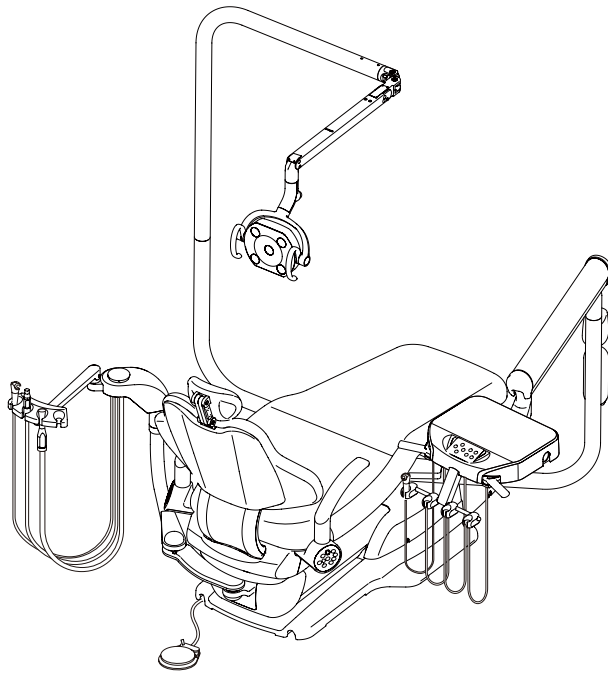


# *Quolis<sup>®</sup> Series*

## Evogue Dental Unit



### INSTALLATION INSTRUCTIONS

#### IMPORTANT

- This manual provides installation instructions for the Evogue unit.
- The instructions contained in this booklet should be thoroughly read and understood before installing the chair and unit.
- After the installation has been completed, keep this manual in a safe place and refer to it for future maintenance.
- Installation should be conducted by authorized personnel only.  
Follow instructions on installation manual.





### **Intended Use of the Product**

This product is an active therapeutic device intended to administer or exchange energy of electric, air and water for the exclusive use for diagnoses, treatments and relative procedures of dentistry, and its characteristic is not in a potentially hazardous way between such energy and human body, taking account of the nature, the density and site of application of the energy.

The product must be operated or handled by the qualified dentists or by dental staffs under the supervision of the dentist.

Such dentists or dental staffs should instruct and/or assist the patients to approach to and leave from the product.

Patients should not be allowed to operate or handle the product unless he/she is so instructed.

The product is supplied together with the handpieces like electric micromotor, air turbine and/or motor, scaler and so on.

### **Environmental Requirements**

For Operation :

Ambient Temperature 41°F to 104°F (5°C to 40°C)

Humidity 30 % - 75%

Atmospheric Pressure 10 psi – 15.1 psi (700 hPa to 1060 hPa)

For Transportation / Storage :

Ambient Temperature 7°F to 158°F (-20°C to +70°C)

Humidity 10 % - 95%

Atmospheric Pressure 10 psi – 15.1 psi (700 hPa to 1060 hPa)

Equipment is not suitable for use in environments with, flammable anesthetic gases, oxygen or nitrous oxide.

### **Classification of Equipment**

- a. Type of shock protection : Class I Equipment
- b. Degree of shock protection : Type B Applied part
- c. Degree of protection against water ingress : Ordinary Equipment (All Products)
- d. Mode of operation : Continuous Operation
- e. Flammable Gases : Not suitable for use in the presence of a flammable anesthetic mixture with air, oxygen, or nitrous oxide.
- f. Earth : Protective earth (ground)
- g. Hospital Grade Plug : Grounding reliability can be achieved only when the equipment is connected to an equivalent receptacle marked hospital only or hospital grade.



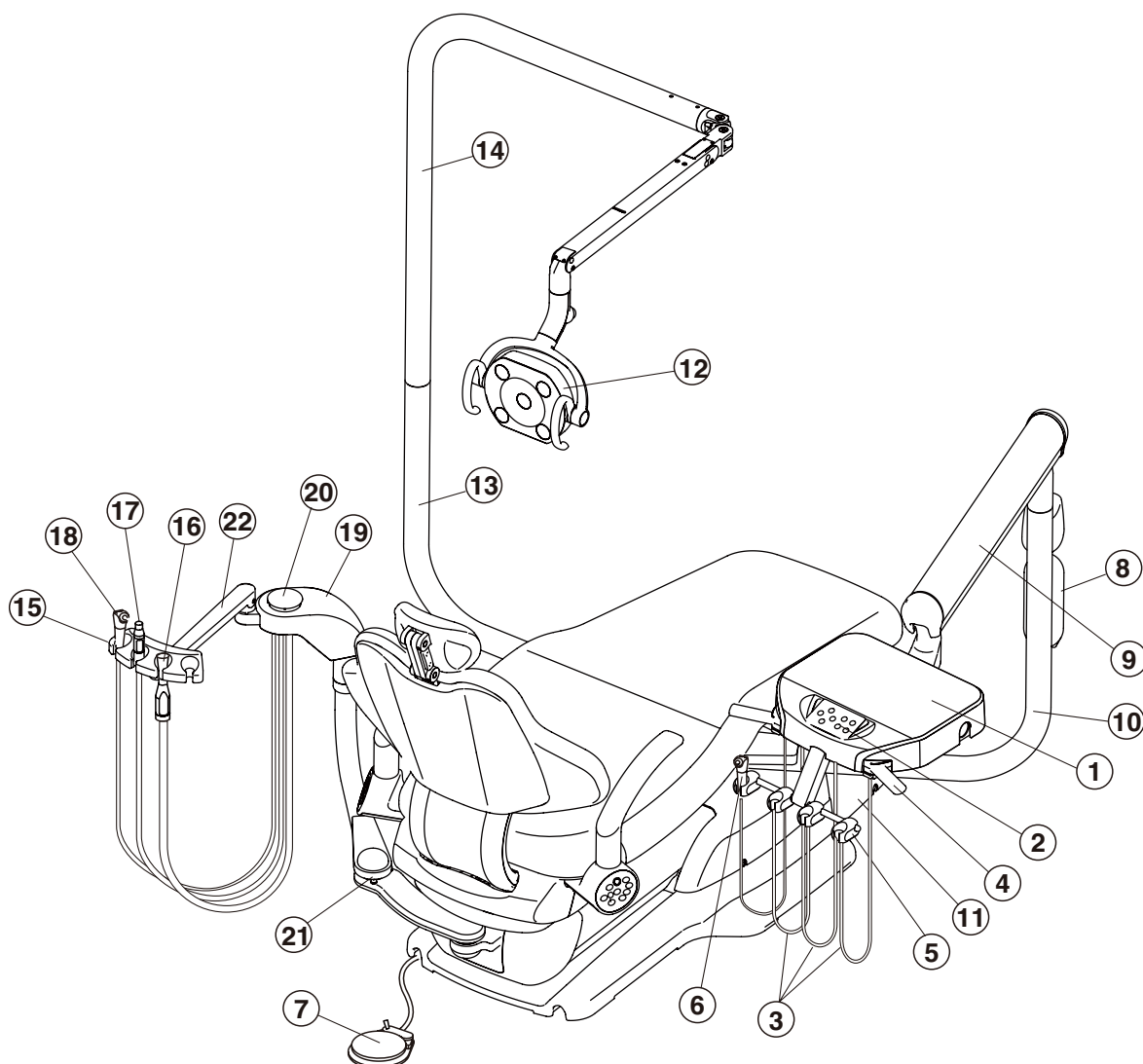
**Ground reliability can only be achieved when the equipment is connected to an equivalent receptacle marked HOSPITAL only or HOSPITAL GRADE.**

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## 1. Overview and Major Components

### 1-1. Swing Mounted Delivery System with Vac Pac and CLESTA LED Light

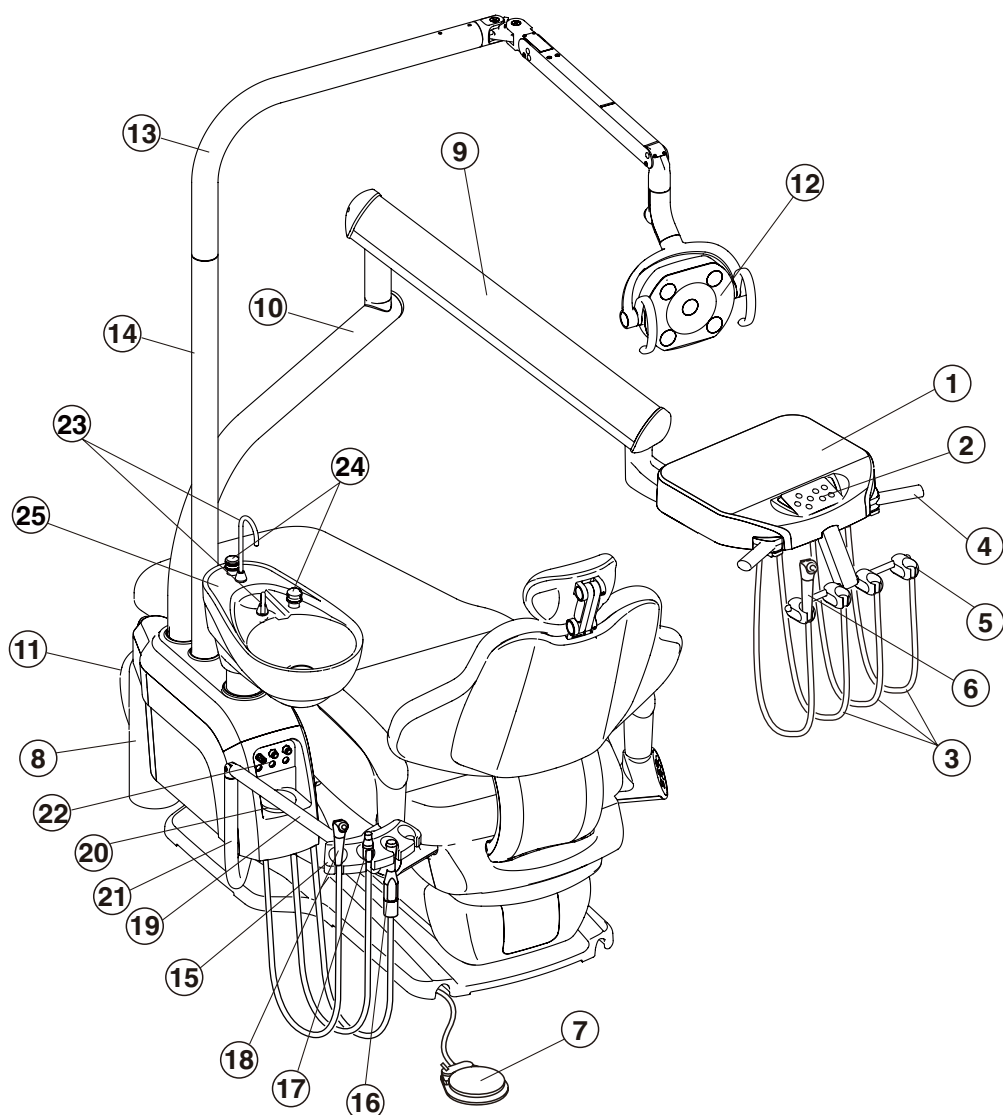


- |                        |                                  |
|------------------------|----------------------------------|
| (1) Control Head       | (12) Dental Light                |
| (2) Main Control Panel | (13) Dental Light Swing Arm      |
| (3) Handpiece Hose     | (14) Light Pole                  |
| (4) Handle             | (15) Assistant Instrument Holder |
| (5) Handpiece Holders  | (16) HVE                         |
| (6) Dr's Syringe (*)   | (17) Saliva Ejector              |
| (7) Foot Control       | (18) Assistant's Syringe (*)     |
| (8) Water Bottle       | (19) Vac Pac Housing             |
| (9) Balance Arm        | (20) Solids Collector            |
| (10) Dr Swing Arm      | (21) Assistant Swing Arm         |
| (11) Junction Box      | (22) Assistant Holder Arm        |

(\*Note) Evogue does not include syringe tips. Syringe tips manufactured by DCI are compatible with syringes used with this delivery system.

## 1. Overview and Major Components

### 1-2. Over the Patient Delivery System with Cuspidor and CLESTA LED Light

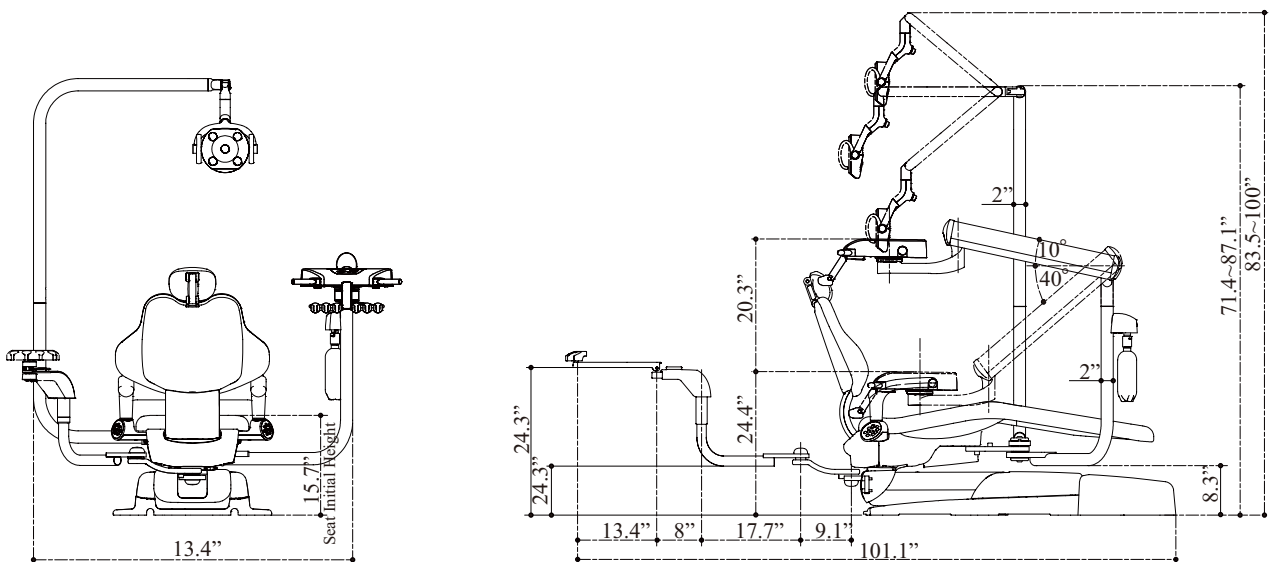
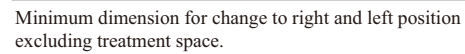


- |                             |   |
|-----------------------------|---|
| (1) Control Head            | (14) Light Pole                           |
| (2) Main Control Panel      | (15) Assistant Instrument Holder          |
| (3) Handpiece Hose          | (16) HVE                                  |
| (4) Handle                  | (17) Saliva Ejector                       |
| (5) Handpiece Holders       | (18) Assistant's Syringe (*)              |
| (6) Dr's Syringe (*)        | (19) Assistant Holder Arm                 |
| (7) Foot Control            | (20) Solids Collector                     |
| (8) Water Bottle            | (21) Assistant Swing Arm                  |
| (9) Balance Arm             | (22) PMU front panel                      |
| (10) Dr Swing Arm           | (23) Cupfill nozzle and bowl flush nozzle |
| (11) Junction Box           | (24) Cupfill switch and bowl flush switch |
| (12) Dental Light           |   |
| (13) Dental Light Swing Arm |   |

(\*Note) Evogue does not include syringe tips. Syringe tips manufactured by DCI are compatible with syringes used with this delivery system.

