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for most current specifications.

WEDGE™ MODELS:

9161

9162

9163



CORTERRA
ADA/OBC COMPLIANT
WASH BASIN

Model Shown: 9161-WD04

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REQUIRED ITEMS FOR INSTALLATION - NOT SUPPLIED

- ✂ Chalk Line
- ✂ Hammer
- ✂ Carpenters Level
- ✂ 1/2" NPS Supply Angle Stops
- ✂ 7/16" Hex Wrench
- ✂ Plumbers Putty
- ✂ Teflon Tape
- ✂ 1/4" Fixture Wall Anchors and Anchoring Hardware (and Appropriate Tools)
- ✂ 1/2" Fixture Wall Anchors and Anchoring Hardware (and Appropriate Tools)

NEO-METRO

A Member of Morris Group International Morris Group
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800.591.9050 • 626.855.4854 • Fax 606.937.4725



Important: Some options may slightly alter installation. To ensure proper installation review the manual thoroughly and verify rough-ins before beginning any work. File this manual with the owner or maintenance personnel upon completion of installation.

Industry standard wall backing, for wall hung fixtures, is required. Installer provided wall anchors and wall anchoring hardware must be appropriate for wall construction, and have a minimum pull-out rating of 1000 lbs. (453.6 kg).

ANSI, UFAS or ADA compliance is subject to the interpretation and requirements of the local code authority and is the responsibility of the installer for verification.

Single Temp Valve Assembly: Recommended working water pressure is 30 PSI (2.07 bars) minimum to 100 PSI (6.89 bars) maximum. Maximum temperature is 130°F (54.4°C). Maximum outlet temperature is recommended is 105°F (40.6°C). Valve assembly must be drained prior to being subjected to freezing temperatures. A checkstop is provided with this valve assembly.

T/P Mixing Valve Assembly: Recommended working water pressure is 30 PSI (2.07 bars) minimum to 100 PSI (6.89 bars) maximum. Maximum hot water temperature is 180°F (82°C). Temperature adjustment range is 95°F-110°F (43°C-48°C). Valve assembly must be drained prior to being subjected to freezing temperatures. The valve assembly has a check integral to the inlet however, angle stop is to be provided by the installer.

Prior to installation, supply lines must be flushed of all foreign material such as pipe dope, chips, or solder. Debris or foreign material in water supply may damage valve.

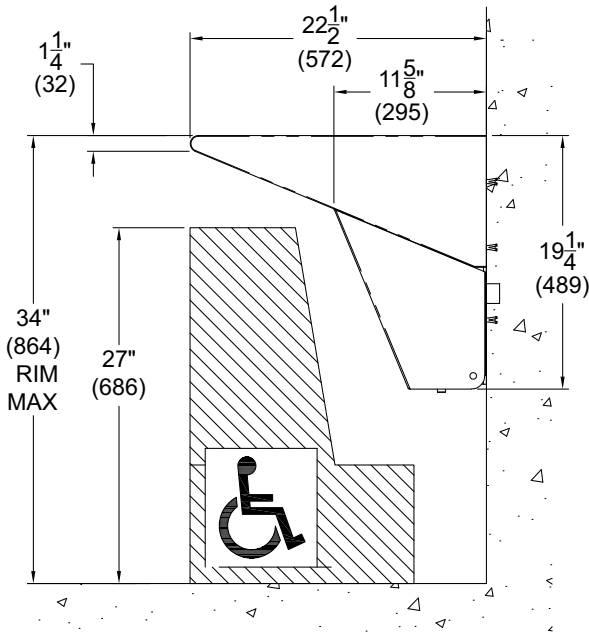
Teflon tape is recommended on all threaded waste and supply connections to reduce the possibility of leaks.

Provide: 110-120 VAC/60Hz/3A (MAX) electrical receptacle for factory supplied 120VAC/9VDC, 100mA plug-in transformer when -SO and -SOS options are selected.

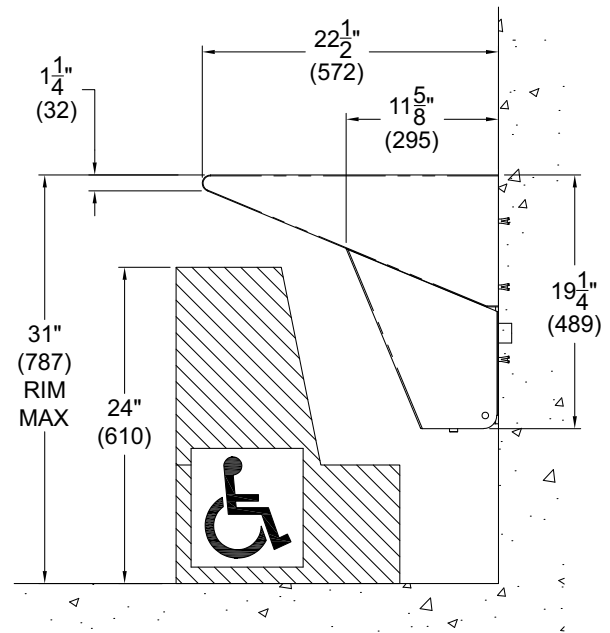
Provide: 110-120 VAC/60Hz/15A dedicated circuit when Dyson Air Blade Faucet selected. Refer to Dyson installation instructions for more information.

NOTE: Receptacle(s) must be wired to a GFCI protected circuit. Fixture must be earth grounded per N.E.C. (National Electrical Code).

