



Samsung Electronics

Touch centralized controller Integration



Modification history

Date	Ver.	Modifier	Modified detail	Remarks
31.Aug.16	1.00	HyeongKwan Mun	- Update template of ppt	
27.Dec.16	1.01	Hyunjin Kim	- Modify UI icon	
17.Mar.17	1.02	Hyunjin Kim	- Modify update method - Add FAQ	
04.Aug.17	1.03	Hyunjin Kim	- Modify the typing error	

Contents

- ◆ Product
- ◆ Installation
- ◆ Trouble shooting



Product

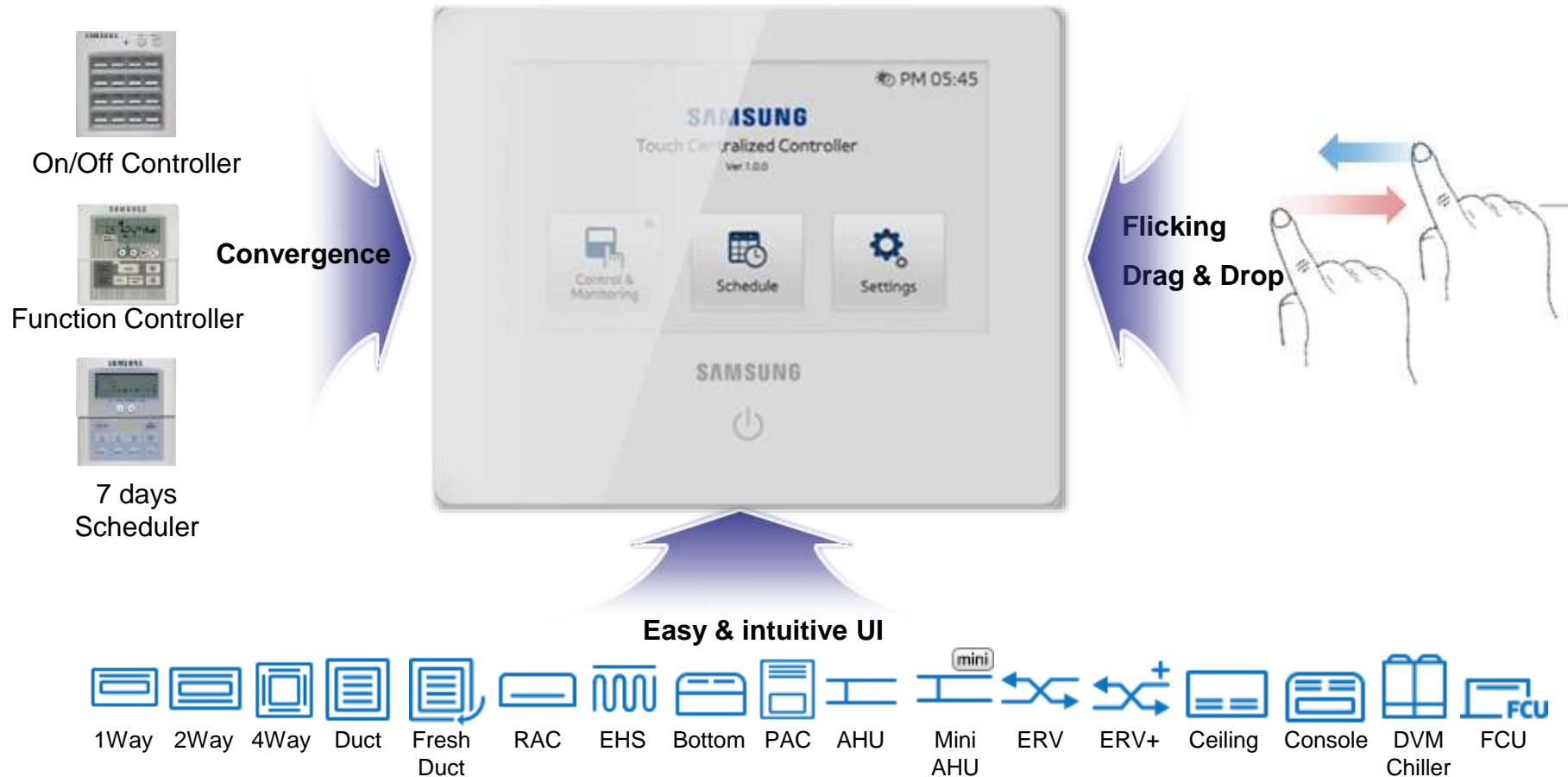
- Features
- Specification
- Description of part
- Function



Features

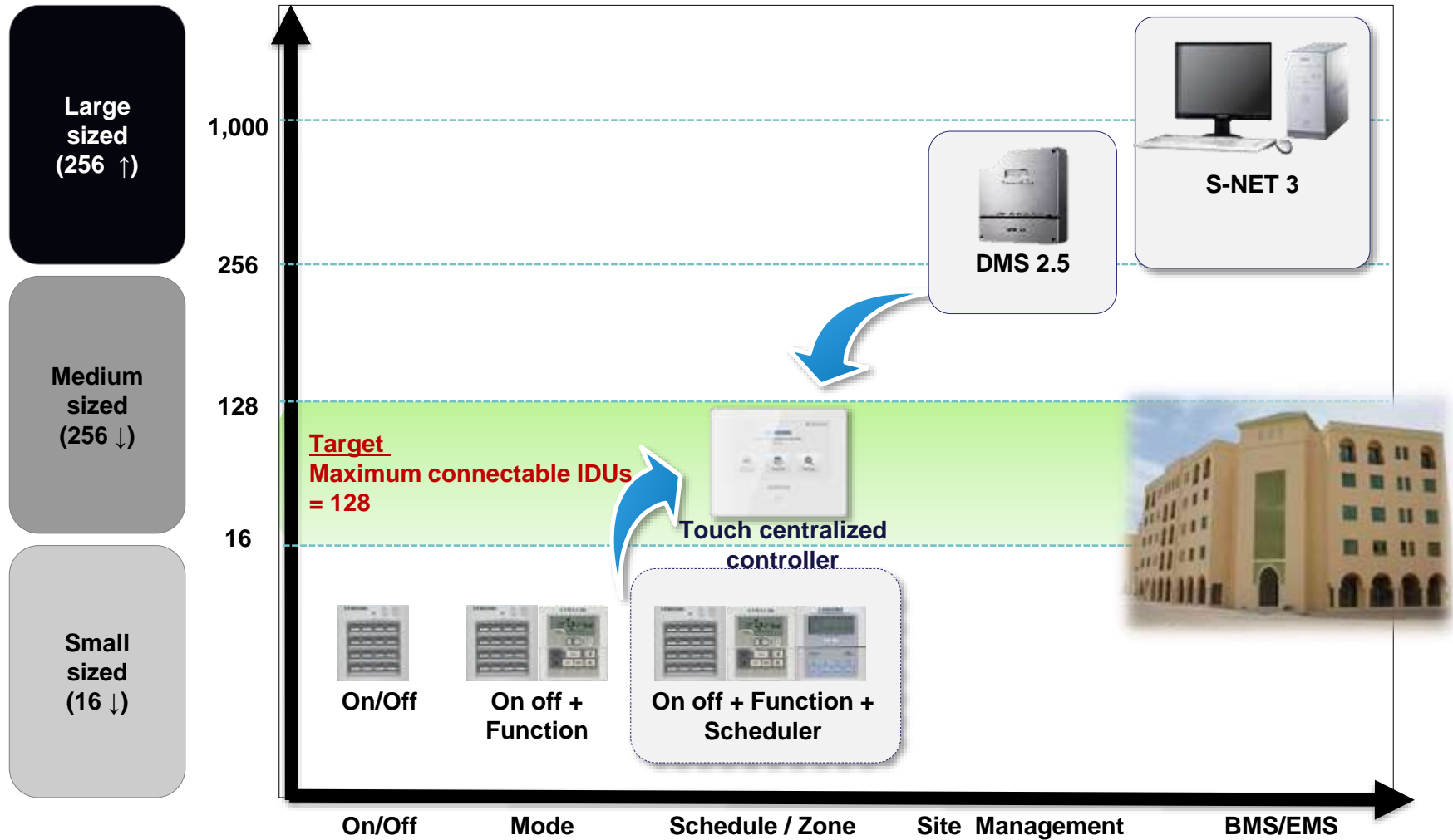
■ Concept

- Integrated management for middle sized site
- Individual / Zone control, Scheduling, Energy saving control
- Smart phone user-friendly control
- Easy & Intuitive UI



