



PENTALED 12 PENTALED 28 QUATTROLUCI LED SATURNO-LED

MINOR SURGICAL LUMINAIRE (TREATMENT LUMINAIRE)

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Introduction

Marking (E

Compliance

Validity of manual

Customer Service

Copyright

Translations

Please read this manual carefully before using the Product, so as to protect "the Technical Service Personnel" and "the Operator" from any injury.

This appliance is a Class I medical device pursuant to REGULATION (EU) 2017/745 on medical devices (Annex VIII) as amended and integrated.

The manufacturer declares that this Product complies with Annex I (General Safety and Performance Requirements) of REGULATION (EU) 2017/745 as amended and integrated and certifies such conformity by affixing the CE marking.

This installation manual is valid for the following models:

- PENTALED 12 in single ceiling, double ceiling, wall and mobile versions:
- PENTALED 28 in single ceiling, double ceiling, wall and mobile versions:
- QUATTROLUCI LED in single ceiling, double ceiling, wall and mobile versions;
- SATURNO-LED in single ceiling, double ceiling, wall and mobile versions.

The customer service is at your disposal in case of Product details, information concerning its use, identification of spare parts being required and for any other queries you might have concerning the appliance, for ordering spares and for matters relating to assistance and warranty.

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The original language of this manual is ITALIAN. For all translations, reference must be made to the original manual language.

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EN

PRODUCT

OPERATOR

RESPONSIBLE ORGANIZATION

TECHNICAL SERVICE PERSONNEL

KEY

The ME (Medical Electrical) EQUIPMENT to which this manual refers is a **MINOR SURGICAL LUMINAIRE** (TREATMENT LUMINAIRE). For ease of description, in this manual this ME EQUIPMENT will be called "**Product**".

Professional medical personnel (e.g., professional health personnel, expert person assisting the patient).

Entity accountable for the use and maintenance of an ME equipment or ME system (e.g., a hospital, an individual doctor or a non-expert person). Preparation and awareness are included in use.

The personnel (individuals or entity accountable to the responsible organization) that installs, assembles, maintains or repairs the equipment. Under certain circumstances, the safety of such persons depends on their knowledge and awareness and ability to take appropriate precautions when gaining access to hazardous parts partially. By way of example only, the following professional figures are deemed as SERVICE PERSONNEL:

- ⇒ Construction Engineer, Draughtsman, Building firm duly registered in the professional Register (for the masonry works)
- ⇒ Electrical Engineer Electro-technical expert qualified to work as an electrician (for the electrical works)

For the installation phase, as regards assembly operations only, a qualified person is deemed whosoever has attended a course organized by RIMSA or, alternatively, whosoever has carefully read the manual.

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1 GENERAL SAFETY INFORMATION

This manual is an integral part of the Product as indicated by REGULATION (EU) 2017/745 and subsequent amendments and supplements. Read and keep this manual close to the Product.

- The Product is not suitable for use in explosion-risk areas.
- The Product is not suitable for use wherever there are inflammable mixes of anaesthetics with air, oxygen or N₂O (laughing gas).
- The Product is not suitable for use in environments rich in oxygen and use is not intended in the presence of inflammable agents.

RIMSA disclaims all liability for any injury to persons or damage to things caused by the Product having been installed by persons who are not "TECHNICAL SERVICE PERSONNEL".

The RESPONSIBLE ORGANIZATION is entirely responsible for Product installation activities; no costs or responsibilities relating to the installation and/or commissioning of the Product may therefore be traced back and/or in any case attributed to RIMSA.

The ceiling or wall masonry works for Products to be installed on ceilings or walls, and the electrical works for supplying power to the Product shall be carried out in a workmanlike manner by TECHNICAL SERVICE PERSONNEL to ensure these are sturdy and safe.



Electric shock hazard.

The electrical system in the premises must conform to IEC 60364-7-710 standard and any national regulations. A master switch must be installed with fuse or thermal magnetic circuit breaker to be able to interrupt power to the Product.

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Installation
Use
Cleaning
Routine maintenance

Special maintenance

Assistance Demolition

Packing

Transport

Storage

Installation premises

2 General information

2.1 Operator qualifications

Qualification of personnel in charge of operating on the Product: Installer and/or qualified technician.

Professional medical personnel.

Properly trained medical and paramedical personnel.

Qualified technician with required technical-professional skills.

RIMSA or technical service personnel, the latter only for the fuse change.

RIMSA or authorized Dealer.

Comply with applicable laws on waste disposal. This product must not be disposed of in standard waste disposal bins. To avoid risks for the environment and health deriving from the dispersion of polluting substances in the environment, separate the various internal component parts such as iron, aluminium, plastic and electrical material, and dispose of these through authorized channels so as to ensure correct recycling.

2.2 Packaging, transport, storage and characteristics of installation premises

Cardboard boxes containing Product. Dispose of these in compliance with national directives applicable for waste disposal.

Product transport is done by land, sea or air according to the following characteristics:

Temperature (°C): -15 / +60

Humidity: 10 / 95 %

Atmospheric pressure (h/Pa): 500 / 1060

The packaged Product must be stored (warehoused) in dry premises having the following characteristics:

Temperature (°C): -15 / +60

Humidity: 10 / 95 %

Atmospheric pressure (h/Pa): 500 / 1060

The premises where the Product is started up must have the following characteristics:

Temperature (°C): +10 / +40

Humidity: 30 / 75 %

Atmospheric pressure (h/Pa): 700 / 1060

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2.3 Graphic signs and symbols used in the installation manual

The following safety measures must be put in place during Product installation, use and servicing.

To emphasize their importance, a number of safety precautions are repeated throughout the manual.

Follow the safety precautions before using or repairing the Product. Carefully abiding by the safety precautions improves the ability to use the Product safely and correctly and helps prevent incorrect maintenance which could be hazardous and cause damage. The safety measures are approximate and not exhaustive; the Operator, the Responsible Organization and the Technical Service Personnel must develop their capacities to upgrade and integrate them.

General warning signal

General mandatory code of conduct signal

General prohibition signal

2.4 Graphic symbols used on packaging

List of symbols on packaging boxes:

This side upwards

Fragile

Protect from rain

Do not stack packaging

Weight of packaging

Humidity to be complied with (max limit at top right and min limit at bottom left)

Pressure to be complied with (max limit at top right and min limit at bottom left)

Limit temperature (max limit at top right and min limit at bottom left)









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'N'

'L'

1

'O'





2.5 Graphic symbols used on the Product

Below are the symbols to be found on the Product:

CE marking indicating the Product complies with REGULATION (EU) 2017/745 and subsequent amendments and supplements

Date of manufacture (month and year)

Manufacturer's address

Fuses used in the device

Comply with the instructions for use

Medical Device

Reference number

Serial number

Disposal

Protection earth

Neutral lead connection point

Line lead connection point

ON

OFF

Standby and switch-on

No stepping on surface

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2.6 Warranty and liabilities

RIMSA disclaims all liability as regards unreliable Product operation in the following cases:

- Installation, authorized modifications and repairs have not been performed by TECHNICAL SERVICE PERSONNEL.
- The Product has not been used for its intended purpose and in conformity with the operating instructions (see operation manual).
- The premises have not been approved for healthcare activities.
- The premises are not built in conformity with the law and applicable regulations.
- The electrical system in the premises is not in compliance with appropriate requirements.

