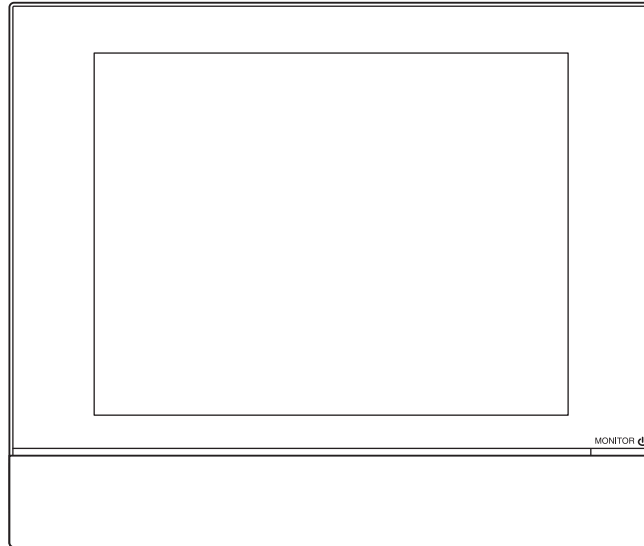

intelligent Touch Manager

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 unit operates properly during the startup operation.

Train the customer to operate and maintain the unit. Inform customers that they should store this Installation Manual with the Operation Manual for future reference.

Always use a licensed installer or contractor to install this product. Improper installation can result in water or refrigerant leakage, 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 leakage, 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 water leakage, 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 leakage and 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 or result in water leakage.

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

Corroding copper pipes or soldered parts may result in refrigerant leakage.

- (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.

- **If water enters inside of the controller, electric shock may be caused and inner electronics may fail.**

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1

Before Installation

Before you start installing the intelligent Touch Manager, complete the following preparations.

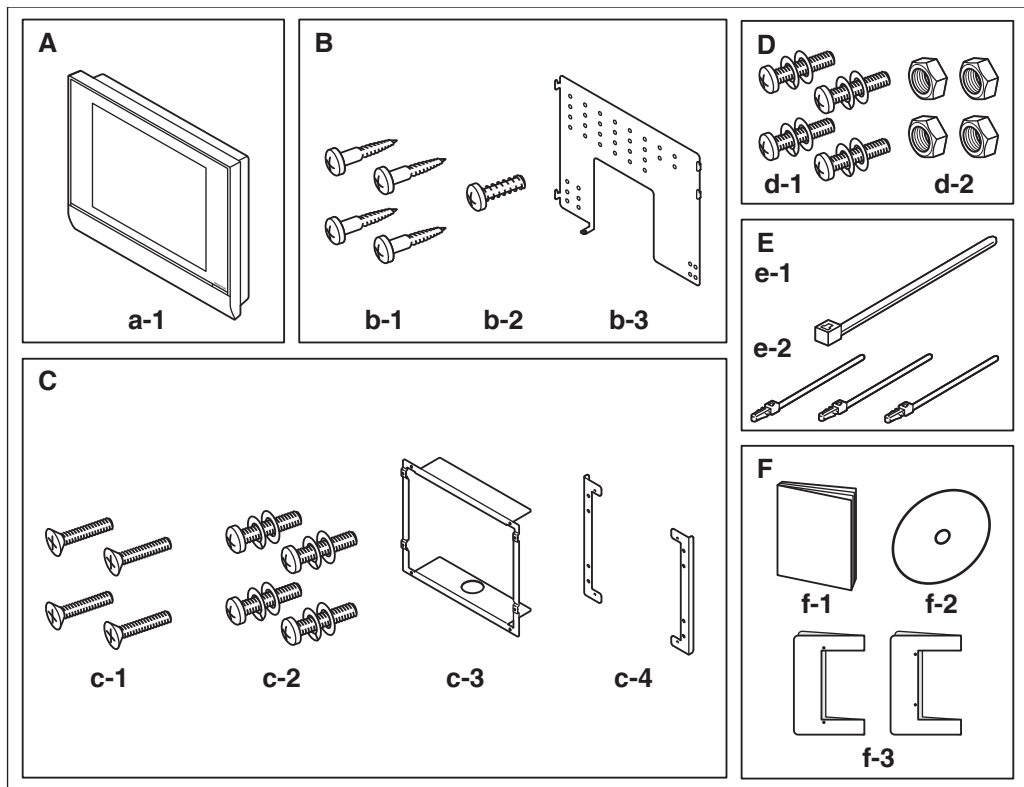
- Check that the intelligent Touch Manager comes with all accessories.
- Confirm where the terminals and switches of the intelligent Touch Manager are located.
- Check that an appropriate space for installing the intelligent Touch Manager is available.

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. Should there be any missing or defective parts, contact your dealer.

<Accessories included with intelligent Touch Manager>

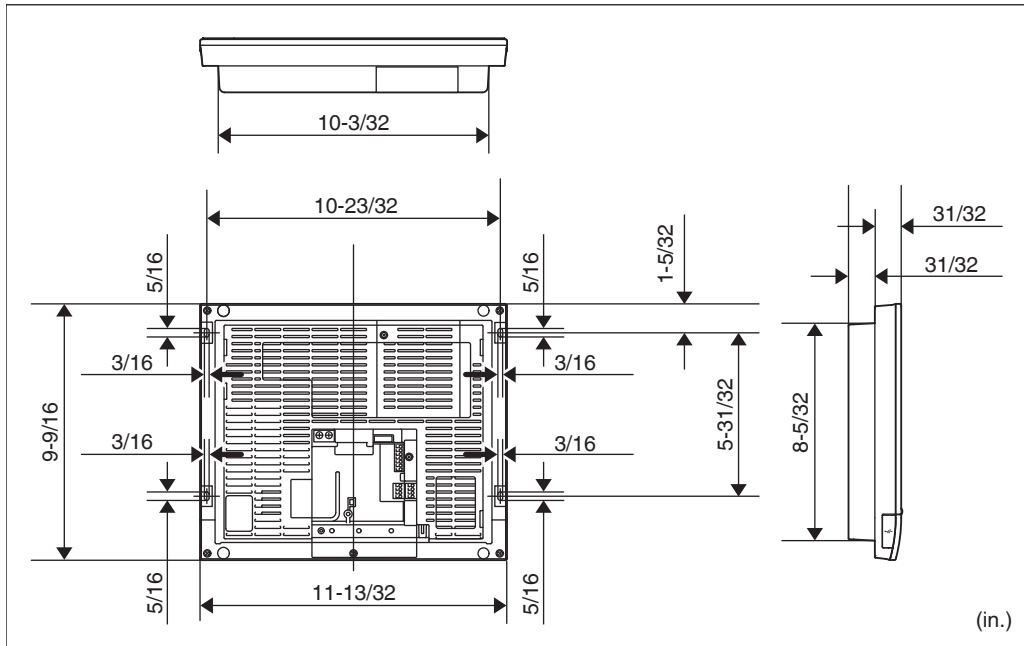


- A** (a-1) intelligent Touch Manager body (1 pc.)
- B** Wall mounting parts
(b-1) Round-head wood screw ($\phi 4.1 \times 25$), 4 pcs. (b-2) P-tight screw ($\phi 3 \times 8$), 1 pc.
(b-3) Wall mounting metal plate, 1 pc.
- C** Flush wall mounting parts
(c-1) Flat-head screw (M4 \times 40), 4 pcs. (c-2) 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 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) Cable tie, 1 pc. (e-2) Push mount tie, 3 pcs.
- F** (f-1) Installation manual (This manual), 1 pc. (f-2) Manual CD, 1 pc.
(f-3) Paper template, 2 pcs.

