SPECIFICATIONS

Product Name: Network Monitor Signal Tower

Model: NHL-3FB1□-RYG

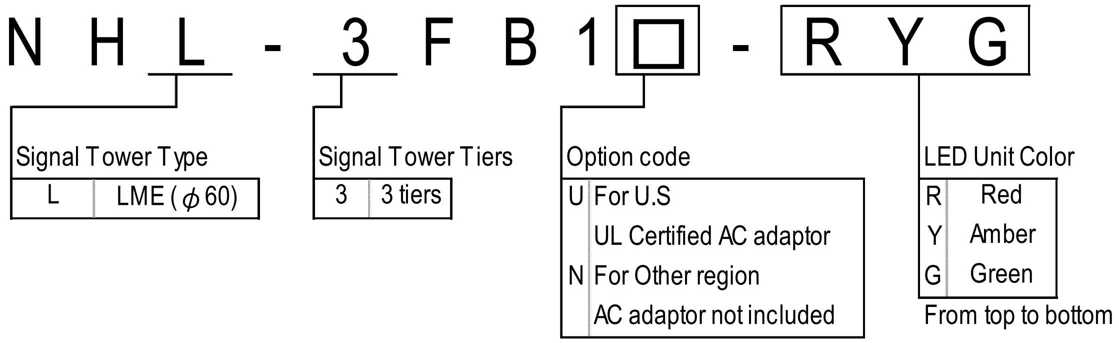
PATLITE Corporation

1. General Specifications

Model		NHL-3FB1U-RYG	NHL-3FB1N-RYG
UL registration model		NHL-3FB1U-RYG	NHL-3FB1N-RYG *1
Rated Voltage		24VDC (Main Unit)	
	AC Adaptor	Input: 100VAC - 240VAC (50/60Hz) Output: 24VDC	
Operating Voltage Range		Rated Voltage ±10%	
Inrush Current		AC adaptor (at full load) 30A (100V AC), 60A (230V AC)	23A (24V DC)
Rated Power Consumption	Main Unit	Standby : 2.0W Maximum : 4.0W (with AC Adaptor, 100VAC input)	
	Red	1.0 W	
	Amber	1.0 W	
	Green	0.8 W	
Operating Ambient Temperature		0℃ ～ + 40℃	
Operating Ambient Humidity		20% - + 80% RH (No Dew or Condensation)	
Storage Ambient Temperature		- 10 ℃ ～ + 60℃	
Storage Ambient Humidity		20% - + 80% RH (No Dew or Condensation)	
Mounting Location		Indoor Only	
Mounting Direction		Upright	
Protection Rating		IP 20	
Vibration Resistance		19.6m/s^2	
Insulation Resistance		More than 1MΩ at 500VDC between live part and non-current carrying metallic part.	
Withstand Voltage		1000VAC (10mA or less) applied for 1 min between live part and non-current carrying metallic part without breaking insulation.	
Luminous Intensity		Red : 960mcd or more Amber : 900mcd or more Green : 1070mcd or more	
Mass (Tolerance±10%) (AC Adaptor not include)		800 g	
Outer Dimensions		Refer to the Outer Dimension Drawing	
Sound Pressure Level		High: 80dB or more Low: 70dB or less (at 25℃)	
	Environmental Condition	Front direction from the center, at 1m, with 'A' weighting.	
Communication Method (LAN)		Ethernet (Conforms to IEEE 802.3) 10BASE-T / 100BASE-TX (Auto negotiation, Full Duplex / Half Duplex)	
Operating portion		"Volume" Switch, "Reset" Switch, "Clear" Switch, "Test" Switch	
Accessories		AC Adaptor *2, Quick-start Operation Manual, Rubber feet (4 pcs.), Adhesive seal, Support Base, Screws (3 pcs.)	
Option		Wall Bracket (NH-WST), Partition Mount Bracket (NH-PST)	
Conformity Standards		RoHS Directive (EN 50581) EMC Directive (EN 55032, EN 55024) FCC Part 15 Subpart B Class B UL Listed (File No.24210) KC mark (Korea Certification mark) *3	
Remark		Conforms to the CE Requirements *1 When using AC adaptor is required to conform to the standard. AC adaptor output current : 1A max *2 Only U type. *3 Only N type.	

