

Installation Manual

HITACHI Air Conditioner Managing System Central Station EX Extension Adapter Model: PSC-AD128EX1

Notice: Please provide this manual to the next operator to be referenced and kept in a place.
(Installer) → (Wiring electrician) → (Test run operator) → (Customer)

Tick the ☐ after checking the item.

Read and understand this manual before installing the adapter.

This installation manual applies to PSC-AD128EX1 only. Refer to the installation manual packaged together with Central Station EX (PSC-A128EX1) and air conditioners you are combining.

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Preface

- Central controller for air conditioner, “Central Station EX Extension Adapter”.
- For the practical usage, this software needs to be connected to management computer, with Central Station EX (PSC-A128EX1) installed, via LAN.
- Do not install this adapter at following places. If installed, it will cause a fire, malfunction and corrosion.
 - Places where oil mists or steam drifts.
 - Places where sulfide gas form as hot spring is near.
- Do not install this adapter at following places. If installed, it will cause corrosion.
 - Places where high in salt contents surrounding as coast regions.
 - Places where with atmosphere of acidity and alkalinity humid place.
- Do not install this adapter at following places. If installed, it will cause malfunction and failure.
 - Places where the adapter is exposed to the direct sunlight.
 - Places where the temperature is extremely high.
 - Places where the adapter may be wet.
 - Places where there is poorly ventilated.
- Do not install this adapter where the electromagnetic wave is directly radiated to the electrical parts.
- Do not install this adapter within 3 meters from strong electromagnetic wave radiators such as medical equipment.

1. Safety Summary

- Please carefully read this section before installing the adapter.
- Contents with “**⚠ DANGER**” shows the certain cases where improper operation WILL result in severe personal injury or even death. For your safety, please follow the instruction.
- Turn the adapter ON to check the adapter is correctly installed and wired upon completing operation.

[Symbols Used in This Manual]

⚠ DANGER : Immediate hazards which WILL result in severe personal injury or death.

! : Indicates enforcement matters against the general users.

⊘ : Indicates prohibited matters.

NOTE: This sign indicates other alert information than DANGER.

NOTICE: Useful information for operation and/or maintenance.

■ Installation Work ■

⚠ DANGER

- | | |
|--|----------|
| • Upon installation, please carefully read and follow this manual. Improper installation can cause electric shock, fire or unexpected accidents. | ! |
| • Ensure that the installation place is strong enough. If not, the adapter may fall down and could result in injury. | ! |
| • DO NOT install this adapter where generation, flowing, staying or leaking of flammable gas is detected. | ⊘ |

■ Electrical Work ■

⚠ DANGER

- | | |
|--|----------|
| • Perform electrical wiring connection work only by qualified electrician. | ! |
| • Follow the local codes and regulations, and this manual when performing electrical wiring. Please also ensure to utilize specific circuit. Circuit capacity shortage and improper wiring may cause electric shock and/or fire. | ! |
| • Utilize specified cable for wiring power, air conditioners, management computer, and/or other external devices. Other cables may cause electric shock and/or fire. | ! |
| • Before opening the top cover of the adapter, turn OFF the power supply. Unless the power is turned OFF, the current is kept supplied to the terminals and power switch for the adapter, which can cause electric shock when touched. | ! |
| • This adapter has the backup system function. To realize the backup function, the “POWER LED” will stay lit for a while after power shuts down. Please ensure that the “POWER LED” is OFF upon wiring. | ! |

2. System Configuration

2.1 System Configuration

This installation manual is exclusively for the Central Station EX adapter (Extension Adapter: PSC-AD128EX1). Sample system configuraiton is illustrated in Figure 2.1. Also refer to the installation manual and the operation manual for each of the air conditinioners and devices connecting to the system.

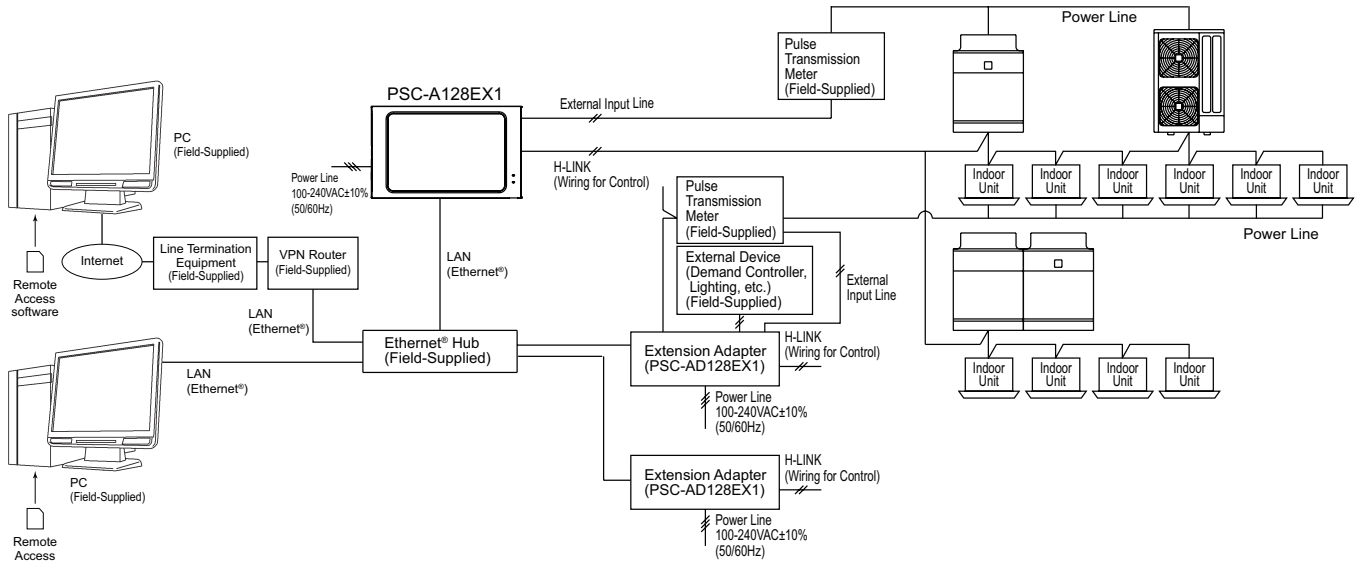


Figure 2.1: Sample of System Configuration

2.2 Names and Functions

Names are as described in the following figure 2.2.

