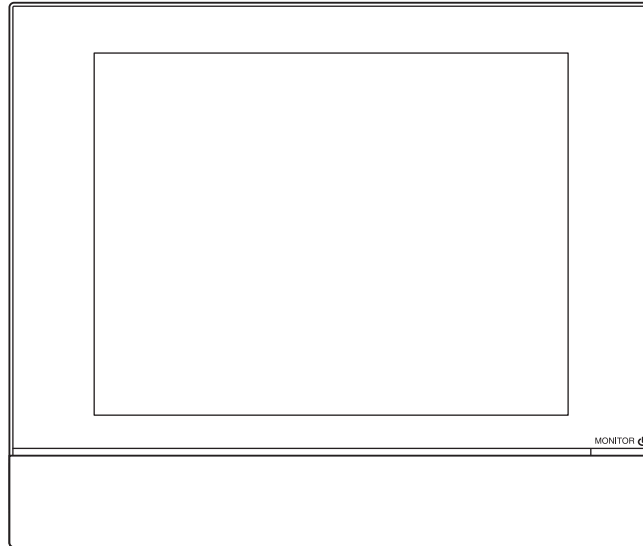

intelligent Touch Manager

Model

DCM601A71



Disclosure

To the User in USA

Part 15 of FCC

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

To the User in CANADA

Canadian ICES-003

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Safety Considerations




All phases of the field-installation, including, but not limited to, electrical, piping, safety, etc. must be in accordance with manufacturer's instructions and must comply with national, state, provincial and local codes.


Read these **SAFETY CONSIDERATIONS** carefully before installing the controller. After completing the installation, ensure that the controller operates properly during the startup operation.

Train the customer to operate and maintain the controller. Inform customers that they should store this Installation Manual with the User's Manual for future reference.

Always use a licensed installer or contractor to install this product. Improper installation can result in electrical shock, fire, or explosion.

Meanings of **WARNING**, **CAUTION**, and **NOTE** Symbols.

 WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
 NOTE	Indicates situations that may result in equipment or property-damage accidents only.

 WARNING	
• Only qualified personnel must carry out the installation work.	
• Consult your Daikin dealer regarding relocation and reinstallation of the controller. Improper installation work may result in electric shocks or fire.	
• Install the controller in accordance with the instructions in the installation manual. Improper installation may cause electrical shocks or fire.	
• Use only specified accessories and parts for installation work. Failure to use specified parts may result in electric shocks, fire, or the unit falling.	
• Do not disassemble, reconstruct, or repair. Electric shock or fire may occur.	
• Make sure that all wiring is secured, that specified wires are used, and that no external forces act on the terminal connections or wires. Improper connections or installation may result in fire.	
• Before touching electrical parts, turn off the unit.	

 **CAUTION**

- **Keep water out of the controller.**
- **To avoid electric shock due to entry of water or insects, fill the wiring through-hole with putty.**
- **Do not wash the controller with water as it may result in electrical shocks or fire.**

- **Do not touch the controller buttons with wet fingers.**
Touching the buttons with wet fingers can cause an electric shock.

- **Do not install the controller in the following locations:**

- (a) **Where a mineral oil mist or oil spray or vapor is produced, for example, in a kitchen.**

Plastic parts may deteriorate and fall off.

- (b) **Where corrosive gas, such as sulfuric acid gas, is produced.**

- (c) **Near machinery emitting electromagnetic waves.**

Electromagnetic waves may disturb the operation of the control system and cause the unit to malfunction.

- (d) **Where flammable gas may leak, where there is carbon fiber or ignitable dust suspensions in the air, or where volatile flammables such as thinner or gasoline are handled.**

Operating the unit in such conditions can cause a fire.

- (e) **High temperature area or directly flamed point.**

Heating and/or fire can occur.

- (f) **Moist area, where there is exposure to water.**

If water enters the inside of the controller, it may cause electric shock and electrical components may fail.

 **NOTE**

- **Install the control wires for the controller at least 3.5 feet (1 meter) away from televisions or radios to prevent image interference or noise.**

Depending on the radio waves, a distance of 3.5 feet (1 meter) may not be sufficient to eliminate the noise.

Contents

1	Before Installation	7
1.1	Checking that all accessories are included.....	7
1.2	Understanding external dimensions	8
1.3	Understanding where terminals and switches are located	10
1.3.1	Rear face	10
1.3.2	Front panel	11
1.3.3	Side face.....	12
1.3.4	Wiring of cables	12
1.4	Determining installation place	13
1.4.1	Installation place and mounting direction	13
1.4.2	Environmental conditions	13
1.4.3	Required space	13
2	Electric Wiring	14
2.1	Removing wiring cover from rear face	14
2.2	Connecting DIII-NET-compatible air conditioning equipment.....	14
2.2.1	Terminal location and schematic connection diagram	15
2.2.2	Wiring specifications	16
2.2.3	Precautions for using multiple centralized controllers.....	16
2.3	Connecting a LAN cable	17
2.3.1	Terminal location and schematic connection diagram	18
2.3.2	Wiring specifications	18
2.4	Connecting I/O module	19
2.4.1	Terminal location and schematic connection diagram	19
2.4.2	Wiring specifications	19
2.4.3	Address setup.....	20
2.5	Connecting an emergency stop input device or power meter	20
2.5.1	Terminal location and schematic connection diagram	20
2.5.2	Wiring specifications	21
2.6	Connecting iTM plus adaptors	21
2.6.1	Terminal location and schematic connection diagram	22
2.6.2	Wiring specifications	22
2.7	Connecting power supply	23
2.7.1	Terminal location and schematic connection diagram	23
2.7.2	Wiring specifications	24
3	Secure installation of intelligent Touch Manager	25
3.1	Wall mounting	25
3.1.1	Parts to be used	25
3.1.2	Installation procedure	26

3.2	Flush wall mounting	27
3.2.1	Parts to be used	27
3.2.2	Wall opening dimensions	27
3.2.3	Installation procedure	28
3.3	Mounting to control enclosure	30
3.3.1	Parts to be used	30
3.3.2	Wall opening dimensions	30
3.3.3	Installation procedure	30
4	Basic setup of intelligent Touch Manager	32
4.1	Setting backup battery to ON	32
4.2	Turning on power supply for intelligent Touch Manager and air conditioners	32
4.3	Setting up locale	33
4.4	Setting time zone	33
4.5	Setting current time and daylight saving time	34
4.6	Confirming air conditioner auto registration results	34
4.7	Setting DIII-NET address for each air conditioner	35
4.7.1	Names of buttons and display areas	35
4.7.2	Setting address with wired remote controller	36
4.7.3	Setting address with navigation remote controller	38
4.7.4	Setting an unique address to each unit (when Power Proportional Distribution (option) is used) ...	39
5	Quick Operation Guide	40
5.1	Viewing target area and management point information in list format	40
5.2	Displaying areas and management points	40
5.3	Starting/stopping an area or management point	41

1

Before Installation

Before you start installing the intelligent Touch Manager, perform the following preparatory checks.

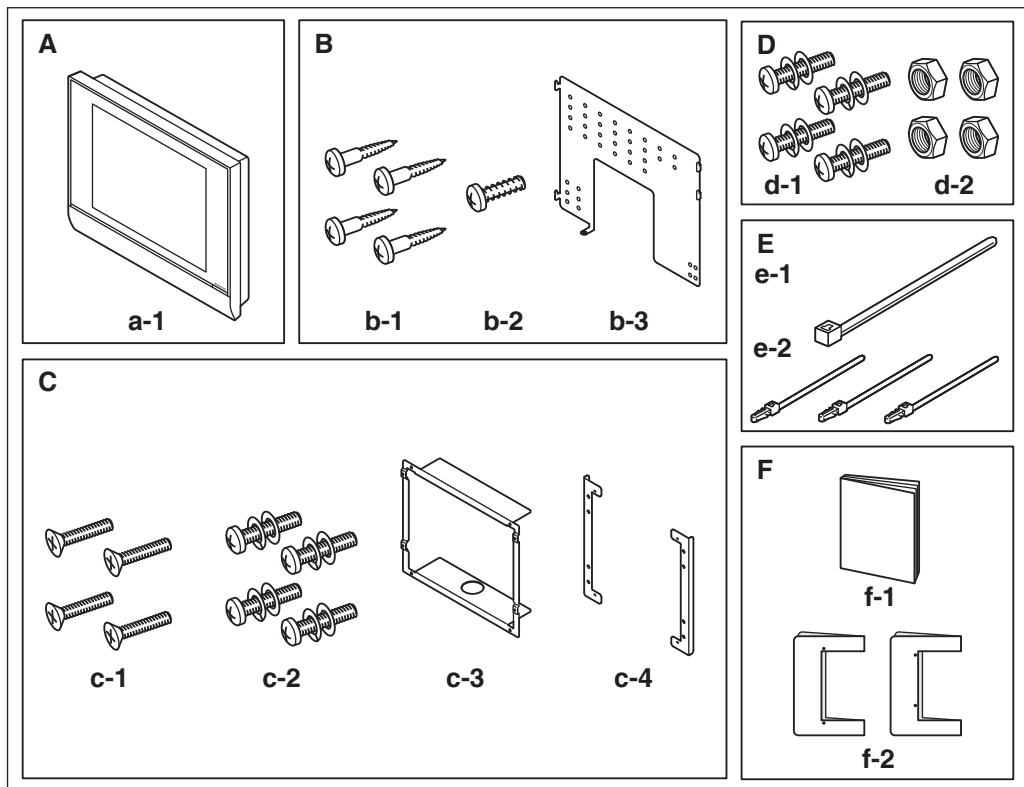
- Check that the intelligent Touch Manager comes with all accessories.
- Confirm where the terminals and switches of the intelligent Touch Manager are located.
- Check that an appropriate space for installing the intelligent Touch Manager is available.

1.1

Checking that all accessories are included

Based on the following accessory list, check that all accessories for the intelligent Touch Manager are included. If there is any missing or defective part, contact your DAIKIN dealer where you purchased the product.

<Accessories included with intelligent Touch Manager>

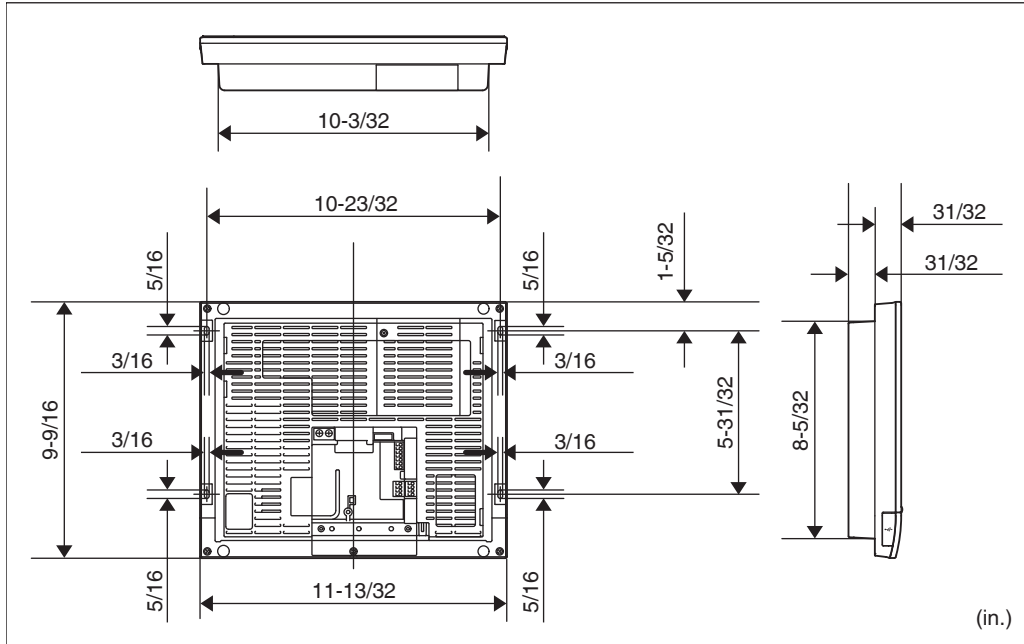


- A** (a-1) intelligent Touch Manager body (1 pc.)
- B** Wall mounting parts
(b-1) Round-head wood screw ($\phi 4.1 \times 25$), 4 pcs. (b-2) P-tight screw ($\phi 3 \times 8$), 1 pc.
(b-3) Wall mounting metal plate, 1 pc.
- C** Flush wall mounting parts
(c-1) Flat-head screw (M4 \times 40), 4 pcs. (c-2) Pan-head screw (M4 \times 14, with spring washer and plain washer), 4 pcs.
(c-3) Frame bracket, 1 pc. (c-4) Angle bracket, 2 pcs.
- D** Control enclosure securing parts
(d-1) Pan-head screw (M4 \times 40, with spring washer and plain washer), 4 pcs.
(d-2) Nut ($\phi 4$), 4 pcs.
- E** (e-1) Clamp, 1 pc. (e-2) Push mount tie, 3 pcs.
- F** (f-1) Installation manual (This manual), 1 pc.
(f-2) Paper template, 2 pcs.

