



INSTALLATION MANUAL

MASTER STATION

MODEL NUMBER:

DMS501A51

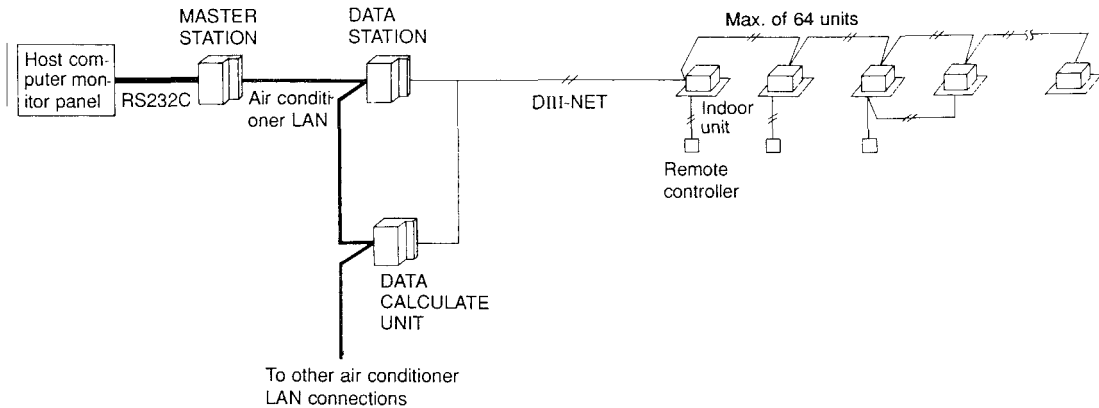
NOTE: Fill in the DMS address table and keep in a safe, handy place.

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General description of system

■ General description of system



This master station enables interfacing between the VRV system and host computer monitor panel. It manages data from a maximum of four data stations (max. of 256 groups or max. of 256 units when used in conjunction with the data calculate unit) and communicates with the host computer monitor panel by RS232C interfacing.

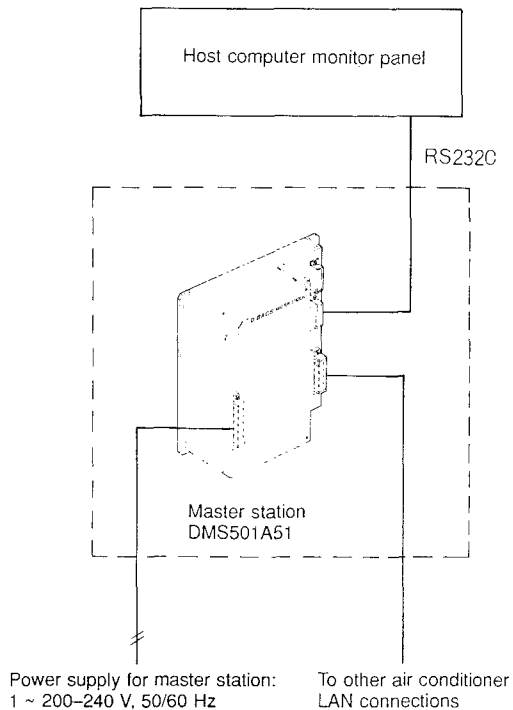
■ Features

The master station can monitor and control air conditioners from a maximum of 256 groups, on a unit by unit basis. Major features are listed below.

1. Switches the ON/OFF operation and monitors operational state.
2. Monitors indoor units for malfunctions.
3. Monitors and changes temperature settings.
4. Monitors indoor unit temperature.
5. Monitors and resets filter clean sign.
6. Switches the operation mode.
7. Monitors power distribution when connected to the DCU401A51.
8. Sets remote controller operation.
9. Sets central remote controller operation.

