SAMSUNG

Data Management Server2

BACnet Gateway

LonWorks Gateway

# Air Conditioner user manual



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Thank you for purchasing this Samsung product.

® DB68-03733A(1)



## **Safety Precautions**

- Before using the DMS2, read carefully these instructions.
- After reading the instructions, keep this user's manual in a handy and safe place.
   If a user is changed, you must hand over the manuals.
- Never attempt to install the air conditioning system or to move the DMS2 by yourself.



- lacktriangle Do not attempt to install or repair this DMS2 by yourself.
- This DMS2 contains no user-serviceable parts.
   Always consult authorized service personnel for repairs.
- When moving, consult authorized service personnel for disconnection and installation of the DMS2.
- Ensure that the wall is strong enough to support the weight of the DMS2.
- ◆ Must install the DMS2 with rated power supply.
- In the event of a malfunction (burning smell, etc.), immediately stop operation, turn off the electrical breaker, and consult authorized service personnel.



- ◆ Do not use inflammable gases near the DMS2.
- ◆ Do not spill water into the DMS2.
- Do not operate the DMS2 with wet hands.
- Do not install the DMS2 in a location where it will come into contact with the combustible gases, machine oil, sulphide gas, etc.
- Do not press buttons with a pointed thing.
- ◆ Do not pull or bend the DMS2 cable excessively.
- Do not use this DMS2 for other purpose.
- Do not spray an insecticide or other combustible things on the DMS2.
- ◆ Do not clean the DMS2 with benzene, solvents or other chemicals.
- Do not give a shock to the DMS2 or disassemble it by yourself.

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\* The contents and pictures used in this user manual may be changed without advance notice for the functional reinforcement and improvement of a product.



This System is strictly restricted to authorized user. Any illegal access shall be punished with a related-law.



#### **General Description**

#### Introduction of DMS2 (Data Management Server2)

The DMS2 is an Internet based device for central management of Samsung system air-conditioners. It supports LAN & WAN and operates 24 hours without a separate PC.

#### Advantages of DMS2 System

The DMS2 provides the following advantages:

- ◆ Everyday Device-The DMS2 is operational all year long 24 hours.
- Independent Operation—The DMS2 can operate schedule control and power distribution without a PC.

In order to run power distribution, relevant controllers need to be installed.

- Internet Control
  - Web The DMS2 has a built-in web server function and can be accessed from a remote location to operate status monitoring, control, trouble history, and schedule setting of the system air-conditioners.
  - Using an Upper Level Controller-When a separate upper level controller (S-NET series) is used, a number of DMS2 can be controlled with one central management system.
- Data Storage—The DMS2 has its own database built-in, therefore, trouble history, indoor unit installation information, and power distribution data can be saved and retrieved.
- Large Scale Management-At most 256 indoor units can be connected to one DMS2 and therefore, only one DMS2 can manage small and medium size buildings.
- Automatic "e-mail" sending-When an error is occurred, inform the error details to an e-mail saved on DMS2

№ Please be advised that once you are permitted access to the system, you will be deemed to have consented to having software relating this system automatically updated or modified on a periodic basis. You will be deemed to have consented to having software relating this system automatically updated or modified on a periodic basis.

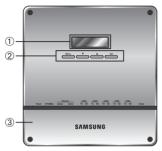
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#### Terms

- ◆ DMS2: The abbreviation of Data Management Server2.
- Upper Controller: S-NET 3, RMS and DMS2 which allows controlling by accessing to a web page.
- OnOff Controller: A device that controls 16 groups of the DVM air conditioner.
   A central control device of a DVM system which is located between a DMS2 and an outdoor unit.
- ♦ AHU(Air Handling Unit): Executes heat exchange between air and cooling unit using central air conditioning duct method.
- ERV(Energy Recovery Ventilator): Ventilating system using heat recovery function.

# Viewing the Parts

# Front View



No.	Name	Description		
1	LCD Display	Display current time/ Check menu		
	Menu button	Access to main menu		
2	▼/▲ button	Select the function you want and set detailed functions in main menu		
	Set button	Check the function you want from main menu and select it		
3	Bottom cover	Unfasten 2 screws on the bottom and separate the bottom cover from DMS2. Then check cable connection part.		

# Indicator

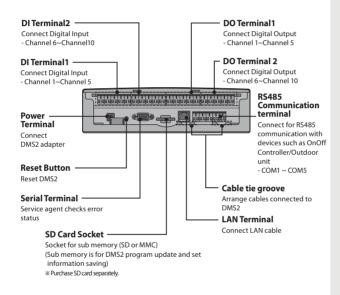


Name	Description
Power	Turns blue when the power is supplied.
CPU Alive	Blinks in orange with 1 second intervals during normal operation.
Ethernet-Linked	Turns green during normal connection.
Ethernet-Active	Blinks in orange during normal transmission/reception.
COM1~5 - TX	Blinks in green during normal transmission.
COM1~5 – RX	Blinks in green during normal reception.
Check	Turns green when notice occurs.

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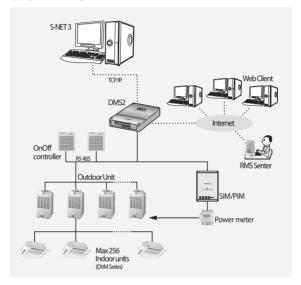
#### **Bottom View**

◆ Separate bottom cover by unfastening 2 screws on the bottom.



#### **Before Use**

## System Configuration



- ◆ Connecting outdoor unit and DMS2
  - You can control up to 80 outdoor units and 256 indoor units by using DMS2.
  - \*\* You can connect up to 16 (outdoor) units per each communication channel of the DMS2.
  - If the number of connected outdoor unit increases, it may take long time for tracking.



- ◆ For devices that supports new communication, you must set the communication mode of the channel to 'INEW' from 'System settings → Tracking' menu, and for the SIM/PIM with conventional communication, communication mode must be set to 'IM'. Set of Indoor/outdoor units, with conventional communication type, cannot be connected to DMS2 with new communication.
- When 'NEW' is set as communication mode of the channel, virtual OnOff controller address will be assigned.

(Channel 0: Virtual ÖnOff controller 11, Channel 1: Virtual OnOff controller 12, Channel 2: Virtual OnOff controller 13, Channel 3: Virtual OnOff controller 14, Channel 4: Virtual OnOff controller 15)

#### Web Browser Specification

- ◆ Install Windows XP SP2, Windows 2000 SP4 or later version.
- Install Internet Explorer 7.0 or later version
   You can use Internet Explorer 6.0 but it is not recommended.
- ◆ Install Silverlight 2.0 or later version
- Visit internet homepage (http://www.microsoft. com/silverlight/) to download Silverlight. Or you can download it through the download link which is noticed automatically when the PC is connected to the Internet and you access to DMS2 for the first time.
  - Silverlight operates normally with Windows XP SP2 or later version.
    - It may not operate normally with former version of Windows.

## Computer Settings for DMS2 Connection

All settings of DMS2 will be arranged in web page which built in DMS2.

You should access to DMS2 IP to use DMS2 web page. There are 2 ways to access DMS2 IP.

(For about settings, refer to installation manual.)

- ◆ Static IP setting
- ◆ Dynamic IP(DHCP) setting



#### **Main Function**

## Interface with Upper Level Controller

The DMS2 receives/manages setting and control data from the upper level controller and sends the received data to the lower level system.

- ◆ Upper controller: S-NET 3, RMS and DMS2 which allows controlling by accessing to a web page.
- ◆ S-NET 3: System air conditioner controlling and monitoring program that is used by installing on a PC.
- RMS: A device which supervises operation status and break down status by connecting to DMS2 for system air conditioner remote service. If break down is detected, it notifies service agent and makes fast service possible.

## Save Trouble History

The DMS2 saves at most 1024 cases of trouble history. If the number of errors exceeds 1024, only the latest 1024 cases are stored by deleting the oldest trouble history.

- Device name, address, error occurrence time, error solvation time, trouble history will be saved. You can check it in web page or upper controller.
- When an error occurs, it sends trouble history to e-mail saved in DMS2.

Device	Туре		
Indoor Unit	Indoor unit communication error Indoor unit sensor related error Other errors		
Outdoor Unit	Outdoor unit communication error Pipe inspection error Outdoor unit sensor related error Outdoor unit related other errors		
Communication error such as OnOff controller	Option device related communication error		



#### Set and Run Schedule

The schedule function of the DMS2 can be set through the Web or using the upper level controller. 1day/Everyday/Every week schedules can be set.

- ◆ Each schedule can be used selectively by using the run schedule/stop schedule order.
- ◆ At most 256 schedules can be set.
- Indoor unit control is possible at least 1 minute of interval by set schedule.

Item	Content	Remark
Schedule Period	Starting and ending date of a schedule	
Exception Day Setup	Set an exception day within a schedule period to ignore the schedule control	
Devices to be applied	Select devices to receive schedule control	
Event	Set indoor unit operation modes - Device On time - Device Off time - Desired temperature - Operation mode: Auto/Cool/Dry/Fan/Heat/Off - Remote control usage Enable RC/ Disable RC/ Cond.RC - Fan speed: Auto/Low/Mid/High - Air flow: None/Vertical/Horizontal/All - ERV operation mode: Auto/HeatEx/ByPass/Sleep - ERV Fan speed: Low/High/Turbo	Weekly Repeat: Maximum 10 events per day Daily Repeat: Maximum 70 events



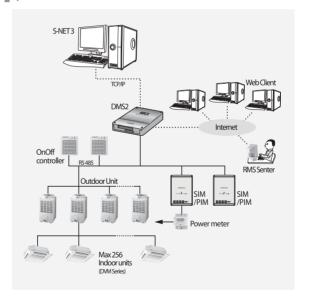
#### **Main Function (Continued)**

#### Save Integrated Power Distribution Data

The DMS2 calculates and distributes the power consumed by each indoor unit by receiving the total power usage from the watt-hour meter interface modules (SIM/PIM) and taking into account the operation status of the indoor units.

The DMS2 saves at most 1 year of data. After a year, the oldest data is deleted and the latest data is saved. This data can be checked through the built-in Web page of the DMS2 or by S-NET 3.

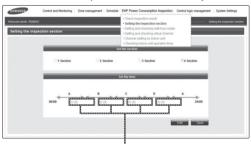
#### System Architecture





#### Time Segmentation

- ◆ Time segmentation is used to divide 24 hours into different sections and to distribute power according to each section.
- This function is used when the power consumption fee is different according to different time slots or when a building is charged differently depending on the consumption time.
- 1 section (A) is set as 24hours, and the factory default setting is set as 1 section.
   The time, 24hours, can also be divided into 2 sections (A,B,A), 3 sections (A,B,C,A) or 4 sections (A,B,C,D,A)
- ◆ DMS2 shows the result of the power distribution for each section you set.



Input manually (When setting 2 sections, 3 sections, and 4 sections)



If communication error occurs between DMS and the lower level controllers, actual power consumption and the result of power distribution value may not be same. Make sure to solve communication error status.

- Example of communication error : Communication error between DMS2 and SIM(PIM)/SIM(PIM) and watt hour meter/DMS2 and outdoor unit/indoor and outdoor units.



#### Starting DMS2

#### Starting DMS2

#### Current time setting

Set the current time of DMS2 system.

◆ "2009/01/01 01:01:01" is factory setting. Set the current time as DMS2 system time. You can set DMS2 time in [System Settings] → [System environment setting] (Refer to page 117~118)



If DMS2 time does not set as the current time, DMS2 may cause malfunction when using Schedule or control logic management.

#### Connecting OnOff controller & outdoor unit

- (1) Make sure that OnOff controller communication cables(R1, R2) or outdoor unit communication cables(R1, R2) are connected.
  - ◆ For communication between DMS2 and OnOff controller/outdoor unit, OnOff controller communication cable(R1, R2) or outdoor unit communication cable (R1, R2) should be connected.
- (2) Execute tracking.
  - DMS2 communicates with outdoor unit and brings information about installed indoor unit and outdoor unit.
  - ◆ After tracking, you can use indoor unit control and other menu.
  - ◆ For tracking, refer to [System Settings] → [Tracking] (Refer to page 140~152)



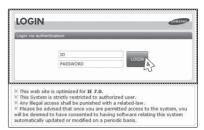
# Access to DMS2 & Login



- 1 Run internet explorer on your computer.
- 2 Enter IP address (http://192.168.0.100) on the address bar, and then press [ENTER].
  - If it is the first access to DMS2, "Install Microsoft Silverlight" message will be displayed.
    - The message will not appear if Microsoft Silverlight have already installed.
    - If the message window and login screen does not appear, check PC setting status.
- 3 Click [Run] and continue installation.
  - ◆ Access to DMS2 again after installation.



## **Starting DMS2 (Continued)**



- 4 Enter ID and password when DMS2 main web page appears. Then click [LOGIN].
  - ◆ The default DMS2 user ID is 'admin' and password is 'ac0530'
  - Depending on authorization settings which set by the administrator, access to some functions may be restricted.
  - ◆ To edit user authorization, refer to [System Settings] → [User authorization management]. (Refer to page 100)

#### Note

- Only authorized users can access to web page.
  - ◆ Fewer than 5 concurrent users are recommended because connection speed may slow down.
  - DMS2 manager should change ID and password for security and management. (Refer to page 98)
  - Logout: To log out, click [LOGOUT] on the top of the menu.



Silverlight will run normally with Windows XP SP2 or later version. With former version of Windows, DMS2 may not operate normally.

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## Logged-in User with No Authorization



- 1 When the screen above appears, ask for manager.
  - Depending on control authorization setting, there can be a user who does not have control authorization.
  - Above screen will appear when the logged-in user does not have control authorization.

# **Control and Monitoring**

## Devices controlled and monitored by DMS2

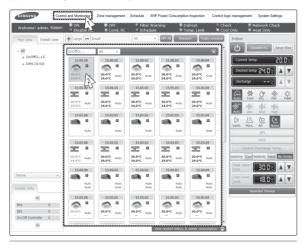
Туре	Display	Remote controller (Controlling range)	Туре	Display	Remote controller (Controlling range)
Indoor unit display icon	15.00.01 20.0°C Auto	Simple	MINI AHU display icon	15.03.01 20.0°C Autro 24.0°C Autro	No.   100
ERV display icon	15.02.01	From the law	Fresh duct display icon	15.05.01 20.0°C Auto	Fresh Dust  On seals any COO;  Contract any COO;  C
AHU display icon	15.03.01 20.0°C Auto	Comments of the comment of the comme	DI (Digital Input) display icon	56.00.03 DI	Control front Vectories Ve
ERV PLUS display icon	15,04.01	SEC FUE  SEC	DO (Digital Output) display icon	56.01.03 DO <b>3</b>	Control Famili Separt value 1/4 (Apple) The 100% DDDD Stanue Cts OFF

DMS2 can control and monitor the devices in the above table.



When users select multiple devices, 'Basic Control' will be displayed on the screen. (This is when different types of multiple devices are selected.)

#### Monitoring Indoor Unit Operation Status



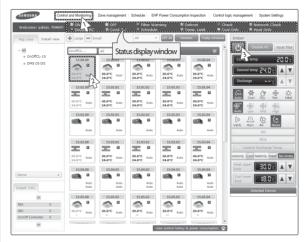
- 1 Click [Control and Monitoring] when DMS2 web page menu screen appears.
  - ◆ [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- Check the current status of all devices.
  - You can check the current controlling status of all installed indoor units, ERV, AHU, ERV PLUS. Fresh duct. MINI AHU and other devices.
- Mଗର ♦ When the advanced
  - When the advanced functions (such as Sleep mode, Energy saving function) are selected through wired/wireless remote controllers or indoor unit panel, set operation mode on the remote controllers and DMS2 may be displayed differently. Also, when controlling by DMS2, additional functions will be canceled.
  - Depending on the model of indoor unit, Horizontal/All air flow direction control
    may not be possible. In this case, vertical or fixed flow will be displayed depending
    on indoor unit's basic operation specification.
  - AHU, ERV, ERV PLUS, Fresh duct, MINI AHU, and other devices will be displayed only when the corresponding devices are installed.



Some functions available on DMS2 web page may not be functional at BACnet Gateway and LonWorks Gateway. For detailed function, refer to the installation manual or contact Samsunq Electronics.



