14. Central Remote Controller

14.1 DCS302CA61

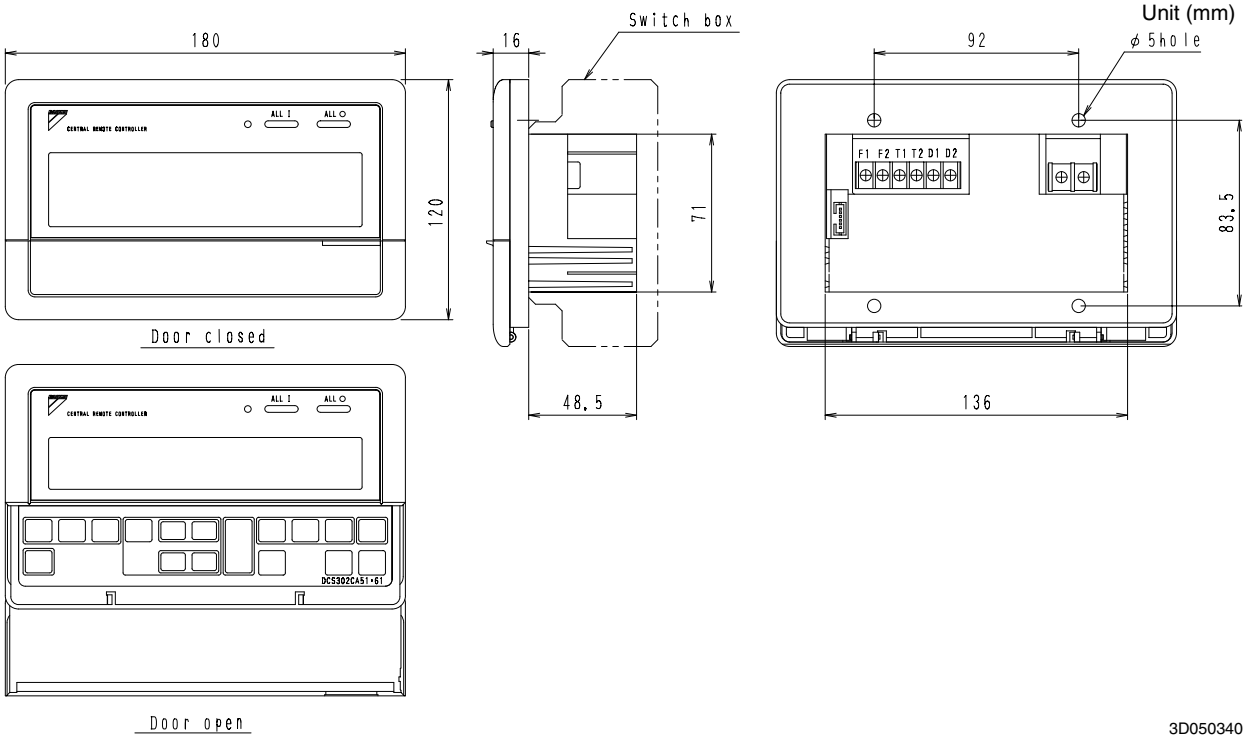
14.1.1 Specifications / Dimensions

Specifications

	DCS302CA61
Power supply voltage / frequency	AC100~240V ±10% 50/60Hz
Power consumption	Max. 8W
Setting data backup	Non-volatile memory (Data preserved semi-permanently)
Effects of instantaneous power failure	No effect for 20 milli-sec. or less
Forced OFF input Operation on the local side cannot be carried out during forced OFF input.	■ No-voltage normal open contact ■ Micro-current contact capable of handling 16VDC and approx. 10mA. ■ Max. 150 m cable length
Power supply for schedule timer	Power can be supplied to schedule timer. (Max. 1 unit)
Operating ambient temperature /humidity condition	-5~40°C, 95% RH or less (no condensation)
Size (width × height × depth)	180×120×64.5 mm exposed portion of front panel : 16 mm
Weight (Mass)	Approx. 420 g

Dimensions

DCS302CA61



14.1.2 Operation

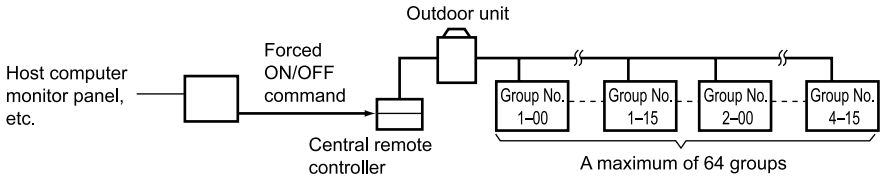
■ GENERAL DESCRIPTION OF SYSTEM

This central remote controller can monitor and control up to 64 indoor unit groups.
Using two central remote controllers allows monitoring and controlling of up to 128 indoor unit groups.

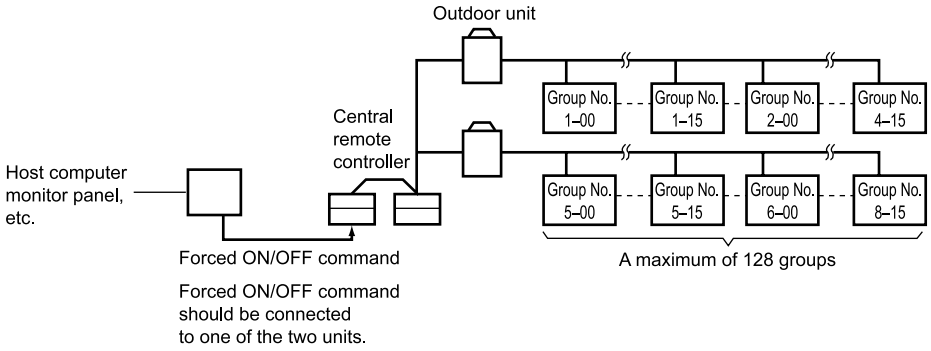
Main Functions

1. Batch starting and stopping of indoor units connected to the central remote controller.
2. Handling of operation settings such as start/stop, timer operation, remote controller prohibition/permission, etc., and operation status settings such as temperature.
3. Operation status monitoring of operation mode, set temperature, etc.
4. Can be connected to an external central monitor panel and key system using the forced stop input (non-voltage a connector).

- When using 1 central remote controller



- When using 2 central remote controllers

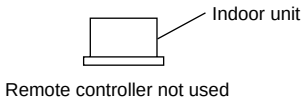


(The central remote controller and the separately sold remote control adapter circuit board or group remote control adapter cannot be used together.)

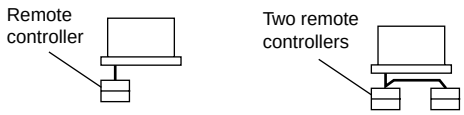
* GROUP OF INDOOR UNIT refers to the below.

1. A single indoor unit without remote controller

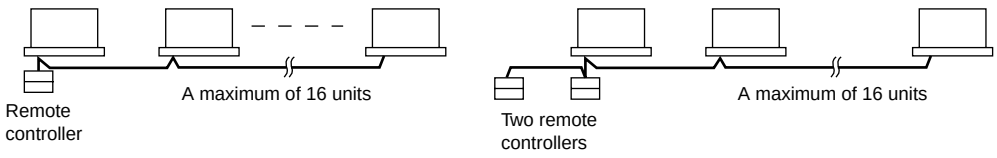
1. A single indoor unit without remote controller



2. A single indoor unit controlled by one or two remote controllers



3. Maximum of 16 indoor units, group-controlled by one or two remote controllers



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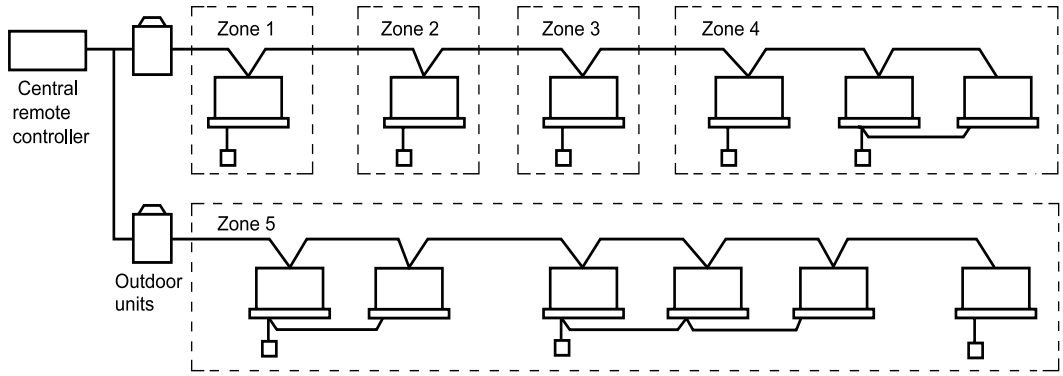
∗ Zone control from the central remote controller
Zone control is available from the central remote controller. With it, it is possible to make unified settings for multiple groups, so setting operations are greatly simplified.



- Any setting you make within a given zone will apply to all groups in the said zone.
- A maximum of 64 zones can be set from a single central remote controller. (Each zone contains a maximum of 64 groups.)
- Zones can be set randomly from the central remote controller.

SAFETY CONSIDERATIONS

Please read these "SAFETY CONSIDERATIONS" carefully before installing air conditioning equipment and be sure to install it correctly.
After completing the installation, make sure that the unit operates properly during the start-up operation.
Please instruct the customer on how to operate the unit and keep it maintained.
Also, inform customers that they should store this installation manual along with the operation manual for future reference.
This air conditioner comes under the term "appliances not accessible to the general public".

Meaning of warning, caution and note symbols.

⚠ **WARNING** ....Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ **CAUTION** .... Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

⚠ **NOTE**..... Indicates situation that may result in equipment or property-damage-only accidents.

Keep these warning sheets handy so that you can refer to them if needed.
Also, if this equipment is transferred to a new user, make sure to hand over this operation manual to the new user.

⚠ WARNING

In order to avoid electric shock, fire or injury, or if you detect any abnormality such as smell of fire, turn off power and call your dealer for instructions.

Ask your dealer for installation of the air conditioner.
Incomplete installation performed by yourself may result in a water leakage, electric shock, and fire.

Ask your dealer for improvement, repair, and maintenance.
Incomplete improvement, repair, and maintenance may result in a water leakage, electric shock, and fire.

Improper installation or attachment of equipment or accessories could result in electric shock, short-circuit, leaks, fire or other damage to the equipment. Be sure only to use accessories made by Daikin which are specifically designed for use with the equipment and have them installed by a professional.

Ask your dealer to move and reinstall the air conditioner or the remote controller.
Incomplete installation may result in a water leakage, electric shock, and fire.

Never let the indoor unit or the remote controller get wet.
It may cause an electric shock or a fire.

Never use flammable spray such as hair spray, lacquer or paint near the unit.
It may cause a fire.

Never replace a fuse with that of wrong ampere ratings or other wires when a fuse blows out.
Use of wire or copper wire may cause the unit to break down or cause a fire.

Never inspect or service the unit by yourself.
Ask a qualified service person to perform this work.

Cut off all electric waves before maintenance.

Do not wash the air conditioner or the remote controller with excessive water.
Electric shock or fire may result.

Do not install the air conditioner or the remote controller at any place where flammable gas may leak out.
If the gas leaks out and stays around the air conditioner, a fire may break out.

Do not touch the switch with wet fingers.
Touching a switch with wet fingers can cause electric shock.

CISPR 22 Class A Warning:
This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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Fig. 1

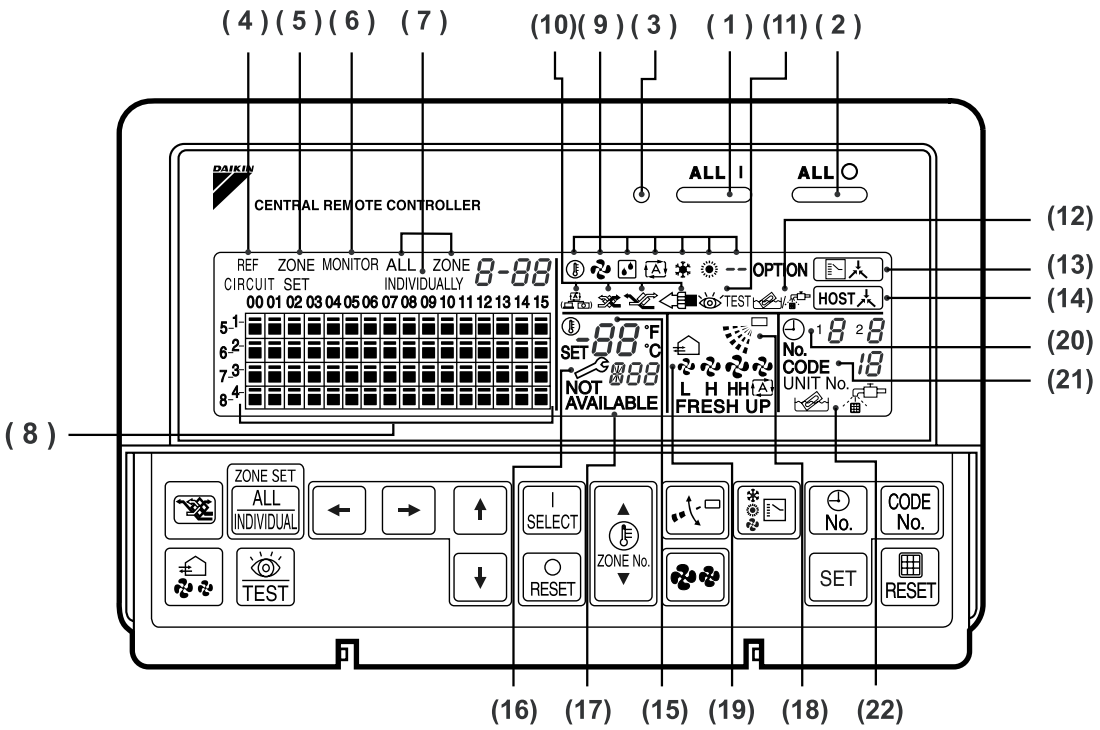

Fig. 2

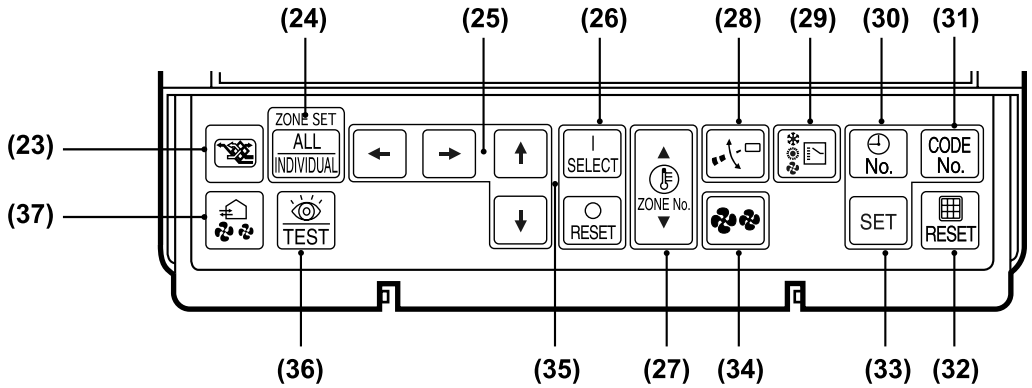

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Fig. 3

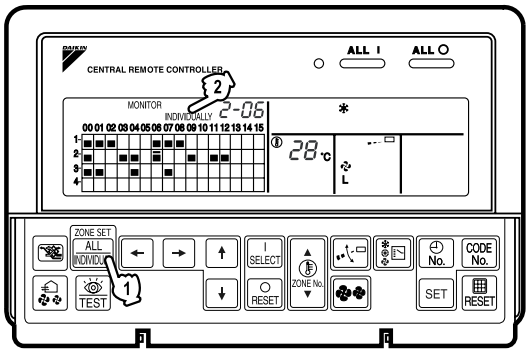

Fig. 4

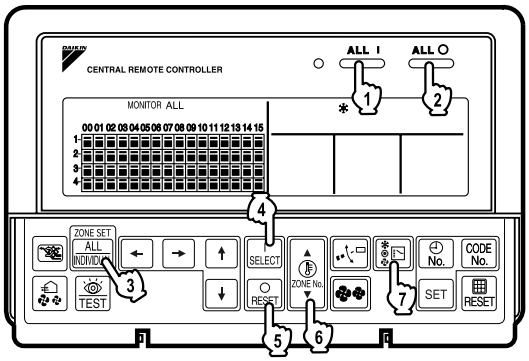

Fig. 5

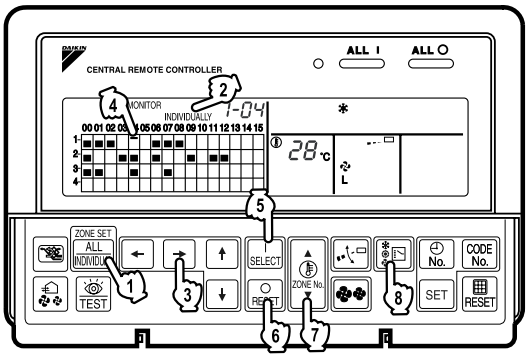

Fig. 6

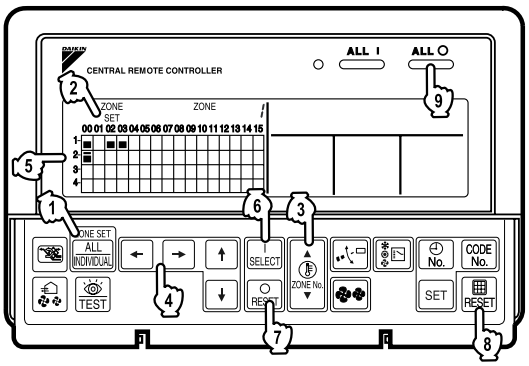

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Fig. 7

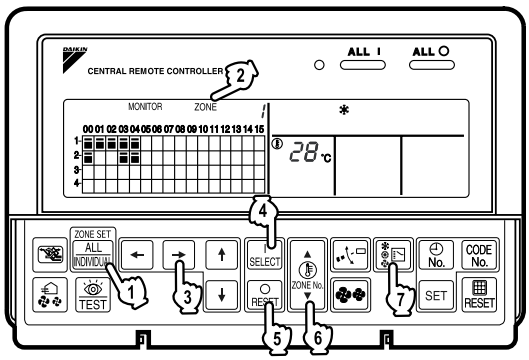

Fig. 8

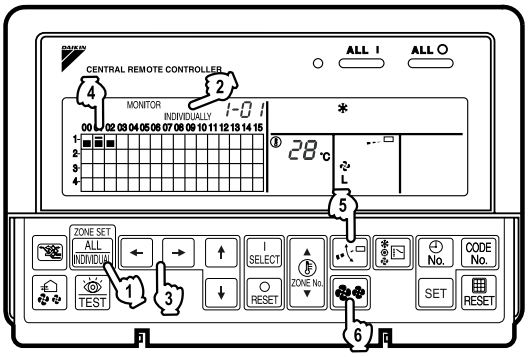

Fig. 9

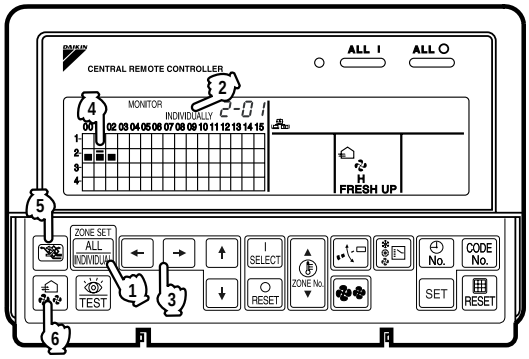

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Fig. 10

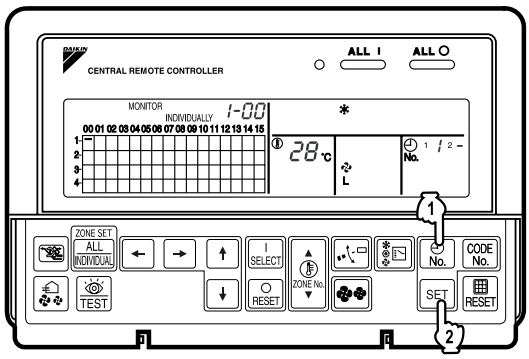

Fig. 11

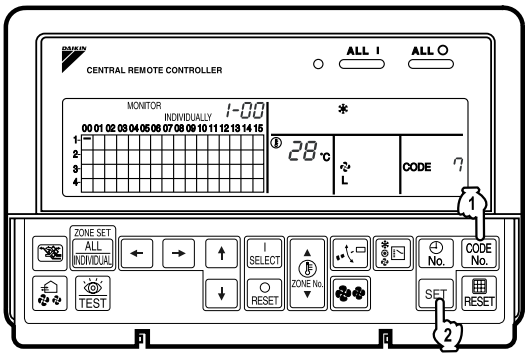

Fig. 12

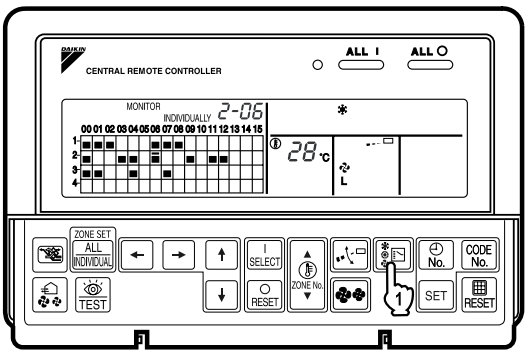

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Fig. 13

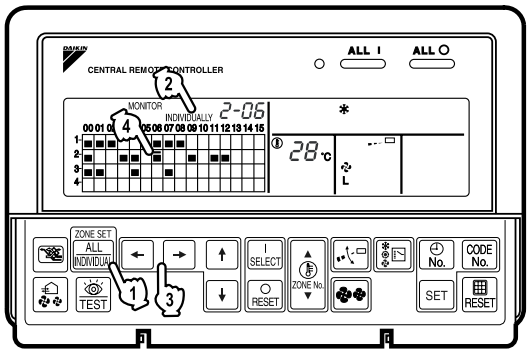

Fig. 14

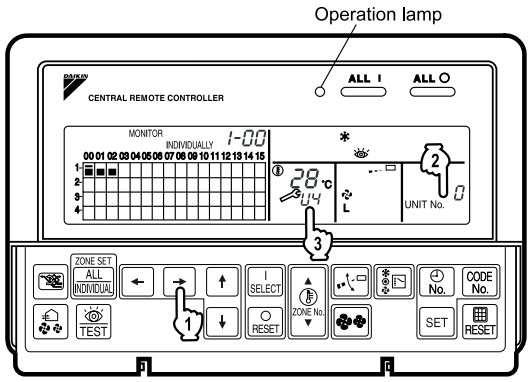

Fig. 15

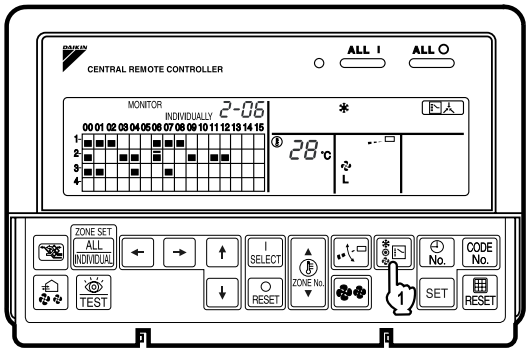

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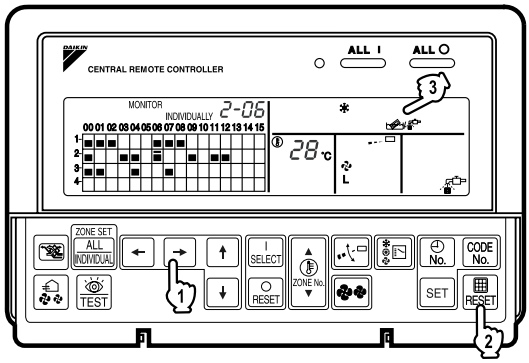
Fig. 16



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FEATURES AND FUNCTIONS

■ **Operation menu**
This central remote controller can operate and stop machines by either group or zone.
Batch operation and batch stop functions are also available. When used in combination with the schedule timer (optional accessory), timer operation and stop functions are available.

Note 1

■ **Various operation modes.**
You can operate the system from both this unit and the remote controller, so to enable various operation control patterns. Twenty different operation modes are available including five operation patterns:

1. Start/stop:	remote controller prohibition, remote controller stop-only permission, central priority, after-press priority, remote controller permission timer
2. Operation modes:	remote controller prohibition, remote controller permission
3. Set temperature:	remote controller prohibition, remote controller permission

Note 2

■ **Zone control for simpler setting procedures**
You can control a maximum of 64 groups of indoor units by using this central remote controller. You don't have to repeat the same setting operations by group because you can make each of the following settings by zone.
A functions is available for setting all groups in one batch.
- Operation mode
- Control mode
- Setting temperature
- Programming time No. (Used in conjunction with the schedule timer)

Note 3

■ **Monitoring all indoor unit information**
The following information can be displayed by group.
- Operation information such as operation mode, set temperature, etc., for indoor units
- Maintenance information such as cleaning signs for filters or elements
- Error codes and other malfunction diagnosis information

Note 4

■ **Function of refrigerant system display**
This display helps you understand, at a glance, the indoor units sharing the same outdoor unit and the particular indoor unit among them that is set as the master remote controller.

Note 5

- Room air conditioners and multi-purpose air conditioners may also be connected by using separately-sold adapter boards.
  This may limit functionality, so consult the manuals that come with each adapter board.

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Note 1 : page 306 - 310, Note 2 : page 311 - 313, Note 3 : page 306 - 314
Note 4 : page 314 - 319, Note 5 : page 318

NAMES AND FUNCTIONS OF THE OPERATING SECTION (Fig. 1, 2)

1	**UNIFIED OPERATION BUTTON**
	Press to operate all indoor units.
2	**UNIFIED STOP BUTTON**
	Press to stop all indoor units.
3	**OPERATION LAMP (RED)**
	Lit white any of the indoor units under control is in operation.
4	**“ REF CIRCUIT ” DISPLAY (REFRIGERANT SYSTEM DISPLAY)**
	This indication in the square is lit while the refrigerant system is being displayed.
5	**“ ZONE SET ” DISPLAY (ZONE SETTING)**
	The lamp is lit while setting zones.
6	**“ MONITOR ” DISPLAY (OPERATION MONITOR)**
	The lamp is lit while operation is being monitored.
7	**“ ALL ” “ ZONE ” “ INDIVIDUALLY ” DISPLAY**
	The status displays indicates either batch functions or which zone or individual unit (or group) are being used.
8	**OPERATION MONITOR**
	Each square displays the state corresponding to each group.
9	**“” “” “” “” “” “” “ – – ” DISPLAY (OPERATION MODE)**
	Displays operating state.
10	**“” “” “” “” DISPLAY (VENTILATION CLEANING DISPLAY)**
	This is displayed when a Ventiair total enthalpy heat exchanger unit or other such unit is connected.
11	**“ TEST ” DISPLAY (INSPECTION/TEST)**
	Pressing the maintenance/test run button (for service) displays this. This button should not normally be used.
12	**“” DISPLAY (TIME TO CLEAN)**
	It lights up when any individual unit (group) has reached the time for the filter or element to be cleaned.
13	**“” DISPLAY (COOLING/HEATING SELECTION PRIVILEGE NOT SHOWN)**
	For zones or individual units (groups) for which this is displayed, cooling and heating cannot be selected.
14	**“ HOST ” DISPLAY (UNDER HOST COMPUTER INTEGRATED CONTROL)**
	While this display is lit up, no settings can be made. It lights up when the upper central machines are present on the same air conditioning network.
15	**“ SET 88 °C ” DISPLAY (PRESET TEMPERATURE)**
	Displays the preset temperature.
16	**“ U4 ” DISPLAY (MALFUNCTION CODE)**
	This displays (flashes) the content of errors when an error failure has occurred. In maintenance mode, it displays the latest error content.
17	**“NOT AVAILABLE” DISPLAY (NO FUNCTION DISPLAY)**
	If a function is not available in the indoor unit even if the button is pressed, “NOT AVAILABLE” is may be displayed for a few seconds.
18	**“” DISPLAY (FAN DIRECTION SWING DISPLAY)**
	This displays whether the fan direction is fixed or set to swing.
19	**“” “L” “H” “HH” “” “FRESH UP” DISPLAY (VENTILATION STRENGTH/SET FAN STRENGTH DISPLAY)**
	This displays the set fan strength.
20	**“ No. ” DISPLAY (TIME NO.)**
	Displays the operation timer No. when used in conjunction with the schedule timer.

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21	**" CODE UNIT No. 18 " DISPLAY (OPERATION CODE AND UNIT NUMBER DISPLAY)**
	The method of operation (remote controller prohibited, central operation priority after-press operation priority, etc.) is displayed by the corresponding code. This displays the numbers of any indoor units which have stopped due to an error.
22	**" " " " DISPLAY (TIME TO CLEAN AIR CLEANER ELEMENT/ TIME TO CLEAN AIR FILTER)**
	Displayed to notify the user it is time to clean the air filter or air cleaner element of the group displayed.
23	**VENTILATION MODE BUTTON**
	This is pressed to switch the ventilation mode of the total enthalpy heat exchanger.
24	**ALL/INDIVIDUAL BUTTON**
	Pressing this button scrolls through the "all screen", "zone screen", and "individual screen".
25	**ARROW KEY BUTTON**
	This button is pressed when calling an individual indoor unit or a zone.
26	**ON/OFF BUTTON**
	Starts and stops ALL, ZONE, and INDIVIDUAL units.
27	**TEMPERATURE ADJUSTMENT BUTTON (ZONE NUMBER BUTTON)**
	This button is pressed when setting the temperature. Select the zone number if any zones have been registered.
28	**FAN DIRECTION ADJUSTMENT BUTTON**
	This button is pressed when setting the fan direction to "fixed" or "swing".
29	**OPERATION MODE SELECTOR BUTTON**
	This sets the operation mode. The dry setting cannot be done.
30	**TIME NO. BUTTON**
	Selects time No. (Use in conjunction with the schedule timer only).
31	**CONTROL MODE BUTTON**
	Selects control mode.
32	**FILTER SIGN RESET BUTTON**
	This button is pressed to erase the "clean filter" display after cleaning or replacement.
33	**SET BUTTON**
	Sets control mode and time No.
34	**FAN STRENGTH ADJUSTMENT BUTTON**
	Pressing this button scrolls through "weak", "strong", and "fast".
35	**ZONE SETTING BUTTON**
	Zone registration mode can be turned on and off by pressing the start and stop buttons simultaneously for at least four seconds.
36	**INSPECTION/TEST RUN BUTTON (FOR SERVICE)**
	Pressing this button scrolls through "inspection", "test run", and "system display". This button is not normally used.
37	**VENTILATION STRENGTH ADJUSTMENT BUTTON**
	This button is pressed to switch the ventilation strength ("fresh up") of the total enthalpy heat exchanger.

(Notes)
1. Please note that all the displays in the figure appear for explanation purposes or when the cover is open.
2. If the unit is used in conjunction with other optional central controllers, the OPERATION LAMP of the unit that is not under operation control may light up and go out a few minutes behind schedule. This shows that the signal is being exchanged, and does not indicate any failure.

OPERATION

■ Individual screen, all screen, zone screen (Fig. 3)

This controller can perform operations in the individual screen, all screen, or zone screen.

- Individual screen — The individual screen is used when performing group operations.
- All screen — The all screen is used when performing operations for all units at once.
- Zone screen — The zone screen is used when performing zone operations.

1. ☞① Select the screen by pressing the "ALL/INDIVIDUAL" button.

☞② Every time the "ALL/INDIVIDUAL" button is pressed, the selection scrolls through INDIVIDUAL → ALL → ZONE.
If nothing is done in the all or zone screens for one minute, it automatically goes to the individual screen.

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- If the zone number in the zone screen is displayed as "---," this indicates that no units are registered in a zone.
  Please perform zone registration before proceeding in the zone screen. (See page 9)

■ Batch operation and stop method (Fig. 4)

This is for operating or stopping all connected units at once.

A. What to do when operating or stopping all connected units at once.

1. Press either ☞ "ALL |" or ☞ "ALL ○".

- Operation can be performed from the individual screen, the all screen, or the zone screen.
- The "TEMPERATURE ADJUSTMENT" and "OPERATION MODE SELECTOR" buttons cannot be used.
  To set the temperature and operation mode, use B. batch operation.

B. Batch Operation

1. ☞ Press the "ALL/INDIVIDUAL button" to enter the all screen.

The " ▭ " display lights up on all registered units.

2. ☞ Press the "SELECT" button.

The " ■ " display lights up on all connected units.

☞ Press the "RESET" button.

The " ■ " display goes off on all connected units.
Operation and stop in the batch screen are done the same as with the batch operation and batch stop buttons.

3. ☞ Press the "TEMPERATURE ADJUSTMENT" button.

The temperature rises 1° every time the (▲) button is pressed.
The temperature drops 1° every time the (▼) button is pressed.

Set to " -- " when you do not wish to use batch setting for the temperature setting.
Setting to 1° above or below the temperature setting range displays " -- ".

4. ☞ Call up the desired mode by pressing the "OPERATION MODE SELECTOR" button.

Set to " -- " when you do not wish to use batch setting for the operation setting.

■ Group operation and stop method (Fig. 5)

This is for operating or stopping connected units in groups.

[Group operation]

1. Press the ☞ "ALL/INDIVIDUAL button" to enter the ☞ individual screen.

The unit will enter the individual screen automatically if nothing is done for one minute.

2. ☞ Using the arrow keys, ☞ move the " ▭ " to select the units to operate or stop.

Keeping the button pressed down will move it rapidly.

The " ▭ " in this screen has selected unit 1-04.

3. ☞ Press the "SELECT" button.

The " ■ " display lights up in the group.

☞ Press the "RESET" button.

The " ■ " display goes off in the group.

4. ☞ Press the "TEMPERATURE ADJUSTMENT" button.

The temperature rises 1° every time the (▲) button is pressed.
The temperature drops 1° every time the (▼) button is pressed.
Temperature adjustment cannot be done if the selected group's air conditioners are in fan mode.

5. ☞ Call up the desired mode by pressing the "OPERATION MODE SELECTOR" button.

■ Registering zones (Fig. 6)

It is possible to set multiple groups as one zone and control each zone separately.
No zones are registered when the unit is shipped from the factory.
Zone registration can be done in the individual screen, all screen, or zone screen.

[Registration]

1. ☞ Pressing the "ALL/INDIVIDUAL" button for four seconds. ☞ Displays ZONE SET.

Zone Number 1 will be displayed, and if there are any groups already registered displayed zone, a " ■ " will light up on the operation monitor.

2. ☞Select the Zone Number to be registered using the "ZONE NUMBER" button.
Keeping the button pressed down will move it rapidly.

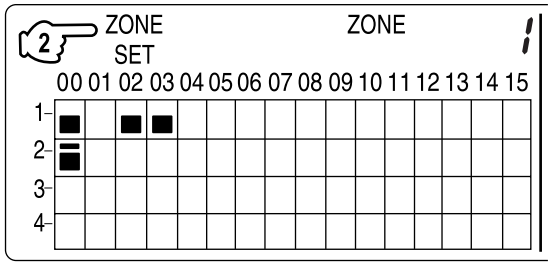
3. ☞" ▭ " to the group you wish to ☞register using the arrow keys.
Keeping the button pressed down will move it rapidly.

4. ☞Press the "SELECT" button to register that group to the zone.

The " ■ " display lights up on all the selected units.

☞Pressing the "RESET" button removes the group from that zone, and " ■ " goes off.

Repeat steps 3 and 4 until all the units you wish to register to the zone have been added.



In this example, a screen is shown with units 1-00, 1-02, 1-03, and 2-00 registered to Zone Number 1.

5. Repeat steps 2 to 4 to register to the next zone.

6. Once zone registration is complete, ☞press the "ALL/INDIVIDUAL" button to turn off "ZONE SET" display and return to the individual screen.
The display returns to the normal screen if nothing is done for one minute when in zone registration mode.

(NOTE)
- It is impossible to register one group to several different zones.
  If this is done, the last zone registered to will be valid.

[Batch deletion of zone registration]

1. ☞Pressing the " ALL ○ " for at least four seconds while ☞pressing the "FILTER SIGN RESET" button when ☞"ZONE SET" is displayed will delete all zone registrations.
The zone registrations for all units will be lost.

■Zone operation and stop method (Fig. 7)

This is for operating or stopping connected units in zones.

[Zone operation]

1. ☞Press the "ALL/INDIVIDUAL button" to enter the zone screen.

2. ☞Using the arrow keys, select the zone number to operate or stop.

Pressing [←] and [↓] reduces the zone number while [→] and [↑] raise the number.
Keeping the button pressed down will move it rapidly.
- If the zone number is displayed as "---," this indicates that no units are registered in a zone. Please perform zone registration before using a zone. (See Note)

3. ☞Press the "SELECT" button.

The " ■ " display lights up in the group.

☞Press the "RESET" button.

The " ■ " display goes off in the group.

4. ☞Press the "TEMPERATURE ADJUSTMENT" button.
The temperature rises 1° every time the (▲) button is pressed.
The temperature drops 1° every time the (▼) button is pressed.

Set to " -- " when you do not wish to use zone setting for the temperature setting.
Setting to 1° above or below the temperature setting range displays " -- ".

5. ☞Call up the desired mode by pressing the "OPERATION MODE SELECTOR" button.

Set to " -- " when you do not wish to use zone setting for the operation mode.