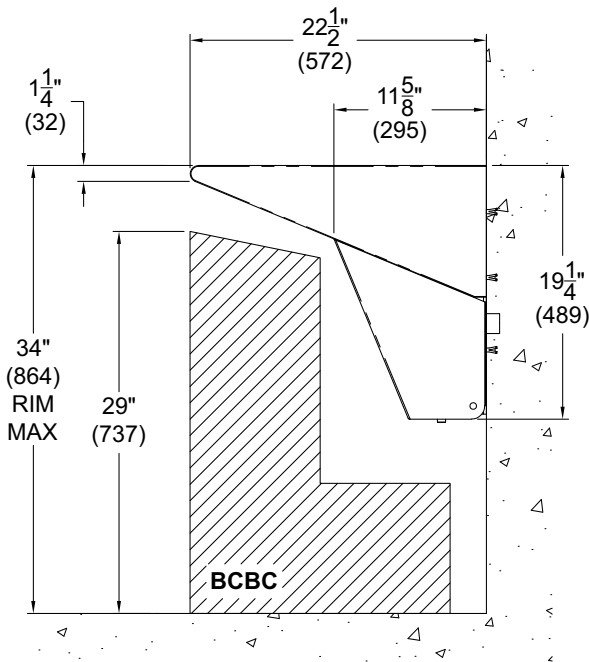
ACCESSIBILITY COMPARISONS



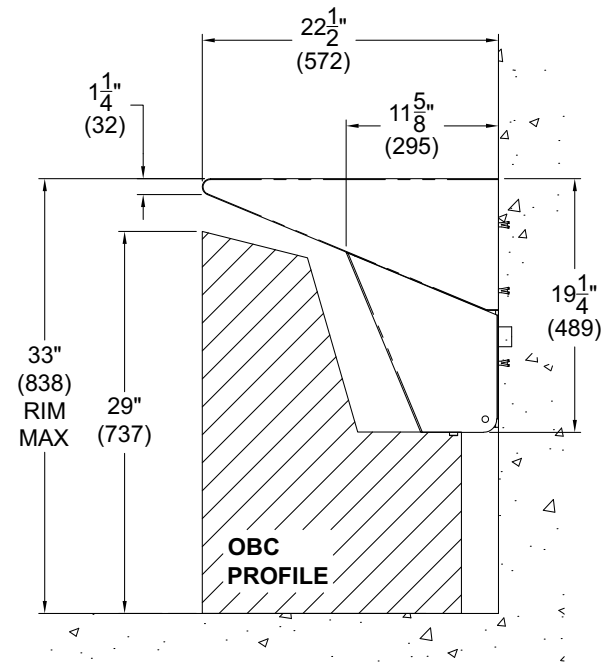
 **ADA
ADULT**



 **ADA ages
6 thru 12**



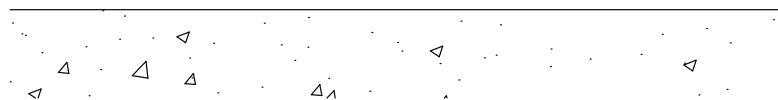
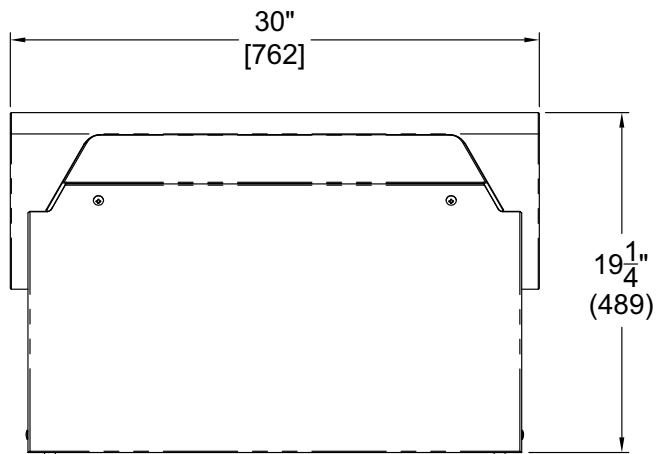
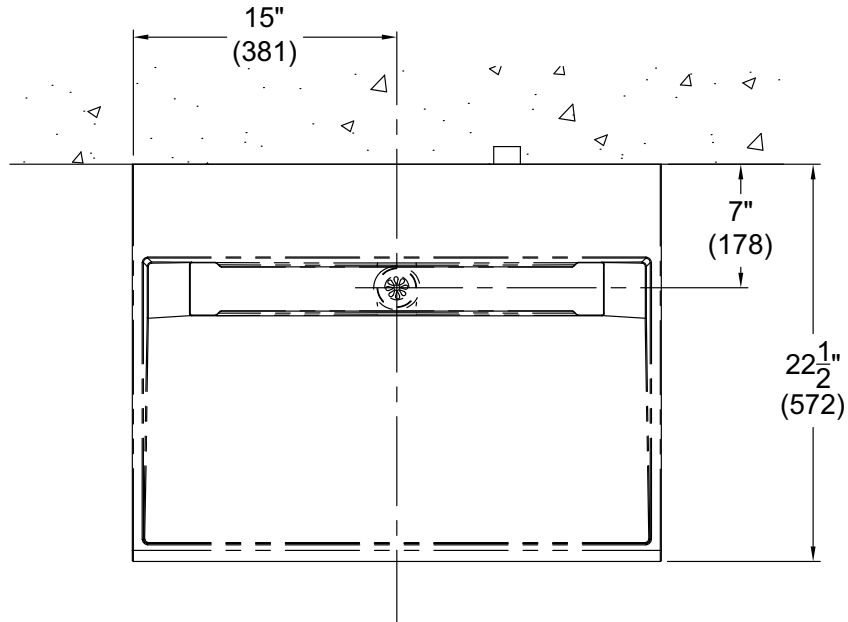
**BCBC
(British Columbia Building Code)**



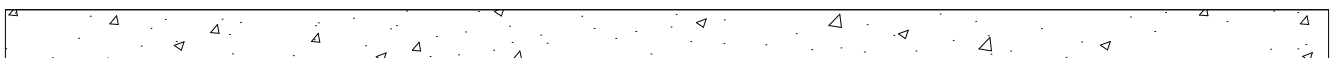
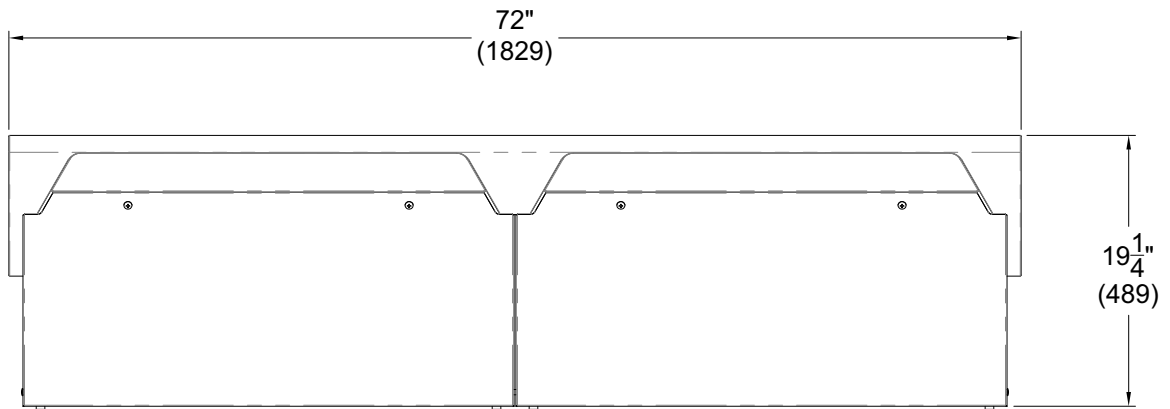
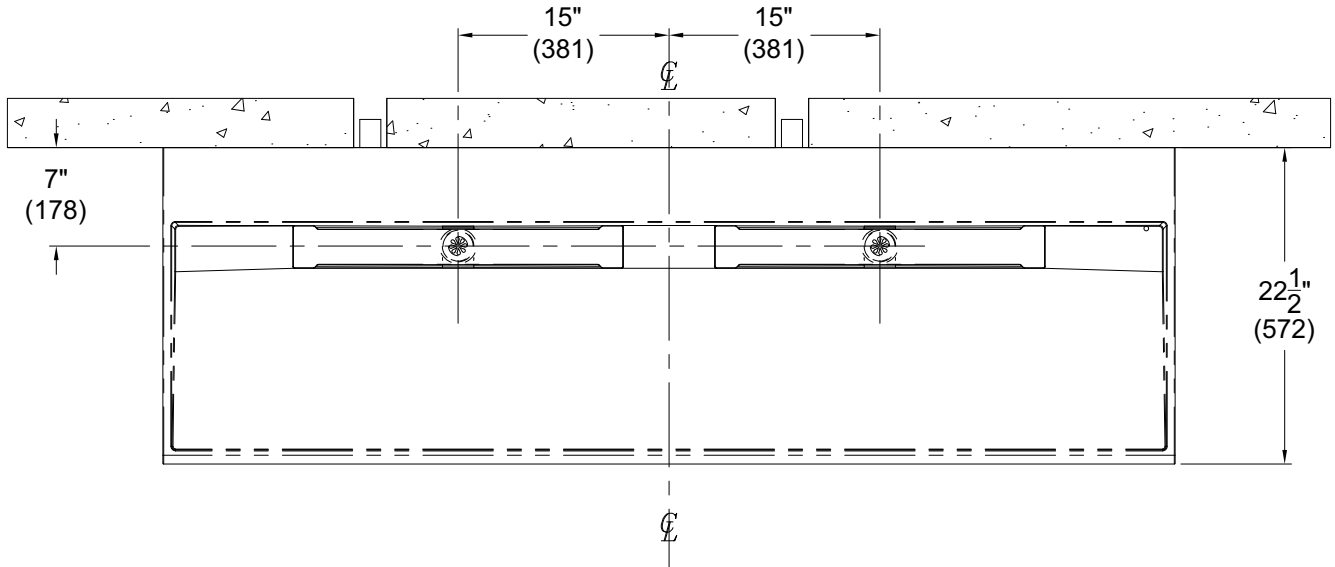
**OBC
(Ontario Building Code)**

Please visit www.neo-metro.com for most current specifications.

