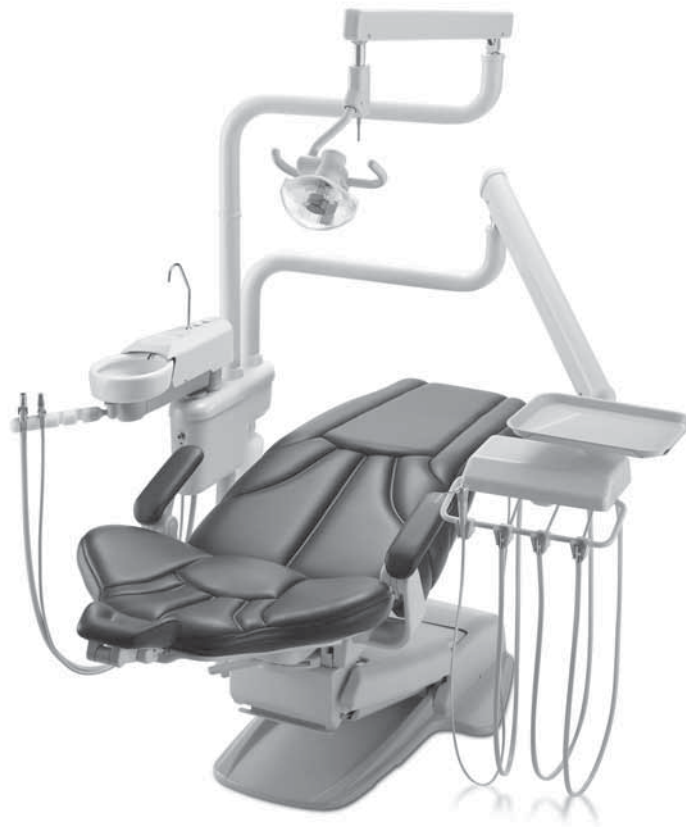


**INSTALLATION, OPERATION & SERVICE
MANUAL**

**Z3-2017-FX
Delivery System**

**Model Code:
P070867**



Zakton Z3 Package

Warranty

All products except stools, sold to and installed by authorized Zakton LLC dealers are guaranteed against defects in materials and workmanship for a period of five (5) years after date of purchase. Upholstery is guaranteed for one (1) year after date of purchase. All handpiece illumination systems are guaranteed for six (6) months after date of purchase.

This warranty does not cover light bulbs of any kind. Faulty parts are determined by a dealer service representative, will be repaired or replaced; no claim for a labor or consequential damages will be allowed. Invoices for replacement parts may be subject to adjustment after the manufacturer has inspected the alleged defective parts.

The warranty does not cover normal wear, stains, cuts, or scratches of upholstery surface finishes, or parts sold to O.E.M. customers. This warranty does not cover damage resulting from the use of cleaning, disinfecting, or sterilization chemicals and processes. The warranty does not cover damage from improper installation or maintenance, accident, misuse, or accidents incurred in shipping and handling.

In the event of shipping damage, the purchaser must initiate all claims against the freight carrier in writing twenty-four (24) hours after the damaged items are received. The claim is the responsibility of the customer.

PRODUCT MODIFICATION

Zakton LLC continually works to offer better products. We reserve the right to make modifications without notice or obligation to modify previously manufactured products.

DOCUMENT INFORMATION

Zakton LLC does not warrant that this document is completely error free. Zakton LLC shall not be held liable for errors contained in this manual, for any consequential or other damages concerning the furnishings, performance or use of this material. Zakton LLC does not warrant the content of any kind in this document, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose. The information of this document is subject to change without notice. If you find any problems with this document, please report them to us in writing.

OTHER PRODUCTS & TRADEMARKS

All products or services mentioned in this document that are not Zakton LLC, are covered by the trademarks, service marks, or product names designated by the companies marketing those products. Refer to these respective manuals and instructions for all information regarding these products.

CLEANING AND DISINFECTING ZAKTON EQUIPMENT

Infection control in the dental office continues to be a high priority for our customers and end users. O.S.H.A., the A.D.A., and the C.D.C. are also involved in this complex issue.

We will not attempt to specify the required intervals for disinfection nor can we state what is the overall best surface disinfectant. Please refer to the Infection Control Recommendations published by the American Dental Association for further reference.

Barrier Technique

Zakton strongly advocates the barrier technique to be used whenever possible to preserve the finish and appearance of the equipment. Wherever possible disposable barriers should be used and changed between patients. The barrier technique will ensure maximum long term durability of the surfaces and finishes of equipment.

Chemical Disinfection

Regardless of the chemical disinfectant used it is imperative that the equipment be thoroughly washed with mild soap and warm water at least once per day. This wash down will minimize the harmful effects of chemical disinfectant residues being allowed to accumulate on the equipment.

When using a chemical disinfectant, always pay strict attention to the manufacturer's application directions of the disinfectant. When using a concentrated disinfectant, always pay strict attention to the manufacturer's diluting directions of the disinfectant. "Disinfectant solutions that are relatively harmless to surfaces at their recommended strengths can be corrosive at a higher/purer concentrate."

Unacceptable Disinfectants

These disinfectants WILL HARM the surface finishes of ZAKTON equipment and are NOT RECOMMENDED. USE OF THESE PRODUCTS WILL VOID YOUR WARRANTY.

CHEMICAL COMPOSITION

Strong Phenols/Phenol-Alcohol Combinations

Sodium Hypochlorite/Household Bleach

Alcohol

Household Cleaners

TRADE NAMES

Lysol, Lysol 2, Lysol Professional
Coe Foam, Coe Spray Pump,
Vitaphone, Omni II

Clorox, Ajax, Purex

Conditionally Acceptable Disinfectants*

These disinfectants have been found to be the LEAST HARMFUL to the equipment surfaces.

None of these products are recommended for chair upholstery. Use the barrier technique.

CHEMICAL COMPOSITION

Iodophors**

Mild Phenols

Glutaraldehyde/Phenol sprays

Synergized Super Quat

TRADE NAMES

Biocide, Aseptic-IDC
Wescodyne, SD5, Promedyn, Ido-Five

Procide ES, Asepti-Steryl Aerosol

Sterall Spray, Coldspor

Dis-cide, Cavicide, Kleenaseptic

Top-Cide, Sporicidin Pump Spray, Birex se

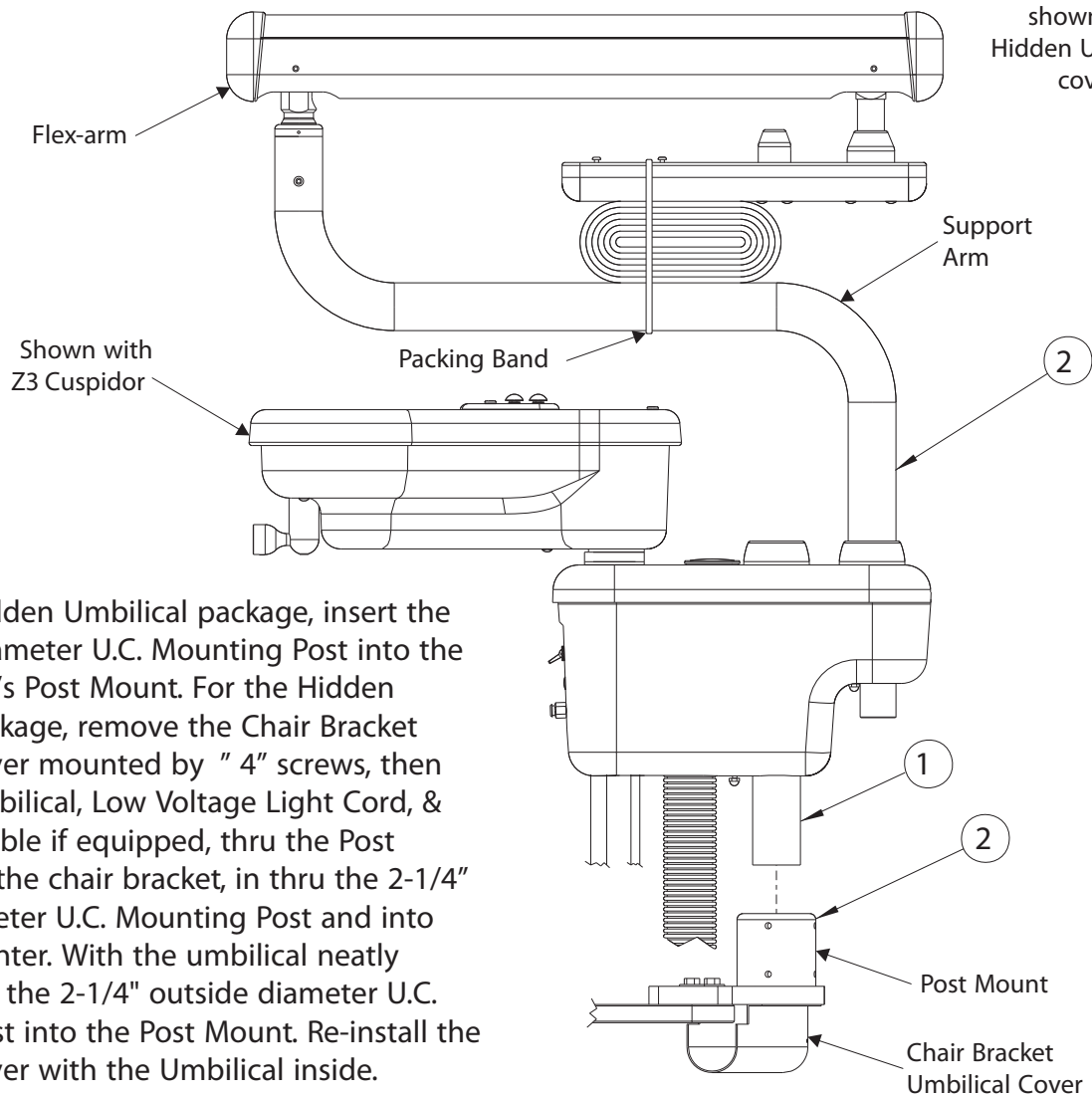
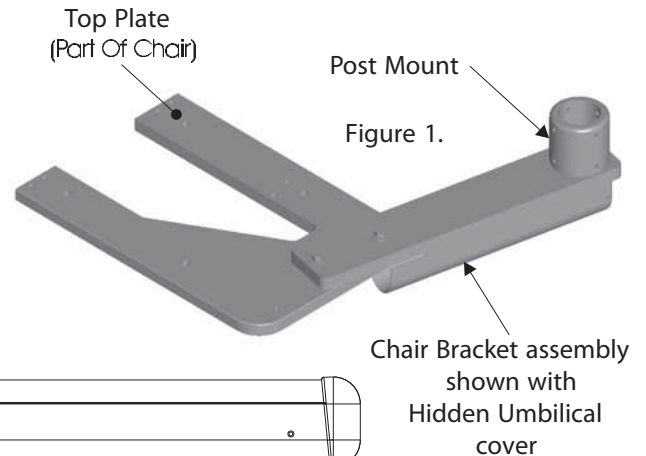
* ZAKTON LLC makes no representation as to the disinfectant efficacy of these products. We make no warranty, expressed or implied, that these disinfectants will not damage the surface finishes. Damage and discoloration of the surface finishes is not covered under the warranty.

** Iodophor based disinfectants will cause yellow staining on many surfaces. Regular washing with soap and water will minimize this staining. Iodophor neutralizers such as Promedyn are also available.

Utility Center Delivery Assembly - Installation Instructions

Pre-Setup:

- Using the provided bolts, install the pre-assembled Chair Bracket and Post Casting on the left or right side of the chair's Top Plate, located at the front, below the Seat area and above the Base Linkage assembly. See figure 1.
- Remove your Utility Center Delivery assembly from the shipping box.



