DMS2(Data Management Server2) MIM-D00A

Air Conditioner installation manual

imagine the possibilities

Thank you for purchasing this Samsung product.



Safety Precautions

This installation manual describes how to install the DMS2. For installation of other optional accessories, refer to the appropriate installation manual.



- Read carefully this installation manual before installation and check if the DMS2 is installed correctly after installation.
- ◆ 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.
- ◆ The DMS2 must be installed according to the national electrical rules by an installation specialist.
- ◆ If you wish to uninstall the DMS2, consult an authorized installation center.



- ◆ Do not use inflammable gases near the DMS2.
- ◆ Do not install the DMS2 in a location where it will come into contact with combustible gases, machine oil, sulphide gas, etc.
- Avoid locations where acid/alkali solution or special spray is used.
- ◆ Choose a location that is dry and sunny, but not exposed to direct sunlight. Suitable temperature is between 0°C(32°F) and 39°C(102.2°F).
- ◆ Do not spill water into the DMS2.
- Do not apply tensile strength to the cable to avoid cable damage.
- ◆ Do not press the buttons with a sharp object.
- ◆ Do not connect the power cable to the control terminal.
- If the DMS2 is installed in a hospital or other special places, it should not affect other electronic devices.

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Before Installing the DMS2

Checks before installation

1 DMS2 IP

◆ A public IP is needed to access the DMS2 over the internet.

(One public IP is needed for each DMS2)

- ◆ A private IP may be used if the DMS2 need not be accessed over the internet
- ◆ DMS2 supports DHCP.
- ** DHCP(Dynamic Host Configuration Protocol) An Internet protocol for automating the configuration of computers that use TCP/IP.

DHCP is used to automatically assign IP addresses.

In other words, the IP address of the host is supported only when the PC is on.

2 Network related equipments

** DHCP(Dynamic Host Configuration Protocol)
An Internet protocol for automating the configuration of computers that use TCP/IP.
DHCP is used to automatically assign IP addresses.
In other words, the IP address of the host is supported only when the PC is on.

3 Installation connection wire

◆ The LAN cable and the communication cables from centralized controllers/interface modules must be installed in such a way that the wires can be connected to the DMS2 with ease.

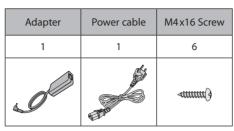
Mote

- The DMS2 is a server and supports static IP and Dynamic IP. To access the DMS2 through the internet or with S-NET series, the DMS2 address, which is the IP address, must be known.
- A static IP service from an internet service provider must be used if xDSL (ADSL, VDSL) is being used for internet connection. (Static IP costs more than dynamic IP.)
- Choosing between a private IP and a public static IP depends on whether the DMS2 needs to be controlled from an external location.

Accessories

Make sure you have each item. Supplied items may vary depending on your country or service provider.

Item	DMS2	
Quantity	1	
Shape	discharing the state of the sta	



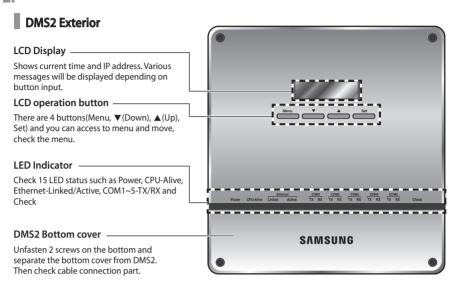
User's manual	Installation manual	Cable tie
1	1	1



- ♦ The DMS2 must be installed by a trained installer.
- Ensure the main power is turned off before installing the DMS2.
- ♦ Be sure to use adapter and power cable we provide.
- The power cable and the communication cable must be installed according to the national electrical wiring regulations.

Viewing the Parts

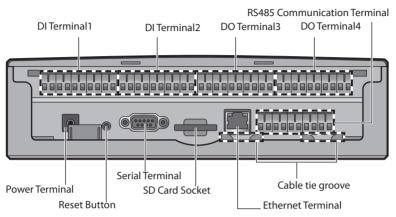
Main Parts



LED Indicator

ltem	Name	Status
Power	Power indicator	Turns blue when the power is supplied.
CPU Alive CPU operation indicator		Blinks in orange with 1 second intervals during normal operation.
Ethernet–Linked	Internet connection indicator	Turns green during normal connection.
Ethernet-Active	Internet data transmission/reception indicator	Blinks in orange during normal transmission/reception.
COM1~5 – TX Channel 1~5 Centralized controller/Interface module Data transmission Indicator		Blinks in green during normal transmission.
COM1~5 – RX	Channel 1~5 Centralized controller/Interface module Data reception Indicator	Blinks in green during normal reception,
Check	Indoor/Outdoor unit/Communication check Indicator	Turns green when notice occurs.