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■ Changing the fan direction and fan strength (Fig. 8)

This changes the fan direction and strength settings in the air conditioner.
Changing the fan direction and strength is done in the individual screen.

[Registration]

1. **☞Press the "ALL/INDIVIDUAL button" to enter the ☞individual screen.**
   The unit will enter the individual screen automatically if nothing is done for one minute.
2. **☞Using the arrow keys, ☞move the "▭" to select the units to fan direction adjustment or fan strength adjustment.**
   Keeping the button pressed down will move it rapidly.
3. **☞Press the "FAN DIRECTION ADJUSTMENT" button.**
   This sets "fixed" or "swing" for the fan direction.
   ☞Press the "FAN STRENGTH ADJUSTMENT" button.
   Pressing this button scrolls through "L", "H", and "HH".
   Depending on the indoor unit, only "L" and "H" may be available.

The functions included in the indoor units may vary.
Pressing a button for a function which is not available will cause "NOT AVAILABLE" to be displayed.

■ Changing the ventilation mode and ventilation strength (Fig. 9)

This changes the ventilation mode and strength settings in the total enthalpy heat exchanger.
Changing the ventilation mode and strength is done in the individual screen.

[Registration]

1. **☞Press the "ALL/INDIVIDUAL button" to enter the ☞individual screen.**
   The unit will enter the individual screen automatically if nothing is done for one minute.
2. **☞Using the arrow keys, ☞move the "▭" to select the units to ventilation mode or ventilation strength adjustment.**
   Keeping the button pressed down will move it rapidly.
3. **☞Press the "VENTILATION MODE" button.**
   It will scroll through "(A)" → "" → "" → "(A)".
   ☞Press the "VENTILATION STRENGTH ADJUSTMENT" button.
   It will scroll through "L" → "H" → "L FRESH UP" → "H FRESH UP" → "L".
   The fresh up function may not be available depending on the connected unit model.

The functions included in the indoor units may vary.
Pressing a button for a function which is not available will cause "NOT AVAILABLE" to be displayed.

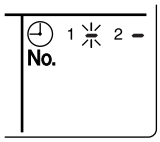
- **Ventilation Mode and Amount**
  If these are changed using the remote controller depending on the unit model, they cannot be displayed on the central remote controller.
  To monitor the ventilation mode and amount, check the values on the remote controller.

■ Timer Number Setting (Fig. 10)

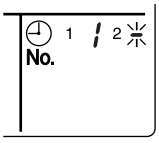
(Only when used with the schedule timer)
Using this together with the schedule timer makes it possible to set on and off times four times a day.

[Registration]

1. **☞Pressing the "TIMER NO." button causes the number set for timer number 1 to blink.**
   If no timer setting has been made "–" will be displayed.
   Select the desired timer number by pressing the ☞"TIMER NO." button.



2. **☞Once the desired timer number is displayed, press the "SET" button.**
   Press the ☞ "SET" button within 10 seconds after the timer number is displayed.
   The display will return to how it was after 10 seconds.
   The display for timer number 1 will stop blinking and then timer number 2 will start blinking.



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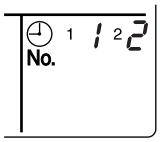
3. ☞ Select the desired timer number by pressing the "TIMER NO." button.

Once the desired timer number is displayed, ☞ press the "SET" button.
The display for timer number 2 will stop blinking.



The " No. " display will disappear after 3 seconds.

Select " – " in the timer number when you do not wish to set a timer number.
It is possible to set only one timer number.
(The times for turning the unit(s) on and off twice a day can be set with a single timer number.)

- **Timer Number Setting**
  Group control: select the unit in the individual screen and set the timer number.
  Batch control: set the timer numbers for all connected units.
  Zone control: set the timer numbers for all zone-registered units.
  Call up the zones which you wish to set in the zone screen and set the timer numbers.
- **Since the timer number will be set to after-press priority, the timer number in the last screen set will be valid for the connected units.**

  Example 1
  Setting timer number 1 for unit 1-00 to "1" and timer number 2 to "2" in the individual screen and then setting timer number 1 to "3" and timer number 2 to "4" in the batch screen causes the timer numbers for all units to be set, so timer number 1 for unit 1-00 will be "3" and timer number 2 will be "4".

  Example 2
  To prevent leaving units on, timer number 1 is set to "5" in the batch screen.
  Setting timer number 1 in zone number 1 to " – " in the zone screen after that will change the timer number for zone number 1, so the setting to prevent leaving the units on will be lost for zone number 1 only.

  If a timer number is set incorrectly by accident, redo the setting in the desired screen.
- **What happens when the timer number on time and off time are set to the same time**

  When the on time and off time are set to the same time for the same timer number, operation does not change.
  When the on time and off time are set to the same time for different timer numbers, the off time is given priority.

When using timer operation, make sure the times do not overlap when setting the program of the schedule timer.

■ Setting the Operation Code (Fig. 11)

[Registration]

1. ☞ Pressing the "CONTROL MODE" button causes the currently set operation code to blink.
Call up the desired code number by pressing the ☞ "CONTROL MODE" button.
Scroll through the code numbers.

2. ☞ Once the code number is displayed, press the "SET" button.
The display will stop blinking.
The operation code display will disappear after 3 seconds.

[The Operation Code Setting]

Group control: select the unit in the individual screen and set the operation code.
Batch control: set the operation code for all connected units.
Zone control: set the operation code for all zone-registered units.
Call up the zones which you wish to set in the zone screen and set the operation code.

Since the operation code will be set for after-press priority, setting the operation code in the zone and individual screens after setting the operation code in the batch screen, will cause the operation codes set afterwards to be valid.

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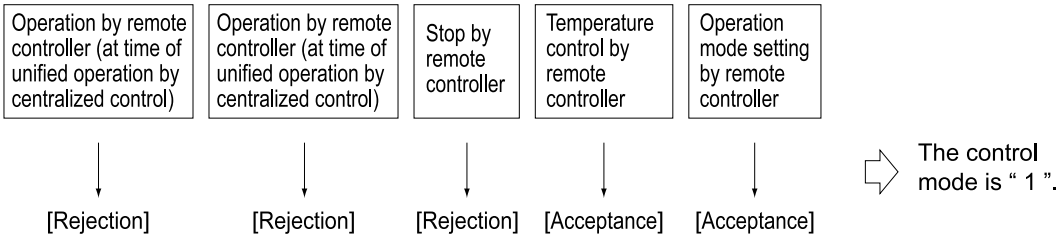
The following five operation control modes can be selected along with the temperature setting and operation mode by remote controller, for a total of twenty different modes. These twenty modes are set and displayed with control modes of 0 to 19. (For further details, see **EXAMPLE OF OPERATION SCHEDULE** on the next page.)

- ON/OFF control impossible by remote controller..... Use this mode when operating and stopping from the central remote controller only. (ON/OFF control by the remote controller is disabled.)
- Only OFF control possible by remote controller ..... Use this mode when executing the operation only by the central remote controller, and executing only the stop by remote controller.
- Centralized ..... Use this mode when executing the operation only by the central remote controller, and executing start/stop freely by remote controller during the preset hours.
- Individual ..... Use this mode when executing start/stop both by central remote controller and remote controller.
- Timer operation possible by remote controller..... Use this mode when executing start/stop by remote controller during the preset hours, and not starting operation by the central remote controller at the programmed time of system start.

[HOW TO SELECT THE CONTROL MODE]

- Select whether to accept or to reject the operation from the remote controller regarding the operation, stop, temperature setting and operation mode setting, respectively, and determine the particular control mode from the rightmost column of the table below.

  Example



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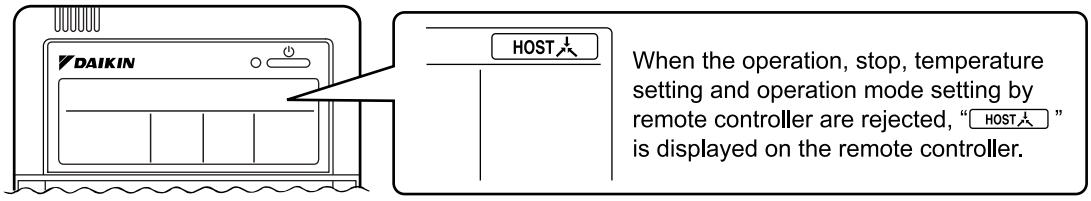
Operation mode	Control by remote controller					Control mode
	Operation		Stop	Temperature control	Operation mode setting	
	Unified operation, individual operation by central remote controller, or operation controlled by timer	Unified stop, individual stop by central remote controller, or timer stop				
ON/OFF control impossible by remote controller	Rejection (Example)	Rejection (Example)	Rejection (Example)	Rejection	Acceptance	0
					Rejection	10
				Acceptance (Example)	Acceptance (Example)	1 (Example)
					Rejection	11
Only OFF control possible by remote controller			Acceptance	Rejection	Acceptance	2
					Rejection	12
				Acceptance	Acceptance	3
					Rejection	13
Centralized	Acceptance			Rejection	Acceptance	4
					Rejection	14
				Acceptance	Acceptance	5
					Rejection	15
Individual		Acceptance		Rejection	Acceptance	6
					Rejection	16
				Acceptance	Acceptance	7
					Rejection	17
Timer operation possible by remote controller	Acceptance (During timer at ON position only)	Rejection (During timer at OFF position)		Rejection	Acceptance	8
					Rejection	18
				Acceptance	Acceptance	9
					Rejection	19

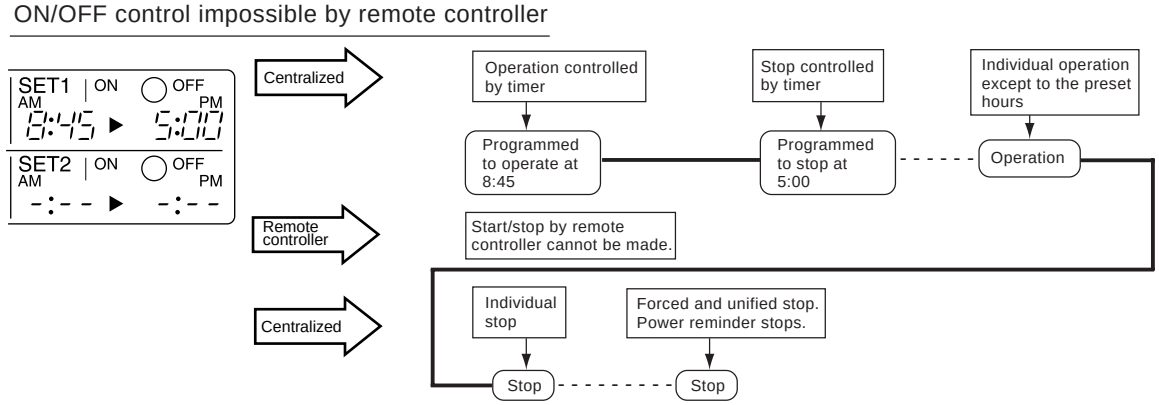
Note) Do not select the timer operation possible without the remote controller. In this case, timer operation is disabled.



EXAMPLE OF OPERATION SCHEDULE

Operation schedule is possible only in conjunction with the schedule timer (optional accessory).

Liquid crystal display of schedule timer



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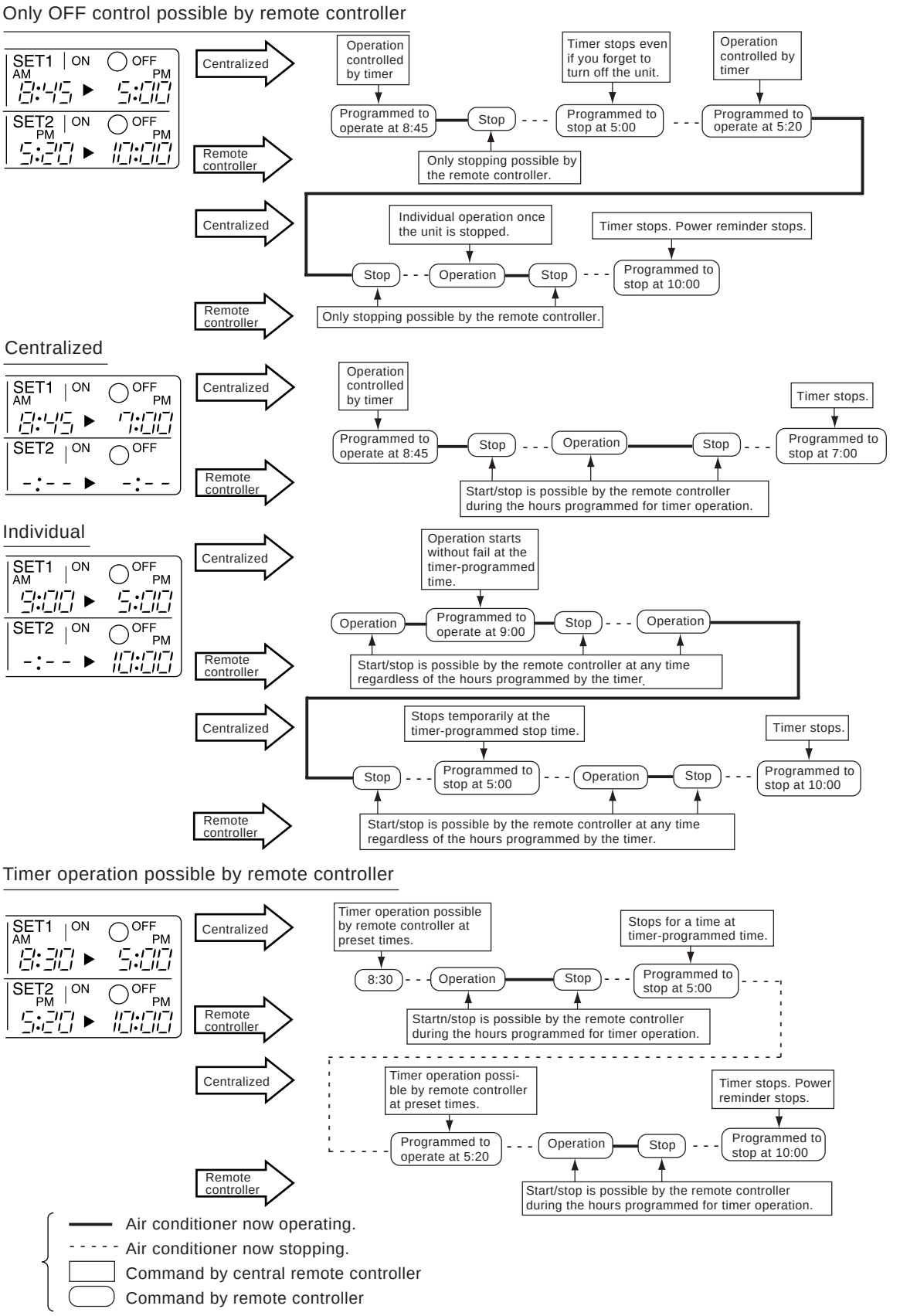
Only OFF control possible by remote controller
SET1 ON OFF
AM PM
SET2 ON OFF
PM PM
Centralized
Remote controller
Operation controlled by timer
Programmed to operate at 8:45
Stop
Programmed to stop at 5:00
Timer stops even if you forget to turn off the unit.
Operation controlled by timer
Programmed to operate at 5:20
Only stopping possible by the remote controller.
Individual operation once the unit is stopped.
Timer stops. Power reminder stops.
Operation
Programmed to stop at 10:00
Centralized
SET1 ON OFF
AM PM
SET2 ON OFF
Timer stops.
Programmed to stop at 7:00
Start/stop is possible by the remote controller during the hours programmed for timer operation.
Individual
Operation starts without fail at the timer-programmed time.
Start/stop is possible by the remote controller at any time regardless of the hours programmed by the timer.
Stops temporarily at the timer-programmed stop time.
Timer operation possible by remote controller
Timer operation possible by remote controller at preset times.
8:30
Stops for a time at timer-programmed time.
Startn/stop is possible by the remote controller during the hours programmed for timer operation.
Timer operation possible by remote controller at preset times.
Timer stops. Power reminder stops.
Programmed to operate at 5:20
Programmed to stop at 10:00
Air conditioner now operating.
Air conditioner now stopping.
Command by central remote controller
Command by remote controller

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■ Setting operation mode (Fig. 12)

[Registration]

1. ☞ Press the OPERATION MODE SELECTOR BUTTON. Each time you press this button, the display rotates as shown on the below list.

- **List of operations which can be set**
  In the below list, " ○ " refers to the acceptable setting, while " × " refers to the not acceptable setting.

Display	A: Zones and groups with no " " display. Setting	Contents of setting
	×	
	○	Can be set in individual zones or groups
	○ ∗1	Can be set in individual zones or groups
	○	Can be set in individual zones or groups
	○	Can be set in individual zones or groups
or or	○ ∗1	Can be set in individual zones or groups ∗3
	○ ∗1	Can be set in individual zones or groups
	○	Select this display if you don't wish to set by zone.

Display	B: Zones and groups with a " " display. Setting	Contents of setting
	○	To be set by zone ∗2
	○	Can be set in individual zones or groups
	×	
	×	The displays are shown by group ∗4
	×	The displays are shown by group ∗4
or or	○ ∗1	Can be set in individual zones or groups ∗3
	○ ∗1	Can be set in individual zones or groups
	○	Select this display if you don't wish to set by zone.

∗1: Setting may not be acceptable depending on the type of indoor unit with which this unit is connected.
∗2: In zone control, the units run in temperature adjustment mode (heating or cooling) for the outdoor system for the groups registered to those zones. Heating or cooling selection is not available.
*3: or or
Changing the ventilation mode cannot be done in the zone screen. Changing the ventilation mode should be done in the individual screen.
∗4: In group control, the units run in temperature adjustment mode (heating or cooling) for the group outdoor system. Heating or cooling selection is not available.

- **The Zone consists of the following two cases.**

A. Zone without display" "
The group with master remote controller setting exists in this zone.
Setting the master remote controller enables cool/heat selection.
Operations other than cool/heat operations can also be set for some operations. For further details, see the list on the left.

B. Zone with display" "
No group with master remote controller setting exists in this zone.
The cool/heat selection is not available because the master remote controller has not been set.
Some operations other than cool/heat operations can be set. For further details, see the list in the left.

See Note 1 if the display" " is flashing.

- Fan operation can be performed for each zone using the central remote controller even if there is no cooling/heating selection right during cooling or heating. Also, if a Ventiair is connected in the zone, ventilation and ventilation cleaning operation is possible. See the included operating manuals for details.
- When the indoor unit is in heat operation, change the setting to FAN operation through the central remote controller; then, you can switch the fan speed to the extremely low fan speed. Warm air may blow if any other indoor unit belonging to the same system is in heat operation.
- The indoor fan stops during defrost/hot start.
- DRY cannot be set from the central remote controller.

■ Group monitoring (Fig. 13)

Utilize the group monitor function in each of the following cases:
1. Check the malfunction code.
   (See the next page.)
2. Check the group that requires cleaning of the air filter and air cleaner element. (See Note 2)
3. Change the setting of the master remote controller. (See Note 3)
4. Check the group(s) sharing the same outdoor unit. Or, check the particular group(s) with the master remote controller setting. (See page 20.)
5. Check the conditions of other individual groups.

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Note 1 : page 318, Note 2 : page 319, Note 3 : page 318

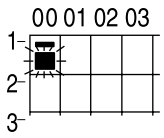
When in zone screen
The zone screen will revert to the individual screen automatically if nothing is done in it for one minute.

[Registration]

1. **☞Press the "ALL/INDIVIDUAL" button to switch to the ☞"INDIVIDUAL" screen.**
2. **☞Using the arrow key, ☞move the " ▣ " to select the unit to be monitored.**
   Keeping the button pressed down will move it rapidly.
   ☞The " ▣ " lights up and the status of that unit is displayed in the LCD. The cursor in the screen Fig. 13 has selected unit 2-06.

■ Error diagnosing function (Fig. 14)

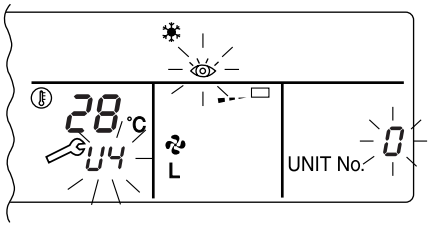
This central remote controller is provided with a diagnosing function, for when an indoor unit stops due to malfunction. In case of actuation of a safety device, disconnection in transmission wiring for control or failure of some parts, the operation lamp, inspection display and unit No. start to flash; then, the malfunction code is displayed. Check the contents of the display, and contact your DAIKIN dealer because the above signs can give you the idea on the trouble area.



The display " ▬ " flashes under the group No. where the indoor unit that has stopped due to malfunction.

[Registration]

1. **☞Press the ARROW KEY BUTTON to call up the group that has stopped due to malfunction.**
   ☞The unit No. ☞the malfunction code is flashing because of an error failure.



Operation lamp	Maintenance display	Unit No.	Malfunction code	Error content
☼	●	◑	**64**	Indoor air thermistor error
☼	●	◑	**65**	Outdoor air thermistor error
☼	●	◑	**68**	HVU error (Ventiair dust-collecting unit)
☼	●	◑	**6A**	Dumper system error
◑	◑	◑	6A	Dumper system error + Thermistor error
☼	●	◑	**6F**	Simple remote controller error
☼	●	◑	**6H**	Door switch (Ventiair dust-collecting unit), relay harness fault (Ventiair dust-collecting/humidifier unit)
◑	◑	◑	94	Ventiair internal transmission error (between total enthalpy – fan unit)
◑	◑	◑	A0	Indoor unit · external safety device error
◑	◑	◑	A1	Indoor unit · BEV unit (Sky-Air connection unit) PC board assembly fault
☼	●	◑	**A1**	Indoor unit · PC board assembly fault
◑	◑	◑	A3	Indoor unit · Drain level error (33H)
◑	◑	◑	A6	Indoor unit · Fan motor (51F) lock, overload
☼	●	◑	**A7**	Indoor unit · Fan direction adjustment motor (MA) error
◑	◑	◑	A9	Indoor unit · BEV unit, electric expansion valve motor (20E) error
☼	●	◑	**AF**	Indoor unit · Malfunctioning drain
☼	●	◑	**AH**	Indoor unit · Dust-collector error
◑	◑	◑	AJ	Indoor unit · Insufficient capacity setting, address setting fault

☼	☼	☼	C4	Indoor unit · Liquid piping thermistor (Th2) Error (faulty connection, cut wire, short circuit, fault)
☼	☼	☼	C5	Indoor unit · BEV unit, gas piping thermistor (Th3) Error (faulty connection, cut wire, short circuit, fault)
☼	☼	☼	C9	Indoor unit · Intake air thermistor (Th1) Error (faulty connection, cut wire, short circuit, fault)
☼	☼	☼	CA	Indoor unit · Outlet air thermistor (Th4) Error (faulty connection, cut wire, short circuit, fault)
☼	●	☼	**CJ**	Indoor unit · remote controller sensor error
☼	☼	☼	E0	Outdoor unit · Safety device operation
☼	☼	☼	E1	Outdoor unit · PC board assembly fault
☼	●	☼	**E1**	Outdoor unit · PC board assembly fault
☼	☼	☼	E3	Outdoor unit · High-pressure switch fault
☼	☼	☼	E4	Outdoor unit · Low-pressure switch fault
☼	☼	☼	E9	Outdoor unit · Electric expansion valve motor (20E) error
☼	●	☼	**EC**	Heat source unit · Intake water temperature inter-lock operation (fan operation)
☼	☼	☼	EF	Outdoor unit · Ice thermal storage unit error
☼	☼	☼	F3	Outdoor unit · Discharge piping temperature error
☼	●	☼	**H3**	Outdoor unit · High-pressure switch operation
☼	☼	☼	H4	Outdoor unit · Low-pressure switch operation
☼	☼	☼	H9	Outdoor unit · Outdoor air thermistor (Th1) Error (faulty connection, cut wire, short circuit, fault)
☼	●	☼	**H9**	Outdoor unit · Outdoor air thermistor (Th1) Error (faulty connection, cut wire, short circuit, fault)
☼	●	☼	**HC**	Outdoor unit · Water temperature sensor system error
☼	●	☼	**HF**	Ice thermal storage unit error, ice thermal storage controller error, error in outdoor unit during ice thermal storage operation
☼	☼	☼	HJ	Outdoor unit · water system fault
☼	☼	☼	J1	Outdoor unit · pressure sensor error
☼	☼	☼	J3	Outdoor unit · Discharge piping thermistor (Th3) Error (faulty connection, cut wire, short circuit, fault)
☼	●	☼	**J3**	Outdoor unit · Discharge piping thermistor (Th3) Error (faulty connection, cut wire, short circuit, fault)
☼	☼	☼	J5	Outdoor unit · Intake piping thermistor (Th4) Error (faulty connection, cut wire, short circuit, fault)
☼	☼	☼	J6	Outdoor unit · Heat exchange thermistor (Th2) error
☼	●	☼	**J6**	Outdoor unit · Heat exchange thermistor (Th2) error Error (faulty connection, cut wire, short circuit, fault)
☼	☼	☼	J7	Outdoor unit · Header thermistor (Th6) error
☼	☼	☼	JA	Outdoor unit · Discharge piping pressure sensor error
☼	☼	☼	JC	Outdoor unit · Intake piping pressure sensor error
☼	☼	☼	JF	Outdoor unit · Oil temperature sensor (Th5) system error
☼	●	☼	**JH**	Outdoor unit · Oil temperature sensor (Th5) system error
☼	☼	☼	L0	Outdoor unit · Inverter system fault
☼	☼	☼	L4	Outdoor unit · Inverter cooler fault
☼	☼	☼	L5	Outdoor unit · Ground circuit for compressor motor, short circuit, or power unit short circuit

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◑	◑	◑	L6	Outdoor unit · Ground circuit for compressor motor, short circuit
☼	◑	◑	L8	Outdoor unit · Compressor overload, compressor motor wire disconnection
◑	◑	◑	L9	Outdoor unit · Compressor lock
◑	◑	◑	LA	Outdoor unit · Power unit error
◑	◑	◑	LC	Outdoor unit · Transmission error between inverter and outdoor control unit
☼ or ●	◑	◑	M1	Central controller: PC board fault
☼ or ●	◑	◑	M8	Transmission error between central controllers
☼ or ●	◑	◑	MA	Central controller: Incorrect combination
☼ or ●	◑	◑	MC	Central controller: Address setting fault
◑	●	◑	**P0**	Insufficient gas (thermal storage)
◑	◑	◑	P1	Outdoor unit · Power voltage imbalance, phase loss
◑	◑	◑	P4	Outdoor unit · Power unit temperature sensor error
☼	●	◑	**U0**	Pressure drop due to insufficient refrigerant, electric expansion valve fault, etc.
◑	◑	◑	U1	Reversed or lost phase
◑	◑	◑	U2	Power voltage error, momentary electrical stoppage
◑	◑	◑	U4	Transmission error between indoor unit/BEV unit and outdoor/BS unit, Transmission error between outdoor unit and BS unit
◑	◑	◑	U5	Transmission error between remote controller and indoor control unit
●	☼	●	U5	Remote controller board fault or remote controller setting fault
◑	◑	◑	U6	Transmission error between indoor units
◑	◑	◑	U7	Transmission error between outdoor units Transmission error between outdoor unit and ice thermal storage unit
☼	●	◑	**U7**	Transmission error between outdoor units (cooling/heating batch, low-noise operation)
◑	◑	●	U8	Transmission error between master remote controller and slave remote controller (slave remote controller error) Incorrect combination of indoor unit and remote controller within a single system (model)
◑	◑	◑	U9	Transmission error between indoor unit/BEV unit and outdoor unit within a single system Transmission error between BS unit and indoor unit/BEV unit and outdoor unit within a single system
◑	◑	◑	UA	Incorrect combination of indoor, BS, and outdoor units within a single system (model, number of units, etc.) Incorrect combination of indoor unit and remote controller (remote controller in question) BS unit connection position fault
☼	●	☼	**UC**	Central control group numbers overlap
◑	◑	◑	UE	Transmission error between indoor unit and central controller
◑	◑	◑	UF	Unset system, incorrect settings between BEV unit and indoor unit
◑	◑	◑	UH	System fault

▬ error codes (in outline font) do not display “maintenance” and the system will run, but please check the content of the display and contact your dealer.

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■ Setting master remote controller (Fig. 15)

You must set the master remote controller of the operation mode for one of the indoor units, if two or more such indoor units with the remote controller are connected with the outdoor unit where the operation modes such as cool/heat operation and FAN operation can be set by remote controller and central remote controller.

1. Preparations

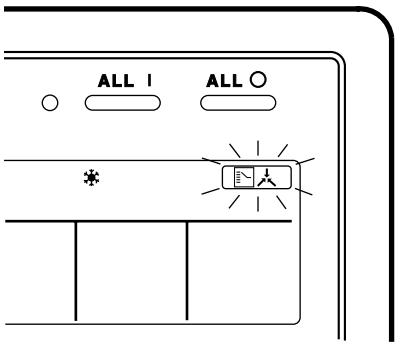
When you want to fix settings

- **Check the particular group with the master remote controller setting for the refrigerant system you wish to reset. (See the below.)**
- **Call up the group without the display "[ ]" (See Note)**

  ☞ Hold the OPERATION MODE SELECTOR BUTTON down for about four seconds while the above group is being called up.

  The display "[ ]" flashes on the liquid crystal display of the remote controller for all the groups sharing the same outdoor unit or BS unit.

  When you turn on the power switch for the first time, the display"[ ]" flashes.



2. Setting selection right

Pall up the desired group to set the master remote controller, and ☞ press the OPERATION MODE SELECTOR BUTTON. The master remote controller is set for this group, and the display "[ ]" goes out. The display "[ ]" appears for the other groups.

Setting is finished now.

When switching operation

● In case of operation switch

Call up the zone including the group with the setting of master remote controller.

(Zone without the display "[ ]")

☞ Press the OPERATION MODE SELECTOR BUTTON several times, and switch to the desired operation mode.

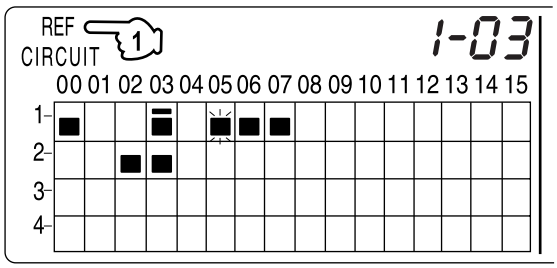
Each time you press it, the display is switched to " " " " " " and " − − " in sequence.

NOTE

- However, the displays " " " " and "VENTILATION MODE" may appear in some zones, depending on the type on indoor unit with which they are connected.
  (VENTILATION MODE)
  or or

[System Display]

1. Test run mode is necessary to display the system display.
2. In order to turn on test run mode, select the appropriate air conditioner on the individual screen with the cursor and then set its operation mode to either cooling or heating. (The air conditioner does not need to be running. It doesn't matter if it is, though.)
3. Press the "inspection/test run" button twice to put it into test run mode.
4. Pressing the "inspection/test run" button for four or more seconds in test run mode will display ☞ the "REF CIRCUIT."



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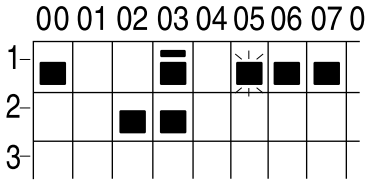
Note : page 314

Call the unit whose system you wish to look up using the arrow keys.

The " ■ " on all groups in the same system as the displayed group will light up.

Of those, the " ■ " display in all groups which have cooling/heating selection privilege will blink.



In this example, individual units 1-00, 1-03, 1-05, 1-06, 1-07, 2-02, and 2-03 are in the same system, and 1-05 has the cooling/heating selection privilege.

To look up other systems, call up all the units you wish to look up using the arrow keys.

Pressing the inspection/test run button one more time gets rid of the system display and ends it.

The unit will enter the individual screen automatically if nothing is done for one minute in the system display screen.

This function may not be available for all connected outdoor units, in which case "REF CIRCUIT" will blink. It will also not be correctly displayed if DIII-NET extension ADP is used.

■ Display of time to clean (Fig. 16)

This central remote controller displays the time to clean the air filter or air cleaner element for each group or any given group by utilizing two types of signs. The display " " tells the time to clean the air filter or the air cleaner element of some group.

If a cleaning sign is displayed

A filter or element in some group is ready to be cleaned.

1. ☞① Press the ARROW KEY BUTTON, and search the groups displaying " " or " " (The group may be plural.)

Clean or change the air filter or air cleaner element.

For further details, see the operation manual attached to each indoor unit. (Clean or change the air filter or air cleaner element of all the groups displaying " " or " ".)

2. ☞② Press the FILTER SIGN RESET BUTTON, and the display " " disappears. (Including all the groups where the air filter has been cleaned.)

NOTE

Be sure to check the display ☞③ " " has disappeared at this point. The appearance of the above display is a sign that the air filter or air cleaner element of some group still needs cleaning.

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INSTALLATION TABLE

When installing the equipment, mark the zone No. of each group and installation location in the below table.

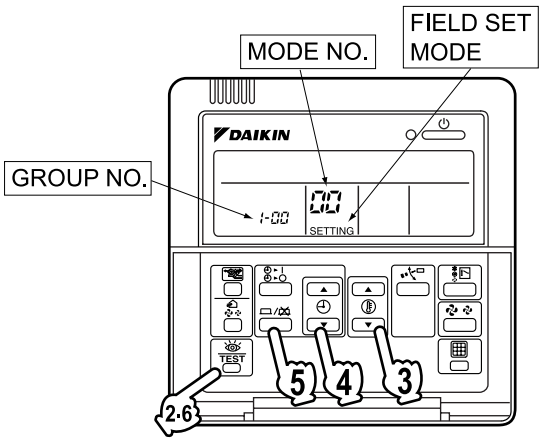
Setting group No.
(Setting is not possible unless power is activated to both the central remote controller and indoor unit.)

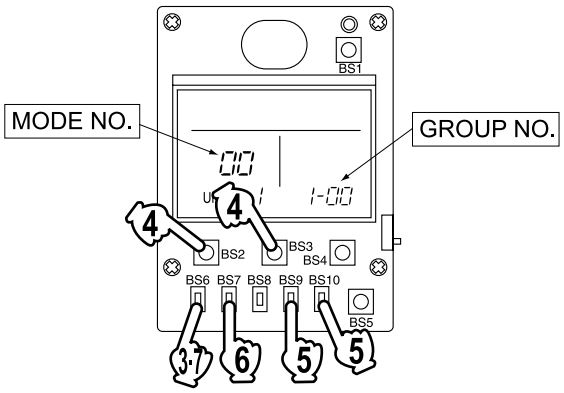
Operated by remote controller

1. Activate power to both the central remote controller and indoor unit.
2. While in the normal mode, hold down the "TEST" button for a minimum of 4 seconds. The unified ON/OFF controller will enter the FIELD SET MODE.
3. Select the MODE No. "00" with the "" button.
4. Use the "" button to select the group No. for each group. (Group No. increases in the order of 1-00, 1-01 ... 1-15, 2-00, ... 8-15.)
5. Press "" to set the selected group No.
6. Press "TEST" to return to the NORMAL MODE.

Operated by simplified remote controller

1. Activate power to both the central remote controller and indoor unit.
2. Remove the upper part of the remote controller.
3. Press the BS6 BUTTON (field set) on the PC board. The controller will enter the FIELD SET MODE.
4. Select the MODE No. "00" with the BS2 BUTTON and BS3 BUTTON (temperature setting).
5. Use the BS9 BUTTON (set A) and BS10 BUTTON (set B) to select the group No. for each group. (Group No. increases in the order of 1-00, 1-01 ... 1-15, 2-00, ... 8-15.)
6. Press BS7 BUTTON (set/cancel) to set the selected group No.
7. Press BS6 BUTTON (field set) to return to the NORMAL MODE.





Zone No.																
Group No.	–00	–01	–02	–03	–04	–05	–06	–07	–08	–09	–10	–11	–12	–13	–14	–15
Indoor unit Quantity of units Controlled by																
Location																
Zone No.																
Group No.	–00	–01	–02	–03	–04	–05	–06	–07	–08	–09	–10	–11	–12	–13	–14	–15
Indoor unit Quantity of units Controlled by																
Location																

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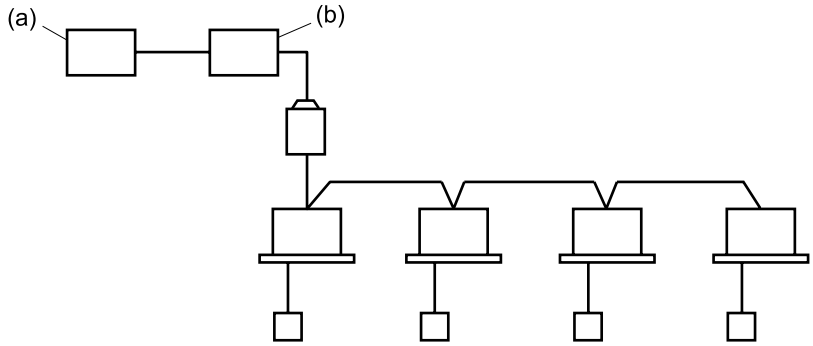
Zone No.																
Group No.	–00	–01	–02	–03	–04	–05	–06	–07	–08	–09	–10	–11	–12	–13	–14	–15
Indoor unit Quantity of units Controlled by																
Location																
Zone No.																
Group No.	–00	–01	–02	–03	–04	–05	–06	–07	–08	–09	–10	–11	–12	–13	–14	–15
Indoor unit Quantity of units Controlled by																
Location																

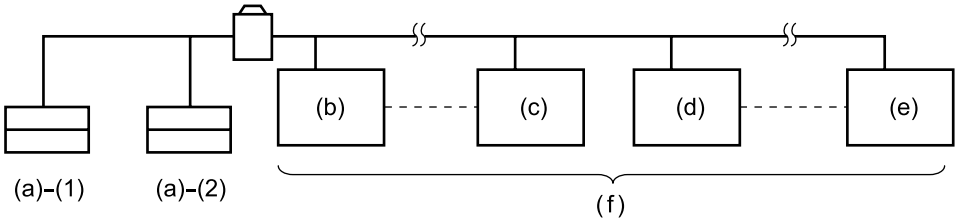
OPTIONAL ACCESSORIES



You can perform the normal operation, take off the malfunction contact point and unified start/stop by contact point, all by connecting this unit with the unification adaptor for computerized control. For further details, ask your DAIKIN dealer.

