## LA6

※ There is no Silver (U) body color selection for the LJ type.
※ AC100V - 240V type is only available for LA6-5AWJWB-RYGBC.

# LA6-5DLJWB-RYGBC

- LED Tiers: 3 = 3 Tiers; 5 = 5 Tiers
- Rated Voltage: A = AC100~240V; D = DC24V
- Mounting/Wiring: TN = Direct Mount/Terminal; LJ = Steel Pole with L-bracket/Cable; WJ = Direct Mount/Cable
- Body Color: W = Off-white; U = Silver
- Flashing/Buzzer type: B = with Flashing/Buzzer; N = no Flashing/Buzzer
- Color: RYG = 3 Tiers; RYGBC = 5 Tiers

## LA6-POE

# LA6-5DTNWB-POE

- Model
- LED Tiers
- Rated Voltage: Rated Voltage is DC24V
- Mounting: TN = Direct Mount; SN = Stationary with "Clear" switch
- Body Color: W = Off-white
- Flashing/Buzzer type: B = with Flashing/Buzzer
- Extension Function: PoE Supported

## ■ Specifications

| Model | | LA6 | | | | LA6-POE |
|---|---|---|---|---|---|---|
| Rated Voltage | | DC24V/AC100~240V(50Hz/60Hz) | | | | DC24V/DC48(PoE) |
| Operating Voltage Range | | DC24V±10%/AC90~250V(50Hz/60Hz) | | | | DC24V±10%/DC36~57V(PoE) |
| Rated Power Consumption | Standard | LA6-5D□□N-RYGBC | 5W | LA6-5D□□B-RYGBC | 6.5W | 7.2W(DC24V)/8.6W(PoE) |
| | | LA6-3D□□N-RYG | 3.5W | LA6-3D□□B-RYG | 4.5W | |
| | | LA6-5AWJWB-RYGBC | 6.5W | | | |
| | Maximum | LA6-5D□□N-YYYYY | 7W | LA6-5D□□B-YYYYY | 8W | 12.9W(DC26.4V)/12.5W(PoE) |
| | | LA6-3D□□N-YYY | 4.5W | LA6-3D□□B-YYY | 5.5W | |
| | | LA6-5AWJWB-YYYYY | 7.5W | | | |
| Signal Line Current | | Max.70mA (at DC24V)/Max.20mA(at AC100-240V) | | | | Max. 420mA (at DC26.4V)/10mA (for PoE) |
| Operating Temperature Range | | -25℃ to +60℃ | | | | -10℃ to +50℃ |
| Operating Humidity Range | | Less than 90% RH, no condensation | | | | Less than 90% RH, no freezing or condensation |
| Mounting Direction | | Upright/Inverted | | | | Upright |
| Protection Rating | | IP65 (with Buzzer: IP54) (IEC 60529) | | | | IP54 (Stationary type: IP20) (IEC 60529) |
| Environmental Conditions | | Tested while mounted in the upright position | | | | |
| Mounting Location | | Indoors Only | | | | |
| Insulation Resistance | | More than 1MΩ at DC500V between the power input lead and chassis. | | | | |
| Withstand Voltage | | 500VAC for 1 minute between terminals and chassis without breaking insulation. | | | | |
| Display Color Variations | | Signal Mode: 9 colors/Smart Mode: 21 colors | | | | |
| Buzzer Sounds | | 11 Sounds | | | | |
| Sound Level | | Maximum 85dB | | | | |
| Environmental Conditions | | Buzzer Sound No.1, in an upright position with a distance from Buzzer opening at 1meter | | | | |
| Operation Method | | Signal Control | | | | Signal/Command Control |
| Standard Compliances | | ■ DC24V<br>EMC Directive (EN 61000-6-4, EN 61000-6-2), RoHS Directive (EN 50581), UL508, CSA-C22.2 No. 14, FCC Part 15, Subpart B Class A, KC (KN 61000-6-4, KN 61000-6-2)<br>■ AC100-240V<br>EMC Directive (EN 61000-6-4, EN 61000-6-3), RoHS Directive (EN 50581), Low-voltage Directive (IEC/EN 60947-5-1, EN 62471) | | | | EMC Directive (EN 61000-6-4, EN 61000-6-2, EN55032 Class A, EN 55024, RoHS Directive (EN 50581), FCC Part 15, Subpart B Class A, KC (KN 61000-6-4, KN 61000-6-2), UL 60950-1, CAN/CSA-C22.2 No. UL 60950-1-07, Recognized Component (File No. E480103), *The DC24V Direct Mount type conforms to the following conformities: UL508, CAN/CSA C22.2 No. 14 Recognized Component (File No. E215669) |

## ■ Lineup

| Model | Tiers | Voltage | Body Color | Type |
|---|---|---|---|---|
| LA6-3DTNWB-RYG | 3 Tiers | DC24V | Off-white | Direct Mount/Terminal/Buzzer |
| LA6-3DTNWN-RYG | | | | Direct Mount/Terminal/No Buzzer |
| LA6-3DWJWB-RYG | | | | Direct Mount/Cable/Buzzer |
| LA6-3DWJWN-RYG | | | | Direct Mount/Cable/No Buzzer |
| LA6-3DTNUB-RYG | | | Silver | Direct Mount/Terminal/Buzzer |
| LA6-3DTNUN-RYG | | | | Direct Mount/Terminal/No Buzzer |
| LA6-3DWJUB-RYG | | | | Direct Mount/Cable/Buzzer |
| LA6-3DWJUN-RYG | | | | Direct Mount/Cable/No Buzzer |
| LA6-3DLJWB-RYG | | | Off-white | L-Bracket with Pole/Cable/Buzzer |
| LA6-3DLJWN-RYG | | | | L-Bracket with Pole/Cable/No Buzzer |