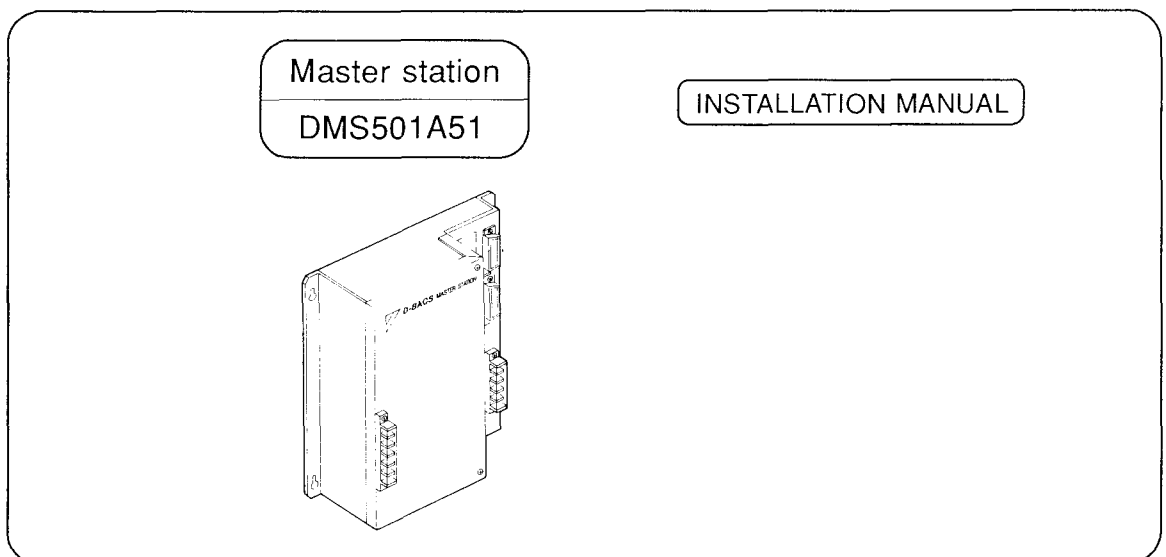
NOTE: Communication settings will vary with host computer monitor panel. Contact Daikin for details.

■ System configuration



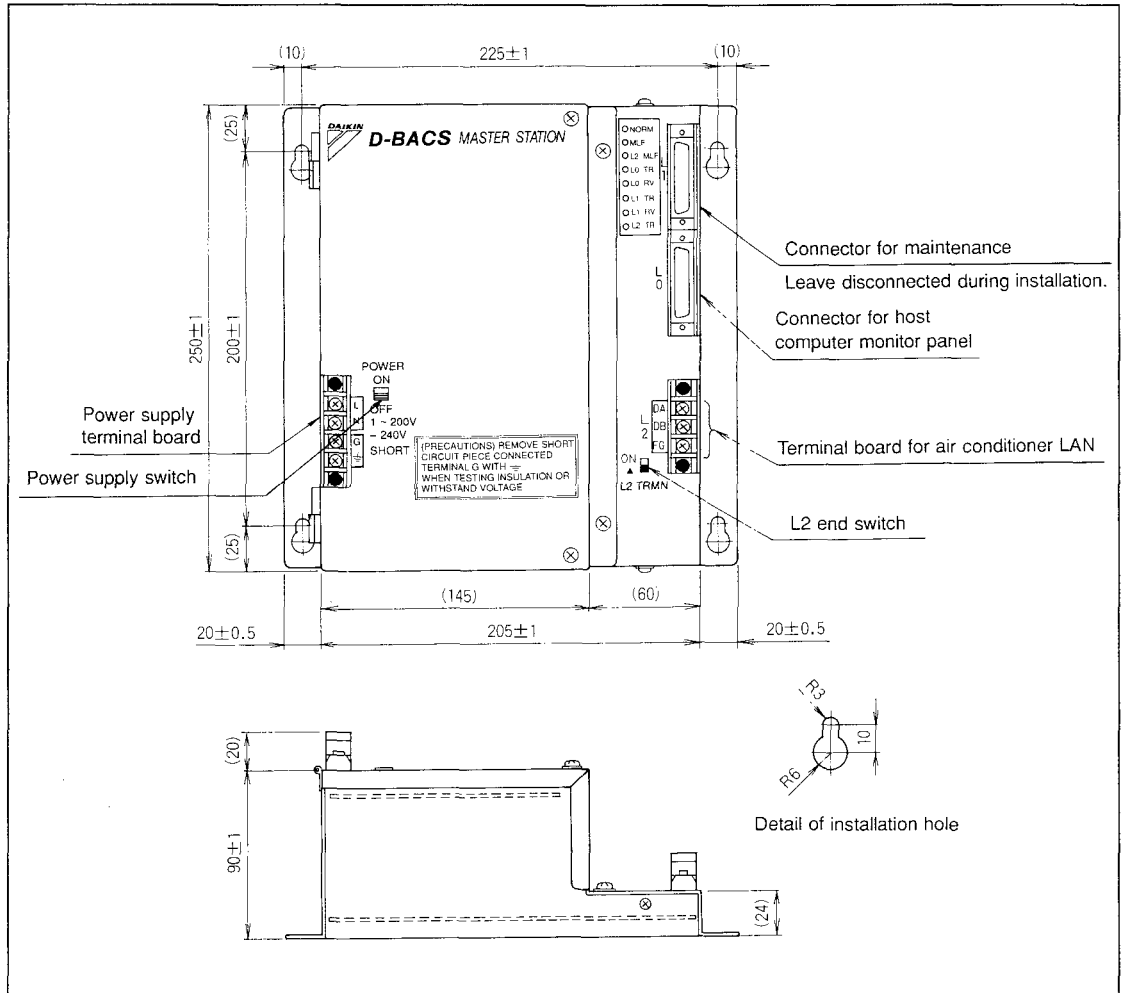
- For air conditioner LAN connections, it is intended a maximum of four data stations, maximum of four data calculate units and one master station.
- A maximum of four data stations and four data calculate units can be connected to the air conditioner LAN.
- Contact Daikin for details on the data station DDS501A51.