■ DMS2 Cable Connection Part

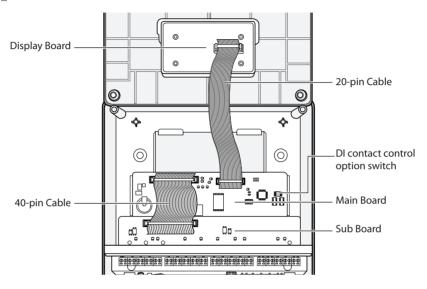


Name	Description	
DI Terminal 1	Digital Input connection terminal, Channel 1~Channel 5	
DI Terminal2	Digital Input connection terminal, Channel6~Channel10	
DO Terminal3	Digital Output connection terminal, Channel1~Channel5	
DO Terminal4	Digital Output connection terminal, Channel6~Channel10	
Reset Button	Reset DMS2	
Power Terminal	Connect DMS2 adapter	
Serial Terminal	Service agent checks DMS2 error status using this terminal	
SD card socket	Sub memory (for program update and set information saving) socket	
RS485 Communication Terminal	Connect for RS485 communication with devices such as centralized controller/Interface module -COM1 ~ COM5	
Ethernet Terminal	Connect LAN cable	
Cable tie groove	Groove for arranging cables	

Viewing the Parts (Continued)

Main Parts

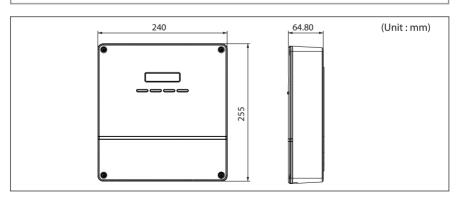
DMS2 Interior



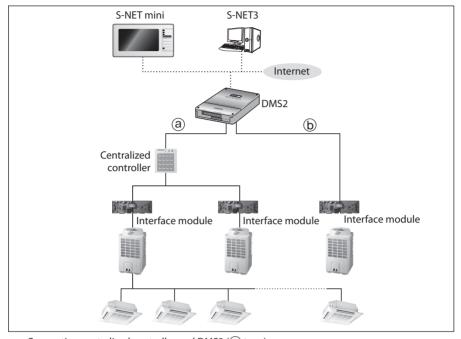
Note:

- If you need external circuit configuration, consult with the manufacturer.
- ◆ Refer to page 20 for DI contact input operation.

Product Dimensions



System Architecture



- Connecting centralized controller and DMS2 ((a) type)
- You can control up to 16 centralized controllers and 256 indoor units using DMS2.
- Connecting interface module and DMS2((b) type)
 - You can control up to 80 interface modules and 256 indoor units using DMS2.
- *16 interface modules can be connected to RS485 communication channel of DMS2.
- The more interface modules are connected, the longer time takes for tracking.



- When connecting centralized controller and interface module to the DMS2 of same communication channel, only one of them will communicate according to the communication channel mode setting of [System Settings]-[Tracking]. Therefore, do not connect the centralized controller and interface module to the same communication channel.
- If you set the communication channel mode as interface module, virtual centralized controller address will be assigned. Therefore please aware of that if you set the centralized controller address as virtual centralized controller address when you connect interface module and centralized controller at the same, it may cause trouble for bringing device information.

Channel 0: Virtual centralized controller 11, Channel 1: Virtual centralized controller 12, Channel 2: Virtual centralized controller 13, Channel 4: Virtual centralized controller 14, Channel 5: Virtual centralized controller 15

Compatible Devices

No	Devices	Model	Note
1	Indoor Unit Outdoor Unit	All System indoor/outdoor units such as: DVM, DVM PLUS, DVM PLUS II, DVM PLUS III, DVM PLUS IV, mini DVM, CAC Series	-
2	Centralized Controller	MCM-A202, MCM-A202A, MCM-A202B	-
3	SIM	MIM-B12	Needed for EHP power distribution
4	PIM	MIM-B16	Needed for EHP power distribution
5	Interface module	MIM-B04A (DVM, DVM PLUS, etc.) MIM-B13 (DVM PLUS II, etc.) MIM-B13A (DVM PLUS II/ DVM PLUS III, DVM PLUS IV etc.) MIM-B13B	-
6*	Watt-hour Meter	RS485 comm. type	Connected with SIM Needed for power distribution (Please consult Samsung for compatible power meters)
Me	ivietei	Pulse type	Connected with PIM Pulse Width: 20~400(ms) Pulse: 1~10000(Wh/Pulse)

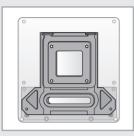
[★] Products with '* 'are not Samsung products and must be purchased separately.

(Only selected power meters may be used for protocol compatibility issues.)

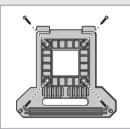
Maximum Devices Attachable

Devices	Max.	Note
Indoor Unit	256	Tracking error occurs if exceeded
Centralized Controller	16	Must not exceed 16 units
Interface module	256	16 units per 1 channel, total 80 units are connectable when connecting interface module to DMS2 directly (256 units are connectable when using centralized controller)
SIM/PIM	8	Maximum 8 SIM/PIM units can be connected.
Watt-hour Meter	64	Maximum 8 units can be connected to 1 SIM/PIM.