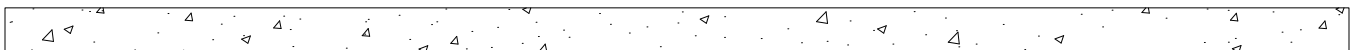
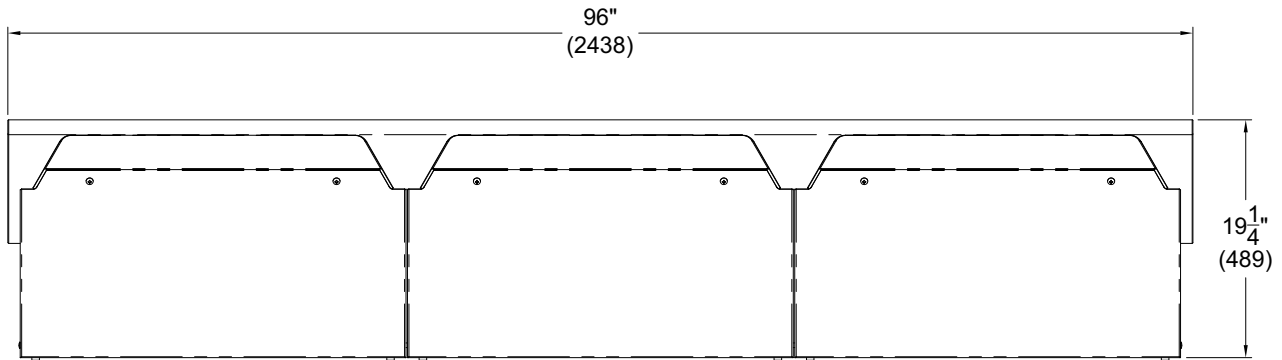
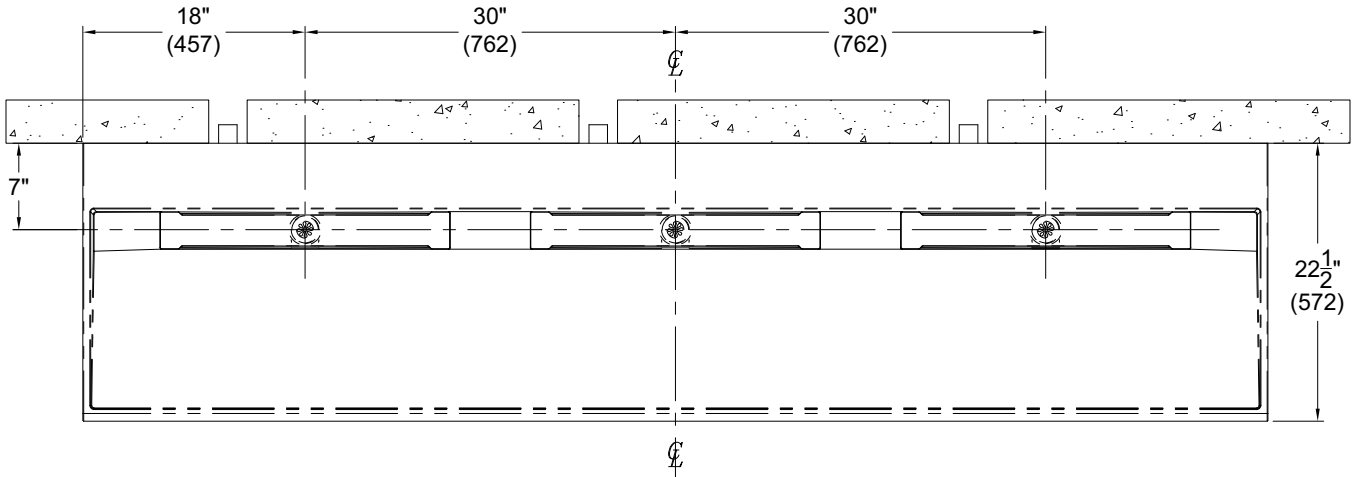
DIMENSIONAL DATA - 9161



