Panasonic®



Installation Instructions Cloud adaptor

Safety Precautions

Please Read Before Starting

This controller must be installed by the sales dealer or installer. These instructions are all you need for most installation sites and maintenance conditions. If you require help for a special problem, contact our sales/service outlet or your certified dealer for additional instructions.



This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.

This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.

- We assume no responsibility for accidents or damages resulting from methods other than those described in the installation instructions or methods without using specified parts. Malfunctions that occurred due to the unauthorised installation methods are not covered by the product warranty.
- This controller shall be installed in accordance with National Wiring Regulations.
- After the installation is complete, perform test operation to confirm that no abnormality is present.
- Read the installation instructions of devices to be connected as well.
 When relocating or repairing this controller, provide the
- Installation Instructions to the servicing personnel.



ELECTRICAL SHOCK CAN CAUSE SEVERE PERSONAL INJURY OR DEATH. ONLY A QUALIFIED, EXPERIENCED ELECTRICIAN SHOULD ATTEMPT TO WIRE THIS SYSTEM.

- Highly dangerous electrical voltages are used in this system. Carefully refer to the wiring diagram and these instructions when wiring. Improper connections and inadequate grounding can cause accidental injury or death.
- This controller is strongly recommended to be installed with Earth Leakage Circuit Breaker (ELCB) or Residual Current Device (RCD). Otherwise, it may cause electrical shock and fire in case of equipment breakdown or insulation breakdown.

Earth Leakage Circuit Breaker (ELCB) must be incorporated in the fixed wiring in accordance with the wiring regulations. The Earth Leakage Circuit Breaker (ELCB) must be an approved 10 A, having a contact separation by 3 mm in all poles.

- Provide a power outlet to be used exclusively for this controller.
- Turn off the circuit breaker of the controllers before installation.
- Do not supply power to the controller until all wiring is completed or reconnected and checked.
- Fix the power supply wiring securely with the clamper so that the power supply terminal board is free of tension (external force) when pulled. Loose connection of the terminal board may occur fire.
- To prevent possible hazards from insulation failure, the controller must be grounded.
- Select an installation location which is rigid and strong enough to support or hold the controller, and select a location for easy maintenance.
- This product must not be modified or disassembled under any circumstances. Modified or disassembled controller may cause fire, electric shock or injury.
- Do not clean inside the controller by users. Engage authorized dealer or specialist for cleaning.
- Do not operate with wet hands.



- Ground yourself to discharge static electricity before performing any wiring.
- Do not use the controller at the following locations.
- Areas where leakage of flammable gas may be expected
- Places where large amounts of oil mist exist
- Locations where external air may enter the room directly (This may cause "condensation".)
- Locations where high-frequency emissions are generated
- Locations where voltage fluctuation frequently occurs
- This equipment is not suitable for use in locations where children are likely to be present.
- Do not wash with water.

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Specifications

Model No.	CZ-CFUSCC1
Dimensions (mm)	<h> 255 × <w> 275 × <d> 80</d></w></h>
Weight	1.9 kg
Temperature/ Humidity range	0 °C to 40 °C / 20 % to 80 % (no condensation)
Rated voltage/ Rated frequency	Single phase 100-240 V ~ 50-60 Hz
Power consumption	Max. 15 W
Number of connectable units	Indoor unit - Up to 64 units per link* Outdoor unit - Up to 30 units per link

*: The number of indoor units includes the Interface Adaptor and RAC Interface Adaptor.



* Wiring are not included (field supplied item).

Dimensions (Part Names)



Symbols on the controller

 $\left(\frac{\perp}{=}\right)$ This symbol refers to "Protective earth".

This symbol refers to "Caution of Electrostatic".

Caution for Network Connection

When connecting to Internet, implement security measures against illegal access from outside. For detailed connection and setup method, consult the network administrator.

Installation Precautions

Installation Location

- Avoid the following locations for installation.
 - Under direct sunlight
 Location near heat source
 - Location where the controller will be splashed with water or affected by dampness or humidity
 - Uneven surface
- Location that is subject to excessive vibration or physical impacts. (Fixing screws may come off, and the controller may drop.)
- Install the controller away from any sources of electrical noise.
- Install the controller at a location with suitable temperature and humidity for using.