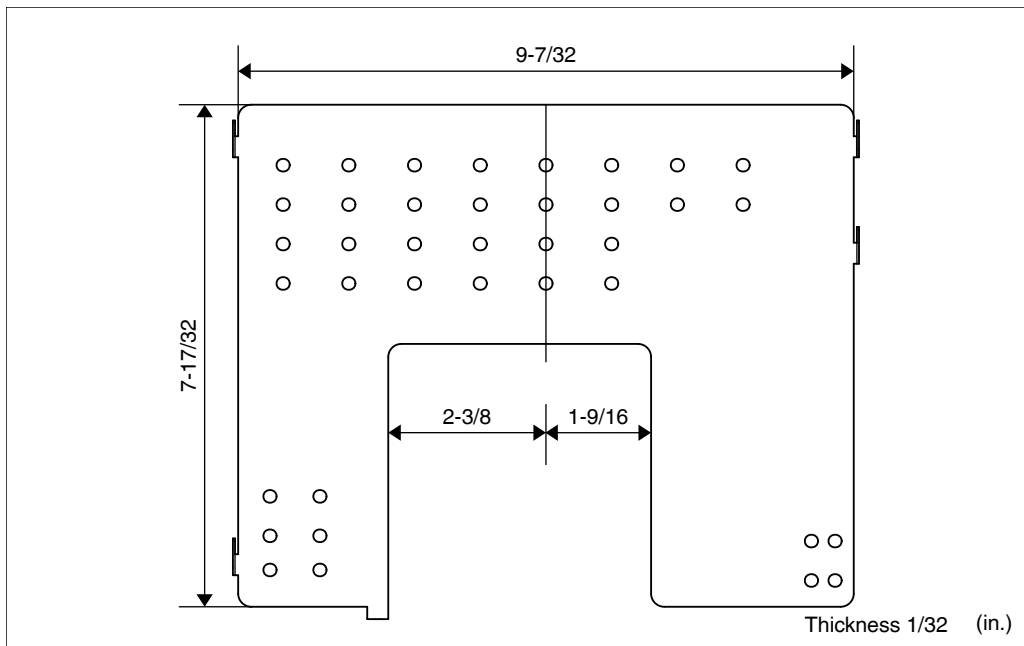
1.2

Understanding external dimensions

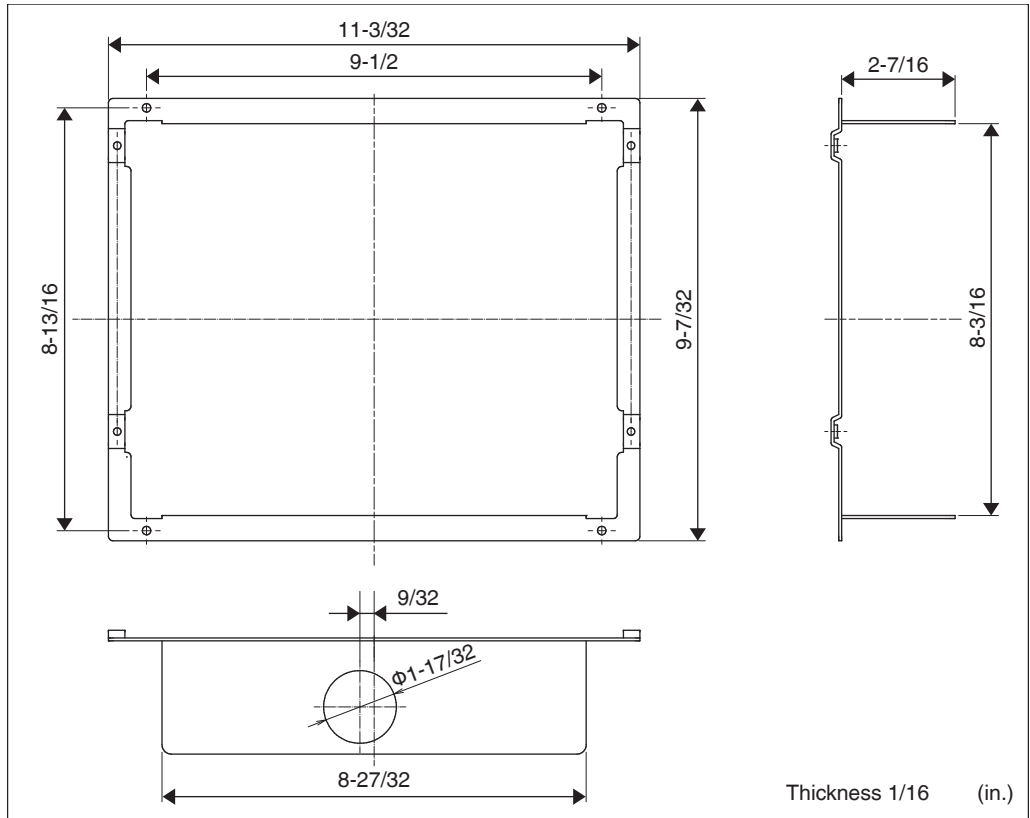
- intelligent Touch Manager body



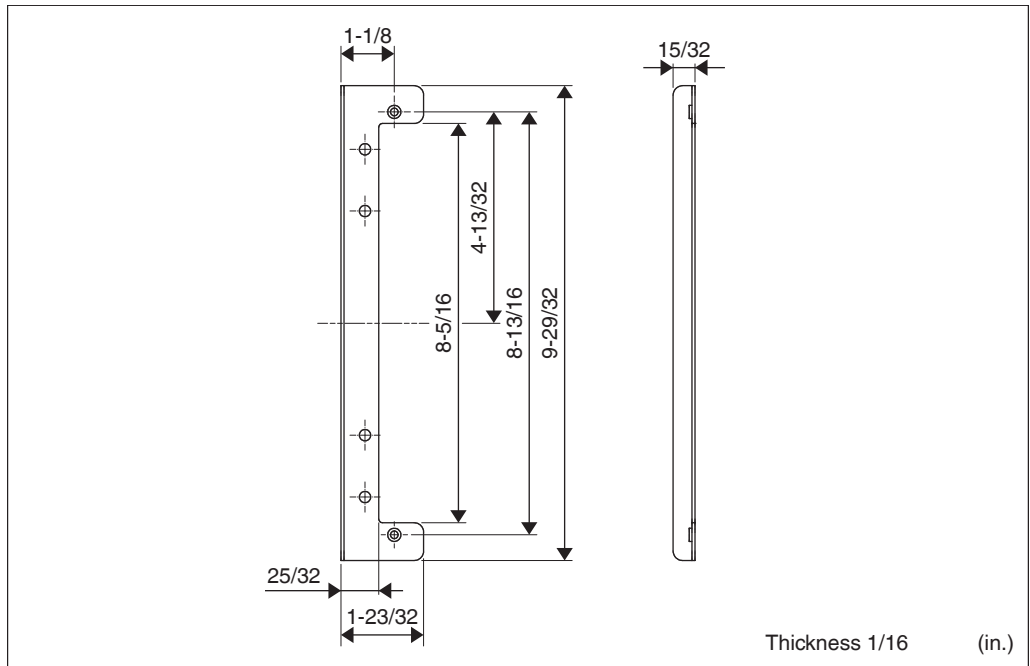
- Wall mounting metal plate



• Frame bracket



• Angle bracket



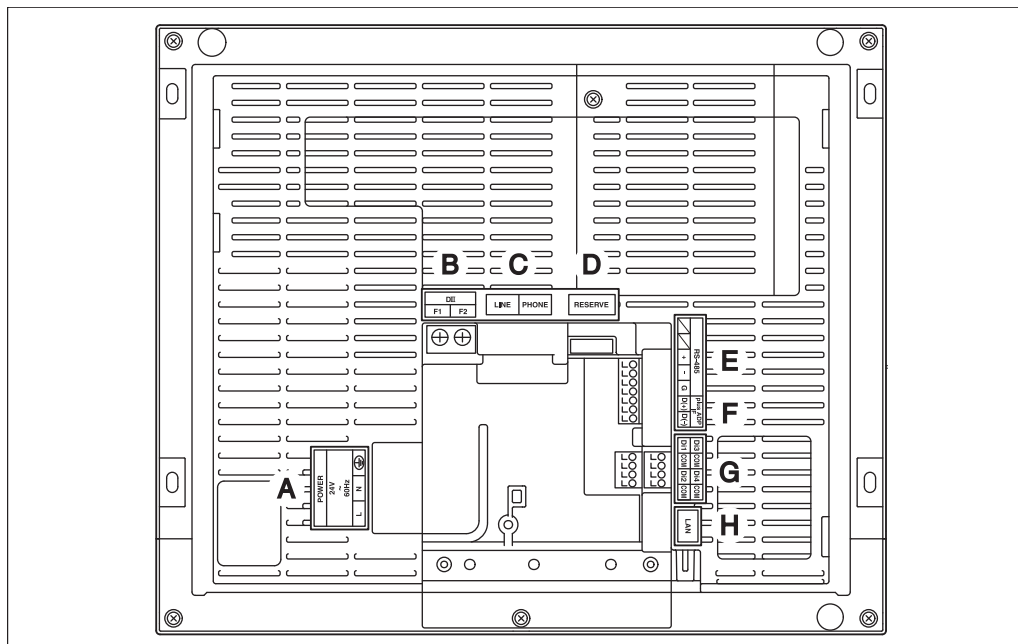
1.3 Understanding where terminals and switches are located

Understand the arrangement of terminals and the location of openings on the unit and plan how to route the cable and in which order to connect its wires to facilitate the installation procedure. For connection details including the cable type and terminal size, refer to “2. Electric Wiring”.

1.3.1 Rear face

Most terminals are located on the rear face of the intelligent Touch Manager. However, they are covered with a terminal cover for safety reasons. Remove 2 screws to detach the cover, and you can see various types of ports (terminals).

<Rear face of intelligent Touch Manager>



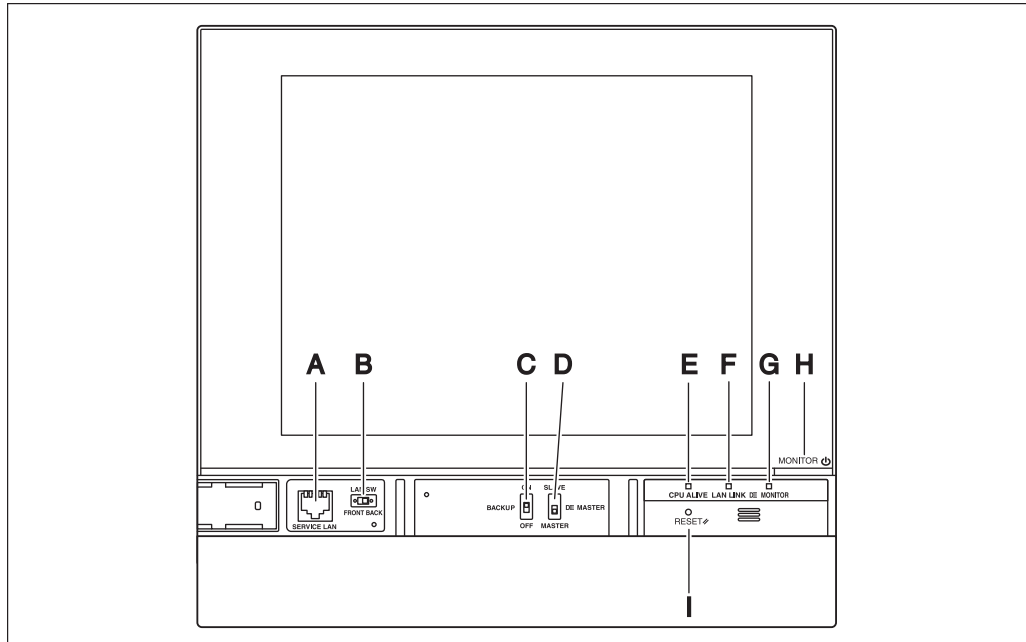
- A [POWER]** The power line connection terminals. A power supply voltage of 24 VAC (at 60 Hz) is required. Near the terminal block, there is a blue resin cable mount for securing the power supply cable with the clamp.
- B [DI]]]** The communication line connection terminals for “DIII-NET”, which enables communications with DAIKIN’s air conditioning equipment.
- C [LINE, PHONE]** The port used when subscribing to the DAIKIN “Air Conditioning Network Service System” online monitoring service for air-conditioning systems. To use the “Air Conditioning Network Service System” service, you need to sign a separate maintenance contact.
- D [RESERVE]** No Use.
- E [RS-485]** The terminals for connecting serial equipment.
- F [plus ADP IF]** The terminals for connecting one or more iTM plus adaptors when the intelligent Touch Manager is used to control more air conditioning devices.
- G [Di (1-4), COM]** The terminals for stopping air conditioners according to the external signal in an emergency, for connecting a power meter to calculate the electricity usage of individual air conditioners, or for other operations.
- H [LAN]** The port for connecting the intelligent Touch Manager to an Ethernet network.

1.3.2

Front panel

Located below the monitor display on the front panel are four LEDs that indicate the operating status of the intelligent Touch Manager. Sliding the front slide cover down and then removing a screwed cover reveals terminals used during the setup after installation or during maintenance work.

<Front face of intelligent Touch Manager>



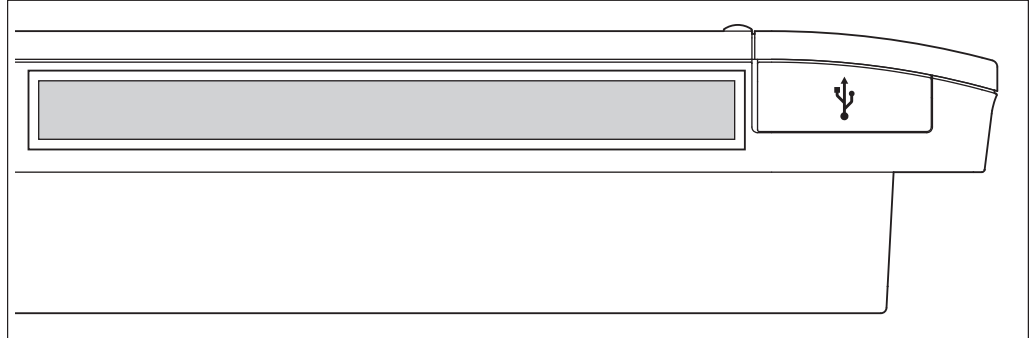
- A [SERVICE LAN]** The port for temporarily connecting the intelligent Touch Manager to a LAN from its front face, instead of its rear face, during the operations such as installation or maintenance.
- B [LAN SW]** This is for switching between the LAN port on the back and the SERVICE LAN port on the front.
You cannot close the cover when the switch set to "FRONT". To close the cover, select "BACK".
- C [BACKUP]** The switch for turning on/off the backup power supply for retaining the current settings.
- D [DIII MASTER]** The switch for setting "MASTER" or "SLAVE" when there are multiple DIII-NET centralized controllers such as intelligent Touch Manager.
- E [CPU ALIVE] LED (Green)** The LED that indicates that the CPU is operating normally. The CPU is operating normally when this LED is blinking and malfunctioning when it is on or off.
(It takes about 10 seconds for detection of the abnormality.)
On: Software error
Off: Hardware error or power off
- F [LAN LINK] LED (Green)** The LED that indicates whether or not the hardware connection is established normally between the intelligent Touch Manager and the equipment connected to the LAN port. It is lit when there is no error.
- G [DIII MONITOR] LED (Yellow)** This LED blinks when data is sent or received via DIII-NET communication line.
- H [MONITOR] key and LED (Orange/Green)** Each time you press this key, the monitor display turns on/off. The color of the LED also changes simultaneously.
Off: The monitor is powered off.
On (Orange): The monitor display is off.
On (Green): The monitor display is on.
- I [RESET//]** The switch for restarting the intelligent Touch Manager.

