

VeLED Series Installation Guide

Installing the following models:

VeLED E5

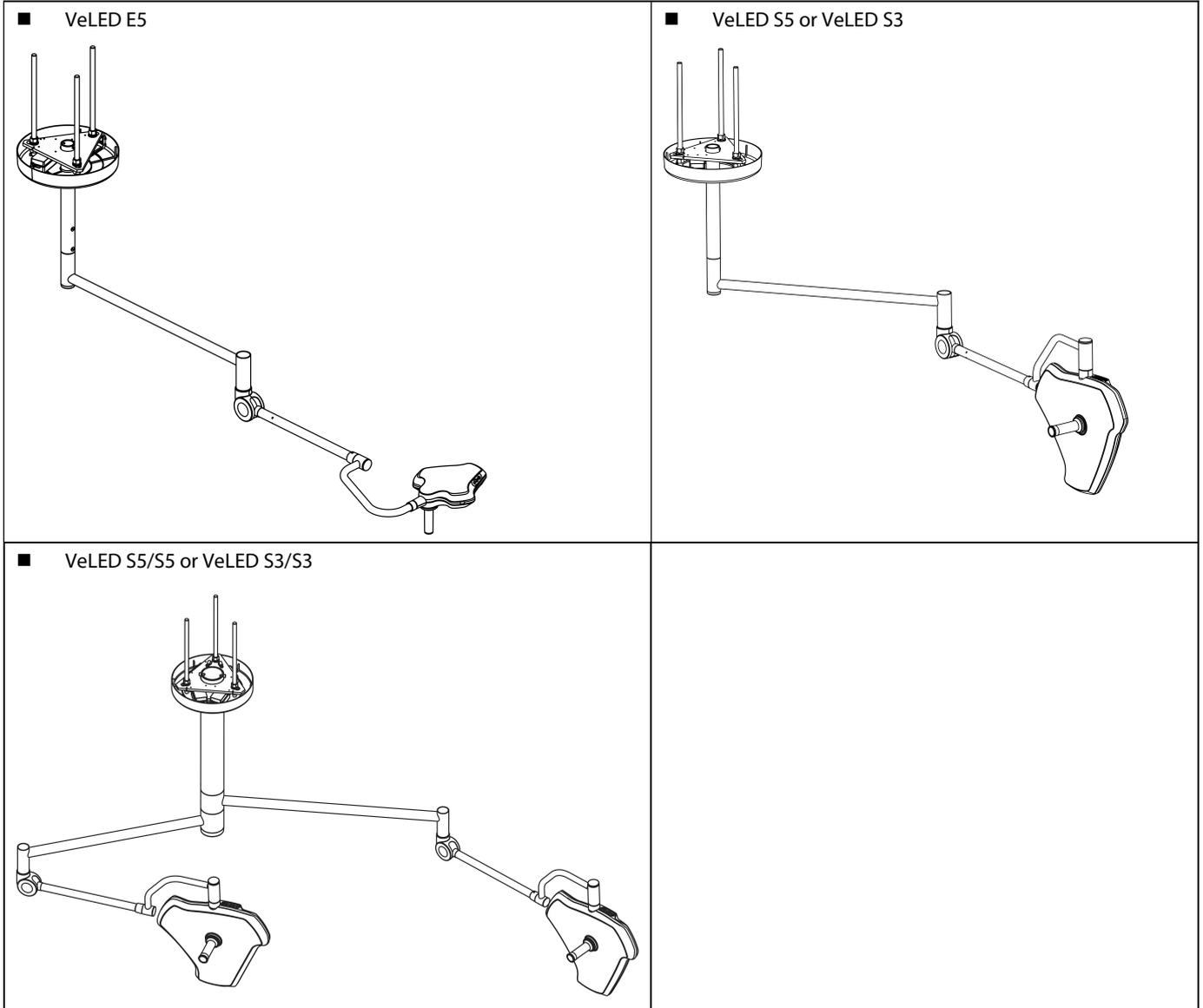
VeLED S5

VeLED S3

VeLED S5/S5

VeLED S3/S3

I. Installation Requirements and Prototype Sketch



- The structural layer must meet the requirements of the following table.

Table 1 Weights and torques

| Configuration | Weight | Torque |
|----------------------------|-------------------|--------------------|
| VeLED E5 | No less than 200N | No less than 125Nm |
| VeLED S5 VeLED S3 | No less than 400N | No less than 190Nm |
| VeLED S5/S5 VeLED S3/S3 | No less than 550N | No less than 370Nm |

- Power supply wiring requirements.

- Use 100 ~240 V and 50/60 Hz AC controllable power supply. The power supply wire shall be copper core with conductor cross-sectional area no less than 2.5mm².
- The protective earth cable is installed in the installation environment.
- The power supply cables shall be protected through a pipe and laid to the installation position of the fuse module.
- The total power switch meets the related certification, and Mindray Animal Medical does not configure the total power switch for the lights.
- The electrical facilities in the installation environment must meet the requirements of GB 16895.24/IEC 60364 -7 -710 and other relevant specific regulations.
- A 16 A circuit breaker certified by local standard needs to be installed in the power supply system to cut off the power supply during maintenance so as to ensure safe maintenance and prevent overcurrent of the 2.5mm² cable.

II. Tools Required

Table 2 Tools

| Tool | Quantity | Model/Type |
|-------------------------|-----------------|---|
| Lift | 1 | Not specified |
| Electric saw | 1 | Not specified |
| Measuring tape | 1 | 5m |
| Hammer | 1 | Not specified |
| Torque wrench | 1 | Up to 250Nm |
| Drill | 1 | Not specified |
| Spirit level | 1 | Magnetic with horizontal and vertical bubbles |
| Digital protractor | 1 | GEELII 55156(recommended) |
| Allen key | 1 | M3, M4, M5, M6, M8, M10, and M16 (one for each type). |
| Open-end wrench | 2 | 24mm |
| Adjustable wrench | 1 | 0~25mm |
| Flat-bladed screwdriver | 1 | 5mm (longer than 200mm) |
| Philips screwdriver | 1 | 5mm (longer than 200mm) |
| Lifting equipment | / | / |
| Knife | 1 | Not specified |
| Circlip pliers | 1 | Not specified |

