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Installation Manual of Beyond 401 Delivery System

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1 Introduction

1.1 Products information

- **Name**：Delivery system
- **Model**：**Beyond401**
- **Working conditions**：

① Ambient temperature：5 ℃～40 ℃；

② Relative humidity：≤ 80%；

③ Nominal Voltage：AC110 V±22 V；

④ Nominal Frequency：60 Hz±1 Hz；

⑤ Water pressure：29psi～58psi；

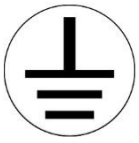
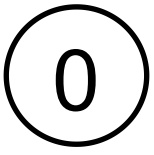
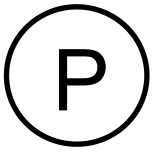
⑥ Input air pressure ： 72.5psi~101.5psi， Air flow ≥50 L/min.

Unit conversion	
MPa	psi
0.2MPa	29psi
0.4MPa	58psi
0.6MPa	87psi
0.8MPa	116psi

1.2 Symbols explanation

Table 1

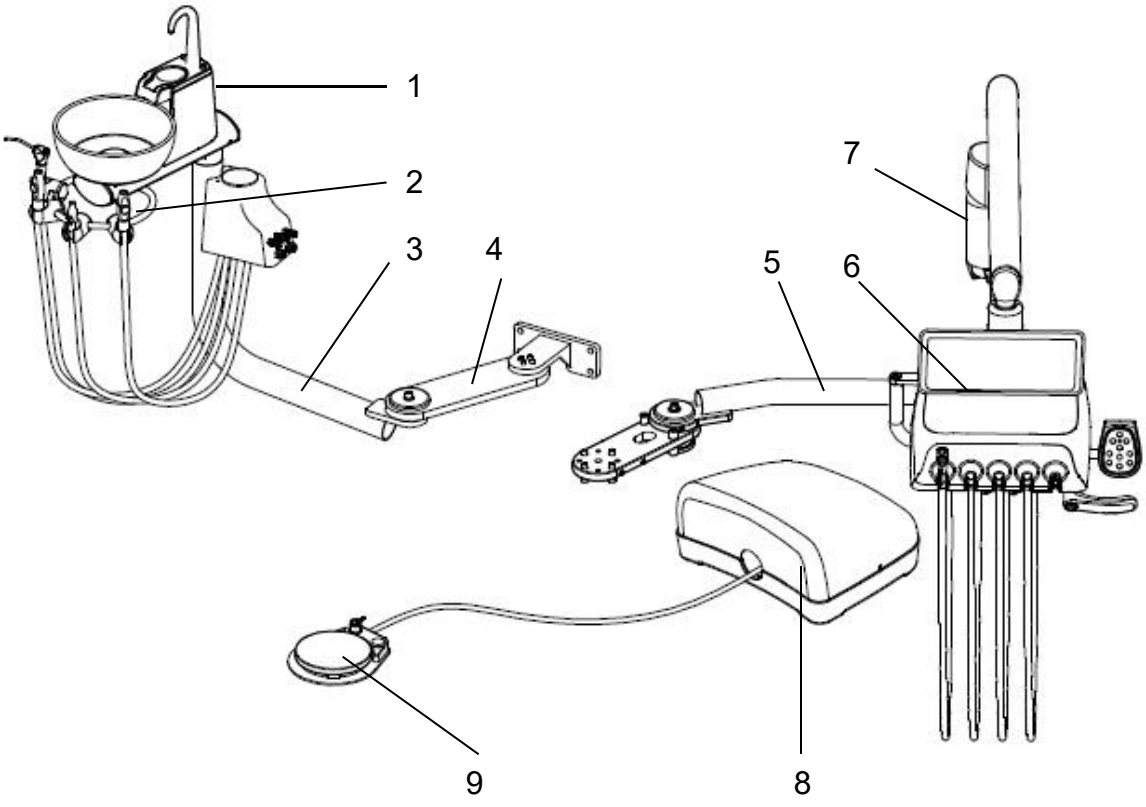
Symbols	Explanations
 Manufacturer	 EU Representative
 Manufacturing Date	 Serial Number
 Handle with Care	 Keep Dry

Symbols	Explanations
 Refer to Instructions	 Caution!
 Refer to Attached Document.	 Backrest down
 Avoid Electric Shock	 Backrest up
 Ground Protection	 Chair down
 Setup Button	 Chair up
 Spitting position	 Program chair position 1
 Program chair position 2	 Program chair position 3

2 Compositions

The system is composed by following components.

Figure 1 Delivery system

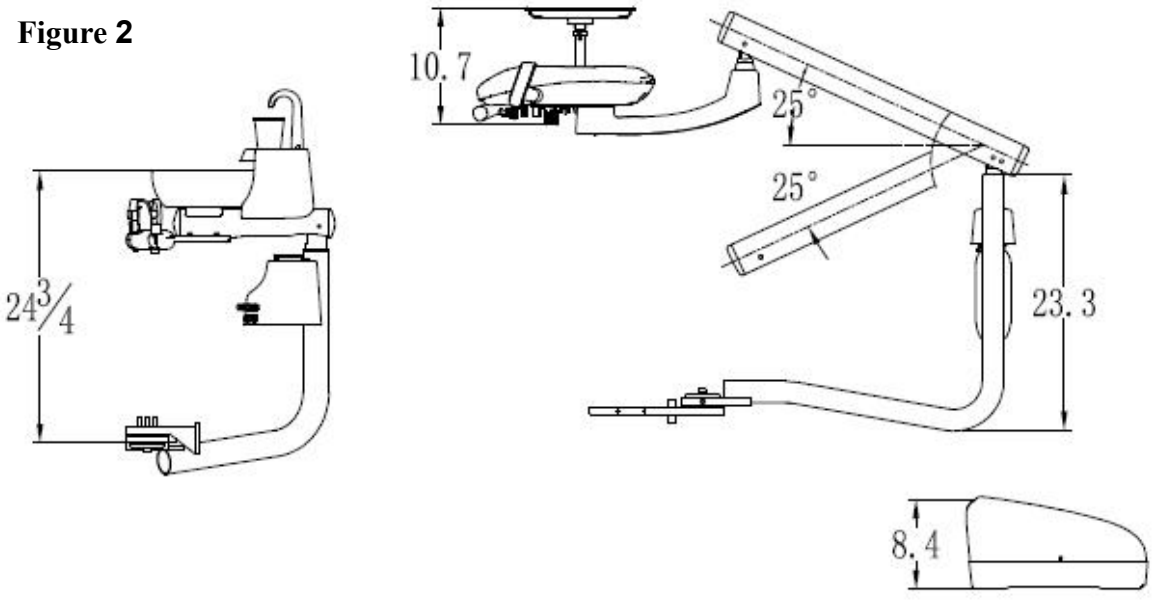


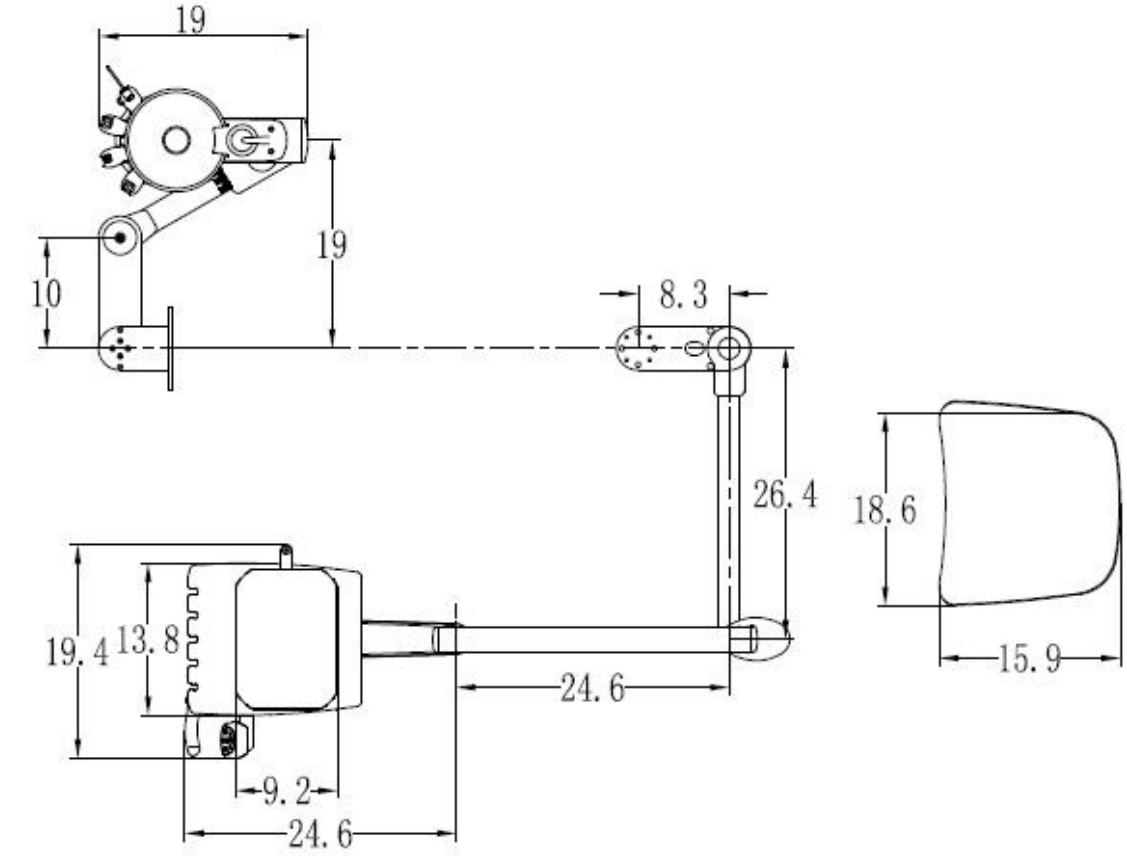
Item	Component	Item	Component
1	Cuspidor	6	Dentist's control
2	Assistant hanger	7	Water bottle
3	Swing arm	8	Junction box
4	Swing adapter	9	Foot pedal
5	Compass arm	10	

3 Dimensions

Size:inch

Figure 2





4 Specifications

Table 2

Light illuminance	8000-40000 Lux
Maximum load of Dentist Unit tray	2.5kg
Ambient temperature	5 ℃～40 ℃
Air supply pressure	72.5psi~101.5psi
Water supply pressure	29~58psi

5 Preparations

5.1 Attentions

Before install the unit, you should:

- Confirm the floor construction is safety to support the chair and clean.
- Apply two manually operated valves for the air and water source.
- Exhaust the dirty water and air before connecting.