(a) Unification adaptor for computerized control (b) Central remote controller

DOUBLE CENTRAL REMOTE CONTROLLERS



With two central remote controllers, centralized control (indoor units) is possible from different locations.

(a) Central remote controller (b) Group No. 1 – 00 (c) Group No. 1 – 15 (d) Group No. 2 – 00
(e) Group No. 4 – 15 (f) A maximum of 64 groups

Note)

- For control alignment and settings for double central remote controllers, contact your dealer.

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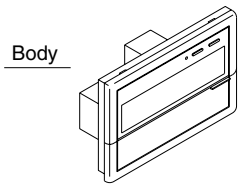
14.1.3 Installation

❶ COMPONENTS

Check the following components are included in this optional accessory before installation.

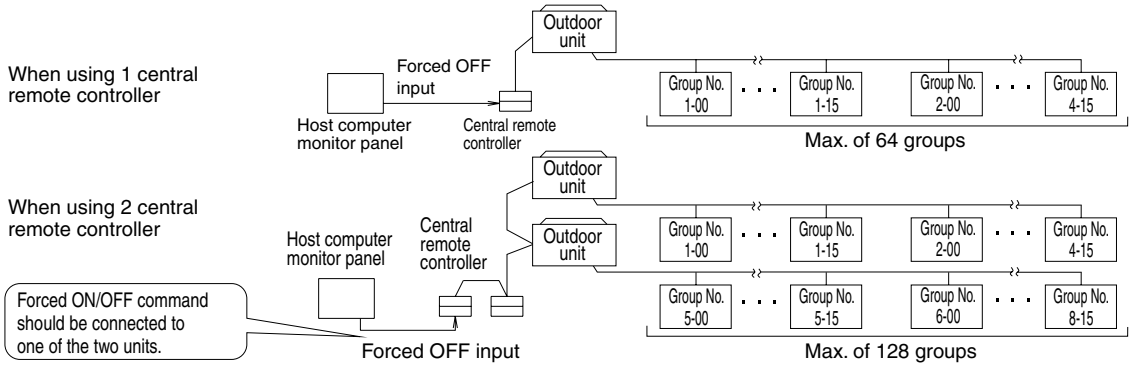
Installation screw (M4 × 16)	4
Operation manual	1
Installation manual	1
Installation table	1



When using this optional accessory an electric parts box of KJB311A is required.
For installation, a steel electric parts box to be embedded is necessary.

❷ SYSTEM CONFIGURATION

With the central remote controller, unified operation/stop is possible with up to a maximum 64 groups of indoor units.
When using 2 central remote controllers, unified operation is possible with up to a maximum 128 groups.
With this optional accessory, setting of control modes including operation, stop, operation controlled by timer, and ON/OFF control possible/impossible by remote controller can be set individually by zones while it enables to control and display the operation state such as set temperature.
It can be connected with the external key system, host computer monitor panel, etc., through forced OFF input (no-voltage normally open contactor).
A zone is a one or more groups together. In general, the same settings are used throughout a zone.



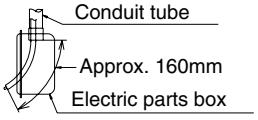
The central remote controller and the separately sold remote control adapter circuit board or group remote control adapter cannot be used together. See the D-BACS design guide for details.

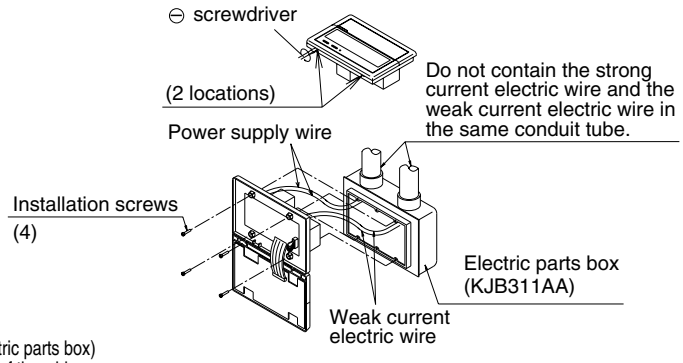
❸ INSTALLATION

(1) Open the upper part of remote controller.
Insert a ⊖ screwdriver(2 locations) into the recess between the upper part and the lower part of remote controller and twist the screwdriver lightly.

PC board is attached with both the upper and lower part of remote controller. Do not damage the board with the screwdriver.

(2) Open the upper part of remote controller and install the Electric parts box with the attached installation screws (M4 × 16).





NOTE) Suitable length of the electric wire is about 160mm. (from electric parts box)
If it is difficult to contain a long wiring, strip the sheathed part of the wiring.

❹ INITIAL SETTING

Setting (1) through (3) are initialized when power is turned ON, therefore complete settings BEFORE activating the power. (The positions of connectors and switches used for settings in this section are shown in Fig. 1.)

(1) Connector for setting master controller (X1A) (Provided with connector at factory set)
- When using only 1 central remote controller, do not disconnect the connector for setting master controller. (Use the unit with the connector in the state in which it was delivered.)
- When using multiple central remote controllers, or using the central remote controller in conjunction with the optional controllers for centralized control, makes settings as indicated in the below table.

Pattern of connection of optional controllers for centralized control			Connector for setting master controller (X1A) Setting, Removed		
Central remote controller	Unified ON/OFF controller	Schedule timer	Central remote controller	Unified ON/OFF controller	Schedule timer
1 to 4	1 to 16		Set one to "Used" and all the rest to "Not used"	Set all to "Not used"	
		1			"Not used"
		1			"Not used"

(Remove all the connectors for the central remote controller, the on/off controller, and the schedule timer when using the unit together with the Ve-UP controller, the master station II, the DMS interface, the payment management unit, or the parallel interface station.)

(2) Address setting

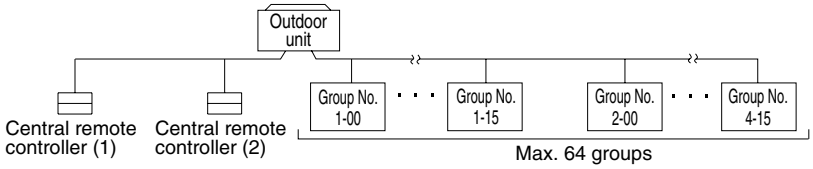
Two central remote controllers can be used as shown in ❷ SYSTEM CONFIGURATION, to control anywhere up to a max. 128 groups of indoor units. In this case, group address must be set. This is done with the switch for setting each address (SS3).

SS3 setting	Indoor unit address
SETTING EACH ADDRESS 5-00 ~ 8-15 / 1-00 ~ 4-15	To control indoor units from group Nos. 1-00 through 4-15

SS3 setting	Indoor unit address
SETTING EACH ADDRESS 5-00 ~ 8-15 / 1-00 ~ 4-15	To control indoor units from group Nos. 5-00 through 8-15

(3) MAIN/SUB changeover switch setting

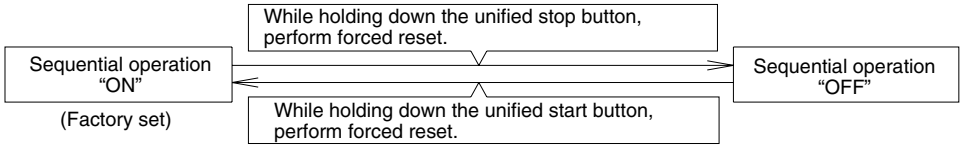
With two central remote controllers, centralized control (indoor units) is possible from different locations. In this kind of set-up, it is necessary to set the MAIN/SUB changeover switch.



One of the two central remote controllers (1) · (2) is set to "MAIN" while the other is set to "SUB".

(4) Setting of the sequential operation function

The central remote controller is equipped with a sequential operation function that sequentially turns indoor units on in 2-second intervals during unified operation. (Sequential operation is factory set to "ON.") To switch sequential operation ON or OFF, set as follows.



NOTE: The sequential operation function is designed to reduce the load on the power supply equipment, but does not guarantee that compressors will not be started simultaneously. You cannot therefore count on a capacity reduction effect by power supply equipment breaker selection.

(5) Forced reset switch

When changing the setting of the connector for setting master controller, etc., you can reset simply by setting it to the reset side once and returning to the normal side, without turning the power OFF.
(For normal operation, set the switch to the normal side.)

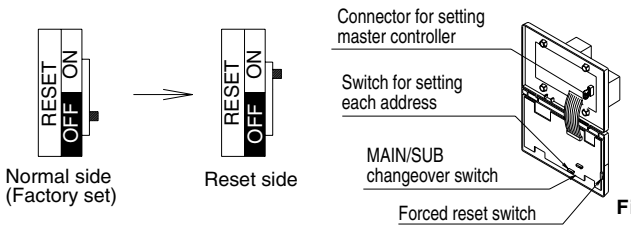
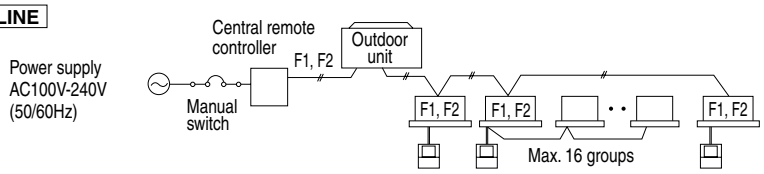


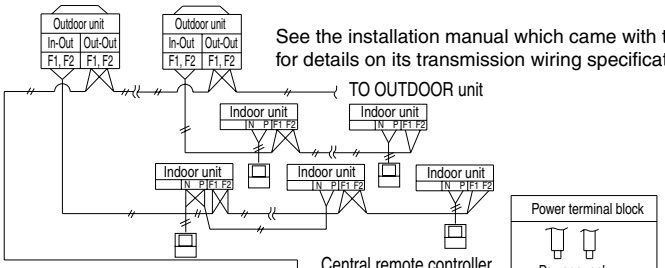
Fig. 1

5 ELECTRIC WIRING

WIRING OUTLINE



WIRING TO THE INDOOR UNIT AND OUTDOOR UNIT



See the installation manual which came with the air conditioner for details on its transmission wiring specifications.

Batch remote control adapter Connector (X2A)

Separately sold batch remote control adapter.
Used for DCS302A52 connections.
See the instruction manual included with the batch remote control adapter for details.

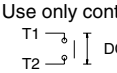
Wiring specifications

Power supply wiring	2mm²
Transmission wiring for control	0.75 – 1.25 mm² sheathed vinyl cord or cable (balanced type) – maximum length 1000 m (total overall wiring length 2000 m)
Manual switch	10A or 15A

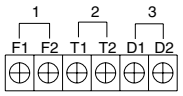
Wire the indoor units to the outdoor units and between all power, indoor units, and remote controllers. See the instruction manual included with the indoor and outdoor units for details.

CONTROL TERMINAL STRIP

*1 For connecting Indoor unit (F1, F2)
*2 Forced OFF input (T1, T2)
None of the indoor units connected to the forced OFF input contact (non-voltage contact with minimal current) will operate when it is shut off.
Use only contactors which guarantee the minimum applicable load DC 16V, 10mA.



NOTE) Use instantaneous contactor of over 200m sec. energizing time, when necessary.



*3 For schedule timer (D1, D2)
Power can be supplied to the schedule timer (DST301B51· 61) separately sold. For details, refer to the installation manual of the schedule timer.

Wire *2 and *3 only when necessary.

(NOTE)
Do not connect the power supply wiring (100 to 240V) to the control terminal strip. If connected by mistake, it may damage or burn electrical parts of optional controllers for centralized control and indoor unit. It may result in serious danger. Be sure to check wirings before turning the power ON.

6 SETTING GROUP NO. FOR CENTRALIZED CONTROL

Set the group number of each group of the indoor unit from the remote controller. (In case of no remote controller, also connect the remote controller and set the group No. Then, remove the remote controller.)

(1) Turn ON the power of the indoor unit and central remote controller.
(Unless the power is ON, no setting can be made.)
Check that the installation and electrical wiring are correct before turning the power supply ON.
(When the power supply is turned ON, all LCD appear once and the unit may not accept the operation for about one minute with the display of "88".)

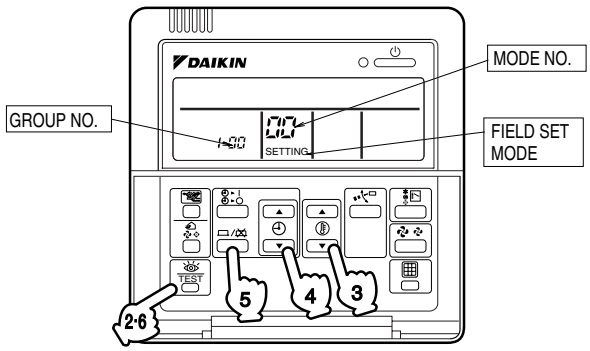
(2) While in the normal mode, hold down the " " button for a minimum of 4 seconds.
The remote controller will enter the FIELD SET MODE.

(3) Select the MODE No. "00" with the " " button.

(4) Use the " " button to select the group No. for each group.
(Group numbers increase in the order of 1-00,1-01,···1-15, 2-00, ···8-15.)

(5) Press " " to set the selected group No.

(6) Press " " to return to the NORMAL MODE.



NOTES)
- For simplified remote controller, see the installation table.
- See the instruction manuals which came with the Ventiair and adapters (i.e., multi-purpose adapters) for details on their Group No. settings.

NOTICE Enter the group No. and installation place of the indoor unit into the installation table in the operation manual.
Be sure to keep the operation manual for maintenance.

7 TEST OPERATION (Perform a test operation in the individual screen before registering zones.)

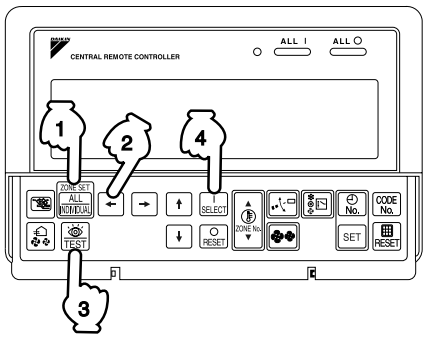
Before starting test operation, check that the power is supplied to the indoor and outdoor units, and central remote controller.

(1) Select the display "INDIVIDUALLY"
Press " " button to display "INDIVIDUALLY"

(2) Select the group to be tested.
Select the group No. with " " " " " " " " button.

(3) Press " " button to select the test operation mode.
" TEST " is displayed.
" " is displayed on the remote controller.

(4) Press " " button within 10 seconds after entering into the test operation mode.
Operation the unit for 30 minutes.
When pressing the " " button, the unit stops operating.
If the operation lamp flashes, it indicates a malfunction.
Call the group of flashing display, confirm malfunction code, and check the source of malfunction.
(The operation manual lists all error codes, so refer to it.)



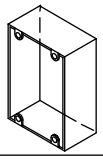
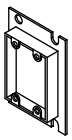
NOTES
- For test operation, refer to the installation manual of the outdoor unit.
- After turning the power supply ON, if the unit does not accept operation for two minutes or more with the display of "88", check the following points.
  - Check that setting of the connector for setting master controller is correct.
  - Check that the group No. for centralized control has been set.

15. Electrical Box with Earth Terminal

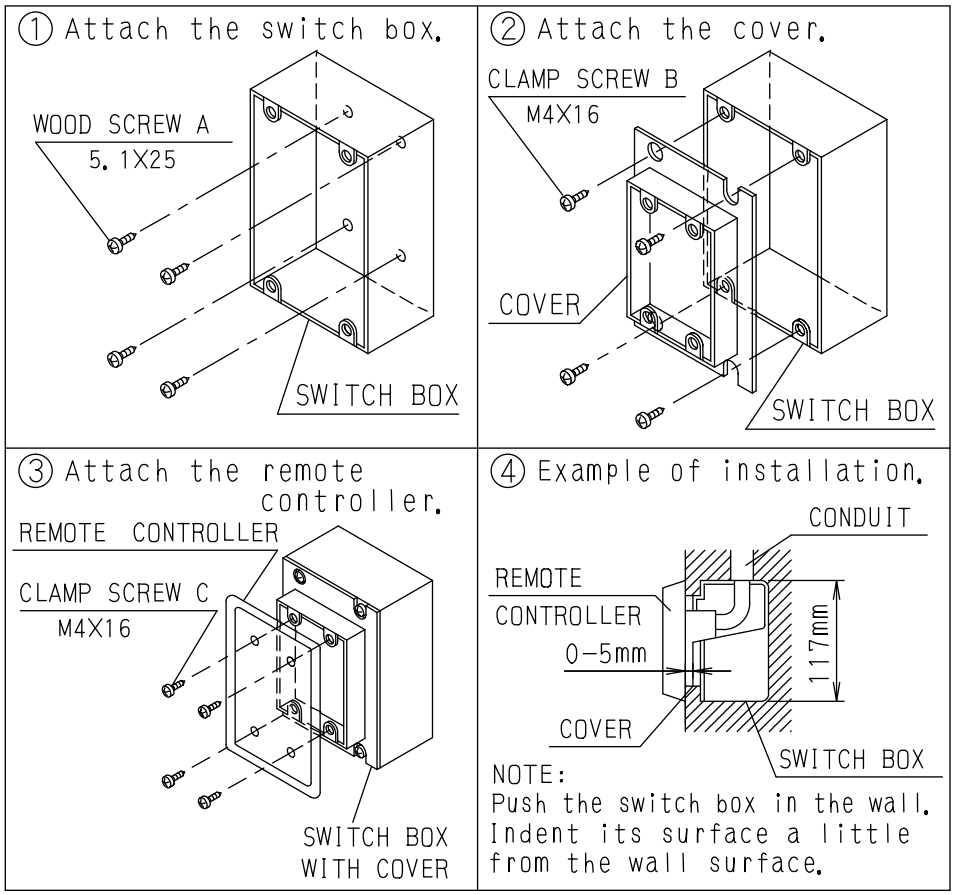
15.1 KJB212AA / KJB311AA / KJB411AA

INSTALLATION POINT OF SWITCH BOX

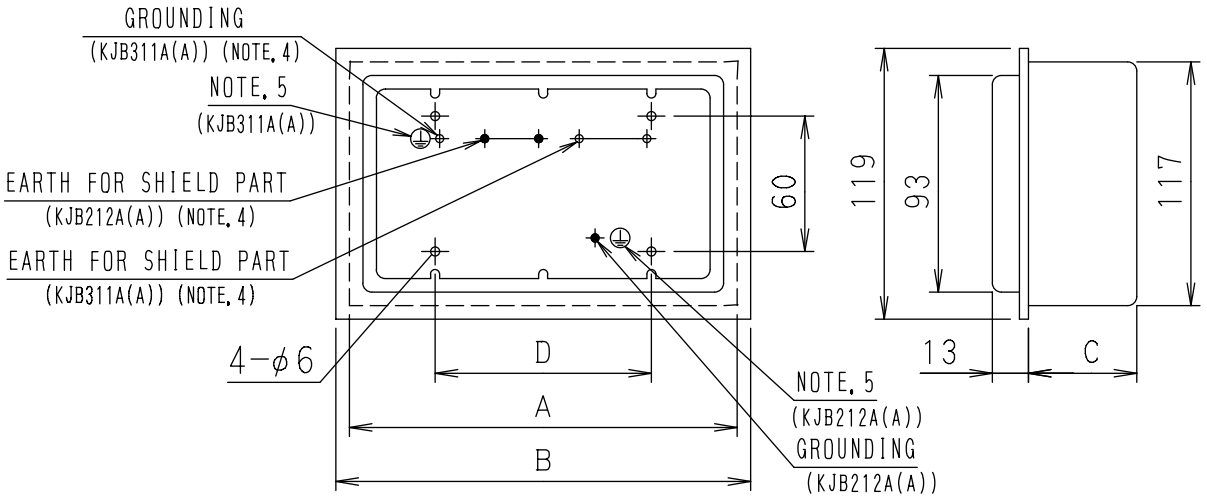
PARTS • Check the parts according to the list shown below.

NAME		SWITCH BOX	COVER	WOOD SCREW A (5.1×25)	CLAMP SCREW B (M4×16)	EARTH SCREW (M4×12)	C-CUP WASHER	LABEL FOR EARTH
Q	KJB212A(A)	1	1	4	4	3	2	1
T	KJB311A(A)	1	1	4	4	3	3	1
Y	KJB411A	1	1	4	4	—	—	—
SHAPE								

INSTALLATION



C: 3PA34878C



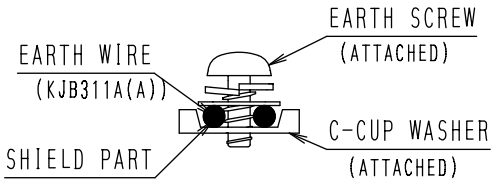


Fig. 1

MODEL	SIZE (mm)			
	A	B	C	D
KJB212A(A)	136	138	44	70
KJB311A(A)	182	184	44	110
KJB411A	228	230	54	155

NOTES: 1. Refer to the installation of each remote controller.
2. Do not bind the lead wires for switch box with the power cord and the link wiring.
This may cause erratic operation.
3. The remote controller and the clamp screw C are one kit.
They are sold separately and attach to the switch box.
4. Ground the shield part of shielded wire or earth wire (only KJB311A(A)) as shown in the Fig. 1.
5. Stick the label for earth attached to the equipment.

C: 3PA34878C

16. Unified ON/OFF Controller

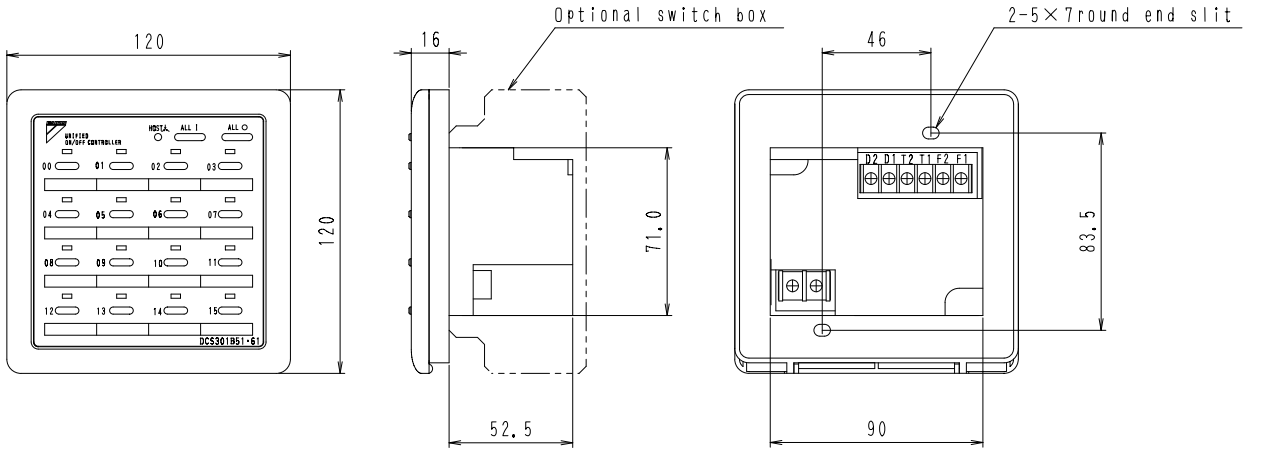
16.1 DCS301BA61

Turns up to 16 groups of indoor units (max. 128 units) on/off (operation/stop) by individual group or all at once, and lets you check display of operation/malfunction at the same time.

- For a maximum of 16 groups of indoor units (max. 128 units), unified operation/stop or individual operation/stop can be performed with this optional accessory. Also allows you check operation/error display at a glance.
- By combining with a central remote controller and schedule timer, you can construct a system that matches the size and use of the building.
- Up to 8 units connectable within 1 system.
  Up to 16 units in the double central control mode.
- Features thin design of a mere 16mm in thickness. (Uses JIS recessed box for 2.)
- Wiring can be up to 1km in length. Applicable wiring methods include bus and star in addition to crossover type.
- Can be used in combination with other D-BACS equipment.

Dimensions

Unit (mm)



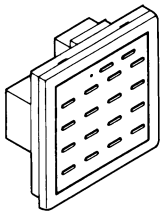
3D050339

16.1.1 Installation

1 COMPONENTS

Check the following components are included in this optional accessory before installation.

Body



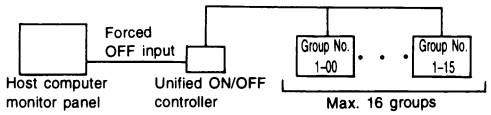
Installation screw (M4 x 16)	2
Operation manual	1
Installation manual	2
Installation table	2
Switch display sticker	1

For installation, a steel electrical box to be embedded is necessary.

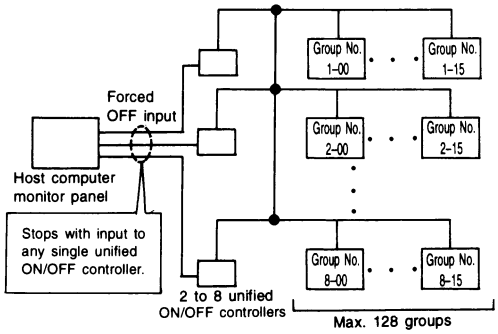
2 SYSTEM CONFIGURATION

This unified ON/OFF controller enables individual and unified operation/stop for a maximum of 16 groups of indoor units. With 2 to 8 unified ON/OFF controllers, individual and unified control is possible with up to a maximum 128 groups of indoor units.

- When using 1 unified ON/OFF controller



- When using 2 to 8 unified ON/OFF controllers

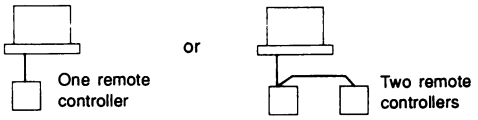


(This optional accessory can not be used in conjunction with wiring adaptor for electrical appendices (optional accessory).)

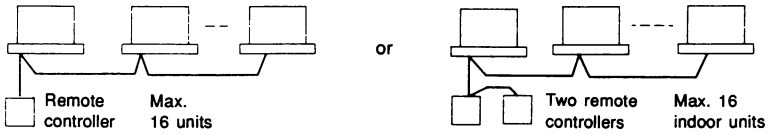
The groups of indoor units are as follows:

① One indoor unit without remote controller

② One indoor unit controlled by one or two remote controllers



③ A maximum of 16 indoor units controlled in groups by one or two remote controllers



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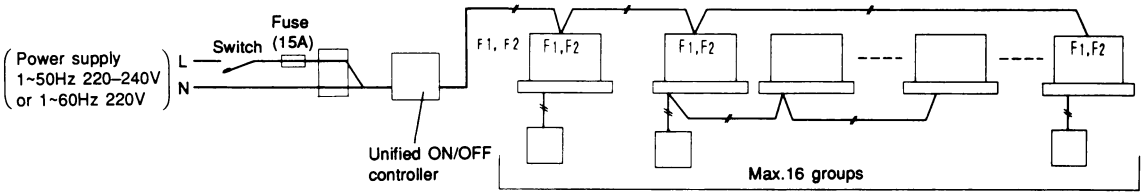
3 ELECTRIC WIRING

GENERAL INSTRUCTIONS

- All wiring, components and materials to be procured on the site must comply with the applicable local and national codes.
- Use copper conductors only.
- All field wiring and components must be provided by licensed electrician.
- Unit shall be grounded in compliance with the applicable local and national codes.
- Fit the power supply wiring with a fuse and a switch.
- After wiring work, check power to the equipment shuts OFF when switch is shut OFF.

WIRING OUTLINE



Wiring specification

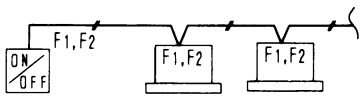
	Type	Size
Power supply wiring	H05VV-U3G	(NOTE 1)
Transmission wiring	Sheathed wire (2 wire) (NOTE 2)	0.75 – 1.25 mm^2

NOTES) 1. The size of power supply wiring must comply with the applicable national and local codes.
2. Allowable length of transmission wiring is as follows. Max. 1000m (Total wiring length: 2000m)

Connect the wiring between indoor and outdoor units, indoor/outdoor units and power supply, and indoor units and remote controllers.
For details, refer to the installation manuals of indoor and outdoor units.

EXAMPLES OF WIRING FOR TRANSMISSION

① Series wiring



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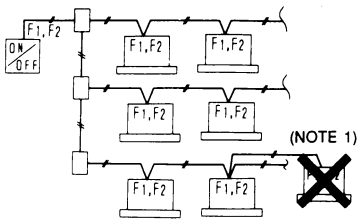
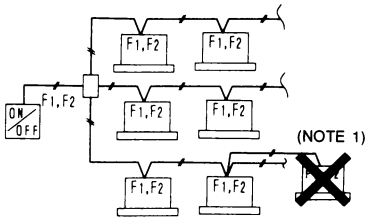
② Bus type wiring (Can be branched up to 16 branchings)
Example of 3 branchings



③ Star type wiring (Can be branched up to 16 branchings)
Example of 3 branchings



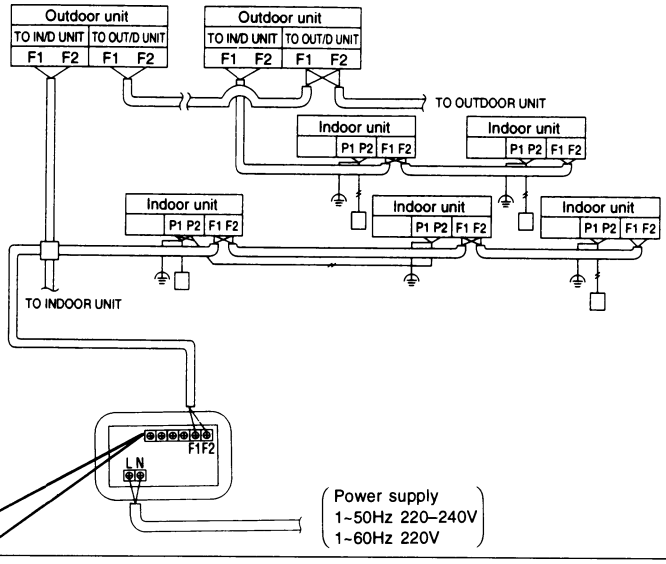
ON/OFF : Unified ON/OFF controller

Terminal board : (Part to be procured in the field)

: Indoor unit

NOTES) 1. No branching is allowed after branching.
2. Use a relay terminal board (part to be procured in the field) to branch more than 3 control wirings from the same terminal board.

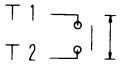
WIRING TO THE INDOOR UNIT AND OUTDOOR UNIT



CONTROL TERMINAL STRIP

✱1 For connecting indoor unit (F1, F2)

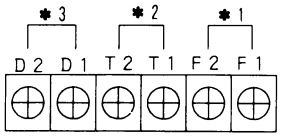
✱2 Forced OFF input (T1, T2)
While the forced OFF input (no voltage contactor, for micro current) is ON (energized), all the connected indoor units are stopped and can not be operated.
Use only contactors which guarantee the minimum applicable load ⎓ 16V, 10mA.



NOTE) Use instantaneous contactor of over 200msec. energizing time, when necessary.

✱3 For schedule timer (D1, D2)
Power can be supplied to the schedule timer (DST301B61/optional accessory). For details, refer to the installation manual of the schedule timer.

Wire ✱2 and ✱3 only when necessary.



(NOTE)
Do not connect the power supply wiring (220 to 240V) to the control terminal strip. If connected by mistake, it may damage or burn electrical parts of optional controllers for centralized control and indoor unit. It may result in serious danger. Be sure to check wirings before turning the power ON.

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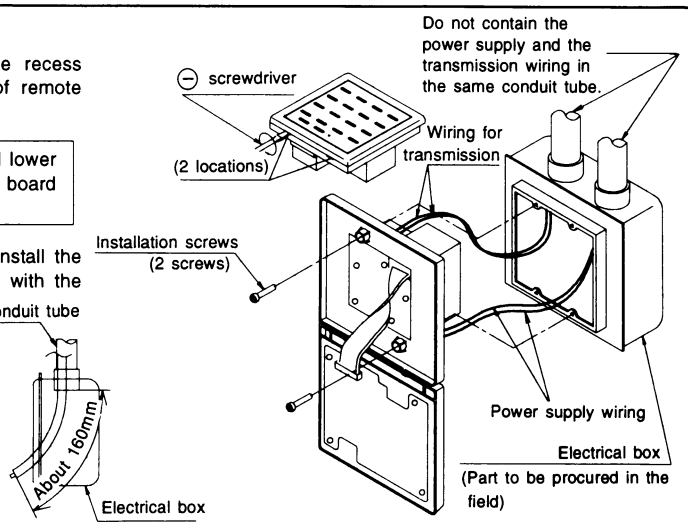
4 INSTALLATION

① Open the upper part of remote controller.
Insert a ⊖ screwdriver (2 locations) into the recess between the upper part and the lower part of remote controller and twist the screwdriver lightly.

PC board is attached with both the upper and lower part of remote controller. Do not damage the board with the screwdriver.

② Open the upper part of remote controller and install the electrical box (part to be procured in the field) with the attached installation screws (M4 x 16).

NOTE) Suitable length of the electric wire is about 160mm from the inlet of the electrical box. If it is difficult to contain a long wiring, strip the sheathed part of the wiring.



5 INITIAL SETTING

Setting ① through ③ are initialized when power is turned ON, therefore complete settings BEFORE activating the power.

① Connector for setting master controller (X1A) (Provided with connector at factory set)
- When using 1 unified ON/OFF controller, do not disconnect the connector for setting master controller. (Use the unit with the connector in the state in which it was delivered.)
- When using multiple unified ON/OFF controllers, or using the unified ON/OFF controller in conjunction with other optional controllers for centralized control, makes settings as indicated in the right table.

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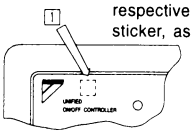
Pattern of connection of optional controllers for centralized control			Connector for setting master controller (X1A) Settings		
Unified ON/OFF controller	Central remote controller	Schedule timer	Unified ON/OFF controller	Central remote controller	Schedule timer
1 to 16			Set one to "Used" and all the rest to "Not used".		
	1 to 4		Set all to "Not used".	(Note)	
		1	Set one to "Used" and all the rest to "Not used".		"Not used"
	1 to 4	1	Set all to "Not used".	(Note)	"Not used"

(Note) For instructions on how to set the connector for setting master controller on the central remote controller, see the installation manual provided with the central remote controller.

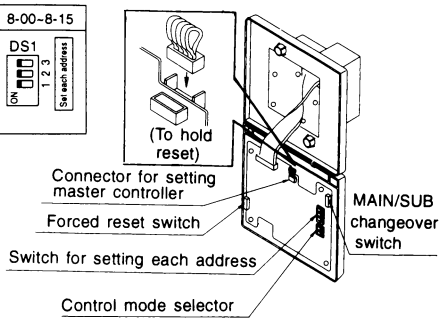
② Switch for setting each address (DS1)
These switches are used to set group control address.
Groups Nos. 1–00 through 1–15 are grouped in the same control group when the unit is shipped from the factory.

Each Address	1-00~1-15	2-00~2-15	3-00~3-15	4-00~4-15	5-00~5-15	6-00~6-15	7-00~7-15	8-00~8-15
DS1 setting	DS1 ON 1 2 3 Set each address (Factory setting)	DS1 ON 1 2 3 Set each address	DS1 ON 1 2 3 Set each address	DS1 ON 1 2 3 Set each address	DS1 ON 1 2 3 Set each address	DS1 ON 1 2 3 Set each address	DS1 ON 1 2 3 Set each address	DS1 ON 1 2 3 Set each address

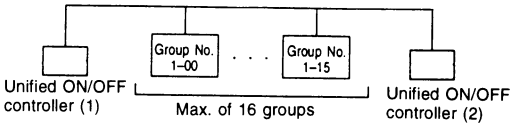


After setting, attach the number seal applicable to respective control range of the attached switch display sticker, as shown in the diagram below.

(Example)
In the case of 1-00 to 1-15, attach 1

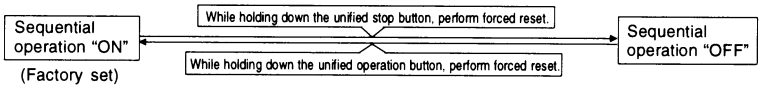


③ MAIN/SUB changeover switch setting
With two unified ON/OFF controllers, centralized control (indoor units) is possible from different locations. In this kind of set-up, it is necessary to set the MAIN/SUB changeover switch.



One of the two unified ON/OFF controllers (1)•(2) is set to "MAIN" while the other is set to "SUB".

④ Setting of the sequential operation function
The unified ON/OFF controller is equipped with a sequential operation function that sequentially turns indoor units on in 2-second intervals during unified operation. (Sequential operation is factory set to "ON.") To switch sequential operation ON or OFF, set as follows.



