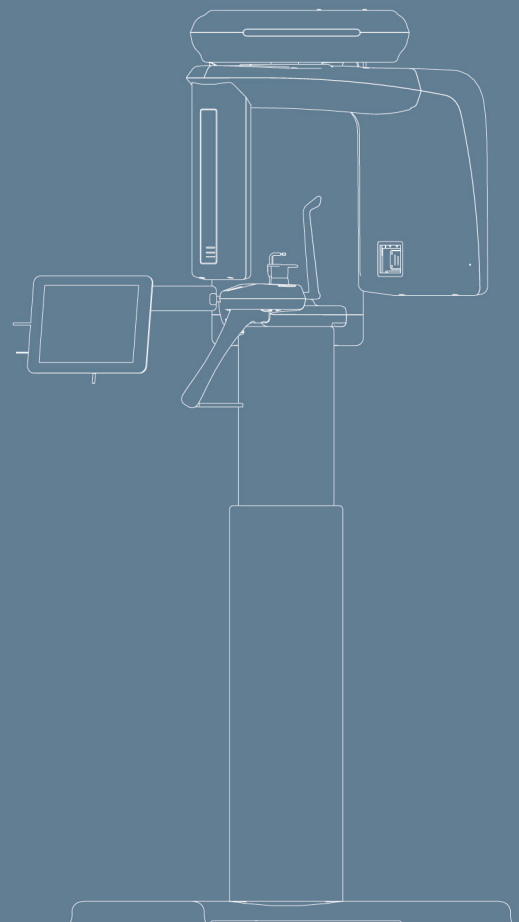




## PaX-Primo Installation Manual

Cost-effective and space-conscious  
solutions for a panoramic imaging  
with auto-focusing capability





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## Attention

VATECH reserves the right to change the contents of this manual if necessary for performance improvement or information complement without notification.

Regarding the contents of this manual, VATECH cannot assume liability of safe and reliable operation caused by User's mistakes; therefore User must read this manual very carefully before using the system. The details of the system might be different from this manual according to the model.

The following marks are used in this manual.



**Contains useful information about using the system and about the system.**



**Contains important instructions. If not observed, there might be malfunction of the system or damage to the system or other problems may occur.**



**Contains warnings and instructions about the SAFETY of the system. If not respected, serious risks and injury may be caused to the patient and user.**

---

## Caution for System Installation

1. To maintain the safety, the installer must read and follow this manual carefully.
2. The installer must confirm the system is installed as described in this manual and perform the appropriate procedures therein.
3. Only a VATECH technician or a qualified technical expert can install the system.
4. Applying pressure or spraying liquid on the system can cause fire and electrical accident.
5. Do NOT install the system in an environment exposed to volatile gas or vapor.
6. For a stable power supply avoid using the system simultaneously with other system of high electrical capacity, and make sure to ground the system.
7. If there is any doubt on operation or condition, do NOT install the system until a VATECH customer support team confirms the reliability.

## Guide Lines for Protection against Radiation

The X-ray system may cause injury to the patients if used improperly. The instructions contained in this manual must be read and followed when operating PaX-Primo. The world standard regulations pertaining to radiation safety must be observed.

When exposing X-ray, User must be behind the protective wall, or take other protective actions. When a breakdowns or troubles appear, User keeps at least 2m (7feet) away from the X-ray system to release the exposure switch while observing patient and capture-progress.

User must provide the protective clothes to the patient. Before capturing, pregnant women must always consult with doctors.



***Do not use this system in any place where there is an explosive danger.***

## X-ray Room Space for System Installation

### Recommended Minimum Space

- PaX-Primo                    2000(L) \* 2000(W) \* 2500(H) mm
  - Above space is considered for the movement of both system operator and patient.
  - The system is normally installed beside a wall, and operator uses the system on left.

### Width of Door

- The width of door is more than 800mm for system movement into X-ray room.

### Ground

- The condition of ground should be flat for system balance.
- Ground should support a min. 500KG of weight.

### Power Supply

- For system stability please guarantee 3KW power supply.

### Protection against radiation

- For protection against radiation follow the government or local standards.

### Safety Zone

- Check the safety zone.

## Responsibilities of the Manufacturer

When the situation is as below, the manufacturer has the responsibilities for the safe and proper working of the system.

- When the system is installed as per installation manual.
- When the user uses the system as per user manual and instructions on the program.
- When the user software is installed as per software installation manual.
- When repairs are made by manufacturer's engineers and/or trained engineers from the manufacturer.
- When user uses authorized components or approved components.

## Standards and Regulations

This product is designed and produced to meet the following standards:

**EN 60601-1, EN 60601-1-3, EN 60601-2-7, EN 60601-2-28, EN 60601-2-32,  
EN 60601-1-2, EN 61000-3-2, EN 61000-3-3  
EN ISO 9001, EN ISO 13485**

**CE 0499**

CE symbol grants the product compliance to the European Directive for Medical Devices 93/42 as a class IIB device. Authorized by **Grand-Duche De Luxembourg**.

# Chapter 1. Introduction

## 1.1. Product features

**PaX-Primo** is a digital, panoramic dental diagnostic system developed with especially the affordability in mind without sacrificing performances. This equipment provides various features as follows.

Among them:

1. Adopting AAM (Area Adaptive Mode) to minimize image distortion caused from inappropriate pose in panoramic mode.
2. Providing higher image resolution produced by the advanced CMOS-type sensor that is made for exclusive use in the panoramic imaging.
3. Providing wide touch screen of 10.4" to streamline series of procedures from patient positioning, to image saving to image reading, thus leading to easier-to-manipulation than ever before.
4. Improving reliability and dependability by adopting CAN(controlled area network) protocol that generally is used in areas like airplane leading to greatly reduced problem occurrences.
5. Positioning patients more accurately in a way that the operator and patient face each other, resulting in creating much less distorted images.
6. The PaX-Primo has been designed to carry out the following radiological examinations.
  - Standard
  - Sinus
  - TMJ
  - Special panoramic

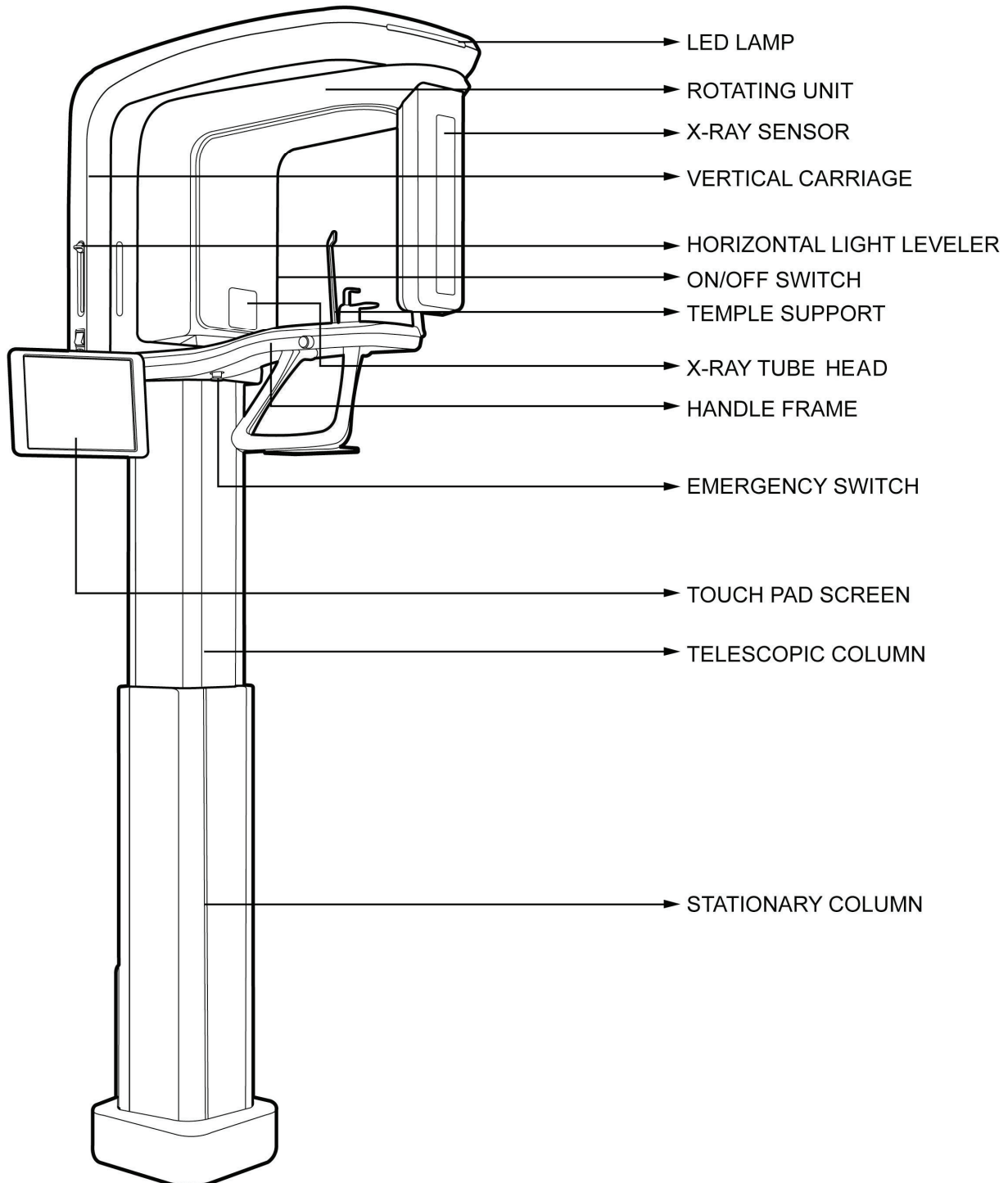
The following table summarizes anatomical programs that PaX-Primo supports.

Mode	Basic		Intelligent	
	Resolution	Sub-mode	Resolution	Sub-mode
Standard mode	High	Normal	High <i>i</i>	Adult
		Narrow		Child
		Wide		
		Child		
	Normal	Normal	Normal <i>i</i>	Adult
		Narrow		Child
		Wide		
		Child		
Special mode	Segment horizontal			
	Segment vertical			
	Bitewing			
	Orthogonal		Orthogonal <i>i</i>	
TMJ mode	Lateral Open			
	PA Open			
	Lateral Close			
	PA Close			
Sinus mode	PA			
	Lateral			

**Note** *i* signifies that Intelligence mode is supported.



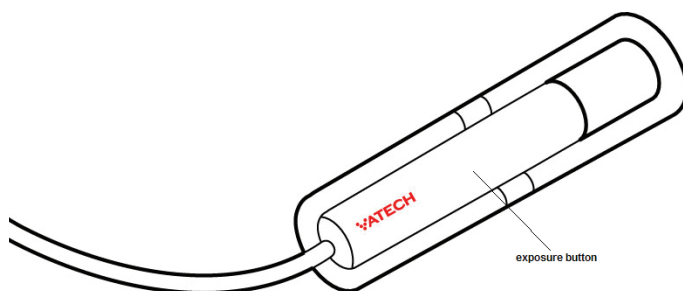
## 1.2. The product appearance and description: wall-mounted type



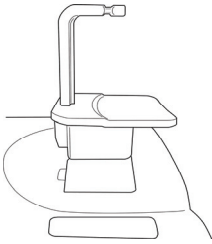
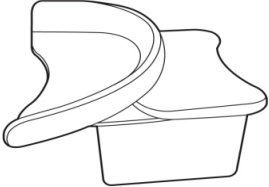
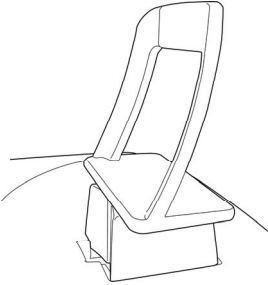
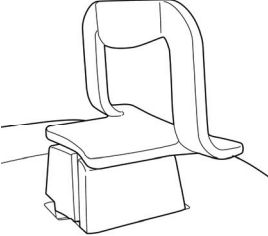
- **LED LAMP:** Indicates current exposure activity (green at no operation, but turn into orange color while x-raying)
- **ROTATING UNIT:** moves to the proper position and turns around patient's head during exposure.
- **X-RAY SENSOR:** used to detect a dose of X-Rays through the patient and convert it into electrical signal.
- **HORIZONTAL LIGHT LEVELER:** adjusts horizontal light to the Frankfort line to position patient in optimal way.
- **ON/OFF SWITCH:** turns on and off the equipment.
- **TEMPLE SUPPORT:** support the patient so as to acquire optimal image in panoramic mode.
- **EMERGENCY SWITCH:** for safety reasons, this is used to terminate power to equipment by pressing this button when a fault occurs. Its primary use is to protect humans and equipment from a severe injuries and damages.
- **TOUCH PAD SCREEN:** allows the operator to control certain unit functions by touching screen. It also displays the operating parameters and some texts messages.
- **TELESCOPIC COLUMN:** this part of column moves up and down to be adjusted to patient height.
- **STATIONARY COLUMN:** this part of column is fixed to the base.

## 1.3. Exposure switch

The exposure switch enables you to launch a radiological image acquisition via exposure button from outside the X-Ray room. You press and hold the exposure switch button until the end of acquisition. Premature release of exposure switch button interrupts acquisition.

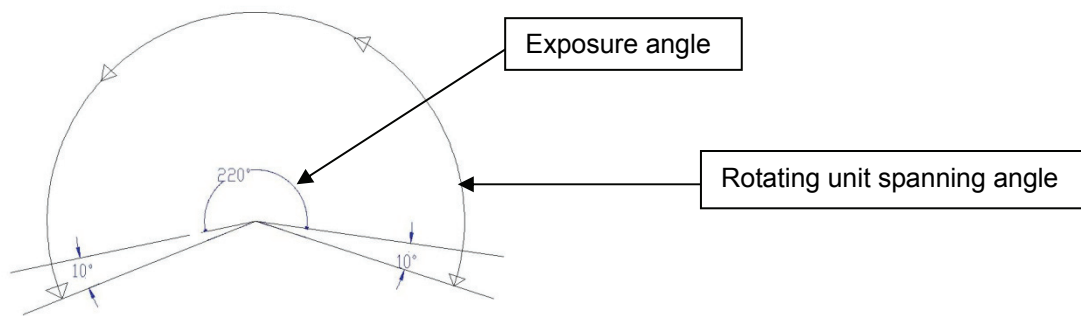


## 1.4. Replacement parts and positioning accessories

Accessory	Description
	<p>Normal bite</p>
	<p>Toothless support</p>
	<p>TMJ support</p>
	<p>Sinus support</p>

## 1.5. PaX-Primo's general specification

- X-ray beam: Fan Beam
- Reconstruction Algorithm: A real time reconstructing algorithm
- Dynamic Range: 14 bit
- Scan Time (sec) at normal: 9.7 sec (typical).(2~13.5 sec.)
- Rotating Unit Scan Angle (degree): 240  
Actual rotating angle around the object
- X-ray Exposure Angle (degree): 220  
Actual spanning angle to expose the object to X-Ray: In fact the instant that the rotating unit turns by 10 degrees, the X-Ray exposure starts and stops at 10 degrees before the rotating unit reaches the full rotation:  $240-10-10=220$



- Patient Position: Stand
- Patient Alignment: 3 guiding light beams
- Reconstruction Time: About 45sec
- Focal spot size: 0.35 X0.5 mm
- FDD (SID): 531.2 mm
- Magnification: 1.31
- Sensor type: CMOS (Area mode)
- Pixel pitch: 100um
- Image pixel size: 100um
- Active pixel array: 1504x60
- Active area: 150.4x6.0mm
- Data acquisition speed: 1 Gb
- Weight: 75 kg

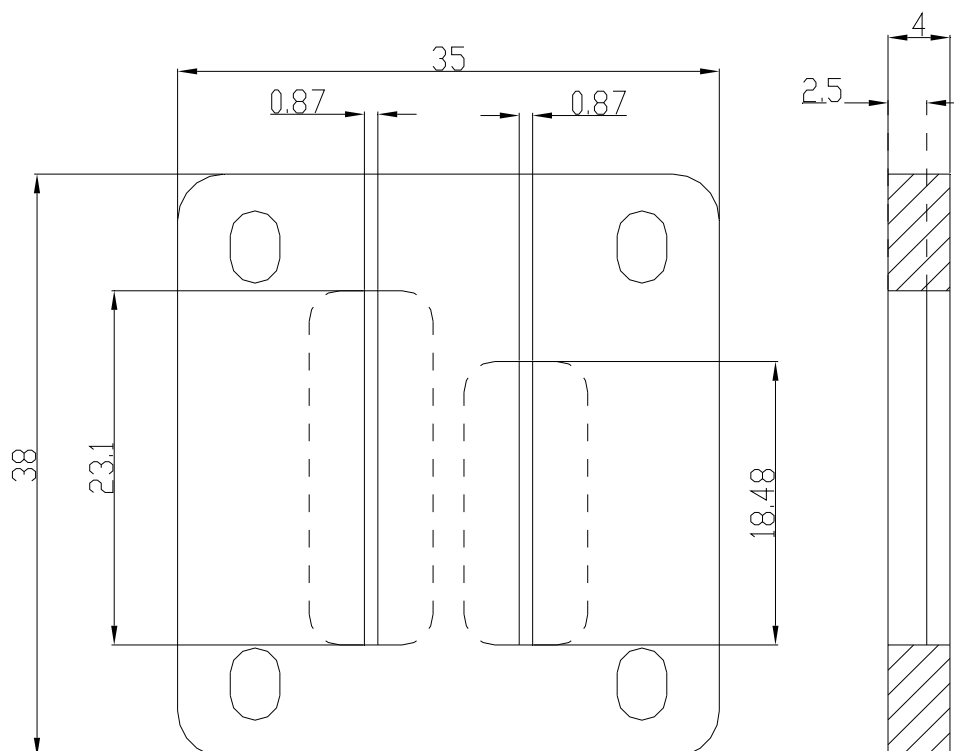
## 1.6. X-ray generator

- High frequency generator, constant potential, micro processor controlled
- Ripple < 4%
- Inverter frequency 36 kHz push-pull
- Tube type D-051, stationary anode type
- Nominal power below than 1.3 KW
- Tube voltage 50 ~ 80 kV (adjustable by 1 kV)
- Tube current 2 ~ 10 mA (adjustable by 1 mA)
- High voltage DC
- Exposure time
- Cooling by force, one minute for cooling / Protect  $\geq 50^{\circ}\text{C}$

## 1.7. X-ray tube(Toshiba D-051)

- Focal spot size 0.35\*0.5 mm
- Heat storage capacity 30 kJ (40 Khu)
- Total filtration 2.8 mm Al eq.

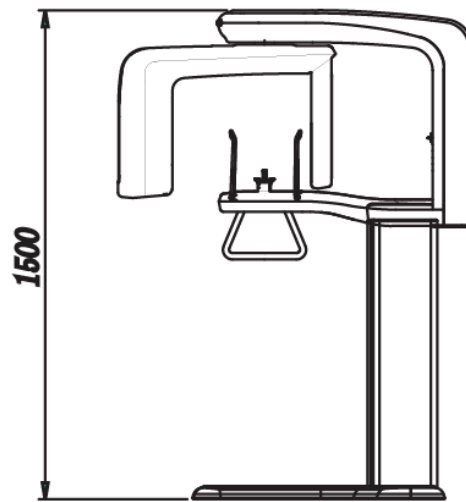
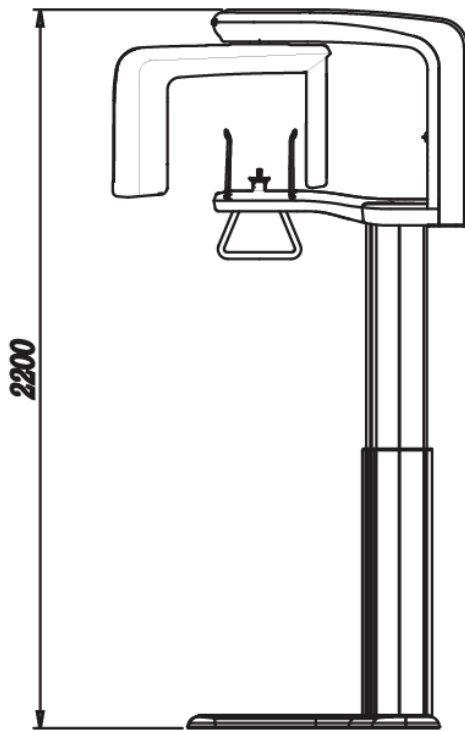
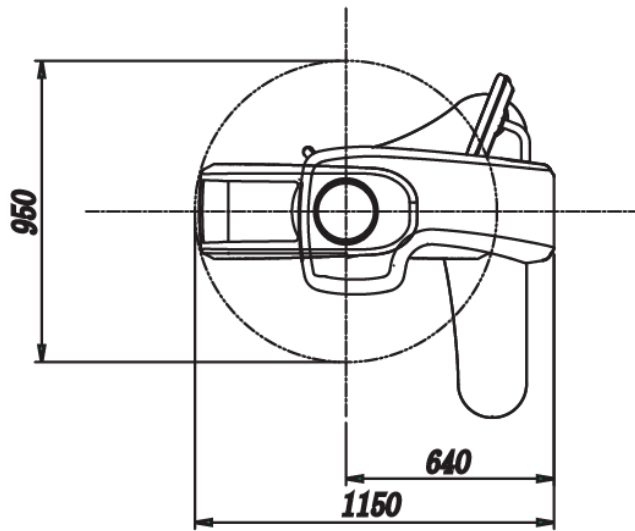
## 1.8. Collimator



## 1.9. Environmental characteristics

- Operating temperature 10 ~ 30°C
- Operating relative humidity 30 ~ 75%
- Operating atmospheric pressure 700 ~ 1060 hPa
- Transport and storage temperature -20 ~ 70°C
- Transport and storage relative humidity < 90% non-condensing
- Transport and storage atmospheric pressure 500 ~ 1060 hPa

## 1.10. Dimension of the Unit



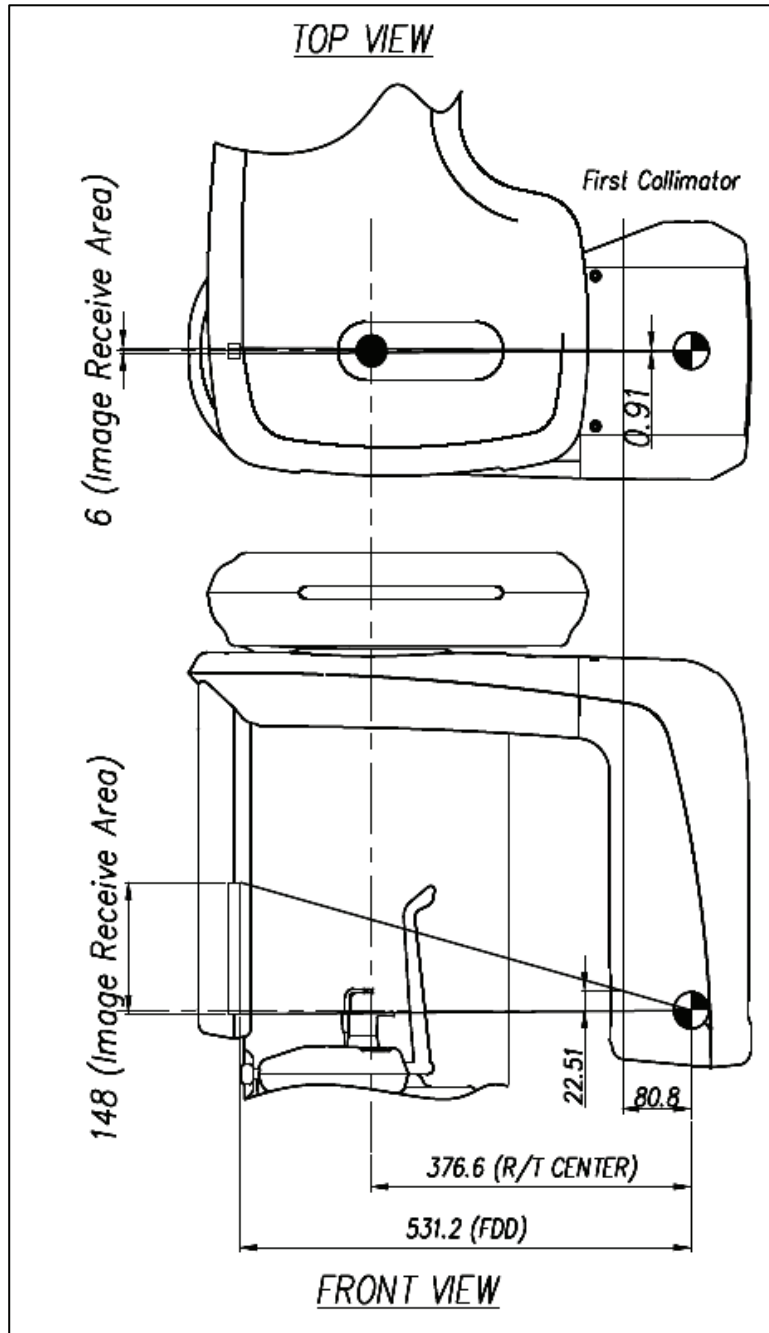
(Unit: mm)

### Note

The height, 2200mm, represents the maximally allowed length using extensible (adjustable) column.