DIMENSIONAL DATA - 9162



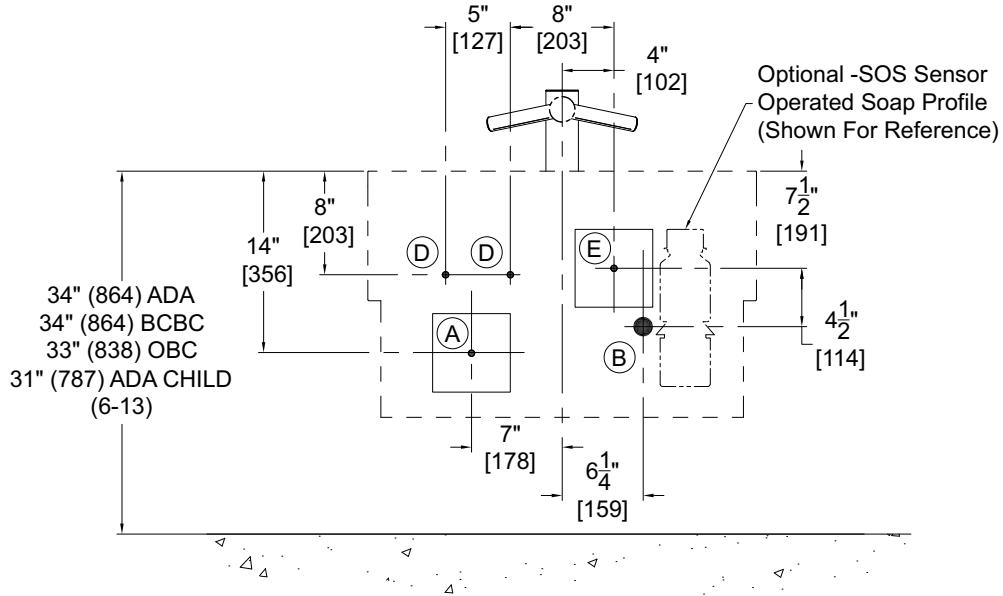
DIMENSIONAL DATA - 9163



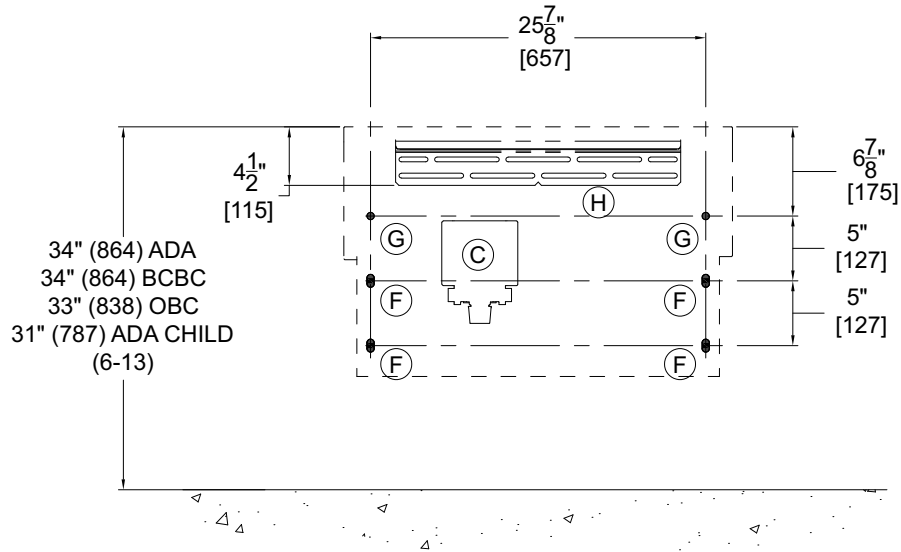
9161 ROUGH-IN DIMENSIONS



PLUMBING



MOUNTING

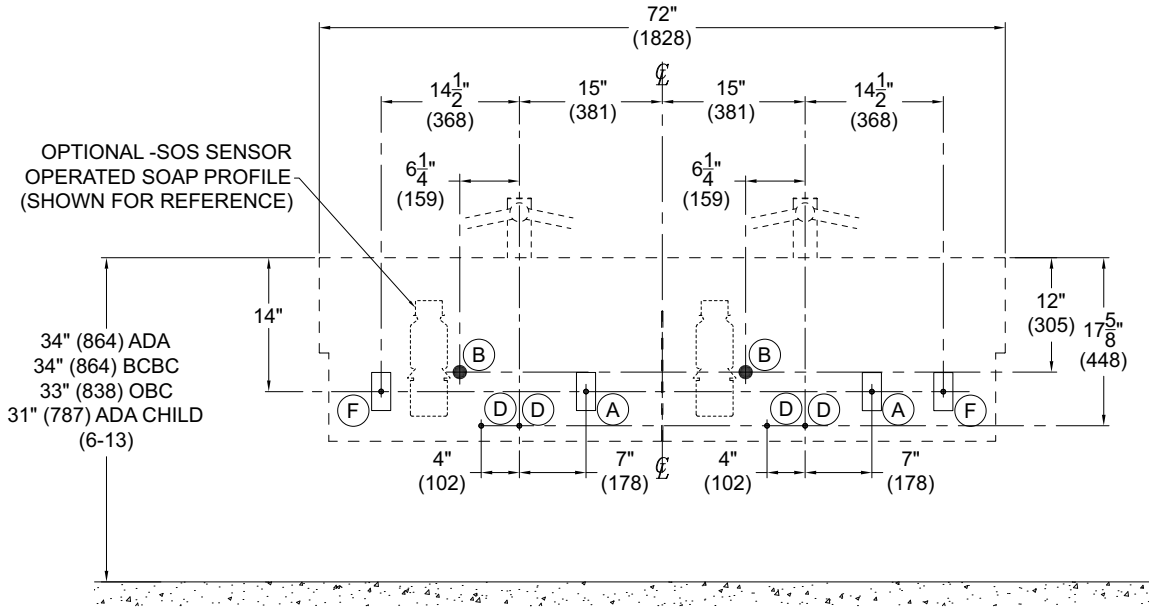


- (A) - 110-120 VAC/60Hz/15A Dedicated Circuit When Dyson Air Blade Faucet Selected
- (B) - Waste Outlet for 1-1/2" OD P-Trap
- (C) - Valve Mounting Area
- (D) - Supply Stub-Outs With Stops For Valve 1/2" NPT Hot & Cold Supply Inlet
- (E) - 120VAC, 60Hz, 3A (Max.) GFCI Protected, Electrical Receptacle When -SO And -SOS Options Are Selected
- (F) - Wall Anchoring Ø9/16" x 1" Long, Angle Bracket Mounting Slots, 4 Places
- (G) - Wall Anchoring Ø9/16" Mounting Point, 2 Places
- (H) - Mounting Hanger Plate With Ø3/8" Mounting Slots

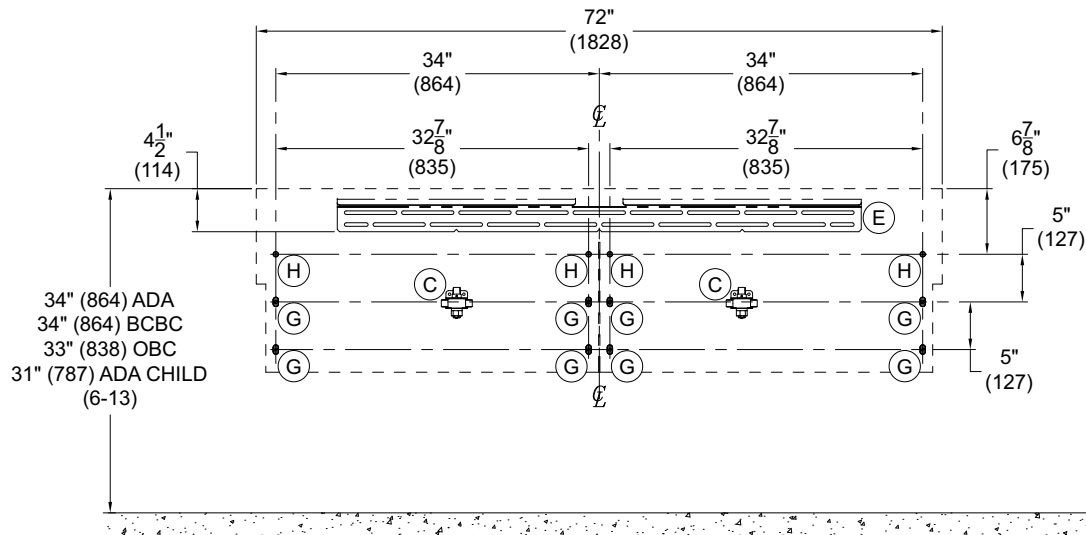
9162 ROUGH-IN DIMENSIONS



PLUMBING



MOUNTING



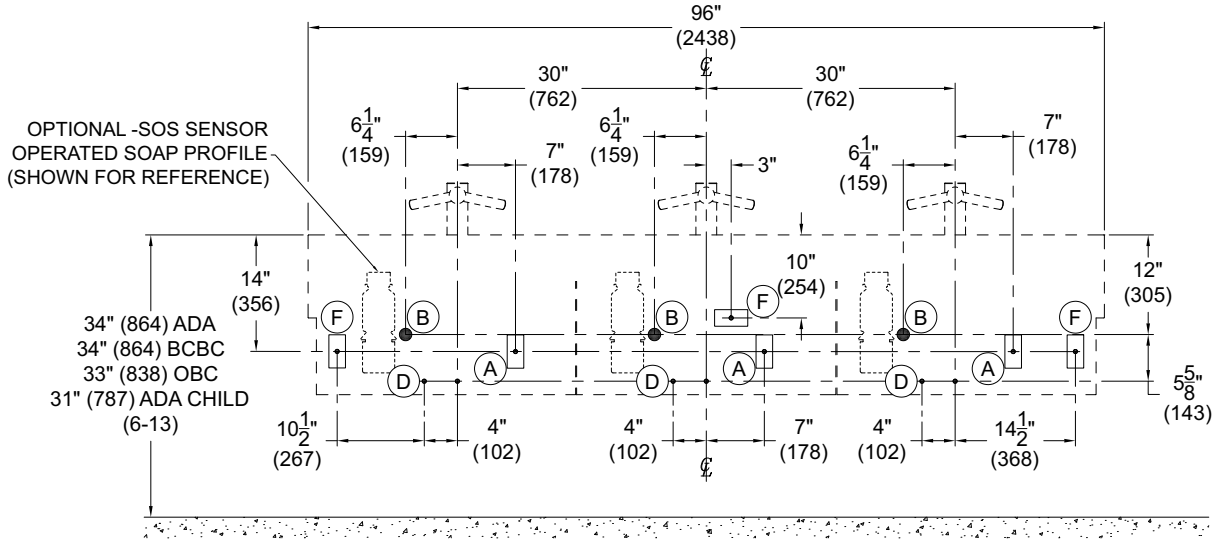
ROUGH-IN FOR THE FOLLOWING:

- (A) 110-120 VAC/60HZ/15A DEDICATED CIRCUIT WHEN DYSON AIR BLADE FAUCET SELECTED
- (B) WASTE OUTLET FOR 1-1/2" OD P-TRAP
- (C) VALVE MOUNTING AREA
- (D) SUPPLY STUB-OUTS WITH STOPS FOR VALVE 1/2" NPT HOT & COLD SUPPLY INLET
- (E) MOUNTING BRACKET WITH Ø3/8" MOUNTING SLOTS
- (F) 120VAC, 60HZ, 3A (MAX.) GFCI PROTECTED, ELECTRICAL RECEPTACLE WHEN -SO AND -SOS OPTIONS ARE SELECTED
- (G) WALL ANCHORING Ø9/16" X 1" LONG, ENCLOSURE MOUNTING SLOTS, 8 PLACES
- (H) WALL ANCHORING Ø9/16" MOUNTING POINT, 4 PLACES