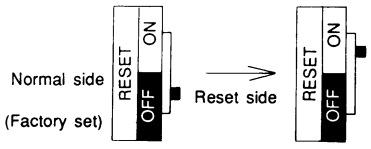
NOTE: The sequential operation function is designed to reduce the load on the power supply equipment, but does not guarantee that compressors will not be started simultaneously. You cannot therefore count on a capacity reduction effect by power supply equipment breaker selection.

⑤ Control mode selector (DS2)
The following four patterns of control mode can be set.

Control mode	Individual	Centralized	Timer operation possible by remote controller	ON/OFF control impossible by remote controller
Content	Operation/stop is controlled by both unified ON/OFF controller and remote controller.	After operated by unified ON/OFF controller, operation/stop is freely controlled by remote controller until stopped by unified ON/OFF controller.	When used in conjunction with schedule timer, operation/stop is controlled freely by remote controller during the set time but operation is not available when schedule timer is ON.	Operation/stop is controlled by unified ON/OFF controller only. (This unit can not be operated/stopped by remote controller.)
DS2 setting	DS2 ON 1 2 CONTROL MODE (Factory set)	DS2 ON 1 2 CONTROL MODE	DS2 ON 1 2 CONTROL MODE	DS2 ON 1 2 CONTROL MODE

NOTES)
- ■ indicates the position of switches.
- Set control mode before turning power supply ON.
- When used in conjunction with central remote controller, the control modes of the central remote controller has the priority.

⑥ Forced reset switch (SS1)
When changing the setting of the connector for setting master controller, etc., you can reset simply by setting it to the reset side once and returning to the normal side, without turning the power OFF.
(For normal operation, set the switch to the normal side.)



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6 SETTING GROUP NO. FOR CENTRALIZED CONTROL

Set the group number of each group of the indoor unit from the remote controller. (In case of no remote controller, also connect the remote controller and set the group No. Then, remove the remote controller.)

① Turn ON the power of the indoor unit and unified ON/OFF controller. (Unless the power is ON, no setting can be made.)
Check that the installation and electrical wiring are correct before turning the power supply ON.
When the power supply is turned ON, all LCD appear once and the unit may not accept the operation for about one minute with the display of " HOST " flashing (an interval of ON, ON, and OFF).

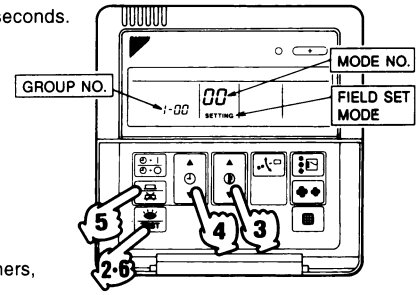
② While in the normal mode, hold down the " TEST " button for a minimum of 4 seconds.
The remote controller will enter the FIELD SET MODE.

③ Select the MODE No. " 00 " with the " ▲▼ " button.

④ Use the " ▲▼ " button to select the group No. for each group.
(Group numbers increase in the order of 1-00, 1-01, ... 1-15, 2-00, ... 8-15.)

⑤ Press " SET " to set the selected group No.

⑥ Press " TEST " to return to the NORMAL MODE.



NOTES) • For simplified remote controller, see the installation table.
• For setting group No. of HRV and wiring adaptor for other air conditioners, etc., refer to the instruction manual attached.

NOTICE Enter the group No. and installation place of the indoor unit into the attached installation table. Be sure to keep the installation table with the operation manual for maintenance.

7 CONFIRMING OPERATION

Before starting test operation, supply power to the indoor units, outdoor units, and unified ON/OFF controller and press the ON/OFF BUTTON.
If the operation lamp flashes, it indicates a malfunction in the indoor unit of the applicable group.
If the display of " HOST " flashes, it indicates a malfunction in the optional controllers for centralized control. Check for such malfunctions.

NOTES ○ For test operation of indoor and outdoor units, refer to the installation manual attached with the outdoor unit.
○ After turning the power supply ON, if the unit does not accept operation for two minutes or more with the display of " HOST " flashing, check the following points.
• Check that setting of the connector for setting master controller is correct.
• Check that the group No. for centralized control has been set.

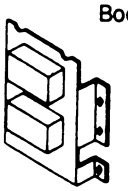
1P162827

17. Noise Filter (For Electromagnetic Interface Use only)

17.1 KEK26-1A

1 COMPONENTS

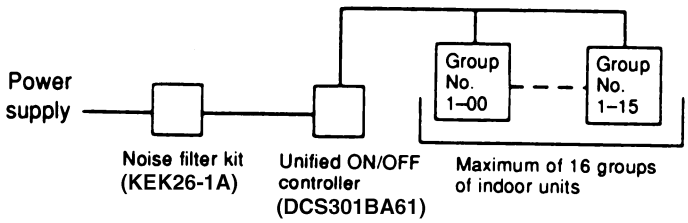
- Check the following components are included in this optional accessory before installation.

 Body	Installation screw 4
	Clamp 2
	Relay harness 1
	Installation manual 2

- Store this optional accessory in the control box.
- When supplying a control box at site, prepare a control box whose dimensions are equal to or larger than the figures shown below.
  Wide x Height x Depth = 136 x 117 x 44 mm

2 SYSTEM CONFIGURATION

- **When connecting this optional accessory to the unified ON/OFF controller for VRV series, it is applicable to EMC (Electromagnetic Compatibility) (European Directive).**

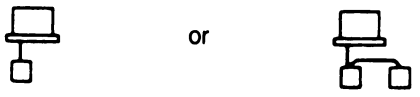


The groups of indoor units are as follows:

① One indoor unit without remote controller

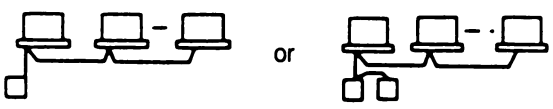
Without remote controller

② One indoor unit controlled by one or two remote controllers



One remote controller　　Two remote controllers

③ A maximum of 16 indoor units controlled in groups by one or two remote controllers



One remote controller
Max. 16 units

Two remote controllers
Max. 16 indoor units

C: 2PA54937C

3 ELECTRIC WIRING

GENERAL INSTRUCTIONS

- All wiring, components and materials to be procured on the site must comply with the applicable local and national codes.
- Use copper conductors only.
- All wiring and components must be provided by licensed electrician.
- Unit shall be grounded in compliance with the applicable local and national codes.
- Fit the power supply wiring with a fuse and a switch.
- Before wiring work, turn the switch OFF and confirm that power to the equipment shuts OFF.

〈 **Wiring specification** 〉

	Type	Size
Power supply wiring	H05VV-U3G	(NOTE 1)
Transmission wiring	(NOTE 2)	0.75–1.25mm^2

NOTE) 1. The size of power supply wiring must comply with the applicable national and local codes.
2. Transmission wiring must comply with the condition as follows:
① When indoor unit is H series. Use shield wire (2 wire).
② When indoor unit is G series. Use sheathed wire (2 wire).

- You may also use the sheathed wire if the above condition ① is satisfied, but remember that the sheathed wire fails to comply with EMC (Electromagnetic Compatibility) (European Directive).
- When using sheathed wire, EMC conforms to Japanese standards stipulated in the Electric Appliance Regulatory act.
- The grounding of transmission line as shown in the figure 1 is not required if the sheathed wire is used.

WIRING SPECIFICATION

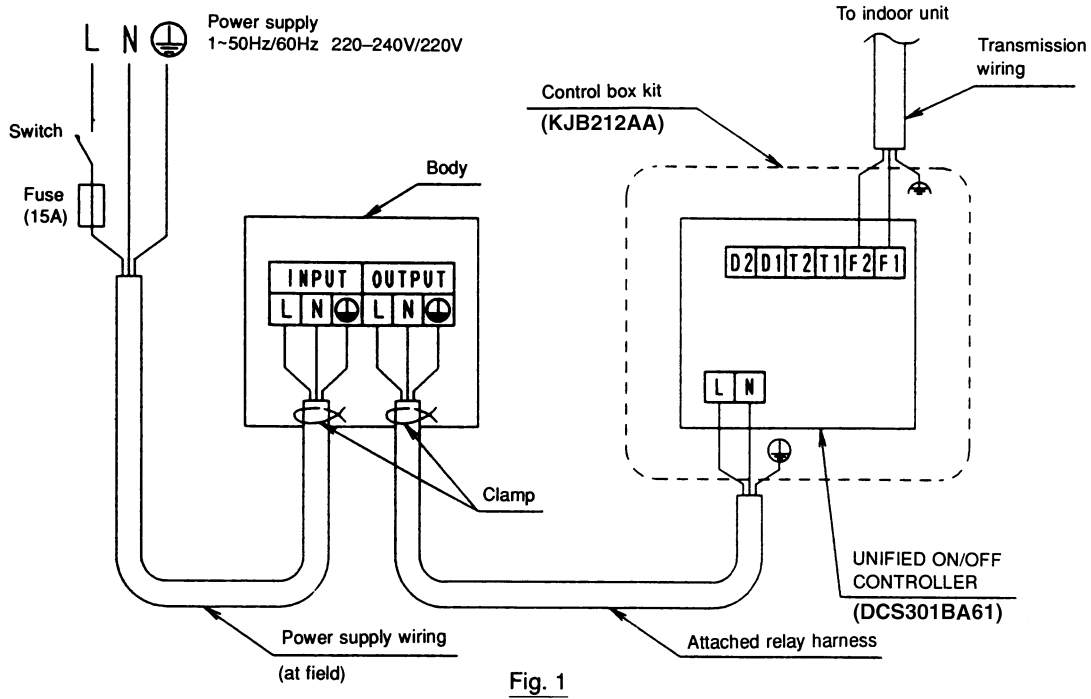


Fig. 1

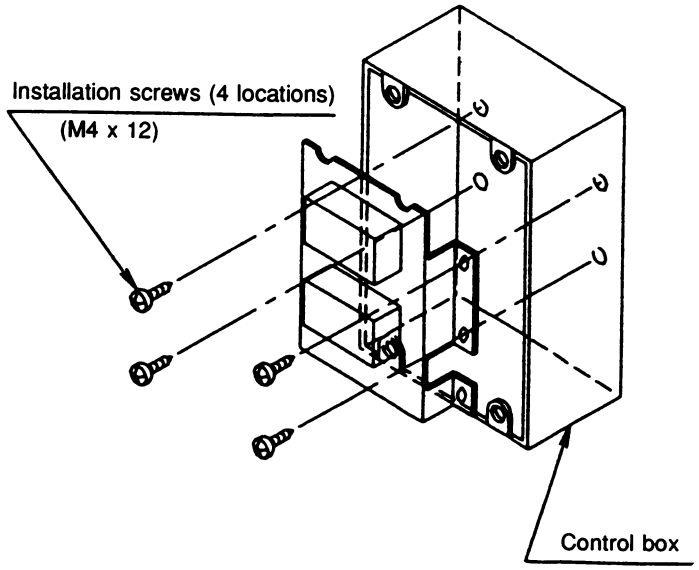
NOTE

- Cramp the field supplied wirings with the body, using the attached tie wraps.

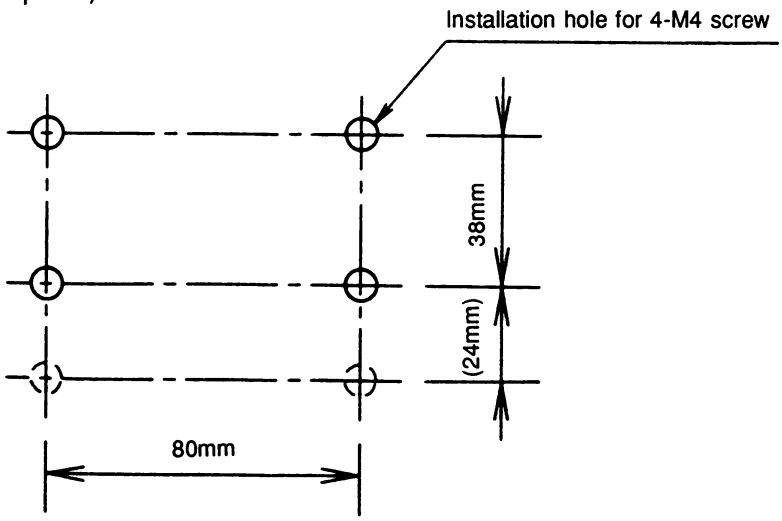
C: 2PA54937C

4 INSTALLATION

Install this optional accessory on the control box (field supplied part) with the attached installation screws.



〈 Installation hole pitch 〉



NOTE

- Lower two installation holes are reserves. Generally, use the upper 4 holes to install this optional accessory.

C: 2PA54937C

18. Schedule Timer

18.1 DST301BA61

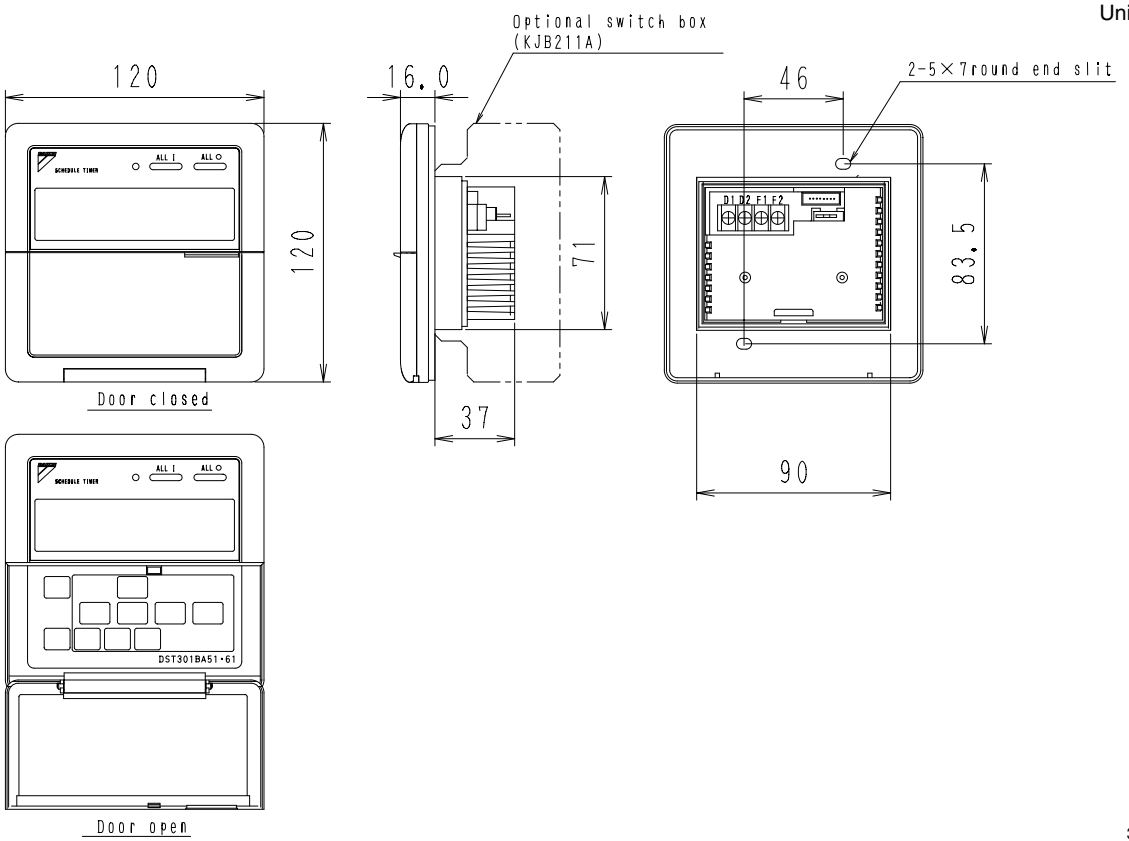
Enables you to connect and control weekly schedule for up to 128 indoor units all together.

- Simultaneous control of up to 128 indoor units is managed by a week schedule.
- The start and stop time for twice a day can be set for the week in increments of 1 minute.
- By combining with a central remote controller and schedule timer, you can construct a system that matches the size and use of the building.
- If used together with a central remote controller, you can set up to 8 schedule patterns which can be distributed among zones as desired using the central remote controller.
- Is equipped with a compensation function for power failure up to 48 hours.
- Features thin design of a mere 16 mm in thickness. (Uses JIS recessed box for 2.)
- Wiring can be up to 1 km in length. Applicable wiring methods include bus and star in addition to crossover type.
- Can be used in combination with other D-BACS equipment.

18.1.1 Dimensions

Schedule Timer
DST301BA61

Unit (mm)



3D049544

18.1.2 Names and Functions (DST301BA61)

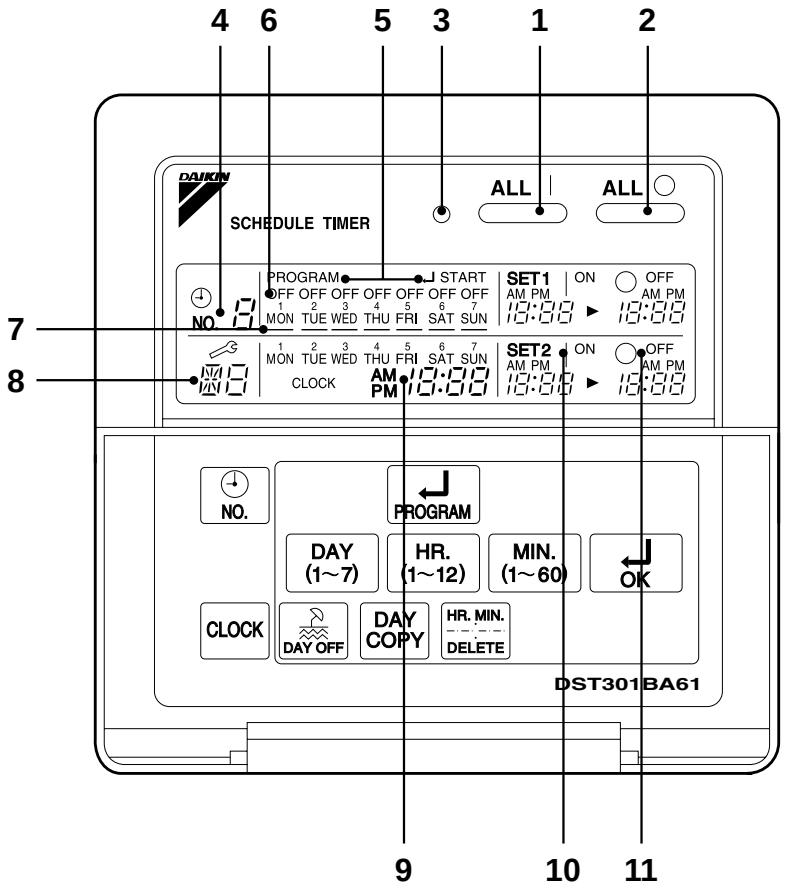


Fig. 1

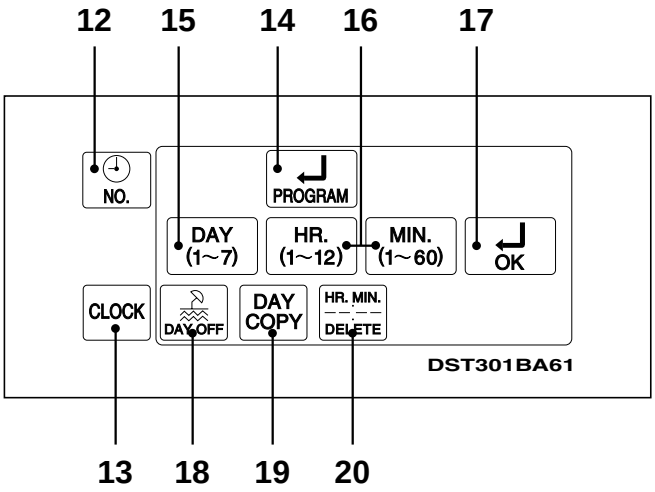


Fig. 2

3P124623-5C

18.1.3 Names and Functions of Operating Section (Fig. 1, 2)

1	**UNIFIED OPERATION BUTTON “ ALL ”**
	Press this button to perform the unified operation regardless of the No. of programmed time.
2	**UNIFIED STOP BUTTON “ ALL ”**
	Press this button to perform the unified stop regardless of the No. of programmed time.
3	**OPERATION LAMP (RED)**
	The light turns on during the operation of the indoor unit.
4	**DISPLAY “ NO. 8 ” (TIME NO.)**
	Displays the time No. only when used in conjunction with the central remote controller.
5	**DISPLAY “PROGRAM ↵START.” (PROGRAMMING START)**
	The light turns on when the timer is programmed.
6	**DISPLAY “ OFF ” (HOLIDAY SETTING)**
	Lights above the day of the week set as holiday. The operation controlled by timer is not available on that day.
7	**DISPLAY “ — ” (SETTING OF DAYS OF A WEEK)**
	Flashes below the day of the week programmed.
8	**DISPLAY “ ” (MALFUNCTION CODE)**
	Displays the contents of malfunction during the stop due to malfunction.
9	**DISPLAY “ MON TUE WED THU FRI SAT SUN CLOCK AM PM 10:00 ” (PRESENT TIME)**
	Displays the present day of the week and time.
10	**DISPLAY “ AM PM ON 10:00 ” (PROGRAMMED TIME OF SYSTEM START)**
	Displays the time programmed to start.
11	**DISPLAY “ OFF AM PM 10:00 ” (PROGRAMMED TIME OF SYSTEM OFF)**
	Displays the time programmed to stop.

12	**TIME NO. BUTTON “ NO. ”**
	Press this button to select time No.
13	**CLOCK ADJUSTING BUTTON “ CLOCK ”**
	Press this button to set the present time.
14	**PROGRAMMING START BUTTON “ PROGRAM ”**
	Press this button to set or check the No. of programmed time. Press it again after you are through with the program.
15	**BUTTON FOR SELECTING DAYS OF A WEEK “ DAY (1~7) ”**
	Press this button to select the day of the week.
16	**HOUR/MINUTE BUTTON “ HR. (1~12) MIN. (1~60) ”**
	Press this button to adjust the present time and the programmed time.
17	**TIMER ON BUTTON “ OK ”**
	Press this button to set the present time and the programmed time.
18	**HOLIDAY SETTING BUTTON “ DAY OFF ”**
	Press this button to set holidays.
19	**BUTTON FOR COPYING PROGRAM OF PREVIOUS DAY “ DAY COPY ”**
	Use this button to set the No. of programmed time same as that of the previous day.
20	**PROGRAM CANCELING BUTTON “ HR. MIN. DELETE ”**
	Use this button to set the programmed time to cancel. The display shows “ – ; – – ”.

(Note)
1. Please note that all the displays in the figure appear for explanation purpose or when the cover is open.

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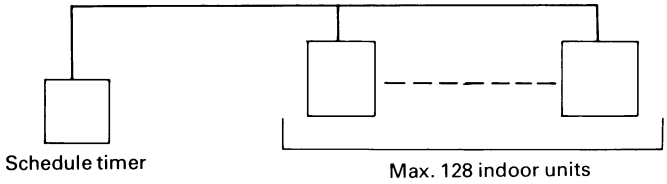
18.1.4 System Configuration and Electric Wiring

With a schedule timer, you can set on/off time twice a day by units of 1 week for up to 128 indoor units.

■ System Configuration



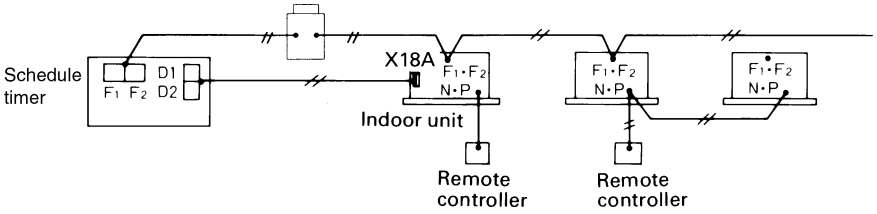
If using the schedule timer alone, you don't have to set the centralized control group No. for group control.

■ Transmission Wiring

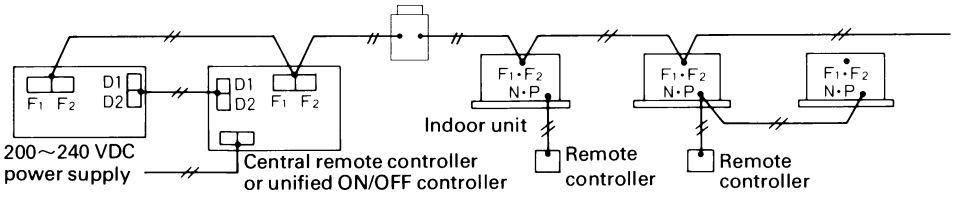
<Indoor Unit Wiring>

1. If using the schedule timer alone:

■ For the schedule timer's power supply, connect the schedule timer (D1, D2) with the connector (X18A) on the indoor unit PC board by crimped style terminal with the attached electric wire.



2. If using in combination with other optional controllers for centralized control:



Transmission wiring for control: 0.75~1.25 mm^2 sheathed vinyl cord or cable (2 wire) ..... Max. 1,000 m (Total Max. 2,000 m)

<Transmission Wiring Connection Example>

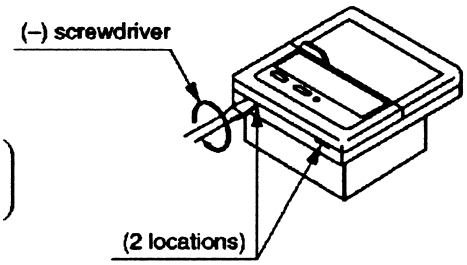
1 series wiring, 2 bus wiring, and 3 star wiring are the same as with the central remote controller.

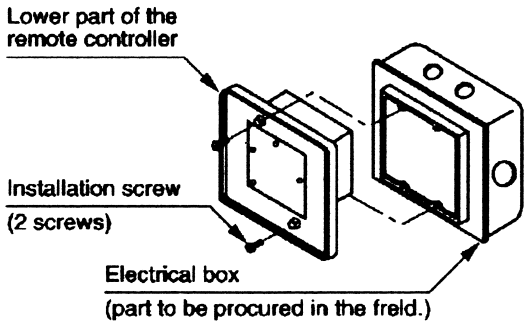
18.1.5 Installation and Initial Setting

1. Remove the upper part of the remote controller.

- Insert a (–) screwdriver (2 locations) into the recess between the upper part and the lower part of the remote controller and twist the screwdriver lightly.

  (The PC board is attached with the upper part of the remote controller. Do not damage electric parts with a screwdriver, etc.)





- Attach the lower part to the electrical box (part to be procured in the field) with the provided installation screws.

  (Select a flat face as a installation place. Do not tighten the installation screws excessively not to damage the lower part of the remote controller.)

  For part to be procured in the field electrical box, use KJB212AA (optional accessory).

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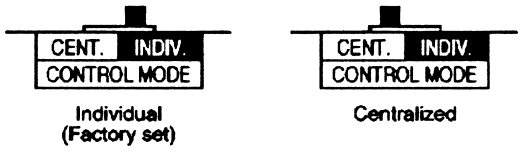
2. Initial setting

① Setting connector for individual use (X1A) (Factory set : OFF) (Set for individual use only)

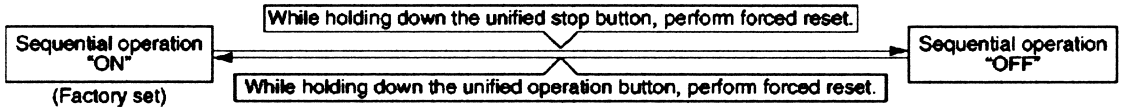
- For individual use of schedule timer
  Insert the connector attached with the body case on the PC board.
- For combined use with other optional controllers for centralized control
  Do not change the factory setting.

② Control mode selector (SS2) (Set for individual use only)
By changing the switch, setting mode of individual and centralized operation is available.

Note) When used with other optional controllers, control mode of central remote controller and unified ON/OFF controller have the priority.

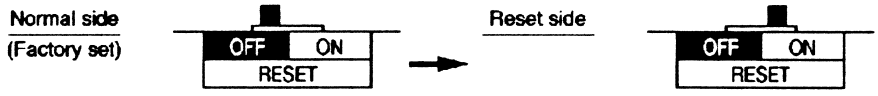


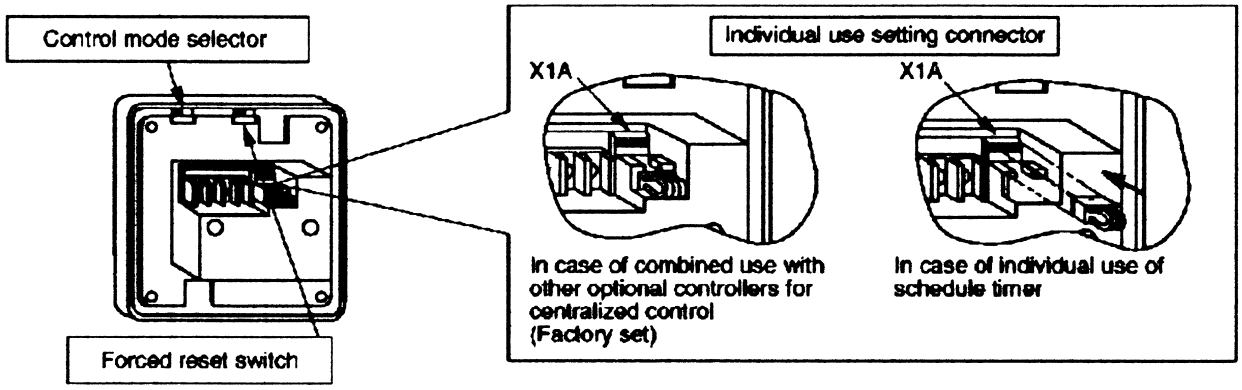
③ Setting of the sequential operation function
The schedule timer is equipped with a sequential operation function that sequentially turns indoor units on in 2-second intervals during unified operation.
(Sequential operation is factory set to "ON.")
To switch sequential operation ON or OFF, set as follows.



Note) The sequential operation function is designed to reduce the load on the power supply equipment, but does not guarantee that compressors will not be started simultaneously. You cannot therefore count on a capacity reduction effect by power supply equipment breaker selection.

④ Forced reset switch (SS1)
When changing the setting of the connector for individual use, etc., the switch can be reset simply by setting it to the reset side once and returning to the normal side. This procedure enables to reset without turning off the power. (Set the normal side at normal operation.)





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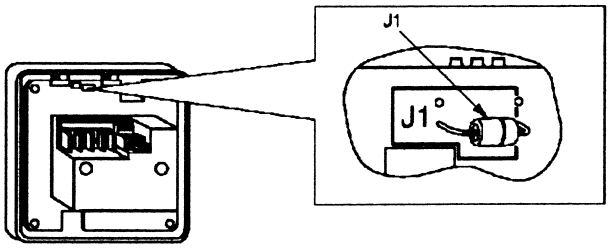
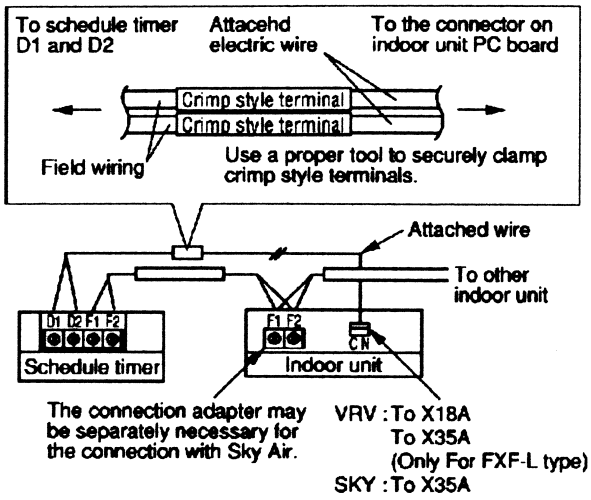
⑤ Setting for special function
When you want to have a programmed operation of a part of indoor units by using only schedule timer, cut off J1 and supply the power again.
You can have a programmed operation of the indoor units set the address for central control by local remote controller.



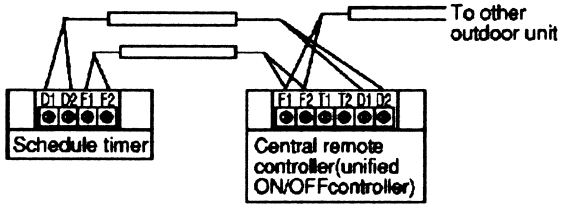
3. Transmission wiring

- In case of individual use of schedule timer
  Connect terminals of the schedule timer (F1. F2) with terminals of the indoor unit (F1. F2). Connect terminals of the schedule timer (D1. D2) and the connector on the indoor unit PC board, using the attached electric wire and crimp style terminals.
  Prevent the connection part of crimp style terminal from getting out of the electric parts box of indoor unit.
- In case of combined use with other optional controllers for centralized control
  Connect terminals of the schedule timer (F1, F2, D1, D2) and the terminals of the central remote controller (or unified ON/OFF controller).



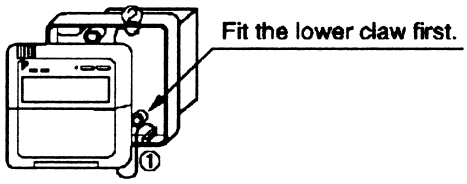
Wiring specifications

	F1, F2	D1, D2
Wiring	Sheathed wire (2-wire)	Sheathed wire (2-wire)
Gauge	0.75 ~ 1.25mm²	0.75 ~ 1.25mm²
Length	Max. 1000m	Max. 150m



NOTES:
1. Electrical box and transmission wiring are not attached.
2. Do not touch the PC board with your hand.
3. Keep transmission wiring at least 50 mm away from power supply wiring to avoid malfunctions.

4. Install the upper part of the remote controller as before.



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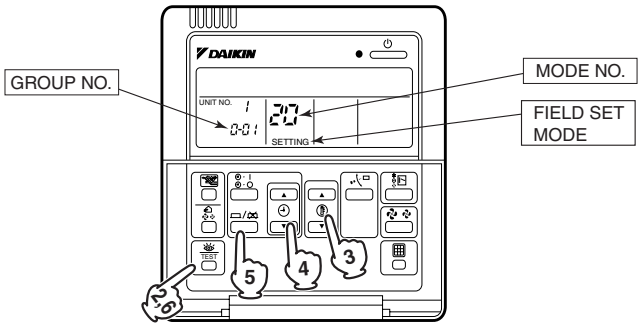
18.1.6 Setting Group No. for Centralized Control

In order to conduct the central remote control using the central remote controller and the unified ON/OFF controller, Group No. settings should be made by group using the operating remote controller.
Make Group No. settings for central remote control using the operating remote controller.

1. While in normal mode, press and hold the [TEST] switch for a period of four seconds or more to set the system to "Field Setting Mode"."
2. Select the MODE No. "*00*" with the " [▲▼] " button.
3. Use the " [▲▼] " button to select the group No. for each group.
   (Group numbers increase in the order of 1-00, 1-01, ... 1-15, 2-00, ... 4-15.)
4. Press " [▬] " to set the selected group No.
5. Press " [TEST] " to return to the NORMAL MODE.



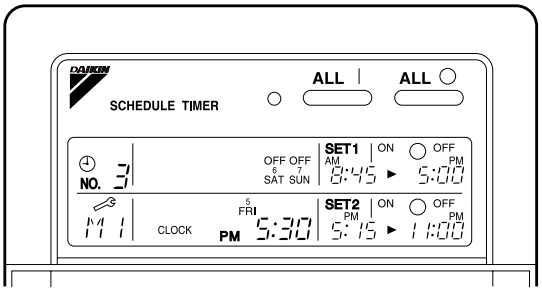
Note:

- For simplified remote controller, see the installation table.
- For setting group No. of HRV and wiring adaptor for other air conditioners, etc., refer to the instruction manual attached.

NOTICE

Enter the group No. and installation place of the indoor unit into the attached installation table. Be sure to keep the installation table with the operation manual for maintenance.

18.1.7 Error Diagnosing Function



This schedule timer is provided with the malfunction diagnosing function. The malfunction code flashes if there occurs any malfunction in communication, etc. between and among the optional controllers for centralized control. In addition, the operation lamp also flashes if there occurs any malfunction in communication with the indoor unit. Check the contents of the display and contact your DAIKIN dealer because the signals give you the idea of the trouble area.

.

Operation lamp	Malfunction code	Contents of malfunction
Turn off	M1	Failure of PC board of schedule timer. **Fixes** The following causes are possible. Check each one. 1. PC board problems
Turn on or off	M8	Malfunction of transmission between each optional controllers for centralized control. **Fixes** Check all central devices which are connected (e.g., power supply, transmission wiring, etc.).
Turn on or off	MA	Improper combination of optional controllers for centralized control. **Fixes** The following causes are possible. Check each one. 1. Are all central devices combined correctly? 2. Is the master central connector attached to two or more central devices? 3. Are there 128 or more indoor units connected?
Turn on or off	MC	Address failure of schedule timer. **Fixes** The following causes are possible. Check each one. 1. Do the control range addresses in the central remote controller overlap? 2. Do the control range addresses in the on/off controller overlap? 3. Are there 2 or more schedule timers connected?
Flash	UE	Malfunction of transmission between indoor unit and optional controllers for centralized control. **Fixes** Inspect all indoor units which are displaying an error (e.g., power supply, transmission wiring, etc.).
Flash	—	Malfunction in indoor unit (Refer to the malfunction codes of the indoor remote controller, while also read the “ CAUTION FOR SERVICING ” attached to the indoor unit.)

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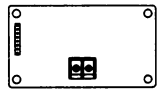
19. Interface Adaptor for SkyAir Series

19.1 DTA102A52

Accessories Check if the following accessories are included in the kit.