2.7 Structural changes or variations

No arbitrary structural changes or variations to the Product are admitted. Any modifications must have the prior written authorization of RIMSA. In case of the Product having been tampered with, the warranty shall be invalidated and the manufacturer disclaims all liability for any injuries or damage caused to the OPERATOR, the RESPONSIBLE ORGANIZATION and the TECHNICAL SERVICE PERSONNEL.

3 Instructions on how to prepare the premises mechanically and electrically

3.1 Preparing the premises mechanically (ceiling and wall version)

The masonry works for preparing the ceiling to install the Product must be sturdy and safe and performed in a workmanlike manner according to applicable building regulations.

By way of example only, the professional persons charged with completing the masonry works are: Construction Engineer, Draughtsman, Building firm, duly registered in a professional register.

In case of wrong perforation of the Product supporting wall (e.g., the breakage of a reinforced-concrete ceiling/wall iron) always inform the building manager as this could affect the stability of the building.

The ceiling must be able to withstand a weight of at least 300 kg/m² and have a thickness of at least 250 mm.

For the wall version, the wall must be a supporting wall and be made of solid brick. Installation on walls made of hollow bricks and plasterboard is only allowed with the fitting of another plate on the opposite side of the wall (sandwich closing).

CAUTION



Carry out safe masonry works.



Collapse of the building structure.



Make sure that ceiling or wall is adequate.

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The Product installation premises must conform to local building standards.

After making sure the premises used for medical purposes are in conformity with the above requirements, proceed to mechanically anchor the ceiling or wall plate, assessing the type of building and making all consequent adaptations.

The TECHNICAL SERVICE PERSONNEL have all technical, civil and legal responsibility relating to correctly and suitably performing Product anchoring and installation operations in a workmanlike manner.

3.2 Correctly wiring up the premises

The premises used for medical purposes must be safely wired up in a workmanlike manner by TECHNICAL SERVICE PERSONNEL to power the Product.

Before installing the Product, the TECHNICAL SERVICE PERSONNEL must make sure the following conditions exist:

- The wiring system of the environment (premises) in which installation is made must be in conformity with regulations for premises used for medical purposes and with applicable national laws and/or regulations.
- The electrical system must have a certificate of conformity issued by whosoever installed it.

The earth system must be certified as required by applicable regulations.

Wall and mobile version lamps feature a green light switch for general switching on and off.

In case of single and double ceiling versions position the thermal magnetic switch near the Product so that it can be switched off in case of need.

In case of wall and mobile versions do not position the device so it is hard to reach and remove the power plug in case of an emergency.

4 Product installation

Before proceeding to install the Product, first of all check the presence of all the packaging and that this is in good condition and has not been damaged during transport.

Claims will only be taken into consideration if the seller or carrier has been immediately notified. All claims must be made in writing. Goods always travel under the responsibility and at the risk of the buyer.

Keep the original packaging in case the Product has to be redispatched.

Personnel required:





Carry out safe electrical works.



Make sure that the electrical environment complies with the law.

Main switch

CAUTION

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Necessary protection equipment:

- Safety eyewear
- Gloves
- Accident-prevention footwear

Special equipment:

- Drill (ceiling and wall versions only)
- Set of hexagon spanners
- Screwdriver
- Circlip pliers
- Ladder (ceiling and wall versions only)
- Standard manual tools
- Saw with metal blade (ceiling version only)
- Set of drill bits (ceiling and wall versions only)

After installation, the Product must be tested by Technical Service Personnel before being used.

4.1 Parts included in the package

The Product is supplied complete with lamp, sterilisable handpiece, bar tube 1100mm long, bar plate, counter-plate for fastening to the ceiling, bar cover with relative safety ring and nuts for bar fastening. RIMSA does not provide any kind of anchoring for fastening the plate to the ceiling. Such equipment must all be provided by the installer.

The Product is supplied complete with lamp, sterilisable handpiece, wall plate with switchboard and HAM M6x50 wall plugs.

The Product is supplied complete with lamp, sterilisable handpiece, stem, wheeled base and plastic base cover.

4.2 Ceiling and wall drilling instructions

For ceiling installation, the length of the bar varies according to the height of the premises in which the Product is installed.

The length of the bar is calculated to install the Product at a finished height off the floor of around

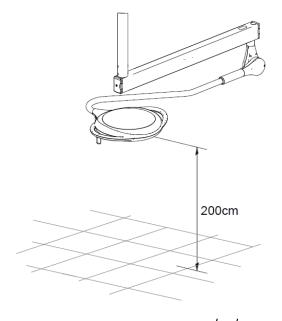
200 cm (as per drawing next), unless otherwise requested by the RESPONSIBLE ORGANIZATION.

Ceiling version

Wall version

Mobile version

Fixing positions

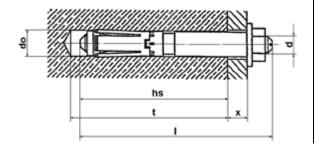


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EN

Reinforced concrete Mechanical anchoring



By way of example only, below is a list of some types of walls: Proceed to fasten the wall plate using 8 x Hilti HSL-3-G M8/20 screw anchors (6 x HAM M6x50 anchors for the wall version) or other anchors with similar characteristics, carefully following the instructions provided by the anchor manufacturers and shown below for information purposes:

do Nominal drill bit Mt Closing bending moment

diameter

t Minimum drilling depth Sw Wrench opening

hs Minimum insertion x Fastening height

depth

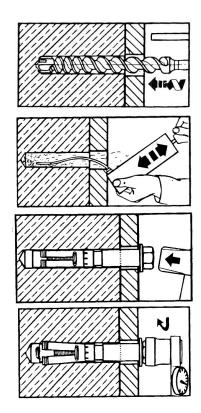
I Anchor tie-rod length

| Anchor tie-rod | do (mm) | t (mm) | hs (mm) | l (mm) | Mt (Nm) | sw (mm) | x (mm) |
|----------------|------------|-----------|------------|-----------|------------|------------|-----------|
| HSL-3-G M 8/20 | 12 | 80 | 60 | 98 | 25 | 13 | 20 |
| HAM M6x50 | 12 | 65 | 40 | 50 | 10 | 10 | 20 |

- 1. Apply the paper template at the Product installation point and mark the fastening hole points with a pencil.
- 2. Make the holes in the ceiling in accordance with the anchoring tie-rod manufacturer's specifications.
- 3. Using a pump or a vacuum cleaner, remove the drilling residues and dust from the hole.
- 4. Fasten the bar/plate to the ceiling/wall and, using a hammer, insert the anchoring tie-rod in the hole.

Attention!
Check the fitting depth

- Using a torque wrench, tighten the anchorage to the tightening force indicated by the screw anchor manufacturer.
 The anchorage will immediately bear the weight.
- 6. Proceed in the same way for the remaining anchors.



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Chemical anchoring

Hollow-core concrete

Ceiling version



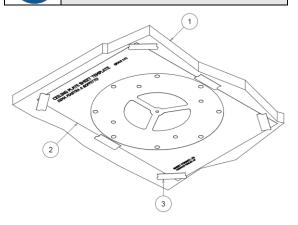
Do not install the Product on unsuitable ceilings.