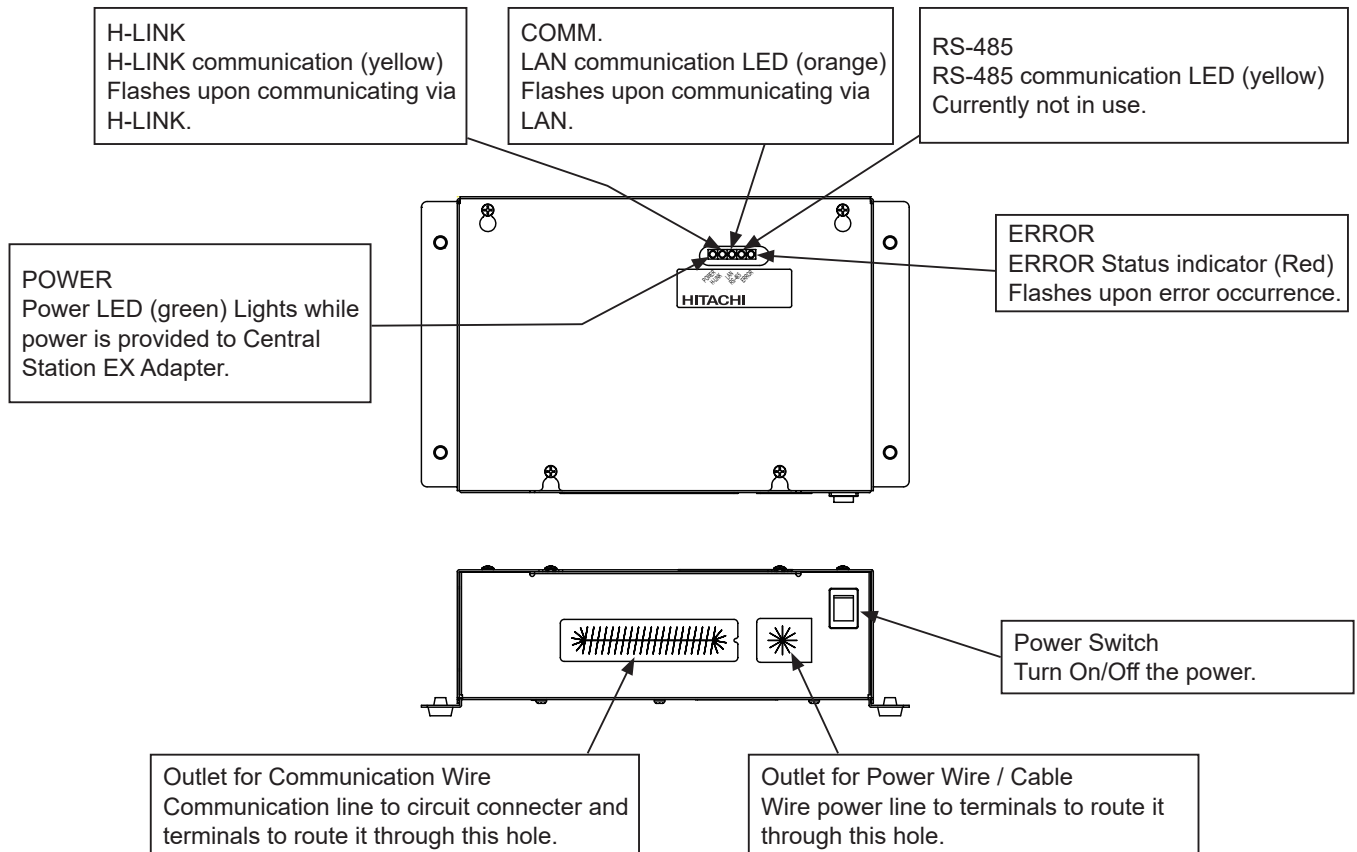


Figure 2.2: Parts Names

2.3 Inner Names

The following figure shows the Central Station EX adapter with the cover removed. Each name and function are as follows.

Regarding how to connect each terminal, refer to “5.2 Wiring Work” (page 8). Regarding how to set each switch, refer to “5.3 Switch Setting Procedures” (page 10).

