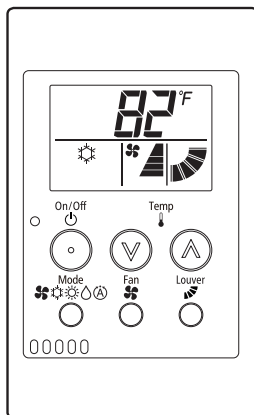


Installation & Maintenance Manual

Simplified Wired Controller

Model: CIS01



IMPORTANT:

**READ AND UNDERSTAND
THIS MANUAL BEFORE
USING THIS CONTROLLER.
KEEP THIS MANUAL FOR
FUTURE REFERENCE.**

P5415520

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Important Notice



- Johnson Controls Inc. pursues a policy of continuing improvement in design and performance in its products. As such, Johnson Controls Inc. reserves the right to make changes at any time without prior notice.
- Johnson Controls Inc. cannot anticipate every possible circumstance that might involve a potential hazard.
- This heat pump air conditioning unit is designed for standard air conditioning applications only. Do not use this unit for anything other than the purposes for which it was intended for.
- The installer and system specialist shall safeguard against leakage in accordance with local pipefitter and electrical codes. The following standards may be applicable, if local regulations are not available. International Organization for Standardization: (ISO 5149 or European Standard, EN 378). No part of this manual may be reproduced in any way without the expressed written consent of Johnson Controls Inc.
- This heat pump air conditioning unit is operated and serviced in the United States of America and comes with a full complement of the appropriate Safety, Danger, and Caution, warnings.
- If you have questions, please contact your distributor or dealer.
- This manual provides common descriptions, basic and advanced information to maintain and service this heat pump air conditioning unit which you operate as well for other models.
- This manual should be considered as a permanent part of the air conditioning equipment and should remain with the air conditioning equipment.

Product Inspection upon Arrival


1. Upon receiving this product, inspect it for any damages incurred in transit. Claims for damage, either apparent or concealed, should be filed immediately with the shipping company.
2. Check the model number, electrical characteristics (power supply, voltage, and frequency rating), and any accessories to determine if they agree with the purchase order.
3. The standard utilization for this unit is explained in these instructions. Use of this equipment for purposes other than what it designed for is not recommended.
4. Please contact your local agent or contractor as any issues involving installation, performance, or maintenance arise. Liability does not cover defects originating from unauthorized modifications performed by a customer without the written consent of Johnson Controls, Inc. Performing any mechanical alterations on this product without the consent of the manufacturer will render your warranty null and void.

1. Safety Summary

Signal Words

 WARNING	Indicates a hazardous situation that, if not avoided, could result in death or serious injury.
 CAUTION	Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.
NOTICE	Indicates information considered important, but not hazard-related (for example, messages relating to property damage).

General Precautions

 WARNING	To reduce the risk of serious injury or death, read these instructions thoroughly and follow all warnings or cautions included in all manuals that accompanied the product and are attached to the unit. <i>Refer back to these safety instructions as needed.</i>
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- This system, including this controller, should be installed by personnel certified by Johnson Controls, Inc. Personnel must be qualified according to local, state and national building and safety codes and regulations. Incorrect installation could cause leaks, electric shock, fire or an explosion. In areas where Seismic Performance requirements are specified, the appropriate measures should be taken during installation to guard against possible damage or injury that might occur in an earthquake. If the unit is not installed appropriately correctly, injuries may occur because of a falling unit.
- Use appropriate Personal Protective Equipment (PPE), such as gloves, protective goggles and electrical protection equipment and tools suited for electrical operation purposes.

- When transporting, be careful when picking up, moving and mounting these units. Although the controller may be packed using plastic straps, do not use them for transporting from one location to another. Do not stand on or put any material on the controller.
- When installing the controller cabling to the units, do not touch or adjust any safety devices inside the indoor or outdoor units. All safety features, disengagement, and interlocks must be in place and functioning correctly before the equipment is put into operation. If these devices are improperly adjusted or tampered with in any way, a serious accident can occur. Never bypass, wire around, or jump-out any safety device or switch.
- Use only Johnson Controls recommended, provided as standardized, or replacement parts.
- Johnson Controls shall will not assume any liability for injuries or damage caused by not following steps outlined or described in this manual. Unauthorized modifications to Johnson Controls products are prohibited as they...
 - May create hazards which could result in death, serious injury or equipment damage;
 - Will void product warranties;
 - May invalidate product regulatory certifications;
 - May violate OSHA standards;

NOTICE

Take the following precautions to reduce the risk of property damage.