### 2-1. Swing Mounted Delivery System with Vac Pac and CLESTA LED Light

- Inch / (mm) - Tolerance ( $\pm 10\%$ )



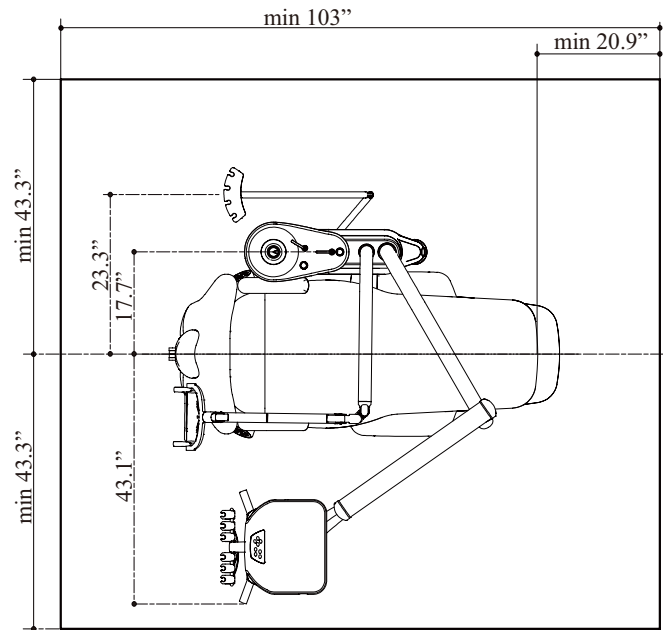
Power Consumption-----	AC120V 1.6A
Frequency-----	60 Hz
Fuse value-----	M6AL, 250V
Dr's control Net Weight-----	44 lbs (20 kg)
Swing Arm Net Weight-----	55 lbs (25 kg) (Without Dental Light)
Vacuum Pack Net Weight-----	44 lbs (20 kg)
Junction Net Weight-----	9 lbs (4 kg)
Doctor Table Maximum Load-----	4.40 lbs (2 kg)
Operating Pressure-----	Water 29 psi (0.2 MPa), Air 75 psi (0.5 MPa)
Dental Light-----	CLESTA LED Dental Light BEL HALO Dental Light
Protection class against electric shock-----	Class I equipment
Service Life-----	10 years

## 2. Dimensions and Specifications

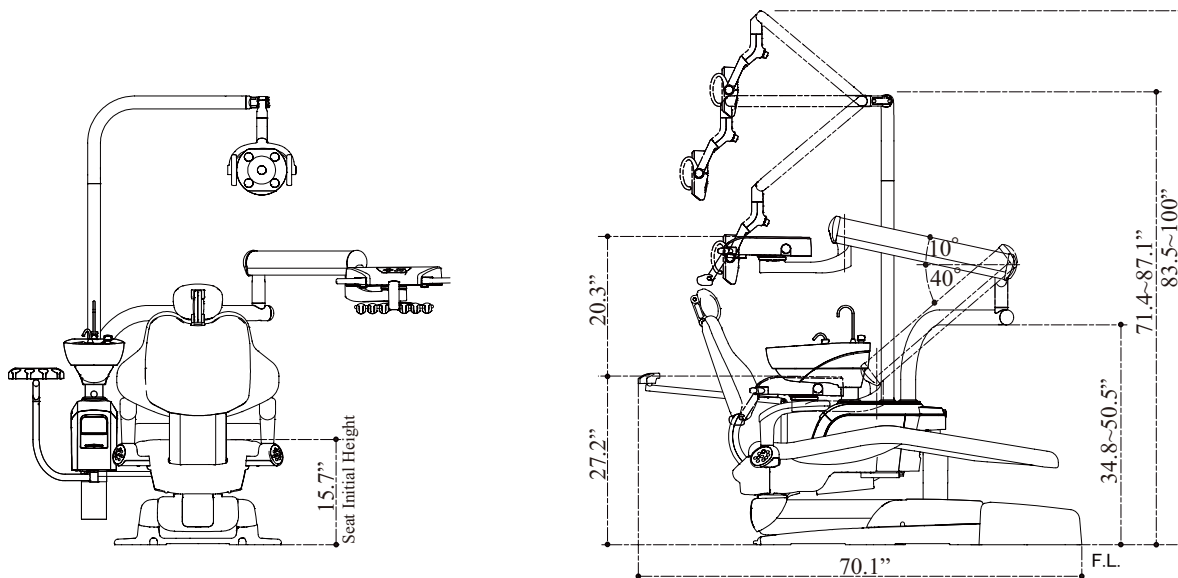
### 2-2. Over the Patient Delivery System with Cuspidor and CLESTA LED Light

#### 2-2-1. Dimensions

- Inch / (mm) - Tolerance ( $\pm 10\%$ )



Minimum dimension excluding treatment space



#### 2-2-1. Specifications

Power Consumption-----	AC120V 1.6A
Frequency-----	60 Hz
Fuse value-----	M6AL, 250V
Dr's control NetWeight-----	44 lbs (20 kg)
Swing Arm NetWeight-----	55 lbs (25 kg) (Without Dental Light)
Cuspidor Section Net Weight-----	66 lbs (30 kg)
Junction NetWeight-----	9 lbs (4 kg)
Doctor Table Maximum Load-----	4.40 lbs (2 kg)
Operating Pressure-----	Water 29 psi (0.2 MPa), Air 75 psi (0.5 MPa)
Dental Light-----	CLESTA LED Dental Light BEL HALO Dental Light
Protection class against electric shock-----	Class I equipment
Service Life-----	10 years



### 3. Introduction

#### 3-1. Precautions for installation

- Do not connect to power supply other than 120V/60Hz.
- Ground the unit properly.
- Attach the junction box firmly to the floor.
- When electric micromotor (option) or electric scaler (option) is installed, please refer to the manual for the each device.
- Do not drop or hit the chair.
- When the installation process has been completed, verify that all the mechanical and electrical functions are working properly and that there is no evidence of oil, water or air leakage.
- Attach the dental chair to the floor before mounting the unit.
- Refer to the installation manual of Quolis 5000 dental chair to know how to install the dental chair.
- Refer to Floor Template for connection of water, air, power, drain hose and vacuum hose.

#### 3-2. Necessary Tools

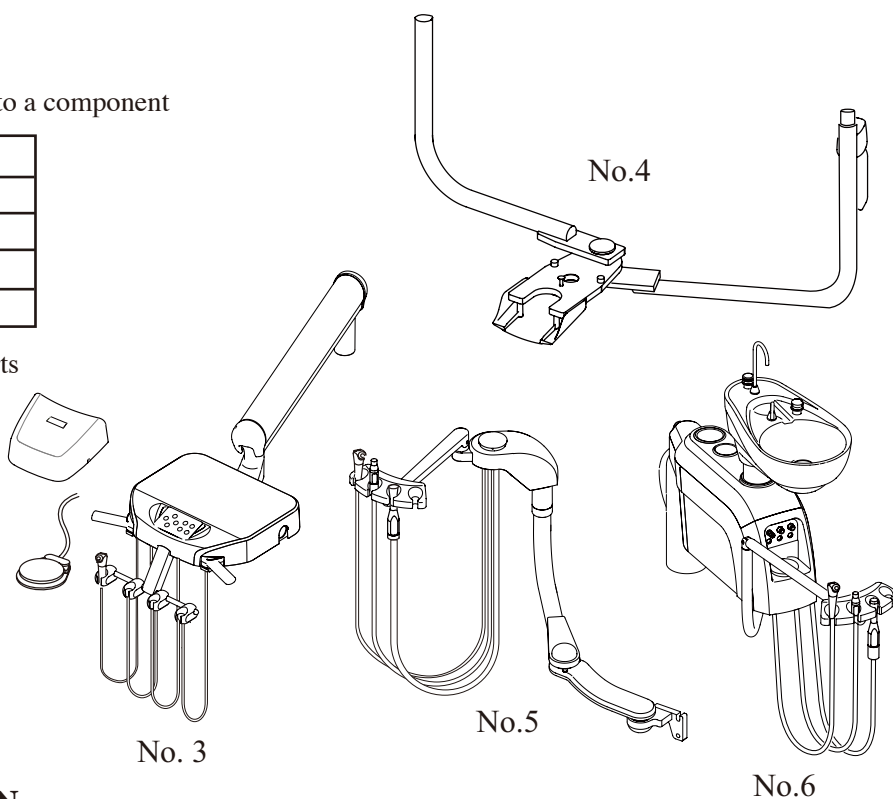
- Phillips screw drivers set #1, #2.
- Slotted screw driver
- Hex key wrenches set (metric, 2.5mm – 8mm)
- Adjustable wrench(over 24mm)
- Long nose pliers
- Wire cutter
- Socket set 17mm, 7mm, 1/4"
- Level

### 4. Unpacking of units

Each carton number corresponds to a component

Box No.	Module
3	Doctor's control
4	Swing arm (s)
5	Vac pac
6	PMU

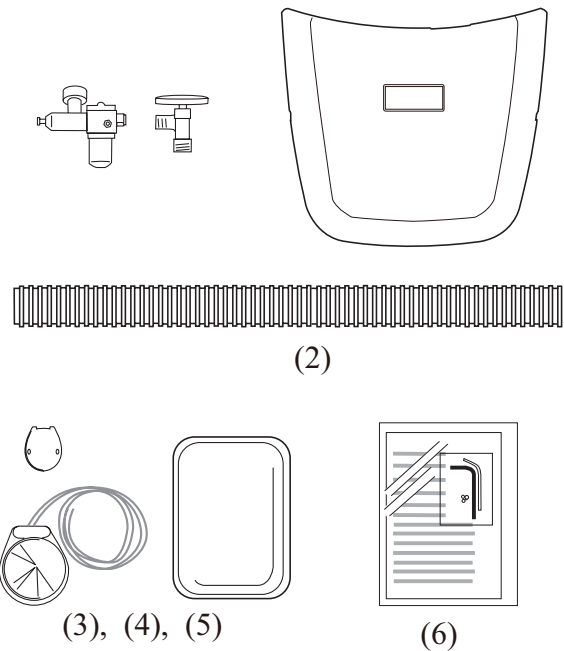
Check all the components and parts damage after unpacking.



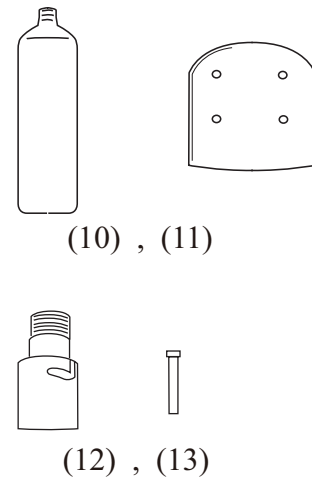
Opening cartons with a sharp object may cause damage to parts

**Box No.3 (Doctor's control)**

- (1) Doctor's control assembly 1 set
- (2) Junction box assembly 1 set
  - Junction box with cover 1 set
  - Duct hose 800mm 1 pc.
  - Utility package (air)
- (3) Balance arm end cap 1pc.
- (4) Stainless tray and non-slip pad 1 set
- (5) Foot controller 1 set
- (6) Syringe parts 1 set
- (7) Operating manual, installation manual 1 set
- (8) Miscellaneous parts for installation as follow
  - Sleeve for 1/4" OD tubing 14 pcs.
  - Sleeve for 1/8" OD tubing 12 pcs.
  - Barb fitting for 1/4" OD tubing 3 pcs.
  - Barb fitting for 1/8" OD tubing 3 pc.
  - Hex plug 2 pcs.
  - Tubing 1/8" OD brown 500mm 1 pc.
  - Tubing 1/4 Green 500mm 1 pc.
  - Pan head Philips screw M4 x 10mm 2 pcs
  - Round head Philips wood screw M5 x 25mm 3 pcs.

**Box No.4 (Swing arms)**

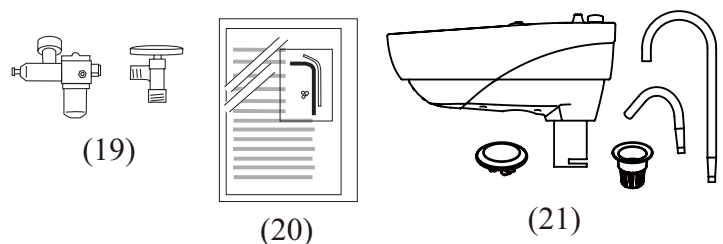
- (9) Swing arm Assembly 1 set
- (10) Water bottle 1 pc
- (11) Lower tubing cover 1 pc.
- (12) Quick disconnect adaptor for water bottle 1pc.
- (13) Swing arm locking pin for dental light 1 pc. (For the swing mounted light only)
- (14) Miscellaneous Parts for installation as follow.
  - Socket screw M10 x 40mm (for mounting) 4 pcs.
  - Socket screw M10 x 20mm (for level) 4 pcs.
  - Pan head Phillips screw M5 x 16mm 4 pcs.
  - Flat head screw M10x35mm 1 pc.
  - 1/4 sleeve 2 pcs.
  - 1/8 sleeve 1 pc.

**Box No.5 (Vac Pac)**

- (15) Vac Pac Assembly 1 set
- (16) Syringe parts 1 set
- (17) Miscellaneous Parts for installation as follow.
  - Socket screw M10 x 40mm (for mounting) 4 pcs.
  - 1/4 sleeve 2 pcs.
  - Barb fitting for 1/4 OD tubing 2 pcs.

**Box No.6 (PMU)**

- (18) PMU Assembly 1 set
- (19) Junction Box Assembly 1 set
- (20) Syringe parts 1 set
- (21) Cuspidor Bowl Section
  - Cup filler nozzle 1pc.
  - Bowl Rinse nozzle 1pc.
  - Basket Strainer & Cap 1pc.
- (22) Miscellaneous Parts for installation as follow.
  - Socket screw M10 x 40mm (for mounting) 4 pcs.
  - 1/4 sleeve 8 pcs.
  - Barb fitting for 1/4 OD tubing 5 pcs.



## 5. Installation for Swing Mounted Delivery System with Vac Pac

### 5-1. How to Install the Dr. Swing Arm

The swing arm assembly shall be mounted at the front of the chair under the seat.



**CAUTION**

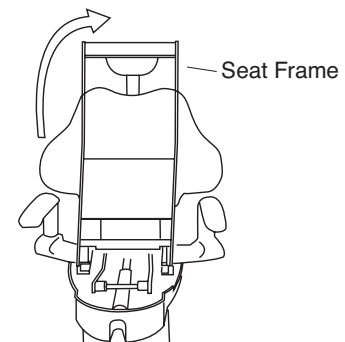
Be sure to remove the carriage bolt from the chair before lift the chair by upper structure. This could cause damage to the chair if operate the chair without removing the carriage bolt. Refer to the chair installation manual for preparation and installation of the chair.

1. Raise the seat frame of the chair as shown.

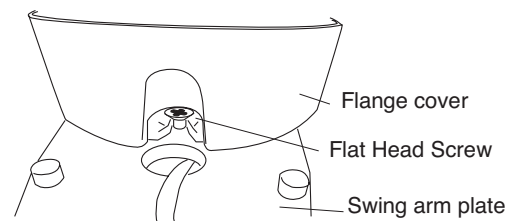


**CAUTION**

Failure to lift seat frame as shown can result in damage to paint finish of swing arm in subsequent steps.



2. Insert M10 x 35mm flat head screw in the threaded hole on the top side of the swing arm plate center and leave 1" from the top of screw to plate surface.



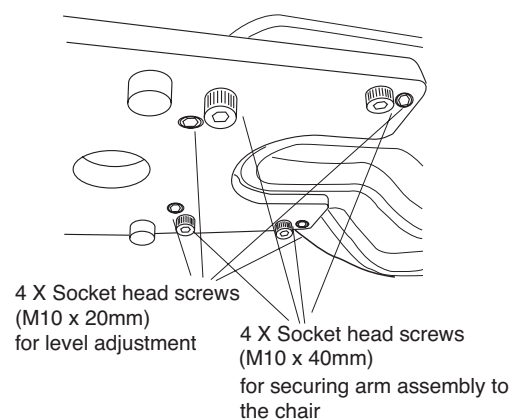
3. Raise the seat.

4. Attach swing arm assembly to chair by aligning M10 x 35mm screw with recess in front of the seat and slide screw into slot.