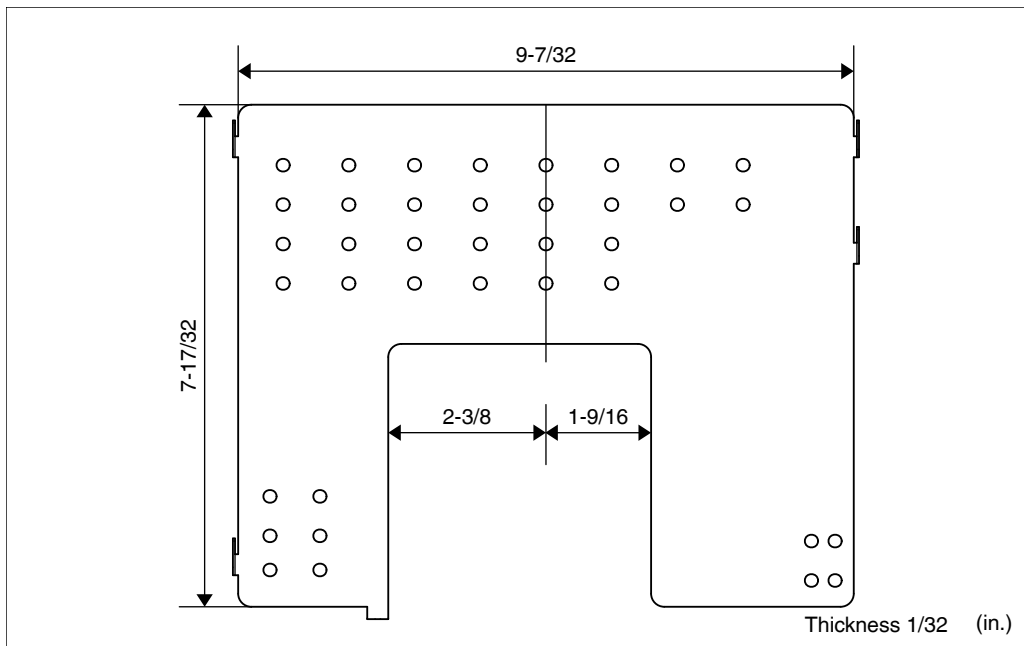
1.2

Understanding external dimensions

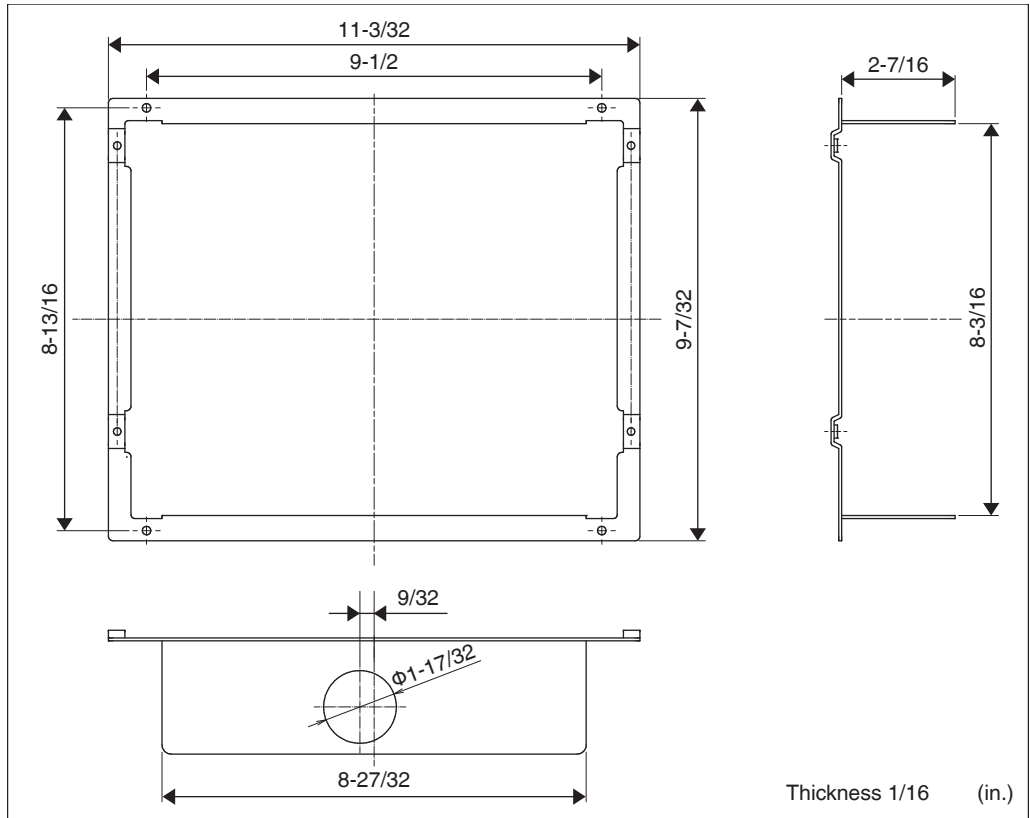
- intelligent Touch Manager body



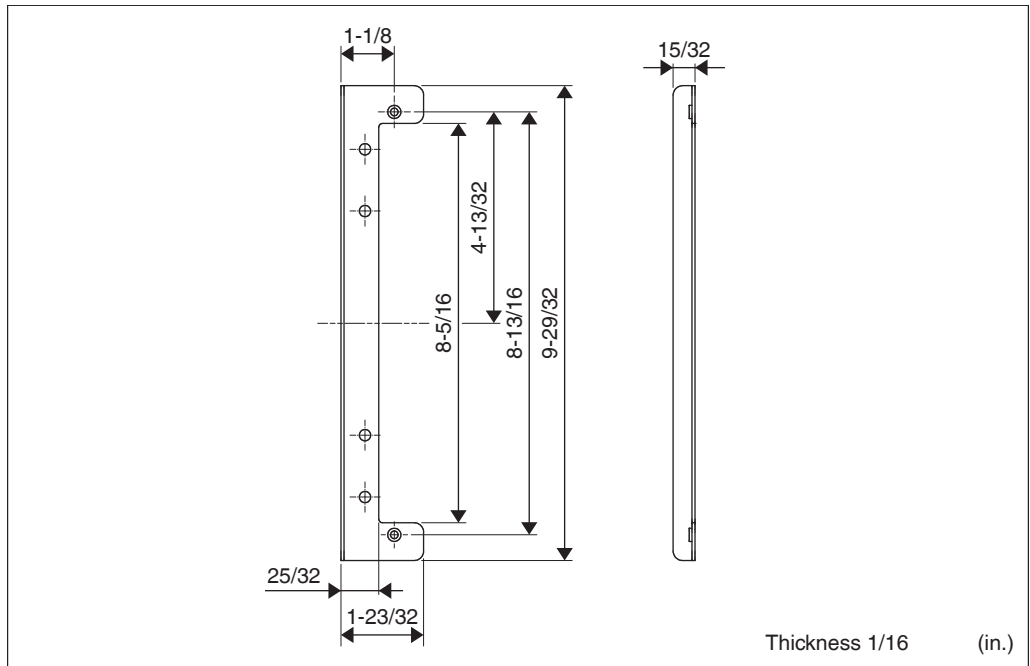
- Wall mounting metal plate



• Frame bracket



• Angle bracket



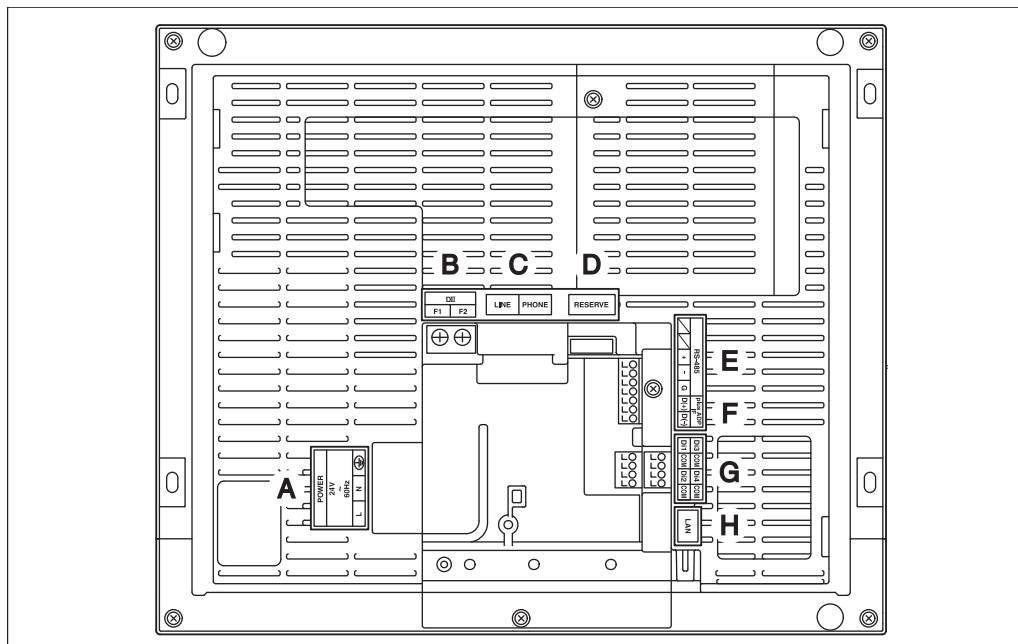
1.3 Understanding where terminals and switches are located

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. Connection”.

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. Removing 2 screws to detach this cover reveals various types of terminals as shown below.

<Rear face of intelligent Touch Manager>



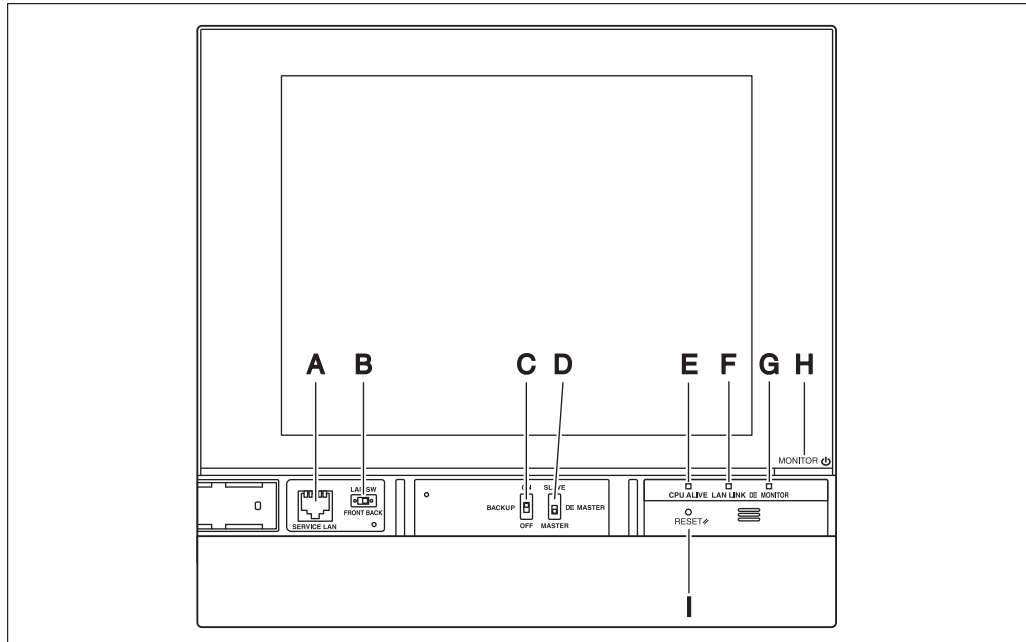
- A [POWER]** The power line connection terminals. A power supply voltage of 24 VAC (at 60 Hz) is required. Near this terminal block, there is a blue resin cable mount used for securing the power supply cables with cable ties.
- B [DI]]** The communication line connection terminals for “DIII-NET”, which enables communications with DAIKIN’s air conditioning equipment.
- C [LINE, PHONE]** The sockets 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 connecting an external signal input device for stopping air conditioners in an emergency, or for connecting electric energy meters for calculating the electricity usage of individual air conditioners.
- H [LAN]** The socket 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>



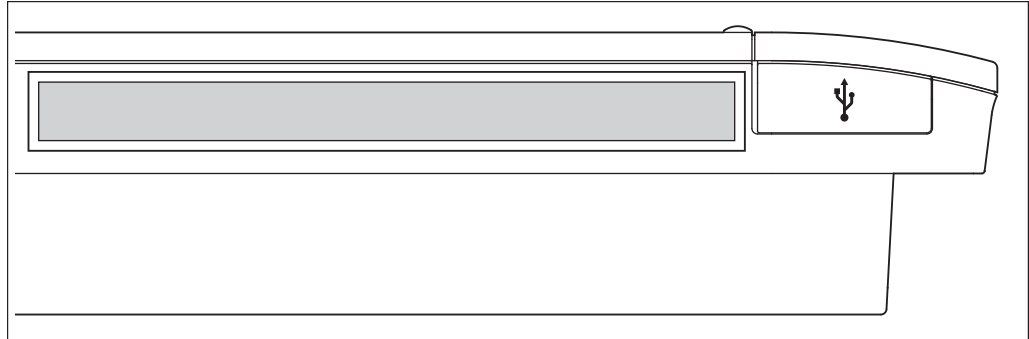
- A [SERVICE LAN]** The socket for temporarily connecting the intelligent Touch Manager to a LAN from its front face, instead of its rear face, during installation or maintenance.
- B [LAN SW]** The switch for selecting which Service LAN socket, one on the front face or one on the rear face, is to be activated.
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 used when there are two or more DIII-NET centralized controllers to select the "MASTER" or "SLAVE" controllers.
- 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: Installation failure
Off: A hardware failure occurred.
- 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 lights green when the LAN port is linked normally.
- G [DIII MONITOR] LED (Yellow)** This LED blinks when data is being sent or received on DIII-NET.
- 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 accordingly to the condition of the monitor display.
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 face of the intelligent Touch Manager, a USB port cover is provided. You use this cover during setup after installation or during maintenance. You also see an attached label, bearing the model, weight, power ratings and the serial number of the intelligent Touch Manager.

<Side face of intelligent Touch Manager>



[ψ] Pulling up the rubber cover reveals a USB socket. This socket can be raised 90 degrees, so you can plug in a USB device to it from the front direction when there is no clearance from the side edge of the unit.

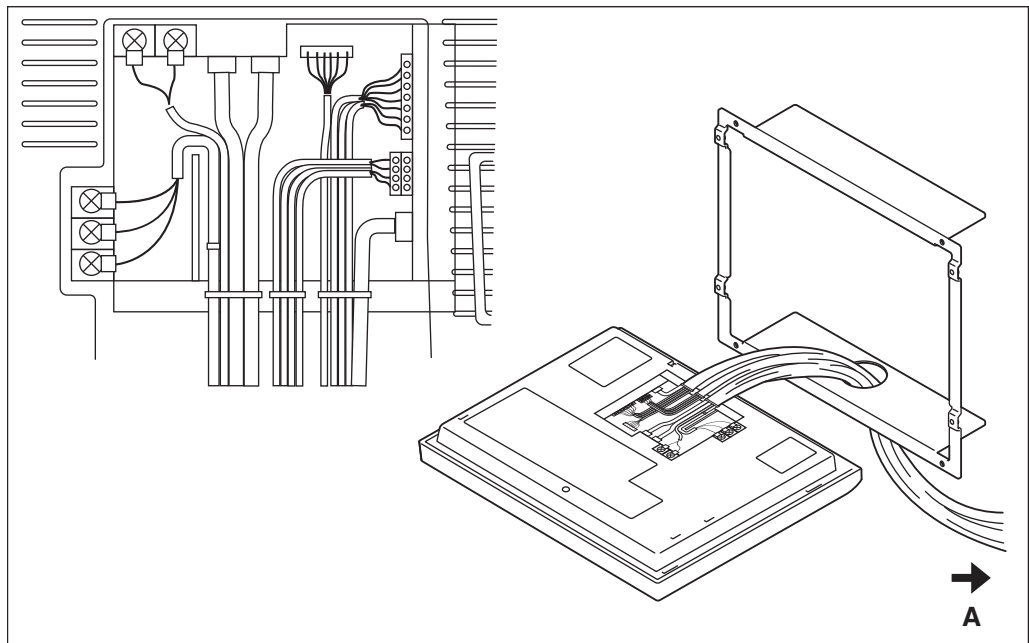
1.3.4

Routing 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.

An example of cables routed to the rear face of the intelligent Touch Manager is shown below.

<Routing of cables>



A To conduit tube

Make sure that each wiring is secured with supplied cable ties.

Secure the power supply cables to the blue resin cable mount with white cable ties and secure them to the other wiring with black cable ties as shown on the wiring diagram (example).

To secure the wiring with black cable ties, insert the cable tie head into the provided hole.

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 through 1.4.3 below.

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
- Mounting direction: Vertical

1.4.2 Environmental conditions

Make sure that the installation environment meets the following conditions.