- Do not touch the main circuit board or electronic components in the controller or remote devices. Make sure that dust and/or steam does not accumulate on the circuit board.
- When installing the unit in a hospital or other facility where electromagnetic waves are generated from nearby medical and/or electronic devices, be prepared for noise and electronic interference Electromagnetic Interference (EMI). Do not install where the waves can directly radiate into the electrical box, controller cable, or controller. Inverters, appliances, high-frequency medical equipment, and radio communications equipment may cause the unit to malfunction. The operation of the unit may also adversely affect these same devices. Install the unit at least 10 ft. (approximately 3m) away from such devices.
- Locate the controller at a distance of at least 3 ft. (approximately 1m) between the indoor unit and electric lighting. Otherwise, the receiver part of the unit may have difficulty receiving operation commands.
- If the controller is installed in a location where electromagnetic radiation is generated, make sure that the controller is shielded and cables are sleeved inside conduit tubing.
- If there is a source of electrical interference near the power source, install noise suppression equipment (filter).
- During the test run, check the unit's operation temperature. If the unit is used in an environment where the temperature exceeds the operation boundary, it may cause severe damage. Check the operation temperature boundary in the manual. If there is no specified temperature, use the unit within the operation temperature boundary of 35° to 104°F (0 to 40°C).
- Read this installation and maintenance manual for proper electrical wiring work.

Installation Precautions

⚠ WARNING

Take the following precautions to reduce the risk of electric shock, fire or explosion resulting in serious injury or death:

- If the remote sensors are not used with this controller, then do not install this controller...
 - In a room where there is no thermostat.
 - Where the unit is exposed to direct sunshine or direct light.
 - Where the unit is in close proximity to a heat source.
 - Where hot/cold air from the outdoors, or a draft from elsewhere (such as air vents, diffusers or grilles) can affect air circulation.
 - In areas with poor air circulation and ventilation.
- Perform a test run using the controller to ensure normal operation. Safety guards, shields, barriers, covers, and protective devices must be in place while the compressor/unit is operating. During the test run, keep fingers and clothing away from any moving parts.

After installation work for the system has been completed, explain the "Safety Precautions," use, and maintenance of the unit to the customer according to the information in all manuals that accompanied the system. All manuals and warranty information must be given to the user or left near the Indoor Unit.

Electrical Precautions



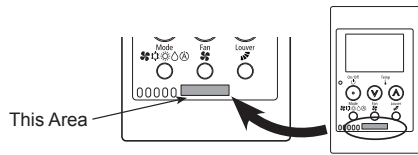
Take the following precautions to reduce the risk of electric shock, fire or explosion resulting in serious injury or death:

- Only use electrical protection equipment and tools suited for this installation.
- Insulate the controller against moisture and temperature extremes.
- Use specified cables between units and the controller.
- Communication cabling must be a minimum of 18-Gauge, 2-Conductor, Shielded Stranded Copper. Shielded cable must be used in all areas to reduce the potential for communication errors. When shielded cabling is applied, proper bonding and termination of the cable shield is required as per Johnson Controls guidelines. Plenum and riser ratings for communication cables must be considered per application and local code requirements.
- The polarity of the input terminals is important, so be sure to match the polarity when using contacts that have polarity.
- Highly dangerous electrical voltages may be used in this system. Carefully refer to the wiring diagram and these instructions when wiring. Improper connections and inadequate grounding can cause serious injury or death.
- Before installing the controller or remote devices, ensure that the indoor and outdoor unit operation has been stopped. Further, be sure to wait at least five minutes before turning off the main power switch to the indoor or outdoor units. Otherwise, water leakage or electrical breakdown may result.
- Do not open the service cover or access panel to the indoor or outdoor units without turning OFF the main power supply. Before connecting or servicing the controller or cables to indoor or outdoor units, open and tag all disconnect switches. Never assume electrical power is disconnected. Verify with a meter and equipment.
- Use an exclusive power supply at the controller's rated voltage.
- Be sure to install circuit breakers (ground fault interrupter, isolating switch, molded case circuit breaker, and so forth) with the specified capacity. Ensure that the wiring terminals are tightened securely to recommended torque specifications.
- Clamp electrical wires securely with a cord clamp after all wiring is connected to the terminal block. In addition, run wires securely through the wiring access channel.
- When installing the power lines, do not apply tension to the cables. Secure the suspended cables at regular intervals, but not too tightly.
- Make sure that the terminals do not come into contact with the surface of the electrical box. If the terminals are too close to the surface, it may lead to failures at the terminal connection.
- Do not clean with, or pour water into, the controller as it could cause electric shock and/or damage the unit. Do not use strong detergent such as a solvent. Clean with a soft cloth.
- Verify that the ground wire is securely connected. Do not connect ground wiring to gas piping, water piping, lighting conductor, or telephone ground wiring.

Check the boxes below as you complete each item.

2. Brand Label

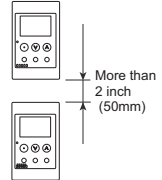
Select the accessory brand label according to the production order.
Attach the accessory brand logo label to "This Area".