1.3.3

Side face

On the left side of the intelligent Touch Manager, there is a USB port. The USB port is used for making settings, performing maintenance or other operations after the installation of the intelligent Touch Manager is completed. Also, on this side a label is attached on which the information such as product name, weight, power supply and serial number are printed.

<Side face of intelligent Touch Manager>



[ψ] Open this cover to connect the memory to the USB port. This port can be turned 90 degrees to the front direction. You can connect to this port from the front direction if there is not enough space on the side.

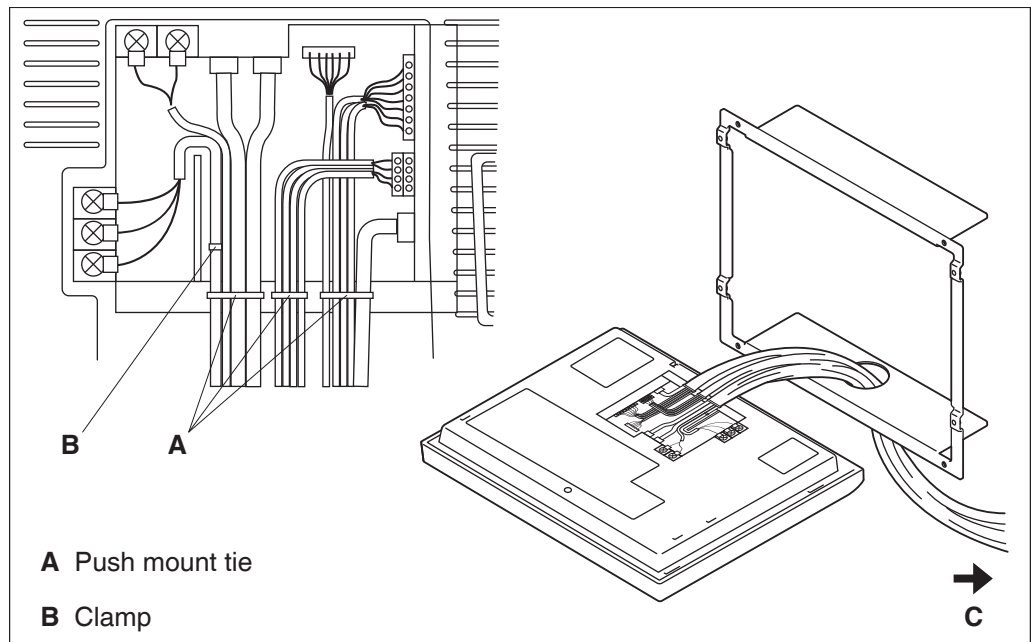
1.3.4

Wiring of cables

To flush-mount the intelligent Touch Manager to the wall, you need to route in advance the cables through the cable hole of the frame bracket.

The following pictorial wiring diagram (example) shows the state after connections to the intelligent Touch Manager rear face are completed.

<Pictorial cable wiring diagram (example)>



C To conduit tube

Be sure to fix all cables using the supplied push mount ties.

Fix the power supply cable to the blue resin cable mount using the white clamp, then tie the cable and other cables with the black push mount tie, as shown in the cable wiring diagram (example).

When using the black push mount tie, pass its tale through its hole to tie the cables.

1.4 Determining installation place

Be sure to install the intelligent Touch Manager in a place that meets the conditions described in 1.4.1 to 1.4.3.

1.4.1 Installation place and mounting direction

Below are the description of the installation place and mounting direction. Be sure to confirm.

- Installation place: Indoor, free from dust and water splashes
(For details, refer to CAUTION in the section of Safety Considerations.)
- Mounting direction: Vertical only.

1.4.2 Environmental conditions

Check that the installation environment meets the following conditions.

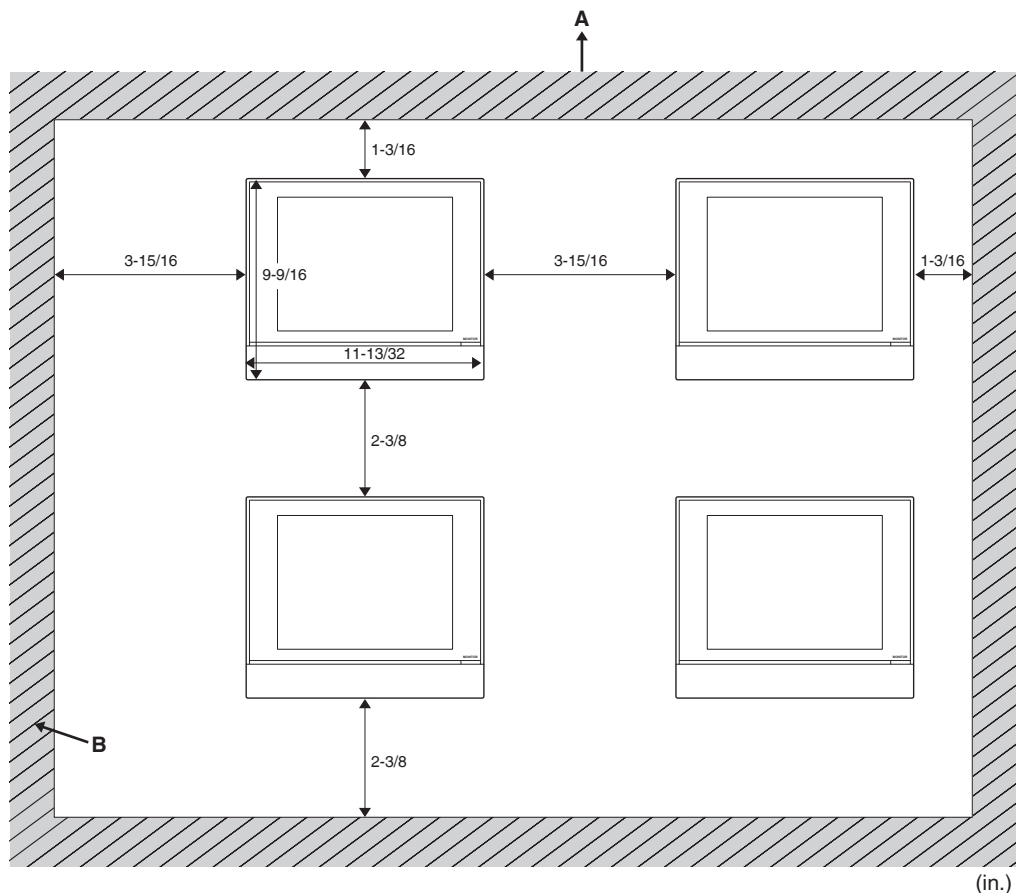
- The ambient temperature : 32 to 104 °F.
- The ambient humidity : 85% RH or less (without condensation).
- The electromagnetic wave does not affect the operation of the intelligent Touch Manager.

1.4.3 Required space

The figure shown below indicates the space required for installation. The following conditions must be met. Make sure that there is a minimum clearance of 1-3/16 in. from the top edge, 3-15/16 in. from the left side edge, 1-3/16 in. from the right side edge, and 2-3/8 in. from the bottom edge of the unit.

<Installation space required for intelligent Touch Manager>

Required installation space



- A Top
- B Wall

2

Electric Wiring

This chapter describes the procedure for connecting the intelligent Touch Manager with DAIKIN air conditioning devices and other equipment.

In addition to air conditioners, the intelligent Touch Manager can monitor and control a wide range of equipment. However, the required connection procedures vary depending on the equipment to be connected.

Do not connect more than two wires to the same terminal.

Required procedures

- 2.2 Connecting DIII-NET-compatible air conditioning equipment
- 2.7 Connecting power supply

Equipment-specific procedures

- 2.3 Connecting a LAN cable
- 2.4 Connecting I/O module
- 2.5 Connecting an emergency stop input device or power meter
- 2.6 Connecting iTM plus adaptors

WARNING

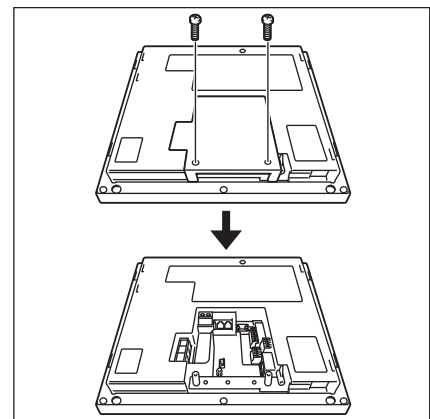
- **Do not turn on the power supply before all wire connections are completed. When there is an earth leakage breaker or a local switch installed on the circuit, make sure that the circuit is securely interrupted. Otherwise, an electric shock may result.**
- **After the wiring is completed, double-check that all wires are connected correctly before turning on the power supply.**
- **All field supplied parts and materials, electric works must conform to local codes.**
- **All wiring must be performed by an authorized electrician.**

2.1

Removing wiring cover from rear face

Remove the wiring cover from the rear face. Take out two screws using a Phillips screwdriver to remove the wiring cover.

<Removing wiring cover>



2.2

Connecting DIII-NET-compatible air conditioning equipment

DIII-NET is the DAIKIN's original communication method used between air conditioners. Using DIII-NET, you can centrally control multiple DAIKIN DIII-NET-compatible air conditioning devices by connecting them to your intelligent Touch Manager.

WARNING

- **Be sure to perform the operation during power-off conditions. Not doing so may cause an electric shock.**
- **The maximum length of adhered wiring of high current electrical line of power wires and weak current line of communication wires must be kept to 65 ft. or less.**

2.2.1

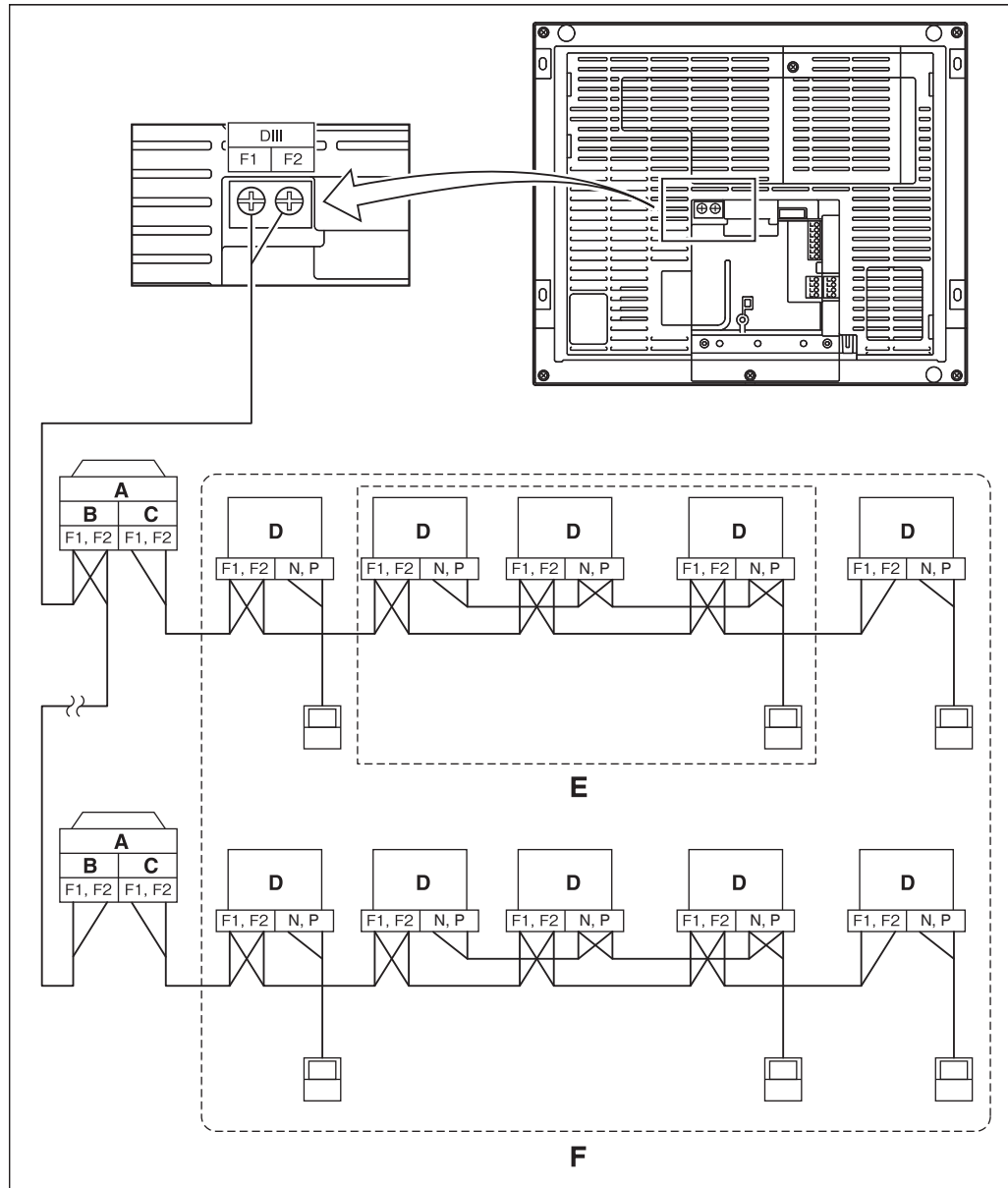
Terminal location and schematic connection diagram

To connect the DIII-NET communication line, use F1 and F2 terminals that are located on the rear face and indicated with "DIII" mark. These 2 terminals have no polarity. An example of connecting more than two air conditioning devices is shown in the following conceptual connection diagram.



