As a global company, we offer our products and support worldwide.

The LR Series conforms to international standards. The PATLITE group has built a global sales network to effectively provide goods and services to customers anywhere.
Scan the QR code to build an LR model

http://www.patlite.com/LR_config/
Exceptional Light Brilliance

With a new re-designed lens and improved light module construction, the LR series provides a brilliant, even light for visibility at further distances.

Visibility

A uniform 360° Light-Emitting Design

The new LED color module features a new, unique interior lens construction that achieves a fuller, more uniform 360° degree light output. Light color is vibrant with more emission area for reliable indication from further distances.

More than Twice the Light Output

The LR Series lens distributes light more efficiently, increasing luminous intensity by more than double that of our current models.

* Based on the φ40 Red LED Model

Audibility

No Holes, No Compromises

A re-engineered, completely enclosed sound module maintains substantial water and dust protection while producing loud, omnidirectional sound.

Unique Method of Fully Enclosed Sound Module

Inspired by a drum percussion instrument, the fully enclosed sound module is able to more efficiently vibrate sound waves, producing even 360° omnidirectional sound resonance. Resistance to water and dust is also increased.

Maximum 90dB* output

The fully enclosed sound module structure produces more efficient sound, up to 90dB, at 1 meter.

*LED buzzer No.4 (Sweep tone)

New Sounds Heard Above the Noise

Four buzzer sounds* are built in. The two new buzzer sounds are designed at a higher variable frequency to be heard above the noise of surrounding machinery. Alternatively, a sound reduction function of approx. -10dB is included to suit the environment.

* Four Buzzer Sounds

1. Rapid intermittent sound
2. Continuous sound
3. Rapid Hi-lows
4. Sweep sound

IP65 (IEC 60529) / NEMA TYPE 4X, 3R
Convenient Modular Assembly

Simple "Twist and Lock" system makes it easy to customize and reconfigure light and sound modules.

Simplicity

Rugged Never Looked Better

A sleek, smooth form factor and an enhanced body construction, makes the LR well-suited for harsher environments.

Modular System Design

The modular LED unit system makes reorganizing the color configuration easy. Furthermore, if an LED light module ever becomes damaged, ordering and replacing modules are easier than ever.

Reorganizing modules is effortless

Traditional stack lights typically require additional threaded shafts or tools to reconfigure light modules. With the LR Series, color reorganization, changing the number of light tiers and/or adding a sound module is easier than ever.

Simplicity

Rugged Never Looked Better

Reorganizing modules is effortless

Traditional stack lights typically require additional threaded shafts or tools to reconfigure light modules. With the LR Series, color reorganization, changing the number of light tiers and/or adding a sound module is easier than ever.

Smooth Surface

The LED light buzzer modules flush together, creating a smooth surface for improved water run off and easy cleaning.

Environmental Performance

Built rugged with a water and dust resistant IP65 housing. IP65 / NEMA Type 4X, 13 withstands various environmental conditions, such as water and dust.

Upgraded Materials

All materials used were upgraded from previous models. Changing the base from ABS to Polycarbonate, and O-rings to silicone resin result in a more lightweight, shock resistant product.
### LR Series Pre-assembled Models

#### 40mm Model Code

<table>
<thead>
<tr>
<th>Mounting/Wiring</th>
<th>LED Module Color</th>
<th>Buzzer Type</th>
<th>Power Consumption</th>
<th>Mounting Type</th>
<th>Model Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>W = Direct/Cable</td>
<td>B = Flashing/Buzzer</td>
<td>B = Flashing/Buzzer</td>
<td>DC24V</td>
<td>LR6-502WJBW-U</td>
<td></td>
</tr>
<tr>
<td>L = Pole Mount with/Circular Bracket/Cable</td>
<td>U = Off-white</td>
<td>N = Flashing/Buzzer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q = Pole Mount with/Folding Bracket/Cable</td>
<td></td>
<td>B = Flashing/Buzzer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PJ = Pole Mount with/High Bracket/Cable</td>
<td></td>
<td>Y = Amber</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LJ = Pole Mount with/L-bracket/Cable</td>
<td></td>
<td>G = Green</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WJ = Direct/Cable</td>
<td></td>
<td>B = Blue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QJ = Pole Mount with/Folding Bracket/Cable</td>
<td></td>
<td>C = White</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 50mm Model Code

