

Installation

LVQD2

Verge® Lavatory System – LVQ-Series
with WashBar® Technology

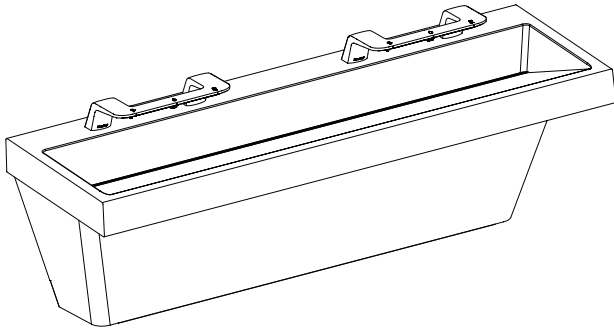


Table of Contents

Pre-Installation Information.....	2
Supplies Required	2
Components	3-4
Dimensions	5-6
Structural Rough-Ins.....	7
Plumbing and Electrical Rough-Ins	8
Bracket Mounting.....	9
Drain Assembly	9
WashBar Installation.....	10
Aerator Installation.....	10
Attach Soap Motor and Soap Container Bracket	11
Bowl Mounting with WashBar	12
Install P-Trap.....	12
Strainer and Drain Cap.....	12
Dryer Motor Assembly	13
Attach Power Line Filter	14
Control Box and Valve Installation.....	15
Soap Installation	16
Electrical Connections	17
Adjust Temperature with Water Running	17
Access Panel.....	18
Master Control Box.....	19-23
Cleaning and Maintenance.....	24-25



WARNING

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.

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 pounds.

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 Web site at www.bradleycorp.com.

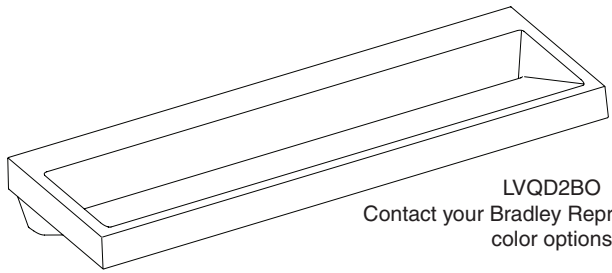
Separate parts from packaging and make sure all parts are accounted for before discarding any packaging material. If any parts are missing, do not begin installation until you obtain the missing parts.

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

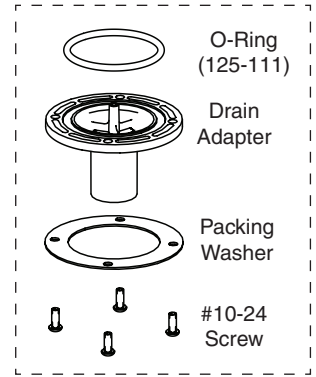
Supplies Required

- (6) 3/8" fasteners and wall anchors for bowl and wall bracket (minimum pull-out rating of 1,000 lbs.)
- (4) #10 fasteners and wall anchors for soap tank brackets (minimum pull-out rating of 100 lbs.)
- (4) #10 fasteners and wall anchors for access panel brackets (minimum pull-out rating of 100 lbs.)
- 1/2" hot/cold or tempered stub-out
- 1-1/2" NPT drain stub-out(s)
- (2) 110 volt GFCI protected electrical outlet (installed per local code)
- (2) Grounding Wires
- Drill
- Basin Wrench
- Tape Measure
- Phillips Screw Driver
- Flat Head Screw Driver
- Level
- 5/16" nut driver
- 5/16" socket (with or without extension)

Components



LVQD2BO
Contact your Bradley Representative for color options



Drain Adapter Prepack (S45-2480)

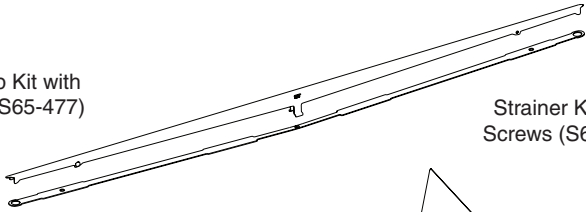
O-Ring (125-111)

Drain Adapter

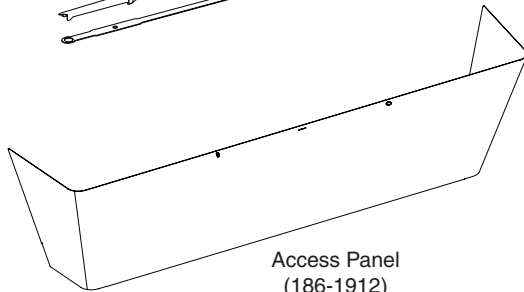
Packing Washer

#10-24 Screw

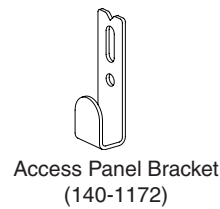
Drain Cap Kit with Spacers (S65-477)



Strainer Kit with Screws (S65-474)



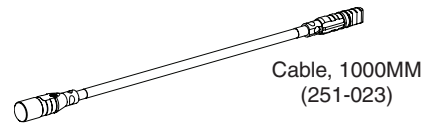
Access Panel (186-1912)



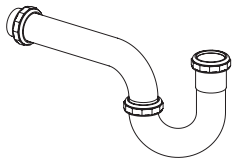
Access Panel Bracket (140-1172)



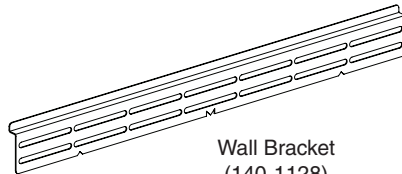
#10 Access Panel Thumb Screw (160-536)
Access Panel Security Screw Option (S45-2880)



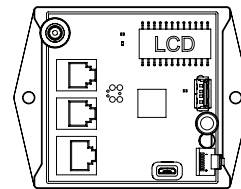
Cable, 1000MM (251-023)



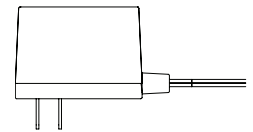
Chrome P-trap (S29-094)
Plastic P-trap (269-1697)



Wall Bracket (140-1128)

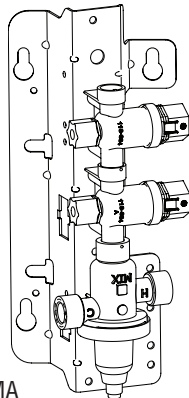


Master Control Box (S39-845)
#10 x 3/8" Screw (2x) (P18-054)



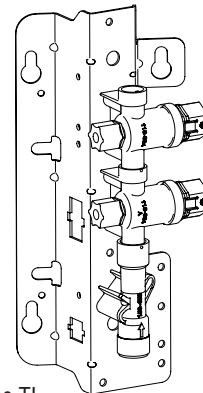
DC Power Adapter (2x) (261-147)

DC Lead Free Valve Assembly, Single TMA (S08-2402TMA)



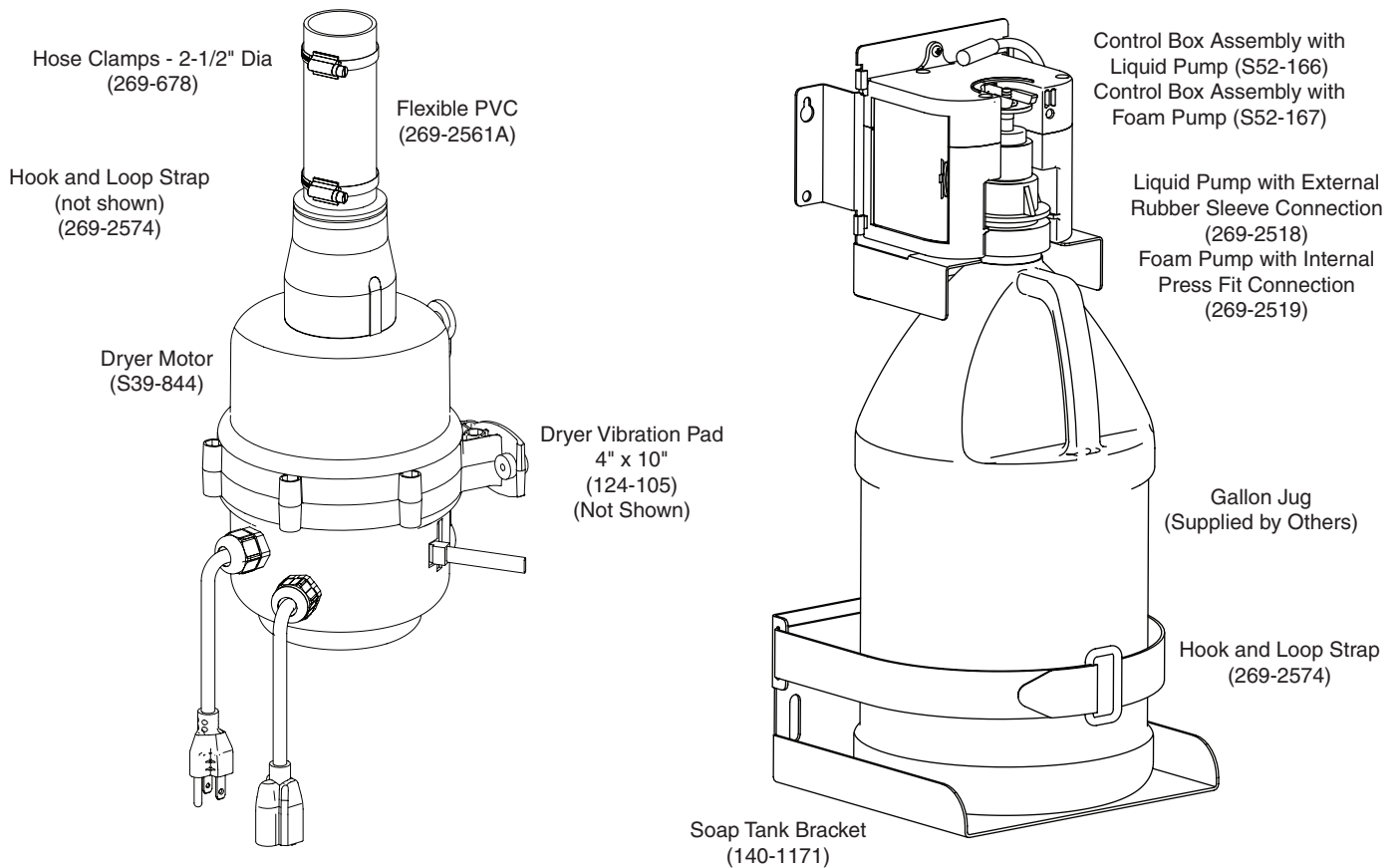
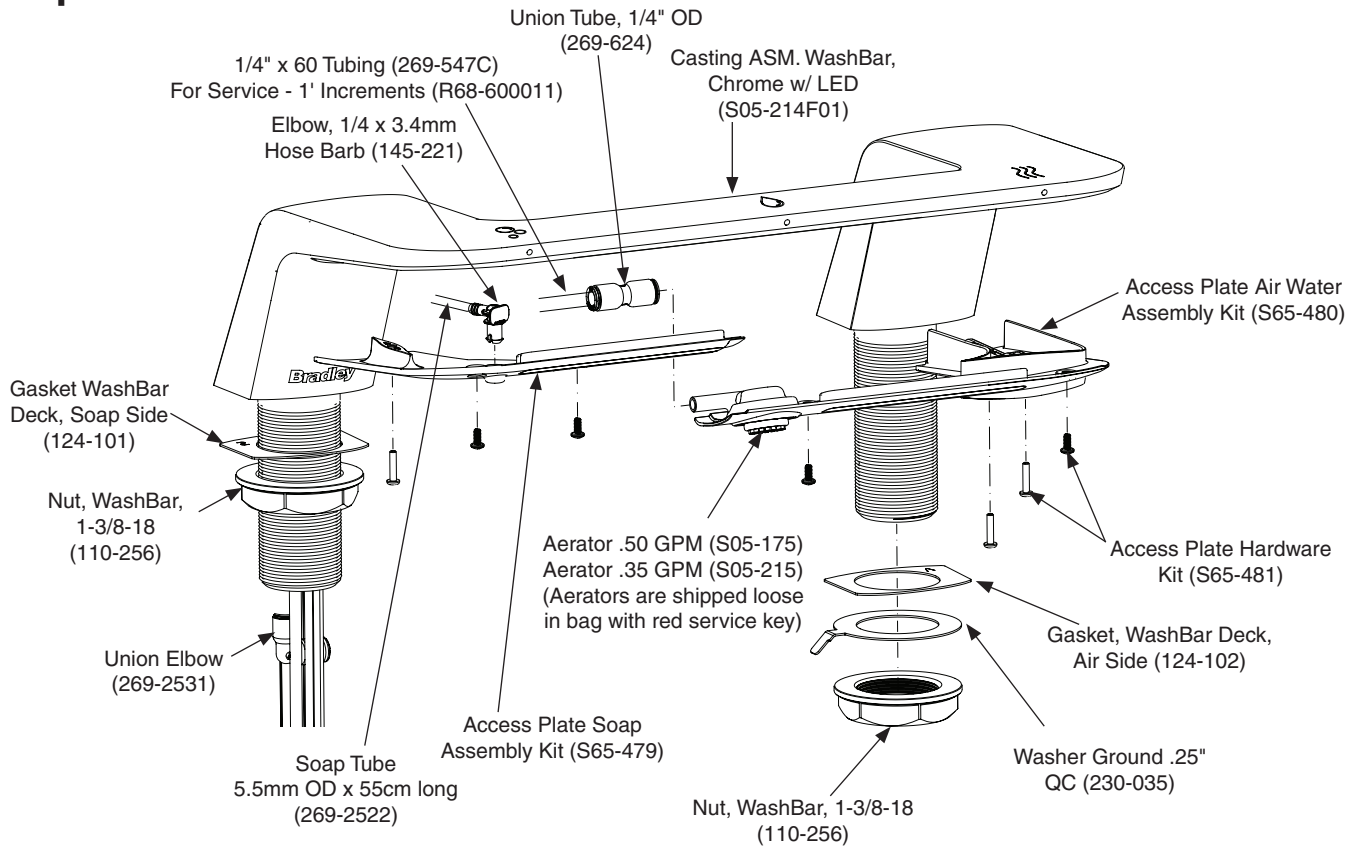
Hose/90 Stop Lead Free TMA (S45-2730)