- Distance between the x-ray source and sensor: 603.8mm
- Size of the unit: 1150 mm\* 950mm\*2200mm

### 1.11. Focal spot distance





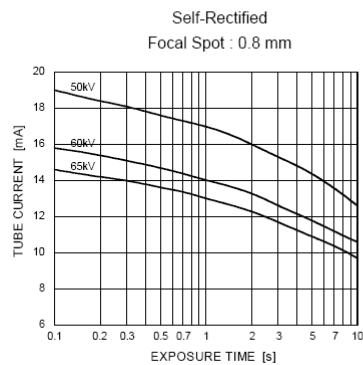
## 1.12. X-Ray generator technical specifications

### 1.12.1. X-Ray Tube Specification

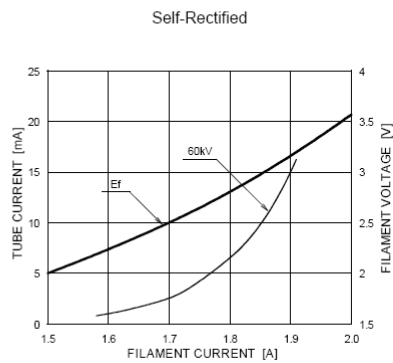
#### D-051

- Tube voltage: 50 ~ 100 kV
- Tube current: 1 ~ 22 mA
- Focal spot: 0.5 mm
- Inherent filtration: 0.8 mm Al
- Added filtration: 2.0 mm Al
- Total filtration: 2.8 mm Al
- Filament characteristics: 3.5~4.9V 3.5A(max. filament current)
- Anode angle: 5°
- Anode Hu: 28000J
- Anode cooling rate: 265W
- Input energy at 1 sec: 1750W
- Tube target material: Tungsten

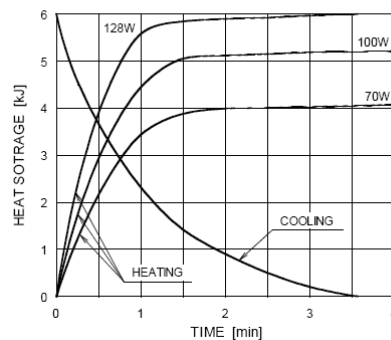
**Maximum Rating Charts**  
(Absolute maximum rating charts)



**Emission & Filament Characteristics**



**Anode Thermal Characteristics**



## 1.12.2. High voltage generator

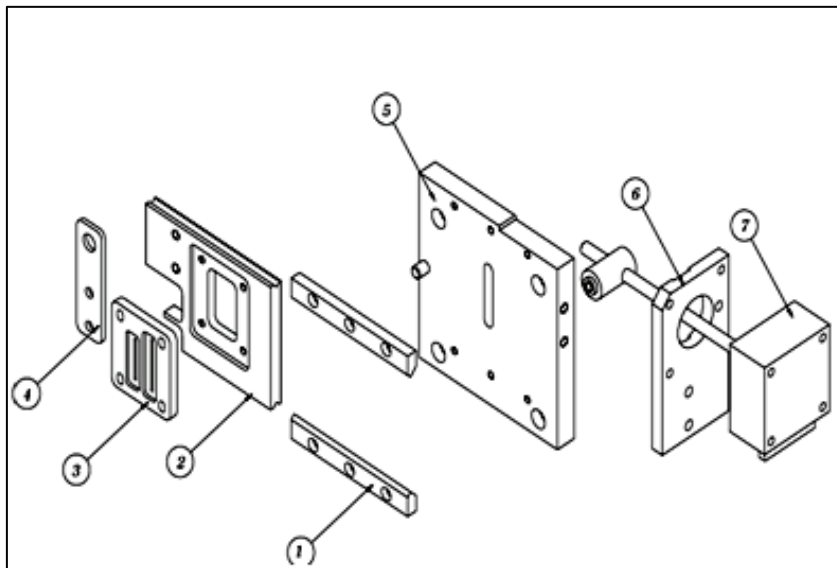
- Tube voltage: 50 to 80kV constant potential
- Tube current: 2 to 10 mA direct current

## 1.12.3. X-Ray generation controller

- Focal spot length to Sensor: 678 mm
- Exposure time: 20sec.
- Cooling: 1 min. cooling time
- X-Ray generation limit: 50 to 90 kV and 2 to 10 mA

## 1.12.4. Beam limiter

- Whole size: 35mm x38 mm x4mm
- Hole size: 0.87 mm x 18.48 mm x 2.5 mm
- Material used: Lead (Pb)



## 1.13. System Characteristics

### 1.13.1. Mechanical Characteristics

- Source to Image distance [Focal spot to Sensor] 603.8mm
- Vertical column movement Max. 700 mm
- Weight 78 kg
- Length x Width x Height 1150mmx950 x2200 mm
- Type of installation Base Stand

### 1.13.2. Electrical Characteristics

- Power supply voltage AC 110/230V  $\pm$  10%
- Frequency 50/60 Hz
- Power rating 2.0KVA

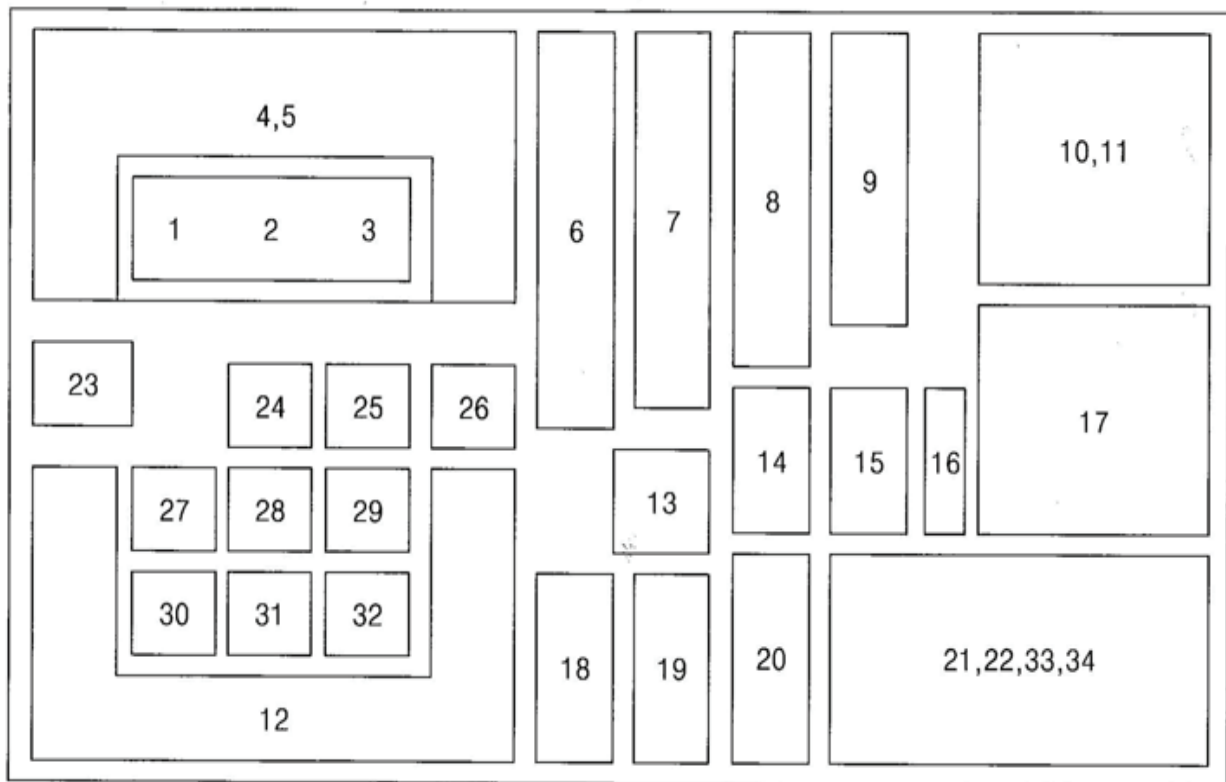
### 1.13.3. Environmental Characteristics

- Operating temperature 10 ~ 30 °C
- Operating relative humidity 30 ~ 75%
- Operating atmospheric pressure 700 ~ 1060 hPa
- Transport and storage temperature -20 ~ 70 °C
- Transport and storage relative humidity < 90% non-condensing
- Transport and storage atmospheric pressure 500 ~ 1060 hPa

## Chapter 2. Preparing for installation

### 2.1. Checking packing list

#### 2.1.1. Location of the parts and assembly units supplied



Cable	PC to Unit	Unit to exposure switch holder	Exposure switch To exposure switch holder	Total length
LAN cable	10m			10m
RS232	10m			10m
Power cable				2.4m
Frame grabber	6.1m			6.1m
Exposure switch		10m	0.75m	10.75m

## 2.1.2. Parts list

NO	DESCRIPTION	SPECIFICATION	Q'TY(EA)
	<b>COLUMN, VERTICAL, ROTATE UNIT(ASSEMBLED)</b>		1
	<b>BASE UNIT</b>		1
1-1	<b>HANDLE FRAME-ASS'Y</b>		1
1-2	<b>CASE_VERTICAL_FRONT</b>		1
1-4	<b>TOUCH PAD SCREEN</b>		1
1-5	<b>MOVING SYSTEM BAR</b>		1
1	USER(OR INSTALLATION) MANUAL & INSTALL CD		1
2	LAN CARD	3COM 3C905CX	1
3	SERIAL CARD	M-19/232A1	1
4	FRAMEGRABBER CARD		1
5	CASE-T-TOP-COLUMN-COVER		1
6	CASE_VERTICAL_FRONT_BOTTOM		1
7	EXPOSURE SWITCH-ASS'Y		1
8	EARROD R/L (1 set)		1
9	UP/DOWN SWITCH-ASS'Y		1
11	WIRE CASE		1
12	CASE-T-BOT-COLUMN-COVER		1
13	PANO COVER BOX		1
14	NON CHINREST		1
15	SINUS CHINREST		1
16	Hand Frame Cover		1
17	EXPOSURE SWITCH HOLDER-ASS'Y		1
18	NORMAL CHINREST		1
19	TMJ CHINREST		1
20	CAP_HOLE_L		1
22	CABLE ( EXPOSURE SWITCH CONNECT )		1
23	WRENCH BOLT	10*25 ( ASSEMBLING COLUMN TO BASE )	4
24	WRENCH BOLT	8*25 ( ASSEMBLING COLUMN TO VERTICAL )	4

25	WRENCH BOLT	8*20( ASSEMBLING COLUMN TO HANDLE FRAME )	2
26	WRENCH BOLT	6*10	3
27	SCREW(FLAT HEAD)	4*16( FOR EXPOSURE SWITCH HOLDER )	8
28	TRUSS BOLT	4*8( FOR ASSEMBLING CASE )	10
30	SILICON CAP (WHITE/GRAY)		6EA/2EA
31	JUMP CABLE		1
33	SERIAL CABLE		1
34	CABLE TIE		10
35	LAN CABLE		1
36	SERIAL CONNECT CABLE		1

### Parts lists for the Touch pad screen wall mounted type

10	BKT_PRIMO_LCD_WALL_1,2 N10	FOR WALL-MOUNTED LCD	1 SET
20	CAP_HOLE_L		1
21	CABLE ( A WALL-MOUNTED LCD )		1
29	PAD WASHER BOLT- M3*12 (+) (NYLOK)	3*12( FOR WALL-MOUNTED LCD )	4

### Parts lists for the PaX-Primo wall mounted type

1-3	WALL BRACKET 1 ,2- SPC 4.0T (ZnW)		1
32	BOLT SET( WALL-MOUNTED TYPE )	M6*15( BOLT, FLAT&SPRING WASHER)	1 SET

## 2.2. Tools required

1. cross screw driver



2. flat head screw driver



3. wrench set



4. Spirit level



## 2.3. Standard Accessories

- Bites with supporters
- Chin support
- Temple clamps
- X-ray exposure switch with extensible cable
- Hand grips
- Disposable bag

## 2.4. Check Shock Watch and Tilt Watch

These cartons are installed with the Shock Watch and Tilt Watch to monitor its conditions, while being delivered, from vibration, shocks and various impacts.

Check whether the “Shock Watch” and “Tilt Watch” of on each carton have been damaged before opening the cartons. If any are red, contact your delivery company, agent, or VATECH.



*Please check the color of Shock Watch & Tilt Watch on each carton to see if has turned RED.*

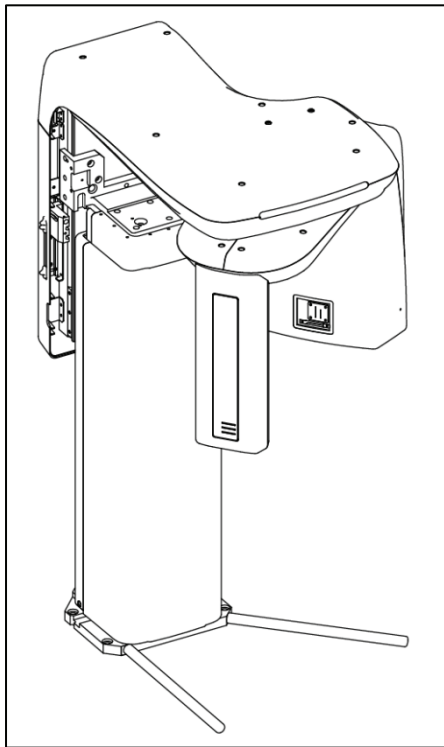
## Chapter 3. Installing the equipment

### 3.1. Assembling the wall mount

#### Note

*Please make sure that ground on which equipment is to be installed is flat and dry before installation.*

1. Unpack the carton and locate the unit.



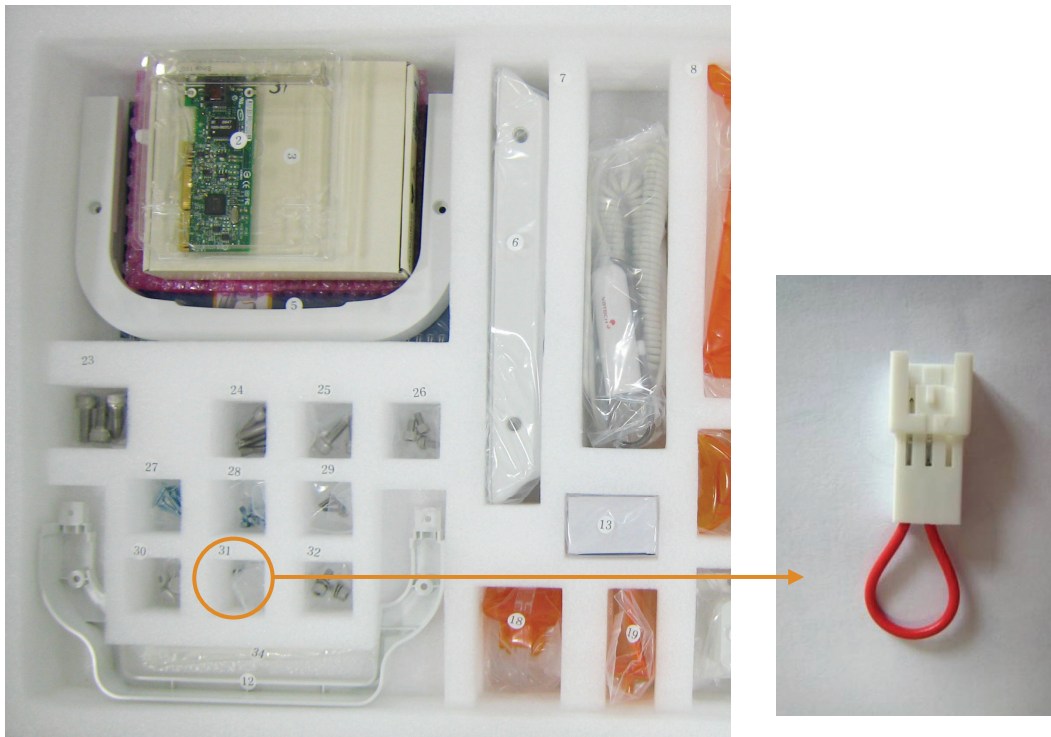
<PaX-Primo main unit>

2. Please open the accessory box that comes with the unit.

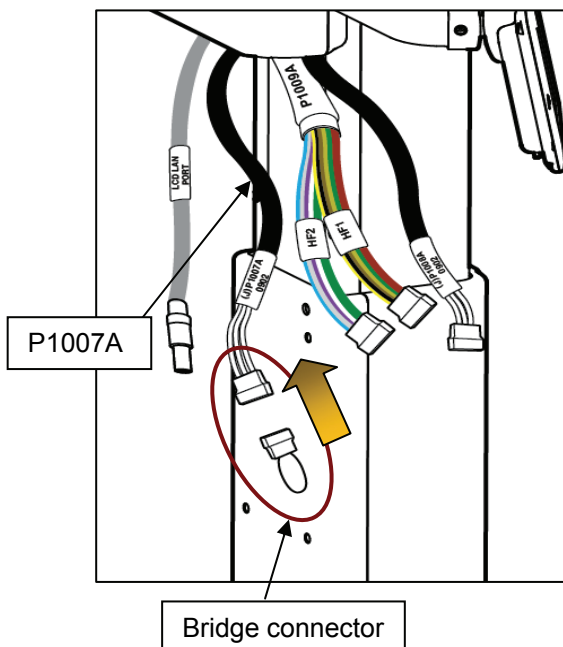




3. Please locate the jumper wire (ACC. No.:31)

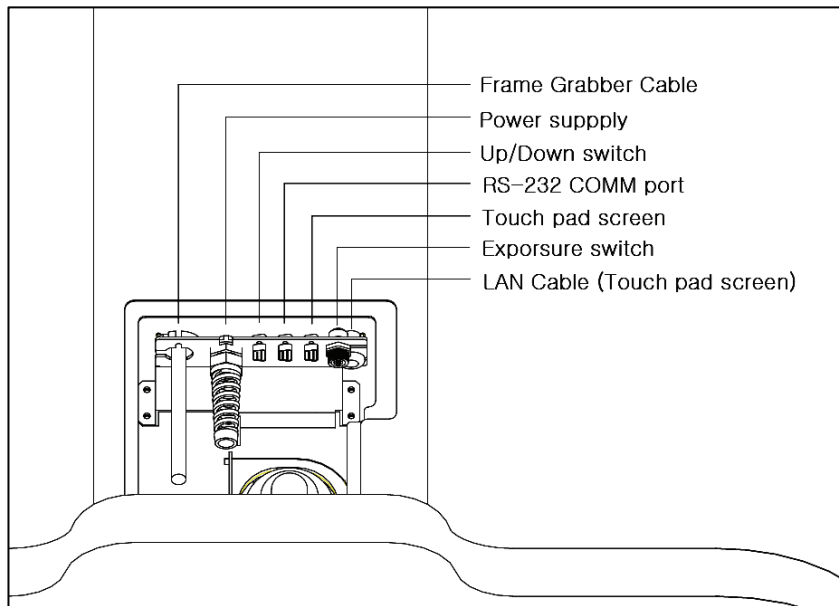


4. Please plug the provided bridge connector (Jumper cable: Acc. No.:31) into the P1007A to make connection temporarily. This step is required to provide power temporarily to the unit until the hand frame is assembled.

