



SmartBox Litio

INSTALLATION MANUAL

Code: 1000037100120

Safety recommendations

Only for L75C and L180C



Do not damage the cables and connectors inside the cabinet. Connect the 220v power supply carefully, paying attention to the connections.

Always disconnect the 220v power supply upstream of the cabinet when working inside it.

Do not intervene on the device in case of rain and pay attention to any wet internal parts, in order to avoid electrocution.

If the device generates a burning smell or smoke, immediately disconnect the upstream power supply. Call technical assistance.

For all models



The installation must be performed by a specialized technician

The cabinet, if equipped with a battery, can reach a considerable weight. This weight must be carefully checked to assess the physical resistance of the pole for the action of the wind, especially in the case of installation at an altitude greater than 1.5m. (typical height of use without ladder).

The maximum permissible load of a pole for buckling and bending must be calculated by a specialized technician.

Do not try to repair, disassemble or modify the equipment yourself.

If the device generates a smell of burning or smoke, immediately disconnect the fuse that connects the battery. Call technical assistance.

Do not install the device in environments with a high risk of fire, such as deposits of gas, petrol, chemicals, granaries or other easily ignitable substances.



Remember to connect the cabinet to an effective ground connection with a cable of suitable section (4-6 mm.) with the shortest possible length. If possible, use a well with a ground stake firmly anchored to the ground.

Follow the instructions carefully. Once read, keep this manual in a safe place for future reference.

Models L75C, L75S, L180C, L180S

Pole calculation



The calculation must take into consideration the overall weight of the cabinet plus the equivalent wind thrust.

The check must be carried out for bending and buckling according to the section of the pole used.

Verification by a qualified technician is recommended in order to avoid structural failures.

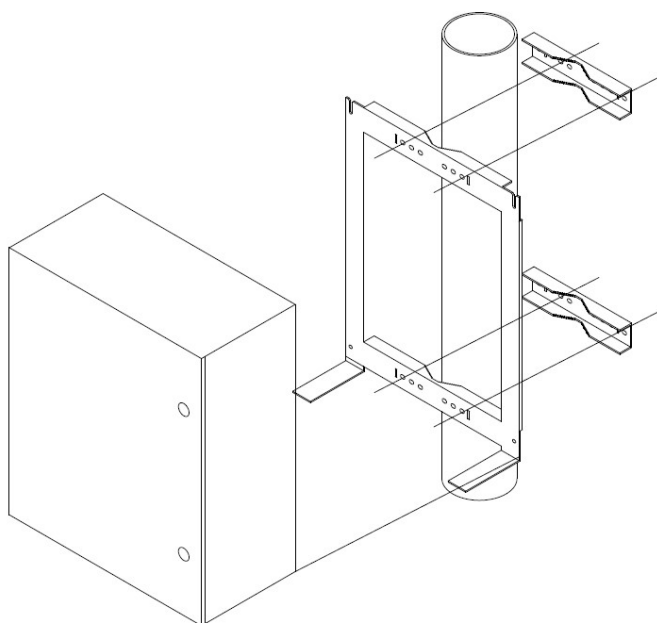
The Townet company is not responsible for the physical installation of the devices which must be the responsibility of the installer.

Technical specifications

	L75C	L75S	L180C	L180S
Dimensioning (mm)	428x325x183	428x325x183	504x434x210	504x434x210
Weight (Kg) (Included battery)	15.50	15.50	23.8	23.80
Mounting Kit (Kg)	3.50	3.50	4.15	4.15
Lition Battery	72Ah	72Ah	150Ah	150Ah

Pole Installation

Mounting kit



Materials

Here a list of components

Qta	Descrizione
1	Pole mounting kit
2	Back mounting
4	Screw M6x25 with washers
4	Bolt M8x180 with washers and nuts

