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CHECK WITH LOCAL CODE AUTHORITIES ABOUT INSTALLATION REQUIREMENTS FOR THIS PRODUCT

INSTALLATION INSTRUCTIONS

CASCADE® CHAIR-MOUNTED HANDPIECE CONTROL WITH CASCADE MASTER SERIES® TOUCH PAD

Post Box, Assistant's Arm (optional), Handpiece Control, Tray Holder (optional), and Floor Box

BEFORE BEGINNING THIS INSTALLATION

1. If the air and water manual shutoff valves have not already been installed, do so now. Refer to the floor box template, *A-dec Publication No. 85.0472.00*.
Purge the air and water supplies of debris.
2. Install the dental chair following the instructions found with the chair. Do not install the upholstery at this time.

YOU WILL NEED:

- Torque wrench, 0-100 ft-lb
- 15⁄16" wrench
- Magnetic bubble level
- Small, narrow, flat-tip screwdriver
- Phillips screwdriver
- Hex keys: 5⁄64", 3⁄32", 1⁄8", and 3⁄16"
- Wire nut crimping tool

RAISE THE CHAIR TO FULL BASE UP

1. ***If the chair has a foot switch,*** raise the chair base by depressing the up arrow on the footswitch
2. ***If the chair does not have a foot switch but is equipped with a jumper cable*** (post box end of touch pad wiring harness with caution label), connect the two jumper cable terminals together to raise the chair base. When the chair is full up, remove and discard the jumper cable.
3. ***If the chair does not include a footswitch or a jumper cable assembly,*** remove the chair motor/pump and printed circuit board covers. Locate the Base Up (BS UP) label on the chair printed circuit board *(see Figure 1)*. Short the two test points beside the Base Up (BS UP) label to raise the chair base.

ELECTRICAL WARNING

Hazardous AC voltages are present on the chair printed circuit board, do not touch any part of the printed circuit board except the test points.

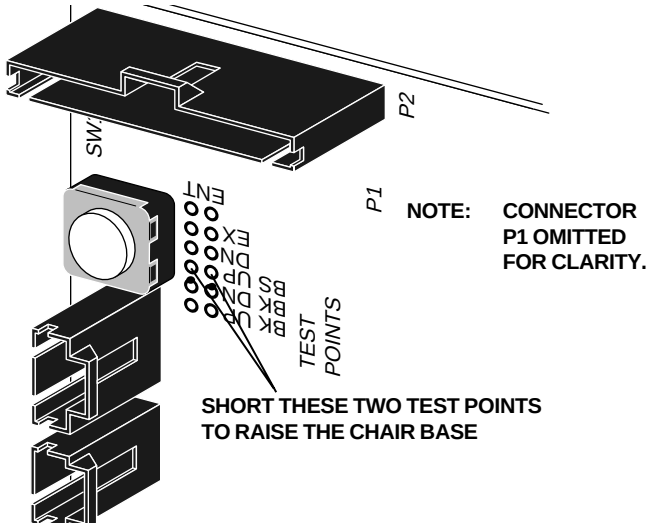


FIGURE 1

INSTALL THE CHAIR SWIVEL STOP

> ***NOTE***
> The chair swivel stop must be installed on the chair to meet agency stability requirements.

1. Locate the chair swivel stop *(see Figure 2)*.

   If the chair has an internal umbilical, the swivel stop is located inside the unit kit.

   If the chair has an external umbilical, the swivel stop is located inside the chair mount adapter carton.

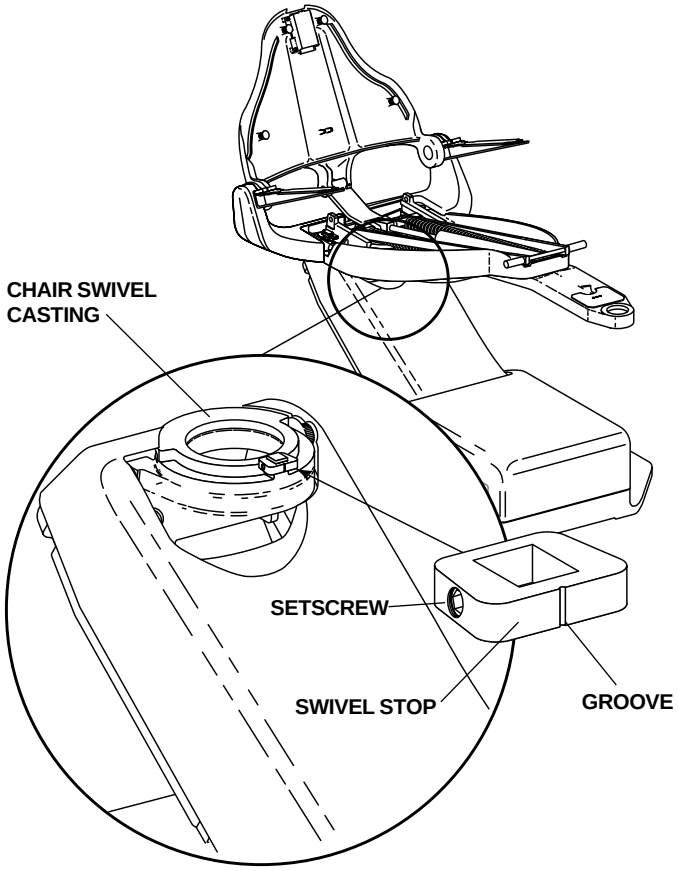


FIGURE 2

2. Install the chair swivel stop on the chair swivel casting *(see Figure 2)*. Position the chair swivel stop with the groove to the front.

3. Tighten the setscrew to secure the stop in place *(see Figure 2)*.

INSTALL THE CHAIR MOUNT ADAPTER

Internal umbilical through the Cascade chair, go to INSTALL THE POST BOX on page 4.

1. Locate and remove the chair mount adapter kit from the chair mount adapter carton.

2. ***Cascade chair:*** Locate the adapter mounting hole near the center of the chair seat, under the tilt cylinder and springs. Position the adapter pivot stud *(see Figure 3)* in the mounting hole and install the spring washer (concave [hollowed] side down) onto the mounting stud. Tighten the castle nut. Back the castle nut off one-half turn and install the cotter pin.

> ***WARNING***
> Do not allow the adapter to fall from its mounting position before installing the washer and castle nut —the adapter is heavy, damage or injury may result.

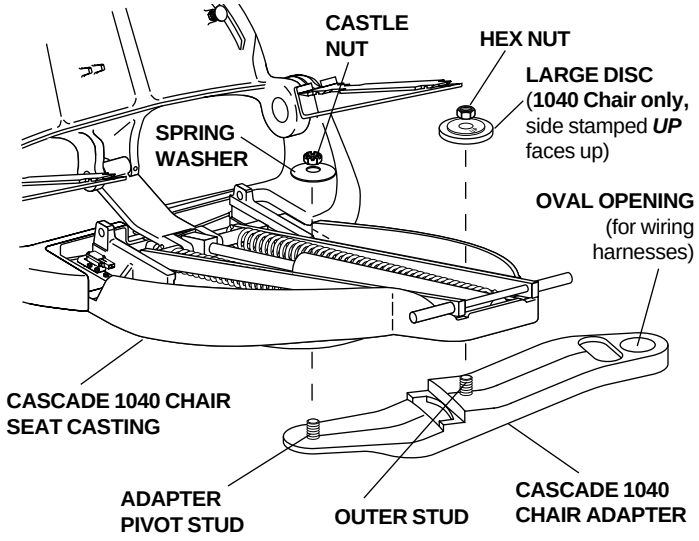


FIGURE 3

3. Position the adapter for either right or left hand delivery system mounting. Place the large disc *(with the side stamped UP facing up, see Figure 3)* on the outer stud. Finger tighten the hex nut. Make sure the adapter is positioned fully to the side. Using a torque wrench, firmly tighten the hex nut to 55 foot pounds. ***Go to INSTALL THE TOUCH PAD AND CUSPIDOR SAFETY SWITCH WIRING HARNESS on page 3.***

4. ***Decade chair:*** Locate the adapter mounting stud near the underside, center of the seat plate. Carefully slip the adapter pivot hole (non-threaded) up onto the mounting stud *(see Figure 4)*. Install the spring washer (concave [hollowed] side up) and castle nut onto the mounting stud. Tighten the castle nut. Back the castle nut off one-half turn and install the cotter pin.

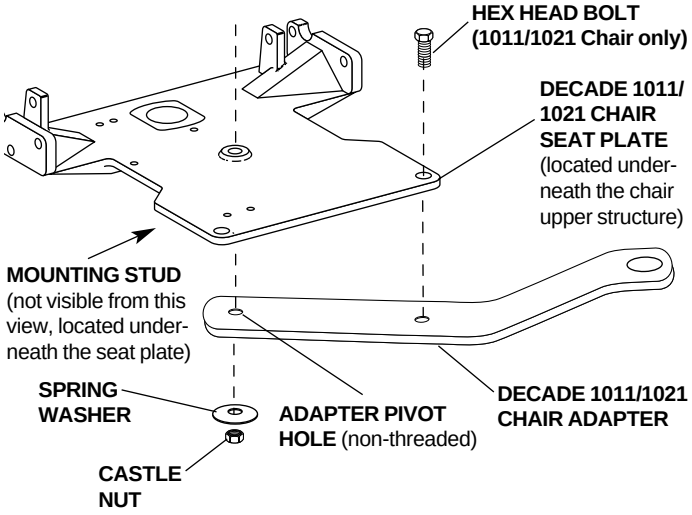


FIGURE 4

5. Position the adapter for either right or left hand mounting. Align the threaded adapter hole with the hole in the chair seat plate *(see Figure 4)*. Install the hex head bolt through the seat plate and into the adapter. Using a torque wrench, firmly tighten the hex nut to 55 foot pounds.

INSTALL THE TOUCH PAD AND CUSPIDOR SAFETY SWITCH WIRING HARNESS

1. Remove the wiring harness from the unit ship kit *(see Figure 5)*.

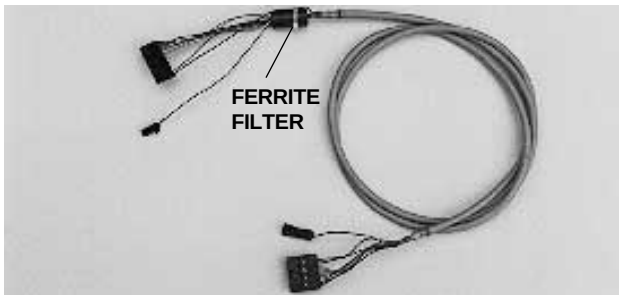


FIGURE 5

ELECTRICAL WARNING
Hazardous AC voltages are present on the printed circuit board. Failure to unplug the chair could result in serious injury.