- 1 For a Non-hidden Umbilical package, insert the 2" outside diameter U.C. Mounting Post into the Chair Bracket's Post Mount. For the Hidden Umbilical package, remove the Chair Bracket Umbilical Cover mounted by " 4" screws, then route the Umbilical, Low Voltage Light Cord, & Touch Pad Cable if equipped, thru the Post Mount; from the chair bracket, in thru the 2-1/4" outside diameter U.C. Mounting Post and into the Utility Center. With the umbilical neatly routed, insert the 2-1/4" outside diameter U.C. Mounting Post into the Post Mount. Re-install the Umbilical Cover with the Umbilical inside.
- 2 Adjust the "8" adjustment Set Screws on the Post Mount until the Support Arm is vertically plumb. Determine this by using a level, being sure to check that the Support Arm is vertically plumb from all sides. Tighten the adjustment screws evenly and re-check the Support Arm to ensure that it is still plumb. Note: It is extremely important that the Support Arm is vertically plumb, as this determines whether or not the Cuspidor or Telescoping Arm, HP Control Delivery, Tray and the Light Delivery will be plumb, and therefore function properly.

TIP: Do not cut the Packing Band at this time.

Utility Center Delivery Assembly - Installation Instructions

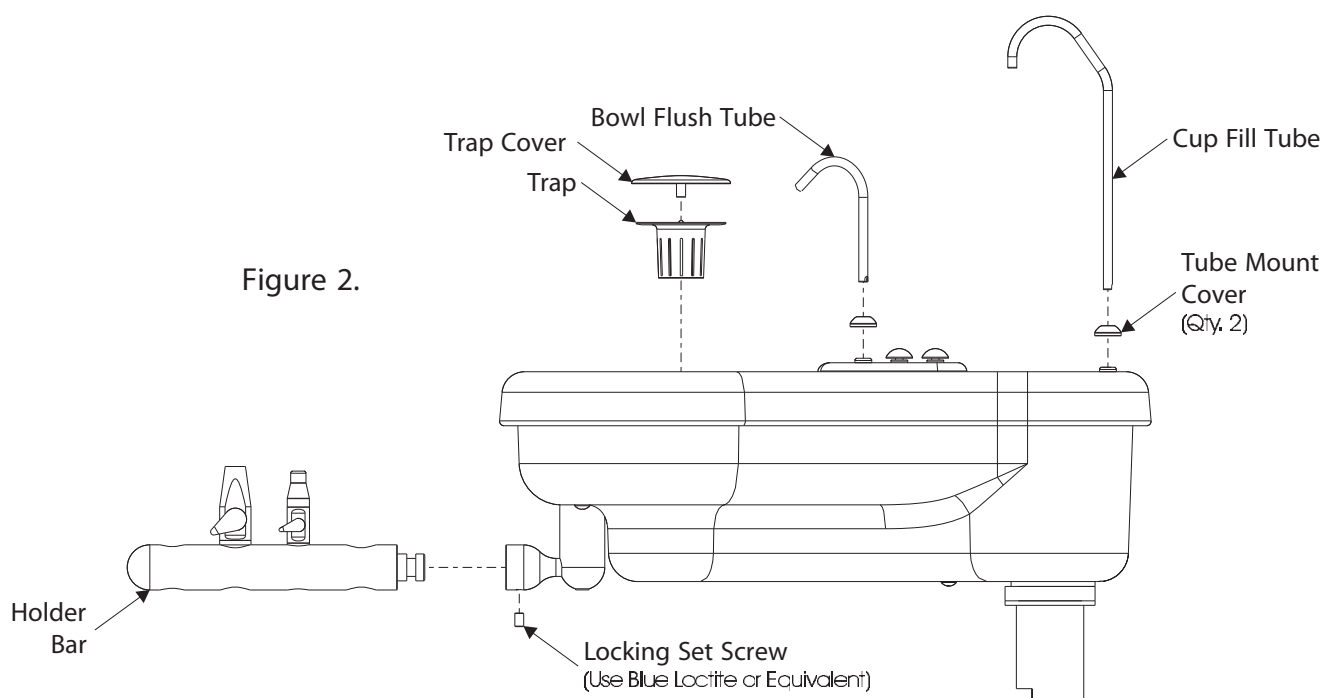
Step 1. Locate the Water Bottle that was shipped with the Utility Center Delivery assembly and install it as shown in Figure 3.

Step 2. The Flex-arm is under tension due to the Packing Band. While securing the Flex-arm with one hand, cut the packing band. CAUTION: If the band is removed without securing the Flex-arm, the Flex-arm will rise up unexpectedly and could cause damage or injury. See Figure 3.

Step 3. If the Utility Center Delivery assembly that you are installing does not have a cuspidor, proceed to Step 4. If it does, continue with this step.

A. Locate the Holder Bar that was shipped with the Utility Center Delivery package, install as shown in Figure 2, then mount the H.V.E and Saliva Ejector. NOTE: Make sure to neatly apply Blue Loctite or equivalent (not included) per it's manufacture's instructions to the Locking Set Screw's threads and adjust the Locking Set Screw's tension for the Holder Bar. See Figure 2.

B. Locate the Trap, Trap Cover, Bowl Flush Tube (Z3 Cuspidor Only), Cup Fill Tube, and two Tube Mount Covers that was shipped with the Utility Center Delivery assembly and refer to Figure 2 for installation. NOTE: After the air and water utilities have been installed, see ("Cuspidor Bowl Flush Contact point - Adjustment Instructions") in this manual to properly align the Bowl Flush Tube.



SHOWN: Z3 Cuspidor

Utility Center Delivery Assembly - Installation Instructions

Step 4. If the Utility Center Delivery assembly that you have has a Linear Telescoping Arm , insert it fully into the top of the Utility Center Delivery assembly next to the Amalgam Trap as shown in Figure 3. Then mount Vacuum Group.

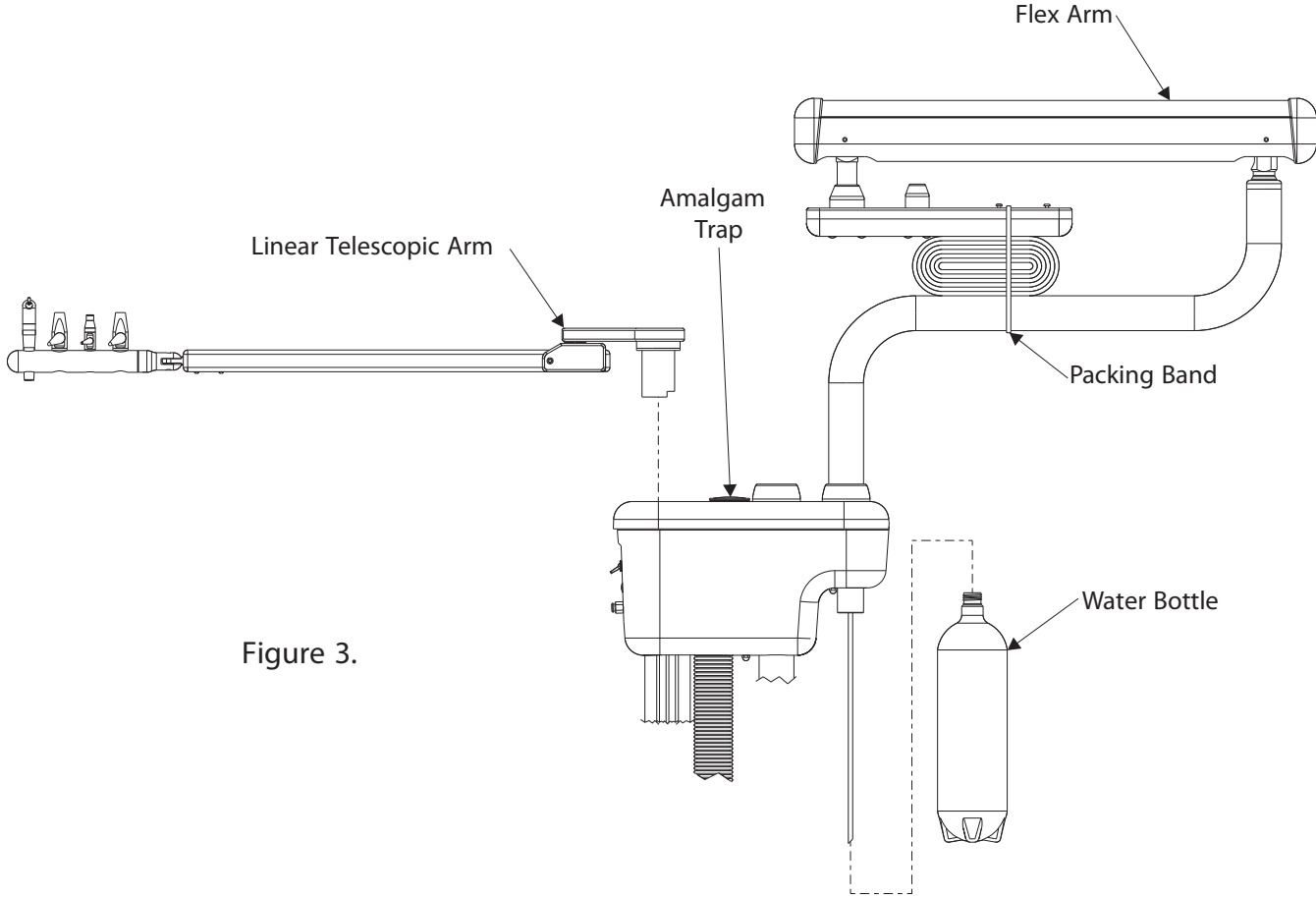
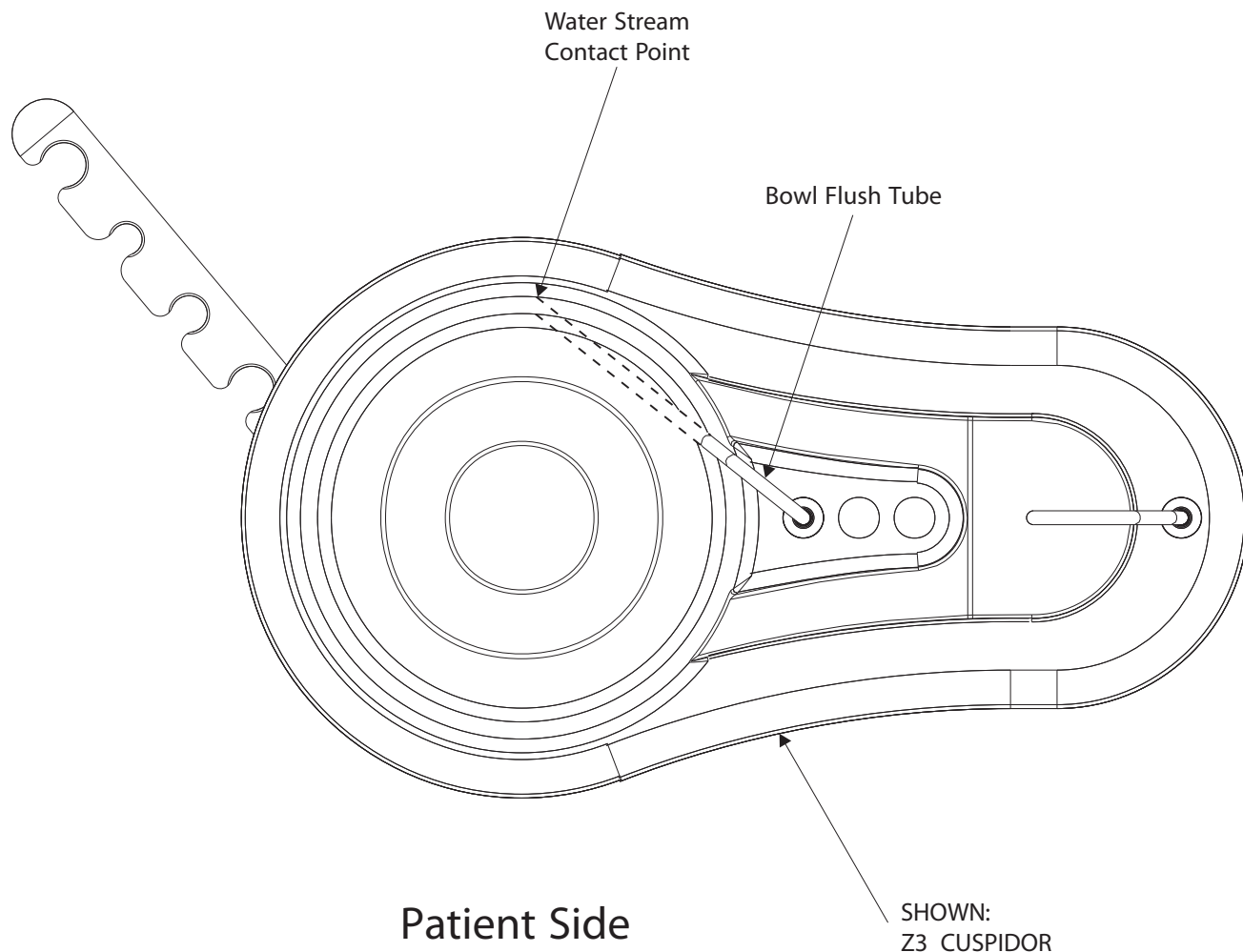


Figure 3.