## Controlling an Indoor Unit



- Click [Control and Monitoring] when DMS2 web page menu screen appears.
  - [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- 2 Select an indoor unit to control.
  - ◆ Check the indoor unit status through status display window.
  - When the selected indoor unit is switched on, the remote controller panel will be automatically activated.
- **3** Turn the indoor unit on by clicking [①].
  - ◆ Remote controller panel will be activated.





- 4 Select the operation mode.
  - ◆ You can select Auto, Cool, Dry, Fan and Heat operation mode.
- 5 Click [▲][▼] to set the desired temperature.
  - ◆ Each time you press the buttons, the temperature will be adjusted by 1 or 0.5 or 0.1°C(or by 1°F).
  - If Auto/Cool/Dry mode is in operation, you can adjust the desired temperature in the range of 18°C(64°F)~30°C(86°F).
  - If Heat mode is in operation, you can adjust the desired temperature in the range of 16℃(61°F)~30℃(86°F).
  - ◆ You cannot adjust the desired temperature in Fan mode.
  - When the operation mode of an indoor unit is Cool or Dry mode, you cannot set the desired temperature lower than lower limit temperature if lower limit is enabled.
  - When the operation mode of indoor unit is Heat mode, you cannot set the desired temperature higher than upper limit temperature if upper limit is enabled.
- 6 Select the fan speed.
  - ◆ You can select Auto, Low, Mid and High.
  - ◆ If Auto/Dry mode is in operation, fan speed will be set as Auto fan speed.
  - ◆ If Fan mode is in operation, you cannot select Auto fan speed.

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- 7 Select the air flow.
  - ◆ You can select Vertical, Horizontal, All and None air flow direction.
- 8 Set remote controller settings.
  - ◆ You can select Enable RC, Disable RC, and Cond. RC.
  - When selecting [Disable RC], indoor unit control by wired/wireless remote controller and indoor unit panel is not possible. Indoor unit control is only available in DMS2 web page.
  - ◆ Click [₺] when you want to use wired remote controller in each room.
- 9 Select SPI setting.
  - ◆ You can set SPI through button activation / non activation.



- 10 Select MDS setting.
  - You can set MDS(Motion Detection Sensor) through button activation / non activation.
- 11 Set cooling/heating discharge temperature by clicking [▲] and [▼].
  - When the indoor unit is in Cool mode, you can adjust cooling discharge temperature and when the indoor unit is in Heat mode, you can adjust the heating discharge temperature.
  - When the indoor unit is in Auto, Dry or Fan mode, you cannot adjust the discharged temperature.
  - ◆ Cooling discharged temperature can be set in the range of 8°C(46°F)~18°C(64°F).
  - ◆ Heating discharged temperature can be set in the range of 30°C(68°F)~43°C(109°F).
- 12 Select [Control Discharge Temp].

model.

◆ You can enable/disable button to decide whether to use discharge temperature adjustment.

#### ${\mathbb N}{\mathbb N}$ When filter warning sign is displayed on indoor unit status window

Select the indoor unit and click [Reset filter]. Filter warning will be released.

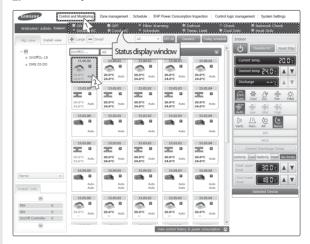
(I) Disable RC Reset filter

- Desable RC Reset filter

   Make sure that each indoor unit must be turned on to control.
- ◆ Selecting remote controller, reset filter, operation mode limits, setting lower/upper
- temperature limit are possible even if the power of indoor unit is off.

  Some air flow direction option may be restricted depending on the indoor unit
- SPI, MDS and discharge temperature functions can be operated normally when corresponding optional functions are installed to the selected indoor unit.

#### Indoor Unit Operation Mode Limit



You can monitor the operation status of all indoor units or have individual or whole control of the indoor units.

- Click [Control and Monitoring] when DMS2 web page menu screen appears.
  - ◆ [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- 2 Select an indoor unit to control.
  - Check the indoor unit status through status display window.
  - When the selected indoor unit is switched on, the remote controller panel will be automatically activated.



- 3 Set operation mode limit.
  - $\spadesuit$  You can select [coolonly (Cool)], [heatonly (Heat)], and [No limits].
    - No limits: You can use cool only and heat only with no limits.

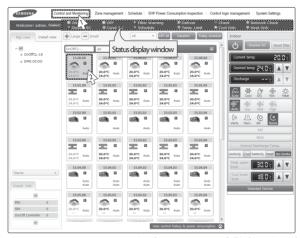
№ Operation mode limits setting is not available in ERV.



- ♦ If you set the operation mode limit, DMS2 will automatically change the operation mode limit setting of all the indoor units connected to same outdoor unit.
- ♦ If the indoor unit is cooling only model, you cannot set the operation mode limit to 'heatonly'.



## Setting Lower/Upper Temperature Limit of an Indoor Unit



You can monitor the operation status of all indoor units, and control the indoor units as a whole, or as individual units.

- Click [Control and Monitoring] when DMS2 web page menu screen appears.
  - [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- Select an indoor unit to control.
  - ◆ Check the indoor unit status through status display window.
  - When the selected indoor unit is switched on, the remote controller panel will be automatically activated.

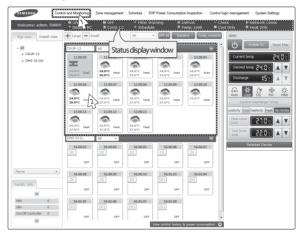


- 3 Set upper temperature limit by pressing [▲] and [▼].
  - ◆ Click 'Heat upper limit' to apply the upper temperature limit setting.
  - ◆ Upper temperature limit can be set in the range of 16°C(61°F)~30°C(86°F).
  - When an indoor unit is operating in Heat mode and the upper temperature limit is applied, you cannot set the desired temperature higher than the upper temperature limit.
- 4 Set lower temperature limit by pressing [▲] and [▼].
  - ◆ You can set lower temperature limit by clicking 'Cool lower limit'.
  - ◆ Lower temperature limit can be set in the range of 18°C(64°F)~30°C(86°F).
  - When indoor unit is operating in Cool or Dry mode and the low temperature limit is applied, you cannot set the desired temperature lower than the lower temperature limit.

 You cannot set the lower and upper temperature limit of ERV, ERV PLUS, and Fresh duct.



#### Monitoring AHU Operation Status



You can monitor the operation status of AHU, and control AHU as a whole, or as individual units.

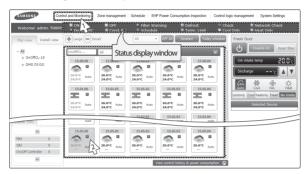
- 1 Click [Control and Monitoring] when DMS2 web page menu screen appears.
  - ◆ [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- 2 Check current status of AHU.
  - ◆ Check AHU status through status display window.
  - When the selected AHU is switched on, the remote controller panel will be automatically activated.

Mode

- ◆ To control AHU, refer to the 'Controlling an indoor unit' steps. (Refer to the page 20~23)
- ◆ AHU's fan speed is fixed as high.
- ◆ You cannot set air flow direction of AHU.
- ◆ To set the operation mode limit of AHU, refer to the 'Indoor unit operation mode limit' steps. (Refer to the page 24~25)
- ◆ To set the lower/upper temperature limit of AHU, refer to the 'Setting lower/upper temperature limit of indoor unit' steps. (Refer to the page 26~27)
- ♦ To set the cooling/heating discharge temperature, refer to the step 11~12 of 'Controlling and indoor unit.' (Refer to the page 23)



## Monitoring Fresh duct operation status

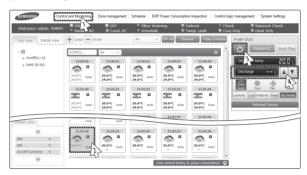


You can monitor the operation status of Fresh duct, and control the Fresh duct as a whole, or as individual units.

- Click [Control and Monitoring] when DMS2 web page menu screen appear.
  - ◆ [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- 2 Check the current status of a Fresh duct.
  - Check the status of a Fresh duct through the status display window.
  - When the selected Fresh duct is switched on, the remote controller panel will be automatically activated.



## Controlling a Fresh duct



- Click [Control and Monitoring] when DMS2 web page menu screen appear.
  - ◆ [Control and Monitoring] screen will appear when you log-in to DMS web page.
- 2 Check the current status of a Fresh duct.
  - Check the status of a Fresh duct through the status display window.
  - When the selected Fresh duct is switched on, the remote controller panel will be automatically activated.
- 3 Turn the Fresh duct on by clicking [...].

be set as cooling discharge

- Remote controller panel will be activated.
- 4 Set cooling/heating discharge temperature by clicking [▲]and[▼].
  - [▲]and[▼].◆ When the Fresh duct is in Cool mode, the Fresh duct can
    - temperature and when the Fresh duct is in Heat mode, the Fresh duct can be set as heating discharge temperature.
  - When the Fresh duct is in Auto or Fan mode, the discharge temperature cannot be adjusted.
  - Cooling discharge temperature can be set in the range of 15°C(59°F)~25°C(77°F).
  - ◆ Heating discharge temperature can be set in the range of 18°C(64°F)~30°C(86°F).



#### Note

- ◆ Controlling or monitoring cooling/heating discharge temperature setting is available only when the DMS2 is directly connected to the Interface module MIM-B13D. However, when the DMS2 is connected to a centralized controller, controlling or monitoring cooling/heating discharge temperature setting is not available.
- ◆ Refer to the 'Controlling an indoor unit' for Fresh duct control. (Refer to page 20~23)
- ◆ The fan speed of a Fresh duct is fixed as 'High'.
- Setting air flow direction of a Fresh duct is not available.
- ◆ Refer to the 'Indoor unit operation mode limit' for Fresh duct operation mode limit. (Refer to page 24~25)

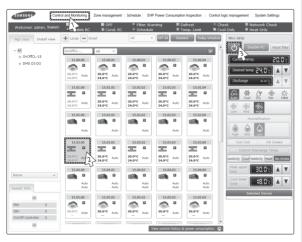


## Monitoring MINI AHU



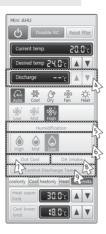
- Click [Control and Monitoring] when DMS2 web page menu screen appears.
  - [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- 2 Check the status of the indoor unit.
  - Check the status of the MINI AHU through status display window.
  - When the selected MINI AHU is switched on, the remote controller panel will be automatically activated.

# Controlling MINI AHU



- Click [Control and Monitoring] when DMS2 web page menu screen appear.
  - ◆ [Control and Monitoring] screen will appear when you log-in to DMS web page.
- 2 Check the current status of the indoor unit.
  - Check the status of the MINI AHU through the status display window.
  - When the selected MINI AHU is switched on, the remote controller panel will be automatically activated.
- 3 Turn the Fresh duct on by clicking [①].
  - ◆ Remote controller panel will be activated.





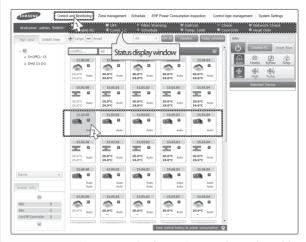
- 4 Set cooling/heating discharge temperature by clicking [▲] and [▼].
  - When the MINI AHU is in Cool mode, you can adjust cooling discharge temperature and when the MINI AHU is in Heat mode, you can adjust the heating discharge temperature.
  - ♦ When the MINI AHU is in Auto, Dry or Fan mode, you cannot adjust the discharged temperature.
  - ◆ Cooling discharged temperature can be set in the range of 8°C(46°F)~18°C(64°F).
  - ◆ Heating discharged temperature can be set in the range of 30°C(86°F)~43°C(109°F).
- 5 Select Humidification setting.
  - ◆ You can enable/disable button to decide whether to use 'Humidification' function.
  - ♦ Humidification function is only available in Heat mode.
- 6 Select desired humidity level.
  - ◆ You can select the humidity level from Low/Med/High.
  - ◆ Humidity level can be adjusted only in Heat mode.



- 7 Select Out Cool setting.
  - ◆ You can enable/disable button to decide whether to use 'Out Cool' function.
  - ♦ When 'Out Cool' function is set, MINI AHU will operate in fan mode at high fan speed.
- 8 Select OA Intake setting.
  - ◆ You can enable/disable button to decide whether to use 'OA Intake' function.
- Select Control Discharge Temp.
  - You can enable/disable button to decide whether to use discharge temperature adjustment.
- Mଗta ♦ Humidi
  - Humidification, Humidification level, Out cool and OA Intake functions can be operated normally when corresponding optional functions are installed to the selected MINI AHU.
  - ◆ Refer to 'Controlling an indoor unit' for MINI AHU control. (Refer to page 20~23)
  - ◆ You cannot set the Auto speed for MINI AHU.
  - ♦ MINI AHU sets fan speed to High in Auto mode and Low in Dry mode.
  - ◆ Refer to the 'Indoor unit operation mode limit' for MINI AHU operation mode limit. (Refer to page 24~25)
  - ◆ Refer to 'Setting Lower/Upper Temperature Limit of an Indoor Unit' to adjust Heat upper limit/Cool lower limit temperature. (Refer to page 26~27)



### Monitoring ERV Operation Status



You can monitor the operation status of ERV, and control the ERV as a whole, or as individual units.

- Click [Control and Monitoring] when DMS2 web page menu screen appears.
  - ◆ [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- Check current status of ERV.
  - ◆ Check the status of ERV through the status display window.
  - When the selected ERV is switched on, the remote controller panel will be automatically activated.

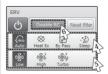
# Controlling ERV



You can monitor the operation status of ERV, and control the ERV as a whole, or as individual units.

- Click [Control and Monitoring] when DMS2 web page menu screen appears.
  - ◆ [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- 2 Select an ERV to control.
  - When the selected ERV is switched on, the remote controller panel will be automatically activated.
- 3 Turn ERV on by pressing [①].
  - ◆ The remote controller panel will be activated.





- 4 Select the operation mode.
  - ◆ You can select Auto, HeatEx, By pass and Sleep.
- 5 Select the fan speed.
  - ◆ You can select Low, High and Turbo.
  - ◆ Fan speed is set to Low in Sleep mode.
- 6 Set remote controller settings.
  - ◆ You can select Enable RC, Disable RC, and Cond. RC.
  - When selecting [Enable RC], indoor unit control by wired/ wireless remote controller is not possible. Indoor unit control is only available in DMS2 web page.
  - Click [(b)] when you want to use wired remote controller in each room.

#### Mote

♦ When filter warning sign is displayed on ERV status

Select the ERV and click [Reset filter]. Filter warning will be released.



- ◆ Make sure that ERV must be turned on to control.
- Selecting remote controller and filter reset are possible even if the power of indoor unit is off.



### Monitoring ERV PLUS operation status



You can monitor the operation status of ERV PLUS, and control the ERV PLUS as a whole, or as individual units.

- Click [Control and Monitoring] when DMS2 web page menu screen appears.
  - ◆ [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- 2 Check the current status of ERV PLUS.
  - Check the status of ERV PLUS through the status display window.
  - When the selected ERV PLUS is switched on, the remote controller panel will be automatically activated.



### Controlling ERV PLUS



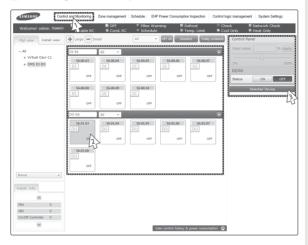
- Click [Control and Monitoring] when DMS2 web page menu screen appear.
  - ◆ [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- Select ERV PLUS to control.
  - ◆ Check the status of ERV PLUS through the status display window.
  - When the selected ERV PLUS is switched on, the remote controller panel will be automatically activated.
- Turn the ERV PLUS on by clicking [🖒].
  - ◆ Remote controller panel will be activated.
- Select the operation mode
  - ◆ You can select Auto, Cool, Off and Heat mode.

Mote

- ◆ Refer to the 'Controlling ERV' for ERV PLUS control. (Refer to page 37~38)
- ◆ Refer to the 'Indoor unit operation mode limit' for ERV PLUS operation mode limit. (Refer to page 24~25)



#### Monitoring DMS DI/DO Operation Status



- 1 Click [Control and Monitoring] when DMS2 web page menu screen appears.
  - ◆ [Control and Monitoring] screen will appear when you login to DMS2 web page.
- 2 Check the current status of DI and DO device.
- 3 Monitor the device through the control panel.

