







## 'POWER LIGHT'' SERIES FOR WATERPROOF ADDRESSABLE SELF TESTING NON MAINTAINED EMERGENCY LUMINAIRES



TECHNICAL CHARACTERISTICS (for LED MODULE Specs. see page 6)	GRL-37/90/WP/ADR	GRL-37/180/WP/ADR	GRL-39/WP/ADR
OPERATION VOLTAGE	220-240V AC/50-60Hz		
MAXIMUM POWER CONSUMPTION	16VA		
BATTERIES (Pb)	12V/7Ah	2x12V/7Ah	12V/7Ah
BATTERY PROTECTION	From overcharge and deep discharge		
INDICATIONS - CONTROLS	POWER-CHARGE indicator, LAMP FAULT-BATT. FAULT indicator, TEST button		
CHARGING TIME	<24h		
MINIMUM AUTONOMOUS DURATION	90 min	180 min	
LIGHT SOURCE	White power LEDs White LEDs		White LEDs
EMERGENCY ILLUMINATION	3200lm 16		1620lm
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	5 to 40 °C		
RELATIVE HUMIDITY	Up to 95%		
CONSTRUCTION MATERIALS	Bayblend FR3010, transparent polycarbonate		
EXTERNAL DIMENSIONS	307 x 100 x 333 mm		
TYPICAL WEIGHT	4260gr.	6450gr.	3770gr.
GUARANTEE	3 years (1 year for the lamps and the battery)		

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#### **GENERAL**

These luminaires are used indoors (ta 40°C) where emergency light is needed. Each luminaire must be connected permanently to the mains power supply.

#### ADDRESS OPERATION

The luminaires can be connected to a GR-6500 address panel. For address operations refer to the installation manual of the panel. For address module connections see page 3. For dip-switch addressing selection see page 3, 4 and 5.

#### **OPERATION DESCRIPTION**

When the unit is connected to the main power supply (after connecting the battery) the indicator LAMP FAULT - BATT, FAULT remains OFF whereas the indicator POWFR CHARGE blinks to indicate that the batteries are charging. When the batteries are fully charged this indicator will light permanently. If this indicator does not light then probably the battery has not been connected. If the batteries are connected and the indicator does not light then contact a qualified service technician for assistance. The charging procedure is monitored by a microprocessor and is based on a 3 stage cycle thus ensuring a fast and full charge of the battery. The charge current is supplied by a high efficiency switch mode power supply which ensures perfect charging

even during the fluctuations of the mains power supply.

#### **BATTERY CUTOFF**

The unit enters this state during the power supply failure and when the battery has been fully discharged. In this state the luminaire draws the least power from the battery in order to prevent deep discharge.

#### **MANUAL TESTING**

Is accomplished by briefly (<1 sec.) pressing the TEST button. This permits the user to test the good operation of the luminaire's emergency circuit. The unit simulates a power failure and the lamps are lit using the batteries. This manual test does not affect the automatic test.

#### **DIMMING OPTION**

When the voltage is interrupted, with corresponding pressings of the button, we can choose the illumination of 100%, 50%, 33% or turned off, either to increase the autonomy time or not to consume the battery power unnecessarily. This option is canceled when the power network is restored.

#### LAMP TESTING

The luminaire tests the good condition of the lamps in emergency mode and warns the user for probable malfunction. If a lamp is found faulty then the LAMP FAULT indicator starts to blink. To verify which lamp is faulty use the TEST button. If the faulty lamp is replaced then the

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error is automatically restored and the indicator is turned OFF.

#### **TFSTS**

Normally the illumination source and the autonomy tests are programmed by the control panel and the test results are sent to the control panel.

If the luminaire is not connected to GR-6500 panel, the following automatic tests executed:

#### **AUTOMATIC EMERGENCY CIRCUIT TEST**

The unit automatically tests the emergency circuit every 15 days (if the battery and mains power are connected). During this test the lamps are turned ON for 3 seconds using the batteries. In some cases this function might not be acceptable (i.e in cinema theaters) so the installer must take this into account during the installation.