Utility Center Delivery with Linear Telescoping Arm

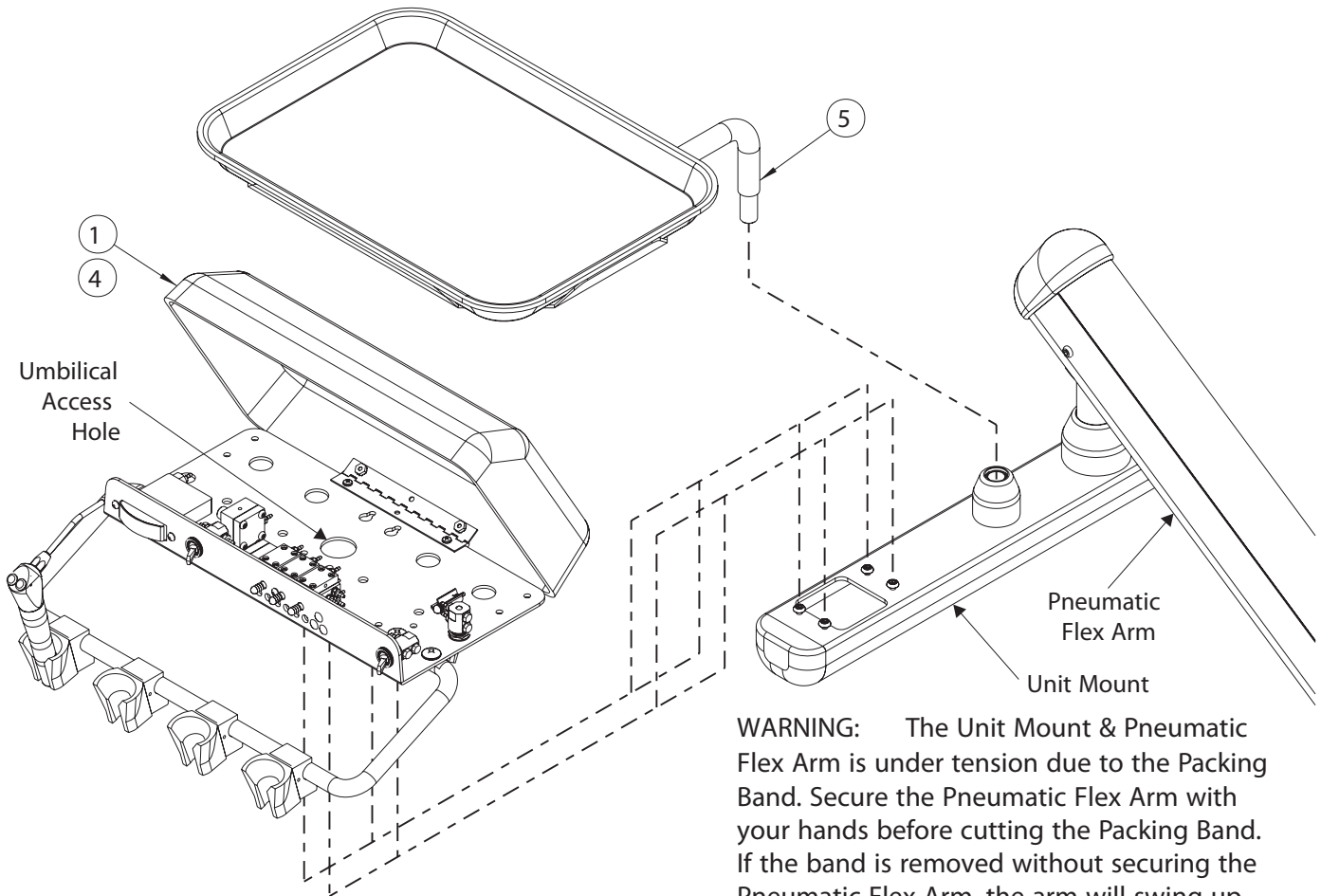
Cuspidor Bowl Flush Contact point - Adjustment Instructions



STEP 1. For an efficient bowl flush, position/rotate the Bowl Flush Tube so that the Water Stream makes contact on the Cuspidor bowl inner wall. Precisely adjust it, so the water covers the bottom of the Cuspidor bowl completely before it drains away. Make sure water does not splash out of the Cuspidor bowl.

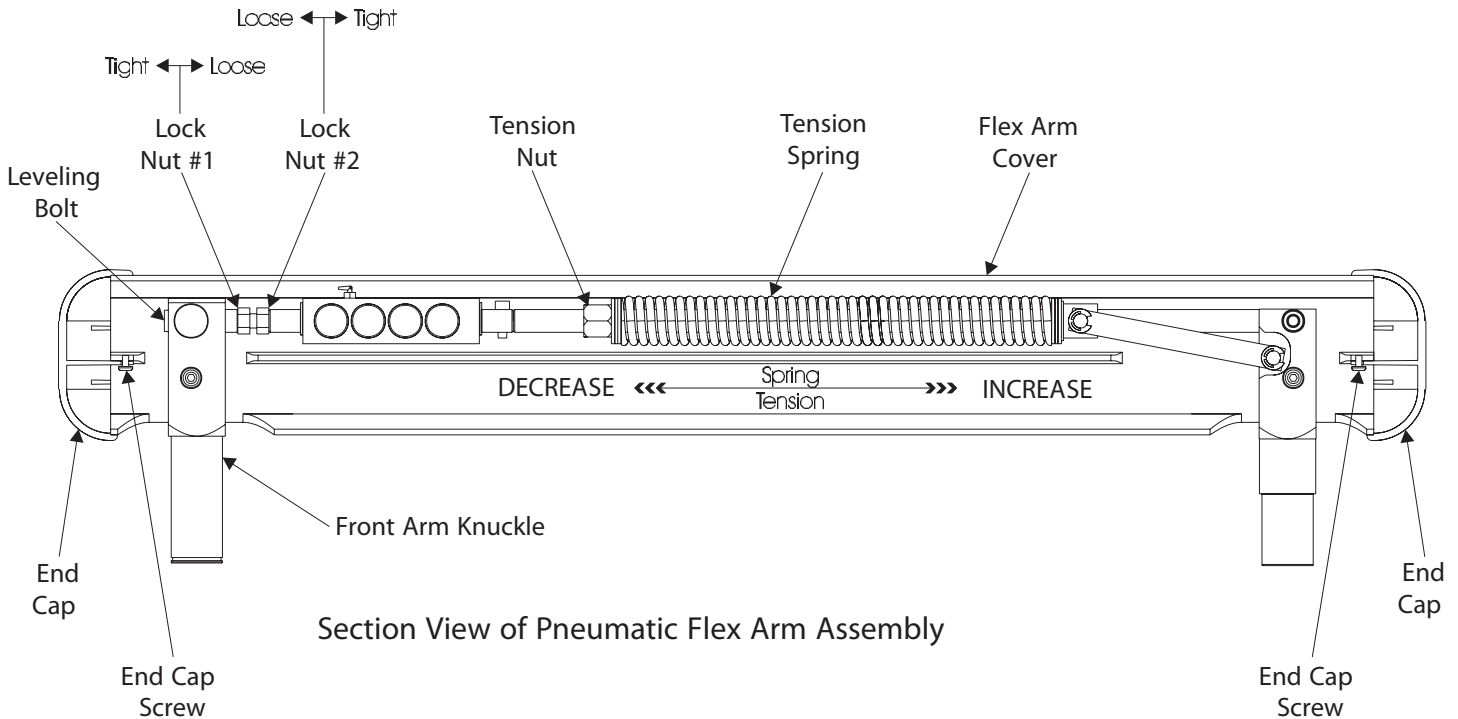
STEP 2. Ideally the Bowl Flush Tube water stream contact point on the Cuspidor Bowl is located furthest away from the patient sitting in the dental chair.

AS-1 H.P. Control - Installation Instructions



- ① SEE WARNING . Locate the AS-1 HP Control that was shipped with the package, and open its Top Cover.
- ② Route the Umbilical from the Unit Mount through the Umbilical Access Hole located at the base of the HP Control in-between the "4" keyholes. Install the HP Control to the Unit Mount by locking and tightening the "4" mounting screws into the "4" keyholes surrounding the Umbilical Access Hole .
- ③ Using the male and female Quick Disconnects, connect the Umbilical to the HP Control, match the connections regarding style, size, & color and firmly connect the male and female together. Some will require to be firmly twisted together, and others like the Touch Pad Cable (if available) will simply push and lock together.
EXAMPLE : 1/8" Outside Diameter gray tubing from the Umbilical would connect with 1/8" Outside Diameter gray tubing from the HP Control Exhaust Valve (see tubing diagram under lid for additional information) .
- ④ Close the Top Cover making sure all tubes & wires are not kinked or pinched.
- ⑤ Locate the Tray Holder Assembly and fully insert it into the Unit Mount as shown. The Tray rests on top of the Tray Holder Assembly.

Pneumatic Flex Arm - Tension and Pitch Adjustment



Spring Tension Adjustment:

1. Remove both End Caps, and Flex Arm Cover by uninstalling the "2" End Cap Screws.
2. Use a 3/4" S.A.E. open end wrench for the Tension Nut and rotate it to increase or decrease tension on the Tension Spring. Looking from the Front Arm Knuckle side of the Flex Arm assembly, rotating the Tension Nut clockwise will increase tension and counter-clockwise will decrease tension.
3. With the complete service load of the HP Control and with the pneumatic arm brake off, adjust the spring tension so that the Flex Arm will maintain all of the HP Control's vertical positions when left unattended.
4. Re-install the Flex Arm Cover and both End Caps with the "2" End Cap Screws.

Front Arm Knuckle Pitch Adjustment:

1. Remove both End Caps, and Flex Arm Cover by un-installing the "2" End Cap Screws.
2. Loosen and back away Lock Nut #1 and Lock Nut #2.
3. Adjust the Leveling Bolt until the desired pitch of the HP Control assembly is achieved.
4. First tighten Lock Nut #2 then Lock Nut #1 as shown.
5. Re-install the Flex Arm Cover and both End Caps with the "2" End Cap Screws.

