

**Network Monitor
Signal Tower
NH-FB Series
User's Manual**

Model

NHL-FB2

NHP-FB2

Introduction

Thank you for purchasing the PATLITE "NH-FB Series" (henceforth, written as "this product") Network Monitoring Signal Tower. Be sure to read this NH-FB Series instruction manual (henceforth, written as "this book") carefully before installation. In addition, store this manual for future reference when performing maintenance, repairs or inspections. When performing maintenance and repairs, etc., be sure to reread this book.

After reading this book, if there are any questions regarding this product, contact your PATLITE Sales Representative from the contact list indicated at the end of this book.

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- ▶ Due to the characteristics of the LED's, variations in brightness and color of the indicating lamps may occur.
- ▶ To comply with UL certification for the main unit, An AC adaptor with a UL listing is required.

FCC Compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The antenna used for this transmitter is built-in, therefore, the transmitter must provide separation of at least 20cm from all persons.

For safe application, observe the following:

The following symbols classifies the following into different categories and explains the level of harm inflicted if the cautions are disregarded.

| | |
|---|---|
|  WARNING | Indicates an imminently dangerous condition: Failure to follow the instructions may lead to death or serious injury. |
|  CAUTION | Indicates a potentially dangerous condition: Failure to follow the instructions may lead to slight injury or property damage. |
|  PROHIBITED | This symbol indicates "Prohibited", which should not be carried out by all means. |
|  ENFORCED | This symbol indicates "Enforced", which should be observed and carried out by all means. |
|  Attention | Indicates something to observe before using this product. |
|  MEMO | Notice regarding supplementary information or convenient explanation is indicated. |

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Cautionary Notes

Prior to installation, read all notes and use this product correctly.

|  WARNING | |
|---|---|
|  | <ul style="list-style-type: none"> Do not modify or disassemble this product. Failure to follow these instructions could result in fire or electric shock. Do not use this product when there is condensation. Failure to follow these instructions could result in fire or electric shock. Do not leave or use this product while the LED unit are detached or broken. Doing so may result in electric shock. Do not touch the electric socket with wet hands. It may result in electric shock. Do not allow the voltage to exceed the specified voltage tolerance. Exceeding the voltage ratings beyond the rated voltage will cause internal circuitry damage. Moreover, possible fire may also occur. Do not disconnect and re-insert the DC plug while the AC adaptor is plugged in. Possible electric shock and damage may occur. |
|  | <ul style="list-style-type: none"> Always use a power supply within the operating voltage range. Failure to follow this instruction could result in fire or product failure. In the unlikely event that there is an abnormal situation such as smoke or odors emitting from the product, immediately cut the power supplied to the product. Continued use of the product in this condition could result in fire or electric shock. When plugging into the power receptacle, be sure to check there is no dust accumulation on the plug, and insert into the power receptacle completely. By allowing dust to adhere, it can be the result of fire or failure from short-circuiting. Since dust can accumulate After a long time, and with moisture, can cause the dust to become conductive, in order to prevent the phenomenon of ignition from dust accumulation, it is best to periodically wipe the transformer and socket terminal with a damp cloth. By allowing dust to adhere to the power receptacle, it can be the result of fire or failure from short-circuiting. When an unusual odor, sound or smoke comes out of the product, immediately disconnect the power, then contact your nearest PATLITE Sales Representative. When an unusual odor, sound or smoke comes out of the product, immediately disconnect the power, then contact your nearest PATLITE Sales Representative. In order to prevent serious effects on human life and property etc. caused by malfunction of this product, ensure sufficient safety such as using in combination with other equipment. |

|  CAUTION | |
|---|--|
|  | <ul style="list-style-type: none"> Do not expose it to high temperatures, such as near a fire and do not use it in humid places. Moreover, do not use this machine in locations where corrosive or combustible gas is present. 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. Possible cause of failure may occur. Do not bend the power supply cables or signal wires recklessly. Failure to comply will result in possible malfunction due to disconnection. Do not install or run wiring near, or where equipment (such as solenoids, etc.) generate strong electric or magnetic fields, or near any power lines. Failure to comply may result in malfunction due to inductive noise. Do not use excessive force to set up the switches. Possible damage or malfunction may occur. Do not adjust switches with a sharp object. Possible damage to switches may cause it to be impossible to operate or cause partial movement of the contacts. |
|  | <ul style="list-style-type: none"> Please place this product on a level surface, such as a desk etc. When installing in high places, such as a top shelf, fix the Main Unit so it cannot move or fall. |

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Handling Cautions

This product is for indoor use only. Do not use it outdoors.

When installing this product, avoid installation in the following places:

- Where its exposed to direct sunlight
- Where high temperatures, such as near fire, or in a humid place
- Where drastic temperature and humidity changes are present
- Where its exposed to an environment with poor ventilation
- Where its exposed to vibrations exceeding the specifications
- Where its exposed to corrosive gas
- Where its exposed to a salty air environment
- Where its exposed to dust, iron powder, etc.
- Where its exposed to high concentrations of chemicals or oil mist
- Where its exposed to rain, or other types of wet environments

Maintenance and Inspection

► Cleaning

- When cleaning, be sure to disconnect the power before doing so.
- Use a soft cloth moistened with water when the LED Unit or body must be cleaned up. Since it is easy to crack the surface of the product when wiping with too much strength, be careful.
- Do not wipe this product with volatile chemicals, or chemically treated dustcloth containing benzene, thinner etc.
- Do not wipe with a cloth containing too much moisture. If moisture gets inside the product, it can cause short circuiting, electric shock, or fire.
- Periodically remove dust from the electric socket to prevent a fire hazard. By allowing dust to adhere to the power supply terminal, it can be the result of fire or failure from short-circuiting.

► Inspection

- Check the following contents when inspecting this product.

| Inspection Checklist | | Inspection Contents |
|-------------------------|--------------------------------|---|
| Supplied Power Source | Power Supply Voltage Tolerance | Tolerable Voltage Range should be from AC 100 to 240V |
| Surrounding Environment | Ambient Temperature | Operating Temperature Range should be from 0 to 40°C |
| | Ambient Humidity | Operating Humidity Range should be 20 to 80% RH |
| | Presence of Dust | No dust should be accumulated |

Product Checklist

Although our company takes all possible quality control measures to ensure proper packing of this product, if there should be any missing items, refer to the last page to contact your nearest PATLITE Sales Representative.

- Main Unit (1 Body and 1 Stand)
- Installation Manual (1 Sheet)
- Adhesive Seal (8 Sheets)
- Rubber Feet (4 Pieces)
- Screw(1 Pieces)
- Support Base (1 Piece)
- AC Adaptor (1 Unit)
- * Not included in N model.
- * AC adaptor and Replacement plug are included in W model.

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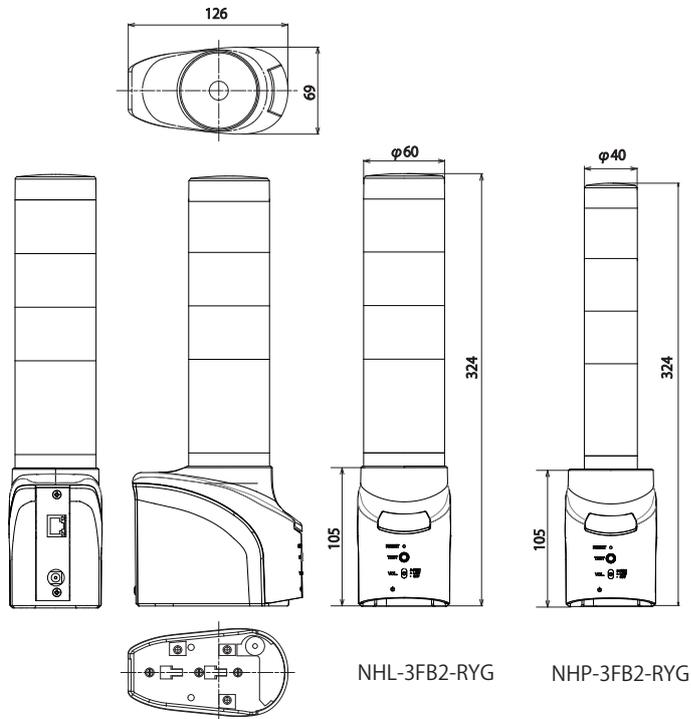
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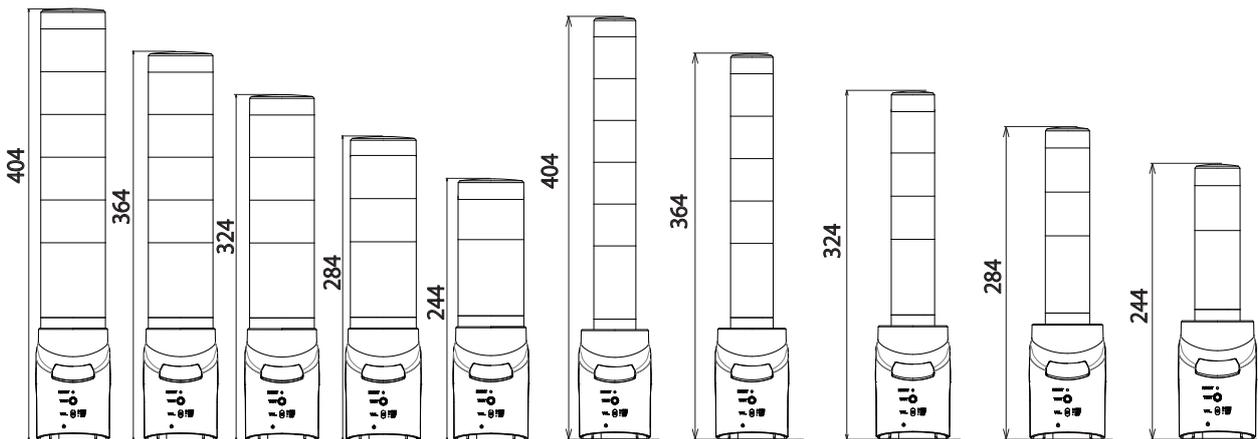
1. Product Outline

1.1. Outer Dimensional Drawing

1.1.1. Main unit



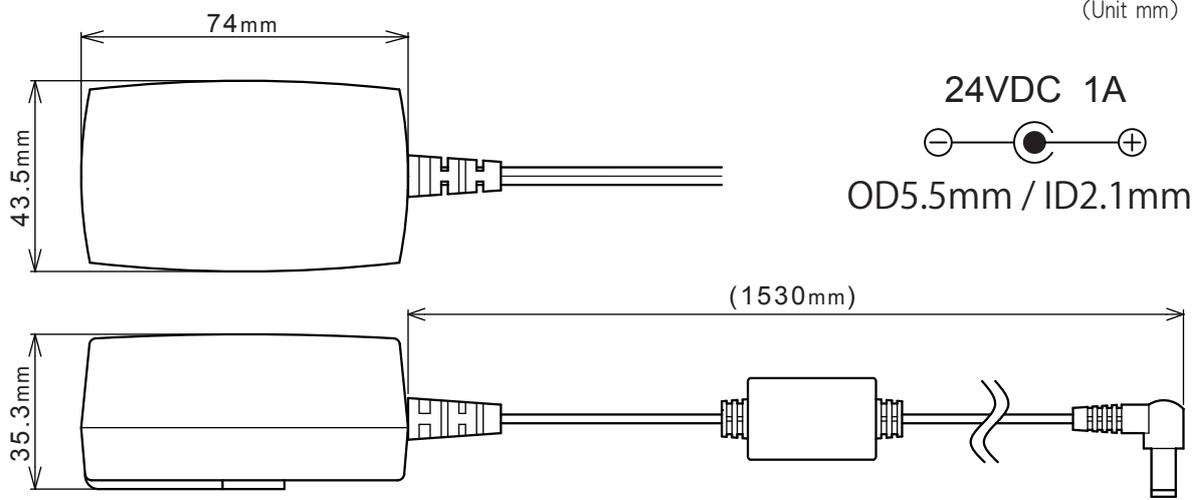
Outer Dimensional Drawing



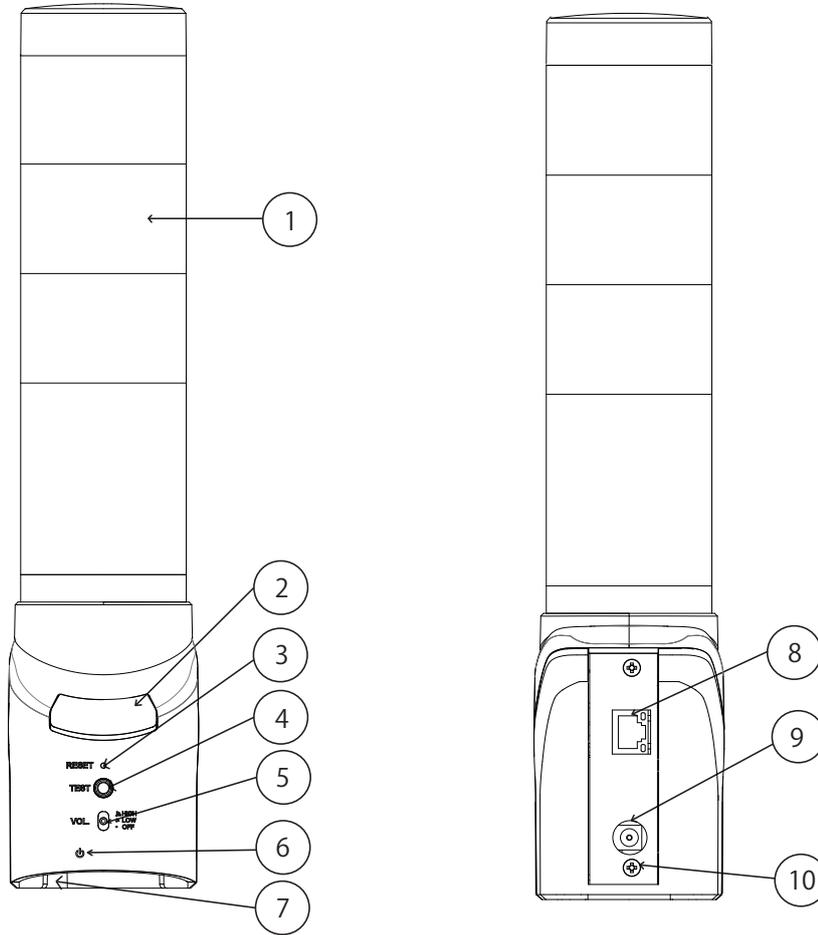
Distinctive dimension of NHL

Distinctive dimension of NHP

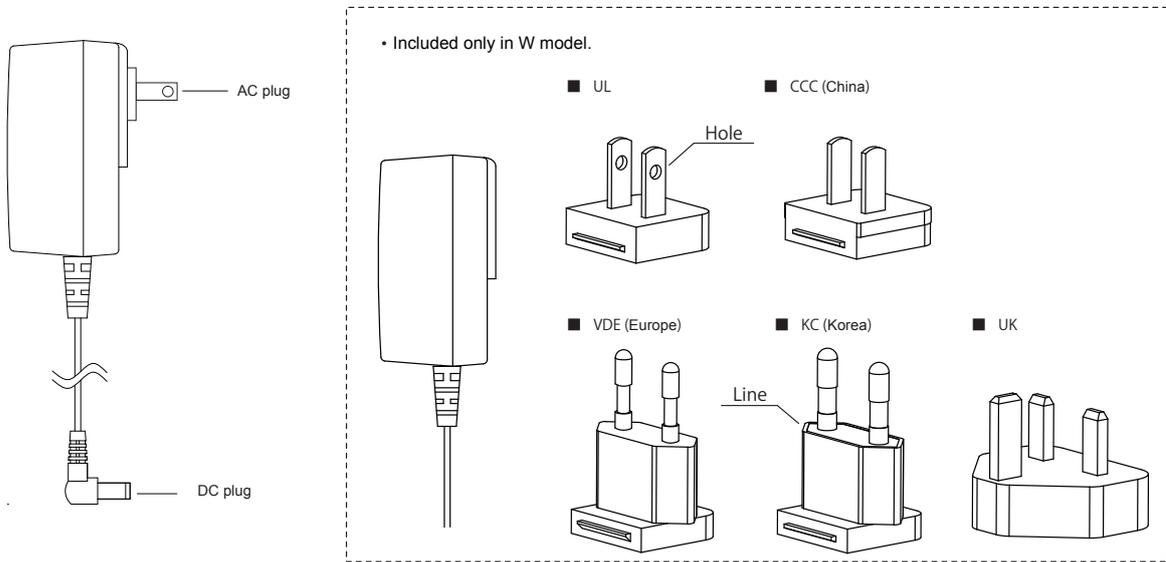
1.1.2. AC Adaptor



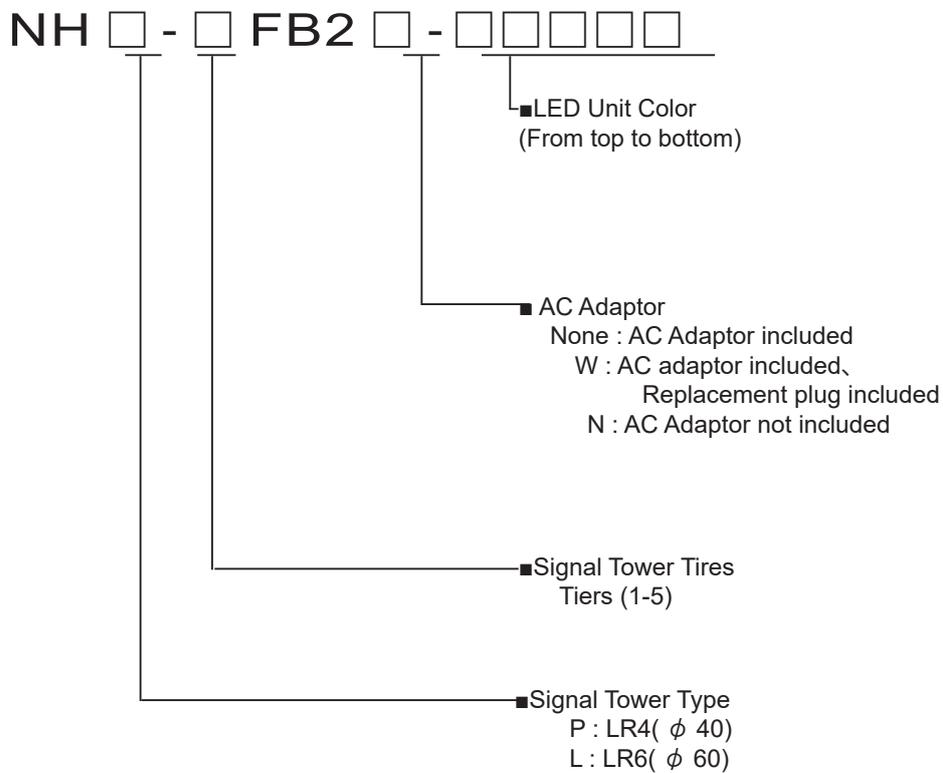
1.2. Part Names and Functions



| Number | Name |
|--------|-------------------|
| 1 | LED Unit |
| 2 | CLEAR Switch |
| 3 | RESET Switch |
| 4 | TEST Switch |
| 5 | Volume Switch |
| 6 | Status LED |
| 7 | Buzzer Diaphragm |
| 8 | LAN Connector |
| 9 | DC Jack |
| 10 | Power Cable Clamp |



1.3. Model Number Configuration



1.4. General Specifications

1. General Specifications

| | | | |
|---|-------------------------|---|----------|
| Model | 5 tiers | NHL-5FB2 | NHP-5FB2 |
| | 4 tiers | NHL-4FB2 | NHP-4FB2 |
| | 3 tiers | NHL-3FB2 | NHP-3FB2 |
| | 2 tiers | NHL-2FB2 | NHP-2FB2 |
| | 1 tier | NHL-1FB2 | NHP-1FB2 |
| Rated Voltage | | 24VDC (Main Unit) | |
| | AC Adaptor | Input: 100VAC - 240VAC (50/60Hz) Output: 24VDC | |
| Operating Voltage Range | | Rated Voltage \pm 10% | |
| Rated Power Consumption | Main Unit | Standby: 2.0W Maximum: 4.0W (with AC Adaptor, 100VAC input) | |
| | LED Unit | 1.0W (per Unit) | |
| Operating Ambient Temperature | | 0°C - +40°C (No Dew or Condensation) | |
| Operating Ambient Humidity | | 20% - +80% RH (No Dew or Condensation) | |
| Storage Ambient Temperature | | -10°C - +60°C (No Dew or Condensation) | |
| Storage Ambient Humidity | | 20% - +80% RH (No Dew or Condensation) | |
| Mounting Location | | Indoor Only | |
| Mounting Direction | | Upright | |
| Protection Rating | | IP 20 | |
| Insulation Resistance | | More than 10M Ω at 500VDC between live part and non-current carrying metallic part *1 | |
| Withstand Voltage | | 1500VAC applied for 1min (10mA or less) between live part and non-current carrying metallic part without breaking insulation *1 | |
| Mass (Tolerance \pm 10%) (AC Adaptor not include) | 5 tiers | 900g | 715g |
| | 4 tiers | 840g | 680g |
| | 3 tiers | 780g | 645g |
| | 2 tiers | 720g | 610g |
| | 1 tier | 660g | 575g |
| Outer Dimensions | | Refer to the Outer Dimension Drawing | |
| Sound Pressure Level | | High: 80dB or more Low: 70dB or less (at 25°C) | |
| | Environmental Condition | Front direction from the center, at 1m, with 'A' weighting | |
| Communication Method (LAN) | | Ethernet (Conforms to the 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 *1, Replacement plug (5 pcs.) *2, Installation Manual, Rubber feet (4 pcs.), Adhesive seal, Support Base, Screw (3 pcs.) | |
| Option | | Tint Film (NHL-TF, NHP-TF), Wall Bracket (NH-WST), Partition Mount Bracket (NH-PST) | |
| Conformity Standards | | RoHS Directive (EN 50581) EMC Directive (EN 55032, EN 55024) FCC Part15 Subpart B Class B, ICES-003 Class B UL 1638, UL 464, CSA C22.2 No. 205 KC (KN 61000-6-2, KN 61000-6-4) *3 PSE Compliant AC Adaptor | |
| Remark | | *1 : N type excluded *2 : Only W type *3 : Only N type and W type CE Marking UL/cUL Listed W type is an international model. | |

1.5. About AC Adaptor

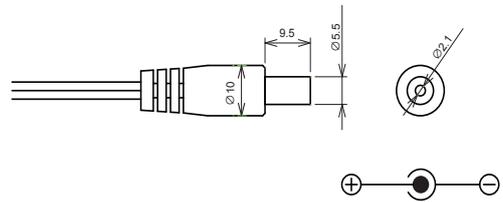
| ⚠ Warning | |
|-----------|---|
| ! | <ul style="list-style-type: none"> • When using an AC adaptor other than our AC adapter (ADP-001), be sure to use the AC adaptor that conforms to the recommended specifications. Using an AC adapter that does not meet the recommended specifications could result in fire or product failure. • Be sure to use the AC adaptor equipped with the overcurrent protection. Using an AC adaptor that does not have an overcurrent protection function could result in fire or product failure. |

Use the AC adaptor included in the product. To order an AC adaptor separately, purchase our AC adaptor(ADP-001).

When using N model (AC Adaptor not included) and AC adaptor other than ADP-001, use AC adaptor with the following specifications.

[Recommended AC Adaptor Specifications]

- | | |
|-------------------------------|---|
| | DC Secondary Output |
| Voltage | : 24V DC ±5% |
| Current | : 0.75A or more and 1A or less (With overcurrent protection) |
| Plug Length | : 9.5mm or more |
| Plastic Housing | : 10mm dia or less |
| Plug Connector Outer Diameter | : 5.5mm dia. |
| Plug Connector Inner Diameter | : 2.1mm dia. |



1.6. Description of Functionality

The following explains the functionality featured in this product.

1.6.1. Monitoring Function

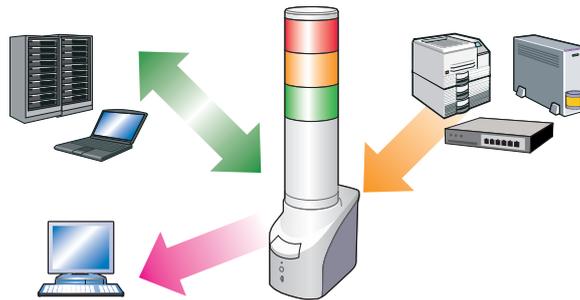
This product can monitor the connectivity of a network device.

PING MONITOR

Monitors "keepalive" Network/Device signals

The Ping Monitor can monitor the connectivity for a maximum of 24 nodes with this product. If the monitor cannot obtain a response due to an abnormality in the circuit or equipment in the node, it judges an abnormal state and the Signal Tower warns a supervisor with light and sound.

Among the 24 nodes, 12 nodes (13th to 24th) can be set up for more detailed monitoring parameters.



SNMP v1v2c

Low-cost Monitor networking equipment.

A network monitor Signal Tower can tell an administrator about generated abnormalities and hindrances promptly as an SNMP command to respond with light and sound to an SNMP TRAP from the equipment (UPS, a printer, a router, a switch, etc.) via the network.

- It can distinguish the variable bindings.
- The registration of 16 groups (4 nodes per group) is possible.

SELF DIAGNOSIS

With a user's creation of adding an application utilizing the transmission command, monitoring of the operating circumstances is possible. (Maximum of 4 nodes)

It is possible without control from the network, to instead use the test switch on the front of the product to check the functions of the Signal Tower and buzzer.

1.6.2. Transmission Commands

RSH

Controllable with General RSH protocol

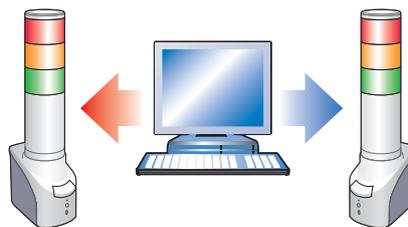
It is controllable by the flexible RSH protocol. With network integrated management software and various event monitoring tools, it is possible to trigger lighting, flashing, buzzer sound, and buzzer sound synchronized with the Signal Tower lights.

Event Occurance: Command Execution (Lighting Tier, Sounding Buzzer)

RSH Example: `rsh 192.168.10.1 -l root alert 111001`

HTTP command

Controllable with HTTP Command



SOCKET TRANSMISSION

Compatible with PHN Commands.

The Signal Tower and buzzer are controllable by a 2 byte command.

* Compatible with the NHE-3 FB, NHC-3 FB, NHM-3 FB and PHN-3FBE1.

* Some functions are limited.

Event Occurance: Command Execution (Flashing Tier Lights, Buzzer Sound)
PHN Example Code: 57H,17H

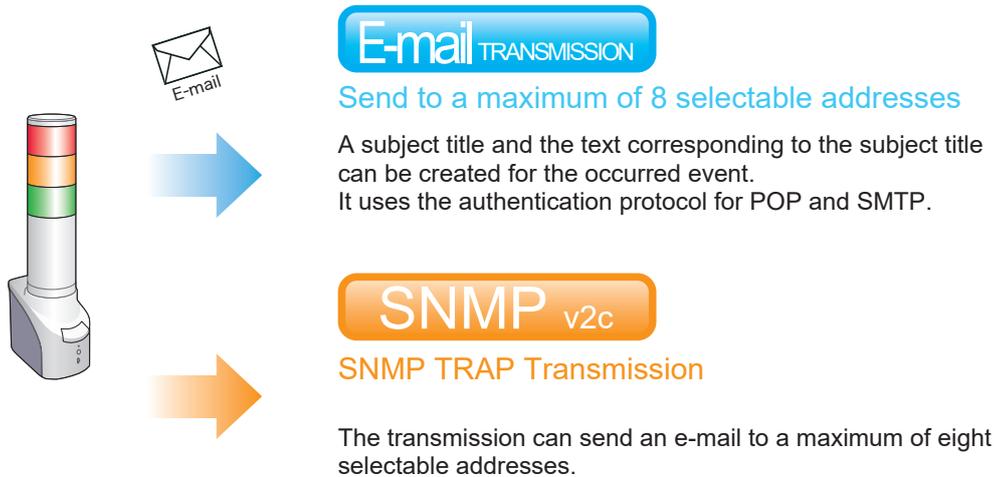
The commands are compatible with the new PNS.

The Signal Tower and buzzer are controllable through the PNS command. All the different patterns are controllable.

Event Occurance: Command Execution (Lighting Tier, Sounding Buzzer)
PNS Example Code: 58H,58H,53H,00H,00H,06H,01H,01H,01H,00H,00H,01H

1.6.3. Transmission Function Configuration

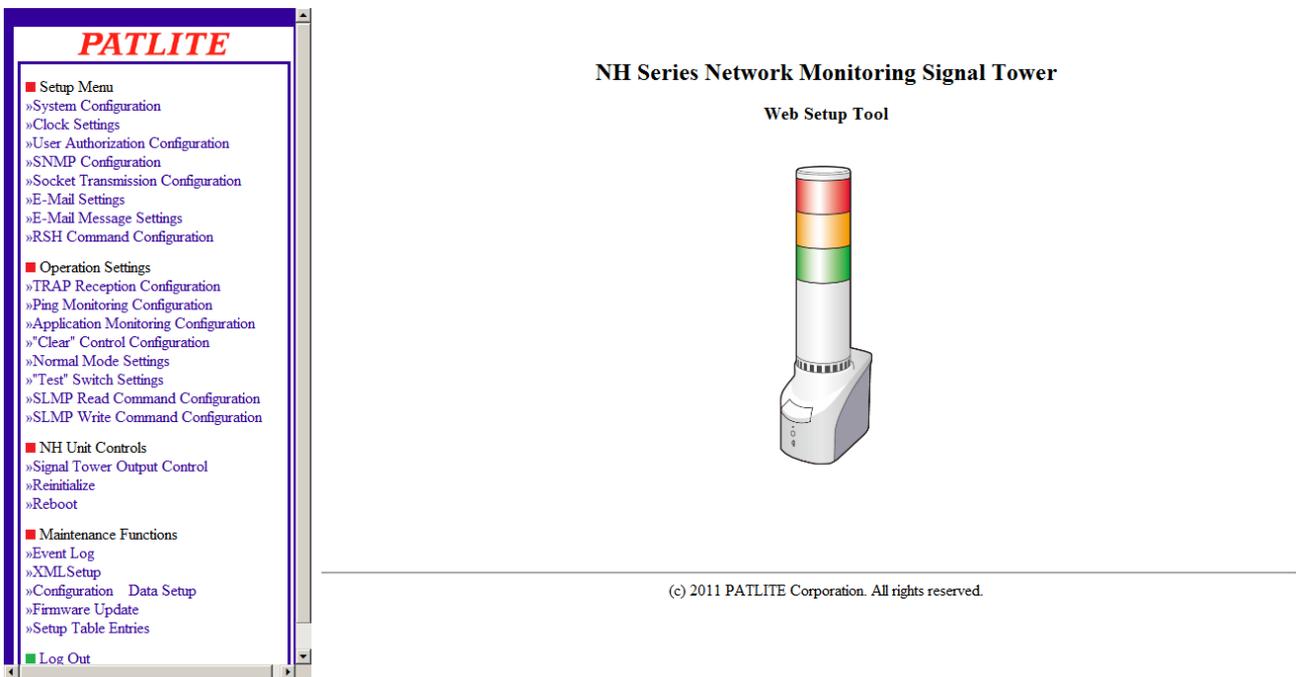
An E-mail and TRAP transmission can be sent at the time of an event occurrence.



1.6.4. Setup and Updates

With a web setup tool, a detailed setup containing the IP Address of the product can be arranged. The firmware can also be upgraded remotely.

Fig. 1.6.1 Web Setup Tool Screen



2. Installation Procedure and Flowchart

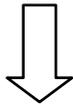
2.1. Network Signal Tower Flowchart

The Signal Tower offers two methods for configuring the network, "Manual Network Setup", and "Automatic Network Setup", which uses the DHCP server function.

2.1.1. Manual Network Setup

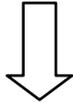
Signal Tower Installation

Install this product on a level surface. If necessary, use the accessories (rubber foot, adhesive seal, support base) if needed when installing.



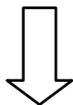
Power Supply Input

Connect the AC Adaptor to this product. Using the cable clamp will prevent the power cord from being unintentionally pulled out. (Refer to "2.4 Power Supply Input" on pg. 21)



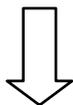
LAN Connection

Connect the LAN cable to this product.



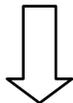
Network Setup

Set up the network environment configuration. Refer to "2.3 LAN Connection" on pg. 21 on how to setup the network.



Operation Settings

Set up the detailed settings after the network environment has been configured



Attention

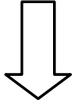
After completing the desired setup configuration, reboot this product by pressing the "reset" button, or removing the power for a few seconds and reapplying it for the changes to take effect.

Start-up

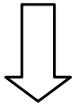
This product is now ready to be used.

2.1.2. Automatic Network Setup

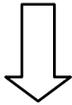
Signal Tower Installation



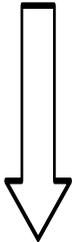
Power Supply Input



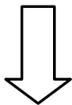
LAN Connection



DHCP Setup



Operation Settings



Start-up

Install this product on a level surface. If necessary, use the accessories (rubber foot, adhesive seal, support base) if needed when installing.

Set the volume level switch to "LOW", then push the "TEST" switch while inserting the AC Adaptor plug into the power outlet. Use the cable clamp to prevent the power cord from being unintentionally pulled out. (Refer to "2.4 Power Supply Input" on pg. 21)

Connect the LAN cable to this product.