| Model | Tiers | Voltage | Body Color | Type |
|---|---|---|---|---|
| LA6-5DTNWB-RYGBC | 5 Tiers | DC24V | Off-white | Direct Mount/Cable/Buzzer |
| LA6-5DTNWN-RYGBC | | | | Direct Mount/Cable/No Buzzer |
| LA6-5DWJWB-RYGBC | | | | Direct Mount/Terminal/Buzzer |
| LA6-5DWJWN-RYGBC | | | | Direct Mount/Terminal/No Buzzer |
| LA6-5DTNUB-RYGBC | | | Silver | Direct Mount/Terminal/Buzzer |
| LA6-5DTNUN-RYGBC | | | | Direct Mount/Terminal/No Buzzer |
| LA6-5DWJUB-RYGBC | | | | Direct Mount/Cable/Buzzer |
| LA6-5DWJUN-RYGBC | | | | Direct Mount/Cable/No Buzzer |
| LA6-5DLJWB-RYGBC | | | Off-white | L-Bracket with Pole/Cable/Buzzer |
| LA6-5DLJWN-RYGBC | | | | L-Bracket with Pole/Cable/No Buzzer |
| LA6-5AWJWB-RYGBC | | AC100 - 240V | | Direct Mount/Cable/Buzzer |
| LA6-5DTNWB-POE | | DC24V or PoE (DC48V) | | Direct Mount/Terminal/Ethernet/Buzzer |
| LA6-5DSNWB-POE | | | | Stationary/Terminal/Ethernet/Buzzer |


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**PATLITE (U.S.A.) Corporation**
20130 S. Western Ave. Torrance, CA 90501, U.S.A.
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**PATLITE Corporation**
Osaka Midosuji Building 7F, 4-1-3, Kyutaro machi, Chuo-ku, Osaka City, 541-0056, JAPAN
TEL: +81-6-7711-8956 FAX: +81-6-7711-8961

**PATLITE (SINGAPORE) PTE LTD**
No.2 Leng Kee Road, #05-01 Thye Hong Centre, Singapore 159086
TEL: +65-6226-1111 FAX: +65-6324-1411

**PATLITE (CHINA) Corporation** Post Code: 200072
Room 512, Jufeng Business Building, No.697-3 Lingshi Road
TEL:+86-21-6630-8969 FAX: +86-21-6630-8938

**PATLITE Europe GmbH**
Am Soeldnermoos 8, D-85399 Hallbergmoos, Germany
TEL: 49-811-9981-9770-0 FAX: 49-811-9981-9770-9

**PATLITE KOREA CO., LTD.**
A-2603, Daesung D-POLIS , 543-1 Gasan-dong, Geumcheon-gu, Seoul, Korea
TEL: +82-2-523-6636 FAX: +82-2-523-6637

**PATLITE TAIWAN CO., LTD.**
7F. No. 91, Huayin St, Datong District Taipei, Taiwan R.O.C
TEL. +886-2-2555-1611 FAX. +886-2-2555-1621 E-mail: info@patlite.tw

**PATLITE (THAILAND) CO., LTD.**
Olympia Thai Tower, 15th Floor 444 Ratchadapisek Road Samsennok, Huay Kwang Bangkok 10310, Thailand
TEL. +66-2-541-5431 FAX. +66-2-541-5429 E-mail: sales@patlite.co.th


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# LA6 SERIES

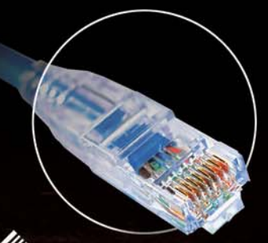
Sleek Design. Fully Customizable. Endless Possibilities.

**Cycle Time**

**Level Meter Monitoring**

**Status Condition**

**Remote Monitoring**



**Ethernet PoE**

(Power over Ethernet)
for single cable installation

patlite.com

# A SIGNAL TOWER DESIGNED TO SHOW MORE SO YOU CAN DO MORE

## COMMON ON-SITE OCCURRENCES

### OUR PROCESSES HAVE CHANGED.
We now need to reconfigure the color modules on our signal towers.

### OUR MACHINE LINE IS EXPERIENCING TOO MANY STOPPAGES.
We need to make our workers better aware of machine status so they can take quicker corrective measures.

### WE ARE EXPERIENCING DOWN TIME DUE TO MATERIAL MANAGEMENT.
We need earlier notifications prior to materials completely depleting to avoid delays.

### PRODUCTION STOPPAGES ARE OCCURRING AS A RESULT OF UNEVEN WORKFLOW.
Variations in work output is creating bottlenecks that can be smoothed out with a Takt system.

### WE NEED TO IMPLEMENT REMOTE MONITORING TO MINIMIZE OUR LABOR COSTS.
We need to monitor the operating status of equipment with long processing time, as well as abnormal stoppages or delays as they occur.

## LA6 SOLUTION

**Color Change**

The LA6 doesn't require any hardware or wiring changes to reconfigure colors. The LA6 can be easily programmed anywhere without tools.

**Status Condition**

The LA6 is able to create better, more dynamic visual signals to elicit a quicker response by workers.

**Level Meter Monitoring**

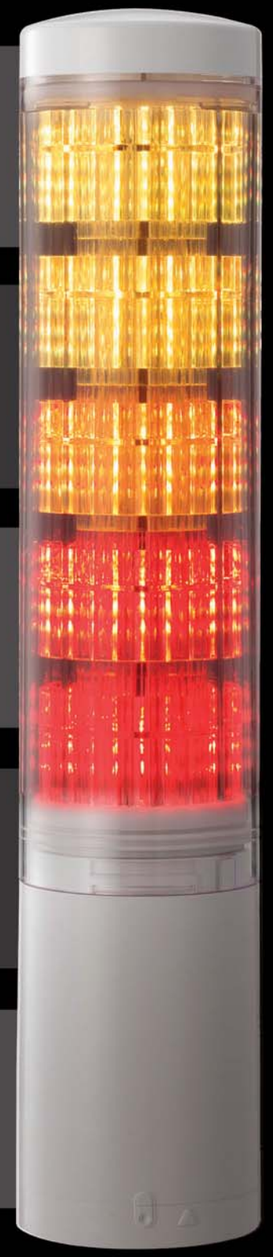
The LA6 can be programmed to act as a visual level to help manage materials and material levels.

