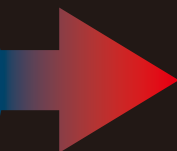


From simple status indication to the
Age of visualization.

LA6

**Display
Results**



**Display
Process**

Status Display

Display Cychetime

Level Meter Display

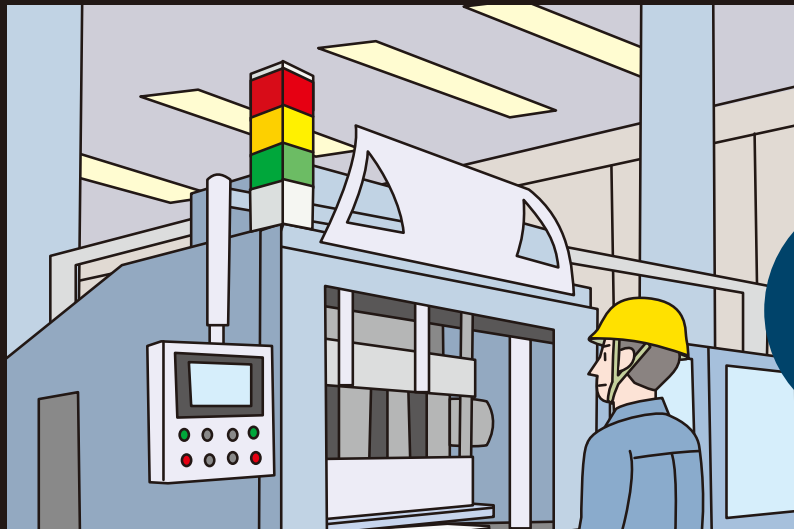


An Innovative Display Style

**The age of visualization is born with the LA6.
LA6 is the signal tower with infinite possibilities.**

From the signal tower lineup, a new concept was born. With the advanced technology, LA6 can newly express the operating needed, but now, functions such as "Time", "residual quantity", and "level meter", were enabled by combining the buzzer sound management" and "visualization of non-operating time" equipment issues in the production site can be solved without the various problems in practically any field which can bring an idea to life.

From this Signal Tower



**Display
Results**



Equipment status is displayed.

Up until now, the signal towers only display the status condition of the equipment, and have not extended beyond those features.

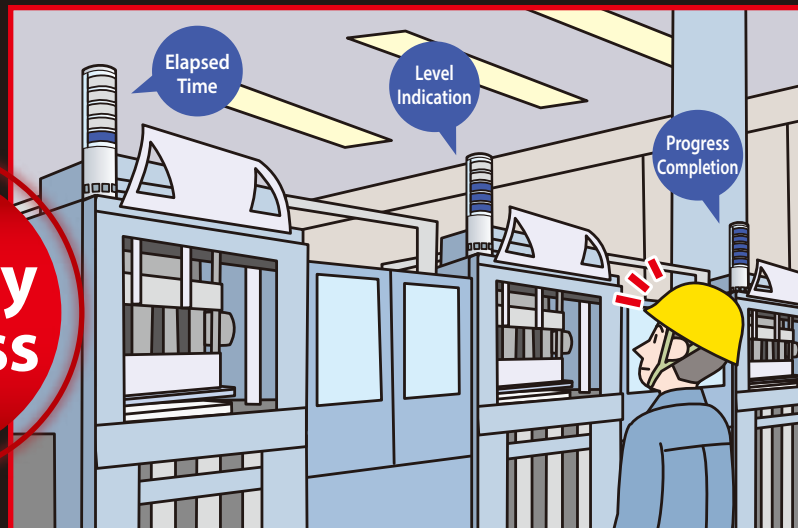
	Tiered Signal Tower
Color	Maximum: 5 Colors
Setting	Fixed Settings
Sound	2 Sounds

Signal Tower LA6

equipment with a light and sound status display. Since a CPU is embedded in the Main Unit, external-control programs are not of the luminescence color of a maximum of 21 colors, three operational modes and 11 sounds. Thereby, "cycle-time need for large-scale capital investments. The LA6 is an intelligent signal tower revolving into the age of visualization to solve

To this Signal Tower

**Display
Process**



Task progression is displayed.

In real time, status conditions (such as task progression, remaining material quantity, etc.) can become visible. Priority to maintain equipment can be recognized by the real time status conditions, which can ease the operator's responsibility. Moreover, monitoring sensors by displaying gradient bars from the equipment can allow prompt action when necessary.