2. ***Unplug the chair.***

3. Remove the chair motor pump cover and printed circuit board cover.

4. ***Cascade chair:*** Route the end of the harness with the ferrite filter *(see Figure 5)* into the oval opening on the top of the chair mount adapter *(see Figure 3 on page 2)*, route the harness through the adapter, over the chair lift arm cover (*see Figure 6),* along the left-hand side of the lift cylinder, and into the pump housing.

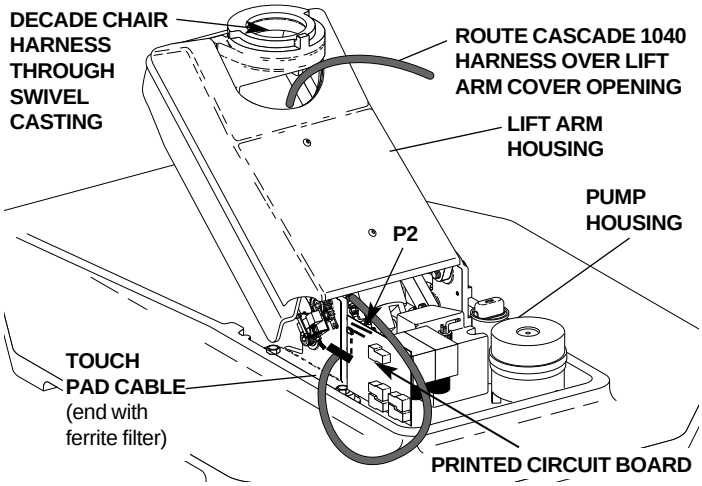


FIGURE 6

5. ***Decade chair:*** Route the end of the harness with the ferrite filter *(see Figure 5)* towards the chair swivel casting (along the top of the chair mount adapter [secure with cable ties]), through the swivel casting into the lift arm housing *(see Figure 6)*, along the left side of the lift cylinder, and into the motor/pump housing.

6. Connect the harness assembly to connector **P2** on the chair printed circuit board *(see Figure 7)*.

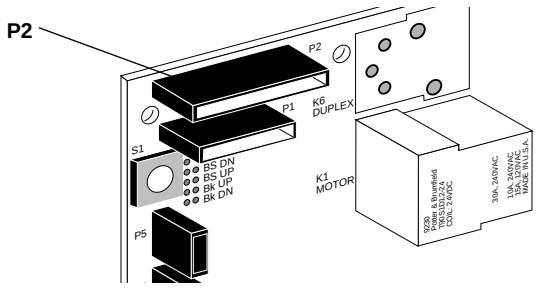


FIGURE 7

7. ***If the unit includes a cuspidor,*** remove the blue jumper from connector **P14** on the chair printed circuit board. Connect the 2-pin connector from the harness assembly to **P14** *(see Figure 8)*.

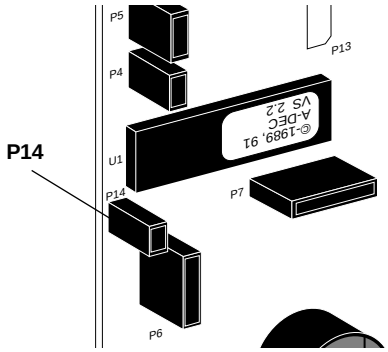


FIGURE 8

> ***NOTE***
>
> Removing the jumper from **P14** on the chair printed circuit board and connecting the wiring harness will disable all chair functions, with the exception of base up, until the cuspidor safety switch is connected to the post box end of the wiring harness. To temporarily enable chair functions, install the blue jumper in the post box end of the wiring harness 2-pin cuspidor safety switch connector.

CONNECT THE DUPLEX OUTLET *(OPTIONAL)*

1. Route the duplex outlet power wiring harness over the top to the lift arm cover and down the right side of the lift cylinder into the area of the chair printed circuit board *(similar to the routing of the touch pad wiring harness, see Figure 6 on page 3)*.

2. Connect the wiring harness to connector **P12** on the chair printed circuit board *(see Figure 9).*

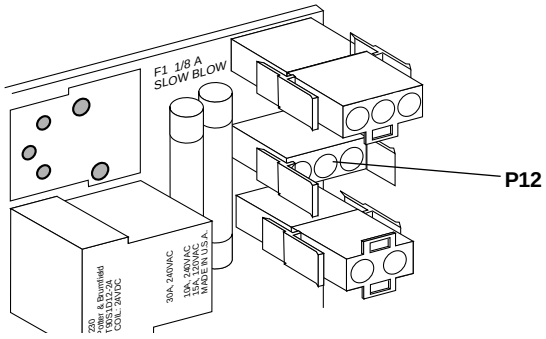


FIGURE 9

INSTALL THE HARNESS SUPPORT

Decade 1011/1021 Chairs, go to INSTALL THE POST BOX.

1. Cascade chair with external umbilical. Locate the harness support in the post box ship kit and install it under the seat casting and the swivel stop casting *(see Figure 10)*.

FIGURE 10

INSTALL THE POST BOX

1. Remove the hex head bolt, thrust washer, and spring washer from the kit.

2. Place the thrust washer on the chair adapter *(see Figure 11)*.

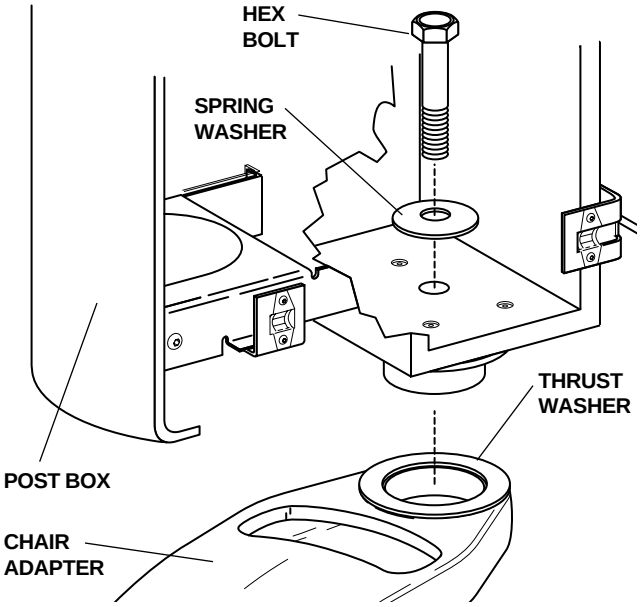


FIGURE 11

3. For units with an external umbilical, the post box and floor box are connected by the unit umbilical. Position the floor box near enough to the chair adapter to allow the post box to be set in place on the adapter.

4. Remove the post box side covers, then carefully lift the post box out of the shipping carton and position it on the chair mount adapter *(see Figure 11)*. The long axis of the post box should be parallel to the chair.

5. Install the spring washer (concave [hollowed] side down) and hex bolt through the post box and into the adapter *(see Figure 11)*.

6. Snug the bolt, but do not tighten at this time.

INSTALL THE ASSISTANT'S ARM *(OPTIONAL)*

If an assistant's arm is not being installed, go to INSTALL THE HANDPIECE DELIVERY SYSTEM TO THE POST BOX.

1. Unpack and install the assistant's arm on the post box *(see Figure 12).*

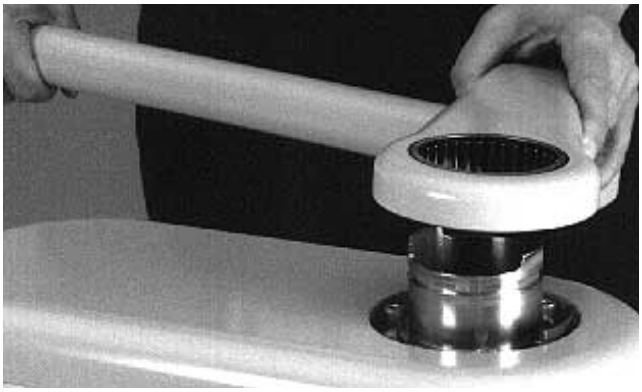


FIGURE 12

2. Install the split ring into the groove located on the mounting hub *(see Figure 13)*. Start one end of the ring in the groove and proceed around the mount, spiraling the ring into the groove.

FIGURE 13

INSTALL THE HANDPIECE DELIVERY SYSTEM TO THE POST BOX

1. Unpack the handpiece delivery system.

2. If the rigid arm and the flex arm have been disassembled for packaging, rotate the rigid arm until the short elbow of the rigid arm is aligned with the flex arm knuckle *(see Figure 14)*. Push the rigid arm onto the flex arm knuckle and tighten the setscrews *(see Figure 14)*.

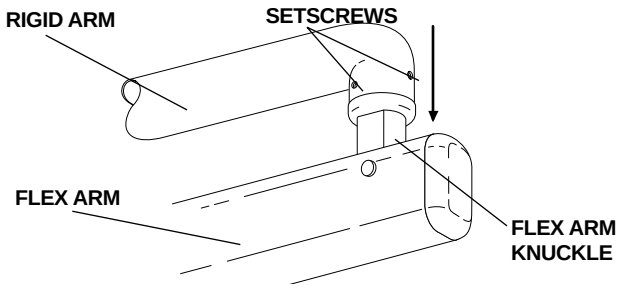


FIGURE 14

> ***NOTE***
>
> The trim ring must be in place on the rigid arm before installing the delivery system on the post box *(see Figure 15)*.

3. Using the safety strap found in the shipping carton, secure the flex arm to the rigid arm.

4. Carefully lift the delivery system out of the carton. Guide the tubing and wiring through the post box hub *(see Figure 15)* and install the delivery system onto the post box.