Wall version



Do not install the Product on unsuitable walls.

Make sure the Product is stable.



7. After one hour, again tighten the tie-rods to the prescribed tightening torque.

Drill the ceiling/wall using the template provided. Insert the resin inside the 8/6 drilled holes and fill the hole, carefully following the manufacturer's instructions. RIMSA recommends using HILTI HIT-HY 270 resin or similar products.

Fit 8/6 threaded bars into the holes. RIMSA recommends M8 bars for ceiling versions and M6 for wall versions. Proceed to fasten the ceiling plate with nuts and locknuts for each tie-rod and tighten using the Allen key.

In this case the ceiling must be sandwich closed by means of the ceiling/wall plate and counter-plate, being careful to include at least one rafter.

The plate and counter-plate must be fastened together using suitable M8 threaded steel bars, blocked at the top and bottom ends by relative washers, nuts and locknuts.

The Product is supplied complete with wall plate and HAM M6x50 wall plugs.

4.3 Instructions for ceiling version of **Product**

4.3.1 Installation of the ceiling plate and bar

Make sure the bar (anchoring tube) is perfectly level to ensure the Product is stable.

Position the template (drawing 51) (2) on the ceiling (1) and secure it with adhesive tape (3).

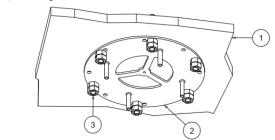
Make the holes according to indications in paragraph 4.2.

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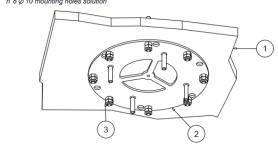


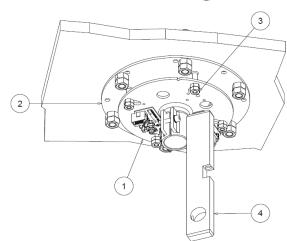
EN

 $n^{\circ}6 \not O 16$ mounting holes solution



n°8 Ø 10 mounting holes solution





Fasten the counter-plate (2) to the ceiling (1) using the nuts and locknuts (3).

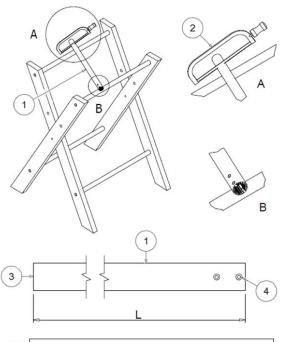
Fasten the bar (1) to the threaded pins of the ceiling counter-plate (2) using the nut and locknut (3). Using a spirit level (4), make sure the bar is correctly fastened.

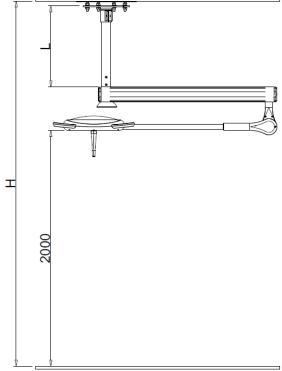
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PENTALED 12/28





4.3.2 Arrangement bar single ceiling version

The bar (1) is supplied in standard length 1100 mm. Using the saw (2), cut the tube to the desired size according to the height of the room (make the cut on the side of the tube (3), opposite to that bearing the fastening holes (4) of the horizontal arm).

To determine the correct length of the tube, use the chart shown (suggested installation height is 2000 mm). It is not advisable to cut the bar to a length below 300 mm to avoid covering installation problems.

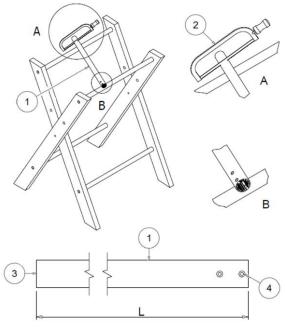
| H [mm] | L [mm] |
|--------|--------|
| 2535 | 300 |
| 2635 | 400 |
| 2735 | 500 |
| 2835 | 600 |
| 2935 | 700 |
| 3035 | 800 |
| 3135 | 900 |
| 3235 | 1000 |
| 3335 | 1100 |

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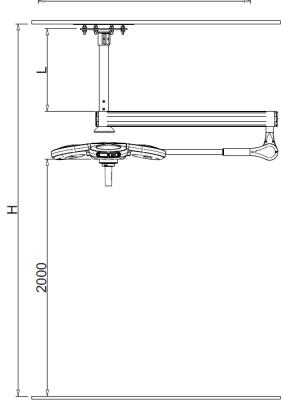
QUATTROLUCI LED



The bar (1) is supplied in standard length 1100 mm. Using the saw (2), cut the tube to the desired size according to the height of the room (make the cut on the side of the tube (3), opposite to that bearing the fastening holes (4) of the horizontal arm).

To determine the correct length of the tube, use the chart shown (suggested installation height is 2000 mm). It is not advisable to cut the bar to a length below 300 mm to avoid covering installation problems.

| H [mm] | L [mm] |
|--------|--------|
| 2550 | 300 |
| 2650 | 400 |
| 2750 | 500 |
| 2850 | 600 |
| 2950 | 700 |
| 3050 | 800 |
| 3150 | 900 |
| 3250 | 1000 |
| 3350 | 1100 |

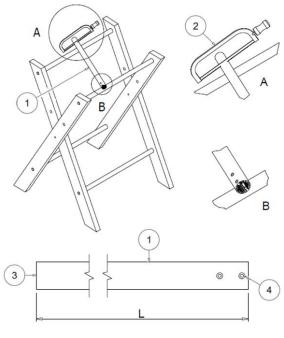


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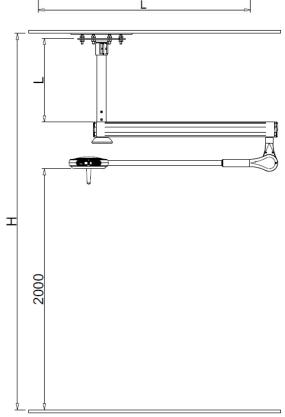
SATURNO-LED



The bar (1) is supplied in standard length 1100 mm. Using the saw (2), cut the tube to the desired size according to the height of the room (make the cut on the side of the tube (3), opposite to that bearing the fastening holes (4) of the horizontal arm).

To determine the correct length of the tube, use the chart shown (suggested installation height is 2000 mm). It is not advisable to cut the bar to a length below 300 mm to avoid covering installation problems.

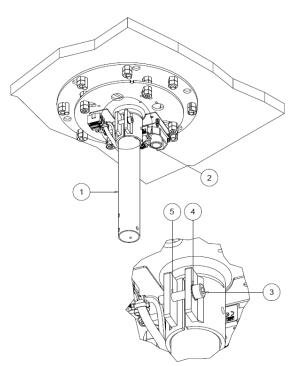
| H [mm] | L [mm] |
|--------|--------|
| 2545 | 300 |
| 2645 | 400 |
| 2745 | 500 |
| 2845 | 600 |
| 2945 | 700 |
| 3045 | 800 |
| 3145 | 900 |
| 3245 | 1000 |
| 3345 | 1100 |



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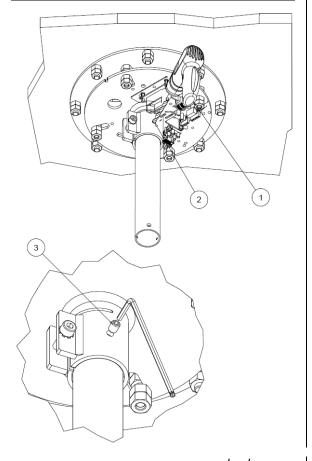
4.3.3 Installation of bar, switchboard and cover single ceiling version

Insert the connection cables coming from the switchboard into the anchoring tube (1) (with cut side upwards) and the anchoring tube (1) flush with the ceiling plate hub (2).