Task Progress
Time Display

Elapsed Error
Time Display

Remaining
Quantity Display

Level Display

Individual
Tier Display

Embedded **CPU** and simple programm



An internal Multi-function Switch is added.

Among other functions, pressing the built-in switch can adjust the alarm sound for "Loud" (about 85dB) -> "Middle" (about 80dB) -> "Low" (about 75dB) -> Alarm Sound "Off".



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.

Signal Tower **LA6**

■ DC24V/ 5 Tier Type



■ DC24V/ 3 Tier Type



LED

DC24V

85dB

(at 1m)

IP65

Φ60

RoHS

cULus

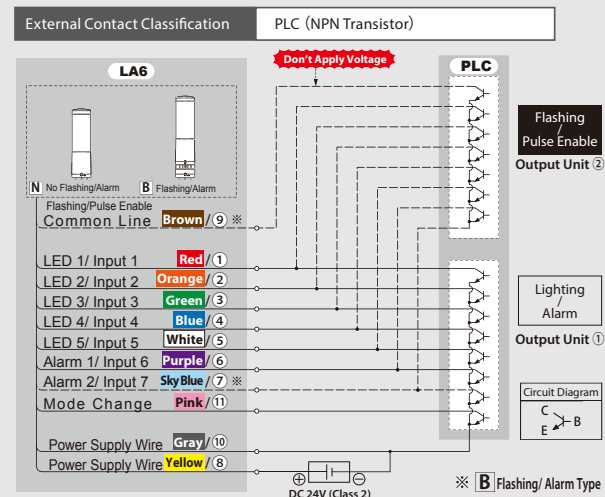
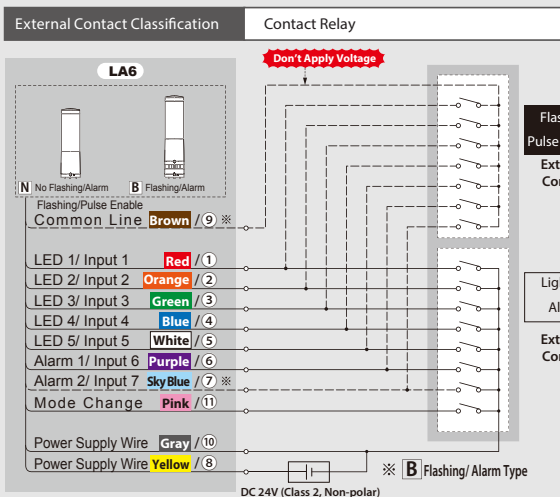
CE

(Alarm Type: IP54)

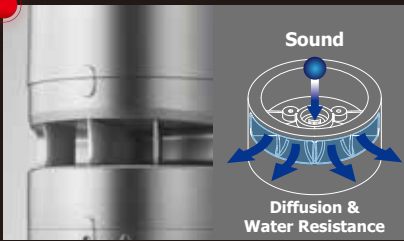
Wiring Diagram **Red** is the lead wire color. (Cable Specification) * The lead wire color does not indicate the LED luminescence color.

DC 24V Wiring

* Refer to the comprehensive operation manual or our webpage for detailed schematics on the PNP transistor wiring.



ing offer a variety of control.



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

A newly developed compact sized loudspeaker structure with added water resistant performance, to clearly transmit sounds to a maximum of 85 dB at 1m. An alarm can be set up with every display pattern when the unit is set to Smart mode. (Only three of the 11 alarm patterns can be selected in the Signal Tower mode)



Use the free editing software to freely change the luminescence colors and patterns.

Upload colors and patterns to the signal tower via a USB cable.*

* The USB cable is sold separately (USB microB type with **Charging/ Data Transfer** capability).

■ All-point Lighting Display

All tiers are set-up to light up the same color.



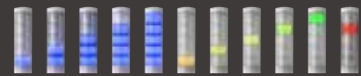
■ Separate Display

All tiers can be preset to light up with different colors.