General Precautions on Wiring

Regulations on wire diameters differ from locality to locality.

For field wiring rules, please refer to your LOCAL ELECTRICAL CODES before beginning. You must ensure that installation complies with all relevant rules and regulations.

- Use the field supplied wiring with at least 1 mm in thickness of insulation part including the sheath.
- Connect all wiring tightly to prevent the terminal board from loosening when the wiring connection part is pulled by an external force. (Otherwise, fire or overheating may occur.)
- Do not bury the wiring in the ground.
- Do not store the power supply wiring and other wiring in the same metal tube or bundle them together. (An operational error from noise may occur.)
- Do not turn the power off immediately after power-on. The internal data may be damaged.
- This symbol refers to "ON (power)".
- O This symbol refers to "OFF (power)".

Mounting

Mounting Position

Secure space as shown below when mounting 2 or more of this controller or mounting other devices side by side.



• Screw (field supply)

Screw diameter	4 mm
Head style	Truss

Note

· Select a screw type and length according to the mounting location.

Wiring

Power Supply Wiring

- · Be sure to use a dedicated line for power source.
- Be sure to earth this controller.
- Do not connect the earth wiring to those of gas pipe, water pipe, lighting rod, telephone, etc.
- Type of wiring
 - Use a flexible wiring of 2 mm² (Recommended).
 - Use the standard power supply wiring for Europe (such as H05RN-F or H07RN-F which conform to CENELEC (HAR) rating specifications) or use the wiring based on IEC standard (60245 IEC57, 60245 IEC66).
- Total Wire Length 30 m or less

Inter-Unit Control Wiring

- Type of wiring
 - Use a flexible shield wiring of 0.5 to 2 mm².
- Total Wire Length 1000 m or less
- Number of connectable units and devices^{*1} (Up to total of 100 units and devices can be connected per link.)

· ,	
Indoor unit	Up to 64 units per link *2
Outdoor unit	Up to 30 units per link
Central control device	Up to 10 units

- *1: The maximum number of connectable units are shown below. (Up to 2 links connectable).128 indoor units, 60 outdoor units
- *2: The number of indoor units includes the Interface Adaptor and RAC Interface Adaptor.

■ How to Mount (Control Box)

- Attach the controller to the control box so that the wiring can be taken out from the left side. (See the illustration below.) (Screws (field supply): 4)
 Tighten the screw securely.
- 2. Remove the upper cover. (Cover-fixing screws: 4)
- After the connection and setting (pages 4 to 13) are complete, attach the upper cover. (Cover-fixing screws: 4)



External I/O Wiring

- Type of wiring
 - Use a flexible wiring of 0.5 to 2 mm².
- Attention
- When using the controller at a location susceptible to noise, use a shield wiring.
- Total Wire Length 20 m or less

■ LAN Cable

- Type of wiring
- Category 5 or above straight cable
- Total Wire Length 100 m or less

Basic Wiring Diagram

- When connecting the S-LINK adaptor, Interface Adaptor and RAC Interface Adaptor, refer to the "Installation Instructions (Electrical)" supplied with each product as well.
 - *: The Interface Adaptor and RAC Interface Adaptor are registered as system address 31.



Wiring (continued)

Before connecting the wiring, be sure to turn the circuit breaker off. After all wiring arrangements are complete, turn the circuit breaker on. If the power supply wiring is mistakenly connected to a terminal board other than the power supply terminal board, the devices to be connected to this controller or this controller will malfunction. After connecting the wiring, confirm that the power supply wiring is properly connected.



- · Ground the shield on both sides of shield wiring, otherwise an operation error from noise may occur
 - shield wiring Ground Ground
- · Do not run the inter-unit control wiring through the same conduit as the power supply wiring, or run close to the power supply wiring (maintain at least 30 cm separation).
 - Use different inter-unit control wiring and power supply wiring so they can be differentiated visually.

Connecting to External Equipment

- Non-voltage contact "a"
- Keep the external I/O wiring lengths of 20 meters or less. If a longer length is needed, use a Communication Adaptor or relay.
- A voltage of DC5 V (approx. 10 mA) is applied to the contact to detect the input signal.
- Do not apply an external voltage to the input terminal.
- The contact allowable voltage and current for the output signal terminal are max. DC30 V and 0.5 A respectively.

