

INSTALLATION MANUAL

GIMAled81

MINOR SURGICAL LUMINAIRE (TREATMENT LAMP)

Introduction

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

Marking 

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

Compliance

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.

Validity of manual

This installation manual is valid for the following models:

- GIMAl81 in ceiling, mobile versions.

Customer Service

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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Translations

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

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PRODUCT**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**".

OPERATOR

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

**RESPONSIBLE
ORGANIZATION**

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.

**TECHNICAL
SERVICE
PERSONNEL**

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 GIMA or, alternatively, whosoever has carefully read the manual.

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.

GIMA 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 GIMA.

The ceiling masonry works for Products to be installed on ceilings, 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.

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.



Electric shock hazard.

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.

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

GIMA 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

Installation
Use
Cleaning
Routine maintenance
Special maintenance

Assistance
Demolition

Packing

Transport

Storage

Installation premises

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



Max number of stackable boxes



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)



Materials and composition

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

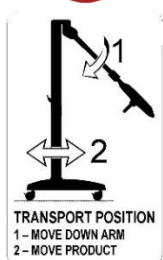
OFF

Standby and switch-on

Pushing, resting on or lying on the product is forbidden

No stepping on surface

Only move the product after lowering the arm



CAUTION

**Carry out safe masonry works.****Collapse of the building structure.****Make sure that ceiling is adequate.**

2.6 Warranty and liabilities

GIMA 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 GIMA. 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 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 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.

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 plate, assessing the type of building and making all consequent adaptations.

The TECHNICAL SERVICE PERSONNEL has 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.

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 mobile version 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 re-dispatched.

Personnel required:



Necessary protection equipment:

- Safety eyewear
- Gloves
- Accident-prevention footwear



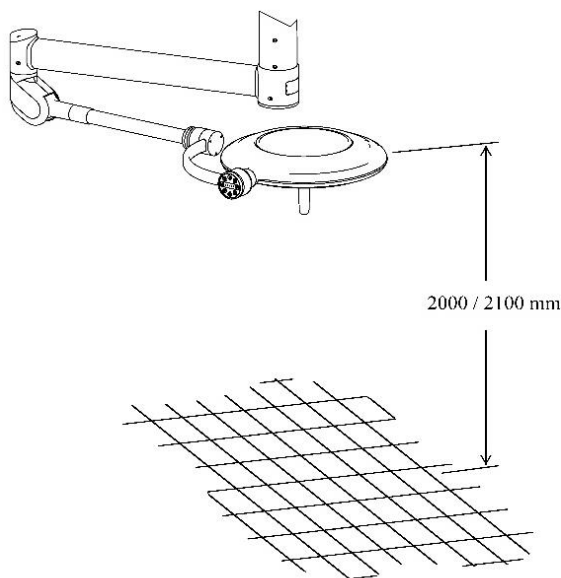
Main switch

CAUTION

Ceiling version

Mobile version

Fixing positions



Special equipment:

- Drill (ceiling version only)
- Set of hexagon spanners
- Screwdriver
- Circlip pliers
- Ladder (ceiling version only)
- Standard manual tools
- Set of drill bits (ceiling version 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 head, sterilisable handpiece, swing arm, horizontal arm, bar, bar cover with relative safety ring, structure retention screws with glue, switchboard. GIMA does not provide any kind of anchoring for fastening the plate to the ceiling. Such equipment must all be provided by the installer.

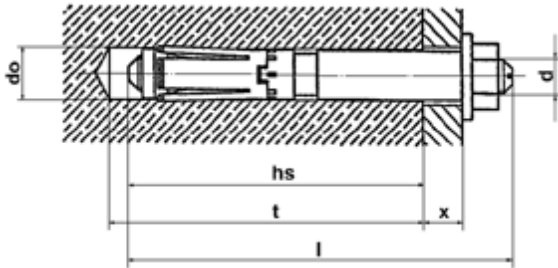
The Product is supplied complete with lamp head, sterilisable handpiece, swing arm, stems, wheeled base and base cover.

4.2 Ceiling 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 2000/2100 mm (as per drawing below), unless otherwise requested by the RESPONSIBLE ORGANIZATION.

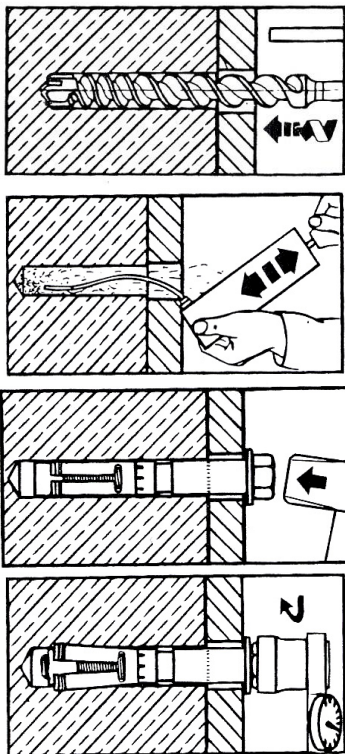
Reinforced concrete
Mechanical anchoring



By way of example only, below is a list of some types of walls:
Proceed to fasten the ceiling plate using Hilti HSL-3-G M16/25 screw anchors or other anchors with similar characteristics, carefully following the instructions provided by the anchor manufacturers and shown below for information purposes:

| | | | | |
|----|------------------------|-----------|----------------|------------------------|
| do | Nominal diameter | drill bit | Mt | Closing bending moment |
| t | Minimum drilling depth | Sw | Wrench opening | |
| hs | Minimum depth | insertion | x | Fastening height |
| l | 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 16/25 | 24 | 125 | 100 | 163 | 80 | 24 | 25 |



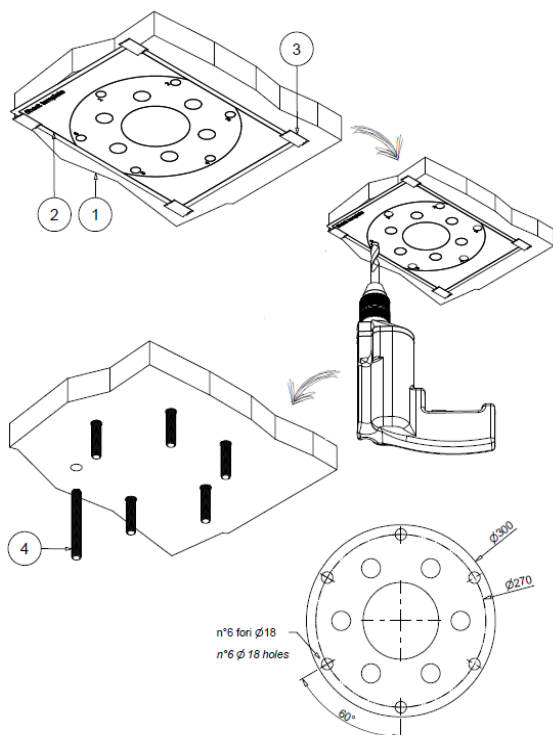
1. Apply the paper template at the Product installation point and mark the fastening hole points with a pencil.
2. Make the holes in the ceiling in accordance with the anchoring tie-rod manufacturer's specifications.
3. Using a pump or a vacuum cleaner, remove the drilling residues and dust from the hole.
4. Fasten the Bar to the ceiling and, using a hammer, insert the anchoring tie-rod in the hole.
Attention!
Check the fitting depth
5. 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.
7. After one hour, again tighten the tie-rods to the prescribed tightening torque.

Chemical anchoring

Hollow-core concrete



Do not install the Product on unsuitable ceilings.



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

Fit 6 threaded bars into the holes. GIMA recommends M16 bars. 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 plate and counter-plate, being careful to include at least one rafter.

The plate and counter-plate must be fastened together using suitable M16 threaded steel bars, with ultimate tensile strength of at least 800 MPa, blocked at the top and bottom ends by relative washers, nuts and locknuts.

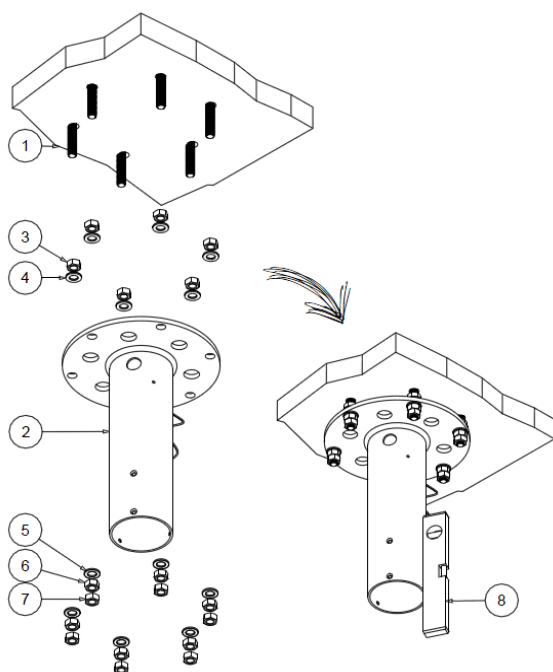
4.3 Instructions for ceiling version of Product

4.3.1 Installation of the ceiling plate, bar, power supply

VERSION WITH PRE-PREPARED TIE RODS OR CHEMICAL ANCHORAGE

If the tie rods are not prearranged in advance, place the template (drawing 12) (2) on the ceiling (1) and secure it with adhesive tape (3).

Drill the holes according to paragraph 4.2 and insert the 6 threaded bars M16 (4) into the ceiling.



On the threaded bars (or pre-prepared tie rods) insert the nuts (3), the washers (4) (secure them with adhesive tape on the anchoring tube to prevent them from falling) and insert the anchoring tube (2). Position the washers (5), nuts (6) and locknuts (7) from underneath. Using the nuts (6) and locknuts (7), position the anchoring tube vertically, making sure it is correctly aligned using a spirit level (8). Once in the balanced position, tighten the upper nuts (3) so that everything is stable.



Make sure the product is stable.



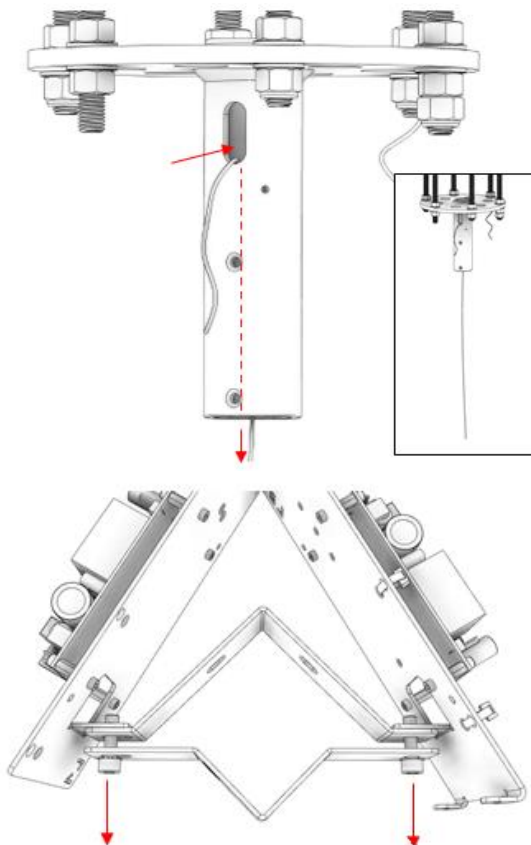
Product falling hazard.

VERSION WITH COUNTER-PLATE

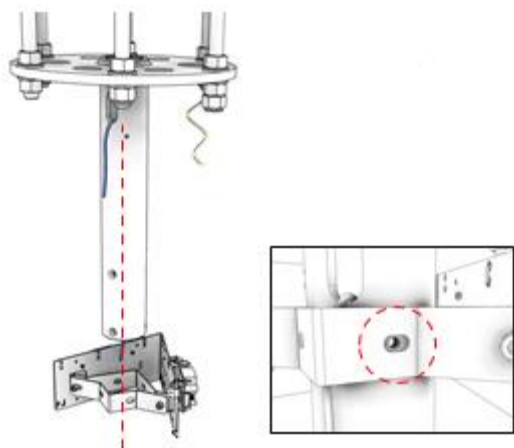
In case of counter-plate (optional), drill the holes as shown in paragraph 4.2 and fix it to the ceiling.

To fasten the anchoring tube to the counter-plate, follow the instructions given above.

Take a guide wire and insert it into vertical slot, making it coming out from bottom side of anchoring tube.



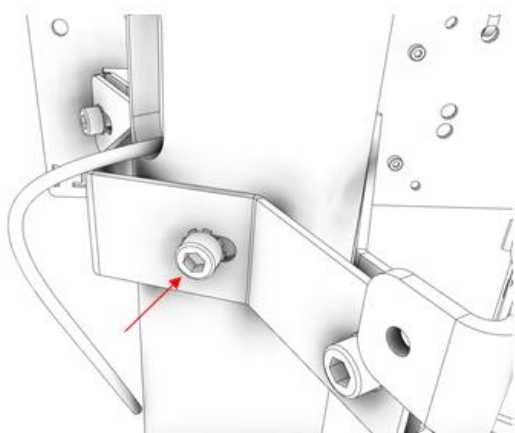
Take the electrical panel and loosen the 2 screws that secure the bent brackets, without removing them, so that the two brackets themselves can be distanced.



Orient the electrical panel so that the number labels on the connection terminals are facing downwards; then, insert the electrical panel by passing the anchoring tube between the two bent brackets.

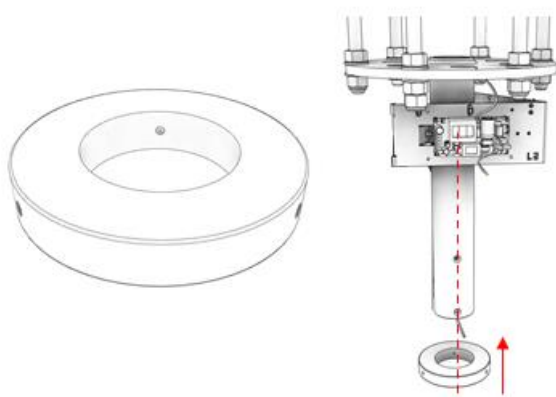
!! Attention: carry out this operation with care to avoid damaging the anchoring tube!!

Insert the electrical panel until the slot on the bracket corresponds to the threaded hole of the tube.

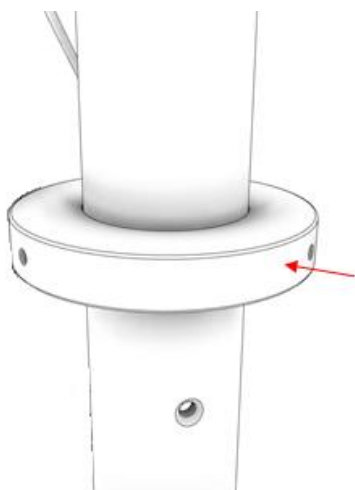


Tighten the 2 screws that fix the bent brackets so that they lock around the tube.

Then insert and tighten the safety screw in correspondence of the bracket slot and anchoring tube hole.

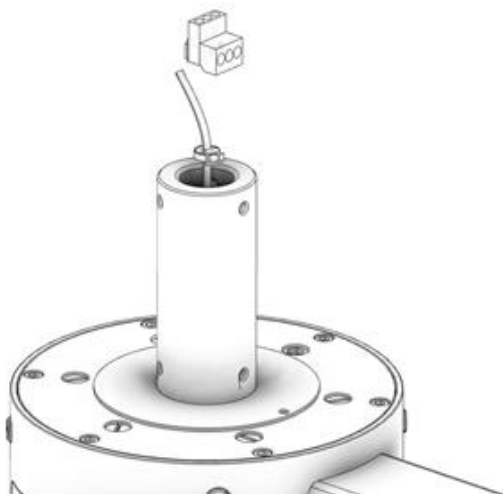


Take the adapter ring for the ceiling cover and insert it up the anchoring tube.



Position the ring just below the vertical opening so as not to interfere with the subsequent assembly phases of the structure.

To avoid the risk to ruin the tube with the grub-screws, stop the ring using a simple adhesive tape.

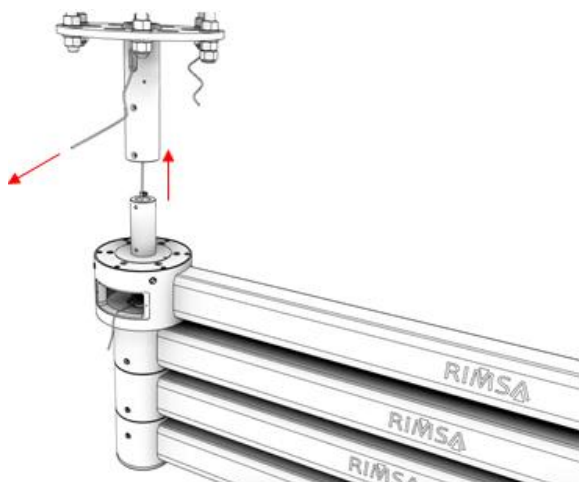
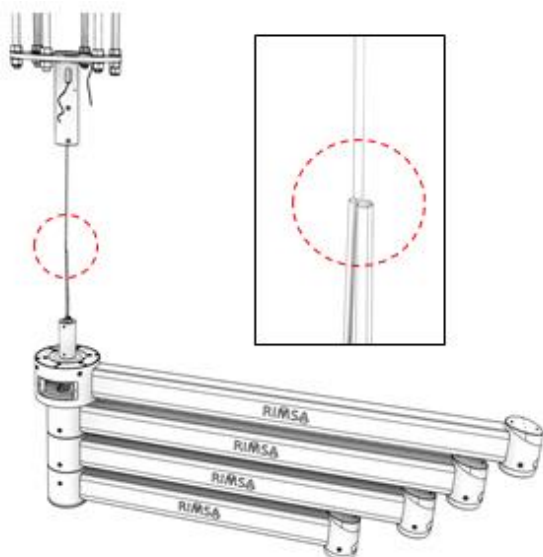


On top side of horizontal arm structure, remove the 'OW' wires connection terminal.

