**Unique Striped Design Improves Visibility**

Key features of the LD6A LED SignaLight Towers include:

- The striped design with non-illuminated area between the lenses makes the illuminated color very visible.
- Unique oval lens shape provides high-visibility from different directions.
- Five different mounting styles available: frame mount, wall mount, direct mount and pole mount (round or L-shaped bracket).
- Clear lens models available to clearly distinguish between illuminated and non-illuminated lenses.
- Custom configuration is possible.
- Flashing cycle: 1.75Hz (approx. 105 flashes per minute) conforms to international standard IEC 60073.
- Alarm (3.3kHz, 2 different styles) can be heard in 360º degrees. Adjustable volume (70 to 90dB).
- Degree of protection: IP65 Steady units and IP54 Flashing units (using frame, wall, direct and pole mount with round base), IP23 Steady and Flashing units using pole mount with L-shaped bracket.

### Assembled Products

<table>
<thead>
<tr>
<th>Mounting Style</th>
<th>Tiers</th>
<th>LED Color Code</th>
<th>Part Number</th>
<th>Weight (approx.)</th>
<th>Part Number</th>
<th>Weight (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G: Frame Mount</td>
<td>1</td>
<td>R, Y, S, G, W</td>
<td>LD6A-1GQ*</td>
<td>220g</td>
<td>LD6A-1GZQ*</td>
<td>310g</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>RY, RG</td>
<td>LD6A-2GQ*</td>
<td>260g</td>
<td>LD6A-2GZQ*</td>
<td>350g</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>RYS, RYG</td>
<td>LD6A-3GQ*</td>
<td>300g</td>
<td>LD6A-3GZQ*</td>
<td>390g</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>RYSG</td>
<td>LD6A-4GQ*</td>
<td>340g</td>
<td>LD6A-4GZQ*</td>
<td>430g</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>RYSGW</td>
<td>LD6A-5GQ*</td>
<td>380g</td>
<td>LD6A-5GZQ*</td>
<td>470g</td>
</tr>
<tr>
<td>W: Wall Mount</td>
<td>1</td>
<td>R, Y, S, G, W</td>
<td>LD6A-1WQ*</td>
<td>225g</td>
<td>LD6A-1WZQ*</td>
<td>315g</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>RY, RG</td>
<td>LD6A-2WQ*</td>
<td>265g</td>
<td>LD6A-2WZQ*</td>
<td>355g</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>RYS, RYG</td>
<td>LD6A-3WQ*</td>
<td>305g</td>
<td>LD6A-3WZQ*</td>
<td>395g</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>RYSG</td>
<td>LD6A-4WQ*</td>
<td>345g</td>
<td>LD6A-4WZQ*</td>
<td>435g</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>RYSGW</td>
<td>LD6A-5WQ*</td>
<td>385g</td>
<td>LD6A-5WZQ*</td>
<td>475g</td>
</tr>
<tr>
<td>D: Direct Mount</td>
<td>1</td>
<td>R, Y, S, G, W</td>
<td>LD6A-1DQ*</td>
<td>185g</td>
<td>LD6A-1DZQ*</td>
<td>275g</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>RY, RG</td>
<td>LD6A-2DQ*</td>
<td>225g</td>
<td>LD6A-2DZQ*</td>
<td>315g</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>RYS, RYG</td>
<td>LD6A-3DQ*</td>
<td>265g</td>
<td>LD6A-3DZQ*</td>
<td>355g</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>RYSG</td>
<td>LD6A-4DQ*</td>
<td>305g</td>
<td>LD6A-4DZQ*</td>
<td>395g</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>RYSGW</td>
<td>LD6A-5DQ*</td>
<td>345g</td>
<td>LD6A-5DZQ*</td>
<td>435g</td>
</tr>
<tr>
<td>P: Pole Mount</td>
<td>1</td>
<td>R, Y, S, G, W</td>
<td>LD6A-1PQ*</td>
<td>645g</td>
<td>LD6A-1PZQ*</td>
<td>735g</td>
</tr>
<tr>
<td>(with base)</td>
<td>2</td>
<td>RY, RG</td>
<td>LD6A-2PQ*</td>
<td>685g</td>
<td>LD6A-2PZQ*</td>
<td>775g</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>RYS, RYG</td>
<td>LD6A-3PQ*</td>
<td>725g</td>
<td>LD6A-3PZQ*</td>
<td>815g</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>RYSG</td>
<td>LD6A-4PQ*</td>
<td>765g</td>
<td>LD6A-4PZQ*</td>
<td>855g</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>RYSGW</td>
<td>LD6A-5PQ*</td>
<td>805g</td>
<td>LD6A-5PZQ*</td>
<td>895g</td>
</tr>
<tr>
<td>K: Pole Mount</td>
<td>1</td>
<td>R, Y, S, G, W</td>
<td>LD6A-1KO*</td>
<td>640g</td>
<td>LD6A-1KZQ*</td>
<td>730g</td>
</tr>
<tr>
<td>(with L-shaped</td>
<td>2</td>
<td>RY, RG</td>
<td>LD6A-2KO*</td>
<td>680g</td>
<td>LD6A-2KZQ*</td>
<td>770g</td>
</tr>
<tr>
<td>bracket)</td>
<td>3</td>
<td>RYS, RYG</td>
<td>LD6A-3KO*</td>
<td>720g</td>
<td>LD6A-3KZQ*</td>
<td>810g</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>RYSG</td>
<td>LD6A-4KO*</td>
<td>760g</td>
<td>LD6A-4KZQ*</td>
<td>850g</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>RYSGW</td>
<td>LD6A-5KO*</td>
<td>800g</td>
<td>LD6A-5KZQ*</td>
<td>890g</td>
</tr>
</tbody>
</table>

