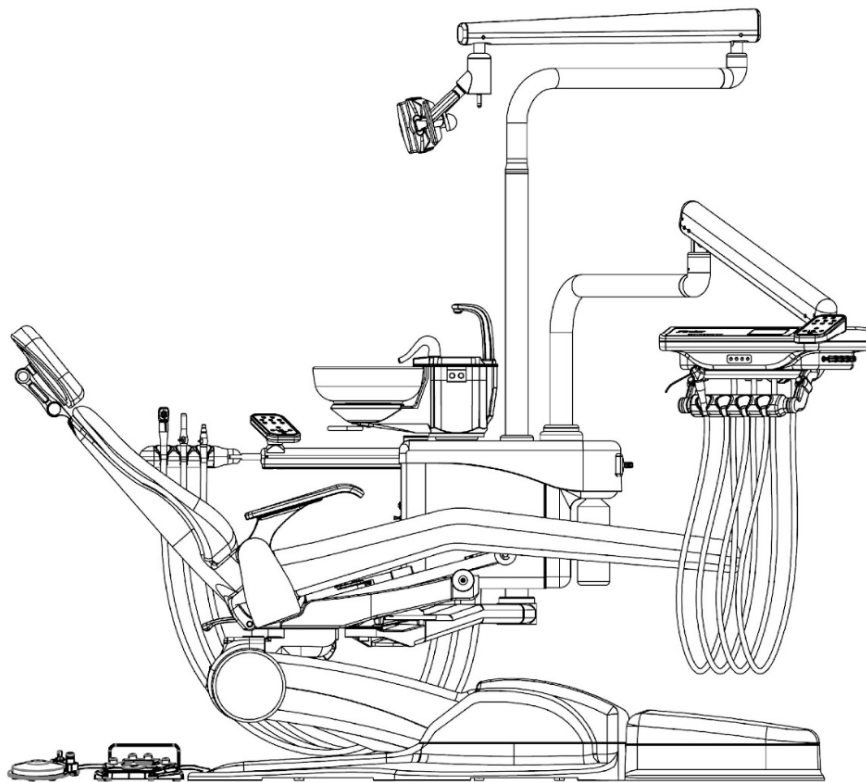


FDC Fixed Side Mount Chair Package

FDC – 38H

Installation Guide



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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
Side Box	6
Side Box Support Arm Installation and Leveling	6
Side Box and Water Bottle Installations	7
Assistant's System	8
Assistant's Rotating Arm Installation	8
Vacuum Tubing Installation	9
Delivery System	10
Rotating Arm and Flex Arm Installation	10
Tray Installation	11
Tube Connections	12
Wire Connections	13
Dental Light System	14
Post and Rotating Arm Installation	14
Dental Light and Flex Arm Installation	15
Unit Final Balancing	16
Cuspidor	17
Cuspidor Installation	17
Contoured Utility Center	18
Contoured Utility Center Installation	18
Tubing Connection	19
Dental Unit Overall Tubing Connection	20
Dental Unit Overall Wiring Connection	21
Wiring Connection for Dental Chair, Side Box and Delivery System	21
Wiring Connection for Dental Light, Cuspidor, Assistant's System, Contoured Utility Box and Side Box	21
Chair Upholstery	24
Headrest Cushion	24
Backrest Cushion	24
Seat Cushion	25
Armrest Cushion	25
Appendix	26
Contoured Utility Center, Assistant's System and Water Bottle Tubing Diagram	26
Dental Unit Overall Tubing Diagram	27

Dental Unit Overall Circuit Diagram
Installation Completion Checklist

28
29

GENERAL INFORMATION

Make sure that you follow your local building codes and regulations for this installation. They may differ from state to state and internationally. Dispose the shipping and packaging materials properly in accordance with the current waste-disposal regulations. However, do use the waste management or recycling companies whenever feasible.

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

1. Air and water shut off valves are installed for the chair.
2. Supply air and water pressure match with the unit specified requirements.
3. Purge debris from air and water lines.
4. Electrical power supply matches with the chair specified requirements.
5. Central vacuum system is installed for the chair.
6. Vacuum pressure matches with the unit specified requirements.
7. The vacuum line is cleared from debris.
8. Waste water drainage piping is installed and cleared of debris.
9. Check with local building code authorities about installation requirements.
10. The quality of the flooring for this unit is flat, level and steady.

INSTALLATION PREPARATION

1. The instructions contained in this booklet should be thoroughly read and understood before installation. After the installation has been completed, keep this manual in a safe place for future reference.
2. Familiar yourself with all components. Each box contains a part list. Make sure that all parts are accounted for in each box and they are damage free.
3. The following tools are recommended for chair installation:
 - SAE Socket Wrench Set (1/16" – 3/8")
 - Philips and standard screwdrivers
 - An air bubble level
 - A pair of 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 copy.

- Installation should be performed by authorized personnel only.
- Make sure that you follow all the instructions on this installation manual.

Unpacking and Checking Components

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

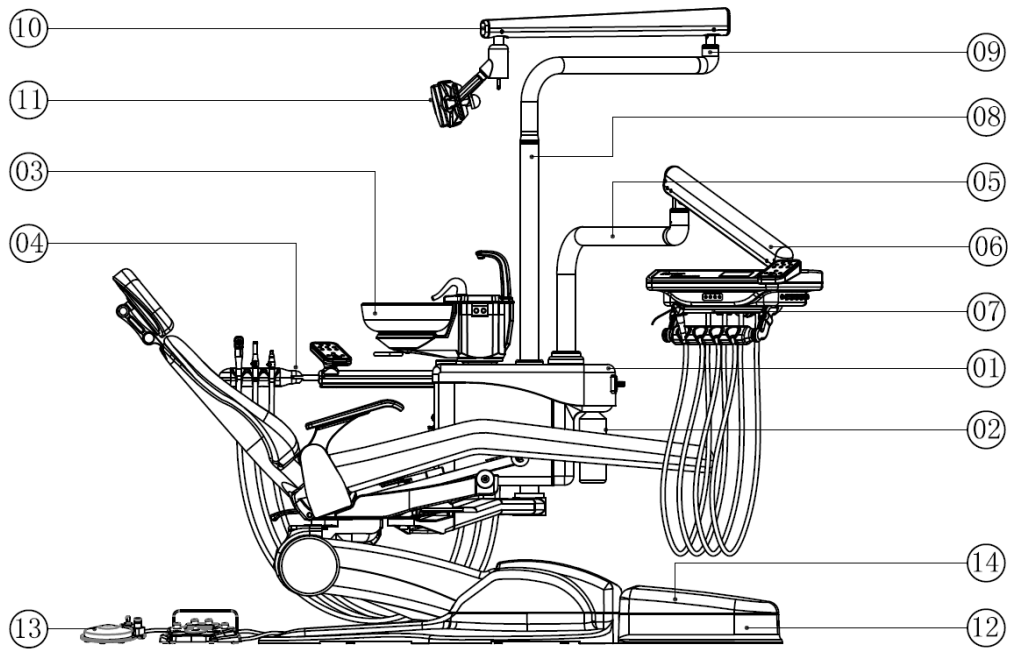
Dental Chair Box 1

Dental Chair Upholstery Box 2

Dental Unit / Dental Light Box 3

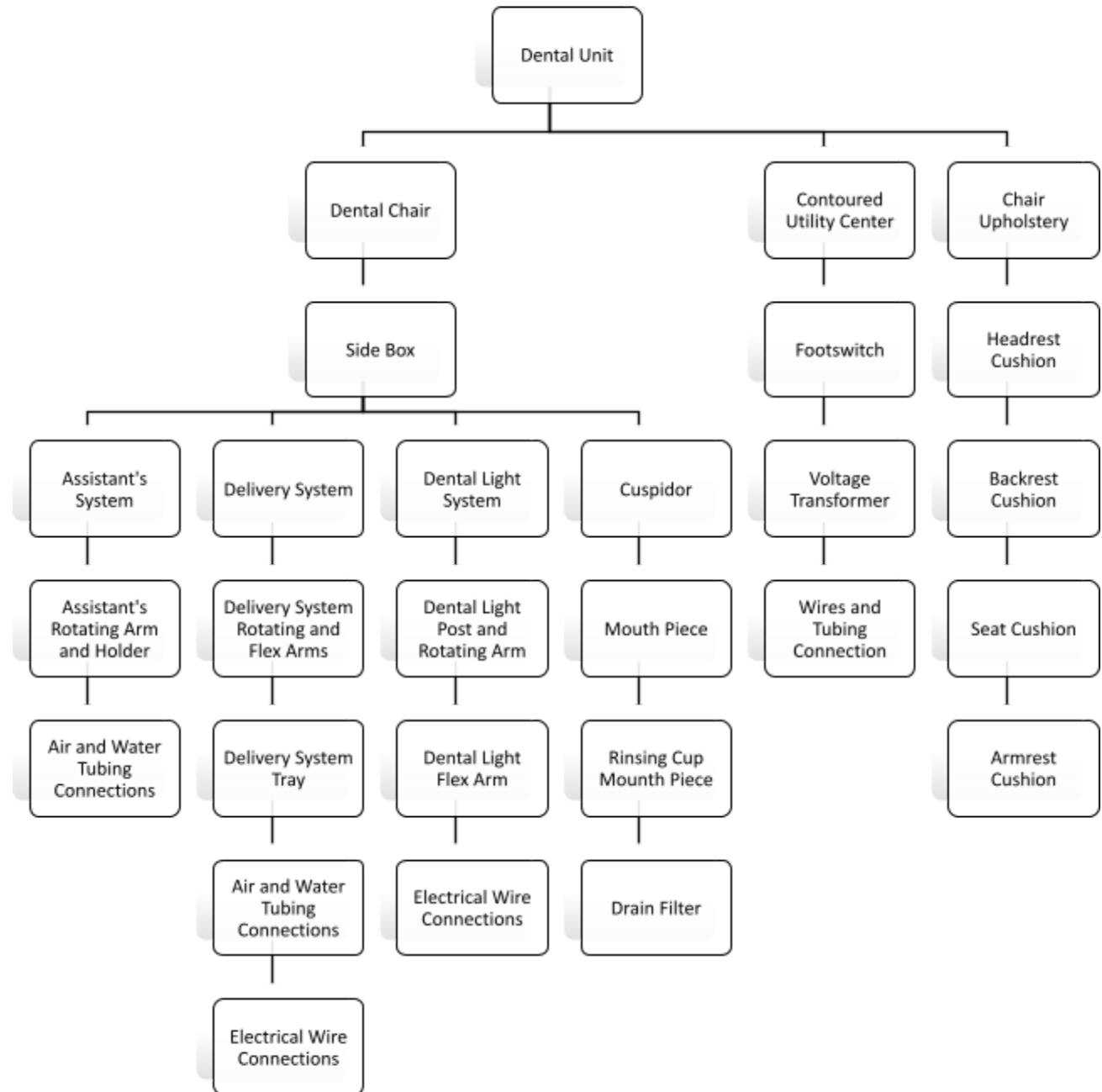
Box C contains various components as shown below:

Part Label	Component Names	Box Label	Part Label	Component Names	Box Label
①	Side Box	B1	⑧	Dental Light Post	B3
②	Purified Water Bottle	B2	⑨	Dental Light Rotating Arm	B3
③	Cuspidor	B7	⑩	Dental Light Flex Arm	B3
④	Assistant’s System Rotating Arm	B2	⑪	Dental Light	B6
⑤	Delivery System Rotating Arm	B3	⑫	Contoured Utility Center	B8
⑥	Delivery System Flex Arm	B4	⑬	Delivery System Footswitch	B8
⑦	Delivery System Tray	B5	⑭	Voltage Transformer (inside)	B9



Installation Flow Chart

The following installation flow chart indicates the best installation steps the FDC-38H 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 (5) on the bottom of the wooden shipping pallet (4). Use scissor to cut the shipping straps (3), then move the dental chair (1) from the shipping pallet to the ideal location for installation.
3. Remove the two clevis pins (9) located at the bottom of the backrest (6). Slowly push the backrest (6) upward so that the seat frame support (8) holes aligned inside the back support clevis holes as shown on Figure 1 A. Put the clevis pins (9) through the back support holes and the seat frame support holes on both sides. Do not forget to put a nylon washer (7) on both sides of the seat frame as shown on Figure 1 A.
4. Verify that the clevis pin installed correctly on both sides; then secure them with setscrews (10).