3. Installation Work

[3.1 Selection of Installation Place]

- 1) Select a suitable place for handling and determine the installation place of the controller with the customer's acceptance. Do not install the controller in locations such as:
- where children can touch
 - where the air from the air conditioner is directly discharged

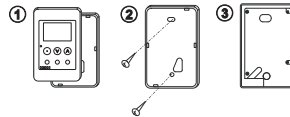


[3.2 Before Installation]

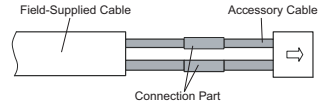
- 1) This packing contains the following parts.
- | | |
|-------------------------------|--|
| - Simplified Wired Controller | Qty: 1 - for operation control |
| - Screw <M4x16L> | Qty: 2 - for securing the holding bracket onto the wall. |
| - Cable with Connector | 8 inches (20cm) |

[3.3 Installation Procedures]

- 1) Remove the controller from the holding bracket.



- 2) Connection of cable:
Connect the accessory cable to the field-supplied cable by soldering. Insulate the connecting part with tape.



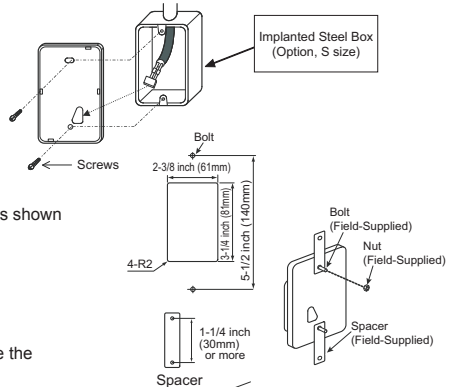
- 3) Attach the controller to the holding bracket and connect the cable as follows.

A. When Exposing Controller Cable

Secure the holding bracket with the cable (accessory) onto the wall using 2-M4 screws (accessory).

B. When Using Steel Box

Prepare steel box (option).
Secure the holding bracket (accessory) on the wall with 2-M4 screws (field-supplied).



C. When Using a Table

1. Cut an installation hole to expose the controller as shown in the figure at the right.
2. Prepare the bolts.

NOTE:

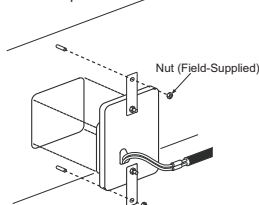
Determine the bolt layout depending on the spacers (field-supplied).

3. Place the bolts on the holding bracket and secure the spacers with the nuts.
 - Bolt (field-supplied)
 - Nut (field-supplied)
 - Spacer (field-supplied)

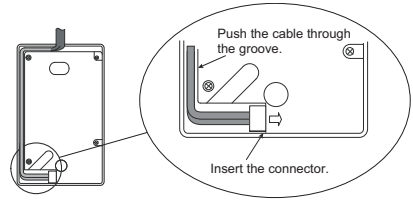
NOTE:

Allow a distance of more than 2 inches (50mm) between spacer holes.

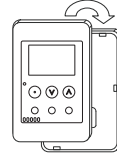
4. Remove the front decorative cover and attach the controller using the installation hole.



- 4) Attach the controller to the holding bracket and connect the cable as shown in the figure.



- 5) Attach the controller onto the holding bracket.
Begin by attaching the upper side, and then the lower side.

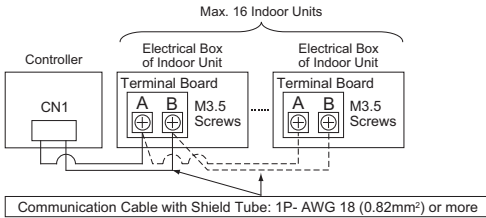


4. Electrical Wiring

Wiring Example (Using communication cable with shield tube)

ATTENTION:
Always make sure to turn off the power of the indoor unit when performing electrical wiring work. Performing electrical wiring work with the power ON can damage the circuit boards of the indoor unit and the controller.

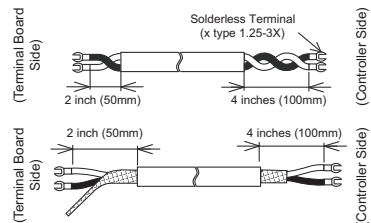
Communication cabling must be a minimum of 18-Gauge, 2-Conductor, Stranded Copper. Shielded cable must be considered for applications and routing in areas of high EMI and other sources of potentially excessive electrical noise to reduce the potential for communication errors. When shielded cabling is applied, proper bonding and termination of the cable shield is required as per Johnson Controls guidelines. Plenum and riser ratings for communication cables must be considered per application and local code requirements.



