

# **Specification**

Network Monitoring Signal Light

NHL-3FB1□-RYG

**PATLITE Corporation**

Revision history

Date	Symbol	page	Revision contents	Reason	Sgn	Chk



**SPECIFICATIONS**

[General Specifications]

Model	5 tiers		
	4 tiers		
	3 tiers	NHL-3FB1U-RYG	NHL-3FB1N-RYG
	2 tiers		
	1 tier		
UL registration model		NHL-3FB1U-RYG	NHL-3FB1N-RYG (Remarks ※1)
Rated Voltage		AC Adaptor input: 100V~240V AC output: DC 24V	24V DC
Operating Voltage		Rated Voltage ±10%	
Inrush Current		AC adaptor (at full load) 30A(100V AC) ,60A(230V AC)	23A (24V DC)
Power Consumption		Per Unit Red: 1.0W Amber: 1.0 W Green: 0.8W Body: 2.0W Buzzer: 2.0W	
Operating Temperature Range		0°C ~ + 40°C	
Relative Humidity		from 20-80%RH (No Condensation)	
Storage Temperature Range		- 10 °C ~ + 60°C	
Relative Humidity		from 20-80%RH (No Condensation)	
Mounting Location		Indoors	
Mounting Direction		Upright	
Protection Rating		IP20	
Environmental Condition		Self-Declaration based on IEC 60529	
Vibration Resistance		19.6m/s <sup>2</sup>	
Insulation Resistance		More than 1MΩ at 500VDC between the terminals and the chassis	
Withstand Voltage		VAC applied for 1min between terminals and chassis without breaking insulation	
Flashing Rate		Flashing Pattern 1: 500ms "ON", 500ms OFF (Repetitive) Flashing Pattern 2: 80ms "ON", 170ms "OFF", 80ms "ON", 670ms "OFF"	
Sound Pressure Level		Max: 80dB or more Min: 70dB or less ( at 25°C)	
Environmental Condition		Distance from buzzer diaphragm (Upright Position)of 1m and "A"balance.	
Luminous Intensity		Red: 960mcd or more Amber: 900mcd or more Green: 1070mcd or more	
Mass (Tolerance ±10%) (AC adaptor not include)		800g	
Dimensions		Refer page 9/9 in this specification	
Conformity Standards		EMC Directive (EN 55032, EN 55024) RoHS Directive(EN 50581) FCC Part15 SubpartB Class B UL Listed (File No.24210)	EMC Directive (EN 55032, EN 55024) RoHS Directive(EN 50581) FCC Part15 SubpartB Class B UL Listed (File No.24210) KC mark (Korea Certification mark)
Buzzer Sound		Three-position adjustable switch for "High", "Low" and "OFF"	
Signal Light		NHL : φ60 Type Clear Globe	
"Clear" Switch		Pushbutton Switch	
"Test" Switch		Pushbutton Switch	
"Reset" Switch		Pushbutton Switch	
"Buzzer" Switch		Slide Switch	
Remarks		Conforms to the CE Requirements ※1 When using AC adapter is required to conform to the standard. AC adaptor output current : 1A max	

Model	NHL-3FB1U-RYG	NHL-3FB1N-RYG
Communication Method (Ethernet)	Physical Layer	: 10BASE-T/100BASE-TX (Auto negotiation/Full Duplex/Half Duplex)
	Data Link Layer	: CSMA-CD
	Network Layer	: IP-ARP-ICMP
	Transport Layer	: TCP-UDP
	Application Layer	: HTTP- SNMP- RSH- SMTP- NTP- POP- DNS Socket- DHCP- SLMP
Accessories	Rubber Feet, Support Base, Adhesive Seal, AC Adaptor	Rubber Feet, Support Base, Adhesive Seal
Optional Parts	Wall Bracket Partition Mount Bracket	

## [Functionality Specifications]

This product receives commands transmitted through the Ethernet, to control lighting, flashing and buzzer sounds for the Signal Light, and to send E-mail notifications, etc.