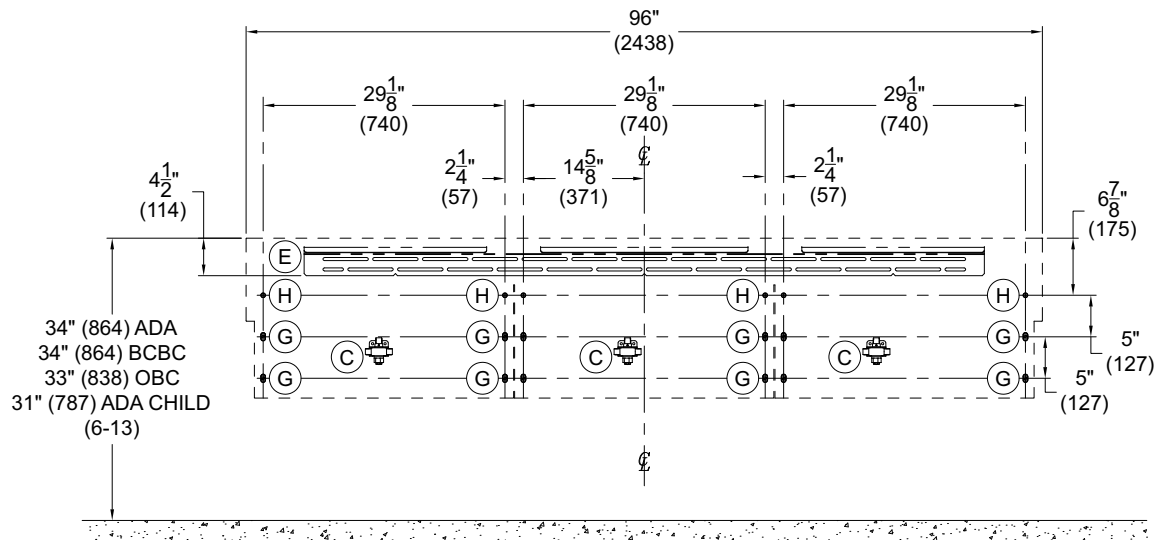
9163 ROUGH-IN DIMENSIONS



PLUMBING



MOUNTING

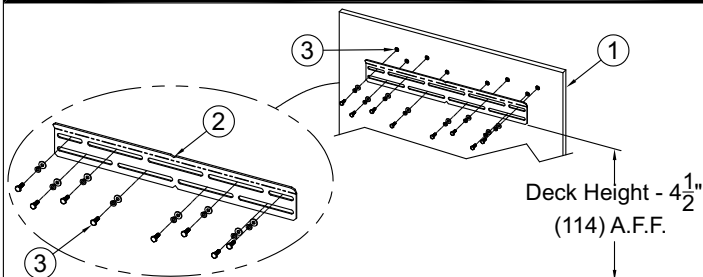


ROUGH-IN FOR THE FOLLOWING:

- (A) 110-120 VAC/60HZ/15A DEDICATED CIRCUIT WHEN DYSON AIR BLADE FAUCET SELECTED
- (B) WASTE OUTLET FOR 1-1/2" OD P-TRAP
- (C) VALVE MOUNTING AREA
- (D) SUPPLY STUB-OUTS WITH STOPS FOR VALVE 1/2" NPT HOT & COLD SUPPLY INLET
- (E) MOUNTING BRACKET WITH Ø3/8" MOUNTING SLOTS
- (F) 120VAC, 60HZ, 3A (MAX.) GFCI PROTECTED, ELECTRICAL RECEPTACLE WHEN -SO AND -SOS OPTIONS ARE SELECTED
- (G) WALL ANCHORING Ø9/16" X 1" LONG, ENCLOSURE MOUNTING SLOTS, 12 PLACES
- (H) WALL ANCHORING Ø9/16" MOUNTING POINT, 6 PLACES

FIXTURE ANCHORING

- 1** Locate and mount the Mounting Bracket to a finished wall. Anchoring Hardware is provided by installer.

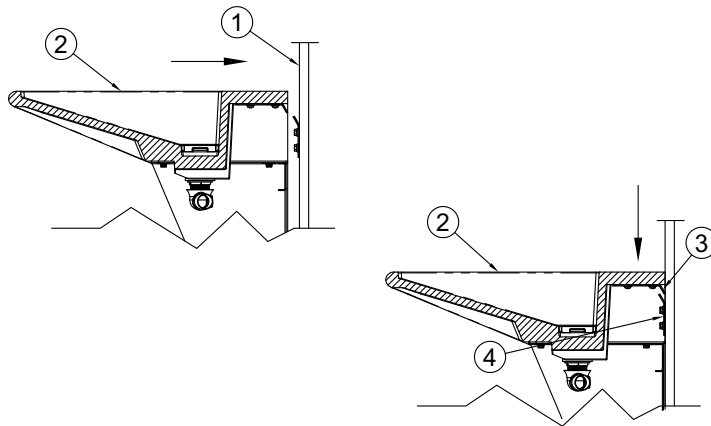


- ① Finished Wall
- ② Mounting Bracket
- ③ Installer Provided 1/4" Wall Anchors And Anchoring Hardware

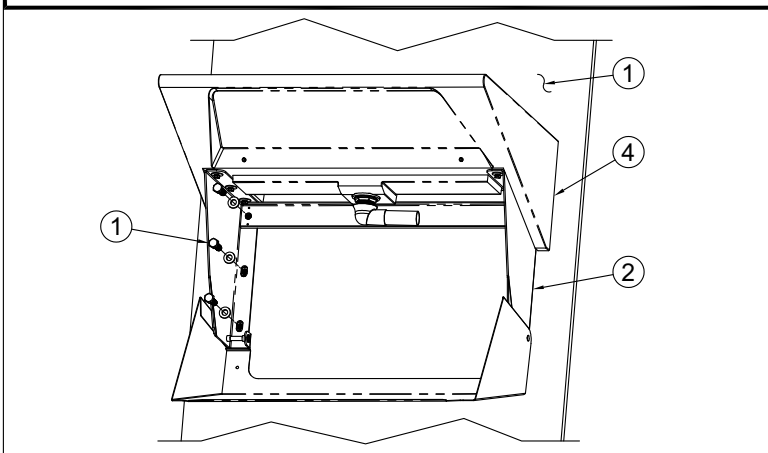
NOTE: It may be advantageous to install to the deck, faucets, soap dispensers or other accessories prior to wall mounting.

- ① Finished Wall
- ② Basin Assembly
- ③ Deck Mounting Channel
- ④ Mounting Bracket

- 2** Push Basin Assembly against finished wall, and slide down wall until the Deck Mounting Channel Rests on Mounting Bracket.



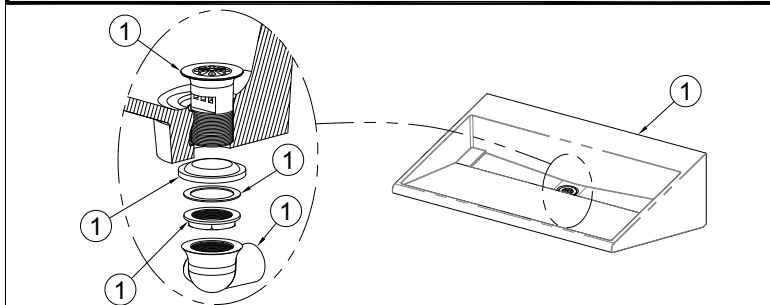
- 3** Secure Fixture to finished wall using installer provided 1/2" Wall Anchors and Anchoring Hardware.




- ① Finished Wall
- ② P-Trap Enclosure / Mounting Frame
- ③ Installer Provided 1/2" Anchoring Hardware
- ④ Basin


WASTE PLUMBING

4 Install Grid Strainer and Close Elbow to Deck using Plumber's Putty.



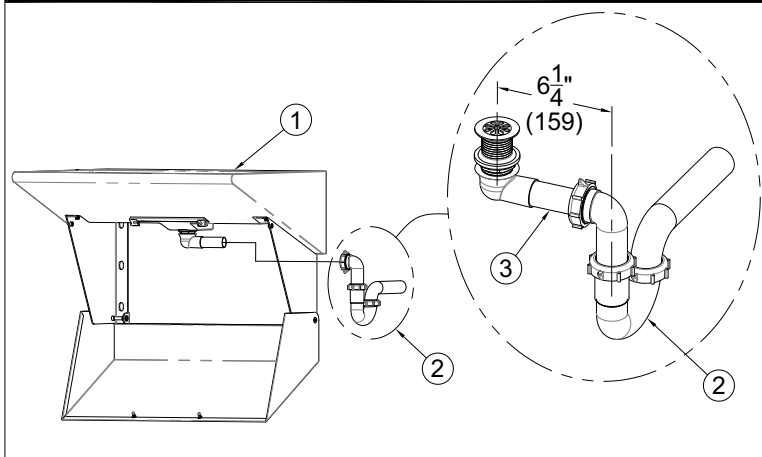
- ① Deck
- ② Grid Strainer w/ 1-1/2"-16 UNE Threads
- ③ Rubber Gasket
- ④ Flat Fiber Washer
- ⑤ 1-1/2"-16 UNI Rough Chrome Brass Jam Nut
- ⑥ 1-1/2"-16 x 1-1/4" UNI Close Elbow with 3/8" NPT Clean-Out Plug

 Note: Add Teflon Tape to item (1) before assembling item (5).