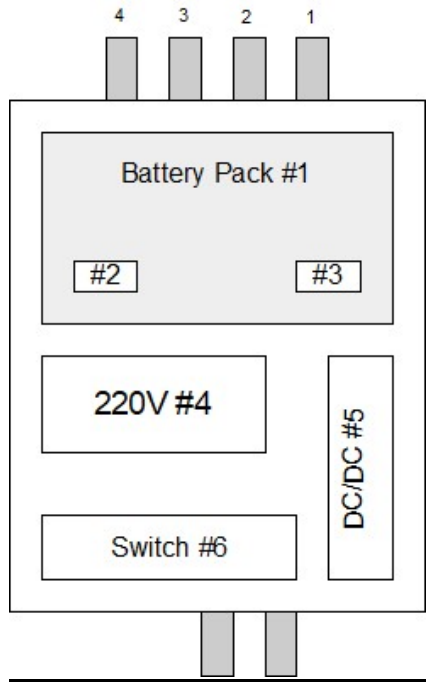
Install the pole support frame before placing the cabinet.

Tighten the bolts in the upper part of the cabinet and use them as supports for insertion into the upper slots of the frame. Fix the lower M6x25 nuts to complete the installation.

Access the cabinet

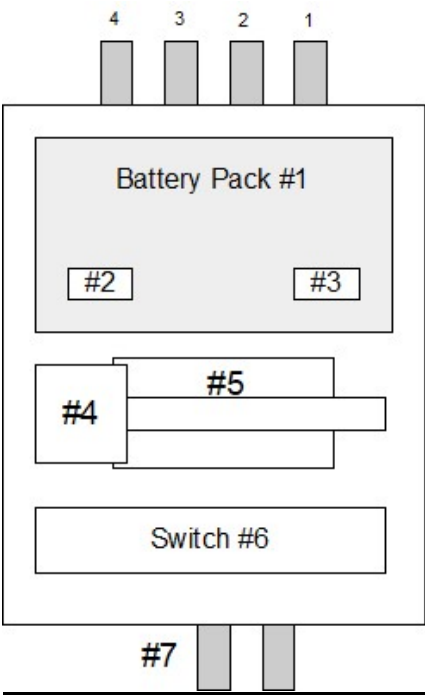
L75C

The cabinet contains high voltage parts every access to the device must be carried out by qualified personnel. On the side there is a diagram indicating the high voltage area in which the utmost attention must be paid.



1	Battery Pack
2	Display
3	Battery Voltage
4	Power switches 220v
5	DC/DC Converter
6	Switches (Optional)

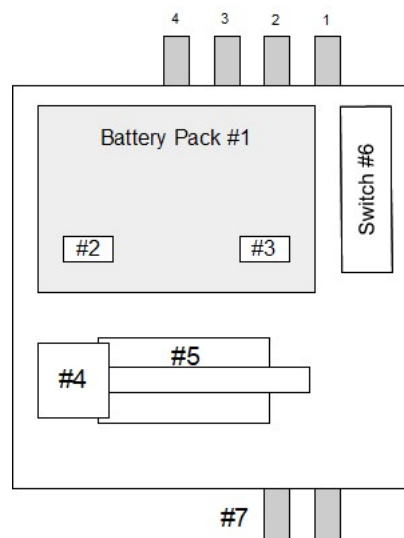
L75S



1	Battery Pack
2	Display
3	Battery Voltage
4	Power switch and fuse
5	Modulo ricarica solare
6	Switch (Optional)
7	Solar Panel In

L180S

1	Battery Pack
2	Display
3	Battery Voltage
4	Power switch and fuse
5	Recharge board
6	Switch (Opzionale)
7	Solar Panel In



Use one of the two inputs located under the L75C cabinet to insert the 220v power cable.

Press and hold button #3 to see the instantaneous battery voltage.

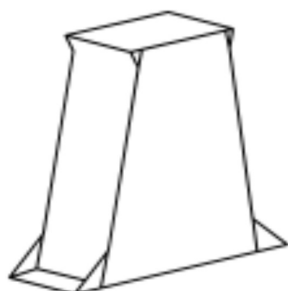
Note: there may be a small reading difference between display #2 and #3 due to the calibration uncertainty of sensor #3

Model L75C T

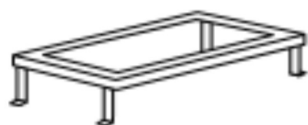
Ground fixed cabinet.