Features

■ Target positioning



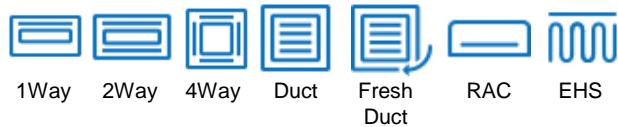
Features

■ Main feature

● 7" Color Capacitive Touch Screen

● Easy and intuitive UI

- Various icons based on equipment & operation condition



- Individual/Group management

● Multi control for middle sized sites

- Max. 128 indoor unit control
- Temp./Mode/Air-direction/Fan speed
- User editable naming (Indoor/Zone)
- External devices interlock(DI: 2, DO:1)

● Energy Saving Control

- Schedule control(Up to 10 items)
- Restriction(Temperature, R/C, button Lock, Password)

● Others

- Support 14 languages
- Daylight Saving Time mode
- Display error & save history
- Free-volt input: AC 110~240V





Specification

■ Specification

Model	MCM-A300N
Display	7 inch capacitive touch(800 x 480)
Operation system	Linux 2.6.35.3
CPU	IMx53
Memory	RAM : 512MB, ROM:1024MB
Expansion slot	SD card (max 32GB)
Interface	Reset button, Touch button
Communication terminal	RS485, Digital input, Digital output
Installation type	Wall-mounted type
Power supply	110 ~ 240V(50~60Hz)

Description of part

■ Display and button

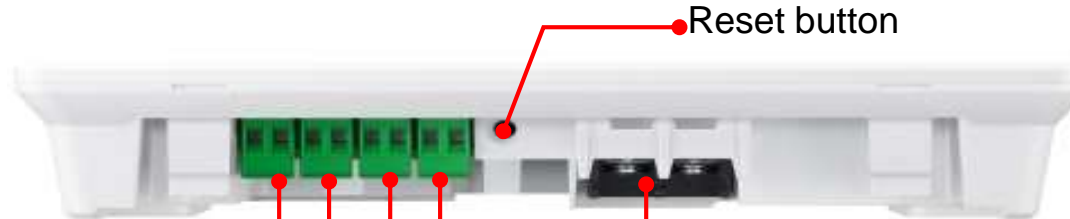
● Front



- On/Off button for LCD backlight
- LED indicator
 - Blue : Indoor unit's operation status.
 - Red : Indoor unit's error status.

SD card slot

● Bottom



DO(Digital Output) Indoor unit's on/off status : DC 12V, 10mA

485 comm.

DI-1(Digital Input-1)
DI-2(Digital Input-2)
: Dry contact(voltage free)

Reset button

Power source

Function

■ Control & monitoring

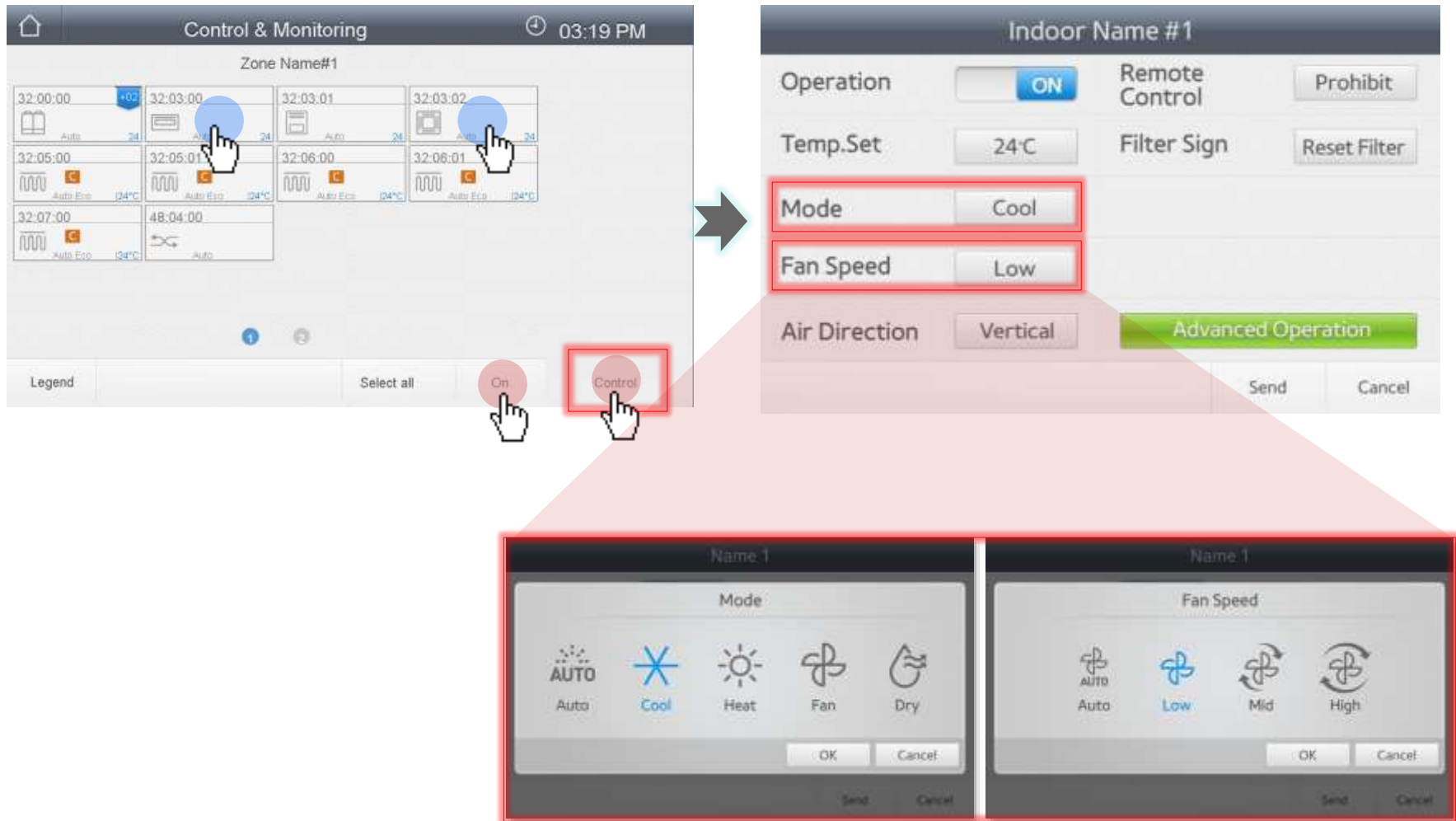
- Easy to check each device status using color and icon
- Turning over pages with flicking or simple touch (No scroll bar)



Function

■ Control & monitoring

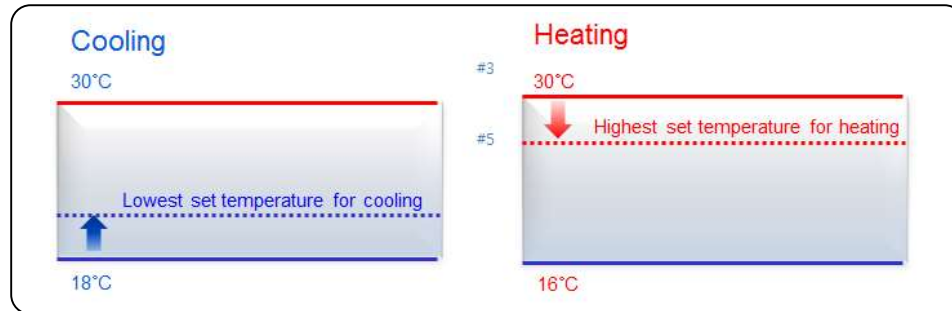
- Big sized indication for using easily



Function

■ Smart central management

● Temperature setting limitation



Lower limit temperature **for cooling** = 23°C
Upper limit temperature **for heating** = 27°C



Set temp. : 18 °C in cooling

Set temp. : 28 °C in heating

※ Even if desire temperature can be set out of the limitation, it will be revised to limited value by itself.