<table>
<thead>
<tr>
<th>Mounting/Wiring</th>
<th>LED Module Color</th>
<th>Buzzer Type</th>
<th>Power Consumption</th>
<th>Mounting Type</th>
<th>Model Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>W = Direct/Cable</td>
<td>B = Flashing/Buzzer</td>
<td>B = Flashing/Buzzer</td>
<td>DC24V</td>
<td>LR6-502WJBW-U</td>
<td></td>
</tr>
<tr>
<td>L = Pole Mount with/Circular Bracket/Cable</td>
<td>U = Off-white</td>
<td>N = Flashing/Buzzer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q = Pole Mount with/Folding Bracket/Cable</td>
<td></td>
<td>B = Flashing/Buzzer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PJ = Pole Mount with/High Bracket/Cable</td>
<td></td>
<td>Y = Amber</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LJ = Pole Mount with/L-bracket/Cable</td>
<td></td>
<td>G = Green</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WJ = Direct/Cable</td>
<td></td>
<td>B = Blue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QJ = Pole Mount with/Folding Bracket/Cable</td>
<td></td>
<td>C = White</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 60mm Model Code

<table>
<thead>
<tr>
<th>Mounting/Wiring</th>
<th>LED Module Color</th>
<th>Buzzer Type</th>
<th>Power Consumption</th>
<th>Mounting Type</th>
<th>Model Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>W = Direct/Cable</td>
<td>B = Flashing/Buzzer</td>
<td>B = Flashing/Buzzer</td>
<td>DC24V</td>
<td>LR6-502WJBW-U</td>
<td></td>
</tr>
<tr>
<td>L = Pole Mount with/Circular Bracket/Cable</td>
<td>U = Off-white</td>
<td>N = Flashing/Buzzer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q = Pole Mount with/Folding Bracket/Cable</td>
<td></td>
<td>B = Flashing/Buzzer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PJ = Pole Mount with/High Bracket/Cable</td>
<td></td>
<td>Y = Amber</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LJ = Pole Mount with/L-bracket/Cable</td>
<td></td>
<td>G = Green</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WJ = Direct/Cable</td>
<td></td>
<td>B = Blue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QJ = Pole Mount with/Folding Bracket/Cable</td>
<td></td>
<td>C = White</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 70mm Model Code

<table>
<thead>
<tr>
<th>Mounting/Wiring</th>
<th>LED Module Color</th>
<th>Buzzer Type</th>
<th>Power Consumption</th>
<th>Mounting Type</th>
<th>Model Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>W = Direct/Cable</td>
<td>B = Flashing/Buzzer</td>
<td>B = Flashing/Buzzer</td>
<td>DC24V</td>
<td>LR7-502WJBW-U</td>
<td></td>
</tr>
<tr>
<td>L = Pole Mount with/Circular Bracket/Cable</td>
<td>U = Off-white</td>
<td>N = Flashing/Buzzer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q = Pole Mount with/Folding Bracket/Cable</td>
<td></td>
<td>B = Flashing/Buzzer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PJ = Pole Mount with/High Bracket/Cable</td>
<td></td>
<td>Y = Amber</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LJ = Pole Mount with/L-bracket/Cable</td>
<td></td>
<td>G = Green</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WJ = Direct/Cable</td>
<td></td>
<td>B = Blue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QJ = Pole Mount with/Folding Bracket/Cable</td>
<td></td>
<td>C = White</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Rated Voltage Options:**
- DC24V
- DC12V
- AC100-240V
Signal Tower

