

RELIANCE AUTOMATIC DENTAL DELIVERY SYSTEM

Instructions for Use



4477, 4478

GENERAL INFORMATION

APPLICABLE MODEL

4XXX

INTENDED APPLICATION AND USE

The dental delivery system is a device intended to support the instruments used by the dental practitioner, delivering those instruments to an accessible position during a dental procedure. This device may control and be the means of delivering compressed air, water, vacuum and low voltage electricity to a variety of instruments commonly used in dental practice.

INSTALLATION INSTRUCTIONS

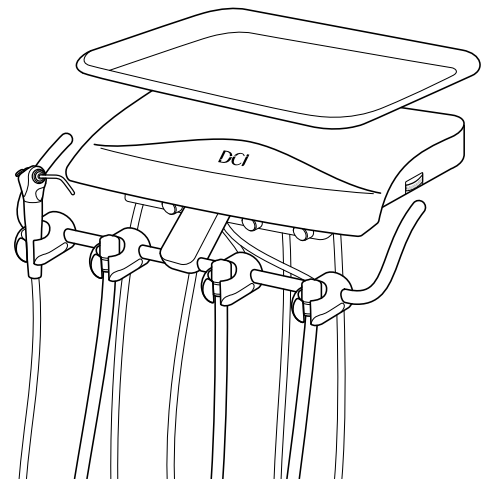
Package contains:

- 50" Flex arm 4905 white or 4907 Gray, Automatic control dental delivery system with umbilical and tubing
Note: 34" flex arms 4906 white or 4908 gray are available as options.
- Precision Comfort syringe
- Wet/Dry foot control
- 2" Post collar
- Bearing strip kit
- Stainless steel tray with holder
- Syringe repair kit

Tools needed:

- 1/4" and 1/8" sleeve tool
- Small and large flat blade screwdriver
- Post leveling tool

Instructions



WARNING: The arm assembly for this control dental delivery system is spring loaded. Do not remove the shipping strap from the arm until the control dental delivery system is fully installed. Bodily injury could result from working with the arm assembly unrestrained.

1. **Post:** Install a 2" post in the chair adapter of the dental chair. Level the post utilizing the manufacturer's post leveling adjustments. To prevent dental delivery system drifting, the post must be perfectly leveled.
2. **Collar:** Slide the collar onto the post to the desired height of the rigid section of the flex arm in relation to the seat of the chair. Tighten the 3 set screws in the side of the collar with a 3/32" hex key.

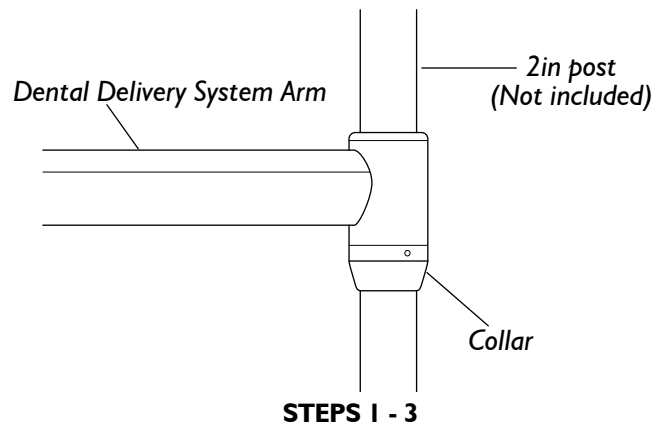


NOTE: Some chair seats will rise as the patient is put in the supine position. Be sure to place the collar with the chair in this position. Slide the plastic washer on top of the collar.

3. **Dental delivery system Arm:** Slide the hub portion of the dental delivery system arm down the post on top of the collar.

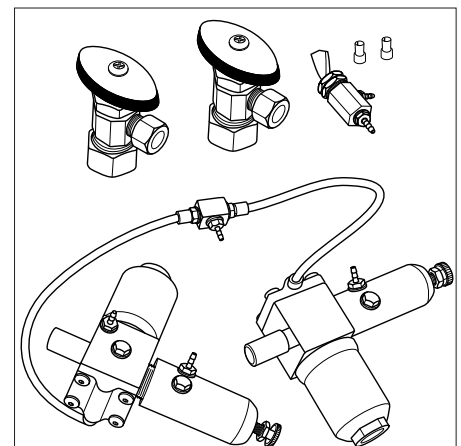


NOTE: Additional bearing strips are provided with different thicknesses due to variances in finish on the posts. Use appropriate bearing strips in the arm hub to provide smooth action with no hub to post play. Remove the shipping strap from the arm and unwrap. Other mounting options available. Contact Customer Service for support.



