



LR-BST-25

THE LoRa IRRIGATION STATION

INSTALLATION GUIDE

INSTALLATION LR-BST-25

1. LR-BST-25 ELECTRICAL WIRING

For all power supplies (AC, solar panel or battery) please follow the same wiring process. The power cable connection is ensured by 2 conductor's cable with no need of polarity.

- Remove the LR-BST-25 upper and bottom part by rotating them.
- Insert the SIM card.



1.1 Power supply and battery wiring

- Drill the grommet on the bottom part of the LR-BST-25.
- Run the cable through the grommet.



- Wire the cable on the green connector.
(No need to respect polarity)



Power transformer connection



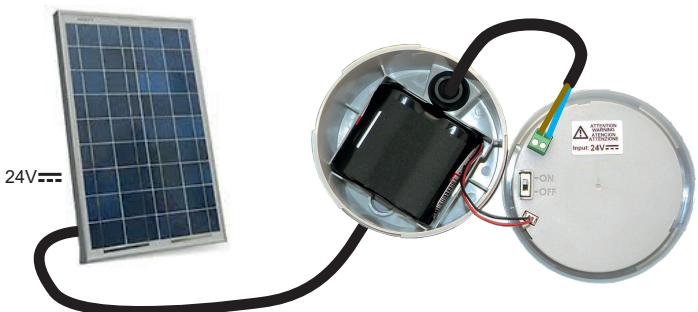
Electrical connection recommendations for the power transformer:

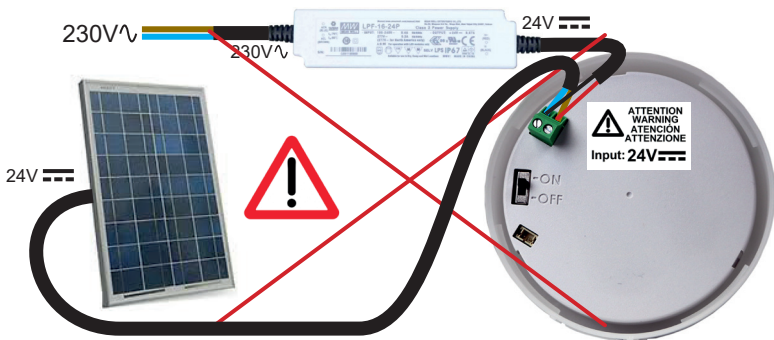
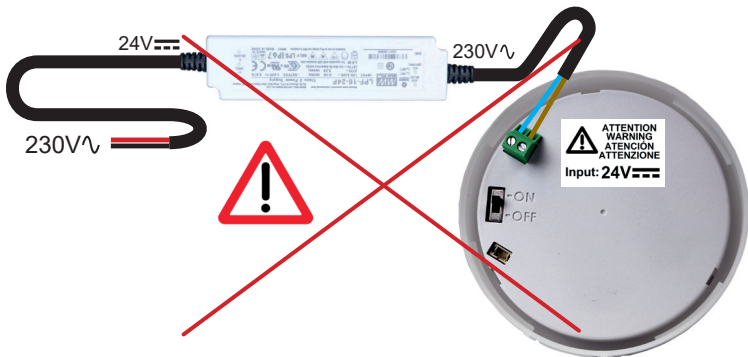
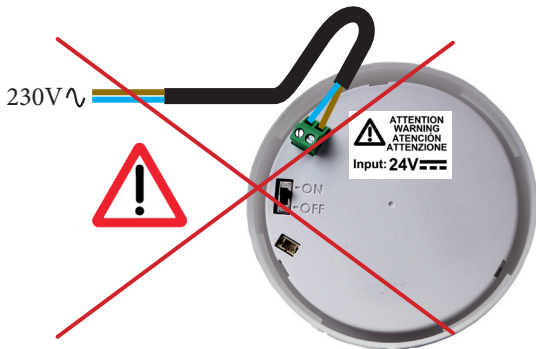
- Use the power transformer supplied with the product.
- Connect the 230Vac input of the transformer to the electrical network by protecting it with a 2A circuit breaker.
- Connect the 24Vdc output of the transformer to the LR-BST-25 using a H05RN-F 2x0.75mm² jacketed cable.
- Place the transformer + circuit breaker assembly in a Class II electrical box.

Recommendation for the battery:

Charge the LR-BST-25 battery for 12 hours the day before installation.

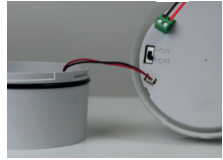
Solar panel connection





1.1.1 Connecting the battery

- Connect the battery.



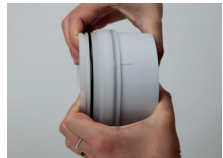
- Set the switch to ON.
When starting the LR-BST-25 connects to the internet and thus to the MySOLEM platform. The LEDs will be green for one hour after startup to signal that the product is operational.



1.2 Reassemble the LR-BST-25

- Adjust the length of the cable by pulling on it.

- Snap the pieces together applying a strong pressure and then lock them.



- Adjust the cable.

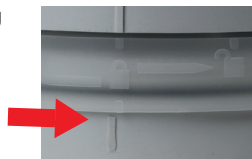


- Tighten the strain relief.



1.3 Closing the LR-BST-25 lid.

- Close the bottom and upper parts by helping you with the pictographs.



FIXATION ON POLE

- Prepare the bracket with the 2 collars.



- Prepare the 2 BST supports with the 2 collars.



- First fix the racket on the pole.



- Then fix the 2 BST supports on the pole with the 2 collars.



