



Preference ICC®

INSTALLATION GUIDE



WARNING Failure to install the Preference ICC as described in this installation guide may cause the unit to collapse, resulting in serious injury or death to personnel.

Recommended Tools

- Hex key set
- 1/4" open-end wrench
- Drill and drill index
- Phillips head screwdriver (magnetic)
- Standard screwdriver
- #2 Pozidriv® screwdriver for adjusting doors
- Adjustable wrenches
- Ratchet
- 5/8" and 5/16" open-end wrenches
- Awl
- 1/2" concrete and 3/8" wood drill bits
- Leveling device (minimum 2' long)
- 3/4" socket (deep) with 6" extension
- 3/4" combination wrench



Before You Begin

- Check with local building and code authorities about installation requirements specific to your location.
- Ensure the manual air and water shutoff valves are installed where needed.



CAUTION Purge any debris from the air and water lines. Failure to do this causes leaks.

- The utilities must be installed according to prevailing building codes. For pre-installation instructions, refer to the *A-dec Dental Furniture Pre-Installation Guide* (p/n 86.0142.00) found in the Document Library on www.a-dec.com.

- Determine any high points in the floor, and adjust the module height accordingly. Modules require 6" (152.4 mm) of clearance for the subbase. Use the small end of the shipping panel as a 6" (152.4 mm) clearance guide.
- If the end of the cabinet is against a wall, you must begin placing modules from that end first.



NOTE You may need to remove the drawers and doors to access the barrel bolt holes and anchors.



WARNING A licensed electrician must hardwire all electrical conduits and cables to the junction box under the sink. If the ICC does not have a sink module, the junction box is not supplied. Consult a licensed electrician to determine the best connection method and location.

Junction boxes and switch boxes are not serviceable parts. They contain line voltage and should only be opened by a licensed electrician.

The ground conductor must be bonded in accordance with the National Electric Code (NEC) and any local electrical codes.

Only a licensed electrician should access the dryer enclosure. When the optional dryer is selected, the cabinet (dryer and lighting) must be connected to a dedicated 20 amp 120 VAC circuit. To prevent nuisance tripping of the circuit breaker and to ensure proper operation of the dryer, no other loads can be included on this circuit. Do not use 220 VAC.



CAUTION Do not use the top of the ICC as a storage shelf. Ensure the ventilation hole is not covered.

Figure 1. Shipping Panel Clearance Guide

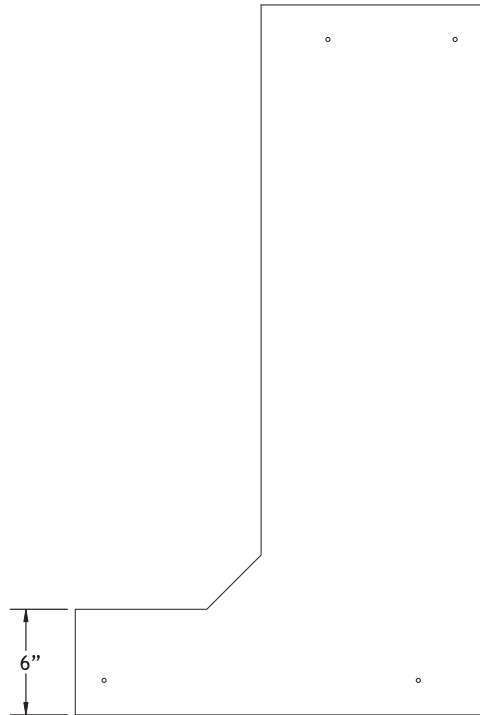













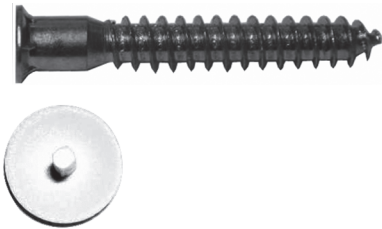



Table 1. Hardware List

Image and Description	Image and Description
 <p>Barrel bolt M4 x 25.5 mm with Phillips head machine screw-M4 X 11.5 mm secure modules together</p>	 <p>Phillips head screw-#10 x 5/8" connects power boxes and task lights to upper storage</p>
 <p>Phillips head screw-#8 x 1-1/4" connects modules to countertop that is 1-1/2" (38.1 mm) thick</p>	 <p>Phillips head machine screw-6-32 x 5/8" with lock nut-#6-32 x 5/16" x 9/64" secures master panel to module</p>
 <p>Phillips head screw-#10 x 1-1/4" connects modules to laminate countertop that is 3/4" (19.1 mm) thick</p>	 <p>Phillips head screw-#6 x 1/2" connects master panel to adjacent module</p>
 <p>Phillips head screw-#10 x 7/8" connects modules to solid surface countertop that is 3/4" (19.1 mm) thick</p>	 <p>Anchor stud-1/2 x 5-1/2" anchors cabinet to concrete floor</p>
 <p>Phillips head machine screw-#10-32 x 1" connects modules to Quartz countertop</p>	 <p>Lag bolt-1/2 x 3-1/2" anchors cabinet to wood floor</p>
 <p>Allen bolt-1/4-20 x 2-3/4" connects column to countertop that is 1-1/2" thick (38.1 mm)</p>	 <p>Phillips head screw-#8 x 1/2" connects ends and fronts of subbase</p>
 <p>Allen bolt-1/4-20 x 2" connects modules to countertop that is 3/4" (19.1 mm) thick</p>	 <p>Flathead (confirmat) screw-5 mm x 2" with white cover cap connects filler panel to full end cap</p>
 <p>Allen bolt-1/4-20 x 1-1/2" connects column to upper storage</p>	

Assemble the Cabinetry

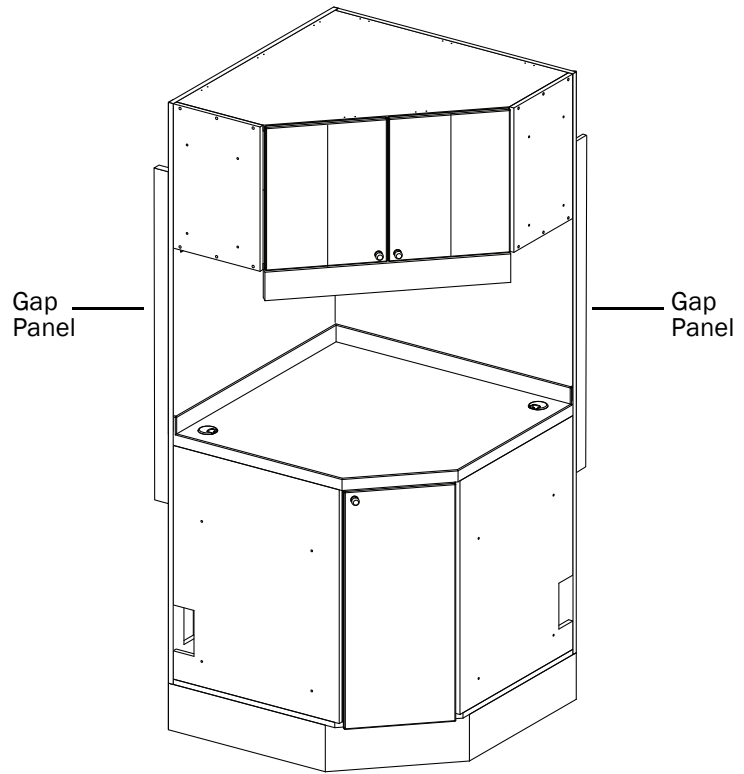


NOTE Install Corner modules first. If you do not have a Corner module, go to “Assemble the Preference ICC Modules” on page 6.

Install the Corner Module

1. Attach a gap panel to each side of the Corner module. See Figure 2.
2. Place the module in the corner and align the back corner of the cabinet with the corner of the wall.