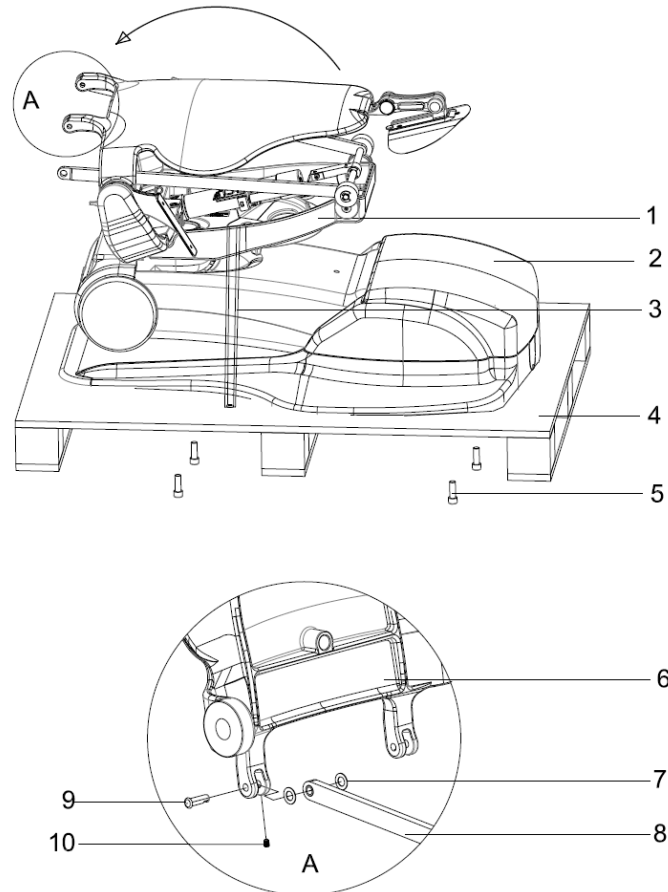


Figure 1. Dental Chair Unboxing and Assembly

- ① Dental Chair ② Front Cover ③ Shipping Straps ④ Shipping Pallet

⑤ Shipping Screw x 4

⑥ Backrest

⑦ Nylon Washer x 2

⑧ Seat Frame Support

⑨ Clevis Pin x 2

⑩ Setscrew x 2

FDC-601 Installation Guide

Dental Chair

Dental Chair Movement Control Test

FDC-38H 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 rise 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 rise 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 rise 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 the dental chair stays at the same position for a long time, air bubbles may form in the hydraulic tubes. Therefore, it is normal to hear the squeaky noise when the chair moves again. Alternately, redo test steps 1 to 4 above could make this noise go away.
3. It is very important that you install the dental chair correctly. Therefore, it is highly recommended that you replace any broken parts before proceeding to the next step in order to avoid further unnecessary problems.

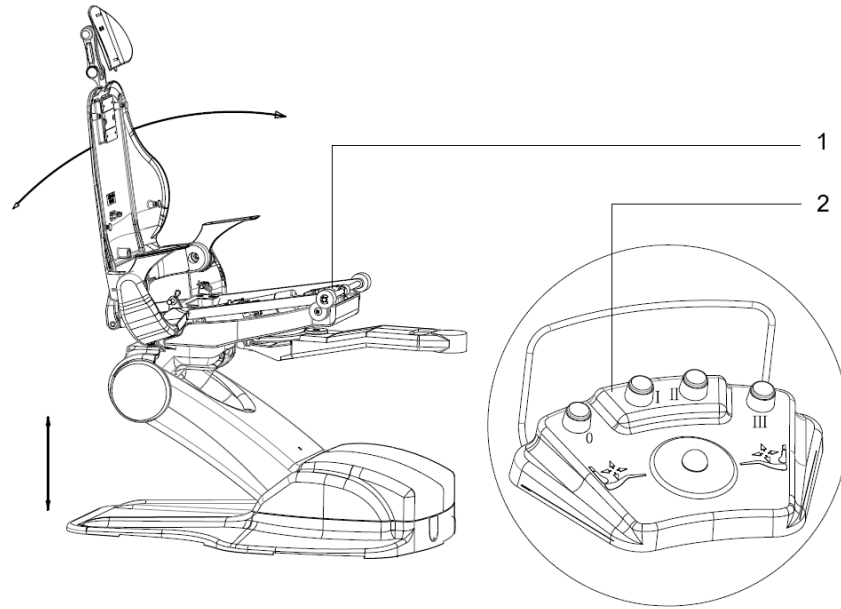


Figure 2: Dental Chair Movement Control Testing ① Dental Chair ② Footswitch

FDC-601 Installation Guide

Side Box

Side Box Support Arm Installation and Leveling

The side box support arm ① is factory installed on the dental chair. It is important to make sure the side box support arm is horizontally level before proceeding to the next step. Perform the following steps to level the side box support arm.

1. Raise the dental chair to a proper working level and then disconnect the electrical power to the chair.
2. Slightly loosen the two support arm set screws ④. Rotate the support arm ① to the desired working position for leveling.
3. Place a level ③ on the side box support surface ② parallel to the support arm ① and adjust any one of the three balancing screws ⑦ to obtain the best leveling surface.
4. Place a level ③ on the side box support surface ② perpendicular to the support arm ① and adjust any one of the three balancing screws ⑦ to obtain the best leveling surface.
5. Tighten the two support arm set screws ④.
6. Place a level ③ on the side box support surface ② to re-check for surface leveling in all directions. If the side box support arm is still un-level after tighten the set screws ④, repeat steps 2 to 4 until a level surface is obtained.

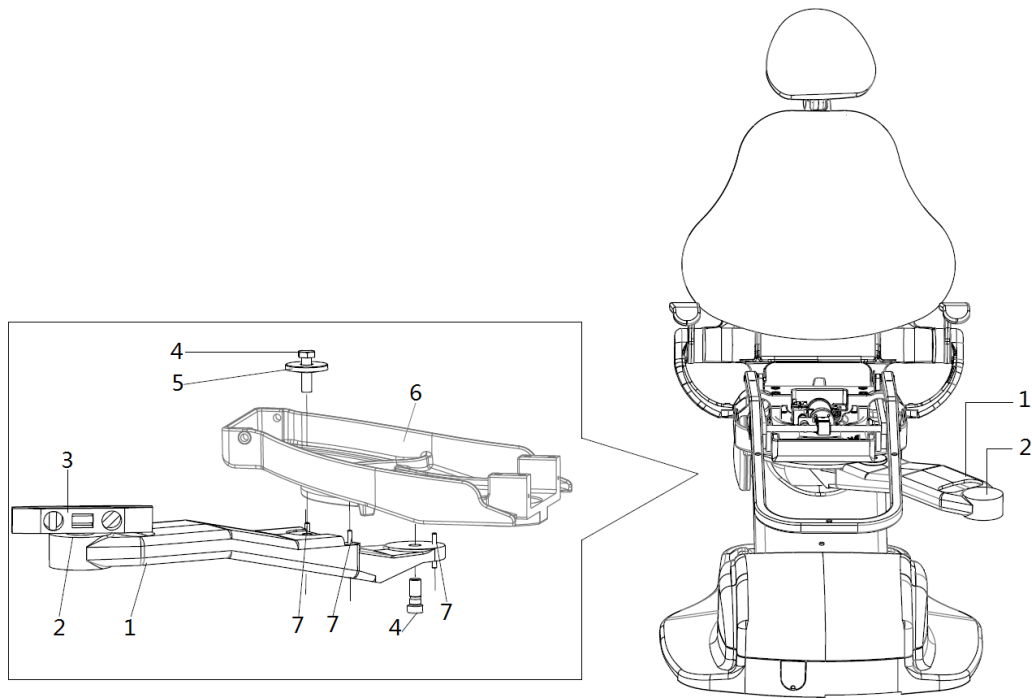


Figure 3. Side Box Support Arm Installation and Leveling

- ① Side Box Support Arm
- ② Side Box Support Surface
- ③ Level
- ④ Support Arm Set Screw x 2
- ⑤ Washer
- ⑥ Chair Structure
- ⑦ Support Arm Balancing Screw x 3

FDC-601 Installation Guide

Side Box

Side Box and Water Bottle Installations

Box B1: Side Box

Box B2: Purified Water Bottle

1. Place the side box shaft ① into the support arm surface hole.
2. Install and tighten a round head fastener ③ on the bottom of the support arm surface hole with a washer ②.
3. Place the side box shaft end cap ④ on the round head fastener ③ and tighten it with two set screws ⑤.
4. Place both the air and water tubes inside the purified water bottle ⑥. (Bottle can be filled with purified water during this installation step)
5. Install the water bottle to the side box by turning it counterclockwise against the side box water bottle connection opening.