CAUTION
Make sure that the wires you are connecting to the F1 and F2 terminals are not power wires. Inadvertently connecting power wires to these terminals results in a failure of the air conditioner or intelligent Touch Manager.

<Conceptual connection diagram with air conditioning equipment>



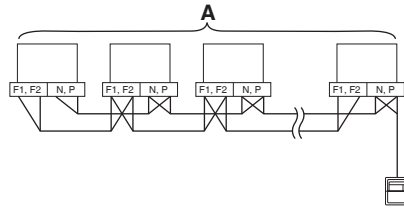
- A** Outdoor unit
- B** OUT - OUT communication (terminal)
- C** IN - OUT communication (terminal)
- D** Indoor unit
- E** A maximum of 16 indoor units can be connected per remote controller group.
- F** A maximum of 64 remote controller groups (128 indoor units) can be connected. When the power proportional distributions is applied, the maximum number of indoor units is 64.

NOTE

- What's a remote controller group?

A single remote controller can simultaneously control a maximum of 16 indoor units. This capability is referred to as group control. A remote controller group is a group of indoor units controlled under the same remote controller.

[Schematic diagram of remote controller group]



A Max.16 Indoor units

2.2.2

Wiring specifications

- Cable type: 2-core vinyl-insulated vinyl-sheathed cable/vinyl cabtyre cable or 2-core shielded cable
- Core thickness: AWG 18-16
- Terminal treatment: Use a round crimp-type terminal (M3.5) with insulating sleeve

CAUTION

- **Do not use multicore cables with three or more cores.**
- **When using a shielded cable, connect only one end of the cable to the ground.**
- **The maximum wiring length is 3280 ft. and total wiring length is 6561 ft. or less. When using a shielded wire, the total wiring length is limited to 4921 ft. or less.**

2.2.3

Precautions for using multiple centralized controllers

The “centralized controller” refers to the equipment (e.g. the intelligent Touch Manager) that controls multiple air conditioners. Besides the intelligent Touch Manager, the DAIKIN’s product portfolio includes a wide range of centralized controllers suitable for different applications or building sizes, which can be used in combination to construct an optimal air conditioning control system.

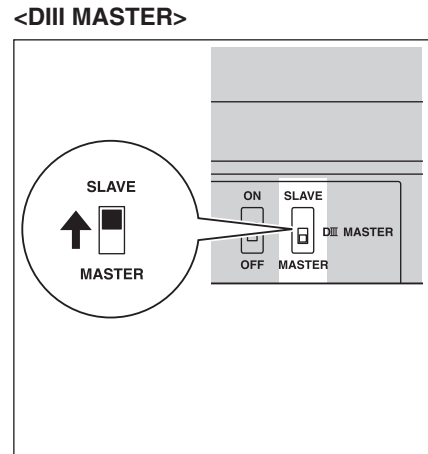
If multiple centralized controllers are connected on the DIII-NET network, you must set MASTER and SLAVE relationship for those controllers.

Assign only one of those controllers to MASTER, and other controllers to SLAVE.

The intelligent Touch Manager is set to MASTER by default. Change the setting to SLAVE in any of the following cases:

- Where Interface for use in BACnet is installed in parallel.
- Where Interface for use in LONWORKS is installed in parallel.
- If there is another intelligent Touch Manager or iTM plus adaptor which is assigned to MASTER.

To change the setting of the intelligent Touch Manager to SLAVE, turn the DIII MASTER switch located under the front slide cover. Placing the DIII MASTER switch in the upper position (labeled as “SLAVE”) changes it to a SLAVE.



When installing multiple centralized controllers, set only the highest-priority controller to MASTER and all other controllers to SLAVE according to the following order of priority.

High	↑	(1) Interface for use in BACnet
		(2) Interface for use in LONWORKS
		(3) intelligent Touch Manager (Main) , iTM plus adaptor (Main)
Priority		(4) Central Remote Controller (Main)
		(5) intelligent Touch Manager (Sub) , iTM plus adaptor (Sub)
		(6) Central Remote Controller (Sub)
Low	↓	(7) ON/OFF Controller (Main)
		(8) ON/OFF Controller (Sub)

Centralized controllers that cannot be connected to the same network as the intelligent Touch Manager.

- CALCULATE UNIT
- intelligent Processing Unit
- Parallel Interface
- intelligent Touch Controller
- DIII-NET Plus Adapter
- Residential Central Remote Controller
- Schedule Timer
- Wiring Adaptor for Electrical Appendices (1) (KRP2)

2.3 Connecting a LAN cable

By connecting the intelligent Touch Manager with a PC via Ethernet, you can remotely perform operations such as operation setup and maintenance of air conditioning system.

WARNING

Do not clamp the LAN cable with high current cables.

NOTE

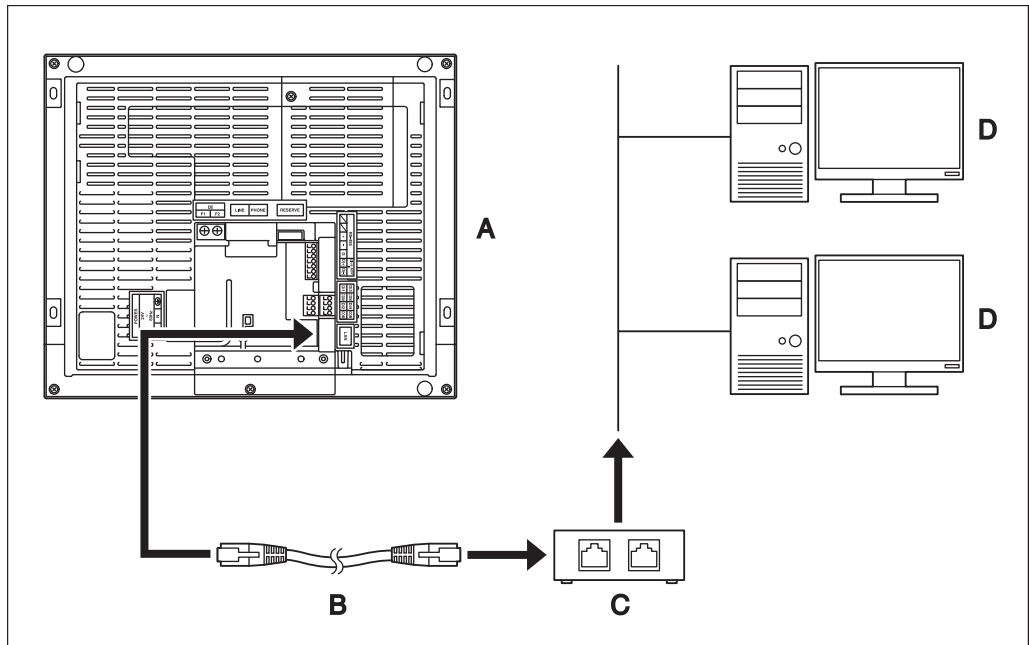
For how to connect the intelligent Touch Manager to a PC network, contact your network administrator.

2.3.1

Terminal location and schematic connection diagram

Using a LAN cable, connect the LAN port to the network hub.

<LAN connection schematic diagram>



- A Rear face of intelligent Touch Manager
- B LAN cable
- C Hub
- D PC

2.3.2

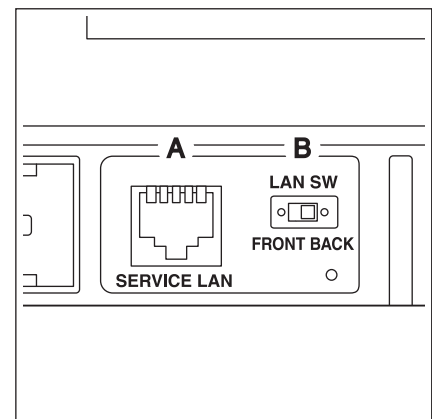
Wiring specifications

- Applicable cable standard: 100Base-TX or 10Base-T
- Connector standard: RJ-45

NOTE

- When you connect the intelligent Touch Manager to the LAN temporarily during installation or maintenance, use the SERVICE LAN port located on the front face. The SERVICE LAN port is enabled by changing the position of the LAN SW switch beside the SERVICE LAN to the FRONT position.
- You cannot close the cover when the switch set to "FRONT". To close the cover, select "BACK".

<SERVICE LAN socket and LAN SW switch>



- A SERVICE LAN
- B LAN SW

2.4 Connecting I/O module

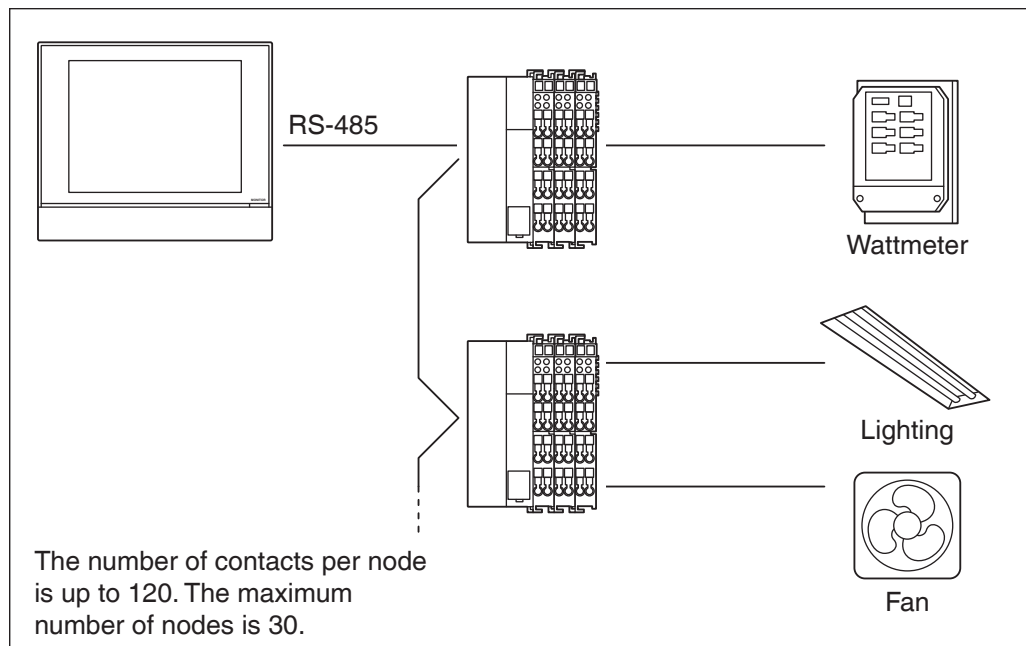
In combination with the I/O module, the intelligent Touch Manager can monitor and control a maximum of 960 contacts of non-DAIKIN peripheral devices such as lighting equipment and security systems. Connect the intelligent Touch Manager to the termination of the RS-485 wiring.

WARNING

- Be sure to perform the operation during power-off conditions. Not doing so may cause an electric shock.
- Do not clamp the cables with high-current lines such as a power cable.

2.4.1 Terminal location and schematic connection diagram

<Schematic drawing of I/O module connection>



Connect to the RS-485 terminals located on the rear face. As the terminals have polarity, be sure to connect the positive core wire to the + (positive) terminal and the negative core wire to the – (negative) terminal, respectively.

2.4.2 Wiring specifications

- Cable type: CPEV or FCPEV cable (shielded type also acceptable)
- Cable length: 1640 ft. or less
- Core thickness: AWG 22-19

CAUTION

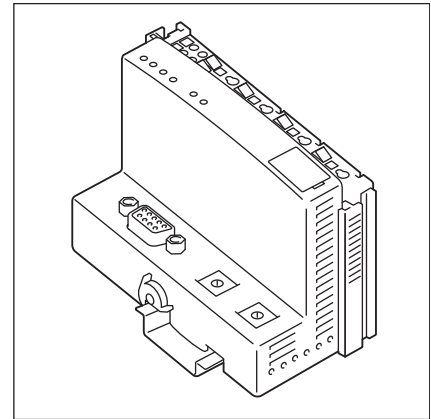
When using a shielded cable, be sure to connect the cable to the G (ground) terminal.

2.4.3

Address setup

The bus coupler located at the left end of nodes has rotary switches for setting the addresses. Set a unique address for each node. For details, refer to the “Commissioning Manual Supplementary Volume (External Management Points (EM11A026))”.

<Bus coupler>



2.5

Connecting an emergency stop input device or power meter

The intelligent Touch Manager can perform operations such as an emergency stop of air conditioners according to the external signal input device, and an electricity usage calculation for each air conditioner (for power proportional distribution) according to the pulse inputs from a power meter.

WARNING

- Be sure to perform the operation during power-off conditions. Not doing so may cause an electric shock.
- Do not clamp high-current cables together with low-current cables.

2.5.1

Terminal location and schematic connection diagram

Connect the contact input signal wire or pulse signal wire to Di1, Di2, Di3, Di4, or COM terminal on the orange connector on the rear face. Each of these terminals has different function.

[Di1] Emergency stop input

[Di2] [Di3] [Di4] Pulse input, contact signal input

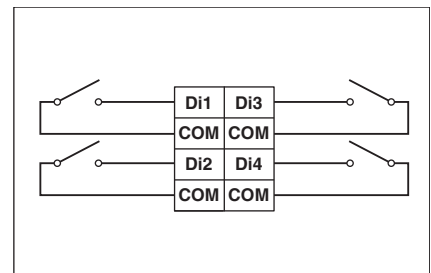
[COM] Common

However, the function settings for these terminals can be changed later. For how to change the function settings, refer to the “Commissioning Manual (EM11A022)”.

NOTE

The COM terminals are all connected internally. So, you can use either of them. However, you can connect up to two wires simultaneously to each COM terminal. When using an open collector type output, connect the COM terminal to the negative side.