Figure 2. Attach the Gap Panels

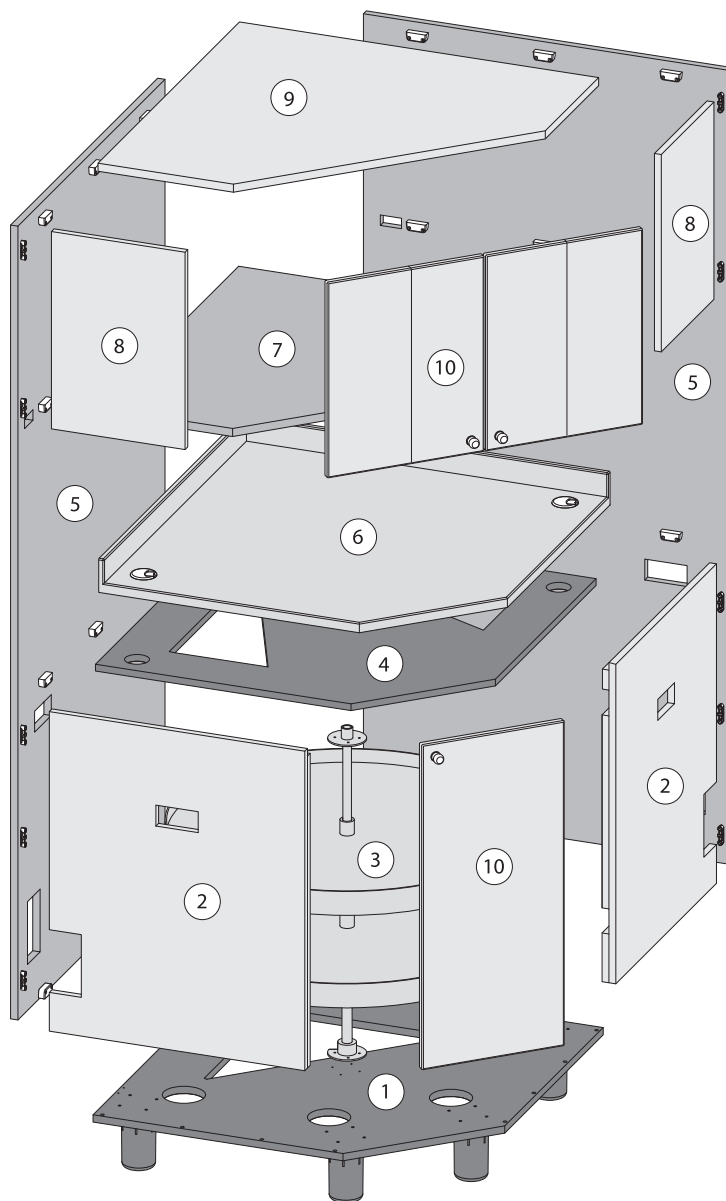


- Level the module using the leveling feet. Verify the module is level front-to-back and side-to-side. Six inches (152.4 mm) of space is required for the subbase to fit correctly. See Figure 3.



NOTE If you need to disassemble the corner module when moving it into a building, refer to the number on each piece for the proper sequence of disassembly (10 - 1) and reassembly (1 - 10).

Figure 3. Exploded View of Corner Module



Assemble the Preference ICC Modules

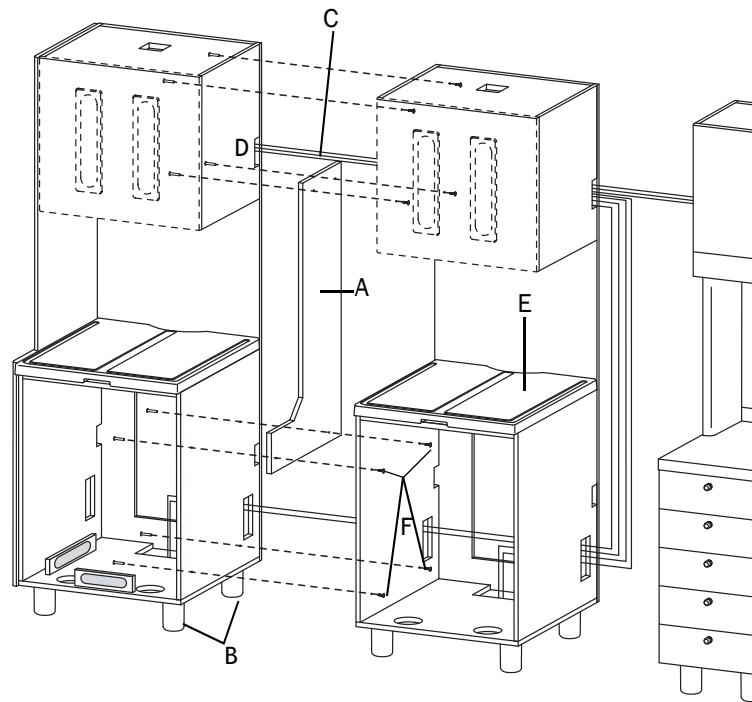
Assemble the “Clean” or “Receiving Side” of ICC



NOTE If you are installing a Corner module, see “Install the Corner Module” on page 4.

1. Remove the shipping panel, and place the first module in position.
2. Level the module using the leveling feet. Verify the module is level front-to-back and side-to-side. Six inches (152.4 mm) of space is required for the subbase to fit correctly.
3. Place the next module, and route the tubing and wiring through the routing holes. See Figure 4.
4. Level each module once it is in place. Verify the module is level front-to-back and side-to-side. Verify the module side panels align and are flush with the first module.
5. Attach the modules together using eight barrel bolts and screws. Start with the four bolts and screws in the lower section, and then move to the upper section.
6. Repeat steps one through five for each additional module.

Figure 4. Preference ICC Exploded View, Midsection Assembled



Item	Description
A	Shipping Panel
B	Leveling Feet
C	Tubing and Wiring
D	Routing Hole
E	Level Module Here
F	Module Attachment Screws

Assemble the Middle Modules

1. Position the first middle module within a couple of inches of the installed end modules. See Figure 4.
2. Level the middle modules using the leveling feet. Verify the module is level front-to-back and side-to-side. Align the side panels with the adjacent middle modules and the end modules.
3. Attach the gap panels to the back of the middle modules.
4. Attach all the middle modules together using the barrel bolts and screws. Start with the four bolts and screws in the lower section, and then move to the upper section.
5. Place and center the countertop onto the middle module section. Do not attach it at this time.
6. Place the support columns on each end of the countertop with the three adjustment screws at the top. Slightly loosen the adjustment screws. Start at the top and loosely attach the support columns to the upper structure using two Allen bolts (1/4-20 x 1-1/2").

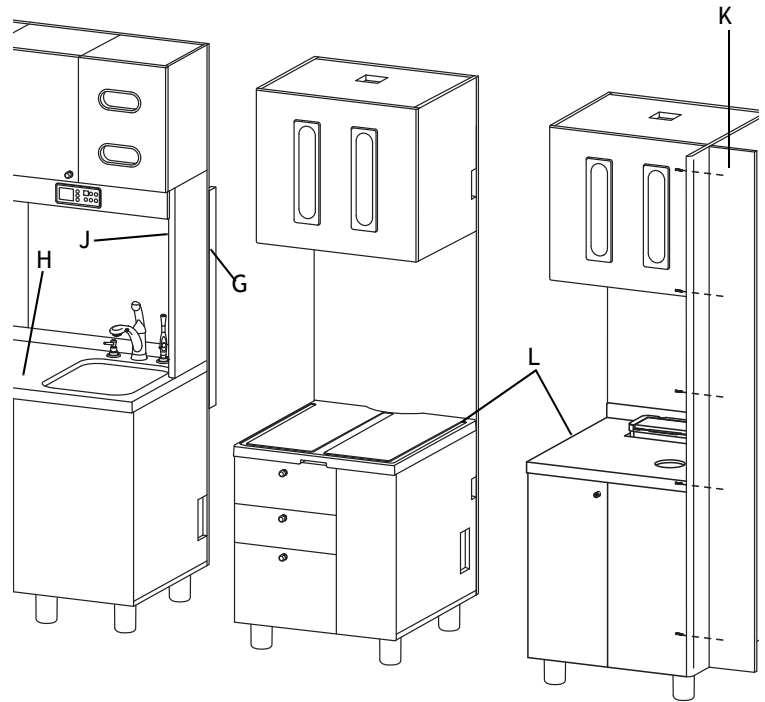
Loosely attach the support columns to the countertop using two Allen bolts. See Table 1 on page 3 for correct size, which depends on countertop thickness.