Demand controller side



controller" on the right

The unit will not operate only by connecting the external equipment. The event control setting on the cloud server screen is required.

Settings

- Two types of settings are available for the cloud adaptor: Simple setting and Advanced setting.
- Refer to the following descriptions to select a setting method appropriate for the purpose.
- Refer to the figure on the right for switches, etc. used for the setting.
 - Simple settings: When the switch inside the product is pressed at startup of the product, "Adaptor Setting" (P.11) and "Air Conditioner Setting" (P.12) are automatically set.

The procedures for the simple setting vary depending on the IP address acquisition method for the network to which this product is connected. *For the IP address acquisition method for the network, ask the network administrator.

- a)When acquiring the IP address from DHCP
- \rightarrow Follow the procedure in "Simple Settings (DHCP)". (P.5) b)When using the static IP address
- \rightarrow Follow the procedure in "Simple Settings (Static IP Address)" (P.6)
- Advanced settings: Start up the browser on the PC connected to this unit, and configure all settings from the PC. (P.8)
- Confirm the following ports are permitted in the firewall of the network to be installed.

*Confirm with the network administrator. TCP: 80, 3567 UDP: 53, 123

Simple Settings

Simple Settings (DHCP)

Confirm the power is turned off.



2 Using the DIP switch, set the mode of the cloud adaptor to the operation mode.



Connect the cloud adaptor to the network.



Turn the power on.

3

 Confirm that the Green LED (LED 18) lights up and after a while, the Orange LED (LED 17) blinks at high speed.



If the Orange LED (LED 17) does not blink at high speed even after a while, refer to "Self-diagnostics table and detected contents". (P.14)



Start up the unit in simple setting mode.

 While the Orange LED (LED 17) is blinking at high speed, the unit is in simple setting mode selection standby. Press and hold the SW6 switch for at least 1 second within 10 seconds. When the LED changes to the simple setting mode, release the switch.

Simple setting mode: The Orange LED (LED 17) lights up and the Green LED (LED 16) and Red LED (LED 15) blink at low speed.

 If the SW6 switch is not pressed within 10 seconds, the simple setting mode is not performed and the unit starts up in operation mode. In this case, perform the procedure from step 1 again.



- If the simple setting fails halfway, an error status is displayed on LEDs and the setting is canceled.
- Refer to "Self-diagnostics table and detected contents" (P.14) and check the error status.
- When the simple setting has finished normally, the unit automatically restarts in operation mode and is connected to the cloud server.

Simple Settings (continued)



12 Remove the check mark from [DHCP Enabled], and enter the IP address, subnet mask and default gateway specified on the network to be install.

Network Configuration		
MAC address Communication I/F	00:11:22:33:44:55	12
LAN po	rt settings	Value
DHCP Enabled		
IP address(XXX.XXX.XXX.XXX)		1 1
Subnet mask(XXX.XXX.XXX.XXX	()	
Default gateway(XXX.XXX.XXX.)	(XX)	

13 Remove the check mark from [Obtain DNS server address automatically], and enter the IP addresses of the DNS server 1 and DNS server 2.



	13	
Connection destination settings	Value	
Obtain DNS server address automatically		
DNS server 1(XXX.XXX.XXX.XXX)	i i	
DNS server 2(XXX.XXX.XXX.XXX)		
Connection server	DSP01 v	
A/C server	AC02 ~	
	Back Con	firm
	15 1	4

14 Press Confirm

Press [Yes] on the confirmation screen to save the setting items.
 Press [No] to cancel the settings and return to the network setting screen.

15 Press Back .

(The setting mode selection menu is displayed.)

16 Turn the power off.



17 Using the DIP switch, set the mode of the cloud adaptor to the operation mode.



18 Remove the LAN cable from the cloud adaptor, and connect the other to the network.



19 Turn the power on.

 Confirm the Green LED (LED 18) lights up and after a while, the Orange LED (LED 17) blinks at high speed.



Power Switch

20 Start up the unit in simple setting mode.

• While the Orange LED (LED 17) is blinking at high speed, the unit is in simple setting mode selection standby. Press and hold the SW6 switch for at least 1 second within 10 seconds. When the LED changes to the simple setting mode, release the switch.