#### Mote

- ◆ Entering OnOff becomes impossible for DI device.
  - ◆ Entering OnOff becomes possible for DO device.
  - Entering control value becomes impossible for DI/DO device.
  - ◆ You can control and monitor DI/DO which built-in DMS2. However, DI 1, 2 and DO 1, 2, 9, 10 are excluded from controlling and monitoring because they are used for the internal function of DMS.



#### Controlling DMS DO



- 1 Click [Control and Monitoring] when DMS2 web page menu screen appears.
  - [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- 2 Select DO device to control when control and monitoring screen appears.
  - ◆ Check the status of DI or DO device.

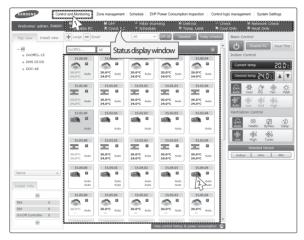


3 Turn DO device on by clicking [ON]/[OFF] button on the control panel.

Note Remote controller setting is not possible for DI/DO device.



### Monitoring the selected multiple devices operation status



You can monitor the operation status of other type devices, and control other type devices as a whole, or as individual units.

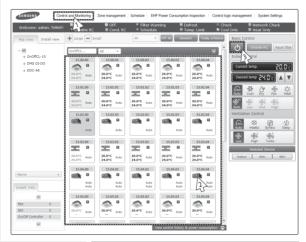
- 1 Click [Control and Monitoring] when DMS2 web page menu screen appears.
  - ◆ [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- 2 Check the status of the selected multiple devices.
  - ◆ Check the status of an indoor unit through status display window.
  - When the selected devices are switched on, the remote controller panel will be automatically activated.

#### Mate

- When users select multiple devices, 'Basic Control' will be displayed on the screen. (This is when different types of multiple devices are selected.)
- The current status of last selected indoor unit type devices (Indoor unit, AHU, Fresh duct, MINI AHU) will be displayed on the 'Indoor control'.
- The status of last selected ERV type devices (ERV, ERV PLUS) will be displayed on the 'Ventilation Control'.
- ◆ The list of the selected multiple devices will be displayed on the 'Selected Device'.



### Controlling the selected multiple devices



- Click [Control and Monitoring] when DMS2 web page menu screen appears.
  - [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- 2 Check the status of the selected devices.
  - Check the status of an indoor unit through status display window.
  - When the selected devices are switched on, the remote controller panel will be automatically activated.
- 3 Turn the selected devices on by clicking [①].
  - ◆ Remote controller panel will be activated.



- 4 Select the desired temperature by clicking [▲][▼].
  - ◆ Each time you press the buttons, the temperature will be adjusted by 1 or 0.1°C (or by 1°F).
  - ◆ If Auto/Cool/Dry mode is in operation, you can adjust the desired temperature in the range of 18°C(64°F)~30°C(86°F).
  - If Heat mode is in operation, you can adjust the desired temperature in the range of  $16^{\circ}\text{C}(61^{\circ}\text{F}) \sim 30^{\circ}\text{C}(86^{\circ}\text{F})$ .
  - ◆ You cannot adjust the desired temperature in Fan mode.
  - When the operation mode of an indoor unit is in Cool or Dry mode, you cannot set the desired temperature lower than lower limit temperature if lower limit is enabled.
  - When the operation mode of an indoor unit is in Heat mode, you cannot set the desired temperature higher than upper limit temperature if upper limit is enabled.
- 5 Select the operation mode.
  - ◆ You can select Auto, Cool, Dry, Fan and Heat mode.
- 6 Select the fan speed.
  - ◆ You can select Auto, Low, Mid and High.
  - ♦ If Auto/Dry mode is in operation, fan speed will be set as Auto fan speed.
  - ◆ If Fan mode is in operation, you cannot select Auto fan speed.



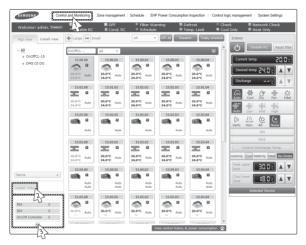
- 7 Select the ERV operation mode.
  - ◆ You can select Auto, Heat Ex, By pass and Sleep mode.
- 8 Select the fan speed.
  - ◆ You can select Low, high and Turbo.
  - ◆ If Sleep mode is in operation, the fan speed will be set as Low fan speed.
- 9 When controlling certain types of devices in detail, select the device you want to control on the list of the 'Selected Device'.

#### ♦ If the ERV type devices are not on the list of the 'Selected Device', ventilation control will not be activated.

- If the indoor unit type devices are not on the list of the 'Selected Device', Indoor control will not be activated.
- ♦ When controlling an indoor unit, ERV devices (ERV, ERV PLUS) cannot be controlled.
- When controlling ERV devices, Indoor unit (Indoor unit, AHU, Fresh duct, MINI AHU) cannot be controlled.
- You can select power OnOff, Disable RC, Reset filter, Indoor Control (Desired temp, operation mode, fan speed) and ERV Control in the 'Basic control'.j
- Power OnOff, Disable RC and Reset filter are controlled to all the devices.
- When selecting multiple devices, the list of the selected devices will be displayed at the bottom of the remote controller. When selecting the device you want to control, the remote control panel of the selected device will be activated and you can control the selected device in detail. However, the rest of the devices cannot be controlled other than the selected device.



## Checking the Installation Information

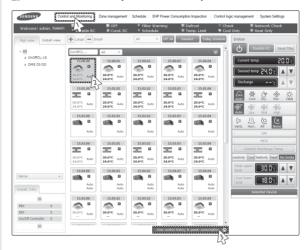


# You can check the installation status of currently connected device.

- Click [Control and Monitoring] when DMS2 web page menu screen appears.
  - ◆ [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- 2 Click 'Install.Info', tab at the bottom left of the screen.
- 3 Check installation status of currently connected device in the installation information tab.
  - You can check installation information by pressing [∧] and [∨] buttons.



#### ■ View the Control History & Power Consumption

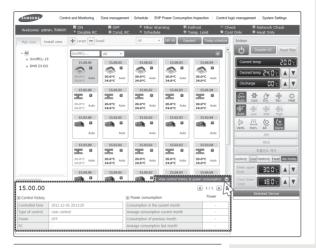


# You can select a device and view control history and power consumption information.

- Click [Control and Monitoring] when DMS2 web page menu screen appears.
  - ◆ [Control and Monitoring] screen will appear when you log-in to DMS2 web page.
- Select a device you want to view control history and power consumption.
- 3 Click [View control history & power consumption]tab and wait for a while.
  - Control history and power consumption information are received from DMS2.
  - 'Data receiving' message will appear on the bottom right of the tab.







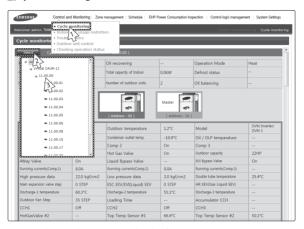
4 When data reception is completed from DMS2, check control history and power consumption of selected device.

#### Note

- In 'Control history', you can check power control and remote controller usage status.
- Operation mode, desired temperature, air flow and fan speed control shows you the controlled time and type of control only.
- If SIM is not installed, power consumption information may not be correct.
- Power consumption information is displayed only when SIM is installed.
- If SIM is removed, value measured with SIM will be displayed.



### Cycle Monitoring



#### You can select an indoor unit and check cycle information.

- 1 Click [Control and Monitoring] → [Cycle Monitoring] when DMS2 web page menu screen appears.
- 2 Click [Select].
  - DMS2 installation information will be displayed.
- 3 Select a device to check cycle information.
  - ◆ If you select centralized controller, its subordinate outdoor unit which has the earliest address will be selected.
  - ♦ If you select an outdoor unit, all the information of the module (that are connected to the selected outdoor unit) will be displayed.
  - ◆ If you select indoor unit, upper outdoor unit will be selected.
- 4 Cycle information of selected outdoor unit and subordinate indoor units.
  - ♦ If the status of outdoor unit and indoor unit is changed, status value turns into blue.



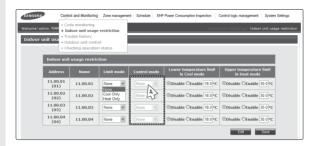
# Indoor Unit Usage Restriction\_Operation Limit



You can set the operation of indoor unit as cooling only and heating only.

- Click [Control and Monitoring] → [Indoor unit usage restriction] when DMS2 web page menu screen appears.
- Press [Edit] button.
- 3 Set the limit mode.
  - ◆ You can select 'Cool-only', 'Heat-only' or 'None'.
    - For cooling only indoor unit, you can select cool, dry and fan modes only.
    - For heating only indoor unit, you can select heat and fan modes only.





- 4 Set the control mode.
  - Control mode is used for DMS2 to set either 'cool only' or 'heat only' mode to indoor and outdoor units.

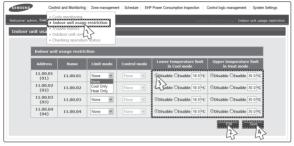
Note

- ◆ Mixed operation can occur even if you set limit mode.
- If the indoor unit with operation mode limit is in mixed operation, DMS2 will solve the problem automatically by controlling it in control mode.



- When you set the operation mode limit, and if the outdoor unit is HP (Heat pump) type, DMS2 will automatically change the operation mode limit setting of all the indoor units connected to same outdoor unit.
- If the indoor unit is cooling only model, you cannot set the operation mode limit to 'heatonly'.

#### Indoor Unit Usage Restriction\_Temperature Limit in Cool/Heat mode

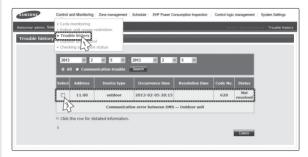


# You can set temperature lower/upper temperature limit in cool/heat mode.

- 1 Click [Control and Monitoring] → [Indoor unit usage restriction] when DMS2 web page menu screen appears.
- 2 Press [Edit] button.
- 3 Set the lower/upper temperature limit.
  - You can set lower/upper temperature limit by selecting 'Enable'/Disable'.
  - ◆ Lower temperature limit range: 18℃(64°F)~30℃(86°F) Upper temperature limit range: 16℃(61°F)~30℃(86°F)
  - ERV PLUS and Fresh duct cannot set the lower temperature limit in Cool mode or upper temperature limit in Heat mode.
- 4 Click (Save).
  - ◆ Indoor unit usage restriction setting will be saved.

E-53

# Checking the Trouble History



- Click [Control and Monitoring] → [Trouble history] when DMS2 web page menu screen appears.
- 2 Check all the trouble history.
  - You can check address, device type, occurrence time, resolution time, code number and status.
- 3 You can check detailed information on trouble history by selecting the item in the list.

#### Note

- ◆ DMS2 saves maximum 1024 trouble histories. If the number of history exceeds 1024, DMS2 will delete the oldest history first.
- If the same code trouble is detected repeatedly in the same device on the same day, trouble history will be shown as 1 case. If it occurs more than 2 times, 'Resolution time' may change every time you check. And the number of repetition will be displayed in 'Status' field.

# Checking the Trouble History by Date

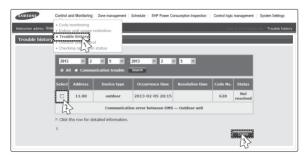


DMS2 saves maximum 1024 trouble histories. If the number of history exceeds 1024, DMS2 will delete the oldest history first.

- Click [Control and Monitoring] → [Trouble history] when DMS2 web page menu screen appears.
- 2 Enter the time period you want to check.
  - ◆ Enter year/month/day in order.
- 3 Click [Search].
  - You can check address, device type, occurrence time, resolution time, code number and status in the entered period.
- 4 You can check detailed information on trouble history by selecting the item in the list.



# Deleting the Trouble History



- Click [Control and Monitoring] → [Trouble history] when DMS2 web page menu screen appears.
- 2 Select trouble history you want to delete.
- 3 Click [Delete].
  - Click [OK] from the confirm window. Selected trouble history will be deleted.



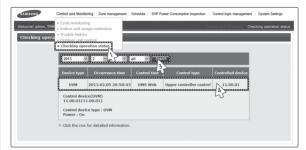
## Outdoor unit control



- Click [Control and Monitoring] → [Outdoor unit control] when DMS2 web page menu screen appears.
- 2 Click [Edit] and select the desired setting for Electric current control option, Heating capacity calibration and Cooling capacity calibration.
  - Outdoor unit self-control: Outdoor unit controls the value itself.
  - Manual: Outdoor will be controlled at value set by the user.
- **3** Click [Save] and the outdoor unit will be controlled at set value.
  - If the value was set manually on DMS2, outdoor unit will always operate at set value.
- ♦ Outdoor unit control is supported on certain models only, and the 'Outdoor unit control page' only appears on those supported models.



#### Checking the Operation Status



# You can check operation status of indoor unit which is controlled by DMS2.

- Click [Control and Monitoring] → [Checking operation status] when DMS2 web page menu screen appears.
- 2 Check the operation history.
  - You can check the device type, occurrence time, control unit, control type, and controlled device address of indoor unit which is controlled by DMS2 and subordinate controller.
- 3 You can check operation status by entering date.
  - Enter year/month/day then click [Search]. You can check control history that occurred on the entered date.
- You can check detailed control history which is controlled by the command by pressing control history in the list.

Moss aves the information of operation history for 180 days. However, it varies depending on saving space of DMS2.

#### **Zone Management**

#### Zone Setting & Edit – Individual/Group Initialization



- 1 Click [Zone management] → [Zone Setting & Edit] when DMS2 web page menu screen appears.
  - ◆ Same screen will be displayed even if you click [Zone management] only.
- 2 Initialize the indoor unit organization as individual by clicking [Individual].
  - ♦ Individual initialization reorganizes connected indoor unit based on installation address.
- 3 Initialize the indoor unit organization as group by clicking [Group].
  - ◆ Group initialization reorganizes connected indoor unit based on RMC address.
  - ◆ After group initialization, indoor units are displayed as one device when upper zone is selected in the [Control and Monitoring] screen.
  - ◆ When editing zone after group initialization, moving in group is only allowed.
  - After group initialization, subordinate devices cannot be moved individually to the other zone.

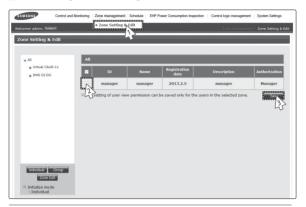
Note

- Only the user who has authorization to edit all zones can use zone initialization.
   To the user who has no authorization to use zone initialization and manage structure, button will not be displayed.
- ♦ If the user does not have authorization to edit zone, [Individual], [Group] and [Zone edit] will not be displayed.



## **Zone Management (Continued)**

#### Zone Setting & Edit – Setting the User Authorization



- 1 Click [Zone management] → [Zone Setting & Edit] when DMS2 web page menu screen appears.
  - ◆ Same screen will be displayed even if you press [Zone management] only.
- 2 Set user authorization for each zone.
  - If the user has no authorization for the zone, controlling and monitoring of the zone is restricted.
  - ◆ The user who is allowed to control and monitor zone has '\(\varDelta'\) sign.
- 3 Click [Save] to save.
  - ◆ The user of currently selected zone is selected in the screen.



- You should set the authorization for controlling and monitoring the zone when the user is added.
- If you do not set the authorization for zone after adding a user, the zone will not be displayed even if the user logged in.
- Setting the user authorization is valid only for the zone displayed on the screen. If you
  select the other zone setting without clicking save button after changing the setting,
  user authorization for previously selected zone will be gone.
- When initializing zone, all rights are given to all users.



# Zone Setting & Edit – Zone Edit



- Click [Zone management] → [Zone Setting & Edit] when DMS2 web page menu screen appears.
  - ◆ Same screen will be displayed even if you press [Zone management] only.
- 2 Click [Zone Edit].
  - ◆ Zone edit screen will be displayed.



# **Zone Management (Continued)**



- 3 Click [▼] to set viewing option of zone edit list.
  - ◆ You can select from viewing by 'Name', 'Address' and 'Address & Name'.
- 4 Edit item you want.

Create in the above	Create a new zone on top of the selected zone.	
Create in the below	Create a new zone under the selected zone.	
Create the sub zone	Create a zone one step lower than the user selected. You cannot create a zone under 5 steps in zone edit.	
Remove	Remove selected zone. If the selected zone includes device, the device will move to the top step.	
Move up	Move up the selected zone or indoor unit.	
Move down	Move down the selected zone or indoor unit.	
Move to upper level	Move the selected zone or indoor unit to the upper level.	
Rename	Rename the selected zone or indoor unit. You can use maximum 16 letters.	
Cut	Cut to move the selected zone or indoor unit,	
Paste	Move the cut zone or indoor unit to the selected zone.	