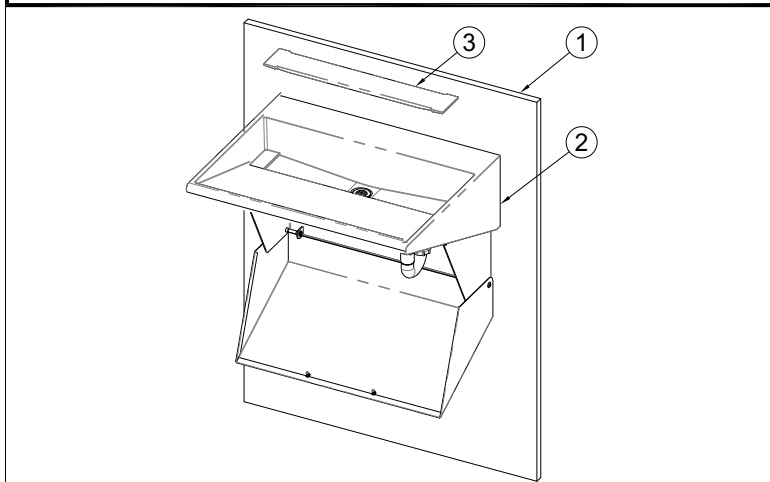
 HINT: Teflon tape is recommended on all threaded waste and supply connections.

- ① Deck
- ② 1-1/2" P-Trap
- ③ 1-1/2" Tailpiece (Cut to fit Tailpiece as needed)

5 Assemble Waste Piping using Teflon Tape on all threaded connections and make up Waste connections to 1-1/2" P-Trap.



6 With Waste connections secured, mount Drain cover in the center of the Deck.



- ① Finished Wall
- ② Deck
- ③ Drain Cover

VALVE INSTALLATION & ADJUSTMENT

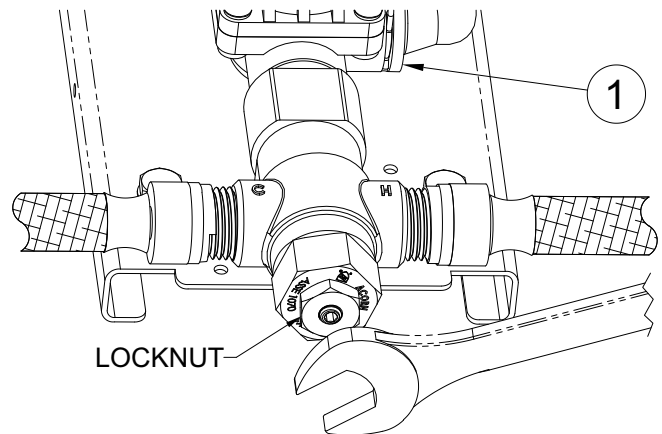
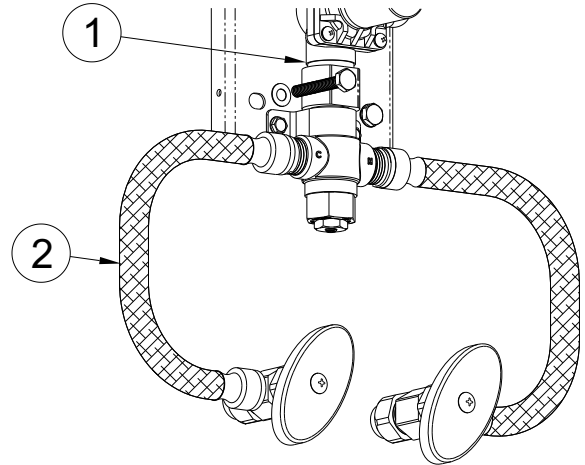
Valve Assembly Installation:


NOTE: Installation should be in accordance with accepted plumbing practices.

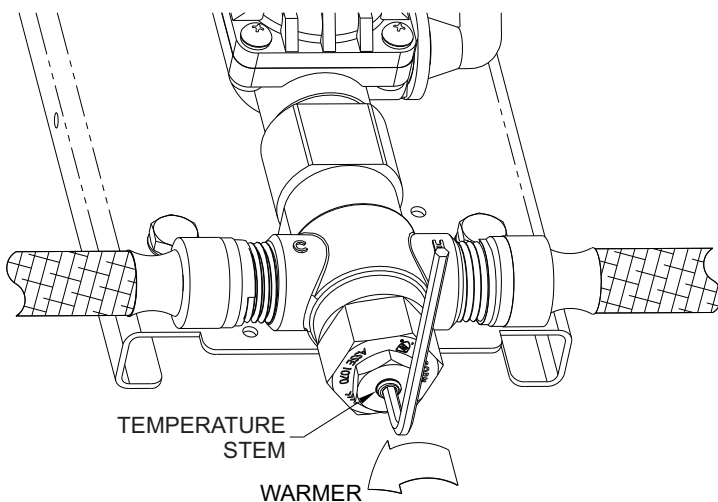
- 1) Locate suitable place for mounting the valve assembly. Valve assembly should be accessible for service and adjustment and as close to the point-of-use as possible. Wall anchors and anchoring hardware are by others.
- 2) Connect hot and cold water to supply valve using 1/2" NPTE connections by others.
- 3) Connect outlet of tempering valve to spout using 1/2" NPT connections provided (Refer to pg.8).
- 4) Turn on hot and cold water supplies. If any leaks are observed, hand-tighten connections as necessary to stop leaks before proceeding.
- 5) Turn on fixture and allow water to flow for 2 minutes. Measure water temperature at outlet. If water is not at desired temperature, adjust as necessary.



Flush supply lines of all foreign material such as pipe dope, pipe chips, solder, sand etc. before making up supply connections.



 **HINT:** Angle stops are recommended and is the responsibility of the installer.



Temperature Adjustment

(For -MXTP Option):

- 1) Loosen locknut.
- 2) Turn on fixture and run water for at least 2 minutes. Allow supply temperature to stabilize.
- 3) Turn temperature stem counter-clockwise for hotter or clockwise for colder outlet temperature.
- 4) Tighten locknut to prevent accidental or unauthorized temperature adjustment.
- 5) Re-check outlet temperature.

OPTIONAL ACCESSORY INSTALLATION & ASSEMBLY

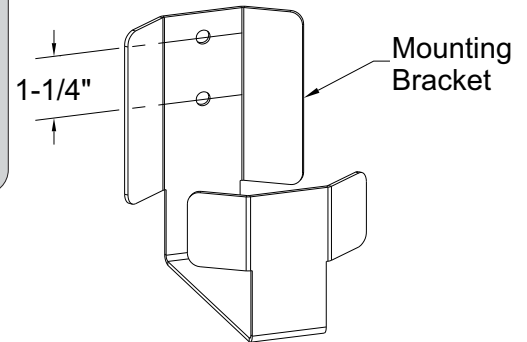
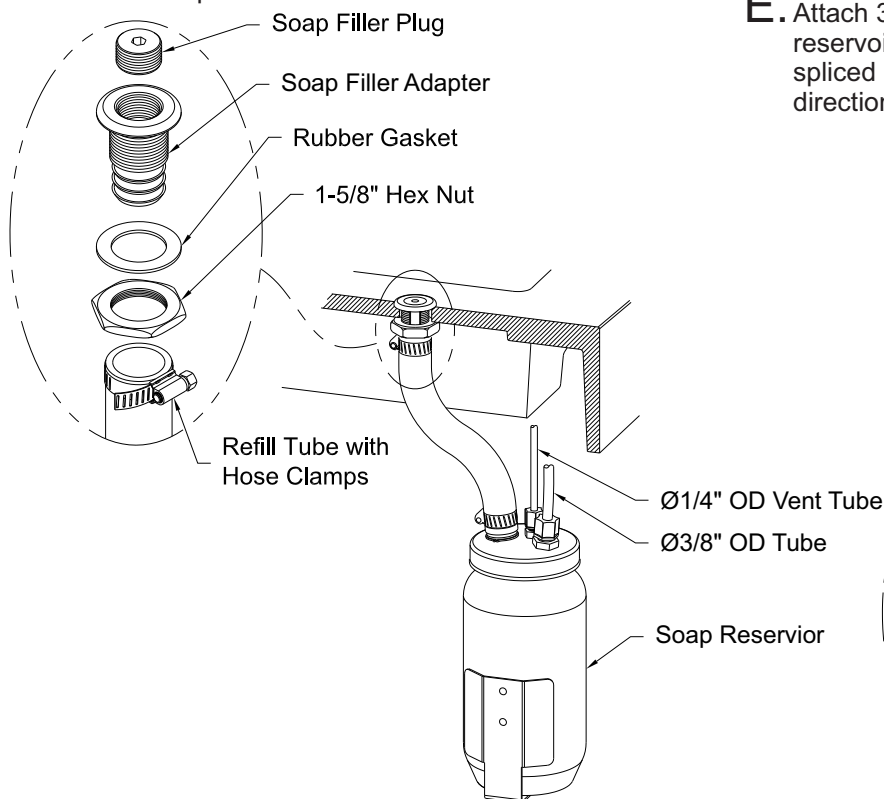
! WARNING