DC Lead Free Valve Assembly, Single TL (S08-2402TL)



Hose/90 Stop Lead Free TL (S45-2731)

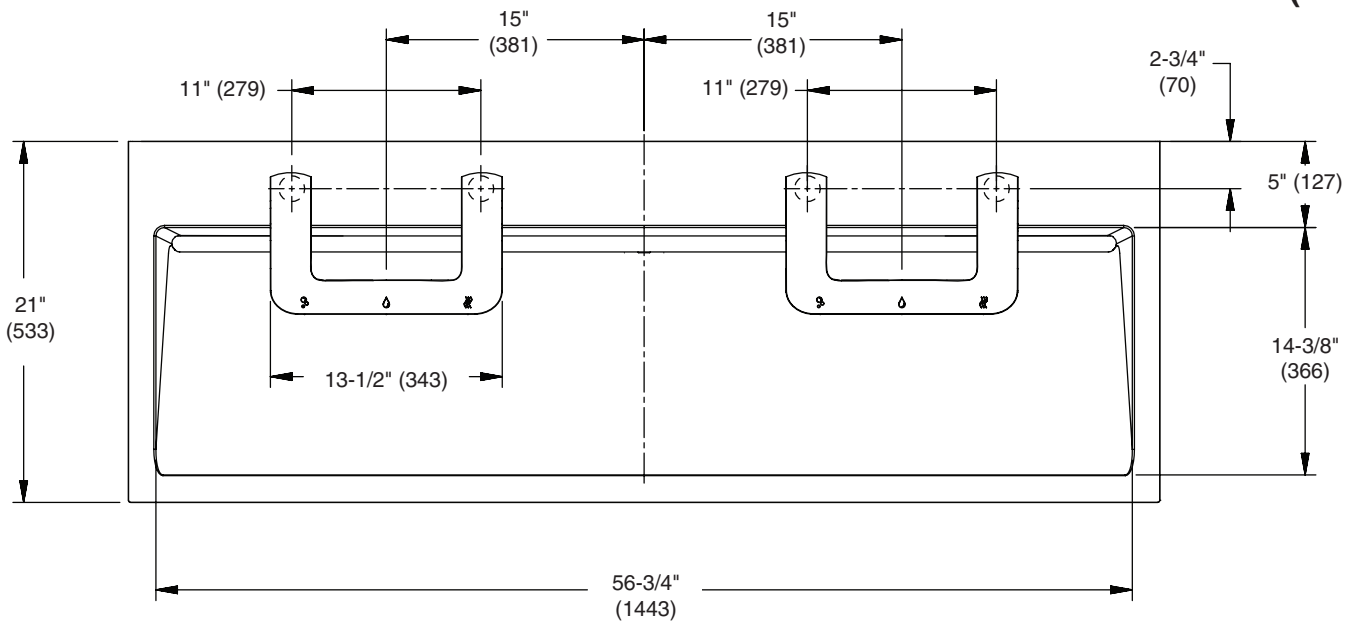
Components



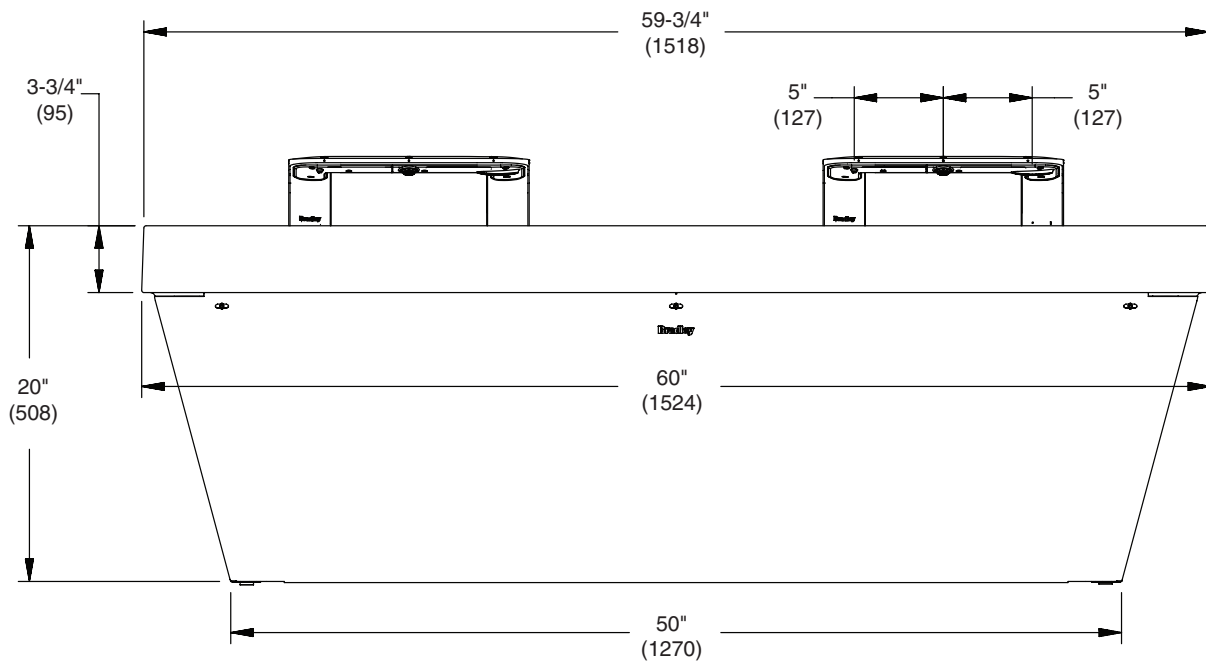
Dimensions

Top View

(mm)

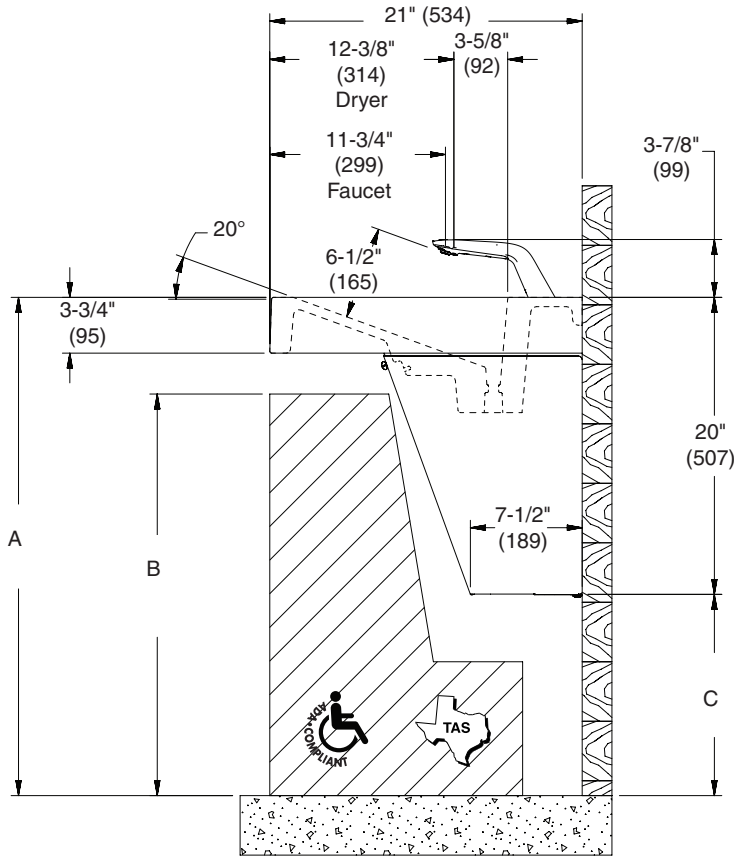


Front View



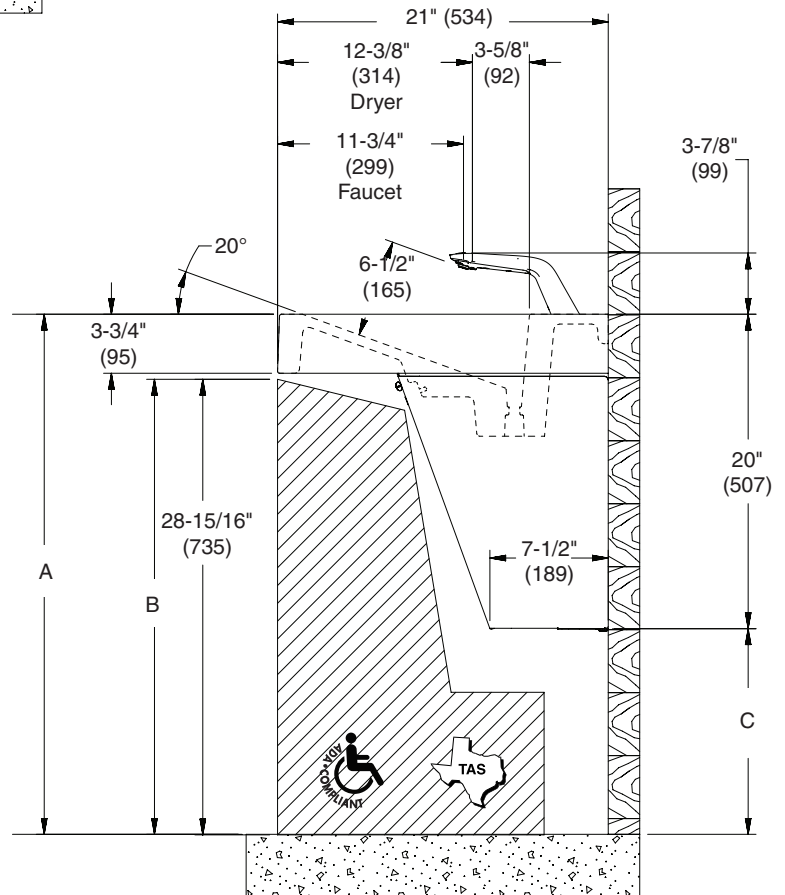
Dimensions – Side View

(mm)