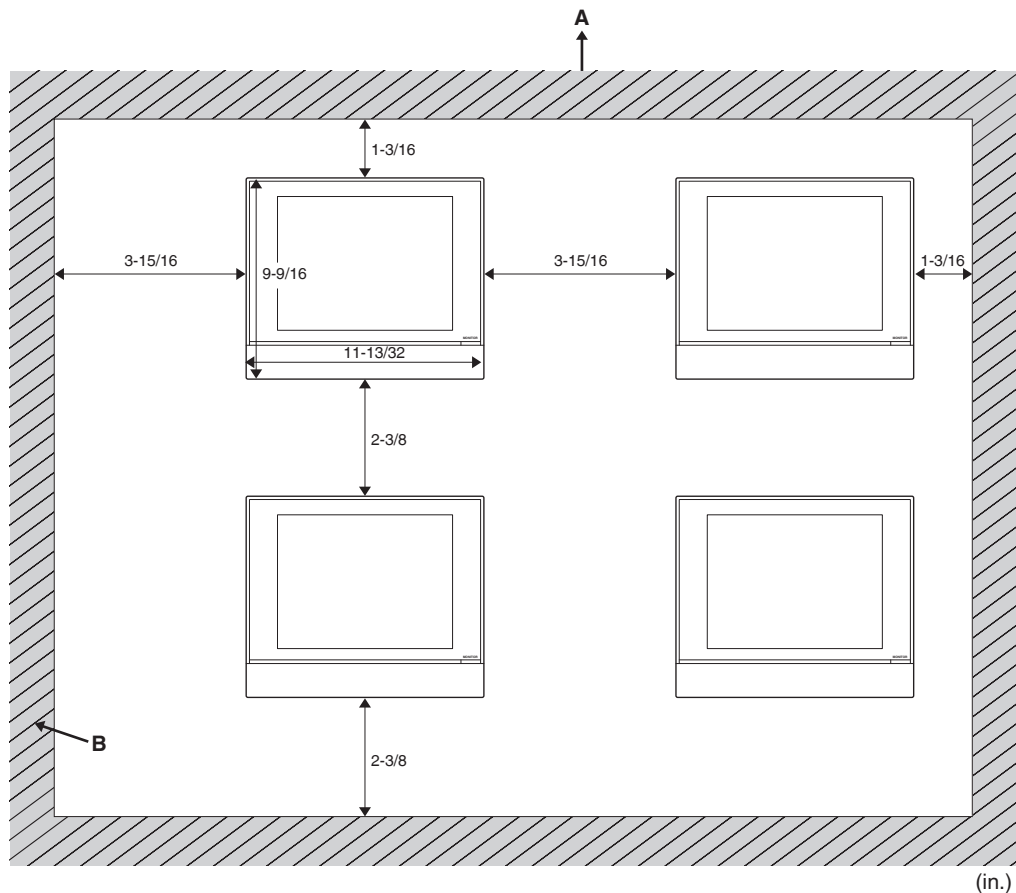
- The ambient temperature must be 32 to 104 °F.
- The ambient humidity must be 85% RH or less (without condensation).
- There must be no electromagnetic disturbance.

1.4.3 Required space

To install the intelligent Touch Manager, the following space is required. 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

Connection

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.

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 electric energy meters
- 2.6 Connecting iTM plus adaptors

WARNING

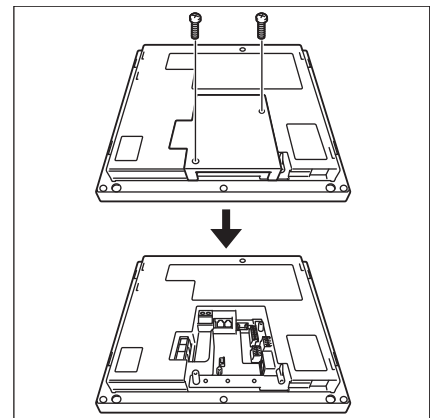
- **Do not turn the power supply on until all connections are made. Also, make sure that the local circuit breaker, if available, is turned off. Not doing so may cause an electric shock.**
- **After completing connections, check again that all wires are connected correctly before turning on the power 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 terminal cover from rear face

Before you start any of these connection procedures, remove the terminal cover from the rear face. To do so, remove two screws using a Phillips screwdriver.

<Removing terminal cover>



2.2

Connecting DIII-NET-compatible air conditioning equipment

DIII-NET is a unique air conditioning equipment communication capability developed by DAIKIN. 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 this procedure with the power supply turned off. 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

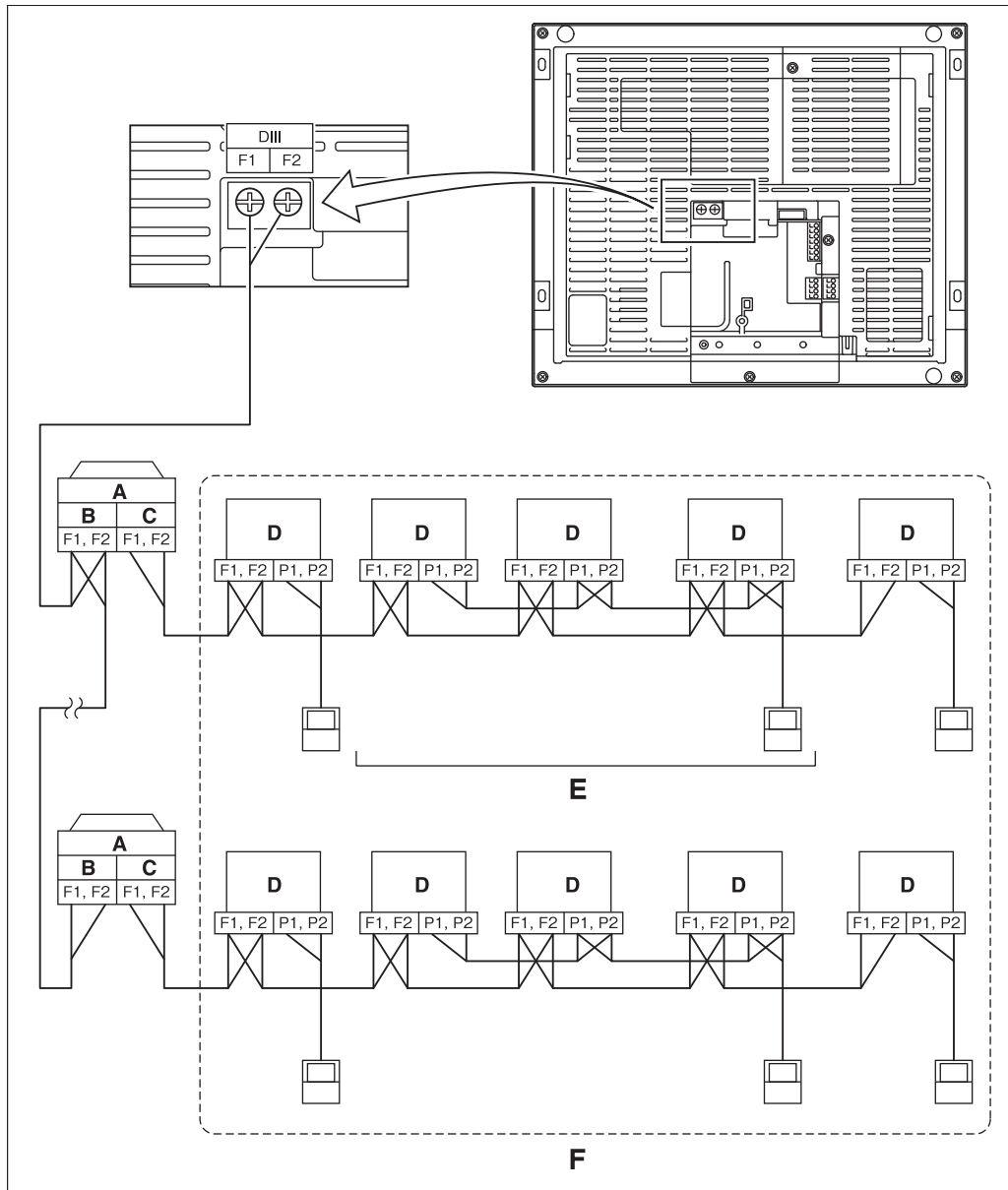
Terminals location and conceptual connection diagram

To connect the DIII-NET communication line, use the 2 terminals F1 and F2 under the label "DIII" on the rear face. 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>



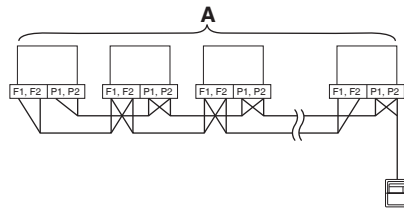
- A** Outdoor unit
- B** OUT - OUT
- C** IN - OUT
- D** Indoor unit
- E** A maximum of 16 indoor units can be connected per remote controller group.
- F** A maximum of 64 remote controller groups (128 indoor units) can be connected.
A maximum of 64 indoor units can be connected when power distribution is enabled.

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.

[Conceptual drawing of a remote controller group]



A Max. 16 units

2.2.2

Requirements that must be met

Cable specifications

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

Precautions

- Do not use multicore cables with three or more cores.
- When using a shielded cable, connect only one end of each shield wire to the ground.
- The maximum wire distance must be kept to 3280 ft. or less. The total wire length must be limited to 6561 ft., except when using a shielded cable whose total wire length must be kept to 4921 ft. or less.

2.2.3

Precautions for using multiple centralized controllers

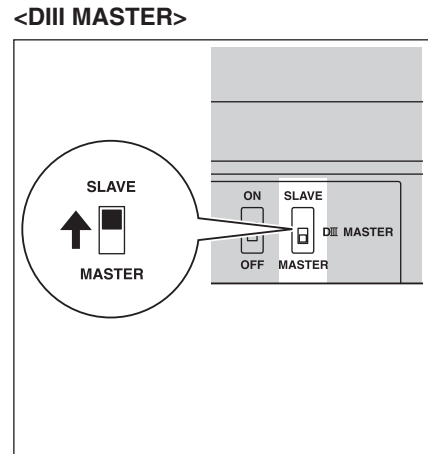
Equipment that controls multiple air conditioners is referred to as “centralized controller”. DAIKIN’s product portfolio includes a wide range of centralized controllers suited to different applications or target sizes, which can be used in combination to construct an optimal air conditioning control system.

If two or more centralized controllers are used in combination in DIII-NET, you must establish a MASTER to SLAVE relationship among those controllers to prevent confusion. The MASTER authority may be assigned to one controller only. The remaining controllers must be set 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.
- Where there is another MASTER intelligent Touch Manager or MASTER iTM plus adaptor, and it is connected in relations of main/sub.

To set the intelligent Touch Manager to SLAVE, use 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.



To install 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 installed in parallel with 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

Connecting your intelligent Touch Manager with a PC network enables you to set up the operation of air conditioning system or perform maintenance work on it from a remote location.



WARNING

Do not clamp the cables with high-current lines such as a power cable.

NOTE

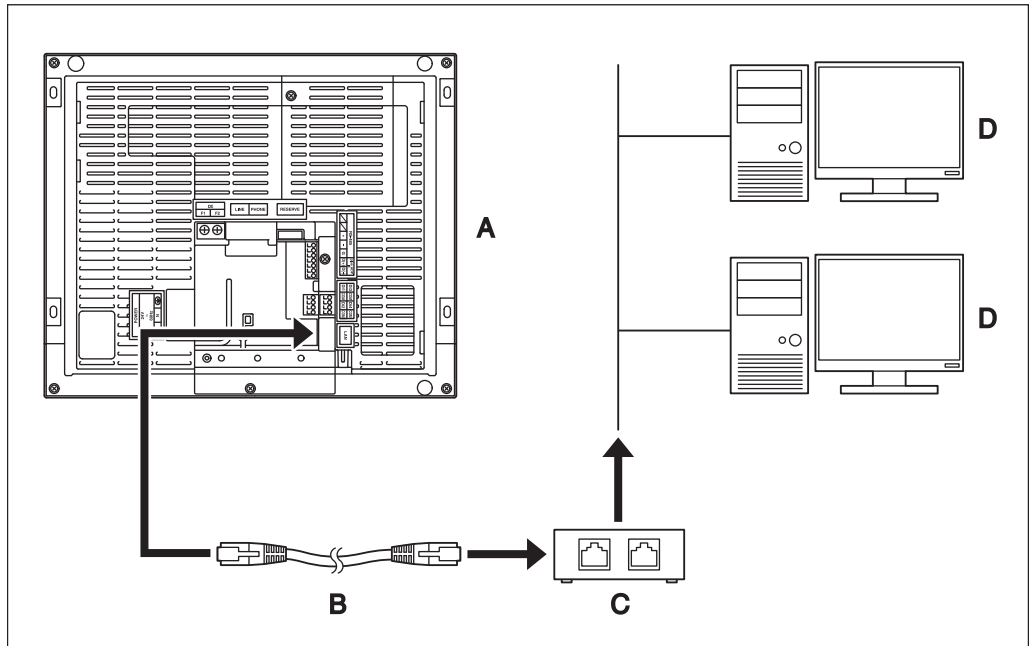
For how to connect the intelligent Touch Manager to a PC network, contact your network administrator.

