

OWNER'S MANUAL(GUI) AIR CONDITIONER

After reading this user manual, keep it in an easily accessible place.

HVAC Controller(ACP IV)
HVAC Touch(AC Smart IV)
BACnet Touch(AC Smart BACnet)
BACnet(ACP BACnet)



P/NO : MFL69355602

www.lg.com

EXPLANATORY NOTES

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Product Features

Built-in Web Server

You can use Internet Explorer to access various online content without additional software. Latest software version of Adobe Flash should be installed on your computer.

Simple Central Controller Interface

You can interface ACS IV Controller with a 16-room simple central controller.

AC Manager IV Interface

You can connect ACS IV Controllers with a PC based AC Manager IV to use the various AC Manager IV functions. You can also use the scheduling function, even if the PC with AC Manager IV is turned off.

How to Use This Guide

It is highly suggested that this User Manual be read in its entirety before using the ACS IV Controller. Store this guide so that it is also easily accessible.

Notations Used In This Guide

- Control buttons displayed within the system are marked by boldface text in square brackets (**[]**).

Example: **[OK]**, **[Save]**

- Option titles displayed in the program are marked by boldface text.

Example: **Start, Programs**

- Keyboard strokes used by the system are marked by boldface text in angle brackets (**< >**).

Example: **<Esc>**



NOTES

- This manual covers the ACP IV, AC Smart IV, AC Smart BACnet, ACP BACnet version 4.0.0 or later.
- The contents of this manual may differ from the actual function according to the latest SW version.



NOTES

- You will need the Adobe Flash Player be installed for the Web control.
(Recommended specification : Adobe Flash Player 11)
- The special characters (^), (') and (,) are not available for user or object names within device.

Comparison of Models

There are some differences depending on the model.

O : Supported

X : Not supported

Related Menu		Function	ACP IV	ACP BACnet	AC Smart IV	AC Smart BACnet
Control/Monitor, Installing		Exp.I/O Installing, Control/Monitor	O	O*	O	O*
Control/Monitor, Installing		Chiller Installing, Control/Monitor	Optional	X	Optional	X
Interlocking, Energy Report, Event Log, Environment		Email (Setting, Interlocking/Error Notification, Energy Report/Event Log send)	O	O	O	O
Energy Report, Event Log		PC Save (Energy Report/Event Log save)	O	O	O	O
Environment		LGAP Setting (Master/Slave)	X	X	O	X
Environment		Update S/W, DB management	Controller, Web	Controller, Web	Controller, Web	Controller, Web
Environment		Screen Setting	X	X	O	O
Environment	Network Setting	IP Information, DNS Server	Controller, Web	Controller, Web	Controller, Web	Controller, Web
		HTTP Port Setting	Web	Web	Controller, Web	Controller, Web
Environment	BACnet Setting	Unit, Device ID, Vnet Number	X	Controller, Web	X	Controller, Web
		BACnet Port Setting	X	Web	X	Controller, Web

* ACP BACnet, AC Smart BACnet don't support Exp. I/O's BACnet points

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SAFETY PRECAUTIONS

- This product must be installed by an installation professional from an LG authorized service center.
- Warranty will be voided if installed by non-certified or unauthorized persons.
- Follow the safety precautions to prevent any unforeseen dangers or damage.
- This product has been designed for business use, or for areas outside the home, and has passed the Electromagnetic Interference Test.



WARNING

This symbol indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

This symbol indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



WARNING

Installation

- **To reinstall the product, please contact the your dealer or a service center for reinstallation service.**
 - Installation of the product by an unauthorized person may result in fire, electric shock, explosion, injury, or a malfunctioning of the product.
- **Do not twist or damage the power cord.**
 - It may cause fire or electric shock.
- **For electrical work, please contact the dealer from where you purchased the product, or a service center.**
 - Disassembly or repair by an unauthorized person may result in fire or electric shock.
- **For installation of the product, please contact the dealer from where you purchased the product, or a service center.**
 - Installation of the product by an unauthorized person may result in fire, electric shock, explosion, injury, or a malfunctioning of the product.
- **For electrical work, have an electrician follow the installation manual and specified circuit diagram.**
 - Using an unsuitable cord, or having a non-professional work on the electricals may result in fire or electrical shock.

- **Do not place the product near a fire source.**
 - It may result in the product catching fire.
- **If the product is installed in a hospital or a communication base station, provide sufficient protective equipment against electrical noise or interference.**
 - The product may malfunction or other products may work abnormally.
- **Securely install the product.**
 - If the product is not secured during installation, it may fall or malfunction.
- **Read the manual thoroughly to correctly install the product.**
 - If not, an incorrect installation may cause fire or electric shock.
- **When wiring the product, do not use a non-standard cable, nor extend the cable excessively.**
 - It may cause fire or electric shock.
- **Securely install the power cord and communication cable.**
 - An unsecure installation may result in fire or electric shock.
- **Do not connect the power cord to the communication terminal.**
 - It may cause fire, electric shock, or a product malfunction.
- **Do not install the product in an area near combustible gas.**
 - It may result in fire, electric shock, explosion, injury, or a malfunctioning of the product.

Operation

- **Do not place a heavy object on the power cord.**
 - It may cause fire or electric shock.
- **Do not change or extend the power cord arbitrarily.**
 - It may cause fire or electric shock.
- **Use the cord specific to the product.**
 - Using an unauthorized non-standard cord may result in fire or electric shock.
- **Do not use a heat device near the power cord.**
 - It may cause fire or electric shock.
- **Ensure that water never gets into the product.**
 - It can result in an electric shock, or product malfunction.
- **Do not place any container with liquid on the product.**
 - The product may malfunction.
- **Do not click(touch) the product with wet hands.**
 - It may cause fire or electric shock.

- **Use standard components.**
 - Use of an unauthorized product may result in fire, electric shock, explosion, injury, or a malfunctioning of the product.
- **If the product has been submerged in water, contact a service center.**
 - It may cause fire or electric shock.
- **Do not cause shock to the product.**
 - The product may malfunction.
- **Do not store or use any combustible gas or flammable substances near the product.**
 - It may cause fire, or a product malfunction.
- **Do not disassemble, repair, or revamp the product arbitrarily.**
 - It may cause fire or electric shock.
- **Children and the elderly should use the product under adult supervision.**
 - Carelessness may cause an accident, or the product may malfunction.
- **Children should not operate the product without adult supervision.**
 - The product may be damaged or it may fall, causing injury to children.
- **Product must operate between operating temperatures as outlined in this manual.**
 - If the product is used outside this range, the product may be severely damaged.
- **Do not press the switch or button with a sharp object.**
 - It can result in an electric shock, or the product may malfunction.
- **Do not handle wiring of this product while it is turned on.**
 - It may cause fire or electric shock.
- **If unusual sounds or odor are coming from the unit, immediately power off.**
 - It may cause fire or electric shock.
- **Do not place a heavy object on the product.**
 - The product may malfunction.
- **Do not spray water on the product, or clean it with a water-soaked cloth.**
 - It may cause fire or electric shock.
- **Do not use the product for the preservation of animals and plants, precision instruments, art pieces, or for other special purposes.**
 - It may cause property damage.
- **Dispose the packing material safely.**
 - The packing material may result in personal injury.



CAUTION

Installation

- **Securely install the product in an area where the weight of the product can be supported.**
 - The product may fall and be destroyed.
- **Install the product in an area shielded from rain.**
 - If water gets into the product, it may malfunction.
- **Do not install the product in a humid area.**
 - If the product is damp, it may malfunction.
- **Do not use the product where there is oil, steam, or sulfuric gas.**
 - It may effect the product's performance, or damage it.
- **Check the rated power capacity.**
 - It may cause fire, or a product malfunction.
- **Use the adapter provided with the product or power from a class 2 24 V~ transformer, depending on model.**
 - If a non-standard adapter is used, the product may malfunction. The adaptor is not provided with the AC Smart package sold in the U.S.
- **Be careful not to drop or damage the product when moving it.**
 - The product may malfunction or the person may sustain an injury.
- **Ensure that the cord is connected securely to prevent dew, water, or insects from getting into the product.**
 - If a foreign substance gets inside, it may cause an electric shock or the product may malfunction.

Operation

- **Clean the product with a soft cloth, but not with a solvent-based detergent.**
 - The use of a solvent-based detergent may cause fire or deform the product.
- **Do not let the product come into contact with a metal substance.**
 - The product may malfunction.
- **When sterilizing or disinfecting, power off the product.**
 - The product may work abnormally.
- **Do not click(touch) inside the product while powered on.**
 - The product may malfunction.

- **Periodically, check the product and do maintenance, especially if it has been running for extended periods of time.**
 - If the product is allowed to run for extended periods of time, the product may deteriorate causing injury to the user.
- **Do not leave the product near a flower base, water bottle, or any other liquids.**
 - It may cause fire or electric shock.

- **Transformer selection:**

- Select an insulating product that complies with IEC61558-2-6 and NEC Class 2.
- In addition, consider the combined power consumption of the modules, accessories, and field devices installed for the selection of an appropriate transformer.
Main module current: 24 V~, 850 mA
- Use the provided adaptor when using DC 12 V. The adaptor is not provided with the ACS IV Controller package sold in the U.S.

Class A device**NOTES**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**Caution**

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

**Disposal of your old appliance**

1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

STARTING

This section explains how to connect to the system and register devices to setup the environment (prior to using ACS IV Controller).

Login and logout

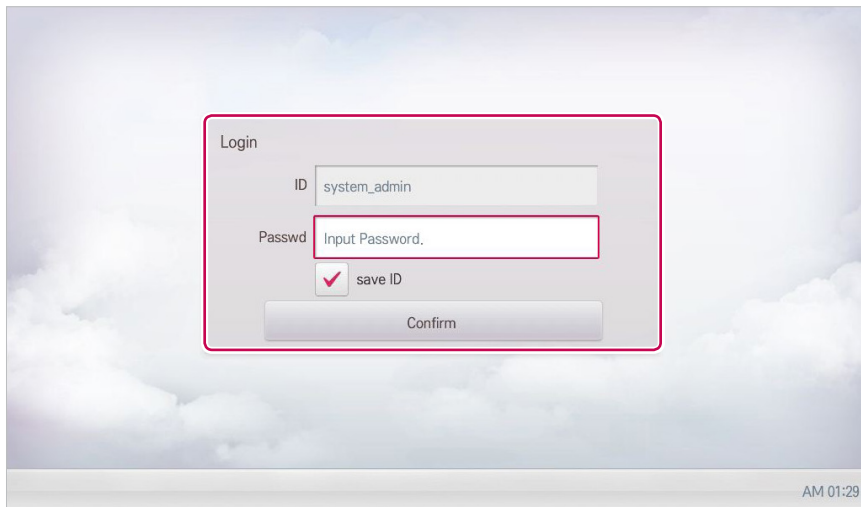
The following explains how to log in and out of ACS IV Controller.

ACS IV Controller can be controlled by entering the IP address of the ACS IV Controller in the address bar of Internet Explorer without the installation of another program. The ACS IV Controller Web server is executed automatically.

Login

You can login as follows:

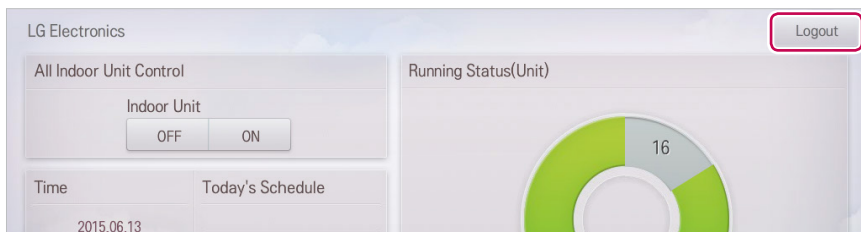
1. Run ACS IV Controller.
2. After entering your ID and password in the login window, click(touch) the **[Confirm]** button.
 - You should be logged in now.



Logout

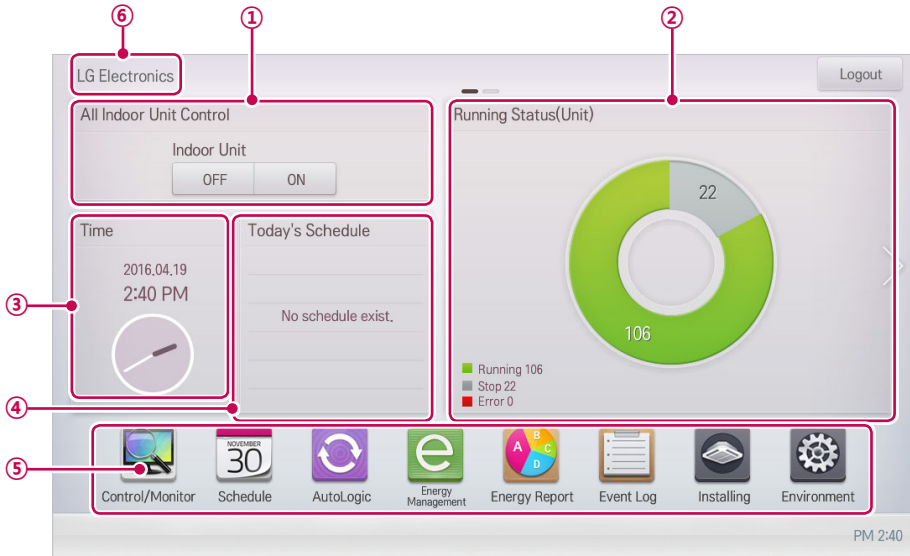
You can logout as follows:

1. On the top right of the ACS IV Controller home screen, click(touch) the **[Logout]** button.
 - You should be logged out now.



Home screen composition and features

The following explains the home screen composition and features.



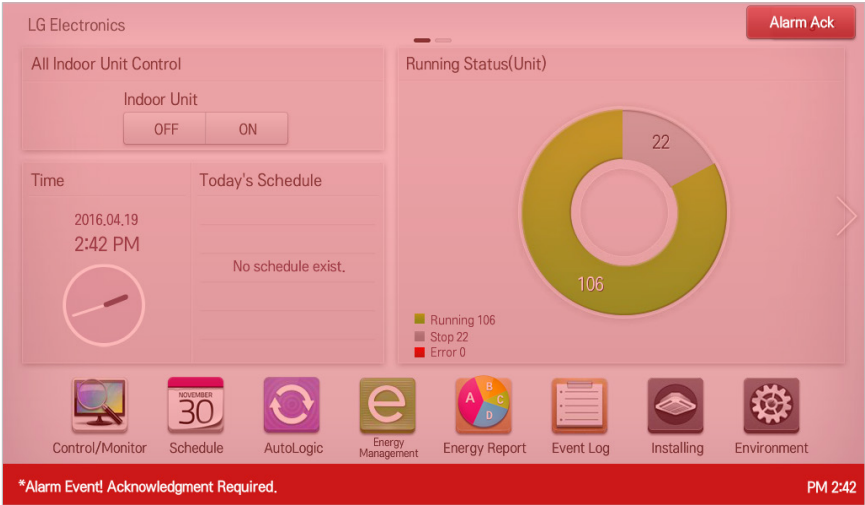
Number	Item	Description
①	All Indoor Unit Control	ON / OFF control of all indoor units.
②	Running Status (Unit)	Checks if the devices are operating, stopped, or in error.
③	Time	Check the current date and time.
④	Today's Schedule	Check the registered schedules in chronological order.
⑤	Main Menu	Use ACS IV Controller main menu.
⑥	Site name	Display registered site name.

Emergency situation occurrence and reset

When an Alarm ACK Required program occurs, the entire home screen turns red to indicate Acknowledgement is required. The alarm condition must be cleared before any other control can be performed. For details on how to set emergency program, refer to **Managing Program**.

Emergency situation occurrence

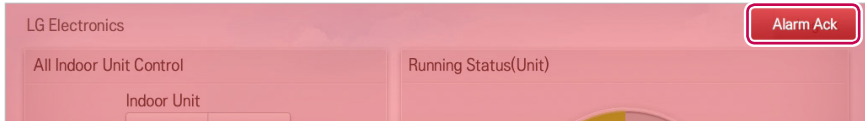
When an emergency situation occurs, the alert screen is displayed on home screen as follows.



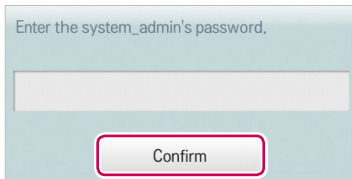
Emergency situation reset

Emergency alert screen is maintained until the emergency situation is reset. You can reset emergency situation as follows.

1. Touch **[Alarm Ack]** button at the top right side of the emergency situation screen.
 - Manager password input screen is displayed.



2. Input manager password and touch **[Confirm]** button.
 - If the password is correct, the emergency situation is reset.



Caution

Emergency situation notice will be generated again until the cause of emergency situation is removed. You may have to check Interlocking to determine what the alarm cause is.

 MEMO

USING THE PROGRAM

The following explains how to use the ACS IV Controller functions.

Control/Monitor

Control/Monitoring is the menu to combine several devices that can be commonly monitored into one unit for easy management. The following explains the Control/Monitor menu options.

Control/Monitoring screen composition and features

The following explains Control/Monitoring screen composition and features.



Number	Item	Description
①	Select/Deselect All	Select/deselect all devices in a group (select = red check).
②	[Drawing] Button	View floor plans of a group.
③	[Filter] Button	Select which device types are displayed for monitoring and control.
④	View Type Select	Select a view type (Icon/Simple) for the monitoring screen. (Refer following View Type)
⑤	Group List	Check device group listings.

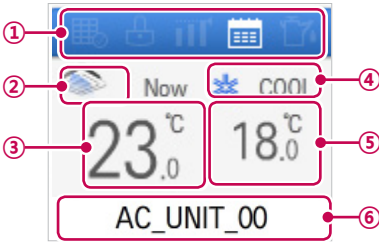
Number	Item	Description
⑥	Monitoring Screen	Check the control status of a device.
⑦	Device Control Box	• Display the device control menu. • The device control box shows different menus depending on the device. (For more on Control Menu per Device)
⑧	[Multiple Group Selection] Button	• Control the device by selecting multiple groups.
⑨	Home	Return to the home screen.
⑩	View Menu	Display the active menu.
⑪	Current Menu	Display the name of the active menu.

View Type

Control/Monitor menu has two different types of view(Icon, Simple). The following shows the screen composition and features per view type.

Icon

The control status is shown in icons. The device icon has a composition and feature as follows.



Number	Item	Description
①	Operation Mode and Device Status Icon	The color at the top of the icon box shows the current operation mode, and the status of the device is indicated as an icon.
②	Device Icon	The device to be controlled is indicated as an icon. (The device shown may not represent the appearance of the actual unit.)
③	Current Temperature	Display the current temperature.
④	Operation Mode	Display the operation mode of the device.
⑤	Desired Temperature	Display the desired temperature.
⑥	Device Name	Display the name of the device.

Simple

The control device and operation mode are displayed only.



Number	Item	Description
①	Operation Mode	The color of the box indicates the current operation mode. Refer to following section.
②	Device Icon	The device to be controlled is indicated as an icon.

Monitoring screen colors and icons

Box colors and operation mode per icon

Color	Icon	Operation Mode
 (Blue)		Cooling
 (Orange)		Heating
		Ventilation, Electric Heat
 (Navy)		Dehumidification
 (Sky Blue)		Fan
		Ventilation, General
 (Green)		Power Saving
 (Purple)		Auto
		Ventilation, Auto
 (Sapphire Blue)		Chiller, Ice
 (Yellow)	-	ON or Short
 (Gray)	-	OFF or Open
	-	Error

Device status icon

Icon	Device Status
	Filter Exchange
	Full Lock On
	Peak/Demand Control
	Schedule
	GHP Oil Alarm

Control device icon

Icon	Device Type	
	Outdoor Device	
	Wall Mounted	Indoor Device
	Floor Mounted	
	Duct	
	Cassette(1Way)	
	Cassette(2Way)	
	Cassette(4Way)	
	FCU	
	ERV, ERV DX	

Icon	Device Type	
	AHU	
	AWHP or Hydrokit	
	Water-cooled scroll chiller	Chiller
	Air-cooled scroll chiller	
	Turbo chiller	
	Screw chiller	
	ABS chiller	
	DOKIT	
	DI	
	DO	
	DI	Exp. I/O
	DO	
	UI	
	AO	

Device Control

You can control the devices as follows.

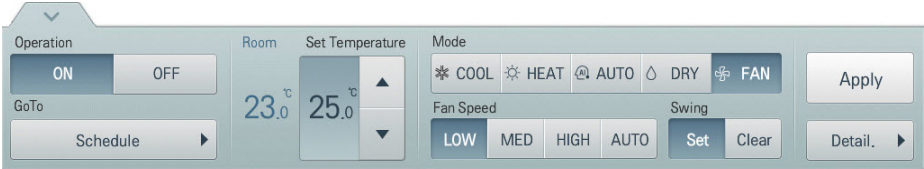
1. From the main menu, click(touch) the **[Control/Monitor]** menu icon.
2. Click(Touch) the device group you want to control from the group list.
 - The monitoring screen for the device is displayed.
3. Click(Touch) the device you want to control.
 - To select all devices, click(touch) the  button at the top.
 - The device control area appears at the bottom of the screen.
4. In the device control box, set the control status of the device.
 - The device control box shows a different menu depending on the device. For information about the control area for each device, refer to **Control Menu per Device**.
5. Once you have finalized the settings, click(touch) the **[Apply]** button.

Control Menu per Device

The control box menu differs depending on the device. The following shows the control box menu per device.

Indoor Device

The following is the indoor unit control menu and features.



Item	Description
Operation	• [ON] Button: Starts the operation of the device similar to occupied. • [OFF] Button: Stops the operation of the device similar to unoccupied.
GoTo	[Schedule▶] Button: Move to Schedule menu.
Room	Display the current temperature at configured sensor(s).
Set Temperature	Click(Touch) [▲]/[▼] to set the temperature. (The maximum/minimum temperatures that can be set may differ depending on the model of unit controlled.)
Mode	• [COOL] Button: Cooling Mode Request. • [HEAT] Button: Heating Mode Request. • [AUTO] Button: Evaluates the operating environment conditions and automatically sets the mode of operation. • [DRY] Button: You cannot set the temperature in this mode. • [FAN] Button: Fan runs without temperature control to clean the air. You cannot set the temperature in this mode.
Fan Speed	• [LOW] Button: Slow fan speed. • [MED] Button: Medium fan speed. • [HIGH] Button: Fast fan speed. • [AUTO] Button: Fan speed automatically adjusts between low, medium and high fan speeds.
Swing	• [Set] Button: Turns on automatic oscillation of the louvers if present. • [Clear] Button: Turns off automatic oscillation of the louvers if present.
[Apply] Button	Apply control menu setting to the device
[Detail. ▶] Button	Controls details.

• Indoor unit fine control

In the control menu of the indoor unit, touch **[Detail. ►]** button, and in the displayed detail control window, you can control detail items. The composition and functions of the detail menu are as follows.



Item	Description
Operation	• [ON] Button: Starts the operation of the device similar to occupied. • [OFF] Button: Stops the operation of the device similar to unoccupied.
Set	Click(Touch) [▲]/[▼] to set the temperature.
Mode	• [COOL] Button: Cooling Mode Request. • [HEAT] Button: Heating Mode Request. • [AUTO] Button: Evaluates the operating environment conditions and automatically sets the mode of operation. • [DRY] Button: You cannot set the temperature in this mode. • [FAN] Button: Fan runs without temperature control to clean the air. You cannot set the temperature in this mode.
Fan Speed	• [LOW] Button: Slow fan speed. • [MED] Button: Medium fan speed. • [HIGH] Button: Fast fan speed. • [AUTO] Button: Loops from low to medium to high fan speeds.
Swing	• [Set] Button: Turns on automatic oscillation of the louvers if present. • [Clear] Button: Turns off automatic oscillation of the louvers if present.

Item	Description
Filter Alarm	Click(Touch) the Disable button to deactivate the filter exchange alarm. (Model dependant.)
Partial Lock	• [HardLock] Button: Disables thermostat control for all features. • [Clear] Button: All functions are unlocked. • [ModeLock] Button: Disables thermostat control for local mode setting. • [Clear] Button: Mode is unlocked. • [FanLock] Button: Disables thermostat control for local fan speed setting. • [Clear] Button: Fan speed is unlocked. • [TempLock] Button: Disables thermostat control for local temperature setting. • [Clear] Button: Temperature setting is unlocked.
Set Temp Range	Click(Touch) [▲]/[▼] to set the temperature limit.
[2Setpoint] or [IDU 2Set] Button	Set functions in 2Setpoint or IDU 2set



NOTES

- Depending on the installation site specifications, either the Auto Mode or 2Set Auto Mode can be selected. Go to **Environment > Advance Setting > Auto Mode Option** and select a desired auto mode type.

• Indoor 2Setpoint (Auto Mode)

In the detail control window of the indoor unit, touch **[2Setpoint]** button, and in the displayed automatic control setting window, you can set the automatic control. The composition and functions of the automatic control menu are as follows.

Item	Description
Auto Change Over	Set the auto change over function to switch the operation mode automatically to keep the proper room temperature. When Room Temp. > Upper, request Cool operation mode. When Room Temp. < Lower, requests Heat operation mode. When Room Temp. ≤ (Upper - Temperature difference) or Room Temp. ≥ (Lower + Temperature difference), requests Fan operation mode. (You can set up Temperature difference in Environment > Advance Setting > Temperature limit setting.) (The auto change over function works well with "Heat Recovery" model. For other models, functionality is limited.) • [ON] Button: Enable Auto Change Over • [OFF] Button: Disable Auto Change Over
Lower	Click(Touch) [▲]/[▼] to set the lower limit temperature range. (18°C~30°C / 64°F~86°F).
Upper	Click(Touch) [▲]/[▼] to set the upper limit temperature range. (18°C~30°C / 64°F~86°F).
Fan Speed	Set the fan speed to operates when auto change over function works. When operation mode is COOL or HEAT, operates at user set fan speed. And when operation mode is Fan, operates at low fan speed.

Item	Description
Setback	Set the setback function to control the proper room temperature when the indoor unit is turned off. (The setback function works well with "Heat Recovery" model. For other models, functionality is limited.) • [ON] Button: Enable temperature limits • [OFF] Button: Disable temperature limits
Cooling Start Temp.	Click(Touch) [▲]/[▼] to set the cooling start temperature. (21°C~40°C / 70°F~104°F).
Heating Start Temp.	Click(Touch) [▲]/[▼] to set the heating start temperature. (1°C~20°C / 34°F~68°F).



NOTES

- Under auto change over operation, mode lock and temperature lock could be set up, and those locks are maintained after automated operation is cleared.

• Indoor 2Setpoint

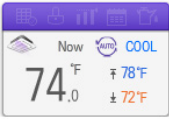
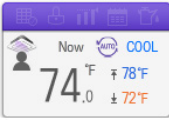
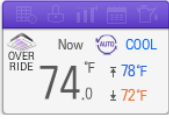
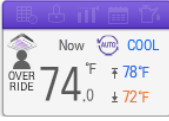
In the detail control window of the 2set indoor unit, touch **[IDU 2Set]** button, and in the displayed automatic control setting window, you can set the automatic control.

The composition and functions of the automatic control menu are as follows.

IDU IDU 2Set
 Occupancy
 Occupied Unoccupied
 Cooling Set Temp(°C) 30.0 Heating Set Temp(°C) 18.0
 Cooling Upper Limit(°C) 37.5 Heating Upper Limit(°C) 32.0
 Cooling Lower Limit(°C) 10.0 Heating Lower Limit(°C) 4.0
 Cancel Apply

Item	Description
Occupancy	Set to occupied or unoccupied to change the room temperature depending on the room occupancy. • [Occupied] Button : Set to Occupied • [Unoccupied] Button : Set to Unoccupied
Cooling Set Temp	Click(Touch) [▲]/[▼] to set the cooling start temperature.
Cooling Upper Limit	Click(Touch) [▲]/[▼] to set the cooling upper limit temperature range.
Cooling Lower Limit	Click(Touch) [▲]/[▼] to set the cooling lower limit temperature range.
Heating Set Temp	Click(Touch) [▲]/[▼] to set the heating start temperature.
Heating Upper Limit	Click(Touch) [▲]/[▼] to set the heating upper limit temperature range.
Heating Lower Limit	Click(Touch) [▲]/[▼] to set the heating lower limit temperature range.

- 2Set Auto Mode Icon

Item	Description
	• The Icon as displayed in 2Set Auto Mode Option. • Note: If the operation mode is 'AUTO', Cooling Set Temp(Blue) and Heating Set Temp(Orange) is shown. In other operation mode, only one Set Temp is shown.
	If the occupancy is 'Occupied', a human shape is shown.
	If 'OVERRIDE' is set on the remote control, OVERRIDE text is shown. (OVERRIDE function allows you to switch the occupancy status (Occupied/Unoccupied) regardless of scheduled or set-up time. For further information about OVERRIDE function, please refer to the remote controller's manual.)
	If the occupancy is 'Occupied' and 'OVERRIDE' is set on the remote control, a human shape and OVERRIDE text is shown. (OVERRIDE function allows you to switch the occupancy status (Occupied/Unoccupied) regardless of scheduled or set-up time. For further information about OVERRIDE function, please refer to the remote controller's manual.)



NOTES

- This function is activated only when Auto Mode Option is 2Set Auto Mode and IDU, ODU supports 2set function. (For further information about whether the device supports the 2set function, please refer to the device's manual.)
- Under 2Set Auto mode, operation mode(cool, heat) status of the actual product is displayed along with Auto icon.



NOTES

- ACS IV Controllers's control command is above the occupancy sensor connected to the IDU.
- When Occupancy is changed, Cooling Set Temp, Heating Set Temp is changed to the recent Schedule's Set Temp. If there was no schedule, Cooling Set Temp, Heating Set Temp is set to the default.

(Example)

When the schedules were set up as follows,

09AM – 12 PM: Occupied / Cooling Set Temp 80°F / Heating Set Temp 64°F

12PM – 13 PM: Unoccupied / Cooling Set Temp 84°F / Heating Set Temp 60°F

13PM – 15 PM: Occupied / Cooling Set Temp 78°F / Heating Set Temp 66°F

after 15PM

if the room is occupied, Cooling Set Temp is 78°F and Heating Set Temp 66°F.

If the room is unoccupied, Cooling Set Temp is 84°F and Heating Set Temp 60°F.

- IDU can be set to Occupied ON, Occupied OFF, Unoccupied ON & Unoccupied OFF. When IDU is controlled OFF neither Heating, Cooling or Fan operation can occur.

ERV

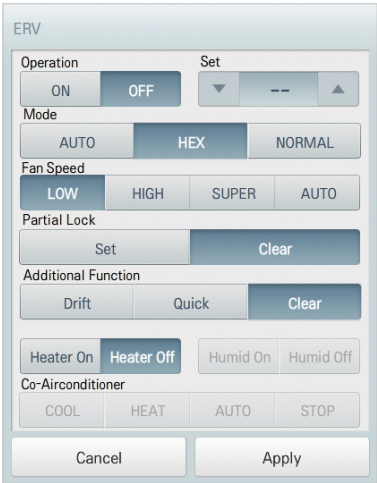
The following is the ERV control menu and features.



Item	Description
Operation	• [ON] Button: Starts the operation of the device. • [OFF] Button: Stops the operation of the device.
GoTo	[Schedule▶] Button: Move to Schedule menu.
Room	Display the current temperature.
Set Temperature	Click(Touch) [▲]/[▼] to set a desired temperature (the ERV is not activated).
Mode	• [AUTO] Button: Evaluates the operating environment conditions and automatically sets the optimum temperature. • [HEX] Button: Air supply and emissions are all ventilated through the heat exchanger. • [NORMAL] Button: Ventilate emissions without passing through the heat exchanger.
Fan Speed	• [LOW] Button: Slow fan speed. • [HIGH] Button: Fast fan speed. • [SUPER] Button: Maximum fan speed. • [AUTO] Button: Loops from low to high to super fan speeds.
[Apply] Button	Apply control menu setting to the device
[Detail. ▶] Button	Control details.

• ERV Fine Control

In the control menu of the ventilation, touch **[Detail. ►]** button, and in the displayed detail control window, you can control detail items. The composition and functions of the detail menu are as follows.



Item	Description
Operation	• [ON] Button: Starts the operation of the device. • [OFF] Button: Stops the operation of the device.
Set	Click(Touch) [▲]/[▼] to set a desired temperature (the ERV is not activated).
Mode	• [AUTO] Button: Evaluates the operating environment conditions and automatically sets the optimum temperature. • [HEX] Button: Air supply and exhaust are all ventilated through the heat exchanger. • [NORMAL] Button: Exhaust AIR does not pass through the heat exchanger.
Fan Speed	• [LOW] Button: Slow fan speed. • [HIGH] Button: Fast fan speed. • [SUPER] Button: Maximum fan speed. • [AUTO] Button: Loops from low to high to super fan speeds.
Partial Lock	• [Set] Button: Disables remote control for all features. • [Clear] Button: Disable the lock.

Item	Description
Additional Function	• [Drift] Button: Reduces energy consumption by operating in the most efficient method possible. • [Quick] Button: Operates at maximum performance. • [Clear] Button: Disables power saving / rapid operation. • [Heater On] Button: Enables the heater function to heat the room. • [Heater Off] Button: Disables the heater function. Some additional function might not be provided according to your country such as U.S.

ERV DX

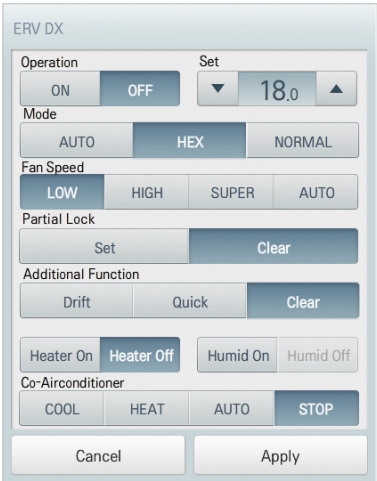
The following is the ERV DX control menu and features.



