

PMU AND PMU W/OVER THE PATIENT

Installation Instructions

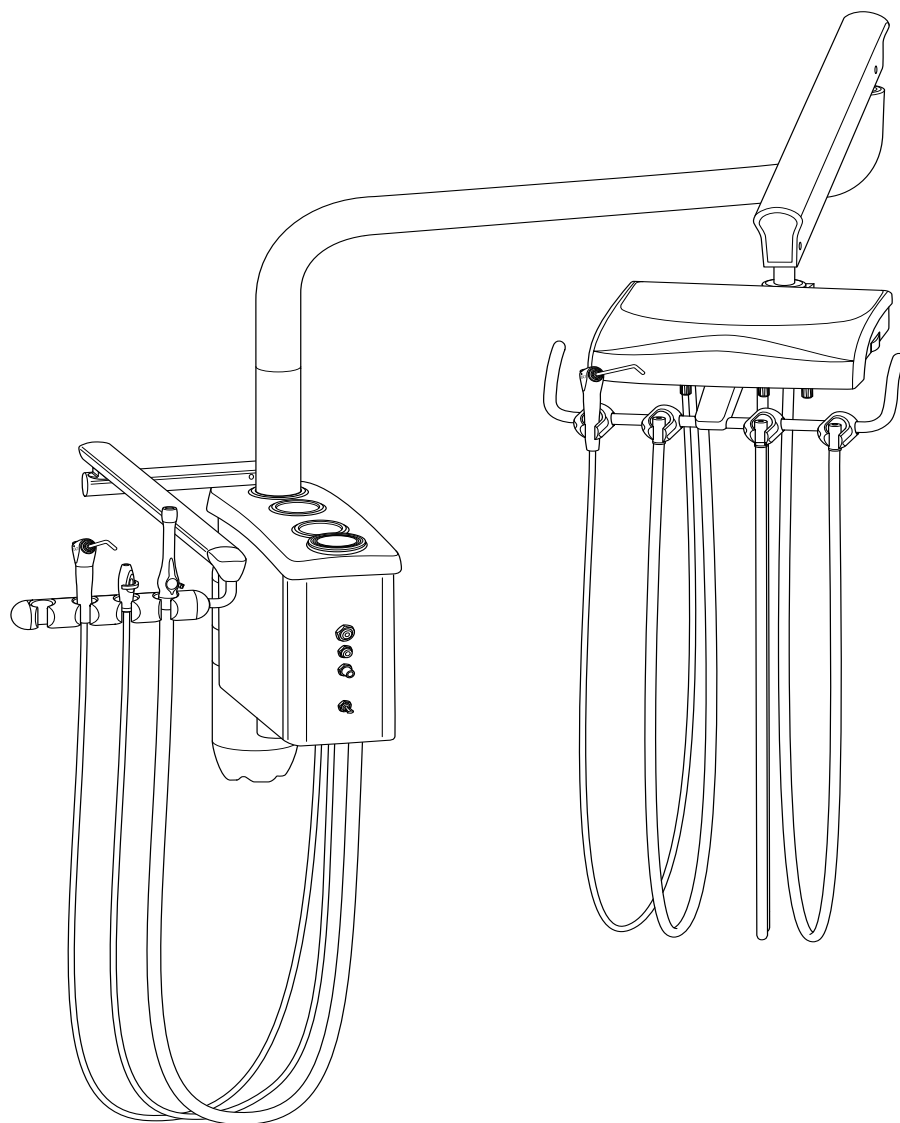


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UNIT INSTALLATION NOTES

BEFORE YOU BEGIN

- Review the unit over view in this manual and layout dimensions. Ensure that the planned location will have the necessary space available for installation, including the travel of the chair base and the backrest.
- Open all containers and review the contents. It may be helpful to locate all kits containing components and accessories for installation.
- Locate all documentation supplied with the equipment. Manuals and installation information may be found in one or more boxes with their respective components. Set aside the documentation for the end user to review.
- If a complete equipment ensemble will be installed, complete the chair setup first. Refer to the installation manual supplied with the chair for instructions.
- In all configurations, the unit flex arm and the unit control head are shipped as a complete assembly. In some of the following instructions, only the flex arm or the control head may be shown for clarity.