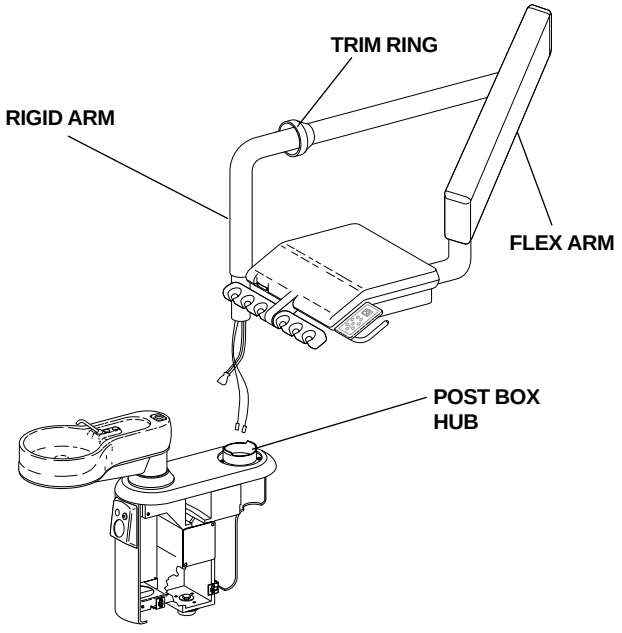


FIGURE 15

NOTE

The arm safety stop pins must be installed on the chair to meet agency stability requirements.

5. To prevent the flex arm and control head arm from 360° rotation, install the safety stop pins from the ship kit in the rigid arm and control head arm *(see Figures 16 and 17)*. The pins are installed with the smaller diameter end up.

NOTE

Continental-style control head.

The two safety stop pins at the control head can be optionally installed on the two holes nearer each other *(see Figure 17)*. With the stops in these positions, the control has a wider range of movement for trans-thorax positioning.

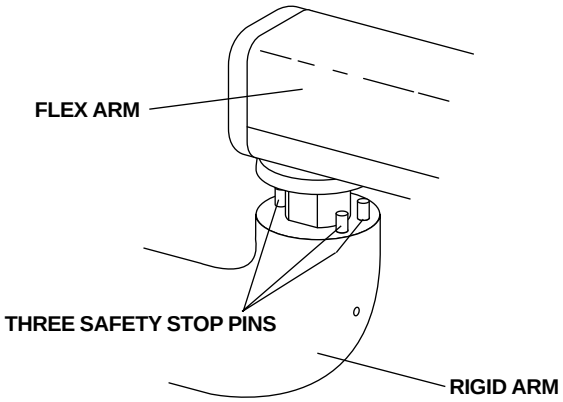


FIGURE 16

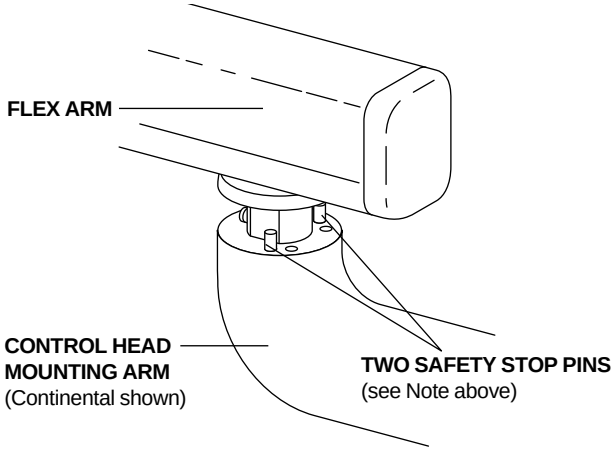


FIGURE 17

INSTALL THE CASCADE MASTER 6300 DENTAL LIGHT (OPTIONAL)

NOTE

If a Cascade 6300 Master Dental Light is to be installed to the unit, install it now. Refer to the installation instruction found with the dental light.

When installing the dental light to the post box, remove the Master Circuit Board assembly *(see Figure 18)* by pulling the entire assembly away from the post box frame. Pull the light cable through the space behind the circuit board and above the electrical box. Reinstall the Master Circuit Board assembly.

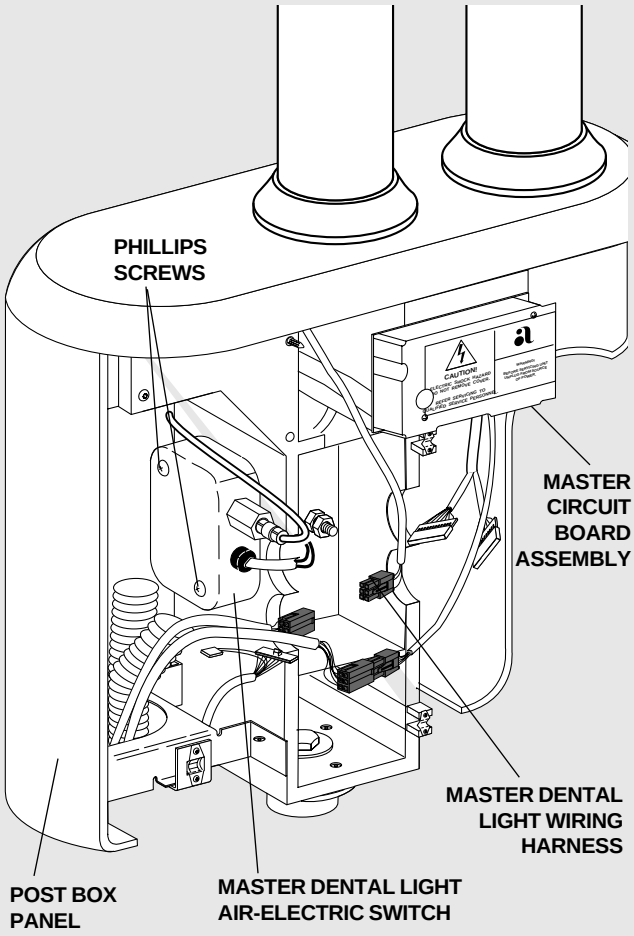


FIGURE 18

Remove the light air-electric switch from the light kit. Using the Phillips screws found in the light kit, install the light air-electric switch in the post box *(see Figure 18).* To ease installation, remove the post box panel.Reinstall the panel when installation is complete.

LEVEL THE POST BOX

1. Position the control head and, *if installed,* the dental light in their normal use positions.

2. Place a bubble level on the delivery system rigid arm *(see Figure 19)*. Check and adjust for level. Bring the post into a vertical position by adjusting the leveling setscrews *(see Figure 19).*

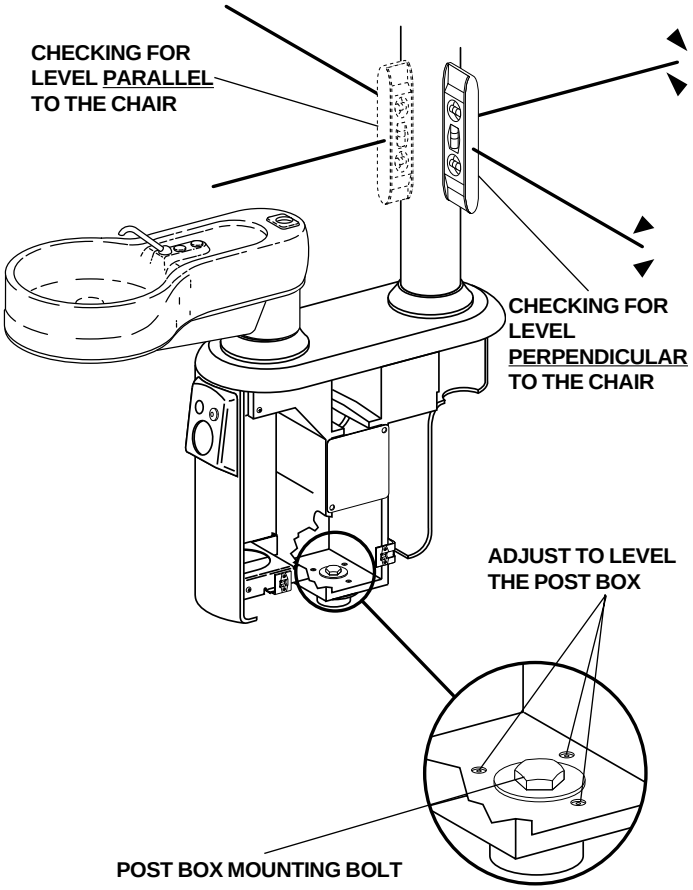


FIGURE 19

3. **Tighten the post box mounting bolt.** Torque to 55 foot pounds using a torque wrench.

RIGID ARM FRICTION ADJUSTMENT

1. The rigid arm includes a friction adjustment to eliminate horizontal drift of the control head *(see Figure 20).* Turn the adjustment setscrew clockwise to increase friction on the flex arm knuckle.

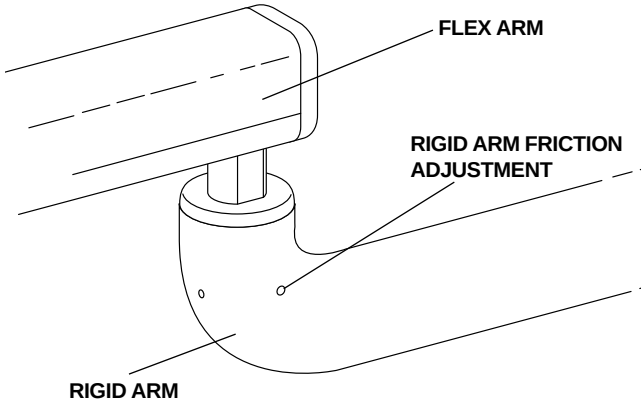


FIGURE 20

CHANNEL THE UMBILICAL TUBING AND WIRING INTO THE POST BOX

If the unit umbilical is external, go to POST BOX ELECTRICAL CONNECTIONS on page 8.

1. Route the wiring harnesses through the square opening and to the electrical box *(see Figure 21)*.

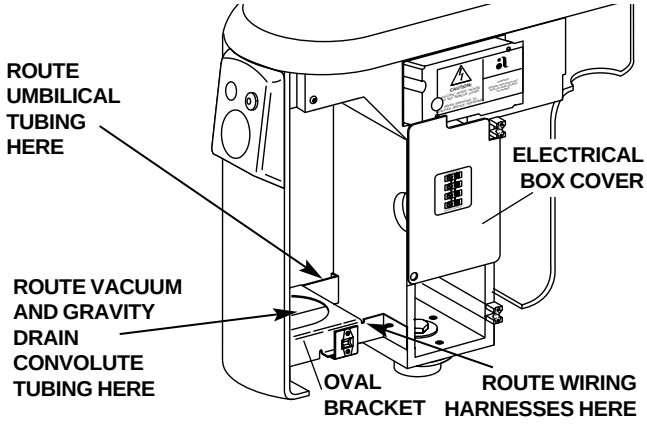


FIGURE 21

2. Route the umbilical tubing through the square opening and to the air/water side of the post box *(see Figure 21)*.

3. Route the vacuum and gravity drain convolute tubing through the oval hole in the bracket *(see Figure 21)*.

CONVOLUTE TUBING CONNECTIONS

If the unit is not equipped with optional assistant's instrumentation or optional cuspidor, go to POST BOX ELECTRICAL CONNECTIONS.