Item	Description
Operation	• [ON] Button: Starts the operation of the device. • [OFF] Button: Stops the operation of the device.
GoTo	[Schedule▶] Button: Move to Schedule menu.
Room	Display the current temperature.
Set Temperature	Click(Touch) [▲]/[▼] to set the temperature.
Mode	• [AUTO] Button: Evaluates the operating environment conditions and automatically sets the optimum temperature. • [HEX] Button: Air supply and emissions are all ventilated through the heat exchanger. • [NORMAL] Button: Ventilate emissions without passing through the heat exchanger.
Fan Speed	• [LOW] Button: Slow fan speed. • [HIGH] Button: Fast fan speed. • [SUPER] Button: Maximum fan speed. • [AUTO] Button: Loops from low to high to super fan speeds.
[Apply] Button	Apply control menu setting to the device
[Detail. ▶] Button	Control details.

• ERV DX Fine Control

In direct cooling ventilation control menu, touch **[Detail. ►]** button, and in the displayed detail control window, you can control detail items. The composition and functions of the detail menu are as follows.



Item	Description
Operation	• [ON] Button: Starts the operation of the device. • [OFF] Button: Stops the operation of the device.
Set	Click(Touch) [▲]/[▼] to set the temperature.
Mode	• [AUTO] Button: Evaluates the operating environment conditions and automatically sets the optimum temperature. • [HEX] Button: Air supply and emissions are all ventilated through the heat exchanger. • [NORMAL] Button: Ventilate emissions without passing through the heat exchanger.
Fan Speed	• [LOW] Button: Slow fan speed. • [HIGH] Button: Fast fan speed. • [SUPER] Button: Maximum fan speed. • [AUTO] Button: Loops from low to high to super fan speeds.
Partial Lock	• [Set] Button: Disables remote control for all features. • [Clear] Button: Disables the lock.

Item	Description
Additional Function	• [Drift] Button: Reduces energy consumption by operating in the most efficient method possible. • [Quick] Button: Operates at maximum performance to prevent the room's contaminated or humid air from entering other spaces. • [Clear] Button: Disables power saving / rapid operation. • [Heater On] Button: Enables the heater function to heat the room. • [Heater Off] Button: Disables the heater function. • [Humid On] Button: Enables the humidifier function for room humidity control. • [Humid Off] Button: Disable the humidifier function (not activated). Some additional function might not be provided according to your country such as U.S.
Co- Airconditioner	• [COOL] Button: Operates with Cooling Mode. • [HEAT] Button: Operates with Heating Mode. • [AUTO] Button: Operates in Auto Mode. • [STOP] Button: Stops the air conditioning function.

AHU

The following is the AHU control menu and features.



Item	Description
Operation	• [ON] Button: Starts the operation of the device. • [OFF] Button: Stops the operation of the device.
GoTo	• [Schedule ►] Button: Move to Schedule menu. • [View Details ►] button: Moves to detail information screen
Room	Display the current temperature.
Set Temperature	Click(Touch) [▲]/[▼] to set the temperature.
Easy control	• [Registered mode name] button: Check/edit control values of the registered mode • [New] button: Add new mode
Mode	• [COOL] Button: Operates with Cooling Mode. • [HEAT] Button: Operates with Heating Mode. • [FAN] Button: Purifies the air. • [DRY] Button: Dehumidifies the air during the rainy season or when humidity is high. • [Drift] Button: Reduces energy consumption by operating in the most efficient method possible.
[Apply] Button	Apply control menu setting to the device
[Detail. ►] Button	Control details.

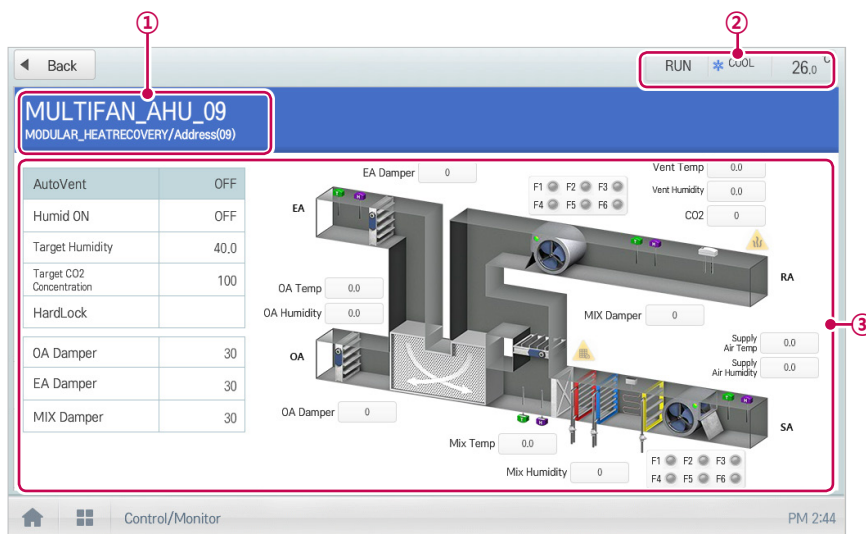
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NOTES

AHU or Chiller's screen and menu may be different according to the actually interfaced product.

• **View AHU details**

In AHU control menu, touch **[View Details ►]** button, and you can view detail information.



Number	Item	Description
①	Device information	Device information such as device name/status/address, etc.
②	Status information	Status information such as operation/mode/temperature, etc.
③	Detail information	Detail information such as automatic ventilation/humidification operation/set humidity/set CO ₂ concentration/lock all/damper open, etc.

• AHU Fine Control

In AHU control menu, touch **[Detail. ►]** button, and in the displayed detail control window, you can control detail items.

The composition and functions of the detail menu are as follows.



Item	Description
Operation	• [ON] Button: Starts the operation of the device. • [OFF] Button: Stops the operation of the device.
Set	Click(Touch) [▲]/[▼] to set the temperature.
Mode	• [COOL] Button: Operates with Cooling Mode. • [HEAT] Button: Operates with Heating Mode. • [FAN] Button: Purifies the air. • [DRY] Button: Dehumidifies the air during the rainy season or when humidity is high. • [Drift] Button: Reduces energy consumption by operating in the most efficient method possible.
AutoVent	• [Set] Button: If the CO₂ concentration level increases during cooling or heating, increase the outdoor air volume to reduce the CO₂ concentration level. • [Clear] Button: Disables AutoVent.
CO2(ppm)	Use [▲]/[▼] to set the desired carbon dioxide emission level from 500 ppm to 1,500 ppm in intervals of 100 ppm (CO ₂ is not settable in some models.).
Humidify	• [Set] Button: Enables the humidifier function. • [Clear] Button: Disables the humidifier function.

Item	Description
Humidity(%)	Use [▲]/[▼] to set the desired humidity from 30% to 80% in intervals of 1%.
Partial Lock	• [Set] Button: Disables remote control for all features. • [Clear] Button: Disables the lock. (Lock is not settable in some models.)
OA Damper	Use [▲]/[▼] to set the OA damper from 0° to 90° in intervals of 1°.
EA Damper	Use [▲]/[▼] to set the EA damper openness from 0° to 90° in intervals of 1°.
MIX Damper	Use [▲]/[▼] to set the mix damper openness from 0° to 90° in intervals of 1°.
Advanced	Set fan control (Lock is not settable in some models.)

• AHU easy control

If you register frequently used control setting values with easy control in advance, you can easily control AHU.

- Registered easy control

In easy control, if you touch **[Registered mode name (Example) Summer AM)]** button, you can check or edit the control values.

AHU Easy Control Set Up

Modify Delete

User Mode Name
Summer

Oper ON Set Temperature 18

Mode COOL

AutoVent ON CO2(ppm)

Humidify ON Humidity(%) 45

Partial Lock

OA Damper 30 EA Damper 40 MIX Damper 50

Cancel Apply

Item	Description
[Modify] button	Moves to the edit screen of the selected mode
[Delete] button	Deletes the selected mode

- New easy control registration

In easy control, if you touch **[New]** button, you can register new easy control. The composition and functions of the detail setting menu of easy control are as follows.

AHU Easy Control Set Up

Input the User Mode Name.

Operation

ON OFF

Set

▼ -- ▲

Mode

* COOL * HEAT * FAN △ DRY @ Drift

AutoVent

Set Clear

CO2(ppm)

▼ 1000 ▲

Humidify

Set Clear

Humidity(%)

▼ -- ▲

Partial Lock

Set Clear

OA Damper

EA Damper

MIX Damper

▼ -- ▲ ▼ -- ▲ ▼ -- ▲

Cancel

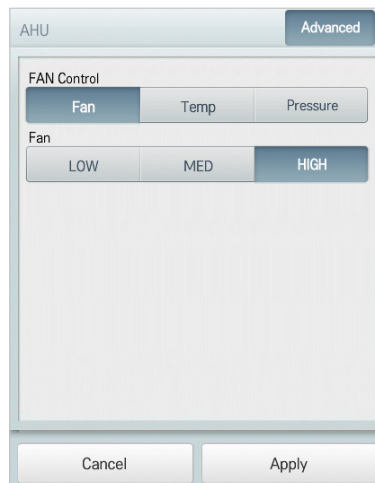
Apply

Item	Description
User mode name	Click(Touch) the input section, and input easy control name.
Operation	• [ON] Button: Starts the operation of the device. • [OFF] Button: Stops the operation of the device.
Set	Click(Touch) [▲]/[▼] to set the temperature.
Mode	• [COOL] Button: Operates with Cooling Mode. • [HEAT] Button: Operates with Heating Mode. • [FAN] Button: Purifies the air. • [DRY] Button: Dehumidifies the air during the rainy season or when humidity is high. • [Drift] Button: Reduces energy consumption by operating in the most efficient method possible.
AutoVent	• [Set] Button: If the CO₂ concentration level increases during cooling or heating, increase the outdoor air volume to reduce the CO₂ concentration level. • [Clear] Button: Disables AutoVent.
CO ₂ (ppm)	Use [▲]/[▼] to set the desired carbon dioxide emission level from 500 ppm to 1,500 ppm in intervals of 100 ppm (CO ₂ is not settable in some models.).
Humidify	• [Set] Button: Enables the humidifier function. • [Clear] Button: Disables the humidifier function.

Item	Description
Humidity(%)	Use [▲]/[▼] to set the desired humidity from 30% to 80% in intervals of 1%.
Partial Lock	• [Set] Button: Disables remote control for all features. • [Clear] Button: Disables the lock. (Lock is not settable in some models.)
OA Damper	Use [▲]/[▼] to set the OA damper from 0° to 90° in intervals of 1°.
EA Damper	Use [▲]/[▼] to set the EA damper openness from 0° to 90° in intervals of 1°.
MIX Damper	Use [▲]/[▼] to set the mix damper openness from 0° to 90° in intervals of 1°.

- Advanced

In the detail control window of some AHU(Modular Fresh Air, Modular Heat Recovery), touch **[Advanced]** button, and the displayed fan control setting window, you can set the fan control. The composition and functions of the fan control menu are as follows.



Item	Description
FAN Control	Set the fan control standard • [Fan] Button: Set the Fan to fan control standard. • [Temp] Button: Set the Temperature to fan control standard. • [Pressure] Button: Set the Pressure to fan control standard.
Fan	Set the fan speed This function is activated only when FAN control is set to Fan. • [LOW] Button: Slow fan speed. • [MED] Button: Medium fan speed. • [HIGH] Button: Fast fan speed.

Air-cooled scroll chiller, water-cooled scroll chiller

Air-cooled and water-cooled is separated according to the refrigerant (cooling in air: air, liquid-cooled: water). Functions and menus are the same, but there is a difference in the range and set temperature, etc.

The following menu controls the configuration and function of the air-cooled scroll chiller, water-cooled scroll chiller.



Item	Description
Operation	• [ON] Button: Starts the operation of the device. • [OFF] Button: Stops the operation of the device.
GoTo	• [Schedule ►] Button: Move to Schedule menu. • [View Details ►] button: Moves to detail information screen.
Mode	• [COOL] Button: Operates with Cooling Mode. • [HEAT] Button: Operates with Heating Mode.
Mode Target Temp (°C)	Click(Touch) [▲]/[▼] to set the mode set temperature. • Air-cooled scroll chiller - COOL: 5 °C~15 °C - HEAT: 35 °C~55 °C • water-cooled scroll chiller - COOL: 5 °C~15 °C - HEAT: 40 °C~57 °C
Demand limit	As measured at 1minute intervals the power consumption of the refrigerator, the current power consumption does not exceed a target power consumption, demand rate limit, function to lower the operation rate of the current. Click(Touch) the [▲] / [▼] button to set a limit on the rate of demand. • air-cooled scroll chiller: 0~120 (10 units) • water-cooled scroll chiller: 0, 30~120 (10 units)
[Apply] Button	Apply control menu setting to the device.
[Detail. ►] Button	Controls details.

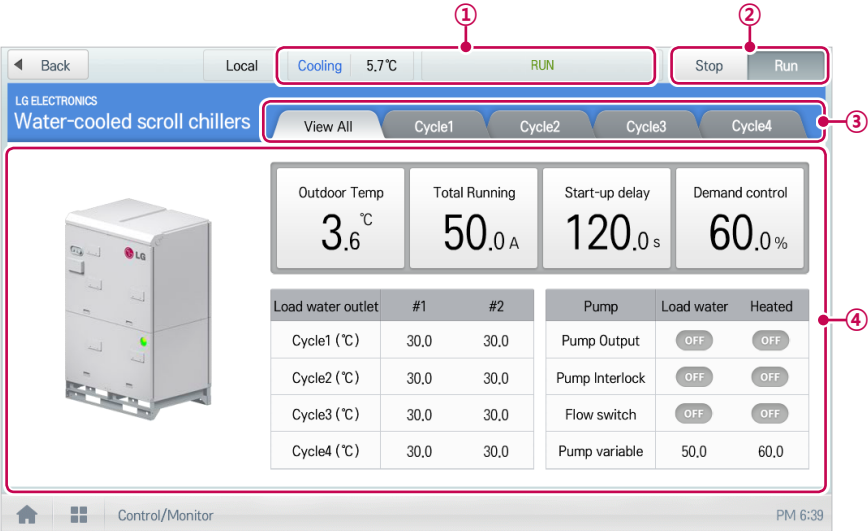
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NOTES

- Chiller is optional. It can be activated by installing additional CHILLER OPTION program.
- Chiller displays Celsius only.

• View Water-cooled scroll chiller Details

You can find detailed information, touch **[Detail ►]** button on the control menu, scroll chillers.



Number	Item	Description
①	Status information	Status information, such as mode/temperature/operation.
②	Operation status	• [OFF] Button: Stops the operation of the device. • [ON] Button: Starts the operation of the device.
③	View each Tab	View ALL/View Each are Displayed as a tab.
④	Detail information	Cycle Details.

NOTES

Four-way valve is used for switching the cooling ↔ heating. Was not applied to the electric coil during cooling, but the role that emit heat and by applying an electric when the heating. The four-way valve, it exists only in the cold / heating combined model, in the case of a cooling only model, the four-way valve information is not provided.

• **Water-cooled scroll chiller Fine Control**

You can control the details in the detail control window that appears when you touch the **[Detail control ►]** button on the control menu of the scroll chiller. Configuration and functions of the Advanced menu is as follows.



Item	Description
Operation	• [ON] Button: Starts the operation of the device. • [OFF] Button: Stops the operation of the device.
Mode	• [COOL] Button: Operates with Cooling Mode. • [HEAT] Button: Operates with Heating Mode.
Demand limit	As measured at 1minute intervals the power consumption of the refrigerator, the current power consumption does not exceed a target power consumption, demand rate limit, function to lower the operation rate of the current. Click(Touch) the [▲] / [▼] button to set a limit on the rate of demand. • air-cooled scroll chiller: 0~120 (10 units) • water-cooled scroll chiller: 0, 30~120 (10 units)
Mode Target Temp	Click(Touch) [▲]/[▼] to setting of the Mode set temperature. • Air-cooled scroll chiller - COOL: 5 °C~15 °C - HEAT: 35 °C~55 °C • water-cooled scroll chiller - COOL: 5 °C~15 °C - HEAT: 40 °C~57 °C

Turbo chiller, Screw chiller

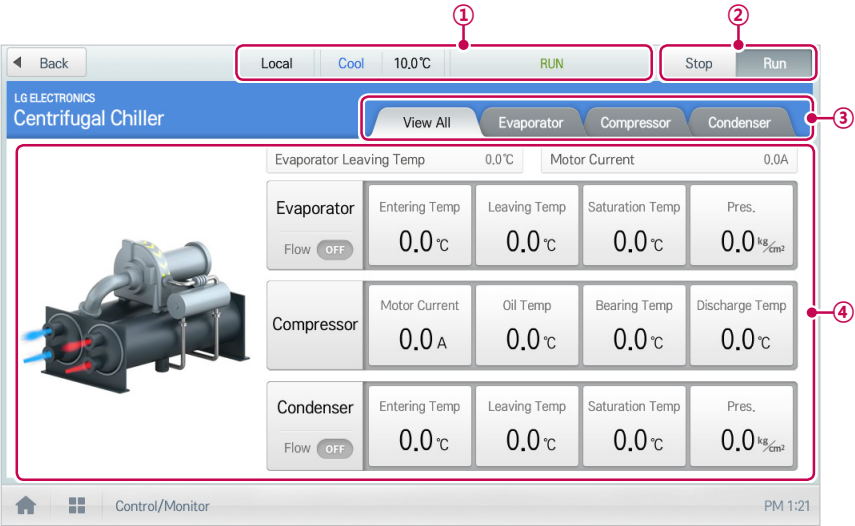
The following menu controls the configuration and function of the Turbo chiller, Screw chiller.



Item	Description
Operation	• [ON] Button: Starts the operation of the device. • [OFF] Button: Stops the operation of the device.
GoTo	• [Schedule ►] Button: Move to Schedule menu. • [View Details ►] button: Moves to detail information screen.
Mode	(not activated) • Turbo chiller : Cool/Heat/Ice • Screw chiller : Cool/Ice
Mode Target Temp (°C)	Click(Touch) [▲]/[▼] to setting of the Mode set temperature. • Turbo chiller - Cool: 3 °C ~ 50 °C - Heat: 10 °C ~ 90 °C - Ice: -20 °C ~ 30 °C • Screw chiller - Cool: 3 °C ~ 50 °C - Ice: -20 °C ~ 30 °C
Motor current limit	Since the constant current is greater than that of the motor flows, there can affect (such as temperature bearing temperature, the motor windings R) ambient temperature sensor, the motor current limit, setting the current limit for the load to prevent function. Click(Touch) [▲]/[▼] to setting the motor current limit within the range of 1 to 100%.
[Apply] Button	Apply control menu setting to the device.
[Detail. ►] Button	Controls details.

• View Turbo chiller, Screw chiller Details

You can find detailed information, touch **[Detail ►]** button on the control menu, Turbo chillers, Screw chiller.



Number	Item	Description
①	Status information	Status information, such as mode/temperature/operation.
②	Operation status	• [OFF] Button: Stops the operation of the device. • [ON] Button: Starts the operation of the device.
③	View each Tab	View ALL/View Each are Displayed as a tab.
④	Detail information	evaporator/compressor/condenser Details.

• Turbo chiller, Screw chiller Fine Control

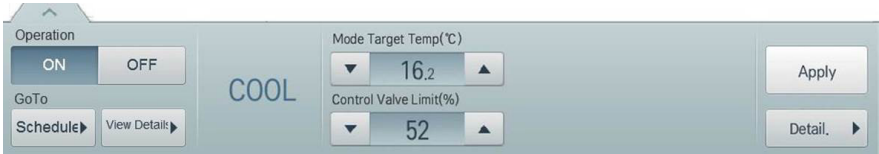
You can control the details in the detail control window that appears when you touch the **[Detail control ►]** button on the control menu of the Turbo chiller, Screw chiller . Configuration and functions of the Advanced menu is as follows.



Item	Description
Operation	• [ON] Button: Starts the operation of the device. • [OFF] Button: Stops the operation of the device.
Mode	(not activated) • [COOL] Button: Operates with Cooling Mode. • [HEAT] Button: Operates with Heating Mode.
Motor current limit	Since the constant current is greater than that of the motor flows, there can affect (such as temperature bearing temperature, the motor windings R) ambient temperature sensor, the motor current limit, setting the current limit for the load to prevent function. Click(Touch) [▲]/[▼] to setting the motor current limit within the range of 1 to 100%.
Mode Target Temp (°C)	Click(Touch) [▲]/[▼] to setting of the Mode set temperature. • Turbo chiller - Cool: 3 °C ~ 50 °C - Heat: 10 °C ~ 90 °C - Ice: -20 °C ~ 30 °C • Screw chiller - Cool: 3 °C ~ 50 °C - Ice: -20 °C ~ 30 °C

ABS chiller

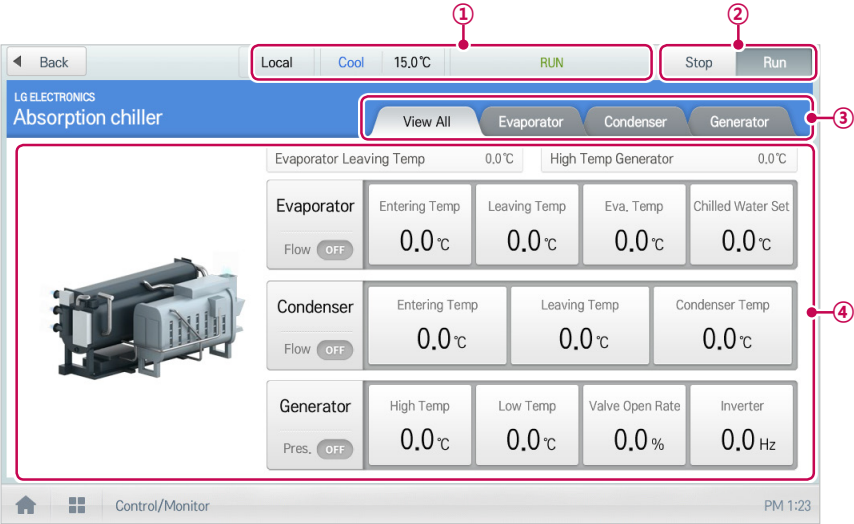
The following menu controls the configuration and function of the ABS chiller.



Item	Description
Operation	• [ON] Button: Starts the operation of the device. • [OFF] Button: Stops the operation of the device.
GoTo	• [Schedule ►] Button: Move to Schedule menu. • [View Details ►] button: Moves to detail information screen.
Mode	(not activated) • ABS chiller: Cool/Heat
Mode Target Temp (°C)	Click(Touch) [▲]/[▼] to setting of the Mode set temperature. • ABS chiller - Cool: 3 °C ~ 20 °C - Heat: 40 °C ~ 80 °C
Control Valve Limit	Function to maintain the cycle by limiting the heat source inlet calories at chiller operation. Heat input so that it will not be any more to set the maximum value of the control valve (%). Click(Touch) [▲]/[▼] to setting the Control valve limit within the range of 0 to 100%.
[Apply] Button	Apply control menu setting to the device.
[Detail. ►] Button	Controls details.

• View ABS chiller Details

You can find detailed information, touch **[Detail ►]** button on the control menu, ABS chillers.



Number	Item	Description
①	Status information	Status information, such as mode/temperature/operation.
②	Operation status	• [OFF] Button: Stops the operation of the device. • [ON] Button: Starts the operation of the device.
③	View each Tab	View ALL/View Each are Displayed as a tab.
④	Detail information	evaporator/compressor/condenser Details.

• **ABS chiller Fine Control**

You can control the details in the detail control window that appears when you touch the **[Detail control ►]** button on the control menu of the ABS chiller . Configuration and functions of the Advanced menu is as follows.



Item	Description
Operation	• [ON] Button: Starts the operation of the device. • [OFF] Button: Stops the operation of the device.
Mode	(not activated) • [COOL] Button: Operates with Cooling Mode. • [HEAT] Button: Operates with Heating Mode.
Control Valve Limit	Function to maintain the cycle by limiting the heat source inlet calories at chiller operation. Heat input so that it will not be any more to set the maximum value of the control valve (%). Click(Touch) [▲]/[▼] to setting the Control valve limit within the range of 0 to 100%.
Mode Target Temp (°C)	Click(Touch) [▲]/[▼] to setting of the Mode set temperature. • ABS chiller - Cool: 3 °C ~ 20 °C - Heat: 40 °C ~ 80 °C

DOKIT

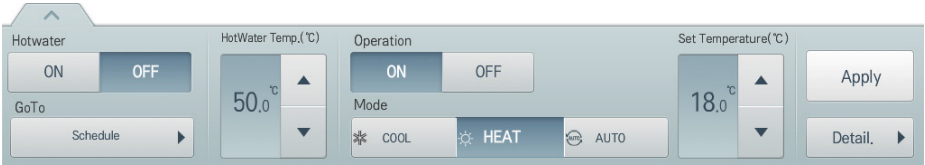
The following is the DOKIT control menu and features.



Item	Description
Operation	• [ON] Button: Starts the operation of the device. • [OFF] Button: Stops the operation of the device.
GoTo	[Schedule▶] Button: Move to Schedule menu.
[Apply] Button	Apply control menu setting to the device

AWHP / Hydro Kit

The following is the AWHP/Hydro Kit control menu and features.



Item	Description
Hotwater	(This function is not settable in some models.) • [ON] Button: Enables the hot water function. • [OFF] Button: Disables the hot water function.
GoTo	[Schedule ►] Button: Move to Schedule menu.
HotWater Temp.	(This function is not settable in some models.) Click(Touch) [▲]/[▼] to set the water heater temperature.
Operation	(This function is not settable in some models.) • [ON] Button: Starts the operation of the device. • [OFF] Button: Stops the operation of the device.
Mode	(This function is not settable in some models.) • [AUTO] Button: Evaluates the operating environment conditions and automatically sets the optimum temperature. • [COOL] Button: Operates with Cooling Mode. • [HEAT] Button: Operates with Heating Mode.
Set Temperature	(This function is not settable in some models.) Click(Touch) [▲]/[▼] to set the air/water temperature.
[Apply] Button	Apply control menu setting to the device
[Detail. ►] Button	Control details.

• AWHP and Hydrokit Fine Control

In AWHP control menu, touch **[Detail. ►]** button, and in the displayed detail control window, you can control detail items. The composition and functions of the detail menu are as follows.



Item	Description
Operation	(This function is not settable in some models.) • [OFF] Button: Stops the operation of the device.
Hotwater	(This function is not settable in some models.) • [OFF] Button: Disables the hot water function.
Partial Lock	• [Set] Button: Disables remote control for all features. • [Clear] Button: Disable the lock.
Mode	(This function is not settable in some models.) • [AUTO] Button: Evaluates the operating environment conditions and automatically sets the optimum temperature. • [COOL] Button: Operates with Cooling Mode. • [HEAT] Button: Operates with Heating Mode.
Set Temperature	(This function is not settable in some models.) Click(Touch) [▲]/[▼] to set the air/water temperature.
Hot Water Temp.	(This function is not settable in some models.) Click(Touch) [▲]/[▼] to set the water heater temperature.

DO

The following is the DO control menu and features.

ENGLISH

▼

Operation

SHORT

OPEN

GoTo

Schedule ▶

Apply

Detail ▶

Item	Description
Operation	• [SHORT] Button: Short signal output. • [OPEN] Button: Open signal output.
GoTo	[Schedule▶] Button: Move to Schedule menu.
[Apply] Button	Apply control menu setting to the device

AO

The following is the AO control menu and features.

▲

GoTo

Schedule ▶

Target Control Value

0.0

Apply

Detail ▶

Item	Description
GoTo	[Schedule▶] Button: Move to Schedule menu.
Target Control Value	Click(Touch) [▲]/[▼] to set the target control value.
[Apply] Button	Apply control menu setting to the device

!

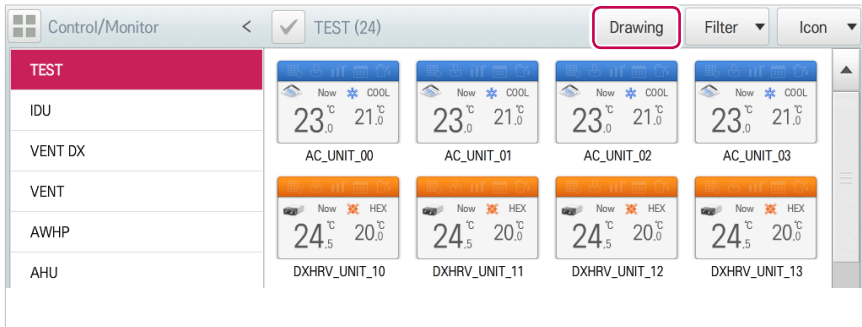
NOTES

- Only when the usage set during device registration is the same, you can select multiple AO for simultaneous control.
- Input devices such as DI, UI, etc. are not available to control.

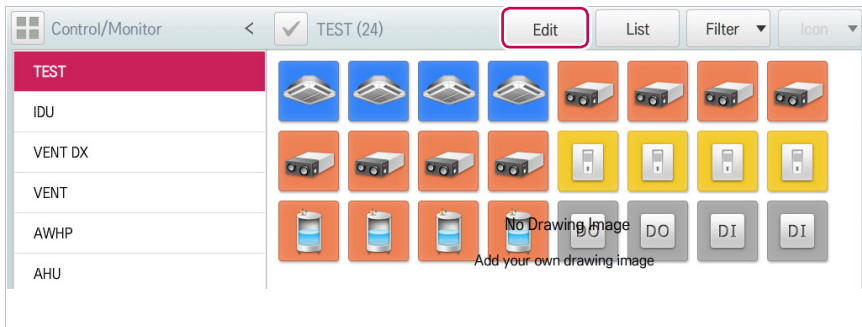
Registering Floor Plan

In the Control/Monitor menu, you can register floor plans to identify and locate each device and device group. On the floor plan, you can register space information as well as the location where a device is installed.

1. In the main menu, click(touch) the **[Control/Monitor]** menu icon.
2. Select the device group you want to monitor from the group list.
 - The monitoring screen for the device is displayed.
3. Click(Touch) **[Drawing]** button.

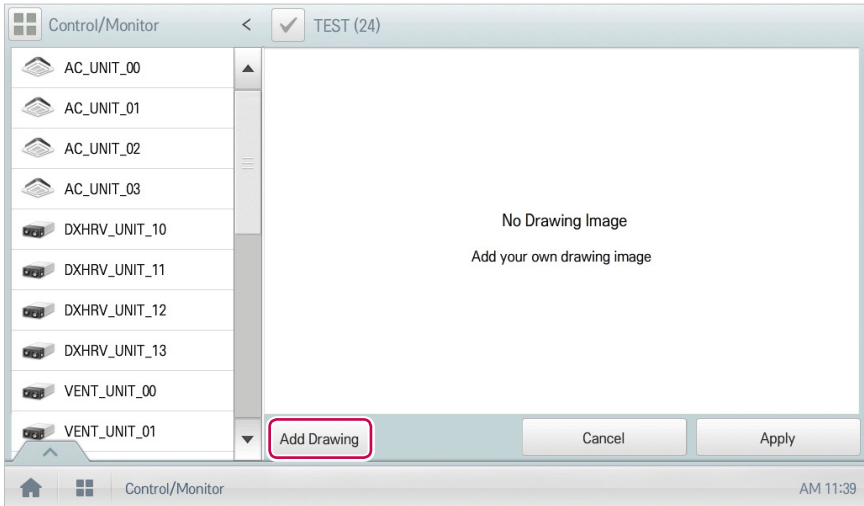


4. Click(Touch) **[Edit]** button.

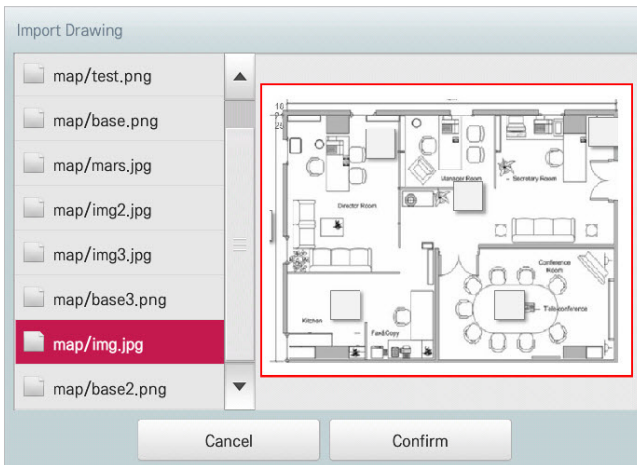


5. **[Add Drawing]** button.

- The Open Floor Plan window is displayed.

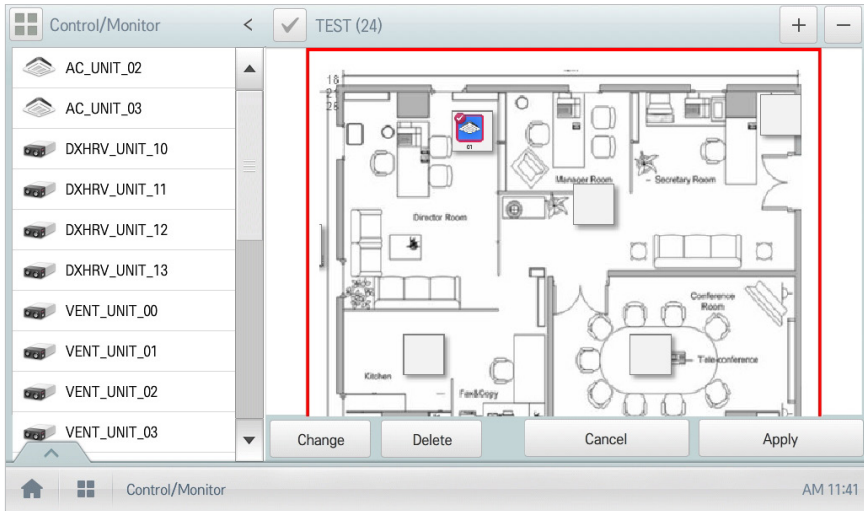
6. Select a desired floor plan from the Open Floor Plan window, then click(touch) the **[Confirm]** button. (Valid file formats are: *.GIF, *.JPG, *.PNG.)