■ Parts



■ Parts specifications

- Master station
DMS501A51



LED's

○ NORM	Flashes when the master station is functioning properly.
○ MLF	Lights up when a malfunction occurs with the master station.
○ L2 MLF	Lights up when communication with other air conditioner LAN connections is not possible.
○ L0 TR	Flashes while transmitting to L0.
○ L0 RV	Flashes during receiving from L0.
○ L1 TR	Flashes while transmitting to L1.
○ L1 RV	Flashes during receiving from L1.
○ L2 TR	Flashes while transmitting to L2.

Installation

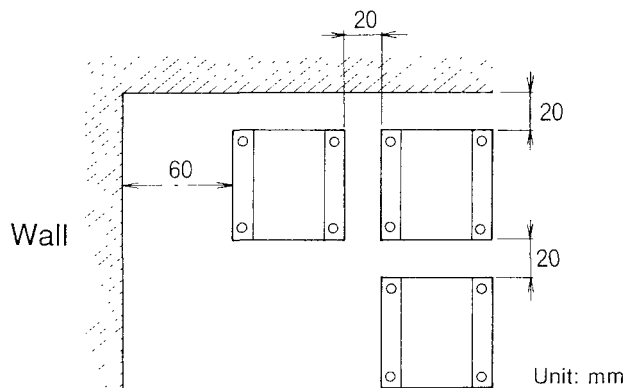
■ Installation site

Install the master station inside an indoor control box where not subjected to the effects of electromagnetic waves, dust or other adverse conditions.

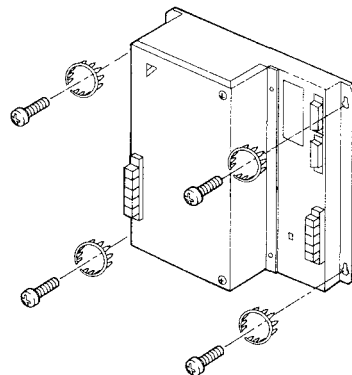
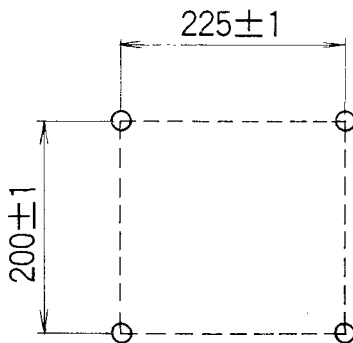
The unit requires a minimum of 120 mm from front to rear.