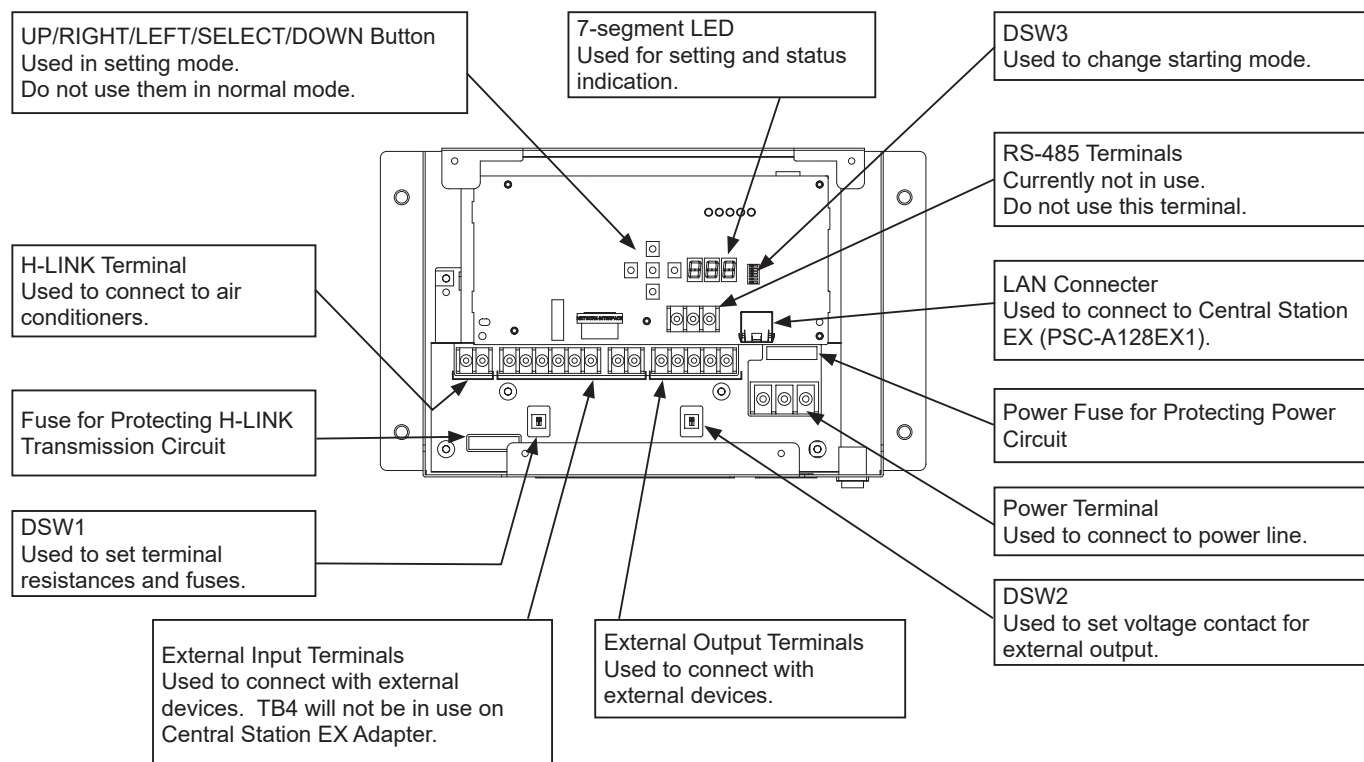


Figure 2.3: Names of Inner Parts

2.4 Specifications

Table 2.1: Hardware Specification

Item	Specification
Dimensions (mm)	W:255.6 x H:155 x D:72
Net Weight	Approx. 1.5kg
Installation Place	For Indoor Installation Only For Wall Mount or Wall Built-in
Ambient Temperature	0 ~ 40°C
Ambient Humidity	20 ~ 80%RH (No Condensation)
Rated Power Supply	AC 100~240V ± 10% (50/60Hz)
Power Consumption	Maximum 10W

Table 2.2: Communication Specification for H-LINK

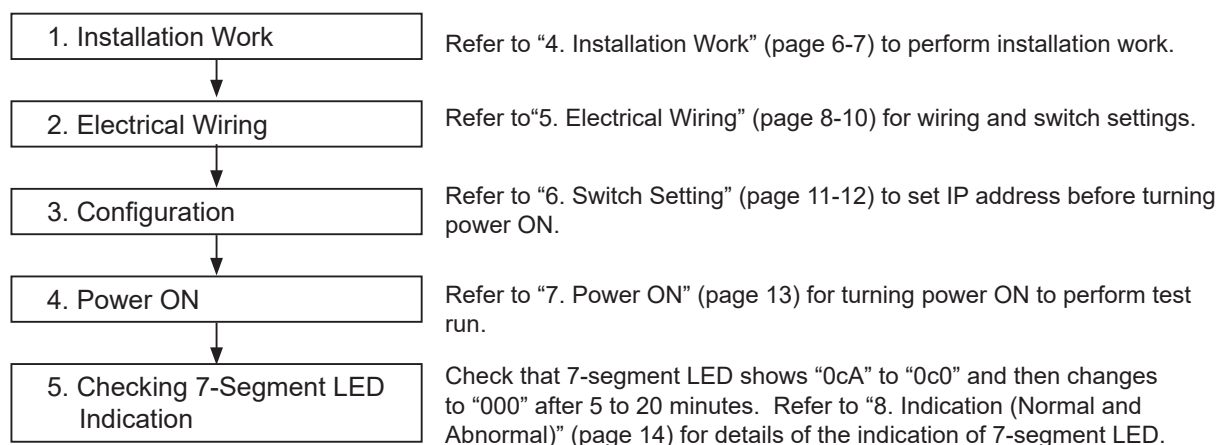
Item	Specification
Communication Peer	Indoor Unit / Outdoor Unit
Communication Line	2 wires, non polar
Communication Method	Half Duplex Communication
Synchronization Method	Asynchronous
Communication Speed	9,600 bps
Wire Length of Connecting Cable	Total 1,000m or less
Units Connected (Qty.)	Up to 64 outdoor units and 160 indoor units Total 200 or less on one H-LINK When connecting one or more H-LINK II non-support units, indoor unit should be less than 128 unit, and total should be less than 145 units.
For Combined Use	PSC-A32MN, PSC-A64GT, PSC-A16RS NOTE 1: RC-less indoor units can not be connected to the system where 2 or more central. NOTE 2: If 2 or more central stations are in combined use, system may need to have restrictions. NOTE 3: One H-LINK system can include up to 8 central controllers.

Table 2.3: LAN (Ethernet) Specification

Item	Specification
Communication Peer	Central Station EX (PSC-A128EX1)
Communication Line	LAN (Ethernet)
Communication Method	IEEE 802.3 Complied (10BASE-T/100BASE-TX)
Total Length of Connecting Cable	100m

3. Procedure Overview

This manual describes how to install and to power ON the Central Station EX adapter.
Follow instructions 1-5 to install the Central Station EX adapter.



