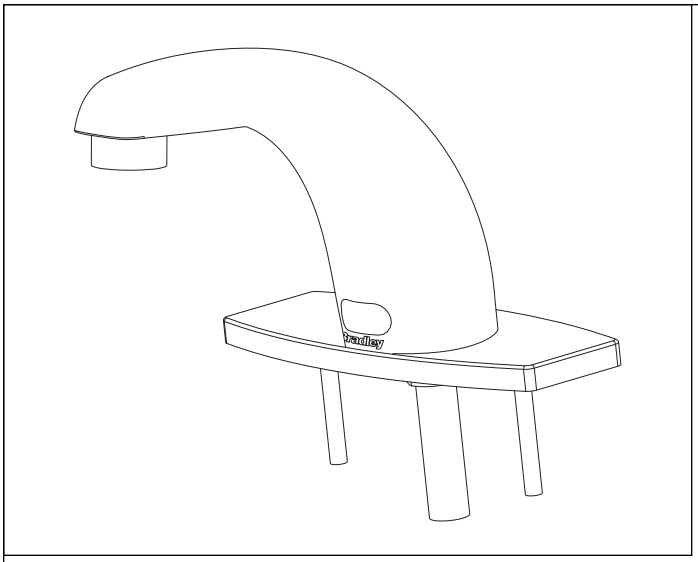


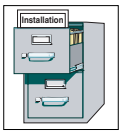
Installation

For Service Only

Aerada™ 1100 Series Low Arc Faucet

S53-302 Battery Infrared Metering Faucet (Center Shank with 4" Trimplate)

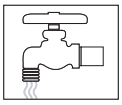
IMPORTANT!



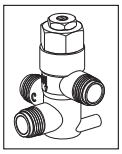
Read this entire installation manual to ensure proper installation, then file this manual with the owner or maintenance department. Compliance and conformity to local codes and ordinances is the responsibility of the installer.

Pressurized plumbing fixtures must be installed in accordance with manufacturer's recommendations. The supply piping to these devices must be securely anchored to the building structure to prevent unnecessary movement of the installed device when operated by the user. Use extreme caution when installing the device to prevent damage to the exposed significant surface.

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.



Flush water supply lines before making connections. DO NOT use pipe dope on any faucet or supply connections. Possible solenoid contamination could occur which will void any warranty. Teflon tape is the recommended sealant.



The incoming water supply can be tempered or cold. An optional Bradley Vernatherm™ thermostatic mixing valve delivers tempered water at a temperature no greater than 105°F. The 1100 series faucet operates at a flowing water pressure of 20–80 PSI. A vandal-resistant .5 GPM flow restrictor ensures a constant flow rate at all pressures.

