Bullet Series 2.0 LED Luminaire

QUICK START GUIDE

This document provides installation and setup procedures for the PRG Bullet Series 2.0 LED Luminaire.

For complete operating instructions, refer to the Bullet Series 2.0 LED Luminaire User Manual available at www.prg.com

For technical assistance, contact PRG RH+A.

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1. IMPORTANT SAFETY INSTRUCTIONS

+ Keep these instructions.
+ Heed all warnings.
+ Follow all instructions.
+ Do not block any of the fixture’s ventilation openings.
+ Do not operate at temperatures above 40°C (104°F).
+ Do not install the fixture near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
+ Do not install the fixture on or near a flammable surface.
+ Do not operate the fixture with a damaged power lead. If the power lead (cordset) is damaged, it must be replaced.
+ Do not operate the fixture if lens is deeply scratched or cracked. Damaged lenses must be replaced.
+ Mount and support the fixture only by the primary suspension holes in the yoke.
+ Suspend the fixture from a suitable structure using only hardware rated for the weight of the fixture.
+ In addition to primary suspension, attach a safety cable to the fixture housing. An appropriate attachment point (hole) is provided in the fixture’s housing.
+ Disconnect the fixture from power and DMX control and allow to cool before performing any cleaning or maintenance.

WARNING: The UV Bullet has a peak output of 365nm, which is in the Ultraviolet A (UVA) range. Ultraviolet (UV) light is harmful to the skin and eyes. Since it is minimally visible to the naked eye, this hazard is more significant. DO NOT stare directly into the lens when testing or operating the unit. Avoid long-term exposure to the UV light at close range unless appropriate precautions are taken to block the harmful wavelengths.
2. OVERVIEW

Major Components and Controls
The following illustration shows the components and controls of a Single Head Bullet Luminaire. (These components are also typical of a Triple Head Bullet Luminaire.)

* The Triple Head version has three Lamp Power Out connectors.

Figure 1: Bullet External Components and Controls
3. INSTALLATION

Unified Mounting

1) Attach pipe clamp or surface mounting device to large hole in Mounting Bracket. (The hole is 1/2 inch in diameter and will accommodate a maximum bolt size of 1/2 inch.)

2) Mount Luminaire and Power Supply to pipe or surface using clamp or mounting device (attached in previous step). Adjust Yoke and Head positions as desired. **CAUTION: Be sure cooling fins are not blocked!**

3) Attach Safety Cable as shown in Figure 2.

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**WARNING:** A Safety Cable MUST be used for all hanging installations and may be required by local codes.

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Figure 2: Unified Mounting Example

***Note:** Example installation. Individual configurations may vary

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Note: Clamp and Pipe not included.
**Split Mounting**

1) Detach Head from Mounting Bracket by removing bolt. Unwrap or otherwise free Head Cable.

2) Attach pipe clamp or surface mounting device to large hole in Luminaire Yoke. (The hole is 0.4 inch in diameter and will accommodate a maximum bolt size of 3/8 inch.)

3) Mount Luminaire to pipe or surface using clamp or mounting device (attached in previous step). Adjust Yoke and Head positions as desired. **CAUTION: Be sure cooling fins are not blocked!**

4) Attach pipe clamp or surface mounting device to large hole in Mounting Bracket. (The hole is 1/2 inch in diameter and will accommodate a maximum bolt size of 1/2 inch.)

5) Mount Power Supply to pipe or surface using clamp or mounting device (attached in previous step).

6) Attach Safety Cable to both components as shown in **Figure 3**.

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**WARNING:** A Safety Cable MUST be used for all hanging installations and may be required by local codes.

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**Note:** Clamps and Pipe not included.

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**Figure 3:** Split Mounting Example
**Triple Head Mounting**

The mounting procedures for the Triple Head Bullet Luminaire are similar to the Single Head mounting procedures detailed previously. The following illustration shows example Triple Head unified configurations:

- **Note:** Clamp and Pipe not included.
- **Note:** Safety Cable not shown.

![Figure 4: Triple Head Mounting Examples](image)
Connecting Head Cables (Lamp Power)

Once the luminaire has been mounted, the Head Cable should be connected to the Lamp Power Out connector on the Power Supply.