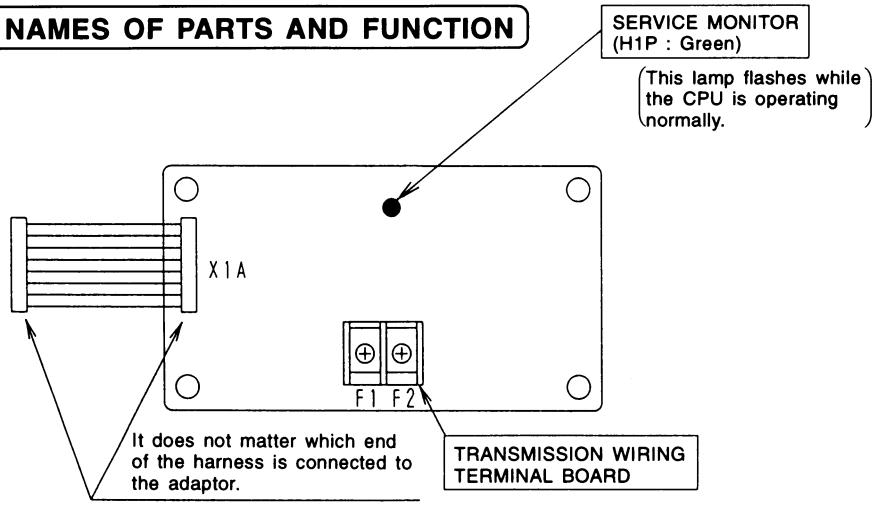
Adaptor	Relay harness
x 1	x 1
	

PC board support	x 4
Tie wrap	x 2
Installation manual	x 1

1 SYSTEM OUTLINE

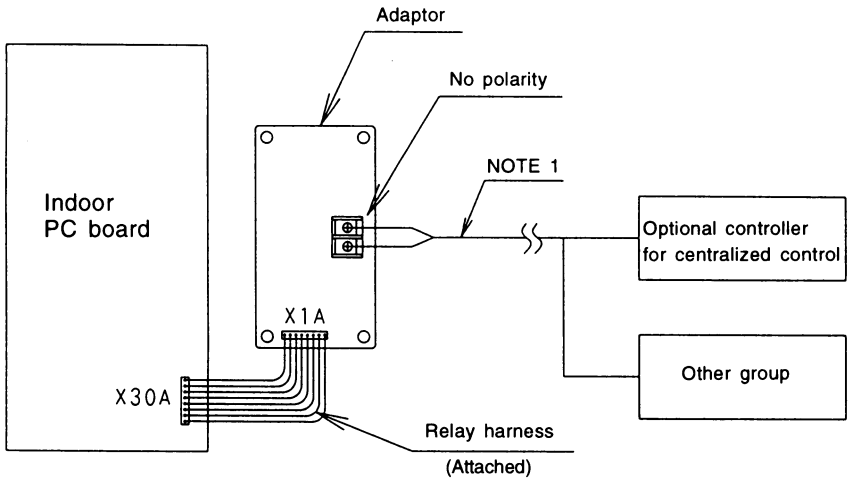
- By connecting this kit to an optional controller for centralized control, all units of the SKY AIR Series in the system can be controlled as a group from the optional controller.
- One kit must be installed onto the master unit of each group.

2 NAMES OF PARTS AND FUNCTION



3 ELECTRIC WIRING

- Wire this kit as described below.
- Make sure wires to units do not pass over the PC board when wiring.



NOTE 1. Wiring specifications . . . Use a 0.75 – 1.25 mm^2 sheathed vinyl cord or cable (2 wire).
2. For details on compatible systems and how to connect to optional controllers, see the instruction manual of the optional controller and technical reference materials.

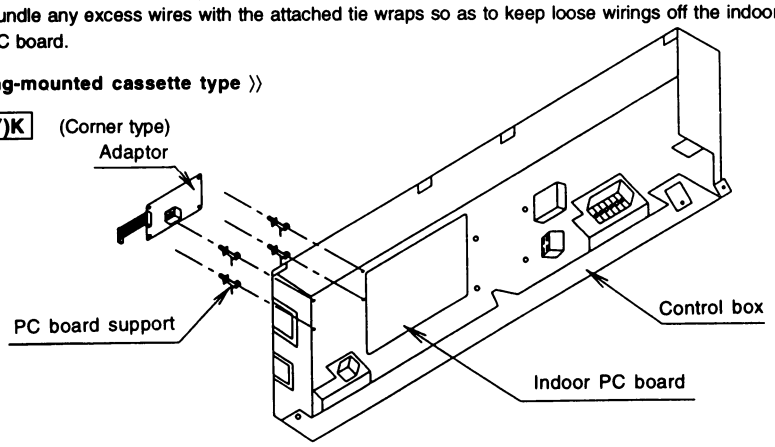
1PA59896

4 INSTALLATION

- Installation differs according to models as shown below.
- Do not bundle low and high voltage wires together.
- Bundle any excess wires with the attached tie wraps so as to keep loose wirings off the indoor unit PC board.

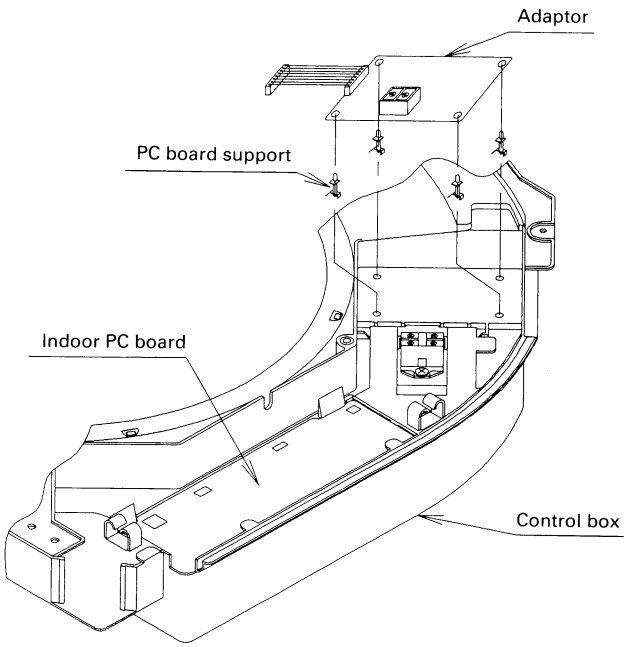
《 **Ceiling-mounted cassette type** 》

FH(Y)K (Corner type)

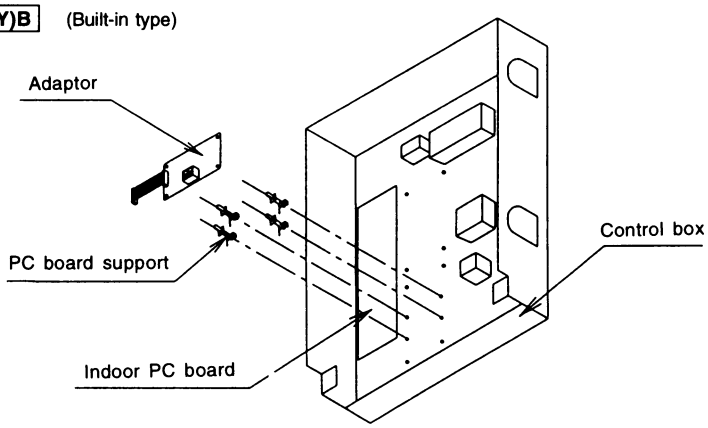


《 **Ceiling-mounted cassette type** 》

FH(Y)C (Multiflow type)



FH(Y)B (Built-in type)



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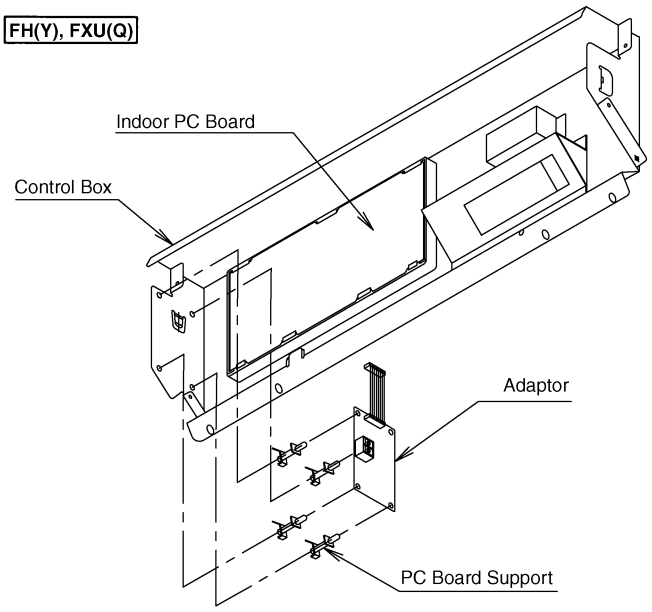
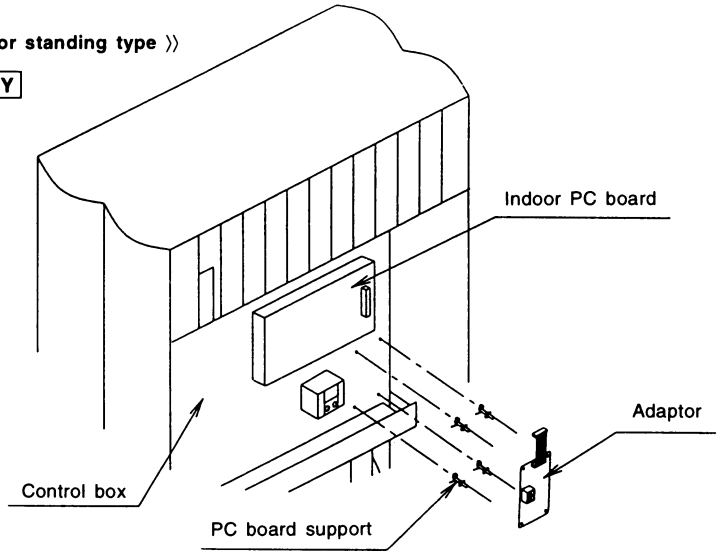
《 Ceiling suspended type 》

FH(Y), FXU(Q)



《 Floor standing type 》

FVY



C: 1PA59896

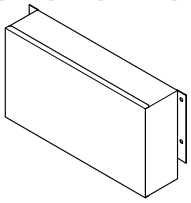
20. Central Control Adaptor Kit

20.1 DTA107A55

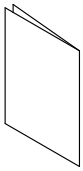
COMPONENTS

Check the following components are included in this optional accessory before installation.

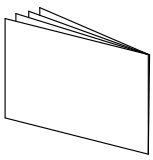
CONTROL BOARD BOX



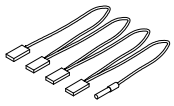
OPERATION MANUAL



INSTALLATION MANUAL



WIRE HARNESS



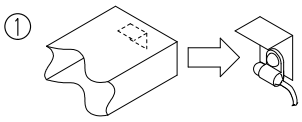
Give to the customer this OPERATION MANUAL certainly.

INSTALLATION

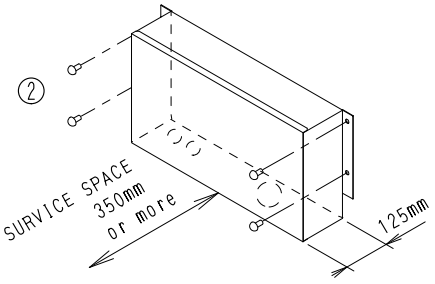
Deside the situation of Control Board Box.
It is affected the situations of the thermistor.
The length of lead wire - Thermistor:2.5m

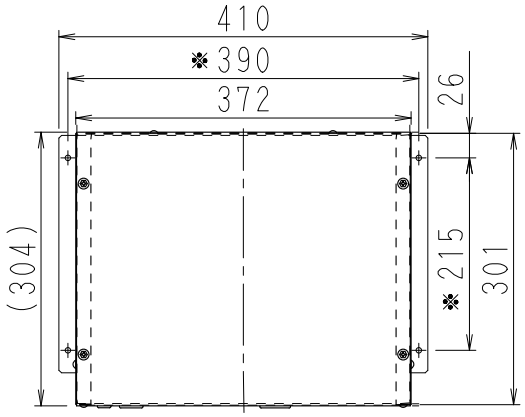
① Install the thermistor (in the control board box) at the inlet duct or the suction grille.
Use the kit:remote sensor(KRCS01-1), if you need the longer length than it.(Can use it untill 12m.)

② Install the control board box on the wall or the pillar.
Make sure the wire inlet is at the bottom of the box.
Use 4 bolts(M5) for fixing the box.
Install the box in the indoor side.
(Example:Set it in the ceiling or in the room.)
Do not install the box in the air conditioner.
Fixing situation : See right Fig. (Height:125mm)
(※ shows the fixing pich.)



Example:Set the thermistor into the inlet duct and clamped by resin clamp and fix plate.





2P042157

ELECTRIC WIRING

GENERAL INSTRUCTIONS

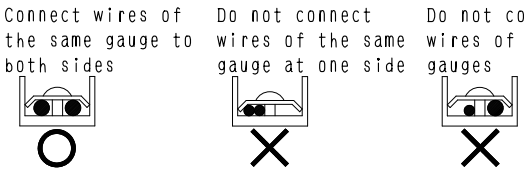
- All wiring, components and materials to be procured on site must comply with the applicable local and national codes.
- Use copper conductors only.
- All field wiring and components must be provided by licensed electrician.
- Unit shall be grounded in compliance with the applicable local and national codes.
- After wiring work, check power to the equipment shuts OFF when swich is shut OFF.

⚠ WARNING

Use ring type crimp style terminal for connection to power supply terminal block.

If is not used, satisfy the following conditions:

- Do not connect wires of different gauge to the same power supply terminal. (Looseness in the connection may cause overheating.)
- When connecting wires of the same gauge, connect them according to the righthand figure.



Wiring specification

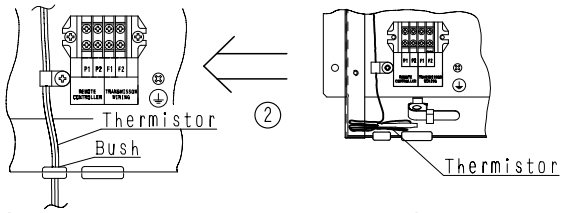
Use the wire shown right for between the unit and the control board box.

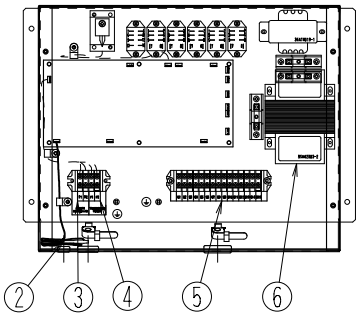
Type	Size
UL1015 AWG18 equivalent	0.75mm² each

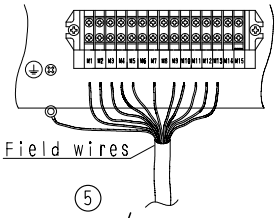
Connect the wiring between indoor and outdoor units, central controllers and remote controller. For details, refer to the installation manual of them.

① Remove the cover of the control board box, after setting it. (Parts situation is shown right Fig.)

② Install the thermistor throgh the bush. (It is in the control board box. See below Fig.)

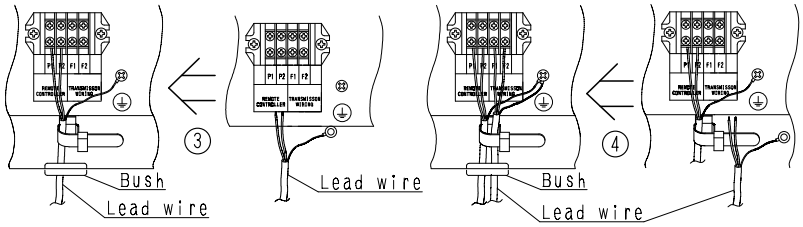


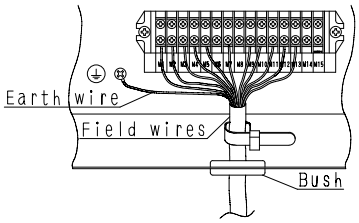




③ Connect the read wires of Remote Controller. (See the below Fig.) Ground the sheild of the cords to the control board box.

④ Connect the read wires of Central Control Unit. (See the below Fig.) Ground the sheild of the cords to the control board box.





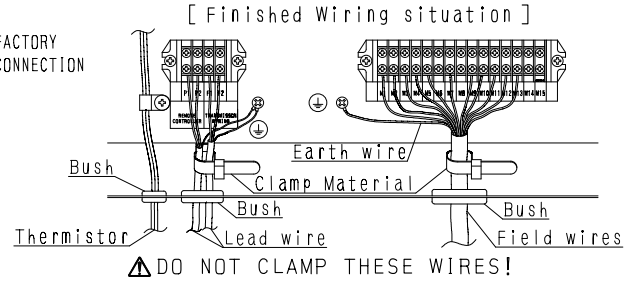
⑤ Connect the field wires to the Air Conditioner. (Details : See the back side.) Ground the control board box.

⑥ Changel the connection of transformer according to the right table. (Especially for Y1 Model.)

VOLTAGE		TERMINAL
PRIMARY	SECONDARY	
220V	200V	✽U-V1
230V	200V	U-V2
240V	200V	U-V3

✽FACTORY CONNECTION

[Finished Wiring situation]



Clamp these wires by clamp materials certainly. (Clamp the earth wire.) (See right Fig.)
Do not clamp the high voltage wires (Field wires) and the low voltage wiers (Lead wire and Thermistor) both inside and outside of the control boad box.

NOTE

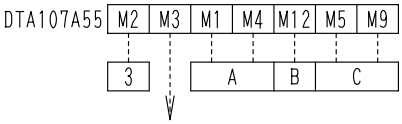
- Prepare the remote controller (BRC1A62). 〔BRC1A52 is also OK.〕
  REASON:The remote controller is needed per each kit for setting the address.

2P042157

CONNECTION OF THE TERMINAL

Connect between the air conditioner and DTA107A55 shown below.

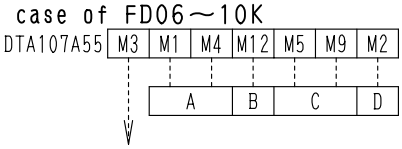
In case of FD03～05K



Connect the wiring between the box of this kit and the EL. COMPO. BOX ASSY of the indoor unit. 〔Refer to the wiring diagram of the indoor unit.〕

See below for connecting the terminal "M3". (The Output of alarm signal)
About these models, we can only output the alarm signal of indoor fan motor.
Connect the wiring between the terminal "M3" and the terminal "96" of magnetic contactor of indoor fan motor(K1M).

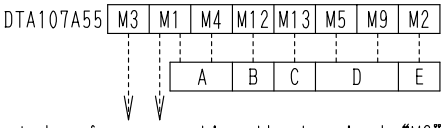
In case of FD06～10K



Connect the wiring between the box of this kit and the EL. COMPO. BOX ASSY of the indoor unit. 〔Refer to the wiring diagram of the indoor unit.〕

See below for connecting the terminal "M3". (The Output of alarm signal)
Use the attached wire harness and change from the wire to it. The wire is connected between K1R(5), K1R(7), K2R(7), and K3R(5). 〔( ) is shown the terminal.〕
Connect the wiring between the terminal "M3" and the solderless splices butt "M3" of the wire assy.

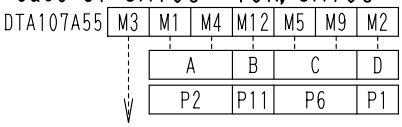
In case of FD15・20K



Connect the wiring between the box of this kit and the EL. COMPO. BOX ASSY of the indoor unit. 〔Refer to the wiring diagram of the indoor unit.〕

See below for connecting the terminal "M3". (The Output of alarm signal)
Connect the wiring between the terminal "M1" and the terminal "6" of K4R(magnetic relay).
Connect the wiring between the terminal "M3" and the terminal "4" of K4R(magnetic relay).

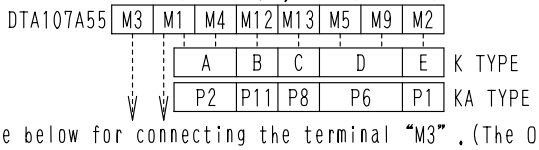
In case of UAT06～10K, UAT06～12KA



Connect the wiring between the box of this kit and the EL. COMPO. BOX ASSY of the air conditioner. 〔Refer to the wiring diagram of the air conditioner.〕

See below for connecting the terminal "M3". (The Output of alarm signal)
Use the attached wire harness and change from the wire to it. The wire is connected between K1R(5), K1R(7), K2R(7), and K3R(6). 〔( ) is shown the terminal.〕
Connect the wiring between the terminal "M3" and the solderless splices butt "M3" of the wire assy.

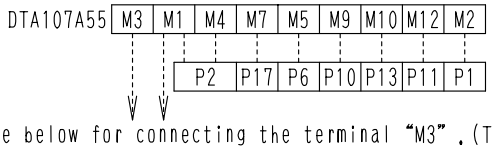
In case of UAT15・20K, UAT15～21KA



Connect the wiring between the box of this kit and the EL. COMPO. BOX ASSY of the air conditioner. 〔Refer to the wiring diagram of the air conditioner.〕

See below for connecting the terminal "M3". (The Output of alarm signal)
Connect the wiring between the terminal "M1" and the terminal "6" of K3R(magnetic relay).
Connect the wiring between the terminal "M3" and the terminal "4" of K3R(magnetic relay).

In case of UATY06K



Connect the wiring between the box of this kit and the EL. COMPO. BOX ASSY of the air conditioner. 〔Refer to the wiring diagram of the air conditioner.〕

See below for connecting the terminal "M3". (The Output of alarm signal)
In case of Y1, connect the wiring between the terminal "M1" and the terminal "5" of K2R(magnetic relay).
Connect the wiring between the terminal "M3" and the terminal "3" of K2R(magnetic relay).
In case of Y19, connect the wiring between the terminal "M3" and the terminal "8" of K4R(magnetic relay).
In case of TAL and YAL, use the attached wire harness and change from the wire to it.
The wire is connected between K1R(6), K1R(7), K2R(7), and K3R(6). 〔( ) is shown the terminal.〕
Connect the wiring between the terminal "M3" and the solderless splices butt "M3" of the wire assy.

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In case of UATY08～12K

DTA107A55	M3	M1	M4	M7	M5	M9	M10	M12	M2
			P2	P17	P6	P10	P13	P11	P1

Connect the wiring between the box of this kit and the EL. COMPO. BOX ASSY of the air conditioner. (Refer to the wiring diagram of the air conditioner.)

See below for connecting the terminal "M3". (The Output of alarm signal)
In case of Y1, connect the wiring between the terminal "M1" and the terminal "5" of K2R(magnetic relay).
Connect the wiring between the terminal "M3" and the terminal "3" of K2R(magnetic relay).
In case of Y19, connect the wiring between the terminal "M3" and the terminal "8" of K4R(magnetic relay).
In case of TAL and YAL, use the attached wire harness and change from the wire to it.
The wire is connected between K1R(5), K1R(7), K2R(7), and K3R(5). ( ) is shown the terminal.
Connect the wiring between the terminal "M3" and the solderless splices butt "M3" of the wire assy.

In case of UATY15～21K

DTA107A55	M3	M1	M4	M7	M5	M9	M10	M12	M11	M13	M2
			P2	P17	P6	P7	P13	P11	P15	P8	P1

Connect the wiring between the box of this kit and the EL. COMPO. BOX ASSY of the air conditioner. (Refer to the wiring diagram of the air conditioner.)

See below for connecting the terminal "M3". (The Output of alarm signal)
In case of Y1, connect the wiring between the terminal "M1" and the terminal "6" of K2R(magnetic relay).
Connect the wiring between the terminal "M3" and the terminal "4" of K2R(magnetic relay).
In case of Y19, connect the wiring between the terminal "M3" and the terminal "8" of K4R(magnetic relay).
In case of TAL and YAL, connect the wiring between the terminal "M1" and the terminal "6" of K14R(magnetic relay).
Connect the wiring between the terminal "M3" and the terminal "4" of K14R(magnetic relay).

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FIELD SETTING

(If optional accessories are mounted on the indoor unit, the indoor unit setting may have to be changed. Refer to the instruction manual for each optional accessory.)

Procedure

①When in the normal mode, press the "TEST" button for a minimum of four seconds, and the FIELD SET MODE is entered.

②Select the desired MODE NO. with the "▲" button.

③During group control, when setting by each indoor unit (mode No. 20, 21 and 23 have been selected), push the "UNIT NO." button and select the INDOOR UNIT NO to be set. (This operation is unnecessary when setting by group.)

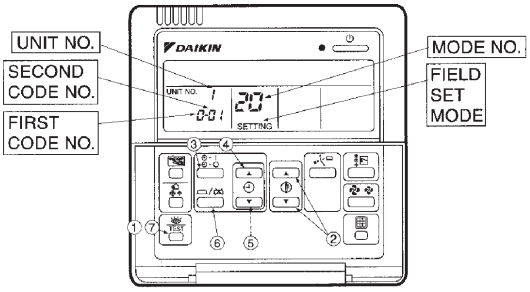
④Push the "▲" upper button and select FIRST CODE NO.

⑤Push the "▼" lower button and select the SECOND CODE NO.

⑥Push the "SET" button once and the present settings are SET.

⑦Push the "TEST" button for about one second to return to the NORMAL MODE.

(Example) If during group setting and the time to clean air filter is set to FILTER CONTAMINATION - HEAVY, SET MODE NO. to "10," FIRST CODE NO. to "0," and SECOND CODE NO. to "02."



Mode No. Note) 1	FIRST CODE NO.	Description of Setting		SECOND CODE No. Note) 2					
				01		02		03	
10(20)	0	Filter Contamination - Heavy/Light (Setting for spacing time of display time to clean air filter) (Setting for when filter contamination is heavy, and spacing time to clean air filter is to be halved)	Ultra-long-life type	Light	Approx. 10,000 hours	Heavy	Approx. 5,000 hours	—	
			Long-life type		Approx. 2,500 hours		Approx. 1,250 hours		
			Standard type		Approx. 200 hours		Approx. 100hours		
	1	Long-life filter type (Setting of filter sign indication time) (Change setting when Ultra-long-life filter is installed)		Long-life filter		Ultra-long-life filter (1)		—	
	3	Spacing Time of Display Time to Clean Air Filter Count (Setting for when the filter sign is not to be displayed)		Display		Do Not Display		—	
11(21)	0	Setting Number of Connected Skyair Simultaneous Operation System Indoor Units (Setting for Simultaneous Operation System)		Pair		Twin		—	
13(23)	0	High Celling Setting (Setting for when installed in a Ceiling higher than 2.7m)		Normal		High Ceiling 1		High Ceiling 2	
	1	Selection of Air Flow Direction (Setting for when a blocking pad kit has been installed)		F		T		W	
	3	Air Flow Direction Adjust Function (To be set when decoration panel for air outlet is installed)		Equippeed		No Equippeed		—	
	4	Air Flow Direction Range Setting		Upper		Normal		Lower	
	6	Setting the External Static Pressure (Setting according to the connected duct resistance) (For FHYK, follow the High Ceiling Setting)		Normal (Normal)		High Static Pressure (High Ceiling)		Low Static Pressure —	

NOTES)
1. Setting is carried out in the group mode, however, set the mode number inside the ( ) for individual setting of the each indoor unit or confirmation after setting.
2. The SECOND CODE number. is set to "01" when shipped from the factory. However for the following cases it is set to "02"
   • Air flow direction range setting.
3. Do not make any settings not given in the table on the left.
4. Not displayed if the indoor unit is not equipped with that function.
5. When returning to the normal mode, "88" may be displayed in the LCD in order for the remote controller to initialize itself.

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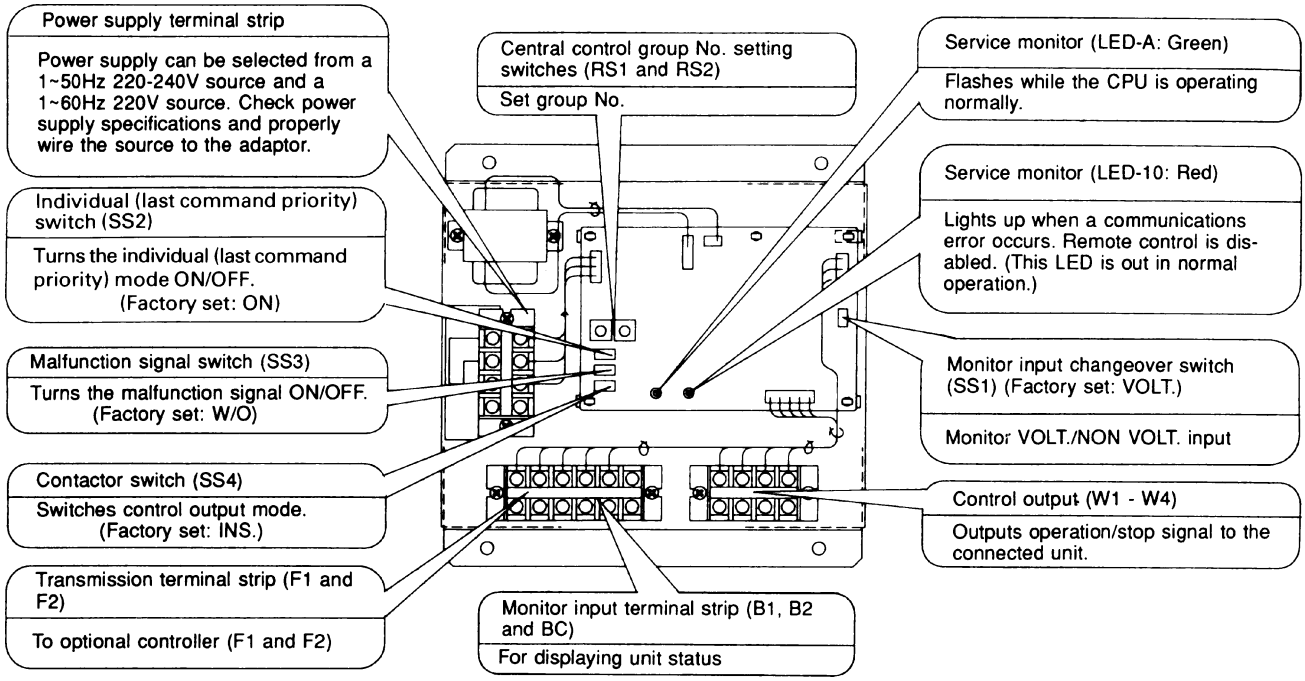
21. Wiring Adaptor for Other Air-Conditioner

21.1 DTA103A51

21.1.1 Function

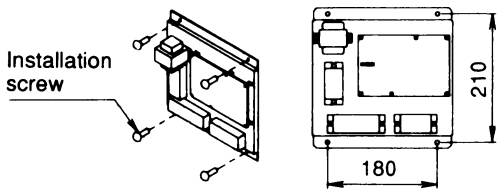
This kit contains an I/O interface adaptor for optional controller for centralized control, used when there is a non-connectable air conditioner. When connected to the central control line, this adaptor enables operation/stop and display of operation/error monitors from the optional controller.

21.1.2 Names of Parts and Function



21.1.3 Installation

Securely install the adaptor with the attached installation screw.



Note:

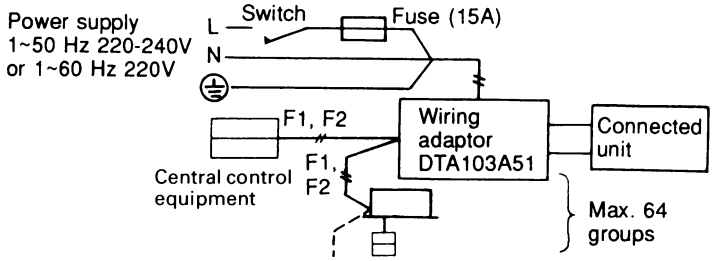
Install the adaptor inside a control box of outer dimensions: 230W × 230D × 60H.

Supply a control box at site with outer dimensions equal to or larger than those shown below. 230W × 230D × 60H.

21.1.4 Electric Wiring Work

<Wiring Requirements>

1. Wire between the adaptor and central control equipment (F1, F2)
2. Wire to the connected units and set all switches. ... For details, refer to WIRING TO CONNECTED UNITS.
3. Wire to the power supply. ... For details, refer to POWER SUPPLY WIRING.



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<General Instructions>

- All wiring, components and materials to be procured on the site must comply with the applicable local and national codes.
- Use copper conductors only.
- All field wiring and components must be provided by licensed electrician.
- Unit shall be grounded in compliance with the applicable local and national codes.
- Fit the power supply wiring with a fuse and a switch.
- After wiring work, check power to the equipment shuts OFF when the switch is shut OFF.

<Wiring Specification>

	Type	Size
Power Supply Wiring	H05VV-U3G	(Note 1)
Transmission Wiring	(Note 2)	0.75 - 1.25 mm²

Note:

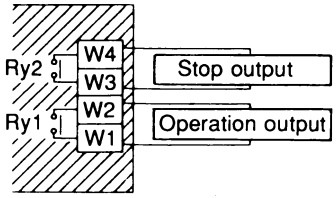
1. Select the size in electric wire in accordance with the local and national standards.
2. You can use the shielded wire, sheathed vinyl cord or cable (2 conductors). See the installation manual of the optional controllers for centralized control to be connected for further details.

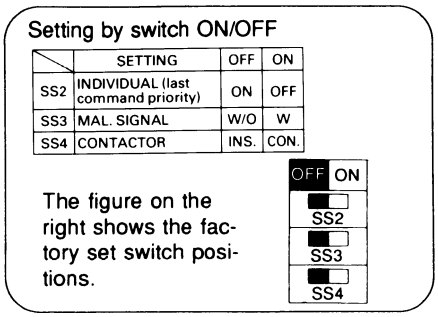
<Wiring to Connected Units>

Control Output

Terminals W1 - W4 are non voltage contacts used in normal operation to output operation display (W1 and W2) and error display (W3 and W4) signals.

Ry1 and Ry2 Contact Specifications		
Voltage	Max. current	Min. Current
1~50Hz 220-240V 1~60Hz 220V	2A	1mA
⎓ 5-24V	3A	1mA





Output modes include instantaneous output and constant output. Mode is changed at the contactor switch (SS4). (Factory set: INS)

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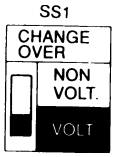
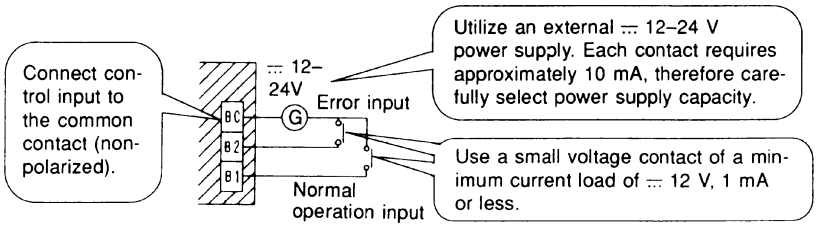
Monitor Input

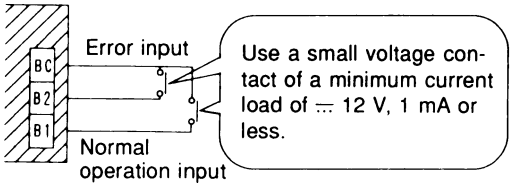
Wire as explained here following, depending on whether input carries a voltage (VOLT.) or not (NON VOLT.). Make the VOLT/NON VOLT. setting at the monitor input changeover switch (SS1).



(For Voltage Charged Input)
Set the monitor input changeover switch to VOLT. (Factory set: VOLT.)



(For Non Voltage Input)
Set the monitor input changeover switch to NON VOLT. (Factory set: VOLT.)



① Switch the malfunction signal switch (SS3) according to needs (Factory set: W/O [OFF]). Set the switch to W (ON) to display errors even if no operation feedback from the indoor unit is available, for example, when power to the indoor unit is OFF. Together, set the individual switch (SS2) to OFF (ON).

Note:

- This switch is ineffective when SS2 is set to ON (OFF).
- The optional controller display will change, as shown on the right, depending on the monitor input state and the malfunction signal switch (SS3) setting.
- After switching the optional controller from stop to operation, it will take from 10 to 30 seconds before the optional controller display will indicate an error.

(SS3) Malfunction Signal	Optional Controller Display at Command Output		
	Monitor Input State		
	Operation Input ON	Operation Input OFF	Error Input ON
W	Operation Display	Error (A1 Display)	Error (A1 Display)
W/O		Operation Display	

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② Set the group No. at the central control group No. setting switches (RS1 and RS2). Refer to the below table to set group No. Group No. increases in the order of 1-00, 1-01 ... 1-15, 2-00, ... 4-15. Refer to the installation manual of the optional controller.

RS1 Switch Setting and Upper Group No. Position

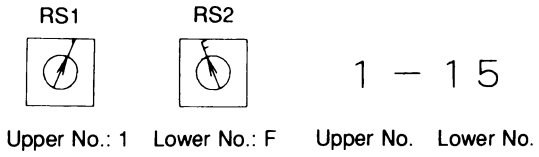
Position	0	1	2	3	4	5	6	7	8	9
Group No.	—	1	2	3	4	—	—	—	—	—

RS2 Switch Setting and Lower Group No. Position

Position	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Group No.	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

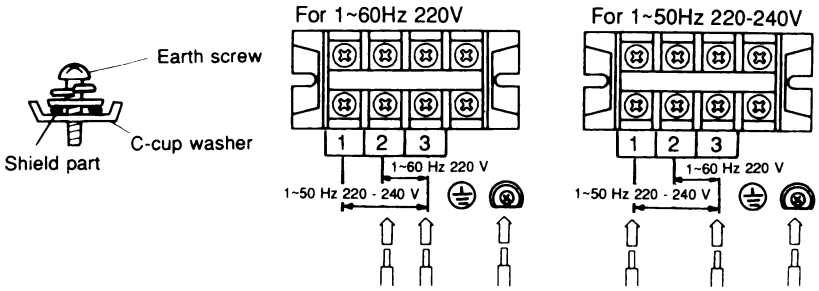
Make Settings before Turning ON The Power.