To block the tube, tighten the screw (3) with the toothed washer (4) in the threaded hole (5). Tightened this way, the hub will ensure that the tube is sealed.



Product falling hazard.

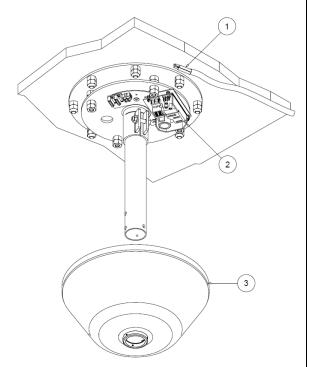


Using a drill (1), make a 6 mm diameter hole on the tube where the M8 hole (2) is located on the plate hub. Then fit and tighten the tapered tip M8 dowel (3) until this presses on the previously made hole.

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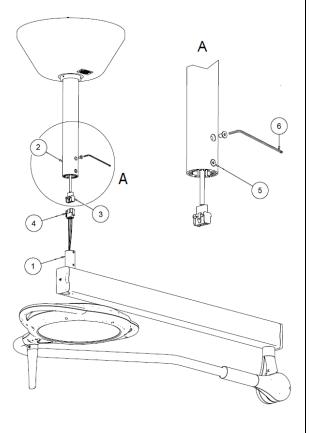






Make sure the mains power cable (1) reaches the Product power board (2).

Before proceeding position the cover (3).



4.3.4 Installation of structure to bar single ceiling version

Align the pin of the horizontal arm (3) with the bar (4). Connect the connectors (1) and (2).

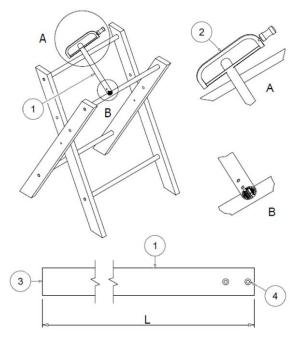
Fit the pin in the tube, making it coincide with the retention holes and, using a hexagon spanner (6) secure it with screws (5).

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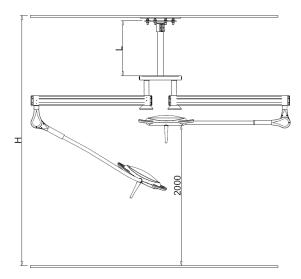


PENTALED 12/28



4.3.5 Arrangement bar double ceiling version

The bar (1) is supplied in standard length 1100 mm. Using the saw (2), cut the tube to the desired size according to the height of the room (make the cut on the side of the tube (3), opposite to that bearing the fastening holes (4) of the horizontal arm).



To determine the correct length of the tube, use the chart shown (suggested installation height is 2000 mm). It is not advisable to cut the bar to a length below 300 mm to avoid covering installation problems.

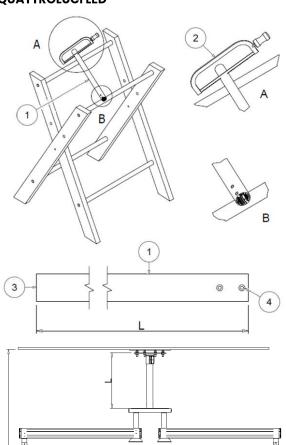
| H [mm] | L [mm] |
|--------|--------|
| 2680 | 300 |
| 2780 | 400 |
| 2880 | 500 |
| 2980 | 600 |
| 3080 | 700 |
| 3180 | 800 |
| 3280 | 900 |
| 3380 | 1000 |
| 3480 | 1100 |

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QUATTROLUCI LED



The bar (1) is supplied in standard length 1100 mm. Using the saw (2), cut the tube to the desired size according to the height of the room (make the cut on the side of the tube (3), opposite to that bearing the fastening holes (4) of the horizontal arm).

To determine the correct length of the tube, use the chart shown (suggested installation height is 2000 mm). It is not advisable to cut the bar to a length below 300 mm to avoid covering installation problems.

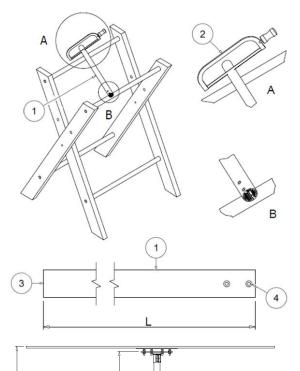
| H [mm] | L [mm] |
|--------|--------|
| 2695 | 300 |
| 2795 | 400 |
| 2895 | 500 |
| 2995 | 600 |
| 3095 | 700 |
| 3195 | 800 |
| 3295 | 900 |
| 3395 | 1000 |
| 3495 | 1100 |

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SATURNO-LED



The bar (1) is supplied in standard length 1100 mm. Using the saw (2), cut the tube to the desired size according to the height of the room (make the cut on the side of the tube (3), opposite to that bearing the fastening holes (4) of the horizontal arm).

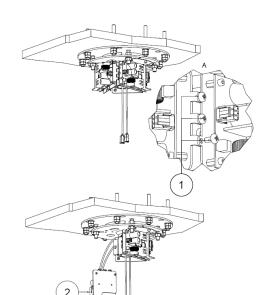
To determine the correct length of the tube, use the chart shown (suggested installation height is 2000 mm). It is not advisable to cut the bar to a length below 300 mm to avoid covering installation problems.

| H [mm] | L [mm] |
|--------|--------|
| 2690 | 300 |
| 2790 | 400 |
| 2890 | 500 |
| 2990 | 600 |
| 3090 | 700 |
| 3190 | 800 |
| 3290 | 900 |
| 3390 | 1000 |
| 3490 | 1100 |

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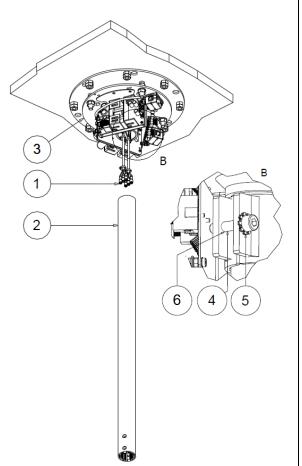






4.3.6 Installation of bar, switchboard and cover double ceiling version

To ease the tiges tube installation, unscrew the 3 screws of the switchboard (1) and leave the plate with the power supply to one side (2).



Insert the cables (1) into the anchoring tube (2) and the anchoring tube (2) flush with the ceiling plate hub (3).

To block the anchoring tube (2), tighten the screw (4) with the toothed washer (5) in the threaded hole (6). Tightened this way, the hub will ensure that the tube is sealed.

