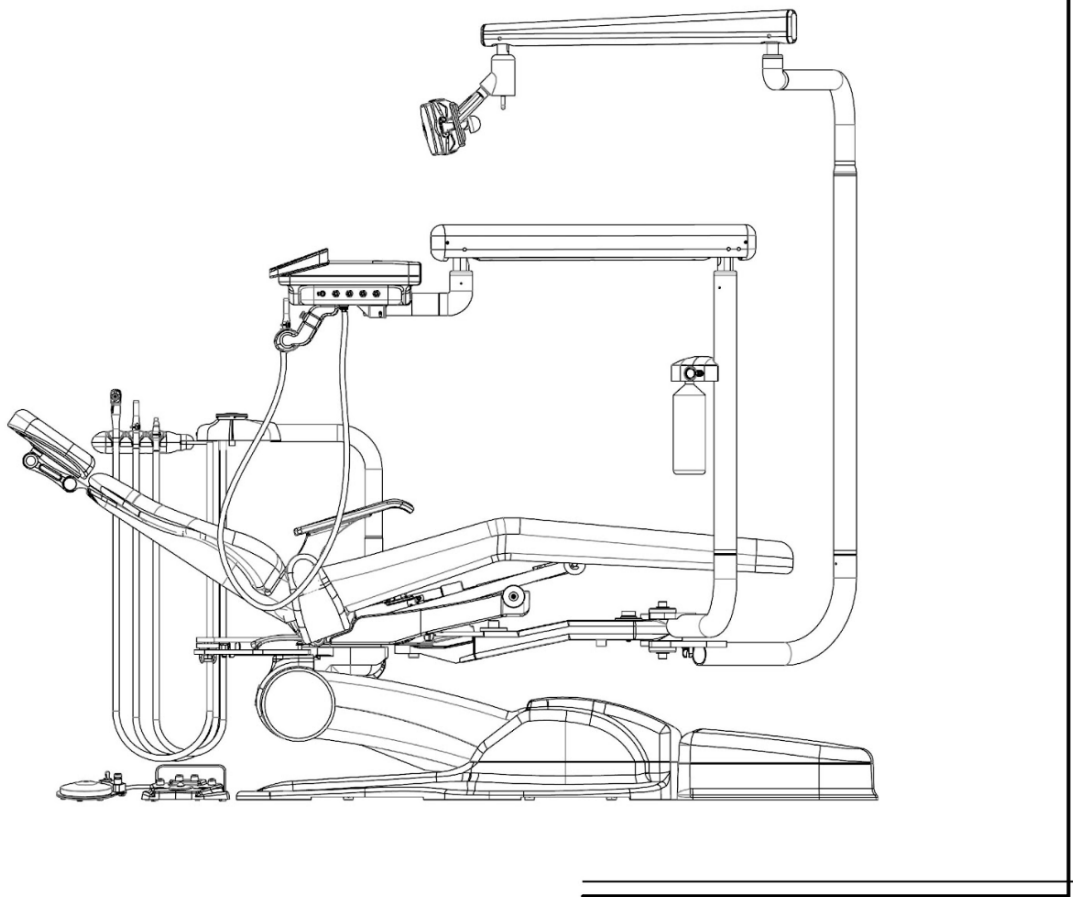


FDC Pivot Mount Chair Dental Package

FDC – 38HC

Installation Guide



Firststar Dental Company

18915 84th Ave. S. Kent, WA 98032

www.firstardental.com

E-mail: technical@firstardental.com

Start Here	1
Unpacking and Checking Components	2
Installation Flow Chart	3
Dental Chair	4
Dental Chair Installation	4
Dental Chair Movement Control Test	5
Front Pivot Elbow	6
Front Pivot Chair Adapter Installation and Leveling	6
Front Pivot Elbow Installation	7
Delivery System, Front Pivot Mount	8
Post and Flex Arm Installation	8
Tray Installation	9
Tube Connections	10
Wire Connections	11
Dental Light System, Front Pivot Mount	12
Post and Rotating Arm Installation	12
Dental Light and Flex Arm Installation	13
Tube and Wire Connection	14
Rear Pivot Elbow	15
Rear Pivot Chair Adapter Installation	15
Assistant's System Support Arms Installation	16
Assistant's Instrumentations, Rear Pivot Mount	17
Corrugated Tubing and Tubes Installation	17
HVE and SE Tubes Installation	18
Contoured Utility Center	19
Contoured Utility Center Installation	19
Tubing Connection	20
Delivery Unit Balancing	21
Chair Upholstery	22
Headrest Cushion	22
Backrest Cushion	22
Seat Cushion	23
Armrest Cushion	23
Appendix	24
Dental Unit Overall Tubing Diagram	24
Circuit Board Schematics	25
Installation Completion Checklist	26

GENERAL INFORMATION

Make sure that you follow local building codes and regulations for this installation. They differ from state to state and internationally. Dispose the packaging materials in accordance with current packaging regulations.

Also, make sure that the following steps are completed prior to installation.

1. Associated air and water shut off valves are installed.
2. Supply air and water pressures comply with the unit specified requirements.
3. Purge debris from air and water lines as necessary.
4. Associated electrical voltage transformer and safety comply with the unit specified requirements.
5. Associated central vacuum system installed and comply with local health department requirements.
6. Vacuum pressure complies with the unit specified requirements.
7. The vacuum line is cleared from debris.
8. The flooring for this unit should be flat, level and steady.

INSTALLATION PREPARATION

1. The instructions contained in this booklet should be read and understood thoroughly before installation. After unit installation has been completed, keep this manual in a safe place for future reference.
2. Familiar with all components. Each box contains a part list. Make sure that all the parts are included in each box are accounted for and damage free.
3. Prepare the following recommended installation tools:
 - SAE Socket Wrench Set (1/16" – 3/8")
 - Philips and standard screwdriver
 - Level
 - Scissor

Important

- If you have any questions about this manual or this product, please contact us or visit our website for more information.
- If manual becomes unreadable or is lost, please request a new manual by contacting your dealer or visit our website for an electronic version.
- Installation should be conducted by authorized personnel only.

- Please make sure to follow instructions on this installation manual.

Unpacking and Checking Components

Proper placement of the shipping boxes will speed up the assembly process. Please get familiar with the following inventory list and compare with actual parts contained in each box. Make sure to put all the components in an organized manner before the installation process.

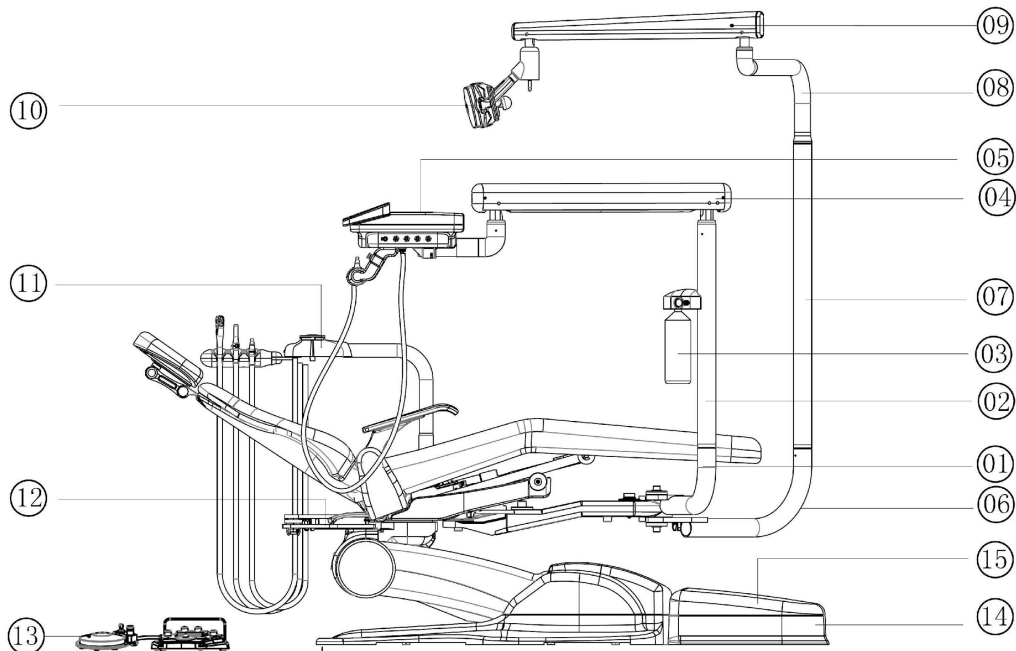
Dental Chair Box A

Dental Chair Upholstery Box B

Dental Unit / Dental Light Box C

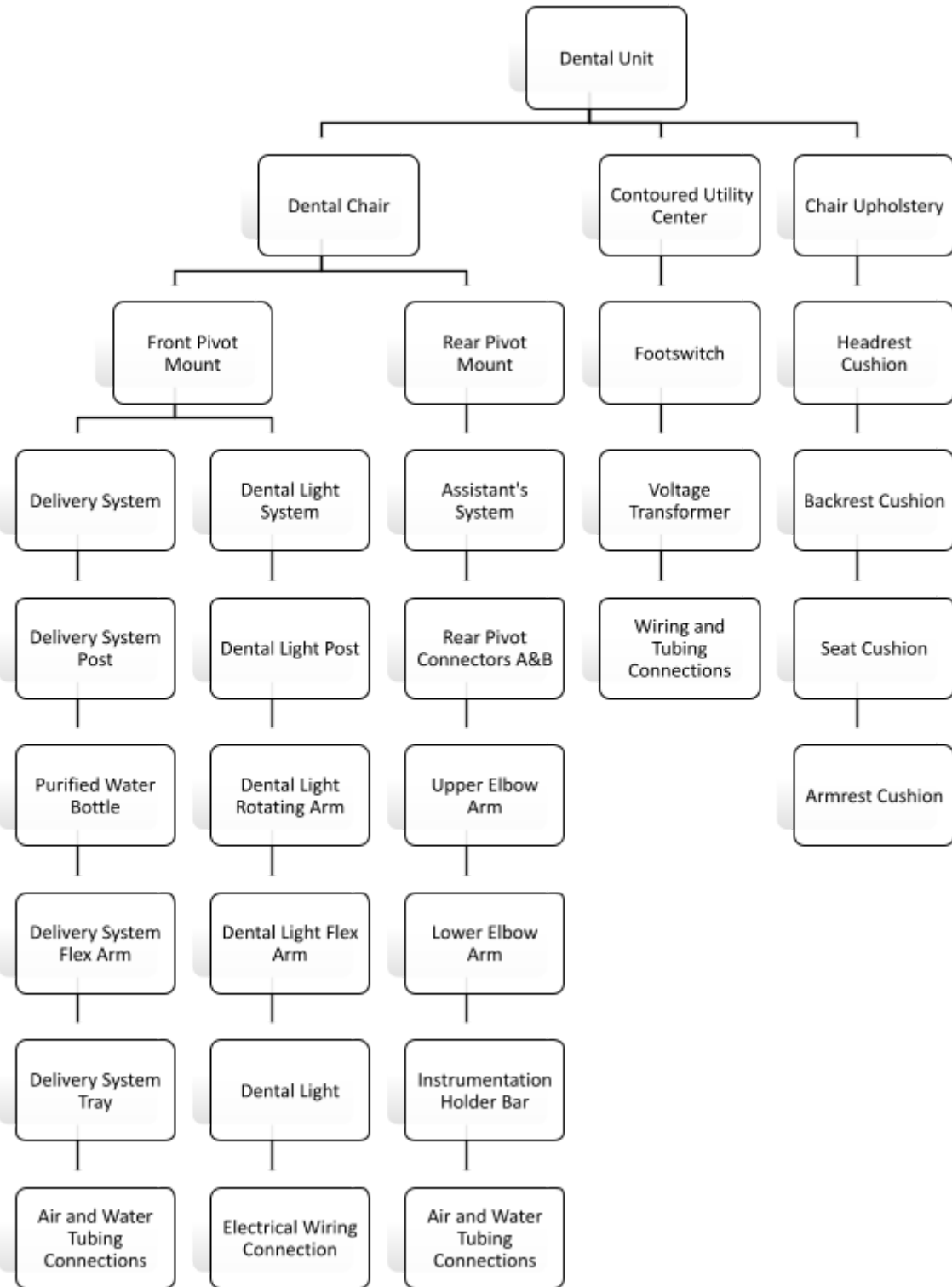
Box C contains various components as shown below:

Part Label	Component Names	Box Label	Part Label	Component Names	Box Label
①	Delivery System Elbow Arm		⑨	Dental Light Flex Arm	
②	Delivery System Post		⑩	Dental Light	
③	Purified Water Bottle		⑪	Assistant’s System Elbow Arm	
④	Delivery System Flex Arm		⑫	Rear Pivot Chair Adapter	
⑤	Delivery System Tray		⑬	Delivery System Footswitch	
⑥	Dental Light Elbow Arm		⑭	Contoured Utility Center	
⑦	Dental Light Post		⑮	Voltage Transformer	
⑧	Dental Light Rotating Arm				



Installation Flow Chart

The following installation flow chart indicates the best installation steps for the FDC-38HC unit.



Dental Chair Installation

1. Unpack Box A and verify all the components inside match with the inventory list. Make sure all the parts are in good condition with no signs of damage.
2. Use a Philips screw driver to remove 4 shipping screws ④ on the bottom of the wooden shipping pallet ③. Use scissor to cut the shipping straps ②, then move dental chair ① from the shipping pallet to the ideal location for installation.
3. Take out two connector pins ⑧ located at the bottom of the backrest ⑤. Slowly rotate backrest ⑤ so that the backrest connector holes are aligned with the seat frame support holes ⑦ as shown on Figure 1.A. Put connector pins ⑧ through the backrest connector holes and seat frame support holes on both sides. Do not forget to put nylon washers ⑥ in between of connector holes as shown on Figure 1.A.
4. Verify connector pins are installed correctly. Secure them with set screws ⑨.

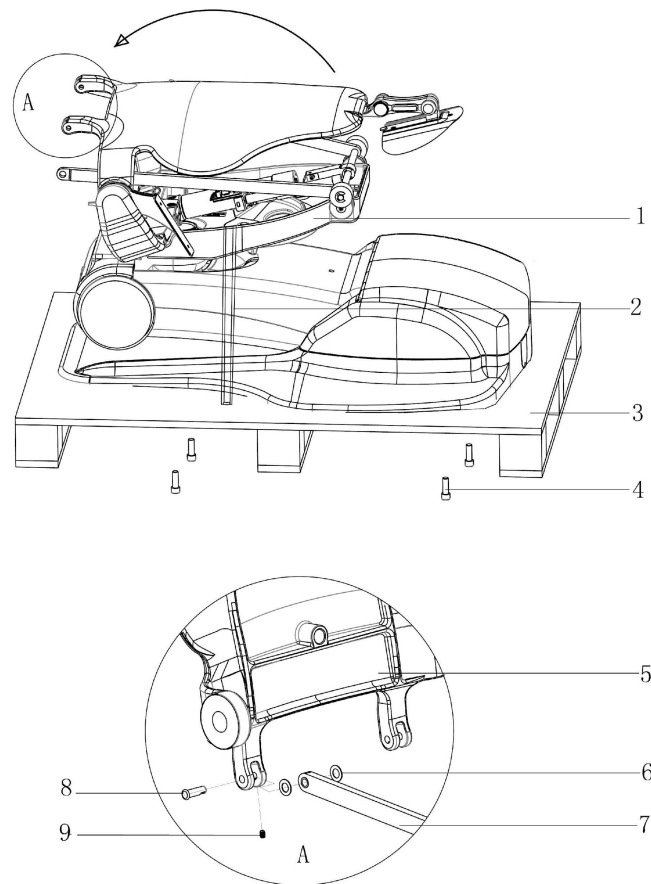


Figure 1. Dental Chair Unboxing and Assembly

- ① Dental Chair ② Shipping Straps ③ Shipping Pallet ④ Shipping Screws x 4
 ⑤ Backrest ⑥ Nylon Washers x 2 ⑦ Seat Frame Support

Dental Chair Movement Control Test

FDC-37HC dental chair movement can be controlled by a pre-programmed footswitch. Before moving on to the next step, it is important to check the chair movement functionality. Connect the power cable to the wall outlet and then test the chair movements in the following steps:

1. Push footswitch button “III”. Dental chair will automatically raise to the highest position.
2. Push footswitch button “0”. Dental chair will automatically lower to the lowest position.
3. Push footswitch button “I”. Dental chair will automatically raise and the back support will lean backward to the factory default setting 2. Push footswitch button “0” to reset.
4. Push footswitch button “II”. Dental chair will automatically raise and the back support will lean backward to the factory default setting 3. Push footswitch button “0” to reset.
5. Repeat these steps two to three times. Make sure that all movements are smooth with no abnormal noise.

Caution:

1. The dental chair hydraulic system working environment temperature is from -5°C to 40°C. If the ambient temperature is too hot or too cold, the hydraulic system might experience abnormal operation.
2. If dental chair is staying in the same position for too long, there might be air bubbles forming in the hydraulic tubes. It is normal to hear the squeaky noise from the chair movement after the chair is idled for too long. Repeat steps 1 to 4 can remove this noise.
3. It is very important the dental chair is installed correctly. It is highly recommended to replace any broken parts before proceeding to the next step to avoid unnecessary problems later.

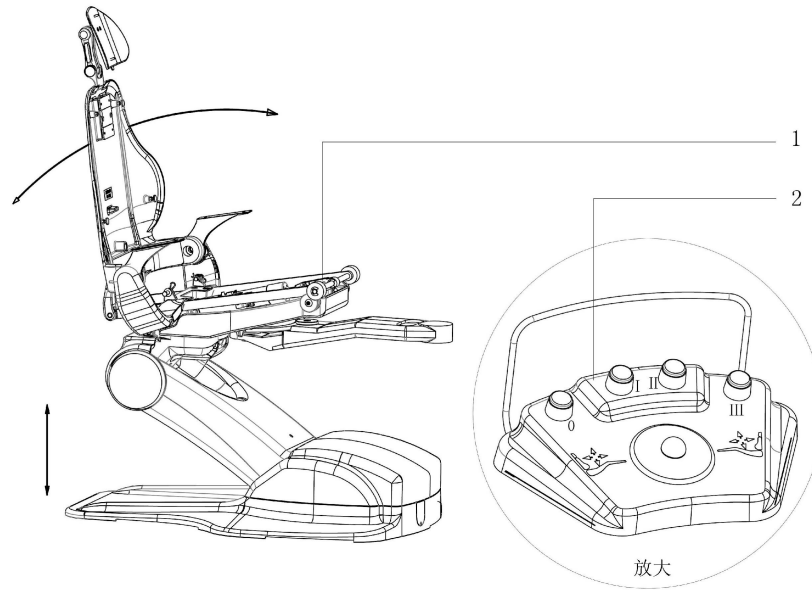


Figure 2: Dental Chair Movement Control Testing ① Dental Chair ② Chair Footswitch

FDC-601 Installation Guide

Front Pivot Elbow

Front Pivot Chair Adapter Installation and Leveling

1. Raise the dental chair to the maximum height level then disconnect the power to the chair.
2. Slightly loosen the two front pivot adapter screws ⑥. Then rotate the front pivot chair adapter to the front center of the dental chair.
3. Place a level on the front pivot adapter surface ④. Adjust three balancing screws ⑤ until the surface of the front pivot chair adapter is level.
4. While adjusting three balancing screws ⑤, tighten both front pivot adapter set screws ⑥.
5. After the adjustment is done. The front pivot adapter surface ④ should be level in all directions.

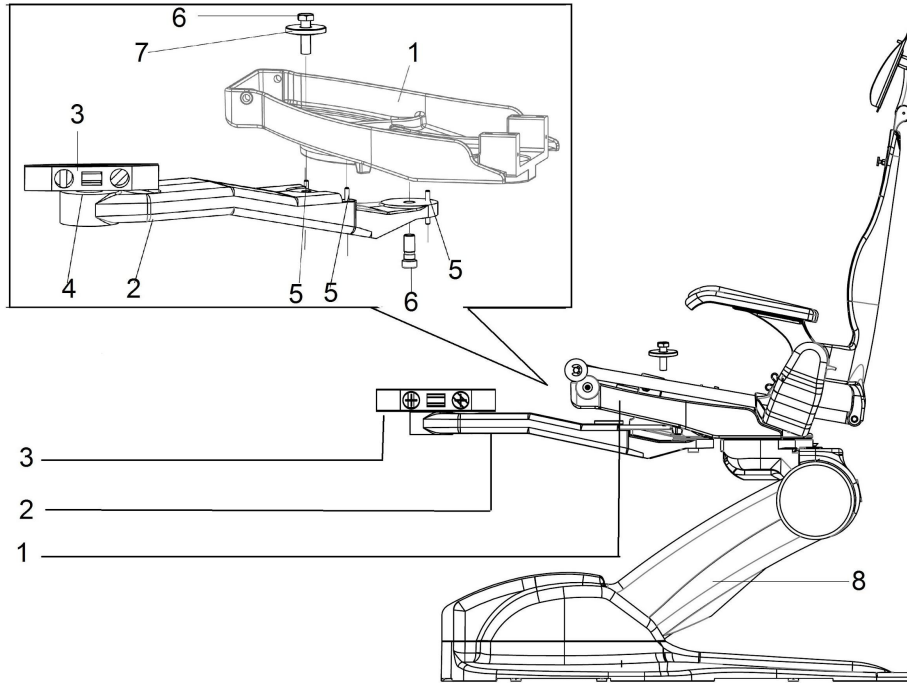


Figure 3. Front Pivot Chair Adapter Installation and Leveling

- ① Seat Support Casting
- ② Front Pivot Chair Adapter
- ③ Level
- ④ Front Pivot Adapter Surface
- ⑤ Front Pivot Chair Adapter Balancing Screws x 3
- ⑥ Front Pivot Adapter Screws x 2
- ⑦ Washer
- ⑧ Dental chair

Front Pivot Elbow Installation

Box 7: Delivery System Elbow Arm

1. Install the rotation base ① on top of the front pivot chair adapter with two rotation base fasteners ②.
2. One at a time, place the following in the orderly manner on the rotation base ①. Flat bearing ③, delivery system elbow arm ④, flat bearing ③, end cap ⑤, washer ⑥.
3. Install and secure everything with a flat head set screw ⑦.