<Schematic drawing of Di connection>

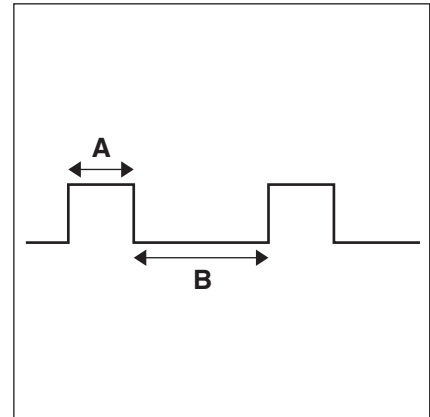


2.5.2

Wiring specifications

- Cable type: CPEV cable
- Core thickness: AWG 22-19
- Cable length: 656 ft. or less

<Pulse width>



A Pulse width: 20 to 400 ms

B Pulse interval: 100 ms or more

CAUTION

- The contact connected to the contact input terminal must be capable of handling 10 mA at 16 VDC.
- If an instantaneous contact is used for triggering an emergency stop, use one that has an energization time of 200 ms or more.

NOTE

Once the emergency stop input signal is turned on, all air conditioners stop and do not restart until the emergency stop input is cleared. When the manual reset is specified for the resetting method, you need to clear the emergency stop using the intelligent Touch Manager.

2.6

Connecting iTM plus adaptors

If you have many air conditioners, use iTM plus adaptors to connect them. It is a fact that the number of indoor groups you can control using a single intelligent Touch Manager is limited to 64. By using iTM plus adaptors, you can add 64 indoor unit groups per iTM plus adaptor. Moreover, considering that the intelligent Touch Manager can be connected with a maximum of seven iTM plus adaptors, you can control a total of 512 groups of indoor units at a maximum using a single intelligent Touch Manager.

WARNING

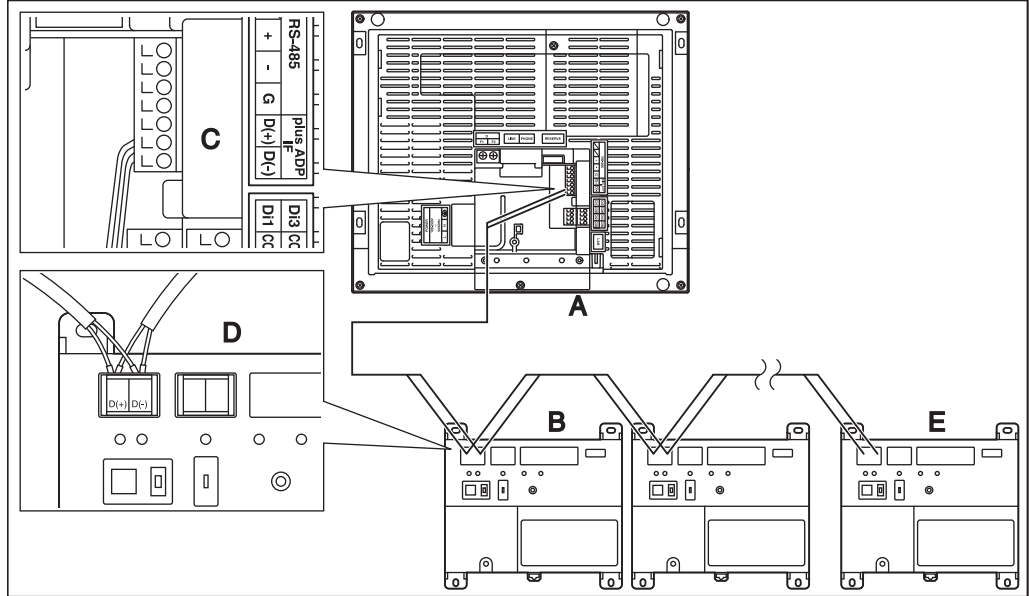
- Be sure to perform the operation during power-off conditions. Not doing so may cause an electric shock.
- Do not clamp high-current cables together with low-current cables.

2.6.1

Terminal location and schematic connection diagram

Connect the iTM plus adaptor to the plus ADP IF terminal located on the rear face. Connect the intelligent Touch Manager to the plus ADP IF terminal. As the terminals have polarity, be sure to connect the positive wire to the “+” terminal and the negative wire to the “-” terminal without fail. Connect the intelligent Touch Manager to the termination of the RS-485 wiring.

<Terminal location and schematic connection diagram>



- A intelligent Touch Manager
- B iTM plus adaptor
- C plus ADP IF (intelligent Touch Manager)
- D plus ADP IF (iTM plus adaptor)
- E iTM plus adaptor on which termination resistor must be enabled
(For details, refer to the “iTM plus adaptor installation manual” (EM11A030).)

2.6.2

Wiring specifications

- Cable type: CPEV or FCPEV cable
- Core thickness: AWG 22-19
- Cable length: The overall cable length between the intelligent Touch Manager and the terminal iTM plus adaptor is 164 ft. or less.
- Wiring connection type: Sequential connections

NOTE

Each air conditioner controlled via an iTM plus adaptor is also assigned a DIII address between “1-00” to “4-15”. From the intelligent Touch Manager, it is recognized as “2:1-00”, “3:1-02”, or the like, with the DIII-NET port number prefixed.

2.7 Connecting power supply

Connect the intelligent Touch Manager to an power supply.

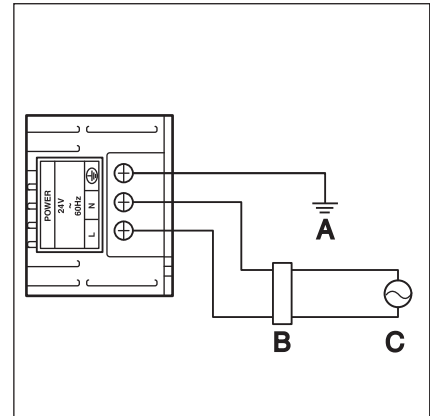
WARNING

Be sure to perform the operation during power-off conditions. Do not turn the power supply on until all connections are made. Not doing so may cause an electric shock.

2.7.1 Terminal location and schematic connection diagram

Connect the power supply to the three terminals, L (Live), N (Neutral), and ground in the POWER section.

<Schematic power connection diagram>



- A Earth
- B Earth leakage breaker
- C Power supply 24VAC 60 Hz

2.7.2

Wiring specifications

- Cable type: Ordinary tough rubber sheathed cord (60245 IEC 53) equivalent or higher
Ordinary polyvinyl chloride sheathed cord (60227 IEC 53) equivalent or higher
- Core thickness: Power wire: AWG 17-14
Earth lead: Size must comply with local codes.
- Terminal treatment: Use a round crimp-type terminal (M4) with insulating sleeve.
- Power supply voltage: Single phase 24 VAC (at 60 Hz)
- Voltage fluctuation: $\pm 10\%$ or less
- Electric power consumption: 23 W



CAUTION

- **An earth leakage breaker capable of shutting down power supply to the entire system must be installed.**
- **Turning on/off the earth leakage breaker turns on/off the power supply to the intelligent Touch Manager.**
- **When using an earth leakage breaker, make sure to select one useful for to protection against overcurrent and short-circuit. When using an earth leakage breaker only for earth device, make sure to use a wiring interrupter together.**
- **The power supply requires earth leakage breaker installation and earth wire connection. After installing an earth leakage breaker, be sure to connect only the intelligent Touch Manager to it.**
- **To prevent accidents due to wire breakage or disconnection, secure the power supply cables to the blue resin cable mount with cable ties.**
- **Be sure to connect the earth wire.**
- **Do not connect the earth wire to gas or water pipes, lighting rod, or telephone earth wire.**
- **Replace the unit when the unit cannot be turned on due to the blowing of the electrical fuse.**

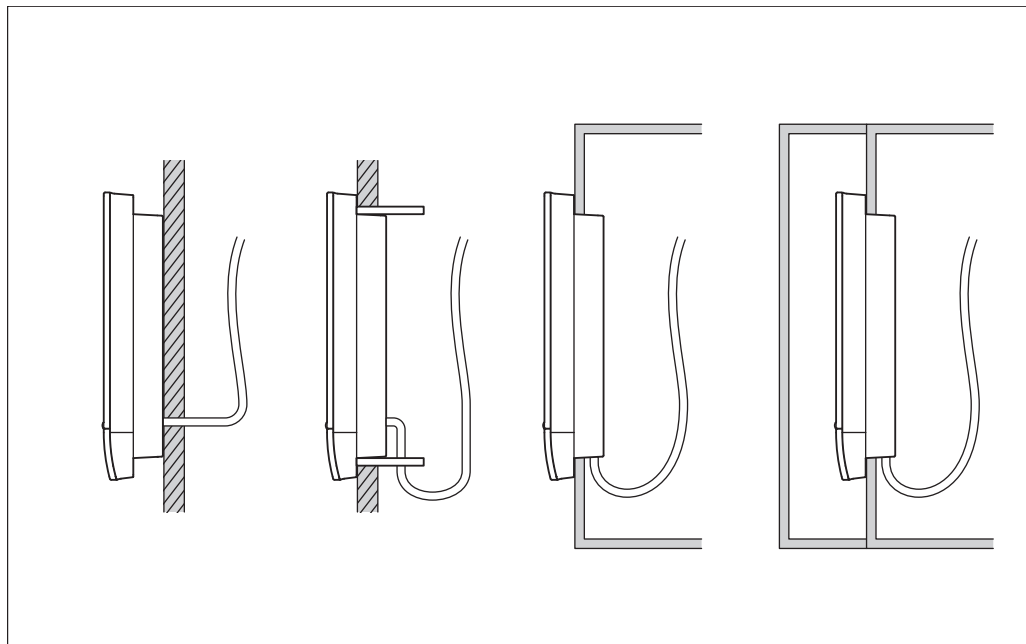
3

Secure installation of intelligent Touch Manager

There are the following three ways to install the intelligent Touch Manager.

- Wall mounting: Fix the intelligent Touch Manager to the metal plate which is attached to the wall.
- Flush wall mounting: Embed the back of the intelligent Touch Manager into the wall using the frame bracket and angle brackets.
- Direct mounting to control enclosure: Fix the intelligent Touch Manager directly to the control enclosure using screws only (with no brackets).

<Ways of installation>



Wall mounting

Flush wall mounting

Direct mounting to control enclosure

3.1 Wall mounting

3.1.1 Parts to be used

To wall-mount the intelligent Touch Manager, use the following accessory mounting parts:

- Wall mounting metal plate, 1 pc.
- Round-head wood screw ($\phi 4.1 \times 25$), 4 pcs.
- P-tight screw ($\phi 3 \times 8$), 1 pc.
(Check that there are all accessories listed in section 1.1: see the accessories included with intelligent Touch Manager B.)

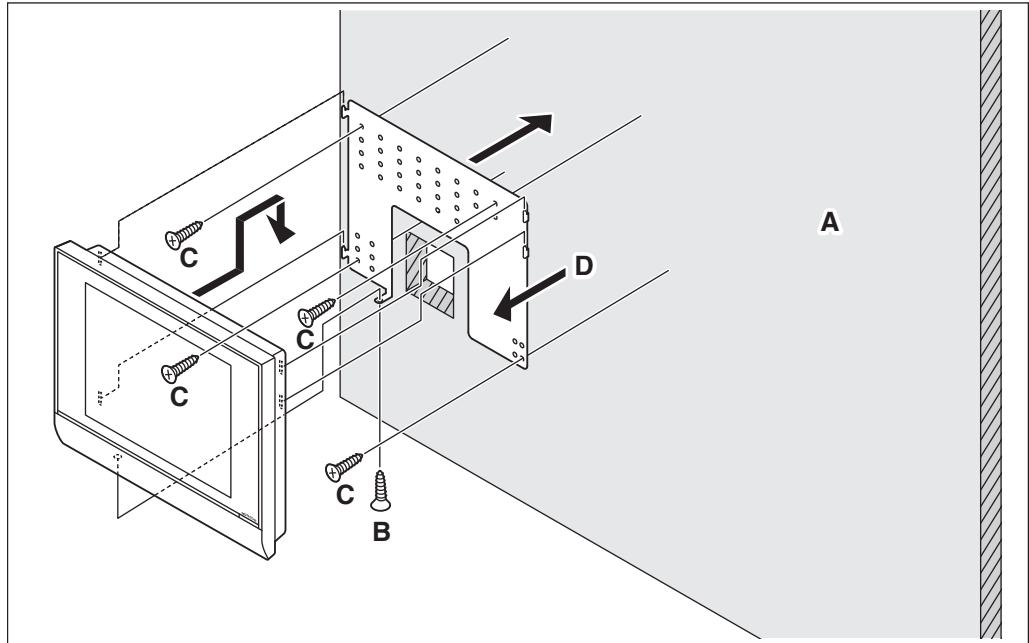
3.1.2

Installation procedure

⚠ CAUTION

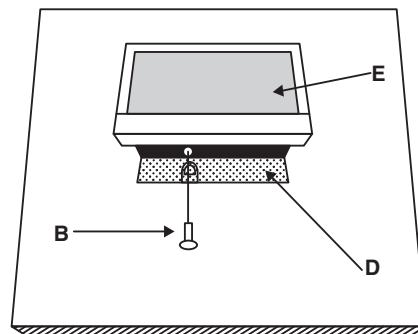
- The wall mounting metal plate has a number of holes for attaching the round-head wood screws. Though you can use any of these holes to fix the plate, we recommend you to use ones closer to the edge in order to prevent wobbling.
- Secure the round-head wood screws at four points.

<Wall mounting installation>



NOTE

- How to use the P-tight screw
Screw in from the bottom of the intelligent Touch Manager.
Remove the rear cover before starting installation.



- A Wall
- B P-tight screw
- C Round-head wood screw
- D Wall mounting metal plate
- E intelligent Touch Manager

3.2 Flush wall mounting

3.2.1 Parts to be used

To flush-mount the intelligent Touch Manager to the wall, use the following accessory mounting parts:

- Frame bracket, 1 pc.
- Angle bracket, 2 pcs.
- Flat-head screw (M4×40), 4 pcs.
- Pan-head screw (M4×14, with spring washer and plain washer), 4 pcs.
(Check that there are all accessories listed in section 1.1: see the accessories included with intelligent Touch Manager C.)