Installing the DMS2



1 Separate the installation plate on the rear side of DMS2.

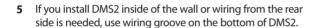


2 Fix the installation plate on the wall using 4 screws.



3 Hang the DMS2 on the groove which is on the top of the installation plate.

- **4** Fix the installation plate and DMS2 using 2 screws.
 - Depending on the installation environment, fix DMS2 using assistant holes.
 (Screws for assistant hole are not provided by our company.)







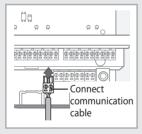


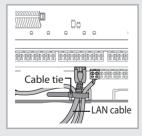
To prevent breakdown and damage of DMS2, and for safe usage, it is recommended to install DMS2 on the wall.

Installing the DMS2 (Continued)



Page strong to Adapter





Connecting Centralized Controller

1 Unfasten the 2 screws on the bottom of the DMS2 front cover. Hold the bottom 2 sides of the DMS2 and push downwards to slide open the cover.

- **2** Connect the adapter to the power terminal.
 - ◆ Arrange the adapter as the right figure.

3 Separate 1 terminal block from 5 terminal blocks which are attached to RS485 communication terminal. Then, connect centralized controller communication cable (C1, C2) to the terminal block.(C1 ↔ A, C2 ↔ B)

- **4** Connect LAN cable to the Ethernet terminal of DMS2. Then arrange it using cable tie.
- 5 Fasten the bottom cover of DMS2 and fix it using 2 screws.



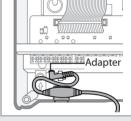
Maximum 16 centralized controllers can be connected to one DMS2.

Connecting Interface Module

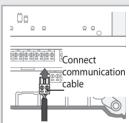
1 Unfasten the 2 screws on the bottom of the DMS2 front cover. Hold the bottom 2 sides of the DMS2 and push downwards to slide open the cover.



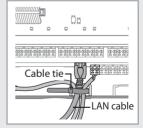
- **2** Connect the adapter to the power terminal.
 - ◆ Arrange the adapter as the right figure.



3 Separate 1 terminal block from 5 terminal blocks which are attached to RS485 communication terminal. Then, connect interface module communication cable(R1, R2) to the terminal block.(R1↔A, R2↔B)



4 Connect LAN cable to the Ethernet terminal of DMS2. Then arrange it using cable tie.



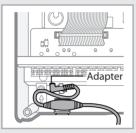
5 Fasten the bottom cover of DMS2 and fix it using 2 screws.

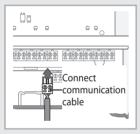


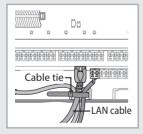
Maximum 80 interface modules can be connected to one DMS2.

Installing the DMS2 (Continued)









Connecting SIM

1 Unfasten the 2 screws on the bottom of the DMS2 front cover. Hold the bottom 2 sides of the DMS2 and push downwards to slide open the cover.

- **2** Connect the adapter to the power terminal.
 - ◆ Arrange the adapter as the right figure.

- 3 Separate 1 terminal block from 5 terminal blocks which are attached to RS485 communication terminal. Then, connect SIM/PIM communication cable (C1, C2) to the terminal block. (C1↔A, C2↔B)
- **4** Connect LAN cable to the Ethernet terminal of DMS2. Then arrange it using cable tie.
- **5** Fasten the bottom cover of DMS2 and fix it using 2 screws.

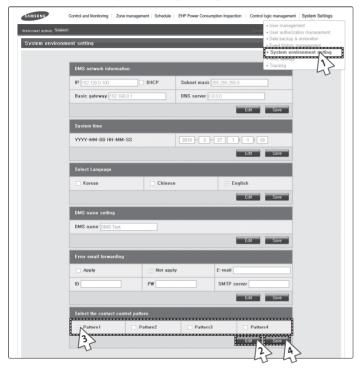


Maximum 8 SIM/PIM units can be connected to one DMS2.

Using the DI External Contact Control (Optional)

Setting the External Contact Control Pattern

• You can set the system settings through contact control pattern.



- 1 Select [System Settings] menu and click [System environment setting].
- 2 Click [Edit] from 'Select the contact control pattern'.
- **3** Select the pattern you want to check.
 - Pattern 1[No external input]: No operation will be made when inputting contact point control signal.
 - ◆ Pattern 2[Level(Emergency stop)]: Commands that stop all indoor unit operation and disable remote control when inputting contact point control signal. In level emergency stop status, it will not be controlled even if the command is set 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.

Installing the DMS2 (Continued)



- 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 Pattern 1 is set as factory setting.



- DMS2 has total 10 DI ports. However, actually used DI ports are Ch1 and Ch2, and the rest of the ports (Ch3~Ch10) are for additional functions. Therefore, make sure to connect Ch1 or Ch2 when using it.
- ◆ For DO, Ch1 and Ch2 are currently used inside of DMS2. Ch9 and Ch10 are reserved in case of need. Therefore you can only use Ch3~Ch8.

