

# Network Monitoring Signal Tower

Now Available with Azure and AWS Cloud Service Compatibility



## Real-time Monitoring

- Variety of communication protocols including HTTP, SNMP, RSH, PING
- Able to Email real-time reports and alerts

## Effortless Device Setup

- The digital inputs on the NH-FV Series allows users to link devices not compatible with the cloud.
- Enables highly secure remote device management and data collection on Azure IoT Central
- Direct communication with AWS IoT Core



φ40

φ60

88dB  
(at 1m)

MP3

Microsoft  
Azure

Certified

aws

# Network Monitoring Signal Tower Series with MP3 Voice Alerts

## NH-FV Smart Signal Towers

- Audible alarm and MP3 voice alert functions
- Built-in digital output and contact inputs
- Able to send email alerts
- Monitor network device status using SNMP protocol

### LR4 and LR6 Series LED Units

Size	Color	Model
φ40		LR4-E-RZ / YZ / GZ / BZ <span style="background-color: #00aaff; color: white; padding: 2px;">Clear globe</span>
φ60		LR6-E-RZ / YZ / GZ / BZ <span style="background-color: #00aaff; color: white; padding: 2px;">Clear globe</span>

### Easily Reconfigure LED Colors

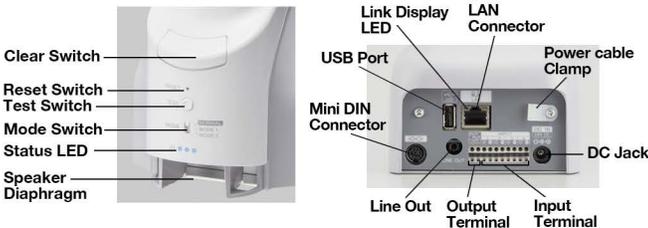
No tools are required to reconfigure the LED units. Simply twist the LED units to lock or release the units from one another. Standard stack lights are generally glued together or require tools to reconfigure modules.

### Monitor network device status using SNMP protocol

In addition to PING monitoring, the NH Signal Towers are equipped with an SNMP monitoring function. It actively obtains MIB information from supported SNMP network devices and is able to notify personnel with visual, audible, and/or email notifications when changes occur.



### Control Interface (NH-FV2 Series)

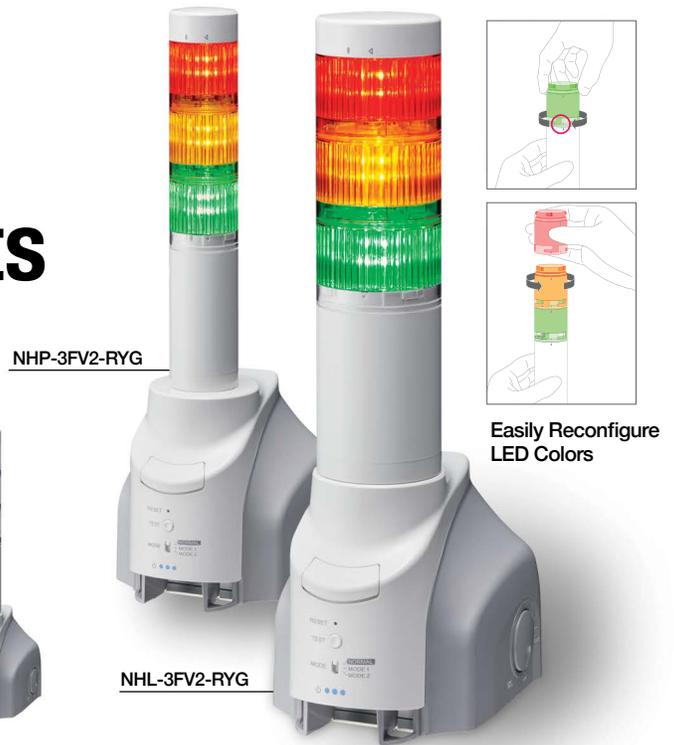


### Options



Length / NHP-FV2 Main Unit mass					
Main Unit Length					
Number of Tiers	1	2	3	4	5
Main unit length (mm)	256	296	336	376	416
Mass (g)	945	980	1015	1050	1085

Length / NHL-FV2 Main Unit mass					
Main Unit Length					
Number of Tiers	1	2	3	4	5
Main unit length (mm)	256	296	336	376	416
Mass (g)	1030	1090	1150	1210	1270