Fissaggio a terra

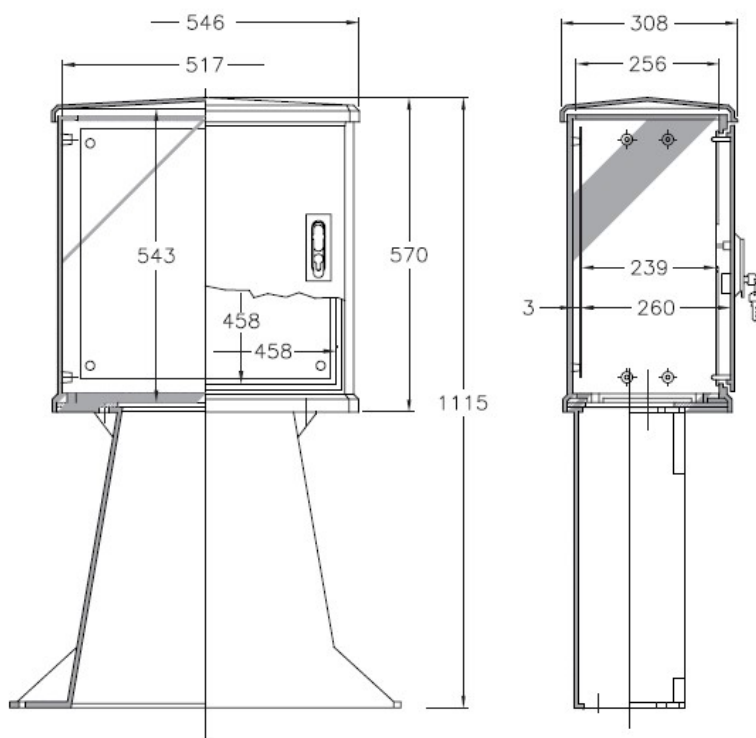
Fix the frame to the floor following the instructions supplied with it.