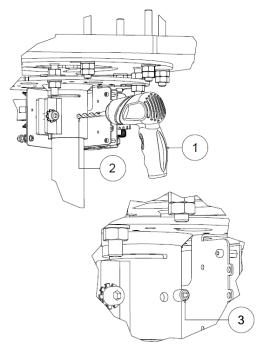
<u>^</u>

Product falling hazard.

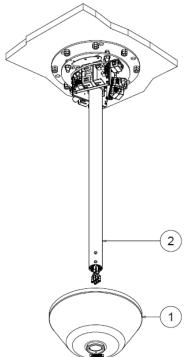
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Using a drill (1), make a 6 mm diameter hole on the tube where the M8 hole (2) is located on the plate hub; then fit and tighten the tapered tip M8 dowel (3) until this presses on the previously made hole.



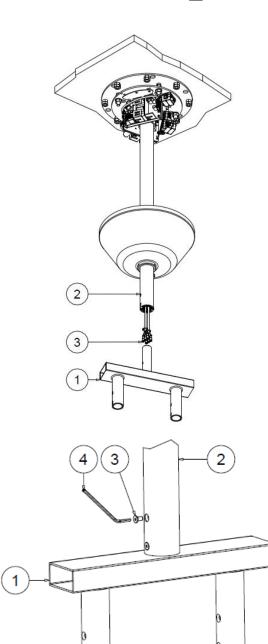
Now insert the covering of the switchboard (1) on the anchoring tube (2).

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Take the double coupling joint (1) and, passing the cables (3) through the central pin, insert it into the tiger tube (2).

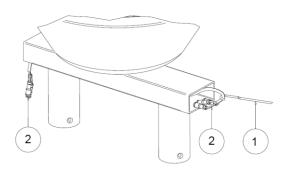
Using a hexagonal spanner (4), fix the double joint (1) to the tiger tube (2) by tightening the screws (3).

Then put back in place the plate with the power supply (1) and screw the 3 screws of the switchboard (2) and to one side (2).

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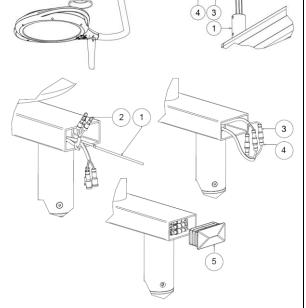


With a hook (1) extract the cables coming from the anchoring tube (2) from both sides of the horizontal tube.

4.3.7 Installation of structure to bar double ceiling version

Align the pin of the horizontal arm (1) with the hub of the anchoring tube (2).

Fit the pin in the tube, making it coincide with the retention holes and, using a hexagon spanner (4) secure it with screws (3). Repeat the procedure for the second arm of the Product.



With a hook (1) extract the cables coming from the horizontal arm (2) and connect the connectors (3) and (4), according to the colors. Repeat the procedure for the second arm of the Product.

After completing installation, place cables and connector inside the

horizontal arm and close the openings using the plastic caps (5).

4.3.8 Electrical connection

<u>^</u>

Electric shock hazard.



Strictly follow the wiring diagram for the correct connection.



For wiring connections in the ceiling version, use a cable suitable for at least 105°C and connect the ground lead to the terminal provided.

Before completing the installation, it is necessary to connect the electrical system. To avoid any risk of electric shocks, the Product must only be connected to mains supplies with earth protection.

Before making the Product power connections, make sure the mains supply line has been interrupted.

RIMSA does not supply the mains supply cables.

The electronic panel could is installed on the anchoring tube.

The line and neutral cables (L, N) from the power line have to be connected into the terminal 1 and 2 for single light head lamps and for double light heads to the terminals 1 and 2, 3 and 4.

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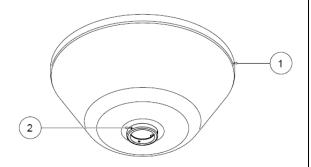




comply with the line and neutral connection indications. An inverted connection would lead to the lack of fuse protection.



Failure to connect the earth cables would prevent the safety of the Product.



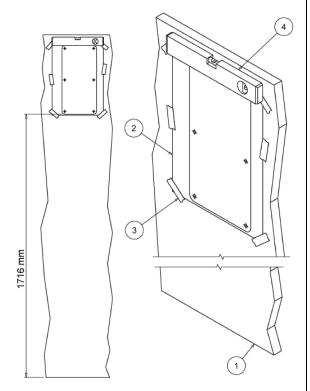
Connect the wires (red and black) to the 3 and 4 terminals in case of single light head lamps and in case of double light head lamps to the terminals 5 and 6, 7 and 8. Follow always the colors and numbers on cables and terminals.

Always connect earthing cables $(\stackrel{\frown}{=})$ of lamp and net into the related terminals.

Once the electrical connection is completed, place the cover (1) against the ceiling and fix with the 3 conical-tipped screws (2).



Make sure the product is stable.



4.4 Installation of Product in wall version

4.4.1 Installation of plate with wall switchboard

Make sure the wall plate is fastened level, so the Product is in stable position.

Position the template sheet (2) (drawing 11) on the wall (1) and fasten it with adhesive tape (3), with the aid of a spirit level (4) to ensure levelling.

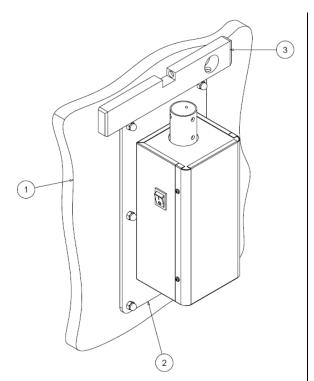
Make the holes as indicated in paragraph 3.1.

It is recommended to fix the plate at a height of about 1716 mm.

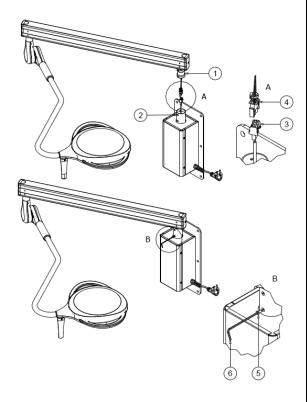
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Fasten the plate (2) to the wall (1) with the aid of a spirit level (3).



4.4.2 Installation of structure to plate

Align the pin of the horizontal arm (1) with the box tube (2). Connect the connectors (3) and (4).

Fit the pin in the tube, making it coincide with the holes, then using a hexagon spanner (6) secure it with screws (5).

4.4.3 Electrical connection

The Product power connection is by means of a plug integrated in the supply cable supplied with the Product, placed on the box.

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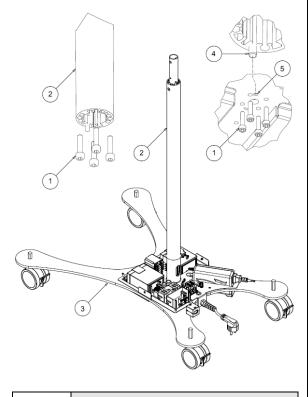
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4.5 Installation of Product in mobile version

4.5.1 Installation of lamp base

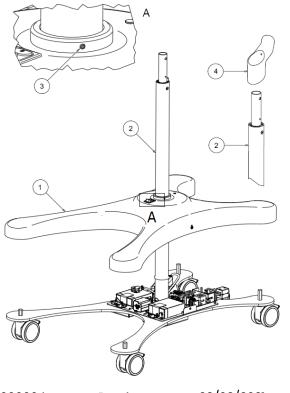
Remove the 4 screws (1) from the lower stem (2).