Box 7: Dental Light Elbow Arm

4. Install the rotation base ① on the bottom of the front pivot chair adapter with two rotation base fasteners ②.
5. One at a time, place the following in the orderly manner on the rotation base ①. Flat bearing ③, delivery system elbow arm ④, flat bearing ③, end cap ⑤, washer ⑥.
6. Install and secure everything with a flat head set screw ⑦.

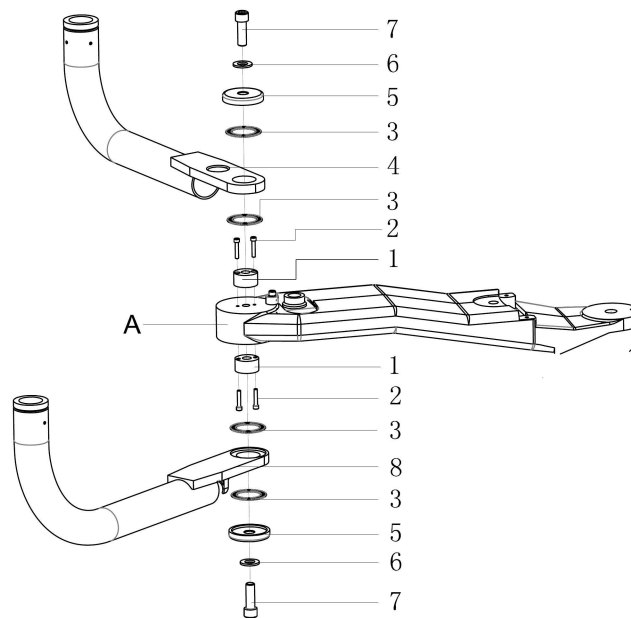


Figure 4. Delivery System Elbow Arm and Dental Light Elbow Arm Installation

- | | | |
|---------------------------|-----------------------------|------------------------------|
| Front Pivot Chair Adapter | ① Rotation Base x 2 | ② Rotation Base Fastener x 4 |
| ③ Flat Bearing x 4 | ④ Delivery System Elbow Arm | ⑤ End Cap x 2 |

⑥ Washers x 2

⑦ Flat Head Set Screws x 2

⑧ Dental Light Elbow Arm

FDC-601 Installation Guide

Delivery System, Front Pivot Mount

Post and Flex Arm Installation

Box 10: Delivery system post; Box 9: Purified water bottle; Box 1: Delivery system flex arm

1. Push the delivery system post ③ into the delivery system elbow arm ⑥ with a nylon washer ⑦, then secure the delivery system post ③ with two set screws ①.
2. Take out the air and water tubing from the water bottle connection locates on the post, and put the tubes into the water bottle. Secure the purified water bottle ② by turning counterclockwise. (Bottle can be filled with purified water during this installation)
3. While holding up the delivery system flex arm ⑤. Pull all the wires and tubes through the inside of the post to the hole at the end of the delivery system elbow arm. Put the flex arm ⑤ into the post ③.
4. Slightly tighten the set screw ④ so that flex arm rotation movement is achieved but secured. Rotate the flex arm several times to make sure the rotation movement is smooth and secured.

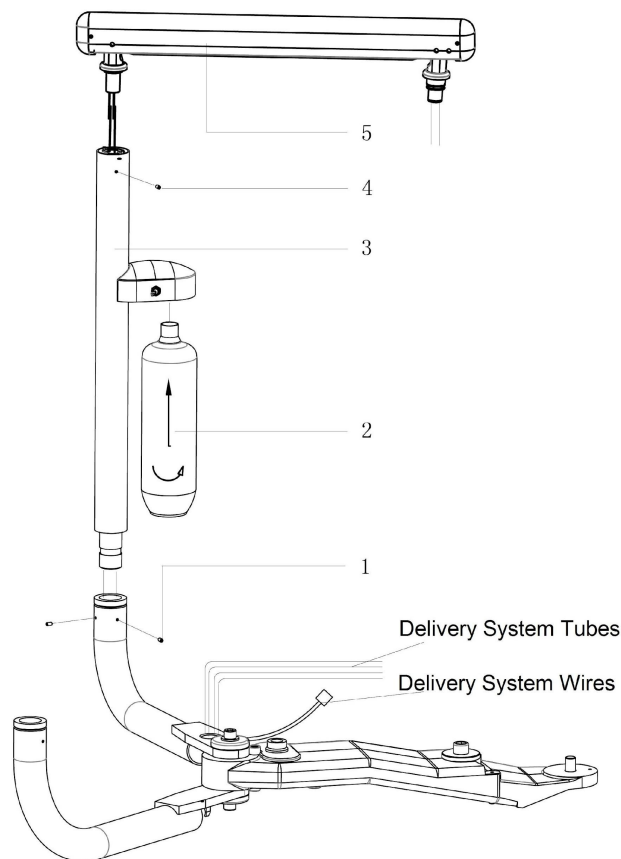


Figure 5: Delivery System Installation

- ① Set Screw x 2 ② Purified Water Bottle ③ Delivery System Post ④ Set Screw
- ⑤ Delivery System Flex Arm ⑥ Delivery System Elbow ⑦ Nylon Washer

FDC-601 Installation Guide

Delivery System, Front Pivot Mount

Tray Installation

Box 5: Delivery system tray

1. Remove six screws ④ from the bottom of the delivery system tray ③ and save them for installation later.
2. Lift up the tray upper cover ② and unplug the cable connector.
3. Set the upper cover and six screws aside for later use on installation.
4. Push all of the tubes and wires from the delivery system flex arm into the tray.
5. Install the tray to the flex arm ①, then secure the connection with the set screw ⑤.
6. Adjust the set screw to allow smooth tray rotation movement. The goal is to allow the tray to rotate easily while it has a secured connection.

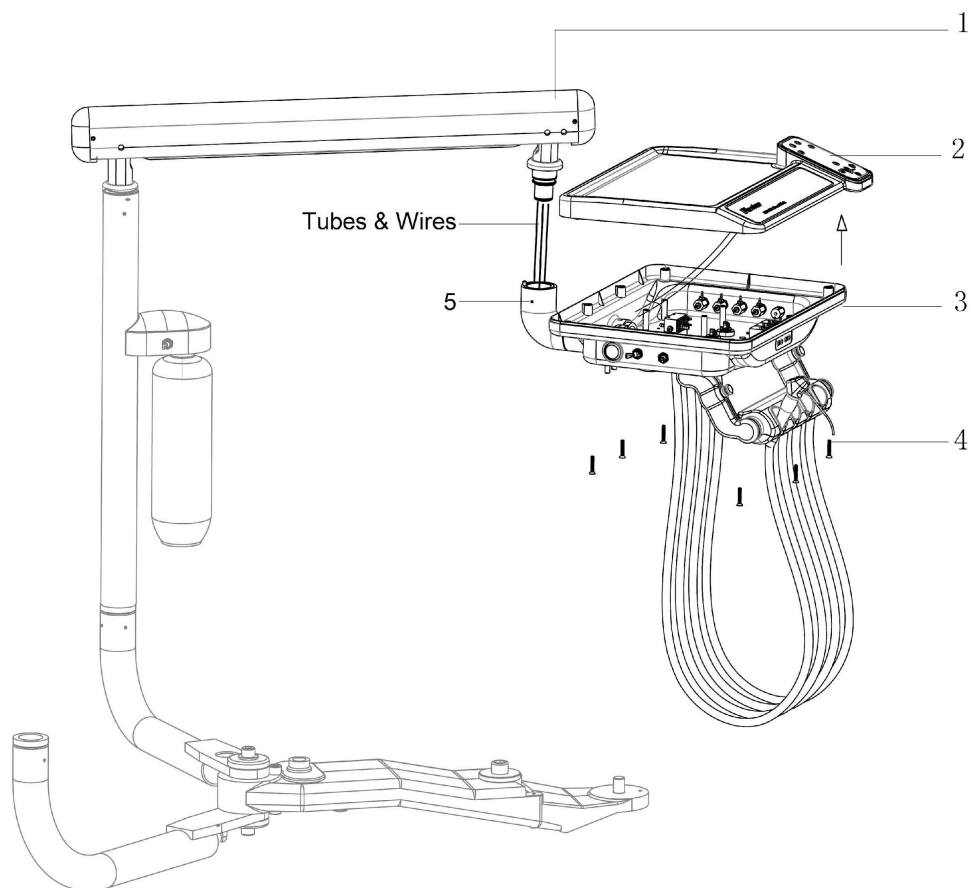


Figure 6. Delivery System Tray Installation

① Delivery System Flex Arm

② Delivery System Tray Upper Cover

③ Delivery System Tray (Doctor Control Head)

④ Upper Cover Locking Screw x 6

⑤ Set Screw

FDC-601 Installation Guide

Delivery System, Front Pivot Mount

Tube Connections

Refer to the following steps and Figure 7, connect the water and air tubing to the corresponding locations. Remember to put a nylon straight union on each tubing terminal to ensure leak proof connections.

1. Connect 1/8 yellow tube to the toggle momentary valve joint ①
2. Connect 1/4 blue tube to the “selector” valve 1/8 vertical joint ④
3. Connect 1/8 blue tube to the cross connector upper joint ②
4. Connect 1/8 brown tube to the 1/16 nylon straight union ③
5. Connect 1/8 orange tube to handpiece control block 1/16 upper joint ⑥
6. Connect 1/4 transparent tube to handpiece control block 1/8 upper joint ⑥
7. Connect 1/8 red tube to shuttle valve horizontal joint ⑤
8. Connect 1/8 blue tube (from water bottle) to “selector” valve horizontal joint ④
9. 1/8 grey tube is for spare use, no connection is needed.

