips-head screws that hold the solenoid valve assembly together. Be careful not to lose the armature or spring (see Figure 9 on page 11). Remove the diaphragm. Remove any particles that are trapped between the diaphragm and the valve seat. Rinse off the diaphragm and inspect for damage. Make sure the center orifice and both small side orifices are open. Reassemble in reverse order, being careful not to overtighten the Phillips-head screws or you may crack the plastic valve body. Tighten until the armature plate makes contact with the plastic body. Reconnect the battery plug per Figure 6 on page 7. Turn on water supplies to the unit.

Problem: An individual operating station fails to turn on or off.
Cause: Excessive line pressure.
Solution: Install Pressure Reducing Valve.

Check the static line pressure. If the pressure exceeds 80 psi, install a pressure reducer valve at the street main. Excessive line pressure (over 60 psi) will shorten the life of any valve.

Problem: An individual operating station fails to turn on or off.
Cause: A dead or faulty battery.
Solution: Test the station to determine cause and replace battery if required.

Disconnect the plug from the battery to the circuit board of the problem valve. Disconnect the plug from the battery to the circuit board of an adjacent valve. Connect the battery plug from the adjacent working valve to the problem valve. Wait for ten seconds. Activate the problem station's sensor ten times. The station should turn on. If the station turns on, and cycles normally, replace the battery.

Cause: Faulty sensor eyes.
Solution: Test station to determine cause; replace sensor eyes if required.

Disconnect the sensor cable from the circuit board of the problem valve. Disconnect the sensor cable from the circuit board of an adjacent working valve. Connect the sensor cable from the adjacent working valve to the problem valve. Activate the problem station's sensor. The station should turn on. If the station turns on and cycles normally, replace the sensor eyes (p/n 251-019A).

Cause: Faulty solenoid valve.
Solution: Test station to determine cause; replace solenoid valve if required.

Remove the screw, circuit board and standoff from the problem valve. Remove the battery holder. With a good working battery, briefly contact the solenoid valve directly with the battery as shown in Figure 8a. The contact should cause the valve to open. With the battery holder removed, briefly contact the solenoid valve with the battery in the position shown in Figure 8b. This should cause the valve to close. If the valve does not operate when directly contacted with a good battery, and the solenoid valve has already been cleaned as outlined at the beginning of this troubleshooting section, replace the solenoid valve.

Figure 8a

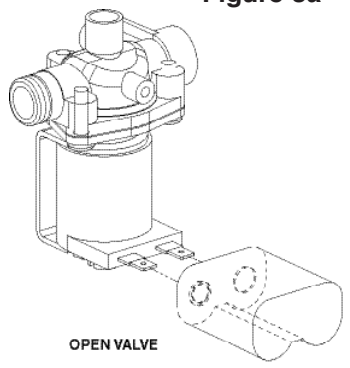
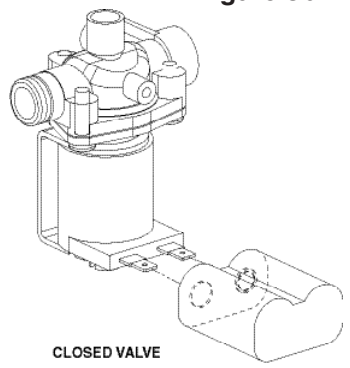