Utility Center Dental Light Delivery - Installation Instructions

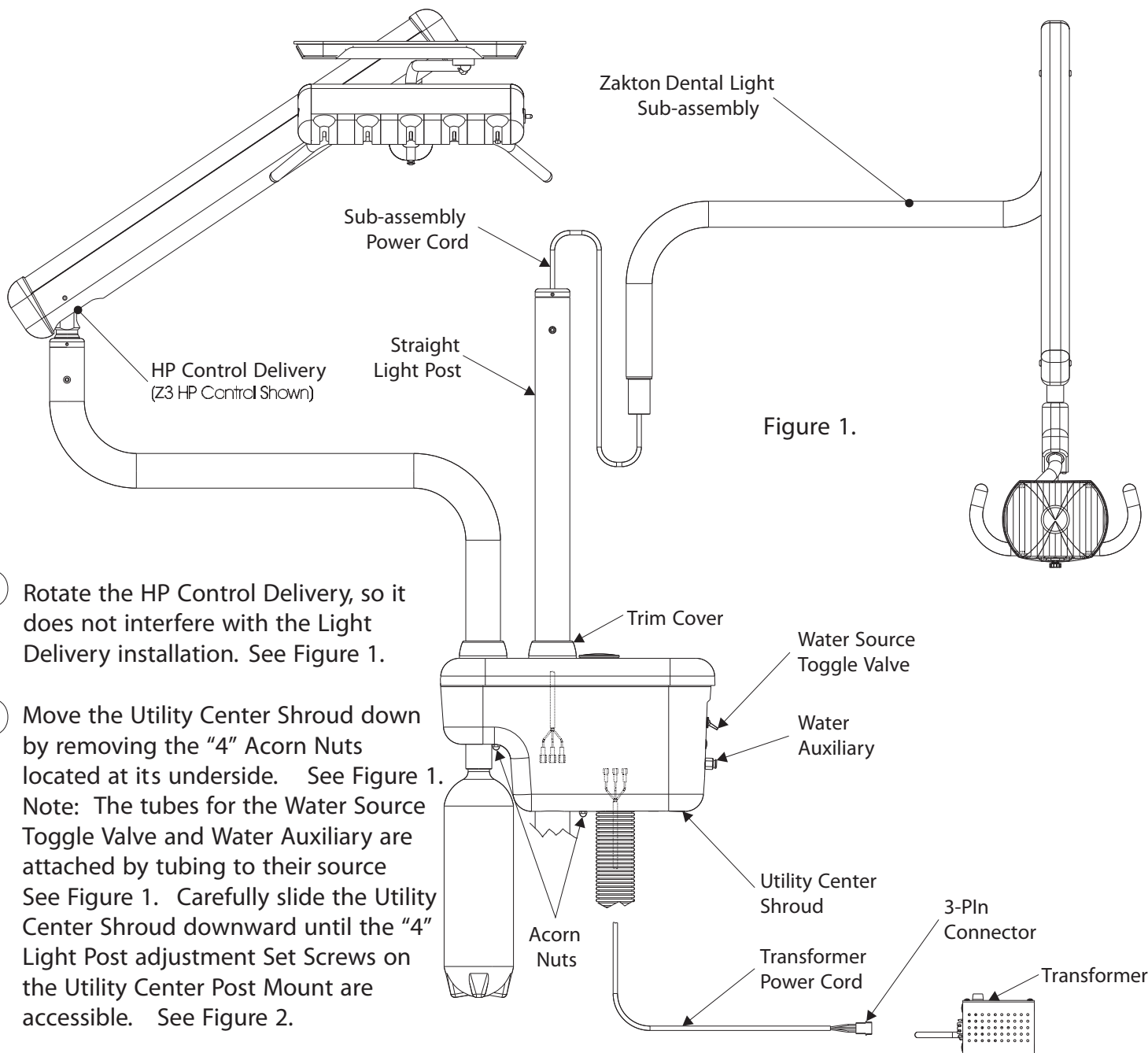


Figure 1.

- 1 Rotate the HP Control Delivery, so it does not interfere with the Light Delivery installation. See Figure 1.
- 2 Move the Utility Center Shroud down by removing the "4" Acorn Nuts located at its underside. See Figure 1. Note: The tubes for the Water Source Toggle Valve and Water Auxiliary are attached by tubing to their source See Figure 1. Carefully slide the Utility Center Shroud downward until the "4" Light Post adjustment Set Screws on the Utility Center Post Mount are accessible. See Figure 2.
- 3 Locate the Straight Light Post that was shipped with either the Utility Center shipping box if a Zakton Dental Light was not ordered or the Zakton Dental Light shipping box. Install it to the Utility Center. Then locate the Trim Cover that was shipped with the Utility Center, and slide it down, around the Straight Light Post. See Figure 1.
- 4 Plumb the Straight Light Post by adjusting the "4" Set Screws. See Figure 2. Make sure that the Straight Light Post is vertically plumb from all sides. If a Zakton Dental Light was not ordered with this package you are finished with this page. If a Zakton Dental Light was ordered with this package proceed to step 5.

Utility Center Dental Light Delivery - Installation Instructions

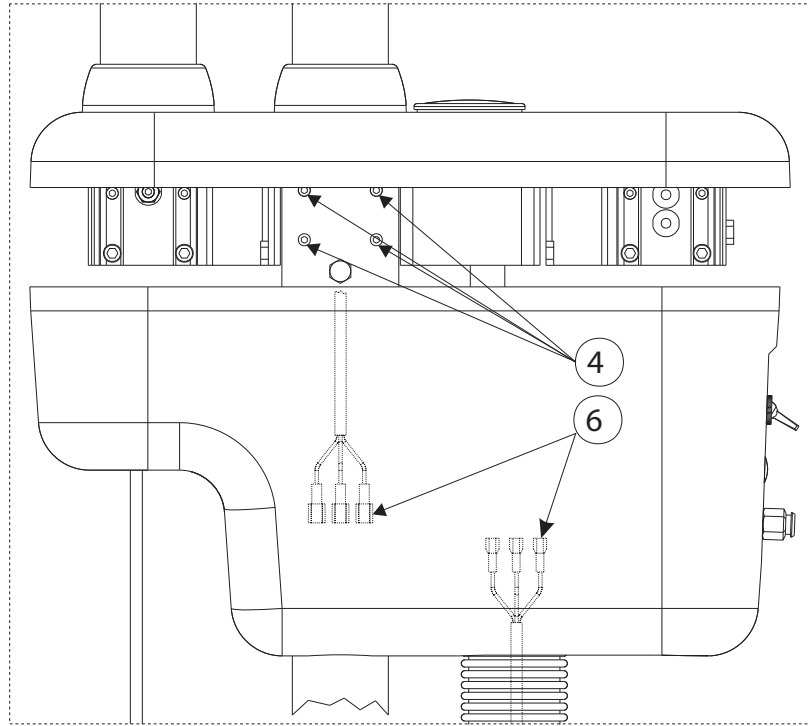


Figure 2.

- 5) Locate the Dental Light Sub-assembly that was shipped in the Zakton Dental Light shipping box. Route the Power Cord from the Sub-assembly down the Straight Light Post and insert the Sub-assembly fully into the Straight Light Post. See Figure 1.

- 6) In the Utility Center, MATCH WIRE COLORS and firmly connect the "3" Female Spade Connectors of the Sub-assembly Power Cord, to the "3" Male Spade Connectors of the dental light Transformer Power Cord that has been pre-installed in the Utility Center Umbilical. See Figure 1 & 2 . Re-install the Utility Center Shroud.

- 7) Locate the dental light Transformer that was shipped in the Zakton Dental Light shipping box. Connect the Three Pin Connector of the Transformer Cord to the dental light Transformer . See Figure 1.

Large Junction Box/Non-hidden Umbilical - Installation Instructions

Zakton has simplified the connection of utilities within the Junction Box. Refer to (Non-hidden Umbilical Junction Box (P034005) - Installation Diagram") of this manual throughout this installation process.

NOTE: Actual size (1:1 SCALE) of "Non-hidden Umbilical Junction Box (P034005) - Installation Diagram " to be used as a template, are available upon request when a new utility layout is required.

- A 1/2" NPT threaded water supply pipe and a 1/2" NPT threaded air supply pipe must be 1" tall maximum, above the finished floor. Using the proper thread sealant, install a supply stop valve (not included) to each 1/2" NPT threaded pipe. Important: After the sealant has set using its manufacturer's directions, use the supply stop valves to purge the water and air supply to remove any debris in the supply line. See Figure 1.
- Supplied Master Shut Off Air & Water Regulator Filter assemblies are PRE-ADJUSTED. Insert the nipple of each assembly into the compression fitting of its designated Supply Stop Valve, "A" for Air & "W" for Water, and tighten. Check for leaks & confirm Air & Water pressure settings on gauge, Air 85psi & Water 40psi. Pull Adjustment knob & turn to adjust push down knob to lock. See Figure 2.
- Place the Junction Box Frame on the floor as shown on the "Non-hidden Umbilical Junction Box (P034005) - Installation Diagram ". Make sure the Umbilical mount of the Junction Box Frame that fits your Umbilical is facing in the correct direction. Secure the Junction Box Frame to the floor with the "8" provided screws. See Figure 3.
- Determine the length required for the Umbilical to be routed from the Utility Center to the Junction Box, then cut off the extra length of Umbilical and insert that Umbilical end into the correct Umbilical mount of the Frame.
- Using sealant, connect the 1/2" inside diameter Vacuum Trap Tube from Umbilical to the Office Central Vacuum within the Junction Box and if available the 5/8" inside diameter Cuspidor Drain Tube from Umbilical to the Office Gravity Drain within the Junction Box.
- Connect the "Male" and "Female" Quick Disconnects attached to the tube ends of the Umbilical and both Air and Water Master Shut Off Regulator filter assemblies, match the tubes "Size" and "Color" and SECURELY connect the "Male" and "Female" Quick Disconnects by firmly pushing & twisting them together.
- EXAMPLE: 1/8" outside diameter CLEAR TUBE from the Air Master Shut Off Regulator filter assembly connects with 1/8" outside diameter CLEAR TUBE from the Water Master Shut Off Regulator filter assembly.
- Using "2" provided screws, install the Junction Box Cover to the Junction Box Frame. See Figure 3.

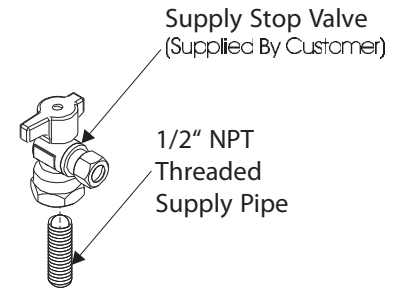


Figure 1.

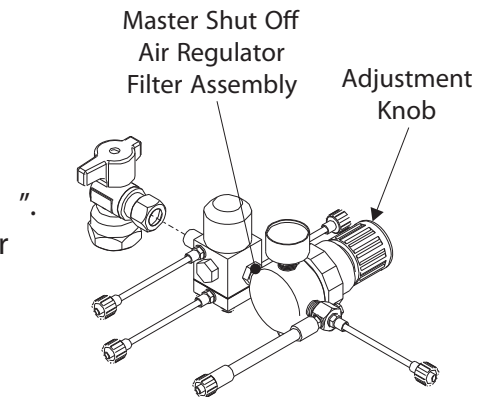


Figure 2.