### How to Order

**NHL-3FV2N-RYG**

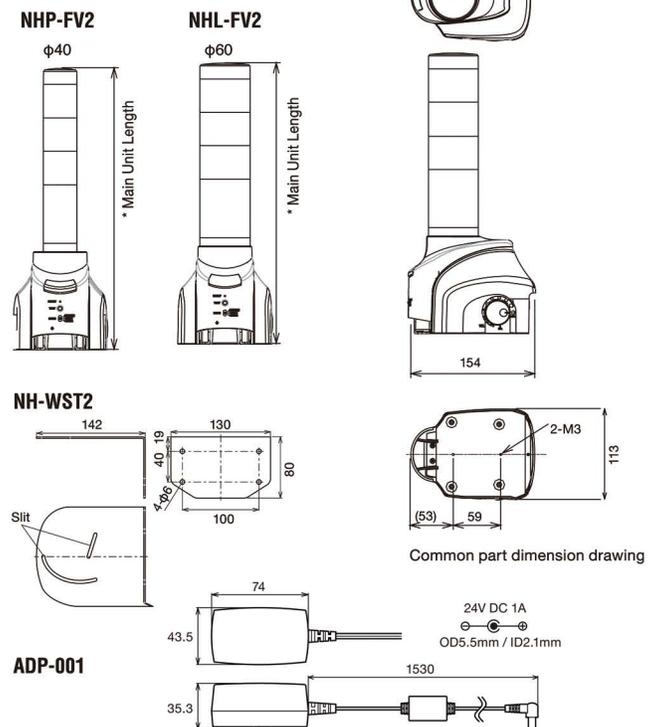
① Size  
P = φ40  
L = φ60

② Tiers  
1 = 1 tier  
2 = 2 tiers  
3 = 3 tiers  
4 = 4 tiers  
5 = 5 tiers

③ AC Adaptor  
Blank = AC Adaptor included  
W = AC Adaptor included  
Replacement plug included  
UL CCC VDE KC UK  
N = AC Adaptor not included

④ LED Unit Colors  
1 = 1 tier: R / Y / G  
2 = 2 tiers: RY / RG  
3 = 3 tiers: RYG  
4 = 4 tiers: RYGB  
5 = 5 tiers: RYGBG

### Dimensions (Unit: mm)

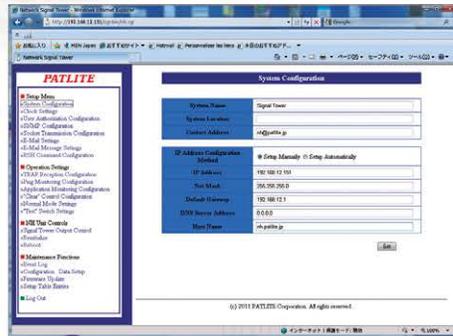




## “Irregularities detected on the network”

Volume adjustable up to 88dB

## Settings and MP3s can be modified via web interface



## Audible Alarm Functions

The NH Series comes pre-loaded with four audible alarm tones and three chime tones. The NH-FV comes also pre-loaded with three MP3 voice alerts and stores up to 60 MP3s.

### Alarm tones

(Fast intermittent)  
(Medium intermittent)  
(Slow intermittent)  
(Continuous sound)

### Chime tones

Chime 1  
Chime 2  
Chime 3

### Voice alerts

“Problem was detected in the network”  
“A problem occurred”  
“Problem was solved”

## MP3 Voice Alerts

Load the NH-FV with custom MP3 messages to give your network and/or machines a voice.

## Loud Alarm

The audible alarm horn is designed with a unique structure that achieves a sound pressure of 88 dB.

## Line Out

A digital output can be linked to the Line Out output so that another device, such as an amplifier or beacon, can be activated while the sound plays back. A delay can also be set to the sound trigger.

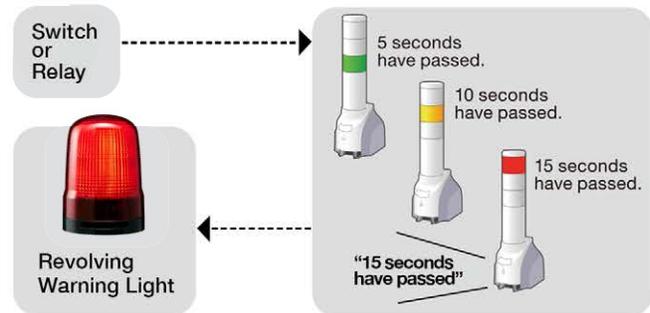


## Digital Input / Digital Output Contact Monitoring

The NH-FV is equipped with four digital contact inputs and one digital output.