4. **Umbilical Tubing:** Run dental delivery system umbilical tubings either into post hole or directly into junction box at the base of the chair. Connect proper tubings to utility center:

- 1/8" Red - Water supply
- 1/8" Clear - Unregulated air supply
- 1/8" Yellow - Signal air to shut-off blocks
- 1/8" Gray - Regulated air
- 1/8" Orange - Foot control water relay
- 1/4" Gray - Regulated drive air/air coolant
- 8 conductor low voltage power cord, as needed



5. **Water and Air Supply:** Open the manual shut-off valves in the utility center. Adjust regulated air to 80 psi and regulated water to 40 psi. When adjusting for a lower pressure, make the adjustment, and then press the syringe button to relieve the pressure to get an accurate pressure reading.

OPERATING INSTRUCTIONS AND DENTAL DELIVERY SYSTEM FEATURES

HANDPIECE HOLDERS

The asepsis handpiece holders are designed to resist chemical discoloration and be easy to clean. The handpiece is activated when removed from the holder and stepping on the foot control disc. The positions of the individual handpiece holders are adjustable, loosen the set screws, move the instrument holder to the desired location, and retighten the screws. You will need a 1/8" hex key. See Figure 1.

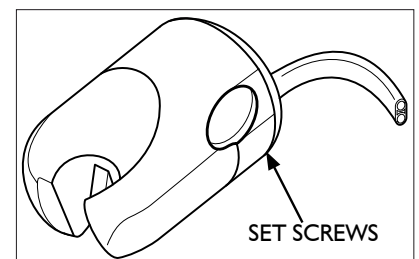


FIGURE 1

CONTROLS

The *master on-off toggle* controls air and water to the entire system. It is located on the underside of the control dental delivery system, on the left. The *water coolant flow control knobs* control water to a specific handpiece and are located on the underside of the control dental delivery system, near the front. The *handpiece flush toggle* is located on the underside of the control dental delivery system on the left of the dental delivery system - used to flush handpieces. The *drive air pressure gauge* indicates the operating pressure of the selected handpiece. It is located on the right side of the control dental delivery system chassis. The *drive air adjustment screws* are located on the inside of the control dental delivery system, in the back. To gain access - remove screw retaining cover using a 3/32" hex driver - lift cover up and remove from rear hinge. Handpiece drive air pressure should be adjusted to the handpiece manufacturer's recommendation. See Figure 2.

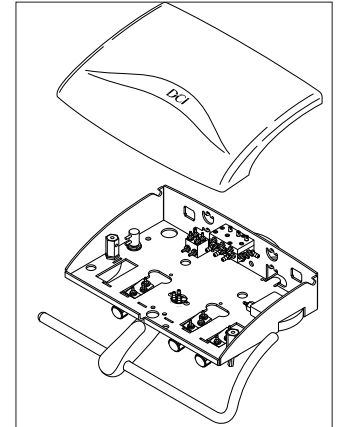
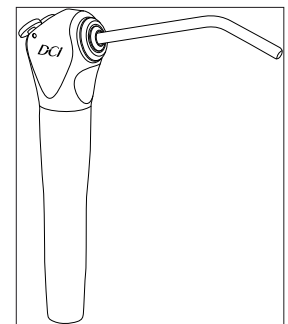


FIGURE 2

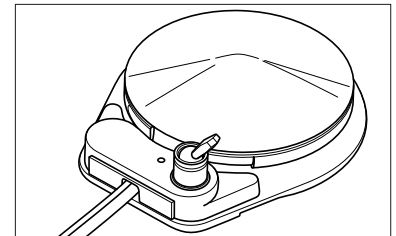
SYRINGE

The dental delivery system comes with a Precision Comfort syringe. The syringe is packaged in a shipping envelope, with operating instructions and a repair kit attached. The syringe goes in the holder on the far left side of the instrument holder bar. Adjustment screws for the air and water flow to the syringe are located on the underside of the control dental delivery system, in the rear left area. Use the 3/32" hex driver provided with the dental delivery system to turn the hex screws counterclockwise to increase the flow of air or water, clockwise to decrease the flow.