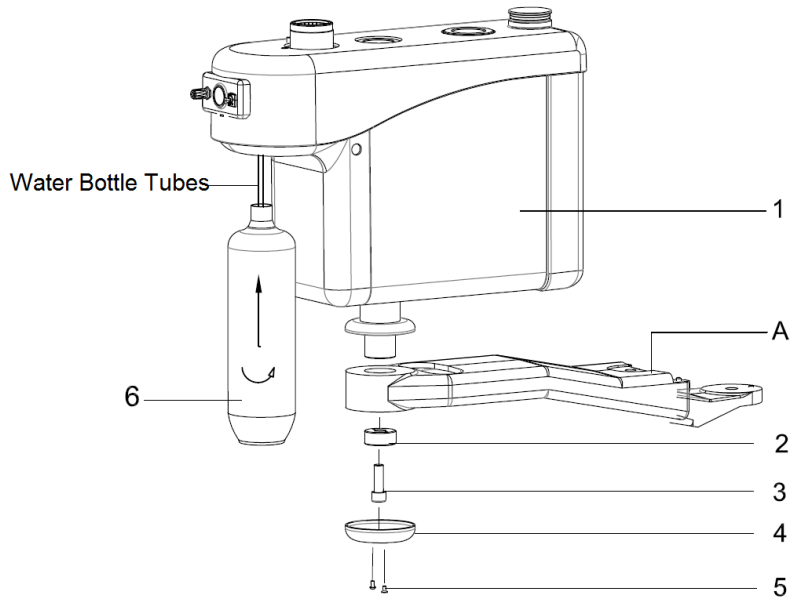


Figure 4. Side Box Installation

- Side Box Support Arm ① Side Box ② Washer ③ Round Head Fastener
 ④ Side Box Shaft End Cap ⑤ Set Screws x 2 ⑥ Purified Water Bottle

FDC-601 Installation Guide

Assistant's System

Assistant's Rotating Arm Installation

Box B2: Assistant's Rotating Arm Assembly

1. Place the assistant's rotating arm ④ into the side box top pole.
2. Install the rotating arm top cap ③ on the top pole.
3. Install the set screw ② on the rotating arm top cap ③.
4. Remove the side box front cover ⑤.
5. Insert both the 7-pin electrical connector ⑦ and the 6-pin electrical connector ⑧ into the side box hole opening as shown on Figure 5 exposed view.
6. Insert the hex nut ⑥ over the electrical connectors.
7. Install and tighten the hex nut to the corrugated tubing terminal.

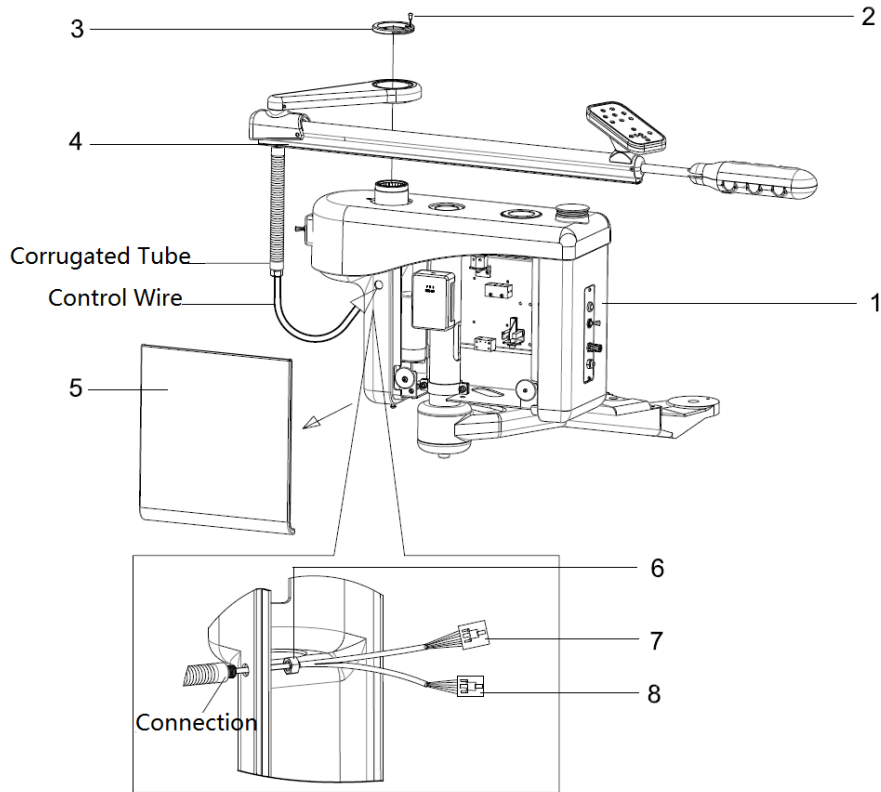


Figure 5: Assistant's Rotating Arm Installation

- | | | |
|------------------------------|------------------------|------------------------------|
| ① Side Box | ② Top Cap Set Screw | ③ Rotating Arm Top Cap |
| ④ Rotating Arm | ⑤ Side Box Front Cover | ⑥ Hex Nut |
| ⑦ 7-Pin Electrical Connector | | ⑧ 6-Pin Electrical Connector |

FDC-601 Installation Guide

Assistant's System

Vacuum Tubing Installation

1. Install the HVE and SE tubing to the vacuum canister bottom connections per the exposed view of Fig. 6. (Typically the HVE and SE tubing should have already been installed from the factory.)
2. Take out the main vacuum ½" corrugated tubing ⑤ from the side box support arm opening.
3. Install the main vacuum ½" corrugated tubing ⑤ to the vacuum canister bottom connection.

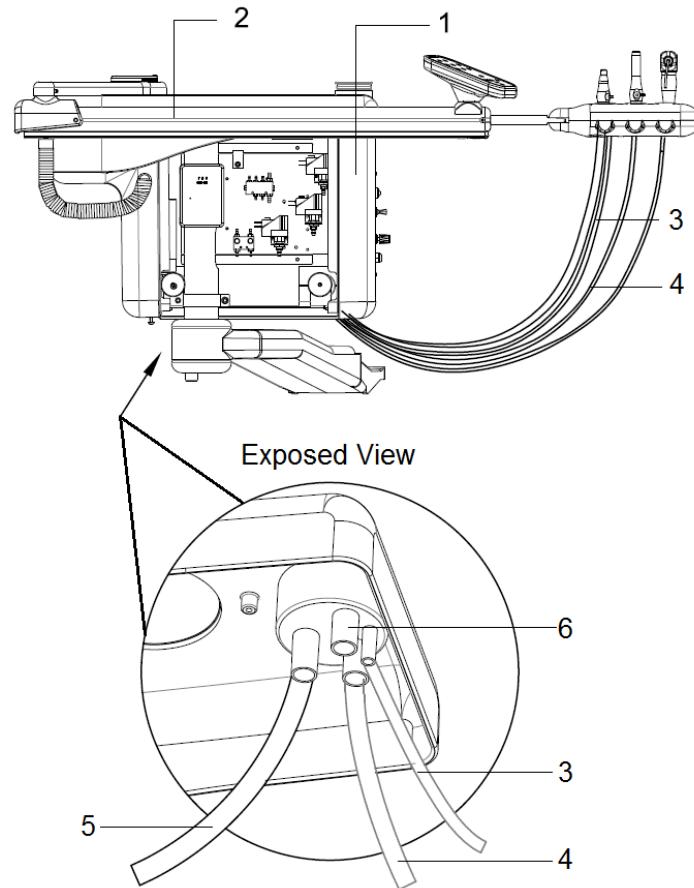


Figure 6. Vacuum Tubing Installation

- | | |
|------------------------------------|--|
| ① Side Box Assembly | ② Assistant's System Rotating Arm Assembly |
| ③ SE Tubing | ④ HVE Tubing |
| ⑤ Main Vacuum ½" Corrugated Tubing | ⑥ Spare HVE Tubing Connection |

Note: The bottom of the vacuum canister comes with 4 connections. Doctor has an option to upgrade the instrument holder to a four-hole style instead of three-hole style. The extra connection ⑥ is for the additional HVE tubing for the four-hole style instrument holder. This spare HVE tubing connection hole has been plugged from the factory. This plug needs to be removed and the HVE tubing needs to be connected in order to allow the HVE to function.

FDC-601 Installation Guide

Delivery System

Rotating Arm and Flex Arm Installation

Box B3: Delivery System Rotating Arm

Box B4: Delivery System Flex Arm

1. Place the lower part of the assistant's system rotating arm ③ through the arm trim ring ②.
2. Install the lower part of the assistant's system rotating arm ③ on the side box opening.

3. Adjust the trim ring ② so that it aligns to the center position.
4. Carefully remove the water pressure regulator ⑤ from the side box.
5. Adjust the round head fastener ⑥ to limit the movement angle for the rotating arm.
6. Raise the flex arm ④ above the rotating arm ③ and pull all the wires and tubing through the inside of the rotating arm into the side box ①.
7. Install the flex arm ④ into the rotating arm ③ upper opening.
8. If the rotating arm and the flex arm rotation movement appears unstable due to looseness, adjust the flex arm set screw ⑧ and the rotating arm set screw ⑦ until the rotation movement is smooth and there is a slight friction in its movement.
9. Reinstall the water pressure regulator ⑤ back to the side box.

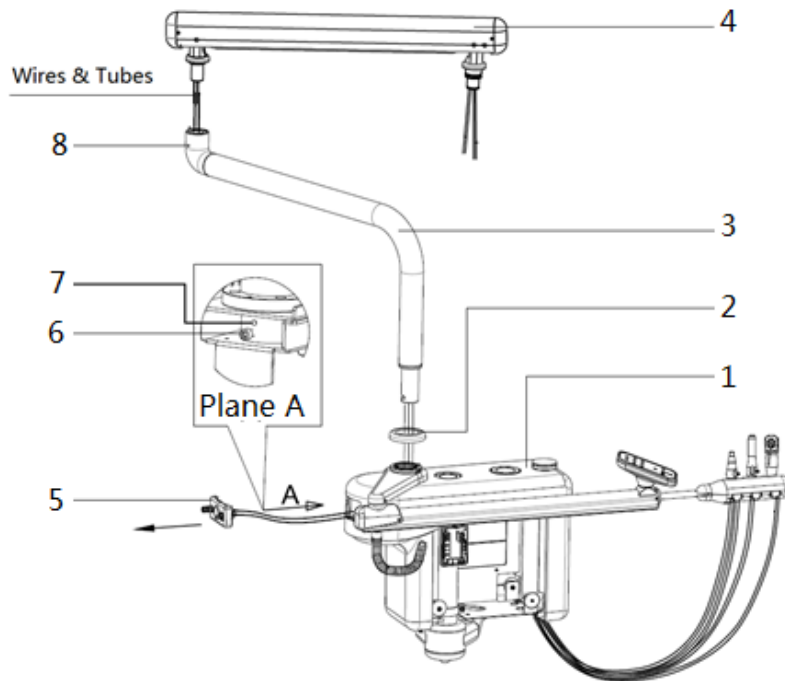


Figure 7. Delivery System Tray Tubing Connections

- | | | |
|--------------------------|----------------------------|-----------------------|
| ① Side Box | ② Arm Trim Ring | ③ Rotating Arm |
| ④ Flex Arm | ⑤ Water Pressure Regulator | ⑥ Round head Fastener |
| ⑦ Rotating Arm Set Screw | ⑧ Flex Arm Set Screw | |

FDC-601 Installation Guide

Delivery System

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 disconnect the cable connector.
3. Set the upper cover ② and six screws aside for later use on installation.
4. Push all of the tubing 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.