III. Exploded View

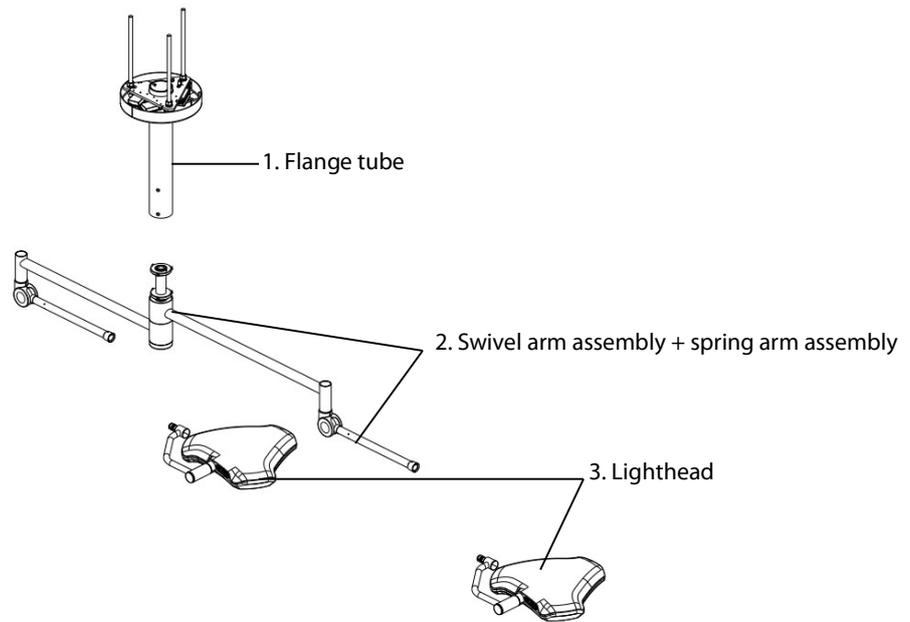


Figure1

IV. System Installation

1. Install the three screws on the ceiling fixture.

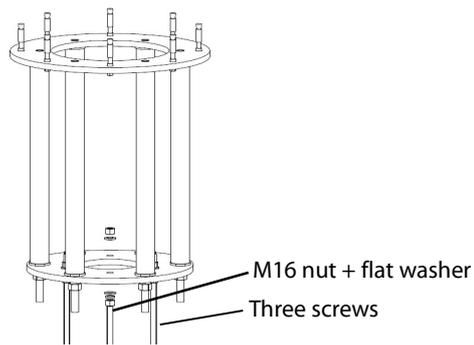


Figure 2 Installing screws

2. Install the flange.

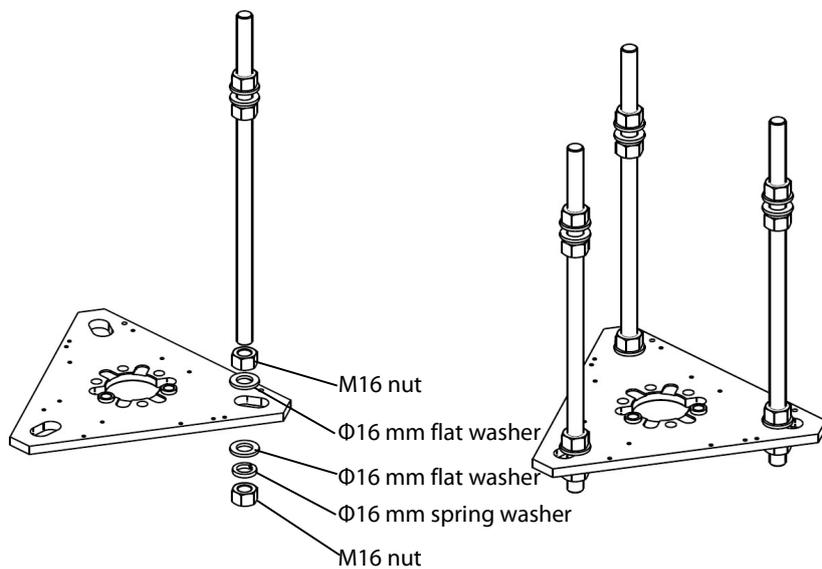


Figure 3 Installing the flange

3. Install the swivel arm and thread cables.

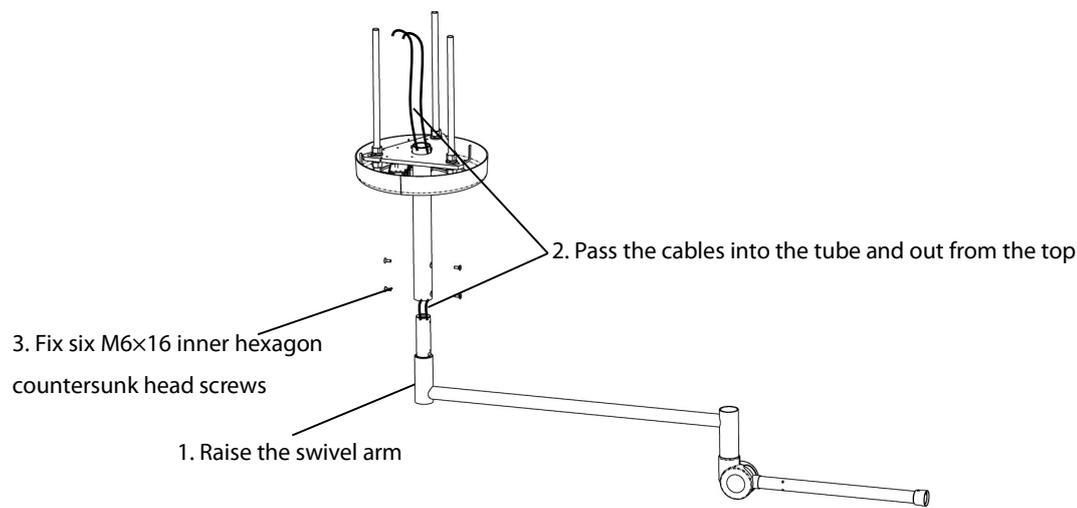
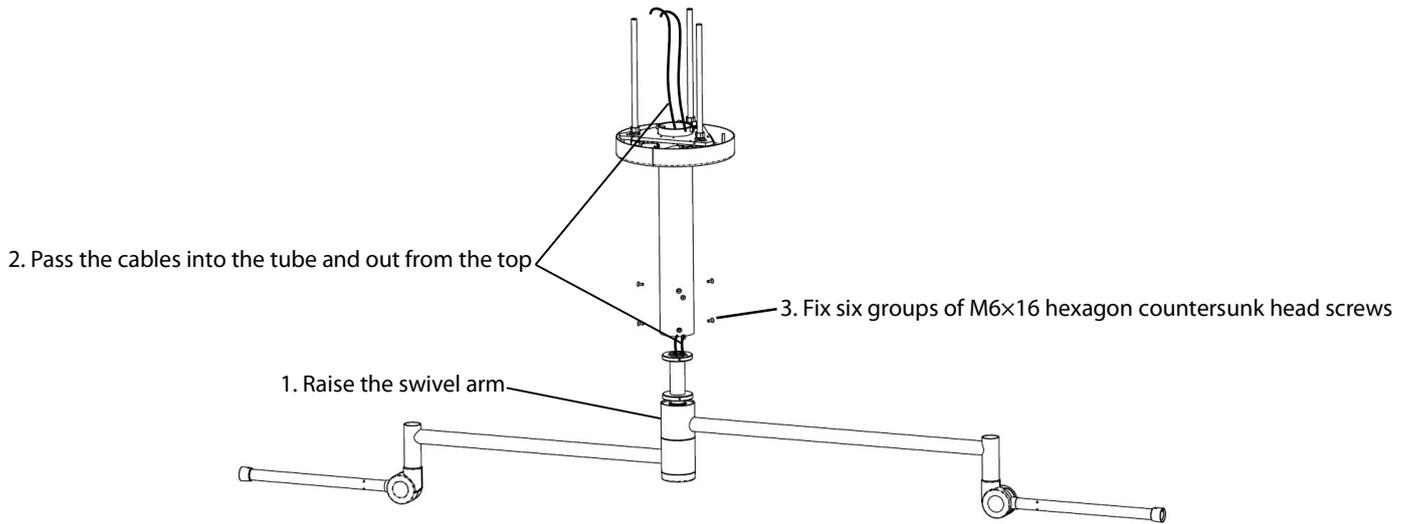
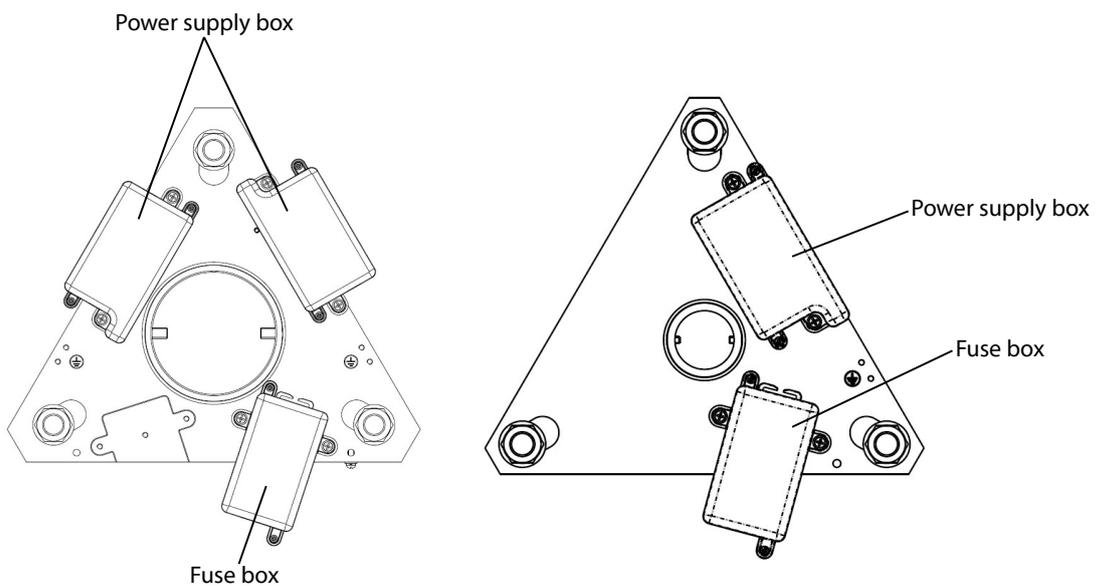


