

## WATERPROOF SELF TESTING MAINTAINED EMERGENCY LUMINAIRES



### TECHNICAL CHARACTERISTICS (for LED MODULE Specifications see page 4)

|                                  | GR-938/30L/LT   | GR-939/30L/LT     |
|----------------------------------|---|-------------------|
| OPERATION VOLTAGE                | 220-240VAC 50-60Hz  |                   |
| MAXIMUM POWER CONSUMPTION        | 31W / 33VA (<0°C)   | 32W / 35VA (<0°C) |
| BATTERIES (Ni-MH)                | 3.6V / 2Ah  | 3.6V / 4Ah        |
| BATTERY PROTECTION               | From overcharge and deep discharge  |                   |
| EXPECTED BATTERY LIFETIME        | 4 years   |                   |
| INDICATIONS - CONTROLS           | Charge, Lamp fault, Battery fault , TEST button                           |                   |
| CHARGING TIME                    | 24h   |                   |
| MINIMUM AUTONOMOUS DURATION      | 90 min  | 180 min           |
| ILLUMINATION SOURCE              | White LEDs  |                   |
| ILLUMINATION (MAINS / EMERGENCY) | 280lm / 230lm   |                   |
| DEGREES OF COVER PROTECTION      | IP65  |                   |
| PRODUCED IN ACCORDANCE WITH      | EN 60598-1, EN 60598-2-22, EN 55015, EN 61547, EN 61000-3-2, EN 61000-3-3 |                   |
| OPERATION TEMPERATURE RANGE      | -20 to +40 °C   |                   |
| RELATIVE HUMIDITY                | Up to 95%   |                   |
| CONSTRUCTION MATERIALS           | Bayblend FR3010, transparent polycarbonate                                |                   |
| EXTERNAL DIMENSIONS              | 363 x 145 x 73 mm   |                   |
| TYPICAL WEIGHT                   | 940gr.  | 1050gr.           |
| GUARANTEE                        | 3 years (1 year for the battery)  |                   |

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#### GENERAL

This luminaire is used in places with low temperature (-20°C) where emergency luminaires are needed.

Each illumination sign must be permanently connected to mains power supply. In normal operation the led strip lights and the battery is charging. In case of a mains power supply failure the illumination sign will light the led strip automatically in emergency mode. When the mains power supply is restored the device turns to normal operation.

#### INSTALLATION

To install the luminaire follow the installation instructions on page 3.

#### Battery Charging

The battery charging is completely controlled. In this case, is achieved the perfect battery maintenance, as well as the elongation of its duration. When the battery has completely charged, it charges with a maintenance current.

#### Battery Cut-off

The luminaire enters in this operation when the mains power supply fails and battery has lost its energy. During this operation the illumination sign enters the idle state and battery consumption is negligible, in order to be protected from deep discharge.

#### Manual Test

The manual test can be conducted only if the mains power supply and the battery is connected. By pressing the TEST/RESET button briefly (page 3) an emergency operation test is initiated. During this test period all indication LEDs are OFF.

#### Automatic Operational Test

This test includes all the operations that provide the manual test and is conducted automatically every 15 days. In order to be performed, the mains power supply and the battery should be connected.

#### Manual Autonomous Test

If the Test button is pressed for a period between 5 to 10 seconds (with the battery fully charged), the illumination sign will enter in counting autonomy condition. *If the battery is not fully charged this command is ignored.* The BATTERY FAULT blinks during the measurement, indicating this process to the user. This measurement duration is equal with the nominal autonomous duration of the illumination sign (1.5 hour or 3 hours) and at the end of the process, if the measured duration was at least the nominal autonomous duration, the BATTERY FAULT is turned OFF, in the other hand stays continuously ON indicating to the

user that the battery must be replaced.

### Automatic Autonomous Test

The Automatic Autonomous Test is conducted and measures the illumination sign's back up operation and emergency duration. This test is conducted automatically every six months. In order to be performed, the mains power supply and the battery should be connected and fully charged. If the battery is not fully charged, the test is postponed until the battery is completely charged. If during the Automatic Autonomous Test the luminaire's duration is lower than the nominal, then the battery must be replaced.

### Back Up Operation

The autonomous duration of battery during emergency mode is at least the one that is stated in the list of the technical characteristics. During emergency mode, a LED strip test is also performed.