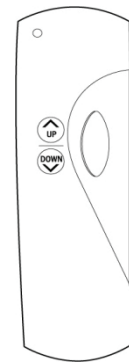


5. Please plug the power cable into the power outlet.

6. Please connect the UP/DOWN switch (Acc. No.9) to the connector panel on the lower part at the back of the Column.



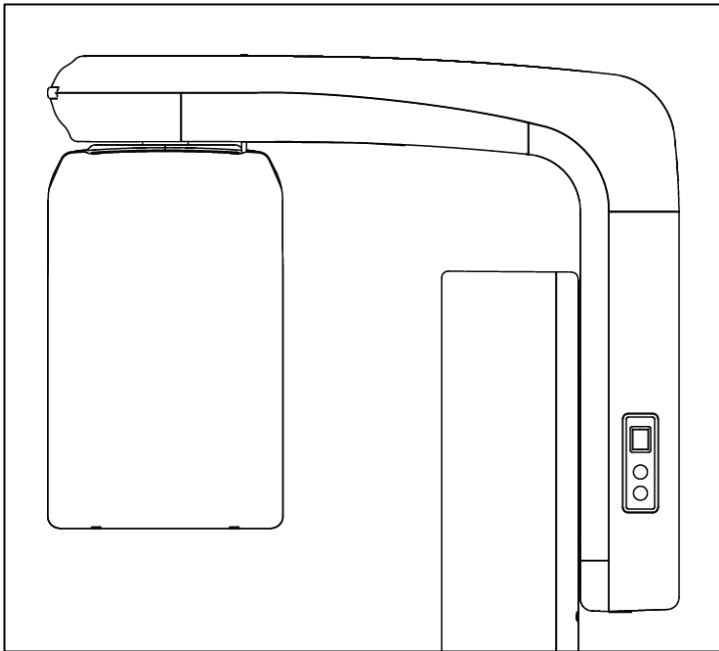
Connector panel



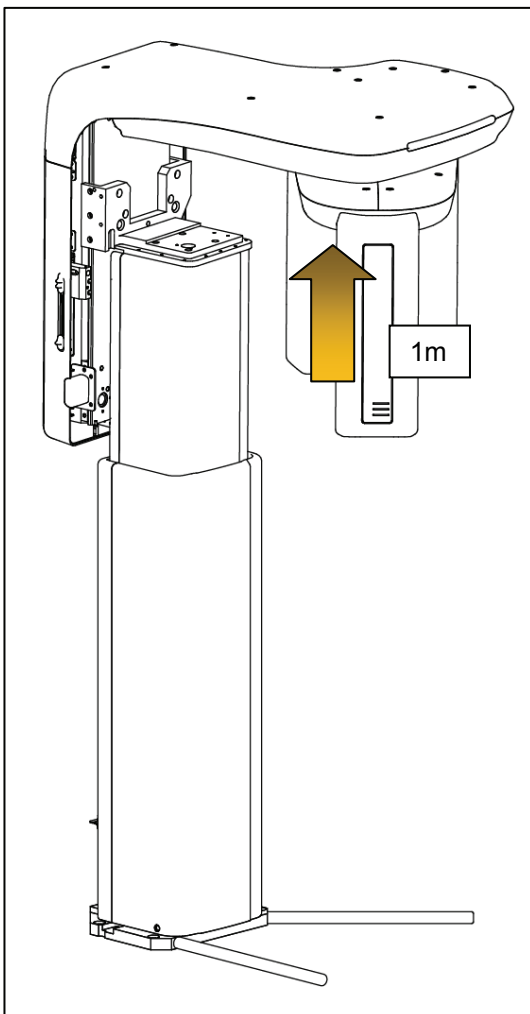
Up/Down Switch



7. Please turn on the unit. The turn-on switch is located on the right side of the column.



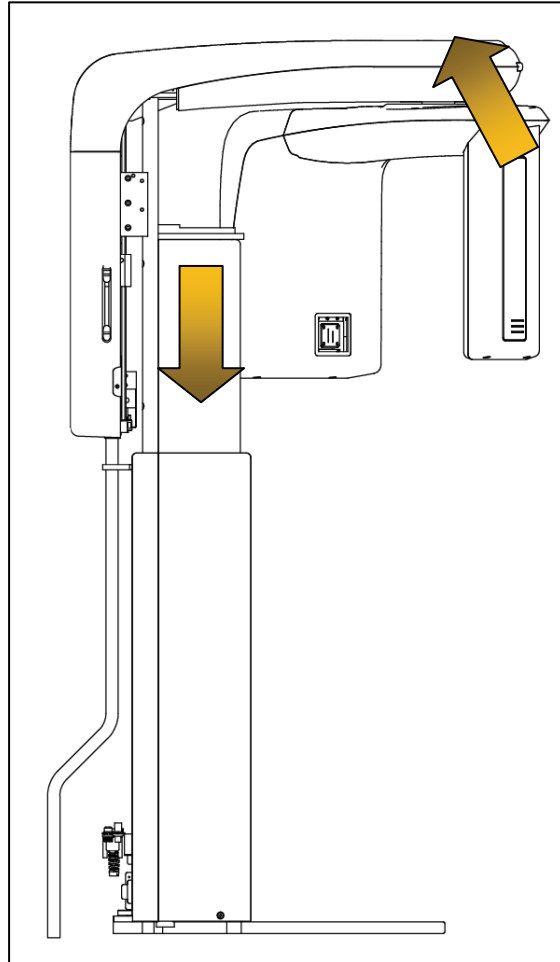
8. Please move up the column by 1m using the Up/Down switch.



- Please make sure that the brace rod is firmly in place and combined, then move down the column, using the Up/Down switch, until *clicking sound* at the some point is heard.



*Warning: It could cause severe damages to the equipment when even after the clicking sound heard, the column is kept on being lowered beyond the point.*



**Warning**

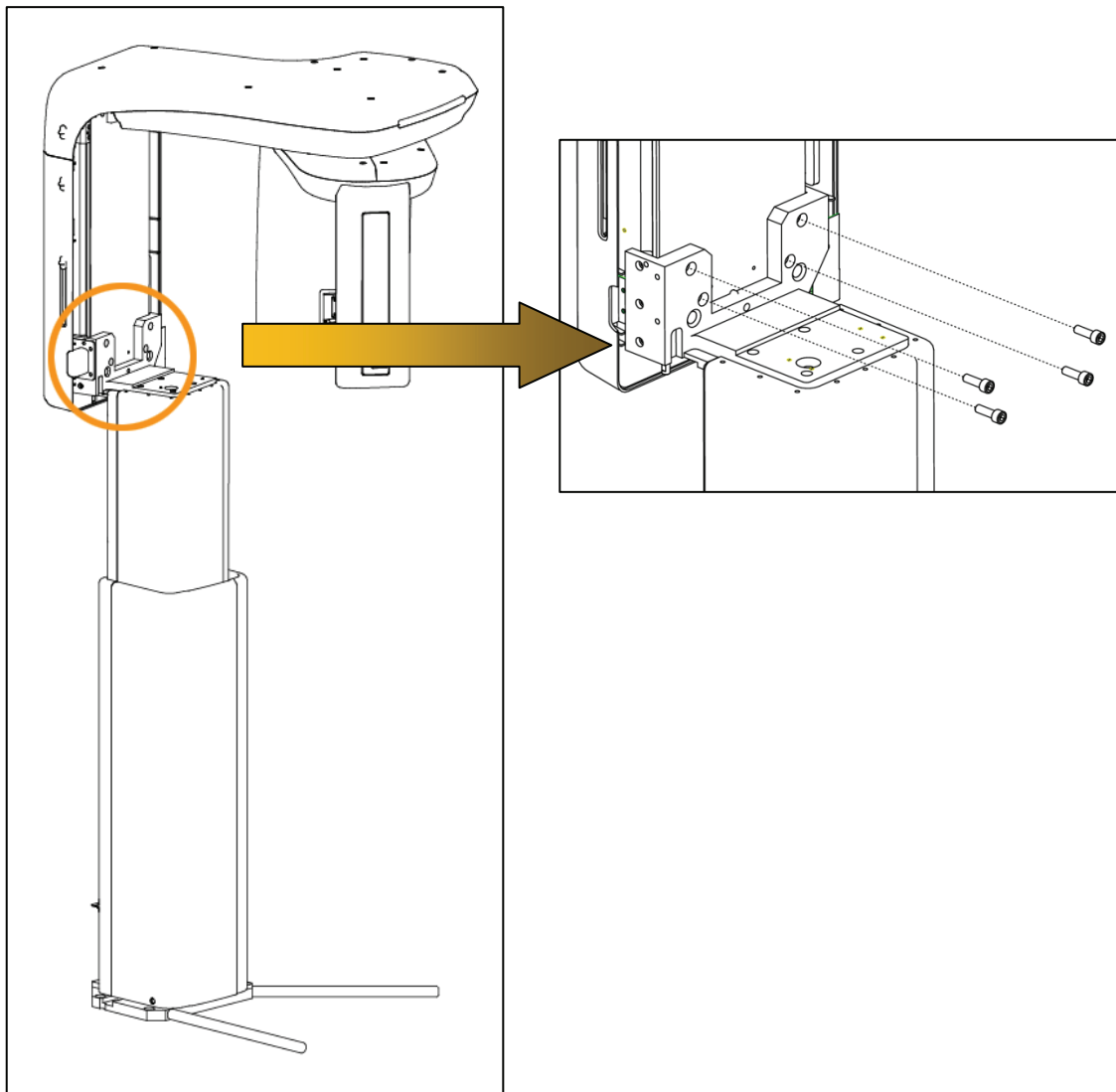
*While the unit is being lowered, it may be inclined toward the front of the unit because of losing the center of weight of the rotating unit. This phenomenon could lead to the unstable, not –easy- to- install situation. To avoid this, you are advised to lift slightly the front of the rotating unit at 45 degrees upward, as the above figure shows, while lowering the unit.*

10. Please fix the column using M8\*25 wrench bolt.(Acc. No.:25)

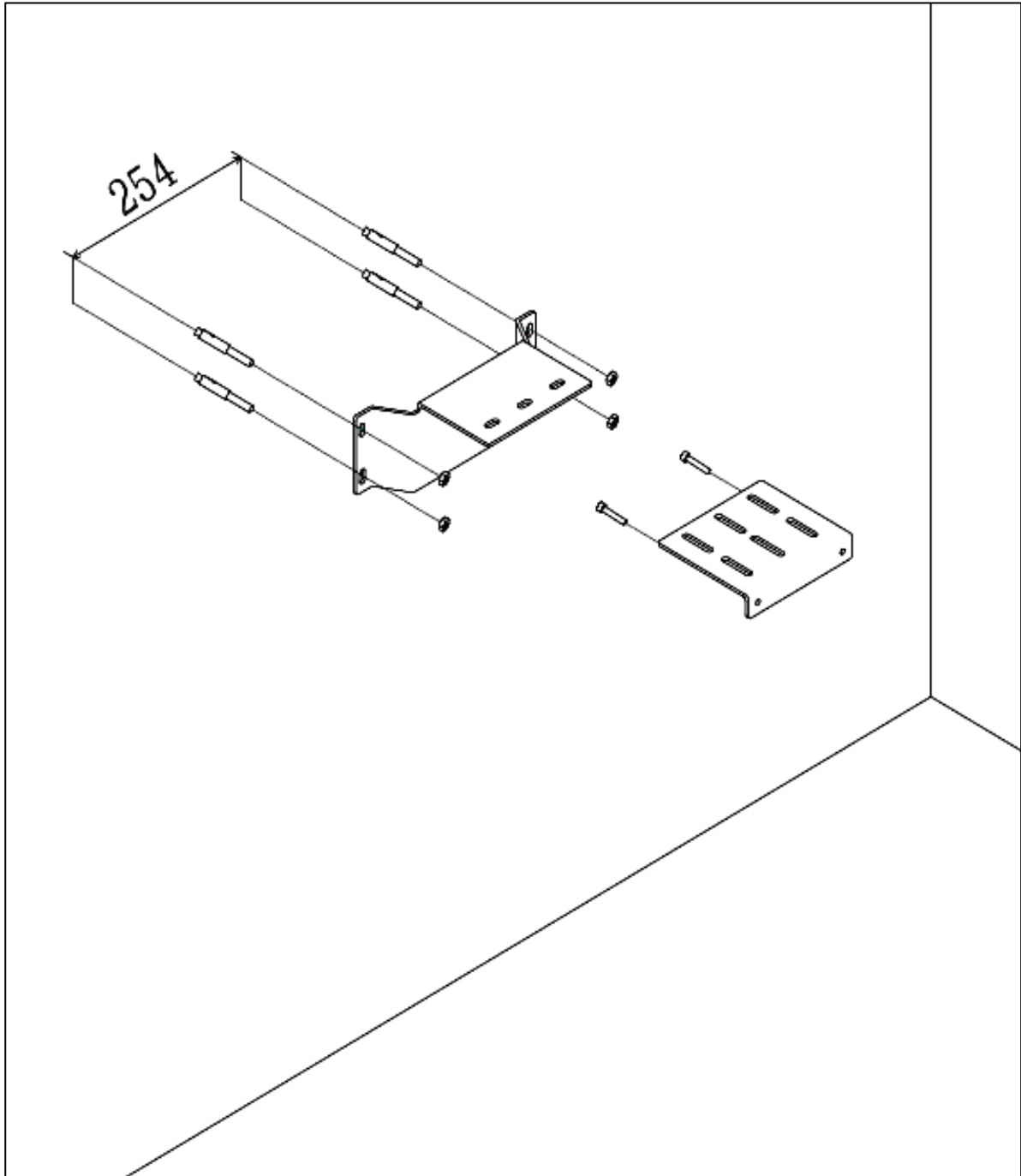
**Note**

*Works become easier if the front part of rotating unit is slightly lifted up while screwing.*

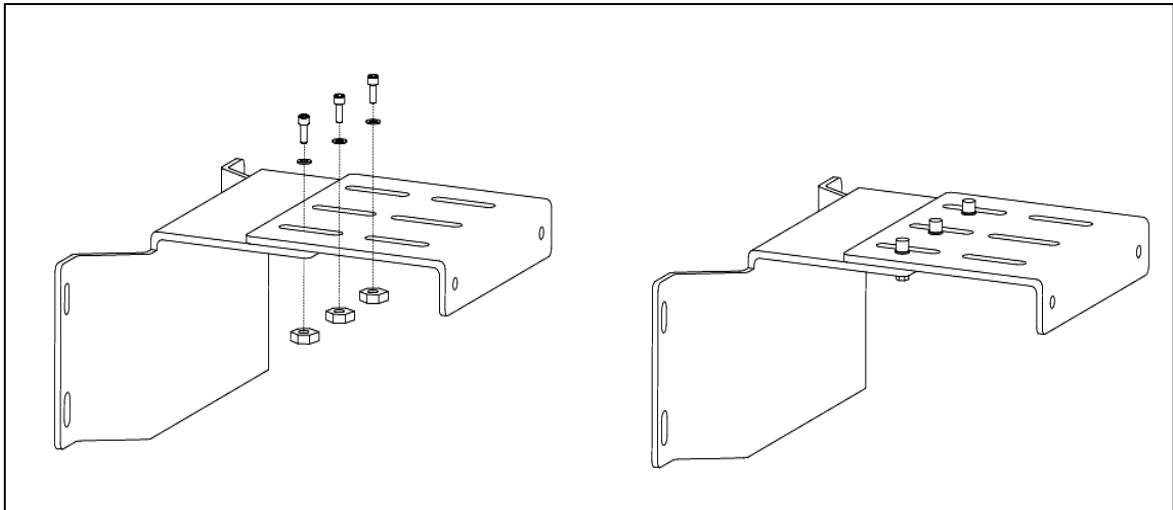
11. On completion of this, please move up, using the Up/Down switch, by about 15cm and remove the brace rod.



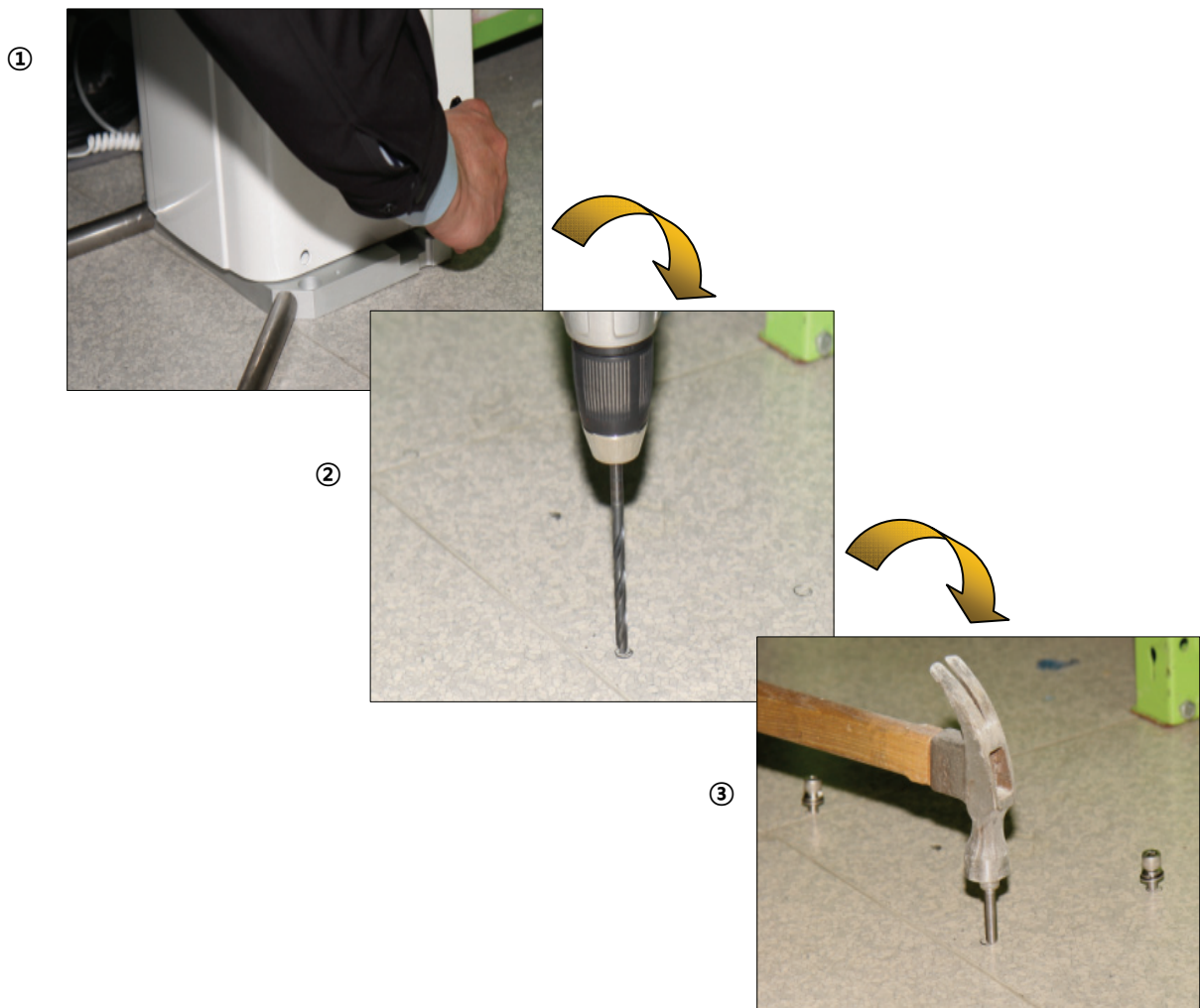
12. Please fix the wall bracket (Acc. No: 1-3) to the back of the column using M6\*10 wrench bolts (Acc. No:32) Please fix the wall mount type bracket (Acc. No:1-3) to the wall where the unit is to be installed, using fisher bolts and nuts.



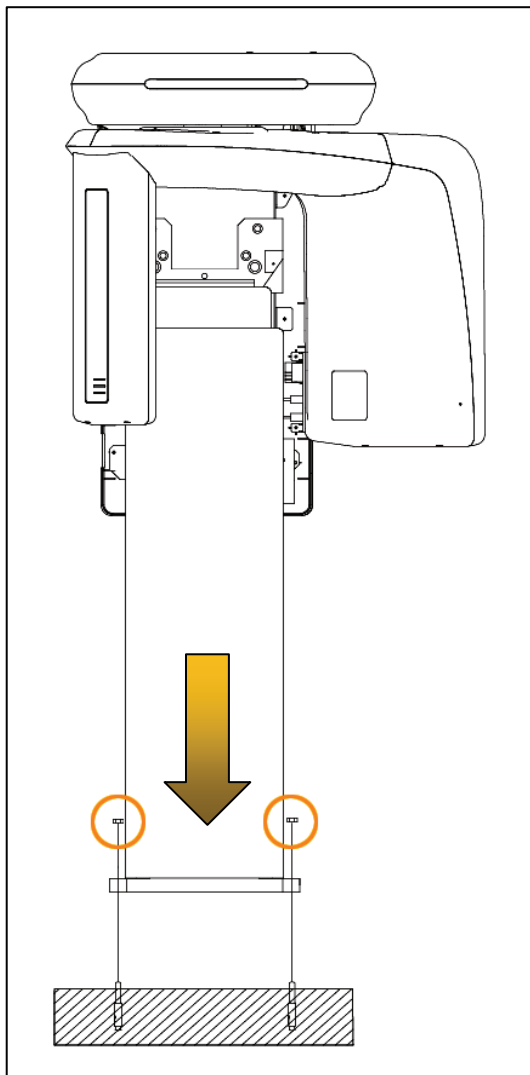
13. Please join two wall mount type brackets by getting them closer and screw them.