Figure 4 Installing the swivel arm

4. Install the power supply box and the fuse box.



VeLED S3/S3 or VeLED S5/S5

VeLED E5 or VeLED S5 or VeLED S3

Figure 5 Installing power supply box and fuse box

5. Mains supply power connection.

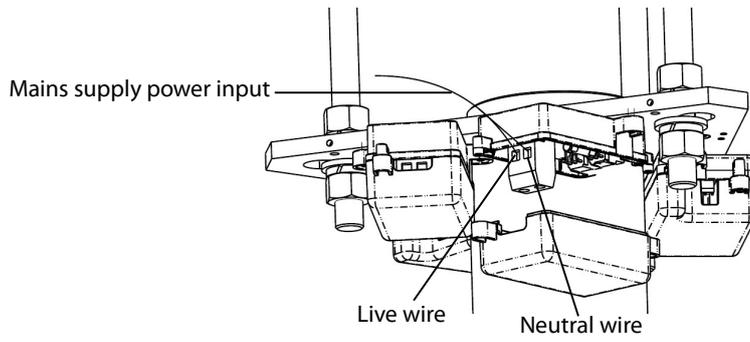


Figure 6 Mains supply power input wiring

6. Lighthouse power connection.

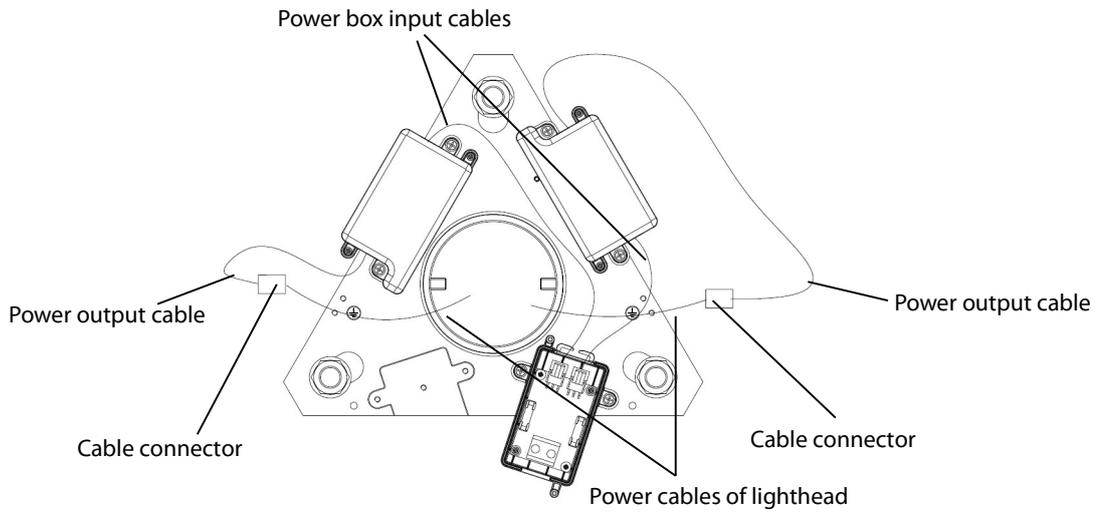


Figure 7 Lighthouse power connection

7. Protective earth wire connection.

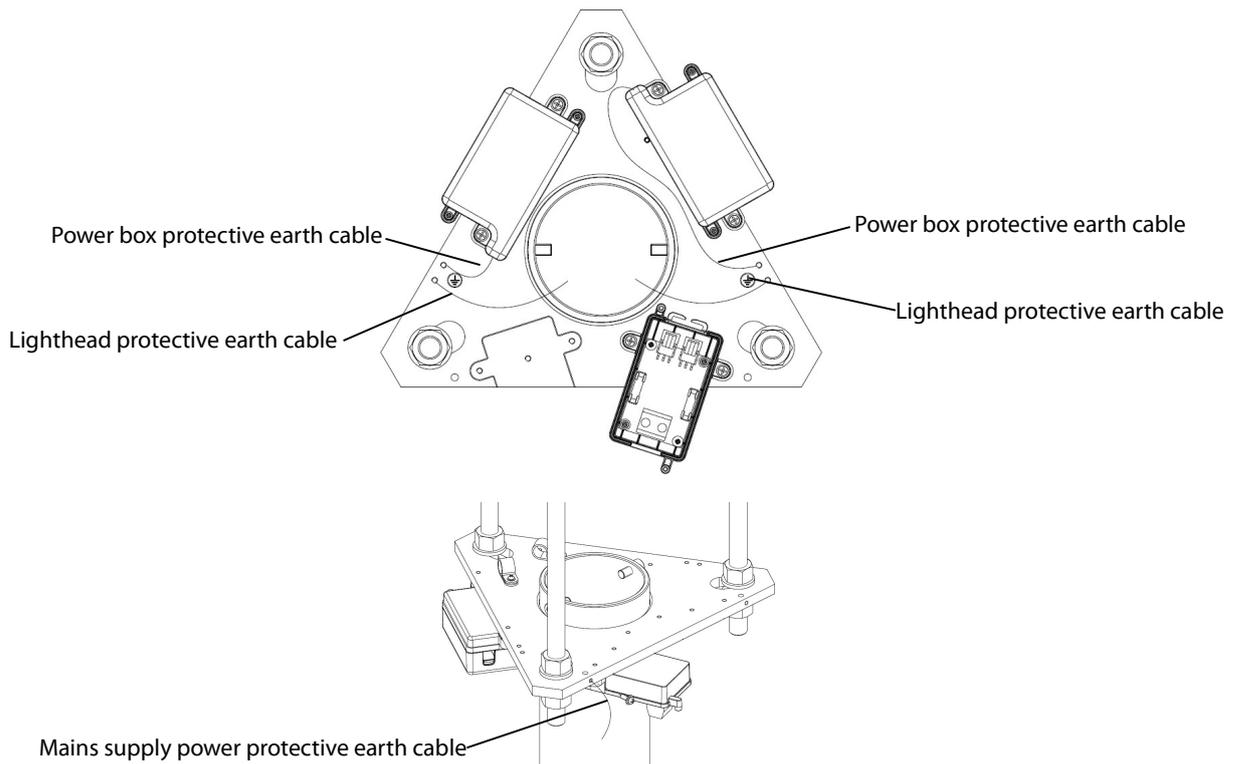


Figure 8 Fixing protective earth cables

8. Remove the retaining screws of the spring arm.

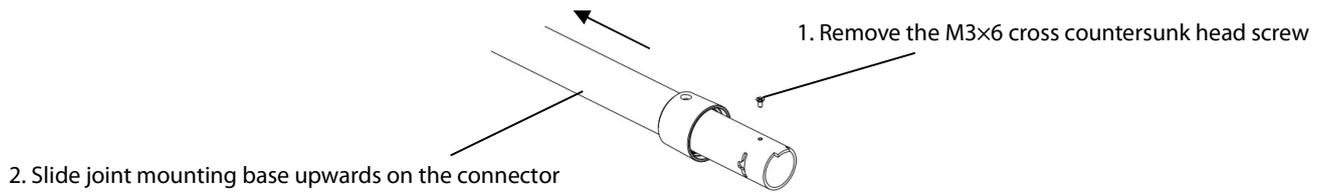


Figure 9 Removing the retaining screws

9. Install the lighthead.

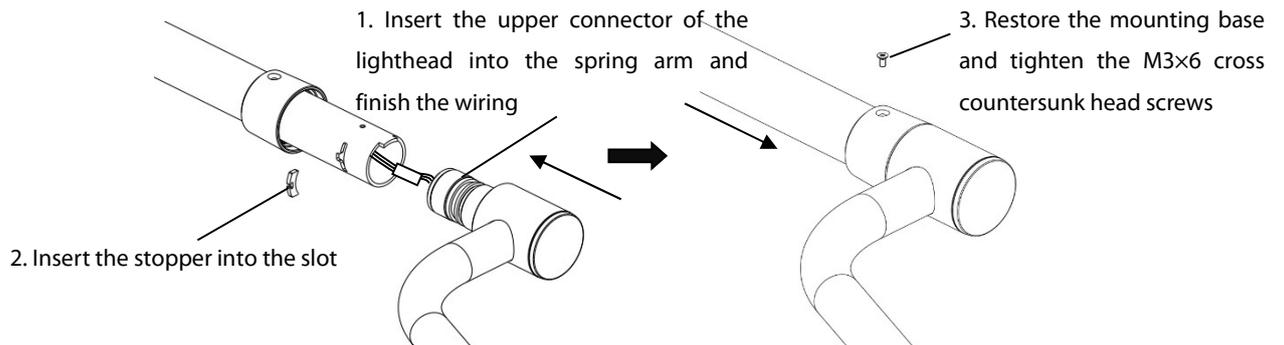


Figure 10 Installing the lighthead

10. Install the central handle.

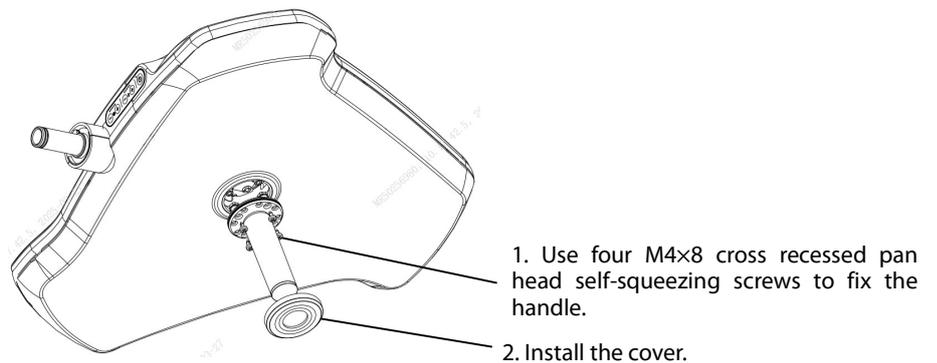
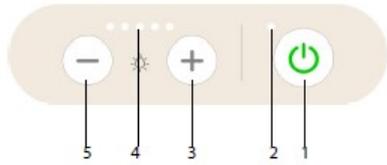


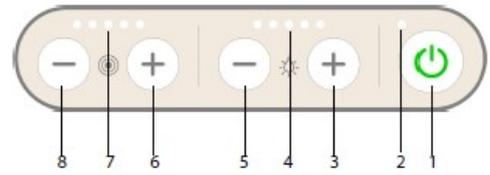
Figure 11 Installing the central handle

V. Adjustment

Check whether the light works properly. Check whether the functions of the buttons on the touch keypad are normal, as shown in the following figures. Check the status of the lighthead through the status indicators. Pull the lighthead up, down, left and right to check if it rotates normally and the limit position is normal.



1. Standby
2. Power-on indicator
3. Illuminance up
4. Illuminance level indicator
5. Illuminance down



1. Standby
2. Power-on indicator
3. Illuminance up
4. Illuminance level indicator
5. Illuminance down
6. Light field size up
7. Light field indicator
8. Light field size down

Figure 12

Installing the following models:

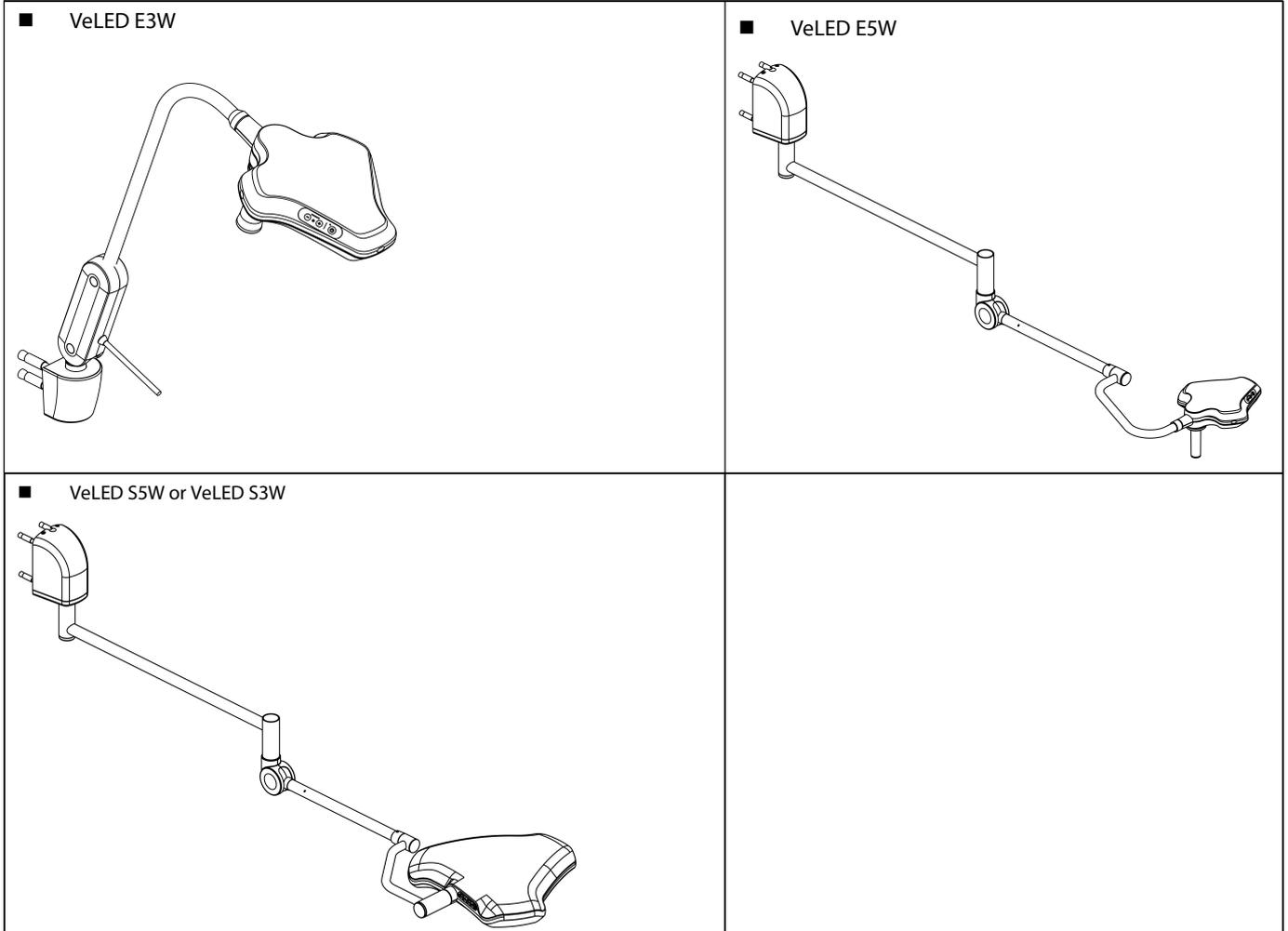
VeLED E3W

VeLED E5W

VeLED S5W

VeLED S3W

I. Installation Requirements and Prototype Sketch



1. The structural layer must meet the requirements of the following table.

Table 3 Weights and torques

| Configuration | Weight | Torque |
|---------------|-------------------|--------------------|
| VeLED E3W | No less than 50N | No less than 30Nm |
| VeLED E5W | No less than 160N | No less than 160Nm |
| VeLED S5W | | |
| VeLED S3W | | |

2. Power supply wiring requirements.

- 1) Use 100 ~240 V and 50/60 Hz AC controllable power supply. The power supply wire shall be copper core with conductor cross-sectional area no less than 2.5mm².
- 2) The protective earth cable is installed in the installation environment.
- 3) The power supply cables shall be protected through a pipe and laid to the installation position of the fuse module.
- 4) The total power switch complies with relevant certification, and Mindray Animal Medical does not configure the total power switch for the lights.
- 5) The electrical facilities in the installation environment must meet the requirements of GB 16895.24/IEC 60364 -7 -710 and other relevant specific regulations.
- 6) A 16 A circuit breaker certified by local standard needs to be installed in the power supply system to cut off the power supply during maintenance so as to ensure safe maintenance and prevent overcurrent of the 2.5mm² cable.

3. Requirements for VeLED E3W Wall mounting holes

1) The dimensions of the installation base are as follows (unit: Mm):

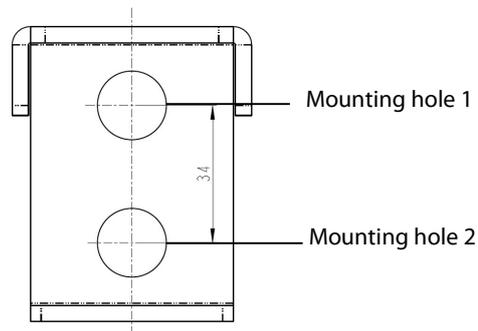


Figure 13 Mounting holes on the base

2) The dimensions of the wall mounting hole are as follows (unit: Mm):

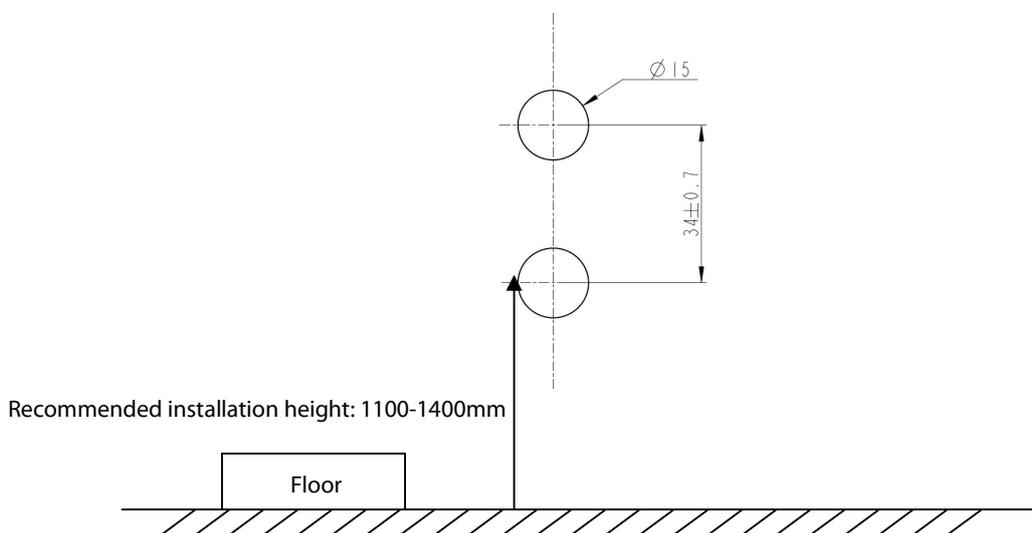


Figure 14 Positions of holes

4. Requirements for VeLED E5W/VeLED S5W/VeLED S3W wall mounting holes:

- 1) The dimensions of the installation base are as follows (unit: mm):

