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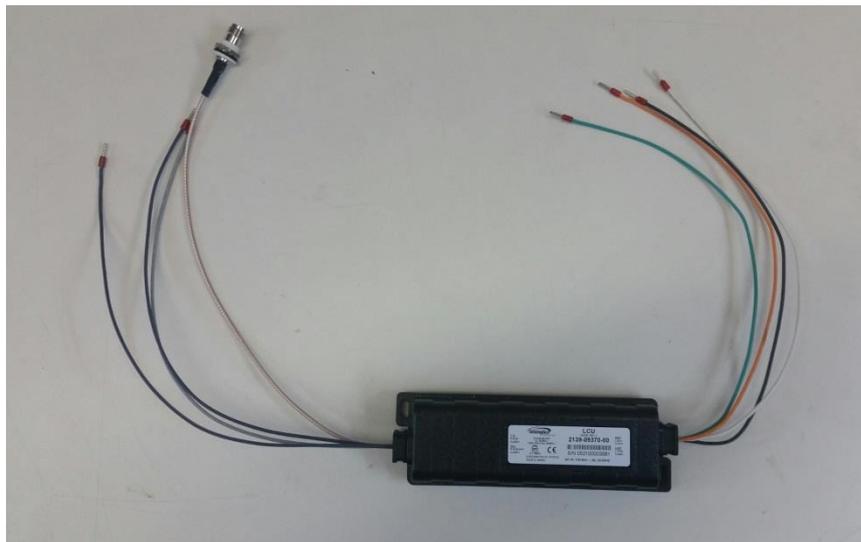
LCU
User Manual
Rev 1.0

1. Description

T-Light™ - Telematics Wireless's solution for Smart Lighting enables utilities and maintenance companies to benefit from an improved level of cost-effective, reliable and timely service, by controlling and managing street light operations.

The T-Light LCU (Light Control Unit) is installed in each light pole enabling the transmission of information, and the reception of control commands for the luminary's LED/HID fixtures.

The LCU communicates with a LED driver or electronic ballast via 0-10V or DALI protocols.



LCU general view

Electrical Specification

1.1 Transmitter Specification

| | |
|-----------------|-----------------------|
| Frequency range | 450-470MHz |
| Output Power | 34dBm max. |
| Mask | per FCC part 90.210 e |
| Modulation | 4GFSK |
| Data rate | 4.8kbps |

1.2 Receiver Specification

| | |
|-----------------|------------|
| Frequency range | 450-470MHz |
| Modulation | 4GFSK |
| Data rate | 4.8kbps |
| Sensitivity | -120dBm |

2. General Specification

| | |
|-----------------------|------------------|
| Power Supply | 115V AC |
| Operating temperature | -40 to +85deg C. |
| Size | 150x50x25 mm |

3. External Antenna

| | |
|------|------------------|
| Type | Omni Directional |
| Gain | 0dBi |

4. Safety Instruction



Personal safety is VERY IMPORTANT!

Obey all the following safety precautions when installing LCU devices.

- Installation should only be performed by qualified personnel.
- All installations should be performed according to local electrical codes.
- Disconnect power before performing installation.
- Special care is required when working at heights as a fall can result in serious injury or death. When working from heights it is important to ensure the following:
 - Safe and stable access to the work area.
 - Physical barriers are in place to prevent falling.
 - Appropriate personal protective equipment is used.
- Use appropriate work tools.

5. System Integrity recommendation



To prevent damage due to power network surge, it is highly recommended to assemble surge protection device to protect the LCU & Lamp Driver.

6. FCC Radiation Hazard Warning

To comply with FCC RF exposure requirements of FCC Rules Section 1.1307, the antenna used for this transmitter must be fixed-mounted on outdoor permanent structures with a separation distance of at least xx cm from all persons.

7. Installation Instruction

CAUTION



The user and Installer should be aware that changes or modifications to this equipment not expressly approved by Telematics Wireless could void warranty and the user's authority to operate the equipment.

Professionally trained personnel should install the equipment.

ATTENTION

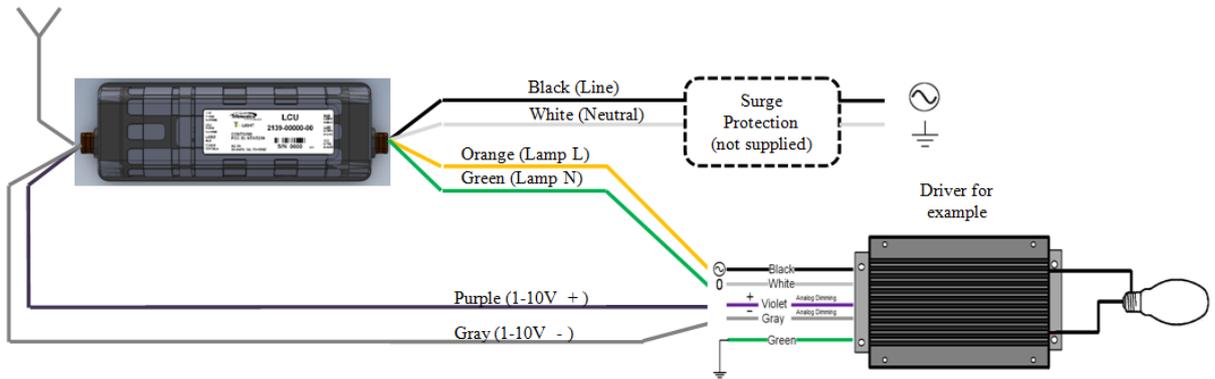


The digital circuit of this device has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

INSTRUCTIONS

The LCU connectivity is depicted in the figure below.



The wiring color for the AC IN/OUT wires:

| Wire Color | Name | Direction |
|------------|-----------------------|-----------|
| Black | MAIN AC – LINE | IN |
| White | MAIN AC – NEUTRAL | IN |
| Orange | AC for lamp - LINE | OUT |
| Green | AC for lamp - NEUTRAL | OUT |

The wiring color for the CONTROL IN/OUT wires:

| Wire Color | Name | Direction |
|--------------|--------------|-----------|
| Purple/White | DALI + | IN / OUT |
| Gray | DALI / 1-10V | GND |
| Purple | 1-10V | OUT |

The LCU connection options are depicted in the figures below.