4. Installation Work

4.1 Place of Installation

Select a place that applies to the following:

- ☐ (1) Refer to the clause “1. Safety Summary” (page 1) of this installation manual.
- ☐ (2) Place where the Central Station EX Adapter can be firmly attached with wood screw for on wall mount.
- ☐ (3) Attach the adapter where it is not easily accessed (e.g., inside of control console).

4.2 Installation Procedure

- ☐ (1) Secure free space as illustrated in Figure 4.1.

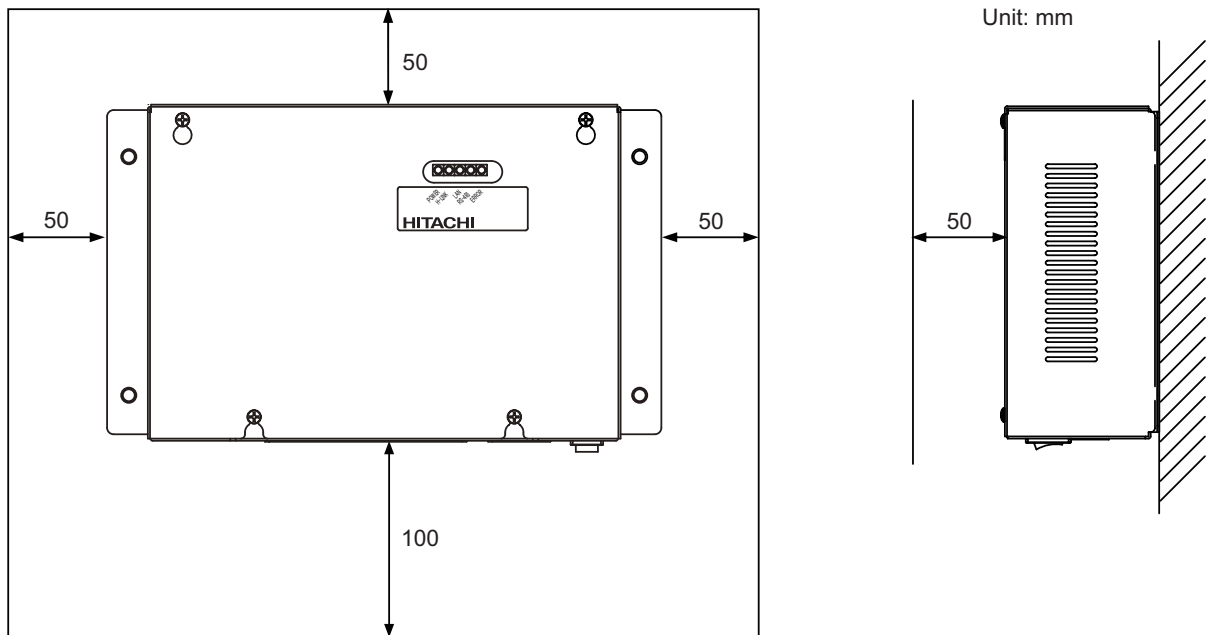


Figure 4.1: Installation Space

□ (2) For Wall Mount

- (a) Ensure that the wire outlet faces the floor, and keep the Central Station EX adapter mounted horizontal not vertical. See example below.

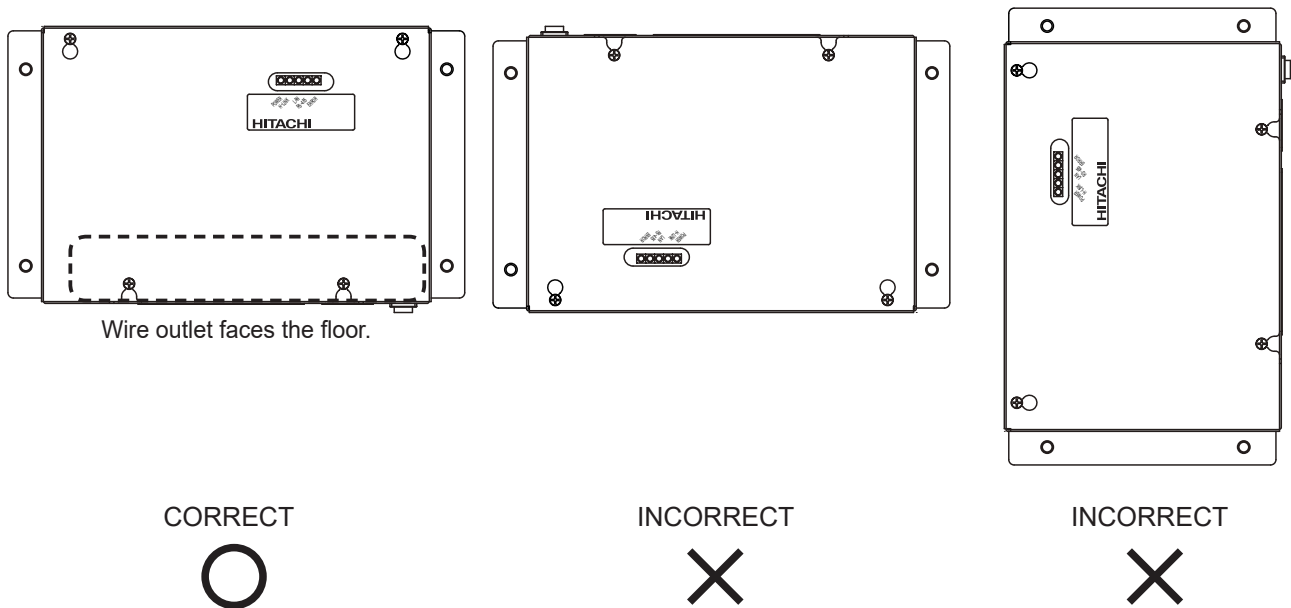


Figure 4.2: Direction for Installing Adapter

- (b) Remove rubber feet (4 pcs).
- (c) Firmly attach Central Station EX adapter on wall through rubber foot hole with M5 screws ("M5 screws" are field-supplied).

