

Installation Manual

TYPE : NH-FV Series

Thank you very much for purchasing our PATLITE products. Read this instruction manual carefully prior to use. This manual is a "Outline Version", containing information to ensure correct use.

- This product requires installation, wiring and other setup work. Always have installation work performed by a professional contractor.
- Prior to installation, read this manual thoroughly before using this product to ensure correct use.
- Reread this manual when maintenance, inspection, repair or other work is required. If there are any questions concerning this product, refer to the contact information at the end of this document and contact your nearest PATLITE Sales Representative.
- For more details on installation, settings or wiring, download the **Complete Instruction Manual from our homepage**.

Homepage address	https://www.patlite.com
------------------	---

* Since the URL indicated above also contains information regarding firmware updates, etc., it is recommended to refer back to it periodically.

- To the Contractor
- Read this manual carefully prior to installation.
- If there are any questions concerning this product, refer to the contact information at the end of this document and contact your nearest PATLITE Sales Representative.

NOTE

■ The copyrights of this book is owned by the PATLITE Company, Inc. (henceforth referred to as "our company"). Any reproduction, duplication, alteration, or extracting portions of this book, etc., without written permission from our company is forbidden.

■ Specifications, the design, and other contents written in this book may be changed for improvements without prior notice and may result in differences from the actual product purchased.

■ This product meets severe quality control and inspection requirements prior to shipment, but if some failure or defect is found, please contact the place of purchase, or your PATLITE Sales Representative (indicated on the last page) to solve the issue.

■ Please understand prior to use that no responsibility is taken at our company from any customers or third parties, for damages or other disadvantages, due to any failure or defect produced by using this product.

■ Please understand that our company does not take any responsibility for damage and other disadvantages this product (software is included) has caused due to the customer using this product outside its designed application, such as for home, office and industrial use, high security applications such as medical or systems related to human life, directly or indirectly, or from claims from any third parties. Please understand prior to use that no responsibility is taken at our company for damages or other disadvantages, due to customers using this product beyond the scope of its general application, or from any claims from third parties. When using this product for applications in which equipment of higher reliability than the general application demands, such as a computer system, etc., please use suitable safety design countermeasures against system failure, etc.

■ Due to the characteristics of the LED's, variations in brightness and color of the indicating lamps may occur.

■ This product (Body only) conforms to EN standards and shows the CE Markings.

■ To retain the UL certification for the main unit, it is required to use an AC adaptor with UL Listing.

FCC Compliance

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

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Package Contents

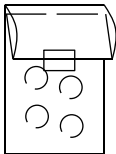
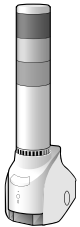
The following items below are included when being shipped.

If there should be any missing items, please refer to the end of this book for your nearest PATLITE Sales Representative.

(1) Main Unit (1 pc.)

(2) Rubber Feet (4 pcs.)

(3) This Book



-Safety Precautions-

To prevent from personal injury, injury to others or property damage, the following precautions must be observed.

◆ The following symbols classifies the precautions into the following two categories depending on the degree of injury or damage caused by the failure to follow them:

	Warning	Indicates an imminently dangerous condition: failure to follow the instructions may lead to death or serious injury.
◆ Request the installation and wiring to be accompanied by a professional contractor. If installation is done improperly, it may result in fire, electric shock, falling, or malfunction.		

	Caution	Indicates a potentially dangerous condition: failure to follow the instructions may lead to slight injury or property damage.
◆ Use a soft cloth dampened with water to clean the product : (Do not use thinner, benzene, gasoline or oil.)		
◆ The following symbols used in this manual are explained below:		
		This symbol indicates "Prohibited", which should not be carried out by all means.
		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.