If this product is unable to connect with a DHCP Server, the Signal Tower status will start using the flashing pattern2 on all LED units, then will use the factory default network information set at the time of shipment. If that condition occurs, then either try again to connect with a DHCP Server, or manually set up the network. Refer to "2.3 LAN Connection" on pg. 21 on how to setup the network manually. If this product is able to connect to a DHCP Server, in order to know the network information, it is recommended to use Patlite's "PNS Manager" software for the NH Series.

Set up the detailed settings after the network environment has been configured

Attention

After completing the desired setup configuration, reboot this product by pressing the "reset" button, or removing the power for a few seconds and reapplying it for the changes to take effect.

This product is now ready to be used.

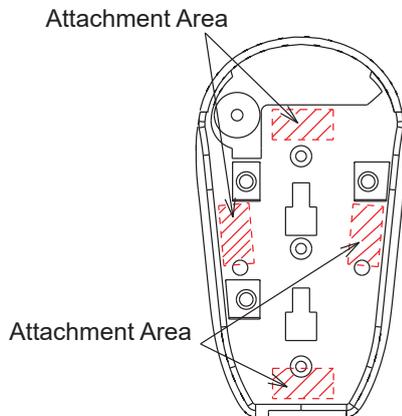
MEMO

Once the DHCP function is working, it will automatically start up the next time the product is turned on, or rebooted.

2.2. Signal Tower Installation

This product is to be installed on a level surface. Also, use the included accessories (rubber feet, adhesive seal, support base) when needed during installation.

Installation Example 1: When not using support stay

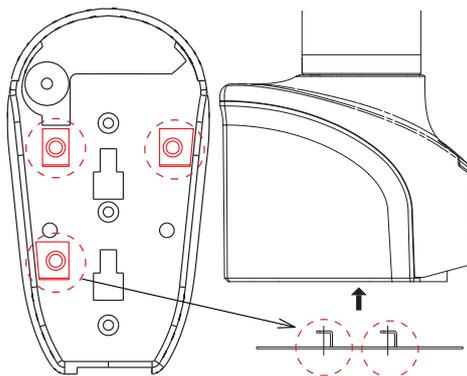


[Installation]

Strip off the adhesive backing and stick the adhesive seal or rubber feet in the shaded area, indicated on the figure to the left.

 Adhesive seal or rubber feet attachment area

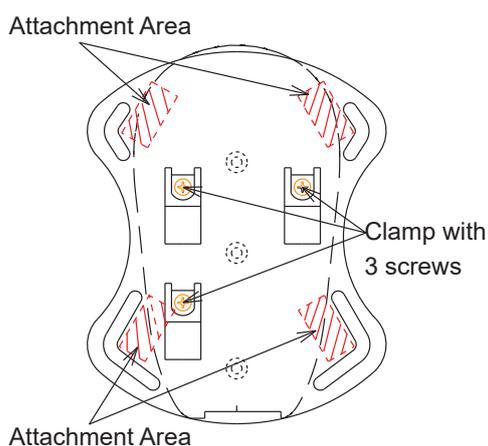
Installation Example 2: When using support stay (before adding adhesive seals or rubber feet)



[Installation]

1. Support Base is attached to the part indicated by the circle "○".

 Support Base attachment area



2. Secure the Support Base with screws.

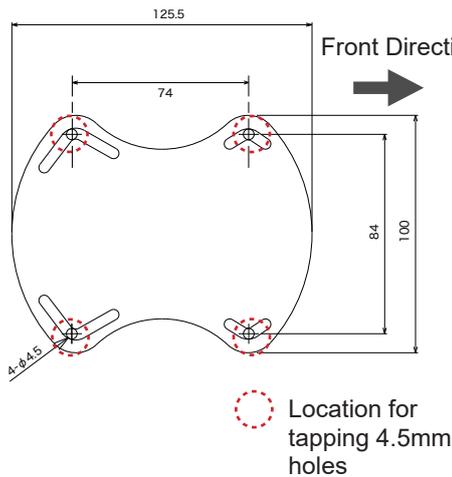
3. Use an M4 screw (or M4 bolt, etc.) to attach the Support Base onto the installation surface and tighten it with M4 nuts.

 Adhesive seal or rubber feet attachment area

Attention

- When the adhesive seal is stuck on the product, it may be difficult to remove and possibly peel off the remainder of the tape or paint. Be certain where the adhesive seals are to be placed before applying.
- Before placing the adhesive seal, remove dust, moisture, oil, etc. from the surface.
- Be sure to have the underside of the product in position, then peel the backing off the adhesive seal before applying.
- Do not exert force to the Signal Tower area.

Installation Example 3: Permanent Surface Installation (screw-support base)



[Installation]

1. Drill holes with a diameter of 4.5mm onto a flat surface to install.
2. Affix the Support Base accessory to this product.
※ Do not attach the rubber feet or adhesive seals when clamping the Support Base with screws.
3. Use an M4 screw (or M4 bolt, etc.) to attach the Support Base onto the installation surface and tighten it with M4 nuts.

2.3. LAN Connection

Connect the LAN cable to this product. Use either a category 5 LAN cable, or twisted-pair cable (UTP or STP) for this application.

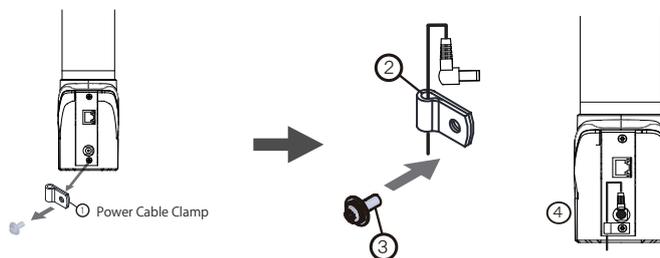
2.4. Power Supply Input

Attach the power plug for this product in accordance with the figure below. This product requires at least 40 seconds for the boot-up sequence to complete.

[Applying Power]

1. Loosen the screws with a phillips screwdriver and remove the power supply cable clamp.
2. Pass the AC Adaptor power cable through the cable clamp.
3. Fix the power supply cable clamp with a screw.
4. Insert the DC plug into the Main Unit.
5. Insert the AC Adaptor into an electric socket.
6. Power is switched on, a Signal Tower does an all-points Light about 1 second, and status LED in the lower part of the front face of this product lights up.

Fig. 2.4.1 Power Cable Mounting Diagram



- Periodically check whether dust builds up on the electric socket and clean it if dust builds up. Ensure maintenance is performed to avoid dust build-up, because it may result in fire if too much dust is allowed to build up.
- Warning • Do not touch the electric socket with wet hands. Failure to comply will result in electric shock.

Intro

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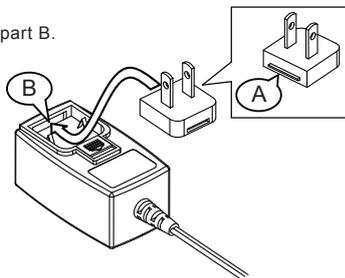
7

8

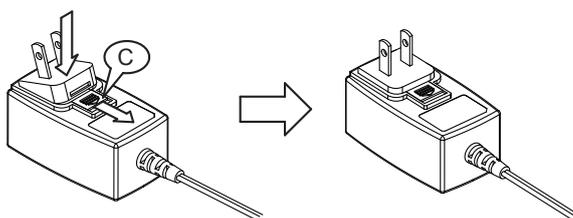
MEMO

- Replacement plug is included in W model. Follow the procedure below and install the replacement plug in the AC adapter.
- Be sure to use the replacement plug of the same shape as the outlet specification.

STEP1:
Insert part A into part B.



STEP2:
Be sure to push in the AC plug from the top, while pulling section C downward.



STEP3:
Insert the DC jack into the product to be powered.

STEP4:
Insert the AC plug portion into the appropriate outlet to supply power to the product.

2.5. Network Setup

The IP address at the time of factory shipments for this product is 192.168.10.1.

To change the IP address, first log in from a personal computer (henceforth, written as "PC") web browser to access the settings for it.

Log into the personal computer before changing the Network settings, so that the personal computer can communicate with this product. Refer to "2.5.1 Logging In" on pg. 23 for the login method.

MEMO Internet Explorer 11, and Google Chrome, and Firefox is recommended.

2.5.1. Logging In

By logging in from a web browser, access can be made to various setups for this product.

In order to log in, the current IP address for this product needs to be entered into the address part of the web browser. (Refer to Fig. 2.5.1)

Fig. 2.5.1 Login Screen

<Web Browser Address Input> http://192.168.10.1/index.htm



When the login screen is displayed, go to the upper right of the screen where "Please Select Your Language" is located to select the preferred language.

- If the login screen is not displayed, refer to "7. Troubleshooting". Be sure to allow automatic page reading of Javascript by setting the browser to allow Javascript.
- Even if an address is entered, if the login screen is not displayed, changing the personal computer Network settings may be necessary.
- When establishing a Network setting to re-connect, or to initialize it with the Web setup tool for this product, the contents are as followed:

MEMO

The PC IP address is in the range of 192.168.10.2 to 254
Subnet mask is 255.255.255.0
For a default gateway direct connection, the setup is unnecessary.
When connecting it to a network, be sure to check with the network administrator.

Attention

- When the login screen is displayed, enter "patlite" in the password field, then click the "Logging In" button. The default password is set to "patlite". Be sure to change the password to prevent any security breaching.
- If 10 minutes or more of no activity has elapsed after logging in, a time-out causes an automatic log out. When that occurs, log in again.
- If garbled characters occur and the screen is not displayed normally, change the character code for Unicode (UTF-8) to correct it.
- To prevent from being setup in two or more places, this product does not support double-login capabilities. To log in from another location, be sure the last computer is logged out.

Intro

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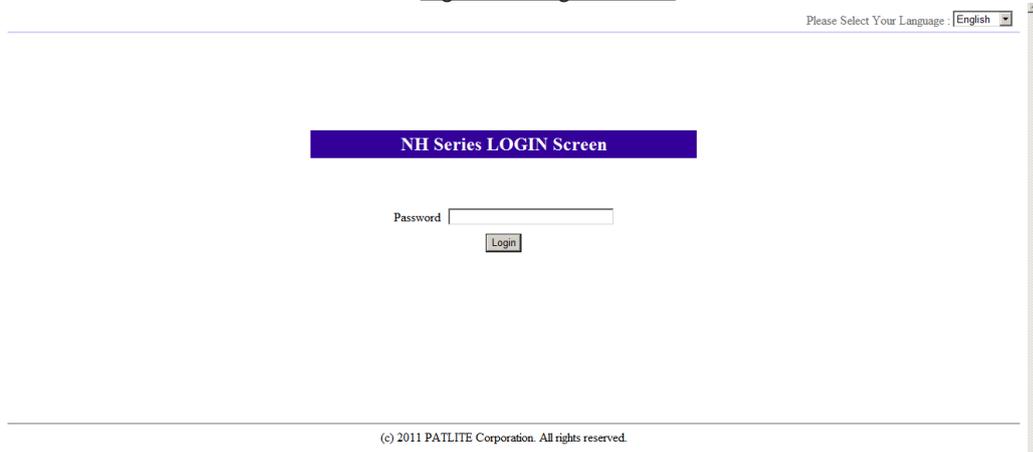
7

8

Select the preferred language from the pull down menu in the upper right of the login screen. (Refer to Fig. 2.5.2) The selectable languages available are "Japanese", "English", and "Chinese". Once selected, the language will be displayed on each screen in the Web setup tool. (Refer to Fig. 2.5.3 and Fig. 2.5.4)

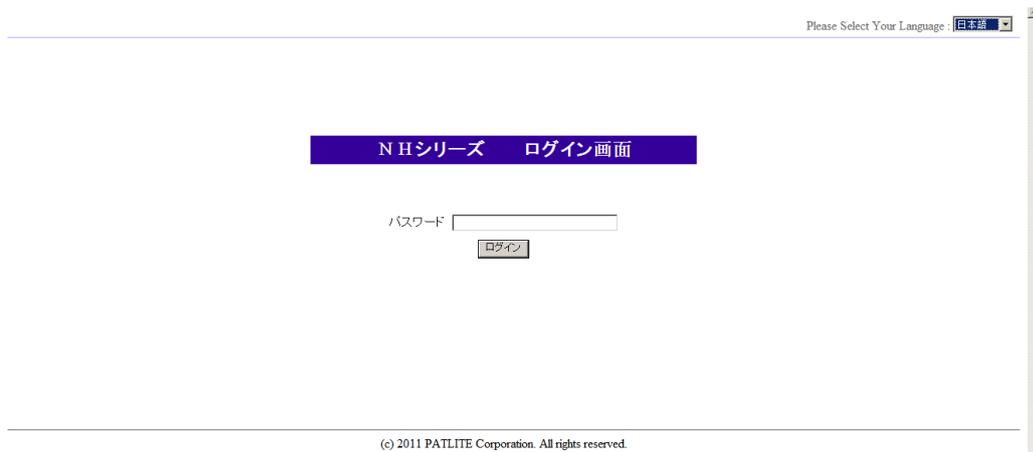
When the login screen is displayed, go to the upper right of the screen where "Please Select Your Language" is located to select the preferred language. Enter "patlite" in the password field, then click the "Logging In" button. The default password is set to "patlite." Be sure to change the password to prevent any security breaching.

Fig. 2.5.2 Login Screen



The screenshot shows the English login screen. At the top right, there is a language selection dropdown menu labeled "Please Select Your Language" with "English" selected. The main heading is "NH Series LOGIN Screen" in a blue box. Below it is a "Password" input field and a "Login" button. At the bottom, there is a copyright notice: "(c) 2011 PATLITE Corporation. All rights reserved."

Fig. 2.5.3 Login Screen (With "Japanese" Selected)



The screenshot shows the Japanese login screen. At the top right, the language selection dropdown menu is set to "日本語". The main heading is "NHシリーズ ログイン画面" in a blue box. Below it is a "パスワード" (password) input field and a "ログイン" (login) button. At the bottom, there is a copyright notice: "(c) 2011 PATLITE Corporation. All rights reserved."

Fig. 2.5.4 Login Screen (With "Chinese" Selected)



The screenshot shows the Chinese login screen. At the top right, the language selection dropdown menu is set to "繁體中文". The main heading is "NH Series 登錄畫面" in a blue box. Below it is a "密碼" (password) input field and a "登錄" (login) button. At the bottom, there is a copyright notice: "(c) 2011 PATLITE Corporation. All rights reserved."

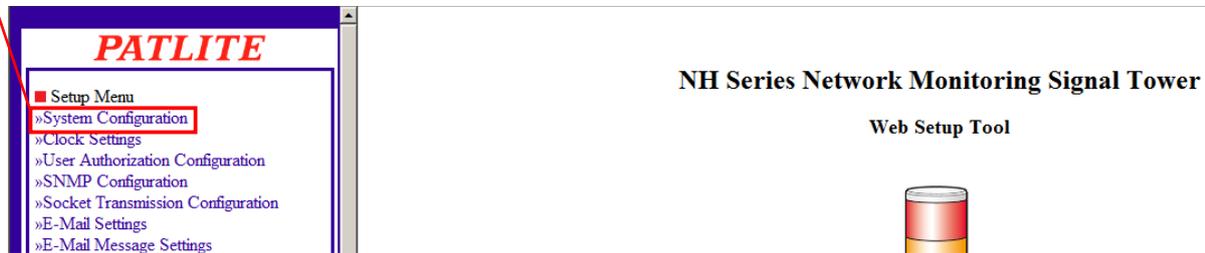
2.5.2. Setting the IP Address

After logging in, a web setup tool screen will be displayed (Refer to Fig. 2.5.2). The set up item list is displayed on the left-hand side of the screen.

Click "System Configuration" to display the System Configuration screen.

Fig. 2.5.5 Web Setup Tool Screen

Click "System Configuration"



The network protocol can be changed on the System Configuration screen.

[Setting Method]

- ①. Select "Setup Manually" for the "IP Address Configuration Method" for this product.
- ②. Set up the new IP address, then the net mask, default gateway, etc. if needed.
- ③. After the changes are completed, click the "Set" button for the changes to take effect.

Fig. 2.5.6 System Configuration Screen (for Manual Setup)

| System Configuration | |
|------------------------------------|---|
| Firmware Version | Ver 1.45 |
| System Name | Signal Tower |
| System Location | |
| Contact Address | nh@patlite.jp |
| IP Address Configuration Method | <input checked="" type="radio"/> Setup Manually <input type="radio"/> Setup Automatically |
| IP Address | 192.168.10.1 |
| Net Mask | 255.255.255.0 |
| Default Gateway | 0.0.0.0 |
| DNS Server Address | 0.0.0.0 |
| Host Name | nh.patlite.jp |
| HTTP Command Control Function | <input checked="" type="radio"/> Active <input type="radio"/> Inactive |
| <input type="button" value="Set"/> | |

- ④. After the "Set" button has been clicked, then when the Network Reboot Screen is displayed, click the "Network Reboot" button for the changes to take effect (Refer to Fig. 2.5.4).
- ⑤. The execution of the network setup changes takes about 20 seconds. After the waiting time elapses, click "To the Login screen" to log back in (Refer to Fig. 2.5.1).

Fig. 2.5.7 Network Reboot Screen

2.5.3. Setup Verification

If the web browser address is reflecting the changed value of the IP address after clicking "To the Login screen", the setup of the new IP address has been successful. However, in cases where the preset value of other networks had been changed, be sure to enter the proper IP Address value where it was moved to in order to verify it in the System Configuration screen.

2.6. Network Setup with the DHCP Function

This product can access a DHCP Server to acquire network information.

2.6.1. Setup Method with the "TEST" Switch

- ① First, connect this product with the network environment to be used. (Refer to Fig. 2.5.3)
- ② Set the volume level switch to "LOW" before applying power to this product.
- ③ Push the "TEST" Switch while inserting the power connector into the power outlet.
- ④ The DHCP function takes effect when this product starts up.

Attention

If this product is unable to access a DHCP Server, it will return to the factory default network information. When the DHCP function is used, any future connections are started after the DHCP function setup is activated. When it is necessary to use the manual settings, use the Web Setup Tool and our PNS Manager software tool.

2.6.2. Setup Method with the Web Setup Tool

- ① Select the IP Address Setup Method in the "System Configuration" screen as "Setup Automatically." (Refer to Fig. 2.6.1)
- ② Setup the device and host name, etc. as needed.
- ③ Click the "Set" button to save all changes and to activate them.
- ④ After the "Set" button is clicked, the Web Setup Tool changes to another screen to reboot the product; click the "Network Reboot" icon to continue. (Refer back to Fig. 2.5.4)
- ⑤ Rebooting the network takes about 20 seconds.

Fig. 2.6.1 System Configuration Screen (for DHCP Automatic Setup)

| System Configuration | |
|------------------------------------|---|
| Firmware Version | Ver 1.45 |
| System Name | Signal Tower |
| System Location | |
| Contact Address | nh@patlite.jp |
| IP Address Configuration Method | <input type="radio"/> Setup Manually <input checked="" type="radio"/> Setup Automatically |
| IP Address | |
| Net Mask | |
| Default Gateway | |
| DNS Server Address | |
| Host Name | nh.patlite.jp |
| HTTP Command Control Function | <input checked="" type="radio"/> Active <input type="radio"/> Inactive |
| <input type="button" value="Set"/> | |

2.7. Operation Settings

2.7.1. Setting the Clock

The clock for this product can be set up. For setting the clock on this product, the following are two methods.

- ▶ Communicates with the PC clock to adjust the time when logging in.
- ▶ Communicates with an NTP server to adjust the time for this product.

Refer to "4.2 Clock Settings Screen" on pg. 57 for details on setting the time.

Attention

If the power supply is not applied for more than a day and a half, the generated time may be cleared or delayed, and the clock should be reset again.

2.7.2. Normal Mode Settings

The normal state of operation of this product can be displayed by using the "Normal Mode" setup. When this product is in its normal state of operation, the condition, such as the Green LED in the "ON" condition, can be indicated on the Signal Tower, once the setup is complete.

Refer to "4.13 Normal Mode Settings Screen" on pg. 80 for setting up the "Normal Mode" operating status of this product."

MEMO

If the normal operating condition does not require any status lights to stay on, then there is no need to set this parameter up.

3. Functionality Details

This section explains the available functions of this product, and their differences by the timing charts indicated below.

3.1. Signal Tower Control Functions

Three kind of operating patterns for the LED Signal Tower is available, such as continuous lighting, flashing pattern1, and flashing pattern2.

Continuous "ON"



Flashing Pattern 1 [Repetitive 500ms "ON"; 500ms "OFF"]



Flashing Pattern 2 [Repetitive 80ms "ON", 170ms "OFF", 80ms "ON", 170ms "OFF"; 500ms "OFF"]



3.2. Buzzer Control Functions

Four kind of buzzer sounds, such as; buzzer pattern1, buzzer pattern2, buzzer pattern3, and buzzer pattern4, are available to distinguish a variety of conditions with the use of audible and visual warnings.

Buzzer Pattern 1 [Repetitive 250ms "ON"; 250ms "OFF"]



Buzzer Pattern 2 [Repetitive 500ms "ON"; 500ms "OFF"]



Buzzer Pattern 3 [Repetitive 200ms "ON", 50ms "OFF", 200ms "ON"; 550ms "OFF"]



Buzzer Pattern 4 [Continuous "ON"]



3.3. Test Functions

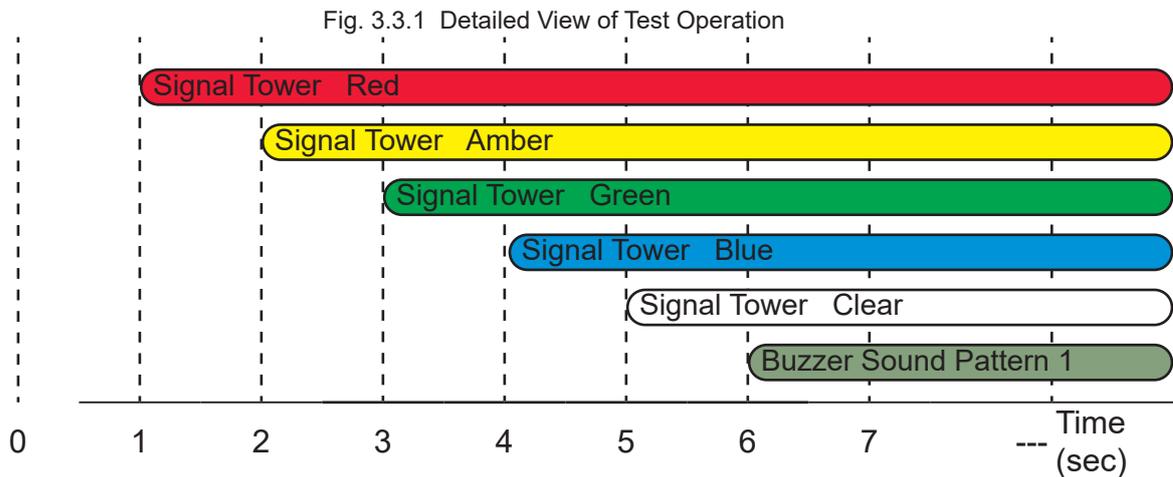
The test function does a sequential check of the Signal Tower and buzzer, as well as checking other operations. The test operation lights up the tower lights and buzzer every second in steps; in the order of red, yellow, green, blue, white, and buzzer. When only a three-tiered Signal Tower is in use, a time delay between the third tier and buzzer sound will occur. Stopping the test operation can be performed 7 seconds after execution, when the buzzer test is complete (it takes about 1 second).

[Test Function Starting Method]

- When the Test Button is Depressed
- When the "test" or "dotest" Commands are Received by the RSH

[Test Function Stopping Method]

- When the CLEAR Switch is Depressed
- When the RSH receives a "Clear" or "Doclear" Command
- From an SNMP "Clear" Command
- From the Web Setup Tool of the Signal Tower Operation Screen
- From a PNS Command sending a Clear Command Transmission
- From the HTTP "clear" Command.



Attention

During the test operation, this product stops receiving everything else except the Ping monitoring application.

3.4. SNMP Function

This product can control the Signal Tower, and acquisition the status and TRAP reception using the SNMP functions. For customers who purchased this product, download the MIB file for use with the SNMP functions. Furthermore, for details on the setting method of this product, refer to "4.4 SNMP Configuration Screen" on pg. 61.

3.4.1. SNMP SET Control Function for Signal Tower

The Signal Tower and buzzer are controllable through the SNMP-SET command. The following is an example to control the "on" and "off" for the Signal Tower lighting and buzzer. [Application Example 1] Turning the red unit on. Set it up as followed:

| Object | Object ID | Value |
|--------------------------|-----------------------------------|-------|
| controlLightControlState | 1.3.6.1.4.1.20440.4.1.5.1.2.1.2.1 | 2 |
| controlLightControlTimer | 1.3.6.1.4.1.20440.4.1.5.1.2.1.3.1 | 0 |

[Application Example 2] Operating the flashing pattern1 for the amber unit. Set it up as followed:

| Object | Object ID | Value |
|--------------------------|-----------------------------------|-------|
| controlLightControlState | 1.3.6.1.4.1.20440.4.1.5.1.2.1.2.2 | 3 |
| controlLightControlTimer | 1.3.6.1.4.1.20440.4.1.5.1.2.1.3.2 | 0 |

[Application Example 3] With the red unit flashing pattern 2, and amber flashing pattern 1, after 5 seconds, the green turns on with the buzzer synchronized with light pattern 2. Set it up as followed:

| Object | Object ID | Value |
|--------------------------|-----------------------------------|-------|
| controlLightControlState | 1.3.6.1.4.1.20440.4.1.5.1.2.1.2.1 | 5 |
| controlLightControlTimer | 1.3.6.1.4.1.20440.4.1.5.1.2.1.3.1 | 0 |
| controlLightControlState | 1.3.6.1.4.1.20440.4.1.5.1.2.1.2.2 | 3 |
| controlLightControlTimer | 1.3.6.1.4.1.20440.4.1.5.1.2.1.3.2 | 0 |
| controlLightControlState | 1.3.6.1.4.1.20440.4.1.5.1.2.1.2.3 | 2 |
| controlLightControlTimer | 1.3.6.1.4.1.20440.4.1.5.1.2.1.3.3 | 5 |
| controlLightControlState | 1.3.6.1.4.1.20440.4.1.5.1.2.1.2.6 | 3 |
| controlLightControlTimer | 1.3.6.1.4.1.20440.4.1.5.1.2.1.3.6 | 0 |

3.4.2. SNMP GET Status Acquisition Function for Signal Tower

The Signal Tower status is acquisitioned through the SNMP GET command. The following is an example of a Signal Tower status acquisition.

[Application Example 1] The red is lighting, the amber is flashing pattern 1, green is off, blue is flashing pattern 2 and white is on. The buzzer sound pattern 3 is an example of acquisitioning the Signal Tower status.

| Object | Object ID | GET Value |
|--------------------------|-----------------------------------|-----------|
| controlLightCurrentState | 1.3.6.1.4.1.20440.4.1.5.1.2.1.4.1 | 2 |
| controlLightCurrentState | 1.3.6.1.4.1.20440.4.1.5.1.2.1.4.2 | 3 |
| controlLightCurrentState | 1.3.6.1.4.1.20440.4.1.5.1.2.1.4.3 | 1 |
| controlLightCurrentState | 1.3.6.1.4.1.20440.4.1.5.1.2.1.4.4 | 4 |
| controlLightCurrentState | 1.3.6.1.4.1.20440.4.1.5.1.2.1.4.5 | 2 |
| controlLightCurrentState | 1.3.6.1.4.1.20440.4.1.5.1.2.1.4.6 | 4 |

3.4.3. TRAP Reception Function

With the set-up containing the designated sender or with the OID included, the TRAP is received. When the TRAP transmission is sent, the information, e-mail transmission and time of reception according to the Signal Tower can be included. For further details on the setting method, refer to "4.9 TRAP Reception Configuration Screen" on pg. 69.

3.4.4. TRAP Transmission Function

The TRAP is sent to the designated sender when the TRAP Reception Configuration for this product is done. For further details on the setting method, refer to "4.4 SNMP Configuration Screen" on pg. 61.

Attention Set the community name for the TRAP transmission of this product to "public."

3.5. PHN Command Reception Function

The Socket Transmission control protocol used with the PHN Series (ex. PHN-3FBE1) is being used to control this product. The Socket Transmissions protocol can be selected from either "TCP" or "UDP", and a port number from "10000" to "65535" can be set. The following explains the PHN commands used by the Socket Transmission function. For further details of the setting method, refer to "4.5 Socket Transmission Configuration Screen" on pg. 62.

Writing Command

Transmitting the following data controls the Signal Tower and buzzer.

| | | | | | | | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|--------------------------------------|--|--|--|--|--|--|--|
| "W" (57H) | | | | | | | | Operation Data 8 Bits | | | | | | | |
| 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | Reference of Operation Data Contents | | | | | | | |

Details of Operation Data

| | | | | | | | |
|-----------------------|-------|-----|-----------|-----------|-----------------------|-------|-----|
| Signal Tower Flashing | | | Buzzer | | Signal Tower Lighting | | |
| Green | Amber | Red | Pattern 2 | Pattern 1 | Green | Amber | Red |

[Example of sending the writing command transmission]

To operate the Signal Tower with a "red lighting, amber flashing, green lighting, and buzzer pattern2", enter into the operation data a "1" bit to make it turn ON and a "0" bit to make it turn OFF.

[Command]

| | | | | | | | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|----------------------|---|---|---|---|---|---|---|
| "W" (57H) | | | | | | | | Operation Data (55H) | | | | | | | |
| 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |

Response from this product

Normal response (output response)

| | | |
|--------------|--------------|--------------|
| "A" (41H) | "C" (43H) | "K" (4BH) |
| 1 Byte | 1 Byte | 1 Byte |

Response Error (output failed)

| | | |
|--------------|--------------|--------------|
| "N" (4EH) | "A" (41H) | "K" (4BH) |
| 1 Byte | 1 Byte | 1 Byte |

Attention

- The following are Signal Tower Buzzer and lighting channels that are not controllable by The PHN Command for this product. When controlling, use other methods available, such as PNS Commands and RSH Commands.
 - Signal Tower red, yellow and green flashing pattern 2
 - Signal Tower blue and white lighting, flashing pattern 1 and flashing pattern 2
 - Buzzer Pattern 3, Buzzer Pattern 4
- In case lighting and flashing are turned on by a PHN Command, priority is given to the lighting command. Priority is given to the pattern 1 command when buzzer patterns are turned on simultaneously.

Reading Command

The current operating status of this product is requested.

| "R" (52H) 8 Bit | | | | | | | |
|-----------------|---|---|---|---|---|---|---|
| 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |

Response from this product

- Normal response (output response)

| "R" (52H) 8 Bit | | | | | | | | Signal Tower Flashing | | | Buzzer | | Signal Tower Lighting | | |
|-----------------|---|---|---|---|---|---|---|-----------------------|--------|-----|-----------|-----------|-----------------------|--------|-----|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Green | Yellow | Red | Pattern 1 | Pattern 2 | Green | Yellow | Red |

Response from this product

| Signal Tower Flashing | | | Buzzer | | Signal Tower Lighting | | |
|-----------------------|-------|-----|-----------|-----------|-----------------------|-------|-----|
| Green | Amber | Red | Pattern 2 | Pattern 1 | Green | Amber | Red |

[Example for a data acquisition response]

Signal Tower with Red/Amber Lighting:

Response Data: 0000 0011 = 03H

| Responding Data (03H) 8 bit | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |

Signal Tower with Green Flashing and Buzzer Pattern1

Response Data: 1000 1000 = 88H

| Responding Data (88H) 8 bit | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|
| 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |

- Response Error (output failed)

| "N" | "A" | "K" |
|--------|--------|--------|
| 4EH | 41H | 4BH |
| 1 byte | 1 byte | 1 byte |

Attention

- The following are Signal Tower buzzer and lighting channel operating states that are not controllable from a PHN Command for this product. Use other methods, such as PNS Commands or RSH Commands to acquisition.
 - Signal Tower red, yellow and green flashing pattern 2
 - Signal Tower blue and white lighting, flashing pattern 1 and flashing pattern 2
 - Buzzer Pattern 3, Buzzer Pattern 4

3.6. PNS Command Reception Function

The PNS command is an exclusive PATLITE command protocol, which controls the Patlite NHL Series Signal Tower and buzzer. The Socket Transmissions protocol can be selected between "TCP" and "UDP", and the communication ports are available from "10000" to "65535".

The following explains the PNS commands being used with a Socket Transmission setup.

(*) This function is not available for the NHC/NHE/NHM-3FB Models.

Writing Command

The following is the protocol used to transmit data to control the Signal Tower and buzzer.

By entering the proper data, the buzzer and LED unit operation from the Signal Tower can be controlled.

| Product Classification "XX" | | Identifier "S" | (Empty) | Data Size | | Data Control Bits 6 bit (Refer to table below) | | | | | |
|-----------------------------|-----|----------------|---------|-----------|-----|--|-------|-------|------|-------|--------|
| 58H | 58H | 53H | 00H | 00H | 06H | Signal Tower | | | | | Buzzer |
| | | | | | | Red | Amber | Green | Blue | White | |

Product Classification

The product is classified in "XX".

Identifier

"S" is used.