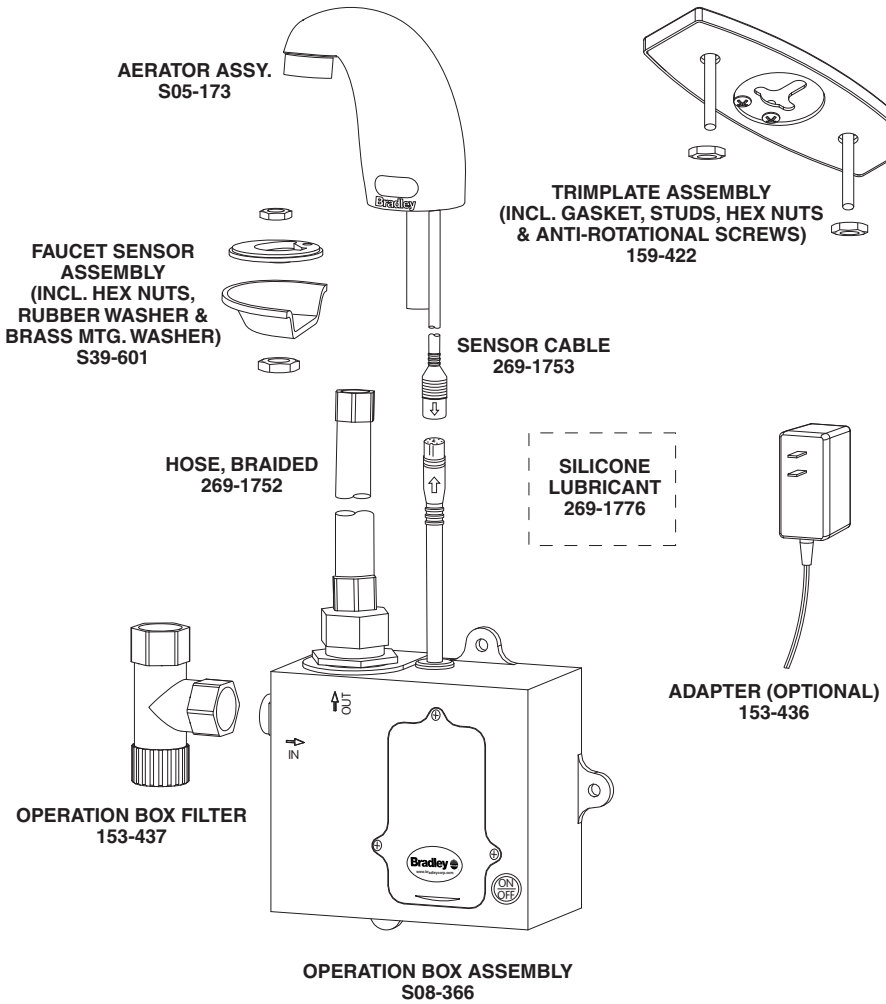
Product warranties may be found under "Product Information" on our web site at www.bradleycorp.com.

Bradley

P.O. Box 309, Menomonee Falls, WI USA 53052-0309
PHONE 1-800-BRADLEY FAX (262) 251-5817
http://www.bradleycorp.com

Table of Contents

Components for Model S53-302



Installation

Supplies required:

- Mounting screws for operation box
- Pipe sealant
- 1/2" NPS water inlet supply
- Pipe fittings
- OPTIONAL: 100–240 VAC adapter (plug-in adapter available from Bradley)

Step 1: Mount the Faucet

1. Select the location on the deck where the faucet will be mounted.
2. Drill a 1-1/4" (32mm) diameter mounting hole in the deck (to allow for clearance of the mounting nut and sensor cable).
3. OPTIONAL TRIMPLATE:
   - Drill two 3/8" (10mm) dia. mounting holes on the deck as shown The holes should be spaced 4" (102mm) apart (measured from center to center) and aligned with the faucet mounting hole.