Cautionary Notes

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

	Warning	<ul style="list-style-type: none">• Do not disassemble or alter the product. Failure to comply may result in fire, electric shock, or failure.• 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.• After attaching this product onto the machinery, Do not remove the cover, hook anything onto the product or use the product as a step When climbing onto the machinery. Failure to comply may result in falling off the machinery or product damage may 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">• 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 receptical, it can be the result of fire or failure from short-circuiting.• When installing, wiring, or replacing parts, be sure to turn off the power first to prevent electric shock.• When an unusual odor, sound or smoke comes out of the product, immediately disconnect the power, then contact your nearest PATLITE Sales Representative.
	Caution	<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.
		<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 disassemble or attempt to repair this product by any means. Failure to comply will result in equipment damage or fire.• 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 place any part of this product (Main Unit, rubber feet) where infants can reach it. If it is swallowed accidentally, it could be detrimental. If it is suspected of being swallowed, please consult an emergency medical center immediately.

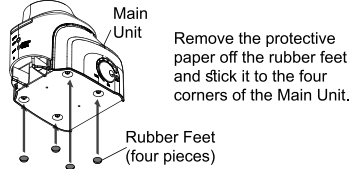
Product Installation

	Caution	<ul style="list-style-type: none">• This product is for indoor use only. Do not use it outdoors.• When installing this product, please avoid installation in the following places:<ul style="list-style-type: none">• 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.
--	----------------	---

- This product is to be intalled on a level surface.
- Use the rubber feet accessory for this product when needed.

◆ Placing in an unfixed location

When necessary, adhere the rubber feet (four pieces) included to the bottom of this product.



◆ When using the wall-mount bracket (Optional part)

Refer to the instruction manual for the wall-mount bracket mounting instruction when installing the wall-mount bracket.

	Attention	<ul style="list-style-type: none">• Be sure to use both mounting screws included for the wall-mount bracket when installing the bracket to the Main Unit, and tighten with the recommended torque of 0.6 N-m.• The clamping surface of the bracket should be sufficient enough to tolerate the weight of the product.• Be sure to use the wall-mount screws with compatible construction material (wall material, etc.), and mount adequately for the customer.• Be sure to use all four tapped holes and affix with proper bolting torque When attaching the bracket to the wall surface.
--	------------------	---

LAN Connection

Connect the LAN cable to this product.

- The LAN cable should be a category 5 twisted-pair cable (UTP or STP).
- The LAN cable can either be a straight or cross cable.

Lineout Connection

A mini plug cable can be connected to this product.

- Be sure to connect with the line-in input of the targeted equipment.
- A monaural cable can be used.

	Warning	<ul style="list-style-type: none">• Do not connect headphones, earphones, or passive speakers to the line-out. Failure to comply may result in failure to this product.• Connect a monaural mini plug to the line-out. In cases where a stereo mini plug is used, the signal output is only from the left channel. Do not connect any plugs, other than those for monaural or stereo. Failure to comply may result in failure to this product.
--	----------------	---

Terminal Buss Wiring

	Caution	<ul style="list-style-type: none">• Be sure the power is turned off before performing any electric wiring activity. Failure to comply may result in electric shock.• Double check the wiring to prevent mistakes. Failure to comply will result in equipment damage or fire.• Wire the product so that the lead Wire does not protrude from the terminal. Failure to comply will result in damage due to short-circuiting.• After wiring, verify that there are no loose wires, or they are easy to pull out. Input Terminal Buss and Output Terminal Mount Wiring.
--	----------------	--

<< Input Terminal Buss and Output Terminal Mount Wiring >>

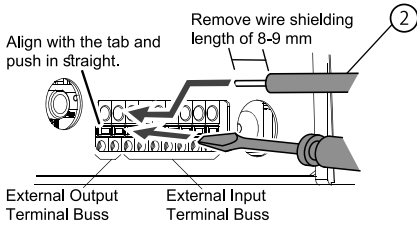
Wire the input terminal stand and output terminal mount in according to the following steps.

[Wiring Method]

- (1) Use a minus driver(*) and push in the tab of the control unit's terminal buss tab.
- (2) Insert a signal line lead wire into the slot.
(Keep pushing the tab while inserting)
- (3) Release the minus driver to lock the lead wire in place.