- The floor plan image is displayed.

**NOTES**

You cannot open a floor plan if the file name is in other languages. Use English file names only.

7. In the device list, select a device you want to display on the floor plan and click(touch) the device location on the plan.
 - To delete a device from the plan, double-click(touch) its icon.



8. To complete the registration of the floor plan, click(touch) the **[Apply]** button.



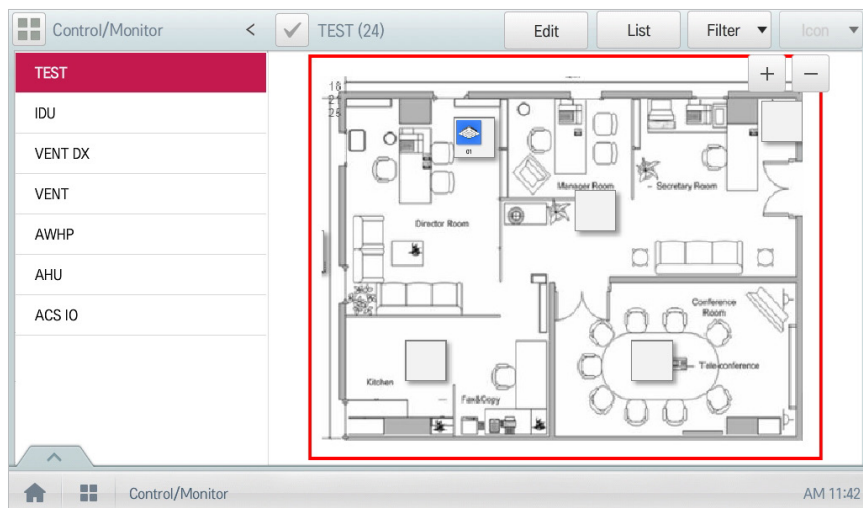
NOTES

- To add a floor plan, put image file in USB top level folder.
- To add a floor plan, you can only use jpg, gif, or png file formats.
- To add a floor plan, a 2MB or less image size is recommended.

Checking Floor Plan

In Control/Monitoring, you can check floor plans. On the floor plan, you can register space information as well as the location where a device is installed.

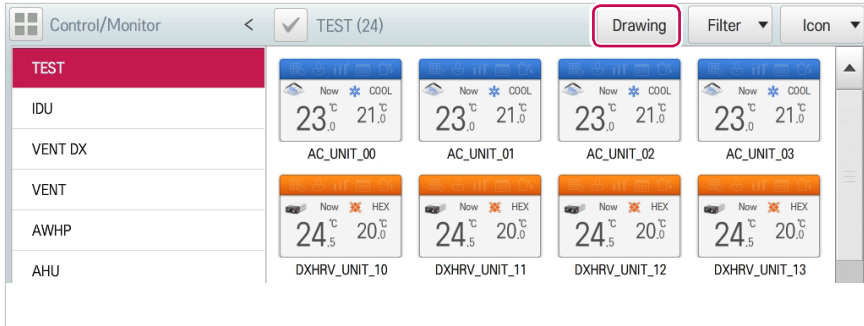
1. In the main menu, click(touch) the **[Control/Monitor]** menu icon.
2. Select the device group you want to monitor from the group list.
 - The monitoring screen for the device is displayed.
3. Click(Touch) **[Drawing]** button.
 - The registered floor plan is displayed.



Editing the Floor Plan

You can edit a registered floor plan.

1. In the main menu, click(touch) the **[Control/Monitor]** menu icon.
2. Select the device group you want to monitor from the group list.
 - The monitoring screen for the device is displayed.
3. Click(Touch) **[Drawing]** button.

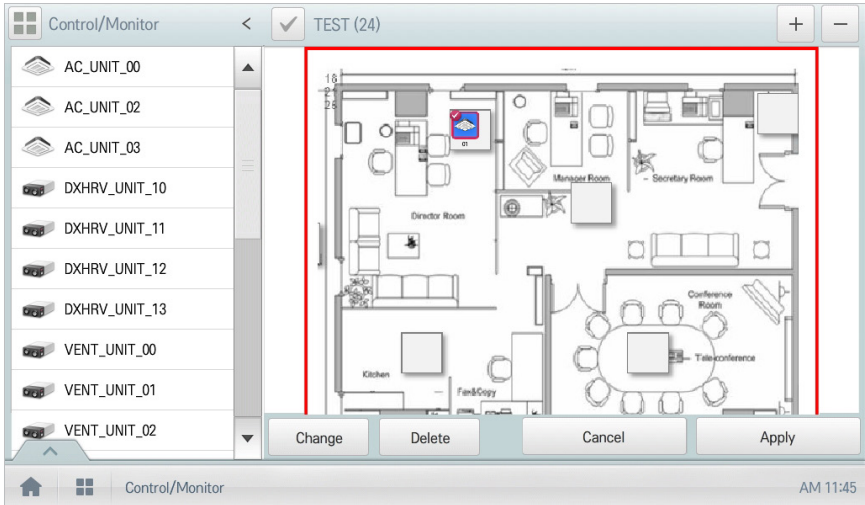


4. Click(Touch) **[Edit]** button.



5. To change floor plan, click(touch) **[Change]** button.
 - The Open Floor Plan window is displayed.
6. Select a desired floor plan from the Open Floor Plan window, then click(touch) the **[Confirm]** button.
 - The floor plan image is displayed.

7. To change the location of a device, click(touch) the icon of the device and then click(touch) the location to which you want to move that device.



NOTES

You can select and drag the device to display on the drawing from the device list to add or change location of the device.

8. To complete floor plan editing, click(touch) the **[Apply]** button.



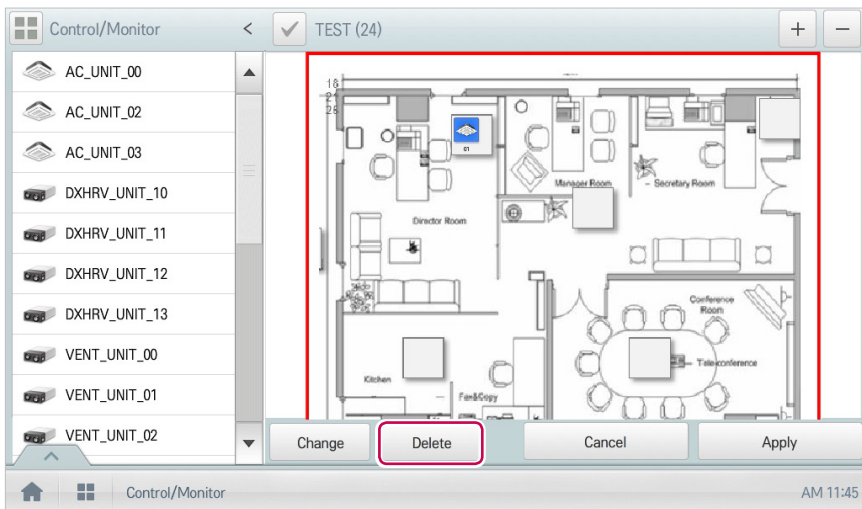
NOTES

- To add a floor plan, put image file in USB top level folder.
- To add a floor plan, you can only use jpg, gif, or png file formats.
- To add a floor plan, a 2MB or less image size is recommended.

Deleting the Floor Plan

You can delete a registered floor plan.

1. In the main menu, click(touch) the **[Control/Monitor]** menu icon.
2. Select the device group you want to monitor from the group list.
 - The monitoring screen for the device is displayed.
3. Click(Touch) **[Drawing]** button.
 - The registered floor plan is displayed.
4. Click(Touch) **[Edit]** button.
5. To delete a floor plan, click(touch) the **[Delete]** button.

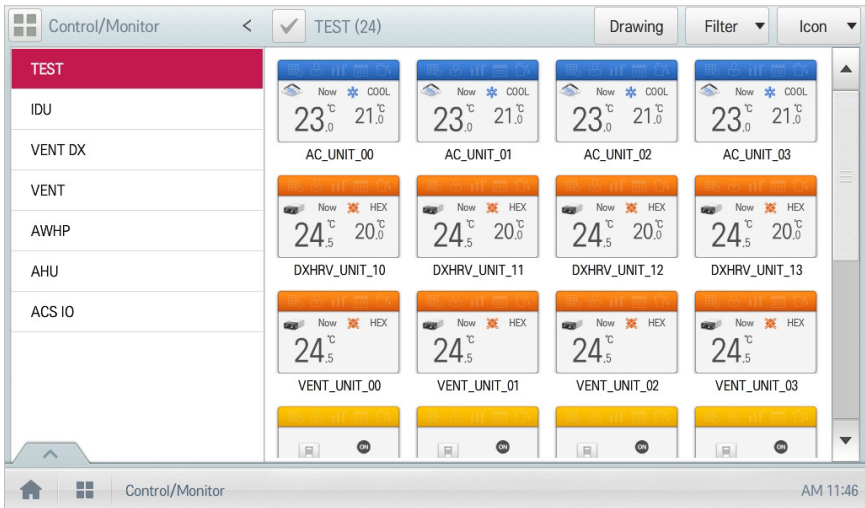


6. When you are prompted to confirm the deletion, click(touch) the **[Confirm]** button.

Monitoring a Device

You can check the control state of registered devices.

1. In the main menu, click(touch) the **[Control/Monitor]** menu icon.
2. Select the device group you want to monitor from the group list.
 - The monitoring screen for the device is displayed.
3. Click(Touch) a device you want to monitor.
4. Please check the device information in the monitoring screen.
 - The information on the monitoring screen differs depending on the view type. For details about the view types, refer to **View Type**.



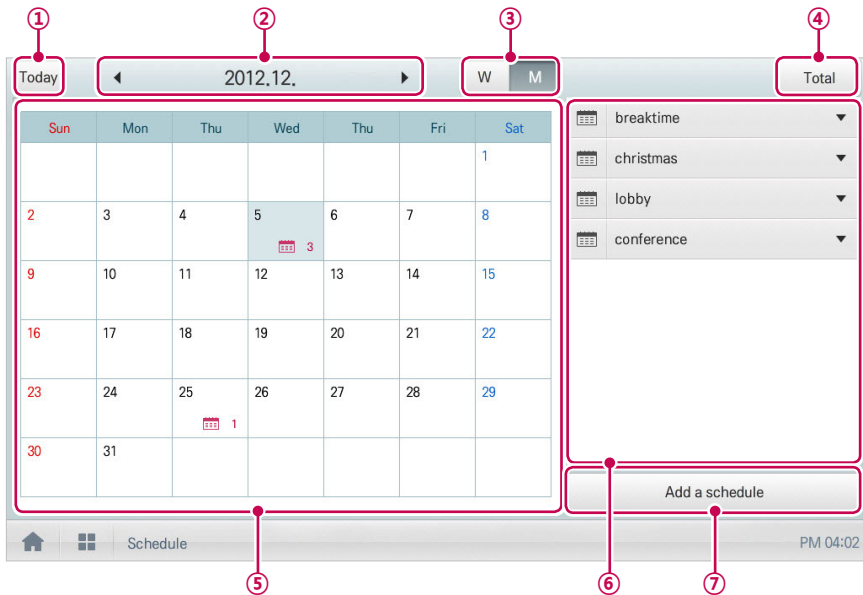
5. To check the control status of the device, click(touch) the **[Detail. ►]** button.

Schedule

The Schedule feature allows you to program the behavior of the devices. If a device must adhere to a certain schedule, you can program the device to operate only at scheduled times. Scheduled devices do not activate unless programmed to do so and are managed centrally. This can significantly reduce energy consumption. Schedules are event driven. This means that devices are controlled once at the scheduled time.

Schedule Screen composition and features

The following explains Schedule Screen composition and features.



Number	Item	Description
①	[Today] Button	Display today's date, the current week, or the current month.
②	Dates	- Displays the selected date. - Use [◀]/[▶] to move to the previous/next date.
③	View Type	[W] Button: Converts to Week View. [M] Button: Converts to Month View.
④	[Total] Button	View full schedule list.
⑤	Calendar	- Displays the schedules for the selected dates. - Today's date is marked in light blue.
⑥	Schedule List	Displays registered schedules by name.

Number	Item	Description
⑦	[Add a Schedule] Button	Registers new schedules.

Creating Schedules

You can configure and add a schedule for a device.

1. In the main menu, click(touch) **[Schedule]** menu icon.
2. Click(Touch) **[Add a Schedule]** Button.
 - The Add Schedule window opens.
3. In the group list, click(touch) a device for which a schedule is applied.
 - The selected device is displayed in the applied device area of the control command configuration.

Apply to

✓ AC UNIT

▼

✓ VENT

▼

✓ VENT_2

▼

✓ DXHRV

▲

✓ VENT_UNIT_01

✓ VENT_UNIT_02

✓ VENT_UNIT_03

✓ VENT_UNIT_04

✓ VENT_UNIT_05

▼

Schedule Name

Please, Enter the name of schedule.

Time

PM 12:00

Period

2012-12-05 ~ 2012-12-05

Repeat Pattern

Everyday ▼

Select day

✓ Sun

✓ Mon

✓ Thu

✓ Wed

✓ Thu

✓ Fri

✓ Sat

Command

Apply to

Please select units on the list.

Command summary

No command

Cancel

Confirm

Home

Grid

Schedule

PM 04:05

4. Configure the schedule information that controls the device.

Apply to

✓ RAC

▼

▲

✓ vent

▲

✓ VENT_UNIT_29

✓ VENT_UNIT_2A

✓ VENT_UNIT_2B

✓ VENT_UNIT_2C

✓ VENT_UNIT_2D

✓ VENT_UNIT_2E

✓ VENT_UNIT_2F

Schedule Name

schedule1

Time

PM 12:00

Period

2013-04-22 ~ 2013-04-22

Repeat Pattern

Everyday ▼

Select day

✓ Sun

✓ Mon

✓ Tue

✓ Wed

✓ Thu

✓ Fri

✓ Sat

Command

Apply to

ERV(1) ▶

Command summary

ERV No command

Cancel

Confirm

Home

Grid

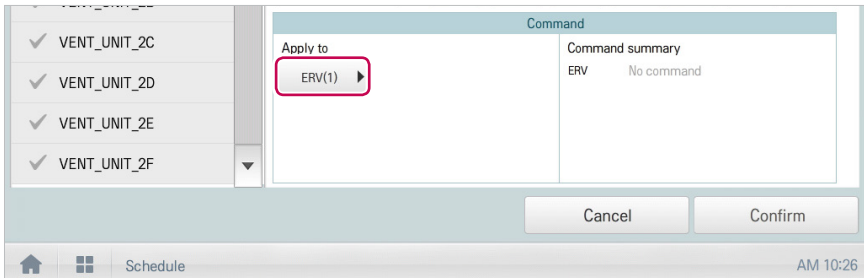
Schedule

AM 10:26

Item	Description
Schedule Name	Click(Touch) the input box. Enter the name for the schedule.
Time	Click(Touch) the time area and select the desired time.
Period	Click(Touch) the period area and then the [+]/[-] button to select the desired period.
Repeat Program	Click(Touch) the Repetition Program area and select a desired program. • Select Day: Selected days the schedule will be performed. • Once: Applies a schedule once on a selected date. • Everyday: Applies the same schedule Everyday. • Mon - Fri: Applies a schedule repeatedly from Monday to Friday. • Mon - Sat: Applies a schedule repeatedly from Monday to Saturday.
Select day	Click(Touch) a desired day to apply a schedule.

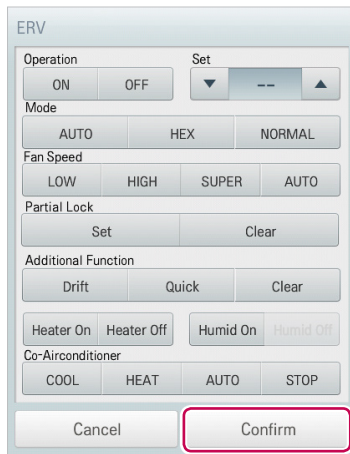
5. Click(Touch) the device icon of the applied device.

- The control configuration window for the device is displayed. The control configuration window differs depending on the device.



6. Configure the device control status, then click(touch) the **[Confirm]** button.

- The control list configured in the **Command Summary** area is displayed.

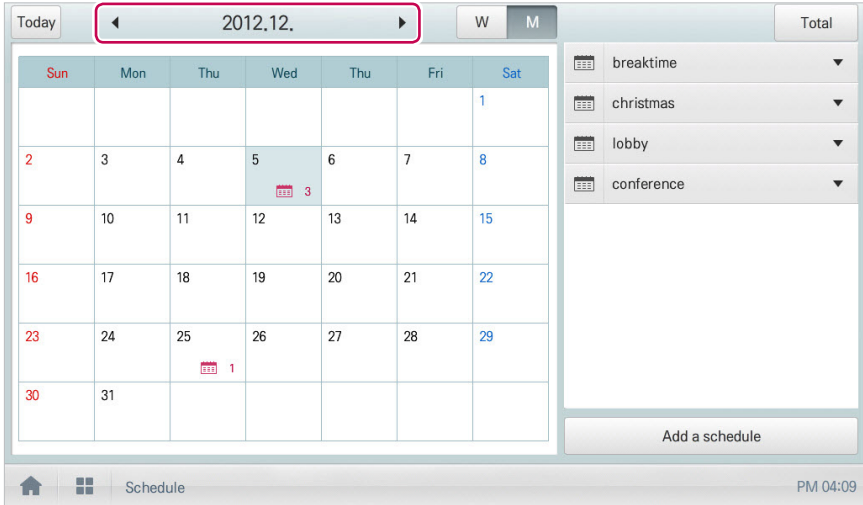


7. To complete the schedule configuration, click(touch) the **[Confirm]** button.

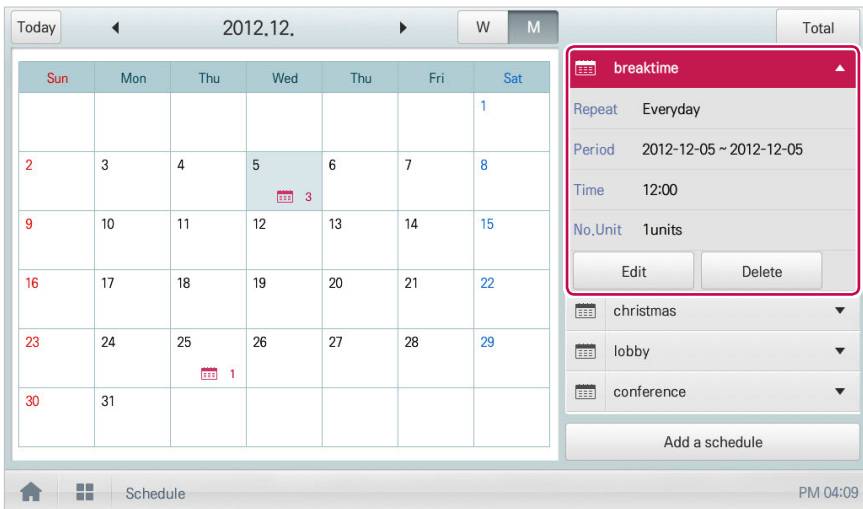
Checking Schedules

You can check registered schedules.

1. In the main menu, click(touch) the **[Schedule]** menu icon.
2. In the Date area, click(touch) the **[◀]/[▶]** button to select a schedule search period.
 - The number of schedules are displayed for the selected date.



3. To check schedule details, click(touch) a schedule you want to check in the schedule list.
 - Schedule details are displayed.



Editing Schedules

You can modify the content of a registered schedule as follows.

1. In the main menu, click(touch) the **[Schedule]** menu icon.
2. Click(Touch) a schedule you wish to modify from the schedule list.
 - Schedule details are displayed.
3. Click(Touch) the **[Edit]** button.
 - The schedule configuration screen is displayed.

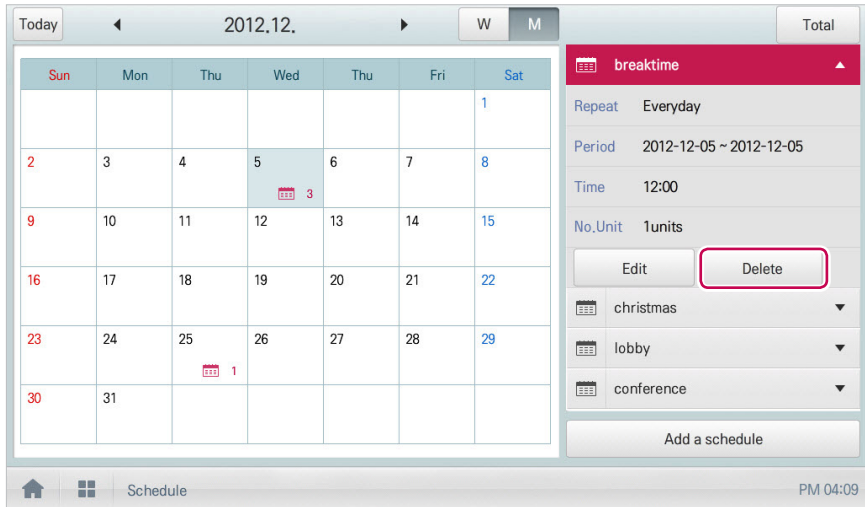
The screenshot displays the 'breaktime' schedule configuration interface. At the top, there's a header with 'Today', navigation arrows, the date '2012.12.', day indicators 'W' and 'M', and a 'Total' button. Below this is a calendar grid for December 2012, with days of the week (Sun to Sat) as column headers. The calendar shows dates 1 through 31, with some dates highlighted in red (2, 9, 16, 23, 30) and others in blue (1, 8, 15, 22, 29). A small calendar icon with the number '3' is visible on Wednesday, December 5th. To the right of the calendar is a details panel for the 'breaktime' schedule. It includes fields for 'Repeat' (Everyday), 'Period' (2012-12-05 ~ 2012-12-05), 'Time' (12:00), and 'No.Unit' (1units). Below these fields are 'Edit' and 'Delete' buttons, with the 'Edit' button highlighted by a red rectangle. At the bottom of the details panel are three dropdown menus labeled 'christmas', 'lobby', and 'conference'. A button labeled 'Add a schedule' is at the very bottom of the details panel. The bottom of the screen features a navigation bar with a home icon, a grid icon, and the label 'Schedule', along with the time 'PM 04:09' on the right.

4. Modify the schedule information and device control configuration, then click(touch) the **[Confirm]** button.
 - The changed data will be saved.

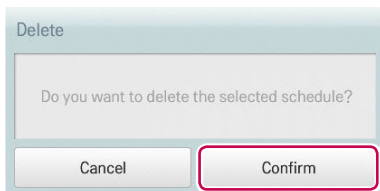
Deleting Schedules

You can delete a registered schedule as follows.

1. In the main menu, click(touch) the **[Schedule]** menu icon.
2. Click(Touch) a schedule you wish to delete from the schedule list.
 - Schedule details are displayed.
3. Click(Touch) the **[Delete]** button.



4. When you are prompted to confirm the deletion, click(touch) the **[Confirm]** button.
 - The selected schedule is deleted.



Auto Logic

Auto Logic allows the system to automatically control the power consumption of external devices. You can also set the indoor temperature to automatically adjust to selected variables or activate devices for certain periods of time.



NOTES

If you set a device control value in the auto logic status view, the device can operate based on that value.

Peak Control

Peak control limits peak power consumption. You can set the target operating rate so that total power consumption does not exceed the set limit. To prevent power consumption from exceeding the limit, the system will switch automatically between cooling and fan modes. Also it will limit heating operation by switching automatically between Heat and OFF modes.



NOTES

Depending on the installation site specifications, either the peak control or demand control functions can be selected. Go to **Environment > Advance Setting > Peak/Demand Set** and select a desired control type.

Editing Groups

The auto logic designates the registered devices as a group and controls them by group. The following explains how to create groups and how to edit the created groups.

Adding Groups

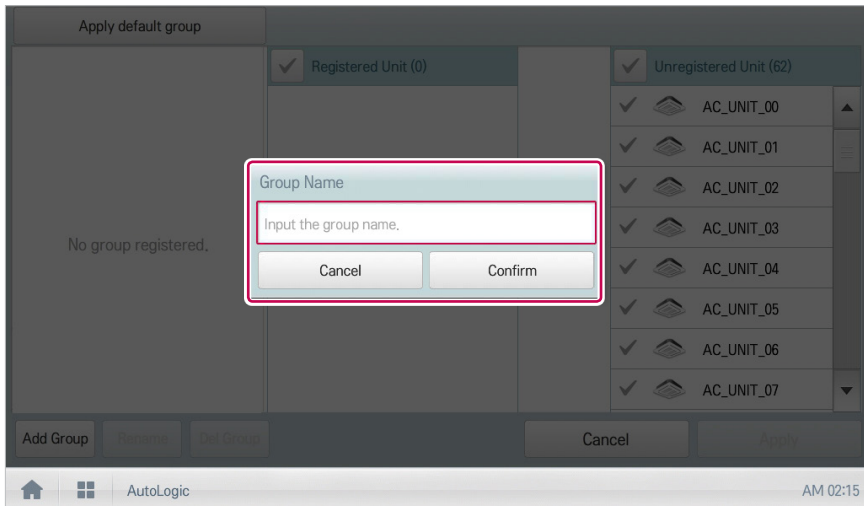
You can create a group as follows.

1. In the main menu, click(touch) the **[AutoLogic > Peak Control]** menu icons.
2. Click(Touch) the **[Edit Group]** button.
 - The screen converts to Edit Group.
3. Click(Touch) the **[Add Group]** button.

! NOTES

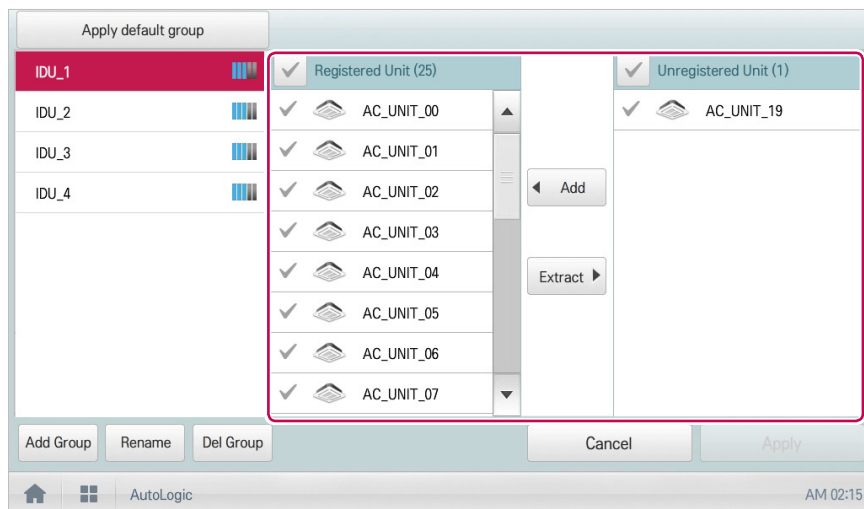
By click(touch)ing **[Apply default group]**, you can create a group automatically based on the group and indoor unit configuration set in the Device Management menu.

4. When the window to input a group name is displayed, enter a group name and click(touch) the **[Confirm]** button.
 - The group is added to the group list.



5. In the group list, click(touch) the group added in Step 4.

6. In the non-registered device area, click(touch) a device to add to the new group and click(touch) the **[Add]** button.
- The selected device is moved to the registered device area.



NOTES

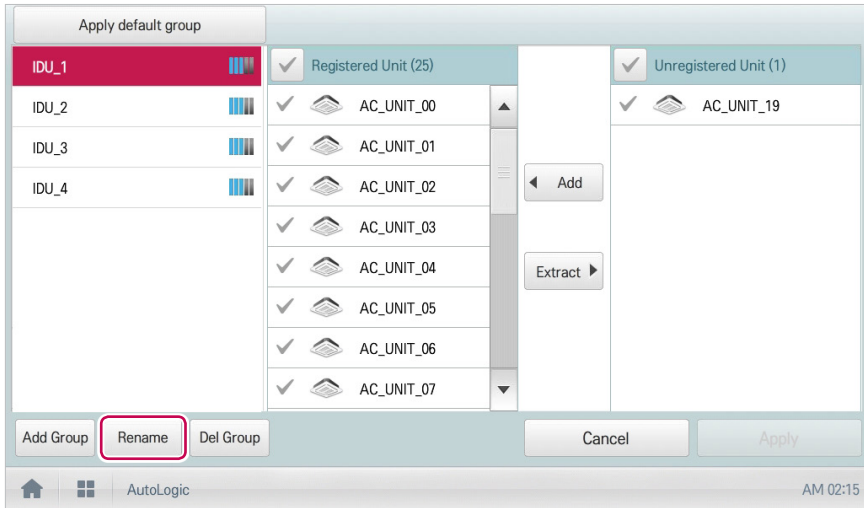
Peak control is only limited to indoor devices, therefore you cannot register other devices such as the ERV, AHU or AWHP.

7. To complete group creation, click(touch) the **[Apply]** button.
- When all devices in the non-registered device list are registered, **[Apply]** button is activated.

Changing Group Name

You can change the name of a registered group as follows.

1. In the main menu, click(touch) the **[AutoLogic > Peak Control]** menu icon.
2. Click(Touch) the **[Edit Group]** button.
 - The screen converts to Edit Group.
3. In the group list, click(touch) a group whose name you want to change and click(touch) the **[Rename]** button.

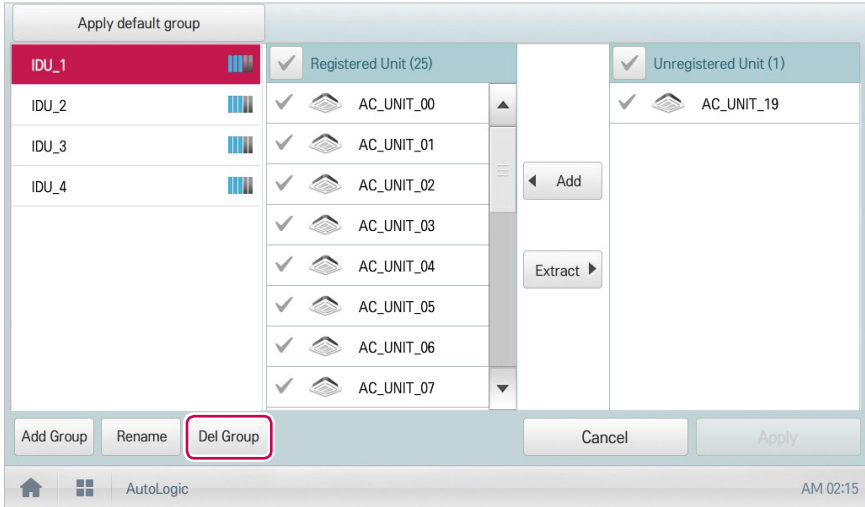


4. Enter a new group name and click(touch) the **[Confirm]** button.
 - The group name is now changed.
5. To complete group rename, click(touch) the **[Apply]** button.

Deleting Groups

You can delete a registered group.

1. In the main menu, click(touch) the **[AutoLogic > Peak Control]** menu icon.
2. Click(Touch) the **[Edit Group]** button.
 - The screen converts to Edit Group.
3. In the group list, click(touch) a group to be deleted and click(touch) the **[Del Group]** button.



4. When you are prompted to confirm the deletion, click(touch) the **[Confirm]** button.
 - The selected group is deleted and the tab removed.



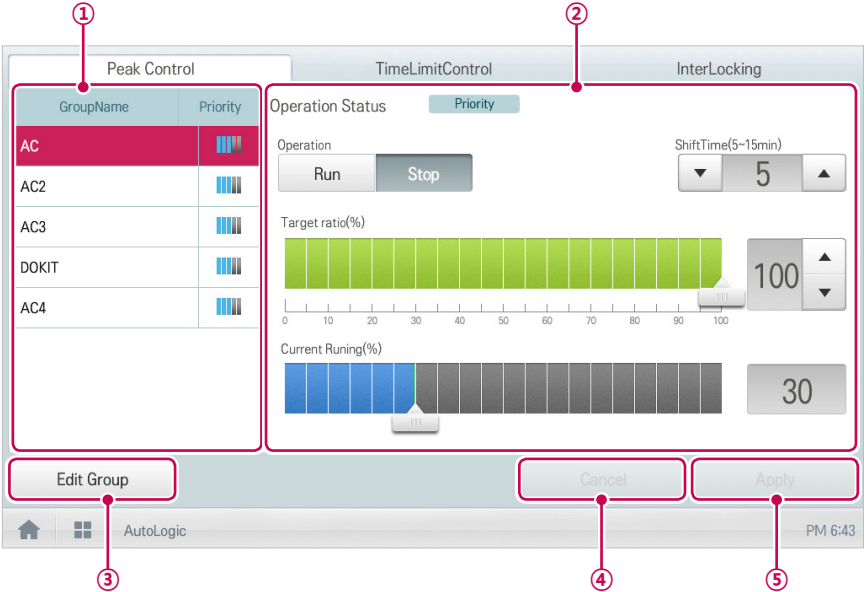
NOTES

- The group configured in Peak Control is also applied to Demand Control.
- If you change the group configuration in the device management menu, the group configured in Peak Control is initialized.