Basamento



Telaio Ancoraggio Pavimento

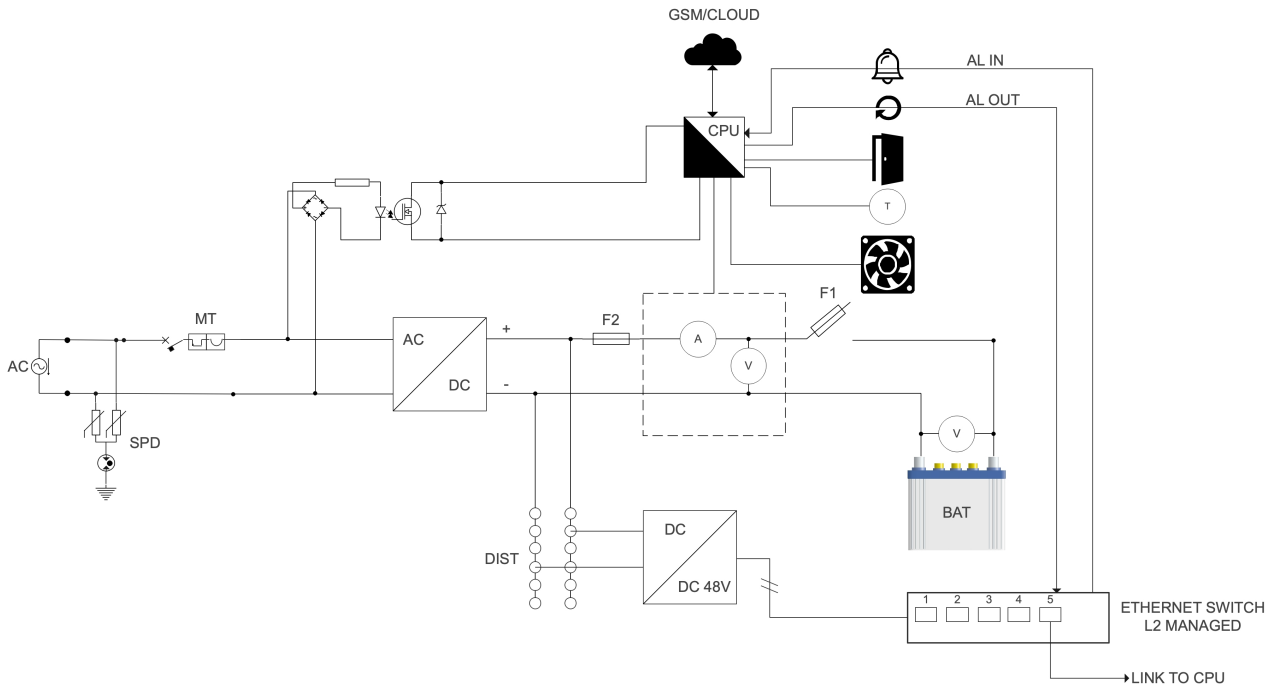


Technical specifications

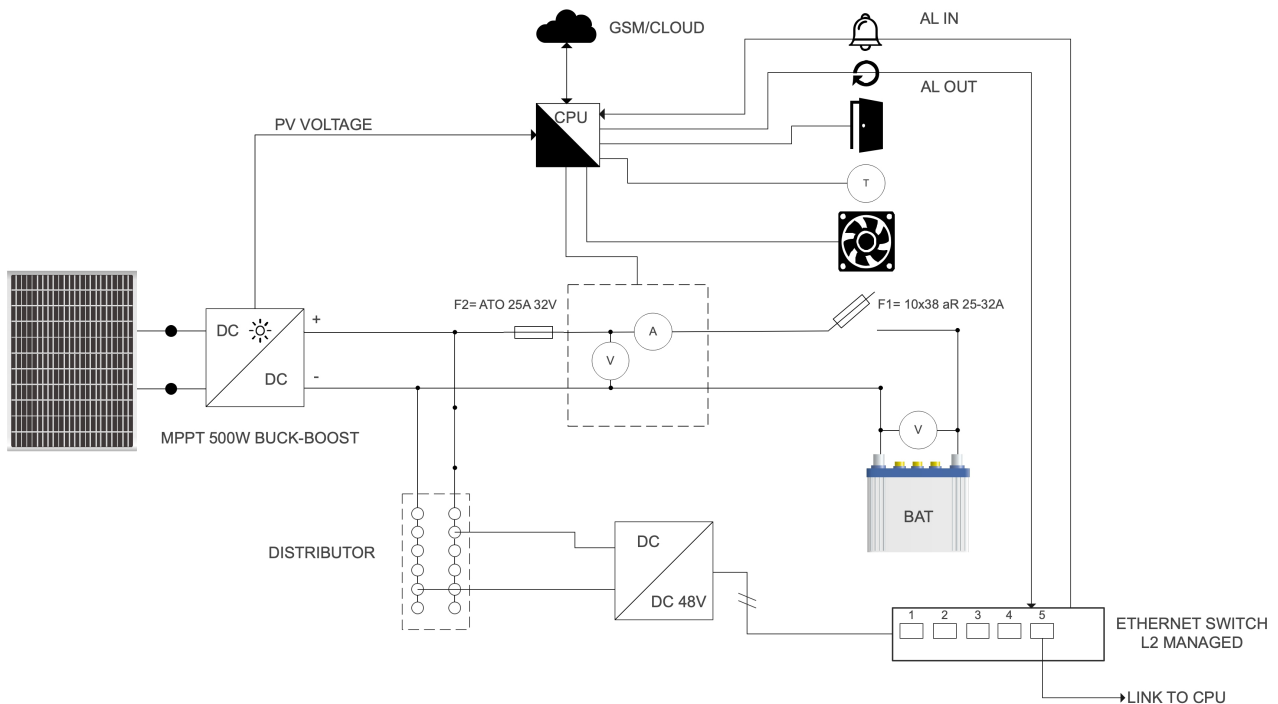
	L75C T
Dimensioning (mm)	546x115x308
Weight (Kg) (Included battery)	32.50
Litium Battery	72Ah

Wiring diagram

L75C, L75C T and L180C



L75S and L180S



Switch 5P Connection

Port	External Port	PoE	Default
1	1	24v / 48v	Auto
2	2	24v / 48v	Auto
3	3	48 v.	48v
4	4	48 v.	48v
5	-	-	-

Switch port number 5 is used by the Control Board.

