

Installation & Maintenance Manual

For Large Central Controller

Model: CCL01



IMPORTANT:

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

LIT-12012047

P5415513

1. Safety Summary



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 safeguards 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, and basic and advanced information to maintain and service this heat pump air conditioning unit that apply to other models as well.
- 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.

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 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 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 correctly, injuries may occur due to a falling unit.
- Use appropriate Personal Protective Equipment (PPE), such as gloves and protective goggles and, where appropriate, have a gas mask nearby. Also use electrical protection equipment and tools suited for electrical operation purposes. Keep a wet cloth and a fire extinguisher nearby during brazing. Use care in handling, rigging, and setting of bulky equipment.
- When transporting, be careful when picking up, moving and mounting these units. Although the unit may be packed using plastic straps, do not use them for transporting the unit from one location to another. Do not stand on or put any material on the unit. Get a partner to help, and bend with your knees when lifting to reduce strain on your back. Sharp edges or thin aluminum fins on the air conditioner can cut fingers, so wear protective gloves.
- 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 or jump-out any safety device or switch.
- Johnson Controls 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.
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- Be careful that moisture, dust, or variant refrigerant compounds not enter the refrigerant cycle during installation work. Foreign matter could damage internal components or cause blockages.
- If air filters are required on this unit, do not operate the unit without the air filter set in place. If the air filter is not installed, dust may accumulate and breakdown may result.
- Do not install this unit in any place where silicon gases can coalesce. If the silicon gas molecules attach themselves to the surface of the heat exchanger, the finned surfaces will repel water. As a result, any amount of drainage moisture condensate can overflow from the drain condensate pan and could settle inside of the electrical box, possibly causing electrical failures.

- 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.
- When a wireless controller is used, locate at a distance of at least 3.3 ft. (approximately 1 meter) between the indoor unit and electric lighting. If not, the receiver part of the unit may have difficulty receiving operation commands.
- Do not install the unit in any location where animals and plants can come into direct contact with the outlet air stream. Exposure could adversely affect the animals and plants.
- Do not install the unit with any downward slope to the side of the drain adapter. If you do, you may have drain water flowing back which may cause leaks.
- Be sure the drain hose discharges water properly. If connected incorrectly, it may cause leaks.
- Do not install the unit in any place where oil can seep onto the units, such as table or seating areas in restaurants, and so forth. For these locations or social venues, use specialized units with oil-resistant features built into them. In addition, use a specialized ceiling fan designed for restaurant use. These specialized oil-resistant units can be ordered for such applications. However, in places where large quantities of oil can splash onto the unit, such as a factory, even the specialized units cannot be used. These products should not be installed in such locations.

Installation Precautions



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

- When installing the unit into...
 - A wall: Make sure the wall is strong enough to hold the unit's weight. It may be necessary to construct a strong wood or metal frame to provide added support.
 - A room: Properly insulate any refrigerant tubing run inside a room to prevent "sweating" that can cause dripping and water damage to wall and floors.
 - Damp or uneven areas: Use a raised concrete pad or concrete blocks to provide a solid, level foundation for the unit to prevent water damage and abnormal vibration.
 - An area with high winds: Securely anchor the outdoor unit down with bolts and a metal frame. Provide a suitable air baffle.
 - A snowy area (only for Heat Pump Model): Install the outdoor unit on a raised platform that is higher than drifting snow. Provide snow hoods.
- Do not install the unit in the following places. Doing so can result in an explosion, fire, deformation, corrosion, or product failure.
 - Explosive or flammable atmosphere
 - Where a fire, oil, steam or powder can directly enter the unit, such as nearby or above a kitchen stove.
 - Where oil (including machinery oil) may be present.
 - Where corrosive gases such as chlorine, bromine, or sulfide can accumulate, such as near a hot tub or hot spring.
 - Where dense, salt-laden airflow is heavy, such as in coastal regions.
 - Where the air quality is of high acidity.
 - Where harmful gases can be generated from decomposition.
- Do not position the drain pipe for the indoor unit near any sanitary sewers where corrosive gases may be present. If you do, toxic gases can seep into breathable air spaces and can cause respiratory injuries. If the drainpipe is installed incorrectly, water leakage and damage to the ceiling, floor, furniture, or other possessions may result. If the condensate piping becomes clogged, water may drip from the indoor unit. Do not install the indoor unit where such dripping can cause moisture damage or uneven locations: Use a raised concrete pad or concrete blocks to provide a solid, level foundation for the unit to prevent water damage and abnormal vibration.
- Before performing any brazing work, be sure that there are no flammable materials or open flames nearby.

- Perform a test run 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.
- Clean up the site when finished, remembering to check that no metal scraps or bits of wiring have been left behind inside the unit being installed.

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

Refrigerant Precautions



To reduce the risk of serious injury or death, the following refrigerant precautions must be followed.

- As originally manufactured, this unit contains refrigerant installed by Johnson Controls. Johnson Controls uses only refrigerants that have been approved for use in the unit's intended home country or market. Johnson Controls distributors similarly are only authorized to provide refrigerants that have been approved for use in the countries or markets they serve. The refrigerant used in this unit is identified on the unit's faceplate and/or in the associated manuals. Any additions of refrigerant into this unit must comply with the country's requirements with regard to refrigerant use and should be obtained from Johnson Controls distributors. Use of any non-approved refrigerant substitutes will void the warranty and will increase the potential risk of injury or death.
- If installed in a small room, take measures to prevent the refrigerant from exceeding the maximum allowable concentration in the event that refrigerant gases should escape. Refrigerant gases can cause asphyxiation (0.42 kg/m³ based on ISO 5149 for R410A). Consult with your distributor for countermeasures (ventilation system and so on). If refrigerant gas has leaked during the installation work, ventilate the room immediately.
- Before installation is complete, make sure that the refrigerant leak test has been performed. If refrigerant gases escape into the air, turn OFF the main switch, extinguish any open flames and contact your service contractor. Refrigerant (Fluorocarbon) for this unit is odorless. If the refrigerant should leak and come into contact with open flames, toxic gas could be generated. Also, because the fluorocarbons are heavier than air, they settle to the floor, which could cause asphyxiation.
- When installing the unit, and connecting refrigerant piping, keep all piping runs as short as possible, and make sure to securely connect the refrigerant piping before the compressor starts operating. If the refrigerant piping is not connected and the compressor activates with the stop valve opened, the refrigerant cycle will become subjected to extremely high pressure, which can cause an explosion or fire.
- Tighten the flare nut with a torque wrench in the specified manner. Do not apply excessive force to the flare nut when tightening. If you do, the flare nut can crack and refrigerant leakage may occur.
- A compressor/unit comprises a pressurized system. Never loosen threaded joints while the system is under pressure and never open pressurized system parts.
- When maintaining, relocating, and disposing of the unit, dismantle the refrigerant piping after the compressor stops.

Electrical Precautions




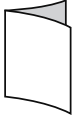



Take the following precautions to reduce the risk of electric shock, fire or explosion resulting in serious injury or death.

- 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 serious injury or death.
- Before servicing, open and tag all disconnect switches. Never assume that electrical power is disconnected. Check with meter and equipment.
- Only use electrical protection equipment and tools suited for this installation.
- Use specified cables between units.

- Communication cabling shall be a minimum of 18-Gauge, two-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.
- Use an exclusive power supply for the air conditioner at the unit's rated voltage.
- Be sure to install circuit breakers (ground fault interrupter, isolating switch, molded case circuit breaker and so on), with the specified capacity. Ensure that the wiring terminals are tightened securely to recommended torque specifications.
- Clamp electrical wires securely with a cable 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.
- Turn OFF and disconnect the unit from the power source when handling the service connector. Do not open the service cover or access panel to the indoor or outdoor units without turning OFF the main power supply.
- After operation shutdown, be sure to wait at least five minutes before turning OFF the main power switch. Otherwise, water leakage or electrical breakdown may result. Disconnect the power source completely before attempting any maintenance for electrical parts. Check to ensure that no residual voltage is present after disconnecting the power source.
- 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.
- Check that the ground cable is securely connected. Do not connect ground wiring to gas piping, water piping, lighting conductor, or telephone ground cables.
- If there are frequent occurrences with blown fuses or flipped circuit breakers, shut down the system immediately and contact your service contractor.

2. Before Installation

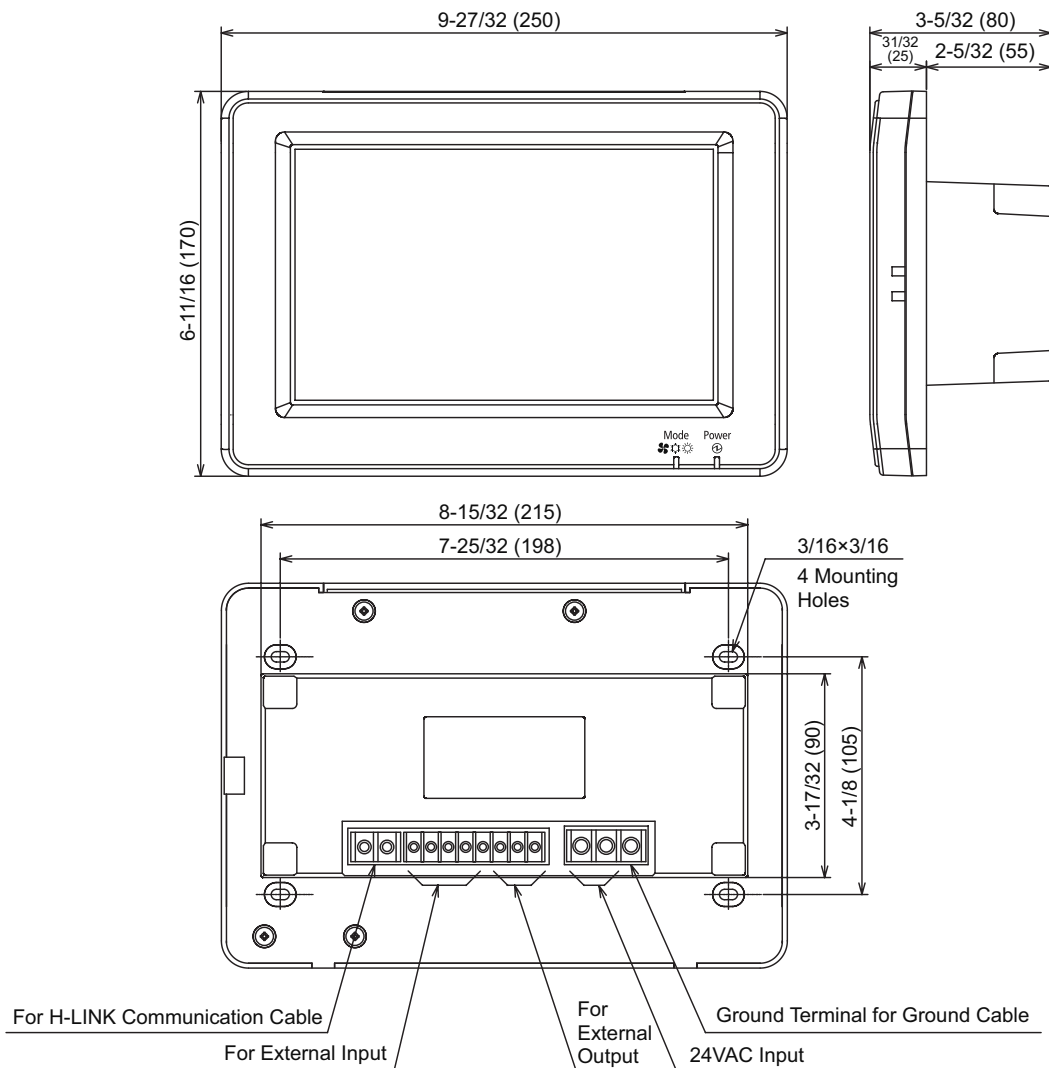
□ Check to ensure that the following parts are packed with the large central controller.

Item	Large Central Controller CCL01	Operation Manual and Installation and Maintenance Manual	Touch Pen	Touch Pen Holder	Screw
Appearance					 M4 x 16mm
Qty.	1	1 Each	2	1	4

- Select a suitable place for handling and determine the installation location of the wired controller with the customer's acceptance. Do not install the wired controller in such locations as:
- where children can come into direct contact
 - where the airflow discharge from the air conditioner is directed toward people or pets.

3. Outer Dimensions

(Unit: inch(mm))



4. Features

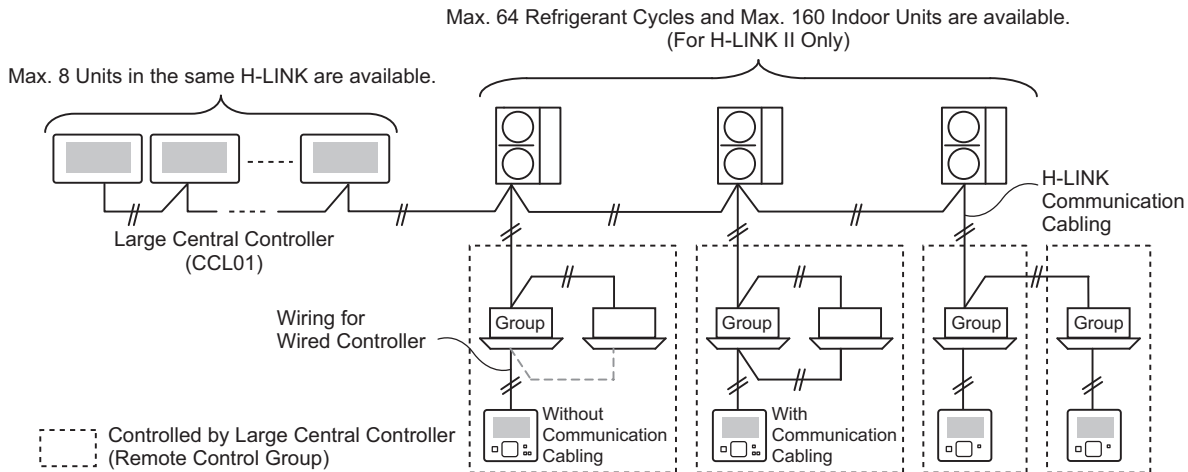
This CCL01 is the remote controller for air conditioning system that controls and monitors maximum 160 indoor units.

4.1 Specification

Model	CCL01
Outer Dimension <W x H x D+(Built-in Part)>	9-27/32 × 6-11/16 × 31/32 + (2-5/32) inch (250 × 170 × 25 + (55) mm)
Net Weight	3.3 LBS (1.5 kg) (Approx.)
Installation Location	Indoor
Installation Method	Wall Built-in with Steel Box (Option)
Connected Indoor Units (Qty.)	160 (Maximum)
Clock Accuracy	± 70 Seconds/Month (at Normal Temperature)
Ambient Temperature	41 ~ 95°F (5 ~ 35°C)
Ambient Humidity	35 ~ 90% (No Dew Condensation)
Display	8.5" TFT Color Liquid Crystal Display (800 x 480 dots)
Rated Power Supply	24VAC, 60Hz
Electrical Power Consumption	30W (Max.)

4.2 System Configuration

This large central controller (CCL01) is connected to H-LINK and used for the central control and monitoring of the air conditioners. The system configuration example is shown in below.

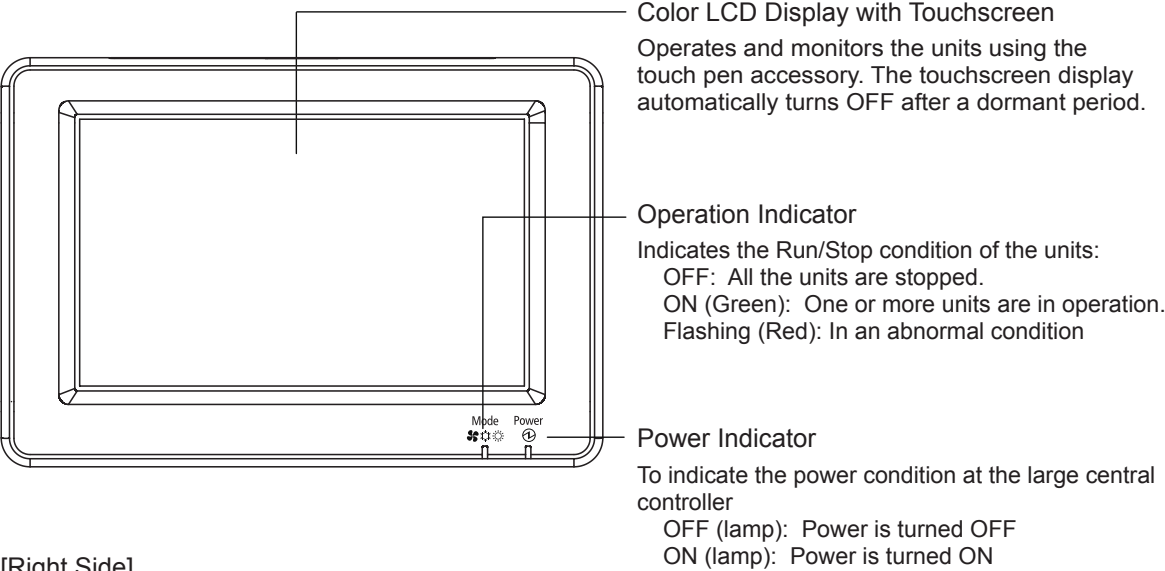


NOTICE

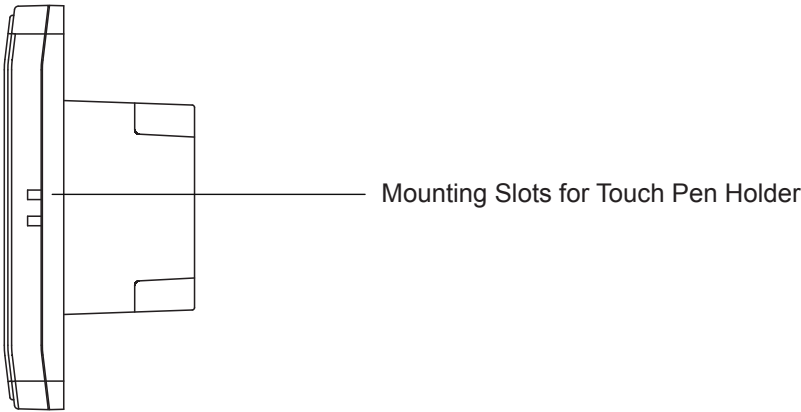
- When one or more indoor units with no remote controller (CIS01, CIW01, CIR01) are connected to the H-LINK network, you cannot connect multiple central controller to the H-LINK.