LR Series Pre-assembled Models

### Mounting Type
- **DC12V**
- **AC100 - 240V**

#### Buzzer Units
- **Type**
- **Size**
- **Flash/Buzzer**
- **Tiers**
- **Model**
- **Power Consumption**
- **Mass**

#### LED Units
- **Size**
- **Color**
- **Model**
- **Power Consumption**
- **Mass**

---

**Note:**
- All LED units can be used with all voltage types.
- Up to 5 LED units can be mounted and used.

---

**LED Unit Model Code**
- **Size:**
- **Color:**
- **Model:**
- **Power Consumption:**
- **Mass:**

---

**Buzzer Unit Model Code**
- **Size:**
- **Color:**

---

**Additional Note:**
- Buzzer unit can be used with all voltage types. Possibility to add buzzer function afterward.
Signal Tower
LR Series Optional Parts

**Direct Mount Brackets**
- Circular Bracket: Model SZW-001W
- Wall-mount Bracket: Model SZK-002W(U) / SZK-003W(U)
- L-bracket: Model SZL-001

**T Type Aluminum Pole Brackets**
- Mounting Dimensions (mm): Width: 37, Height: 37, Depth: 40

**N Type Aluminum Pole Brackets**
- Mounting Dimensions (mm): Width: 37, Height: 37, Depth: 40

**Folding Bracket**
- Model: SZQ-001W

**Circular Bracket**
- Model: SZP-003W

**N Type Aluminum Pole Brackets**
- Mounting Dimensions (mm): Width: 37, Height: 37, Depth: 40

**Replacement Parts**
- **O-ring/Headcover**
- **Base Unit**
- **Terminal Block**
- **Filter Sheet**

**Aluminum Poles (Waterproof Ring/Screw Accessories included)**
- N Type
  - 100mm: Model POLE22-0100AN
  - 300mm: Model POLE22-0300AN
  - 800mm: Model POLE22-0800AN

- T Type
  - 300mm: Model POLE22-0300AT
  - 500mm: Model POLE22-0500AT
  - 1000mm: Model POLE22-1000AT

**Wall-mount Bracket**
- Model: SZK-001U

**Circular Bracket**
- Model: SZP-001W

**Circular Multiple-mount Bracket**
- Model: SZP-001W

**L-bracket**
- Model: SZL-001

**Wall-mount Bracket**
- Model: SZK-002W(U) / SZK-003W(U)

**Circular Bracket**
- Model: SZP-002U

**Circular Bracket**
- Model: SZP-003W

**Wall-mount Bracket**
- Model: SZK-001U

**Circular Bracket**
- Model: SZP-002U

**Circular Bracket**
- Model: SZP-003W
**Select a Buzzer Unit (for Flashing / Buzzer function)**

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>Color</th>
<th>Model Code</th>
<th>Power Consumption</th>
<th>Mass (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td></td>
<td>LR4-01</td>
<td>1.0W</td>
<td>0.003</td>
</tr>
<tr>
<td>50</td>
<td></td>
<td>LR5-01</td>
<td>1.0W</td>
<td>0.005</td>
</tr>
<tr>
<td>60</td>
<td></td>
<td>LR6-01</td>
<td>1.0W</td>
<td>0.006</td>
</tr>
<tr>
<td>70</td>
<td></td>
<td>LR7-01</td>
<td>1.0W</td>
<td>0.008</td>
</tr>
</tbody>
</table>

- Off-white U, Silver K, Black

**Select an LED Unit**

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>Color</th>
<th>Model Code</th>
<th>Power Consumption</th>
<th>Mass (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td></td>
<td>LR4-01</td>
<td>1.0W</td>
<td>0.003</td>
</tr>
<tr>
<td>50</td>
<td></td>
<td>LR5-01</td>
<td>1.0W</td>
<td>0.005</td>
</tr>
<tr>
<td>60</td>
<td></td>
<td>LR6-01</td>
<td>1.0W</td>
<td>0.006</td>
</tr>
<tr>
<td>70</td>
<td></td>
<td>LR7-01</td>
<td>1.0W</td>
<td>0.008</td>
</tr>
</tbody>
</table>

- Off-white U, Silver K, Black

**Select a Body Unit**

**Easy Steps**

1. Remove the headcover to setup the body unit
2. Attach one LED unit at a time to the body unit
3. Replace the headcover, or attach the buzzer unit

**See the Movie!!** Scan the QR code to see how easy LR is to configure.
The WD Series is a system for retrieving data from PATLITE Signal Towers remotely and in real-time. The WD system can be used for a variety of applications, such as collecting data to identify production bottlenecks.