**Cycle Time**

The LA6 has an internal timer function allowing you to create visual timers for a streamlined Takt system.

**NETWORK Remote Monitoring**

The LA6 is able to send information to other LA6 devices in remote locations via its mirroring function.



# ADVANCED OPTIONS TO SOLVE ANY APPLICATION

## Color Change

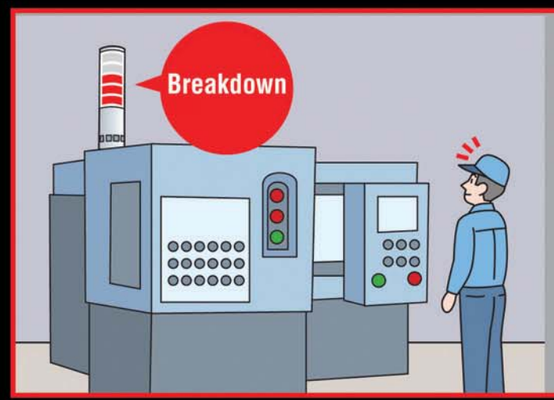
IMPROVE VISIBILITY
WITHOUT RECONFIGURING HARDWARE

By programming the LA6 to single, all-tier colors, equipment status can now be seen at a greater distance improving awareness and response time. Reprogramming the LA6 can be performed without adjusting any of the hardware.

■ Display up to 21 different colors for different equipment statuses


## Status Condition

INCREASE EFFICIENCY WITH
MORE DYNAMIC VISUAL WARNINGS




The LA6 is able to display more detailed information such as the status severity level or specific abnormality conditions that workers normally would have to look for on a equipment panel or HMI.

■ Display the level of status severity




## Level Meter Monitoring

REDUCE DOWNTIME
WITH LEVEL MONITORING

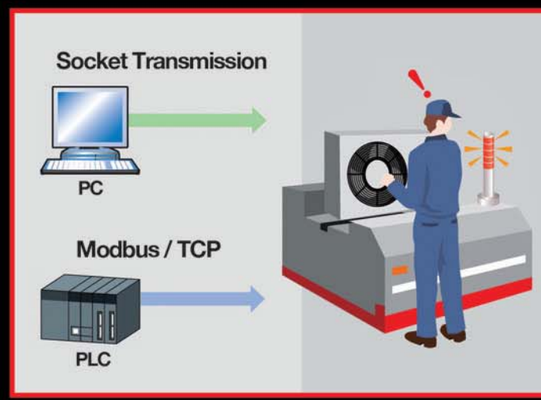

By displaying current material levels, workers can more accurately respond to changes, reducing downtime. As material levels reach certain thresholds, the LA6 can provide earlier visual and audible notifications.

■ Display remaining tank levels in stages

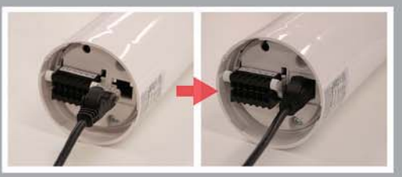

## Remote Monitoring

WIRING MADE EASY
WITH LAN CONNECTIVITY

## Ethernet PoE




The LA6 conveniently integrates into your facilities' existing LAN infrastructure.
By connecting to a PoE (Power over Ethernet) compliant HUB, the LA6 can be controlled and powered through a single cable.



# REDUCE BOTTLENECKS WITH A VISUAL TAKT SYSTEM

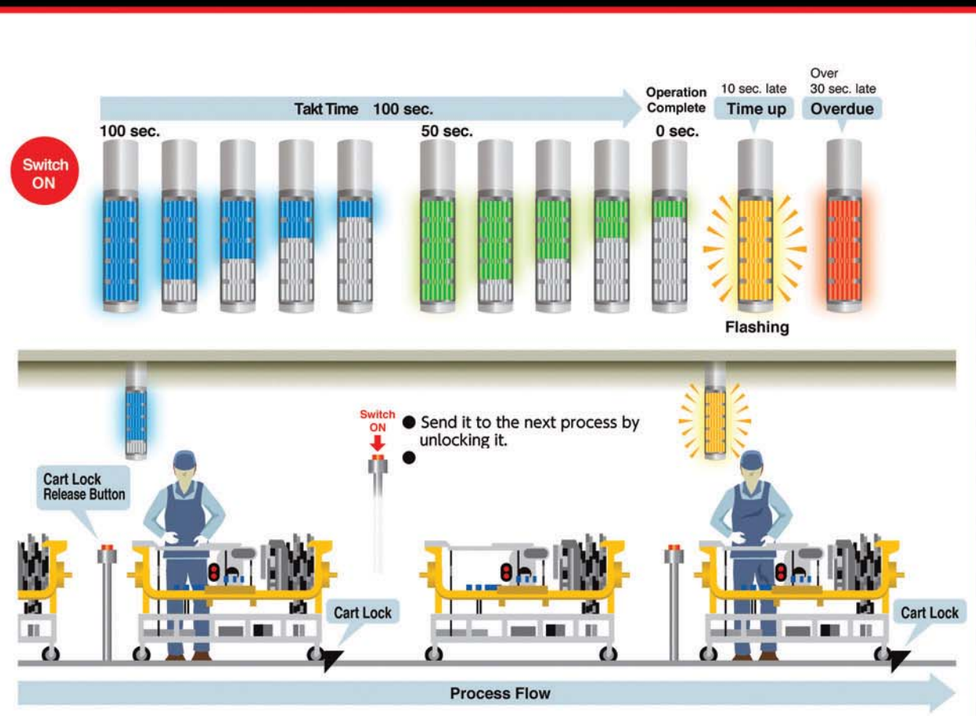
## Cycle Time

### PROBLEM

Idle time or delays on the production assembly line is sometimes caused by variations in the rate of worker output.