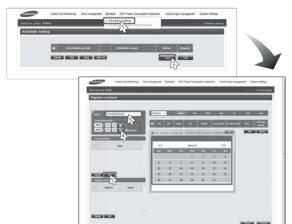
- 5 Click [Remove disappeared] to remove all disappeared devices which were found after tracking.
- 6 Change zone properties.
  - ◆ You can select "General", "AHU", and "Group".

Mode	Property name	Description	Remarks
Individual initialization mode	General	Virtual group which is managed by installation address, not by RMC address The user can create and delete zone.	-
	Group	Not applicable. (Only supported in group initialization mode.)	Not applicable. (Only supported in group initialization mode.)
	AHU	Virtual group which manages AHU kit in general zone. The user can create and delete.	It will be displayed as single device in the control and monitoring screen, and it can be controlled as single device.     You cannot move subordinate device to the other zone.
Group initialization mode	General	Virtual group which is set and managed by the user.  The user can create and delete.	-
	Group	Virtual group which is managed by installation address, not by RMC address.  The user cannot create and delete. DMS2 creates it automatically.	It is displayed like as one device in the control and monitoring screen and can be controlled.     You cannot move subordinate device to the other zone.
	AHU	Virtual group which manages AHU kit in general zone.  The user can create and delete.	It is displayed like as one device in the control and monitoring screen and can be controlled.     You cannot move subordinate device to the other zone.

- 7 Click [Apply].
  - ◆ Edited zone structure will be applied.
- 8 To cancel the setting, click [Cancel].

#### Schedule

# Creating New schedule



# You can set, edit, delete and use the schedules for air conditioner control.

- Click [Schedule] → [Schedule setting] when DMS2 web page menu screen appears.
- 2 Click [New] in the schedule setting screen.

# Note It is not available to provide the schedule information to BMS system.

- 3 Enter the schedule name when the schedule setting screen appears.
- 4 Select schedule period you want by clicking calendar.
  - ◆ If you select 'No limit' when setting end date, it means there is no period and it displays Dec 31 st, 9999.
    To set the end date, remove the check of 'No limit' or select calendar icon which is on the right side of date.
- 5 To set an exception date in the schedule period, click [Add] and select date(month/day) you want.
  - ◆ Select an exception date on the calendar window.

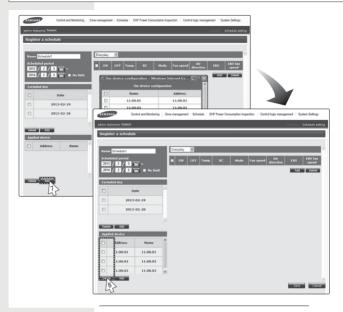




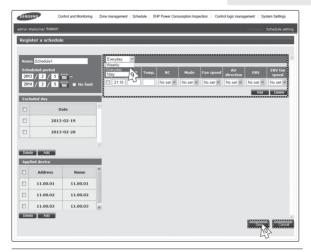
- $\textbf{6} \quad \text{To cancel the added exception date, select the exception } \\ \text{date it}( \overrightarrow{\boxtimes}) \text{ and click [Delete]}.$ 
  - ◆ Maximum 365 exception dates can be saved.



## Schedule (Continued)



- 7 Click [Add] to select a device to apply.
  - ◆ The list of all the connected devices will be displayed.
  - ◆ You can register a schedule for DMS DO as well.
- $8 \quad \text{To cancel the selected device, select } ( \overrightarrow{\square} ) \text{ the device again and click } [ \text{Delete} ].$



- 9 Click [∨] to select repeat schedule you want and set an event.
  - ◆ You can select 'Weekly', 'Everyday' and '1day'.
    However, the starting and end date should be same when you select '1day'.
  - ◆ Enter 4 digits for OnOff time setting. Ex) 8:00 → 0800, 9:30 → 0930
  - ◆ Remote controller setting is as follows.
    - Enable RC: Controlling indoor unit using wired/wireless remote controller or indoor unit panel in each room is possible.
    - Disable RC: Controlling indoor unit using wired/wireless remote controller or indoor unit panel in each room is not possible.
    - Cond. RC
    - ON by centralized controller, DMS2: Controlling indoor unit using wired/wireless remote controller or indoor unit panel in each room is possible.
    - OFF by centralized controller, DMS2: Controlling indoor unit using wired/wireless remote controller or indoor unit panel in each room is not possible.
  - ◆ Click [Add] to add event.
  - ◆ To delete event, select an event(☑) and click [Delete].
  - Maximum 70 events can be set per 1 schedule. In case of week schedule, 10 events per 1 day can be set.
  - ◆ If starting and end time of schedule event are repeated, only the schedule event which is made earlier will be executed.



#### Schedule (Continued)

#### 10 Click [Save].

- ◆ Set schedule information is saved in DMS2.
- ◆ Click [Cancel] to cancel schedule setting.

#### Mata

- If you select dry mode among basic modes, auto fan speed is only available.
- When the operation mode is 'Auto', fan speed is always set to 'Auto'.
- When the operation mode is 'Fan', you cannot control fan speed as 'Auto'.
- When the operation mode is 'Dry', fan speed is always set to 'Auto'.
- When you select sleep mode among ERV modes, 'Mid' fan speed is only available.
- ◆ The desired temperature range is as below.
- Celsius: 16°C~30°C in heating mode, 18°C~30°C in cooling mode
- Fahrenheit: 61°F~86°F in heating mode, 64°F~86°F in cooling mode
- If the tracking is not completed, schedule setting is not possible. To use proper schedule function, make sure to complete tracking with installation engineer.
- ♦ 'Off' operation works only with ERV PLUS.

# Editing Schedule



- Click [Schedule] → [Schedule setting] when DMS2 web page menu screen appears.
- 2 Select the schedule to edit.
  - For the currently operating schedule, you can only check it.
- 3 Click [Edit].
  - ◆ Edit schedule when the schedule edit screen appears.
  - ◆ Editing schedule method is same as "Creating New Schedule". (Refer to page 64~68)



## Schedule (Continued)

# Deleting Schedule



- Click [Schedule] → [Schedule setting] when DMS2 web page menu screen appears.
- Select the schedule to delete.
- 3 Click [Delete].
  - Click [OK] in confirm window and selected schedule will be deleted.
  - Deleting schedule is possible only when the schedule is in stop status.
    - If you want to delete schedule which is currently applied, stop applying the schedule first.

# Applying schedule



- Click [Schedule] → [Schedule setting] when DMS2 web page menu screen appears.
- 2 Select the schedule you want to use.
- 3 Use schedule functions by clicking [Run] and [Stop].
  - ◆ To apply the selected schedule, click [Run].
  - ◆ To stop the selected schedule, click [Stop].

Note

To stop all schedules, click [Stop all].

- Currently applied schedule will be stopped.

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## Schedule (Continued)

#### Checking Schedule Control History



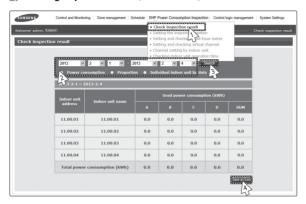
- Click [Schedule] → [Checking schedule control history] when DMS2 web page menu screen appears.
- 2 Select a date to check and then click [Search].
  - ◆ Only executed schedules can be searched.
- 3 You can check detailed setting by clicking the schedule
- Moss aves the information or schedule control history for 180 days.

However, it varies depending on saving space of DMS2.



#### **EHP Power Consumption Inspection**

#### Checking Inspection Result (with SIM/PIM)



You can check the operation history and power consumption saved in DMS for each indoor unit.

- 1 Click [EHP Power Consumption Inspection] → [Check inspection result] when DMS2 web page menu screen appears.
- 2 Set date and search condition (power consumption/proportion/individual indoor unit by date) when inspection result screen appears.
  - Select year/month/day in order.
  - ◆ Based on DMS2 time, you can check up to 365 days of watt-hour meter value.
- 3 Click [Search].
  - ◆ Inspection result will be displayed depending on set period and searching condition.
  - You can check power consumption only when watt-hour meter is connected.
     If watt-hour meter is not connected, you can check operating proportion by indoor unit only.
- 4 Click [Save as Excel].
  - ◆ Searched inspection result will be saved as MS Excel file.

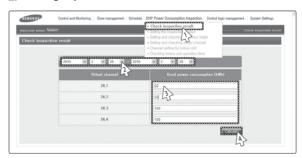
Note

- For data management, it is recommended to save indoor unit inspection result periodically.
- Power consumption inspection result is for reference only and should not be used for official financial transactions.

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# **EHP Power Consumption Inspection (Continued)**

## Checking Inspection Result (without SIM/PIM)



- Click [EHP Power Consumption Inspection] → [Check inspection result] when DMS2 web page menu screen appears.
  - Channel setting by indoor unit must be done in advance.
- 2 Set date when inspection result screen appears.
  - ◆ Select year/month/day in order.
  - Based on DMS2 time, You can check up to 365 days of inspection results.
- 3 Enter power consumption value during the period.
  - Virtual channel is value which is set in channel setting by indoor unit.
- 4 Click [Calculate].
  - Power consumption by indoor unit during the period will be displayed.

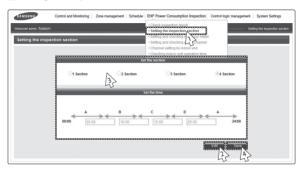


- 5 Check the power consumption result of the selected period.
  - ◆ Due to rounding the actual values, actual input value and result value may different to each other.
  - If you want to save the consumption result for selected period as MS Excel file, click [Save as Excel].
  - ◆ Click [Calculate] to go back to inspection result screen.
- Note
- For data management, it is recommended to save indoor unit inspection result periodically.
- Power consumption inspection result is for reference only and should not be used for official financial transactions.



# **EHP Power Consumption Inspection (Continued)**

## Setting the Inspection Section



- 1 Click [EHP Power Consumption Inspection] → [Setting the inspection section] when DMS2 web page menu screen appears.
- 2 Click [Edit] when inspection result screen appears.
  - ◆ 1 section is set as default.
- 3 Select a section and enter time by section.
  - You should enter time of section B when selecting 2 sections and enter time of section B and section C when selecting 3 sections and enter time of section B, section C, and section D when selecting 4 sections.
  - ◆ Correct format of time is HH:MM. Ex) 4:30 in the afternoon → 16:30
- 4 Click [Save].
  - ◆ Set power section will be saved in DMS2.
  - If you do not click [Save], changed setting will not be saved.

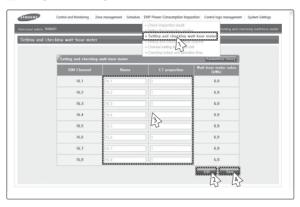
Mote

♠ Ex) When selecting 2 sections(A, B, C) If the border time between A and B is 08:00, section A is 00:00 ~ 08:00, section B is 08:01 ~ 18:00, and section A again is

section B is 08:01 ~ 18:00, and section A again is 18:01 ~ 24:00.



#### Setting and Checking Watt-Hour Meter



- 1 Click [EHP Power Consumption Inspection] → [Setting and checking watt-hour meter] when DMS2 web page menu screen appears.
  - ◆ Setting watt-hour meter is possible only when SIM/PIM is installed.
- 2 Click [Edit] when the setting and checking watt-hour meter screen appears.
  - ◆ CT proportion '1' is set as default.
- 3 Set name and CT proportion of watt-hour meter.
  - ◆ You can use maximum 16 letters.
  - ◆ The range of CT proportion value is positive number from 1 to 5000.
- 4 Click [Save].
  - ◆ Set watt-hour meter information will be saved in DMS2.
  - ◆ If you do not click [Save], changed setting will not be saved.
  - Watt-hour meter value shows actual value of currently connected watt-hour meter.
     Watt-hour meter value will be updated automatically.



When using CT watt-hour meter, be careful that there can be difference with actual power consumption as much as CT ratio error.

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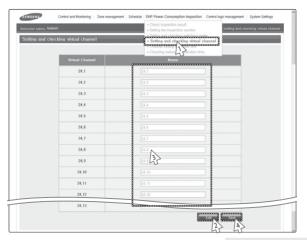
# **EHP Power Consumption Inspection (Continued)**

## Checking Kilowatthour History



- 1 Click [EHP Power Consumption Inspection] → [Setting and Checking watt-hour meter] when DMS2 web page menu screen appears.
- Click [Kilowatthour history] when the setting and checking watt-hour meter screen appears.
- 3 Select SIM/PIM address and date you want when the kilowatthour history screen appears.
  - ◆ Enter year/month/day in order.
  - ◆ Based on DMS2 time, you can check up to 365 days of kilowatthour history.
- 4 Click [Check].
  - ◆ Kilowatthour history of set period will be displayed.

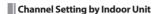
## Setting and Checking Virtual Channel

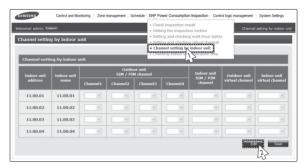


- Click [EHP Power Consumption Inspection] → [Setting and checking virtual channel] when DMS2 web page menu screen appears.
  - ◆ Maximum 128 virtual channels can be set.
     Virtual channel is written in (24 ~ 31).(1 ~ 16) format address.
     Ex) 24.1, 25.2, 31.8
- Click [Edit] when the setting and checking virtual channel screen appears.
- 3 Set the name of virtual channel.
  - ◆ You can use maximum 16 letters.
- 4 Click [Save].
  - ◆ Set virtual channel name will be saved in DMS2.
  - If you do not click [Save], changed setting will not be saved.



# **EHP Power Consumption Inspection (Continued)**

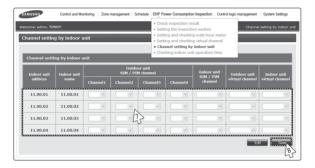




- Click [EHP Power Consumption Inspection] → [Channel setting by indoor unit] when DMS2 web page menu screen appears.
- Click [Edit] when the setting channel by indoor unit screen appears.



Some functions available on DMS2 web page may not be functional at BACnet Gateway and LonWorks Gateway. For detailed function, refer to the installation manual or contact Samsung Electronics.



- 3 Check the address and channel information of SIM/PIM which is connected to watthour meter.
  - ♦ If 0~7 SIM/PIM units execute tracking, it will be displayed as 16~23 in DMS2.
  - Below table shows the channel information of the terminal which SIM and watthour meter is connected.

(Terminal block 1 is on the very left side in SIM.)

Terminal block Location	Terminal block 1	Terminal block 2	Terminal block 3	Terminal block 4
Top part	1	2	3	4
Bottom part	5	6	7	8

- ◆ PIM: Channel 1 is on the most left side and 8 channels are arranged in a line.
- 4 Check the information of indoor/outdoor unit which is connected to watt-hour meter.
- 5 Check the SIM/PIM channel(watt-hour meter) information of indoor/outdoor unit.
  - ◆ You can set the channel when SIM/PIM is installed in DMS2.
  - When bringing indoor unit's power from outdoor unit, set the 'Outdoor unit SIM channel' information only.
    - ('Outdoor unit SIM channel' is referring to watt-hour meter which is connected to outdoor unit.)
  - When bringing indoor unit's power from the other device, not from outdoor unit, set the 'Outdoor unit SIM channel' and 'Indoor unit SIM channel' information. ('Indoor unit SIM channel' is referring to watt-hour meter which is connected to indoor unit.)
  - Power distribution will be executed automatically. The user does not need to check the value of watt-hour meter.
  - The maximum number of SIM channels for an outdoor unit is 4.