	ADA/TAS Standard Height	ADA/TAS Juvenile Height (Children 6-12 years)
Dim A	33-1/2" (851mm)	30-1/2" (775mm)
Dim B	27" (686mm)	24" (610mm)
Dim C	13-1/2" (343mm)	10-1/2" (267mm)

	CSA Standard Height
Dim A	33-1/2" (851mm)
Dim B	29-29/32" (760mm)
Dim C	13-1/2" (536mm)



Structural Rough-Ins



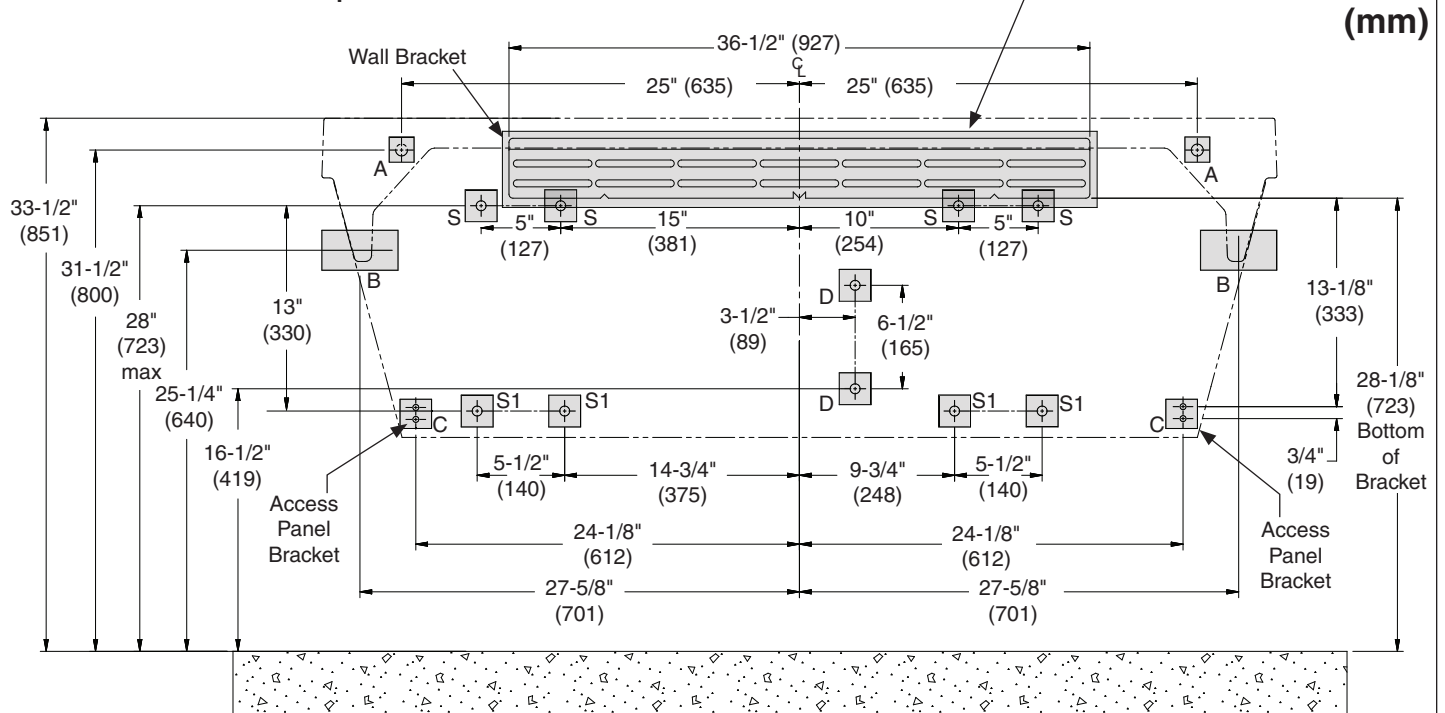
Mounting for Standard, ADA and TAS height shown.



Points A, B and C require sufficient backing compliant with local building codes.

WARNING Ensure bowl is completely seated in the wall bracket and securely fastened to the wall at point A.

Secure bracket to wall using min. (2) 3/8" anchor bolts to the left of C/L and min. (2) 3/8" anchor bolts to the right of C/L. The (2) anchor bolts to the right of C/L must be min. 16" apart from the anchor bolts to the left of C/L. When mounting is complete, check to ensure the bracket is level. See Step 1: Bracket Mounting for more information.



(mm)

CODE	DESCRIPTION	QTY.
A	Install (1) 3/8" wall anchor with a minimum pull-out force of 1,000 lbs. per local codes at locations shown	2
B	Provide structural backing compliant with local building codes.	2
C	Install wall anchor with a minimum pull-out force of 100 lbs. per local codes at locations shown	4
D	#10 Wall Anchors for Valve Bracket	2
S	#10 Wall Anchors for Soap Control Box Bracket	4
S1	#10 Wall Anchors for Soap Tank Bracket (100 lb pull out force)	4

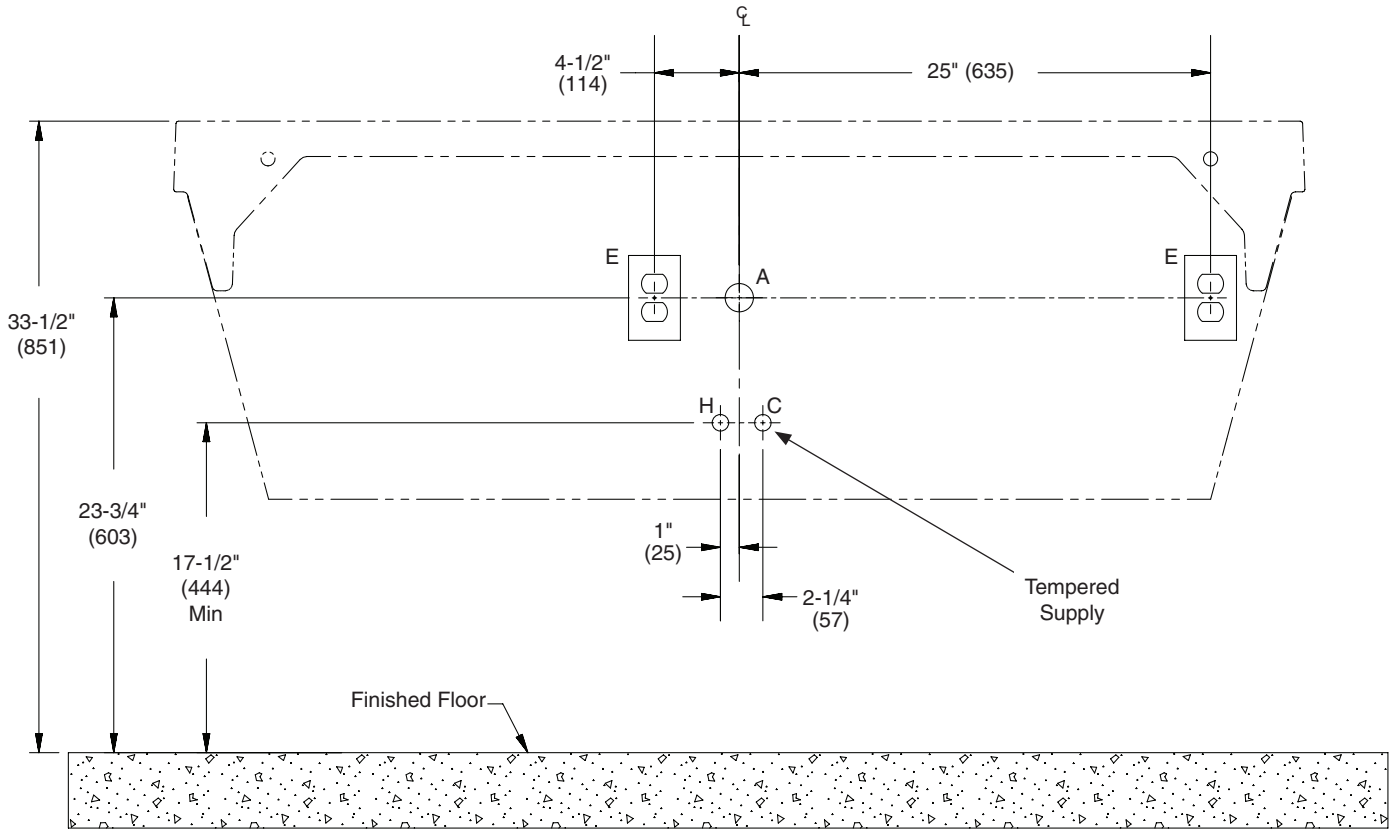
RIM HEIGHT	VERTICAL HEIGHT ADJUSTMENTS	FIXTURE STYLE
33 1/2"	No Adjustment	Standard Height, ADA, TAS and CSA
30 1/2"	Subtract 3"	Juvenile, ADA and TAS

Plumbing and Electrical Rough-Ins





Mounting for Standard, ADA and TAS height shown.


(mm)



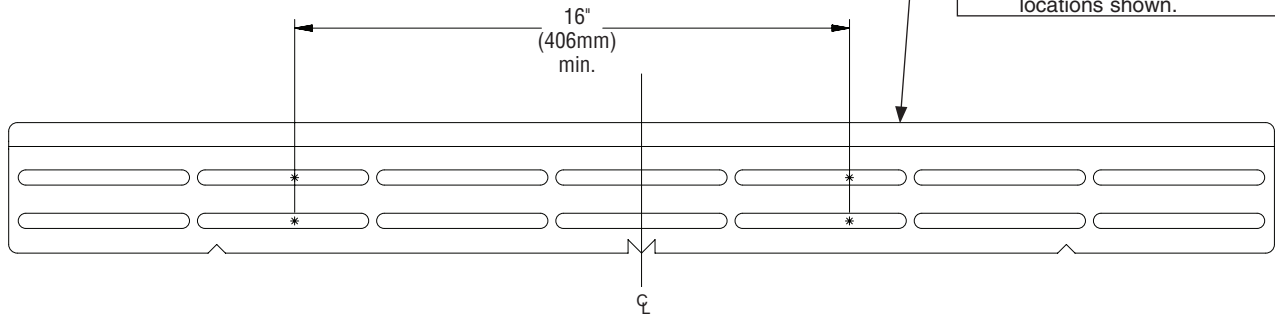
CODE	DESCRIPTION	QTY.
A	1½" NPT Drain, Stub-out 2" from wall	1
H,C	½" Nominal (¾" O.D. Comp.) Hot/Cold supplies, Stub-out 2" from wall	1
E	110V GFI protected electrical outlet (15 amp circuit breaker)	2

1 Bracket Mounting

-  Typical installation is shown. It may be necessary to repair the wall after mounting. The fixture may not cover all of the wall modifications.
-  Mounting height per structural rough-in dimensions.