### IMPLEMENTATION MERIT

With the LA6 visual takt system, workers will be more aware of the progress of the entire line, minimizing delays, and resulting in a smoother work flow.




**Balance the assembly line with a Takt system**

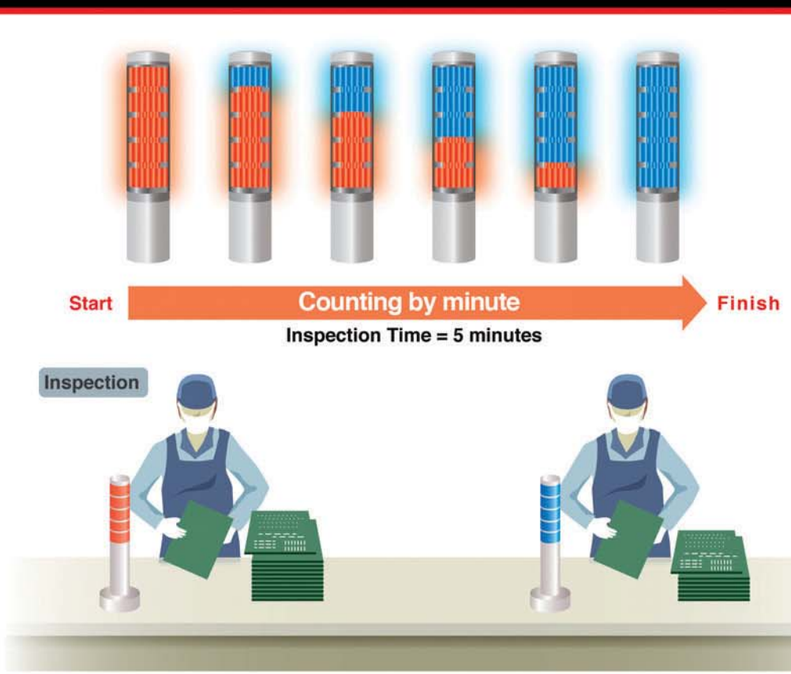
## Cycle Time

### PROBLEM

Due to high volumes of products to inspect, some defective products may be overlooked and pass inspection.

### IMPLEMENTATION MERIT

With the LA6 internal timer function, inspectors are allotted proper time for each inspection resulting in an improved yield rate by accurately detecting inferior goods.




Sensors detect inspectors as they enter the process line, triggers the LA6 to begin the count and inspectors carry out inspection until the LA6 turns all blue

**Prevent defective product outflow during inspection**

# OBTAIN EQUIPMENT INFORMATION FROM REMOTE LOCATIONS

Ethernet PoE

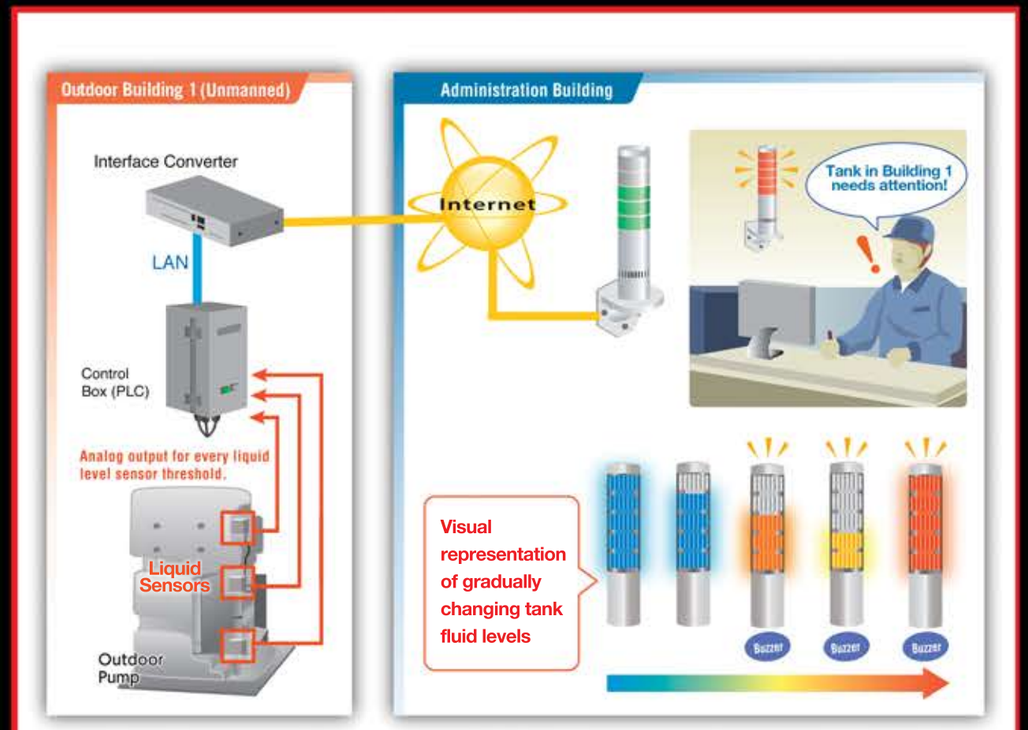
## NETWORK Remote Monitoring

### PROBLEM

Tanks located in remote buildings tend to be overlooked until the tanks are completely depleted.