1. Cut the convolute tubing to length.
2. Using a waterproof sealant to prevent leakage, push the convolute tubing onto the optional solids separator outlet and the optional cuspidor drain *(see Figure 22)*.

POST BOX ELECTRICAL CONNECTIONS

1. Remove the electrical box cover *(see Figure 21 on page 7)*.
2. Connect the wires from the cable coming from the floor box to the terminal strip located inside the electrical box *(see Figure 22)*. The label on the electrical box cover *(see Figure 21 on page 7)* shows the positions for each wire connection to the terminal strip.

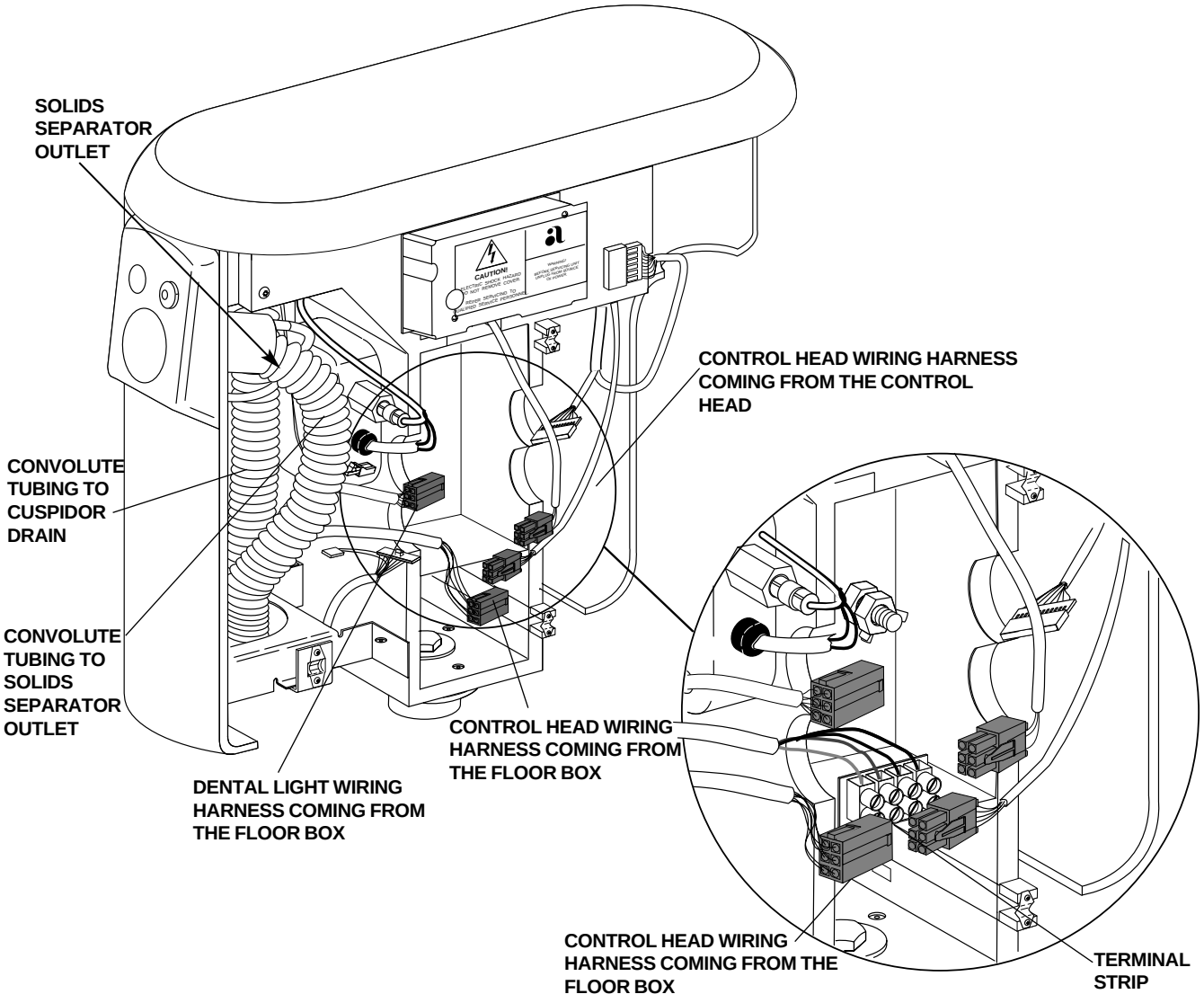


FIGURE 22

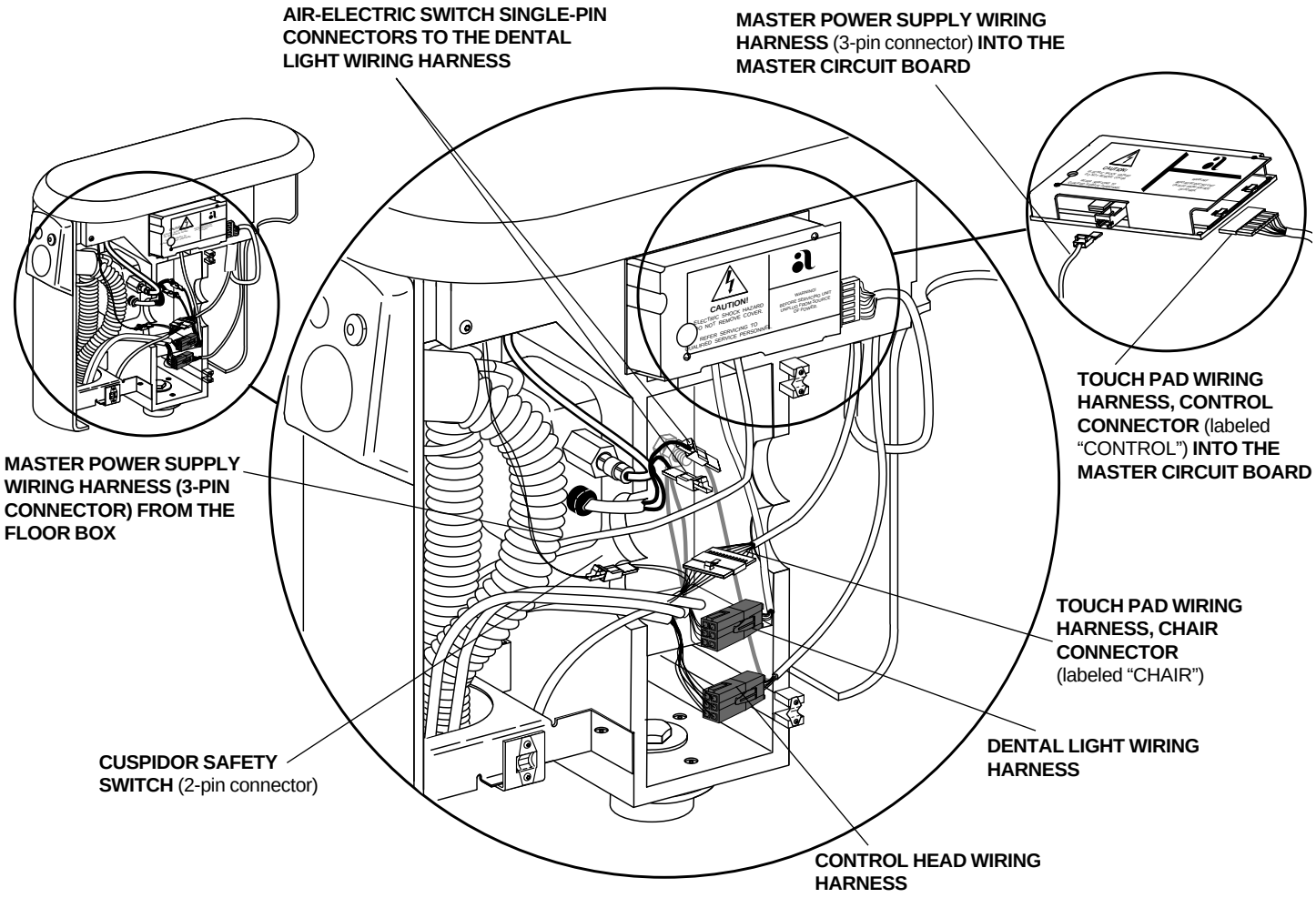


FIGURE 23

3. Connect all of the connectors *(see Figure 23)*.
4. *If the unit is equipped with a cuspidor,* remove the blue tab jumper from the 2-pin cuspidor safety switch connector attached to the touch pad harness coming from the chair. Connect the 2-pin connector coming from the chair to the 2-pin connector coming from the cuspidor *(see Figure 23)*.
5. Connect the master touch pad harness. Push the master touch pad wiring harness connector, *labeled "control"*, into the lower, side connector on the circuit board *(see Figure 23)*.
6. Locate the master power supply wiring harness (with internal red and black wires) coming from the floor box. Push the 3-pin connector into its mating connector on the master circuit board *(see Figure 23)*.
7. Place all of the connectors in the electrical box and install the cover *(see Figure 21 on page 7)*.