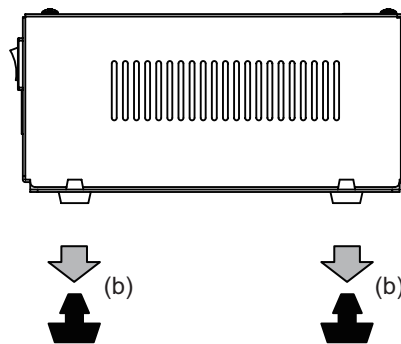


Figure 4.3: Removing Rubber Feet

5. Electrical Wiring

5.1 Wiring Procedures

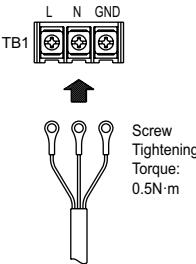
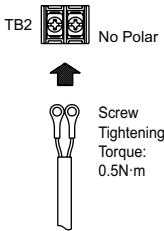
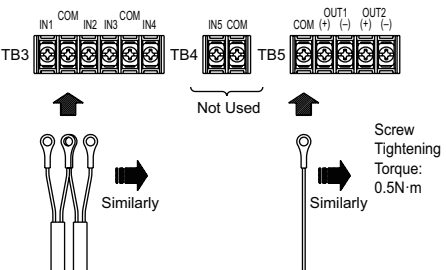
- (1) Read and understand “1. Safety Summary” (page 1) in this manual well to perform wiring work. Wiring work for power line, line for communication with air conditioners (H-LINK) and control line (LAN) with Central Station EX (PSC-A128EX1) are required.

Note that wiring work for communication with external devices also is required for any external device connected to the system. Ensure the power line is turned off before performing any wiring work.

5.2 Wiring Work

- (1) Ensure that the power line and the power on connecting devices are all turned off before performing any wiring work.
- (2) Loosen 4 screws and slide top cover to remove it.
- (3) Follow the instruction below to perform wiring work.

Table 5.1: Connecting Wires

Type of Wiring	Power Line	H-LINK (Communication Line)
Specification	AC100~240V±10% (50/60Hz)	5VDC
Wiring Length	—	1,000m or less
Cable Specificaion	1.25mm ² to 2mm ² Outer diameter finish is up to 10mm.	0.75mm ² to 1.25mm ²
Terminals/Connector	M3 Screw Terminal (with Terminal Cover)	M3 Screw Terminal
Connection Procedure	 • Crimp a ring terminal on the wire. • Route the power supply cable through the dedicated opening as shown in Figure 2.2. • Install each ring terminal to correct location on the terminal block (TB1). NOTE: To prevent electric shock, do NOT remove the terminal cover.	 • Crimp a ring terminal on the wire. • Route the communication cable through the dedicated opening as shown in Figure 2.2. • Install each ring terminal to correct location on the terminal block (TB2).
Type of Wiring	LAN Cable	External Input/Output Cable
Specification	IEEE802.3 Compliant 100BASE-TX/10BASE-T	Input: a contact point setting DC24V 10mA Output: Dry/Wet Contact Setting DC24V 40mA or less
Wiring Length	100m or less	70m or less
Cable Specificaion	LAN Cable (Category 5 or more)	0.5mm ² to 1.25mm ²
Terminal/Connector	RJ45 Connector	M3 Screw Terminal
Connection Procedure	 • Route the LAN cable through the dedicated opening as shown in Figure 2.2. • Insert connector until lock sound is heard.	 • Crimp ring terminals on the wiring as shown. • Route the wiring through the dedicated opening as shown in Figure 2.2. • Install each ring terminal to the correct location on the terminal blocks (TB3, TB4, TB5). NOTE: If using external output with wet contact, DIP switch setting is required.

NOTICE:

- Secure space longer than 150mm between communication lines (H-LINK, LAN, External Input/Output).

- Connecting External Devices

NOTES:

1. External input circuit is pulled up to DC24V in the Central Station EX adapter. On the wire between the Central Station EX adapter and external device, maximum current from the Central Station EX adapter is 10mA.
Pulse width and pulse interval need to be 90 ms or longer for use with pulse input.
2. **When connecting to external output, apply relay with following specifications.**
 - **Rated voltage: 24VDC**
 - **Rated current: 40mA or less**
3. To set voltage contact for external output, set DSW2 for external output setting to ON.
4. 4 COM terminals can be used for both input and output. (They conduct with each other internally.)

How to wire

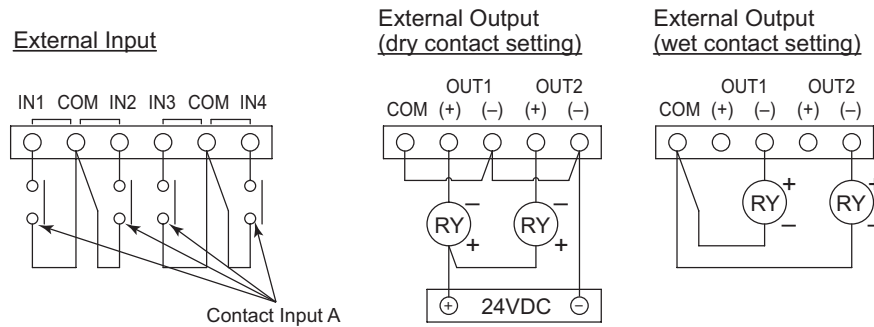


Figure 5.1: How to Wire External Devices

5.3 Switch Setting Procedures

Change switch setting before turning power on.

