DAIKIN

Commissioning Manual

intelligent Touch Manager

Model

DCM601A51

MONITOR ⏻

Contents

Optional Functions 84

5. Service Settings 84

Operating Optional Functions 87

6. System Settings 87

iTM integrator Explanation 109

Appendix 120
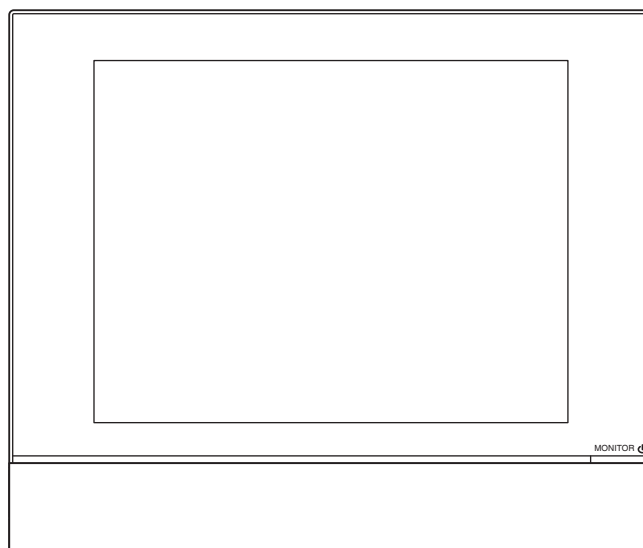
System Overview

1. About the iTM (intelligent Touch Manager)

1-1 System Configuration

Web Remote Management

Web Remote Management possible from network-connected PC
Simultaneous login of max. 4 managers and 16 users supported.

Intranet/Internet

ROUTER

Web Remote Management

HUB/SWITCH/ROUTER/....

Up to 64 groups

LAN port

D3net port

iTM

RS485
(Expansion adapter port)

Up to 7

. . .

iTM plus adaptor

iTM plus adaptor

iTM plus adaptor

USB port

D3net

USB memory

Di/Pi port

Di/Pi port

Port 1: Emergency Stop signal input
Port 2~4: Power meter pulse input
Input signal (contact) such as power outage signal

Port 1~4: Emergency Stop signal input
Power meter pulse input
Input signal (contact) such as power outage signal

2. Engineering

2-1 Engineering Workflow

Various engineering works are necessary for using the iTM.

Engineering works can be roughly divided into those carried out at the office in advance and those carried out on site after installation.

The following diagram shows the engineering workflow.

New installation (Without using the pre-engineering tool)

At the office   See:

Step	See:
Prepare various information. Check the equipment to connect to DIII-NET. Allocate the Group Address.	
↓	
Acquire the upgrade data.	4-8 Upgrade
↓	
Acquiring the Activation key * When necessary	5-1 Activation Acquiring the Activation key

At the site

Step	See:
Install the iTM.	Installation Manual (EM11A016)
↓	
Install the upgrade data.	4-10 Installation
↓	
Make basic settings. (Boot sequence)	Installation Manual (EM11A016)
↓	
Set up "Main" and "Sub".	4-3 DIII-NET Engineering
↓	
Activate optional maker functions. Enable dealer options. * When necessary	5-1 Activation Entering the Activation key 5-2 Dealer Option Setup
↓	
Register management points and Layout View. (Load from CSV or register manually)	4-1 Mgmt. Point Data Regist

New installation (By using the pre-engineering tool)

At the office   See:

| Prepare various information. |
| Check the equipment to connect to DIII-NET. |
| Allocate the Group Address. |

Acquire the upgrade data.   4-8 Upgrade

Back up the iTM data.
*In the case of maintenance (When pre-engineering by   4-9 Backup
using the current settings)

Set up management points.
(Pre-engineering tool, spreadsheet such as Microsoft   4-7 Pre-engineering
Excel)

Create the Layout View.   Commissioning Manual Supplementary
(Layout View creation tool)   Volume
* When necessary   Layout View Creation Tool (EM11A024)

Acquiring the Activation key   5-1 Activation
* When necessary   Acquiring the Activation key

At the site

Install the iTM.   Installation Manual (EM11A016)

Install the upgrade data.   4-10 Installation

Make basic settings.
(Boot sequence)   Installation Manual (EM11A016)

Set up "Main" and "Sub".   4-3 DIII-NET Engineering

Install pre-engineering data and Layout View data.   4-10 Installation

Activate optional maker functions.   5-1 Activation
Enable dealer options.   Entering the Activation key
* When necessary   5-2 Dealer Option Setup

2-2 Logging into Service Mode

To run engineering, you must log into the Service (SE) Mode from the Menu List screen.

In the SE Mode, the Service Settings tab, which is normally hidden, is displayed on the Menu List.

Also, special buttons available only in SE Mode are displayed on the tabs.

The following describes how to log into the SE Mode.

1. Display the Menu List screen.
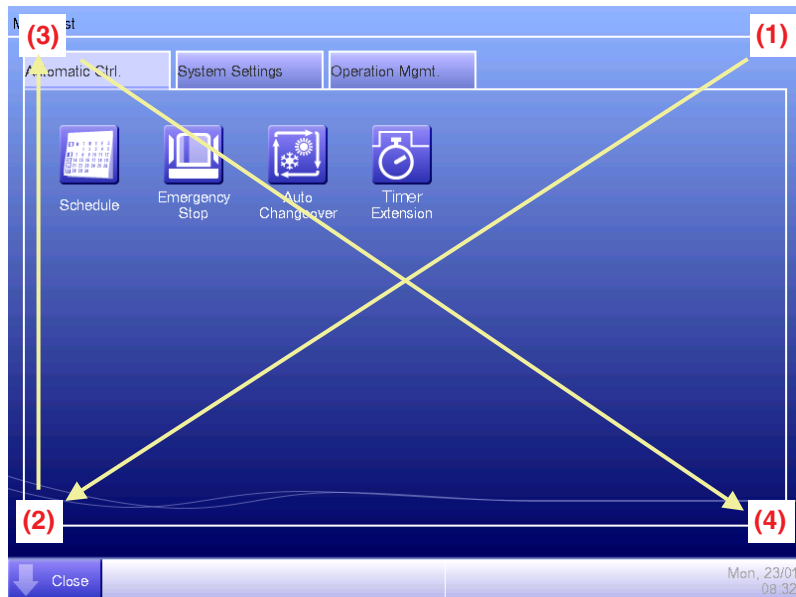
2. Touch the four corners of the screen in the indicated order. The Password Input dialog appears.

3. Enter the service password (daikin) and touch the OK button to log into the SE Mode.
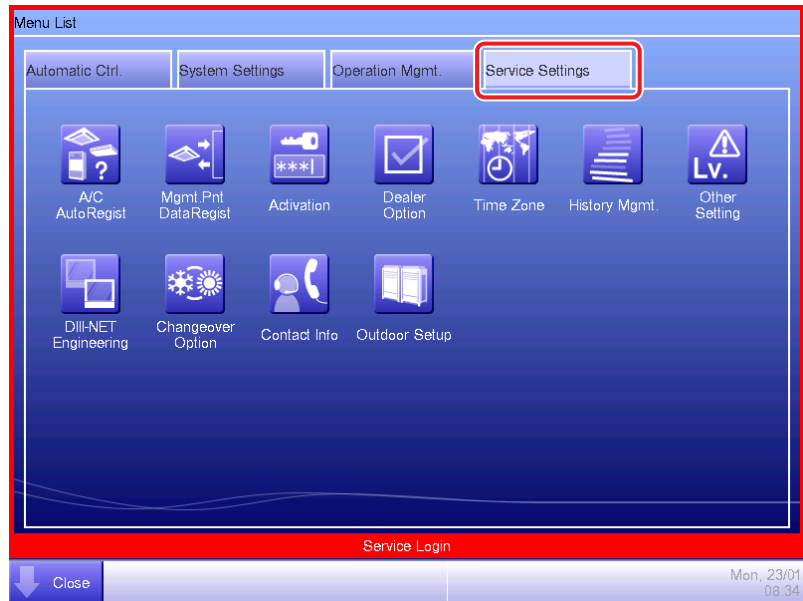
Furthermore, if the screen is locked, entering the service password instead of the administrator password after carrying out the special operation indicated below, allows you to unlock the screen and log into the SE Mode.

Names and Functions

3. Detailed Screen Description

3-1 Setup Screen Structure

Basic Functions

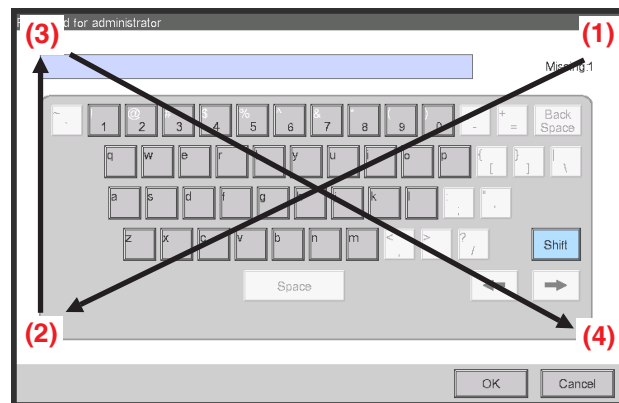|		
Service Settings Tab	Displays a list of functions configurable by service engineers	(See page 10.)
A/C Auto Regist	This function automatically registers air conditioners that are not yet registered as management points	(See page 10.)
Mgmt. Point Data Regist	This function allows you to manually register, edit, or delete management points	(See page 13.)
Other Setting	Allows you to configure the error detection level and enable or disable the Dry mode	(See page 38.)
DIII-NET Engineering	Allows you to switch the master and slave settings and, when used in conjunction with an upper level central controller, configure the setpoint limitation function	(See page 39.)
Time Zone	Allows you to configure the time difference between the UTC (Universal Time Coordinated) and the local time	(See page 41.)
Changeover Option	This function allows you to configure or cancel the cooling / heating selection right	(See page 41.)
History Mgmt. (Delete)	This function allows you to delete the history data	(See page 43.)
Pre-engineering	This tool allows you to preconfigure necessary settings on the PC	(See page 44.)
Upgrade	Allows you to write a new system file for upgrade	(See page 55.)
Backup	This function allows you to read the current system file and configuration data	(See page 56.)
Installation	This function allows you to install the data for upgrade or restoration	(See page 58.)
Contact Info	Configure the contact information for inquires about system errors or other problems	(See page 60.)
Setting outdoor unit	Configure the model type of the outdoor unit	(See page 62.)
Leakage Check	This function automatically detects refrigerant leak	(See page 69.)
Activation	This function allows you to enter the Activation key required to activate a manufacturer option	(See page 84.)
Dealer Option Setup	Allows you to enable or disable a dealer option	(See page 86.)
System Settings Tab	Displays a list of functions related with system settings	(See page 12.)
Network	Allows you to configure the network IP address and other related settings	(See page 87.)
Web Remote Management	Allows you to configure the Web Remote Management user	(See page 90.)

3-2 Service Settings Tab

NOTE

The button of an optional function is hidden unless the option is enabled.

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(1) A/C Auto Regist

Automatically registers as management points those air conditioners that are connected to the iTM but not registered as management point. The air conditioner icons to be displayed on the Standard View screen are also set up automatically.

NOTE

Automatic registration is supported only for indoor units and Ventilator.

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(2) Mgmt. Point Data Regist

Registers, modifies, and deletes management points to be operated/controlled using the iTM. The management point data can also be input from/output to a file in CSV format.

(3) Activation

Enables optional maker functions based on entered Activation keys.

NOTE

Optional maker functions refer to the Power Proportional Distribution and Energy Navigator functions.

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(4) Dealer Option

Enables/Disables dealer options.

(5) Time Zone

Sets up the difference between the Universal Time Coordinated (UTC) and local time.

(6) History Mgmt. (Delete)

Deletes history records of a specified period from the history.

(7) Other Setting

Enables/Disables the "Detect Level" and "Dry Operation Mode".

Detect Level: When enabled, indicates management point error alarms via icons and history.

Dry Operation Mode: When enabled, allows you to set Dry mode from the touch panel, the Schedule or Interlocking function.

(8) DIII-NET Engineering

Sets up the iTM as Main or Sub. When an upper central controller is also installed, sets Setpoint Restriction to "Enable" or "Auto".

> **NOTE**
>
> The "Auto" option automatically Enables/Disables Setpoint Restriction depending on whether an upper central unit is installed or not.

(9) Changeover Option

Enables/Disables the Changeover Option for an air conditioner.

(10) Layout Setup (Optional function)

Displayed only when Layout View data exists.

Allows you to Enter/Output Layout View data.

(11) Contact Info

Sets up contact information (three lines) for inquiries regarding errors in the system and the like.

(12) Outdoor Setup

Allows you to manually register the indoor units that belong to the refrigeration system of each outdoor unit based on the indoor and outdoor unit's installation information.

Also, allows you to automatically check leakage for each refrigeration system in a multi-refrigeration system. You can also make it run at a set time by using the Schedule function.

(13) Energy Navigator (Optional function)

Sets up the reference room temperature, month to start collecting data, and energy conversion type to be used by the Energy Navigator.

3-3   System Settings Tab
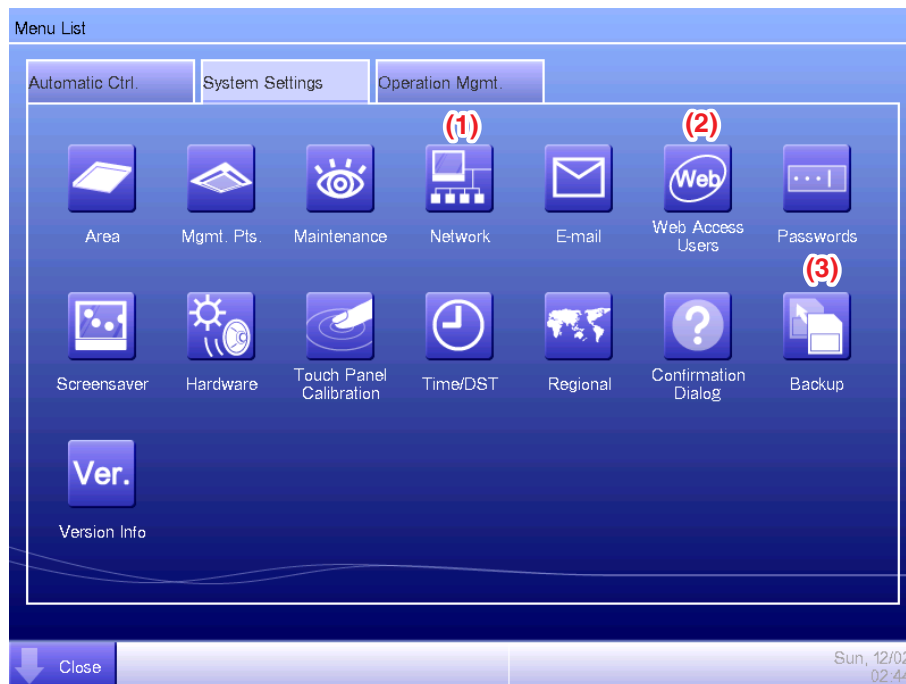
(1) Network

Sets up the network IP addresses as well as the Web Servers.

(2) Web Access Users

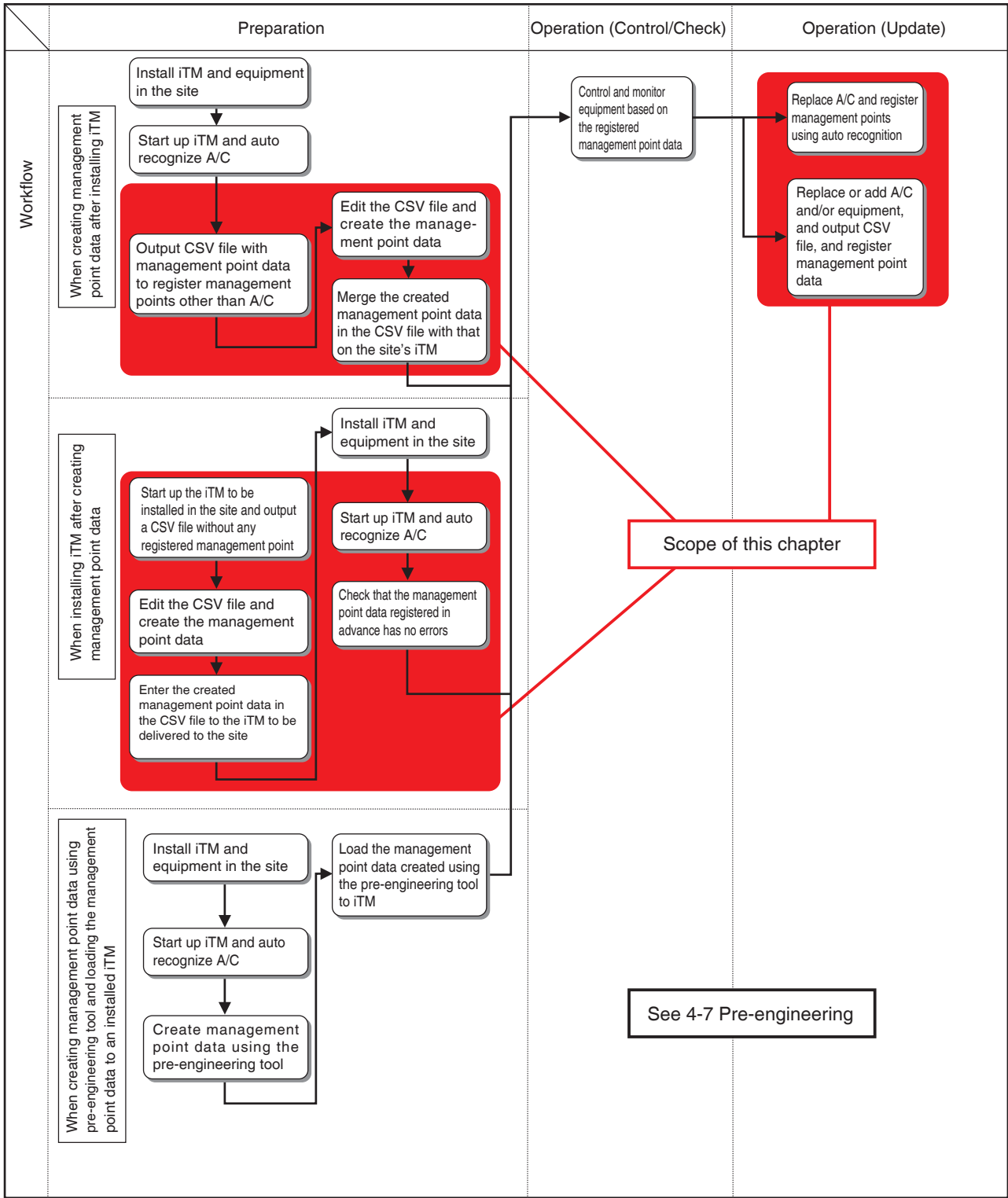Sets up Web users for Web Remote Management.

(3) Backup

Allows you to export the system file and setup data.

Basic Functions

4. Service Settings

4-1 Mgmt. Point Data Regist

Register, modify, and delete management points to be controlled using the iTM. Management points can be registered in two ways: directly with the iTM unit, or by editing a CSV file on a PC and loading it to the iTM unit. The figure below shows the flowchart of a management point registration.

| | Preparation | Operation (Control/Check) | Operation (Update) |

Workflow

When creating management point data after installing iTM
- Install iTM and equipment in the site
- Start up iTM and auto recognize A/C
- Output CSV file with management point data to register management points other than A/C
- Edit the CSV file and create the management point data
- Merge the created management point data in the CSV file with that on the site's iTM

- Control and monitor equipment based on the registered management point data

- Replace A/C and register management points using auto recognition
- Replace or add A/C and/or equipment, and output CSV file, and register management point data

When installing iTM after creating management point data
- Start up the iTM to be installed in the site and output a CSV file without any registered management point
- Edit the CSV file and create the management point data
- Enter the created management point data in the CSV file to the iTM to be delivered to the site
- Install iTM and equipment in the site
- Start up iTM and auto recognize A/C
- Check that the management point data registered in advance has no errors

Scope of this chapter

When creating management point data using pre-engineering tool and loading the management point data to an installed iTM
- Install iTM and equipment in the site
- Start up iTM and auto recognize A/C
- Create management point data using the pre-engineering tool
- Load the management point data created using the pre-engineering tool to iTM

See 4-7 Pre-engineering

The following describes the operating procedure.

Registering a management point with the iTM unit

1. Automatically recognizing air conditioners

Automatically recognize air conditioners. The iTM unit will search for any D3 units that can be registered, but have not yet been registered with it.
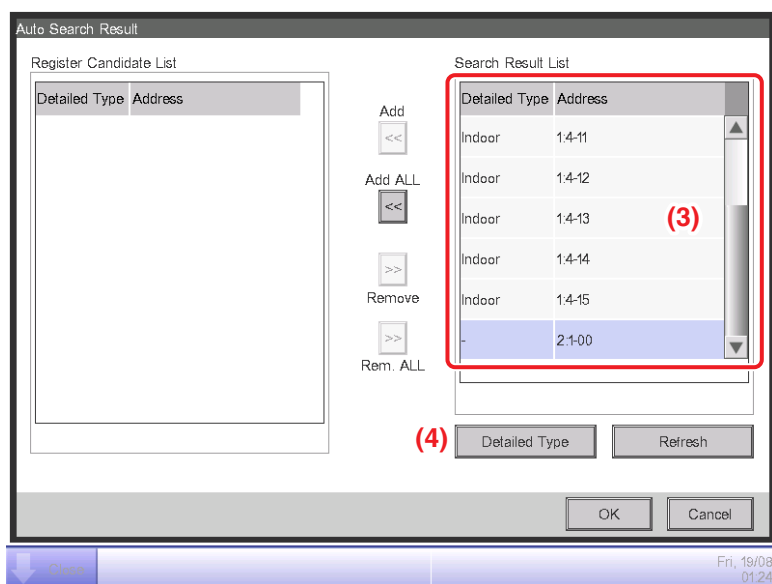
Log into SE Mode from the Menu List screen and display the Service Settings tab (see page 7).

Touch the Mgmt. Pnt Data Regist button on the Service Settings tab to display the main Mgmt. Point Data Register screen (see page 10).
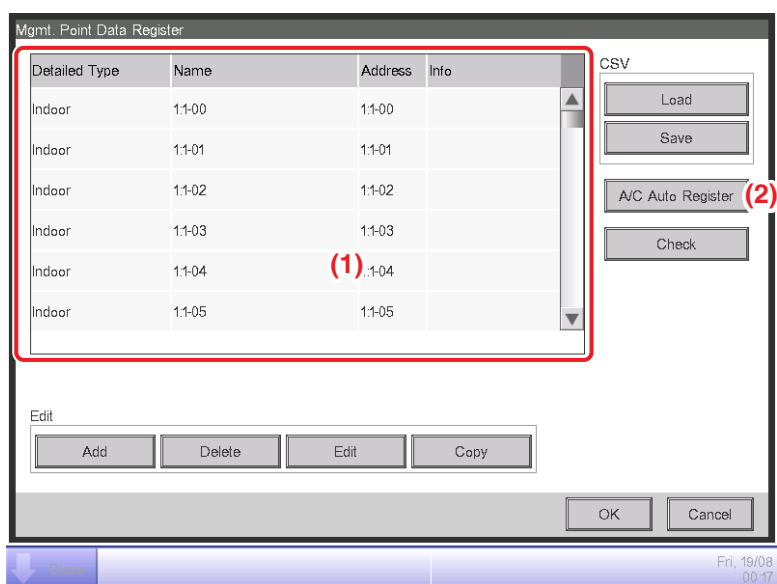

(1) is the list of registered management points.

Touch the **A/C Auto Register** button **(2)** to display the Auto Search Result screen.

(3) is the search results list. The Detailed Type and Port/Address are displayed.

For management points whose Detailed Type is unknown, you can select the management point and display the Management Point Types screen by touching the **Detailed Type** button **(4)**.
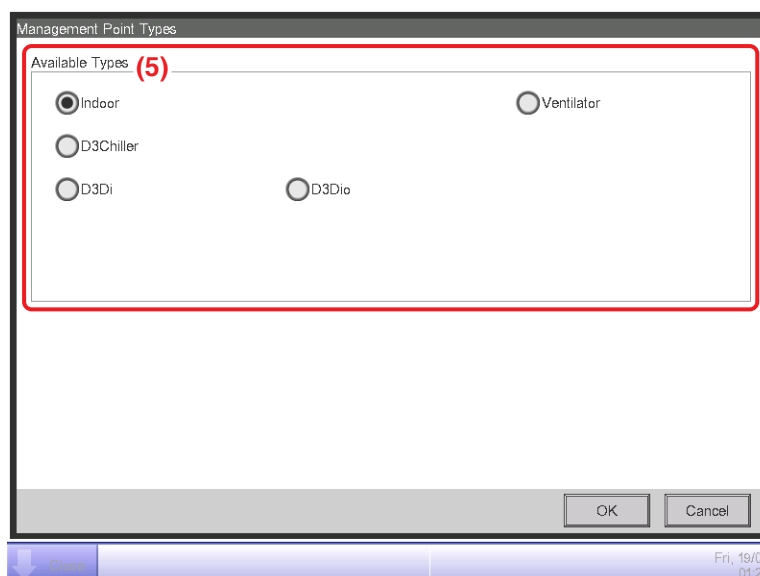
Using the radio buttons **(5)**, select the management point type. Touch the OK button to save and return to the Auto Search Result screen for air conditioners.
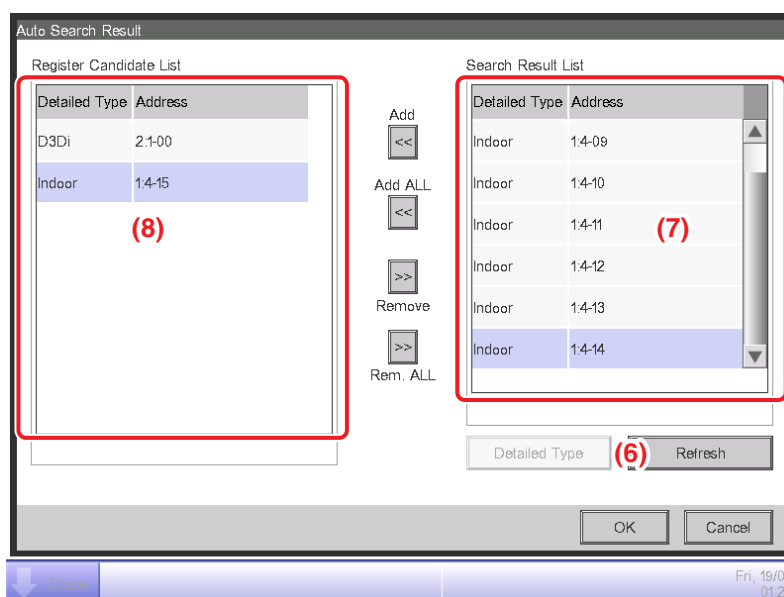
Touching the **Refresh** button **(6)** updates the Search Result List **(7)** to its most recent status.

Selecting a management point to register and touching the Add button adds it to the Register Candidate List **(8)**. To register all management points listed in **(7)**, touch the Add ALL button.

To delete a management point from the Register Candidate List **(8)**, select it and touch the Remove button. The management point moves to **(7)** and is deleted from the list of candidates that can be registered. Touching the Rem. ALL button deletes all of the candidates that can be registered.

Touch the OK button to register the management point **(8)** and return to the main Mgmt. Point Data Register screen.

NOTE

The Add and Add ALL buttons are grayed out when the upper limit of registration has been reached and thus no more management points can be registered.

---

2. **Manually registering management points**

Register one by one the management points that are not registered by automatic recognition.

Touch the **Add** button **(9)** to display the Management Point Types screen.

Select the management point type to register from Indoor, Outdoor, Ventilator, Di, and Pi.

To select another type, select the Others radio button and touch the Select button. The Management Point Types screen for other types appears.
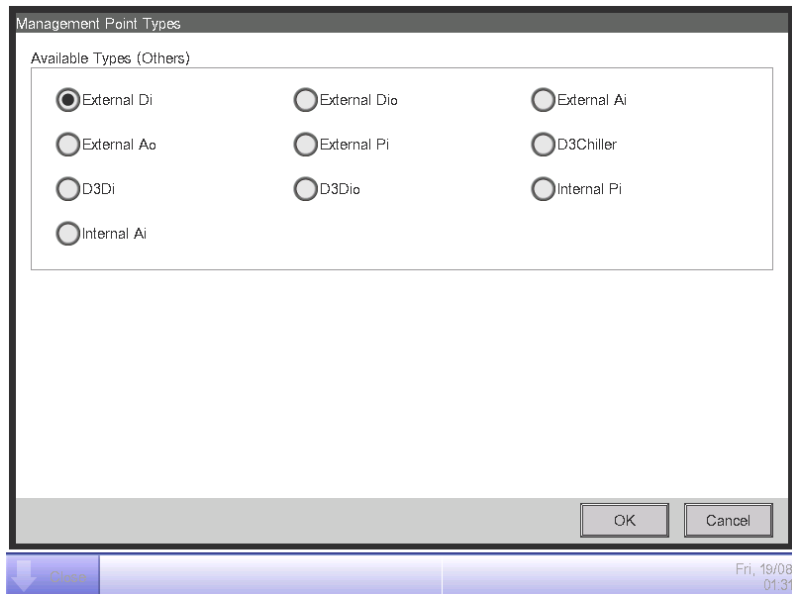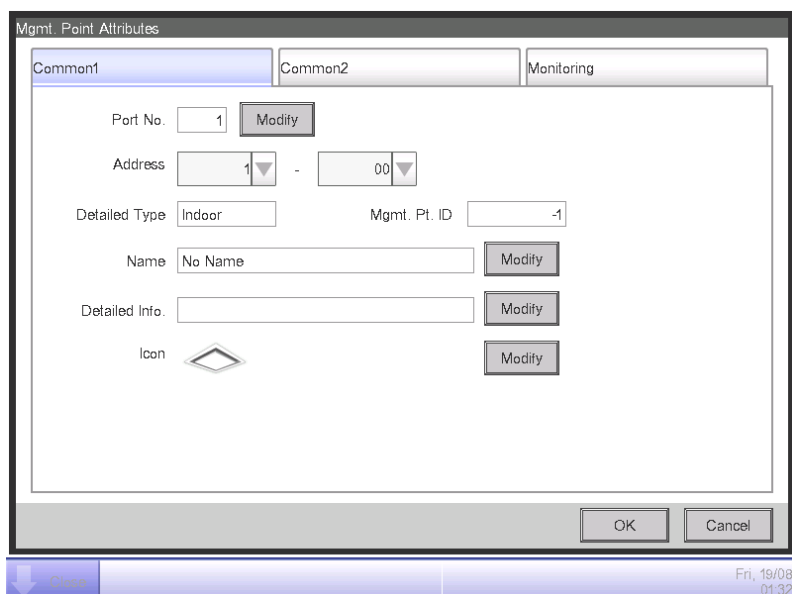

Select the management point type and touch the OK button to save and return to Management Point Types screen.

Remark: External Ao or External Pi are not supported by this model.

When finished, touch the OK button to display the Mng. Point Attributes screen.

3. **Setting up details for a management point**

Set up details for a management point.

Tabs and items displayed on the Mng. Point Attributes screen vary depending on the selected management point type. Set up by switching the displayed tabs as necessary.

For details of each tab, see page 21 onwards.

When finished with all the tabs, touch the OK button to save the settings and return to the main Mgmt. Point Data Register screen.

4. Deleting/Editing/Copying a management point
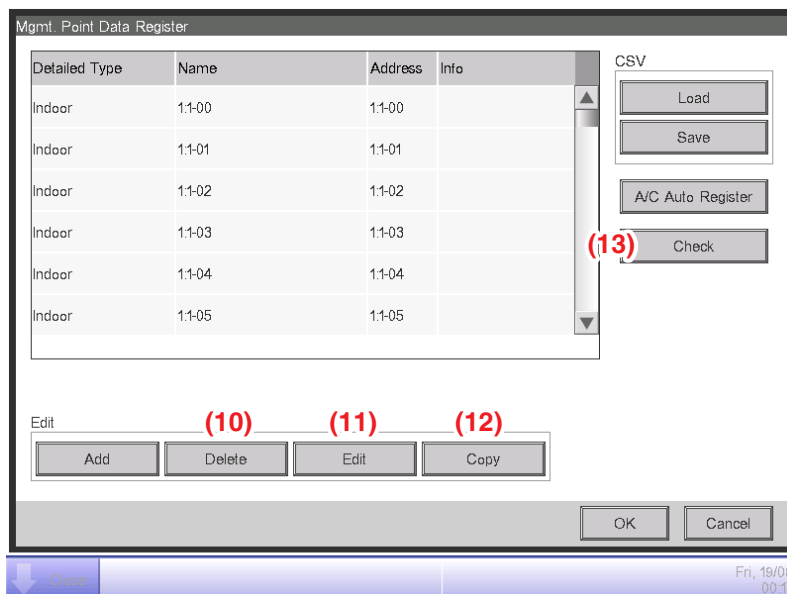
Touching the **Delete** button **(10)** deletes the management point selected in the list.

Touching the **Edit** button **(11)** displays the Mng. Point Attributes screen for editing the management point selected in the list. (See procedures 1 to 3)

Touching the **Copy** button **(12)** makes a copy of the management point selected in the list.

NOTE

Modify as necessary since the copy has exactly the same data. Registering as is will cause duplicated address error and the like.

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5. Checking the setting results

Touching the **Check** button **(13)** checks the content of the current settings data and displays the check results on the Information check screen.
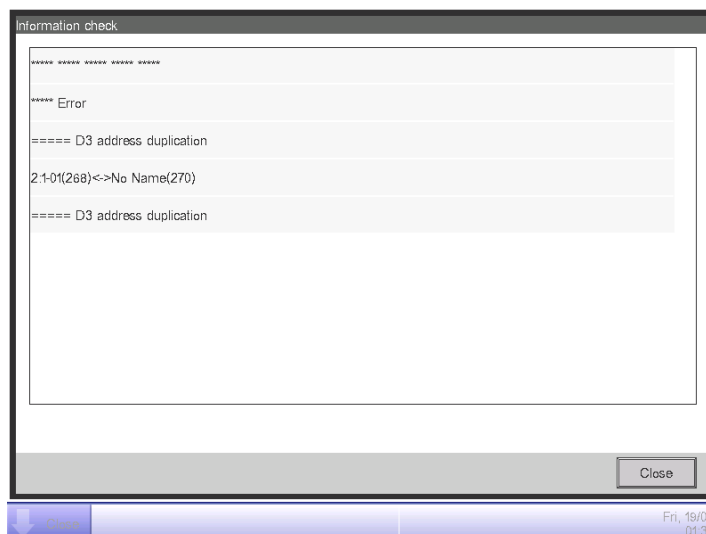
If an error is found, discards the edited content retained until then and restores the saved original data. "No error" is displayed if no error is found. Touch the Close button to close the screen.
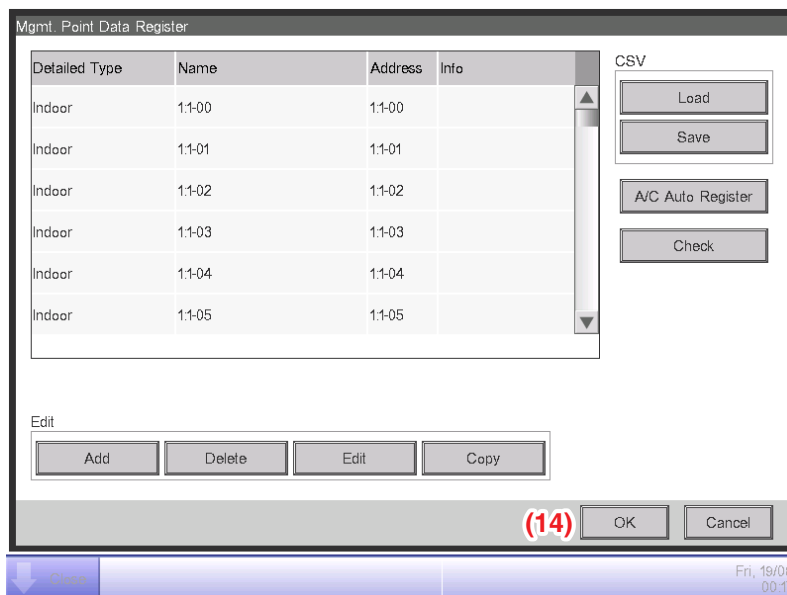
Check items list

Classification	Check item	Message
Common	Duplicated management point names	===== Mng. point name duplication [Management point name] ([Management point ID]) <-> [Management point name] ([Management point ID]) ===== Mng. point name duplication
	Excess of total number of other management points	Mgmt. points exceeded (Other)
	Excess of number of chiller management points	Chiller Mgmt. Pnt
	Excess of number of outdoor management points	Outdoor Unit Mgmt. points exceeded
	Excess of total number of Internal Pi management points	Internal Pi Mgmt. point exceeded
DIII	Duplicated D3 addresses	===== D3 address duplication [Management point name] ([Management point ID]) <-> [Management point name] ([Management point ID]) ===== D3 address duplication
Di, Pi	Duplicated port numbers	===== Di/Pi address duplication [Management point name] ([Management point ID]) <-> [Management point name] ([Management point ID]) ===== Di/Pi address duplication
Internal Ai	Ai reference management point error	Ai:[Management point name]([Management point ID]): The reference Mng. point is inaccurate
		Ai:[Management point name]([Management point ID]): Analog type error [Invalid]
Internal Pi	Duplicated port numbers	===== Internal Pi address duplication [Management point name] ([Management point ID]) <-> [Management point name] ([Management point ID]) ===== Internal Pi address duplication
BACnet	Duplicated object IDs	===== Duplicate object IDs [Management point name] ([Management point ID]) <-> [Management point name] ([Management point ID]) ===== Duplicate object IDs

6. Restarting iTM
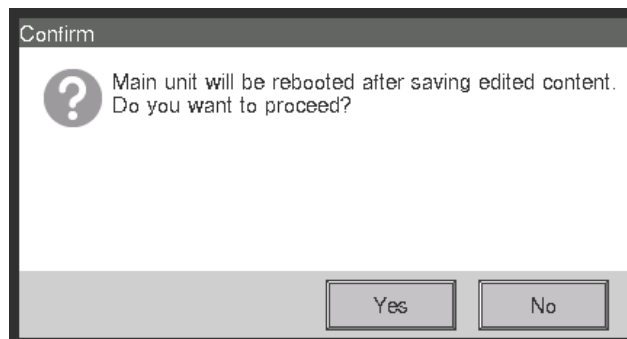
Restart iTM to reflect the settings.

When finished, touch the **OK** button **(14)**. A settings data check is carried out and the Information check screen displayed if errors are found. If no problems are found, the dialog below appears.