2. Model

2.1. Model Number Configuration



NHL-3FB1□-RYG

Signal Tower Type

L	LME (ϕ60)

Signal Tower Tiers

3	3 tiers

Option code

U	For U.S UL Certified AC adaptor
N	For Other region AC adaptor not included

LED Unit Color

R	Red
Y	Amber
G	Green

From top to bottom

2.2. Model Number

●NHL-3FB1U-RYG
Signal Tower : φ60 ・ 3 Tiers, LED Unit Color : (From top to bottom) Red・Amber・Green
AC adaptor : UL Certified.

●NHL-3FB1N-RYG
Signal Tower : φ60 ・ 3 Tiers, LED Unit Color : (From top to bottom) Red・Amber・Green
AC adaptor : Not included.

3. Action Specification

3.1. Information (Main Unit)

Signal Tower		Lighting pattern for each color LED units, such as continuous lighting, flashing pattern 1, and flashing pattern 2.
	Flashing pattern 1	ON (500ms), OFF (500ms) (repeated)
	Flashing pattern 2	ON (80ms), OFF (170ms), ON (80ms), OFF (670ms) (repeated)
Buzzer		Four kinds of buzzer sounds, such as buzzer pattern1, 2, 3, and 4.
	Buzzer pattern 1	ON (250ms), OFF (250ms) (repeated)
	Buzzer pattern 2	ON (500ms), OFF (500ms) (repeated)
	Buzzer pattern 3	ON (250ms), OFF (50ms), ON (200ms), OFF (550ms) (repeated)
	Buzzer pattern 4	ON (continuous)

3.2. Information (Network)

Mail Transmission		When an event occurs, an e-mail message is transmitted to the registered address.
	Number of Mail Addresses	4
	Authentication protocol	POP before SMTP, SMTP_AUTH
	Security	SSL, TLS, none
SNMP TRAP Transmission		When an event occurs, TRAP transmission can be executed.
	Number of Transmissions	8
	Version	v2c
SLMP Write Command		When ”Clear operation" occurs, SLMP Write Command can be executed.
	Number of Transmissions	4
	Protocol	SLMP (The same format as the QnA compatible 3E and 4E frame of MC protocol) TCP / UDP

4. Function Specification

4.1. Main Unit Control Function

RSH Command		Controllable with RSH Command.
HTTP Command		Controllable with HTTP Command.
Socket Communication		Controllable with PNS Command and PHN Command.
SNMP Command		Controllable with SNMP "set" Command.
	Version	v1 / v2c
"Clear" Switch		Clear operation is possible by depressing the “Clear” switch on the main unit.

		Controllable Action				
Command		Signal Tower	Buzzer	e-mail	TRAP	SLMP
RSH Command		✔	✔	✔ *1	✔ *1	-
HTTP Command		✔	✔	-	-	-
Socket	PNS	✔	✔	-	-	-
	PHN	△ *2	△ *3	-	-	-
SNMP Command		✔	✔	-	-	-
"Clear" Switch		✔	✔ *4	✔	✔	✔

*1 : It can be used when e-mail or TRAP is set to "Active" in the RSH Command Configuration.

*2 : Signal Tower "Red", "Amber" and "Green", and Flashing pattern 1.

*3 : Buzzer pattern1 and Buzzer pattern 2.

*4: It is possible to stop only the buzzer while maintaining the Signal Tower status.