Switch setting is as follows. Factory default setting may need to be changed depending on use in the field.
(voltage contact setting)

Table 5.2: Switch Setting

Switch		Usage (ON/OFF)	Factory Setting	Remarks
DSW1 (2-position DSW)	1	ON: H-LINK Terminal Resistance Active OFF: H-LINK Terminal Resistance Inactive	OFF	Ensure that no other terminal resistance exists on the same H-LINK when activating terminal resistance from the Central Station EX.
	2	ON: Protection Fuse for H-LINK ... Inactive (Short-circuited) OFF: Protection Fuse for H-LINK ... Active (Normal)	OFF	When the protection fuse for H-LINK is blown, set 2 pin on DSW1 to ON to make short-circuit between fuse terminals.
DSW2 (2-position DSW)	1	ON: External output 1 voltage contact (24V ON) setting OFF: External output 1 No-voltage contact (24V OFF) setting	OFF	Set this switch as ON to set external output 1 to wet contact.
	2	ON: External output 2 voltage contact (24V ON) setting OFF: External output 2 No-voltage contact (24V OFF) setting	OFF	Set this switch as ON to set external output 2 to wet contact.
DSW3 (6-position DSW)	1	[ON OFF]: Normal Mode ON [OFF ON]: Setting Mode (3 and 4 OFF)	ON	—
	2	(1 and 2 from the left)	OFF	—
	3	OFF (Locked)	OFF	Do NOT change it.
	4	OFF: H-LINK II Support Mode ON: H-LINK II Non-support Mode	OFF	Do NOT change it.
	5	ON (Locked)	ON	Do NOT change it.
	6	OFF (Locked)	OFF	Do NOT change it.

Table 5.3: Setting Startup option DSW3 setting

No.	DSW3 Setting	Setting Position	Setting State	Usage
1		1 and 5 pin ON	Normal Mode	1 and 5 pins are ON as factory default setting. Power on as they are. After power is turned ON, connection check starts. Upon completion of connection check, ERROR LED goes off.
2		2 and 5 pin ON	Setting Mode	Power on with the setting illustrated on the left to utilize setting mode.

- (1) Reattach the top cover upon completing wiring work.
See the Figure 5.2 for appropriate positioning of the top cover.

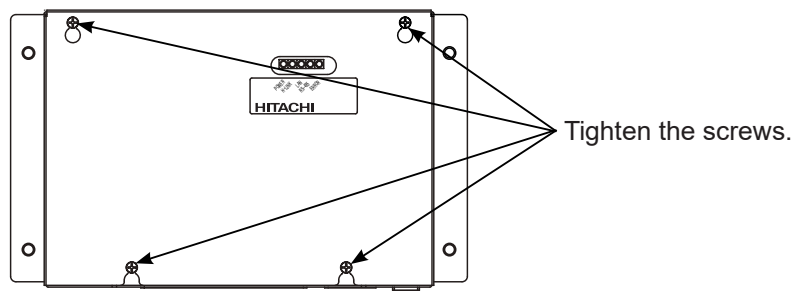


Figure 5.2: Attaching Top Cover

6. Switch Setting

To connect to HUB, set the IP address that has no duplication on the same network for Central Station EX adapter. Factory-setting is as follows.

Table 6.1: Factory-Setting (Initial Setting)

Name	Initial Setting
IP Address	192.168.0.23
Subnet Mask	255.255.255.0
Default Gateway	192.168.0.1

Check/modify the detail setting by following instructions below.

Checking IP Address

- (1) Connect HUB and PC before connecting Central Station EX adapter to HUB.
- (2) Go to **Start - Control Panel - Network and Sharing Center - Local Area Connection - Properties - Internet protocol version 4 (TCP/IP4)*** to set the IP address of PC. Ensure that the last digit is different from Central Station EX adapter.
(Example: If IP address for Central Station EX adapter is 192.168.0.23, then IP address for PC can be 192.168.0.30, and so on.)
- (3) Go to **Start - All Programs - Accessories - Command Prompt***.
- (4) Enter “ping [IP address that is to be set for Central Station EX adapter]” and press **Enter** key on keyboard.
(Example: “ping [192.168.0.24 (any address that has no duplication on the system)]”)
- (5) If the window shows “Request timed out”, then the IP address is not being used on the network. In this case, this IP address can be used for Central Station EX adapter. If the request does not time out, then the IP address is already being used and the IP address cannot be used for Central Station EX adapter.

* These steps apply to Windows 7 OS. These steps may or may not completely apply to other OS.

Procedure

- (1) Remove the top cover and set 2 and 5 pins on DSW3 as ON. (To setting mode)
- (2) Turn the power ON.
- (3) Wait until 7-segment LED shows “1”.
- (4) Press **UP** or **DOWN** button to check 7-segment LED shows as following. Set 7-segment LED as “4” to change IP address.

Table 6.2: Indications and Contents

Items	7-Segment LED Display		Main Function
	Before Pushing [SELECT]	After Pushing [SELECT]	
Reserved	1	—	Do NOT change it.
Reserved	2	—	Do NOT change it.
Connection info.	3	0 ~ 1	Indicates 1 when it has connection information and 0 when it does not. Set 0 to delete connection information
IP address	4	The first 3 digits of the IP address	Check and modify IP address for Central Station EX adapter.
Subnet mask	5	The first 3 digits of the subnet mask	Check and modify subnet mask for Central Station EX adapter.
Default gateway	6	The first 3 digits of the default gateway	Check and modify default gateway for Central Station EX adapter.
Reserved	7 ~ 8	—	Do NOT change it.
Version + P number	c	Version + the first 3 digits of P number	Version + P number (YYYYMMDDhhmmPPPP) will be shown.
Reserved	d	—	Do NOT change it.
Address (H-LINK communication source)	e	1 ~ 32	Modify address for Central Station EX adapter.
Factory resetting	f	0 ~ 1	To reset the setting to factory default, show 1, otherwise show 0. (Ensure that “0” is indicated when checking the setting.)

* Official name of Windows® is Microsoft Windows Operation System.

- (5) Press **SELECT** button to show the first 3 digits of current setting. Example of IP address is as follows.
(Example: 192.168.0.23)
(a) The contents in the square are shown on the 7-segment LED.



NOTE: The value “0” for IP address, subnet mask and default gateway are indicated with “000”.