Specify housing color code in place of *: B (black), W (light gray)
Specify illumination color in place of * starting with the top tier. State the LED color code from the left. R (red), Y (yellow), S (blue), G (green), W (pure white)
Example: When the LED color is RYSGW => LD6A-5GQW-RYSGW
Clear lens type also available. Specify “C” after the LED color code. Example: LD6A-5GQW-RYSGW => LD6A-5GQW-RYSGWC
### Combination of LED Color and Lens Color

<table>
<thead>
<tr>
<th>LED Color</th>
<th>Color Lens Type</th>
<th>Clear Lens Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>R: Red</td>
<td>Red lens</td>
<td>Clear lens</td>
</tr>
<tr>
<td>Y: Yellow</td>
<td>Yellow lens</td>
<td>Clear lens</td>
</tr>
<tr>
<td>S: Blue</td>
<td>Blue lens</td>
<td>Clear lens</td>
</tr>
<tr>
<td>G: Green</td>
<td>Green lens</td>
<td>Clear lens</td>
</tr>
<tr>
<td>W: White</td>
<td>Clear lens</td>
<td></td>
</tr>
</tbody>
</table>

For white (W) LED, a clear lens is used in both color and clear lens configurations.

### Mounting Parts Included

<table>
<thead>
<tr>
<th>Mounting Style</th>
<th>Supplied Parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>G: Frame mount</td>
<td>M4 screw (4 pcs)<em>, M4 spring washer (4 pcs)</em>, M5 plain washer (4 pcs)*, M5 screw (2 pcs), M5 spring washer (2 pcs), bracket (1 pc)</td>
</tr>
<tr>
<td>W: Wall mount</td>
<td>M4 screw (20 mm) (4 pcs), M4 screw (8 mm) (4 pcs)<em>, M4 spring washer (8 pcs)</em>, M4 plain washer (8 pcs)*, M4 nut (4 pcs), bracket (1 pc), gasket (1 pc)</td>
</tr>
<tr>
<td>D: Direct mount</td>
<td>M5 screw (4 pcs)<em>, M5 spring washer (4 pcs)</em>, M5 plain washer (4 pcs)<em>, M5 nut (4 pcs)</em>, O-ring (4 pcs), gasket (1 pc)</td>
</tr>
<tr>
<td>P: Pole mount (with base)</td>
<td>M5 screw (4 pcs), M5 spring washer (4 pcs), M5 plain washer (4 pcs), M5 nut (4 pcs), O-ring (4 pcs), gasket (1 pc)</td>
</tr>
<tr>
<td>K: Pole mount (with L-shaped bracket)</td>
<td>M22 plain washer (2 pcs), M22 nut (2 pcs), bracket (1 pc)</td>
</tr>
</tbody>
</table>

* For black housing, black screws and washers are supplied. For light gray housing, silver screws and washers are supplied.