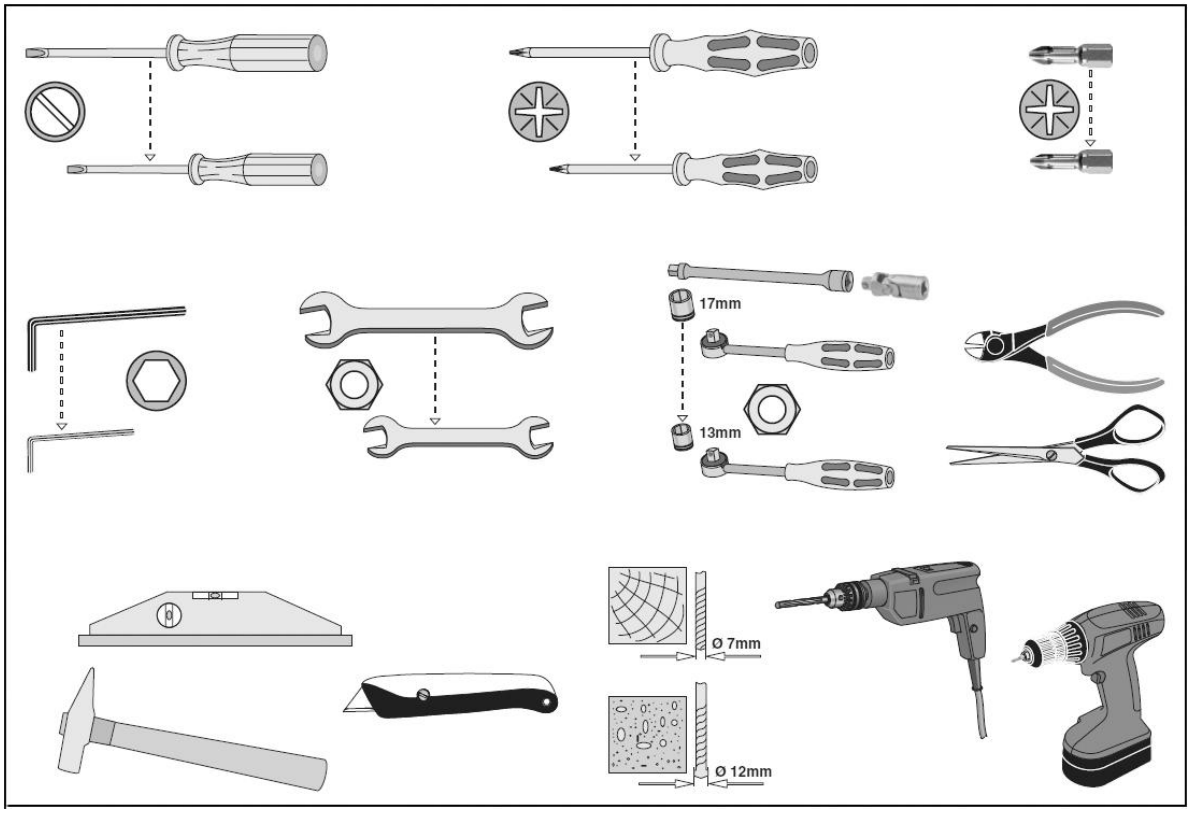
Before install the unit, please read the manual carefully:

- Input voltage AC 110V，60Hz.
- Make sure the dental unit is well-grounded.
- All the electrical components and connections should be made by an authorized technician.
- Only fuse and accessories recognized by ADS technician can be used.
- This device should not operate in the environment of high temperature, high humidity, vibration flammability, unbalance, or dusty.
- Only the authorized spare parts can be used in this device.
- This device can not be used in the environment of strong magnetic, electromagnetic.

5. 2 Tools recommended

The tools and instruments need to prepare before installation.

Figure 3



5. 3 Installation sequence

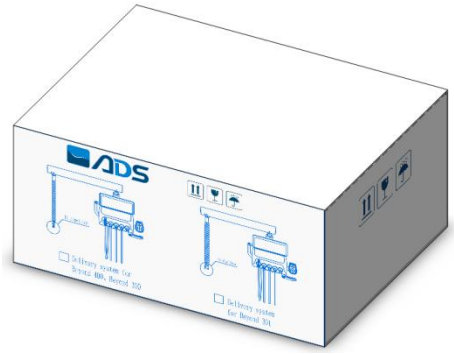
Installation modules of Beyond401 system. Install the modules in following sequence.

Figure 4

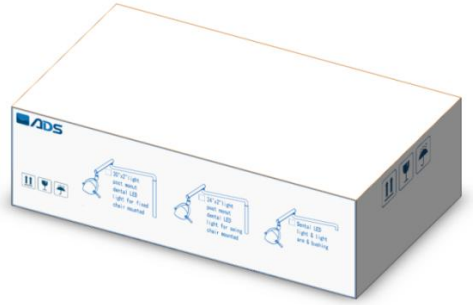
1 Compass arm set



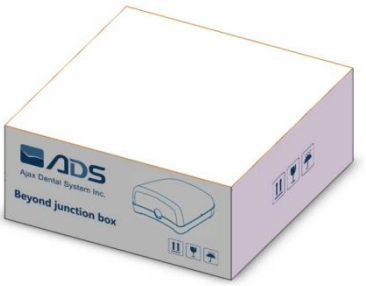
2 Classic dentist unit



3 Dental light unit



4 Junction box unit



Notice：
Each box contains all the parts that belong to the module .

6 Installation

It is necessary to check whether the system and its accessories are damaged after unpacking. In addition, please check all accessories according to the accessories list. Install the system in the following steps:

6.1 Install the swing mount cuspidor package

1. Install the swing arm to the swing dapter on the chair.

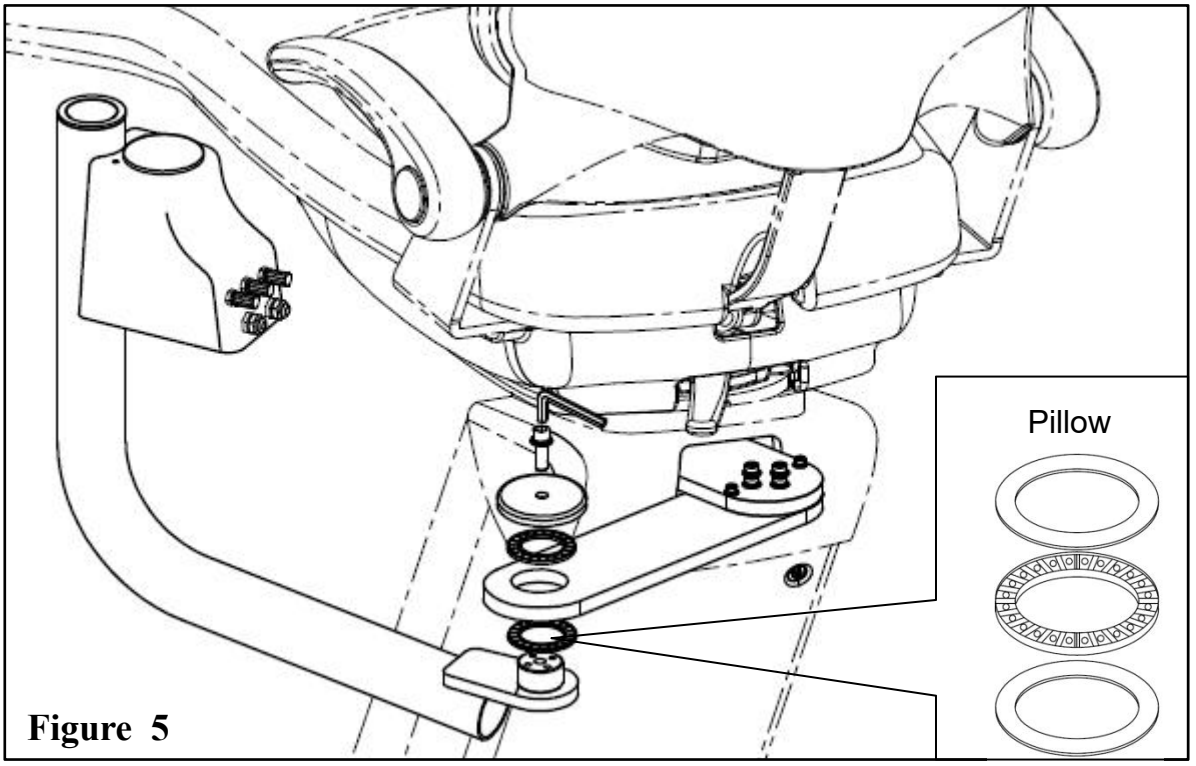


Figure 5

2. Pull the lines of cuspidor from the Rigid arm, insert cuspidor into the Rigid arm.

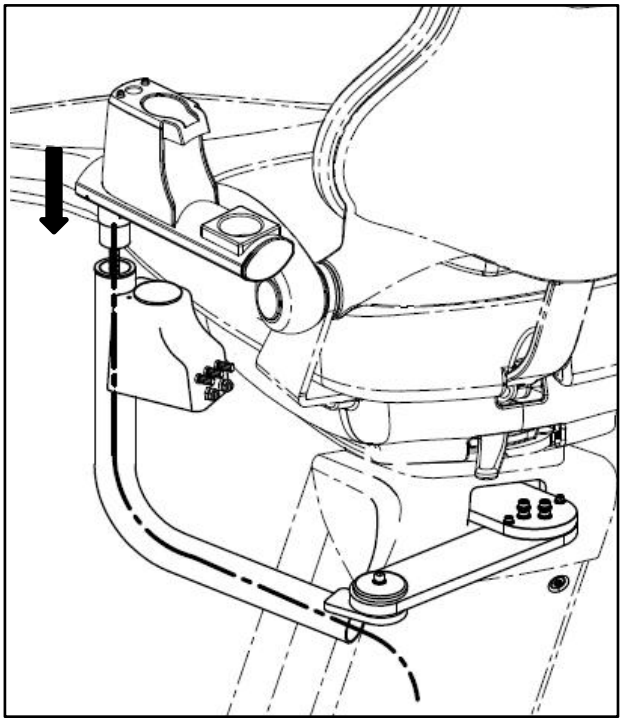


Figure 6

3. Put the cuspidor bowl into the cuspidor, and put filter 1 , cover 2, and install the filling pipe 3.

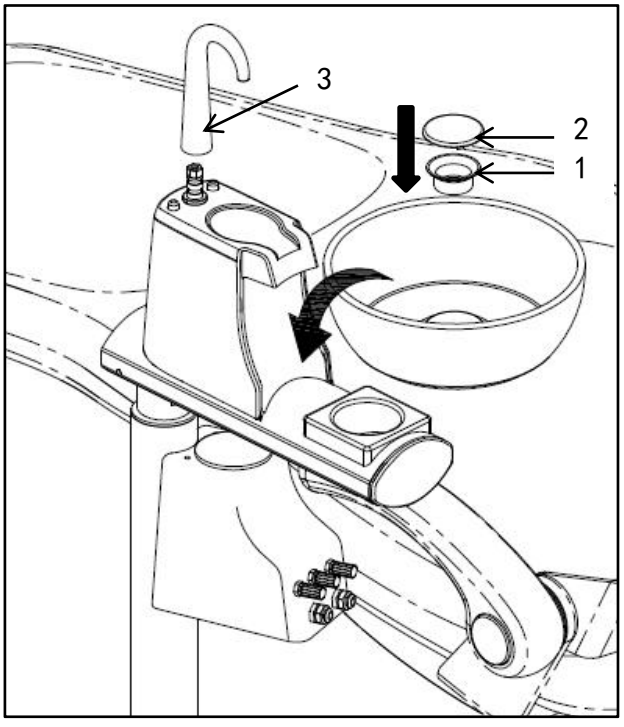
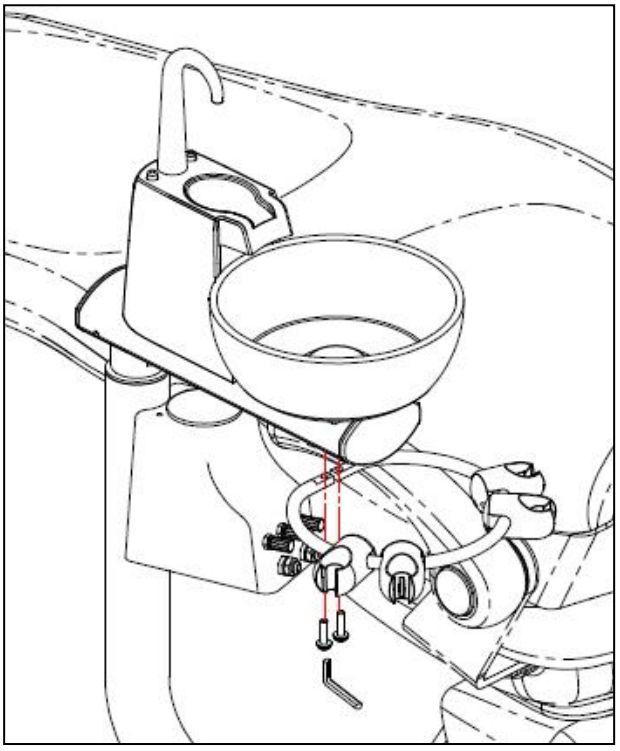