4.3 Component Names and Functions

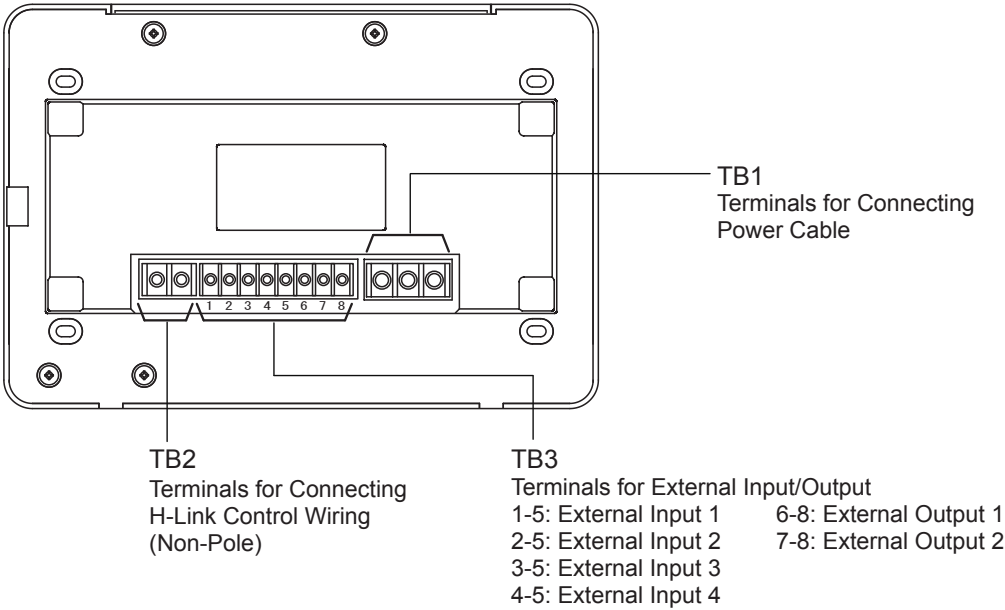
[Front Side]



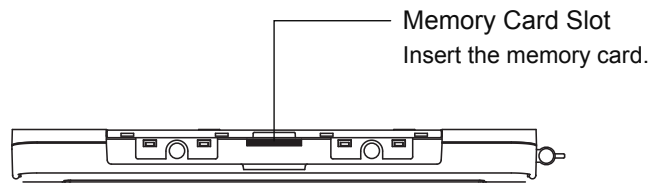
[Right Side]



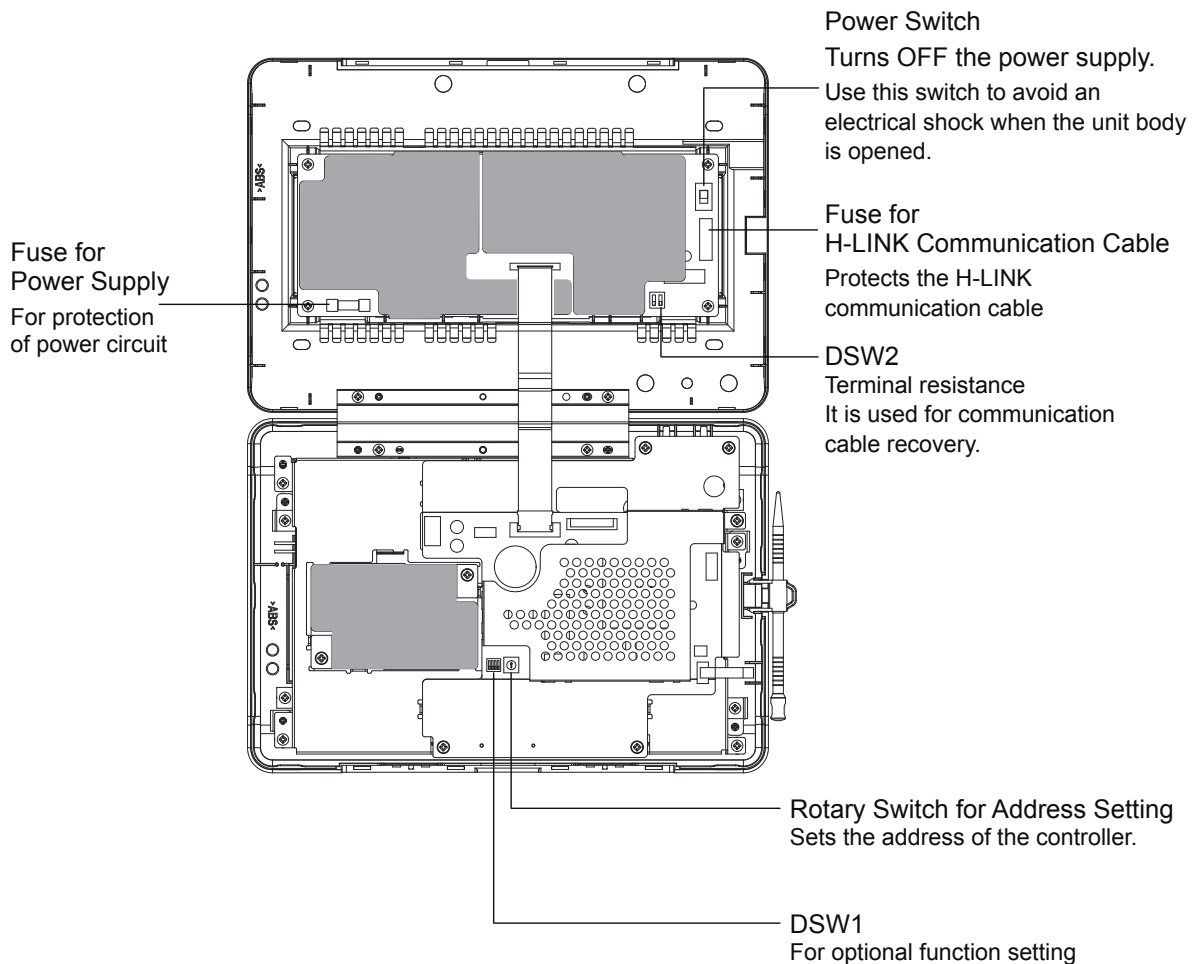
[Rear Side]



[When Slot Cover is Opened]



[When Unit Body is Opened]

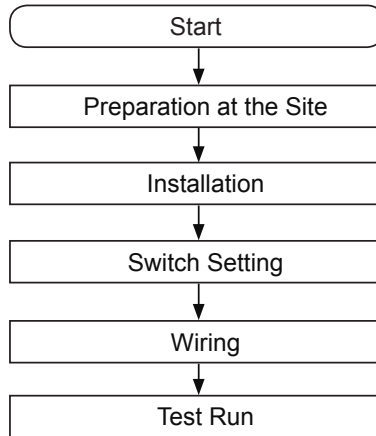


⚠ WARNING

For safety, DO NOT remove the covers marked with " " .
Removing covers may result in a serious electrical shock.

5. Installation Procedure

This manual informs the installer how to handle the large central controller and of the test run for the controller. The installation procedures are as shown below.



5.1 Preparation at the site

Before installing a controller, prepare the following items.

Parts	Specification
Steel Box	Option
Power Supply Cable	Cable SPEC: AWG 16(1.25mm ²) to AWG 14(2mm ²) Recommended Cable: 600V CV, CCV, CEV
H-LINK Cable (For Control)	Cable SPEC: AWG 18(0.75mm ²) to AWG 16(1.25mm ²) Recommended Cable: Shielded Communication Cable, Over AWG 18(0.75mm ²) (Equivalent to KPEV-S)

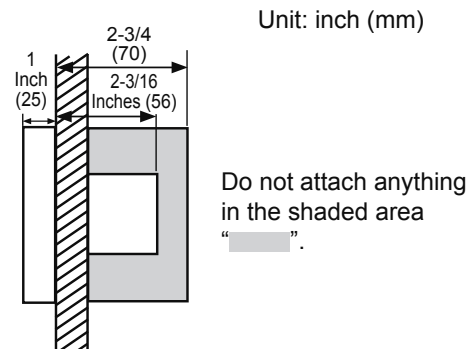
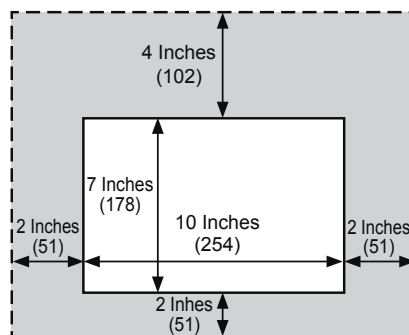
NOTE:

Communication cabling shall be a minimum of 18-Gauge, Two-Conductor, Stranded Copper. Shielded cable must be considered for applications and routing in areas where high EMI and other sources of potentially excessive electrical noise will be generated 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.

5.2 Installation

[Installation Space]

- ☐ Maintain sufficient space for the installation of the large central controller as shown below.

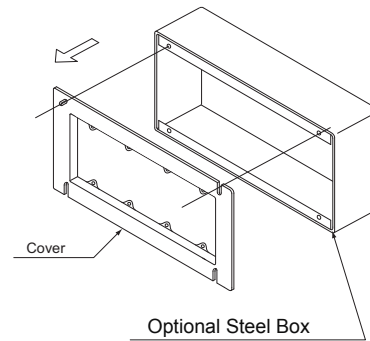


Unit: inch (mm)

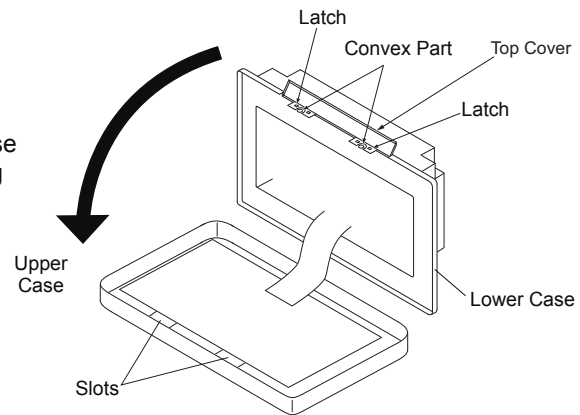
When installing more than two large central controllers in row or in line, maintain adequate spacing inbetween.
 * Vertical Direction: 4 Inches (102mm)
 * Horizontal Direction: 2 Inches (51mm)

[Installation Method]

- 1. Remove the cover attached to the optional steel box.
- 2. Install the optional steel box into the wall.

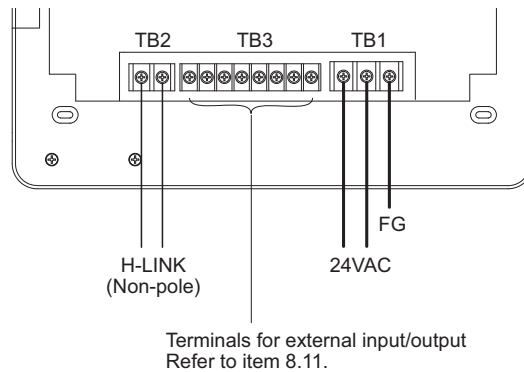


- 3. The factory ships the unit body open.
If the unit is closed, open it as shown at right.
 - a. Open the lid of unit body.
 - b. While pressing both latches, the top of the case can be opened since the catches for mounting have been removed.

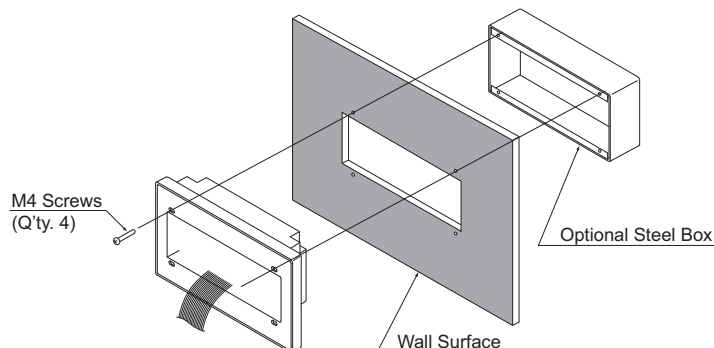


- 4. Connect the wiring to the terminal board of the large central controller.

TB1: Terminal Board for Power Supply
 TB2: Terminal Board for H-LINK
 TB3: Terminal Board for External Input and Output



- 5. Mount the optional steel box with the M4 x 5/8 inch accessory mounting screws.



6. Switch Setting Procedure

Switch settings for the large central controllers are identified in the following table.

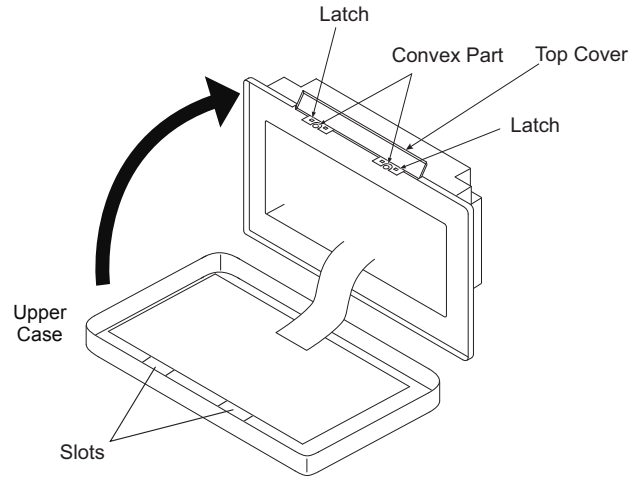
□ 1. Use the settings below.

Switch	Switch No.	Usage	Factory Setting	Remarks
RSW1 (Rotary Switch 16-poles)	-	For address setting of large central controller	0	When using multiple units.
DSW1 (DIP Switch 4-poles)	1	OFF (Fixed)	OFF	
	2	OFF (Fixed)	OFF	Not Used
	3	OFF (Fixed)	OFF	Not Used
	4	OFF (Fixed)	OFF	Not Used
DSW2 (DIP Switch 2-poles)	1	ON: Terminating Resistance Enable OFF: Terminating Resistance Disable	OFF	Make sure no other terminating resistance exists on the same H-LINK when enabling the terminating resistance from the large central controller.
	2	ON: Protection Fuse for H-LINK ... Disable (Short-circuited) OFF: Protection Fuse for H-LINK ... Enable (Normal)	OFF	
SW1		ON: Turn ON Large Central Controller OFF: Turn OFF Large Central Controller	ON	

NOTICE

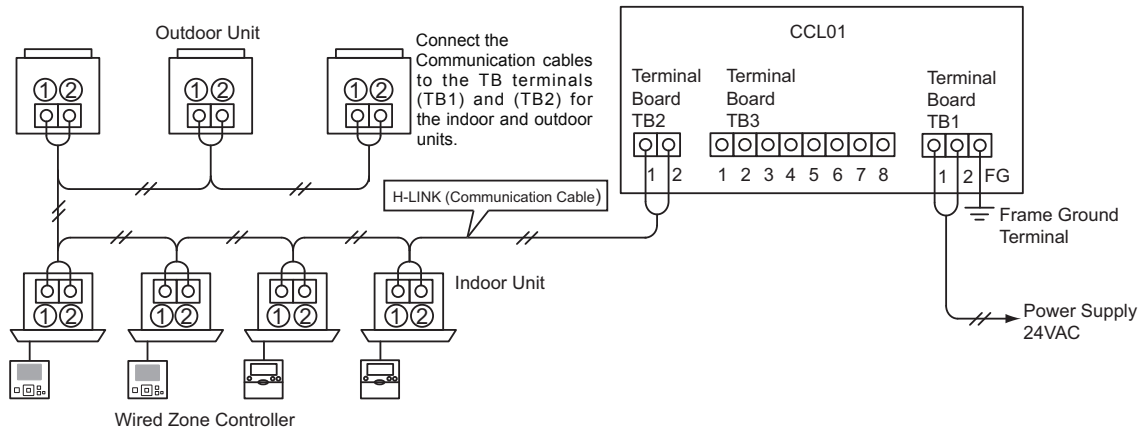
- Turn OFF the power supply when setting the DIP switches and rotary switch. Do not touch the printed circuit board (PCB) or the metal to avoid a malfunction of the large central controller.
- Alarm 63 will be displayed on a H-LINK II compliant central controller if mis-configured controllers/units are connected. In this case, turn OFF the power supply for all central control devices and correct the settings of each central control device. Then, restart central control devices.
- When using several large central controllers at the same time, set "RSW1" so as not to overlap.

- 2. Close the unit body until it snaps, making sure it is tightly closed.