#### **AUTOMATIC DURATION TEST**

This test is conducted every 6 months by simulating a power failure, if the battery and mains power supply are connected. The unit lights the lamps using the charged battery and counts the time until the stated duration. If the lamps are ON during the end of the test then the unit is restored to its normal operation (lamps OFF and battery charging). If the lamps go OFF before the end of the test then the unit is restored to its normal operation but the LAMP FAULT / BATT. FAULT indicator is lit to show that there is a problem with the battery and that the battery must be replaced. Let it be noted that this duration test is also done during every long power failure. If the power failure lasts for a long time and the luminaire has entered the BATTERY CUTOFF mode and the duration measured is not correct then the fault indicator will light when the power is restored.

#### **ERASING ERRORS**

Erasing errors is accomplished with a prolonged pressing of the TEST button (>5 sec) when the unit is connected to the mains power supply. The fault indicated with the indicator LAMP FAULT / BATT. FAULT will be erased. If the cause of the fault has not been restored (i.e burned lamp) then the indicator will light again. If the fault was caused by a low emergency duration and you erase the error then this will be indicated again during the next duration test after 6 months. In this case (for duration errors) it is vital to replace the battery before erasing the error (the error is automatically erased if the mains power and the battery are disconnected).

#### WARNING !!!

1. Every test, installation or maintenance

- procedure must be done only by qualified personnel.
- 2. The unit must be connected to the mains power supply using a line fuse rated accordingly.
- 3. The replacement of the battery and the light source must be done using parts of the same type, by the manufacturer or by a competent person
- 4. If the luminaire must be isolated from the mains power supply for more than 2 months then the batteries must be disconnected by removing the battery connectors.
- 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.

#### **INSTALLATION**

To install the luminaire follow the installation procedure as described on page 3.

# NOTE: LED= Light Emitting Diode LABELING EXPLANATION:

X: Self contained

0: Non Maintained (\*)

A: Including test device

B: Including remote rest mode

C: Including inhibiting mode

\*90: 1.5 hour duration

180: 3 hour duration

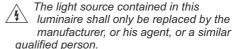
(\*)Non Maintained operation: The luminaire lights its illumination source, only in power supply's failure.

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

#### Battery replacement.

It can be done only by a competent person and after the mains interruption.

- **1.** Follow the step 2 of the installation procedure.
- 2. Disconnect the cables and remove the old battery.
- 3. Connect the new battery with the same type (step 3 of the installation procedure) and place it in the position of the old one.
- **4.** Follow the step 6 of the installation procedure and power the device.

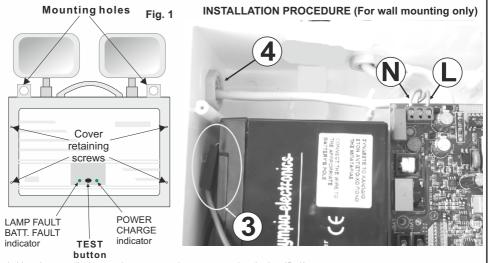


NOTE! The light source is non-user replaceable.

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○ Indicator OFF • Indicator ON • Indicator Blinking



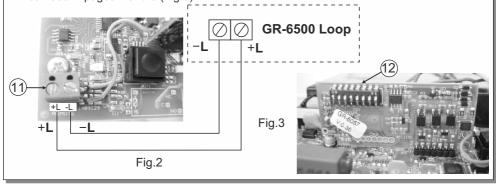
- 1. Use the supplied mounting accessories to mount the device (fig1).
- 2. Remove the four cover retaining screws (fig 1).
- 3. Instal the battery cable connectors to the batteries taking care of the polarity, black cable (-) and red cable (+).
- 4. Always use in any case round mains cable, with external diameter of 6-9mm (H05RN-F type 2x1mm² 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 IP 65). Install the cable gland, pass the round cable thru and tighten it all
- 5. Connect the cables to the respective positions in the terminal block L for phase and N for neutral.
- 6. Reinstall the front cover and fasten the retaining screws. (Tightening torque 1Nm). <u>Pay attention to the 4 sealing o-rings.</u>

WARNING!! After the installation has finished, charge the batteries for at least 24 hours so as to obtain the rated autonomous duration.