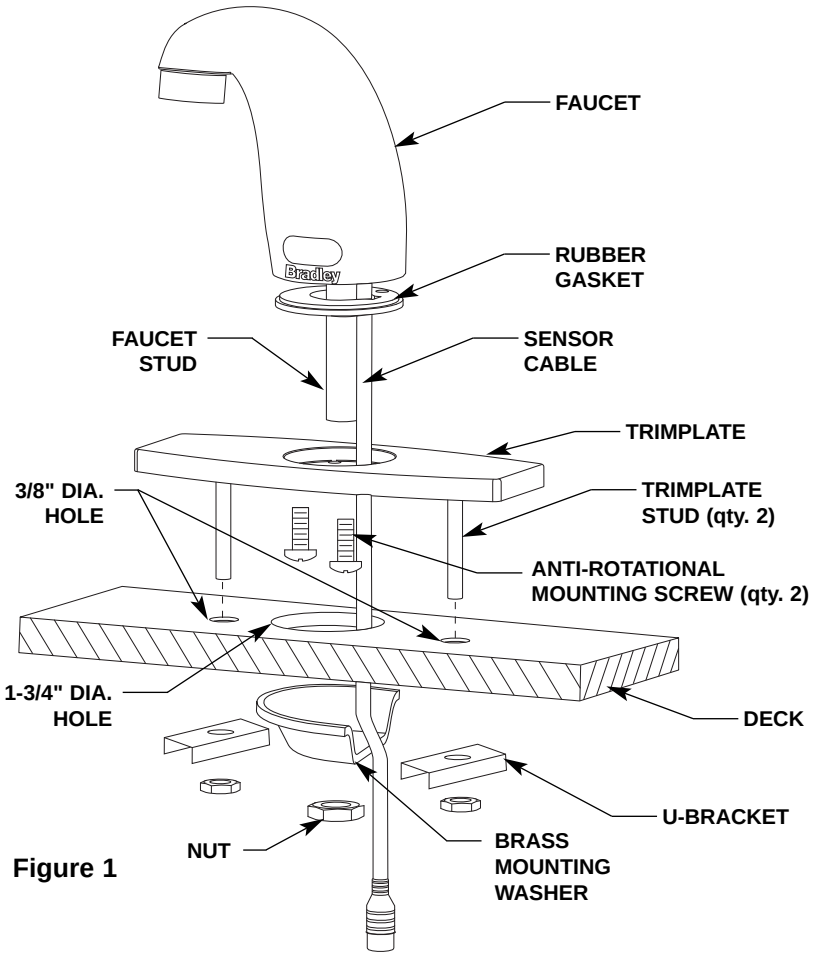


Figure 1

   - Thread the studs into the bottom of the trimplate.
   - Insert the trimplate studs into the deck holes and position the plate onto the deck. Secure the plate to the deck with the two 3/8" hex nuts and U-brackets provided.
   - Thread the two small anti-rotational mounting screws into the two holes in the underside of the trimplate and into the two holes in the bottom of the faucet body. ***Make sure screws are aligned with all holes.***
4. Gently insert the faucet stud and sensor cable through the center hole in the deck.

NOTE: Take care not to pinch the sensor cable.

5. Position the brass mounting washer onto the stud from beneath the deck. The sensor cable should be free from contact with the brass mounting washer. Screw the hex nut onto the faucet stud and secure the faucet to the deck by tightening the nut.

Installation

Step 2: Make Supply Connections

NOTE: Refer to Figure 2 when making supply connections.

1. Connect one end of the braided hose (supplied by Bradley) to the end of the faucet stud.
2. Connect the other end of Bradley's braided hose to the operation box's 1/2" NPS inlet fitting.
3. Connect one end of the braided hose (supplied by the installer) to the operation box's inlet fitting.

4a. Connect the other end of the installer's braided hose to the tempered or cold water inlet.

4b. FOR OPTIONAL VERNATHERM™ VALVE: Connect the other end of the installer's braided hose to the Vernatherm™ mixing valve.