Touching the Yes button after confirming restarts the iTM unit.

Detailed Mgmt. Point Attributes screen and button descriptions

The following describes the Mng. Point Attributes screen in detail.

Tabs and items displayed on the Mng. Point Attributes screen vary depending on the selected management point type. Set up by switching the displayed tabs as necessary.

- **Common 1 Tab**

  Sets common items for a management point.

  Displayed items vary depending on the management point type.

<Indoor, Ventilator, D3Chiller, D3Di, and D3Dio>

<External Di>

<External Dio>

<Di, Pi, External Ai>

<Outdoor>

<Internal Ai>

<Internal Pi>

(15) Port No. text field, **Address** combo box

Sets up the port number and address to which the management point belongs.

For the port number, touch the Modify button and enter it in the Numerical Input dialog that appears.

For the address, select it using the combo box.

Duplicated addresses cannot be registered. All addresses must be different.

The range of values you can enter/set is as indicated in the table below.

Detailed Type	Port number		Address	
	View	Minimum/Maximum value (Default value)	View Non-differentiated	Minimum/Maximum value (Default value)
Di/Pi	○	1 to 8 (1)*	○	1 to 4 (2)*
D3Di	○	1 to 8 (1)	○	1-00 to 4-15 (1-00)
D3Dio	○	1 to 8 (1)	○	1-00 to 4-15 (1-00)
Indoor unit	○	1 to 8 (1)	○	1-00 to 4-15 (1-00)
Ventilator	○	1 to 8 (1)	○	1-00 to 4-15 (1-00)
D3Chiller	○	1 to 8 (1)	○	1-00 to 4-15 (1-00)
Outdoor unit	○	1 to 8 (1)	×	-
Internal Ai	×	-	×	-
Internal Pi	○	1 to 8 (1)	×	-

* The combination: Port number 1 and Address 1 is assigned exclusively for the input of the iTM unit emergency stop signal and cannot be used.

(16) Detailed Type field

Displays the detailed management point type. However, you cannot modify it here.

(17) Mgmt. Pt. ID field

Displays the management point ID automatically allocated by the system. However, you cannot modify it here.

(18) Name text field

Sets up the management point name.

Touch the Modify button and enter the name in the Name Input dialog that appears.

Specify a name for the management point using 1 to 12 characters, irrespective of single or double byte.

(19) Detailed Info. text field

Set up information about the management point as necessary.

Touch the Modify button and enter the value in the Text Input dialog that appears.

The number of characters you can enter is 0 to 50, irrespective of single or double byte.

(20) Icon field

Sets up the icon for the management point.

Touch the Modify button and set the icon in the Icon Setup screen that appears.

- **Common 2 Tab**

Sets up common items 2 for a management point.

Displayed items vary depending on the management point type.

<Indoor>

<Outdoor>

<D3Chiller, D3Dio, External Dio>

<Internal Pi>

(21) Prohibit Manual Operation check box

Select the check box when prohibiting manual operation from the iTM.

(22) Address/ACNSS address text field

Sets up the ACNSS address.

Touch the Modify button and enter the value in the Numerical Input dialog that appears.

Addresses can be specified in steps of 1 and within the following ranges of values.

Indoor unit: 1 to 128, Outdoor unit: 1 to 127, Internal Pi: 1 to 127

• **Monitoring Tab**

Sets up the monitoring item.
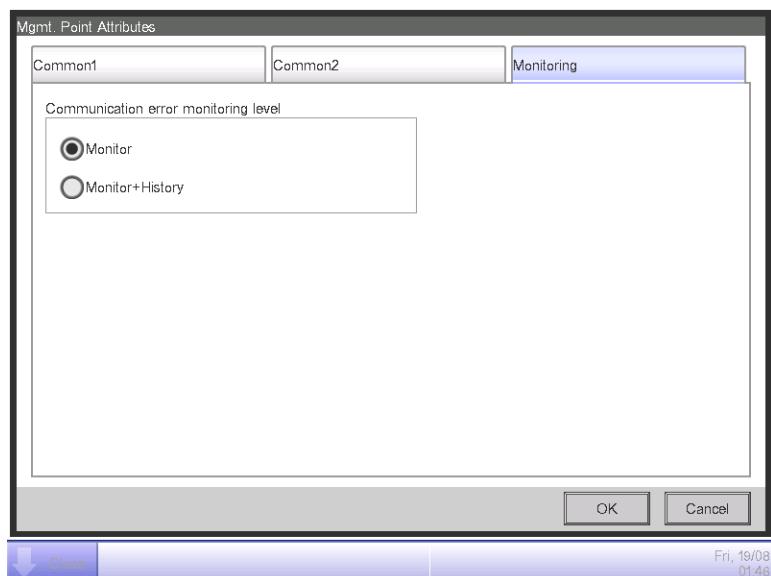
Select either of the communication error monitoring levels: Monitor or Monitor + History by using the radio button.

• **Ventilator Tab**

Sets up the Ventilator.
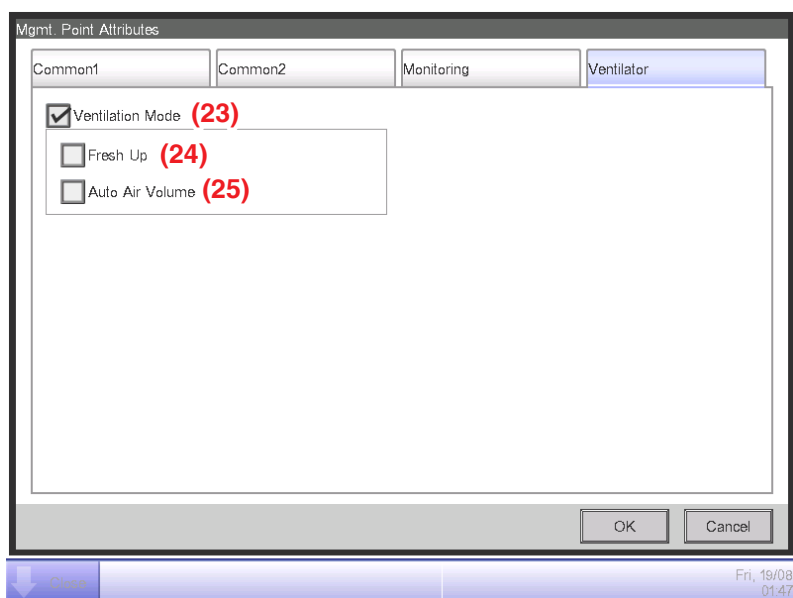
(23) Ventilation Mode check box

Select the check box when setting up Fresh Up and/or Auto Air Volume.

(24) Fresh Up check box

Select the check box to enable Fresh Up.

(25) Auto Air Volume check box

Select the check box to enable Auto Air Volume.

• **Dio Tab**

Sets up the Dio.

Displayed items vary depending on the management point type.

<Di>

<External Di>

<External Dio>
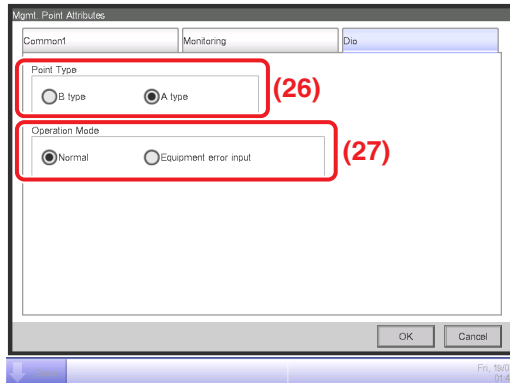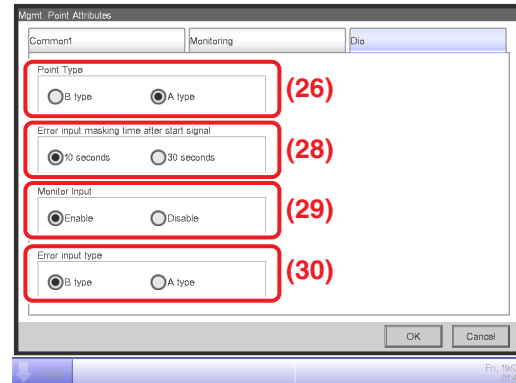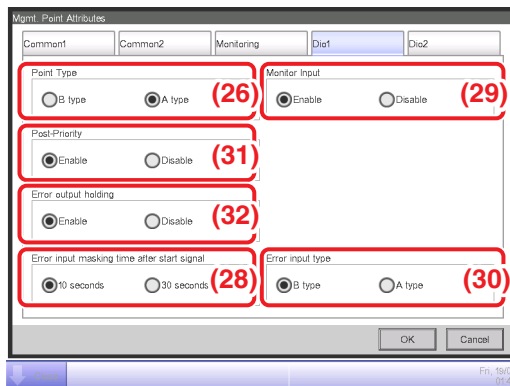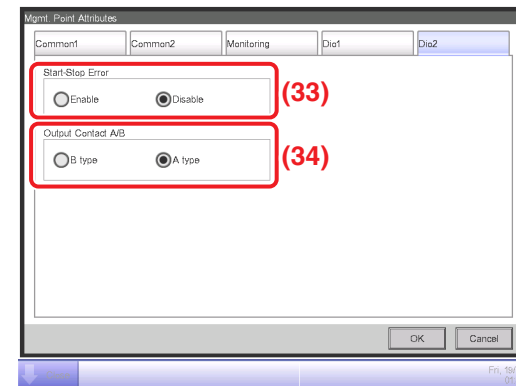
(26) Point Type radio button

Select the Di Point Type from A type and B type.

(27) Operation Mode radio button

Select the Di operation mode from Normal and Equipment error input.

(28) Error input masking time after start signal radio button

Select an Error Mask Time after operation input from 10 and 30 seconds.

Start up error occurs if the external Di or external Dio cannot start even after the time set up here elapses from the moment the Start signal has been received.

(29) Monitor Input radio button

Select whether to carry out error detection when the external Di or external Dio is off from Enable and Disable.

(30) Error input type radio button

Select the error input detection from A type and B type.

(31) Post-Priority radio button

Select whether to allow Start/Stop from the equipment from Enable and Disable.

(32) Error output holding radio button

Select whether to block the control signal when an error is detected from Enable and Disable.

(33) Start-Stop Error radio button

Select whether to carry out start/stop error detection from Enable and Disable.

(34) Output Contact A/B radio button

Select the type of output contact from A type and B type.

• **Pulse Tab**

Sets up the pulse value.

Displayed items vary depending on the management point type.

<table>
<tr><td colspan="2" align="center"><Pi></td><td align="center"><Internal Pi></td></tr>
</table>

(35) Pulse Amount text field

Sets up the pulse value.

Touch the Modify button and enter the value in the Numerical Input dialog that appears.

You can enter a value in the –1 to 999999999 range, in increments of 1.

(36) Pulse Step text field

Sets up the pulse constant.

Touch the Modify button and enter the value in the Numerical Input dialog that appears.

You can enter a value in the 1 to 999999 range, in increments of 1.

(37) Unit Label text field

Sets up the unit.

Touch the Modify button and enter the value in the Text Input dialog that appears.

The number of characters you can enter is 0 to 8, irrespective of single or double byte.

(38) Power Ratio text field

Sets up the power ratio.

Touch the Modify button and enter the value in the Numerical Input dialog that appears.

You can enter a value in the 0.01 to 99999.99 range, in increments of 0.01.

For the Internal Pi, the power ratio is fixed to 0.1.

(39) Coeff a text field

Sets up the coefficient a.

Touch the Modify button and enter the value in the Numerical Input dialog that appears. You can enter a value in the 0.000 to 1000.000 range, in increments of 0.001.

(40) Coeff b text field

Sets up the coefficient b.

Touch the Modify button and enter the value in the Numerical Input dialog that appears. You can enter a value in the –10.000 to 10.000 range, in increments of 0.001.

• **Analog Tab**

Sets up the analog value.

Displayed items vary depending on the management point type.

Analog 1

(41) Unit Label
(42) Hysteresis
(43) Lower Limit
(44) Upper Limit

\<External Ai\>

Analog 2

(45) Analog Type
(46) Unit Type
(47)

\<External Ai\>

Analog 1

(41) Unit Label
(42) Hysteresis
(43) Lower Limit
(44) Upper Limit

\<Internal Ai\>

Analog 2

(48) Reference settings

\<Internal Ai\>

For the range of values that can be input for each type in the Numerical Input dialog see the table on page 31.

(41) Unit Label text field

Sets up the unit.

Touch the Modify button and enter the value in the Text Input dialog that appears.

The number of characters you can enter is 0 to 8, irrespective of single or double byte.

(42) Hysteresis text field

Sets up the hysteresis.

Touch the Modify button and enter the value in the Numerical Input dialog that appears.

(43) Lower Limit field

Sets up the lower limit and monitoring status for lower limit error monitoring.

For the lower limit, touch the Modify button and enter it in the Numerical Input dialog that appears.

For the monitoring status, select from Disable, Monitoring, and Monitor + History from the combo box.

(44) Upper Limit field

Sets up the upper limit and monitoring status for upper limit error monitoring.

For the upper limit, touch the Modify button and enter it in the Numerical Input dialog that appears.

For the monitoring status, select from Disable, Monitoring, and Monitor + History from the combo box.

(45) Analog Type radio button

Select the analog value type from Temperature and Other.

(46) Unit Type radio button

Select the unit type of External Ai either "Thermistor" or "Other". The unit type cannot be configured when Other is selected in Analog Type **(45)**.

Selecting Thermistor sets the Minimum value and Maximum value text fields **(47)** to –512.0 and 512.0 (or –890 and 954 in Fahrenheit), respectively, which cannot be changed.

(47) Minimum Value / Maximum Value text field

Sets up the physical quantities corresponding to the minimum and maximum analog value input signals.

Touch the Modify button and enter the value in the Numerical Input dialog that appears.

(48) Reference settings field

Sets up the Target Point and Target analog value for the Internal Ai.

Touch the Ref.. button and select the Target Point and Target analog value to set from the Analog Point Selection screen that appears (see page 32).

Acceptable range for each numeric value

Detailed Type	Classification	Item	For Celsius		For Fahrenheit		For analog value	
			Minimum/ Maximum value (Default value)	Increment	Minimum/ Maximum value (Default value)	Increment	Minimum/ Maximum value (Default value)	Increment
External Ai BACnet Ai	Upper/ Lower Limit monitoring	Hysteresis	0.0 to 512.0 (0.0)	0.1	0 to 922 (0)	1	0.00 to 9999.99 (0.00)	0.01
		Lower limit	−512.0 to 512.0 (0.0)	0.1	−890 to 954 (32)	1	−9999.99 to 9999.99 (0.00)	0.01
		Upper limit	−512.0 to 512.0 (0.0)	0.1	−890 to 954 (32)	1	−9999.99 to 9999.99 (0.00)	0.01
	Analog value	Minimum value	−512.0 to 512.0 (0.0/−512.0)*3	0.1	−890 to 954 (32/−890)*3	1	−9999.99 to 9999.99 (0.00)	0.01
		Maximum value	−512.0 to 512.0 (100.0/512.0)*3	0.1	−890 to 954 (212/954)*3	1	−9999.99 to 9999.99 (100.00)	0.01
Internal Ai	Upper/ Lower Limit monitoring	Hysteresis	0.0 to 512.0 (0.0)*2	0.1	0 to 922 (0)*2	1		
		Lower limit	−512.0 to 512.0 (0.0)*2	0.1	−890 to 954 (32)*2	1		
		Upper limit	−512.0 to 512.0 (0.0)*2	0.1	−890 to 954 (32)*2	1		
BACnet Ao	Analog value	Min. of op	−512.0 to 512.0 (0.0)	0.1	−890 to 954 (32)	1	−9999.99 to 9999.99 (0.00)*1	0.01*1
		Max. of op	−512.0 to 512.0 (0.0)	0.1	−890 to 954 (32)	1	−9999.99 to 9999.99 (0.00)*1	0.01*1
		Displayed accuracy	−1 (−1)	1	0 (0)	1	−2 to 3 (−1)	1

*1 Min of op. and Max of op. can be set up with the accuracy specified in Displayed accuracy.
   If Displayed accuracy is modified when Min of op. and Max of op. are already set, their value are rounded to fit the accuracy specified by the Displayed accuracy.
   (When loading a CSV file, an input data error will occur if it contains any value finer than the specified accuracy.)
*2 The default values displayed on GUI will change depending on whether Celsius or Fahrenheit is selected in System Settings.
*3 The former or latter value will be used depending on whether Unit Type is Other or Thermistor, respectively.
   (When loading a CSV file with Thermistor selected, the default value will be used regardless of the input data.)

- **Analog Point Selection Screen**

    Sets up the reference for the Internal Ai. Touch the Ref.. button on the Analog2 tab to display the Analog Point Selection screen.
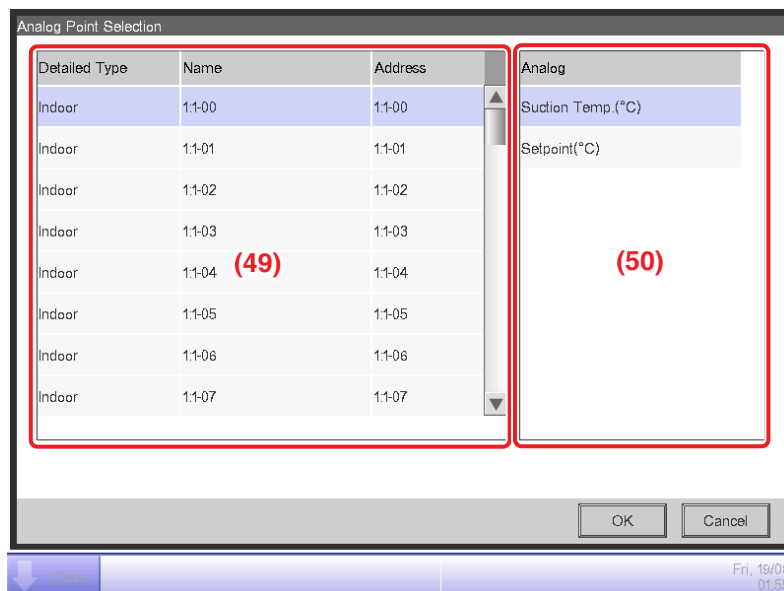
(49) is the list of management points with analog value.

(50) is the list of analog values that applicable to the Internal Ai of the selected management point.

Registering management points using a CSV file

1. Outputting a CSV file

The current settings data can be output to a CSV file for editing the management point data using a computer software or the Pre-engineering tool. The CSV file can be edited using "Microsoft Excel" and the like.

Log into SE Mode from the Menu List screen and display the Service Settings tab (see page 7).

Touch the Mgmt. Point Data Register button on the Service Settings tab to display the main Mgmt. Point Data Register screen.
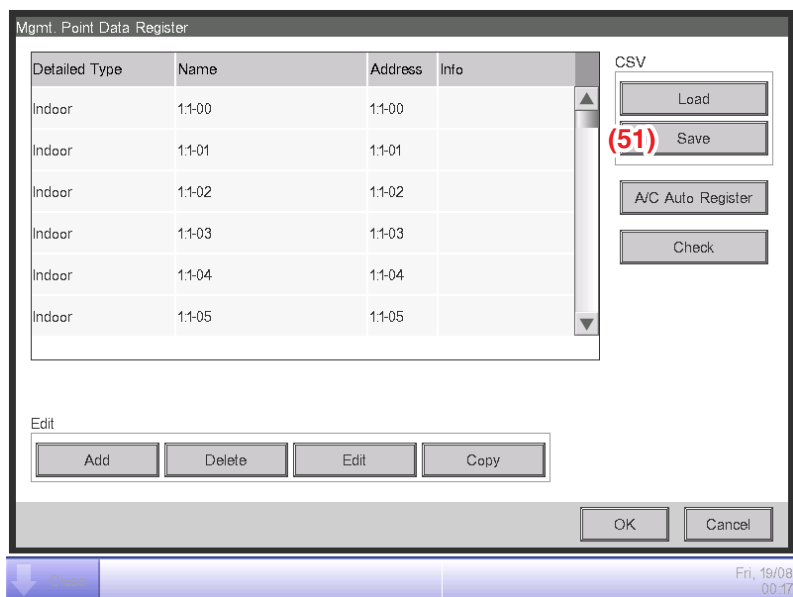
Connect a USB memory to the iTM unit and touch the **Save** button **(51)**.

Touch the Yes button on the Confirm dialog that appears. Saving to the USB memory starts.
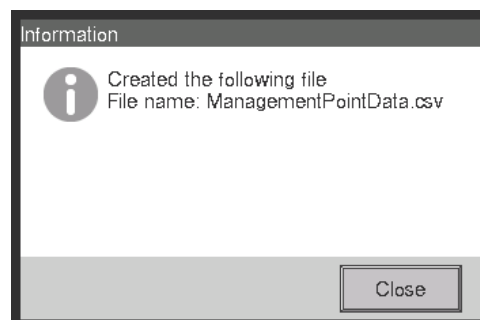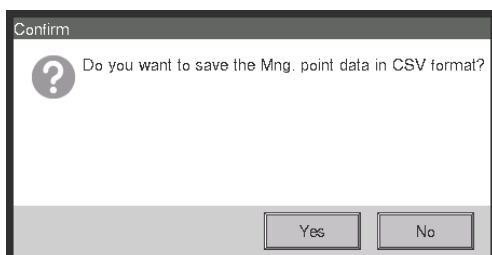
Saving is complete when a save completion dialog appears. Touch the Close button to return to the main Mgmt. Point Data Register screen.

2. Loading a CSV file

Load the edited CSV file. The edited data does not overwrite everything, it only merges the difference to the current settings data.

Log into SE Mode from the Menu List screen and display the Service Settings tab (see page 7).

Touch the Mgmt. Point Data Register button on the Service Settings tab to display the main Mgmt. Point Data Register screen.

Connect the USB memory to the iTM unit and touch the **Load** button **(52)**.

File names that can be loaded are limited to **"ManagementPointData.csv"**. If a file is named differently, rename it in advance.

Touch the Yes button on the Confirm dialog that appears to start loading.

If the setting data has been loaded without any problem, the merge results appear.
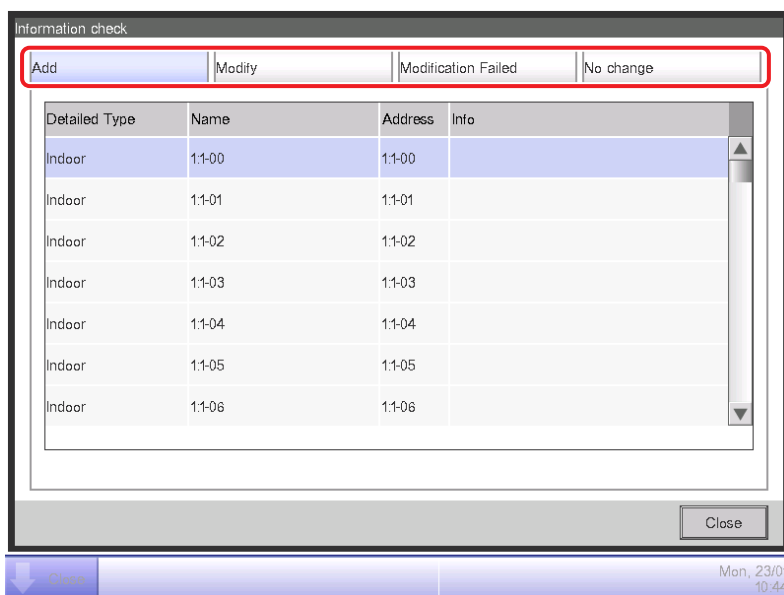
The Display Merge Results screen consists of the tabs: Add, Modify, Modification Failed, and No change.

After checking the list on each tab, touch the Close button to return to the main Mgmt. Point Data Register screen.

3. CSV file format

The format of the CSV file output from the iTM is as shown below. A CSV file output when no management point data is registered can be used as a template for new implementations since only the area used by the system and the header portion are output.

The following table shows the CSV format for management point data registration.

- Numeric values indicated in each item correspond to the column number in the CSV file (the first column is fixed and used for data type identification). Blank items indicate there is no applicable data.

Output only when BACnet (optional) is enabled.

Classification	Keyword	Description	Value	Di	Pi	D3Di	D3Dio	Indoor unit	Outdoor unit	Internal Ai	Ventilator	Chiller	Internal Pi	BACnet Di	BACnet Dio	BACnet Ai	BACnet Ao
Common	—	Header type identification	—	DI-H	PI-H	D3DI-H	D3DIO-H	IN-H	OUT-H	INTERNAL AI-H	HRV-H	CHIL-H	INTERNAL PI-H	BACNET DI-H	BACNET DIO-H	BACNET AI-H	BACNET AO-H
	—	Data type identification	—	DI-D	PI-D	D3DI-D	D3DIO-D	IN-D	OUT-D	INTERNAL AI-D	HRV-D	CHIL-D	INTERNAL PI-D	BACNET DI-D	BACNET DIO-D	BACNET AI-D	BACNET AO-D
	POINTID	Management point ID	101 to 1000000	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	NAME	Name	String (1 to 12 characters regardless of single or double byte)	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	DETAILEDINFO	Detailed information	String (0 to 50 characters regardless of single or double byte)	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	PROHIBITOP	Prohibit manual operation	0: Allowed, 1: Prohibited				5	5			5	5			5		5
	PORTNO	Port number	D3, Internal Pi, Main unit: 1 to 8; External: 1 to 30	5	5	5	6	6	5		6	6	5				
	ADDRESS1	Upper level address (group)	D3: 1 to 4; External: 1 to 120; Internal Pi: 1 to 127; Outdoor unit: 1 to 127; Main unit: 1 to 4 (2 to 4 for Port 1)	6	6	6	7	7	6		7	7	6				
	ADDRESS2	Lower level address (unit)	D3Dio, D3Di, Indoor unit, Ventilator, Chiller: 0 to 15			7	8	8			8	8					
	STARTSTOPMON	ON Status Monitor	External Di: 1 to 120; External Dio: ON Status Monitor address 1 to 120; Not specified: 0														
	NORMALABNORMALMON	Normal/Abnormal Monitor	Normal/Abnormal Monitor Input address 1 to 120; Not specified: 0														
	STARTSTOP	ON/OFF operation	0: Always 1: Instant														
	STARTSTOPADDR1	Start/Stop address 1	Always: 1 to 120; Instant: ON address 1 to 120														
	STARTSTOPADDR2	Start/Stop address 2	Always: Handled as invalid; Instant: OFF address 1 to 120														
	SERVERINST	BACnet Server Device Instance	0 to 4194302											5	6	5	6
	STATOBJTYPE	Status Object Type*	0 to 1023, Not used: –1											6	7	6	
	STATOBJINST	Status Object Instance*	0 to 4194302, Not used: –1											7	8	7	
	OPOBJTYPE	Operation Object Type*	0 to 1023, Not used: –1												9		7
	OPOBJINST	Operation Object Instance*	0 to 4194302, Not used: –1												10		8
	ERROBJTYPE	Error Object Type*	0 to 1023, Not used: –1											8	11		
	ERROBJINST	Error Object Instance*	0 to 4194302, Not used: –1											9	12		
	ICON	Icon ID	100 to 999	7	7	8	9	9	7	5	9	9	7	10	13	8	9
	ANADDR	ACNSS Address	Indoor unit (2 to 128, 1: Invalid)					10									
Monitoring	COMMONLV	Communication error monitoring level	1: Monitoring, 2: Monitor + History	8	8	9	10	11	8		10	10		11	14	9	10

Output only when BACnet (optional) is enabled. (applies to SERVERINST through ERROBJINST)

* Set to –1 when not used.
The item is regarded as not used if either the Object Type or Object Instance value is set to –1.
For information on the Object Type, refer to the applicable guideline (ISO16484-5).

Classification	Keyword	Description	Value	Di	Pi	D3Di	D3Dio	Indoor unit	Outdoor unit	Internal Ai	Ventilator	Chiller	Internal Pi	BACnet Di	BACnet Dio	BACnet Ai	BACnet Ao
Di/Dio	DIMODE	Di Operation mode	0: Normal, 1: Equipment error input	9													
	CPTYPE	Point type	0: B type, 1: A type	10													
	LATEROPE	Post-Priority	0: Disable, 1: Enable														
	ABNORMALOP	Error output holding	0: Disable, 1: Enable														
	STARTFAIL	Error Mask Time after operation input	0: 10 seconds, 1: 30 seconds														
	MONITORIN	Monitor input	0: Disable, 1: Enable														
	ABNORMAL INPUT	Error input detection	0: B type, 1: A type														
	STARTSTOP FAILURE	Start/Stop error	0: Disable, 1: Enable														
	OUTPUTSPECCONTACT	Output contact	0: B type, 1: A type														
Pi	PVAL	Pulse value	0 to 999999999, –1: Out of scope of merge		9												
	PCONST	Pulse constant	1 to 999999		10												
	PRATIO	Power ratio	0.01 to 99999.99		11												
	UNITSTR	Unit string	String (0 to 8 characters regardless of single or double byte)		12												
	CFA	Correction coefficient a	0.000 to 1000.000										8				
	CFB	Correction coefficient b	–10.000 to 10.000										9				
Ai/Ao	UNITSTR	Unit string	String (0 to 8 characters regardless of single or double byte) For Internal Ai: ●Set to "°C" or "°F" depending on the System Settings if any reference management point exists. ●Set to "—" if no reference management point exists. For other management points: Set to "°C" or "°F" depending on the System Settings, except when the Analog type is Temperature.							6			10			10	11
	TARGETID	Target management point	Management point ID (indoor unit, chiller), –1: Not specified							7							
	TARGETTYPE	Target management point	1: Suction temperature, 2: Setpoint (Indoor unit) 1: Water inlet temperature, 2: Water outlet temperature (Chiller)							8							
	ANALOGTYPE	Analog type	0: Normal, 1: Temperature							9							12
	MARGIN	Hysteresis	See page 31.							10						11	
	UPPERVAL	Upper limit	See page 31.							11						12	
	LOWERVAL	Lower limit	See page 31.							12						13	
	ULMMONLV	Upper limit monitoring level	0: Disable, 1: Monitoring, 2: Monitor + History							13						14	
	LLMMONLV	Lower limit monitoring level	0: Disable, 1: Monitoring, 2: Monitor + History													15	
	MINVAL	Minimum value	See page 31.													16	
	MAXVAL	Maximum value	See page 31.													17	
	TERMMINVAL	Terminal minimum value	See page 31.													18	
	TERMMAXVAL	Terminal maximum value	See page 31.														
	OPMINVAL	Minimum operation value	See page 31.														13
	OPMAXVAL	Maximum operation value	See page 31.														14
	OPUNIT	Displayed accuracy (exponent of 10)	See page 31.														15
Ventilator	VMODE	Ventilation mode	0: Disabled, 1: Enabled								11						
	FRESHENUP	Fresh up	0: Disabled, 1: Enabled								12						
	AUTOVOL	Automatic air volume	0: Disabled, 1: Enabled								13						

NOTE

- Symbols (decimal point, digit group separator, etc) used in Windows may vary depending on the locale. Be sure to check before editing a file.
- Pi pulse value at the time of saving the CSV file is output with an invalid, out of the merge scope value (−1). To enable pulse value merge, rewrite it to a valid range value.
- Daikin recommends you to leave the management point ID in the CSV file in blank so that they are automatically set up at loading.

4-2 Other Setting

Sets up whether to recognize the "Warning" from a management point as an error and indicate it via icon and history. Also Enables/Disables the Dry operation mode.

1. Log into SE Mode from the Menu List screen and display the Service Settings tab (see page 7). Touch the Other Setting button on the Service Settings tab to display the Centralized Monitoring Setup screen (see page 10).
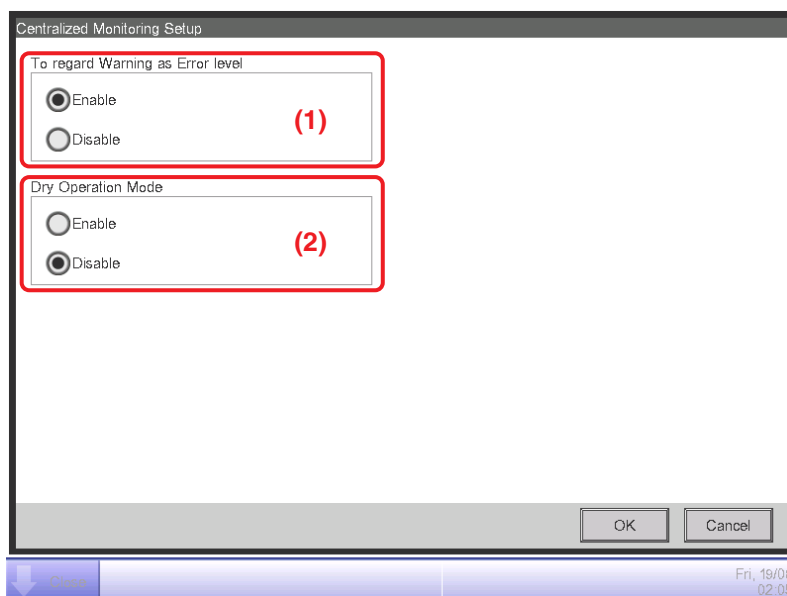
2. Enable/Disable using the **To regard Warning as Error level** radio button **(1)**. The following table shows the displayed content for each error type depending on the setting.

| | Err Type | Error detection level | |
		Not regard Warning as Error level	Regard Warning as Error level
Icon	Equipment error	○	○
	Warning	×	○
History	Equipment error	○	○
	Warning	×	○

[Legend]
○: Error indication
×: No error indication

3. Enable/Disable dry operation mode in **Dry Operation Mode** **(2)**. When enabled, allows you to set Dry mode from the touch panel, or the Schedule or Interlocking function. Touch the OK button to commit and close the screen.

4-3 DIII-NET Engineering

Sets up the iTM as "Main" or "Sub" when also installing an upper central controller. Sets Setpoint Restriction to "Enable" or "Auto" when also installing an upper central controller (such as: Interface for use in BACnet, Interface for use in LONWORKS).