#### Address module connections

- (1) Connect the address cables, in the terminal block with the indicating polarity (Fig.2).
- (2) Address the luminaire by using the dip-switches with the appropriate combinations as you can see in pages 4 and 5 (Fig.3).



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Address Dipswitch setting	Address Dipswitch setting	Address Dipswitch setting	Address Dipswitch setting	Address Dipswitch setting	Address Dipswitch setting
1 ON 1 2 3 4 5 6 7 8	31 ON 1 2 3 4 5 6 7 8	61 0N 1 2 3 4 5 6 7 8	91 ON 1 2 3 4 5 6 7 8	121 0N 12 3 4 5 6 7 8	151 ON 1 2 3 4 5 6 7 8
2 ON 1 2 3 4 5 6 7 8	32 ON 1 2 3 4 5 6 7 8	62 PA 4 5 6 7 8	92 ON 12 3 4 5 6 7 8	122 ON 12 3 4 5 6 7 8	152 ON 12 3 4 5 6 7 8
3 ON 12345678	33 ON 1 2 3 4 5 6 7 8	63 ON 1 2 3 4 5 6 7 8	93 ON 12 3 4 5 6 7 8	123 ON 12 3 4 5 6 7 8	153 ON 1 2 3 4 5 6 7 8
4 ON 1 2 3 4 5 6 7 8	34 ON 1 2 3 4 5 6 7 8	64 ON 1 2 3 4 5 6 7 8	94 ON 1 2 3 4 5 6 7 8	124 ON 12345678	154 ON 12345678
5 ON 12345678	35 ON 1 2 3 4 5 6 7 8	65 ON 1 2 3 4 5 6 7 8	95 ON 1 2 3 4 5 6 7 8	125 ON 1 2 3 4 5 6 7 8	155 ON 12345678
6 P1 1 2 3 4 5 6 7 8	36 ON 12345678	66 PROPERTY AND THE RESERVE OF THE R	96 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	126 ON 1 2 3 4 5 6 7 8	156 ON 1 2 3 4 5 6 7 8
7 ON 12345678	37 IN 12345678	67 ON 1 2 3 4 5 6 7 8	97 N N N N N N N N N N N N N N N N N N N	127 12345678	157 12 3 4 5 6 7 8
8 ON 12345678	38 ON 1 2 3 4 5 6 7 8	68 PAR 1 2 3 4 5 6 7 8	98 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	128 0N 12345678	158 12345678
9 12345678	39 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	69 12345678	99 N 1 2 3 4 5 6 7 8	129 12345678	159 12 3 4 5 6 7 8
10 0 1 2 3 4 5 6 7 8	40 00 12345678	70	100 12 3 4 5 6 7 8	130 ON 12345678	160 0N 12345678
11 NON 12345678	41 N N N N N N N N N N N N N N N N N N N	71 ON 12345678	101 1 2 3 4 5 6 7 8	131 12345678	161 12345678
12 ON 12 3 4 5 6 7 8	42 ON 1 2 3 4 5 6 7 8	72 N 1 2 3 4 5 6 7 8	102 ON 12345678	132 ON 12 3 4 5 6 7 8	162 12345678
13	43 12345678	73 12345678	103 12 3 4 5 6 7 8	133 12345678	163 12345678
14 PART 1 2 3 4 5 6 7 8	44 ON 1 2 3 4 5 6 7 8	74 In 12 3 4 5 6 7 8	104 12 3 4 5 6 7 8	134 In	164 12345678
15 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	45 ON 1 2 3 4 5 6 7 8	75 12345678	105 12 3 4 5 6 7 8	135 12345678	165 12345678
16 12 3 4 5 6 7 8	46	76 12345678	106	136 12345678	166 12345678
17 12345678	47 12345678	77 12345678	107	137 12345678	167 12345678
18 12 3 4 5 6 7 8	48 12345678	78 12345678	108	138 12345678	168 123 4 5 6 7 E
19 12 3 4 5 6 7 8	49 12345678	79 12345678	109 12 3 4 5 6 7 8	139 12345678	169 12345678
20 12345678	50 12345678	80 12345678	110 12345678	140	170
21 12345678	51 12345678	81 12345678	111 12345678	141 123 4 5 6 7 8	171 12345678
22 12345678	52	82 12345678	112 12345678	142	172
23 12345678	53 12345678	83 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	113 12345678	143	173
24 12345678	54 0N 12 3 4 5 6 7 8	84 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	114 12 3 4 5 6 7 8	144 12345678	174 12345678
25 ON 12 3 4 5 6 7 8	55 12345678	85 12345678	115 12 3 4 5 6 7 8	145 12345678	175 12345678
26 In 12 3 4 5 6 7 8	56 ON 12345678	86 12345678	116 N 12 3 4 5 6 7 8	146 12345678	176 ON 12345678
27 12345678	57 ON 12345678	87 ON 12345678	117 ON 12 3 4 5 6 7 8	147 12345678	177 12345678
28 ON 12 3 4 5 6 7 8	58 ON 12345678	88 ON 12345678	118 ON 12345678	148 ON 12 3 4 5 6 7 8	178 12345678
29 12 3 4 5 6 7 8	59 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	89 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	119 N 12 3 4 5 6 7 8	149 12345678	179 12345678
30 N 1 2 3 4 5 6 7 8	60 ON 1 2 3 4 5 6 7 8	90 IIIIII	120 ON 12 3 4 5 6 7 8	150 ON 12345678	180 ON 1 2 3 4 5 6 7 8