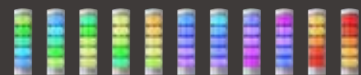
■ Tact time display

All tiers can be preset to light up in reference to time duration

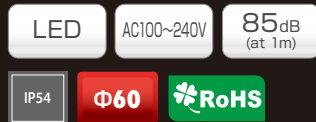


■ Gradation Display

All tiers can be preset to light up as a gradient color



■ AC100 - 240V/ 5 Tier Type



Off-white
Flashing/Alarm



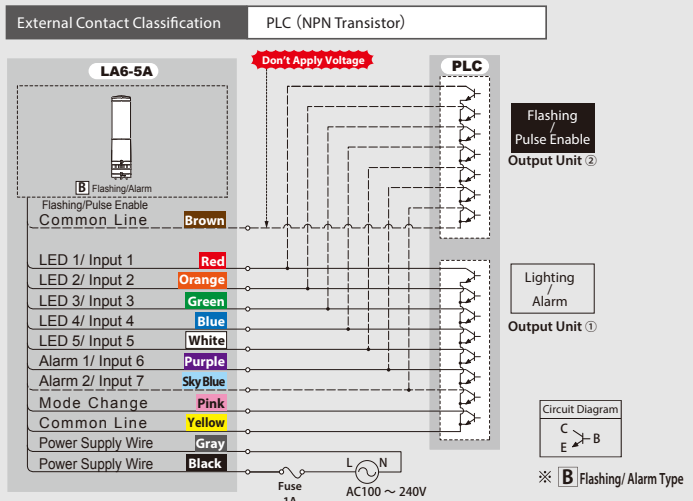
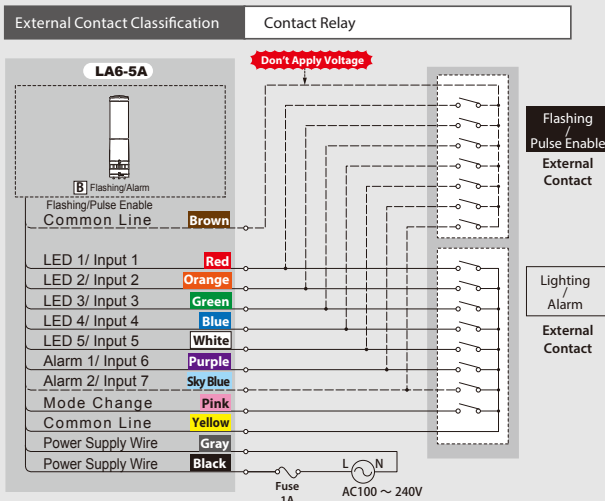
□ Terminal Buss Type



■ Smart Mode Application (Mode Change **Pink**)

	① Time-trigger Type	② Pulse-trigger Type	③ Single-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		