■ Installation space

Keep the minimum amount of space indicated in the below drawing from walls, and between units when installed in series.



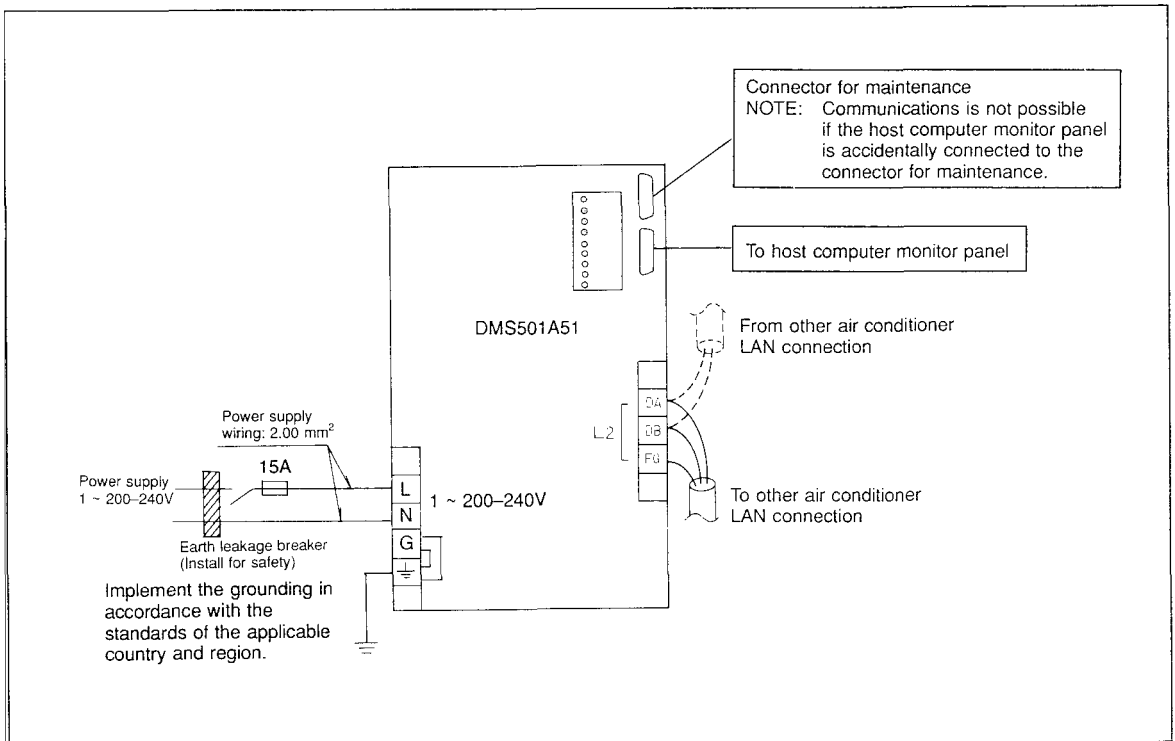
■ Installation pitch



Fix the master station firmly with the installation screws (M6) and toothed washers.