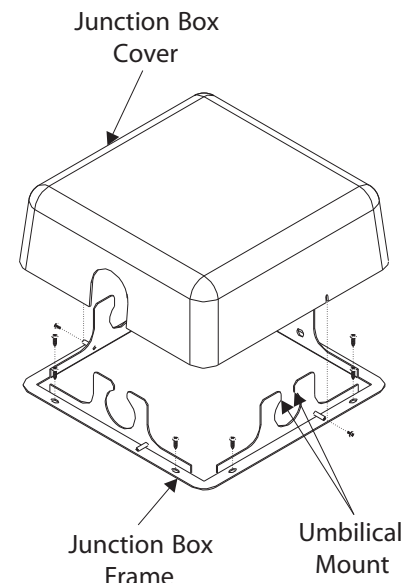
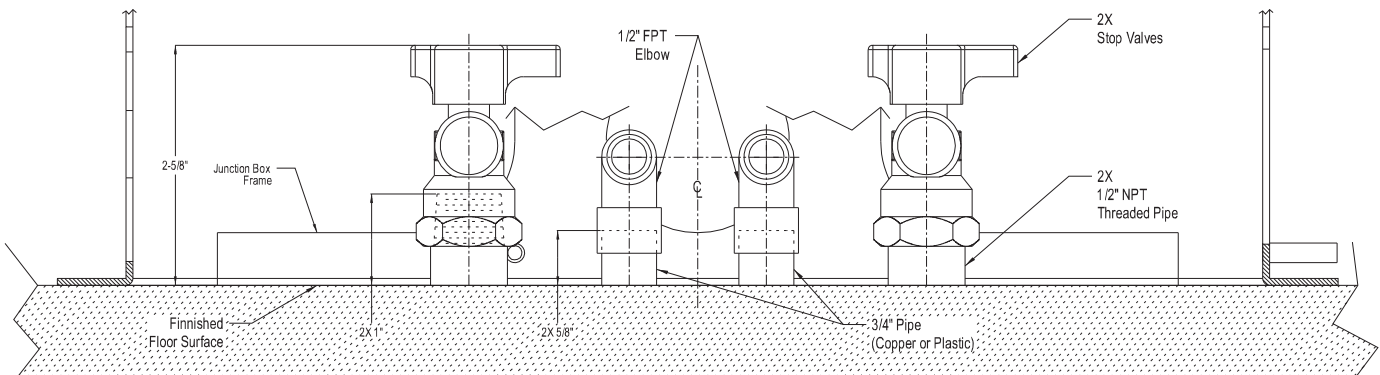
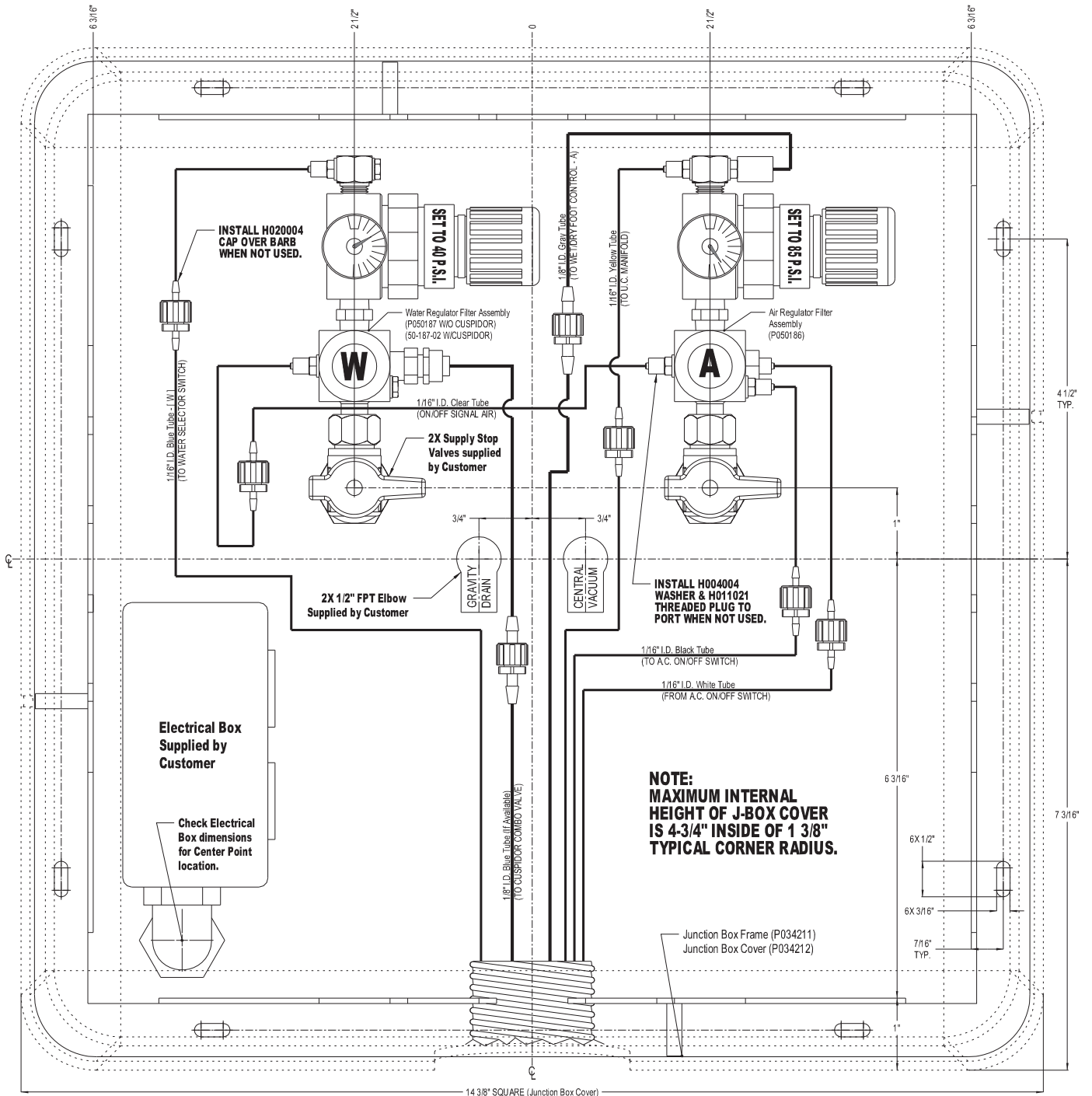


Figure 3.

Non-hidden Umbilical Junction Box (P034005) - Installation Diagram



Large Junction Box/Hidden Umbilical - Installation Instructions

Zakton LLC has simplified the connection of utilities within the Junction Box, it is important that the pre-installation of utilities for the Hidden Umbilical Junction Box relates to the Base Plate location of the dental chair as shown in "Hidden Umbilical Junction Box (P034015) - Installation Diagram" of this manual.

NOTE: Actual size (1:1 SCALE) of "Hidden Umbilical Junction Box (P034015) - Installation Diagram" to be used as a template are available upon request when a new utility layout is required.

- A 1/2" NPT threaded water supply pipe and a 1/2" NPT threaded air supply pipe must be 1" tall maximum, above the finished floor. Using the proper thread sealant, install a supply stop valve (not included) to each 1/2" NPT threaded pipe. Important: After the sealant has set using its manufacturer's directions, use the supply stop valves to purge the water and air supply to remove any debris in the supply line. See Figure 1.
- Supplied Master Shut Off Air & Water Regulator Filter assemblies are PRE-ADJUSTED. Insert the nipple of each assembly into the compression fitting of its designated Supply Stop Valve, "A" for Air & "W" for Water, and tighten. Check for leaks & confirm Air & Water pressure settings on gauge, Air 85psi & Water 40psi . Pull Adjustment knob & turn to adjust push down knob to lock. See Figure 2.
- Place the Junction Box Frame on the floor as shown on the "Hidden Umbilical Junction Box (P034015) - Installation Diagram". Secure the Frame to the finished floor with the "4" provided screws or equivalent. See Figure 3.
- Insert and secure the Hidden Umbilical from the front of the Zakton Dental Chair into the Umbilical mount of the Frame. See Figure 3.
- Using sealant, connect the 1/2" inside diameter Vacuum Trap Tube from Umbilical to the Office Central Vacuum within the Junction Box and if available the 5/8" inside diameter Cuspidor Drain Tube from Umbilical to the Office Gravity Drain within the Junction Box.
- Connect the "Male" and "Female" Quick Disconnects attached to the tube ends of the Umbilical and both Air and Water Master Shut Off Regulator filter assemblies, match the tubes "Size" and "Color" and SECURELY connect the "Male" and "Female" Quick Disconnects by firmly pushing & twisting them together.
- EXAMPLE: 1/8" outside diameter CLEAR TUBE from the Air Master Shut Off Regulator filter assembly connects with 1/8" outside diameter CLEAR TUBE from the Water Master Shut Off Regulator filter assembly.
- Using "2" provided screws, install the Junction Box Cover to the Junction Box Frame.

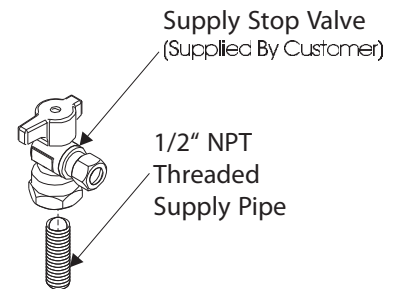


Figure 1.

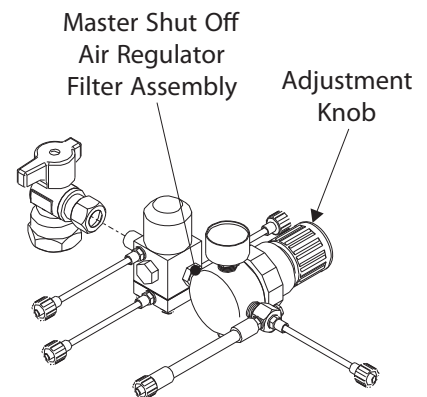


Figure 2.

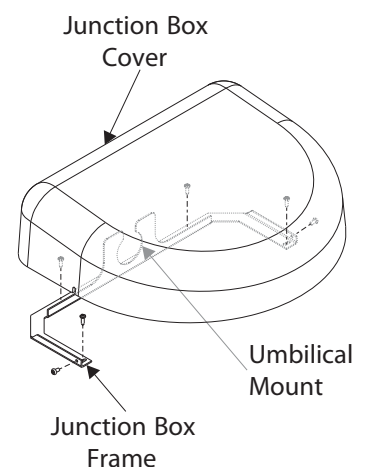
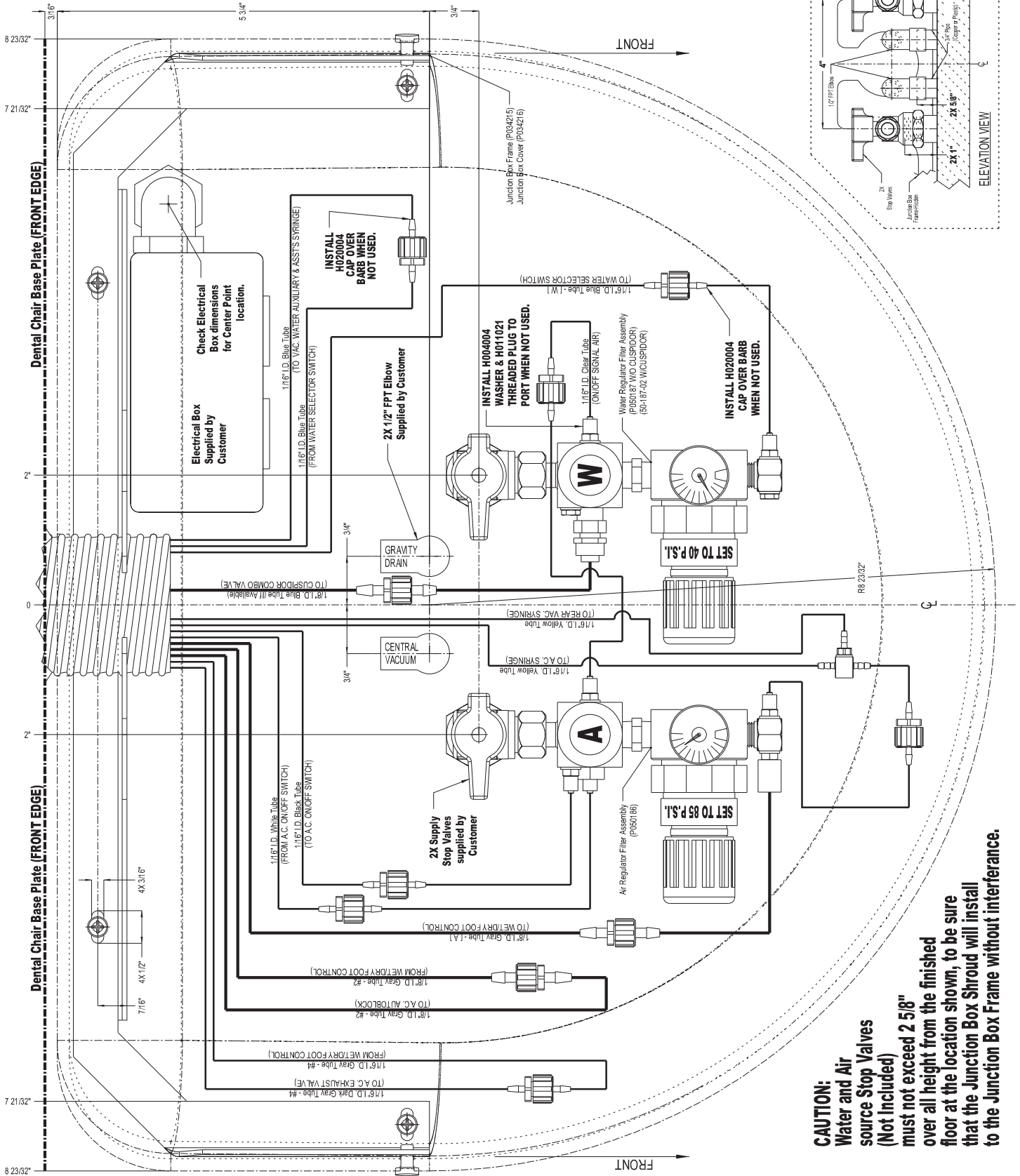
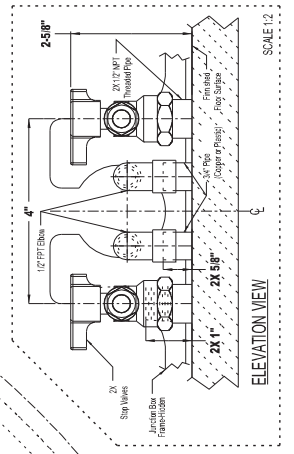


Figure 3.