7. Slide the complete middle module assembly into place against the end modules.
8. Attach the middle module and the end module together using the barrel bolts and screws. Start with the four bolts and screws in the lower section, and then move to the upper section.



NOTE There is a 2-1/4" (57.2 mm) gap between the wall and the middle modules.

Figure 5. Preference ICC Exploded View, Midsection Assembled



Item	Description
G	Gap Panel
H	Countertop for Middle Section
J	Support Column
K	Filler Panel
L	Seal Ends of Countertop to Adjacent Module

Remove the Dryer (optional)

1. Open the dryer, and remove the e-clip and pin from the pneumatic cylinder bracket.
2. To remove the dryer, pull the left-side locking tab up and push the right-side locking tab down while carefully pulling the drawer out. See Figure 7.
3. Place the dryer in front of the cabinet and proceed with connecting the modules.

Finish the ICC Assembly

1. Position, level, and attach the remaining end modules.
2. Attach the countertop using the Phillips head screws provided in the ship kit.



NOTE The hardware required to attach the countertop is based on the type of countertop installed. See Table 1 on page 3.

3. Tighten the column adjustment screws and attachment screws. See step 6 on page 7.
4. Attach the filler panel using the standard screw and white cover cap, if applicable.



NOTE An optional filler panel may be sent with the Preference ICC. The panel provides up to 7" (177.8 mm) of laminate covered filler board to close the gap between the cabinet and wall. We recommend a finish carpenter or skilled wood worker cut to fit and install the filler panel with the screw and cover cap.

5. Seal the ends of the countertop to the adjacent modules using RTV silicone adhesive.

Figure 6. Disconnect Pneumatic Cylinder

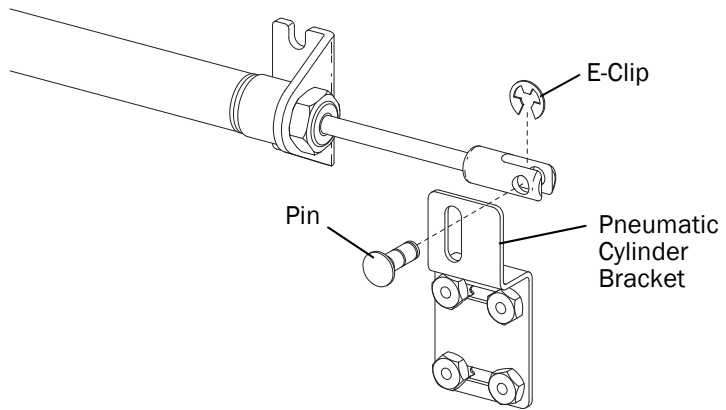
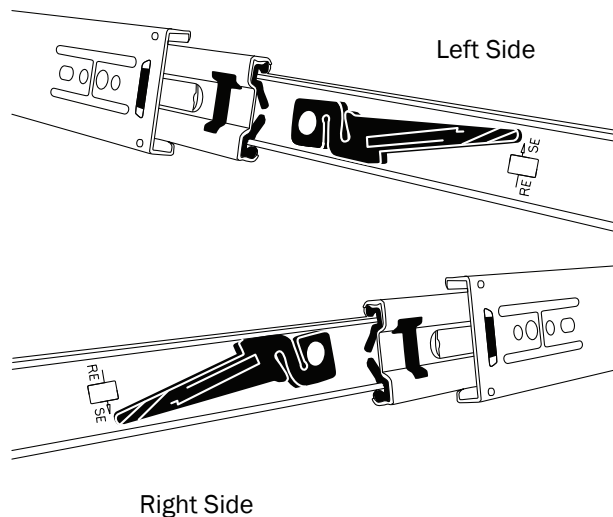


Figure 7. Disengage the Glide Locking Tabs



Set Up the ICC System

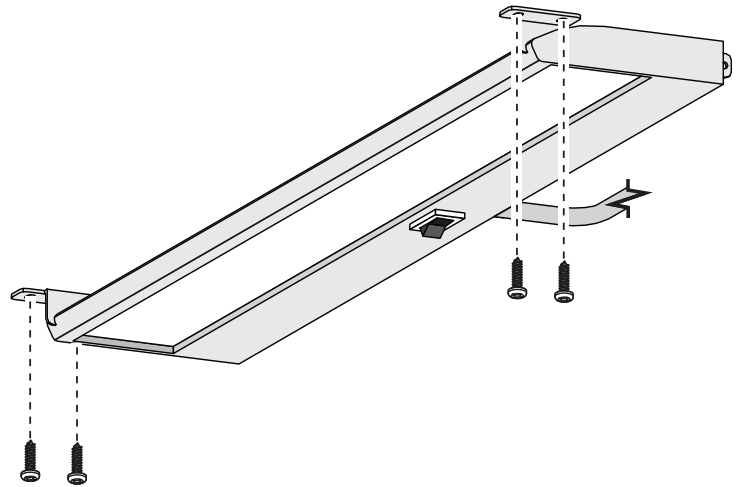
This section explains how to set up the ICC system once the cabinetry is assembled.

Install the Task Light

The ICC task lights extend the length of the countertop. Begin mounting the lights at one end following these steps.

1. Use the pre-drilled pilot hole(s) to position the light(s):
 - When installing only one light, or the first light, use the pilot hole on the left side of the light.
 - If installing a second light, use the pilot hole on the right side of the second light.
2. Mark the screw hole locations for the self-tapping screws.
3. Use the screws (two in each bracket) to secure the light(s).
4. Route excess power cords and cables through the holes in the back of the module.

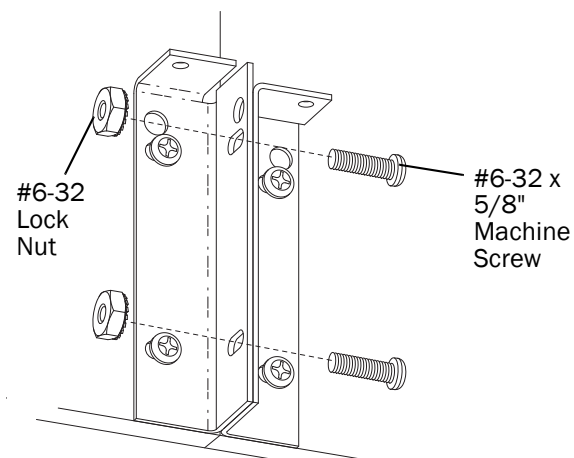
Figure 8. Install Task Light



Install the Master Panel

1. Fit the locking cam over the lock.
2. Turn the cam screw 1/2 turn to the right.
3. Attach the master panels to each other using two Phillips head screws (6-32 x 5/8") with two nuts (#6-32 x 5/16" x 9/64").
4. Attach the master panel to the adjacent upper storage using two Phillips head screws (#6 x 1/2").