* Use the following type of minus driver.

Name	Tolerable Dimensions	
Minus Driver	Blade diameter 1.7-2.1 mm	Width 0.5-0.7 mm



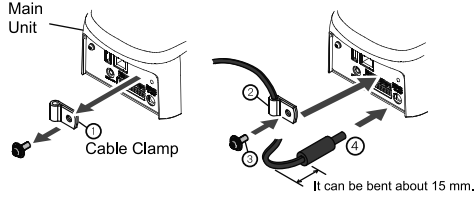
	MEMO	<ul style="list-style-type: none">• the following are the gauge sizes used for the terminal buss: Solid Wire: ø0.4- 0.8mm (AWG26-20) Twisted wire: 0.13 - 0.52mm² (AWG26- 20)• Be sure the voltage and current of the equipment connected to the Main Unit output does not exceed its rated values. Port 1 Maximum : 3A, 30VDC Inrush current 5A or less Minimum : 1mA, 5VDC (Reference Values)• Be sure the voltage and current of the equipment connected to the Main Unit input does not exceed its rated values. Ports 1-4 (NPN Transistor) : Output ON current 6 mA or less Port Terminal OFF condition Voltage: 24V
--	-------------	---

Power Supply Input

Attach the power plug for this product in accordance with the figure below. It takes about 60 seconds from the time the power has been applied until start-up is 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. Allow cable slack of about 15mm from the DC plug.
- (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.



Network Setup

Once the power supply is switched on and startup is complete (as shown below), enter the IP address of this product into the web browser address section.

The factory default IP Address is: 192.168.10.1	
	Recommended browsers are Internet Explorer 10 or higher, or Firefox 12 or higher.
<Web Browser Address Entry> http://192.168.10.1/index.htm	

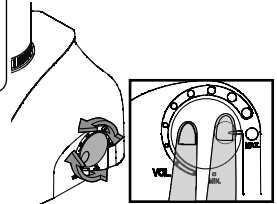
							
<div>Attention</div>	<ul style="list-style-type: none">• When the login screen is displayed, enter "patlite" in the password field, then click the "Login" button.• The default password is "patlite." Please be sure to change the password to prevent any security breaching.• Use the instruction manual downloaded from our website for the setup instructions of this product.<ul style="list-style-type: none">* The LAN cable can either be a straight or cross cable when connecting the PC to this product.						
<div>MEMO</div>	<ul style="list-style-type: none">• 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:<table><tr><td>IP address of PC</td><td>192.168.10.2-254</td></tr><tr><td>Subnet Mask</td><td>255.255.255.0</td></tr><tr><td>Default Gateway</td><td>Setup is unnecessary when making a direct connection.</td></tr></table>When connecting it with a Network, be sure to check with the network administrator.	IP address of PC	192.168.10.2-254	Subnet Mask	255.255.255.0	Default Gateway	Setup is unnecessary when making a direct connection.
IP address of PC	192.168.10.2-254						
Subnet Mask	255.255.255.0						
Default Gateway	Setup is unnecessary when making a direct connection.						

After login, it is recommended to download the instruction manual from our website and read it to fully utilize the various functions of this product.

Adjusting the volume

The sound output from the Main Unit speaker can be adjusted with the volume knob located on the side of the body.

	MEMO	<ul style="list-style-type: none">• The sound volume can also be adjusted by using the web setup tool.
	Attention	<ul style="list-style-type: none">• The volume knob control may differ in stiffness When turning. When it is hard to turn the volume knob, it will become easy to turn it, if the index and middle finger are placed on the volume knob as shown in the following figure.



Questions regarding this Product

If there are any questions regarding this product, please contact your nearest PATLITE Sales Representative.

AC Adaptor Specifications

When ordering an AC Adaptor separately, use the following specifications.

Failure to comply may result in failure of this product.

[Recommended AC Adaptor Specifications]	
DC Output	
Voltage	: 24V DC ±5%
Current	: 0.75A to 1A max.
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.