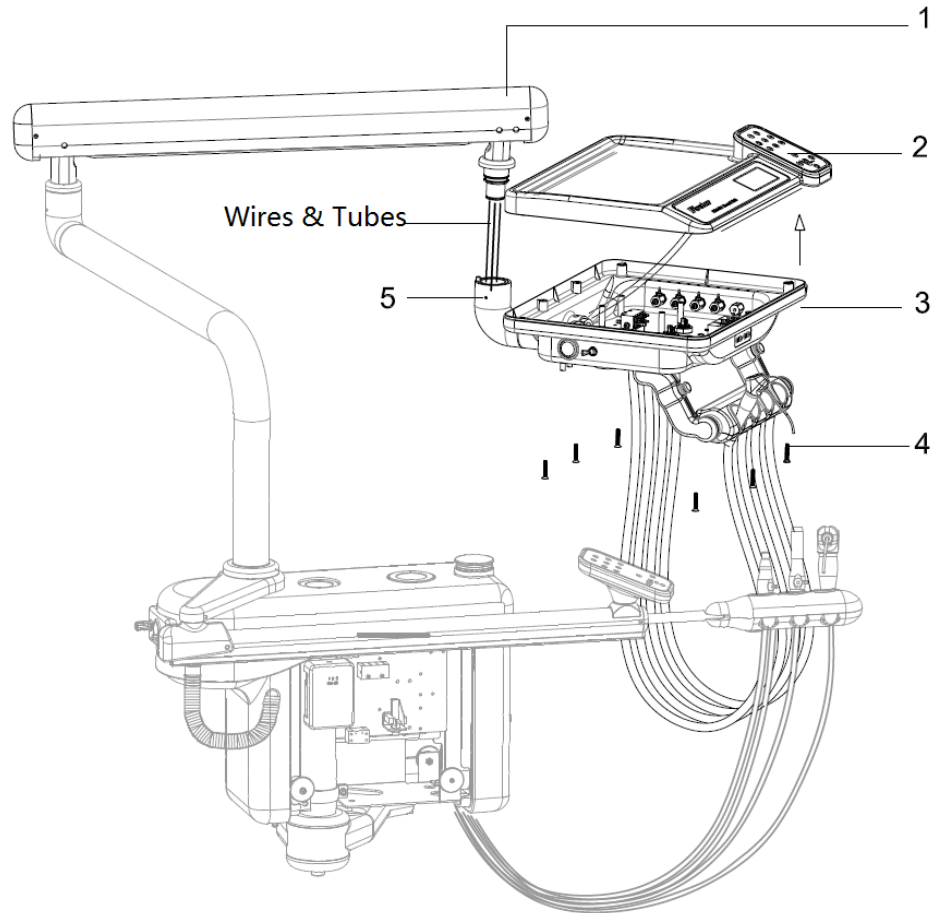


Figure 8. Delivery System Tray Installation

- | | |
|--|------------------------------------|
| 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 | |

Tubing Connections

Refer to the following steps and Figure 9, 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 1/8 blue tube to shuttle valve horizontal joint ②
3. Connect 1/8 brown tube to 1/8 brown tube via nylon straight union ③
4. Connect 1/4 transparent tube to hand-piece control block 1/8 upper joint ④
5. Connect 1/8 orange tube to hand-piece control block 1/16 upper joint ④
6. 1/8 grey tube is for spare use, no connection is needed.

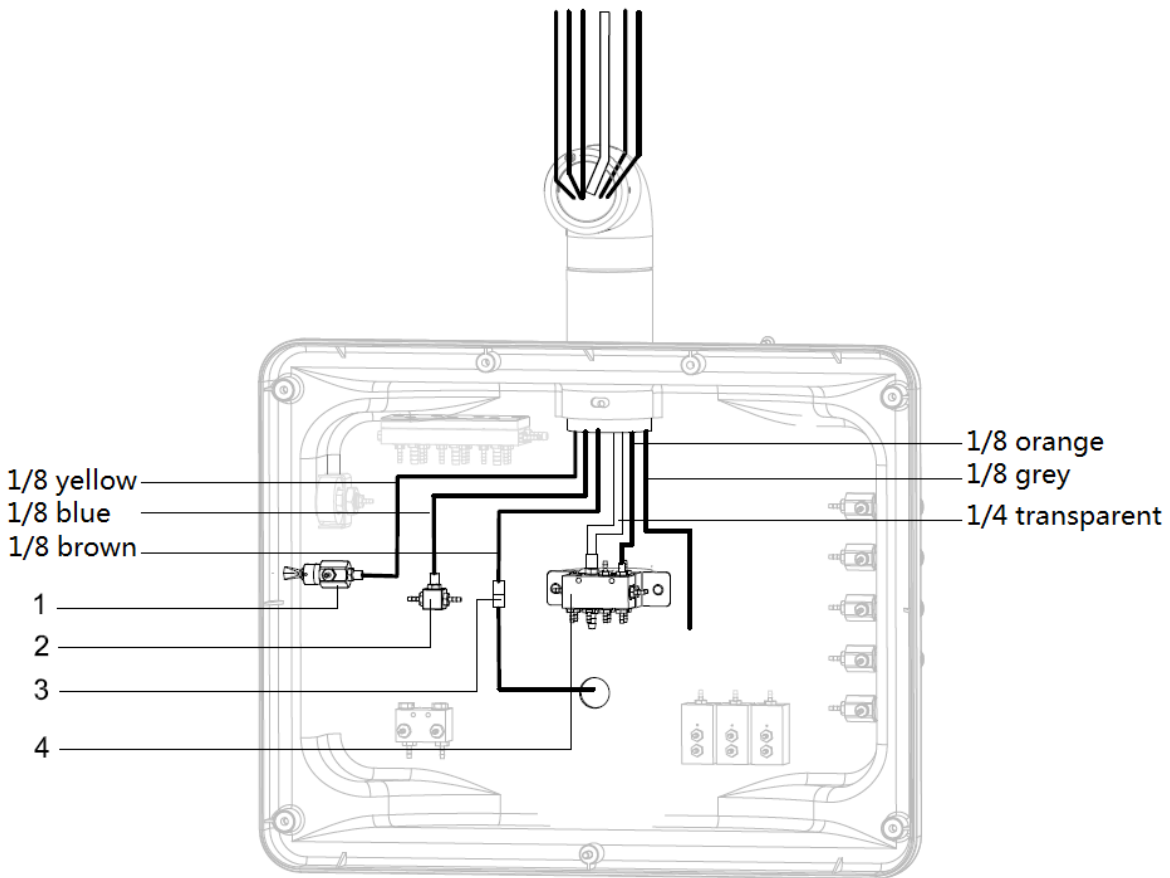


Figure 9. Delivery System Tray Tube Connections

① Toggle Momentary Valve (Master On/Off)

② Shuttle Valve

③ Nylon Straight Union

④ Hand-piece Control Block

FDC-601 Installation Guide

Delivery System

Wiring Connections

1. Connect the 2-pin male connector CN1 to the 2-pin female connector CN1 on circuit board.
2. Connect the 5-pin male connector CN5 to the 5-pin female connector CN5 on circuit board.
3. Connect the 7-pin male connector CN4 from the tray upper cover cable back to the 7-pin female connector located on the delivery system tray circuit board CN4.

Place the upper cover over the delivery system tray and secure it with the six screws. (Refer to Figure 8 for part identification)

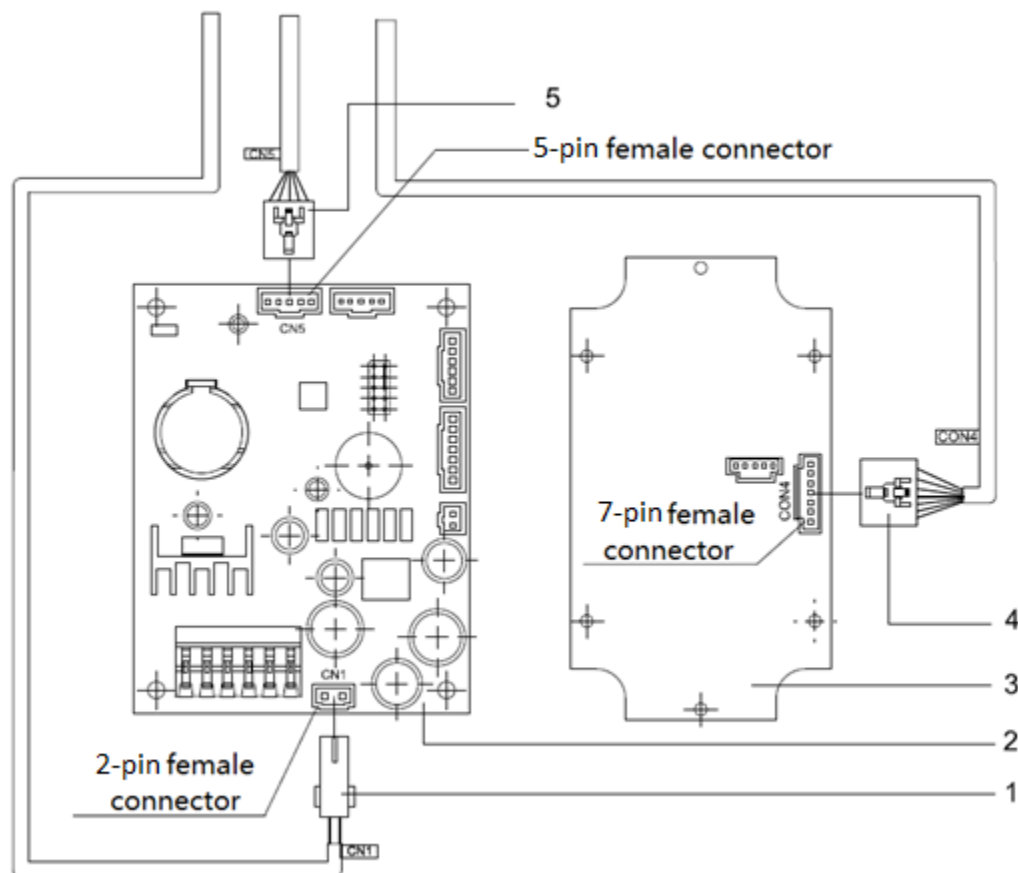


Figure 10. Delivery System Tray Wiring Connection

① 2-Pin Male Connector

② Power Circuit Board

③ Delivery System Tray Circuit Board

④ 7-Pin Male Connector

⑤ 5-Pin Male Connector

FDC-601 Installation Guide

Dental Light System

Post and Rotating Arm Installation

Box B3: Dental Light Post, Dental Light Rotating Arm, Post Gasket Ring, Light Post Trim Ring

1. Put a light post trim ring ② on the lower end of the dental light post ③.
2. Install the dental light post ③ including the trim ring ② into the side box opening ①.
3. Rotate the dental light post ③ to align two mounting holes with the side box as indicated on the enlarge view.
4. Install and tighten the two fasteners ⑦.
5. Raise up the dental light rotating arm ⑥ and install a decorative ring ⑤ and a post gasket ring ④ on the bottom.
6. Install the dental light rotating arm ⑥ to the dental light post ③.