• Communication Cable (Field-Supplied)

*Option 1:
Communication Cable 2 × AWG 18 (0.82mm²)
(Maximum Total Length: 656.2 ft. (200m))

*Option 2:
Standard Communication Shielded Cable 2 × AWG 18 (0.82mm²)
connecting the shield to the ground at the electrical box side.
(Maximum Total Length: 656.2 ft. (200m))



NOTICE

- A. Use AWG 22 (0.32mm²) to AWG 18 (0.82mm²) cable with a maximum total cable length 98.4 ft. (30m). If the total cable length is longer than 98.4 ft. (30m), use communication cable of 1P to AWG 18 (0.82mm²) Maximum total cable length 1640.5 ft. (500m). When using with the control timer, the maximum total cable length is 328.1 ft. (100m).
Using other cables may cause a malfunction because of Electromagnetic Interference (EMI).
- B. Maintain a distance of more than 12 inches (30cm) between the controller / indoor unit communication cables and the power cables.
- C. If installed within 12 inches (30cm), put the cables in a conduit tube and ground (type-D: ≤100Q), one end of the pipe. Without this procedure, malfunction or failure of the air conditioner because of EMI may occur.
- D. When multiple indoor units are simultaneously controlled, set addresses for the refrigerant cycle and indoor units. Specifically, when the indoor units from multiple refrigerant cycles are simultaneously controlled, a communication issue may develop due to address duplication.
- E. For more information about wiring controller-indoor units and setting indoor unit addresses, refer to "Unit No. Setting" of each Installation and Maintenance Manual of indoor unit for details.
- F. Do not leave any space at the cable opening of the remote controller case. If there is any space, cover it with, for example, tape to avoid trouble caused by condensation or insects entering the controller case.

5. Checking Procedures

This controller is not equipped with the Test Run mode.
The test running must be performed from the outdoor units.

1. Turn ON the power for all indoor units.
2. Models with automatic addressing will take 3 to 5 minutes to complete the setting.
3. Set the Test Run mode from the outdoor units.
4. Cancellation the Test Run mode.

The Test Run mode can be canceled when:

- Test Run finishes automatically after 2 hours running time.
- Cancel Test Run from the outdoor units.
- Stop Test Run by pressing the On/Off switch at the controller.

The total number of the indoor units connected is indicated on the temperature display.



NOTE:
Display indication
when one indoor unit is
connected.

If the indicated number of connected units is incorrect, any communication abnormality because of an incorrect wiring/ addressing or EMI issue may exist. In such a case, turn OFF the power supply and check the following.
(Do NOT repeat the ON/OFF operation at the main switch within 10 seconds).

- (1) Indoor unit(s) power supply not turned ON, or incorrect wiring
- (2) Incorrect wiring connection between indoor units or controllers
- (3) Incorrect setting of rotary switch (overlapped setting)