Electrical wiring

■ Wiring diagram



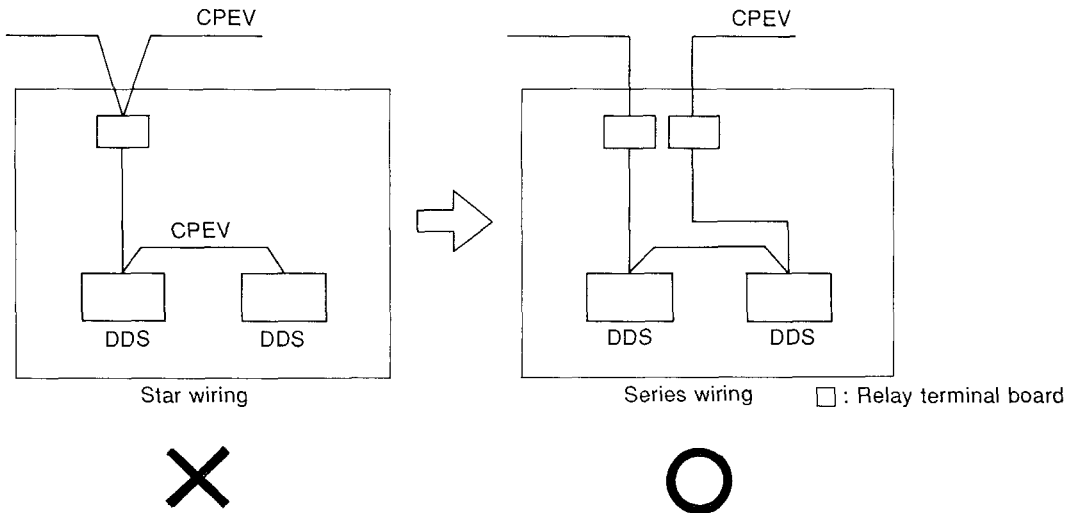
- NOTE:**
- To cross-wire between the master station and other air conditioner LAN connections, use CPEV-S-1 (0.9 mm) wire of a maximum of 300 m in length.
 - Connect only one end of the grounding wire (connected to FG).
(Communications may be adversely effected if the grounding wire is connected at both ends)
 - Remove short circuit piece connected terminal G with \perp when testing insulation or withstand voltage, to prevent from damaging the equipment.
 - Supply all external wiring from the field.

■ Cross-wiring between air conditioner LAN connections

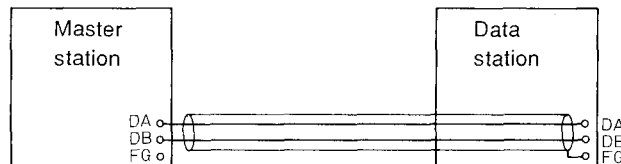
Polarity: Yes
 Type of wire: CPEV-S-1 (0.9 mm)
 Overall length: Max. 300 m

NOTE: Observe the following points when installing the master station or data station inside a control box.

- Use wire specified for control box connections even if short distance. The equipment may not operate properly if differing wire types are used.
- Wire in series as shown in the below drawing. Other wiring methods may adversely effect communications.



- Connect only one end of the grounding wire (connected to FG) as shown in the below drawing. Communications may be adversely effected if the grounding wire is connected at both ends.



- Keep wires distant from power lines to prevent malfunctioning.

■ Cross-wiring with the host computer monitor panel (RS232C)

Transfer mode : Half-duplex operation
 Interface : RS232C
 Baud rate : 9600 or 4800 bps (Factory-set to 4800)
 Transmission method : Asynchronous; Start bit: 1, Stop bit: 1
 Control protocol : Polling/Selecting (centralized); Conforms to JISX5002.
 Control station : Host computer monitor panel
 Substation : DMS501A51
 Transfer code : JIS7 unit + 1 parity bit
 Error control : Vertical parity check (Even)
 : Horizontal parity check (LRC)
 : Timer-based monitoring

Terminal connections

RS-232C Female D-SUB 25 pin (JISX5101)

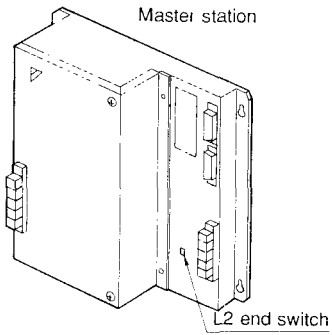
Pin No.		Pin No.	Signal	Remarks
20	□	20	ER	DATA TERMINAL READY
6	□	6	DR	DATA SET READY
4	□	4	RS	REQUEST TO SEND
5	□	5	CS	CLEAR TO SEND
8	□	8	CD	CARRIER DETECTOR
2	□	2	SD	SEND DATA
3	□	3	RD	RECEIVE DATA
7	□	7	SG	SIGNAL GROUND
1	□	1	FG	FRAME GROUND

Wiring length: Max. 15 m

NOTE: Supply the transmission cable between the master station and host computer monitor panel from the field.

