

# LOLe 2 Installation manual

Version September 2011

Please read those instructions carefully before installing the LOLe 2.

The manufacturer, assembler and importer are responsible for the safety, reliability and performance of the unit only if:

- installation, calibration, modification and repairs are carried out by qualified and authorized personnel
- electrical installations are carried out according to the appropriate requirements such as IEC364
- equipment is used according to the operating instructions

The manufacturer pursues a policy of continual product development. Although every effort is made to produce up-to-date product documentation, this publication should not be regarded as an infallible guide to current specifications.

We reserve the right to make changes without prior notice.

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## 1 INTRODUCTION

*Information given in this manual should be taken as a general guide for proper installation of the LOLe 2 operating light. However, in case of contradiction to any local or national building regulations, the building regulation must always override this manual. In this case, please contact previously to any changes your local dealer.*

*The operating light must be serviced by qualified personnel only, trained by approved dealers. Repairs and parts replaced by unqualified personnel carry no warranty.*



### ENVIRONMENTAL REQUIREMENTS

- The ceiling height must be between 2400mm minimum and 3050mm maximum.

- **Strength requirement of the wall and ceiling:**

The ceiling construction must be able to resist a withdrawal force of 70kg (154 pounds) at each of the four attachment locations. Otherwise, some additional mounting supports must be used to fulfil this requirement.

The wall construction must be able to resist a shear load of 25kg (55 pounds) and a withdrawal force of 52kg (115 pounds) at each of the four attachment locations. Otherwise, some additional mounting supports must be used to fulfil this requirement.

- **Temperature and humidity:**

The operating temperature range is from +15°C to +35°C. The acceptable humidity range is from 15% to 85%. The storage and transportation temperature range is from -5°C to +60°C.

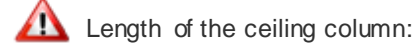
- **No screw is provided:**

It is the responsibility of the installer to choose the appropriate fixing means (screws) which depends on the nature of the ceiling or wall (concrete, wood or plaster).

## 1. Installation of ceiling adapter and ceiling column.



Technical drawing of a robotic arm. The main view shows the arm's profile with dimensions: a vertical section of 1150 mm, a horizontal section of 1600 mm (indicated by a blue double-headed arrow), and a horizontal offset of 900 mm. The arm's end effector is positioned at a height of 2050 mm from the base, with a vertical offset of 1900 mm from the horizontal section. The end effector is angled at 50° relative to the horizontal. The arm's base has a diameter of Ø 310. A side view shows the arm's profile with a height of 1100 mm and a width of 500 mm. A top view shows the arm's footprint with a width of 860 mm.



n/s > 54.P.0501, column 1060 mm  
n/s < 54.P.0500, column 1100 mm

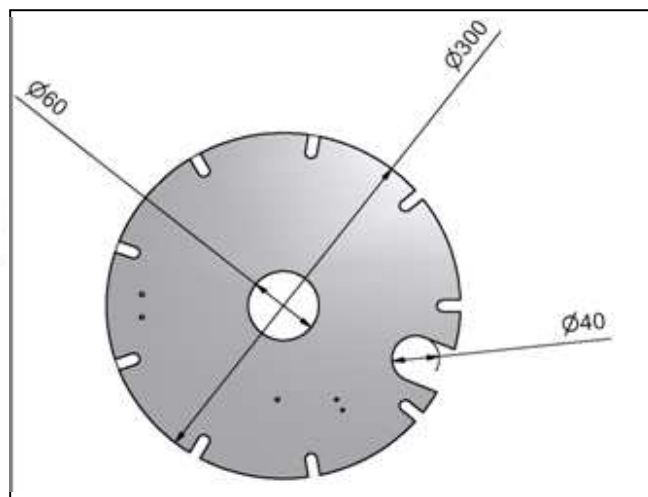
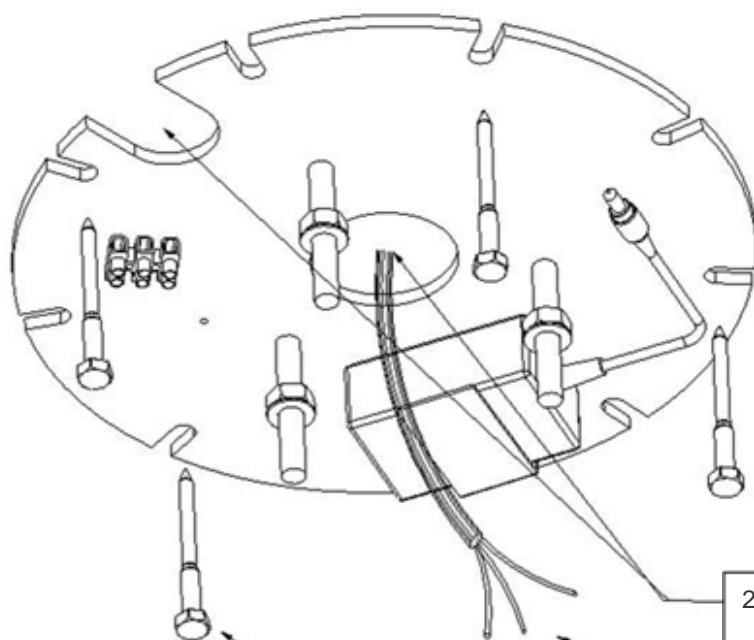
## 1.1 Assembling the ceiling adapter plate and the ceiling column.

1.

Attach the ceiling adapter to ceiling using at least 4 attachments points chosen among 8. Ensure that at least two attachment points are diametrically opposed.

The power supply is already mounted on its place and plugged into the dominoes.

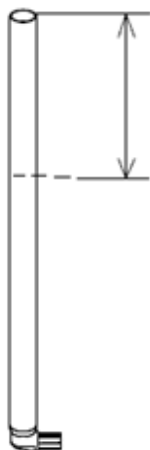
Run the wire either through the middle of the ceiling adapter plate, either by the side.