2.3.1

Terminals location and conceptual connection diagram

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

<Conceptual drawing of LAN connection>



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

2.3.2

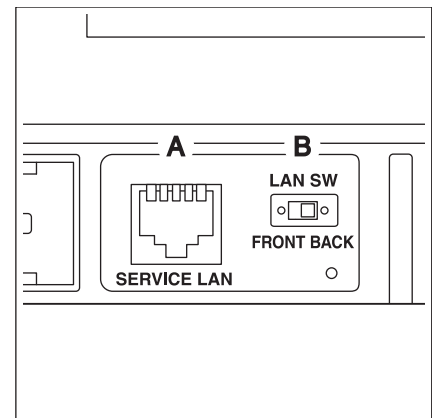
Requirements that must be met

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

NOTE

- If you are connecting to a LAN temporarily during installation or maintenance, use the SERVICE LAN terminal located on the front face.
Changing the position of the LAN SW switch to "FRONT" causes the SERVICE LAN socket to activate (enabled for use).
- 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

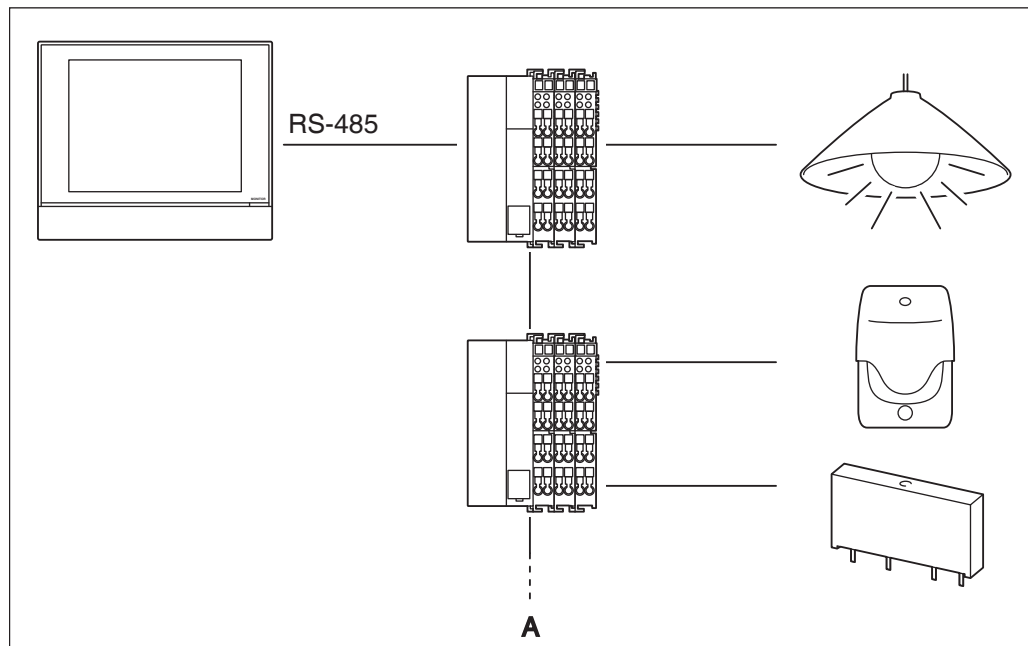
The intelligent Touch Manager can be used in conjunction with the I/O module. The I/O module provides a maximum of 960 I/O points for controlling non-DAIKIN peripheral equipment such as lighting equipment and security lock systems.

WARNING

- Be sure to perform this procedure with the power supply turned off. 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 Terminals location and conceptual connection diagram

<Conceptual drawing of I/O module connection>



A Max. 30 nodes

Connect the I/O module to the RS-485 terminals located on the rear face. Be sure to connect the positive (+) core to the + (positive) terminal and the negative (-) core to the - (negative) terminal, respectively. If you are using shielded stranded wire cables, twist and connect the strands of wire to the G (Ground) terminal.

2.4.2 Requirements that must be met

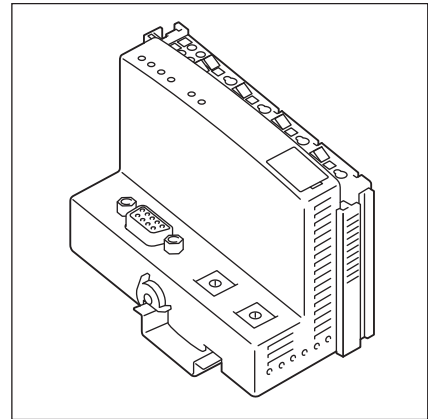
- Cable type: CPEV or FCPEV cable (shielded type also acceptable)
- Cable length: 1640 ft. or less
- Core thickness: AWG 22-19
- Limitation in contacts per node is 120 or less. Maximum number of nodes is 30.
- The intelligent Touch Manager must be connected as a terminal to the RS-485 wiring.

2.4.3

Address setup

The bus coupler located at the beginning of each node has a rotary switch for address setup. You must set a unique address for each node by using the rotary switch. For details, refer to the operation manual for the I/O module.

<Bus coupler>



2.5

Connecting an emergency stop input device or electric energy meters

The intelligent Touch Manager can be connected with an external signal input device for stopping air conditioners in an emergency, or with electric energy meters for calculating the electricity usage of individual air conditioners (when power distribution is enabled).

 **WARNING**

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

NOTE

- Power distribution is available for a maximum of 64 air conditioners (indoor units) per DIII-NET port.
- With 7 iTM plus adaptors, however, you can connect up to 512 indoor units.

2.5.1

Terminals location and conceptual connection diagram

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

[Di1] Emergency stop input

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

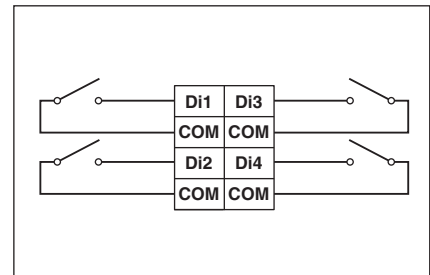
[COM] Common

This function assignment, however, may be changed at a later time. For how to change the function assignment, refer to the commissioning manual.

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.

<Conceptual drawing of Di connection>

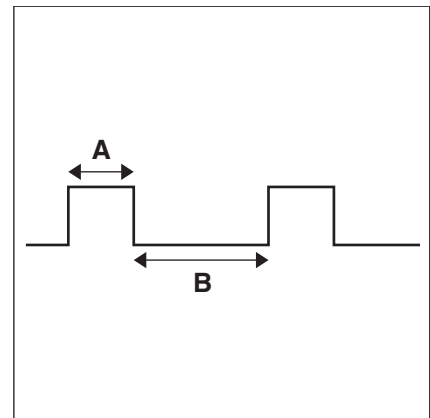


2.5.2

Requirements that must be met

- Cable type: CPEV cable
- Core thickness: AWG 22-19
- Cable length: 656 ft. or less
- Pulse width: 20 to 400 ms
Pulse interval: 100 ms or more

<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.
- Do not clamp the cables with high-current lines such as a power cable.

NOTE

When emergency stop input signal is enabled, you cannot restart all the air conditioners unless you disable it.

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, however, you can connect additional 64 groups of indoor units 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

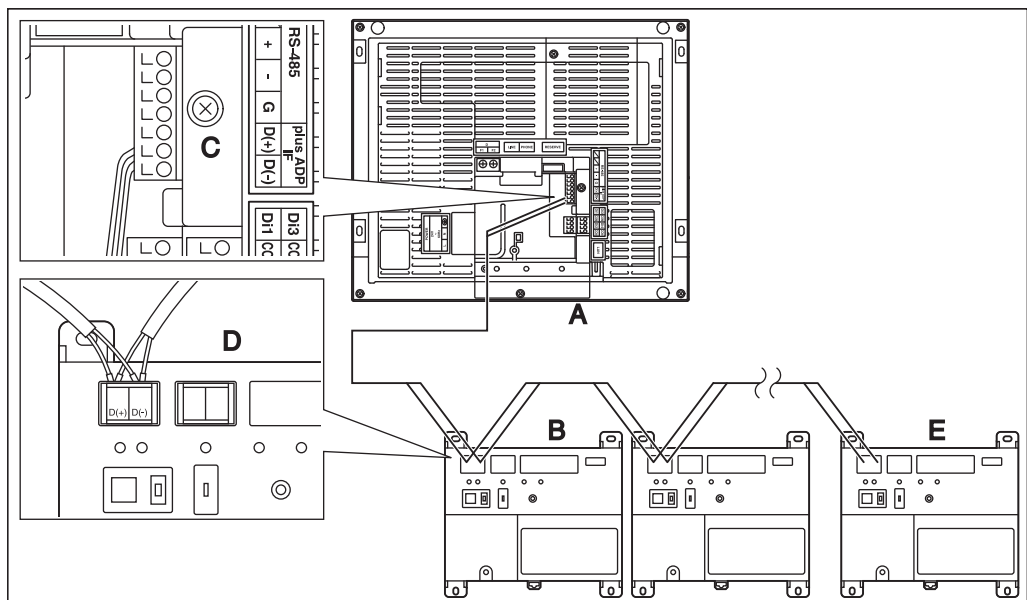
- Be sure to perform this procedure with the power supply turned off. Not doing so may cause an electric shock.
- Do not clamp the cables with high-current lines such as a power cable.

2.6.1

Terminals location and conceptual connection diagram

Connect an iTM plus adaptor to the plus ADP IF terminals located on the rear face. Be sure to connect the positive wire the “+” terminal and the negative wire to the “-” terminal, respectively, as these terminals have polarity.

<Terminals location and conceptual connection diagram>



- A intelligent Touch Manager (Rear face)
- 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

2.6.2

Requirements that must be met

- Cable type: CPEV or FCPEV cable
- Core thickness: AWG 22-19
- Cable length: 164 ft. or less

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 AC power supply.



WARNING

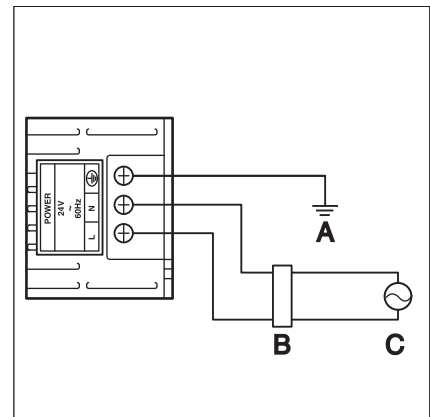
The following procedures must be carried out with the power supply shut off. Do not turn the power supply on until all connections are made. Not doing so may cause an electric shock.

2.7.1

Terminals location and conceptual connection diagram

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

<Conceptual drawing of power supply connection>



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

2.7.2

Requirements that must be met

- 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.**
- **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.**

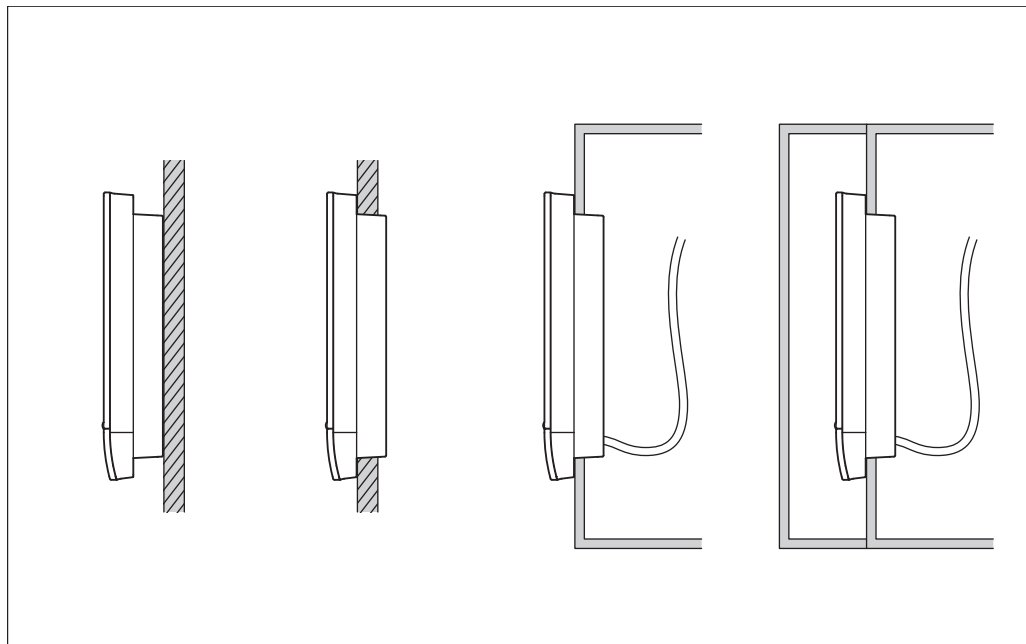
3

Installation

The intelligent Touch Manager can be installed in the following three ways:

- Wall mounting: The intelligent Touch Manager is hooked onto the wall mounting metal plate secured to the wall.
- Flush wall mounting: The rear portion of the intelligent Touch Manager is embedded in the wall.
- Direct mounting to control enclosure: The intelligent Touch Manager is directly installed to the control enclosure using fixing screws.