5. Locate 4 - M10 x 20mm leveling set screws and insert into bottom side of swing arm plate.

6. Adjust the level of the swing arm plate with the four socket set screws.

7. Tighten the 4 - M10 x 40 mm socket head screws. Lift the swing arm if needed.



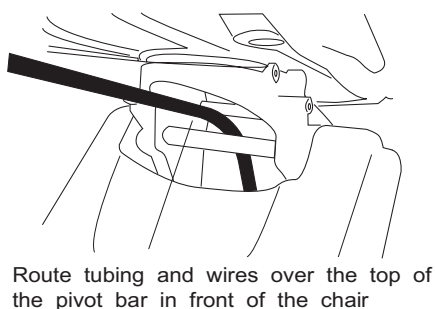
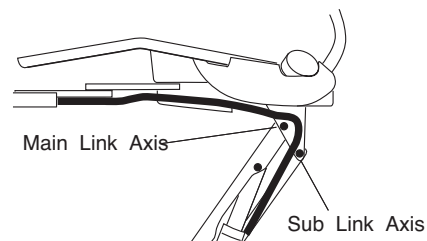
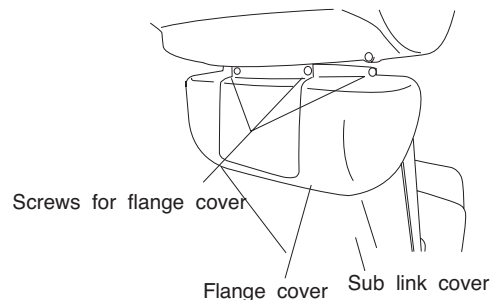
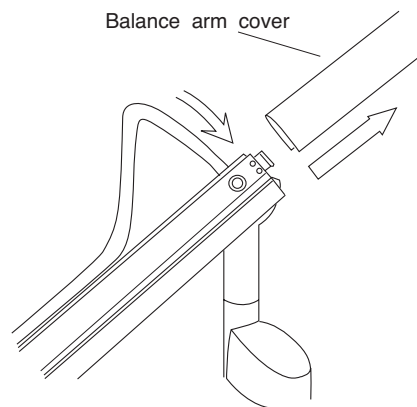
## 5-2. How to Install the Balance Arm for the Doctor's Control



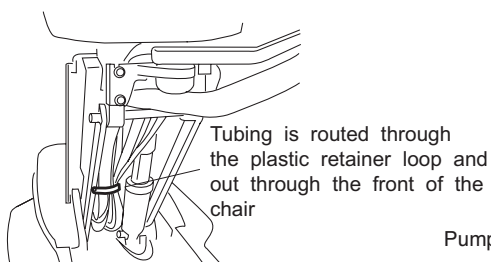
### CAUTION

If Vac Pac is installed with Dr. table, run tubings for Vac Pac at the same time.

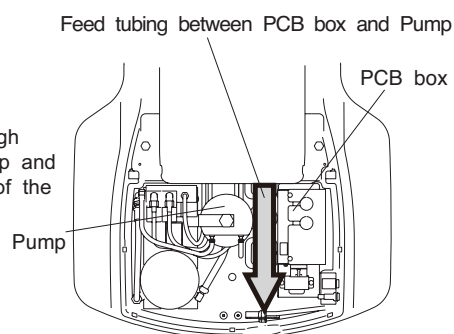
1. Lower the chair.
2. Insert the balance arm into the top of the swing arm.
3. Slide the balance arm cover off balance arm and route tubing and cables down into the swing arm. Make sure that the hoses are not twisted.
4. Remove the seat flange cover from chair by removing four M5 x 15mm screws and sub-link cover by removing two M5 x 15mm screws on the back of the chair cantilever lift arm.
5. Route umbilical tubing & wires from swing arm into chair. Tubing & wires should be routed over the top of the pivot bar in the front of the cantilever arm.
6. Feed umbilical down between 2nd pivot bar and into plastic retaining loop.



Route tubing and wires over the top of the pivot bar in front of the chair



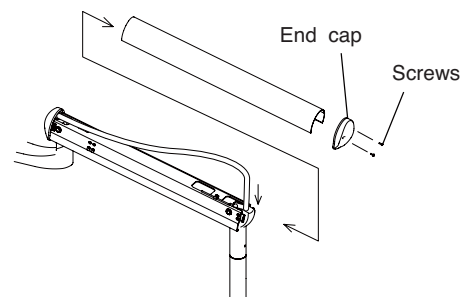
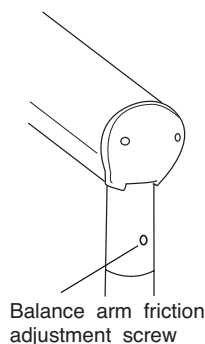
Tubing is routed through the plastic retainer loop and out through the front of the chair



7. Feed tubing between PCB box and pump and out to the front of the chair.

8. Slide in the balance arm cover and into the channels along the balance arm and the balance arm end cap with two M4 x 10mm screws.

9. Adjust M6 x 5mm balance arm friction adjustment screw (M6 x 5mm).



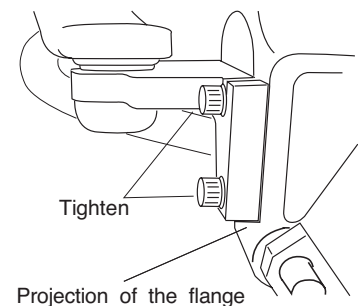
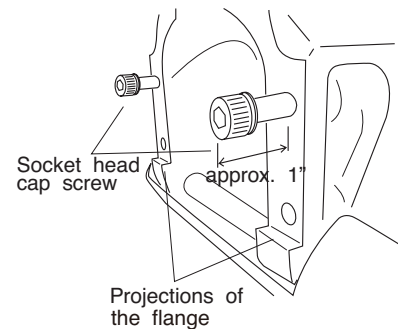
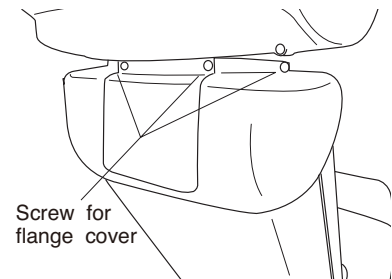
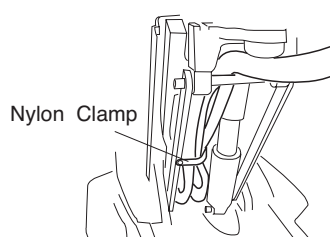
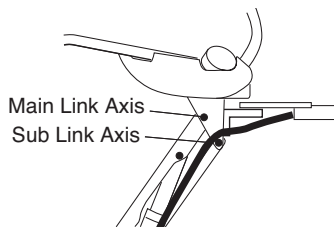
### 5-3. How to Install the Vac Pac Section



#### CAUTION

**If swing arm Dr. table is installed with Vac Pac,  
run tubings for Dr. table or at the same time.**

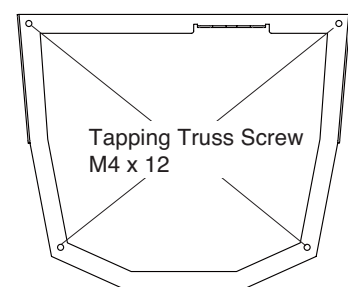
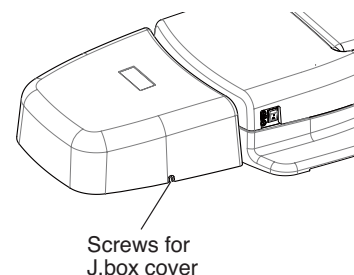
1. Remove four screws M5 x 15mm and the flange cover of the chair.
2. Insert two M10 x 40mm socket head cap screws into the top threaded hole on the rear side of the chair. Screws should extend approximately 1" from chair.
3. Hook the assistant arm mounting bracket underneath the two socket head cap screws. Tilt the bracket slightly and lift it. Place the lower edge of the mounting bracket on the projections of the flange.
4. Tighten lower M10 x 40mm socket head cap screws through swing arm mounting bracket. Tighten all four screws.
5. Route the umbilical tubing with unit umbilical down through chair, between the main link and sub link Axis, and bring the end to the junction box. Tie the tubing with the white nylon clamp. Make sure that hoses are not kinked



### 5-4. How to Install the Junction Box

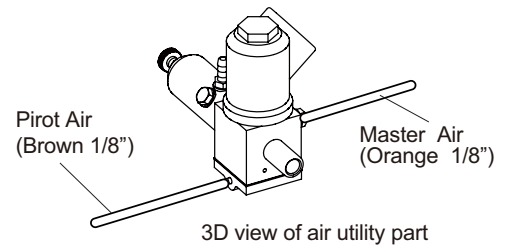
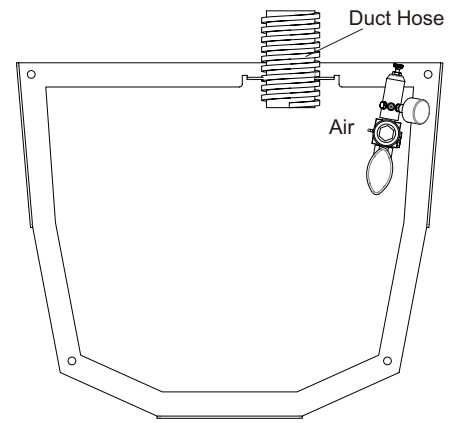
Refer to floor template for connection of water, air, power, drain hose and vacuum hose.

1. Open the junction box cover by removing two slotted M5 x 10mm screws from each side of the Junction box cover.
2. Place the junction box frame in front of the chair. (The plan of the plumbing position needs to be done in advance. See the flow diagram)
3. Attach the junction box frame to the floor with four M4 x 12mm tapping truss screws.

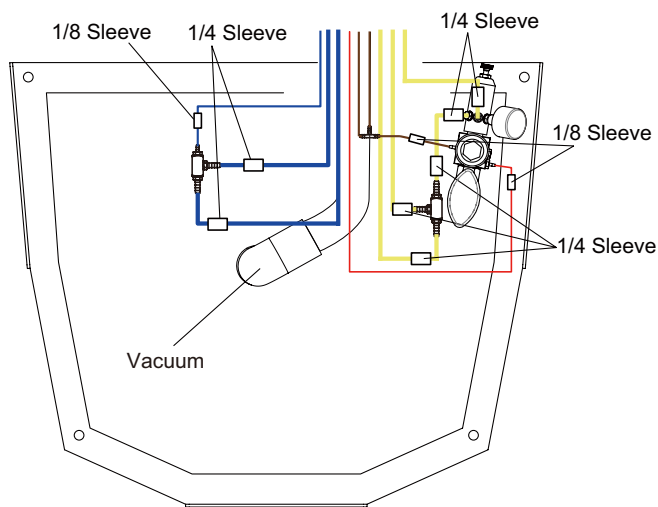


### 5-5. How to Plumb the Junction Box

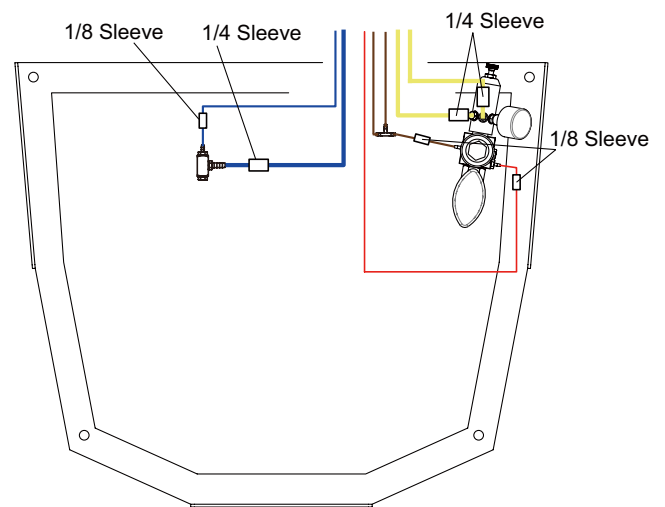
1. Cut the duct hose to desired length and insert it between retainers inside of the pump cover and the junction box.
2. Attach the manual on/off valve to the air supply pipe.  
Purge air through valve to clean debris.  
Attach automatic valve assembly for air to manual valve.
3. Connect tubings and 5/8 vacuum hose as below drawing shows.



Swing Arm Dr.table + Vac Pac



Swing Arm Dr.table



## 6. Installation for Over the Patient Delivery System with Cuspidor (PMU)

### 6-1. How to Install the PMU

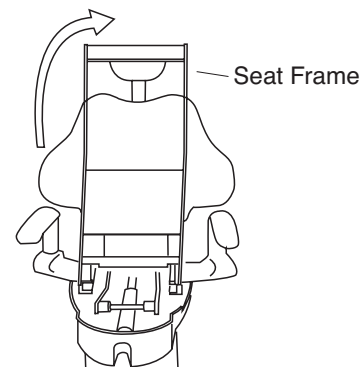
The PMU shall be mounted at the front of the chair under the seat.

1. Raise the seat frame of the chair as shown.



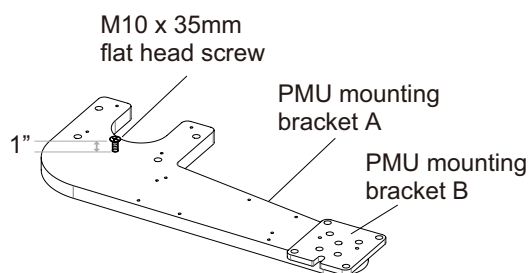
### CAUTION

Failure to lift seat frame as shown can result in damage to paint finish of swing arm in subsequent steps.



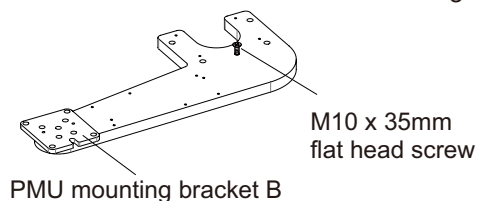
2. Insert M10 x 35mm flat head screw in the threaded hole on the top side of the PMU mounting bracket A and leave 1" from the top of screw to plate surface.

Note: In case of mount PMU onto right side of the chair. Remove the bracket B from bracket A. Turn the bracket A over and reattach the bracket B opposite side.

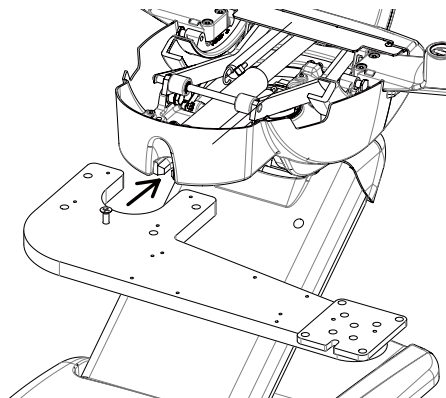


3. Raise the seat.

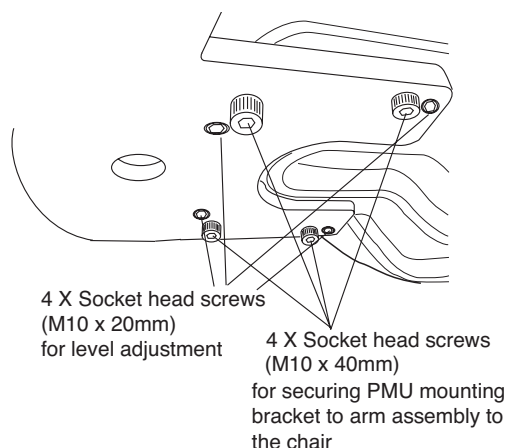
In case of mount PMU onto the chair right



4. Attach PMU mounting bracket to chair by aligning M10 x 35mm screw with recess in front of the seat and slide screw into slot.



5. Locate 4 - M10 x 20mm leveling set screws and insert into bottom side of PMU mounting bracket.
6. Adjust the level of the swing arm plate with the four socket set screws.
7. Tighten the 4 - M10 x 40 mm socket head screws. Lift the PMU mounting bracket if needed.

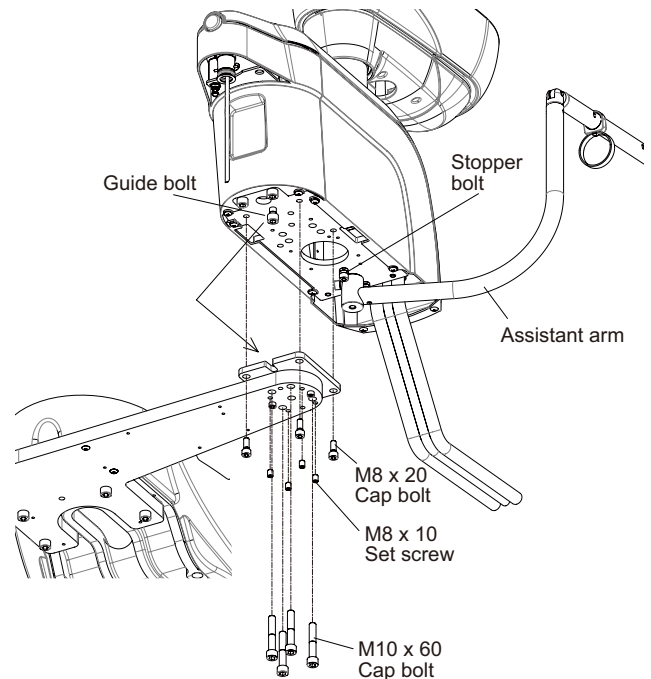


8. Attach PMU onto the PMU mounting bracket by aligning guide bolt with recess in front of the PMU mounting bracket and slide guide bolt into slot. Temporarily fix with three M8 x 20 cap bolts.