Configuring Peak Control

You can configure Peak Control as follows.

1. In the main menu, click(touch) the **[AutoLogic > Peak Control]** menu icon.
2. Select the control status in the control configuration area.



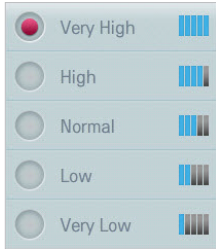
Number	Item	Description
①	Group List	Displays the device group list and group priority.
②	Control Configuration Area	Configures Peak Control configuration and details. • Operation Status - Can be configured in [Environment > Advance Setting]. - Priority Control: Control based on group priority - Outdoor Unit Control: Controls based on outdoor unit capacity limit.

Number	Item	Description
②	Control Configuration Area	(Operation Status - Priority Control selected) • Operation - [Run] Button: Operates the device. - [Stop] Button: Stops the operation of the device. • ShiftTime(5~15min): Click(Touch) [▲]/[▼] to set the time in minutes to force the operation to switch over. • Target ratio(%): Click(Touch) [▲]/[▼] or drag  button to set the target rate. • Current Running(%): Displays the current rate. (Operation Status - Outdoor unit capacity control selected) • Operation - [Run] Button: Operates the device. - [Stop] Button: Stops the operation of the device. • Target ratio(%): Click(Touch) [▲]/[▼] or drag  button to set the target rate.
③	[Edit Group] Button	Edit a control group.
④	[Cancel] Button	Cancels control configuration.
⑤	[Apply] Button	Applies control configuration.

3. To complete configuration, click(touch) the **[Apply]** button.

Configuring Priority

1. In the main menu, click(touch) the **[AutoLogic > Peak Control]** menu icon.
2. In the group list, click(touch) the priority icon () of the group in question and then select a desired priority.



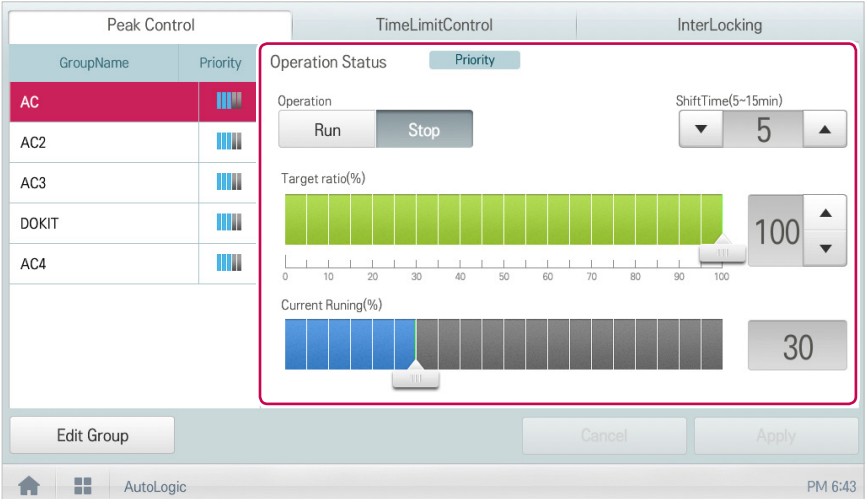
NOTES

Basically, a newly added group has the highest priority. If a group is added, re-configure the priority for all groups.

Checking Peak Control Status

You can check the Peak Control configuration status as follows.

1. In the main menu, click(touch) the **[AutoLogic > Peak Control]** menu icon.
2. Check how Peak Control is configured.



Item	Description
Control Configuration Area	Configure Peak Controls. • Operation Status - Can be configured in [Environment > Advance Setting]. - Priority: Controls based on group priority - Outdoor unit capacity control: Controls based on outdoor unit capacity limit. (Operation Status - Priority Control selected) • Operation - [Run] Button: Operates the device. - [Stop] Button: Stops the operation of the device. • ShiftTime(5~15min): The cycle by which the operation switches over. • Target ratio(%): Displays the target operation rate. • Current Running(%): Displays the current rate. (Operation Status - Outdoor unit capacity control selected) • Operation - [Run] Button: Operates the device. - [Stop] Button: Stops the operation of the device. • Target ratio(%): Displays the target operation rate.

Demand Control

After observing changes in power consumption, this feature can prevent power consumption from exceeding a set limit. If you set the demand control and the program predicts that power consumption will exceed that limit, it will begin deactivating less important devices to save energy.



NOTES

- For demand, depending on the installation site specifications, either the peak control or demand control functions can be selected. Go To **Environment > Advance Setting > Peak/Demand Settings** and select a desired control type.
- For outdoor capacity control, depending on the installation site specifications, either the peak control or demand control functions can be selected.
- In the Demand Control menu, you can only check the Demand Control status. You cannot **configure the operation, operation switchover cycle, desired rate, current rate**, etc.



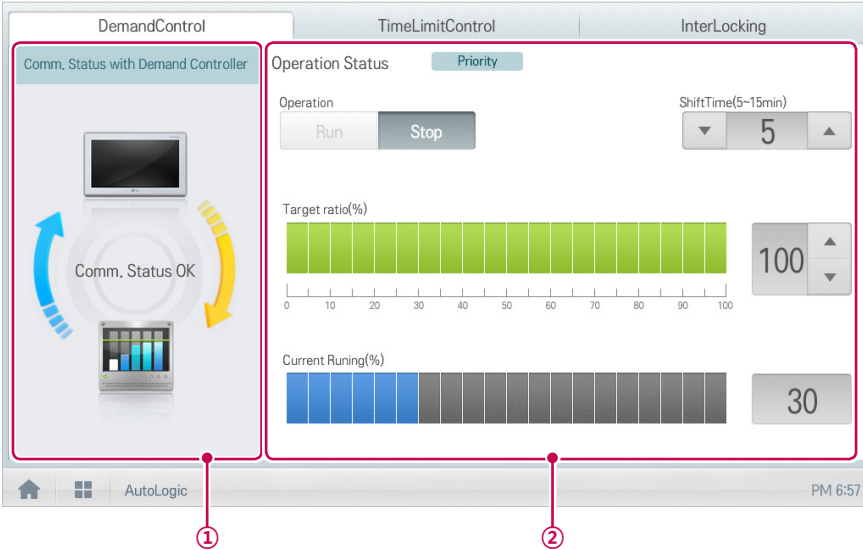
NOTES

- ACS IV Controller can be used with the LG demand controllers (PCP-D11A2J), but not with the demand controllers from other manufacturers.
- LG demand controller is not available in the US Market at this time.

Checking Demand Control Status

You can check the Peak Control configuration status as follows.

- 1. In the main menu, click(touch) the [AutoLogic > Demand Control] menu icon.
- 2. Check how Demand Control is configured.



Number	Item	Description
①	Comm. Status with Demand Controller	Displays the communication status between demand controller and ACS IV Controller.
②	Control Configuration Area	Checks the demand configuration details. • Operation Status - Can be configured in [Environment > Advance Setting]. - Priority Control: Control based on group priority - Outdoor Unit Control: Controls based on outdoor unit capacity limit.

Number	Item	Description
②	Control Configuration Area	(Operation Status - Priority Control selected) • Operation - [Operate] Button: Operates the device. - [Stop] Button: Stops the operation of the device. • ShiftTime(5~15min): The cycle by which the operation switches over. • Target ratio(%): Displays the target operation rate. • Current Running(%): Displays the current rate. (Operation Status - Outdoor unit capacity control selected) • Operation - [Run] Button: Operates the device. - [Stop] Button: Stops the operation of the device. • Target ratio(%): Displays the target operation rate.

Time-limit Operation

The time-limit operation is to limit the amount of time the devices (indoor unit, ERV, DOKIT, AWHP, and some AHU) are running individually. By setting the device operation time in advance, you can control for how long a device works and have it stop automatically.

Editing Groups

The auto logic designates the registered devices as a group and controls them by group. The following explains how to create groups and how to edit the created groups.

Adding Groups

You can create a group as follows.

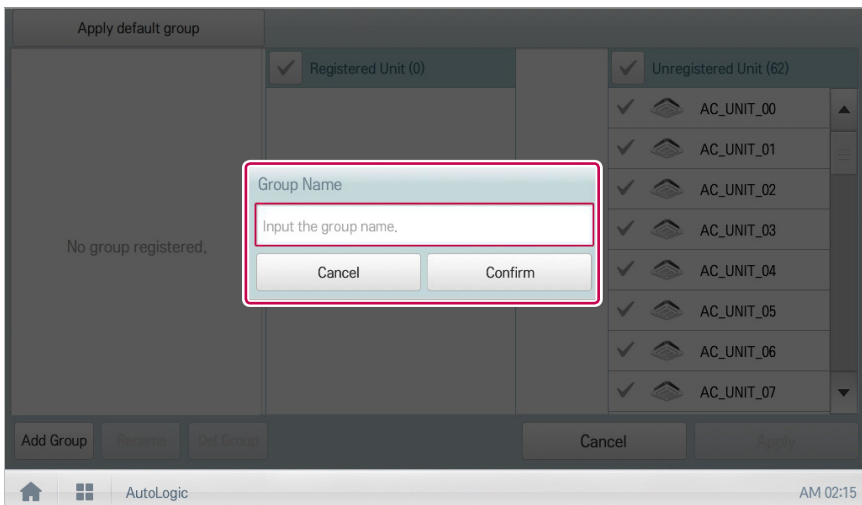
1. In the main menu, click(touch) the **[AutoLogic > TimeLimitControl]** menu icon.
2. Click(Touch) the **[Edit Group]** button.
 - The screen converts to Edit Group.
3. Click(Touch) the **[Add Group]** button.



NOTES

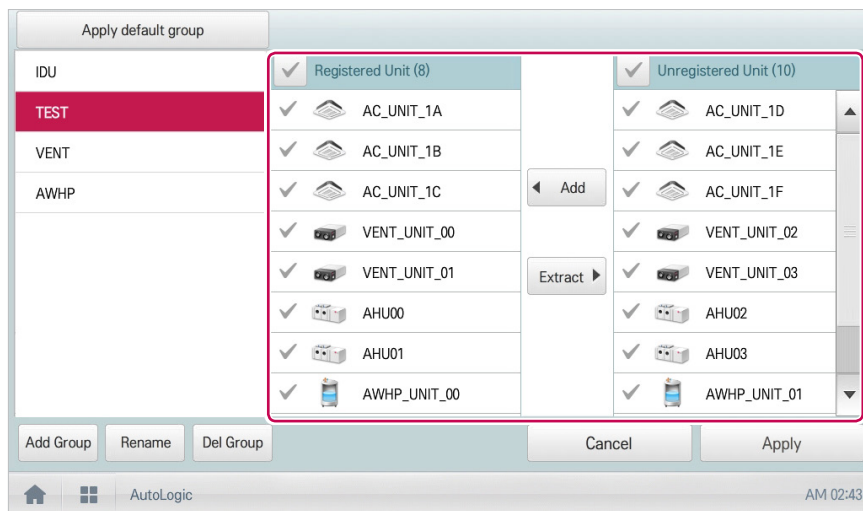
By click(touch)ing **[Apply default group]**, you can create a group automatically based on the group and indoor unit configuration set in the Device Management menu.

4. When the window to input a group name is displayed, enter a group name and click(touch) the **[Confirm]** button.
 - The group is added to the group list.



5. In the group list, click(touch) the group added in Step 4.

6. In the non-registered device area, click(touch) a device to add to the new group and click(touch) **[Add]** button.
 - The selected device is moved to the registered device area.



NOTES

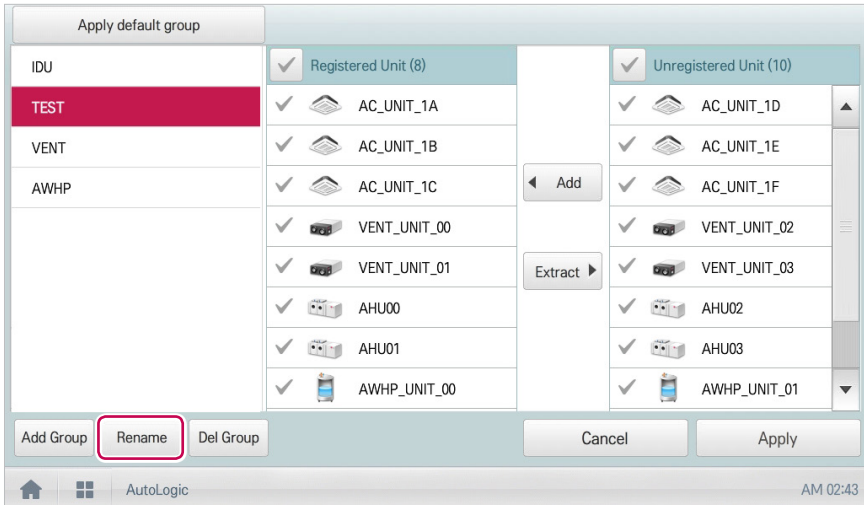
For the time-limit operation, you cannot register chiller, AHU(Modular Fresh Air, Modular Heat Recovery, DOAS), DI/DO, Expansion I/O.

7. To complete group creation, click(touch) the **[Apply]** button.

Changing Group Name

You can change the name of a registered group as follows.

1. In the main menu, click(touch) the **[AutoLogic > TimeLimitControl]** menu icon.
2. Click(Touch) the **[Edit Group]** button.
 - The screen converts to Edit Group.
3. In the group list, click(touch) a group whose name you want to change and click(touch) the **[Rename]** button.

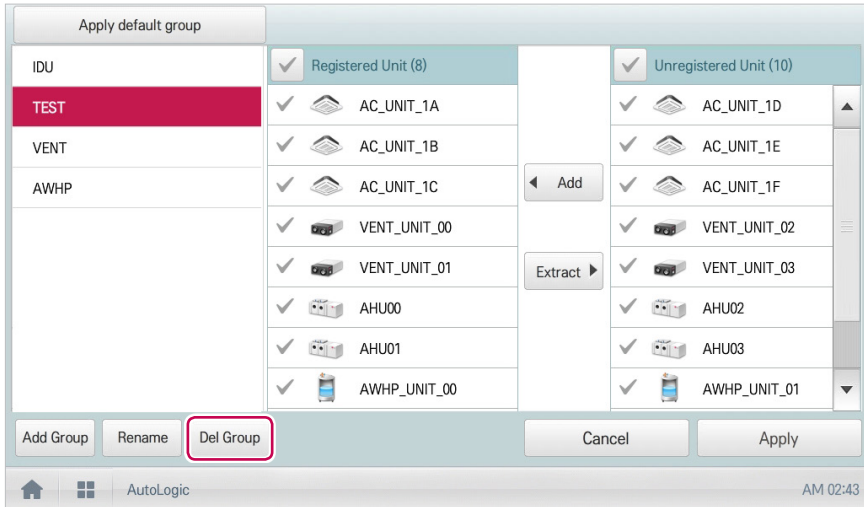


4. Enter a new group name and click(touch) the **[Confirm]** button.
 - The group name is now changed.
5. To complete group rename, click(touch) the **[Apply]** button.

Deleting Groups

You can delete a registered group.

1. In the main menu, click(touch) the **[AutoLogic > TimeLimitControl]** menu icon.
2. Click(Touch) the **[Edit Group]** button.
 - The screen converts to Edit Group.
3. In the group list, click(touch) a group to be deleted and click(touch) the **[Del Group]** button.



4. When you are prompted to confirm the deletion, click(touch) the **[Confirm]** button.
 - The selected group is deleted and the tab removed.
5. To complete group delete, click(touch) the **[Apply]** button.

Configuring Time-Limit Operation

- 1. In the main menu, click(touch) the **[AutoLogic > TimeLimitControl]** menu icon.
- 2. In the group configuration status area, click(touch) a group to be controlled.
 - The device list, status information, and condition details of the group are displayed.

DemandControl

TimeLimitControl

InterLocking

Group List

Status in the group

Condition

GroupName	enable/disable
1	disabled
2	disabled

UnitName	Oper	ToOff(min)
idu_1	Run	27
idu_2	Run	27
idu_3	Stop	30
idu_4	Stop	30
idu_5	Stop	30
idu_6	Stop	30
idu_7	Stop	30

Oper

Run

Stop

Hours to Off(h)

0.5

1

2

3

4

Days

✓

Sun

✓

Mon

✓

Tue

✓

Wed

✓

Thu

✓

Fri

✓

Sat

Edit Group

Cancel

Apply

AutoLogic

PM 7:00

- 3. Select the control status in the conditions configuration area.

Item	Description
Oper	Choosing whether to run Time-Limit Operation • [Run] Button: Run the time-limit operation. • [Stop] Button: Stops the time-limit operation.
Hours to Off(h)	• Select the operation time limit of an operation group. • The devices included in the group operate for the selected time then stop automatically.
Days	Select which day(s) of the week to run the time-limit operation.

4. To run the time-limit operation on the group, in the group configuration operation status area, click(touch) the **[disable]** button.
 - The button changes to **[enable]**.

The screenshot shows the 'TimeLimitControl' configuration window. It is divided into three main sections: 'DemandControl', 'TimeLimitControl', and 'InterLocking'.

TimeLimitControl Section:

- Group List:** A table with two rows. Row 1 has '1' in the 'GroupName' column and a 'disabled' button. Row 2 has '2' in the 'GroupName' column and an 'enabled' button (highlighted with a red box).
- Status in the group:** A table showing the status of units in group 2.

UnitName	Oper	ToOff(min)
idu_8	Run	30
idu_9	Run	30
idu_10	Run	30
- InterLocking Section:**
 - Oper:** Two buttons, 'Run' (active) and 'Stop'.
 - Hours to Off(h):** A row of buttons: '0.5', '1', '2', '3', '4'. The '0.5' button is active.
 - Days:** A grid of buttons for each day of the week, each with a checkmark: Sun, Mon, Tue, Wed, Thu, Fri, Sat.

At the bottom of the window are three buttons: 'Edit Group', 'Cancel', and 'Apply'. The status bar at the very bottom shows a home icon, a grid icon, the text 'AutoLogic', and the time 'PM 6:05'.

5. To complete the configuration, click(touch) the **[Apply]** button.



NOTES

If you change the operation stop standby time, it takes about 15 seconds to apply it.

InterLocking

Associated device control is a function which interlocks more than one device and then controls output movements when the input conditions are met.

In order to operate associated device control, you shall arrange the devices to be interlocked in a single pattern and then apply the control setting. It is described here how to create and manage a pattern and then proceed with associated device control.

Managing Program

The following explains how to register integrated devices as a program and how to modify or delete a registered program.

Adding Program

You can add a program as follows.

1. In the main menu, click(touch) the **[AutoLogic > InterLocking]** menu icon.
2. Click(Touch) the **[Add]** button.
 - A window to create a program is displayed.
3. Type a new program name in the program name input window.

The screenshot shows the 'Adding Program' window. The 'Name' input field is highlighted with a red border. The window contains two columns for adding input and output devices. The bottom status bar indicates the software is 'AutoLogic' and the time is 'AM 11:46'.

4. Select the program type.

NamePlease, Input the Program name.

Event Log Only

☒ Permit User Control

ANDORAdd UnitDelete Unit

Event Log OnlyAdd UnitDelete Unit

☒Unit NameSetting

Group CloneUnit NameSetting

Alarm ACK Required

1 : 1 Program

Item	Description
Event Log Only	Normal device interface program
Group Clone	Program to copy input setting and apply to output
Alarm ACK Required	Device control program for emergency situation
1:1 Program	Program to set output device same to input device.
Permit User Control	Set up the priority of device linkage control. When checked, under the status which meets the input device condition, controlling the output device is made just once, and after that, when the user takes the control, user control has the priority. When not checked, device linkage control always has the priority.

!

NOTES

- For device interface control, chiller and some AHU(Modular Fresh Air, Modular Heat Recovery) cannot be registered.
- When it is set to emergency program, if the corresponding conditions are met, it is recognized as emergency situation, and other control signals are blocked. For details on emergency situation occurrences, refer to **Emergency situation occurrence and reset**.
- You can set only 1 emergency program.

5. To register non-registered device, click(touch) the **[Add Unit]** button in the Input device area.

The screenshot shows the main program interface. At the top, there is a 'Name' field with the placeholder text 'Please, Input the Program name.' and an 'Event Log Only' dropdown menu. To the right of these is a 'Permit User Control' checkbox which is checked. Below the name field, there are two main sections: 'Input Device(4)' and 'Output Device(4)'. Each section has a table with columns 'Unit Name' and 'Setting'. In the 'Input Device' table, units AC_UNIT_00 through AC_UNIT_03 are listed. In the 'Output Device' table, units AC_UNIT_04 through AC_UNIT_07 are listed. Between these two tables is a right-pointing arrow. Above the 'Input Device' table, there are buttons for 'AND', 'OR', 'Add Unit' (which is highlighted with a red box), and 'Delete Unit'. Above the 'Output Device' table, there are 'Add Unit' and 'Delete Unit' buttons. At the bottom right of the interface are 'Cancel' and 'Apply' buttons. The bottom status bar shows a home icon, a grid icon, the text 'AutoLogic', and the time 'PM 01:18'.

6. In the input device window, click(touch) a device to be registered and click(touch) the **[Add]** button.

The screenshot shows the 'Input Device' window. At the top, it says '0unit(s) is(are) selected.' Below this is a table with columns 'UnitName' and 'Address'. The table lists units AC_UNIT_08 through AC_UNIT_0D, each with a corresponding address (08 through 0D). To the right of the table is a vertical scrollbar. At the bottom of the window, there is a row of icons representing different device types: IDU, ERV, AHU, AHP, CHILLER, DOKIT, DO, DI, LI, and AO. Below these icons are 'Cancel' and 'Add' buttons, with the 'Add' button highlighted by a red box.

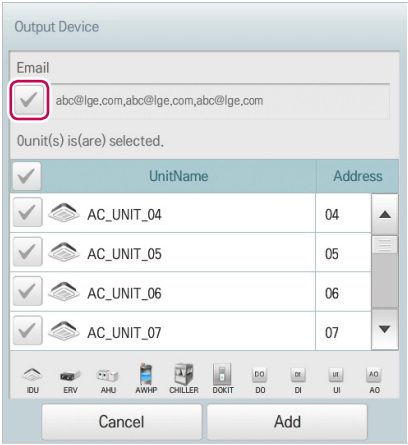
7. In the input device list, click(touch) the device you want to trigger control.
8. Select a control status in the control configuration area.

! NOTES

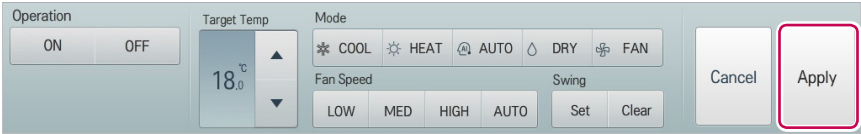
- You can use arithmetic operators(<, ≥, >, =, ≤) to set standard values of the control category.
- The default value of the arithmetic operator is "<".
- Be sure to not set the Value of input device outside the device normal operating range.

9. To register non-registered device, click(touch) the **[Add Unit]** button in the output device area.

10. To send the output device to register through e-mail, touch the check box of the e-mail transmission category.
 - The output device to register is sent through the set e-mail.



11.
- In the output device window, click(touch) a device to be registered and click(touch) the **[Add]** button.
12.
- In the output device list, click(touch) the device you want to control.
13.
- Select a control status in the control configuration area. 16. To complete the adding of a program, click(touch) the **[Apply]** button.



Editing Program

You can edit a program as follows.

1.

In the main menu, click(touch) the **[AutoLogic > InterLocking]** menu icon.
2.

Select a program and click(touch) the **[Edit]** button.

• The program editing screen opens.

Peak Control

TimeLimitControl

InterLocking

Program

Input Device (4)

No	Program Name	enable/disable
1	Emergency	disabled
2	InterLocking_1	enabled

Unit Type	UnitName	Address	Operation
IDU	AC_UNIT_00	00	
IDU	AC_UNIT_01	01	
IDU	AC_UNIT_02	02	
IDU	AC_UNIT_03	03	

Output Device (4)

IDU	AC_UNIT_04	04	*
IDU	AC_UNIT_05	05	*
IDU	AC_UNIT_06	06	*
IDU	AC_UNIT_07	07	*

Add

Edit

Delete

Cancel

Apply

AutoLogic

PM 02:58

3.

Modify the program configuration information and click(touch) the **[Apply]** button.

Deleting Program

You can delete a program as follows.

1. In the main menu, click(touch) the **[AutoLogic > InterLocking]** menu icon.
2. Select a program to be deleted and click(touch) the **[Delete]** button.

Peak Control

TimeLimitControl

InterLocking

Program

Input Device (4)

No	Program Name	enable/disable
1	Emergency	disabled
2	InterLocking_1	enabled

Unit Type

UnitName

Address

Operation

IDU	AC_UNIT_00	00	on etc
IDU	AC_UNIT_01	01	on etc
IDU	AC_UNIT_02	02	on etc
IDU	AC_UNIT_03	03	on etc

Output Device (4)

IDU	AC_UNIT_04	04	on *
IDU	AC_UNIT_05	05	on *
IDU	AC_UNIT_06	06	on *
IDU	AC_UNIT_07	07	on *

Add

Edit

Delete

Cancel

Apply

AutoLogic

PM 02:58

3. When you are prompted to confirm the deletion, click(touch) the **[Confirm]** button.
- The selected program is deleted.

NOTES

- Be aware that there is no "undo" button for this controller.

Deleting a program is final. To restore a deleted program it would be necessary to reenter all of the information again. (reprogram)
- Erratic behavior will occur when an object or device is deleted from the system without first removing the objet or device from all programs. This can occur, for example, when an auto search is performed after any programming has been added.

Checking InterLocking

1. In the main menu, click(touch) the **[AutoLogic > InterLocking]** menu icon.
2. Click(Touch) a program for which you want check the device integration.
 - The device integration status for the program is displayed.

Peak Control
TimeLimitControl
InterLocking

Program

No	Program Name	enable/disable
1	Emergency	disabled
2	InterLocking_1	enabled

Input Device (4)

Unit Type	UnitName	Address	Operation
IDU	AC_UNIT_00	00	on off
IDU	AC_UNIT_01	01	on off
IDU	AC_UNIT_02	02	on off
IDU	AC_UNIT_03	03	on off

Output Device (4)

IDU	AC_UNIT_04	04	on *
IDU	AC_UNIT_05	05	on *
IDU	AC_UNIT_06	06	on *
IDU	AC_UNIT_07	07	on *

Add
Edit
Delete
Cancel
Apply

AutoLogic
PM 02:58

Energy Report

The following explains how to use statistics and graphs to check the power consumption, gas consumed by LG GHP and operation time of a device.

NOTES

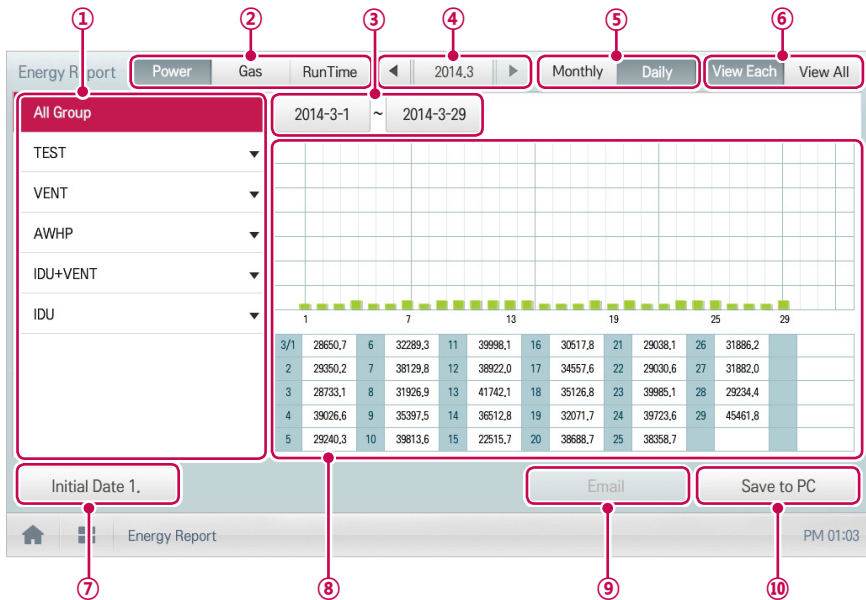
- **[Power]** and **[Gas]** buttons can be activated by setting each item as "use" in **[Environment > General Setting > Power Consumption Display, Gas Consumption Display]** menu.

Caution

Administrator should register e-mail account and input recipient's address by referring to the **[E-mail Settings]** if the PDI is installed. ACS IV Controller send email to registered address if communication error occur at all devices. Administrator has to take care of the communication error, because power consumption is not distributed properly. The sending email is working even if **[Environment > E-mail Settings > E-mail settings]** is disabled.

Statistics Screen Composition and Features

The following explains the statistics screen composition and features.

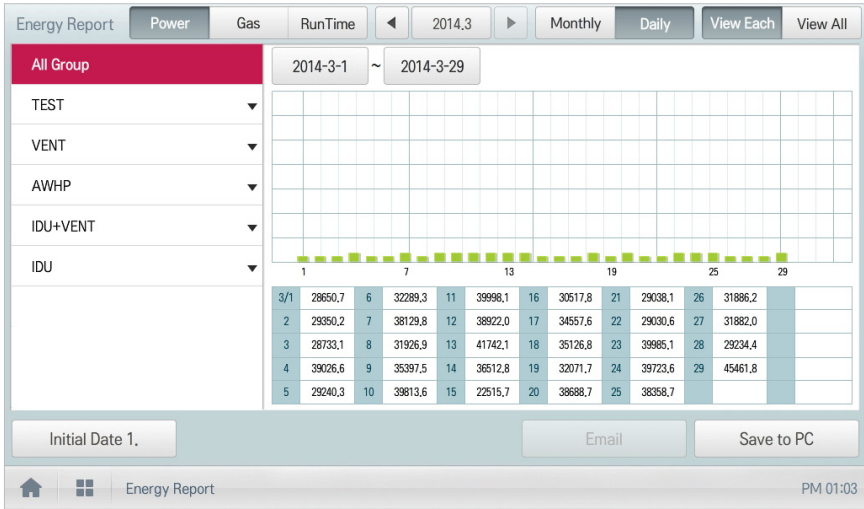


Number	Item	Description
①	Device List	Displays the device group list or individual indoor unit list.
②	Statistics Items	• [Power] Button: You can check the power consumption of each group and total power consumption. • [Gas] Button: You can check the gas consumption of each group and total gas consumption. • [RunTime] Button: You can check the operating time and the total operating time of indoor units in each group.
③	Daily Query Period Selection Area	• Selects the period for which you want to query statistics details for daily. • The start date should be no more than 31days before the end date. • You can set detail period only when the inquiry unit is [Daily].
④	Monthly Query Period Selection Area	• Selects the period for which you want to query statistics details for monthly.
⑤	Query Unit	• [Monthly] Button: Queries on monthly consumption within the last four months. • [Daily] Button: Queries on daily consumption within the query period.
⑥	[View Each]/ [View All] Button	Switching of the energy report data viewing method • View Each: View the selected energy report data in graph format. • View All: View the total energy report data in the table format.
⑦	[Initial Date] Button	Set energy report base date for each of power/gas/operation hours
⑧	Displays Energy Report Information	• Energy report data of each period: Display power consumption, gas consumption for each unit or operation hours energy report value and graph
⑨	[Email] Button	In [Environment > E-Mail Setting] menu, you need to set the e-mail usage to ON to use this function. The queried statistics data will be sent to the Email address registered in the Preference menu.
⑩	[Save to PC] or [Save to USB] button	• ACP IV: Save the statistics data to a PC. • AC Smart IV / AC Smart BACnet(Web): Save the statistics data to a PC. • AC Smart IV / AC Smart BACnet(Controller): Save the statistics data to a USB memory stick. • ACP BACnet : Save the statistics data to a PC.

Querying Energy Report

You can query the power or gas consumption of a device or operation time statistics data as follows.

1. In the main menu, click(touch) the **[Energy Report]** menu icon.
2. Click(Touch) the device group you want from the group list.
3. Click(Touch) the button of the energy report item you want.
 - **[Power]** Button: You can check the power consumption of each group and total power consumption.
 - **[Gas]** Button: You can check the gas consumption of each group and total gas consumption.
 - **[RunTime]** Button: You can check the operating time and the total operating time of indoor units in each group.
4. In the query period selection area, click(touch) the date button and **[+]/[-]** button to select the desired period.
 - The start date should be no more than 31days for daily before the end date. The query period for monthly is automatically fixed to the last four months.
5. Check the energy report details in the energy report information display area.
 - To change the energy report information view type, click(touch) the **[View Each]** or **[View All]** button.



6. To send the energy report data by email, click(touch) the **[Email]** button. To save it to a PC or a USB memory stick, click(touch) the **[Save to PC]** or **[Save to USB]** button.



NOTES

The energy report data is stored up to 6 months.