- Do not fully tighten the collars to permit the positioning of the LR-BST-25.

- Place the LR-BST-25 on the bracket and fix it with the collars. If necessary readjust the height of the 2 plastic supports as well as the position of the bracket.



- Once well positioned, tighten all the collars correctly. Cut the excess collar.



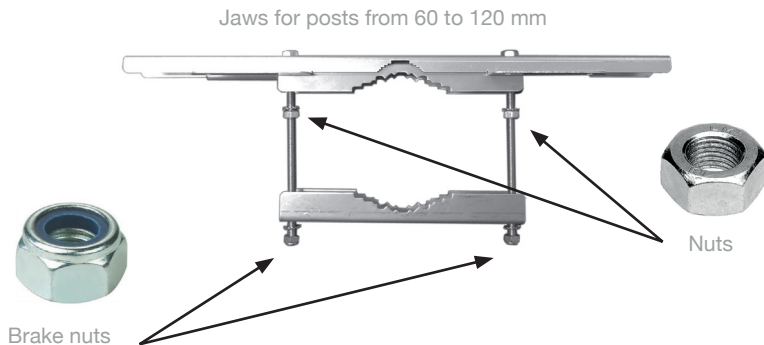
NOTE : the LR-BST-25 can also be installed on a wall.

SOLAR PANEL INSTALLATION

The solar panel can be fixed either on a wall or a 40 to 60 mm diameter pole. It can also be fixed on a 60 to 120 mm pole with jaws addition.



FOR MORE DETAILS ABOUT POLE AND FLANGES FIXINGS PLEASE READ THE NOTICE IN THE FIXING BOX. JAWS ON A POLE OF 60 TO 120 MM.



BATTERY RECOMMANDATION

**CHARGE THE LR-BST-25 BATTERY DURING 24 HOURS
BEFORE THE INSTALLATION**

- In order to do that please wire the LR-BST-25 to the provided power supply 230V/24V DC. Follow the 1.1 paragraphs steps.
- The battery is delivered disconnected so as to preserve its service life. It is advised to keep the LR-BST-25 at ambient temperature of about 20°C.
- Once the battery is connected, it goes into “active” mode and needs to be recharged regularly.
- Do not connect the battery until you are ready to install the LR-BST-25.
- If you have connected the battery but you are not ready to do the installation in the following days, plan to reload it once a week.
- Turn off the battery power for a long time can lead to a complete discharge of the battery and its degradation.

INFORMATION

3G / 2G data communication periodicity:

The LR-BST-25 communicate with the MySOLEM platform on a periodic base in order to:

- Transmit the information to the LR-IP / LR-FL / LR-MS. (e.g.: irrigation programs, manual controls, ON/OFF, etc...)
- Communicate the information coming from the LR-IP / LR-FL / LR-MS. (e.g.: battery level, water volume, etc...)
- This periodicity varies according to the subscription (from 2 to 24 times a day). The communication times are configurable at the factory.

LoRa communication periodicity:

LoRa communication periodicity between the LR-IP / LR-FL / LR-MS and the LR-BST-25 varies according to its power and state of the battery charge, as described in the table below.

Communication LoRa™

These icons indicate the time of the last connection between the LR-BST-25 and the LR-IP/ LR-FL / LR-MS / LR-IS / LR-IPFL :



The connection took place less than **24 hours ago**











The connection took place there are more than **24 hours ago**



The connection never took place

Note: Tap the icon  for more information.

		Périodicity	
Power	Battery state	LoRa	Internet
Power supply (230V adapter or solar panel)	Fully charged 	3 minutes	Communication corresponding to the SIM chosen subscription: 2, 12 or 24 connexion per day
Power supply (230V adapter or solar panel)	Charging 	24 minutes	
Battery		24 minutes	
Battery		24 minutes	
Battery		24 minutes	
Battery		72 minutes	
Battery		Out of service as long as the battery has not reached a sufficient voltage level	
Battery			

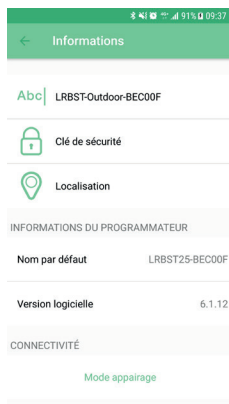
INFORMATION LED'S STATE

At the LR-BST-25 LEDs are functional for one hour.
After this period the LR-BST-25 goes into standby mode.

- LED Green: normal functioning.
- **Blinking green LED: LoRa communication.**
- **3 times blinking red LED: GSM network lost**
- **2 times blinking red LED: time alarm.** The LR-BST-25 is not in time anymore. If your product is connected to the MySOLEM platform, the time update will be automatic. Otherwise connect to the LR-BST-25 from the App and verify the message « Synchronization OK »
- **Blinking white LED: searching a better network.**
- Blinking blue LED: platform communication

PAIRING MODE

In order to associate the LR-IP / LR-FL / LR-MS t / LR-IS / LR-IPFL to the LR-BST-25, please select the pairing mode in the «setting» that will be active for one hour. You will be able to make your pairings or test your LoRa range.



TECHNICAL FEATURES

Use:

Permitted humidity: 90% (relative humidity)

Ambient temperature: -20°C à 60°C

Guarantee: 2 years

Dimension:

Diameter 115mm x Height 307mm

Power supply:

Power pack: INPUT: 100-240V 50/60Hz OUTPUT: 24Vdc 0.6A

Used frequency band:

Bluetooth®: [2400-2483.5]Mhz

LoRa™ [868-868.6]Mhz

3G: [900-2100]Mhz