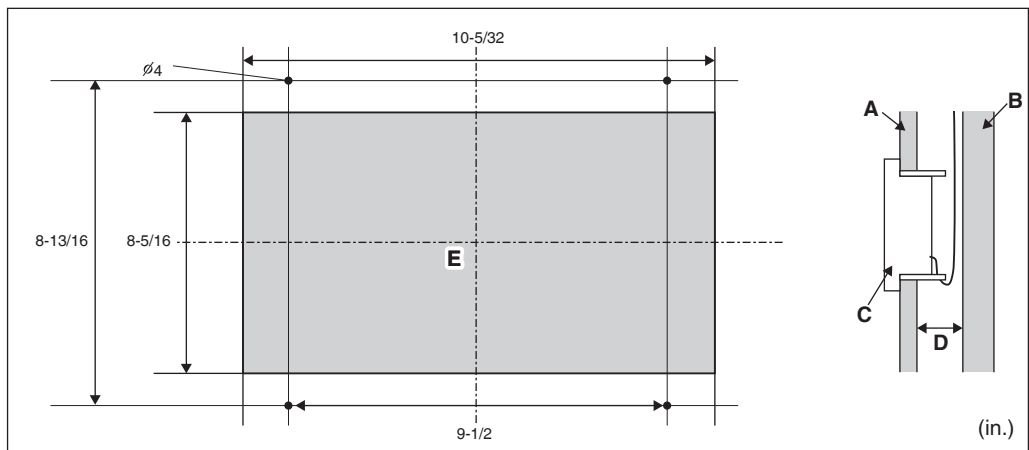
3.2.2 Wall opening dimensions

Use the following dimensional drawing to provide a sufficient opening.

NOTE

- The supplied paper template helps you mark the dimensions of the required wall opening.
- Use the supplied paper template (Flush wall mounting).

<Wall opening dimensions for flush wall mounting>



- A** Inner wall material
- B** Beams of building (frame)
- C** intelligent Touch Manager
- D** 2-3/8 in. min.
- E** Opening

3.2.3

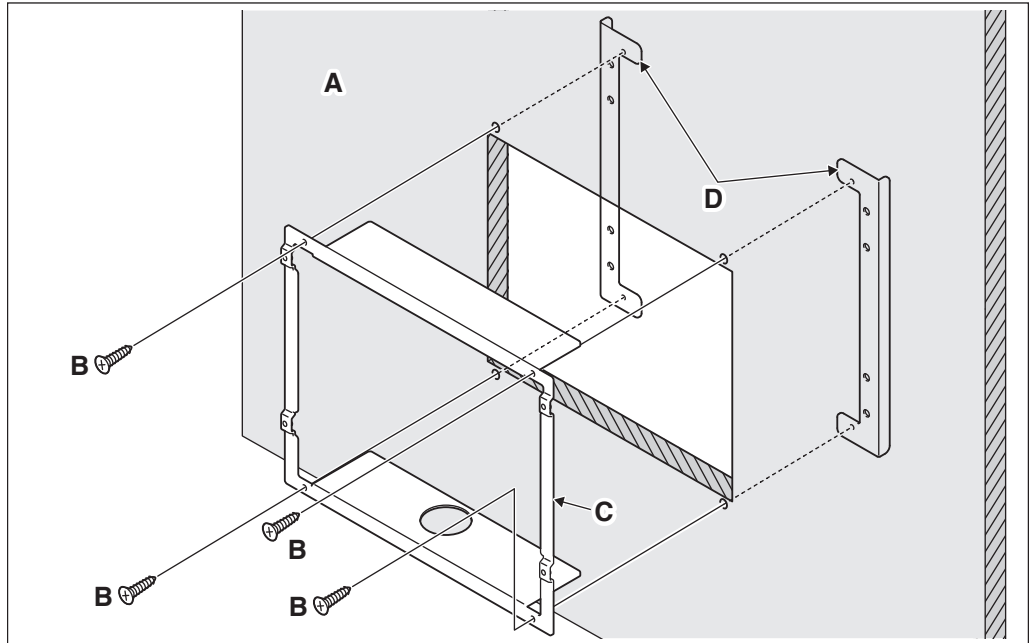
Installation procedure

1. Insert the mounting frame bracket and angle brackets into the wall opening and secure them to the wall in such a manner that the wall is sandwiched between the brackets with flat-head screws.

NOTE

- You need to route in advance the cables connected to the rear face of the intelligent Touch Manager through the cable hole provided at the bottom of the frame bracket.
- Install the rear face terminal cover while the intelligent Touch Manager is removed.

<Securing frame bracket and angle brackets>



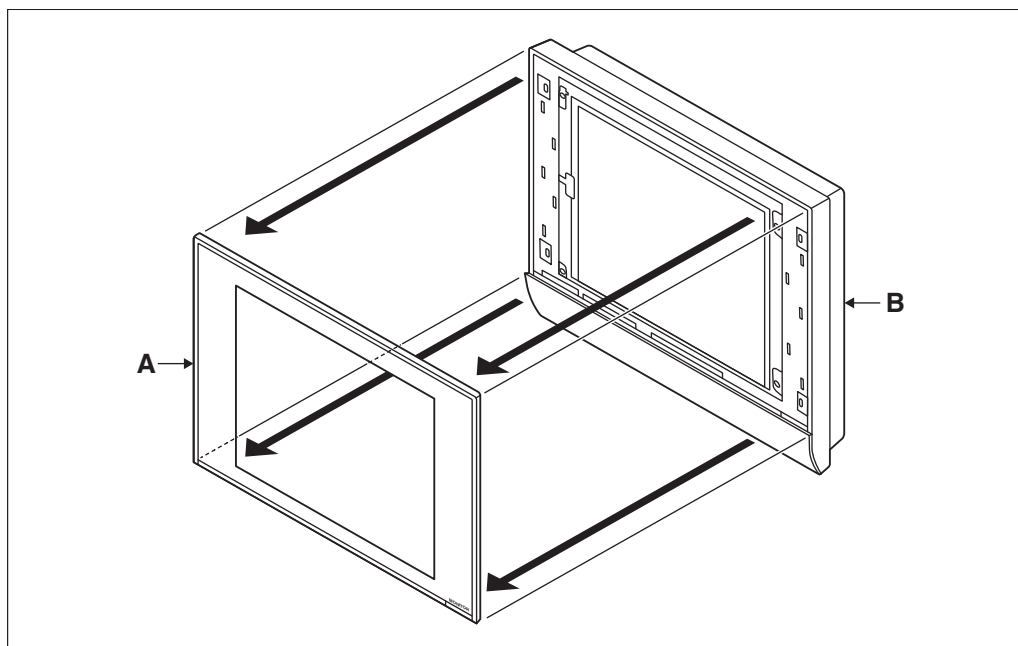
- A Wall
- B Flat-head screw
- C Frame bracket
- D Angle bracket

NOTE

When securing the frame bracket, be careful not to drop the angle brackets inside the wall.

2. Remove the front panel from the front face of the intelligent Touch Manager. The front panel is originally attached to the monitor screen.

<Removing front panel>

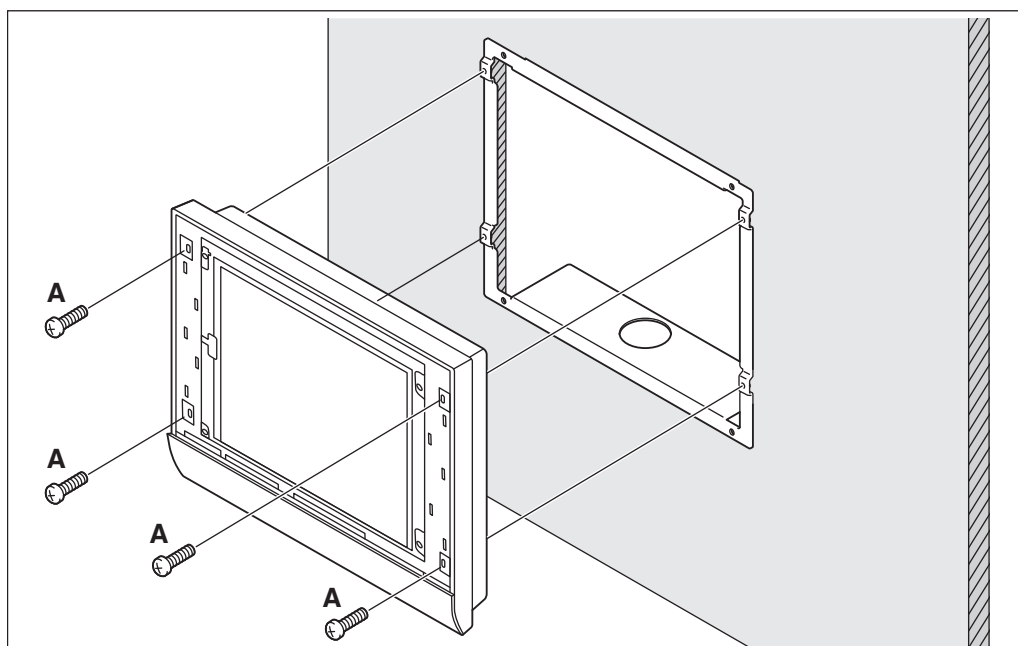


A Front panel

B Main body

3. Insert the intelligent Touch Manager into the frame bracket attached to the wall and fix the intelligent Touch Manager to the frame bracket using four screw holes around the monitor screen and the pan-head screws.

<Installing intelligent Touch Manager body>



A Pan-head screw

4. Attach the front panel of the intelligent Touch Manager back to its original position.

3.3 Mounting to control enclosure

3.3.1 Parts to be used

To mount the intelligent Touch Manager directly to the control enclosure, use the following accessory mounting parts:

- Pan-head screw (M4×40, with spring washer and plain washer), 4 pcs.
- Nut ($\phi 4$), 4 pcs.

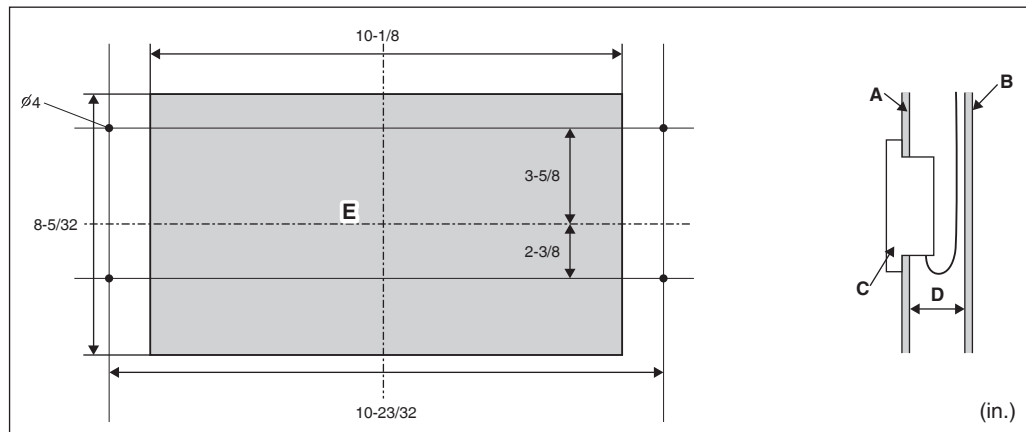
3.3.2 Wall opening dimensions

Use the following dimensional drawing to provide a sufficient opening.

NOTE

- The supplied paper template helps you mark the dimensions of the required wall opening.
- Use the supplied paper template (Direct mounting to control enclosure).

<Wall opening dimensions for direct mounting to control enclosure>

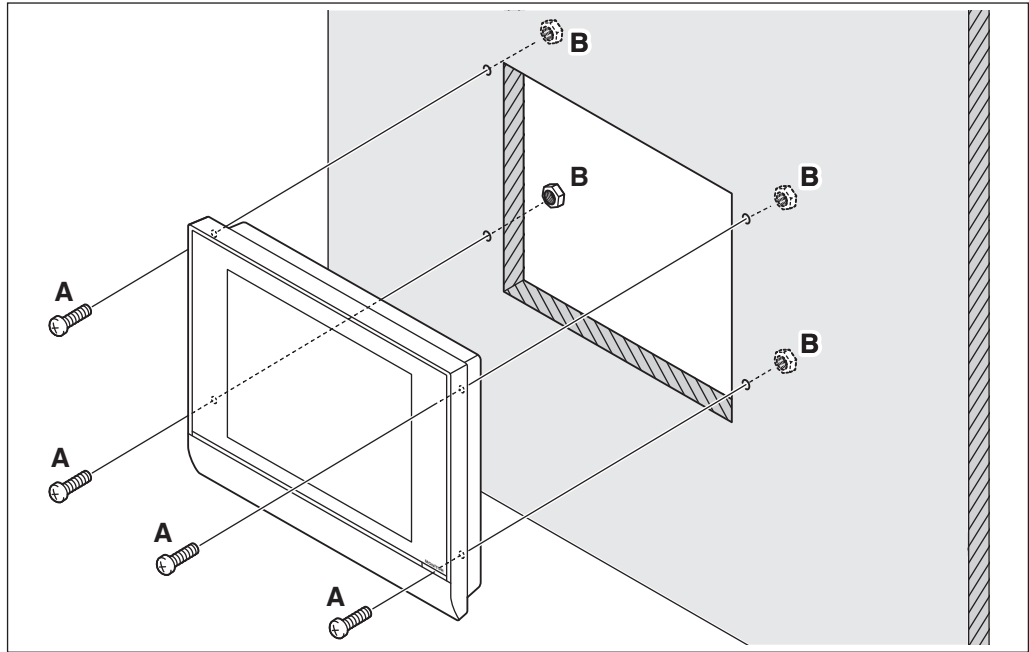


- A** Control enclosure face plate
- B** Control enclosure bottom board
- C** intelligent Touch Manager
- D** 31/32 in. min.
- E** Opening

3.3.3 Installation procedure

1. Remove the front panel of the intelligent Touch Manager, referring to Removing front panel in section 3.2.3 Installation procedure.
This frame is snapped into the edge of the monitor display.
You can remove it by hand as it is not screwed.
After removing the front panel, the four holes (two holes on each right/left side) appears around the monitor screen.
2. Insert the intelligent Touch Manager into the opening of the control enclosure and install it to the control enclosure using the pan-head screws.
3. Attach the front panel of the intelligent Touch Manager back to its original position.