NOTES

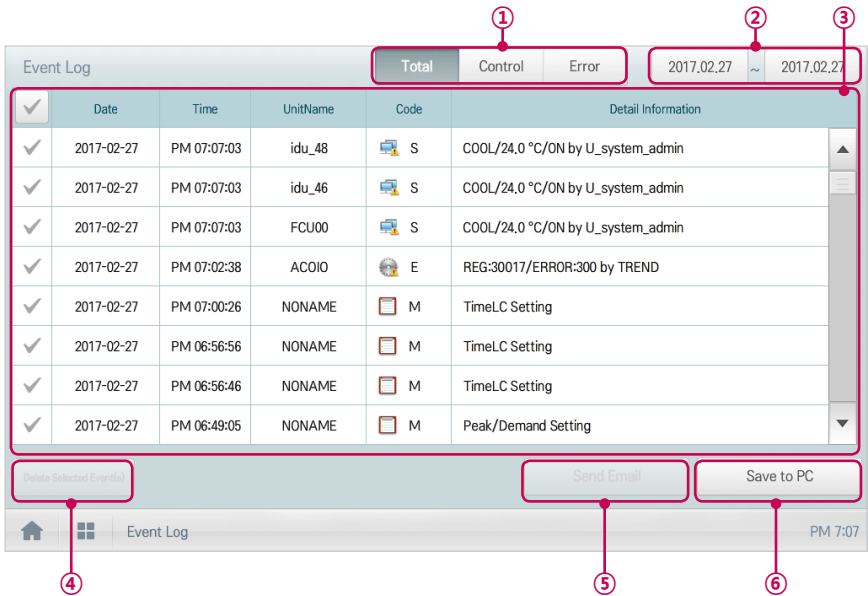
- Devices which are displayed in the Run Time: Indoor units
- Devices which are displayed in the Power consumption: devices which can be used with the PDI (For further information about the devices that are compatible with the PDI, please refer to the PDI manual.)

Event Log

The following explains how to query the device control information or error information.

Event log screen composition and features

The following explains the event log screen composition and features.



Number	Item	Description
①	Report Items	Selects report query items. • [Total] Button: Queries all reports regarding control and error. • [Control] Button: Queries control related reports only. • [Error] Button: Queries error related reports only.
②	Query Period Selection Area	• Selects the period for which you want to query report details. • The starting date should be no more than three months from the ending date.
③	Report detail display area	Displays the reports related to control and error.
④	[Delete Report] Button	Deletes the selected report.

Number	Item	Description
⑤	[Send Email] Button	In [Environment > E-Mail Setting] menu, you need to set the e-mail usage to ON to use this function. The queried reports will be sent to the Email address registered in the Environment menu.
⑥	[Save to PC] or [Save to USB] Button	• ACP IV: Save the reports to a PC. • AC Smart IV / AC Smart BACnet(Web): Save the reports to a PC. • AC Smart IV / AC Smart BACnet(Controller): Save the reports to a USB memory stick. • ACP BACnet: Save the reports data to a PC.

Querying Event

You can query the device control event or error event as follows.

1. In the main menu, click(touch) the **[Event Log]** menu icon.
2. In the event item, click(touch) an item for which you want to query a event.
 - **[Total]** Button: Queries all events regarding control and error.
 - **[Control]** Button: Queries control related events only.
 - **[Error]** Button: Queries error related events only.
3. In the query period selection area, click(touch) the date button and **[+]/[-]** button to select the desired period.
 - The starting date should be no more than three months from the ending date.
4. Check the event details in the event detailed information column.

Event Log					Total	Control	Error	2017.02.27 ~ 2017.02.27	
☒	Date	Time	UnitName	Code	Detail Information				
☒	2017-02-27	PM 07:07:03	idu_48	S	COOL/24.0 °C/ON by U_system_admin				
☒	2017-02-27	PM 07:07:03	idu_46	S	COOL/24.0 °C/ON by U_system_admin				
☒	2017-02-27	PM 07:07:03	FCU00	S	COOL/24.0 °C/ON by U_system_admin				
☒	2017-02-27	PM 07:02:38	ACOIO	E	REG:30017/ERROR:300 by TREND				
☒	2017-02-27	PM 07:00:26	NONAME	M	TimeLC Setting				
☒	2017-02-27	PM 06:56:56	NONAME	M	TimeLC Setting				
☒	2017-02-27	PM 06:56:46	NONAME	M	TimeLC Setting				
☒	2017-02-27	PM 06:49:05	NONAME	M	Peak/Demand Setting				
Delete Selected Event(s)					Send Email		Save to PC		
Event Log					PM 7:07				

5. To send the event detail by email, click(touch) the **[Send Email]** button. To save it to a PC or a USB memory stick, click(touch) the **[Save to PC]** or **[Save to USB]** button.



Caution

You can query up to 200 events and email/save to PC, USB memory up to 300 events. Up to 5000 events are stored total.

Installing

You can add a device or change the settings of a registered device.

Device setting screen composition and function

Grouping

Installing

Cycle Monitoring

Unit Status

Total Unit 32

ODU 4

IDU 16

ERV 4

ERV DX 0

AHU 0

AWHP 4

CHILLER 0

DOKIT 2

DO 0

DI 2

UI 0

AO 0

Auto Search

DeviceType	Unit Name	Addr/Port	Model	Capacity
☐ ODU	ODU[00]	00	MULTIV	100
☒ ODU	ODU[01]	01	MULTIV	100
☐ ODU	ODU[02]	02	MULTIV	100
☐ ODU	ODU[03]	03	MULTIV	100
☐ ERV	VENT_UNIT_00	00	DEFAULT	5
☐ ERV	VENT_UNIT_01	01	DEFAULT	5
☐ ERV	VENT_UNIT_02	02	DEFAULT	5
☐ ERV	VENT_UNIT_03	03	DEFAULT	5

Installing

Del Unit

Edit Unit

☒ IDU Address Lock

Cancel

Apply

Number	Item	Description
①	Device setting tab	Displayed as group management/device management/view cycle tab
②	Detail setting	Displays the details of the device setting (Screen composition is different according to the device setting tab type.)

Registering Device

After installing ACS IV Controller, log into ACS IV Controller to register the devices to be connected, using one of the following two methods.

- Registering Device Automatically
- Registering Device Manually

!

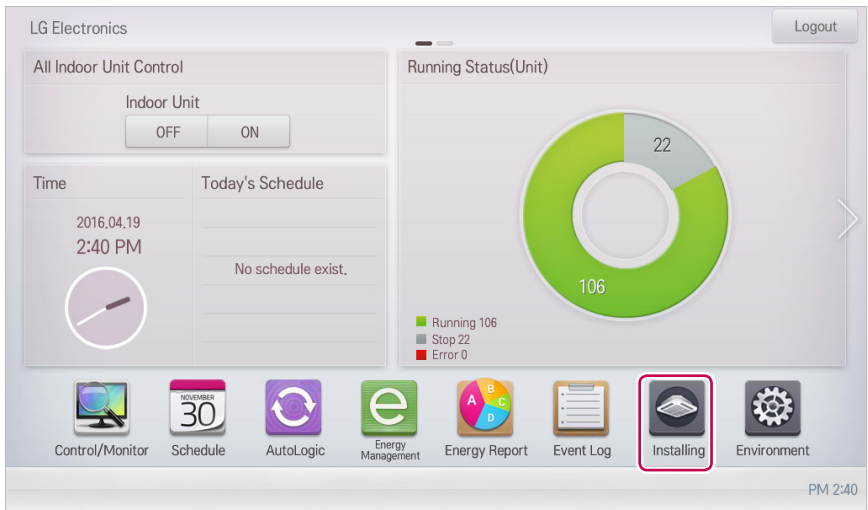
NOTES

To register a device on ACS IV Controller, you must login with administrator permissions.

Registering Device Automatically

Devices connected to ACS IV Controller are automatically searched for and registered. You can register a device automatically as follows.

1. In the main menu, click(touch) the **[Installing]** menu icon.



2. Click(Touch) the **[Installing]** tab.

3. Click(Touch) the **[Auto Search]** button.

Unit Status		DeviceType	Unit Name	Addr/Port	Model	Capacity
Total Unit	32					
ODU	4	☒ ODU	ODU[00]	00	MULTIV	100
IDU	16					
ERV	4	☒ ODU	ODU[01]	01	MULTIV	100
ERV DX	0					
AHU	0	☒ ODU	ODU[02]	02	MULTIV	100
AWHP	4					
CHILLER	0	☒ ODU	ODU[03]	03	MULTIV	100
DOKIT	0					
DO	2	☒ ERV	VENT_UNIT_00	00	DEFAULT	5
DI	2					
UI	0	☒ ERV	VENT_UNIT_01	01	DEFAULT	5
AO	0					
		☒ ERV	VENT_UNIT_02	02	DEFAULT	5
		☒ ERV	VENT_UNIT_03	03	DEFAULT	5

Auto Search

Installing Del Unit Edit Unit ☒ IDU Address Lock Cancel Apply

Installing AM 10:46

NOTES

- Auto search requires up to 10 minutes. Before touching **[Auto search]** button, please deactivate screen protector function. If screen protector is in operation, the screen automatically switches to home screen and auto search operation is cancelled. For the setting on whether to use screen protector, refer to **Setting a Screen saver**. (AC Smart IV, AC Smart BACnet Only)
- Chiller, some AHU(Modular Fresh Air, Modular Heat Recovery, DOAS) and Exp.I/O does not support auto search function. This device must be installed manually.
- Exp.I/O is activated when 'Enable' is checked in the device edit window after registering the device.

4. When you are prompted to confirm the setting, click(touch) the **[Confirm]** button.

- It takes 5 to 10 minutes to register devices automatically.

Auto Search

Find out the connected unit
Auto Search will take about 5-10 minutes
and installing information will be replace with searched infomation
Before do this, please disable the screen saver function.
Do you want to continue?

Cancel Confirm

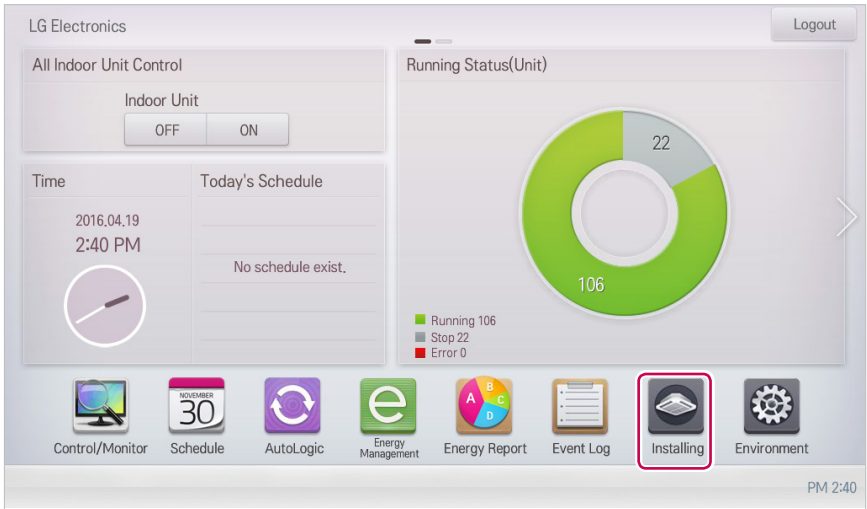
5. To save the searched devices, click(touch) the **[Apply]** button.

- Device registration is completed. Local DIs and DOs are always added to the Unit Status area as they are part of the ACS IV Controller hardware.

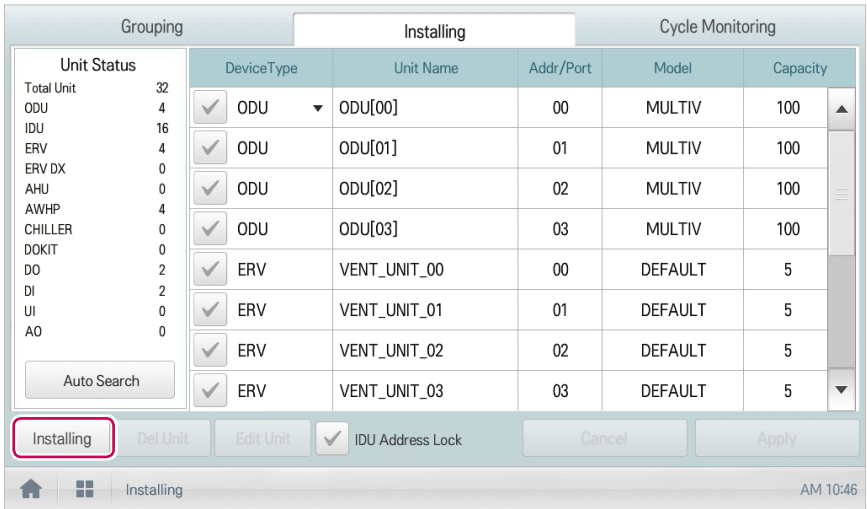
Registering Device Manually

Devices connected to ACS IV Controller can be registered by the user by entering relevant information. You can register a device manually as follows.

1. In the main menu, click(touch) the **[Installing]** menu icon.



2. Click(Touch) the **[Installing]** tab.
3. Type the device information and click(touch) the **[Installing]** button.
 - A window to add unit is displayed.



4. In the Add Unit window, select a device type to add.
- You can add outdoor unit, indoor unit, ventilation, direct type ventilation, AHU, AWHP, Chiller, DOKIT, DO, DI, and Exp.I/O.

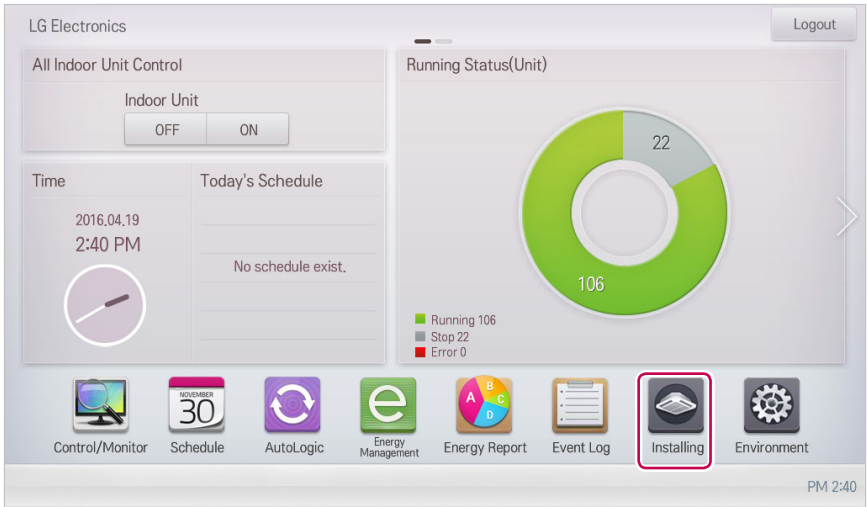
The screenshot shows the 'Add Unit' window. The 'DeviceType' dropdown is highlighted with a red box and shows 'ODU'. Other fields include 'Unit Name(20 Characters)', 'Address(00-FF)', 'Model(20 Characters)', 'Capacity', and 'Add at once' (checked). There are also 'Unit Name', 'Address', 'Model', 'Capacity', and 'Quantity' sub-fields. An 'Insert' button is on the right.

5. Enter the device name to add and click(touch) the **[Insert]** button.
- According to the selected device, the setting category is displayed differently according to the corresponding device. For setting information of each device, refer to **Setting information of each device**.
6. To save the device, click(touch) the **[Apply]** button.
- Device registration is completed.

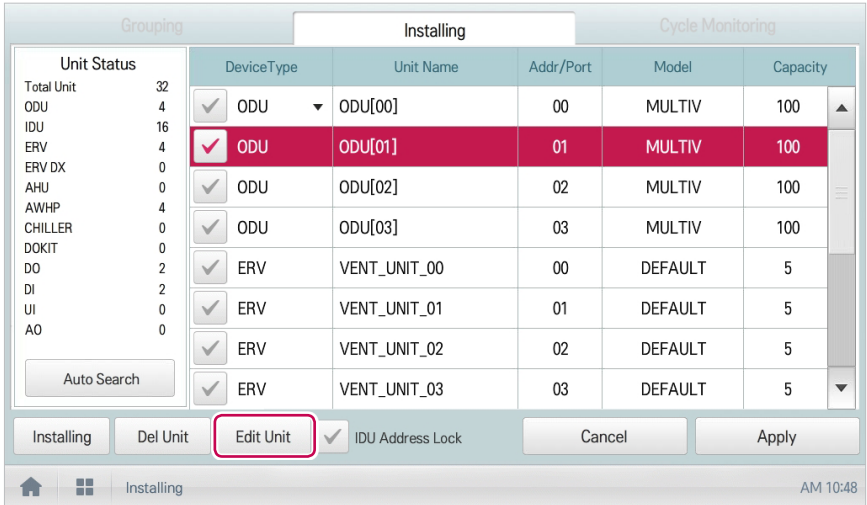
Changing Device

You can change the settings of registered devices.

- 1. In the main menu, click(touch) the **[Installing]** menu icon.



- 2. Click(Touch) the **[Installing]** tab.
- 3. In the device list, select the device to change, and touch **[Edit Unit]** button.
 - Edit device window is displayed.



4. Input the setting information of the device to change, and touch **[Confirm]** button.
 - According to the selected device, the setting category is displayed differently according to the corresponding device. For setting information of each device, refer to **Setting information of each device**.

The screenshot shows a dialog box titled "Edit Unit". It contains several input fields and a button. The fields are: "DeviceType" with a dropdown menu showing "ODU" and a small icon of a device; "Unit Name(20 Characters)" with a text box containing "ODU[00]"; "Address(00-FF)" with a text box containing "00"; "Model(20 Characters)" with a text box containing "MULTIV"; and "Capacity" with a text box containing "100". To the right of these fields is a button labeled "Confirm", which is highlighted with a red rectangular border.



NOTES

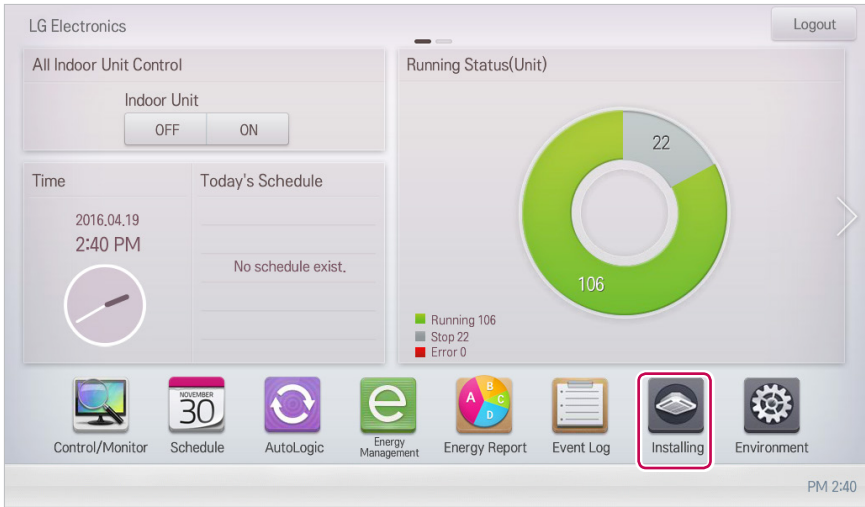
If you select several devices of the same type and click(touch) the **[Edit Unit]** button, you can change some setting information at once.

5. To save a change, click(touch) the **[Apply]** button.

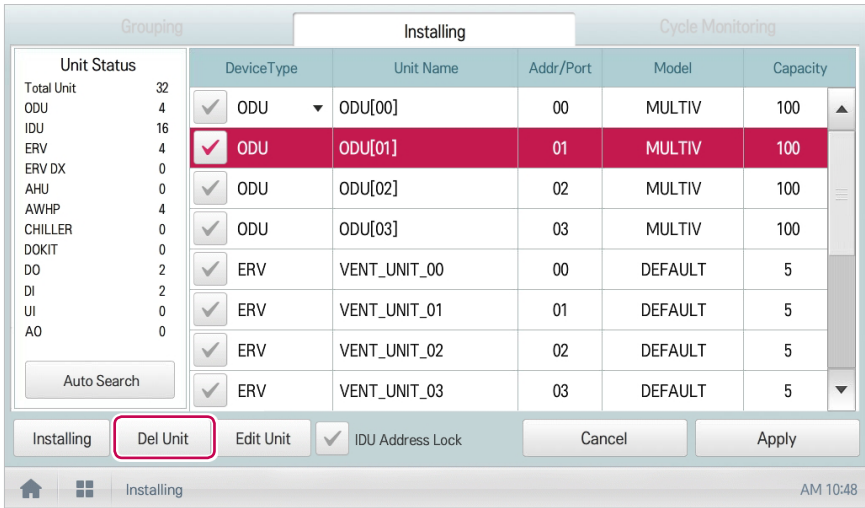
Deleting Device

Follow these steps to delete a device from the list.

1. In the main menu, click(touch) the **[Installing]** menu icon.



2. Click(Touch) the **[Installing]** tab.
3. In the device list, click(touch) a device to be deleted and click(touch) the **[Del Unit]** button.



4. When you are prompted to confirm the deletion, click(touch) the **[Confirm]** button.
 - The selected device is deleted from the list.
5. To save a change, click(touch) the **[Apply]** button.

Setting information of each device

The setting information of each device is as follows.

ODU, ERV, ERV DX

Item	Description
Device Type	Select a device type. • ODU(Outdoor unit), ERV(Energy Recovery Ventilator), ERV DX(Direct Expansion Energy Recovery Ventilator)
Unit Name (20 Characters)	Enter the device name. • Up to 20 characters.
Address (00-FF)	Type the central control address of the device. • A central control address value is a number between 00 and FF. You can use only 1 device per address.
Model (20 Characters)	Type the device model. • Up to 20 characters.
Capacity	Type the maximum capacity in thousand BTUs for devices. • Up to 5 characters. • The capacity of the actual device cannot exceed the input value.
Add at once	• It is used when you need to add several devices of the same type. • Select check box, input the desired number of devices, and the devices are added at once, and the device name and address are automatically increased. (During the Add all, if duplicate address value occurs, the information notice message for the duplicate address is displayed.)

IDU
.....

ENGLISH

Add Unit

DeviceType

Unit Name(20 Characters)

Address(00-FF)

ODU Address(00-FF)

Model(20 Characters)

Capacity

☒ Add at once

Insert

 IDU ▼

Unit Name

Address

ODU Address

Model

Capacity

Quantity

Item	Description
Device Type	Select a device type. Cassette(4Way), Cassette(2Way), Cassette(1Way), Duct, Floor Mounted, Wall Mounted, FCU
Unit Name (20 Characters)	Enter the device name. Up to 20 characters.
Address (00-FF)	Type the central control address of the device. - A central control address value is a number between 00 and FF. You cannot type the same value for similar devices. - You cannot enter a duplicate value for indoor devices and DOKIT.
Outdoor unit address	Input physical address of the connected outdoor unit. A central control address value is a number between 00 and FF. You cannot type the same value for similar devices.
Model (20 Characters)	Type the device model. Up to 20 characters.
Capacity	Type the maximum capacity in thousand BTUs for devices. - Up to 5 characters. - The capacity of the actual device cannot exceed the input value.
Add at once	- It is used when you need to add several devices of the same type. - Select check box, input the desired number of devices, and the devices are added at once, and the device name and address are automatically increased. (During the Add all, if duplicate address value occurs, the information notice message for the duplicate address is displayed.)

AHU

.....

Add Unit

DeviceType

 AHU

Unit Name(20 Characters)

Unit Name

Address(00-FF)

Address

Model(20 Characters)

Model

Capacity

Capacity

☒ Add at once

Quantity

Insert

Room Temp

Supply Air

Type

Normal

Item	Description
Device Type	Select a device type. AHU
Unit Name (20 Characters)	Enter the device name. Up to 20 characters.
Address (00-FF)	Type the central control address of the device. A central control address value is a number between 00 and FF. You cannot type the same value for similar devices.
Model (20 Characters)	Type the device model. Up to 20 characters.
Capacity	Type the maximum capacity in thousand BTUs for devices. - Up to 5 characters. - The capacity of the actual device cannot exceed the input value.
Add at once	- It is used when you need to add several devices of the same type. - Select check box, input the desired number of devices, and the devices are added at once, and the device name and address are automatically increased. (During the Add all, if duplicate address value occurs, the information notice message for the duplicate address is displayed.)
Room Temp	Select indoor temperature setting base(Supply Air/Vent).
Type	Select a AHU type. Normal, Fresh Air, Heat Recovery, Modular Fresh Air, Modular Heat Recovery, DOAS.

!

NOTES

- Address of the products linked to the MODBUS communication system recommend a number between 01~F7.
- DOAS fixes the room temperature setup standard as "Supply Air".

Chiller

ENGLISH

Add Unit

DeviceType

Unit Name(20 Characters)

Address(00-FF)

Model(20 Characters)

Capacity

☒ Add at once

Insert

 CHILLER ▾

Unit Name

Address

Model

Capacity

Quantity

Item	Description
Device Type	Select a device type. Water-cooled scroll/Air-cooled scroll/Turbo/Screw/ABS chiller
Unit Name (20 Characters)	Enter the device name. Up to 20 characters.
Address	Type the central control address of the device. A central control address value is a number between 00 and FF. You cannot type the same value for similar devices.
Model (20 Characters)	Type the device model. Up to 20 characters.
Capacity	Type the maximum capacity in thousand BTUs for devices. - Up to 5 characters. - The capacity of the actual device cannot exceed the input value.
Add at once	It is used when you need to add several devices of the same type. Select check box, input the desired number of devices, and the devices are added at once, and the device name and address are automatically increased. (During the Add all, if duplicate address value occurs, the information notice message for the duplicate address is displayed.)



NOTES

- Chiller is optional. It can be activated by installing additional CHILLER OPTION program.
- Address of the products linked to the MODBUS communication system recommend a number between 01~F7.

AWHP

Add Unit

DeviceType  AWHP ▼	Unit Name(20 Characters) Unit Name	Address(00-FF) Address	Model(20 Characters) Model	Capacity Capacity	☒ Add at once Quantity	Insert
Current Temp 1 Pipe out ▼	Current Temp 2 Pipe in ▼	Product type Both ▼				

Item	Description
Device Type	Select a device type. AWHP
Unit Name (20 Characters)	Enter the device name. Up to 20 characters.
Address (00-FF)	Type the central control address of the device. A central control address value is a number between 00 and FF. You cannot type the same value for similar devices.
Model (20 Characters)	Type the device model. Up to 20 characters.
Capacity	Type the maximum capacity in thousand BTUs for devices. - Up to 5 characters. - The capacity of the actual device cannot exceed the input value.
Add at once	- It is used when you need to add several devices of the same type. - Select check box, input the desired number of devices, and the devices are added at once, and the device name and address are automatically increased. (During the Add all, if duplicate address value occurs, the information notice message for the duplicate address is displayed.)
Current Temp 1	Select current temperature standard 1. Hotwater, Pipe out, Pipe in, Air, None
Current Temp 2	Select current temperature standard 2. Hotwater, Pipe out, Pipe in, Air, None
Product type	Select Product type Hotwater control, Pipe in/out control, Both

DOKIT

.....

ENGLISH

Add Unit

DeviceType

Unit Name(20 Characters)

Address(00-FF)

☒ Add at once

Insert

 DOKIT ▼

Unit Name

Address

Quantity

Item	Description
Device Type	Select a device type. DOKIT
Unit Name (20 Characters)	Enter the device name. Up to 20 characters.
Address (00-FF)	Type the central control address of the device. - A central control address value is a number between 00 and FF. You cannot type the same value for similar devices. - You cannot enter a duplicate value for indoor devices and DOKIT.
Add at once	- It is used when you need to add several devices of the same type. - Select check box, input the desired number of devices, and the devices are added at once, and the device name and address are automatically increased. (During the Add all, if duplicate address value occurs, the information notice message for the duplicate address is displayed.)

DO, DI

Add Unit

DeviceType

Unit Name(20 Characters)

Address(00-FF)

Model(20 Characters)

☒ Add at once

Insert

DO

DO ▼

Unit Name

Address

Model

Quantity

Item	Description
Device Type	Select a device type. • DO, DI
Unit Name (20 Characters)	Enter the device name. • Up to 20 characters.
Address (00-FF)	Type the central control address of the device. • A central control address value is a number between 00 and FF. You cannot type the same value for similar devices.
Model (20 Characters)	Type the device model. • Up to 20 characters.
Add at once	• It is used when you need to add several devices of the same type. • Select check box, input the desired number of devices, and the devices are added at once, and the device name and address are automatically increased. (During the Add all, if duplicate address value occurs, the information notice message for the duplicate address is displayed.)

Exp.I/O

ENGLISH

Add Unit

DeviceType

Unit Name(20 Characters)

Address(00-FF)

☒ Add at once

Insert

Exp. Exp. I/O

Unit Name

Address

Quantity

Item	Description
Device Type	Select a device type. ACS I/O, AO I/O, UI I/O, DO I/O, DI I/O
Unit Name (20 Characters)	Enter the device name. Up to 20 characters.
Address (00-FF)	Type the central control address of the device. A central control address value is a number between 00 and FF. You cannot type the same value for similar devices.
Add at once	- It is used when you need to add several devices of the same type. - Select check box, input the desired number of devices, and the devices are added at once, and the device name and address are automatically increased. (During the Add all, if duplicate address value occurs, the information notice message for the duplicate address is displayed.)



NOTES

- The detail ports of Exp.I/O can be modified during device edit. For detail setting of Exp.I/O, refer to **Exp.I/O Detail Setting**.
- After registering or changing Exp.I/O device, the AC S IV Controller must be rebooted.
- Be sure to perform a database backup prior to Auto addressing. Auto addressing does not find any I/O Modules or points created from previous installation.



NOTES

Address of the products linked to the MODBUS communication system recommend a number between 01~F7.

■ Exp.I/O Detail Setting

• UI

The 'Edit Unit' dialog box is shown with the following settings:

- DeviceType: Exp. I/O
- Icon Type: UI Default
- Unit Name(20 Characters): ACS_IO_0A_0B_UI1
- Address(00-FF): B4
- Use: Run/Stop
- Unit Symbol: (empty)
- I/O Type: Binary
- Enable: ☒
- Trend: ☒
- Confirm button

Item	Description
Icon Type	Select an icon type
Unit Name (20 Characters)	Enter the device name. Up to 20 characters.
Address	It is automatically input according to Exp.I/O address, and it cannot be changed.
Use	Select device usage - Status information: run/stop, short/open, alarm/normal, close/open, tun on/off, occupancy/vacancy - Number information: temperature, humidity, open, level, operation ratio, concentration, pressure
Unit Symbol*	Select unit symbol It is automatically selected according to the usage selection.
I/O Type	Select I/O type (Binary or VOL, CUR, PT1000, NTC10K, NI1000)
Min.*	Input minimum value You can input up to 5 digits
Max.*	Input maximum value You can input up to 5 digits
Range*	Select range if voltage on current input is required.
Correction*	Input correction value You can input up to 5 digits
Enable	During Exp.I/O registration, 14 Points are available for registration, the enable check box must be selected to enable use.
Trend	Save the value in the history at every designated interval (15 minutes).

* Only when I/O type is VOL, CUR, PT1000, NTC10K, or NI1000, the corresponding button is displayed.



NOTES

Because of the limit number of the logs, please don't set more than two ports for Trend.

• AO

ENGLISH

Edit Unit

DeviceType

Exp. I/O

Icon Type

AO Default

Unit Name(20 Characters)

TEST_01_A01

Address(00-FF)

10

Use

Temperature

Confirm

Unit Symbol

Celsius(°C)

I/O Type

VOL

Min

0

Max

0

Range

0~10V

Correction

☒ Enable

Item	Description
Icon Type	Select a icon type
Unit Name (20 Characters)	Enter the device name. Up to 20 characters.
Address	It is automatically input according to Exp.I/O address, and it cannot be changed.
Use	Select device usage Number information: temperature, humidity, open, level, operation ratio, concentration, pressure
Unit Symbol*	Select unit symbol It is automatically selected according to the usage selection.
I/O Type	Dedicated VOL
Min.*	Input minimum value You can input up to 5 digits
Max.*	Input maximum value You can input up to 5 digits (Maximum two step AO output)
Range*	Select signal output required 0-10 or 2-10 VDC.
Correction*	Input correction value You can input up to 5 digits
Enable	During Exp.I/O registration, 14 Points are available for registration, the enable check box must be selected to enable use.

• DO

Edit Unit

DeviceType

Exp. I/O

Icon Type

Default

Unit Name(20 Characters)

ACS_01_DO1

Address(00~FF)

18

Use

Run/Stop

Confirm

Unit Symbol

I/O Type

Binary

Enable

Item	Description
Icon Type	Select a icon type
Unit Name (20 Characters)	Enter the device name. Up to 20 characters.
Address	It is automatically input according to Exp.I/O address, and it cannot be changed.
Use	Select device usage Status information: run/stop, short/open, alarm/normal, close/open, tun on/off, occupancy/vacancy
I/O Type	Dedicated Binary Output
Enable	During Exp.I/O registration, 14 Points are available for registration, the enable check box must be selected to enable use.

• DI

ENGLISH

Edit Unit

DeviceType

Exp. I/O

Icon Type

DI Default

Unit Name(20 Characters)

ACS_I0_0A_0B_DI1

Address(00-FF)

BB

Use

Run/Stop

Confirm

Unit Symbol

I/O Type

Binary

Enable

Trend

Item	Description
Icon Type	Select a icon type
Unit Name (20 Characters)	Enter the device name. Up to 20 characters.
Address	It is automatically input according to Exp.I/O address, and it cannot be changed.
Use	Select device usage Status information: run/stop, short/open, alarm/normal, close/open, tun on/off, occupancy/vacancy
I/O Type	Dedicated Binary Input
Enable	During Exp.I/O registration, 14 Points are available for registration, the enable check box must be selected to enable use.
Trend	Store the value in the Event Log every 15 minutes.

!

NOTES

Because of the limit number of the logs, please don't set more than two ports for Trend.