<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.

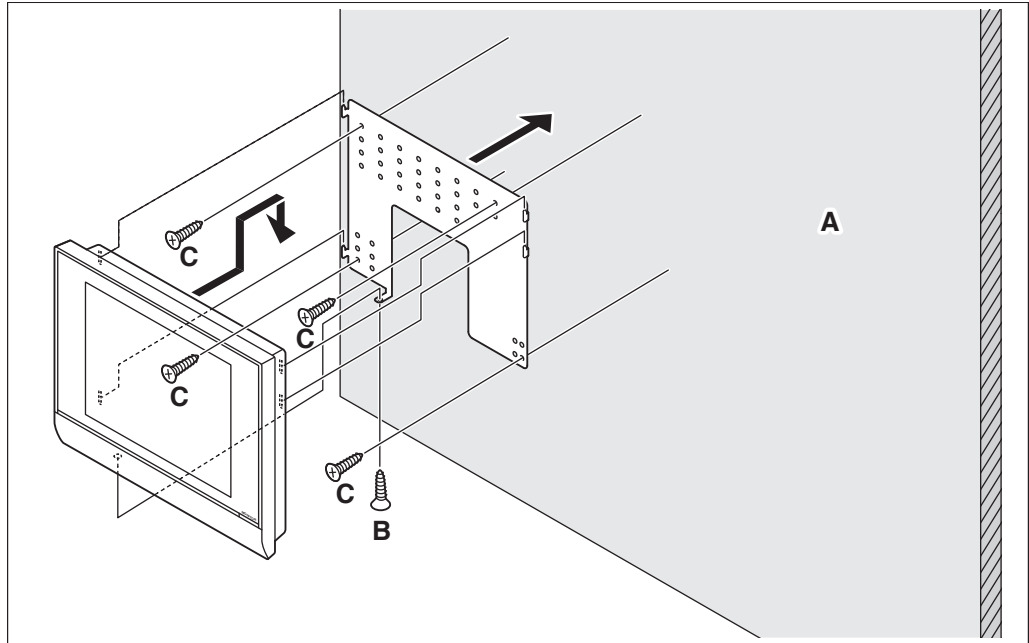
3.1.2 Installation procedure

Install the intelligent Touch Manager as shown in the figure below.

CAUTION

- **The wall mounting metal plate has many holes for round-head wood screws. Although you may use any of these screw holes, use ones closer to the edge as much as possible to prevent wobbling.**
- **Secure the wall mounting metal plate at four points using the round-head wood screws.**

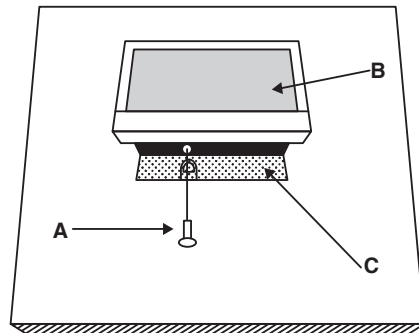
<Wall mounting installation>



- A Wall
- B P-tight screw
- C Round-head wood screw

NOTE

- How to use the P-tight screw
Screw in from the bottom of the intelligent Touch Manager.



- A P-tight screw
- B intelligent Touch Manager
- C Wall mounting metal plate

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.

3.2.2

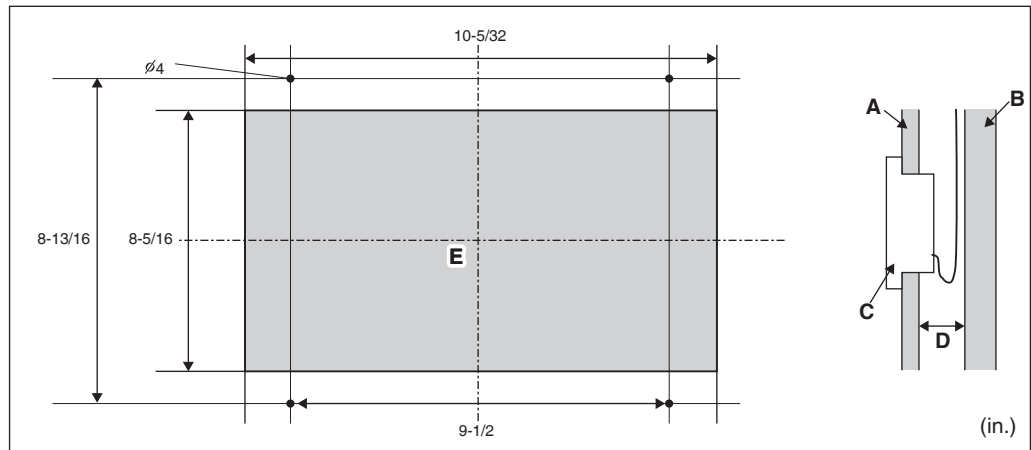
Wall opening dimensions

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.

<Wall opening dimensions for flush wall mounting>



- A Inner wall
- B Building structure
- C intelligent Touch Manager
- D 2-3/8 in. min.
- E Opening

3.2.3

Installation procedure

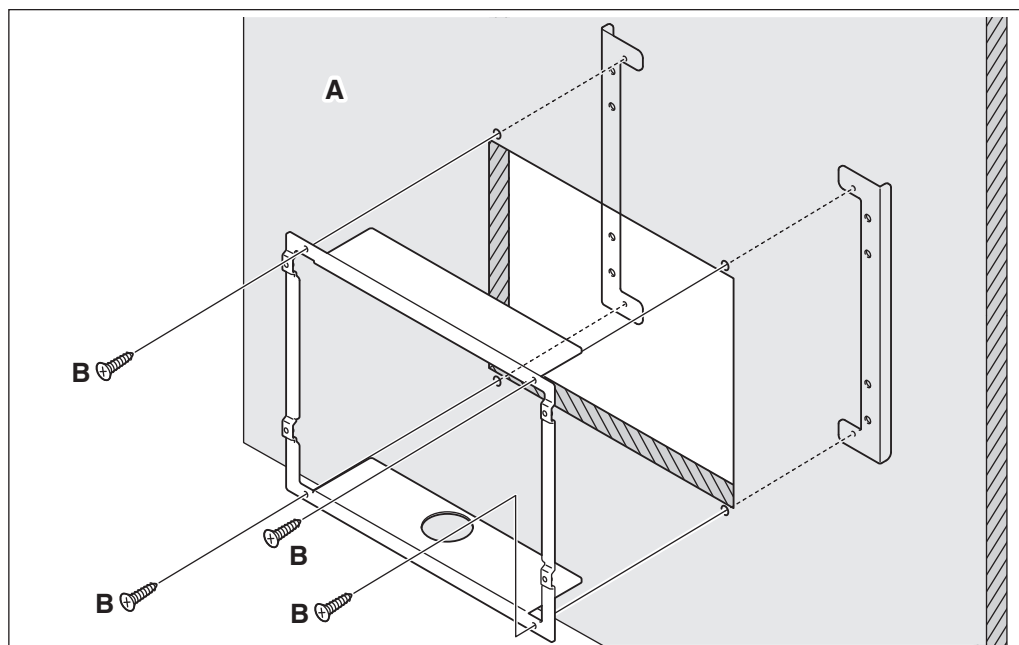
Install the intelligent Touch Manager as follows.

1. First of all, insert the 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 them.

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.
- Before installing the intelligent Touch Manager body, remove the terminal cover from the rear face.

<Securing frame bracket and angle brackets>



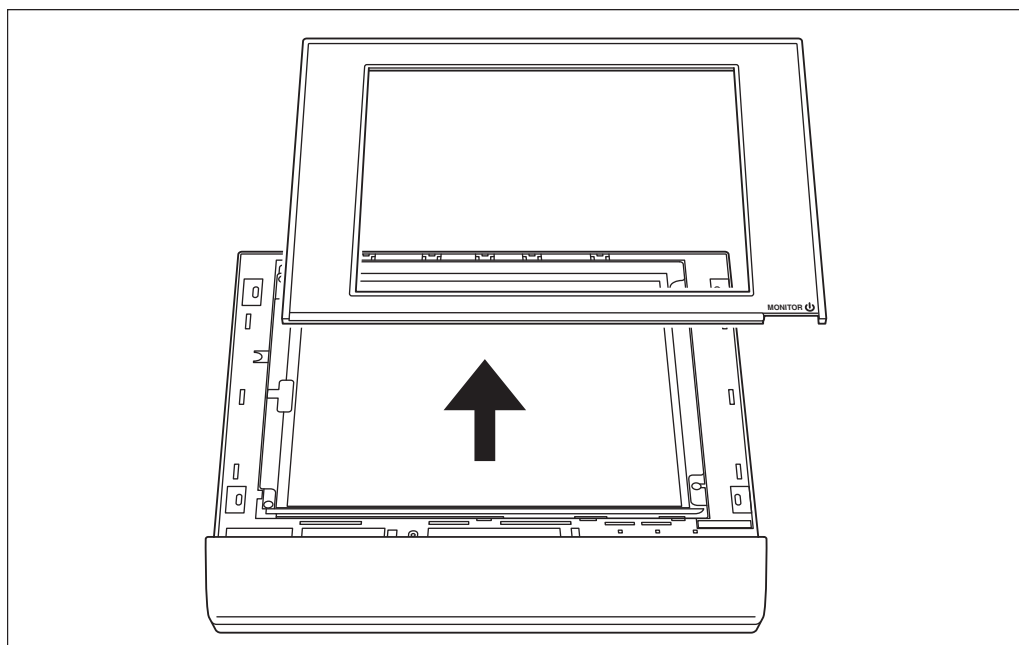
- A** Wall
B Flat-head screw

NOTE

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

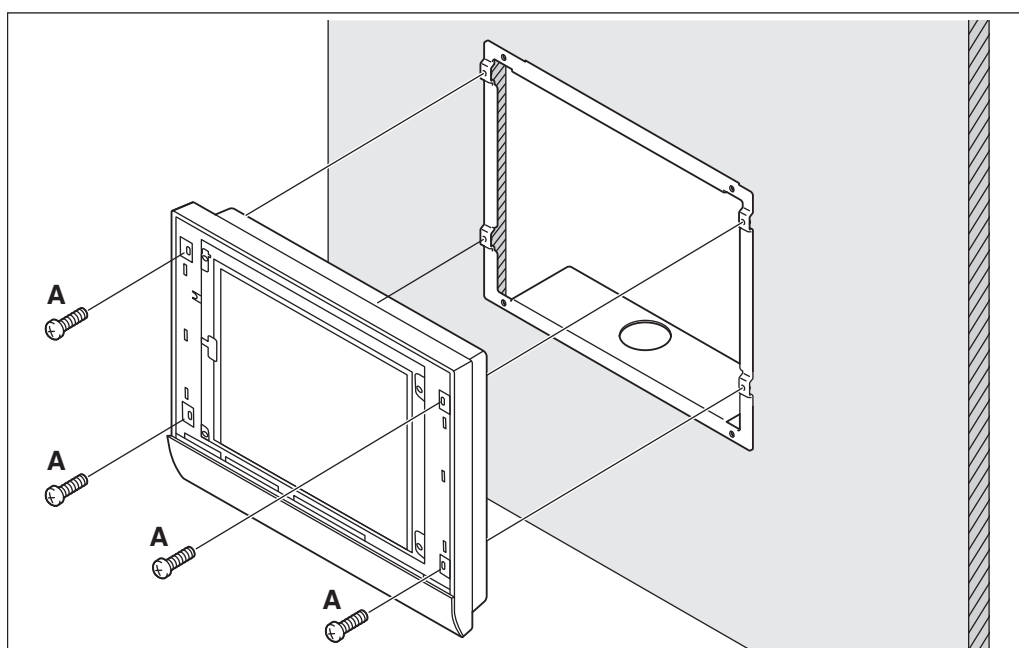
2. Remove the resin frame from the front face of the intelligent Touch Manager. This frame is snapped into the edge of the monitor display. You can remove it by hand as this is not screwed.
Removing the frame reveals four screw holes, two holes each to the left and right of the monitor display.