- (b) Press **SELECT** button to move the display range to the farthest left.
The first 3 digits from the left will flash. (Example: 192.168.0.23)



- (c) Press **LEFT, RIGHT, UP** or **DOWN** button to show network address and to change setting.
Press **RIGHT** button to right scroll the indication by 1 digit. (Example: 192.168.0.23)



Press **LEFT** button to left scroll the indication by 1 digit. (Example: 192.168.0.23)



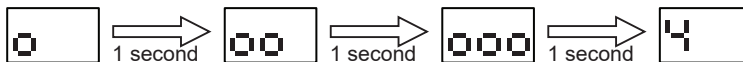
Press **UP** button to increment the right most number by 1.
(Example: 192.168.0.23 → 193.168.0.23. Increments up to 9.)



Press **DOWN** button to decrease the right most number by 1.
(Example: 193.168.0.23 → 192.168.0.23. decreases down to 0.)



- (d) Press **SELECT** and indication is as follows and then the display indicates the number for the setting item.



- (6) To change other setting items, repeat steps (4) to (5) as necessary.

NOTES:

1. Restart Central Station EX adapter to activate the change. Shut the power off to confirm all LEDs go off, set DSW3 to normal mode (1 and 5 pins ON) and then turn the power ON again.
After start up, fit the top cover.
2. Upon resetting to factory default setting, Central Station EX adapter will automatically restart.
When restarting due to resetting to factory default setting, 7-segment LED indicates “1” once and then returns to the normal indication.

NOTICE:

- For detail about the IP address, subnet mask and default gateway, contact network administrator. Subnet mask and default gateway need not to be set if the network is exclusively for Central Station EX and its peripherals. Regarding network security, contact network administrator.

7. Power ON

After completing installation, wiring operation, switch setting and other settings, use the following procedure to turn ON the power for Central Station EX adapter. After a minute, start up finishes and the connection check starts.

- (1) Turn ON the power for all air conditioners on the system.
 - Complete test run on all air conditioners first to confirm their health.
- (2) Ensure the 1 and 5 pins of SW3 on Central Station EX adapter are set as ON and then turn ON the power.
- (3) Turn ON the power for Central Station EX adapter. POWER LED lights. After a minute, start up completes and the connection check starts. While Central Station EX adapter is checking connection, the 7-segment LED indicates either "0cA" or "0c0" and the ERROR LED flashes every 5 seconds.

NOTE:

If 2 or more central controllers are on the same system, disconnect all the other central controllers than Central Station EX from H-LINK to turn ON the power for Central Station EX adapter.

- (4) Ensure that the connection checking of the air conditioners is completed. Connection check completes in approximately 20 seconds. Upon completion, 7-segment LED shows "000" and the ERROR LED goes off.

Refer to Installation and Operation Manual for Central Station EX (PSC-A128EX1) for details of further operation.

NOTE:

To restart Central Station EX adapter, ensure that POWER LED and 7-segment LED are turned OFF and then turn the power ON again.

8. Indication (Normal and Abnormal)

LED indication for normal and abnormal conditions are as follows.

Table 8.1: Indication and Condition for ERROR LED and 7-segment LED

State	Lights/indicates when	Goes OFF/clears when	ERROR LED state	7-segment LED state	Indication priority
Software start up failure	Detected abnormality on the software	The software has no error/ abnormality.	ON	0E0	1
Memory check failure (FlashROM)	Detected abnormality while checking FlashROM	Checking FlashROM successfully completed.	ON	0E1	2
Checking memory (FlashROM)	Checking FlashROM	Checking FlashROM successfully completed.	OFF	0c1	3
Memory check failure (SDRAM)	Detected abnormality on checking SDRAM	Checking SDRAM successfully completed.	ON	0E2	4
Checking memory (SDRAM)	Checking SDRAM	Checking SDRAM successfully completed.	OFF	0c2	5
File system failure	Detected abnormality while checking file system	Checking file system successfully completed.	ON	0E6	6
Application start up	Immediately after power ON and application starts up on normal mode	1 second elapsed	ON for 1 second	088	7
H-LINK initialization failure	After turning ON the power on normal mode, application starts up and detected abnormality on initializing H-LINK communication port.	Initialization of H-LINK communication port successfully completed.	ON	0hE	8
Internal database failure	After turning ON the power on normal mode, application starts up and detected abnormality on checking internal database.	Checking internal database successfully completed.	ON for 1 sec. and OFF for 1 sec. (Repeated)	0tE	9
Initializing system	After turning ON the power on normal mode, application starts up and then processing system initialization.	System initialization successfully completed.	OFF	050	10
Preparing for air conditioners connection checking	After start up on normal mode, the Central Station EX adapter is either checking connection with other central controllers or while in auto address detection.	Starting connection checking	Flashes once in 5 sec. (Repeated)	0cA	11
Checking connection with air conditioners	After turning ON the power on normal mode, application starts up and then checking connection with air conditioners.	Connection checking completed.	Flashes once in 5 sec. (Repeated)	0c0	12
Communication failure with air conditioners	After turning on the power on normal mode, completed connection checking with air conditioners and detected communication failure with 1 or more air conditioners.	Communication on all the detected air conditioners is successfully established.	Flashes once in 3 sec. (Repeated)	00E	13
Writing to MicroSD (for service maintenance)	Data being written to MicroSD card	Writing data completed.	OFF	5d0	14
Normal state (*)	After turning ON the power on normal mode, none of the above situations is observed.	One or more above criteria are met.	OFF	000	15

NOTICE:

Upon occurrence of situation highlighted in gray, refer to “9. Maintenance and Service” (page 15-16).

*: “0c0” indicating checking connection turns to “000” as it makes the transition to normal operation state.

If Central Station EX adapter failed to detect all air conditioners that were detected on the initial connection check, after recovery from power failure, for example, 7-segment LED indicates “000” for 3 minutes and then shows “00E” to indicate a communication failure with air conditioners.