### IMPLEMENTATION MERIT

The LA6 can be used as an economical level meter system capable of alerting remote personnel of equipment changes in real-time.




**Quicker response with remote monitoring**

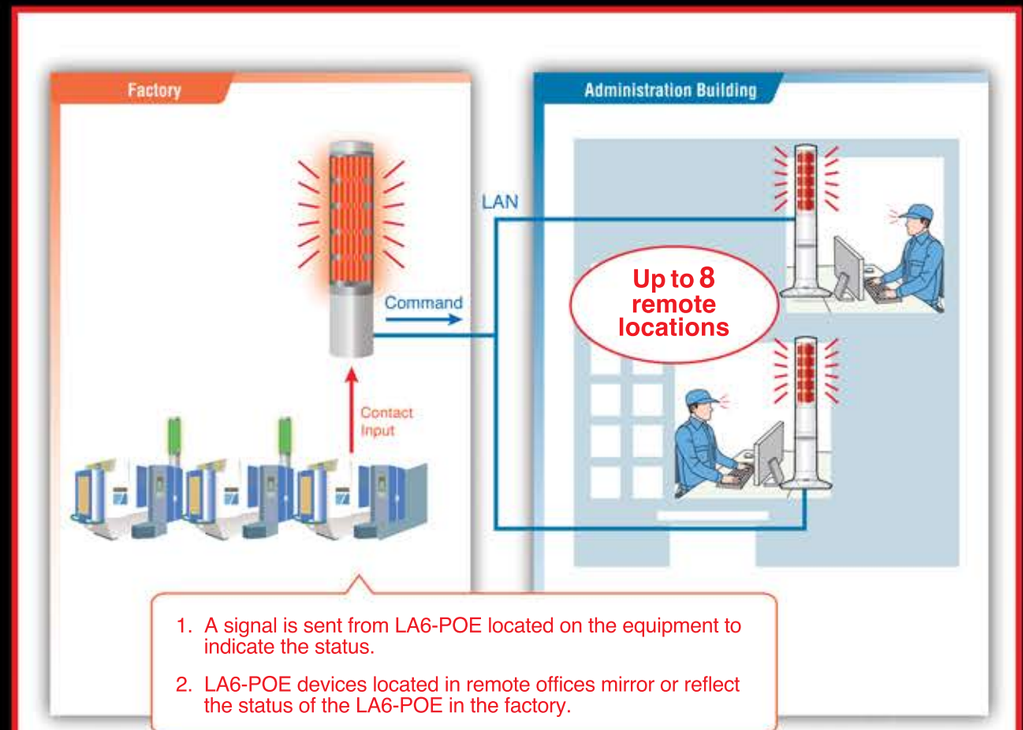
## NETWORK Remote Monitoring

### PROBLEM

Managers in remote offices need to monitor machinery status on the factory floor in real-time.

### IMPLEMENTATION MERIT

With LA6-POE's built-in mirroring function, equipment status, takt time, etc., can be communicated to other LA6 POE devices in remote locations via a LAN connection. This data can also be sent to 3rd party software through the LAN connection for data analysis or Andon monitoring.




**See equipment status from multiple locations**

# LA6 SIGNAL TOWER

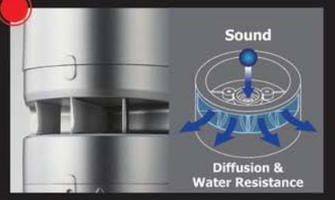
**Multi-function Switch for various setups**

BUZZER SOUND SETUP
The built-in volume adjustment switch has 4 selectable settings.
High (approx. 85dB) -> Mid (approx. 80dB) -> Low (approx. 75dB) -> Off

COLOR SETUP
The built-in switch also allows you to select up to 9 colors for each tier manually.

**A new lens design optimizes visibility.**

The newly developed lens design efficiently diffuses LED light so that it is unmistakably visible, even from great distances




**11 selectable alarm sounds to match various applications**

A newly developed compact loudspeaker not only transmits clear sound (85dB at 1m) but is also water resistant. A different alarm sound can be set to each display pattern.

**Free editing software to freely change the LA6 colors and patterns**


**Detachable Terminal Block**

Has 8 inputs for connecting PLC or discrete I/O. Data through these inputs can be transferred to a server over Ethernet.
DC power can also be wired if a LAN connection is not available.

Ethernet PoE

**Conveniently connects to an existing network with PoE support**

PoE (Power over Ethernet) is a technology that lets network cables carry electrical power. PoE can bring many advantages such as reducing costs of installing electrical cabling and/or the flexibility of not having to be tethered to an electrical outlet.

## LA6 DC24V / 3 and 5 Tier Types

The LA6 alarm feature has a total of 11 sounds to match various applications

Off White
Flashing / Buzzer

Silver
Lighting

Steel Pole Type (LJ)

## LA6 High Voltage / 5 Tier Types

Off White
Flashing / Buzzer

**Voltage: DC24V**
**Direct Mount/Terminal (TN)**
**Steel Pole with L-Bracket/Cable (LJ)**

**Voltage: AC 100-240V**
**Direct Mount/Cable (LJ)**

DC24V | AC100~240V | 85dB (at 1m) | Buzzer 11 Sound | IP65* | ϕ60 | RoHS

* Alarm Type: IP54

## LA6-POE Direct Mount / Stationery type

NEW

Direct
Mount Type

Stationary Type
with "Clear" switch

PoE | 85dB (at 1m) | Buzzer 11 Sounds | Ethernet | Modbus /TCP | EASY WEB Setup | DC24V | DC48V | HTTP | Inputs | IP54* | ϕ60 | RoHS

* Direct Mount Type

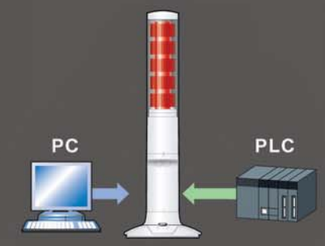
**PNS Command**

By using a PNC Command, the LED unit colors for tiers 1-5 can be controlled.