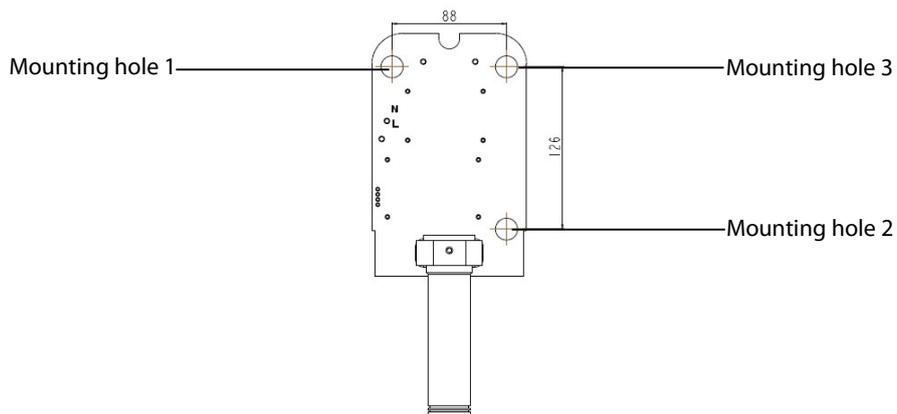


Figure 15 Mounting holes on the base

- 2) The dimensions of the wall mounting hole are as follows (unit: Mm):

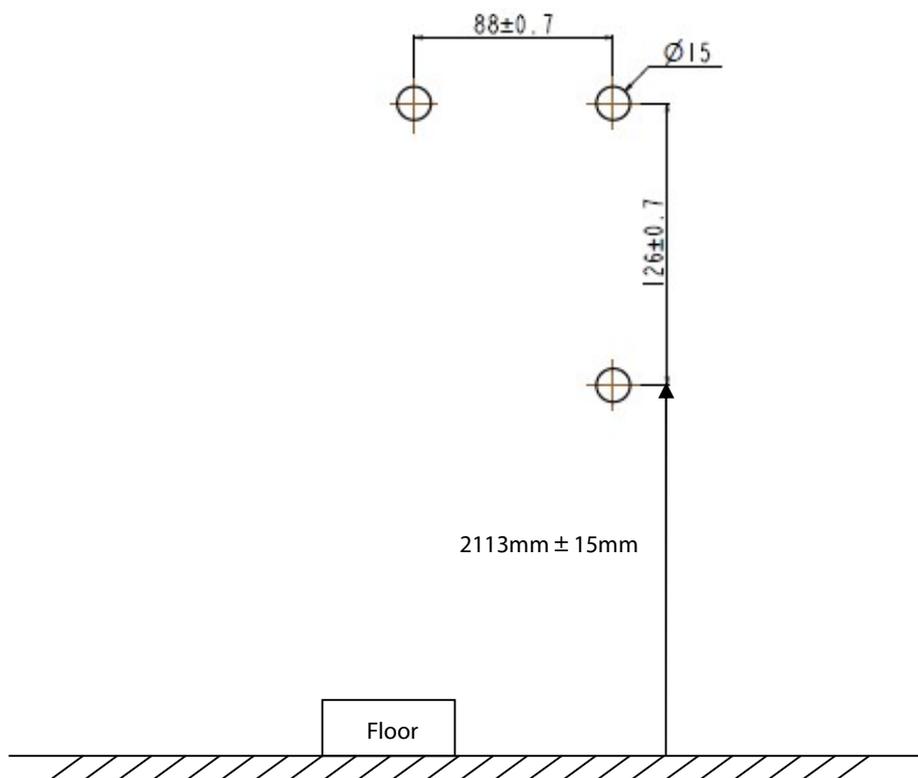


Figure 16 Positions of holes

II. Tools Required

Table 4 Tools

| Tool | Quantity | Model/Type |
|----------------|----------|---------------|
| Lift | 1 | Not specified |
| Measuring tape | 1 | 5m |
| Hammer | 1 | Not specified |
| Torque wrench | 1 | Up to 250Nm |
| Drill | 1 | Not specified |

| | | |
|-------------------------|---|---|
| Spirit level | 1 | Magnetic with horizontal and vertical bubbles |
| Digital protractor | 1 | GEELII 55156(recommended) |
| Allen key | 1 | M3, M4, M5, M6, M8, M10, and M16 (one for each type). |
| Open-end wrench | 2 | 24mm |
| Adjustable wrench | 1 | 0~25mm |
| Flat-bladed screwdriver | 1 | 5mm (longer than 200mm) |
| Philips screwdriver | 1 | 5mm (longer than 200mm) |
| Lifting equipment | / | / |
| Knife | 1 | Not specified |
| Circlip pliers | 1 | Not specified |

III. Exploded view of VeLED E3W

1. Install the base.

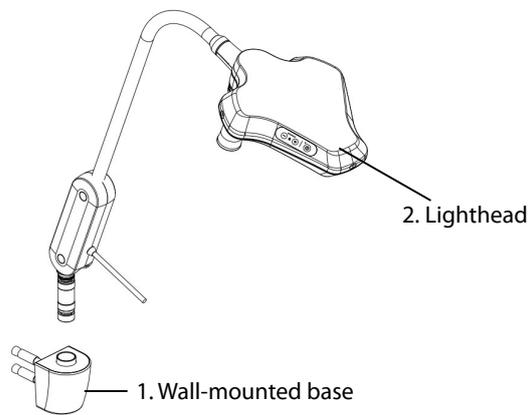


Figure17

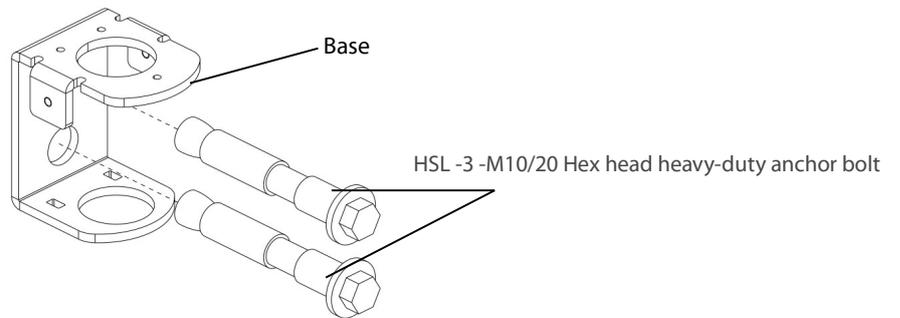


Figure 18 Installing the base

2. Install the vertical shaft.

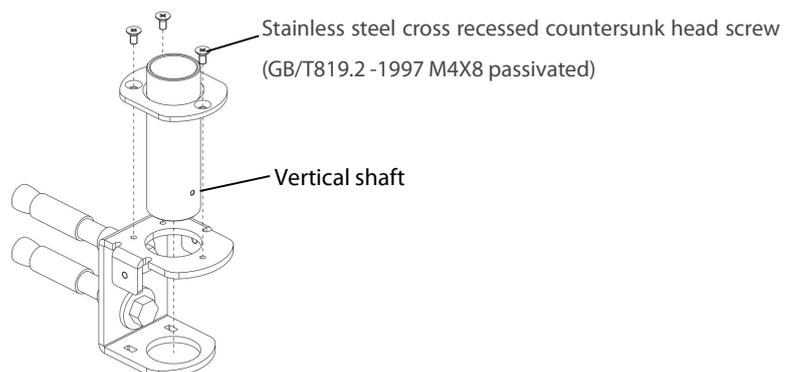


Figure 19 Installing the vertical shaft

3. Install the upper cover.

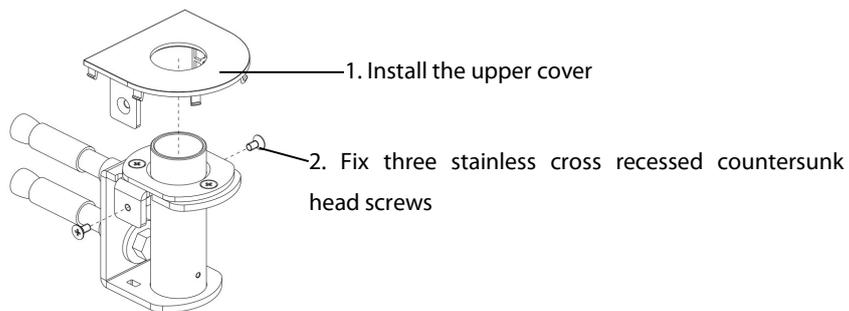


Figure 20 Installing the upper cover

4. Install the flexible arm and lower cover.

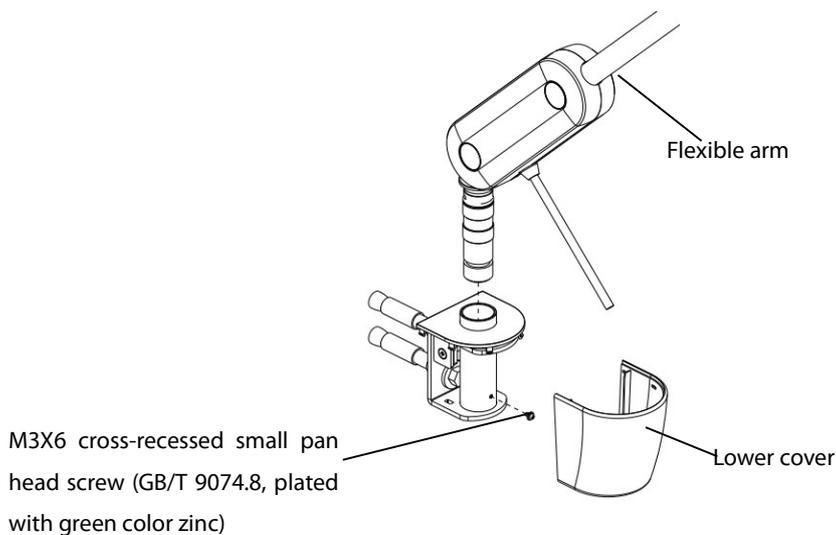
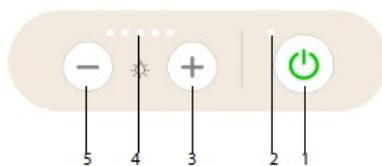


Figure 21 Installing the flexible arm

IV. Adjustment

Check whether the light works properly. Check whether the functions of the buttons on the touch keypad are normal, as shown in the following figures. Check the status of the lighthouse through the status indicators. Pull the lighthouse up, down, left and right to check if it rotates normally and the limit position is normal.