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## **EHP Power Consumption Inspection (Continued)**

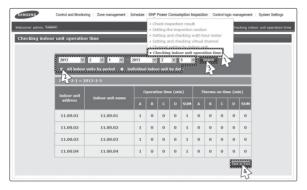
- 6 Check the virtual channel information of indoor/outdoor unit.
  - ◆ To execute power distribution without SIM/PIM, you should set virtual channel.
  - When bringing indoor unit's power from outdoor unit, set the 'Outdoor unit virtual channel' information only.
    - ('Outdoor unit virtual channel' is referring to watt-hour meter which is connected to outdoor unit.)
  - When bringing indoor unit's power from the other device, not from outdoor unit, set the 'Outdoor unit virtual channel' and 'Indoor unit virtual channel' information. ('Indoor unit virtual channel' is referring to watt-hour meter which is connected to indoor unit.)
  - ◆ The number of virtual channel varies depending on the number of outdoor unit
  - ◆ To execute power distribution, you need to check watt-hour meter value manually.
  - Power distribution using SIM/PIM is more accurate than using indoor/outdoor unit virtual channel. Therefore, it is recommended to execute power distribution using SIM/PIM.
- 7 Set indoor unit to execute power distribution.
  - If you do not set the watt-hour meter information, the power distribution result of the indoor unit will be displayed as '0'.
- 8 Click [Save].
  - Set channel information will be saved in DMS2.
  - ◆ If you do not click [Save], changed setting will not be saved.



- Information of watt-hour meter connected to indoor/outdoor unit should be accurate. If the watt-hour meter information is not accurate when you set channel information of indoor unit, error may occur in the power distribution result.
- You should set SIM/PIM channel information in the indoor unit if you want to execute
  power distribution using SIM/PIM. If not, it means that you do not execute power
  distribution. In this case, the power distribution result of the indoor unit will be '0'.
- If the information of watt-hour meter connected to indoor/outdoor unit is changed, consult with installation engineer.
- ◆ DMS2 executes power distribution based on set information.
- ♦ Virtual channel is not available when you use BACnet or LonWorks Gateway function.



## Checking Indoor Unit Operation Time



- Click [EHP Power Consumption Inspection] → [Checking indoor unit operation time] when DMS2 web page menu screen appears.
- 2 Select search condition (All indoor units by period/ Individual indoor unit by date) when Checking indoor unit operating time screen appears.
  - Select year/month/day in order.
  - Based on DMS2 time, you can check up to 365 days of operation time.
- 3 Click [Search].
  - Operation time will be displayed depending on set period and condition.
- 4 Click [Save as Excel].
  - Searched operation time result will be saved as MS Excel file.

For data management, it is recommended to save indoor unit operation time result periodically.



#### **Control Logic Management**

## Setting Control Logic

■Control logic is used in the following situations.

Ex) The current temperature of the lab is higher than 29°C and you want cooling operation, The current temperature of the office is lower than 10°C and you want heating operation

■Period, day and time are included in specific conditions.



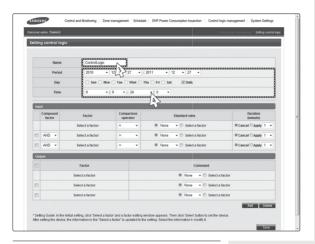
# You can set, edit, delete and use control logic for controlling device which is connected to DMS2.

- Click [Control logic management] → [Setting control logic] when DMS2 web page menu screen appears.
  - ◆ Apply: Indicates control logic usage status.
  - Run: Indicates If the control logic is applied and whether the operation conditions are met.
    - Ex) If there is logic which says 'If the current temperature of indoor unit is higher than 29°C, control indoor unit as cool mode.', 'Yes' will be displayed when the indoor unit's current temperature is higher than 29°C. 'No' will be displayed when the indoor unit's current temperature is lower than 29°C.
- 2 Click [New] when setting control logic screen appears.
  - ◆ Setting screen is composed of 4 categories.
    - Name & time: Set the name and time(period, days, time) to apply of control logic.
    - Factor edit: You can edit factor selection which is components of input/output.
    - Input: Set the condition which makes control logic perform.
    - Output: Set items to be controlled when the conditions of input are met.

#### Note

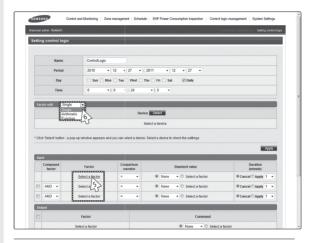
- If different value is set for same control item of same address' device, the indoor unit follows the first control logic set among running control logics.
- It is not available to provide the control logic management information to BMS system.





- 3 Enter control logic name in the name field when the new control logic setting screen appears.
  - ◆ You can use maximum 16 letters.
- 4 Set period, day and time in control logic screen.
  - ◆ Select year/month/day in order.
  - ◆ Select a day to run during the control period.
  - ◆ Control logic will be applied only when period, day and time are united.
  - If you select 'Daily' in day selection, control logic will run regardless of day.





- 5 Select a factor in the input list.
  - ◆ Factor means the target to be controlled or standard item of logic decision.
- 6 Select the type of factor.
  - ◆ Single: It means 1 device.
    - Ex) Desired temperature of indoor unit
  - ◆ Arithmetic: It means 2 devices are connected by arithmetic operator.

    Ex) Desired temperature of indoor unit 1 Desired temperature of indoor unit 2



- ◆ Function: It means several devices are using as value of function.
- Ex) Average(Current temperature of Indoor unit 1, Current temperature of Indoor unit 2, Current temperature of Indoor unit 3)







#### 7 Click 'Select'.

- ◆ List of device which you can select will be displayed.
- 8 Select the device to use as factor.
  - ♦ Control and monitoring items will be displayed depending on selected device.
  - ◆ Control and monitoring items are as follows.

Type	Item	Value	Remarks	Type	Item	Value	Remarks
Indoor unit	Power	On, Off	-		Power	On,Off	-
	Current temp.	Number	Control impossible		Operation mode	Auto, Cool, Fan, Heat	-
	Desired temp.	Number	-		OA intake temp.	Number	Control impossible
	Outdoor temp.	Number	Control impossible	Fresh duct	Outdoor temperature	Number	Control impossible
	Operation mode	Auto, Cool, Dry, Fan, Heat	-		Cool discharge temp.	Number	-
	Fan speed	Auto, Low, Mid, High	-		Heat discharge temp	Number	-
	Air direction	Vertical, Horizontal, All, None	-		RC usage	Enable RC, Disable RC, Cond. RC	-
	RC usage	Enable RC, Disable RC, Cond. RC	-		Power	On, Off	-
	Power	On, Off	-	AHU	Current temp.	Number	Control impossible
ERV	Operation mode	Auto, HeatEx, Bypass, Sleep	-		Desired temp.	Number	-
	Fan speed	Low, High, Turbo	-		Outdoortemp.	Number	Control impossible
	RC usage	Enable RC, Disable RC, Cond. RC	-	Anu	Operation mode	Auto, Cool, Dry, Fan, Heat	-
	Power	On, Off	-		RC usage	Enable RC, Disable RC, Cond. RC	-
	Outdoor temp.	Number	Control impossible		Power	On, Off	-
ERV PLUS	ERV mode	Auto, HeatEX, Bypass, Sleep	-		Current temp.	Number	Control impossible
	ERV fan speed	Low, High, Turbo	-		Desired temp.	Number	-
	Operation mode	Auto, Cool, Heat, Off	-	MINI AHU	Outdoor temp.	Number	Control impossible
	RC usage	Enable RC, Disable RC, Cond. RC	-		Operation mode	Auto, Cool, Dry, Fan, Heat	-
					Fan speed	Low, Mid, High	-
					RCusage	Enable RC, Disable RC, Cond. RC	-
			DI	Status	On, Off	Control impossible	
			DO	Status	On, Off	-	



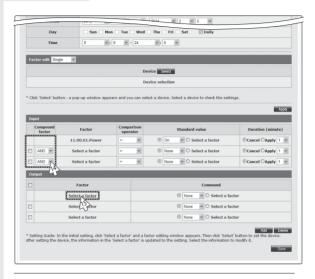
- 9 Select detailed item of factor.
  - ◆ Detailed item may be different depending on the type of selected device.
- 10 Click [Apply].
  - ◆ If you do not click [Apply], changed setting will not be saved.
- 11 Select comparison operator.
  - ◆ Types of comparison operators: = , =< , => , < , >, ≠
  - ◆ Comparison operator compares factor to standard factor.





- 12 Select standard value.
  - Select detailed item value of selected factor or factor.
  - The item varies depending on the left factor when selecting detailed item value from standard value.
    - Ex1) Factor: Current temperature of indoor unit 1,
      - Value of standard value : Enter 29
    - Ex2) Factor: Remote controller usage of indoor unit 1,
      - Value of standard value: Select one among Enable RC, Disable RC and Cond. RC.
  - When selecting factor from standard value, it must be same with control item of left factor.
    - Ex1) Factor: Power of indoor unit 1,
      - Factor of standard value : Power of indoor unit 2
    - Ex2) Factor: Current temperature of indoor unit 1,
      - Factor of standard value: Average current temperature of indoor unit 1 and 2
- 13 Select duration time usage.
  - ◆ Duration time means the time which the comparing conditions satisfy 'True'.
  - ◆ The duration time can be set from 1 to 60.
  - If you select duration time apply, the comparing condition will be 'True'.
     To execute, maintain 'True' for duration time.
- Mote
- Only 1 duration time can be set per control logic.
- The tolerance range of duration time is maximum 1 minute. If you set the duration time as 2 minutes, operation will be started between 2 and 3 minutes.





- 14 Select compound factor setting usage.
  - ◆ You can use compound factor setting when you give conditions to 2 and 3 input items.
  - ◆ You can select 1 compound factor from 'AND' and 'OR'.
  - ◆ Select 'AND' if all the input items each should be 'True'.
  - ◆ Select 'OR' if just 1 input item needs to be 'True'.
  - ◆ Compound factor has priorities in order.

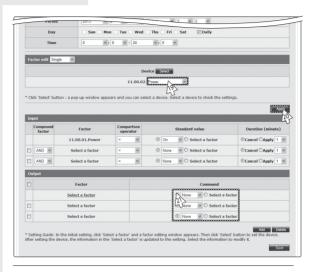
For example, if you set 'OR', 'AND' in order, it means '(input item 1 OR input item 2) AND input item 3'.

15 Select 'Select a factor' in the Output list.





- 16 Select type of factor.
  - ◆ Single factor can be set for the left factor of output.
    - Single factor: It means 1 device.
    - Ex) Desired temperature of indoor unit
- 17 Click 'Select'.
  - ◆ List of device which can be selected will be displayed.
- 18 Select the device to use as factor.



- 19 Select detailed item of factor.
  - ◆ Detailed item may be different depending on the type of selected device.
- 20 Click [Apply].
  - ◆ If you do not click [Apply], changed setting will not be saved.
- 21 Select command value.
  - ◆ The value may vary depending on the detailed item of selected factor.
  - You can select value of selected item or new factor.
  - ◆ You can set single factor, arithmetic factor and function factor.



- 22 To add output, click [Add].
  - If you want to delete output which you don't use anymore, select it and then click [Delete].
- 23 Click [Save].
  - ◆ Set control logic will be saved in DMS2.
  - ◆ If you do not click [Save], changed setting will not be saved.
- ♦ Control logic input items consist of factor, comparison operator, standard value and duration time.
  - You can enter up to 3 input items of control logic, and the items can be connected with compound factor.
  - ♦ Output item of control logic consists of factor and command value.
  - ♦ You can enter up to 20 output items of control logic.
  - ♦ You can create up to 256 control logics.



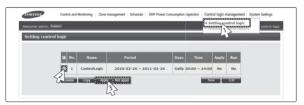
#### Editing/Deleting/Copying Control Logic



- Click [Control logic management] → [Setting control logic] when DMS2 web page menu screen appears.
- 2 Select control logic when control logic screen appears.
- 3 Click [Edit]/[Delete]/[Copy].
  - ◆ To edit control logic, refer to 'Setting control logic' steps. (Refer to page 84~93)
  - ◆ Click [Delete] to delete the selected control logic.
  - ◆ Click [Copy] to copy the selected control logic.



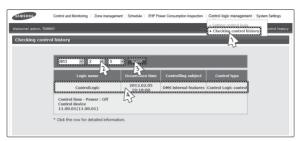
## Enable/Disable Control Logic



- Click [Control logic management] → [Setting control logic] when DMS2 web page menu screen appears.
- 2 Select control logic when control logic screen appears.
- 3 Click [Apply]/[Not apply].
  - ◆ The selected control logic will be applied by clicking [Apply].
  - ◆ The selected control logic will not be applied by clicking [Not apply].



#### Checking Control History



- Click [Control logic management] → [Checking control history] when DMS2 web page menu screen appears.
- 2 Select the date you want when the control logic screen appears.
  - ◆ Select Year/Month/Day in order.
  - Based on DMS2 time, you can check of maximum 180 days of previous control history.
- 3 Click [Search].
  - ◆ You can check only in daily unit.
- 4 Select each items to check detailed contents of control history.

MMMM DMS2 saves the information of control logic management control history for 180 days. However, it varies depending on saving space of DMS2.



#### **System Settings**

#### Adding a User



#### You can add, edit and delete the user of DMS2.

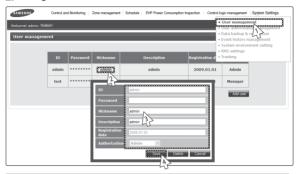
- 1 Click [System Settings] → [User management] when DMS2 web page menu screen appears.
- 2 Click [Add user] when user management screen appears.
  - ◆ User information input window will be appeared when pressing [Add user].
- 3 Enter ID, password, Nickname and description for new user and then select authority.
  - The user ID should be between 4-12 letters and English lower case letters and numbers only can be used. (English capital letter and special symbols including space cannot be used for user ID.)
  - ◆ The password should be between 8~12 letters and English capital/lower case letters, and numbers only can be used, without any spaces. In addition, the password should contain both English letters and numbers.
  - ◆ Name should be within 20 letters, and description should be in 50 letters.
  - ◆ Registration date will be input automatically as system date.
  - ◆ Select authorization for the user from 'Admin', 'Manager' and 'Regular user'.

    Admin has all authorization and 'Manager'/'Regular user' has limited authorization.
- 4 Click [Save].
  - Maximum of 256 users can be registered.
  - ◆ User information will be saved in DMS2.
- ♦ For security and maintenance, you should change the password of the admin account that is issued by the factory for shipping purposes.
  - ◆ Administrator(Admin) can change all setting of indoor/outdoor unit.
  - ◆ Administrator(Admin) can check all indoor/outdoor units connected to DMS2.
  - Administrator(Admin) can edit zone information and assign the zone information to manager.
  - A manager can check and control indoor/outdoor units which belong to assigned zones only.



## **System Settings (Continued)**

#### Editing a User



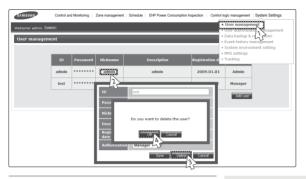
- Click [System Settings] → [User management] when DMS2 web page menu screen appears.
- 2 Click the Nickname to edit when user management screen appears.
  - User information window will be displayed.
- 3 Edit user information when the user information window appears.
  - ◆ You cannot change user ID.
  - The password should be between 8~12 letters and English capital/lower case letters, and numbers only can be used, without any spaces. In addition, the password should contain both English letters and numbers.
  - ◆ Nickname should be within 20 letters, and description should be in 50 letters.
  - Registration date is input automatically as system date. Therefore you cannot edit registration date.
  - Select authorization for the user from 'Admin', 'Manager' and 'Regular user'. Admin has all rights and 'Manager'/'Regular user' has some rights.
- 4 Click [Save].
  - ◆ Modified user information will be saved in DMS2.

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- User information can be changed only with the admin account.
  - Authorization of admin account cannot be modified.
  - ◆ Administrator(Admin) can change all setting of indoor/outdoor unit.
  - ◆ Administrator(Admin) can check all indoor/outdoor units connected to DMS2.
  - Administrator(Admin) can edit zone information and assign the zone information to manager.
  - A manager can check and control indoor/outdoor units which belong to assigned zones only.



## Deleting a User



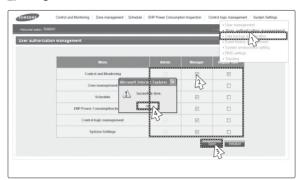
- Click [System Settings] → [User management] when DMS2 web page menu screen appears.
- Click the Nickname to delete when user management screen appears.
  - ◆ User information window will be displayed.
- 3 Click [Delete] when the user delete window appears.
  - ◆ Confirm window will pop up saying, "Do you want to delete the user?"
- 4 Click [OK].
  - Selected user information will be deleted in DMS2.

Mରୀବ Admin account cannot be deleted.