SYMBOLS USED IN THIS MANUAL

The following symbols may be used throughout this product manual.



CAUTION: Failure to carefully follow the described procedure may result in damage to the equipment.



WARNING: Failure to carefully follow the described procedure may result in damage to the equipment or the operator.



Risk of electrical shock present. Ensure that the power is disconnected before attempting this procedure.

SPECIAL TEXT FORMATTING

To simplify installation, this manual is formatted to highlight references to necessary parts or tools:

- Parts that need to be located during assembly are shown in **bold**.
- Tools that are required for each step are shown underlined.

SUGGESTED TOOLS

- 7/16 combination wrench
- 9/16 combination wrench or deep wall socket
- 5/8 combination wrench
- 15/16 combination wrench
- SAE hex key set (some hex keys will be included with equipment)
- Magnetic Level, 6 to 12 inches long
- Scissors or utility knife
- Wire Strippers (as needed for accessories)
- Flathead screwdriver, small

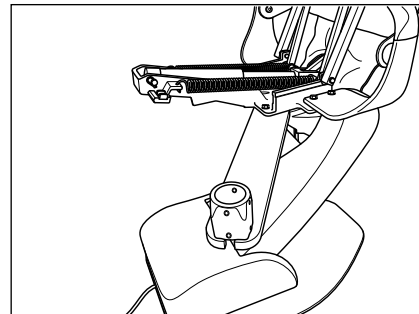
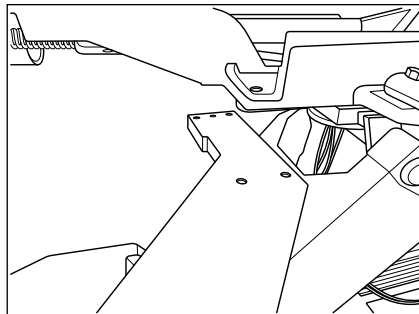
PMU INSTALLATION

1. Ensure that the dental chair has been completely set up and in its final location.



WARNING: To avoid injury have an assistant hold up the seat rail and roller assembly during adapter installation.

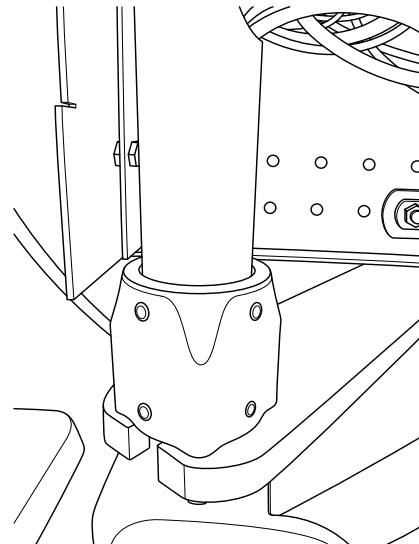
2. Locate the **Chair Adapter** and supplied mounting hardware. Install adapter to the bottom of the chair casting. Tighten all four bolts with a 9/16" deep wall socket. (Shown with Marus/DCI Equipment Adapter).



3. Loosen the eight set screws in the adapter collar with a 5/32" hex key.
4. Locate and remove the **PMU** from the packaging.

NOTE: If installing PMU with optional 48in. post, refer to page #8 for post to PMU installation.

5. With the PMU parallel to the chair and the vacuum utilities facing the head rest, insert the PMU post into the adapter collar. Tighten the bottom set screws to secure the PMU.

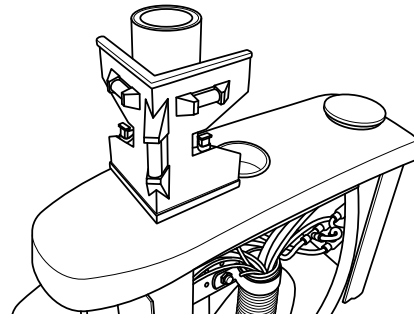


WARNING: With the bottom set screws loose the PMU post may slip through the adapter causing damage to the product and/or user.
Have an assistant help with PMU installation.