Warning! Pay particular attention when interconnecting devices to the switch by selecting the correct POE power supply voltage.

Typical Consumptions

Here a typical consumption list at 12V

Board	Cons. Wh	Board	Cons. Wh
OSNode	3	Router Switch	3
Teracom	1	Control board	0.60
TW-IDU-NODE	0.80	Fan	6

The consumption check was carried out by feeding the devices with a stabilized 12V power supply and monitoring the average consumption.

Mechanical parts

Fan

The ignition of the fan is set at 40 ° C with a hysteresis of 2 ° C. It means that the fan starts over 42 ° and stops as soon as it reaches 38 °, and then starts again when 42 ° is exceeded again.

This parameter can be changed as desired.

Battery

In the standard cabinet, the battery is controlled with the appropriate probe connected to the SNMP control unit at a different voltage depending on the model as shown below.

L75C	12 V
L75S	12 V
L180C	24 V
L180S	24 V


Electronic components

Depending on the selected configuration, the cabinet can be composed of the following electronic components:

Control Board	192.168.0.13 / 24
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Switch 5P	192.168.0.1 / 24 admin / admin
4G WiFi Router	192.168.0.2 / 24 admin / admin

The control board is provided with a dedicated sim card to send data to the cloud.

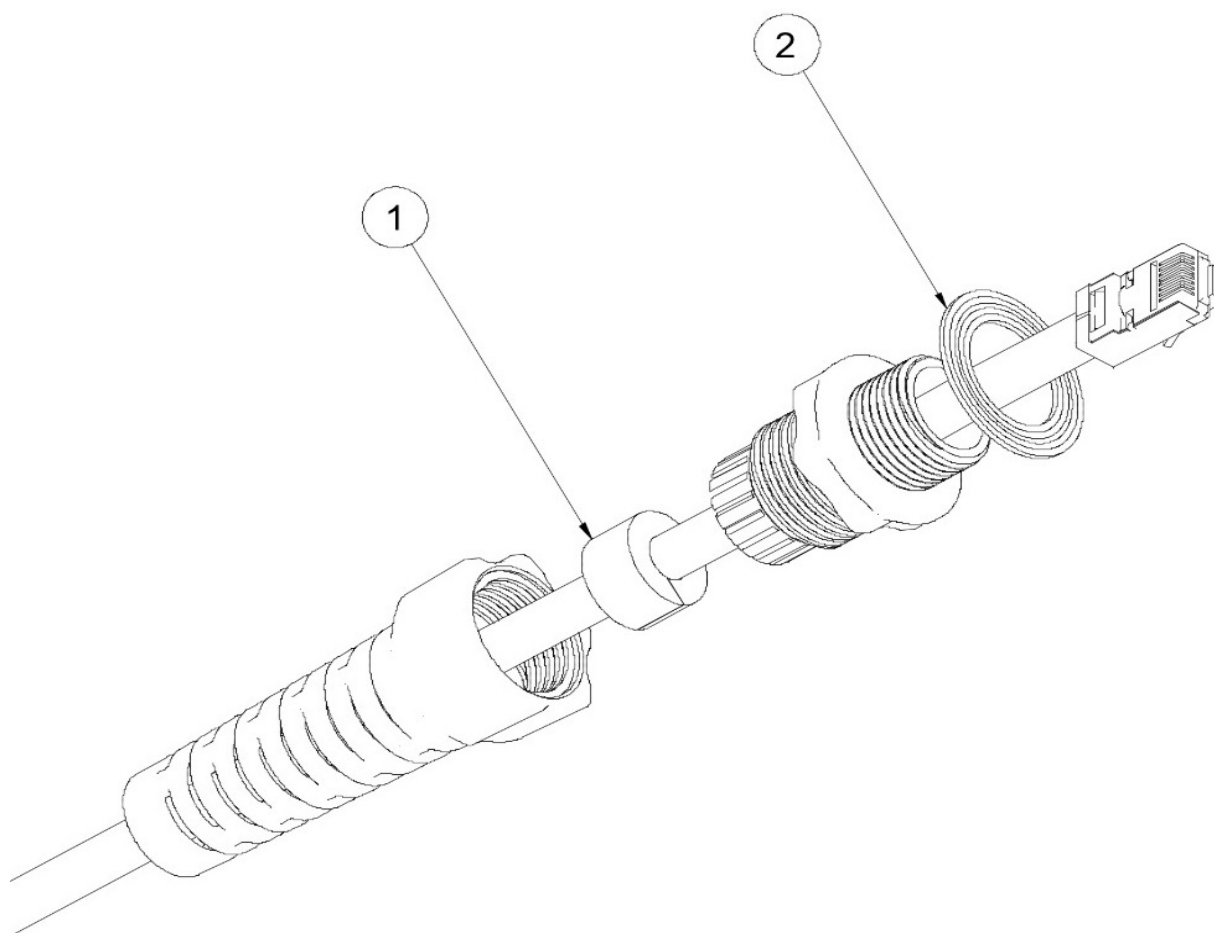
	WARNING! Change login credentials immediately to avoid system vulnerabilities.
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PoE Devices Connection