**HTTP Command**

Access and control all LA6-POE functions remotely in various network types with this flexible protocol.

**Modbus/TCP**




**3rd Party Software** LA6-POE can send machine status data over Ethernet to centralized software for remote Andon monitoring or data analysis.

## Optional Parts

For LA6/LA6-POE

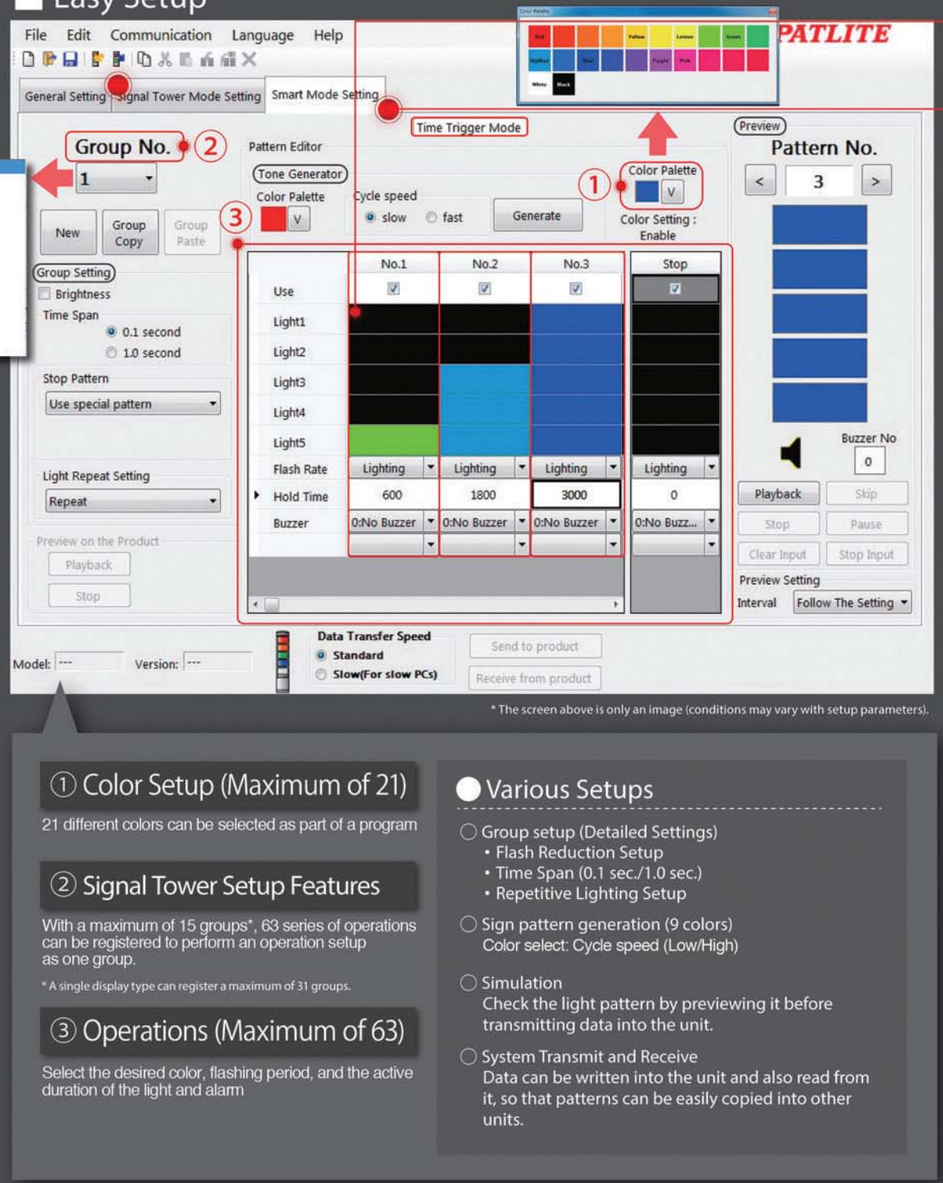
☐ Stationary Bracket
Model:SZK-003W
Direct Mount type

For LA6-POE

☐ Desktop Bracket
Model: SZW-060W
Convert direct mount to desktop

☐ Wall Mount Bracket
Model: NH-WST2
Stationary type

## Easy Setup




* The screen above is only an image (conditions may vary with setup parameters).

### ① Color Setup (Maximum of 21)

21 different colors can be selected as part of a program

### ② Signal Tower Setup Features

With a maximum of 15 groups*, 63 series of operations can be registered to perform an operation setup as one group.

* A single display type can register a maximum of 31 groups.

### ③ Operations (Maximum of 63)

Select the desired color, flashing period, and the active duration of the light and alarm

### ● Various Setups

- ○ Group setup (Detailed Settings)
  - Flash Reduction Setup
  - Time Span (0.1 sec./1.0 sec.)
  - Repetitive Lighting Setup
- ○ Sign pattern generation (9 colors)
  Color select: Cycle speed (Low/High)
- ○ Simulation
  Check the light pattern by previewing it before transmitting data into the unit.
- ○ System Transmit and Receive
  Data can be written into the unit and also read from it, so that patterns can be easily copied into other units.

* Data transfer is also possible when the main unit is OFF and the system's power source is the USB bus power.

http://www.patlite.com
patlite Search

Editing software and pre-set data patterns are downloadable for free from our website.