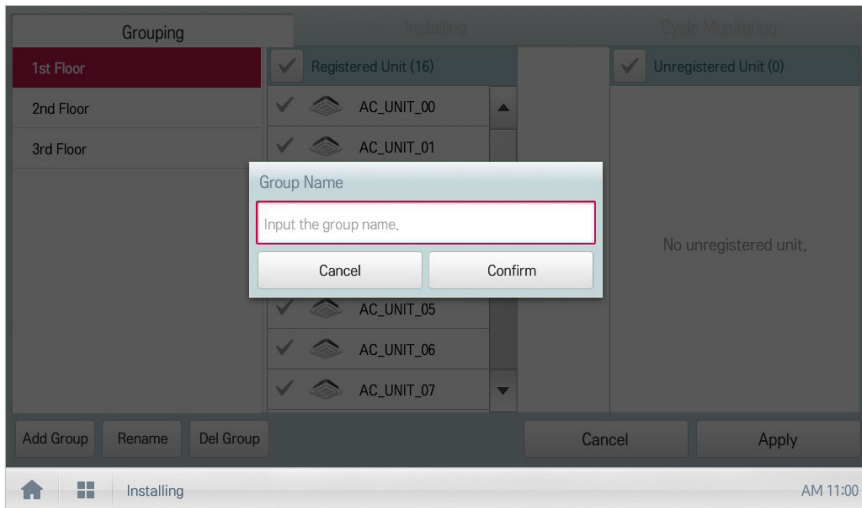
Managing Device

The following explains how to manage the information for a device added to the system.

Adding Groups

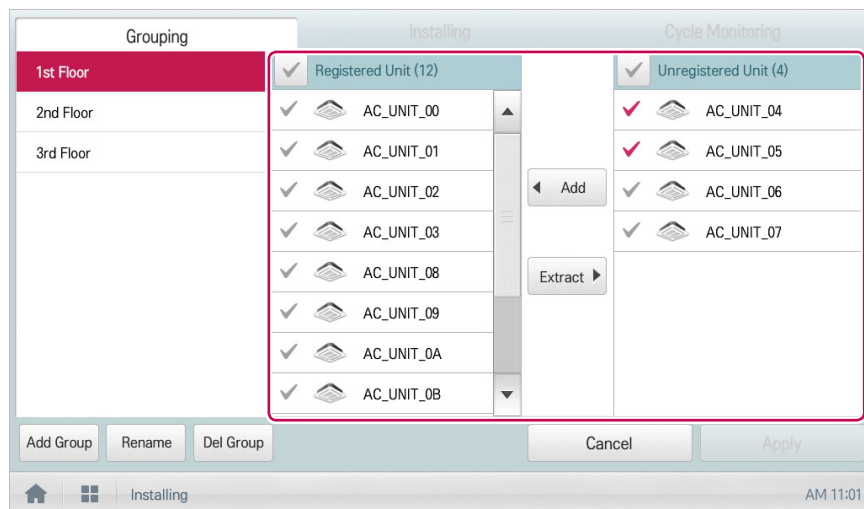
Follow these steps to add a new group.

1. In the main menu, click(touch) the **[Installing]** menu icon.
2. Click(Touch) the **[Grouping]** tab.
3. Click(Touch) the **[Add Group]** button.
4. When the window to type a group name is displayed, enter a group name and click(touch) the **[Confirm]** button.
 - The group is added to the group list.



5. In **Grouping**, click(touch) the group added in Step 4.

6. In the non-registered device area, click(touch) a device to add to the new group and click(touch) the **[Add]** button.
- The selected device is moved to the registered device area.

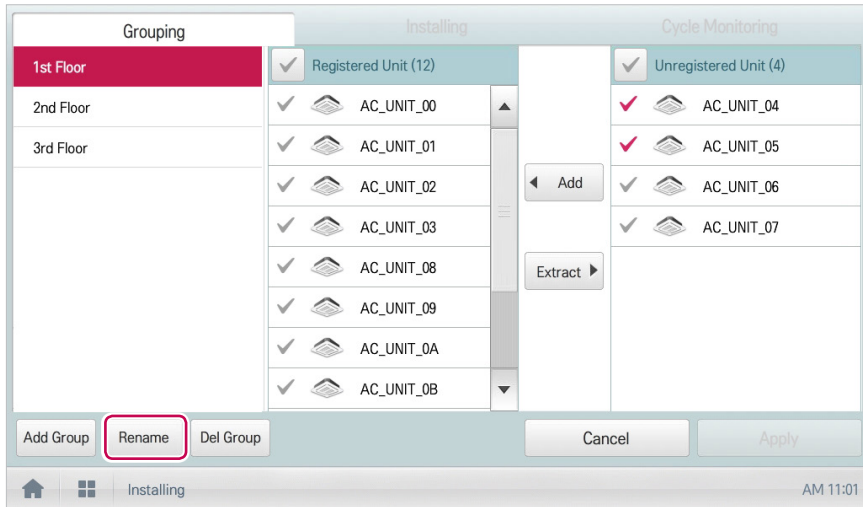


7. To complete group creation, click(touch) the **[Apply]** button.
- When all non-registered devices are registered, the **[Apply]** button is enabled.

Changing Group Name

You can change the name of a registered group as follows.

1. In the main menu, click(touch) the **[Installing]** menu icon.
2. Click(Touch) the **[Grouping]** tab.
3. In the device management list, click(touch) a group whose name you want to change and click(touch) the **[Rename]** button.



4. Enter a new group name and click(touch) the **[Confirm]** button.
 - The group name is changed.

Deleting Groups

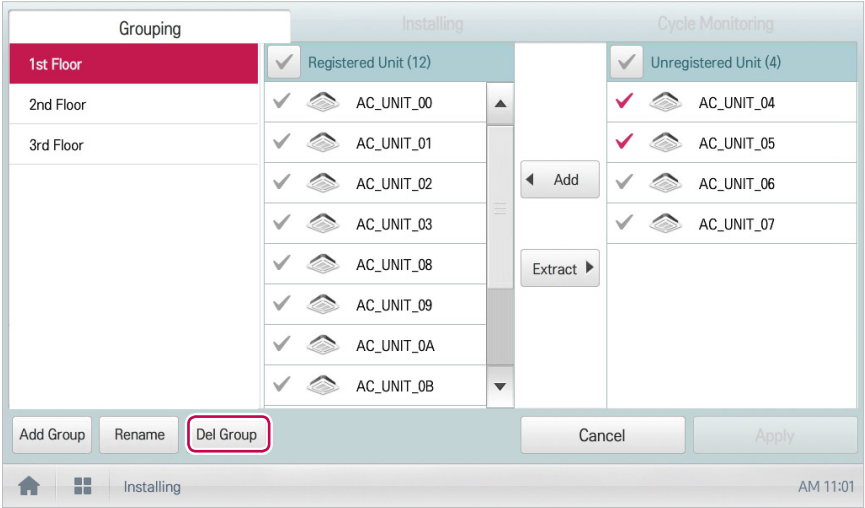
You can delete a registered group.

1.

In the main menu, click(touch) the **[Installing]** menu icon.
2.

Click(Touch) the **[Grouping]** tab.
3.

In the device management list, click(touch) a group to be deleted and click(touch) the **[Del Group]** button.



4.

When you are prompted to confirm the deletion, click(touch) the **[Confirm]** button.

•

The selected group is deleted and the tab removed.

Cycle Monitoring

It is the description on how to view indoor/outdoor unit cycle information.

ENGLISH

Outdoor unit cycle information

You can view outdoor unit cycle information.

1. In the main menu, click(touch) the **[Installing]** menu icon. (if available)
2. Click(touch) **[Cycle Monitoring]** tab.
3. In device list, click(touch) the device to view.
4. Click(touch) outdoor unit cycle information.
 - Master/slave outdoor unit information is displayed.

Grouping

Installing

Cycle Monitoring

ODU[00]

ODU[01]

ODU[02]

ODU[03]

ODU Cycle Information

Master

Slave 1

Slave 2

Slave 3

Outdoor Unit Address	00	Heat Exchange Temp.	49.5
Outdoor Unit Type	SYNC_SUPER2	Subcool Inlet Temp.	10.3
Operation Mode	STOP	Subcool Outlet Temp.	27.8
MICOM Ver.	0.0	Outdoor EEV	1344
Error Code	0	Subcool EEV	288
Inverter Comp Freq.	80	Hot Gas Valve	0
Inverter FAN1 Freq.	23	Inverter Liq Valve	0
Inverter FAN2 Freq.	23	Inverter Discharge Temp.	83
Air Temp.	29.4	Const Comp Discharge	31
High Pressure	2729	Const Comp Liq Valve	0
Low Pressure	830	Const Comp	0
Suction Temp.	10.6	Refrigerants	R410A
Liquid Pipe Temp.	42.5		

IDU Cycle Information

Installing

AM 11:01



NOTES

Some categories of the corresponding menu may not be displayed or menu name may be different according to the function of the product.

Indoor unit cycle information

You can view indoor unit cycle information.

1. In the main menu, click(touch) the **[Installing]** menu icon.
2. Click(touch) **[View cycle]** tab.
3. In device list, click(touch) the device to view.
4. On the top right of the ACS IV Controller screen, click(touch) the **[▲]** button.
 - Information on all indoor units connected to the outdoor unit is displayed.

Grouping

Installing

Cycle Monitoring

ODU[00]

ODU[01]

ODU[02]

ODU[03]

ODU Cycle Information

Master

Slave 1

Slave 2

Slave 3

IDU Cycle Information

Unit Name	Group Name	Operation	Error	Mode	Target Temp	Fan
AC_UNIT_00	IDU	ON	0	COOL	18,0	LOW
AC_UNIT_01	IDU	ON	0	COOL	18,0	LOW
AC_UNIT_02	IDU	ON	0	COOL	18,0	LOW
AC_UNIT_03	IDU	ON	0	COOL	18,0	LOW
AC_UNIT_04	IDU	ON	0	COOL	18,0	LOW
AC_UNIT_05	IDU	ON	0	COOL	18,0	LOW
AC_UNIT_06	IDU	ON	0	COOL	18,0	LOW
AC_UNIT_07	IDU	ON	0	COOL	18,0	LOW
AC_UNIT_08	IDU	ON	0	COOL	18,0	LOW
AC_UNIT_09	IDU	ON	0	COOL	18,0	LOW
AC_UNIT_0A	IDU	ON	0	COOL	18,0	LOW

Installing

AM 11:02

!NOTES

Some categories of the corresponding menu may not be displayed or menu name may be different according to the function of the product.

Environment

The following explains how to configure the system environment for user convenience and how to check an already configured environment.

General Setting Advance Setting Customer Setting Network Setting E-Mail Setting TMS Setting Channel Setting <ACP IV>	General Setting Advance Setting Customer Setting Network Setting E-Mail Setting TMS Setting Channel Setting BACnet Setting <ACP BACnet>	General Setting Screen Setting Advanced Setting Customer Setting Network Setting E-Mail Setting TMS Setting Channel Setting <AC Smart IV>	General Setting Screen Setting Advance Setting Customer Setting Network Setting E-Mail Setting TMS Setting Channel Setting BACnet Setting <AC Smart BACnet>
--	---	---	---

Item	ACP IV	ACP BACnet	AC Smart IV	AC Smart BACnet
General Setting	O	O	O	O
Screen Setting	X	X	O	O
Advance Setting	O	O	O	O
Customer Setting	O	O	O	O
Network Setting	O	O	O	O
E-Mail Setting	O	O	O	O
TMS Setting	O	O	O	O
Channel Setting	O	O	O	O
BACnet Setting	X	O	X	O

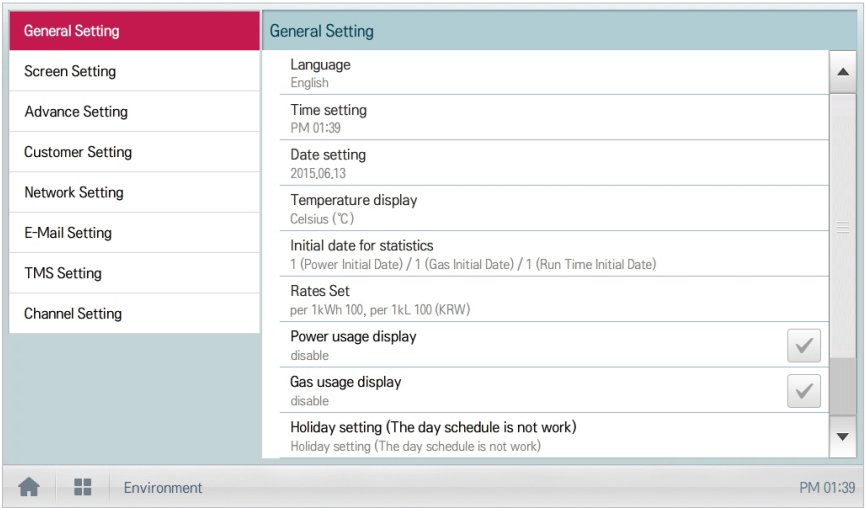
!

NOTES

After change the environment setup, it is recommended to use after deleting the cache in the explorer.

General Setting

The following explains how to configure the general system environments.

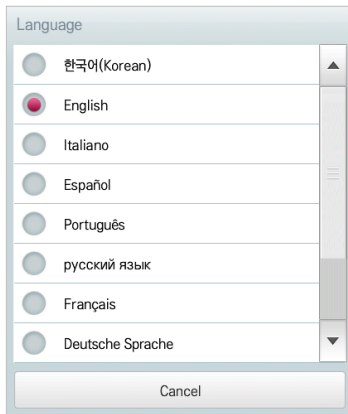


Item	Description
Language	Configures the language displayed on the screen (한국어(Korean)/ English/ Italiano/ Español/ Português/ русский язык/ Français/ Deutsch Sprache/ Türkçe/ Język Polski/ 中文)
Time setting	Configures system time.
Date setting	Configures system date.
Temperature display	Configures the temperature unit.
Initial date for statistics	Configures the reference date for querying statistical data.
Rates set	Configures the charge per 1kWh, per 1kL and currency used.
Power Consumption Display	Set up the display of the power consumption usage in the energy report.
Gas Consumption Display	Set up the display of the gas consumption in the energy report.
Holiday setting (The day schedule is not work)	Selects the days for which schedules are not be applied.
Daylight Saving Time	Set up the Daylight saving time.
Site Name Setup	Set up the site name to be displayed on the home screen.
Version Information	Displays the current software version.

Language

Configures the language displayed on the screen.

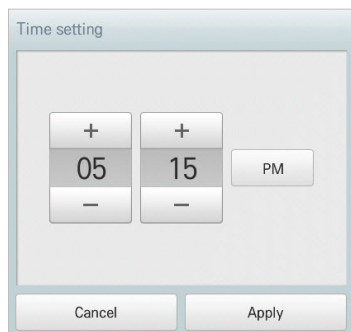
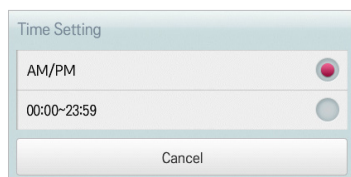
1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the settings list, click(touch) **General Setting**.
3. In the detailed settings list, click(touch) **Language**.
4. Click(Touch) a language you want.
 - The selected language is applied as the system language.



Time setting

You can configure the time used for the system as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **General Setting**.
3. In the detailed settings list, click(touch) **Time setting**.
4. Click(Touch) how you want the time to be displayed.
 - AM/PM : Display time in 12 hours format with AM/PM
 - 00:00~23:59 : Display time in 24 hours format
5. Apply the current time and click(touch) the **[Apply]** button.



Date setting

You can configure the date used for the system as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **General Setting**.
3. In the detailed settings list, click(touch) **Date setting**.
4. Modify the program configuration information and click(touch) the **[Apply]** button.
 - Use **[+]/[-]** button to select a date.

Date setting

2012, 12,

Year	Month	Date
+	+	+
2012	12	05
-	-	-

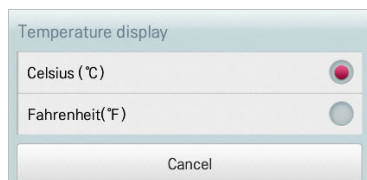
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Cancel Apply

Temperature display

You can select a temperature system as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **General Setting**.
3. In the detailed settings list, click(touch) **Temperature display**.
4. Click(Touch) the temperature system you want.
 - When selecting the Celsius system, in the **Minimum Celsius(°C) Temperature** window, click(touch) the minimum temperature.

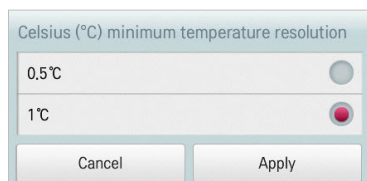


Temperature display

Celsius (°C) ☒

Fahrenheit(°F) ☐

Cancel



Celsius (°C) minimum temperature resolution

0.5°C ☐

1°C ☒

Cancel Apply

Initial date for statistics

Statistics Reference Date is the date for calculating the indoor unit's operation time by month. The operation time from this date through the previous date to the same date of the next month is calculated and provided as statistical data. You can configure Statistics Reference Date as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **General Setting**.
3. In the detailed settings list, click(touch) **Initial date for statistics**.
4. Touch **[+]/[-]** button to separately set the desired power base date/gas base date/operation hours base date, and click(touch) **[Apply]** button.

Initial date for statistics

Power Initial Date	Gas Initial Date	Run Time Initial D
+	+	+
01	01	01
-	-	-

Cancel Apply

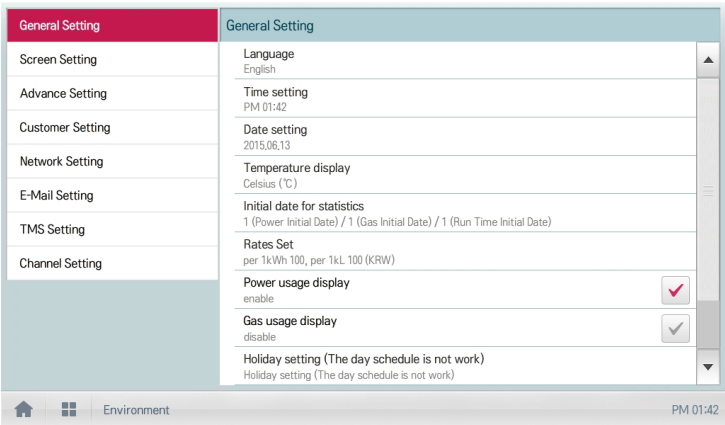
Power Consumption Display

Set up whether power consumption is displayed in the energy report.

Setting up the power consumption display

The method to display power consumption in the energy report is as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **General Setting**.
3. Click(touch) the **Power Consumption Display** in the detailed setting list.
4. When **Enable** is selected, the check box becomes red, and power consumption can be referred in the energy report menu (when linked to PDI).
5. When **Disable** is selected, the check box becomes gray, and power consumption cannot be referred in the energy report menu.



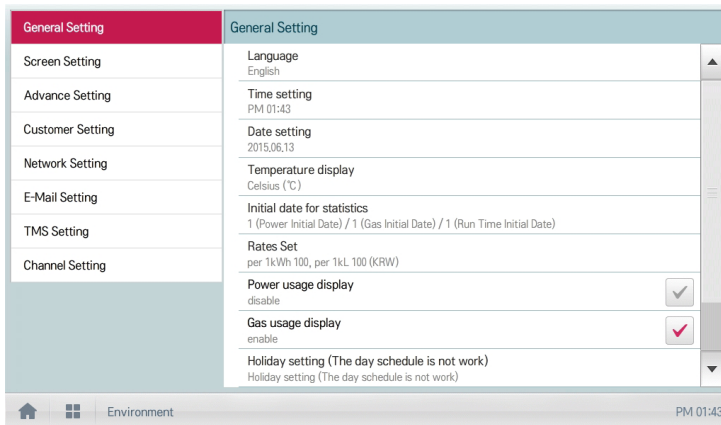
Gas Consumption Display

Set up whether gas consumption is displayed in the energy report.

Setting up the gas consumption display

The method to display gas consumption in the energy report is as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **General Setting**.
3. Click(touch) the **Gas Consumption Display** in the detailed setting list.
4. When **Enable** is selected, the check box becomes red, and gas consumption can be referred in the energy report menu (when linked to PDI).
5. When **Disable** is selected, the check box becomes gray, and gas consumption cannot be referred in the energy report menu.



Rates Set

You can configure the charge per kWh and the currency as follows.

- ENGLISH
1.

In the main menu, click(touch) the **[Environment]** menu icon.
2.

In the Settings list, click(touch) **General Setting**.
3.

In the detailed settings list, click(touch) **Rates set**.
4.

Configure the charge/kWh configuration information and click(touch) **[Apply]** button.
 - **rates per(1kWh)**: Charge per 1kWh.
 - **rate per(1kL)**: Charge per 1kL.
 - **Currency**: Click(Touch) **[▼]** button to select the desired currency.

Rates set

per 1kWh

100

per 1kL

100

Currency

KRW

▼



NOTES

1 kL is equal to 1m³.

Holiday setting(Supersedes day schedule)

The following explains how to register an exception date or how to delete a registered date.

Adding Exception Date

You can add a desired exception date as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **General Setting**.
3. In the detailed settings list, click(touch) **Holiday setting(Days in which the regular schedule is ignored)**.
 - The Exception Date Configuration window opens.

Holiday setting (The day schedule is not work)

Holiday Name			Date	
			2016/05/20	Holiday 1
Year	Month	Date		
+	+	+		
2016	04	19		
-	-	-		
Add			Delete	
Cancel			Apply	

4. Type a name for the exception date in the exception date input box.
5. **[+]/[-]** button to select an exception date.
6. To add the selected exception date, click(touch) the **[Add]** button.
 - The exception date is registered on the exception date list.
7. To complete Exception Date Configuration, click(touch) the **[Apply]** button.

Deleting Exception Date

You can delete a registered exception date as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **General Setting**.
3. In the detailed settings list, click(touch) **Holiday setting(Days in which the schedule is ignored)**.
4. The Exception Date Configuration window opens.

Holiday setting (The day schedule is not work)

Holiday Name

Date

2016/05/01 Holiday 1

Year

Month

Date

+

+

+

2016

04

28

–

–

–

Add

Delete

Cancel

Apply

5. Click(Touch) an exception date in the exception date list, and click(touch) the **[Delete]** button.
6. To complete Exception Date Configuration, click(touch) the **[Apply]** button.

Daylight Saving Time

You can set the daylight saving time used for the system as follows.

Setting up the Daylight Saving Time

The method to set up the daylight saving time is as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **General Setting**.
3. In the detailed settings list, click(touch) **Daylight Saving Time**.
4. When the window appears, click(touch) the **Daylight Saving Time**.
 - **Enable**, the check box turns red and Daylight saving time start, end is activated.
5. Apply the Daylight saving time start Month, Day, Hour you want.
6. Apply the Daylight saving time end Month, Day, Hour you want.
7. Click(touch) the **[Confirm]** button to complete the Daylight saving time

Daylight Saving Time

Daylight Saving Time
Enable ☒

From Jan 1st Mon 3:00

To Jun 4th Mon 4:00

Cancel Confirm



NOTES

Daylight Saving Time can affect Schedule, Energy Report(Power/Gas/RunTime), Energy Management and Event Log.

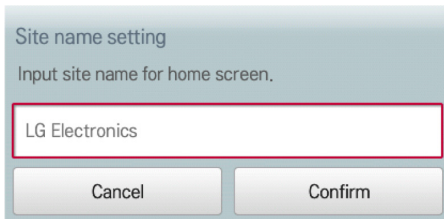
Site Name Setup

Setting up the site name to be displayed on the home screen.

Setting up the site name

The method to set up the site name is as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **General Setting**.
3. Click(touch) the **Site Name Setup** in the detailed setting list.
4. Input the site name to be set up in the site name input field.
5. Click(touch) the **[Confirm]** button to complete the site name setup.



Site name setting

Input site name for home screen.

LG Electronics

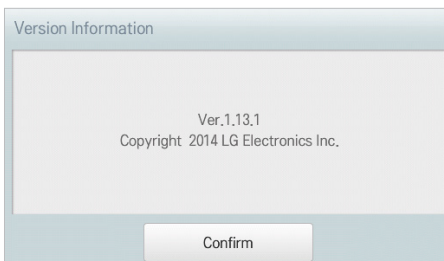
Cancel Confirm

A screenshot of a 'Site name setting' dialog box. It has a title bar 'Site name setting' and a subtitle 'Input site name for home screen.' Below this is a text input field containing 'LG Electronics'. At the bottom are two buttons: 'Cancel' and 'Confirm'.

Version Information

You can check the current version of the software as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **General Setting**.
3. In the detailed settings list, click(touch) **Version Information**.
 - The current version of the system is displayed in a popup window.



Version Information

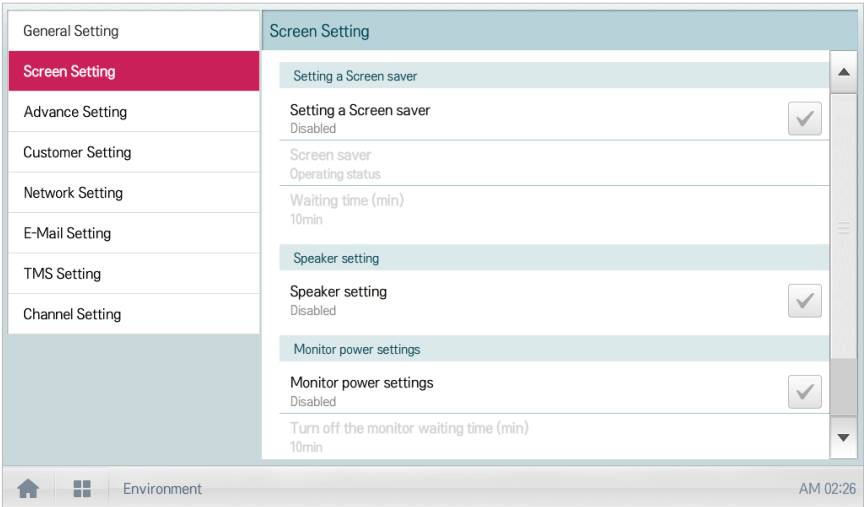
Ver.1.13.1
Copyright 2014 LG Electronics Inc.

Confirm

A screenshot of a 'Version Information' dialog box. It has a title bar 'Version Information'. The main content area displays 'Ver.1.13.1' and 'Copyright 2014 LG Electronics Inc.' Below this is a single 'Confirm' button.

Screen Setting (AC Smart IV, AC Smart BACnet Only)

The following explains how to configure the use environment regarding the product screen.

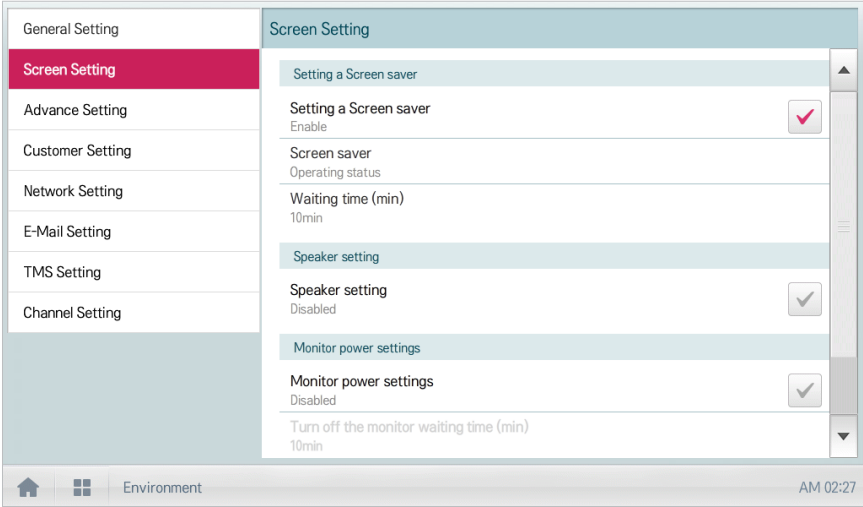


Item	Description
Setting a Screen saver	Determines whether to use a screen saver
Screen saver	Configures information to be displayed on the screen saver (operation status)
Waiting time(min)	Select the standby time that the screen saver waits before operation.
Speaker setting	Determines whether to use a speaker
Monitor power settings	Determines whether to use monitor power-off function
Turn off the monitor waiting time(min)	Selects the standby time that the monitor waits before turn-off
Calibrating the Screen	Screen calibration for accurate click(touch)

Setting a Screen saver

You can configure the screen saver as follows.

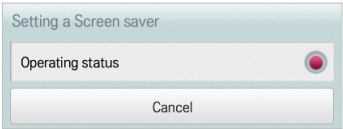
1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Screen Setting**.
3. In the detailed settings list, click(touch) **Setting a Screen saver**.
 - **Enable**, the check box turns red and the **Screen Saver** and **Waiting time(min)** are enabled.



Screen saver

You can set screen saver type as follows.

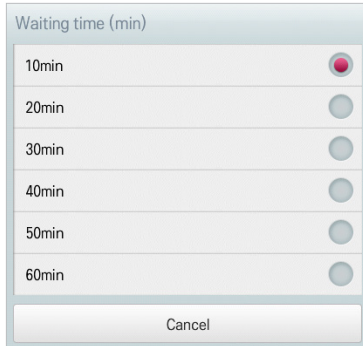
1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Screen Setting**.
3. In the detailed settings list, click(touch) **Screen saver**.
4. When screen protector setting window is displayed, click(touch) the desired screen saver.



Waiting time(min)

You can configure the standby time that the screen saver waits before operation.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Screen Setting**.
3. In the detailed settings list, click(touch) the **Waiting time(min)**.
4. In the Standby Time Configuration window, click(touch) the standby time.



Speaker setting

You can configure the speaker setting as follows.

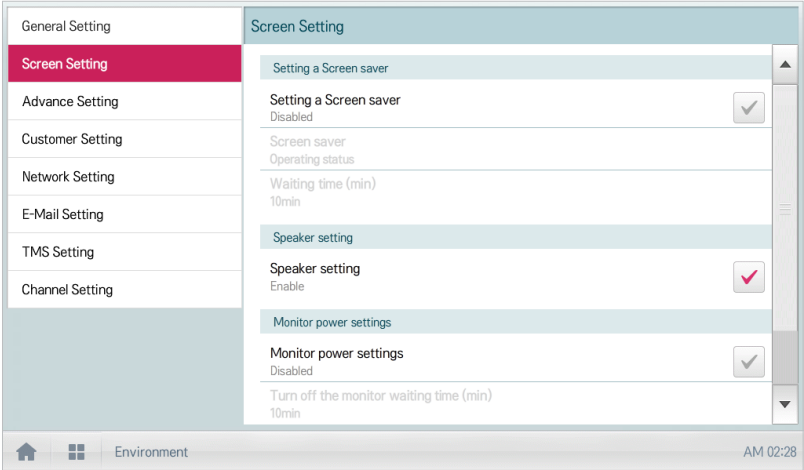
1.

In the main menu, click(touch) the **[Environment]** menu icon.
2.

In the setting list, click(touch) **Screen Setting**.
3.

In the detailed settings list, click(touch) **Speaker setting**.

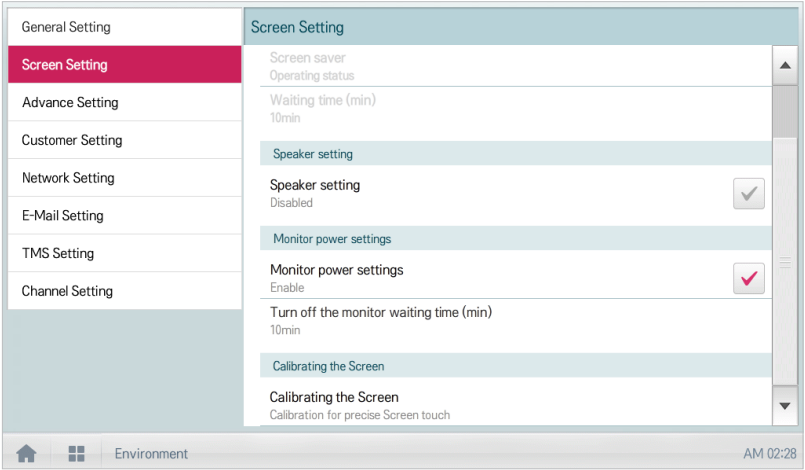
• **Enable**, the check box turns red and the Speaker is enabled.



Monitor power settings

You can configure the monitor to turn off automatically, if the click(touch) screen is not used for a certain period of time. You can configure this function as follows.

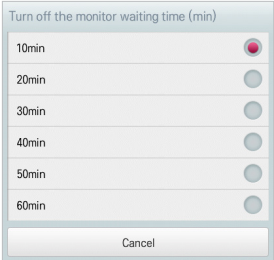
1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Screen Setting**.
3. In the detailed settings list, click(touch) **Monitor power settings**.
 - **Enable**, the check box turns red and **Turn off the monitor waiting time(min)** is enabled.



Turn off the monitor waiting time (min)

You can configure the monitor to turn off automatically, if the click(touch) screen is not used for a certain period of time, as follows.

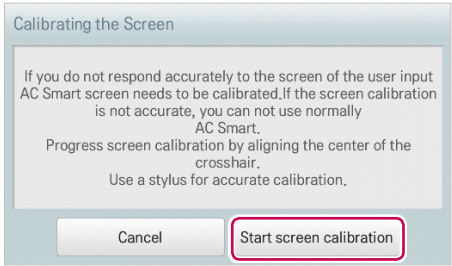
1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Screen Setting**.
3. In the detailed settings list, click(touch) **Turn off the monitor waiting time(min)**.
4. Click(Touch) the standby time you desire.



Calibrating the Screen

You can calibrate the screen for accurate click(touch) response as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Screen Setting**.
3. In the detailed settings list, click(touch) **Calibrating the Screen**.
4. To start the screen calibration, click(touch) the **[Start screen calibration]** button.