6. Function Selection and Input/Output Setting from Controller

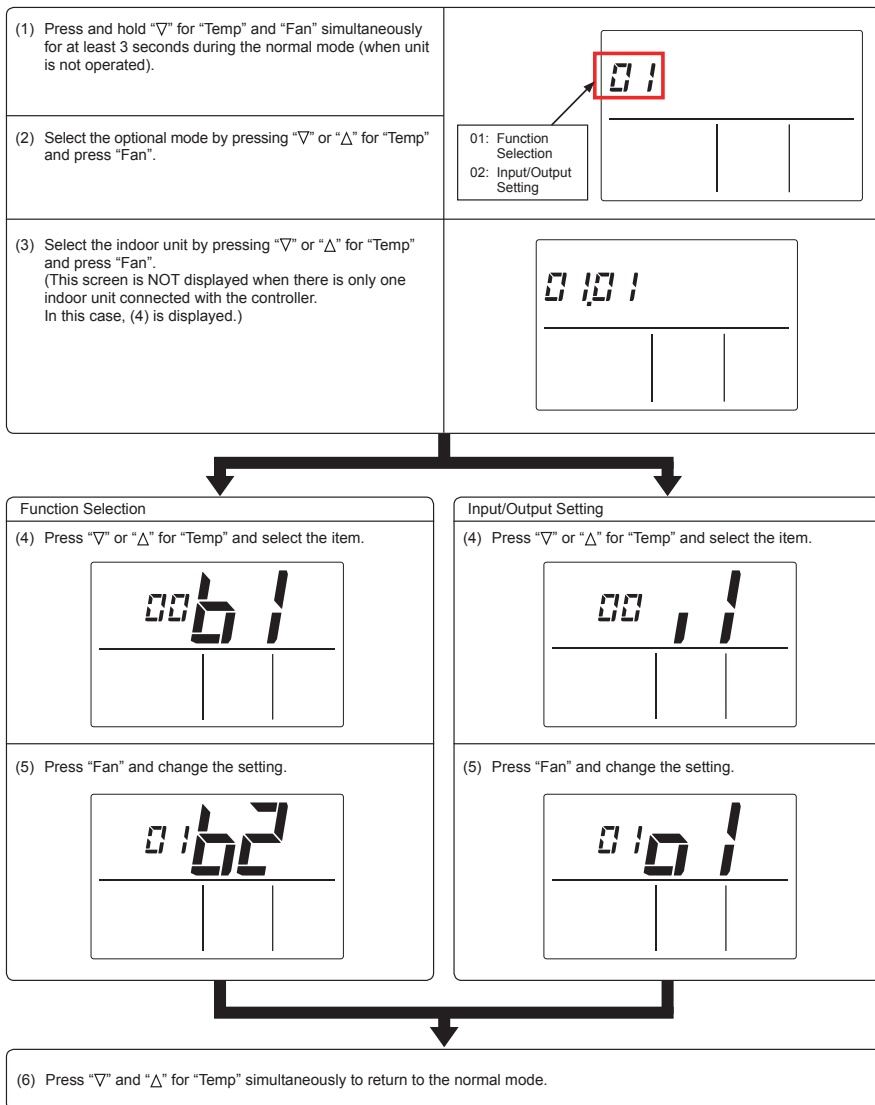


Table A Optional Setting Items for Function Selection

No.	Items	Optional Function	Individual Setting	Setting Condition	Contents	Setting
1	b1	Cancellation of Heating Temperature Compensation due to Uneven Heat Load	○	00 01 02 03 04	Standard (Set Temp. +7°F (+4°C)) Removal (Set Temp.) Set Temp. +3°F (+2°C) (*1) Set Temp. +5°F (+3°C) Set Temp. +2°F (+1°C)	
2	b2	Circulator Function during Heating Thermo-OFF	○	00 01	Not Available Available	
3	b3	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
4	b4	Not Prepared	-	-	Not Used	
5	b5	Fixing of Operation Mode	✕	00 01	Standard Fixed (Configured)	
6	b6	Fixing of Setting Temperature	✕	00 01	Standard Fixed (Configured)	
7	b7	Fixing of Operation as Exclusive Cooling Unit	✕	00 01	Standard Fixed (Configured)	
8	b8	Automatic COOL/HEAT Operation	✕	00 01	Not Available Available	
9	b9	Fixing of Fan Speed	✕	00 01	Standard Fixed (Configured)	
10	bA	Not Prepared	-	-	Not Used	
11	bb	Cooling Temperature Compensation due to Uneven Heat Load	✕	00 01 02	Standard (No Compensation) Set Temp. -2°F (-1°C) Set Temp. -3°F (-2°C)	
12	bC	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
13	bd	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
14	bE	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
15	C1	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
16	C2	Not Prepared	-	-	Not Used	
17	C3	Not Prepared	-	-	Not Used	
18	C4	Not Prepared	-	-	Not Used	
19	C5	Hi Speed (Except for Hi Speed during Heating Thermo-OFF)	○	00 01 02	Not Available Hi Speed 1 (*2) Hi Speed 2	
20	C6	Hi Speed during Heating Thermo-OFF	○	00 01	Not Available Available	
21	C7	Canceled of Enforced 3 Minutes Minimum Operation Time of Compressor	○	00 01	Standard Cancellation	
22	C8	Thermistor of Wired Controller	○	00 01 02 00 01 02	< If Wired Controller Thermistor is Selected > Not Available Control by Thermistor of Wired Controller Control by Average Value of Indoor Suction Thermistor and Thermistor of Wired Controller < If Remote Sensor is Selected > Control by Average Value of Indoor Suction Thermistor and Remote Sensor Control by Remote Sensor Same as "00"	
23	C9	Not Prepared	-	-	Not Used	
24	CA	Not Prepared	-	-	Not Used	
25	Cb	Selection of Forced Stoppage Logic	○	00 01	Forced Stoppage Input: A Contact Forced Stoppage Input: B Contact	
26	CC	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
27	Cd	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
28	CE	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
29	CF	Change of Louver Swing Angle	○	00 01 02	Standard (7-Step Operation) Cold Draft Prevention (5 Steps: lower 2 steps cut off) High Ceiling (higher 2 steps cut off)	
30	d1	Power Supply ON/OFF 1	○	00 01	Not Available Available	
31	d2	Not Prepared	-	-	Not Used	

No.	Items	Optional Function	Individual Setting	Setting Condition	Contents	Setting
32	d3	Power Supply ON/OFF 2	○	00 01	Not Available Available	
33	d4	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
34	d5	Prevention for Heating Discharge Air Temp. Decrease	○	00 01	Not Available Available	
35	d6	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
36	d7	Not Prepared	-	-	Not Used	
37	E1	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
38	E2	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
39	E3	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
40	E4	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
41	E5	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
42	E6	Indoor Fan Operation Time After Cooling Operation Stoppage	○	00 01 02	Not Available 60 min. 120 min.	
43	E7	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
44	E8	Fan Operation Control during Heating Thermo-OFF	○	00 01	Not Available (LOW) SLOW	
45	E9	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
46	EA	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
47	Eb	Fan Operation Control during Cooling Thermo-OFF	○	00 01 02	Not Available LOW SLOW	
48	EC	Forced Thermo-ON Stoppage during Cooling	○	00 01	Not Available Available	
49	Ed	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
50	EE	Automatic Fan Speed Control	○	00 01	Not Available Available	
51	EF	Automatic Fan Speed Control (High 2)	○	00 01	Not Available Available	
52	F0	Not Prepared	-	-	Not Used	
53	F1	Automatic OFF Timer Setting * Do not set the functions "0C"~"0F" when 2 (two) wired controllers are used in the same controller group.	×	00 01 02 • • • 23 24 0A 0B 0C 0D 0E 0F	No Function OFF Timer by 1 hr OFF Timer by 2 hrs • • • OFF Timer by 23 hrs OFF Timer by 24 hrs OFF Timer by 30 min. OFF Timer by 90 min. OFF Timer by 40 min. OFF Timer by 45 min. OFF Timer by 50 min. OFF Timer by 55 min.	Do not set them when two wired controllers are used.
54	F2	Wired Controller Primary-Secondary Setting	×	00 01	Primary Secondary	
55	F3	Automatic Reset of Setting Temperature (*3)	×	00 01	Not Available Available	
56	F4	Automatic Reset Time	×	00 01 02 03	30 min. (Factory-Setting) 15 min. 60 min. 90 min.	
57	F5	Automatic Reset Temperature for Cooling (*4)	×	66 (19) 68 (20) 70 (21) 72 (22) 74 (23) 76 (24) 77 (25) 78 (26) 80 (27) 82 (28) 84 (29) 86 (30)	66°F (19°C) 68°F (20°C) 70°F (21°C) 72°F (22°C) 74°F (23°C) 76°F (24°C) 77°F (25°C) (Factory-Setting) 78°F (26°C) 80°F (27°C) 82°F (28°C) 84°F (29°C) 86°F (30°C)	