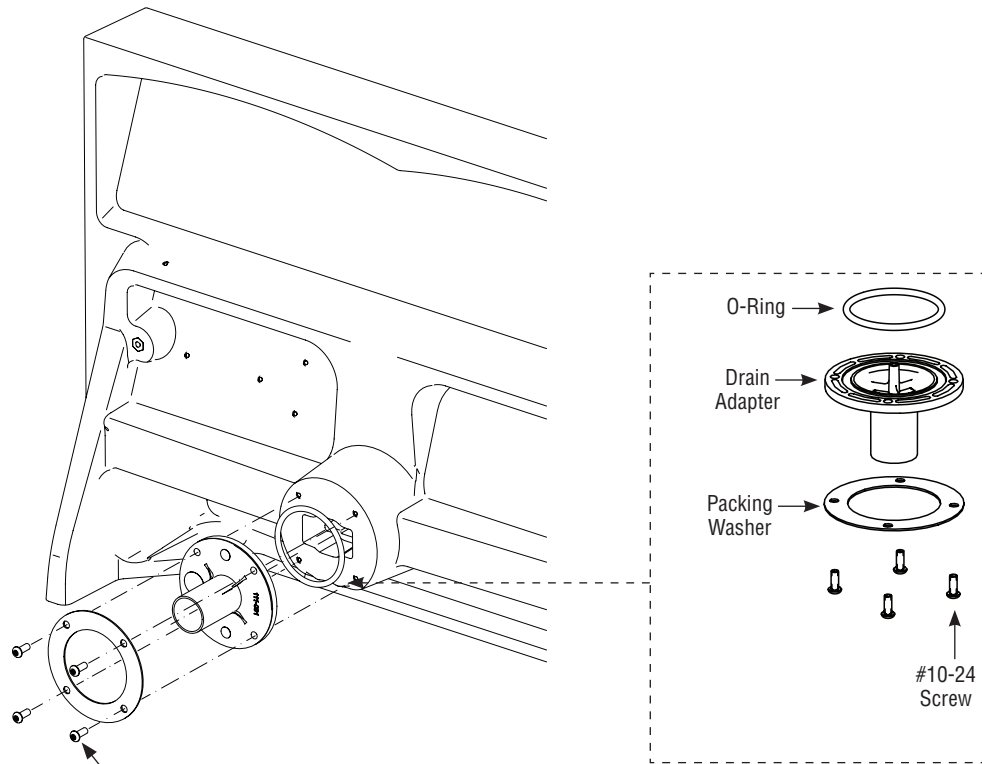
 Access Panel brackets can be installed at this time, if preferred. See Step 14.

A Install wall bracket to wall per structural rough-in dimensions. Check to ensure the bracket is level. Example anchor locations shown.



2 Drain Assembly

-  For ease of drain installation, lay the bowl on its back.



A Assemble the remaining components as shown and thread the four screws through the drain adapter and into the basin inserts. Ensure the screws compress the drain adapter evenly onto the basin. Do not overtighten.

3 WashBar Installation



Single station shown; 2 station similar.



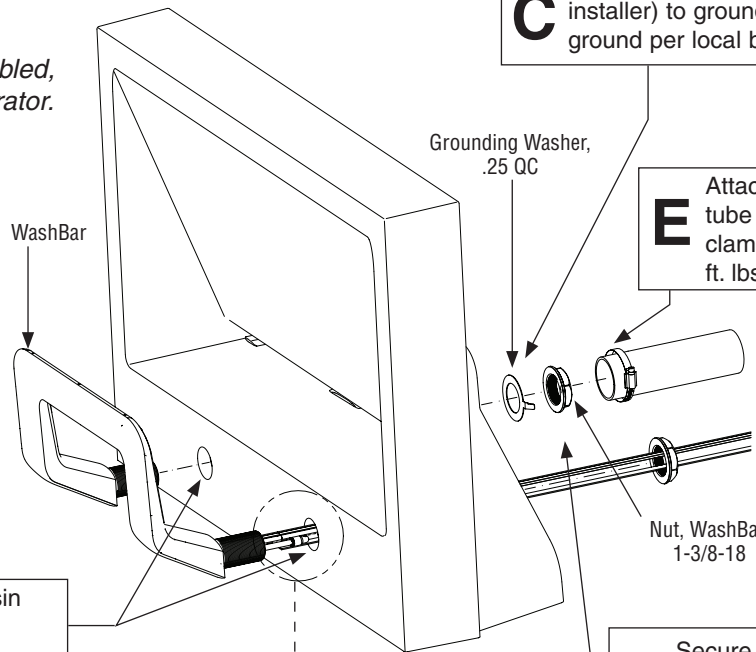
WashBar comes pre-assembled, with the exception of the aerator.



When attaching flexible PVC dryer tube, be sure tube is touching the WashBar nut when complete.

A Position bowl on the floor, upright, as shown.

B Assemble WashBar through basin WashBar holes. Run cables and tubes on left side only.

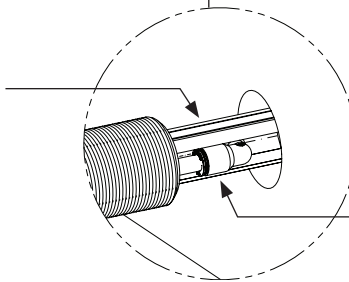


C Connect grounding wire (supplied by installer) to grounding washer and ground per local building code.

E Attach flexible PVC dryer tube to shank using hose clamp. Tighten to 30-35 ft. lbs using 5/16" socket.

D Secure from underside with nuts and grounding washer (right side only).

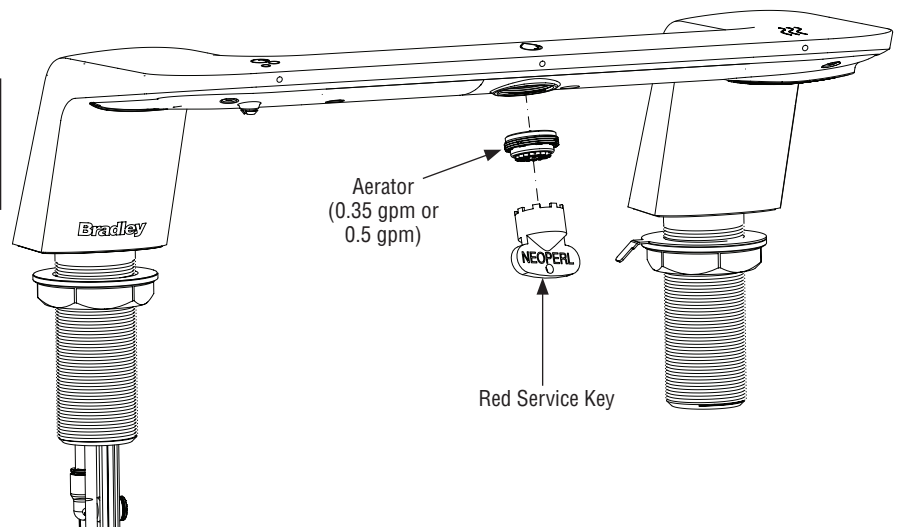
Soap Tube (Clear), 1/4" Water Tube, LED Cable (Gray), Soap Sensor Cable (Shorter Cable) and Air/Water Cable (Longer Cable)



F Attach the 1/4" supply tube to the 1/4" union elbow.

4 Aerator Installation


A Carefully thread the aerator into the WashBar casting using the red service key provided. Ensure no leaks after installation.



5 Attach Soap Motor and Soap Container Bracket

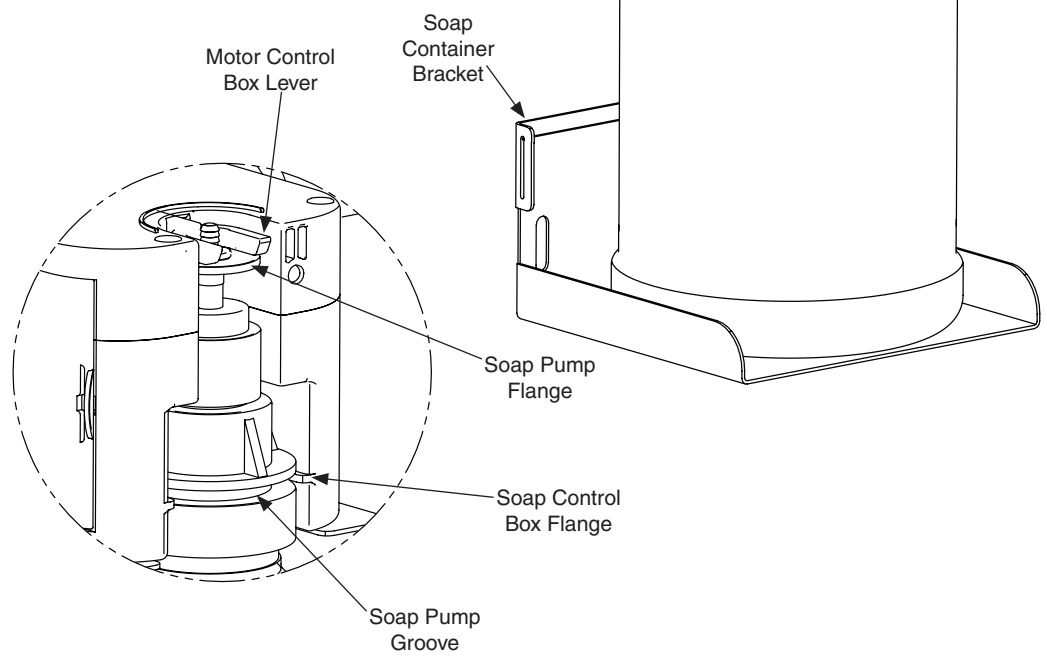
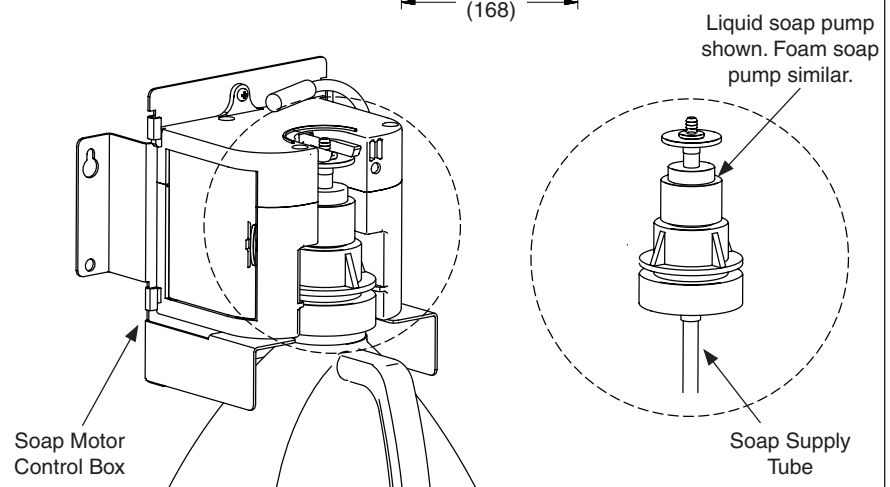
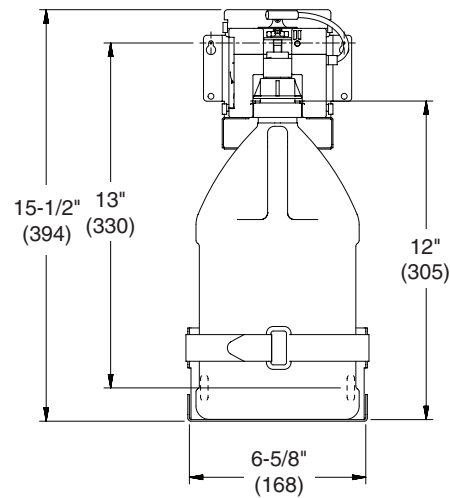
A Attach soap motor control box and soap container bracket to wall using #10 fasteners at locations shown in Structural Rough-In drawing.