### Base Module

<table>
<thead>
<tr>
<th>Style</th>
<th>Mounting Style</th>
<th>Part Number</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frame Mount</td>
<td>LD6A-0GQ*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wall Mount</td>
<td>LD6A-0WQ*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Direct Mount</td>
<td>LD6A-0DQ*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pole Mount (with base)</td>
<td>LD6A-0PQ*</td>
<td>A top cap is supplied.</td>
</tr>
<tr>
<td></td>
<td>Pole Mount (with L-shaped bracket)</td>
<td>LD6A-0KQ*</td>
<td></td>
</tr>
</tbody>
</table>

Specify a housing color code in place of *: B (black), W (light gray)

Do not supply power to the base module without connecting LED modules.

### LED Module

<table>
<thead>
<tr>
<th>Style</th>
<th>Lens</th>
<th>Part Number</th>
<th>LED Color Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>Color lens</td>
<td>LD9Z-6ALB-□</td>
<td>R, Y, S, G, W</td>
</tr>
<tr>
<td>Light gray</td>
<td>Clear lens</td>
<td>LD9Z-6ALB-□C</td>
<td>R, Y, S, G</td>
</tr>
</tbody>
</table>

Specify an LED color code in place of □ (red), Y (yellow), S (blue), G (green), W (white)

When using white (W) with a clear lens, order LD9Z-6ALB-W (black housing) or LD9Z-6ALW-W (light gray housing).

### Center Set Screw

<table>
<thead>
<tr>
<th>Item</th>
<th>Part Number</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 tier</td>
<td>LD9Z-6AC1</td>
<td></td>
</tr>
<tr>
<td>2 tiers</td>
<td>LD9Z-6AC2</td>
<td></td>
</tr>
<tr>
<td>3 tiers</td>
<td>LD9Z-6AC3</td>
<td></td>
</tr>
<tr>
<td>4 tiers</td>
<td>LD9Z-6AC4</td>
<td></td>
</tr>
<tr>
<td>5 tiers</td>
<td>LD9Z-6AC5</td>
<td></td>
</tr>
</tbody>
</table>

A plain washer and spring washer are supplied.
Ordering Examples

[Ex. 1] When ordering LD6A-3POW-RYG as sub-component parts, specify the following:
- Pole mount (with base), steady, light gray housing, 3 tiers, color lens LED modules with Red, Yellow, and Green LED
  - Base module (pole mount with base, steady, light gray housing) LD6A-3POW 1 piece
  - LED module (red LED with color lens, light gray housing) LD9Z-6ALW-R 1 piece
  - LED module (yellow LED with color lens, light gray housing) LD9Z-6ALW-Y 1 piece
  - LED module (green LED with color lens, light gray housing) LD9Z-6ALW-G 1 piece
  - Center screw set (3 tiers) LD9Z-6AC3 1 piece

[Ex. 2] When ordering LD6A-5WZQB-RYGWC as sub-component parts, specify the following:
- Wall mount, steady/flashing/alarm, black housing, 5 tiers, clear lens LED modules with Red, Yellow, Blue, Green, and Pure white LED
  - Base module (wall mount, steady/flashing/alarm, black housing) LD6A-0WZQB 1 piece
  - LED module (red LED with clear lens, black housing) LD9Z-6ALB-RC 1 piece
  - LED module (yellow LED with clear lens, black housing) LD9Z-6ALB-YC 1 piece
  - LED module (blue LED with clear lens, black housing) LD9Z-6ALB-SC 1 piece
  - LED module (green LED with clear lens, black housing) LD9Z-6ALB-GC 1 piece
  - LED module (pure white LED with clear lens, black housing) LD9Z-6ALB-W 1 piece
  - Center screw set (5 tiers) LD9Z-6AC5 1 piece

Replacement Parts

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Part Number</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Cap</td>
<td>Black</td>
<td>LD9Z-6ATB</td>
<td>A top cap is supplied with a base module.</td>
</tr>
<tr>
<td></td>
<td>Light gray</td>
<td>LD9Z-6ATW</td>
<td></td>
</tr>
<tr>
<td>L-shaped Bracket</td>
<td>Metal (chrome-plated)</td>
<td>LD9Z-6AK</td>
<td>Two plain washers and two nuts are supplied.</td>
</tr>
</tbody>
</table>

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Specifications

Safety Standards
IEC60947-5-1, EN60947-5-1, UL508, CSA C22.2 No.14

Operating Temperature
−25 to +55°C (no freezing)

Operating Humidity
45 to 85% RH (no condensation)

Storage Temperature
−40 to +75°C (no freezing)