2 outlets for the electrical wire

230V & earth

Use minimum 4 screws Ø8



2.

Shorten the ceiling column made of steel if necessary (it is 3mm thick).

The provided ceiling column can be used in 3050mm\* high rooms.

If the room is lower, shorten the column accordingly.

(Example: shorten the column 460mm if the room height is 2590mm)

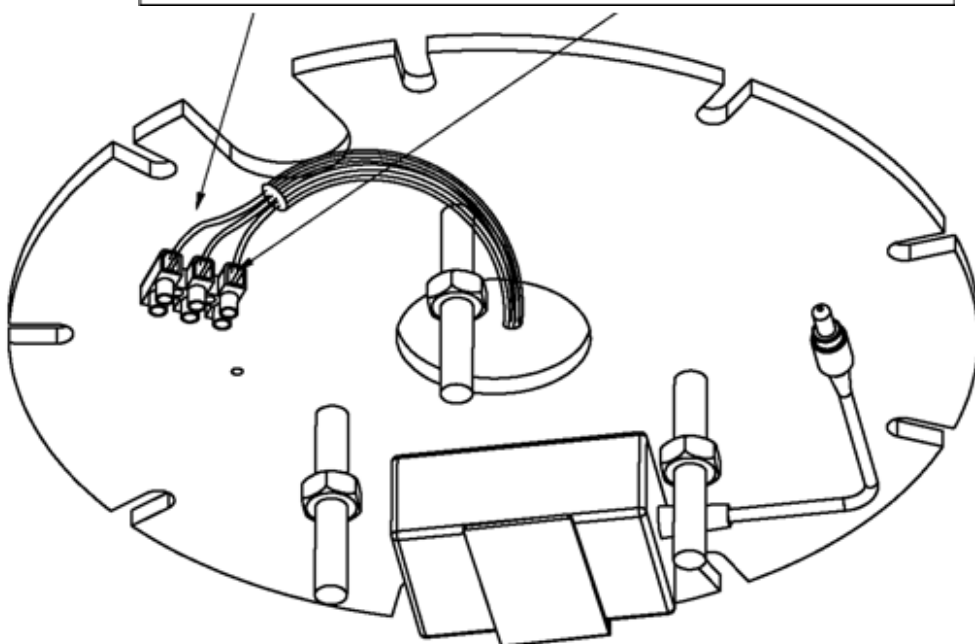
\* Before cutting the column, check the serial number:

n/s ≥ 54.P.0501, column 1060 mm  
n/s < 54.P.0500, column 1100 mm

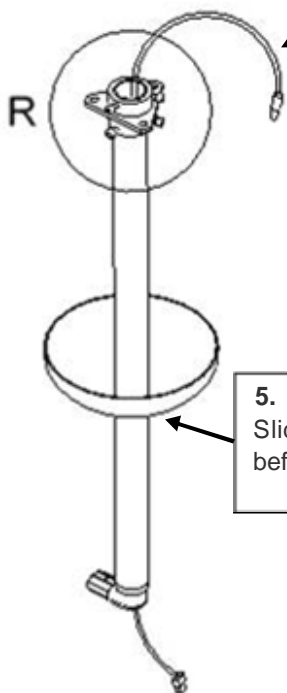
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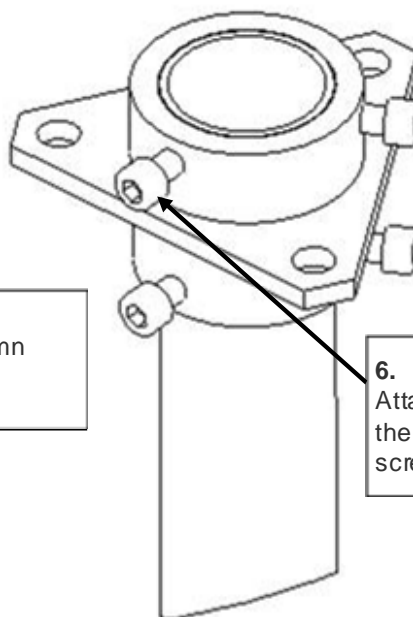
3.  
Make the electrical connection.



4.  
Run the cable through the column with a needle (BEFORE attaching the sleeve to the ceiling adapter plate).



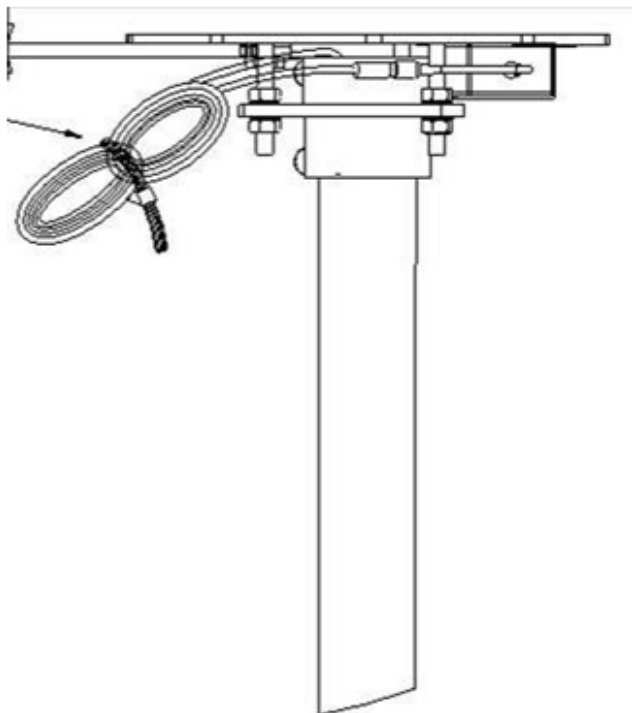
5.  
Slide the white cover on the column before attaching the sleeve.



6.  
Attach the sleeve to the column with 4 screws M10.

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- 7.**  
Connect the column cable connector to the cable connector of the power supply. Wrap the excess of the cable and secure it with cable ties.  
Foresee the gap of 10mm between the sleeve and the ceiling adapter for the cable.