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Address Dipswitch setting	Address Dipswitch setting	Address Dipswitch setting
181	211	241
182 12345678	212	242 1 3 4 5 6 7 8
183 12 3 4 5 6 7 8	213	243 1 2 3 4 5 6 7 8
184 12 3 4 5 6 7 8	214 12345678	244 ON 12 3 4 5 6 7 8
185 N 1 2 3 4 5 6 7 8	215 12 3 4 5 6 7 8	245 N N N N N N N N N N N N N N N N N N N
186 12 3 4 5 6 7 8	216 N	246 1 2 3 4 5 6 7 8
187 12 3 4 5 6 7 8	217 12 3 4 5 6 7 8	247 12 3 4 5 6 7 8
188 1 2 3 4 5 6 7 8	218 ON 1 2 3 4 5 6 7 8	248 0N 1 2 3 4 5 6 7 8
189 12 3 4 5 6 7 8	219 1 2 3 4 5 6 7 8	249 1 2 3 4 5 6 7 8
190 12 3 4 5 6 7 8	220 0N 1 1 2 3 4 5 6 7 8	250 N 1 2 3 4 5 6 7 8
191 12345678	221 1 2 3 4 5 6 7 8	
192 N 12 3 4 5 6 7 8	222 In	
193 12345678	223 12345678	
194 12 3 4 5 6 7 8	224 12345678	
195 12 3 4 5 6 7 8	225 N N N N N N N N N N N N N N N N N N	
196 12345678	226 12345678	
197 12 3 4 5 6 7 8	227	
198 1 2 3 4 5 6 7 8	228 1 2 3 4 5 6 7 8	
199 11 2 3 4 5 6 7 8	229 12345678	
200 N 1 2 3 4 5 6 7 8	230 12345678	
201 1 2 3 4 5 6 7 8	231 1 2 3 4 5 6 7 8	
202 1 2 3 4 5 6 7 8	232	
203 12345678	233 123 4 5 6 7 8	
204 D 1 2 3 4 5 6 7 8	234 ON 12345678	
205 12 3 4 5 6 7 8	235	
206 12 3 4 5 6 7 8	236 12345678	
207 1 1 2 3 4 5 6 7 8	237 12345678	
208 1 2 3 4 5 6 7 8	238 12345678	
209 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	239 12345678	
210 0N 1 2 3 4 5 6 7 8	240 N N N N N N N N N N N N N N N N N N N	

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LED MODULE CHARACTERISTICS					
	GRL-37/90/WP/ADR GRL-37/180/WP/ADR	GRL-39/WP/ADR			
Manufacturer	Olympia Electronics S.A.				
Model Number	2204153	2811129			
Voltage Range	17.5-20.5V	20.3-25.3V			
Nominal Power	14W	5.46W			
Connections	Cable connection between main pcb and led module				
Temperature (tc	68 °C max.	60 °C max.			

#### 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**

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