1. Log into SE Mode from the Menu List screen and display the Service Settings tab (see page 7). Touch the DIII-NET Engineering button on the Service Settings tab to display the DIII-NET Engineering screen (see page 10).

2. Set "Main" or "Sub" using the **Main/Sub controller Settings** radio button **(1)**. A restart is necessary after switching the Main/Sub controller Settings.

> **NOTE**
>
> When "Sub" is selected, **Setpoint Range Limit if another controller exists** **(2)** is greyed out and cannot be selected. The setting is "always disabled".

3. If you have set "Main" in step 2, select "Enable" or "Auto" in **Setpoint Range Limit if another controller exists** **(2)**.

Enable: The Setpoint Restriction is enabled.

Auto: The Setpoint Restriction is disabled when an upper central unit is present. The Setpoint Restriction is enabled when an upper central unit is not present.

4. **(3)** is a list of Connector Plugs for each iTM port. **(4)** is a list of central units recognized on the port selected in **(3)**, where its name is displayed along with its Main/Sub setting. Central units that can be installed together are as follows.

> **NOTE**
>
> This iTM is not displayed in **(4)**.

Displayed information	Applicable product
DDS	Interface for use in BACnet
	Interface for use in LONWORKS
Main CRC-1	Central Remote Controller iTM
Sub CRC-1	iTM plus adaptor
Main On/Off-1	ON/OFF Controller
Sub On/Off-1	
Main On/Off-2	ON/OFF Controller
Sub On/Off-2	
Main On/Off-3	ON/OFF Controller
Sub On/Off-3	
Main On/Off-4	ON/OFF Controller
Sub On/Off-4	
(Hidden)	Service checker, LC
Unknown	Central units other than the above

5. Pressing the **Refresh** button **(5)** updates **(3)** and **(4)**. Touching the OK button displays a confirmation dialog. Touch the Yes button to commit. The screen closes and the system restarts.

> **NOTE**
>
> If you install or uninstall another controller, please review the configuration of the Setpoint Range Limit.

4-4   Time Zone

Sets up the difference between the Universal Time Coordinated (UTC) and local time.

1. Log into SE Mode from the Menu List screen and display the Service Settings tab (see page 7). Touch the Time Zone button on the Service Settings tab to display the Time Zone Setting screen (see page 10).
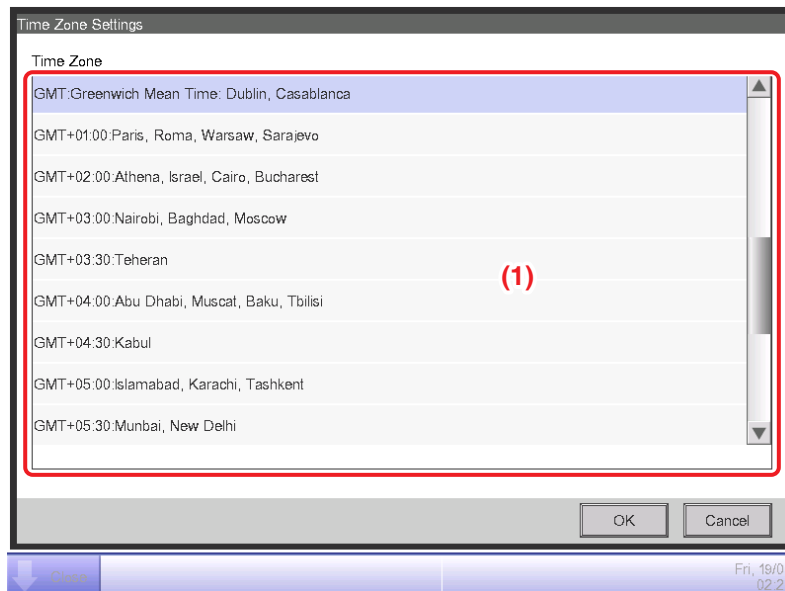
2. Select the time zone in the Time Zone area **(1)**. Touching the OK button displays a confirmation dialog. Touch the Yes button to commit and close the screen.

4-5   Changeover Option

Enables/Disables the Changeover Option for an indoor unit.

1. Log into SE Mode from the Menu List screen and display the Service Settings tab (see page 7). Touch the Changeover Option button on the Service Settings tab to display the Changeover Option screen (see page 10).
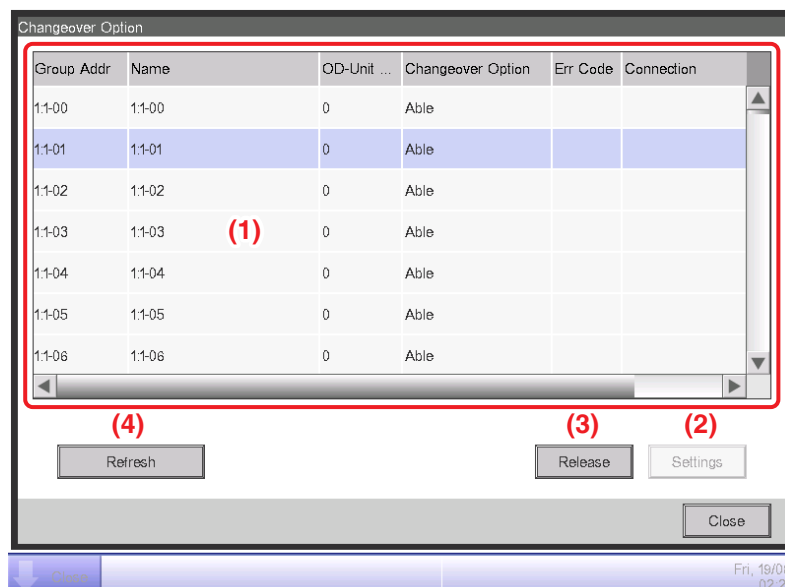
2. **(1)** is an air conditioner list displaying all Group Addresses. When no management points are registered, columns other than Group Addr. are displayed blank.

The displayed contents are as indicated in the table below.

Column	Displayed information	Value range
Group Addr.	Group address number	1:1-00 to 8:4-15
Name	Displays the name of the connected unit.	Characters permitted by Mgmt. Point Data Register.
OD-Unit Addr.	Refrigeration system number of the connected unit. "----" is displayed for units for which the refrigeration system number could not be acquired.	0 to 127/----
Changeover Option	Whether Changeover Option is available or not for the connected unit.	Able / N/A / Selectable / ---- *1
Err Code	Error code detected in the connected unit. Blank when there are no errors.	Possible Error Code values
Connection	Unit connection status Blank when normal.	Comm Err / N/A / Maintenance *2
Type	Type of the connected unit. Blank when type is not registered.	Indoor / Ventilator / Chiller / Dio

*1 See the table below for the correspondence between the content displayed in the Changeover Option column and its meaning.

*2 Comm Err   : Group address of the connected unit with communication error.

  N/A   : A group address not registered as a management point.

  Maintenance : A group address of a connected unit under maintenance.

Changeover Option	Meaning	Availability for selection	
		Release button	Setup button
Able	Unit with Changeover Option.	◯	×
N/A	There is an indoor unit with Changeover Option within the same refrigeration system.	×	×
Selectable	There are no indoor units with Changeover Option within the same refrigeration system.	×	◯
---	Connection is "N/A" or Type is other than "Indoor".	×	×

[Legend] ◯: Not greyed out ×: Greyed out

3. Select the indoor unit for which you want to set the Changeover Option from **(1)** and touch the **Settings** button **(2)**. The Changeover Option becomes "Able". At that moment, the Changeover Option for the other indoor units in the same refrigeration system becomes "N/A".

4. Select the indoor unit for which you want to release the Changeover Option from **(1)** and touch the **Release** button **(3)**. The Changeover Option becomes "Selectable". At that moment, the Changeover Option for the other indoor units in the same refrigeration system also becomes "Selectable". Touching the **Refresh** button **(4)** updates the contents displayed in **(1)**. Close the screen using the Close button.

4-6   History Mgmt. (Delete)

Deletes history records.

1. Log into SE Mode from the Menu List screen and display the Service Settings tab (see page 7). Touch the History Mgmt. button on the Service Settings tab to display the History Management screen (see page 10).

2. Using the **Remove history data** radio button **(1)**, select whether to delete All or a Period.

3. If you selected Period, set up the start date of the period to delete in **(2)** and the end date in **(3)**. To set up the start date, touch the **Modify** button **(4)** and enter the start date in the Time Input dialog box that appears. Touch the OK button to commit the start date and close the dialog. The start date is displayed in the From field **(2)**. To set the end date, touch the **Modify** button **(5)** and enter the end date in the Time Input dialog box that appears. Touch the OK button to commit the end date and close the dialog. The end date is displayed in the To field **(3)**.

4. Touching the **Delete** button **(6)** displays a confirmation dialog. Touch the Yes button to delete the history for the specified period. Touch the Close button and close the screen.

> **NOTE**
>
> If you specified a period to delete, you can cancel deletion halfway but the history data before cancelling will be deleted. Make sure before executing because the deleted data cannot be recovered.

4-7 Pre-engineering

Pre-engineering is carried out to lessen the work to be carried out on site, such as when installing iTM in a large new property, modifying settings due to a large-scale equipment renovation, or making extensive modifications to the settings due to the implementation of new functions, etc.

By using the Pre-engineering tool (demo version for PC) described here together with the CSV file input/output function described in 4-1 and the backup function described in 4-9, you will be able to set up most of the items at the office including detailed settings and automatic control settings for the management points, as well as system settings.
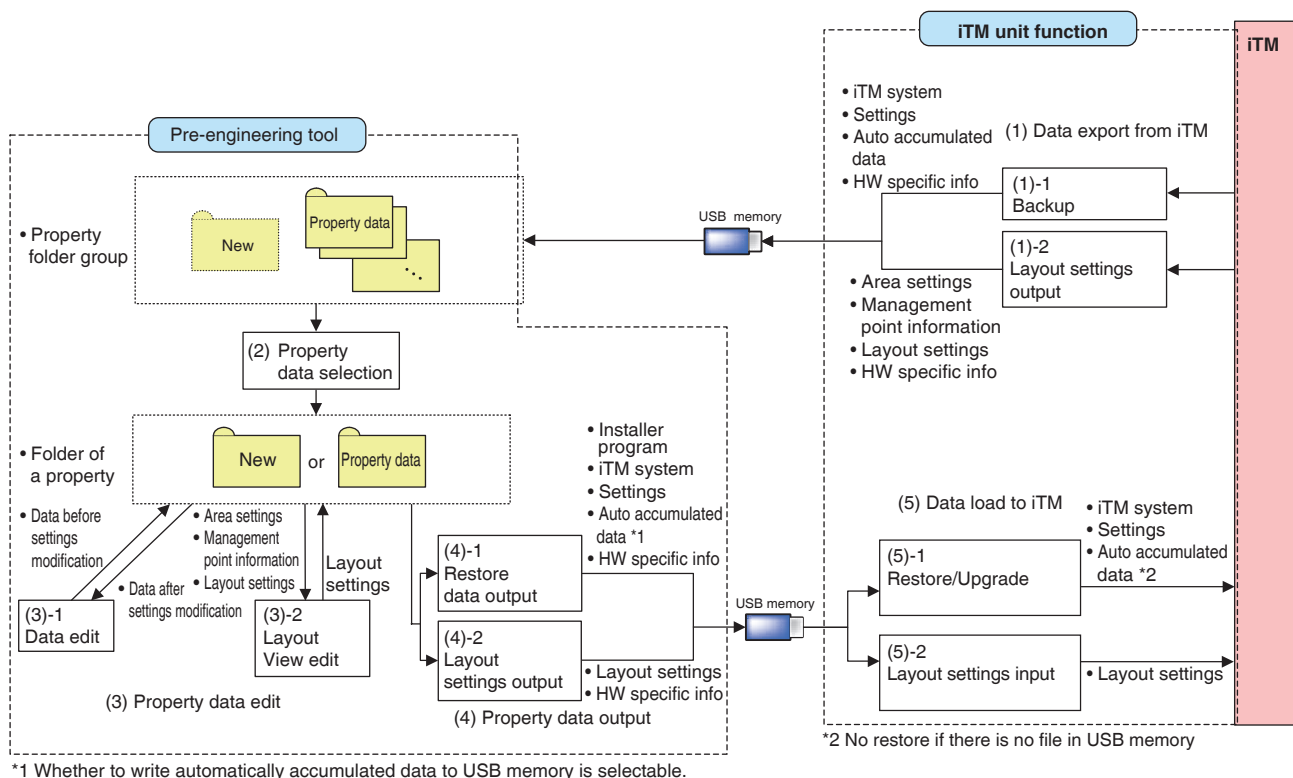
Pre-engineering Tool and iTM Unit Data Flow Diagram

*1 Whether to write automatically accumulated data to USB memory is selectable.

NOTE

iTM integrator uses the backup data for restoring because it is not compatible with the Pre-engineering tool.

Relationship between the assumed scenario and functions

Function \ Scenario	(2) Property data selection	(3) Property data edit		(4) Property data output	
		(3)-1 Data edit	(3)-2 Layout View edit	Restore data output	Layout settings output
Scenario 1: Installation to new property	○	○	○	○	×
Scenario 2: Maintenance of existing property — Data edit	○	○	○	○	×
Scenario 2: Maintenance of existing property — Layout View edit	○	×	○	×	○
Scenario 3: Restore with existing property's backup data	○ * Not applicable to iTM integrator	×	×	○	×
Scenario 4: Implementation of new functions due to existing property's upgrade	○	○	×	○	×

Function \ Scenario	(1) Export from iTM		(5) Load to iTM	
	(1)-1 Backup	(1)-2 Layout settings output	(5)-1 Restore/Upgrade	(5)-2 Layout settings input
Scenario 1: Installation to new property	×	×	○	×
Scenario 2: Maintenance of existing property — Data edit	○	×	○	×
Scenario 2: Maintenance of existing property — Layout View edit	×	○	×	○
Scenario 3: Restore with existing property's backup data	×	×	○	×
Scenario 4: Implementation of new functions due to existing property's upgrade	○	×	○	×

Download the pre-engineering tool from the Distributor's Page.

To use the pre-engineering tool, a separate PC is necessary. The requirements for the PC are as indicated in the table below.

PC requirement for running the pre-engineering tool

Function	Requirement
PC to run the pre-engineering tool	OS: Windows XP Professional SP3 (32 bit) 　　　Windows VISTA Business SP2 (32 bit) 　　　Windows 7 Professional SP1 (32 bit, 64bit) CPU: Equivalent to Intel Core 2 Duo 1.2 GHz or higher Memory: 2 GB or more Free HDD space: 10 GB or more Network: 100Base-TX or higher Display resolution: 1024 x 768 or higher
Network	100Base-TX Real transfer rate: 115 kbps or higher
Supported security software	McAfee 2011 Norton 2011 Virus Buster 2011
Flash Player	Version 11.1
Web browser	Internet Explorer 8, 9 Firefox 10.0

Displaying the main screen

1. Start up the pre-engineering tool on the PC.
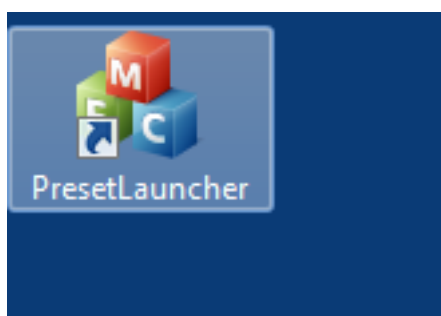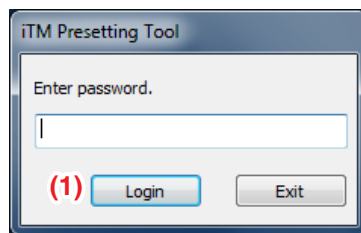
2. On the login screen that appears, enter the password and click the **Login** button **(1)**.

   The iTM Pre-engineering tool main screen appears if the correct password has been provided.

Main screen
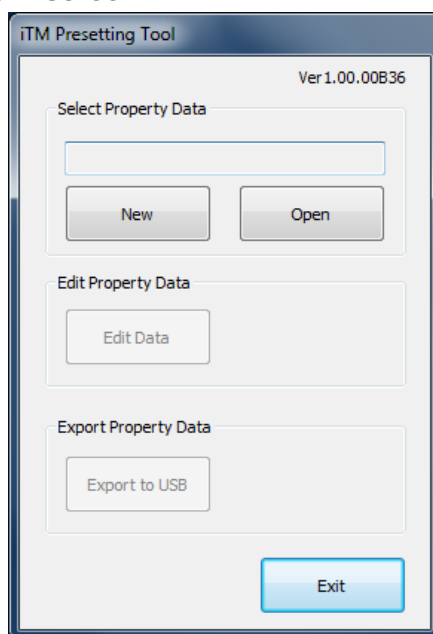
Scenario 1: Installation to new property

Set up data for the new property in advance.

Main screen
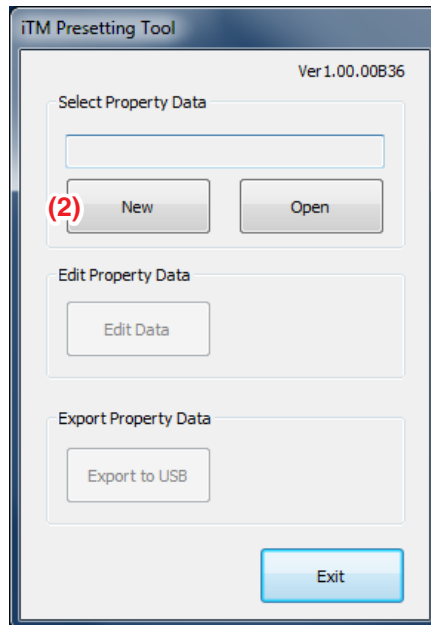
1. Click the **New** button **(2)** to display the Create New Folder dialog.

Create New Folder dialog
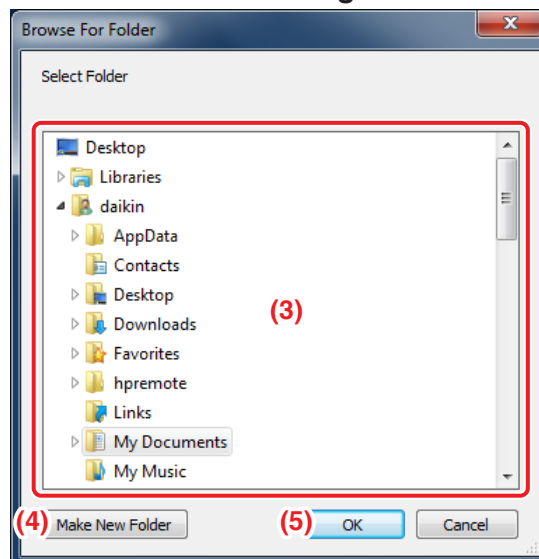
2. Select the location to create the new property's folder in **(3)**.

Clicking the **Make New Folder** button **(4)** creates a new folder directly under the folder selected in **(3)**.

Clicking the **OK** button **(5)** sets up the folder selected in **(3)** as new folder. A dialog confirming whether to delete the data in the folder appears. Click the Yes button to commit and return to the iTM Pre-engineering tool main screen.

Main screen
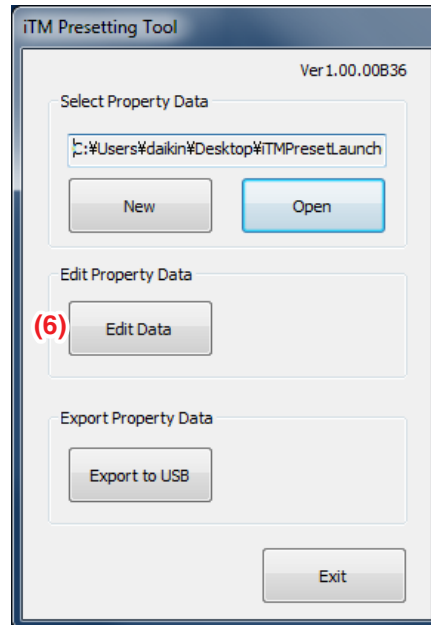
3. Click the **Edit Data** button **(6)** to start up the iTM demo version for PC.

Screen of demo version for PC
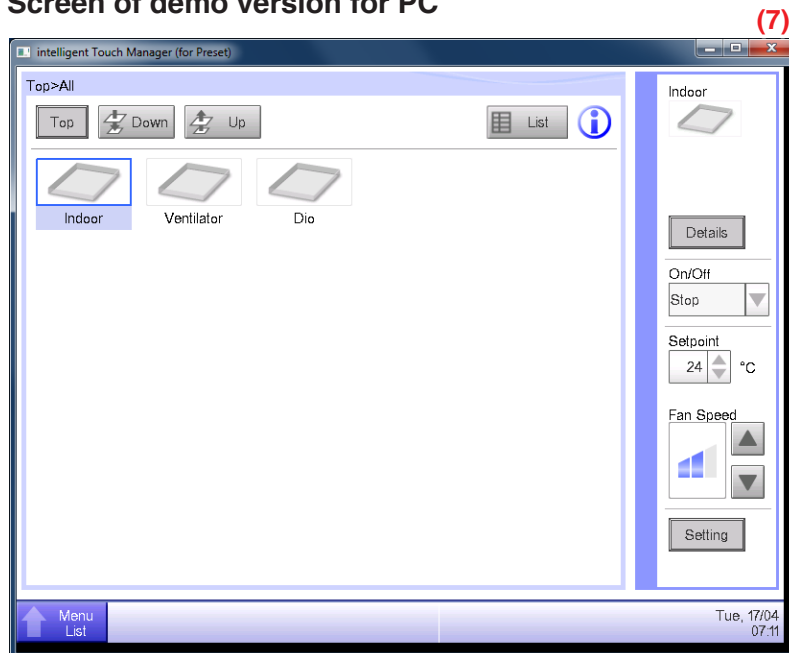
The demo version for PC allows you to make similar settings as with the iTM unit. Make settings as required.

When finished, click the [×] button **(7)** and return to the Pre-engineering tool main screen.

Main screen
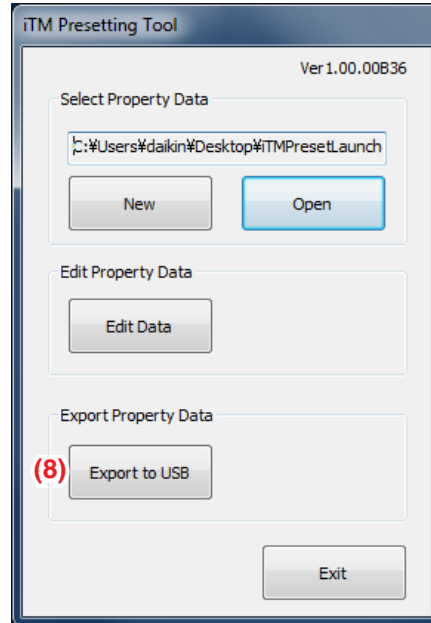
4. Output the edited restore data in the property folder to a USB memory.

   Click the **Export to USB** button **(8)**. The Output to USB dialog appears.
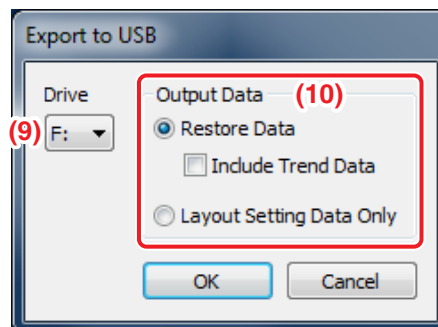
Select the drive in the **Drive** combo box **(9)**.

Select the content to output using the **Output Data** radio button **(10)**.

Click the OK button. A conformation dialog appears, indicating that you are about to delete the data in the folder. If you click the Yes button to confirm the deletion, the output of data starts and the screen closes.

NOTE

Check that the USB memory is ready for writing data. The output will fail if it is damaged, has insufficient storage capacity, or is write-protected.

---

5. The set up restore data is saved to the USB. Insert the USB memory to iTM to restore. (For details, see 4-10 Installation)

NOTE

"Layout Setup data only" is available when the Layout option is enabled and saves only the Layout Setup data to the USB memory. For the method of entering the Layout Setup data to the iTM unit, see the supplementary volume Layout View Creation Tool (EM11A024).

Scenario 2: Maintenance of existing property (When carrying out pre-engineering using the current setting)

When extensively modifying an existing property due to equipment renovation and the like, the current settings for the existing property must be modified.

1. Back up the system file data as well as settings data, MAC addresses, etc. on the iTM unit to a USB memory. (For details, see 4-9 Backup)

2. Copy data backed up in the USB memory (folder name: Backup_MAC address_year month day_ hour minute second) to a PC. Start up the Pre-engineering tool and display its main screen. (For details, see page 46)

Main screen
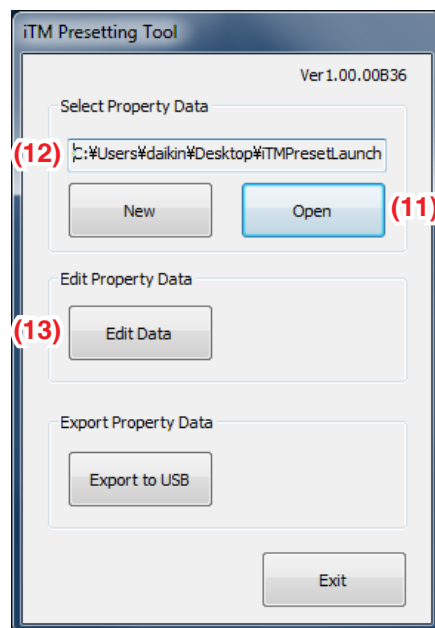
3. Click the **Open** button **(11)** to display the Select Folder to Open dialog.

Select the folder of the property to edit and click the OK button.

> **NOTE**
>
> If the property data is created using an older version, a dialog that prompts upgrade appears. Click the OK button.

The absolute path is displayed in **(12)** when a property data is selected.

4. Click the **Edit Data** button **(13)** to start up the iTM demo version for PC.

   The steps from editing using the demo version for PC to restore data output to USB and iTM restore are the same as steps 3 to 5 of the procedure for Scenario 1: Installation to new property.

   > **NOTE**
   >
   > The Layout Setup data backup and restore procedures are the same as when modifying the Layout View of an existing property. For the method of editing the Layout Setup data, see the supplementary volume Layout View Creation Tool (optional).

Scenario 3: Restore with existing property's backup data

When iTM in an existing property is replaced due to malfunction and the like, the system is recovered by restoring the backup data (folder name: Backup_MAC address_year month day_hour minute second) to the new iTM.

• **iTM**

Main screen
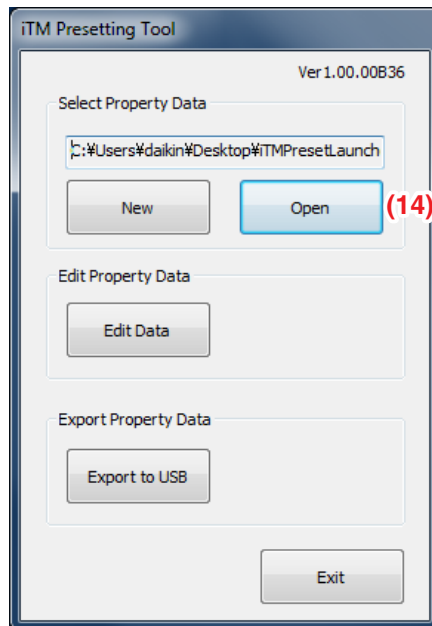
1. Click the **Open** button **(14)** to display the Select Folder to Open dialog. Select the folder of the property for which you are creating the restore data and click the OK button to close the screen.

2. The restore data in the selected folder is output to a USB memory.
   The steps up to the output to USB and iTM restore are the same as steps 4 and 5 of the procedure for Scenario 1: Installation to new property.

• **iTM integrator**

1. Copy the data backed up with iTM integrator (folder name: iTM_integrator_Backup_MAC address_year month day_hour minute second) to the USB memory connected to a PC.

2. Move all the data in the folder copied to the USB memory to directly below the USB memory.

3. Insert the USB memory prepared with PC to the iTM integrator to restore. (For details, see 4-10 Installation)

Scenario 4: Implementation of new functions due to existing property's upgrade

When implementing new functions to an existing property, the upgraded Pre-engineering tool is used to create the functions' settings data.

1. Back up the system file data as well as settings data, MAC addresses, etc. on the iTM unit to a USB memory. (For details, see 4-9 Backup)

2. Copy data backed up in the USB memory (folder name: Backup_MAC address_year month day_ hour minute second) to a PC. Start up the newly acquired upgraded Pre-engineering tool and display its main screen. (For details, see page 46)

3. Edit the settings data using the upgraded Pre-engineering tool.
   The steps up to the output of the edited data to USB and iTM restore are the same as steps 4 and 5 of the procedure for Scenario 1: Installation to new property.

4-8   Upgrade

Upgrade includes system file installation for a new property or new function implementation to an existing property. (When using the Pre-engineering tool, see 4-7 Pre-engineering)

> **NOTE**
>
> When installing a new iTM, be sure to install the updater program during the preparation.

Download procedure

1. From your PC, access the Network Solution page of the Distributor's Page. Then, download and save the updater program onto the USB memory.

2. Insert the USB memory with the updater program into iTM and install. For the installation procedure, see 4-10 Installation.

4-9 Backup

When modifying settings data due to equipment renovation in an existing property or upgrade, the iTM unit data must be backed up to a USB memory as history and settings data reference for troubleshooting and the like.

Data to be backed up is as follows.

- iTM system file

- Settings data of each function

- Automatically accumulated data such as Energy Navigator's time tone, trend data, and history data

- MAC addresses

NOTE

All iTM functions run normally even during backup. However, operation from the iTM unit's screen is restricted during backup.

The following describes how to create a backup.

1. Display the System Settings tab of the Menu List screen (see page 12).
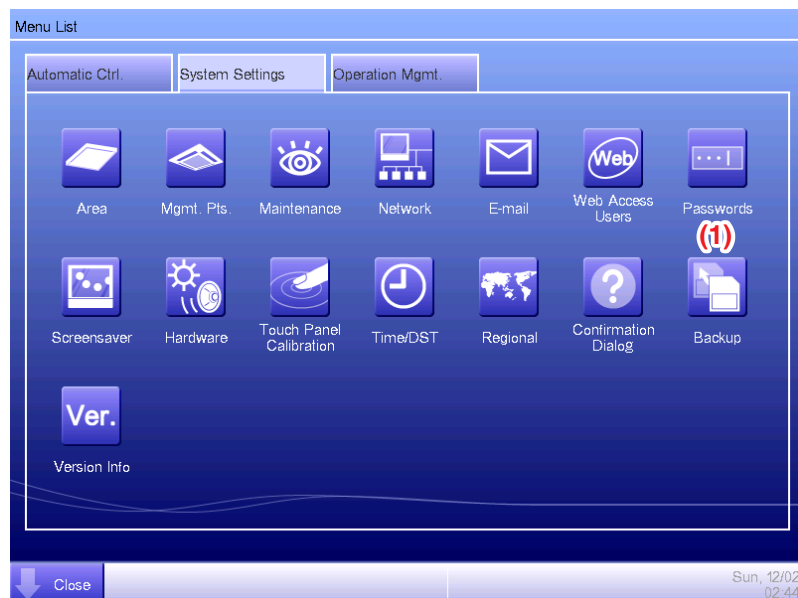
2. Insert a USB memory into iTM. Touching the **Backup** button **(1)** displays a backup start confirmation dialog.
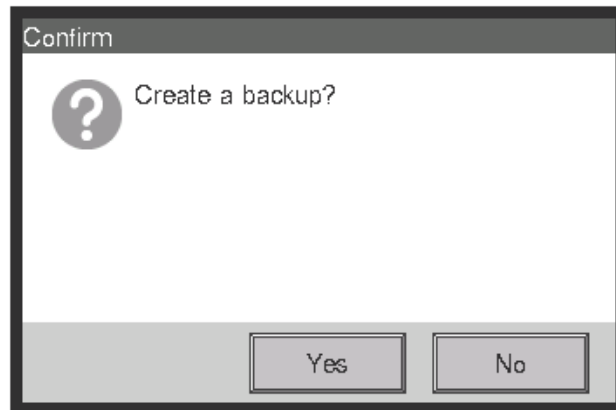
3. Touch the Yes button. A USB memory content deletion confirmation dialog appears.
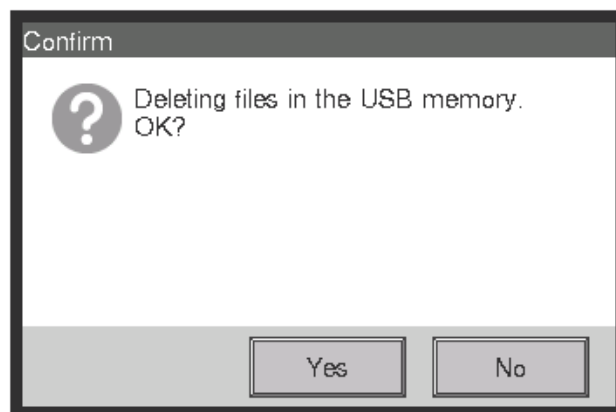
4. Touching the Yes button displays a wait dialog and starts the backup. When backup is complete, an information dialog appears. Touch the Close button to close the screen and remove the USB memory.

NOTE

- All the folders and files in the USB memory will be deleted when the backup begin.
- One folder with the following name will be created in the USB memory when the backup complete.

  "Backup_XXXXXXXXXXXX_YYYYMMDD_HHMMSS"

  (XXXXXXXXXXXX: MAC address of the iTM, YYYYMMDD_HHMMSS: Year, Month, Day, Hour, Minute and Second of the backup execution time)
- When backup fails because the USB memory is not inserted or due to an error, an error dialog appears.

4-10　Installation

Data installation to the iTM unit includes installation of upgrade data and pre-engineered data (See 4-7 Pre-engineering). The installation procedure is the same in all cases.

The following describes the operating procedure.

1. Insert the USB memory with the target data into the iTM unit and turn on, or restart, the iTM unit while pressing the MONITOR button provided on it. Keep the MONITOR button depressed until the following screen appears and then release it. To restart, press the RESET// switch on the front panel. (See the intelligent Touch Manager Installation Manual).
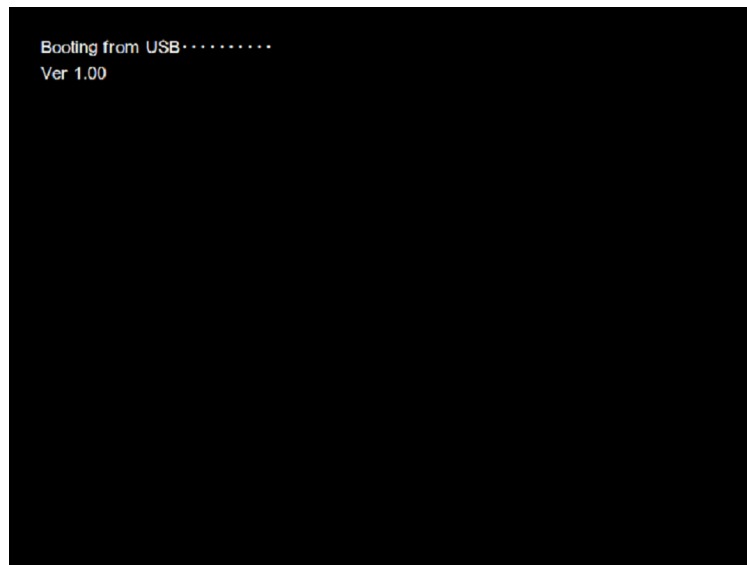
2. The calibration screen appears. Correct the touch panel calibration. To calibrate more accurately, use a touch pen.
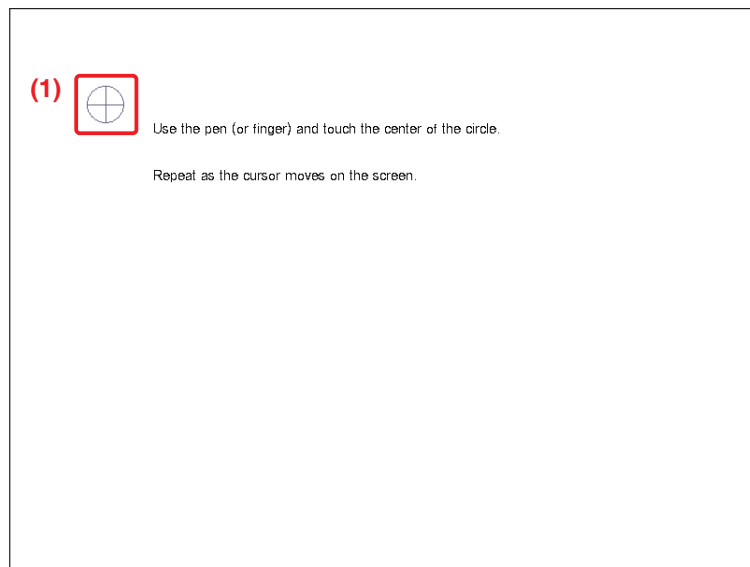
3. A cross **(1)** will appear 5 times on the screen. Touch the centre of each cross in order. You can start the calibration again by touching a point far from the cross. The calibration is complete when you touched the cross 5 times.