Data Size

Capacity of data control bits (data to transmit)

Data Transmission Configuration

| Data Control Bits 6 bit | | | | | |
|-------------------------|-------|-------|------|-------|--------|
| Signal Tower | | | | | Buzzer |
| Red | Amber | Green | Blue | White | |

[Signal Tower]

| | |
|-------------------|-----|
| Non-flashing | 00H |
| Flashing | 01H |
| Flashing Pattern1 | 02H |
| Flashing Pattern2 | 03H |
| No Change | 09H |

[Buzzer]

| | |
|------------------|-----|
| Stop | 00H |
| Buzzer Pattern 1 | 01H |
| Buzzer Pattern 2 | 02H |
| Buzzer Pattern 3 | 03H |
| Buzzer Pattern 4 | 04H |
| No Change | 09H |

[Example of sending the writing command transmission]

When writing a command for the Signal Tower to operate with "Red Lighting + Amber Flashing Pattern1+ Green Flashing Pattern2+ Buzzer Pattern4"

[Command]

| Product Classification "XX" | | Identifier "S" | (Empty) | Data Size | | Data Control Bits 6 bit | | | | | |
|-----------------------------|-----|----------------|---------|-----------|-----|-------------------------|-----|-----|-----|-----|-----|
| 58H | 58H | 53H | 00H | 00H | 06H | 01H | 02H | 03H | 00H | 00H | 04H |

Response from this product

Normal response (output response)

ACK

06H

Response Error (output failed)

NAK

15H

Reading Command

Transmitting the following data will execute the status of the Signal Tower and buzzer.

| Product Classification "XX" | Identifier "G" | (Empty) | Data Size | | |
|--------------------------------|-------------------|---------|-----------|-----|-----|
| 58H | 58H | 47H | 00H | 00H | 00H |

Response from the Read Command

Data Control Bits 6 bit

Refer to "Capacity of Data Control Bits"

[Example for a data acquisition response]

Signal Tower "Red: Flashing Pattern 1, Amber: Flashing Pattern 2, Green: Lighting with no buzzer" is read, and the response from this product is indicated in the following table after the command transmission.

| Data Control Bits 6 bit | | | | | |
|-------------------------|-------|-------|------|-------|--------|
| Red | Amber | Green | Blue | White | Buzzer |
| 02H | 03H | 01H | 00H | 00H | 00H |

Status Condition "Clear" Command

The change in the operating state for this product is made when setting up the "Normal Mode Settings".

| Product Classification "XX" | Identifier "C" | (Empty) | Data Size | | |
|--------------------------------|-------------------|---------|-----------|-----|-----|
| 58H | 58H | 43H | 00H | 00H | 00H |

3.7. E-mail Sending Function

It can transmit up to eight registered e-mail addresses. The subject and message of the transmitting mail can be registered for 16 different situations per subject title to be transmitted via e-mail to the 8 registered addresses. The user authentication method during transmission can be selected from either "SMTP Authentication", "POP Authentication", or "No Authentication". Refer to "4.6 E-Mail Settings Screen" on pg. 63 and "4.7 E-Mail Message Settings Screen" on pg. 64 for further details of the setting method.

3.7.1. E-mail Message Contents

The registration of 16 subjects and 16 messages for transmitting mail can be selected in combination when sending an alert message of up to 8 registered E-mail addresses. The e-mail text would include the equipment name, its location, the sender, the message, and supplementary information indicated in table 3.7.1 below. The contents of the registered subject is indicated.

If the 17th fixed e-mail subject title "NH-ORIGINAL" is selected, the equipment location, message transmission time stamp, and event contents is indicated. If the 17th e-mail subject text is selected as "None", nothing is indicated in the text.

[Registered subject title when selecting No. 17 is "NH-ORIGINAL"]

System Location: YY/MM/DD hh:mm Contents of the event: Name

Table 3.7.1 Fixed Written Subject Contents

| Generated Event | Indicated Event Contents | Indicated Name |
|---|--------------------------|---|
| TRAP Reception | Blank | TRAP Monitor Setup Registered Group Name |
| Execute "Clear" by pushbutton | ": CLEAR-Switch" | Blank |
| Execute "Clear SNMP" | ": CLEAR-SNMP" | Blank |
| Execute "Clear RSH" | ": CLEAR-RSH" | Blank |
| Ping Monitor Abnormality Detection | ": PING-Error" | The equipment name registered in the Ping Monitoring Configuration |
| Ping Monitor Recovery Detection | ": PING-Recover" | The equipment name registered in the Ping Monitoring Configuration |
| Application Monitor Abnormality Detection | ": APP-Error" | The equipment name registered in the Application Monitoring Configuration |
| Application Monitor Recovery Detection | ": APP-Recover" | The equipment name registered in the Application Monitoring Configuration |
| Execute "RSH Command" | ": RSH-Executes" | Blank |
| "TEST" button pressed | ": TEST-Switch" | Blank |
| SLMP Operation | "SLMP-Action" | Blank |
| SLMP Error Response | "SLMP-Error" | Blank |

Table 3.7.2 Mail Subject Event Contents

| Generated Event | Indicated Event Contents | Supplementary Information Displayed |
|--|---|--|
| TRAP Reception | TRAP was Received | Group Name and Designated Sender IP Address <Group Name:> "IP Address" |
| Execute "Clear" by pushbutton | "CLEAR " switch was pushed | None |
| Execute "Clear SNMP" | "CLEAR" was executed by SNMP | None |
| Execute "Clear RSH" | "CLEAR" was executed by RSH | Sender's IP Address "IP Address" |
| Ping Monitor Abnormality Detection | Ping Monitor Abnormality was detected | Detected device name and registration <Device Name:>"Registration Address" |
| Ping Monitor Recovery Detection | Ping Monitor Recovery was detected | Detected device name and registration <Device Name:>"Registration Address" |
| Application Monitor Abnormality Detection | Application Monitor Abnormality was detected | Detected device name IP Address and port number <Device Name:>"Registration Address: Port Number" |
| Application Monitor Recovery Detection | Application Monitor Recovery was detected | Detected device name IP Address and port number <Device Name:>"Registration Address: Port Number" |
| Execute "RSH Command" | An "RSH Command" was executed | Sender's IP Address "IP Address" |
| "TEST" button pressed | The "TEST" button was pressed | None |
| SLMP Operation | The SLMP Operation was executed | Concurring Device name and address registration <Device Name:>"Registration Address" |
| SLMP Error Response | An SLMP Error was detected | Device name and address registration of source <Device Name:>"Registration Address" |

1

2

3

4

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7

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3.8. RSH Command Function

3.8.1. RSH Commands

RSH (remote shell) is a CUI program which executes a shell command from one computer to another computer via a computer network. The following explains how to control the Signal Tower via the RSH command.

The command syntax which this product can receive is indicated below. For the setting method of the "RSH Command Connection Authentication /Operation after Reception", refer to "4.8 RSH Command Configuration Screen" on pg. 66.

Table 3.8.1 Receivable Commands

| Command | Contents |
|-----------------|--------------------------------------|
| alert | Controls Signal Tower/Buzzer |
| clear / doclear | Returns to Normal Mode |
| status | Acquisitions the Signal Tower Status |
| test / dotest | Executes a Self-test |

Using the RSH Commands

Command Input Method

`rsh IP address [-l Login Name] Command [Option]`

Command Input Method (when the designated sender address is inactive)

`rsh IP address -l Common login name when designated sender address is inactive Command [Option]`

MEMO

: indicates a space. []: indicates an option.

The use of login abbreviations for the login name is limited to when the account name and the PC are registered (in half-width alphanumeric characters) on the command reception screen which transmits the RSH command.

alert Command

Contents : To control the Signal Tower and buzzer.
 Syntax : alert rygbcz [sec]
 Return Value : Status after command is executed
 Option : Refer to Table 3.8.2.

Table 3.8.2 RSH Command Option Explanation

| Type | Explanation | | | | | | |
|-------|---|----------------|---------------|------------------------|------------------------|---------------|---------------|
| rygbc | Turning on and off of the Signal Tower LED Units and Buzzer Alarms | | | | | | |
| r | r: Red | (0) Light Off | (1) Lighting | (2) Flashing Pattern 1 | (3) Flashing Pattern 2 | (9) No Change | |
| y | y: Amber | (0) Light Off | (1) Lighting | (2) Flashing Pattern 1 | (3) Flashing Pattern 2 | (9) No Change | |
| g | g: Green | (0) Light Off | (1) Lighting | (2) Flashing Pattern 1 | (3) Flashing Pattern 2 | (9) No Change | |
| b | b: Blue | (0) Light Off | (1) Lighting | (2) Flashing Pattern 1 | (3) Flashing Pattern 2 | (9) No Change | |
| c | c: White | (0) Light Off | (1) Lighting | (2) Flashing Pattern 1 | (3) Flashing Pattern 2 | (9) No Change | |
| z | z: Buzzer Alarm | (0) Buzzer Off | (1) Pattern 1 | (2) Pattern 2 | (3) Pattern 3 | (4) Pattern 4 | (9) No Change |
| sec | Restores the Signal Tower to its previous command status. When the time exceeds the set value, it returns to the previous Signal Tower condition. The time can be set from zero to 99. The status will not return if no input or a zero has been entered. | | | | | | |

[Command Transmission Example]

Ex. 1) A product with an IP address of [192.168.10.10] and designated sender user name of "root", with Red Lighting, Green Lighting and Buzzer Pattern2 On:

```
rsh 192.168.10.10 -l root alert 101002
```

Ex. 2) A product with an IP address of [192.168.10.10] and a common login name of "patlite", with Red Lighting and White Flashing Pattern2:

```
rsh 192.168.10.10 -l patlite alert 100020
```

[Command Transmission Example - cont.]

Ex. 3) A product with an IP address of [192.168.10.10] and a designated sender user name of "root", with the Red Lighting, Amber Flashing Pattern2, Green Lighting and Buzzer Pattern3, all on for 20 seconds:

```
rsh 192.168.10.10 -l root alert 131003 20
```

Ex. 4) A product with an IP address of [192.168.10.10] with Red Lighting, Amber Flashing Pattern2, Green Lighting, Buzzer Pattern3, all on for 20 seconds (no login name)

```
rsh 192.168.10.10 alert 131003 20
```

clear/doclear Command

Contents : To clear the Signal Tower and Buzzer, returning to the Normal Mode.
 Syntax : clear [-p] [-z] , doclear [-p] [-z]
 Return Value : Status after command is executed
 Option : Refer to Table 3.8.3.

Table 3.8.3 clear/doclear Command Option Explanation

| Type | Explanation |
|------|----------------------------------|
| -p | Turn off all Signal Tower Lights |
| -z | Turn off Buzzer Alarm |
| None | Return to Normal Mode |

[Command Transmission Example]

Ex. 1) A product with an IP address of [192.168.10.10] and a common login name of "patlite", with all the Signal Tower Lights turned off:

```
rsh 192.168.10.10 -l patlite clear -p
```

with all the Signal Tower Lights turned off (no login name):

```
rsh 192.168.10.10 clear -p
```

Ex. 2) A product with an IP address of [192.168.10.10] and a designated sender user name of "root", with the Buzzer alarm turned off:

```
rsh 192.168.10.10 -l root doclear -z
```

with the Buzzer alarm turned off (no login name):

```
rsh 192.168.10.10 clear -z
```

Ex. 3) A product with an IP address of [192.168.10.10] and a designated sender user name of "root", with all the Signal Tower Lights and Buzzer returned to the Normal Mode:

```
rsh 192.168.10.10 -l root clear
```

with all the Signal Tower Lights and Buzzer returned to the Normal Mode (no login name):

```
rsh 192.168.10.10 clear
```

status Command

Contents : Return the present status of the Signal Tower and buzzer to Normal Mode.
 Syntax : status
 Return Value : Current Condition rygbcz

[Command Transmission Example]

A product with an IP address of [192.168.10.10], with the condition of "Red tier flashing pattern 1, Green is lighting and buzzer pattern 3 is on":

Ex. 1) The designated sender user name for the Signal Tower status acquisition is "patlite".

```
rsh 192.168.10.10 -l patlite status
```

Response: 201003

Ex. 2) The login name was omitted for status acquisition of the Signal Tower.

```
rsh 192.168.10.10 status
```

Response: 201003

test/dotest Command

Contents : Executes confirmation of the Signal Tower and buzzer operation in sequence order of Red, Amber, Green, Blue, White and Buzzer Pattern1.
Syntax : test , dotest
Return Value : None

[Command Transmission Example]

Ex. 1) A product with an IP address of [192.168.10.10] can verify operation of the Signal Tower.
The common login name for the Signal Tower status confirmation is "patlite".

```
rsh 192.168.10.10 -l patlite test  
rsh 192.168.10.10 -l patlite dotest
```

Signal Tower status confirmation is executed (no Login Name):

```
rsh 192.168.10.10 test  
rsh 192.168.10.10 dotest
```

Ex. 2) A product with an IP address of [192.168.10.100] can verify operation of the Signal Tower.
The designated sender user name for the Signal Tower status confirmation is "root"

```
rsh 192.168.10.100 -l root test  
rsh 192.168.10.100-l root dotest
```

Signal Tower status confirmation is executed (no Login Name):

```
rsh 192.168.10.100 test  
rsh 192.168.10.100 dotest
```

3.8.2. RSH Alert Timer Reset Function

The RSH alert timer reset function is capable of being selected for "Shared" or "Individual" when setting up the timer function for the Signal Tower lights and buzzer control.

(Refer to "4.8 RSH Command Configuration Screen" on pg. 66)

Shared : Each Signal Tower tier and buzzer are controlled by a common timer.
Individual: Each Signal Tower tier and buzzer are controlled by individual timers.

The following explains the difference in operation between the "Shared" and "Individual" selection for this product when setting up the alert timer reset function.

[Procedure]

Ex. 1) Transmit the command to the products IP address [192.168.10.10]. Use the login name [root], then execute the following commands of [Red Lighting; other colors no status change; no buzzer status change] for 10 seconds.

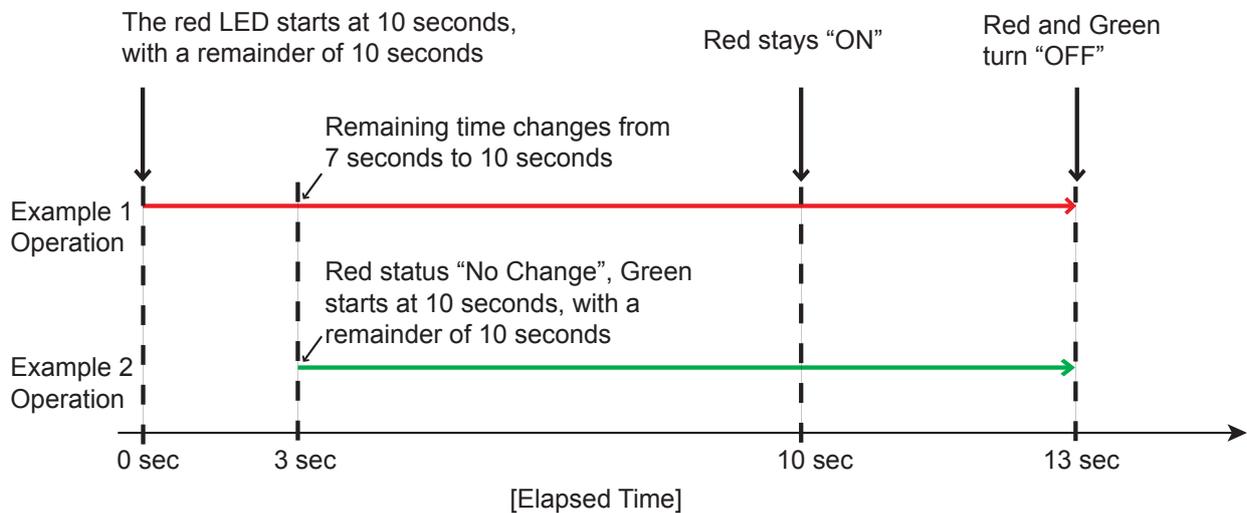
```
rsh 192.168.10.10 -l root alert 199999 10
```

Ex. 2) 3 seconds after "Ex.1)", transmit the command to the products IP address [192.168.10.10]. Use the login name [root], then execute the following commands of [Green Lighting; other colors no status change; no buzzer status change] for 10 seconds.

```
rsh 192.168.10.10 -l root alert 991999 10
```

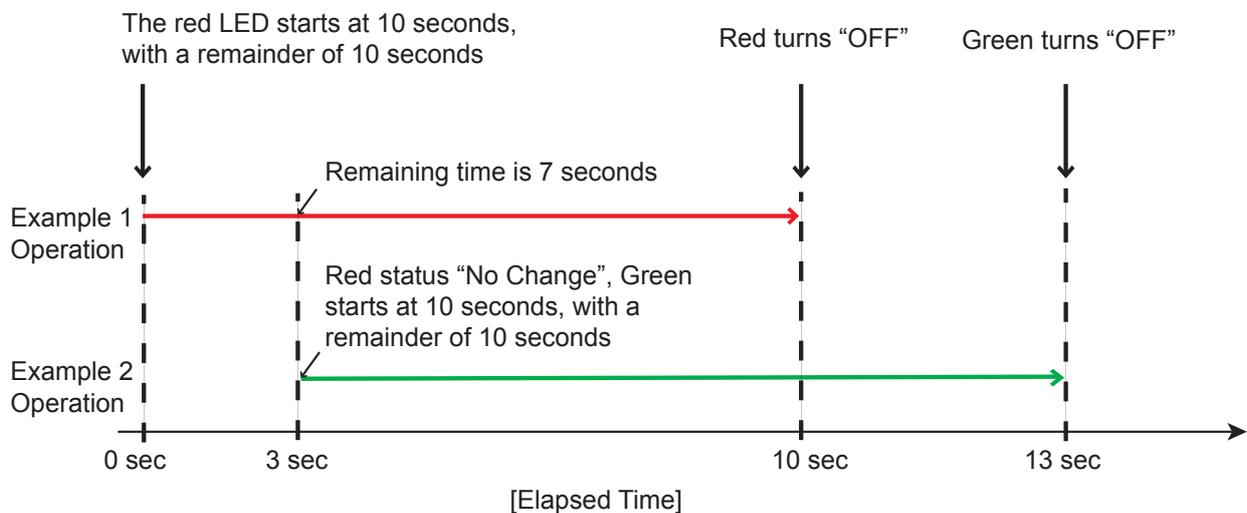
Alert Timer Reset Function set for "Shared"

The execution affects the influence of the timer when the command is sent.



Alert Timer Reset Function set for "Individual"

The execution does not affect the influence of the timer when the command is sent.



3.9. Ping Monitoring Function

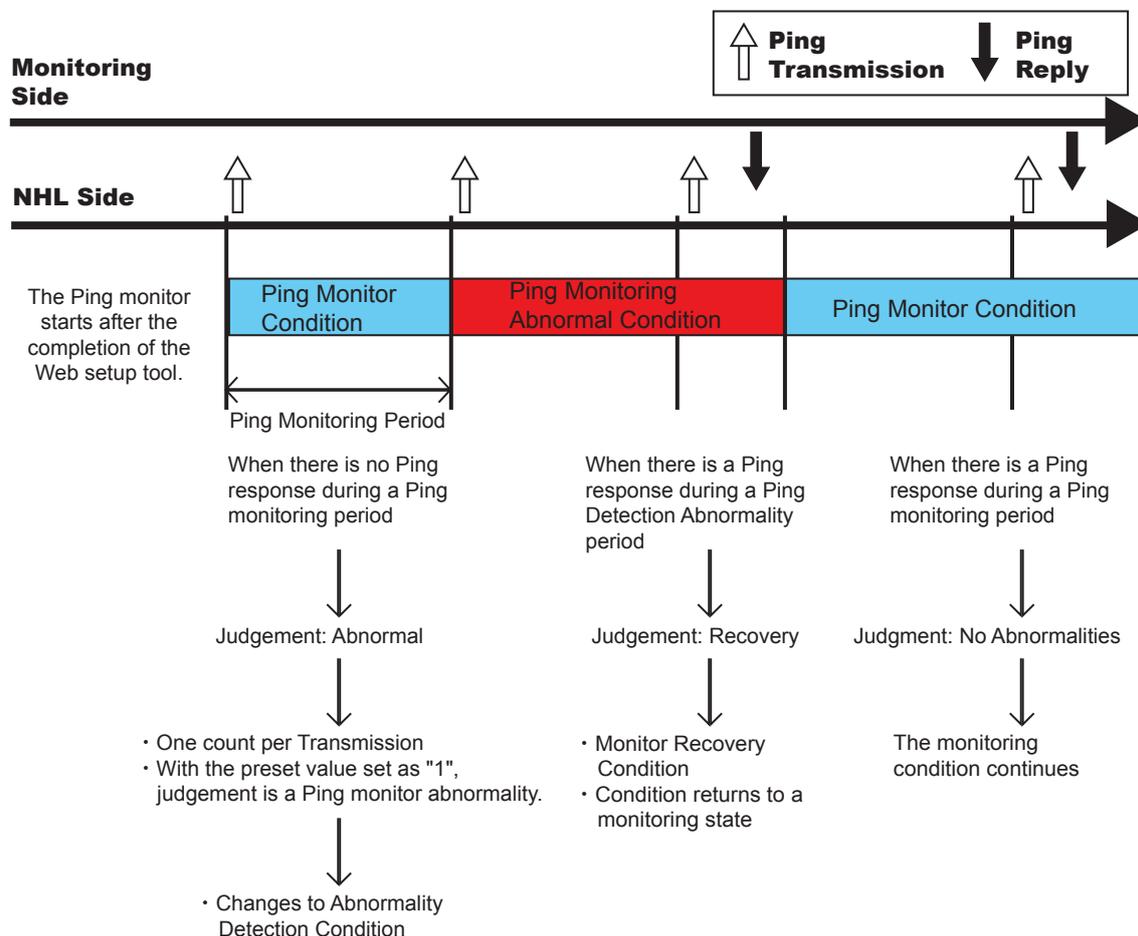
The Ping Monitoring Function is used to monitor the response of a device in a network, by sending pings for up to 24 devices. Each device may be set to have a unique ping cycle and, if there is a failure in response, a unique light and buzzer status to indicate when there is a failure to respond. With a maximum of 24 devices that can be monitored, the first 12 devices include a number of 60 second ping cycles in the test. For the remaining 12 devices (13-24), the Ping Monitoring Function has a few more adjustable parameters, "Ping test cycle period" to send from 1 to 600 seconds worth of Pings for monitoring, and "Pings per test cycle" to have from 1 to 3 Pings to send for each monitoring cycle sent. Refer to "4.10 Ping Monitoring Configuration Screen" on pg. 72 for details on the setting method.

3.9.1. Ping Monitoring Function (Nodes 1 to 12)

For devices numbered 1-12, one Ping is fixed to be sent every 60 seconds. If there is no Ping response during the one minute that the response exceeds the number entered in the "Cycle count Error threshold (1-30)" parameter, an "abnormality" judgement occurs, and the result causes a status change based on the Ping Monitor Settings, which could include triggering lights, buzzer and other actions.

Figure 3.9.1 below shows the behaviour when the "Cycle count Error threshold (1-30)" is set to "1."

Fig. 3.9.1 Ping Monitoring Function (For Ping Monitor Setting Screen No. 1 to 12)



If a "Clear" operation (Pressing the "Clear" switch, sending an RSH-PRSH "Clear" command, sending a PNS "Clear" command in accordance to the condition, transmit an SNMP Clear, execute an HTTP "clear" command, or execute a "Clear" from the Signal Tower operation screen) is executed when a monitoring detection is active, it will return to the monitoring condition from the abnormality detection status.

Attention

Even with the double-push clear setting, once the clear button is pressed, the status will return to the monitoring condition.

For other functions outside the "Clear" operation, because they do not control the abnormality detection condition, the Ping monitor abnormality status will remain uncleared. Any operations outside a "Clear" command may be due to the Ping Monitoring Function which continues to remain active when it is in operation.

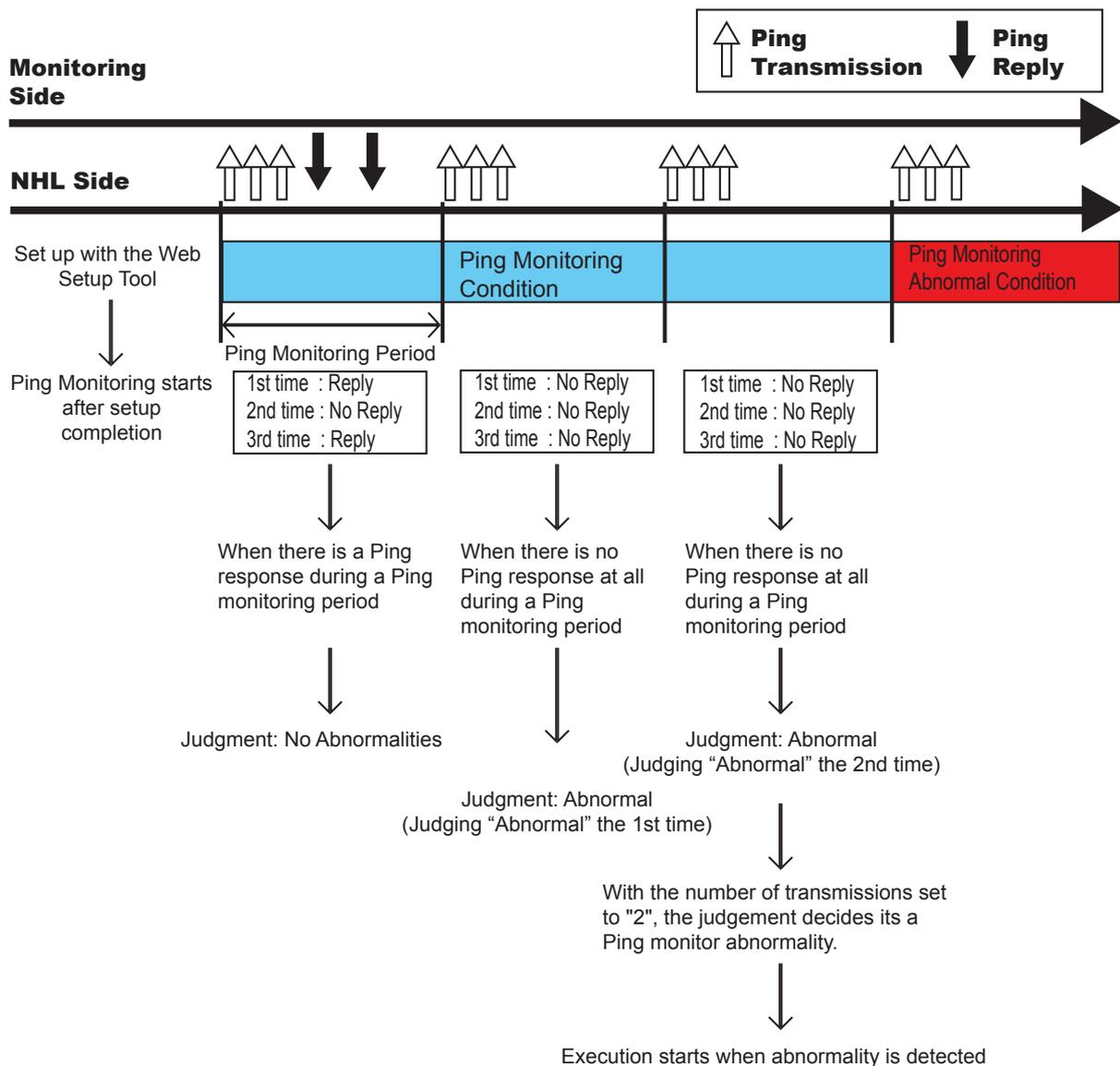
3.9.2. Ping Monitoring Function (Nodes 13 to 24)

For devices numbered 13-24, the "Cycle count Error threshold (1-30)", "Ping test cycle period (1-600 sec)" and "Pings per test cycle (1-3)" in a test are all configurable. If there are no Ping responses during the time of the configured "Cycle count Error threshold (1-30)" value, an "abnormality" judgement occurs, and the result causes a status change based on the Ping Monitor Settings, which could include triggering lights, buzzer and other actions.

The diagram in Fig. 3.9.2 shows the behaviour when the "Cycle count Error threshold (1-30)" is set to "2", and the "Pings per test cycle (1-3)" is set to "3". In this case, the "abnormality" condition occurs after the second sequential "Cycle count Error threshold", when there was no Ping response.

MEMO When the Abnormality Judgement Value is set as a "1", if the next Ping Monitoring Abnormality Condition is judged as "no abnormality", then the number of judging abnormality is cleared (back to "0").

3.9.2 Ping Monitoring Function (For Ping Monitor Setting Screen No. 13 to 24)



Attention If a "Clear" operation (Refer to "3.11 "Clear" Control Function" on pg. 45) is executed when a monitoring detection is active, it will return to the monitoring condition. With the double-push clear setting, the status will return to the monitoring condition on the first press of the "CLEAR" button.

3.9.3. Ping Monitoring Function ("Clear" Command Outside Sources)

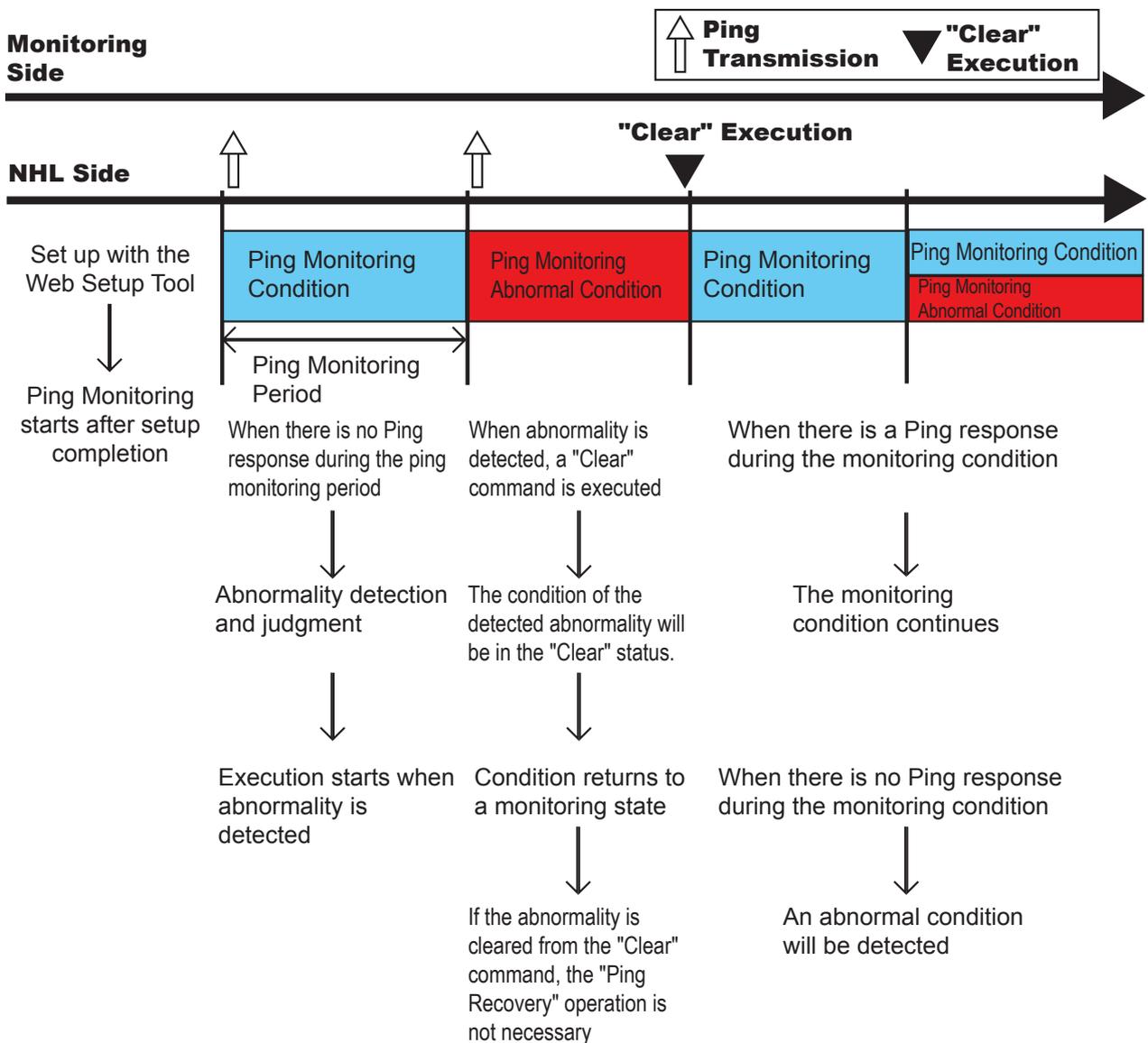
(When a "Clear" execution from an outside source is requested at the time of abnormality detection)

The following is an example for the procedure when an executed "Clear" command is received from an outside source while the Ping Monitoring function detects an abnormality ("Clear" command executed via the "Clear" switch, RSH "Clear" Command, PNS "Clear" command, SNMP "Clear" Command, HTTP "clear" command, or a "Clear" Command from the Web Setup Tool).

Example) When a "Clear" command is transmitted from an outside source at the time an abnormality is detected by the Ping Monitor.

1. From the monitoring condition, when a monitoring abnormality occurs, the condition of the Signal Tower changes at the time of detecting the abnormality.
2. If a "Clear" command is received during the abnormality detection, the status of abnormality detection will be cleared and it will return to its normal mode.
3. If there is a Ping response from the next Ping monitor execution, the monitoring condition will continue as normal. If there is no response, the condition will immediately return to the abnormality detection mode.

Fig. 3.9.3 Setting screen 21 to 24 operation flow-chart example



Attention In cases where it returns to a monitoring condition from a "Clear" command, it will not branch to the "Ping Recovery" operation from an abnormal detection.