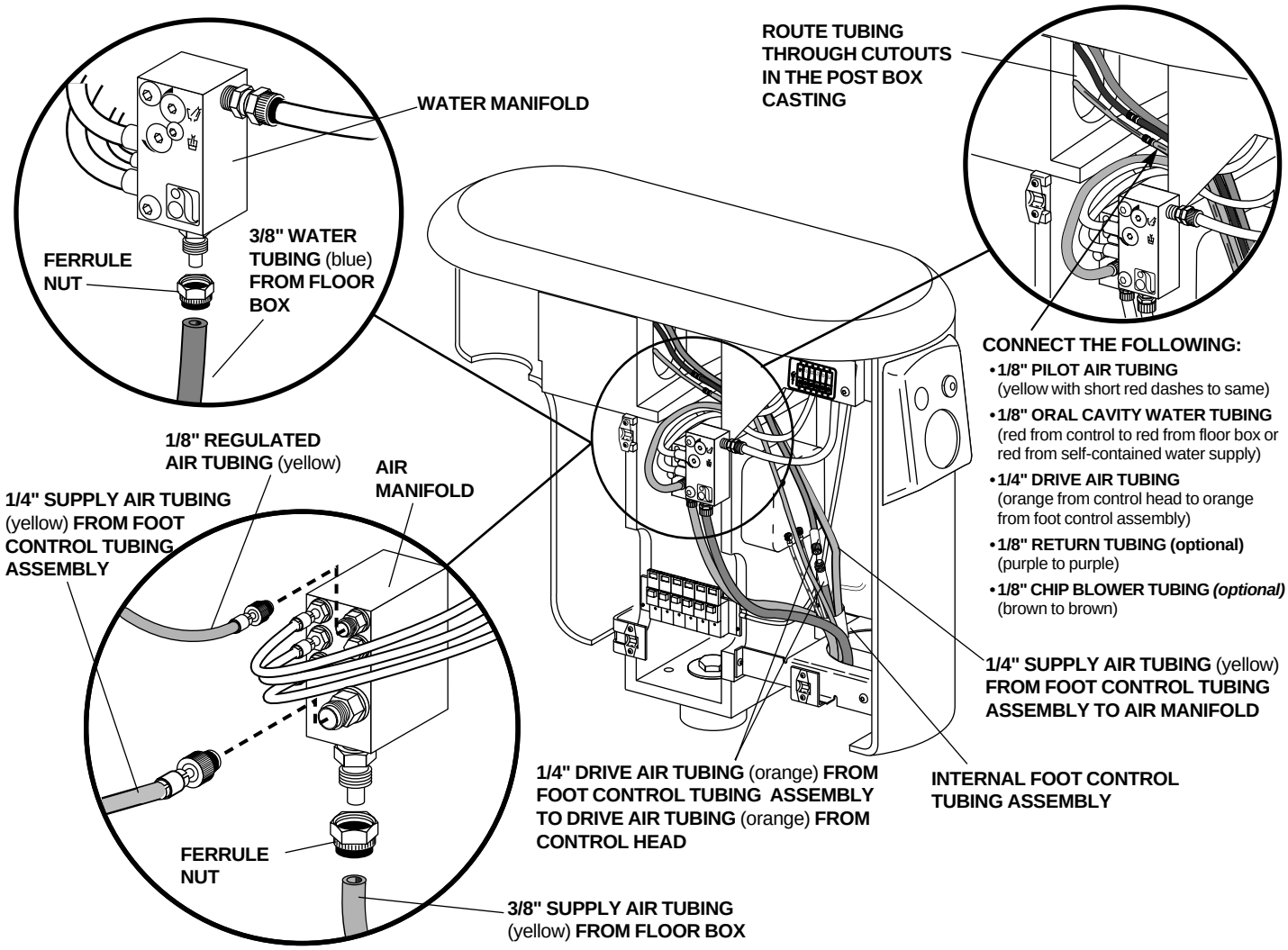


FIGURE 24

POST BOX AIR AND WATER PLUMBING

If the unit has an external umbilical, go to step 5.

Air (3/8" yellow) and Water (3/8" blue) Tubings

1. Slide a ferrule nut from the ship kit onto the 3/8" blue and 3/8" yellow tubings *(see Figure 24)*.
2. Push the end of the blue tubing onto the connector at the bottom of the water manifold *(see Figure 24)*.
3. Push the end of the yellow tubing onto the connector at the bottom of the air manifold *(see Figure 24)*.
4. Slide the ferrule nuts onto the connectors and finger tighten. Then tighten 1-1/4 turns. Do not overtighten.

Air (1/8" yellow) and Water (1/8" red) Tubings Coming from the Control Head

5. Connect the regulated air tubing (yellow) coming from the control head to the air manifold *(see Figure 24)*.
6. Connect the pilot air tubing (yellow with short red dashes) from the control head to the pilot air tubing coming from the floor box *(see Figure 24)*.
7. Connect the oral cavity water tubing (red) from the control head to the inline quick-disconnect (Q.D.) coming from the self-contained water supply or (if no self-contained water) directly to the red tubing from the floor box *(see Figure 24).* If the system has self-contained water, the red tubing from the floor box will not be connected.
8. If a tank-style water heater is installed in the floor box, connect the return tubing (purple) coming from the control head to the return tubing (purple) coming from the floor box *(see Figure 24)*. *This tubing is used for options and is not always connected.*

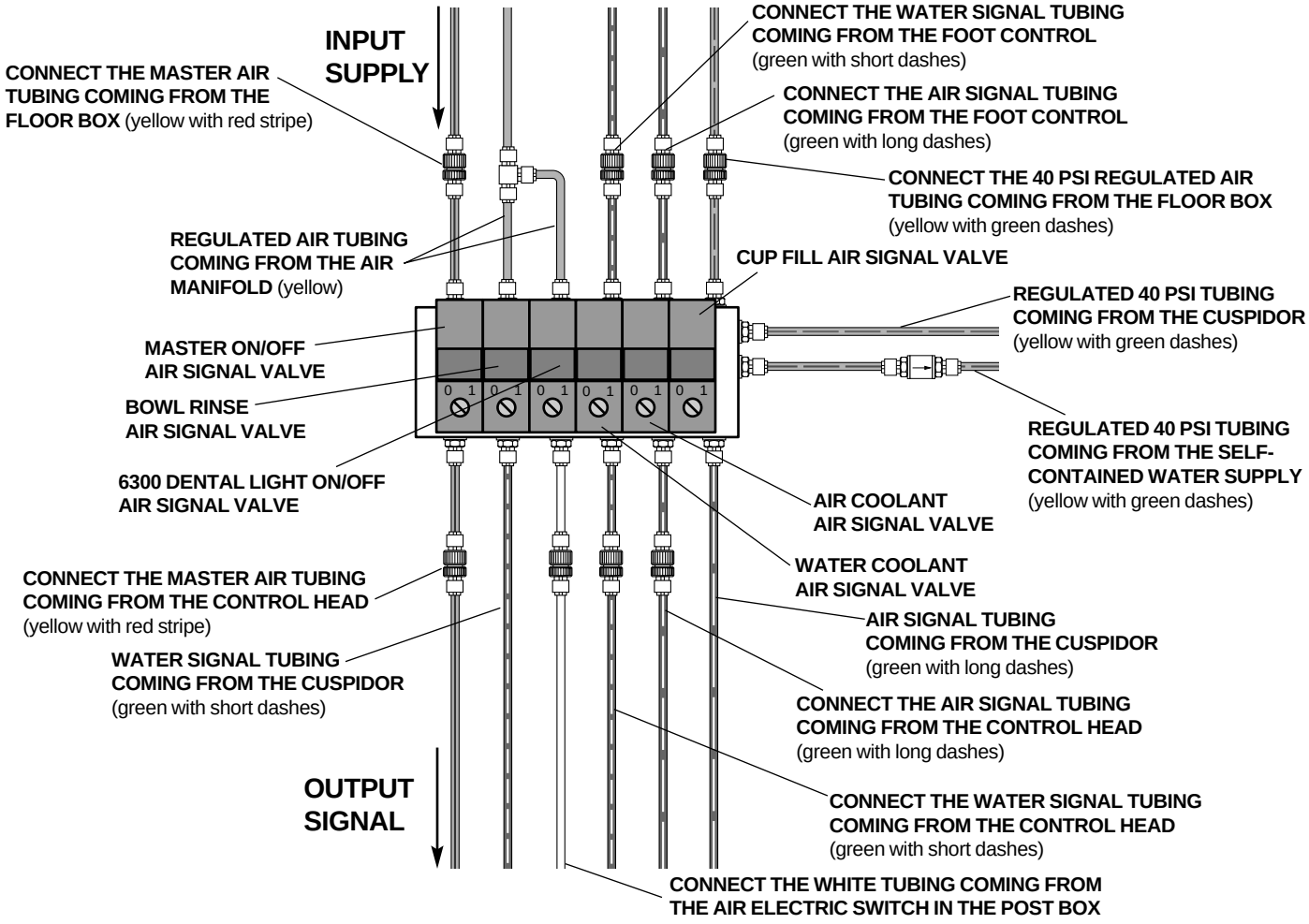


FIGURE 25 AIR SIGNAL VALVE MANIFOLD ASSEMBLY

Internal Foot Control Tubings Coming from the Chair Mount Adapter

If the unit has an external umbilical, go to step 13.

9. Connect the 1/4" yellow tubing coming from the post box end of the foot control tubing assembly to the air manifold *(see Figure 24)*.

10. Connect the drive air tubing (orange) coming from the foot control to the 1/4" drive air tubing (orange) coming from the control head *(see Figure 24)*.

11. Connect the tubing coming from the foot control to the input supply side of the manifold assembly *(see Figure 25)*. Match tubing color and dash pattern to tubing color and dash pattern.

    - Water signal (green with short dashes) tubing,
    - Air signal (green with long dashes) tubing.

12. Connect the brown with white dashes tubing coming from the foot control to the control head only if the foot control has the chip blower option.

Air Signal Valve Manifold Assembly Connections

If the unit has an external umbilical, go to step 13.

13. Connect the tubing coming from the umbilical to the **INPUT SUPPLY** side of the air signal valve manifold assembly *(see Figure 25)*. Match tubing color and dash pattern to tubing color and dash pattern.

    - Master air (yellow with red stripe) tubing,
    - Regulated 40 psi (yellow with green dashes) tubing.

14. Connect the tubing coming from the control head to the **OUTPUT SIGNAL** side of the manifold assembly *(see Figure 25)*. Match tubing color and dash pattern to tubing color and dash pattern.

    - Master air (yellow with red stripe) tubing,
    - Water signal (green with short dashes) tubing,
    - Air signal (green with long dashes) tubing.

INSTALL THE FLOOR BOX

1. Remove the floor box cover. The cover on a stainless steel floor box simply lifts off the box. To remove the cover from a Cascade floor box, slide the cover forward, then lift it off the floor box base *(see Figure 26)*.