4. The installation tool screen appears once calibration is finished.

> **NOTE**
>
> If an error is found in the installer program on the USB memory, an error confirmation dialog appears. Be sure to prepare the correct installer program.
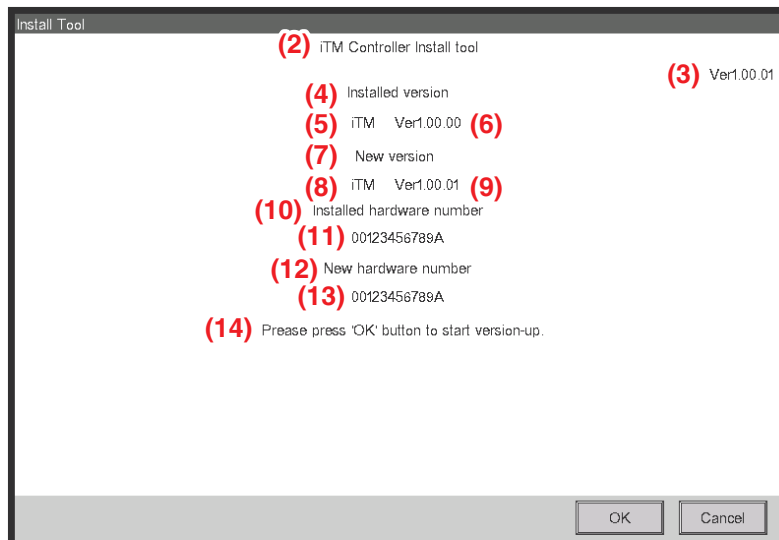
5. The version of the data and MAC addresses in the USB memory are compared with the version and MAC addresses on the iTM.

   The information displayed on the installation tool screen is as follows.

   (2) Name

   (3) Version of the installer

   (4) Name of the current version

   (5) Name of the current controller

   (6) Current version

   (7) Name of the installer

   (8) Name of the installer controller

   (9) Version of the installer

   (10) Current hardware name

   (11) Current MAC address

   (12) Name of the installer hardware

   (13) Installer's MAC address

   (14) Message displayed in accordance with the installation tool's status.

If there is no flaw in the information, touching the OK button on the installation tool screen starts the installation. When installation is complete, an information dialog appears. Remove the USB memory and touch the Close button to close the screen. The iTM automatically restarts and checks the history and version information, and then installation will be completed.

> **NOTE**
>
> If the data version on the installer side is earlier than that on iTM, the OK button on the installation tool screen is greyed out and cannot be clicked.

4-11   Contact Info

Sets up contact information for inquiries regarding the system.

1. Log into SE Mode from the Menu List screen and display the Service Settings tab (see page 7). Touch the Contact Info button on the Service Settings tab to display the Contact Information Setup screen (see page 10).

2. You can set up to 3 lines of contact information: Lines 1 to 3 **(1)**. Touch the Modify button to display the Text Input dialog. Enter necessary information such as dealer's name, telephone number, e-mail address, etc. You can enter up to 50 characters in each line, regardless of single or double byte.
    When finished setting up the contact information, touch the OK button to close the screen.

3. The registered contact information can be checked on the Contact tab of the Information screen accessible from the Standard View screen. (See User's Manual (EM11A015))
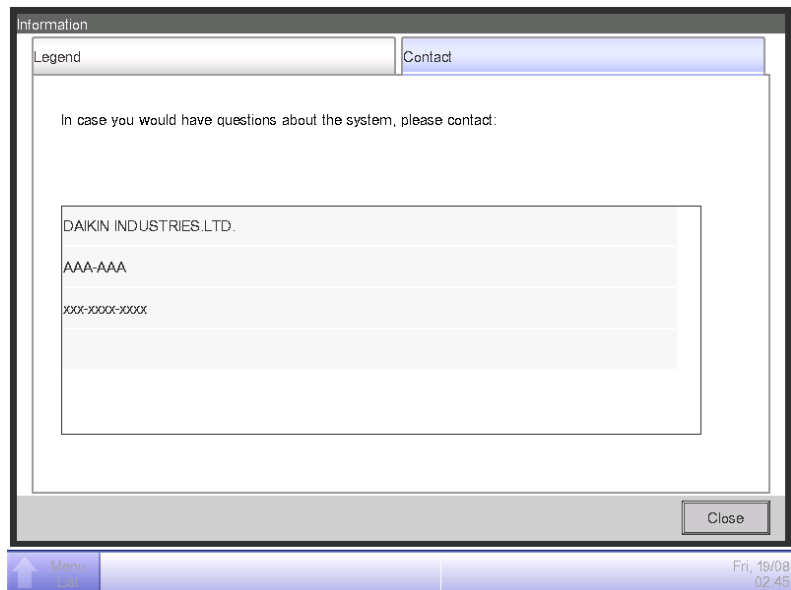
4-12　Setting outdoor unit

Set the type of the outdoor unit registered as a Mgmt. point.

1. Log into SE Mode from the Menu List screen and display the Service Settings tab (see page 7).

   Touch the Outdoor Setup button on the Service Settings tab to display the Outdoor Setup screen (see page 10).

2. Select the desired outdoor unit from the list and touch the **(1) Type** button.

   When the input dialogue is displayed, input the type. The type depends on the model of the outdoor unit. Check the type in the table on page 63 before setting.

⚠ **CAUTION**

If the specified type of outdoor unit is wrong, leakage check operation cannot be executed correctly. Be careful when setting the type.

NOTE

When you use the outdoor unit as Internal Pi, check that the pulse amount is correct in the detailed information screen.

Precautions when using DIII-NET EXPANDER ADAPTER

In the application using the DIII-NET EXPANDER ADAPTER, if you monitor the outdoor units or use Internal Pi or such other functions processed based on information from the outdoor units, you need to cut the jumper pin of the DIII-NET EXPANDER ADAPTER.

Intended functions: Monitoring of outdoor units, Energy Navigator and leakage detection.

The jumper pin to be cut is J1 only.

There are two jumper pins to be cut, so be sure to cut both of them.

NOTE

The total number of outdoor units connected to the DIII-NET EXPANDER ADAPTER (whose J1 jumper pins were cut) and those directly connected to iTM should be 10 or less.

Table of types

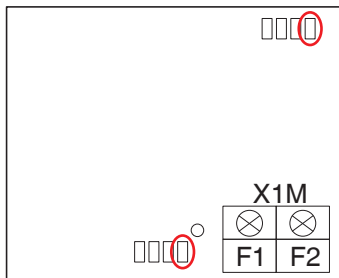| No.	Model name	Type	No.	Model name	Type	No.	Model name	Type	No.	Model name	Type
1	RXYQ5MY1B	1	36	RXYQ32M7W1B	1	71	RX18MY1	1	106	RX30MTLE	1
2	RXYQ8MY1B	1	37	RXYQ34M7W1B	1	72	RX18MY1E	1	107	RX30MY1	1
3	RXYQ10MY1B	1	38	RXYQ36M7W1B	1	73	RX18MYL	1	108	RX30MY1E	1
4	RXYQ12MY1B	1	39	RXYQ38M7W1B	1	74	RX18MYLE	1	109	RX30MYL	1
5	RXYQ14MY1B	1	40	RXYQ40M7W1B	1	75	RX20MTL	1	110	RX30MYLE	1
6	RXYQ16MY1B	1	41	RXYQ42M7W1B	1	76	RX20MTLE	1	111	RX32MTL	1
7	RXYQ18MY1B	1	42	RXYQ44M7W1B	1	77	RX20MY1	1	112	RX32MTLE	1
8	RXYQ20MY1B	1	43	RXYQ46M7W1B	1	78	RX20MY1E	1	113	RX32MY1	1
9	RXYQ22MY1B	1	44	RXYQ48M7W1B	1	79	RX20MYL	1	114	RX32MY1E	1
10	RXYQ24MY1B	1	45	RX10MTL	1	80	RX20MYLE	1	115	RX32MYL	1
11	RXYQ26MY1B	1	46	RX10MTLE	1	81	RX22MTL	1	116	RX32MYLE	1
12	RXYQ28MY1B	1	47	RX10MY1	1	82	RX22MTLE	1	117	RX34MTL	1
13	RXYQ30MY1B	1	48	RX10MY1E	1	83	RX22MY1	1	118	RX34MTLE	1
14	RXYQ32MY1B	1	49	RX10MYL	1	84	RX22MY1E	1	119	RX34MY1	1
15	RXYQ34MY1B	1	50	RX10MYLE	1	85	RX22MYL	1	120	RX34MY1E	1
16	RXYQ36MY1B	1	51	RX12MTL	1	86	RX22MYLE	1	121	RX34MYL	1
17	RXYQ38MY1B	1	52	RX12MTLE	1	87	RX24MTL	1	122	RX34MYLE	1
18	RXYQ40MY1B	1	53	RX12MY1	1	88	RX24MTLE	1	123	RX36MTL	1
19	RXYQ42MY1B	1	54	RX12MY1E	1	89	RX24MY1	1	124	RX36MTLE	1
20	RXYQ44MY1B	1	55	RX12MYL	1	90	RX24MY1E	1	125	RX36MY1	1
21	RXYQ46MY1B	1	56	RX12MYLE	1	91	RX24MYL	1	126	RX36MY1E	1
22	RXYQ48MY1B	1	57	RX14MTL	1	92	RX24MYLE	1	127	RX36MYL	1
23	RXYQ5M7W1B	1	58	RX14MTLE	1	93	RX26MTL	1	128	RX36MYLE	1
24	RXYQ8M7W1B	1	59	RX14MY1	1	94	RX26MTLE	1	129	RX38MTL	1
25	RXYQ10M7W1B	1	60	RX14MY1E	1	95	RX26MY1	1	130	RX38MTLE	1
26	RXYQ12M7W1B	1	61	RX14MYL	1	96	RX26MY1E	1	131	RX38MY1	1
27	RXYQ14M7W1B	1	62	RX14MYLE	1	97	RX26MYL	1	132	RX38MY1E	1
28	RXYQ16M7W1B	1	63	RX16MTL	1	98	RX26MYLE	1	133	RX38MYL	1
29	RXYQ18M7W1B	1	64	RX16MTLE	1	99	RX28MTL	1	134	RX38MYLE	1
30	RXYQ20M7W1B	1	65	RX16MY1	1	100	RX28MTLE	1	135	RX40MTL	1
31	RXYQ22M7W1B	1	66	RX16MY1E	1	101	RX28MY1	1	136	RX40MTLE	1
32	RXYQ24M7W1B	1	67	RX16MYL	1	102	RX28MY1E	1	137	RX40MY1	1
33	RXYQ26M7W1B	1	68	RX16MYLE	1	103	RX28MYL	1	138	RX40MY1E	1
34	RXYQ28M7W1B	1	69	RX18MTL	1	104	RX28MYLE	1	139	RX40MYL	1
35	RXYQ30M7W1B	1	70	RX18MTLE	1	105	RX30MTL	1	140	RX40MYLE	1

No.	Model name	Type	No.	Model name	Type	No.	Model name	Type	No.	Model name	Type
141	RX42MTL	1	208	RXY20MTLE	1	275	RXY42MY1	1	342	RHXY32MY1	1
142	RX42MTLE	1	209	RXY20MY1	1	276	RXY42MY1E	1	343	RHXY34MY1	1
143	RX42MY1	1	210	RXY20MY1E	1	277	RXY42MYL	1	344	RHXY36MY1	1
144	RX42MY1E	1	211	RXY20MYL	1	278	RXY42MYLE	1	345	RHXY38MY1	1
145	RX42MYL	1	212	RXY20MYLE	1	279	RXY44MTL	1	346	RHXY40MY1	1
146	RX42MYLE	1	213	RXY22MTL	1	280	RXY44MTLE	1	347	RHXY42MY1	1
147	RX44MTL	1	214	RXY22MTLE	1	281	RXY44MY1	1	348	RHXY44MY1	1
148	RX44MTLE	1	215	RXY22MY1	1	282	RXY44MY1E	1	349	RHXY46MY1	1
149	RX44MY1	1	216	RXY22MY1E	1	283	RXY44MYL	1	350	RHXY48MY1	1
150	RX44MY1E	1	217	RXY22MYL	1	284	RXY44MYLE	1	351	RXYMQ4MV4A	1
151	RX44MYL	1	218	RXY22MYLE	1	285	RXY46MTL	1	352	RXYMQ5MV4A	1
152	RX44MYLE	1	219	RXY24MTL	1	286	RXY46MTLE	1	353	RXYMQ6MV4A	1
153	RX46MTL	1	220	RXY24MTLE	1	287	RXY46MY1	1	354	RXYMQ4M7V3B	1
154	RX46MTLE	1	221	RXY24MY1	1	288	RXY46MY1E	1	355	RXYMQ5M7V3B	1
155	RX46MY1	1	222	RXY24MY1E	1	289	RXY46MYL	1	356	RXYMQ6M7V3B	1
156	RX46MY1E	1	223	RXY24MYL	1	290	RXY46MYLE	1	357	RXYQ96MTJU	1
157	RX46MYL	1	224	RXY24MYLE	1	291	RXY48MTL	1	358	RHX8MAY1	1
158	RX46MYLE	1	225	RXY26MTL	1	292	RXY48MTLE	1	359	RHX12MAY1	1
159	RX48MTL	1	226	RXY26MTLE	1	293	RXY48MY1	1	360	RHX18MAY1	1
160	RX48MTLE	1	227	RXY26MY1	1	294	RXY48MY1E	1	361	REYQ96MTJU	1
161	RX48MY1	1	228	RXY26MY1E	1	295	RXY48MYL	1	362	RMX112CMV2C	1
162	RX48MY1E	1	229	RXY26MYL	1	296	RXY48MYLE	1	363	RMX140CMV2C	1
163	RX48MYL	1	230	RXY26MYLE	1	297	RXY5MTL	1	364	RMX160CMV2C	1
164	RX48MYLE	1	231	RXY28MTL	1	298	RXY5MTLE	1	365	RXM4MVM	1
165	RX5MTL	1	232	RXY28MTLE	1	299	RXY5MY1	1	366	RXM5MVM	1
166	RX5MTLE	1	233	RXY28MY1	1	300	RXY5MY1E	1	367	RXM6MVM	1
167	RX5MY1	1	234	RXY28MY1E	1	301	RXY5MYL	1	368	RXYM4MVM	1
168	RX5MY1E	1	235	RXY28MYL	1	302	RXY5MYLE	1	369	RXYM5MVM	1
169	RX5MYL	1	236	RXY28MYLE	1	303	RXY8MTL	1	370	RXYM6MVM	1
170	RX5MYLE	1	237	RXY30MTL	1	304	RXY8MTLE	1	371	RXYM4MVMT	1
171	RX8MTL	1	238	RXY30MTLE	1	305	RXY8MY1	1	372	RXYM5MVMT	1
172	RX8MTLE	1	239	RXY30MY1	1	306	RXY8MY1E	1	373	RXYM6MVMT	1
173	RX8MY1	1	240	RXY30MY1E	1	307	RXY8MYL	1	374	RXYSQ4M7V3B	1
174	RX8MY1E	1	241	RXY30MYL	1	308	RXY8MYLE	1	375	RXYSQ5M7V3B	1
175	RX8MYL	1	242	RXY30MYLE	1	309	REYQ8MY1B	1	376	RXYSQ6M7V3B	1
176	RX8MYLE	1	243	RXY32MTL	1	310	REYQ10MY1B	1	377	RWEYQ10MY1	1
177	RXY10MTL	1	244	RXY32MTLE	1	311	REYQ12MY1B	1	378	RWEYQ20MY1	1
178	RXY10MTLE	1	245	RXY32MY1	1	312	REYQ14MY1B	1	379	RWEYQ30MY1	1
179	RXY10MY1	1	246	RXY32MY1E	1	313	REYQ16MY1B	1	380	RXYQ5PY1	3
180	RXY10MY1E	1	247	RXY32MYL	1	314	REYQ18MY1B	1	381	RXYQ8PY1	3
181	RXY10MYL	1	248	RXY32MYLE	1	315	REYQ20MY1B	1	382	RXYQ10PY1	3
182	RXY10MYLE	1	249	RXY34MTL	1	316	REYQ22MY1B	1	383	RXYQ12PY1	3
183	RXY12MTL	1	250	RXY34MTLE	1	317	REYQ24MY1B	1	384	RXYQ14PY1	3
184	RXY12MTLE	1	251	RXY34MY1	1	318	REYQ26MY1B	1	385	RXYQ16PY1	3
185	RXY12MY1	1	252	RXY34MY1E	1	319	REYQ28MY1B	1	386	RXYQ18PY1	3
186	RXY12MY1E	1	253	RXY34MYL	1	320	REYQ30MY1B	1	387	RXYQ20PY1	3
187	RXY12MYL	1	254	RXY34MYLE	1	321	REYQ32MY1B	1	388	RXYQ22PY1	3
188	RXY12MYLE	1	255	RXY36MTL	1	322	REYQ34MY1B	1	389	RXYQ24PY1	3
189	RXY14MTL	1	256	RXY36MTLE	1	323	REYQ36MY1B	1	390	RXYQ26PY1	3
190	RXY14MTLE	1	257	RXY36MY1	1	324	REYQ38MY1B	1	391	RXYQ28PY1	3
191	RXY14MY1	1	258	RXY36MY1E	1	325	REYQ40MY1B	1	392	RXYQ30PY1	3
192	RXY14MY1E	1	259	RXY36MYL	1	326	REYQ42MY1B	1	393	RXYQ32PY1	3
193	RXY14MYL	1	260	RXY36MYLE	1	327	REYQ44MY1B	1	394	RXYQ34PY1	3
194	RXY14MYLE	1	261	RXY38MTL	1	328	REYQ46MY1B	1	395	RXYQ36PY1	3
195	RXY16MTL	1	262	RXY38MTLE	1	329	REYQ48MY1B	1	396	RXYQ38PY1	3
196	RXY16MTLE	1	263	RXY38MY1	1	330	RHXY8MY1	1	397	RXYQ40PY1	3
197	RXY16MY1	1	264	RXY38MY1E	1	331	RHXY10MY1	1	398	RXYQ42PY1	3
198	RXY16MY1E	1	265	RXY38MYL	1	332	RHXY12MY1	1	399	RXYQ44PY1	3
199	RXY16MYL	1	266	RXY38MYLE	1	333	RHXY14MY1	1	400	RXYQ46PY1	3
200	RXY16MYLE	1	267	RXY40MTL	1	334	RHXY16MY1	1	401	RXYQ48PY1	3
201	RXY18MTL	1	268	RXY40MTLE	1	335	RHXY18MY1	1	402	RXYQ50PY1	3
202	RXY18MTLE	1	269	RXY40MY1	1	336	RHXY20MY1	1	403	RXYQ52PY1	3
203	RXY18MY1	1	270	RXY40MY1E	1	337	RHXY22MY1	1	404	RXYQ54PY1	3
204	RXY18MY1E	1	271	RXY40MYL	1	338	RHXY24MY1	1	405	RXYQ8PY1C	3
205	RXY18MYL	1	272	RXY40MYLE	1	339	RHXY26MY1	1	406	RXYQ10PY1C	3
206	RXY18MYLE	1	273	RXY42MTL	1	340	RHXY28MY1	1	407	RXYQ12PY1C	3
207	RXY20MTL	1	274	RXY42MTLE	1	341	RHXY30MY1	1	408	RXYQ14PY1C	3

No.	Model name	Type	No.	Model name	Type	No.	Model name	Type	No.	Model name	Type
409	RXYQ16PY1C	3	476	RXYQ40M8W1B	1	543	RXYQ22M9W1B	1	610	RHXYQ24MAY1	1
410	RXYQ18PY1C	3	477	RXYQ42M8W1B	1	544	RXYQ24M9W1B	1	611	RHXYQ26MAY1	1
411	RXYQ20PY1C	3	478	RXYQ44M8W1B	1	545	RXYQ26M9W1B	1	612	RHXYQ28MAY1	1
412	RXYQ22PY1C	3	479	RXYQ46M8W1B	1	546	RXYQ28M9W1B	1	613	RHXYQ30MAY1	1
413	RXYQ24PY1C	3	480	RXYQ48M8W1B	1	547	RXYQ30M9W1B	1	614	RHXYQ32MAY1	1
414	RXYQ26PY1C	3	481	REYQ8M7W1B	1	548	RXYQ32M9W1B	1	615	RHXYQ34MAY1	1
415	RXYQ28PY1C	3	482	REYQ12M7W1B	1	549	RXYQ34M9W1B	1	616	RHXYQ36MAY1	1
416	RXYQ30PY1C	3	483	REYQ14M7W1B	1	550	RXYQ36M9W1B	1	617	RHXYQ38MAY1	1
417	RXYQ32PY1C	3	484	REYQ16M7W1B	1	551	RXYQ38M9W1B	1	618	RHXYQ40MAY1	1
418	RXYQ34PY1C	3	485	REYQ18M7W1B	1	552	RXYQ40M9W1B	1	619	RHXYQ42MAY1	1
419	RXYQ36PY1C	3	486	REYQ20M7W1B	1	553	RXYQ42M9W1B	1	620	RHXYQ44MAY1	1
420	RXYQ38PY1C	3	487	REYQ22M7W1B	1	554	RXYQ44M9W1B	1	621	RHXYQ46MAY1	1
421	RXYQ40PY1C	3	488	REYQ24M7W1B	1	555	RXYQ46M9W1B	1	622	RHXYQ48MAY1	1
422	RXYQ42PY1C	3	489	REYQ26M7W1B	1	556	RXYQ48M9W1B	1	623	RXYQ10P7W1B	3
423	RXYQ44PY1C	3	490	REYQ28M7W1B	1	557	RXYQ5PY16	3	624	RXYQ12P7W1B	3
424	RXYQ46PY1C	3	491	REYQ30M7W1B	1	558	RXYQ8PY16	3	625	RXYQ14P7W1B	3
425	RXYQ48PY1C	3	492	REYQ32M7W1B	1	559	RXYQ10PY16	3	626	RXYQ16P7W1B	3
426	RXYQ50PY1C	3	493	REYQ34M7W1B	1	560	RXYQ12PY16	3	627	RXYQ18P7W1B	3
427	RXYQ52PY1C	3	494	REYQ36M7W1B	1	561	RXYQ14PY16	3	628	RXYQ20P7W1B	3
428	RXYQ54PY1C	3	495	REYQ38M7W1B	1	562	RXYQ16PY16	3	629	RXYQ22P7W1B	3
429	RXYMQ4PVE	3	496	REYQ40M7W1B	1	563	RXYQ18PY16	3	630	RXYQ24P7W1B	3
430	RXYMQ5PVE	3	497	REYQ42M7W1B	1	564	RXYQ20PY16	3	631	RXYQ26P7W1B	3
431	RXYMQ6PVE	3	498	REYQ44M7W1B	1	565	RXYQ22PY16	3	632	RXYQ28P7W1B	3
432	RMXS112DV2C	3	499	REYQ46M7W1B	1	566	RXYQ24PY16	3	633	RXYQ30P7W1B	3
433	RMXS112DY1C	3	500	REYQ48M7W1B	1	567	RXYQ26PY16	3	634	RXYQ32P7W1B	3
434	RMXS140DV2C	3	501	RCXYQ16MAY1	1	568	RXYQ28PY16	3	635	RXYQ34P7W1B	3
435	RMXS140DY1C	3	502	RCXYQ18MAY1	1	569	RXYQ30PY16	3	636	RXYQ36P7W1B	3
436	RMXS160DV2C	3	503	RCXYQ20MAY1	1	570	RXYQ32PY16	3	637	RXYQ38P7W1B	3
437	RMXS160DY1C	3	504	RCXYQ22MAY1	1	571	RXYQ34PY16	3	638	RXYQ40P7W1B	3
438	LMXS4DMV2C	3	505	RCXYQ24MAY1	1	572	RXYQ36PY16	3	639	RXYQ42P7W1B	3
439	LMXS5DMV2C	3	506	RCXYQ26MAY1	1	573	RXYQ38PY16	3	640	RXYQ44P7W1B	3
440	LMXS6DMV2C	3	507	RCXYQ28MAY1	1	574	RXYQ40PY16	3	641	RXYQ46P7W1B	3
441	REYQ10M7W1B	1	508	RCXYQ30MAY1	1	575	RXYQ42PY16	3	642	RXYQ48P7W1B	3
442	RXYSQ4M	1	509	RCXYQ32MAY1	1	576	RXYQ44PY16	3	643	RXYQ50P7W1B	3
443	RXYSQ5M	1	510	RCXYQ34MAY1	1	577	RXYQ46PY16	3	644	RXYQ52P7W1B	3
444	RXYSQ6M	1	511	RCXYQ36MAY1	1	578	RXYQ48PY16	3	645	RXYQ54P7W1B	3
445	RXYQ5MAY1	1	512	RCXYQ38MAY1	1	579	RXYQ50PY16	3	646	RXYQ5M8W1B	1
446	RXYQ8MAY1	1	513	RCXYQ40MAY1	1	580	RXYQ52PY16	3	647	RXYQ5P7W1B	3
447	RXYQ10MAY1	1	514	RCXYQ42MAY1	1	581	RXYQ54PY16	3	648	RXYQ8P7W1B	3
448	RXYQ12MAY1	1	515	RCXYQ44MAY1	1	582	REMQ8PY1	3	649	RXYSQ4P7V3B	3
449	RXYQ14MAY1	1	516	RCXYQ46MAY1	1	583	REYQ8PY1B	3	650	RXYSQ5P7V3B	3
450	RXYQ16MAY1	1	517	RCXYQ48MAY1	1	584	REMQ10PY1	3	651	RXYSQ6P7V3B	3
451	RHXYQ8MAY1	1	518	RXQ8MAY19	1	585	REYQ10PY1B	3	652	REYQ8M8W1B	1
452	RHXYQ10MAY1	1	519	RXQ8MAY15	1	586	REMQ12PY1	3	653	REYQ12M8W1B	1
453	RHXYQ12MAY1	1	520	RXQ10MAY19	1	587	REYQ12PY1B	3	654	REYQ14M8W1B	1
454	RHXYQ14MAY1	1	521	RXQ10MAY15	1	588	REMQ14PY1	3	655	REYQ16M8W1B	1
455	RHXYQ16MAY1	1	522	RXQ12MAY19	1	589	REYQ14PY1B	3	656	REYQ18M8W1B	1
456	RCXYQ8MAY1	1	523	RXQ12MAY15	1	590	REMQ16PY1	3	657	REYQ20M8W1B	1
457	RCXYQ10MAY1	1	524	RXQ14MAY19	1	591	REYQ16PY1B	3	658	REYQ22M8W1B	1
458	RCXYQ12MAY1	1	525	RXQ14MAY15	1	592	RWEYQ8PY1	1	659	REYQ24M8W1B	1
459	RCXYQ14MAY1	1	526	RXQ16MAY19	1	593	RWEYQ10PY1	1	660	REYQ26M8W1B	1
460	RXYQ8M8W1B	1	527	RXQ16MAY15	1	594	RWEYQ16PY1	1	661	REYQ28M8W1B	1
461	RXYQ10M8W1B	1	528	RXQ18MAY19	1	595	RWEYQ18PY1	1	662	REYQ30M8W1B	1
462	RXYQ12M8W1B	1	529	RXQ18MAY15	1	596	RWEYQ20PY1	1	663	REYQ32M8W1B	1
463	RXYQ14M8W1B	1	530	RXYQ8MAY19	1	597	RWEYQ24PY1	1	664	REYQ34M8W1B	1
464	RXYQ16M8W1B	1	531	RXYQ10MAY19	1	598	RWEYQ26PY1	1	665	REYQ36M8W1B	1
465	RXYQ18M8W1B	1	532	RXYQ12MAY19	1	599	RWEYQ28PY1	1	666	REYQ38M8W1B	1
466	RXYQ20M8W1B	1	533	RXYQ14MAY19	1	600	RWEYQ30PY1	1	667	REYQ40M8W1B	1
467	RXYQ22M8W1B	1	534	RXYQ16MAY19	1	601	RXYN10AY1	3	668	REYQ42M8W1B	1
468	RXYQ24M8W1B	1	535	RXYQ5M9W1B	1	602	RHXYQ8PY1	3	669	REYQ44M8W1B	1
469	RXYQ26M8W1B	1	536	RXYQ8M9W1B	1	603	RHXYQ10PY1	3	670	REYQ46M8W1B	1
470	RXYQ28M8W1B	1	537	RXYQ10M9W1B	1	604	RHXYQ12PY1	3	671	REYQ48M8W1B	1
471	RXYQ30M8W1B	1	538	RXYQ12M9W1B	1	605	RHXYQ14PY1	3	672	RXYQ18MAY1	1
472	RXYQ32M8W1B	1	539	RXYQ14M9W1B	1	606	RHXYQ16PY1	3	673	RXYQ20MAY1	1
473	RXYQ34M8W1B	1	540	RXYQ16M9W1B	1	607	RHXYQ18MAY1	1	674	RXYQ22MAY1	1
474	RXYQ36M8W1B	1	541	RXYQ18M9W1B	1	608	RHXYQ20MAY1	1	675	RXYQ24MAY1	1
475	RXYQ38M8W1B	1	542	RXYQ20M9W1B	1	609	RHXYQ22MAY1	1	676	RXYQ26MAY1	1

No.	Model name	Type	No.	Model name	Type	No.	Model name	Type	No.	Model name	Type
677	RXYQ28MAY1	1	744	RHXY46PY1	3	811	RXQ42PY16	3	878	RXYQ26PAY19	3
678	RXYQ30MAY1	1	745	RHXY48PY1	3	812	RXQ44PY16	3	879	RXYQ28PAY19	3
679	RXYQ32MAY1	1	746	RHXY50PY1	3	813	RXQ46PY16	3	880	RXYQ30PAY19	3
680	RXYQ34MAY1	1	747	RHXY52PY1	3	814	RXQ48PY16	3	881	RXYQ32PAY19	3
681	RXYQ36MAY1	1	748	RHXY54PY1	3	815	RXQ50PY16	3	882	RXYQ34PAY19	3
682	RXYQ38MAY1	1	749	RXQ5M7W1B	1	816	RXQ52PY16	3	883	RXYQ36PAY19	3
683	RXYQ40MAY1	1	750	RXQ8M7W1B	1	817	RXQ54PY16	3	884	RXYQ38PAY19	3
684	RXYQ42MAY1	1	751	RXQ10M7W1B	1	818	RXQ5PAY1	3	885	RXYQ40PAY19	3
685	RXYQ44MAY1	1	752	RXQ8M8W1B	1	819	RXQ8PAY1	3	886	RXYQ42PAY19	3
686	RXYQ46MAY1	1	753	RXQ10M8W1B	1	820	RXQ10PAY1	3	887	RXYQ44PAY19	3
687	RXYQ48MAY1	1	754	RXYQ72MTJU	1	821	RXQ12PAY1	3	888	RXYQ46PAY19	3
688	RXYQ8MY1K	1	755	RXYQ144MTJU	1	822	RXQ14PAY1	3	889	RXYQ48PAY19	3
689	RXYQ10MY1K	1	756	RXYQ168MTJU	1	823	RXQ16PAY1	3	890	RXYQ50PAY19	3
690	RXQ5MAY1	1	757	RXYQ192MTJU	1	824	RXQ18PAY1	3	891	RXYQ52PAY19	3
691	RXQ8MAY1	1	758	REYQ72MTJU	1	825	RXQ20PAY1	3	892	RXYQ54PAY19	3
692	RXQ10MAY1	1	759	REYQ144MTJU	1	826	RXQ22PAY1	3	893	RXYQ5PAYL	3
693	RXQ12MAY1	1	760	REYQ168MTJU	1	827	RXQ24PAY1	3	894	RXYQ8PAYL	3
694	RXQ14MAY1	1	761	REYQ192MTJU	1	828	RXQ26PAY1	3	895	RXYQ10PAYL	3
695	RXQ16MAY1	1	762	RXQ5M9W1B	1	829	RXQ28PAY1	3	896	RXYQ12PAYL	3
696	RXQ18MAY1	1	763	RXQ8M9W1B	1	830	RXQ30PAY1	3	897	RXYQ14PAYL	3
697	RXQ20MAY1	1	764	RXQ10M9W1B	1	831	RXQ32PAY1	3	898	RXYQ16PAYL	3
698	RXQ22MAY1	1	765	RZP350MAY1	1	832	RXQ34PAY1	3	899	RXYQ18PAYL	3
699	RXQ24MAY1	1	766	RXMQ4PVE	3	833	RXQ36PAY1	3	900	RXYQ20PAYL	3
700	RXQ26MAY1	1	767	RXMQ5PVE	3	834	RXQ38PAY1	3	901	RXYQ22PAYL	3
701	RXQ28MAY1	1	768	RXMQ6PVE	3	835	RXQ40PAY1	3	902	RXYQ24PAYL	3
702	RXQ30MAY1	1	769	RXQ5PY1	3	836	RXQ42PAY1	3	903	RXYQ26PAYL	3
703	RXQ32MAY1	1	770	RXQ8PY1	3	837	RXQ44PAY1	3	904	RXYQ28PAYL	3
704	RXQ34MAY1	1	771	RXQ10PY1	3	838	RXQ46PAY1	3	905	RXYQ30PAYL	3
705	RXQ36MAY1	1	772	RXQ12PY1	3	839	RXQ48PAY1	3	906	RXYQ32PAYL	3
706	RXQ38MAY1	1	773	RXQ14PY1	3	840	RXQ50PAY1	3	907	RXYQ34PAYL	3
707	RXQ40MAY1	1	774	RXQ16PY1	3	841	RXQ52PAY1	3	908	RXYQ36PAYL	3
708	RXQ42MAY1	1	775	RXQ18PY1	3	842	RXQ54PAY1	3	909	RXYQ38PAYL	3
709	RXQ44MAY1	1	776	RXQ20PY1	3	843	RXYQ5PAY6	3	910	RXYQ40PAYL	3
710	RXQ46MAY1	1	777	RXQ22PY1	3	844	RXYQ8PAY6	3	911	RXYQ42PAYL	3
711	RXQ48MAY1	1	778	RXQ24PY1	3	845	RXYQ10PAY6	3	912	RXYQ44PAYL	3
712	RHXYQ18PY1	3	779	RXQ26PY1	3	846	RXYQ12PAY6	3	913	RXYQ46PAYL	3
713	RHXYQ20PY1	3	780	RXQ28PY1	3	847	RXYQ14PAY6	3	914	RXYQ48PAYL	3
714	RHXYQ22PY1	3	781	RXQ30PY1	3	848	RXYQ16PAY6	3	915	RXYQ50PAYL	3
715	RHXYQ24PY1	3	782	RXQ32PY1	3	849	RXYQ18PAY6	3	916	RXYQ52PAYL	3
716	RHXYQ26PY1	3	783	RXQ34PY1	3	850	RXYQ20PAY6	3	917	RXYQ54PAYL	3
717	RHXYQ28PY1	3	784	RXQ36PY1	3	851	RXYQ22PAY6	3	918	RXYQ5PRY6	3
718	RHXYQ30PY1	3	785	RXQ38PY1	3	852	RXYQ24PAY6	3	919	RXYQ8PRY6	3
719	RHXYQ32PY1	3	786	RXQ40PY1	3	853	RXYQ26PAY6	3	920	RXYQ10PRY6	3
720	RHXYQ34PY1	3	787	RXQ42PY1	3	854	RXYQ28PAY6	3	921	RXYQ12PRY6	3
721	RHXYQ36PY1	3	788	RXQ44PY1	3	855	RXYQ30PAY6	3	922	RXYQ14PRY6	3
722	RHXYQ38PY1	3	789	RXQ46PY1	3	856	RXYQ32PAY6	3	923	RXYQ16PRY6	3
723	RHXYQ40PY1	3	790	RXQ48PY1	3	857	RXYQ34PAY6	3	924	RXYQ18PRY6	3
724	RHXYQ42PY1	3	791	RXQ50PY1	3	858	RXYQ36PAY6	3	925	RXYQ20PRY6	3
725	RHXYQ44PY1	3	792	RXQ52PY1	3	859	RXYQ38PAY6	3	926	RXYQ22PRY6	3
726	RHXYQ46PY1	3	793	RXQ54PY1	3	860	RXYQ40PAY6	3	927	RXYQ24PRY6	3
727	RHXYQ48PY1	3	794	RXQ8PY16	3	861	RXYQ42PAY6	3	928	RXYQ26PRY6	3
728	RHXYQ50PY1	3	795	RXQ10PY16	3	862	RXYQ44PAY6	3	929	RXYQ28PRY6	3
729	RHXYQ52PY1	3	796	RXQ12PY16	3	863	RXYQ46PAY6	3	930	RXYQ30PRY6	3
730	RHXYQ54PY1	3	797	RXQ14PY16	3	864	RXYQ48PAY6	3	931	RXYQ32PRY6	3
731	RHXY20PY1	3	798	RXQ16PY16	3	865	RXYQ50PAY6	3	932	RXYQ34PRY6	3
732	RHXY22PY1	3	799	RXQ18PY16	3	866	RXYQ52PAY6	3	933	RXYQ36PRY6	3
733	RHXY24PY1	3	800	RXQ20PY16	3	867	RXYQ54PAY6	3	934	RXYQ38PRY6	3
734	RHXY26PY1	3	801	RXQ22PY16	3	868	RXYQ5PAY19	3	935	RXYQ40PRY6	3
735	RHXY28PY1	3	802	RXQ24PY16	3	869	RXYQ8PAY19	3	936	RXYQ42PRY6	3
736	RHXY30PY1	3	803	RXQ26PY16	3	870	RXYQ10PAY19	3	937	RXYQ44PRY6	3
737	RHXY32PY1	3	804	RXQ28PY16	3	871	RXYQ12PAY19	3	938	RXYQ46PRY6	3
738	RHXY34PY1	3	805	RXQ30PY16	3	872	RXYQ14PAY19	3	939	RXYQ48PRY6	3
739	RHXY36PY1	3	806	RXQ32PY16	3	873	RXYQ16PAY19	3	940	RXYQ50PRY6	3
740	RHXY38PY1	3	807	RXQ34PY16	3	874	RXYQ18PAY19	3	941	RXYQ52PRY6	3
741	RHXY40PY1	3	808	RXQ36PY16	3	875	RXYQ20PAY19	3	942	RXYQ54PRY6	3
742	RHXY42PY1	3	809	RXQ38PY16	3	876	RXYQ22PAY19	3	943	RXYQ16PHY1	3
743	RHXY44PY1	3	810	RXQ40PY16	3	877	RXYQ24PAY19	3	944	RXYQ18PHY1	3