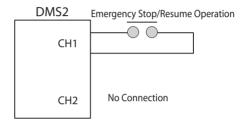
Control Switch Pattern

Pattern	Control
Pattern1	▶ No external input (Factory default setting)
Patterni	When you input contact control signal in port 1, there will be no response.
	▶ Level input (Emergency stop)
	 If the contact control signal is changed to ON, emergency stop status and all the indoor units are given 'Stop' command, and controlling using remote controller is impossible.
	 During the emergency stop, the DMS2 will ignore any request from the upper controllers.
Pattern2	3. During the emergency stop, the DMS2 will ignore previously set schedules.
	4. When the contact control signal changes from ON to OFF, DVM goes into normal operation status and returns to the remote control status before emergency stop.
	5. Even if the contact control signal of port 1 changes from ON to OFF, there will be no change to the indoor unit.
	6. When you input contact control signal in port 2, there will be no response.
	▶ Level input (Operation/Stop, Remote control Enable/Disable)
	I. If the contact signal of port 1 changes from OFF to ON, all indoor units will be given 'Operation' command.
	If the contact signal of port 1 changes from ON to OFF, all indoor units will be given 'Stop' command.
	If the contact signal of port 2 is OFF, you cannot control all indoor units using remote controller.
Pattern3	If the contact signal of port 2 changes from OFF to ON, you can control all indoor units using remote controller.
	5. If the contact signal of port 2 changes from ON to OFF, you cannot control all indoor units using remote controller.
	 Control command from the upper controller will be operated regardless of the contact point status.
	7. DVM system control using Schedule control will be operated regardless of the contact point status.
	▶ Pulse input (Operation/Stop)
Pattern4	1. Valid pulse duration for input signal is 0.5~1.0 second. DMS2 ignores the signal which has shorter than 0.5 second duration, longer than 1.0 second Pulse width.
	2. When Pulse input signal is ON in Port 1. all indoor units will be given 'Operation' command.
	3. When Pulse input signal is ON in Port 2. all indoor units will be given 'Stop' command.
	 DVM control command from the upper controller will be operated regardless of Pulse input signal.
	5. DVM system control using Schedule control will be operated regardless of Pulse input signal.

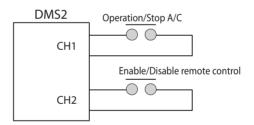
Installing the DMS2 (Continued)

DI(Digital Input) Circuitry according to Control Switch Pattern

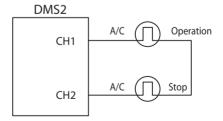
• Pattern 2 (May be used for connection with a fire sensor)



• Pattern 3 (External contact signal control)



• Pattern 4 (Pulse signal control)



Setting the Computer Environment

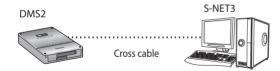
- 1 Device related to network (Purchase separately)
 - ◆ Computer with a LAN Card
 - ◆ HUB or network cable(Cross-Direct cable)
- 2 Computer web browser specification
 - ◆ Internet Explorer 7.0 or later version
 - * You can use Internet Explorer 6.0 but it is not recommended.

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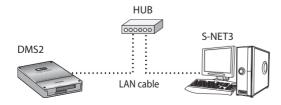
- A cross cable is used when connecting to PC directly.
 It is produced as transmission and reception cables are crossed. Cable 1, 2, 3, and 6 are crossed each other.
- Visit internet homepage (http://www.microsoft. com/silverlight/) to download Silverlight. Or you can download it through the download link which is noticed automatically when you access to DMS2 for the first time.

Connect DMS2 and Computer

Connect DMS2 and Computer directly



Connect DMS2 and Computer using HUB



Setting the Computer Environment (Continued)

Computer Settings for DMS2 Connection

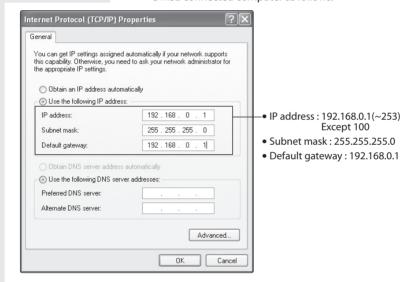
 All settings of DMS2 will be arranged in web page which built in DMS2. You should access to DMS2 IP to use DMS2 web page.

Set your computer settings as follows.

 DMS2 Factory default setting DMS2 IP: 192.168.0.100

IP Setting (Recommended)

 To access to DMS2 IP, set the network information of DMS2 connected computer as follows.



- 1 Select [My network Settings] icon and click [Properties] using right button.
- 2 Select [Local area connection] icon and click [Properties] using right button from the network connection folder.
- 3 [Internet protocol(TCP/IP)] and click [Properties] using right button from the local area connection property window.
- 4 Enter "192,168,0,1" in IP address field, "255,255,255,0" for subnet mask address, and "192,168,0,1" for default gateway.
- 5 Click [OK] after setting.

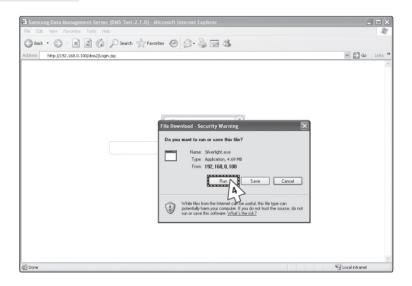
Setting the DMS2

DMS2 Connection and Login



- 1 Click internet explorer icon() twice on your computer.
- When internet explorer window appears, enter IP address (http://192.168.0.100) on the address field then press [ENTER].
- 3 If it is the first time to access DMS2, "Install Microsoft Silverlight" message will appear.
 - ◆ If Microsoft Silverlight have already installed, the screen will not appear.