B Install the soap pump onto gallon container opening (supplied by others).

 *The liquid soap pump has a rubber sleeve that fits over the soap container opening. The foam soap pump has an interior white cylinder that fits into the soap container. This fit up may be tight. Move the soap pump laterally while applying pressure to seat into soap container opening.*

C To check soap fitup, slide gallon jug with soap pump into soap motor control box. Ensure soap pump flange is positioned below motor control box lever and soap control box flange is positioned in soap pump groove. Gallon jug should rest on soap container bracket without soap pump pulling off of container.

D Once fitup is correct, remove soap container with pump attached and set aside. Soap container will be installed in a later step.

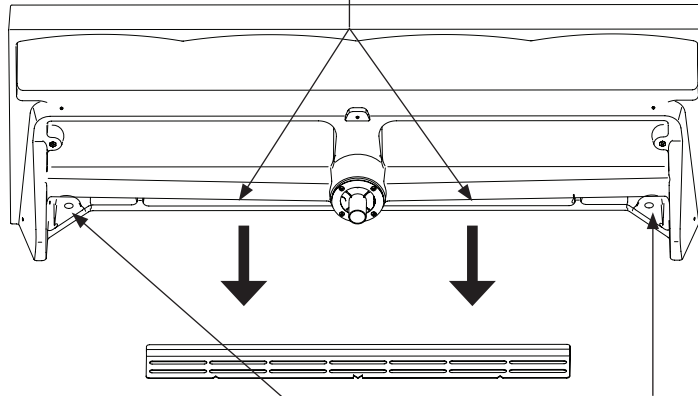
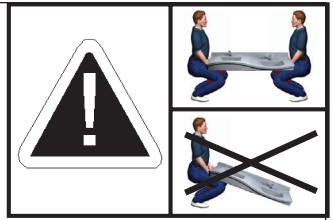


6 Bowl Mounting with WashBar (to Bracket and Wall)

⚠ WARNING Ensure bowl is completely seated in the wall bracket and securely fastened to the wall at point A.

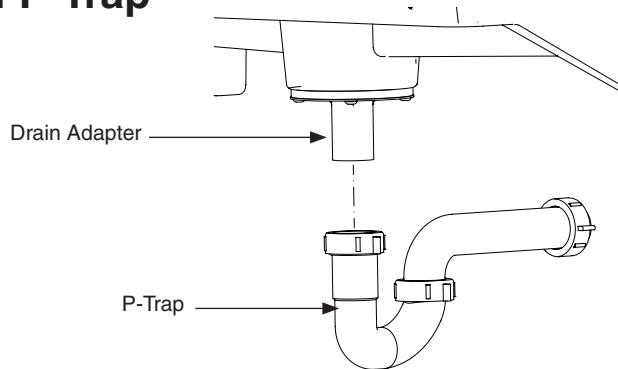
⚠ CAUTION Bracket is not intended to support the weight of bowl for an extended period of time. Be sure to secure the bowl to the wall using appropriate fasteners.

A Position bowl above wall bracket. Press firmly on the back of the bowl to seat the bowl flange into the wall bracket lip. Ensure bowl is level.



B Secure the bowl to the wall anchors using fasteners per the structural rough-in requirement (supplied by installer).

7 Install P-Trap



8 Strainer and Drain Cap



WashBar removed for clarity.

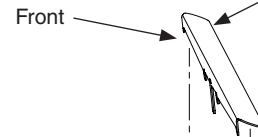


Drain cap is labeled front and back. Be sure front is facing the user. Top surface of drain cap should be sloped away from user.



1 station shown, 2 station similar.

Note Angle of Drain Cap

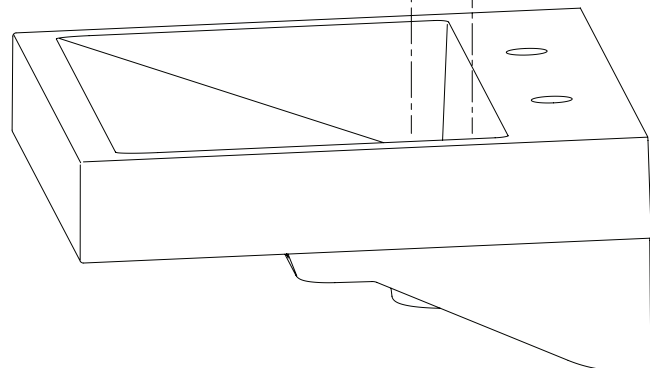


A

Position drain cap over trough strainer, aligning tabs into drain. Push drain cap down until drain cap is flush with basin. Grommets should hold drain cap securely against drain trough walls.

B

To remove drain cap, carefully slip flat screwdriver into left or right hand corner of drain cap and gently lift upwards.



9 Dryer Motor Assembly



1 station shown, 2 station similar.

CAUTION If dryer motor is not secured properly to flexible PVC dryer tube, motor may come lose and detach from tube.

A Slide the hose clamp onto the flexible PVC dryer tube and begin to tighten clamp so that it does not fall off.

B While holding the motor from the bottom with one hand, insert dryer outlet nozzle into the flexible PVC dryer tube.

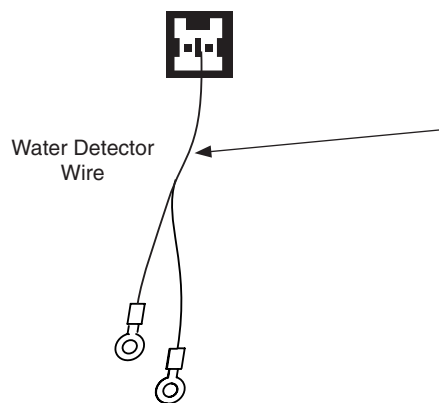
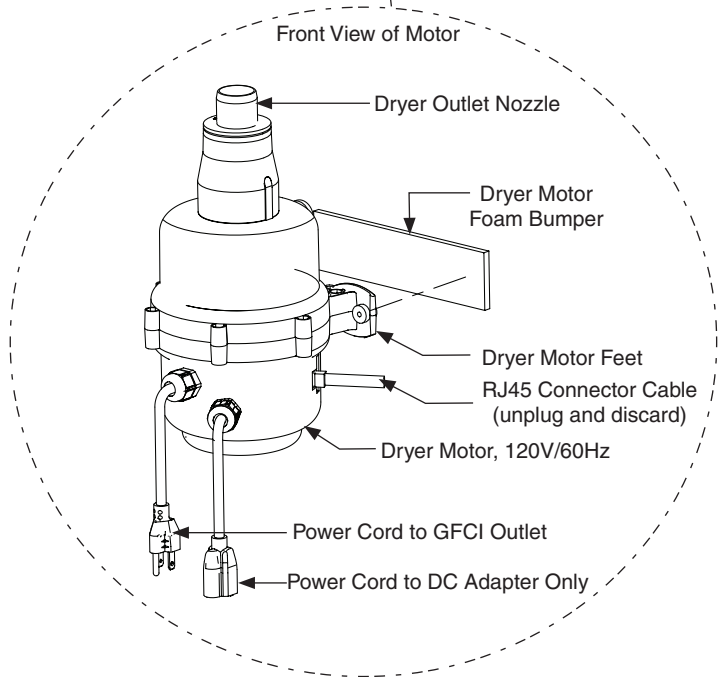
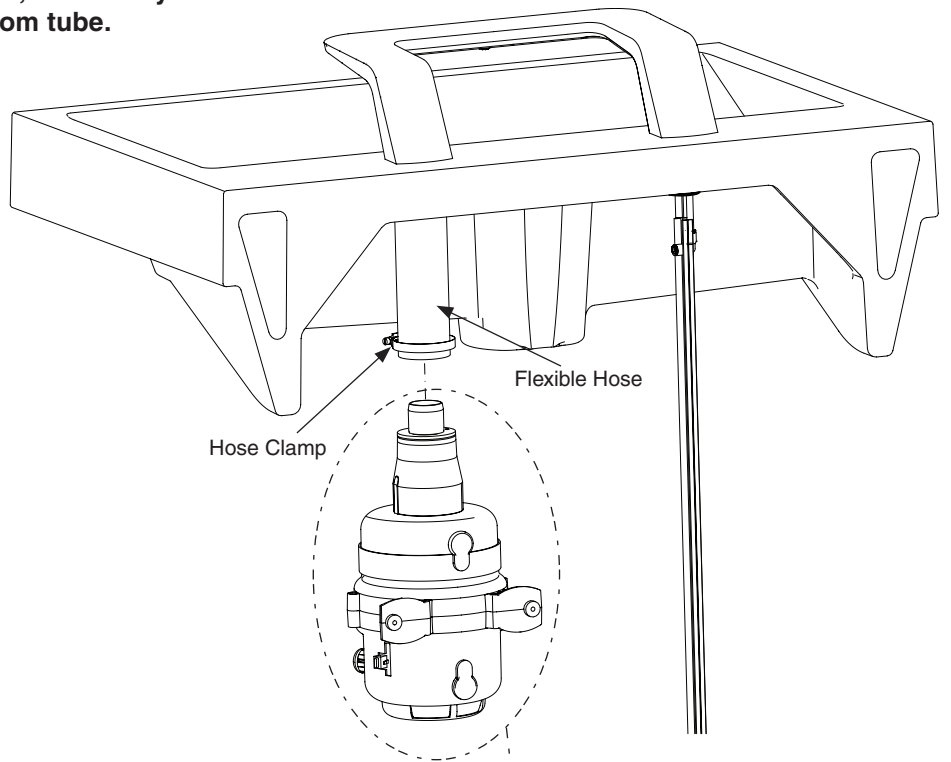
C Tighten hose clamp using the 5/16" socket wrench. Tighten clamp to 30-35 in/lbs.

D Check to be sure motor is securely attached to flexible PVC dryer tube by gently pulling down on motor. Motor should stay attached to tube.

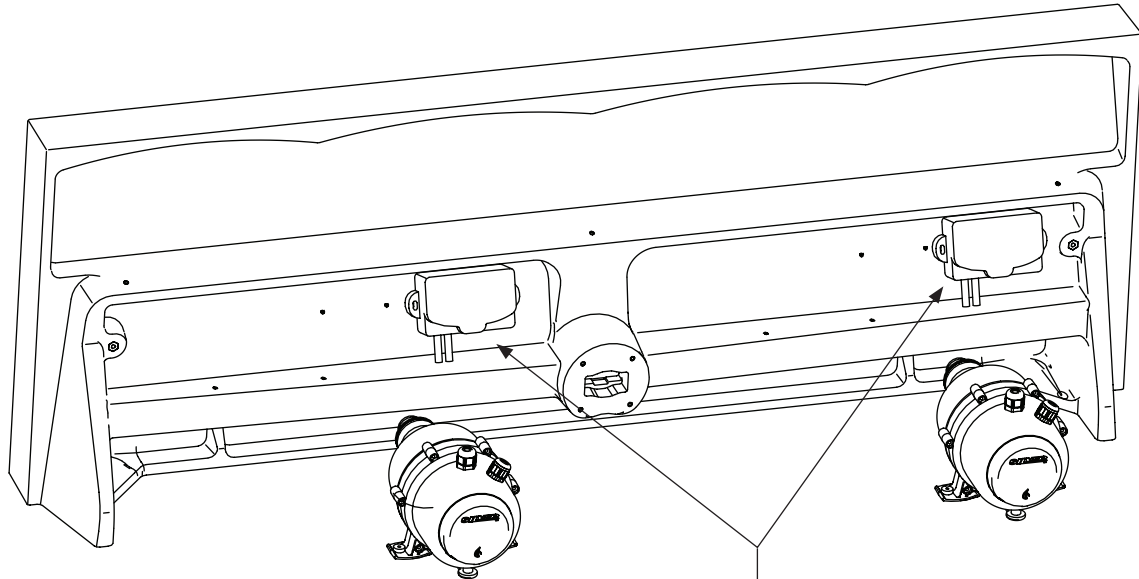
E After assembly, dryer motor should hang freely. Secure dryer motor foam bumper to finished wall, in-line with the dryer motor feet.