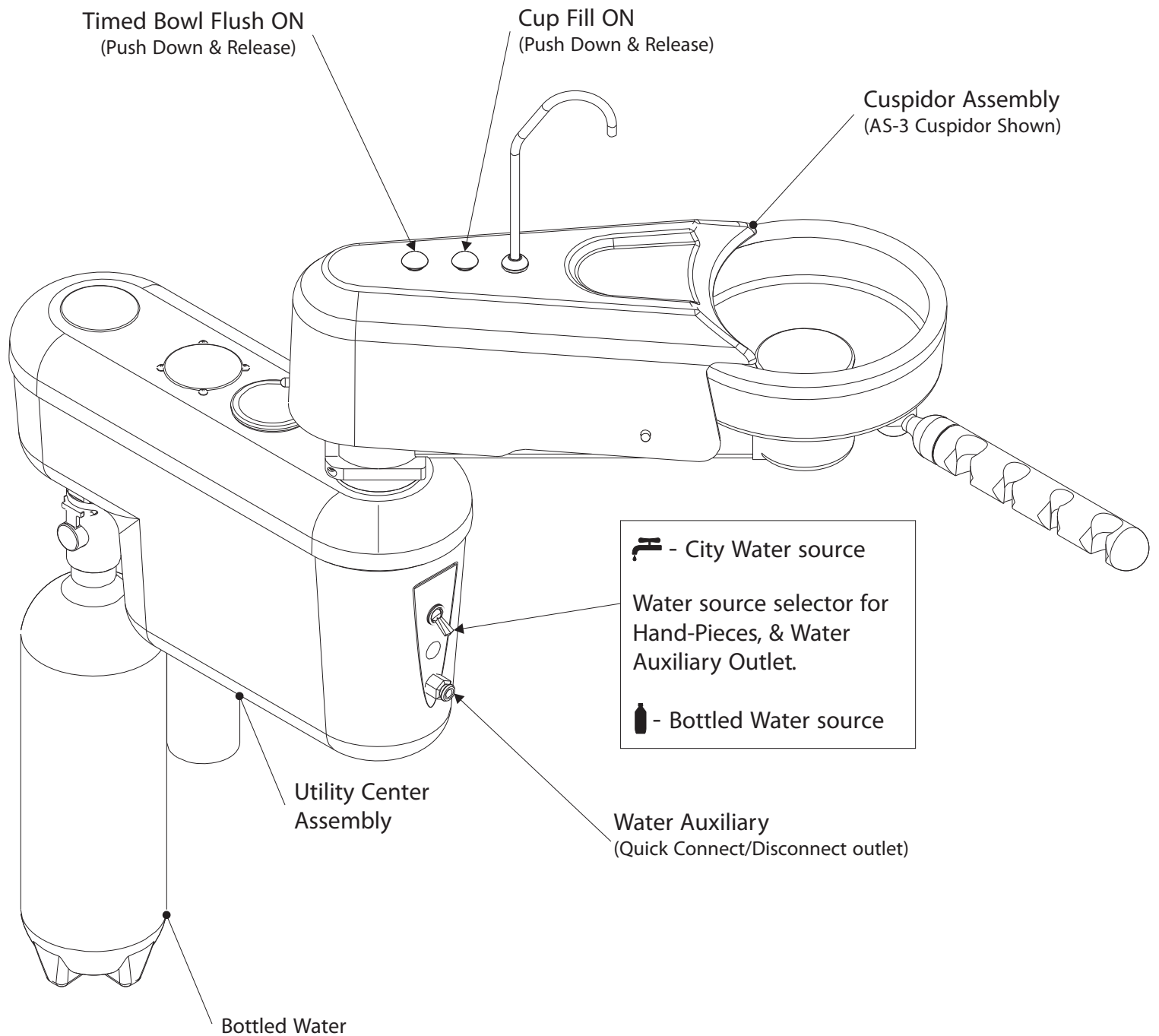
Hidden Umbilical Junction Box (P034015) - Installation Diagram



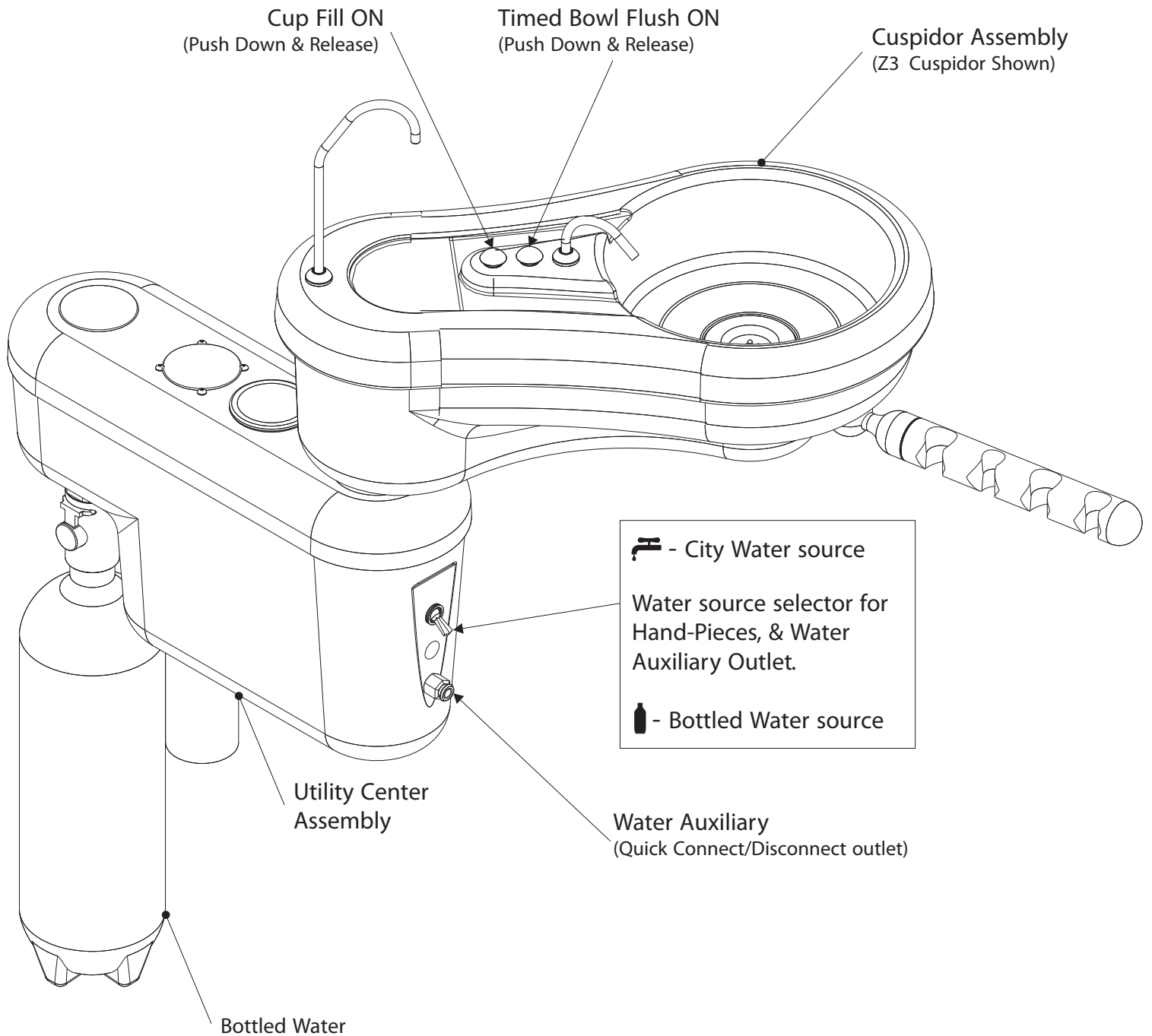
CAUTION:
 Water and Air
 source Stop Valves
 (Not Included)
 must not exceed 2 5/8"
 over all height from the finished
 floor at the location shown, to be sure
 that the Junction Box Shroud will install
 to the Junction Box Frame without interference.



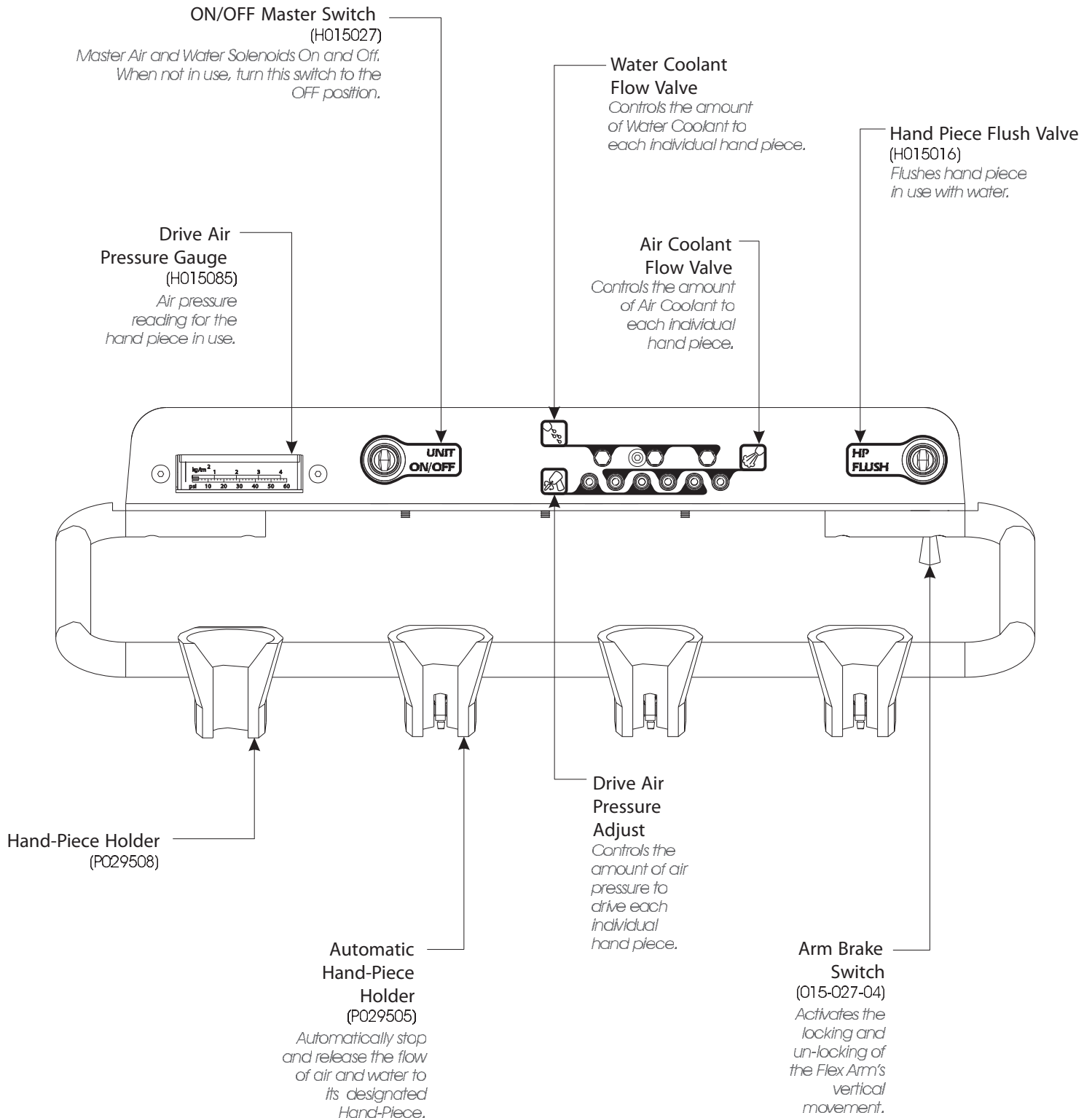
Utility Center with AS-3 Cuspidor - Description of Functions