**8.**

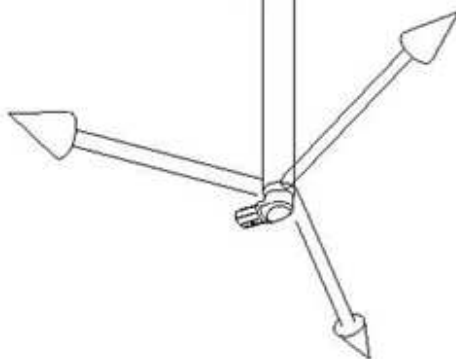


**Warning!** Place the dead angle of rotation above the dental spittoon before tightening the sleeve!



**9.**

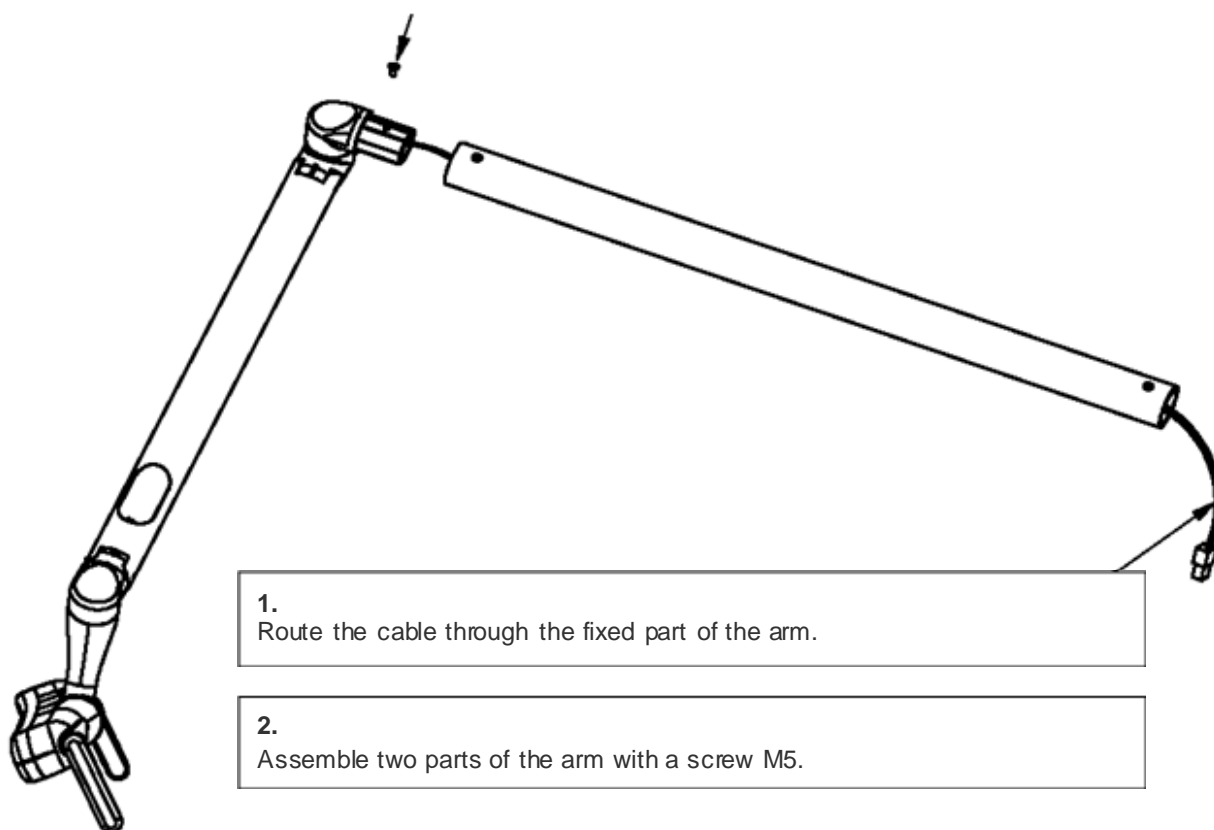
Attach the sleeve to the ceiling adapter plate by 3 nuts M10. These 3 nuts are also used to adjust the verticality of the column depending on the ceiling horizontality. Check the verticality placing a level on the column.



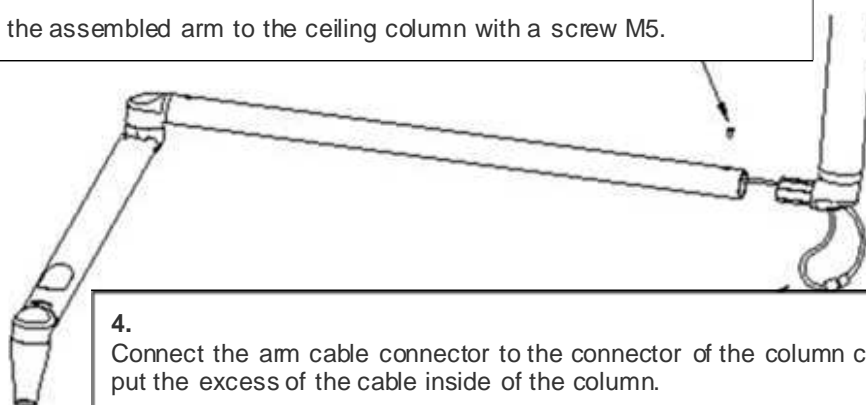
**10.**

Ensure that the dead angle is in the right place. Tighten well the 3 nuts adjusting the verticality.