FOOT CONTROL

The foot control is equipped with a wet/dry toggle. When the toggle is positioned toward the blue dot, water will be provided to the active handpiece. With the toggle positioned away from the blue dot, water is turned off. Handpiece speed is controlled with the foot control disc. Varying pressure on the foot control disc controls speed. Air coolant is also provided when you step on the foot control disc.



CONTROL HEAD

The control head can be cleaned with most commonly available surface disinfectants. Do not use any Sodium Hypochloride solutions, or any cleansers containing alcohol. These may cause paint and finish discoloration.

DENTAL DELIVERY SYSTEM WATER LINE MAINTENANCE

Distilled water is not recommended for use in dental delivery systems. The Centers for Disease Control and the American Dental Association can provide recommendations on when to flush your system, for how long, and what products to use.

CLEANING AND MAINTENANCE

Do not use powdered cleansers, scouring pads, or abrasive scrubbers on any of the finished metal surfaces in this dental delivery system, i.e., the syringe or the foot control disc. Sodium Hypochloride will also damage these surfaces.

The handpiece oil collector is located on underside of dental delivery system in center, unscrew base to reveal gauze, replace weekly if necessary with 2" x 2" gauze pad.

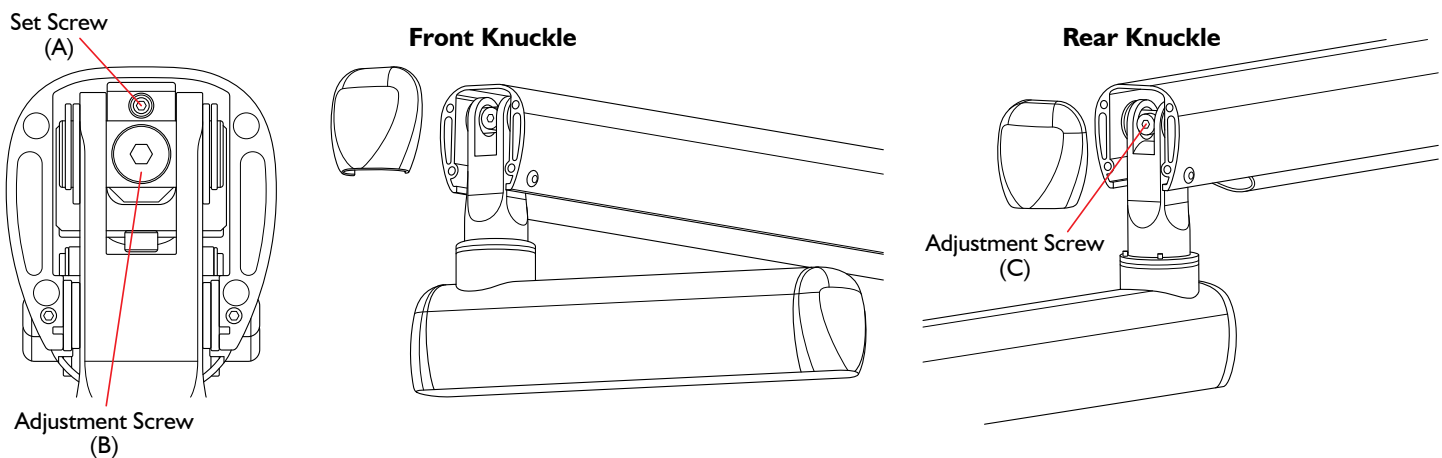
FLEX ARM

Flex Arm Spring Tension

The Flex Arm is preset at the factory, however it may be necessary to re-adjust tension to the user's needs. After adjusting the spring tension, the delivery system head must be leveled.