1. Standby
2. Power-on indicator
3. Illuminance up
4. Illuminance level indicator
5. Illuminance down

Figure 22

V. Exploded view of VeLED E5W/VeLED S5W/VeLED S3W (Take VeLED E5W as an example)

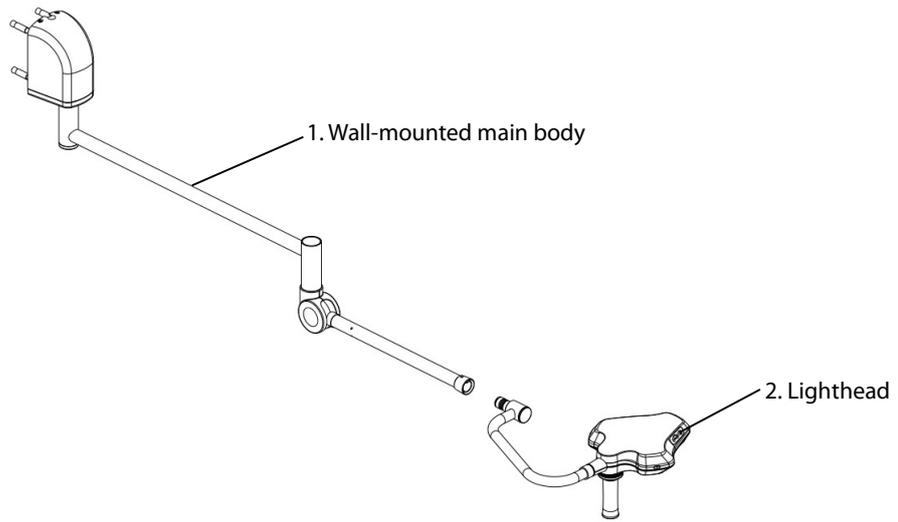


Figure 23

1. Install the base mounting plate.

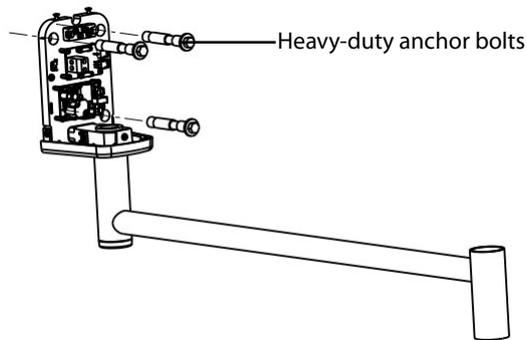


Figure 24 Installing the mounting plate of the base

3. Wiring.

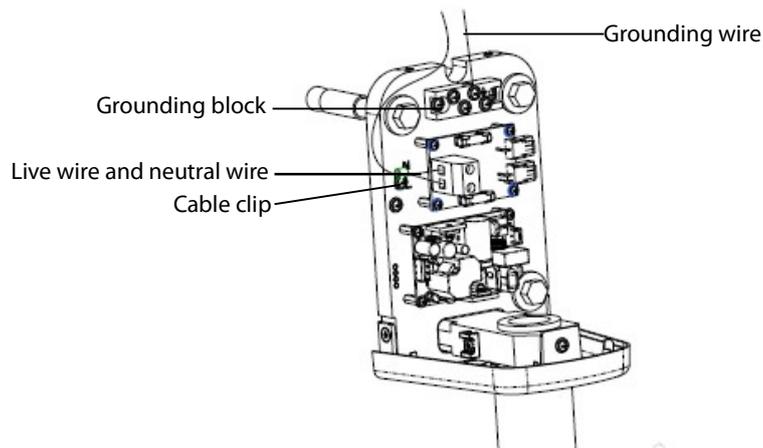


Figure 25 Wiring

4. Install the upper cover.

Fix the 2 M4×12 cross countersunk head screws

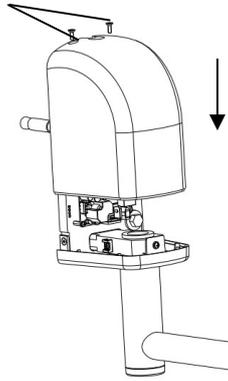


Figure 26 Installing the upper cover

5. Remove the retaining screws of the lighthouse.

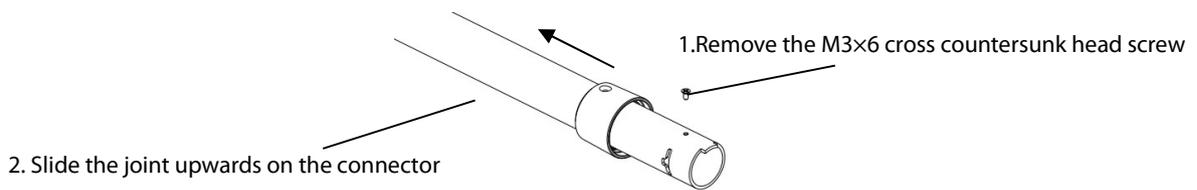


Figure 27 Removing the retaining screws

6. Install the lighthouse.

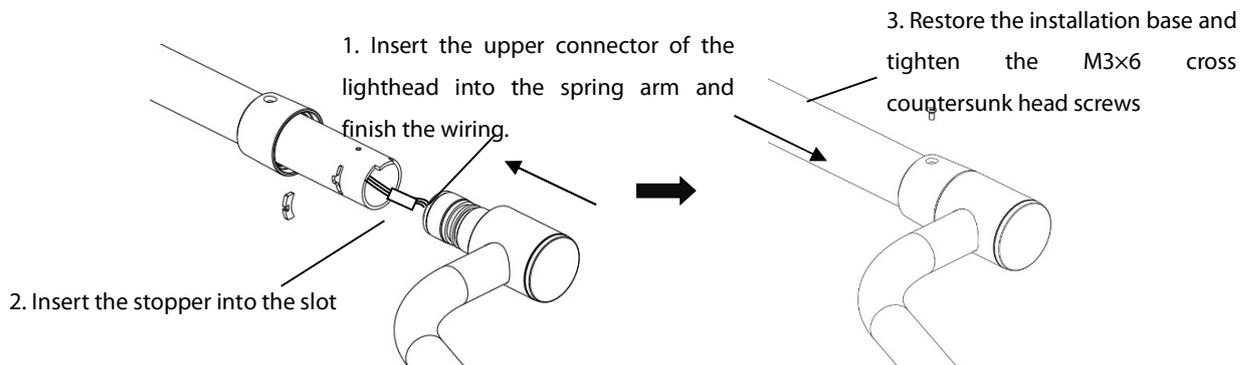


Figure 28 Installing the lighthouse

7. Install the central handle.

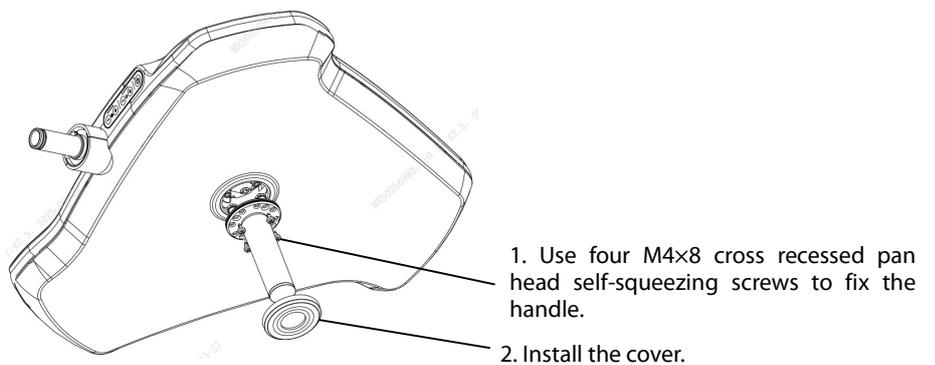
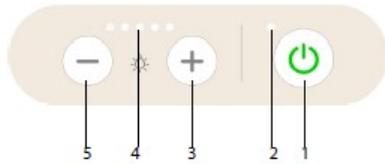


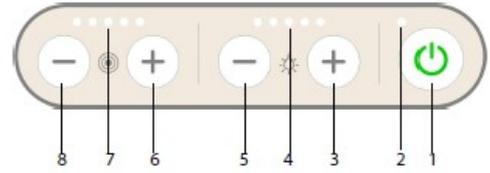
Figure 29 Installing the central handle

VI. Adjustment

Check whether the light works properly. Check whether the functions of the buttons on the touch keypad are normal, as shown in the following figures. Check the status of the lighthouse through the status indicators. Pull the lighthouse up, down, left and right to check if it rotates normally and the limit position is normal.



1. Standby
2. Power-on indicator
3. Illuminance up
4. Illuminance level indicator
5. Illuminance down



1. Standby
2. Power-on indicator
3. Illuminance up
4. Illuminance level indicator
5. Illuminance down
6. Light field size up
7. Light field indicator
8. Light field size down

Figure30

Installing the following models:

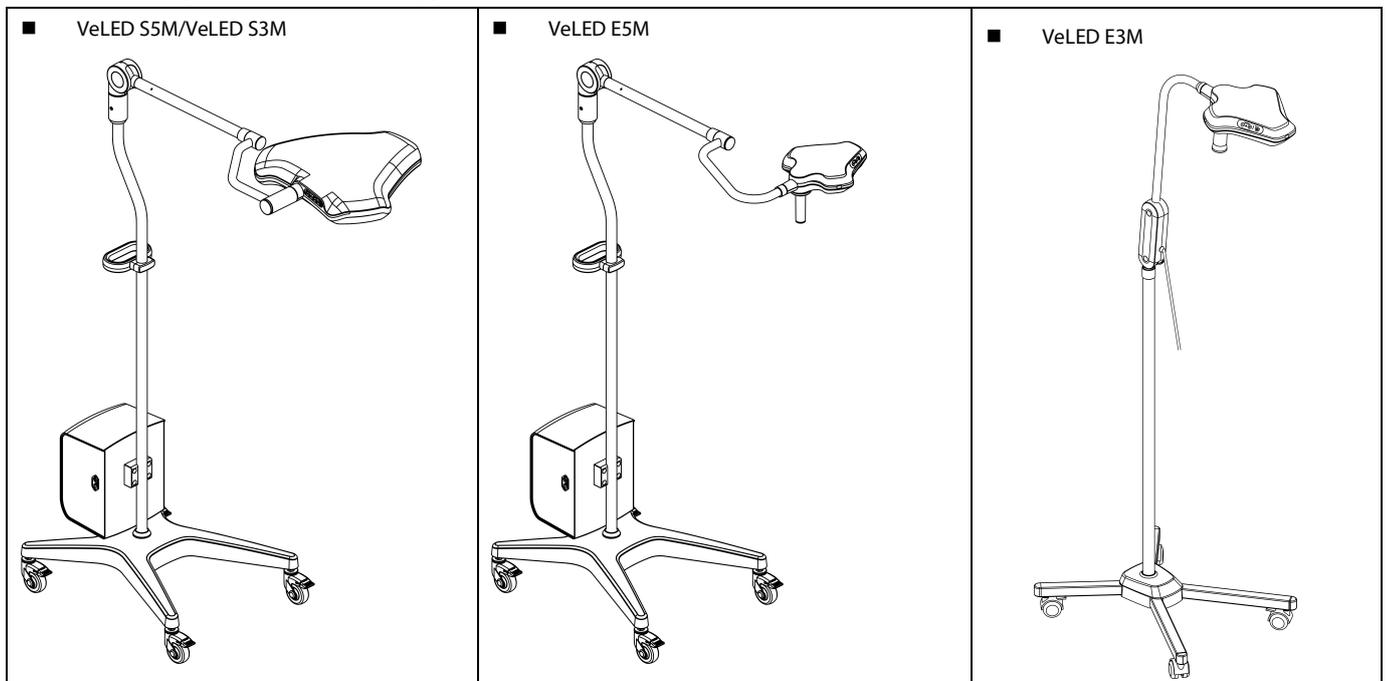
VeLED S5M

VeLED S3M

VeLED E5M

VeLED E3M

I. Installation Requirements and Prototype Sketch



II. Tools Required

Table 5 Tools

| Tool | Quantity | Model/Type |
|-------------------------|----------|---|
| Torque wrench | 1 | Up to 250Nm |
| Allen key | 1 | M3, M4, M5, M6, M8, M10, and M16 (one for each type). |
| Flat-bladed screwdriver | 1 | 5mm (longer than 200mm) |
| Philips screwdriver | 1 | 5mm (longer than 200mm) |