Figure 9. Attach Master Panel to Adjacent Module



Install the Power Boxes

1. Attach the power box with the switch on the end of the middle upper cabinets, closest to the (optional) sink, using the two Phillips head screws (#10 x 5/8"). Position the power box with the conduit towards the back panel.
2. Route the electrical conduit through the hole in the back panel.



WARNING The conduit must be attached to the quad box in the sink module by a licensed electrical contractor. If there is no sink, the module conduit will be connected to the floor quad box by a licensed electrical contractor.

3. Attach the rectangular power box (optional) on the opposite end of the midsection upper using the two Phillips head screws (#10 x 5/8"). Place the cord towards the back panel.
4. Connect the cord from the rectangular power box into the power box with switch.
5. Connect the task light power cords to the power boxes.
6. Restrain the cords and cables using the retaining clips. Neatly tie the cords and cables to the master panel bracket so they are not visible.

Connect the Wiring for the Storage Fans

1. Route the wiring from the fans down through the gap behind the upper storage and out through the holes behind the middle modules.
2. Route through the lower holes to the module containing the outlet.
3. Attach the red wire from the fan to the black with white dashes wire from the transformer.
4. Attach the blue wire from the fan to the black wire from the transformer.

Figure 10. Attach Power Box

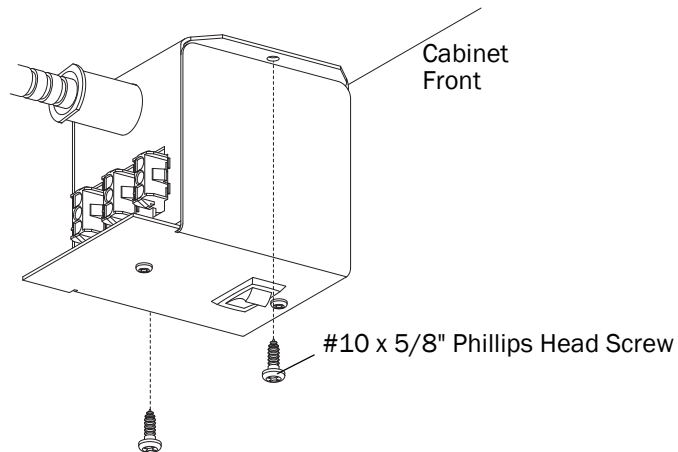


Figure 11. Attach Rectangular Power Box

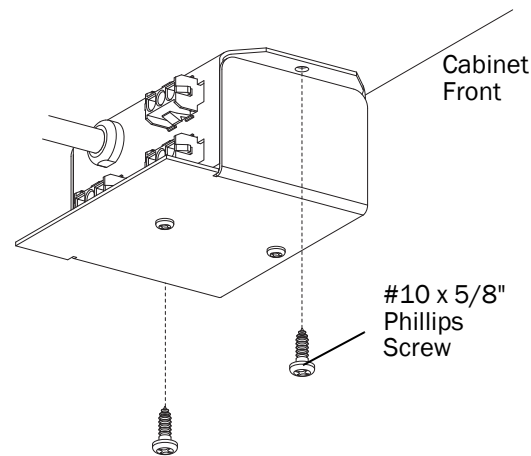
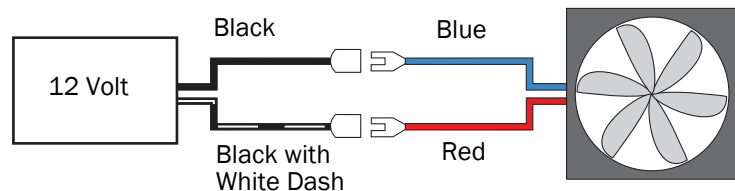


Figure 12. Connect Wiring for Storage Fans



Connect the Dryer to Power

Route the wiring from the IR switch to the connecting wire in the control board enclosure located underneath the sink.

Connect the Adjacent Upper Storage Lights

1. Slide the back panel of the storage area up, and then pull it forward and out to remove it.
2. Connect the power cord from the adjacent module into the short power cord coming from the upper storage light power box.
3. Reinstall the back panel. Ensure the back panel slides behind the tabs.
4. Install the light bulb.
5. Slide the light cover into the plastic molded panel from back to front.
6. Plug the light power cord into the power box located in the middle module.

Figure 13. Connect IR Switch to Circuit Board Enclosure

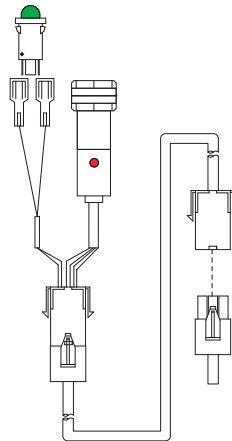


Figure 14. Remove Back Panel

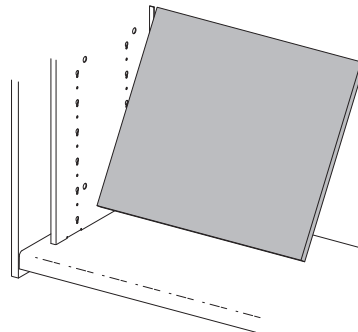


Figure 15. Connect Adjacent Power Cords

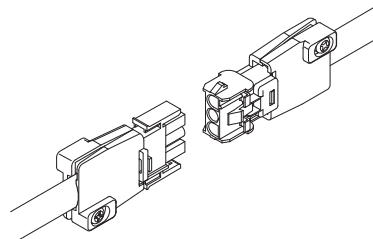
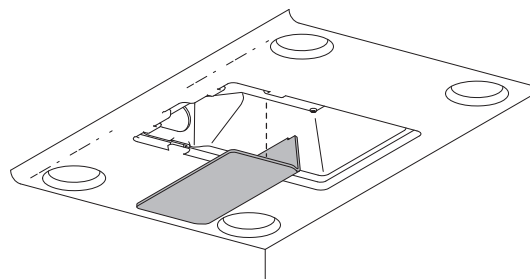


Figure 16. Install Light Bulb and Cover



Adjust the Tub Drawer Fronts

1. Remove the inner two locking screws.
2. Loosen the outer two cam screws.
3. Position the front panel so it has a $5/32$ " (4 mm) gap above and below and a $3/32$ " (2.4 mm) gap on both sides.
4. Tighten the cam screws. Verify the panel is still in the correct position.
5. Drill a $1/16$ " pilot hole in the untapped holes and install the locking screws to secure the front panel.

Adjust the Tray Drawer Fronts

1. Remove the locking screws from each bracket.
2. Loosen the cam screws on each bracket.
3. Position the front panel so it has a $5/32$ " (4 mm) gap above and below and a $3/32$ " (2.4 mm) gap on both sides.
4. Tighten the cam screws. Verify the panel is still in the correct position.
5. Drill a $1/16$ " (1.6 mm) pilot hole in the untapped holes and install the locking screws to secure the front panel in place.

Adjust the Knee-activated Drawer Fronts, Top or Bottom

1. Loosen the locking screws from the door front.
2. Turn the allen head screw in to push the door out at the bottom.
3. Remove the screw and install at the top to adjust the top of the door out.
4. Tighten the lock screws.

Adjust the Knee-activated Door Front, Side-to-side

1. Remove the locking screws.
2. Loosen the cam screws.
3. Position the front panel so it has a $5/32$ " (4 mm) gap above and a $3/32$ " (2.4 mm) gap on both sides.
4. Tighten the cam screws. Verify the panel is still in the correct position.