No.	Items	Optional Function	Individual Setting	Setting Condition	Contents	Setting
58	F6	Automatic Reset Temperature for Heating (*5)	×	62 (17) 64 (18) 66 (19) 68 (20) 70 (21) 72 (22) 74 (23) 76 (24) 77 (25) 78 (26) 80 (27) 82 (28) 84 (29) 86 (30)	62°F (17°C) 64°F (18°C) 66°F (19°C) 68°F (20°C) 70°F (21°C) (Factory-Setting) 72°F (22°C) 74°F (23°C) 76°F (24°C) 77°F (25°C) 78°F (26°C) 80°F (27°C) 82°F (28°C) 84°F (29°C) 86°F (30°C)	
59	F7	Operation Stoppage Prevention by Wired Controller Operational Error (*6)	×	00 01	Not Available Available	
60	F8	Not Prepared	-	-	Not Used	
61	F9	Not Prepared	-	-	Not Used	
62	FA	Not Prepared	-	-	Not Used	
63	Fb	Not Prepared	-	-	Not Used	
64	FC	Cooling Lower Limit for Setting Temperature (*4)	×	00 01 02 03 04 05 06 07 08 09 10	66°F (19°C) 68°F (20°C) 70°F (21°C) 72°F (22°C) 74°F (23°C) 76°F (24°C) 77°F (25°C) 78°F (26°C) 80°F (27°C) 82°F (28°C) 84°F (29°C)	
65	Fd	Heating Upper Limit for Setting Temperature (*5)	×	00 01 02 03 04 05 06 07 08 09 10 11 12	86°F (30°C) 84°F (29°C) 82°F (28°C) 80°F (27°C) 78°F (26°C) 77°F (25°C) 76°F (24°C) 74°F (23°C) 72°F (22°C) 70°F (21°C) 68°F (20°C) 66°F (19°C) 64°F (18°C)	
66	FE	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
67	FF	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
68	H1	Maintenance Alarm	×	00 01	Show Hide	
69	H2	No Indication of Auto Control	×	00 01	Show Not Show	
70	H3	Operation Mode Change Restriction (*7)	×	00 01 02	Unlimited operation (Factory Setting) Operation mode set by central control equipment + "Fan" mode Operation mode change not available (Hide operation mode)	
71	H4	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
72	H5	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
73	H6	°F/°C Lock (*8)	×	00 01	Lock Unlock	
74	J1	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
75	J2	Not Prepared	-	-	Not Used	
76	J3	Run Indicator Color	×	00 01	Green Red	

No.	Items	Optional Function	Individual Setting	Setting Condition	Contents	Setting
77	J4	Remote Control Run/Stop Prohibit by Central Controller (*9)	×	00 01 02	No Setting (Factory Default) RC Run/Stop Operation Prohibited RC Run Operation Prohibited	
78	J5	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
79	J6	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
80	J7	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
81	J8	Eco-operation (*10)	×	00 01	Not Available Available	
82	J9	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
83	JA	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
84	Jb	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
85	JC	Calibration for Thermistor of Wired Controller	×	00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15	0°F (0°C) -1°F (-0.5°C) -2°F (-1.0°C) -3°F (-1.5°C) -3°F (-2.0°C) -4°F (-2.5°C) -5°F (-3.0°C) -6°F (-3.5°C) +1°F (+0.5°C) +2°F (+1.0°C) +3°F (+1.5°C) +3°F (+2.0°C) +4°F (+2.5°C) +5°F (+3.0°C) +6°F (+3.5°C) 0°F (0°C)	
86	K1	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
87	K2	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
88	K3	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
89	K4	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
90	K5	Motion Sensor Detection Level	○	00 01 02	Standard High Low	
91	K6	Operation Setting during Thermistor of Wired Controller or Remote Sensor	○	00 01 02 03	ALL COOL/DRY HEAT ALL	
92	K7	Radiation Temperature Sensor Calibration	○	00 01 02 03	Normal Upper Lower Normal	
93	K8	Control of Dew Condensation Prevention (Only for Mini Cassette Type)	○	00 01	Not Available Available	
94	K9	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
95	KA	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
96	L1	Setting Position of Motion Sensor	○	00 01 02 03	A B - D	
97	L2	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
98	L3	Louver Setting during Energy-Saving Forced Thermo-OFF (Only for Mini Cassette Type)	○	00 01 02 03	Recive Air: Low (Standard) Recive Air: Medium Recive Air: High Not Available	
99	L4	Fan Speed during Energy-Saving Forced Thermo-OFF	○	00 01	Not Available (Standard) Available	
100	L5	Louver Swing Operation Energy-Saving Forced Thermo-OFF	○	00 01	Not Available Available	