III. Exploded View of VeLED S5M/VeLED S3M (VeLED E5M and VeLED S5M/VeLED S3M are different only in lightheads, and other structures are the same)

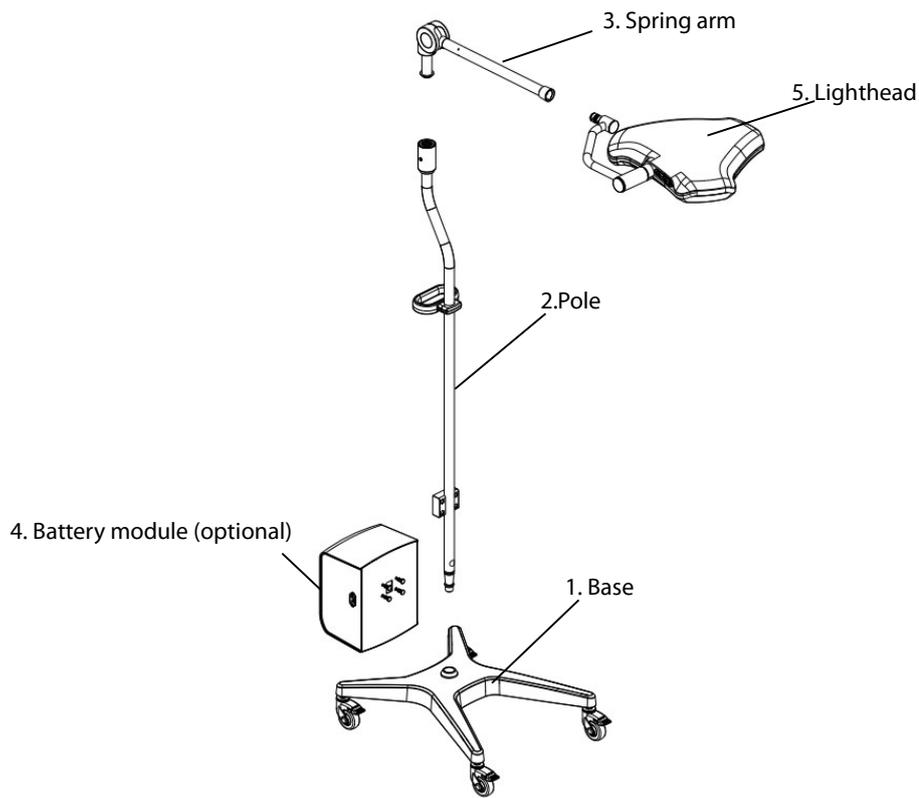


Figure31

1. Install the pole.

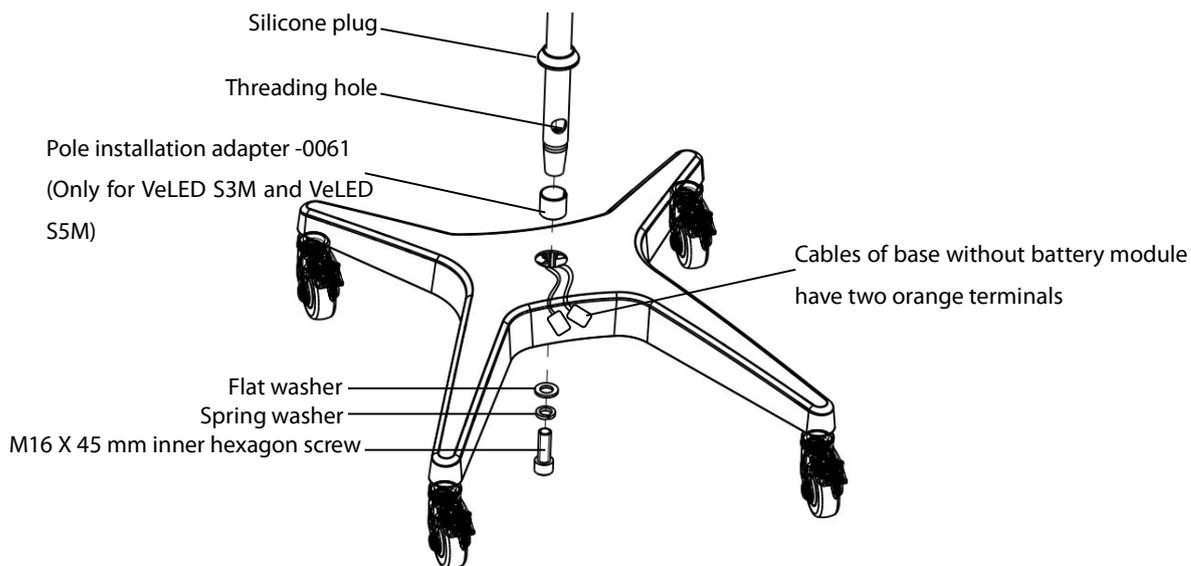


Figure 32 Installing the pole

2. Put a flat washer on the joint of the pole.



Figure 33 Installing the washer

3. Loosen the two retaining screws and the damping screws.

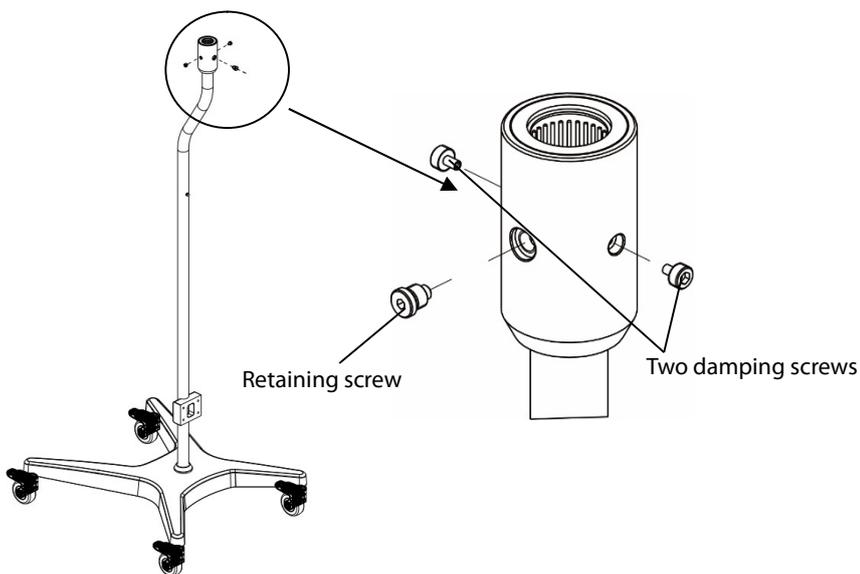


Figure 34 Removing screws

4. Lead the power cord from the spring arm through the pole and pull it out through the hole on the pole.

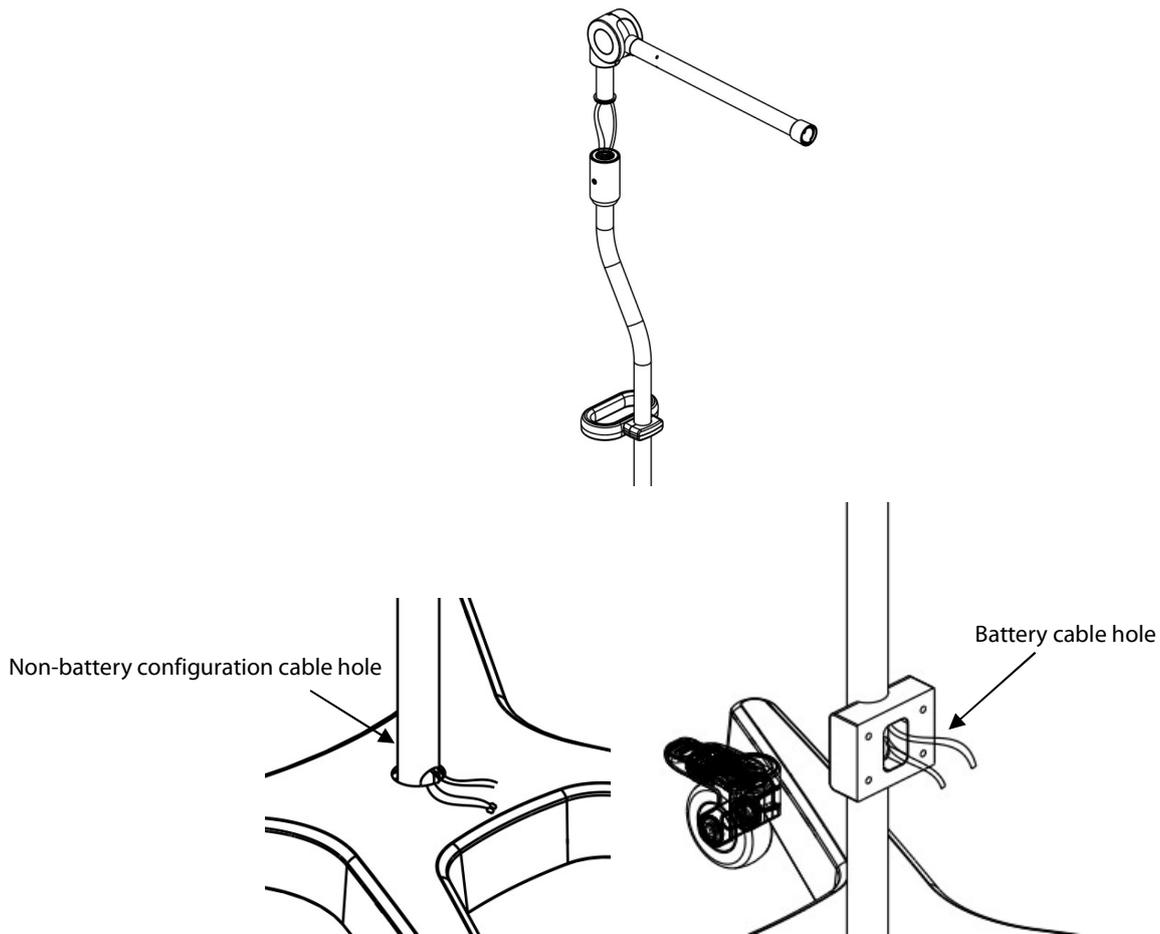


Figure 35 Threading holes

5. Install the spring arm on the pole and fix it with one retaining screw and two damping screws, as shown in the following figure.