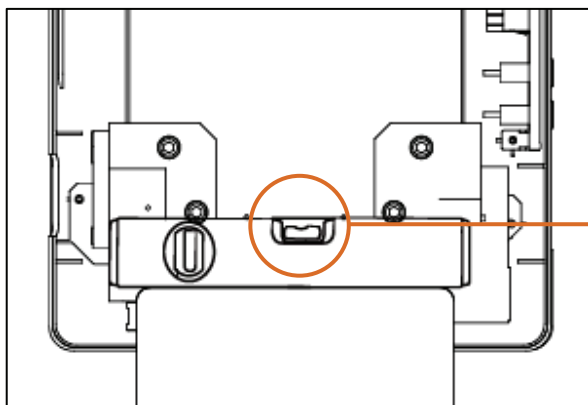
14. Please mark 4 positions to where the anchor bolts are to be attached on the floor (①)  
 Please dismantle those two wall mount brackets. Then drill those marked locations (②)  
 And attach the anchor bolts to those positions (③)



15. Place carefully the unit, while matching for anchors, and fix them tightly.

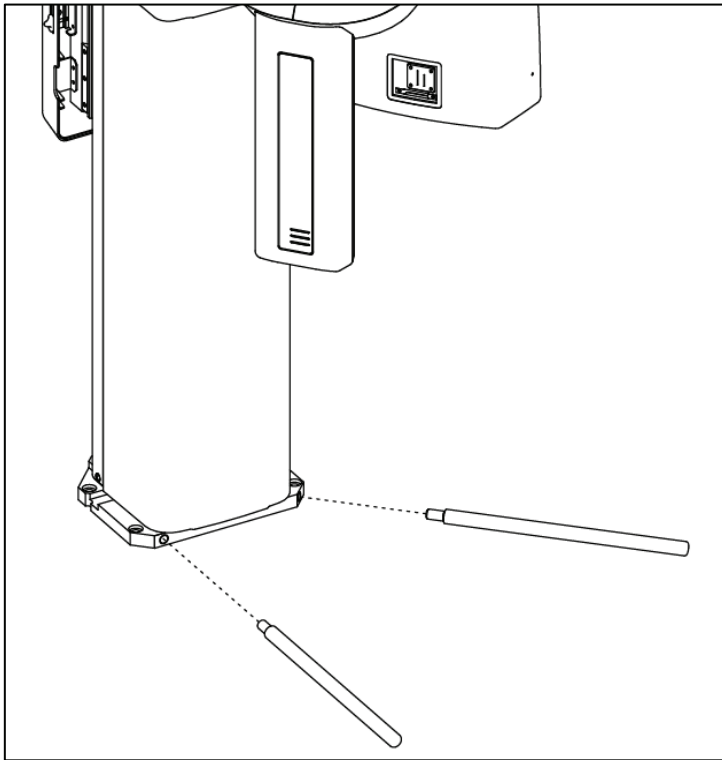


16. Please align, if necessary, the right, left, back and front using the spirit level.

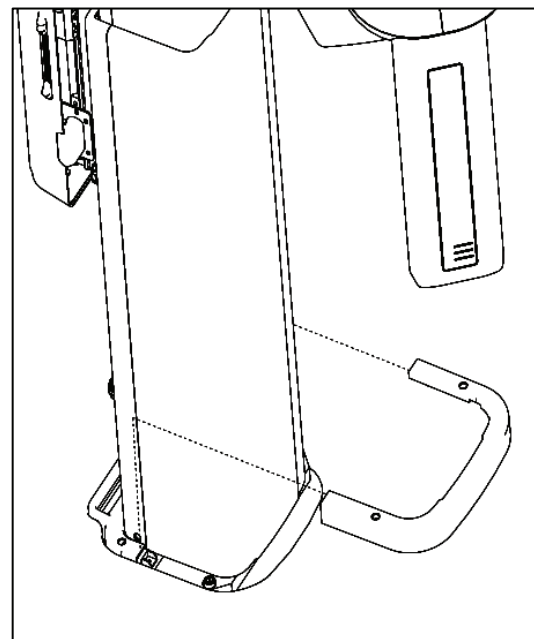
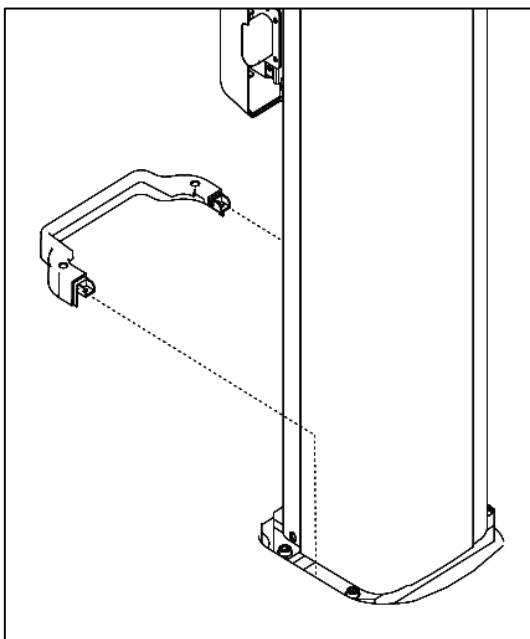




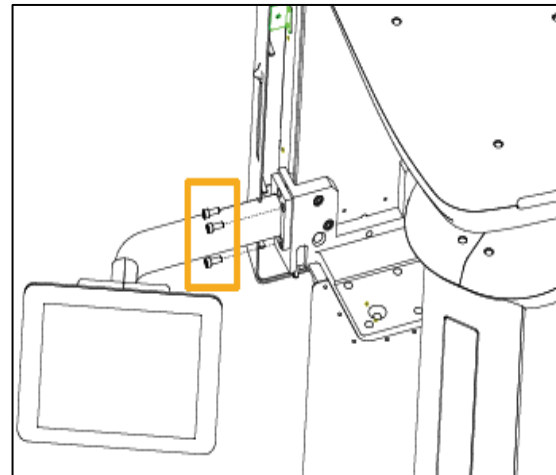
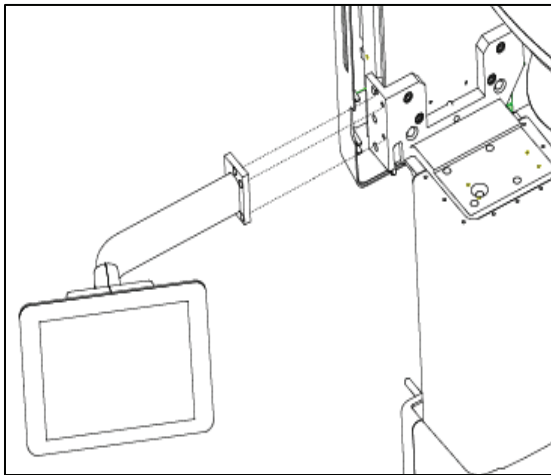
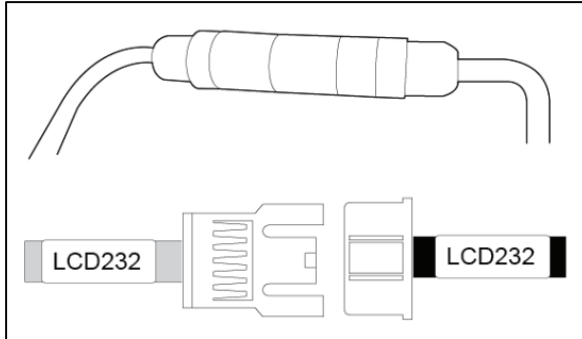
17. Please remove two bracing iron rods by turning them counterclockwise, owing to threaded ends.



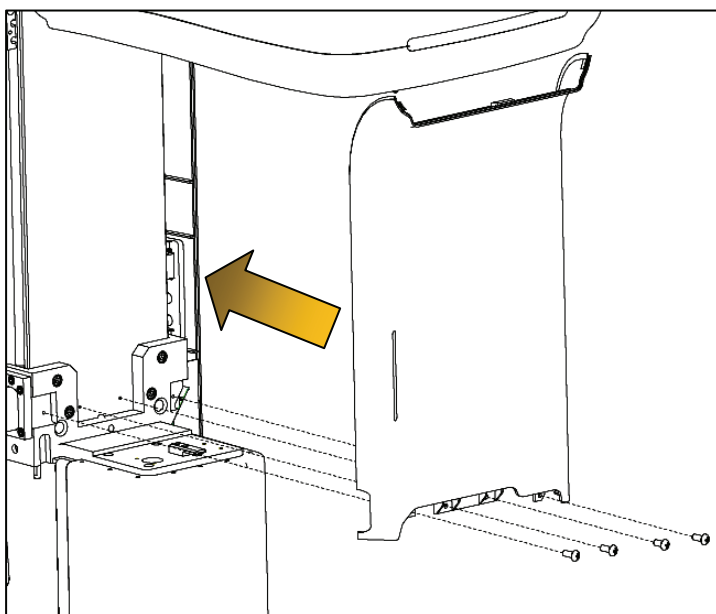
18. Fix the base covers using M4\*8 truss bolts(Acc. No:28), placing the back cover first and front cover later.



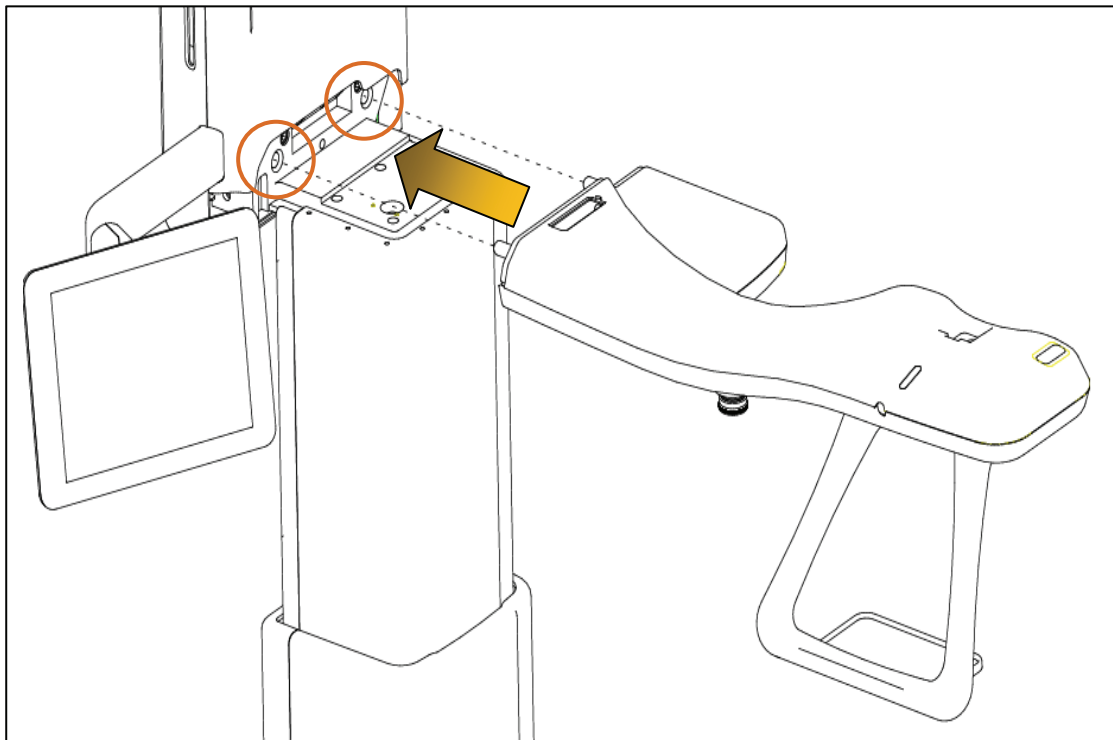
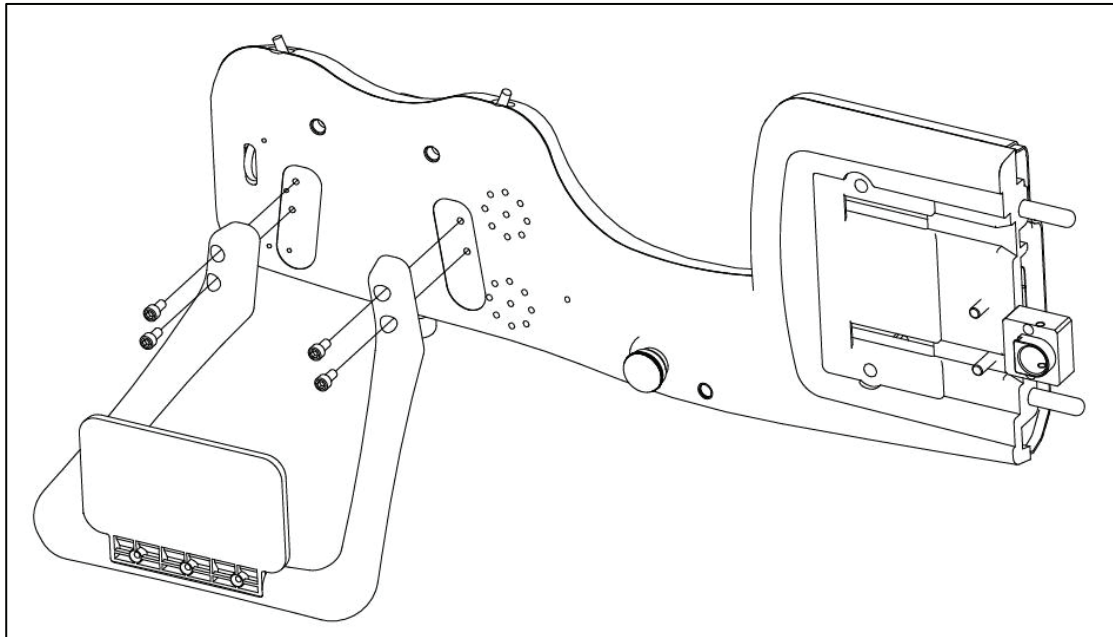
19. Please connect the cable, P1043A, P1015A, to P1042A, P1014A from touch pad screen and one from the Unit. After finishing connections, fix the touch pad screen (Accessory No.05) onto the unit, using M6\*10 wrench bolts (Accessory No, 26x3). If it is to be installed on the wall, refer to the 3.3.



20. Please fit the front column cover onto column using M4\*8 truss bolts (Acc. No. 28x4).



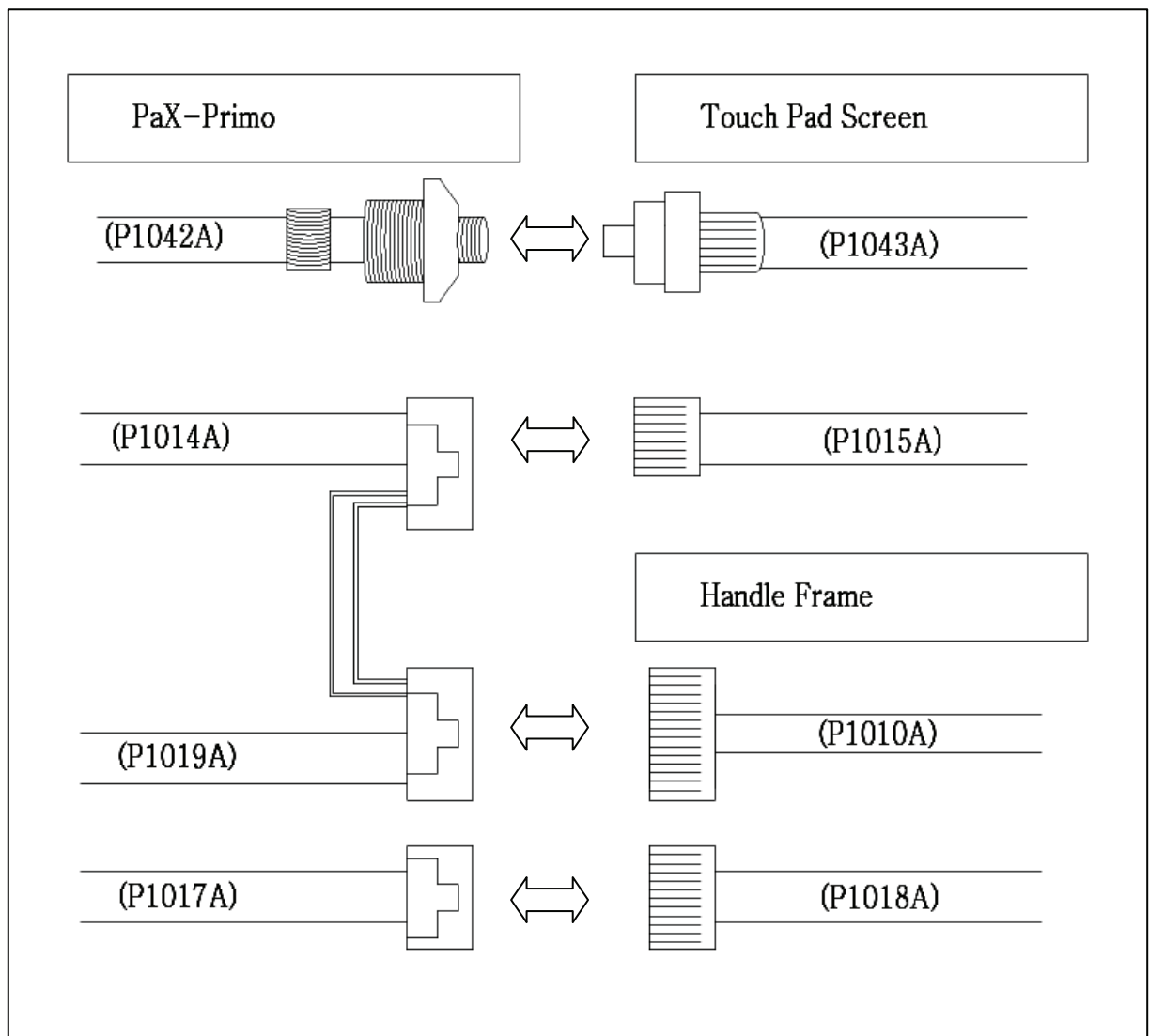
21. Please attach the handle frame and handle rail used by supplied bolts. Then slide hand frame into the slot to the guide holes.



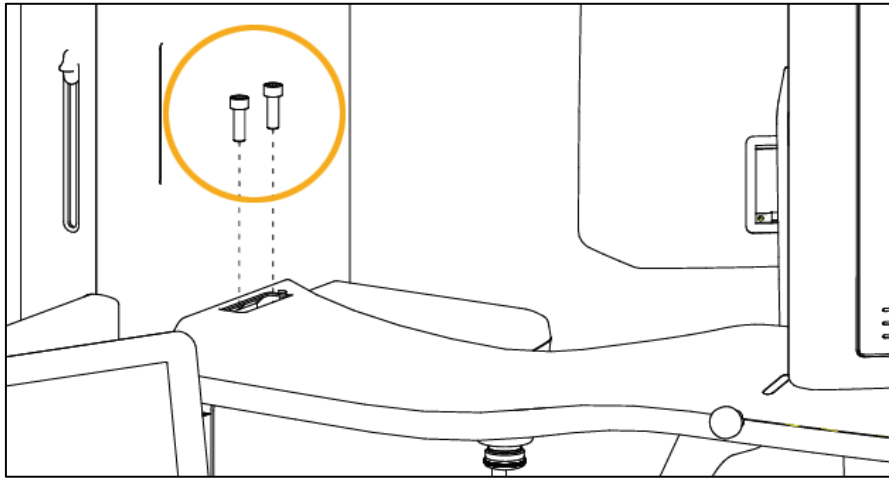
22. Please arrange the wires from hand frame, P1010A and P1018A, through the notch on the Column frame, as shown below.



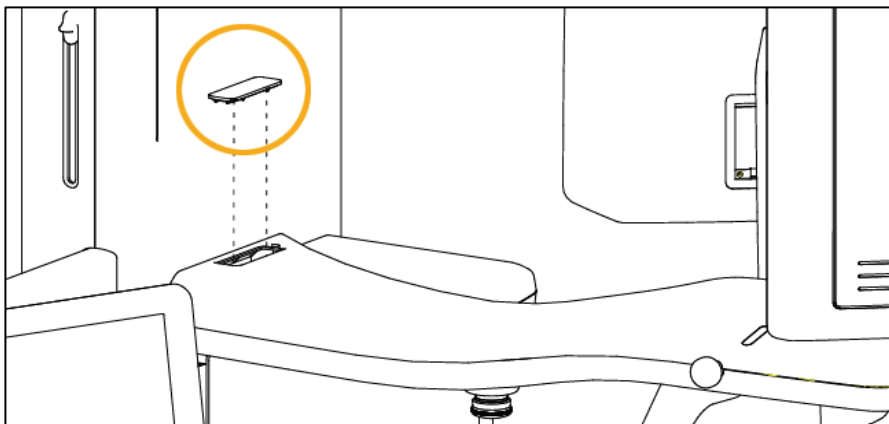
### How to connect the cables?



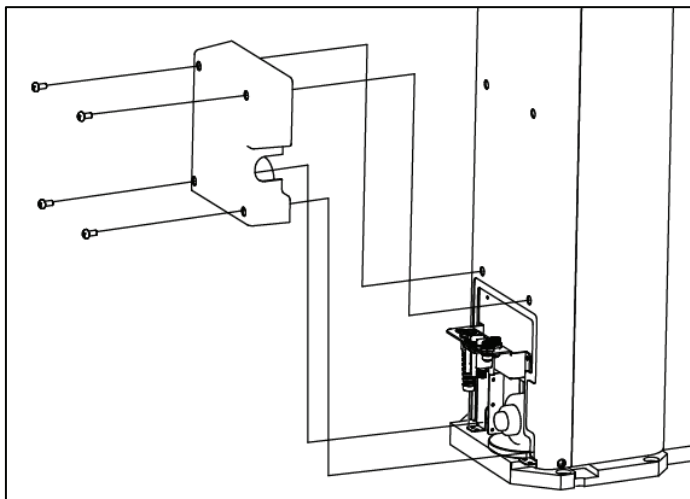
23. Please make sure that the hand frame is completely in place and screw both together, using M8\*20 wrench bolts (Acc. No. 25x2).



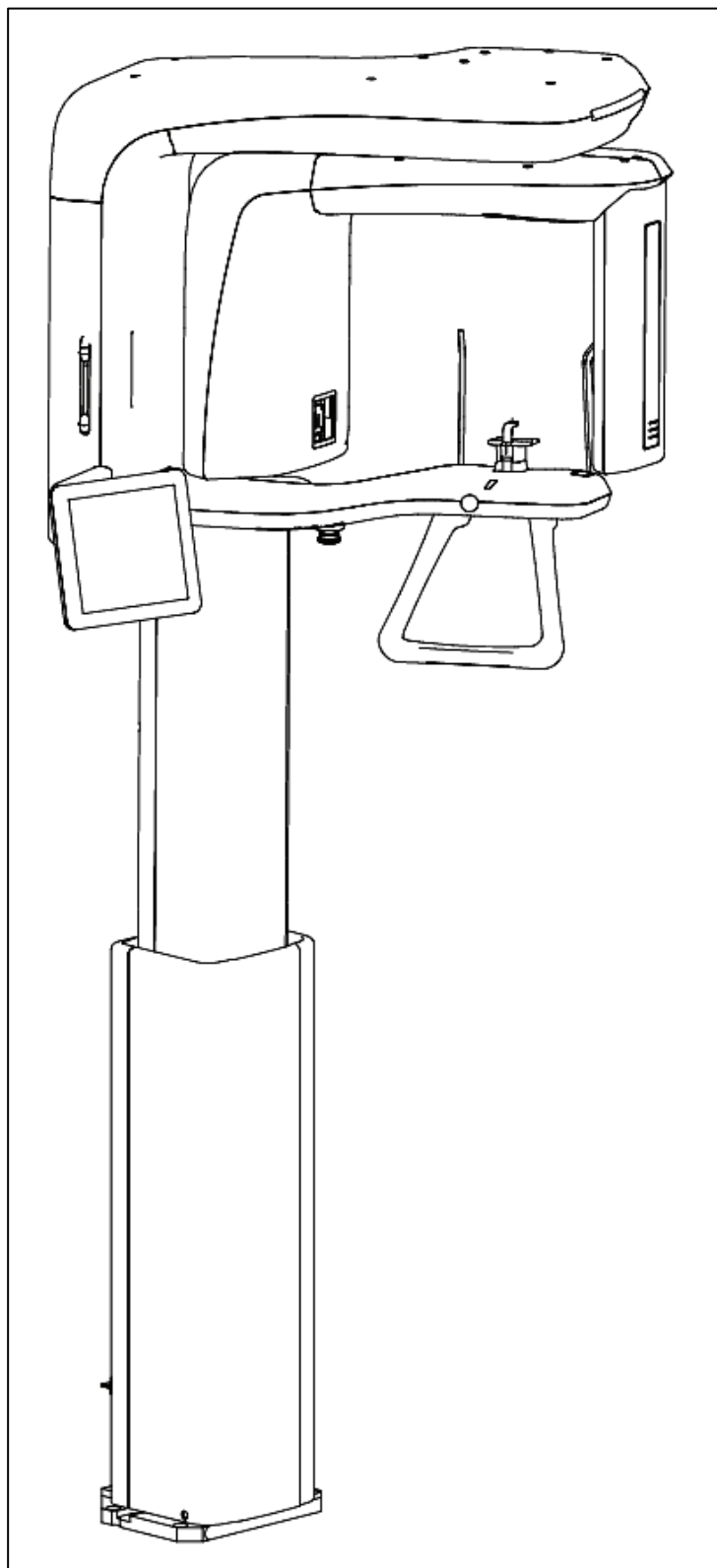
24. Please fit the open slot with the cover supplied (Acc. No. 16).