Function

■ Smart central management

- Individual control devices restriction.



Remote controller disable




Its restriction can be included by setting system environment of Touch centralized controller

Function

■ Smart central management

- Operation mode restriction.


All indoor units
under same refrigerant system
: "Only cooling mode"



Only cooling mode



Function

■ Zone management for multiple units

- Max.12 zone management
- Simply controls zone with one button



Office

Office

Dining

Office

Meeting room

Conference

Function

■ Zone management for multiple units

- Easily manages multiple indoor units as 1 unit (Bind function)

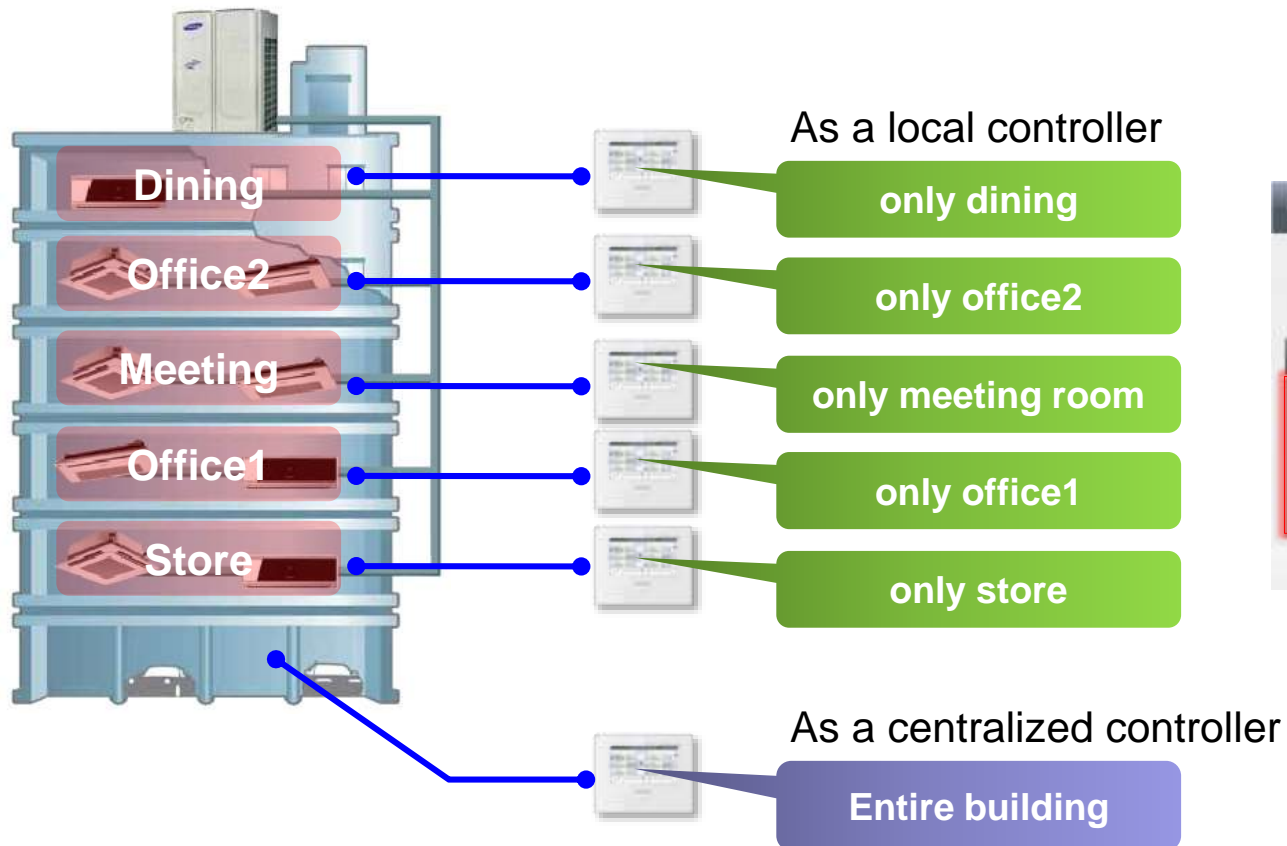


Indoor units are bound as 1 unit.

Function

■ Zone management for multiple units

- Able to delete devices on the control & monitoring page which local user doesn't control



Function

■ Schedule control

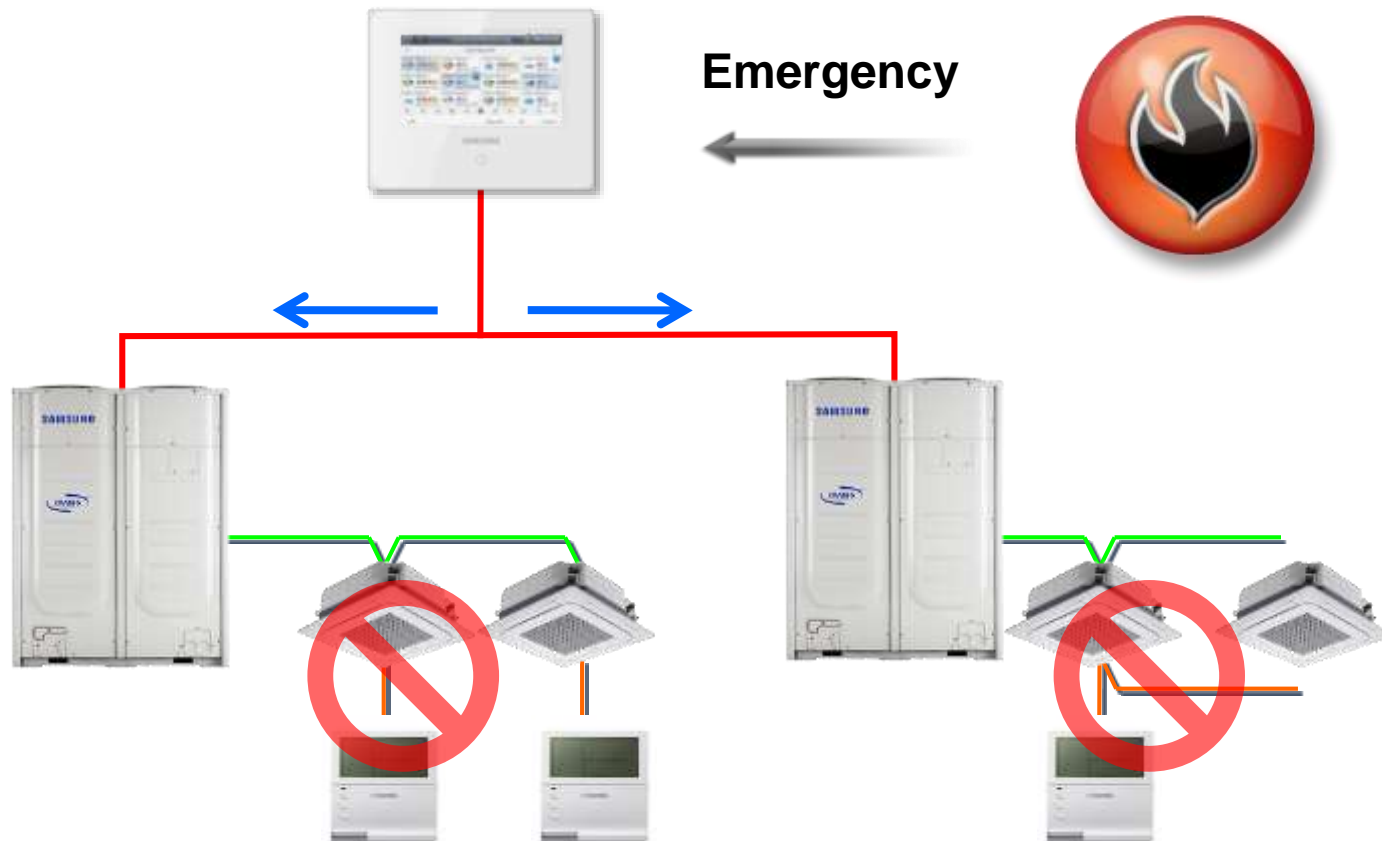
- Max. 10 operation schedule settings
- Possible to make various operation schedules
- Weekly, daily, exception day setting
- Simple schedule setting UI
- Easy to execute and stop the schedule