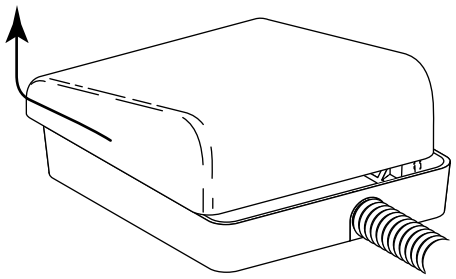


FIGURE 26

2. The internal umbilical extends 8" or 3' from the front of the chair. An external umbilical extends 5' from the post box. If the umbilical is too long, it can be shortened to an appropriate length.

To shorten the umbilical:

a. Determine how long the umbilical needs to be and mark it where it will be cut.

b. Slit the excess umbilical convolute sheathing lengthwise, remove and discard (see Figure 27).

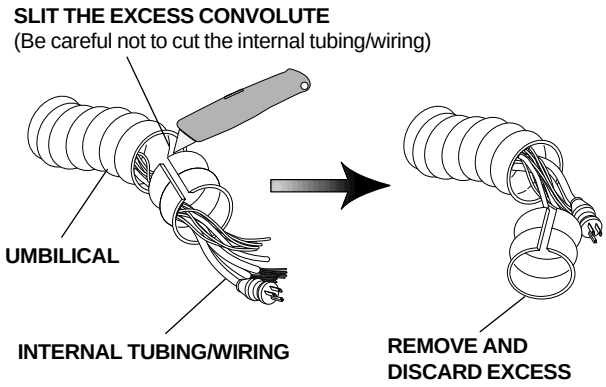


FIGURE 27

c. Install the umbilical in the floor box and secure using the umbilical clip (see Figures 28 and 29).

3. Secure the floor box to the floor. Refer to the floor box installation instructions, *A-dec Publication No. 85.0472.00*.

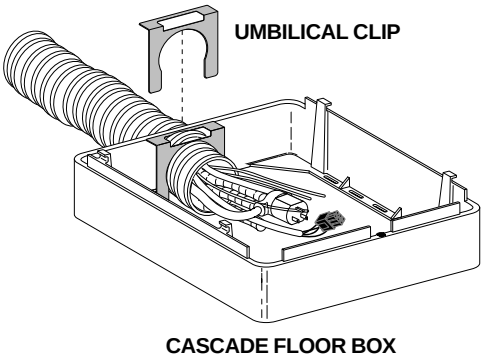


FIGURE 28

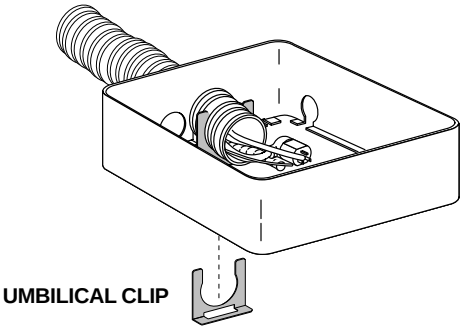


FIGURE 29

CONNECT THE DRAIN TUBING

If the unit is not equipped with vacuum tubing and/or gravity drain tubing, go to step 4 on page 13.

1. Attach the gravity drain "T" connector from the hardware kit to the gravity drain stub using a suitable water resistant adhesive *(see Figure 30)*. The drain air vent prevents air from being trapped in the drain system and inhibiting flow. The drain air vent must not be obstructed.

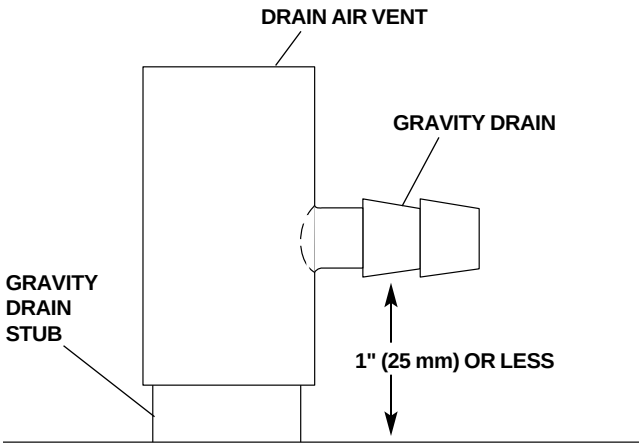


FIGURE 30

2. Identify the convolute gravity drain tubing. Cut off any excess tubing so the path to the drain is as short and direct as possible, eliminating any low spots. Low spots allow sediment to collect or water to stand, inhibiting drain flow. Push the tubing onto the drain *(see Figure 31)*.

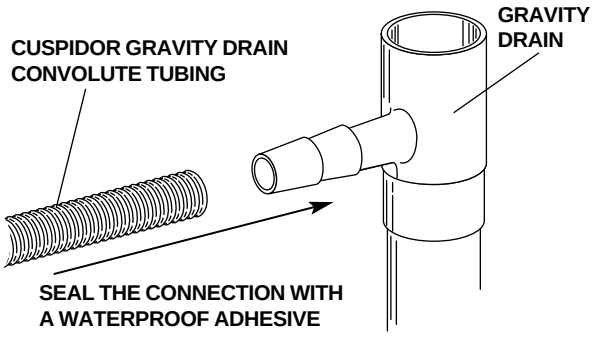


FIGURE 31

3. Identify the convolute vacuum tubing and cut it to the proper length, eliminating any low spots. Push it onto the vacuum stub *(see Figure 32)*.

FIGURE 32

If the unit being installed is NOT equipped with a circulating syringe, go to CONNECT THE UTILITIES.

4. Bend and position the copper drip tube to empty into the drain air vent *(see Figure 33)*. Be sure to position the dripper tube at least 1" (25.4 mm) above the vent, then attach it to the gravity drain "T" connector with the cable ties from the hardware kit.

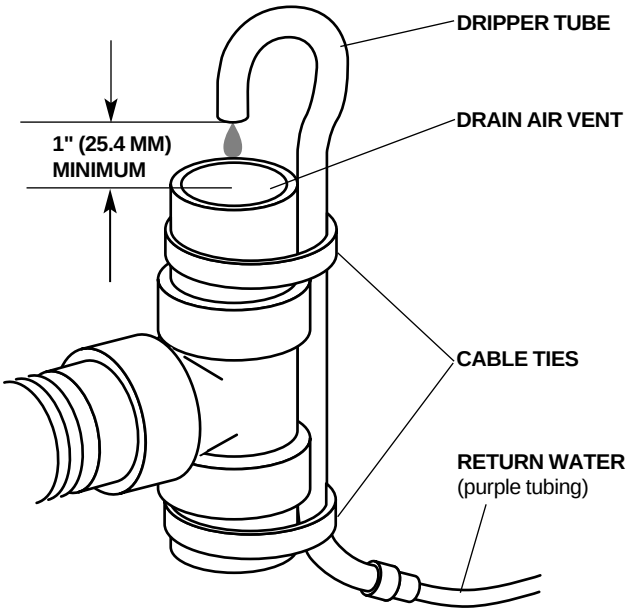


FIGURE 33

CONNECT THE UTILITIES

If the unit being installed has an external umbilical, go to step 2.

The filter/regulators are not installed on the umbilical. When installing, remove the short length of identification tubing from the fitting or barb, *note its color and dash length,* then connect the matching color and dash length tubing from the umbilical.

1. Following the procedure above, connect the filter/regulators to the umbilical *(see Figures 34 for standard plumbing or 35 for standard plumbing with self-contained water)*.

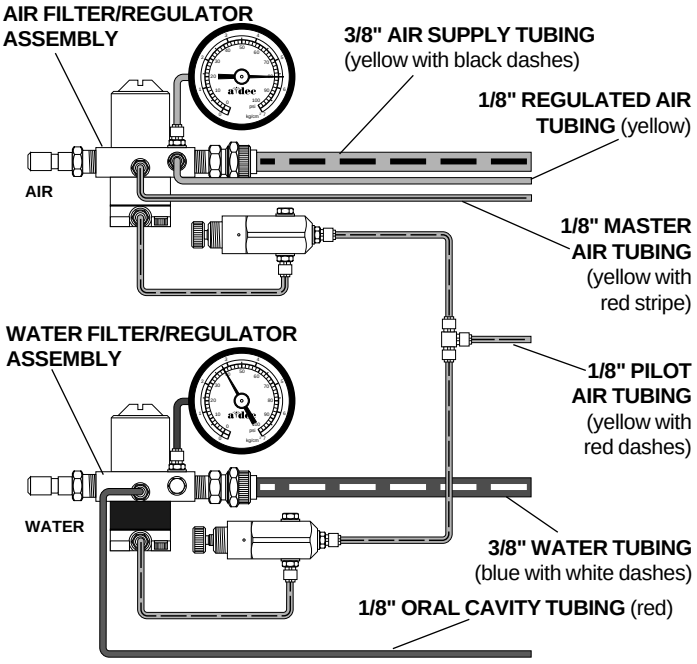


FIGURE 34 (STANDARD PLUMBING)

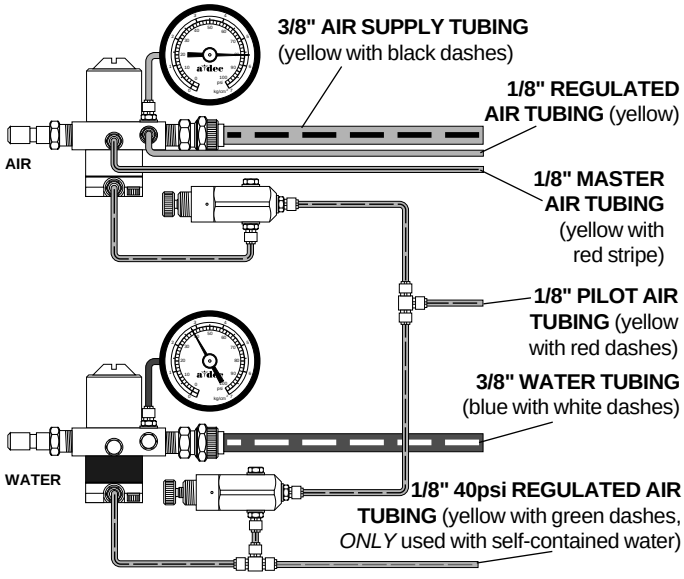


FIGURE 35 (STANDARD PLUMBING WITH SELF-CONTAINED WATER)

2. Purge the air and water supplies of debris.
3. Loosen the hex nut on the air and water manual shutoff valves *(see Figure 36)*.