25. Please fit the rear case for column in place and screw it using M4\*8 truss bolts. (Acc No.28x4)



26. Installation procedures have finished.

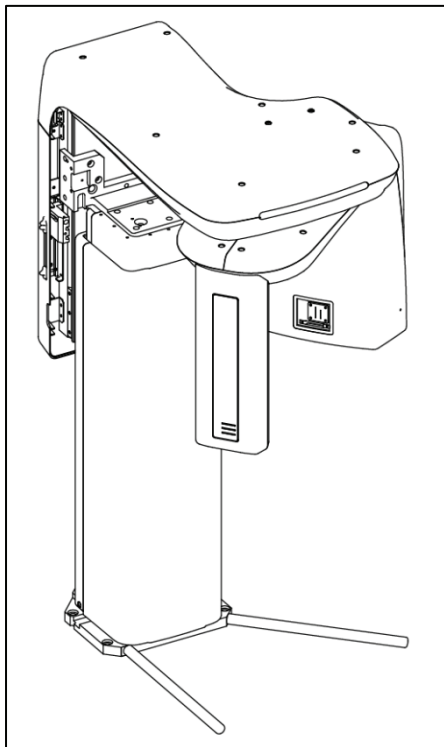


### 3.2. Assembling the base (optional)

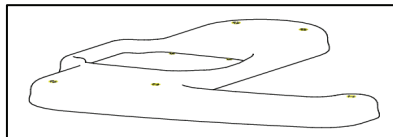
#### Note

*Please make sure that ground on which equipment is to be installed is flat and dry before installation.*

1. Unpack the carton and locate two units — main unit and base plate.

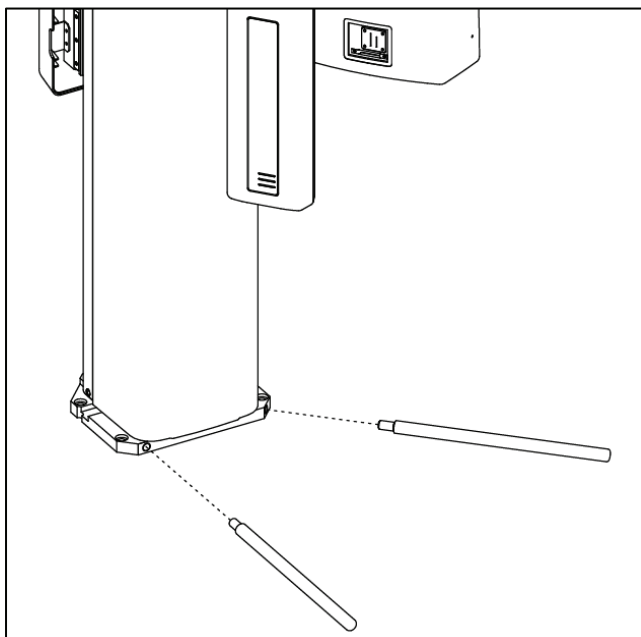


<PaX-Primo main unit>

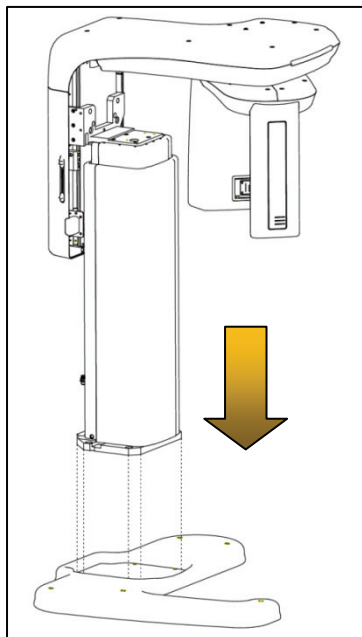


<base plate>

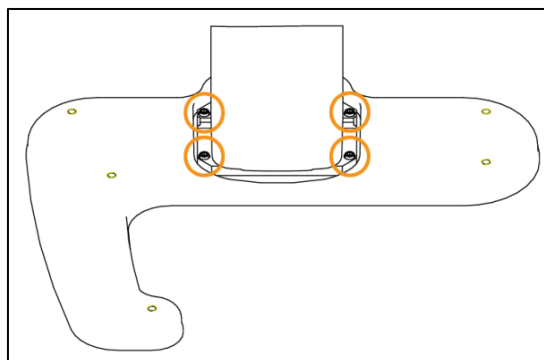
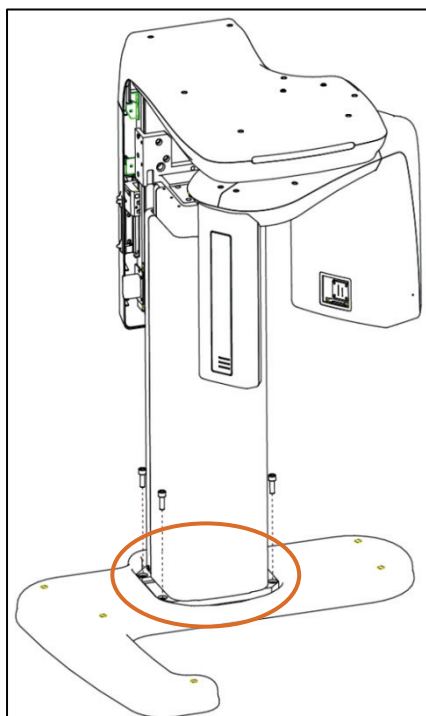
2. Unpack the carton and locate two units - main unit and base plate.



3. Please mount the system onto the base plate to assemble, as arrow indicated.

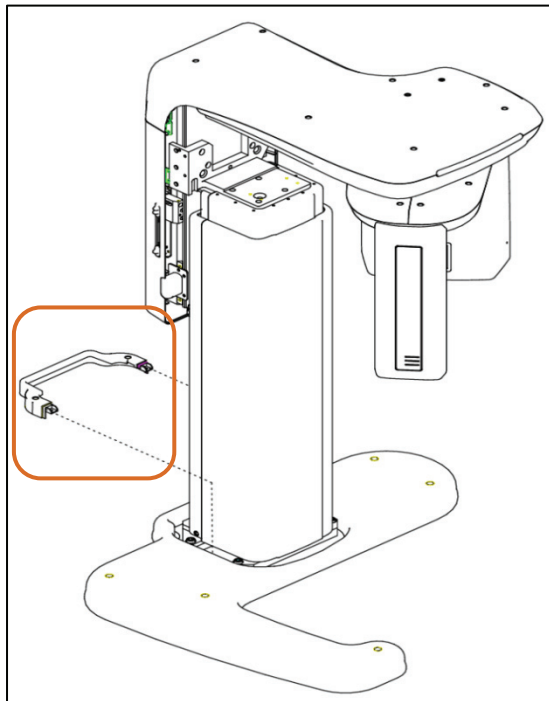


4. Please fix the main unit onto the base plate securely using the supplied M10\*25(Accessory No.33X4) (Orange color)

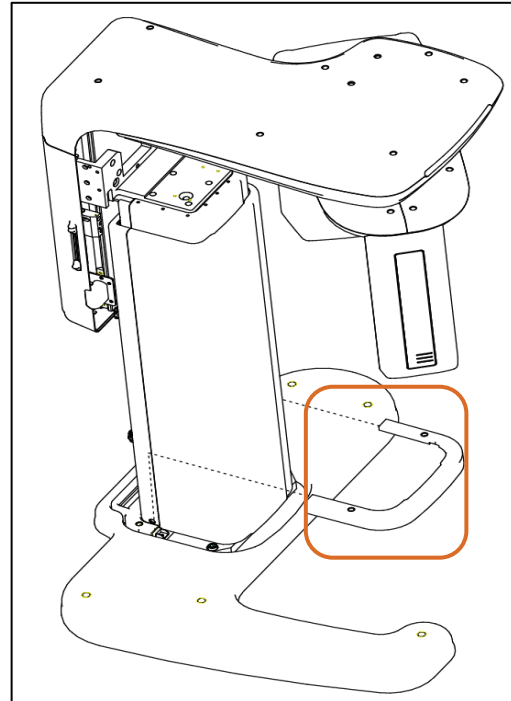




- Please install two base covers (Accessory No.12, 05) in a way that rear base cover first is installed and front base cover installed later ,so that the front base cover can be stacked onto the rear one.(See the colored parts)

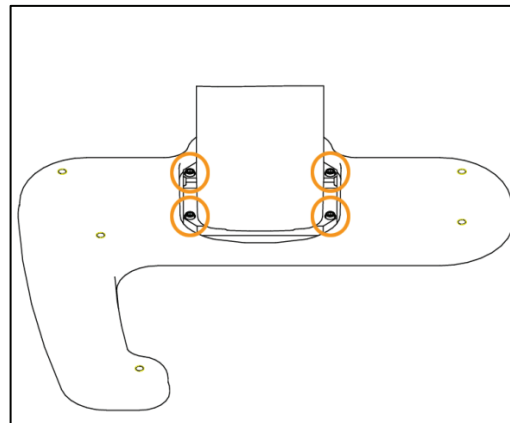
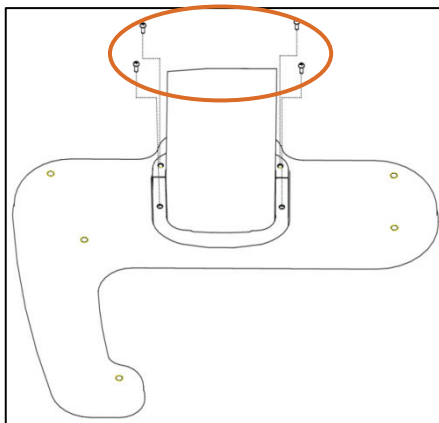


<Rear base cover>



<Front base cover>

- Please fix those base plate covers onto the base using the M4\*8 Truss bolts (Acc. No. 28x4) to hold together.



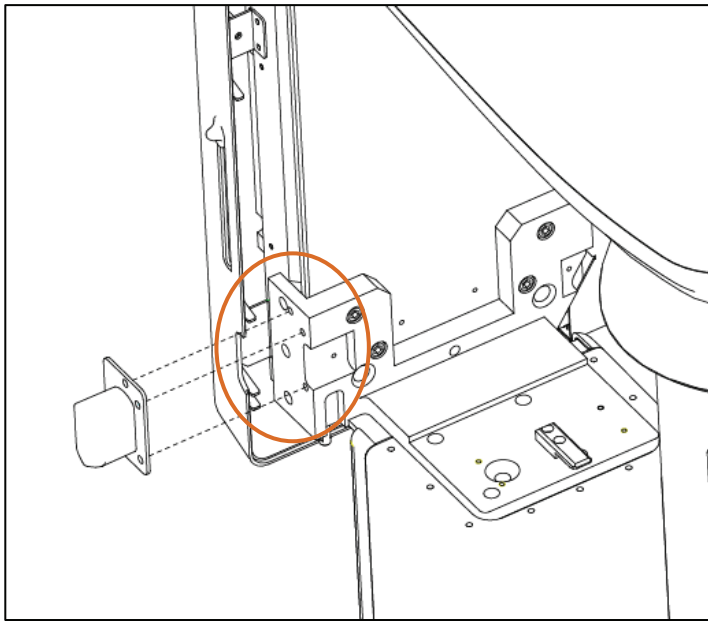
## 3.3. Installing the touch pad screen on the wall (optional)

This section explains about the optional wall-mounted installation of the touch panel screen.

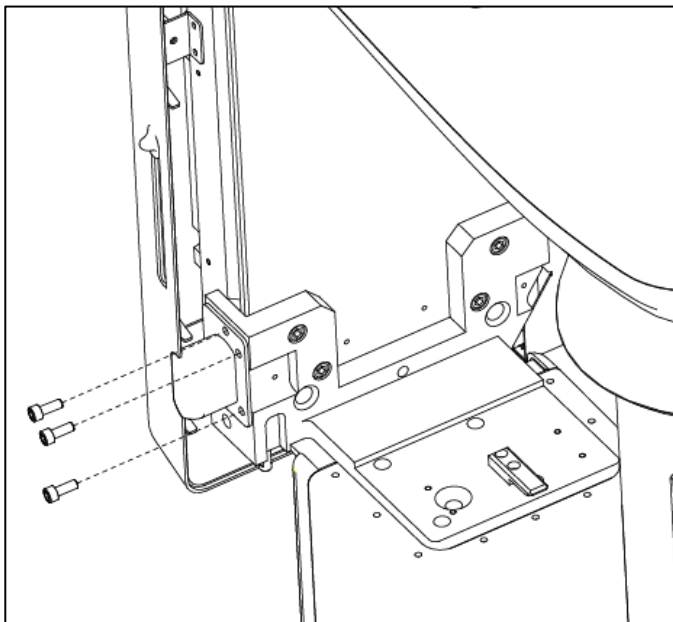
1. Have the finish cap (Acc. No.20) for the touch pad screen.

### Note

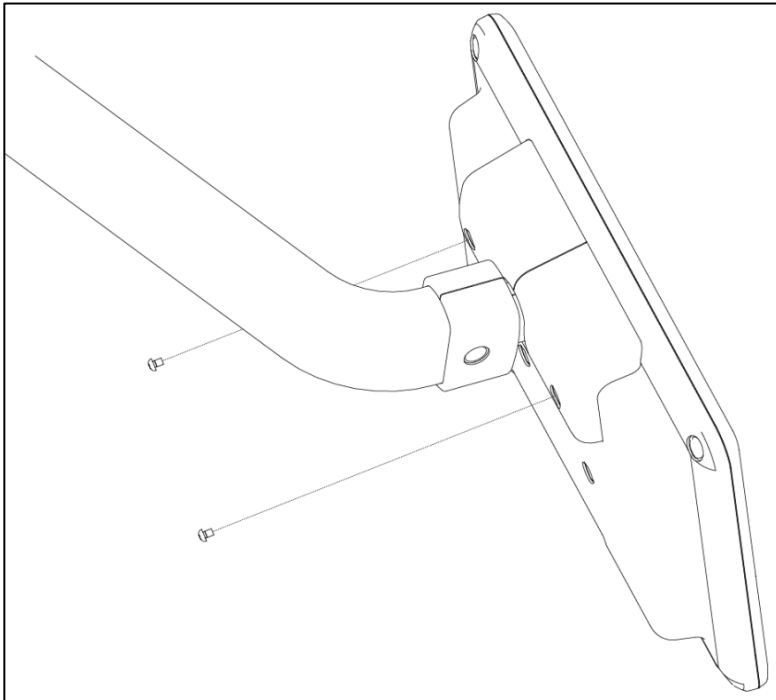
*This step is required to cover the unused area that is no longer necessary, because the touch pad screen would be installed on the wall, not on the unit itself.*



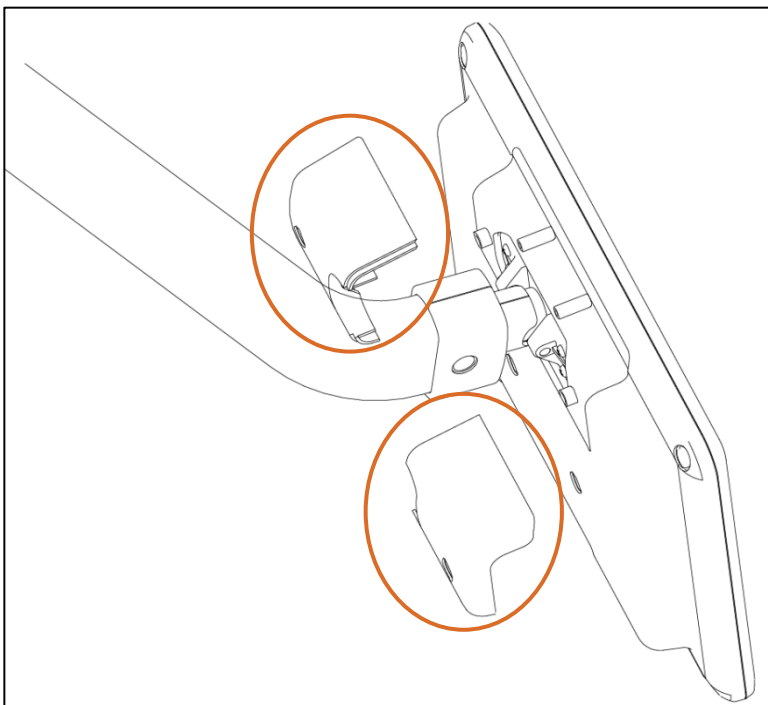
2. Fix the touch pad screen using M6\*10 wrenches bolts (Accessory No.26x3) and from this step on, procedures are the same as those of installation on the PaX-Primo unit itself.



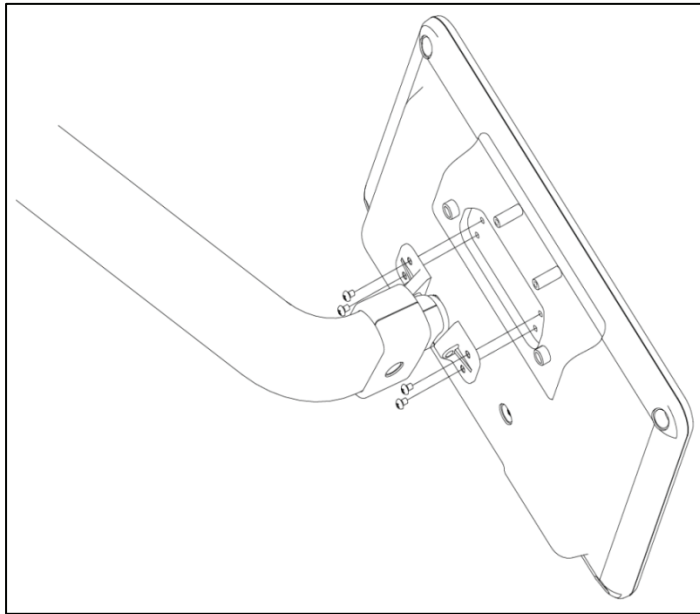
3. Remove two M4\*8 truss bolts from the back of the touch pad panel using cross screw driver.



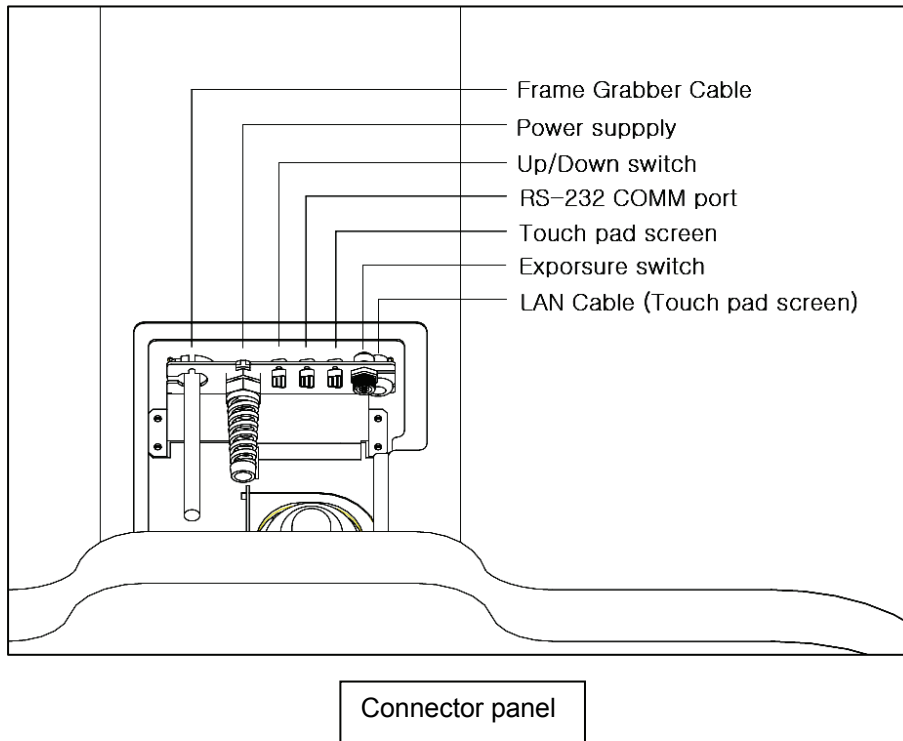
4. Please remove two plastic covers.



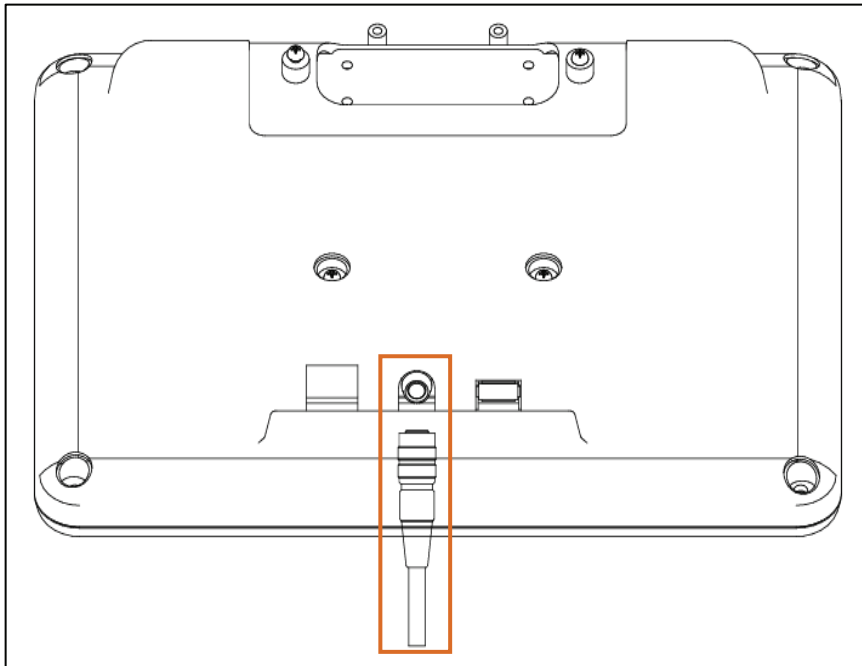
5. Please unscrew 4 M4\*8 trusses bolt (Accessory No.14) and detach the touch pad screen from the holding arm.