## 1.2 Assembling the LOLe 2.P arm.



3.  
Attach the assembled arm to the ceiling column with a screw M5.



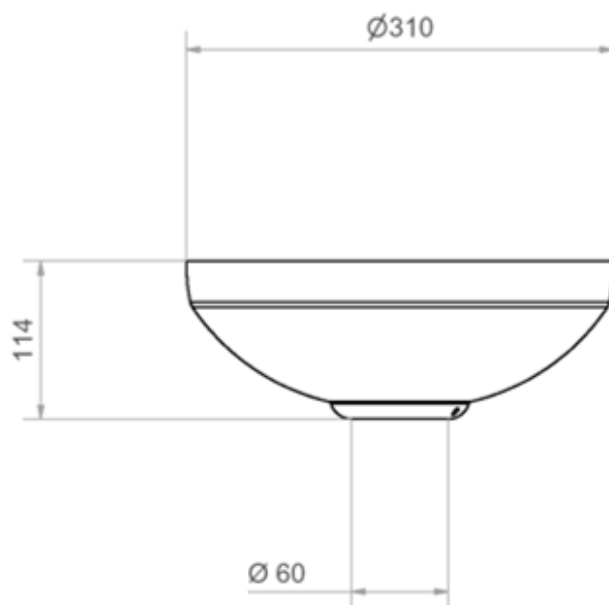
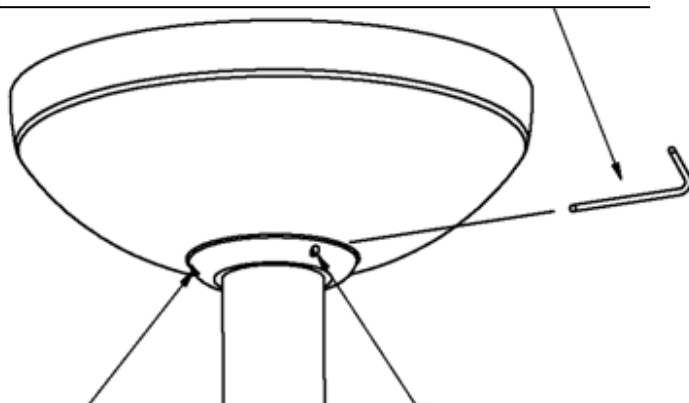
**The LOLe 2 head is attached to the arm. NEVER REMOVE IT!**

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## 1.3 Mounting of the LOLe 2.P white cover

Mount the white cover and secure it with 2 screws M5 using a 2.5mm Allen key.



### III- DENTAL UNIT VERSION : LOLe 2.E

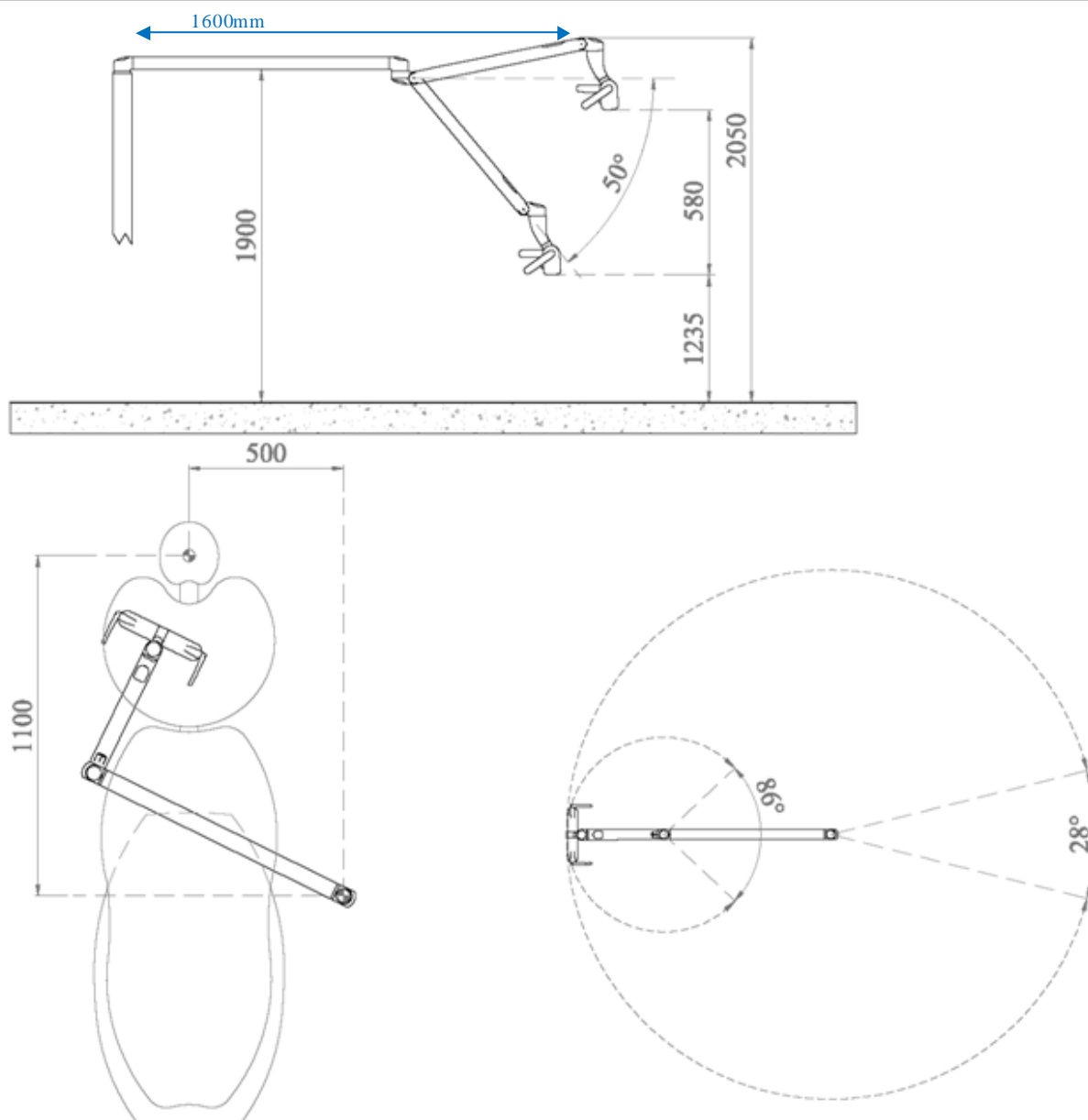


**!! The top of the light column has to be at least at 1900mm from the floor.**

The dental unit column must be positioned according to the scheme:

- 1100mm from patient's head towards feet
- 500mm on the side (to be adapted as the dentist is left-handed or right-handed)

**Caution: if the light column's position is not like on the plan, the scale of arm might represent an interaction with the patient's head or the dentist's assistant.**





## 1.1 Remove the existing light

1- Open the cuspidor door.