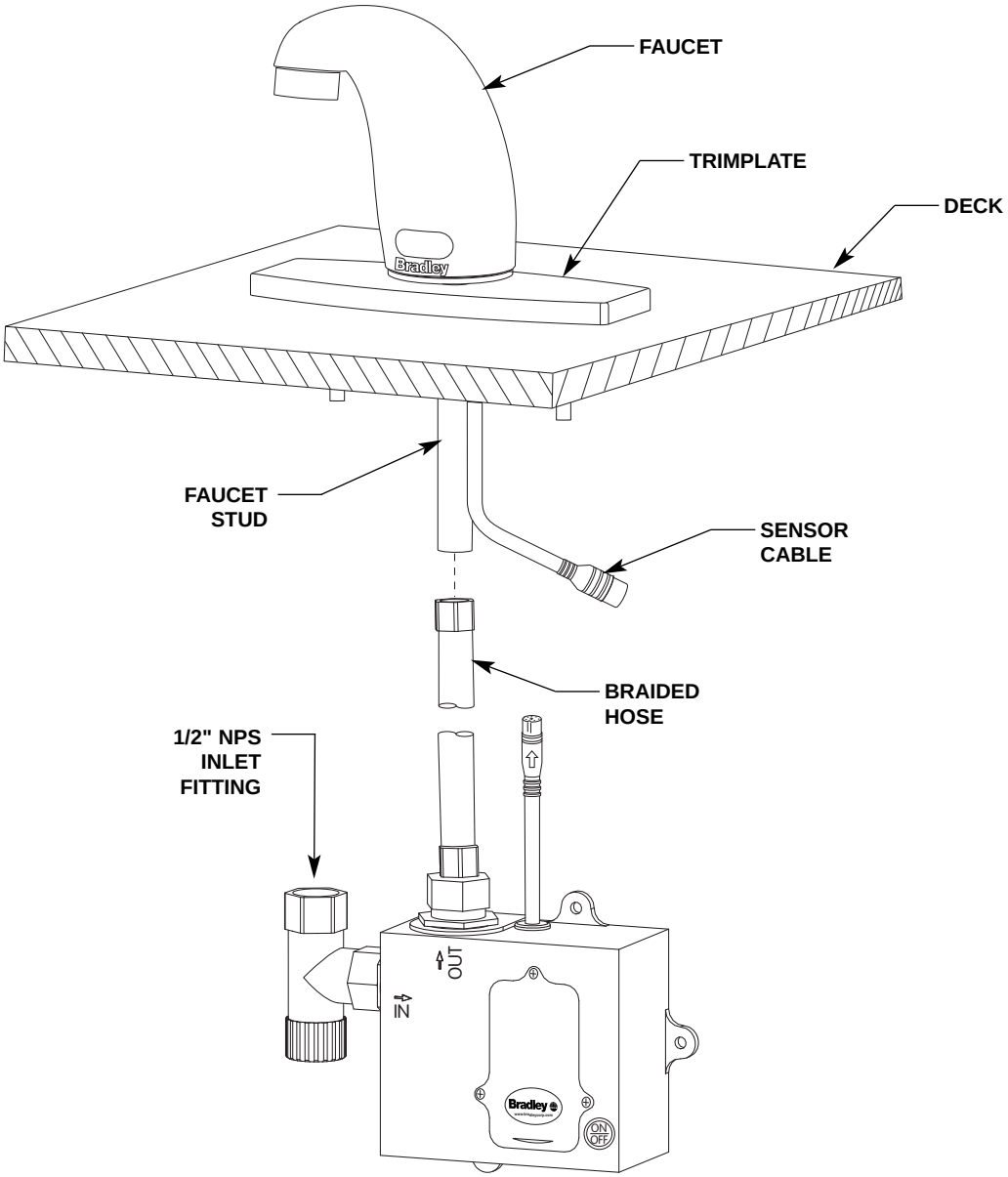


Figure 2

Installation

Step 3: Sensor Range Setup

NOTE: Refer to Figure 3 for sensor range setup.

NOTE: When connecting the cables, take care not to bend any of the small pins on the sensor cable.

1. Apply a small amount of the silicone lubricant provided to the operation box cable. Push the lubricant into the small holes in the end of the connector.
2. Connect the operation box cable to the sensor cable as shown. The arrows on each cable's end will point toward each other.
3. Press and hold the "ON/OFF" button on the operation box for 5–7 seconds. The water will stop flowing and the LED light will turn on.
4. Release the button. The LED light will turn off. The faucet is now in "setup" mode.
5. Place one hand in front of the sensor 2"–3" from the sensor window. The LED light should flash. Hold your hand steady for 5–10 seconds so that the sensor can detect your location.
6. Continue to hold one hand 2"–3" from the sensor window and then press and release the "ON/OFF" button. This will lock the sensor range into memory.