- Intro
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

3.10. Application Monitoring Function

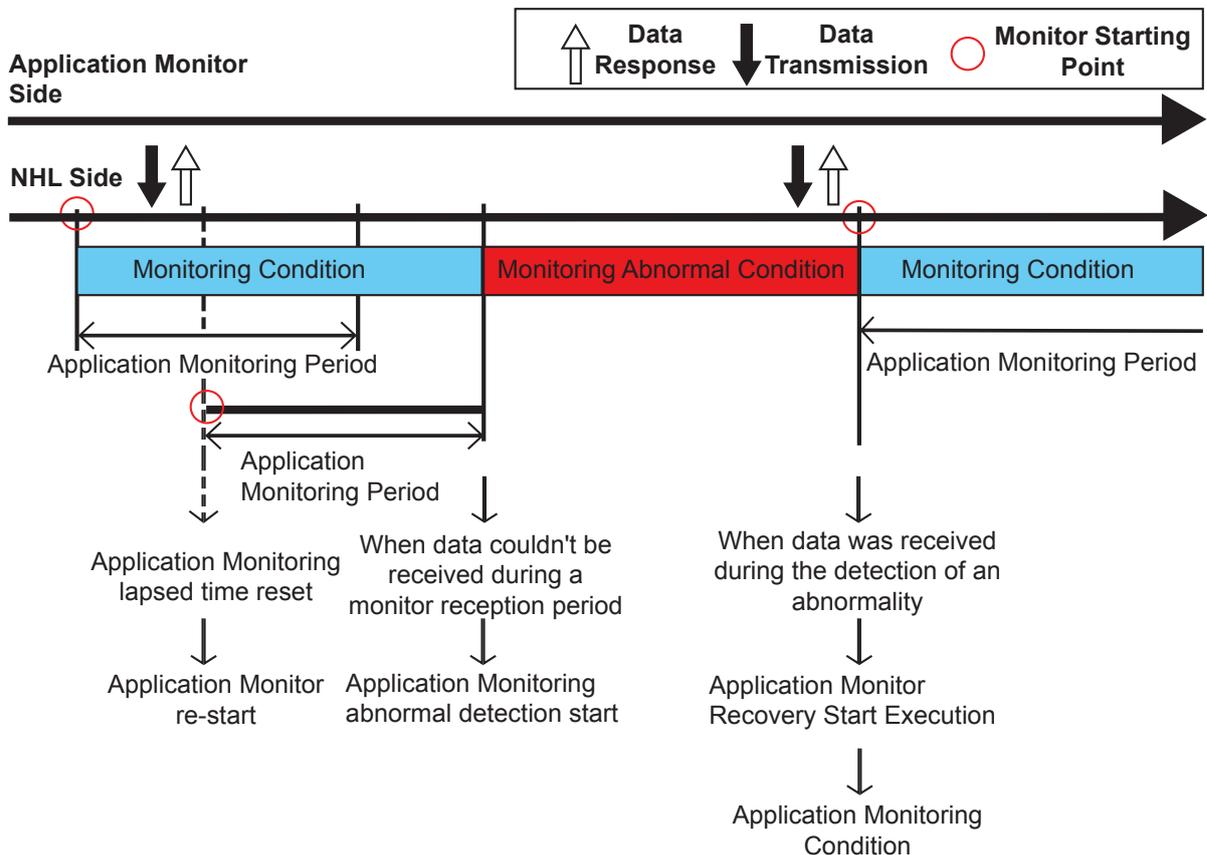
By creating an additional transmission command for a customer's application, this product can monitor the response of the application by receiving the data from it.

If data is not received within the monitoring cycle period, it makes a judgement that the communication has become abnormal, and at the time of the abnormality, sends a status change to the Signal Tower. After a generated event, if data is received from the monitored candidate, it will detect a recovery from the abnormal operation. Refer to "4.11 Application Monitoring Configuration Screen" on pg. 76 for details on the setting method.

As an example, with a monitoring cycle of 30 seconds, the received data from the application is monitored.

1. After the setup is complete and it receives data from the address monitoring point, the monitoring will commence.
2. If data is received within the monitoring cycle of 30 seconds, it will be judged as having no abnormalities.
3. However, if the data is not able to be received within the allotted cycle (30 seconds in this example), it makes a judgment of abnormality.
Once judged as abnormal, the operation at the time of the detected abnormality is carried out.
4. If data is received from the application after detecting a generated event of abnormality, it will detect a recovery from the abnormality.
The operation at the time of recovery from the abnormal condition will return to its monitoring condition again.

Fig. 3.10.1 Detailed Example of Application Monitoring



Attention

- If monitoring is started from the time of receiving data and the connection is cut-off, monitoring is stopped.
- Recovery from an abnormal operation can only occur if a monitored Condition was detected as abnormal.
- Transmit data to the receive port of the application Monitor function of this product by a TCP protocol.
- The same port number cannot Be set as a Socket Transmission function and an application Monitor function.

MEMO

It monitors from the use of voluntary data received.

3.11. "Clear" Control Function

The "Clear" operation is accessible from the following commands; "Clear" command executed via the "Clear" switch, RSH "Clear" Command, PNS "Clear" command, SNMP "Clear" Command, HTTP "Clear" command, or a "Clear" Command from the Web Setup Tool.

Refer to "4.12 "Clear" Control Configuration Screen" on pg. 79 for details on the setting method.

3.12. Normal Mode Settings

The Signal Tower can be set up to display its "normal state of operation", based on the user's preference for lights and buzzers to be on when no warning conditions occur. Refer to "4.13 Normal Mode Settings Screen" on pg. 80 for details on setting it up via the Web Setup Tool.

3.13. Reinitialization Function

From the Web Setup Tool, this unit can be reinitialized to revert all settings back to the default (factory) settings, while leaving the network settings as is when resetting the other settings. Refer to "4.18 Reinitialize Screen" on pg. 90 for details on the setting method.

Also, it can initialize the network settings of this product to its default settings in addition to returning the other settings to their default settings.

【Method for full initialization, including the network setup】

1. Set the volume level switch to the "HIGH" position.
2. Turn on the power supply while simultaneously pushing the "TEST" switch.
3. After the Signal Tower does an all-point lighting test, the Signal Tower lights go out. Release the switch after all the Signal Tower lights are out.
4. The Signal Tower will light up again about 1 minute after. The Signal Tower will then flash Pattern1 afterward to indicate the initialization is complete.
5. Push the clear button to stop the flashing.

※ If the Ping monitor etc. are set up, an abnormal operation detection may occur.

【Method for initialization to revert the network settings back to the factory default value】

1. Set the volume level switch to the "OFF" position.
2. Turn on the power supply while simultaneously pushing the "CLEAR" and "TEST" switch.
3. After the Signal Tower does an all-point lighting test, the buzzer will make an audible sound. Release the switch after the buzzer sounds.
4. When the Signal Tower goes out, it indicates the completion of initialization.

Table 3.13.1 Setting after default function executed

| Item | Execution Method | | | |
|--|------------------------------------|--|-------------------------------------|----------------------------|
| | Web Setup Tool | | NH Unit Controls | |
| | "Network Reinitialized and checked | "Network Reinitialized without being checked | Only Network Settings Reinitialized | Factory Default Conditions |
| Network Setting | Set to default value | Setting is Saved | Set to default value | Set to default value |
| Password | Set to "patlite" | Set to "patlite" | Set to "patlite" | Set to "patlite" |
| Setup Menu (excluding Password & Network menu) | Set to default value | Set to default value | Setting is Saved | Set to default value |
| Function | Set to default value | Set to default value | Setting is Saved | Set to default value |
| Status/Operation Log | Erased | Erased | Erased | Erased |

Attention

Do not overexert pressure to the "CLEAR" switch, "TEST" switch and volume level switch. Failure to comply may damage the unit.

MEMO

"Network Setup" refers to the "IP address for this product, Net Mask, Default Gateway, DNS server address and Host Name" parameters in the System Configuration Screen.

3.14. Event Log Output Function

The Web Setup Tool displays an event log. Moreover, it is possible to download it as a text file. The following is the description of the recording mode labels for the event log.

| | | | |
|---------------|---|----------------|--|
| Event Name | coldStart | Event Contents | No Display |
| Event Details | Records at the moment of start up. | | |
| Event Name | ACCESS | Event Contents | No Display |
| Event Details | Records at the moment of authentication failure. Records at the moment of Web login failure. | | |
| Event Name | MAIL | Event Contents | E-mail Transmission |
| Event Details | Records at the moment of an e-mail transmission. | | |
| Event Name | TRAP | Event Contents | Trap reception IP address and the designated sender |
| Event Details | When a registered Trap is received, it is recorded with the IP address of the designated sender. | | |
| Event Name | PING | Event Contents | Ping monitor abnormalities and the IP address object Ping abnormality response and the IP address object |
| Event Details | It records when the Ping monitor status changes. "Ping Monitoring Error": When an abnormality event in the Ping monitor occurs, it records it with the target IP address. "Ping Recovery": When an abnormality in the Ping monitor is restored, it records it with the target IP address. | | |
| Event Name | APL | Event Contents | Application Monitoring Error Applicaton Recovery |
| Event Details | It records when an abnormality in the application monitor is detected. "Application Monitoring Error": It records when the abnormalities in an application monitor occurs. "Applicaton Recovery": It records when the abnormality in the application monitor is restored. | | |
| Event Name | CLEAR | Event Contents | "CLEAR Switch" "SNMP" "RSH" IP address and designated sender "Web Setup Tool " "PNS Command" "HTTP Command" |
| Event Details | The Signal Tower is returned to its normal operating status during operation. "CLEAR" Switch": It records when the clear switch to this product is pushed. "SNMP": It records when a "CLEAR" has been executed by the SNMP Command (controlLightSnmpClear). "RSH": It records when a "CLEAR" has been executed by the RSH Command, and displays the designated sender IP address. "PNS Command": It records when a "CLEAR" has been executed by the PNS Command. "HTTP Command" : It records when a "CLEAR" has been executed by the HTTP Command. | | |
| Event Name | RSH | Event Contents | IP address, command argument, and the "alert" designated sender.※ "Status" "Test" |
| Event Details | It records when the RSH Command is executed. (The "clear" execution is not included) "ALERT": When the alert command is executed, it records the argument and designated sender IP address. ※ An IP address is not written in cases where the designated sender address is inactivated. "Status": The status command is recorded at the time of execution. "Test": The test command records at the time of execution. | | |
| Event Name | SNMP | Event Contents | "CONTROL" |
| Event Details | When this product is operated by the SNMP Set Commands, the Signal Tower color and buzzer conditions are recorded. The applicable command is "controlLightControlState". | | |

| | | | |
|---------------|--|----------------|-------------------------------|
| Event Name | SLMP | Event Contents | "SLMP-Action" "SLMP-Error" |
| Event Details | An output occurs when an SLMP trap is detected. "SLMP Action Execute_": Records when an operation based on the setup conditions is detected. "SLMP Error_": Records event when an error is detected. | | |

| | | | |
|---------------|---|----------------|---|
| Event Name | SRC_PORT | Event Contents | "Designated sending port ERROR:SLMP-READ" "SLMP-Error" |
| Event Details | When the designated sender port is established when the SLMP command transmission can not be read, it is recorded with a preset number. | | |

| | | | |
|---------------|--|----------------|-----------|
| Event Name | HTTP | Event Contents | "CONTROL" |
| Event Details | When this product is operated by the HTTP Command, it is recorded with the parameter. (The "clear" execution is not included) | | |

* "" is not recognized in the log.

3.15. Configuration Data Save/Load Setup

The setting menu for this product is read and can be saved as configuration data on the PC. Also, configuration data which was read can be selected to be written in. The configuration setup is done from the Web Setup Tool. Refer to "4.21 Configuration Data Setup Screen" on pg. 93 for the setting method.

Attention

Confirm that the firmware version of the Main Unit with the firmware version to overwrite with. If the firmware version in the Main Unit is too old, it cannot be overwritten.

Be sure to acquire a prior firmware version to overwrite with before overwriting with the latest firmware.

3.16. Firmware Update Function

The firmware for this product can be updated. The firmware is updated via the Web Setup Tool. Refer to "4.23 Firmware Update Screen" on pg. 95 for the setting method.

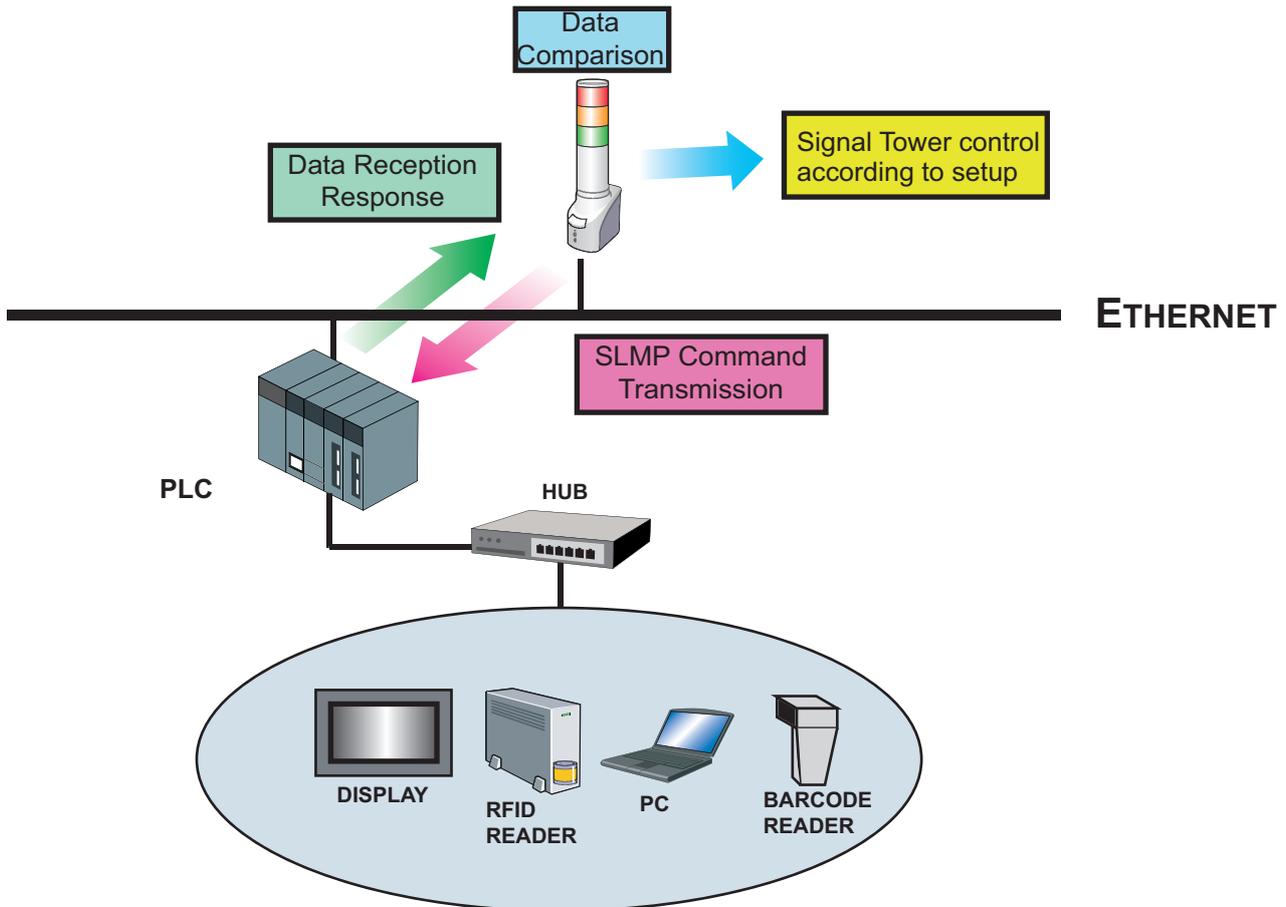
3.17. SLMP Command Transceiver Function

The device on the equipment designated for SLMP uses the command to acquire information from the device with periodic transmissions. When comparing the conditions based on the agreement conditions, if the acquired information agrees, the operation set for the condition is executed. In addition, if error data is received, the operation specified at the time of an error is executed. The operation based on a condition agreement can be set up for every device acquiring data.

When an error occurs, the operation to handle an error can have a common setup for each device.

Only one point for a device can be acquisitioned. For a bit device, it would be 1 bit; a word device, would be 1 word to acquire device information. For further details on the setting method, Refer to "4.16 SLMP Write Command Configuration Screen" on pg. 87.

The PLC device data is periodically checked.
The NH Series operates according to the acquisitioned value.



It is possible to use SLMP to acquire the device information on the equipment connected to CC-LinkIE or CC-Link.

Attention

- Prior to using this product, refer to the manual on instructions to setup connections for a master station, local broadcasting station, and intelligent device station.
- When a reset or reboot are done on equipment corresponding to SLMP and this product, it should also be rebooted.

3.17.1. SLMP Read Command Transceiver Process Flowchart

The process for the Command Transceiver is in the order from number 1 to 16. When the protocol is set as TCP, connection processing is started from the first command transmission, and only the command transceiver process is performed afterward.

If changed into the following status, the established transmission interval is opened and the following number for the command transceiver process is executed.

- The response data of the command which was transmitted was received.
- The response data was not able to be received within the established timeout limit.
- The command addressee was not established.

The next number of the command transceiver process after No. 16 is No. 1. If a timeout occurs, the cut-off process will occur and re-connection will proceed within the set transmission interval. The transmission interval can be selected from 10 ms, 50 ms, and 100 ms.

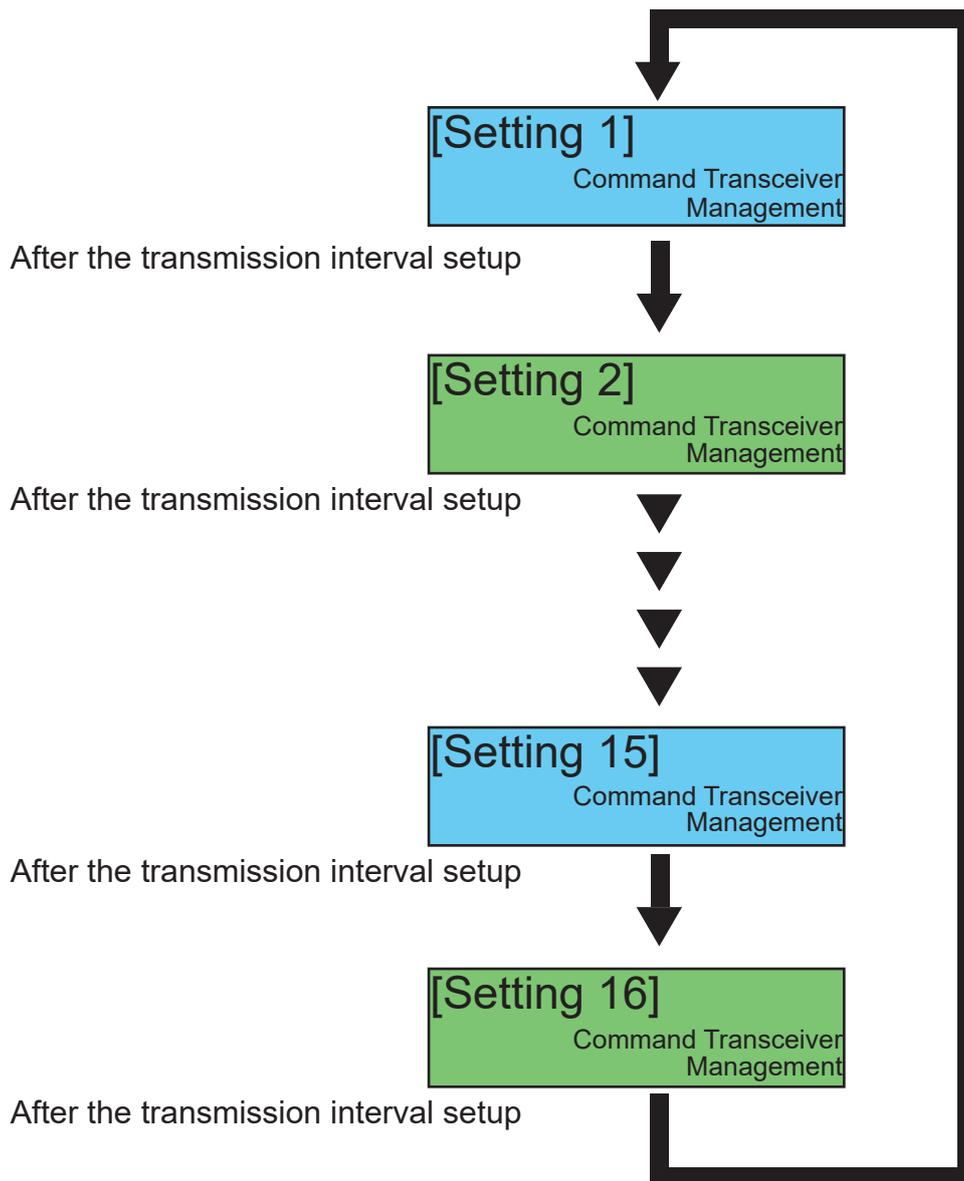


Fig. 3.17.1 SLMP Command Transceiver Function Operational Details 1

Attention

- Do not send a command transmission when the addressee and the address port number is not established.
- The shortest number of seconds for the transmission interval is set.

3.17.2. SLMP Read Command Transceiver Operation (During Acquisition Agreement)

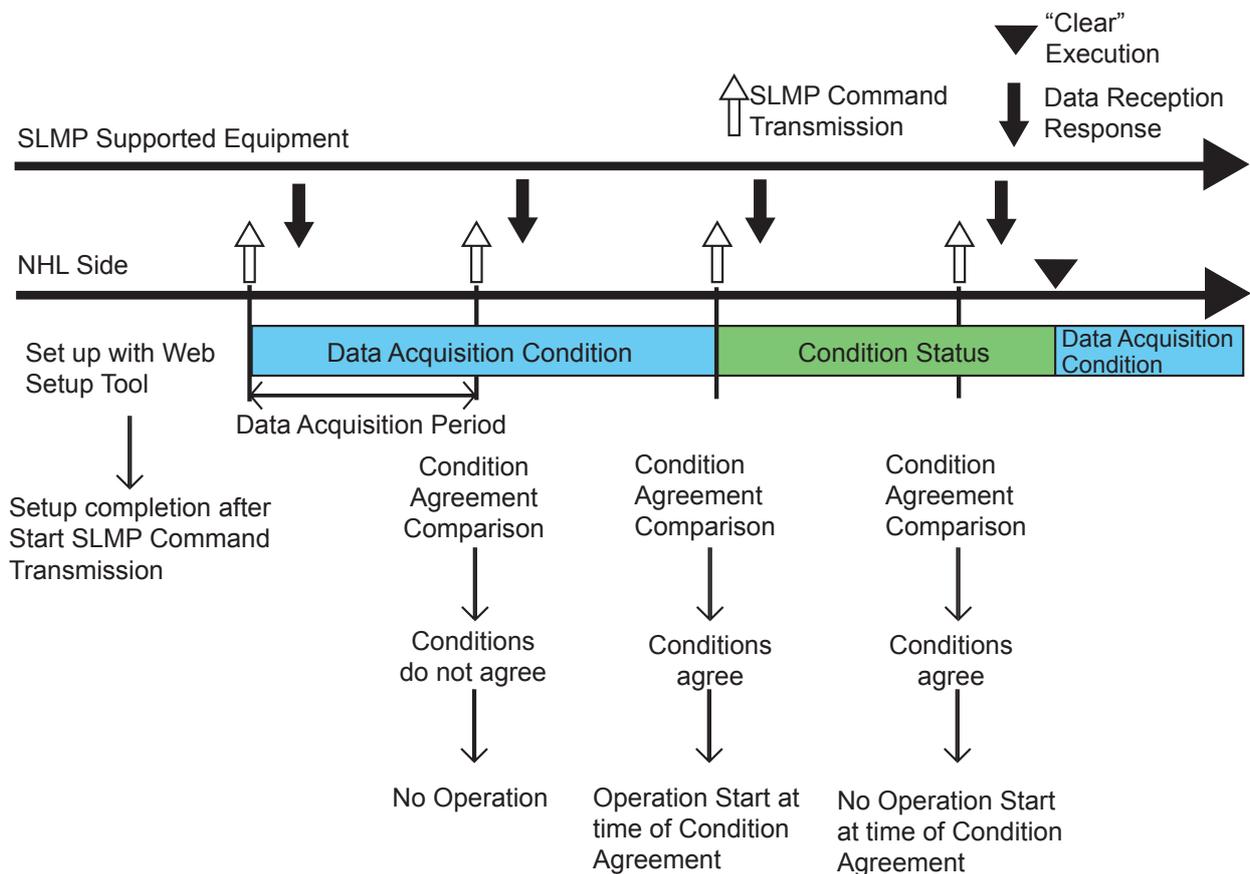
Device information from SLMP corresponding equipment can be acquisitioned. The comparison of the set agreement conditions for the acquired information is made and the operation of the Signal Tower occurs when the condition agreement is explained.

If the conditions set up are in agreement, a condition agreement status is recognized. If the conditions in the acquired data agree in the condition agreement status, the Signal Tower does not operate. The condition agreement status is cleared when entering a "Clear" operation.

Example: When it acquires device information from the equipment corresponding to SLMP and the condition is in agreement

1. If the contents is set for when the data acquired from the equipment corresponding to SLMP and product are in agreement, the Signal Tower performs its operation at the time of agreement.
2. If it agrees with the data acquired in the condition agreement status, the Signal Tower does not operate.
3. If a "Clear" operation is received in the condition agreement status, the condition agreement status will be cleared and it will return to its monitoring condition.
If the data acquired does not agree on its conditions, it is cleared.

Fig. 3.17.2 SLMP Read Acquisition Command Transceiver Function Operation Flow



3.17.3. SLMP Read Command Transceiver Operation (When Error Occurs)

The following explains the operation at the time of receiving error data from the equipment corresponding to SLMP.

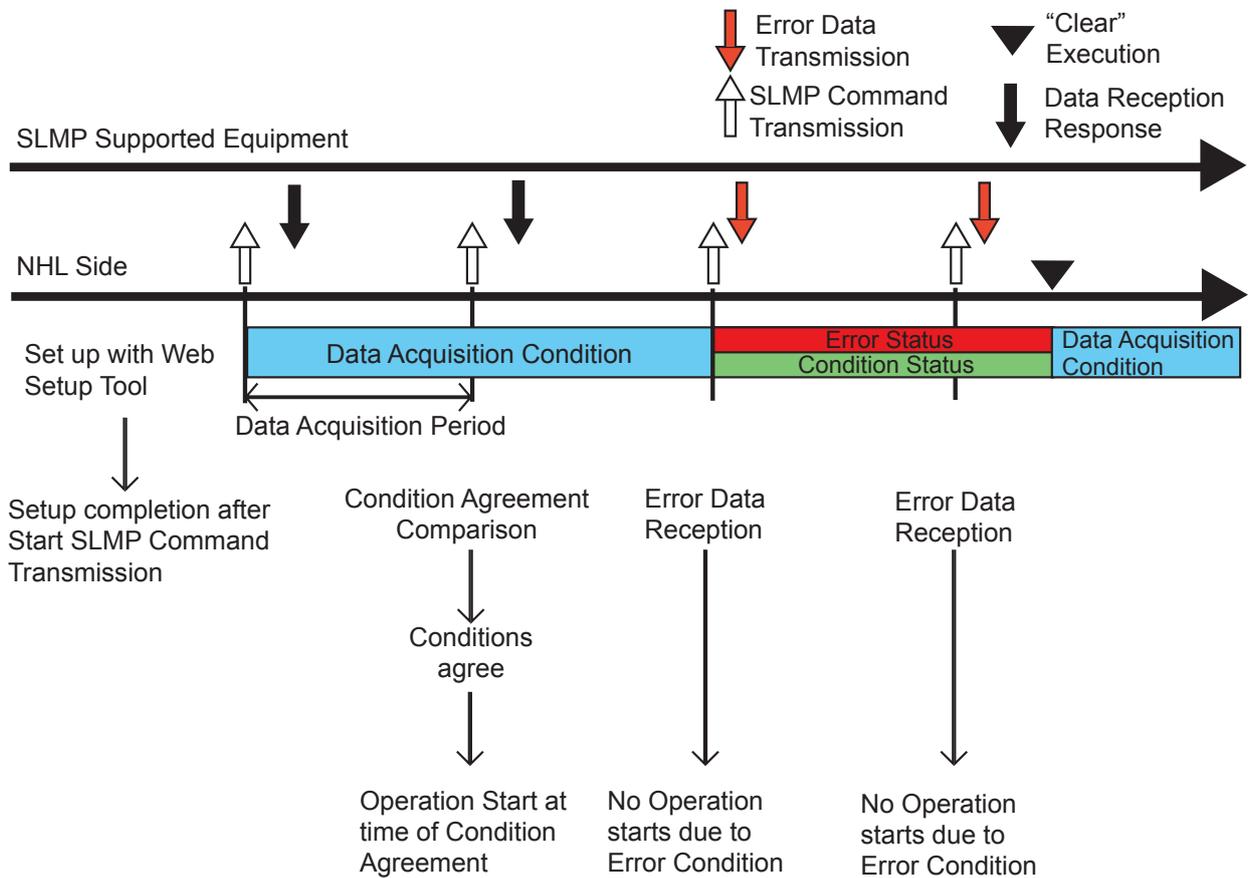
When acquired data information is errored, the operation of a Signal Tower can be set when the data error is received.

If error data is received once, it is recognized as an error condition. If error data is acquired again in a data error status, the Signal Tower does not operate. An error condition is cleared by entering a "Clear" operation.

Example: When acquiring error data from the equipment corresponding to SLMP

1. If the data acquired from the equipment corresponding to SLMP has error data, the Signal Tower operates at the time of error-data reception.
2. If the error data is acquired again in a data error status, the Signal Tower does not operate.
3. If a "Clear" command is received during a data error status, the data error status will be cleared and it will return to the data acquisition status. In addition, if normal data is received during an error condition, the error condition is cleared and it returns to the data acquisition status.

Fig. 3.17.3 SLMP Read Error Command Transceiver Operation Flow



- Intro
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

3.18. SLMP Write Command Transmission Function

A SLMP write command can be transmitted when generating a "Clear" event. The addressee can register a maximum of four places, and can transmit individual command contents to each.

The device can be selected to transmit from one or two points, and if the device is writing in bits, it would be a 1 or 2 bit value, and if set as a word device, one or 2 words of data can be transmitted.

Refer to "4.16 SLMP Write Command Configuration Screen" on pg. 87 for the setup method.

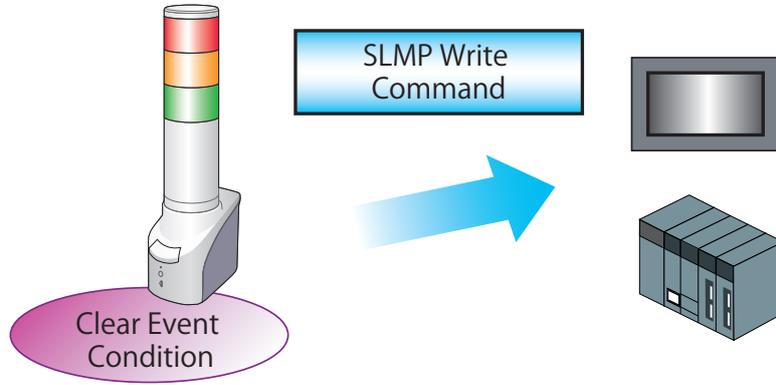


Table 3.18.1 XML Data Item Explanation

| The "Clear" event used as a transmission opportunity |
|--|
| - When the "Clear" switch is pushed |
| - When a "Clear" from SNMP is done |
| - When a "Clear" command from RSH is executed |

Attention If two or more addressees are established, the command transmission management selects one at a time from the low-priority in number order.

3.19. XML Data Output Function

The Signal Tower and buzzer status for this product is acquirable from an XML data format. Refer to "4.22 XML Setup Screen" on pg. 94 for the setting method.

XML data can be obtained in the format shown below:

Fig. 3.19.1 XML Data Format for Signal Tower and Buzzer Status

```
<?xml version="1.0" encoding="utf-8"?>
<signaltower>
  <color/>
  <color name="LED1" value="0"/>
  <color name="LED2" value="1"/>
  <color name="LED3" value="2"/>
  <color name="LED4" value="3"/>
  <color name="LED5" value="0"/>
  <color/>
  <buzzer/>
  <buzzer name="BUZZER" value="4"/>
  </buzzer>
</signaltower>
```

Table 3.19.1 XML Data Item Explanation

| Classification | Description |
|----------------|--|
| color name | The Signal Tower color is shown. The corresponding color is as follows. LED1: Red, LED2: Yellow, LED3: Green, LED4: Blue, LED5: White |
| buzzer name | The buzzer is shown. |
| color value | The Signal Tower status is shown. The corresponding status is as follows. 0: Off 1: On, 2: Flashing Pattern 1, 3: Flashing Pattern 2 |
| buzzer value | The buzzer status is shown. The corresponding status is as follows. 0: Stop, 1: Buzzer Pattern1, 2: Buzzer Pattern2, 3: Buzzer Pattern3, 4: Buzzer Pattern4 |

3.20. HTTP Command Control Function

This product can be controlled by transmitting a HTTP command from the HTTP client. In the System Configuration Screen, "Active" or "Inactive" of this function can be set.