No.	Model name	Type	No.	Model name	Type	No.	Model name	Type	No.	Model name	Type
945	RXYQ24PHY1	3	1012	RHXYQ20PAY1	3	1079	RXYHQ26P9W1B	3	1146	RXYQ120PYDN	3
946	RXYQ26PHY1	3	1013	RHXYQ22PAY1	3	1080	RXYHQ28P9W1B	3	1147	RXYQ72PATJ	3
947	RXYQ28PHY1	3	1014	RHXYQ24PAY1	3	1081	RXYHQ30P9W1B	3	1148	RXYQ96PATJ	3
948	RXYQ30PHY1	3	1015	RHXYQ26PAY1	3	1082	RXYHQ32P9W1B	3	1149	RXYQ108PATJ	3
949	RXYQ32PHY1	3	1016	RHXYQ28PAY1	3	1083	RXYHQ34P9W1B	3	1150	RXYQ72PAYD	3
950	RXYQ34PHY1	3	1017	RHXYQ30PAY1	3	1084	RXYHQ36P9W1B	3	1151	RXYQ96PAYD	3
951	RXYQ36PHY1	3	1018	RHXYQ32PAY1	3	1085	RXQ5P7W1B	3	1152	RXYQ108PAYD	3
952	RXYQ38PHY1	3	1019	RHXYQ34PAY1	3	1086	RXQ8P7W1B	3	1153	RXYQ120PTJUR	3
953	RXYQ40PHY1	3	1020	RHXYQ36PAY1	3	1087	RXQ10P7W1B	3	1154	RXYQ120PYDNR	3
954	RXYQ42PHY1	3	1021	RHXYQ38PAY1	3	1088	RXQ12P7W1B	3	1155	RXYQ144PTJU	3
955	RXYQ44PHY1	3	1022	RHXYQ40PAY1	3	1089	RXQ14P7W1B	3	1156	RXYQ168PTJU	3
956	RXYQ46PHY1	3	1023	RHXYQ42PAY1	3	1090	RXQ16P7W1B	3	1157	RXYQ192PTJU	3
957	RXYQ48PHY1	3	1024	RHXYQ44PAY1	3	1091	RXQ18P7W1B	3	1158	RXYQ216PTJU	3
958	RXYQ50PHY1	3	1025	RHXYQ46PAY1	3	1092	REYQ8PY1	3	1159	RXYQ240PTJU	3
959	RXY24PHY1	3	1026	RHXYQ48PAY1	3	1093	REYQ10PY1	3	1160	RXYQ144PYDN	3
960	RXY26PHY1	3	1027	RHXYQ50PAY1	3	1094	REYQ12PY1	3	1161	RXYQ168PYDN	3
961	RXY28PHY1	3	1028	RHXYQ52PAY1	3	1095	REYQ14PY1	3	1162	RXYQ192PYDN	3
962	RXY30PHY1	3	1029	RHXYQ54PAY1	3	1096	REYQ16PY1	3	1163	RXYQ216PYDN	3
963	RXY32PHY1	3	1030	RXYQ8P7Y1K	3	1097	REYQ18PY1	3	1164	RXYQ240PYDN	3
964	RXY34PHY1	3	1031	RXYQ10P7Y1K	3	1098	REYQ20PY1	3	1165	REYQ72PTJU	3
965	RXY36PHY1	3	1032	RXYQ12P7Y1K	3	1099	REYQ22PY1	3	1166	REYQ96PTJU	3
966	RXY38PHY1	3	1033	RXYQ16P7Y1K	3	1100	REYQ24PY1	3	1167	REYQ120PTJU	3
967	RXY40PHY1	3	1034	RXYQ18P7Y1K	3	1101	REYQ26PY1	3	1168	REYQ144PTJU	3
968	RXY42PHY1	3	1035	RXYQ20P7Y1K	3	1102	REYQ28PY1	3	1169	REYQ168PTJU	3
969	RXY44PHY1	3	1036	RXYQ22P7Y1K	3	1103	REYQ30PY1	3	1170	REYQ192PTJU	3
970	RXY46PHY1	3	1037	RXYQ24P7Y1K	3	1104	REYQ32PY1	3	1171	REYQ216PTJU	3
971	RXY48PHY1	3	1038	RXYQ26P7Y1K	3	1105	REYQ34PY1	3	1172	REYQ240PTJU	3
972	RXY50PHY1	3	1039	RXYQ28P7Y1K	3	1106	REYQ36PY1	3	1173	REYQ72PYDN	3
973	RXQ16PHY1	3	1040	RXYQ30P7Y1K	3	1107	REYQ38PY1	3	1174	REYQ96PYDN	3
974	RXQ18PHY1	3	1041	RXYQ32P7Y1K	3	1108	REYQ40PY1	3	1175	REYQ120PYDN	3
975	RXQ24PHY1	3	1042	RXYQ34P7Y1K	3	1109	REYQ42PY1	3	1176	REYQ144PYDN	3
976	RXQ26PHY1	3	1043	RXYQ36P7Y1K	3	1110	REYQ44PY1	3	1177	REYQ168PYDN	3
977	RXQ28PHY1	3	1044	RXYQ8P7YLK	3	1111	REYQ46PY1	3	1178	REYQ192PYDN	3
978	RXQ30PHY1	3	1045	RXYQ10P7YLK	3	1112	REYQ48PY1	3	1179	REYQ216PYDN	3
979	RXQ32PHY1	3	1046	RXYQ12P7YLK	3	1113	REYQ8P8Y1B	3	1180	REYQ240PYDN	3
980	RXQ34PHY1	3	1047	RXYQ16P7YLK	3	1114	REYQ10P8Y1B	3	1181	REYQ72PATJ	3
981	RXQ36PHY1	3	1048	RXYQ18P7YLK	3	1115	REYQ12P8Y1B	3	1182	REYQ96PATJ	3
982	RXQ38PHY1	3	1049	RXYQ20P7YLK	3	1116	REYQ14P8Y1B	3	1183	REYQ120PATJ	3
983	RXQ40PHY1	3	1050	RXYQ22P7YLK	3	1117	REYQ16P8Y1B	3	1184	REYQ144PATJ	3
984	RXQ42PHY1	3	1051	RXYQ24P7YLK	3	1118	REYQ18P8Y1B	3	1185	REYQ168PATJ	3
985	RXQ44PHY1	3	1052	RXYQ26P7YLK	3	1119	REYQ20P8Y1B	3	1186	REYQ192PATJ	3
986	RXQ46PHY1	3	1053	RXYQ28P7YLK	3	1120	REYQ22P8Y1B	3	1187	REYQ72PAYD	3
987	RXQ48PHY1	3	1054	RXYQ30P7YLK	3	1121	REYQ24P8Y1B	3	1188	REYQ96PAYD	3
988	RXQ50PHY1	3	1055	RXYQ32P7YLK	3	1122	REYQ26P8Y1B	3	1189	REYQ120PAYD	3
989	RXQ16PAHY1	3	1056	RXYQ34P7YLK	3	1123	REYQ28P8Y1B	3	1190	REYQ144PAYD	3
990	RXQ18PAHY1	3	1057	RXYQ36P7YLK	3	1124	REYQ30P8Y1B	3	1191	REYQ168PAYD	3
991	RXQ24PAHY1	3	1058	RXYMQ36PVJU	3	1125	REYQ32P8Y1B	3	1192	REYQ192PAYD	3
992	RXQ26PAHY1	3	1059	RXYMQ48PVJU	3	1126	REYQ34P8Y1B	3	1193	RXYQ144PAYD	3
993	RXQ28PAHY1	3	1060	RXYHQ12P8W1B	3	1127	REYQ36P8Y1B	3	1194	RXYQ144PATJ	3
994	RXQ30PAHY1	3	1061	RXYQ16P8W1B	3	1128	REYQ38P8Y1B	3	1195	RXYQ168PATJ	3
995	RXQ32PAHY1	3	1062	RXYHQ16P8W1B	3	1129	REYQ40P8Y1B	3	1196	RXYQ216PTJUR	3
996	RXQ34PAHY1	3	1063	RXYHQ18P8W1B	3	1130	REYQ42P8Y1B	3	1197	RXYQ240PTJUR	3
997	RXQ36PAHY1	3	1064	RXYHQ20P8W1B	3	1131	REYQ44P8Y1B	3	1198	RXYQ168PAYD	3
998	RXQ38PAHY1	3	1065	RXYHQ22P8W1B	3	1132	REYQ46P8Y1B	3	1199	RXYQ192PAYD	3
999	RXQ40PAHY1	3	1066	RXYHQ24P8W1B	3	1133	REYQ48P8Y1B	3	1200	RXYQ216PYDNR	3
1000	RXQ42PAHY1	3	1067	RXYHQ36P8W1B	3	1134	REYHQ20P8W1B	3	1201	RXYQ240PYDNR	3
1001	RXQ44PAHY1	3	1068	RXYHQ26P8W1B	3	1135	REYHQ22P8W1B	3	1202	REYQ216PYDNR	3
1002	RXQ46PAHY1	3	1069	RXYHQ28P8W1B	3	1136	REYHQ24P8W1B	3	1203	REYQ240PYDNR	3
1003	RXQ48PAHY1	3	1070	RXYHQ30P8W1B	3	1137	REYHQ16P9W1B	3	1204	REYQ216PTJUR	3
1004	RXQ50PAHY1	3	1071	RXYHQ32P8W1B	3	1138	REYHQ20P9W1B	3	1205	REYQ240PTJUR	3
1005	RHXYQ5PAY1	3	1072	RXYHQ34P8W1B	3	1139	REYHQ22P9W1B	3	1206	RXYQ192PATJ	3
1006	RHXYQ8PAY1	3	1073	RXYHQ12P9W1B	3	1140	REYHQ24P9W1B	3	1207	REYHQ16P8W1B	3
1007	RHXYQ10PAY1	3	1074	RXYHQ16P9W1B	3	1141	RXYQ72PTJU	3	1208	CMSQ200A7W1B	3
1008	RHXYQ12PAY1	3	1075	RXYHQ18P9W1B	3	1142	RXYQ72PYDN	3	1209	CMSQ250A7W1B	3
1009	RHXYQ14PAY1	3	1076	RXYHQ20P9W1B	3	1143	RXYQ96PTJU	3	1210	RWEYQ60MTJU	1
1010	RHXYQ16PAY1	3	1077	RXYHQ22P9W1B	3	1144	RXYQ96PYDN	3	1211	RWEYQ72MTJU	1
1011	RHXYQ18PAY1	3	1078	RXYHQ24P9W1B	3	1145	RXYQ120PTJU	3	1212	RWEYQ84MTJU	1

No.	Model name	Type		No.	Model name	Type		No.	Model name	Type		No.	Model name	Type
1213	RWEYQ144MTJU	1		1224	RXYMQ48MVJU	1		1235	RQYQ8PY1	1		1246	RQCEQ360P	3
1214	RWEYQ168MTJU	1		1225	RZQ18PVJU	3		1236	RQYQ10PY1	1		1247	RQCEQ460P	3
1215	RWEYQ216MTJU	1		1226	RZQ24PVJU	3		1237	RQYQ12PY1	1		1248	RQCEQ500P	3
1216	RWEYQ252MTJU	1		1227	RZQ30PVJU	3		1238	RQYQ14PY1	1		1249	RQCEQ540P	3
1217	RWEYQ84PTJU	1		1228	RQYQ140P	3		1239	RQYQ16PY1	1		1250	RQCEQ636P	3
1218	RWEYQ72PTJU	1		1229	RQYQ180P	3		1240	RQYP615A	1		1251	RQCEQ712P	3
1219	RWEYQ168PTJU	1		1230	RQCYQ280P	3		1241	RQYP680A	1		1252	RQCEQ744P	3
1220	RWEYQ144PTJU	1		1231	RQCYQ360P	3		1242	RQYP730A	1		1253	RQCEQ816P	3
1221	RWEYQ252PTJU	1		1232	RQCYQ460P	3		1243	RQYP785A	1		1254	RQCEQ848P	3
1222	RWEYQ216PTJU	1		1233	RQCYQ500P	3		1244	RQYP850A	1				
1223	RXYMQ36MVJU	1		1234	RQCYQ540P	3		1245	RQCEQ280P	3				

4-13 Leakage Check

Leakage Check is a function available in VRV III or later outdoor units. It checks refrigeration systems for leakage. Leakage Check can be carried our centrally for multiple refrigeration systems installed in a property by sending instructions from the iTM to the outdoor units via DIII-NET. Using the Schedule Control function, you can make the outdoor units run Leakage Check at a specified date and time. You can also run Leakage Check manually on site. Furthermore, Leakage Check can also be run from the Web Remote Management. (See page 90)

The Leakage Check takes approximately 180 minutes to complete.

NOTE

Before starting leakage check, inform the user of NOTE described on page 80.

The following shows the system configuration diagram.

System Configuration
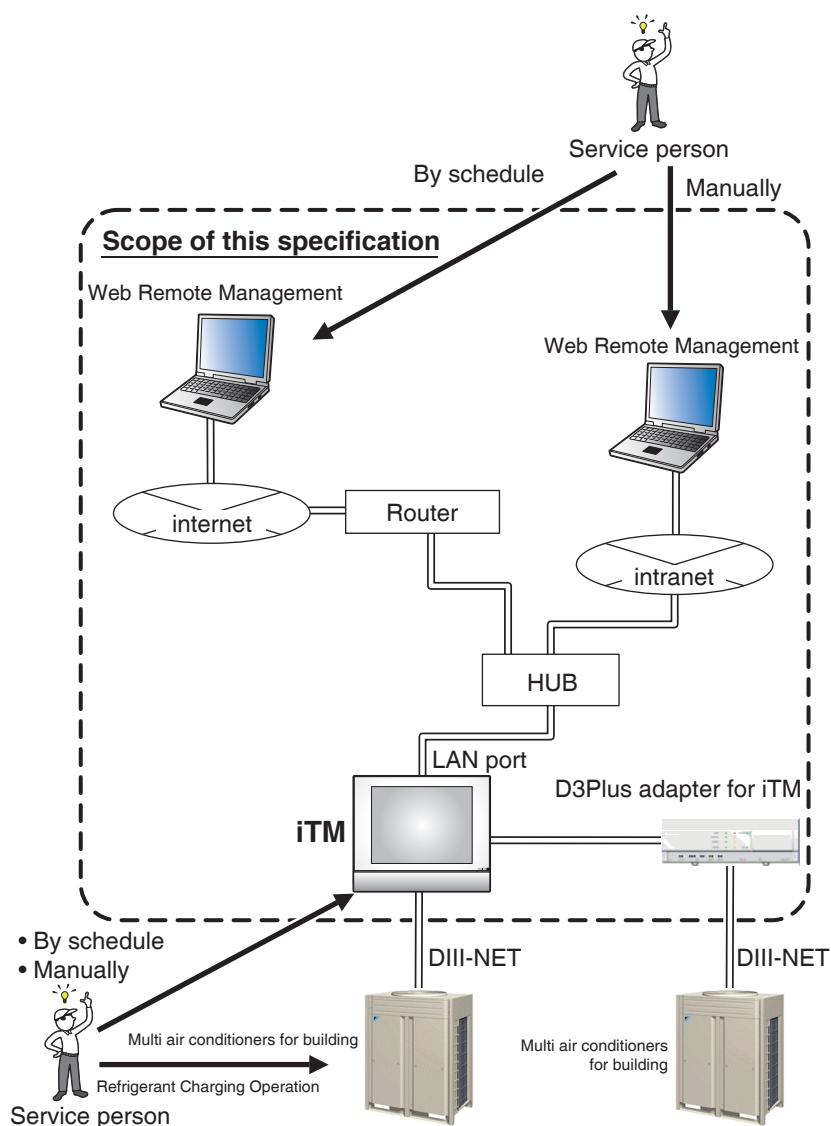
Leakage Check functions

Category	Function	Description	Usage scene		As Web function	Reference page
			Schedule	Manual		
Setup	Registration of Indoor Unit	Registers applicable indoor units to place them under maintenance when the outdoor unit in the same refrigeration system is subject to Leakage Check.	●	●	●	(Page 70)
	Outdoor unit model type setting	Configures the model type of the outdoor unit.	●	●	●	(Page 62)
Operation	Schedule control	The instruction to run Leakage Check is sent to the target outdoor unit at the date and time set up using the Schedule Control function.	●	–	●	(Page 72)
	Manual operation	The instruction to run Leakage Check is sent to the target outdoor unit right after the command is input.	–	●	●	(Page 75)
Monitoring	Leakage calculation	Calculates the leakage based on the data received from the outdoor units.	●	●	●	
	CSV file output	CSV file output enables monitoring of the outdoor unit's Leakage Check results.	●	●	●	(Page 77)
History	History	Settings modifications, sent instructions, and errors are recorded as history.	●	●	●	

Preparations

The following preparations are necessary for running Leakage Check.

• Refrigerant Charging Operation

  Refrigerant Charging Operation must have been run during installation and trial of outdoor units. Leakage Check is not possible if Refrigerant Charging Operation has not been run because without it, the outdoor unit cannot recognize the "amount of automatically charged refrigerant" (amount of refrigerant charged by the outdoor unit using Refrigerant Charging Operation).

• Outdoor unit's address setting (See Installation Manual (EM11A016))

  The outdoor unit's address is necessary. Make sure addresses are set up in advance.

Registering indoor units

Manually register indoor units that belong to the refrigeration system of each outdoor unit based on the installation information.

1. Log into SE Mode from the Menu List screen and display the Service Settings tab (see page 7).

Touch the Outdoor Setup button on the Service Settings tab to display the Outdoor Setup screen (see page 10).
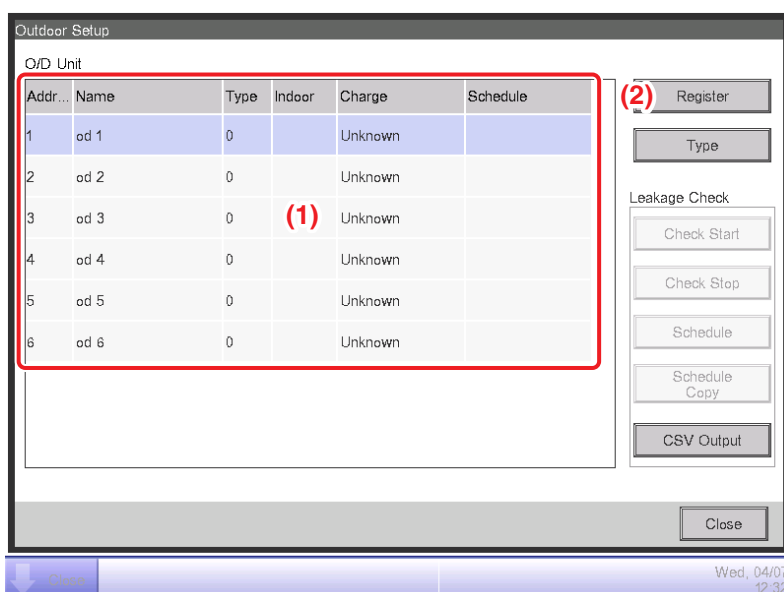
2. **(1)** is a list of outdoor units registered in iTM. The Charge item displays the current Refrigerant Charging Operation status for each outdoor unit.

   Completed: Refrigerant Charging Operation is complete

   Uncompleted: Refrigerant Charging Operation is incomplete

   Unknown: Refrigerant Charging Operation status is unknown due to communication error

   The other items display the address and name of the outdoor units, as well as the number of indoor units registered with the selected outdoor unit, and registered schedules.

3. Selecting an outdoor unit and touching the **Register** button **(2)** displays the Registration of Indoor Unit screen.
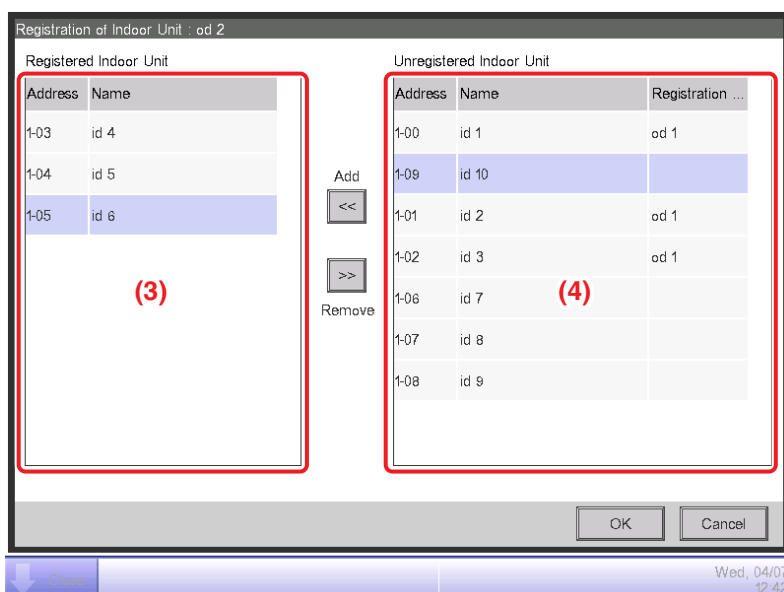
4. **(3)** is the Registered Indoor Unit list.

(4) is the Unregistered Indoor Unit list. Select the indoor unit you want to register and touch the Add button to register. To unregister, select the indoor unit from **(3)** and touch the Remove button to move it to **(4)**. The indoor unit becomes unregistered.

Touch the OK button to commit the indoor unit registration and close the screen.

Running Leakage Check by Schedule Control

Set up a schedule program to run Leakage Check.

1. Select an outdoor unit from the Outdoor Unit list **(5)** and touch the **Schedule** button **(6)** to display the Schedule Setup screen.

2. The management point name of the target outdoor unit appears in the Name field **(7)**.

   You may set up to four schedule programs per outdoor unit.

   Enable/disable the schedule program in **(8)**.

   Set up the Leakage Check start date in **(9)**. Touch the Modify button and enter the time in the Time Input dialog that appears. The range of values you can specify is January 1, 2010 to December 31, 2036.

   (10) displays the start time. Touch the Modify button and enter the time in the Time Input dialog that appears. The range of values you can specify is "00:00 to 23:59 (AM12:00 to PM11:59 when 12-hour clock is used)". Click the OK button to commit the program and close the screen.

NOTE

- Date and time are displayed according to the locale settings.
- For duplicated execution times, the program with the smaller number has precedence.
- When the system time is adjusted for clock drift, the execution of a scheduled Leakage Check changes as follows for an adjustment that stretches over the program execution time, depending on the extent of the adjustment.

Condition	Extent of adjustment	Operation when execution time falls within the adjustment
When time is advanced	Fine adjustment (Up to +120 sec)	Executed immediately after the time is modified
	Significant adjustment (+120 sec or more)	Not executed
When time is put back	Fine adjustment (Up to −120 sec)	Not executed
	Significant adjustment (−120 sec or more)	Executed at the specified time (duplicated execution)

- On DST start date, a time gap results while on the end date, a duplicated period of time results.
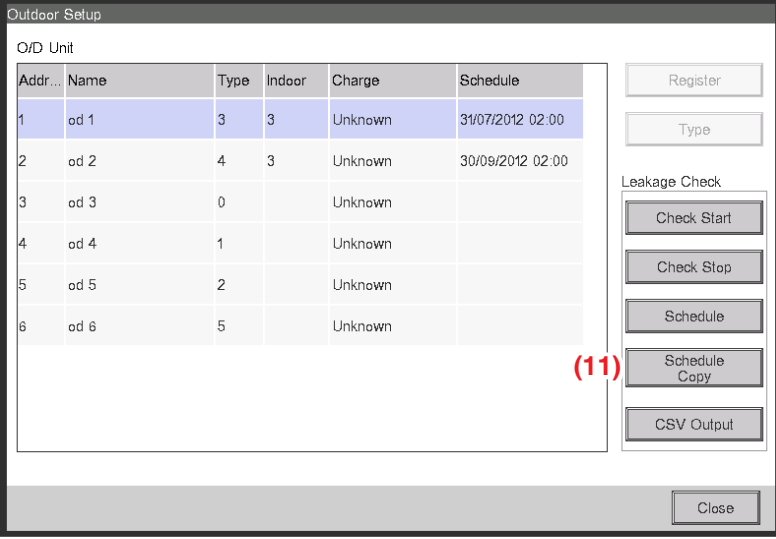
  If a scheduled program's execution time falls within these periods of time, it operates as follows.

  Set to the time gap on DST start date → Not executed (The specified time does not occur)

  Set to the duplicated period of time on DST end date → Executed twice (The specified time occurs twice)

Copying a schedule program

1. You may set the same program set up in the Schedule Setup screen to another outdoor unit.
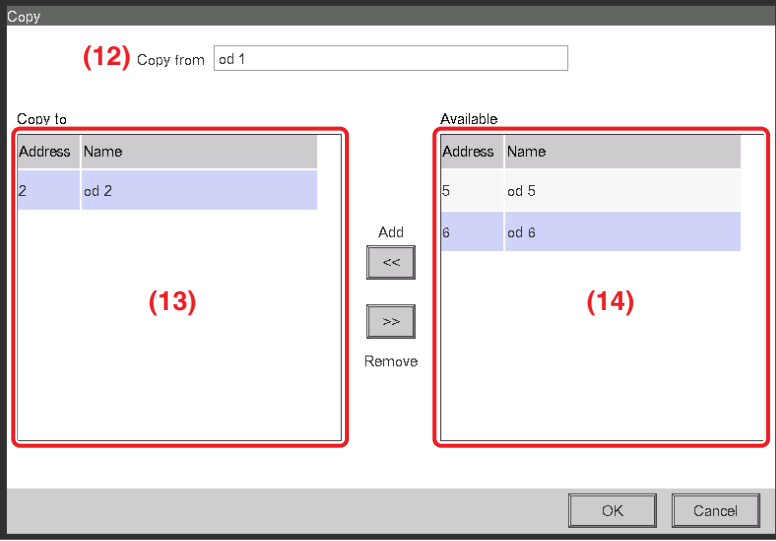
Touch the **Schedule Copy** button **(11)** to display the Copy screen.

2. The name of the outdoor unit source of copy appears in the Copy from field **(12)**.

   Display the name of the outdoor unit destination of copy in the Copy to list **(13)**.

   The Available list **(14)** is a list of outdoor units that can be registered as copy destination.

   Selecting an outdoor unit and touching the Add button, registers it in the Copy to list **(13)**

   To unregister as copy destination, select the indoor unit from **(13)** and touch the Remove button to move it to **(14)**. The indoor unit becomes unregistered.

   Touch the OK button to overwrite the schedule program and close the dialog.

   Example: The above screens shows the operation when the schedule program set up for an outdoor unit named "od 1" is copied to an outdoor unit named "od 2".

Starting Leakage Check by manual operation

Start Leakage Check by manual operation.
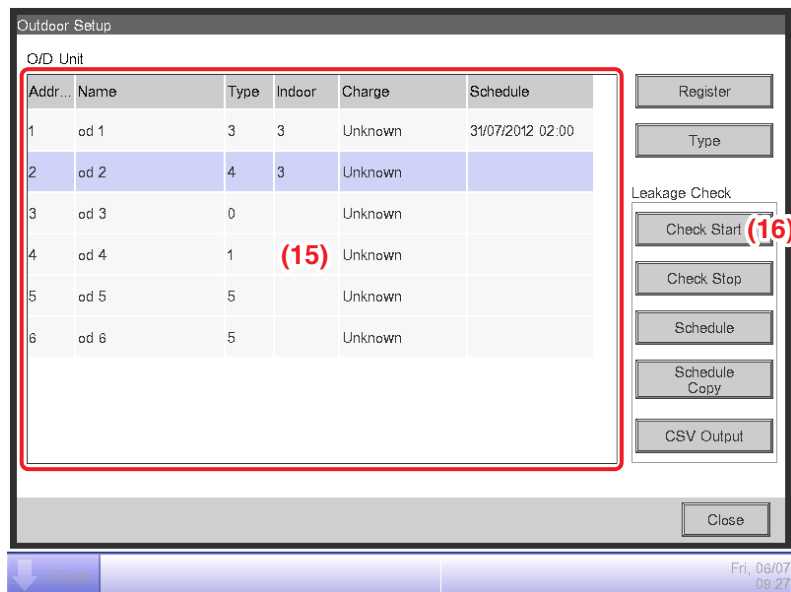
1. Select the target outdoor unit from the Outdoor Unit list **(15)** and touch the **Check Start** button **(16)**. A confirmation dialog appears. Touching the Yes button starts a check to determine whether the statuses of the target outdoor unit and indoor units registered in the refrigeration system of the outdoor unit are suitable for starting Leakage Check. If they are in normal status, the Leakage Check starts.

2. Statuses unsuitable for starting Leakage Check are as follows.
   - Target outdoor unit

     Is under maintenance by System Settings.

     Is undergoing Leakage Check.

     Is experiencing communication error.

     Refrigerant Charging Operation is incomplete.
   - Indoor units registered in the same refrigeration system as the target outdoor unit

     At least one is experiencing equipment error.

     At least one is under maintenance.

     At least one is in emergency stop.

Stopping Leakage Check by manual operation

Stop Leakage Check by manual operation.
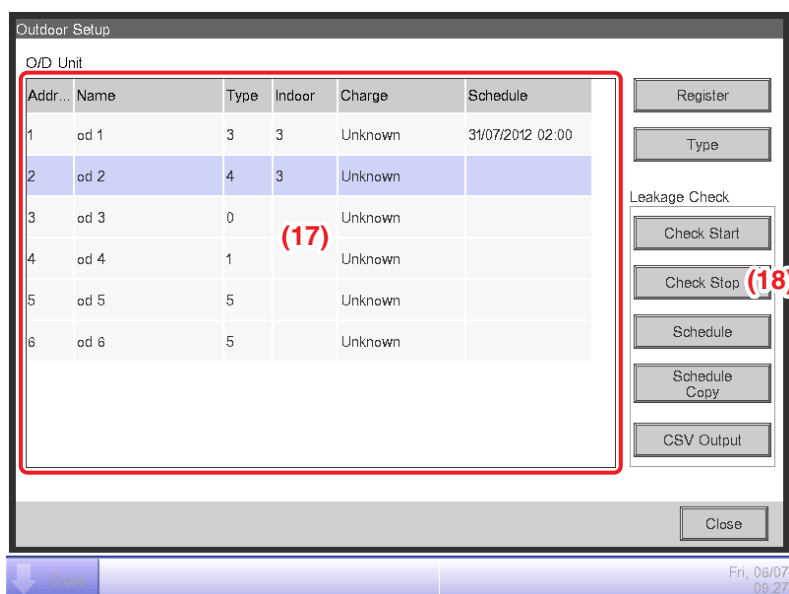
1. Select the target outdoor unit from the Outdoor Unit list **(17)** and touch the **Check Stop** button **(18)**. A confirmation dialog appears. Touching the Yes button starts to check the target outdoor unit and indoor units registered in the refrigeration system. If they are normal, the Leakage Check for the outdoor unit is stopped. If a communication error occurs with the target outdoor unit, the Leakage Check cannot be stopped.

Outputting the Leakage Check results to a CSV file

Output the Leakage Check results to a CSV file.
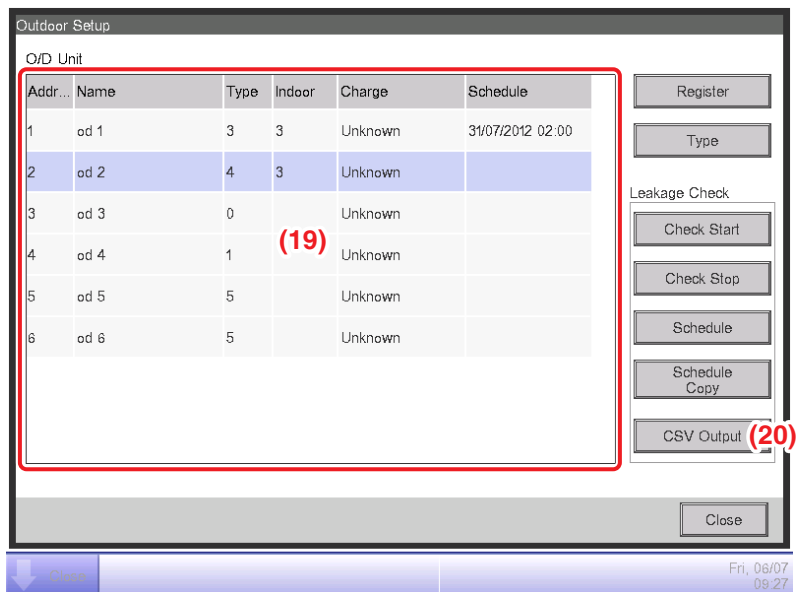
1. Insert a USB memory into the iTM and touch the **CSV Output** button **(20)**. A confirmation dialog appears. Touching the Yes button outputs to the USB memory the Leakage Check results for all outdoor units registered in the Outdoor Unit list **(19)** as a CSV file named LeakageCheck.csv. If a file with the same name already exists, the Leakage Check results are saved by naming the file LeakageCheck+sequential number (1 to 9). If there are no more sequential numbers that can be used, an error dialog is displayed and the output to CSV file aborted.

> **NOTE**
>
> When operation is via Web connection, the CSV is output to the HDD of the PC connected to the Web.

The CSV file format specification is as follows.

Conflict with other controls

The following describes the operation when another control comes into conflict with the Leakage Check.