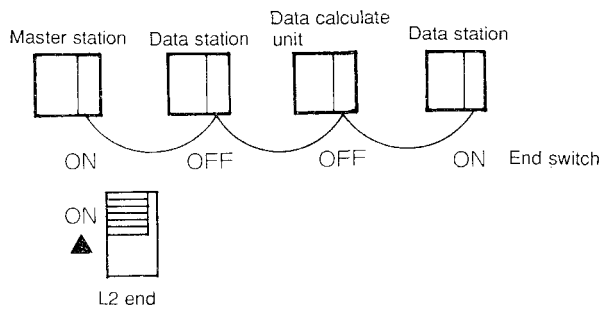
Initial settings

■ Master station settings

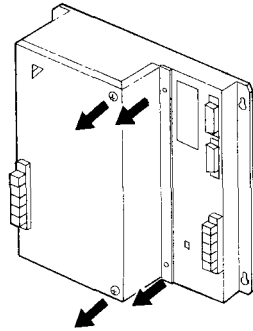


- Set both L2 end switches to ON for multiple air conditioner LAN connections.
(Switches are factory-set to ON when shipped.)

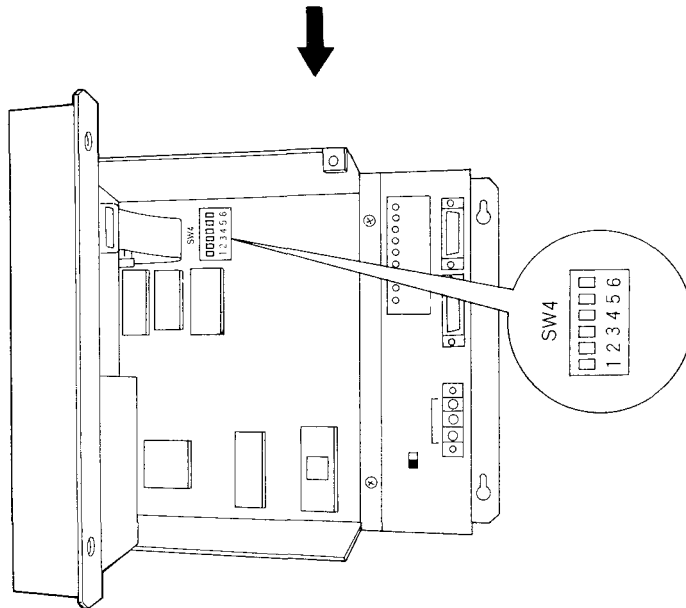
(Example)



■ Baud rate settings with the host computer monitor panel



Remove the small screws (x 4) and pull off the top cover.



Set dip switch SW4-3 as shown below, according to the desired baud rate.

Baud rate	SW4-3 ○ Lever part of switch
4800 bps	<div style="text-align: center;"> <p>(Factory setting)</p> </div>
9600 bps	<div style="text-align: center;"> </div>

NOTE: Do not change the setting of dip switches except SW4-3. Doing so will adversely effect communications.

Before test operation

Check no troubles exist with installation, wiring and switch settings before starting the test operation.
Refer to page 8 for details on how to set switches.
Be sure to test-run the master station before actually using the equipment.
Contact your Daikin dealer after the unit has been wired.

Main specifications

Temperature range	-10 ~ 60°C
Humidity range	95% RH or less (No frost formation)
Power supply	1 ~ 200 – 240V 50/60Hz
Weight	Approx. 3.5 kg
Power consumption	Max. 15 VA

Address table

■ How to fill in the address table

Fill in the necessary items on the address table as shown in the below example.

Example)

① △ △ △ Bldg.