Some soaps contain corrosive additives that can cause rust in soap dispensers. Acorn Engineering Company recommends user/ maintenance personnel review MSDS reports of soap and possible corrosive additives noted.

A. Install soap reservoir to wall inside P-Trap enclosure using mounting brackets provided as shown. Wall anchors and anchoring hardware provided by installer.

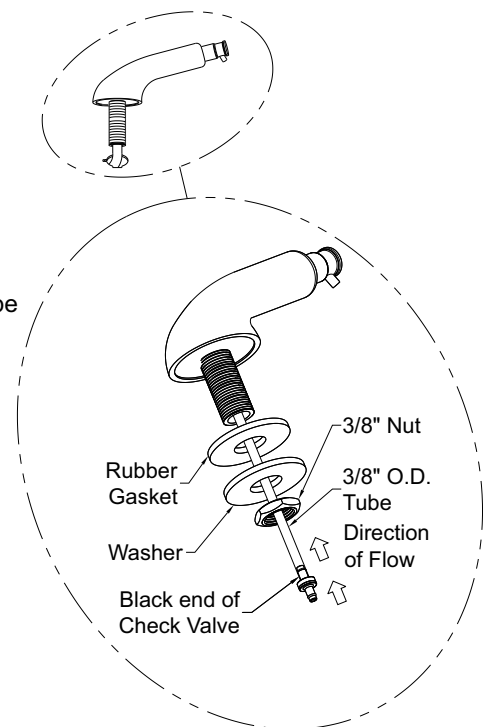
B. Install soap filler assembly to deck as shown.

C. Attach 1-1/4" O.D. refill tube to soap filler assembly and soap reservoir with provided hose clamps.



D. Install soap dispenser(s) onto deck. NOTE: Gasket and Washer are located beneath the deck.

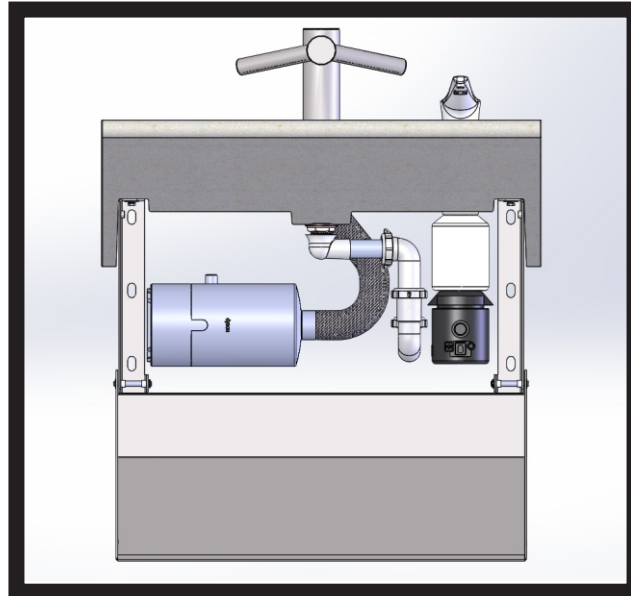
E. Attach 3/8" O.D. Tubing to the dispenser(s) and reservoir. NOTE: Check Valve must be field spliced into tubing and installed with respect to direction of flow.



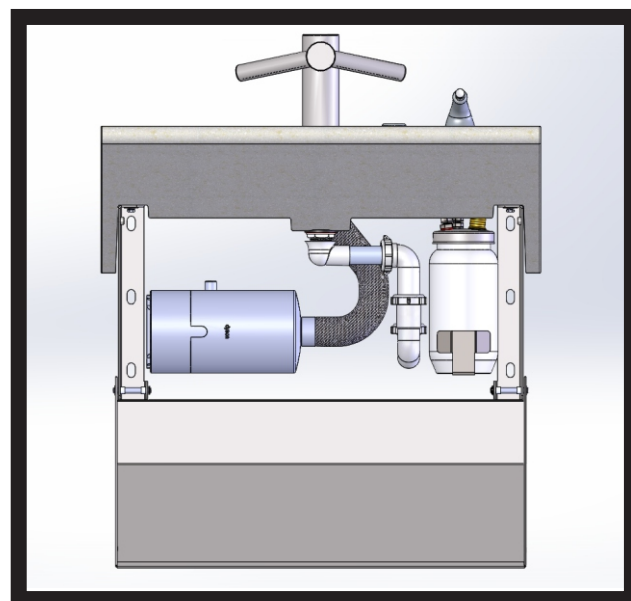
HINT: For best results install soap reservoir fill hole directly below soap filler on deck with refill tube as short and straight as possible to facilitate refill of soap without backup or overflow.

TYPICAL FINISHED LAYOUTS

(9161 SHOWN FOR REFERENCE)


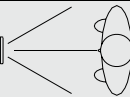


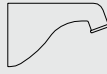
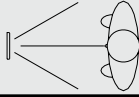


MODEL #9161-WD04-SOS

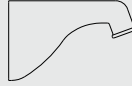


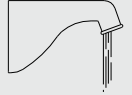
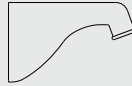



MODEL #9161-WD04-PDM

TROUBLE SHOOTING FOR 9 VOLT DC SENSOR OPERATED VALVES

<p>Normal Valve Function: 9 Volt DC sensor operated valve has flow time of 90 seconds maximum. To reactivate, the user must move out of and return to the sensing area.</p>		
<p>CONDITION: WATER DOES NOT FLOW  </p>		
<i>Indicators</i>	<i>Probable Cause</i>	<i>Solution</i>
Sensor flashes continuously every 2 seconds when hands are within range.	Low battery warning	Replace battery
Sensor does not flash when the user's hands are within range.	Circuit breaker tripped.	Reset circuit breaker
	Battery completely used up.	Replace battery
	Defective 9V DC transformer	Replace transformer.
	Transformer polarity crossed	Replace transformer (sensor may be damaged and need replacement).
	Unit is in "Security Mode" after 90 seconds of constant detection.	Remove sources of detection and wait 30 seconds before checking.
	Range is too short.	Increase range.
	Range is too long.	Decrease range and wait 30 seconds.
	Sensor is picking up a highly reflective surface.	Eliminate cause of reflection and wait 30 seconds before checking.
Sensor flashes once when user's hands are within range.	Stops or water main closed.	Open stops or water main.
	Bad sensor to solenoid connection.	Ensure wires make proper contact.
	Debris or scale in solenoid assembly.	Remove solenoid, pull out plunger and spring, and clean with scale remover solution or pressurized air.
	Debris or scale in diaphragm.	Remove diaphragm and clean
	Debris or scale in strainer.	Remove strainer and clean.
<p>CONDITION: FALSE TRIGGERING; WATER FLOWS CONTINUOUSLY </p>		
<i>Indicators</i>	<i>Probable Cause</i>	<i>Solution</i>
Sensor flashes when user's hands are within range.	Debris or scale in diaphragm	Remove diaphragm and clean.
	Diaphragm is defective or torn.	Replace diaphragm.
Sensor does not flash when users hands are within range.	Sensor is dirty or covered.	Clean or uncover sensor and wait 30 seconds.
	Range too long or highly reflective surface, sunlight, bright lights etc. are triggering sensor.	Decrease range and wait 30 seconds. Eliminate cause of reflection or correct lighting problem.
<p>CONDITION: WATER FLOWS CONTINUOUSLY BUT STOPS WHEN HANDS ARE WITHIN RANGE   </p>		
<i>Indicators</i>	<i>Probable Cause</i>	<i>Solution</i>
Water runs continuously when sensor not activated. Sensor flashes when hands are within range and water shuts off.	Solenoid polarity crossed.	Disconnect solenoid and reverse polarity.