AC 100 - 240V Wiring

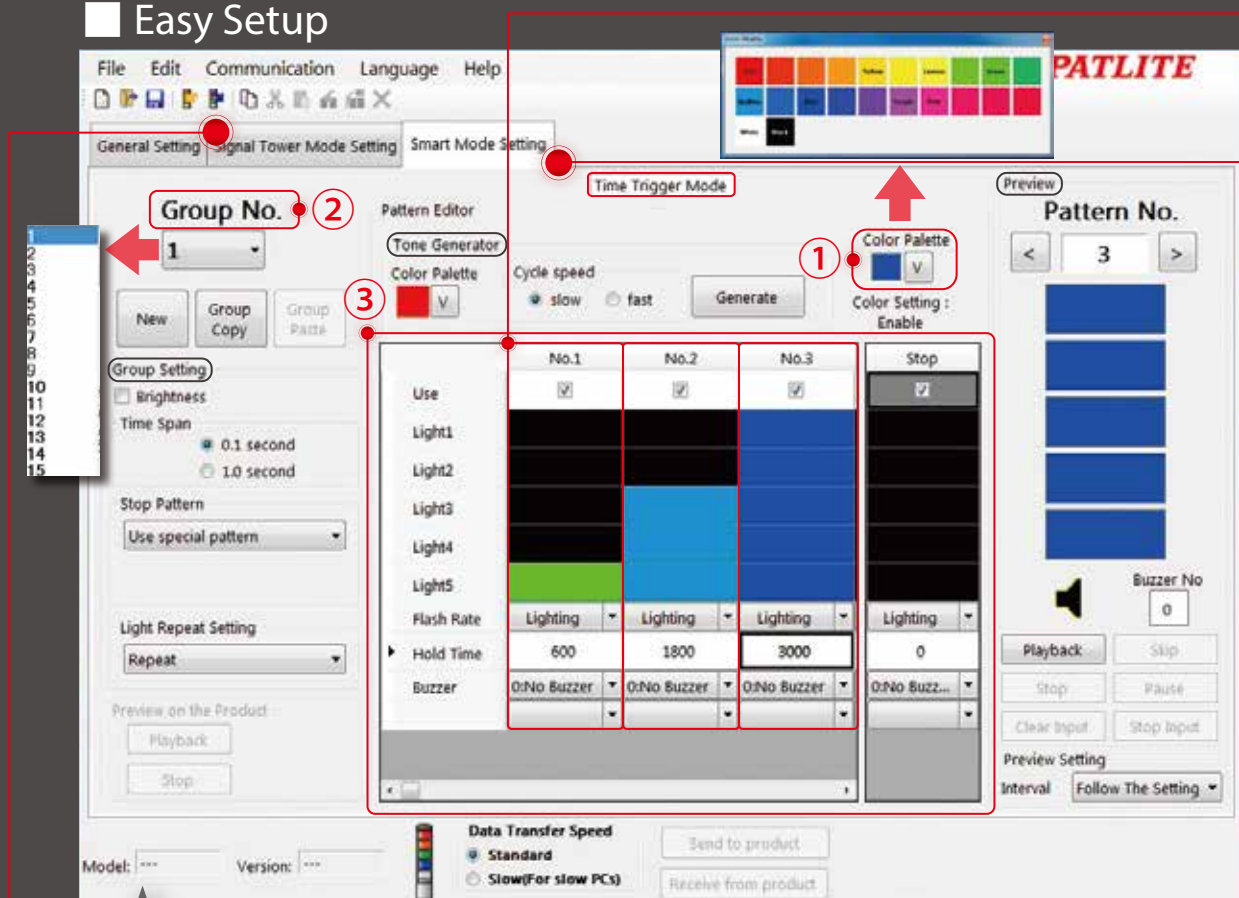


* Refer to the comprehensive operation manual for detailed schematics.

Editing
Software
Free

Programming unnecessary! Setup is easy with PATLITE's

Easy Setup



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

① Color Setup (Maximum of 21)

A favorite color can be selected from a 21-color palette.

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)

Operation setup is easy. Select the desired color (21 colors), flashing period (if any), and length of time the light and alarm are on* (maximum of 3,600 seconds, (11 sounds). * Limited to Time Trigger and Pulse Trigger.

● 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)
Set a gentle way to "shine like a firefly."
- 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.

exclusive editing software.

■ "Smart Mode" for use with various ideas

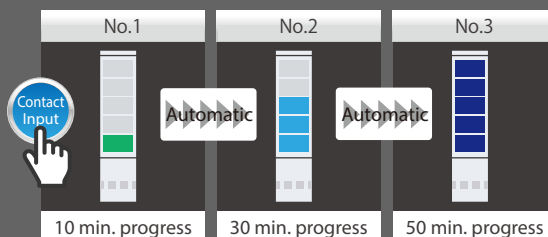
Elapsed Time / Countdown / Cycle Time

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.



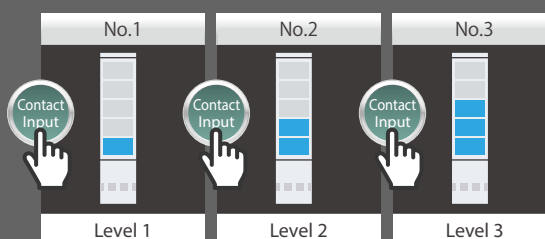
Determine thresholds for pressure/temperature, etc.

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.



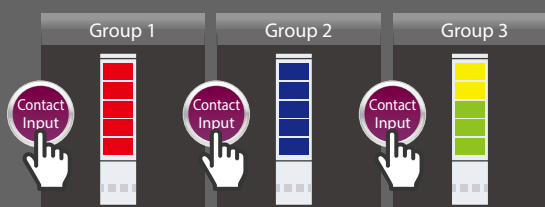
Error level/Request Priority/Status Display, etc.

3. Single-display Type

The product memory operates for "individual group" functions.