Setting the DMS2 (Continued)



4 Click [Run] button and continue installation. After installation, access to DMS2 again.



Silverlight operates normally with Windows XP SP2 or later version. It may not operate normally with former version of Windows.



- 5 Enter ID and password when DMS2 main web page appears. Then click [LOGIN]. If you click [Connect], you will be logged in with regular user's right.
 - Depending on authorization settings set by the administrator, access to some functions may be restricted.
 - ◆ For user authorization setting, refer to System settings → User authorization management. The default DMS2 user ID is 'admin' and password is '1234'.

Note

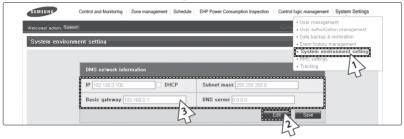
- ◆ Only authorized users can access to web page.
- Connection speed may slow down.
 Fewer than 5 concurrent users are recommended.
- DMS2 manager should change ID and password for security and management.
- ◆ LOGOUT: If you want to log out, click [LOGOUT] on the top of the menu. DMS2 will be ended.

Setting the DMS2 (Continued)

DMS2 System Environment Setting (Network settings)

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

DMS2 Network Information Setting



- 1 Select [System Settings] menu and click [System environment setting].
- 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.

When checking DHCP

- If you check the '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 enter network information manually.



- 4 After clicking [Save], click [OK] when the message window appears.
 - If you click [OK] after setting network information as 'Edit', current internet explorer will be closed. And when you access to DMS2 again, you can access to DMS2 using manually setting IP.
 - ◆ If you click [OK] after setting network information as 'DHCP', current internet explorer will be closed. And when you access to DMS2 again, you can access to DMS2 using the IP displayed in LCD Display.

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- ◆ Factory setting is as follows.
 - IP address: 192.168.0.100 Subnet mask address: 255.255.255.0
 - Default gateway: 192.168.0.1 DNS server: 0.0.0.0
- If you enabled the function by checking 'DHCP', you can check changed network information on the external LCD display.
- ◆ If 'DHCP' is set, IP address from DHCP server will be displayed.
- DMS2 sets service engineer IP(192.168.0.254) internally.
 And it is available to use regardless of current IP setting.
- If several DMS2 units are connected to 1 web site, there can be IP crash because service engineer IP(192.168.0.254) is applied to each DMS2 samely. In this case, edit the service engineer IP as follows, and then use the IP.
 - Run DOS command window by entering "cmd" from Windows "Start → Run".
 - Access to DMS2 by running "telnet 192.168.0.254" from DOS command window.
 - Enter ID/PASSWORD.
 - Edit "syseny" file (IP setting related file) as below.
 - Run "sudo vi /mnt/nand0/config/sysenv" from telnet connection screen
 - Find "IP2=192.168.0.254" and edit the IP as you want

*** Basic commands**

'i' = Modification is possible after entering

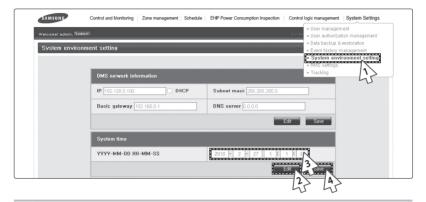
'x' = Delete

Esc + ":wq" = Enter after saving

- Restart
- Connect DMS2 using modified IP is possible.
- There can be IP(192.168.0.254) crash when doing above operation is being executed with several DMS2 units are connected. To check accurate operation, change IP after installing each DMS2.
- DMS2 gets automatically set IP address when you activate DHCP function.
 When connecting DMS2 to S-NET series, you can connect them using the IP.
 However the auto setting 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 and S-NET series.

Setting the DMS2 (Continued)

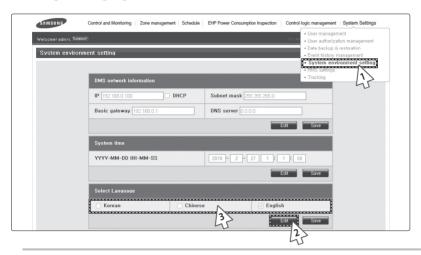
System Time Setting



- 1 Select [System Settings] menu and click [System environment setting].
- 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] and message window appears. Then click [OK].
 - "Reading data from DMS2. Please wait." message appears and saving is completed. Then, system environment setting screen appears again as all items are disabled.

Note System time reflects set current time.