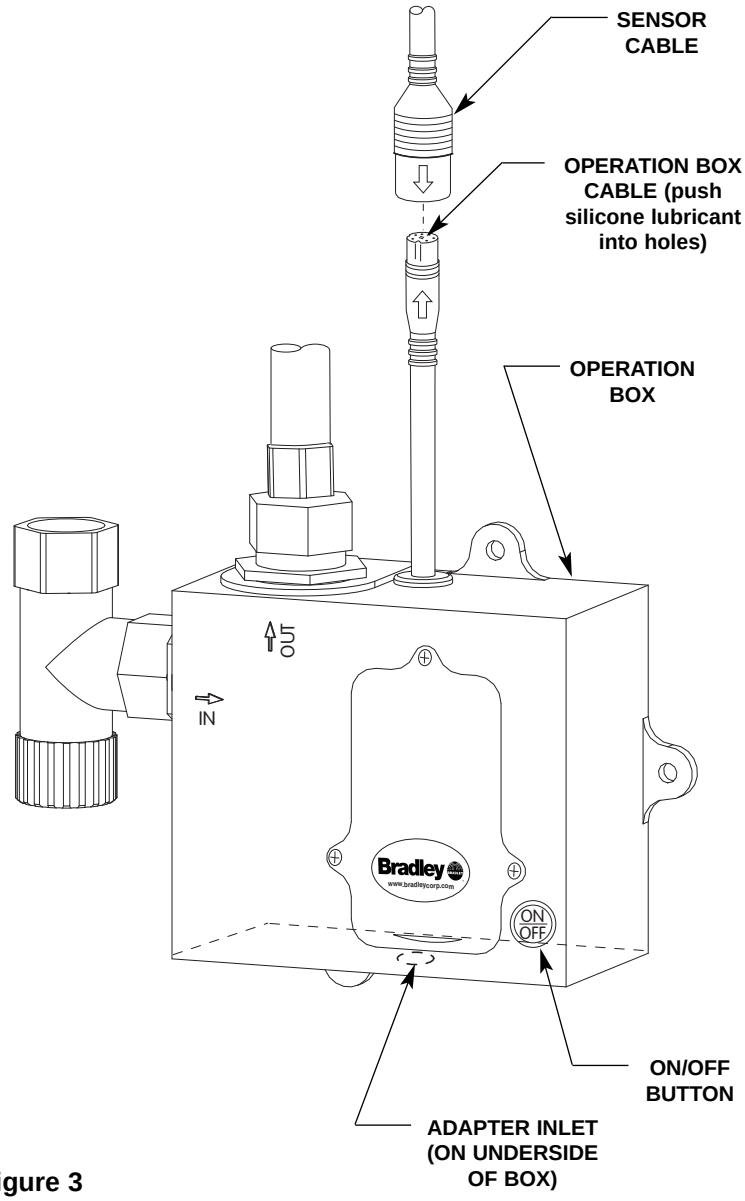


Figure 3

NOTE: The default sensor range is 1"–6" from the sensor window. The range is adjustable from 1"–7".

7. FOR OPTIONAL PLUG-IN AC ADAPTER: Plug one end of the adapter into the adapter inlet located on the underside of the operation box and the other end into an electrical outlet.

Cleaning and Maintenance

Replacing the Batteries

NOTE: Refer to Figure 4 for operation box cleaning and maintenance.

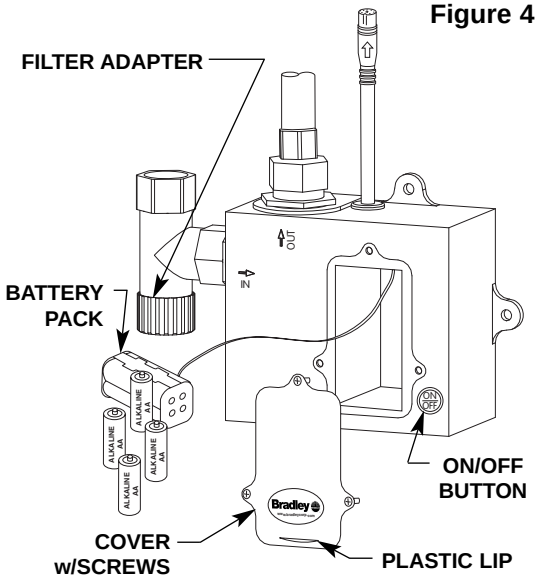
NOTE: When the LED light remains lit, the batteries are dead and need to be replaced.

1. Remove the three screws from the operation box cover and set aside. If necessary, remove the battery cover by grasping the small plastic lip with pliers.
2. Gently pull the ribbon and lift out the battery pack.
3. Remove the four dead batteries from the pack.
4. Press the "ON/OFF" button on the operation box with your finger and hold for 7–10 seconds. This will clear the memory in the operation box.
5. Replace batteries with four new "AA" alkaline batteries.

NOTE: Take care to ensure the batteries have been inserted with the positive and negative ends in the correct orientation.