Function

■ External devices interlock

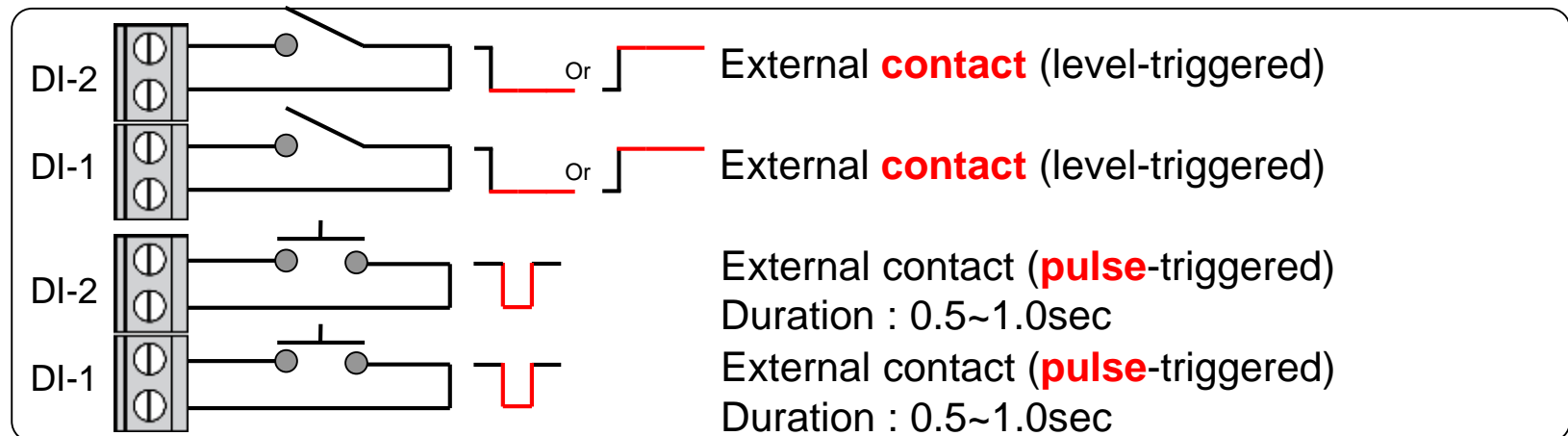
- Simple operation control interlocking with external contact (2 Digital input)
- Provides 3 types of operation pattern
- Indoor unit operation on/off status output (1 Digital output)



Function

■ External devices interlock

Pattern	Control	Contact Input
1	No function (Default setting)	Not applied
2	DI 1. Emergency stop operation. (Short : Stop / Open : standby) All indoor units stop operating and any command is ignored	Short / open contact
	DI 2. no function	
3	DI 1. All indoor unit ON/OFF control (Short : off / Open: on) ※ It is different from DMS 2.5 (Short : on / Open : off)	Short / open contact
	DI 2. Permitted/Prohibited remote controller use (Short : Permitted / Open : Prohibited)	
4	DI 1. All indoor unit ON control	Short pulse
	DI 2. All indoor unit OFF control	