7. Electrical Wiring

- 1. The large central controller requires wiring work of the power supply cable, air conditioner, and control wiring (H-LINK).
- 2. Wiring Method



Type of Wiring	Specification	Length of Wiring	Cable Specification	Recommended Cable Model
Power Supply Cable	24VAC	-	AWG16(1.25mm ²) to AWG14(2mm ²)	600V CV, CCV, CEV
Ground Cabling	---	---	---	---
H-LINK (Control Cable)	5VDC	3281feet (1000m) ≥	AWG18 (0.75mm ²) to AWG16 (1.25mm ²)	Shielded Communication Cable ≥ AWG18(0.75mm ²) (Equivalent to KPEV-S)
Wiring for External Input and Output	Input: Non-voltage Normal Open Output: 12VDC, 75mA ≥	230 feet (70m) ≥	AWG18 (0.75mm ²) to AWG16 (1.25mm ²)	JKPEV-S, JKEV-S, CVV-S, CVV, 600V VCT

NOTICE

- The large central controller may break down by an incorrect wiring.
- Communication cabling shall be a minimum of 18-Gauge, two-Conductor, Stranded Copper. Shielded cable must be considered for applications and routing in areas where high EMI and other sources of potentially excessive electrical noise will be generated 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.
- It is a requirement that communication cables be separated from the power supply wiring and other electrical device wiring. Maintain at least 12 inches (30cm) separation between communication cables and wiring from the power supply. If wiring and cables are not secured separately, they should be run through separate metal conduit tubing. One side of the metal conduit tubing should be grounded for noise reduction.
- Do not connect the power supply wiring to the large terminals for communication of large central controller. If the power supply wires are connected incorrectly, the fuse on the printed circuit board will blow out for protection. If this happens, turn ON DIP switch (DSW2-pin) on the printed circuit board (PCB), to proceed with unprotected (no fuse) emergency operation.
- When an insulating capacity test or voltage test is performed, remove the ground wiring to prevent failure of unit.

8. Use of Memory Card

Use a memory card to write setting data to the memory card.

■ Applicable Memory card

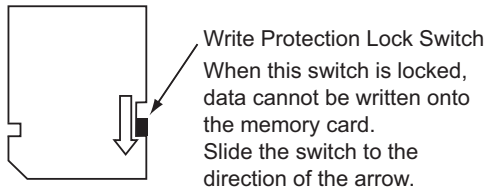
SD memory cards or SDHC memory cards based on the SD Standard are acceptable. However, some cards may not operate properly.



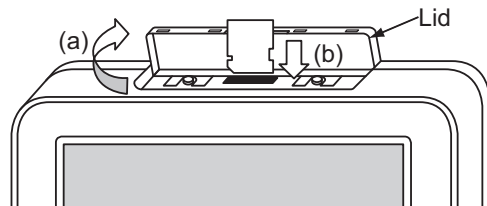
- These memory cards are considered acceptable by Johnson Controls.
 - SanDisk Ultra® SD™/SDHC™ card
 - SanDisk® SD™/SDHC™ card (standard type)

■ Insert the memory card.

1. Unlock the write protection lock of the memory card.



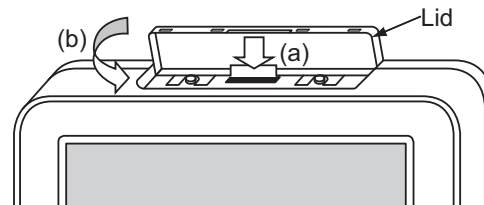
2. Open cover/lid (a). Then insert memory card (b).



■ Remove the memory card.

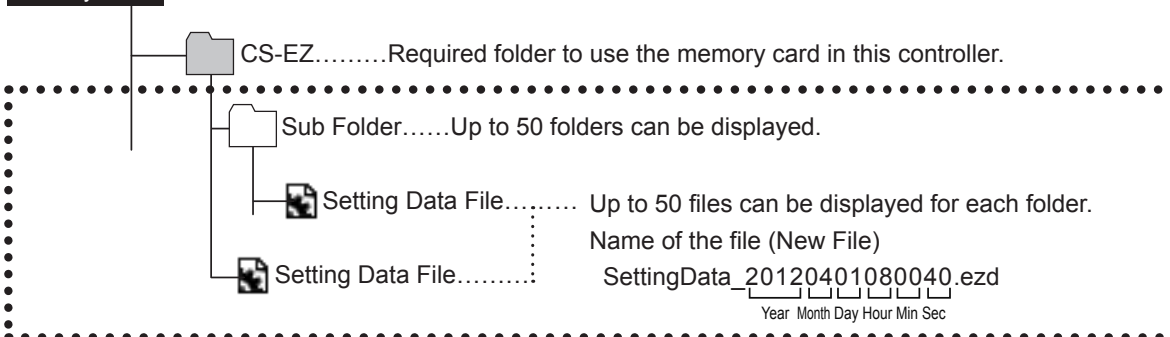
1. Push the memory card (a) down until clicking sound is heard .
The card is released and ready to be removed.

2. Close the lid (b).



■ Folders and Files

Memory Card



- If unavailable characters are included in the name, the character will be replaced by "?". In that case, the file or folder may not be accessible.
- Enter the name of the subfolder or the file within 240 characters. File names are limited to 240 characters.
- File setting data is saved as a ".ezd" file. There is no need to include ".ezd" in the characters.
- When the number of files in each sub-folder exceed 50, a warning message will be displayed and the screen will return to the Memory Card menu.

■ **Notes for using the memory card**

- The recommendation is to use the SD formatter when using the memory card for the first time. (See items 1 and 2 below.) Note that all data in the memory card will be erased by formatting the card.

NOTICE:

*1: Download the SD formatter software from the SD association site. (<http://www.sdcard.org/home>)

*2: When formatting the memory card improperly, it may fail to read/write data or take a long time for reading.


- When formatting the memory card, it may not completely erase the data on the memory card. If disposing of, or transferring information, it is recommended that the data-erasing program on your PC be used to completely erase the data.
- Do NOT remove the memory card or turn OFF the power while the memory card is reading or writing information. It will most likely damage the memory card surfaces, cause loss of data, or become unable to function under the following conditions:
 1. While the memory card icon is flickering.
 2. While the message "Recognizing Memory Card" is displayed.
 3. Immediately following "Read", "Write", or "Yes" messages after reading or writing data; (Immediately after the "Read" "Write" operation and the "Yes" buttons under the item 10.9.2.)
- When carrying or storing the memory card, do NOT leave it where static or electronic noise can be directly radiated to memory card. If affected, it may ruin the data on the memory card.
- It is recommended that you back up important data to other storage media regularly. Johnson Controls, Inc. cannot be held responsible for loss of data due to a damaged memory card.

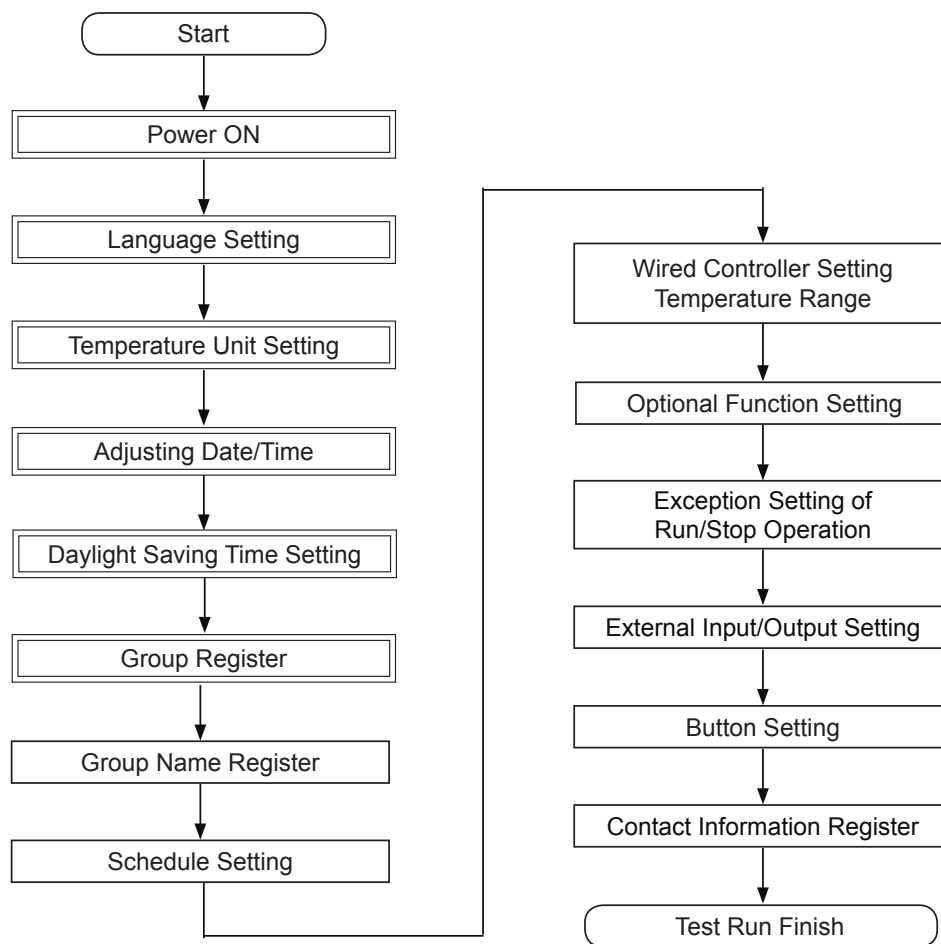


DO NOT insert into this slot any memory card other than the specified memory card. Doing so may lead to failure of the unit, electric shock, or fire.

9. Test Run Procedure

The procedures for the test run are shown below.

Those procedures displayed within a dual border “” are required items.



9.1 List of Features and Functions

Feature	Function	Page
Language Setting	This function is used for language selection.	20
Temperature Unit Setting	This function is used for changing the temperature unit.	20
Adjusting Date/Time	This function is used for adjusting the date and time.	20
Daylight Saving Time Setting	This function is used for setting daylight savings time operations.	21
Group Register	The connected indoor units are checked by the large central controller in the same H-LINK. This function is used for the group or block registration of them.	21
Main Unit Register	This function is used for the main unit registration in each remote controlled group. (There is one main unit for each remote controlled group.) A control command is sent from the large central controller to the main unit for the remote control group.	22
Sub Unit Register	This function is used for registration of the sub units except the main unit in the same remote control group. If using wired controllers or the receiver kits in the following scenario, sub units are registered automatically by the large central controller after the main unit registration. • IR Receiver Kit	22
Display List of Registers	Displays the addresses for the indoor units which were registered in each group.	23
Group Name Register	This function is used for registering names of blocks and groups. The registrable number of letters are maximum of 20 letters for the name of each block or group. The name can also be copied. If the group/block is registered without a name, it will be registered as "Group 1" or "Block 1" automatically.	23
Schedule Setting	This function is used for scheduled timer operation which can be set for each group or block.	23
Schedule Timer Setting	This function is used for setting the time (by the minute), "Run/Stop" and temperature (66~86°F) (19~30°C)). For weekly schedule settings, up to 10 scheduled items can be set per day. It is also possible to copy the settings information.	23
Holiday Setting	This function is used for suspending the schedule operation temporarily. The schedule operation will not be available when this function is set. This function is used for setting irregular holidays such as national holidays.	23
Schedule Timer ON/OFF Setting	"Schedule Timer OFF Setting" is used for suspending the schedule operation for the target group. The schedule operation will not be available when Schedule Timer is OFF. This function is used for a long holiday, unexpected holidays, national holidays, etc.	23
Optional Function Setting	This function is used for setting and changing of the function for air conditioners and large central controllers.	23
Air Conditioner, Wired Controller Setting	Set or modify the optional function of the air conditioner and wired controller.	23
Central Controller Setting	Set or modify the operational mode or the color of the operation indicator of the central controller.	24
Indoor Unit Setting	Set or change the function selection for indoor units.	24
Exception to Setting of Run/Stop Operation	This function is used to specify an exception setting of Groups/Blocks for the "All Run/Stop" command. The All Run/Stop command will not be affected to the specified group/block.	25
External Input/Output Setting	Four external input terminals and two external output terminals are available in the large central controller. These terminals are used for "All Groups Run/Stop" and "Demand Function" operations for the connected air conditioners. The external output terminals are used for the operation signal output or alarm signal output of the air conditioners which are connected to the large central controller.	26
Button Setting	This function specifies each button to be shown/hidden. This function also includes specification/setting for "one-touch operation" or the "press and hold" operation.	27
Contact Information Register	This function is used for editing contact information registration.	27

9.2 Supply Power to the Unit

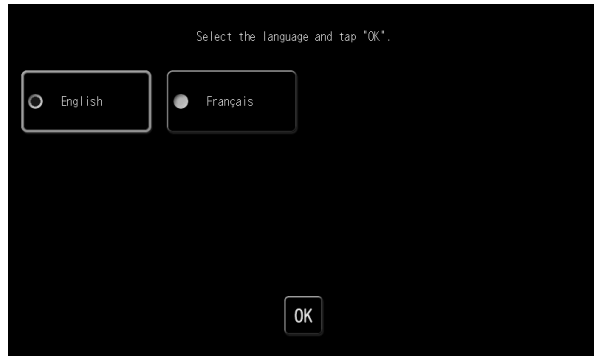
1. Apply power to the outdoor unit(s) at least 12 hours prior to operation of the system for preheating of the compressor oil.
 - Perform after the test run for each air conditioner and confirming that all the air conditioners operate normally.
2. Turn the power supply ON to the large central controller.

9.3 Language Setting

Several minutes after turning ON the power supply, the language setting screen is displayed on the touchscreen as shown at right.

(When the power supply is turned ON for the first time.)

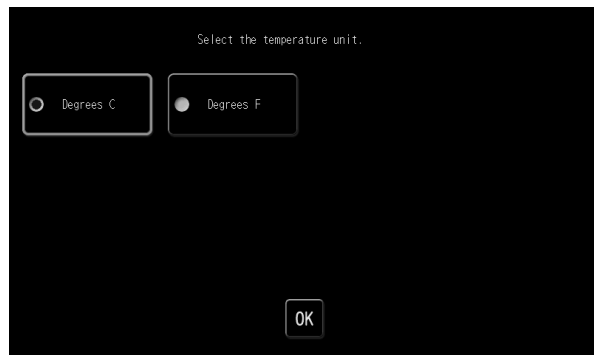
Select the appropriate language for operation and touch "OK".



9.4 Temperature Unit Setting

After the language is set, the screen displays as shown at right.

Select the appropriate temperature unit and touch "OK".



9.5 Adjusting Date/Time

After language setting, the "Setting Date/Time" screen is displayed on the touchscreen as shown at right.

Touch "Set" on the touchscreen display, and set the date and time in accordance with designated procedure.

Refer to the Operation Manual for details.



9.6 Daylight Saving Time Setting

After the Date/Time function is set, the screen is displayed as shown on the right. Set each time and touch “Done” on the lower right corner.

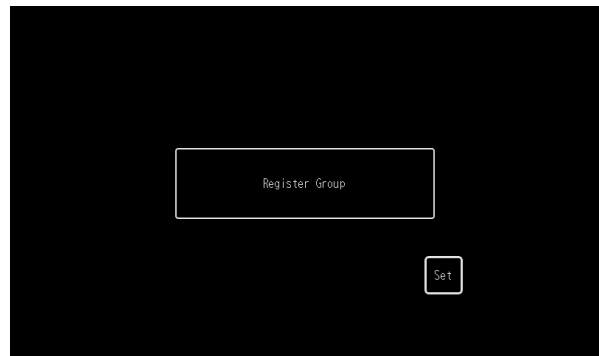


“Done” Button

9.7 Group Register

Register the indoor units confirmed for connection to the group (block) of the large central controller. Touch “Set” on the touchscreen and the Settings Screen is displayed (when the power supply is turned ON for the first time).

Refer to Section 10.3 for details.



[Group and Block]

- **Group (Remote Control Group):**

A group indicates the minimum number of operating units controlled by the large central controller, with multiple indoor units, with a maximum of 16 units, are connected with communication cables. A single large central controller controls per group and can control up to 64 groups of units (4 blocks x 16 groups).

- **Block:**

A block is an operation unit for a group. A maximum of 16 groups can be registered within one block. A maximum of 4 blocks can be controlled by the one large central controller.

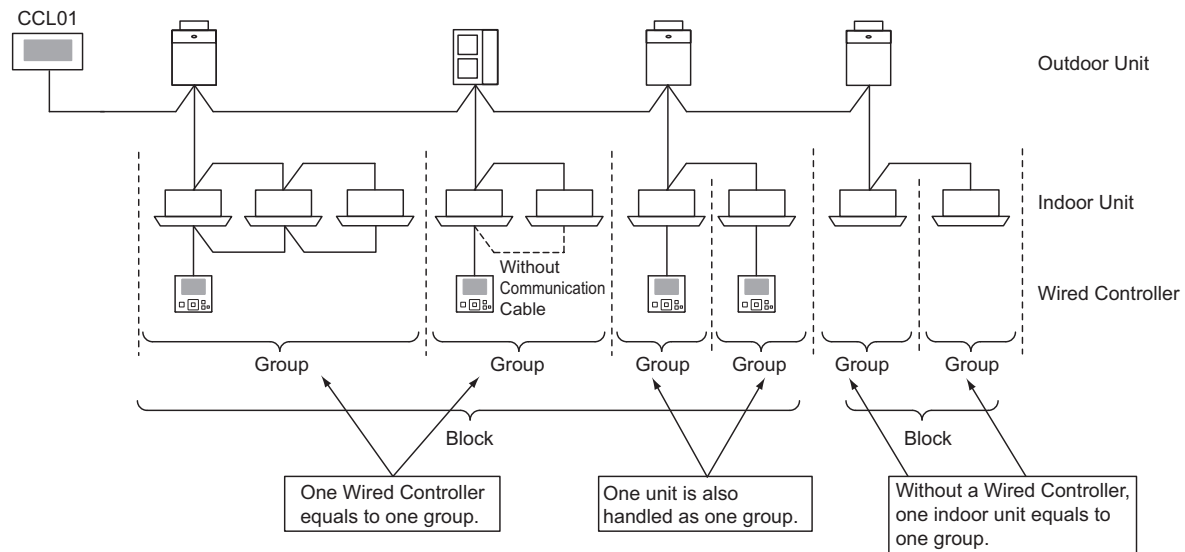
- **Main Unit:**

The main unit registration is available for only one indoor unit per one group.