Figure 7

4. Install the assistant hanger under the cuspidor with two screws.



5. Put the HVE, SE handle and syringe handle to the assistant hanger.

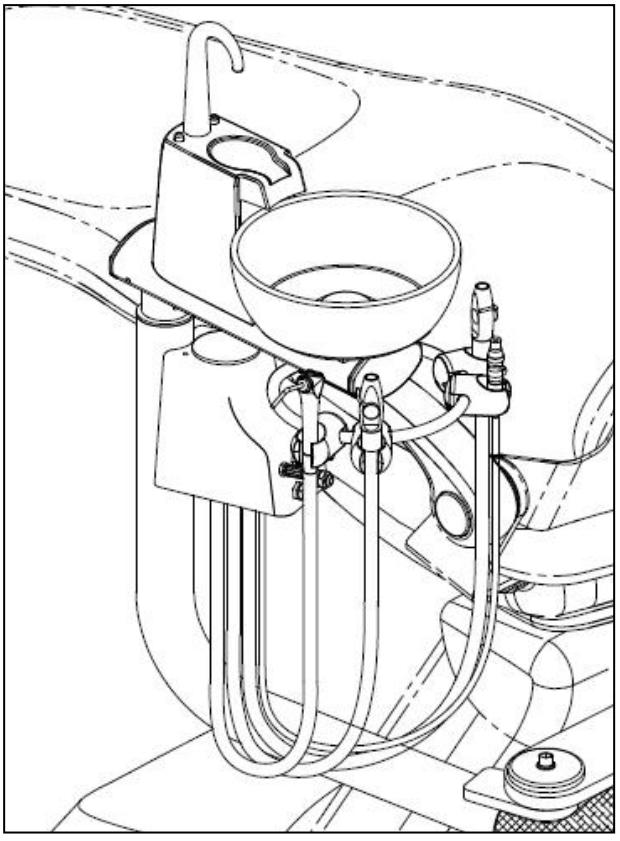
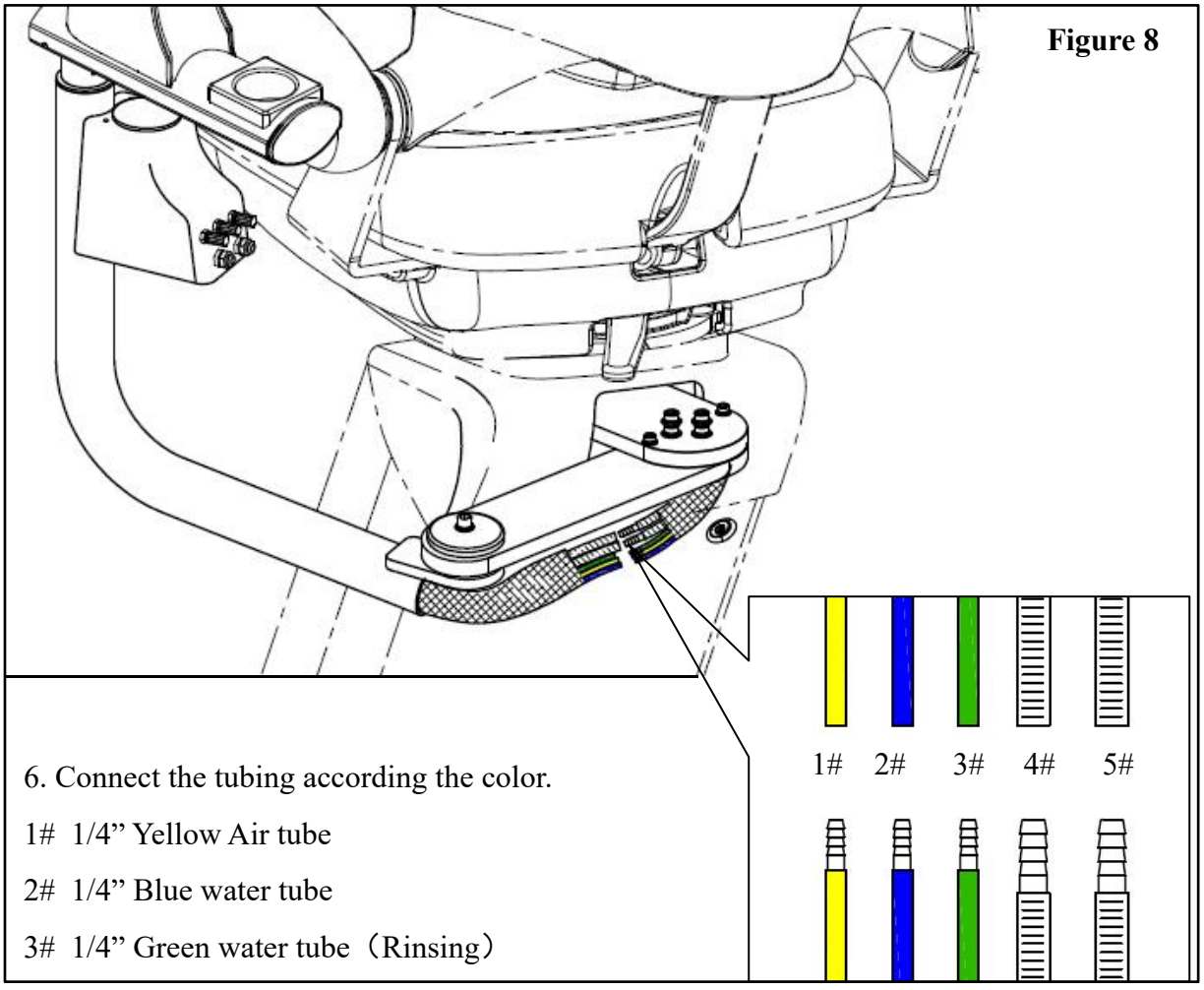


Figure 8



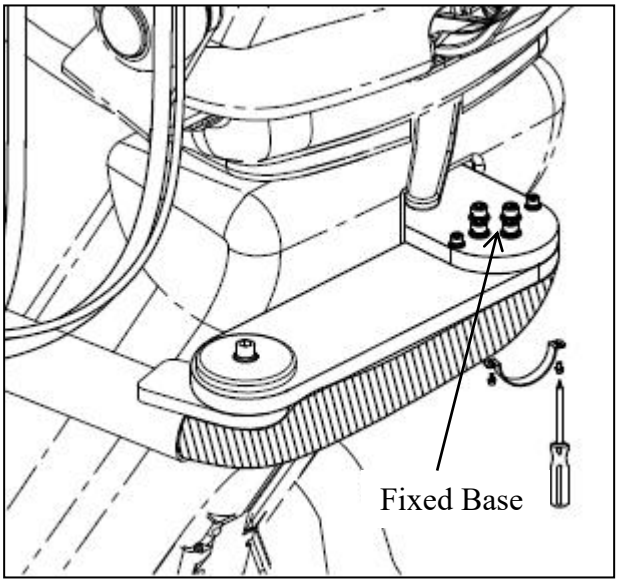
6. Connect the tubing according the color.

1# 1/4” Yellow Air tube

2# 1/4” Blue water tube

3# 1/4” Green water tube（Rinsing）

7. Pull the corrugated pipe to the fixed base from Rigid arm. Fix the corrugated pipe to the fixed base with buckle.



6. 2 Installation of delivery system

6. 2. 1 Install the rotary arm

1. Release the M10*30 screw of the connecting plate, mount the rotary arm to the front mounted connecting plate as the figure shown, then fasten the screw.