Maximum pattern display	—
Maximum group number	31 Groups

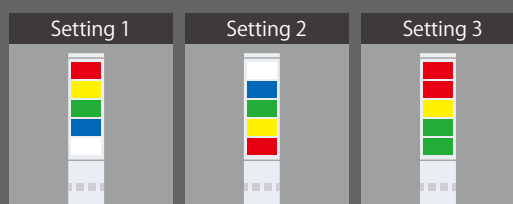
Inputs 1-5, with ON/OFF signal combinations, is made to operate.



■ "Signal Tower" mode is used like a conventional Signal Tower



Change the color of each tier easily with the editing software.

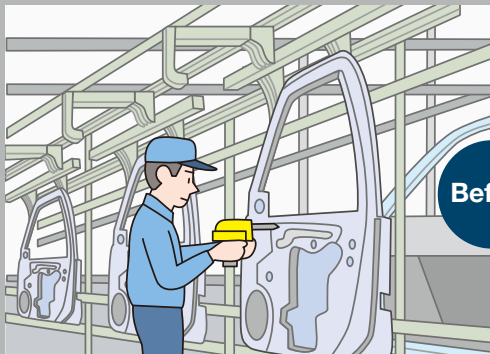


The color for each tier can easily be changed, even when used as a Signal Tower.

Real-life problems solved with LA6 Cases 1 and 2.

Case 1

Complete assembly line progress management by making takt time visible!

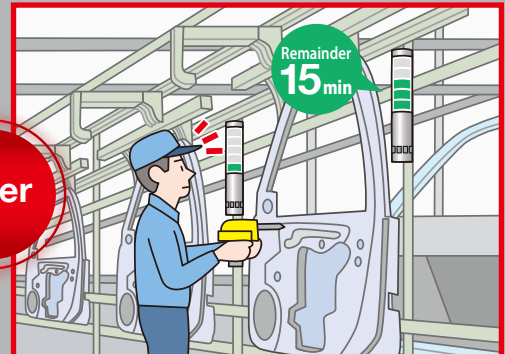


Before

Uneven task completion!

Workers along the assembly line were not aware that they were completing tasks at different rates, causing the line to progress at various speeds.

After



Synchronized task completion!

Now each worker along the line knows how much time they have left by checking the remaining time. Now the line flows much more consistently.

Case 2

Control management with visualization of analog equipment information and sensor feedback!

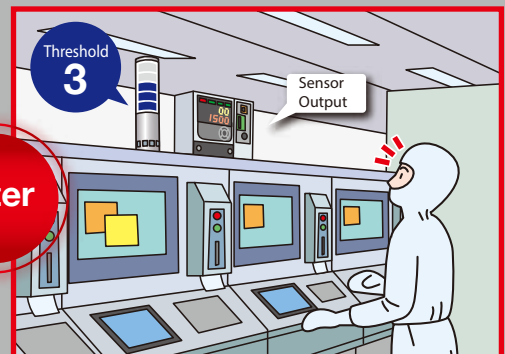


Before

The threshold is unknown!

Only circumstances of the equipment's abnormal condition were displayed, but neither a threshold point nor elapsed time from an abnormal condition was understood.

After



Threshold point visualization!

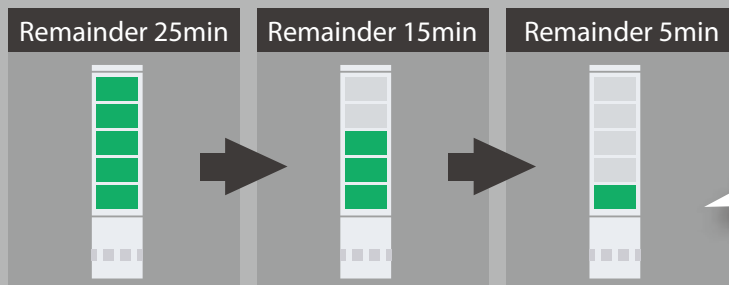
The threshold point is displayed in real time and can be seen from a distance. By including an elapsed time display, equipment priority can be grasped and prompt action can be made before abnormalities arise.

Operation/productivity ratio improvement due to progress management.

Operating Mode **Time Trigger Type**

Task Progress
Time Display

■ Display remaining work time with the number of tiers.



Remaining time is easily understood!