A control command is sent from the large central controller to the main unit for the group.

- **Sub Unit:**

The sub unit is an indoor unit other than the main unit in the same group. Sub units are controlled by the same operation with the main unit.



NOTICE

<Main Unit Registration>

- The main unit registration is available for only one indoor unit for one group. Thus, duplicate registration of the main unit is not possible in the same group. If the main unit registration is changed for some reason, cancel the current main unit registration, and register the main unit again.
- When the indoor unit with a fan speed of 4-touch and 3-touch are paired together in the remote control group, register the indoor unit equipped with a 4-touch fan speed as main unit. Note that if a 3-touch is registered as main unit, the group fan speed setting will be 3-touch only.
- When an indoor unit equipped with automatic louver swing and an indoor unit not equipped with automatic louver swing are co-mingled into the same group, do not register the indoor unit without automatic louver swing as the main unit. If it is registered as the main unit, this group cannot utilize the louver setting function.
- If a group in which the communication cabling connecting a wired controller is not used, the indoor unit without a wired controller should not be registered as the main unit.
- Upon replacing indoor unit, cancel the current main unit registration, and then register the main unit again.

<Sub Unit Registration>

- It is possible to register up to 15 sub units in the same remote control group with a main unit. (It is not possible to register more than 16 sub units.)
- The indoor unit not equipped with a wired controller cannot be registered as a sub unit. Always register it as a main unit only.
- If a sub unit is registered in another group, cancel the registration of target sub unit and register it again to a different group.

9.8 Registering Groups/Blocks Name

Register the names of the groups and the blocks for the registered groups.
The registrable number of letters are a maximum of 20 for the name of the group (block).
Set by Monitor 1 or 2 > Menu > Group Name Register.

Refer to the Operation Manual for details.

NOTICE

If you touch "Enter" at name registration, the name of the group or the block can be input in two lines using a total of 20 characters (10 characters for each line).

9.9 Schedule Operation

This function is used for the timer operation.
It is possible to schedule a setting for a block and each group.
Holiday settings to suspend scheduled operation is also available.
Set by Monitor 1 or 2 > Menu > Schedule Settings.

Refer to the Operation Manual for details.

9.10 Wired Controller Temperature Setpoint Range

This function is used for restricting the temperature setpoint range for the local remote control operation.
For RUN mode, it is possible to set a minimum cooling temperature or maximum heating temperature.
Set by Monitor 1 or 2 > Menu > Setting Temp. range of the remote control.

Refer to the Operation Manual for details.

9.11 Optional Function Setting

This display is used for setting and changing the function selection for an air conditioner and a large central controller in the following table.
Set by Monitor 1 or 2 > Menu > Service Menu > Optional Function Setting.

Refer to Section 10.4 for details.

Function		Description
Air Conditioner; Wired Controller Setting	Setting Operational Mode	Touch "Enable" in "Setting Operation Mode" to set the present operation mode. Operation mode is established as the present setting which cannot be changed from the wired controller and the large central controller.
	Setting Temperature Setpoint	Touch "Enable" of "Setting Temperature Setpoint" to set the present set temperature. The setting temperature is established as the present setting and which cannot be changed from the wired controller or the large central controller.
	Cooling Only	Touch "Enable" of "Cooling Only" to fix the operation mode as cooling. This function is used for heat pump models which can be operated such as the cooling only models. The operational modes "HEAT" and "AUTO" cannot be selected from the wired controller or the large central controller.
	Auto	Touch "Enable" in "Auto" to access and utilize the cooling/heating automatic operation. It is possible to set this mode from the wired controller and the large central controller. However, in the following cases, "AUTO" can no longer be selected: <ul style="list-style-type: none">• Connected to the model of Cooling Only.• The function "Cooling Only" is enabled.
	Setting Fan Speed	Touch "Enable" in "Setting Fan Speed" to set fan speed. Fan speed set to the present setting by the wired controller and the large central controller cannot be changed.

Central Controller Setting	Control Mode	<p>This function is used for changing the control mode for the large central controller.</p> <p>When setting this function, touch “All Groups” as the target group, and select the control mode from “Normal” or “Run/Stop Only”.</p> <ul style="list-style-type: none"> • Normal: “Setting” is displayed when tapping the group button. This mode is the factory setting which normal setting is available by each group. • Run/Stop Only: The control mode at “Monitor 1 or 2” is changed to only “Run and Stop” by each group.
	Operation Indicator	<p>It is possible to set this indicator in green or red.</p> <p>When an error occurs, this indicator will flash ON and OFF in red, regardless of the setting.</p>
	All Groups Display Automatic Switch	<p>Touch “Enable” to start from the “All Groups” display when initiating the operation.</p> <p>On the Block display screen, if a controller does not start within a given amount of time, the screen automatically switches to “All Groups” display.</p>
	Remote Control Switch (RCS) Operation Prohibited to Set OFF Time	<p>Touch “Enable” to set “Prohibited Remote Control Operation (All items)” and “Stop” simultaneously during the “OFF time” phase.</p> <p>At this time, the “Prohibited Remote Control Operation (All items)” command is cancelled and a “Run” command is not sent.</p> <p>This function is not an option when setting the “Prohibited Remote Control Operation (By item)”. Touch “Disable”.</p>
	Display Graph for Numerical Values	<p>Touch “Disable” to display the graph for Operation Time or the Thermo-ON Time (without a numerical value displayed).</p>
	Thermo-ON Time Display	<p>Touch “Enable” to display the Thermo-ON Time in the Operation Time display.</p>

Items	Optional Function	Setting Condition	Contents	Setting
q1	Auxiliary Heater Setting	00 01	Not Available Available	
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)	
q3	Auxiliary Heater OFF Compensation	0(0.0) 1(0.5)	0°F (0.0°C) 1°F (0.5°C)	
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)	

Items	Optional Function	Setting Condition	Contents	Setting
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)	
r1	Dual Setpoint	00 01	Not Available Available	
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)	
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)	

NOTICE

- “Optional Function Setting” information is set to the group by the large central controller. Check the setting from the wired controller in the same group. If this setting is not displayed, set the same information by the wired controller. In the same way, “Optional Function Setting” information such as “Setting Operation Mode”, “Setting Temperature Setpoint”, “Cooling Only”, “Fixing Fan Speed”, or “Auto” are set to the group by the wired controller. Check the setting from the large central controller. If this setting is not displayed, reset this same information at the large central controller.
- Mode fix and demand control via external input/output: the group which set both of the operation mode shift will stop regardless the operation mode when the demand signal is ON.
- When the power ON/OFF (d1, d3) of the optional function is set, DO NOT set the “Prohibit” on of the remote control operation. If the operation of the local remote control is not restricted when using the power ON/OFF, DO NOT use the lock function of the local remote control.

9.12 Exception to Setting of Run/Stop Operation

This function is used as an exception to the command: “All Groups Run/Stop” and “Run/Stop by Block” operations for those selected Groups or Blocks.

Selecting Exception Settings for the Run/Stop Operation (All Groups/Block) are available as follows.

- Run and Stop
- Run
- Stop

Set by Monitor 1 or 2 > Menu > Service Menu > Exception Setting Run/Stop Operation.

Refer to Section 10.5 for details.

NOTICE

- None of the “All Run/Stop” and “Run/Stop by Block” commands is affected when they are set to the groups/blocks. However, these commands are accepted as follows even if this function is set.
 - Scheduled Timer Operation
 - “All Run/Stop” and “Run/Stop by Block” by External Input command
- The “Run/Stop” operation is available when the group is selected individually.

9.13 External Input/Output Setting

The external input/output of each of two terminals are optional.

Their assigned functions are shown below.

Set by Monitor 1 or 2 > Menu > Service Menu > External Input/Output Setting.

Refer to Section 10.6 for details.

Input and Output	Connection	Function	
Input 1	TB3 1-5 Pin	*All Run/Stop (Level)	*Emergency Stop (Level)
Input 2	TB3 2-5 Pin	*All Run (Pulse)	*Demand Function (Input 1 only)
Input 3	TB3 3-5 Pin	*All Stop (Pulse)	*No Setting (Factory Setting)
Input 4	TB3 4-5 Pin		
Output 1	TB3 6-8 Pin	*All Run	
Output 2	TB3 7-8 Pin	*All Alarm	
		*No Setting (Factory Setting)	

■ External Input Function

1. All Run/Stop (Level)
All groups simultaneously execute the Run/Stop operation by way of the external input signal.
2. All Run (Pulse)
All groups simultaneously execute the Run operation by way of an external input signal.
3. All Stop (Pulse)
All groups simultaneously Stop operation by the external pulse signal input
4. Emergency Stop (Level)
All groups simultaneously execute the Stop operation by way of an external emergency stop signal.
While "Emergency Stop" is performed, the wired controller LCD displays "Central Control" and the operation can not be controlled from the wired controller.
 - When in use with other large central controllers, the "Run/Stop" operation is available from other large central controllers even if it is during an emergency stop.
 - Do not set Emergency Stop when using simultaneously with other central controllers.

Demand Control Function

At peak demand, electrical consumption is reduced by the external demand control signal.

Only input terminal 1 is now available from the external demand signal.

The operation mode of a selected group will be changed by the demand signal as follows:

	Demand Signal ON (*1)	Demand Signal OFF (*2)
Stop (2) (See list below)	Indoor Unit Operation Stop with RCS Operation Prohibited Mode	The operating condition returns to previous status. (3) (8)
Run Mode Shift (2) (4)	Cooling or Dry Operation ↓ Fan Operation with RCS Operation Prohibited Mode Heat Operation ↓ Operation Stop with RCS Operation Prohibited Mode	
Outdoor Unit Capacity Control (5) (6) (7)	Control the value of outdoor unit capacity in the setting value. (Setting value: 100/90/80/70/60/50/40/0%).	
		Cancel the capacity control.

1. Do not set "STOP" or "Run Mode Shift" when used simultaneously with another central controller.
When setting outdoor unit capacity control, set one of the central controllers but do not set the others.
 2. Setting is only possible for Stop or Run Mode Shift. It is not possible to set multiple contacts.
 3. The target group: "Demand Function" is controlled, starting from a small, numbered group at intervals of 15 seconds.
 4. It will stop, regardless of the operating mode as in Auto or when the "Operating Mode Fixed" in the optional function setting is enabled.
 5. Outdoor unit capacity control can be set to multiple contacts.
When there is a signal input in multiple contacts, the control with the highest contact will be done in the order of priority as follows: (Input 1 > Input 2 > Input 3 > Input 4).
 6. The control target is only the outdoor unit corresponding to the outdoor unit capacity control.
Because the outdoor unit like compliant/non-compliant or settings available to capacity value may be different, contact your distributor for detailed information.
 7. It is possible to control by way of a schedule without having to use demand control.
 8. Upon clearance of demand signal, operation status may not return to the previous state if air conditioner received control command while demand signal was ON.
-

■ External Output Function

1. All Run Output
External output for indoor unit operation signal in the target group:
The operational output signal displays, even if only one indoor unit in the target group is in operation.
2. External Output Alarm
External output alarm signal for indoor unit in the target group
The alarm signal outputs even if one indoor unit abnormality occurs in the target group.

■ External Input/Output Terminals Specification

Input Terminal: The non-voltage contact (normally open) for the demand signal Input 12VDC, 10mA
Switching the contact is optional.
Pulse width is 300ms or more for pulse signal input.

Output Terminal: Contact (voltage is applied) for signal Output 12VDC

NOTE: Recommended Relay: MY Relay manufactured by Omron Corporation
(Do not use a diode built-in type.)

9.14 Button Setting

The operating button indicator selection
The operating button can be selected to show or hide restricting operations.
Set by: Monitor 1 or 2 > Menu > Service Menu > Button Setting.

Refer to Section 10.7 for details.

9.15 Contact Information Register

The contact information editing or registering for "Contact Information" function:
Set by: Monitor 1 or 2 > Menu > Service Menu > Contact Information Register.

Refer to Section 10.8 for details.

9.16 Alarm History

The alarm history record of the air conditioner unit and the large central controller:
The time of alarm occurrence, suspect unit and alarm code information are recorded, and the alarm history record can be initiated using this function.
Set by: Monitor 1 or 2 > Menu > Service Menu > Alarm History.

Refer to Section 10.13 for details.

10. Service Menu


Service Menu functions and detailed information are described as follows.

- Group Register
- Optional Function Setting
- Exception Setting of Run/Stop Operation
- External Input/Output Setting
- Exception External Input
- Demand Function Setting
- Button Setting
- Contact Information Register
- Restore Setting
- Checking Connection
- Alarm History

Function	Information	Page
Group Register	The connected indoor units are verified by the large central controller within the same H-LINK. This function is used for group or block registration of these units.	31
Main Unit Register	This function is used for the main unit registration in the each remote control group. (The main unit is the only one in the one remote control group.) A control command is sent from the large central controller to the main unit for the remote control group.	31
Sub Unit Register	This function is used for registration of sub units except for the main unit within the same remote control group. When using the wired controllers or the receiver kits as follows; sub units are registered automatically by the large central controller after main unit registration. • IR Receiver Kit	34
Display List of Registers	Displays the address of the indoor units which were registered in each group.	37
Optional Function Setting	This function is used for setting and changing of the optional functions for the air conditioners and the large central controllers.	38
Air Conditioner, Wired Controller Setting	Set or modify the optional function of the air conditioner and wired controller.	38
Central Controller Setting	Set or modify the operational mode or color of the operational display indicator for the central controller.	40
Indoor Unit Setting	Set or change the function selection for indoor units.	41
Exception Setting of Run/Stop Operation	This function is used to specify exceptional Groups/Blocks for All Run/Stop command. • The All Run/Stop command will not be affected on specified groups/blocks.	43
External Input/Output Setting	The central controller has four external input terminals and two external output terminals. These terminals are used for "All Groups Run/Stop" and "Demand Function" operations for connected air conditioners. The external output terminals are used for the operation signal output of the air conditioner units connected to the large central controller.	44
Button Setting	This function specifies each button to be shown/hidden. This function also includes specification/setting for "one-touch operation" or the "press and hold" operation.	47
Contact Information Register	This function is used for editing the contents of contact information registration.	48
Memory Card	Save or restore the setting of each group/block from the controller using the memory card.	49
Write to the Memory Card	Save the data "Group Name" "Schedule" "Contact Information" and "Memo" on the memory card.	49
Read from the Memory Card	Restore the data for "Group Name", "Schedule", "Contact Information", and "Memo" from the memory card.	53
Memo	Record and browse through Test Run and Maintenance information.	58
Restore Setting	This function is used for restoring all the settings such as registered Groups (Blocks) and schedules.	62
Checking Connection	This function is used for checking those connected indoor unit numbers within the same H-LINK. When this function is used, the confirmation for saving registered information such as the group names, schedules, and so forth is indicated. Touch "OK" and those connected indoor unit numbers are updated with registered information. Touch "Cancel" and the setting for the large central controller is all restored.	63
Alarm History	This function, when activated, displays the complete alarm history of this air conditioner unit and the controller (maximum of 100 records).	64

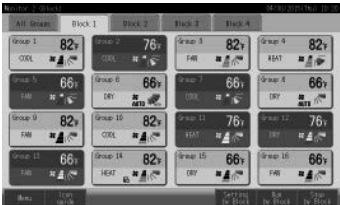
10.1 Display of Service Menu Screen

Monitor 1 (All Groups)



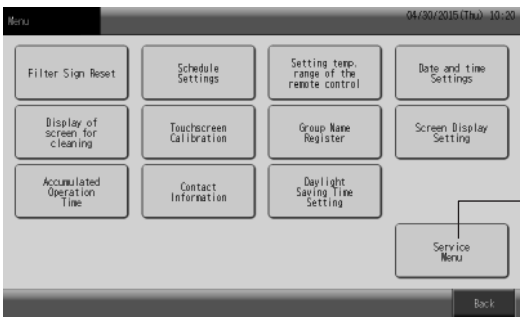
1

Monitor 2 (Block)



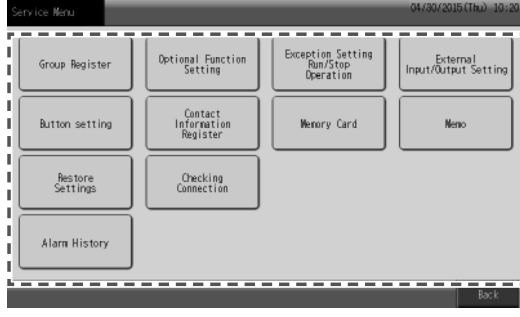
1

2



3

4



4

1. Touch "Menu" on the "Monitor 1" or "Monitor 2" screen.
2. The "Menu" screen is displayed.
3. Press and hold "Service Menu" for at least three seconds. The "Service Menu" screen is displayed.
4. Select the service menu function by touching each function button. The settings screen of selected function is displayed.