Lighting Pattern	Continuous	: "ON" Lighting
	Flashing Pattern 1	: 500ms "ON", 500ms OFF (Repetitive)
	Flashing Pattern 2	: 80ms "ON", 170ms "OFF", 80ms "ON", 670ms "OFF" (Repetitive)
Buzzer Pattern	Pattern 1	: Fast Intermittent
	Pattern 2	: Slow Intermittent
	Pattern 3	: Fast Burst
	Pattern 4	: Continuous Tone
"Clear" Switch	The buzzer and signal light can be stopped. Clear operation can be set with the	
"Test" Switch	Pressing the button executes a test pattern to check all operations of this product. Even if the "Clear" switch is pressed during the test, it won't stop.	
"Reset" Switch	A reset can be done by pressing this button. The event log is erased when the button is pressed.	
Buzzer Switch	Adjusts the buzzer sound level to "High", "Low" and an "OFF" position.	
Socket Function	The Signal Light lights and buzzer can be controlled by using Patlite's exclusive PNS command, or an interchangeable PHN command. Select the protocol for TCP or UDP.	
E-mail Sending	When the following event occurs, an E-mail message is transmitted to the registered address: <ul style="list-style-type: none"> <li>▪ TRAP Reception</li> <li>▪ "Clear" Switch pushed</li> <li>▪ Monitoring Abnormality detected</li> </ul> Up to eight titles, text, and E-mail destinations can be registered. Corresponds to "POP before SMTP" and "SMTP_AUTH" protocol.	
RSH Function	Signal Light Buzzer Control Command	Signal Light is done in lighting and flashing, and it sounds buzzer.
	State Command	Get does the state of signal light and the buzzer.
	Reset Command	The operation of Signal Light and Buzzer is returned to normal mode.
	Test Command	Signal Light and the buzzer are tested.

Monitoring Function	Ping Monitoring	The Ping command is generated from this product via the network.
		Monitoring Nodes : Maximum of 24
		Monitoring cycle : 60s (Not adjustable)
	Application Monitoring	The "Socket Communication" monitors an application through a socket.
		Monitoring Nodes : Maximum of 4
		Monitoring cycle : 1~600s (Adjustable)
Web Setup Tools	Functionality Setup, Firmware Update and product resets are controlled.	
SNMP Agent	TRAP Transmission corresponds to received SNMP and event commands.	
SNMP Manager Function	The TRAP generated events correspond to received TRAP commands.	
Logging Function	The contents containing the date and time of the occurrence of events and event name are displayed. The event list can be downloaded via the Web Setup Tool.	
PNS Manager Link Function	Network settings can be done from the "PNS Manager" application program.	
SLMP Function	Sends a SLMP-Command to retrieve the status of the device.	
Time Correction Function	The internal clock in this product can be corrected by connecting to an NTP server.	
Normal Mode Function Setup	The Signal Light can be set for a condition to indicate a "Normal Mode". The "Normal Mode" is set after a start-up, reboot, when a "Clear" command is received or by pressing the "Clear" switch.	
Configuration Up-load / Download Function	Configurations can be saved and uploaded at a later time by using the setup tool. The configuration file from other equipment can also be up-loaded.	
Initialization Function	This product has two options for being returned to factory default settings. One is to leave the network settings remaining while other settings are returned to their factory default values. The second is to set all settings, including the network settings, to their factory default value.	
Firmware Update Function	The firmware can be updated through the Web Setup Tool. (The current firmware version can be seen on the "Setup Table Entry Screen")	
XML data output function	Outputs the data in XML format the state of the "sounds buzzer" and "Signal Light".	

## [ Caution Before Handling ]

- This product receives severe quality control and inspection requirements prior to shipment, but if some failure or defect is found, please contact the place of purchase, or your PATLITE Sales Representative (indicated on the last page) to solve the issue.
- Please understand that our company does not take any responsibility for damage and other disadvantages this product (software included) has caused due to product defect, failure or any error in the use of this product by the customer or third party.
- When a repair request is made, our company does not take any responsibility for the incidental expenses related to such things as the removal and re-attachment of this product to machinery, or for the repair of such machinery, even if during the term of a guarantee.

## 4-1 Precautions for Safety

- If foreign substances, such as water, medicine; or metals, such as copper, low carbon steel wire, fall into this product, please do not use it.  
Failure to comply may result in electric shock or damage to this machine.
- The power supply ratings for this product is AC 100-240V (Primary AC Adaptor Input) or DC24V (AC Adaptor Secondary Output for DC jack connection).  
Do not connect to a voltage source exceeding the rated voltage tolerance.  
Failure to comply will result in internal circuitry damage. In addition, circuitry damage may lead to a fire.
- Prior to maintenance or repair, be sure to turn off the power.  
Failure to comply may result in damage or electric shock.
- This product is not designed for applications which demands high safety requirements, such as medical application equipment or systems used in connection directly, or indirectly, with human life.  
If this product is used for applications in which equipment of higher reliability than the general application demands, such as a computer system, etc., please use suitable safety design countermeasures against system failure, etc.