Always pay close attention to the PoE outputs set on the cabinet in order to always deliver the right current to the various devices.

In general, CPE radios are powered at 24V and cameras at 48V, but this is just a general indication and may vary.

Cable Gland Usage

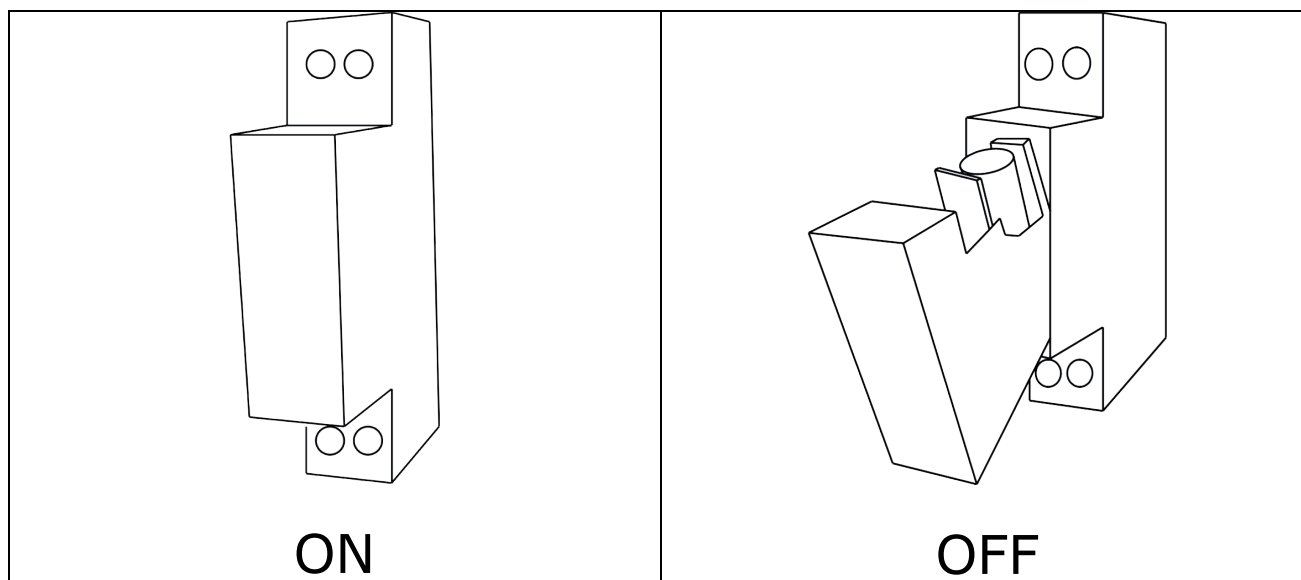


1 – La guarnizione spaccata garantisce l'impermeabilità del box SOLO con cavi di diametro esterno compreso tra 7 e 9 mm. Assicurarsi che sia inserita nella sede a gabbia e che possa chiudersi completamente intorno al cavo.