Installation

- Connection diagram
- Connection
- System environment setting



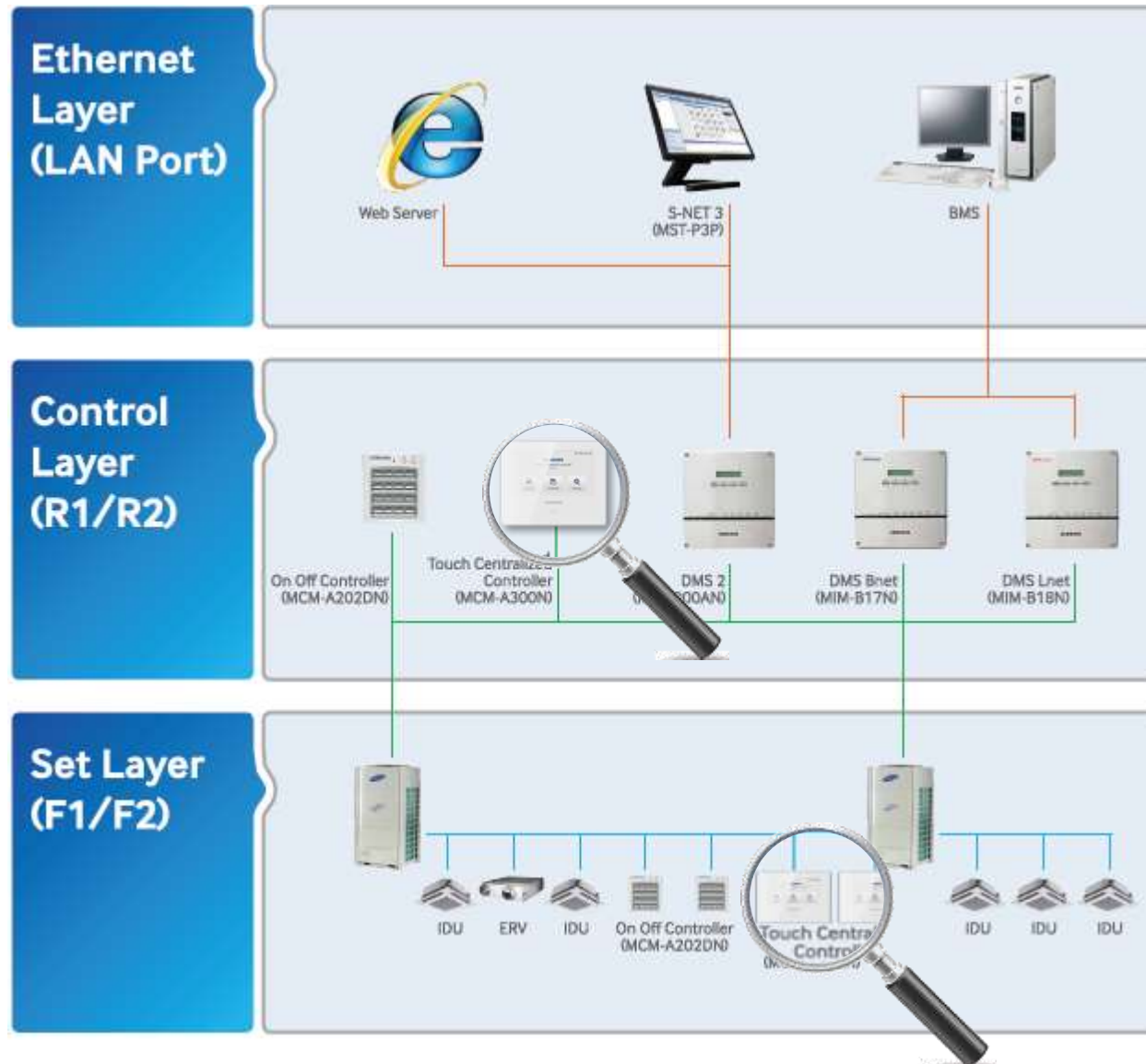
Connection diagram

■ Dimension



Connection diagram

■ Connection diagram



Connection

■ Connection

- Maximum number of units associated with Touch centralized controller

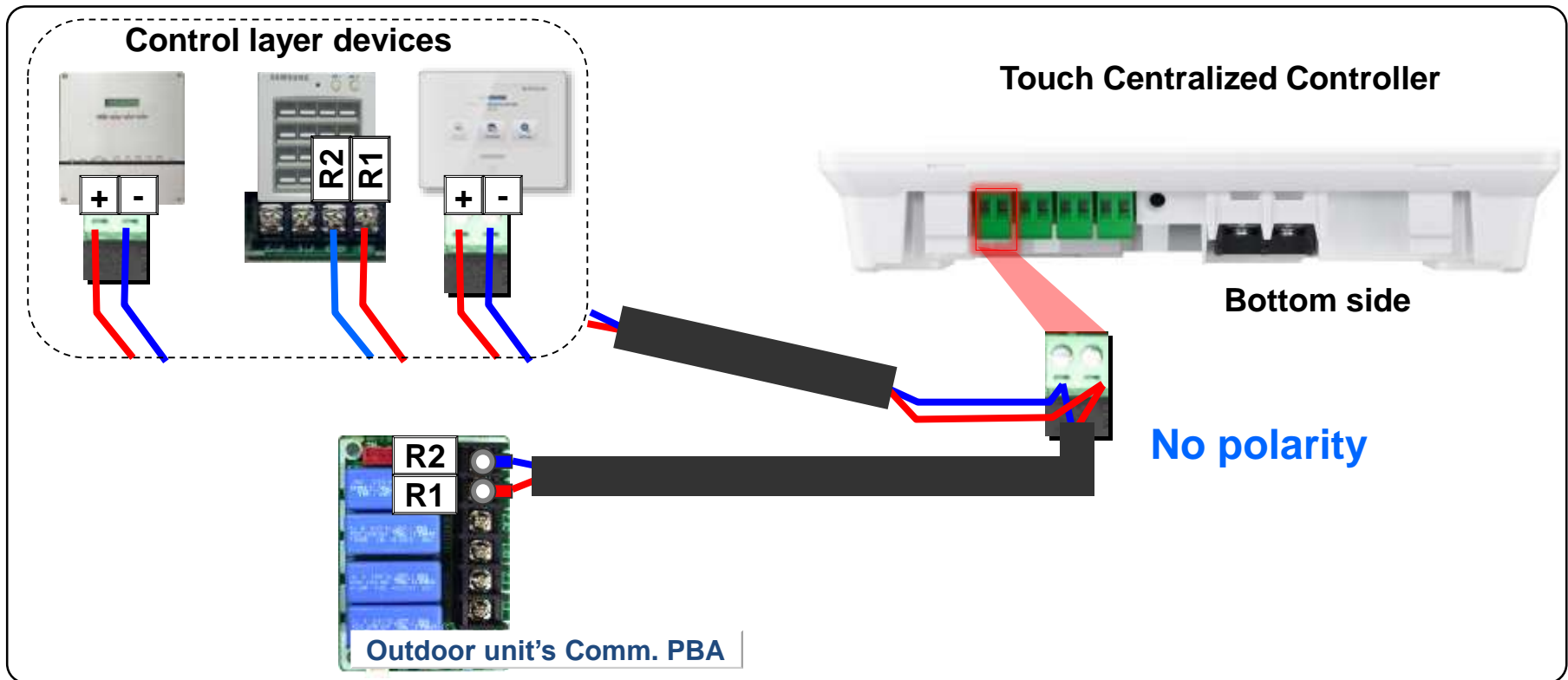
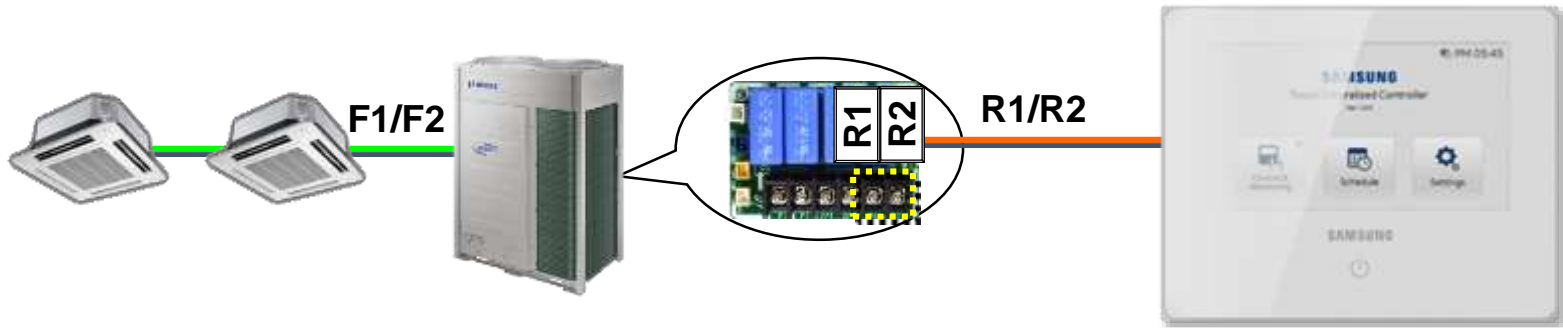
Model	Control layer(R1/R2)	Set layer(F1/F2)
Outdoor unit	16 systems	1 system
Indoor unit	128 units	80 units(64 IDUs + 16 ERVs + 16 MCUs)

- Maximum number of units associated with Touch centralized controller

Model	Control layer(R1/R2)	Set layer(F1/F2)
Touch centralized controller	16 units	16 units
On/Off controller	16 units	16 units
DMS 2.5	1 unit	-
Total	16 units	16 units

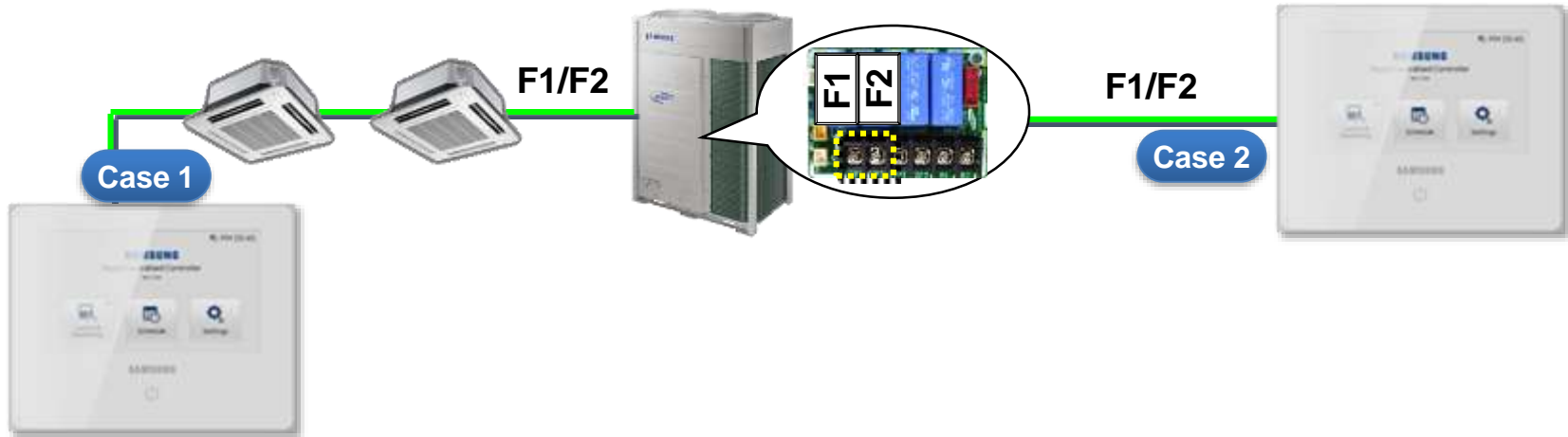
Connection

■ Wiring – Control layer (R1/R2)