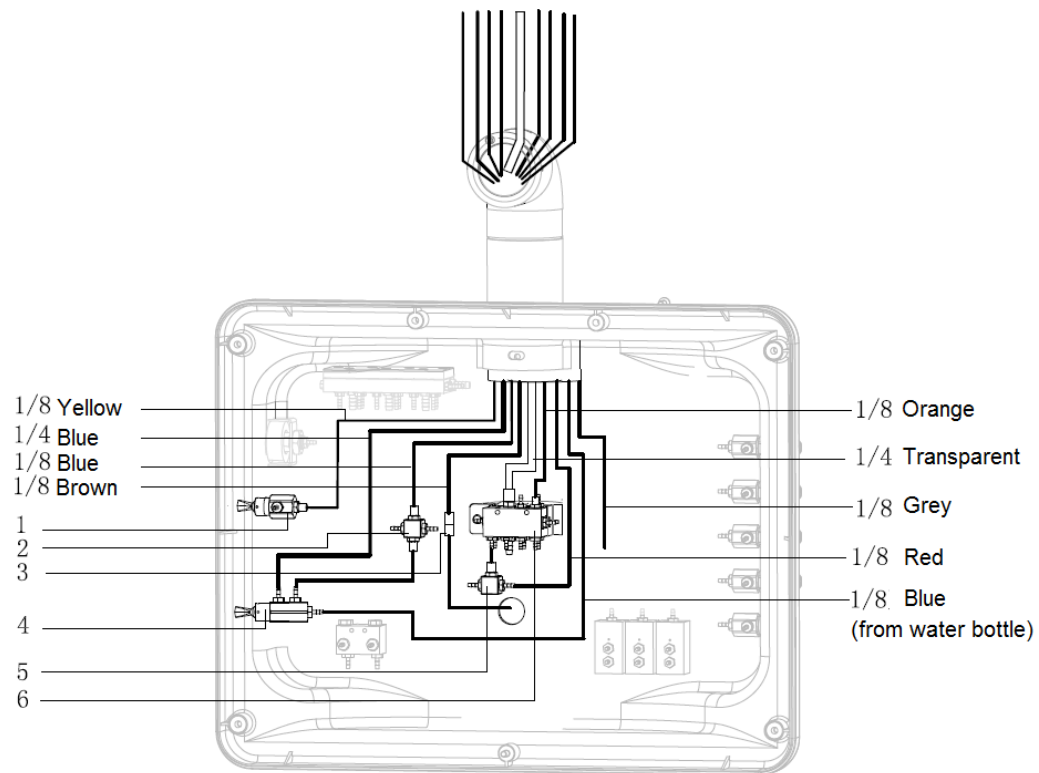


Figure 7. Delivery System Tray Tube Connections

- ① Toggle Momentary Valve (Master On/Off)
- ② Cross Connector
- ③ Nylon Straight Union
- ④ Toggle Routing "Selector" Valve
- ⑤ Shuttle Valve
- ⑥ Handpiece Control Block

FDC-601 Installation Guide

Delivery System, Front Pivot Mount

Wire Connections

Connect the 7-pin male connector ① from the tray upper cover cable back to the 7 pin female connector located on the delivery system tray circuit board ②.

Place the upper cover over the delivery system tray and secure it with the six screws. (Refer to Figure 6 for part identification)

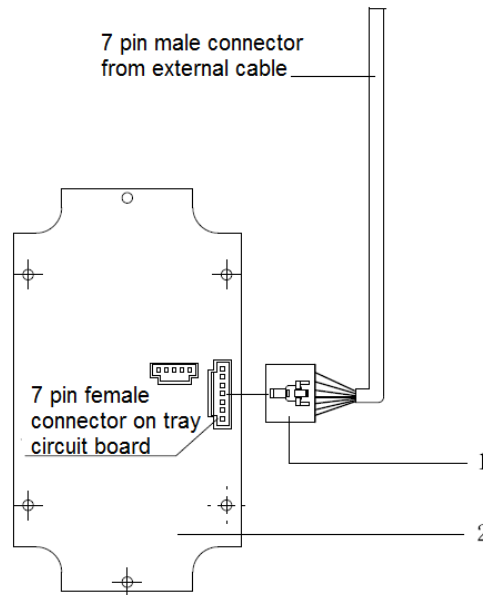


Figure 8. Delivery System Tray Wire Connection

- ① 7 Pin Male Connector
- ② Delivery System Tray Circuit Board

Note:

The 7-pin male connector cable is attached to the delivery system upper cover. This connector was disconnected in order to remove the upper cover from the tray. Make sure the cable is connected back to the circuit board as before.

There should be no power to these cables because the dental chair power cable is not connected to the delivery system.

Test of the touchpad control can be done after the completion of all installations. Refer to the user manual for more information.

Post and Rotating Arm Installation

Box 2: Dental Light Post & Post Gasket Ring X 2

Box 1: Dental Rotating Arm & Cosmetic Beauty Ring

1. Put a flat washer ④ on the lower end of the dental light post ③.
2. Insert the dental light post ③ into the dental light elbow arm ①.
3. Install the set screw ② to secure the light post ③.
4. Put the decorative ring ⑤ and a flat washer ④ on the lower end of the dental light rotating arm ⑥.
5. Insert the dental light rotating arm ⑥ into the dental light post ③.

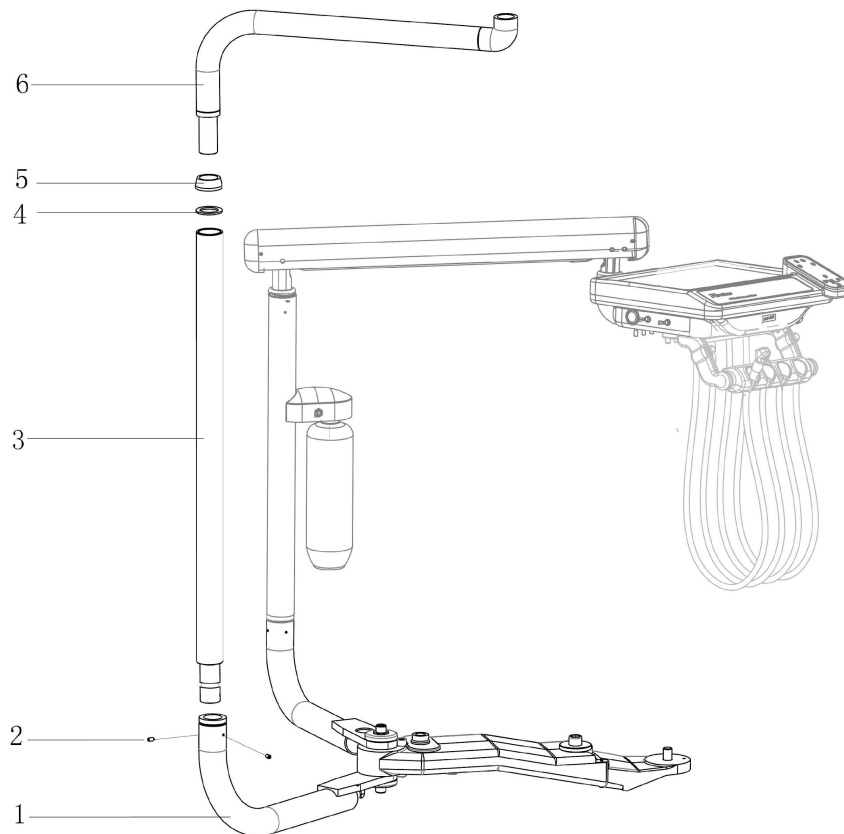


Figure 9. Dental Light Post & Rotating Arm Installation

① Dental Light Elbow Arm ② Set Screw x 2 ③ Dental Light Post

④ Flat Washer x 2

⑤ Decorative Ring

⑥ Dental Light Rotating Arm

FDC-601 Installation Guide

Dental Light System, Front Pivot Mount

Dental Light and Flex Arm Installation

Box 1: Dental Light Flex Arm; Box 6: Dental Light

1. While holding up the flex arm ②, pull all the wires through the inside of the rotating arm ①, and light post to the dental light elbow arm's opening, then insert the flex arm ② into the rotating arm ①. (See Figure 10)
2. Remove the four light switch screws ⑧ and save them for installation later.
3. Pull all the wires from the flex arm ② into the dental light wiring compartment.
4. Insert the dental light upward into the flex arm connection.
5. Install the set screw ⑦ and adjust it for smooth rotation movement on the dental light. The goal is to allow easy relocation of the dental light while having it lock in the final position.
6. Remove the other set screw (8-32x1/4") from the plastic bag, and install it in the same location as the previous set screw to lock the last screw in place.
7. Connect dental light male ⑤ and female ⑥ connectors together as shown on Figure 10.
8. Connect electrical wire ④ to the dental light on/off switch pin ③.
9. Reinstall four light switch screws ⑧ to the switch housing.

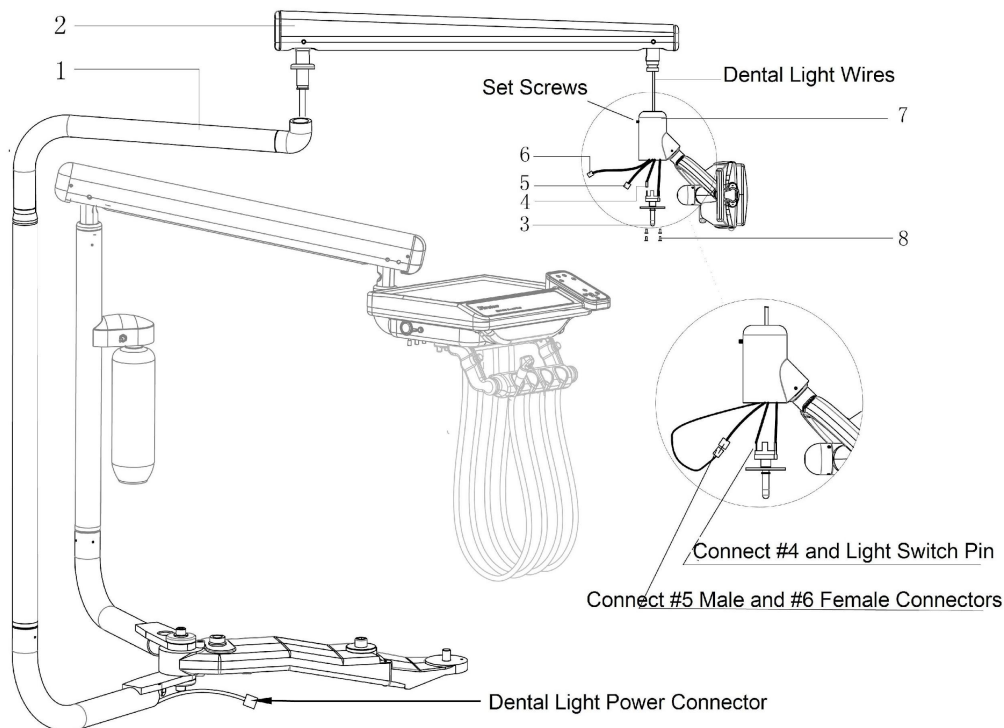


Figure 10. Dental Light and Flex Arm Installation

- ① Dental Light Rotating Arm
- ② Dental Light Flex Arm
- ③ ON/OFF Switch
- ④ External Wire Female
- ⑤ Male Connector
- ⑥ Female Connector
- ⑦ Set Screw
- ⑧ Light Switch Screws x 4

FDC-601 Installation Guide

Dental Light System, Front Pivot Mount

Tube and Wire Connection

1. Remove the big corrugated tubing secured cover ② by removing two lock screws ⑦.
2. Connect all the tubes and wires together according to the chart shown on Figure 11. Push all the nylon straight unions and electrical connectors into their associated corrugated tubing after all connections are done.
3. Install the big corrugated tubing secured cover ② with two lock screws ⑦. Install the small corrugated tubing into the small corrugated tubing connection.