Utility Center with Z3 Cuspidor - Description of Functions

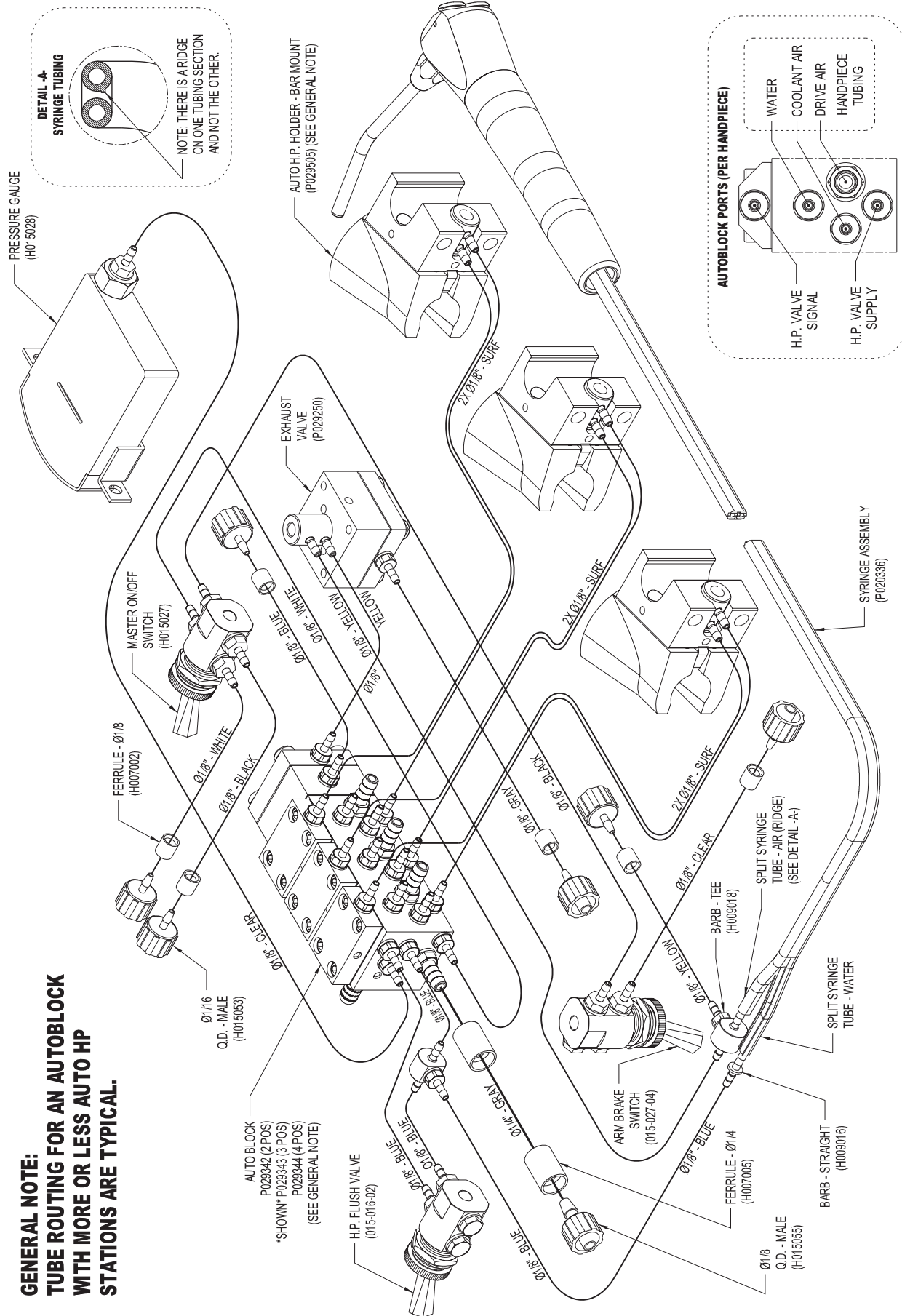


AS-1 H.P. Control with Brake Switch - Description of Functions



HP Control with Brake Switch - Tubing Diagram

GENERAL NOTE:
TUBE ROUTING FOR AN AUTOBLOCK WITH MORE OR LESS AUTO HP STATIONS ARE TYPICAL.



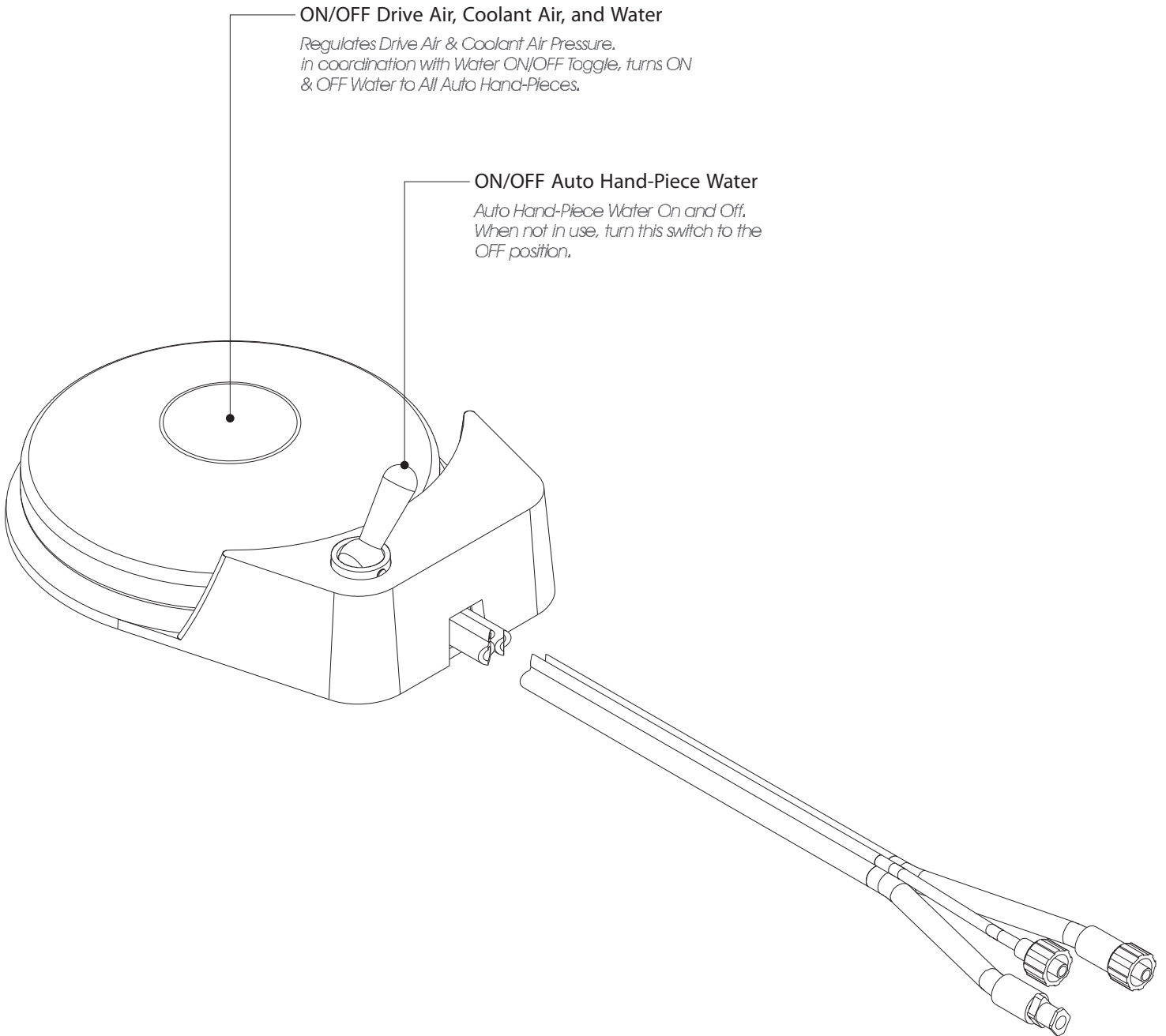
Foot Control Wet/Dry - Description of Functions

ON/OFF Drive Air, Coolant Air, and Water

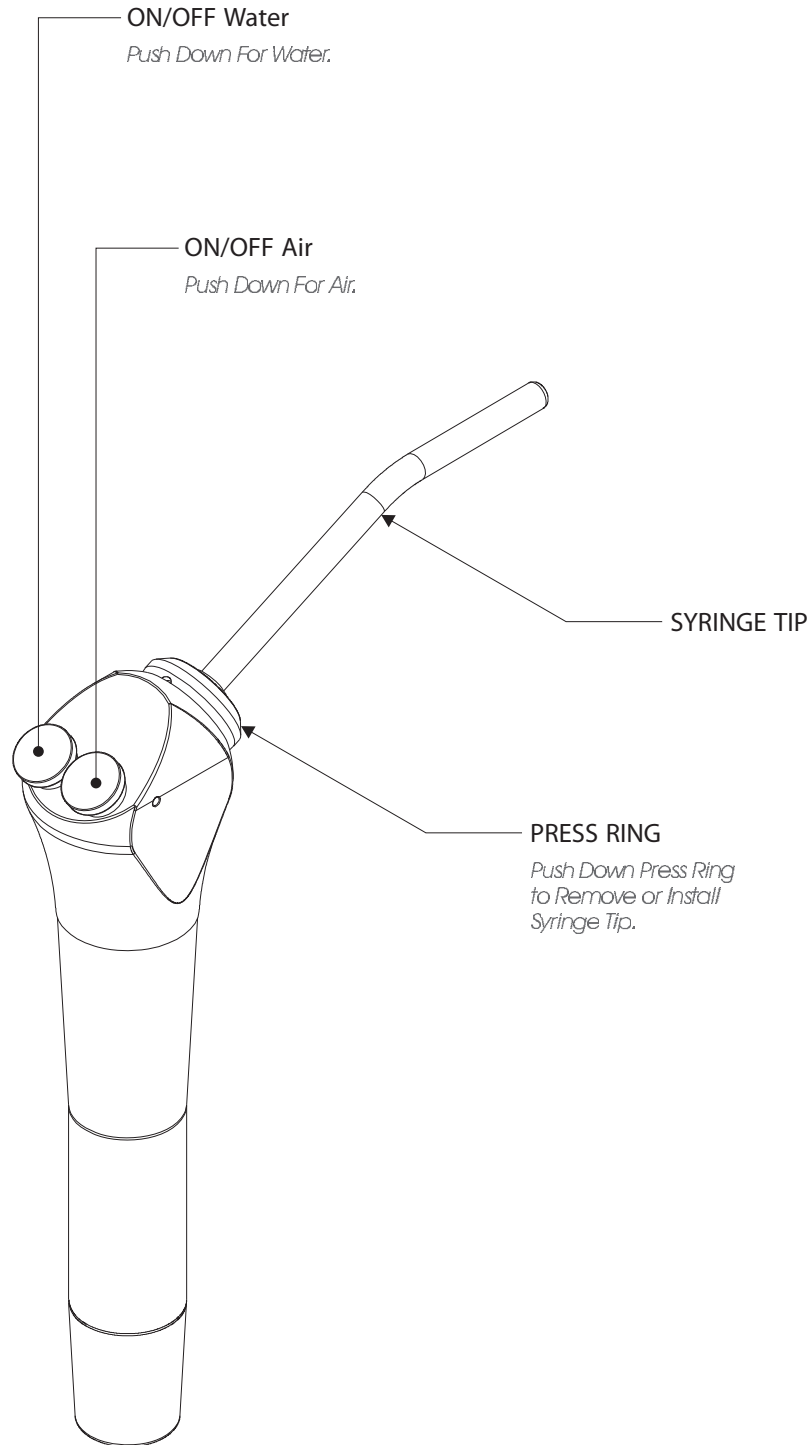
Regulates Drive Air & Coolant Air Pressure, in coordination with Water ON/OFF Toggle, turns ON & OFF Water to All Auto Hand-Pieces.