## **System Settings (Continued)**

## Editing User Authorization



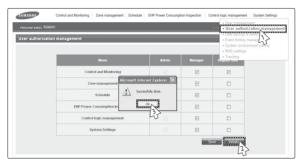
- Click [System Settings] → [User authorization management] when DMS2 web page menu screen appears.
- Select/Deselect accessible menu by authorization when the user authorization management screen appears.
- 3 Click [Save] after setting is completed.
- 4 Click [OK] when "Successfully done." message appears.
  - Changed user authorization information will be saved in DMS2 by clicking [OK].

#### Note

- Administrator(Admin authorization) is allowed to access to all menus.
- You cannot edit authorization (menu access) of administrator(Admin).



## Initializing a User Authorization



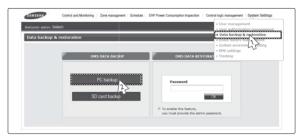
- Click [System Settings] → [User authorization management] when DMS2 web page menu screen appears.
- 2 Click [Initialize] when user management screen appears.
- Click [OK] when "Successfully done." message appears.
   User authorization information saved in DMS2 will be initialized by clicking [OK].

Notes You can restore user authorization information as factory setting by using initialization function.



## **System Settings (Continued)**

# DMS2 Data Backup – PC Backup



#### You can back up DMS2 data to PC or SD card.

- 1 Click [System Settings] → [Data backup & restoration] when DMS2 web page menu screen appears.
- Click [PC backup] when DMS2 data backup & restoration screen appears.
  - "Reading data from DMS2. Please wait." message will appear.
  - Depending on the size of the data, backup time may vary. It will usually take few seconds.







- 3 Click [OK] when "Backup file is ready. Click "OK" to download." message appears.
- 4 Click [Save] when "File download" window appears.



## **System Settings (Continued)**



- 5 When "Save as" window appears, select saving location and file name and then click [Save].
  - ◆ Backup file will be saved as the name you made in the location you select by clicking [Save].
  - Basic backup file name is "DMS2dataYYYYMMDD.dms". (YYYY: year, MM: month, DD: day)
  - ◆ The extension of the backup data files is ". dms".
  - If you want to edit the file name, use English alphabets or numbers only.
  - File name should be less than 32 letters. If the file name exceeds 32 letters, proper restoration may not be possible.
- 6 Click [Close] after completing the download.

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Backup data includes DB data, setting data, data related indoor/outdoor unit control and various kinds of history data. They will be backed up in single unified file.



# DMS2 Data Backup – SD card backup

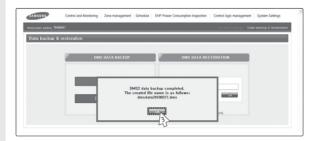


#### You can back up DMS2 data to PC or SD card.

- Click [System Settings] → [Data backup & restoration] when DMS2 web page menu screen appears.
- 2 Click [SD card backup] when DMS2 data backup & restoration screen appears.
  - "Reading data from DMS2. Please wait." message will be displayed.
  - ◆ Depending on the size of the data, backup time may vary. It will usually take few seconds.



#### **System Settings (Continued)**



- 3 Click [OK] when "DMS2 data backup completed. The created file name is as follows:
  - DMS2dataYYYYMMDD.dms" message appears.
  - The file name of backup file is "DMS2dataYYYYMMDD.dms" and it does not exceed maximum 15 letters. (YYYY: year, MM: month, DD: day)
  - Backup files recorded on the same date are numbered in order of 001, 002.
  - ◆ The extension of the backup data files is ". dms".
  - ◆ If "Backup failed." message appears, click [OK] . Then check if the SD card is inserted or forbidden for writing.

Note

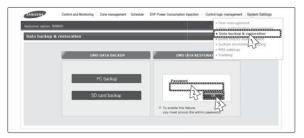
Backup data includes DB data, setting data, data related indoor/outdoor unit control and various kinds of history data. They will be backed up in single unified file.



- To use SD backup and restoration function properly,
   SD card which is formatted in VFAT file system is required.
- If SD card is already inserted, automatic backup function will be operated and everyday data will be backed up in SD card.
- If available space of SD card is smaller than 100Mbytes, deleting oldest DMS2 backup file process will be operated first and then auto backup function will be operated.



## DMS2 Data Restoration - PC Restore



- Click [System Settings] → [Data backup & restoration] when DMS2 web page menu screen appears.
- 2 Enter the password of Admin account when DMS2 data backup and restoration screen appears.
  - Data restoration function deals with the important data of the system.
     To activate the function, you should enter administrator's password.
- 3 Click [OK].
- 4 Click [OK] when caution window appears.

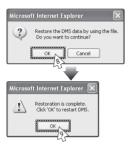






- 5 Click [PC restore].
- 6 Click [Browse].
  - Select DMS2 data file to restore and then click [Open(O)] when "File selection" window appears.
- 7 Check if the file route and file name are correctly entered in the text box, and then click [Upload].





- 8 Click [OK] when "Restore the DMS by using the file. Do you want to continue?" message appears.
  - "Reading data from DMS2. Please wait." message window will appear.
  - Depending on the size of the data, backup time may vary. It will usually take few seconds.
- 9 Click [OK] when "Restoration is complete. Click 'OK' to restart DMS." confirm window appears.
  - ◆ DMS2 will restart and restored data will be reflected.

Note

- Backup and restoration of set event history is not available.
- Backup and restoration of network setting is not available.

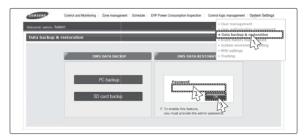


Keep in mind followings when operating restoration using backup file saved in PC.

- 1. You cannot use files bigger than 100Mbytes for restoration file.
- Restoration should be carefully executed because existing data will be deleted during restoration and the data you select will be restored. Before operating restoration, backup current data of DMS2 to PC or SD card.
- 3. The name of file for restoration should be within 32 letters in English alphabet or numbers. If not, rename the file and upload it again.



### DMS2 Data Restoration - SD Card Restoration



- Click [System Settings] → [Data backup & restoration] when DMS2 web page menu screen appears.
- 2 Enter the password of Admin account when DMS2 data backup and restoration screen appears.
  - Data restoration function deals with the important data of the system.
     To activate the function, you should enter administrator's password.
- 3 Click [OK].
- 4 Click [OK] when caution window appears.









- 5 Click [SD card restore].
- 6 Select the check box of file to restore.
- 7 Click [OK].

EIII





- 8 Click [OK] when "Restore DMS data by using the file. Do you want to continue?" message appears.
  - "Reading data from DMS2. Please wait." message window appears.
  - ◆ Depending on the size of the data, backup time may vary. It will usually takes few seconds.
- **9** Click [OK] when "Restoration is complete. Click 'OK' to restart DMS." message window appears.
  - ◆ DMS2 will restart and restored data will be reflected.

№3 For proper restoration, unlock the forbidden writing function of SD card.



#### Event History Management "Search(Check)"



# You can search(check) all kinds of set information of event log in DMS2.

- Click [System Settings] → [Event history management] when DMS2 web page menu screen appears.
- 2 Select the period of event history you want to search.
- 3 Click [Search].
- 4 List of events which occurred in the period will be displayed.
  - You can check detailed information about the event by selecting the item you want to check.

# Note: You can check following event logs using event history management.

- 1. DMS2 power related event
- 2. Schedule settina related event
- 3. RMS service setting related event
- 4. Trackina related event
  - 5. User information modification related event
  - 6. System settings related event
  - 7. Operation using external interface related event



#### DMS2 Network Information Setting – "Manual Setting"





# You can set and check information about DMS2 installation operation.

- Click [System Settings] → [System environment setting] when DMS2 web page menu screen appears.
- 2 Click [Edit] from DMS2 network information window.
- 3 When text boxes of IP address, subnet mask address, default gateway and DNS server are enabled, enter values for each item
  - ◆ 15 letters can be entered for each item.
  - ◆ Each item should match with the network address form.
- 4 Click [Save] in DMS2 network information window.
- 5 Click [OK] when "This operation needs web browser restart. The browser will be closed. Do you want to proceed?" message appears.
  - ◆ Click [OK] and current web browser will be closed. Run the web browser again and you can access to DMS2 using IP which is manually set.



#### DMS2 Network Information Setting – using "DHCP"





- 1 Click [System Settings] → [System environment setting] when DMS2 web page menu screen appears.
- 2 Click [Edit] from DMS2 network information window.
- 3 Check 'DHCP'.
  - The text boxes of IP address, subnet mask address, default gateway and DNS server will be disabled.
  - If you want manual setting, uncheck 'DHCP' and then refer to "DMS2 Network information setting-manual setting" steps. (Refer to page 114)
- 4 Click [Save] in DMS2 network information window.
- 5 Click [OK] when "This operation needs web browser restart. The browser will be closed. Do you want to proceed?" message appears.
  - ◆ Click [OK] and current web browser will be closed. Run the web browser again and you can access to DMS2 after checking auto setting IP in the external LCD.



Some functions available on DMS2 web page may not be functional at BACnet Gateway and LonWorks Gateway. For detailed function, refer to the installation manual or contact Samsuna Electronics.

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- ◆ Factory setting is as follows.
  - 1. IP address: 192.168.0.100
  - 2. Subnet mask address: 255,255,255.0
  - 3. Default aateway: 192.168.0.1
  - 4. DNS server: 0.0.0.0
- DMS2 sets service engineer IP(192.168.0.254) internally. Therefore, it should be available all the time regardless of current IP setting.
- DMS2 gets DHCP IP address when you activate DHCP function.
   When connecting DMS2 to S-NET series, you can connect them using the IP. However the DHCP IP address can be changed by events such as network environment of

restart.

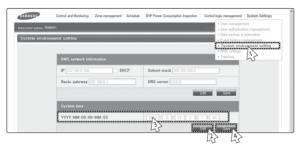
In this case, it may cause communication failure between S-NET series and DMS2.

Therefore it is not recommended to connect DMS2 using DHCP address using
S-NET series.

- ◆ You can check network information on external LCD of DMS2 when activating DHCP. (Refer to page 152)
- ♦ When DHCP is set, address from DHCP server will be set as DMS2 IP address.
- ◆ DHCP function is not available when you use BACnet Gateway function.



# System Time Setting



- Click [System Settings] → [System environment setting] when DMS2 web page menu screen appears.
- 2 Click [Edit] from system time setting.
- 3 Enter system time(year/month/day/hour/minute/second).
  - ◆ You can enter only numbers.
  - ♦ Year: You can enter from 1980 to 2035.
  - ♦ Month: You can enter from 1 to 12.
  - ◆ Day: You can enter from 1 to 31.
  - ♦ Hour: You can enter from 0 to 23.
  - ♦ Minute: You can enter from 0 to 59.
  - ◆ Second: You can enter from 0 to 59.
- 4 Click [Save] after setting is completed.



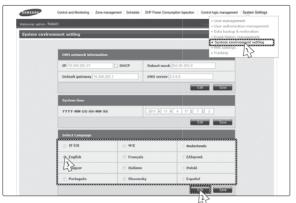


- 5 Click [OK] when "This information will be modified. Do you want to proceed?" message window appears.
- 6 "Reading data from DMS2. Please wait." message appears and saving is completed. Then, system environment setting screen appears again with all items are disabled.

Note Time on the screen shows DMS2 setting time.



# Selecting the Language





This operation needs DMS to be restarted.
Do you want to apply the setting?

OK Cancel

- Click [System Settings] → [System environment setting] when DMS2 web page menu screen appears.
- 2 Click [Edit] from language selection.
- 3 Select a language you want then click [Save].
- 4 Click [OK] when "This operation needs DMS to be restarted. Do you want to apply the setting?" message appears.
  - Click [OK] and current web browser will be closed.
     DMS2 will restart and it may take approximately 1 minute.



### DMS2 Name Setting



- 1 Click [System Settings] → [System environment setting] when DMS2 web page menu screen appears.
- 2 Click [Edit] from DMS2 name setting.
- 3 Enter name of DMS2 when DMS2 name field enabled.
  - You can use maximum 30 letters including English alphabets and special symbols.
  - When DMS2 name is set, the name will be displayed on the top title bar of web browser.
- 4 Click [Save] after setting is completed.

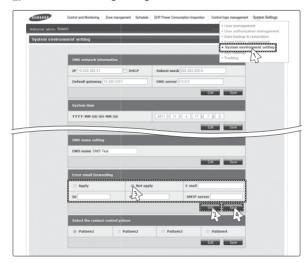




- 5 Click [OK] when "This information will be modified. Do you want to proceed?" message appears.
- 6 "Reading data from DMS2. Please wait." message appears and saving is completed. Then, system environment setting screen appears again with all items are disabled.
  - You can check new DMS2 name on the title bar of web browser.

Note Name of the DMS2 is set to blank as factory default.

# Error Mail Forwarding Setting



- Click [System Settings] → [System environment setting] when DMS2 web page menu screen appears.
- 2 Click [Edit] from error mail forwarding setting.
- 3 Set all the items as the value you want when all items fields are enabled.
  - If you select 'Apply', you should input e-mail address, SMTP server ID, password, and SMTP server address.
  - ◆ If you select 'Not apply', E-mail, ID, PW and SMTP server items will not affect on the setting.
- 4 Click [Save] after setting is completed.





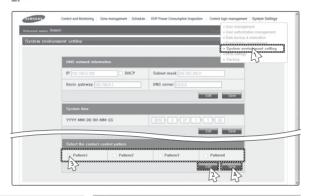
- **5** Click [OK] when "This information will be modified. Do you want to proceed?" message appears.
- 6 "Reading data from DMS2. Please wait." message appears and saving is completed. Then, system environment setting screen appears again with all items are disabled.

#### Note

- In factory setting, 'Not apply' is checked and item fields(E-mail, ID, PW, SMTP) are blank.
- E-mail forwarding function cannot deal with the server using encryption algorithm such as SSH.
   Use the function to the mail server which uses e-mail address and password based on text transmission method.



### Contact Control Pattern Selection



- Click [System Settings] → [System environment setting] when DMS2 web page menu screen appears.
- 2 Click [Edit] from contact point pattern selection window.
- 3 Select the pattern you want to check.
  - ◆ Pattern 1[No external input]: No operation will be made when inputting contact control signal.
  - ◆ Pattern 2[Level(Emergency stop)]: Commands that stop all operation of indoor unit and disable remote control when inputting contact control signal. In level emergency stop status, it will not be controlled even if the command is from upper controller.
  - Pattern 3[Level(Operation/Stop)]: Level signal input timing.
    - It changes operation/stop status of all indoor units.
  - Pattern 4[pulse (Operation/Stop,Disable/Enable)]:
     Pulse signal. It changes operation/stop status of all indoor units.
- 4 Click [Save] after setting is completed.





- 5 Click [OK] when "This information will be modified. Do you want to proceed?" message appears.
- 6 "Reading data from DMS2. Please wait." message appears and saving is completed. Afterwards, system environment setting screen appears again with all items are disabled.
  - If at least one of indoor unit is turned on, contact point output port 1 generates contact point signal.
  - If there is breakdown, contact point output port 2 generates contact point signal.

#### Note

- Pattern 1 is set as factory setting of contact control pattern.
- ◆ Contact output
  - When indoor unit is in operation, DMS2 which executed tracking successfully outputs signal through DO Ch1.
  - If there is unsolved breakdown in DMS2, signal will be output through DO Ch2. You can check it through check indicator on DMS2.

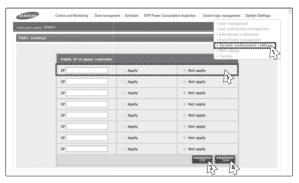


For extension, DMS2 has 10 DI/DO ports. Contact control and output function are assigned to Ch1 and Ch2. Ch3~Ch10 will be assigned to additional functions.

For proper contact control, connect using Ch1 and Ch2.



# Setting Public IP of upper controller



- Click [System Settings] → [System environment setting] when DMS2 web page menu screen appears.
- Click [Edit] when Public IP of upper controller screen appears.
- 3 Enter the public IP of upper controller and select either 'Apply' or 'Not apply'.
- 4 Click [Save].
  - When the setting is done, you may access DMS from upper controllers (S-NET3).

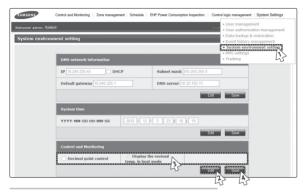
Nots

 If the upper controller uses Public IP, you must set the Public IP of upper controller to access DMS from those upper controllers. If the upper controller uses private IP, you may access DMS from those upper controllers without setting the Public IP of upper controller.