<Removing frame>



3. Insert the intelligent Touch Manager into the frame bracket secured to the wall and install it to the frame bracket using the pan-head screws.

<Installing intelligent Touch Manager body>



A Pan-head screw

4. Snap the resin frame back into the front face of the intelligent Touch Manager as it was before.

3.3 Direct 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.

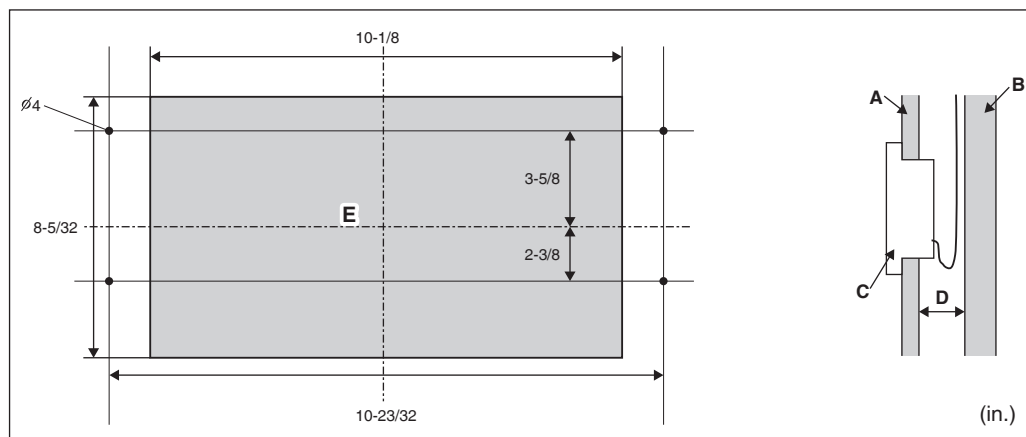
3.3.2 Wall opening dimensions

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.

<Wall opening dimensions for direct mounting to control enclosure>

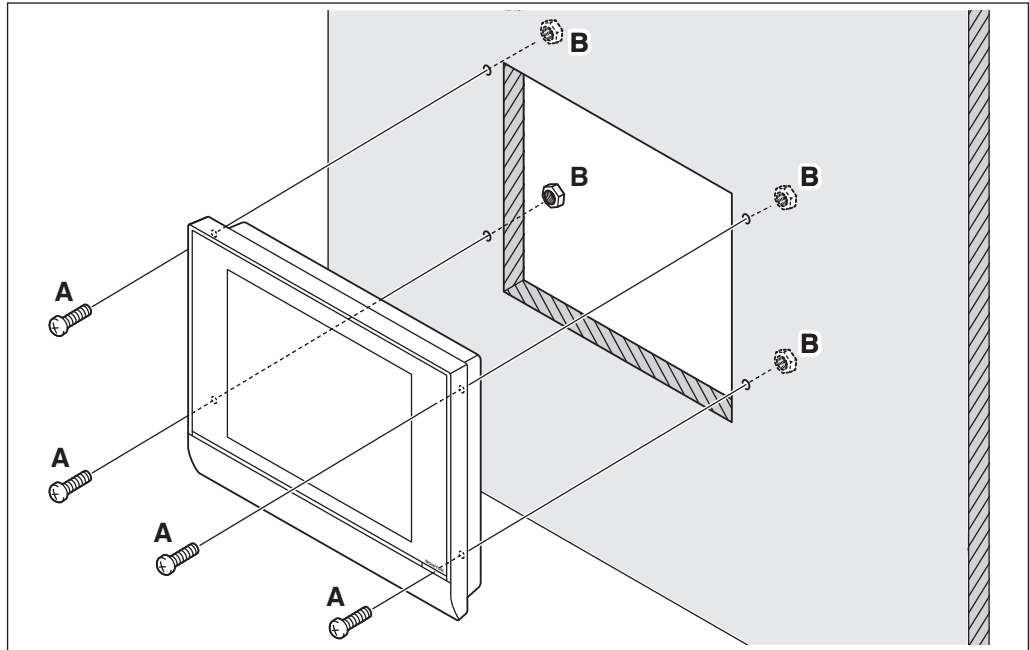


- A** Control enclosure face plate
- B** Control enclosure inner wall
- C** intelligent Touch Manager
- D** 31/32 in. min.
- E** Opening

3.3.3 Installation procedure

1. Remove the resin frame from the front face of the intelligent Touch Manager. This frame is snapped into the edge of the monitor display. You can remove it by hand as this is not screwed.
Removing the frame reveals four screw holes, two holes each to the left and right of the monitor display.
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. Snap the resin frame back into the front face of the intelligent Touch Manager as it was before.

<Installing intelligent Touch Manager body to control enclosure>



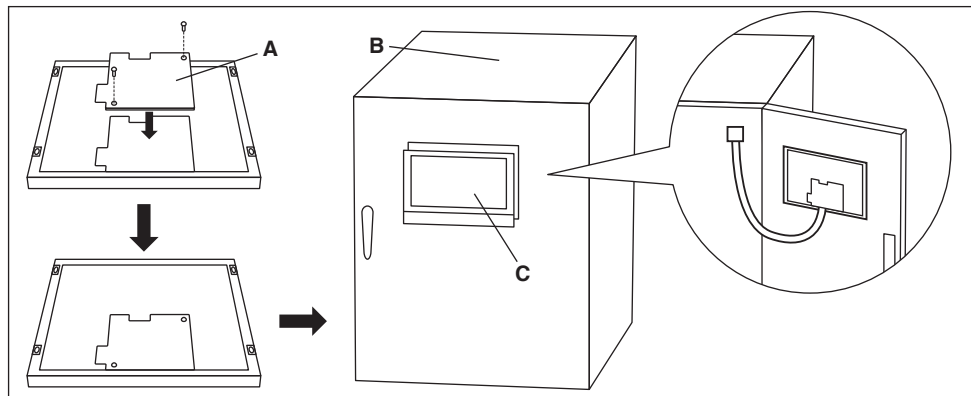
A Pan-head screw

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.

To prevent the risk of an electric shock by accidentally touching these power terminals, for safety, be sure to attach the terminal cover before starting the installation procedure.



A Terminal cover

B Control enclosure

C intelligent Touch Manager

4 Basic Setup

If you are sure that all connections have been made, proceed to the basic setup of the intelligent Touch Manager. Here, “basic setup” means setting up the intelligent Touch Manager in preparation for controlling the operation of your air conditioning system.

Turning on the power of the intelligent Touch Manager starts a setup program that lets you complete the basic setup procedure. You can complete the basic setup procedure by following the instructions displayed on the monitor display in steps.

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

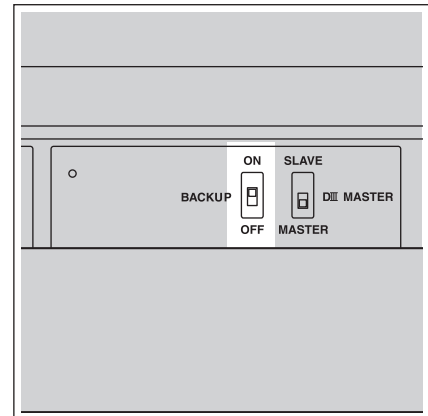
The following sections appear in the order of the setup steps.

4.1 Powering on data backup battery

To retain the settings even in the event of a power outage, the intelligent Touch Manager has a built-in battery. Because this battery is disabled by default, the first thing you should do is to enable it.

Open the front slide cover and turn the screws to remove the front slide cover. Set the BACKUP switch to “ON”.

< BACKUP switch >



4.2 Powering on intelligent Touch Manager and air conditioners

Turn on the intelligent Touch Manager and the air conditioners connected to it.

1. First power on the air conditioners and then power on the intelligent Touch Manager. The Title screen appears and, after a while, the message “Ready to set up A/C centralized address” appears.

“A/C centralized address” (hereinafter referred to as “DIII-NET address”) refers to a management number for identifying each air conditioner in a DIII-NET system. **A DIII-NET address needs to be assigned manually using the remote controller for each air conditioner. Refer to “4.8 Assigning a DIII-NET address for each air conditioner” for how to assign a DIII-NET address.**

When finished assigning air conditioner addresses, proceed to the next step.

2. Touch OK.
The Language Settings screen appears.

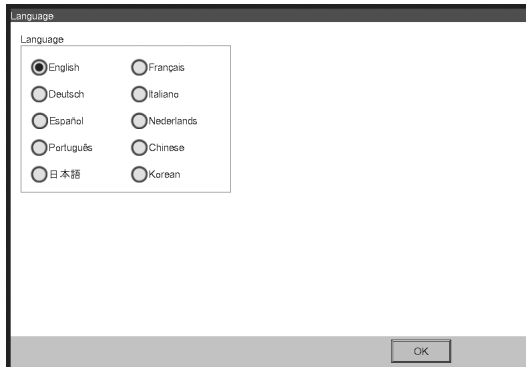
CAUTION

Before power-on, make sure that all installation and connection procedures are done without problems.

4.3 Setting up display language

Set up the display language used throughout the intelligent Touch Manager setup screens.

<Language Settings screen>



1. Touch the desired language from those listed on the screen.
The radio button next to the language you touched is now selected.
2. Touch OK.
The Locale Settings screen appears.

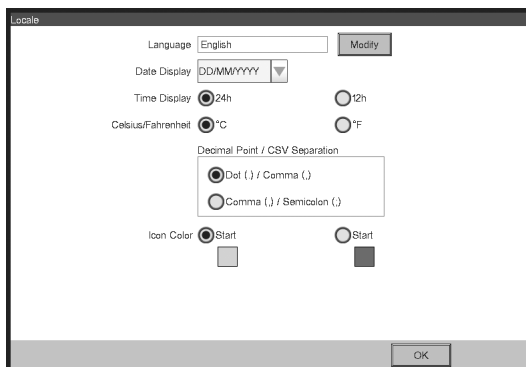
NOTE

If the message “Turn ON Battery Backup switch” appears instead of the Locale Settings screen, it means that you did not turn on the data backup battery in 4.1. If so, refer to “4.1 Powering on data backup battery” to turn on the data backup battery. When done, touch the OK button shown with the message on the screen. Then, the Locale setup screen appears.

4.4 Setting up locale

“Locale setup” allows to set up how you want to see items that are expressed in different ways depending on the region, such as the date/time, temperature, and decimal point, on the display.

<Locale Settings screen>



1. [LOCALE] Select the desired options on the Locale Settings screen.
 [Language] Select the display language.
 [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 decimal point symbol and the delimiter for CSV files. For details, refer to the user's manual.
 [Icon Color] Select the icon color.
2. When setup is done, touch OK.
 The Time Zone Settings screen appears.

4.5 Setting time zone

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

<Time Zone Settings screen>

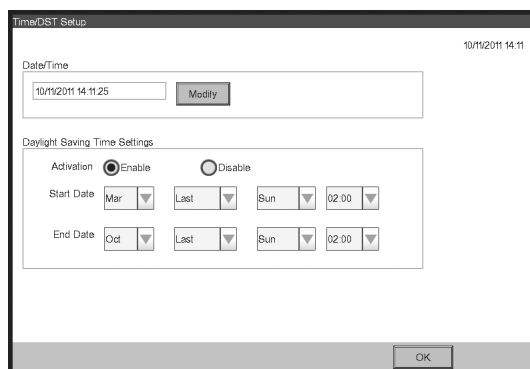


1. On the Time Zone Settings screen, select the time zone of desired region from the list box.
2. Touch OK.
 The Time/DST Setup screen appears.

4.6 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.

4.7

Confirming air conditioner auto registration results

On the A/C Auto Register screen, the message “The following A/C has been connected. Do you want to register for Mng.Point? The system will restart after the registration”. appears.

1. Make sure that all air conditioners for which you assigned a DIII-NET address in “4.8 Assigning a DIII-NET address for each air conditioner” are displayed.
If you see any problem, touch Show Updates to reload the up-to-date 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.