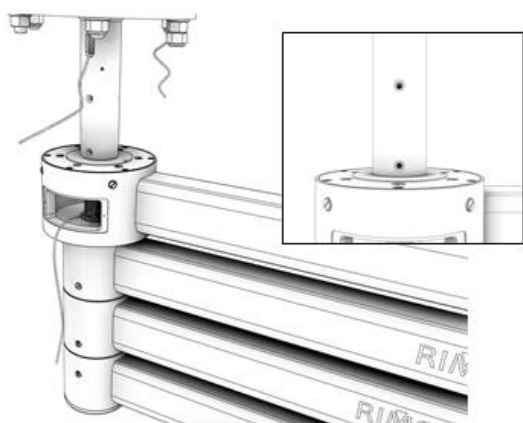
4.3.2 Installation of structure to bar

Take the horizontal arm structure and bring it close to the anchoring tube.

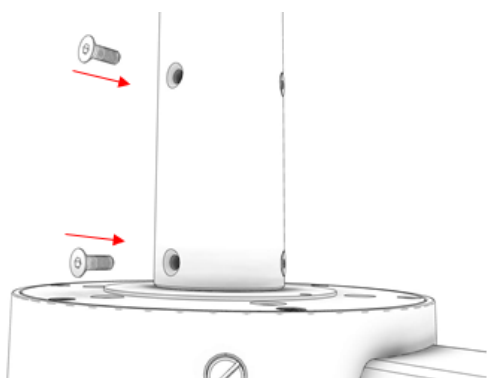
Join the guide cable coming from anchoring tube to all cables exiting by the pivot of horizontal arm structure, including the guide wire previously inserted.



Align the horizontal arm structure pivot with the anchoring tube. Insert the pivot into the tube, while pulling the guide wire out of the vertical opening of tube, so that all the wirings of the horizontal arm structure come out.

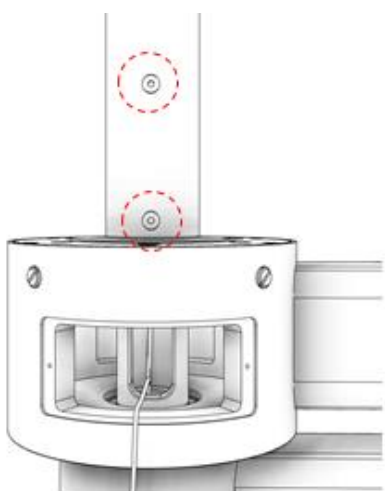


Completely insert the pivot till to make correspond the 6 holes for fixing.



Fix the pivot to the tube by screwing the 6 M6x16 countersunk head screws.

Do not tighten the screws. Just screw-in them without locking them against the tube.



Definitively fix the pivot by first tightening 2 screws on the same vertical axis.

Then proceed to tighten the remaining 4 screws.

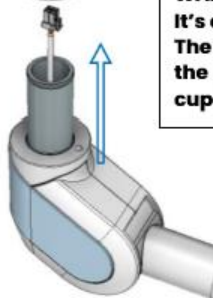


Product falling hazard.

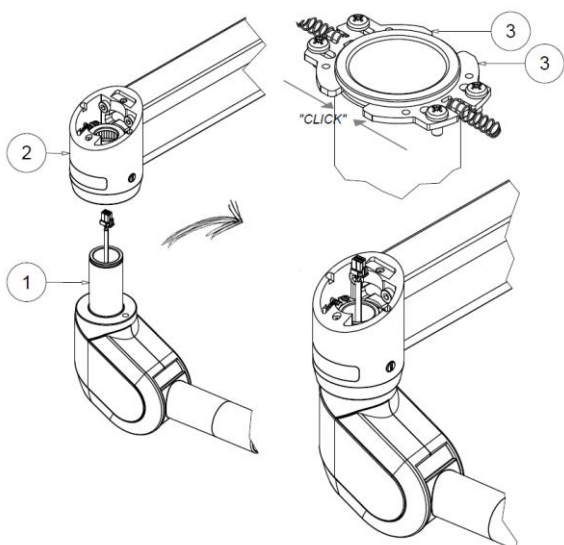
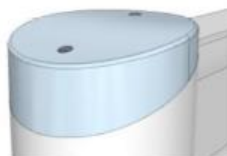
4.3.3 Installation of swinging arm



**INSERT THE PIVOT FROM THE BOTTOM
TILL TO THE COMPLETE FIXING
THROUGH THE 'QUICK COUPLING'**



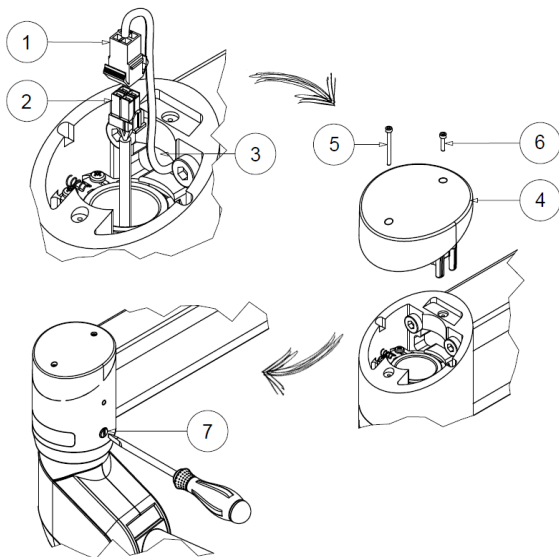
WARNING, PERSONAL INJURY RISK
It's compulsory to follow this instruction.
The wrong insertion of locking levers in their seat of
the pivot may cause the fall of swinging arm and
cupola with high risk of personal injury.



Align the swinging arm pin (1) and insert it into the horizontal arm (2) until the two locking levers (3) automatically engage and produce a "CLICK", and lock the arm in place.



Before continuing with the assembly, check with swinging arm movements that the locking levers are in place in the pin slot.



Join together connectors (1) and (2). In case of a standard lamp only one locking connector will be available.

In case of a lamp equipped with CCTV, the supply will include power connectors, to be connected according to colours, and video signal connectors, to be connected according to letters. These connectors need to be screwed together.

Put the wires into the horizontal arm slot (3).

Place the plastic cap (4) on the upper part of the horizontal arm making sure that the 4 tips fit into their respective seats and close with the screws (5-6).

Tighten the clutches (7) in order to make the arm position stable.



Before proceeding, make sure the plastic cap is correctly positioned and in contact with the horizontal arm and that the screws are well tightened.

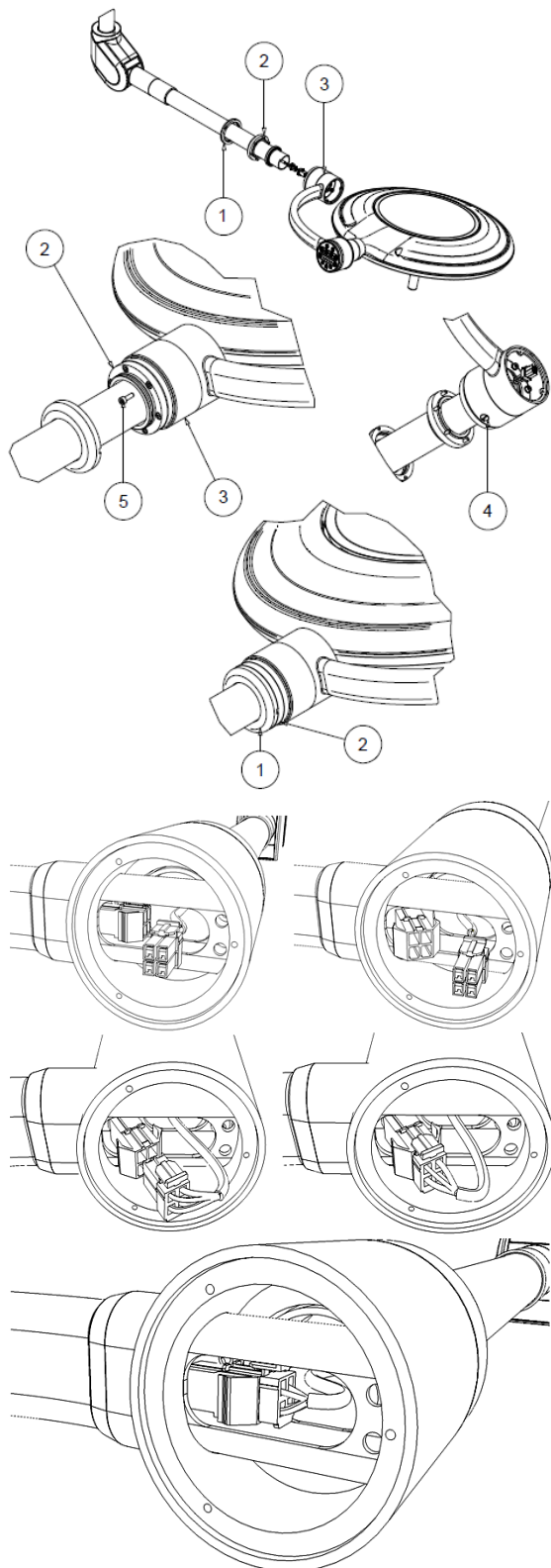


The correct closure of the plastic cap ensures that the locking levers are locked.



To make assembly easier, it is best to assemble the swinging arm first, and then the cupola.

4.3.4 Installation of cupola



Before positioning the cupola, as indicated in the drawing, position the yoke lock covering (1) and the yoke lock (2) on the swinging arm tube.

Insert the head of the Product with the yoke (3) on the swinging arm and bring the surfaces into contact. Now the head is able to maintain the position autonomously, without any support.

Pay attention to place the Product head and the arm in the same position, as indicated in the drawing, with the yoke to the left of the arm and the friction screw (4) turned downwards.

Push the yoke hub lock (2) onto the yoke hub (3), and rotate it in order to match the corresponding 6 holes.

Screw the 6 screws (5) to lock the hub and lock.

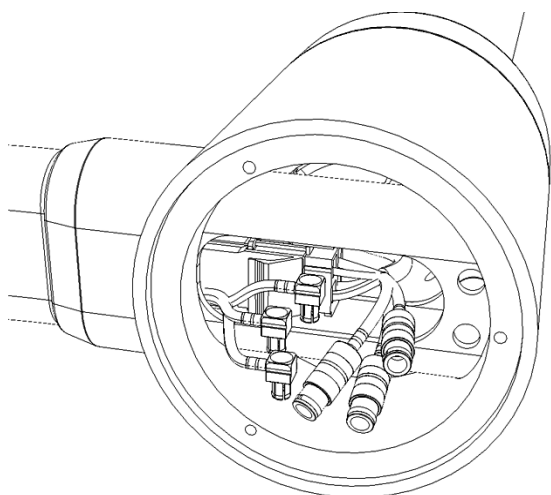
Then position the cover (1) on the lock (2) in order to cover the screws.

To ease the cables connection, first slightly extract the white connector coming from the swinging arm and then the one coming from the yoke.

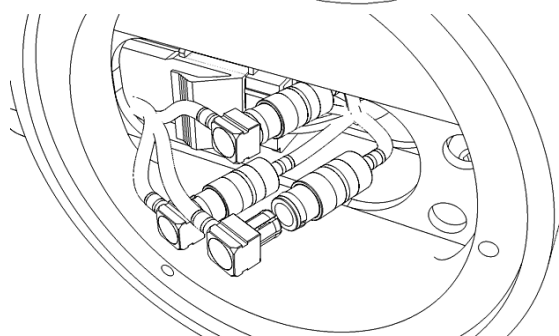
Connect the white connectors together as shown in the images to the side.

Then reposition the connectors inside the yoke, taking care not to crush cables.

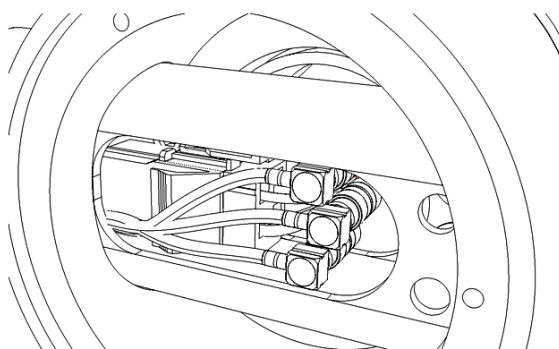
In case of a lamp equipped with CCTV, in addition to the power connector, there will also be video signal connectors.



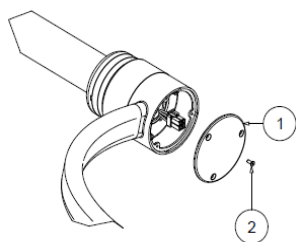
Connect the connectors in accordance with the letters.



Then also reposition these connectors inside the yoke, taking care not to crush cables.



Once the connection is complete fasten the covering disc (1) in front of the yoke by screwing the three screws (2).





Electric shock hazard.



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.



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.



Strictly follow the wiring diagram for the correct connection.

4.3.5 Electrical connection

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.


GIMA does not supply the mains supply cables.

Prime the fuses in the switchboard terminal box after the mechanical and electrical assembly of the Product. Priming the fuses too early could permanently damage the Product. If the Product is not used for long periods of time, remove the fuses.

According to the different cases, the electronic panel could be installed on the anchoring tube or in the false ceiling.

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.

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.

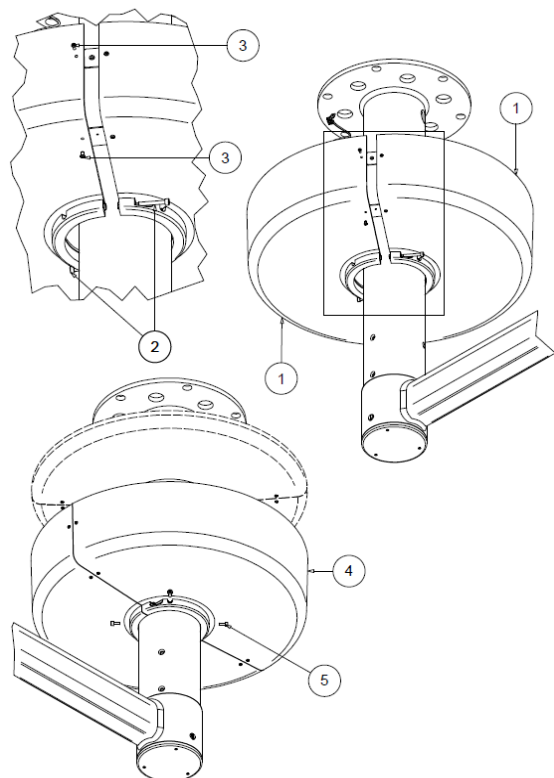
Always connect earthing cables () of lamp and net into the related terminals.

Out of every lamp there is always a communication cable (OW) connected to a forbox. In case of double light head lamp the cables (OW) of both lamps are connected to the same forbox.

This OW cable is needed for the communication between the lamps and to the optional wall control.

The cable (OW) of the wall control panel (if supplied) has to be connected to the forbox in order to allow the communication.

If the lamp isn't equipped with wall control panel, do not consider forbox connection



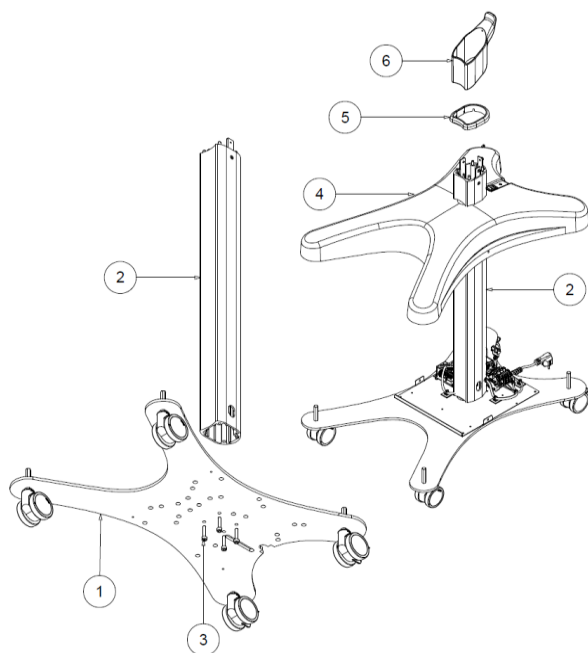
4.3.6 Installation of ceiling cover

Once the electrical connections have been completed, the installation can be completed by positioning the ceiling cover. Depending on the type of ceiling (with false ceiling or not), a cover is provided split into two halves, which can be high or low. To install, position the two halves (1) in line with the ceiling anchoring tube. Close them by tightening the two screws of the ring (2) and the 4 screws of the cover (3). Fasten the ring earth lead in the respective terminal. Bring the complete cover (4) up against the ceiling / false ceiling and secure it in position by fully tightening the 4 screws (5).

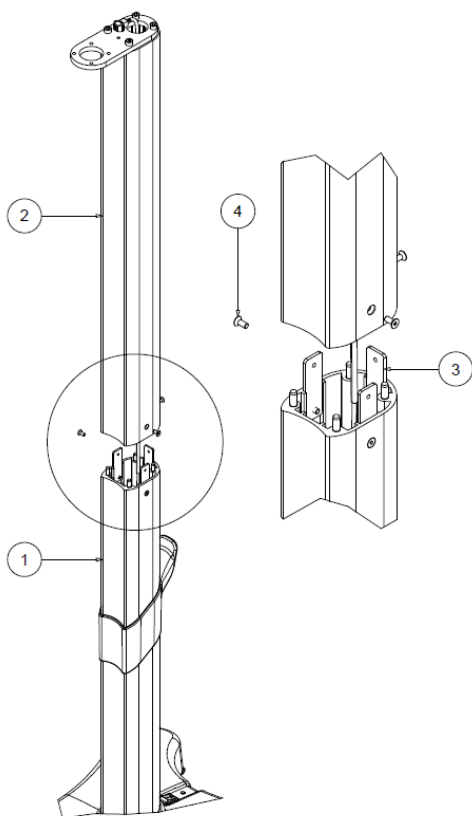
4.4 Installation of Product in mobile version

4.4.1 Installation of lamp stem

Position the lower stem (2) in the base housing (1) and tighten it with the 4 screws (3). Adequately tighten the 4 screws (3) to avoid any risk of instability and possible Product overturning. Insert from the top of the stem (2) the stand cover (4), the closing ring (5) and the stem cover (6) in the indicated order.