Note:
Group number need not be set on this adaptor during individual use with either a wiring adaptor for electrical appendices or a schedule timer. Setting is automatic.
Ex. Setting group No. 1-15
First and second group No.s are indicated as below.



Power Supply Wiring

Power supply can be selected from a 1~50 Hz 220-240V source and a 1~60 Hz 220V source. Check power supply specifications and properly wire the source to the adaptor.



Note:
- Ground wires as shown in the figure on the right.
- The adaptor may malfunction or be damaged if improperly wired.
- The fuse is designed for short-circuit protection (Overcurrent protection). Therefore, it may not offer sufficient protection against improper voltage.

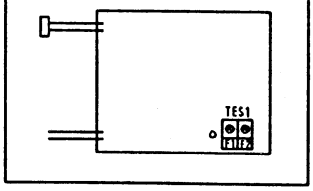
2PA53853

22. DIII-NET Expander Adaptor

22.1 DTA109A51

Accessories Check the following accessories are included in the kit before the installation

Adaptor ×1



PCB support	×4
Clamp	×3
Installation Manual	×1

NOTE This adaptor does not apply to salt damege resistsnce.

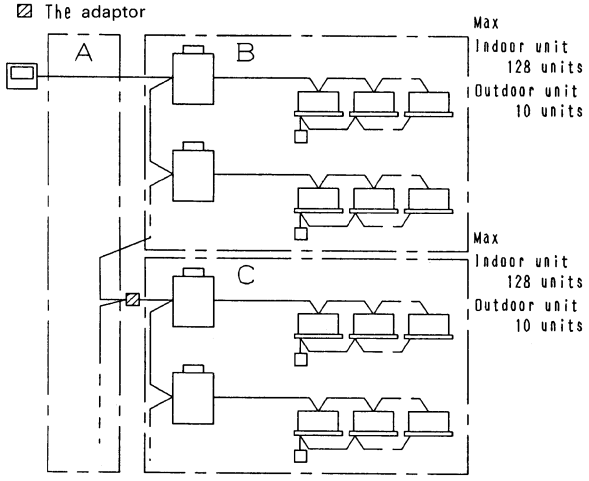
1 General description of system

The adaptor allows easy system expansion as long as restrictions are observed.

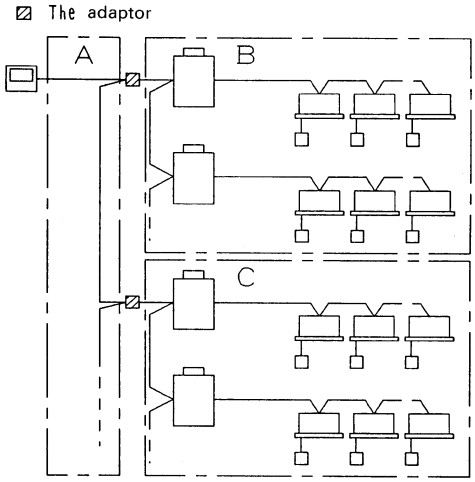
1. The below systems can be controlled on the Super Wiring System when using the adaptor.

(1) Up to 1024 units can be centrally controlled in 64 different groups. (With 2 central remote controllers, up to 1024 units can be controlled in 128 groups.)
Restrictions on the number of units that can be connected to the Super Wiring System apply to each adaptor.

(2) Wiring restrictions (max. length : 1000m, total wiring length : 2000m, max. number of branches : 16) apply to each adaptor.



A maximum of 128 indoor units and 10 outdoor units can be connected in each group B and C.

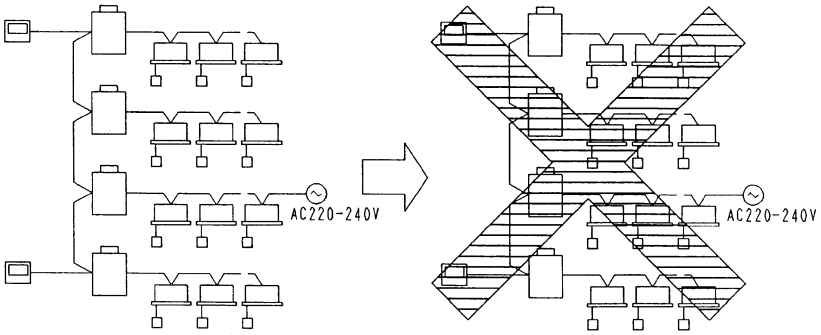


Each group A, B and C can have a maximum wiring length of 1000m, total wiring length of 2000m and a maximum 16 branches.

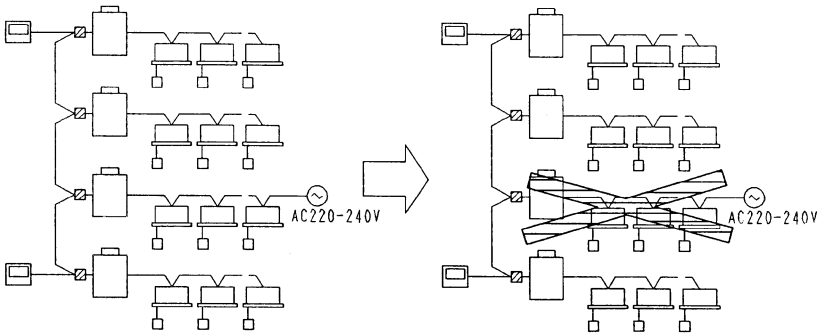
C: 1P013360

(3)Setups risky for centralized control systems are possible.

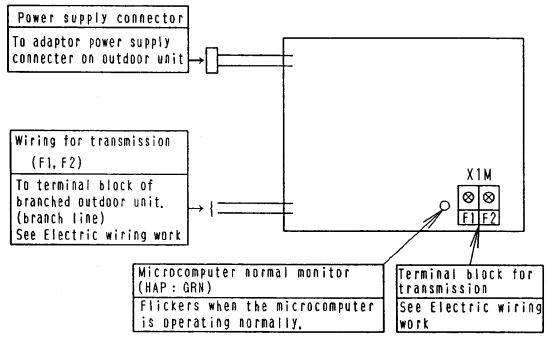
Conventional System Misswiring such as apply 220-240V to circuits could possibly shut down the entire system.



With the adaptor Should trouble occur, only units below the adaptor are shut down. Thus, it is possible to avoid a total system shutdown.



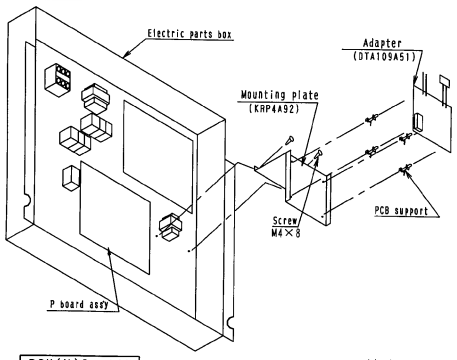
❷Names of parts and functions



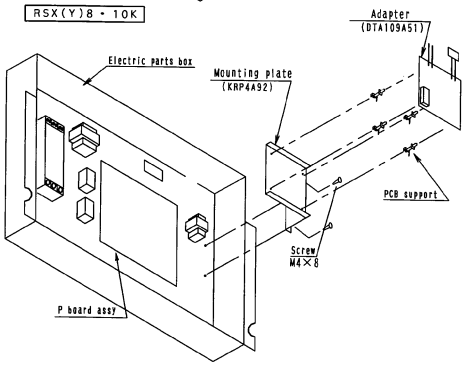
❸Installation

〈Outdoor unit〉

RSX(Y)5K



RSX(Y)8・10K



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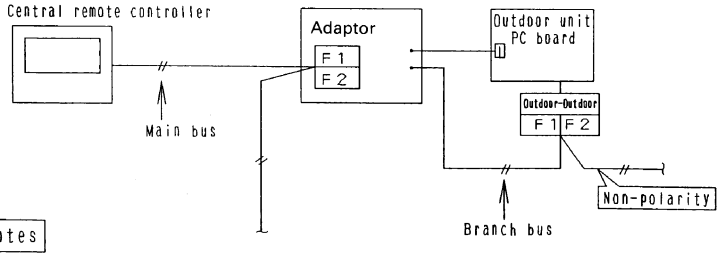
4 Electric wiring work

(1)Connect the wire from the adaptor to the adaptor power connector on the outdoor unit's PC board.
(For connector Nos., see the electric wiring diagrams for the indoor and function units.)
(2)Connect transmission wires between outdoor units (Outdoor-Outdoor terminal board).
(3)Wire transmission wires to terminal boards as shown below.



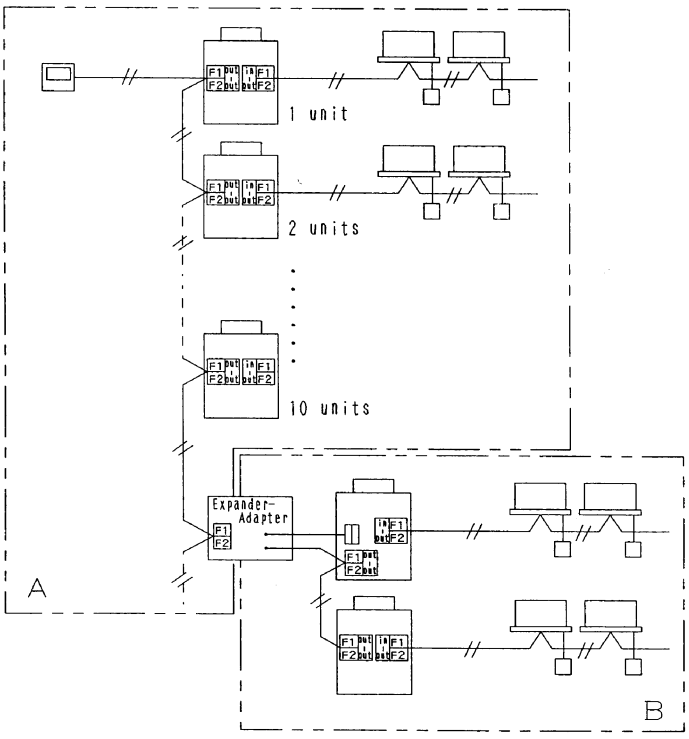
Notes

(Transmission wiring specifications)
- 0.75~1.25mm² sheathed wire (2 wire).

(Transmission wiring length)
- Observe the following limits on transmission wires. The limits apply to each adaptor. If you exceed the limits, it may cause malfunction.
  (Total length : 2000m
  Max. length···1000m
  Max. number of branches : 16)
- At least one outdoor unit and one optional controller for centralized control are required for every main bus and branch bus.
- Up to 8 adaptors can be connected in one system.
- Do not locate adaptors downstream of other adaptors (i.e. : on a branch bus).
- If not used with a central control device, the expander adaptor cannot be used with the wiring adaptor for electrical appendices(KRP2A) or the schedule timer(DST301B51).
- The external control adaptor for outdoor units controls group cooling and demand for each adaptor. (Anything beyond the expansion control falls outside the control domain.)
- Do not turn the system ON/OFF rapidly from the optional controller for centralized control. This can cause temporary erroneous displays.
- Sequential starts is controlled by each expander adaptor.

5 Wiring example

System with more than 10 outdoor units.

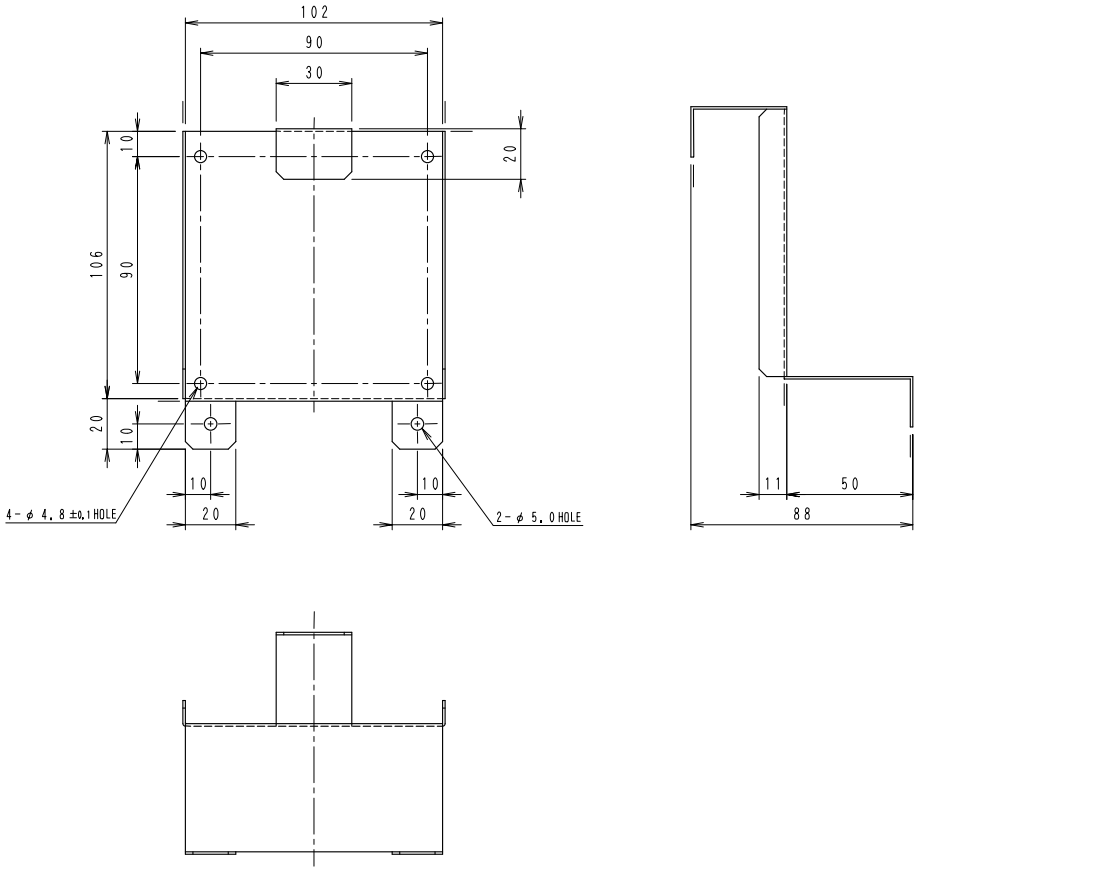


Note Wiring restrictions (see"Electric wiring work") apply to each group A and B.

C: 1P013360

22.2 KRP4A92

Mounting Plate for DTA109A51



NOTE)CHAMFERS OF CORNERS NOT SPECIFIED : C3.

3P022630B

23. intelligent Touch Controller

23.1 DCS601C51

23.1.1 Feature and Specification

This controller is a central remote controller offering higher functions than those of the previous controller DCS302C(A)61, and easier operation.

Up to 64 groups of indoor units may be connected to 1 unit of this controller.

This controller aims to be a product positioned between the current central controlling device (central controller DCS302C(A)61) and the controller intelligent-manager for large scale buildings (in both the viewpoints of application area and functional grade), and is a central controller most suitable for middle and small size buildings.

< Products Features >

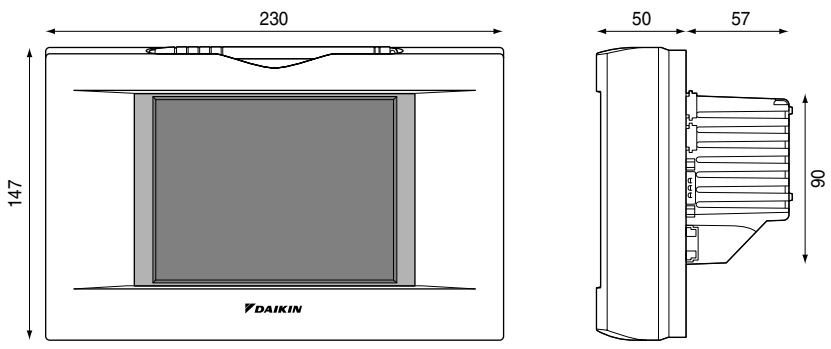
1. High Level Functions
   - Annual schedule control
   - Electricity proportional distribution function (option)
   - Air net function (DCS601C51 only)
2. Easy Operation
   - Color liquid crystal
   - Icon display
   - Touch panel application
   - Air conditioner name and zone name input available
3. D-III NET x 1 line (64 units)
4. Saving expenses
   - Controlling personnel not required (saving control expenses)
   - Energy saving schedule
   - Functions equal to those of a compact monitor panel

Specification

Power		AC100 - 240V 50/60Hz
Power consumption		10 W maximum
Force stop input		Normally-open contact Contact current approximately 10 mA
Operating temperature range	Ambient temperature	0°C~40°C
	Ambient humidity	85%RH (Non condensing)
Storage temperature range	Ambient temperature	-10°C~50°C
	Ambient humidity	85%RH (Non condensing)
Size		230×147×107 (W×H×D)
Weight (Mass)		1.2kg

Dimension

Unit:mm



The specification and appearance of the product may be modified for improvement without prior notice.

C: 3P073677-12R

■ **Operation Menu**

intelligent Touch Controller is capable of starting/stopping of the operation by the group or zone. Collective starting/stopping is also available.

■ **Air Conditioner Detail Setup**

Temperature setting, switching between temperature control modes, switching of speed and direction of wind and remote control mode setting are available by the group, by the zone or collectively.

■ **Monitoring of Various Information on Indoor Units**

Information on operation such as the operation mode and temperature setting of the indoor units, maintenance information including the filter or element cleaning sign, troubleshooting information such as error codes can be displayed by the group or the zone.

■ **Diversified Operation Modes**

Operation can be controlled both with the main unit and the remote control to provide diversified operation management. Setting with the main unit allows the following remote control settings by the group, by the zone or collectively:

1. Start/Stop
   :(Remote control) Inhibited
   :(Remote control) Permitted
   :Priority
2. Operation Mode
   :(Remote control) Inhibited
   :(Remote control) Permitted
3. Temperature Setting
   :(Remote control) Inhibited
   :(Remote control) Permitted

■ **Zone Control Simplifying Complicated Setting Operations**

Up to 64 groups can be controlled with the intelligent Touch Controller.
More than one group can be consolidated into a zone, which can be registered, to allow the following settings by the zone. This eliminates the need for repeating the same setting operation for each group.
Function to allow collective setting for all groups is also available.

· Start/stop
· Temperature setting
· Switching between operation modes
· Setting of direction and fan speed
· Disabling/enabling the remote control

■ **Detailed Scheduled Operation Control**

The intelligent Touch Controller allows detailed scheduled operation by the group, by the zone or collectively. Up to 8 options for annual schedule can be set. Each schedule can include four types of plans: for Monday, Tuesday... Sunday, Special day 1~10, Special days 1 and Special days 2. Each of the plans allows setting of up to 16 operations.

■ **Handy Automated Control**

The intelligent Touch Controller can do the following.

· Change Over Settings : automatically switches between cooling and heating according to the room temperature.
· Temperature Limit Setting : Prevents the temperature from rising too high or too low in unmanned rooms.
· Heating Optimization Settings : stops uncomfortable hot air from blowing when the heating the thermo. is off.

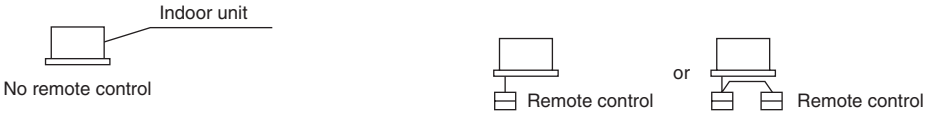
23.1.2 System Overview

This intelligent Touch Controller is capable of controlling / monitoring up to 64 groups of indoor units henceforth termed ***group(s)***.

Main functions of the intelligent Touch Controller :
1. Collective starting / stopping of operation of the indoor units connected to the intelligent Touch Controller.
2. Starting / stopping of operation, temperature setting, switching between temperature control modes and enabling / disabling of operation with the hand-held remote control by zone or group.
3. Scheduling by zone or group.
4. Monitoring of the operation status by zone or group.
5. Display of the air conditioner operation history.
6. Forced STOP contact input from a central monitoring panel (no voltage, normally open contact).
7. Power distribution of the air conditioners. (With the optional DCS002A51)

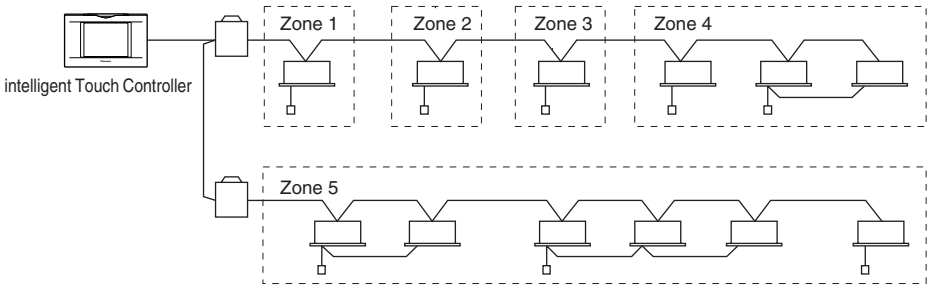
* A group of indoor units include :

① One indoor unit without a remote control. ② One indoor unit controlled with one or two remote controls.



③ Up to 16 indoor units controlled with one or two remote controls.

* Zone control with the intelligent Touch Controller
* Zone control, which allows collective settings for more than one group, is available with the intelligent Touch Controller, which facilitates the setting operations.



- One setting commands all of the units in one zone.
- Up to 128 zones can be set with one intelligent Touch Controller. (The maximum number of groups in one zone is 64.)
- Groups can be zoned at will with the intelligent Touch Controller.
- Units in one group can be divided into more than one zone.

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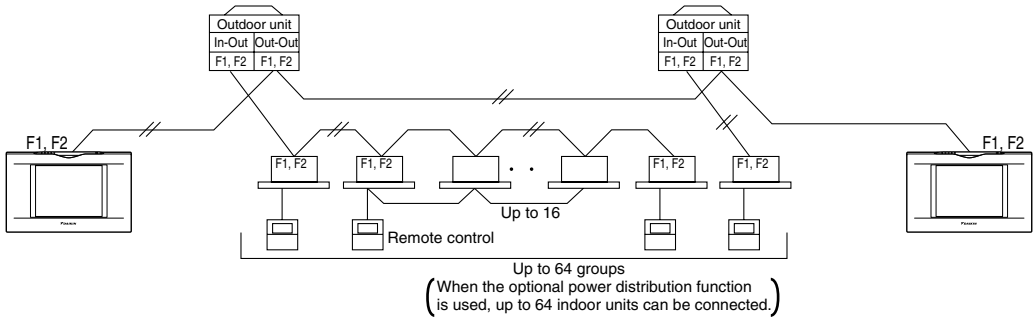
23.1.3 Double intelligent Touch Controllers

Using two intelligent Touch Controllers allows central control of indoor units from different places.

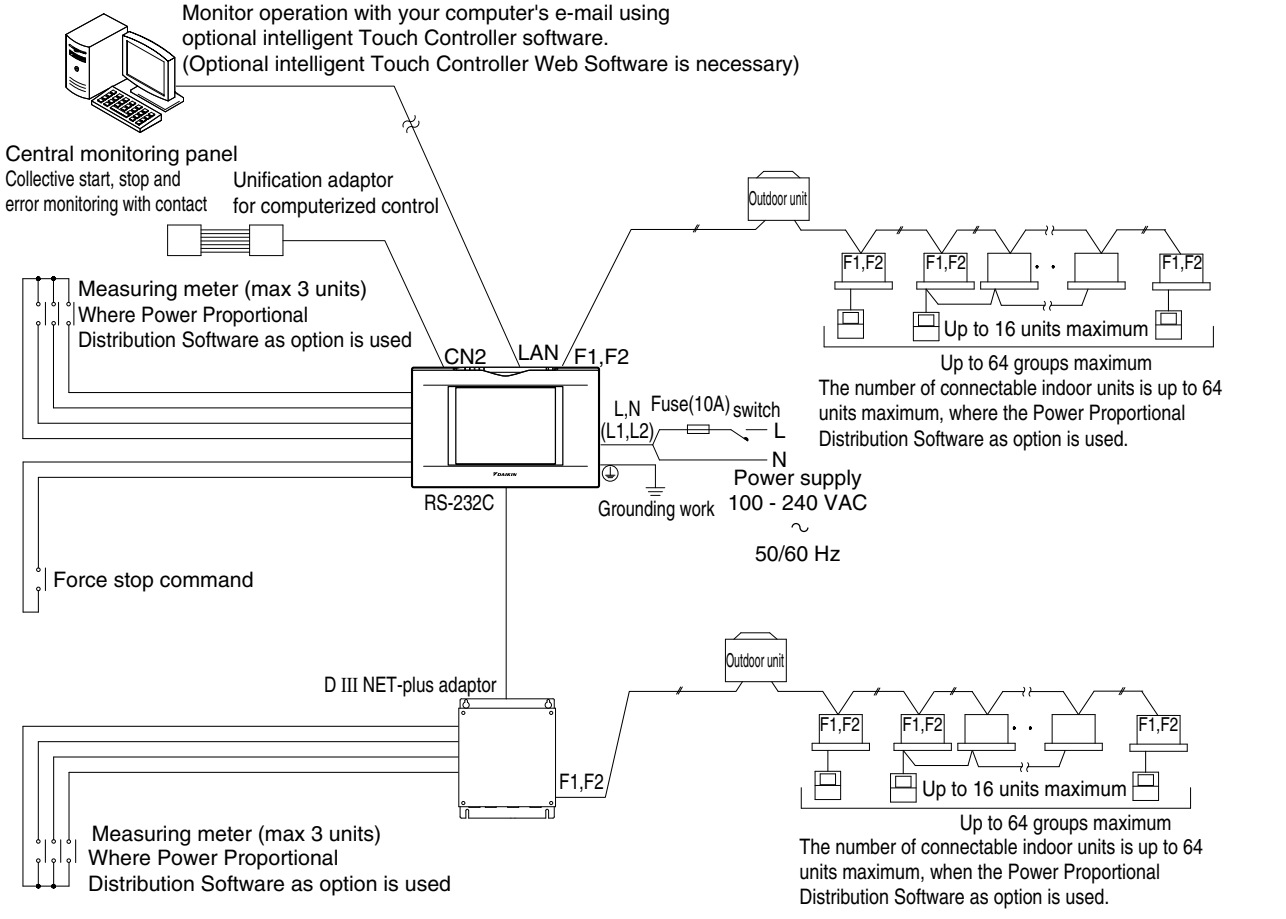


Note

- For combination and settings for double intelligent Touch controllers, be sure to consult the vendor.

23.1.4 Options

Connecting Unification adaptor allows using the contact for normal and abnormal operation signal and collective start/stop with a contact. For details, contact the vendor you purchased the product from.
Also, by connecting D III NET-plus adaptor, it is possible to operate and monitor the indoor units of 64 groups (intelligent Touch Controller plus D III NET - plus adaptor - 128 groups in total) additionally.



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23.1.5 Part Names and Functions

PCMCIA Card Slot

Used when using the optional Power Proportional Distribution (DCS002C51) or updating the intelligent Touch Controller software to a newer version and downloading the other data.

Color LCD with Touch Panel

Provides a display for monitoring and operation.
Monitoring display should be operated with the touch pen.
Be sure to use the touch pen provided for operation.

Touch Pen

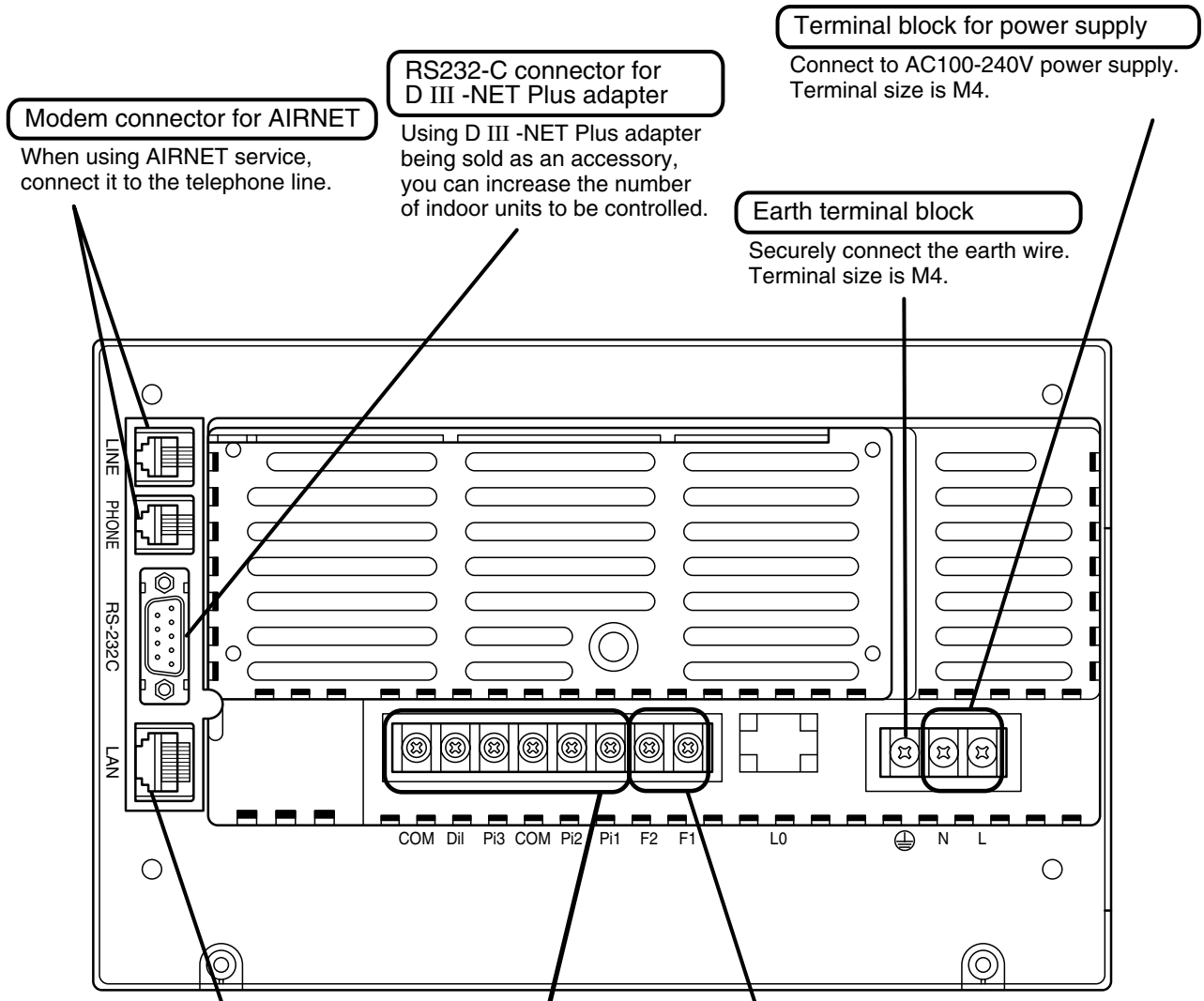
Be sure to operate with the touch pen and take care not to lose it.
In the event it is lost, contract your dealer.
Use the touch pen for operation.

Note

- You must always use the provided touch pen as any other object can damage the panel. Be sure to use the touch pen for operation.

EM04A055D

23.1.6 Terminals on the Back of intelligent Touch Controller



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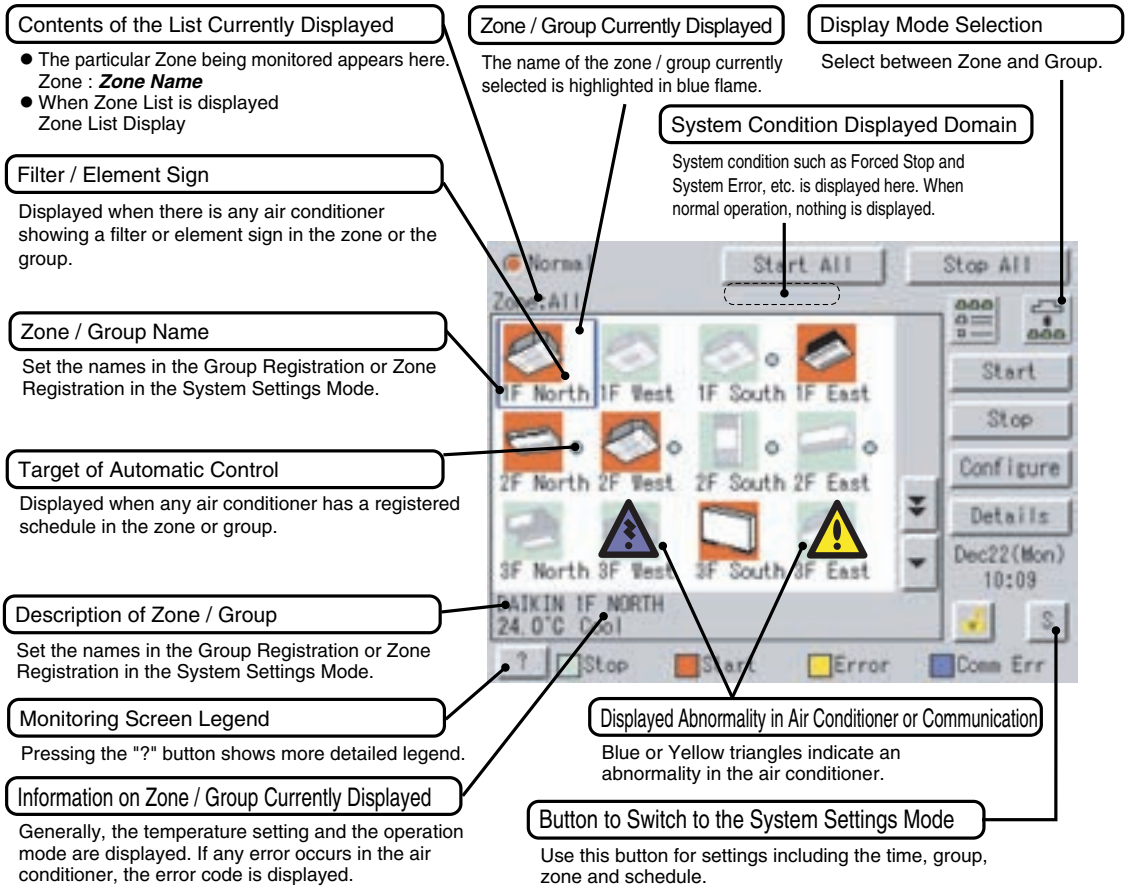
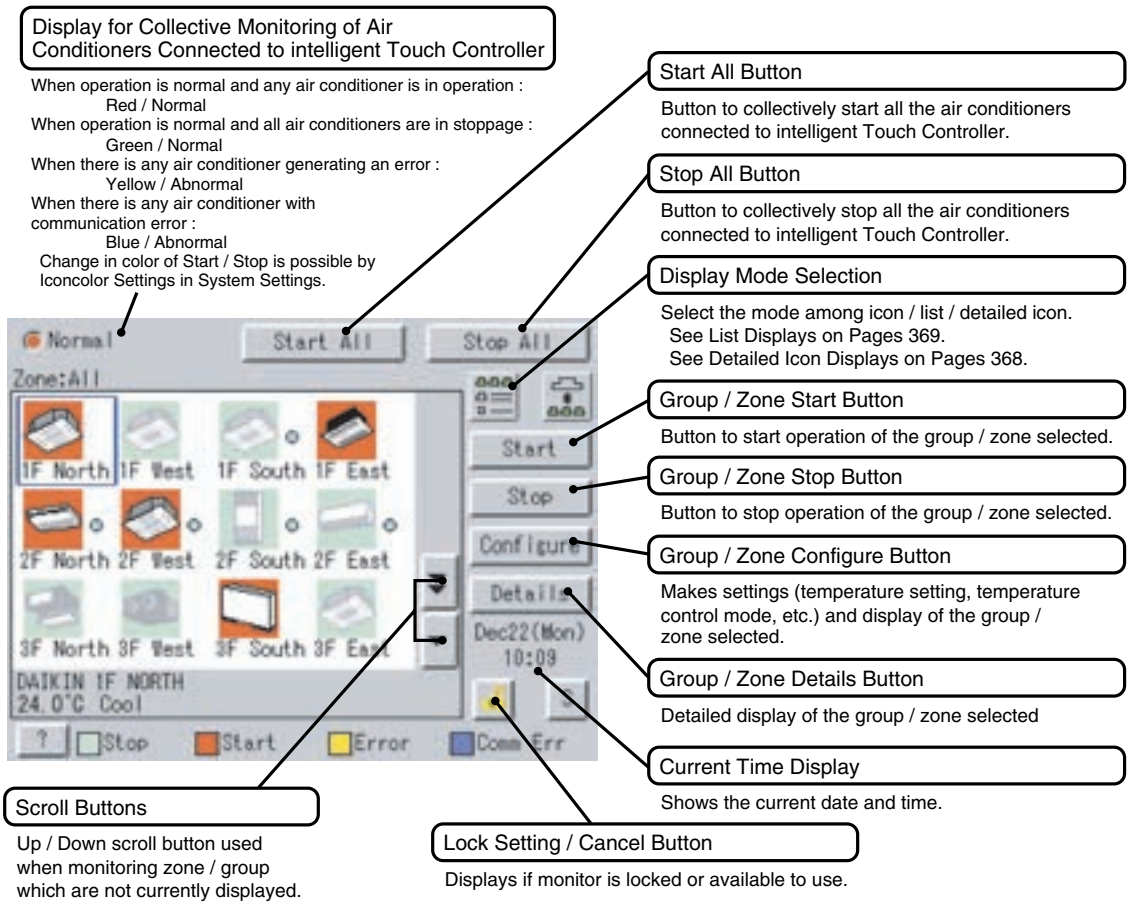
23.1.7 Part Names on the Monitoring Screen and the Functions