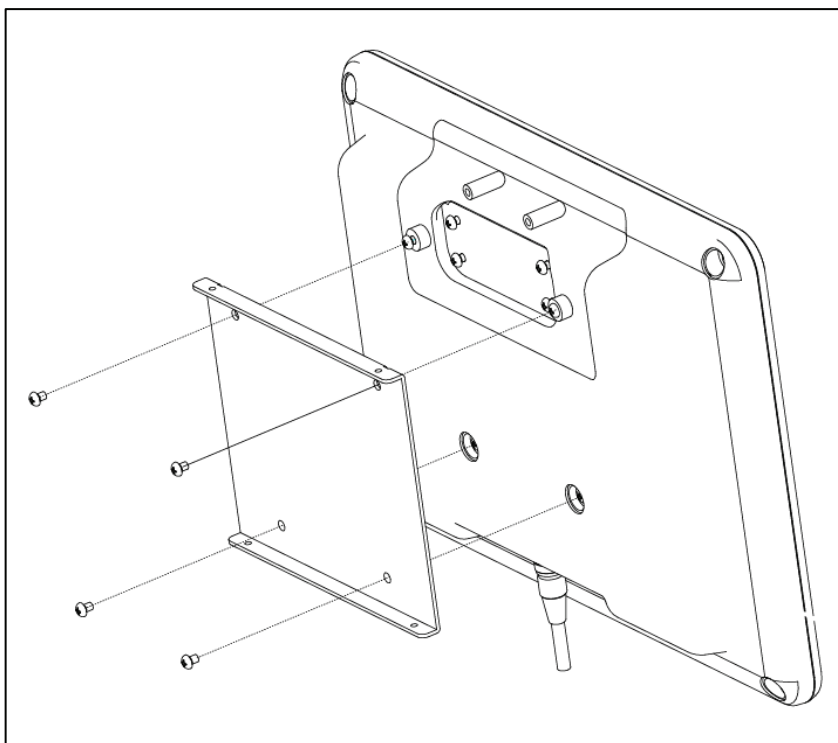
6. Please connect both LAN cable (Acc. No.21) and RS-232(Acc. No.33) for touch pad screen onto connector panel of the underside of rear of unit.



- Please connect the LAN cable (Accessory No.36) to the connector on the underside of touch pad screen. And next connect this cable to the LAN port on the PC.

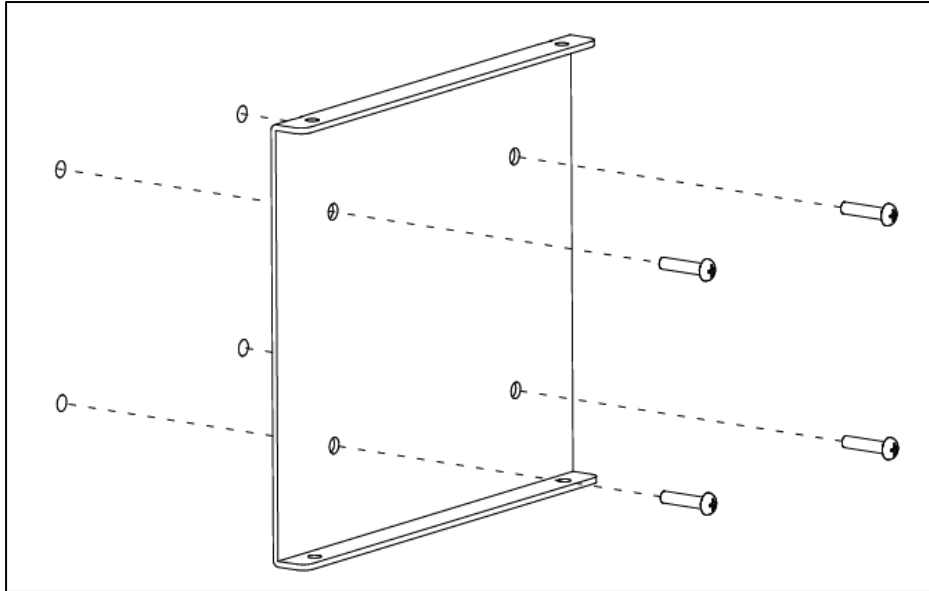


- Please attach the touch pad screen bracket (Acc. No. 10) to the back of panel and screw it using M4\*8 truss bolts. (Accessory No.28x4)

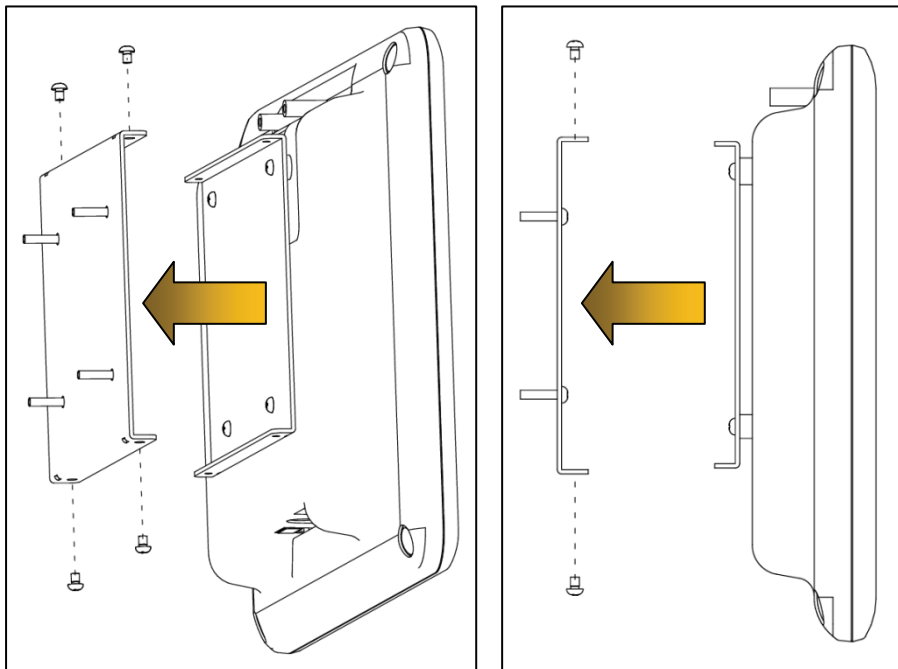


9. Please first install truss bolts screw anchors on the wall (Accessory No.36) where the touch pad panel is to be installed.

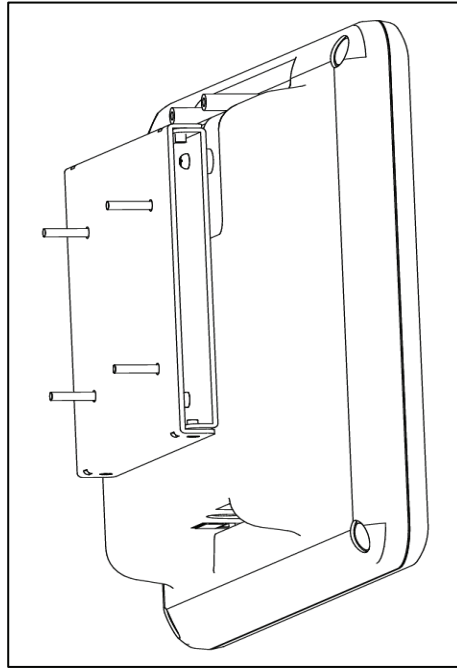
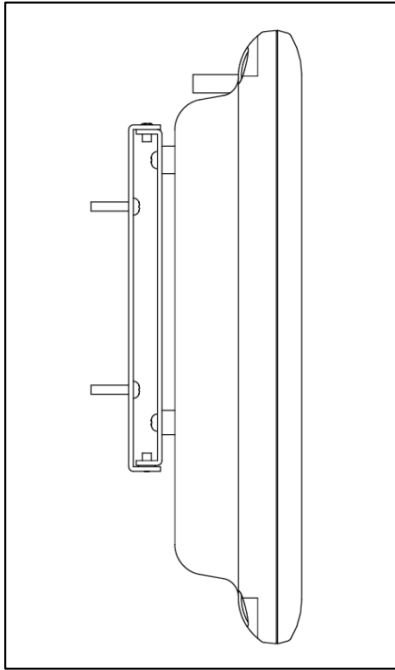
Mount the wall mount bracket (Acc. No.10) and fix it using M4\*16(Accessory No.27x4).



10. Please align the wall bracket and that of touch pad panel

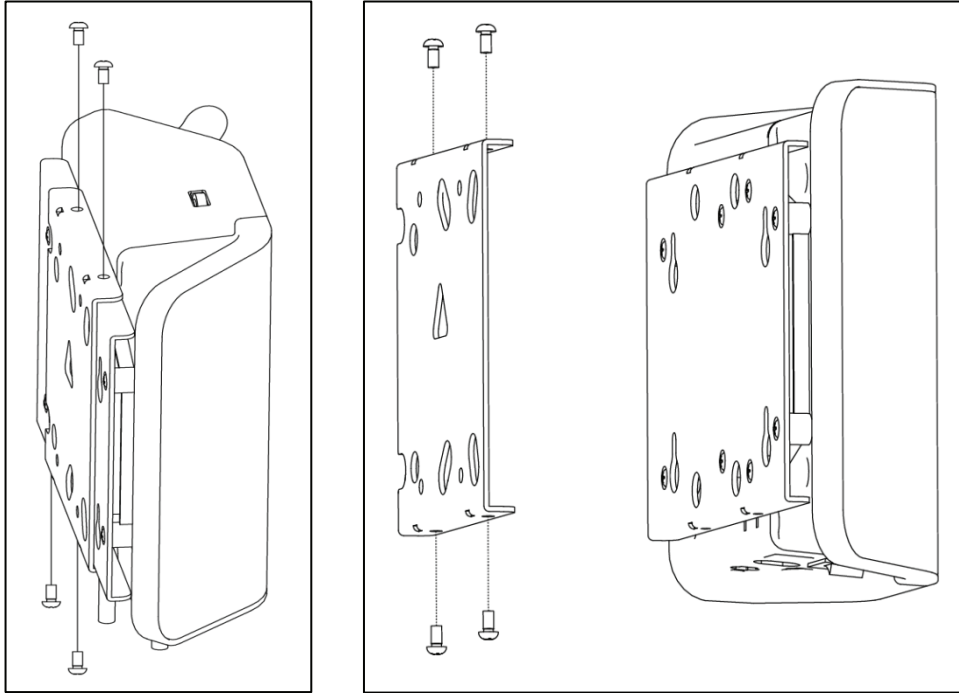


11. After completing attachment, it has been done.

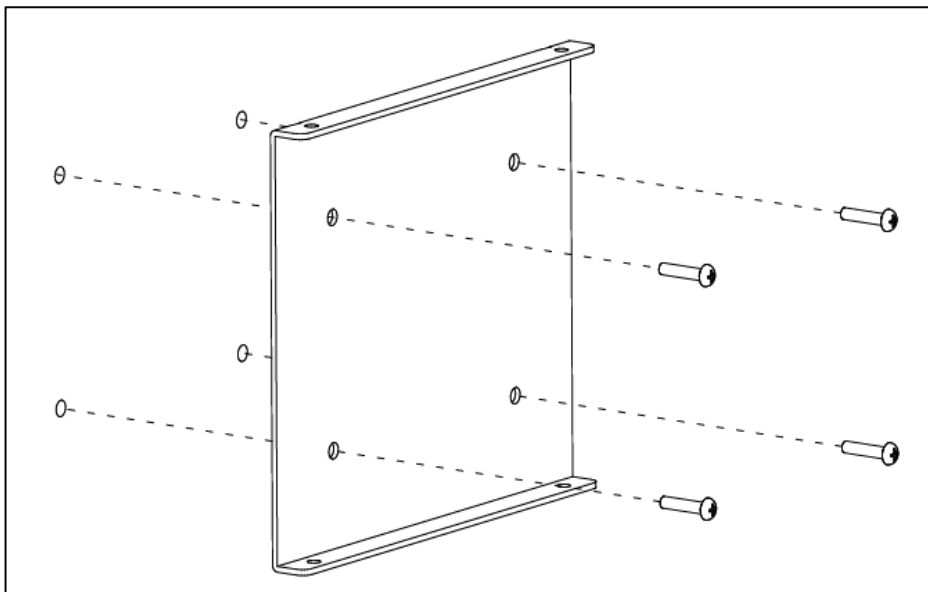


### 3.4. Installing exposure switch holder

1. First unscrew 4 M3\*6 truss bolts and separate the bracket from the exposure switch holder.  
(Accessory No.09)

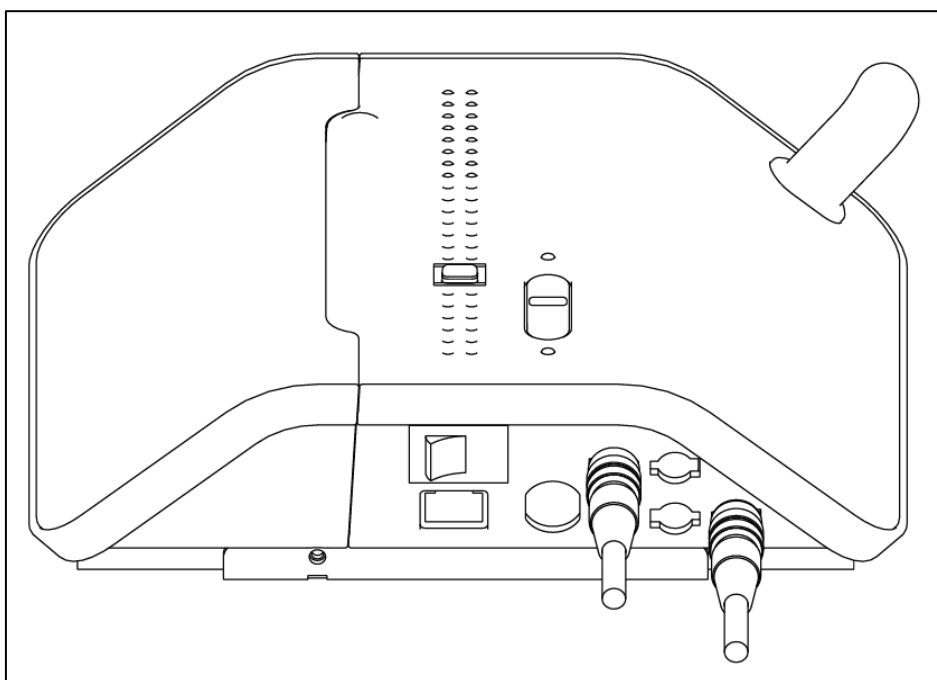
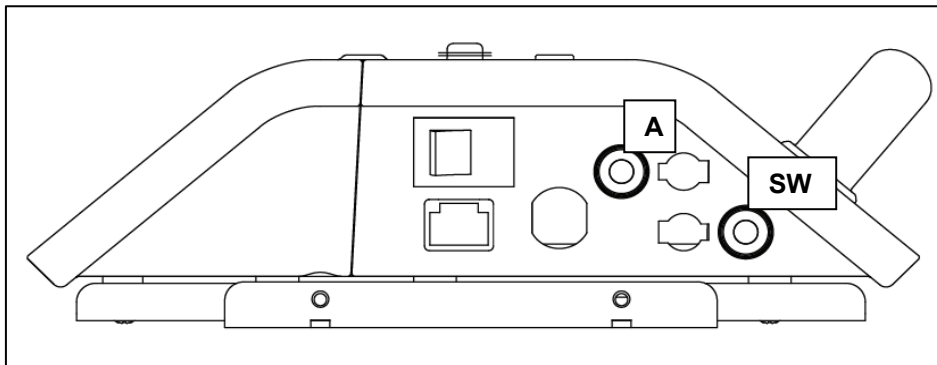


2. Please first install truss bolts screw anchors on the wall where the touch pad panel is to be installed.  
Mount the wall mount bracket (Acc. No.27) and fix it using M4\*16(Accessory No.35x4).

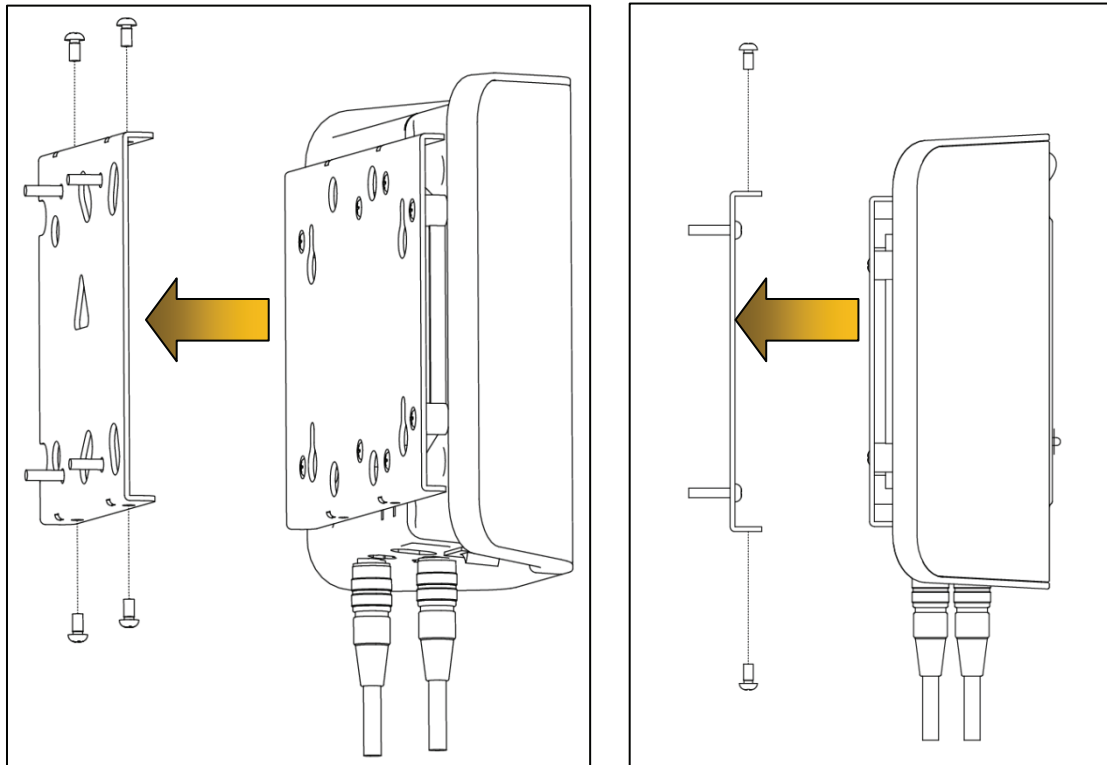




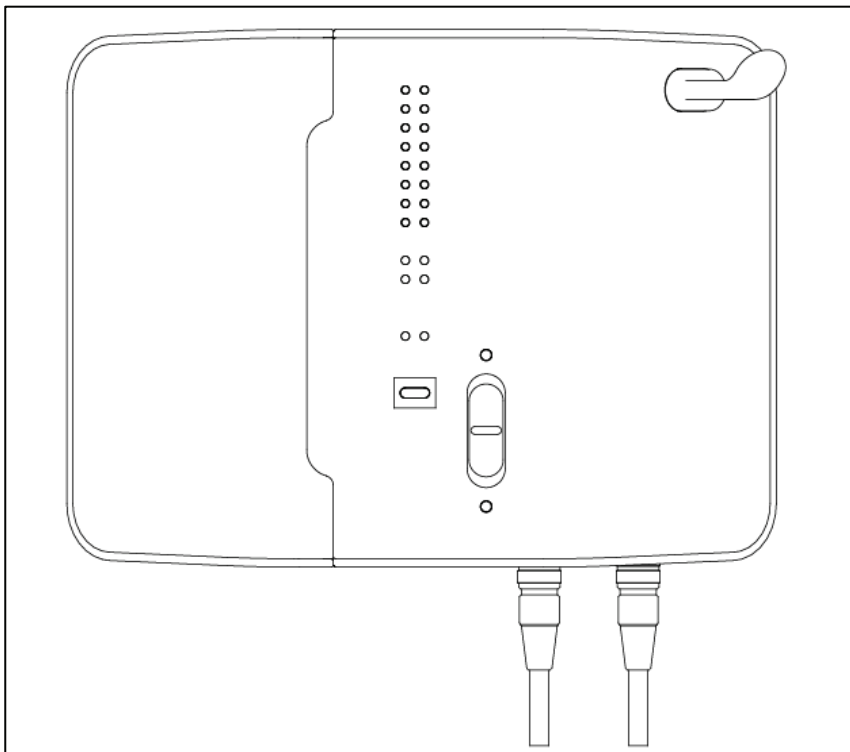
3. Connect one end of exposure switch cable to the connector of the unit and the other end to **A** of switch holder and connect the exposure switch to **SW** on the underside of holder.



4. Please align both wall bracket and exposure switch holder and screw them using 4 M3\*6 bolt supplied.



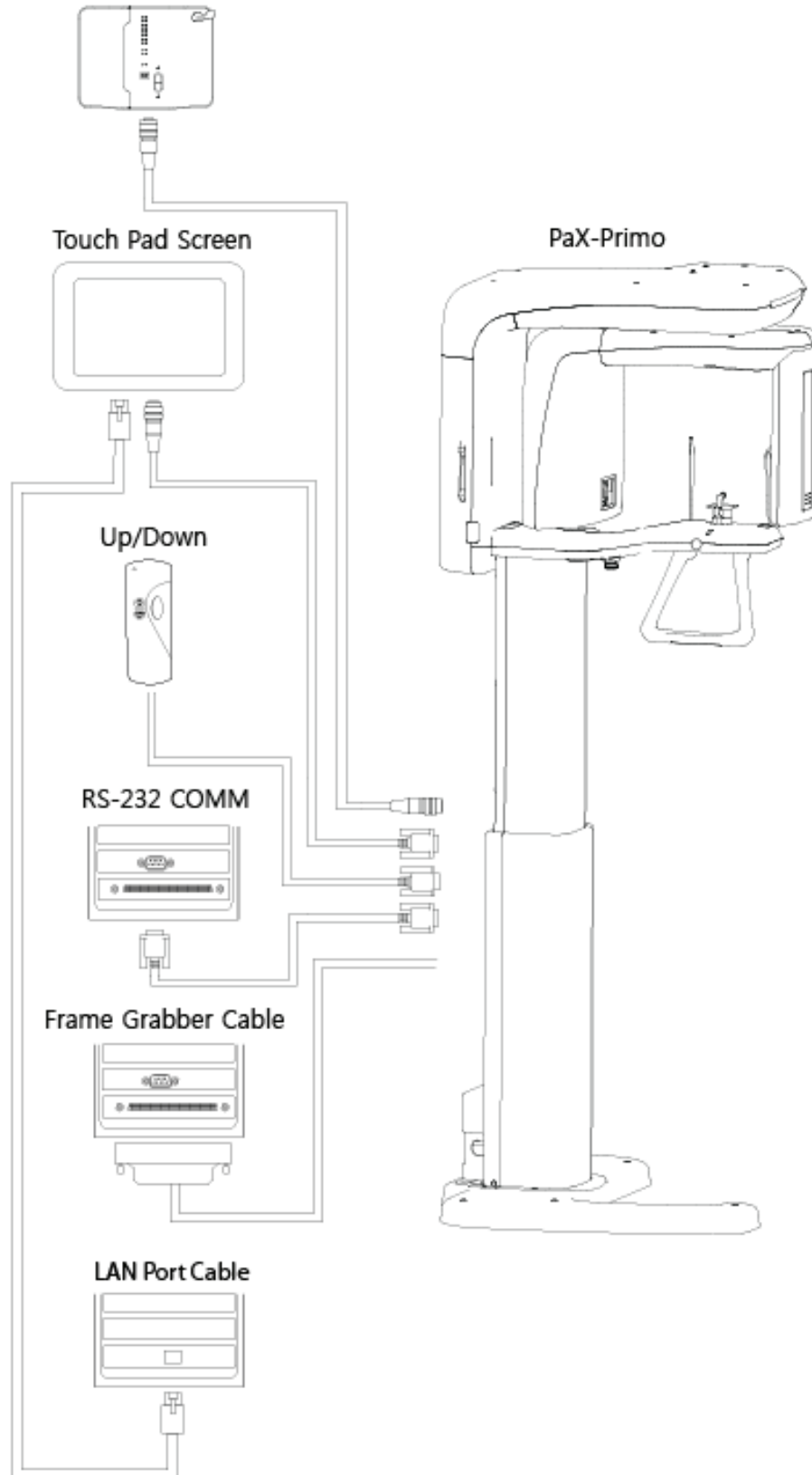
5. Now installation for the exposure switch holder has finished.