5. When the crosses appear on the screen, click(touch) the center of each to calibrate.

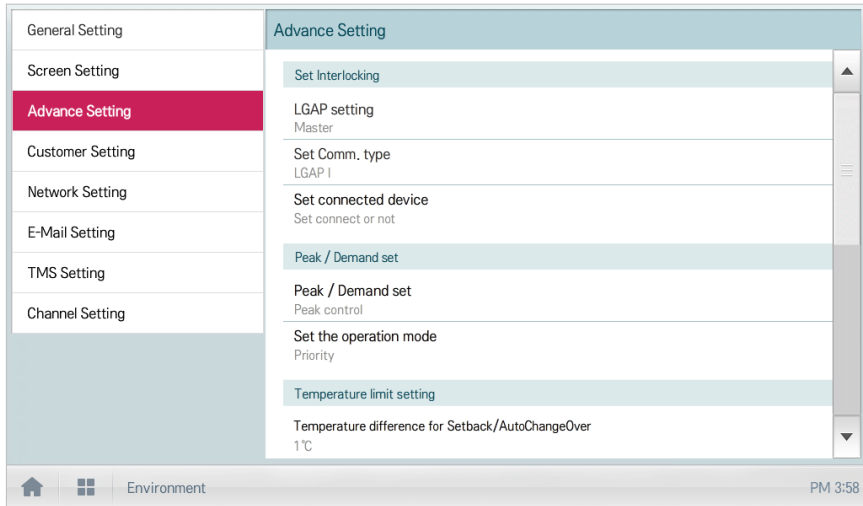


Caution

If you touch too far from the center of the cross mark, you need to carry it out again after 15 seconds.

Advance Setting

The following explains how to configure the functions necessary for device operation.



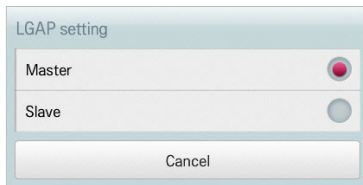
Item	Description
LGAP setting (AC Smart IV Only)	• Master: ACS IV Controller is used independently. • Slave: It shares the communication line with other ACS IV Controller products.(If multiple ACS IV Controllers are used, one must be selected as Master and the others as Slave. In slave mode, some functions of Auto Search in the Installing menu are not available.)
Set Comm.type (LGAP II Models Only)	• LGAP I: Set the LGAP I to communication type. • LGAP II: Set the LGAP II to communication type.
Set connected device	• Cycle monitor: Set whether to enable Cycle monitor • Cycle control: Set whether to enable Cycle control • PDI power: Set whether to request power usage to PDI • PDI gas: Set whether to request gas usage to PDI • Slave controller: Set whether Slave Controller can control or not • Slave controller lock: Set whether Slave Controller can control hard locked IDU or not (Enable : Slave Controller can not control hard locked IDU.)
Peak/Demand set	• Peak Control: You can use the peak control feature in the auto logic menu. • Demand Control: You can use the demand control feature in the auto logic menu.

Item	Description
Set the operation mode	• Priority Control: In Peak/Demand Control menu, control the devices based on the priority of the group. • Outdoor Unit Capacity Control: In the Peak/Demand Control menu, control the outdoor capacity rate per unit.
Temperature difference for Setback/ AutoChangeOver	[+]/[-] button to select the temperature gap.
Update S/W	• Software upgrade using a USB memory stick. • Complete upgrade and restart the system.
DB backup	Backup the DB onto a USB memory stick.
Recovery DB	Use the DB stored on the USB memory stick to restore the system.
Auto Mode Option	Select a desired auto mode type.
Outdoor Unit Oil-Return Operation	Determines whether to use outdoor unit oil-return operation.
System Restart	Remote system restart.
COOL/HEAT Lower Limit Temperature Setting	Set lower limit temperature when IDU, ERV DX is COOL or HEAT mode

LGAP setting (AC Smart IV Only)

ACS IV Controller can interface with another ACS IV Controller to control a device. You can configure the interface type with other devices as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Advance Setting**.
3. In the detailed settings list, click(touch) **LGAP setting**.
4. Click(Touch) a type you want.
 - **Master**: ACS IV Controller is used independently.
 - **Slave**: It shares the communication line with other ACS IV Controller products.

**NOTES**

If multiple ACS IV Controllers are used, one must be selected as Master and the others as Slave.

Set Comm.type (LGAP II Models Only)

You can select the communication type as follows.

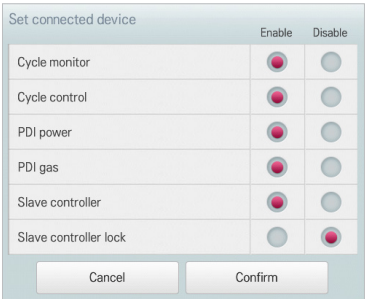
1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) Advance Setting.
3. In the detailed settings list, click(touch) Set Comm.type.
4. Click(Touch) a communication type you want.



Set connected device

ACS IV Controller can interface with ODU, PDI and other central controllers to control devices. You can configure the interface device as follows.

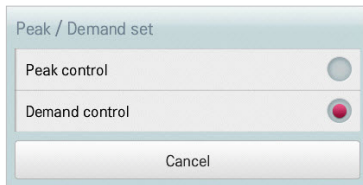
1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Advance Setting**.
3. In the detailed settings list, click(touch) **Set connected device**.
4. Click(Touch) connected devices you want.
 - **Cycle monitor:** Set whether to enable Cycle monitor
 - **Cycle control:** Set whether to enable Cycle control
 - **PDI power:** Set whether to request power usage to PDI
 - **PDI gas:** Set whether to request gas usage to PDI
 - **Slave controller:** Set whether Slave Controller can control or not
 - **Slave controller lock:** Set whether Slave Controller can control hard locked IDU or not
(Enable : Slave Controller can not control hard locked IDU.)



Peak/Demand set

You can select a control type to be used for auto logic.

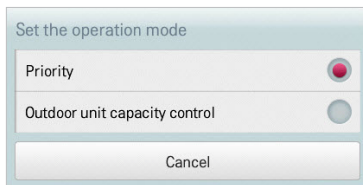
1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Advance Setting**.
3. In the detailed settings list, click(touch) **Peak/Demand set**.
4. Click(Touch) a control type to be used for auto logic
 - **Peak Control:** You can use the peak control feature in the auto logic menu.
 - **Demand Control:** You can use the demand control feature in the auto logic menu.



Set the operation mode

You can configure the operation type as follows.

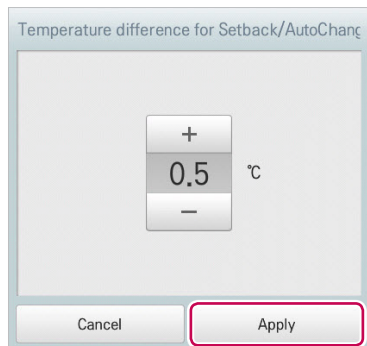
1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Advance Setting**.
3. In the detailed settings list, click(touch) **Set the operation mode**.
4. Click(Touch) an operation type you want.



Temperature difference for Setback/AutoChangeOver

You can configure the temperature gap for auto changeover operation.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Advance Setting**.
3. In the detailed settings list, click(touch) **Temperature difference for Setback/AutoChangeOver**.
4. **[+]/[-]** button to select a temperature gap you want and **[Apply]** button.



Update S/W

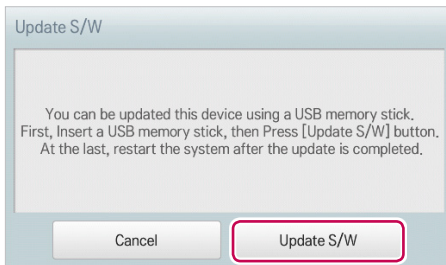
You can upgrade the current version of software as follows.



NOTES

- To update the software, you need a USB memory stick which has *patch.tar.gz* file in the *ramdisk* folder.
- For standard thumb drives, a USB to mini USB cable is required.

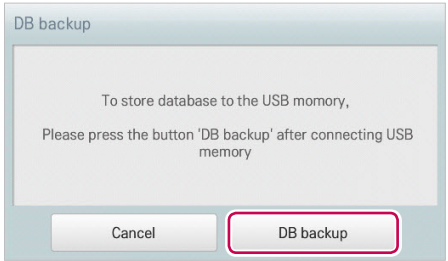
1. Connect the USB memory to ACS IV Controller.
2. In the main menu, click(touch) the **[Environment]** menu icon.
3. In the Settings list, click(touch) **Advance Setting**.
4. In the detailed settings list, click(touch) **Update S/W**.
5. When the software update window appears, click(touch) the **[Update S/W]** button.
 - When the update has been completed, the program restarts.



DB backup

You can backup the database stored in the system to USB memory as follows.

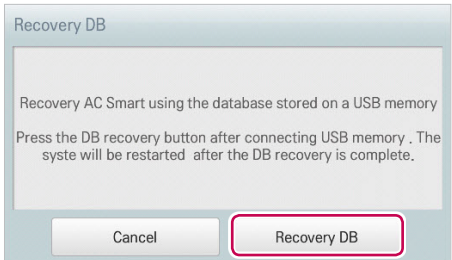
1. Connect the USB memory to ACS IV Controller.
2. In the main menu, click(touch) the **[Environment]** menu icon.
3. In the Settings list, click(touch) **Advance Setting**.
4. In the detailed settings list, click(touch) **DB backup**.
5. When the DB Backup window appears, click(touch) the **[DB backup]** button.



Recovery DB

You can use the database stored on USB memory to restore the system database.

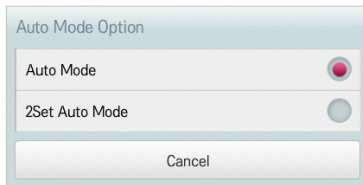
1. Connect the USB memory stick to ACS IV Controller.
2. In the main menu, click(touch) the **[Environment]** menu icon.
3. In the Settings list, click(touch) **Advance Setting**.
4. In the detailed settings list, click(touch) **Recovery DB**.
5. When the DB Recovery window appears, click(touch) the **[Recovery DB]** button.
 - When the DB recovery has been completed, the program restarts.



Auto Mode Option

You can configure the Auto Mode Option as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Advance Setting**.
3. In the detailed settings list, click(touch) **Auto Mode Option**.
4. Click(Touch) an auto mode you want.
 - **Auto Mode:** ACS IV Controller's IDU Auto Mode (Auto Change Over, Setback)
 - **2Set Auto Mode:** IDU 2Set Auto Mode.



NOTES

In case of ACP BACnet and AC Smart BACnet, BACnet Object Instance Number vary depending on the **[Auto Mode Option]** setting. Please refer to the instruction manual for details.



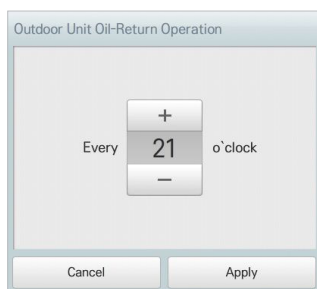
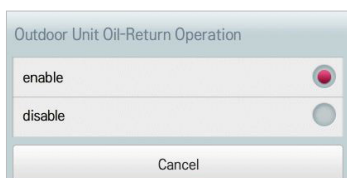
Caution

For 2Set Auto Mode, please check if all products, including IDU, ODU, remote controller, are support the function. Setting to **[2Set Auto Mode]** under unsupported conditions lead to malfunction.

Outdoor Unit Oil-Return Operation

You can configure Outdoor Unit Oil-Return Operation as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Advance Setting**.
3. In the detailed settings list, click(touch) **Outdoor Unit Oil-Return Operation**.
4. Click(Touch) the desired Operation.
 - When selecting 'enable', in the Time Setting window, click the desired time.



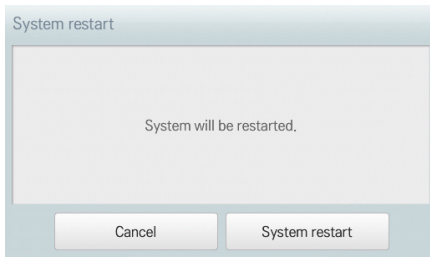
System Restart

Remotely restart the system.

System Restart

The method to restart the system remotely is as follows.

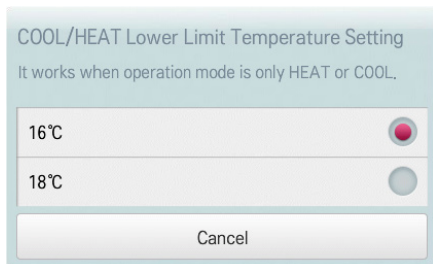
1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Advance Setting**.
3. Click(touch) the **System Restart** in the detailed setting list.
4. To restart the system, click(touch) the **[System Restart]** button.



COOL/HEAT Lower Limit Temperature Setting

You can configure the COOL/HEAT Lower Limit Temperature as follows.

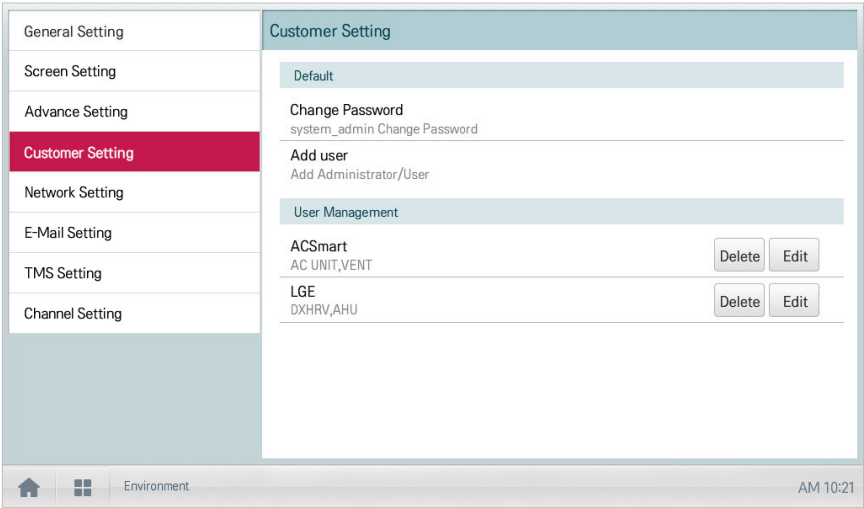
1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Advance Setting**.
3. In the detailed settings list, click(touch) COOL/HEAT Lower Limit Temperature Setting
4. Click(Touch) COOL/HEAT Lower Limit Temperature you want

**Caution**

For setting to 16°C, please check if all products, including IDU, ODU, remote controller, are support the function. Setting to 16°C under unsupported conditions lead to malfunction.

Customer Setting

Only the administrator account can change user environments.



Item	Description
Change Password	Only the administrator account can change the password.
Add user	Add up to 30 new system users.
User Management	• [Delete] Button: Deletes a user. • [Edit] Button: Changes user information.

Change Password

The system_admin account password can be changed as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Customer Setting**.
3. In the detailed settings list, click(touch) **Change Password**.
4. After entering the current and new passwords, click(touch) the **[Confirm]** button.
 - **Current P/W**: Enter the current password.
 - **New P/W**: Enter the new password for system_admin..
 - **Re-type P/W**: Enter the new password to confirm that the new password has been entered correctly.

system_admin Change Password

Current P/W

Please enter a password.

New P/W

Please enter a password.

Re-type P/W

Please enter a password.

Cancel

Confirm

Add user

You can add a user as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Customer Setting**.
3. In the detailed settings list, click(touch) **Add User**.
4. When the system password input window appears, enter the password and click(touch) the **[Confirm]** button.

Add user

To add a user, the system password is required.
Enter the system password.

Please enter a password.

Cancel

Confirm

5. When the Add a New User window appears, enter the user information and click(touch) the **[Confirm]** button.
- **ID:** Enter the user's ID for the email server.
 - **Password:** Enter the login password.
 - **Password 'Confirm':** Re-enter the password.
 - **User Role:** Select the user permission you want
 - **Accessible Group:** Select a controllable device group

Add user

ID

Password

Please enter a password.

Password 'Confirm'

Please enter a password.

User Role

☒ User

☐ Administrator

Accessible Group

☒ Group (5)

☒ TEST

☒ IDU

☒ VENT

☒ DOKIT

☒ AWWP

Cancel Confirm



NOTES

Use is limited depending on the user.

- General user menu: Control/Monitor, Schedule, Statistics for assigned Groups/Units
- Administrator menu: Control/Monitor, Schedule, AutoLogic, Energy Management, Statistics, Report, Installing for all Groups/Units, Widget

User Management

The following explains how to delete a registered user or edit user information.

Deleting User Information

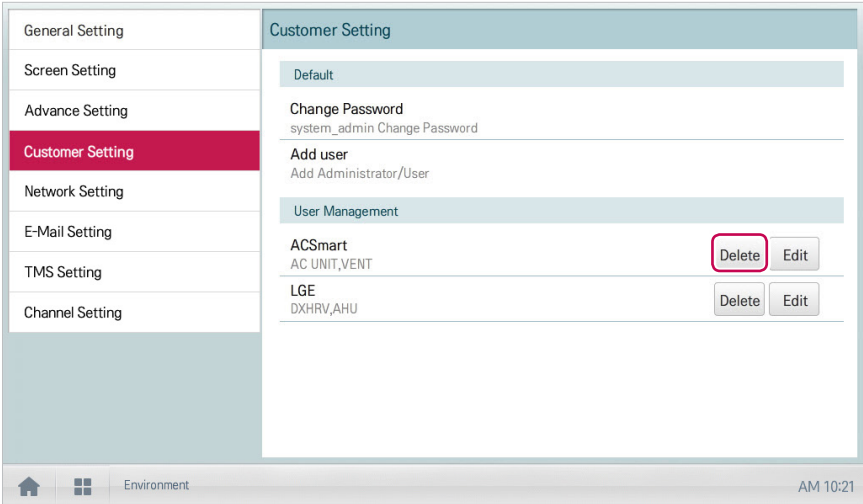
You can delete a registered user's information as follows.

1.

In the main menu, click(touch) the **[Environment]** menu icon.
2.

In the Settings list, click(touch) **Customer Setting**.
3.

In the user list, click(touch) the **[Delete]** button for the user information you want to delete.

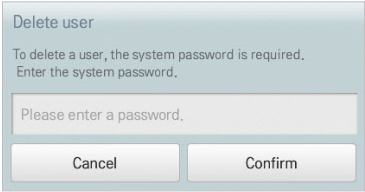


4.

When the system password input window appears, enter the password and click(touch) the **[Confirm]** button.

•

The user information is deleted.



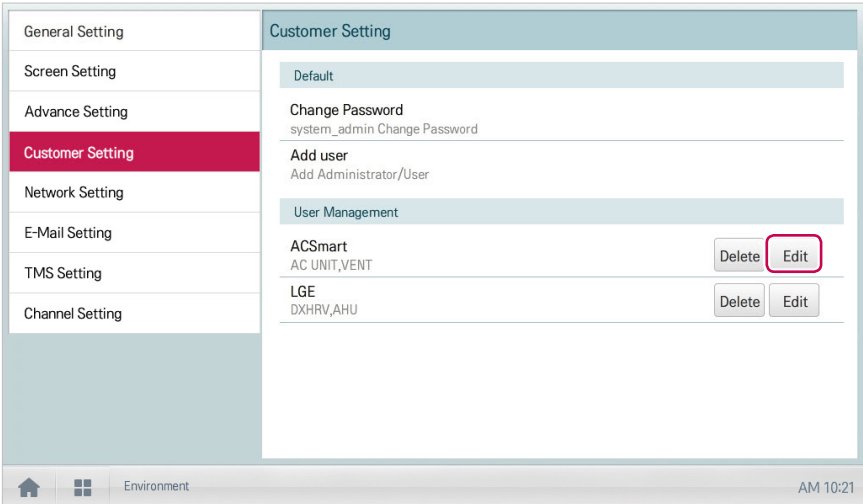
5.

To complete user delete, click(touch) the **[Confirm]** button.

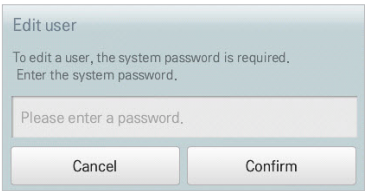
Editing User Information

You can edit a registered user's information as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Customer Setting**.
3. In the user list, click(touch) the **[Edit]** button for the user information you want to edit.



4. When the system password input window appears, enter the password, click(touch) the **[Confirm]** button.



5. When the Edit User window appears, enter the user information and click(touch) the **[Confirm]** button.
- The updated user information is applied.

Edit user (ACSmart)

ID

ACSmart

Password

Modify

User Role

☒ User

☐ Administrator

Accessible Group

☒ Group (5)

☒ TEST

☒ IDU

☒ VENT

☒ DOKIT

☒ AWHP

Cancel

Confirm

6. To complete user edit, click(touch) the **[Confirm]** button.

Network Setting

The following explains how to configure the network environment.

General Setting

Screen Setting

Advance Setting

Customer Setting

Network Setting

E-Mail Setting

TMS Setting

Channel Setting

Network Setting

IP address settings

IP address settings

Using Static IP address

IP information

IP address

000,000,000,000

Subnet mask

000,000,000,000

Gateway

000,000,000,00

DNS server

Main DNS

000,000,00,0

Sub DNS

000,000,00,0



Environment

AM 10:21

Item	Description
IP address settings	Select IP address allocation type. • Get the IP address using DHCP: IP address is allocated by the network automatically. • Using Static IP address: Get IP address from the network administrator and type it manually.
IP address	Enter IP address
Subnet mask	Enter the subnet mask information for the IP address.
Gateway	Enter IP address of gateway.
Main DNS	Enter the IP address of main DNS server.
Sub DNS	Enter the IP address of secondary DNS server.
HTTP Port setting	Input Web access Port (between 1 and 65535, default: 80)

IP address settings

You can select the IP address allocation as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Network Setting**.
3. In the detailed settings list, click(touch) **IP address settings**.
4. Click(Touch) an IP address allocation type you want.
 - **Get the IP address using DHCP**: IP address is allocated by the network automatically
 - **Using Static IP address**: Get IP address from the network administrator and enter it manually

IP address settings

Get the IP address using DHCP

Using Static IP address

Cancel



NOTES

IP address/Subnet mask/Gateway is activated when IP address allocation type is Using Static IP address.

IP address

You can enter the IP address as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Network Setting**.
3. In the detailed settings list, click(touch) **IP address**.
4. When the IP information window appears, click(touch) the **[Apply]** button.

IP information

IP address

Subnet mask

Enter a subnet mask.

Gateway

Enter the default gateway.

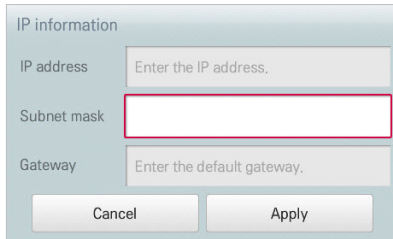
Cancel

Apply

Subnet mask

You can enter the subnet mask information for an IP address as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Network Setting**.
3. In the detailed settings list, click(touch) **Subnet mask**.
4. When the IP Information window appears, enter the subnet mask information, click(touch) the **[Apply]** button.

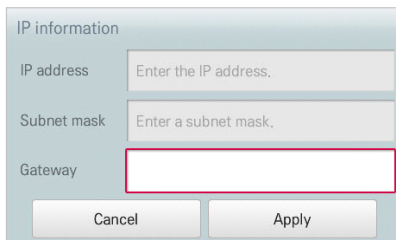


The screenshot shows a dialog box titled "IP information". It contains three input fields: "IP address" with the placeholder "Enter the IP address.", "Subnet mask" which is currently empty and highlighted with a red border, and "Gateway" with the placeholder "Enter the default gateway.". At the bottom are two buttons: "Cancel" and "Apply".

Gateway

You can enter the IP address of a gateway as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Network Setting**.
3. In the detailed settings list, click(touch) **Gateway**.
4. When the IP Information window appears, enter the IP address of the gateway and click(touch) the **[Apply]** button.



The screenshot shows the same "IP information" dialog box. In this view, the "Gateway" input field is empty and highlighted with a red border. The "Subnet mask" field now has the placeholder "Enter a subnet mask.".

Main DNS

You can enter the IP address of a main DNS server as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Network Setting**.
3. In the detailed settings list, click(touch) **Main DNS**.
4. When the DNS Server window appears, enter the IP address of the main DNS server and click(touch) the **[Confirm]** button.

The screenshot shows a window titled "DNS server". It contains two input fields: "Main DNS" and "Sub DNS". The "Main DNS" field is currently empty and has a red rectangular highlight around it. The "Sub DNS" field contains the placeholder text "Enter the sub DNS". At the bottom of the window, there are two buttons: "Cancel" and "Confirm".

Sub DNS

You can enter the IP address of a secondary DNS server as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **Network Setting**.
3. In the detailed settings list, click(touch) **Sub DNS**.
4. When the DNS Server window appears, enter the IP address of the secondary DNS server and click(touch) the **[Confirm]** button.

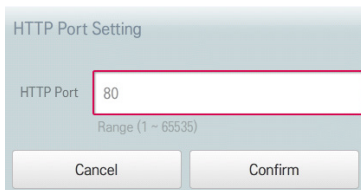
The screenshot shows the same "DNS server" window. In this view, the "Main DNS" field contains the placeholder text "Enter the main DNS". The "Sub DNS" field is currently empty and has a red rectangular highlight around it. The "Cancel" and "Confirm" buttons remain at the bottom.

HTTP Port setting

If certain ports are restricted by network manager, you will not be able to access the web for ACS IV Controller.

You can set the available HTTP port as follows:

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) Network Setting.
3. In the detailed settings list, click(touch) **HTTP Port setting**.
4. When HTTP Port setting window is displayed, input HTTP Port boundary (1~65535) and click(touch) the **[Confirm]** button.



HTTP Port Setting

HTTP Port 80

Range (1 ~ 65535)

Cancel Confirm



NOTES

After setting HTTP Port, the web access method is `http://IP address:Port`. when a port other than 80 is used.

- If IP address is 123.123.123.123 and Port is set to 4321, the access address is `http://123.123.123.123:4321`.
- Be careful when changing port numbers. Another application may be using that port.

E-Mail Setting

When the administrator is not present, ACS IV Controller emails any error information to the administrator for reviewing. The following explains how to configure the email.

General Setting

Advance Setting

Customer Setting

Network Setting

E-Mail Setting

TMS Setting

Channel Setting

E-Mail Setting

Account Management

E-mail account settings
User's e-mail account settings

E-mail settings

E-mail settings
Enable ☒

Mailing configuration

Email Subject
Email_from_LG_Vnet

Recipient
jjongmin.lee@lge.com, abc@lge.com, abc@lge.com

The transmission cycle during error occurs (min)
10min

Automatic daily error-notification mail
Disabled ☒

Environment

PM 7:33

Item	Description
E-mail account settings	Configuring user email account.
E-mail settings	Select whether to use the email.
Email Subject	Type an email subject line when sending an email.
Receiving e-mail	Register the email address of the receiver who will receive the email.
The transmission cycle during error occurs (min)	Set the transmission repeat cycle to send an email when an error occurs.
Automatic daily error-notification mail	Configure an email to be sent at 00:00 every day, even if there are no errors to report.

E-mail account settings

You can configure the user's email account.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **E-Mail Setting**.
3. In the detailed settings list, click(touch) **E-mail account settings**.
4. Type the email account information.
 - **User name:** Enter the email user's name.
 - **Address e-mail:** Enter the user's e-mail address.
 - **Outgoing mail server(SMTP):** Enter the address of the mail server.
 - **Outgoing mail server port:** Enter the port of the mail server.
 - **Server Access Account:** Enter the server connection account.
 - **Password:** Enter the password to log onto the mail server.

User Information	Server Information	Login Account
User name 	Outgoing mail server(SMTP) Enter the server address.	Server Access Account Enter the server access account
Address e-mail Enter the e-mail address.	Outgoing mail server port Enter the server port.	Password Please enter a password.
Test account setting	Cancel	Confirm

5. Click(Touch) **[Test account setting]** to check if the configured account is correct.
6. When the Account Configuration Completion window appears, click(touch) the **[Confirm]** button.
7. To complete the email account configuration, click(touch) the **[Confirm]** button.

E-mail settings

You can select whether to use the email function as follows.

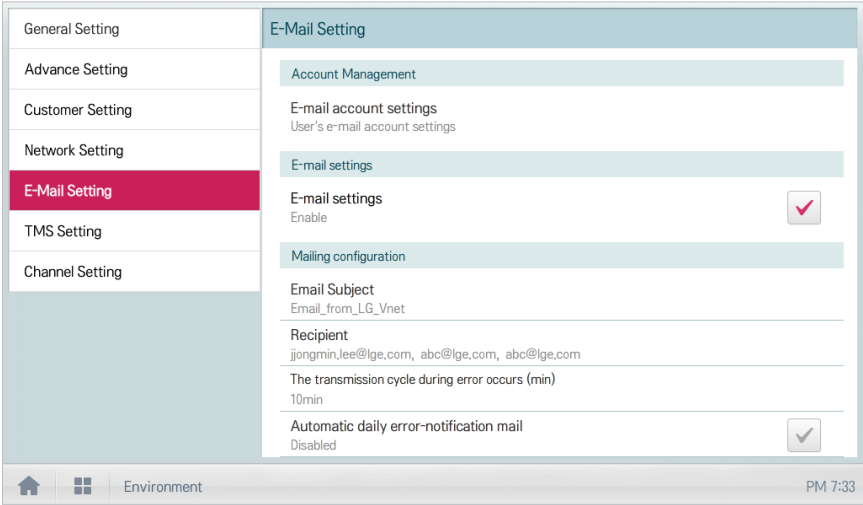
1.

In the main menu, click(touch) the **[Environment]** menu icon.
2.

In the Settings list, click(touch) **E-Mail Setting**.
3.

In the detailed settings list, click(touch) **E-mail settings**.

• If **Enable** is selected, the check box turns red and the **Email Subject**, **Receiving e-mail**, **The transmission cycle during error occurs (min)**, and **Automatic daily errornotification mail** are enabled.



Email Subject

You can type an email subject line as follows. This will be used for every email sent.

1.

In the main menu, click(touch) the **[Environment]** menu icon.
2.

In the Settings list, click(touch) **E-Mail Setting**.
3.

In the detailed settings list, click(touch) **Email Subject**.
4.

When the Configuring Email window appears, enter the email title and click(touch) the **[Confirm]** button.



Recipient e-mail

You can register the email address of up to three email receivers as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **E-Mail Setting**.
3. In the detailed settings list, click(touch) **Recipient e-mail**.
4. When the Configuring Email window appears, enter the email address of the email receiver and click(touch) the **[Confirm]** button.

Set mailing

Email Subject: Email_from_LG_Vnet

Recipient: abc@lge.com

Buttons: Cancel, Confirm

The transmission cycle during error occurs (min)

You can set the schedule for when to send an email (after an error occurs) from 10 minutes to within one hour as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **E-Mail Setting**.
3. In the detailed settings list, click(touch) **The transmission cycle during error occurs (min)**.
4. When the Select an Email Schedule window appears, click(touch) a sending schedule you want.

The transmission cycle during error occurs (min)

10min (selected)

20min

30min

40min

50min

60min

Cancel



NOTES

E-mails will continue to generate at the time intervals until the fault or error is resolved. It is suggested that the least amount of time (a longer time interval) be chosen so recipients are not overwhelmed with frequent emails.

Automatic daily error-notification mail

You can configure an email to be sent automatically once per day, even if there are no error, as follows.

- ENGLISH

1.

In the main menu, click(touch) the **[Environment]** menu icon.

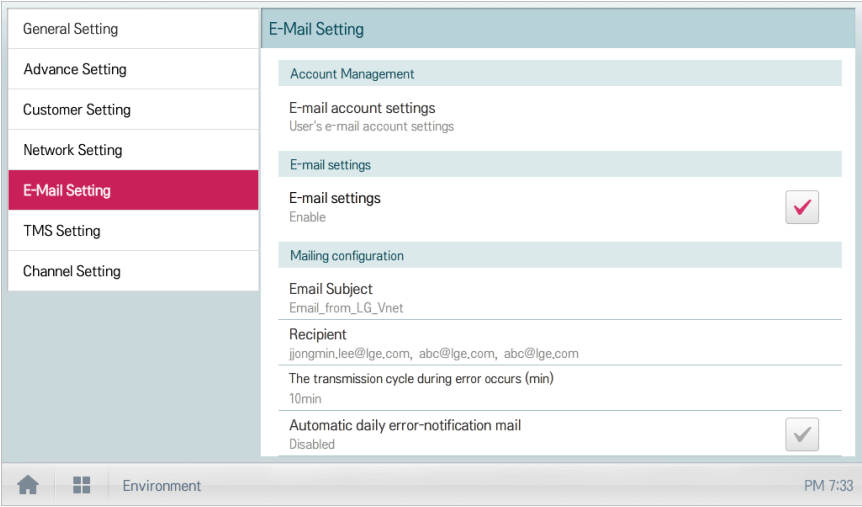
2.

In the Settings list, click(touch) **E-Mail Setting**.

3.

In the detailed settings list, click(touch) **Automatic daily error-notification mail**.

• **Enable** is selected, the check box turns red.



TMS Setting

The following explains how to configure the remote monitoring and control system.

General Setting

Advance Setting

Customer Setting

Network Setting

E-Mail Setting

TMS Setting

Channel Setting

TMS Setting

TMS configuration

TMS configuration

Enable

TMS server setting

TMS server address

tms2.lge.com

TMS server port

23

Update Cycle (s)

10s

Site information

Site address

SEOUL

Site name

LGE



Environment

PM 7:42

Item	Description
TMS configuration	Select whether to use a remote control service.
TMS server address	Configure the remote control service server address.
TMS server port	Configure the remote control service port.
Update Cycle(s)	Configures the remote control service update cycle (in seconds).
Site address	Enter an address for the remote site.
Site name	Enter the site name.
Site code	Click(Touch) the [Request Site Code] button to enter the site code.
Admin Name	Enter the name of the site manager.
Admin Contact	Enter the site manager's phone number.