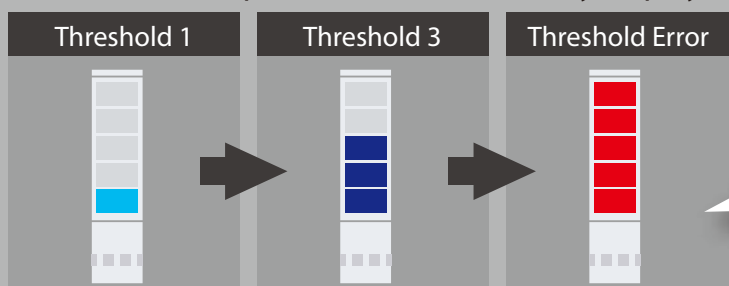
Check out our video at:
www.patlite.com/la6/

An error condition is prevented and productivity is improved.

Operating Mode **Pulse Trigger Type**

Level Display

■ Threshold response turns to a memory display.



Threshold can be seen from a distance at a glance!

Check out our video at:
www.patlite.com/la6/

Real-life problems solved with LA6 Cases 3 and 4.

Case 3 Replenish cutting fluid in a timely manner by "seeing" how much is left.

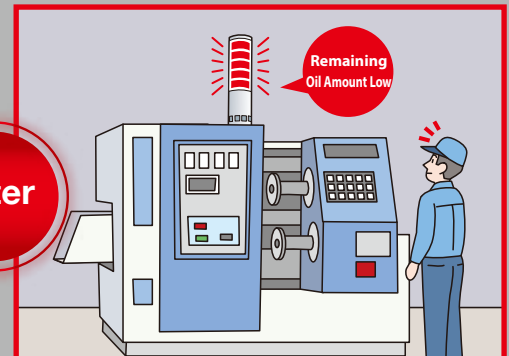


Amount of oil is unknown!

When checking the capacity of the cutting-fluid tank, visual confirmation is made for the in-ground tank by installing floatation devices, but the time and effort to check has a delay.

Before

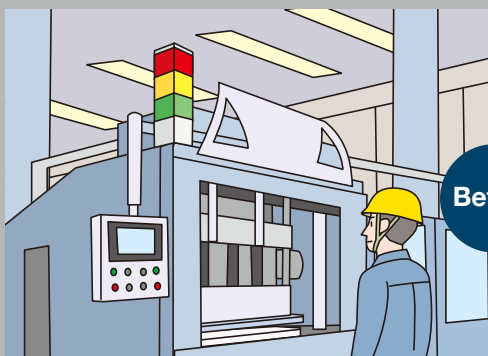
After



Amount of oil is visible from a distance!

Amount of cutting fluid is made visible in real time and can be seen from a distance. This allows multiple machines to be monitored at a glance and appropriate responses can be made.

Case 4 Various machines can be monitored more precisely for abnormal conditions!

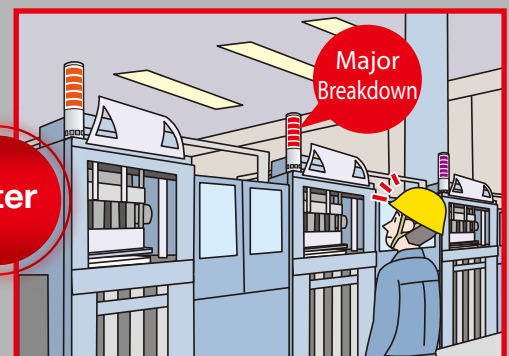


An error condition is not understood!

Abnormalities for equipment was displayed and could be seen from a distance but its severity could not be determined unless extra time was taken to approach the machine.

Before

After

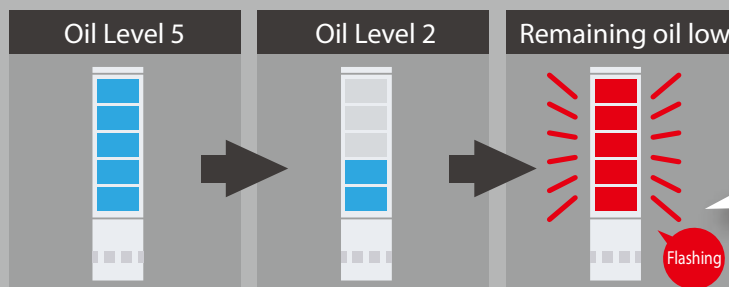


Various errors are now visible from a distance!

Now equipment can be checked for abnormalities at a glance from a distance, and when all tiers light up prompt attention can be given.

