

GR-7602 Wifi Gateway



TECHNICAL CHARACTERISTICS

Operation voltage	220 - 240VAC (50 - 60Hz)
Consumption	2VA
Tx/Rx frequency range (wireless emerg. lighting)	868 - 870MHz
Tx power (wireless emerg. lighting)	11dBm
Wifi connectivity	802.11 b/g/n
Wifi security	WPA2-PSK
Tx power (Wi-Fi)	18.3 dBm @ 1Mbps DSSS / 13.7 dBm @ 54 Mbps OFDM
Rx sensitivity (Wi-Fi)	96.0 dBm @ 1 Mbps DSSS / 74.5 dBm @ 54 Mbps OFDM
Produced in accordance with	EN 62311:2008, EN 62368-1:2014 +AC:2015, ETSI EN 301 489-1 V1.9.2, ETSI EN 301 489-3 V1.6.1 ETSI EN 301 489-17 V3.1.1, ETSI EN 300 328 V2.1.1
Construction materials	ABS/PC
Operation temperature range	5 to 40°C
Storage temperature range	-40 to 70°C
Relative humidity	Up to 95%
Typical weight	190gr.
External dimensions (L x W x H)	120 x 80 x 34mm
Guarantee	2 years

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The GR-7602 Wifi Gateway is a master device of the wireless emergency lighting network. It transfers the received data from the GR-7600 PC software to the wireless network and vice versa.

One only Gateway can exist in each wireless network.

Features:

- Powered from mains 220 - 240VAC
- Status and signal indication LEDs
- Fast 868-870MHz wireless connectivity
- Mini Access Point setup interface
- 2.4GHz IEEE 802.11 b/g/n
- WPA2-PSK

LED indications:

 : Power On LED (Green).

RF: RF LED (Orange) . Blinking when receiving data from the connected wireless devices.

 : Signal broadcasting LED (Orange). Blinking indicates Gateway transmissions (beacon).

Button BT1 functions*:

- Short press (<1s): Send status message to the PC Software.
- Long press (>1s and <10s): Reset Gateway.
- Extended press (>10s): Load default settings to the Gateway.

Button BT2 functions*:

- Long press (2s): Establish Mini Access Point (WL Light WiFi). LED LD7 2blinks/s

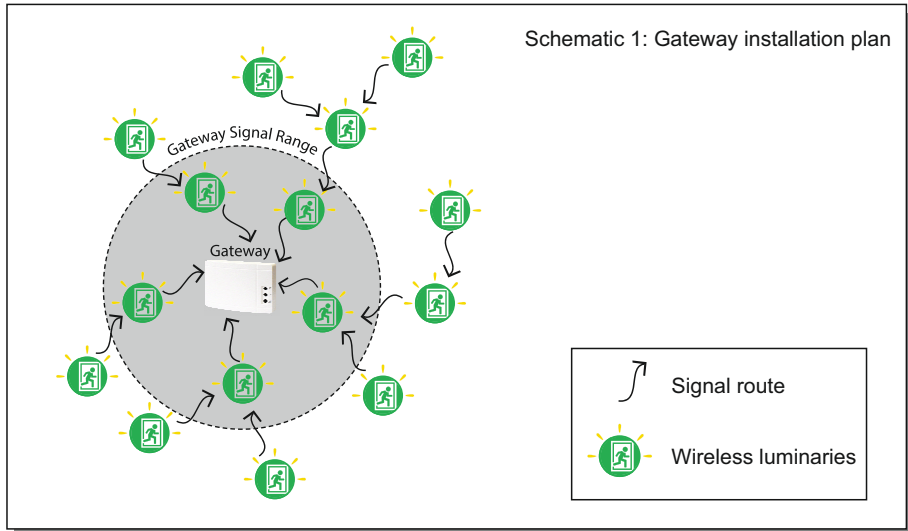
*The Buttons are only accessible when the front cover is removed. See schem. 2 - Wiring on page 4.



Installation:

It's recommended that the **GR-7602** Wifi Gateway is positioned at a central point of the entire wireless emergency lighting installation. At least 2 or 3 luminaires should be inside the signal range of the Gateway in order to create alternative routes for re-transmitting messages to other devices inside their own range.

See next schematic 1:

**Mounting:**

Install the device to a stable and visible position which has access to mains power and Wi-Fi Network. It is recommended that while fitted, the LED indications are visible to a technician.

Avoid metallic surfaces, as they can affect RF signal strength. Ensure that there is not any severe RF blocking due to structural design.

Use the 2 mounting holes to fit the base on a vertical wall (concrete/brick/wood) and the embedded spirit level to make fine (horizontal) adjustments. Tighten the mounting screws when done. Connect the mains power cables. See Wiring and Dimension schematic in page 4.

Important Note:

In order to ensure a stable Wi-Fi connection, check the reception signal level on the area the GR-7602 is installed, with the help of a Wi-Fi laptop, smartphone, or a special measuring tool. It's recommended, for security reasons, to use WPA/WPA2 security with AES/TKIP encryption. Consult an IT technician for Wi-Fi network configurations when needed.

This device is powered from the mains, so in case of mains interruption it will stop working.

If your wireless network needs to be "alive" during this situation, care should be taken so that the device is powered by a UPS system.

When the front face is removed in order to access the internal button, do not touch any other areas other than the button. Live voltage is present to specific areas of the device.