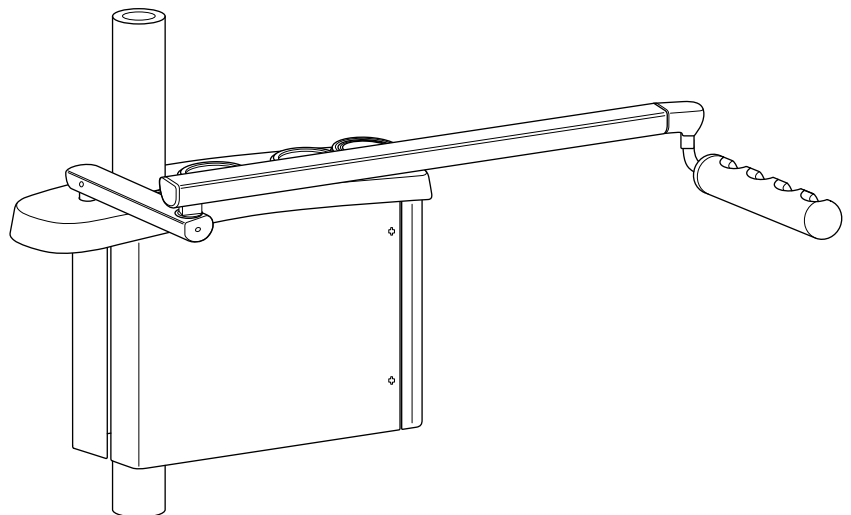
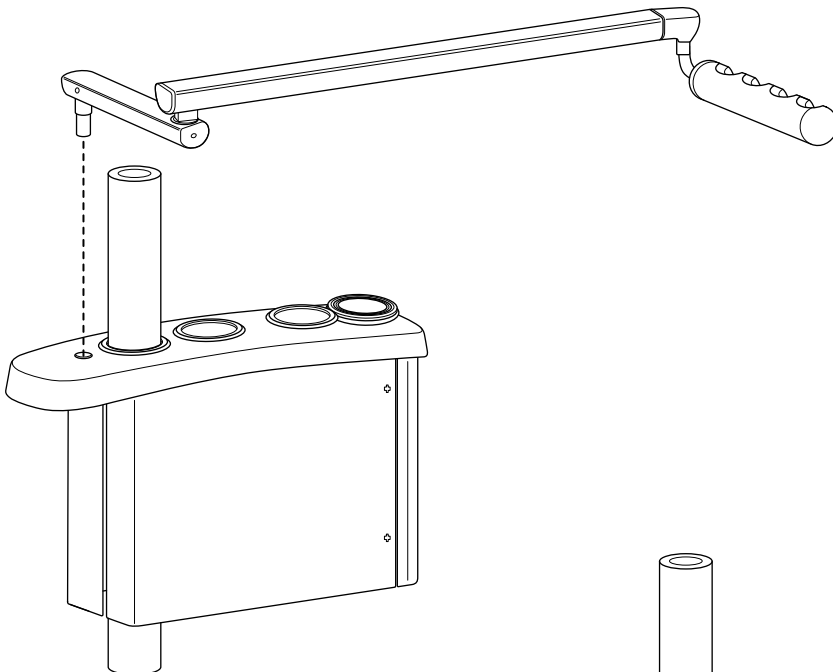
PMU INSTALLATION CONTINUED

6. Attach a post level to the PMU post. Adjust the top set screws until the PMU is level. After leveling, ensure that all set screws are tight. Slide the delrin washer down onto the PMU post.

NOTE: It may be necessary to loosen the bottom set screws to level the PMU.

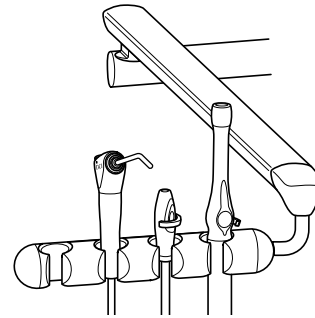


7. Locate and remove the **Telescoping Arm** from the packaging.
8. Install the telescoping arm by inserting the telescoping arm pin into the bore located at the top front of the PMU.