F Bundle loose cords to motor using hook and loop cable tie.

G Discard water detector wire (shipped loose) and RJ45 connector cable from motor and discard.



10 Attach Power Line Filter



A Secure dryer power line filter to underside of bowl using (2) #10 x 1" screws provided.

11 Control Box and Valve Installation

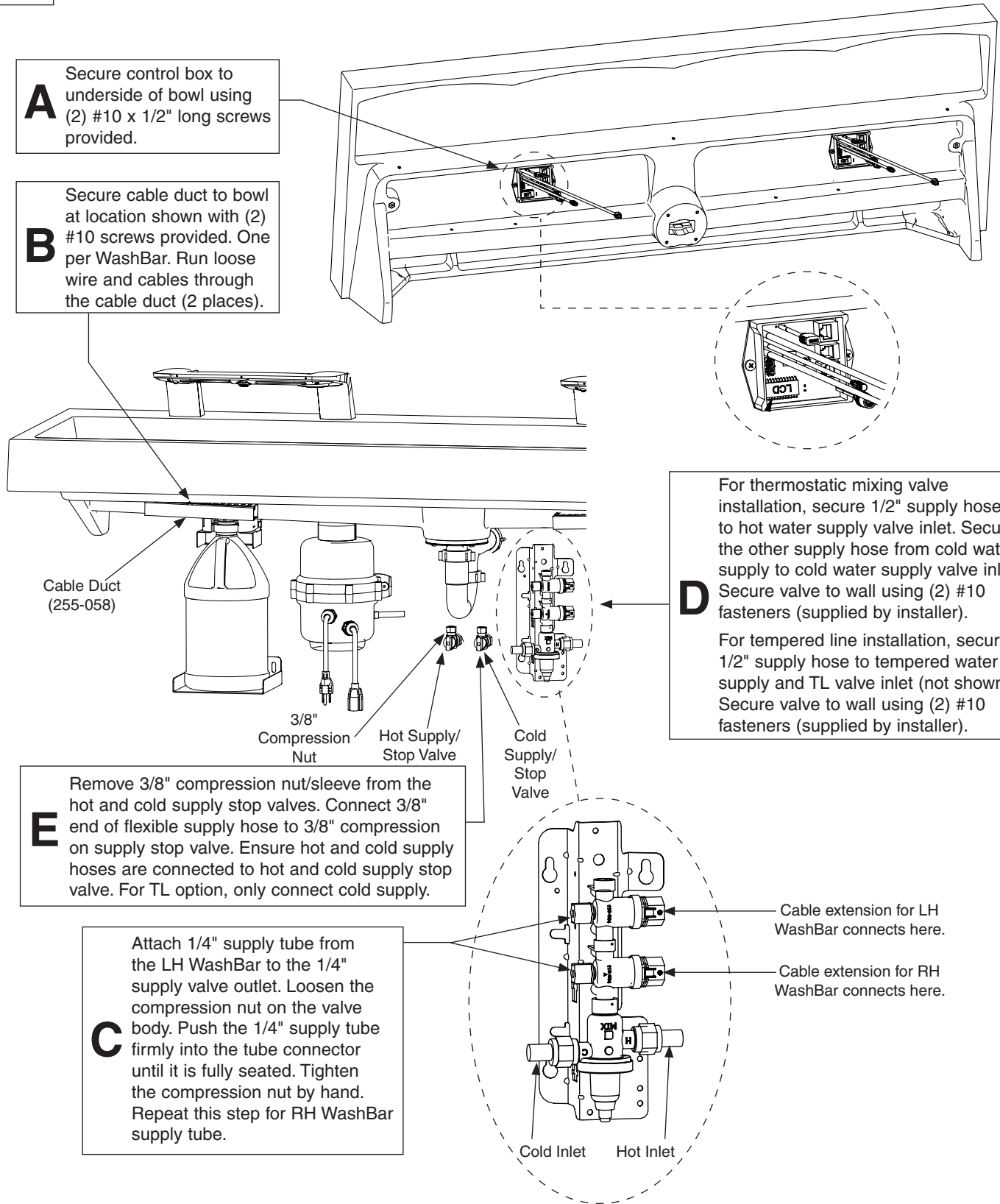
A Secure control box to underside of bowl using (2) #10 x 1/2" long screws provided.

B Secure cable duct to bowl at location shown with (2) #10 screws provided. One per WashBar. Run loose wire and cables through the cable duct (2 places).

D For thermostatic mixing valve installation, secure 1/2" supply hose to hot water supply valve inlet. Secure the other supply hose from cold water supply to cold water supply valve inlet. Secure valve to wall using (2) #10 fasteners (supplied by installer).
For tempered line installation, secure 1/2" supply hose to tempered water supply and TL valve inlet (not shown). Secure valve to wall using (2) #10 fasteners (supplied by installer).

E Remove 3/8" compression nut/sleeve from the hot and cold supply stop valves. Connect 3/8" end of flexible supply hose to 3/8" compression on supply stop valve. Ensure hot and cold supply hoses are connected to hot and cold supply stop valve. For TL option, only connect cold supply.

C Attach 1/4" supply tube from the LH WashBar to the 1/4" supply valve outlet. Loosen the compression nut on the valve body. Push the 1/4" supply tube firmly into the tube connector until it is fully seated. Tighten the compression nut by hand. Repeat this step for RH WashBar supply tube.



12 Soap Installation

A Attach soap supply tube from the WashBar to the top of the soap pump.


B Attach soap pump with supply tubes attached into gallon jug.


C Slide gallon jug with soap pump into soap motor control box. Ensure soap pump flange is positioned below motor control box lever. Gallon jug should rest on soap container bracket without soap pump pulling off of container.


D Use the hook and loop cable tie provided to secure container to soap bracket. Feed end of cable tie (smooth side facing you) through the right side slot of bracket flange at top. Feed through left side flange slot and wrap around jug. Secure with hook and loop end.

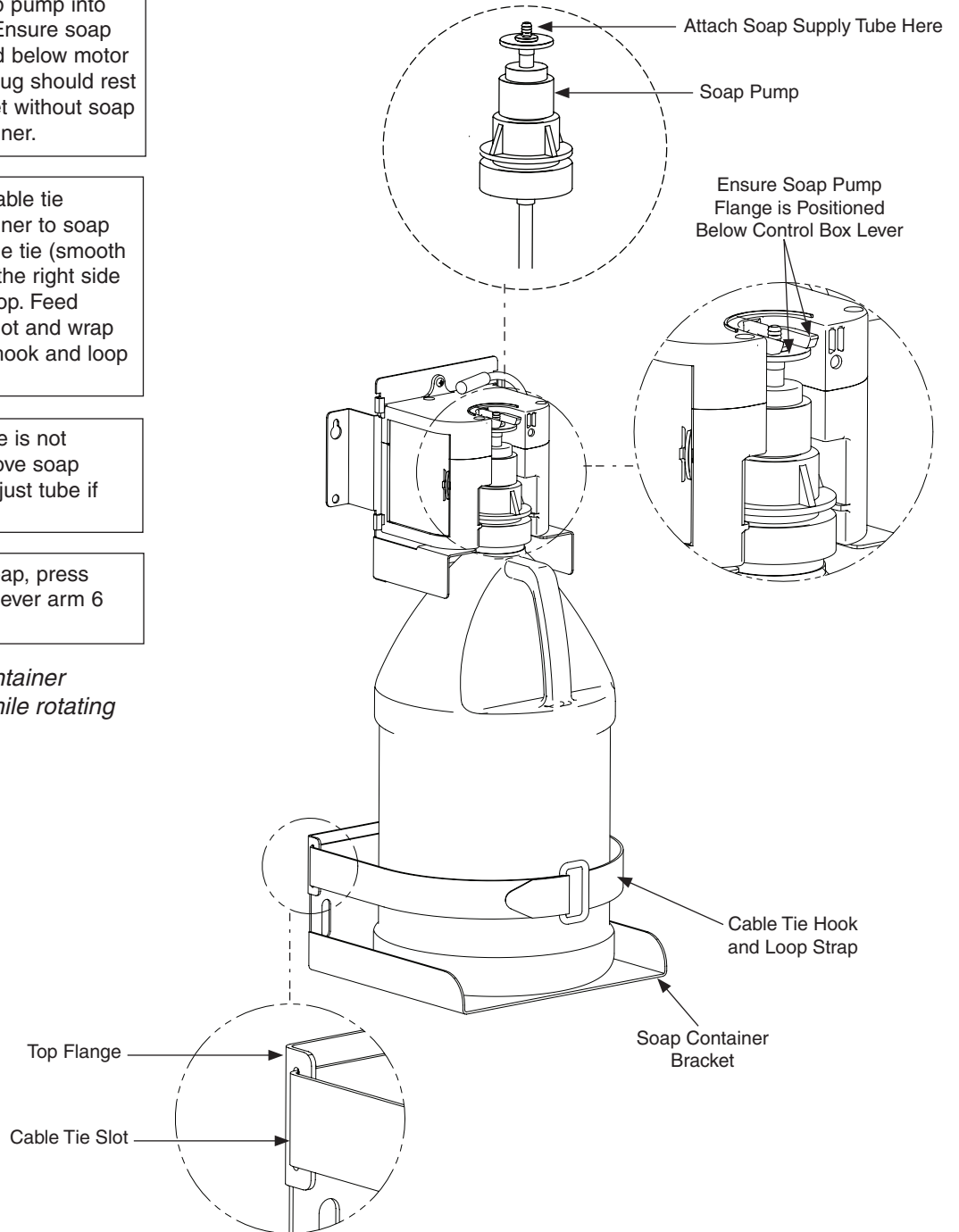
F Ensure that the soap tube is not kinked. Position hand above soap motor control box and adjust tube if needed.

G To manually prime the soap, press down on the control box lever arm 6 to 8 times.

 For ease of soap container removal, pull tank while rotating bottom of tank out.

 The soap system is designed to be used with a standard U.S. gallon soap container. For accurate low soap indication, user needs to set soap type (see configuration mode at the end of this manual on how to set soap type).

 Soap cycle count defaults to liquid soap configuration. If you have the foam soap option, please see Setting the Soap Type under Configuration Mode towards the end of this manual.

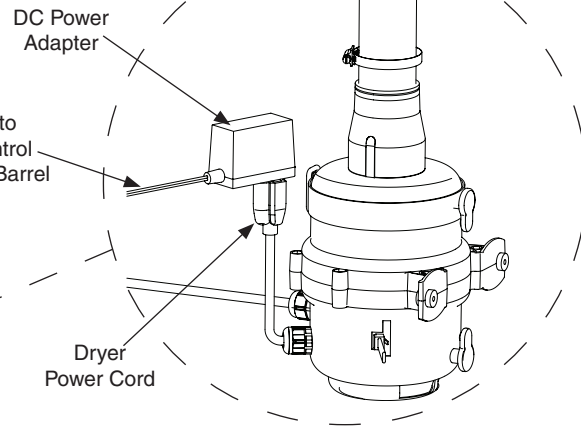


13 Electrical Connections

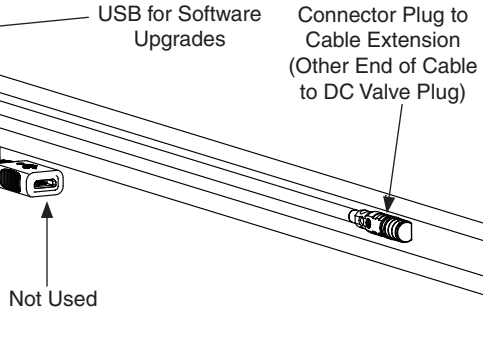
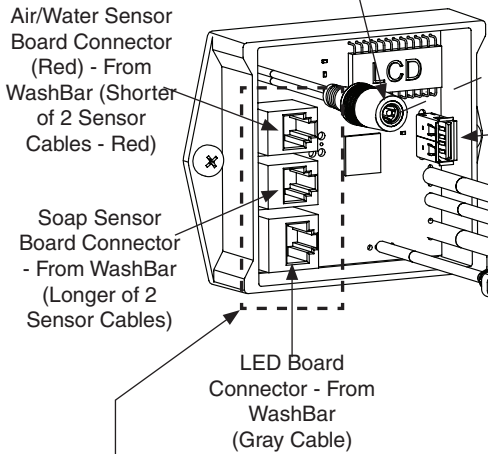


Each WashBar requires the same connections.