Eliminate cutting fluid level uncertainty by making it visible.

■ Remaining tank level indication



The status of the amount of oil can be seen at a glance from a distance!

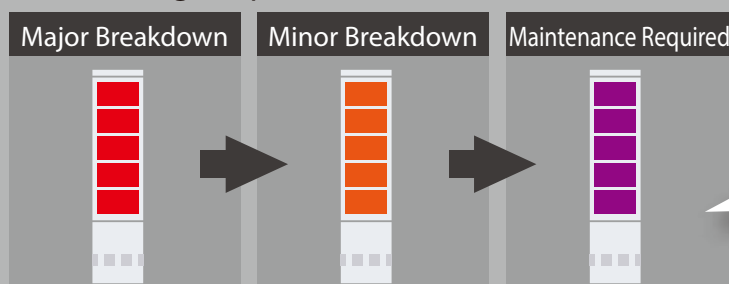
Operating Mode Pulse Trigger Type

Remaining Qty. Display

Check out our video at:
www.patlite.com/la6/

Reduced workload for responsible person by being able to monitor from a distance.

■ All tiers light-up for abnormal conditions.



According to color, each status can be seen at a glance from a distance!

Operating Mode Single Display Type

Individual Tier Display

Check out our video at:
www.patlite.com/la6/

Specifications					
Model		LA6- □□□□□ - □			
Rated Voltage		24 V DC/ AC 100 - 240V (50/60 Hz)			
Operating Voltage Range		±10% of Rated Voltage/ AC90 - 250V (50/60 Hz)			
Rated Power Consumption	Standard	LA6-5D □□ N-RYGBC	5W	LA6-5D □□ B-RYGBC	6.5W
		LA6-3D □□ N-RYG	3.5W	LA6-3D □□ B-RYG	4.5W
		LA6-5AWJWB-RYGBC	6.5W		
	Maximum	LA6-5D □□ N-YYYY	7.0W	LA6-5D □□ B-YYYY	8.0W
		LA6-3D □□ N-YYY	4.5W	LA6-3D □□ B-YY	5.5W
		LA6-5AWJWB-RYGBC	7.5W		
Test Conditions		Power consumption test with alarm set at "Alarm Sound No. 1" at maximum volume.			
Signal Wire Current		70mA maximum			
Operating Ambient Temperature		-25℃ to +60℃			
Operating Humidity Range		Less than 90% RH (No Dew or Condensation)			
Mounting Location/Direction		Indoor Only in the upright/inverted direction			
Protection Rating		IP65 (With alarm: IP54) IEC 60529			
Test Conditions		Installed in an upright position			
Vibration Resistance	Test Conditions	LA6- □□ LJ □□	Sweep Durability: Total Amplitude: 03 mmp-p (10-57.5 Hz), Acceleration: 20.0 m/s² (57.5-150 Hz) Fixed Pitch Durability: Acccceleration 20.0 m/s²		
		LA6- □□ TN □□	Sweep Durability: Total Amplitude: 0.3 mmp-p (10-57.5 Hz), Acceleration: 20.0 m/s² (57.5-150 Hz) Fixed Pitch Durability: Acccceleration 10.0 m/s²		
		LA6- □□ WJ □□	Sweep Durability: Total Amplitude: 0.3 mmp-p (10-57.5 Hz), Acceleration: 20.0 m/s² (57.5-150 Hz) Fixed Pitch Durability: Acccceleration 10.0 m/s²		
Test Conditions		Tested with JIS C 60068-2-6:2010 conformity while installed in an upright position.			
Insulation Resistance		More than 1Mohm at DC 500V between the power input lead and chassis.			
Display Color		Signal Tower Mode: 9 Colors Smart Mode: 21 Colors			
Withstand Voltage		500VAC for 1min between terminals and chassis without breaking insulation.			
(Typical Luminous Intensity)		Red (1000 mcd) Yellow (1700 mcd) Green (2600 mcd) Blue (1000 mcd) White (1250 mcd) Purple (800 mcd) Pink (850 mcd) Cyan (2150 mcd) Lemon (2150 mcd) * Due to characteristics of the LED element, differences in color tone and brightness of every product may occur.			
Flash Rate		60 ±2 fpm			
Alarm Sound (Typical Frequency)	Test Conditions	No. 1	2400Hz Continuous beep	No. 2	2400Hz Rapid intermittent beep
		No. 3	2400Hz Long intermittent beep	No. 4	2400Hz Fast intermittent beep
		No. 5	3600Hz Continuous beep	No. 6	3600Hz Rapid intermittent beep
		No. 7	3600Hz Long intermittent beep	No. 8	3600Hz Fast intermittent beep
		No. 9	2400Hz & 3375Hz Multiplexed beep	No. 10	2400Hz & 3600Hz Multiplexed beep
		No. 11	4000Hz & 4800Hz Multiplexed beep		
Sound Level		Maximum: 85dB			
Test Conditions		"Alarm Sound No. 1" measured from the front direction of the alarm opening at 1m			
Volume Control		The setup button for volume is the fourth step (Factory Default: Maximum). [Maximum] -> [-5dB drop from max. (standard)] -> [-10dB drop from max. (standard)] -> [OFF] (-> Returns to [Maximum])			
Data Transfer Interface		Main Unit	USB micro-B female terminal USB 2.0/1.1; Interface, Transmission Rate: USB2.0/1.1/1.0		
Application Software		Transfer Cable	Charge/Data transfer micro USB (not included); Connector: USB Male - USB (MicroB) male		
Application Software		Exclusive Application Software (Downloadable from our website)			
Mass (Tolerance ±10%)	Test Conditions	LA6-3DTN □ B	480g	LA6-3DLJ □ B	980g
		LA6-3DTN □ N	420g	LA6-3DLJ □ N	930g
		LA6-5 DTN □ B	590g	LA6-5 DLJ □ B	1090g
		LA6-5 DTN □ N	530g	LA6-5 DLJ □ N	1040g
		LA6-5AWJ □ B	740g		
		LA6-5AWJ □ N			
Compliance Standards	24V DC	EMC Directive (EN 61000-6-4, EN 61000-6-2), RoHS Directive (EN 50581), UL508, CSA-C22.2 No. 14, KC (KN 61000-6-4, KN 61000-6-2), FCC Part 15 Subpart B Class A			
		EMC Directive (EN 61000-6-2, EN 61000-6-3)/Low-voltage Directive (IEC/EN 60947-5-1, EN 62471),RoHS Directive (EN 50581)			
Remarks	24V DC	CE Marking compliant, UL Recognized Component (File No. E215660), 60°C Maximum Surrounding Temperature Range			
		AC100-240V CE Marking compliant			