NOTES

TMS is not available in the US market at this time.

TMS configuration

You can select whether to use the remote control service as follows.

1.

In the main menu, click(touch) the **[Environment]** menu icon.
2.

In the Settings list, click(touch) **TMS Setting**.
3.

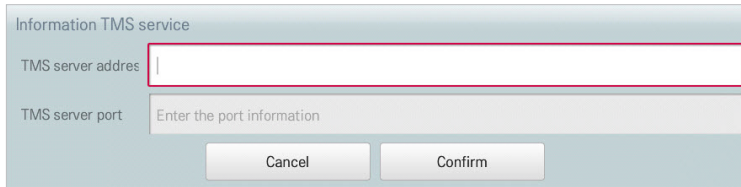
In the detailed settings list, click(touch) **TMS configuration**.

• If Enable is selected, the check box turns red and **TMS server address**, **TMS server port**, **Update Cycle(s)**, **Site address**, **Site name**, **Site code**, **Admin Name**, and **Admin Contact** are enabled.
- The screenshot displays the 'TMS Setting' screen. On the left is a vertical menu with options: General Setting, Advance Setting, Customer Setting, Network Setting, E-Mail Setting, TMS Setting (highlighted in red), and Channel Setting. The main area on the right is titled 'TMS Setting' and contains several sections: 'TMS configuration' with a red checkmark icon and the text 'Enable'; 'TMS server setting' with fields for 'TMS server address' (tms2.lge.com), 'TMS server port' (23), and 'Update Cycle (s)' (10s); and 'Site information' with fields for 'Site address' (SEOUL) and 'Site name' (LGE). At the bottom, there is a status bar with a home icon, a grid icon, the text 'Environment', and the time 'PM 7:42'.

TMS server address

You can configure the server address of the remote control service as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **TMS Setting**.
3. In the detailed settings list, click(touch) **TMS server address**.
4. When the Remote Service Information window appears, enter the service server address and click(touch) the **[Confirm]** button.



Information TMS service

TMS server address:

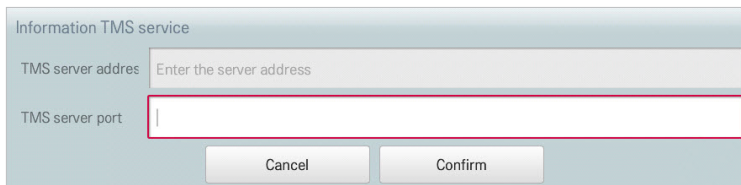
TMS server port:

Cancel Confirm

TMS server port

You can configure the server port of the remote control service as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **TMS Setting**.
3. In the detailed settings list, click(touch) **TMS Server Port**.
4. When the Remote Service Information window appears, enter the service server port and click(touch) the **[Confirm]** button.



Information TMS service

TMS server address:

TMS server port:

Cancel Confirm

Update Cycle(s)

You can configure the update cycle of the remote control service information as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **TMS Setting**.
3. In the detailed settings list, click(touch) **Update Cycle(s)**.
4. When the Configuring Update Cycle window appears, click(touch) an update cycle you want.

Update Cycle (s)

10s	☒
30s	☐
60s	☐
90s	☐
120s	☐

Cancel

Site address

You can type the address of the site where ACS IV Controller is installed.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **TMS Setting**.
3. In the detailed settings list, click(touch) **Site address**.
4. When the Configuring Site Information window appears, enter the site address and click(touch) the **[Confirm]** button.

Site information

Site address

Site name

Enter the name of the site.)

Site code

Enter the code of the site.)

Request a site code

Cancel

Confirm

Site name

You can type the name of the site where ACS IV Controller is installed.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **TMS Setting**.
3. In the detailed settings list, click(touch) **Site name**.
4. When the Configuring Site Information window appears, enter the site name and click(touch) the **[Confirm]** button.

Site information

Site address

Site name

Site code

Site code

You can allocate a code for site management as follows.

1. In the main menu, click(touch) the **[Environment]** menu icon.
2. In the Settings list, click(touch) **TMS Setting**.
3. In the detailed settings list, click(touch) **Site code**.
4. When the Configuring Site Information window appears, click(touch) the **[Request a site code]** button to enter the site code and click(touch) the **[Confirm]** button.

Site information

Site address

Site name



NOTES

You must enter the site address details before you can request the site code.

Admin Name

You can type the site manager's name as follows.

- ENGLISH

1.

In the main menu, click(touch) the **[Environment]** menu icon.

2.

In the Settings list, click(touch) **TMS Setting**.

3.

In the detailed settings list, click(touch) **Admin Name**.

4.

When the Configuring Site Manager Information window appears, enter the site manager's name and click(touch) the **[Confirm]** button.

Information the site administrator

Admin Name

Admin Contact

Enter the number of the field administrator

Cancel

Confirm

Admin Contact

You can type the site manager's phone number as follows.

1.

In the main menu, click(touch) the **[Environment]** menu icon.
2.

In the Settings list, click(touch) **TMS Setting**.
3.

In the detailed settings list, click(touch) **Admin Contact**.
4.

When the Configuring Site Manager Information window appears, enter the site manager's phone number and click(touch) the **[Confirm]** button.

Information the site administrator

Admin Name

Enter the name of the field administrator

Admin Contact

Cancel

Confirm

Channel Setting

The following explains channel setting of ACS IV Controller.

ACP IV, ACP BACnet

General Setting

Advance Setting

Customer Setting

E-Mail Setting

TMS Setting

Channel Setting

Channel Setting

CH5
LGAP_AHU

CH6
MODBUS_9600



Environment

AM 01:17

Item	Description
CH5	• LGAP_AHU: AHU(Normal, Fresh Air, Heat Recovery) connection. • MODBUS_9600, MODBUS_19200: AHU(Modular Fresh Air, Modular Heat Recovery, DOAS), Exp.I/O, Chiller connection.
CH6	• DEMAND: Demand Controller connection • MODBUS_9600, MODBUS_19200: AHU(Modular Fresh Air, Modular Heat Recovery, DOAS), Exp.I/O, Chiller connection.

 **NOTES**

The default MODBUS communication setting is MODBUS_9600.

AC Smart IV, AC Smart BACnet

ENGLISH

General Setting

Screen Setting

Advance Setting

Customer Setting

Network Setting

E-Mail Setting

TMS Setting

Channel Setting

Channel Setting

CH1

LGAP_AHU

Home

Environment

PM 02:21

Item	Description
CH1	• LGAP_AHU: AHU(Normal, Fresh Air, Heat Recovery) connection. • MODBUS_9600, MODBUS_19200: AHU(Modular Fresh Air, Modular Heat Recovery, DOAS), Exp.I/O, Chiller connection.



NOTES

The default MODBUS communication setting is MODBUS_9600.

BACnet Setting (ACP BACnet, AC Smart BACnet Only)

The following explains BACnet setting of ACS IV Controller.

General Setting

Screen Setting

Advance Setting

Customer Setting

Network Setting

E-Mail Setting

TMS Setting

Channel Setting

BACnet Setting

BACnet Setting

Temperature Unit Setting
Celsius (°C)

Device ID Setting
1911330

Vnet Number Setting
10

Register as Foreign Device
Disable / 192.168.0.1 / 47808 / 36000

Only Monitoring Setting
Disable

BACnet Port
47808

BACnet Type Setting
A Type

Please reset the gateway's power for application.



Environment

PM 4:26

Item	Description
Temperature Unit Setting	To set the temperature unit communicating with BMS.
Device ID Setting	To designate the Device Instance Number, Device ID must be set. Default Device ID is 9000, Device Instance Number is designated as below. - Indoor unit : Device ID - ERV : Device ID + 1 - AHU : Device ID + 2 - Outdoor unit cycle information : Device ID + 3 - AWHP : Device ID + 4 - General : Device ID + 5
Vnet Number Setting	To use Modbus TCP function of ACP BACnet/AC Smart BACnet, Vnet Number must be set. Set Vnet Number is used to Slave ID Address of Modbus TCP.
Register as Foreign Device	To register Foreign Device. For more information, please consult with the experts of BMS.
Only Monitoring Setting	When set to Enable the BMS has Read Only permission on this device. Uncheck if BMS is required to have Read & Write permission.
BACnet Port	To change the BACnet IP port. Default port is 47808. For more information, please consult with the experts of BMS.

Item	Description
BACnet Type Setting	To set the response type of BACnet. - A Type : When responding to the BACnet protocol, the MAC address is the same regardless of the Device ID. - B Type : When responding to the BACnet protocol, the MAC address depends on the Device ID

Home screen additional information display

It describes various additional information provided in the home screen

Viewing home screen additional information

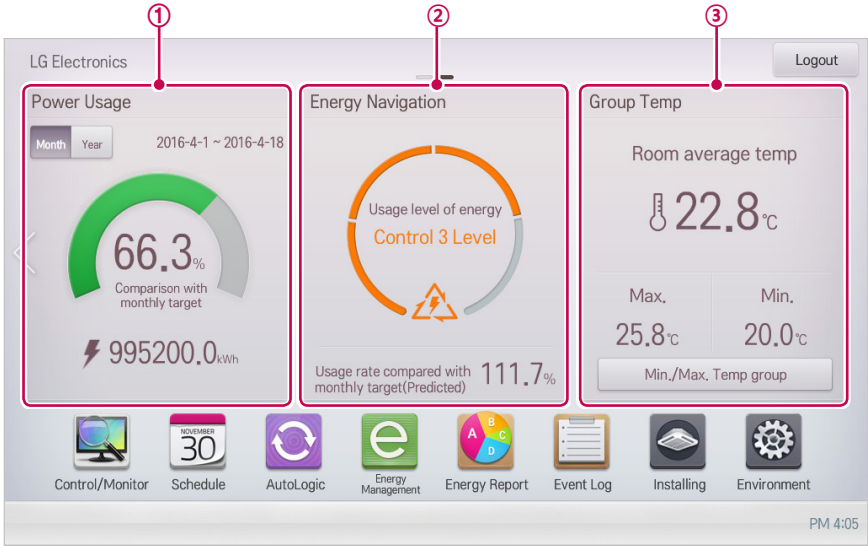
The method to view home screen additional information is as follows.

1. Click (touch) [➤] button on the right side of the home screen.
 - The additional information is displayed.



Home screen additional information composition and function

It describes the home screen additional information composition and function.



Number	Item	Contents
①	Power Usage widget	Target compared electricity consumption is displayed • [Month] button: monthly target compared electricity consumption is displayed • [Year] button: yearly target compared electricity consumption is displayed
②	Energy navigation widget	Energy navigation usage setting ON • Energy navigation control level display Energy navigation usage setting OFF • Energy navigation function setting is required. Message display • [Energy navigation setting] button: move with [Energy management > Energy navigation] tab Demand control setting • It is in demand control setting state. Message display • [Energy navigation setting] button deactivated
③	Group Temperature widget	Group average temperature / group average maximum temperature / group average minimum temperature display • [Min./Max. Temp group] button: maximum/minimum temperature group display popup

Energy management

Energy management checks the device's power usage and operation time with graph and table. It also describes the estimated usage compared to monthly target of the power usage and energy navigation function which controls the power usage with the actual usage.

Energy usage

Energy usage sets the target usage to control the energy navigation and checks the device's power usage and operation time with graph and table.

Energy usage screen composition and function

It describes the energy usage screen composition and function.



Number	Item	Contents
①	Device list	Display of the individual indoor unit list or per group for each device

Number	Item	Contents
②	Energy usage item	• [Energy Consumption] button: Checks power consumption and accumulated power consumption for each group • [Run Time] button: Checks operation time and accumulated operation time of the indoor units for each group
③	Query Unit	• [Daily] button: View daily usage of the set period by pressing [◀/▶] button in the viewing period setting area • [Monthly] button: View monthly usage of the set period by pressing [◀/▶] button in the viewing period setting area
④	Viewing period setting area	• Select the period to view energy usage contents • If viewing unit is [Daily], set the period as 1 month unit based on the start date • If viewing unit is [Monthly], set the period as 1 year unit based on the start date
⑤	[View Graph] / [View Table] button	• Energy usage data viewing method conversion • View Graph: View the energy usage data as graph type data • View Table: View the energy usage data as table type data
⑥	[Initial Date] button	• Set each of the energy usage base date for power / run time.
⑦	[Target amount setting] button	• In [Environment > General setting] menu, set the monthly target amount for Jan. ~ Dec. of the year set in the Date setting.
⑧	Energy consumption information display	• Energy usage data for each period: energy consumption, operation time energy usage value, and graph are displayed for each viewing unit • If viewing unit is [Daily], when energy consumption is selected, daily usage / period + estimated usage / daily target amount are displayed in the graph • If viewing unit is [Monthly], when energy consumption is selected, monthly usage / monthly target amount / period + estimated usage / usage in the previous year / yearly target amount are displayed in the graph
⑨	[E-mail] button	• In [Environment > E-Mail setting] menu, you need to set the e-mail usage to ON to use this function. • It sends the viewed energy usage contents to the e-mail address registered in the environment setting menu
⑩	[Save to USB] button	• It stores the viewed energy usage contents (when it accessed AC Smart IV/AC Smart BACnet controller) in USB memory
	[Save to PC] button	• It downloads the viewed energy usage contents in PC

Viewing energy usage

The method to view the energy report contents of the device's power usage, gas usage and operation time is as follows.

1. In the main menu, click (touch) **[Energy management]** menu icon.
2. In the group list, click (touch) the desired device group.
3. Click (touch) the desired energy report item button.
 - **[Energy consumption]** button: Checks power consumption and accumulated power consumption of each group
 - **[Run time]** button: Checks the indoor unit operation time of each group
4. In the viewing period setting area, click (touch) **[◀/▶]** button to set the period to view the energy usage contents.
 - Daily viewing start date is set with the base date, and for the monthly viewing, the period from Jan. ~ Dec. is automatically set.
 - During the daily viewing, you can check the daily usage, period + estimated usage, and monthly target amount.
 - During the monthly viewing, you can check the monthly usage, monthly target amount, period + estimated usage, previous year period usage, and yearly target amount.
5. In the energy usage information display area, check the energy usage contents.
 - To change the energy report information viewing method, click (touch) **[View graph]** or **[View table]** button.
 - If you uncheck the graph check, it is not displayed in the graph.



6. To send the energy usage data via e-mail, click (touch) **[E-mail]** button, and to save in USB memory or PC, click (touch) **[Save to USB/PC]** button.



NOTES

- Run time viewing possible device: indoor unit
- PDI is required to view power consumption. (Please refer to PDI manual for additional information)
- You can check the actual power consumption for each indoor unit only when the indoor unit is connected to PDI.

How to read the energy usage graph (energy consumption, daily)

The method to read the energy usage daily graph is as follows.

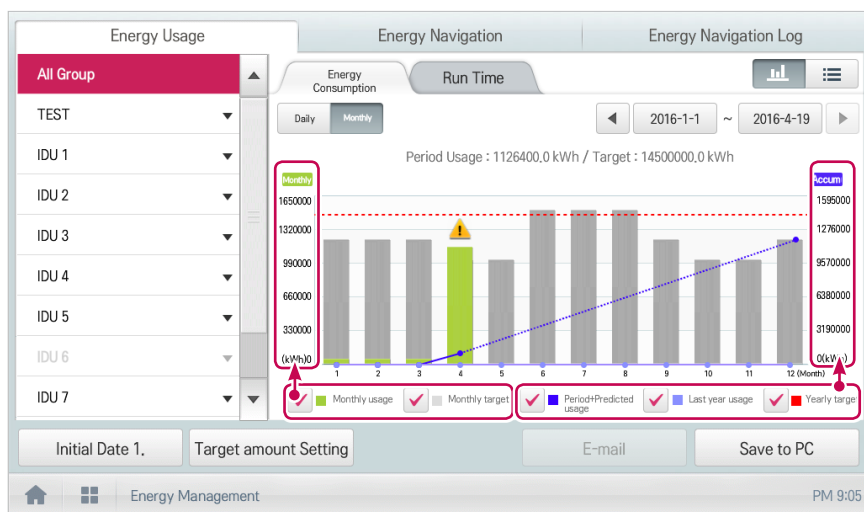
1. In the main menu, click (touch) **[Energy management]** menu icon.
2. In the group list, click (touch) the **All Group**.
 - Entire group displays all information.
3. In the viewing period setting area, click (touch) **[◀/▶]** button to set the viewing period corresponding to the current month.
 - The start date is set as the base date.
4. In the energy usage information display area, check the energy usage contents.
 - You can check the daily usage, period + estimated usage, and monthly target amount.
 - Read the daily value at the left side of the daily usage.
 - For the period + estimated usage, and monthly target, read the accumulated value.
 - To change the viewing method of the energy report information, click (touch) **[View graph]** or **[View table]** button.
 - When you uncheck the graph condition, it is not displayed in the graph.



How to read the energy usage graph (energy consumption, monthly)

The method to read the energy usage monthly graph is as follows.

1. In the main menu, click (touch) **[Energy management]** menu icon.
2. In the viewing unit, click (touch) **Monthly**.
3. In the group list, click (touch) **All Group**.
 - Entire group displays all information.
4. In the viewing period setting area, touch (click) **[◀/▶]** button to set the viewing period corresponding to the current year.
 - The start date is set as the base date.
 - The period from Jan. ~ Dec. is automatically set.
5. In the energy usage information display area, check the energy usage contents.
 - You can check the monthly usage, monthly target amount, period + estimated usage, previous year usage, and yearly target amount.
 - For the monthly usage and monthly target amount, read the monthly value in the left side.
 - For the period + estimated usage, previous year usage, and yearly target amount, read the accumulated value.
 - To change the viewing method of the energy report information, click (touch) **[View graph]** or **[View table]** button.
 - When you uncheck the graph condition, it is not displayed in the graph.
 - If the monthly usage is greater than the monthly target mount, exclamation mark is displayed.



Energy navigation

Energy navigation is the function to set the target usage amount to limit the monthly power consumption and to control so that the total accumulated power consumption does not exceed the target usage amount. It performs total of 7 control levels with the estimated/actual usage amount exceeding ratio compared to the monthly target usage amount. For the control method, there are indoor unit operation ratio, outdoor unit capacity control, and indoor unit operation control.



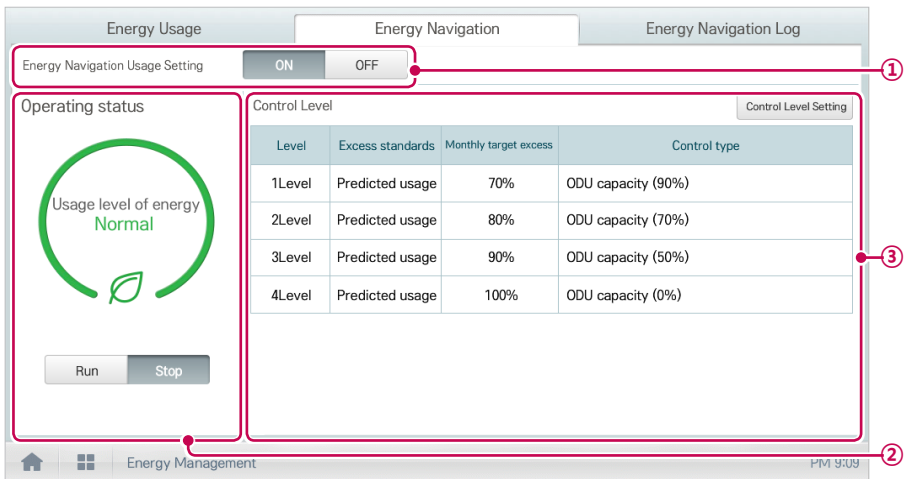
NOTES

In **Environment setting > Advance setting > Peak/Demand Set** menu, if you select demand control, energy navigation is turned off, and **Energy management > Energy navigation** and **Energy navigation log** button are deactivated.

Setting energy navigation

The method to set the energy navigation is as follows.

1. In the main menu, click (touch) **[Energy management]** menu icon.
2. Click (touch) **[Energy navigation]** tab.



3. Set the desired control state in the energy navigation usage setting area and the operation status area.

Number	Item	Contents
①	Energy navigation usage setting	Sets energy navigation function ON/OFF
②	Operating status	Displays the energy navigation operation status • [Run] button: starts the control level displayed in the operation status • [Stop] button: temporarily stops the control level displayed in the operation status - In the temporarily stopped state, it automatically restarts according to the level change or setting change, etc. - To stop the function, turn off the energy navigation usage setting
③	Control Level	• Sets the control level with [Control level setting] button • Displays the level of the set control level, exceeding condition, monthly target exceeding ratio (%), and control method - Level: maximum of 7 levels - Excess standards: estimated usage amount / actual usage amount - Monthly target excess (%): you can set in 10% unit within 70~130% boundary - Control type: indoor unit operation rate, outdoor unit capacity control, indoor unit operation control



NOTES

- Energy navigation operates in 1 hour intervals from the central controller system start point.
- If the energy navigation usage setting is ON, it automatically operates regardless of the operation status. But, if the control execution method setting is manual, it operates according to the user selection.
- Even if the energy navigation usage setting is OFF or operation status is OFF state, it displays the current control level.
- In the normal state, energy navigation is not operational.

Setting control level

The method to set the control level is as follows.

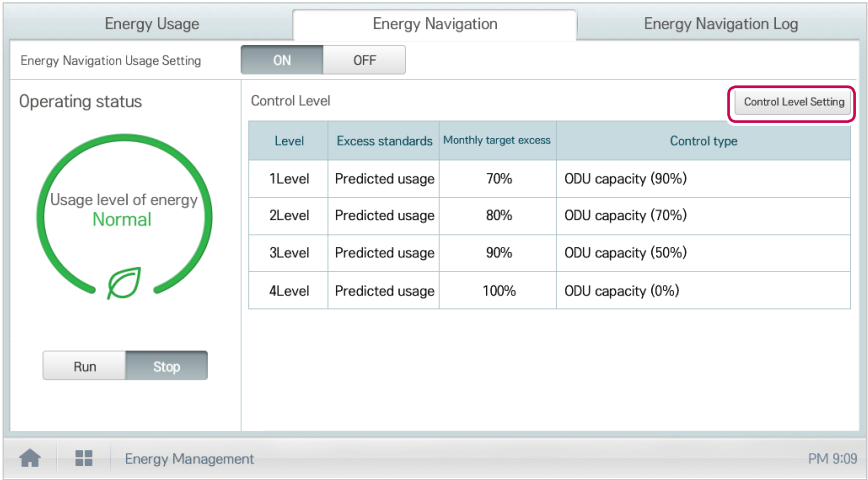
1.

In the main menu, click (touch) **[Energy management]** menu icon.
2.

Click (touch) **[Energy navigation]** tab.
3.

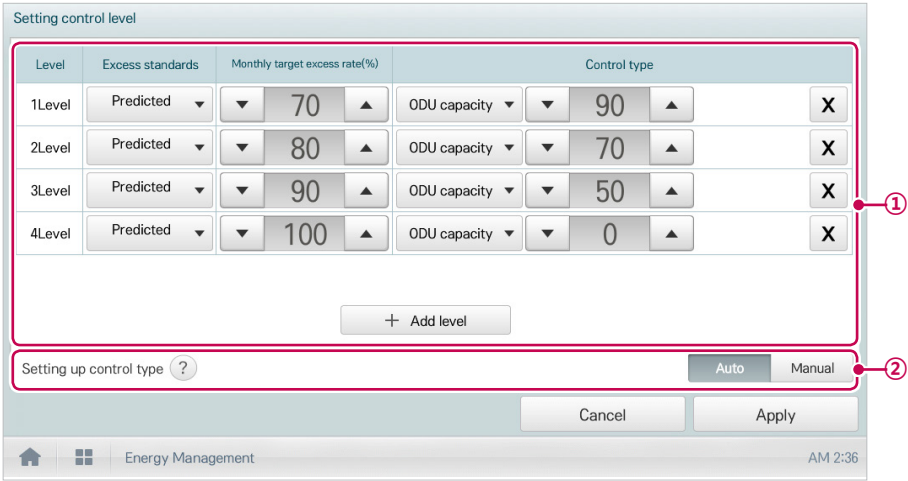
Click (touch) **[Control level setting]** button.

• Control level setting window appears.



4.

Set the control level.



Number	Item	Contents
①	Control level setting area	Level • In case of level add/remove, it is automatically set • You can set up to 7 levels Excess standard • Power consumption standard to compare with the monthly target usage amount is set • Predicted usage amount: estimated period usage amount of 1 month starting from the base date • Actual usage amount: actual period usage amount until today from the base date Monthly target excess rate (%) • Ratio of the excess standard compared to the monthly target usage amount (%) • You can set in the unit of 10% from minimum 70% to maximum 130% Control method • IDU Operation Rate: Set the 0~100% target operation ratio and control peak according to the priority of the group • ODU capacity: Set the 0~100% target operation ratio and control peak according to the outdoor unit capacity operation ratio • IDU: Control according to the indoor unit control setting (refer to Indoor unit operation control setting) [Add level] button: adds control level • Control level is automatically set to the last level, and it has the default setting value • For the monthly target exceeding ratio, 10% is added to the previous level, and you can add the control level up to maximum of 130% [X] button: removes control level • When you remove a control level, the remaining control levels are automatically arranged • If only 1 level is set, you cannot remove the control level

Number	Item	Contents
②	Control type setting	Sets the execution method of the control method set for each level at the time of the alarm • [?] button: Help for the control execution method setting • [Auto] button: Control method is automatically executed • [Manual] button: Selects whether to execute the control method (Refer to Alarm message control selection)



NOTES

For outdoor unit capacity control, the target operation ratio setting values are converted and applied as follows.

- 100% setting: 100% applied
- 90~99% setting: 90% applied
- 80~89% setting: 80% applied
- 70~79% setting: 70% applied
- 60~69% setting: 60% applied
- 50~59% setting: 50% applied
- 40~49% setting: 40% applied
- 0~39% setting: 0% applied

Indoor unit operation control setting

The method to set the indoor unit operation control is as follows.

- ENGLISH

1.

In the main menu, click (touch) **[Energy management]** menu icon.

2.

Click (touch) **[Energy navigation]** tab.

3.

Click (touch) **[Control level setting]** button.

• Control level setting window appears.

4.

In the control method, select IDU, and click (touch) **[Detail.]** button.

Setting control level

Level	Excess standards	Monthly target excess rate(%)	Control type		
1Level	Predicted ▾	▼ 70 ▲	ODU capacity ▾	▼ 90 ▲	X
2Level	Predicted ▾	▼ 80 ▲	ODU capacity ▾	▼ 70 ▲	X
3Level	Predicted ▾	▼ 90 ▲	ODU capacity ▾	▼ 50 ▲	X
4Level	Predicted ▾	▼ 100 ▲	ODU capacity ▾	▼ 0 ▲	X
5Level	Predicted ▾	▼ 110 ▲	IDU ▾	Detail. (🌡️🔧🔒 80°F)	X

+ Add level

Setting up control type ?

Auto Manual

Cancel Apply

🏠

⌵

Energy Management

AM 2:37

5. Set the control status of the device, and click (touch) **[Apply]** button.
- In the control type area, the set control list is displayed.

The screenshot shows the IDU (Indoor Unit) control interface. It features several sections for user interaction:

- Operation:** Buttons for ON and OFF.
- Set(°F):** A temperature setting control with a dropdown arrow, a display showing "--", and an upward arrow.
- Mode:** A row of buttons for COOL, HEAT, AUTO, DRY, and FAN. The FAN button is currently selected.
- Fan Speed:** Buttons for LOW, MED, HIGH, and AUTO.
- Swing:** Buttons for Set and Clear.
- Filter Alarm:** A button for Clear.
- Partial Lock:** A section containing four pairs of buttons: HardLock/Clear, ModeLock/Clear, FanLock/Clear, and TempLock/Clear.
- Set Temp Range(°F):** Two temperature range setting controls, each with a dropdown arrow, a display showing "--", and an upward arrow, separated by a tilde (~).
- Bottom Buttons:** Large buttons for Cancel and Apply.

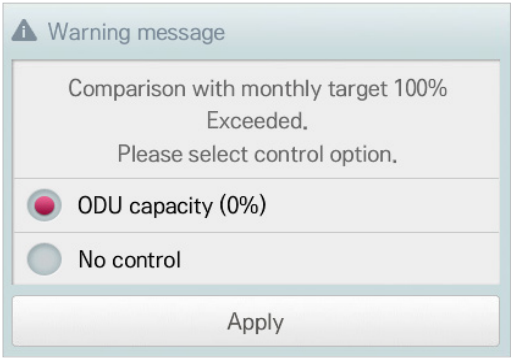
6. To complete the control level setting, click (touch) **[Apply]** button.

Alarm message control selection

ENGLISH

In the control type manual set state, when it reached the control level, the alarm message is displayed. Alarm message continues until the control is selected. The method to select the control in the alarm message is as follows.

1. Check the monthly target excess rate (%) and the control option.
2. Select the control option, and click (touch) **[Apply]** button.
 - If you select the displayed control method, the corresponding control level starts.
 - If you select to no control, it maintains the previous state.



Caution

Before you select the control, the alarm message may keep occurring.



NOTES

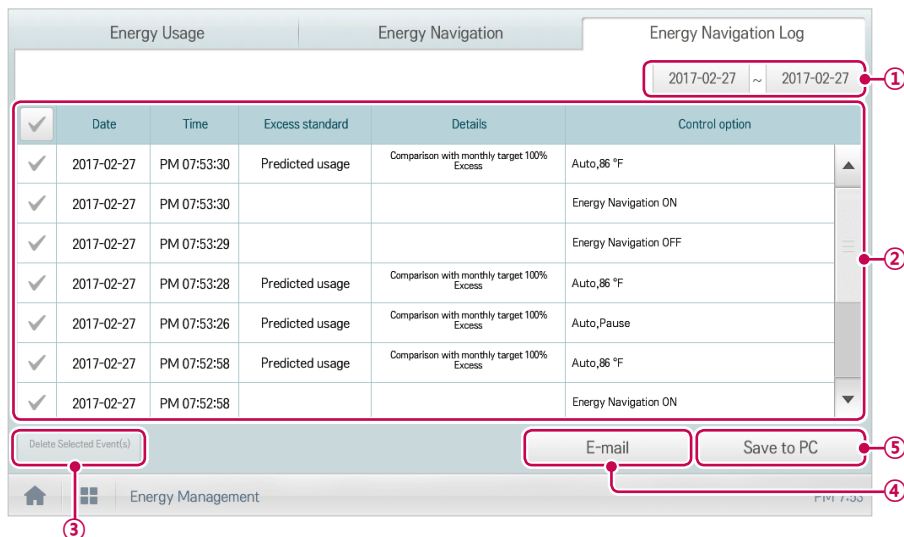
- If the energy navigation usage setting is ON, the control selection alarm message appears every 1 hour regardless of the operation status.
- In the energy navigation usage setting OFF state, if you click (touch) **[ON]** button, the control selection alarm message appears. But, it does not appear in normal state.
- In the energy navigation operation status OFF state, if you click (touch) **[Run]** button, the control selection alarm message appears. But, it does not appear in normal state.

Energy navigation log

It describes how to view the energy navigation operation status or control status.

Energy navigation log screen composition and function

It describes the energy navigation log screen composition and function.



Number	Item	Contents
①	Viewing period setting area	- Selects the viewing period of the report contents - The start date is set within 3 months period based on the end date
②	Energy navigation log information display	Displays the energy navigation operation and control related report contents
③	[Delete selected event(s)] button	Deletes the selected report.
④	[E-mail] button	- In [Environment > E-Mail Setting] menu, you need to set the e-mail usage to ON to use this function. - The queried reports will be sent to the Email address registered in the Environment menu.

Number	Item	Contents
⑤	[Save to USB] button	(When accessing AC Smart IV/AC Smart BACnet Controller) Saves the viewed report contents to USB memory
	[Save to PC] button	Downloads the viewed report contents to PC

Viewing energy navigation log

The method to view the energy navigation operation and control report is as follows.

1. In the main menu, click (touch) **[Energy management]** menu icon.
2. Click (touch) **[Energy navigation log]** tab.
3. In the viewing period setting area, click (touch) **[◀/▶]** button to set the viewing period of the report contents.
 - Start date is limited to within 3 months based on the end date.
4. In the report contents display area, check the report contents.

Energy Usage		Energy Navigation		Energy Navigation Log	
				2017-02-27 ~ 2017-02-27	
☒	Date	Time	Excess standard	Details	Control option
☒	2017-02-27	PM 07:53:30	Predicted usage	Comparison with monthly target 100% Excess	Auto, 86 °F
☒	2017-02-27	PM 07:53:30			Energy Navigation ON
☒	2017-02-27	PM 07:53:29			Energy Navigation OFF
☒	2017-02-27	PM 07:53:28	Predicted usage	Comparison with monthly target 100% Excess	Auto, 86 °F
☒	2017-02-27	PM 07:53:26	Predicted usage	Comparison with monthly target 100% Excess	Auto, Pause
☒	2017-02-27	PM 07:52:58	Predicted usage	Comparison with monthly target 100% Excess	Auto, 86 °F
☒	2017-02-27	PM 07:52:58			Energy Navigation ON
Delete Selected Event(s)					E-mail Save to PC
Energy Management					PM 7:53

5. To send the report contents via e-mail, click (touch) **[E-mail]** button, and to save to USB memory or PC, click (touch) **[Save to USB/PC]** button.



NOTES

You can query up to 200 events and email/save to PC, USB memory up to 300 events. Up to 5000 events are stored total.