**Note**

The following figure shows the whole system configuration of PaX-Primo.

Exposure Switch Holder



## Exposure Switch Holder



## Up/Down



## RS-232 COMM



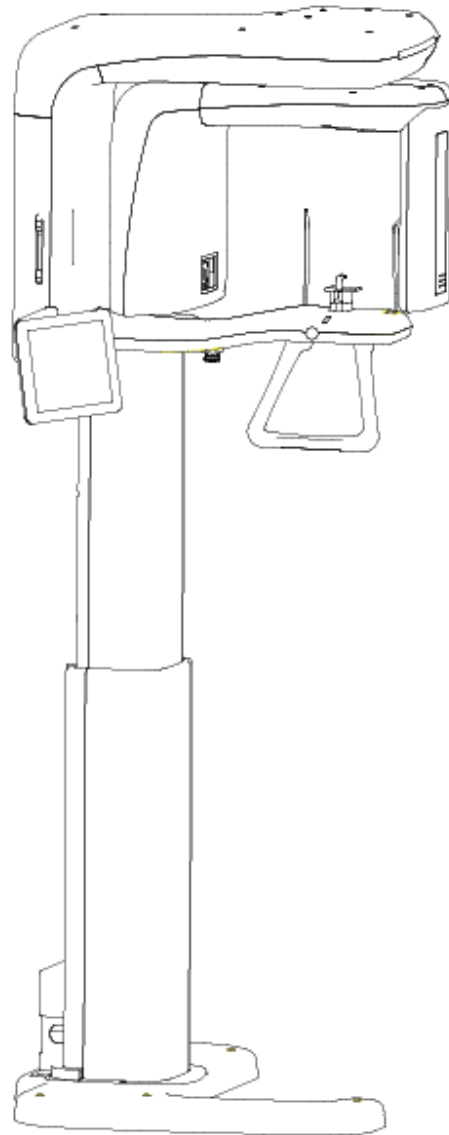
## Frame Grabber Cable



## LAN Port Cable



## PaX-Primo



### 3.5. Exiting packing mode and finishing installation



**Important:**

*PaX-primo has a unique feature, called packing mode, built in the system to prevent the unit from being damaged, which may be caused by the unexpected power supply to the unit while installing. Thus when shipped, it is in the packing mode by factory default. You are required to exit the packing mode at this step for successful installation.*

1. Turn on the unit

The following main touch screen panel will appear.



2. Locate the upper right corner, as the red area shows. It approximately falls on the area of 1cm each from top edge and right edge respectively.
3. Keep on touching the screen with a finger for approximately 5 seconds until the beeping sound is heard. Then this implies the unit exited successfully the packing mode.
4. You may verify this by resetting the unit.

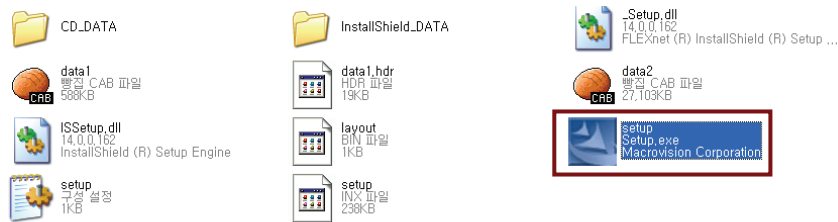
**Note**

*The unit can enter the packing mode again by taking reverse procedures, but on this occasion locate the upper left corner.*

## Chapter 4. Installing and removing Imaging software

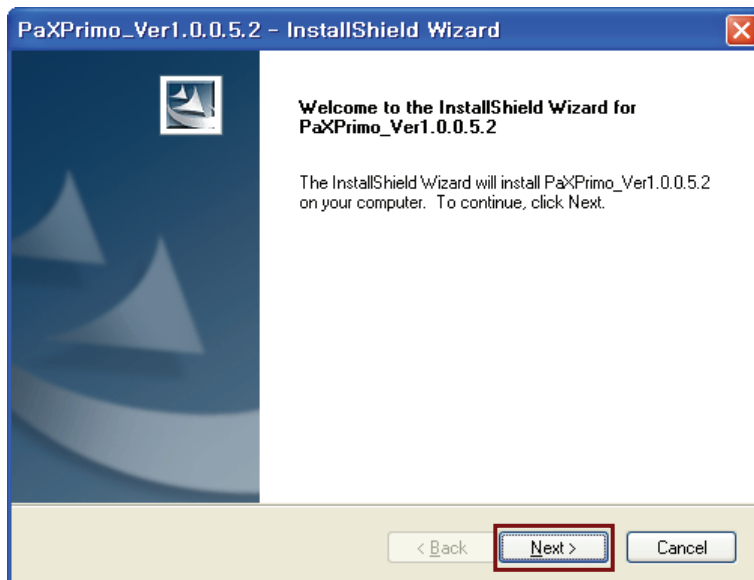
To install the imaging software and frame grabber driver for the first time, go the drive where the following files are in.

1. Please focus on the setup.exe and double-click it.

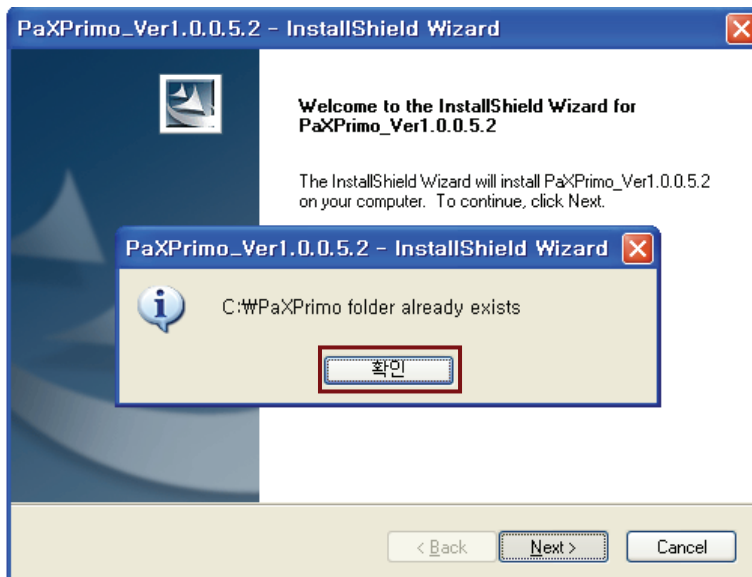


### <For the first time installation>

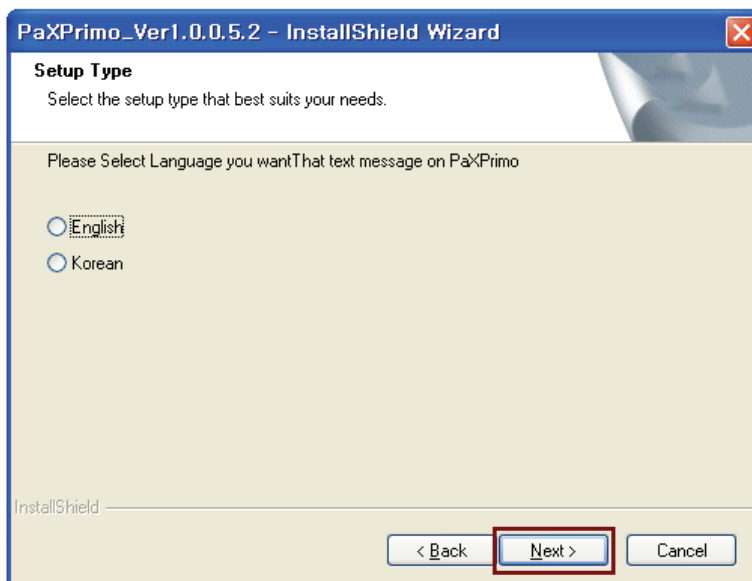
2. The following screen will appear and click **Next**.



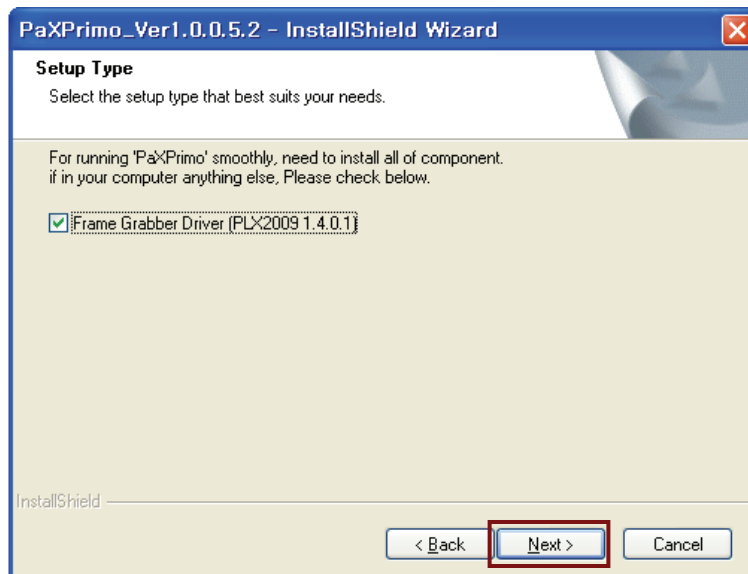
Once this program has been installed previously on this same PC, you may have the following screen, indicating the default folder already created.



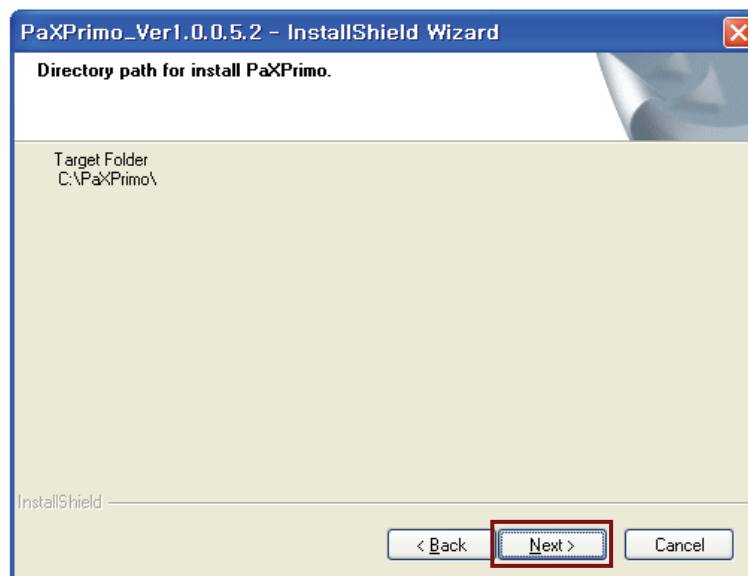
3. Please select the language from the group of radio buttons and then click **Next**.



- From the next screen check the box to install the frame grabber driver, since the acquired data are transmitted to the PC via frame grabber card installed in the PC.

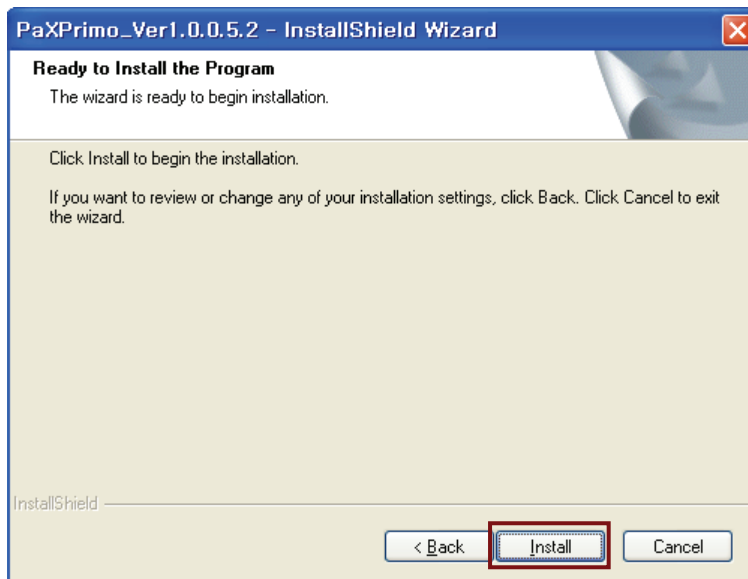


- Make sure that the correct designation directory is created and click **Next**.

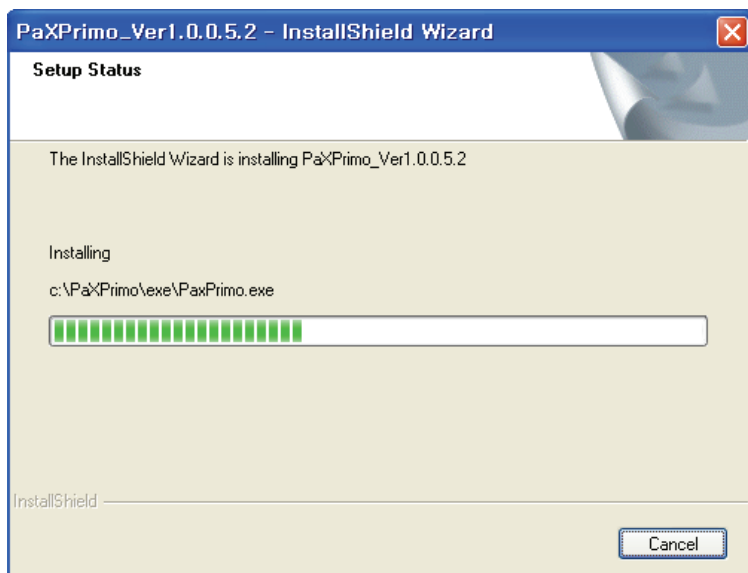




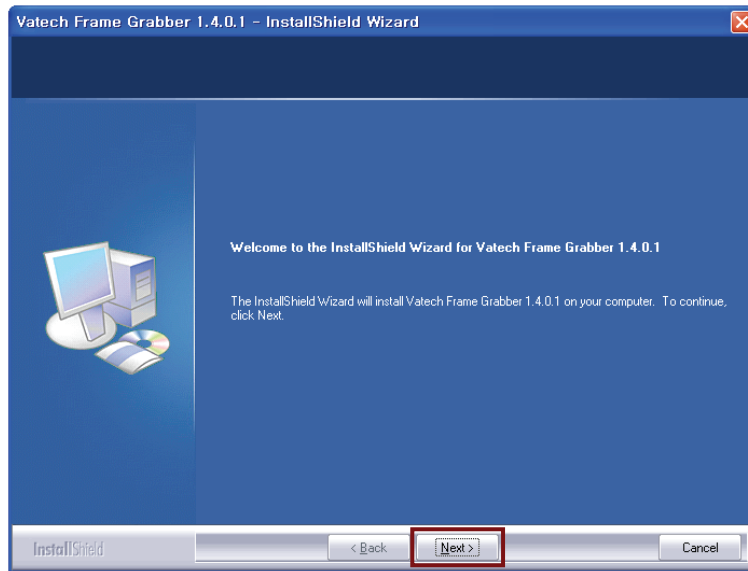
- This is the last step before you can reconfigure the parameters or options by clicking the **Back**. Provided that you are convinced installation, click **Install**.



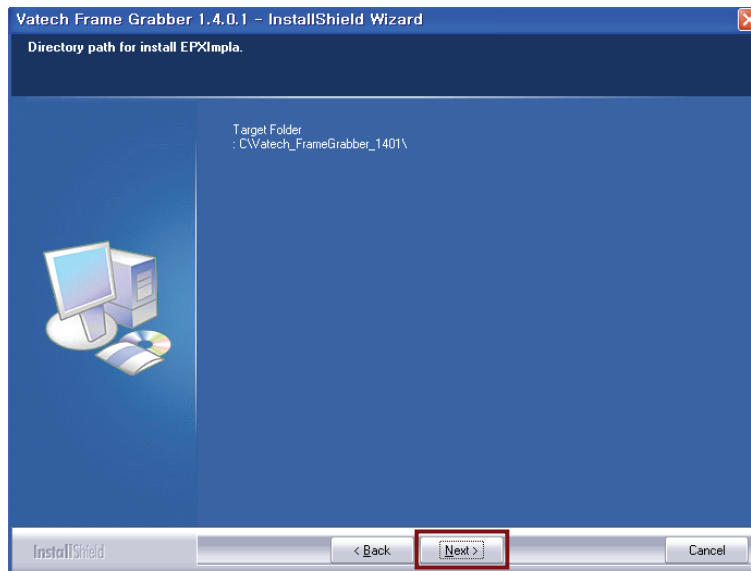
- Now installation is in progress.



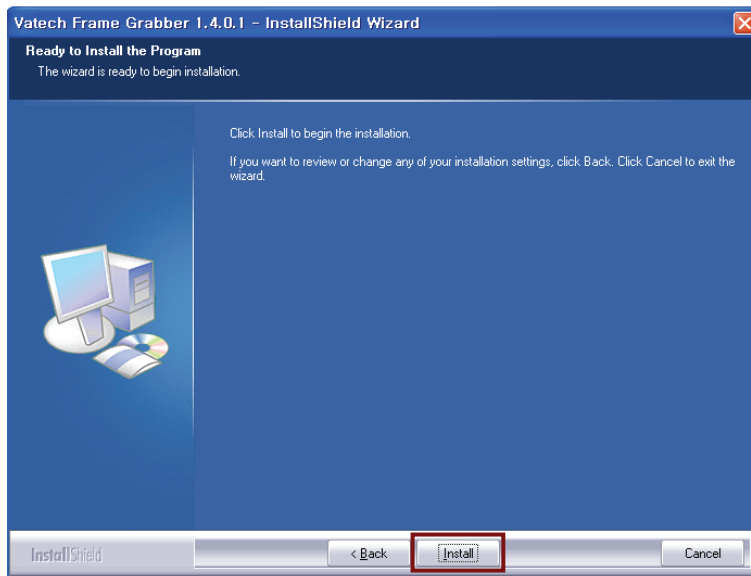
8. Upon finishing installation of PaX-Primo.exe, you are welcome to the frame grabber driver with the following screen. Click **Next**.



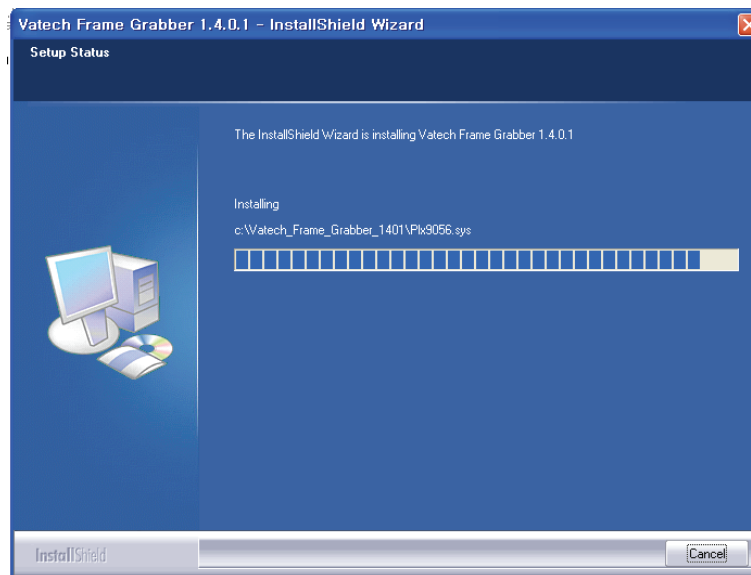
9. Make sure the destination folder and click **Next**.



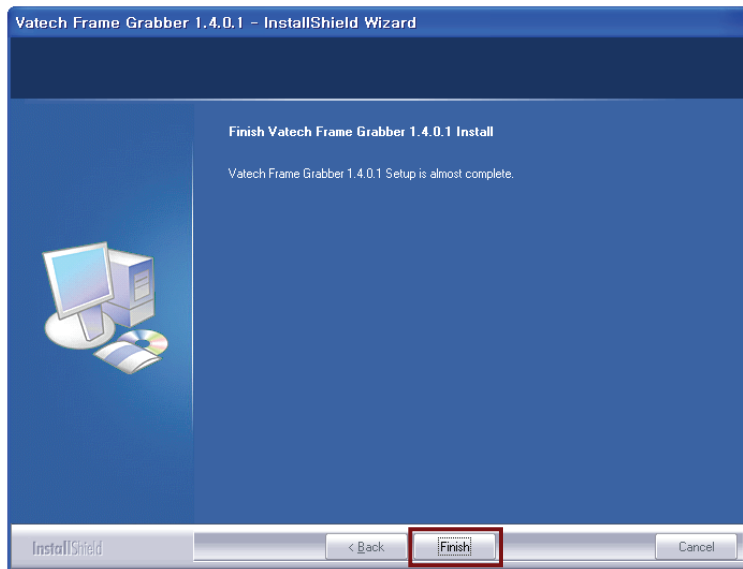
10. This is the last step. By clicking installation it will proceed.



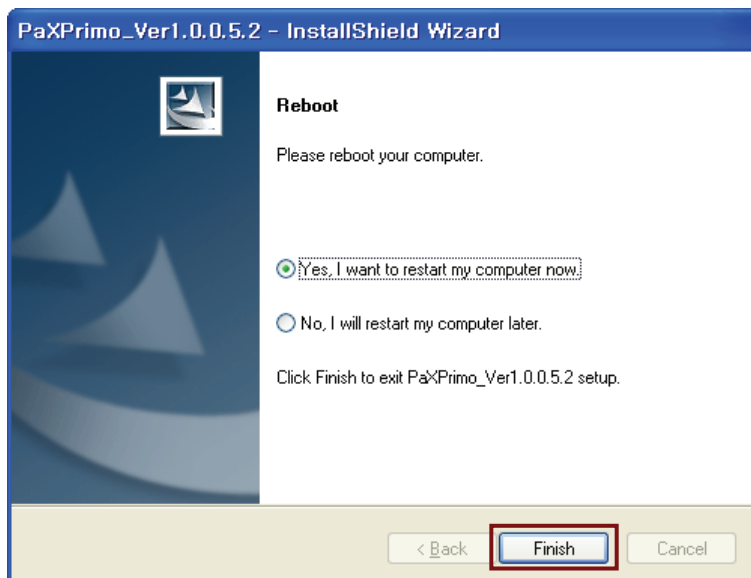
11. Now installing the driver.