Overvoltage Category
III (IEC60664-1)

Impulse Withstand Voltage
800V (IEC60947-1)

Insulation Resistance
100 MΩ minimum (500V DC megger)

Dielectric Strength
Between live and dead parts: 1000V AC, 1 minute

Pollution Degree
3

Corrosion Immunity
Atmosphere free from corrosive gases

Vibration Resistance
Operating extremes: 10 to 55Hz, amplitude 0.5 mm

Shock Resistance
Operating extremes: 147 m/s², 6 shocks each in 6 axes

Degree of Protection (IEC60529)
Steady frame mount, wall mount, direct mount, pole mount with base: IP65
Steady pole mount with L-shaped bracket: IP23
Flashing/Alarm frame mount, wall mount, direct mount, pole mount with base: IP54
Flashing/Alarm pole mount with L-shaped bracket: IP23

Housing Color
Black, Light gray

Material
Housing: ABS resin
Lens: AS resin
Pole: Steel (nickel-chrome plated)
Pole base: Diecast aluminum

Wire
22AWG

Functional Specifications

Rated Insulation Voltage
60V

Operating Voltage
24V AC/DC ±10%

Rated Voltage (Ue)
24V AC/DC

LED Color Code
R (red), Y (yellow), S (blue), G (green), W (white)

LED Illumination Color
R, Y, S, G, W

Rated Current (per tier)
25mA, 30mA, 20mA

Power Consumption (per tier)
0.6W, 0.75W, 0.5W

LED Life (Note)
Approx. 30,000 hours (until brightness is reduced to 50% of the initial value in a 25°C operating environment)

Flashing Cycle (IEC60073)
Approx. 105 flashes per minute (1.75 Hz)

Alarm Cycle
Alarm 1: approx. 700 times per minute
Alarm 2: approx. 35 times per minute

Current Draw
110mA max.

Inrush Current
AC: 400mA max. DC: 250mA max.

Alarm Volume
70 to 90dB, at 1m (volume adjustable)

Acoustic Frequency
Approx. 3.3kHz

Note: Life of the LED varies according to operating conditions and environment.
### Dimensions (Steady Light)

**Frame Mount** | **Wall Mount** | **Direct Mount** | **Pole Mount (with base)** | **Pole Mount (with L-shaped bracket)**
---|---|---|---|---

**Conduit Port**

- Frame Mount: M20xP1.5

<table>
<thead>
<tr>
<th>Tier</th>
<th>Frame Mount (L1)</th>
<th>Wall Mount (L2)</th>
<th>Direct Mount (L3)</th>
<th>Pole Mount w/ base (L4)</th>
<th>Pole Mount w/ L-shaped bracket (L5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>156</td>
<td>156</td>
<td>98</td>
<td>408</td>
<td>372</td>
</tr>
<tr>
<td>2</td>
<td>186</td>
<td>186</td>
<td>128</td>
<td>438</td>
<td>402</td>
</tr>
<tr>
<td>3</td>
<td>216</td>
<td>216</td>
<td>158</td>
<td>468</td>
<td>432</td>
</tr>
<tr>
<td>4</td>
<td>246</td>
<td>246</td>
<td>188</td>
<td>498</td>
<td>462</td>
</tr>
<tr>
<td>5</td>
<td>276</td>
<td>276</td>
<td>218</td>
<td>528</td>
<td>492</td>
</tr>
</tbody>
</table>

### Panel Cut-Out

**Frame Mount** | **Wall Mount** | **Direct Mount** | **Pole Mount (with base)** | **Pole Mount (with L-shaped bracket)**
---|---|---|---|---

**Wiring Example (Steady Light)**

**Mechanical Contacts**

- **LED Red**: Red
- **LED Yellow**: Orange
- **LED Blue**: Blue
- **LED Green**: Green
- **LED Pure White**: White

**NPN Transistors**

- **LED Red**: Red
- **LED Yellow**: Orange
- **LED Blue**: Blue
- **LED Green**: Green
- **LED Pure White**: White

**PNP Transistors**

- **LED Red**: Red
- **LED Yellow**: Orange
- **LED Blue**: Blue
- **LED Green**: Green
- **LED Pure White**: White

**Fuse**: 1A

**Power supply line**: 24V AC/DC

*Complies with IEC60947-5-1.*
### Dimensions (Steady/Flashing/Alarm)