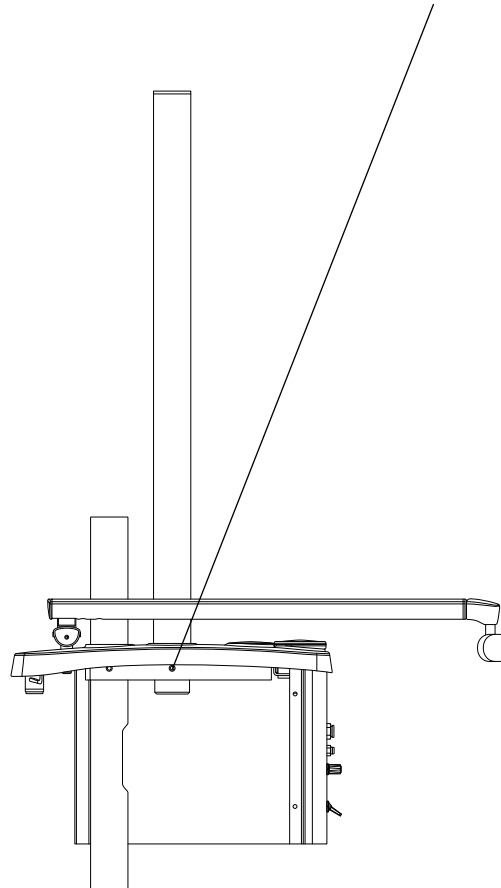
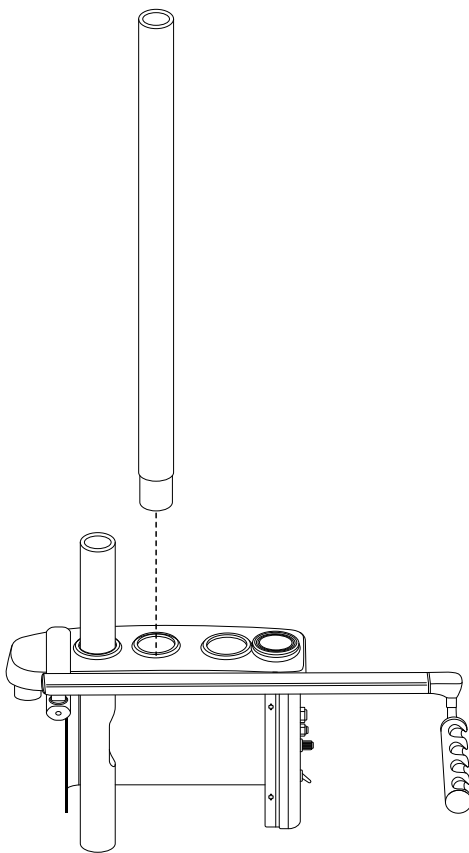
PMU INSTALLATION CONTINUED

9. Remove the HVE, SE and the Assistant's Syringe from the packaging and hang them from the 4-Position Holder on the telescoping arm.



10. **OPTIONAL:** Insert the **Light Post Adapter** into the top of the PMU and tighten the set screw located in the side of the PMU support block with a 1/8" hex key to secure the adapter in place.

**TIGHTENING SET SCREW TO
75 IN. LBS. OF TORQUE RECOMMENDED**

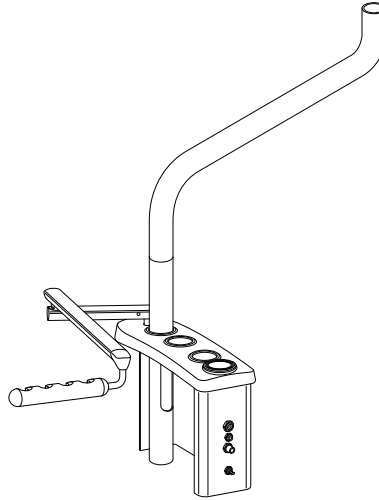
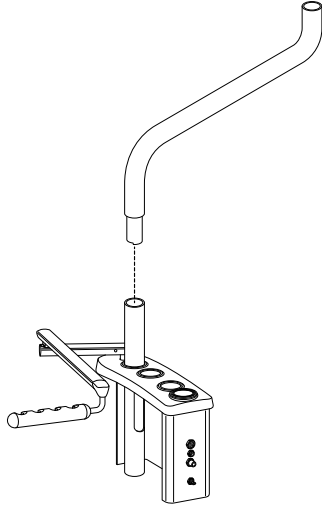