Example:

An input from a switch relay can trigger a timer function. At preset time intervals, alert functions trigger and send an output to trigger an external device.



## USB Flash Drive

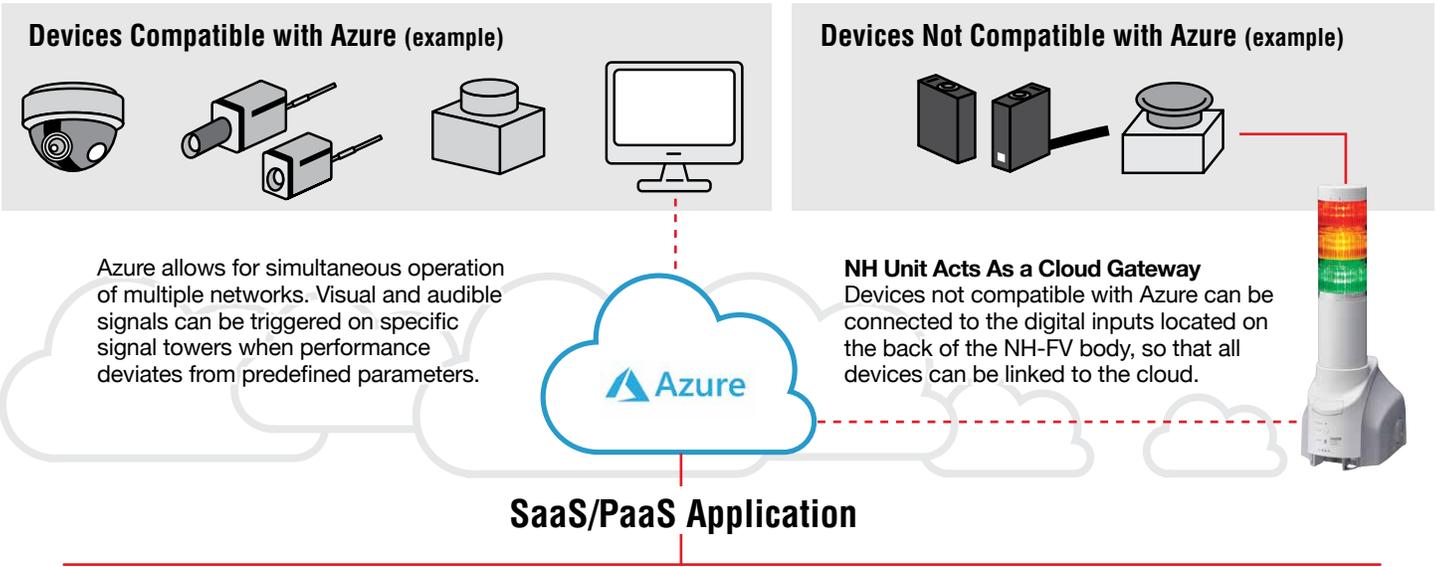
A USB flash drive may be used for the following operations:

- Update Firmware
- Download Event Log
- Import/Export Operation Settings
- Edit MP3 Voice Alerts



# NH-FV Cloud with Azure

## Seamless Integration

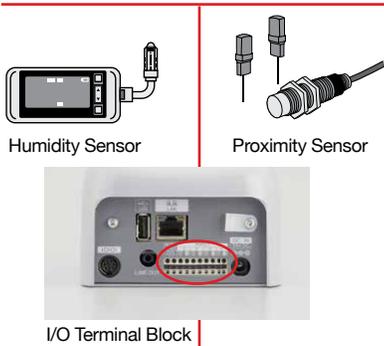


### Microsoft Azure Certified for IoT Signalling Devices



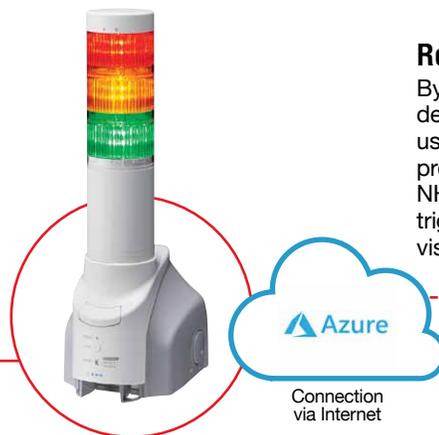
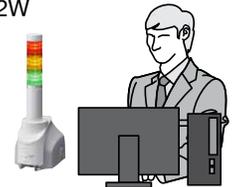
## Access All Your NH-FV Data In Azure