No.	Items	Optional Function	Individual Setting	Setting Condition	Contents	Setting
101	L6	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
102	L7	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
103	L8	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
104	L9	Auxiliary Heater at Defrosting Operation	○	00 01	ON OFF	
105	LA	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
106	Lb	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
107	P1	Setting Temperature	✕	00 01	Every 1°F (0.5°C) Every 2°F (1°C)	
108	P2	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
109	P3	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
110	P4	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
111	P5	Temperature While FAN Mode	✕	00 01	Show Hide	
112	P6	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
113	P7	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
114	P8	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
115	P9	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
116	PA	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
117	Pb	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
118	PC	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
119	q1	Auxiliary Heater Setting	✕	00 01	Not Available Available	
120	q2	Auxiliary Heater ON Compensation	✕	-3(-1.5) -4(-2.5) -5(-3.0) -6(-3.5) -7(-4.0) -8(-4.5) -9(-5.0) -1(-0.5) -2(-1.0)	-3°F (-1.5°C) -4°F (-2.5°C) -5°F (-3.0°C) -6°F (-3.5°C) -7°F (-4.0°C) -8°F (-4.5°C) -9°F (-5.0°C) -1°F (-0.5°C) -2°F (-1.0°C)	
121	q3	Auxiliary Heater OFF Compensation	✕	0(0.0) 1(0.5)	0°F (0.0°C) 1°F (0.5°C)	
122	q4	Ambient Temperature Restriction Setpoint	✕	-4(-20.0) 2(-17.0) 8(-13.0) 14(-10.0) 20(- 7.0) 26(- 3.0) 32(0.0) -13(-25.0) -8(-22.0)	-4°F (-20.0°C) 2°F (-17.0°C) 8°F (-13.0°C) 14°F (-10.0°C) 20°F (- 7.0°C) 26°F (- 3.0°C) 32°F (0.0°C) -13°F (-25.0°C) -8°F (-22.0°C)	
123	q5	Ambient Temperature Restriction Setpoint Compensation	✕	4(2.5) 5(3.0) 6(3.5) 1(0.5) 2(1.0) 3(1.5)	4°F (2.5°C) 5°F (3.0°C) 6°F (3.5°C) 1°F (0.5°C) 2°F (1.0°C) 3°F (1.5°C)	
124	q6	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
125	q7	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
126	q8	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
127	q9	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
128	qA	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
129	qB	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
130	qC	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
131	qD	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
132	r1	Dual Setpoint	✕	00 01	Not Available Available	

No.	Items	Optional Function	Individual Setting	Setting Condition	Contents	Setting
133	r2	Cooling/Heating Changeover Temperature	×	2(1.0) 3(1.5) 4(2.5) 5(3.0) 1(0.5)	2°F (1.0°C) 3°F (1.5°C) 4°F (2.5°C) 5°F (3.0°C) 1°F (0.5°C)	
134	r3	Setback Temperature Compensation	×	4(2.5) 5(3.0) 6(3.5) 7(4.0) 8(4.5) 9(5.0) 10(5.5) 1(0.5) 2(1.0) 3(1.5)	4°F (2.5°C) 5°F (3.0°C) 6°F (3.5°C) 7°F (4.0°C) 8°F (4.5°C) 9°F (5.0°C) 10°F (5.5°C) 1°F (0.5°C) 2°F (1.0°C) 3°F (1.5°C)	
135	r4	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
136	r5	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
137	r6	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
138	r7	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
139	r8	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
140	r9	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
141	rA	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
142	rB	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
143	S1	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
144	S2	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
145	S3	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
146	S4	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
147	S5	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
148	S6	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
149	S7	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	
150	S8	Not Prepared	-	-	Not Used (Use as 00 setting conditions)	

(*1): The "02", "03", "04" settings may not be available depending on the type of indoor unit.

When connecting multiple indoor units, do separate settings.