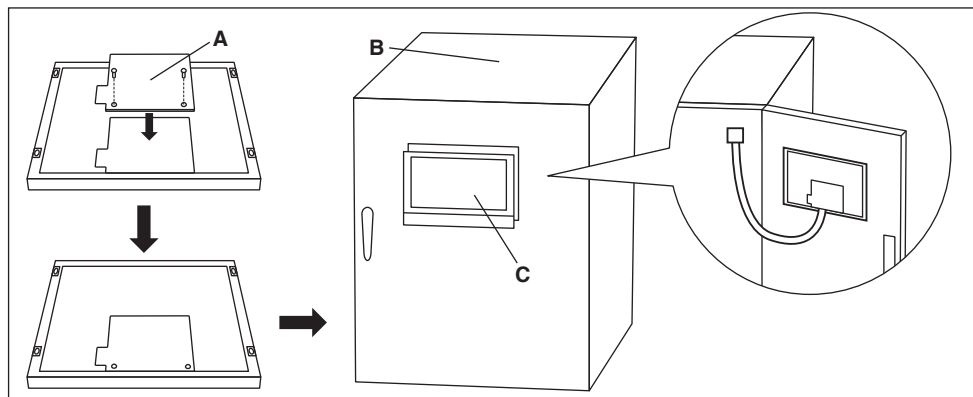
<Installing intelligent Touch Manager body to control enclosure>



- A Pan-head screw
- B Nut

CAUTION

If the intelligent Touch Manager is directly mounted to the control enclosure, you will be exposed to the power line connection terminals when opening the control enclosure door. Touching electrical junctions by hand may result in an electric shock. Attach the terminal cover to the rear face for your safety.



- A Terminal cover
- B Control enclosure
- C intelligent Touch Manager

4 Basic setup of intelligent Touch Manager

After checking that all connections are completed, start the intelligent Touch Manager basic setup. The basic setup refers to the preparative settings for monitoring and controlling the air conditioning system using the intelligent Touch Manager.

Make each setting by following the guidance displayed on the screen after you turn on the power supply of the intelligent Touch Manager.

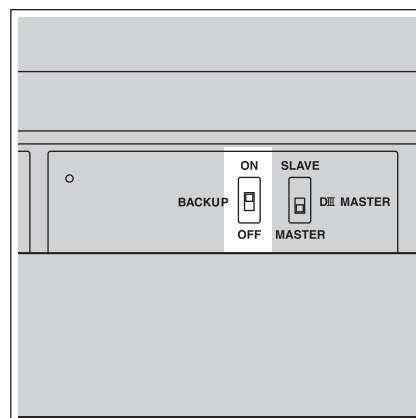
The setting assignment made through this procedure may be changed at a later time.

4.1 Setting backup battery to ON

To retain the settings even in the event of a power outage, the intelligent Touch Manager has a built-in battery. This battery is disabled by default. So first you need to change the battery setting to ON.

1. Open the front slide cover. Take out screws using a Phillips screwdriver to remove the front switch cover.
2. Turn ON the BACKUP switch and attach the front switch cover back to its original position. If the power supply is left off for a long period of time (six months or more), turn OFF the BACKUP switch.

< BACKUP switch >



4.2 Turning on power supply for intelligent Touch Manager and air conditioners

Turn on the power supply for the intelligent Touch Manager and devices that are connected to the intelligent Touch Manager.

1. First turn on the power supply for the air conditioners, and then for intelligent Touch Manager. The Title screen appears and, after a while, the message "Ready to set up A/C centralized address" appears.
Set the DIII-NET addresses using the remote controller of the air conditioner. For details, refer to section 4.7 Setting DIII-NET address for each air conditioner.
2. Touch Close.
The Locale Settings screen appears.

CAUTION

Before turning on the power supply, double-check that all installations and connections are completed correctly.

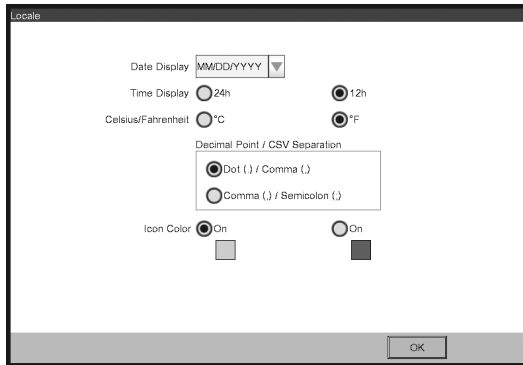
NOTE

The message "Turn ON Battery Backup switch" may be displayed instead of the Locale Setting screen. This message is displayed if you do not turn ON the data backup battery switch in the step 4.1. If the message is displayed, make the setting according to section 4.1 Setting backup battery to ON. When done, touch the OK button shown with the message on the screen. Then, the Locale setup screen appears.

4.3 Setting up locale

Set the display type of date/time, unit of temperature, decimal point type, etc.

<Locale Settings screen>

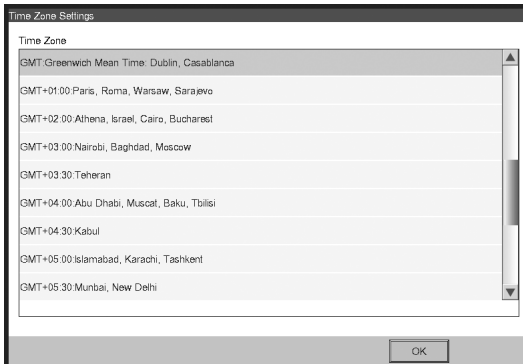


1. [LOCALE] Set the following items on the screen.
 - [Date] Select the date display format.
 - [Time] Select the time display format (24-hour or 12-hour clock).
 - [Celsius / Fahrenheit] Select the temperature display unit (Celsius or Fahrenheit).
 - [Decimal point / CSV separate] Select the marks used as the decimal point and CSV separator. For details, refer to the “User’s Manual (EM11A017)”.
 - [Icon Color] Select the icon color.
2. When setup is done, touch OK.
 - The Time Zone Settings screen appears.

4.4 Setting time zone

Set up the local standard time zone you want to use for the system clock.

<Time Zone Settings screen>



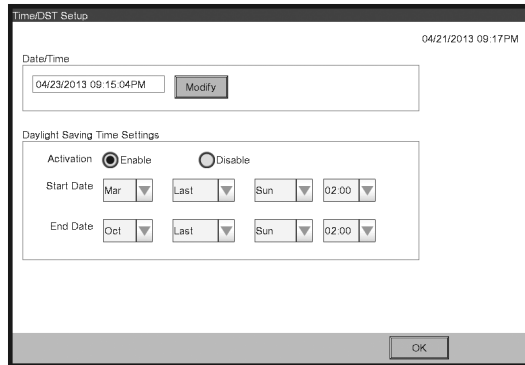
1. On the Time Zone Settings screen, select the time zone of desired region from the list box.
2. Touch OK.
 - The Time/DST Setup screen appears.

4.5

Setting current time and daylight saving time

Adjust the clock and set up the daylight saving time schedule.

<Time/DST Setup screen>



1. On the Time/DST Setup screen, set up the date/time and the daylight saving time schedule. (Enable or disable the daylight saving time function. If enabled, select the start time and the end time.)
2. Touch OK.
The A/C Auto Register screen appears.

4.6

Confirming air conditioner auto registration results

On the A/C Auto Register screen, the message “Below connected A/C units are found. Do you want to register into Management Points? Reboot after registering ...” appears.

1. Check that the number of all air conditioners that are set in section 4.7 Setting DIII-NET address for each air conditioner is correctly displayed.
If you see any problem, touch the Refresh button to reload the up to data information, or review the DIII address settings.
2. When the confirmation dialog appears, touch Yes.
The intelligent Touch Manager restarts and Main screen appears. The intelligent Touch Manager setup has now been completed.

NOTE

When iTM plus adaptor is connected, power on the iTM plus adaptor in advance.

4.7

Setting DIII-NET address for each air conditioner

The DIII-NET system has the control address used to identify each air conditioner group. This is called "DIII-NET address". You must set the DIII-NET address manually using the remote controller of air conditioner. There are several types of the remote controller, and the setting method differs depending on the controller type. This section describes commonly used two types of remote controllers, wired and navigation remote controllers, as examples.

NOTE

For how to set the address for the Ventilator (Heat Reclaim Ventilator) or different adapters (such as a universal adapter), refer to the manuals supplied with those devices.

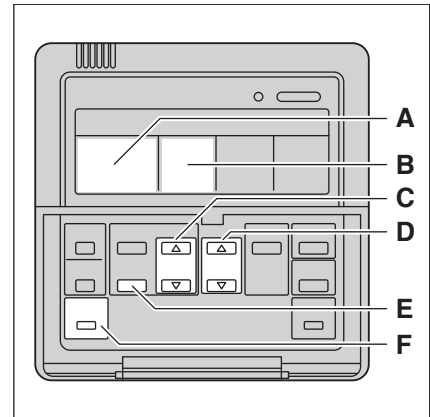
4.7.1

Names of buttons and display areas

The followings are the names of buttons and display areas of the wired remote controller.

<Wired Remote Controller>

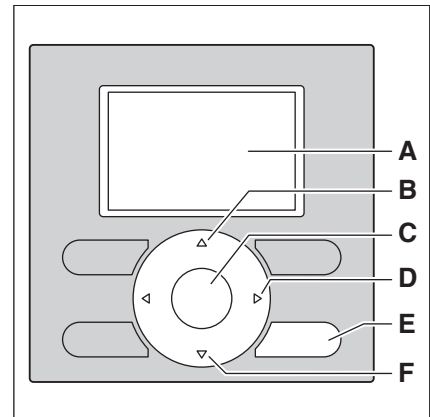
- A Address display area
- B Parameter number display area
- C Programming time buttons
- D Temperature setting buttons
- E SCHEDULE button
- F Inspection / Test operation button



The followings are the names of buttons and display area of the navigation remote controller.

<Navigation Remote controller>

- A Liquid-crystal display (with backlight)
- B Up button ▲
- C Menu / OK button
- D Right button ►
- E Cancel button
- F Down button ▼



4.7.2

Setting address with wired remote controller

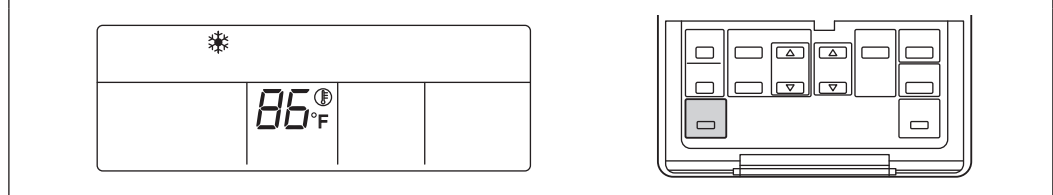
The operation procedure of the wired remote controller is as follows.

NOTE

After power-on, the controller shows the symbol "88" for about 1 minute after displaying all information on its display. During this period, it may not accept your operation. If so, try operating the remote controller again after "88" disappears.

1. Press and hold the Inspection/Test Operation button for 4 seconds or more.

<Step 1>

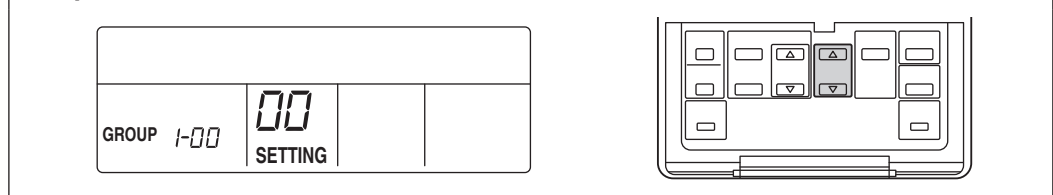


2. "SETTING" appears in the center of remote controller display.

Using the Temperature Setting buttons, change the value shown in the parameter number display area to "00".

In the address display area, the current address setting is displayed. (This area will show "-" if no address is set.)

<Step 2>



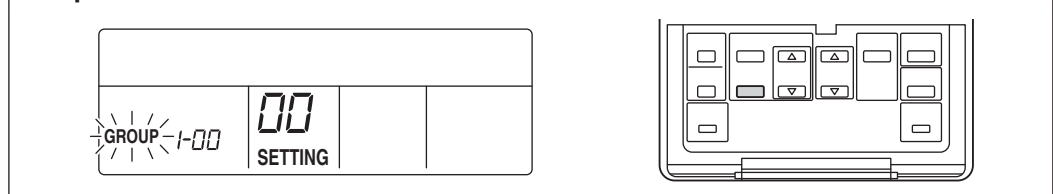
NOTE

The parameter number cannot be changed to "00" when the intelligent Touch Manager is not powered on.

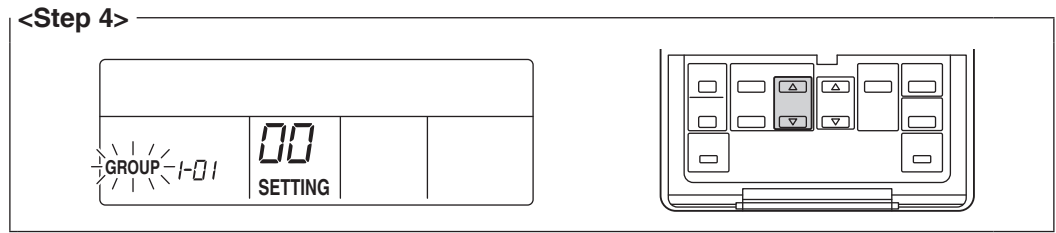
Power on the intelligent Touch Manager and wait for a while before trying to operate the remote controller. You cannot change the parameter number to "00" also when the intelligent Touch Manager is not communicating with the indoor units normally. Check that the cables are connected correctly.