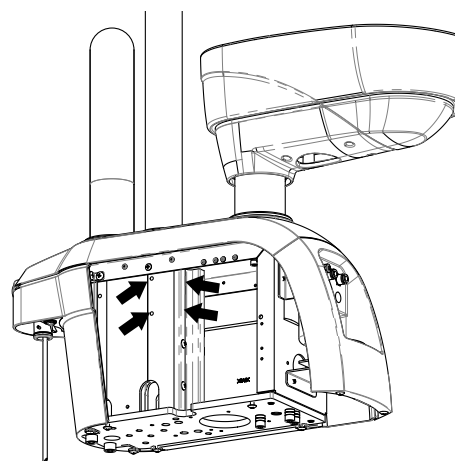
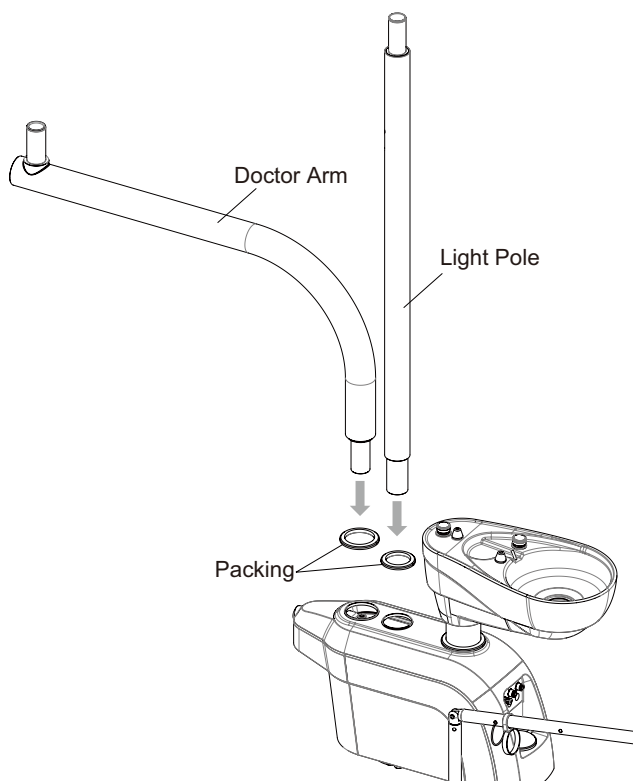
9. Adjust the level of the PMU with four M8 x 10 set screws.

10. Tighten the four M10 x 60 cap bolts and three M8 x 20 cap bolts.

Note : In the case of that the PMU mount to other side. Remove the stopper bolt from the cuspidor bottom. Change the position of the assistant arm to other side and re-attach the stopper bolt to same position. Make sure attach the stopper bolt after changing the assistant arm position. If not, the assistant arm and hoses hit each other and it could cause damage to the handpiece hoses.



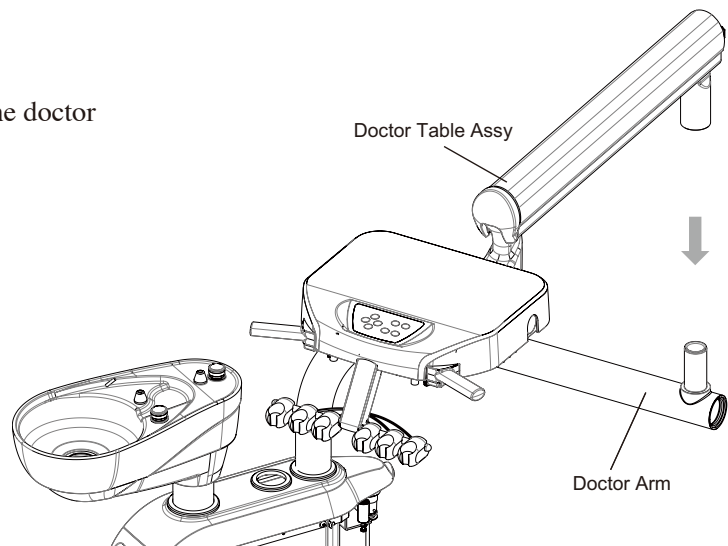
11. Insert the light pole and doctor arm with rubber packing. Fix the light pole to cuspidor chassis with 4 screws.



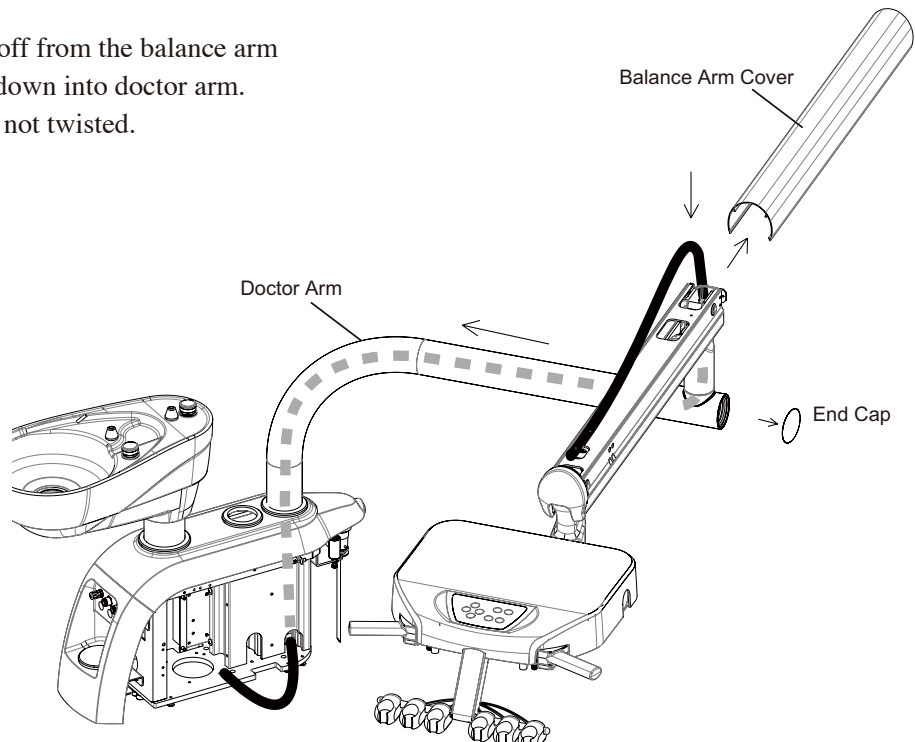


## 6-2. How to Install the Doctor Table

1. Insert the doctor table assy into the top of the doctor arm.

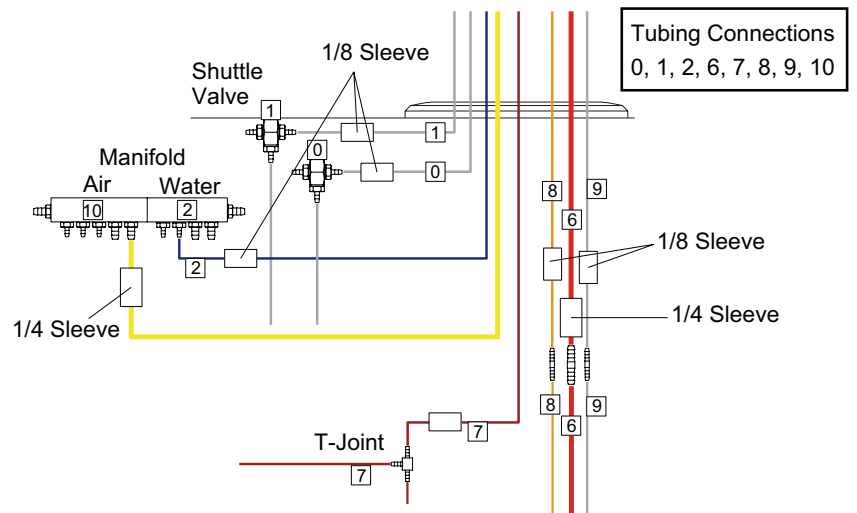


2. Slide the balance arm cover off from the balance arm and route tubing and cables down into doctor arm. Make sure that the hoses are not twisted.

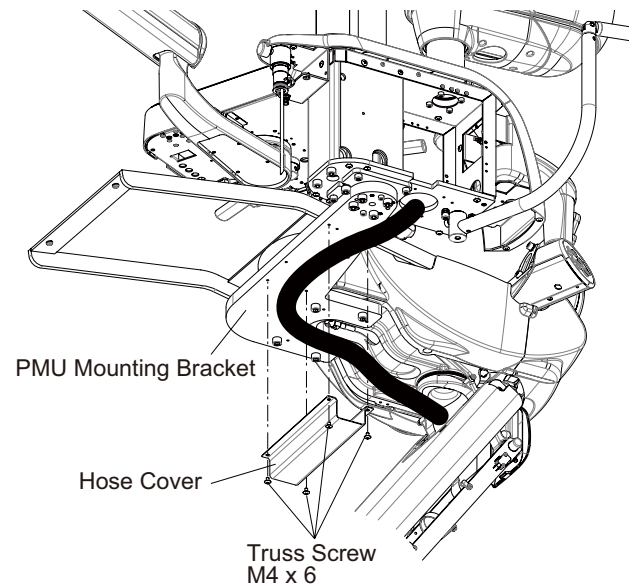


3. Connect the tubing labeled 0, 1, 2, 6, 7, 8, 9, 10 into the PMU.

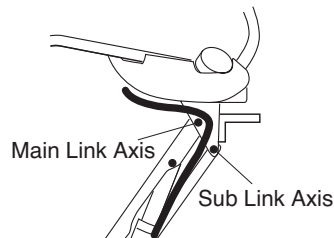
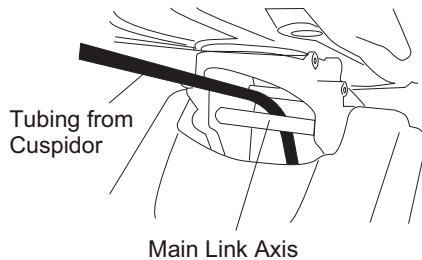
- 0 : Pilot air for bowl flush
- 1 : Pilot air for cupfiller
- 2 : Bottle water to table
- 6 : Drive air to foot controller
- 7 : Pilot air for main switch out  
/ water bottle pressure air
- 8 : Pilot air for main switch in
- 9 : Coolant air
- 10 : Input air to doctor table



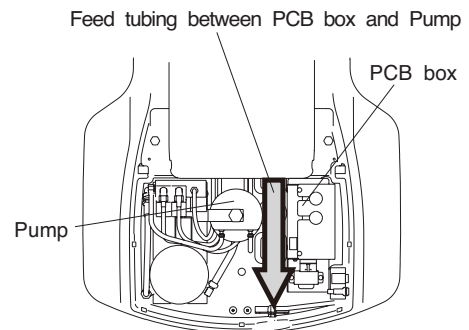
5. Route the tubing from cuspidor through under the PMU mounting bracket.  
Attach the hose cover to bottom of PMU mounting bracket and fit it with truss four screws M4 x 16.



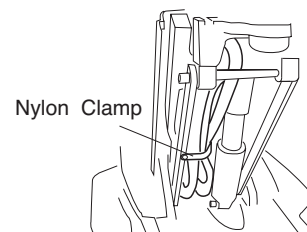
6. Route tubing down through the chair between the main link axis and sub link axis.



7. Feed tubing between PCB box and pump and out to the front of the chair.



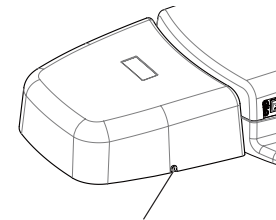
8. Tie the tubing with the wire nylon clamp.  
Make sure that hoses are not kinked.



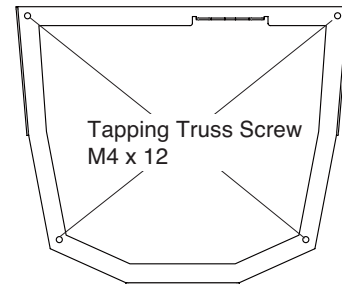
### 6-3. How to Install the Junction Box

Refer to floor template for connection of water, air, power, drain hose and vacuum hose.

1. Open the junction box cover by removing two slotted M5 x 10mm screws from each side of the Junction box cover.
2. Place the junction box frame in front of the chair. (The plan of the plumbing position needs to be done in advance. See the flow diagram)
3. Attach the junction box frame to the floor with four M4 x 12mm tapping truss screws.



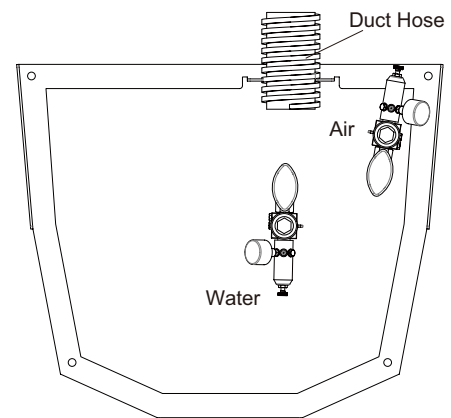
Screws for J.box cover



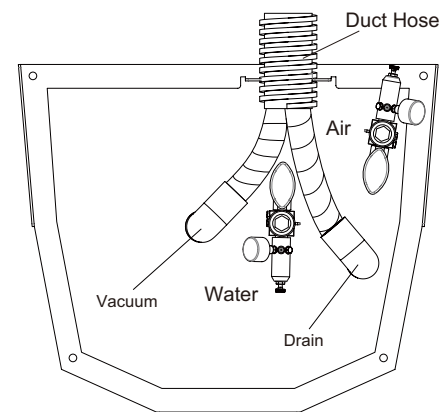
Tapping Truss Screw  
M4 x 12

### 6-4. How to Plumb the Junction Box

1. Cut the duct hose to desired length and insert it between retainers inside of the pump cover and the junction box.
2. Attach the manual on/off valve to the air supply pipe.  
Purge air through valve to clean debris.  
Attach automatic valve assembly for air to manual valve.  
Do the same thing for the water assembly ordered with unit models.

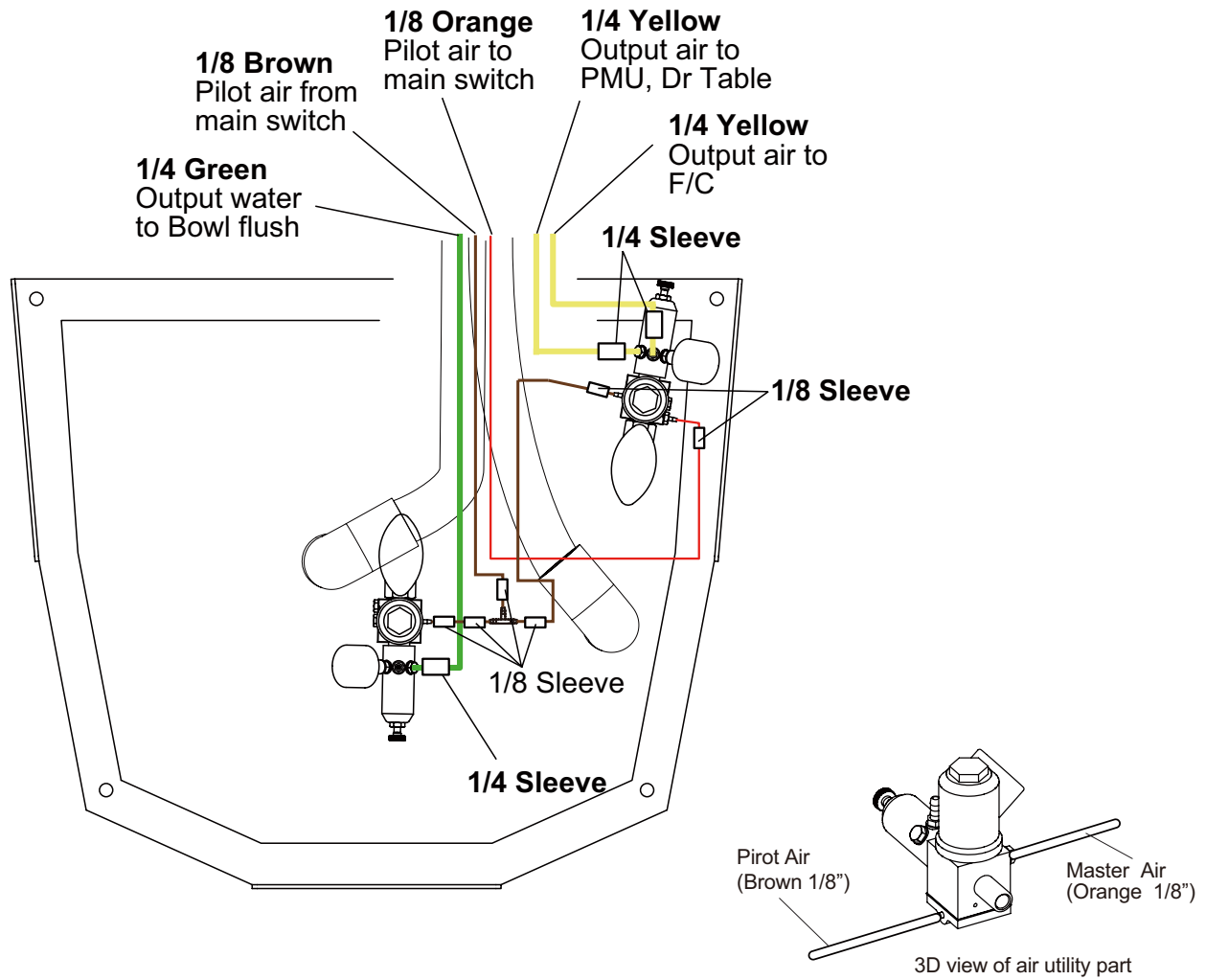


3. Connect vacuum hose (5/8) and Drain Hose (3/4) to the floor. Vacuum hose has uneven surface.  
We supply long hose as needed and cut them accordingly.