Position the lower stem (2) on the base (3), matching the centring pin (4) to the corresponding hole of the base (5); then fasten the 4 screws (1).





Instability and overturning hazard.



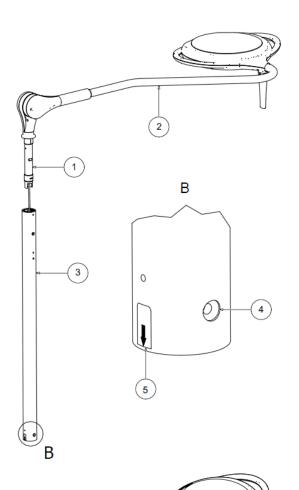
If the centring pin is not properly fitted in the corresponding hole of the base, the risk of instability could exist with possible Product overturning.

Insert the cover (1) along the lower stem (2), taking care to loosen the 3 conical-tipped screws (3) of the retaining ring. Then insert the cable reel (4) along the stem (2).

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4.5.2 Installation of swinging arm and head

Insert the connection cables and the swinging arm (1) of the lamp (2) into the upper stem (3), orientating it so that the 2 countersunk holes (4) and the label with arrow (5) are at the bottom of the stem.

Insert the swinging arm (1) completely into the upper stem (2), keeping it oriented as shown in the picture.

Assemble the parts by inserting and tightening the fixing screw (3); the screw must pass inside the rotation stop slots of the vertical tube of the swinging arm.

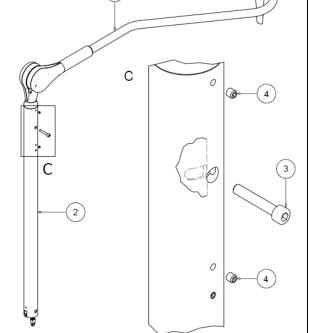
Attention!

An incorrect orientation of the stem will prevent its complete insertion.

Attention!

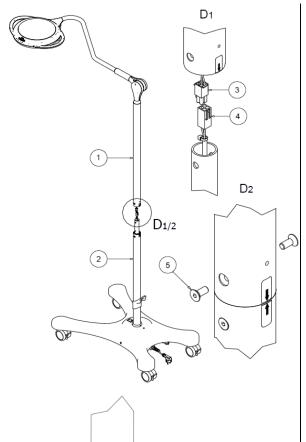
When inserting the screw, make sure not to crush the internal cables.

Then insert and lightly tighten the 2 friction dowels (4).









Align the upper stem (1) and the lower stem (2) and make the electrical connections (3) and (4).

Insert the upper stem along the connection pin.

Attention!

Couple the stems by orienting them so that the labels with arrows correspond.

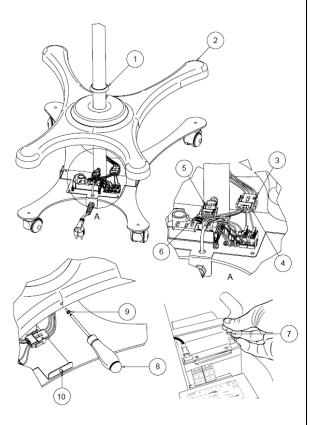
Then fasten with 2 screws (5).

Lift the cable reel (1) up to the joint between the two stems and secure it with a screw (2).

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4.5.3 Electrical connection

Lift the retaining ring (1) and the covering (2) by 30-40 cm to easily access the electrical section. Join the connectors (3) to (4) and (5) to (6).

For battery models connect the battery faston (7) that is disconnected

Once the electrical connection is completed, place the covering (2) in position and, using a screwdriver (8), fasten it by means of the screws (9) to be fastened to the threaded bush (10).

Finally, position the retaining ring (1) on the covering (2) and fix with the 3 conical-tipped screws.

The Product power connection is by means of a plug integrated in the supply cable supplied with the Product, placed on the box.

Fuses

PENTALED 12/28

QUATTROLUCI LED

SATURNO-LED

4.6 Protection fuses

Product power protection is ensured by an input fuse (L) in the ceiling version and by two input fuses (L, N) for the wall and floor version, T2AH 250V 5x20 type, which are already connected in the switchboard.

4.7 Handpiece fitting

Press the stop catches located parallel with the grip and insert the grip until the catches click into and are blocked in the hand-piece holes.

Insert the handpiece up tight on the support and turn it until the steel lever engages in its original place and rotation is blocked. Finally make sure the handpiece is well secured.

To fit the handpiece, turn it clockwise inside the threaded hole provided until it is up against the headpiece and rotation remains blocked.

4.8 Mechanical adjustments

The Product is supplied correctly clutched and balanced. To make movement adjustment, refer to the setting instructions shown in the operation and maintenance manual.

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4.9 First switch-on

To ensure the Product operates correctly, proceed as follows:

- 1. Make sure the power rating of the premises corresponds to that of the Product;
- 2. Fit the plug in the power socket of the premises wall and mobile versions only;
- 3. Close the switch upstream of the system;
- 4. Move the Product switch located on the base cover for the mobile version and on the power box for the wall version respectively to position "I" (ON);
- 5. Press the **O** keyboard positioned on the lower part of the Product cupola.
- 6. Make sure all LEDs and functions are working properly.

At the time of commissioning, perform the electrical tests and prescriptions indicated in the IEC 62353 standard.

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4.10 Check the result of Product installation and testing before use

Ticking the requirements listed below, if applicable to the Product version, is mandatory to ensure correct installation.

| 1. | Make sure the ceiling/wall is suitable for Product installation. | |
|-----|---|--|
| 2. | Using a spirit level, make sure the bar is perpendicular with the ceiling or that the wall plate is horizontal with the wall. | |
| 3. | Make sure the bolt is tight on the plate hub to fasten the bar. | |
| 4. | Make sure the hole has been made properly and that the safety dowel has been fitted on the bar. | |
| 5. | Make sure the screws sustaining the horizontal arm are tight (ceiling and wall versions). | |
| 6. | Make sure the stem guide is correctly fitted in the base centring slot (mobile version). | |
| 7. | Check the Product earth connection and make sure the clamps are well tightened. | |
| 8. | Check the correct rotation of the articulated joints and mechanical movements. | |
| 9. | Adjustment and rotation movements must be carefully clutched to ensure the Product is stable and maintains its | |
| ın | position. Make sure the Product emits light. | |
| | | |
| Stc | amp and signature of TECHNICAL SERVICE PERSONNEL: | |
| | | |