9. Maintenance and Service

The following table identifies possible troubleshooting solutions for abnormal conditions. Ensure the power line is turned off before performing any checking described in the table.

Item	Phenomenon	Check	Action				
1	Central Station EX adapter does not seem to be working even after power is applied.	Is power line correctly connected to Central Station EX adapter?	Ensure the power line is correctly connected to Central Station EX adapter. Ensure the power line is turned off to perform wiring work.				
		Is the power source turned ON?	Turn ON the power source.				
		Is the power button on the Central Station EX adapter turned ON?	Turn ON the power button for Central Station EX adapter.				
		Is power voltage within the applicable range?	Check the voltage on the power supply. Check and reconnect the wire if the voltage is out of “normal range” (AC100~240V±10%).				
		Is the power fuse blown? Both must be good for operation.	If Central Station EX adapter has blown fuse, replace with new one(s).				
		Does the POWER LED light up?	If none of the above applies to the circumstances and POWER LED still does not light up, Central Station EX adapter may have an internal defect. Contact your dealer or distributor.				
		Is ERROR LED or/and 7-segment LED indication as follows?	Central Station EX adapter may have an internal defect. Contact your dealer or distributor.				
		<table><tr><td>ERROR LED State</td><td>7-segment LED Indication</td></tr><tr><td>ON</td><td>0E0/0E1/0E2/0E6/0hE</td></tr><tr><td>ON for 1 second and OFF for 1 second (repeated)</td><td>0tE</td></tr></table>	ERROR LED State	7-segment LED Indication	ON	0E0/0E1/0E2/0E6/0hE	ON for 1 second and OFF for 1 second (repeated)
ERROR LED State	7-segment LED Indication						
ON	0E0/0E1/0E2/0E6/0hE						
ON for 1 second and OFF for 1 second (repeated)	0tE						
2	Checking connection never completes.	Is H-LINK line correctly connected to Central Station EX adapter?	Correctly connect H-LINK to Central Station EX adapter.				
		Is the terminal resistance on H-LINK wiring correctly set?	Set only 1 terminal resistance on one H-LINK circuit.				
		Are all addresses for the equipment configured correctly?	Set the addresses for all equipment as outlined in the manuals.				
		Is the H-LINK wiring disconnected?	Check the wiring connection.				
		Is all the equipment powered ON?	Power ON all equipment.				
		Does H-LINK wiring meet specification requirement?	Use 0.75 - 1.25mm ² standard and shielded cable with a length of 1,000m or shorter.				
		Doesn't either ERROR LED or 7-segment LED indicate as following?	Central Station EX adapter is checking connection. Please wait. Central Station EX adapter has defects if “0cA” ↔ “0c0” are repeatedly shown. Check wiring and address setting on air conditioners and perform connection check again.				
		<table><tr><td>ERROR LED State</td><td>7-segment LED Indication</td></tr><tr><td>Flashes once in 5 seconds (repeated)</td><td>0c0</td></tr></table>	ERROR LED State	7-segment LED Indication	Flashes once in 5 seconds (repeated)	0c0	
		ERROR LED State	7-segment LED Indication				
Flashes once in 5 seconds (repeated)	0c0						
Does the H-LINK LED stay ON/OFF?	- Ensure that the H-LINK line is correctly wired. - If the protecting fuse for H-LINK circuit is blown, remove the cause to replace the fuse and then set 2 pin on DSW1 ON. - If the none of the above applies, Central Station EX adapter may have an internal defect. Contact your distributor or dealer.						

Item	Phenomenon	Check	Action	
3	The connection with Central Station EX cannot be established.	Is LAN cable correctly connected to Central Station EX adapter?	Correctly connect LAN cable to Central Station EX adapter. Also check the fitting for connectors.	
		Is the IP address of Central Station EX adapter have duplication on the same network?	Refer to “6. Switch Setting” (page 11) to check IP address.	
		Is DSW setting on Central Station EX adapter correct?	When changing DSW setting, refer to “5.3 Switch Setting Procedures” (page 10) to check the procedure.	
		Is the power on HUB turned ON?	Turn the power on HUB ON.	
		Does LAN cable meet specification requirement?	Use LAN cable of category 5 or higher with length of 100m or shorter.	
		Is LAN cable (and HUB) free from loose connections shorted wires or other issues?	Replace with new ones.	
		Is the H-LINK within 150mm of any high voltage?	Provide spacing of 150mm or more between H-LINK and high voltage.	
		Does the LAN LED stay OFF?	If none of the above applies to the circumstances and phenomenon described on the left remains, Central Station EX adapter may have an internal defect. Contact your dealer or distributor.	
4	Air conditioning cannot be controlled by Central Station EX.	Is either ERROR LED or 7-segment LED indicating the following?	Communication is not properly established. Check the wiring connection for air conditioning units and H-LINK.	
		ERROR LED State		7-segment LED Indication
		Flashing every 3 seconds		00E
		Is all equipment powered ON?	Power ON all equipment.	
		Is the terminal resistance on H-LINK wiring correctly set?	Set only 1 terminal resistance on one H-LINK circuit.	
		Is all equipment addressed correctly?	Set the address for all equipment as outlined in the manuals.	
		Is H-LINK wiring connected (NOT disconnected)?	Check the wiring connections for H-LINK.	
		Is H-LINK wiring within 150mm of any high voltage?	Provide free space of 150mm or longer for each wiring.	
		Does H-LINK wiring meet specification requirements?	Use the following cable: - Recommended Size: 0.75~1.25mm ² standard - Total Length: Max. 1,000m	
		Doesn't H-LINK LED stay OFF?	Check the wiring connection for H-LINK.	
Does the H-LINK LED stay lit?	Central Station EX adapter may have an internal defect. Contact your dealer or distributor.			

10. Memory Cards

Central Station EX provides slots for microSD/microSDHC memory cards that applies to SD standard.

<Regarding trademarks>

microSD, microSDHC, and microSDXC logos are trademark of SD-3C, LLC.



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