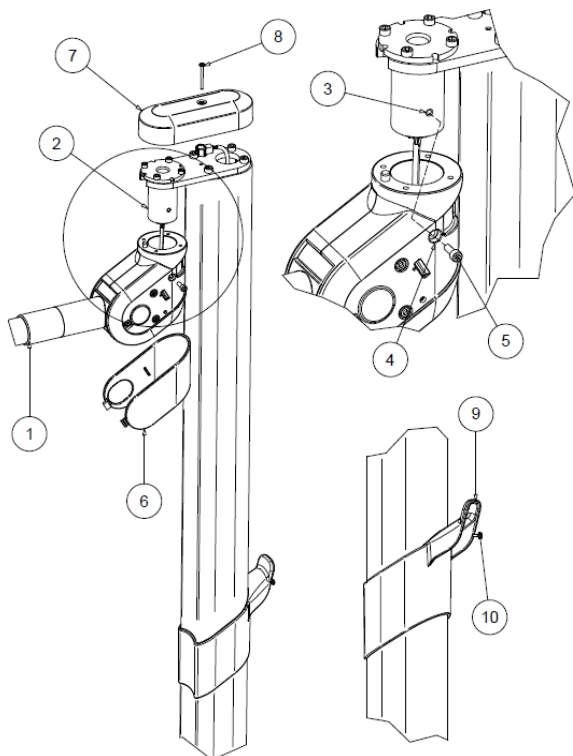


Instability and overturning hazard.



Insert the cables inside the top stem (2) and position it vertically above the lower stem (1). Make the two extremities coincide using the guides (3).

Fasten the two stems by means of the screws (4).



4.4.2 Installation of swinging arm

Position the swinging arm (1) in front of the stem and in correspondence with the pivot (2).

Match the threaded hole of pivot (3) with the hole located on the hub (4).

Insert the swinging arm (1) into the pivot (2) and fastening it by tightening the screw (5).

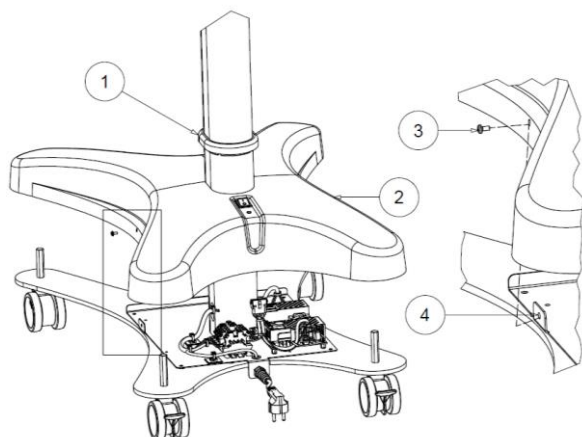
Insert the plastic cover (6) from the bottom, widening it if required to make insertion easier. Fasten the cover by inserting the fasteners in the hub recesses.

Join the wiring connectors and fasten the upper cover (7) with the screw (8).

Position the cover (9) and secure it with the screw (10) in line with the threaded hole.

4.4.3 Installation of cupola

See point 4.3.4 above.



Fuses

4.4.4 Electrical connection

Lift the closing ring (1) and the stand cover (2) by 30–40 cm in order to access the power section. Join the connectors coming from the stem and switch. Return the cover and seal to original position and faster the cover (2) by means of the screws (3) to be fastened to the threaded bush (4). In the case of a battery lamp, also connect the battery faston that is disconnected.

After making the connection, engage the fuses.

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

4.5 Protection fuses

Product power protection is ensured by input fuses (L, N) and one output fuse (24V) of the TXAH 250V 5x20 type (where X is the fuse value). Only one input fuse (L) for ceiling versions.

FOR CEILING MODELS:

n°1 T2AH (L) and n°1 T10AH (+ 24VDC)

FOR MOBILE MODEL:

n°2 T2AH (L-N) and n°1 T10AH (+ 24VDC)

FOR MOBILE BATTERY MODEL:

n°2 T4AH (L-N) and n°1 T10AH (+ 24VDC)

4.6 Handpiece fitting


Insert the grip in the housing provided until the catch clicks into and is blocked in the handpiece hole.

4.7 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.

4.8 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 – 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 to position "I" (ON);
5. Press the  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.

4.9 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 is suitable for Product installation.
2. Using a spirit level, make sure the bar is perpendicular with the ceiling.
3. Make sure the switchboard is correctly fastened to the Bar by means of the threaded hole provided.
4. Make sure the screws sustaining the horizontal arm are tight (*ceiling versions*).
5. Check that the locking levers are in place and the cap with the 4 tips is inserted correctly (*ceiling versions*).
6. Make sure the stand is correctly fitted in the base (*mobile version*).
7. Check the Product earth connection and make sure the earth terminals 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 position.
10. Make sure the Product emits light.

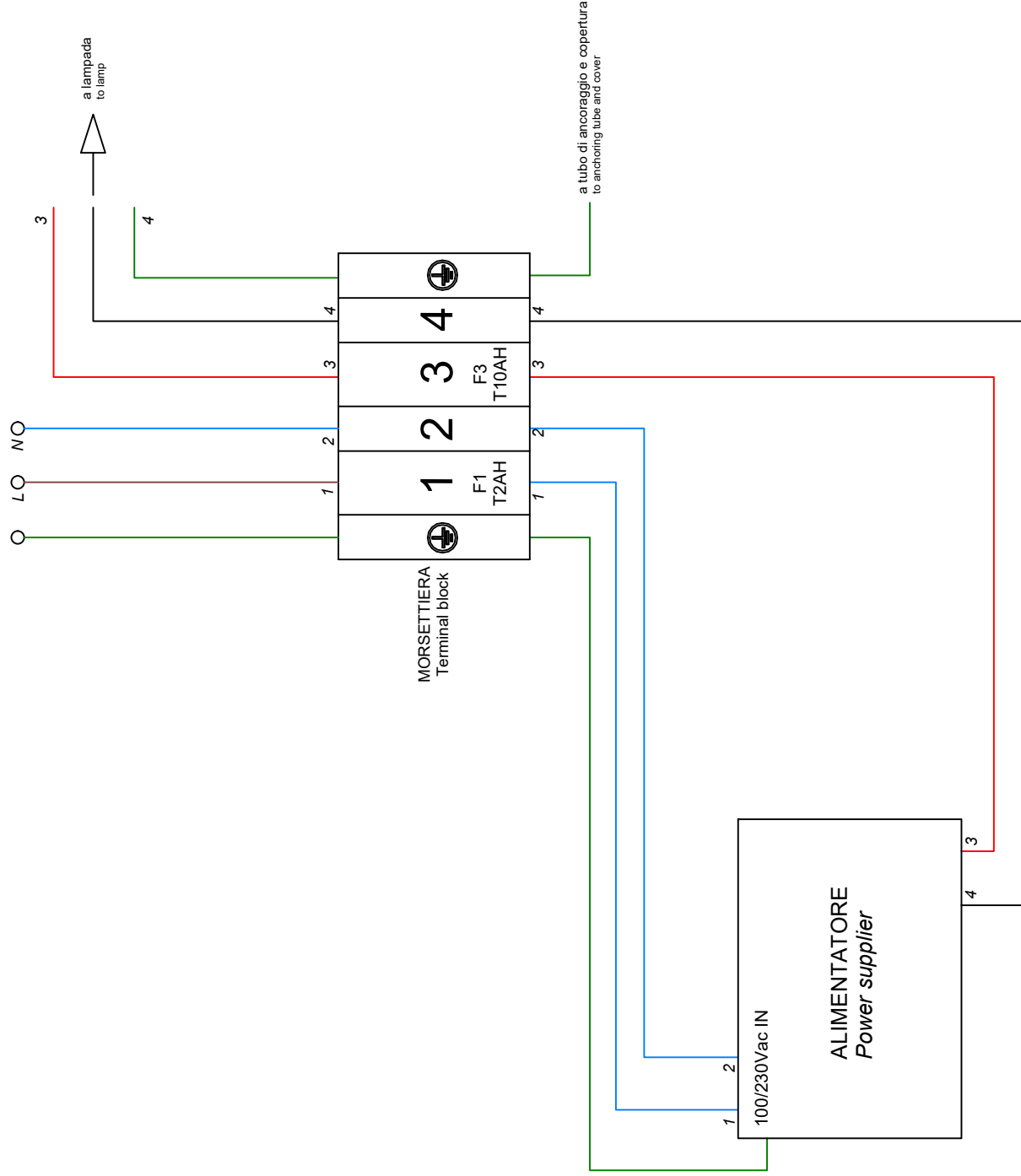
Stamp and signature of TECHNICAL SERVICE PERSONNEL:

5 Troubleshooting



| 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 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. |

LINEA ELETTRICA
Power line



Rev. 0
06/05/2020

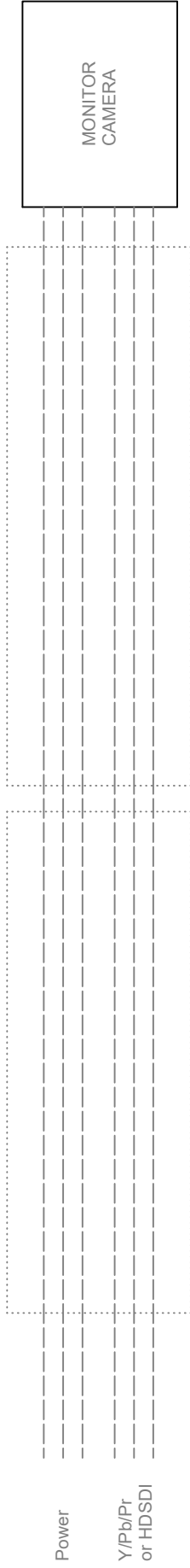
Pag. 1 / 1

TITOLO / Title
SCHEMA ELETTRICO PER LAMPADA A SOFFITTO
SINGOLA
Ceiling single lamp electrical diagram

NOTE
EVENTUALI ELEMENTI E CONNESSIONI RAPPRESENTATI IN GRIGIO E CON LINEA TRATTEGGIATA SONO OPZIONALI, NON PRESENTI NEL PRODOTTO STANDARD
EVENTUAL ELEMENTS AND CONNECTIONS REPRESENTED IN GREY AND WITH DOTTED LINE ARE OPTIONAL, NOT PRESENT IN THE STANDARD PRODUCT

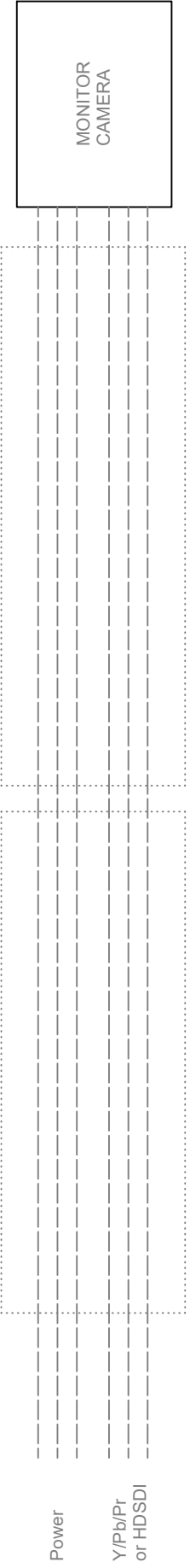
MODELLO / Model
UNICA520
GOLDEN
Serie E
Tris-Led
ORION
Serie N
COMET-H
COMET-L

N° DIS. / Drw n°
ED506



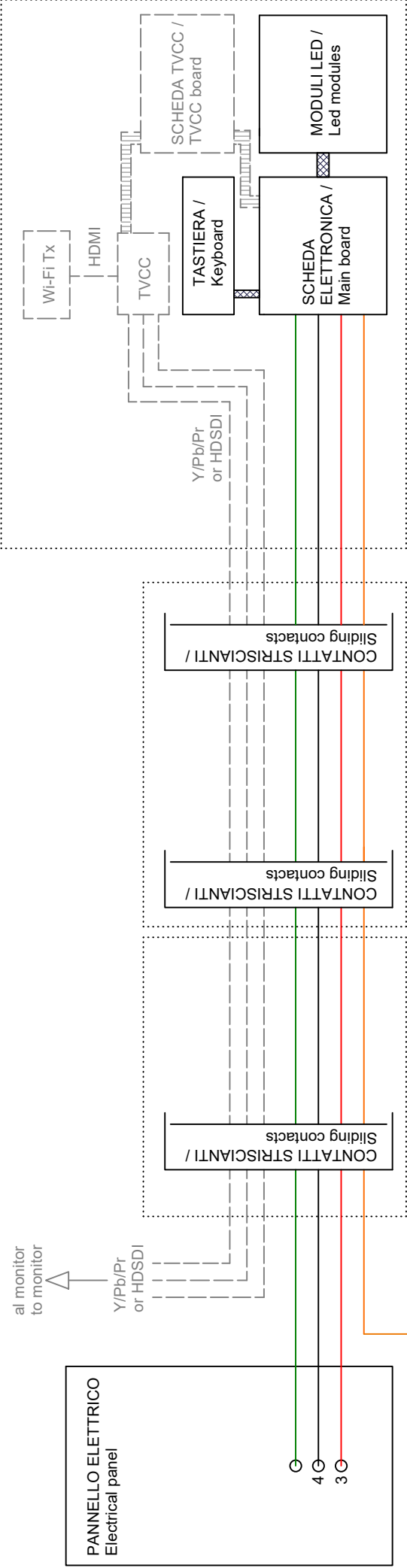
BRACCIO SBANDAMENTO MULTIMEDIA /
Multimedia oscillating arm

BRACCIO ORIZZONTALE MULTIMEDIA /
Multimedia horizontal arm



BRACCIO SBANDAMENTO MULTIMEDIA /
Multimedia oscillating arm

BRACCIO ORIZZONTALE MULTIMEDIA /
Multimedia horizontal arm



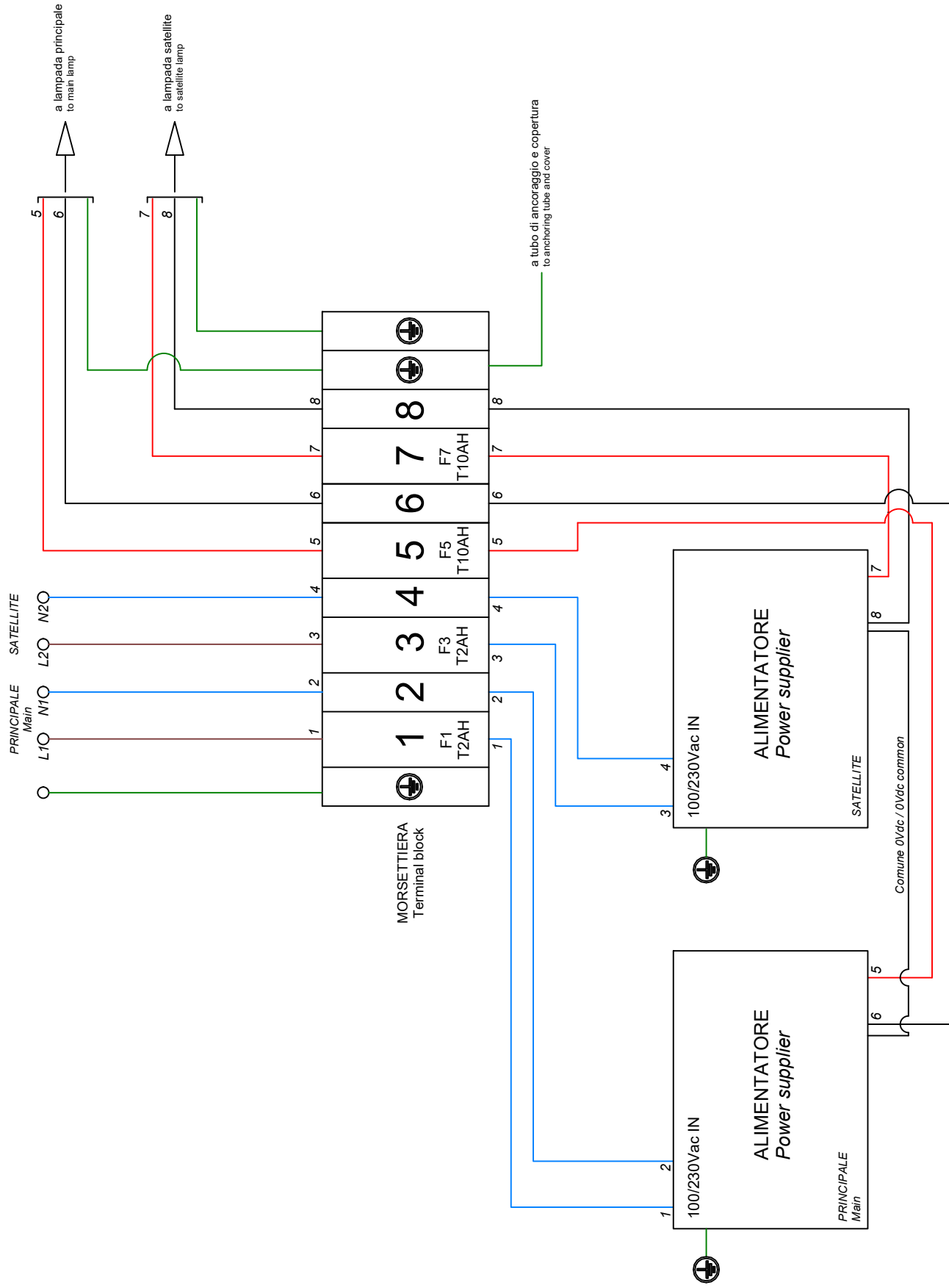
al comando parete
to wall control

BRACCIO ORIZZONTALE LAMPADA /
Lamp horizontal arm

BRACCIO SBANDAMENTO LAMPADA /
Lamp oscillating arm

TESTA LAMPADA / Lamp-head

LINEA ELETTRICA
Power line



Rev. 0
06/05/2020

Pag. 1 / 1

TITOLO / Title
SCHEMA ELETTRICO PER LAMPADA A SOFFITTO DOPPIA
Ceiling double lamp electrical diagram