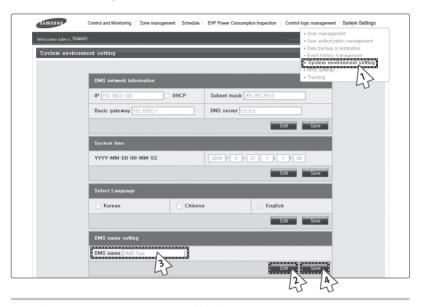
Setting the Language



- 1 Select [System Settings] menu and click [System environment setting].
- 2 Click [Edit] from language selection.
- **3** Select a language you want then click [Save].
- **4** Click [OK] when "This operation needs DMS2 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.

Setting the DMS2 (Continued)

DMS2 Name Setting



- 1 Select [System Settings] menu and click [System environment setting].
- 2 Click [Edit] from DMS2 name setting window.
- 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. (If name setting is undone, "Samsung electronics DMS2" will be displayed on the title bar.)
- 4 Click [Save] after setting is completed.

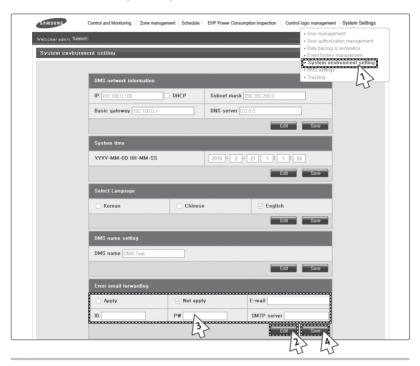


- **5** Click [OK] when "This information will be modified. Do you want to proceed?" message window appears.
- **6** "Reading data from DMS2. Please wait." message appears and saving is completed. Afterwards, system environment setting screen appears again as all items are disabled.
 - You can check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

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

Setting the DMS2 (Continued)

Error Mail Forwarding Setting



- 1 Select [System Settings] menu and click [System environment setting].
- 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 enter 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.
- 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. Afterwards, system environment setting screen appears again with all items are disabled.

Mote In factory setting, 'Not apply' is checked and item fields (E-mail, ID, PW, SMTP server) are blank.

Setting the DMS2 (Continued)

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

- 2 Press [Menu] → $[\nabla]$ → $[\Delta]$ → $[\nabla]$ 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, turns 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 for each channel, DVM tracking, Renaming is possible through tracking.

♦ Execute tracking

- (1) Connect DVM device
 - Connect the device to COM1~COM5.
- (2) Set communication mode for each 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 and 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 for each channel

Roles

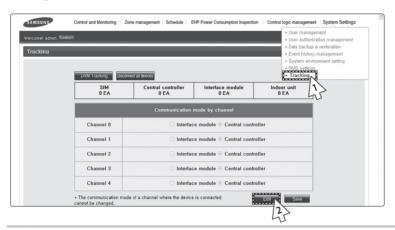
- It records what devices are connected to COM1~ COM5 of DMS2.
- Through tracking, DMS2 searches proper devices which fits to user's setting.
- Select proper communication mode which fits to connected device.

What is communication mode?

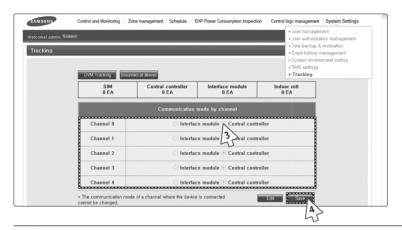
- Interface module, centralized controller, SIM/PIM can be connected to DMS2.
- DMS2 can use only the device assigned for each COM port.
- Communicational devices by communication mode is as follows.
 - ▶ Interface module : Interface module, SIM/PIM
 - ► Centralized controller mode : Centralized controller, SIM/PIM

Tracking (Continued)

Setting Communication Mode for Each Channel



- 1 Select [System Settings] menu and click [Tracking].
- 2 Click [Edit] from communication mode for each channel setting.
 - ◆ [Edit] will change to [Cancel].
 - ◆ Selection buttons are enabled. However, the channels which have searched device maintains its selection button disabled.

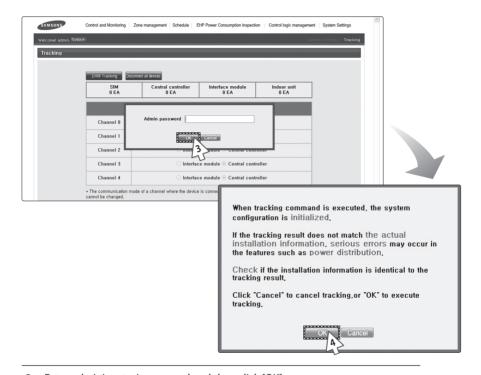


- **3** When each channel is enabled, check the communication mode you want to set for each channel.
 - You cannot change the communication mode of channel which has currently connected device.
 - When setting communication mode of interface module, tracking, monitoring and controlling for SIM/PIM will be set to be possible.
 - When setting communication mode of centralized controller, tracking, monitoring and controlling for centralized controller and SIM/PIM will be set to be possible.
- 4 Click [Save] after setting is completed.
 - "Reading data from DMS2. Please wait." message appears and saving is completed. After that, tracking page with disabled items will be displayed again.
 - If you click [Cancel], check boxes will be disabled and [Cancel] will change to [Edit].