## Smart Mode 21 Color

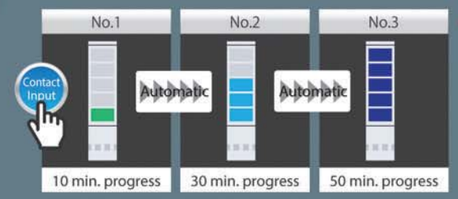
**Elapsed Time / Countdown / Cycle Time**

### 1. Time-trigger Type

Setups for individual group operation can be executed. Pattern change timing can be setup with the editing software.

| | |
|---|---|
| Maximum pattern display | 63 Patterns |
| Maximum group number | 15 Groups |

Setup timing in pattern changes with the editing software.



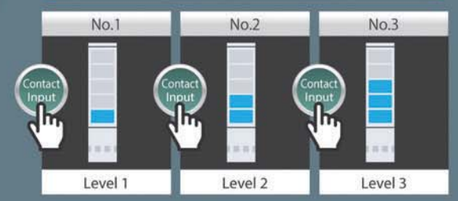

**Determine thresholds for pressure/temperature, etc.**

### 2. Pulse-trigger Type

Transitions from one pattern to another can be triggered by setting elapsed time or by individual discrete inputs.

| | |
|---|---|
| Maximum pattern display | 63 Patterns |
| Maximum group number | 15 Groups |

Pattern transition timing can be controlled by individual discrete inputs.



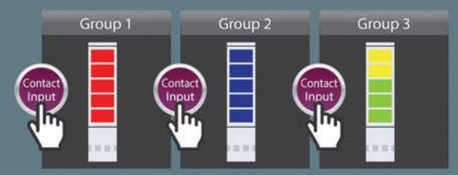

**Error level/Request Priority/Status Display, etc.**

### 3. Single-display Type

The product memory operates for "individual group" functions.

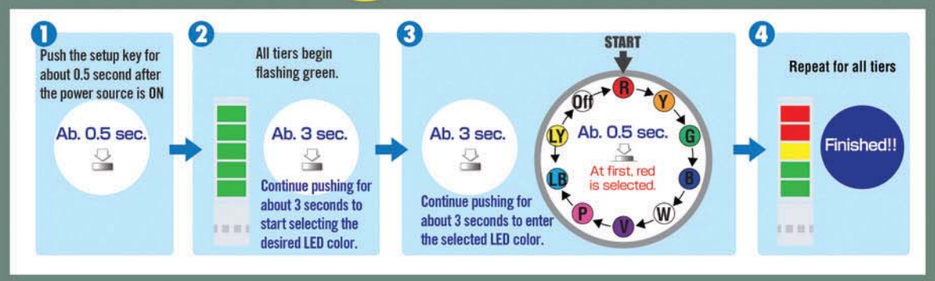
| | |
|---|---|
| Maximum pattern display | ——— |
| Maximum group number | 31 Groups |

Inputs 1-5, with ON/OFF signal combinations, is made to operate.




## Signal Tower Mode 9 Color

Color can be manually configured with the push button without having to edit with the software

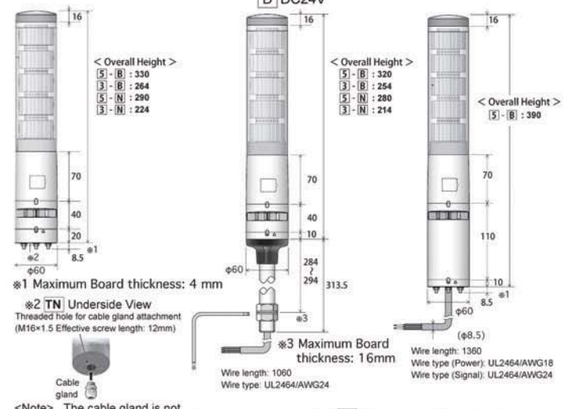


# DIMENSIONS AND WIRING

## Outer Dimensional Drawings

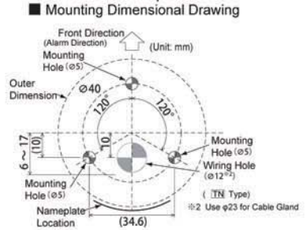
### LA6

■ TN Direct mount/Terminal D DC24V ■ LJ Steel Pole with L-bracket/Cable D DC24V ■ WJ Direct mount/Cable A AC 100-240V

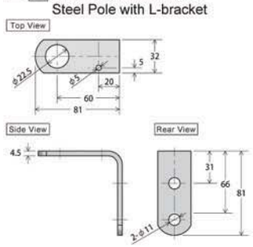



<Note> The cable gland is not included with this product.