B Connect DC power adapter male barrel plug into master control female barrel plug. Plug the DC power adapter into the blower power cord.



C Make barrel plug and connector plug connections as shown.



A Make (3) connections from the WashBar assembly as shown (Air/Water Sensor, Soap Sensor and LED)

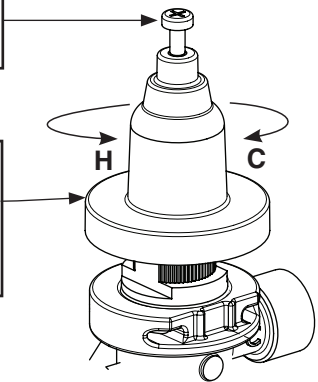
D After all connections are made, reference Master Control Box: System Startup section later in this manual.

14 Adjust Temperature with Water Running

⚠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.



15 Access Panel



Make all connections before installing access panel.



If access panel brackets were previously installed in Step 1, skip A and proceed to B.

A

Install access panel brackets to wall using #10 fasteners (supplied by installer) as shown in rough in drawing. Install top screw into slot. Do not install bottom screw until Step C is complete.

B

Insert #10 thumbscrews into front bowl apron as shown. Thumbscrew in vertical position is closed. Thumbscrew in horizontal position is open.

C

Hang access panel onto mounting brackets attached to wall on the left and right sides. Rotate panel up and check fitup between thumbscrews and panel slots. Rotate access panel down and make adjustment to brackets if necessary. Install bottom #10 fastener into brackets.

D

Attach P-trap to drain adapter and waste outlet.

E

Plug dryer power cord from dryer motor into GFCI protected wall outlet. WashBar LED's will light up blue. Wait 5 seconds. Place hands under soap dispenser, water and dryer to be sure all 3 functions work properly. Check for water leaks.

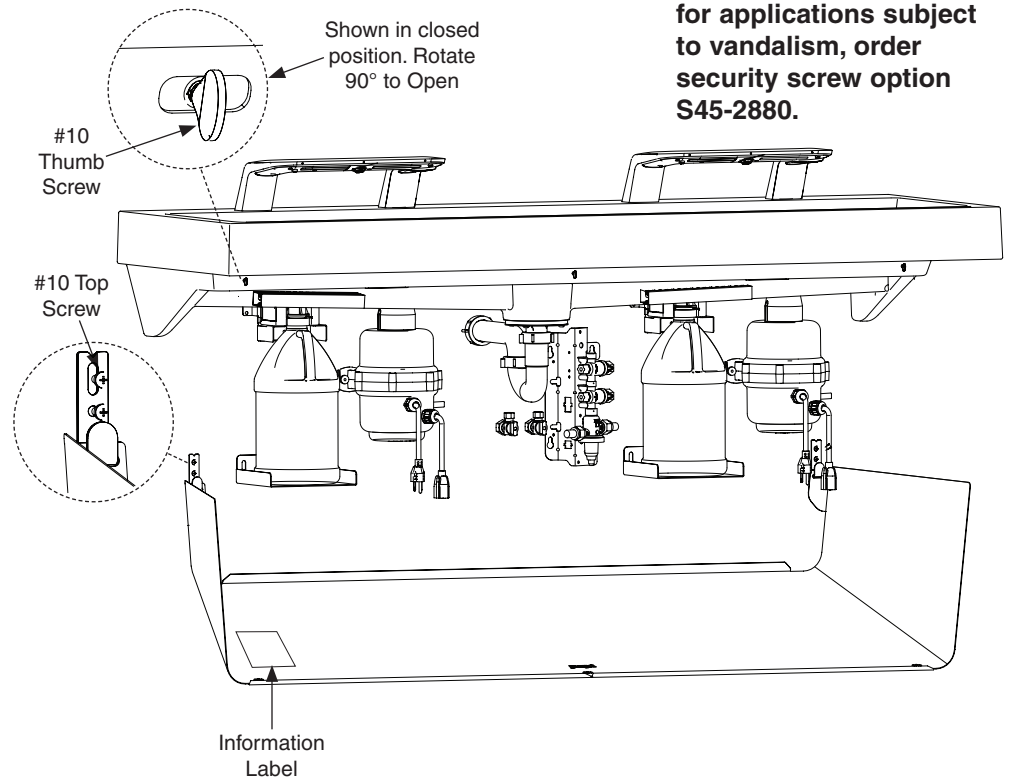
D

Rotate access panel up and secure by rotating thumbscrews to the closed position

E

To open access panel, rotate thumb screw, slightly push panel up and swing access panel down. Do not remove thumbscrews.

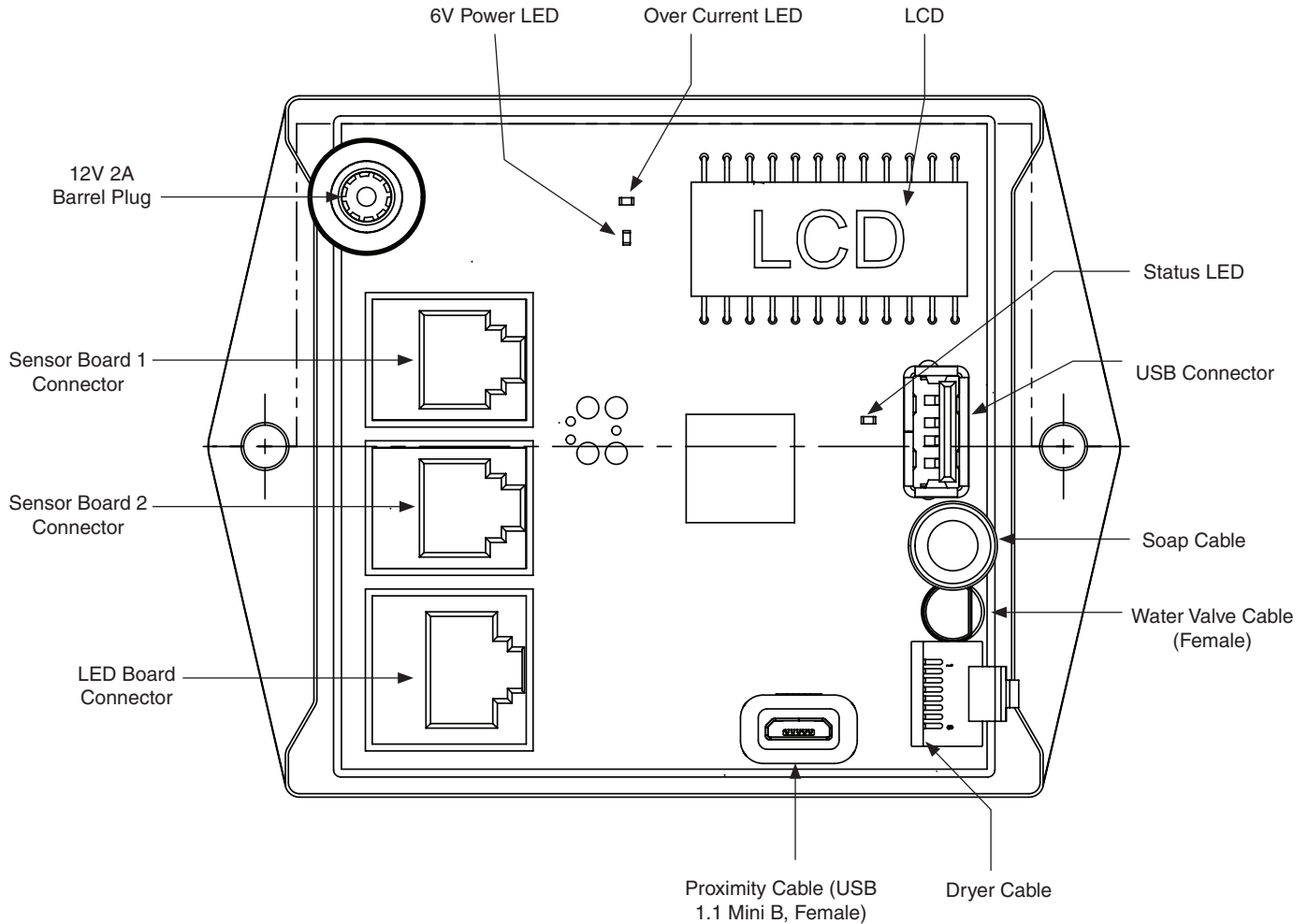
CAUTION For applications where children are present or for applications subject to vandalism, order security screw option S45-2880.



Master Control Box



Scan to watch maintenance and troubleshooting videos for the WashBar!



System Startup



Before providing power to WashBar, make sure the area under the WashBar is clear of any obstructions and that sensors are clear.

The first time the WashBar is powered up, there is a sequence of LEDs that will light up.

- Within 5-10 seconds of receiving power, the WashBar will cycle its LED lights RED, GREEN and then BLUE. Once the LEDs turn blue, the WashBar is in Standby/Idle Mode.



If any of the WashBar LEDs flash RED, check for sensor obstruction. Once obstruction is removed or cleaned, the WashBar LEDs will return to blue indicating that the WashBar is in Standby/Idle Mode.

- The power LED on the master control box will be GREEN indicating the unit has power.

Master Control Box: Operation Modes

Standby/Idle Mode

Standby/Idle mode is automatically activated when the WashBar is not in use. All of the sensors (soap, water, dryer) are active in this mode. When any sensor is activated (soap, water, dryer or approach), the WashBar will exit Standby/Idle Mode.

LED Indicators	Meaning
All blue dimmed	Default/normal
All blue	User option, See Configuration Mode
All Off	User option, See Configuration Mode
Only Soap LED solid red	Low soap (Reset: Hold hand under soap sensor until red LED turns off, approximately 13 seconds.)
Soap and water LED solid red	Soap sensor board error
Air and water LED solid red	Air sensor board error
Soap and air LED solid red	Both sensor boards error
All LED solid red	Air sensor board error and low soap
Any Flashing Red LED	Dryer, water or soap has timed-out. This is caused by a obstructed sensor. Remove obstruction or wipe sensors with microfiber cloth to prevent from scratching sensor. System will return operational automatically once cleared.



The dryer has a 1.5 second delay in this mode.

Operation Mode

Operation mode is the normal dispensing/washing/drying mode automatically activated when the WashBar is in use. All of the sensors (soap, water, dryer) are active in this mode.

While in operating mode:

- The soap and water can activate at the same time but the dryer cannot activate at the same time as the soap and water.
- When dryer is active, disable water sensor closest to dryer.
- When a water sensor is still detecting an object after 30 seconds, the water will shut off and wait for a no-detect before becoming ready again.
- To reset low soap, hold hand under soap for 13 seconds (see table below for low soap indicator LED).
- When a soap sensor is still detecting an object after 15 seconds, the soap will prime for 30 seconds or until a no-detect occurs before becoming ready again.
- When a dryer sensor is still detecting an object after 30 seconds, the dryer will shut off and wait for no detect before becoming ready again.