4.2. External Monitoring Function

Ping Monitoring Function		Network abnormality detection by sending Ping network devices.
	Number of Monitoring Setups	24
	Monitoring Cycle	60 seconds (Fixed) : 12 Devices 1 - 600 seconds (Variable) : 12 Devices
	Sending Count	The number of times to detect can be set from 1 to 30.
	Number of Sending PINGs	The number of sending Ping by one monitoring can be set from 1 to 3. 1 (Fixed) : 12 Devices 1 - 3 (Variable) : 12 Devices
Application Monitoring Function		External devices abnormality detection by receiving the data from them.
	Number of Monitoring Setups	4
	Monitoring Cycle	1 - 600 seconds
SNMP TRAP Reception Function		TRAP Reception detection.
	Version	v1 / v2c
	Number of Receptions	64
	variable-bindings	2 OID per 1 TRAP Reception
SLMP Read Command		Detects the status change of the PLC device information.
	Number of Monitoring Setups	16
	Transmission Interval	10ms / 50ms / 100ms
	Protocol	SLMP (The same format as the QnA compatible 3E and 4E frame of MC protocol) TCP / UDP

	Executable action at detection				
Monitoring	Signal Tower	Buzzer	e-mail	TRAP	SLMP
Ping Monitoring	✔	✔	✔	✔	-
Application Monitoring	✔	✔	✔	✔	-
TRAP Reception	✔	✔	✔	✔	-
SLMP Read Command	✔	✔	✔	✔	-

4.3. Main Unit Status Acquisition Function

RSH Command		The main body status can be acquired by the status acquisition command.
Socket Communication		Status acquisition available with PNS Command and PHN Command.
SNMP Command		Status acquisition available with SNMP "get" Command.
	Version	v1 / v2c
HTTP Communication		By executing CGI, the main body status can be acquired in XML data format.
Web browser		Download main unit status and event log with web browser. Main Unit Status : XML format file Event Log : text format file

Command		Acquisition data	
		Signal Tower	Buzzer
RSH Command		✔	✔
Socket	PNS	✔	✔
	PHN	✔ *1	✔ *2
SNMP Command		✔	✔
XML format file		✔	✔

*1 : Signal Tower "Red", "Amber" and "Green", and Flashing pattern 1.

*2 : Buzzer pattern 1 and Buzzer pattern 2.

4.4. Main Unit Setting Function

Time Correction Function	The internal clock in this product can communicate with an NTP server to automatically correct the time.
Automatic Network Setting	Network setting in this product can communicate with a DHCP server to automatically configure.
Standard Action Setting	This product can set lighting color of the Signal Tower after clear operation is executed.
Self-test Function	Self test of Signal Tower and buzzer is possible with test switch of the main body and the RSH command.
Config Setting	Various settings of the main body can be read and written as setting file.
Main Unit Setting	Various settings of the main body can be done with a web browser.
Setting Supported languages	Japanese, English, Traditional Chinese

指定外公差 General tolerance	角度公差 Angular tolerance ±[°]						寸法公差 Dimensional tolerance ±[mm]						
	短辺長さ Length of short side		~10	~50	~100	100~			~6	~30	~120	~300	~1000
							精	f	0.05	0.1	0.2	0.4	0.6
	精	f	1	0.5	0.3	0.1	中	m	0.1	0.3	0.5	0.7	1
	粗	v	3	1.5	1	0.5	粗	c	0.3	0.5	1	1.2	2