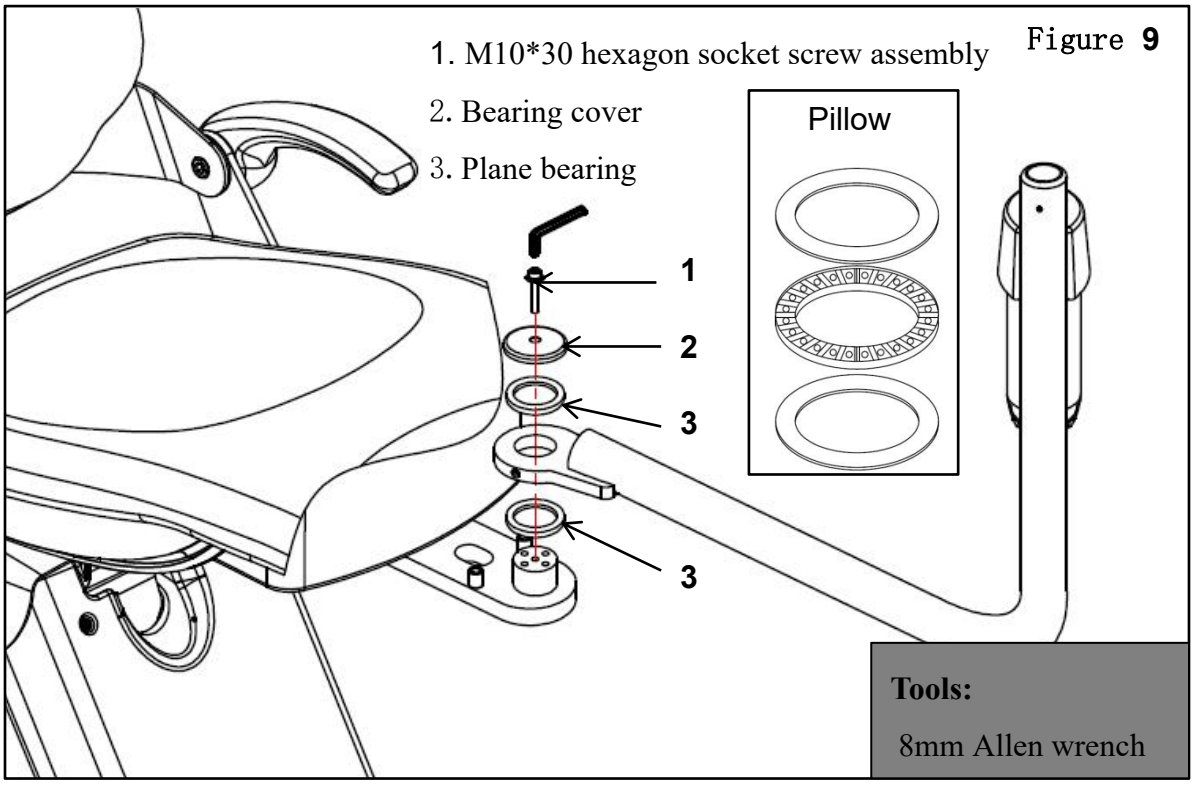


Figure 9

2. Assure the levelness of the rotary by regulating the four screws on the connecting plate.

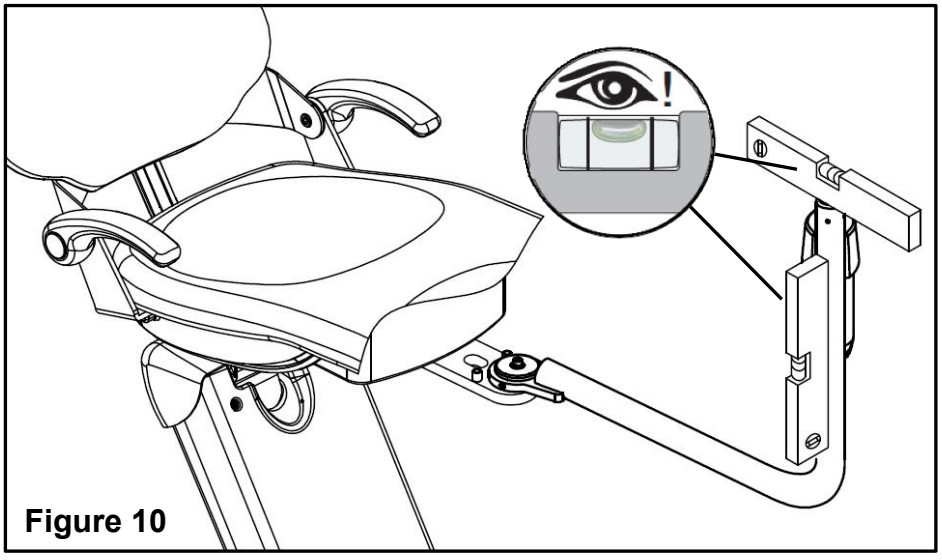
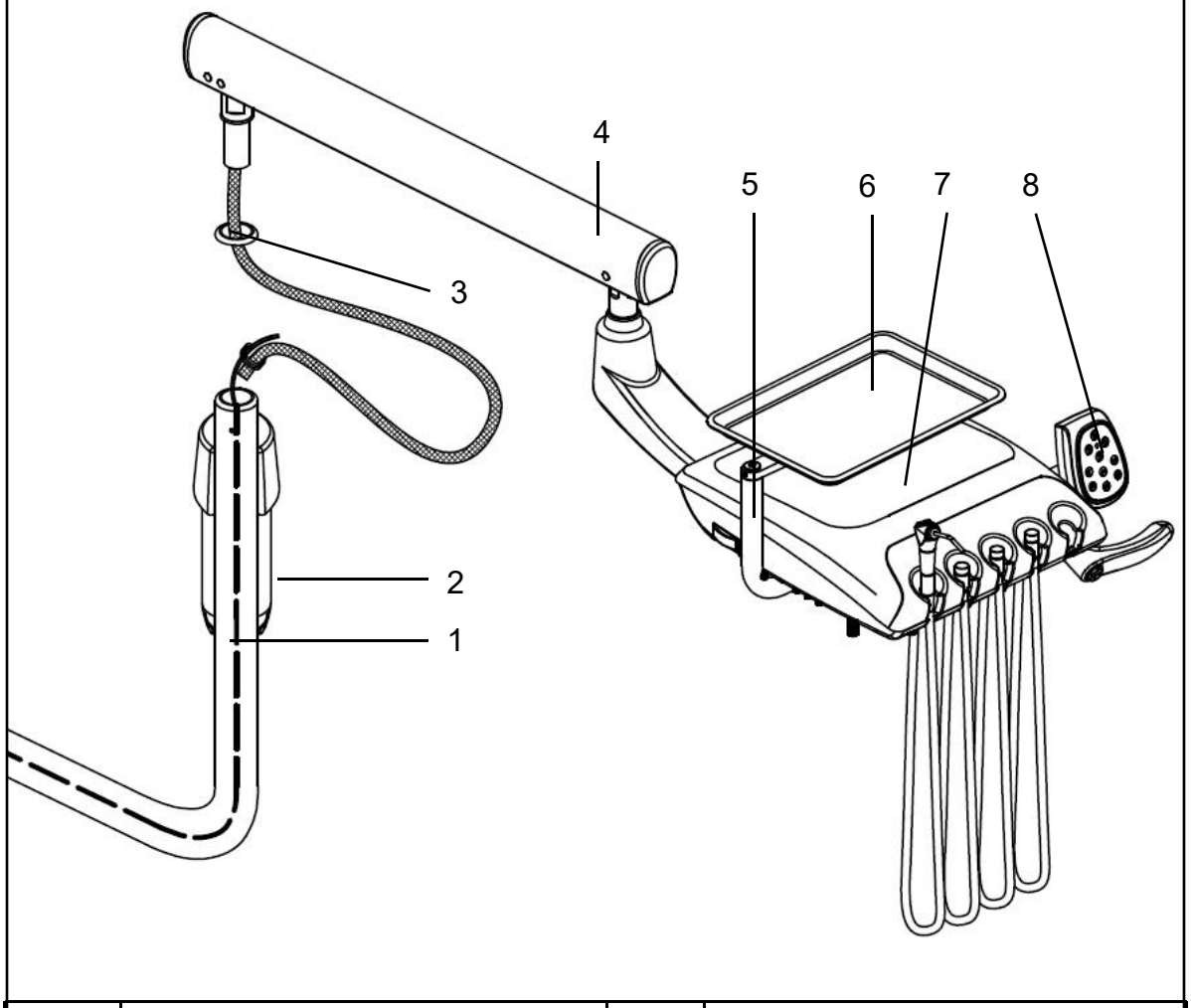


Figure 10

6. 2. 2 Install dentist unit

Compositions of dentist unit

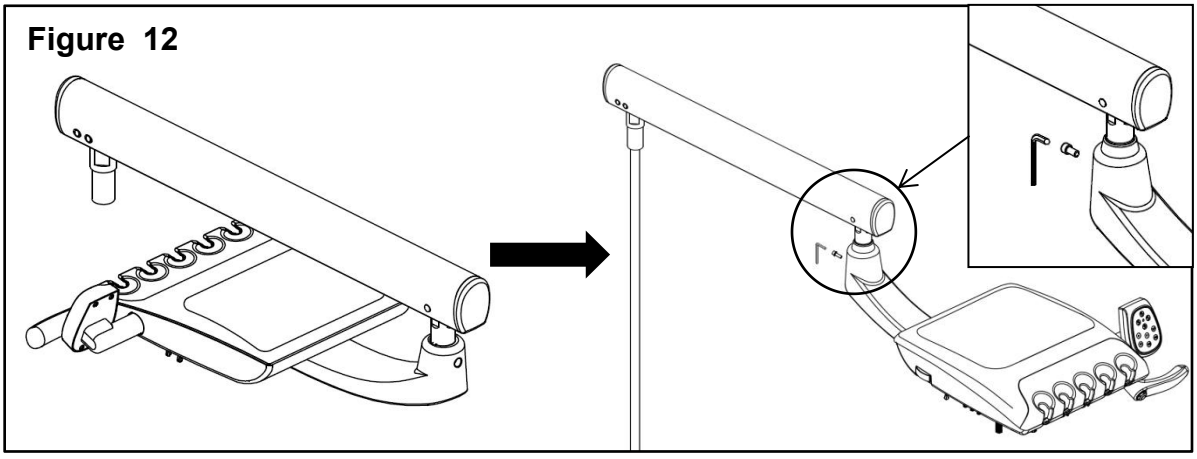
Figure 11



1	Rotary arm (front mounted)	5	Pole of tray
2	Water bottle (front mounted)	6	Tray
3	Cosmetic ring	7	DE-5 Delivery head
4	Level arm	8	Touch Pad

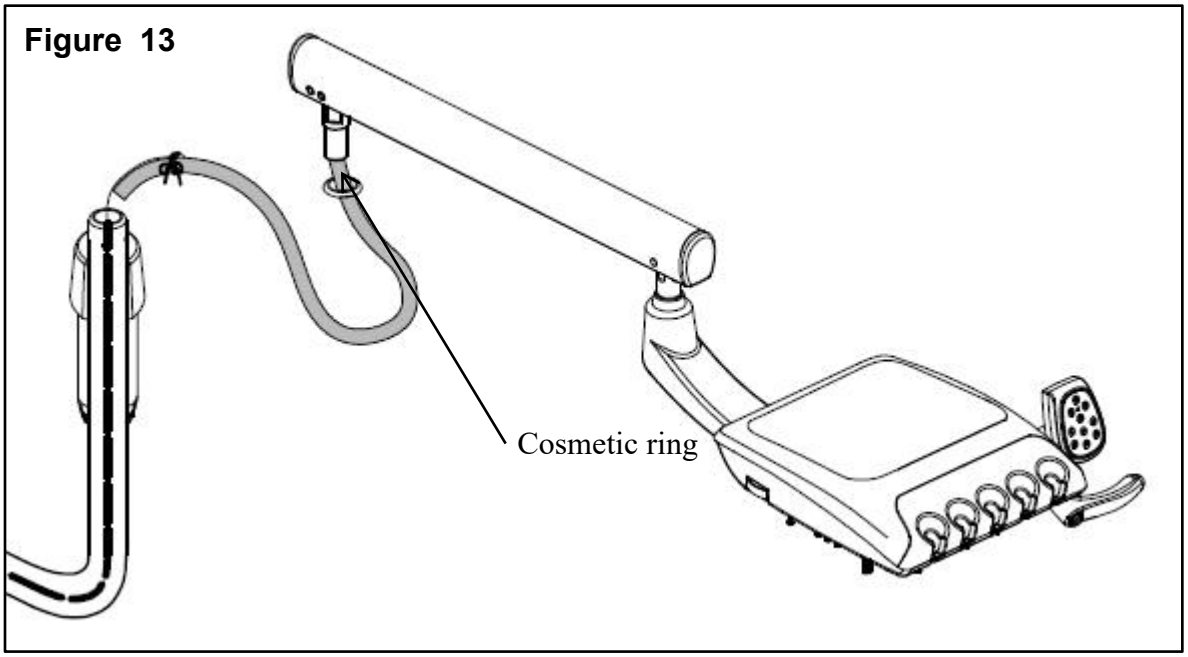
1. Remove the dentist unit after the delivery head turn around, with the Allen screw in one M6*20 to fix the delivery head and balance arm, prevent rotation.

Figure 12



2. Pass the tubes of dentist unit through the cosmetic ring, tie the tubes with the guide rope, then pull the guide rope and let the tubes route through the rotary arm and approach to the wter unit interior. Joint the level arm and rotary arm together.

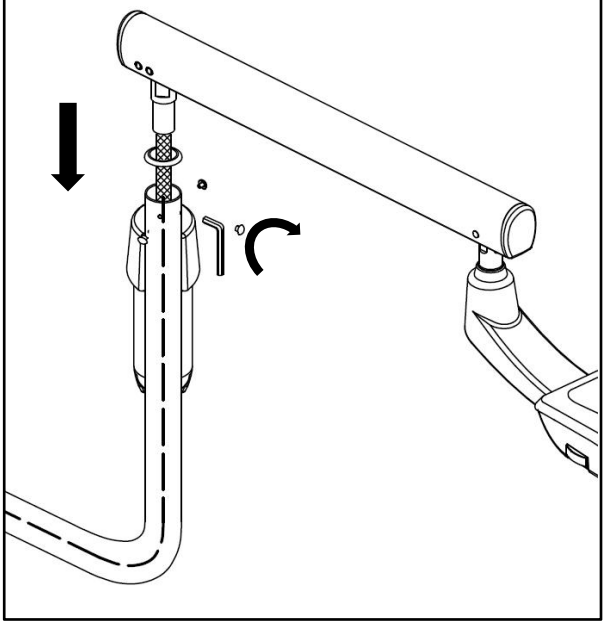
Figure 13



3. Pick up the treatment table kit and stick the balance arm shaft end into the rotating arm hole, screw down the 3pcs M6*8 inner hexagon screws (adjust the screws to get proper damping force), and cover with decorative cap.