NOTICE

Depending on the operating condition of the air conditioner unit and the central controller, the following items cannot be selected. The number in parenthesis indicates the circumstances listed below.

- Group Register (1)
- A/C Unit and Wired Controller Setting (Optional Function Setting) (2)
- External Input/Output Setting (1) (2)
- Memory Card (3)
- Restore Setting (1) (4) (5)
- Checking Connection (1) (2)
 1. When the external Input signal is ON.
 2. When an air conditioner unit is operating.
 3. When a memory card is not inserted.
 4. When an air conditioner unit wired controller is restricted. (Without wired controller not included.)
 5. When an outdoor unit is operating at capacity control.

10.2 Exit Service Menu Screen

Service Menu

04/30/2015 (Thu) 10:20

Group Register

Optional Function Setting

Exception Setting Run/Stop Operation

External Input/Output Setting

Button setting

Contact Information Register

Memory Card

Memo

Restore Settings

Checking Connection

Alarm History

Back

1

Menu

04/30/2015 (Thu) 10:20

Filter Sign Reset

Schedule Settings

Setting temp. range of the remote control

Date and time Settings

Display of screen for cleaning

Touchscreen Calibration

Group Name Register

Screen Display Setting

Accumulated Operation Time

Contact Information

Daylight Saving Time Setting

Service Menu

Back

2

1. Touch "Back" on "Service Menu" to return to the "Menu" screen.

2. Touch "Back" to return to the "Monitor 1 (All Groups)" or "Monitor 2 (Block)" screen.

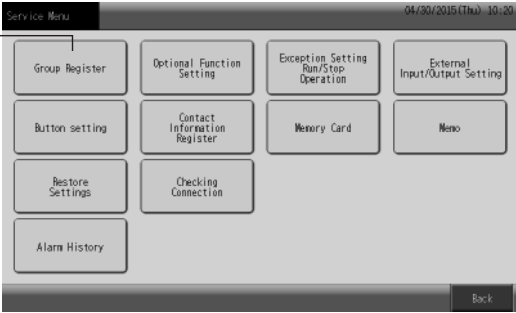
30

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10.3 Group Register

10.3.1 How to Register Group (Main Unit)

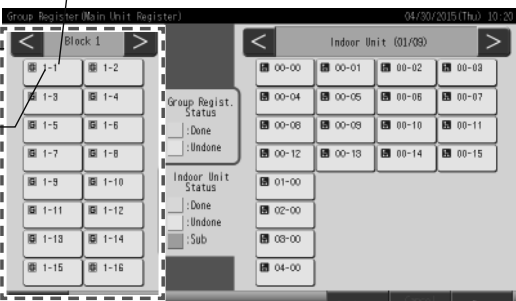
1



2



3



1. Select "Group Register" on the "Service Menu" screen.

NOTE:
This function cannot be selected when the external input signal is input to external input terminal 1 or 2.

2. Select "Main Unit Register" on the "Group Register" screen.

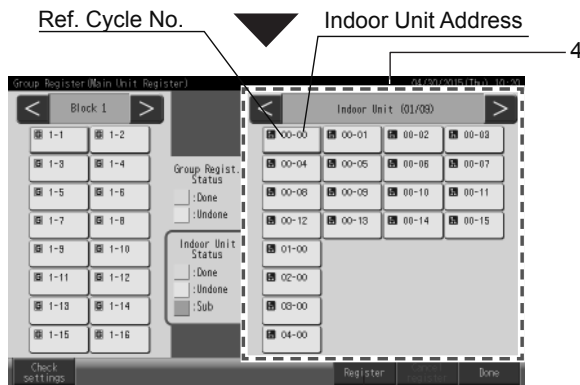
3. Select a group for main unit to register.

- When touching "<" or ">" at the upper left of the touchscreen, the block display is switched.
- The information for Block No. and Group number is indicated on the button as "Block No. - Group Name".
- Select the group button by touch. The selected button is trimmed with an orange outline. If the selected group button is touched again, the group selection is cancelled.

Continue on to Next Page

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31



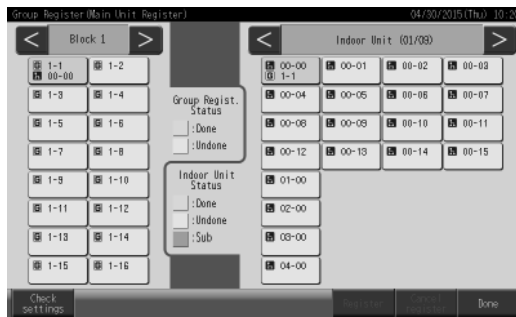
Continue on to Next Page

4. Select the indoor unit for "Main Unit Register".
 - Touch "<" or ">" at the upper right of the touchscreen, to switch the indoor unit display.
 - Information on the system number and indoor unit addresses are indicated on the Indoor Unit button as "Refrigerant Cycle No. - Indoor Unit Address".
 - Select the Indoor Unit button by touch. The selected button is trimmed with orange outline. If the selected button is touched again, the indoor unit selection is cancelled.
 - The indoor unit that is already registered as the main unit cannot be selected. (The button color is blue.)
 - < About the Indoor Unit Selecting >
 - The indoor unit which letters are (red) cannot be registered as the main unit. In this case, the indoor unit is registered as the sub unit automatically.
 - When the indoor unit with a fan speed of 4-touch and 3-touch are co-mingled into the same remote control group, register as the main unit, the indoor unit with a 4-touch fan speed.
 - When the indoor units such as "with auto louver function" and "without auto louver function" are both installed within the same H-LINK, register the indoor unit "with the auto louver function" as the main unit. If the unit "without auto louver function" is registered as the main unit, the auto louver function is lost and cannot be used in this H-LINK. (This applies to the other functions.)
 5. Touch "Register" at the bottom of the touchscreen to register the main unit when the group and indoor unit are selected.
 - If the group and indoor unit for the main unit are not selected, the "Register" indication is grayed-out and cannot be selected.
 - The button color of the registered group and indoor unit change to blue and the information is indicated in the buttons shown below.
- < Group Button >
- Block No. Group No.

Main Unit I.U. Address

Ref. Cycle No. I.U. Address
- < Indoor Unit Button >
- Ref. Cycle No. I.U. Address

Block No. Group No.
- Proceed with the main unit registration depending on the next setting.
- Continue "Main Unit Register"(step 3).
 - Exit "Main Unit Register" (step 6).

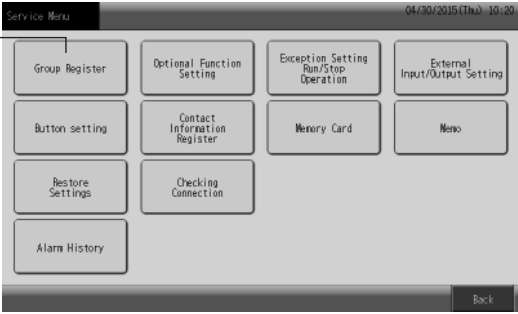


6. Touch “Done” on “Group Register (Main Unit Register)” to return to the “Group Register” screen.




7. Touch “Back” on “Group Register” to return to the “Service Menu” screen.

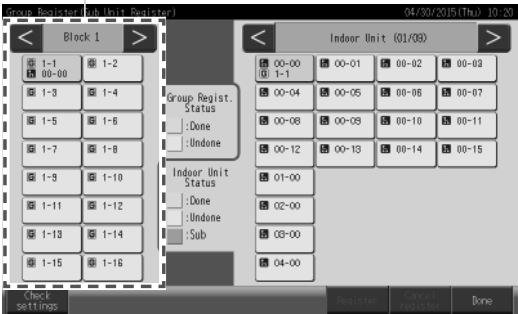
10.3.2 How to Register Groups: (Sub Unit)



▼



▼



▼

Continue on to Next Page

1. Select "Group Register" on the "Service Menu" screen.
NOTE:
This function cannot be selected when the external input signal is input to the external input terminal 1 or 2.

2. Select the "Sub Unit Register" button on the "Group Register" screen.

3. Select the group for the "Sub Units Register".
 - Touch "<" or ">" at the upper left of the touchscreen to switch the block display.
 - Touch to select the group button. The selected button is trimmed in an orange outline.
 - Touched the selected group button again and the selection will be canceled.

NOTE:
A white colored button indicates that the unit has not been registered, therefore it cannot be selected.

Ref. Cycle No.

Indoor Unit Address

4

5

4. Select the indoor unit from the “Sub Unit Register”.

- Touch “<” or “>” at the upper right of the touchscreen to change the display of indoor units.
- The information for the refrigerant cycle number and indoor unit address are indicated on the indoor unit button as: “Refrigerant Cycle No. - Indoor Unit Address”.
- Select the indoor unit button by touch. The selected button is trimmed with an orange outline. Touch the selected button again, and the indoor unit selection is cancelled.
- The Indoor unit that is already registered as main unit cannot be selected. (The button color is blue.)

6

5. Touch “Register” to register the sub units when group and indoor units are selected.

- If the group and indoor units for the sub units are not selected, the “Register” field is grayed-out which cannot be touched.
- The button color of the registered group and indoor unit are changed to purple.

Proceed with sub unit registration, depending on the setting afterwards.

- Continue “Sub Unit Register” (step 3).
- Exit “Sub Unit Register”(step 6).

7

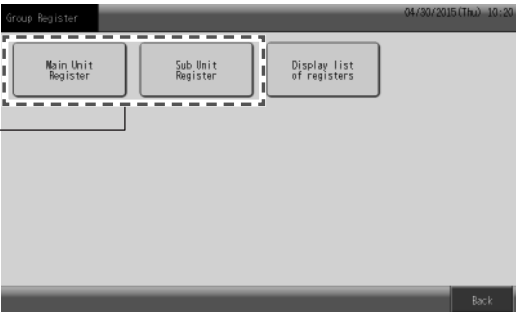
6. Touch “Done” on the “Group Register (Sub Unit Register)” to return to the “Group Register” screen.

7. Touch “Back” to return to the “Service Menu” screen.

NOTICE

It is possible to register up to 15 sub units in the same remote control group with the main unit. (It is not possible to register more than 16 sub units.) The indoor unit without a wired controller cannot be registered as a sub unit.

10.3.3 How to Unregister Group



2


Group Register

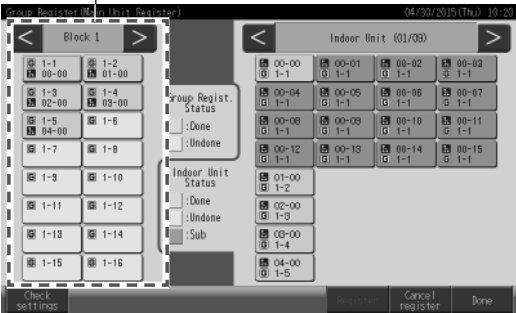
Main Unit Register Sub Unit Register Display list of registers

Back

1. Select "Group Register" on the "Service Menu" screen.
Refer to item 10.3.1 (1).

NOTE:
This function cannot be selected when the external input signal is connected to external input at terminal 1 or terminal 2.





3

Group Register (Main Unit Register)


Block 1 Indoor Unit (01/03)

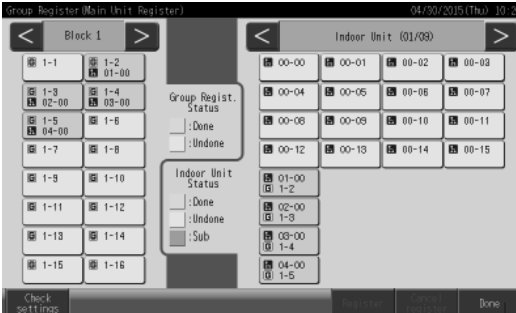
Group Regist. Status

Indoor Unit Status

Check settings Cancel register Done

2. Select "Main Unit Register (or Sub Unit Register)" on the "Group Register" screen.
3. Select a registered group to cancel.
 - Touch "<" or ">" at upper left of the touchscreen and the block selection is switched.
 - Select the group button by touch and the selected button is trimmed with an orange outline.
Touch the selected group button again and the group selection will be cancelled.





4

Group Register (Main Unit Register)

Block 1 Indoor Unit (01/03)

Group Regist. Status


Indoor Unit Status


Check settings Cancel register Done

4. Touch "Cancel Register" and a registered group will be unregistered. The button color for this group and the indoor unit change to white.
 - Touch "Unregister" on the "Main Unit Register" screen and the main unit and associated sub units will be unregistered.
 - Touch "Unregister" on the "Sub Unit Register" screen and sub units will be unregistered.

Proceeding on to the next step to unregister, the group provides the following options:

- Continue to Unregister; Group Register (step 3)
- Exit Unregister; Group Register (step 5)





5

Group Register (Main Unit Register)


Block 1 Indoor Unit (01/03)


Group Regist. Status

Indoor Unit Status

Check settings Cancel register Done

5. Touch "Done" to return to the "Group Register" screen.





6

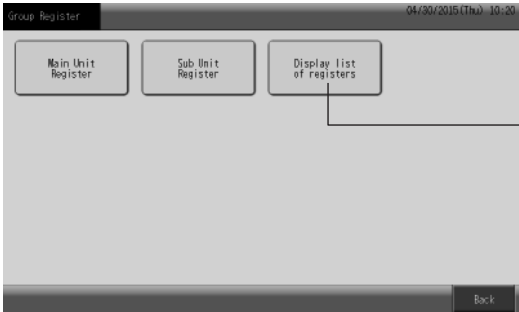
Group Register

Main Unit Register Sub Unit Register Display list of registers

Back

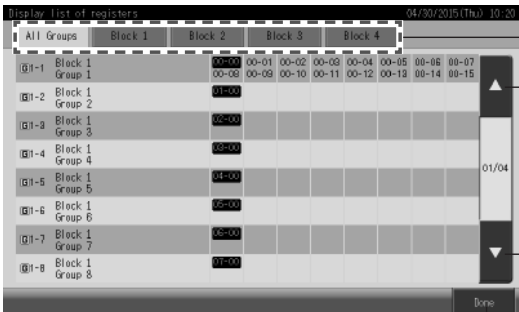
6. Touch "Back" on the "Group Register" to return to "Service Menu" screen.

10.3.4 How to Check Group Register (Check of Registration Details)



2

▼




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4

5

▼



6

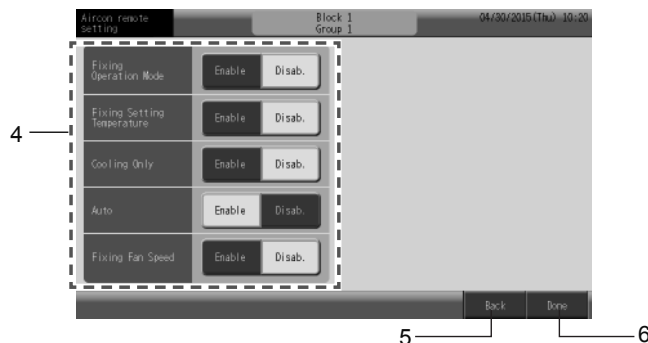
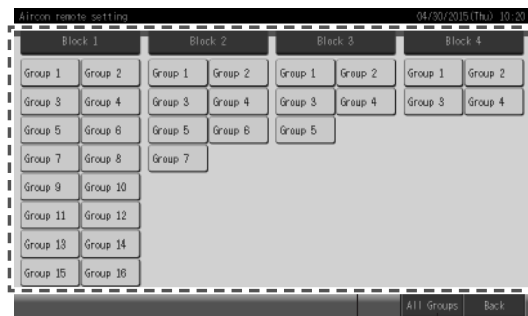
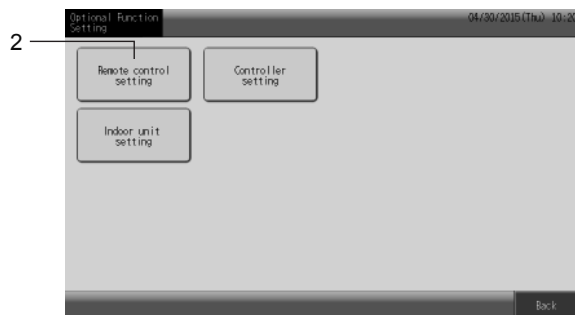
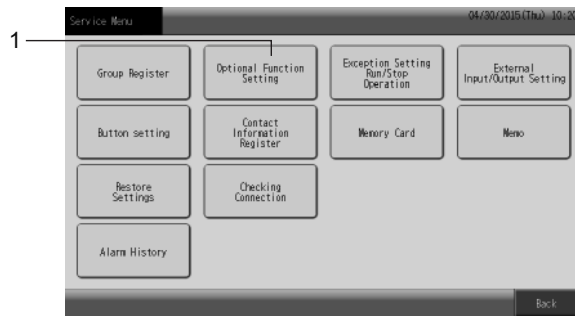
1. Select "Group Register" on the Service Menu screen.
(Refer to Section 10.3.1.)

NOTE:
This function cannot be selected when the external input signal is ON.

2. Select "Display list of registers" on the Group Register screen.
3. Select the target to display (All Groups/Blocks).
4. All the Refrigerant system addresses for the indoor unit, registered in each group, are displayed:
Black : Main Unit
Others : Sub Unit
 - Change the screen by touching on "△" or "▽".
5. Touch "Done" to return to the Group Register screen.
6. Touch "Back" to return to the Service Menu screen.