図番 Drawing No. NHL-3FB1U-W18

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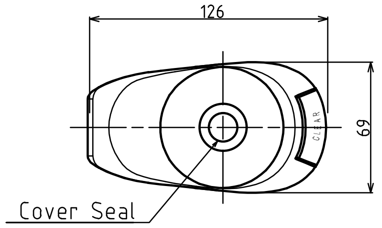
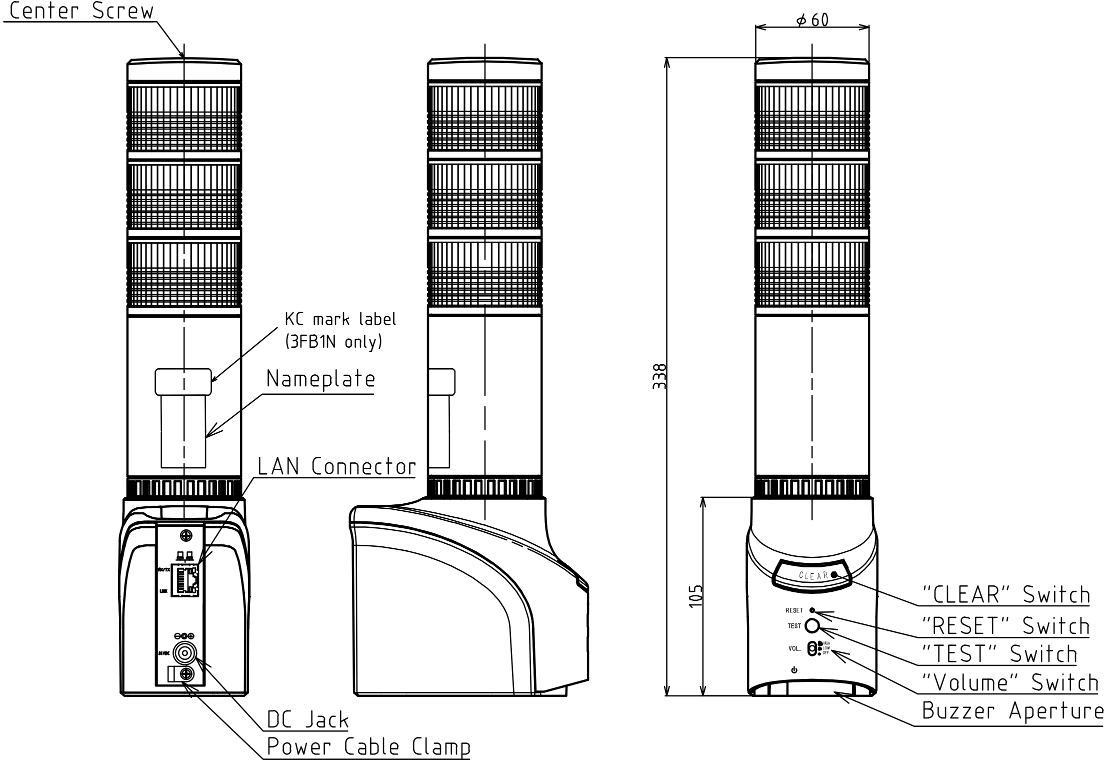
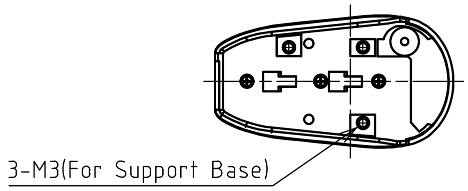
改訂 Rev.	年月日 Date	改訂履歴 Revisions
G		


126
69
CLEAR
Cover Seal


Center Screw
KC mark label
(3FB1N only)
Nameplate
LAN Connector
DC Jack
Power Cable Clamp
φ60
338
105
CLEAR
RESET
TEST
VOL.
"CLEAR" Switch
"RESET" Switch
"TEST" Switch
"Volume" Switch
Buzzer Aperture


3-M3(For Support Base)

No.	Names	Material	Color
1	Head Cover	PC	Off-white
2	LED Unit	PC	Clear
3	Tower Body	PC	Off-white
4	Main Body	ABS	Off-white/Medium Gray

< Chart 1>

Model
NHL-3FB1U-RYG
NHL-3FB1N-RYG

番号 No.	部品名 Part Name	数量 Qty.	記事 Remarks

機種 Model	Chart 1	特注No. S.P.No.	–
図名 Name	Outer Dimensions Drawing		
品目コード Part No.		尺度 Scale	
三角法 3rd Angle P.	単位 Unit mm	株式会社パトライト PATLITE Corporation	