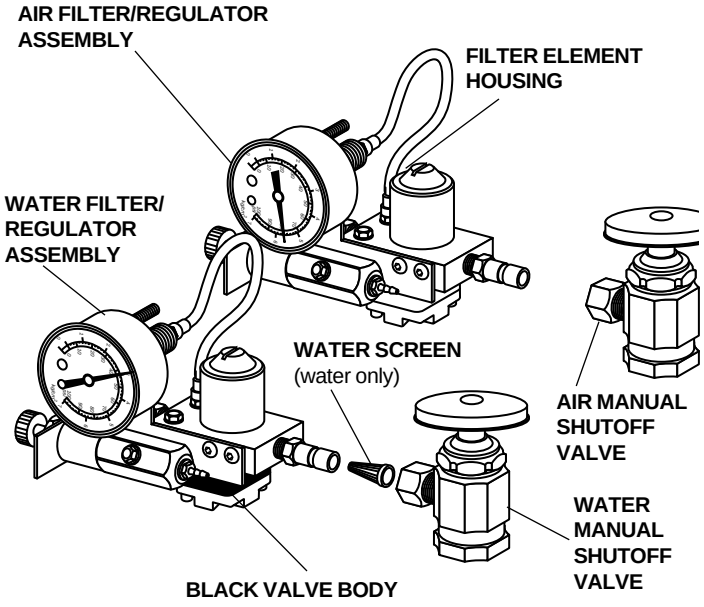


FIGURE 36

4. Install the water screen on the water filter/regulator, identified by a black valve body *(see Figure 36)*.
5. Connect the air and water filter/regulators to the manual shutoff valves *(see Figure 36)*. **DO NOT overtighten the fittings.** The filter/regulators should be positioned at an angle to provide easy access to the filter element on each filter/ regulator manifold.

INSTALL THE POWER SUPPLY

Refer to the installation instructions with the power supply.

INSTALL THE TRAY HOLDER

(Optional on Traditional-style controls, standard on Continental-style controls.)

1. Traditional-style control head: Remove the two setscrews from the control head arm *(see Figure 37)*.

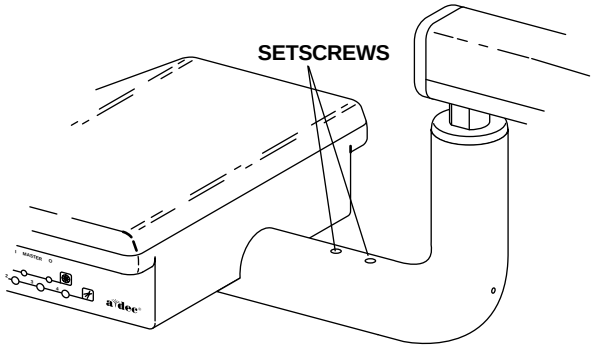
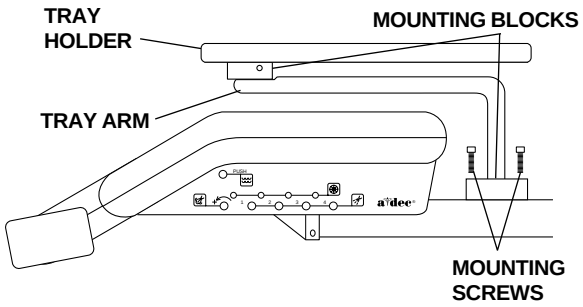


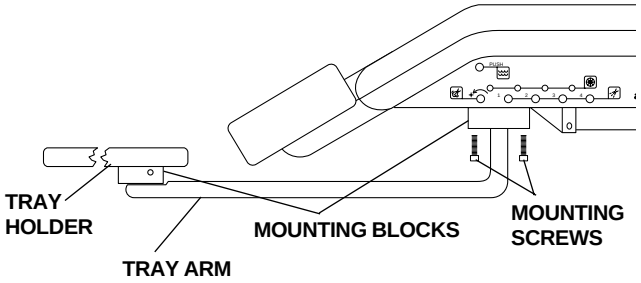
FIGURE 37

2. Install the tray arm and holder *(Traditional-style, see Figure 38; Continental-style see Figure 39)*.



TRADITIONAL-STYLE CONTROL HEAD

FIGURE 38



CONTINENTAL-STYLE CONTROL HEAD

FIGURE 39

3. Place the tray pad and tray on the tray holder.
4. To adjust the tray arm tension, insert a 9/64" hex key through the hole in the mounting block. Turn the tray holder and tray arm clockwise to increase the tension or counterclockwise to loosen the tension.

LEVEL THE CONTROL HEAD

1. Place a bubble level on the top of the control head and check for level.
2. If leveling is necessary, loosen the two locking screws *(see Figure 40)* on the underside of the control head. Level the control head, side to side, using the two leveling screws *(see Figure 40)*. After leveling, tighten the two locking screws.

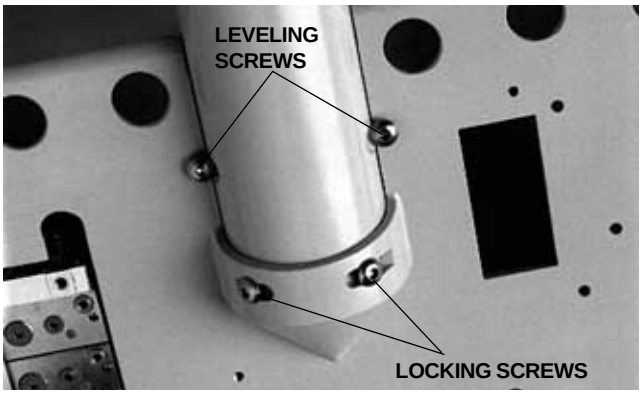


FIGURE 40

LEVEL THE ASSISTANT'S ARM

1. Place a bubble level of the top of the assistant's arm and check for level. To level the arm, use a 1⁄8" hex key to adjust the leveling setscrew on the underside of the arm *(see Figure 41)*.

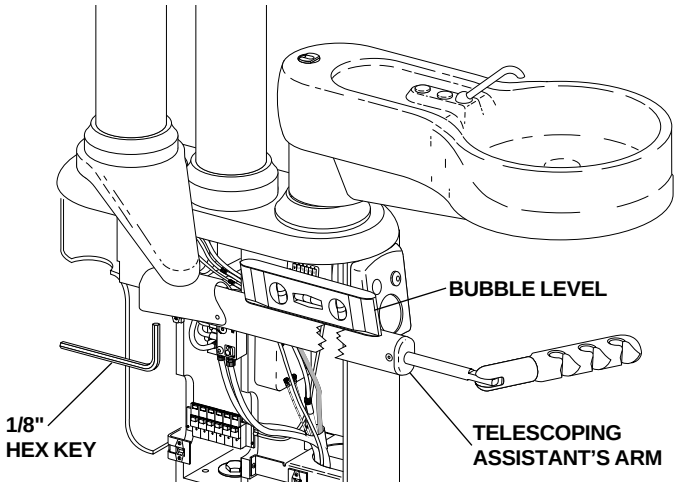


FIGURE 41

INSTALL THE SOLIDS COLLECTOR

1. Install the solids collector screen into the vacuum connector. Be sure to align the round screen opening with the HVE handpiece tubing. Install the vacuum connector and the screen in the post box as shown in Figure 42.

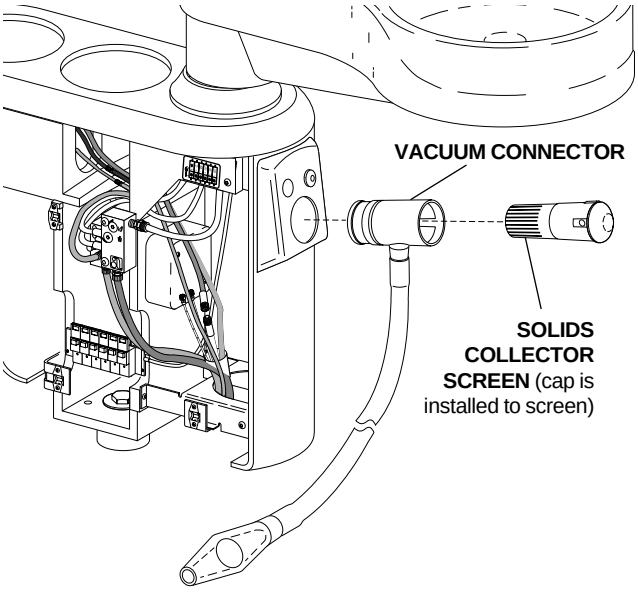


FIGURE 42

INSTALL THE CHAIR ADAPTER COVER

1. Install the chair adapter cover (included in the chair adapter ship kit) as shown in Figure 43.

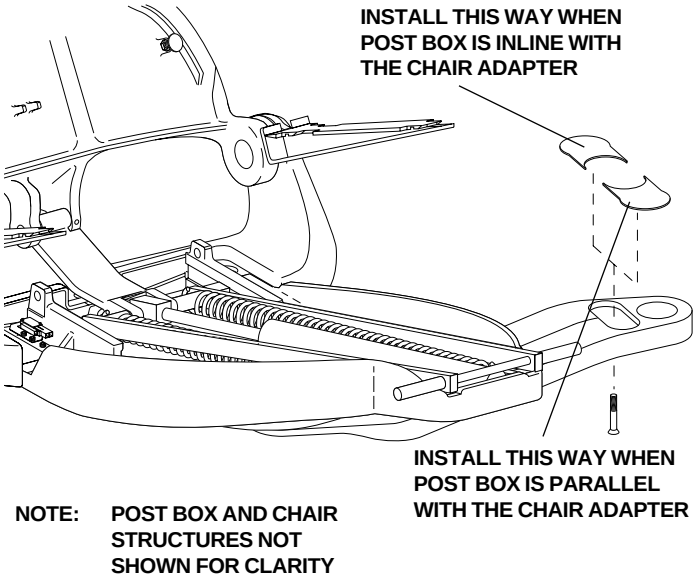


FIGURE 43

INSTALL THE CUP FILL SPOUT AND BOWL SCREEN

1. Install the cup fill spout, cup fill spout gasket, and bowl screen on the cuspidor as shown in Figure 44.

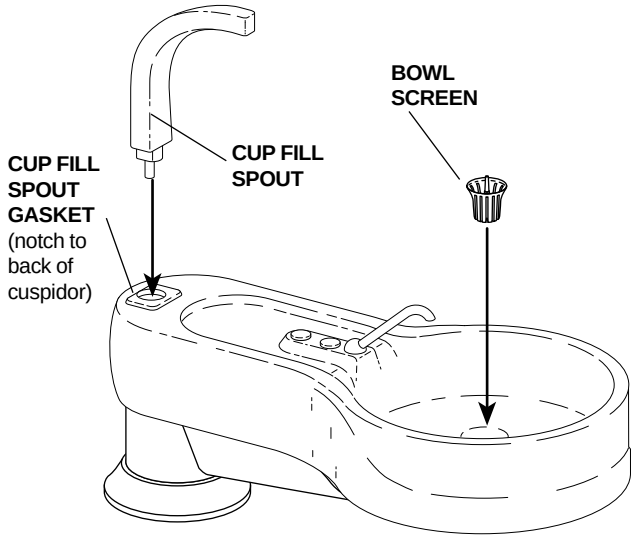


FIGURE 44

TEST THE UNIT

If the unit being tested does not include a self-contained water system, go to step 3.