○: Enabled ×: Disabled

Target management point	Other control		Leakage Check	Mgmt. point status/Other control	Remarks
Outdoor unit	Communication status	Communication error	×	○	If the outdoor unit experiences communication error within 180 minutes of starting Leakage Check, "Leakage Check failure" is recorded in the history.
	System	Under Maintenance	○	×	Settings modifications from the Maintenance Setup screen is not allowed during Leakage Check.
Indoor unit *	Central Monitoring operation	Stop	○	×	Central Monitoring operations are not carried out during Leakage Check since indoor units are under maintenance.
		Start	○	×	
		Equipment error	○	×	
		Communication error	○	×	
	Automatic Control	Schedule Control	○	×	Automatic Control is disabled during Leakage Check since indoor units are under maintenance.
		Interlocking Control	○	×	
		Emergency Stop Control	×	○	Emergency Stop instructions are sent also to indoor units under Leakage Check.
		Auto Changeover	○	×	Automatic Control is disabled during Leakage Check since indoor units are under maintenance.
		Temperature Limit	○	×	
		Sliding Temperature	○	×	
		HMO	○	×	
		Timer Extension	○	×	
		Setback	○	×	
	Data collection	Power Proportional Distribution	○	○	Indoor units become under maintenance during Leakage Check (however, data can be collected even under maintenance)
		Energy Navigator	○	×	Indoor units become under maintenance during Leakage Check (data collection is not performed during maintenance).
	System	Under Maintenance	○	×	Settings modifications from the Maintenance Setup screen is not allowed during Leakage Check.

*Refers to indoor units registered in the same refrigeration system as the target outdoor unit. In this table, Enabled/Disabled applies if at least one indoor unit among those registered is in the relevant status.

```
┌─ NOTE ─────────────────────────────────────────────────────────────────┐
│                                                                          │
│  • Inform the user that all units are forced to operate in the cooling mode during leakage check. │
│                                                                          │
│  • Caution the user not to change the time setting of iTM during leakage check. │
│                                                                          │
│  • Power consumed by the indoor unit during leakage check is also proportionally distributed. │
│                                                                          │
│  • Leakage check and power limit control (*) cannot be conducted at the same time. │
│                                                                          │
│  (i) If power limit control is set to [Demand 3(Forced thermo OFF)], it will be conducted before │
│       leakage control.                                                   │
│                                                                          │
│  (ii) If power limit control is set to [Demand 1,Demand 2], leakage check will be conducted first. │
│                                                                          │
│  *In power limit control, a command is sent to the outdoor unit via the outdoor unit external │
│    control adapter (DTA104A ∗ ∗ ).                                       │
│                                                                          │
│  • Leakage check and iTM energy saving control cannot be conducted at the same time. │
│    Leakage check will be conducted before energy saving control.         │
│                                                                          │
└──────────────────────────────────────────────────────────────────────┘
```

Failure mode

The following describes the failure modes of the Leakage Check.

Scene	Failure mode	Impact to users	Cause	Handling		Recovery method
				Notification method		
				When	How	
Preparation	Forget to run Refrigerant Charging Operation	Cannot run Leakage Check	Cannot recognize the amount of automatically charged refrigerant	When the [Check Start] button is touched	• An error message indicating No Auto Charge is displayed • No Auto Charge is recorded in the history	Touch the [Check Start] button after running Refrigerant Charging Operation
				At schedule trigger	• No Auto Charge is recorded in the history	Set up the schedule again after running Refrigerant Charging Operation
	Forgot the outdoor unit address	Cannot conduct Leakage Check	A check command cannot be sent because the outdoor unit address of the command destination is unknown	When [Check Start] is pressed	• The message of communication error is displayed • The history of communication errors is saved	Press [Check Start] again after setting the outdoor unit address
				At schedule trigger	• The history of communication errors is saved	Set the schedule again after setting the outdoor unit address
Pre-engineering	Forget to register indoor units	• Possibility of malfunction since Automatic Control is not disabled • Incorrect Leakage Check results	Indoor units in the refrigeration system are not placed under maintenance because refrigeration system information for the outdoor unit/indoor units is unknown	During Leakage Check	• Indoor unit management point's icon (the target indoor unit's icon do not go on) * Make the operating procedure include a step that checks whether the target indoor unit's icon go on after Leakage Check is started	Touch the [Check Stop] button and stop the Leakage Check. Register the indoor units and touch the [Check Start] button again, or set up the schedule again
	Indoor unit registration is incorrect	• Possibility of malfunction since Automatic Control is not disabled • Other than the target indoor units are placed under maintenance and Automatic Control on them, disabled • Incorrect Leakage Check results	Since the refrigeration system information for the outdoor unit/indoor units is incorrect, the indoor units of the target refrigeration system are not placed under maintenance, or other than the target indoor units are placed under maintenance	During Leakage Check	• Indoor unit management points' icon * Make the operating procedure include a step that checks whether the target indoor unit's icon go on after Leakage Check is started	Touch the [Check Stop] button and stop the Leakage Check. Modify the indoor unit registration and touch the [Check Start] button again, or set up the schedule again
Schedule setup	Set up an overlapping program	None	—	Only the program with the smallest number will be executed		

Commissioning Manual EM11A021
DCM601A51   intelligent Touch Manager

| Scene | Failure mode | Impact to users | Cause | Handling | | Recovery method |
| | | | | Notification method | | |
				When	How	
Leakage Check instruction	Manual Check Start failure	Leakage Check cannot be run	• Outdoor units are under maintenance • Outdoor units are communication error • Outdoor units are auto charge not completed • Indoor units are equipment error • Indoor units are under maintenance • Indoor units are in emergency stop	When the [Check Start] button is touched	• Cause of failure is displayed as an error message • Cause of failure is recorded in the history	Touch the [Check Start] button again after recovering the cause of failure
	Scheduled Check Start failure	Leakage Check cannot be run		At schedule trigger	• Cause of failure is recorded in the history	Set up the schedule again after recovering the cause of failure
	iTM judged that it successfully started Leakage Check, but outdoor unit has not started Leakage Check	• Output of incorrect check results • Inability to cancel "Under Maintenance" status until 180 minutes have elapsed	The Check Start instruction was sent to an outdoor unit, but the sending attempt failed due to a communication error and then iTM was turned OFF before it judges that the sending attempt was failed	When an iTM start time of 180 minutes has elapsed since the start of Leakage Check	• Maintenance status is canceled and Leakage Check results are made viewable	Touch the Check Start button or set up the schedule again after recovery from the cause of failure
	iTM judged that it failed to start Leakage Check, but outdoor unit has started Leakage Check	• Outdoor unit remains in a Leakage Check run, cooling indoor air unintendedly • Ability to re-send Leakage Check instruction to outdoor units under maintenance	The Check Start instruction was sent to an outdoor unit to start a Leakage Check run, but communication with the outdoor unit was disconnected before iTM receives a response	• When the Check Start instruction was sent • When a communication error occurred	• Leakage Check Start failure is recorded in the history • Communication failure is recorded into the history	Solve the communication error and start a Leakage Check run again when an iTM start time of 180 minutes has elapsed
	iTM judged that it completed Leakage Check, but outdoor unit has not stopped Leakage Check	• Outdoor unit remains in a Leakage Check run, cooling indoor air unintendedly • Ability to re-send Leakage Check instruction to outdoor units under maintenance	Communication was disconnected when Leakage Check was stopped, but iTM has not yet judged that it is a communication error	• When the Check Stop instruction was sent • When a communication error occurred	• Leakage Check Stop failure is recorded in the history • Communication failure is recorded into the history	Solve the communication error and start a Leakage Check run again when an iTM start time of 180 minutes has elapsed

Scene	Failure mode	Impact to users	Cause	Handling		
				Notification method		Recovery method
				When	How	
During Leakage Check	Emergency Stop signal has been received during Leakage Check	Emergency stop cannot stop indoor units	Indoor units are under maintenance	At emergency stop signal generation	• The emergency stop signal is sent and indoor units emergency stopped	Touch the [Check Start] button or set up the schedule again after the Emergency Stop is released
	Time has been modified during Leakage Check	None	—	Judgment is possible because the results are viewable when an iTM start time of 180 minutes has elapsed since the start of Leakage Check even after a change in the scheduled time. However, modifying the time during Leakage Check should be avoided from the operation viewpoint		
	iTM stops during Leakage Check due to power outage	None	—	When iTM starts up after power recovery, it judges the end time from the Leakage Check start time and current time. If the Leakage Check has not been completed, it is continued and the results checked after completion		
	iTM and outdoor unit stopped simultaneously during Leakage Check due to power outage	Leakage Check is interrupted	The outdoor unit interrupts Leakage Check in case of power outage			
	Error in the communication between iTM and outdoor unit during Leakage Check	None	—	When a communication error occurred	• Leakage Check failure is recorded in the history • Maintenance status is released	Touch the [Check Start] button again or set up the schedule again after recovering the cause of failure
	Outdoor unit experiences power outage during Leakage Check	Leakage Check is interrupted	The outdoor unit interrupts Leakage Check in case of power outage	When an iTM start time of 180 minutes has elapsed since the start of Leakage Check	• Maintenance status is released and the Leakage Check results checked	Touch the [Check Start] button again or set up the schedule again after recovering the cause of failure
	Attempt to release Maintenance status of the target management point from System Settings during Leakage Check	• The outdoor unit/ indoor units malfunction because Automatic Control is not disabled • Leakage Check instruction can be sent again	Automatic Control are not disabled Whether Leakage Check is been run or not cannot be checked	When releasing the Maintenance status	• Transition to the Maintenance screen is prevented during Leakage Check	—
Leakage Check results acquisition	Outdoor unit experiences communication error after Leakage Check end	None	—	There is no problem since the Leakage Check results are already received		
	iTM stops after Leakage Check end due to power outage	None	—	There is no problem since the Leakage Check results are already received		

Optional Functions

5. Service Settings

5-1 Activation

In addition to standard functions, iTM provides various optional functions suited to users' needs.

There are two types of optional functions: optional maker functions sold by Daikin Industries, Ltd. and dealer options sold by dealers.

This chapter describes the procedure to activate optional maker functions.

| Acquiring the Activation key |

To activate an optional maker function, you must acquire the Activation key before making settings on site.

Since Activation keys are available at the Daikin Distributor's Page, you need a PC connected to the Internet.

To obtain the key, the MAC address indicated on the iTM main unit and the software ID shown in the license form supplied with the main unit will be requested. Check them in advance. Be sure to have them handy.

1. Access to Daikin Distributor's Page using the Web browser on your PC.

   http://global.daikin.com/distributor/index.html

   Enter your user name and password to login and go to page that issues Activation keys.

2. Enter the MAC Address and Option Software ID. Make a note of the Activation key that is displayed.

   > **NOTE**
   >
   > iTM does not require the entry of the basic software ID.

| Entering the Activation key |

The following describes the procedure to enable the optional maker function on site based on the Activation key acquired in advance.

1. Log into SE Mode from the Menu List screen and display the Service Settings tab (see page 7). Touch the Activation button on the Service Settings tab to display the Activation Setup screen (see page 10).
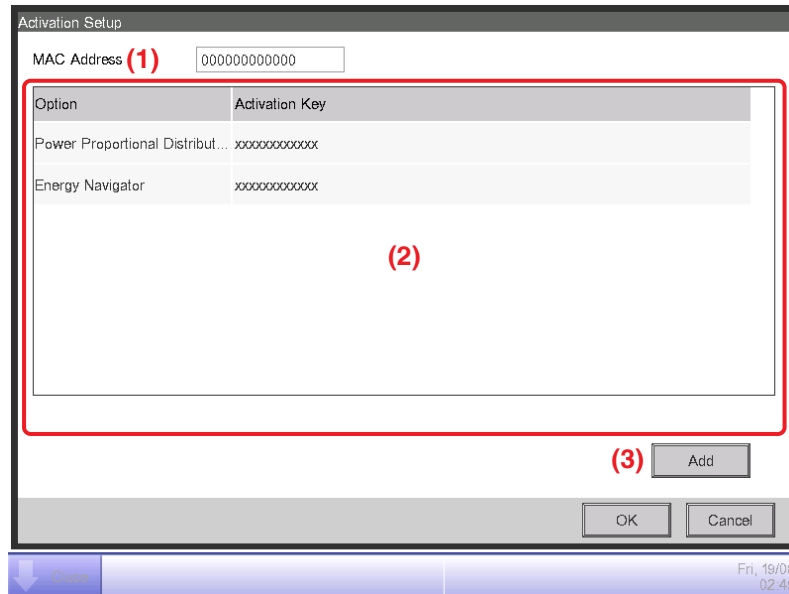
2. The MAC address of the iTM unit appears in MAC Address **(1)**.

   (2) is a list of currently enabled optional maker functions.

3. To enable a new optional maker function, touch the **Add** button **(3)**. Enter the Activation key for the optional maker function using the text input keyboard that appears and touch the OK button. If the key is correct, the function is added to the list **(2)**.

4. Touch the OK button on the Activation Setup screen.
   A confirmation dialog with the message "Settings have been changed. Reboot now to enable new settings?" appears. Touch the Yes button and restart the iTM unit.

5-2 Dealer Option Setup

The following describes the procedure to enable dealer options.

1. Log into SE Mode from the Menu List screen and display the Service Settings tab (see page 7). Touch the Dealer Option Switch button on the Service Settings tab to display the Dealer Option screen (see page 10).
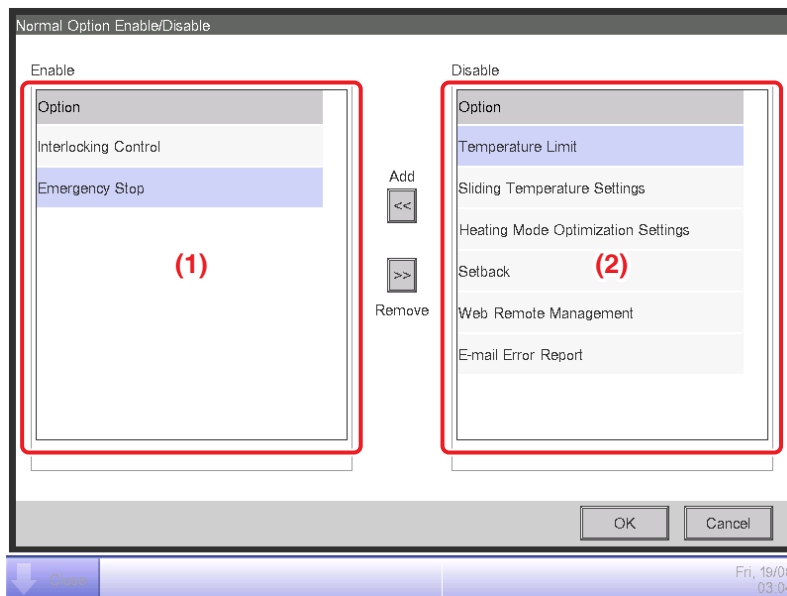
Enable **(1)** is a list of enabled dealer options.

Disable **(2)** is a list of disabled dealer options.

2. To enable a new optional function, select it from **(2)** and touch the Add button. It is added to **(1)** and enabled.
   To disable, select the optional function from **(1)** and touch the Remove button. Touch the Yes button on the confirmation dialog that appears. It is moved to **(2)** and disabled.

3. When finished, touch the OK button. A confirmation dialog with the message "Settings have been changed. Reboot now to enable new settings?" appears. Touch the OK button and restart the iTM unit.

Operating Optional Functions
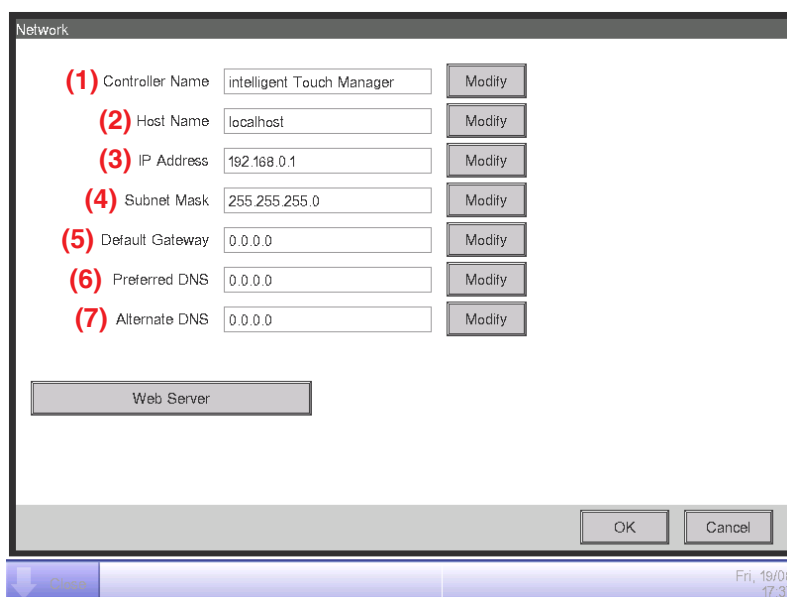
6. System Settings

6-1 Network

iTM allows you to operate it remotely via the Internet, or receive notification via E-mail in the case of an error. To use these functions, you must set up the network on the iTM unit.

The following describes how to set this up.
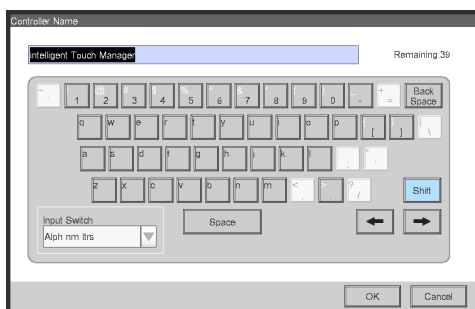
1. Touch the Network button on the System Settings tab of the Menu List screen to display the Network screen (see page 12).

<Name Input dialog> **<IP Address Input dialog>**

2. The current settings are displayed. Touch the Modify button to modify the settings in the Input dialog that appears. For information necessary for the settings, consult your network administrator.

(1) Controller name

(2) Host name

(3) IP address

(4) Subnet mask

(5) Default gateway address

(6) Preferred DNS address

(7) Alternate DNS address

3. Set up the Web server port number.

Touch the **Web Server** button **(8)** to display the Web Server screen and set up the port number.
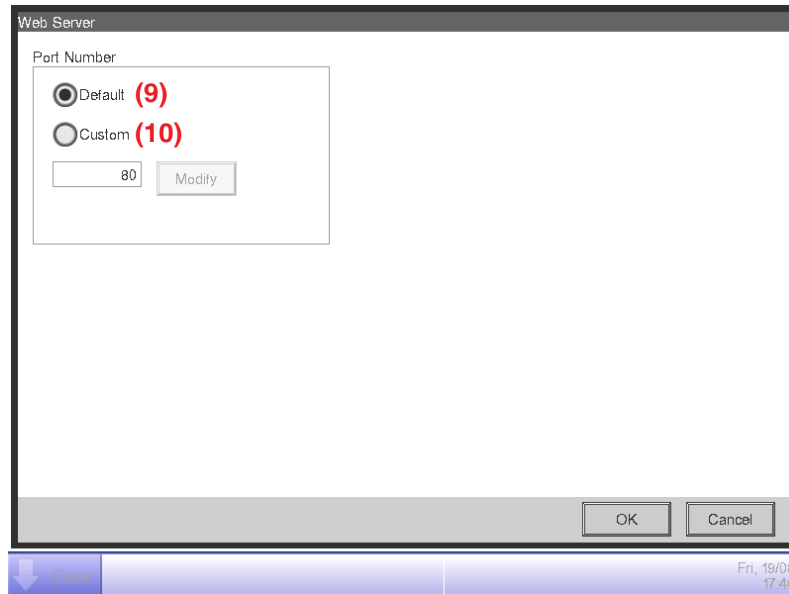
Select **(9)** to use the default port 80.

Selecting **(10)** displays the port number 8080. Touching the Modify button allows you to modify the settings in the Numerical Input dialog that appears.

Touch the OK button to save and close the screen.

4. When finished, touch the OK button. A confirmation dialog appears.
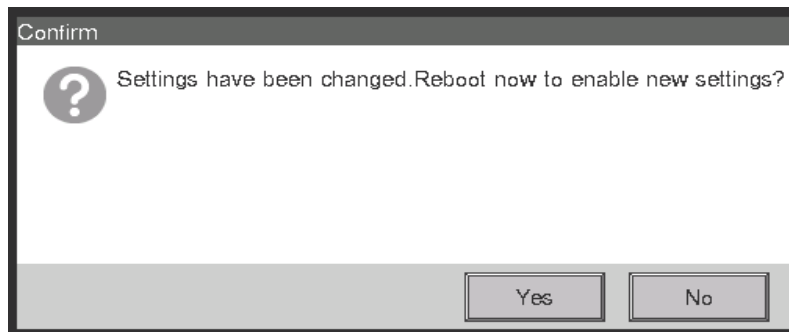
5. A restart confirmation message is displayed. Touch the Yes button to reflect the setting and restart the iTM.

6-2 Web Remote Management

The iTM can be remotely operated via the Internet or local network.
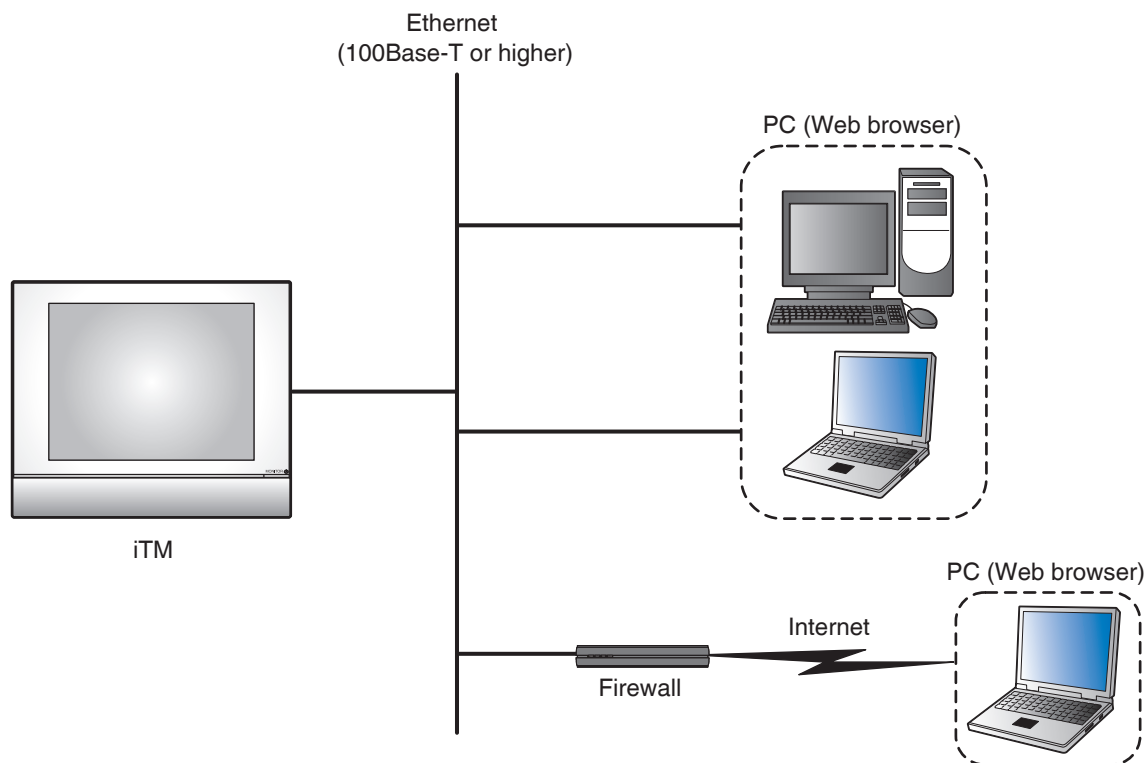
For settings necessary on the iTM unit, see "6-1 Network". This chapter describes the PC setup procedure.

To use the Web Remote Management functions, you need to separately prepare a PC and software such as a Web browser. The requirements for the PC are as indicated in the table below.

Function	Requirement

PC for Web Remote Management	OS: Windows XP Professional SP3 (32 bit)
	    Windows VISTA Business SP2 (32 bit)
	    Windows 7 Professional SP1 (32bit, 64bit)
	CPU: Equivalent to Intel Core 2 Duo 1.2 GHz or higher
	Memory: 2 GB or more
	Free HDD space: 10 GB or more
	Network: 100Base-TX or higher
	Display resolution: 1024 x 768 or higher

Network	100Base-TX Real transfer rate: 115 kbps or higher
Supported security software	McAfee 2011 Norton 2011 Virus Buster 2011
Flash Player	Version 11.1
Web browser	Internet Explorer 8, 9 Firefox 10.0

Connecting the PC and iTM

Connect the PC and iTM unit into a network using an Ethernet cable.

Ethernet cables use for connecting networks come in two types: straight and cross. Connect the PC and iTM unit by referring to the connection diagrams below.

Straight cable connection diagram
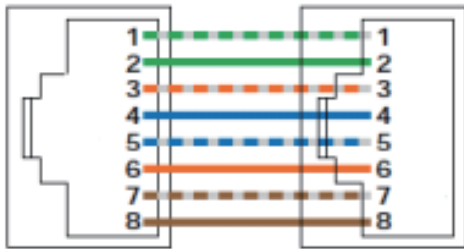
Cross cable connection diagram
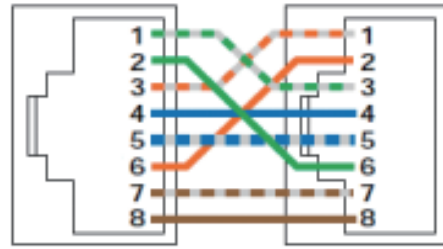
When connecting the PC and iTM directly:

Use a 100Base-TX or higher Ethernet cross cable.
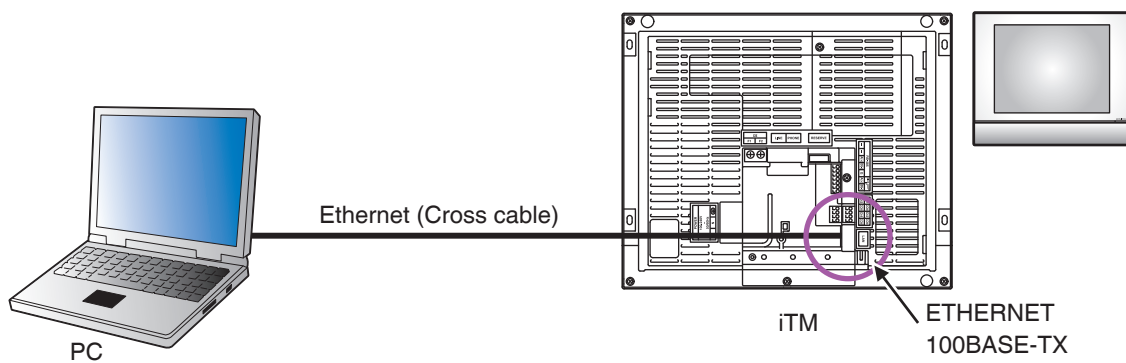
When connecting the PC and iTM via a hub:

Use a 100Base-TX or higher Ethernet straight cable.
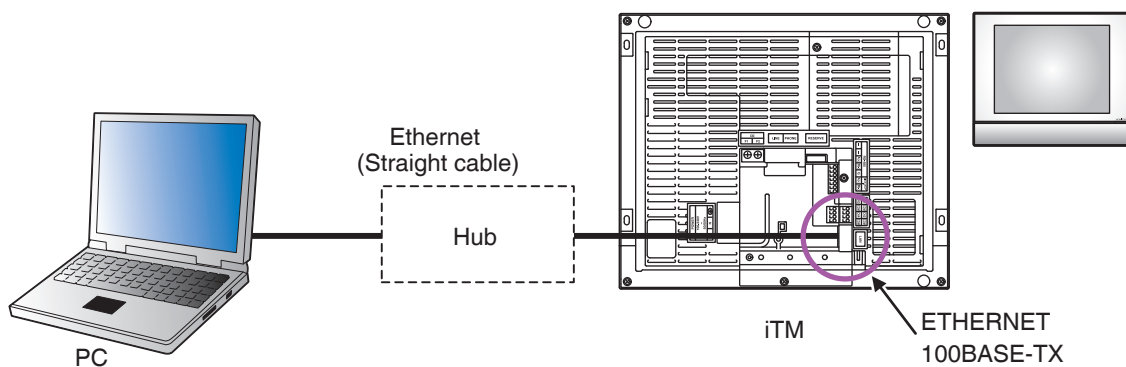
Checking the Web browser and Flash Player versions

1. Start up the Web browser (Internet Explorer) and select [About] from the [Help] menu.

┌─ **NOTE** ───┐

In the case of Firefox, you can check by selecting [Help] → [About Mozilla Firefox].

└──┘

Check that the version is 8.0.xxxx.xxxxxxx or 9.0. xxxx.xxxxxxx. (The xxx portion may be any)
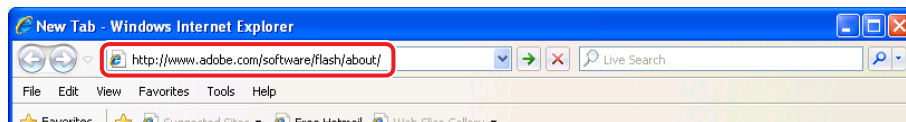
2. Enter the address of the site for checking the Flash Player version: http://www.adobe.com/software/flash/about/
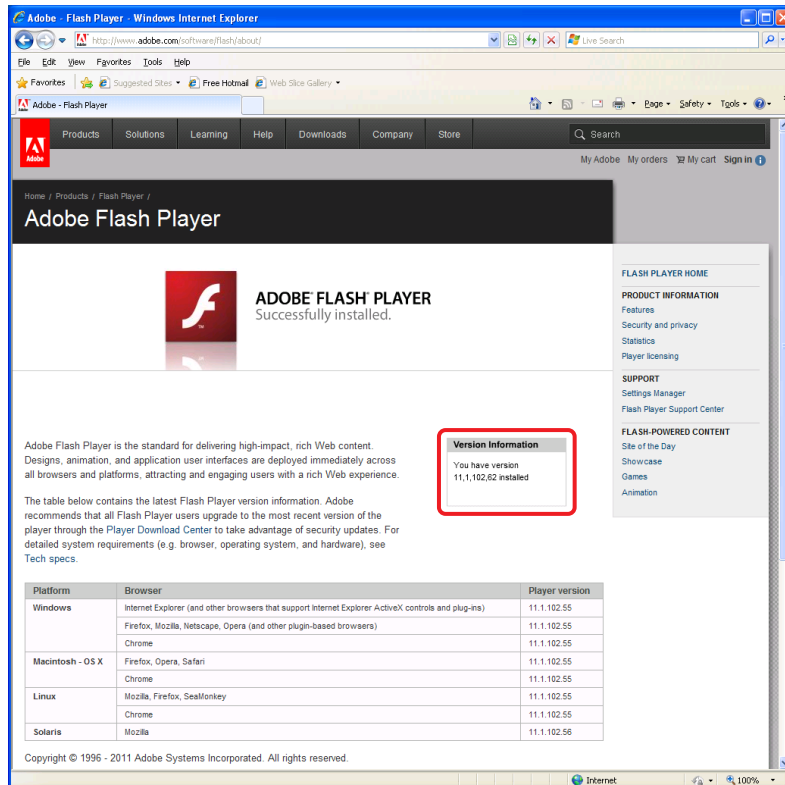
Check that the version is 11.1.xxx.xx. (The xxx portion can be any)

Operation cannot be guaranteed if both the Web browser and Flash Player are not of the specified version. Be sure to use the version described in the table.

NOTE

Necessary software can be downloaded from Microsoft, Adobe, and other sites for free.


Setting up the IP address (Windows XP Professional)

1. Select [Start] → [Control Panel].
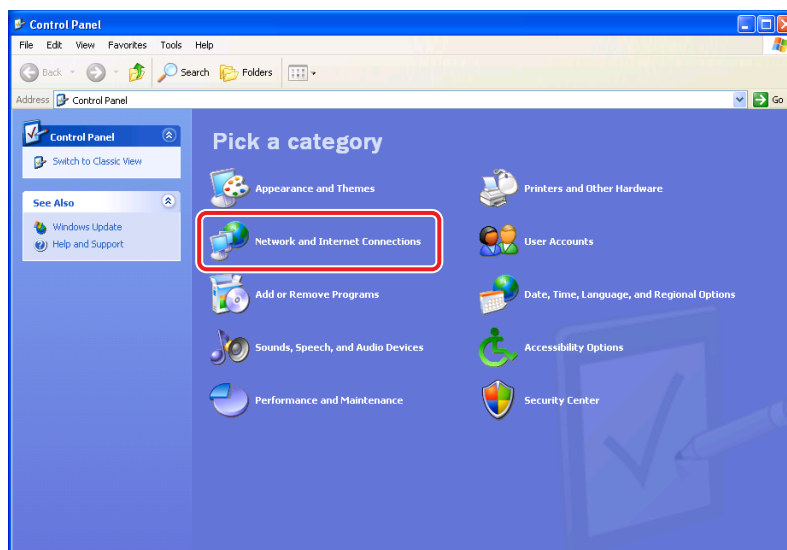
2. Click [Network and Internet Connections].
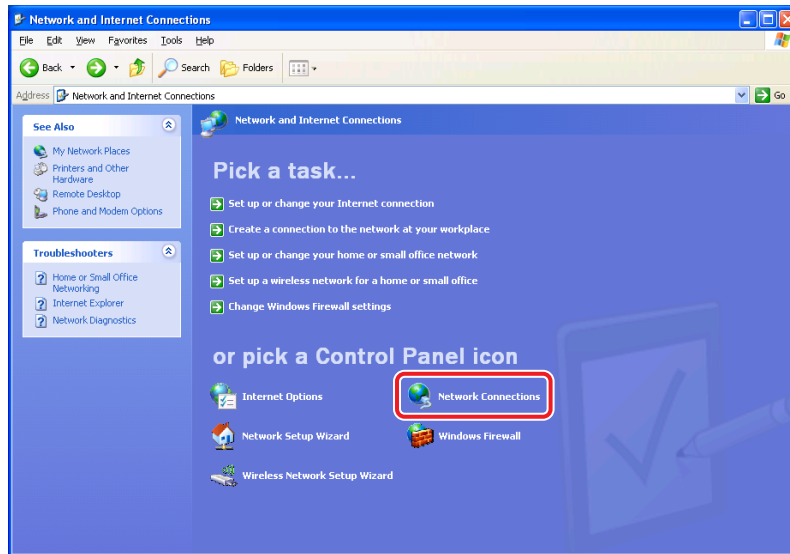
3. Click [Network Connections].
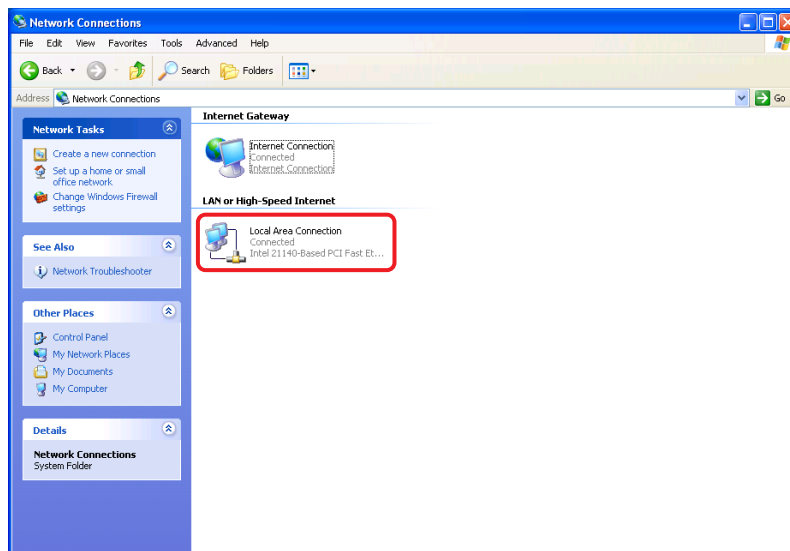
4. Double click [Local Area Connection].
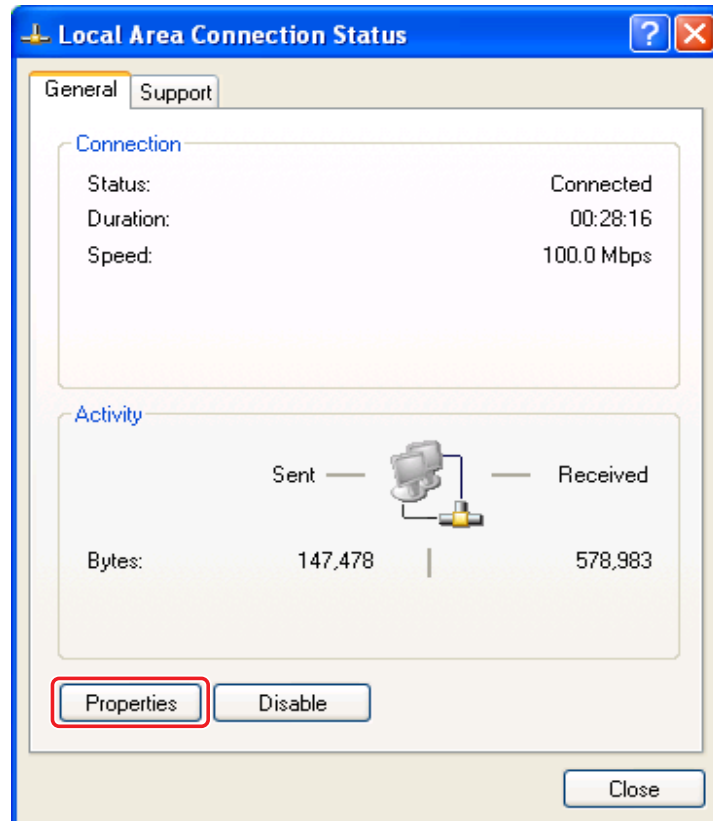
5. Select [Properties].
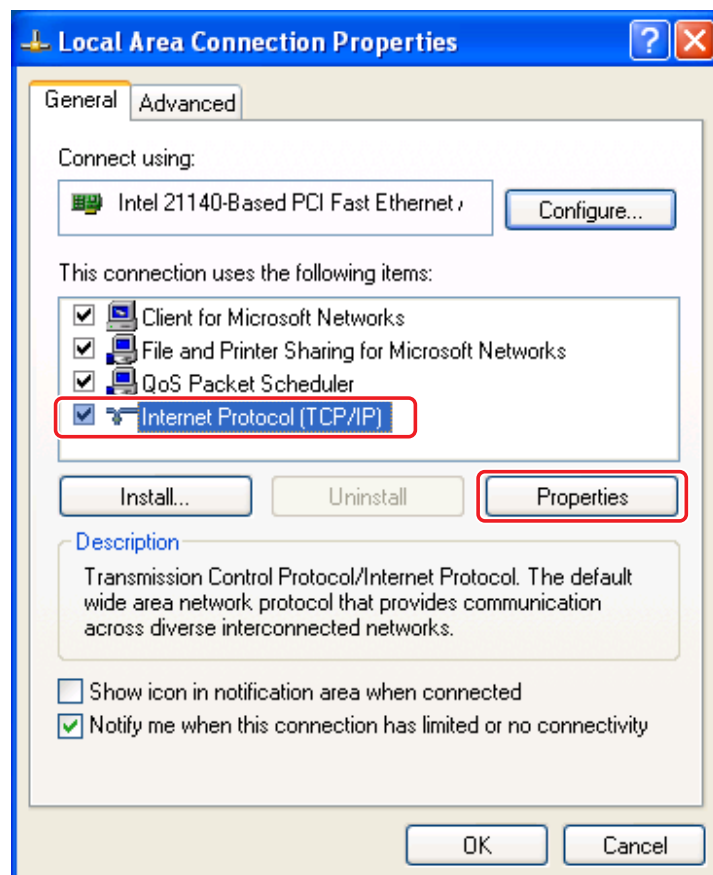
6. Select [Internet Protocol (TCP/IP)] and click [Properties].
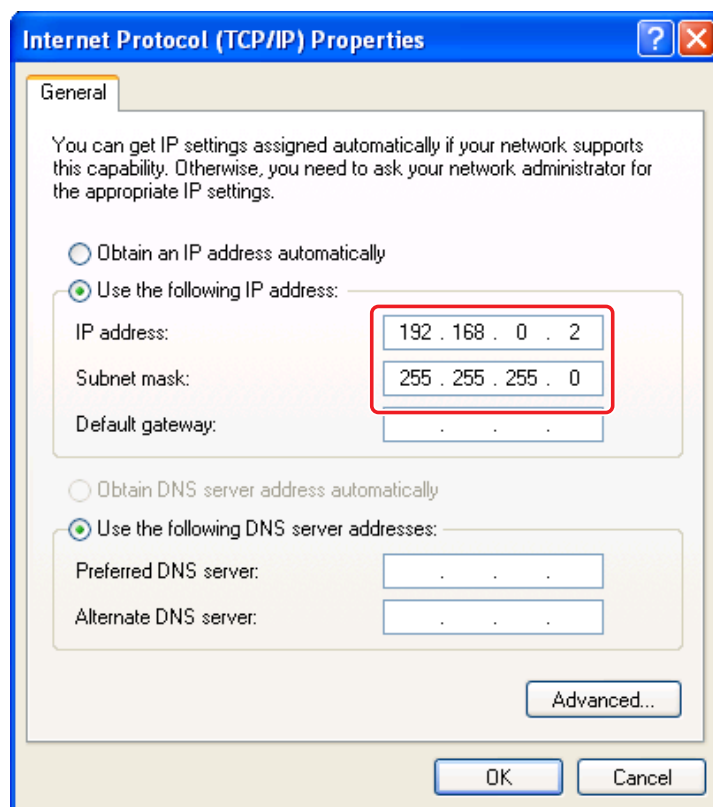
Commissioning Manual   EM11A021
                                     DCM601A51   intelligent Touch Manager

7. To connect to the iTM via the Internet, ask its IP address and subnet mask to your network administrator and set them up.