NOTE
EVENTUALI ELEMENTI E CONNESSIONI RAPPRESENTATI IN GRIGIO E CON LINEA TRATTEGGIATA SONO OPZIONALI, NON PRESENTI NEL PRODOTTO STANDARD
EVENTUAL ELEMENTS AND CONNECTIONS REPRESENTED IN GREY AND WITH DOTTED LINE ARE OPTIONAL, NOT PRESENT IN THE STANDARD PRODUCT

MODELLO / Model
UNICA520
GOLDEN U29
Serie E
Serie N
Tris-Led

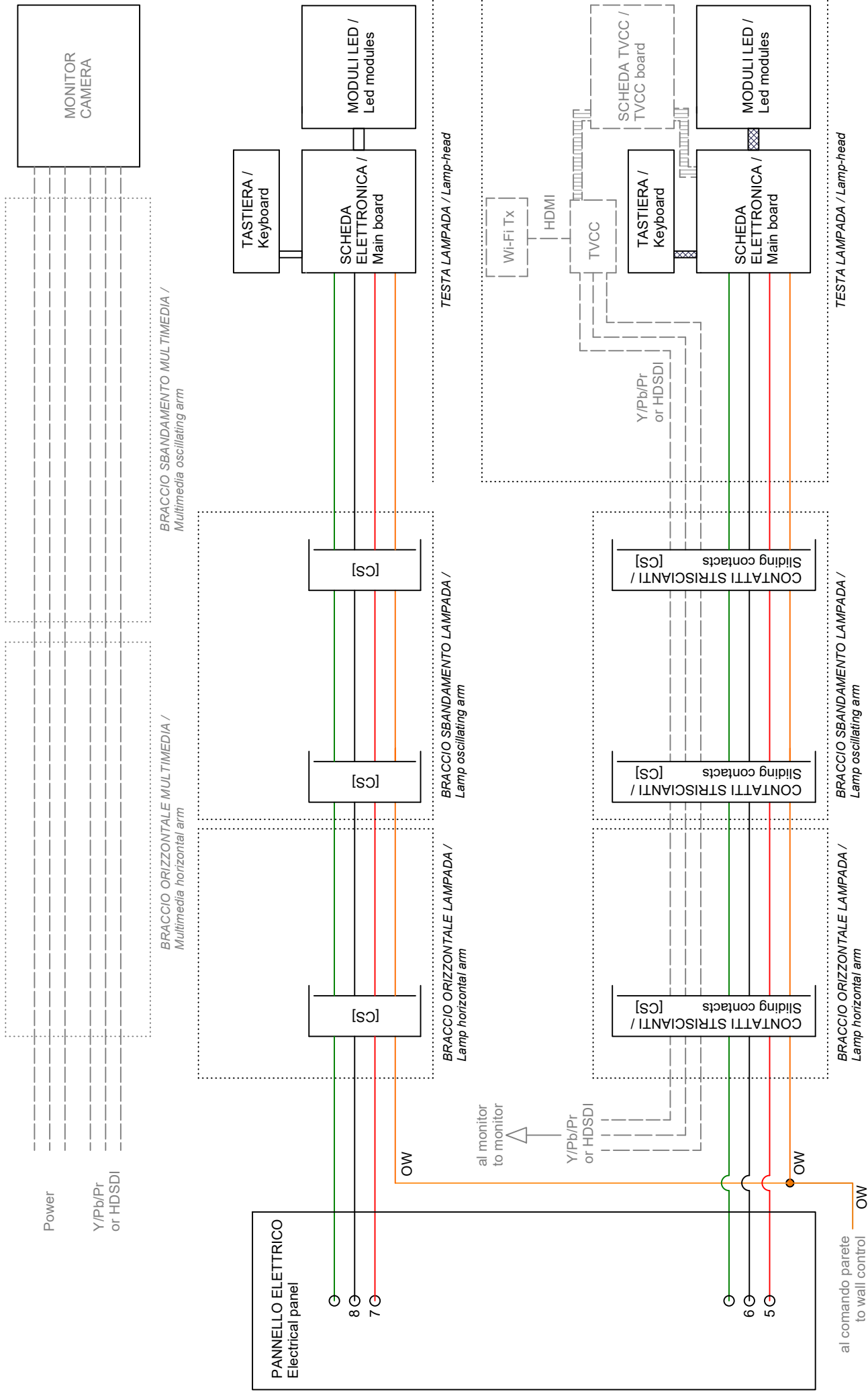
MODELLO / Model
GIMA-led
GOLDEN ORION
COMET-H
COMET-L

N° DIS. / Drw n°
ED507

BRACCIO SECONDO SATELLITE /
Secondary satellite arm

BRACCIO SATELLITE /
Satellite arm

BRACCIO PRINCIPALE /
Main arm



Rev. 0
07/05/2020

Pag. 1 / 1

TITOLO / Title

SCHEMA GENERALE PER LAMPADA A SOFFITTO DOPPIA

Ceiling double lamp general electrical diagram

NOTE

EVENTUALI ELEMENTI E CONNESSIONI RAPPRESENTATI IN GRIGIO E CON LINEA TRATTEGGIATA SONO OPZIONALI, NON PRESENTI NEL PRODOTTO STANDARD
EVENTUAL ELEMENTS AND CONNECTIONS REPRESENTED IN GREY AND WITH DOTTED LINE ARE OPTIONAL, NOT PRESENT IN THE STANDARD PRODUCT

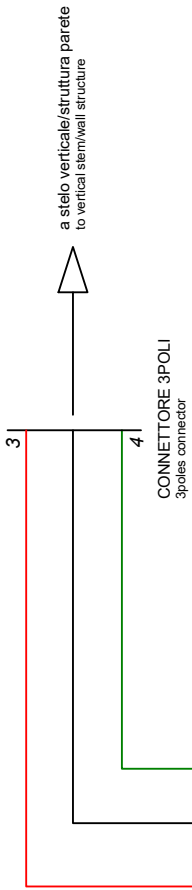
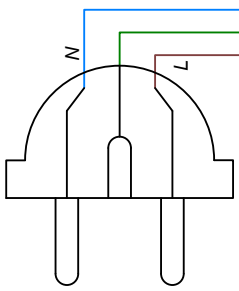
MODELLO / Model

Serie UNICA
U29
Serie E
Serie N
Tris-Led
GIMALED
GOLDEN
ORION
COMET-H
COMET-L

N° DIS. / Drw n°

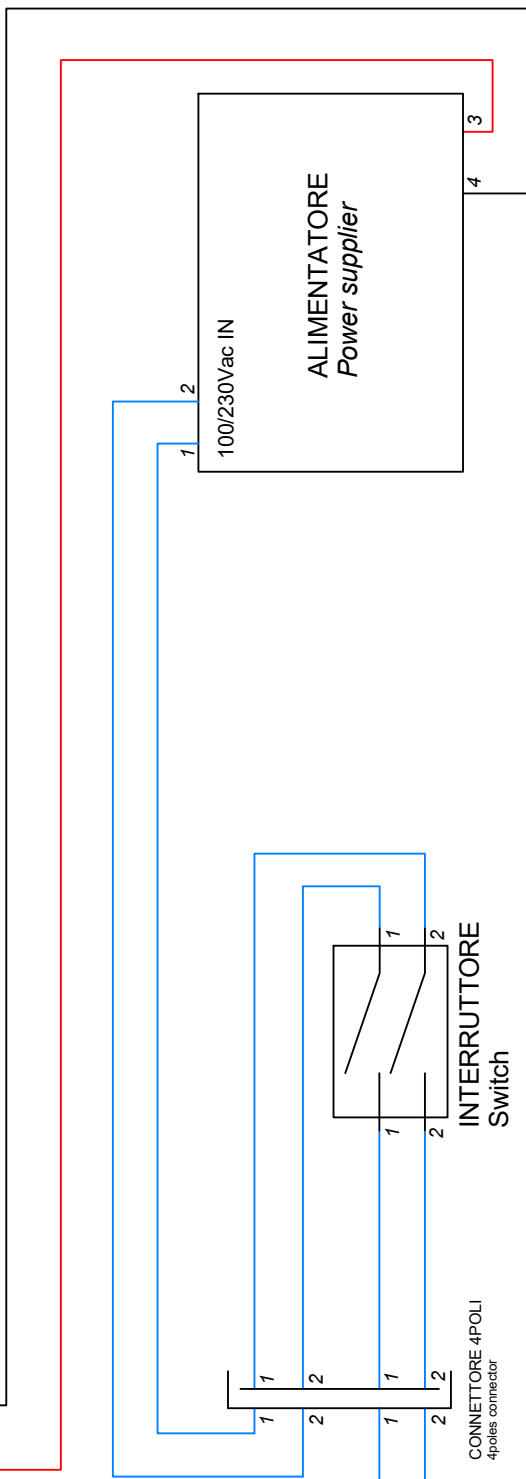
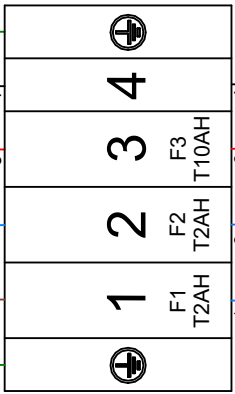
ED510

LINEA ELETRICA
Power line



CONNETTORE 3POLI
3poles connector

MORSETTIERA
Terminal block



CONNETTORE 4POLI
4poles connector

INTERRUTTORE
Switch

Rev.

0 | 06/05/2020

Pag. 1 / 1

TITOLO / Title

SCHEMA ELETRICO PER LAMPADA A PIANTANA/PARETE

Mobile/Wall lamp electrical diagram

NOTE

EVENTUALI ELEMENTI E CONNESSIONI RAPPRESENTATI IN GRIGIO E CON LINEA TRATTEGGIATA SONO OPZIONALI, NON PRESENTI NEL PRODOTTO STANDARD

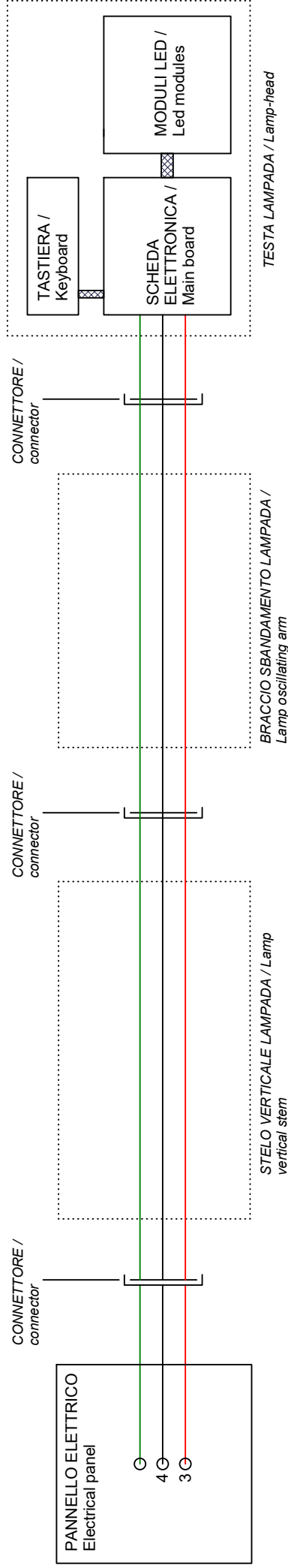
EVENTUAL ELEMENTS AND CONNECTIONS REPRESENTED IN GREY AND WITH DOTTED LINE ARE OPTIONAL, NOT PRESENT IN THE STANDARD PRODUCT

MODELLO / Model

UNICA520
U29
PentaLed30E
PentaLed30N
Tris-Led
GIMAlEd
GOLDEN
ORION

N° DIS. / Drw n°

ED504



Rev. 0 | 07/05/2020

Pag. 1 / 1

TITOLO / Title

SCHEMA GENERALE PER LAMPADA A PIANTANA

Mobile lamp general electrical diagram

NOTE

EVENTUALI ELEMENTI E CONNESSIONI RAPPRESENTATI IN GRIGIO E CON LINEA TRATTEGGIATA SONO OPZIONALI, NON PRESENTI NEL PRODOTTO STANDARD

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

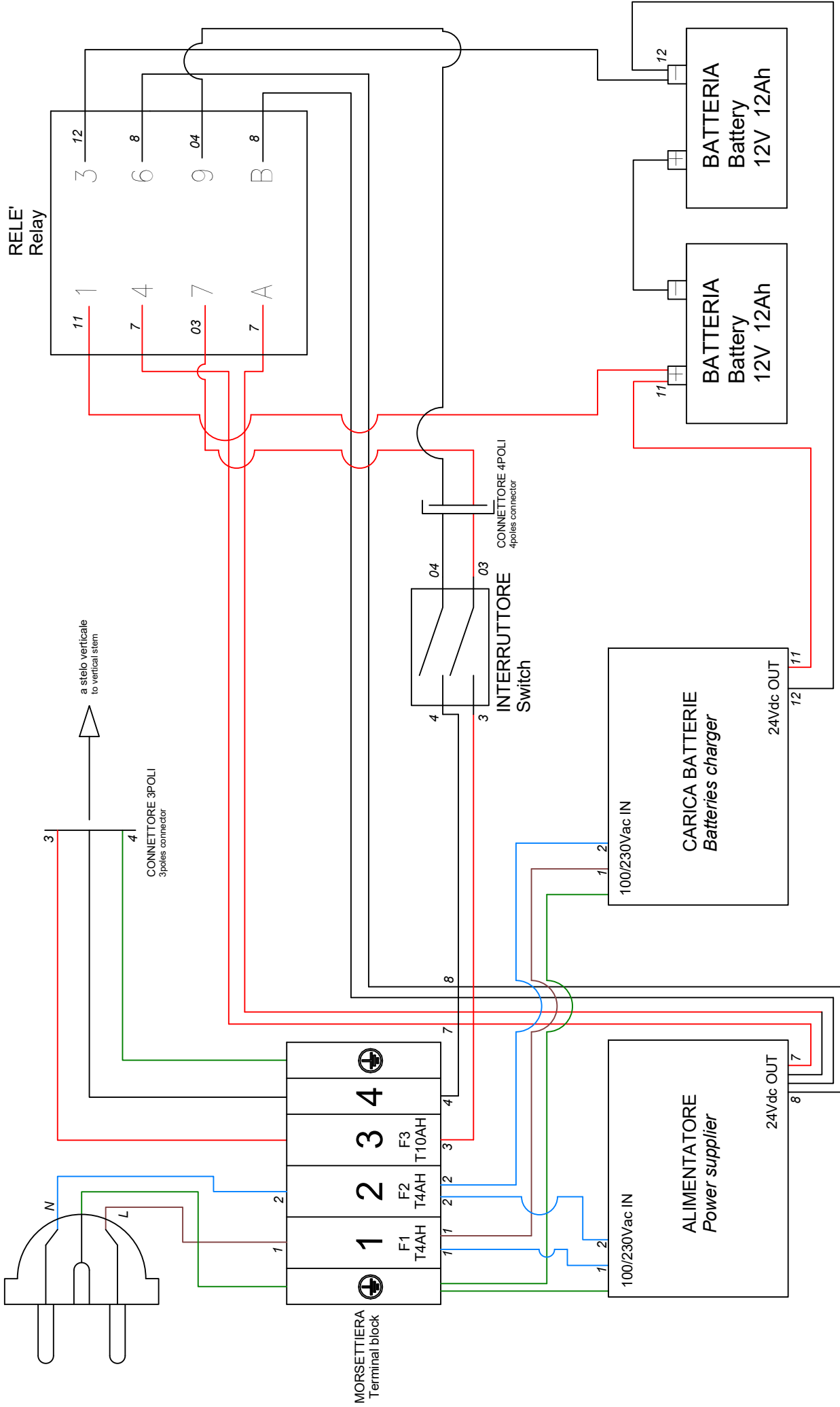
MODELLO / Model

UNICA520
U29
Pentaled30E
Pentaled30 N
Tris-Led

N° DIS. / Drw n°

ED512

LINEA ELETTRICA
Power line



Rev. 0
06/05/2020

TITOLO / Title

SCHEMA ELETTRICO GRUPPO BATTERIA PER LAMPADA
A PIANTANA
Mobile lamp battery group electrical diagram

NOTE

EVENTUALI ELEMENTI E CONNESSIONI RAPPRESENTATI IN GRIGIO E CON LINEA TRATTEGGIATA SONO OPZIONALI, NON PRESENTI NEL PRODOTTO STANDARD
EVENTUAL ELEMENTS AND CONNECTIONS REPRESENTED IN GREY AND WITH DOTTED LINE ARE OPTIONAL, NOT PRESENT IN THE STANDARD PRODUCT

MODELLO / Model

UNICA520
U29
Pentaled30E
Pentaled30N
GIMAl.ed

N° DIS. / Drw n°

ED502

INSTALLATION MANUAL

GIMAled81

MINOR SURGICAL LUMINAIRE (TREATMENT LAMP)

Introduction

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

Marking 

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

Compliance

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.