*IP range:* 10.0.0.0 ~ 10.255.255.255, 172.16.0.0. ~ 172.31.255.255, 192.168.0.0 ~ 192.168.255.255



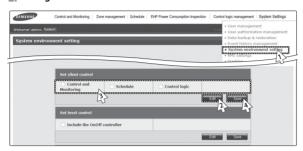
### Setting Control and Monitoring



- Click [System Settings] → [System environment setting] when DMS2 web page menu screen appears.
- 2 Click [Edit] on Control and Monitoring section.
- 3 Select 'Decimal point control' or 'Display the revised temp. in heat mode'.
  - ◆ Decimal point control: Select this function if you want to control the indoor unit in 0.1°C unit. If this is not selected, temperature will be adjusted in 1°C even if the indoor unit supports decimal point control which allows temperature adjustment in 0.1°C unit.
  - ◆ Display the revised temp. in heat mode: Select this function if you want to display the revised temperature for current temperature in heat mode.
- 4 Click [Save].



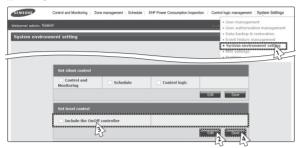
# Setting silent control



- 1 Click [System Settings] → [System environment setting] when DMS2 web page menu screen appears.
- 2 Click [Edit] on Set silent control section.
- 3 Select 'Control and Monitoring' or 'Schedule' or 'Control logic'.
  - ◆ Control and Monitoring: Select this if you want to control silently in 'Control and Monitoring' screen.
  - ◆ Schedule: Select this if you want to perform 'Schedule' silently.
  - ◆ Control logic: Select this if you want to perform 'Control logic' silently.
- 4 Click [Save].



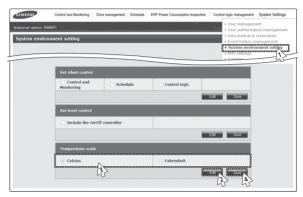
# Setting level control



- 1 Click [System Settings] → [System environment setting] when DMS2 web page menu screen appears.
- 2 Click [Edit] on Set level control section.
- 3 Select 'Include the OnOff controller'.
  - ◆ Include OnOff controller: Select this if you want to restrict controlling from OnOff controllers when you disable RC from the DMS2.
- 4 Click [Save].



### Setting temperature scale



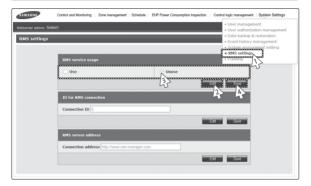
- 1 Click [System Settings] → [System environment setting] when DMS2 web page menu screen appears.
- 2 Click [Edit] on the temperature scale.
- 3 Select the temperature display of DMS2 as Celsius or Fahrenheit.
- 4 Click [Save].



#### RMS Service Usage Setting

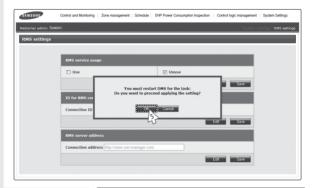
- RMS settings should be set by expert's instruction.
- To get RMS service, contact to Samsung electronics service center,
- RMS settings requires to restart the system in following situations.

  At this time, system restart will be displayed in the information phrase and restart will be done automatically.
  - When the RMS service usage is changed from 'Unuse' to 'Use'.
- When you changed connection ID or RMS server address while using RMS service.



- 1 Click [System Settings] → [RMS settings] when DMS2 web page menu screen appears.
- 2 Click [Edit] from RMS service usage settings window.
- 3 Check 'Use' or 'Unuse'.
- 4 Click [Save] after setting is completed.
  - If you want to select 'Use', "ID for RMS connection" and "RMS server address" items already should have set.
  - If you select "Use" and click [Save] when "ID for RMS connection" and "RMS server address" items are not set, 2 confirm windows which says "ID for RMS connection field is blank. To use it, connection ID is needed." and "RMS connection address field is blank. To use it, connection address is needed. "will be displayed.

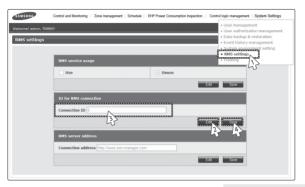




- 5 If 'Use' is selected, "You must restart DMS for the task: Do you want to proceed applying the setting?" message will appear. To restart DMS2, click [OK]. Then RMS service will be started.
- 6 If 'Unuse' is selected, "This information will be modified. Do you want to proceed?" message will appear. Click [OK] to end RMS service.

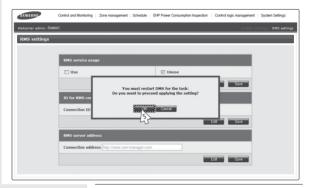


# Setting ID for RMS Connection



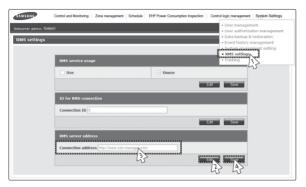
- Click [System Settings] → [RMS settings] when DMS2 web page menu screen appears.
- 2 Click [Edit] from RMS service usage settings window.
- 3 Enter DMS2 ID in connection ID field.
  - DMS2 ID is unique recognizable ID which is created when you add DMS2 in RMS server.
  - If you are not given connection ID, add DMS2 to RMS and you can get connection ID.
  - If connection ID value is 0, RMS service will not be enabled.
- 4 Click [Save] after entering connection ID.
  - If you enter blank and click [Save] with 'Use' checked in "RMS service usage", confirm window which says "ID for RMS connection field is blank. To use it, connection ID is needed.'will be displayed.





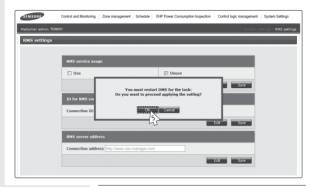
- 5 If the 'Connection ID' is modified with RMS service usage as 'Use' status, 'You must restart DMS for the task: Do you want to proceed applying the setting?" message will appear. Click [OK] to restart DMS2.
- 6 If the 'Connection ID' is modified with RMS service usage as 'Unuse' status, 'This information will be modified. Do you want to proceed?" message will appear. Click [OK] to modify the 'Connection ID'.

# Setting RMS Server Address



- Click [System Settings] → [RMS settings] when DMS2 web page menu screen appears.
- 2 Click [Edit] from RMS server address setting window.
- 3 Enter RMS server address in connection address field.
  - Current RMS server address is http://www.zen-manager. com.
- 4 Click [Save] after entering connection address.
  - If you enter blank and click [Save] with checking 'Use' in "RMS service usage", confirm window which says "ID for RMS connection field is blank. To use it, connection ID is needed. will be displayed.





- 5 If the 'Connection address' is modified with RMS service usage as 'Use' status, 'You must restart DMS for the task: Do you want to proceed applying the setting?" message will appear. Click [OK] to restart DMS2.
- 6 If the 'Connection address' is modified with RMS service usage as 'Unuse' status, "This information will be modified. Do you want to proceed?" message will appear. Click [OK] to modify the 'Connection address'.

#### System Setting Initialization

192.168.0.100 06:12:13(AM)

- Press [Menu], [▲], [▼] or [Set] on LCD if IP and current time are displayed on LCD screen.
  - Main menu screen appears.
  - Initialization is not possible in the screen which time information is displayed.

# MAIN MENU 1.IP Config

- Press [Menu] → [▼] → [▲] → [▼] → [Menu] buttons in order in main menu screen.
  - ◆ Caution will be displayed on LCD Display.

Are you sure? YES:Set, NO:Menu

- 3. Initialize DMS2 by clicking [Set] when caution phrase appears.
  - If you press [Menu] button, it will turn back to main menu without initialization.



When initializing system setting, all saved data in DMS2 will be deleted.

After initialization, saved data and IP address will be same as factory setting.



### Tracking

#### ♦ What is tracking?

Tracking is an operation that finds devices which are connected to DMS2.

Through tracking operation, devices which are connected to DMS2 can recognize if they are connecting to DMS2.

To supervise and control system air conditioner using DMS2, tracking should be done first.

#### ♦ Things you can do through tracking

Checking the number of devices installed, setting communication mode by channel, DVM tracking, Renaming is possible through tracking.

#### ◆ Execute tracking

(1) Connect DVM device

- Connect the device to COM1~COM5.
- (2) Set communication mode by channel.
  - Set proper communication mode which fits to the devices connected in step (1).
  - Be careful that if communication mode is not properly set, the device will not be found through tracking.
- (3) Execute tracking Execute DVM tracking.
  - DVM tracking is an operation that finds system air conditioner devices such as indoor/ outdoor unit, watt-hour meter.
- (4) Name setting for each device.
  - Name setting for each device is a function that sets the name of connected devices.
     Set the name which shows installation location of the device.

#### ♦ Communication mode setting by channel

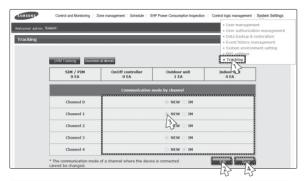
Roles

- It records what devices are connected to COM1~ COM5 of DMS2.
- -Through tracking, DMS2 searches proper devices which fits to user's setting.
- Select proper communication mode which fits to connected device.

What is communication mode?

- Outdoor unit, OnOff controller, SIM, PIM can be connected to DMS2.
- Following is the list of devices that can be communicated through each communication mode.
- $\bullet$  NEW mode: OnOff controller and outdoor units which supports new
  - communication mode.
- IM mode: SIM/PIM which only supports conventional communication mode.

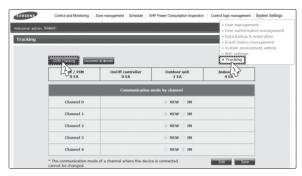
# Communication Mode Setting by Channel



- 1 Click [System Settings] → [Tracking] when DMS2 web page menu screen appears.
- 2 Click [Edit] from communication mode by channel setting.
  - ◆ [Edit] will change to [Cancel].
  - Selection buttons are enabled. However, the channels which have searched device maintains its selection button disabled.
- 3 When each channel is enabled, check the communication mode you want to set by channel.
  - ◆ You cannot change the communication mode of channel which has currently connected device.
  - When 'NEW' is set as communication mode, setting will allow tracking, monitoring and controlling devices that support NEW communication mode.
  - When 'IM' is set as communication mode, setting will allow tracking, monitoring and controlling SIM/PIM.
- 4 Click [Save] after setting is completed.
  - "Reading data from DMS2. Please wait." message appears and saving is completed.
     Then, tracking page with disabled items will be displayed again.
  - ♦ If you click [Cancel], check boxes will be disabled and [Cancel] will change to [Edit].



# **DVM Tracking**

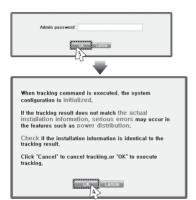


- Click [System Settings] → [Tracking] when DMS2 web page menu screen appears.
- Click [DVM Tracking].



Some functions available on DMS2 web page may not be functional at BACnet Gateway and LonWorks Gateway. For detailed function, refer to the installation manual or contact Samsung Electronics.





- 3 Enter administrator's password and then click [OK].
- 4 Tracking information window pops up. Check and click [OK] to continue.
  - Execute tracking depending on the communication mode set by communication mode setting by channel.
    - When 'NEW' is set as communication mode, DMS2 executes tracking on devices that supports NEW communication.
    - (2) When 'IM' is set as communication mode, DMS2 executes tracking on SIM/PIM.
- 5 "Tracking is in progress. Please wait." message appears.
  - Tracking takes from tens of seconds to several ten minutes.

However, it may vary depending on the number of installed controllers.





- 6 Tracking completed message will appear. Select Zone initialization mode you want and click [OK].
  - ◆ Not initialize: No zone information initialization will be made.
  - Initialize individually: Initialize zone information as individual mode.
  - ◆ Initialize by group: Initialize zone information as group mode.

#### Note

- If tracking is executed successfully while IM is set as communication mode for each channel, virtual centralized controller will be assigned to each channel.
- ◆ If there is n searched outdoor units, centralized controller and SIM/PIM, it is regarded as DVM tracking failure
- If there are devices which have same address, first searched device will be registered only.
- ◆ The number of centralized controller doesn't contain the number of virtual centralized controller that is used in NEW communication.
- Total number of indoor units includes general indoor units, ERV, AHU, MINI AHU, Fresh ducts and ERV PLUS.



- ♦ If you execute tracking, system setting will be initialized.
- If tracking result does not match with actual installation information, there can be critical error in additional functions such as power distribution.
- Make sure that tracking information matches to actual installation information after tracking.



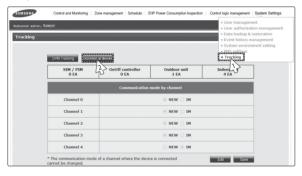
### Disconnect All Devices

#### **♦** Function

Initialize searched device status in DMS2. Using this function, monitoring and controlling of all the connected devices to DMS2 will be stopped.

#### ♦ When is it needed?

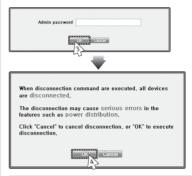
- Connect searched device to the other channel and execute tracking. If the other device is searched in the channel you want to use, use 'Disconnect all devices' function.
- If you use this function, DMS2 device connection status will be initialized.



- Click [System Settings] → [Tracking] when DMS2 web page menu screen appears.
- 2 Click [Disconnect all devices].



### **System Settings (Continued)**



- 3 Enter administrator's password and then click [OK].
- 4 Disconnect all devices information window pops up. Check it and click [OK] to continue.
- 5 "Reading data from DMS2. Please wait." message appears. After completing disconnect all devices operation, page will be refreshed.

Note

- After executing disconnect all devices function, device search status of DMS2 will be initialized.
- You should execute tracking again after using disconnect all devices function.



### Renaming the Device



- Click [System Settings] → [Tracking] when DMS2 web page menu screen appears.
- 2 Click [Edit] on the bottom of tracking device list.
  - ◆ [Edit] will change to [Cancel].
  - When the type of the device is displayed, New communication address will be shown with it.



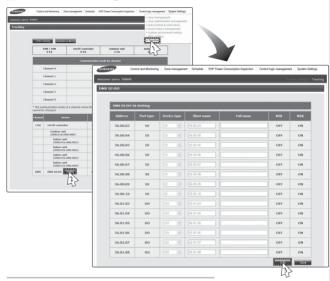
#### **System Settings (Continued)**



- 3 Enter the device name, which is saved in the PBA, in the Device name field or enter the name, which is saved in the DMS2. in the Name field.
  - ◆ You cannot use special symbols as Device name and Name.
  - ◆ The Name should be within 16 letters
  - ◆ The Device name should be within 10 letters.
  - ◆ Select the check box beside 'Device name' if you want to use the name of the device (that supports NEW communication) which is saved in the PBA.
- 4 Click [Save] after setting is completed.
  - "Reading data from DMS. Please wait." message appears and saving is completed. Then, tracking page with disabled items will be displayed again.
  - If you click [Cancel], input fields are disabled and [Cancel] will change to [Edit].



### MS DI•DO Port Setting



- 1 Select [System Settings] and then click [Tracking].
- 2 Click [Setting] which is next to DMS DI+DO of device list.
- 3 Click [Edit] which is on the bottom of DMS DI-DO setting page.
  - ◆ [Edit] will change to [Cancel].



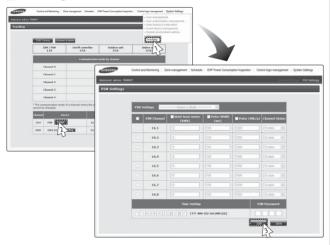
### **System Settings (Continued)**



- 4 Edit each item when DMS DI•DO selection and input fields are enabled.
  - ◆ Device type : DI or DO
  - ◆ Short name: Input short name of the device.
  - ◆ Full name : Input full name of the device.
  - Minimum value / Maximum value : MIN value is fixed as OFF and MAX value is fixed as ON.
- 5 Click [Save].
  - After the saving is complete, DMS DI-DO setting page with all deactivated items will appear.
  - If you press [Cancel], web page will refresh and it goes back to the state before the modification.



### PIM Setting



- Click [System Settings] → [Tracking] when DMS2 web page menu screen appears.
- 2 Click [Setting] which is next to PIM of device list.
  - Enter administrator's password and then click [OK].
- 3 Click [Edit] which is on the bottom of PIM setting page.