#### Frame Mount

- L1: 228
- L2: 228
- L3: 170
- L4: 480
- L5: 444

#### Wall Mount

- L1: 228
- L2: 228
- L3: 200
- L4: 510
- L5: 474

#### Direct Mount

- L1: 288
- L2: 288
- L3: 230
- L4: 540
- L5: 504

#### Pole Mount (with base)

- L1: 318
- L2: 318
- L3: 260
- L4: 570
- L5: 534

#### Pole Mount (with L-shaped bracket)

- L1: 348
- L2: 348
- L3: 290
- L4: 600
- L5: 564

### Dimension Table

<table>
<thead>
<tr>
<th>Tiers</th>
<th>Frame Mount (L1)</th>
<th>Wall Mount (L2)</th>
<th>Direct Mount (L3)</th>
<th>Pole Mount w/ base (L4)</th>
<th>Pole Mount w/ L-shaped bracket (L5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>228</td>
<td>228</td>
<td>170</td>
<td>480</td>
<td>444</td>
</tr>
<tr>
<td>2</td>
<td>258</td>
<td>258</td>
<td>200</td>
<td>510</td>
<td>474</td>
</tr>
<tr>
<td>3</td>
<td>288</td>
<td>288</td>
<td>230</td>
<td>540</td>
<td>504</td>
</tr>
<tr>
<td>4</td>
<td>318</td>
<td>318</td>
<td>260</td>
<td>570</td>
<td>534</td>
</tr>
<tr>
<td>5</td>
<td>348</td>
<td>348</td>
<td>290</td>
<td>600</td>
<td>564</td>
</tr>
</tbody>
</table>

### Panel Cut-Out

- Frame Mount
- Wall Mount
- Direct Mount* Pattern A
- Pole Mount (with base) Pattern B Pattern C
- Pole Mount (with L-shaped bracket) Pattern D

*Complies with IEC60947-5-1.
**Safety Precautions**

- Turn off the power to the LD6A before mounting, removing, wiring or assembling the LED module. Make sure the wiring is done correctly otherwise electrical shock or fire may result.
- Mount the LD6A on a solid surface not subject to vibrations.
- Do not mount the LD6A upside-down or horizontally.
- Do not leave the LD6A without a cap or unassembled.
- Install the supplied gasket, otherwise the waterproof seal will be compromised.
- Do not apply any chemicals that may corrode the plastic materials.
- If the LD6A is subjected to strong vibrations, the hexagon socket screw may become loose. Take measures to prevent loosening. (See the figure below.)

**Instructions**

**Mounting**

- See drawing below regarding the mounting of the LD6A.
- For panel cut-out dimensions, see pages 9 and 10.
- Position the LD6A to make sure the alarm sound is the loudest. (Steady/flashing/alarm type)

**Frame Mounting**

1. Insert two nuts in the frame, and attach the bracket using two M5 screws. Recommended tightening torque: 2.6 to 2.7 N·m
2. Mount the LD6A to the bracket using four M4 screws. Recommended tightening torque: 1.6 to 1.7 N·m

**Examples of recommended frames and frame nuts**

<table>
<thead>
<tr>
<th>Frame Size</th>
<th>Frame</th>
<th>Frame Nut</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 mm*</td>
<td>SFF-302</td>
<td>SFB-001</td>
<td>SUS Corporation (Japan)</td>
</tr>
<tr>
<td>40 mm</td>
<td>SFF-402</td>
<td>SFB-008</td>
<td>SFB-108</td>
</tr>
</tbody>
</table>

*The mounting bracket for the housing is 40 mm.

When using a frame mount type, be sure to use flexible conduit, otherwise the waterproof seal will be compromised.

Refer to the “Example of Flexible Conduit” shown on the right.

**Example of Flexible Conduit**

<table>
<thead>
<tr>
<th>Conduit Port Size</th>
<th>M20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gland</td>
<td>AL16/M20A/BL</td>
</tr>
<tr>
<td>Conduit</td>
<td>PAFS16BL</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Adaptaflex</td>
</tr>
</tbody>
</table>
Wall Mounting

1. Make four tapped holes in the mounting panel and mount the bracket and gasket using four screws (M4 x 20).
   Recommended tightening torque: 1.6 to 1.7 N·m
2. Mount the LD6A to the bracket using four screws (M4 x 8).
   Recommended tightening torque: 1.6 to 1.7 N·m

Direct Mounting

Recommended tightening torque: 2.6 to 2.7 N·m

Pole Mounting (with base)

The pole mount type can be installed in four ways. The recommended mounting method (pattern A from page 9 or 10) is described below.