Validity of manual

This installation manual is valid for the following models:

- GIMAl81 in ceiling, mobile versions.

Customer Service

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.

- GIMA S.p.A.
- Via Marconi, 1
- I-20060 Gessate -MI-
- Tel.: +39 02 953854209 / 221 / 225
- Fax: +39 02 95381167
- E-mail: gima@gimaitaly.com

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Translations

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

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PRODUCT**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**".

OPERATOR

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

**RESPONSIBLE
ORGANIZATION**

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.

**TECHNICAL
SERVICE
PERSONNEL**

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 GIMA or, alternatively, whosoever has carefully read the manual.

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.

GIMA 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 GIMA.

The ceiling masonry works for Products to be installed on ceilings, 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.

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.



Electric shock hazard.

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.

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

GIMA 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

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



Max number of stackable boxes



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)



Materials and composition

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

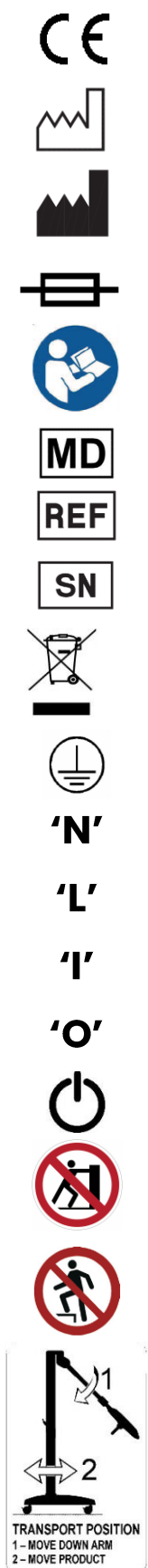
OFF

Standby and switch-on

Pushing, resting on or lying on the product is forbidden

No stepping on surface

Only move the product after lowering the arm



CAUTION

**Carry out safe masonry works.****Collapse of the building structure.****Make sure that ceiling is adequate.**

2.6 Warranty and liabilities

GIMA 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 GIMA. 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 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 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.

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 plate, assessing the type of building and making all consequent adaptations.



Carry out safe electrical works.



Make sure that the electrical environment complies with the law.

Main switch

CAUTION

The TECHNICAL SERVICE PERSONNEL has 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.

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 mobile version 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 re-dispatched.

Personnel required:



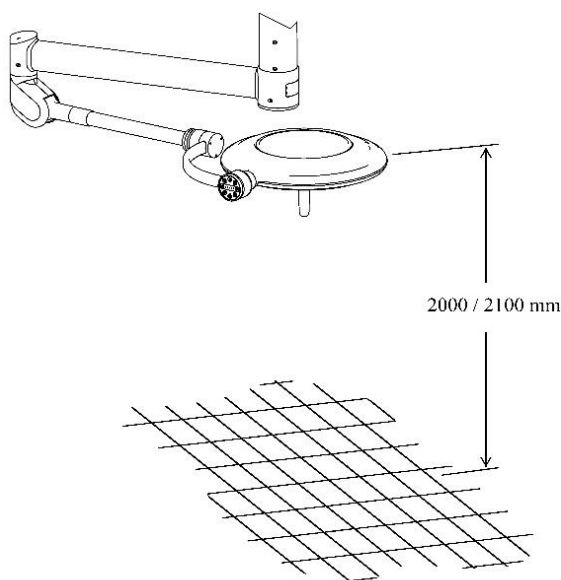
Necessary protection equipment:

- Safety eyewear
- Gloves
- Accident-prevention footwear

Ceiling version

Mobile version

Fixing positions



Special equipment:

- Drill (ceiling version only)
- Set of hexagon spanners
- Screwdriver
- Circlip pliers
- Ladder (ceiling version only)
- Standard manual tools
- Set of drill bits (ceiling version 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 head, sterilisable handpiece, swing arm, horizontal arm, bar, bar cover with relative safety ring, structure retention screws with glue, switchboard. GIMA does not provide any kind of anchoring for fastening the plate to the ceiling. Such equipment must all be provided by the installer.

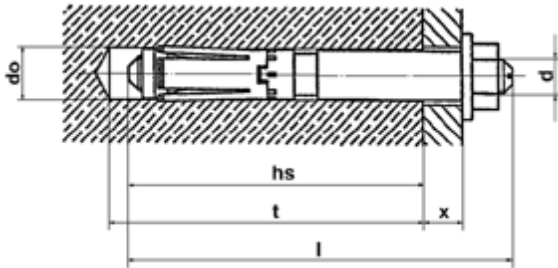
The Product is supplied complete with lamp head, sterilisable handpiece, swing arm, stems, wheeled base and base cover.

4.2 Ceiling 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 2000/2100 mm (as per drawing below), unless otherwise requested by the RESPONSIBLE ORGANIZATION.

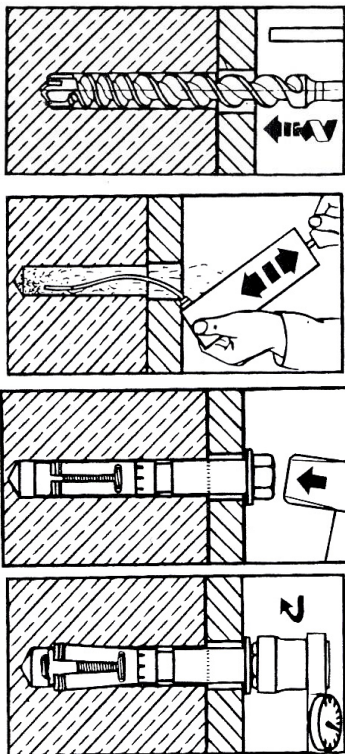
Reinforced concrete
Mechanical anchoring



By way of example only, below is a list of some types of walls:
Proceed to fasten the ceiling plate using Hilti HSL-3-G M16/25 screw anchors or other anchors with similar characteristics, carefully following the instructions provided by the anchor manufacturers and shown below for information purposes:

| | | | | |
|----|------------------------|-----------|----------------|------------------------|
| do | Nominal diameter | drill bit | Mt | Closing bending moment |
| t | Minimum drilling depth | Sw | Wrench opening | |
| hs | Minimum depth | insertion | x | Fastening height |
| l | 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 16/25 | 24 | 125 | 100 | 163 | 80 | 24 | 25 |



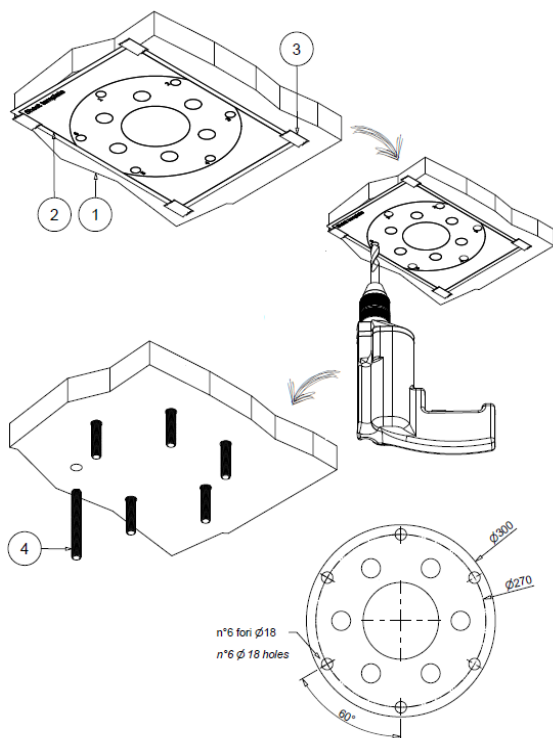
1. Apply the paper template at the Product installation point and mark the fastening hole points with a pencil.
2. Make the holes in the ceiling in accordance with the anchoring tie-rod manufacturer's specifications.
3. Using a pump or a vacuum cleaner, remove the drilling residues and dust from the hole.
4. Fasten the Bar to the ceiling and, using a hammer, insert the anchoring tie-rod in the hole.
Attention!
Check the fitting depth
5. 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.
7. After one hour, again tighten the tie-rods to the prescribed tightening torque.

Chemical anchoring

Hollow-core concrete



Do not install the Product on unsuitable ceilings.



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

Fit 6 threaded bars into the holes. GIMA recommends M16 bars. 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 plate and counter-plate, being careful to include at least one rafter.

The plate and counter-plate must be fastened together using suitable M16 threaded steel bars, with ultimate tensile strength of at least 800 MPa, blocked at the top and bottom ends by relative washers, nuts and locknuts.

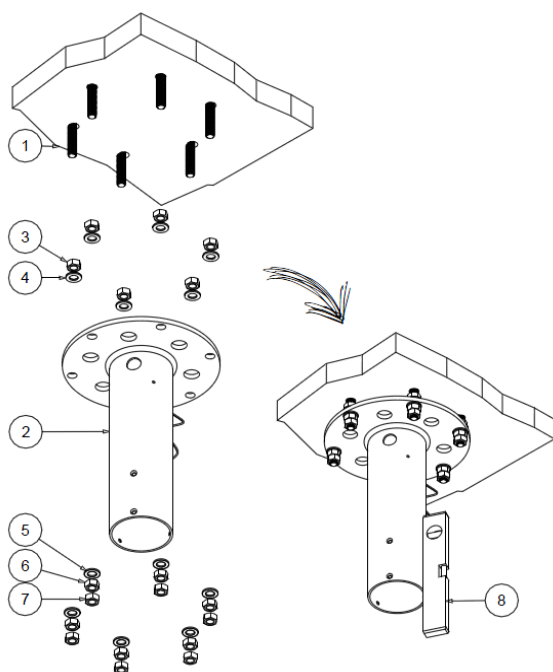
4.3 Instructions for ceiling version of Product

4.3.1 Installation of the ceiling plate, bar, power supply

VERSION WITH PRE-PREPARED TIE RODS OR CHEMICAL ANCHORAGE

If the tie rods are not prearranged in advance, place the template (drawing 12) (2) on the ceiling (1) and secure it with adhesive tape (3).

Drill the holes according to paragraph 4.2 and insert the 6 threaded bars M16 (4) into the ceiling.



On the threaded bars (or pre-prepared tie rods) insert the nuts (3), the washers (4) (secure them with adhesive tape on the anchoring tube to prevent them from falling) and insert the anchoring tube (2). Position the washers (5), nuts (6) and locknuts (7) from underneath. Using the nuts (6) and locknuts (7), position the anchoring tube vertically, making sure it is correctly aligned using a spirit level (8). Once in the balanced position, tighten the upper nuts (3) so that everything is stable.



Make sure the product is stable.



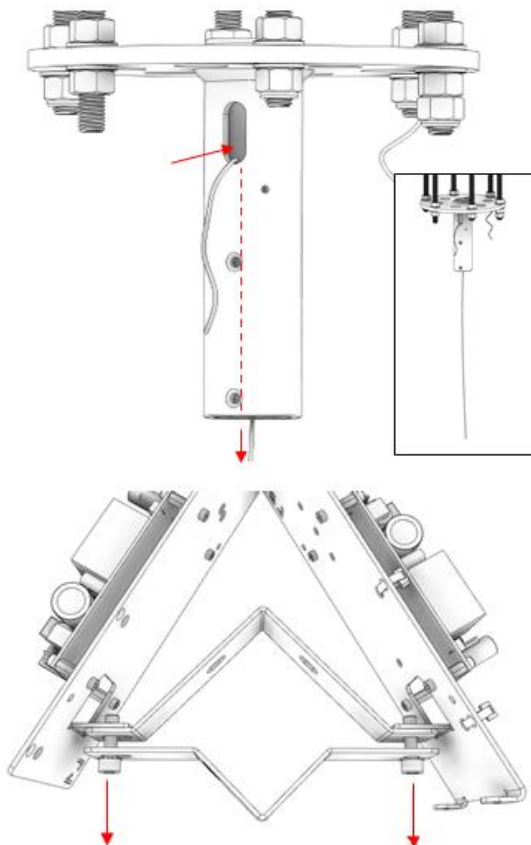
Product falling hazard.

VERSION WITH COUNTER-PLATE

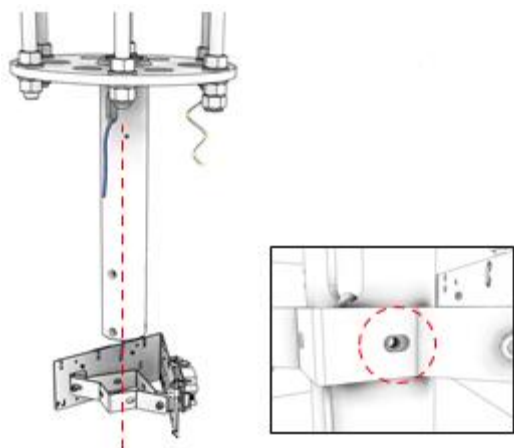
In case of counter-plate (optional), drill the holes as shown in paragraph 4.2 and fix it to the ceiling.

To fasten the anchoring tube to the counter-plate, follow the instructions given above.

Take a guide wire and insert it into vertical slot, making it coming out from bottom side of anchoring tube.



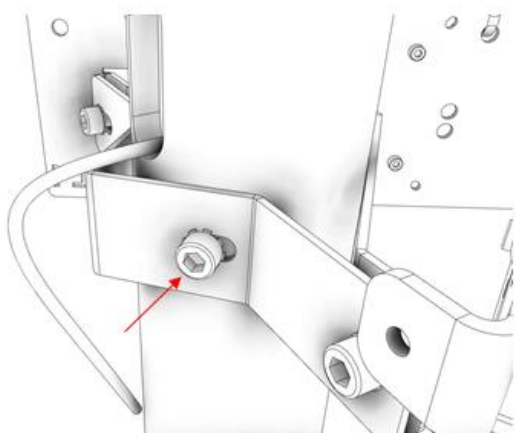
Take the electrical panel and loosen the 2 screws that secure the bent brackets, without removing them, so that the two brackets themselves can be distanced.



Orient the electrical panel so that the number labels on the connection terminals are facing downwards; then, insert the electrical panel by passing the anchoring tube between the two bent brackets.

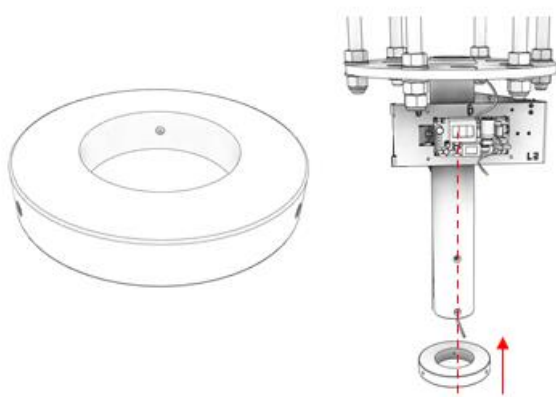
!! Attention: carry out this operation with care to avoid damaging the anchoring tube!!

Insert the electrical panel until the slot on the bracket corresponds to the threaded hole of the tube.

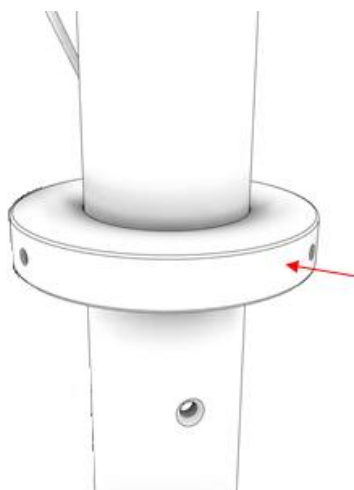


Tighten the 2 screws that fix the bent brackets so that they lock around the tube.

Then insert and tighten the safety screw in correspondence of the bracket slot and anchoring tube hole.

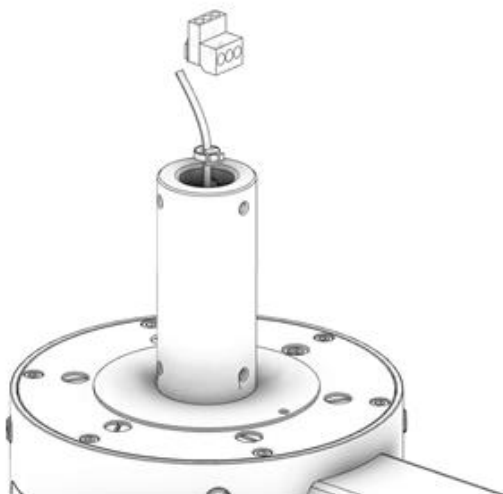


Take the adapter ring for the ceiling cover and insert it up the anchoring tube.



Position the ring just below the vertical opening so as not to interfere with the subsequent assembly phases of the structure.

To avoid the risk to ruin the tube with the grub-screws, stop the ring using a simple adhesive tape.

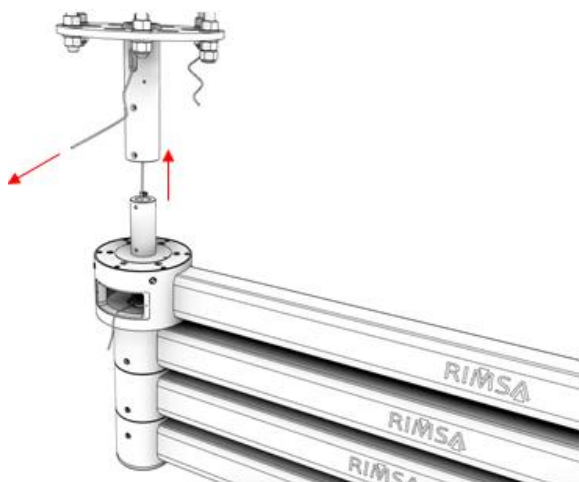
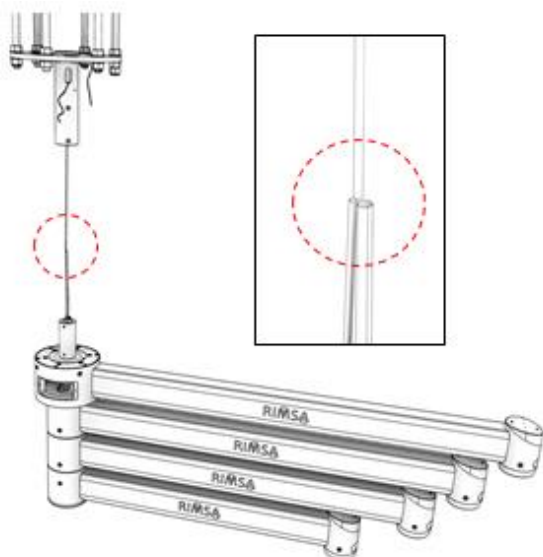


On top side of horizontal arm structure, remove the 'OW' wires connection terminal.