LED Indicators	Meaning	Solution
All blue bright	Ready Mode	n/a
Green bright	Dispensing soap, water or air	n/a
Only Soap LED solid red	Low soap (Reset: Hold hand under soap sensor until red LED turns off, approximately 13 seconds)	Refill soap.
Soap and water LED solid red	Soap sensor board error	Contact Bradley Terchnical Services.
Air and water LED solid red	Air sensor board error	Contact Bradley Terchnical Services.
Soap and air LED solid red	Both sensor boards error	Contact Bradley Terchnical Services.
All LED solid red	Air sensor board error and low soap	Contact Bradley Technical Services.
Any Flashing Red LED	Dryer, water or soap has timed-out. This is caused by a obstructed sensor.	Remove obstruction or wipe sensors with microfiber cloth to prevent from scratching sensor. System will return operational automatically once cleared.

Cleaning Mode

Cleaning mode temporarily locks out the WashBar for approximately 30 seconds. All of the sensors (soap, water, dryer) are inactive in this mode. After 30 seconds, the WashBar will exit Cleaning Mode and return to Standby/Idle Mode. Use a soft cloth and ethyl alcohol or water to clean WashBar access plates/sensor windows.

To activate Cleaning Mode:

1. Place a hand under the dryer and then immediately (within 1 second) under the soap sensor and hold hands under both dryer and soap sensors for approximately 5 seconds until all LED lights turn solid white.
2. Remove hands only when all LED lights turn solid white.



LED lights may flash and cycle different colors. To activate this mode, only remove hands once all LED lights are solid white.

Configuration Mode

Configuration Mode is when the user can configure the WashBar or obtain cycle counts for soap, water and dryer. All of the sensors (soap, water, dryer) are active in this mode. After 10 seconds of no use, the WashBar will slow flash all LEDs green and then return to Standby/Idle Mode.

To activate Configuration Mode:

1. Place a hand under the dryer and then immediately (within 1 second) under the soap sensor and hold hands under both dryer and soap sensors for approximately 10 seconds until all LED lights turn solid red.
2. Remove hands only when all LED lights turn solid red.



LED lights may flash and cycle different colors. To activate this mode, only remove hands once all LED lights are solid red.



While in Configuration Mode, LED lights will be solid red unless changing configurations or getting cycle counts.

Cycle Counts

To display cycle counts, while in Configuration Mode:

1. Place and remove hand within 3 seconds under the device you want to get a cycle count for (soap, water, dryer).
2. The LED light for that device will turn green to indicate the count will follow.
3. The LED light for that device will turn solid red and then flash the number of cycles as follows:
 - Soap: the LED flashes the number of 100,000 cycles for the device.
 - Water: the LED flashes the number of 10,000 cycles for the device.
 - Dryer: the LED flashes the number of 1,000 cycles for the device.

For example, a water activation cycle of 248,000 will be displayed in the following order: A solid green water LED, followed by a 1.5 second solid red soap LED, followed by 2 white soap LED flashes (indicating the 2 in 248,000). Next, there will be a 1.5 second solid red water LED followed by 4 white soap LED flashes (indicating the 4 in 248,000). Finally, a 1.5 second solid red dryer LED followed by 8 white soap LED flashes (indicating the 8 in 248,000).

Setting the Soap Type

If the WashBar is set to the correct soap type, the low soap indicator will display low soap at 80% empty as intended. If not set correctly, a liquid soap system will be empty before indicator lights up if set to foam and a foam soap system will be 60% empty if set to liquid.

To set soap type, while in Configuration Mode:

1. Hold hand under soap sensor for 5 seconds to start selection process. Selection options will cycle until hand is removed.
2. Continue to hold hand under soap until desired setting color is shown then remove hand while color is being displayed.
 - Red LED: Liquid Soap (3200 dispensing cycles occur before low soap counter needs to be reset. This is the Default setting when WashBar is reset.)
 - Blue LED: Foam Soap (4000 dispensing cycles occur before low soap counter needs to be reset.)

Setting the LED Lights ON (Bright) / ON (Low) / OFF for Standby/Idle Mode

To set the LED lights to ON (Bright) / ON (Low) / OFF for Standby/Idle Mode, while in Configuration Mode:

1. Hold hand under water sensor for 5 seconds to start the selection process. Selection options will cycle until hand is removed.
2. Continue to hold hand under water until desired setting color is shown then remove hand while color is being displayed.
 - Blue LED (Bright): standby LEDs ON (default when WashBar is reset)
 - Blue LED (Low): Standby LEDs slightly dimmer
 - LED Off: standby LEDs OFF

Setting Motor Speed

To set the dryer motor speed, while in Configuration Mode:

1. Hold hand under dryer for 5 seconds to start selection process. Selection options will cycle until hand is removed.
2. Continue to hold hand under dryer until desired setting color is shown then remove hand while color is being displayed.
 - Red LED: High Speed (default when WashBar is reset)
 - Blue LED: Medium Speed
 - LED Off: Low Speed

Reset Mode

Reset mode is when the user can reset all WashBar settings back to their default settings. This removes all custom configuration options but does not reset counters. Counters cannot be reset. All of the sensors (soap, water, dryer) are active in this mode. Once the WashBar has been reset, it will automatically return to Standby/Idle Mode.

To reset the WashBar:

1. Place a hand under the dryer and then immediately (within 1 second) under the soap sensor and hold hands under both dryer and soap sensors for approximately 20 seconds until all LED lights turn solid green.
2. Remove hands once all LED lights turn solid green. WashBar has now been reset and will return to Standby/Idle Mode. If foam soap is being used, the soap type will need to be set to foam. If this step is not done, the low soap indicator will not be accurate. See Configuration section "Setting the Soap Type."



LED lights may flash and cycle different colors. To reset the WashBar, only remove hands once all LED lights are solid green.

24 Hour Water Purge

If water has not been used within 24 hours, the WashBar will automatically run water for 5 seconds. This is not configurable by the user.

Software Update



Software revisions can be found at www.bradleycorp.com/software-updates/washbar

The master control board software can be updated using a USB flash drive. To update the software:

1. Download the desired software revision into the ROOT directory of a USB flashdrive (do not copy file in any folder).
2. Place the USB flash drive containing the desired software into the master control board. Disconnect the barrel plug to power off. Then reconnect the barrel plug. Wait a few seconds for the control box to restart.
3. DO NOT REMOVE FLASH DRIVE until status LED on master control board turns off and LED lights on WashBar turn all BLUE to indicate update is complete.

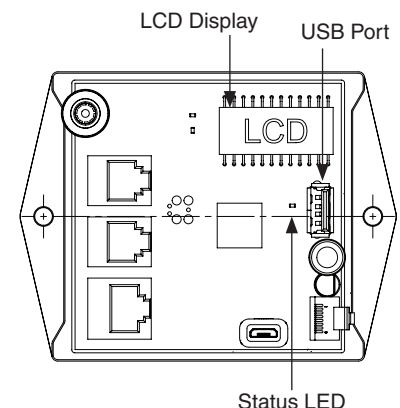


LEDs may turn off after ALL have flashed BLUE if standby LED setting is set to "OFF". RED LEDs may be solid if low soap or board error has occurred or Flashing RED if sensor is blocked.

4. Remove USB flash drive if desired. Leaving USB flash drive in master control board will not affect WashBar performance.



Software version will display on the LCD screen. Software can be reversed to a previous version by having only an earlier version of the software on the USB flash drive.



Displaying Software Revision and Cycle Counts on LCD Display

The master control board has an LCD screen that continuously displays information about the software version and cycle counts for the soap, water and dryer. To view the LCD display:

1. Open the access panel.
2. Locate the LCD screen on the master control board. The display will cycle through the software revision and counts. Cycle counts are displayed x1000 (ex. 65 = 65,000)
 - REV followed by the software revision
 - SOP followed by the soap cycle count
 - H2O followed by the water cycle count
 - AIR followed by the dryer cycle count

Cleaning and Maintenance for Evero

Material Description: Evero Natural Quartz Material is made of bio-based resin, natural quartz and other materials to resist chemicals, stains, burns and impact. Variations in the natural stone color, pattern, size, shape and shade are inherent. Due to these unique characteristics, please expect subtle shade variations when units are installed adjacent to each other.

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

Stubborn Stains: Remove tough stains, with non abrasive cleaners and pads such as a white Scotch Brite® pad or Magic Eraser. Test on inconspicuous area prior to using the suggested products.

Protecting the Surface: To optimize material performance in high use areas, it is recommended to apply DryTreat Stain-Proof Original or equivalent as needed.

Repair Kits: Evero 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 Evero. 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, chloride based cleaners, floor cleaners, etc. Avoid contact with hot pans and objects.*

Cleaning and maintenance instructions 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.*

Special Situations for Material

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.*

Brand Names: Use of brand names is intended only to indicate a type of cleaner. This does not constitute an endorsement, nor does the omission of any brand name cleaner imply its inadequacy. Many products named are regional in distribution, and can be found in local supermarkets, department and hardware stores, or through your cleaning service. It is emphasized that all products should be used in strict accordance with package instructions.

Cleaning and Maintenance for WashBar

Wipe top and underside of WashBar with a mild neutral based cleaner. Dry with a soft cloth to avoid micro scratches in the WashBar finish and sensor plates.

Cleaning and Maintenance for Trench Drain

Depending on application and usage, it is recommended that the drain cap and strainer be removed for regular trench drain cleaning 2-3 times a month.

Liquid Soap Recommendations and Dispenser Maintenance

Overview

Quality soap dispensers require good quality soap and periodic maintenance to properly operate. Bradley soap dispensers will provide dependable, consistent operation over the long term when soap with reasonable viscosity and pH levels are used and when a minimal amount of periodic maintenance is performed on the valves. Most soap dispenser problems are caused by soap that is too thick or corrosive, or by a lack of maintenance. Many soaps come in concentrate form which must be diluted with water. Often, the soap is improperly diluted or used straight out of the bottle, which causes clogging and valve failure. If proper soap is being used, valves that have never been cleaned are usually the source of dispensing problems. With proper maintenance and soap, Bradley dispensers will provide long term, trouble free operation.

Viscosity

Soap thickness is determined by a measurement called viscosity. Soap viscosity should be between 100 cps (centipoise) and 2500 cps for all Bradley soap dispensers. Thick soaps flow slower and inhibit the “flushing” action of the valves, which allows the soap to congeal in the valve and cause clogs.

pH Level

The pH (acid) level of the soap should be in the range of 6.5 to 8.5. More acidic soaps (pH levels lower than 6.5) will corrode metal parts (even stainless steel!!) and degrade rubber and plastic components. They will also cause skin irritation. Most inexpensive soaps (typically the pink lotion type) fall into this acidic category and will eventually cause valve failure and metal corrosion.

⚠ CAUTION Base soaps (pH levels higher than 8.5) will cause skin irritation and swelling or degradation of rubber and plastic parts.

Soap Valves

Valves must also be maintained (cleaned) to function properly. At the very minimum, hot water should be pumped through valves periodically to clear out soap residue. Ideally, valves should occasionally be soaked for 30 minutes in hot water or a soap valve cleaning solution. The valve should be pumped at least 20 times while it is soaking to clear any clogs. The soap reservoir should also be flushed with hot water. In cases of extreme clogging, the valve should be disassembled and the parts should be soaked in hot water or cleaning solution to restore proper functioning. Generally, any quality soap meeting the viscosity and pH guidelines above will work well with Bradley soap dispensers. PCMX or Isopropanol based antibacterial soaps (within viscosity and pH limits) will also work with Bradley dispensers. Soaps satisfying these basic guidelines will provide consistent flow and reduce clogs.