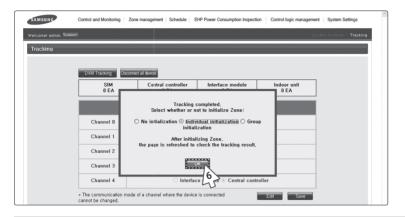
DVM Tracking



- 1 Select [System Settings] menu and click [Tracking].
- 2 Click [DVM Tracking].



- 3 Enter administrator's password and then click [OK].
- 4 Tracking information window pops up. Check it and click [OK] to continue.
 - ◆ Execute tracking depending on the communication mode set by communication mode setting for each channel.
 - (1) For the channel which is set to interface module/centralized controller communication mode, DMS2 executes tracking.
- 5 "Tracking is in progress. Please wait." message appears.
 - Tracking takes from few seconds to 3 minutes.
 However, it may vary depending on the number of installed controllers.



- 6 Tracking completed message will appear.
 Select Zone initialization mode you want.
 - ◆ No initialization: No zone information initialization will be made.
 - ◆ Individual initialization: Initialize zone information as individual mode.
 - ◆ Group initialization: Initialize zone information as group mode.
- 7 Page will be refreshed by clicking [OK]. Then you can check tracking result.

Note

- If tracking is executed successfully when interface module is set for communication mode setting for each channel, virtual centralized controller will be assigned to each channel.
- ◆ For about centralized controller's address, address 11~15 will be assigned to channel 0~4 for each.
- ◆ If there is interface module communication channel, tracking for centralized controller will be restricted for the centralized controller which are in the range of 0~10.
- If there is no searched interface module, centralized controller, SIM/PIM, it is regarded as DVM tracking failure.
- If there are devices which have same address, first searched device will be registered only.
 Searching order is not fixed.
- The number of centralized controller contains the number of virtual centralized controller which is used in interface module communication.
- ◆ The number of indoor unit contains the number of indoor unit, ERV and AHU.



- 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

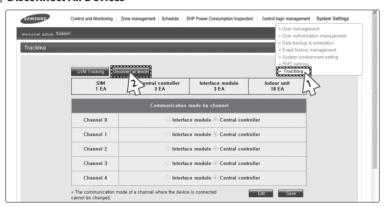
Initialize searched device status in DMS2.

Monitoring and controlling of all the connected devices to DMS2 will be stopped when you use this function.

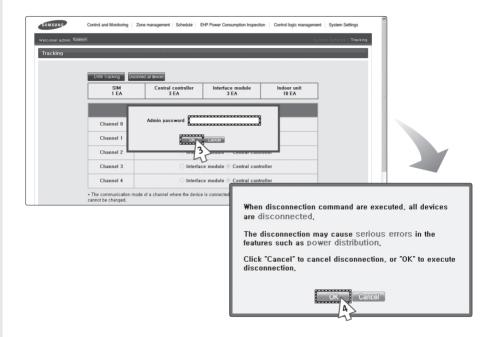
- ◆ Connect searched device to the other channel and execute tracking.

 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.

Disconnect All Devices



- 1 Select [System Settings] menu and click [Tracking].
- 2 Click [Disconnect all devices].

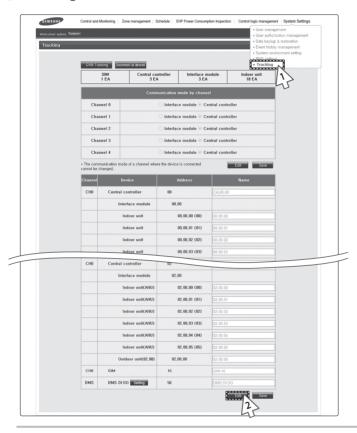


- **3** Enter administrator's password and then click [OK].
- **4** Disconnect all devices information window pops up. Check it and click [OK] to continue.
- 5 "Reading data from DMS2. Please wait." message appears.
 After completing disconnect all devices operation, page will be refreshed.

Note

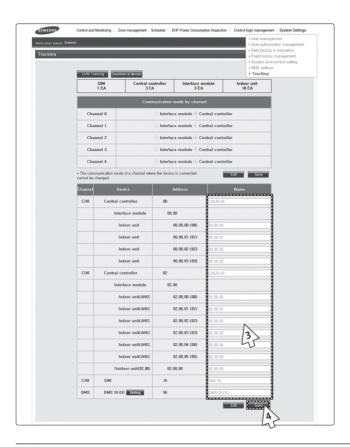
- After executing disconnect all devices function, device search status of DMS2 will be initialized.
- You should execute tracking again after using disconnect all devices function.

Renaming the Device



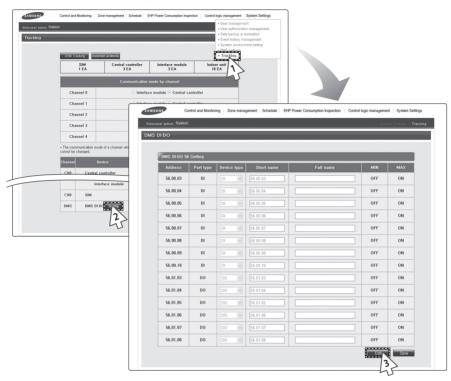
- 1 Select [System Settings] menu and click [Tracking].
- 2 Click [Edit] on the bottom of tracking device list.
 - ◆ [Edit] will change to [Cancel].