3- Lift existing light away from the vertical arm.



5- Lift the arm away from dental unit.



2- Disconnect the existing light power supply cables.



4- Unscrew the existing column.

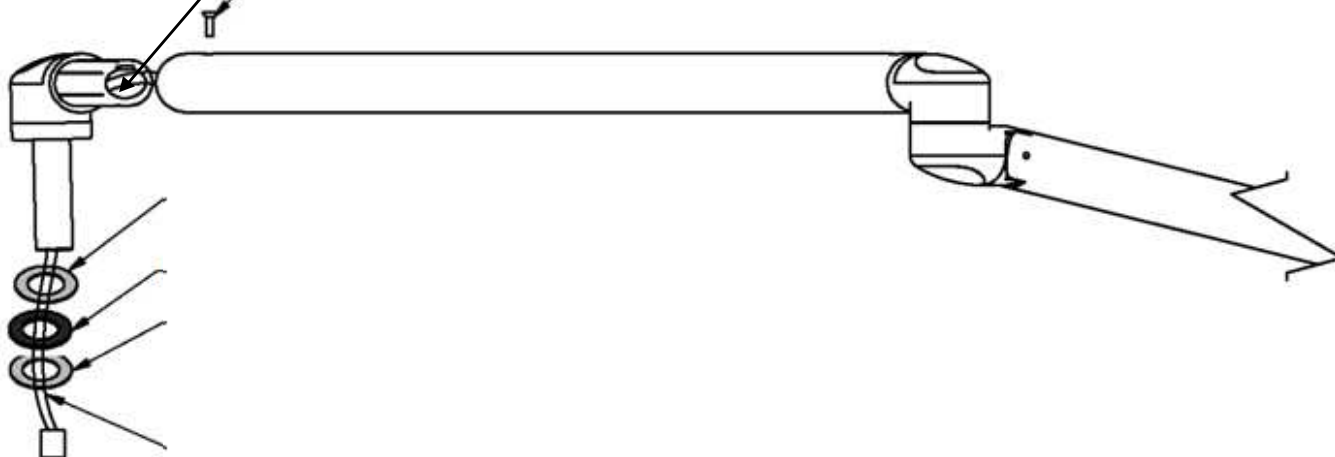


6- Remove the adapter in place.

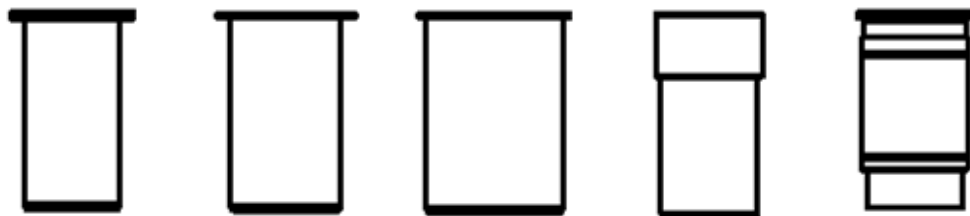


## 1.2 LOLe 2.E installation

1.  
Insert the cable inside of the corner.  
  
Attach the arm with the M5 screw.  
Put 3 washers.



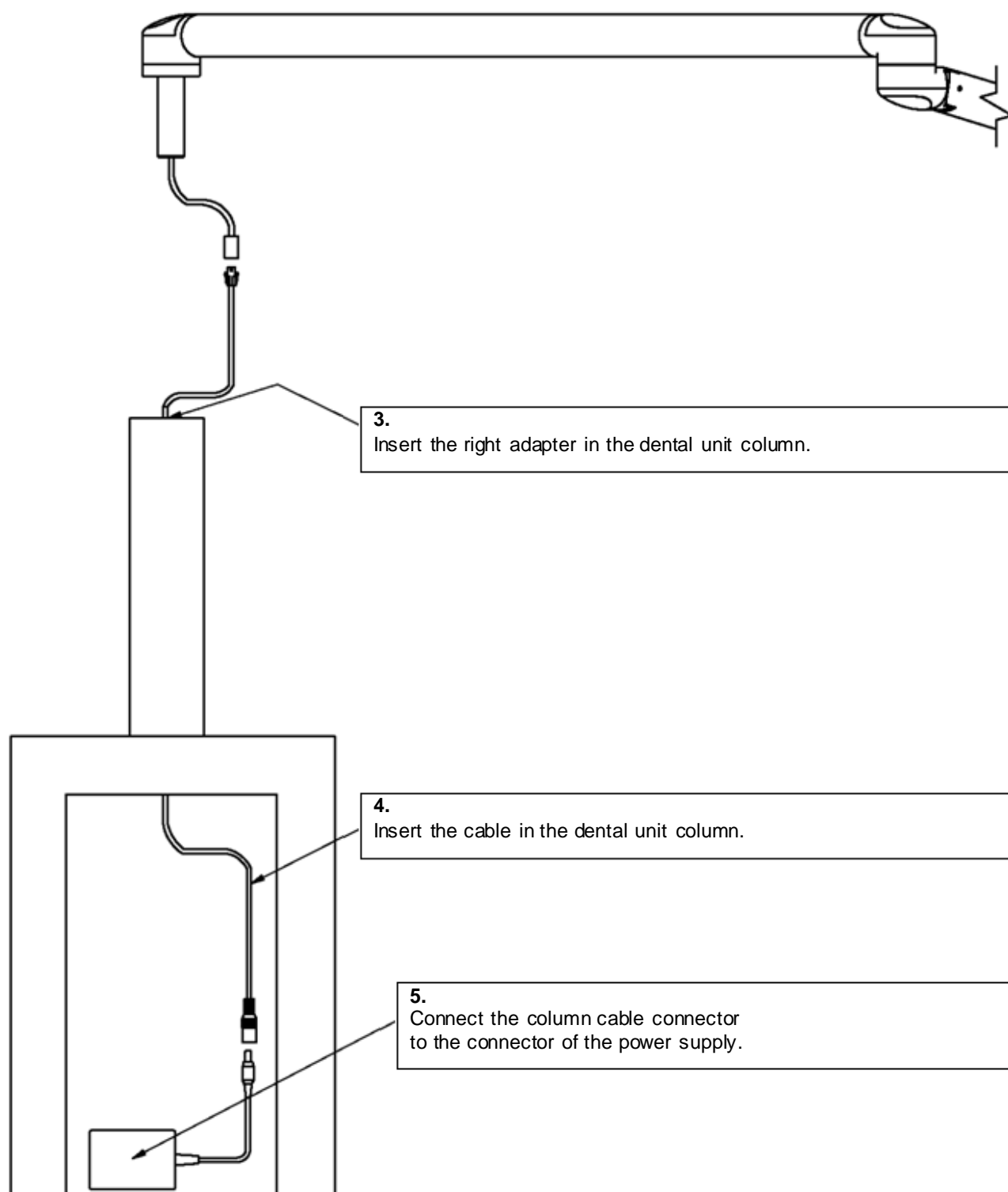
2.  
Chose the right adapter (depends on the dental unit column).