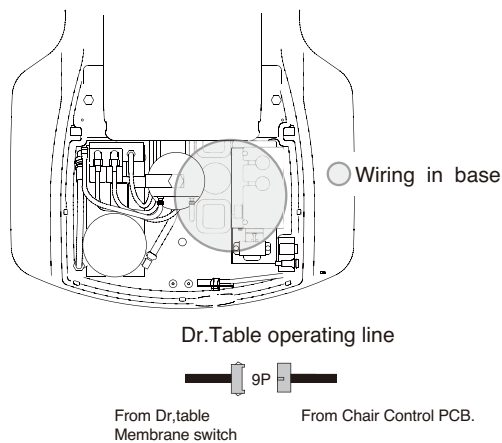
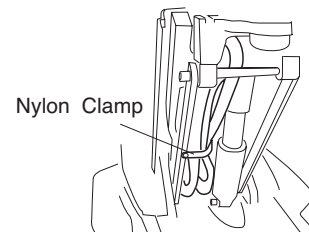
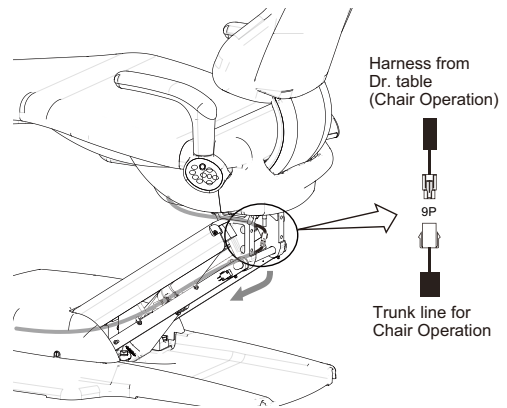
4. As below drawing shows, connect tubings.

PMU Type (Table + Spittoon + Vacuum)



## 7. How to Connect Chair Operation Cable of the Dr table

1. Connect the trunk line of the chair operation to the harness from Dr.table. (Note : Trunk line of the chair operation is supplied from unit package)
2. Route the trunk line of the chair operation into the chair and bring to the front of the chair base.
3. Tie the trunk line for chair operation and other tubings with the wire nylon clamp. Make sure that hoses are not kinked.
4. Connect the trunk line of the chair operation to the harness from chair control pcb in the base.



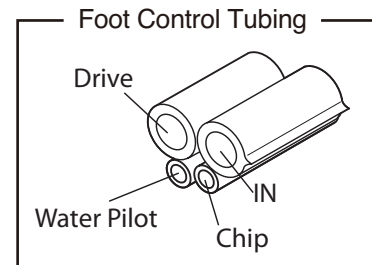
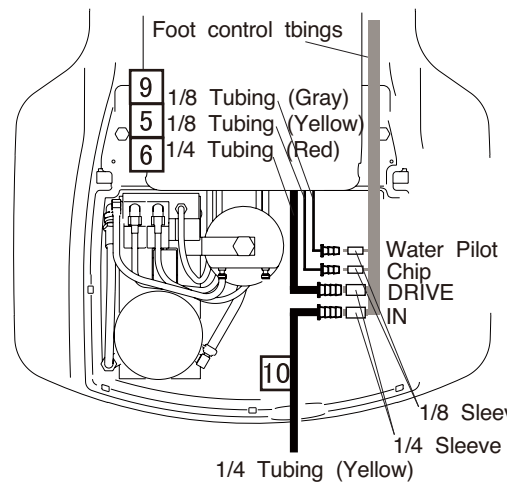
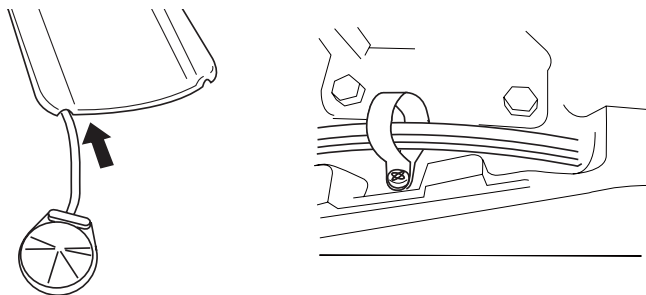
## 8. How to install the Foot Controller

Number	Color (Size)	Function
6	Red (1/4" OD)	Drive
10	Yellow (1/4" OD)	In
5	Yellow (1/8" OD)	Chip (Air for spray, not used)
9	Gray (1/8" OD)	Water (Pilot air for water for spray, not used)

1. Insert foot control tubing through channel in chair base and feed through chairs into J-box.
2. Connect the tubing labeled 5, 6, 9 and 10 to the tubing from the doctor table.

Note : Although the 1/8" OD gray tubing and yellow 1/8" OD tubing are not used, connect to prevent air leaks.

3. Attach the foot control tubing to the chair base with a nylon clamp (see photo).



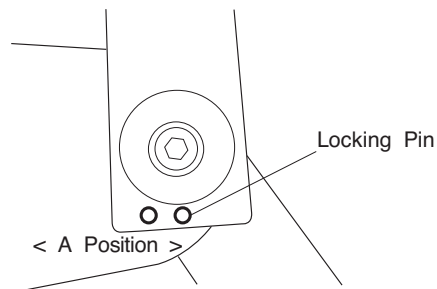
## 9. How to Install the Monitor Arm

1. Install the monitor arm to the swing arm. See 5-1 How to install swing arm.
2. Feed the cables thought the swing arm and the chair, and bring the end into the junction box.
3. Install the monitor mount to the monitor arm.
4. Connect the cables inside Junction box.

Note : LCD monitors are not supplied from Belmont. The mounting holes on back of monitor should be designed for attachment of 75 or 1000 mm VESA mgt pattern.

## 10. How to Install the Dental Light

1. Installation of the dental light. Please refer to the installation instruction of the dental light.
2. Position the swing arm to either side of the chair and lock it in place with the dental light locking pin.  
When you combine Dr. Table and PMU with a water bottle.  
Set Lock Pin on A position to avoid the interference of a bottle and a swing arm.



### CAUTION

**Do not remove the cardboard paper put on the swing arm until the seat cushion has been attached to the seat frame with screws, otherwise the surface of the light pole will be scratched off when swinging the arm.**

## 11. Installation for Power Supply Box (Micromotor, Electric Scaler and Fiber Optic)

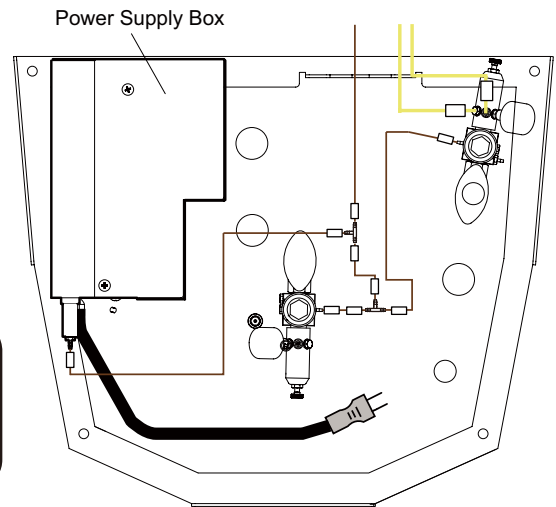
This power supply box is power of the micromotor, electric scaler and fiber optic.

1. Place the power supply box into the junction box. Connect the power supply cable to the outlet.

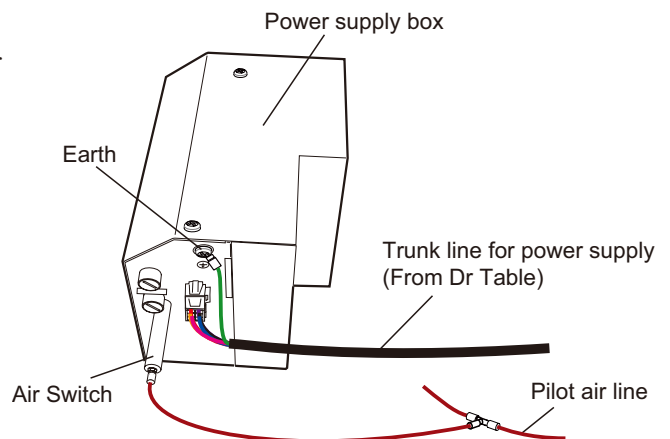


**CAUTION**

**Ground reliability can only be achieved when the equipment is connected to an equivalent receptacle marked HOSPITAL only or HOSPITAL GRADE.**



2. Connect brown tubing to the air switch of the power supply box and pilot air line with T-joint. Connect connector (6P) and earth line of the trunk line from Dr table to the power supply box.



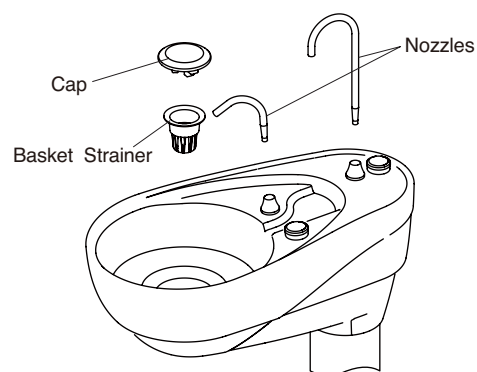
## 12. Installation of the Dental Light Power PCB.

Installation of the dental light power pcb. refer to installation manual attached to dental light.



### 13. Installation of Accessories

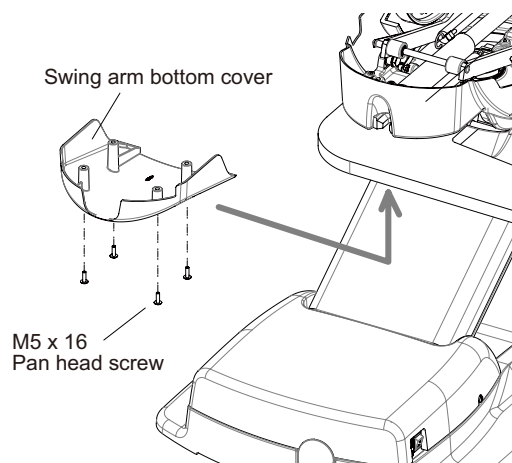
Install the cupfiller nozzle, bowl flush nozzle, cap and basket strainer to spittoon.



### 14. Installation of Covers

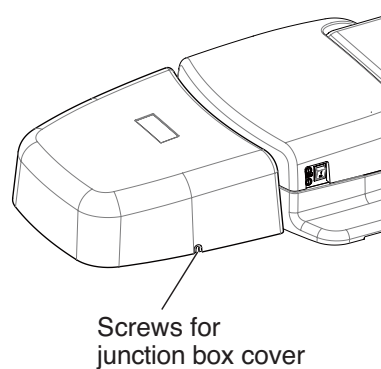
#### 14-1. Swing Arm Bottom Cover

Attach the lower tubing cover to the bottom of the swing arm mounting bracket with four M5 x 16mm.



#### 14-2. Junction Box Cover

Attach the junction box cover and fasten with M5 x 10mm screw and tighten firmly with a slotted screw driver.



**CAUTION**

Fasten the pump cover and junction box cover firmly with a screw driver with screws provided and tighten.

## 15. Final Adjustment



**CAUTION**

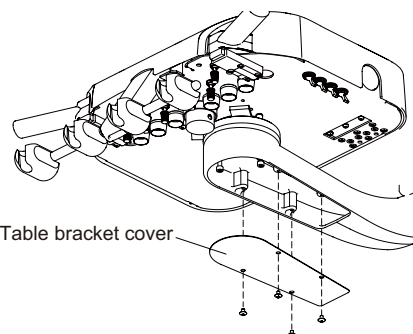
**Be careful when opening the Dr table top cover during installation or repair.  
Harness from membrane switch of the table top cover is connected to the Dr table section.  
Do not pull the Dr table top cover excessively. This could cause damage to the harness  
of the membrane switch.**

### 15-1. How to Adjust the Horizontal Level of the Dr Table

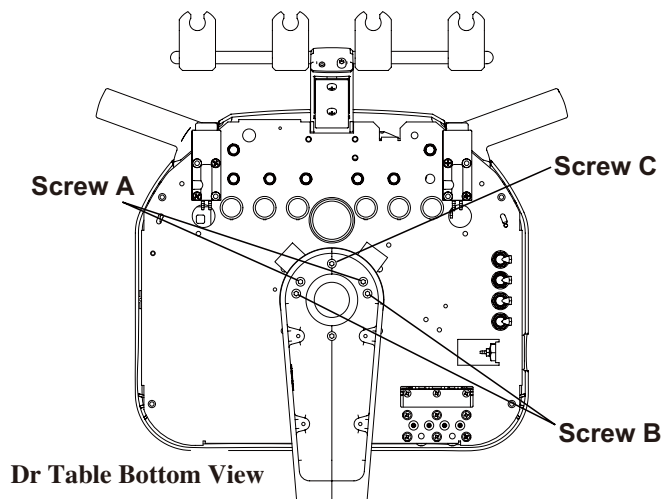
The horizontal level of the Dr table can be adjusted. Adjust horizontal level of the Dr table by below procedures during installation if the Dr table is not horizontally leveled.

Before adjusting horizontal level of the Dr table, adjust the level of the swing arm plate (Page.7\_Swing mounted delivery system), (Page.11\_Over the patient delivery system).

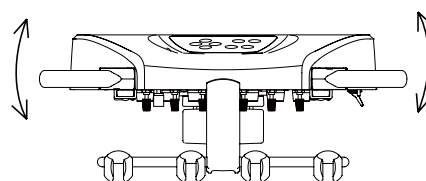
1. Open the table bracket cover by removing 4 screws..



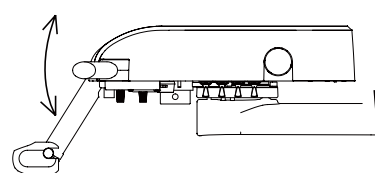
2. Loose screw A (2 screws) before adjusting horizontal level.



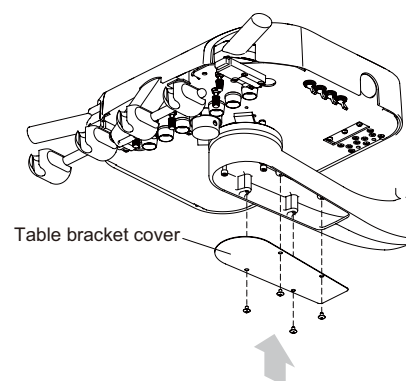
3. Left or right horizontal level of the Dr table can be adjusted by loosening or tightening screw B (2 screws).