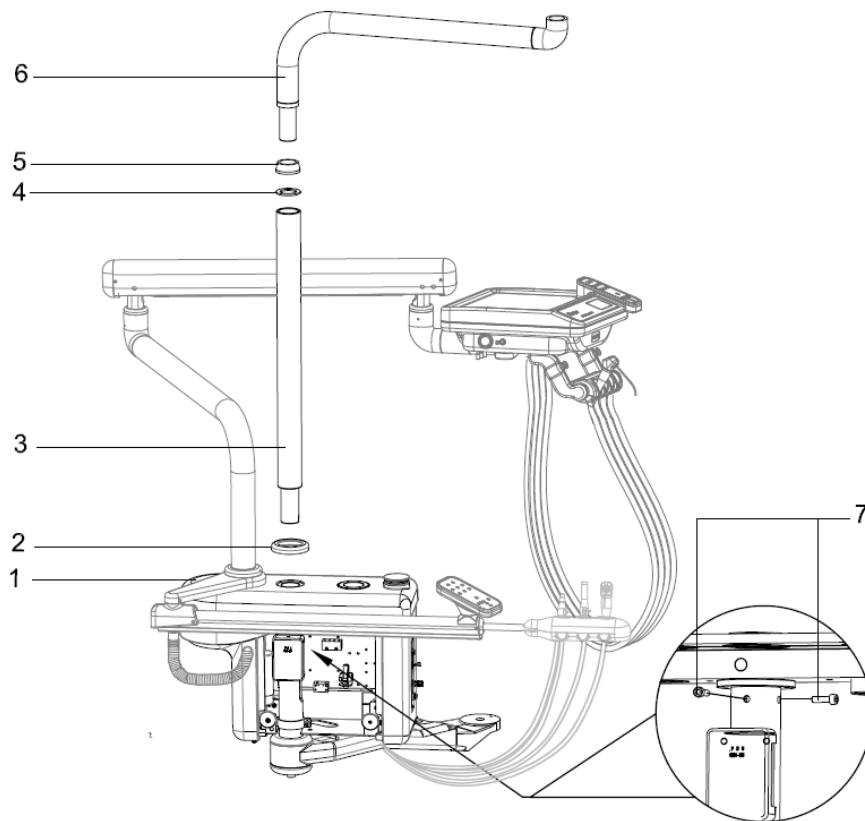


Figure 11. Dental Light Post & Rotating Arm Installation

① Side Box

② Light Post Trim Ring

③ Dental Light Post

④ Post Gasket Ring

⑤ Decorative Ring

⑥ Dental Light Rotating Arm

⑦ Fastener x 2

FDC-601 Installation Guide

Dental Light System

Dental Light and Flex Arm Installation

Box B3: Dental Light Flex Arm ; Box B6: 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 12)
2. Remove the four light switch screws ⑧ and save them for installation later.
3. Pull all the dental light 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 12.
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.

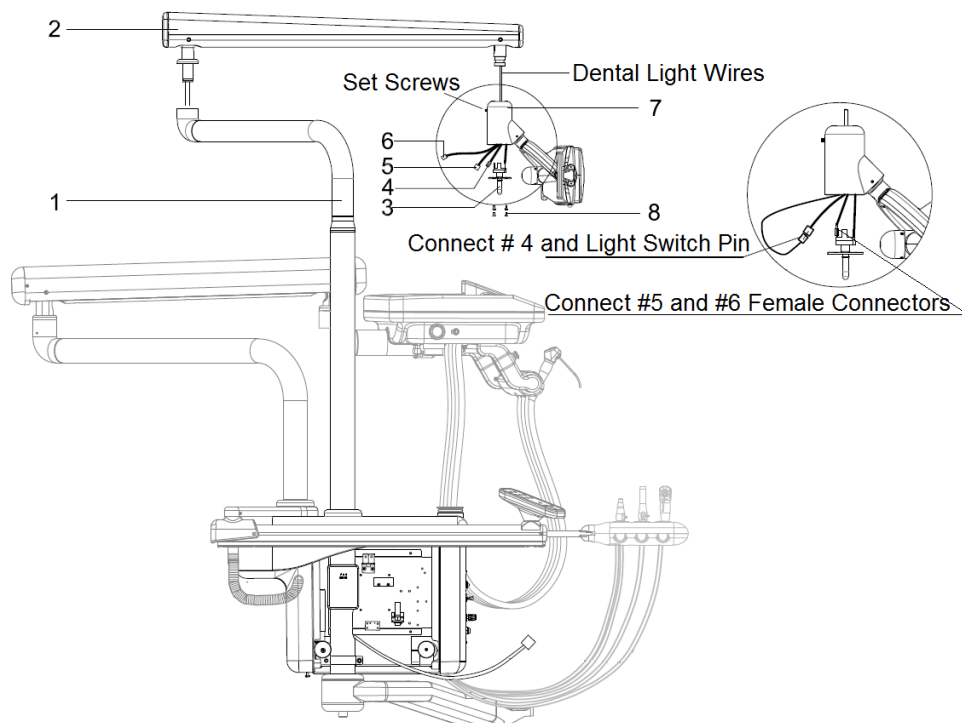


Figure 12. Dental Light and Flex arm Installation

- | | | |
|-----------------------------|--------------------------|--------------------|
| 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 Screw x 4 | |

FDC-601 Installation Guide

Unit Final Balancing

1. Place a level on the delivery system post ① to check for vertical straightness.
2. To adjust vertical straightness, slightly loosen the two support arm set screws ③.
3. Adjust the three support arm balancing screws ② to achieve a minimum of 95% vertical straightness. Do these steps several times to achieve maximum accuracy.
4. Tighten the two support arm set screws ③ when vertical straightness adjustment 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 the maximum horizontal perpendicular. 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 a maximum horizontal parallel. Install the end cover after balancing is complete.
8. Install the flex arm end cover back to its original position when leveling is completed.

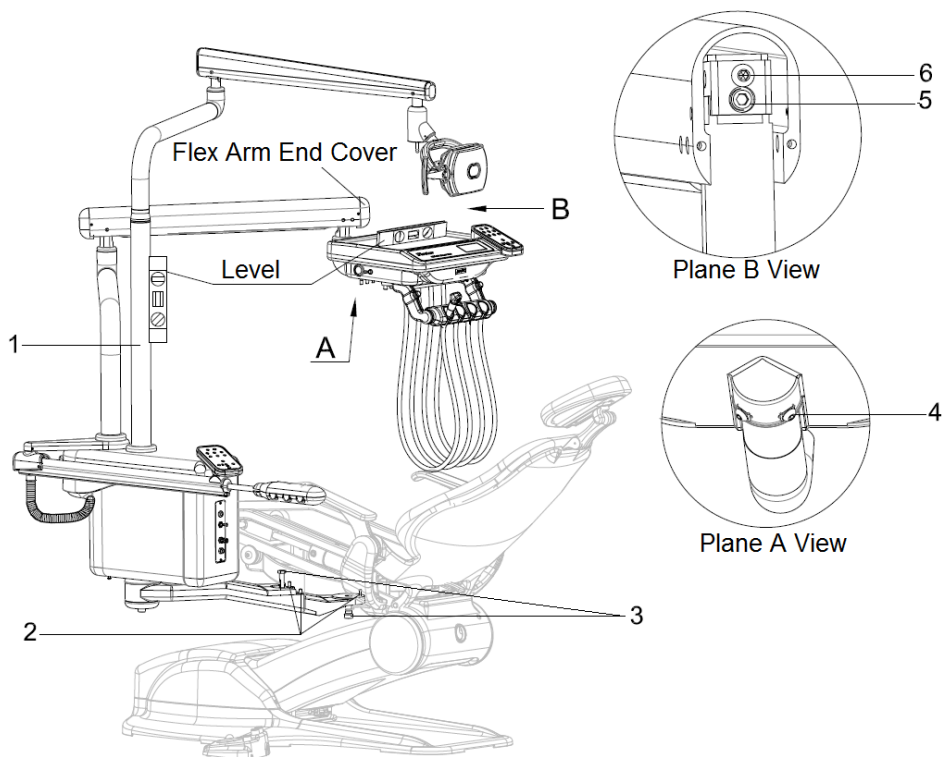


Figure 13. Unit Vertical Straightness and Horizontal Leveling Adjustment

- ① Dental Light Post
- ② Support Arm Balancing Screw x 3
- ③ Support Arm Set Screw x 2
- ④ Set Screw x 2
- ⑤ & ⑥ Delivery System Flex Arm Balancing Screws

Cuspidor Installation

Box B7: Cuspidor

1. Put the cuspidor ② tube down to the side box opening ① and then install cuspidor on top of the side box opening.
2. Install the bowl rinse spout ⑥ and the stainless-steel washer ③ into the cuspidor opening.
3. Install the cup fill spout ⑧ and the plastic washer ⑦ into the cuspidor opening.
4. Install the strainer ④ and the strainer cap ⑤ into the cuspidor drain opening.

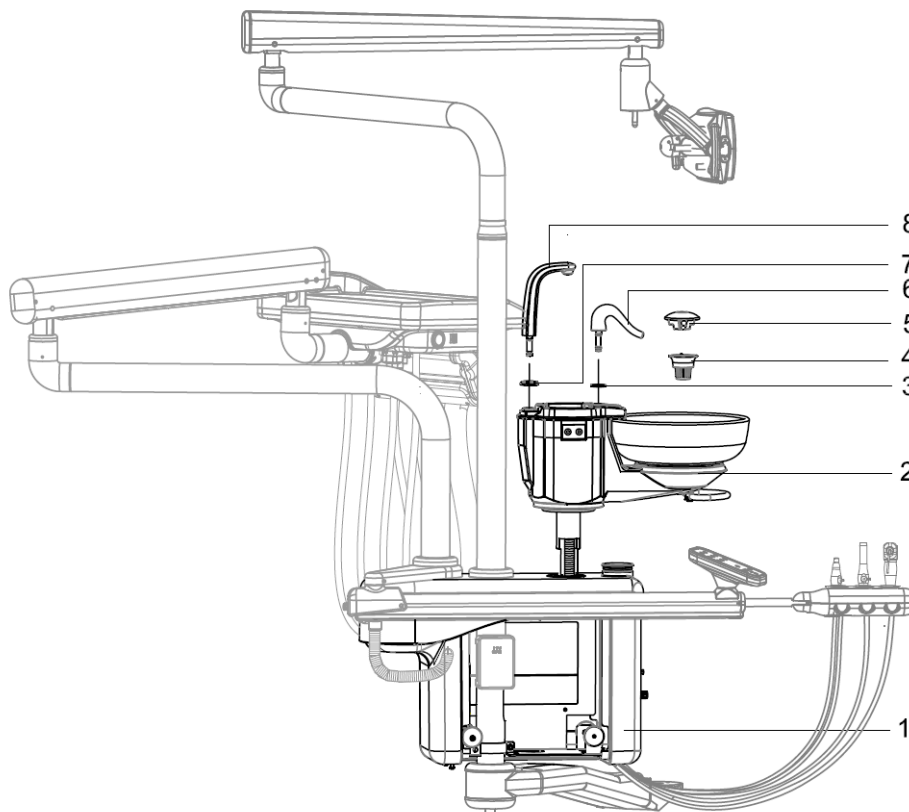


Figure 14. Cuspidor Installation

① Side Box
 ④ Strainer
 ⑦ Plastic Washer

② Cuspidor
 ⑤ Strainer Cap
 ⑧ Cup Fill Spout

③ Stainless-steel Washer
 ⑥ Bowl Rinse Spout

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 B8: Contoured utility center

Box B9: Voltage transformer

1. Remove the upper cover ④ from the contoured utility center ②.
2. Remove the four button head screws on the air/water valve shipping bar to remove 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 the air and water master valves.
6. Install the 2" corrugated tubing ⑥ to the contoured utility center with the corrugated tubing clip ⑤ and two flat head screws.
7. Install the voltage transformer ③ in the specified location as shown on Figure 15.