4.8

Assigning a DIII-NET address for each air conditioner

In a DIII-NET system, there is a management number for identifying each air conditioner. This can be referred to as DIII-NET address. A DIII-NET address needs to be assigned manually using the remote controller for each air conditioner.

There are remote controllers of several types, each requiring a different way of assigning a DIII-NET address. This section describes commonly used two types of remote controllers, wired and navigation remote controllers, as examples.

NOTE

For how to assign addresses for Ventilator (Heat Reclaim Ventilator) equipment and various adaptors (such as a universal adaptor), refer to the manual for each product.

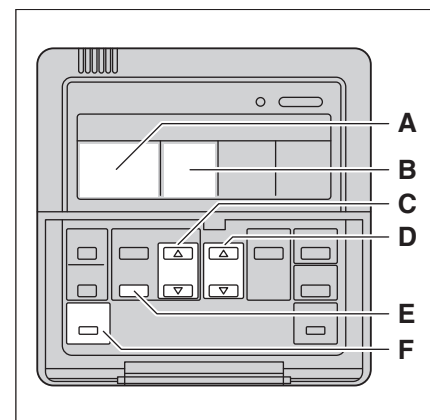
4.8.1

Remote controller buttons and areas

The names of buttons and areas of a wired remote controller used in this section are shown below.

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

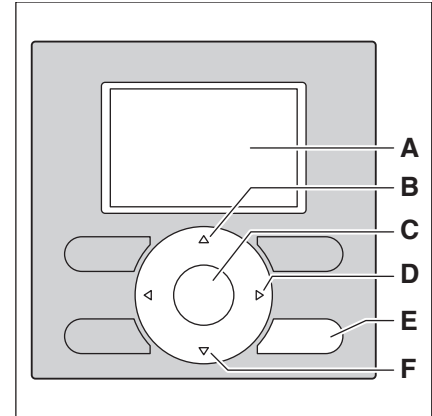
<Wired Remote Controller>



The names of buttons and areas of a navigation remote controller used in this section are shown below.

- A Display
- B Up button
- C Menu / Enter button
- D Right button
- E Cancel button
- F Down button

<Navigation Remote controller>



4.8.2

Procedure for a wired remote controller

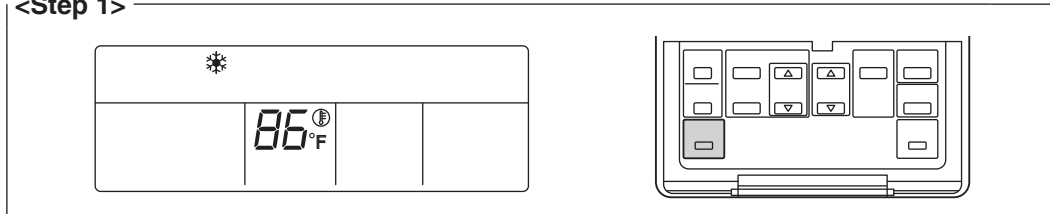
The following describes how to assign a DIII-NET address when a wired remote controller is installed.

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.

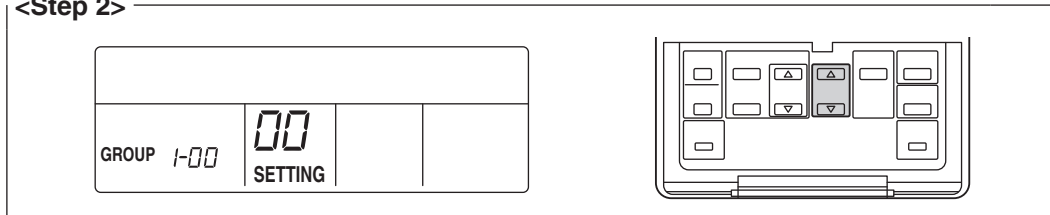
1. Press and hold the Inspection/Test Operation button for 4 seconds or more. "SETTING" appears in the center of remote controller display.

<Step 1>



2. 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>

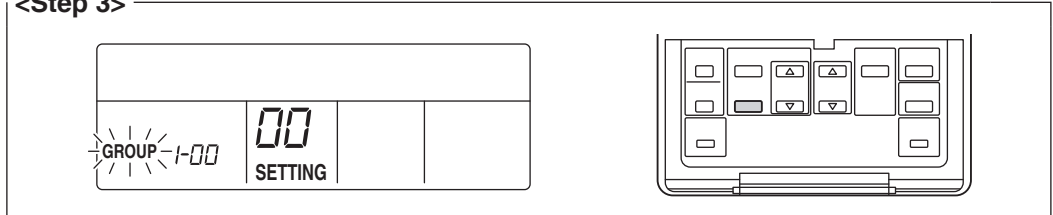


NOTE

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. Make sure that the cables are connected correctly.

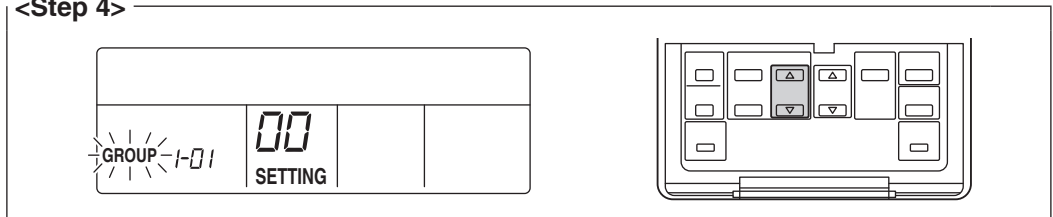
3. Press the Timer ON/OFF button to make the “GROUP” indicator blink.
You are now ready to change the DIII-NET address.

<Step 3>



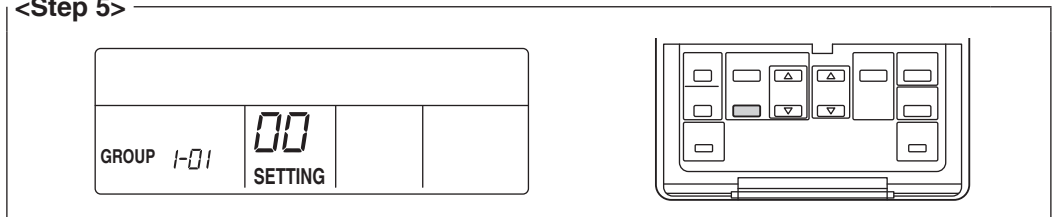
4. Using the Programming time buttons, select the address you want to set.

<Step 4>

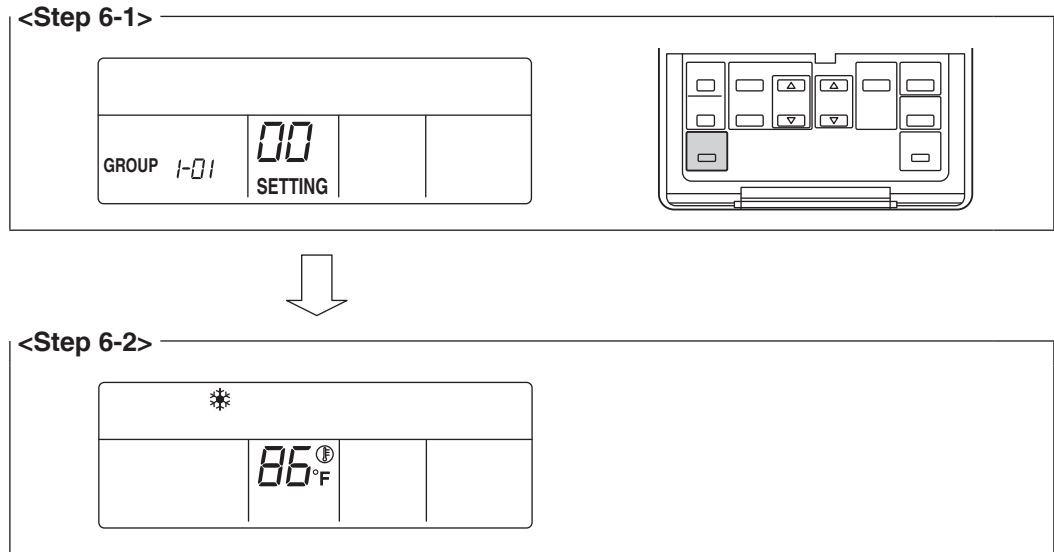


5. Press the Timer ON/OFF button to make the “GROUP” indicator stay lit.
The DIII-NET address has been set.

<Step 5>



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



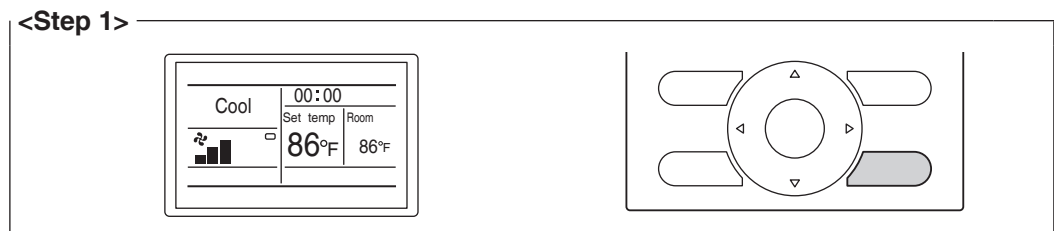
4.8.3 Procedure for a navigation remote controller

The following describes how to assign a DIII-NET address when a navigation remote controller is installed.

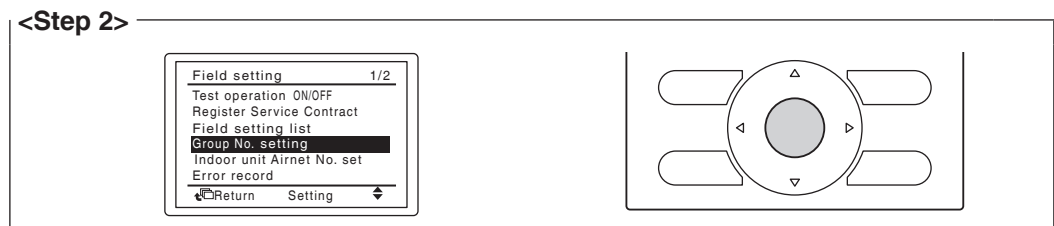
NOTE

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.

- Press and hold the Cancel button for 4 seconds or more.
The “Field setting” menu is displayed.



- Using the Up/Down buttons, select “Group No. setting” and press the Menu/Enter button.
The “Group No. setting” menu is displayed.

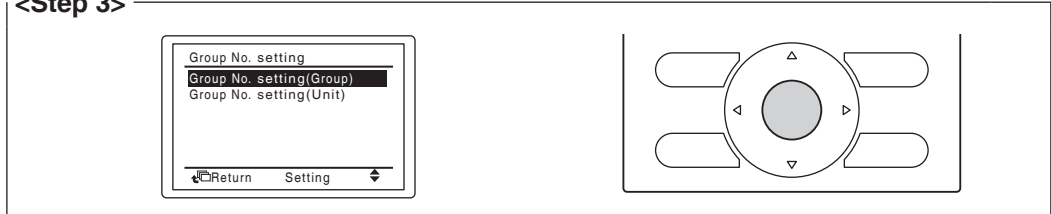


NOTE

The “Group No. setting” 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 No. setting” menu is not displayed also when the intelligent Touch Manager is not communicating with the indoor units normally. Make sure that the cables are connected correctly.

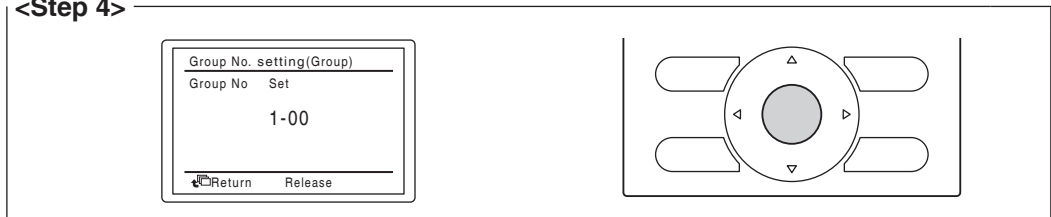
- Using the Up/Down buttons, select “Group No. setting (Group)” and press the Menu/Enter button.
The current address setting is displayed.