### Output with Digital I/O



### Remote Monitoring

By connecting sensors and NH-3FV2W devices to the Azure cloud network, users are able to monitor their processes remotely and in real-time. NH-3FV2W devices can also be triggered remotely to provide a visual and audible response.

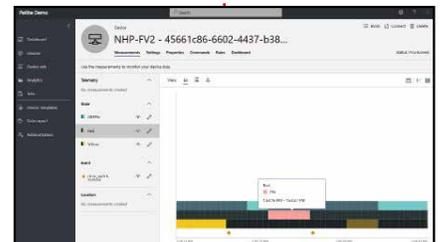


### Confirm by Clearing NH-FV Alerts



### Store and Analyze Data

The Azure IoT Central tracks the time, type, and duration of NH-3FV2W alerts. This data can be exported to other software for further analysis.

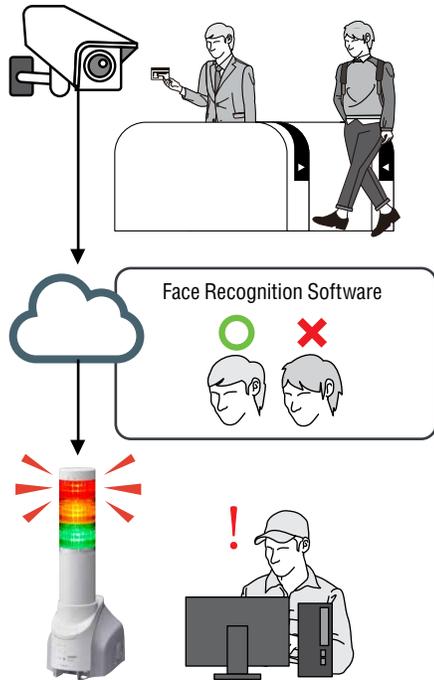




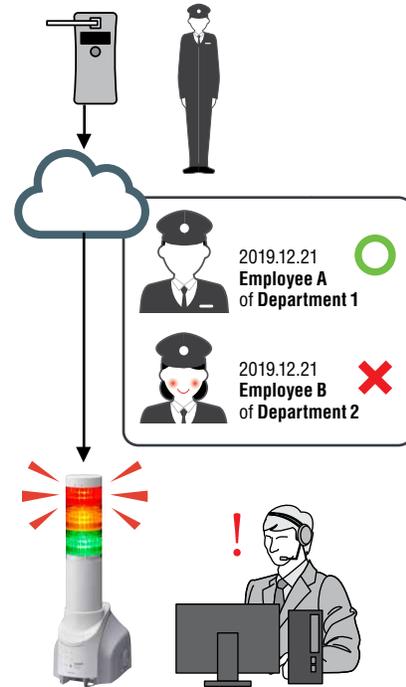
# NH-FV Cloud with AWS

## AWS Application Examples

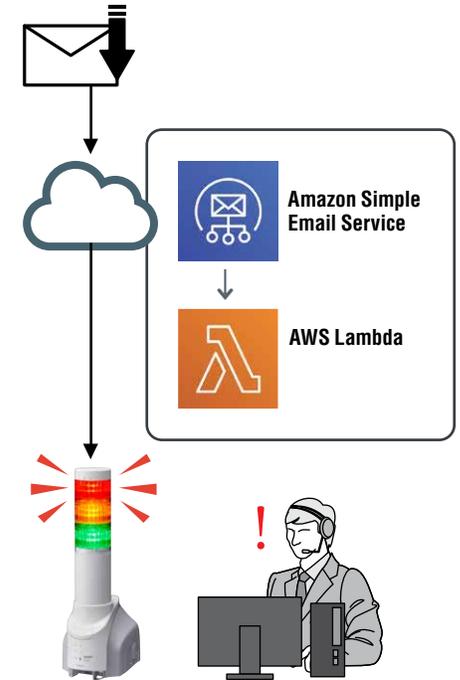
### Face Recognition System



### Breathalyzer Results



### Incoming Mail Notification



## Cloud Visualization Benefits

### Prevent Mistakes

Light and sound notification allows you to respond without overlooking something.