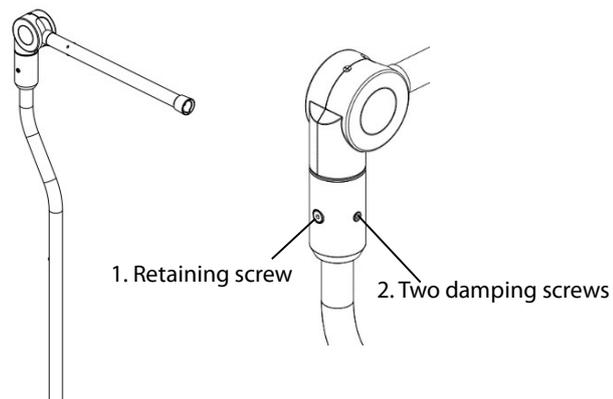
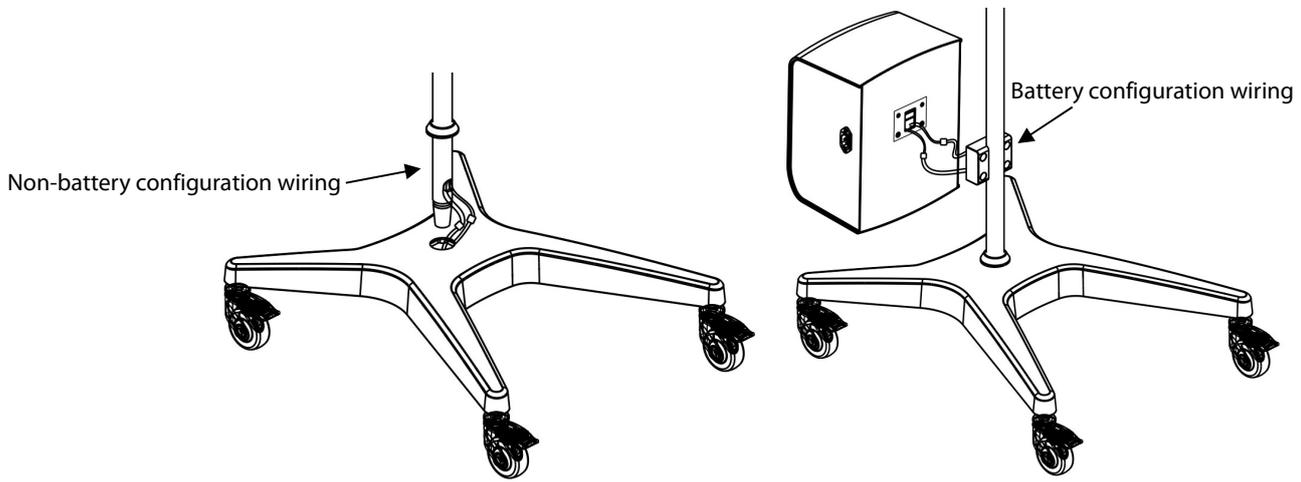


Figure 36 Installed spring arm

6. Connect the cables coming out of the pole with the base cables or the orange terminals in the battery module, and then insert the connected cable terminals into the base or the battery module. After installing the cables, install the gray silicone plug onto the interface of the cover. Pay attention to the installation direction of the silicone plug.



Connection method of the quick connector:



Insert the cables of the same color into the quick connector hole.

Make sure the cables are inserted tightly, pull them out and check if they are loose.

Ensure that two cables of the same color are inserted into one quick connector.

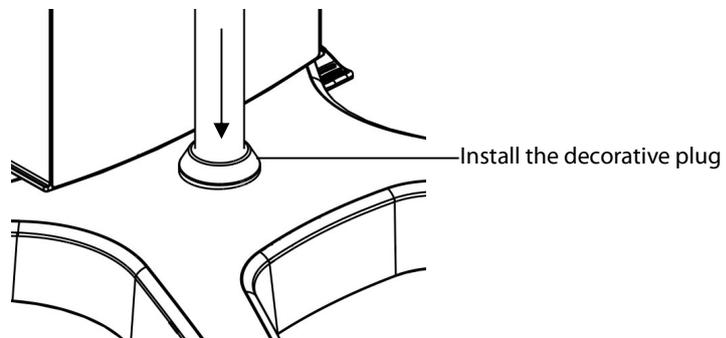


Figure37

- Use M5 X 20 mm inner hexagon screws and spring washers to fix the battery module on the pole. Install four air brake plugs to cover the screws.

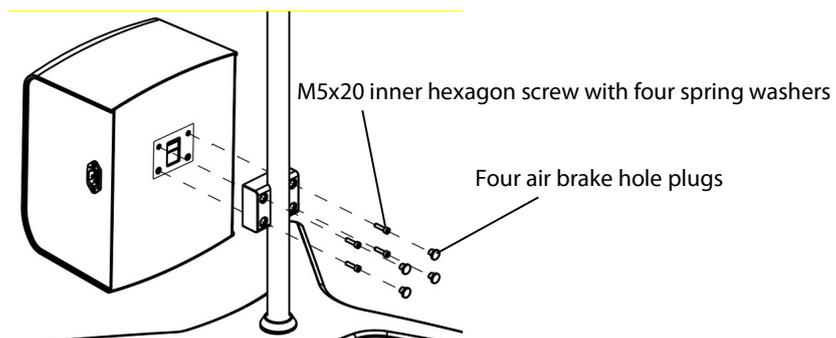


Figure 38 Installing the battery module

8. Installing the handle.

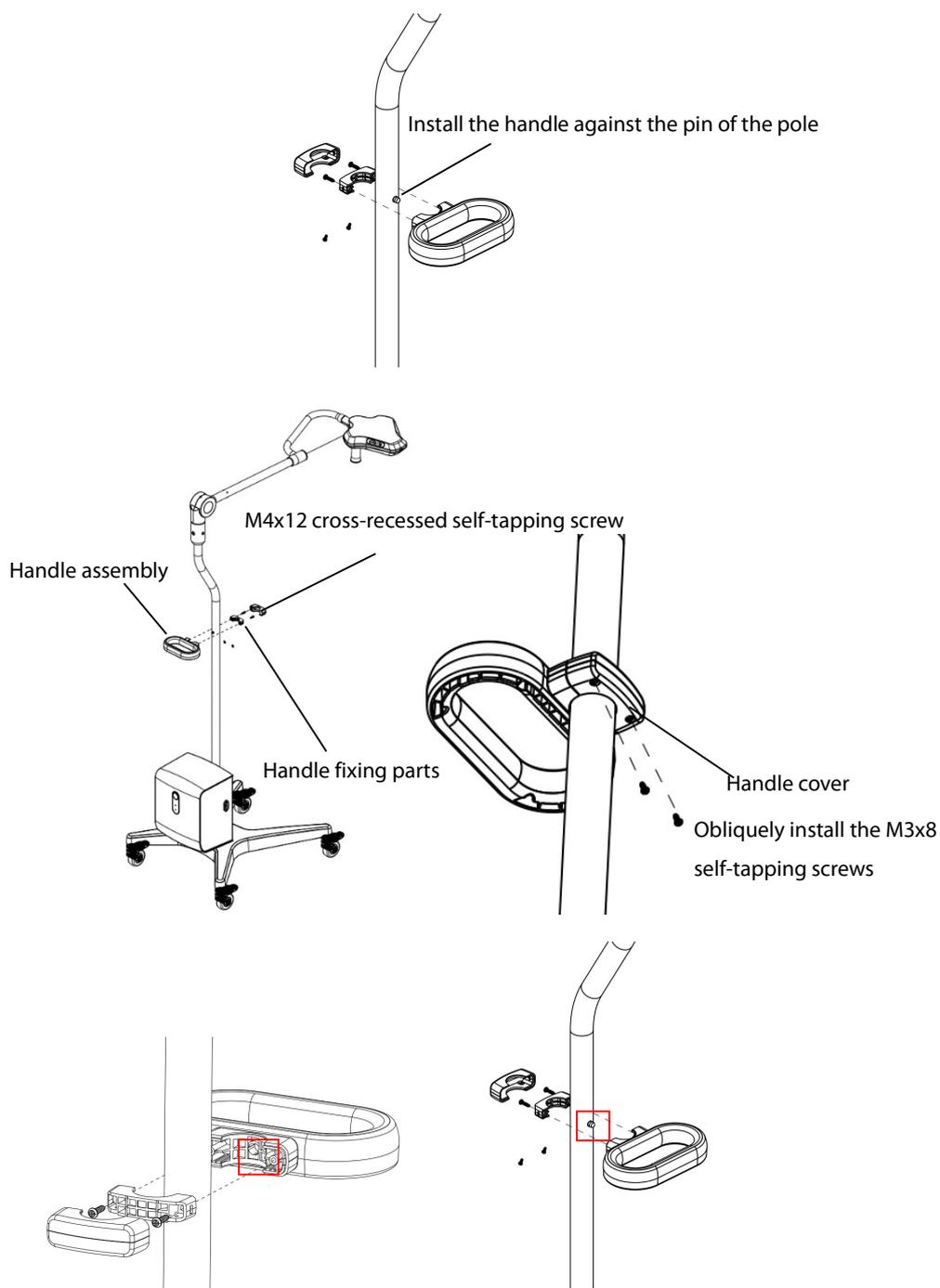


Figure 39 Installing the handle

9. Remove the retaining screws of the lighthead.

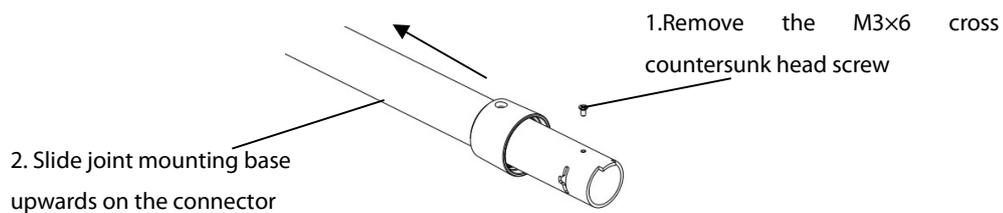


Figure 40 Removing the retaining screws

10. Install the lighthouse.

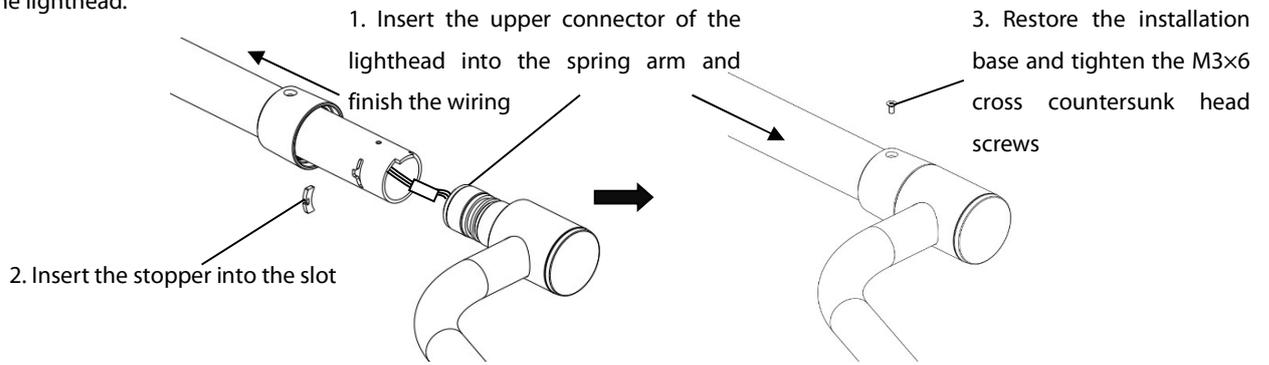


Figure 41 Installing the lighthouse

11. Install the central handle.

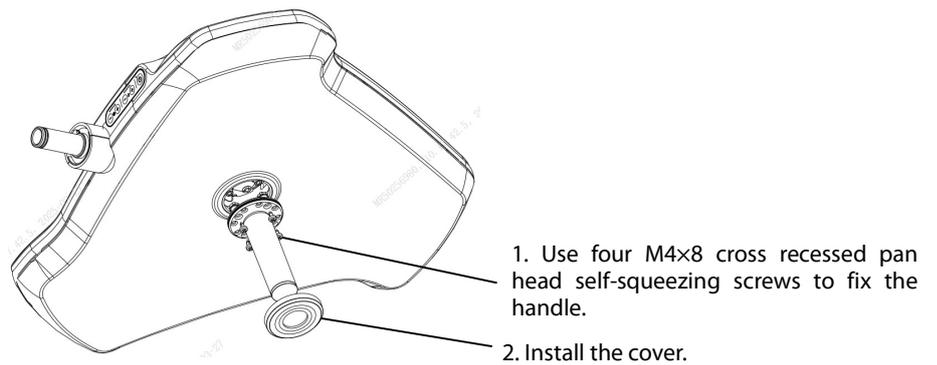


Figure 42 Installing the central handle

IV. Adjustment

Check whether the light works properly. Check whether the functions of the buttons on the touch keypad are normal, as shown in the following figures. Check the status of the lighthouse through the status indicators. Pull the lighthouse up, down, left and right to check if it rotates normally and the limit position is normal.