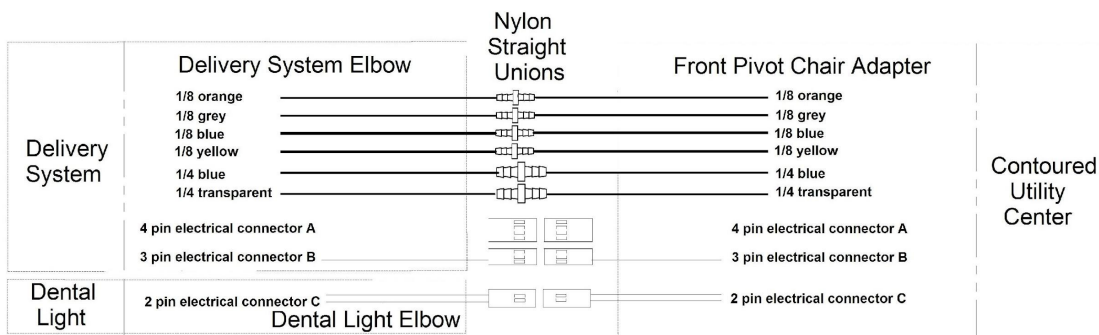
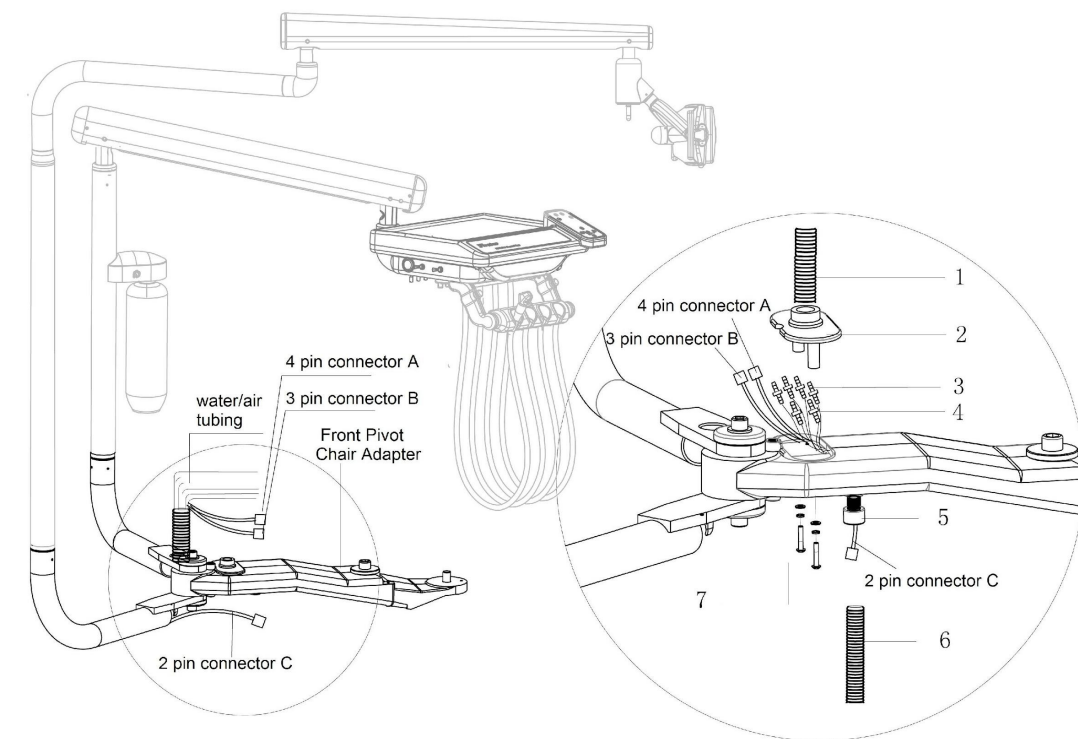


Figure 11. Delivery System & Dental Light Tube and Wire Connection

- ① Big Corrugated Tubing
- ② Big Corrugated Tubing Secured Cover
- ③ 1/16 Nylon Straight Unions x 4
- ④ 1/8 Nylon Straight Unions x 2
- ⑤ Small Corrugated Tubing Connection
- ⑥ Small Corrugated Tubing
- ⑦ Big Corrugated Tubing Secured Cover Lock Screws x 2

FDC-601 Installation Guide

Rear Pivot Elbow

Rear Pivot Chair Adapter Installation

Box 4: Rear Pivot Chair Adapter

1. Place the Rear Pivot Chair Adapter ③ on top of the dental chair adapter connection.
2. Align the two screw holes on the adapter with the connection.
3. Install the Rear Pivot Chair Adapter ③ to the dental chair ① with two button head screws ② as shown on Figure 12.

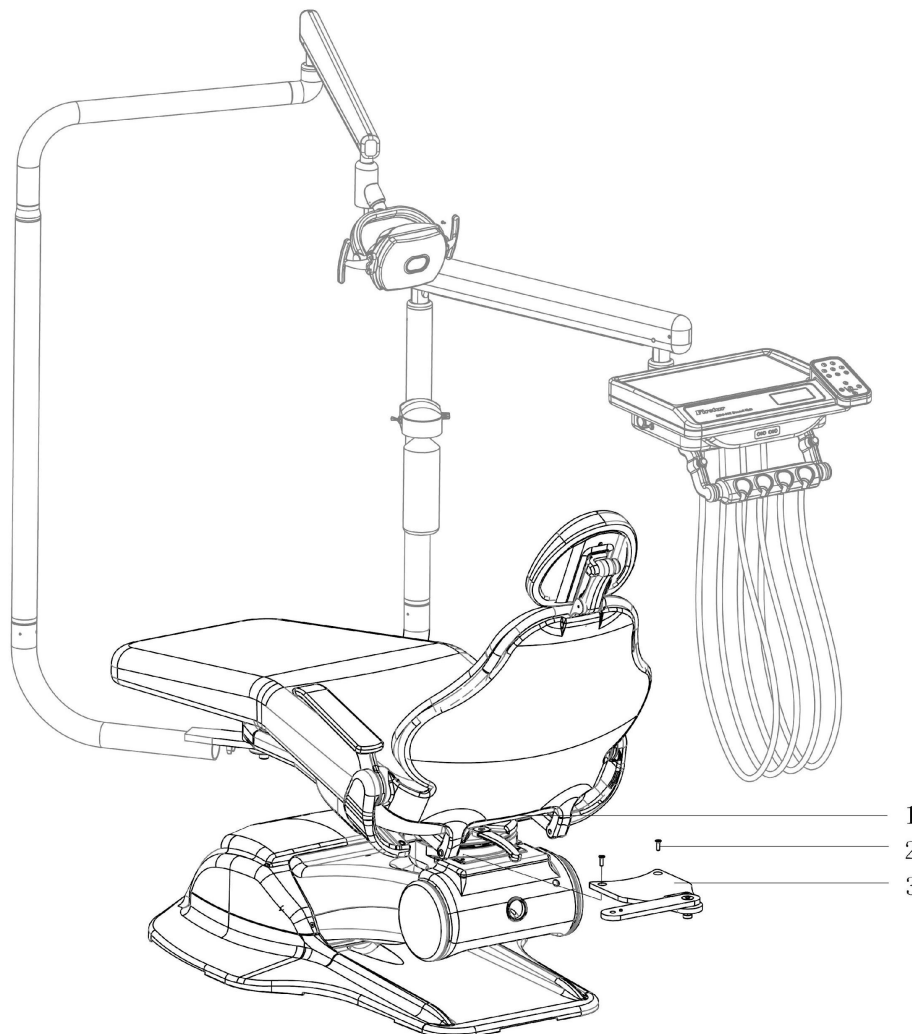


Figure 12. Assistant's System Rear Pivot Chair Adapter Installation

① Dental Chair

② Button Head Screws x 2

③ Rear Pivot Chair Adapter

FDC-601 Installation Guide

Rear Pivot Elbow

Assistant's System Support Arms Installation

Box 3: Assistant's system support arms

1. Put two flat bearing washers ④ on top and bottom of the rear pivot chair adapter ①.
2. Put the assistant's system lower elbow ⑤ on top of the rear pivot chair adapter ①.
3. Install the lower elbow ⑤ to the rear pivot chair adapter ① with the flathead screw ②, flat bearing washers and the nylon lock nut according to Figure 13.
4. Insert the assistant's system upper elbow ⑦ into the lower elbow ⑤. Slightly tighten the set screw ⑥ to allow rotating movement with the lower elbow. Rotate the upper elbow several times to make sure the rotation movement is smooth and secured.