Figure 17. Remove Inner Locking Screws

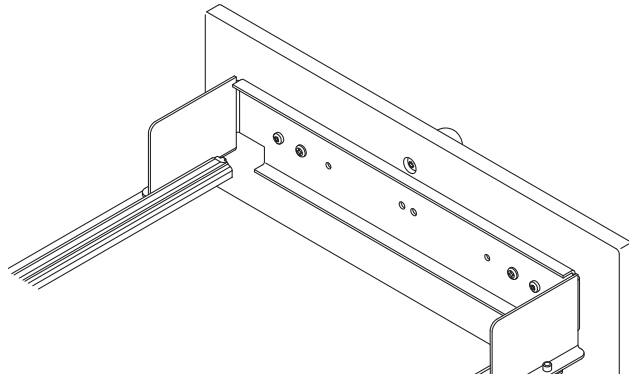


Figure 18. Remove Locking Screws

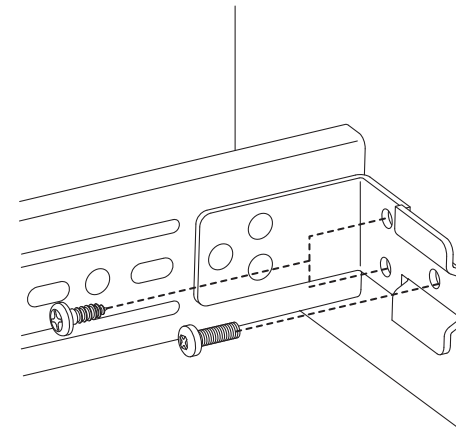
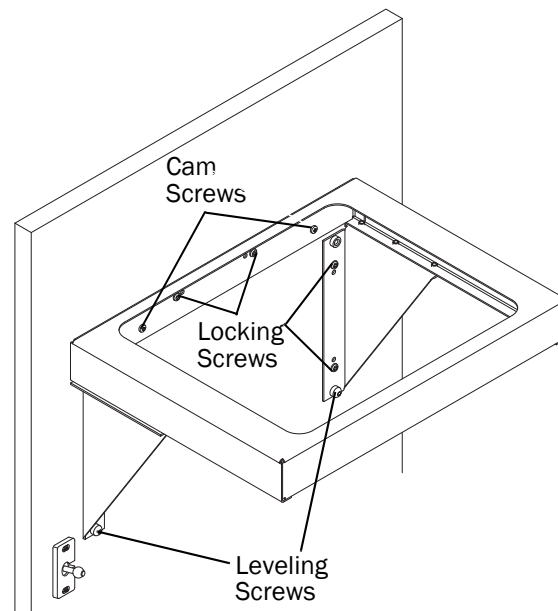


Figure 19. Adjust Knee-Activated Drawer Fronts



5. Drill a 1/16" pilot hole in the untapped holes and install the locking screws to secure the front panel in place.

Adjust the Cricket Touch Latch

1. Remove the locking screws from the non-slotted holes in the latch.
2. Loosen the screws in the slotted holes.
3. Position the latch to catch the drawer front at the desired distance from the cabinet.
4. Tighten the screws in the slotted holes.
5. Drill 1/16" pilot holes and attach the locking screws to secure the latch in place.

Adjust the Dryer Front

The dryer face adjusts similarly to the knee-activated drawer front. See "Adjust the Knee-activated Door Front, Side-to-side" on page 12.

1. Slightly loosen the four existing cam screws.
2. Position the front panel so it has a 5/32" (4 mm) gap above, and a 3/32" (2.4 mm) gap on both sides.
3. Tighten the cam screws. Verify the panel is still in the correct position.
4. Drill a 1/16" (1.6 mm) pilot hole in the untapped holes and install the locking screws to secure the front panel in place.



NOTE Locking screws are taped to the inside of the door front.

Adjust the Metal Drawer Fronts

1. Turn the screw in the hinge clamp to the right to move the drawer front up. See Figure 21. If the front needs to move down, go to the next step.
2. Open the hinge with a screwdriver, turn the screw in the hinge clamp to the left and push the front down. See Figure 22. Close the clamp and turn the screw to the right until the door front is in the desired position.

Figure 20. Adjust Knee-Activated Drawer Latches

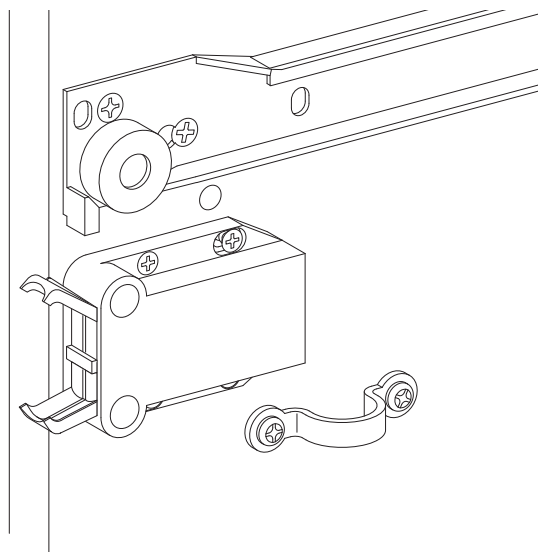


Figure 21. Move Drawer Front Up

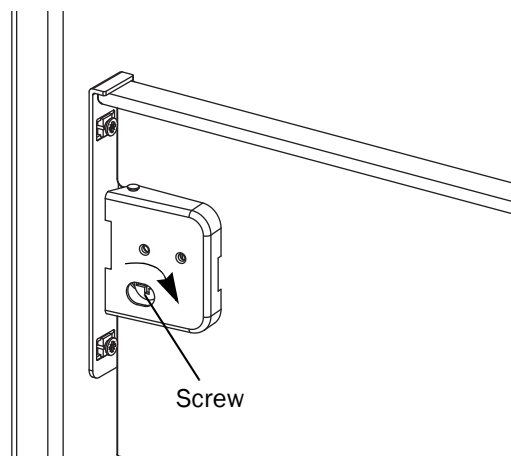
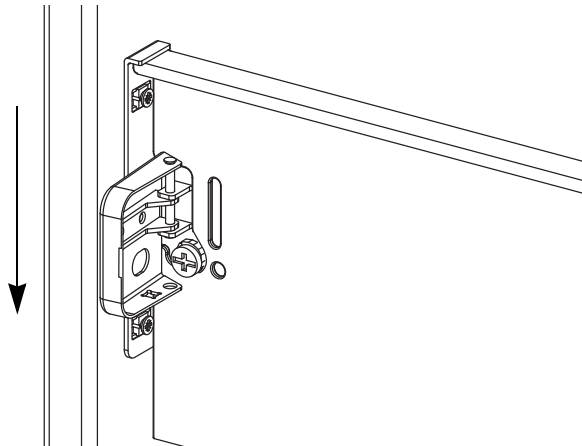


Figure 22. Move Drawer Front Down



Adjust the Hinged Doors

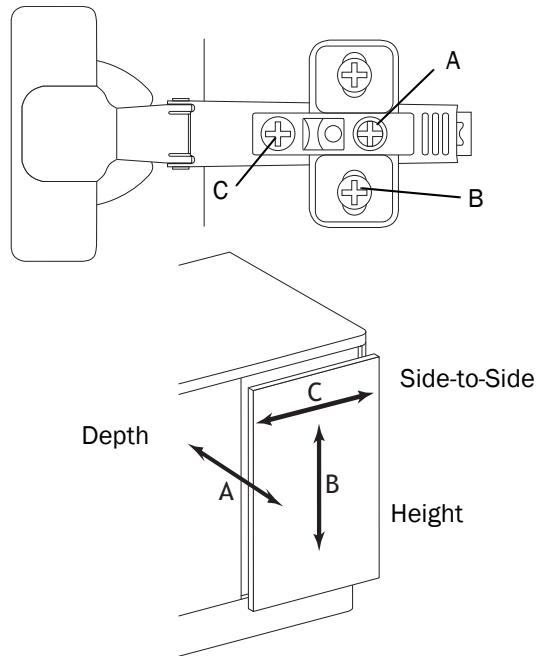


CAUTION To avoid stripping the screws, use a #2 Pozidriv screwdriver when making adjustments to the door hinges.