Recommended tightening torque: 2.6 to 2.7 N·m (M5 screw)

Pole Mounting (with L-shaped bracket)

1. Using L-shaped bracket
   Recommended tightening torque: 10 to 11 N·m (M10)
   Recommended tightening torque: 25 to 26 N·m (M22)
2. Not using L-shaped bracket
   Remove the bushing, hexagonal nut (M22), plain washer, and L-shaped bracket from the LD6A and install in the following order: plain washer, hexagonal nut (M22), and bushing.
   Recommended tightening torque: 25 to 26 N·m (M22)

1. Using L-shaped bracket 2. Not using L-shaped bracket

The parts marked with * are not supplied and should be provided by the user.

Replacement and Addition of LED Modules

- Make sure to turn power off.
- Insert a flat screwdriver into the cap recess as shown below, lift up the cap, and remove with your hands. Use a flat screwdriver with maximum 1-mm thick and 7-mm wide tip.
- Remove the center screw before reassembling the LED modules.
- When assembling the LED modules, make sure to align the recess of the cap with the recess of the LED module. Otherwise, damage may result.
  Recommended tightening torque: 0.4 to 0.5 N·m.
- Note the correct orientation when assembling the LED modules.
- Tighten the screws to the recommended tightening torque. The LED module may be damaged if the screw is loose during operation.
- Do not touch the metal plug on the LED module. Otherwise, LED elements maybe damaged due to static electricity.
- Use a maximum of 5 tiers.
- Select the correct screw length depending on the number of tiers.
- Do not remove the correct screw length depending on the number of tiers.

Wiring

- For wiring, see the wiring diagrams on pages 708 and 710.
- Incorrect wiring may damage the internal circuit.
- Be sure to insulate unused wires.
- Connect a 1A fuse to the power line as shown in the Wiring Examples on pages 708 and 710.
- Use a UL listed external fuse holder.
- Use a class 2 power supply only.
- When using LED modules of the same color for two or more tiers, determine contact capacity in reference to the LED current, because only one wire is used to light all tiers of the same color.
- Do not apply voltage to flashing (brown) lines.
- Do not connect flashing (brown) line to the power lines. The internal circuit may be damaged.
- Do not turn on steady and flashing circuits simultaneously.
- Do not turn on alarms 1 and 2 simultaneously.
### Wire Color

<table>
<thead>
<tr>
<th>Wire Color</th>
<th>Steady</th>
<th>Steady, Flashing, Alarm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>LED Module – Red</td>
<td>LED Module – Red</td>
</tr>
<tr>
<td>Orange</td>
<td>LED Module – Yellow</td>
<td>LED Module – Yellow</td>
</tr>
<tr>
<td>Blue</td>
<td>LED Module – Blue</td>
<td>LED Module – Blue</td>
</tr>
<tr>
<td>Green</td>
<td>LED Module – Green</td>
<td>LED Module – Green</td>
</tr>
<tr>
<td>White</td>
<td>LED Module – White</td>
<td>LED Module – White</td>
</tr>
<tr>
<td>Purple</td>
<td>—</td>
<td>Alarm 1</td>
</tr>
<tr>
<td>Light Blue</td>
<td>—</td>
<td>Alarm 2</td>
</tr>
<tr>
<td>Brown</td>
<td>—</td>
<td>Flashing COM</td>
</tr>
<tr>
<td>Gray</td>
<td>—</td>
<td>Power Line</td>
</tr>
<tr>
<td>Yellow</td>
<td>Power Line</td>
<td>Power Line</td>
</tr>
</tbody>
</table>

For information on external contacts, see “External Contact Ratings” on page 707.

### Alarm Volume Adjustment

- Move the volume adjustment to the right or left to change the volume.
- When the adjustment lever is all the way to the right the volume is at its maximum.
- The adjustment lever may be damaged if forced open or closed.

![Alarm volume adjustment lever](image)

### High Temperature Limitations

The external temperature cannot exceed 50°C when all tiers are lit at the same time in the following combinations:

1. Three tiers
   - Two or more tiers of blue and green (example: Red-Green-Blue, Green-Green-Red)
2. Four or five tiers (example: Red-Yellow-Green-White, Red-Yellow-Blue-Green-White)