② Block No.	③ Main unit in block	Indoor unit No.	Remote controller address	④ COOL/HEAT selection / Yes/No	⑤ Outdoor unit system No.	⑥ Model number	⑦ Location	⑧ Remarks
1	○	1	1-00	Yes	2	FXYC63H	1st floor, south corner	
1		2	1-01	No	2	FXYC80H	1st floor, south central	
2	○	3	1-02	Yes	4	FXYC40H	1st floor, north corner	
2		4	1-03	No	4	FXYM125H	2nd floor, south corner	
		5	1-04					
		6	1-05					
		7	1-06					
		8	1-07					
		9	1-08					
		10	1-09					
		11	1-10					
		12	1-11					
		13	1-12					
		14	1-13					
		15	1-14					
		16	1-15					
		17	2-00					
		18	2-01					

What to fill in

- ① Building or system owner.
- ② Block No. of concerned indoor unit.
- ③ Mark ○ if the indoor unit is the main unit in the block.
- ④ Mark "Yes" if the unit is capable of COOL/HEAT selection, and "No" if otherwise.
- ⑤ Outdoor unit system address.
- ⑥ Model number of indoor unit.
- ⑦ Location of each indoor unit.
- ⑧ Items of caution, etc.

● Terminology

Block: Communication address between master station and host computer monitor panel

Indoor unit No.: Air conditioner management address on air conditioner LAN

COOL/HEAT selection: Indicates operation mode can be changed with the said indoor unit.

DMS address table

Bldg. _____

DDS No. **1**

Block No.	Main unit in block	Indoor unit No.	Remote controller address	COOL/HEAT selection / Yes/No	Outdoor unit system No.	Model number	Location	Remarks
		1	1-00					
		2	1-01					
		3	1-02					
		4	1-03					
		5	1-04					
		6	1-05					
		7	1-06					
		8	1-07					
		9	1-08					
		10	1-09					
		11	1-10					
		12	1-11					
		13	1-12					
		14	1-13					
		15	1-14					
		16	1-15					
		17	2-00					
		18	2-01					
		19	2-02					
		20	2-03					
		21	2-04					
		22	2-05					
		23	2-06					
		24	2-07					
		25	2-08					

DMS address table

Bldg. _____

DDS No. **2**

Block No.	Main unit in block	Indoor unit No.	Remote controller address	COOL/HEAT selection / Yes/No	Outdoor unit system No.	Model number	Location	Remarks
		65	1-00					
		66	1-01					
		67	1-02					
		68	1-03					
		69	1-04					
		70	1-05					
		71	1-06					
		72	1-07					
		73	1-08					
		74	1-09					
		75	1-10					
		76	1-11					
		77	1-12					
		78	1-13					
		79	1-14					
		80	1-15					
		81	2-00					
		82	2-01					
		83	2-02					
		84	2-03					
		85	2-04					
		86	2-05					
		87	2-06					
		88	2-07					
		89	2-08					

DMS address table

Bldg. _____

DDS No. **3**

Block No.	Main unit in block	Indoor unit No.	Remote controller address	COOL/HEAT selection / Yes/No	Outdoor unit system No.	Model number	Location	Remarks
		129	1-00					
		130	1-01					
		131	1-02					
		132	1-03					
		133	1-04					
		134	1-05					
		135	1-06					
		136	1-07					
		137	1-08					
		138	1-09					
		139	1-10					
		140	1-11					
		141	1-12					
		142	1-13					
		143	1-14					
		144	1-15					
		145	2-00					
		146	2-01					
		147	2-02					
		148	2-03					
		149	2-04					
		150	2-05					
		151	2-06					
		152	2-07					
		153	2-08					

DMS address table

Bldg. _____

DDS No. **4**

Block No.	Main unit in block	Indoor unit No.	Remote controller address	COOL/HEAT selection / Yes/No	Outdoor unit system No.	Model number	Location	Remarks
		193	1-00					
		194	1-01					
		195	1-02					
		196	1-03					
		197	1-04					
		198	1-05					
		199	1-06					
		200	1-07					
		201	1-08					
		202	1-09					
		203	1-10					
		204	1-11					
		205	1-12					
		206	1-13					
		207	1-14					
		208	1-15					
		209	2-00					
		210	2-01					
		211	2-02					
		212	2-03					
		213	2-04					
		214	2-05					
		215	2-06					
		216	2-07					
		217	2-08					

MEMO