### Resetting Errors

Push continuously the TEST/RESET button for >10 seconds, to delete all the indicated LED errors. Then the luminaire enters regular operation mode.

### Test Switch (Briefly)

Pressing the test switch less than 5 seconds will initiate a light source test (last for 3 secs). Pressing the test switch between 5 to 10 seconds will initiate a manual battery duration test. This test will not be started if the battery is not fully charged (i.e. If the green LED is flashing). If the test switch is pressed for more than 10 seconds, the device will delete all errors).

### ATTENTION!!!

1. Operations for installation, maintenance or testing must be done by authorized personnel only.
2. The device must be connected to the mains power supply through a fuse dependent by the total amount of the line's power load.
3. In case of battery or lamp replacement, these must be replaced by parts of the same type, by the manufacturer or by a competent person.
4. In case of inactive use for a period greater than 2 months, disconnect the  battery by pulling out the battery's connector.
5. **It is not allowed to discard batteries in to common trash bins, they must be discarded only in battery recycling points. Do not incinerate.**

### Battery Replacement

1. Unfasten the 4 retaining screws (step 8 of the installation instructions) and remove the diffusor.
2. Unfasten the 2 retaining screws step 7 of the installation instructions and remove the reflector.
3. Remove the old battery and place a new one of the same type and characteristics.
4. Replace the removed parts (previous steps 1,2).

### Important notice for the installed luminaires in one area !!!

The installer must connect the battery's connector first and then should power the luminaire. The batteries connection must have at least a time variation of 1.5 minute for each luminaire. With this variation, it is ensured that the non synchronized Automatic Autonomous Test for two or more luminaires installed in one area, is not conducted in the same day.

### NOTE: LED= Light Emitting Diode LABELING EXPLANATION:

X: Self contained

1: Maintained (\*)

A: Including test device

G: Internally illuminated

\*90: 1.5 hour duration

180: 3 hours duration

Note!! The installer should fill in, on the specification label, the letter **G** if the luminaire is used as a safety sign.

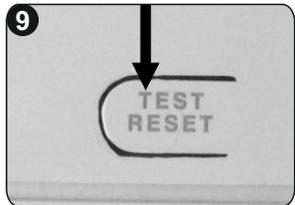
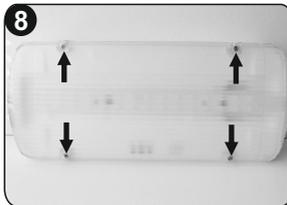
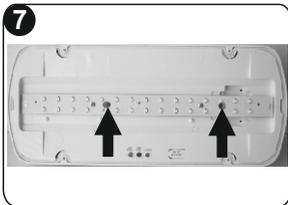
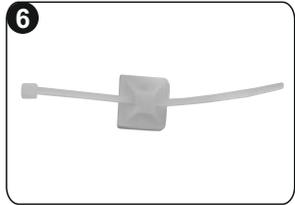
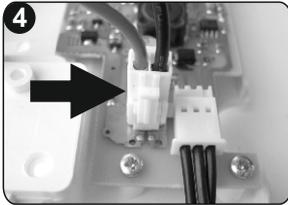
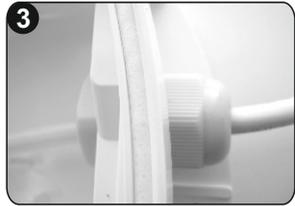


X 1 A G \* 9 0

(\*) Non Maintained operation: The luminaire lights its illumination source, only in power supply's failure.

Maintained operation: The luminaire lights its illumination source, when it is powered by the mains power supply or not.

## INSTALLATION INSTRUCTIONS



**Step 1.** Remove the diffuser. Place a flat blade screwdriver and pull the reflector gently (with opposite orientation in relation to the plastic base).

**Step 2.** Install the included plastic cover in to the unused hole and install the base plastic (with the included mounting screws and plugs).

**Step 3.** Always use in any case round mains cable, with a diameter of 6-9mm (H05RN-F type 2x1mm<sup>2</sup> or any other type, at least equal to it's mechanical and electrical properties). **ATTENTION!!** The cable must not be deformed in any way (This requirement is important to ensure the tightness isolation IP65). Install the cable gland, pass the round cable thru and tighten it all the way. When fastening the cable gland retain the main body of the gland in a steady position and rotate only the internal plastic screw, this will prevent the rubber grommet from being damaged.