Tools:
3mm Allen wrench

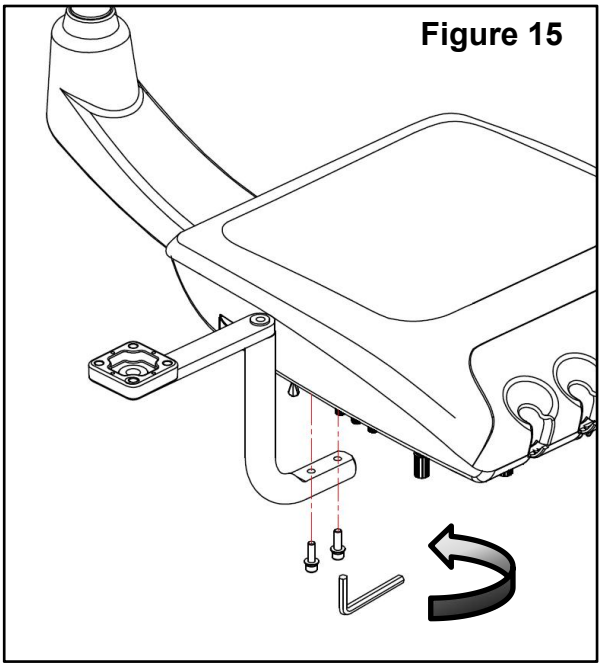
Figure 14



4. Install the tray holder to the bottom of delivery head, and fix with two M6*20 hex cap screws.

Tools:
5mm Allen wrench

Figure 15

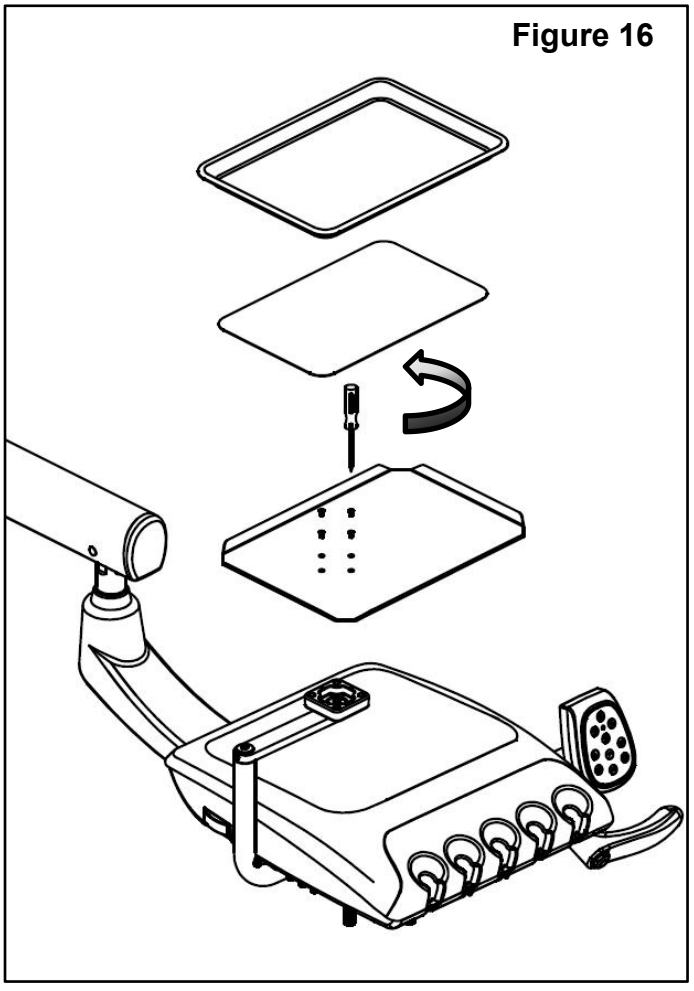


5. Install the tray supporter on the tray holder and fix with four M3*10 Philip's countersunk screws, put the anti-skid mat on the supporter, and then put the stainless steel instrument tray on the mat.

Tools:

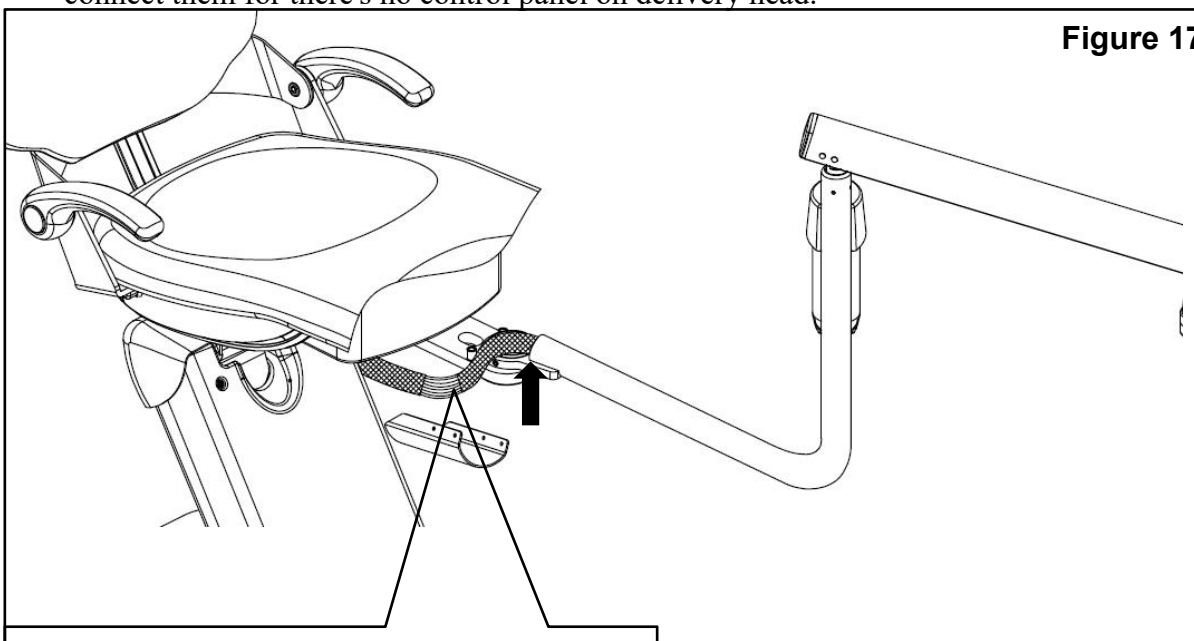
Philip's screw driver

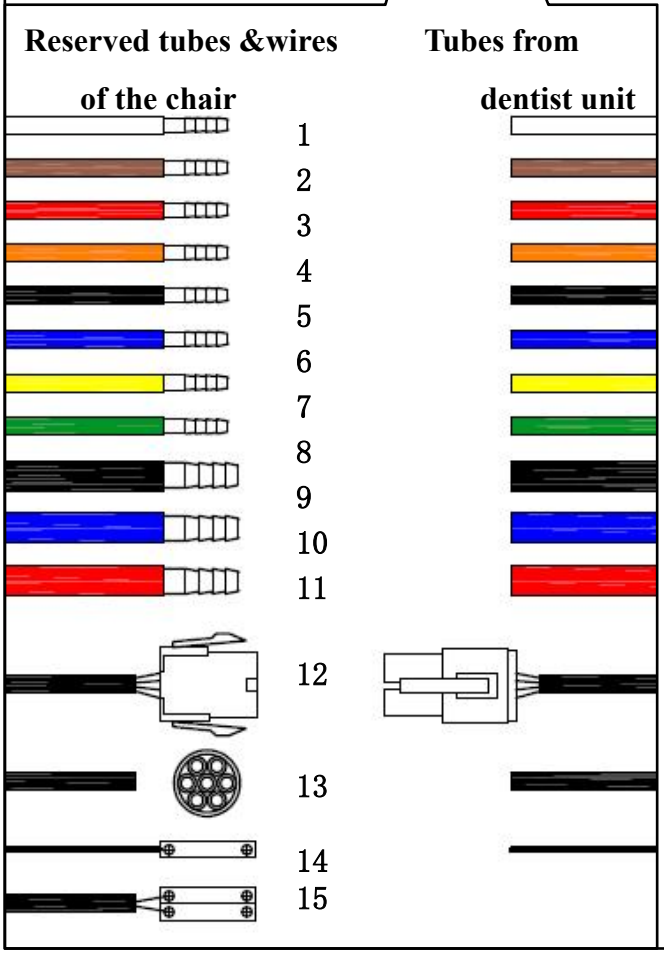
Figure 16



6. The tubes of the dentist unit and those reserved of the chair shall be connected by color, and close the cover after connection. Ignore the reserved wires,you have no need to connect them for there's no control panel on delivery head.

Figure 17





1. 1/8" white, reserved for dentist unit
2. 1/8" brown, reserved for dentist unit
3. 1/8" red, reserved for dentist unit
4. 1/8" orange, reserved for dentist unit
5. 1/8" black, reserved for dentist unit
6. 1/8" blue, reserved for dentist unit
7. 1/8" yellow, reserved for dentist unit
8. 1/8" green, reserved for dentist unit
9. 1/4" black, reserved for dentist unit
10. 1/4" blue，reserved for dentist unit
11. 1/4" red，reserved for dentist unit
12. Control wire for delivery head
13. Reserved Seven core wire
14. Ground wire for delivery head
15. 24V power cord for dental light

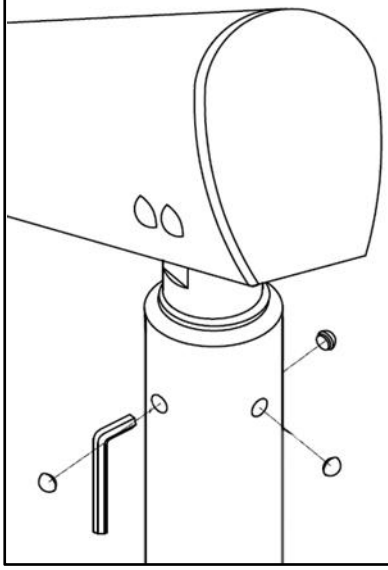
6. 2. 3 **Adjust the level arm**

1. Remove the screw caps, change the tightness of the screws to adjust the damping force of level arm.

Note： Loosen the screws in counterclockwise, tighten in clockwise.

Tools：
3mm Allen wrench

Figure 18

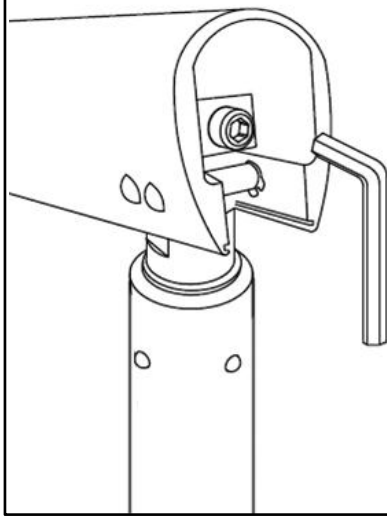


2. Remove the end cover of level arm, adjust the tightness of the screw to get suitable balance force.

Note： Loosen the screws in counterclockwise, tighten in clockwise.