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5 Troubleshooting



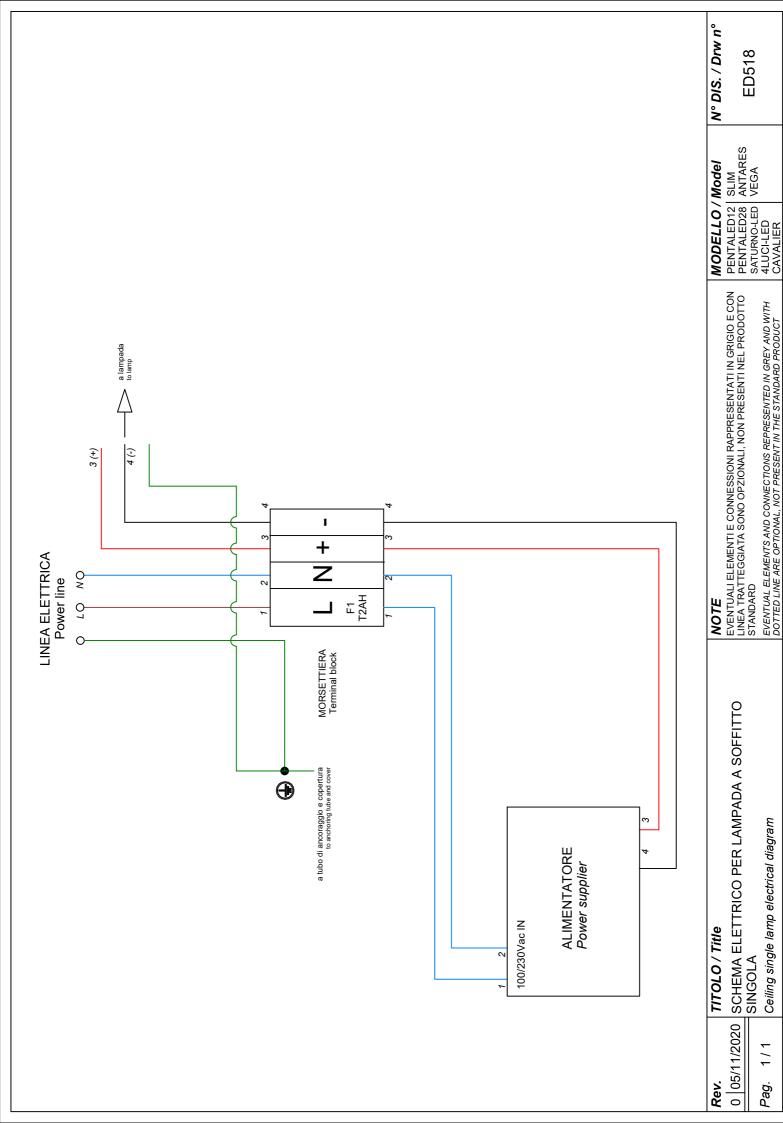
Possible Product damage.



Presence of dangerous voltage.

| N. | Problem | Solution |
|----|---|--|
| 1 | The Product fails to remain in stable position | Make sure the instructions in this manual, in the "Product installation" paragraph, have been correctly followed. Refer to setting instructions in section 7 of the operation and maintenance manual. |
| 2 | The Product fails to work | Make sure fuses have been fitted inside the terminal board. Make sure the electrical connectors are fitted. Check if there is voltage inside the Product. |
| 3 | The fuse continues to burn out | Check the specifications of the fitted fuses. |
| 4 | The light flickers and produces a stroboscopic effect | Contact the after sales service. |
| 5 | The Product does not switch on | Check the supply power voltage and check the fuses. The electronics are faulty: contact the after sales service. |

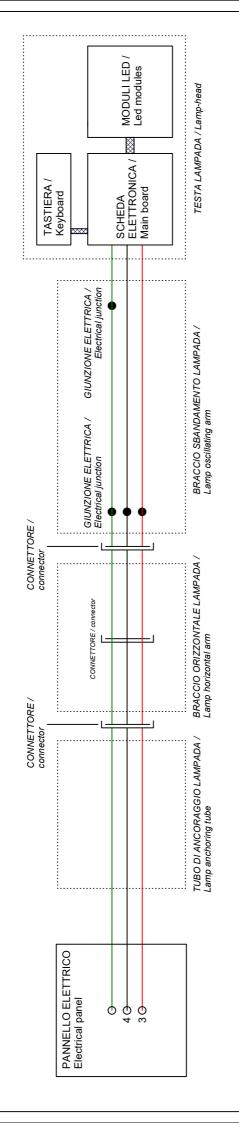
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EVENTUAL ELEMENTS AND CONNECTIONS REPRESENTED IN GREY AND WITH DOTTED LINE ARE OPTIONAL, NOT PRESENT IN THE STANDARD PRODUCT