[Specification of HTTP command control]

| | | |
|----------|--|---|
| Protocol | HTTP | |
| Method | GET | |
| Syntax | http://<IP address>/api/control?<parameter name>=<value> | |
| Response | Success. | This message is returned when the control was successful. |
| | Error. [Error code] | This message is returned when the control was unsuccessful. |

| Error code | Description |
|------------|------------------------------------|
| 001 | Unsupported Method. |
| 002 | No such parameter name. |
| 003 | Parameter is not specified. |
| 004 | Parameter value is not specified.. |
| 005 | Illegal parameter values. |

| Parameter | Values | Description |
|-------------------------|----------|---|
| alert=< integer value > | 6 digits | Control the Signal Tower LED units and buzzer. Specify the pattern in order of [rybgcz]. r : Red, y : Amber, g : Green, b : Blue, c : White, z : Buzzer. [rygbc] 0 : Off, 1 : On, 2 : Flashing Pattern 1, 3 : Flashing Pattern 2, 9 : No Change [z] 0 : Stop, 1 : Pattern 1, 2 : Pattern 2, 3 : Pattern 3, 4 : Pattern 4, 9 : No Change |
| clear=< integer value > | 1 | Turn off the LED unit and stop the buzzer. |

Attention

When using the HTTP Command Control function, set "HTTP Command Control Function" to "Active" on System Configuration Screen. Refer to "□4.1. System Configuration Screen□"

3.20.1. Example

<alert>

Red : on, Amber : off, Green : on, Blue : off, White : off, Buzzer : Pattern 2 on

<http://192.168.10.1/api/control?alert=101002>

Red : on, Amber : flashing pattern 1, Green, Blue and White : No Change, Buzzer : Pattern 3 on

<http://192.168.10.1/api/control?alert=129993>

<clear>

Turn off all the Signal Tower Lights and stop the Buzzer.

<http://192.168.10.1/api/control?clear=1>

4. Function Setup

The function setup is available in order to take advantage of the various functions. To access the settings, click the setup items on the left-hand side of the Web Setup Tool to open the set up screen for the various functions.

| Setup Category | Setup Screen | Setup Contents |
|-----------------------|--------------------------------------|---|
| Setup Menu | System Configuration | Sets up the network parameters. |
| | Clock Settings | Sets up the time for this product. |
| | User Authorization Configuration | Sets up the login password for this product. |
| | SNMP Configuration | Sets up the functions for the SNMP SET/GET and TRAP transmission. |
| | Socket Transmission Configuration | Sets up the ports to control the PHN Command and PNS Command outputs. |
| | E-mail Settings | Setup for sending E-mail notifications. |
| | E-Mail Message Settings | Setup for writing the message contents to be transmitted by E-mail. |
| | RSH Command Configuration | Setup for receiving the rsh command and to send the E-mail when an rsh reception and TRAP transmission are executed. |
| Operation Settings | TRAP Reception Configuration | The setup which controls the status condition when a TRAP or TRAP reception is received. |
| | Ping Monitoring Configuration | The setup of the address for the monitored equipment and the management when an abnormality is detected. |
| | Application Monitoring Configuration | The setup is to verify whether data can be received from the monitored object. |
| | “Clear” Control Configuration | The setup for sending an E-mail when the “Clear” switch is pressed, and for the TRAP transmission setup. |
| | Normal Mode Settings | A setting, such as turning on a Green LED Unit, to indicate a normal condition. |
| | “Test” Switch Settings | The setup for sending an E-mail when the “Test” switch is pressed, and for the TRAP transmission setup. |
| | SLMP Read Configuration | Device information for the equipment supporting SLMP is set to for a condition agreement to operate when an error occurs. |
| | SLMP Write Configuration | Set up contents of the write command for when transmitting to the SLMP equipment. |
| NH Unit Controls | Signal Tower Output Control | The Signal Tower status is controlled from the browser. |
| | Reinitialize | The settings return to factory default values. |
| | Reboot | Reboots this product after settings have been changed to put them into effect. |
| Maintenance Functions | Event Log | The event log is displayed and can be downloaded. |
| | XML Settings | Set up the XML Data Output. |
| | Configuration Data Setup | The setup items can be saved as configuration data and reloaded at any time. |
| | Firmware Update | The Firmware update function can be done from this screen. |
| | Setup Table Entries | The list of items, their setup and operation contents, and the current firmware version is displayed. |

Attention

After the desired setup is completed, reboot this product by pressing the “reset” switch or by disconnecting the power and reconnecting it.

4.1. System Configuration Screen

The network parameters for this product can be setup through a browser. The default IP address is "192.168.10.1".

The parameters can be setup from the System Configuration Screen (Fig. 4.1.1 System Configuration Screen) from the default values as shown in Table 4.1.1.

Fig. 4.1.1 System Configuration Screen

The screenshot shows a web-based configuration interface titled "System Configuration". It contains several sections:

- System Information:**
 - Firmware Version: Ver 1.45
 - System Name: Signal Tower
 - System Location: (empty text box)
 - Contact Address: nh@patlite.jp
- IP Address Configuration Method:**
 - Method: Setup Manually Setup Automatically
 - IP Address: 192.168.10.1
 - Net Mask: 255.255.255.0
 - Default Gateway: 0.0.0.0
 - DNS Server Address: 0.0.0.0
 - Host Name: nh.patlite.jp
- HTTP Command Control Function:**
 - Function: Active Inactive

A "Set" button is located at the bottom right of the configuration area.

Table 4.1.1 System Configuration Parameters

| Item | Contents | Default Value | Input Parameter | Setting Option |
|---------------------------------|--|----------------|---|----------------|
| Firmware Version | The current Firmware version is indicated | — | — | — |
| System Name | The name for this product can be set. | Signal Tower | Full/Half-width Characters Maximum 31 Characters | O |
| System Location | The setup location of this product can be entered. | Blank | Half-width alphanumeric characters and underscore " _" Maximum 31 Characters | O |
| Contact Address | Setup the contact address. | nh@patlite.jp | Mail address format Maximum 63 Characters | O |
| IP Address Configuration Method | Select between Manual or Automatic IP address configuration. | Setup Manually | Select Radio Button | X |
| IP Address | Setup the IP address of this product. | 192.168.10.1 | IP address format | X |
| Netmask | Setup the subnet mask of this product. | 255.255.255.0 | IP address format | X |
| Default Gateway | Setup the default gateway of this product. | 0.0.0.0 | IP address format | O |
| DNS Server Address | Setup the DNS server of this product. | 0.0.0.0 | IP address format | O |
| Host Name | Setup a host name | nh.patlite.jp | Enter a legitimate host name Maximum 63 Characters | — |
| HTTP command control function | Select "Active" or "Inactive" for the HTTP command control function. | Active | — | — |

The values for "Setting Option" in this manual has to have a valid entry, or can be left blank.

Attention

- O Indicates the entry can be omissible, or any entry within the set parameters.
- X Indicates the entry cannot be omissible. Enter a valid parameter.
- Indicates an entry which cannot be omitted, or abbreviated. The value has to be entered in accordance to the customer's environment.

4.2. Clock Settings Screen

The Clock Settings for this product can be done through a browser. The Clock Settings can be accessed through the Clock Settings Screen (Fig. 4.2.1 Clock Settings Screen) from the default values as shown in Table 4.2.1.

Fig. 4.2.1 "Clock Settings" Screen

Clock Settings

| Clock Settings | |
|---------------------|--|
| NH Monitoring Clock | <input type="text" value="2010/01/22 21:59:07"/> |
| Host Computer Clock | <input type="text" value="2017/08/10 11:43:53"/> |

| NTP Server | |
|---------------------------------|------------------------------------|
| NTP Server Address | <input type="text"/> |
| Time Calibration Interval (min) | <input type="text" value="0"/> |
| Time Zone | <input type="text" value="UTC+9"/> |

Table 4.2.1 Clock Settings Parameters

| Item | Contents | Default Value | Input Parameter | Setting Option |
|---------------------------|--|---------------|--|----------------|
| NTP Server Address | Setup the NTP server address. | Blank | Server's Host Name or IP address Maximum of 63 characters | 0 |
| Time Calibration Interval | Setup the time interval to synchronize with an NTP server. | 0 | Half-width numbers from 0 to 1440 (minutes) | 0 |
| Time Zone | Setup the time zone. | UTC+9 | — | — |

Two kind of Clock Settings methods are indicated below:

- Synchronizing time with the PC clock when logging in.
- Adjusting the clock in this product when synchronizing with an NTP server.

4.2.1. Synchronizing with the PC clock

Clicking the "Manually Setup Clock" button will synchronize with the time on the PC which has been logged into this product.

[Setup Method]

- ① . Compare the columns between the "NH Monitoring Clock" and the "Host Computer Clock."
- ② . Click the "Manually Setup Clock" button to synchronize the time with the logged in PC.

Attention

- In some cases, this product may not reflect the exact time as the PC, and the clock may be off by several seconds.
- When not using an NTP server, check the time of this product periodically.
- This product uses a capacitor as a battery backup for the time stamp.
- Depending on the charge status of the capacitor, it may last up to a half-day, and if the power supply is not applied during the day, a gap in time or the need to reset the clock may be necessary. If an application environment requires a time entry, be sure to set up the time before the application.
- If the backup is depleted and the time entry resets, the set time will be labeled as "Jan 1, 2010."

Fig. 4.2.2 "Manually Setup Clock" Setup Screen (Before)

| Clock Settings | |
|---|---------------------|
| NH Monitoring Clock | 2010/01/22 21:59:07 |
| Host Computer Clock | 2017/08/10 11:43:53 |
| <input type="button" value="Manually Setup Clock"/> | |

①

②

| NTP Server | |
|------------------------------------|--------------------------------|
| NTP Server Address | <input type="text"/> |
| Time Calibration Interval (min) | <input type="text" value="0"/> |
| Time Zone | UTC+9 ▾ |
| <input type="button" value="Set"/> | |

Fig. 4.2.3 "Manually Setup Clock" Setup Screen (After)

| Clock Settings | |
|---|---------------------|
| NH Monitoring Clock | 2017/08/10 11:45:08 |
| Host Computer Clock | 2017/08/10 11:45:09 |
| <input type="button" value="Manually Setup Clock"/> | |

| NTP Server | |
|------------------------------------|--------------------------------|
| NTP Server Address | <input type="text"/> |
| Time Calibration Interval (min) | <input type="text" value="0"/> |
| Time Zone | UTC+9 ▾ |
| <input type="button" value="Set"/> | |

4.2.2. Synchronizing with an NTP server

An NTP server can be linked by entering the NTP server address to synchronize with the clock in this product, and the time updated by sending a request for time adjustment to that NTP server.

[Setup Method]

- ① . Enter the NTP server address in the “NTP Server Address” column.
- ② . Enter a value for the calibration intervals to communicate with the NTP server in the “Time Calibration Interval (min)” column.
- ③ . Click the “Set” button to activate the setup.

Fig. 4.2.4 NTP Server Settings Screen

| Clock Settings | |
|---------------------|---------------------|
| NH Monitoring Clock | 2010/01/22 21:59:07 |
| Host Computer Clock | 2017/08/10 11:43:53 |

Manually Setup Clock

| NTP Server | |
|---------------------------------|-------|
| NTP Server Address | |
| Time Calibration Interval (min) | 0 |
| Time Zone | UTC+9 |

Set

4.2.3. Setting the Time Zone

Determine the area to be used when setting the time zone.

[Setup Method]

- ① . Select from the “Time Zone” column and click to set.
- ② . Click the “Set” button to activate the setup.

Fig. 4.2.5 Time Zone Setup Screen

| Clock Settings | |
|---------------------|----------|
| NH Monitoring Clock | 11:45:44 |
| Host Computer Clock | 11:45:45 |

Manually Setup Clock

| NTP Server | |
|---------------------------------|-------|
| NTP Server Address | |
| Time Calibration Interval (min) | |
| Time Zone | UTC+9 |

Set

4.3. User Authorization Configuration Screen

Setup a password to log into the Setup Screen for this product.

Enter a password, then re-enter the password to verify its entry, then click the "Set" button to activate it. The next time for logging in will ask for the new password. The password entry will allow up to 16 half-width alphanumeric characters and a period.

[Setup Method]

- ①. Enter the password to be changed into the "Password" column.
- ②. Enter the same password to be changed into the "Re-enter Password" column to verify the entry.
- ③. Click the "Set" button to activate the setup.

Log in with the new password the next time the login screen appears.

Fig. 4.3.1 User Authorization Configuration Screen

The screenshot shows a configuration screen with a purple header. Below the header are two input fields. The first field is labeled 'Password' and the second is labeled 'Re-enter Password'. Both fields are highlighted with red boxes and circled numbers 1 and 2. Below the second field is a 'Set' button, also highlighted with a red box and circled number 3.

Table 4.3.1 User Authentication Configuration Parameters

| Item | Contents | Default Value | Input Parameter | Setting Option |
|-------------------|-------------------------|---------------|---|----------------|
| Password | Setup a new password. | Blank | Half-width alphanumeric character and period "." Maximum 16 Characters | X |
| Re-enter Password | Verify the new password | Blank | Half-width alphanumeric character and period "." Maximum 16 Characters | X |

4.4. SNMP Configuration Screen

With an SNMP, this product can communicate outside the community name for the notification of a TRAP, using the SNMP SET/GET in reference to each item for this product, and generate the event with this product.

4.4.1. SNMP SET/GET

An SNMP SET/GET can be setup.

[Setup Method]

- ① Select the "Active" radio button to enable the SNMP function.
- ② Enter the SET/GET community parameter.

4.4.2. SNMP TRAP Transmission

An SNMP TRAP Transmission can be setup.

[Setup Method]

- ③ Select the "Active" radio button to enable the TRAP transmission function.
- ④ Enter the TRAP Transmission community parameter and the TRAP transmission frequency.
- ⑤ Enter in the TRAP Address column, the IP address for sending the TRAP notification to.
- ⑥ Click the "Set" button to activate the setup.

TRAP command which is transmitted when the TRAP is active

OID: 1.3.6.1.4.1.20440.4.1.6.3
Name: trapPatliteTrapReceived

Fig. 4.4.1 SNMP Configuration Screen

| SNMP Configuration | |
|------------------------------------|--|
| Community Name | |
| SNMP Function | <input checked="" type="radio"/> Active <input type="radio"/> Inactive |
| SET Community | private |
| GET Community | public |
| TRAP Transmission | |
| TRAP Transmission Function | <input type="radio"/> Active <input checked="" type="radio"/> Inactive |
| TRAP Transmission Community | public |
| Number of Trap Transmissions | 1 |
| TRAP Address of Receiver | |
| 1 | <input type="text"/> |
| 2 | <input type="text"/> |
| 3 | <input type="text"/> |
| 4 | <input type="text"/> |
| 5 | <input type="text"/> |
| 6 | <input type="text"/> |
| 7 | <input type="text"/> |
| 8 | <input type="text"/> |
| <input type="button" value="Set"/> | |

Table 4.4.1 SNMP Configuration Parameters

| Item | Contents | Default Value | Input Parameter | Setting Option |
|----------------------------------|--|---------------|---|----------------|
| SNMP Function | Setup to Activate/Inactivate the SNMP function. | Active | — | — |
| SET Community Name | Setup the name to use when reading an SNMP Configuration value. | private | Half-width alphanumeric character and underscore “_” Maximum 32 Characters | — |
| GET Community Name | Setup the name to use when writing an SNMP Configuration value. | public | Half-width alphanumeric character and underscore “_” Maximum 32 Characters | — |
| TRAP Transmission Function | Setup to Activate/Inactivate the trap transmission function. | Inactive | — | — |
| TRAP Transmission Community Name | Setup the community name for the trap which is transmitting. | public | Half-width alphanumeric character and underscore “_” Maximum 32 Characters | — |
| TRAP Transmission Frequency | Setup for the number of times a trap can be transmitted | 1 | Half-width numbers from 1 to 10 | — |
| TRAP IP Address to Receiver | IP address format for the destination of sending a TRAP transmission to. | Blank | Characters which can be used for a server address Maximum 63 Characters | 0 |

4.5. Socket Transmission Configuration Screen

Set up for the use of the PHN Command and PNS Command with Socket Transmission.

[Setup Method]

- ①. Select either “TCP” or “UDP” radio button in the “Protocol” field for the communication method.
- ②. Enter the port to be used in the “Port Number” field.
- ③. Click the “Set” button to save all entries.

Fig. 4.5.1 Socket Transmission Configuration Screen

Socket Transmission Configuration

Socket Communications

| | | |
|---------------------------|--|---|
| Protocol | <input checked="" type="radio"/> TCP <input type="radio"/> UDP | ① |
| Port Number (10000-65535) | 10000 | ② |

③

Table 4.5.1 Socket Transmission Configuration Parameters

| Item | Contents | Default Value | Input Parameter | Setting Option |
|-------------|-------------------------------|---------------|--|----------------|
| Protocol | Select between TCP or UDP | TCP | — | — |
| Port Number | Set the reception port number | 10000 | Half-width numbers from 10000 to 65535 | — |

MEMO

Refer to "3.5 PHN Command Reception Function" on pg. 31 for PHN Commands.
Refer to "3.6 PNS Command Reception Function" on pg. 33 for PNS Commands.

4.6. E-Mail Settings Screen

This product can be set up to send E-mail messages. The following are events which will transmit E-mail messages. When transmitting an E-mail, it is transmitted in sequence from the smaller address number to the larger address number of the recipient.

E-mail Transmitting Event

- At the time of an RSH command reception
- At the time of a TRAP reception
- At the time when the "CLEAR" button is pressed.
- At the time when a "Clear SNMP" command is executed.
- At the time when an SLMP Write Command Condition occurs.
- At the time when an SLMP Write Command Error Condition occurs.
- At the time of a Ping monitoring abnormality and Ping recovery event.
- At the time of an application monitoring abnormality and recovery event.

[Setup Method]

- ① Set up the SMTP mail server address and port number.
- ② When using the SMTP authentication, set up the account name and SMTP authentication password.
- ③ When using the POP authentication, set up the POP account name and POP authentication password.
- ④ Select "None" for when authentication is not necessary.
- ⑤ Set up in the designated sender address column the designated sender's E-mail address.
- ⑥ Set up the recipient's address.
- ⑦ Click the "Set" button to save all settings.

Fig. 4.6.1 E-Mail Settings Screen

| E-Mail Settings | | | | | | | | | |
|--|---|---|---|-------------------|----------------------------------|------------------------------|----------------------|-----------------------------|----------------------|
| Server Configuration | | | | | | | | | |
| SMTP Server Address | <input type="text" value="0.0.0.0"/> | | | | | | | | |
| SMTP Port Number | <input type="text" value="25"/> | | | | | | | | |
| Method | <input type="radio"/> SMTP Authentication <table border="1" style="margin-left: 20px;"> <tr> <td>Encrypted Connection</td> <td><input type="radio"/> SSL <input type="radio"/> TLS <input checked="" type="radio"/> None</td> </tr> <tr> <td>SMTP Account Name</td> <td><input type="text"/></td> </tr> <tr> <td>SMTP Authentication Password</td> <td><input type="text"/></td> </tr> </table> | Encrypted Connection | <input type="radio"/> SSL <input type="radio"/> TLS <input checked="" type="radio"/> None | SMTP Account Name | <input type="text"/> | SMTP Authentication Password | <input type="text"/> | | |
| | Encrypted Connection | <input type="radio"/> SSL <input type="radio"/> TLS <input checked="" type="radio"/> None | | | | | | | |
| | SMTP Account Name | <input type="text"/> | | | | | | | |
| | SMTP Authentication Password | <input type="text"/> | | | | | | | |
| | <input type="radio"/> POP Authentication <table border="1" style="margin-left: 20px;"> <tr> <td>POP Server Address</td> <td><input type="text"/></td> </tr> <tr> <td>POP Port Number</td> <td><input type="text" value="110"/></td> </tr> <tr> <td>POP Account Name</td> <td><input type="text"/></td> </tr> <tr> <td>POP Authentication Password</td> <td><input type="text"/></td> </tr> </table> | POP Server Address | <input type="text"/> | POP Port Number | <input type="text" value="110"/> | POP Account Name | <input type="text"/> | POP Authentication Password | <input type="text"/> |
| | POP Server Address | <input type="text"/> | | | | | | | |
| | POP Port Number | <input type="text" value="110"/> | | | | | | | |
| POP Account Name | <input type="text"/> | | | | | | | | |
| POP Authentication Password | <input type="text"/> | | | | | | | | |
| <input checked="" type="radio"/> No Authentication | | | | | | | | | |
| Transmission Settings | | | | | | | | | |
| Source Address | <input type="text"/> | | | | | | | | |
| Address of Receiver | 1 <input type="text"/> | | | | | | | | |
| | 2 <input type="text"/> | | | | | | | | |
| | 3 <input type="text"/> | | | | | | | | |
| | 4 <input type="text"/> | | | | | | | | |
| | 5 <input type="text"/> | | | | | | | | |
| | 6 <input type="text"/> | | | | | | | | |
| | 7 <input type="text"/> | | | | | | | | |
| | 8 <input type="text"/> | | | | | | | | |
| <input type="button" value="Set"/> | | | | | | | | | |

Table 4.6.1 E-E-Mail Settings Parameters

| Item | Contents | Default Value | Input Parameter | Setting Option |
|---------------------------------|--|-------------------|--|----------------|
| SMTP Server Address | Set the IP Address of the SMTP Server | 0.0.0.0 | Characters which can be used for a server address Maximum 63 Characters | — |
| SMTP Port Number | Set the port number of the SMTP Server | 25 | Half-width numbers from 1 to 65535 | — |
| Authentication Protocol | Select among "SMTP Authentication/POP Authentication/No Authentication". | No Authentication | — | — |
| Encrypted Connection | Select between "SSL", "TLS" or "None". | None | — | — |
| SMTP Account Name | Set the user name for SMTP Authentication. | Blank | Half-width alphanumeric characters, characters which can be used for E-mail addresses Maximum 32 characters | ○ |
| SMTP Authentication Password | Set up the password for SMTP Authentication. | Blank | Half-width alphanumeric characters Maximum 32 characters | ○ |
| POP3 Server Address | Set up the POP3 server IP Address. | Blank | Characters which can be used for a server address Maximum 63 Characters | ○ |
| POP3 Port Number | Set up the port number for the POP3 server. | 110 | Half-width numbers from 1 to 65535 | — |
| Account Name | Set up the user name of the POP Authentication. | Blank | Half-width alphanumeric characters, characters which can be used for E-mail addresses Maximum 32 characters | ○ |
| Password | Set up the password for POP Authentication | Blank | Half-width alphanumeric characters Maximum 32 characters | ○ |
| Source Address | Set up the E-mail address for the designated sender. | Blank | Characters which can be used for an E-mail address Maximum 63 Characters | ○ |
| Address of Receiver 1 through 8 | Set up the destination addresses for the E-mail to be sent to. | Blank | Characters which can be used for an E-mail address Maximum 63 Characters | ○ |

4.7. E-Mail Message Settings Screen

The following is the setup of E-mail subject titles and message contents for E-mail Sending. When sending E-mails, the contents can be personalized to match the coinciding mail notifications by entering a subject title and message content to transmit.

[Setup Method]

- ①. Enter in the "Subject" field a subject title to transmit by e-mail.
(Use full or half-width alphanumeric characters of up to 31 characters)
- ②. Enter in the "Message" field a text message to transmit by e-mail.
(Use full or half-width alphanumeric characters of up to 63 characters)
- ③. Click the "Set" icon button to save all entries.

Fig. 4.7.1 E-Mail Message Settings Screen

E-Mail Message Settings

| Subject | | | |
|---------|--|----|--|
| 1 | <input type="text" value="Message from Signal Tower"/> | 9 | <input type="text" value="Message from Signal Tower"/> |
| 2 | <input type="text" value="Message from Signal Tower"/> | 10 | <input type="text" value="Message from Signal Tower"/> |
| 3 | <input type="text" value="Message from Signal Tower"/> | 11 | <input type="text" value="Message from Signal Tower"/> |
| 4 | <input type="text" value="Message from Signal Tower"/> | 12 | <input type="text" value="Message from Signal Tower"/> |
| 5 | <input type="text" value="Message from Signal Tower"/> | 13 | <input type="text" value="Message from Signal Tower"/> |
| 6 | <input type="text" value="Message from Signal Tower"/> | 14 | <input type="text" value="Message from Signal Tower"/> |
| 7 | <input type="text" value="Message from Signal Tower"/> | 15 | <input type="text" value="Message from Signal Tower"/> |
| 8 | <input type="text" value="Message from Signal Tower"/> | 16 | <input type="text" value="Message from Signal Tower"/> |

①

| Message | |
|---------|----------------------|
| 1 | <input type="text"/> |
| 2 | <input type="text"/> |
| 3 | <input type="text"/> |
| 4 | <input type="text"/> |
| 5 | <input type="text"/> |
| 6 | <input type="text"/> |
| 7 | <input type="text"/> |
| 8 | <input type="text"/> |
| 9 | <input type="text"/> |
| 10 | <input type="text"/> |
| 11 | <input type="text"/> |
| 12 | <input type="text"/> |
| 13 | <input type="text"/> |
| 14 | <input type="text"/> |
| 15 | <input type="text"/> |
| 16 | <input type="text"/> |

②

③

Table 4.7.1 E-Mail Message Settings Parameters

| Item | Contents | Default Value | Input Parameter | Setting Option |
|-----------------|--|---------------------------|---|----------------|
| Subject 1 to 16 | Subject titles from 1 to 16 can be entered | Message from Signal Tower | Full or half-width alphanumeric characters Maximum 31 Characters | 0 |
| Message 1 to 16 | Messages from 1 to 16 can be entered | Blank | Full or half-width alphanumeric characters Maximum 63 Characters | 0 |

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4.8. RSH Command Configuration Screen

RSH (remote shell) Commands can control the Signal Tower and buzzer on this product. The following explains the setup to be able to receive the RSH Commands.

[Setup Method]

RSH Server Function

- ①. When receiving the RSH Commands, first turn on the RSH Server function by selecting "Active."

RSH Alert Timer Reset Function

- ②. A timer can be implemented to control the operating timing of each tier and the buzzer with an RSH command sent to the Signal Tower.
If the "Shared" function is selected, the timing control for each color can be in common.
If the "Separate" function is selected, the timing control for each color is controlled individually.

E-mail Transmission

- ③. To have E-mail Sending when an RSH Command has been received, and for it to make a report, select "Active".
Select "Inactive" to prevent any E-mail Sending.

When E-mail Sending is selected for "Active"

- ④. Select the desired E-mail contents to transmit from the registered subject titles and the text messages after the E-mail Sending is activated.
After the E-mail contents are selected, choose the E-mail recipients.

TRAP Transmission

- ⑤. To have a trap transmission sent after an RSH Command, select "Active" for TRAP transmission to transmit the TRAP.
If the TRAP Transmission is not utilized, select "Inactive".

The "TRAP Command" for this product to receive when the TRAP condition occurs

OID: 1.3.6.1.4.1.20440.4.1.6.5
Name: trapPatliteRshExecuted

Designated E-mail Sender Address Setup

- ⑥. If address restrictions are made for sending an RSH Command to a designated recipient, select "Active" for the designated sender address.
If no restrictions have been made, select "Inactive".

When "Inactive" is selected for designated sender addressing

- ⑦. Enter a common login name while the designated sender IP address is invalid.
Click the "Set" button on the lower right side of the screen for the settings to be saved.

When "Active" is selected for designated sender addressing

- ⑧. Enter the IP address into the designated sender IP address column to allow command execution. A maximum of 16 accounts can be registered.
To allow activation for command execution, enter a login name.
- ⑨. Click the "Set" icon button to initiate the setup.

Attention

When using this product with the internal timer function, if the RSH Alert Timer Reset Function is changed, the timers for all the LEDs and buzzer is canceled.

Fig. 4.8.1 RSH Command Configuration Screen

RSH Command Configuration

RSH Server

| | |
|--------------------------------|--|
| RSH Server Function | <input checked="" type="radio"/> Active <input type="radio"/> Inactive |
| RSH alert timer reset function | <input type="radio"/> Shared <input checked="" type="radio"/> Separate |
| E-mail Sending | <input type="radio"/> Active <input checked="" type="radio"/> Inactive Subject 1.Message Message 1: |
| E-mail Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned <input type="checkbox"/> 5 Unassigned <input type="checkbox"/> 6 Unassigned <input type="checkbox"/> 7 Unassigned <input type="checkbox"/> 8 Unassigned |
| Trap Transmission | <input type="radio"/> Active <input checked="" type="radio"/> Inactive |

Connection Permission Configuration

| | |
|---|--|
| Designate Sender Address | <input checked="" type="radio"/> Active <input type="radio"/> Inactive |
| Common login name when designated sender address is inactive. | |

| # | Sender IP Address | Login Name |
|----|----------------------|----------------------|
| 1 | <input type="text"/> | <input type="text"/> |
| 2 | <input type="text"/> | <input type="text"/> |
| 3 | <input type="text"/> | <input type="text"/> |
| 4 | <input type="text"/> | <input type="text"/> |
| 5 | <input type="text"/> | <input type="text"/> |
| 6 | <input type="text"/> | <input type="text"/> |
| 7 | <input type="text"/> | <input type="text"/> |
| 8 | <input type="text"/> | <input type="text"/> |
| 9 | <input type="text"/> | <input type="text"/> |
| 10 | <input type="text"/> | <input type="text"/> |
| 11 | <input type="text"/> | <input type="text"/> |
| 12 | <input type="text"/> | <input type="text"/> |
| 13 | <input type="text"/> | <input type="text"/> |
| 14 | <input type="text"/> | <input type="text"/> |
| 15 | <input type="text"/> | <input type="text"/> |
| 16 | <input type="text"/> | <input type="text"/> |

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- ⑥
- ⑦
- ⑧
- ⑦ ⑨

Table 4.8.1 RSH Command Configuration Parameters

| Item | Contents | Default Value | Input Parameter | Setting Option |
|---|--|---------------|--|----------------|
| RSH Server Function | Select Active/Inactive for the RSH server function. | Active | — | — |
| RSH Alert Timer Reset Function | Select "Shared" or "Separate" to control the Signal Tower lights and buzzer | | — | — |
| E-mail Transmission | Select Active/Inactive for sending an E-mail when a command is received. | Inactive | — | — |
| Subject | Select the subject title for the mail to be transmitted. | 1. Message | — | — |
| Message | Select the message text for the mail to be transmitted. | 1: | — | — |
| E-mail Receiver | Select the recipient to send E-mail to. | Undefined | — | — |
| TRAP Transmission | Select Active/Inactive for the TRAP transmission when an RSH Command is received. | Inactive | — | — |
| Designated Sender Address | Setup a designated address for a sender when an RSH Command is received. | Active | — | — |
| Invalid Designated Sender Address/ Common Login Name | When the designated sender address setup is not active, up to 16 accounts can be used to notify senders when an RSH Command is received. | Blank | Half-width alphanumeric character, period ".", hyphen "-" Maximum 16 Characters | O |
| Sender IP Address | The designated IP address used when a command is executed. | Blank | IP Address Format | O |
| Login Name | The login name used is entered to allow command execution. | Blank | Half-width alphanumeric character, period ".", hyphen "-" Maximum 16 Characters | O |

4.9. TRAP Reception Configuration Screen

Setup for permitting a TRAP reception and its operation after the TRAP communication is received.

[Setup Method]

- ①. Enter a group name.
- ②. Enter an address name for the TRAP designated sender*¹.
- ③. Enter the OID of the TRAP received in the TRAP number column*¹.
- ④. Enter the OID into the variable-bindings column*¹.
- ⑤. Set up the operation for the Signal Tower when a TRAP is received.
- ⑥. Select the E-mail Sending configuration when receiving a TRAP.

When the E-mail Sending is "Active"

Select the subject title and message after the E-mail Sending is activated.

- ⑦. Select "Active" when using the TRAP transmission.

"TRAP Command" received when a TRAP condition occurs

OID: 1.3.6.1.4.1.20440.4.1.6.3

Name: trapPatliteTrapReceived

- ⑧. Click the "Set" button to save the settings.

*1 Refer to the following **Attention** and **MEMO** below.

Attention

- When the trap transmission source address is entered, the "trap number" column and the "variable bindings" column can be omitted. When the TRAP "number column" and "variable bindings" columns are omitted, then all operations will be received by the TRAP transmission address, which was setup for the TRAP transmission source address.
- When a TRAP transmission source address name is omitted, the operation is determined by the TRAP number.
- For two "variable bindings", the 1st registration can be used among the existing registered items.
- If both the "trap transmission source address" and "trap number" are omitted, even with "variable bindings" registered, it won't operate.
- When the "GenericTrap type" TRAP Reception is 6 (enterprisespecific), add the value "0. (specific-trap value)" to the last part of the specific-trap for the TRAP Reception.

MEMO

- When the TRAP transmission source address name is omitted, the TRAP number cannot be omitted. If both the "trap transmission source address" and "trap number" are omitted, no operation after a reception will work.
- When a TRAP number has been duplicated and is registered into the group, the least significant setup number in the group is used. The following group number after that number is not used.
- Judgement can be made with the reception function where the number of "variable bindings" are 64 with one per TRAP. To receive more than 65 variable bindings, TRAP 1-64 must first be set to operate in the OID at the time of reception. Be aware that the OID after 65 does not operate, even if it is set up.