10.4 Optional Function Setting

10.4.1 Air Conditioner/Remote Control Setting



Continue on to Next Page

1. Select "Optional Function Setting" on the "Service Menu" screen.

2. Select "Remote control setting" on the Menu screen.

NOTE:

This function cannot be selected while air conditioners are operating.

3. Select the target groups or block for "Optional Function Setting". Touch "All Groups", "Block", or "Group".

- Select "All Groups" for optional function settings when the following item settings are changed:

- Operation mode
- Display of Accumulated Operating Time

4. Select "Enable" or "Disable" for the each function.

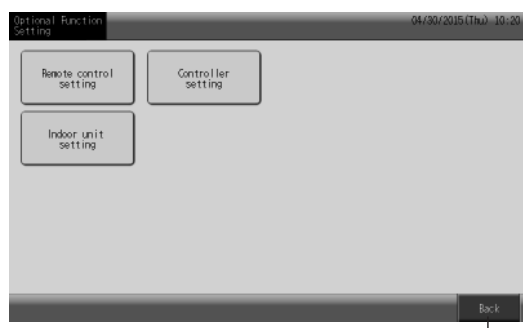
- The button color of any selected function changes to yellow with an orange outline.

Proceeding to the next step provides the following options:

- Set the optional function of other group; step (4).
- Exit the optional function setting; step (5).

5. Touch "Back" to return to the "Optional Function Setting" screen. Repeat steps (2) and (3) to set an "Optional Function Setting".

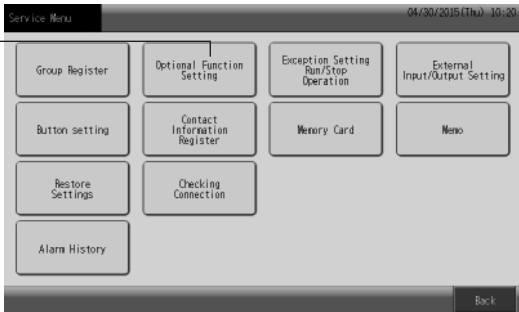
6. Touch "Done" to return to "Optional Function Setting" Menu screen.



7

7. Touch "Back" to finish this setting. The screen returns to the "Service Menu" screen.

10.4.2 Setting Related to Central Controller




1

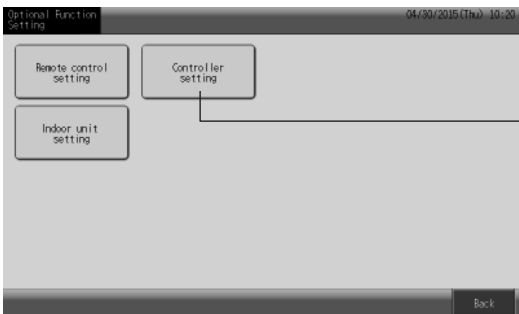
Service Menu

Group Register, Optional Function Setting, Exception Setting Run/Stop Operation, External Input/Output Setting, Button setting, Contact Information Register, Memory Card, Memo, Restore Settings, Checking Connection, Alarm History, Back

04/30/2015 (Thu) 10:20

1. Select "Optional Function Setting" on the screen of "Service Menu".






2

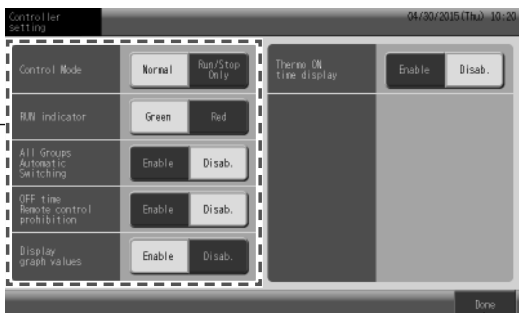
Optional Function Setting

Remote control setting, Controller setting, Indoor unit setting, Back

04/30/2015 (Thu) 10:20

2. Select "Controller Setting" on the "Optional Function Setting" screen.





3

4

Controller Setting

Control Mode: Normal, Run/Stop Only, Thermo ON time display: Enable, Disab., B/W Indicator: Green, Red, All Groups Automatic Switching: Enable, Disab., OFF time Remote control prohibition: Enable, Disab., Display graph values: Enable, Disab., Done, Back

04/30/2015 (Thu) 10:20

3. Select "Enable" or "Disab." for each function.


- The button color of any selected function changes to yellow with orange outline.

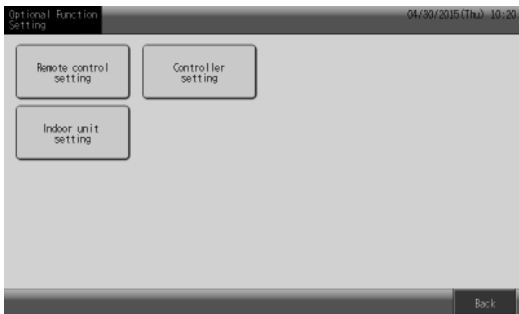
<Concerning the OFF time Remote control Prohibition setting>

- When setting to "Enable", the Remote Operation Prohibited (by item), cannot be set. The Remote Operation Prohibited (all items), can be set. However, do NOT set the "Remote Operation Prohibited" (all items), when operating simultaneously with other controllers.
- When all groups show only "Remote Operation Permitted" (all items), it is possible to change "Enable" ↔ "Disab.".

4. Touch "Done" to return to "Optional Function Setting" Menu screen.

NOTE:
When switching between "Enable" ↔ "Disab." on the OFF time Remote prohibition setting, touch "Setting completed" and the confirmation screen will be displayed. Touch: "OK" to restart.





5

Optional Function Setting

Remote control setting, Controller setting, Indoor unit setting, Back

04/30/2015 (Thu) 10:20

5. Touch "Back" to finish this setting. The screen returns to the "Service Menu".

10.4.3 Indoor Unit Setting

1. Service Menu

2. Optional Function Setting

3. Indoor Unit Settings

4. Indoor unit Setting

5. Back

6. Done

Continue on to Next Page

1. Select "Optional Function Setting" on the screen of "Service Menu".

2. Select "Indoor unit setting" on the Menu screen.
NOTE:
 This function cannot be selected while air conditioners are operating.

3. Select the target groups or block for "Optional Function Setting". Touch "All Groups", "Block", or "Group".
 - Select "All Groups" for optional function settings when the following item settings are changed:
 - Operation mode
 - Display of Accumulated Operating Time

4. Select the function concerning each option.
 Proceeding to the next step provides the following options:
 - Set the optional function of other group; step (4).
 - Exit the optional function setting; step (5).

5. Touch "Back" to return to the "Optional Function Setting" screen. Repeat steps (2) and (3) to set an "Optional Function Setting".

6. Touch "Done" to return to "Optional Function Setting" Menu screen.

- Depending on the unit, the setting may not apply. Refer to the installation and maintenance manual, and the operation manual of each indoor unit or remote control for more details.
- If central controller that doesn't support dual setpoint coexists on the same network, dual setpoint and setback function will be unavailable on whole system.
 The following setting also will be required on the system: Optional function r1 setting must be "00".

Optional Function
Setting

04/30/2015 (Thu) 10:20

Remote control
setting

Controller
setting

Indoor unit
setting

Back

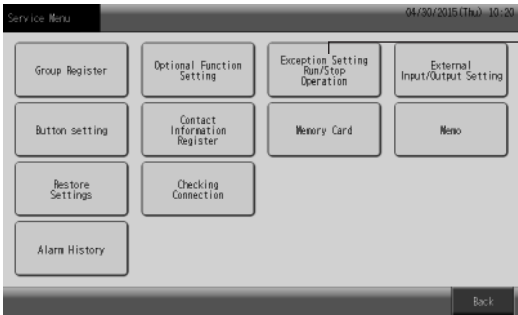
7

7. Touch "Back" to finish this setting. The screen returns to the "Service Menu" screen.

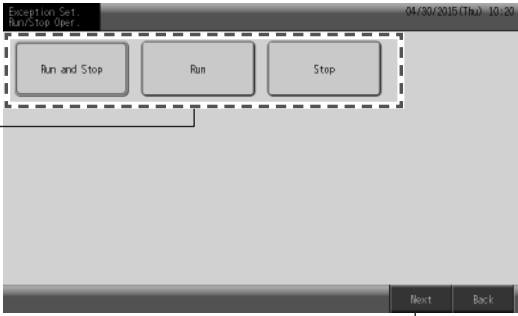
42

P5415513

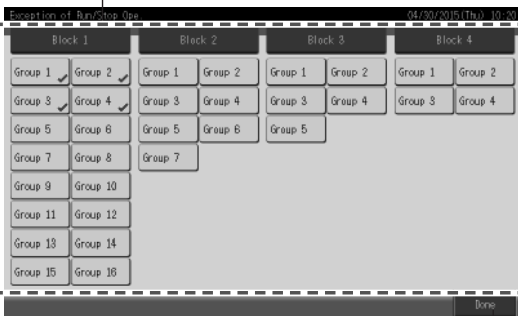
10.5 Exception Setting of Run/Stop Operation



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1. Select "Exception Setting Run/Stop Operation" on the "Service Menu" screen.

2. Select the operation button for exception.
 - The selected button is trimmed with an orange outline.

NOTE:
None of the operation buttons have been activated on the factory settings.

3. Touch "Next".

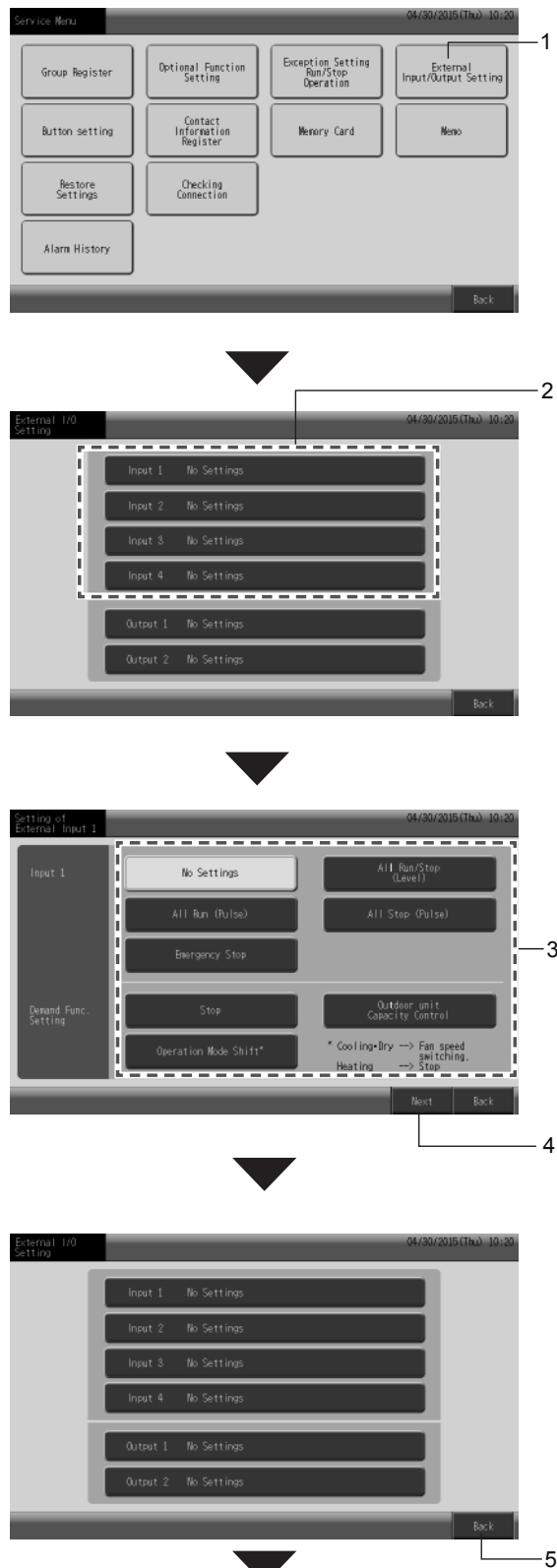
NOTE:
When the exception operation is not set, "Next" cannot be selected.

4. Select the exception operation target (group/block).
 - Touch the Group button to switch back and forth between "Select" ↔ "Cancel".
 - Touch the Block button to switch back and forth between "Select" ↔ "Cancel" of all groups in a block.
 - A checkmark symbol "✓" will be displayed on the selected group.

5. Touch "Done" to end the Exception Setting of the Run/Stop Operation and return to the "Service Menu" screen.

10.6 External Input/Output Setting

10.6.1 External Input Setting



Continue on to Next Page

1. Select "External Input/Output Setting" on the "Service Menu" screen.

NOTE:

When the air conditioner is operating, or when the external input signal contact light is ON, this cannot be selected.

2. Select the input target (from Input options 1 to 4) for the external input.

3. Select the function using external input.

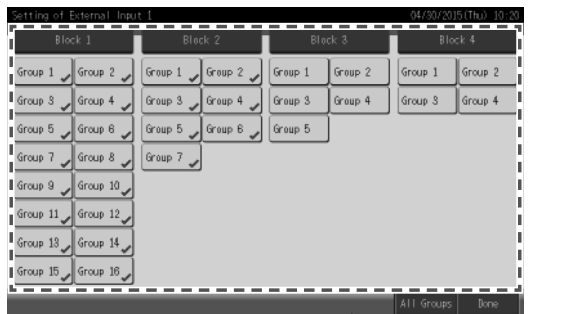
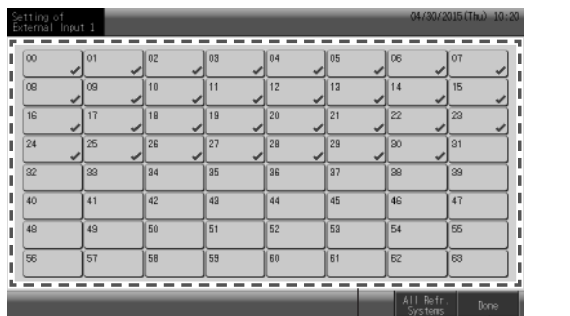
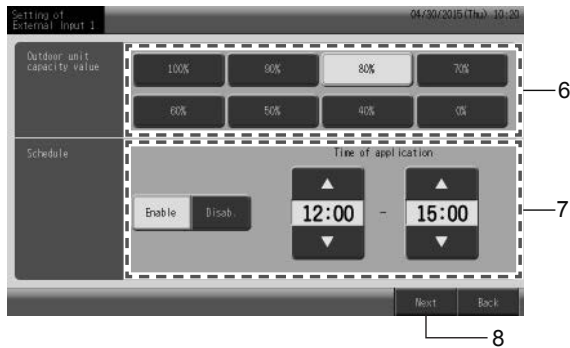
- The color of the button for selected function will change.

4. Touch "Next" and proceed, according to the steps below when selecting a function.

- If "No Settings" is selected, go to step (5).
- If "Outdoor unit Capacity Control" is selected, go to step (6).
- For any other than those above, go to step (11).

<No Setting>

5. Return to the External Input/Output Setting screen. Touch "Back" to end the External Input/Output Setting and return to the "Service Menu" screen.



<Outdoor Unit Capacity Control>

6. Select the outdoor unit capacity value.
 - The color of the button for selected capacity value will change.

7. Control capacity value can be selected in the central station schedule without using contact point. In the schedule, select Enable and the applicable time.
 - Select "Enable" or "Disab."
 - Touch "△" or "▽" to set the applicable starting time and ending time. The resolution of time setting is each 30 minutes.

NOTE:

When the ending time is earlier than the starting time, the ending time will be the specified time on the next day.

For example: Starting Time 15:00
Ending Time 08:00.

Capacity control will start at 15:00 and will end at 08:00 the next day.

8. Touch "Next".
9. Select the capacity control target (refrigerant system).
 - The button of the refrigerant system number of the registered outdoor unit will be indicated in blue.
 - The button of the system number of the unregistered outdoor unit will be displayed in white. This refrigerant system cannot be selected.
 - Touch the refrigerant system number button to change between "Select" ↔ "Cancel".
 - Touch "All Refr. Systems" to change "Select" ↔ "Cancel" of all refrigerant system.
 - A checkmark "✓" will be displayed in the number of the selected refrigerants.

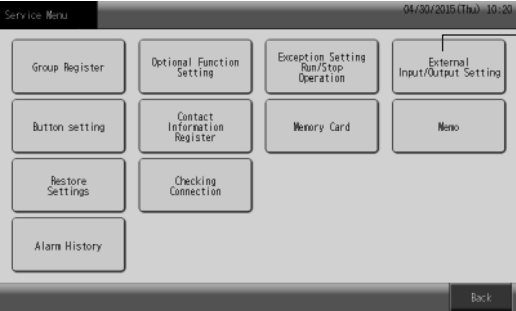
10. Touch "Done" to return to the External Input/Output Setting screen.

<Other Settings>


11. Select the External Input Control target (All Groups/Block/Group).
 - Touch a Group button to switch between "Select" ↔ "Cancel".
 - Touch a Block button to switch between "Select" ↔ "Cancel" for all Groups in the Block.
 - Touch "All Groups" to switch between "Select" ↔ "Cancel" for all Groups.
 - A checkmark "✓" will be displayed in the selected Group.