4. Front or rear horizontal level of the Dr table can be adjusted by loosening or tightening screw C.



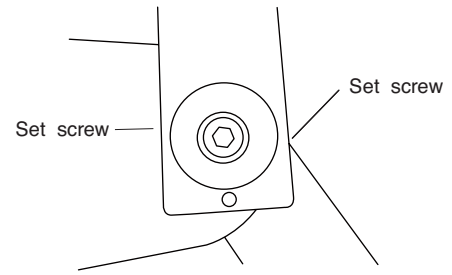
5. After adjustments, tighten screw A (2 screws) and reattach the table bracket cover with 4 screws.



### 15-2. How to Adjust the Swing Arm Friction

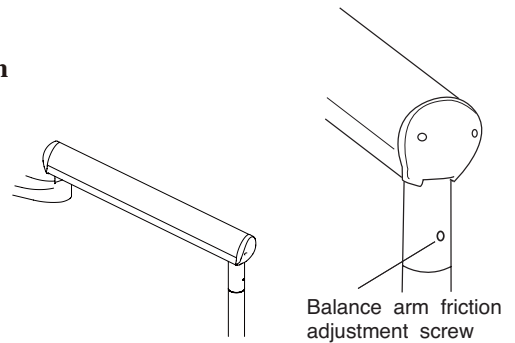
The friction of the swing arm for Doctor's control, dental light and monitor must be adjusted independently.

Adjust the M6 x 5mm socket set screw beneath the swing arm.



### 15-3. How to Adjust the Rotation Friction of Table Balance Arm

Adjust rotation friction of the balance arm with M6 x 5mm adjustment screw.



### 15-4. Water and Air Manual ON/OFF Valves

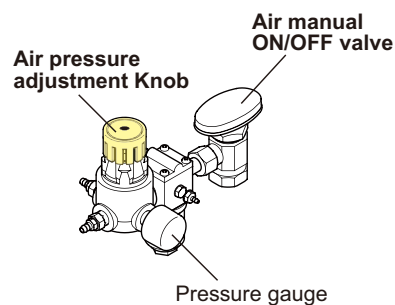
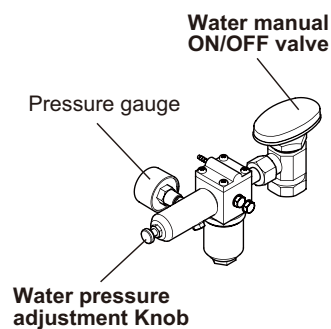
Open the water and air manual ON/OFF valve counterclockwise in the floor utility. Turn on the master switch and check that water and air are not leaking.

### 15-5. Main Air Pressure

The main air pressure has been adjusted in the factory. Confirm that the main air pressure is at 75 psi (0.5 MPa) by the main air pressure gauge. The main air pressure can be regulated by the main air regulator in the floor utility.

### 15-6. Main Water Pressure

The main water pressure has been adjusted in the factory. Confirm the main water pressure is at 29 psi (0.2 MPa) by the main water pressure gauge. The main water pressure can be regulated by the main water regulator in the floor utility.



## 15-7. Drive Air



### CAUTION

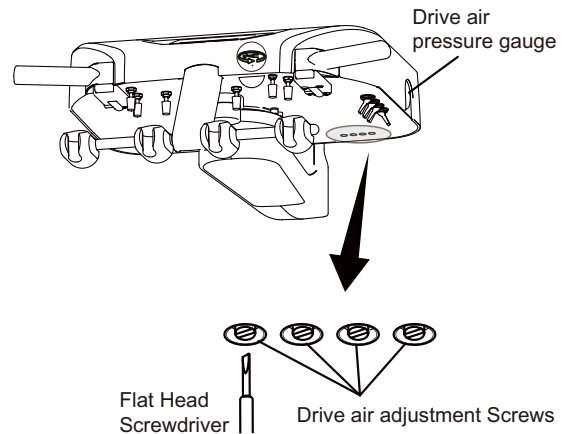
To avoid potential damage to handpieces

- Never operate a handpiece without a bur in the chuck.
- Do not exceed manufacturers recommended pressure setting at the handpiece.

Each handpiece drive air can be adjusted by turning the drive air adjustment screw during the operation.

Drive air pressure is decrease by turning the adjustment screw clockwise and increase by turning the adjustment screw counterclockwise use a flat head screwdriver.

Drive air pressure is indicated on the handpiece pressure gauge located on the rear side of table and set the drive air pressure according to the instruction manual attached to individual handpiece.



Note : The reading at the pressure gauge will be approximately 5 psi (0.034MPa) higher than the actual pressure at the handpiece, due to line loss. To attain the desired handpiece pressure setting, adjust the drive air adjustment screw until the gauge pressure is 5 psi (0.034MPa) above target pressure. If the adjust is made using a special in-line gauge attached at the handpiece connector, then set the pressure at this gauge directly, as specified by the handpiece manufacturer.

## 15-8. Coolant Water

The handpiece coolant water control knobs are located underneath the doctor table.

Each handpiece coolant water control knob is identified as number 1 to 3 from the left side HP1, HP2 and HP3.

The handpiece coolant water volume can be controlled independently.

Flip the toggle on foot control to switch to the "wet" position. (Toggle toward inside of the foot controller)

Install a bur in the handpiece to be adjusted. Step on the foot controller and run the handpiece, adjust the water coolant flow knob until a fine mist is achieved.

## 15-9. Coolant Air

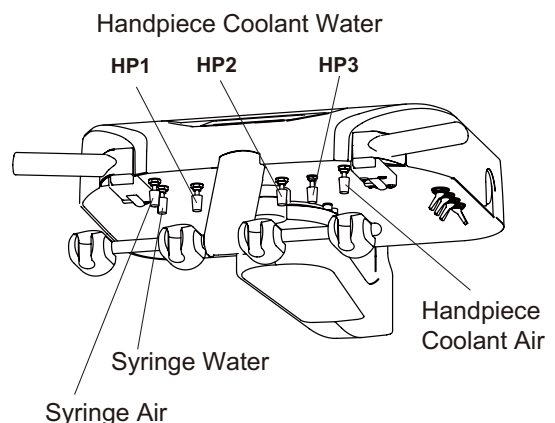
The handpiece coolant air control knob is located underneath the doctor table and all handpieces coolant air can be controlled. (Except syringe).

Adjust coolant air volume during run the handpiece until the desired flow is achieved.

## 15-10. Doctor's Syringe

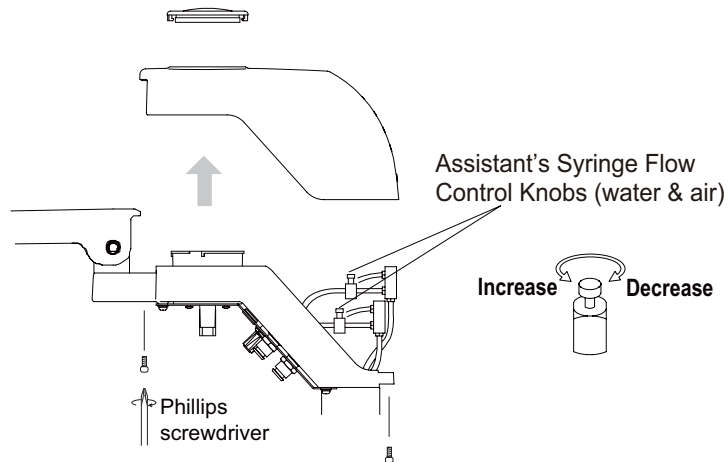
Doctor's syringe flow control knobs are located underneath the doctor table. The flow control knobs adjust the doctor's syringe air and water flow volume.

The yellow capped knob is the air flow control knob, the blue capped knob is the water flow control knob.



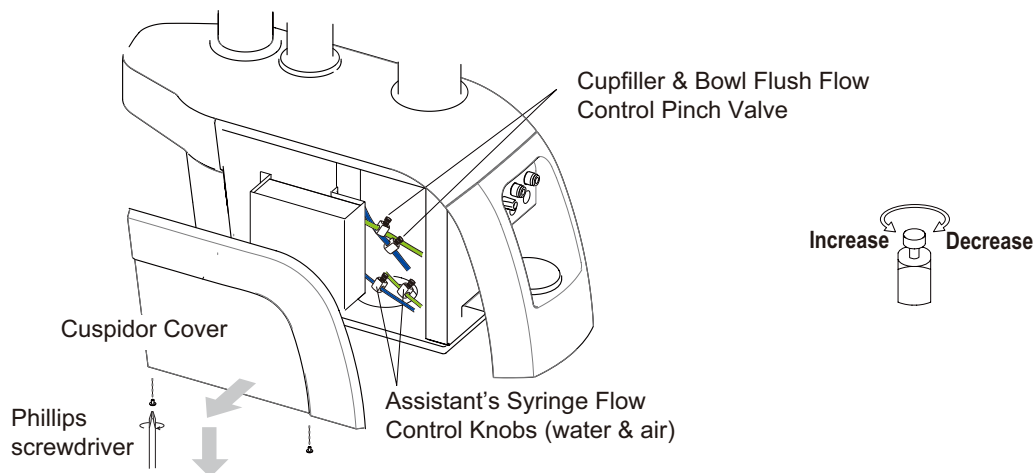
### 15-11. Assistant's Syringe (Vac Pac)

Assistant's syringe flow control pinch valves are located inside the Vac Pac utility center. Open the upper cover by loosening the screws. Adjust the water and air flow by pinch valves.

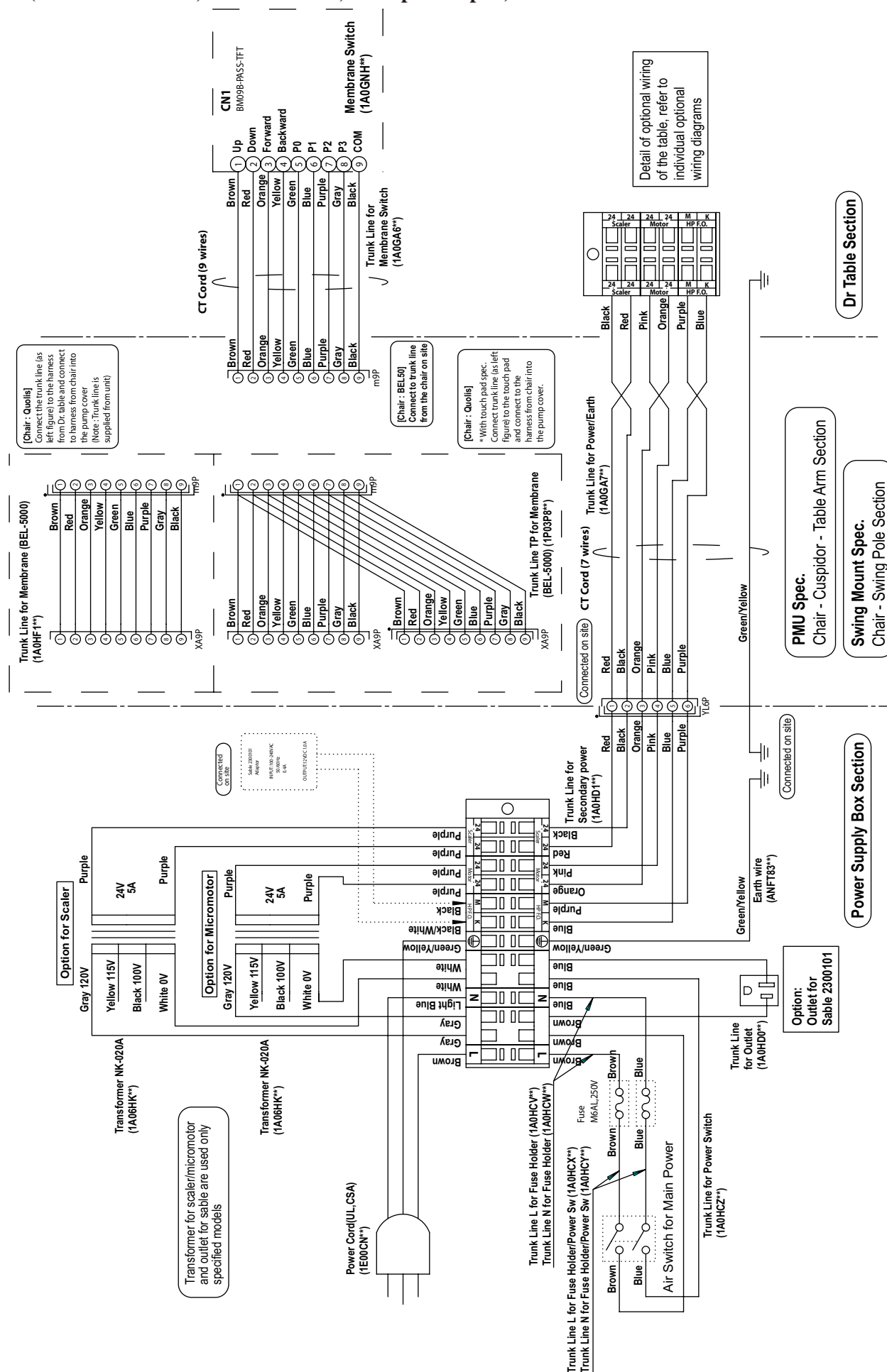


### 15-12. Cupfiller, Bowl Flush and Assistant's Syringe (Cuspidor Unit)

Cupfiller, bowl flush and assistant's syringe flow control pinch valves are located inside the cuspidor. Open the cuspidor side cover by loosening the screws. Adjust the water and air flow by pinch valves.