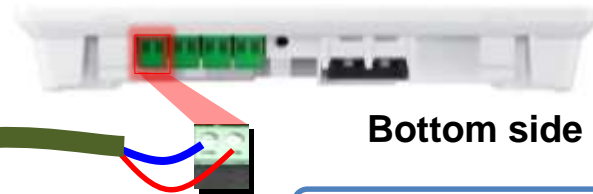
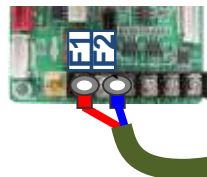


Connection

■ Wiring – Set layer (F1/F2)



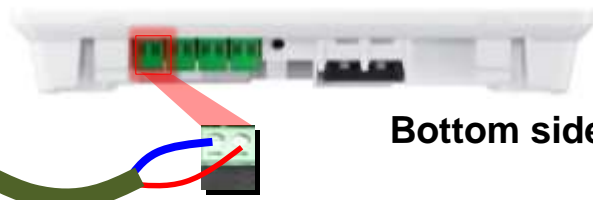
Case 1 Indoor unit's PBA



Bottom side

No polarity




Case 2 Outdoor unit's Comm. PBA





Bottom side

Connection

■ Accessories

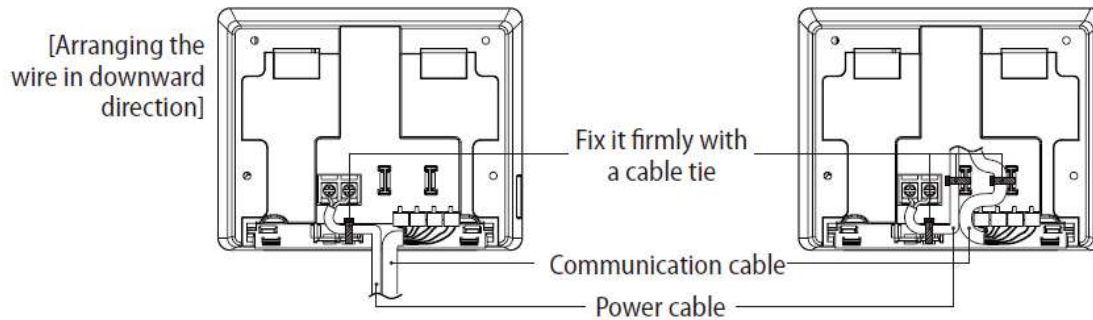
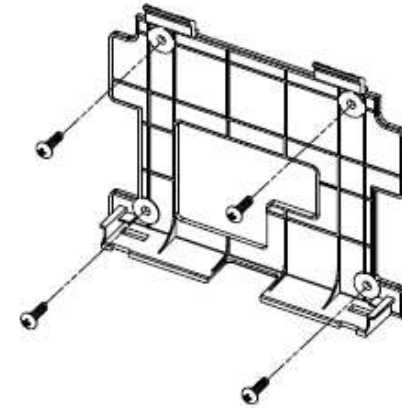
Name	Touch Centralized Controller	Cable tie	Screw (M4 x 16)
Quantity	1	2	5
Image			

Name	User's manual	Installation manual
Quantity	1	1
Image		

Connection

■ Installing

1. Fix the installation plate on the wall with 4 screws.
2. Connect the power cable to the power terminal.
3. Connect the communication cable to the 485 terminal.



[Arranging the wire in upward direction (for in-wall wiring)]

Tightening torque (N.m)

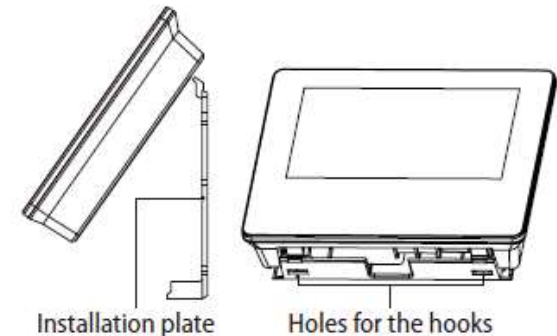
M4

1.2~1.5

4. Hang the top part of Touch centralized controller on the installation plate and fasten the hook on the bottom part of it.

✂ It is recommended to install the Touch centralized controller

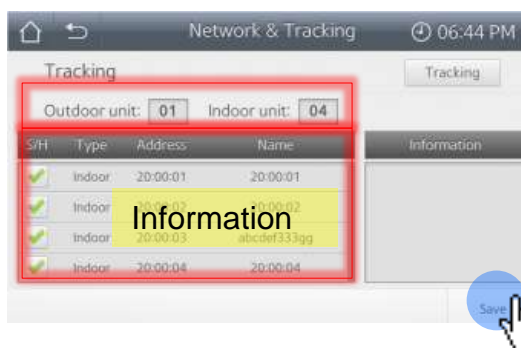
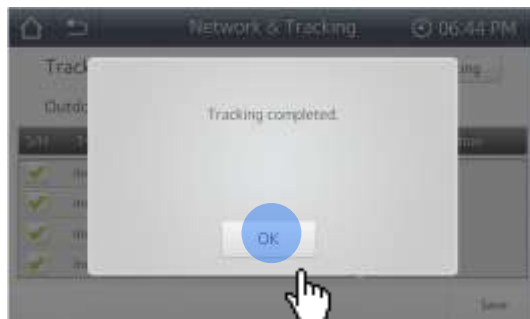
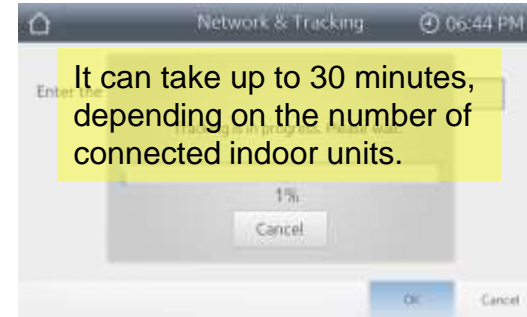
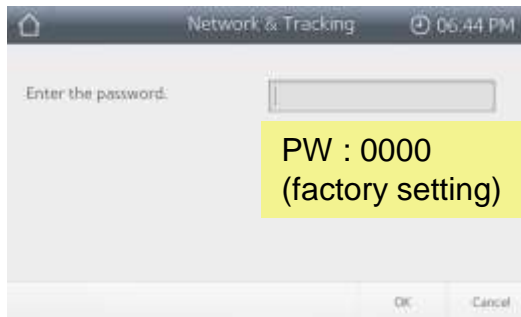
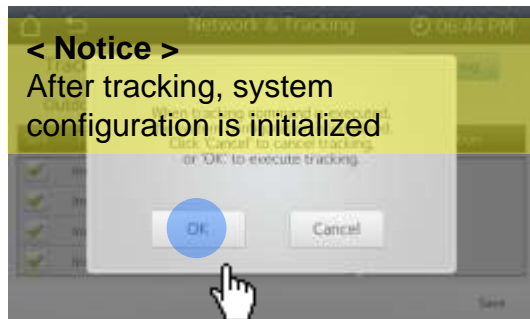
on the wall for safe use and to prevent it from troubles and damages.