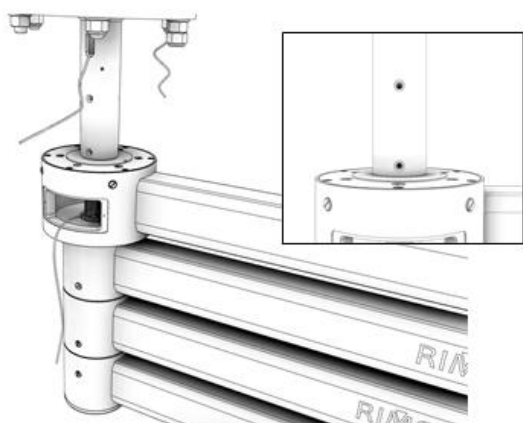
4.3.2 Installation of structure to bar

Take the horizontal arm structure and bring it close to the anchoring tube.

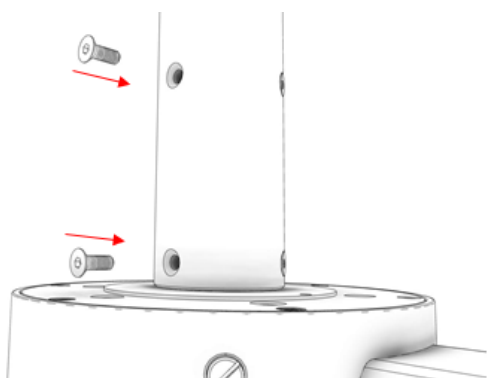
Join the guide cable coming from anchoring tube to all cables exiting by the pivot of horizontal arm structure, including the guide wire previously inserted.



Align the horizontal arm structure pivot with the anchoring tube. Insert the pivot into the tube, while pulling the guide wire out of the vertical opening of tube, so that all the wirings of the horizontal arm structure come out.

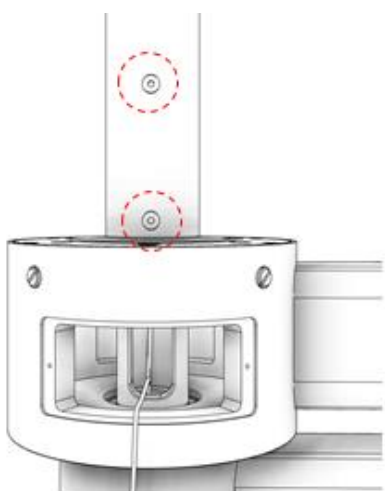


Completely insert the pivot till to make correspond the 6 holes for fixing.



Fix the pivot to the tube by screwing the 6 M6x16 countersunk head screws.

Do not tighten the screws. Just screw-in them without locking them against the tube.



Definitively fix the pivot by first tightening 2 screws on the same vertical axis.

Then proceed to tighten the remaining 4 screws.

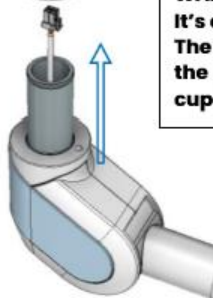


Product falling hazard.

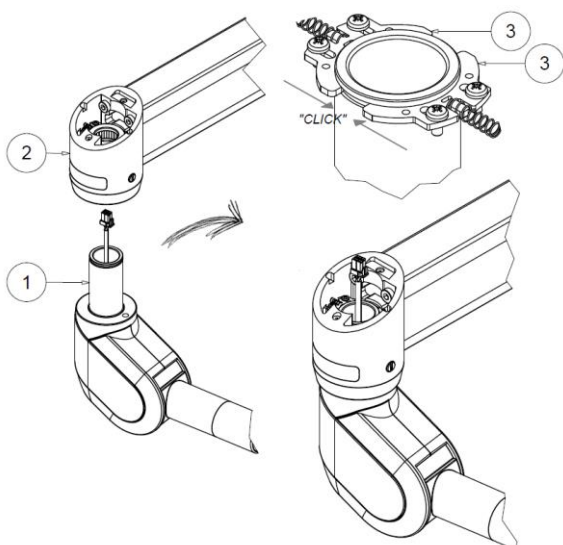
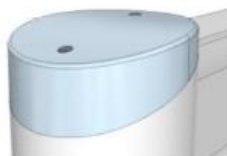
4.3.3 Installation of swinging arm



**INSERT THE PIVOT FROM THE BOTTOM
TILL TO THE COMPLETE FIXING
THROUGH THE 'QUICK COUPLING'**



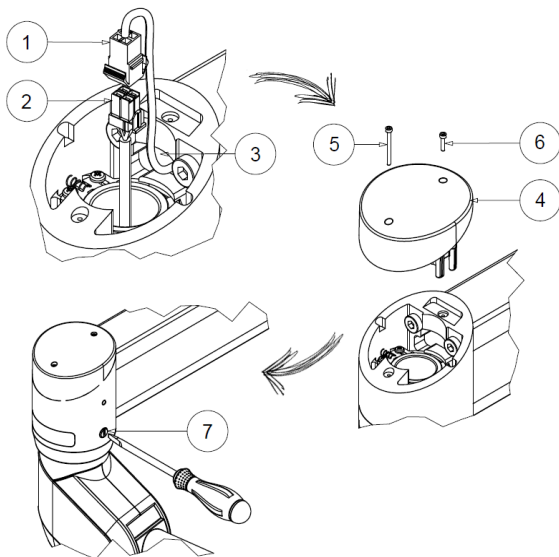
WARNING, PERSONAL INJURY RISK
It's compulsory to follow this instruction.
The wrong insertion of locking levers in their seat of
the pivot may cause the fall of swinging arm and
cupola with high risk of personal injury.



Align the swinging arm pin (1) and insert it into the horizontal arm (2) until the two locking levers (3) automatically engage and produce a "CLICK", and lock the arm in place.



Before continuing with the assembly, check with swinging arm movements that the locking levers are in place in the pin slot.



Join together connectors (1) and (2). In case of a standard lamp only one locking connector will be available.

In case of a lamp equipped with CCTV, the supply will include power connectors, to be connected according to colours, and video signal connectors, to be connected according to letters. These connectors need to be screwed together.

Put the wires into the horizontal arm slot (3).

Place the plastic cap (4) on the upper part of the horizontal arm making sure that the 4 tips fit into their respective seats and close with the screws (5-6).

Tighten the clutches (7) in order to make the arm position stable.



Before proceeding, make sure the plastic cap is correctly positioned and in contact with the horizontal arm and that the screws are well tightened.

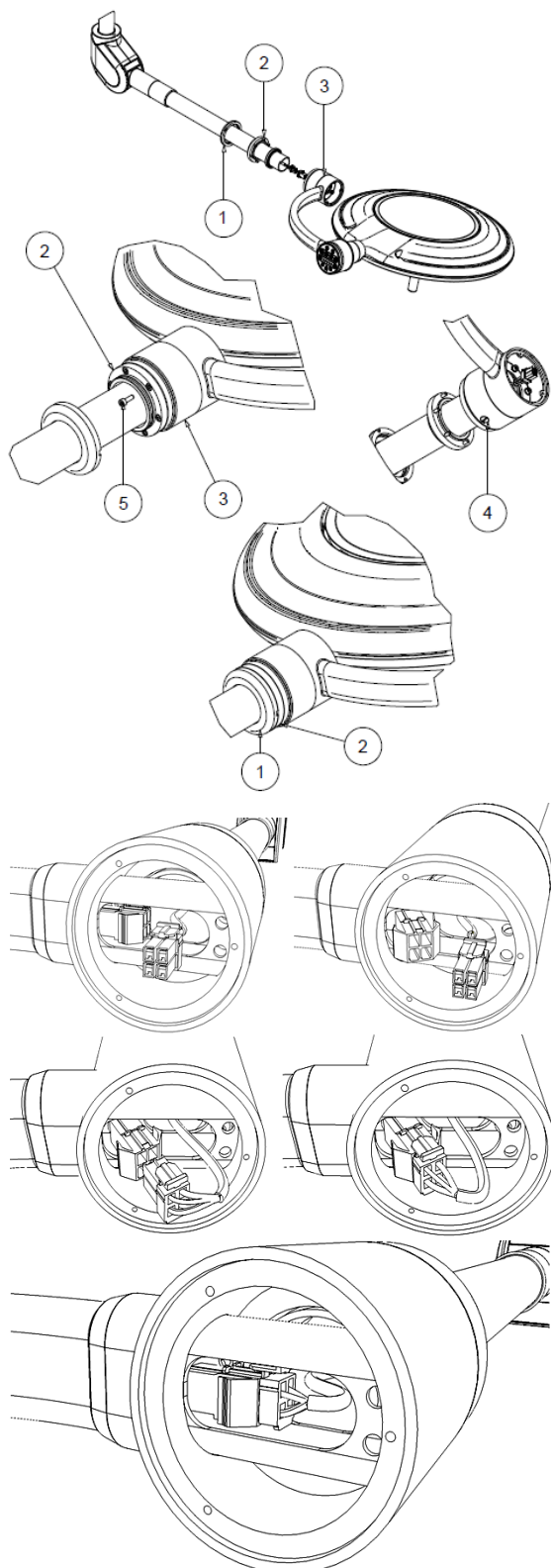


The correct closure of the plastic cap ensures that the locking levers are locked.



To make assembly easier, it is best to assemble the swinging arm first, and then the cupola.

4.3.4 Installation of cupola



Before positioning the cupola, as indicated in the drawing, position the yoke lock covering (1) and the yoke lock (2) on the swinging arm tube.

Insert the head of the Product with the yoke (3) on the swinging arm and bring the surfaces into contact. Now the head is able to maintain the position autonomously, without any support.

Pay attention to place the Product head and the arm in the same position, as indicated in the drawing, with the yoke to the left of the arm and the friction screw (4) turned downwards.

Push the yoke hub lock (2) onto the yoke hub (3), and rotate it in order to match the corresponding 6 holes.

Screw the 6 screws (5) to lock the hub and lock.

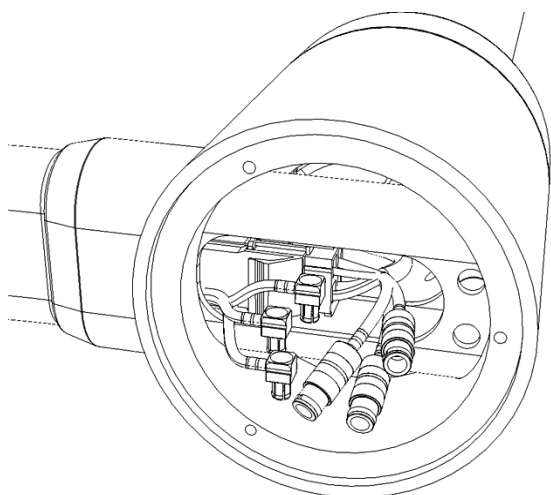
Then position the cover (1) on the lock (2) in order to cover the screws.

To ease the cables connection, first slightly extract the white connector coming from the swinging arm and then the one coming from the yoke.

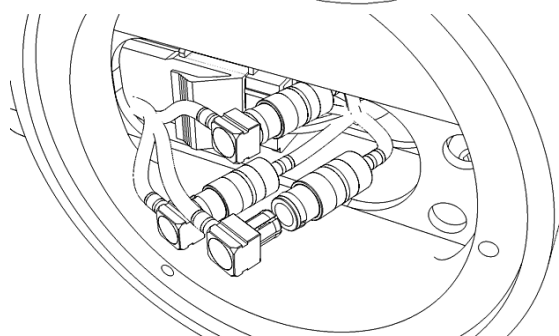
Connect the white connectors together as shown in the images to the side.

Then reposition the connectors inside the yoke, taking care not to crush cables.

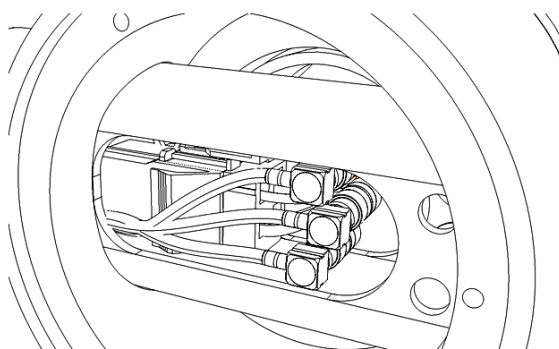
In case of a lamp equipped with CCTV, in addition to the power connector, there will also be video signal connectors.



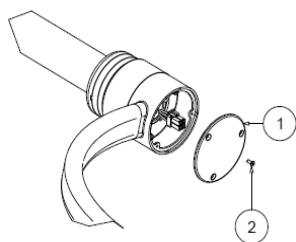
Connect the connectors in accordance with the letters.



Then also reposition these connectors inside the yoke, taking care not to crush cables.



Once the connection is complete fasten the covering disc (1) in front of the yoke by screwing the three screws (2).





Electric shock hazard.



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.



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.



Strictly follow the wiring diagram for the correct connection.

4.3.5 Electrical connection

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.


GIMA does not supply the mains supply cables.

Prime the fuses in the switchboard terminal box after the mechanical and electrical assembly of the Product. Priming the fuses too early could permanently damage the Product. If the Product is not used for long periods of time, remove the fuses.

According to the different cases, the electronic panel could be installed on the anchoring tube or in the false ceiling.

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.

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.

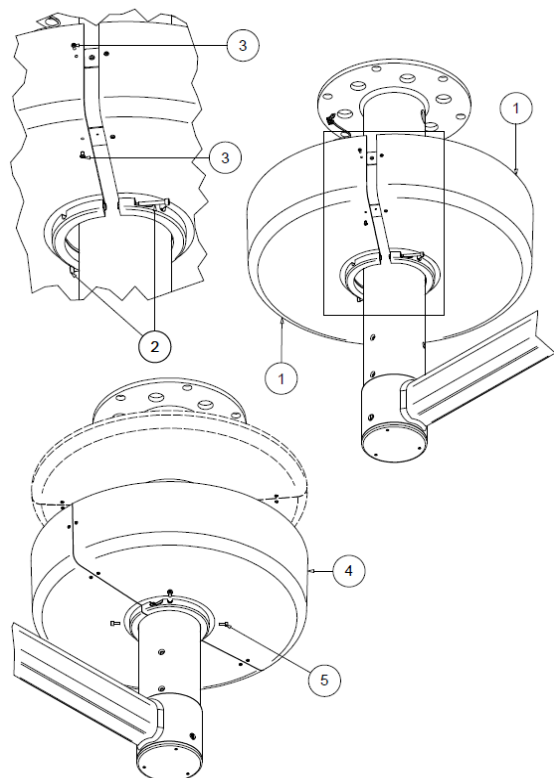
Always connect earthing cables () of lamp and net into the related terminals.

Out of every lamp there is always a communication cable (OW) connected to a forbox. In case of double light head lamp the cables (OW) of both lamps are connected to the same forbox.

This OW cable is needed for the communication between the lamps and to the optional wall control.

The cable (OW) of the wall control panel (if supplied) has to be connected to the forbox in order to allow the communication.

If the lamp isn't equipped with wall control panel, do not consider forbox connection



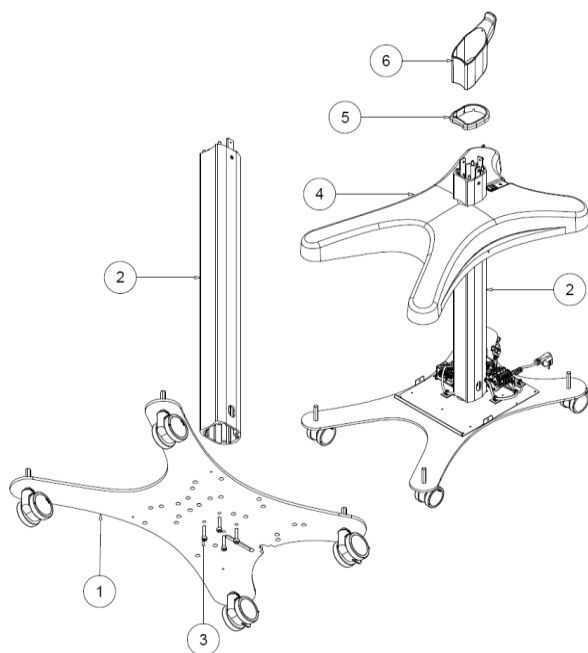
4.3.6 Installation of ceiling cover

Once the electrical connections have been completed, the installation can be completed by positioning the ceiling cover. Depending on the type of ceiling (with false ceiling or not), a cover is provided split into two halves, which can be high or low. To install, position the two halves (1) in line with the ceiling anchoring tube. Close them by tightening the two screws of the ring (2) and the 4 screws of the cover (3). Fasten the ring earth lead in the respective terminal. Bring the complete cover (4) up against the ceiling / false ceiling and secure it in position by fully tightening the 4 screws (5).