## 4-2 Installation

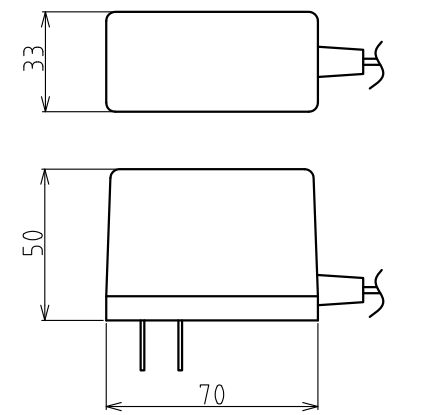
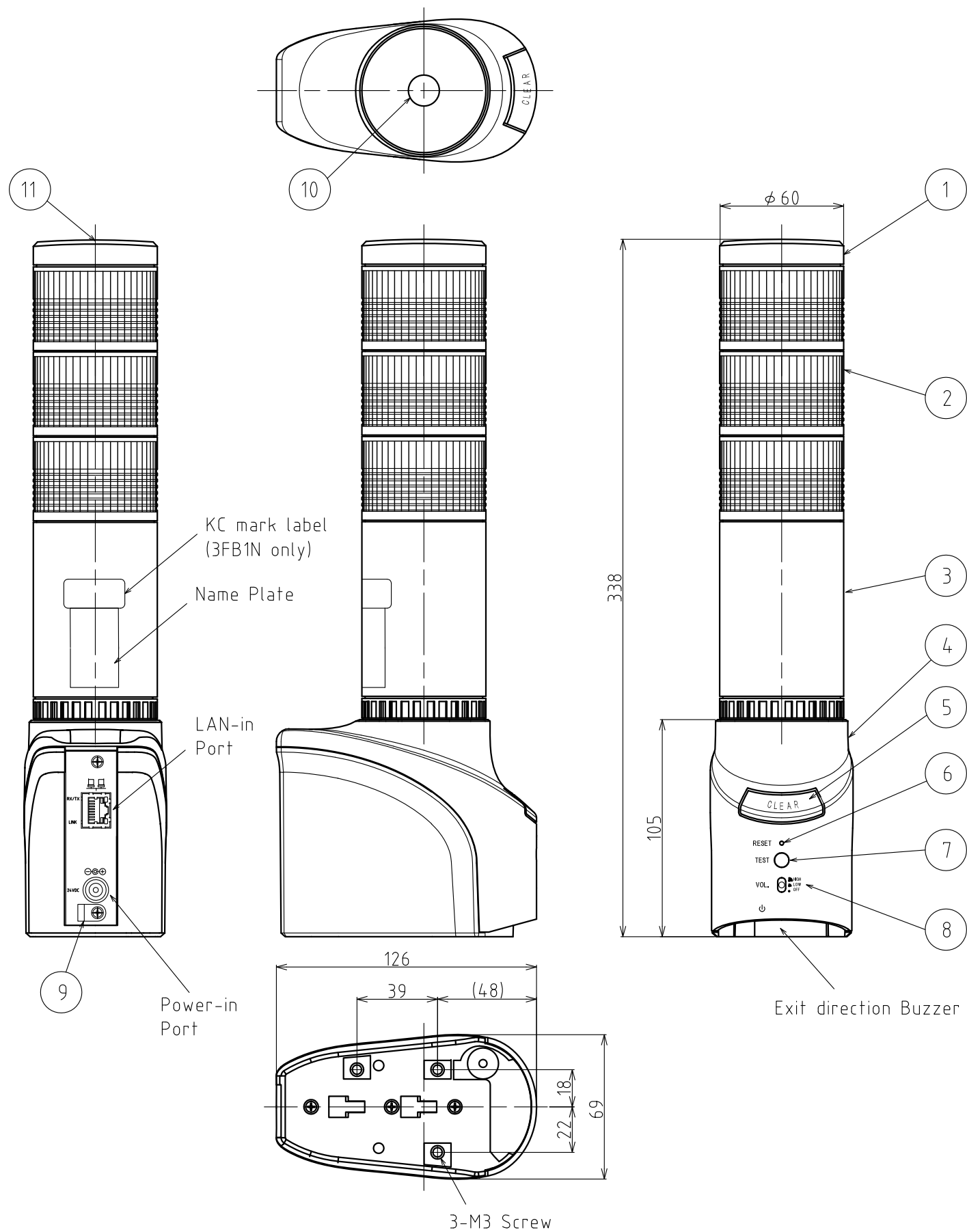
- Do not modify or disassemble this machine. Some portions contain high voltage, which is dangerous. In addition, modifications or disassembly may result in product failure.
- Avoid the intrusion of foreign substances, such as water or chemicals; or metals, such as metal filings, from entering this machine. Failure to comply may result in product failure or electric shock.
- Do not locate near high temperature sources, open flames or humid places.  
Moreover, do not use this machine in a place which can be exposed to corrosive or combustible gas.
- Do not allow this product to fall or receive strong shocks. Failure to comply may result in damage, failure, or electric shock.
- When using in a place where dust can accumulate, periodically remove the dust from the power plug.  
Dust accumulating on the plug may result in a fire, if it is allowed to accumulate too much dust.
- Do not touch the power receptacle with wet hands. It may result in electric shock
- Do not tug hard at the cable. Failure to comply may result in an open-circuit, short-circuit, and cause damage to the connector.
- Use only power supply ratings between AC 100-240V (Primary AC Adaptor Input) or DC24V (AC Adaptor Secondary Output for DC jack connection).  
If the voltage is different from the used power supply, it may result in fire or cause electric shock.