<Step 3>



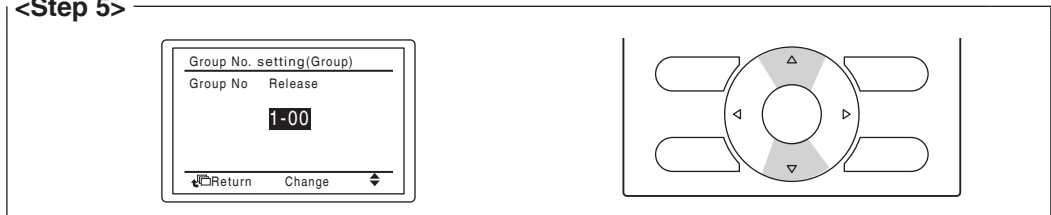
- Press the Menu/Enter button to release the current address setting.
The mode indication changes from “Setting” to “Release”. You are now ready to change the DIII-NET address.

<Step 4>



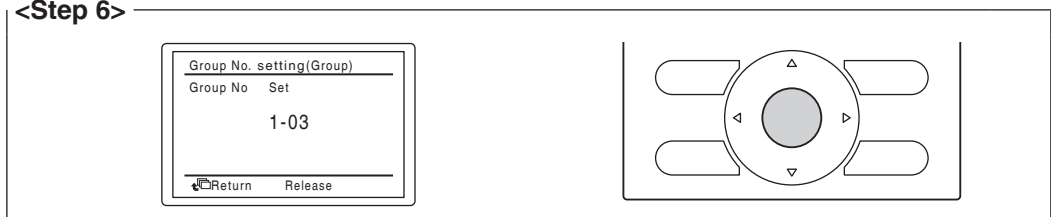
- Using the Up/Down buttons, select the address you want to set.

<Step 5>

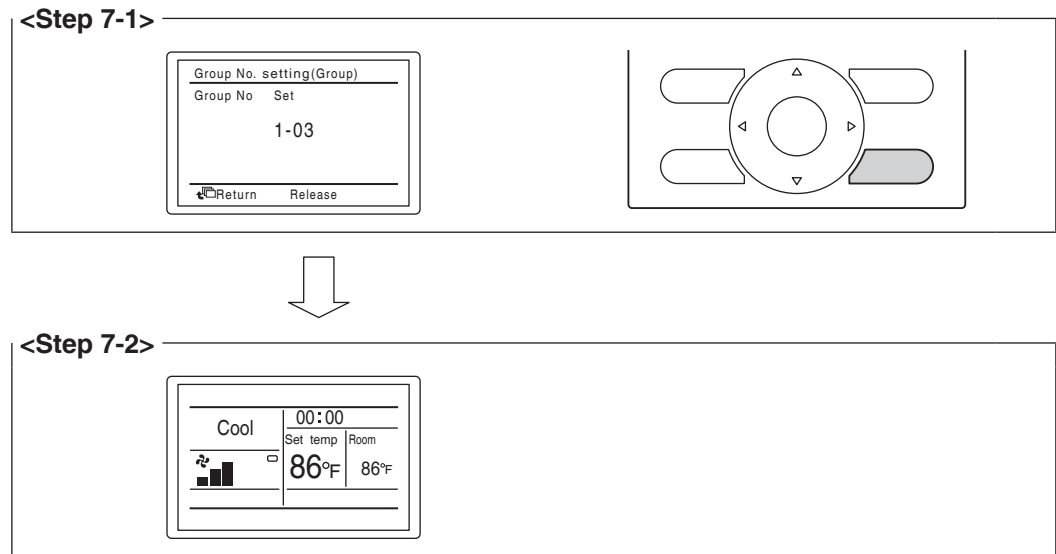


- Press the Menu/Enter button.
The DIII-NET address has been set.

<Step 6>



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



4.8.4

Setting an unique address to each unit (when power distribution is enabled)

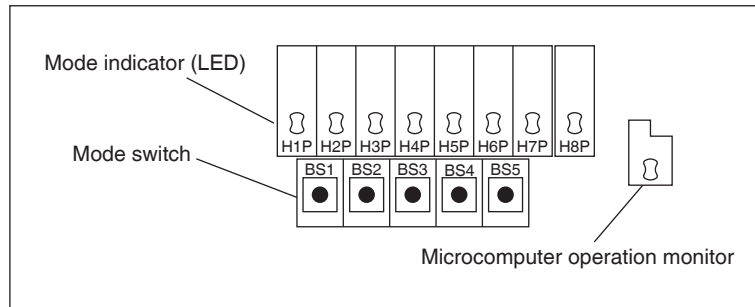
When power distribution is enabled, you need to set a unique address for each unit. For how to set an address, refer to the commissioning manual.

5 Outdoor Unit Address Setup

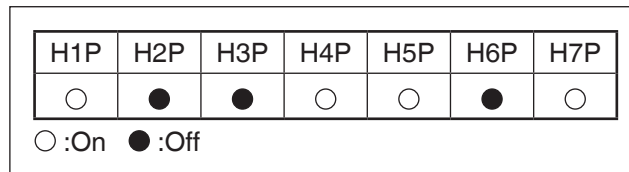
For the intelligent Touch Manager to identify each outdoor unit, you need to set a unique address for it.
Follow the setup procedure described in this chapter.

5.1 Procedure

To set the address of an outdoor unit, use push buttons provided on the unit's printed circuit board.
The current setting or operating status of an outdoor unit is indicated by the on, blink, or off of its LEDs.



1. Press the BS1 button for 5 seconds or more. The H1P LED lights up.
2. Press the BS2 button 13 times. This causes each LED on the printed circuit board to be in the following state, which indicates that you are in the address setup mode.

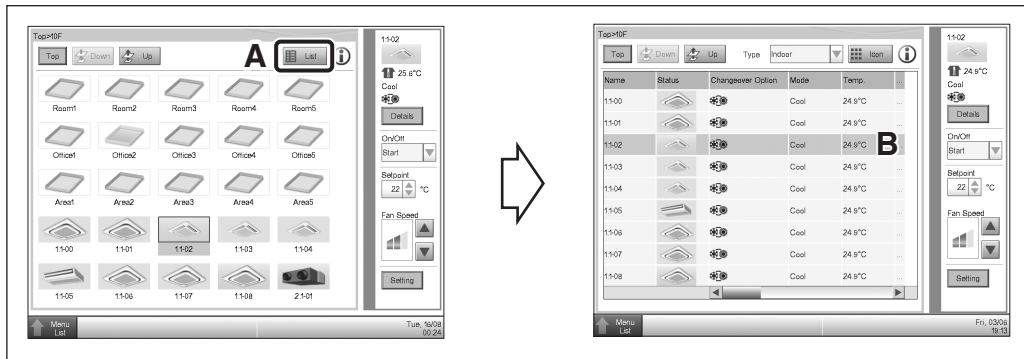


3. Press the BS3 button. You can now find out the current address setting by the blinking LED.
4. Press the BS2 to change to the desired address. (Set the address number within the range of 1 to 127. The default setting is "0".)
5. Press the BS3 twice to fix the address setting.
6. Press the BS1 button once to return to the normal mode.

6 Quick Operation Guide

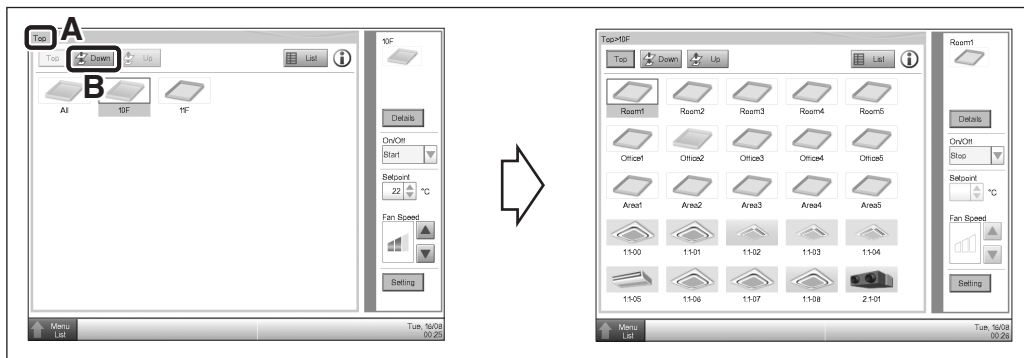
This chapter describes how to start/stop the areas and management points registered with the intelligent Touch Manager and display their information quickly. For detailed operation procedures, refer to the user's manual.

6.1 Viewing target area and management point information in list format

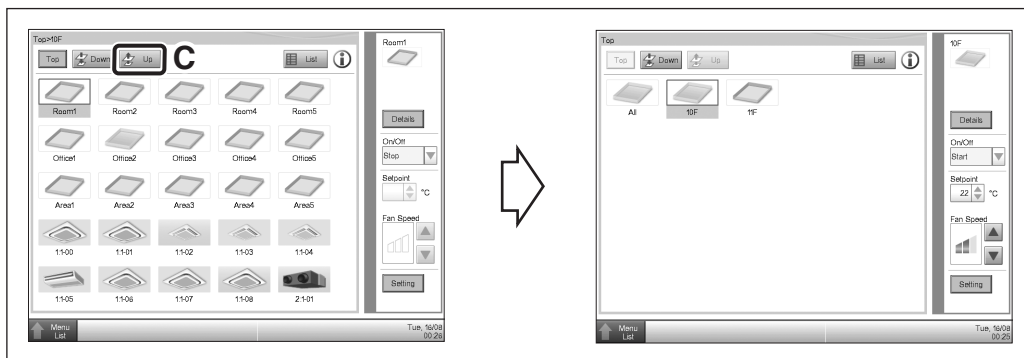


- A** Touch the List button.
- B** The screen changes to the list view, where the name, operation mode, set temperature, and fan speed of all areas and indoor units are listed.

6.2 Viewing target areas and management points



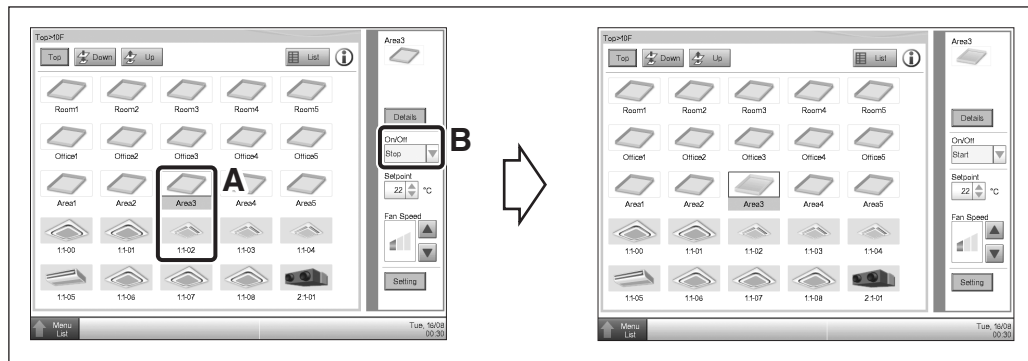
- A** You can check the hierarchy level of the current area or indoor unit.
- B** Touch the Down button to go to the area being selected and view the areas and management points in it.



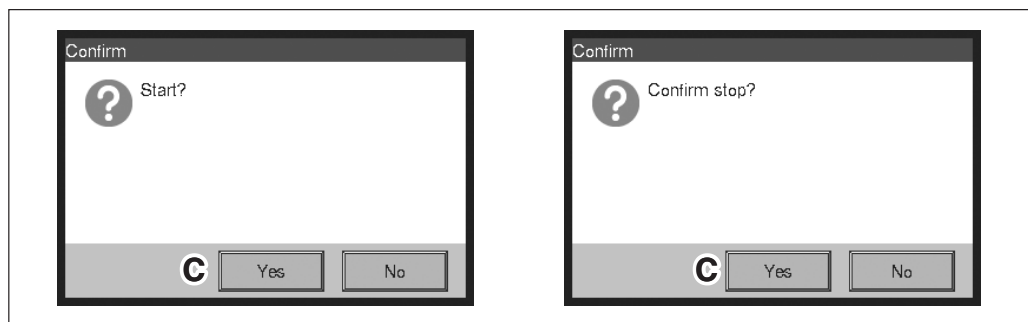
- C** Touch the Up button to go to the area one level above the current area.

6.3

Starting/stopping an area or management point



- A** Select the area or management point you want to start or stop.
- B** On the On/Off combo box, select Start or Stop to start or stop the area/management point, respectively. The icon is green or red (depending on the system setup) when the area/management point is started (operating) and gray when stopped.



- C** When Confirmation Dialog is set to “Enabled” in the system setup, the corresponding message appears. Select the Yes button to confirm the Start/Stop operation.