   Set them up as follows when connecting to the iTM via local network.

   IP address: 192.168.0.2   Subnet mask: 255.255.255.0

   NOTE

   iTM settings at shipment are as follows.

Item	Settings at shipment
Host name	localhost
IP address	192. 168. 0. 1
Subnet mask	255. 255. 255. 0
Default gateway	0. 0. 0. 0
Preferred DNS	0. 0. 0. 0
Alternate DNS	0. 0. 0. 0
Web server port number	80
Controller name	intelligent Touch Manager
   ---

8. Check that the settings are correct and click [OK] to close the [Internet Protocol (TCP/IP) Properties] and [Local Area Connection Properties] screens.

   Click [Close] to close the [Local Area Connection Status] screen and finish setup.

Setting up the IP address (Windows Vista Business)

1. Select [Start] → [Control Panel].
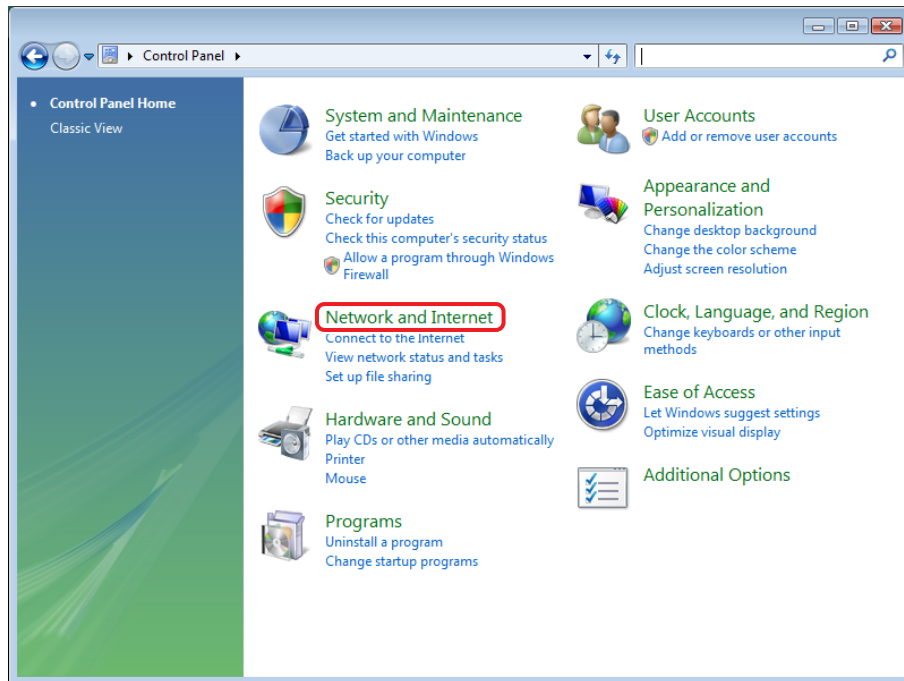
2. Click [Network and Internet].
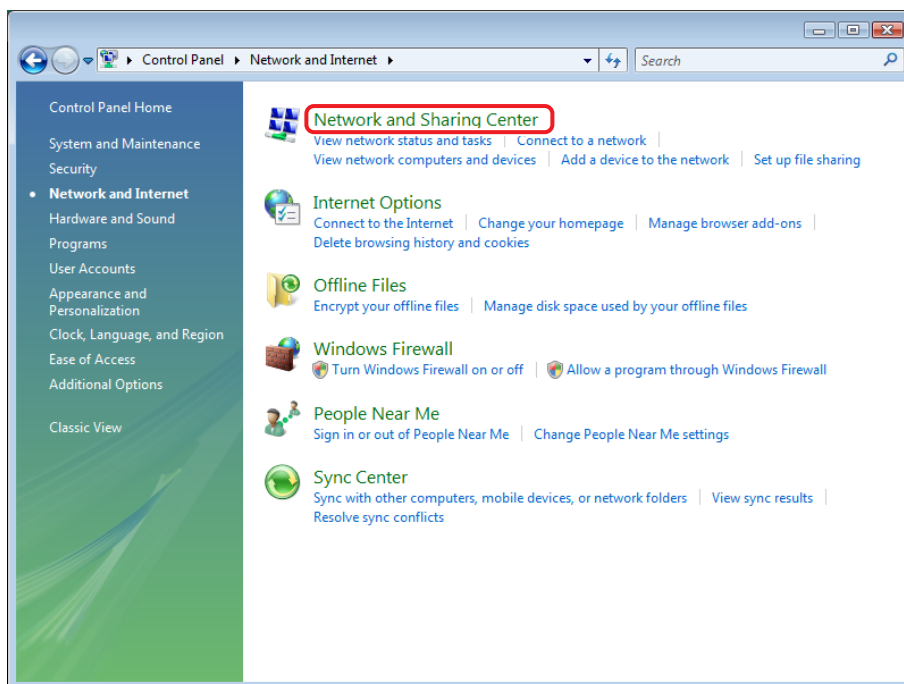

3. Click [Network and Sharing Center].
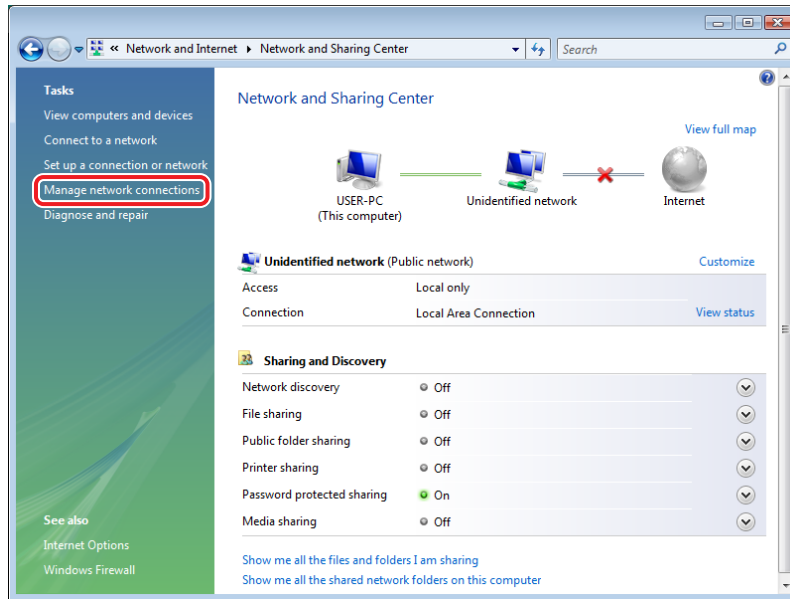
4. Click [Manage network connections].
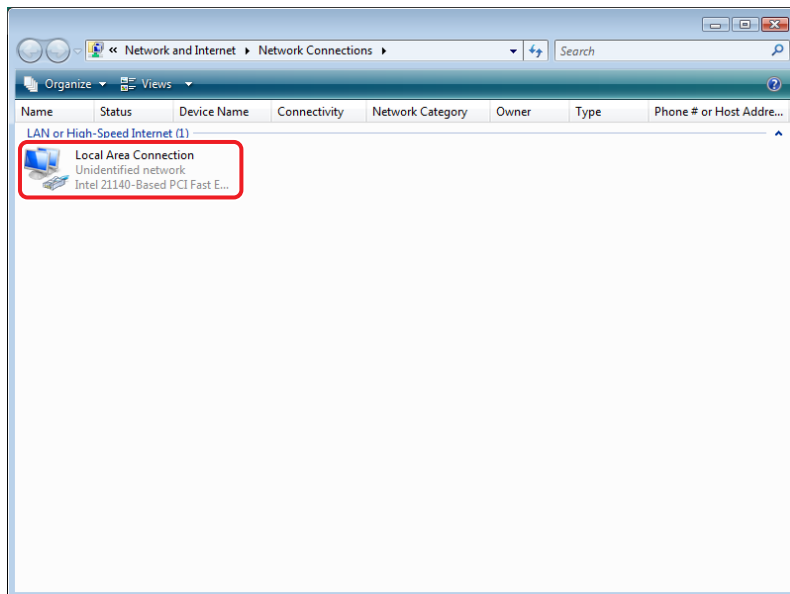
5. Double click [Local Area Connection].
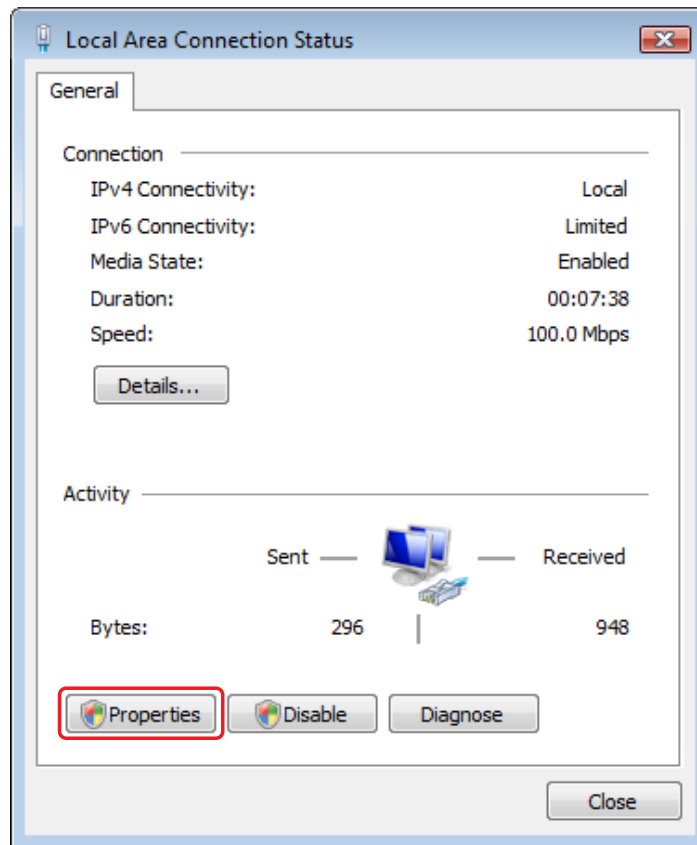
6. Click [Properties].

7. Select [Internet Protocol Version 4 (TCP/IPv4)] and click [Properties].

Commissioning Manual EM11A021
                            DCM601A51   intelligent Touch Manager
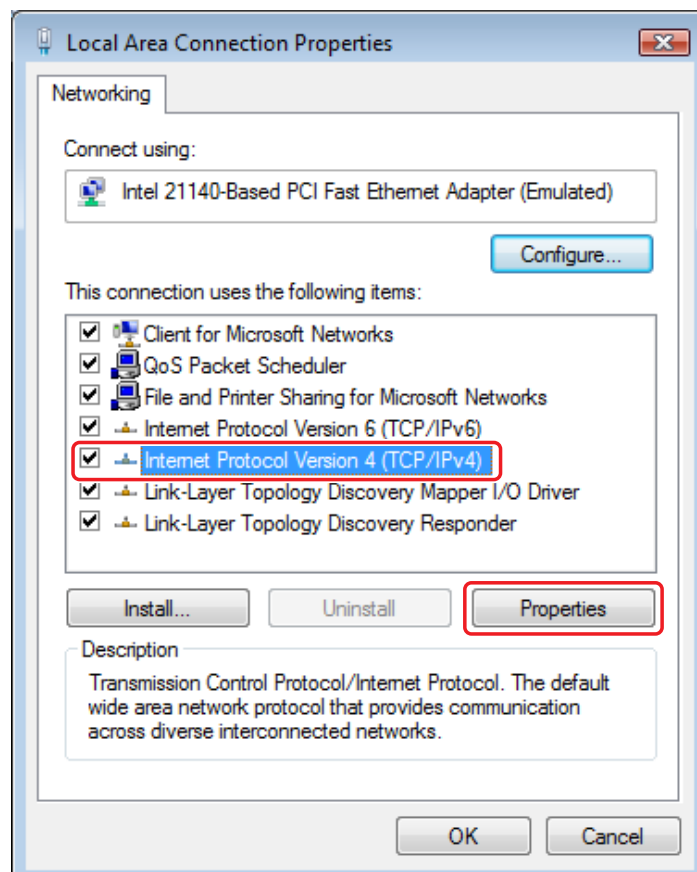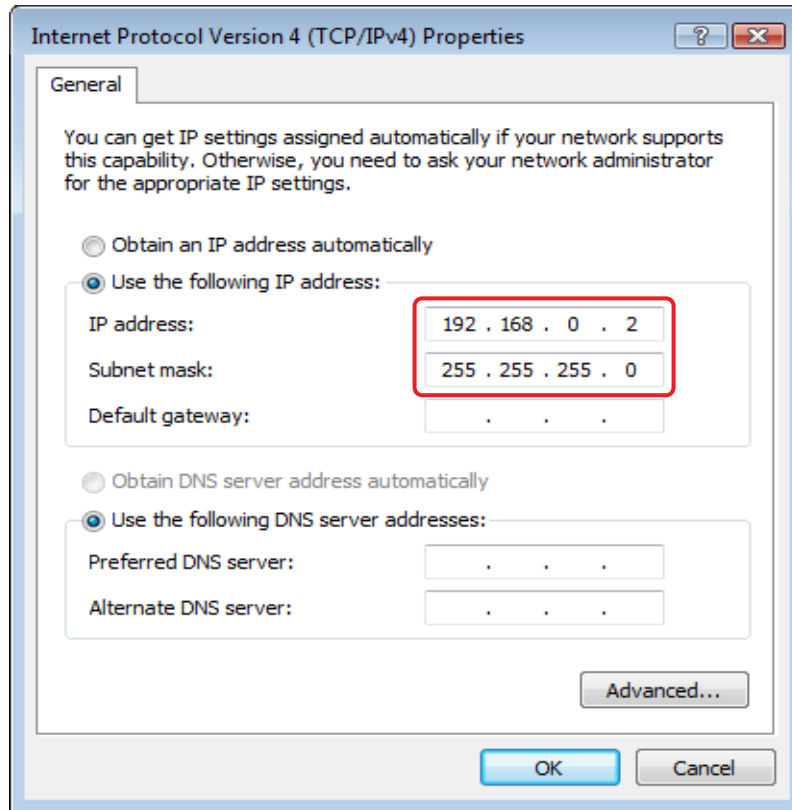
8. To connect to the iTM via the Internet, ask its IP address and subnet mask to your network administrator and set them up.

   Set them up as follows when connecting to the iTM via local network.

   IP address: 192.168.0.2   Subnet mask: 255.255.255.0

   ┌─ **NOTE** ───┐
   │   │
   │ For iTM settings at the time of shipment, see page 96.   │
   │   │
   └──┘

9. Check that the settings are correct and click [OK] to close the [Internet Protocol Version 4 (TCP/IPv4) Properties] and [Local Area Connection Properties] screens.

   Click [Close] to close the [Local Area Connection Status] screen and finish setup.

Setting up the IP address (Windows 7 Professional)

1. Select [Start] → [Control Panel].
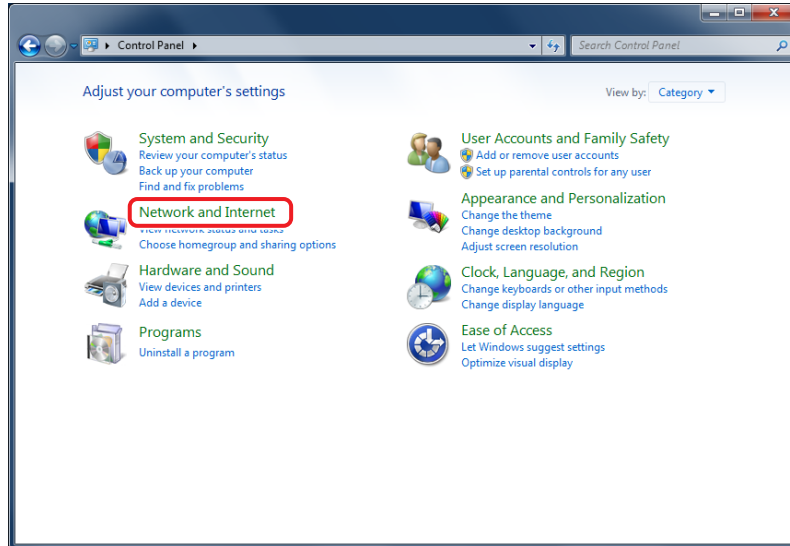
2. Click [Network and Internet].
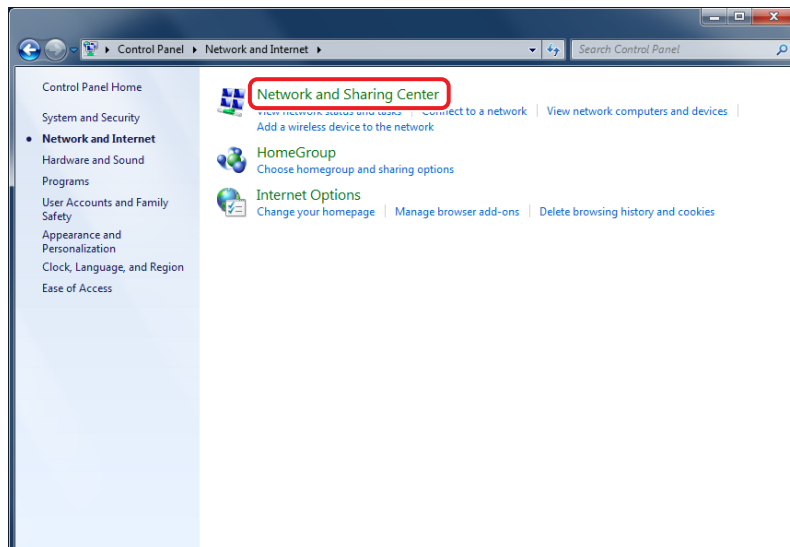
3. Click [Network and Sharing Center].
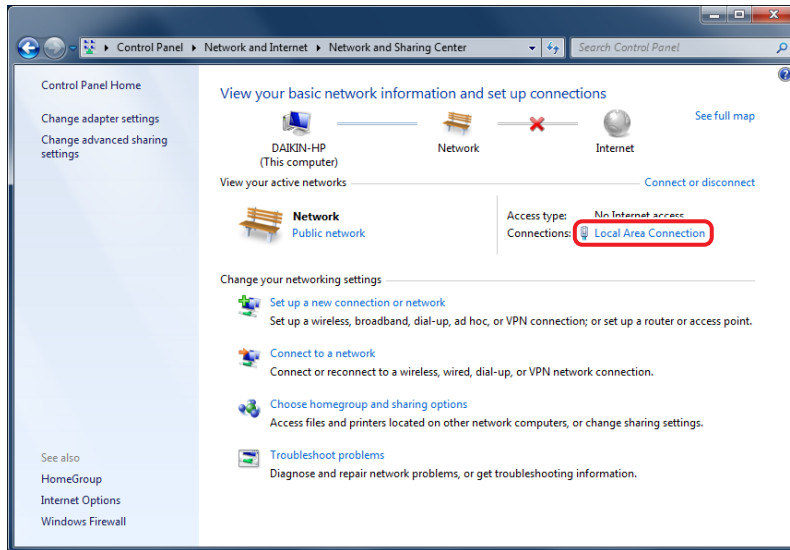
4. Double click [Local Area Connection].
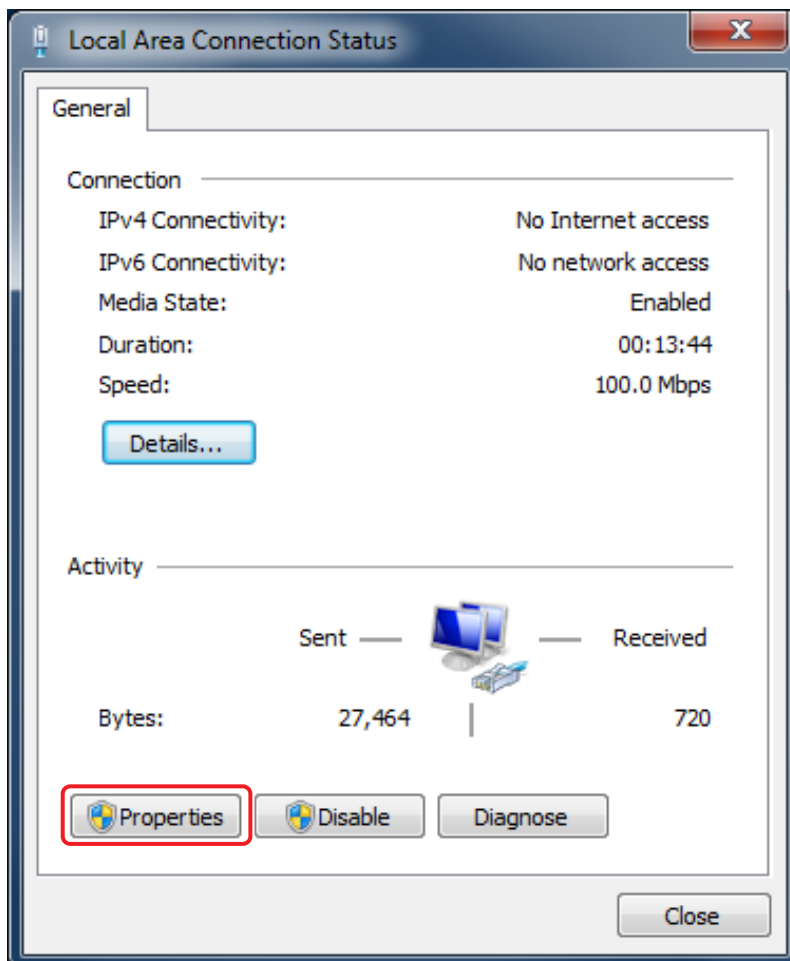
5. Select [Properties].
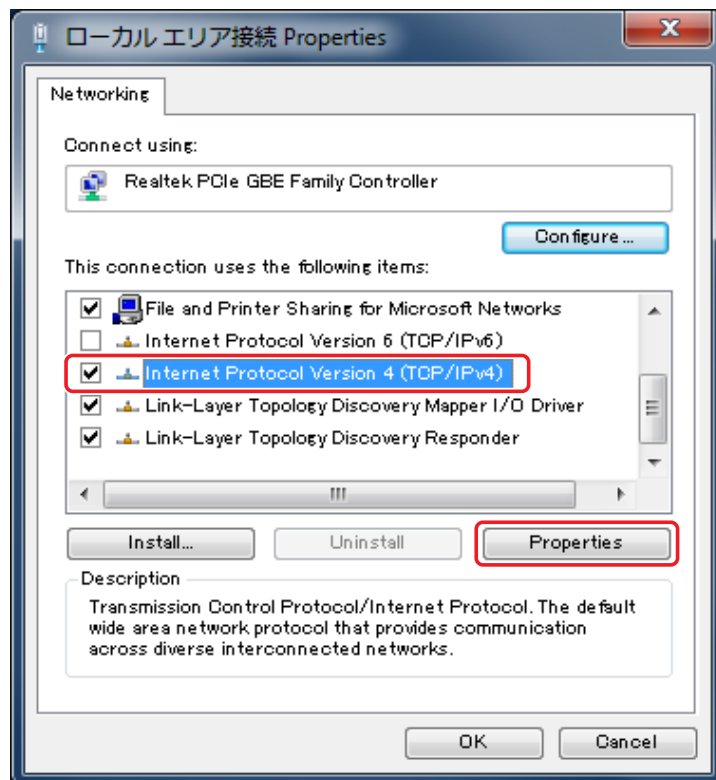
6. Select [Internet Protocol Version 4 (TCP/IPv4)] and click [Properties].
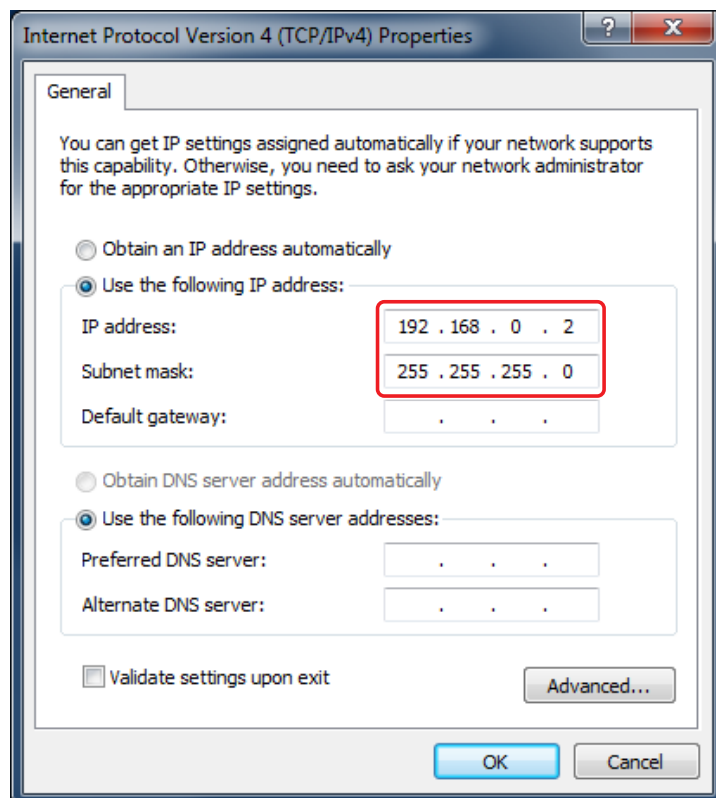
7. To connect to the iTM via the Internet, ask its IP address and subnet mask to your network administrator and set them up.

Set them up as follows when connecting to the iTM via local network.

IP address: 192.168.0.2   Subnet mask: 255.255.255.0

NOTE

For iTM settings at the time of shipment, see page 96.

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8. Check that the settings are correct and click [OK] to close the [Internet Protocol Version 4 (TCP/IPv4) Properties] and [Local Area Connection Properties] screens.

   Click [Close] to close the [Local Area Connection Status] screen and finish setup.

| Precautions when using Internet Explorer on Windows Vista and Windows 7 |

In Windows Vista and Windows 7, some operations are restricted by the User Account Control (UAC) regardless of the user type (administrator/regular user). For that reason, to use Internet Explorer on Windows Vista or Windows 7, you must "turn off" the "Protected Mode" of the Internet Explorer.

To "turn off" the "Protected Mode" of your Internet Explorer, follow the steps below.

NOTE

However, be warned that this method may expose the system to security vulnerabilities. Be sure you have understood its risks before using.

---

(1) Select the tool.

(2) Open Internet Options.

(3) Deselect [Turn on Protected Mode].

(4) Click the OK button on the [Internet Options] window.

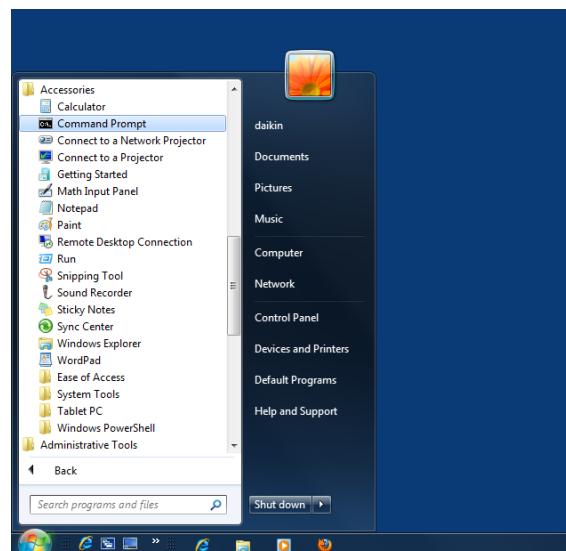**(5)** Click the OK button on the [Warning] window.
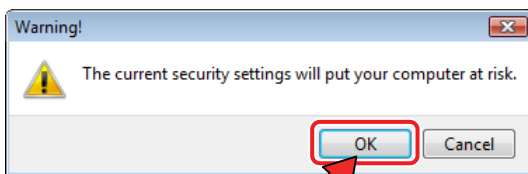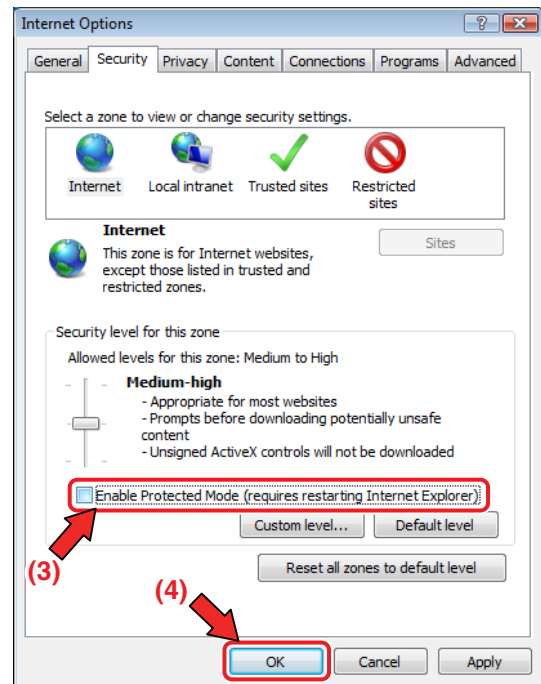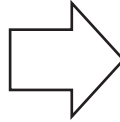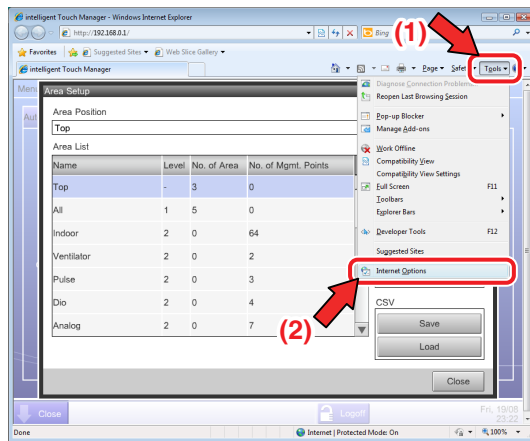
Network Connection Check

Check whether the Ethernet connection between a PC and iTM is normal.
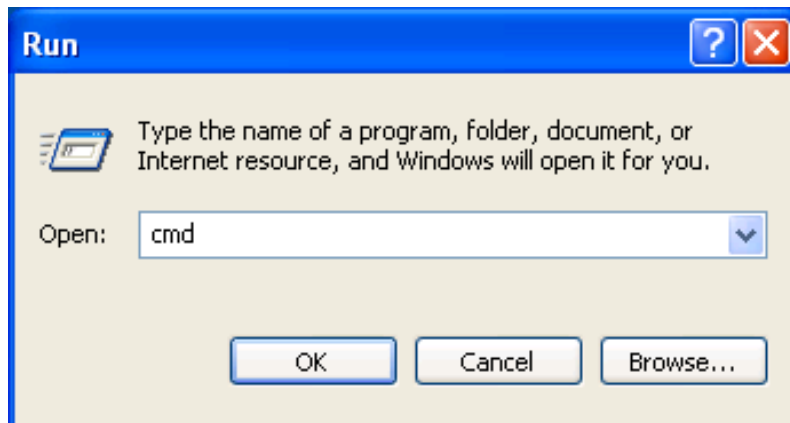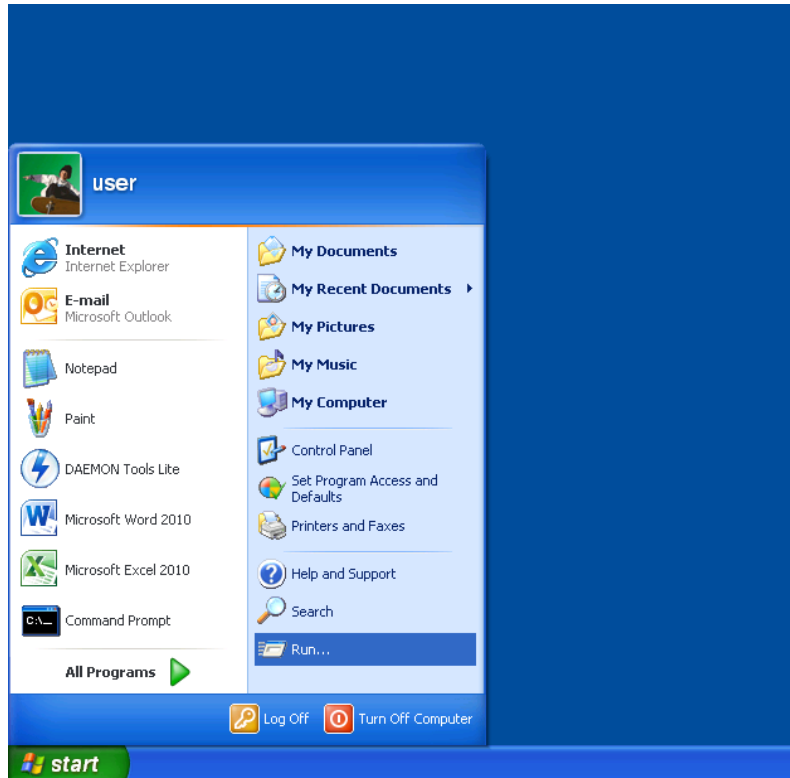
Carry out the following procedure from the PC.