(*2): If Duct type models, 00: Increasing fan speed 1 (standard), 01: Increasing fan speed 2 (high static pressure), 02: Standard (low static pressure).

(*3): If the set temperature is changed and kept within the set time at "F4", the temperature is automatically changed to "F5" and "F6". (If the set temperature is out of range at "F5" and "F6", it is applied within the upper and lower limits for the set temperature.)

(*4): Applicable to the fan, cooling and dry operation modes.

(*5): Applicable to the heating operation mode.

(*6): Operation is stopped by pressing the "⏻" (On/Off) button for 3 seconds.

(*7): "01" is available only when one controller is used. Do not use this setting when two (primary-secondary) controllers are used.

(*8): Change the temperature unit ("F" or "°C") via the "▽" and "△" (Temp switch). Push simultaneously after setting "01" (Unlock) of this function (H6). Default is "°F".

(*9): If the operation on the controller is locked by this function (J4), Run/Stop state cannot be changed even in the emergency. Make sure that this lock will NOT cause any inconvenience.

(*10): When the unit is restarted by the controller, the temperature automatically changes to the setting temperature of "F5" or "F6".

NOTE:

1. Power on, wait 3 minutes and then change the optional setting.
2. When changing the "CF" setting (change of louver swing angle), restore the power supply or allow the louver to make one complete swing fully in the auto-swing mode and then apply the optional setting.
3. The optional settings may be different according to the indoor and outdoor unit models.
Verify that the unit has the optional setting.
4. Record the setting conditions for each optional setting in the "Setting" column of the table below.
5. The above optional functions marked with an "X" at the individual setting can change the condition only when "All Rooms" is set.

Table B Input and Output Number Display and Connectors

Input Number Display Input/Output Indication	Port	Factory Setting		Setting
		Setting Item	Indication	
Input 1	CN3 1-2	Remote ON/OFF 1 (Level)	03	
Input 2	CN3 2-3	Prohibiting Remote Control after Manual Stoppage	06	
Output 1	CN7 1-2	Operation	01	
Output 2	CN7 1-3	Alarm	02	
Output 3	CN8 1-2	Thermo-ON for Heating	06	

Table C Input and Output Settings and Display Codes

Indication	Input	Output
00	Not set	Not set
01	Room Thermostat (for Cooling)	Operation
02	Room Thermostat (for Heating)	Alarm
03	Remote ON/OFF 1 (Level)	Cooling
04	Remote ON/OFF 2 (Operation)	Thermo-ON for Cooling
05	Remote ON/OFF 2 (Stoppage)	Heating
06	Forbidding Remote Control after Manual Stoppage	Thermo-ON for Heating
07	Remote Cooling / Heating Change	Not set
09	Setback Operation	

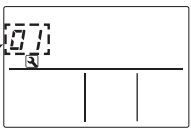
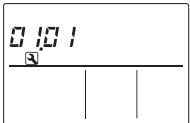
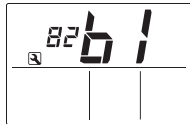
NOTE:

- * Power on, wait 3 minutes and then change the optional setting.
- * Do not set the elevating grille for the total heat exchanger.
- * Record the setting conditions for each input and output in the "Setting" column of the table.

7. Check Mode

Check 1: Sensor condition of the air conditioner is monitored and indicated.

Check 2: Sensor data of the air conditioner prior to alarm occurrence is indicated.

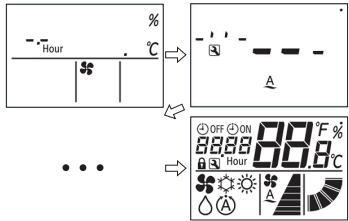
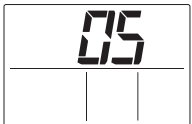
(1) Press and hold "▽", "△" for "Temp" and "Fan" simultaneously for at least 3 seconds during the normal mode.	 <div data-bbox="574 324 680 365"> 01: Check 1 02: Check 2 </div>
(2) Select the "Check" mode by pressing "▽" or "△" for "Temp" and press "Fan".	
(3) Select the indoor unit by pressing "▽" or "△" for "Temp" and press "Fan".	
(4) Press "▽" or "△" for "Temp" and select the item.	
(5) Press "▽" or "△" for "Temp" simultaneously to return to the normal mode.	

NOTE:

The "check" items are different for each indoor unit type. Check the service manual for the indoor unit to be used for the detailed information.

8. Reset of Controller

Reset the EEPROM inside the controller.

(1) Press "△" and "▽" for "Temp" and "Fan" simultaneously during the normal mode (when unit is not operated).	
(2) Press "△" and "▽" for "Temp" and "Fan" simultaneously again when the screen is switched as shown on the right.	
(3) Reset EEPROM. When the figure on the right is displayed, press "△" for "Temp" or leave it for 15 seconds, then EEPROM data will be deleted.	
(4) After a few seconds, the controller will restart automatically.	

After resetting, shut off the indoor unit power supply.

After indication on the remote controller turns OFF, turn the power ON for indoor unit again.