ON/OFF Auto Hand-Piece Water

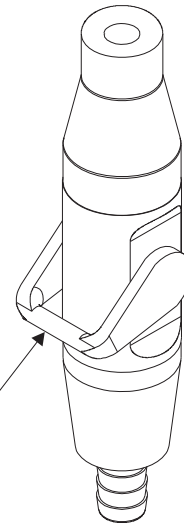
Auto Hand-Piece Water On and Off. When not in use, turn this switch to the OFF position.



Syringe Water/Air - Description of Functions



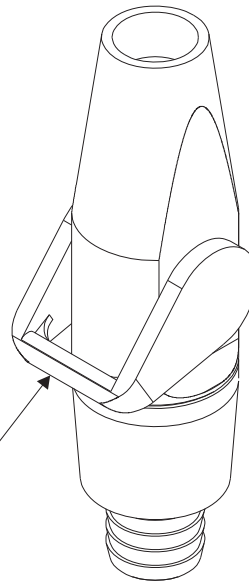
H.V.E. & Saliva Ejector - Description of Functions



Saliva Ejector

ON/OFF Vacuum

*Pivot Lever UP
to turn ON Vacuum
Pivot Lever DOWN
to turn OFF Vacuum*

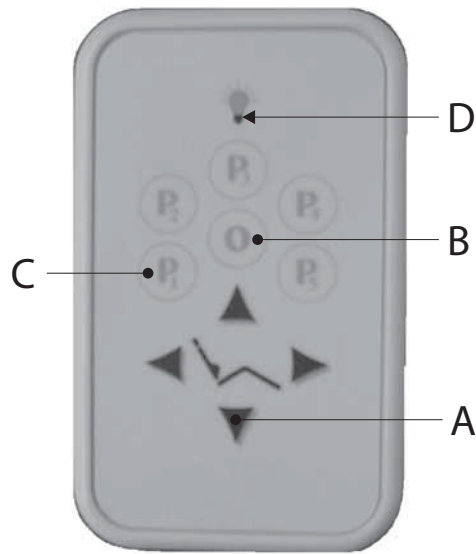


H.V.E.

ON/OFF Vacuum

*Pivot Lever UP
to turn ON Vacuum
Pivot Lever DOWN
to turn OFF Vacuum*

Touch Pad - Description of Functions



GREEN ARROW Buttons (Manual Positioning Buttons)

These arrow buttons manually operate the chair in the direction indicated.

A

"O" Button (Programmable EXIT position)

This button is generally used to automatically and consistently return the chair to a desired preset " Patient Exit " position.

Programming an exit position:

Manually position the chair using the green arrows. Once you have finished positioning the chair, press and hold the "O" button. Once the chair beeps, release the button. The chair will now return to that exit position any time that button is briefly pressed and released.

B

" P1" thru "P5 " Buttons (Programmable POSITION buttons)

These buttons are used to automatically and consistently position the chair to its pre-programmed position. One pre-programmed position is allowed per button.

Programming a position:

Manually position the chair using the green arrows. Once you have finished positioning the chair, press and hold the "P" button of your choice. Once the chair beeps, release the button. The chair will now return to that programmed position any time that button is briefly pressed and released.

C

LIGHT BULB Button (Dental Light ON/OFF)

With the Dental Light Toggle Switch in the High or Low ON setting, this button controls the Dental Light ON and OFF by controlling the Zakton Dental Chair's #8 Female Power Cord located at the Hydraulic Power Pack.

D

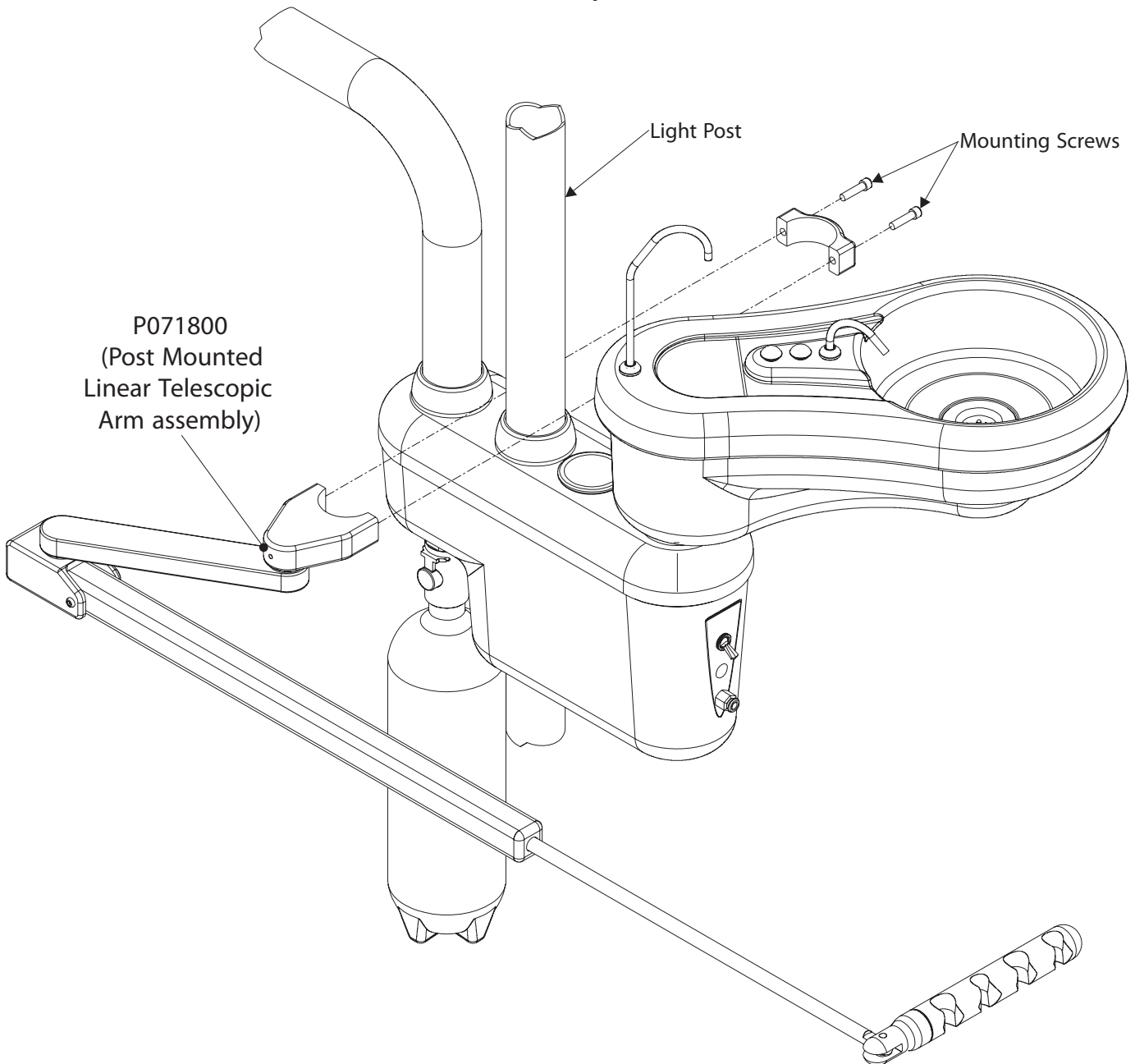
"O" and " P1" thru "P5 " (Programmed Buttons)

Returning to a preset position:

After you have programmed a position into "O" or a "P" button, you can automatically and consistently return to that position at any time by briefly pressing and releasing the designated button. The chair will remember your programmed positions even after loss of power and/or unplugging the chair from its electrical source.

Post Mounted Linear Telescopic Arm - Installation Instructions

Optional Post Mounted Linear Telescopic Arm.



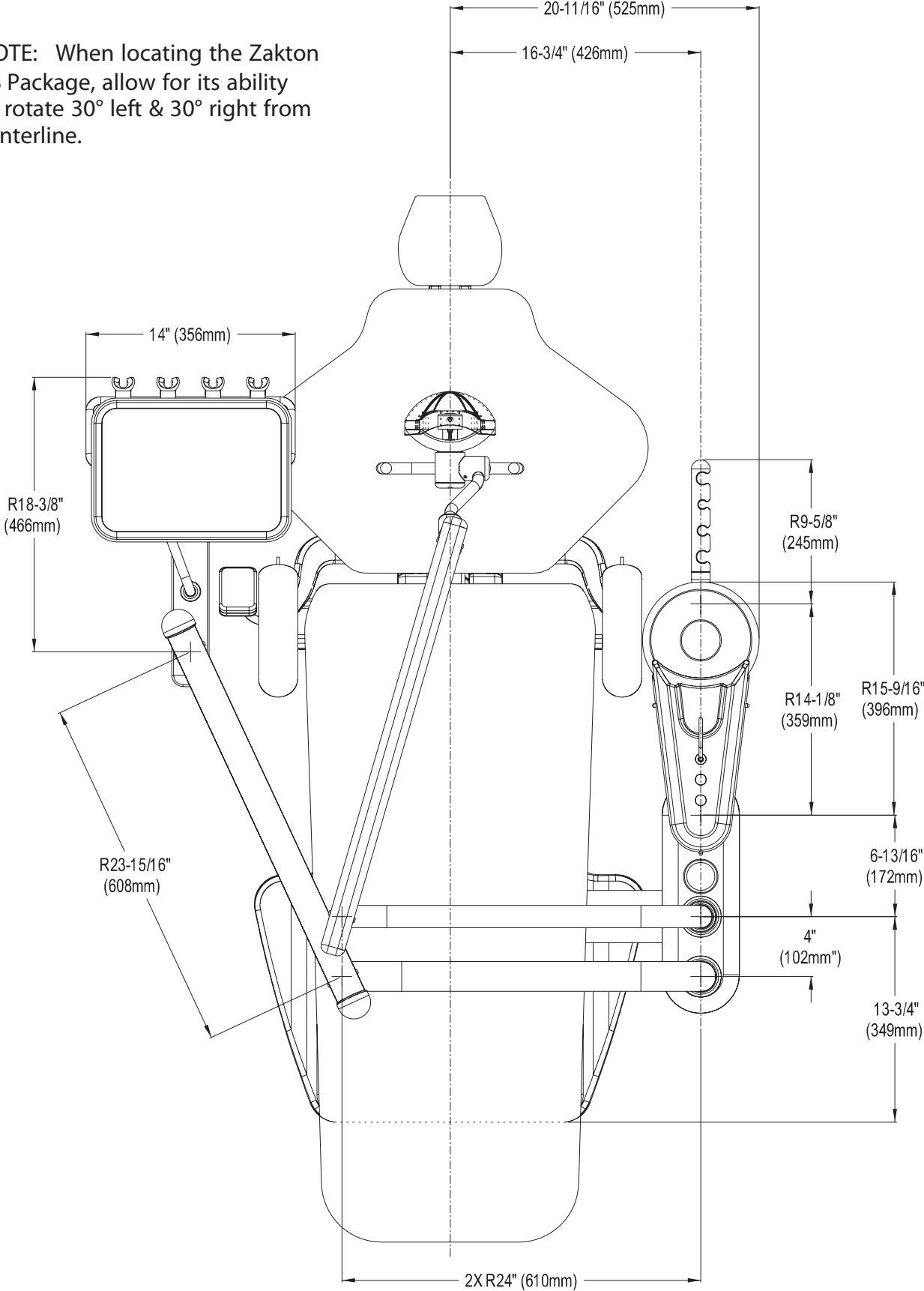
Step 1. Remove the "2" mounting screws from the Post Mounted Linear Telescopic Arm assembly and locate the assembly around the light post as shown and loosely re-install the "two" mounting screws.

Step 2. Vertically position the Post Mounted Linear Telescopic Arm assembly on the Light Post as far up as possible without interfering with the Cuspidor rotational path above it.

Step 3. Securely tighten the "2" mounting screws.

General Dimensions - Zakton Z3 Delivery System

NOTE: When locating the Zakton Z3 Package, allow for its ability to rotate 30° left & 30° right from centerline.



Manufacturer / Distributor



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