Tools：
5mm Allen wrench

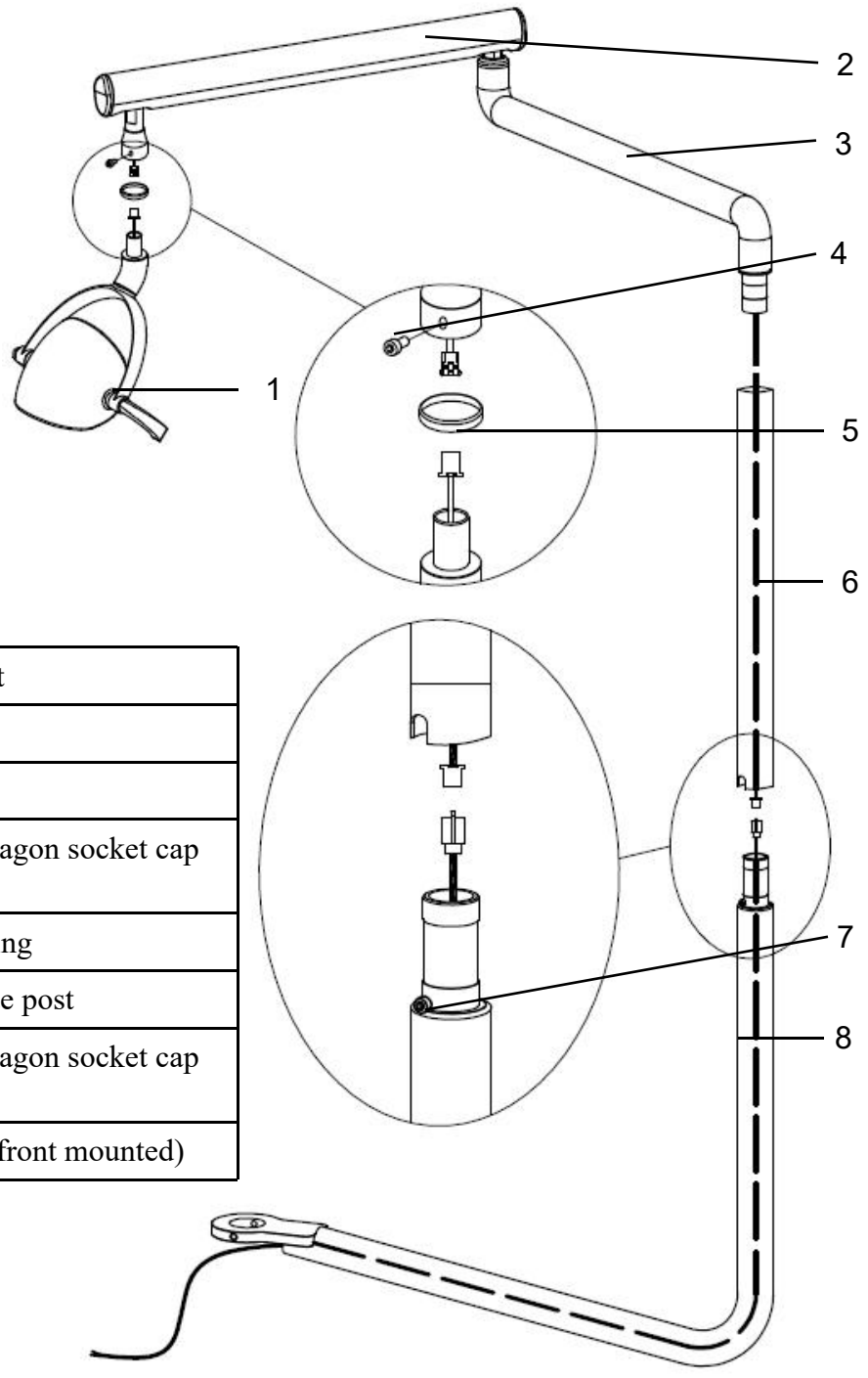
Figure 19



6. 3 **Install dental light（optional）**

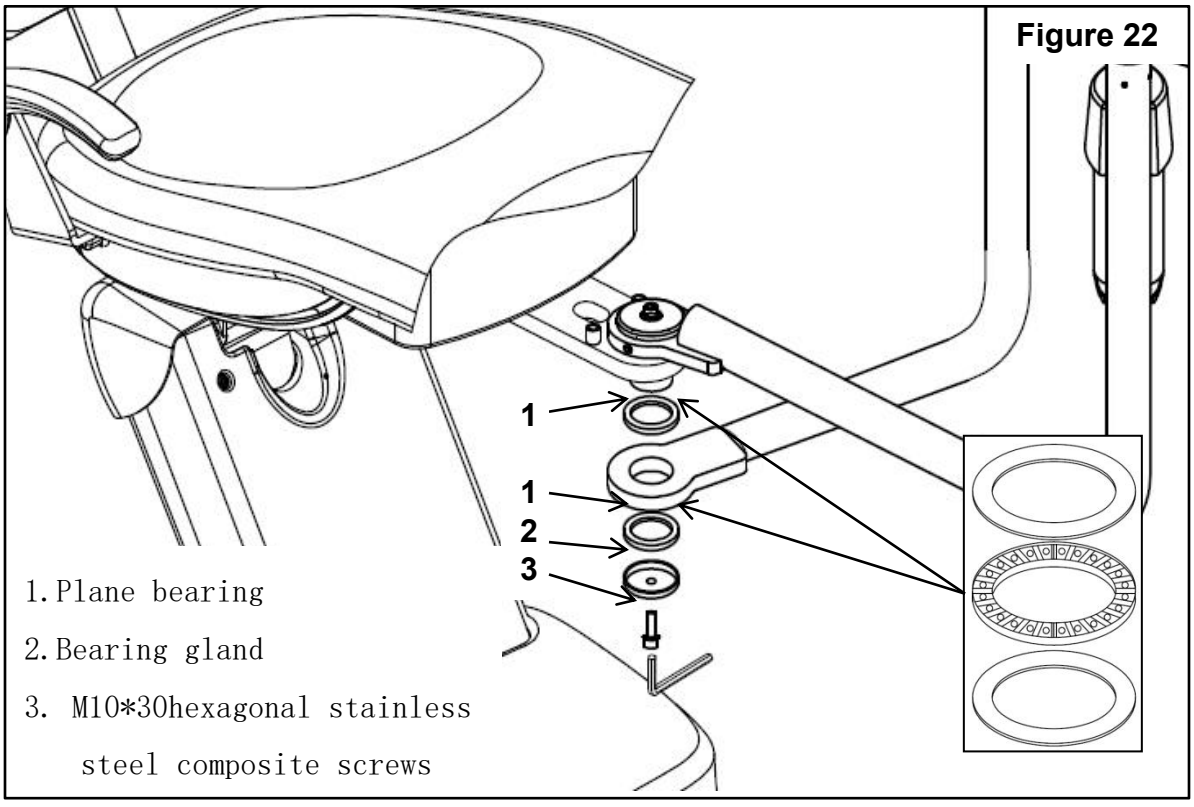
Notice： Please ignore this step if there is no lamp configuration.

Figure 20

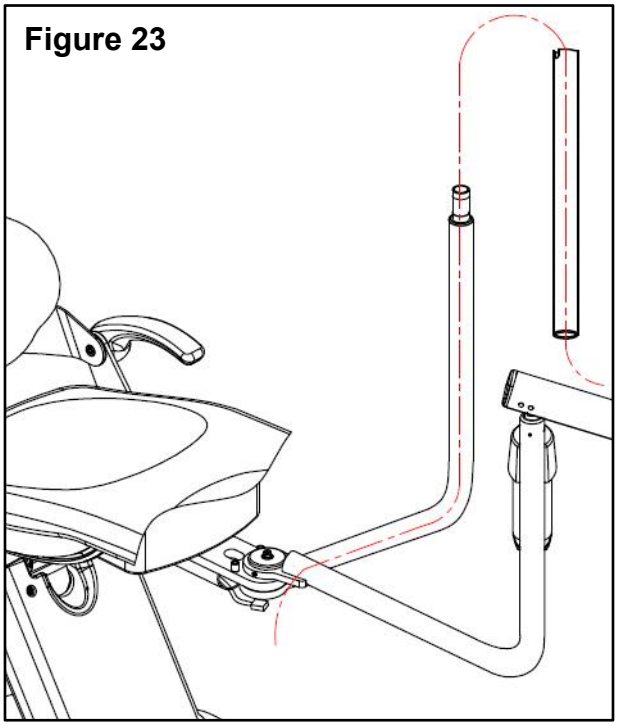


1	Dental light
2	Level arm
3	Rotary arm
4	M5*12 hexagon socket cap screw
5	Cosmetic ring
6	Intermediate post
7	M5*10 hexagon socket cap screw
8	Lamp arm(front mounted)

1. Release the M10*30 screw of the connecting plate, mount the lamp arm to the front mounted connecting plate as the figure shown, then fasten the screw.

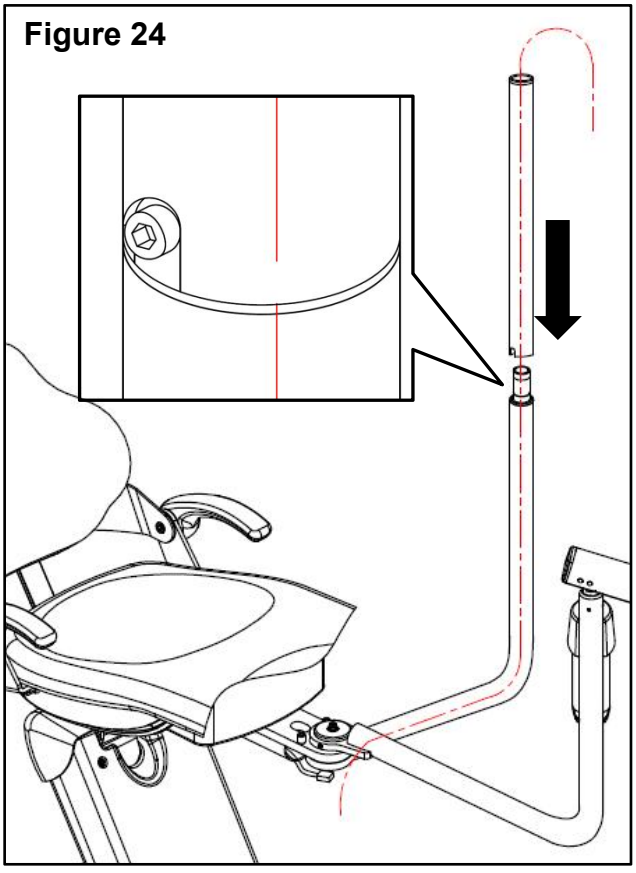


2. Let the guide line route though the intermediate post as the figure shown, the post end which has a jag should be upward.



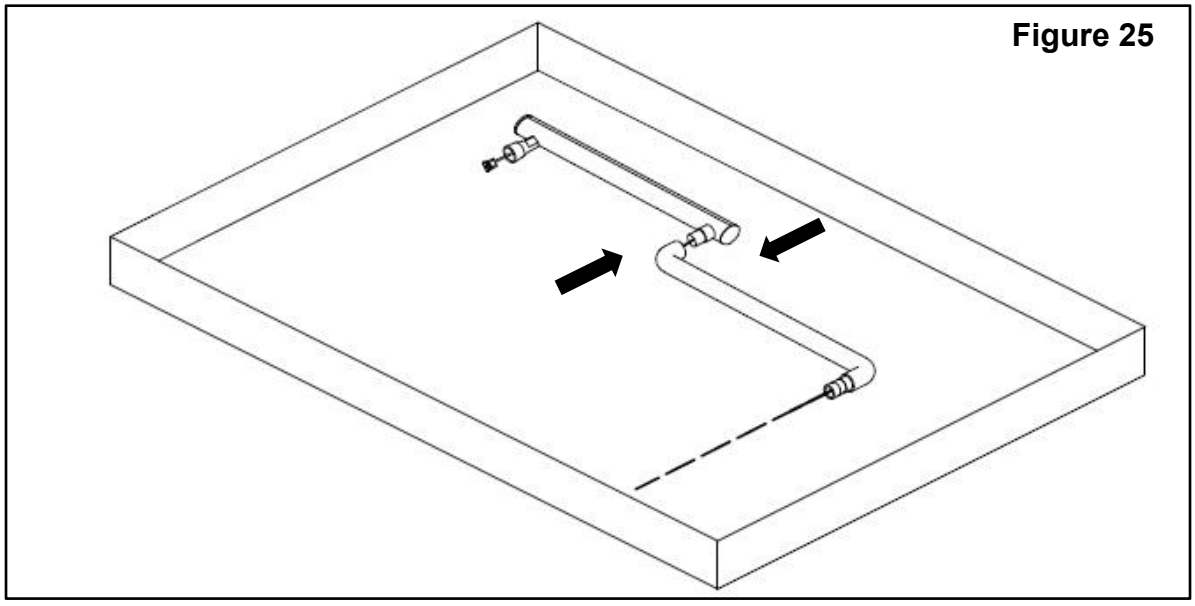
3. Joint the intermediate post and the rotary arm, the jag on the post is screw position.