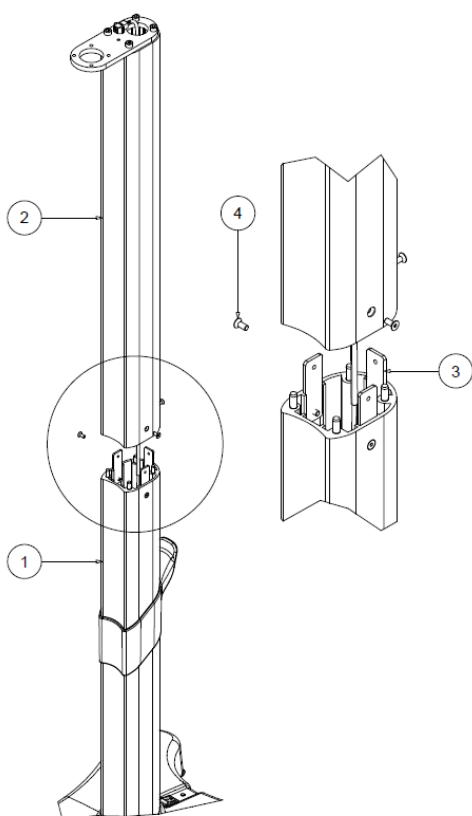
4.4 Installation of Product in mobile version

4.4.1 Installation of lamp stem

Position the lower stem (2) in the base housing (1) and tighten it with the 4 screws (3). Adequately tighten the 4 screws (3) to avoid any risk of instability and possible Product overturning. Insert from the top of the stem (2) the stand cover (4), the closing ring (5) and the stem cover (6) in the indicated order.

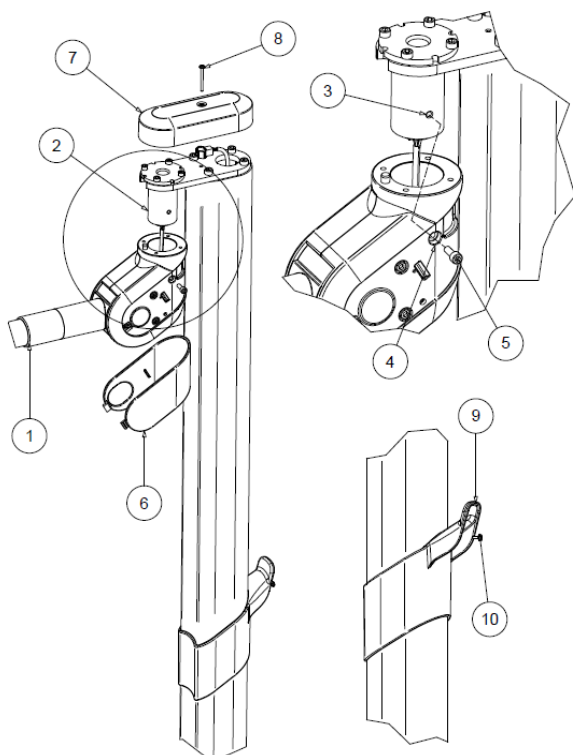


Instability and overturning hazard.



Insert the cables inside the top stem (2) and position it vertically above the lower stem (1). Make the two extremities coincide using the guides (3).

Fasten the two stems by means of the screws (4).



4.4.2 Installation of swinging arm

Position the swinging arm (1) in front of the stem and in correspondence with the pivot (2).

Match the threaded hole of pivot (3) with the hole located on the hub (4).

Insert the swinging arm (1) into the pivot (2) and fastening it by tightening the screw (5).

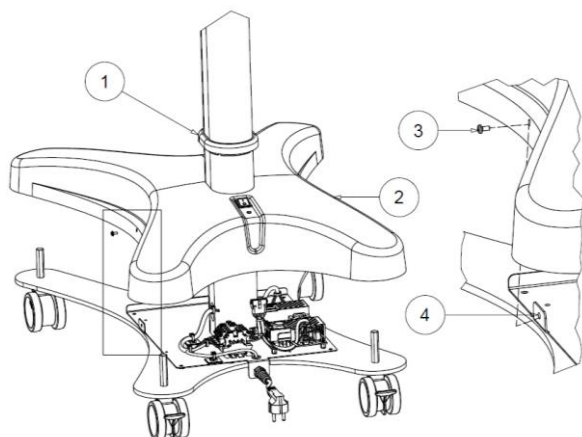
Insert the plastic cover (6) from the bottom, widening it if required to make insertion easier. Fasten the cover by inserting the fasteners in the hub recesses.

Join the wiring connectors and fasten the upper cover (7) with the screw (8).

Position the cover (9) and secure it with the screw (10) in line with the threaded hole.

4.4.3 Installation of cupola

See point 4.3.4 above.



Fuses

4.4.4 Electrical connection

Lift the closing ring (1) and the stand cover (2) by 30–40 cm in order to access the power section. Join the connectors coming from the stem and switch. Return the cover and seal to original position and faster the cover (2) by means of the screws (3) to be fastened to the threaded bush (4). In the case of a battery lamp, also connect the battery faston that is disconnected.

After making the connection, engage the fuses.

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

4.5 Protection fuses

Product power protection is ensured by input fuses (L, N) and one output fuse (24V) of the TXAH 250V 5x20 type (where X is the fuse value). Only one input fuse (L) for ceiling versions.

FOR CEILING MODELS:

n°1 T2AH (L) and n°1 T10AH (+ 24VDC)

FOR MOBILE MODEL:

n°2 T2AH (L-N) and n°1 T10AH (+ 24VDC)

FOR MOBILE BATTERY MODEL:

n°2 T4AH (L-N) and n°1 T10AH (+ 24VDC)

4.6 Handpiece fitting


Insert the grip in the housing provided until the catch clicks into and is blocked in the handpiece hole.

4.7 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.

4.8 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 – 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 to position "I" (ON);
5. Press the  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.

4.9 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 is suitable for Product installation.
2. Using a spirit level, make sure the bar is perpendicular with the ceiling.
3. Make sure the switchboard is correctly fastened to the Bar by means of the threaded hole provided.
4. Make sure the screws sustaining the horizontal arm are tight (*ceiling versions*).
5. Check that the locking levers are in place and the cap with the 4 tips is inserted correctly (*ceiling versions*).
6. Make sure the stand is correctly fitted in the base (*mobile version*).
7. Check the Product earth connection and make sure the earth terminals 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 position.
10. Make sure the Product emits light.

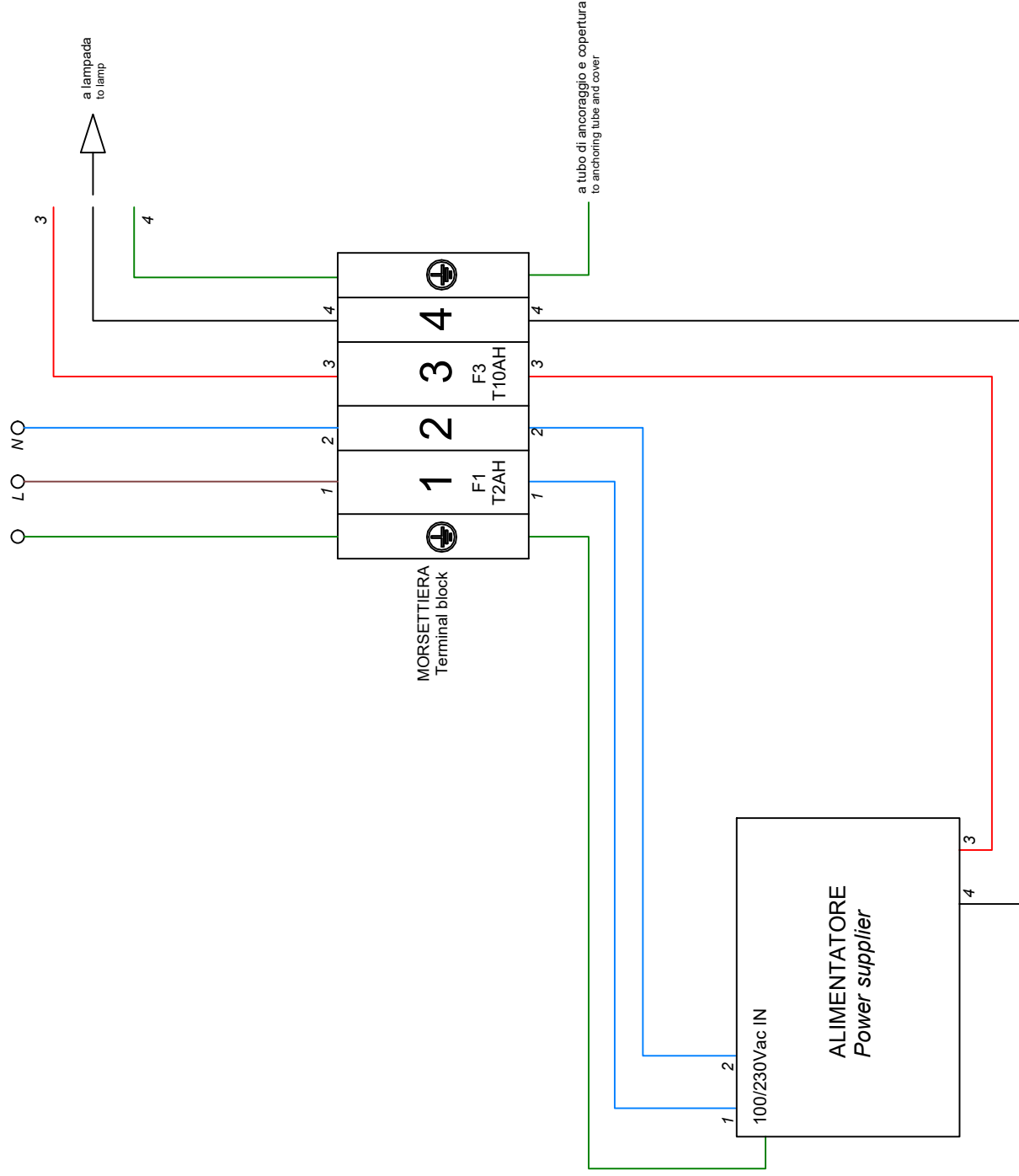
Stamp and signature of TECHNICAL SERVICE PERSONNEL:

5 Troubleshooting



| 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 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. |

LINEA ELETTRICA
Power line



Rev. 0
06/05/2020

Pag. 1 / 1

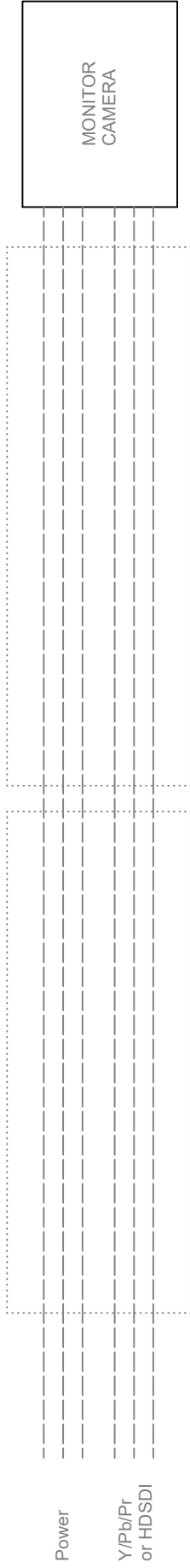
TITOLO / Title
SCHEMA ELETTRICO PER LAMPADA A SOFFITTO
SINGOLA
Ceiling single lamp electrical diagram

NOTE
EVENTUALI ELEMENTI E CONNESSIONI RAPPRESENTATI IN GRIGIO E CON LINEA TRATTEGGIATA SONO OPZIONALI, NON PRESENTI NEL PRODOTTO STANDARD
EVENTUAL ELEMENTS AND CONNECTIONS REPRESENTED IN GREY AND WITH DOTTED LINE ARE OPTIONAL, NOT PRESENT IN THE STANDARD PRODUCT

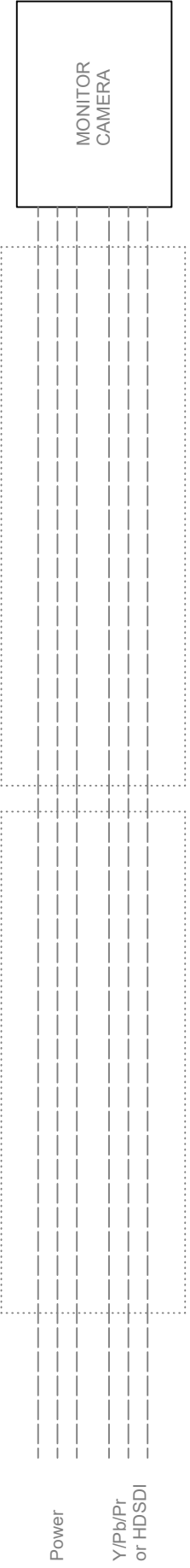
MODELLO / Model
GIMAlled
UNICA520
GOLDEN
U29
Serie E
Serie N
Tris-Led
ORION
COMET-H
COMET-L

N° DIS. / Drw n°
ED506

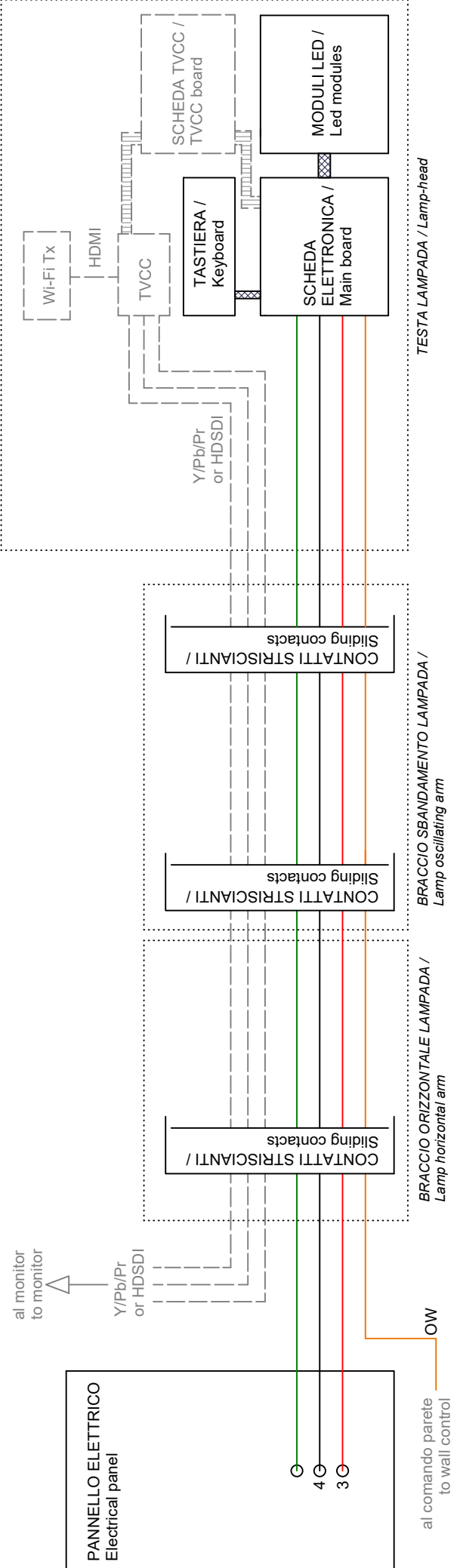
BRACCIO SECONDO SATELLITE /
Secondary satellite arm



BRACCIO SATELLITE /
Satellite arm



BRACCIO PRINCIPALE /
Main arm



Rev. 0 | 07/05/2020

TITOLO / Title
SCHEMA GENERALE PER LAMPADA A SOFFITTO

Pag. 1 / 1

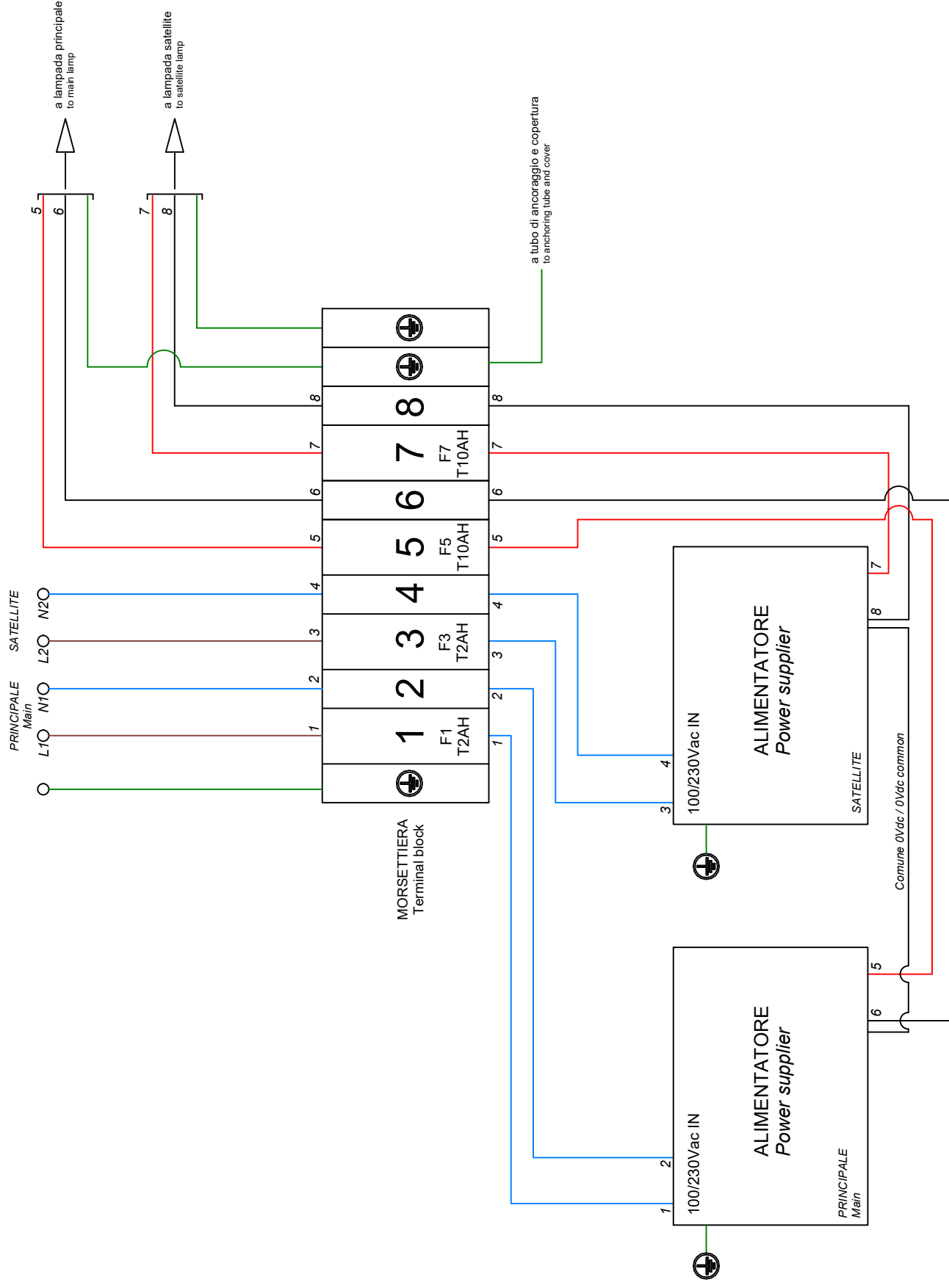
Ceiling single lamp general electrical diagram