**The LOLe 2 head is attached to the arm. NEVER REMOVE IT!**

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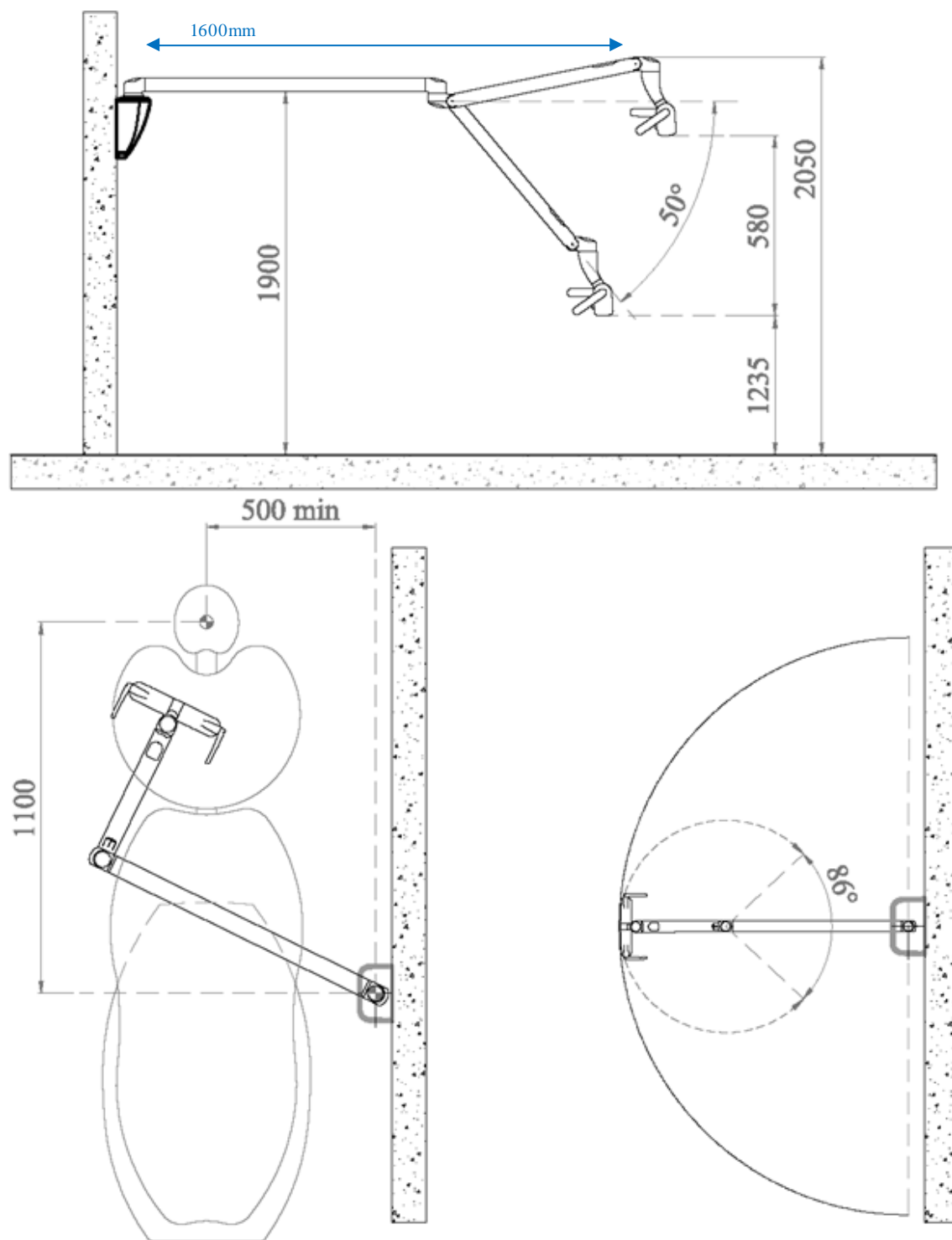
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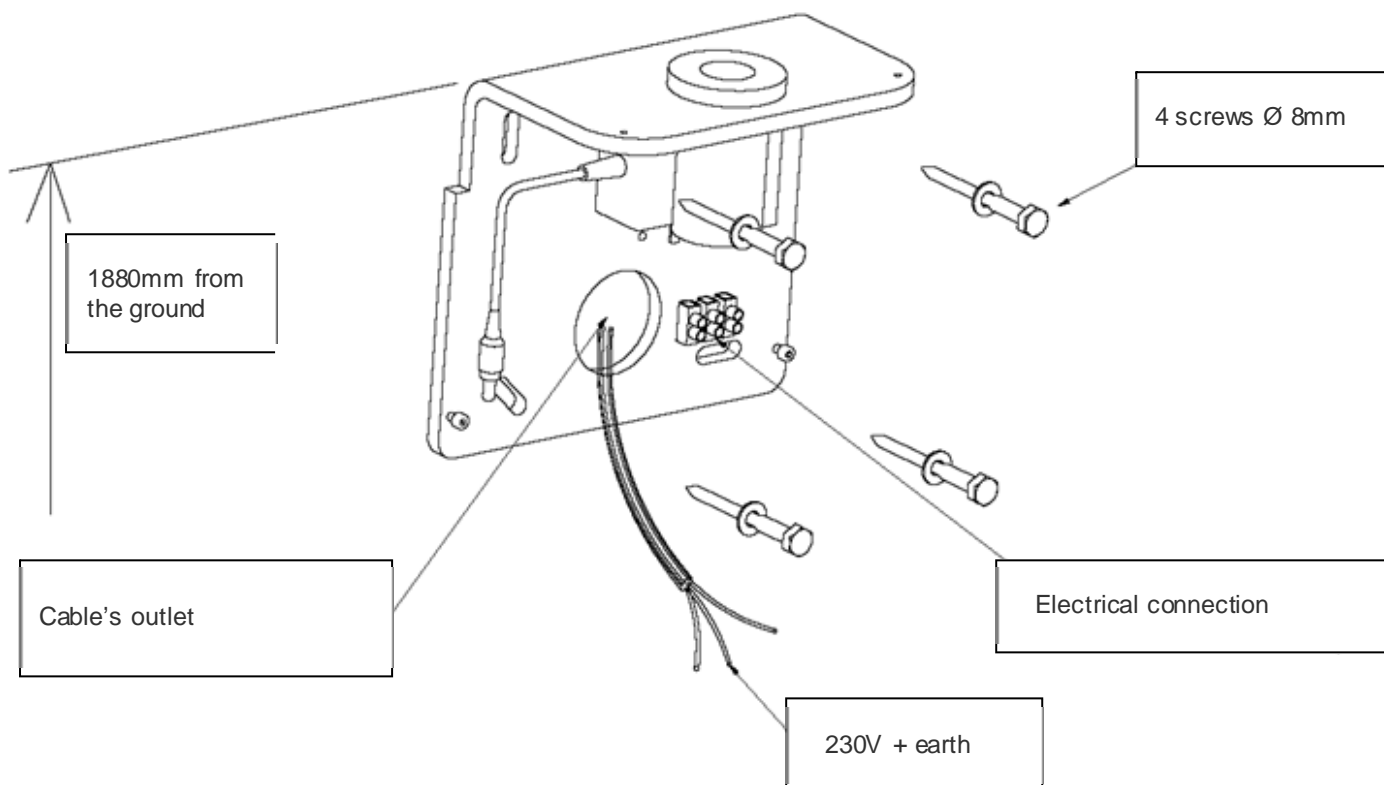
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## IV- WALL VERSION: LOLe 2.E + wall installation kit