Commissioning:

In order to setup the GR-7602 Wifi Gateway and create a new wireless emergency lighting network, you will have to follow the following steps:

- Establish a mini Wi-Fi Access Point on the GR-7602.
- Connect to the mini Wi-Fi Access Point with a Wi-Fi device.
- Enter the configuration page to setup Wi-Fi and Master PC connections.
- Run the GR-7600 software to continue with commissioning - run Network Config. Wizard to setup the wireless network for emergency lighting.

For further details see the instructions below:

Wi-Fi connection configuration:

In order for the GR-7602 to communicate with the PC, at least an active Wi-Fi network must be present and the master (monitoring) PC must be accessible via this network. Activate (power supply) the device. To connect the device to the existing Wi-Fi, you will need a device with Wi-Fi connectivity (e.g. smartphone or laptop or tablet), that is set to automatic DHCP.

Setup connection via Mini Access Point:

Open the front cover. Press for 2 seconds the button BT2 on the left part of the PCB. The GR-7602 now will establish a temporary mini Wi-Fi Access Point, named as **"WL Light WiFi"** without security (Ld7 2 blinks/s) (see page 4 for LED6/7 indications).



UP: Button BT2 position

To access it, use the Wi-Fi device (PC/Laptop/smartphone) and join the **"WL Light WiFi"** network. Once connected, type in the address bar of a web browser, the following page:

captiveportal.net
(or the IP: 192.168.0.50)

The following page should now appear:

Wireless WiFi Gateway Setup	
Insert Tech password:	•••• ← Technician password = 1000 (default)
Insert the SSID:	WGW ← SSID (network name) of the network to join
Insert the Wifi Password:	•••••••• ← Target network password
Insert Static IP Address:	192.168.1.50 ← Static IP address for the 290092
Insert Static NetMask:	255.255.255.0 ← Network subnet mask
Insert Static GW Address:	192.168.1.1 ← Network Gateway (router) IP Address
Insert Static DNS1 Address:	192.168.1.1 ← Network DNS Address (empty if not used)
Choose DHCP Option:	OFF ← Set DHCP always to OFF
Choose Auth:	Wpa & Wpa2 Personal ← Network security
Master IP:	192.168.1.44 ← Pc's IP Address
Choose Mode:	Gateway ← Set mode to "Gateway"
<input type="button" value="Push"/>	

Note: values in the fields above are examples and may differ to other networks.

Apply the settings above and click **"Push"** button. Once the GR-7602 is configured, the mini Wi-Fi AP will be terminated, then the device will connect to the given Wi-Fi Network (LD7 1 blink/s). This action may take up to a minute.

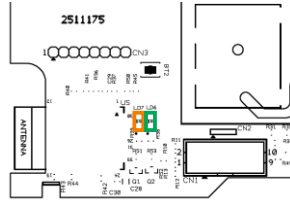
WiFi connection LED Indications:

LED 7:

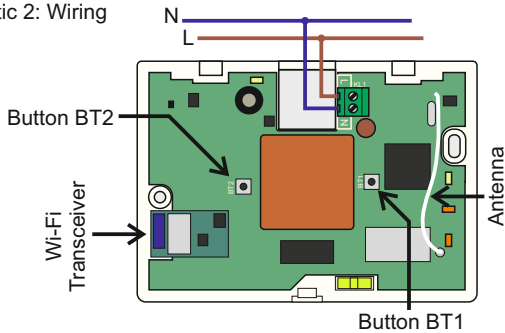
- 1 blink/s - connected to Wi-Fi network
- 2 blinks/s - mini Wi-Fi AP established
- 3 blinks/s - WPS conn. activated (N.A.)
- Steady ON - disconnected from Wi-Fi network

LED 6:

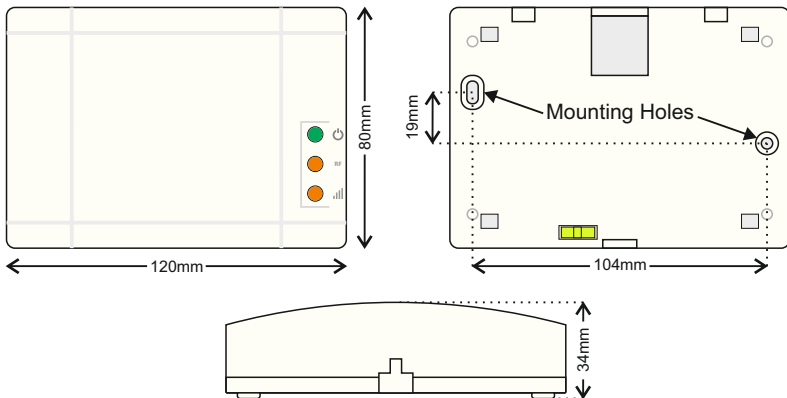
- Blinking according to data traffic (Tx/Rx)



Schematic 2: Wiring



Schematic 3: Dimensions



Loading default settings:

In order to load default settings to the GR-7602 Wifi Gateway, follow the procedure below:

- Press BT1 for more than 10s to load default values.
- After 20 seconds, the device will establish a Mini AP to setup connection parameters (see page3).
- If you see a message regarding the page being unable to load, try resetting the device with BT1 for 2 seconds.

(Loading defaults does not restore SID and RF Channel values. In order to restore default values on SID and RF Channel values use the GR-7600 software.)

Default settings:

- Gateway technician menu code (webserver): 1000
- Gateway SID: 00000001
- Gateway channel: 13 (869.525MHz)
- Mini Access Point Gateway IP: 192.168.0.50

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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.

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