Simple setting mode: The Orange LED (LED 17) lights up and the Green LED (LED 16) and Red LED (LED 15) blink at low speed.

• If the SW6 switch is not pressed within 10 seconds, the simple setting is not performed and the unit starts up in operation mode. In this case, perform the procedure from step 16 again.



- If the simple setting fails halfway, an error status is displayed on LEDs and the setting is canceled.
- Refer to "Self-diagnostics table and detected contents" (P.14) and check the error status.
- When the simple setting has finished normally, the unit automatically restarts in operation mode and is connected to the cloud server.

Advanced Settings

Preparation for the Setting



2 Using the LAN cable, connect the PC for maintenance directly to the cloud adaptor.



3 Using the DIP switch, set the mode of the cloud adaptor to the maintenance mode.



Change the setting of switch 2 to ON position.

4 Turn the power on.

 Confirm that the Orange LED (LED 17) is lighting, Green LED (LED 16) is blinking at a slow speed, and the Green LED (LED 18) is lighting.



Power Switch

If the Orange LED (LED 17) does not light and the Green LED (LED 16) does not blink at a slow speed. Refer to the "Self-diagnostics table and detected contents". (P.14)

Start up the PC, and set if the network settings as follows.

IP address	192. 168. 1. 100
Subnet mask	255. 255. 255. 0
Default gateway	192, 168, 1, 254

Enter the following URL in the Web browser, and 6 access the cloud adaptor. http://192. 168. 1. 1/ Recommended Web browser specifications • Internet Explorer (IE) 11, Edge, Chrome · The login screen appears. Login user Login If the login screen does not appear Check if the LAN port LED on the PC is blinking. Not blinking →Connect the LAN cable correctly. Blinking →Check the settings in step 5. Enter the user name and password. The user name and password as factory default are shown below. • user : ca user password : KYJN2015ca Logir 8 Press Login Note · If you fail to login 10 consecutive times, login operation will be disabled for 30 minutes. · If no operation is performed for 30 minutes, the login screen will appear at the next operation. 9 Enter the current (old) password and new password (twice). · Change the Change Password password to the one actually used. Old pass New password Confirm pass OK Cancel 10 9 Press OK 10 To cancel

Press Cancel .

11 Select

Advanced Settings Mode Selection] menu.



5

Indoor unit (I/D) and Outdoor (O/D) unit are included in Air conditioner (A/C unit).

The setting contents described on pages 9 to 13 can be set on the main menu.



Firmware Updating

If the latest firmware of the cloud adaptor is available, store the FW (firmware) file on the PC for maintenance and update the cloud adaptor.

- To cancel it during update, press **Cancel** on the progress screen.
- Approx. 2 minutes after completing update, the login screen is automatically displayed. Log in again to move to the next step.

Advanced Settings (continued)

Network Setting

4 Press Confirm .

(The setting items are stored.)

5 Press Back

(The main menu is displayed.)

Adaptor Setting

1 Press

Set adaptor configuration

7 Press Back

(The main menu is displayed.)

Advanced Settings (continued)

Air Conditioner Setting

1 Press A/C unit list

When "Now initializing. Please wait." is displayed, wait for the A/C unit list to be displayed.

2 Press A/C units

- Air conditioners connected to the cloud adaptor are detected, and the A/C unit list is updated.
- The following message is displayed if abnormality is found on the air conditioner.
- Confirm the message, and press [Close].
- Scan the A/C units again after fixing the abnormality.

Message	Meaning
Central address duplicate	Central address is duplicated.
Scan Time Out Error	A time-out occurred while scanning.

- 3 Check if the connected indoor units are all displayed, and confirm that the number of the connected outdoor units and the number of detected units correspond with each other.
 - If some of the indoor units are not displayed/ unexpected indoor units are displayed. Check if wiring is properly done, or the address setting for air conditioners is correct.

 \rightarrow After correction, redo from step 2.

Enter the central address.

■ To assign manually Select the central address text box of the indoor unit on the [A/C Unit List] screen, and enter it.

■ To assign automatically Press Set central addresses .

(Values that have been unused within the same link no. are input in the blank field in ascending order.)