12. Touch "Done" to return to the External Input/Output Setting screen.

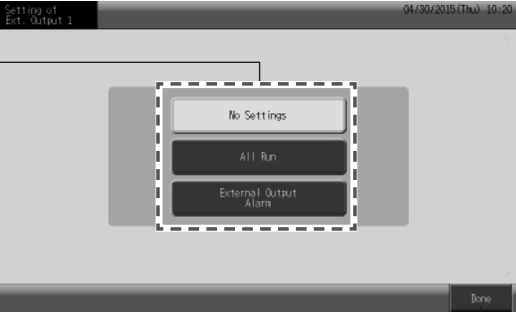
10.6.2 External Output Setting




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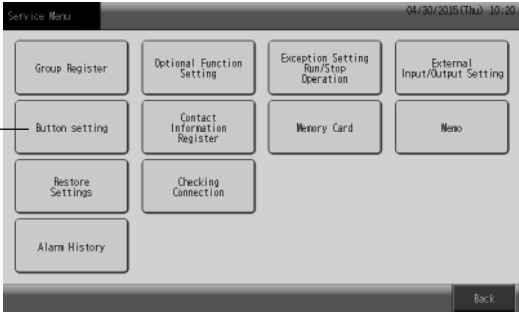
1. Select "External Input/Output Setting" from the "Service Menu" screen.
NOTE:
When the air conditioner is operating, or when the external input signal contact is ON, this cannot be selected.

2. Select the Output target of the External Output (Output 1, Output 2).

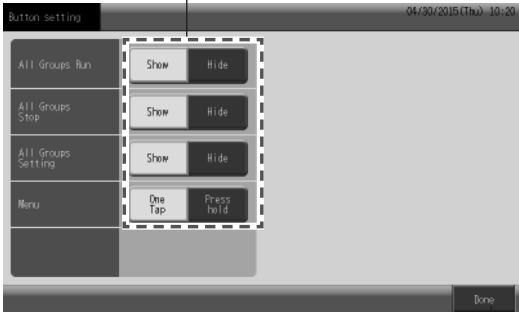
3. Select the function used in External Input.
 - The color of the button for selected function will change.
4. Touch "Done" to return to the External Input/Output Setting screen.

5. Touch "Back" to exit the External Input/Output Setting and return to the "Service Menu" screen.

10.7 Button Setting



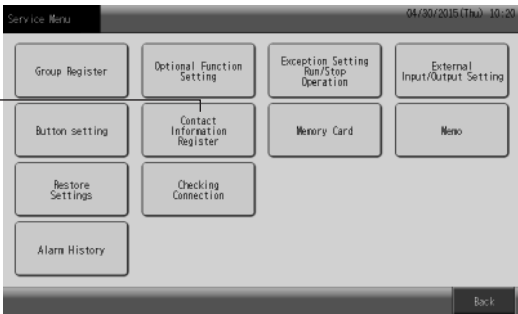
The screenshot shows the 'Service Menu' screen with a date and time display at the top right (04/30/2016 (Thu) 10:20). The screen contains several menu items: Group Register, Optional Function Setting, Exception Setting Run/Stop Operation, External Input/Output Setting, Button setting (highlighted with a line and the number 1), Contact Information Register, Memory Card, Memo, Restore Settings, Checking Connection, and Alarm History. A 'Back' button is at the bottom right.



The screenshot shows the 'Button setting' screen with the same date and time display. It lists four functions: All Groups Run, All Groups Stop, All Groups Setting, and Menu. Each function has two buttons: 'Show' and 'Hide'. The 'Show' buttons are highlighted with a dashed box and the number 2. The 'Menu' function has two additional buttons: 'One Tap' and 'Press hold'. A 'Done' button is at the bottom right, highlighted with a line and the number 3.

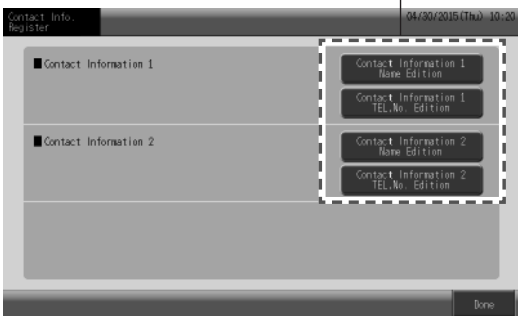
1. Select "Button setting" on the "Service Menu" screen.
2. Select "Show" or "Hide" for the operating button indication of each function.
The selected button color is changed.
3. Touch "Done" to finish this setting.
The screen is returned to "Service Menu".

10.8 Contact Information Register




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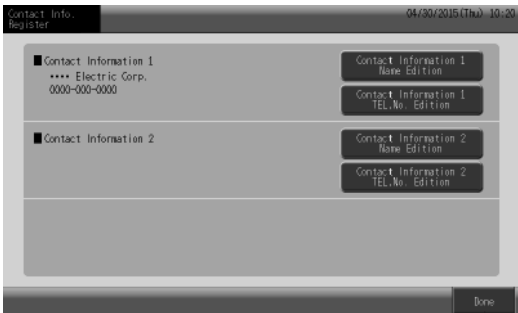


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1. Select "Contact Information Register" on the "Service Menu" screen.

2. Select "Contact Information 1(or 2)", "Name Edition" or "Contact Information 1(or 2) TEL. No. Edition" to register the information.
3. Select the type of characters from "Upper Case", "Lower Case", "Symbol 1", and "Symbol 2".

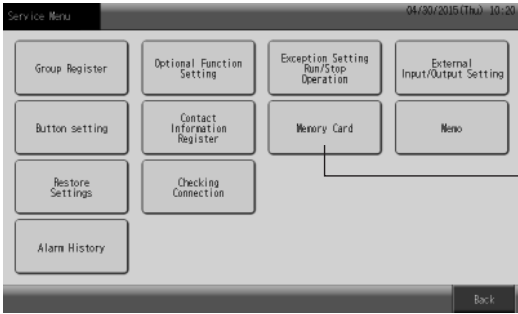
NOTE:
Only numbers and symbols can be used for "Contact Information 1(or 2) TEL. No. Edition".

4. Input the information.
Enter up to a maximum of 50 characters. Touch "Delete" to erase a character on the left side of the cursor.
5. Touch "Close" to finish.
The screen is returned to "Contact Information Register".
6. Proceed with the contact information register, depending on the setting.
 - Continue to register or edit the contact information; step (2)
 - Finish this setting; step (7)


7. Touch "Done" to finish this setting.
The screen returns to the "Service Menu".

10.9 Memory Card

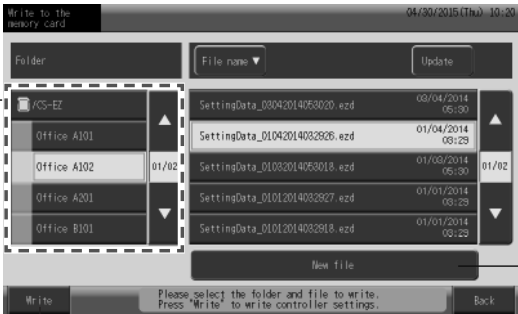
10.9.1 Save Setting in New File



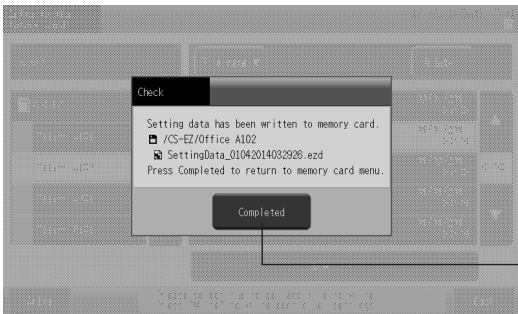
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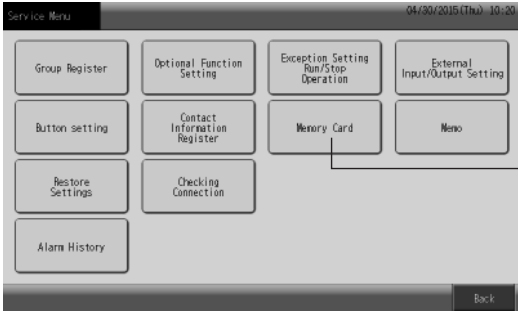
Continue on to Next Page

1. Insert the memory card into the Controller. Refer to “8. Use of Memory Card”.
2. Select “Memory Card” from the Service Menu screen.
NOTE:
This function is not available when the memory card has not been inserted.
3. Select “Write to the memory card” from the Memory Card Menu.
 - If there is no /CS-EZ folder in the memory card, a confirmation screen is displayed. Select “Yes” to create a /CS-EZ folder.
4. Select the folder to save.
 - In the folder field, a folder under the /CS-EZ folder of the memory card will be displayed.
5. Touch “New file”.
6. Touch “Write” to start saving the data. Refer to Section 8: “Use of Memory Card”.
7. Touch “Completed” from the confirmation screen to return to the “Memory Card Menu” screen.

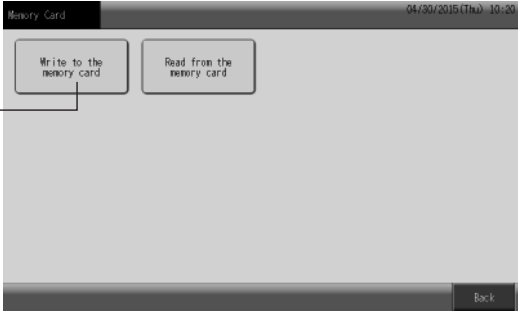


8. Touch "Back" to return to the Service Menu screen.
9. Remove the memory card out from the controller. (Refer to Section 8: Use of the Memory Card".)

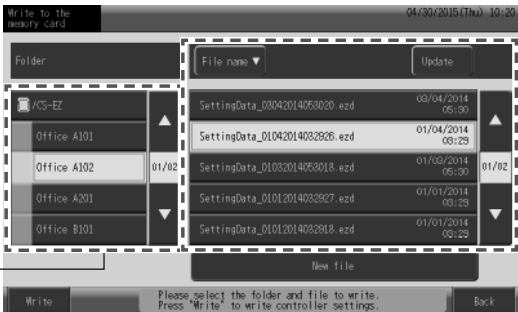
10.9.2 Save Setting in Existing File



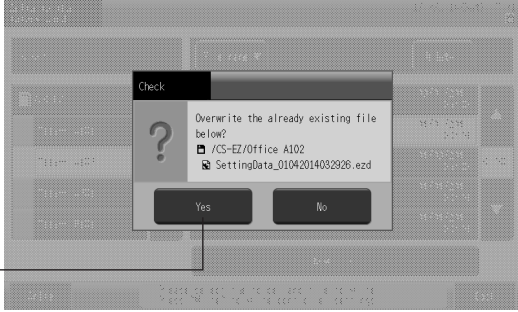
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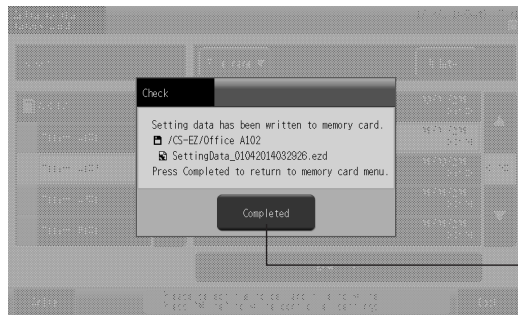
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Continue on to Next Page

1. Insert the memory card into the controller. (Refer to Section 8: "Use of Memory Card".)
2. Select "Memory Card" from the "Service Menu" screen.

NOTE:
This function is not available if the memory card has not been inserted.

3. Select "Write to the memory card" from the "Memory Card Menu".
 - If there is no /CS-EZ folder in the memory card, a confirmation screen is displayed. Select "Yes" to create a /CS-EZ folder.
4. Select the folder to save.
 - In the folder field, the folder right under the /CS-EZ folder of the memory card is displayed.
5. Select the file to save.
 - In the folder field, the setting data file (extension file ezd) right under the folder selected is displayed.
 - Touch "File name" to rearrange the order on file names. "▽" is for descending order and "△" is for ascending order.
 - Touch "Update" to rearrange the order on the date of modification. "▽" is for descending order and "△" is for ascending order.
6. Touch "Write".
7. Touch "Yes" on the confirmation screen to save the data.

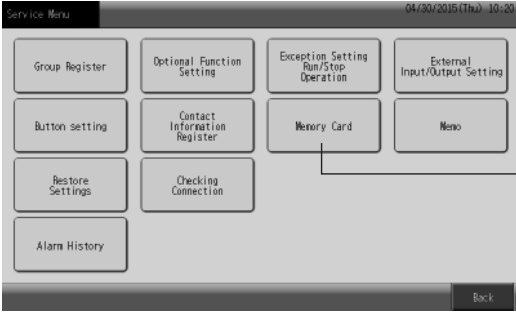


8. Touch "Completed" on the confirmation screen to return to "Memory Card Menu" screen.

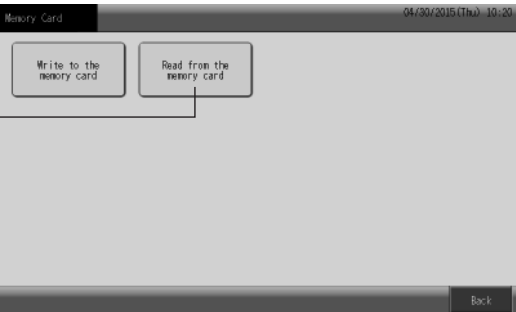


9. Touch "Back" to return to the "Service Menu" screen.
10. Remove the memory card out from the controller. (Refer to Section 8. "Use of Memory Card".)


10.9.3 Restore Setting (Read from Existing File)




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Continue on to Next Page

1. Insert the memory card into the controller. (Refer to Section 8. "Use of Memory Card".)
2. Select "Memory Card" from the "Service Menu" screen.
NOTE:
This function is not available when the memory card is not inserted.
3. Select "Read from the memory card" from the "Memory Card Menu".
NOTE:
Put the file to read in the memory card.
 - Under the /CS-EZ folder
 - Under the subfolder of the /CS-EZ folder. (This function is not an option if the /CS-EZ folder does not exist.)
4. Select the folder to read.
 - In the folder field, the folder right under the /CS-EZ folder of the memory card is displayed.
5. Select the file to read:
 - In the folder field, the settings data file under the folder selected is displayed.
 - Touch "File name" to rearrange the order on file name. The "▽" denotes descending order and "△" denotes ascending order.
 - Touch "Update" to rearrange the order on the date of modification. The "▽" denotes descending order and the "△" denotes ascending order.

<Automatic Backup>

- * The setting data will be saved in the memory card just before reading. If incorrect data is read, the setting can be restored to the previous data. (Refer to Section 10.9.4.)
- * Only one instance of settings data will be saved on each memory card as an Automatic Backup file. Note that all settings data is deleted except the latest data.
- * If the Automatic Backup failed, the confirmation screen is displayed. Touch "Yes" to continue or "No" to quit.

6. Touch "Read" to start to read the data.
7. Touch "Completed" on the confirmation screen to return to "Memory Card Menu" screen.



8. Touch “Back” to return to the “Service Menu” screen.

9. Remove the memory card from the Controller. (Refer to Section 8: “Use of the Memory Card”.)


Information

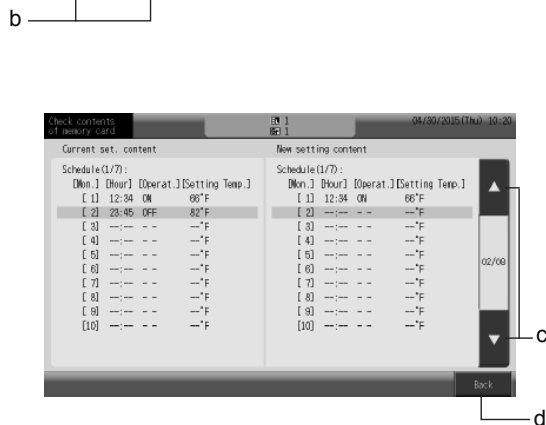
It is possible to check the content of the file to read when restoring the setting.



- a. After selecting the files in step (5), (from the previous page), touch the “Check” button.

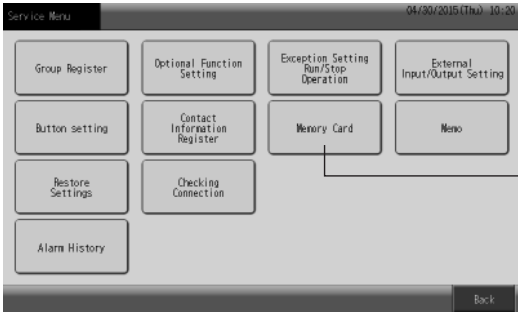


- b. Select the display target (Block/Group/Controller setting).
- If the content of the current setting differs from the content of the file to read, a “” icon is displayed.

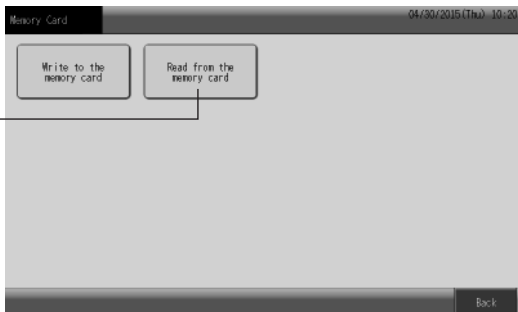


- c. Setting content is displayed. The part that differs is displayed in Blue. Touch “△” or “▽” to change the page.
- d. Touch “Back” to return to the “Check Target Selection” screen.