Figure 24



4. Joint the level arm and the rotary arm, take them out from the carton.

Figure 25



5. Tie the light wire and the guide line together, pull the guide line to lead the wire pass through the post and the lamp arm.

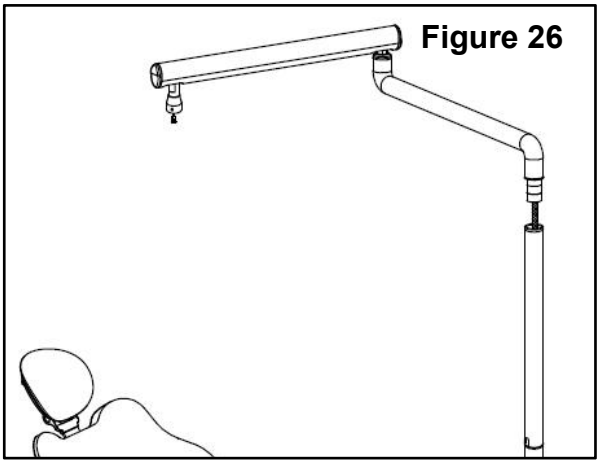


Figure 26

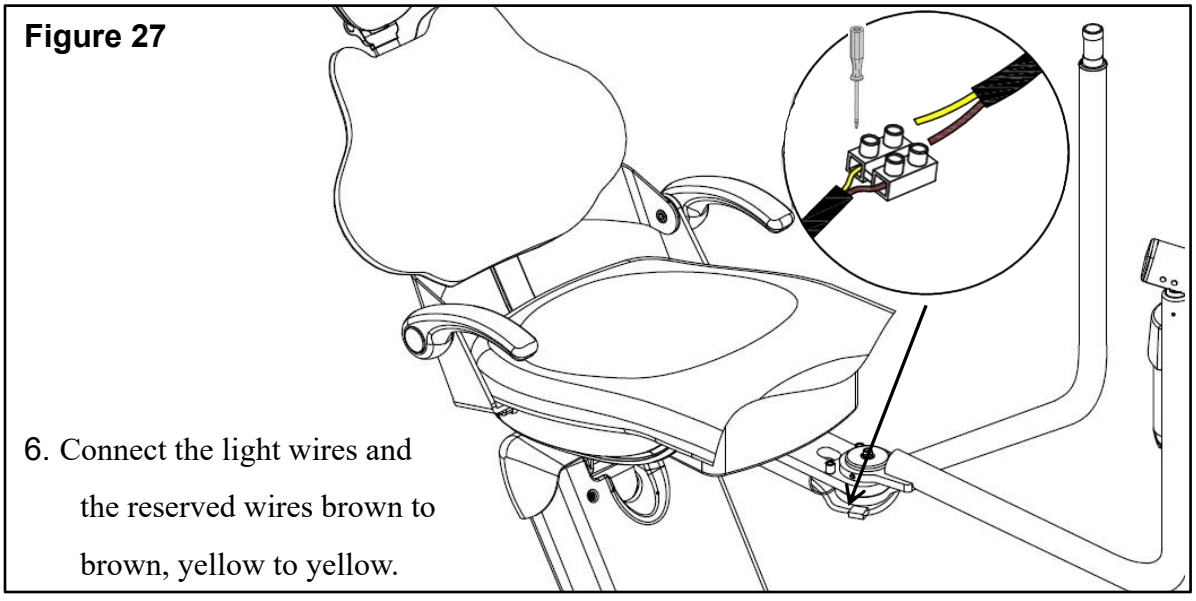


Figure 27

6. Connect the light wires and the reserved wires brown to brown, yellow to yellow.

7. Take out the lamp from the package, pass the wire through the cosmetic ring and connect the wire terminals, then joint the light head and the level arm together, fully fasten with a M5*12 screw.

Note: Hold the lamp, do not drop it to avoid damage.

Tools:
4mm Allen wrench

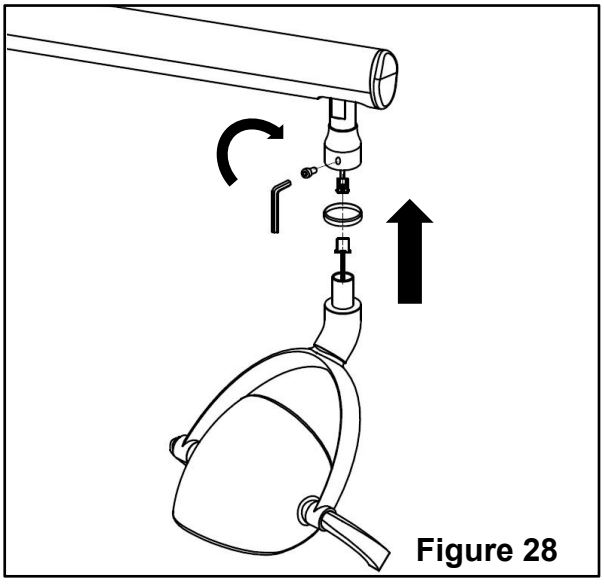
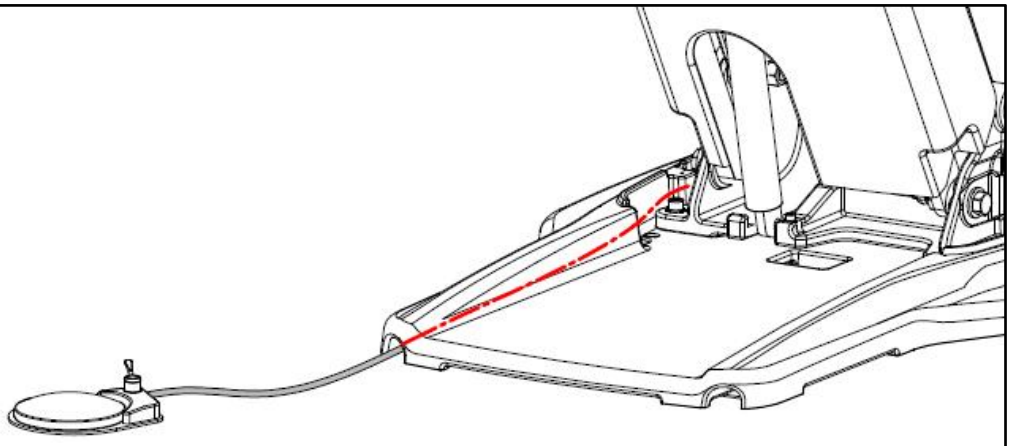


Figure 28

6. 4 **Install foot control**

1. Put the foot control tube through the left hole behind the bottom of the chair and out of the other end of the hole.

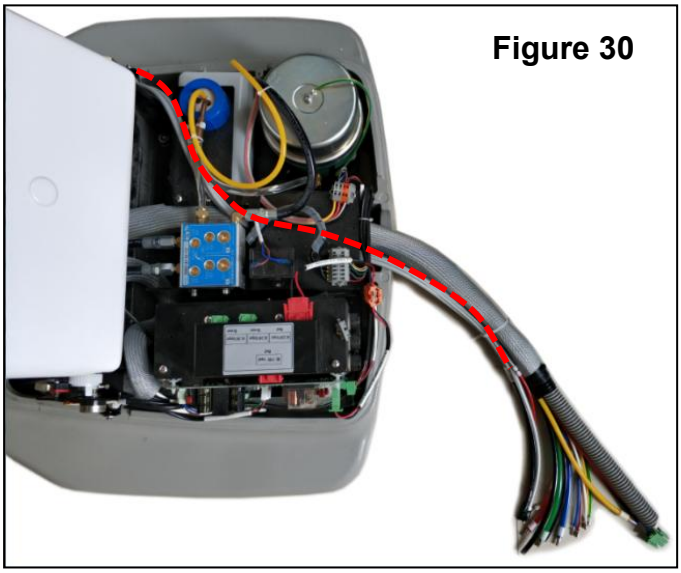
Figure 29



2. Pipe the oil pot by the side of the pipeline around the confluence with the pipeline bundle tied with the tape.

3.The pipe is covered with corrugated pipe, and the two ends of the corrugated pipe are respectively covered to the chair and the junction box card. Finally close the cover.

Figure 30



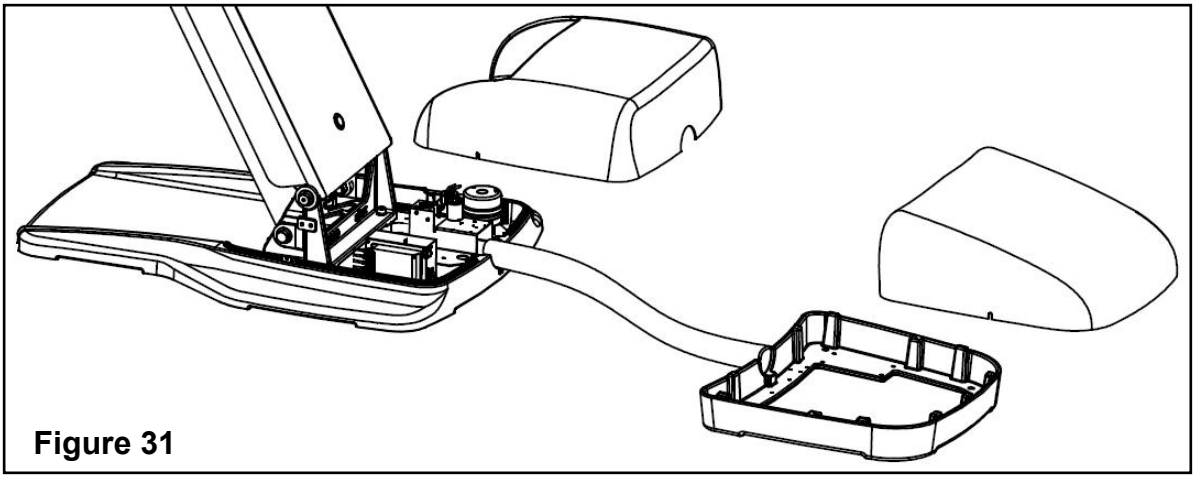
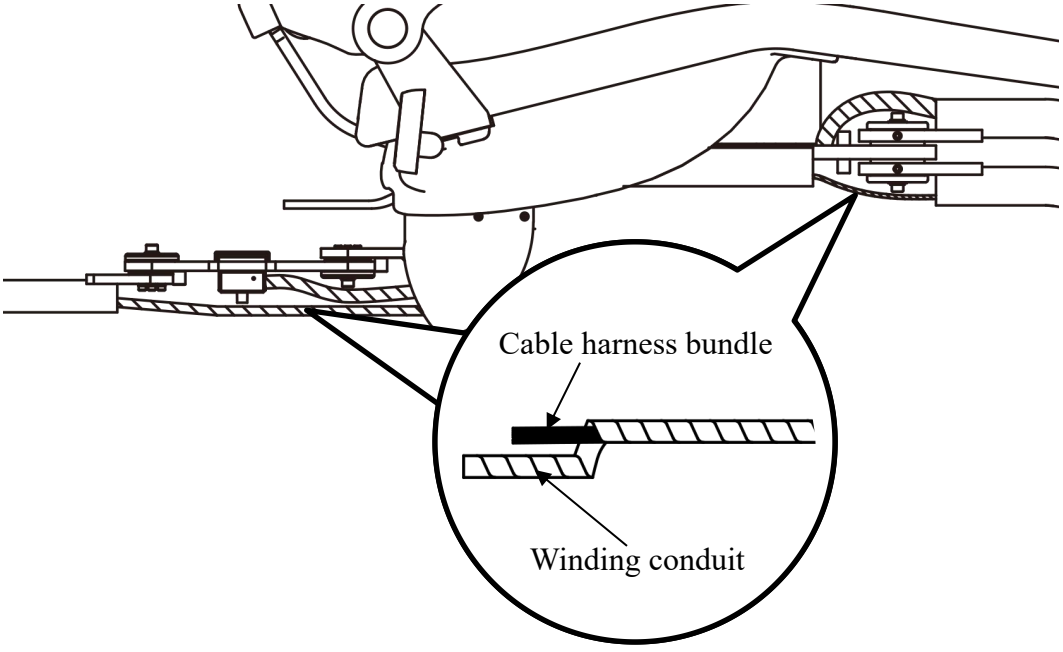