1. Remove a bottle from the self-contained water system kit. Fill it with the water specified by the doctor.

> ***NOTE***
>
> The doctor may object to putting office water through the unit. Check with the doctor before filling the bottle.

2. Align the full bottle with the self-contained water cap in the post box. Be sure the 1⁄4" clear tubing from the cap extends straight down into the water bottle. Screw the bottle onto the cap until it is snug.
3. Fully open both the air and water manual shutoff valves. Check plumbing connections for leakage.
4. Plug in the power supplies.

MASTER TOUCH PAD FUNCTIONS

5. Turn the system on by pressing the master on/off control on the Master Touch Pad *(see Figure 45)*. The LED above the master on/off control will illuminate when the system is ON.

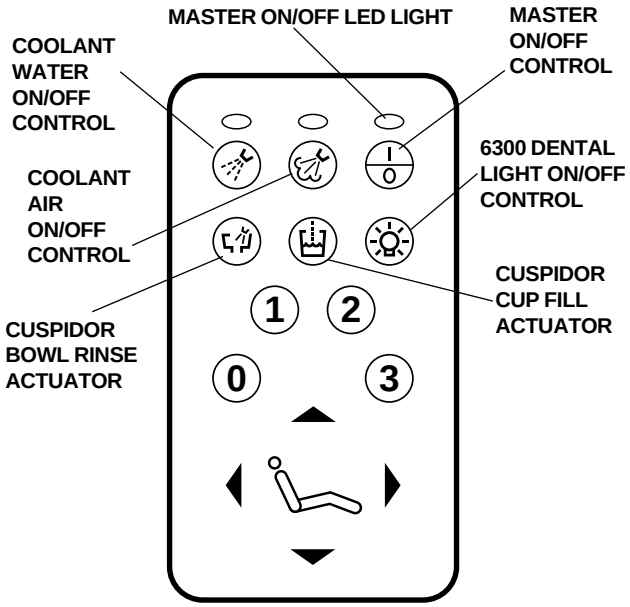


FIGURE 45

6. Operate the syringe while checking all plumbing connections for leakage.
7. Press the coolant air on/off and coolant water on/off controls *(see Figure 45)* to test the handpiece coolant. The LEDs above the control will illuminate when the functions are ON.
8. If a 6300 Dental Light is installed with the unit, check the function of the light by pressing the dental light on/off control on the Master Touch Pad *(see Figure 45)*. The dental light will illuminate when the dental light on/off control is pressed.
9. For complete Cascade Master Touch Pad operation instructions, refer to the ***Cascade Master Touch Pad Owner's Guide***, *(Publication No. 85.2627.00)*.

TOUCH PAD FUNCTIONS FOR THE CHAIR

10. The touch pad arrowhead buttons *(see Figure 46)* are used to manually position the chair.

    - **Back Down:**
      Press and hold the back down (left) arrowhead to lower the chair back.
    - **Back Up:**
      Press and hold the back up (right) arrowhead to raise the chair back.
    - **Base Up:**
      Press and hold the base up (top) arrowhead to raise the chair base.
    - **Base Down:**
      Press and hold the base down (bottom) arrowhead to lower the chair base.

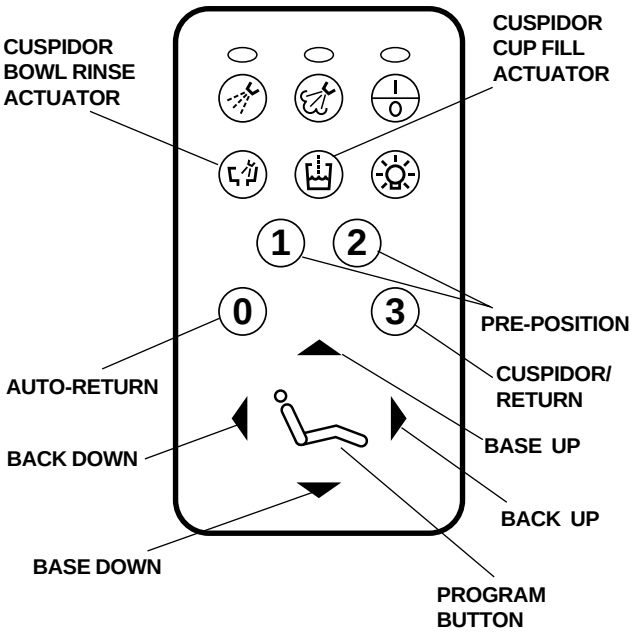


FIGURE 46

11. Pressing a pre-position button *(see Figure 46)* will send the chair's base and back to a pre-set position.

    - **Button 0 *(auto-return)*:**
      Programmed at the factory to send the chair to an entry/exit position (base down, back up).
    - **Buttons 1 and 2:**
      Programmed at the factory to send the chair to the same position when pressed. The doctor may want these positions programmed.
    - **Button 3 *(cuspidor/return)*:**
      Programmed at the factory to send the chair to a cuspidor position. When pressed a second time, the chair will return to its previous position.

Pre-Position adjustment

12. Locate the program button and arrowhead buttons on the touch pad *(see Figure 46)*.

    a. Using the touch pad arrowhead buttons, set the chair to the doctor's preferred position.

    b. Press and release the program button. You will hear a single audible tone. Within four seconds, press pre-position 0, 1, 2, or 3. You will hear multiple audible tones confirming that the new pre-position function for that button has been programmed.

    c. Check the new button function by moving the chair to another position and then pressing the pre-position button. The chair should move to the position programmed.

13. For complete touch pad chair operation instructions, refer to the ***Chair Owner's Guide***.

If the unit has an optional cuspidor, go to TEST THE (OPTIONAL) CUSPIDOR.

TEST THE (OPTIONAL) CUSPIDOR

14. Place a cup under the cup fill spout and press the cup fill actuator button on the cuspidor *(see Figure 47)*.

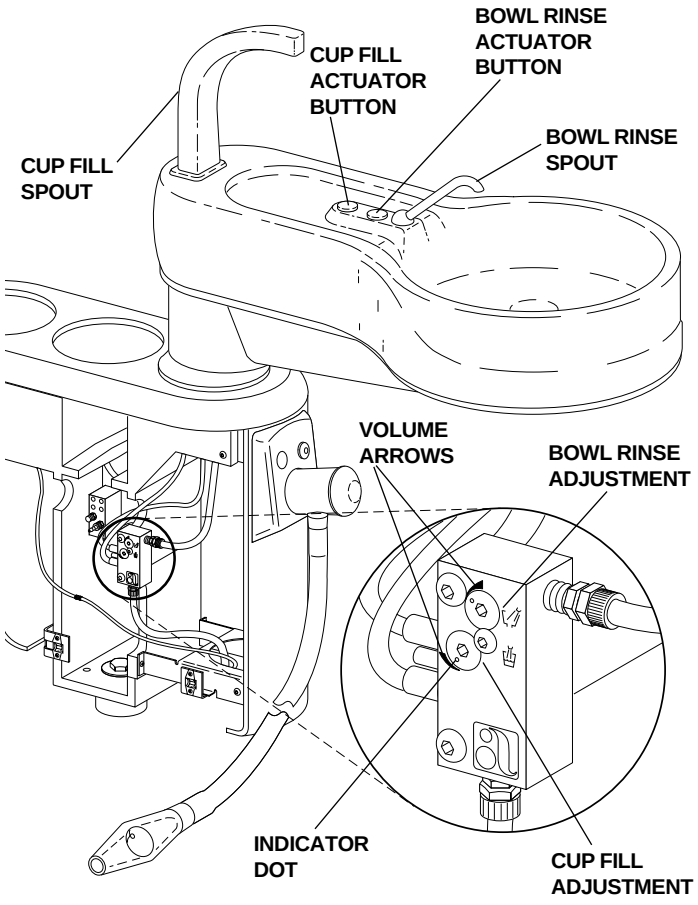


FIGURE 47
(Shown with optional assistant's instrumentation without the master air signal valve manifold for clarity)

If cup fill flow adjustment is necessary, locate the cup fill flow adjustment on the water manifold in the post box *(see Figure 47)*. Notice the location of the indicator dot showing the position of the current setting *(see NOTE)*. Using a 1⁄8" hex key, turn the key clockwise to increase the cup fill volume or counterclockwise to decrease the volume.

> ***NOTE***
> When making adjustments, the indicator dots on the volume adjustments should remain within the volume arrows.

15. Press the cup fill actuator on the Master Touch Pad *(see Figure 46 on page 18)*. When activated, water flow from the cup fill spout should be similar to water flow when the cuspidor cup fill actuator button was pressed in Step 14.

16. Press the bowl rinse actuator button on the cuspidor *(see Figure 47)*.

    If bowl rinse flow adjustment is necessary, locate the bowl rinse flow adjustment on the water manifold in the post box *(see Figure 47)*. Notice the location of the indicator dot showing the position of the current setting *(see NOTE)*. Using a 1⁄8" hex key, turn the key clockwise to increase the bowl rinse volume or counterclockwise to decrease the volume.

17. Press the bowl rinse actuator on the Master Touch Pad *(see Figure 46 on page 18)*. When activated, water flow from the bowl rinse spout should be similar to water flow when the cuspidor bowl rinse actuator button was pressed in Step 16.

BEFORE LEAVING THE FACILITY

1. Replace all covers.
2. Install the chair seat upholstery.
3. Distribute the ***Owner's Guides*** and instruct the dental team in the operation and maintenance of the equipment.