DELIVERY SYSTEM TO PMU INSTALLATION

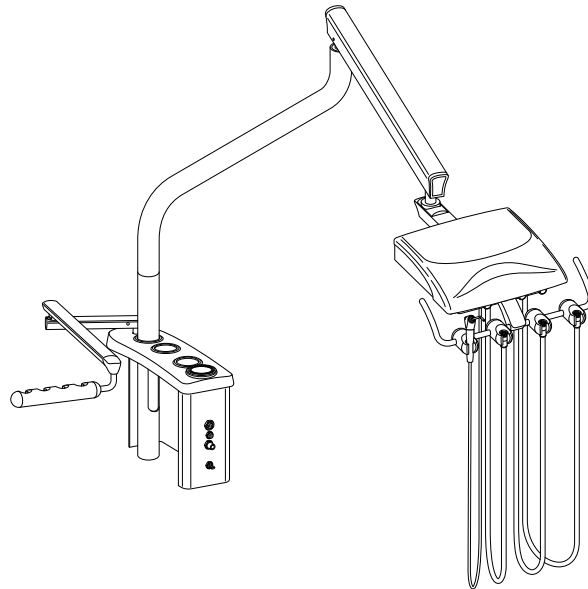
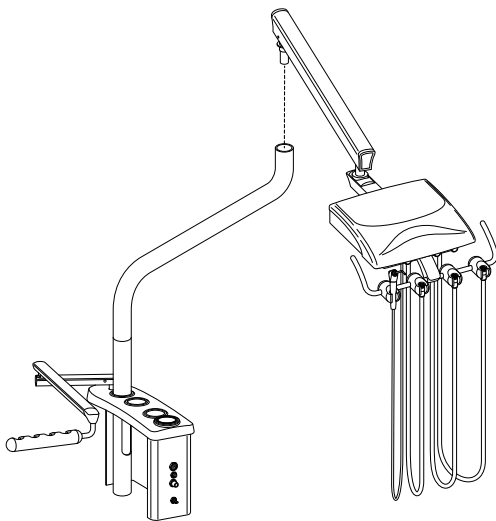
1. Locate the **S-Pole and Delivery System**.

NOTE: If installing delivery system to a 48in. post, refer to Page #8 Notes 1 and 2 before proceeding.

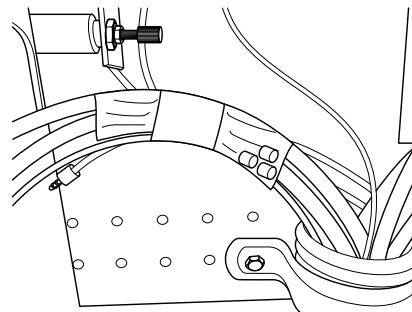
2. Fully Insert the S-Pole in to the top of the PMU Post.



3. Route the delivery system umbilical through the S-Pole and out of the slot in the PMU Post, then fully insert the Delivery System into the S-Pole.

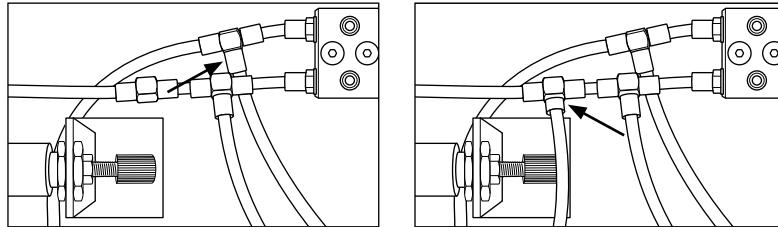


4. Remove the **Sleeve Clamp Kit** from the PMU umbilical and pull the delivery system umbilical through the opening in the PMU post.



DELIVERY SYSTEM TO PMU INSTALLATION CONTINUED

5. Connect the 1/8" Red tubing and the 1/8" Gray tubing from the delivery system umbilical to the tees on the assistant syringe flow control block. Secure tubings with supplied clamp sleeves.