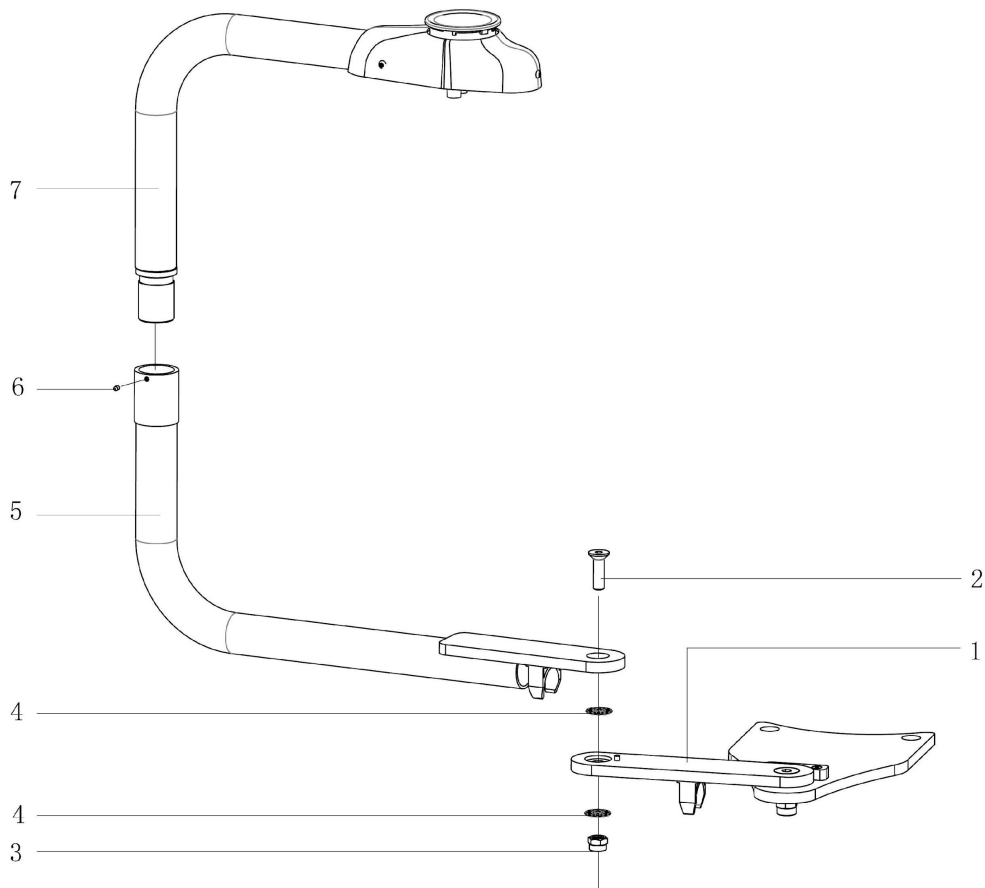


Figure 13. Assistant's system upper and lower elbow installation

① Rear Pivot Chair Adapter

② Flat Head Screw

③ Nylon Lock Nut

④ Flat Bearing Washer x 2

⑤ Lower Elbow

⑥ Set Screw

⑦ Upper Elbow

FDC-601 Installation Guide

Assistant's Instrumentations, Rear Pivot Mount

Corrugated Tubing and Tubes Installation

1. To remove the vacuum canister ⑦, do the following steps:
 - a. Turn and remove the vacuum canister cover ⑥ then remove solid collector ⑤.
 - b. Remove 3 screws ③ on the decorative cover to remove the decorative cover ④.
 - c. Remove 4 screws ⑬ and washers ⑪ & ⑫ at the bottom of canister holder ①.
2. Push the corrugated tubing and double tubes from the dental chair ⑮ through the lower and upper elbow.
3. Connect the corrugated tubing ② to the vacuum canister ⑦, and then connect the double tubes with a 3-way syringe double tubes.
4. Install the instrument holder ⑭ to the upper elbow with 3 screws ⑧, 3 spring washers ⑨ and 3 flat washers ⑩.
5. Put the vacuum canister ⑦ and solid collector ⑤ back to its original location.
6. Install the decorative cover ④ with cover screws ③.
7. Install Vacuum canister cover ⑥ by turning it clockwise.

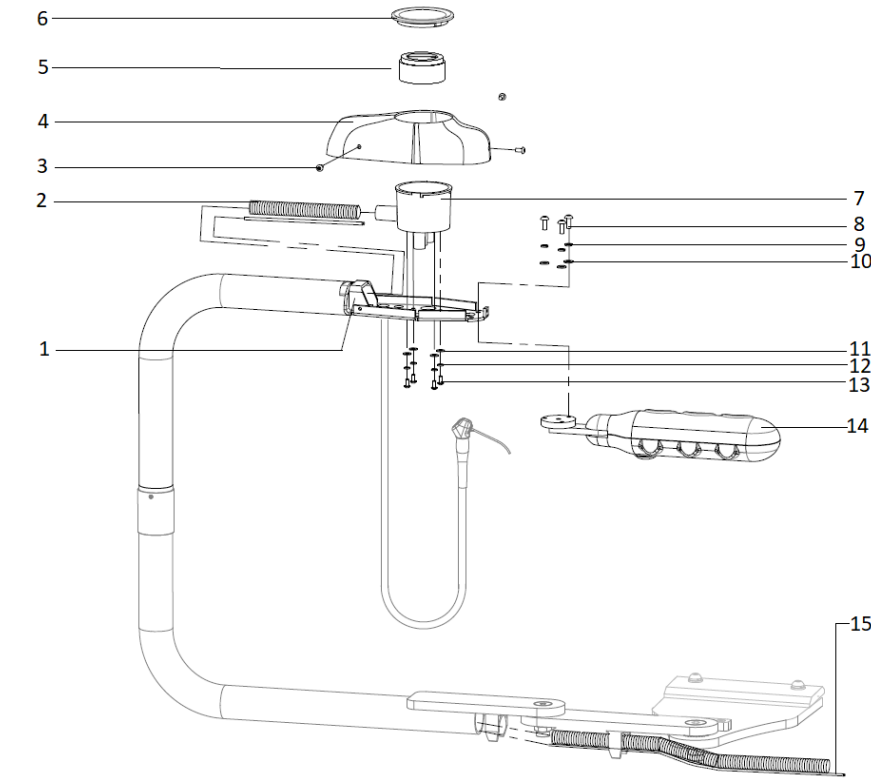


Figure 14. Corrugated tubing, tubing and handpiece holder installation

- | | | |
|----------------------------------|---------------------|-------------------------|
| ① Vacuum Canister Support Holder | ② Corrugated Tubing | ③ Cover Screws x 3 |
| ④ Decorative Cover | ⑤ Solid Collector | ⑥ Vacuum Canister Cover |
| ⑦ Vacuum Canister | ⑧ Screws x 3 | ⑨ Spring Washer x 3 |
| ⑩ Flat Washer x 3 | ⑪ Flat Washer x 4 | ⑫ Spring Washer x 4 |
| ⑬ Screws x 4 | ⑭ Instrument Holder | ⑮ Tubing |

FDC-601 Installation Guide

Assistant's Instrumentation, Rear Pivot Mount

HVE and SE Tubes Installation

1. Connect the HVE tubing to the high suction tube nipple on the bottom of the vacuum canister.
2. Connect the SE tubing to the low suction tube nipple on the bottom of the vacuum canister.
3. Place all three instruments (3-way air/water syringe, HVE and SE) on the assistant's instrument holder.

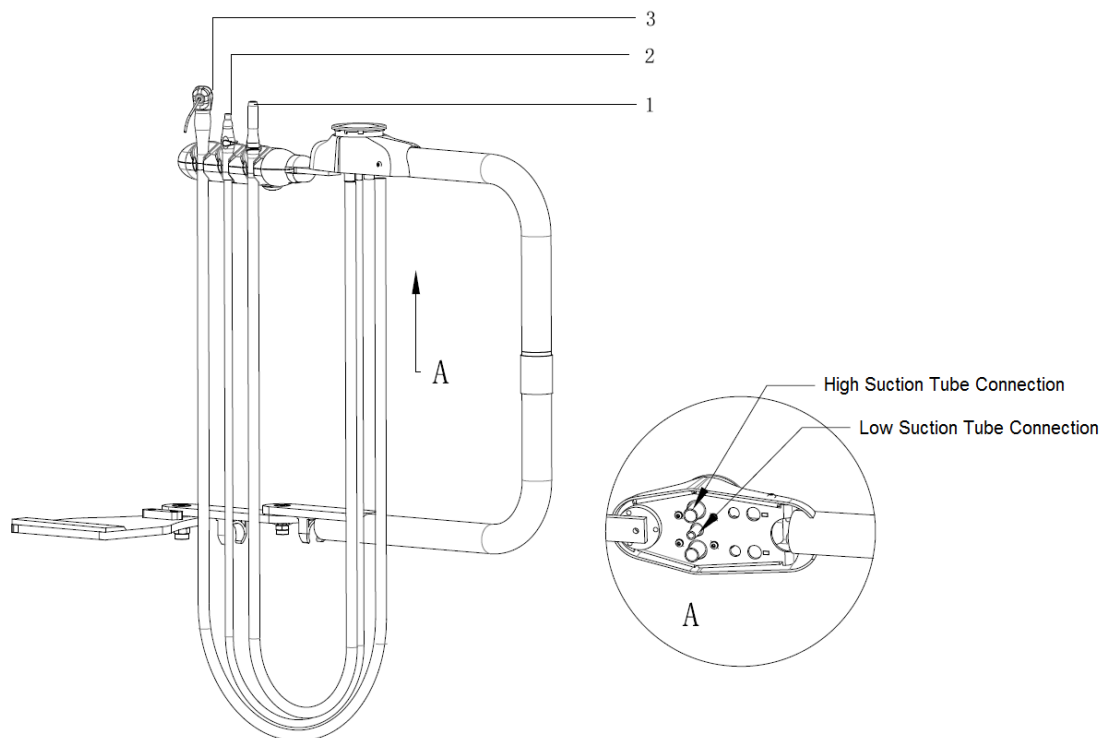


Figure 15. High and Low Suction Tube Connections

- ① High-Volume Evacuator (HVE)
- ② Saliva Ejector (SE)
- ③ 3-Way Air/Water Syringe

Note:

To test and adjust the water/air pressure for the assistant's instruments, please refer to the user manual for more information.

Contoured Utility Center Installation

Caution: Before install the contoured utility center, make sure that the water and air supply piping are clean and free of debris.

Box 4: Contoured utility center

Box 8: Voltage transformer

1. Remove the contoured utility center upper cover ④ from the base ② by pushing it as shown on Figure 16.
2. Remove four button head screws on the air/water valve and the shipping bar.
3. Remove the plastic covers on the air and water master valves.
4. Connect both air and water master valves to the associated supply pipes.
5. Connect both air and water solenoid valves to air and water master valves.
6. Install the 2" corrugated tubing ⑥ to the contoured utility center.
7. Lock the contoured utility center in place by installing locking screws.
8. Install the voltage transformer ③ in the specified location shown on Figure 16.

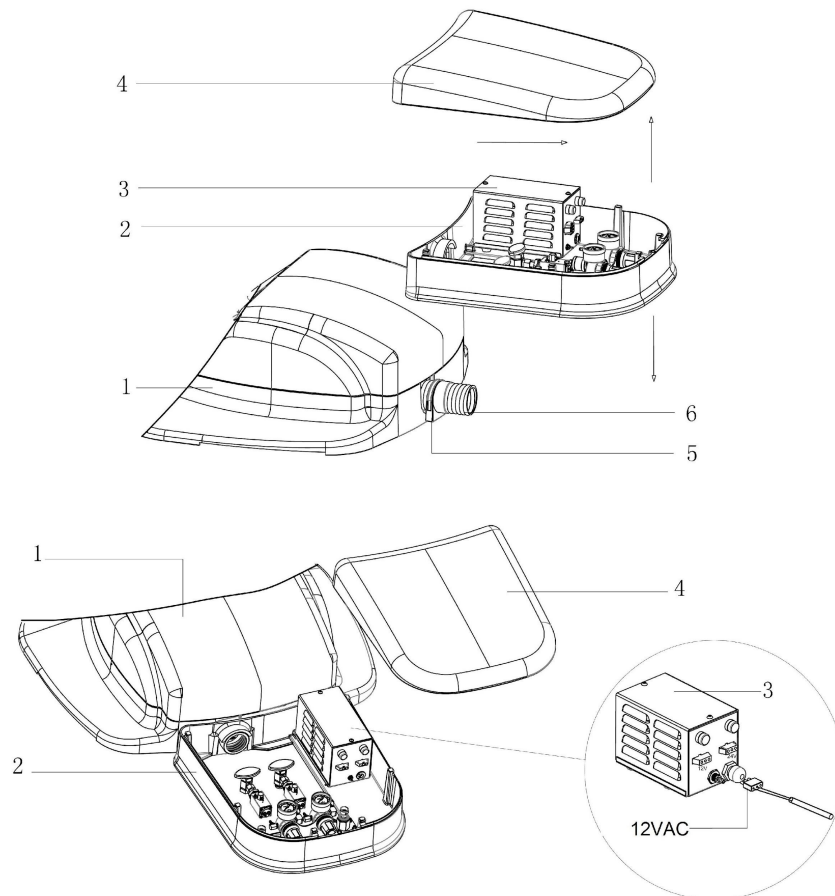


Figure 16. Contoured utility center Installation

① Dental Chair

② Contoured Utility Center Base

③ Voltage Transformer

Tubing Connection

Refer to the following steps to connect the air and water tubing between the contoured utility center and the dental chair:

1. Connect 1/8 orange tube to the water controlled valve left connection fitting.
2. Connect 1/4 blue tube to the water pressure regulator right connection fitting.
3. Connect 1/8 yellow tube to the air controlled valve side connection fitting.
4. Connect 1/8 blue tube to the double syringe tube with a nylon straight union.
5. Connect the other double syringe tube to the 3-way valve upper connection fitting.
6. Connect 1/4 transparent tube to one of the footswitch double tubes.
7. Connect the other footswitch double tube to the 1/4 yellow tube via nylon straight union.
8. Connect 1/4 yellow tube to the 3-way valve right connection fitting.
9. Use 1/4 yellow tube to connect 3-way valve left fitting and the air pressure regulator.
10. Use 1/8 orange tube to connect air controlled valve right fitting and voltage transformer.
11. Use 1/8 orange tube to connect water controlled valve and air controlled valve.
12. Use 1/4 blue tube to connect water regulator and water controlled valve.
13. Use 1/4 yellow tube to connect air regulator and air controlled valve.