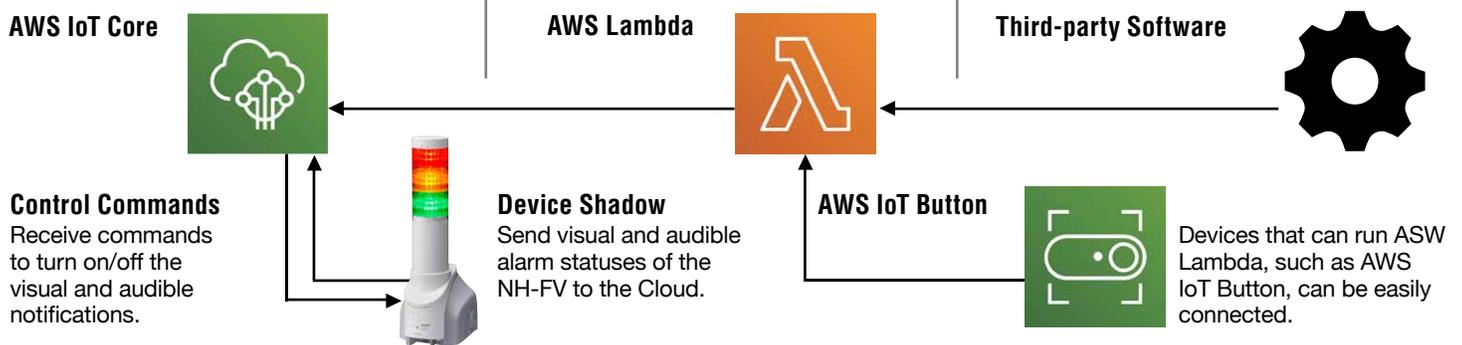
### Quicker Initial Response

Early detection enables rapid initial response to problems.

### Efficient Operation

Ability to check for abnormal situations while conducting other operations increases efficiency.

## AWS Cloud Connection with NH-FV Series



# Network Monitor Signal Tower Series with Audible Alarm

## NH-FB Smart Signal Towers

- Designed to compliment office spaces
- Up to 5 LED units with 2 types of flashing patterns
- 4 audible alarm sound types

OFF

NHP-3FB2-RYG

NHL-3FB2-RYG

### How to Order

**NHL-3FB2N-RYG**

① ② ③ ④

<p>① Size P = <math>\phi 40</math> L = <math>\phi 60</math></p>	<p>③ AC Adaptor Blank = AC Adaptor included W* = AC Adaptor included Replacement plug included</p> <p>UL CCC VDE KC UK</p>	<p>④ LED Unit Colors</p> <p>1 = 1 tier: R / Y / G</p> <p>2 = 2 tiers: RY / RG</p> <p>3 = 3 tiers: RYG</p> <p>4 = 4 tiers: RYGB</p> <p>5 = 5 tiers: RYGBG</p>
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### LR4 and LR6 Series LED Units

The LR Series supports up to 5 LED units on a single signal tower.

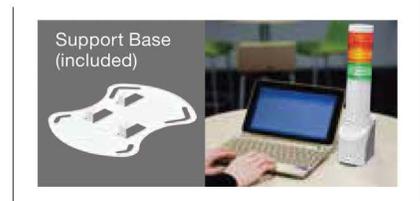
\* LED units (LR\*-E-\*) of the same color cannot be connected on the same unit.