12. Installation is complete and click **Finish**.

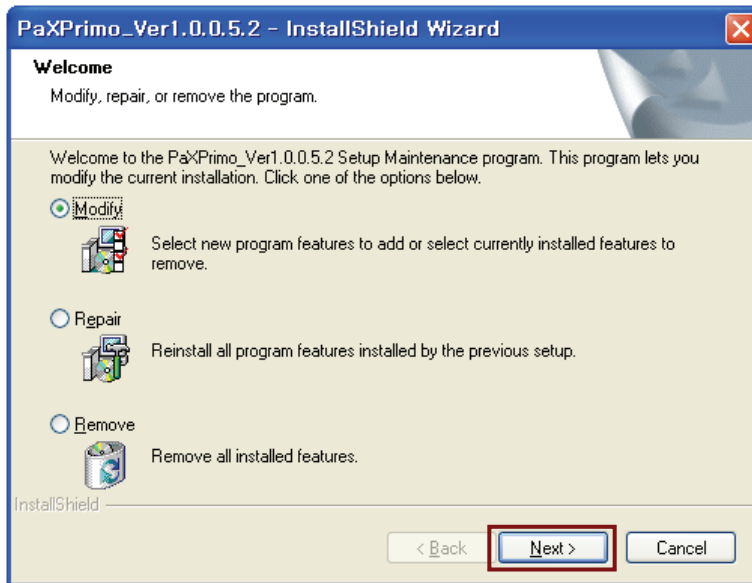


13. Rebooting the PC to take those configurations into effect. Check the radio button of **Yes; I want to restart my computer now** and click **Finish**.

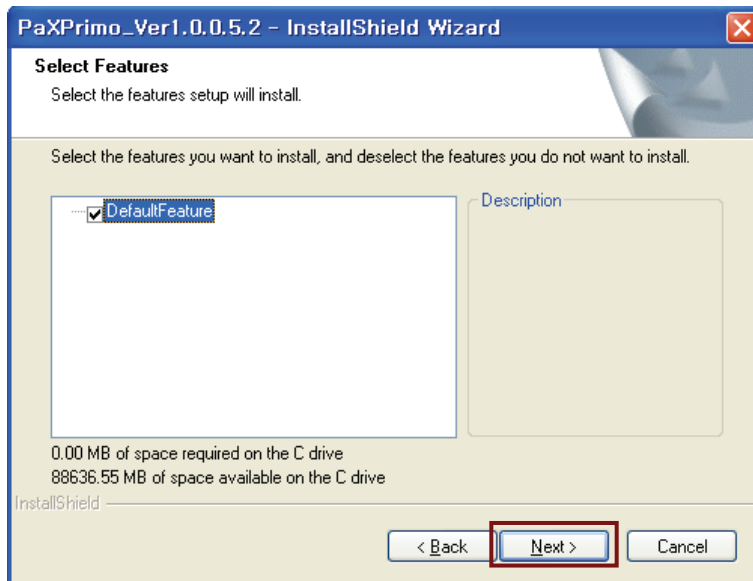


### <To reinstall the programs>

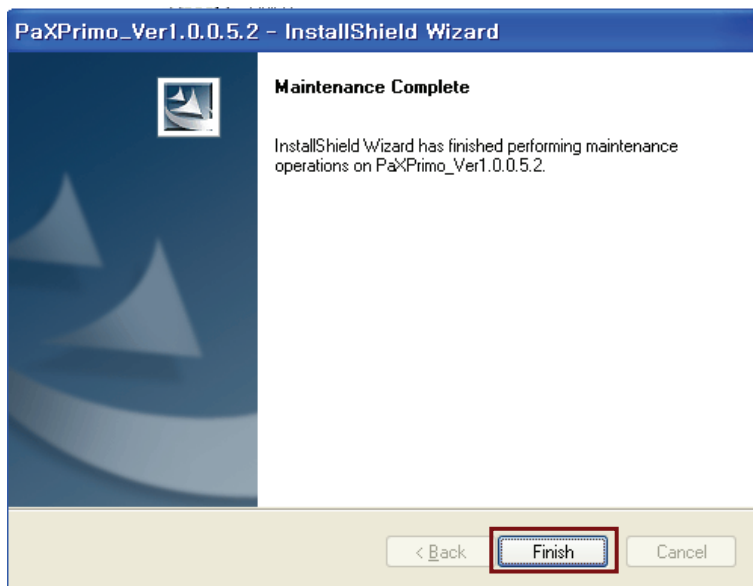
1. The initial screen after clicking the setup.exe looks like the following. Check the **Modify** radio button and **Next**.



2. Select the default and click **Next**.

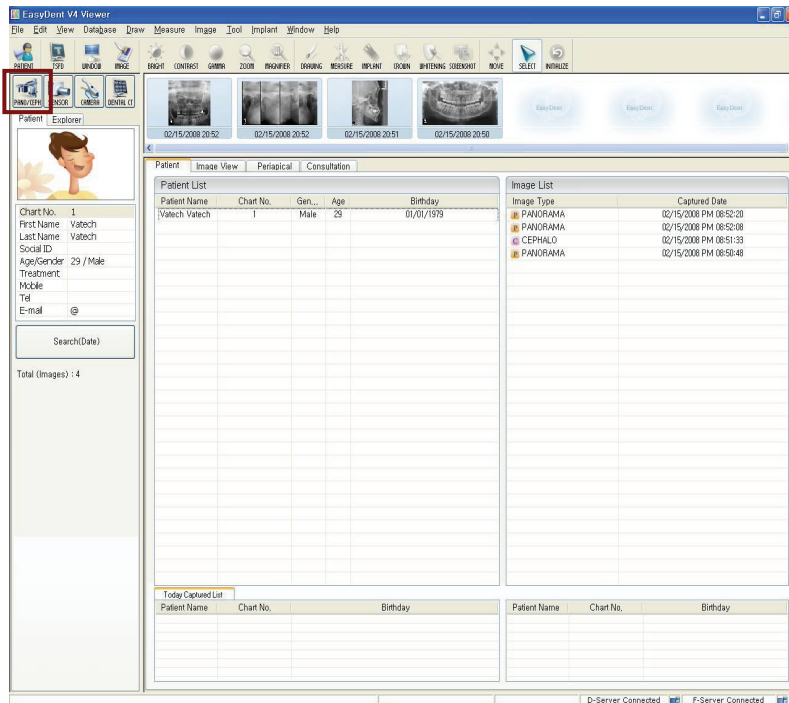


3. The Modification is complete and click **Finish**.



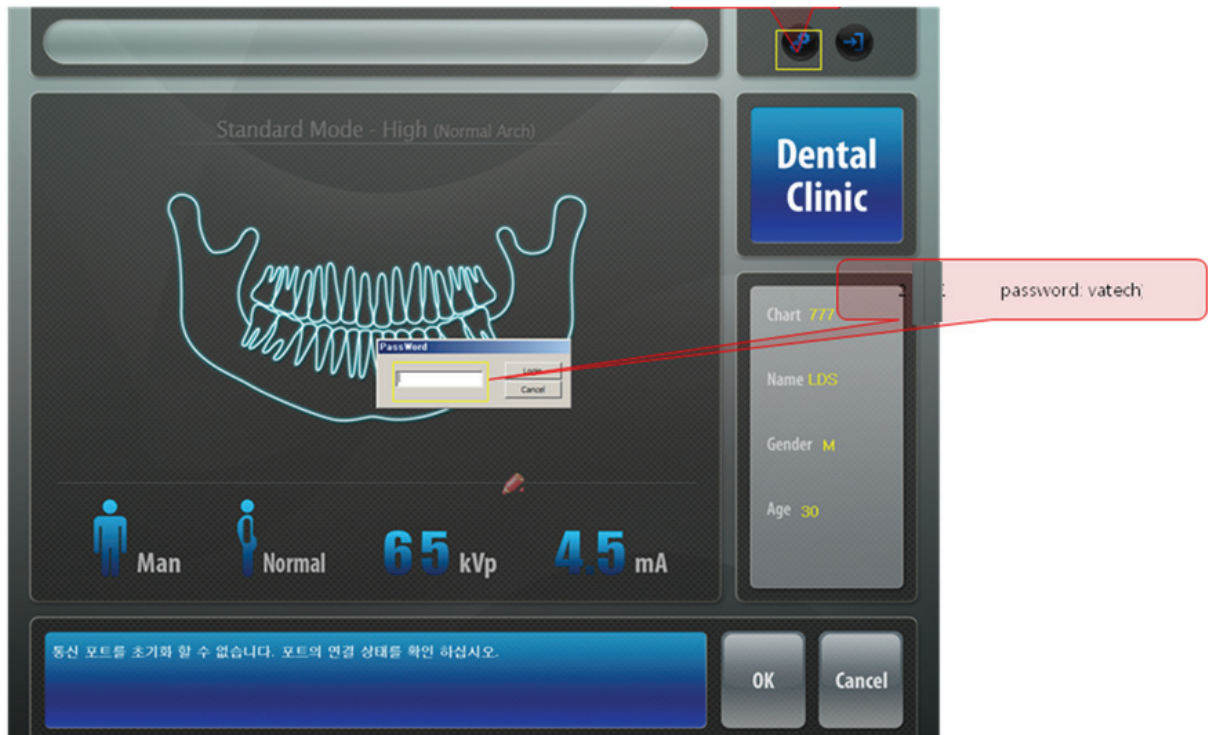
## <Performing the fine-tuning of parameters after completion of software installation>


1. Please run the **EasyDent** program.



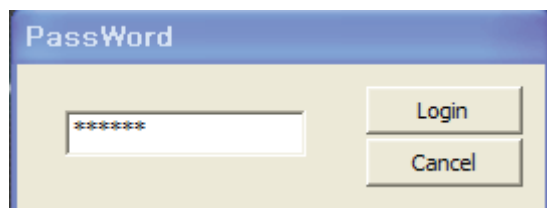
From the main window, click **Pano** icon on the upper left corner to call the imaging capture program.

Then the following screen will appear.

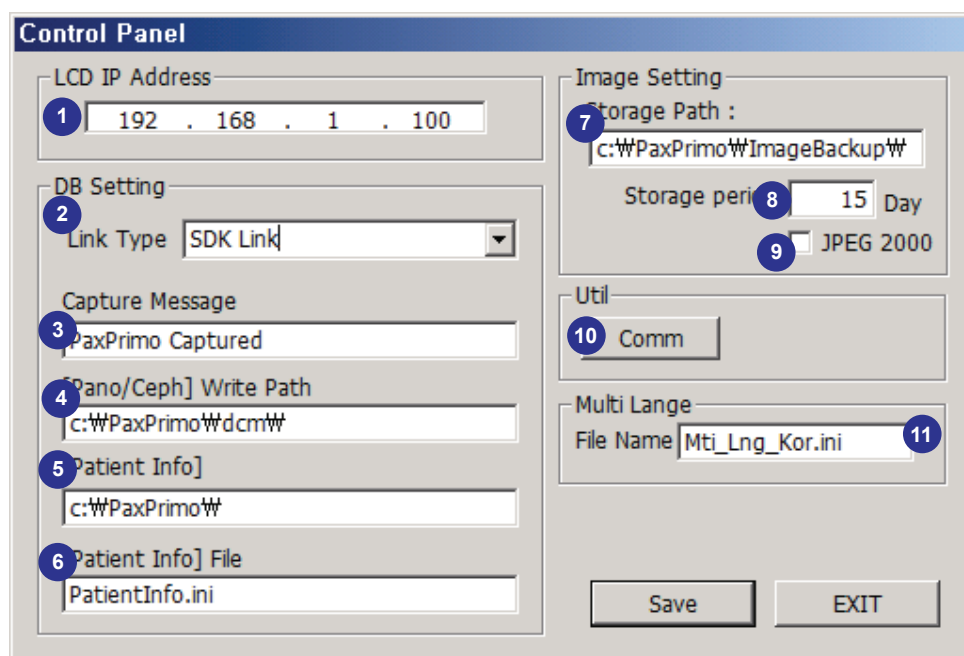


2. Click  on the upper right corner to invoke the following screen.

Enter the password: "Vatech" in the lower case letters and click **Login**.



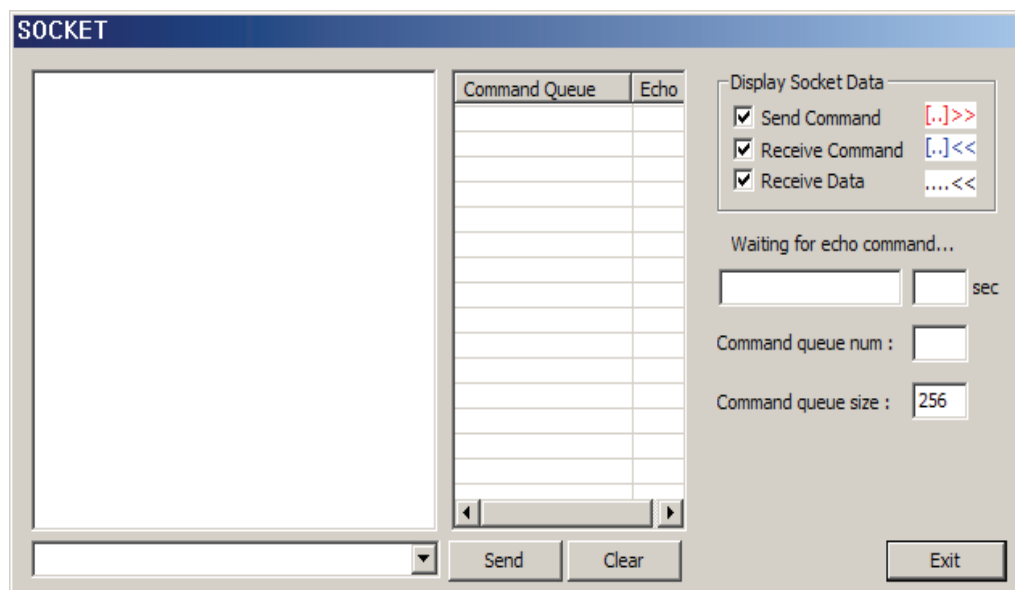
3. The following control panel will appear.  
From here you can configure various parameters to accommodate the requirements.



- ① **IP address of the LCD:** needed for PC to communicate with the LCD using the Ethernet protocol. By default it is 192.168.1.100 but occasionally it needs to be changed to a different address.
- ② **Link Type:** to set how the imaging software is linked with the patients management program.
- ③ **Global message:** need to transmit the global messages, while interfacing through the SDK. This is activated only when **SDK Link** is chosen for DB Link Type field.
- ④ **The path for panoramic image to be saved:** indicates where the acquired panoramic images are to be saved. This is activated only when **SDK Link** is chosen for DB Link Type field.
- ⑤ **Location of the patient information:** this field displays where the patient information is located. This information is provided by the patient management program. This is activated only when **SDK Link** is chosen for DB Link Type field.



- ⑥ **Selecting the patient information file:** displays the patient information.  
This is activated only when **SDK Link** is chosen for DB Link Type field.
- ⑦ **User-defined location for image storage:** The user can define where the acquired images can be saved in the formats of RAW and BMP.
- ⑧ **Storage period of images:** The user can set how long the images are stored in this backup drive, based on disk space availability. By default it is 15 days.
- ⑨ **JPEG2000:**
- ⑩ **Comm:** used to invoke the following terminal interface utility program.



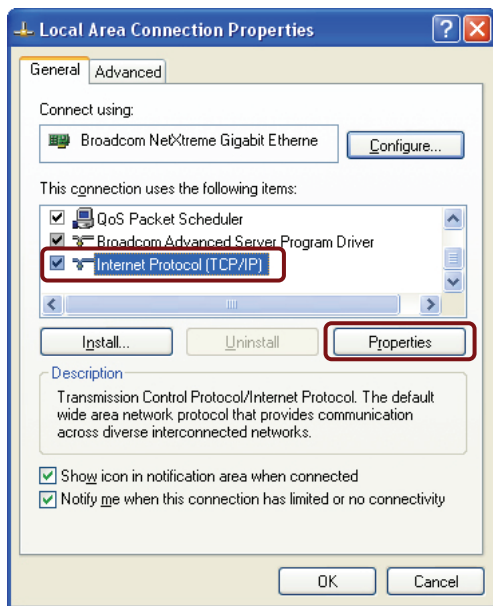
- ⑪ **Multilanguage support:** currently only two languages are supported.  
Mti\_Lng\_Kor.ini  
Mti\_Lng\_Eng.ini

## <Configuring the network environments>

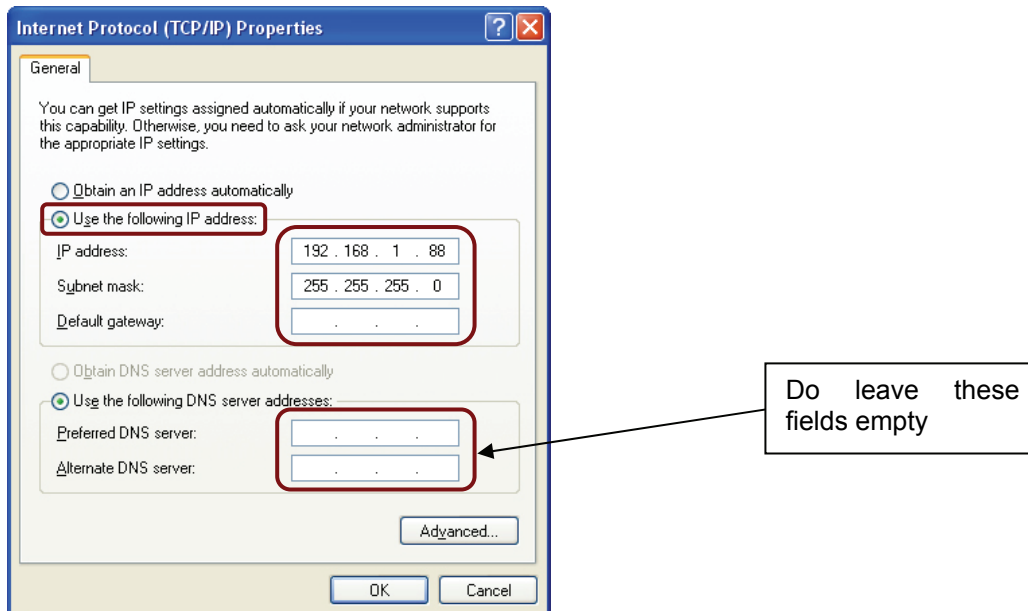
This step is required to communicate successfully with the PC and the LCD using the Ethernet. They have to have an unique number different from each other.

To configure this number, go to “ **Start** → **Local area network** → **Property** ”

Click the right button of mouse and the following screen will appear.



Focus on the “**Internet Protocol [TCP/IP]**” and click “Properties”.



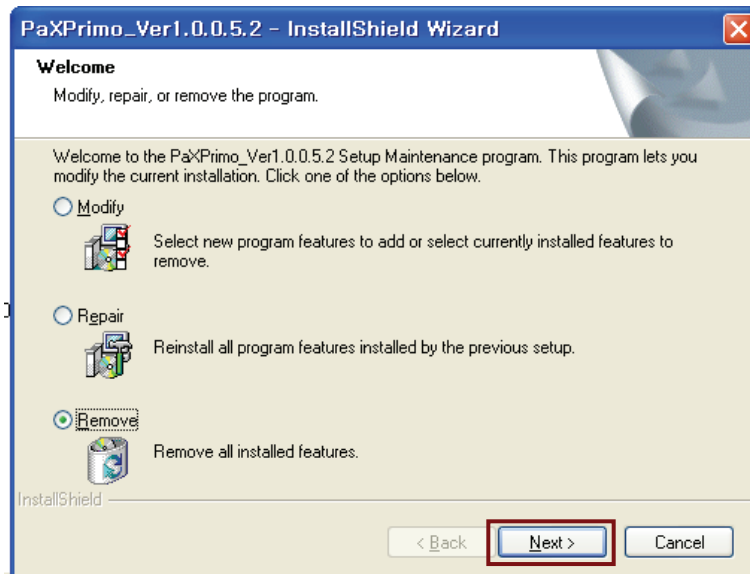
Check the radio button of “**Use the following IP address**” and enter the above address. By default it is 192.168.1.88 but it may be changed under some circumstances. And leave empty in the DNS server area.

<To remove the frame grabber driver from the PC>

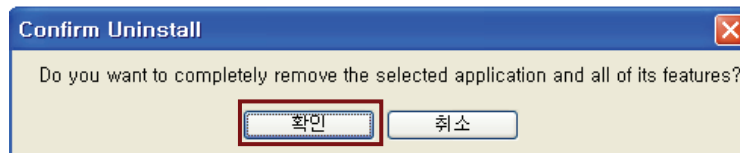
1. Go to **My computer** → **Control panel** → **Add/Remove programs**.

Locate the **PaXPrimo\_Ver1.0.0.5.2** and click **Remove**.

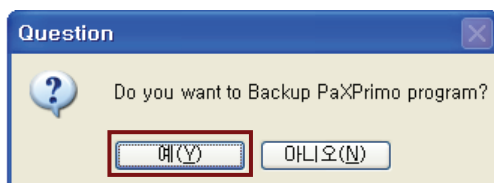
Select **Remove** button and click **Next**.



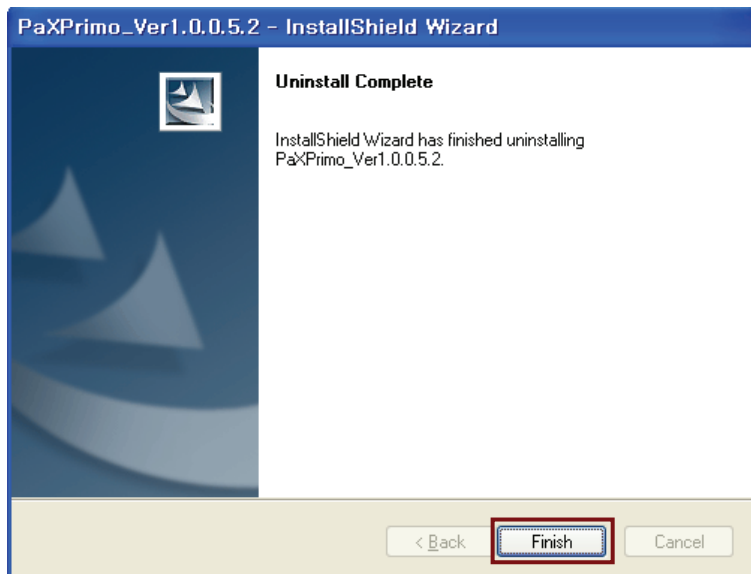
2. The small warning screen will pop up and click **Confirm**.



3. The following screen will appear. And click **Yes**.



4. Removal process is finished and click **Finish**.



5. Make sure that the program has removed from the programs list.

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If you do not properly set the device setting, causing the device to malfunction or fail, we cannot guarantee any responsibility.

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**CE 0499**

CE symbol grants the product compliance to the European Directive for Medical Devices 93/42 as a class

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# PaX-Primo

[ Installation Manual  
Release Version 2.1.1  
Dated May 29th, 2009 ]



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