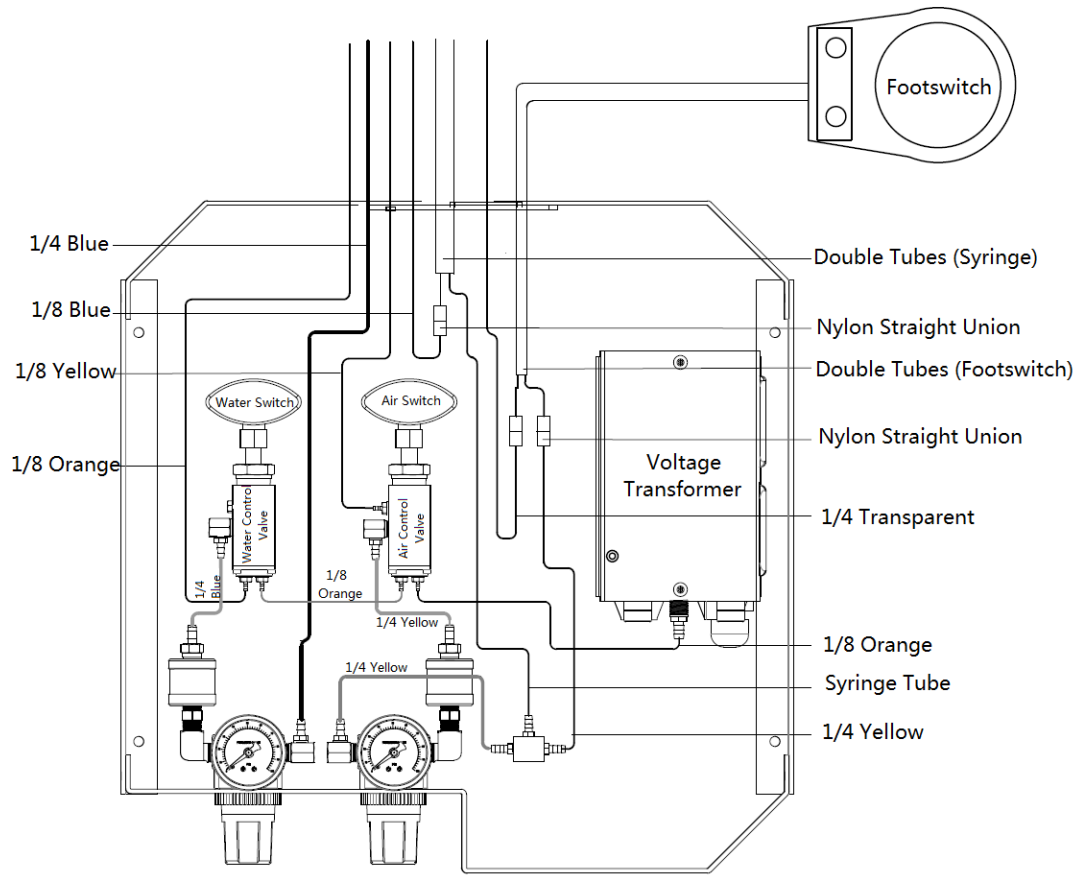


Figure 17. Contoured Utility Center Tubing Connection

1. Place a level on the delivery system post ① to check for vertical straightness.
2. To adjust vertical straightness, slightly loosen the two front pivot chair adapter screws ②.
3. Adjust the three balancing screws ③ located on the bottom to achieve a minimum of 95% vertical straightness. Do these steps several times to achieve maximum accuracy.
4. Tighten the front pivot chair adapter screws ② when vertical straightness is complete.
5. Place a level on the delivery system tray to check for horizontal straightness.
6. To adjust horizontal perpendicular, first put a level on the tray in the perpendicular position compare to the flex arm. Slightly loosen two tray set screws ④, then reposition the delivery system tray to achieve maximum horizontal perpendicular balance. Tighten the set screws after leveling is complete.
7. To adjust horizontal parallel, first put a level on the tray parallel to the flex arm. Remove the flex arm end cover. Slightly adjust both balancing screws ⑤ and ⑥ to achieve maximum horizontal parallel balance. Install the end cover after balancing is complete.

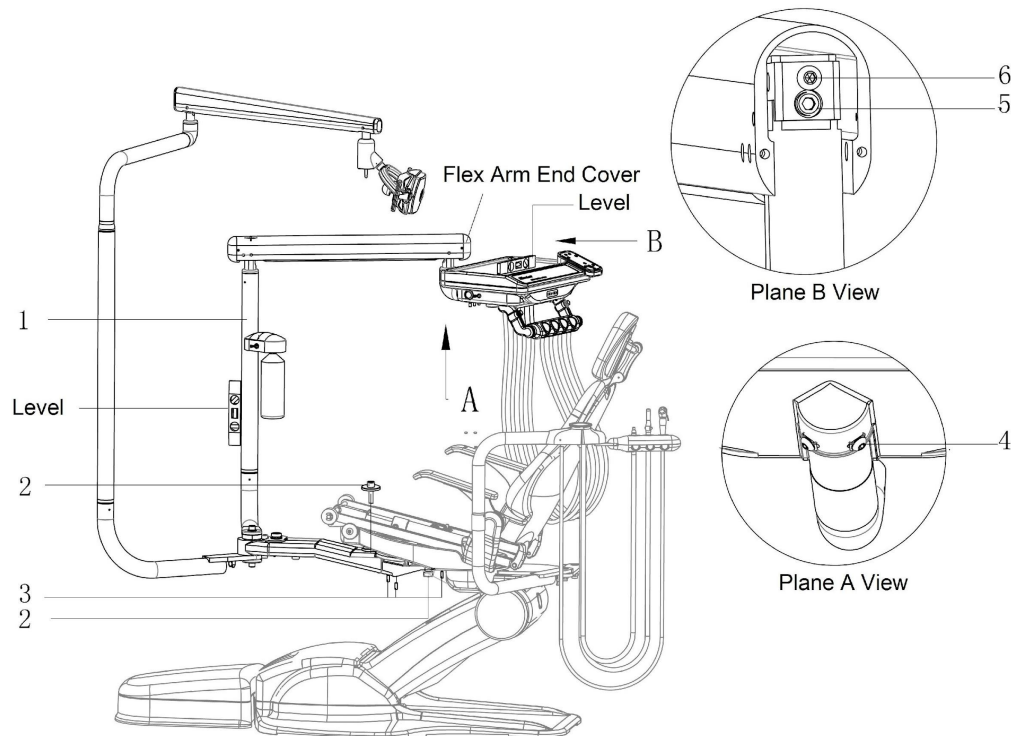


Figure 18. Unit Vertical Straightness and Horizontal Leveling Adjustment

- | | |
|--|--|
| ① Delivery System Post | ② Front Pivot Chair Adapter Screws x 2 |
| ③ Front Pivot Chair Adapter Balancing Screws x 3 | ④ Set Screw x 2 |

Headrest Cushion

1. Rotate the headrest support ② to allow access to the two screw holes.
2. Align the headrest cushion ① mounting holes with the headrest support ②.
3. Install the upper screw on the headrest support.
4. Install the lower screw on the headrest support.
5. Tighten both screws ③.

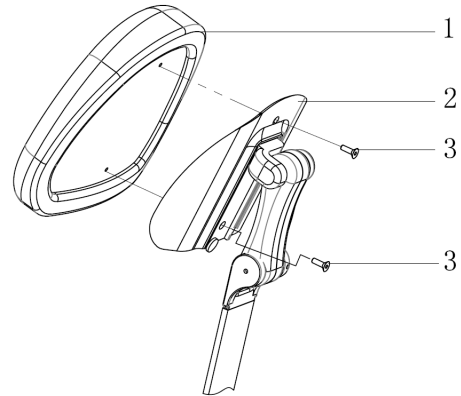


Figure 19. Headrest cushion installation

- ① Headrest Cushion ② Headrest Support
③ Screws x 2

Backrest Cushion

1. Remove the headrest support before doing the backrest cushion installation.
2. Raise the dental chair and the backrest support ② upward with the footswitch.
3. Put the backrest cushion ① on the backrest support and align 4 button studs ④ with the 4 holes ③ on the black cushion.
4. Gently push down on the backrest cushion until they latched properly.
5. Install the headrest support.

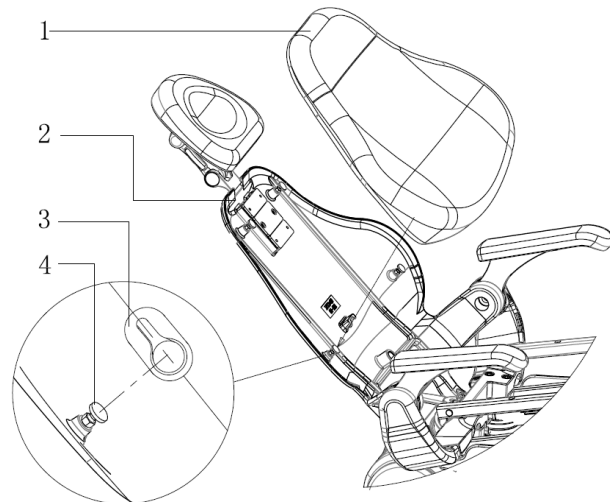


Figure 20. Backrest cushion installation

- ① Backrest Cushion ② Backrest Support
③ Button Holes ④ Button Studs

Warning: All 4 button studs need to be latched properly. Do not loosen any of the button studs.

Seat Cushion

1. Put the seat frame ① on the side of the yoke casting ③.
2. Align two screw holes as indicated on Figure 21. Detail A.
3. Place a washer ④ between the seat frame and the yoke casting.
4. Install a connecting pin ② through the hole on each side of the chair.
5. Install an R latch ⑤ through the hole on the connecting pin on both sides.
6. Put the seat cushion ⑦ on top of the seat support.
7. Align all 5 screw holes between the seat support frame and the seat cushion.
8. Install 3 screws loosely at the front of chair.
9. Lift up the seat support, then secure the other 2 screws at the back.
10. Tighten all 5 screws ⑥.