NOTE
EVENTUALI ELEMENTI E CONNESSIONI RAPPRESENTATI IN GRIGIO E CON LINEA TRATTEGGIATA SONO OPZIONALI, NON PRESENTI NEL PRODOTTO STANDARD
EVENTUAL ELEMENTS AND CONNECTIONS REPRESENTED IN GREY AND WITH DOTTED LINE ARE OPTIONAL, NOT PRESENT IN THE STANDARD PRODUCT

MODELLO / Model
Serie UNICA
GIMAIed
U29
Serie E
ORION
Serie N
COMET-H
Tris-Led

N° DIS. / Drw n°
ED509

LINEA ELETTRICA
Power line



Rev. 0
06/05/2020

Pag. 1 / 1

TITOLO / Title
SCHEMA ELETTRICO PER LAMPADA A SOFFITTO DOPPIA
Ceiling double lamp electrical diagram

NOTE
EVENTUALI ELEMENTI E CONNESSIONI RAPPRESENTATI IN GRIGIO E CON LINEA TRATTEGGIATA SONO OPZIONALI, NON PRESENTI NEL PRODOTTO STANDARD
EVENTUAL ELEMENTS AND CONNECTIONS REPRESENTED IN GREY AND WITH DOTTED LINE ARE OPTIONAL, NOT PRESENT IN THE STANDARD PRODUCT

MODELLO / Model
UNICA520
GOLDEN U29
Serie E
Serie N
Tris-Led

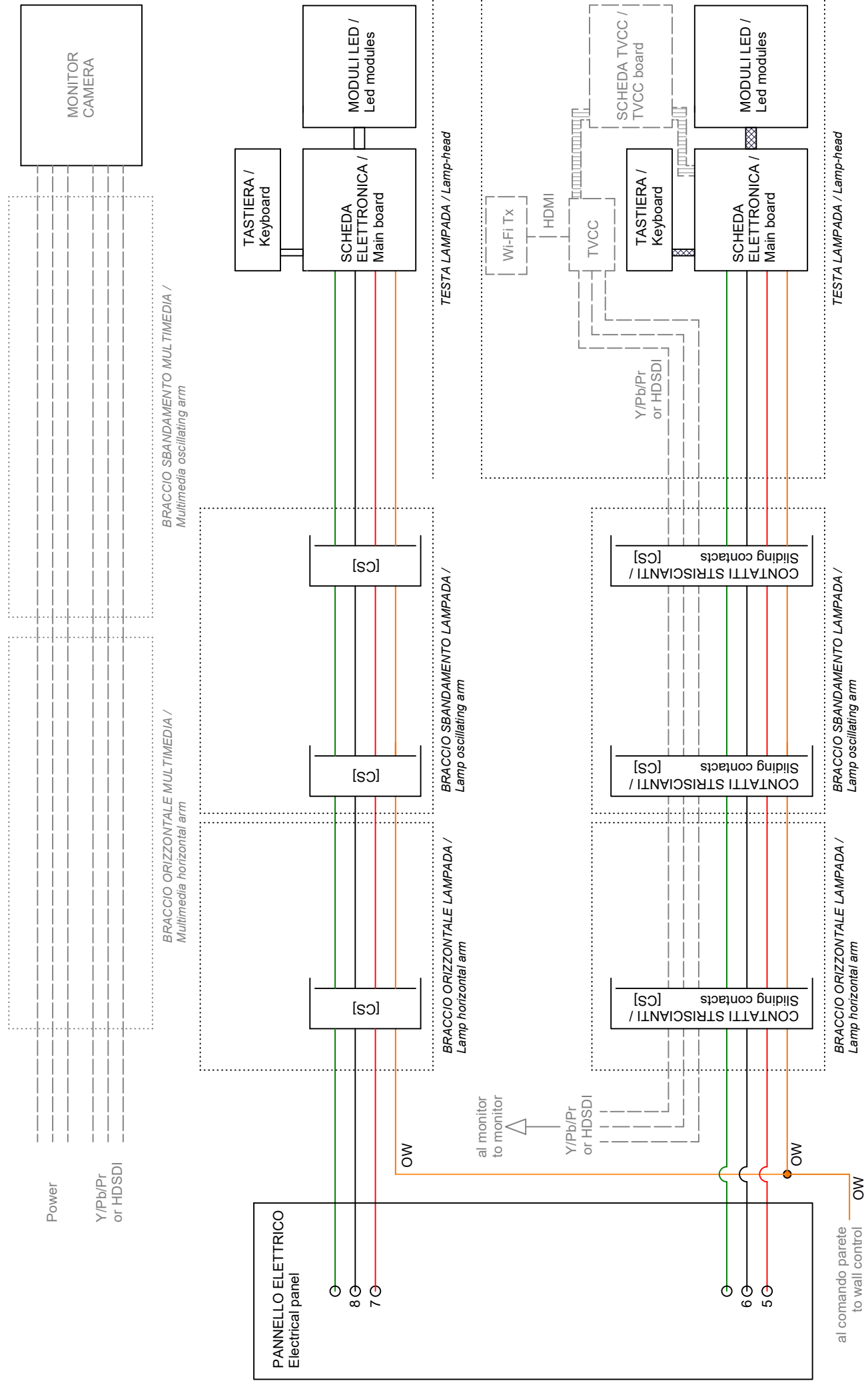
GIMA-led
ORION
COMET-H
COMET-L

N° DIS. / Drw n°
ED507

BRACCIO SECONDO SATELLITE /
Secondary satellite arm

BRACCIO SATELLITE /
Satellite arm

BRACCIO PRINCIPALE /
Main arm



Rev. 0
07/05/2020

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TITOLO / Title

SCHEMA GENERALE PER LAMPADA A SOFFITTO DOPPIA

Ceiling double lamp general electrical diagram

NOTE

EVENTUALI ELEMENTI E CONNESSIONI RAPPRESENTATI IN GRIGIO E CON LINEA TRATTEGGIATA SONO OPZIONALI, NON PRESENTI NEL PRODOTTO STANDARD
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MODELLO / Model

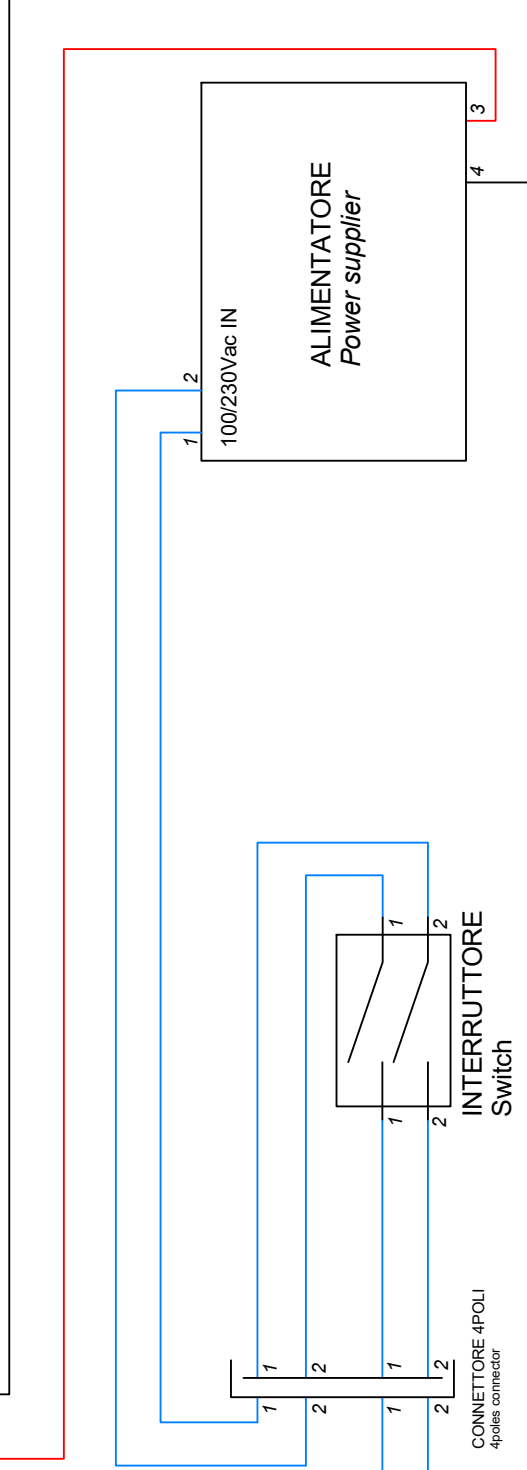
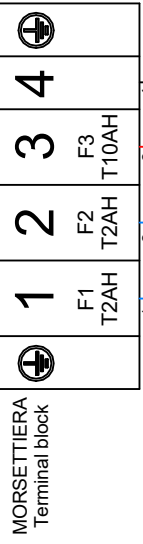
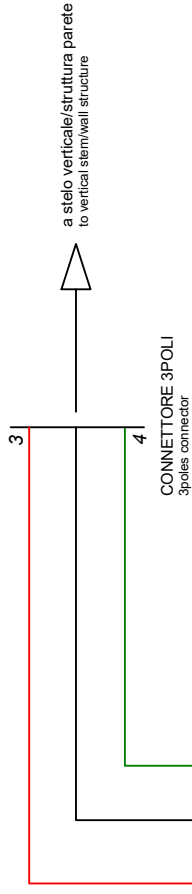
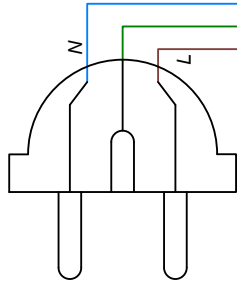
Serie UNICA
U29
Serie E
Serie N
Tris-Led

GIMALED
GOLDEN
ORION
COMET-H
COMET-L

N° DIS. / Drw n°

ED510

LINEA ELETRICA
Power line



Rev.

0 | 06/05/2020

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TITOLO / Title

SCHEMA ELETRICO PER LAMPADA A PIANTANA/PARETE

Mobile/Wall lamp electrical diagram

NOTE

EVENTUALI ELEMENTI E CONNESSIONI RAPPRESENTATI IN GRIGIO E CON LINEA TRATTEGGIATA SONO OPZIONALI, NON PRESENTI NEL PRODOTTO STANDARD

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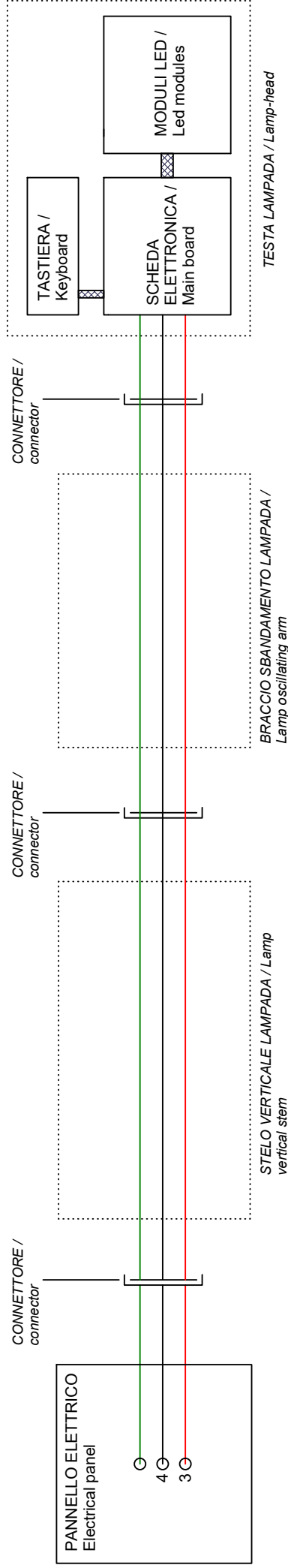
MODELLO / Model

UNICA520
U29
PentaLed30E
PentaLed30N
Tris-Led

GIMAlEd
GOLDEN
ORION

N° DIS. / Drw n°

ED504



Rev.

0 | 07/05/2020

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TITOLO / Title

SCHEMA GENERALE PER LAMPADA A PIANTANA

Mobile lamp general electrical diagram

NOTE

EVENTUALI ELEMENTI E CONNESSIONI RAPPRESENTATI IN GRIGIO E CON LINEA TRATTEGGIATA SONO OPZIONALI, NON PRESENTI NEL PRODOTTO STANDARD

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MODELLO / Model

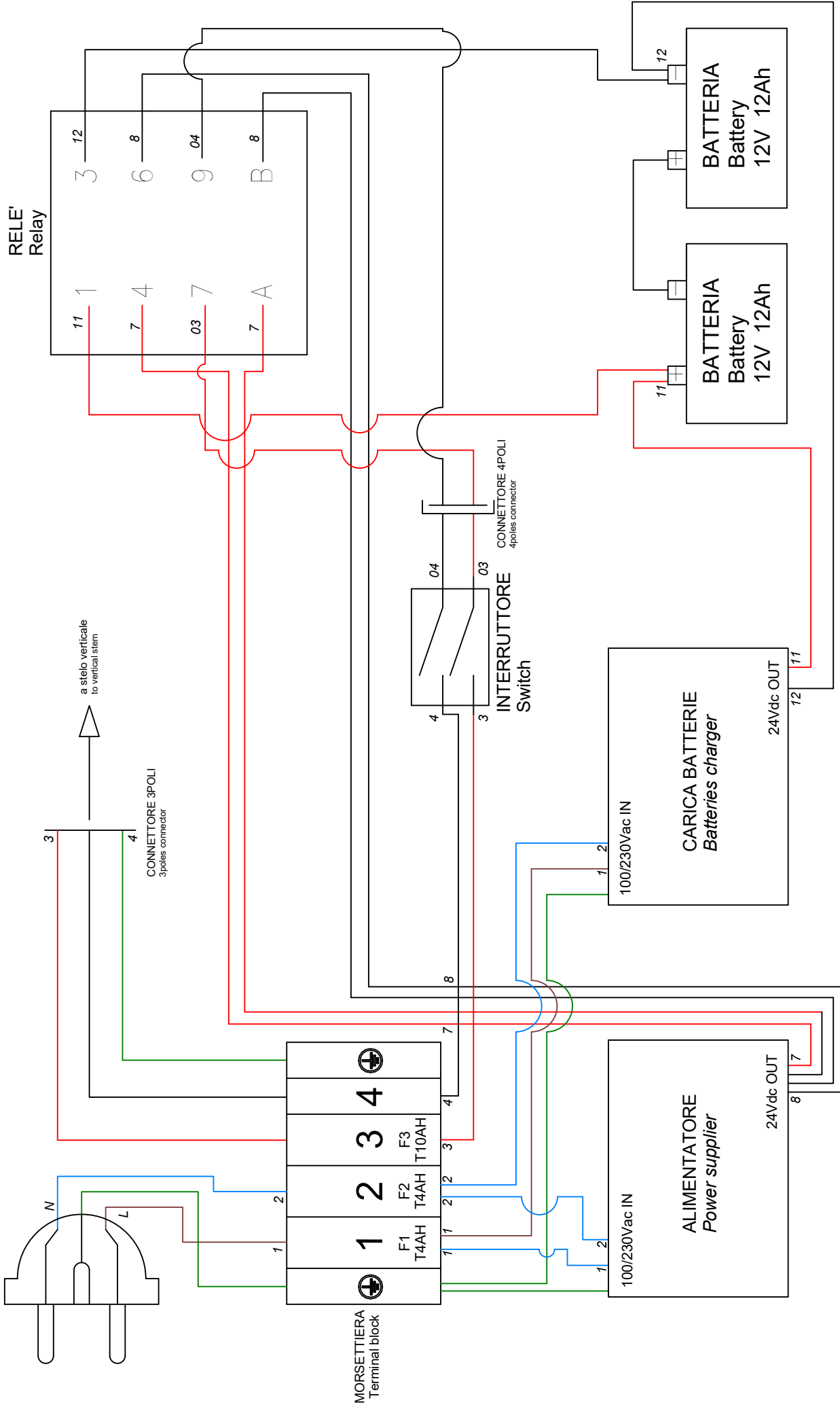
UNICA520
U29
Pentaled30E
Pentaled30 N
Tris-Led

GIMaled
GOLDEN
ORION

N° DIS. / Drw n°

ED512

LINEA ELETRICA
Power line



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TITOLO / Title
SCHEMA ELETRICO GRUPPO BATTERIA PER LAMPADA
A PIANTANA
Mobile lamp battery group electrical diagram

NOTE
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MODELLO / Model
UNICA520
U29
Pentaled30E
Pentaled30N
GIMAl.ed

N° DIS. / Drw n°
ED502