To Increase or Decrease Flex Arm Spring Tension:

1. Remove the Front and Rear Knuckle Covers from the flex arm.
2. Loosen the set screw, 5 turns, in the knuckle block, located above and behind the front knuckle adjustment screw **(A)**, with a 3/32in hex key.
3. **Decrease** the spring tension by rotating the adjustment screw **(B)** in the **front knuckle** clockwise with a 3/16in hex key.
4. **Increase** the spring tension by rotating the adjustment screw **(C)** in the **rear knuckle** clockwise with a 3/16in hex key.
5. When adjustment is complete, retighten the stop block set screw.
6. Replace the knuckle covers.



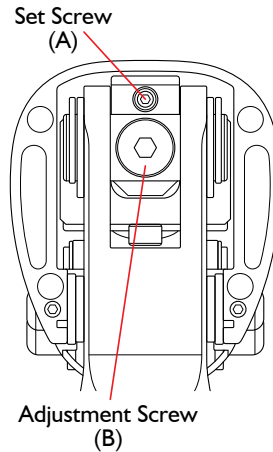
WARNING: Do not attempt to decrease spring tension by rotating the adjustment screw in the rear knuckle counterclockwise. This might thread the screw out of the control rod causing the delivery system to drop suddenly, damaging the equipment and the operator.

Delivery System Rigid Arm Leveling

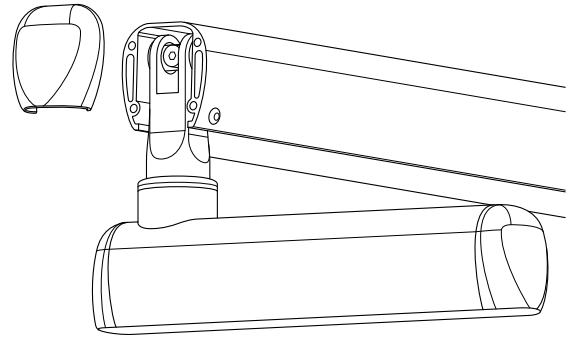
Leveling of the delivery system will be necessary when the dental unit is first installed and any time that the flex arm spring tension has been adjusted.

To Adjust Rigid Arm Angle:

1. Remove the Front Knuckle Cover from the flex arm.
2. Loosen the set screw, 5 turns, in the stop block located above and behind the front knuckle.
3. Using a small torpedo level, place it on the unit head inline with the short rigid arm and the front knuckle.
4. Increase or decrease the unit head angle by turning the adjustment screw in the front knuckle clockwise or counterclockwise.
5. When the unit head is level, retighten the set screw in the stop block to secure the adjustment.
6. Replace the knuckle cover.

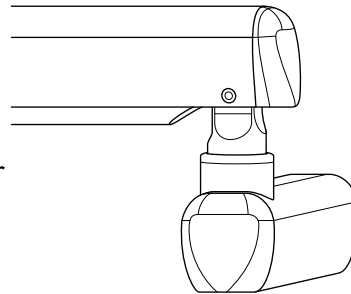


Front Knuckle

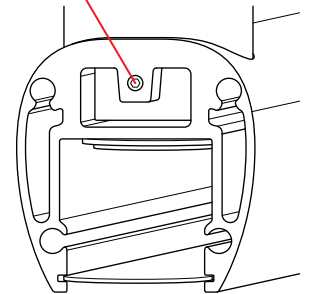


Delivery System Rigid Arm Rotational Tension

1. Remove the rear cover from the short rigid arm.
2. Using a 3/32in hex key, increase or decrease swivel tension by turning the set screw clockwise or counter-clockwise.
3. When desired tension is achieved, replace the rear cover.

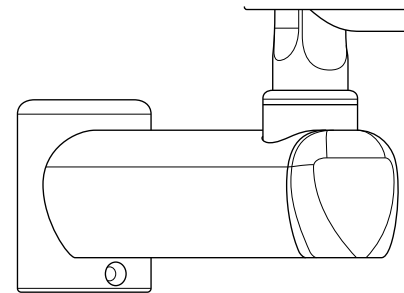


Set Screw



Flex Arm Rotational Tension

1. Remove the cover from the post mounted rigid arm.
2. Using a 3/32in hex key, increase or decrease swivel tension by turning the set screw clockwise or counter-clockwise.
3. When desired tension is achieved, replace the cover.



Set Screw