Icon





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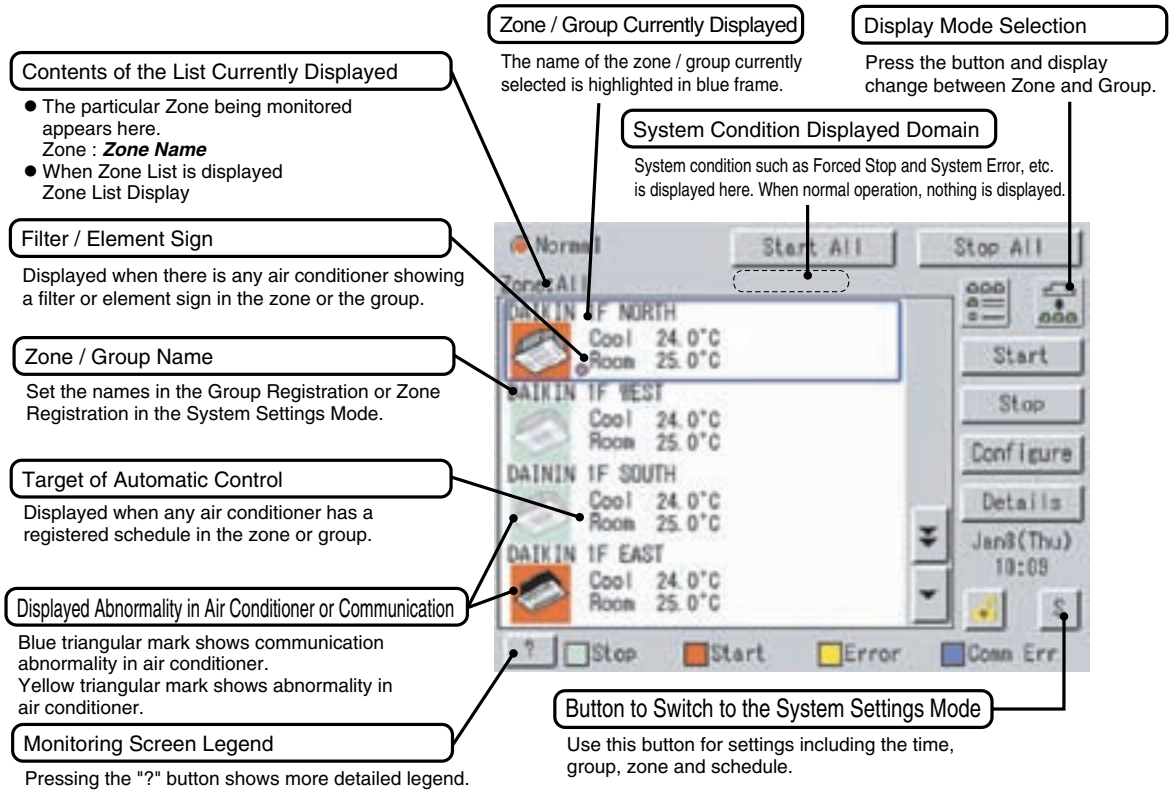
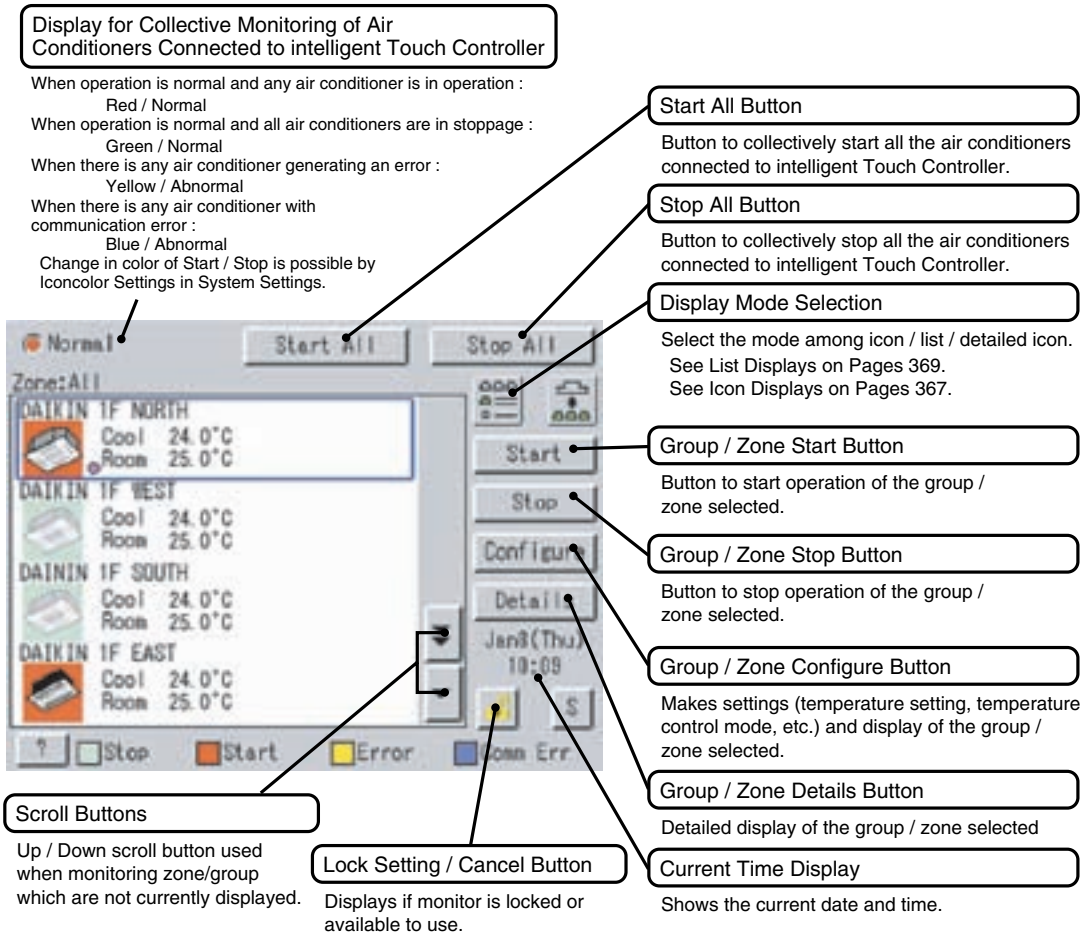
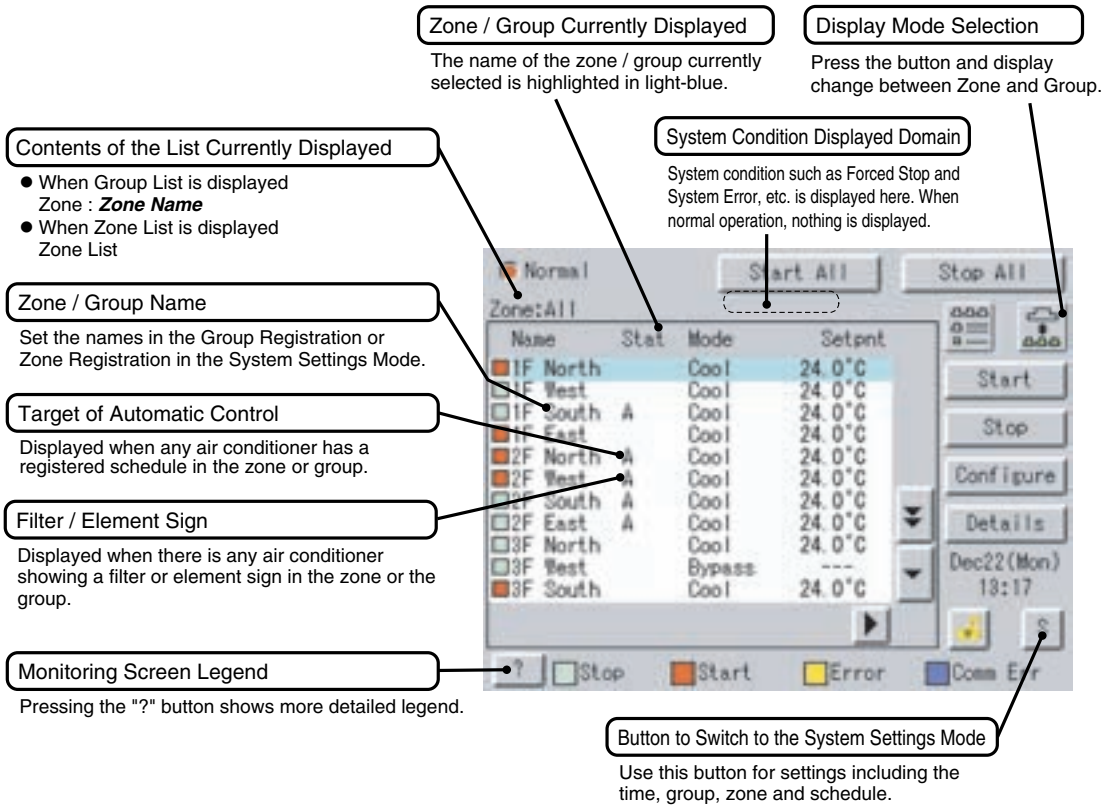
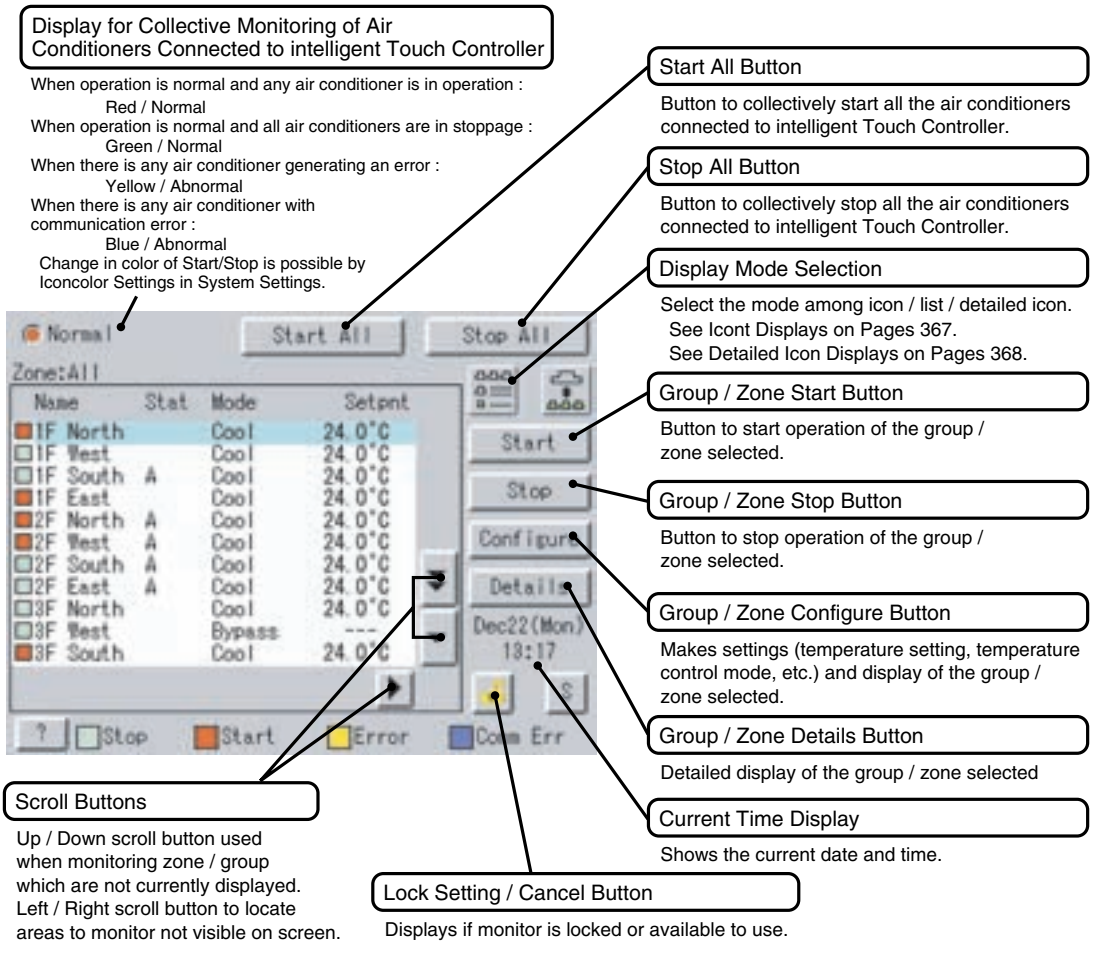

Zone / Group Currently Displayed
The name of the zone / group currently selected is highlighted in blue frame.
Display Mode Selection
Press the button and display change between Zone and Group.
Contents of the List Currently Displayed
● The particular Zone being monitored appears here.
Zone : Zone Name
● When Zone List is displayed
Zone List Display
System Condition Displayed Domain
System condition such as Forced Stop and System Error, etc. is displayed here. When normal operation, nothing is displayed.
Filter / Element Sign
Displayed when there is any air conditioner showing a filter or element sign in the zone or the group.
Zone / Group Name
Set the names in the Group Registration or Zone Registration in the System Settings Mode.
Target of Automatic Control
Displayed when any air conditioner has a registered schedule in the zone or group.
Displayed Abnormality in Air Conditioner or Communication
Blue triangular mark shows communication abnormality in air conditioner.
Yellow triangular mark shows abnormality in air conditioner.
Monitoring Screen Legend
Pressing the "?" button shows more detailed legend.
Button to Switch to the System Settings Mode
Use this button for settings including the time, group, zone and schedule.
Normal
Start All
Stop All
Zone:All
DAIKIN 1F NORTH
Cool 24.0°C
Room 25.0°C
DAIKIN 1F WEST
Cool 24.0°C
Room 25.0°C
DAININ 1F SOUTH
Cool 24.0°C
Room 25.0°C
DAIKIN 1F EAST
Cool 24.0°C
Room 25.0°C
Start
Stop
Configure
Details
Jan3(Thu)
10:09
Stop
Start
Error
Comm Err


Display for Collective Monitoring of Air Conditioners Connected to intelligent Touch Controller
When operation is normal and any air conditioner is in operation :
Red / Normal
When operation is normal and all air conditioners are in stoppage :
Green / Normal
When there is any air conditioner generating an error :
Yellow / Abnormal
When there is any air conditioner with communication error :
Blue / Abnormal
Change in color of Start / Stop is possible by Iconcolor Settings in System Settings.
Start All Button
Button to collectively start all the air conditioners connected to intelligent Touch Controller.
Stop All Button
Button to collectively stop all the air conditioners connected to intelligent Touch Controller.
Display Mode Selection
Select the mode among icon / list / detailed icon.
See List Displays on Pages 369.
See Icon Displays on Pages 367.
Group / Zone Start Button
Button to start operation of the group / zone selected.
Group / Zone Stop Button
Button to stop operation of the group / zone selected.
Group / Zone Configure Button
Makes settings (temperature setting, temperature control mode, etc.) and display of the group / zone selected.
Group / Zone Details Button
Detailed display of the group / zone selected
Current Time Display
Shows the current date and time.
Scroll Buttons
Up / Down scroll button used when monitoring zone/group which are not currently displayed.
Lock Setting / Cancel Button
Displays if monitor is locked or available to use.
Normal
Start All
Stop All
Zone:All
DAIKIN 1F NORTH
Cool 24.0°C
Room 25.0°C
DAIKIN 1F WEST
Cool 24.0°C
Room 25.0°C
DAININ 1F SOUTH
Cool 24.0°C
Room 25.0°C
DAIKIN 1F EAST
Cool 24.0°C
Room 25.0°C
Start
Stop
Configure
Details
Jan3(Thu)
10:09
Stop
Start
Error
Comm Err

EM04A055D

List





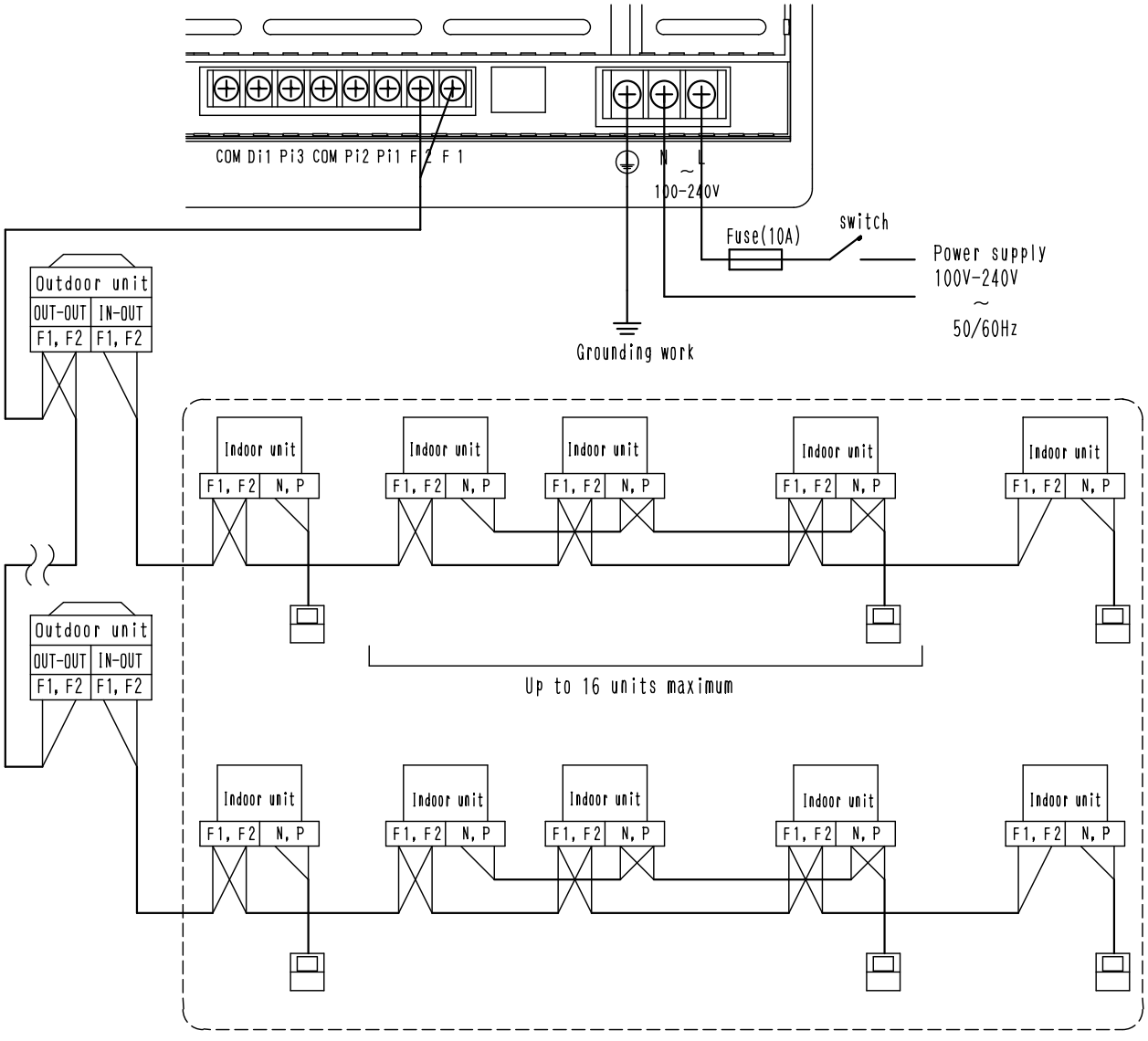
EM04A055D

23.1.8 System Wiring

When wiring, cut off the power supply (using a local switch) and do not apply power until all work has been finished.

Wiring for power supply and Connecting wiring for DⅢ-NET communication of indoor units

In order to perform centralized control of indoor units using this controller, connect the power wiring to terminals L and N, earth wire to earth terminal ⏚ and connecting wiring for DⅢ-NET communication of air-conditioner (indoor unit and outdoor unit) to terminals F1 and F2 respectively as shown in the sketch below.



Power cable wiring	1.25mm²
Fuse	10A
Connecting wiring for DⅢ- NET communication of indoor and outdoor units	0.75 - 1.25 mm² vinyl cord or cable with sheath (2 wire) ---Up to 1000 m maximum (wiring length -- up to 2000 m maximum) (When shield cable is used, the wiring length is available up to 1500m.) For the type of electric wire, refer to the design guide.

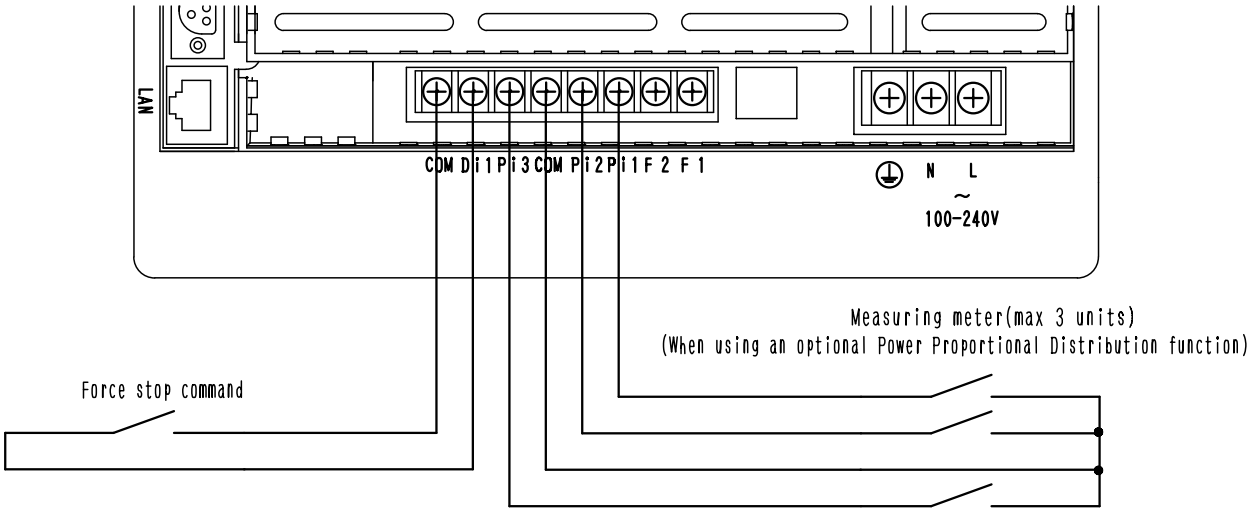
≪CAUTION≫

- Don't fail to perform installation of Grounding work. Don't connect the grounding wire to any of gas pipe, city water pipe, lightning rod, and telephone grounding wire.
- Don't turn ON the power supply (front switch) until all the works are complete.
- The connecting wiring for communication of indoor and outdoor units is a connecting wiring for the control. Don't clamp these cables together with high voltage cables. Failure to observe this instruction would cause control error.
- Don't connect the power cable to F1, F2 terminal blocks. Wrong connection to these terminal blocks could result in damage and burning of the centralized control devices and of the electric parts of the indoor and outdoor units. This is very hazardous. Check each wired cable once more before turning ON the power switch.

1P153198D

Wiring for force stop input and for electric power distribution

In order to stop the air-conditioner through force stop input, connect the wiring for force stop input to the terminals Di1 and COM as shown in the sketch below.
In addition, in order to calculate the electric energy using optional Power Proportional Distribution software, connect the wiring for electric energy to the terminals Pi and COM as shown in the sketch below.



Wiring for force stop input	• 0.75 - 1.25 mm^2 vinyl cord or cable with sheath (2 wire) -- up to 150m maximum • When FORCE-STOP INPUT is kept ON, the indoor units connected thereto are unable to be operated because they are force-stopped. • Use a contact which can guarantee minimum application load DC16V and 10mA. • Use an instantaneous contact of 200msec or more in current feed time, where required.

Meter wiring for power distribution(option)	• 0.75 - 1.25 mm^2 vinyl cord or cable with sheath (2 wire) -- up to 150m maximum
	• The number of connectable indoor units is up to 64 units maximum, where the Power Proportional Distribution Card as option is used.
	• The measuring meters to be connected must meet the requirements specified below.
	  • To be a measuring meter with pulse oscillator. (pulse/kwh)
	  • Pulse band of 100msec or mores
	  • Measuring meter which uses semiconductor relay for pulse output and outputs pulses from non-voltage contact

≪CAUTION≫

- Don't clamp these cables together with high voltage cables. Failure to observe this instruction would cause control error.
- Terminals COM are inter-connected. Connecting to either one is allowed, but the number of cables connectable to one terminal is limited to 2 pieces.
- Don't connect the power cable to Pi, Di, COM terminal blocks. Wrong connection to these terminal blocks could result in damage and burning of the centralized control devices and of the electric parts of the indoor and outdoor units. This is very hazardous. Check each wired cable once more before turning ON the power switch.

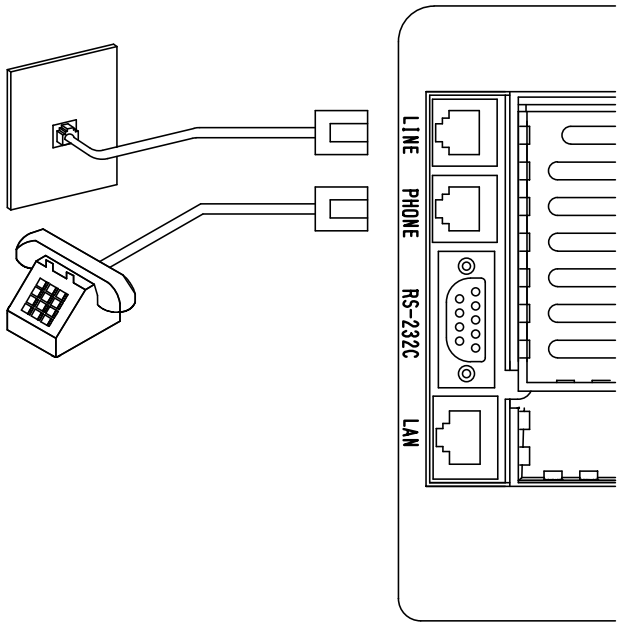
1P153198D

Connection to public telephone line

Connect to the telephone line in order to monitor the air-conditioner via AIRNET service.
Connect to modular cable from the public telephone line to the upper connector with a stamping of LINE, and connect the modular cable of the telephone to the lower connector with a stamping of PHONE, as shown in the sketch below.

≪CAUTION≫

- Don't clamp these cables together with high voltage cables. Failure to observe this instruction would cause control error.
- When using AIRNET service, it is necessary to use a separate modem specified by us and enter into Maintenance Agreement with charge.

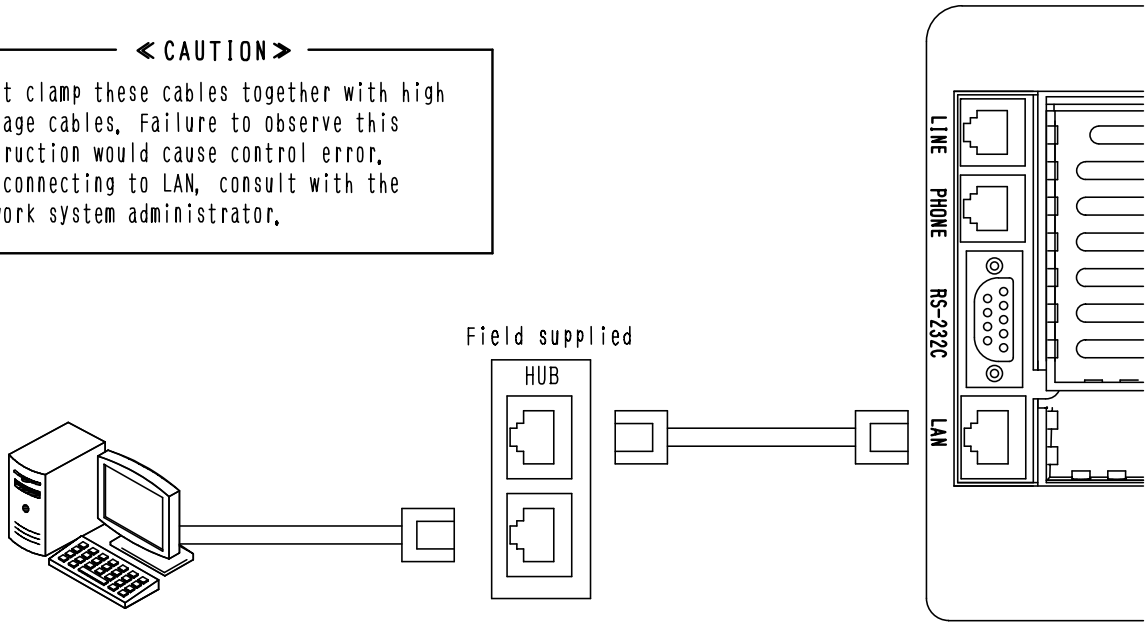


Connection to LAN

In order to monitor/control the air-conditioner using optional Web and E-mail function software sold separately, use a UTP cable to connect to LAN.
Connect the UTP cable to the Ethernet connector with a stamping of LAN.

≪CAUTION≫

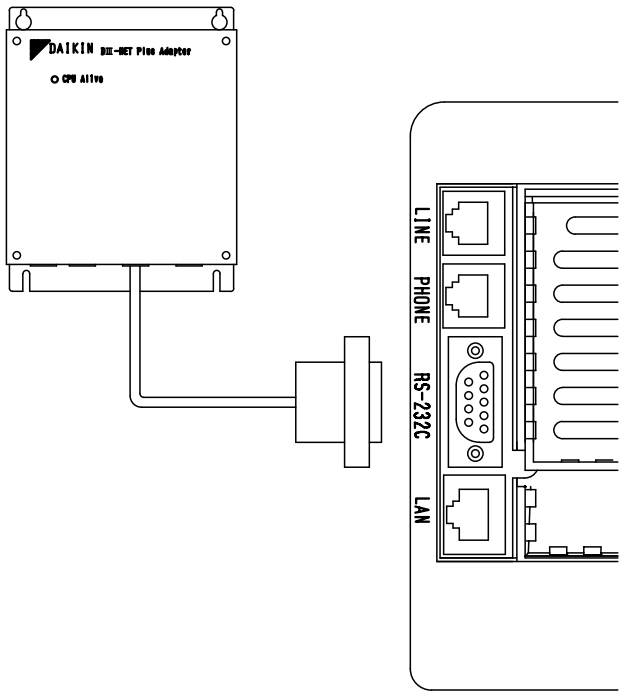
- Don't clamp these cables together with high voltage cables. Failure to observe this instruction would cause control error.
- For connecting to LAN, consult with the network system administrator.



1P153198D

DⅢ-NET Plus adaptor connection

In order to increase the number of indoor units to be controlled, connect DⅢ- NET Plus adaptor using RS232-C cable attached to the adaptor.
For details, refer to the installation manual of DⅢ- NET Plus adaptor.

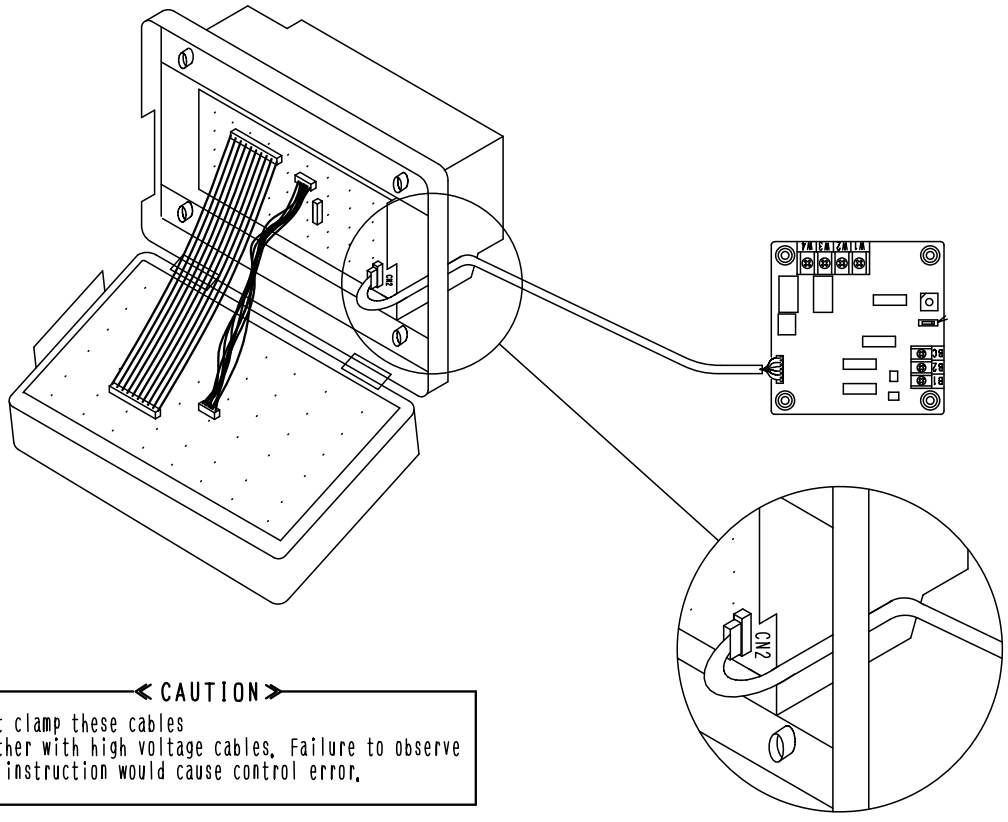


≪CAUTION≫

- Don't clamp these cables together with high voltage cables. Failure to observe this instruction would cause control error.

Connection for Unification Adaptor

In order to perform total start and stop/situation monitoring from central supervisory board, etc., connect a Unification Adaptor sold separately.
As shown in the sketch below, open the controller and connect the cable from the Unification Adaptor to CN2 connector located on the printed board on the lower case.
If you route the cable in the cable guide groove on the lower case, you can make a smart connection without any slack of the cable.



≪CAUTION≫

- Don't clamp these cables together with high voltage cables. Failure to observe this instruction would cause control error.

1P153198D

23.2 DCS002C51 — Power Proportional Distribution Software

Function and Outline

Power Proportional Distribution Software, in combination with an existing intelligent Touch Controller, enables you to proportionally calculate and display the electricity amount used by an air conditioner per indoor unit.

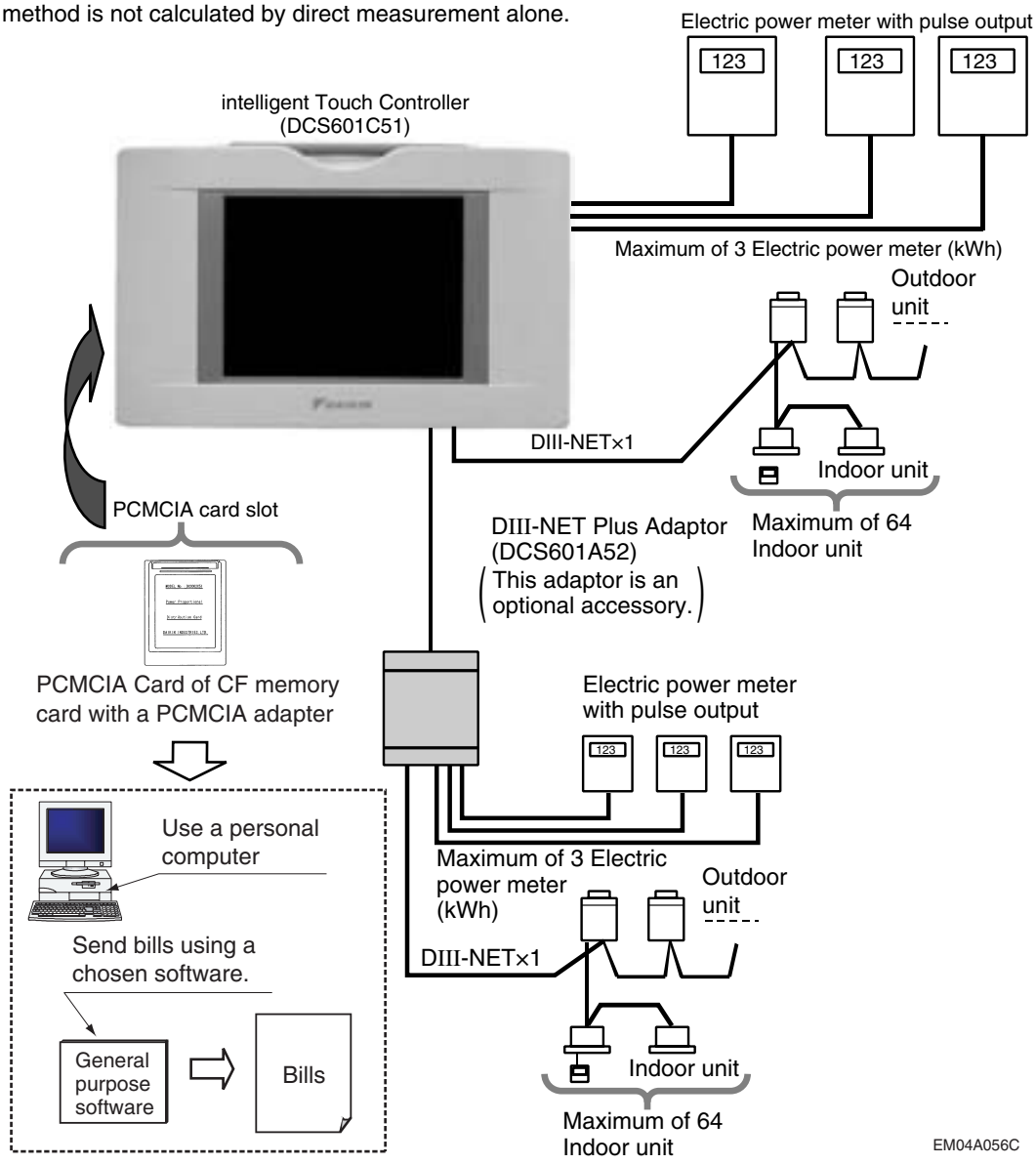
Main Functions

Power proportional distribution results data can be saved for 12 months. (max. 12 months and 30 days)

- Per intelligent Touch Controller, power proportional distribution can be calculated for 64 indoor units maximum.
- When D III -NET Plus Adaptor is connected, power proportional distribution can be calculated for more 64 indoor units at maximum (a total of 128).
- 3 Electric power meters at maximum can be connected to an intelligent Touch Controller.
- When D III -NET Plus Adaptor is connected, more 3 Electric power meters at maximum (a total of 6) can be connected.
- Power proportion distribution results data can be saved or down loaded via web access. Data is saved in the typical CSV computer format.
  Data is saved in the typical CSV computer format, so bills can be issued easily by use of a general purpose table calculation software package.
  A personal computer and a general purpose table calculation software package are available separately.
- The above functions of power proportional distribution are available on the optional web site software as well.