Fig. 4.9.1 TRAP Reception Configuration Screen

TRAP Reception Configuration

- 1
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- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

| TRAP Reception Configuration Group1 | |
|-------------------------------------|---|
| Group Name1 | <input type="text"/> |
| 1 | TRAP Source Address <input type="text"/> |
| | TRAP OID <input type="text"/> |
| | variable-bindings1 OID: <input type="text"/> Type: integer ▾ Value: 0 |
| | variable-bindings2 OID: <input type="text"/> Type: integer ▾ Value: 0 |
| 2 | TRAP Source Address <input type="text"/> |
| | TRAP OID <input type="text"/> |
| | variable-bindings1 OID: <input type="text"/> Type: integer ▾ Value: 0 |
| | variable-bindings2 OID: <input type="text"/> Type: integer ▾ Value: 0 |
| 3 | TRAP Source Address <input type="text"/> |
| | TRAP OID <input type="text"/> |
| | variable-bindings1 OID: <input type="text"/> Type: integer ▾ Value: 0 |
| | variable-bindings2 OID: <input type="text"/> Type: integer ▾ Value: 0 |
| 4 | TRAP Source Address <input type="text"/> |
| | TRAP OID <input type="text"/> |
| | variable-bindings1 OID: <input type="text"/> Type: integer ▾ Value: 0 |
| | variable-bindings2 OID: <input type="text"/> Type: integer ▾ Value: 0 |

| Output Control Setting for TRAP Reception1 | |
|--|--|
| RED | <input type="text" value="No Change"/> ▾ |
| AMBER | <input type="text" value="No Change"/> ▾ |
| GREEN | <input type="text" value="No Change"/> ▾ |
| BLUE | <input type="text" value="No Change"/> ▾ |
| WHITE | <input type="text" value="No Change"/> ▾ |
| BUZZER | <input type="text" value="No Change"/> ▾ |
| E-mail Sending | <input type="radio"/> Active <input checked="" type="radio"/> Inactive Subject 1.Message ▾ Message 1: ▾ |
| E-mail Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned <input type="checkbox"/> 5 Unassigned <input type="checkbox"/> 6 Unassigned <input type="checkbox"/> 7 Unassigned <input type="checkbox"/> 8 Unassigned |
| Trap Transmission | <input type="radio"/> Active <input checked="" type="radio"/> Inactive |

Set

Table 4.9.1 TRAP Reception Configuration Parameters

| Item | Contents | Default Value | Input Parameter | Setup Option |
|---|--|---------------|--|--------------|
| Group Name | Setup a group name | Blank | Full/Half-size Characters Maximum 32 Characters | 0 |
| Trap Designated Sender Addresses 1 to 4 | Setup the designated TRAP sender addresses from 1 to 4 for a group | Blank | IP Address Format | 0 |
| Trap Number Items 1 to 4 | Setup the Object ID TRAP numbers to receive trap commands from 1 to 4 for the group | Blank | Integers and Period "." Maximum 127 Characters | 0 |
| OID Items 1 to 4 (variable bindings) | Setup the TRAP command object ID with variable bindings for items 1 to 4 | Blank | Integers and Period "." Maximum 127 Characters | 0 |
| Model Items 1 to 4 (variable bindings) | Setup the variable bindings object ID model to receive TRAP commands. Only integer types can be selected | Integer | — | — |
| Value Items 1 to 4 (variable bindings) | Setup the variable binding's object ID to receive traps. | 0 | Integer (0 to 65535) | — |
| Red | Select from: OFF- ON- Lighting- Flashing 1- Flashing 2- No Flashing- No Change | No Change | — | — |
| Amber | Select from: OFF- ON- Lighting- Flashing 1- Flashing 2- No Flashing- No Change | No Change | — | — |
| Green | Select from: OFF- ON- Lighting- Flashing 1- Flashing 2- No Flashing- No Change | No Change | — | — |
| Blue | Select from: OFF- ON- Lighting- Flashing 1- Flashing 2- No Flashing- No Change | No Change | — | — |
| White | Select from: OFF- ON- Lighting- Flashing 1- Flashing 2- No Flashing- No Change | No Change | — | — |
| Buzzer | Select from: Pattern 1- Pattern 2- Pattern 3- Pattern 4- Stop- No Change | No Change | — | — |
| E-mail Transmission | Set Active or Inactive for sending E-mail. | Inactive | — | — |
| Subject | Select the E-mail subject title contents | 1. Message | — | — |
| Message | Select the E-mail text message contents | 1: | — | — |
| TRAP Transmission | Set Active or Inactive for the trap transmission. | Inactive | — | — |

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4.10. Ping Monitoring Configuration Screen

The Ping Monitoring Configuration Screen in the Configuration Setup Screen can be used to set up parameters for sending Pings for up to 24 devices to monitor. With a maximum of 24 devices to monitor, devices numbered from 1-12 have a set "Ping test cycle period" of 60 seconds, and devices numbered 13-24 have adjustable parameters for Ping monitoring.

4.10.1. Ping Monitoring Configuration (Screen Numbers 1 to 12)

[Setup Method]

- ① Select the device number (No. 1-12) to setup the Ping monitoring parameters.
- ② Enter the IP address or host name for the device to monitor in the "Monitoring Target Address" field.
- ③ Enter the device name in the "Equipment Name" field. This name is used in log events and in E-mails configured in the "Output Control Setting".
- ④ Set up the number of sequential 60 second Ping monitoring periods with no ping response to determine an "Abnormality" in the "Cycle count Error threshold (0-30)" field.
- ⑤ Setup the desired actions for the lights and buzzer when the abnormality occurs.
- ⑥ To send an E-mail when an abnormality occurs, set the E-mail Sending to "Active", and select the "Subject" and "Message" from the pull-down lists. The lists are configured on the "E-mail Message Settings" page in the "Setup Menu".

When the E-mail Sending is activated

- ⑦ Select the recipients for the E-mail in the "E-mail Receiver" section. The choices here are determined in the "E-mail Settings" of the "Setup Menu".
- ⑧ To send an SNMP TRAP, when an abnormality occurs, set the "Trap Transmission" radio button to "Active".

TRAP command transmitted when the TRAP is active

OID: 1.3.6.1.4.1.20440.4.1.6.1

Name: trapPatliteAlarmAdded

Fig. 4.10.1 Ping Monitoring Configuration Screen 1

| Ping Monitoring Configuration | | |
|---|--|---|
| <div style="display: flex; justify-content: space-around; border: 1px solid red; padding: 2px;"> 1 2 3 4 5 6 7 8 9 10 11 12 </div> <div style="display: flex; justify-content: space-around; border: 1px solid blue; padding: 2px; margin-top: 5px;"> 13 14 15 16 17 18 19 20 21 22 23 24 </div> | ① | |
| Monitoring Targeted Equipment1 | | |
| Monitoring Target Address | <input style="width: 100%;" type="text"/> | ② |
| Equipment Name | <input style="width: 100%;" type="text"/> | ③ |
| Cycle count Error Threshold (0-30) | <input style="width: 50%;" type="text" value="0"/> (Number of sequential ping test cycles with no ping response) | ④ |
| Operation Setting for Ping Monitoring Abnormality1 | | |
| RED | <input type="text" value="No Change"/> ▼ | |
| AMBER | <input type="text" value="No Change"/> ▼ | |
| GREEN | <input type="text" value="No Change"/> ▼ | ⑤ |
| BLUE | <input type="text" value="No Change"/> ▼ | |
| WHITE | <input type="text" value="No Change"/> ▼ | |
| BUZZER | <input type="text" value="No Change"/> ▼ | |
| E-mail Sending | <input type="radio"/> Active <input checked="" type="radio"/> Inactive Subject <input style="width: 100px;" type="text" value="1.Message"/> Message <input style="width: 100px;" type="text" value="1:"/> | ⑥ |
| E-mail Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned <input type="checkbox"/> 5 Unassigned <input type="checkbox"/> 6 Unassigned <input type="checkbox"/> 7 Unassigned <input type="checkbox"/> 8 Unassigned | ⑦ |
| Trap Transmission | <input type="radio"/> Active <input checked="" type="radio"/> Inactive | ⑧ |

Setting up the "Recovery from Ping" parameters

- ⑨ . Setup the Signal Tower actions when a recovery from a ping abnormality occurs.
- ⑩ . To send an E-mail when an abnormality occurs, set the E-mail Sending to "Active", and select the "Subject" and "Message" from the pull-down lists. The lists are configured on the "E-mail Message Settings" page in the "Setup Menu".

When the E-mail Sending is activated

Register the subject and the message text to transmit. Then, select the recipient for the E-mail Sending.

- ⑪ . To send an SNMP TRAP, when an abnormality occurs, set the "Trap Transmission" radio button to "Active".
- ⑫ . When all settings on the page are correct, click on "Set" to activate the ping test for the device.

TRAP Command received when TRAP condition occurs

OID: 1.3.6.1.4.1.20440.4.1.6.2
 Name: trapPatliteAlarmRemoved

Fig. 4.10.2 Ping Monitoring Configuration Screen 2

| Output Control Setting for Recovery from Ping Monitoring Error1 | |
|---|--|
| RED | No Change |
| AMBER | No Change |
| GREEN | No Change |
| BLUE | No Change |
| WHITE | No Change |
| BUZZER | No Change |
| E-mail Sending | <input type="radio"/> Active <input checked="" type="radio"/> Inactive Subject 1.Message Message 1: |
| E-mail Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned <input type="checkbox"/> 5 Unassigned <input type="checkbox"/> 6 Unassigned <input type="checkbox"/> 7 Unassigned <input type="checkbox"/> 8 Unassigned |
| Trap Transmission | <input type="radio"/> Active <input checked="" type="radio"/> Inactive |

Table 4.10.1 Ping Monitoring Configuration Parameters

| Item | Contents | Default Value | Input Parameter | Setup Option |
|-----------------------------|---|---------------|--|--------------|
| Monitoring Target Address | The IP address or host name for the monitoring ping. | Blank | IP Address or Host Name Maximum 63 Characters | 0 |
| Equipment Name | The name of the equipment to send a transmission monitoring ping to. | Blank | Maximum 32 Characters | 0 |
| Cycle count Error threshold | The number of sequential Ping monitoring cycles to send Ping requests to determine when no response is judged as an "abnormality" occurrence. | 0 | Integers 0 to 30 | — |
| Red | Select from: OFF- ON- Lighting- Flashing 1- Flashing 2- No Flashing- No Change | No Change | — | — |
| Amber | Select from: OFF- ON- Lighting- Flashing 1- Flashing 2- No Flashing- No Change | No Change | — | — |
| Green | Select from: OFF- ON- Lighting- Flashing 1- Flashing 2- No Flashing- No Change | No Change | — | — |
| Blue | Select from: OFF- ON- Lighting- Flashing 1- Flashing 2- No Flashing- No Change | No Change | — | — |
| White | Select from: OFF- ON- Lighting- Flashing 1- Flashing 2- No Flashing- No Change | No Change | — | — |
| Buzzer | Select from: Pattern 1- Pattern 2- Pattern 3- Pattern 4- Stop- No Change | No Change | — | — |
| Email Transmission | Select the Active/Inactive condition for the E-mail Sending. | Inactive | — | — |
| Subject | Select the E-mail subject title | 1. Message | — | — |
| Message | Select the E-mail message to text | 1: | — | — |
| TRAP Transmission | Select the Active/Inactive condition for the trap transmission. | Inactive | — | — |



4.10.2. Ping Monitoring Configuration (Screen Numbers 13 to 24)

[Setup Method]

- ①. Select the device number (No. 13-24) to setup the Ping monitoring parameters.
- ②. Enter the IP address or host name for the device to ping in the "Monitoring Target Address" field.
- ③. Enter the device name in the "Equipment Name" field. This name is used in log events and in E-mails configured in the "Output Control Setting".
- ④. Set up the number of sequential Ping monitoring periods with no ping response to determine an "Abnormality" in the "Cycle count Error threshold (0-30)" field.
- ⑤. Setup the Ping monitoring duration in seconds in the "Ping test cycle period (1-600 sec)" field.
- ⑥. Set up the number of Pings to be transmitted during each Ping monitoring duration in the "Pings per test cycle (1-3)" field.
- ⑦. Setup the desired actions for the lights and buzzer when the abnormality occurs.
- ⑧. To send an E-mail when an abnormality occurs, set the E-mail Sending to "Active", and select the "Subject" and "Message" from the pull-down lists. The lists are configured on the "E-mail Message Settings" page in the "Setup Menu".

When the E-mail Sending is activated

- ⑨. Select the recipients for the E-mail in the "E-mail Receiver" section. The choices here are determined in the "E-mail Settings" of the "Setup Menu".
- ⑩. To send an SNMP TRAP, when an abnormality occurs, set the "Trap Transmission" radio button to "Active".

TRAP command transmitted when the TRAP is active

OID: 1.3.6.1.4.1.20440.4.1.6.1
Name: trapPatliteAlarmAdded

Fig. 4.10.3 Ping Monitoring Configuration Screen 1 (Screen Numbers 13 - 24)

| Ping Monitoring Configuration | | | | | | | | | | | |
|---|--|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| Monitoring Targeted Equipment21 | | | | | | | | | | | |
| Monitoring Target Address | <input type="text"/> | | | | | | | | | | |
| Equipment Name | <input type="text"/> | | | | | | | | | | |
| Cycle count Error Threshold (0-30) | <input type="text" value="0"/> (Number of sequential ping test cycles with no ping response) | | | | | | | | | | |
| Ping test cycle period (1-600 sec) | <input type="text" value="60"/> (Length of time for Ping Test Cycle) | | | | | | | | | | |
| Pings Per Test Cycle (1-3) | <input type="text" value="1"/> (Number of pings sent in each Ping Test Cycle) | | | | | | | | | | |
| Operation Setting for Ping Monitoring Abnormality21 | | | | | | | | | | | |
| RED | <input type="text" value="No Change"/> ▾ | | | | | | | | | | |
| AMBER | <input type="text" value="No Change"/> ▾ | | | | | | | | | | |
| GREEN | <input type="text" value="No Change"/> ▾ | | | | | | | | | | |
| BLUE | <input type="text" value="No Change"/> ▾ | | | | | | | | | | |
| WHITE | <input type="text" value="No Change"/> ▾ | | | | | | | | | | |
| BUZZER | <input type="text" value="No Change"/> ▾ | | | | | | | | | | |
| E-mail Sending | <input type="radio"/> Active <input checked="" type="radio"/> Inactive Subject <input type="text" value="1.Message"/> ▾ Message 1: <input type="text" value="1"/> ▾ | | | | | | | | | | |
| E-mail Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned <input type="checkbox"/> 5 Unassigned <input type="checkbox"/> 6 Unassigned <input type="checkbox"/> 7 Unassigned <input type="checkbox"/> 8 Unassigned | | | | | | | | | | |
| Trap Transmission | <input type="radio"/> Active <input checked="" type="radio"/> Inactive | | | | | | | | | | |

Setting up the "Recovery from Ping" parameters

- ⑪ . Setup the Signal Tower actions when a recovery from a ping abnormality occurs.
- ⑫ . To send an E-mail when an abnormality occurs, set the E-mail Sending to "Active", and select the "Subject" and "Message" from the pull-down lists. The lists are configured on the "E-mail Message Settings" page in the "Setup Menu".

When the E-mail Sending is activated

- ⑬ . To send an SNMP TRAP, when an abnormality occurs, set the "Trap Transmission" radio button to "Active".

TRAP Command received when TRAP condition occurs

OID: 1.3.6.1.4.1.20440.4.1.6.2

Name: trapPatliteAlarmRemoved

- ⑭ . When all settings on the page are correct, click on "Set" to activate the ping test for the device.

Fig. 4.10.4 Ping Monitoring Configuration Screen 2 (Screen Numbers 13 - 24)

| Output Control Setting for Recovery from Ping Monitoring Error21 | |
|--|--|
| RED | No Change <input type="button" value="v"/> |
| AMBER | No Change <input type="button" value="v"/> |
| GREEN | No Change <input type="button" value="v"/> |
| BLUE | No Change <input type="button" value="v"/> |
| WHITE | No Change <input type="button" value="v"/> |
| BUZZER | No Change <input type="button" value="v"/> |
| E-mail Sending | <input type="radio"/> Active <input checked="" type="radio"/> Inactive Subject 1.Message <input type="button" value="v"/> Message 1: <input type="button" value="v"/> |
| E-mail Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned <input type="checkbox"/> 5 Unassigned <input type="checkbox"/> 6 Unassigned <input type="checkbox"/> 7 Unassigned <input type="checkbox"/> 8 Unassigned |
| Trap Transmission | <input type="radio"/> Active <input checked="" type="radio"/> Inactive |

Table 4.10.2 Ping Monitoring Configuration Parameters (Screen Numbers 13 - 24)

| Item | Contents | Default Value | Input Parameter | Setup Option |
|-----------------------------|--|---------------|-----------------|--------------|
| Cycle count Error threshold | The duration of a monitoring cycle to test and determine network response. | 0 | 0 to 30 (Times) | — |
| Ping test cycle period | The duration between sending a Ping response test. | 60 | 1 to 600 (sec) | — |
| Pings per test cycle | The number of Pings to send in the test cycle. | 1 | 1 to 3 (Pings) | — |

4.11. Application Monitoring Configuration Screen

Setup for monitoring an application. The data reception of the target is monitored.

If data is not received within the monitoring interval cycle, it detects the communication as being abnormal, and generates an abnormality event. After a generated event, if data is received from the monitored candidate, it will detect a recovery from the abnormal operation.

[Setup Method]

- ①. Select from screen number 1 to 4 to setup an application monitor.
- ②. Enter the address for the targeted monitor.
- ③. Enter the receiving port number.
- ④. Enter a name for the equipment.
- ⑤. Set up the monitoring interval cycle.

Operation Setting for Monitoring Abnormality

- ⑥. Setup the condition for the Signal Tower when a monitor abnormality is detected.
- ⑦. To send an E-mail when a monitor abnormality occurs, select the "E-mail Sending" radio button to "Active".

When the E-mail Sending is activated

Select the subject and text message to transmit. Then, select the recipient under "E-mail Receiver" for when sending the E-mail.

- ⑧. To send an SNMP TRAP, when an abnormality occurs, set the "Trap Transmission" radio button to "Active".

Fig. 4.11.1 Application Monitoring Configuration Screen

| Application Monitoring Configuration | |
|--|--|
| <div style="display: flex; gap: 10px;"> 1 2 3 4 </div> | |
| Monitoring Target Application1 | |
| Monitoring Target Address | <input type="text"/> |
| Reception Port Number (9000-9999) | <input type="text" value="0"/> |
| Equipment Name | <input type="text"/> |
| Monitoring Interval (0-60000) | <input type="text" value="0"/> |
| Operation Setting for Application Monitoring Abnormality1 | |
| RED | No Change ▾ |
| AMBER | No Change ▾ |
| GREEN | No Change ▾ |
| BLUE | No Change ▾ |
| WHITE | No Change ▾ |
| BUZZER | No Change ▾ |
| E-mail Sending | <input type="radio"/> Active <input checked="" type="radio"/> Inactive Subject 1.Message ▾ Message 1: ▾ |
| E-mail Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned <input type="checkbox"/> 5 Unassigned <input type="checkbox"/> 6 Unassigned <input type="checkbox"/> 7 Unassigned <input type="checkbox"/> 8 Unassigned |
| Trap Transmission | <input type="radio"/> Active <input checked="" type="radio"/> Inactive |

TRAP Command received when TRAP condition occurs

OID: 1.3.6.1.4.1.20440.4.1.6.6

Name: trapPatliteMonitorAppAlarmAdded

Output Control Setting for Monitoring Error Recovery

- ⑨ . Setup the condition for the Signal Tower when a monitor abnormality recovery is detected.
- ⑩ . To send an E-mail when a monitor abnormality recovery occurs, set the E-mail Sending to "Active".

When the E-mail Sending is activated

Select the subject and the message text to transmit. Then, select the recipient under "E-mail Reciever" for when sending the E-mail.

- ⑪ . To send an SNMP TRAP, when an abnormality occurs, set the "Trap Transmission" radio button to "Active".

TRAP Command received when TRAP Transmission condition occurs

OID: 1.3.6.1.4.1.20440.4.1.6.7

Name: trapPatliteMonitorAppAlarmRemoved

- ⑫ . Click the "Set" icon button to initiate the setup.

Fig. 4.11.2 Application Monitoring Configuration Screen

| Output Control Setting for Recovery from Application Monitoring Error1 | |
|--|--|
| RED | No Change ▾ |
| AMBER | No Change ▾ |
| GREEN | No Change ▾ |
| BLUE | No Change ▾ |
| WHITE | No Change ▾ |
| BUZZER | No Change ▾ |
| E-mail Sending | <input type="radio"/> Active <input checked="" type="radio"/> Inactive Subject 1.Message ▾ Message 1: ▾ |
| E-mail Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned <input type="checkbox"/> 5 Unassigned <input type="checkbox"/> 6 Unassigned <input type="checkbox"/> 7 Unassigned <input type="checkbox"/> 8 Unassigned |
| Trap Transmission | <input type="radio"/> Active <input checked="" type="radio"/> Inactive |

Table 4.11.1 Application Monitoring Configuration Parameters

| Item | Contents | Default Value | Input Parameter | Setup Option |
|---------------------------|--|---------------|--|--------------|
| Monitoring Target Address | The IP address or host name for the monitoring ping. | Blank | IP Address Format | 0 |
| Reception Port Number | The reception port used to monitor the application. | 0 | Half-width numbers 9000-9999 (When the address column for the monitor is blank, it is 0) | — |
| Equipment Name | The name of the equipment to send a transmission monitoring ping to. | Blank | Full/Half-width Characters Maximum 31 Characters | 0 |
| Monitoring Duration | The duration to cue when to monitor the application software. | 0 | Half-width alphanumeric 1 through 60000(sec) | 0 |
| Red | Select from: OFF- ON- Lighting- Flashing 1- Flashing 2- No Flashing- No Change | No Change | — | — |
| Amber | Select from: OFF- ON- Lighting- Flashing 1- Flashing 2- No Flashing- No Change | No Change | — | — |
| Green | Select from: OFF- ON- Lighting- Flashing 1- Flashing 2- No Flashing- No Change | No Change | — | — |
| Blue | Select from: OFF- ON- Lighting- Flashing 1- Flashing 2- No Flashing- No Change | No Change | — | — |
| White | Select from: OFF- ON- Lighting- Flashing 1- Flashing 2- No Flashing- No Change | No Change | — | — |
| Buzzer | Select from: Pattern 1- Pattern 2- Pattern 3- Pattern 4- Stop- No Change | No Change | — | — |
| Email Transmission | Select the Active/Inactive condition for the E-mail Sending. | Inactive | — | — |
| Subject | Select the E-mail subject title | 1. Message | — | — |
| Message | Select the E-mail message to text | 1: | — | — |
| TRAP Transmission | Select the Active/Inactive condition for the trap transmission. | Inactive | — | — |

4.12. "Clear" Control Configuration Screen

Setup the operation to clear the status with the "CLEAR" button, or to combine with other commands to clear the Signal Tower status.

Clear All : A function to clear both the Signal Tower and buzzer status and return to its normal mode of operation.

Depress twice to clear all : One press of the "CLEAR" button to stop the buzzer sound. Pressing the "CLEAR" button a second time returns it to its normal mode of operation.

[Setup Method]

- ① . When using the "CLEAR" button to return to its normal mode after an E-mail Sending and TRAP transmission are received, select the "Active" radio button.
- ② . When using the "CLEAR" command from an SNMP clear execution to return to its normal mode after an E-mail Sending and TRAP transmission are received, select the "Active" radio button.
- ③ . When using the "CLEAR" from an RSH command execution to return to its normal mode after an E-mail Sending and TRAP transmission are received, select the "Active" radio button.

When selecting "Active" for E-mail Sending

Select the preferred E-mail subject title and text.

Select the Receiver for the E-mail to be sent to.

- ④ . Select the clear switch setup for either "Clear All" or "Depress twice to clear all".
- ⑤ . Select the clear switch setup for either "Clear All" or "Depress twice to clear all".
- ⑥ . Click the "Set" button to save the settings.

"TRAP Command" received when a TRAP condition occurs

OID: 1.3.6.1.4.1.20440.4.1.6.4

Name: trapPatliteClearExecuted

Fig. 4.12.1 "Clear" Control Configuration Screen

| "Clear" Control Configuration | |
|-------------------------------|--|
| "CLEAR" Button | |
| E-mail Sending | <input type="radio"/> Active <input checked="" type="radio"/> Inactive Subject 1:Message Message 1: Message |
| E-mail Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned <input type="checkbox"/> 5 Unassigned <input type="checkbox"/> 6 Unassigned <input type="checkbox"/> 7 Unassigned <input type="checkbox"/> 8 Unassigned |
| Trap Transmission | <input type="radio"/> Active <input checked="" type="radio"/> Inactive |
| SLMP Write Command Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned |
| SNMP Clear | |
| E-mail Sending | <input type="radio"/> Active <input checked="" type="radio"/> Inactive Subject 1:Message Message 1: Message |
| E-mail Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned <input type="checkbox"/> 5 Unassigned <input type="checkbox"/> 6 Unassigned <input type="checkbox"/> 7 Unassigned <input type="checkbox"/> 8 Unassigned |
| Trap Transmission | <input type="radio"/> Active <input checked="" type="radio"/> Inactive |
| SLMP Write Command Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned |
| RSH Clear | |
| E-mail Sending | <input type="radio"/> Active <input checked="" type="radio"/> Inactive Subject 1:Message Message 1: Message |
| E-mail Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned <input type="checkbox"/> 5 Unassigned <input type="checkbox"/> 6 Unassigned <input type="checkbox"/> 7 Unassigned <input type="checkbox"/> 8 Unassigned |
| Trap Transmission | <input type="radio"/> Active <input checked="" type="radio"/> Inactive |
| SLMP Write Command Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned |
| "CLEAR" Button Setting | |
| | <input checked="" type="radio"/> Active <input type="radio"/> Inactive |
| | <input type="radio"/> Clear All <input checked="" type="radio"/> Depress twice to clear all |
| | <input type="button" value="Set"/> |

Table 4.12.1 "Clear" Control Configuration Parameters

| Item | Contents | Default Value | Input Parameter | Setup Option |
|------------------------|---|---------------|-----------------|--------------|
| E-mail Sending | Select the Active/Inactive condition for the E-mail Sending. | Inactive | — | — |
| Subject | Select the E-mail subject title | 1. Message | — | — |
| Message | Select the E-mail message to text | 1: | — | — |
| Unassigned 1 to 8 | Select from 1 to 8 Addresses to send E-mail to. | Unassigned | — | — |
| TRAP Transmission | Select the Active/Inactive condition for the TRAP Transmission. | Inactive | — | — |
| "CLEAR" Button Setting | Select the setup conditions for when the "CLEAR" button is pressed. | Clear All | — | — |

Attention

When the "Clear" switch is deactivated, even when pressing the "Clear" switch on the main unit, the product will not clear the function. There will be no event recorded on the event log, either.

4.13. Normal Mode Settings Screen

Set up the status of the Signal Tower for its normal operating condition.

[Setup Method]

- ① Select the desired status for the Signal Tower to be at its normal operating condition.
- ② Click the "Set" icon button to initiate the setup.
- ③ After the setup is complete, press the "Clear" switch on the body for the normal operating condition to be displayed.

Normal Mode Settings

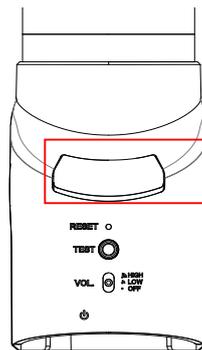
Select the color indication for a normal condition.

Do not light-up ▾

①

Set

②



③

Table 4.13.1 Normal Mode Settings Parameters

| Item | Contents | | | | | | Default Value | Input Parameter | Setup Option |
|--------------|--------------|--------------|----------------|----------------|---------------|----------------|-----------------|-----------------|--------------|
| Signal Tower | Select from: | Red Lighting | Amber Lighting | Green Lighting | Blue Lighting | White Lighting | Do not light-up | — | — |

MEMO

Colors other than the established Signal Tower color are switched off at the time of normal operation.

4.14. "Test" Switch Settings Screen

The following settings can be used to output an operation when the "TEST" button is pressed.

[Setup Method]

To output an E-mail Sending and TRAP transmission when the "TEST" button is pressed, select the "Active" radio button.

When sending an E-mail, select the "Active" radio button

- ①. Select the preferred E-mail subject title and text.
Select the Receiver for the E-mail to be sent to.

The "TRAP Command" for this product to receive when the TRAP condition occurs

OID: 1.3.6.1.4.1.20440.4.1.6.8
Name: trapPatliteTestSwExecuted

- ②. Click the "Set" button to activate the setup.

Fig. 4.14.1 Test Switch Settings Screen

"Test" Switch Settings

| | E-mail Sending | TRAP Transmission | | | |
|--------------------------|---|---------------------------------------|---------------------------------------|---------------------------------------|---|
| | E-mail Receiver | | | | |
| Press the "TEST" button. | <input type="radio"/> Active <input checked="" type="radio"/> Inactive Subject: 1:Message Message: 1: | | | | <input type="radio"/> Active <input checked="" type="radio"/> Inactive |
| | <input type="checkbox"/> 1 Unassigned | <input type="checkbox"/> 2 Unassigned | <input type="checkbox"/> 3 Unassigned | <input type="checkbox"/> 4 Unassigned | ① |
| | <input type="checkbox"/> 5 Unassigned | <input type="checkbox"/> 6 Unassigned | <input type="checkbox"/> 7 Unassigned | <input type="checkbox"/> 8 Unassigned | |
| | <input type="button" value="Set"/> | | | | ② |

Table 4.14.1 Test Switch Settings Parameters

| Item | Contents | Default Value | Input Parameter | Setup Option |
|-------------------|--|---------------|-----------------|--------------|
| E-mail Sending | Select the Active/Inactive condition for the E-mail Sending. | Inactive | — | — |
| Subject | Select the E-mail subject title | 1: Message | — | — |
| Message | Select the E-mail message to text | 1: | — | — |
| Unassigned 1 to 8 | Select from 1 to 8 Addresses to send E-mail to. | Unassigned | — | — |
| Receiver | Select the Address to send E-mail to | Unused | — | — |
| TRAP Transmission | Select the Active/Inactive condition for the TRAP Transmission | Inactive | — | — |

MEMO Refer to "3.3 Test Functions" for more information on the test operation.

4.15. SLMP Read Command Configuration Screen

The SLMP command transmission parameters can be set up to compare the data received from the corresponding equipment. Operation of the NH Signal Tower occurs when set-up conditions of the compared data agrees.

Set up the operation for the NH Signal Tower to respond when error data is received.

4.15.1. SLMP Read Command Configuration

[Setup Method]

- ① . Select from screen number 1 to 16 to setup an SLMP command transmission.
- ② . Enter a device name for an object to be monitored.
- ③ . Enter the destination address of the connection.
- ④ . Enter the destination port of the connection.
- ⑤ . Enter the designated sender port.
- ⑥ . Select the protocol to be used.
- ⑦ . Enter a time out interval.
- ⑧ . Enter a the command configuration in points for acquisition.
- ⑨ . Set up the conditions for comparison.
- ⑩ . Establish the transmission cycle for a command to execute.

Fig. 4.15.1 SLMP Read Command Configuration Screen

The screenshot shows the 'SLMP Read Command Configuration' screen. At the top, there is a navigation bar with buttons numbered 1 to 16. Button 1 is highlighted in green. Below this is the 'Monitoring Device' section, which includes fields for Device Name, Destination Address, Destination Port (set to 0), Source Port (set to 0), Protocol (radio buttons for TCP and UDP, with TCP selected), and TimeOut (1-10sec) (set to 1). The 'Command Configuration' section contains a table with columns for Serial No., Network No., Station No., Unit No., Device, and Read Device/Number of Device Points. The 'Output Control Setting for matching Conditions' section has a dropdown menu set to 'Equal (=)'. At the bottom, the 'Transmission Interval' is set to 100ms. Red boxes and callouts 1-10 are overlaid on the screen to indicate the steps described in the text.

| Serial No. | Network No. | Station No. |
|--|-------------|-------------------------------------|
| <input type="radio"/> Add <input checked="" type="radio"/> Not Add | 0 | 1 |
| Unit No. | Device | Read Device/Number of Device Points |
| Local Station | Input (X*) | 0 (Hexadecimal) 1 |

Operation Setting for Condition Agreement

- ⑪ . Set up the Signal Tower operation for the condition agreement.
- ⑫ . If using the E-mail Sending option at the time of the condition agreement, set it to “Active.”
<< When the “E-mail Sending” is activated>>
- ⑬ . Register the subject and the message text to transmit. Then, select the recipient for the E-mail Sending.
- ⑭ . When using the TRAP transmission, set to “Active”.

TRAP Command received when TRAP Transmission condition occurs

OID: “1.3.6.1.4.1.20440.4.1.6.9”

Name: “trapPatliteSlmpAction”

- ⑮ . Click the “Set” icon button to initiate the setup.