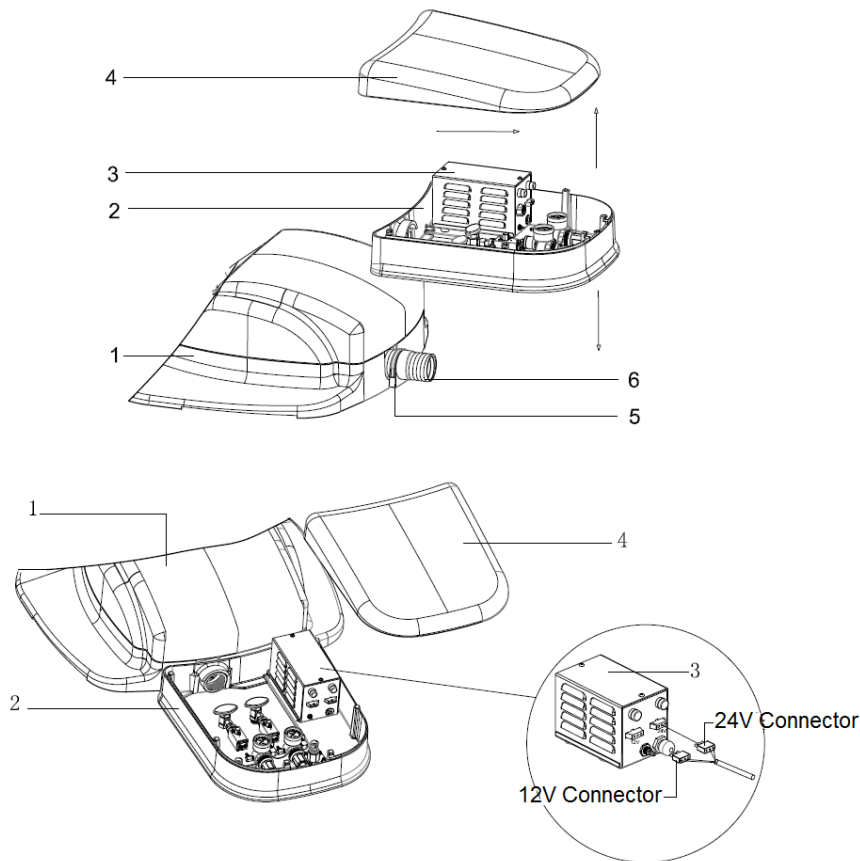


Figure 15. Contoured Utility Center Installation

- ① Dental Chair Base ② Contoured Utility Center ③ Voltage Transformer
④ Contoured Utility Center Upper Cover ⑤ Corrugated Tubing Clip
⑥ 2" Corrugated Tubing

FDC-601 Installation Guide

Contoured Utility Center Tubing Connection

Refer to instruction #1 to #7 below to connect the air and water tubing between the contoured utility center and the dental chair. Instruction #8 to #13 are for internal connections.

1. Connect 1/4 blue tube #1 to the water control valve connection A.
2. Connect 1/4 blue tube #2 to the water pressure sensor upper left connection fitting.
3. Connect 1/8 orange tube to the air control valve left connection fitting.
4. Connect 1/8 yellow tube to the air control valve connection B.
5. Connect the 1/4 yellow tube to the water pressure sensor upper right connection fitting.
6. Connect 1/4 transparent tube to the footswitch double tubes via nylon straight union.
7. Connect the other footswitch double tube to the 1/4 yellow tube via nylon coupler.
8. Use 1/4 yellow tube to connect the water regulator and the water pressure sensor.
9. Use 1/4 yellow tube to connect the air regulator and the air pressure sensor.
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.

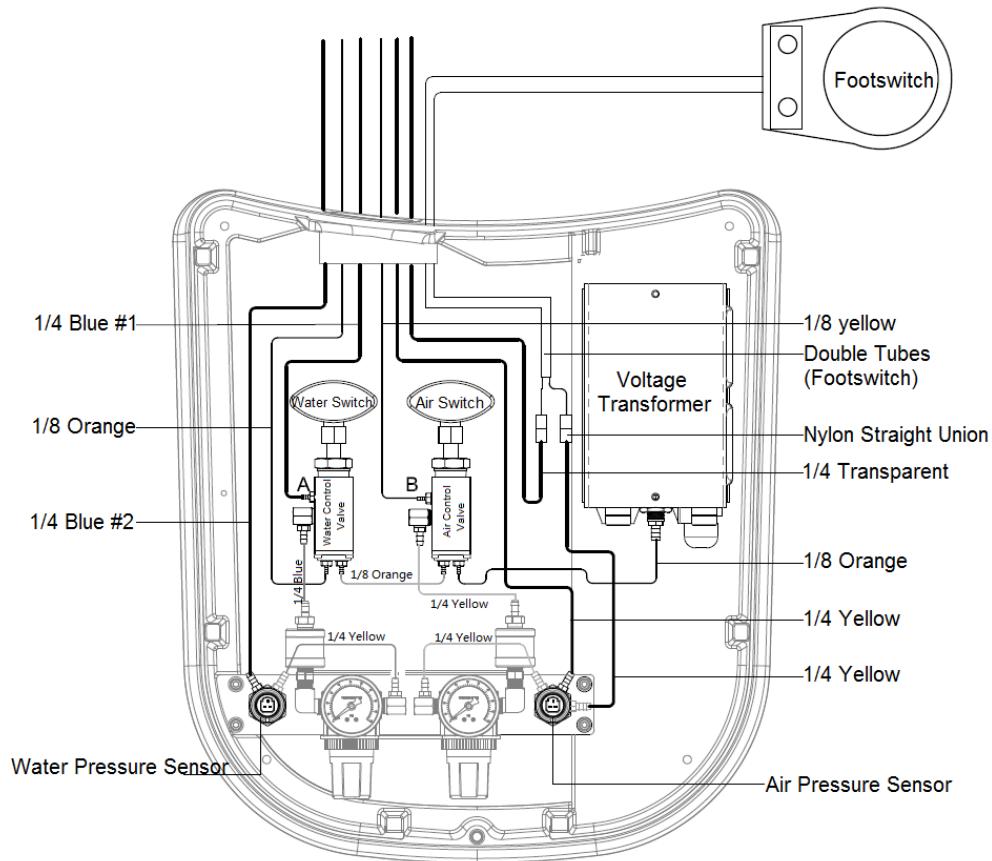


Figure 16. Contoured Utility Center Tubing Connection

FDC-601 Installation Guide

Dental Unit Overall Tubing Connection

Refer to the following to connect the air and water tubes for different parts of the dental unit:

1. Connect 1/8 blue tube from delivery system tray to side box shuttle valve A ②.
2. Connect the following tubes from the delivery system tray to the contoured utility center:
 - a. 1/8 yellow tube to 1/8 yellow tube via nylon straight union
 - b. 1/8 orange tube to 1/8 orange tube via nylon straight union
 - c. 1/4 transparent tube to 1/4 transparent tube via nylon straight union
3. Connect the following tubes from the contoured utility center to the side box:
 - a. 1/4 blue # 1 tube to shuttle valve B ③.
 - b. 1/4 blue # 2 tube to hand-piece control block
 - c. 1/4 yellow tube to hand-piece control block
 - d. Vacuum corrugated tube connection
4. Connect the drain tube from the contoured utility center to the cuspidor
5. Connect the following tubes from the cuspidor to the side box:
 - a. 1/4 blue # A to solenoid valve ① and 1/4 blue # B to temperature sensor ⑤

6. Connect the side box tubing as shown on Figure 17.

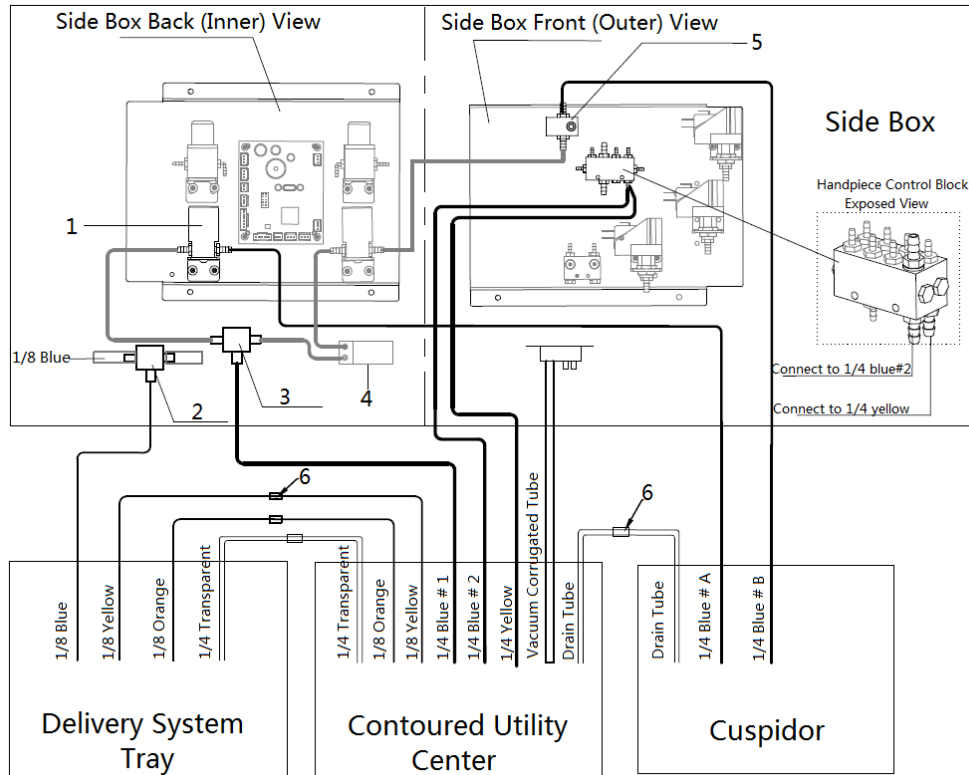


Figure 17. Dental Unit Overall Water and Air Tubing Connection Diagram

- ① Solenoid Valve ② Shuttle Valve A ③ Shuttle Valve B ④ Water Heater
- ⑤ Temperature Sensor ⑥ Nylon Straight Union

FDC-601 Installation Guide

Dental Unit Overall Wiring Connection

Wiring Connection for Dental Chair, Side Box and Delivery System

Follow Figure 18 to make the following wiring connections.

1. Connection between Delivery System Tray and Side Box:
 - a. Connect the Power Board CN1 and Side Box Power Transfer Board CON49 with a 2-pin connector.
 - b. Connect the Power Board CN5 and Side Box Signal Transfer Board CN12 with a 5-pin connector.
 - c. Connect the Delivery System Tray Keyboard CON4 and Side Box Power Transfer Board CON42 with a 7-pin connector.
2. Connection between Dental Chair and Side Box:
 - a. Connect the Safety Switch and Side Box Power Transfer Board CON48 with a 2-pin connector.
 - b. Connect the Dental Chair Power Circuit Board 0411-3900 and Side Box Power Transfer Board CON43 with a 7-pin connector.