The ICC doors adjust for depth, height and side-to-side alignment.

- **Depth Adjustment:** Turn screw (A) on the upper and lower hinges until the door is in the desired position. See Figure 23.
- **Height Adjustment:** Loosen screw (B) on both the upper and lower hinge mounting plate one-quarter turn. Move the door up or down to the desired position, and then tighten the screws. See Figure 23.
- **Side-to-Side Adjustment:** Turn screw (C) on both the upper and lower door hinges until the door is in the desired position. See Figure 23.

Figure 23. Adjust Hinged Doors



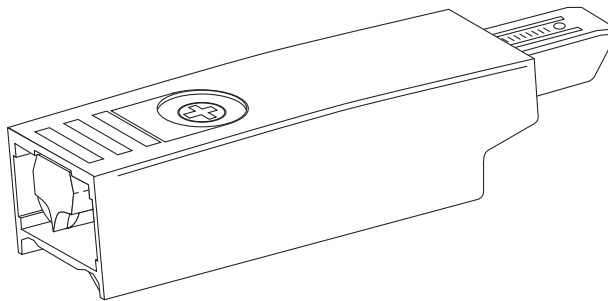
Soft Close Adjustment

The soft close mechanism can be adjusted. Turn the screw counterclockwise to further dampen the door closing.



NOTE The soft close device can be overextended, causing it to stick. Turn the adjustment screw clockwise until the mechanism releases.

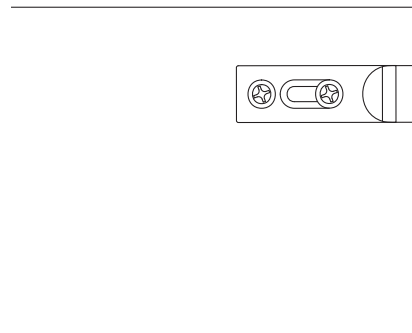
Figure 24. Soft Close Adjustment



Adjust the Foot-Activated Doors

1. Loosen the screw in the slotted hole of the wedge.
2. Slide the wedge until the door is in the desired position and tighten the screw.
3. Drill a 1/8" (3.2 mm) pilot hole in the untapped hole of the wedge.
4. Install a locking screw to secure the door.

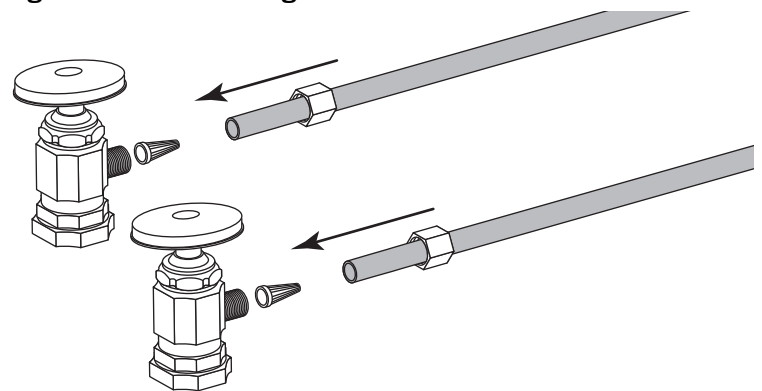
Figure 25. Adjust Foot-Activated Doors



Connect the Water Supply

1. Purge the air and water manual shutoff valves of debris.
2. Remove the nuts from the water manual shutoff valves and discard the brass compression sleeves.
3. Install a filter into the gray tube and install the tubing to the shutoff valve.

Figure 26. Install Tubing to Shutoff Valve



Install the Air-Actuated Shutoff Valves

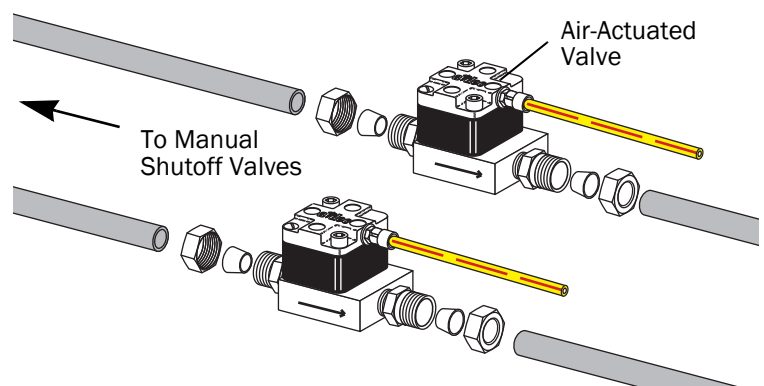
1. Cut both gray tubings 6" (152.4 mm) from the manual shutoff valves.



NOTE You must install the air-actuated shutoff valves in the direction shown.

2. Remove the nuts from the air-actuated valves and discard the brass compression sleeves.
3. Slide the nuts and new plastic compression sleeve onto the gray tubing with the tapered end of the compression sleeve pointed towards the end of the tubing.

Figure 27. Install Air-Actuated Shutoff Valves



4. Connect the pilot air tubing (yellow with red dashes, 1/8" OD) from the faucet foot-activated kickplate valve on the subbase to the tee in the pilot air tubing coming from the two water shutoff valves.
5. Connect the master air tubing (yellow with red stripe, 1/8" OD) to the air manifold.

Plumb the Foot-Activated Doors

1. Ensure all of the air tubing from the cylinders on the foot-activated doors is routed to the kickplates.
2. Attach the orange with black dash tubing to the 4-way binary valve.
3. Attach the yellow with red dash tubing from the foot-activated kickplate valve to the air manifold under the sink.



CAUTION Do not shorten the tubings. The tubing length provides the correct air cushioning for the foot-activated door function.

Figure 28. Foot-Activated Faucet Assembly

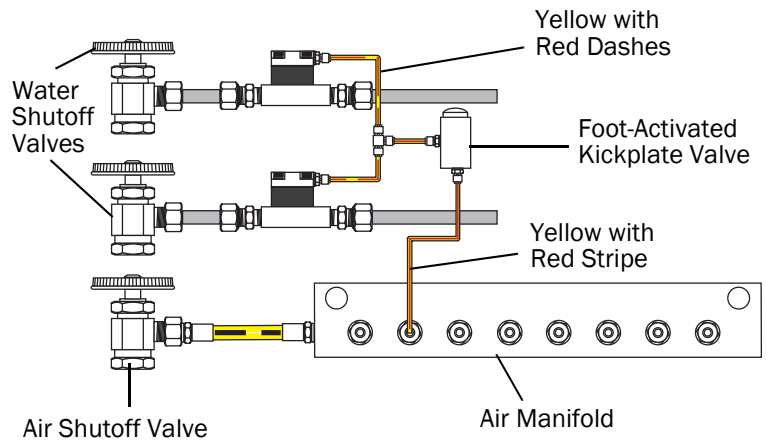
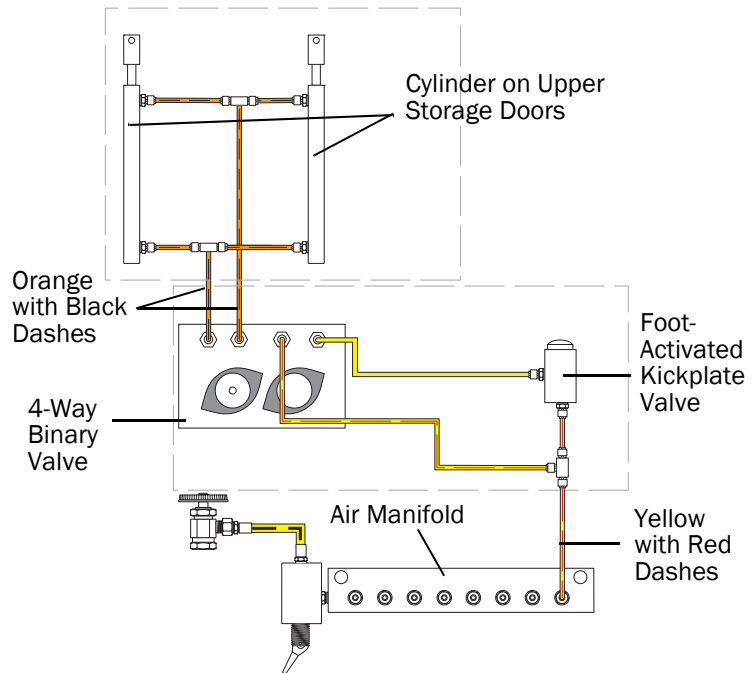