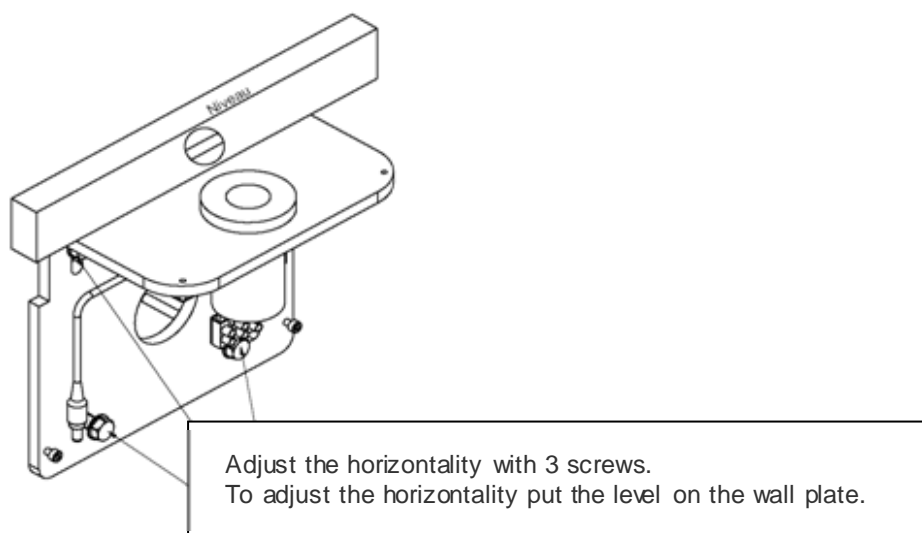


## 1. Installation of the wall adapter plate

Use the wall adapter plate as a template and mark the position of the four attachment screw holes.  
The top of the wall adapter plate must be at 1880mm from the ground. Attach the plate to wall with 4 screws Ø 8mm.