6. Complete delivery system to PMU umbilical connections. Secure tubings with supplied clamp sleeves.

1/4" Gray to 1/4" Gray

1/8" Clear to 1/8" Clear

1/8" Orange to 1/8" Orange

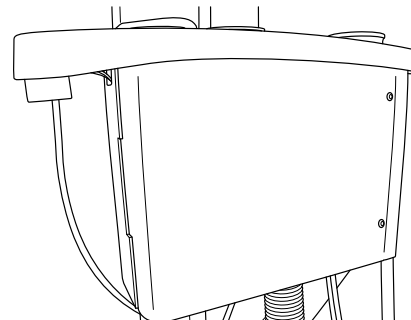
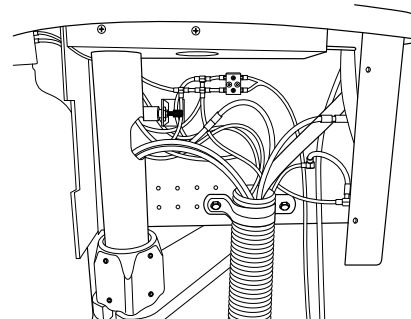
1/8" Yellow to 1/8" Yellow

1/8" Green Tubing as needed

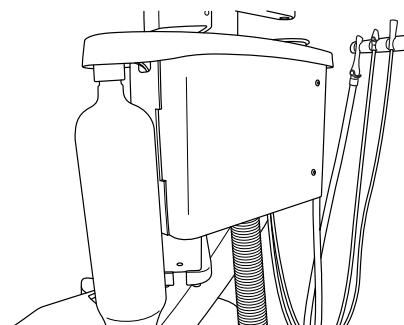
8 Conductor low voltage power cord, as needed

8 ft. extension cord, as needed

7. Install the side panel onto the PMU with the supplied screws (taped to inside of side panel). Tighten screws with a 5/64" hex key.



8. Install the water bottle by rotating the bottle clockwise into the manifold, **Do Not Over Tighten**.



OPTIONAL 48" POST TO PMU INSTALLATION

PMU ONLY

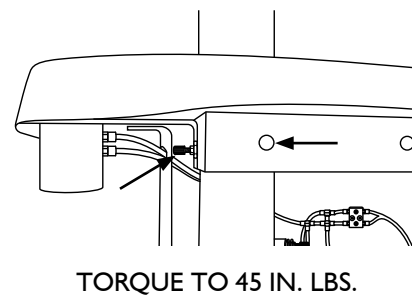
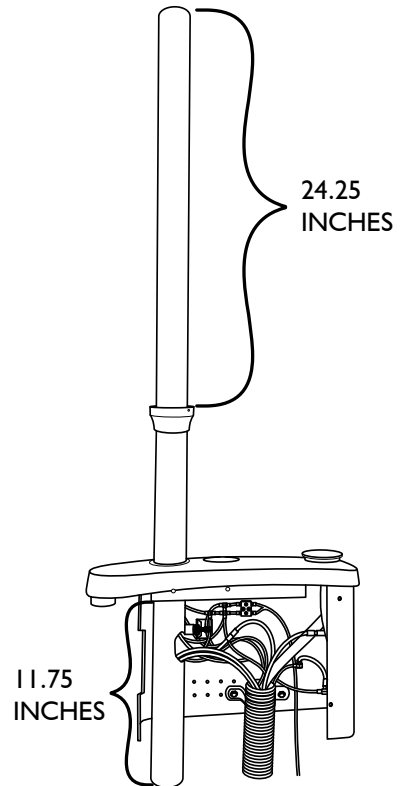
1. Insert the 48" post in through the top of the PMU.
2. Measure 11.75" from the bottom of the post to the bottom of the PMU bar.
3. Secure the post to the PMU by tightening the two set screws with an 1/8" Hex Key to 45" lbs. of torque.
4. Return to Page #3 Step #5 to continue with PMU installation.

PMU WITH DELIVERY SYSTEM

1. Insert the 48" post in through the top of the PMU. Measure 11.75" from the bottom of the post to the bottom of the PMU bar.
2. Secure the post to the PMU by tightening the two set screws with an 1/8" Hex Key to 45" lbs. of torque.
3. Slide the Stop Collar and washer onto the post.
4. Measure 24.25" from the top of the post to the top of the Stop Collar.
5. Secure the Stop Collar to the post by tightening the three set screws with a 3/32" Hex Key.
6. Return to Page #3 Step #5 to continue with PMU installation.