Fig. 4.15.2 SLMP Read Command Configuration Screen

| Output Control Setting for matching Conditions1 | |
|---|--|
| RED | No Change |
| AMBER | No Change |
| GREEN | No Change |
| BLUE | No Change |
| WHITE | No Change |
| BUZZER | No Change |
| E-mail Sending | <input type="radio"/> Active <input checked="" type="radio"/> Inactive Subject 1.Message Message 1: |
| E-mail Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned <input type="checkbox"/> 5 Unassigned <input type="checkbox"/> 6 Unassigned <input type="checkbox"/> 7 Unassigned <input type="checkbox"/> 8 Unassigned |
| Trap Transmission | <input type="radio"/> Active <input checked="" type="radio"/> Inactive |

- ⑪
- ⑫
- ⑬
- ⑭
- ⑮

- Intro
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

Table 4.15.1 SLMP Read Command Configuration Items

| Item | Contents | Default Value | Input Parameter | Setup Option |
|-------------------------------------|--|---------------|---|--------------|
| Device Name | Set up the object name for sending a SLMP Command Transmission. | Blank | Half width and full width of 31 Characters | 0 |
| Connection Destination Address | Set up an address for the destination of the SLMP Command Transmission. | Blank | Enter in the format of an IP Address and host name with a maximum of 63 characters. | — |
| Connection Destination Port | Set up a port to be used to connect with. | 0 | Use half-width numbers from 0-65535 | — |
| Designated Transmission Port | Set up the designated transmission port to send the Command Transmission. If the setting is 0, the designated transmission port selects an arbitrary value. | 0 | Use half-width numbers from 01025-65535 | — |
| Protocol | Select which protocol is to be used. | TCP | TCP-UDP | — |
| Timeout | A Timeout is the time limit which is allowed until it can receive a response. | 1 | 1-10 Seconds | — |
| Serial Number | Set up the serial number if necessary. | Not Add | Add/ Not Add | — |
| Network Number | Set up the network number for the access location. | 0 | 00: Own-Station 01 - EFH : Other Stations | — |
| Station Number | Set up the access location station number. | 1 | FFH: Own-Station 01-78H : Code No. 7DH: Appointed Management Station 7EH: Current Management Station | — |
| Unit I/O Number Request | The CPU unit for the access location is selected. | Own-Station | — | — |
| Device | Select the type of device to read. | Blank | * Refer to Table 4.15.2 | — |
| Reading Device | Select the first number of the device to read. Enter in accordance to the form currently displayed. | Blank | * Refer to Table 4.15.2 | — |
| Reading Quantity | The number of devices to read is selected. | 1 | 1 / 2 | — |
| Conditions (Value) | The acquired device value (response data) compares its set-up value and operates the device for that value. Enter with 16 bit numbers. | Blank | 0000h - FFFFh | — |
| Conditions (conditional expression) | The acquired device value (response data) compares its set-up conditions and operates the device for that condition. | Equal | "equal" - "not equal" - "equal or greater than" - "equal or less than" - "greater than" - "less than" | — |
| Conditions (Value) | The acquired device value (response data) compares its set-up value and operates the device for that value. Enter with 16 bit numbers. | Blank | 0000h - FFFFh | — |
| Red | Select from: lighting, flashing 1, flashing 2, off, change. | No Change | — | — |
| Amber | Select from: lighting, flashing 1, flashing 2, off, change. | No Change | — | — |
| Green | Select from: lighting, flashing 1, flashing 2, off, change. | No Change | — | — |
| Blue | Select from: lighting, flashing 1, flashing 2, off, change. | No Change | — | — |
| White | Select from: lighting, flashing 1, flashing 2, off, change. | No Change | — | — |
| Buzzer | Select from: pattern 1, pattern 2, pattern 3, pattern 4, stop, and no change | No Change | — | — |
| E-mail Transmission | Select Active or Inactive for E-mail Sending. | Inactive | — | — |
| Subject | Select the E-mail title | 1.Message | — | — |
| Message | Select the E-mail text | 1: | — | — |
| TRAP Transmission | Select Active or Inactive for TRAP transmission. | Inactive | — | — |

Table 4.15.2 List of Devices which can be set-up

| Device | Binary Code Device (ASCII) | Classification | Range Specification | |
|-----------------------|----------------------------|----------------|---------------------|--------------|
| Input | 9CH(X*) | Bit | base 16 | 0000 - FFFFH |
| Output | 9DH(Y*) | | base 16 | 0000 - FFFFH |
| Internal Relay | 90H(M*) | | base 10 | 0-65535 |
| Latch Relays | 92H(L*) | | base 10 | 0-65535 |
| Annunciator | 93H(F*) | | base 10 | 0-65535 |
| Edge Relay | 94H(V*) | | base 10 | 0-65535 |
| Link Relay | A0H(B*) | | base 16 | 0000 - FFFFH |
| Data Register | ABH(D*) | Word | base 10 | 0-65535 |
| Link Register | B4H(W*) | | base 16 | 0000 - FFFFH |
| Timer | C2H(TN) | | base 10 | 0-65535 |
| Addition Timer | C8H(SN) | | base 10 | 0-65535 |
| Counter | C5H(CN) | Bit | base 10 | 0-65535 |
| Link Special Relay | A1H(SB) | | base 16 | 0000 - FFFFH |
| Link Special Register | B5H(SW) | Word | base 16 | 0000 - FFFFH |
| Direct Input | A2H(DX) | Bit | base 16 | 0000 - FFFFH |
| Direct Output | A3H(DY) | | base 16 | 0000 - FFFFH |
| Index Register | CCH (Z*) | Word | base 10 | 0-65535 |

For base 10, enter values from 0-65535.
For base 16, enter values from 0000 - FFFFh.
Designate the range number of the device which the unit will access.

4.15.2. Common Operation Setting at Time of SLMP Error

[Setup Method]

- ①. Select from the screen setup the common operation setting from the SLMP command transmission at the time of an error.

Fig. 4.15.3 SLMP Read Command Transmission Setup Screen

SLMP Read Command Configuration

1
2
3
4
5
6
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9
10
11
12
13
14
15
16

Monitoring Device1

| | |
|---------------------|--|
| Device Name | <input type="text"/> |
| Destination Address | <input type="text"/> |
| Destination Port | <input type="text" value="0"/> |
| Source Port | <input type="text" value="0"/> |
| Protocol | <input checked="" type="radio"/> TCP <input type="radio"/> UDP |
| TimeOut (1-10sec) | <input type="text" value="1"/> |

Command Configuration

| | | |
|--|---|--|
| Serial No. <input type="radio"/> Add <input checked="" type="radio"/> Not Add | Network No. <input type="text" value="0"/> | Station No. <input type="text" value="1"/> |
| Unit No. Local Station | Device Input (X*) | Read Device/Number of Device Points 0 (Hexadecimal) 1 |

Output Control Setting for matching Conditions

| | |
|----------------------|-----------|
| <input type="text"/> | Equal (=) |
|----------------------|-----------|

Transmission Interval

| |
|------------------------------------|
| <input type="text" value="100ms"/> |
|------------------------------------|

➔ Output Control Setting for Error
①

Intro

1

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- ②. Set up the Signal Tower operation at the time of an error.
- ③. When using the E-mail Sending option at the time of an error, set it to "Active".

When "E-mail Sending" is activated

- ④. Register the subject and the message text to transmit. Then, select the recipient for the E-mail Sending.
- ⑤. When using the TRAP transmission, set to "Active".

TRAP Command received when TRAP Transmission condition occurs

OID: 1.3.6.1.4.1.20440.4.1.6.10

Name: trapPatliteSlmpError

- ⑥. Click the "Set" icon button to initiate the setup.

Fig. 4.15.4 Common Operation Setting screen at Time of SLMP Error.

| Output Control Setting for matching Conditions1 | |
|---|--|
| RED | No Change |
| AMBER | No Change |
| GREEN | No Change |
| BLUE | No Change |
| WHITE | No Change |
| BUZZER | No Change |
| E-mail Sending | <input type="radio"/> Active <input checked="" type="radio"/> Inactive Subject 1.Message Message 1: |
| E-mail Receiver | <input type="checkbox"/> 1 Unassigned <input type="checkbox"/> 2 Unassigned <input type="checkbox"/> 3 Unassigned <input type="checkbox"/> 4 Unassigned <input type="checkbox"/> 5 Unassigned <input type="checkbox"/> 6 Unassigned <input type="checkbox"/> 7 Unassigned <input type="checkbox"/> 8 Unassigned |
| Trap Transmission | <input type="radio"/> Active <input checked="" type="radio"/> Inactive |

Table 4.15.3 "Clear" Control Setup Parameters

| Item | Contents | Default Value | Input Parameter | Setup Option |
|------------------------------|--|---------------|-----------------|--------------|
| E-mail Transmission | Select "Active" or "Inactive" for sending E-mail. | Inactive | — | — |
| Subject | Select the subject title for the mail to be transmitted. | 1.Message | — | — |
| Message | Select the message text for the mail to be transmitted. | 1: | — | — |
| E-mail Sending Locations 1-8 | Set up the addressee parameters to send an E-mail. | Unassigned | — | — |
| TRAP Transmission | Select "Active" or "Inactive" for TRAP Transmission. | Inactive | — | — |

4.16. SLMP Write Command Configuration Screen

The following shows how an SLMP Write Command can be set up.

[Setup Method]

- ① . Select a screen number from 1 to 4 for the SLMP write command setting.
- ② . Enter a device name of the target.
- ③ . Enter the destination address of the target's connection.
- ④ . Enter the destination port to connect with.
- ⑤ . Select the protocol to be used.
- ⑥ . Designate the device to write to.
- ⑦ . Set up the Write data.
- ⑧ . Push the "Set" button.

Fig. 4.16.1 SLMP Write Command Configuration Screen

SLMP Write Command Configuration

1
2
3
4

| Target device of Writing1 | |
|--|---|
| Device Name | <input style="width: 90%;" type="text"/> |
| Destination Address | <input style="width: 90%;" type="text"/> |
| Destination Port | <input style="width: 90%;" type="text" value="0"/> |
| Protocol | <input checked="" type="radio"/> TCP <input type="radio"/> UDP |
| WriteCommand Configuration | |
| Serial No. | Network No. |
| <input type="radio"/> Add <input checked="" type="radio"/> Not Add | <input style="width: 90%;" type="text" value="0"/> |
| Station No. | <input style="width: 90%;" type="text" value="1"/> |
| Unit No. | Device |
| <input type="text" value="Local Station"/> <small>▼</small> | <input type="text" value="Internal Relay (M*)"/> <small>▼</small> |
| Write Device/Number of Device Points | |
| <input style="width: 90%;" type="text" value="0"/> (Decimal) | <input style="width: 90%;" type="text" value="1"/> <small>▼</small> |
| Write Data | |
| <input style="width: 90%;" type="text"/> | |

Intro

1

2

3

4

5

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Table 4.16.1 SLMP Write Command Configuration Items

| Item | Contents | Default Value | Input Parameter | Setup Option |
|-------------------------|---|---------------|---|--------------|
| Device Name | Set up the name of the Command Transmission object. | Blank | Column half/full width Character 31 | 0 |
| Destination Address | Set up the target address for the command transmission to connect with. | Blank | Enter in the format of an IP Address and host name with a maximum of 63 characters. | — |
| Destination Port | Set up a port to connect with. | 0 | Use half-width numbers from 0-65535 | — |
| Protocol | Set up the protocol to be used. | TCP | — | — |
| Serial Number | Set up the serial number if necessary. | Don't add | Add/Don't add | — |
| Network Number | Set up the network number for the access location. | 0 | 00: Auto-access, 01 - EFH: Set access | — |
| Station Number | Set up the access location station number. | 1 | FFH: Auto-access, 01-78H : Code No. 7DH: Appointed Management Station 7EH: Current Management Station | — |
| Unit I/O Request Number | Select the CPU unit for the access location. | Own Station | — | — |
| Device | Select the device from the pull-down menu. | Blank | * Refer to Table 4.16.2 | — |
| Write Device | Set up the first number for the device's writing location. | Blank | * Refer to Table 4.16.2 | — |
| Writing Quantity | Select the number of devices to write. | 1 | 1/2 | — |
| Write Data | Set up the data to write. | Blank | * Refer to Table 4.16.3 | — |

The following shows how an SLMP Write Command can be set up.

Table 4.16.2 SLMP Device Write Command Setup

| Device | Binary Code Device (ASCII) | Classification | Range Specification | | |
|-----------------------|----------------------------|----------------|---------------------|--------------|--|
| | | | base | Range | |
| Internal Relay | 90H(M*) | Bit | base 10 | 0-65535 | For base 10, enter values from 0-65535. |
| Latch Relays | 92H(L*) | | base 10 | 0-65535 | |
| Annunciator | 93H(F*) | | base 10 | 0-65535 | |
| Edge Relay | 94H(V*) | | base 10 | 0-65535 | |
| Link Relay | A0H(B*) | Word | base 16 | 0000 - FFFFH | For base 16, enter values from 0000 - FFFFh. |
| Data Register | ABH(D*) | | base 10 | 0-65535 | |
| Link Register | B4H(W*) | | base 16 | 0000 - FFFFH | |
| Timer | C2H(TN) | | base 10 | 0-65535 | |
| Addition Timer | C8H(SN) | Bit | base 10 | 0-65535 | Designate the range number of the device which the unit will access. |
| Counter | C5H(CN) | | base 10 | 0-65535 | |
| Link Special Relay | A1H(SB) | | base 16 | 0000 - FFFFH | |
| Link Special Register | B5H(SW) | | base 16 | 0000 - FFFFH | |
| Index Register | CCH (Z*) | Word | base 10 | 0-65535 | |

Table 4.16.3 Data Write Setup Range

| Device Classification | Writing Quantity | Data Writing Range |
|-----------------------|------------------|--------------------|
| Bit | 1 Time (1 bit) | 0, 1 |
| | 2 Times (2 Bit) | 0, 1, 2, 3 |
| Word | 1 Time (1 Word) | 0- FFFFh |
| | 2 Times (2 Word) | 0 - FFFFFFFFh |

MEMO

Set the limit for the device and data to write to with the device number for access to the unit location.

4.17. Signal Tower Output Control Screen

Verify the current operating status, and output a condition status for the Signal Tower.

[Setup Method]

- ① . Check the current operating condition of the Signal Tower.
- ② . Select the desired outputs for the Signal Tower status in the “Output Control” column to operate it.
- ③ . Click the “Execute Output” button. The Signal Tower output will reflect the setup performed in ② .
- ④ . If the “Execute Clear” button is clicked, it will return to the “Normal Mode” status.

Fig. 4.17.1 Signal Tower Output Control Screen

Signal Tower Output Control

| | ① Current Condition | | ② Output Control |
|--------|------------------------|--|---------------------|
| RED | OFF | | No Change ▼ |
| AMBER | OFF | | No Change ▼ |
| GREEN | OFF | | No Change ▼ |
| BLUE | OFF | | No Change ▼ |
| WHITE | OFF | | No Change ▼ |
| BUZZER | Stop | | No Change ▼ |

Execute Output

③

Execute Clear

④

Table 4.17.1 Signal Tower Output Control Parameters

| Item | Contents | Default Value | Input Parameter | Setup Option |
|--------|--|---------------|-----------------|--------------|
| Red | Select from: OFF- ON- Lighting- Flashing1- Flashing2- No Flashing- No Change | — | — | — |
| Amber | Select from: OFF- ON- Lighting- Flashing1- Flashing2- No Flashing- No Change | — | — | — |
| Green | Select from: OFF- ON- Lighting- Flashing1- Flashing2- No Flashing- No Change | — | — | — |
| Blue | Select from: OFF- ON- Lighting- Flashing1- Flashing2- No Flashing- No Change | — | — | — |
| White | Select from: OFF- ON- Lighting- Flashing1- Flashing2- No Flashing- No Change | — | — | — |
| Buzzer | Select from:Pattern1- Pattern2- Pattern3- Pattern4- Stop | — | — | — |

4.18. Reinitialize Screen

The setup parameters can be reset to their default values by initializing this product. The network setup can be selected to be excluded from initialization.

If the network setup is also required to be reset to its factory defaults, it can be selected to be initialized with the rest of the setup parameters.

If the "Reinitialize Network Settings" is not checked, all but the network setup is initialized.

MEMO "Network Setup" refers to the "IP address for this product, Net Mask, Default Gateway, DNS server address and Host Name" parameters in the System Configuration Screen.

[Setup Method]

When the initialization does not require the network setup to be included

- ①. Put a "Check" in the box for "Reinitialize Network Settings."
- ②. Click the "Reinitialize Execute" button.

When the network setup also needs to be reinitialized

- ③. Just click the "Reinitialize Execute" button.

Fig. 4.18.1 Reinitialize Screen

Reinitialize

The settings return to factory default values.

To set the Network Configuration (IP address, net mask, default gateway, DNS server address, host name) to the default settings, enter a checkmark in the box next to the "Reinitialize Network Settings".

When the "Reinitialize" button is depressed, the system will automatically reboot.

Reinitialize Network Settings. ①

ReinitializeExecute ②

Attention If the network setup is also initialized, since the IP address will return to its factory default value of "192.168.10.1", the network has to be setup again.

4.19. Reboot Screen

This product can be rebooted just by clicking the "Reboot" button.

- ①. Once the "Reinitialize Execute" button is clicked, a new screen will display a message indicating it is rebooting.
- ②. Click "To the Login screen" on the new screen to log back in.

Attention If this product is rebooted, because all of the event log data will be erased, it is recommended to download the event log prior to rebooting, for reloading afterwards.

Fig. 4.19.1 Reboot Screen



Click the "Reboot" button below with the mouse pointer to reboot the unit.

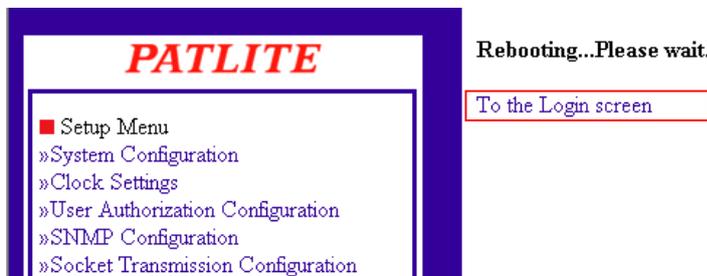
Log in 30 seconds after the initialization is completed.



①

When rebooting, all event-log entries will be deleted.

Fig. 4.19.2 Login after Reboot Screen



②

4.20. Event Log Screen

Events from this product are logged and is shown in the event log.

By clicking the "Event Log Download", an event log file can be downloaded.

A maximum of 255 logged events are acquirable.

The event log data will be erased if either of the following operations are executed.

Attention

- Turning the power supply "OFF"
- Reinitializing this product from the initialization screen.
- Rebooting this product from the "Reboot Screen".
- Updating the firmware.

Fig. 4.20.1 Event Log Screen

Event Log

When clicking "Download", the event-log data will be downloaded.

[Download](#)

| Time | Event | Contents |
|---------------------|-----------|--------------------------------------|
| 2010/01/01 00:02:17 | PING | Ping Monitoring Error 192.168.12.111 |
| 2010/01/01 00:01:21 | PING | Ping Monitoring Error 192.168.12.24 |
| 2010/01/01 00:01:16 | CLEAR | "CLEAR" Switch |
| 2010/01/01 00:01:16 | CLEAR | "CLEAR" Switch |
| 2010/01/01 00:01:16 | CLEAR | "CLEAR" Switch |
| 2010/01/01 00:01:15 | CLEAR | "CLEAR" Switch |
| 2010/01/01 00:01:15 | CLEAR | "CLEAR" Switch |
| 2010/01/01 00:01:15 | CLEAR | "CLEAR" Switch |
| 2010/01/01 00:01:14 | CLEAR | "CLEAR" Switch |
| 2010/01/01 00:01:14 | CLEAR | "CLEAR" Switch |
| 2010/01/01 00:01:13 | CLEAR | "CLEAR" Switch |
| 2010/01/01 00:01:09 | PING | Ping Monitoring Error 192.168.12.24 |
| 2010/01/01 00:01:04 | CLEAR | "CLEAR" Switch |
| 2010/01/01 00:00:53 | PING | Ping Monitoring Error 192.168.12.24 |
| 2010/01/01 00:00:53 | coldStart | |

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4.21. Configuration Data Setup Screen

The configuration for this product can be read, and saved as config data on the PC. Moreover, the configuration file read off of this product can be selected and uploaded.

[Setup Method]

Reading Configuration Data

- ① . Click the "Read" button to save the config data onto the logged in PC.

Writing Configuration Data

- ② . Click the "Browse..." button to select the config data to write into this product.
- ③ . Click the "Write" button to start the uploading of the config data.
- ④ . After the config data is uploaded, this product will automatically reboot.

Fig. 4.21.1 Configuration Setup Screen

The screenshot displays the 'Configuration Data Setup' interface. It is divided into two main sections:

- Reading Configuration Data:** This section has a blue header. Below the header, it contains the text 'Pressing the "Read" button will start acquisitionning the Configdata.' and a 'Read' button. A red circle with the number 1 is positioned to the right of this section.
- Writing ConfigurationData:** This section also has a blue header. It features a 'File Name' label followed by a text input field and a 'Browse...' button. Below this, it says 'Pressing the "Write" button will execute an automatic reboot.' and a 'Write' button. Red circles with numbers 2 and 3 are positioned to the right of the 'Browse...' and 'Write' buttons, respectively.

4.22. XML Setup Screen

This product can be setup for XML parsing.

[Setup Method]

- ① . When using the XML data output, set it to “Active.” If not using the XML data output, then set it to “Inactive.”
- ② . Select the authentication method for when designating the URL directly for acquiring data.
- ③ . The XML data is downloadable when clicking “download”. This option is only available when the XML data output is set for “Active”.
- ④ . Click the “Set” button to activate the setup.

Table 4.22.1 XML Setup Screen

| XML Setup | | |
|------------------------------------|--|---|
| XML Data Output | <input checked="" type="radio"/> Active <input type="radio"/> Inactive | ① |
| Authentication Method | <input checked="" type="radio"/> Login Authentication <input type="radio"/> No Authentication | ② |
| XML Download | Download | ③ |
| <input type="button" value="Set"/> | | ④ |

Attention

If the authentication method is set for “No Authentication”, the XML data can be acquired without logging in for authentication of a Web setup tool.

When setting up the "login certification" for XML data acquisition, login certification of a Web setup tool is needed.

MEMO

Only if the XML data output is set as “Active”, the downloading of an XML file is possible.

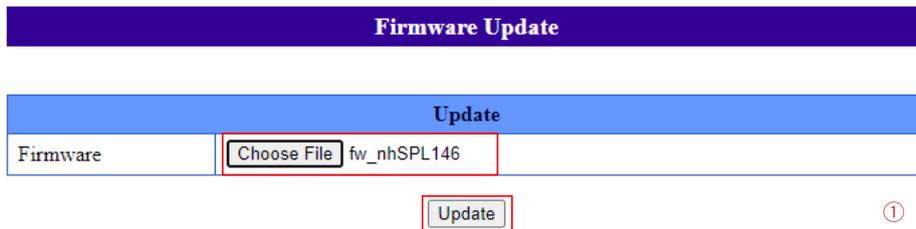
4.23. Firmware Update Screen

The firmware for this product can be updated.

After the firmware has been updated, this product automatically reboots.

[Setup Method]

1. Select the latest firmware and then click "Update". At this point, the screen remains unchanged. The firmware update process begins. The screen will change in about 1 minute.



Press the "Update" button to automatically upload and install the firmware.

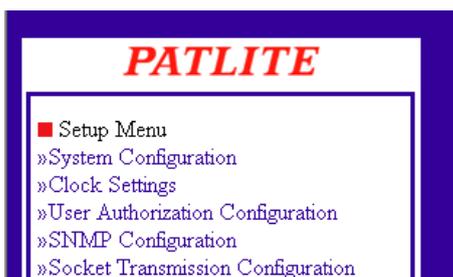
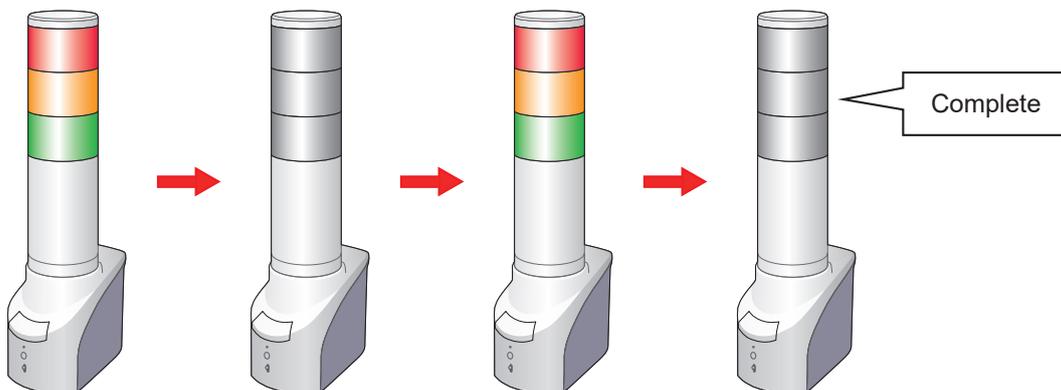
After pressing the "Update" button, do not change the screen until the process has been completed.

Furthermore, absolutely do not disconnect the unit's power during the process.

2. When the screen transitions, the product goes into the reboot process. The LED of NH-FB lights up twice. The second LED off means that the process is completed. Click "To the Login screen" and check if the firmware has been updated.

! ENFORCED

Do not change the screen or disconnect the power cable or LAN cable during the firmware update process. Possible cause of failure may occur.



Rebooting...Please wait.

To the Login screen

2

Intro

1

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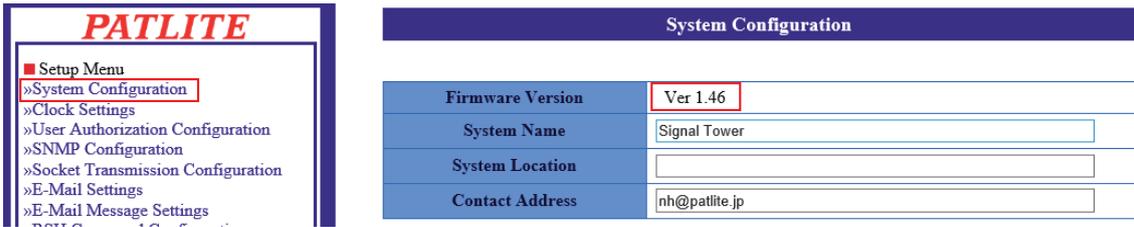
5

6

7

8

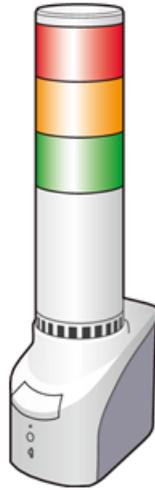
③ . Check the current firmware.



③

Fig. 4.23.1 Firmware Update Failure Screen
NH Series Network Monitoring Signal Tower

Web Setup Tool



Firmware update error has occurred. Please repeat update procedure.

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Fig. 4.23.1 shows the type of screen in case an error occurs during the firmware update.

Attention

If an error occurs during the firmware update, try again. If an error repeatedly occurs during the firmware update process, contact your nearest Patlite Sales Representative.

4.24. Setup Table Entry Screen

The "Setup Table Entry" screen lists and displays the contents of settings, operation functions, such as application monitor abnormality and abnormality restoration; Ping monitor abnormality and abnormality restoration; TRAP Reception Configuration operations, as well as the firmware version of this product.

The solid circle indicates when the E-mail Sending and TRAP transmission are activated. The dash lines display where items selected are not changed.

[Display]

- ① . Current firmware version.
- ② . "TRAP Output Control Setting for Reception" table entries (1-16) to indicate setup conditions.
- ③ . "PING Operation Setting for Monitoring Abnormality" table entries (1-16) to indicate setup conditions.

Fig. 4.24.1 Setup Table Entry Screen

| Setup Table Entries | | | | | | | | | |
|---|-----|-------|-------|------|-------|----------|----------------|-------------------|---|
| Firmware Version | | | | | | Ver 1.31 | | | ① |
| TRAP Output Control Setting for Reception | | | | | | | | | ② |
| Name | RED | AMBER | GREEN | BLUE | WHITE | BUZZER | E-mail Sending | TRAP Transmission | |
| 1: | - | - | - | - | - | - | | | |
| 2: | - | - | - | - | - | - | | | |
| 3: | - | - | - | - | - | - | | | |
| 4: | - | - | - | - | - | - | | | |
| 5: | - | - | - | - | - | - | | | |
| 6: | - | - | - | - | - | - | | | |
| 7: | - | - | - | - | - | - | | | |
| 8: | - | - | - | - | - | - | | | |
| 9: | - | - | - | - | - | - | | | |
| 10: | - | - | - | - | - | - | | | |
| 11: | - | - | - | - | - | - | | | |
| 12: | - | - | - | - | - | - | | | |
| 13: | - | - | - | - | - | - | | | |
| 14: | - | - | - | - | - | - | | | |
| 15: | - | - | - | - | - | - | | | |
| 16: | - | - | - | - | - | - | | | |
| | | | | | | | Sending | Transmission | |
| 1: | - | - | - | - | - | - | | | |
| 2: | - | - | - | - | - | - | | | |
| 3: | - | - | - | - | - | - | | | |
| 4: | - | - | - | - | - | - | | | |
| 5: | - | - | - | - | - | - | | | |
| 6: | - | - | - | - | - | - | | | |
| 7: | - | - | - | - | - | - | | | |
| 8: | - | - | - | - | - | - | | | |
| 9: | - | - | - | - | - | - | | | |
| 10: | - | - | - | - | - | - | | | |
| 11: | - | - | - | - | - | - | | | |
| 12: | - | - | - | - | - | - | | | |
| 13: | - | - | - | - | - | - | | | |
| 14: | - | - | - | - | - | - | | | |
| 15: | - | - | - | - | - | - | | | |
| 16: | - | - | - | - | - | - | | | |
| Application Operation Setting for Monitoring Abnormality | | | | | | | | | |
| Name | RED | AMBER | GREEN | BLUE | WHITE | BUZZER | E-mail Sending | TRAP Transmission | |
| 1: | - | - | - | - | - | - | | | |
| 2: | - | - | - | - | - | - | | | |
| 3: | - | - | - | - | - | - | | | |
| 4: | - | - | - | - | - | - | | | |
| Application Output Control Setting for Recovery from Monitoring Error | | | | | | | | | |
| Name | RED | AMBER | GREEN | BLUE | WHITE | BUZZER | E-mail Sending | TRAP Transmission | |
| 1: | - | - | - | - | - | - | | | |
| 2: | - | - | - | - | - | - | | | |
| 3: | - | - | - | - | - | - | | | |
| 4: | - | - | - | - | - | - | | | |

When the "No Change" is set, a hyphen ("-") will be displayed.