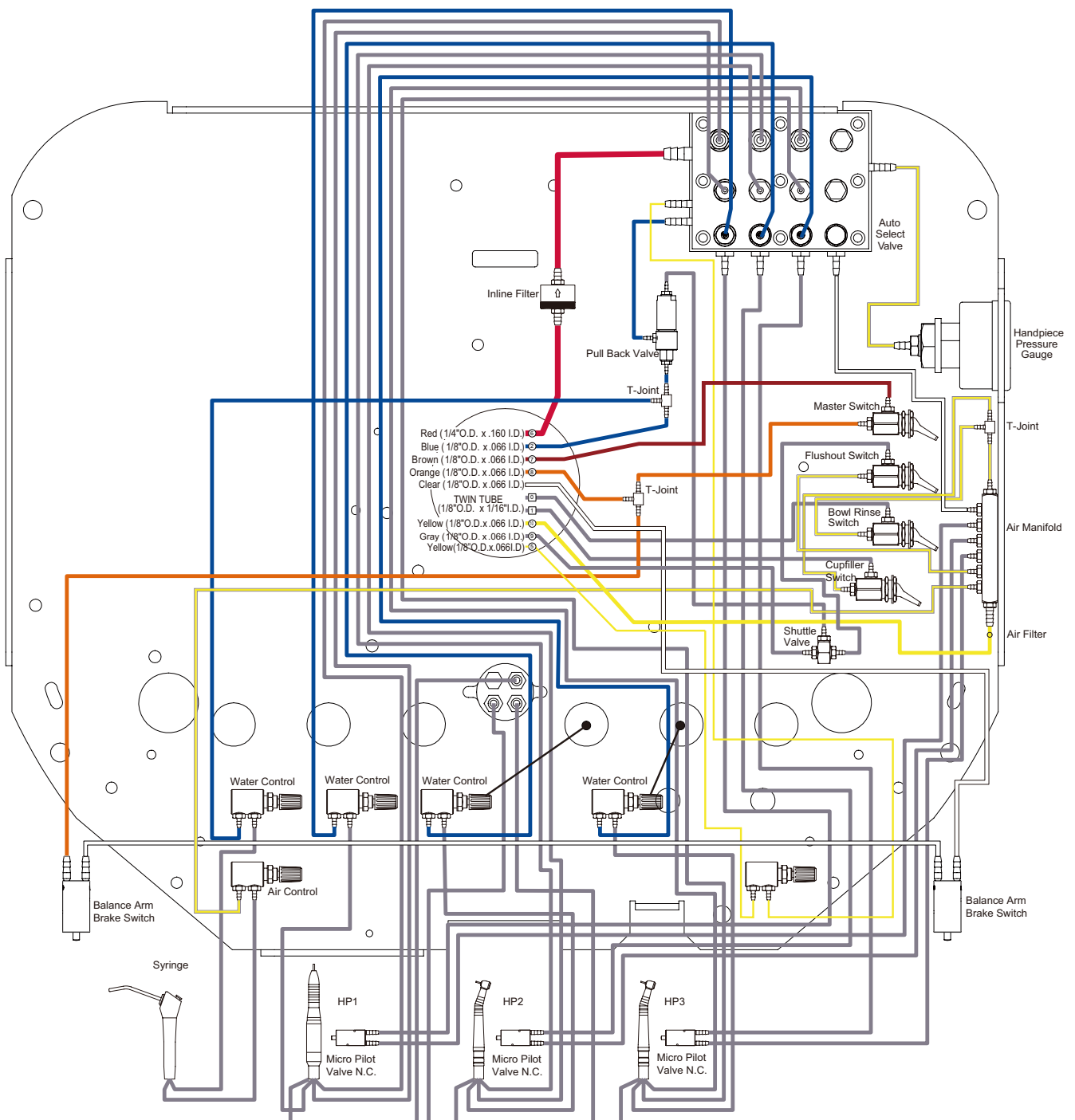


**(with Mocromotor, Electric Scaler, Handpiece Optic)**

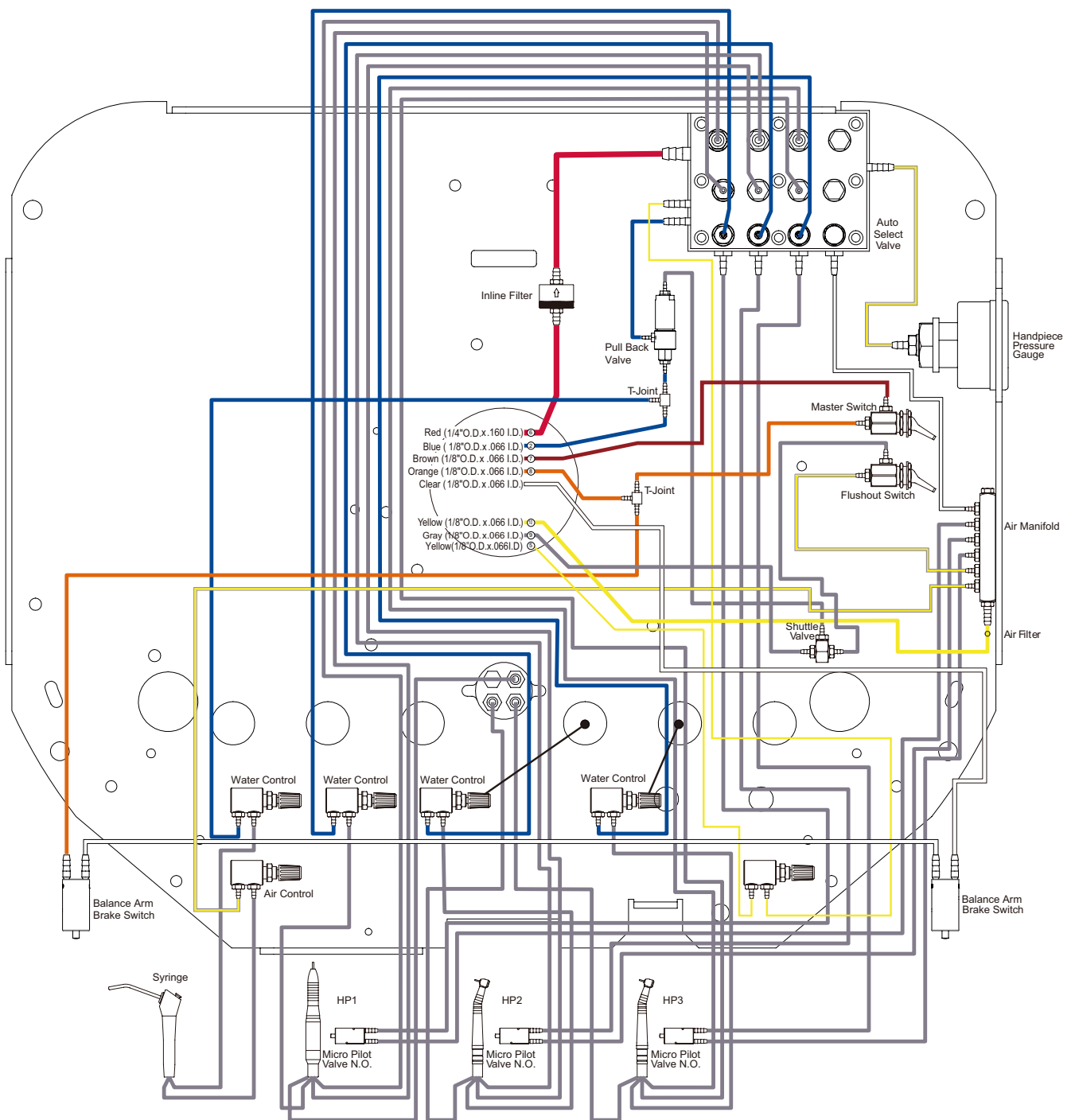


## 17. Flow Diagram

### 17-1. Doctor's Control Section (with spittoon)



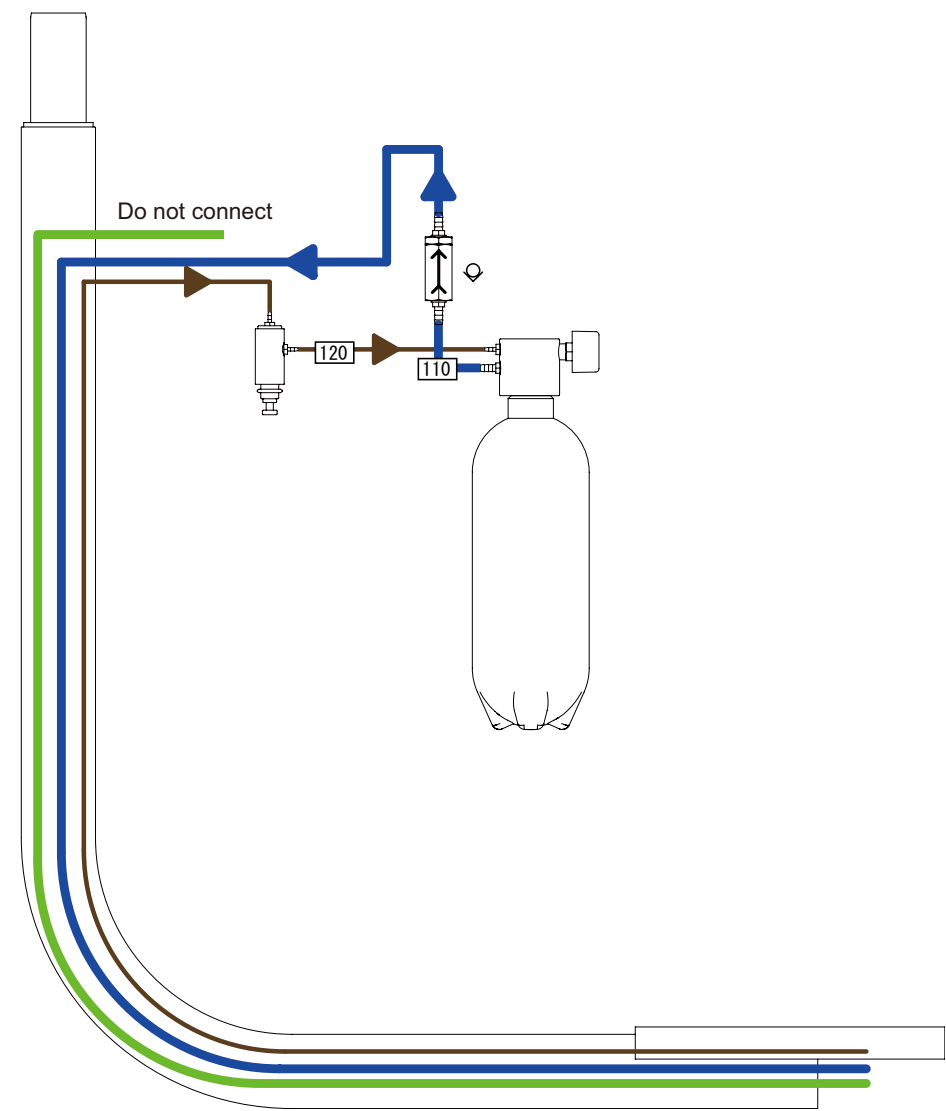
## 17-2. Doctor's Control Section (without spittoon)