NOTE 1: The Delivery System will not utilize a top post mount adapter when being installed to a 48" post. The Rigid Arm Hub will slide directly onto the post and down onto the Stop Collar and washer.

NOTE 2: The Delivery System will have two white bearing strips factory installed in the rigid arm hub. The accompanying black and gray bearing strips are for a tighter fit to the post, if desired.



JUNCTION BOX UTILITY CONNECTIONS - NOTES

- Local regulations may require that licensed plumbers and electricians install utilities.
- Make sure all plumbing conforms to prevailing local codes.
- Use the junction box template to determine floor locations for connections.

AIR:

- 1/2" pipe N.P.T. protruding 1" from floor or wall. Supplied by contractor.
- Manual air shut off valve to be installed by contractor.
- Air pressure 80 - 100 psi.
- Air plumbing should be flushed clean before making final connections to dental equipment.

WATER:

- 1/2" pipe N.P.T. protruding 1" from floor or wall. Supplied by contractor.
- Manual water shut off valve to be installed by contractor.
- Water pressure 40 - 80 psi.
- Water plumbing should be flushed clean before making final connections to dental equipment.

ELECTRICAL:

- 1/2" conduit and box with quad or equal receptacle supplied by contractor.
- Wire box as per code with the top of the box no higher than 4-1/2" above the finished floor.
- Voltage: 115 Volts AC 3 wire or
230 Volts AC 3 wire.

CENTRAL VACUUM:

- Plumbing up to the utility center should be specified by center vacuum supplier and terminated in the utility center with 5/8" OD tubing perpendicular to the floor, similar to the drain connection.

GRAVITY DRAIN:

- 5/8" OD tubing protruding 1" from the finished floor.

NOTE: Place trap in line and use a vented fitting to conform with local codes. Supplied by contractor.

- Floor mounting only.

JUNCTION BOX UTILITY CENTER INSTALLATION

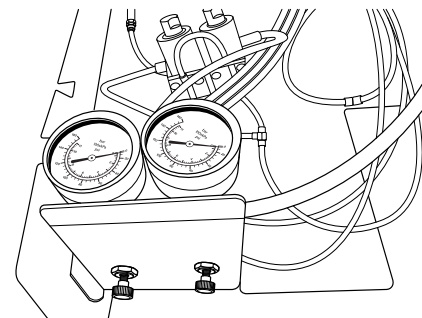
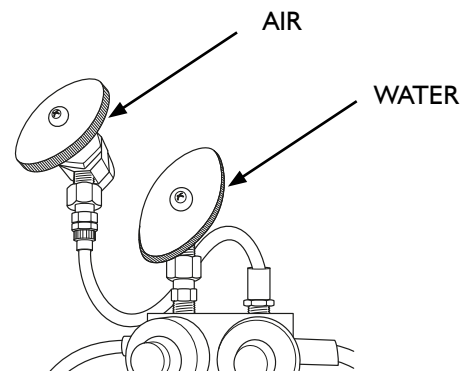
NOTE: Utility Center & Rheostat (if applicable) come factory installed to umbilical to minimize installation time.

1. Place the junction box frame over the floor stub ups (electrical, vac, air, water, etc.)
2. Connect the shut-off block to the compressed air and water supply manual shut off valves.

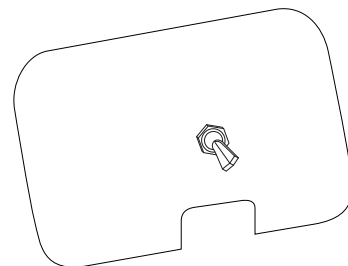
NOTE 1: The Yellow side is for air.

NOTE 2: The air and water supply lines must be flushed prior to connection to the shut-off block.

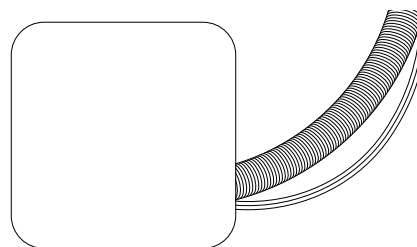
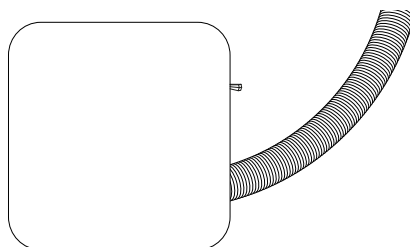
3. Install the Air and Water Regulators to the J-Box frame with a 9/16" wrench.