More If you press [Cancel] button, [Cancel] will change to [Edit], and the changed name of device will be restored to original name.



- 3 Enter name in the name field.
 - ◆ You cannot use special symbols as device name.
 - ◆ The device name should be within 16 letters.
- 4 Click [Save] after setting is completed.
 - "Reading data from DMS2. Please wait." message appears and saving is completed. After that, tracking page with disabled items will be displayed again.
 - ◆ If you click [Cancel], input fields are disabled and [Cancel] will change to [Edit].

■ DMS 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].



- 4 Edit each item when DMS DI•DO selection and input fields are activated.
 - ◆ 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 inactivated items will appear.
 - ◆ If you press [Cancel], webpage 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].



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

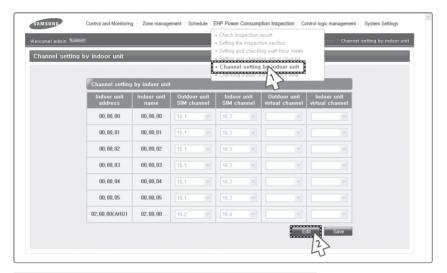
Note Each field range

- ◆ 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], webpage will refresh and it goes back to the state before the modification.

Setting the Power Distribution

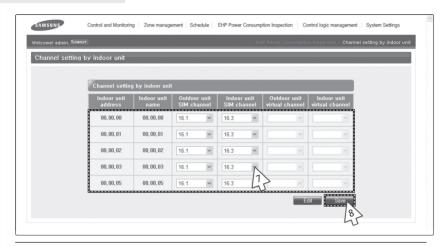
◆ When doing power distribution, set SIM/PIM channel for each indoor unit.

Channel Setting by Indoor Unit



- 1 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.

Setting the Power Distribution (Continued)



- 3 Check the address and channel information of SIM/PIM which is connected to watt-hour 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 watt-hour meter is connected.

(Terminal block 1 is on the most 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.

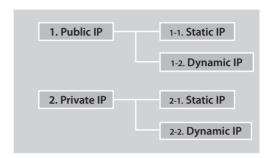
- 6 Check the virtual channel information of indoor/outdoor unit.
 - ◆ To execute power distribution without SIM/PIM, you should set virtual channel.
 - ♦ When bringing indoor unit's power from outdoor unit, set the 'Outdoor unit virtual channel' information only.
 - ('Outdoor unit virtual channel' is 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 interface module.
 - ◆ 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.

IP Terminology

• DMS2 needs IP address to contact other computers.



- 1. Public IP: Ordinary IP used to connect internet is called public IP.
 - 1-1. Static IP: Static IP is a number that is assigned to a computer by an Internet service provider (ISP) to be its permanent address on the Internet.
 - 1-2. Dynamic IP: Dynamic IP is a number, which changes every time when computer or model has restarted.
- 2. Private IP: This is a local IP which can not be used for internet connection.

If you share internet connection through router, internet sharing software or, through OS, you may check the Client IP and they will be similar to below number system.

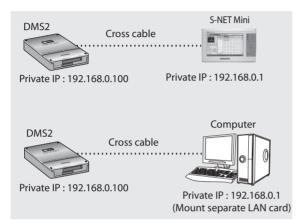
10.X.X.X, 172.X.X.X, 192.168.X.X

- 2-1. Static IP: Designated IP assigned by user.
- 2-2. Dynamic IP: User sets up to obtain their IP automatically.

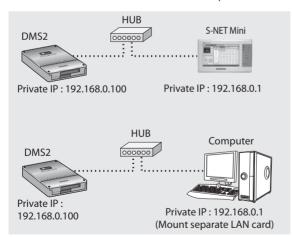
Examples of DMS2 Installation with DSL

Local Management without External Control: Use Private IP

◆ Direct connection between DMS2 and computer or controller



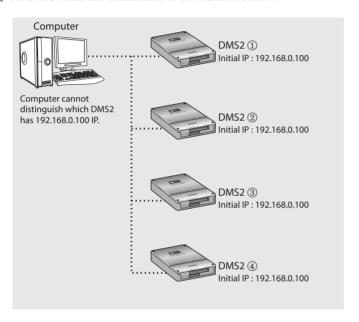
◆ Direct connection between DMS2 and computer or controller through HUB



Appendix (Continued)

Initial Connection Error (for Private IP)

Several DMS2s are Connected to the Same Network



- ♦ In factory setting, all IP of DMS2 is same. Therefore, if you connect several DMS2 to the same network, the computer cannot distinguish which DMS2 has 192.168.0.100 IP address.
- **♦** Solution
 - Connect only 1 DMS2 to the same network.
 - Connect the power to only one DMS2 you want to use and cut the power for the rest of DMS2.
 - Disconnect from the network and set the IP again per each DMS2. Then connect to the network again.

Memo