Wiring Connection for Dental Light, Cuspidor, Assistant's System, Contoured Utility Box and Side Box

Follow Figure 19 to make the following wiring connections.

3. Connection between Assistant's System and Side Box:
 - a. Connect the Assistant's System Keyboard CON3 and Side Box Signal Transfer Board CN14 with a 6-pin connector.
 - b. Connect the Assistant's System Keyboard CON1 and Side Box Power Transfer Board CON41 with a 7-pin connector.
4. Connection between Cuspidor and Side Box:
 - a. Connect the Cuspidor Small Keyboard 1, Small Keyboard 2 and Side Box Signal Transfer Board CN16 with a 3-pin connector.
 - b. Connect the Cuspidor Safety Switch and Side Box Power Transfer Board CON47 with a 2-pin connector.
5. Connection between Dental Light and Side Box:
 - a. Connect the Dental Light and Side Box Power Transfer Board CON39 with a 4-pin connector.
6. Connection between Contoured Utility Center and Side Box:
 - a. Connect the Air Pressure Sensor and Side Box Signal Transfer Board CN8 with a 3-pin connector.
 - b. Connect the Water Pressure Sensor and Side Box Signal Transfer Board CN9 with a 3-pin connector.
 - c. Connect the Voltage Transformer and Side Box Power Transfer Board CON44 and CON45 with a 4-pin connector.

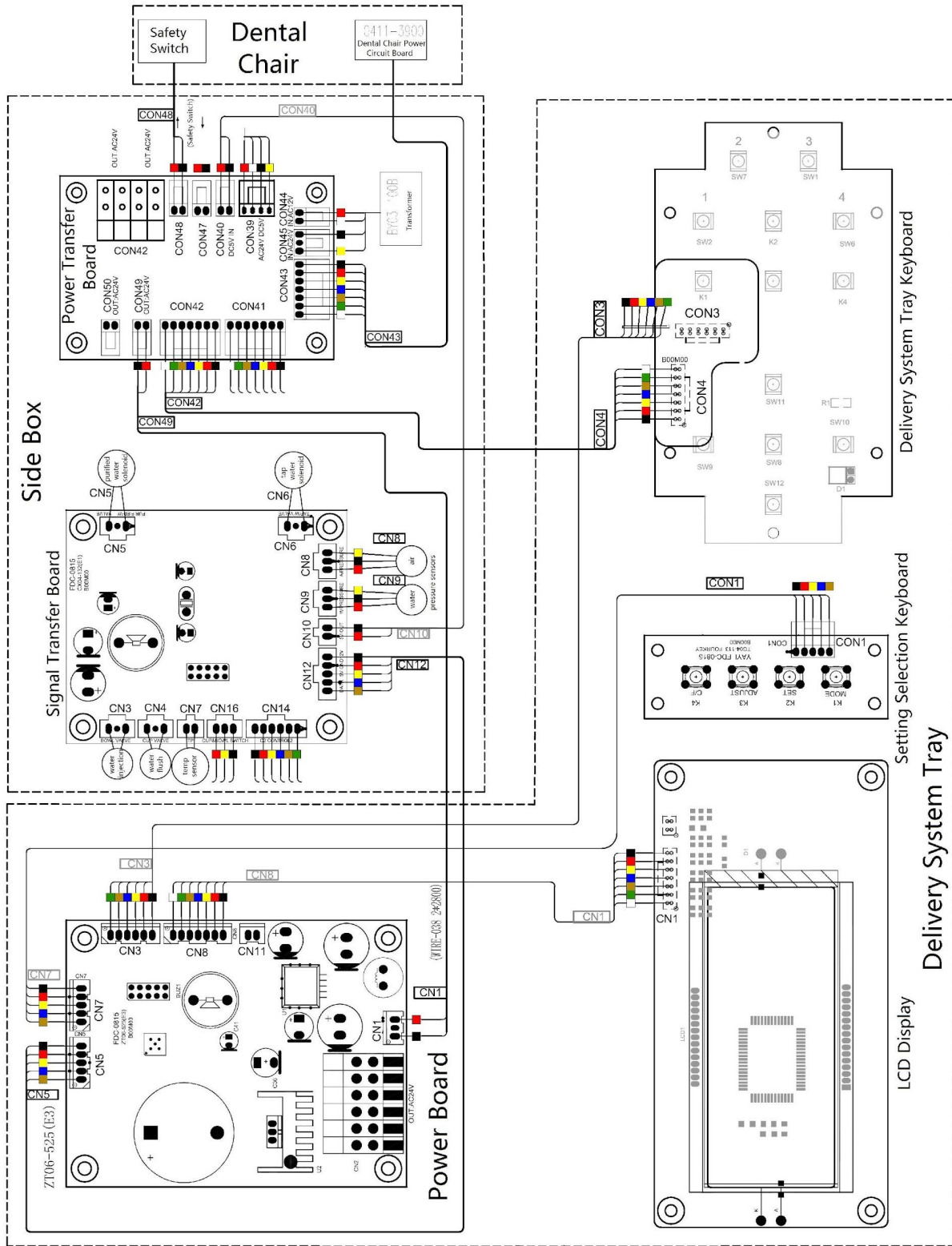


Figure 18. Wiring Connection for Dental Chair, Side Box and Delivery System

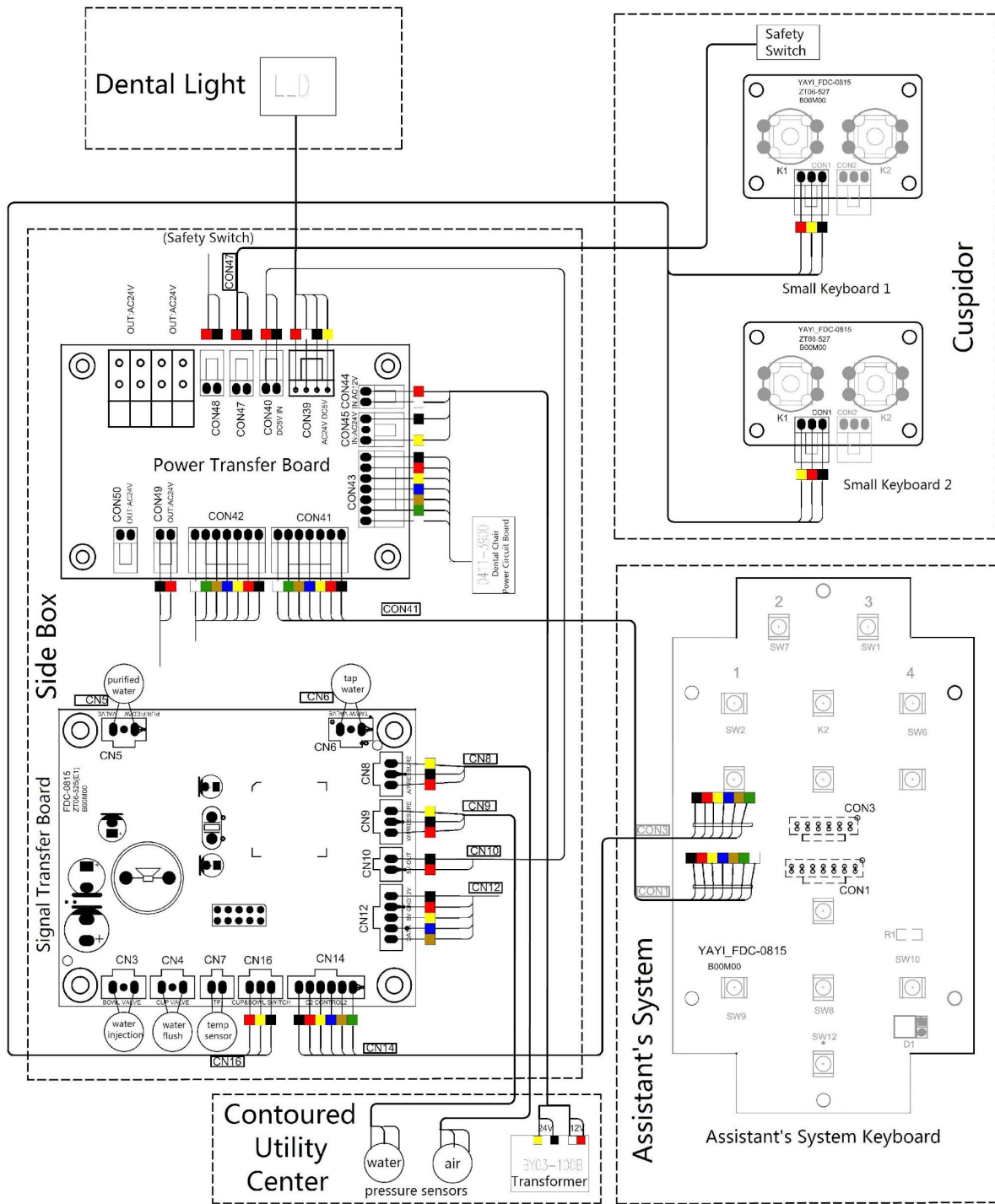


Figure 19. Wiring Connection for Dental Light, Cuspidor, Assistant's System, Contoured Utility Box and Side Box

Headrest Cushion

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

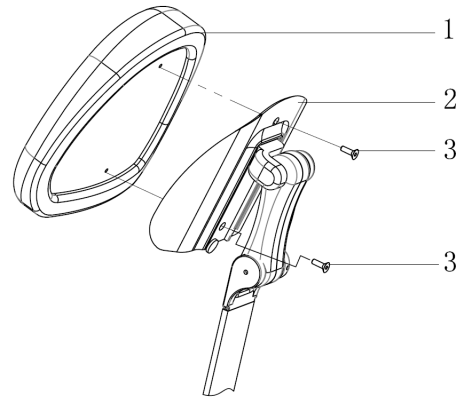


Figure 20. Headrest cushion installation

- ① Headrest Cushion ② Headrest Support
③ Screw 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 the backrest cushion ① hole openings ③ with the button studs ④ on the support.
4. While applying downward pressure on the backrest cushion, gently push the backrest cushion down-ward toward the chair base until all 4 buttons latched with the cushion.
5. Install the headrest support.

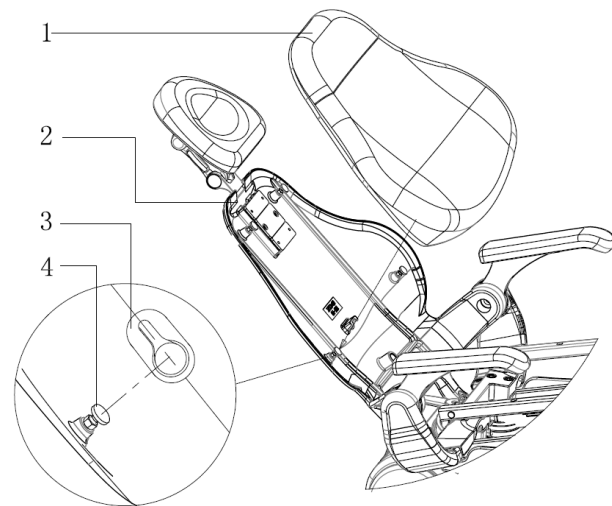


Figure 21. Backrest cushion installation

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

Warning: All 4 button studs need to be latched properly with the back cushion. Do not let any of the button studs disengaged from the cushion.