- Do not damage the power cable. Also, do not use a damaged cable.  
It may result in fire or electric shock.
- Please avoid the use multiple outlet plugs or cables. It may result in fire or electric shock
- This machine is for INDOOR use only. Do not use it outdoors.
- Avoid installation of this machine in the following locations:
  - \* Where its exposed to direct sunlight
  - \* Where high temperatures, such as near fire, or in a humid place
  - \* Where drastic temperature and humidity changes
  - \* Environment having poor ventilation
  - \* Where vibrations exceeding the specification occurs
  - \* Where corrosive gas is present
  - \* Where its exposed to a salty air environment
  - \* Where it is exposed to a strong magnetic field
  - \* Where its exposed to dust, iron powder, etc.
  - \* Where its exposed to high concentrations of chemicals or oil mist

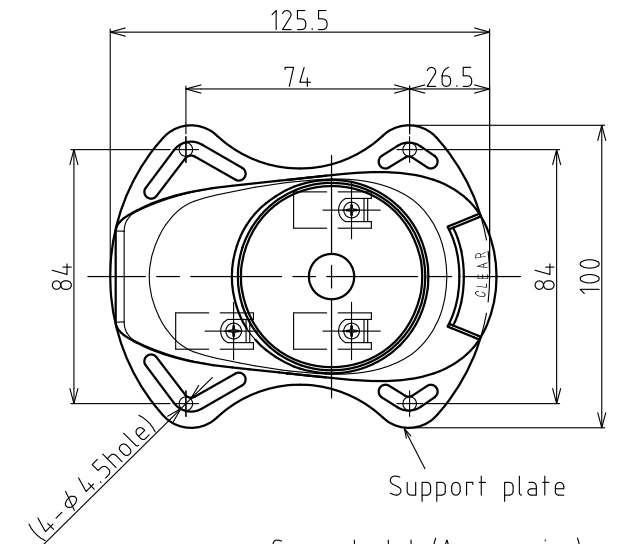
#### 4-3 Maintenance

- Do not wipe this product with volatile chemicals, or chemically treated dust cloth containing benzene, thinner etc.
- Wipe this product with a soft dry cloth.
- When it is difficult to remove dirt by wiping with a dry cloth, dampen the cloth with water, then firmly wipe it.





AC Adapter(Accessories)  
(Reference Diagram)



Support plate(Accessories)  
Mounting Dimensions  
(Reference Diagram)

< Chart 1 >

Model	Accessories		Labels
	Support plate	AC adapter	KC mark
NHL-3FB1U-RYG	○ (attached)	○ (attached)	× (not attached)
NHL-3FB1N-RYG	○ (attached)	× (not attached)	○ (attached)

11	Center screw	-	1	M4 Screw	
10	Cover seal	-	1	PC Sheet	
9	Power cable clamp	-	1	Nylon 66	
8	Volume switch	-	1	ABS	
7	Test switch	-	1	ABS	
6	Reset switch	-	1	-	
5	Clear switch	-	1	ABS	
4	Main body	-	1	ABS	
3	Tower body	-	1	ABS	
2	LED units	-	Stack	Lens: AS/ Reflector: ABS	
1	Head cover	-	1	ABS	
番号 No.	部品名 Part Name	品目コード Part No.	数量 Qty.	材料 & 寸法 & 処理 Material & Size & Finish	記事 Remarks

外観図面  
Outer Dimension Drawing

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