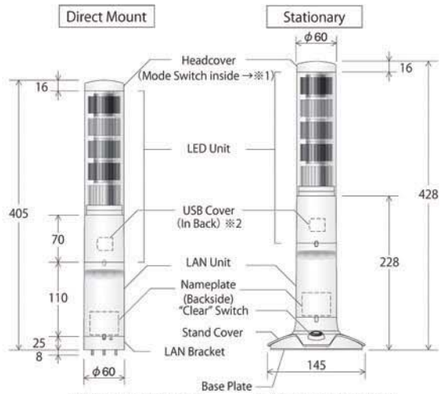
■ Mounting Dimensional Drawing



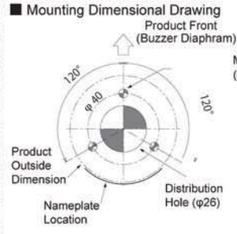

■ L Dimensional Drawing for Steel Pole with L-bracket



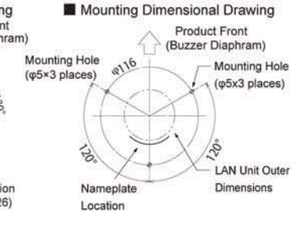

### LA6-POE




■ Mounting Dimensional Drawing




■ Mounting Dimensional Drawing

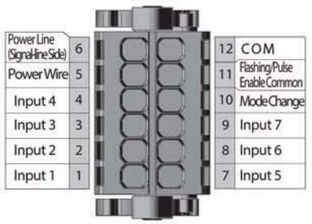



## Connector Inputs

### LA6 (Terminal Type)

| | | |
|---|---|---|
| 11 | Purple | Mode Change |
| 10 | Black | Power Line (Signal-line Side) |
| 9 | Gray | Flashing/Pulse Enable Common |
| 8 | Yellow | Power Wire |
| 7 | Black | Alarm 2/Input 7 |
| 6 | Gray | Alarm 1/Input 6 |
| 5 | White | LED 5/Input 5 |
| 4 | Blue | LED 4/Input 4 |
| 3 | Green | LED 3/Input 3 |
| 2 | Orange | LED 2/Input 2 |
| 1 | Red | LED 1/Input 1 |

### LA6-POE



| | | | |
|---|---|---|---|
| Power Line (Signal-line Side) | 6 | 12 | COM |
| Power Wire | 5 | 11 | Flashing/Pulse Enable Common |
| Input 4 | 4 | 10 | Mode Change |
| Input 3 | 3 | 9 | Input 7 |
| Input 2 | 2 | 8 | Input 6 |
| Input 1 | 1 | 7 | Input 5 |

## Smart Mode Inputs (for Mode Change)

| | ①Time-trigger Type | ②Pulse-trigger Type | ③Single-display Type |
|---|---|---|---|
| Input1 Red | Display Input (Binary Input Maximum 15) | Display Input (Binary Input Maximum 15) | Display Input (Binary Input Maximum 31) |
| Input2 Amber | | | |
| Input3 Green | | | |
| Input4 Blue | | | |
| Input5 White | STOP | Trigger | |
| Input6 Purple | Mute | Mute | Mute |
| Input7 Sky Blue | Clear | Clear | Clear |
| Mode Change Pink | At Input | | |

**TO USE SMART MODE, APPLY A SIGNAL INPUT TO THE MODE CHANGE (PINK) WIRE.**

※ In mode switchover, mode switchover is 10 in the case of 11 purple and PoE specifications in the case of terminal bus specifications.



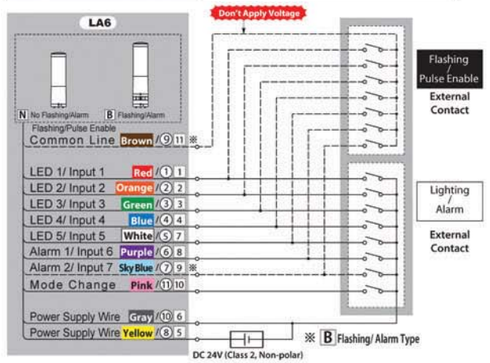
## Wiring

Red indicates the lead wire color (for Cable type models) ※ The lead wire color does not indicate the LED luminescence color.

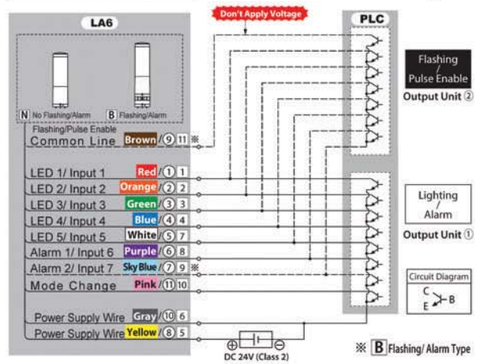
### DC 24V Wiring (LA6/LA6-POE)

※ Be sure to check the wiring diagram of the PNP type transistor by visiting our website and viewing the comprehensive operation manual, etc.

External Contact Classification: Contact Relay



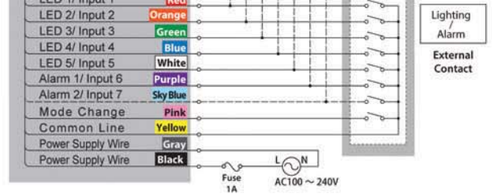

External Contact Classification: PLC (NPN Transistor)



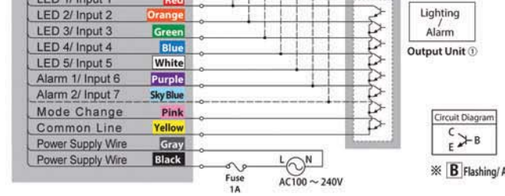

### AC 100 - 240V Wiring (LA6)

※ Be sure to visiting our website and viewing the comprehensive operation manual, etc. for further details.

External Contact Classification: Contact Relay

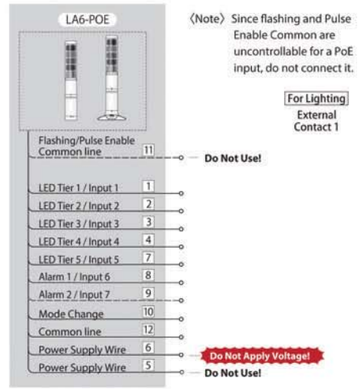



External Contact Classification: PLC (NPN Transistor)




### POE Wiring (LA6-POE)

External Contact Classification: Contact Relay




### ■ Wiring Diagram color and number indication

Red / ① / 1

- 1: Cable signal wire number
- ①: Terminal connector wire number
- Red: PoE Connector wire number

### LAN Cable Connection

The LAN cable should be rated for category 5e or higher.
A straight or cross cable can be used.

MEMO

- Be sure to use the IEEE802.3af compliant products for the PoE power feeder systems.
- Priority is given to the DC24V power supply when both the DC24V power source and PoE power feeder systems are connected simultaneously.
- If both power sources are simultaneously connected, when disconnecting the DC24V source, this product may reboot.