**Step 4.** Place the battery's connector to the corresponding connector on the P.C.B.

**Step 5.** Connect the mains cables to the respective terminal block (connect the ground wire if required). **N for neutral, L for Live Wire and L1 for the maintained operation.** The L1 wire can be connected to an external switch to control the maintained or non maintained operation of the luminaire. For permanent maintained operation use two wires to power the luminaire, N for neutral and L for Live Wire, and Link the L and L1.

**Step 6.** Install the included tie (if needed) to fasten securely the power cables.

**Step 7.** Refit the reflector and fasten the two small screws (included).

**Step 8.** Finally place the diffuser by using the 4 screws (tightening torque 1.2Nm).

### **Step 9. Manual TEST or Resetting Errors**

In order to test or reset the device you must carefully remove the diffuser by unfastening the 4 mounting screws. Then push the button as described in the according paragraphs on page 1 and 2.

**NOTE!!** After finishing the installation you must power the luminaire at least for 24 hours for battery charging to perform the nominal autonomy.

## Status of LEDs

| LEDs  | Description   |  |  |                        |  |
|---|---|--|--|------------------------|--|
| GREEN<br> | YELLOW<br> | RED<br> | Normal   |                        |  |
|           |            |         | Charging   |                        |  |
|           |            |         | Charger fault, battery not connected<br>or mains off                                   |                        |  |
|           |            |         | Battery duration test (auto or manual)   |                        |  |
|           |            |         | Battery fault  |                        |  |
|           |            |         | Light source test  |                        |  |
|           |            |         | Light source fault   |                        |  |
|           |            |         | Battery fault and light source fault   |                        |  |
|           |            |         | Charger and battery fault (or mains off and battery fault)                             |                        |  |
|           |            |         | Charger and light source fault (or mains off and light source fault)                   |                        |  |
|           |            |         | Charger, battery and light source fault (or mains off, battery and light source fault) |                        |  |
|           |            |         | 1Hz: Heating circuit fault<br>5Hz: Open circuit of heating resistors                   |                        |  |
| <b>Led status explanation</b>   |   |  |  |                        |  |
|           | Steady ON   |  |       | Steady OFF             |  |
|   |   |  |       | Flashing in 1Hz or 5Hz |  |

**The heating circuit faults are:**

- 1) Open circuit of the heat sensor.
- 2) Short circuit of the heat sensor.
- 3) When the heated area is >50 °C. All the above faults are indicated as long as they exist. When they are restored, they will be erased and not indicated by the indication LEDs.

| LED MODULE CHARACTERISTICS |   |               |
|----------------------------|---|---------------|
|                            | GR-938/30L/LT                                   | GR-939/30L/LT |
| Manufacturer               | Olympia Electronics S.A                         |               |
| Model Number               | 0505175/30L                                     |               |
| Voltage Range              | 14-16.5V DC                                     |               |
| Nominal Power              | 5.4W  |               |
| Connections                | Cable connection with non-reversible connectors |               |
| Temperature (tc)           | 45 °C max. across the board                     |               |



*The light source contained in this luminaire shall only be replaced by the manufacturer, or his agent, or a similar qualified person.*

*NOTE! The light source is non-user replaceable.*

## **WARRANTY**

Olympia Electronics guarantees the quality, condition and operation of the goods. The period of warranty is specified in the official catalogue of Olympia Electronics and also in the technical leaflet, which accompanies each product. This warranty ceases to exist if the buyer does not follow the technical instructions included in official documents given by Olympia Electronics or if the buyer modifies the goods provided or has any repairs or re-setting done by a third party, unless Olympia Electronics has fully agreed to them in writing. Products that have been damaged can be returned to the premises of our company for repair or replacement, as long as the warranty period is valid. Olympia Electronics reserves the right to repair or to replace the returned goods and to or not charge the buyer depending on the reason of defection. Olympia Electronics reserves the right to charge or not the buyer the transportation cost.

## **HEAD OFFICE**

72nd km. O.N.R. Thessaloniki-Katerini  
P.C. 60300 P.O. Box 06 Eginio Pierias Greece

[www.olympia-electronics.gr](http://www.olympia-electronics.gr)

[info@olympia-electronics.gr](mailto:info@olympia-electronics.gr)