<Windows XP>

<Windows VISTA, Windows 7>

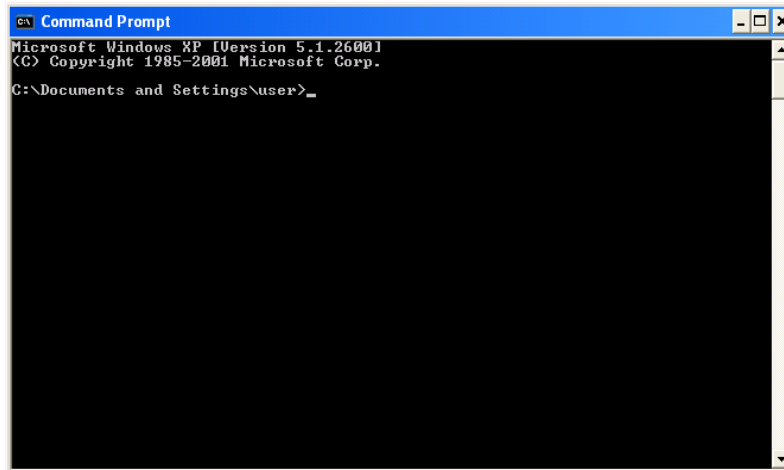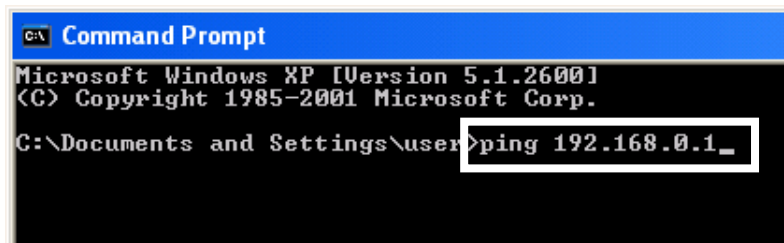Commissioning Manual   EM11A021
DCM601A51   intelligent Touch Manager
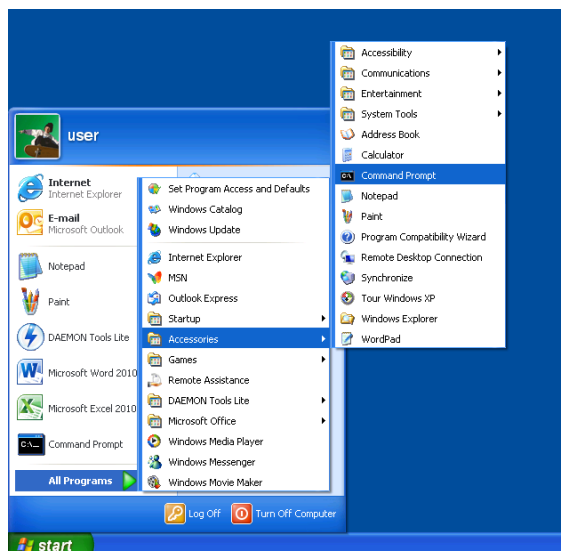
1. From the Start menu of the PC, select "All Programs" → "Accessories" → "Command Prompt". Alternatively, select "Run" from the Start menu of the PC, enter "cmd" in Open and click the OK button. (Windows XP)
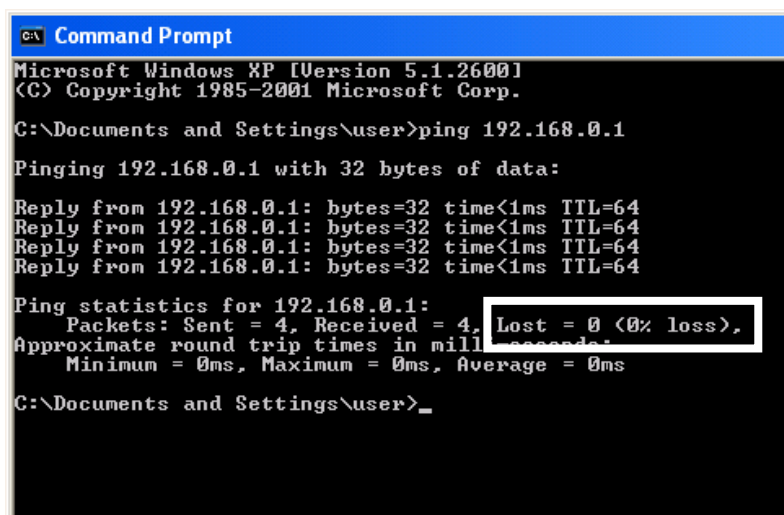
2. The command prompt starts up. Type "ping" followed by one single byte space and then the iTM IP address, and press the Enter key. (In this example, the IP address is 192.168.0.1)

3. If Lost=0(0% loss) is displayed, the Ethernet connection between the PC and the iTM unit is normal.

   If Lost=4(100% loss) is displayed, then the PC could not recognize the iTM unit. Check the settings.

> **NOTE**
>
> When a port number is set up in the network settings of the iTM unit, enter ":" followed by the port number after the IP address.
>
> (Example: If port number is 8080, enter 192.168.0.1:**8080**)

Logging into Service Mode via Web Remote Management

The Service Mode is also available when managing the iTM remotely using this function, in the same way as from the unit, if you have accessed the Web Remote Management function as manager.

The procedure to log into Service Mode is similar as that from the unit, by clicking the four corners of the browser's window and entering the password. For details, see "2-2 Logging into Service Mode".

iTM integrator Explanation

7. iTM integrator

7-1 Basic Setup

If you are sure that all connections have been made, proceed to the basic setup of the iTM integrator. Here, "basic setup" means setting up the iTM integrator in preparation for controlling the operation of your air conditioning system.

Turning on the power of the iTM integrator 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.
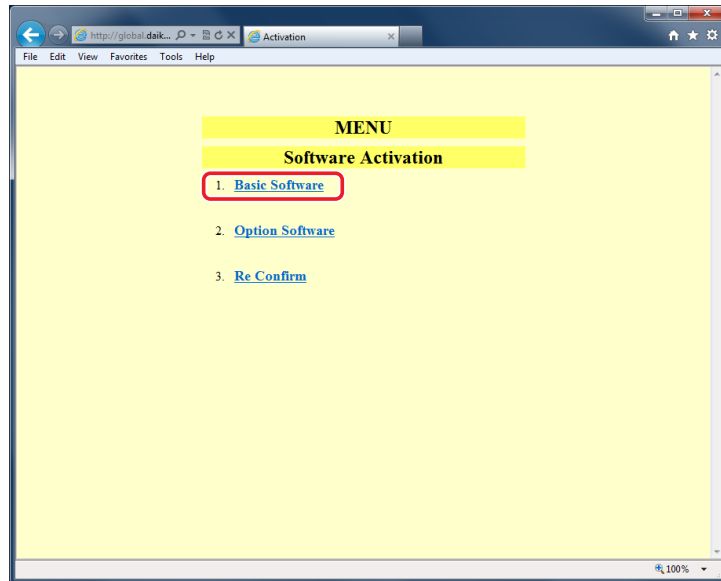
The following sections appear in the order of the setup steps.

1. From your PC, access the Network Solution page of the Distributor's Page. Then, download and save the basic software onto the USB memory.

2. Publish the activation key of the basic software.

    In the same way as in step 1, access the Network Solution page and then go to the Activation key issue page.

Select Basic software and enter the MAC address, Software ID, and User information of the iTM integrator you want to install.

Write down the activation key that appears on the screen.

3. Powering on data backup battery

   To retain the settings even in the event of a power outage, the iTM integrator 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 >
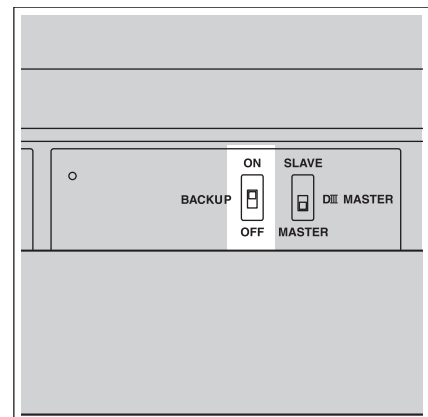
4. Install the software. For the procedure, see 4-10 Installation.

5. Setting up display language

Set up the display language used throughout the iTM integrator setup screens.

<Language Settings screen>
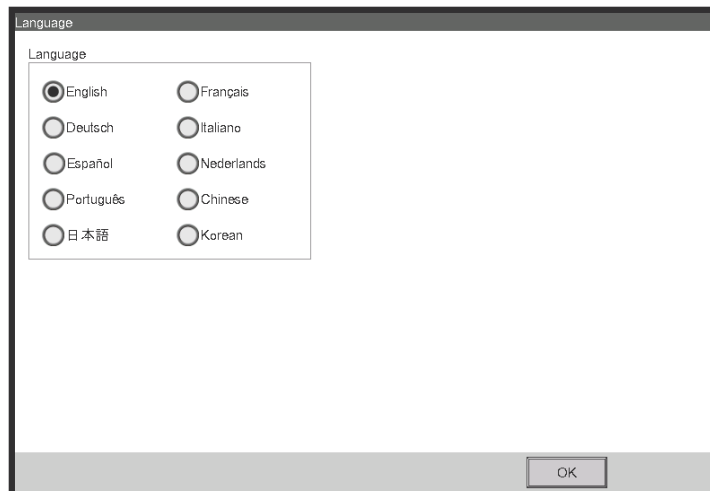

1. Touch the desired language from those listed on the screen.

   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. If so, refer to the step 3 on the previous page 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.

---

6. 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 data/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).

   [Decimal point / CSV separate] Select the decimal point symbol and the delimiter for CSV files.

   [Icon Color] Select the icon color.

2. When setup is done, touch OK.

   The Time Zone Settings screen appears.

7. Setting time zone

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

<Time Zone Settings screen>
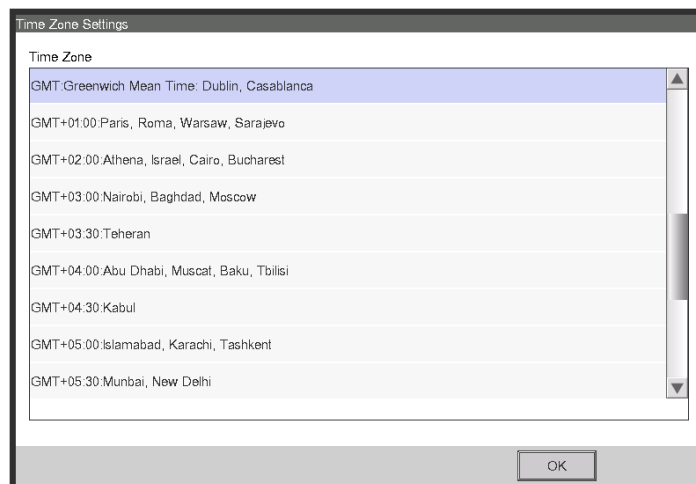
1. On the Time Zone Settings screen, select the time zone of your region from the Time Zone combo box.

2. Touch OK.

The Time/DST Setup screen appears.

8. Setting current time and daylight saving time

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

<Time/DST Setup screen>
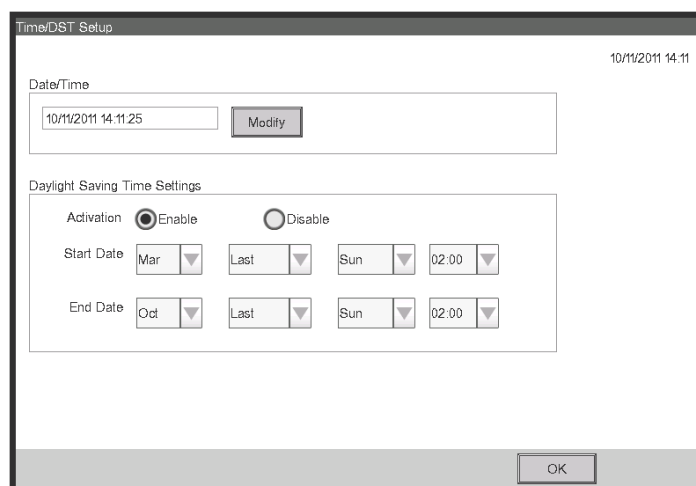
1. On the Time/DST Setup screen, set up the date/time and the daylight saving time schedule. (Enable or disable the daylight saving time function. If enabled, select the start time and the end time.)

2. Touch OK.

The A/C Auto Register screen appears.

7-2 iTM integrator Service Settings

Set up the iTM integrator unit.

Service settings described in this chapter are for the iTM integrator unit. Settings for iTM units are to be made in the respective iTM, or from the iTM integrator Standard View screen by accessing the respective iTM.

Service Settings Tab (Menu List Screen)

Displayed when you log into Service Mode from the iTM integrator Menu List screen.

The procedure to log into Service Mode is the same as that for the iTM. See "2-2 Logging into Service Mode".

(1) Time Zone

Sets the difference between the Universal Time Coordinated (UTC) on the iTM integrator and the local time.
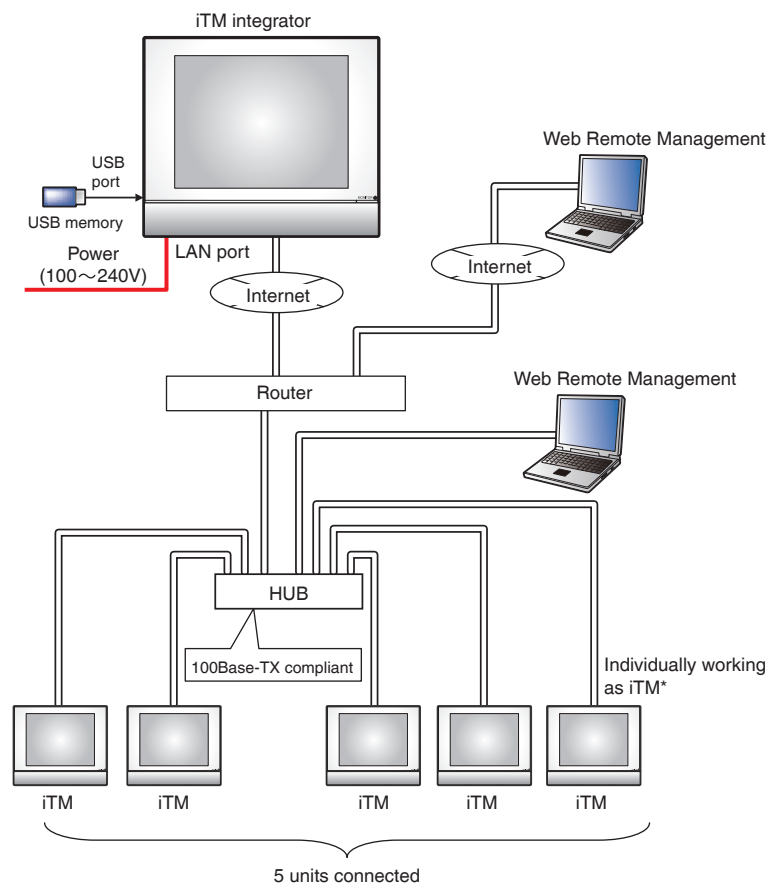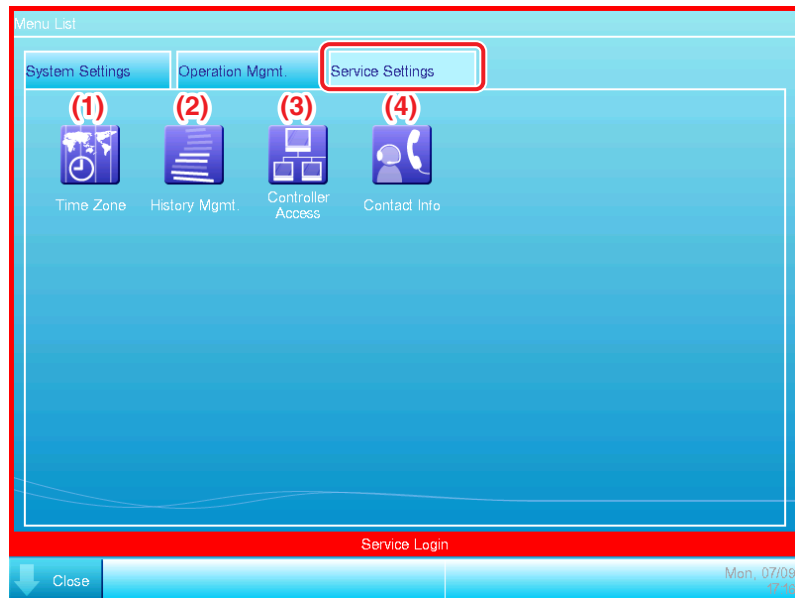
The setup method is the same as that for the iTM. See "4-4 Time Zone".

(2) History Mgmt. (Delete)

Deletes history records of a specified period from the iTM integrator's history.

The setup method is the same as that for the iTM. See "4-6 History Mgmt. (Delete)".

(3) Controller Access

Sets up the connection between the iTM integrator and iTM.

See the next page for a description of the setup method.

(4) Contact Info

Sets up contact information (three lines) for inquiries regarding errors in the iTM integrator system and the like.

The setup method is the same as that for the iTM. See "4-11 Contact Info".

> **NOTE**
>
> All settings in this Service Settings tab are for the iTM integrator unit. Please note that they are not for the iTM unit to be controlled using the iTM integrator.

Controller Access Setup

Set up the connection between the iTM to be controlled and the iTM integrator.

1. Display the Service Settings tab on the iTM integrator Menu List screen.
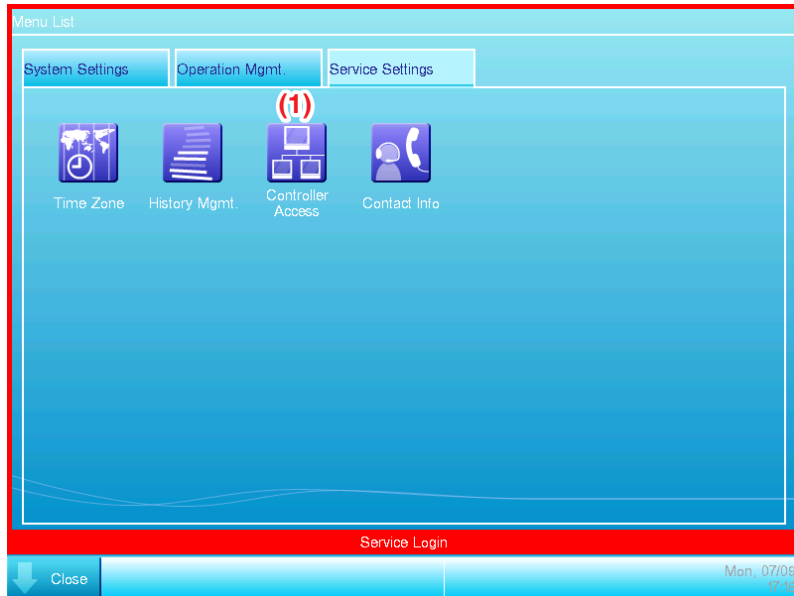
2. Touch the **Controller Access** button **(1)** to display the Controller Access Setting screen.

3. Touch the **Add** button **(2)** to display the Controller screen.

4. Touch the **Modify** button **(3)** and enter the iTM IP address in the IP Address Input dialog that appears.

   Set up the iTM Web port number in **(4)**. Select Default or User Setup using the radio button. If you selected User Setup, then touch the Modify button to enter it in the Numerical Input dialog that appears.

   The possible value range, value at shipment, and initial value at new registration for the IP address and Web server port number are as follows.

Item	Possible value range	Value at shipment	Initial value at new registration
IP address set up in controller	"1 to 223(*)"."0 to 255"."0 to 255"."0 to 255" * Addresses starting with "127" cannot be set up since they are for loopback.	—	192.168.0.1
Web server port number set up in controller	Default: 80 User Setting: 1024 to 65535, in increments of 1	—	Default: 80

5. When finished, touch the OK button to return to the Controller Access Setting screen.
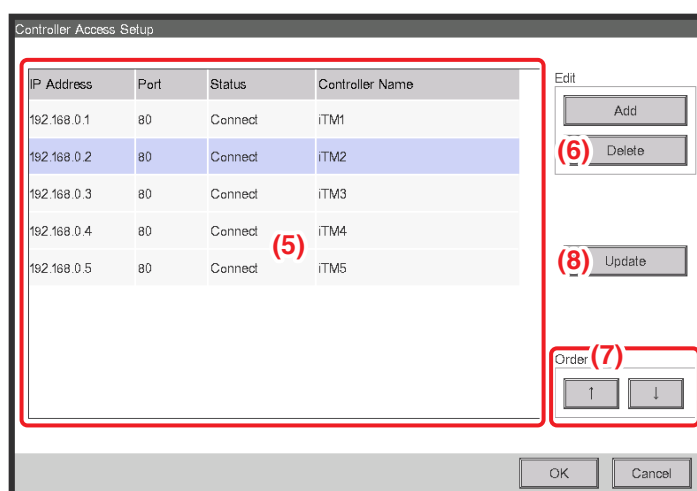
The registered iTM's IP address, Web server port number, connection status, and controller name are listed in **(5)**. You can register up to five iTM.

The **Delete** button **(6)** allows you to delete the iTM selected in the list.

The **Order** button **(7)** allows you to sort the list.

The **Update** button **(8)** allows you to acquire connection statuses and controller names and refresh the list **(5)**.

> **NOTE**
>
> • You must enable the "Web Remote Management" option of each iTM you want to register. See "5-2 Dealer Option Setup" in this manual.
> • The controller name is the name set up in the network settings on the iTM unit. See "6-1 Network" in this manual.
> • The controller name is automatically acquired if the communication between iTM integrator and iTM is working normally.

6. When finished, touch the OK button to close the screen.

If there is an iTM whose connection status is "Disconnected", the following Confirm dialog appears.
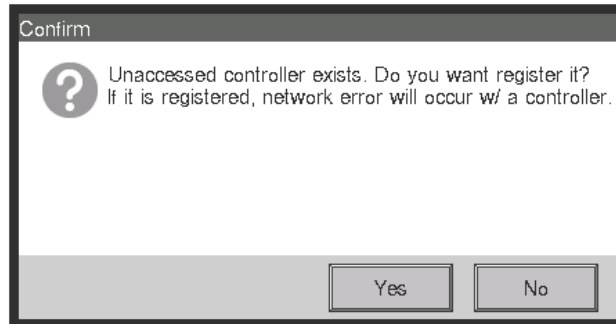
To exit setup leaving the iTM disconnected, touch the Yes button. To return to the Controller screen, touch the No button.

7. Open and close all the Layout Views of iTM.

Appendix

8. Useful Information

8-1 Troubleshooting

Troubleshooting table

|	Problem	Checking method	Cause	Measure
Remote operation	Cannot remotely operate iTM from the PC.	When iTM and PC are connected via hub, check whether they are correctly connected.	PC is not connected with iTM.	Connect the iTM and PC via hub using LAN cables.
			Cross cables are used as the LAN cable for connecting the iTM and PC via hub.	Use straight cables as LAN cable for connecting the iTM and PC via hub.
			The hub is turned off.	Turn on the hub.
		Check that iTM is turned on.	The iTM is turned off.	Turn on the iTM.
		Check whether the network settings on the PC are in conformity with the settings described in this manual.	The network settings on the PC are incorrect.	Modify the network settings on the PC so that they are in conformity with the settings described in this manual.
		When iTM and PC are connected directly, check whether they are connected using the correct cable.	The LAN cable connecting the iTM and PC is a straight cable.	Connect the iTM and PC using a cross cable.
			The procedure described in this manual has not been followed.	Install again by following the procedure in this manual.
DIII-NET	All management points on the same DIII-NET are experiencing communication error.	Check whether the DIII-NET cable is correctly connected to the iTM DIII-NET port.	The DIII-NET cable is not correctly connected to the iTM DIII-NET port.	Connect the DIII-NET cable to the correct iTM DIII-NET port.
		Check whether the DIII-NET cable between the iTM and outdoor unit is correctly connected.	The DIII-NET cable between the iTM and outdoor unit is not correctly connected.	Correctly connect the DIII-NET cable to the iTM and outdoor unit.
	Some of the management points are experiencing communication error.	Check whether the group address is set up for the management points.	The group address is not set up for the management points.	Set up the correct group address for the management points.
		Check whether the number of connected indoor units is exceeding the maximum number of indoor units that can be connected.	The total number of connected indoor units exceeds 64 groups, 128 units.	The total number of connected indoor units must not exceed 64 groups, 128 units.
		Check whether the total wire length is exceeding the guidelines.	The total wire length exceeds 2000m. (For shielded cords, the total wire length exceeds 1500m)	The total wire length must not exceed 2000m (1500m for shielded cords).
		Check the status of the management points against the wiring diagram.	Connection is done to the wrong DIII-NET port.	Connect to the correct DIII-NET port.
	A management point experiences communication error intermittently.	Check the wire used.	The wire used in DIII-NET has 3 or more cores.	Change to a wire with the designated specification.
		Check the actual wire status against the wiring diagram.	The wiring on the DIII-NET is that of a branch wire after branching.	Connect DIII-NET again so that wiring does not become that of a branch wire after branching.
		Check whether the number of connected indoor units is exceeding the maximum number of indoor units that can be connected.	The total number of connected indoor units exceeds 64 groups, 128 units.	The total number of connected indoor units must not exceed 64 groups, 128 units.
		Check whether the total wire length is exceeding the guidelines.	The total wire length exceeds 2000m. (For shielded cords, the total wire length exceeds 1500m)	The total wire length must not exceed 2000m (1500m for shielded cords).
		Check the connection status of DIII-NET pin terminals.	DIII-NET pin terminals are not firmly connected.	Connect DIII-NET pin terminals firmly.
		Check the status of the terminal board.	There are three or more wires connected to one terminal.	Limit the number of wires to connect to one terminal to two.
		Check the installation status of other units.	There is a source of noise around the DIII-NET.	Separate DIII-NET from the source of noise.
	A "Duplicated parent centralized control on DIII port" is output.	Check whether there is any other central unit set up as parent.	There are multiple central units set up as "parent".	Disconnect all connectors for parent centralized control from central units other than the iTM. When an upper central unit is connected, disconnect the connector for parent centralized control from the iTM. (Change the DIII MASTER switch to SLAVE)
	A "DIII port transmission buffer overflow" message is output.	Check the wire used.	The wire used in DIII-NET has 3 or more cores.	Change to a wire with the designated specification.
		Check the actual wire status against the wiring diagram.	The wiring on the DIII-NET is that of a branch.	Connect DIII-NET again so that wiring does not become that of a branch.
		Check the connection status of DIII-NET pin terminals.	DIII-NET pin terminals are not firmly connected.	Connect DIII-NET pin terminals firmly.
		Check the installation status of other units.	There is a source of noise around the DIII-NET.	Separate DIII-NET from the source of noise.

	Problem	Checking method	Cause	Measure
Air conditioner control	Air conditioners continue to work in cool mode though the room temperature is lower than the lower limit set up by the Temperature Limit function.	Check whether the subject indoor units have Changeover Option.	The subject indoor units are controlled by an upper unit with Changeover Option.	Check the Temperature Limit settings.
	Air conditioners continue to work in heat mode though the room temperature is higher than the upper limit set up by the Temperature Limit function.	Check whether the indoor units have Changeover Option.	The subject indoor units are controlled by an upper unit with Changeover Option.	Check the Temperature Limit settings.
	Indoor units working in automatic mode switches to heat (cool) mode spontaneously.	Check in the history whether the Temperature Limit function is running.	The subject indoor units are controlled by the Temperature Limit function.	Check the Temperature Limit settings.
		Check in the history whether the Auto Changeover function is running.	The subject indoor units are controlled by the Auto Changeover function.	Check the Auto Changeover settings.
		Check in the history whether switching between cool and heat modes is according to the Schedule function.	Switching between cool and heat modes is controlled by a schedule program.	Check the schedule program.
		Check the history whether switching between cool and heat modes is according to the Interlocking Control function.	Switching between cool and heat modes is controlled by an interlocking program.	Check the interlocking program.
		Check the history whether switching between cool and heat modes is carried out manually.	Switching between cool and heat modes is carried out manually.	
PPD	Cannot connect iTM to PPD engineering tool.	When iTM and PC are connected via hub, check whether they are correctly connected.	PC is not connected with iTM.	Connect the iTM and PC via hub using LAN cables.
			Cross cables are used as the LAN cables connecting the iTM and hub, and PC and hub.	Use straight cables as LAN cable for connecting the iTM and PC via hub.
			The hub is turned off.	Turn on the hub.
		Check that iTM is turned on.	The iTM is turned off.	Turn on the iTM.
		Check whether the network settings on the PC are in conformity with the settings described in this manual.	The network settings on the PC are incorrect.	Modify the network settings on the PC so that they are in conformity with the settings described in this manual.
		When iTM and PC are connected directly, check whether they are connected using the correct cable.	The LAN cable connecting the iTM and PC is a straight cable.	Connect the iTM and PC using a cross cable.
			A Firewall is installed on the PC.	Disable or delete the Firewall on the PC. (Be warned that disabling or deleting the firewall may expose the system to security vulnerabilities)
	The pulse port is not displayed on the PPD setup tool.	Check whether the Pi management point is registered in iTM.	Pi management point is not registered.	Register the Pi management point.
	When trying to run a trial for the set up model on the PPD engineering tool, some of the indoor units are not automatically recognized.	Check whether the management points registered in iTM are experiencing communication error.	Indoor units are experiencing communication error.	Find and solve the cause of the communication error in the indoor units.
		Check whether the subject indoor units are included in the model database.	The subject indoor units are not included in the model database.	Check whether the engineering tool is the latest. Check with System Support if they are supported models. If they are supported models, ask their capacity and actual state. If they are models that must be set up manually, set them up manually.
	The calculated power measurement at the iTM is 1/10 of the detected kWh.	Check whether the pulse rate is "10" for the management point.	1 kWh/pulse is set up for pulse rate for the management point instead of the intended 10 kWh/pulse.	Re-set the pulse rate to 10 kWh/pulse.
	The calculated power measurement at the iTM is 10 times the detected kWh.	Check whether the pulse rate is "1" for the management point.	10 kWh/pulse is set up for pulse rate for the management point instead of the intended 1 kWh/pulse.	Re-set the pulse rate to 1 kWh/pulse.
	The pulse value does not increase for the displayed management point.	Check the port number to which the pulse signal wire is connected.	The pulse signal wire is not connected to the correct Pi port.	Connect the pulse signal wire to the correct Pi port.
		Check whether the detected kWh is increasing.	The detected kWh is not increasing.	Check whether the kWh meter is correctly connected.
	The total pulse value at the iTM does not match the detected PPD value.	Check the history whether a power failure signal has been input while iTM was being reset.	The pulse value has been partially lost while iTM was being reset.	Give explanation to users.
		Check the PPD engineering tool settings.	PPD was set to not distribute the consumed power while the air conditioners are stopped.	Check the PPD specification. If there is any problem, after consulting with the users, modify settings to distribute the consumed power while the air conditions are stopped.
	Consumed power has been distributed though operation time for the subject indoor unit is "0".	Check the PPD engineering tool settings.	PPD was set to distribute the consumed power also while the air conditioners are stopped.	Check the PPD settings. If there is any problem, after consulting with the users, modify settings to not distribute the consumed power while the air conditions are stopped.
	Consumed power is "0" though the subject indoor unit is operating.	Check the operation mode of the indoor unit.	The operation mode was fan mode.	Check the PPD settings.
			The thermostat was always OFF though the air conditioner was operating in cool or heat mode.	Check the PPD settings.

9. Hardware Specifications

9-1 iTM Hardware Specification
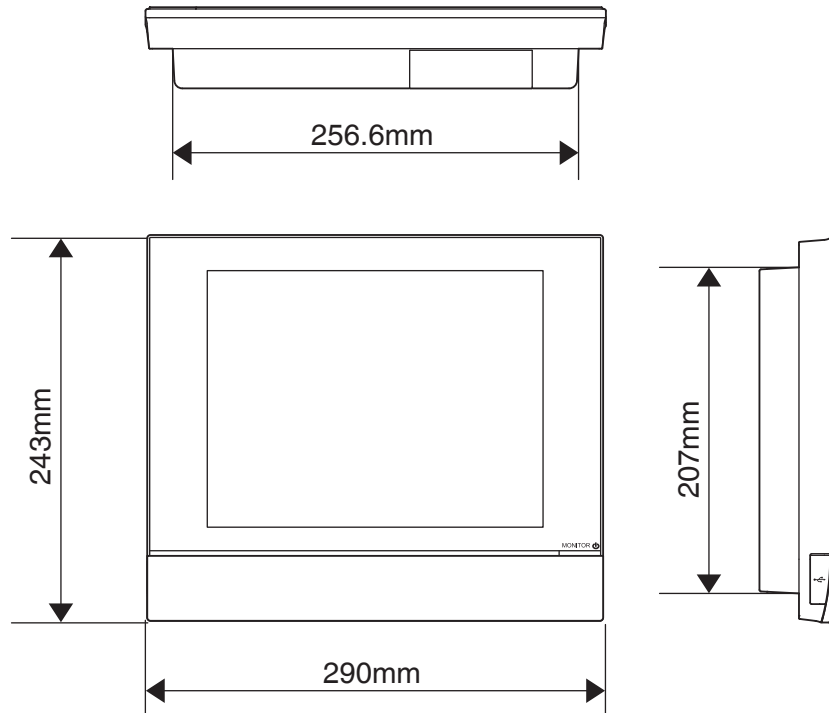
Power	AC100 - 240 V 50/60 Hz
Power consumption	23 W
Emergency stop input	Always "a" contact Contact current approximately 10 mA
Size	290 × 243 × 50 (W × H × D)
Weight	2.4 kg
Time accuracy	Within −195.7 to 79.1 sec/month
Operating temperature range	0 - 40 °C
Operating humidity range	85 % or less

Peripheral Equipment Specification

Function	Requirement

PC for Web Remote Management
 	
PC for pre-engineering tool
	OS: Windows XP Professional SP3 (32 bit)
	        Windows Vista Business SP2 (32 bit)
	        Windows 7 Professional SP1 (32 bit, 64bit)
	CPU: Equivalent to Intel Core 2 Duo 1.2 GHz or higher
	Memory: 2 GB or more
	Free HDD space: 10 GB or more
	Network: 100Base-TX or higher
	Display resolution: 1024 x 768 or higher

Network	100Base-TX Real transfer rate: 115 kbps or higher
USB memory	USB2.0 Memory capacity: 8 GB (Free space: 5 GB) or more, 32 GB or less recommended. ==Recommended product (Operation confirmed)== Kingston Data Traveler Generation 3 (G3) 32 GB
Supported security software	McAfee 2011 Norton 2011 Virus Buster 2011
Flash Player	Version 11.1
Web browser	Internet Explorer 8, 9 Firefox 10.0