Ver.2.0

指定外公差 General tolerance	角度公差 Angular tolerance ±[°]			
短辺長さ Length of short side	~10	~50	~100	100~
精 f	1	0.5	0.3	0.1
粗 v	3	1.5	1	0.5

寸法公差 Dimensional tolerance ±[mm]	~6	~30	~120	~300	~1000
精 f	0.05	0.1	0.2	0.4	0.6
中 m	0.1	0.3	0.5	0.7	1
粗 c	0.3	0.5	1	1.2	2

図番 Drawing No. NHL-3FB1U-W18

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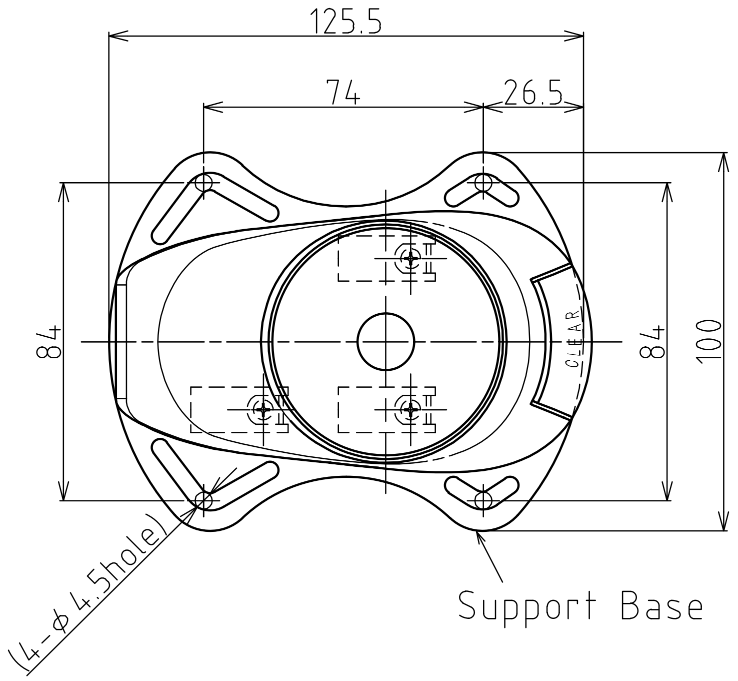
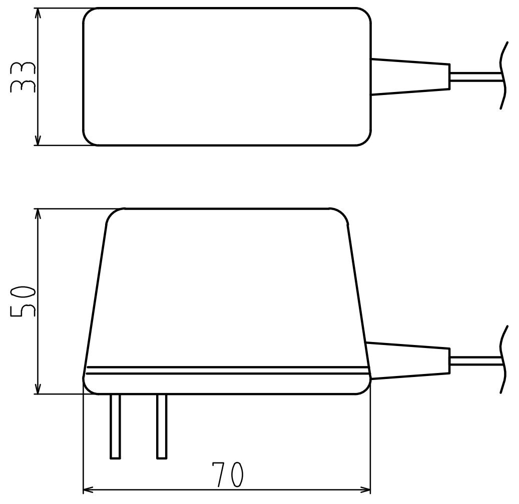
改訂 Rev.	年月日 Date	改訂履歴 Revisions
G		



Support plate (Accessory)
Mounting Dimensions
(Reference Diagram)



AC Adaptor (Accessory)
(Reference Diagram)

番号 No.	部品名 Part Name	数量 Qty.	記事 Remarks

機種 Model	特注No. S.P.No.	図名 Name
	–	Outer Dimensions Drawing

品目コード Part No.	尺度 Scale	三角法 3rd Angle P.	単位 Unit	株式会社パトライト PATLITE Corporation
			mm	

Ver.2.0