Connection

■ Tracking

- Through tracking process, controller searches for the devices connected to it





Connection

■ Practice

- Set the name of indoor units like below.

The address of IDU	NAME
20.00.00	Office101
20.00.01	Office102
20.00.02	Office201

- Create the zones based on each floor.
 - office101, 102 : 1st floor
 - office 201 : 2nd floor

Connection

■ Practice

- Make the schedule like below.

Schedule name	Indoor unit	Schedule
Office	Office101 Office102	<WED/THU> ON : 08:00, Temp : 20 °C, RC : Enable, Mode : cooling, OFF : 17:00, RC : Disable
Office Exclude day	Office201	<Weekly> - Mon/Tue/Wed/Thu/Fri ON : 09:00, Temp : 20 °C, RC : Enable, Mode : cooling OFF : 18:00, RC : Disable - Exclude day 25 th Dec. 2014, 25 th Dec. 2015, 25 th Dec. 2016, 25 th Dec. 2017

System environment setting

■ Security

- Using the lock setting you can limit the access to the [screen, operation panel, and menu](#)



System environment setting

■ Security

- Using the lock setting you can limit the access to the [screen, operation panel, and menu](#)



Troubleshooting

- S/W upgrade
- Service mode
- FAQ

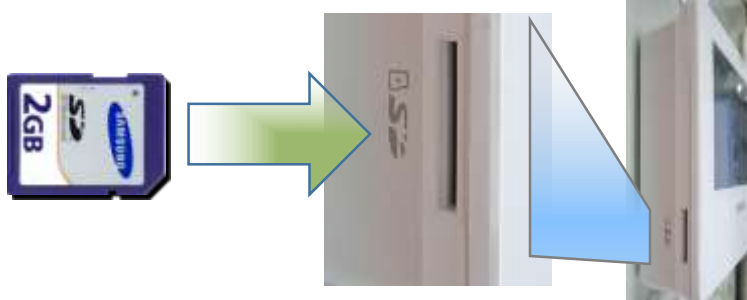


S/W upgrade

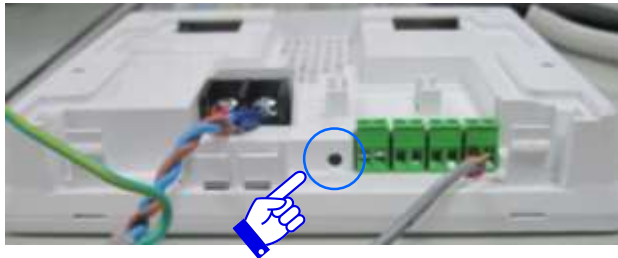
■ S/W upgrade

1. Copy the update files into SD card from PC, insert it into SD slot.

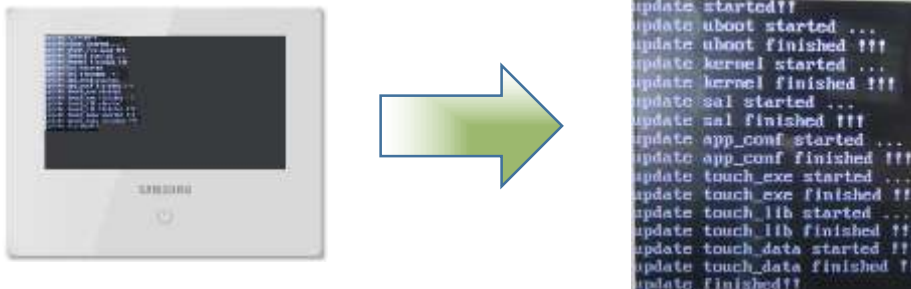
* If update file is compressed file(zip file), you should decompress file.



2. Press the reset button.



3. An application is updating, press reset once more after finishing update (Remove SD card)



Service mode

■ Service mode

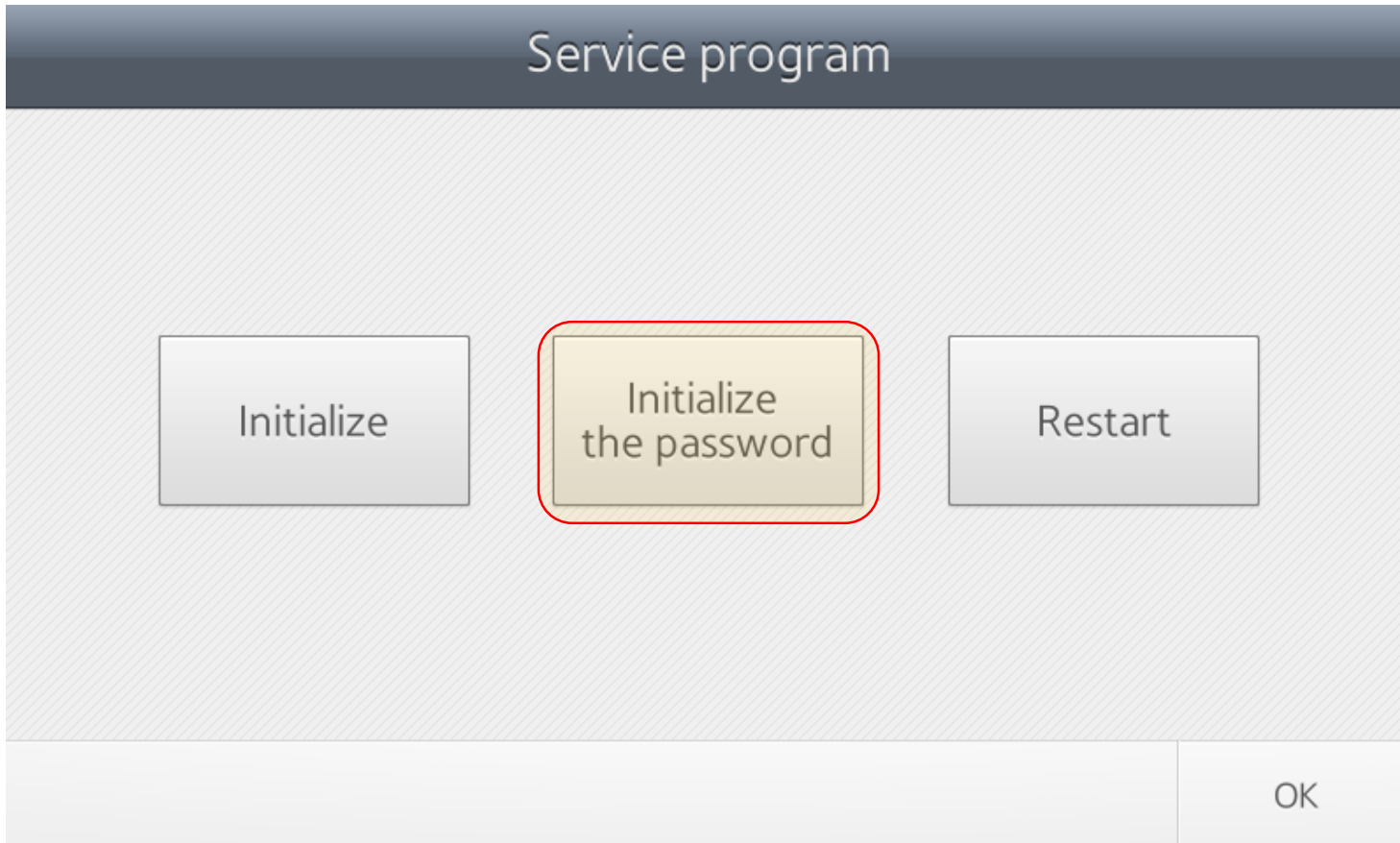
1. Menu : Setting → Device Information
2. Touch the areas 1 → 2 → 3 → 4 sequentially.