4. Install the Master On/Off (PMU Only Model) to the J-Box cover with a 9/16" wrench.



5. Once all connections have been made and the water bottle is installed, open the air and water valves and then turn on the dental unit via "Master On/Off" on the control head. Check all connection points for leaks.
6. Place the junction box cover over the frame so the two parts "snap" together. Ensure that there isn't any tubing protruding from the sides of the junction box.

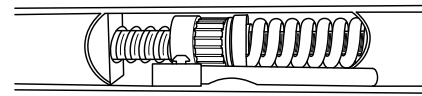


FLEX ARM ADJUSTMENTS

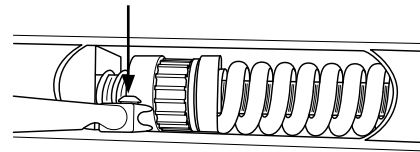
1. The Flex Arm is preset at the factory, however you may need to adjust to the user's needs.
2. Raise the chair and the flex arm as high as possible for ease of access.
3. Slide the "belly strip" out from under the arm exposing the umbilical tubing.
4. Locate the Tension Adjustment Handle towards the upper section of the flex arm.
5. Hold the tubing out and to the side.
6. Use the handle to turn the Star Nut by sliding it into the nut and turning, then slide out and reposition each turn.

NOTE: Turning the Star Nut clockwise tightens the spring thus making the arm able to hold more load.

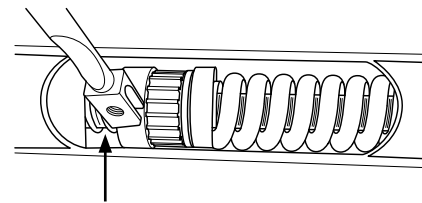
7. Replace the belly strip and flex arm position once complete.
8. Recheck the level of the unit head and adjust if necessary.



CLOCKWISE INCREASES LOAD



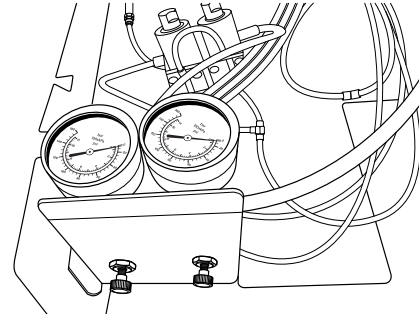
COUNTERCLOCKWISE DECREASES LOAD



UTILITY CENTER ADJUSTMENTS/ SYRINGE AND HANDPIECE FLOW

UTILITY CENTER ADJUSTMENTS

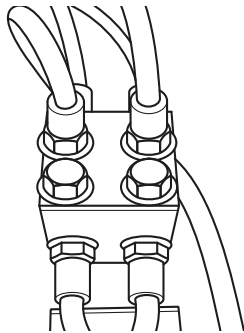
1. The air and water floor regulators with shut-offs are factory preset at 40psi for city water and 80psi for air.
2. The air and water floor regulators are controlled by the master switch on the unit to activate and shut off. Be sure the switch is "ON" when adjusting regulators.
3. Locate the adjustment screw on the end of the regulator. Tightening will increase pressure and loosening will decrease. If loosening you will need to "bleed" off the line pressure via the syringe.
4. Replace cover.



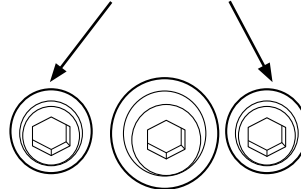
SYRINGE AND HANDPIECE FLOW

1. Open the unit head cover by removing the retaining screw under the center snout of the holder bar.
2. Locate the syringe block and adjust the flow with the two needle screws (accessed under the unit head) to the desired rate with a $\frac{3}{32}$ " Hex Key.

SYRINGE CONTROL BLOCK



ADJUSTMENT SCREWS



3. Locate the handpiece block and adjust each corresponding handpiece limit with the adjustment screw on top based on handpiece manufacturer recommendations.
4. Replace unit cover and secure with retaining screw.