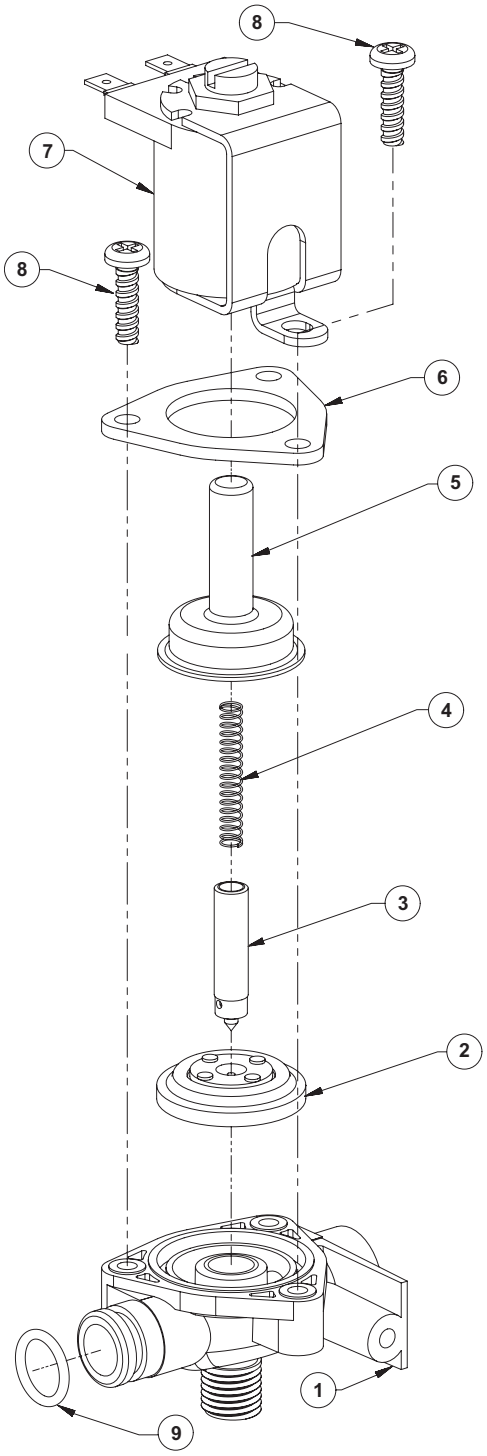
Figure 8b



If problems persist:

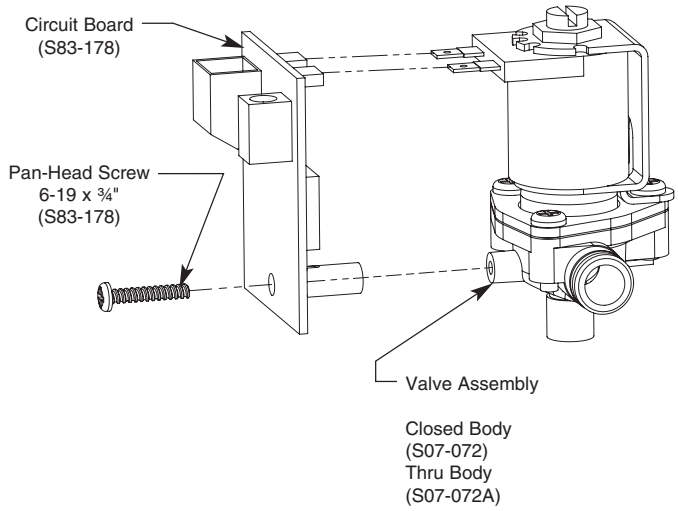
Pass your hand in front of the problem station, while at the same time looking to see if the indicator light on the circuit board flashes (the indicator light is located near the hole in the circuit board where the standoff is mounted). If it does not flash, and the battery and sensor eyes have already been tested as outlined above, the problem may be with the circuit board. Make a note of the numbers printed on the circuit board, then contact your Bradley representative for assistance.

Solenoid Valve S07-072 (closed body) and S07-072A (thru body)



Item	Qty.	Part No.	Description
1	1	118-307	Valve Body, ¼" Closed
1	1	118-307A	Valve Body, ¼" Thru
2	1	269-983	Diaphragm
3	1	192-017	Armature
4	1	135-093	Spring
5	1	269-1729	Armature Housing
6	1	269-1730	Clamp, Armature Housing
7	1	269-1731	Coil, Solenoid Valve
8	3	160-447	Screw, #8 x ⅝"
9	1	125-165	O-Ring, #2-013

Solenoid Valve w/Circuit Board
Closed Body
(S07-082)
Thru Body
(S07-082A)



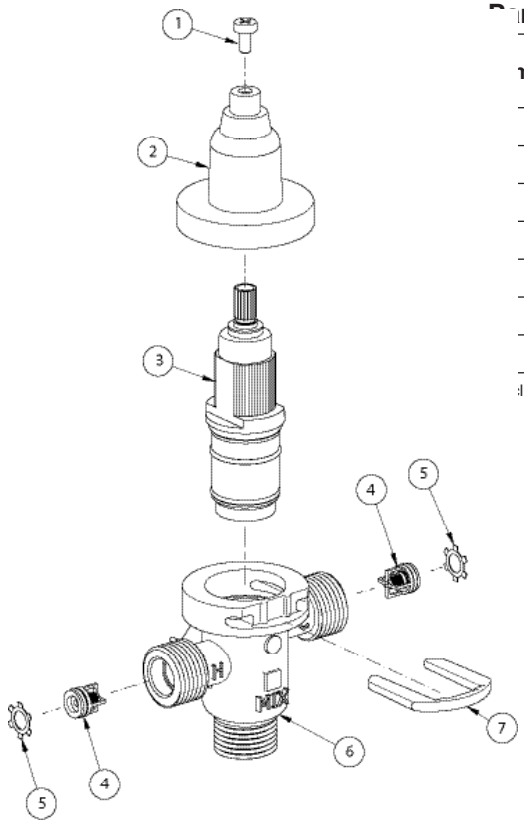
Thermostatic Mixing Valve Troubleshooting

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 8.
Limited water flow.	*Dirt and debris have built up in the valve or strainer.*	1. Check to make sure both hot and cold supplies are connected to the Navigator mixing valve and that they have water flow. 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.



rts List

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

luded with Prepack S65-326

Tempered Line Adapter Option
Part no. S39-804

(replaces S59-4000 if tempered line is used)