  ◆ [Edit] will change to [Cancel].



### **System Settings (Continued)**



4 Select a field and edit each item when input fields are enabled.

#### Note Each field range

- ◆ Watt-hour meter: 0~99999.9(kWh)
- ◆ Pulse width: 20~400(ms)
- ◆ Pulse: 1~10000(Wh/Pulse)
- 5 Click the check boxes to select the channel applying for the setting.
- 6 Click [Save].
  - ◆ If you press [Cancel], web page will refresh and it goes back to the state before the modification.



#### **Check Before using Panel**

#### Using LCD and LCD Button

LCD is mounted on DMS2 for installation and convenience of the user.

- ◆ You can search menu and change setting using [▲] and [▼] buttons.
- ◆ If you press and hold [▲] or [▼] button in some menu such as IP setting, the value changes faster.
- ◆ To go to upper menu or cancel, select [MENU] button.
- ◆ To go to sub menu, select or save, press [SET] button.
- ♦ Operates some menus with care because they are related to the proper operation of DMS2 system.
- If you do not use DMS2 buttons for long periods of time, set button lock to avoid malfunction.
- ◆ Manufacturer is not responsible for the damage caused by wrong operation.

#### Checking Main Menu

192.168.0.100 06:12:13(AM)

- If IP and current time are displayed on LCD display, press [Menu], [▲], [▼] or [Set] button.
  - ◆ Main menu screen will be displayed.
- 2. Check menu options by pressing [▲], [▼] buttons.

1	IP Config	Network information setting
2	In/Outdoor	Checking Indoor/Outdoor unit information
3	DMS2 Version	Checking DMS2 version
4	DMS2Time	Setting DMS2 time
5	Data Backup	Setting data backup
6	Peak Level	Checking peak level
7	Error Status	Checking error information
8	Password Reset	Password reset
9	Button Lock	Button lock function
10	Safety Halt	Safe end function



#### **Setting Network Information**

#### Network Information Setting(IP Config)

192.168.0.100 06:12:13(AM)

1. Check main menus by pressing [Menu], [▲], [▼] or [Set] button.

MAIN MENU 1.IP Config

- 2. Select 1.IP Config by pressing [▲] and [▼] buttons, and press [Set] button.
  - Network setting screen will be displayed.

IP ADDRESS 192.168.0.100

- 3. Select the item you want by pressing [▲] and [▼] buttons.
- ♦ You can select from IP address, subnet mask address, gateway address, and DNS server.

SET YOUR IP 192.168.0.79

- 4. Edit selected network information by pressing [Set] button.
  - ◆ Number to edit will blink.
  - ◆ You can change value by pressing [▲] and [▼] buttons. To move to next number, press [Set] button.
  - ◆ If you press and hold [▲] or [▼] button, the value changes faster.
  - ◆ After setting all the 4-digit number, press [Set] button to save the new settings.
  - ◆ To cancel the setting, press [Menu] button.



#### Auto Address Setting (DHCP CONFIG)

192.168.0.100 06:12:13(AM)

1. Check main menus by pressing [Menu], [▲], [▼] or [Set] button.

## MAIN MENU 1.IP Config

- 2. Select 1.IP Config by pressing [▲] and [▼] buttons, and press [Set] button.
  - ◆ Network setting screen will be displayed.

### DHCP CONFIG Current disabled

- 3. Select auto address setting function(DHCP CONFIG) by pressing [▼] button.
- Auto address setting function status will be displayed.
   Current disabled: Auto address setting function disabled
   Current enabled: Auto address setting function enabled

## Enable DHCP? YES:Set, NO:Menu

- 4. Enable/Disable auto address setting function by pressing [Set] button.
  - ♦ If auto address setting function enabled
    - You can change it to disabled status by pressing [Set] button.
  - ♦ If auto address setting function disabled
  - You can change it to enabled status by pressing [Set] button.
  - ◆ To maintain current status, press [Menu] button.
  - ◆ DHCP function is not available when you use BACnet Gateway function.



#### **Checking Indoor/Outdoor Unit Information**

#### Checking Indoor/Outdoor Unit Information

192.168.0.100 06:12:13(AM)

1. Check main menus by pressing [Menu], [▲], [▼] or [Set] button.

# MAIN MENU 2.In/Outdoor

2. Select 2.In/Outdoor by pressing [▲] and [▼] buttons.

## IN/OUTDOOR INFO Indoor:64

- 3. Press [Set] button.
  - ◆ The number of indoor units connected to DMS2 will be displayed.

# IN/OUTDOOR INFO Outdoor:6

- 4. Check outdoor unit information by pressing [▼] button.
  - ◆ The number of outdoor units connected to DMS2 will be displayed.
  - ◆ To check indoor unit information again, press [▲] button.
  - ◆ You can go back to main menu by pressing [Menu] or [Set] button.



### **Checking DMS2 Version**

### Checking DMS2 Version

192.168.0.100 06:12:13(AM)

1. Check main menus by pressing [Menu], [▲], [▼] or [Set] button.

# MAIN MENU 3.DMS Version

2. Select 3. DMS2 Version by pressing [▲] and [▼] buttons.

# DMS version 2.0

- 3. Press [Set] button.
  - ◆ Current version of DMS2(DMS2 Version) will be displayed.
  - ◆ You can go back to main menu by pressing [Menu] or [Set] button.



#### **Checking DMS2 version (Continued)**

#### DMS2 Time Setting – Checking and Setting Date

192.168.0.100 06:12:13(AM)

1. Check main menus by pressing [Menu], [▲], [▼] or [Set] button.

### MAIN MENU 4.DMS time

- 2. Select 4. DMS2 Time by pressing [▲] and [▼] buttons.
  - ◆ Current set date of DMS2 will be displayed.

# CURRENT DATE 1983:04:16

- 3. When 'CURRENT DATE' appears, set current data by pressing [Set] button.
  - ◆ Number to edit blinks.
  - ◆ You can change value by pressing [▲] and [▼] buttons. To move to the next number, press [Set] button.
  - ◆ Press and hold [▲], [▼] buttons to change the number continuously.
  - ◆ Set year, month and day in order, and then press [Set] button to save.
  - ◆ To cancel the setting, press [Menu] button.



#### DMS2 Time Setting – Checking and Setting Time

192.168.0.100 06:12:13(AM)

1. Check main menus by pressing [Menu], [▲], [▼] or [Set] button.

### MAIN MENU 4.DMS time

- 2. Select 4. DMS2 Time by pressing [▲] and [▼] buttons.
- ◆ Current set time of DMS2 will be displayed.

# CURRENT TIME 16:46:37(PM)

- 3. Select 'CURRENT TIME' by pressing [▼] button. Then set time by pressing [Set] button.
  - ◆ Current set time of DMS2 will be displayed.
  - ♦ Number to edit blinks.
  - ◆ You can change value by pressing [▲] and [▼] buttons. To move to the next number, press [Set] button.
  - ◆ Press and hold [▲], [▼] buttons to change the number continuously.
  - ◆ Set hour, minute and second in order, then press [Set] button to save.
  - ◆ To cancel the setting, press [Menu] button.



#### **Data Backup Setting**

#### Data Backup

192.168.0.100 06:12:13(AM)

1. Check main menus by pressing [Menu], [▲], [▼] or [Set] button.

## MAIN MENU 5.Data Backup

- 2. Select 5.Data Backup by pressing [▲] and [▼] buttons.
  - ◆ DMS BACKUP MENU will appear.

# DMS BACKUP MENU data backup

- Check if data backup is selected. Then press [Set] button.
  - ♦ You can start backup by pressing [Set] button again.
  - If data backup is completed successfully, screen below will be displayed.

#### Backup Completed

◆ To cancel backup, press [Menu] button.

Are you sure? YES:Set, NO:Menu



- ♦ Before executing data backup, check if SD card is inserted.
- ♦ Unlock forbidding writing tab of SD card.



#### Data Restore

192.168.0.100 06:12:13(AM)

1. Check main menus by pressing [Menu], [▲], [▼] or [Set] button.

## MAIN MENU 5.Data Backup

- 2. Select 5.Data Backup by pressing [▲] and [▼] buttons, and then press [Set] button.
  - ◆ DMS BACKUP MENU will appear.

## DMS BACKUP MENU data restore

- Check if data restore is selected by pressing [▲] button. Then select a file you want to restore by pressing [▲] and [▼] buttons.
  - ◆ Before executing data restore, check if SD card is inserted.

## Filename: 20090725.dms

- 4. Start data restore by pressing [Set] button.
  - ◆ To cancel restoration, press [Menu] button.



- When controlling DMS2 using panel, data restore is only possible in SD card.
   You can execute PC restoration through web browser.
- ♦ Unlock forbidding writing tab of SD card.



#### **Checking Error Information**

### Checking Error Information

192.168.0.100 06:12:13(AM)

1. Check main menus by pressing [Menu], [▲], [▼] or [Set] button.

## MAIN MENU 7.Error Status

- 2. Select 7. Error Status by pressing [▲] and [▼] buttons, and then press [Set] button.
  - ◆ Unsolved error info will be displayed.

# ERROR INFO > CAU-01 611

- 3. You can check the other error information by pressing [♠] and [▼] buttons.
  - ♦ You can check the next error information by pressing [▼]. To check the previous error, press [▲] button.



#### Reset Password

#### Reset Password

192.168.0.100 06:12:13(AM)

Check main menus by pressing [Menu], [▲], [▼] or [Set] button.

### MAIN MENU 8.Password Reset

2. Select 8.Password Reset by pressing  $[\blacktriangle]$  and  $[\blacktriangledown]$  buttons, and then press  $[\mathsf{Set}]$  button.

# RESET PASSWORD WAITING.....

- 3. When "RESET PASSWORD WAITING......" message appears, press [Menu] and [Set] buttons at the same time.
  - Button lock function will be released and confirm message for password initialization will appear.
  - ◆ If there is no button input for around 3 seconds, password reset will be failed and it will return to main menu.

Are you sure? YES:Set, NO:Menu

- 4. Reset password by pressing [Set] button.
  - Password will be reset as factory setting. (ac0530)
  - ◆ To cancel reset password, press [Menu] button.

Moma ◆ If you reset the password while you are accessed to the DMS2 web page, you must close the browser and then re-login in order to use resetted password.



#### **Button Lock**

#### **Button Lock**

192.168.0.100 06:12:13(AM)

1. Check main menus by pressing [Menu], [▲], [▼] or [Set] button.

MAIN MENU 9.Button Lock

2. Select 9.Button Lock by pressing [▲] and [▼] buttons.

Are you sure? YES:Set, NO:Menu

- 3. Press [Set] button.
  - ◆ Confirm message will appear.

BUTTON LOCKED 07:30:21(AM)

- 4. Press [Set] button.
  - ◆ LCD operating button will be locked.
  - ◆ To cancel button lock, press [Menu] button.
- To release button lock function, press [Menu] and [Set] button at the same time for 5 seconds.



#### **Safety Halt**

#### Safety Halt

192.168.0.100 06:12:13(AM)

1. Check main menus by pressing [Menu], [▲], [▼] or [Set] button.

## MAIN MENU 10.Safety Halt

2. Select 10.Safety Halt by pressing [▲] and [▼] buttons.

Are you sure? YES:Set, NO:Menu

- 3. Press [Set] button.
  - ◆ Confirm message will appear.

## Now sleeping... See you again

- 4. Press [Set] button.
  - ◆ All functions of DMS2 will stop and 'Now Sleeping..' phrase will appear.

Mଗ୍ରହ ♦ Safety halt

- Safety halt function is an operation that saves data of DMS2 and then stops service safely. Use this function when relocation and system restart are needed.
- This function will not transfer DMS2 power to OFF status. Therefore, when the screen above appears, press [RESET] button on the bottom of DMS2 or remove power cable. If you do not press [RESET] button or remove power after 10 minutes passed, DMS2 will restart automatically.



## Troubleshooting

<u>Problem</u>	<u>Check</u>	Solution
DMS2 is not working.	Is there an electricity failure?	Check if the power is connected to the other interface module besides centralized controller. Then try again.
	Isn't there a communication error in the other interface module besides centralized controller?	Check the connection of communication cable. Then try again.
	Are the adapter and power cable connected?	Check the connection of adapter and power cable. Then try again.
Access to web page is not available.	Is Microsoft Silverlight installed?	Check the installation status. Refer to Start → Control Panel → Add/Remove Programs.
	Is Microsoft Silverlight installed properly?	Microsoft Silverlight 2.0 or later version should be installed to access web page.
Access to web page from outside is not available.	Are the network settings set?	Contact network manager first.
	Isn't the fire wall set?	
Monitoring of installed centralized controller is not working.	Are the communication cables of DMS2(C1, C2) properly connected?	Connect DMS2 communication cables (C1, C2) properly. Be careful to deal with the RS485 communication cable because it has polarity.
Power distribution is not executed properly.	Isn't the power of DMS2 disconnected?	To use power distribution function properly, the power of DMS2 should be connected all the time.



<u>Problem</u>	<u>Check</u>	Solution
I forgot DMS2 IP.	Press [Menu] button from the main menu and "1. IP Config" will appear. Then press [Set] button.	The factory setting of DMS2 IP address is 192.168.0.100
Indoor unit turned on or off automatically.	Isn't the schedule control in operation?	Depending on the schedule control, indoor unit can be turned on or off automatically. It is normal operation.
	Is DMS2 system time different from current time?	Set the DMS2 system time according to current time.
DI(Digital Input) external contact point function is not	Is the external circuit constituted?	Check if the external circuit is constituted.
working.	If the contact control pattern of DMS2 set to 1?	Set the pattern which fits to the control pattern you want.
Tracking is not working.	Does it show 'Tracking Fail' and is there no indoor unit?	It means tracking failure. Execute tracking again.



## Specifications

Items		Description	
Exterior		SAMSUNG	
	Size	240 X 255 X 64.8 mm (Width X Length X Height)	
Weight		1.48 Kg	
	Source	DC ADAPTOR	
Power	INPUTVoltage	100-240V 50/60Hz 1.0A	
	OUTPUT Voltage	12V 3A	
	RS-485	5 Channels	
	Ethernet	10/100Mbps 1 Port	
Inter-	SD CARD	Option (Purchase SD card separately)	
face	DI	12V Digital Input 10 Channels	
	DO	12V Digital Output 10 Channels	
	Etc.	Serial Port, Reset Button	
Display		16-Character X 2-Line Character LCD	
Input method		Menu/Up/Down/Set 4-Tact Button	



#### License

#### Software License

- Some softwares which distributed under GPL and LGPL are mounted on this product.
   You can get the source code of GPL and LGPL software by requesting it to oss.request@samsung.com.
  - 1) GPL software
    - dhcpd, base-passwd, bash, bzip2, bzip2-libs, comerr-libs, cracklib-libs, devfsd, dosfstools, e2fsprogs, e2fsprogs-libs, fileutils, gawk, gdbm-libs, glibc, glibc-linuxthreads, gpm-libs, grep, gzip, hostname, ifupdown, iputils-ping, klogd, libcap-libs, makedev, makedev-devnodes, mtd-utils, wulutils, net-tools, netbase, perl, perl-libs, procps, procps-libs, readline-libs, sed, shellutils, ss-libs, sysfsutils-libs, syslogd, sysvinit, tar, textutils, tslib-libs, udev, uuid-libs, wqer, zlmaqe, kernel
  - 2) LGPL software
    - libgcc1, libstdc++6
- Software which developed by Apache Software Foundation(http://www.apache.org/) is used on this product.
- 3. Software which developed by Indiana University ExtremelLab is used on this product. For more information, visit http://www.extreme.indiana.edu/
- 4. com.oreilly.servlet software which developed by Jason Hunter is used on this product.
- cryptographic software which developed by Eric Young(eay@cryptsoft.com) is used on this product.
- 6. jaxen. Mail4me is used on this product.
- 7. Software which developed by Computing Services at Carnegie Mellon University is used on this product.(http://www.cmu.edu/computing/)
- 8. Software which developed by OpenSSL Project for the use of OpenSSL Toolkit is used on this product.
- Software which developed by University of California, Berkeley and its contributors is used on this product.

10. cron, db4-libs, shadow, xinetd is used on this product.



### Memo



### Memo



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Version 2, June 1991

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