Dimensions (Unit:mm)	
■ TN Direct Mount/ with Terminal Block	■ LJ Steel Pole & 'L' Bracket / with Cable
■ WJ Direct Mount/ with Cable Connection	
■ WJ Direct Mount/ with Cable Connection	
■ L 'L' Bracket Dimensional Drawing	
Model Code	
Signal Tower LA6- ① ② ③ ④ ⑤ - ⑥	
Example: LA6-5DTNUB-RYGBC	
① LED Tiers ② Rated Voltage ③ Mounting/Wiring ④ Body Color ⑤ Flashing/Alarm ⑥ Color	
3: 3 Tiers A: AC100-240V WJ: Direct/Cable W: Off-white B: With RYG: 3 Tiers	
5: 5 Tiers D: DC24V TN: Direct/Terminal U: Silver N: Without RYGBC: 5 Tiers	
LJ: Steel Pole & Angle/Cable	
* The LED light color for each tier can be changed after purchase. * LJ type does not have a "U" (Silver) specification.	

Option Parts



□ Attachment Pole: SZ-70L



□ Circular-mount Base : SZ-010



□ Circular-mount Base : SZ-016A



□ Wall-mount Bracket : SZK-003W

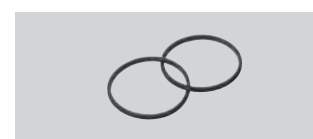
Replacement Parts



□ Headcover



□ USB Cover



□ Waterproofing Ring B



□ Pole Bracket (Off-white only)
(Pole waterproof ring & screw attachment)
* The pole waterproof ring is also sold separate.

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CAUTION

To ensure correct use of these products, read the "Instruction Manual" prior to use. Failure to follow all safeguards can result in fire, electric shock, or other accidents. Specifications are subject to change without notice.



PATLITE ECO PROJECT

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<http://www.patlite.com>

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