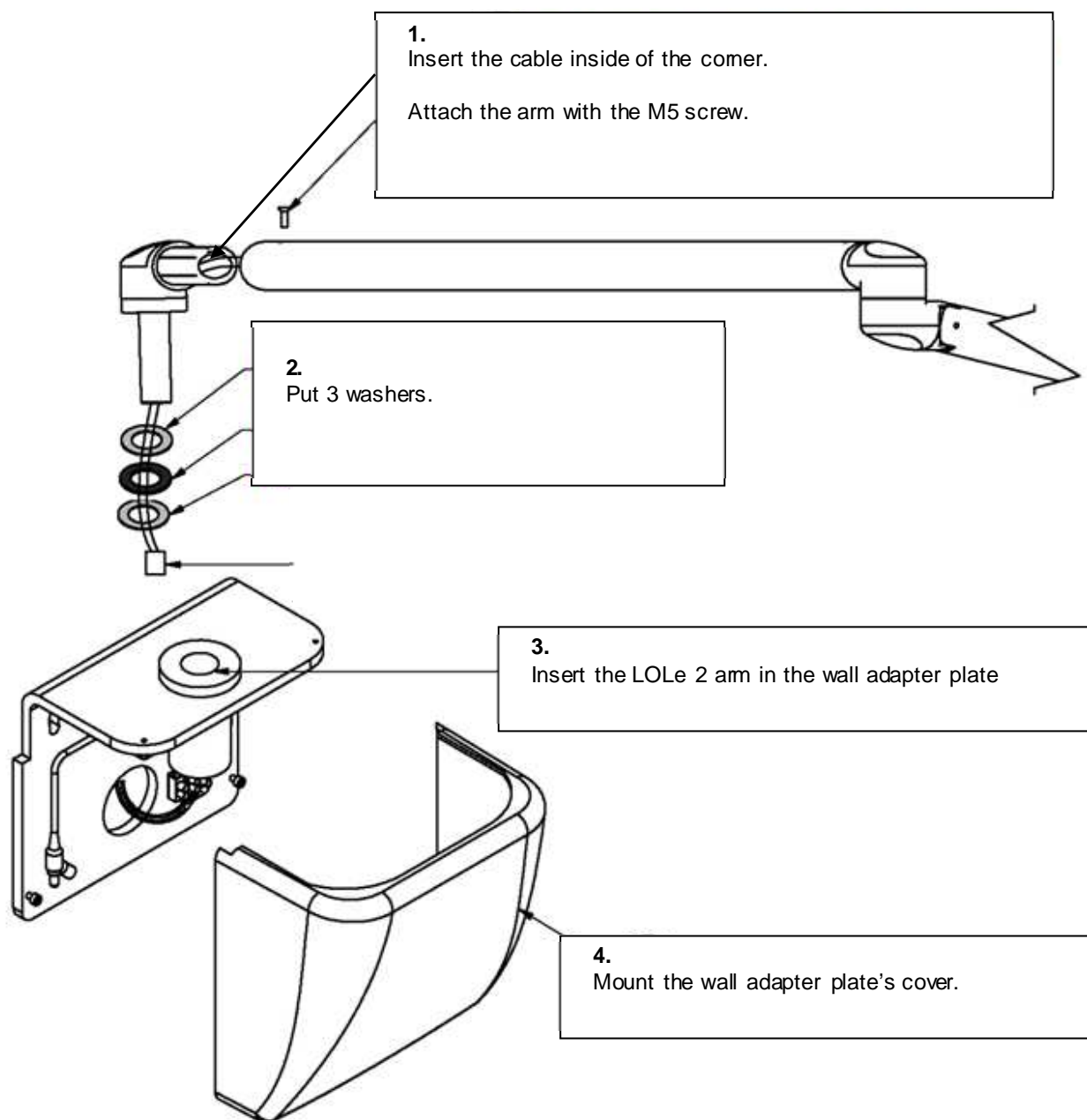
## 2. Adjustment of the wall adapter plate's horizontality.



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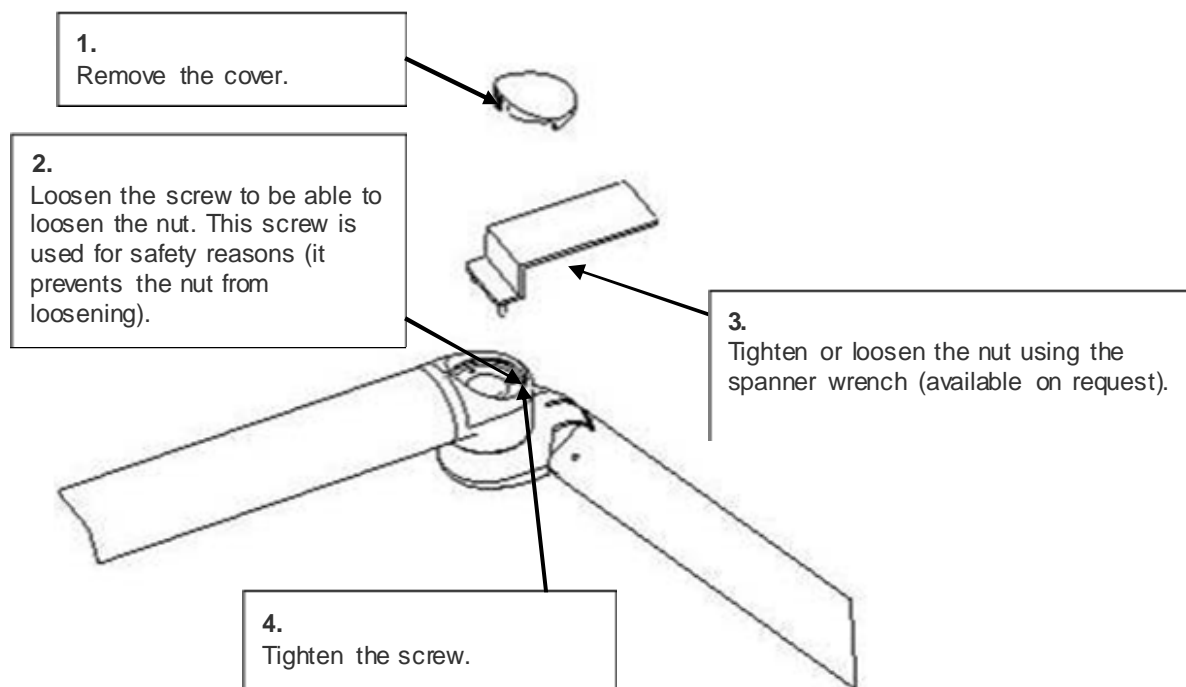
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## 3. Installation of LOLe 2 arm (wall version).



## V- ADJUSTMENTS

### 5.1 Adjustment of the rotational friction of the LOLe 2 arm middle joint.



### 5.2 Adjustment of the LOLe 2 head's lifting joint friction.