2- La guarnizione piana è fondamentale per garantire l'impermeabilità. NON mettere main in produzione l'amadiosenza la presenza di questa guarnizione.

Battery Switch

The cabinet is equipped with a fuse holder with a removable drawer. The extraction of the drawer involves the interruption of the connection with the battery.

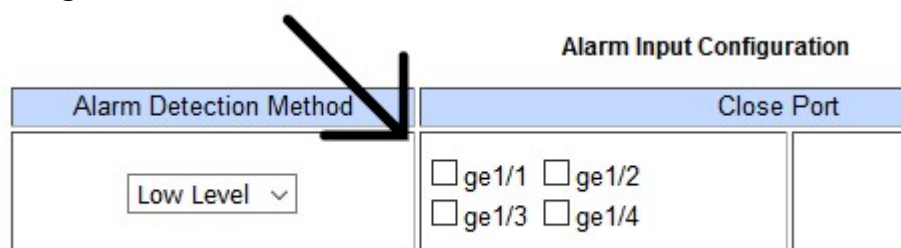


WARNING! The fuse in the outer slide is a spare, only the inner one is working.

Auto power down

The system is set to send a power signal to the switch in case of a low battery. This setting is not operational by default and should be enabled on the switch by checking the ports you want to control.

Just set checkbobs from the switch main page on section "Alarm Input Configuration" under "Close Port".



Remember to save configuration on: System Configuration -> Save Current Configuration.

Solar Panel

Only for L75S, L180S



Warning !

Maximum allowable voltage 60V

The optimal input of the panels is between 36-40V max. We recommend the use of 72-cell panels as they have a better yield.

It is possible to parallel the panels that have a maximum output of 30V, or panels with 36 cells.

The best efficiency is obtained with a constant voltage around 30-39V.

Voltage calculation of panels

Each cell produces approx 0,6W so

72 cells panel produces $0.6 \times 72 = 43V$

36 cells panel produces $0.6 \times 36 = 21V$

Note

Unlike the TW-IDU-NODE based products which require a constant input around 24V, the current system, based on a synchronous charger, is able to accept a wider range.

Cloud data acquisition

The control board is set up to autonomously send data to our cloud DataManager. No further configuration is required.

The control board is programmed to send data via GSM every 5 minutes. If you want to change the data sending gateway, for example by using a 4G router, you can change the configuration by entering the web interface. The access credentials are different for each cabinet and therefore it is necessary to request them from the support

DataManager usage

Address : <https://datamanager.mywaver.it/>

In order to view the data in the cloud, it is necessary to associate the cabinet ID with your account. If you do not have an account, proceed with registering a new user. The ID is shown on a printed label attached to the cabinet itself and represents a unique alphanumeric string that identifies it in our system.

The data is recorded and logged in our system for a period of 1 year.

More informations are available on the portal in the Help section.

Limited Warranty


The use of the cabinet implies acceptance of the General Warranty conditions. Townet is committed to warranty replacement (if within limits) in the event of a defective product, but will never be liable for direct or indirect damage or loss of profits as indicated in the Limited Warranty document.

Declaration of conformity of installation



Check the local installation regulations to verify any system declarations due by the installer.

Treatment in case of discontinued operation

	<p>This appliance is marked with the separate collection symbol for the disposal of electrical and electronic material. The separate collection of this equipment at the end of its life is organized and managed by the manufacturer. The user, who will or must dispose of this equipment, must therefore contact the manufacturer and follow the system that the latter has adopted to allow a correct and effective separate collection of the equipment.</p> <p>Appropriate separate collection of discarded equipment, for subsequent start-up, recycling, treatment and disposal, which is environmentally compatible, helps to avoid possible negative effects on the environment and human health and favors reuse and / or recycling of the materials of which the equipment is made.</p> <p>Illegal disposal of the product by the owner involves the application of the administrative sanctions provided for by current legislation.</p> <p>Please contact Townet srl at +39 0721 797396 to obtain more info.</p>
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