Size	Color	Model
$\phi 40$		LR4-E-RZ / YZ / GZ / BZ <a href="#">Clear globe</a>
$\phi 60$		LR6-E-RZ / YZ / GZ / BZ <a href="#">Clear globe</a>

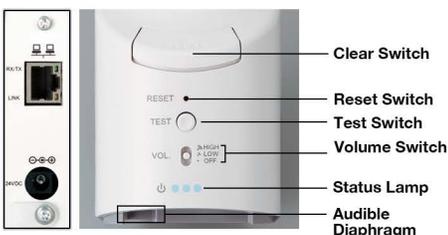
### Options

<b>NH-WST</b> Wall-mount Bracket	<b>NH-WST</b> Wall-mount Bracket	<b>ADP-001</b> Universal AC Adaptor	<b>NHL-TF</b> (For NHL-FV2/FB2) <b>NHP-TF</b> (For NHP-FV2/FB2) Dimmer Film

### Installation image



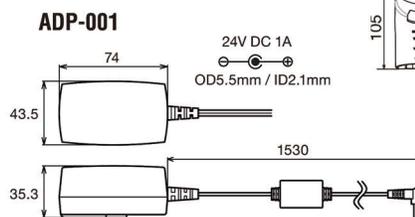
### Simple Control Interface



- 1) Clear Switch  
Clears visual or audible alerts and returns the NHL to the "normal status"
- 2) Reset Switch  
Reboots the NHL device
- 3) Test Switch  
Cycles through all segments

### Dimensions (Unit: mm)

Number of Tiers	1	2	3	4	5
Main unit length (mm)	244	284	324	364	404
Mass (g)	660	720	780	840	900



**Partition Mounting Bracket NH-PST (Option)**

**NH-WST**

**SUPPORT BASE**

# Monitoring Functions for NH-FV and NH-FB Series

Compatible with various monitoring functions



Laptop & PC,  
Other devices



Printers



Routers



Machinery  
Assembly lines



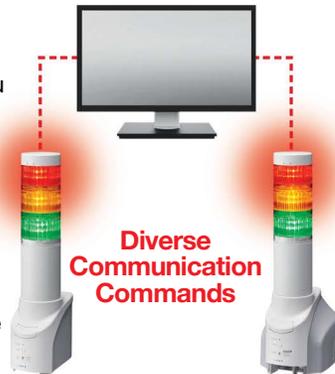
Date Storage  
Devices

## PING Monitoring

Ping up to 24 nodes simultaneously. While Ping is a basic diagnostic tool, the NH Signal Towers are able to notify you based on your priorities. For example, low priority ping response failures may trigger a flashing light, while higher priority failures will trigger an MP3 voice alert and send an email report, in addition to the flashing light.

## Application Monitoring

Gain control over your applications and earlier problem detection. Evaluate the performance of standard software and web applications and if an error occurs, the NH Signal Towers promptly alerts you before problems become worse.



## Trap Monitoring

As one of the oldest standards for network equipment fault notification, most network devices support SNMP traps. The NH Signal Towers are able to send, receive and analyze trap information and responds and/or notifies you appropriately.

## Email Transmission

Send email reports of various network events to up to 8 addresses. The subject and body can be customized and can be automated to be sent in a variety of situations.

### HTTP Command

HTTP (Hypertext Transfer Protocol) is an application-layer protocol designed within the framework of the Internet protocol suite.

The NH Series accepts HTTP commands sent through a web browser or PLC to trigger NH Series visual and audible alert functions.

#### NH-FB / NH-FV Series

**Command execution**  
(Red / Amber / Green Lights on  
Alarm sounds)

<http://192.168.10.1/api/control?alert=111001>

#### NH-FB / NH-FV Series

**Command Execution**  
(Perform clear operation)

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

### RSH Command

Remote Shell (RSH), command line program that executes shell commands on remote hosts such as the NH Series.

RSH can be used to automatically run commands based on event information from network management software and various monitoring tools on the NH Series to trigger visual and audible alert functions.

#### NH-FB / NH-FV Series

**(Red / Amber / Green Lights on  
Alarm sounds)**

`rsh 192.168.10.1 -l root alert 111001`

#### NH-FV Series

**Command Execution**  
(Play the CH10 message)

`rsh 192.168.10.1 -l patlite sound 10`

### SOCKET Communication

Socket(s) allows communication between PCs and is used in a client-server application framework.

The NH Series accepts an application-level protocol called PNS (developed by PATLITE) to establish connection between client and server and to control visual and audible alert functions.

#### NH-FB / NH-FV Series

**Command execution**  
(Red / Amber / Green Lights on  
Alarm sounds)

`58H,58H,53H,00H,00H,06H,01H,01H,01H,00H,00H,01H`  
(NH-FV Series cannot play alarm sounds with PHN command)

#### NH-FV Series

**Command Execution**  
(Play the CH10 message)

`58H,58H,56H,00H,00H,04H,01H,00H,00H,10H`

## Compatible with DHCP

Dynamic Host Configuration Protocol (DHCP) is a network management client/server protocol that automatically assigns an IP address to each device on a network so they can communicate with other IP networks.