Figure 31

6.5 Post-Installation Wire Harness Protection

1. Upon completion of dental chair installation procedures, enclose any exposed sections of the internal wire harness bundle within a flexible winding conduit.



6. 6 **Junction box connection**

Figure 32

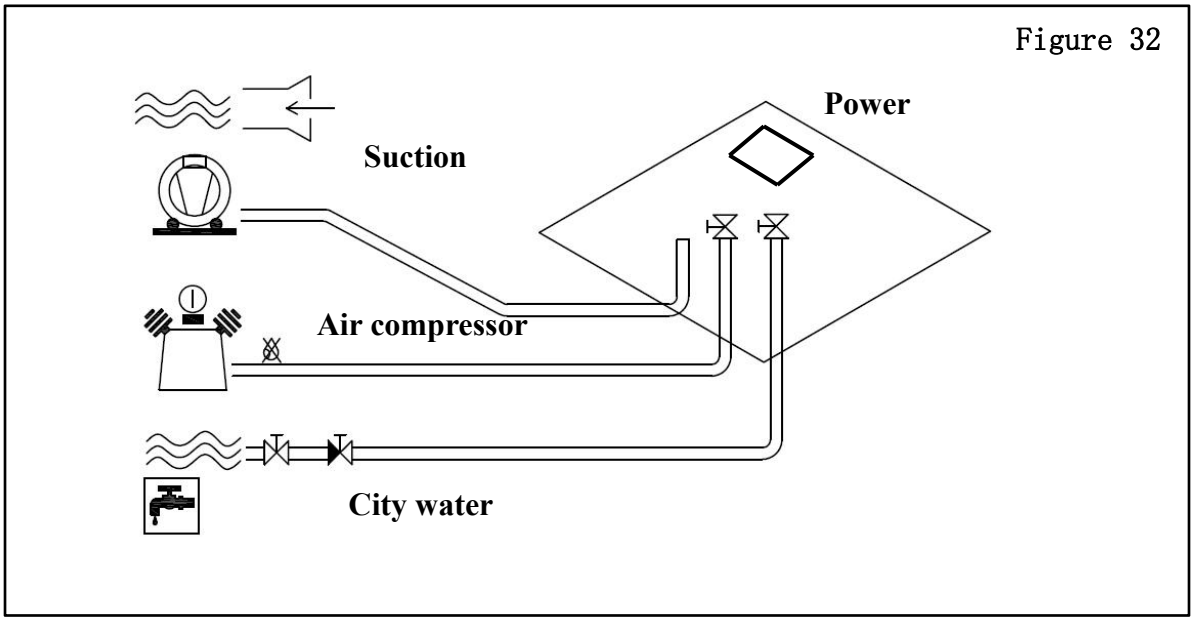
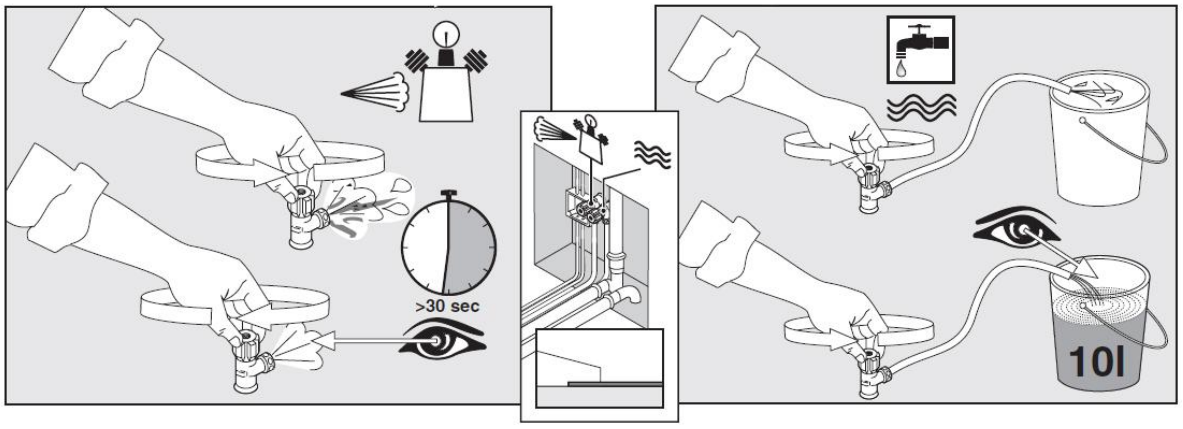


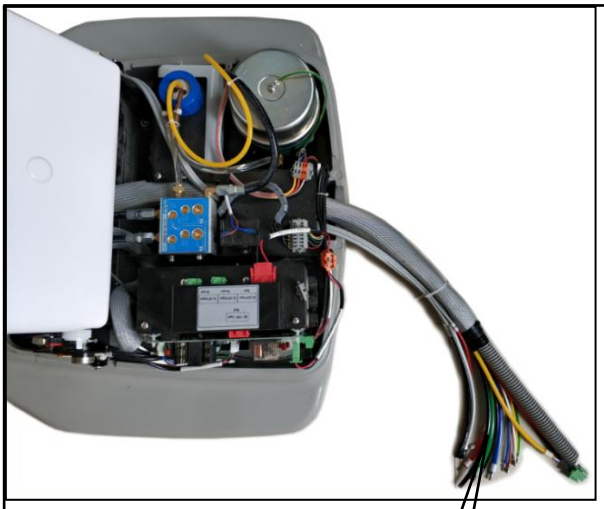
Figure 33

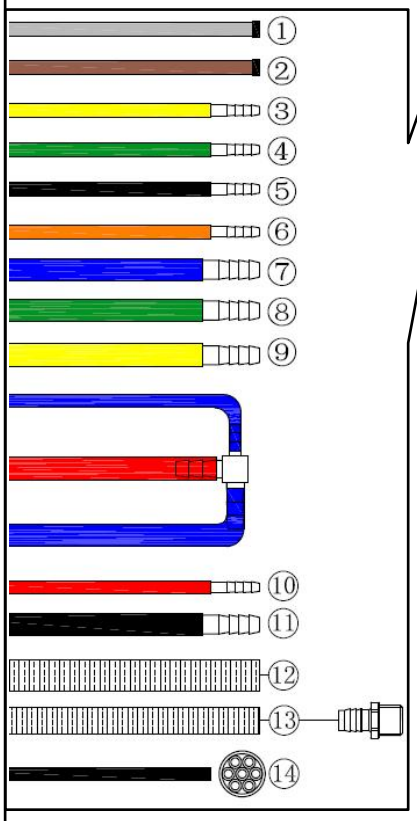


The tubes & wires are in the tubing zone or inside the external junction box, their places depend on your chair configurations.

1. Open the valves to exhaust water and air, clean the tubes before connecting.
2.. Open the cover of the junction box，connect the air-in，water-in and water-out .
3. Take out the power box of dental light ,connect the power cord to the power box, and plug into the socket.
4. Close the cover after making sure they are well-performed.

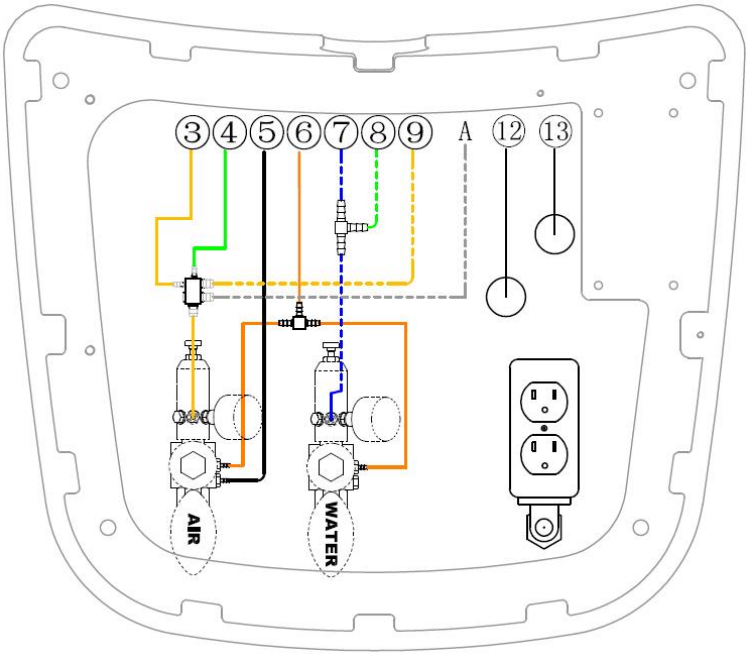
Connect the pipe of the junction box and the chair according to the color, connect the pipe of the foot control with the reserved pipe on the chair and the pipe of the junction box valve according to the color.





1. 1/8" white, reserved for dentist unit
2. 1/8" brown, reserved for dentist unit
3. 1/8" yellow, reserved for dentist unit
4. 1/8" green, reserved for dentist unit
5. 1/8" black, reserved for dentist unit
6. 1/8" orange, reserved for dentist unit
7. 1/4" blue, reserved for side box
8. 1/4" Green, reserved for side box
9. 1/4" Yellow, reserved for side box
10. 1/8" Red, reserved for foot control
11. 1/4"Black, reserved for foot control
12. Drainage pipe, connect to cuspidor
13. Pressure suction pipe
14. Reserved seven core wire

A. Pipe for foot control



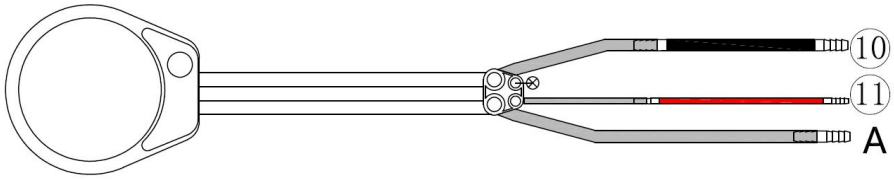


Figure 34

We reserve the right to make any alterations which may be due to technical improvements.





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