TROUBLE SHOOTING FOR OPTIONAL PUSHBUTTON OPERATED VALVES

Normal Valve Function: Hand pushbutton operated valve has an adjustable flow time from 5 to 60 seconds.	
CONDITION: WATER DOES NOT FLOW  	
Probable Cause	Solution
Water main closed.	Open water main.
Checkstops closed.	Open checkstops.
Debris or scale in checkstop strainer	Remove checkstop strainer and clean.
Air leaks from 1/8" O.D. tubing or fittings.	Replace damaged tubing or fitting.
Pushbutton air diaphragm leaks.	Replace pushbutton air diaphragm.
Servomotor diaphragm center hole is blocked.	Remove blockage.
Servomotor upper diaphragm is damaged.	Replace servomotor upper diaphragm.
Low or no water pressure at supplies.	Increase water pressure to 30 PSI minimum.
CONDITION: WATER DRIPS, WON'T SHUT OFF 	
Probable Cause	Solution
Servomotor diaphragm offset hole is blocked.	Remove blockage.
Servomotor seat is damage	Replace servomotor seat.
Servomotor plate or diaphragm is obstructed.	Remove cause of obstruction.
Servomotor timer assembly is damaged.	Replace servomotor timer assembly.
CONDITION: REDUCED WATER FLOW 	
Probable Cause	Solution
Valve riser tubing is crimped.	Straighten valve riser tubing.
Debris or scale in checkstop strainer	Remove checkstop strainer and clean.
Blockage in valve flow control.	Remove blockage.
Low water pressure at supplies.	Increase water pressure to 30 PSI minimum.
Lime deposits in hot water pipes.	Remove lime deposits with appropriate cleaning solution.
CONDITION: PREMATURE WATER SHUT OFF  	
Probable Cause	Solution
Air leaks from 1/8" O.D. tubing or fittings.	Replace damaged tubing or fitting.
Pushbutton air diaphragm leaks.	Replace pushbutton air diaphragm.

**CARE, CLEANING, AND REPAIR
OF CORTERRA SOLID SURFACE**

CORTERRA SOLID SURFACE

Acorn's densified solid surface material is composed of recycled solid-surface polymer resin, aluminum trihydrate and fillers. It is resistant to stains, impact and burns and complies with ANSI Z124.3. It is attractive, durable and easy to maintain.

ROUTINE CLEANING

Corterra should be kept clean at all times. If maintained, Corterra surfaces will retain their new, clean appearance indefinitely. Wash with a non-abrasive all purpose cleaner and water, then rinse. Wipe dry. (Never use cleaners with strong chemicals such as toilet bowl cleaners, rust removers, ceramic cook top cleaners, laquer thinners or oven cleaners). To remove persistent stains use a Scotch Brite pad and an abrasive cleaner or a solution of household bleach and water (1 part water to 1 part bleach).

REPAIRING SURFACE DAMAGE

Surface damage, such as minor chips, scratches, burn marks and graffiti can be repaired with a fine grit abrasive cleanser, such as a Scotch-Brite pad or fine grit sandpaper. For more serious physical damage caused by vandals, an Acorn Solid Surface Repair Kit is available. Contact the factory for details. Refer to drawing #9927-160-002.

SOAP SYSTEMS

Acorn soap reservoirs and dispensers provide a dependable operation over long term when proper maintenance is performed and the correct soap is being used. The most common problem with soap systems is that the wrong viscosity (thickness) of soap is being used or high acidic pH levels are in the ingredients. Soap thickness can be best explained as no thicker or thinner than normal household liquid dish soap. The pH level of the soap should be 6.5 to 8.5; more acidic soaps will corrode the metal parts and degrade rubber or plastic components.

Soap reservoirs and dispensers should be maintained periodically to clear residue. This should be done in hot water to clean the internal components. The valve should be pumped multiple times to thoroughly clean any residue inside. The reservoir and tubing should also be flushed and cleaned with hot water. In cases of extreme clogs, the dispenser should be disassembled and the parts thoroughly cleaned.

WARNING: Some soap contains corrosive additives that can cause rust on stainless steel surfaces. Acorn recommends user/ maintenance personnel review MSDS reports of soap and possible corrosive additives noted.

**CARE AND CLEANING OF STAINLESS
STEEL SURFACE**

NORMAL CLEANING

Clean weekly or more often, as needed (especially high polishing surfaces)

RECOMMENDED CLEANING MATERIALS

- Sponge – natural or artificial
- Nylon or other soft-bristle material brush
- Soft cloth (as used on automobile finishes)

RECOMMENDED CLEANING SOLUTIONS

- Hand dishwashing liquid/soft water solution
- Mild soap/soft water solution
- 3M Stainless Steel Cleaner/Polish
- White vinegar/soft water solution (for brightening, removing oil and hard water deposits)
- CLR Brand Cleanser or baking soda/soft water solution (for brightening, removing hard water deposits)
- Club soda and sponge

FOR HIGH POLISH STAINLESS STEEL

Note: High polish stainless steel surfaces should never come into contact with any abrasive cleaning brush, cloth or cleaning agent.

To remove smudges and fingerprints:

Wipe surfaces with a quality Stainless Steel Cleaner/Polish. Apply using a soft non-abrasive cloth, wipe surfaces with stainless steel cleaner/polish.

To remove rust stains:

Wipe surfaces with CRES (available from Acorn) or equivalent cleaner. Use recommended solutions. Apply using a soft non-abrasive sponge. Rinse surfaces immediately after application. Always follow cleaner product directions provided. Afterwards, using a soft, non-abrasive cloth, wipe surfaces with stainless steel cleaner/polish.

FOR TOUGH PROBLEMS

- CRES Cleaner specifically for rust stains (available from Acorn)
- Tarn-X for general stains
- #7 chrome polish
- Silver polish

**To remove stubborn spots or to treat a scratch
(Standard Satin Finish Only):**

Use of synthetic, abrasive, general-purpose pads such as Scotch Brite is recommended. Apply the stainless steel cleaner/polish to the synthetic, abrasive pads and CAREFULLY rub out spot with cleaner/ polish. Be sure to rub in the direction of the grain! Do not allow steel wool to come in contact with the stainless steel. Steel particles can embed into the stainless steel surface and create rust!

Stainless steel should be kept clean at all times. If maintained, stainless steel surfaces will retain their new, clean, polished appearance indefinitely. To remove water spots or rust spots, stainless steel cleaner/polish on a cloth is recommended.

IF SPOTS ARE STUBBORN OR IF YOU WISH TO TREAT A SCRATCH: synthetic, abrasive, general-purpose pads such as Scotch Brite are recommended. Apply the stainless steel cleaner/polish to the synthetic, abrasive pad and CAREFULLY rub out spot with cleaner/polish. **Be sure to rub in the direction of the grain!** Do not allow steel wool to come in contact with stainless steel. Steel particles can embed into the stainless steel surface and create rust.



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WARRANTY INFORMATION

Acorn warrants that all of its products are guaranteed against defective material or poor workmanship for a period of one year from date of shipment. Acorn's liability under this warranty shall be discharged by replacing without charge F.O.B. City of Industry, California, any goods, or part thereof, which appears to the company upon inspection to be of defective material or not of first class workmanship, provided that claim is made in writing to the company within reasonable period after receipt of the product. Where claims for defects are made, the defective part or parts shall be delivered to the company, prepaid, at City of Industry, California for inspection. Acorn will not be liable for the cost of repairs, alterations or replacement, or for any expense connected therewith made by the owner or his agents, except upon written authority from the Acorn City of Industry office. Acorn will not be liable for any damages caused by defective materials or poor workmanship, except for replacements, as above provided. Contact local Acorn Representative for complete terms and conditions.