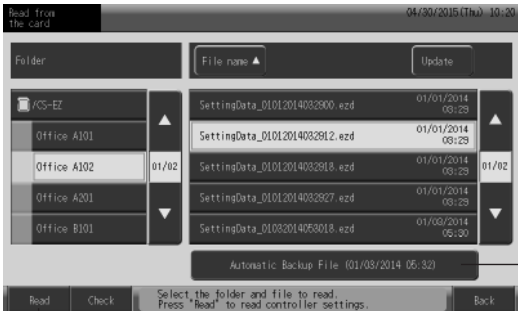
10.9.4 Restore Setting (Read from Automatic Backup File)




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Continue on to Next Page

1. Insert the memory card into the controller. (Refer to Section 8: "Use of Memory Card".)
2. Select "Memory Card" from the "Service Menu" screen.

NOTE:
This function is not available when the memory card is not inserted.


3. Select "Read from the memory card" from the "Memory Card Menu."
4. Touch "Automatic Backup File".
5. Touch "Read" to start reading the file. (Refer to the previous page for checking content in the file to read.)

<Automatic Backup>

- The setting data is saved in the memory card just before reading. If incorrect data is read, settings can be restored to the previous data.
- Only one data setting is saved on each memory card as an Automatic Backup file. Note that all the data will be deleted except the latest saved data.
- If the Automatic Backup failed, the confirmation screen is displayed. Touch "Yes" to continue or "No" to quit.

NOTE:
If no automatic backup file exists on the memory card, data cannot be restored with backup file. Be careful not to erase the backup file (AutoBackupSettingData.ezdb).

6. Touch "Completed" from the confirmation screen to return to the "Memory Card Menu" screen.

	<p>7. Touch "Back" to return to the "Service Menu" screen.</p> <p>8. Remove the memory card out from the controller. (Refer to Section 8: "Use of Memory Card")</p>
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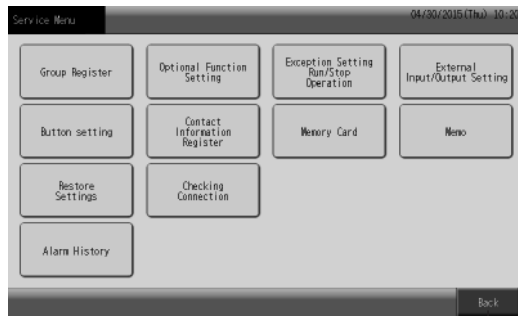
■ Message Displayed on the Screen

Message	Status
The memory card cannot be accessed.	The memory card cannot be accessed. Please insert it again.
Data cannot be written because the memory card is locked.	The memory card is locked as read-only. Unlock it to write data.
Data cannot be written because the capacity of the memory card is insufficient.	The data cannot be written because there is not enough space for the data in the memory card. Try again after increasing space on the memory card by deleting unnecessary data using a computer.
Error writing data to the memory card.	<ul style="list-style-type: none"> • The memory card is not compatible with the controller. (Refer to “Usable Memory Card” in Section 8.) • The memory card may be damaged. Please try again with another memory card. • The memory card may not be formatted correctly. Format the memory card correctly.
Error reading data from the memory card.	
There are no /CS-EZ folders in the memory card.	A “/CS-EZ” folder does not exist in the memory card. This folder is required for reading data. Save the data in the /CS-EZ folder or its subfolder.
The data is wrong and cannot be read.	The file is not in the right format, which cannot be read by this controller. Please use correct data or data written by this controller.
Cannot open because there are more than 51 subfolders in the /CS-EZ folder. Please reduce the number of subfolders.	If the number of subfolder exceeds 50 in the /CS-EZ folder, it is not displayed. Please try again after decreasing the number of file via computer.
Cannot open because there are more than 51 files in the folder. Please reduce the number of files.	If the number of files exceeds 50 in a folder, they are not displayed. Please try again after decreasing the number of files and folders using a computer.
Unknown error	<ul style="list-style-type: none"> • It is possible that a SDXC memory card has been inserted instead of an SD or SDHC memory card. (Refer to “Applicable Memory Card” in Section 8.) • A file named CS-EZ may already exist in the memory card. Transfer the file to another place. • The name of the subfolder or the file may exceed 240 characters. Please shorten the name of the subfolder or the name of the file.

10.10.1 Register Memo

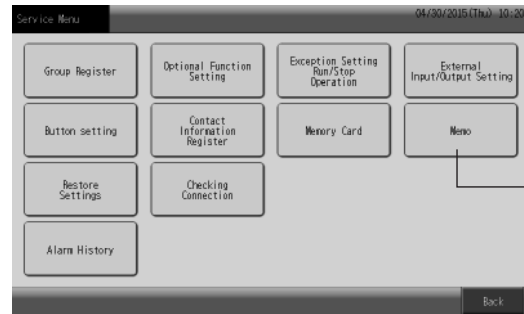


8. Touch “Close” when the character input is completed. Return to the “Memo Display” screen.



9. Touch "Back" to return to the "Service Menu" screen.

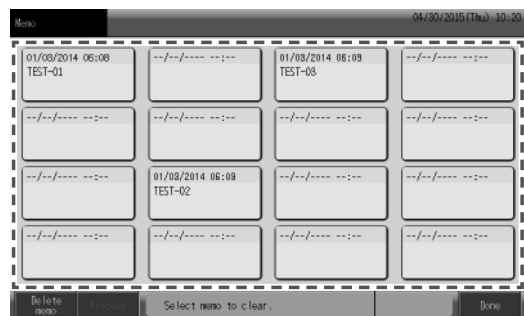
10.10.2 Delete Memo



1. Select "Memo" on the "Service Menu" screen.



2. The memo is displayed.
3. Touch "Delete memo".

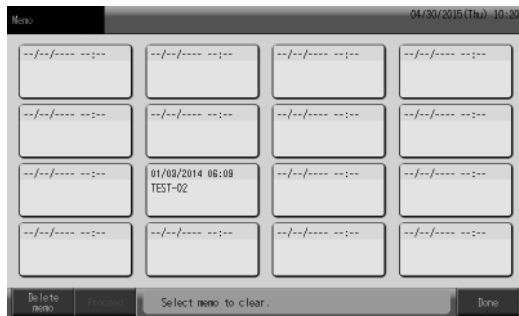


4. Select a memo to delete.
 - Touch the Memo button to switch between "Select" ↔ "Cancel".
 - It is possible to select multiple memos.
 - A checkmark symbol "✓" is displayed on the selected memo.

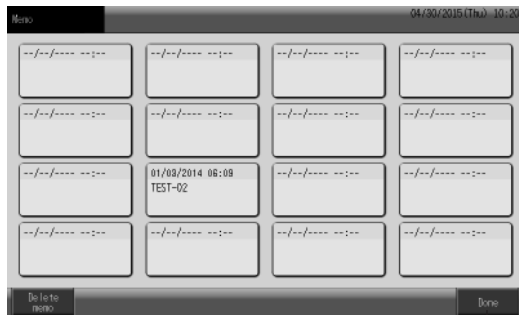


5. Touch "Proceed" to delete the memo.

Continue on to Next Page



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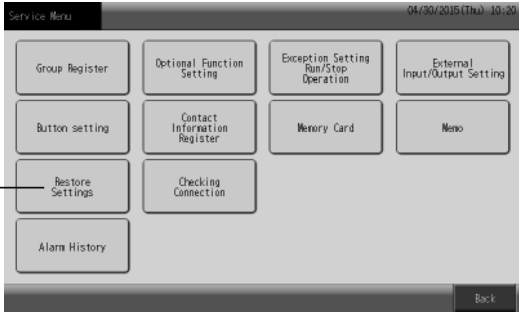


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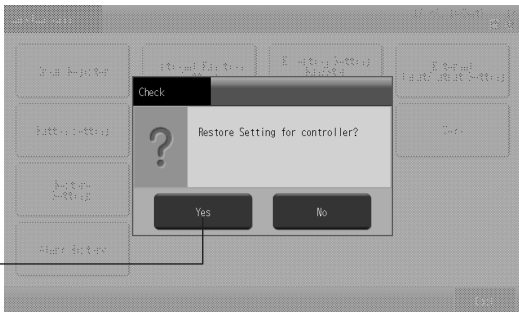
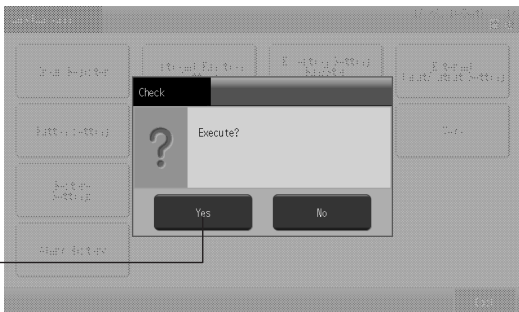
6. Touch "Done" to return to the "Memo Display" screen.

7. Touch "Done" to return to the "Service Menu" screen.

10.11 Restore Settings



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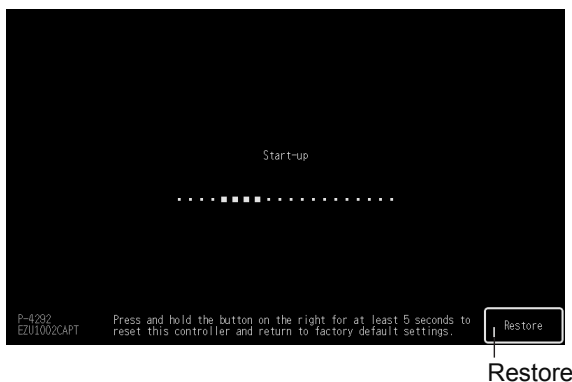
1. Select "Restore Settings" on the "Service Menu" screen.
NOTE:
This function cannot be selected when the wired zone controller operation is prohibited.

2. Touch "Yes" at the confirmation screen.
NOTE:
Touching "No" returns you to the "Service Menu" screen.

3. The confirmation screen is displayed again. Touch "Yes" to restore the setting. After several seconds, the screen is changed and the connection check of the system starts.
NOTE:
Touching "No" returns you to the "Service Menu" screen.

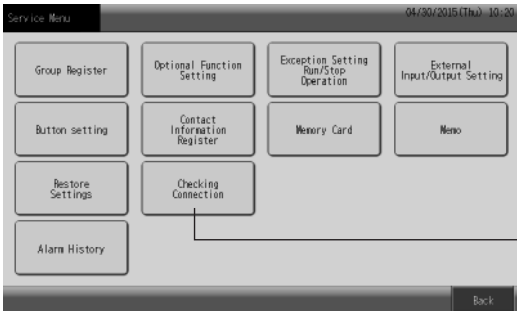
Information

Restore settings can be set when the screen of "Starting" is displayed.

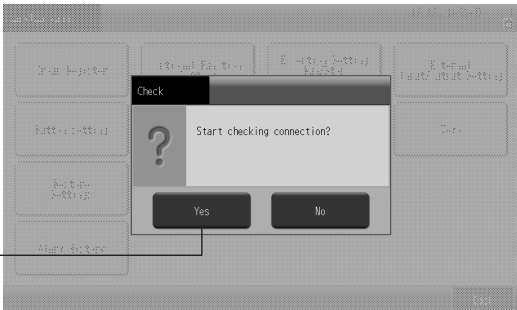


1. Press "Restore" for more than 5 seconds on the lower right corner of the "Starting" screen.
2. In a few seconds, the connection check process starts.
3. When the process for the connection check is complete, "Adjusting Date/Time" screen is displayed.
(Refer to "Adjusting Date/Time" in Section 9.5.)

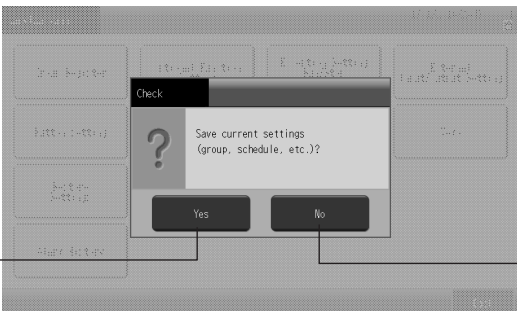
10.12 Checking Connections



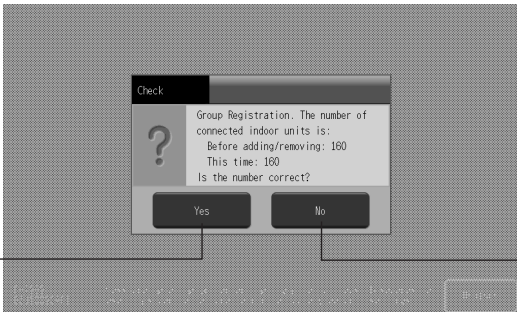
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1. Select "Checking Connection" on the "Service Menu" screen.
NOTE:
This function cannot be selected while the air conditioner(s) are in operation or while an external input signal is being transmitted to the external input terminals 1 or 2.

2. Touch "Yes" at the confirmation screen.
NOTE:
If "No", the screen returns to the "Service Menu".
Proceed the connection information updating process, depending upon what is to be set later.
 - Update with connection information by retaining the Group register and settings, such as schedule setting, and so forth; step (3).
 - Perform reconnection checking by initializing each setting. (It is the same as restore settings; step (7)).

- < Keeping the setting >
3. Touch "Yes" at the confirmation screen for keeping the setting.
NOTE:
Upon replacing indoor unit, cancel the current main unit registration and then register the main unit again.

4. When the checking connections process is complete, the number of connected units is indicated on the confirmation screen.
If the number of connected indoor units is correct, touch "Yes".
The "Main Unit Register" screen will be displayed.
Refer to Section 10.3.1 (3).
5. If the number of connected units indicated is different from actual number, touch "No".

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6. The confirmation screen is displayed again.
Check the settings in the confirmation screen for those air conditioners, and touch “Yes”.
The checking connections process will start again.

NOTE:
Touch “No”, and the screen returns to the “Service Menu” screen.

< Not keeping the setting >

7. Touch “No” at the confirmation screen.

8. Display the confirmation screen of initialization; touch “Yes”.
Initialize all settings and begin checking connections.
“Yes” cannot be selected when the “RCS Operation Prohibited” is set.
Set “RCS Operation Permitted” to try again.

NOTE:
Touch “No”, and the screen returns to the “Service Menu” screen.

10.13 Alarm History

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1. Select “Alarm History” on the “Service Menu” screen.

2. The “Alarm History” screen is displayed.
If the alarm records are more than 10, touch “△” or “▽” to go to the next page.

- A maximum of 100 records can be stored in the memory.

3. When deleting an alarm history record, touch “Delete History”. When touching “Yes” at the confirmation screen, all alarm history records are deleted.

- Touch “No”, and the screen returns to the “Alarm History” screen.

4. Touch “Done” to finish this setting.
The screen returns to the “Service Menu” screen.

11. Important Notice

■ Demand Setting (Setting of an External Input)

Give careful attention to the following when using the demand function of the external input setting.

- Concerning Stop or Operation Mode Shift
Either the stop or the operation mode shift can be set. In addition, note that it is not possible to set multiple contacts.
- Concerning Outdoor Capacity Control
This function is used to save on power consumption and keep it near the set value (%). The level of power consumption conservation is not guaranteed. Power consumption theoretically cannot be zero because of standby power, even if the set value is 0%. Capacity control is not available when the outdoor unit is in start-up control or in a defrosting operation.
- After inputting the contact signal, it will require a maximum of six minutes until control begins to respond.
If there is multiple signal input into multiple contacts, control begins from the highest priority in order of: (input 1 > input 2 > input 3 > input 4).
- The control target will only be the one outdoor unit compatible with outdoor unit capacity control. The adjustable capacity value setting or compliance/non-compliance for this function may differ depending on the type of outdoor unit. Contact your distributor for detailed information.

■ OFF Time Remote Control Prohibition

Observe the following: When setting the OFF Time Remote Control Prohibition as "Enable":

- When setting as "Enable", the Remote Operation Prohibited (By function), cannot be set. The Remote Operation Prohibited (All functions) can be set but, DO NOT set it when operating simultaneously with other controllers. (Refer to "Using Simultaneously with Other Central Controller" on the following page.)

■ Remote Operation Prohibited (by function)

This function is used to restrict the operation of the local remote control.

When the Remote Operation is prohibited (by function), the selected functions cannot operate (RUN/STOP, Operation Mode, Fan Speed, Louvre, and Temperature Setting). Both the indoor unit and the local remote control can be used together only if they are compatible and interconnected with this function. Pay close attention to the following groups compatible with the remote operation prohibited (by function).

- The lock function of the local remote control cannot be used when prohibition of the remote control operation is set.
- When prohibition of the remote control operation and the lock function are used at the same time, prohibition of the remote control operation assumes priority. Therefore, the lock function of the local remote control cannot be set.
- When the prohibition of the remote control operation (by function), is change to the prohibition of the remote control operation (all functions), the lock operation setting of the local remote control is cancelled.
- When a communication failure has occurred, prohibition of the remote control operation (by function), can be cancelled. If this happens, perform the setting again.

■ When Connecting an additional Wired Controller:

When using additional wired controllers, select "Checking Connection" from the Service Menu and perform the Group Register. Then, switch the power OFF and ON.

■ Using simultaneously with another Central Controller

Observe the following when using other central controllers:

- Do not set the External Input as Emergency STOP, STOP, (Demand Function setting), or Operation Mode Shift (Demand Function setting).
- Concerning the outdoor unit capacity control for the setting of External Input, perform the settings for ONLY one central controller (DO NOT perform settings for the other central controllers).
- An indoor unit without a remote control cannot be connected.

Large Central Controller Block/Group Register Table (1)
Indoor Unit Address

[illegible]

* Fill in Block No. (1 to 4), Group No. (1 to 16) in the table. (Example: 3-5)
Circle the filled No. for registering as main unit.

Large Central Controller Block/Group Register Table (2)

[illegible]