5 Press Confirm central address

- The input central address is applied to all the indoor units.
 If the text box is blank or any duplication is present between
- main indoor units, an alarm is displayed.

Attention

• Be sure to set the central address for the indoor unit to control and monitor using the cloud adaptor.

Air Conditioner Test Operation

2 Press Confirm Control

- Check if pressing the button switches the ON/OFF display in the control field of the corresponding indoor units and the ON/OFF operation of the actual indoor units.
- Check all the indoor units for proper operation.
- Check the status while communicating with the PC operator.

3 Press Back .

- · The main menu is displayed.
- If [Confirm central address] button is not pressed after changing the central address, a confirmation screen is displayed.
 →Selecting [YES] discards the changed contents.

If the red characters are displayed, confirm and adjust the connections/ – settings of the air conditioner.

An alarm that has occurred on the indoor unit is displayed. (This screen is updated every 10 seconds.) If the alarm code is related to the configuration error, check and fix the connections/settings of the air conditioners.

Preparation before Operation

Turn off the power switch while the main menu is displayed.

Do not change the setting of switch 1 from the ON position.

Change the setting of switch 2 to OFF position.

3 Remove the LAN cable from the cloud adaptor, and connect the other to the network.

Using the DIP switch, set the mode of the cloud adaptor

Connecting to Cloud Server

Note

2

3

2

to the operation mode.

 Perform registration for the cloud adaptor on the cloud server screen beforehand.

1 Confirm that the DIP switch is in the operation mode.

Turn the power on.
Make sure at least 30 seconds have passed after power-off. Then, turn the power on.

When the green LED (LED16) changes from blinking to lighting,

the set up procedures are complete.

Attach the upper cover to the cloud adaptor. (P.3)

15

4

1

16

Self-diagnostics table and detected contents Blinking or lighting pattern table (LED 15 to 17) Check the table below and Service Manual.

Lighting

Blinking slow (once per about 2 seconds)

Blinking fast (once per about 1 second)

Off

■ In simple setting mode

LED	Status and Solution	LED	Status and Solution
	Simple setting mode selection standby →Pressing the SW6 switch within 10 seconds will enter the simple setting mode.		Firewall passing failure \rightarrow Check the port permitted in the firewall. (P.5)
	Simple setting mode executing →After the execution is complete, the unit restarts in operation mode.		Configuration error →Check the connection with the air conditioner. Ensure that the central control address of the air conditioner is not duplicated.
	Network connection failure →Check the network setting and the LAN cable connection.		Internal error →Turn the cloud adaptor off, and contact our sales/service dealer or a certified dealer.

■ In operation mode

LED	Status and Solution	LED	Status and Solution
	The cloud adaptor is in the maintenance mode. (P.6, P.8) →After maintenance, change it to the operation mode.		Internal error →Turn the cloud adaptor off, and contact our sales/service outlet or your certified dealer for additional instructions.
	Communication failure (Both Link 1 and 2) →Check if the inter-unit control wiring between the air conditioners and the cloud adaptor is correct. (Both Link 1 and 2)		Memory card error →Turn the cloud adaptor off, and contact our sales/service outlet or your certified dealer for additional instructions.
	Communication failure (Link 1 only) →Check if the inter-unit control wiring between the air conditioners and the cloud adaptor is correct. (Link 1 only)		Initializing. →Wait until the initialization is completed. When the initialization is not completed by 40 minutes after connecting the network
	Communication failure (Link 2 only) →Check if the inter-unit control wiring between the air conditioners and the cloud adaptor is correct. (Link 2 only)		contact our sales/service outlet or your certified dealer for additional instructions.
	 →Restart the cloud adaptor in the maintenance mode, and check if the network settings are correct. (P.10) 		Remote A/C scan is in progress from the cloud server. →When only the Green LED lights up, the remote A/C scan has finished.

Disposal of Old Equipment and Batteries Only for European Union and countries with recycling systems

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries must not be mixed with general household waste.

For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points in accordance with your national legislation.

By disposing of them correctly, you will help to save valuable resources and prevent any potential negative eff ects on human health and the environment.

For more information about collection and recycling, please contact your local authority.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

Note for the battery symbol (bottom symbol):

This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

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