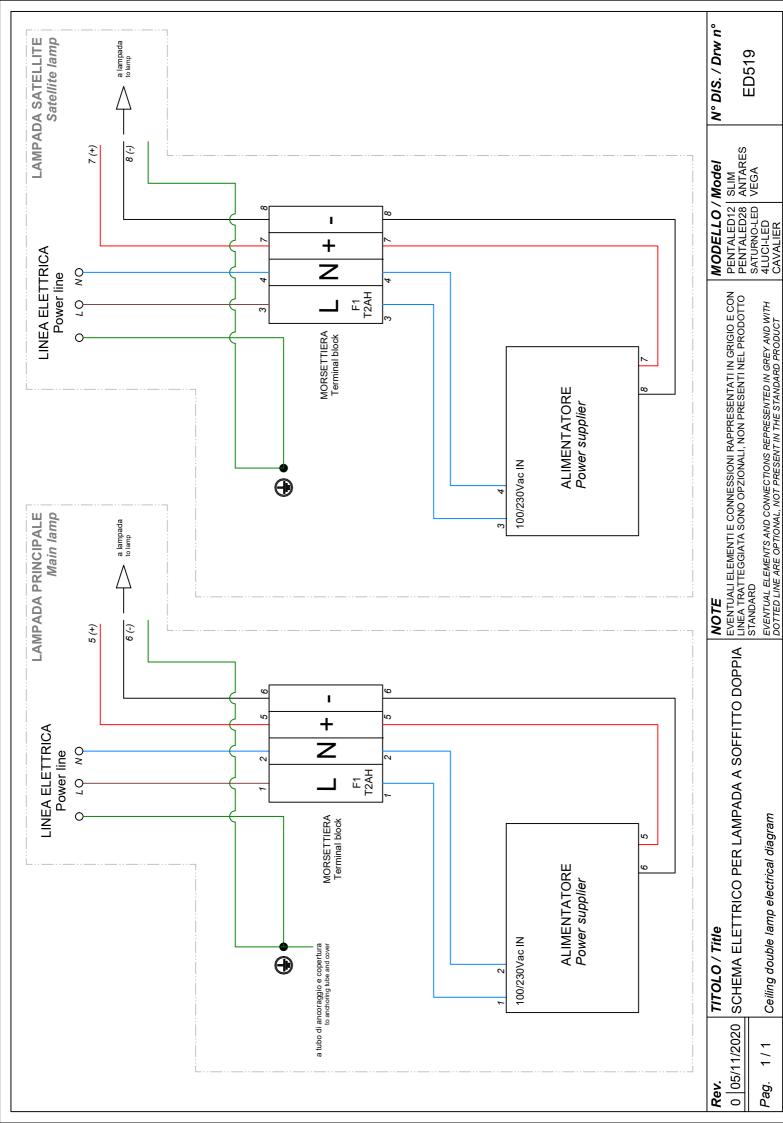
Ceiling single lamp electrical diagram

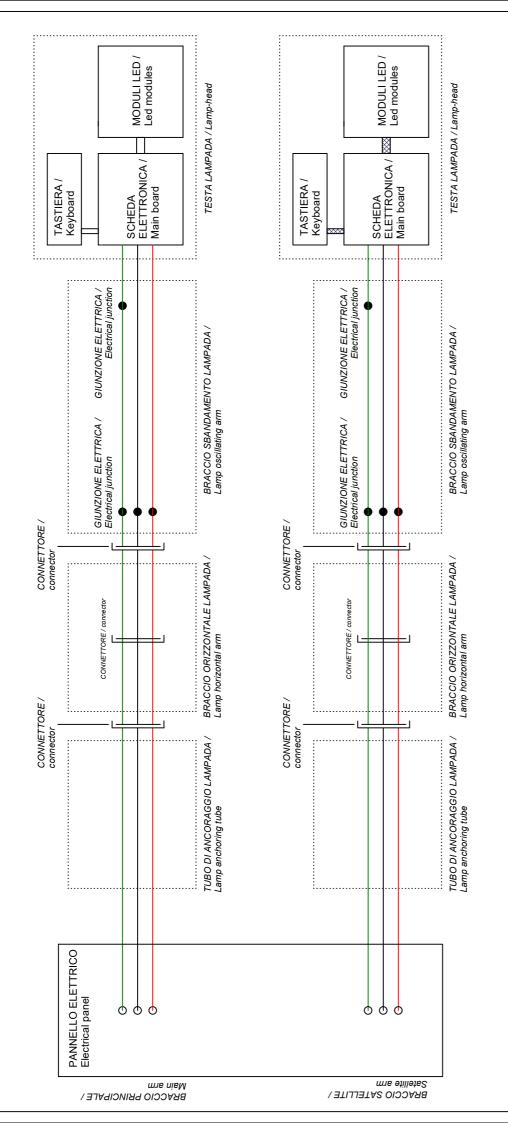
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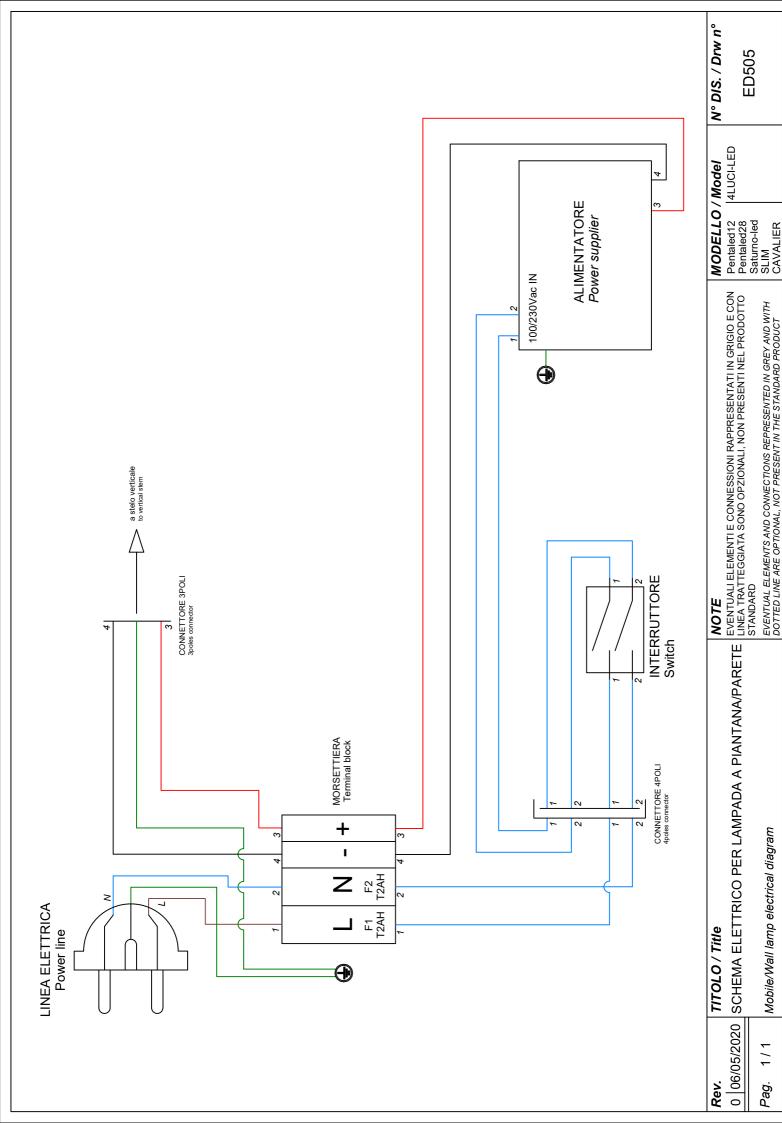
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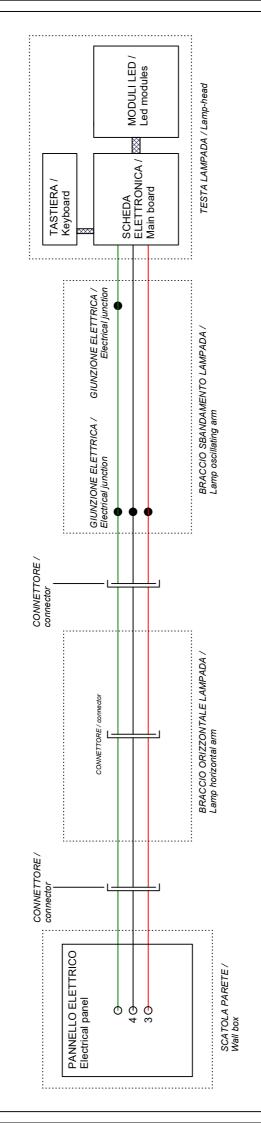
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EVENTUAL ELEMENTS AND CONNECTIONS REPRESENTED IN GREY AND WITH DOTTED LINE ARE OPTIONAL, NOT PRESENT IN THE STANDARD PRODUCT

Mobile/Wall lamp electrical diagram

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SCHEMA GENERALE PER LAMPADA A PARETE TITOLO / Title 0 07/05/2020 Rev.

Wall lamp general electrical diagram

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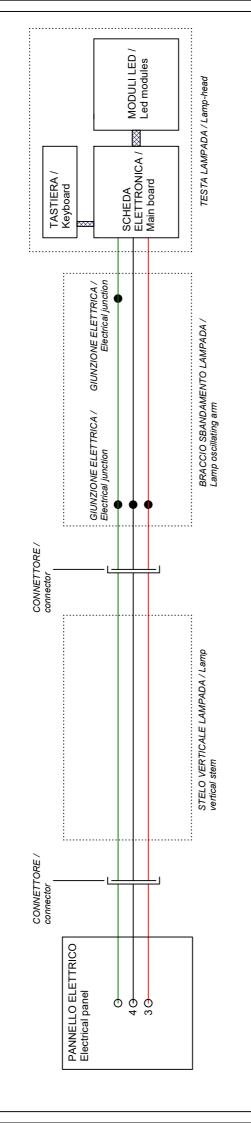
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