Seat Cushion

1. Put the seat frame ① along the side of the chair yoke casting ③.
2. Align the seat frame through hole with the chair yoke casting through hole as indicated on Figure 22 Detail A.
3. Place a washer ④ between the seat frame and the yoke casting ③.
4. Install a clevis pin ② through the hole on each side of the chair.
5. Install an R latch ⑤ through the hole on each of the clevis pin.
6. Put the seat cushion ⑦ on top of the seat support frame ①.
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.

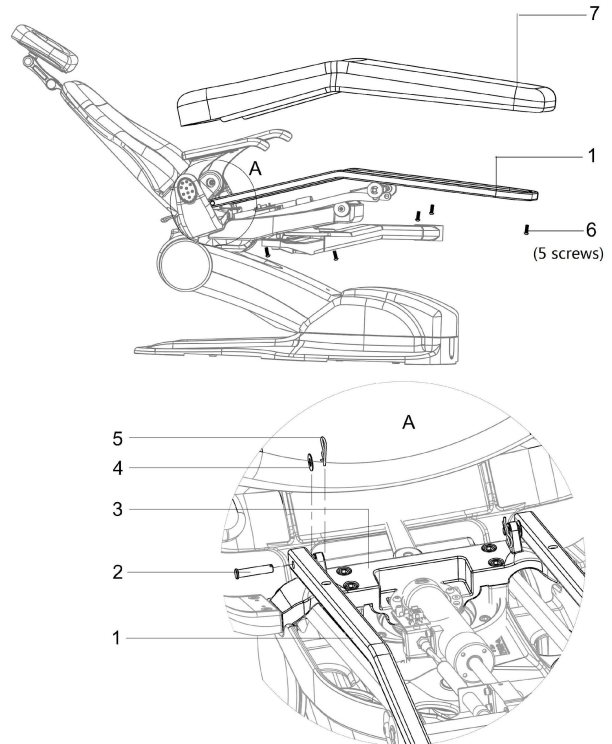


Figure 22. Seat Cushion Installation

- | | |
|----------------|--------------------|
| ① Seat Frame | ② Clevis Pin x 2 |
| ③ Yoke Casting | ④ Nylon Washer x 2 |
| ⑤ R Latch x 2 | ⑥ Screw 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 and tighten both screws ③.
4. Install the other armrest cushion in the same manner.

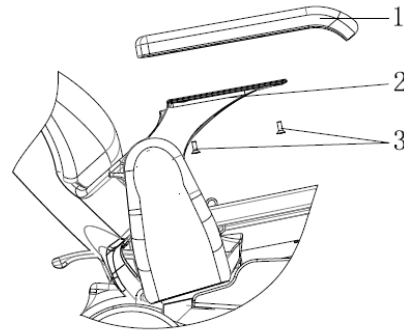
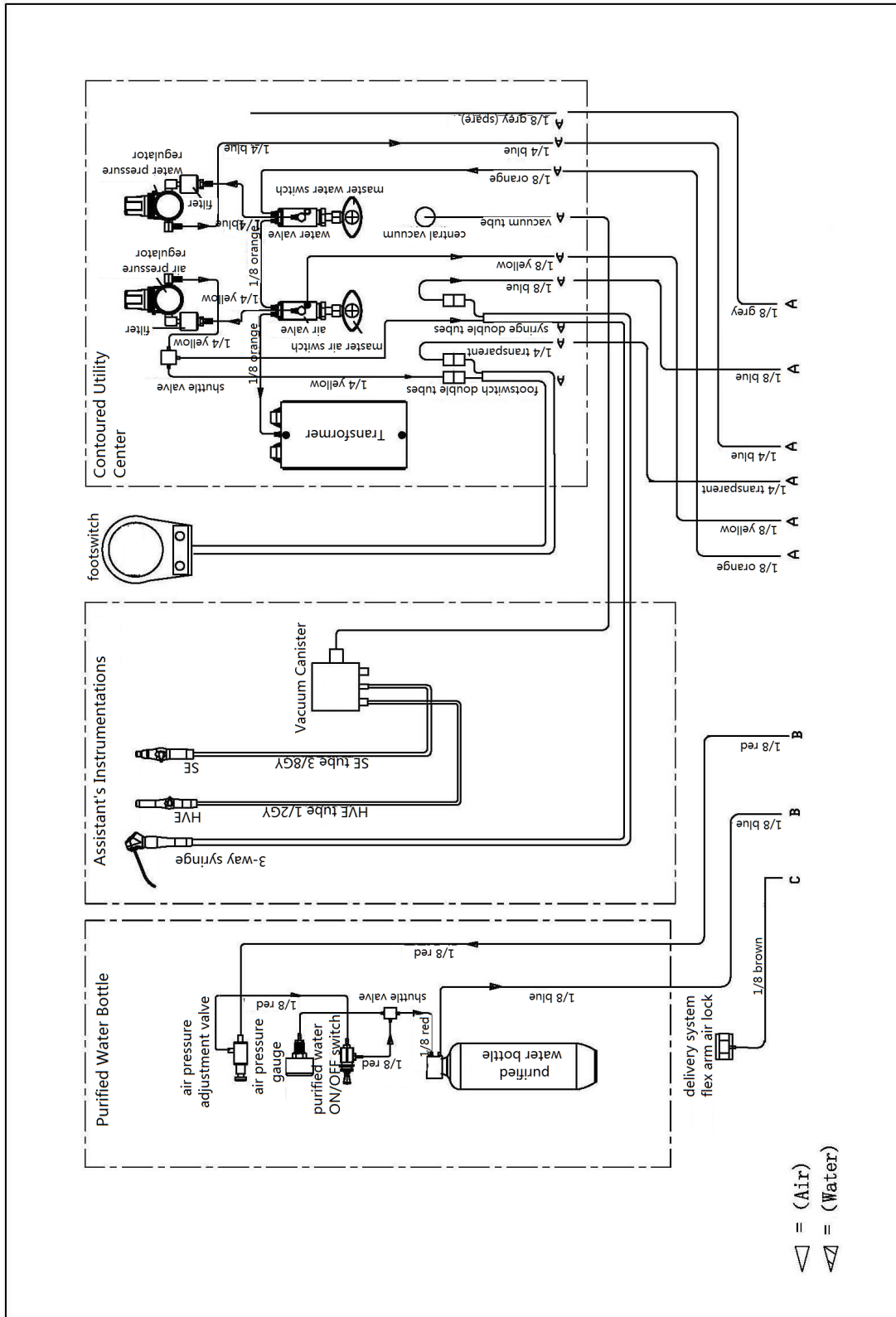


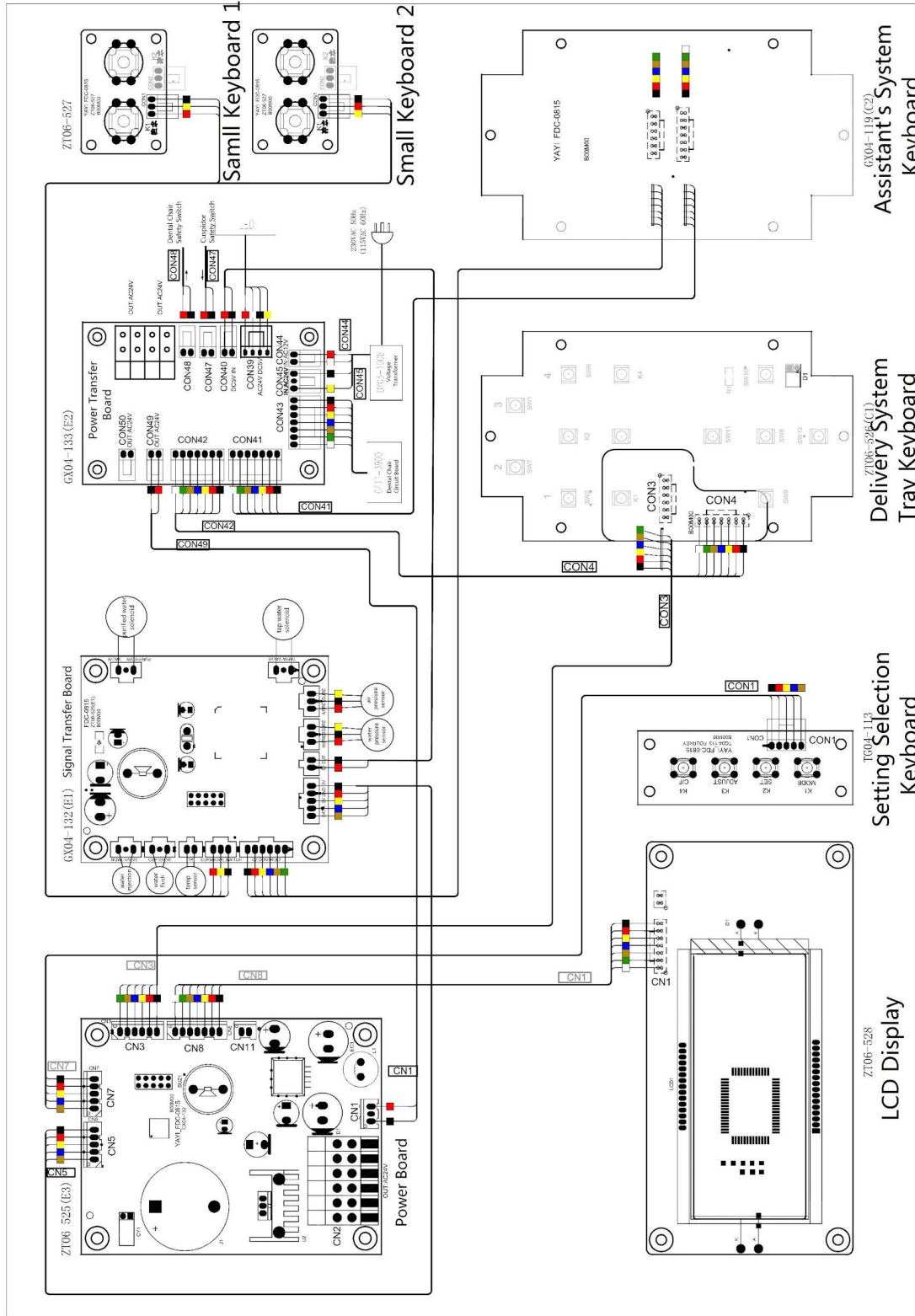
Figure 23. Armrest Cushion Installation

- ① Armrest Cushion ② Armrest Support
③ Screw x 4

Contoured Utility Center, Assistant's System and Water Bottle Tubing Diagram



Dental Unit Overall Circuit Diagram



Installation Completion Checklist**Dental Chair**

- Power supply 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.
- Delivery system rotation movement is smooth and secured.
- Delivery system arm connections are secured and tuned correctly.

Cuspidor

- Cuspidor is installed with correct water supply and drainage systems
- Cuspidor cup fill and bowl rinse water flows have been adjusted properly.

Assistant's System

- All the hand-pieces 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.