Service mode

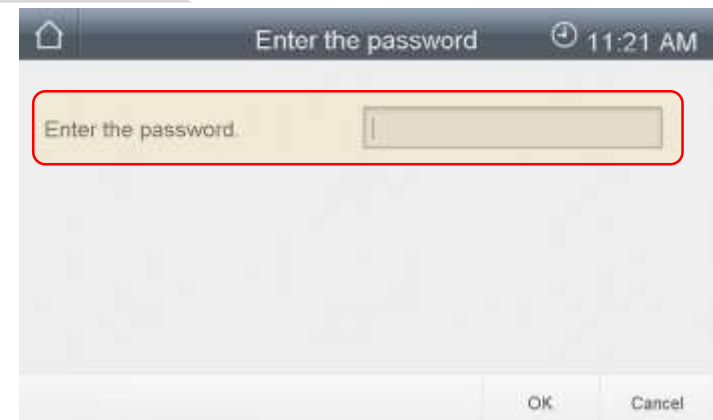
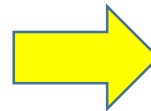
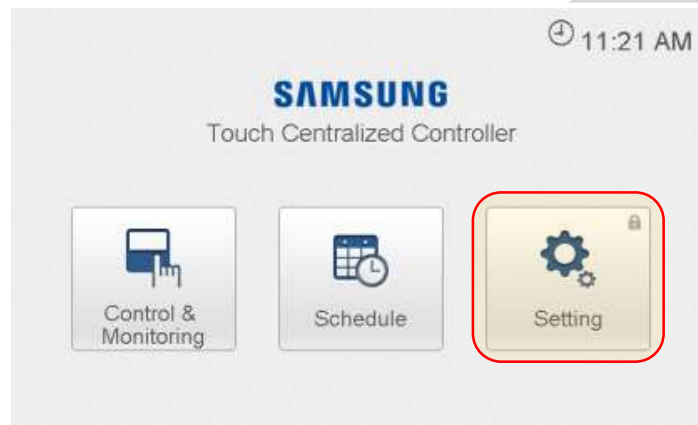
■ Service mode

3. Touch 'Initialize the password' then OK.
4. Password return to "0000"



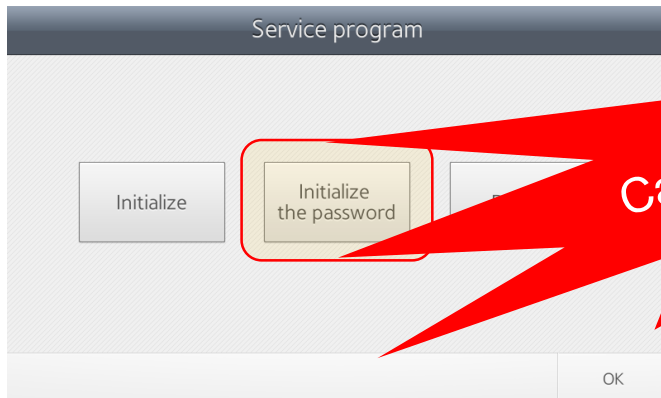
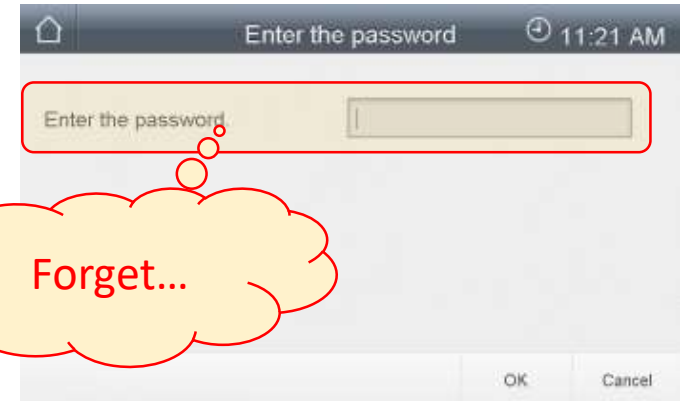
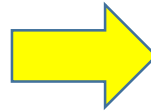
FAQ

- If Setting menu is locked and manager forgets password, how to solve?



FAQ

- If Setting menu is locked and manager forgets password, how to solve?
 - Use the service program?



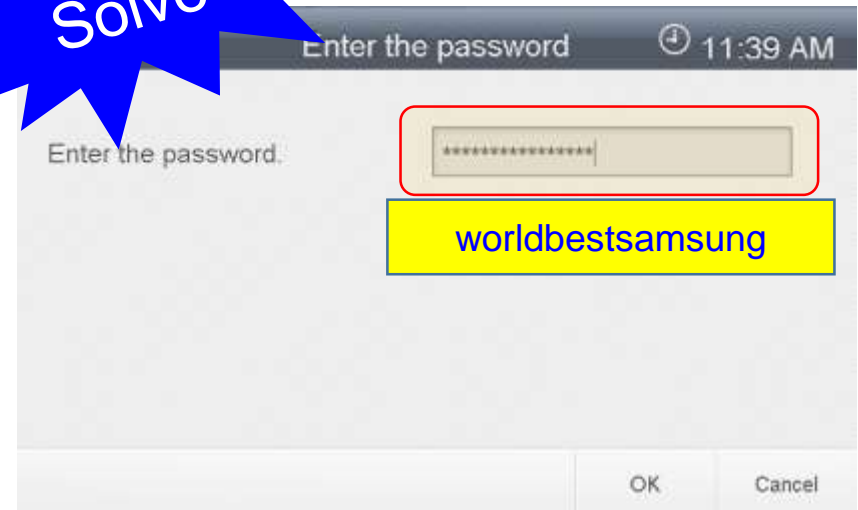
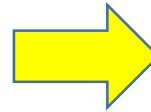
Can't enter the service program!



FAQ

■ If Setting menu is locked and manager forgets password, how to solve?

- Solution) Input “worldbestsamsung” as password
 - Password will be initialized “0000”



Appendix

File Name

[TM] SOL_DMS 2.5(MIM-D01AN)_Installation_GL_EN_2016_Ver1.0

(1)

(2)

(3)

(4)

(5)

(6)

(7)

(8)

(9)

(1) Classification	
TM	Training manual

(2) Product 1
VRF
Single
FJM
Water
SOL
Accessory

(3) Product 2	
DVM S	Standard / High ambient / ETC
DVM S Indoor unit	Indoor unit / Hydro / ETC
Inverter	-
Non Inverter	-
General	Standard
EHS	-
DVM Water	-
DVM Chiller	-
DMS 2.5	Controller name
Accessory product	-

(4) Model code (or Skip)
MWR-WE10N
MR-KH00E
MRW-TA
MIM-D01AN
MIM-F00N
MCM-A300N

(5) Category
Integration
Product
Installation
Troubleshooting
Control logic

(6) Region	
GL	Global
EU	Europe
NA	North America
LA	Latin America
EA	S.E Asia
WA	S.W Asia
ME	MENA
CN	China
AF	Africa
KR	Korea

(7) Language	
EN	English
ES	Spanish
ZH	Chinese
FR	French
DE	German
KR	Korea

(8) Year
2016
2017
2018
2019
2020

(9) Version	
Ver1.00	Minor : 0.01 increment Major : 1.00 increment ※ If change the year, initialization (Ver1.00)
Ver1.01	
Ver1.02	
Ver1.10	
Ver2.00	

Samsung Electronics

THANK YOU