+ In a unified configuration, the Head Cable should be plugged straight into the Power Supply.
+ In a split configuration, a 4-Pin XLR Extension Cable may be required.

![Diagram of Head Cable Connection](image)

**Figure 5:** Connecting Head Cable to Power Supply - Single Head

**Figure 6:** Connecting Head Cables to Power Supply - Triple Head
4. POWER UP AND OPERATION

Power Up

Apply power to the Bullet Luminaire by plugging the Power Supply’s power cord into an AC source. (The unit has no power on/off switch.)

LED Indicators

The Comm and Status LED indicators will be activated upon power up, whenever rotary dials are changed, when DMX signal is lost (after a 15 second delay to avoid short losses), when DMX signal is acquired, or upon over-temperature condition.

After activation, the LED indicators will remain active for 15 minutes unless otherwise described below. (The timer will be reset by repeated activation events.)

<table>
<thead>
<tr>
<th>Comm (Green) LED</th>
<th>Status (Orange) LED</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>slow blink on/off</td>
<td>n/a</td>
<td>no incoming DMX</td>
</tr>
<tr>
<td>solid on</td>
<td>n/a</td>
<td>valid incoming DMX</td>
</tr>
<tr>
<td>n/a</td>
<td>rapid blink</td>
<td>over-temperature condition</td>
</tr>
<tr>
<td></td>
<td>(3-4 times per second)</td>
<td></td>
</tr>
<tr>
<td>blink code</td>
<td>off / blink code</td>
<td>firmware version *</td>
</tr>
</tbody>
</table>

* Firmware version blink codes will only be shown when rotary dials are set to a value of 530 (see Standard Operating Modes below). The green Comm LED indicates the major version and the orange Status LED indicates the minor version (off for zero).

Standard Operating Modes

The luminaire operating mode is set using the three rotary dials located on the Power Supply. The three dials represent the 100’s digit, 10’s digit, and 1’s digit as marked. For example, to set the address to 512, set the x100 dial to [5], the x10 dial to [1], and the x1 dial to [2]. (Note that on a Triple Head Power Supply, DMX channels are sequential for the 2nd and 3rd head attached.)

When the rotary dials are adjusted to a specific setting, the mode and behavior of the luminaire will change immediately. Settings are as follows:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>Full on (100%)</td>
</tr>
<tr>
<td>001-512</td>
<td>DMX channel address</td>
</tr>
<tr>
<td>530</td>
<td>Read out firmware version on LED indicators</td>
</tr>
<tr>
<td></td>
<td>(refer to LED Indicators section above)</td>
</tr>
<tr>
<td>550</td>
<td>Allow DMX address to be set via RDM *</td>
</tr>
<tr>
<td>600-700</td>
<td>Manual intensity, 0-100%</td>
</tr>
<tr>
<td>800-899</td>
<td>Manual strobe rate, slow to fast</td>
</tr>
<tr>
<td>900-999</td>
<td>Manual fade rate (pulse), slow to fast</td>
</tr>
<tr>
<td>other</td>
<td>Full off (0%)</td>
</tr>
</tbody>
</table>

* All RDM functionality except setting the DMX address is available regardless of thumbwheel value. Setting the thumbwheel to 550 also allows the DMX address of the fixture to be set remotely via RDM commands.
Exception Modes

In case of a DMX signal loss or over-temperature condition, the luminaire will respond as follows:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMX Fails</td>
<td>Valid DMX signal is lost while in DMX mode</td>
</tr>
<tr>
<td></td>
<td>Luminaire will hold last &quot;look&quot; and resume DMX commands when valid DMX data is received again. (Also see Blink function of the LED Indicators.) NOTE: Look will not hold through power loss.</td>
</tr>
<tr>
<td>Over Temp</td>
<td>Unit exceeds temperature limit</td>
</tr>
<tr>
<td></td>
<td>Output power is disabled until power is cycled or temperature falls below threshold. (Also see Rapid Blink function of the LED Indicators.)</td>
</tr>
</tbody>
</table>

RDM

The Bullet Luminaire supports basic RDM functionality per ANSI E1.20 (RDM-Remote Device Management over USITT DMX512 Networks) specification.

Focusing the Beam

To focus the luminaire, loosen the Focus Lock knob and rotate the front of the barrel to adjust the position of the lens. The more the barrel is extended, the more narrow the beam.