- 1. Standby
- 2. Power-on indicator
- 3. Illuminance up
- 4. Illuminance level indicator
- 5. Illuminance down

- 1. Standby
- 2. Power-on indicator
- 3. Illuminance up
- 4. Illuminance level indicator
- 5. Illuminance down
- 6. Light field size up
- 7. Light field indicator
- 8. Light field size down

Figure43

V. Exploded view of VeLED E3M

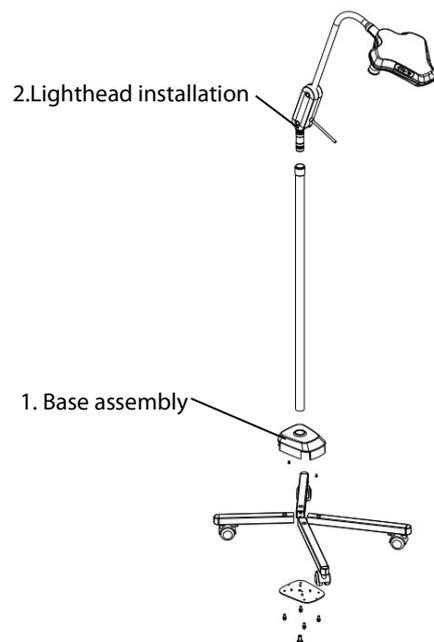


Figure44

1. Fix the foot of the base with the chassis.

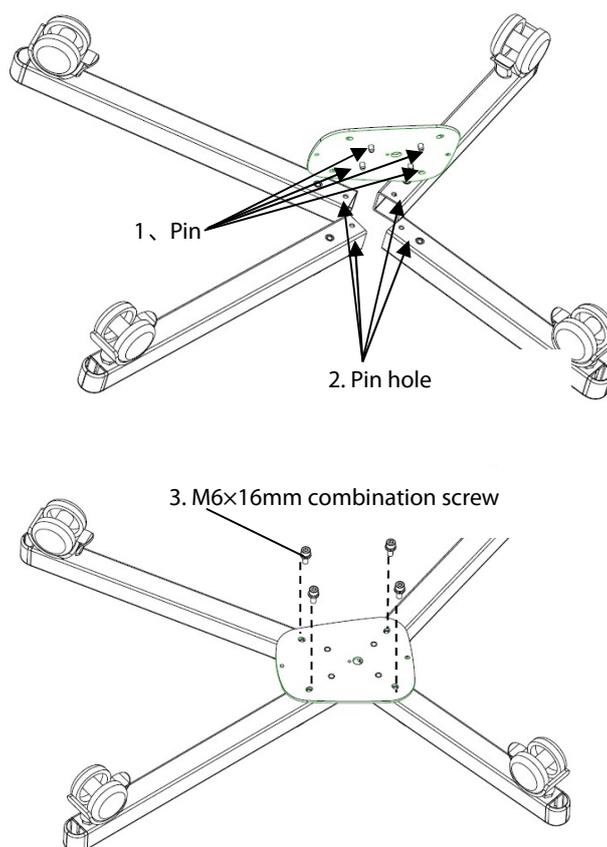


Figure 45 Installing the base foot

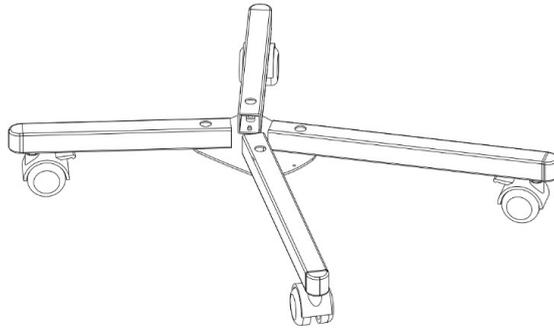


Figure 46 Installed base foot

2. Fix the pole onto the base.

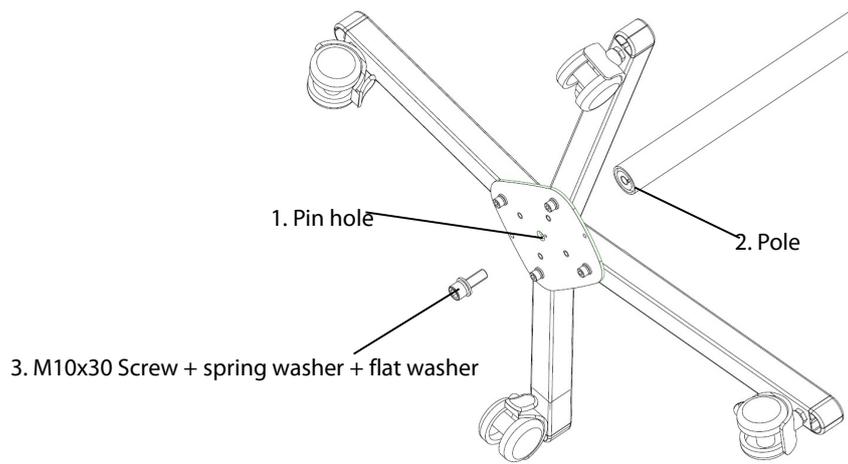


Figure 47 Installing the pole onto the base

3. Remove the protective cover on the pole.

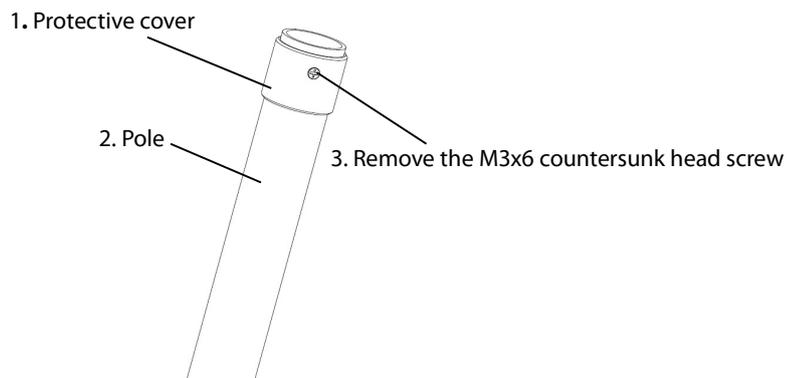


Figure 48 Removing the protective cover

4. Fix the base cover on the chassis.

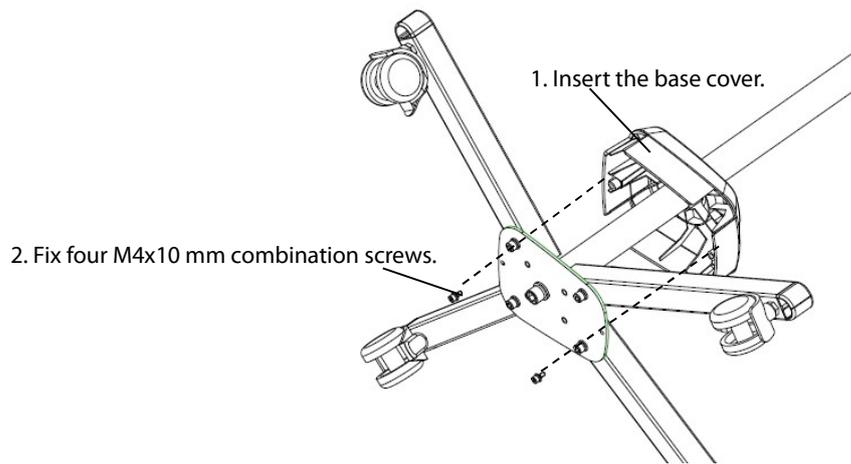


Figure 49 Installing the cover

5. Fix the flexible arm.

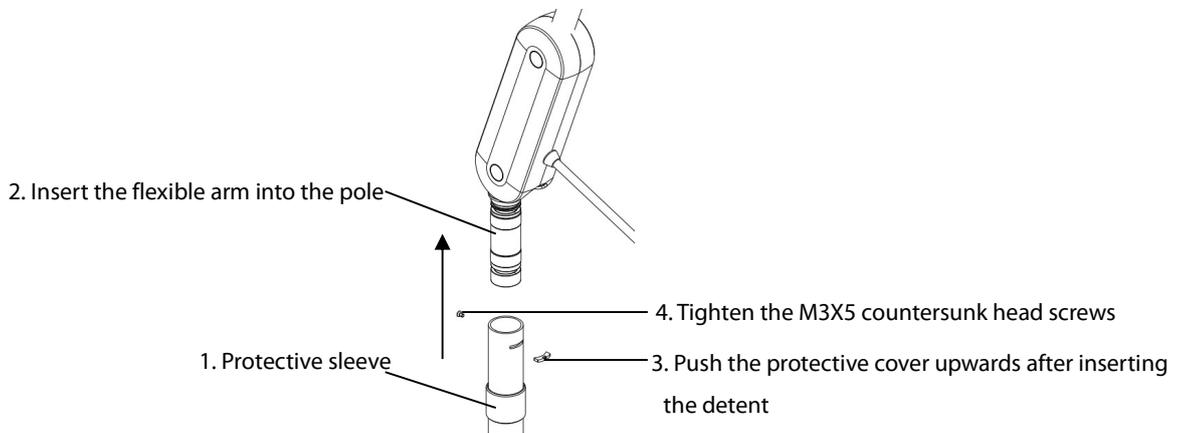


Figure 50 Fixing the flexible arm

6. The following figure shows the overall effect of the installed light.

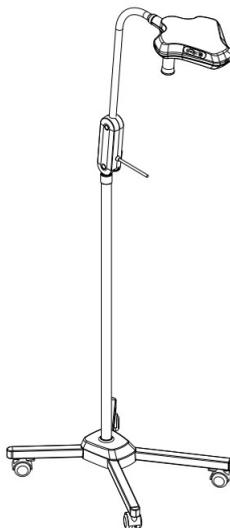


Figure 51

7. Install the central handle.

The installation method of the VeLED E3M central handle is the same as that of the VeLED S5M/VeLED S3M central handle.

VI. Adjustment

Check whether the light works properly. Check whether the functions of the buttons on the touch keypad are normal, as shown in the following figures. Check the status of the lighthouse through the status indicators. Pull the lighthouse up, down, left and right to check if it rotates normally and the limit position is normal.

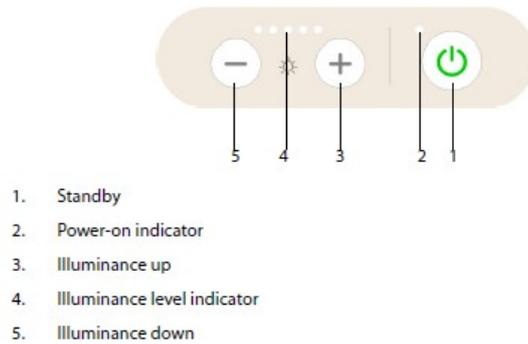


Figure52