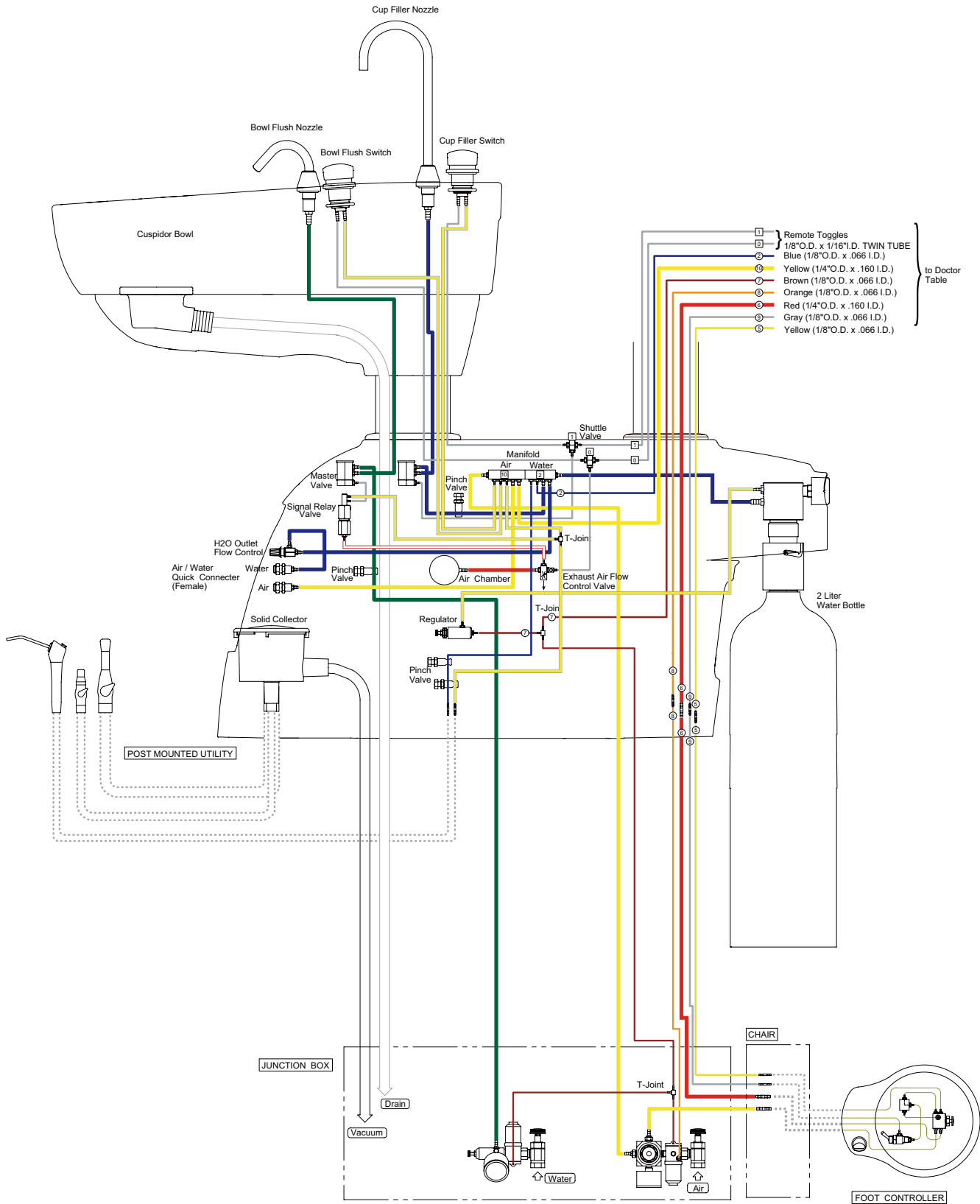


17-3. Swing Arm Section

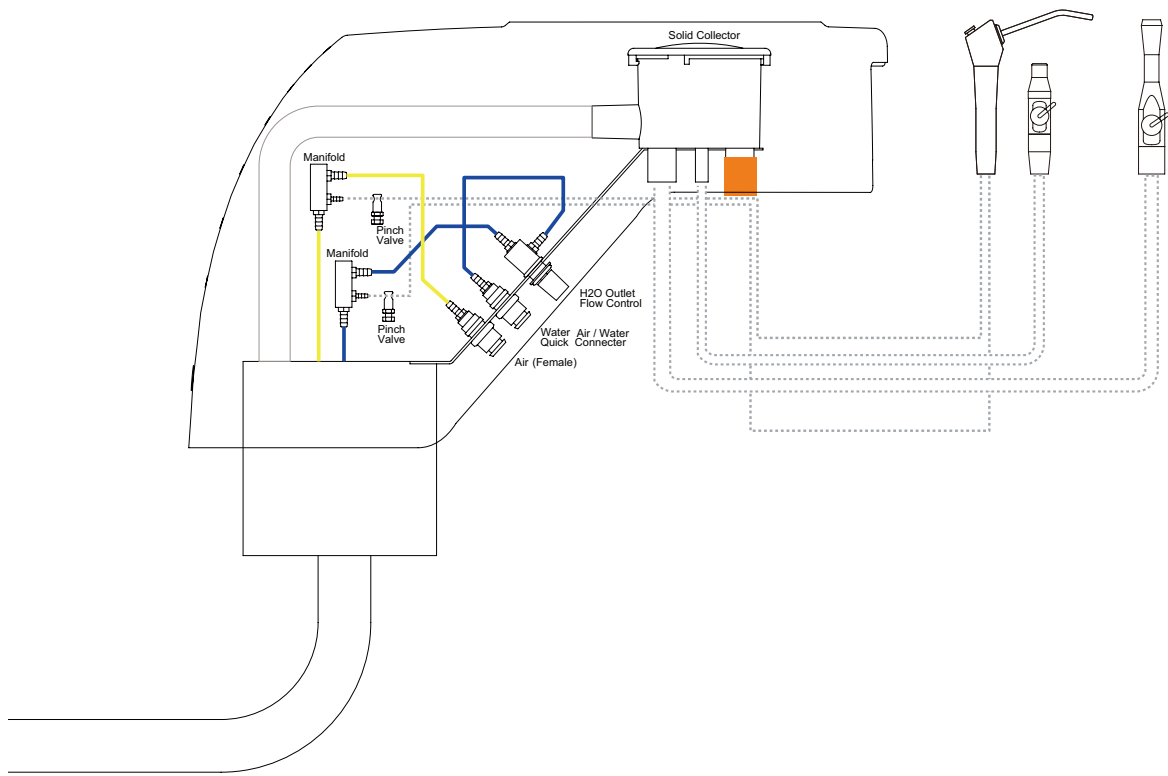
Swing Arm



## 17-4. PMU Section

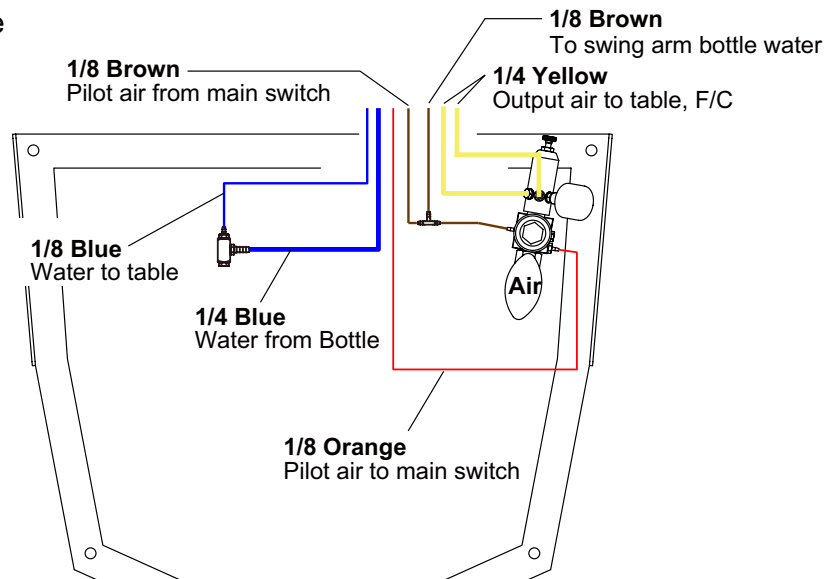


17-5. Vac Pac Section



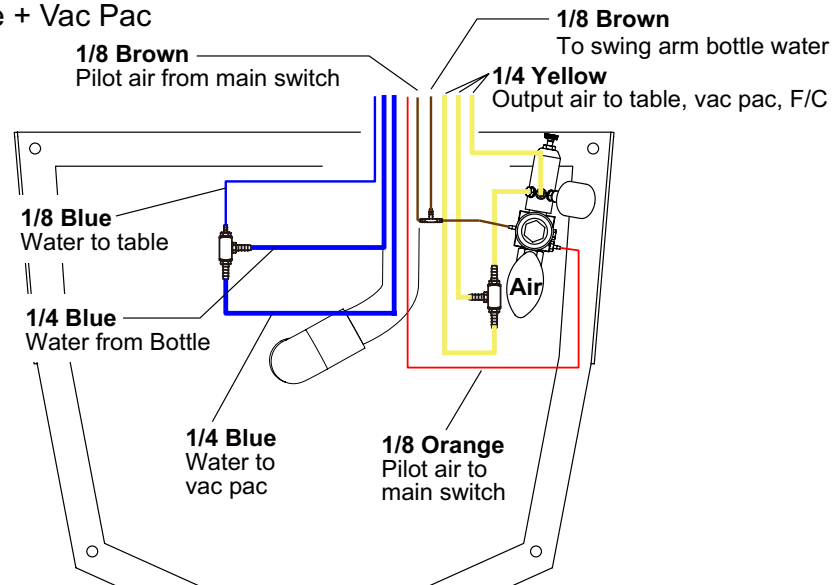
## 17-6. Junction Box Section

### Swing Arm Table



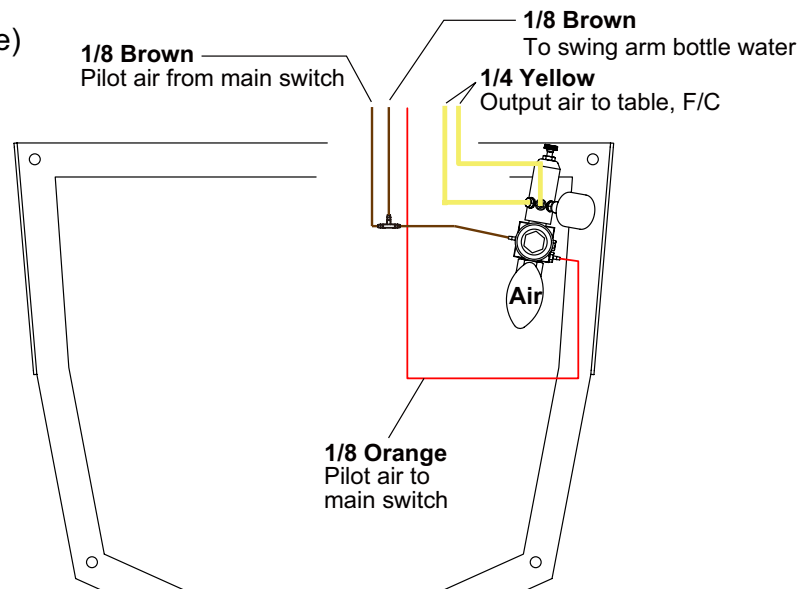
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### Swing Arm Table + Vac Pac

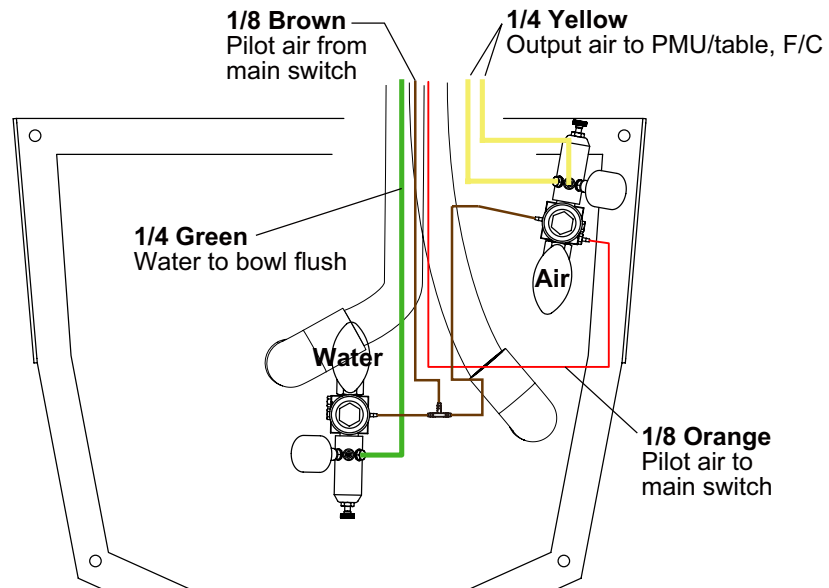


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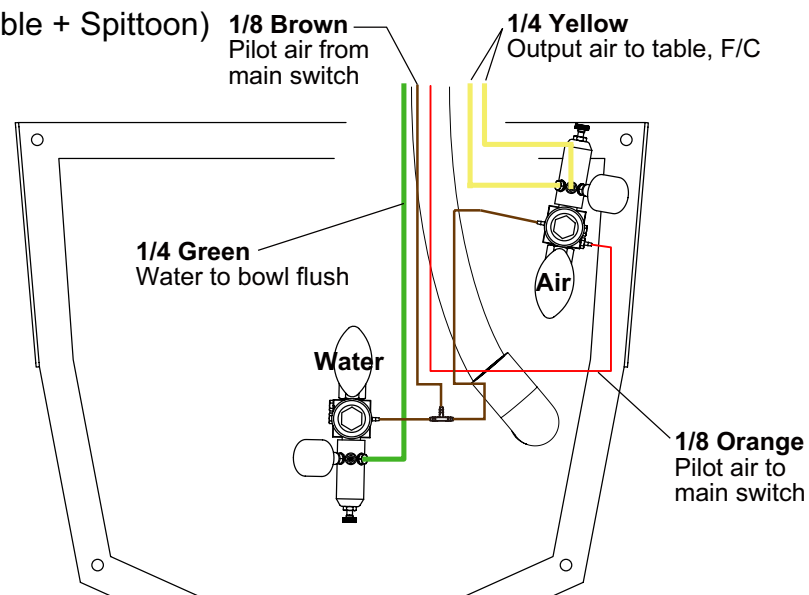
### PMU Type (Table)



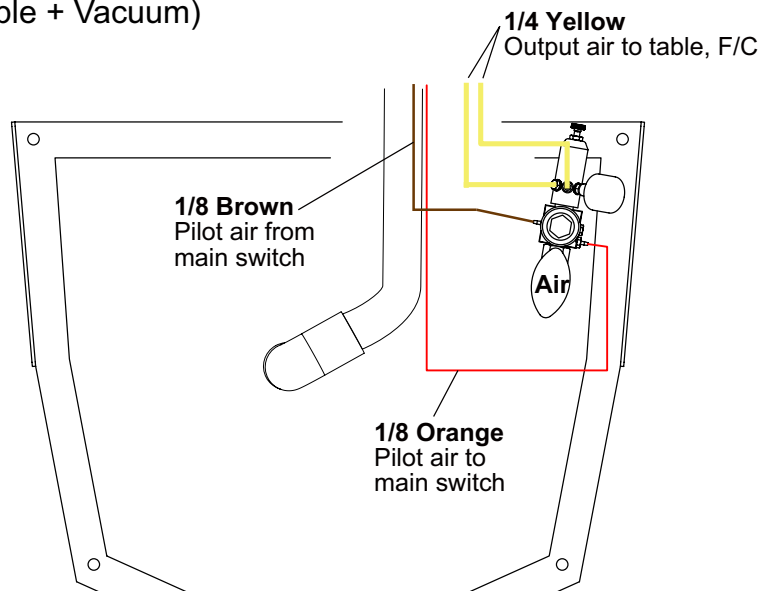
### PMU Type (Table + Spittoon + Vacuum)



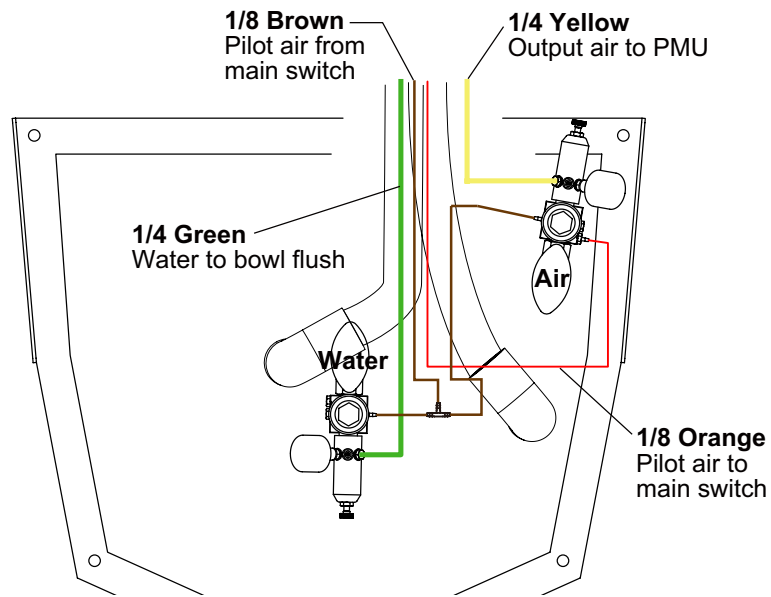
### PMU Type (Table + Spittoon)



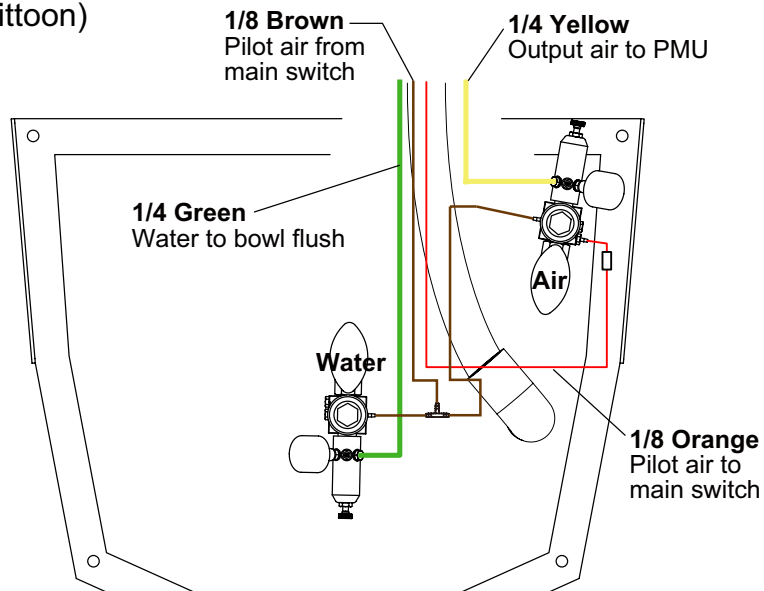
### PMU Type (Table + Vacuum)



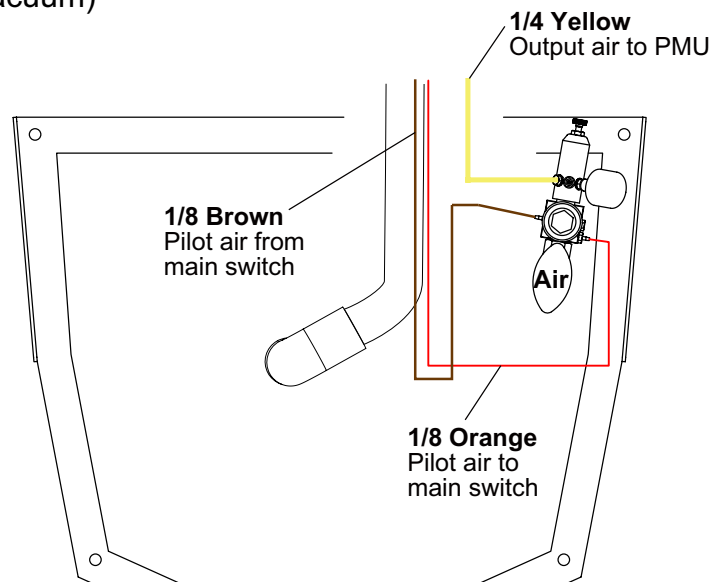
### PMU Type (Spittoon + Vacuum)



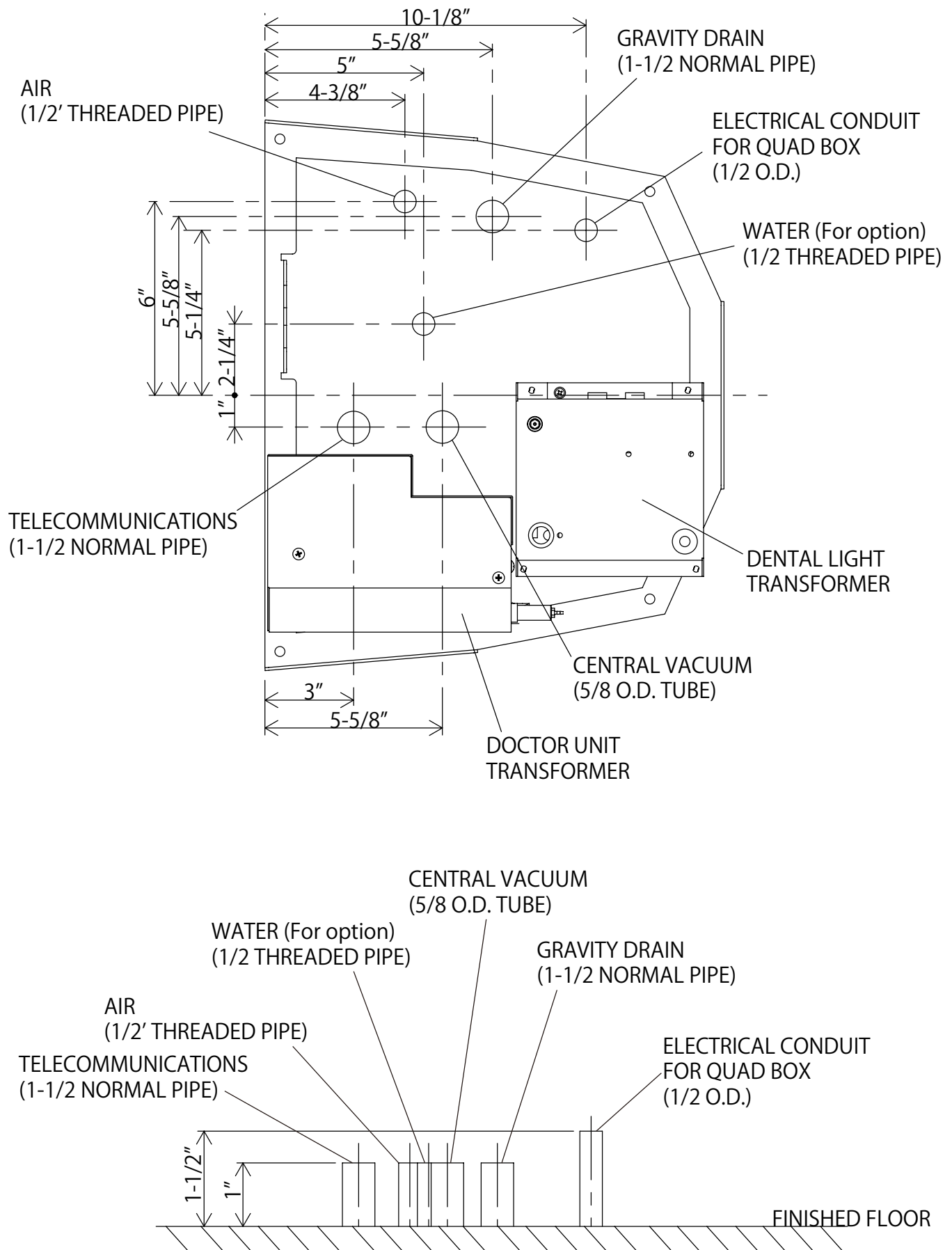
### PMU Type (Spittoon)



### PMU Type (Vacuum)



## 18. Floor Template



## NOTE



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