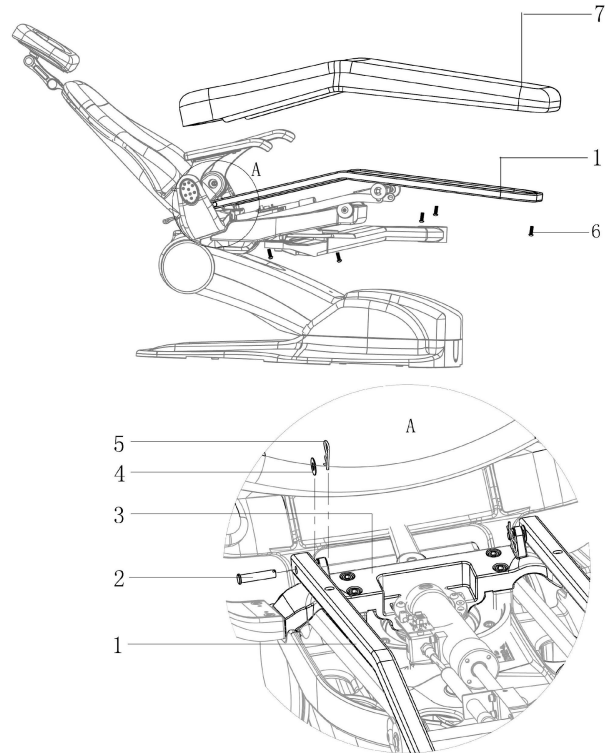


Figure 21. Seat Cushion Installation

- ① Seat Frame ② Connecting Pin x 2
- ③ Yoke Casting ④ Nylon Washer x 2
- ⑤ R Latch x 2 ⑥ Screws x 5 ⑦ Seat Cushion

Armrest Cushion

1. Put the armrest cushion ① on top of the armrest support ②.
2. Align screw holes on the armrest cushion with the armrest support.
3. Install both screws.
4. Tighten both screws ③.
5. Install the other armrest cushion in the same manner.

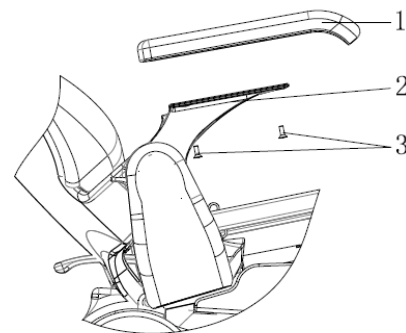
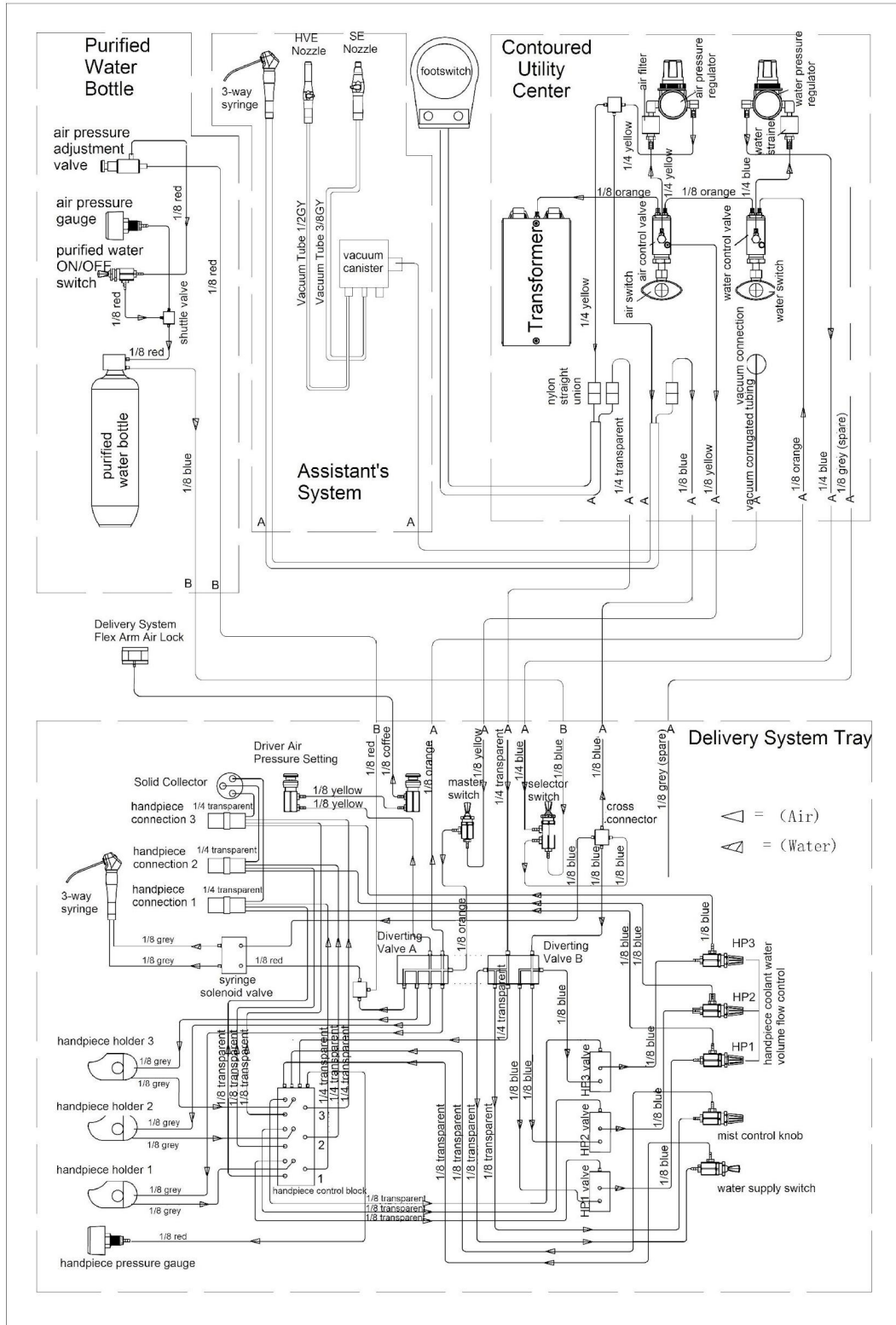


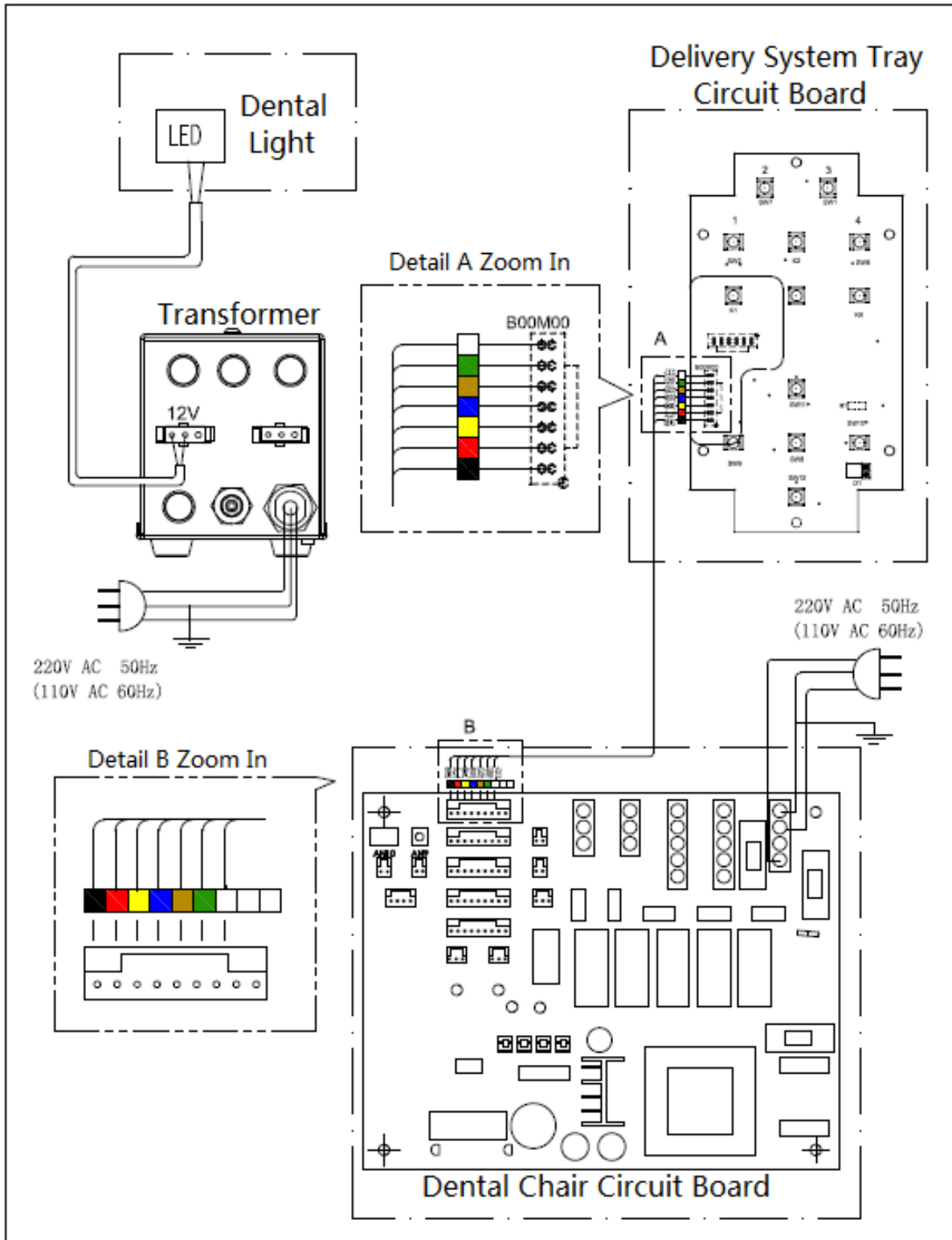
Figure 22. Armrest Cushion Installation

- ① Armrest Cushion ② Armrest Support
- ③ Screws x 4

Dental Unit Overall Tubing Diagram



Circuit Board Schematics



Installation Completion Checklist**Dental Chair**

- Voltage Transformer has met specified rating.
- Contoured utility center compressed air pressure has met specified requirements.
- Contoured utility center vacuum piping is connected correctly.
- Contoured utility center wirings are connected correctly.

Delivery System

- Delivery system is balanced and level.
- Delivery system rotation movement is smooth and secured.

Assistant's System

- All the handpieces are functioning properly.
- Assistant's system rotation movement is smooth and secured.

Dental Light System

- Dental light system rotation movement is smooth and secured.
- Dental light brightness level adjustment is functioning properly.