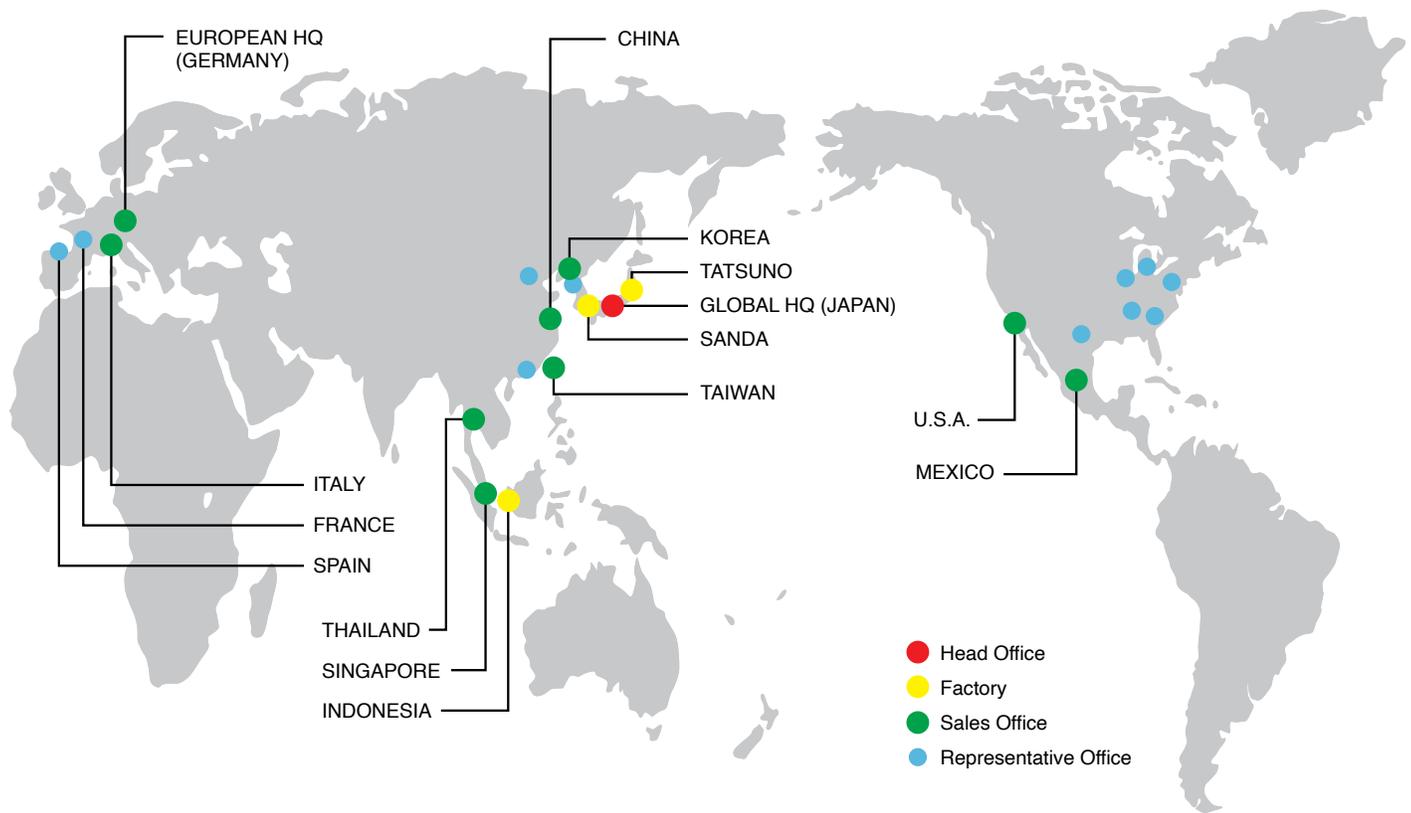
## Easy to Setup/Update

Accessing the NH Series settings or updating the firmware can easily be done through a web browser.

## Self-Test Function

With the test switch located on the front of NH Series devices, users can test various functions without having to login to the device through the network.

# PATLITE Global Network



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