Figure 29. Foot-Activated Doors Flow Diagram



Plumb the Foot-Activated Dryer

1. Ensure all of the air tubing from the cylinder on the dryer is routed to the kickplate.
2. Attach the orange with black dash tubing to the 4-way binary valve.
3. Attach the yellow with red dash tubing from the foot-activated kickplate valve to the air manifold under the sink.

Anchor the ICC

1. If module access permits, anchor the ICC according to Figure 33 on page 18. If access to the modules does not permit the Figure 33 layout, distribute all of the supplied anchors evenly between the front and rear feet of the ICC.
2. Hook an anchor onto the foot and then use the front slot only to mark the anchor clip hole location on the floor.

Drill the Holes

1. Drill the hole for the type of floor:
 - **Concrete Floor**
Drill the marked anchor bolt holes 1/2" (12.7 mm) in diameter and a minimum of 3-1/2" (88.9 mm) deep.
 - **Wood Floor**
Drill the marked lag screw holes 3/8" (9.5 mm) in diameter and a minimum of 2-1/2" (63.5 mm) deep.
2. Remove any debris from the holes.

Figure 30. Foot-Activated Dryer Flow Diagram

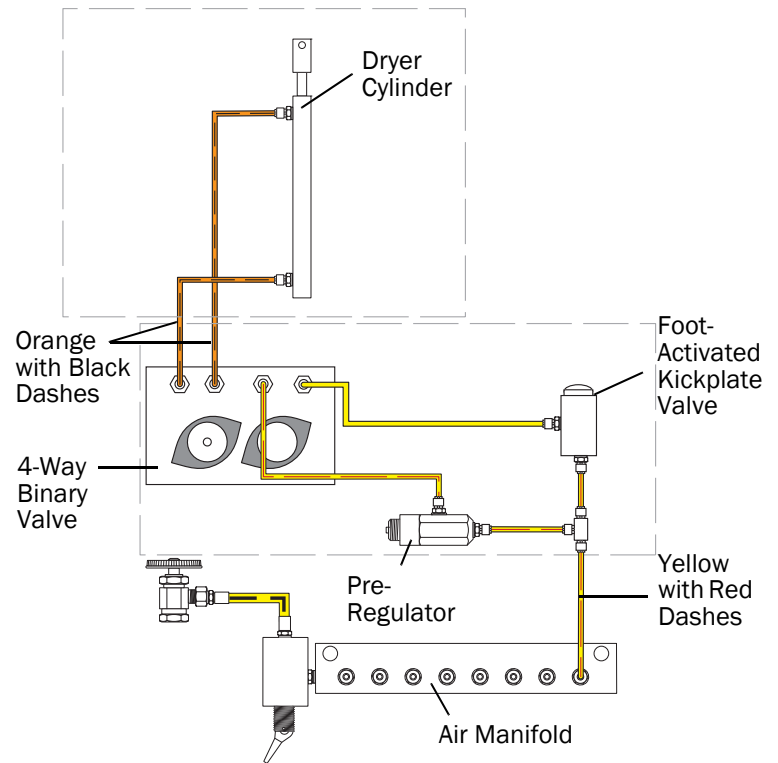


Figure 31. Anchor Positions

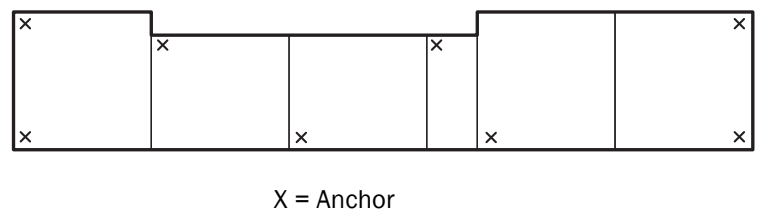
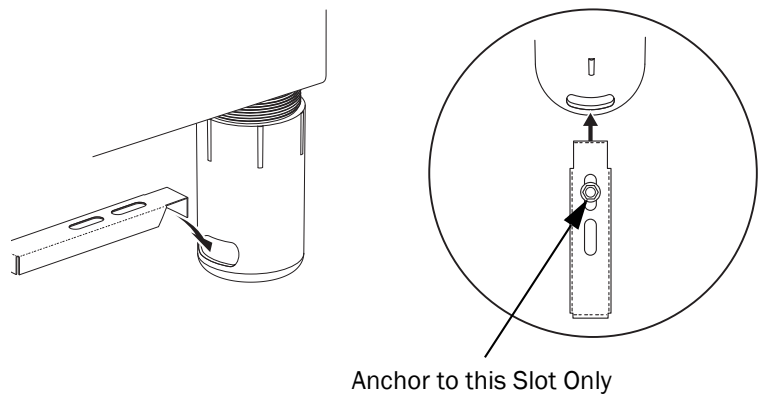


Figure 32. Anchor the Leveling Foot



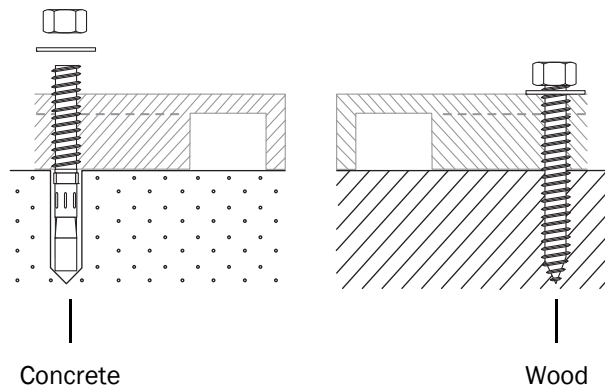
Secure the Anchor

1. Secure the anchor to the floor with a 1/2" anchor stud for a concrete floor and a 1/2" lag bolt for a wood floor.



NOTE Concrete floors must be a minimum of 5" (127 mm) deep and wood floors must be a minimum of 3" (76.2 mm) deep to properly anchor the ICC. If the floors do not meet the minimum thickness, please consult a licensed engineer for alternate mounting instructions.

Figure 33. Secure Anchor to Floor



Install the Subbase and Kickplates

1. Begin from the left end of the ICC and snap the subbase onto the leveling feet.
2. Attach the corner and ends of the subbase using the #8 x 1/2" Phillips head screw.
3. To ensure a finished appearance, attach the subbase splice to the end of each subbase. Begin at the end of the last module and work away from that end.