6. Replace the cover and secure with the three screws.
7. Perform the sensor range setup (Step 3 on page 5).

Figure 4



Cleaning the Filter

NOTE: For optimum faucet operation, a once-a-month filter cleaning is recommended.

1. Unscrew the filter adapter from the operation box
2. Remove the filter, hold it under cool flowing water and rinse away any debris.
3. Replace the filter and reattach the filter adapter to the operation box.

Frequently Asked Questions

Q: What do I do if the unit activates (water runs) and does not stop when the water is first turned on?

A: Turn the water off. Press and hold the "ON/OFF" button on the operation box for 3 seconds to reset the unit. Turn the unit off, then turn the water on. Place a hand in front of the sensor to test activation of the unit.

Q: What do I do if the unit does not activate when a hand is placed in front of the sensor?

A: Press and hold the "ON/OFF" button on the operation box for 3 seconds to reset the unit. Turn the unit off, then place a hand in front of the sensor to test activation of the unit.

Q: Can I keep the water flowing constantly without placing my hand in front of the sensor?

A: Users may press the operation box's "ON/OFF" button to activate the water. The water will continue to flow for sixty seconds. The user may press the "ON/OFF" button again to stop the flow of water.

Q: When the infrared eye LED remains on, what does this mean?

A: The batteries are dead and need to be replaced.

Q: How do I remove the aerator?

A: Using a spanner wrench, turn the aerator clockwise to loosen it. Remove the filter and two washers and carefully set aside.

Q: Will leaving the batteries in the operation box affect the performance of the faucet when using the 100-240 VAC adapter?

A: Yes. In the case of a loss of power to the adapter, the faucet will default to battery power.

Vernatherm™ Thermostatic Mixing Valve Troubleshooting

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

- *If stop/check 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/check valves*
- *check the hot water heater output to make sure that it is at least 20° 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.

NOTE: Refer to the Vernatherm™ parts list on page 9 when troubleshooting the valve.

Problem: Limited water flow

Cause: Dirt and debris have built up in the valve or strainer.

1. Remove and clean strainer. If strainer needs to be replaced, order Bradley part no. 173-028.
2. Check the piston for smooth movement.

To check the valve's piston for free and smooth movement, follow the procedures outlined below:

1. Remove the valve's cap and thermostat.
2. Push down on the piston with your finger (the piston should move freely). If the movement is not as it should be, the piston needs to be cleaned. Follow the method outlined below for cleaning the piston and valve body:
   - Remove the thermostat.
   - Lift the piston out with a needle-nose pliers and remove the spring.
   - Any cleaner suitable for brass and stainless steel may be used (if cleaning with suitable cleaner is not sufficient to remove debris, a 400-grit sandpaper may be used to polish and hone the piston and valve body).
   - Snap spring into piston (will detent) and reassemble into the valve body. Retest the piston.
3. If, after a thorough cleaning, the piston does not move freely, the piston must be replaced. Contact your Bradley representative and ask for Repair Kit (part number S65-259).

Problem: External leaks in the system

Cause: O-rings have been damaged.

Solution: Replace O-rings where necessary. For replacement of the O-rings, contact your Bradley representative and ask for Repair Kit (part number S65-259).

Problem: Improper water temperature or temperature fluctuation

Cause: Thermostat is slowly failing or not working at all.

Solution: Check the thermostat for proper operation.

1. At room temperature (80° F or less) remove cap and thermostat.
2. Place thermostat into container with 115° F water. The pushrod should pop out of the thermostat approximately 1/10".
3. If thermostat pushrod does not pop out, the thermostat must be replaced. Contact your Bradley representative and ask for Repair Kit (part number S65-259).

Cause: Valve temperature is not properly set.

Solution: Adjust the temperature. Using a blade screwdriver, turn the adjustment stem **counterclockwise** to **increase** the temperature or **clockwise** to **decrease** the temperature.

Vernatherm™ Thermostatic Mixing Valve S59-4004XS

Repair Kit S65-259

Item	Qty	Description
4	1	Thermostat
6	1	O-Ring
7	1	O-Ring

S45-2082 Checkstop and Supply Hose Kit