Fig. 4.24.2 Full Setup Table Entry Screen

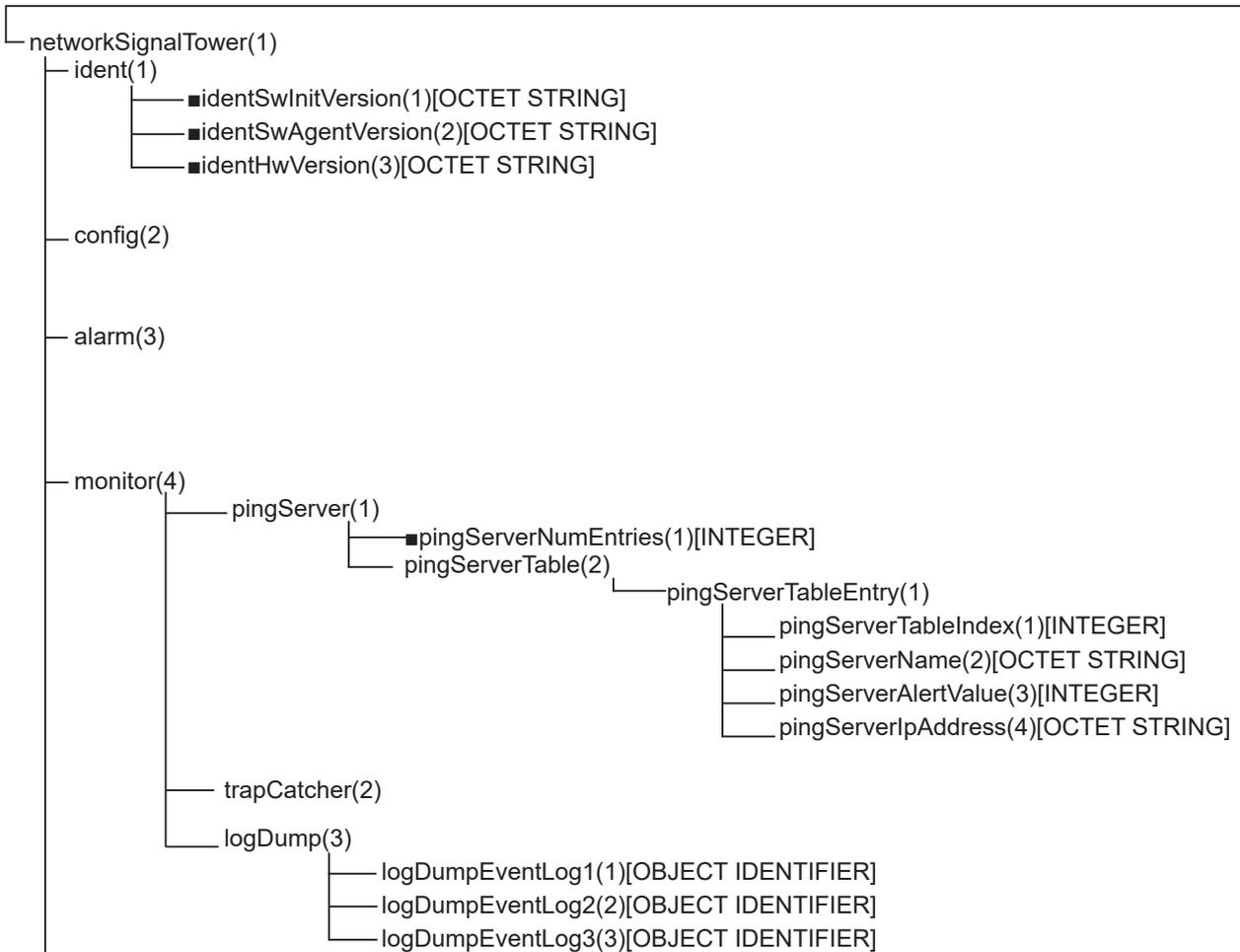
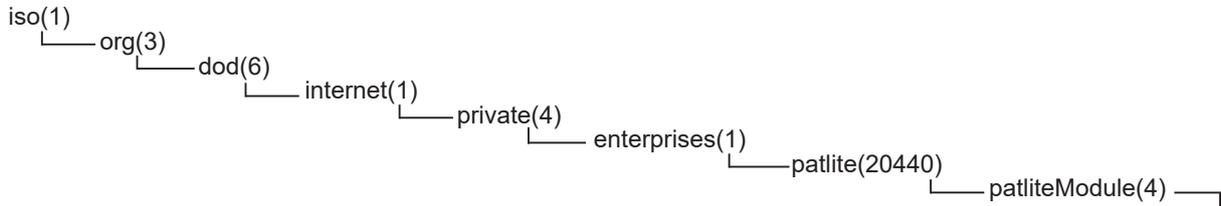
| Setup Table Entries | | | | | | | | |
|--|-----|-------|-------|------|----------|--------|----------------|-------------------|
| Firmware Version | | | | | Ver 1.45 | | | |
| TRAP Output Control Setting for Reception | | | | | | | | |
| Name | RED | AMBER | GREEN | BLUE | WHITE | BUZZER | E-mail Sending | TRAP Transmission |
| 1: | - | - | - | - | - | - | | |
| 2: | - | - | - | - | - | - | | |
| 3: | - | - | - | - | - | - | | |
| 4: | - | - | - | - | - | - | | |
| 5: | - | - | - | - | - | - | | |
| 6: | - | - | - | - | - | - | | |
| 7: | - | - | - | - | - | - | | |
| 8: | - | - | - | - | - | - | | |
| 9: | - | - | - | - | - | - | | |
| 10: | - | - | - | - | - | - | | |
| 11: | - | - | - | - | - | - | | |
| 12: | - | - | - | - | - | - | | |
| 13: | - | - | - | - | - | - | | |
| 14: | - | - | - | - | - | - | | |
| 15: | - | - | - | - | - | - | | |
| 16: | - | - | - | - | - | - | | |
| PING Operation Setting for Monitoring Abnormality | | | | | | | | |
| Name | RED | AMBER | GREEN | BLUE | WHITE | BUZZER | E-mail Sending | TRAP Transmission |
| 1: | - | - | - | - | - | - | | |
| 2: | - | - | - | - | - | - | | |
| 3: | - | - | - | - | - | - | | |
| 4: | - | - | - | - | - | - | | |
| 5: | - | - | - | - | - | - | | |
| 6: | - | - | - | - | - | - | | |
| 7: | - | - | - | - | - | - | | |
| 8: | - | - | - | - | - | - | | |
| 9: | - | - | - | - | - | - | | |
| 10: | - | - | - | - | - | - | | |
| 11: | - | - | - | - | - | - | | |
| 12: | - | - | - | - | - | - | | |
| 13: | - | - | - | - | - | - | | |
| 14: | - | - | - | - | - | - | | |
| 15: | - | - | - | - | - | - | | |
| 16: | - | - | - | - | - | - | | |
| 17: | - | - | - | - | - | - | | |
| 18: | - | - | - | - | - | - | | |
| 19: | - | - | - | - | - | - | | |
| 20: | - | - | - | - | - | - | | |
| 21: | - | - | - | - | - | - | | |
| 22: | - | - | - | - | - | - | | |
| 23: | - | - | - | - | - | - | | |
| 24: | - | - | - | - | - | - | | |
| PING Output Control Setting for Recovery from Monitoring Error | | | | | | | | |
| Name | RED | AMBER | GREEN | BLUE | WHITE | BUZZER | E-mail Sending | TRAP Transmission |
| 1: | - | - | - | - | - | - | | |
| 2: | - | - | - | - | - | - | | |
| 3: | - | - | - | - | - | - | | |
| 4: | - | - | - | - | - | - | | |
| 5: | - | - | - | - | - | - | | |
| 6: | - | - | - | - | - | - | | |
| 7: | - | - | - | - | - | - | | |
| 8: | - | - | - | - | - | - | | |
| 9: | - | - | - | - | - | - | | |
| 10: | - | - | - | - | - | - | | |
| 11: | - | - | - | - | - | - | | |
| 12: | - | - | - | - | - | - | | |
| 13: | - | - | - | - | - | - | | |
| 14: | - | - | - | - | - | - | | |
| 15: | - | - | - | - | - | - | | |
| 16: | - | - | - | - | - | - | | |
| 17: | - | - | - | - | - | - | | |
| 18: | - | - | - | - | - | - | | |
| 19: | - | - | - | - | - | - | | |
| 20: | - | - | - | - | - | - | | |
| 21: | - | - | - | - | - | - | | |
| 22: | - | - | - | - | - | - | | |
| 23: | - | - | - | - | - | - | | |
| 24: | - | - | - | - | - | - | | |
| Application Operation Setting for Monitoring Abnormality | | | | | | | | |
| Name | RED | AMBER | GREEN | BLUE | WHITE | BUZZER | E-mail Sending | TRAP Transmission |
| 1: | - | - | - | - | - | - | | |
| 2: | - | - | - | - | - | - | | |
| 3: | - | - | - | - | - | - | | |
| 4: | - | - | - | - | - | - | | |
| Application Output Control Setting for Recovery from Monitoring Error | | | | | | | | |
| Name | RED | AMBER | GREEN | BLUE | WHITE | BUZZER | E-mail Sending | TRAP Transmission |
| 1: | - | - | - | - | - | - | | |
| 2: | - | - | - | - | - | - | | |
| 3: | - | - | - | - | - | - | | |
| 4: | - | - | - | - | - | - | | |

When the "No Change" is set, a hyphen ("-") will be displayed.

5. MIB

With this product, there is an exclusive MIB (Management Information Base) for the NH Series, and the monitor controls can be operated by the SNMP manager, etc.

5.1. MIB Definition List



MEMO Use the PRSH when acquiring a SNMP data log dump.

- Intro
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5.2. PATLITE MIB SPECIFICATIONS

The following explains the MIB Specification for the NH Series Monitoring Tower.

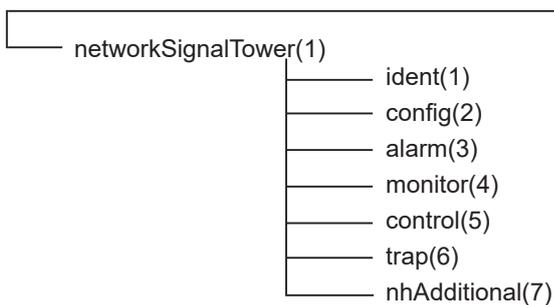
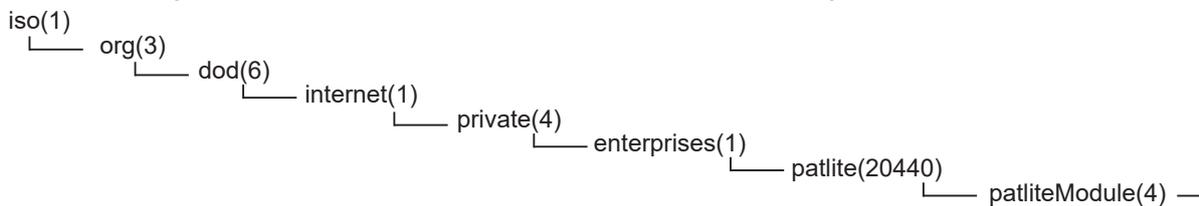


Table 5.2.1 MIB Specifications

| OID | Name | Model | MAX-ACCESS | Comment |
|-----------------------|-----------------------------------|---|----------------|---|
| 1 | ident | — | — | ID Group |
| 1.1.0 | identSWinitVersion | String(2) | read-only | OS Version |
| 1.2.0 | identSWAgentVersion | String(3) | read-only | Application Version |
| 1.3.0 | identsHWVersion | String(3) | read-only | Hardware Version |
| 4 | monitor | — | — | Monitor Group |
| 4.1 | pingServer | — | — | ping monitoring setting |
| 4.1.1.0 | pingServerNumEntries | INTEGER | read-only | Ping monitoring count |
| 4.1.2.0 | pingServerTable | — | not-accessible | ping monitoring table |
| 4.1.2.1.0 | pingServerTableEntry | — | not-accessible | |
| 4.1.2.1.1. (index) | pingServerTableIndex | INTEGER | read-only | ping monitoring index |
| 4.1.2.1.2. (index) | pingServerName | STRING(31) | read-only | ping monitor name |
| 4.1.2.1.3. (index) | pingServerAlertValue | INTEGER{ normal(1), occurred(2) } | read-only | ping monitor condition normal(1), event occurred(2) |
| 4.1.2.1.4. (index) | pingServerIpAddress | STRING(63) | read-only | ping monitoring address |
| 4.3 | logDump | — | — | log setting |
| 4.3.1.0 | logDumpEventlog1 | OBJECT IDENTIFIER | read-only | event log from 1 to 85 |
| 4.3.2.0 | logDumpEventlog2 | OBJECT IDENTIFIER | read-only | event log from 86 to 170 |
| 4.3.3.0 | logDumpEventlog3 | OBJECT IDENTIFIER | read-only | event log from 171 to 255 |
| 5.1 | controlLight | — | — | signal tower control |
| 5.1.1.0 | controlLightNumEntries | INTEGER | read-only | count of control entries |
| 5.1.2.0 | controlLightTable | — | not-accessible | signal tower table |
| 5.1.2.1.0 | controlLightTableEntry | — | not-accessible | — |
| 5.1.2.1.1. (index) | controlLightDeviceColor | INTEGER {red(1), amber(2), green(3), blue(4), clear(5), buzzer(6) } | read-only | signal tower color R(1)/Y(2)/G(3)/B(4)/C(5)/Buz(6) |
| 5.1.2.1.2. (index) | controlLightControlState | INTEGER {turn-off(1), turn- ON(2), blinking-pattern(3), nop(4), blinking-patern2(5), sound-pattern4(6) } | read-write | Signal Tower Status: lights and buzzer off(1)/lighting and buzzer synchronized with light pattern1(2)/flashing pattern1 and buzzer synchronized with light pattern2(3)/ no change(4)/flashing pattern2 and buzzer synchronized with light pattern3(5)/buzzer synchronized with light pattern 4(6). controlLightControlTimer is set by entering values above zero. |
| 5.1.2.1.3. (index) | controlLightControlTimer | INTEGER(-1,99) | read-write | A preset value is decremented for every second until it is 0, then it changes to the status designated by the controlLightControlState. |
| 5.1.2.1.4. (index) | controlLightCurrentState | INTEGER { off(1), on(2), blinking-pattern1(3), blinking-pattern2(4), sound- pattern4(5) } | read-only | The present status is displayed. lights and buzzer off(1)/lighting and buzzer synchronized with light pattern1(2)/flashing pattern1 and buzzer synchronized with light pattern2(3)/flashing pattern2 and buzzer synchronized with light pattern3(4)/buzzer synchronized with light pattern4(5) |
| 5.1.3.0 | controlLightSntpClear | INTEGER{ execute(1), nop(0) } | read-write | execute(1) setup will clear the Signal Tower operation. |
| 6 | Trap | — | — | — |
| 6.1 | trapPatliteAlarmAdded | OBJECT-IDENTIFIER | not-accessible | When an abnormality in the PING occurs |
| 6.2 | trapPatliteAlarmRemoved | OBJECT-IDENTIFIER | not-accessible | When an abnormality in the PING is restored |
| 6.3 | trapPatliteTrapReceived | OBJECT-IDENTIFIER | not-accessible | When a trap is received |
| 6.4 | trapPatliteClearExecuted | OBJECT-IDENTIFIER | not-accessible | When the clear button is pushed |
| 6.5 | trapPatliteRshExecuted | OBJECT-IDENTIFIER | not-accessible | When an RSH command is executed |
| 6.6 | trapPatliteAppMonitorAlarmAdded | OBJECT-IDENTIFIER | not-accessible | When an abnormality in the application occurs |
| 6.7 | trapPatliteAppMonitorAlarmRemoved | OBJECT-IDENTIFIER | not-accessible | When an abnormality in the application is restored |
| 6.8 | trapPatliteTestSwExecuted | OBJECT-IDENTIFIER | not-accessible | When the test switch is pushed |
| 6.9 | trapPatliteSLMPError | OBJECT-IDENTIFIER | not-accessible | When data corresponding to the SLMP con- dition is received |
| 6.10 | trapPatliteSLMPError | OBJECT-IDENTIFIER | not-accessible | When the SLMP error data is received |
| 7 | nhAdditional | | | |
| 7.1 | slmpPatternNum | INTEGER(1,16) | not-accessible | Stores an integer based on SLMP conditions. |

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6. Replacement and Option Parts

6.1. Replacement Parts

The repair parts of this product are as follows. when repair parts are needed, contact your PATLITE sales representatives.

Table 6.1 Replacement Parts of NH-FB

| Parts |
|---------------------------------------|
| Head Cover, ϕ 40, Off-white(NHP) |
| Head Cover, ϕ 40, Off-white(NHL) |
| Rubber Feet |
| Support tay |
| Adhesive Seal |
| AC Adaptor(1 plug)* |

*Replacement plug is not included in the AC adapter (1 plug) of repair parts.

Please purchase our AC adapter (ADP-001) when you need AC adapter with replacement plug included.

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6.2. Option Parts

Table 6.2 Option Parts

| Parts | Model |
|----------------------------|---------------|
| Wall Mount Bracket | NH-WST |
| Partition Mounting Bracket | NH-PST |
| Tint Film | NHL-TF、NHP-TF |

6.2.1. Wall Mount Bracket

This product can be attached to a wall with the wall mount bracket. One wall mount bracket can be used to attach this product on either the left-side or right-side of the wall.

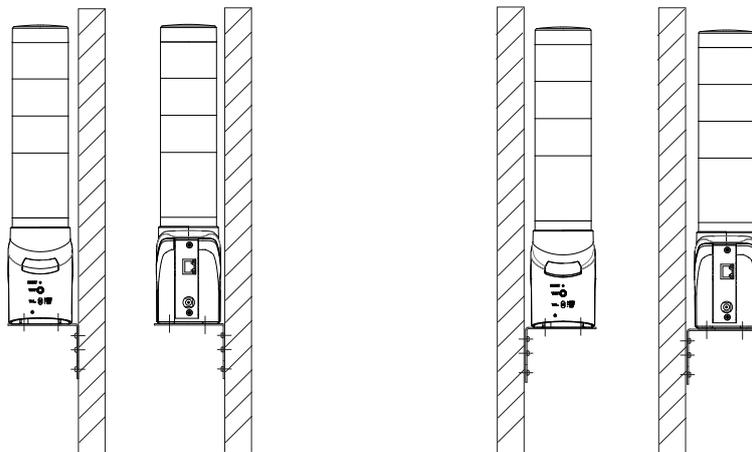


Fig. 6.2.1.1 Wall Mount Surface Bracket Figure

(Figure to the left indicates the left-sided attachment; figure to the right indicates the right-sided attachment)

Attention The installation direction for this product is only for the front attachment direction.

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[Installation Method]

1. After deciding on the attachment direction of the wall mount bracket, assemble this product to the bracket. (Use the same installation screw enclosed for assembling the Support Base).

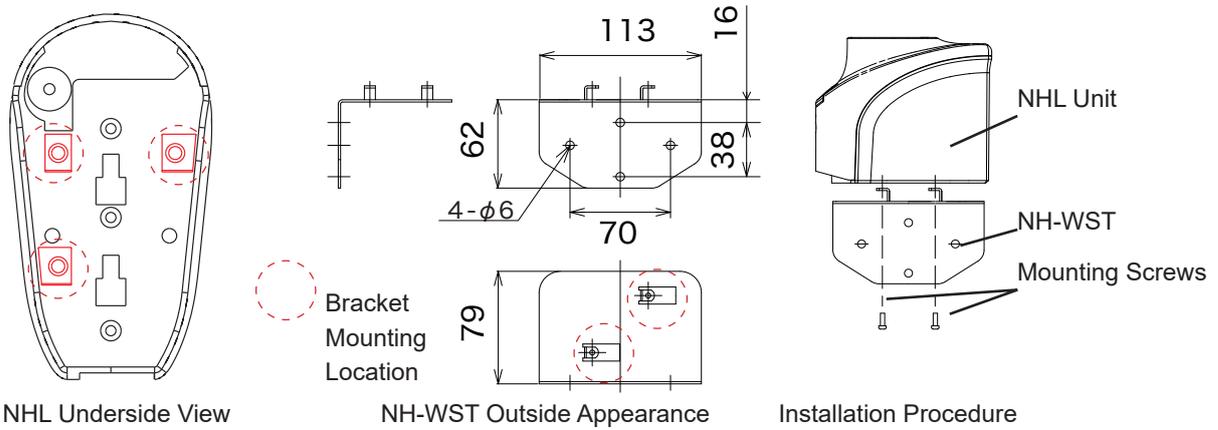


Fig. 6.2.1.2 Wall Mount Bracket Installation Diagram

2. Fix the wall mount bracket to the wall surface. Select the proper screw when installing the wall mount bracket to the customer's wall in accordance to the quality of the wall material to be mounted upon.

Attention Tighten the screws between this product and the bracket with a torque of about 0.39 N-m. Failure to do so may cause damage to the unit. Verify the installation is securely clamped to ensure there is no fear of detachment and falling after installation. Apply the power after checking that it has been installed correctly.

6.2.2. Partition Mounting Bracket

The partition mounting bracket is an optional item for attaching to partition walls in environments which cannot be attached to walls or other positions. The partition mounting bracket is designed to be attached with the front of this product facing to the right or left when fastening it to the partition.

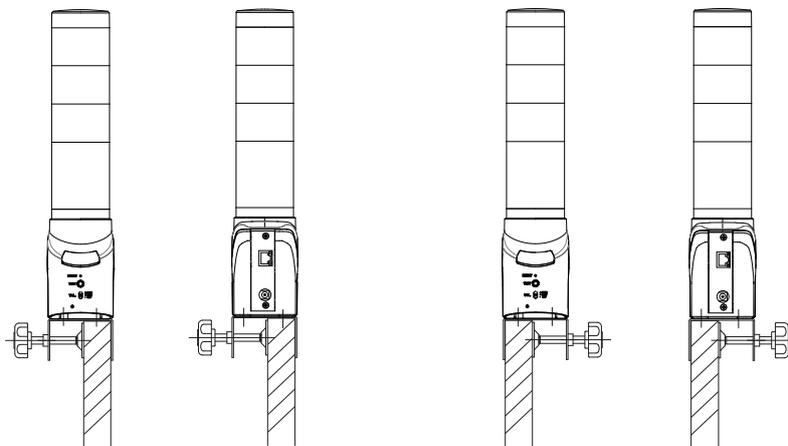


Fig. 6.2.2.1 Partition mounting bracket installation example
(Left image is for the left-side and the right image is for the right-side installations)

Attention The installation direction for this product is only for the front attachment direction.

[Installation Method]

1. After deciding on the attachment direction of the partition mounting bracket, assemble this product to the bracket. (Use the screws include when assembling).

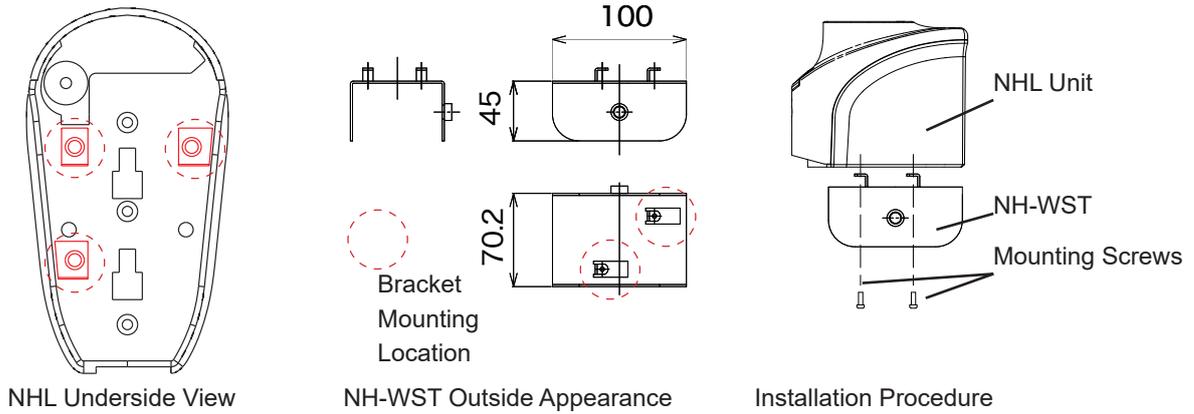


Fig. 6.2.2.2 Partition mounting bracket installation method

Attention

Tighten the screws between this product and the partition mounting bracket with a torque of about 0.39 N·m. Failure to do so may cause damage to the unit.

2. Check the width of the partition, then select the proper clamping screw to thread through the bracket. Attach the pressure plate and fittings.

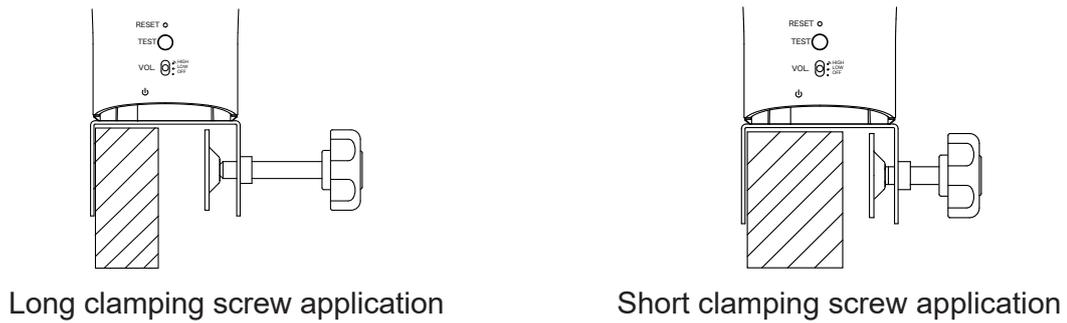


Fig. 6.2.2.3 Installation Method 1

3. Turn the clamping screw clockwise to tighten.

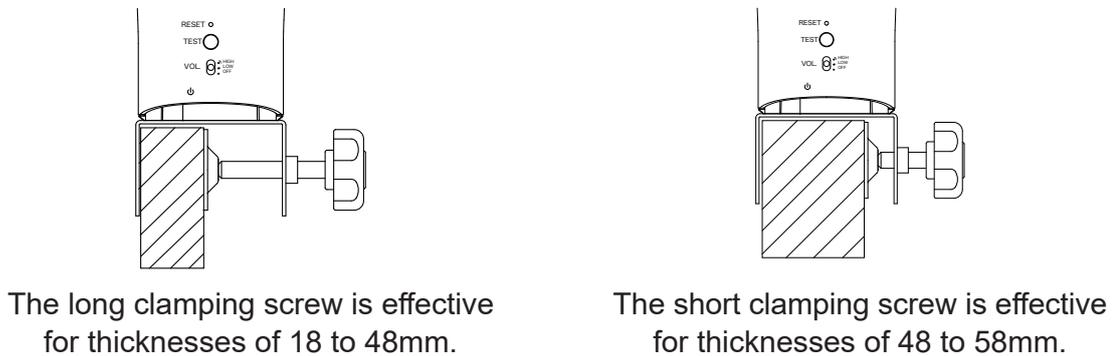


Fig. 6.2.2.4 Installation Method 2

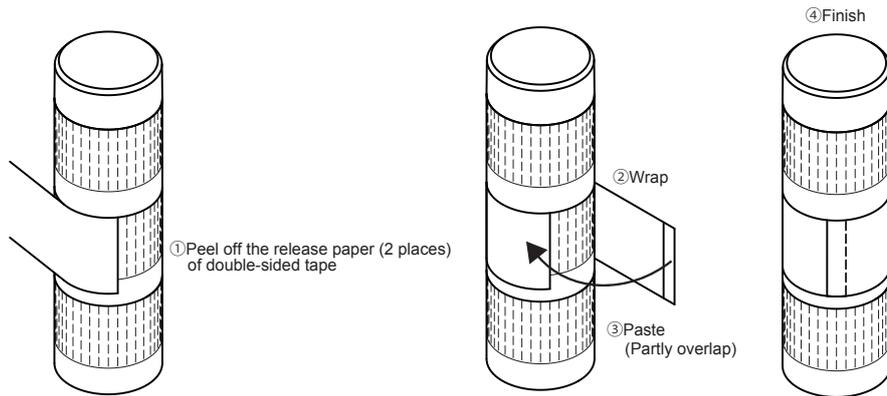
Attention

The partition mounting bracket may break if too much torque is applied.

6.2.3. Tint Film

Tint Film is a film that suppresses brightness when the LED unit is dazzling.

| ⚠ Caution | |
|-----------|--|
| ⊘ | <ul style="list-style-type: none"> • When removing dirt, oil and moisture, please do not wipe it up by volatile medicine and a chemical dustcloth of a benzine and a paint thinner. It may cause deformation or product failure. • Be careful as the LED unit can not be removed if Tint Film is pasted across a plurality of LED units. • Do not reuse the pasted Tint Film. The adhesive force of the double-sided tape decrease. |
| ❗ | <ul style="list-style-type: none"> • When sticking a Tint film, please remove dirt, oil and moisture. • Please use it as described in the instruction manual. |



6.3. About LED Unit

To purchase the LED unit, please purchase the LR type LED unit shown in the table below.

Table 6.3 LED Unit List

| Parts | Model |
|--------------------------------|----------|
| LED Unit Red (NHP ϕ 40) | LR4-E-RZ |
| LED Unit Amber (NHP ϕ 40) | LR4-E-YZ |
| LED Unit Green (NHP ϕ 40) | LR4-E-GZ |
| LED Unit Blue (NHP ϕ 40) | LR4-E-BZ |
| LED Unit White (NHP ϕ 40) | LR4-E-C |
| LED Unit Red (NHL ϕ 60) | LR6-E-RZ |
| LED Unit Amber (NHL ϕ 60) | LR6-E-YZ |
| LED Unit Green (NHL ϕ 60) | LR6-E-GZ |
| LED Unit Blue (NHL ϕ 60) | LR6-E-BZ |
| LED Unit White (NHL ϕ 60) | LR6-E-C |

6.3.1. How to attach and detach LED Unit

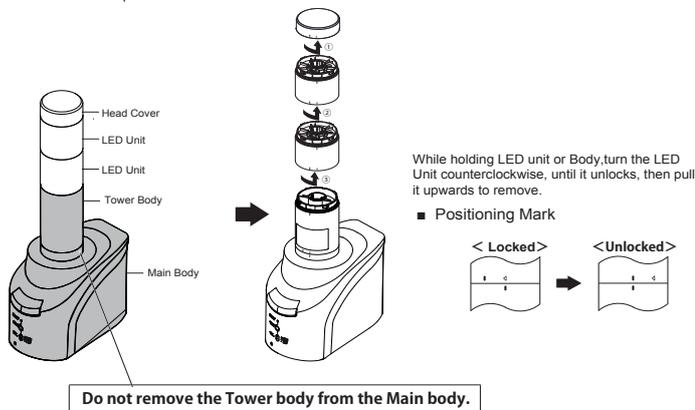
To rearrange the arrangement of the LED units, etc., perform the following procedure.

| ⚠ Warning | |
|-----------|---|
| ⊘ | <ul style="list-style-type: none"> The maximum number of attachment units per product are five LED units and one Head cover. Do not attach more units. Do not remove the body from the main body. Failure to comply may result in failure to this product. Do not attach same color LED units to one product at the same time. |
| ❗ | <ul style="list-style-type: none"> Be sure the power is disconnected before working on this product. |

| ⚠ Caution | |
|-----------|--|
| ⊘ | <ul style="list-style-type: none"> Do not apply excessive strength with each unit or body. Failure to comply may damage the unit. Do not touch the connector area or the inside of the body and LED unit. Failure to comply may damage the unit. Do not attach units not used in this product, such as WDT-6LR-Z2 or LR Buzzer unit, to this product. |
| ❗ | <ul style="list-style-type: none"> Be sure to lock each unit securely when attaching. Failure to comply may damage the unit. Detach the unit in the following manner. Any other method may result in damaging the product. |

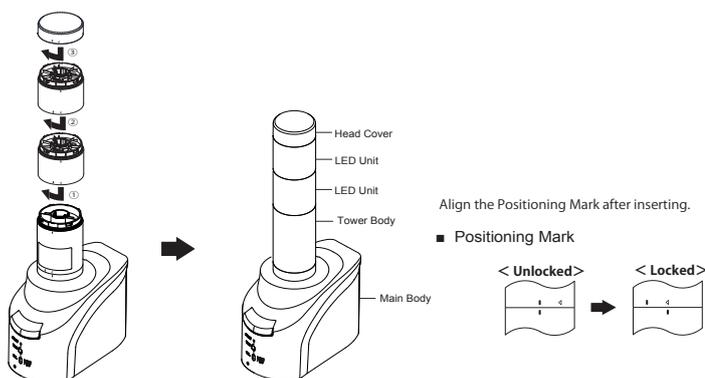
■ Removal method

Remove adjacent units one by one in order from the top in order.

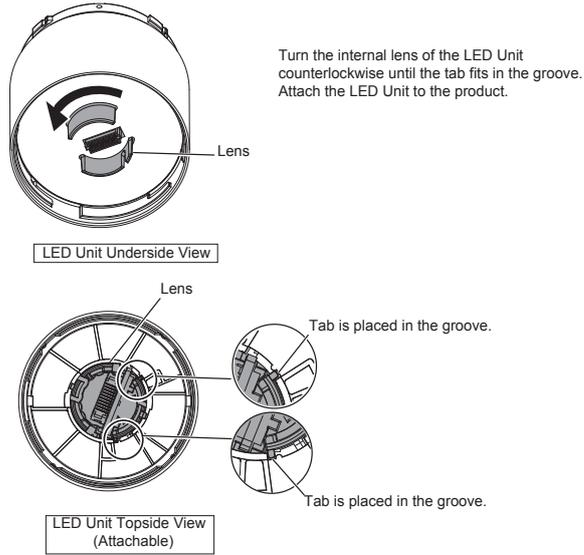


■ Attachment method

Attach adjacent units one by one in order from the bottom in order.



If the LED Unit can not attached, try the procedure below.



MEMO

Regarding how to attach and detach the LED unit, it is also listed in the product manual of the signal tower (LR series).

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7. Troubleshooting

| Problem | Check the following |
|--|---|
| The power does not turn on. | <ul style="list-style-type: none"> • Check whether the AC Adaptor is connected correctly. |
| The Web setup tool does not display. | <ul style="list-style-type: none"> • Check whether the LAN connector is connected correctly. • Check the setup for the IP address on this product. • Check the setup for the IP address on the PC side. • Refer to "2.5 Network Setup" on pg. 23 for the IP address set up procedure. |
| The Web setup tool does not display correctly. | <ul style="list-style-type: none"> • Make sure the browser information has been recently updated. |
| The signal tower is bright (or dazzling) | <ul style="list-style-type: none"> • Please use "Tint Film (NHP-TF)" (optional parts) |
| The Signal Tower does not turn on. | <ul style="list-style-type: none"> • Check whether the AC Adaptor is connected correctly. • Check the setup of the Signal Tower operation with the Web setup tool. Refer to "4.13 Normal Mode Settings Screen" on pg. 80 for the procedure to set up for the normal operation mode. • After any recombination of tiers to the Signal Tower has been done, check whether the Signal Tower lights up by accessing the Signal Tower Output Control screen. If the light does not turn on, it may not be installed correctly. Refer to "4.17 Signal Tower Output Control Screen" on pg. 89 for the procedure to control the Signal Tower output. |
| The buzzer does not sound. | <ul style="list-style-type: none"> • Check whether the volume switch has been set in the "OFF" position. • After each setup, check the buzzer operation. Refer to "4.17 Signal Tower Output Control Screen" on pg. 89 for the procedure to setup the buzzer output. |
| Socket Transmission does not work. | <ul style="list-style-type: none"> • Check whether the correct communication port has been set. Refer to "4.5 Socket Transmission Configuration Screen" on pg. 62 for the setup procedure of the Socket Transmission. • Check whether the data had been sent correctly. For data transmitted by the Socket Transmission, refer to "3.5 PHN Command Reception Function" on pg. 31 and "3.6 PNS Command Reception Function" on pg. 33 . |
| The RSH command data is unreceivable. | <ul style="list-style-type: none"> • Check the command reception setup. Refer to "4.8 RSH Command Configuration Screen" on pg. 66 for the setup procedure of the command reception. • Check whether the security settings for the PC has granted permission. |
| The HTTP Command does not work. | <ul style="list-style-type: none"> • Check the HTTP command control function is set to the "Active". Refer to "4.1. System Configuration Screen" |
| I want to return it to the factory settings., | <ul style="list-style-type: none"> • Refer to "3.13 Reinitialization Function" on pg. 45. |
| The E-mail transmission cannot be sent. | <ul style="list-style-type: none"> • Check whether the setup for the server is correct. |
| The SNMP SET/GET does not work. | <ul style="list-style-type: none"> • Check the SET Community name and GET Community name. |
| The status LED is flashing. | <ul style="list-style-type: none"> • It may be in the factory-shipment inspection mode. Be sure to reboot this product. |

8. Freeware Terms of Agreement



The following chapter clearly outlines the copyrights for the freeware software used with this product.

8.1. GNU GENERAL PUBLIC LICENCE

GNU GENERAL PUBLIC LICENSE
Version 2, June 1991

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