3. Press the SCHEDULE button to make the "GROUP" indicator blink.
You are now ready to change the DIII-NET address.

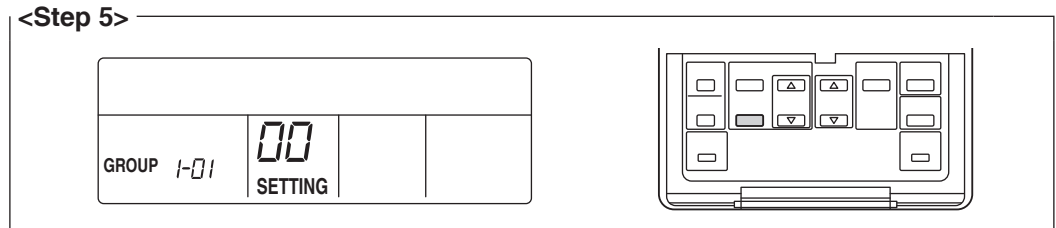
<Step 3>



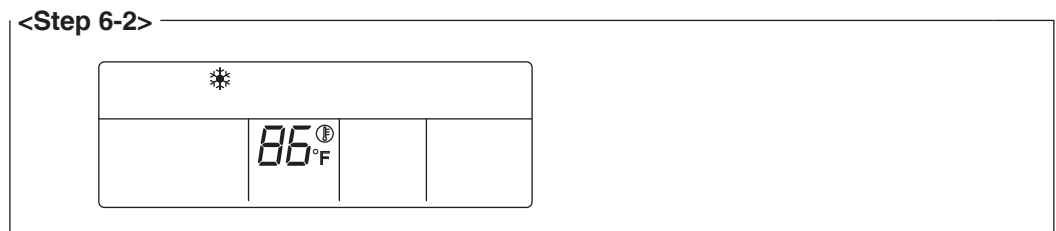
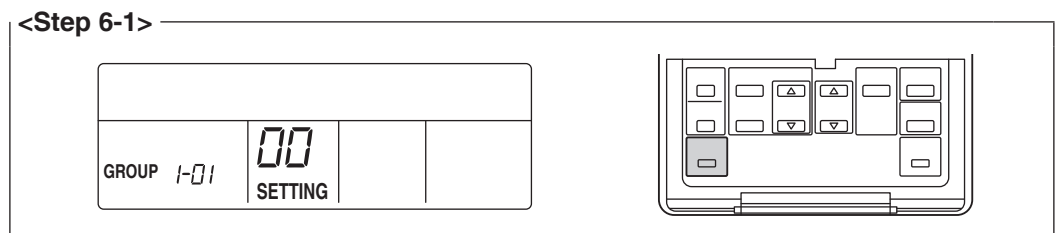
4. Using the Programming time buttons, select the address you want to set.



5. Press the SCHEDULE button to make the “GROUP” indicator stay lit.
The DIII-NET address has been set.



6. Press the Inspection/Test Operation button.
You are now brought back to the screen shown in Step 6-2.



4.7.3

Setting address with navigation remote controller

The operation procedure of the navigation remote controller is as follows.

NOTE

You cannot perform the following procedure when the display backlight is off. In this case, press any key to turn on the backlight before starting the procedure.

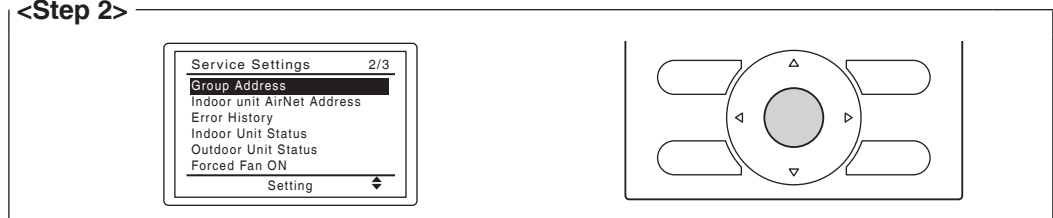
1. Press and hold the Cancel button for 4 seconds or more.
The "Service setting" menu is displayed.

<Step 1>



2. Using the Up/Down buttons, select "Group Address" and press the Menu/OK button.
The "Group Address" menu is displayed.

<Step 2>

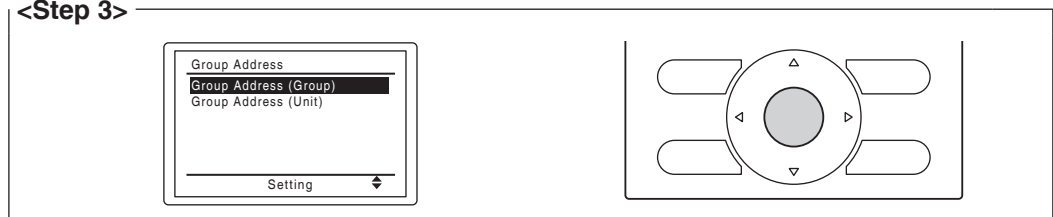


NOTE

The "Group Address" menu is not displayed when the intelligent Touch Manager is not powered on. Power on the intelligent Touch Manager and wait for a while before trying to operate the remote controller. The "Group Address" menu is not displayed also when the intelligent Touch Manager is not communicating with the indoor units normally. Check that the cables are connected correctly.

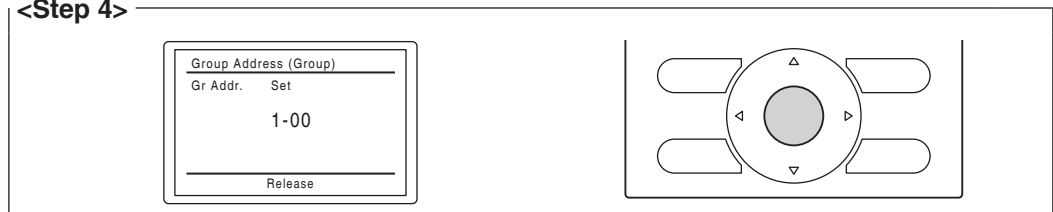
3. Using the Up/Down buttons, select "Group Address (Group)" and press the Menu/OK button.
The current address setting is displayed.

<Step 3>

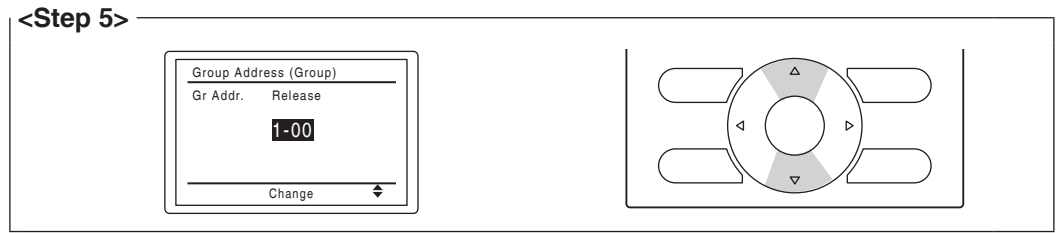


4. Press the Menu/OK button to release the current address setting.
The mode indication changes from "Set" to "Release". You are now ready to change the DIII-NET address.

<Step 4>

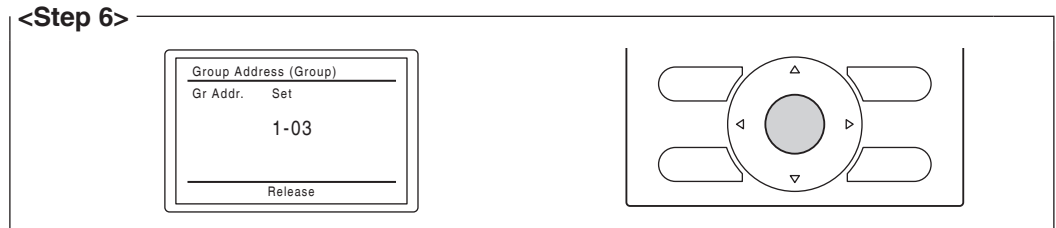


5. Using the Up/Down buttons, select the address you want to set.

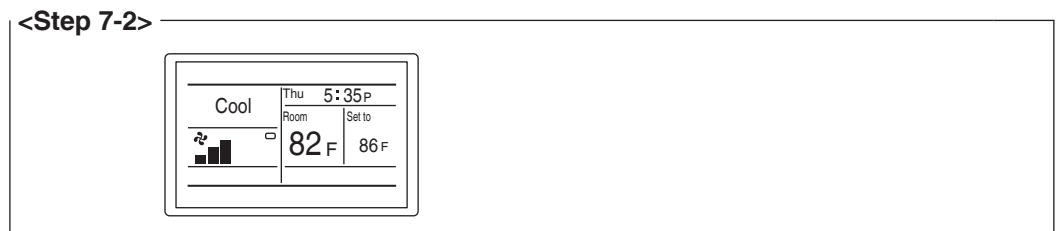
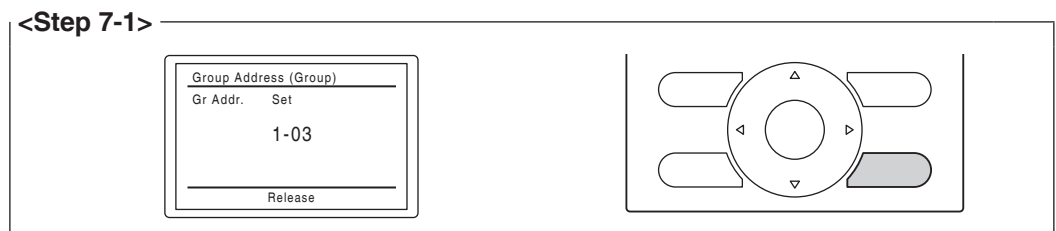


6. Press the Menu/OK button.

The indication changes from “Release” to “Set” and the DIII-NET address is set.



7. Press the Cancel button three times. You are now brought back to the screen shown in Step 7-2.



4.7.4

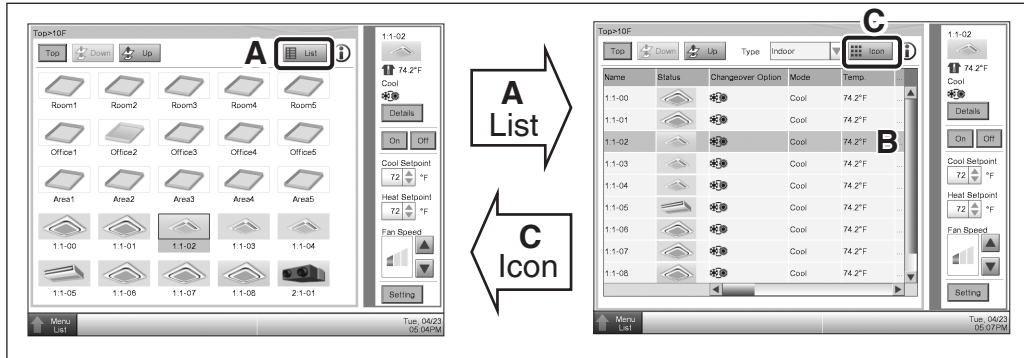
Setting a unique address to each unit (when Power Proportional Distribution (option) is used)

When power distribution is enabled, you need to set a unique address for each unit. For how to set an address, refer to the “Commissioning Manual Supplementary Volume (Power Proportional Distribution (EM11A027))”.

5 Quick Operation Guide

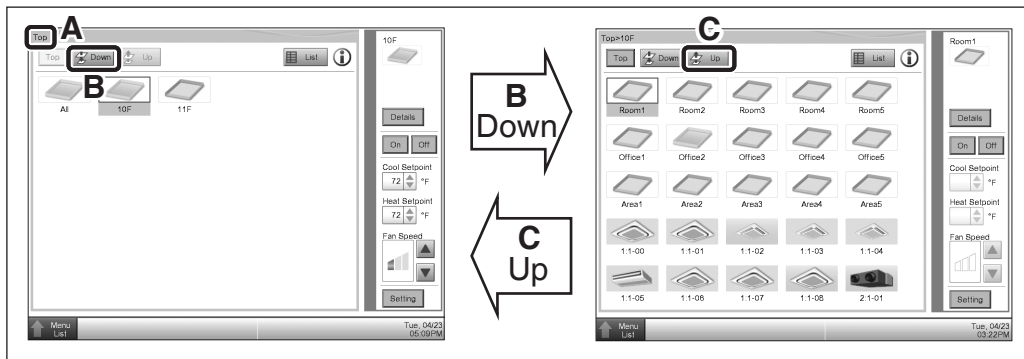
This chapter describes how to start/stop the areas and management points registered with the intelligent Touch Manager and display their information quickly. For detailed operation procedures, refer to the “User’s Manual (EM11A017)”.

5.1 Viewing target area and management point information in list format



- A** Touch the List button.
- B** The screen changes to the list view, where selecting “Indoor” in the Type combo box causes the name, operation mode, setpoint, and fan speed of all areas and indoor units to be listed.
- C** Touch the Icon button to return the Icon view screen.

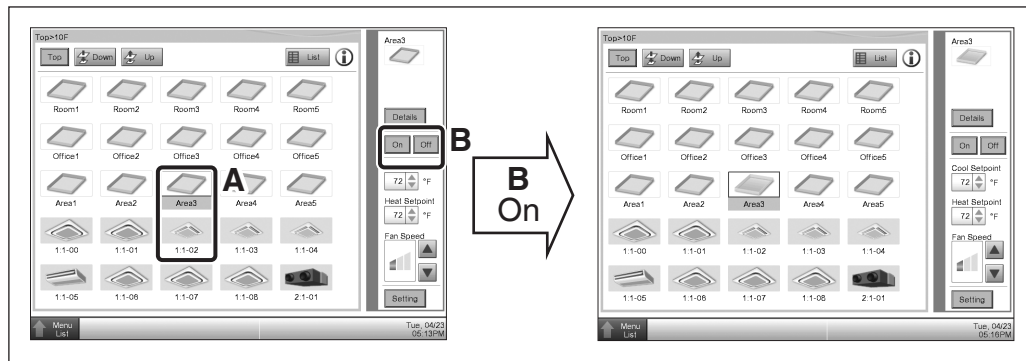
5.2 Displaying areas and management points



- A** The level of the current area and management point is displayed.
- B** Touch the Down button to go to the area being selected and view the areas and management points in it.
- C** Touch the Up button to go to the area one level above the current area.

5.3

Starting/stopping an area or management point



- A** Select the area or management point you want to start or stop.
- B** Select Start or Stop in the On/Off buttons. When operation is started, the icon color changes to green or red (depending on the system setting). When operation is stopped, the color changes to grey.