Figure 34. Install Subbase and Kickplate

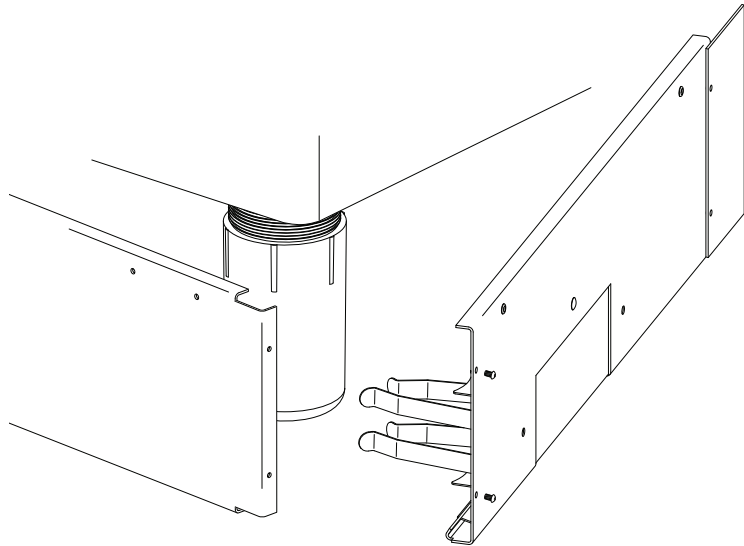
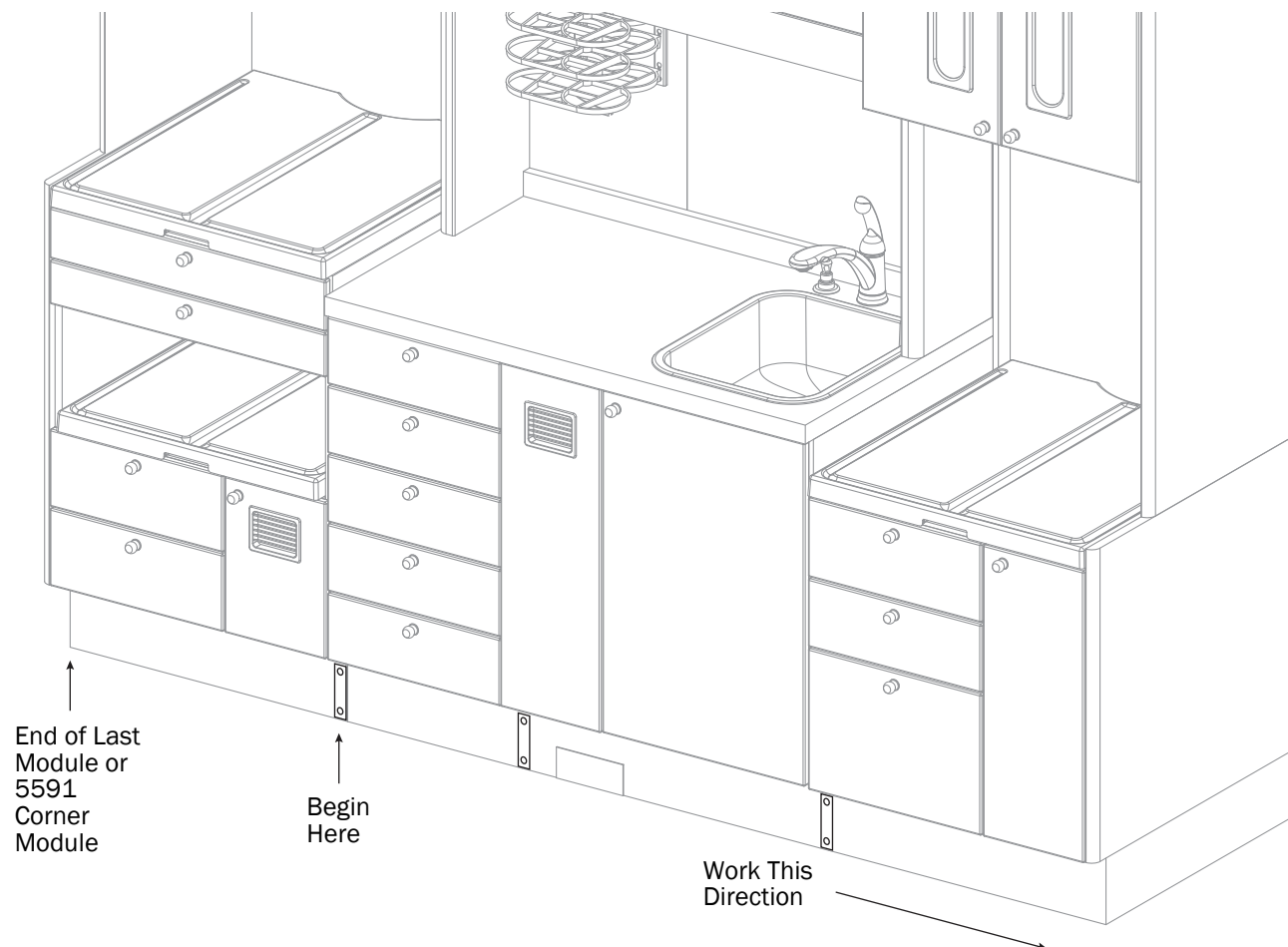


Figure 35. Install Subplate Splices



Install the HVE

1. Mount the HVE bezel on the countertop.
2. Route the HVE tubing down through the countertop hole.
3. Determine the length of tubing needed to use the HVE in the sterilization center and cut it to fit.
4. Use RTV silicone adhesive to glue the 5/8" adaptor to the HVE tubing on one end and the 5/8" flexible tubing on the other end.
5. Attach the free end of the 5/8" flexible tubing with the RTV silicone adhesive to the vacuum stub in the wall behind the sink module.

Install the Delta® Faucet

Refer to the instructions in the Delta faucet kit. Use only the single hole escutcheon to install the faucet.

Activate and Program the Clock/Timer

Follow these instructions to activate the clock/timer, and then use Table 2 for programming. See Figure 36.

1. Pull the plastic tab from the battery terminal.
2. Insert the battery with the poles oriented in the right direction and it will easily snap into place.

Install the Storage Racks

1. Hook the tabs on the shelves into the key-holed brackets on the back panels of the modules or inside the upper storage area. See Figure 37.
2. Install the filler panel and subbase trim.

Attach the subbase trim to the bottom of the filler panel and the subbase using the self-adhesive tape on the back of the trim.

Figure 36. Set Clock/Timer

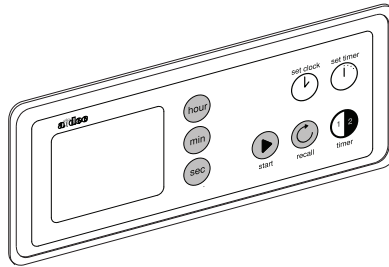
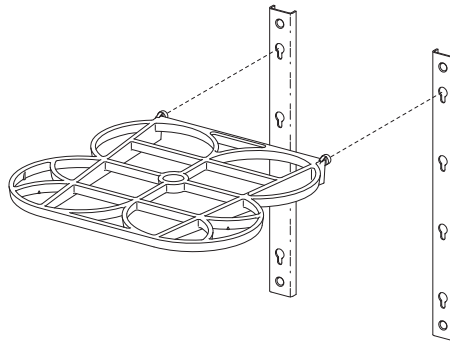


Table 2. Program Clock/Timer

To do this...	Press and hold...
Set the time	set clock and hour, min, or sec
Set 12/24 hour display formats	set timer and set clock AM/PM will only be displayed for the 12 hour format
Set the count down timer	set timer and min or sec until the desired time is reached
Start the timer	start/stop
Stop the timer	start/stop
Clear the timer	Stop the timer then press and hold timer for three seconds
Recall last start time	Recall while timer is stopped
Select timer 1 or 2	timer 1/2

Figure 37. Install Storage Racks



Regulatory Information

Regulatory information mandated by agency requirements is provided in the *Regulatory Information, Specifications, and Warranty* document (p/n 86.0221.00), which is available in the Document Library at www.a-dec.com.

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Product Models and Versions Covered in This Document

Models	Versions	Description
5590	A	Dental Furniture

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