**WD Series and LR Series**

**Clear Lens LED Unit**
- LR4/LR6

**Multi-color LED Unit**
- LR6

**Accessories & Options**
- M12 Connector
- NPT Adaptor
- Wall Mount Bracket (Uncovered Cable)
- Signal Tower with Switch Box

**Wireless Data Acquisition System**

**Outer Dimensional Drawing**

**LR Series 2nd Phase**

Available in 2017

**LR4/LR6**

**LR6**
### Wiring Diagrams

#### Product Type

<table>
<thead>
<tr>
<th>Model</th>
<th>[W1] DC 12V</th>
<th>[W2] DC 24V</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External Contact Type</strong></td>
<td><strong>Contact Relay Type</strong></td>
<td><strong>Contact Relay Type</strong></td>
</tr>
<tr>
<td><strong>PLC (NPN Transistor Type)</strong></td>
<td><strong>PLC (NPN Transistor Type)</strong></td>
<td><strong>PLC (NPN Transistor Type)</strong></td>
</tr>
<tr>
<td><strong>Mounting Diagram</strong></td>
<td><strong>Mounting Diagram</strong></td>
<td><strong>Mounting Diagram</strong></td>
</tr>
</tbody>
</table>

#### Mounting Dimensions (Unit: mm)

- **Mounting Hole**
  - M5 x 10
  - M6 x 12

### Specification

#### Specifications

- **Operating Ambient Temperature**: -20°C ~ +50°C
- **Operating Humidity Range**: 90% RH or less, non-condensation
- **Storage Temperature Range**: -30°C ~ +80°C
- **Storage Humidity Range**: 90% RH or less, non-condensation
- **Mounting Location**: Indoor Use
- **Mounting Direction**: Upright Position
- **Protection Rating**: IP65 (IEC 60529) / NEMA Type 4X, 13
- **Environmental Conditions**: Upright Position
- **Insulation Resistance**: More than 1 MO at DC500V between the power input lead and chassis.
- **Withstand Voltage**: AC500V for 1 minute between terminals and chassis without breaking insulation ([M2] AC1300V for 1 min.)

#### LED Unit Specifications

<table>
<thead>
<tr>
<th>Color</th>
<th>Rated Voltage</th>
<th>Current Consumption/ Power Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>DC24V</td>
<td>Typ. 0.04A/ 1W</td>
</tr>
<tr>
<td>Amber</td>
<td>DC24V</td>
<td>0.04A/ 1.2W</td>
</tr>
<tr>
<td>Green</td>
<td>DC24V</td>
<td>0.04A/ 1.3W</td>
</tr>
<tr>
<td>Blue</td>
<td>DC24V</td>
<td>0.04A/ 1.5W</td>
</tr>
<tr>
<td>White</td>
<td>DC24V</td>
<td>0.04A/ 1.6W</td>
</tr>
</tbody>
</table>

#### Buzzer Unit Specifications

<table>
<thead>
<tr>
<th>Buzzer Type</th>
<th>Rated Voltage</th>
<th>Current Consumption/ Power Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>DC24V</td>
<td>Typ. 0.04A/1W</td>
</tr>
<tr>
<td>Max</td>
<td>0.04A/1W</td>
<td>0.3A/1.2W</td>
</tr>
</tbody>
</table>

#### Conformity Standards

- UL 508, CSA-C22.2 No.14
- EMC Directive (EN 61000-6-4, EN 61000-6-2)
- RoHS Directive (EN 50581)

---

*1: L1 Type is P4S.2. Depending on DIP Switch Settings: *2: M0 Type Only