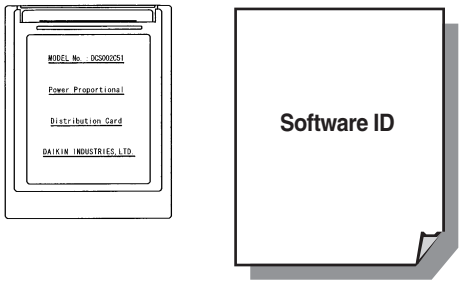
Precautions

This system calculates electricity consumption by size of indoor units, run time, expansion valves status, suction temperature and the number of pulses from the power meters installed at the Outdoor Units.
This method is not calculated by direct measurement alone.



Checking Attachments

Power Proportional Distribution Card includes the following attachments.



EM04A056C

How to Connect

To activate the power proportional distribution function, it is necessary to set the program by use of the attached PCMCIA card and carry out a trial operation.
Before use, consult your supplier.

EM04A056C

23.3 DCS004A51 — Web Software

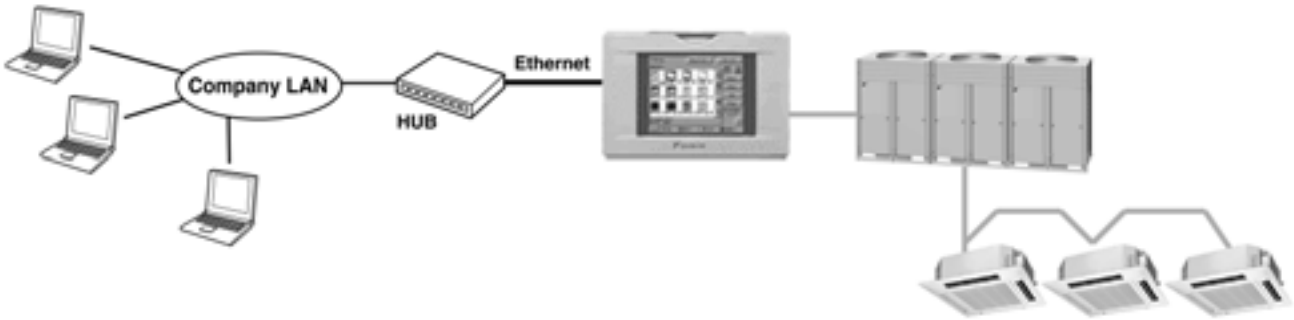
Functions and Outline

Using this software enables you to operate and monitor air conditioners linked to the intelligent Touch Controller on the Windows PC, which is connected with the intelligent Touch Controller and the Ethernet communication (LAN).

* The intelligent Touch Controller functions as a Web server to visit the Website of the intelligent Touch Controller through the Internet Explorer, which is incorporated in the PC like as its standard software, thus making it possible to operate and monitor the air conditioners.

Furthermore, through the use of a mail server, if a malfunction occurs in any of the air conditioners which are linked to the intelligent Touch Controller, it will be able to transmit mails to a pre-assigned address to alert you to the malfunction.

For further information, contact our sales representatives.



Web Interface of the intelligent Touch Controller

Permissions: Privileges Given to Each Login Name

There are two categories of login users: General User who can perform basic operations via the web interface and Administrator who can setup the system and change system settings.

Two Display Modes

You can select the display mode from two modes during login process: the Basic mode which provides a simple and easy-to-use interface and the Advanced mode which allows you to use advanced settings options.

Start/Stop Operation

You can uniformly start or stop all the devices in a group, a zone, or multiple zones at once.

Advanced Settings for Air Conditioners

You can set temperature, operation modes, direction of air flow, air volume, and remote controller mode of all devices in a group, a zone, or multiple zones.

Various Operation Modes

You can operate devices from a web interface, the intelligent Touch Controller console, or a local remote controller. Also the Administrator can permit or prohibit remote controller operations of devices in a specified group or zone using the web interface.

User Administration

The Administrator can register or delete General Users who can operate air conditioners via the web interface, and also set/change his/her own password and General Users' passwords.

Scheduling Function

The Administrator can precisely schedule operations for a specific group or zone of devices. Weekly schedule and 10 extra schedules can be created.

EM04A057D

24. intelligent Manager

24.1 DAM602B51 / DAM602B52

24.1.1 Model Series (Factory in Charge)

iPU Model Name	Number of units to be connected	Number of DIII-NET port	Number of Digital input
DAM602B51	256 units	4	20
DAM602B52	128 units	2	

Optional	Model name
DAM002A51	Power Proportional Distribution software
DAM003A51	ECO software
DAM004A51	Web software

* MADE IN JAPAN

24.1.2 Concept and Main Specifications

<Product concept>

- **A/C monitoring panel targeting the simplified BMS market.**
  The needs of the current i-Manager A/C monitoring panel will be covered continuously, and we make inroads into the BMS market by expansion of functions.
- **Expansion of function to be realized by optional software.**
  Customers can select required functions.
  Price can be set up in accordance with required functions.

<Major Specification>

Major modified functions		I-Manager II	I-Manager III
Constitution of iPU (Number of III ports)		2,3,4 port version	2,4 port version
Power proportional distribution		○	DAM002A51 (option)
ECO (Energy saving/Power limit control)		○	DAM003A51 (option)
Web function	Individual control	—	DAM004A51 (option)
	Monitoring of abnormality *1		
	Control setting *2		
	Power proportional distribution data *3		
Analog interlock function		—	○
Corresponding with air cooled chillers and CHESBAC (Monitoring of AIRNET data)		—	○
Number of control points of control group		Max. 128 points	Max. 1024 points
Optimum starting control (from Jan/2007)		—	○
Indication of history of operation source (from Jan/2007)		—	○
Monitoring of continuous operation time		○	
Calendar		Rotation	1-year use disposable
Use of built-in optional modem for AIRNET		—	○

*1: E-mail communication function is included when the equipment is abnormal.
*2: Schedule control setting, Set temperature control setting
*3: PPD software(DAM002A51) is required for the PPD data available on web.

24.1.3 Installation

Please read these "SAFETY CONSIDERATIONS" carefully before installing this unit and be sure to install it correctly. After completing the installation, make sure that the unit operates properly during the start-up operation.
Please instruct the customer on how to operate the unit and keep it maintained.
Also, inform customers that they should store this installation manual along with the operation manual for future reference. This unit comes under the term "appliances not accessible to the general public".

Meaning of warning, caution and note symbols.
⚠ WARNING Indication a potentially hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION Indication a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be sued to alect against unsafe practices.
⚠ NOTE Indication situation that may result in equipment or property-damage-only accidents.

⚠WARNING

Ask your dealer or qualified personnel to carry out installation work. Do not try to install the machine by yourself.
Improper installation may result in electric shocks or fire.

Perform installation work in accordance with this installation manual.
Improper installation may result in electric shocks or fire.

Be sure to use only the specified accessories and parts for installation work.
Failure to use the specified parts may result in electric shocks, fire or the unit falling.

Carry out the specified installation work after taking into account earthquakes.
Improper installation work may result in the equipment falling and causing accidents.

Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local laws and regulations and this installation manual.
An insufficient power supply capacity or improper electrical construction may lead to electric shocks or fire.

Make sure that all wiring is secured, the specified wires and used, and no external forces act on the terminal connections or wires.
Improper connections or installation may result in fire.

When wiring the power supply and connecting the remote controller wiring and transmission wiring, position the wires so that the electric parts box lid can be securely fastened.
Improper positioning of the electric parts box lid may result in electric shocks, fire or the terminals overheating.

Before touching electrical parts, turn off the unit.

Ground this unit. Do not connect the ground wire to gas or water pipes, lightning rod or a telephone ground wire.
Incomplete grounding may result in electric shocks.

Do not reconstruct or change the settings of the protection devices.
If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or parts other than those specified by Daikin are used, fire or explosion may result.

Do not touch the switch with wet fingers.
Touching a switch with wet fingers can cause electric shock.

Install an leak circuit breaker, as required.
If an leak circuit breaker is not installed, electric shock may result.

Do not install this unit in the following locations.

(a) where a mineral oil mist or an oil spray or vapor is produced, for example in a kitchen.
plastic parts may deteriorate and fall off or result in water leakage.

(b) where corrosive gas, such as sulfurous acid gas, is produced.
Corroding copper pipes or soldered parts may result in refrigerant leakage.

(C) near machinery emitting electromagnetic waves.
Electromagnetic waves may disturb the operation of the control system and result in malfunction of the equipment.

(d) where flammable gases may leak, where there are carbon fiber or ignitable dust suspensions in the air, or where volatile flammables such as thinner or gasoline are handled.
Operating the unit in such conditions may result in fire.

⚠CAUTION

Be very careful about product transportation.

Safely dispose of the packing materials.
Packing materials, such as nails and other metal or wooden parts, may cause stabs or other injuries.
Tear apart and throw away plastic packaging bags so that children will not play with them.
If children play with a plastic bag which was not torn apart, they face the risk of suffocation.

⚠NOTE

Install this unit, power supply wiring and connecting wires at least 3.5ft. away from televisions or radios in order to prevent image interference or noise.
(Depending on the radio waves, a distance of 3.5ft. may not be sufficient enough to eliminate the noise.)

This unit is a class A product.

In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

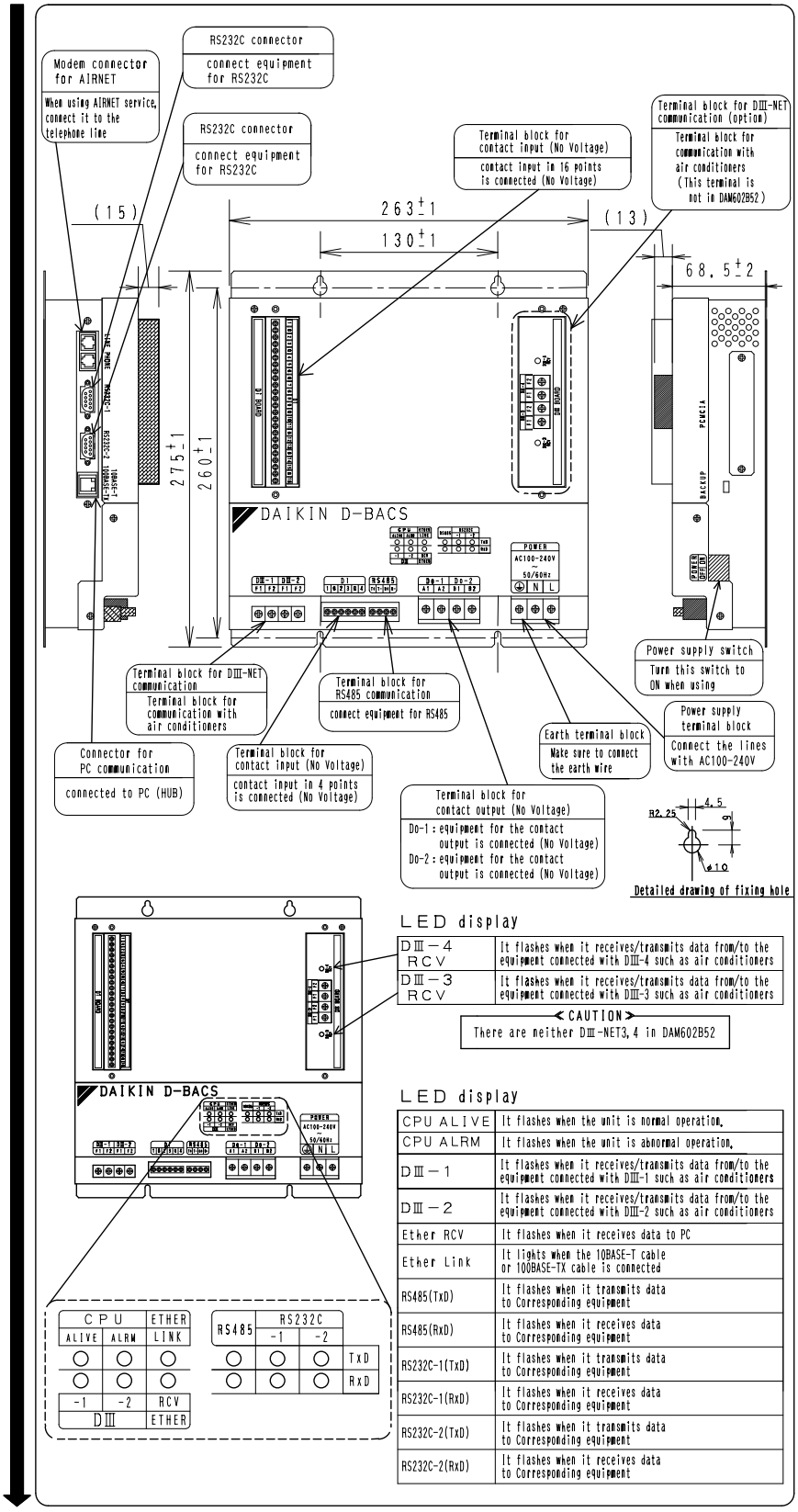
1 Components

The following parts are attached to this unit.
Make sure to check them before installation.

intelligent Processing Unit	1 set
INSTALLATION MANUAL	1 copy

1P177851C

❷ Names and functions of each part



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❸ Installation

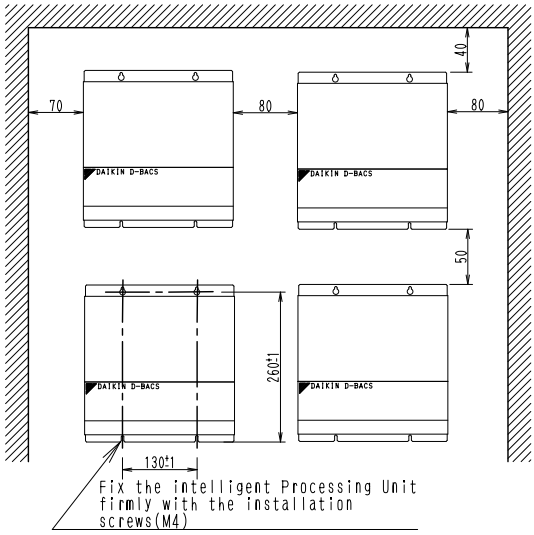
Don't fail to turn OFF the indoor unit power switch before installing intelligent Processing Unit.
Failure to observe this instruction could result in electric shock.

●Location

Make sure to install the unit on the inside of the inaccessible and lockable (or needed to use exclusive tools to open) electrical component box installed indoors where the effect of electromagnetic wave or dust can be avoided.
The minimum depth required for installation is 100mm

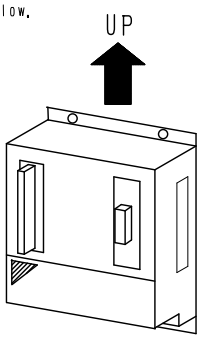
●Required installation space

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



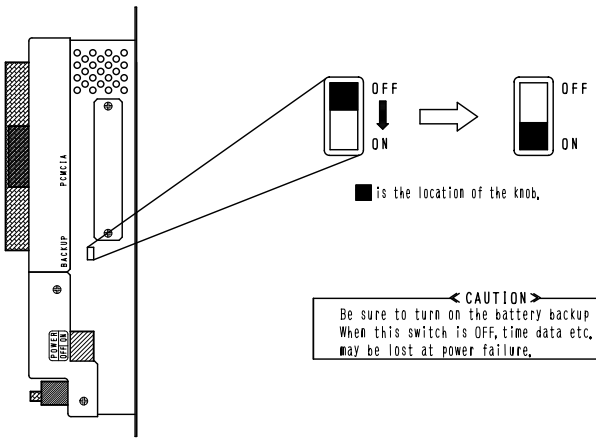
●How to install

For installation direction follow the drawing shown below.



<CAUTION>
Make sure to install the unit vertically. Do not install the unit horizontally, because it may cause malfunction.

Setting "BACK-UP BATTERY VALIDATE" switch
(shifted to OFF when being shipped from the shop, -- Back-up battery set to INVALIDATE)
For the switch to back up the clock, etc, in case of any power failure, actuate it from OFF side (knob is located above) to ON side (knob is located below) as shown in the sketch below.



<CAUTION>
Be sure to turn on the battery backup switch.
When this switch is OFF, time data etc. may be lost at power failure.

TO BACK

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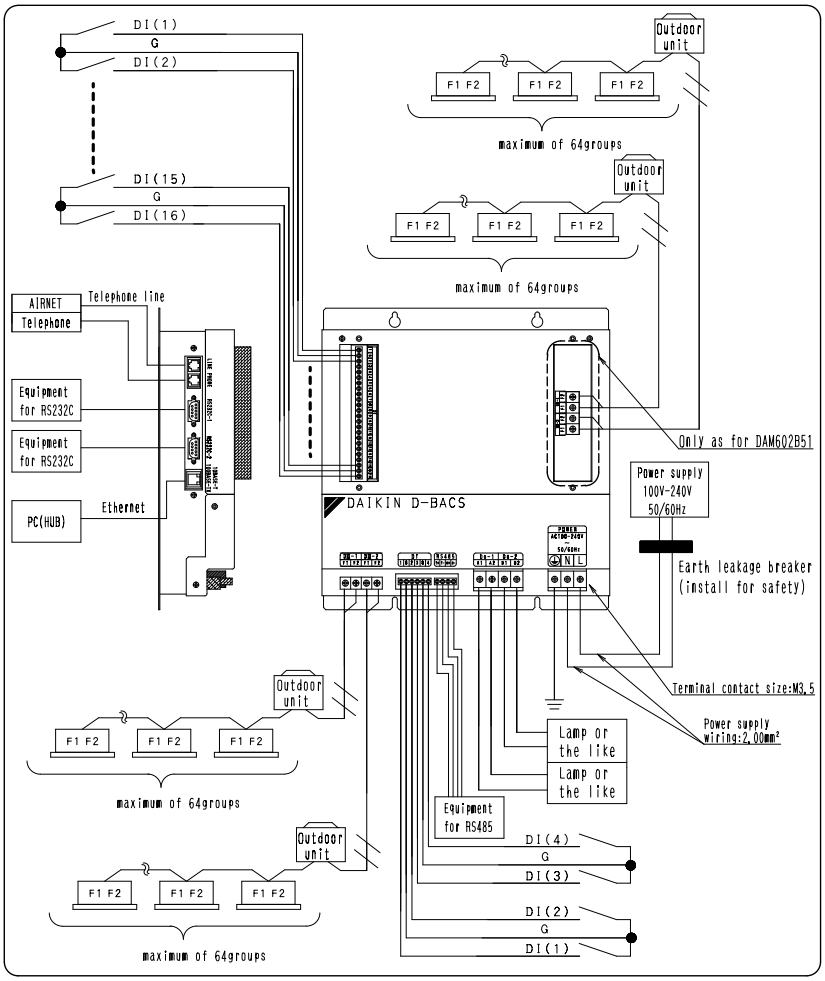
④「DⅢ-NET master」setting

Make sure to connect the unit with 「DⅢ-NET master」
Remove the master central setting connectors of the
intelligent Touch Controller or centralized management controller or ON/OFF controller
When using together with other centralized controllers such as
intelligent Touch Controller or centralized management controller or ON/OFF controller.

⑤Malfunction of unit

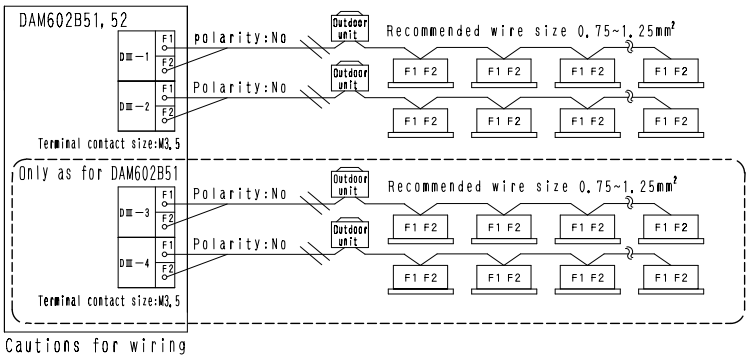


⑥Electric Wiring Connection

Don't fail to turn OFF the indoor unit power switch before installing intelligent Processing Unit.
Failure to observe this instruction could result in electric shock.

■Everything relating with field wiring must be supplied in the field.

● DⅢ-NET wiring



Cautions for wiring

1. Do not use multicore cables with three or more cores
2. Use wires of sizes between 0.75mm² and 1.25mm²
3. Do not bind the wire for DⅢ-NET
4. Wirings for DⅢ-NET must be isolated from the power lines
5. Wire length:Max 1000m

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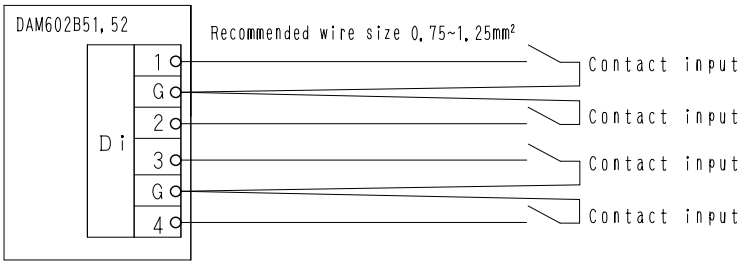
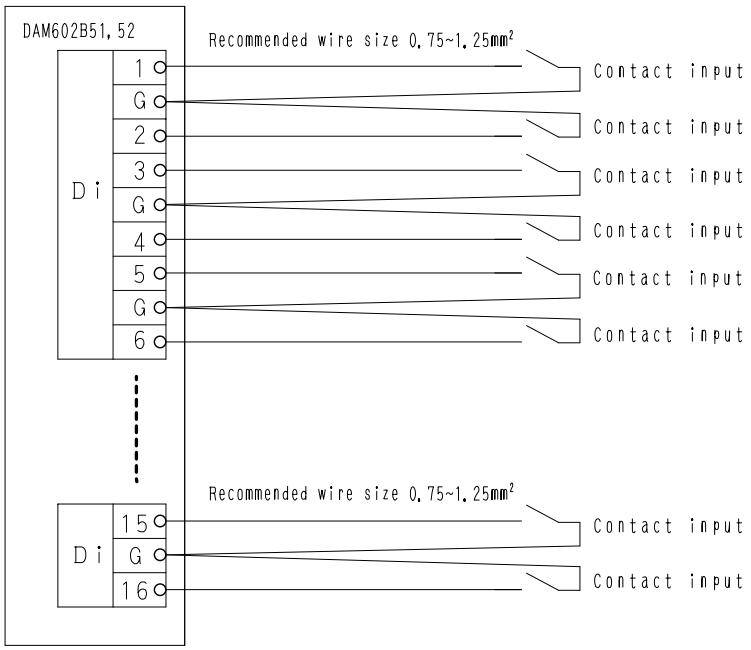
● No voltage contact input wiring

● Di wiring



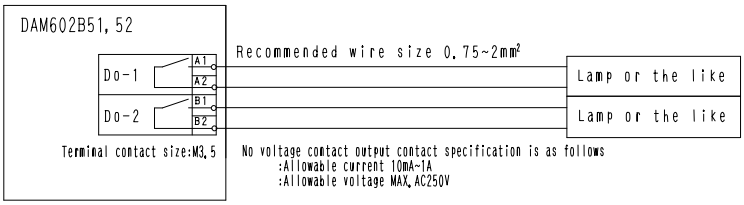
● Di BOARD wiring



Cautions for wiring

1. The input are all the no voltage contact
2. Use a contact which can guarantee minimum application load DC16V and 10mA
3. Do not use multicore cables with three or more cores
4. Use wires of sizes between 0.75mm² and 1.25mm²
5. Do not bind the wire for control
6. Wirings for control must be isolated from the power lines
7. Terminals G are inter-connected. Connecting to either one is allowed, but the number of cables connectable to one terminal is limited to 2 pieces
8. Wire length:Max 150m

● No voltage contact output wiring



Cautions for wiring

1. Do not use multicore cables with three or more cores
2. Use wires of sizes between 0.75mm² and 2mm²
3. Do not bind the wire for control
4. Wirings for control must be isolated from the power lines
5. Wire length:Max 150m

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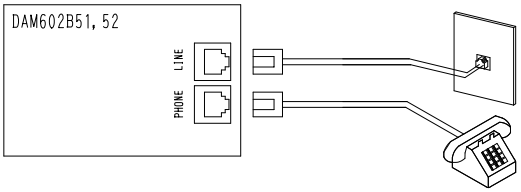
● Connection to public telephone line

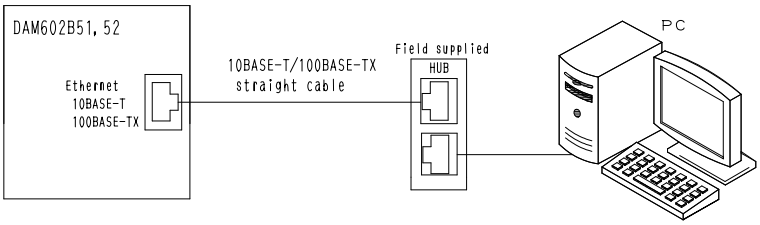
Connect to the telephone line in order to monitor the air-conditioner via AIRNET service.
Connect to modular cable from the public telephone line to the upper connector with a stamping of LINE, and connect the modular cable of the telephone to the lower connector with a stamping of PHONE, as shown in the sketch below.



Cautions for wiring

1. Don't clamp these cables together with high voltage cables. Failure to observe this instruction would cause control error.
2. When using AIRNET service, it is necessary to use a separate modem specified by us and enter into Maintenance Agreement with charge.

● Ethernet communication wiring



Cautions for wiring

Don't clamp these cables together with high voltage cables. Failure to observe this instruction would cause control error.

❼ Setting group No. for centralized control

Set the group number of each group of the indoor unit from the remote controller. (In case of no remote controller, also connect the remote controller and set the group No. Then, remove the remote controller.)

(1) Turn ON the power of the indoor unit and intelligent Processing Unit.
(Unless the power is ON, no setting can be made.)
Check that the installation and electrical wiring are correct before turning the power supply ON.
(When the power supply is turned ON, all LCD appear once and the unit may not accept the operation for about one minute with the display of "88".)

(2) While in the normal mode, hold down the "[SET]" button for a minimum of 4 seconds.
The remote controller will enter the FIELD SET MODE.

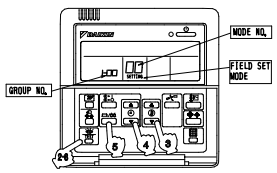
(3) Select the MODE No. "00" with the "[▲▼]"button.

(4) Use the "[▲▼]" button to select the group No. for each group.

(Group numbers increase in the order of
1-00, 1-01, • • • 1-15, 2-00, • • • 8-15)

(5) Press "[TEST]" to set the selected group No.

(6) Press "[SET]" to return to the NORMAL MODE.



NOTE) • For details on making settings from the simplified remote controller, refer to the instruction manual of the unit.
• See the instruction manuals which came with the Ventiair and adapters(i.e., multi-purpose adapters) for details on their Group No. settings.

NOTICE Be sure to keep the operation manual for maintenance.

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25. Optional DIII Ai Unit

25.1 DAM101A51

1 Component parts

The components of the kit are as follows.
Before installing, be sure to check whether they are supplied.

Name	Quantity
Main unit	1
Installation Manual	1
External temperature sensor	1
Harness pressure terminal	2

Name	Quantity
Ferrite core (large)	1
Ferrite core (small)	1
Clamp material with snaps	2
Clamping material	3

Name	Quantity
Hole cover (large)	1
Hole cover (small)	1
Harness for multi-purpose sensor	1

2 Attachment

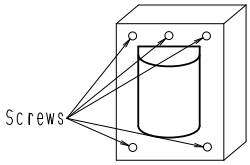
Failure to observe this installation could result in electric shock.
This device is a precision instrument, so caution must be exercised with static electricity. (Static electricity can be avoided by touching a grounded control panel, etc.)

Attachment location

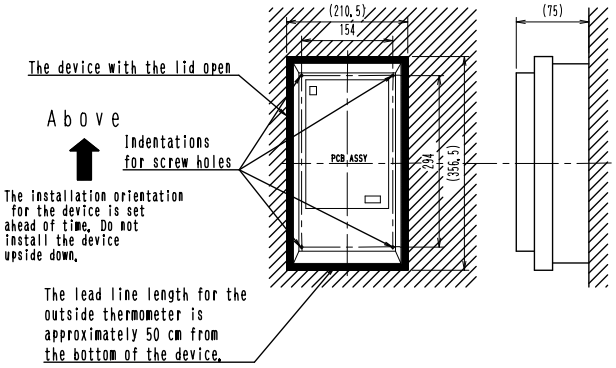
Install this device outside in a location out of direct sunlight and rain. The set height should have at least 30 cm between the floor and the device. The pull-out length of the outdoor thermometer from the bottom of the device is approximately 50 cm. The installation location for the device should be selected with the above in mind.

2−1. Installing the main unit.

First, remove the lid from the main unit. (5 screws) Do not lose the removed screws. You will need them when you close the lid after all work is done.



This device is mounted with 4 screws.
Open the four indentations for the screw holes with self tapping screws or drill them and secure them with the 4 screws.
(The recommended screw size is M4. Screws should be procured locally.)



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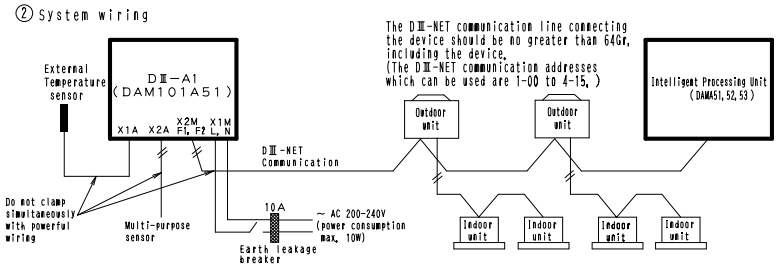
2－2. Wiring connections

① There are 4 types of wiring for the device.

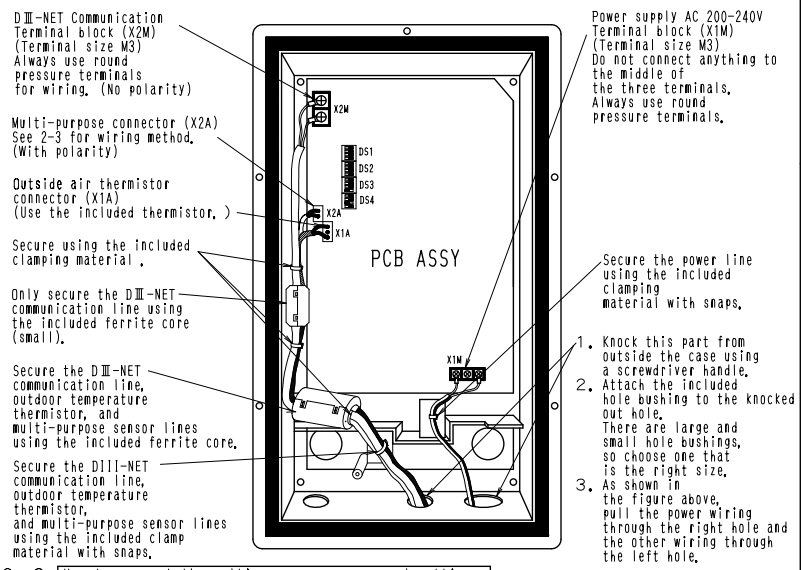
Name	Specifications for electric wiring used	Remarks
Power wiring	1.25mm²	Power supply voltage: max. 200-240V (50/60Hz)
Communication wiring	Sheathed vinyl cord or cable 0.75～1.25mm² (balanced-type) --- max. length 1000m (up to total extension 2000m) (Total extension length 1500m when using shield wire)	No polarity
External temperature sensor	Use the included sensor	-
Multi-purpose sensor	When extending the included harness --- max 15m	DC 0-5V sensor can be connected (procured locally)

② System wiring



Connecting and clamping the wiring (Be sure not to force screws. This may break them.)

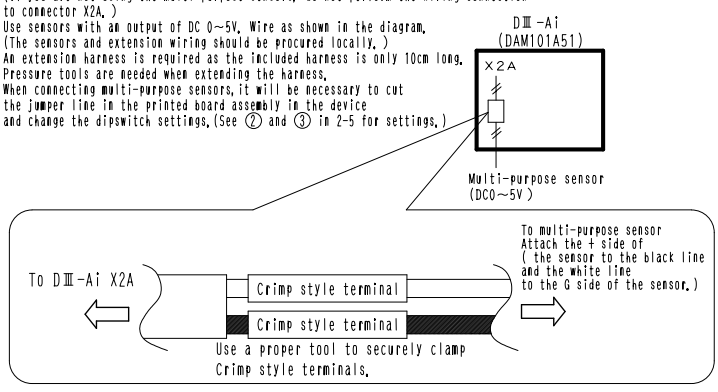
Names and functions of each part



2－3. How to connect the multi-purpose sensors and settings

Other than the supplied outdoor temperature sensor, it is also possible to connect other brand multi-purpose sensors to the device.

This section describes the wiring when connecting the multi-purpose sensors. (If you are not using the multi-purpose sensors, do not perform the wiring connection to connector X2A.)
Use sensors with an output of DC 0～5V. Wire as shown in the diagram. (The sensors and extension wiring should be procured locally.)
An extension harness is required as the included harness is only 10cm long. Pressure tools are needed when extending the harness.
When connecting multi-purpose sensors, it will be necessary to cut the jumper line in the printed board assembly in the device and change the dipswitch settings. (See ② and ③ in 2-5 for settings.)



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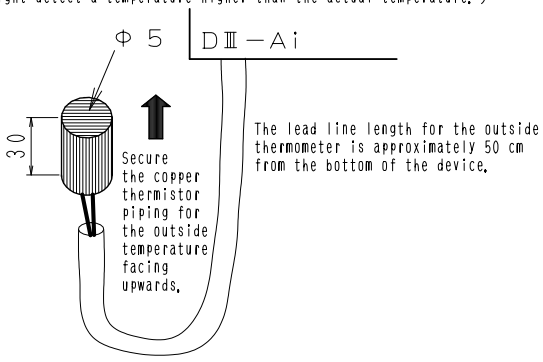
2－4. Attaching the outside temperature sensor

Securing the sensor

Always secure the sensor downwards as shown in the diagram. Install in a well-ventilated location where the unit will not be subject to direct rain or sunlight. (If the unit receives direct sunlight, it might detect a temperature higher than the actual temperature.)

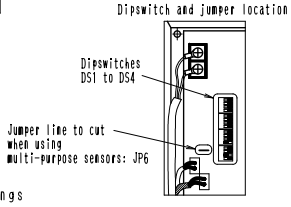


2－5. Setting the dipswitches and cutting the jumper line

Meaning of each dipswitch and jumper line

Number	Meaning
DS1	DⅢ-NET Communication address last digit
DS2	DⅢ-NET Communication address first digit
DS3	Enabling and disabling the sensor
DS4	Switching sensor uses
JP6	When using multi-purpose sensors, cut the main jumper line.

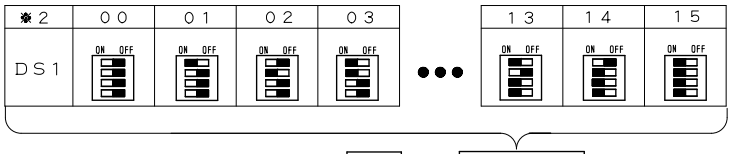
Dipswitch and jumper location



① DS1 and DS2 (DⅢ-NET communication address) settings

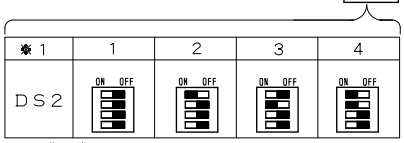
Setting DS1 and DS2" sets the DⅢ-NET communication address.
Set the DⅢ-NET communication address between 1-00 and 4-15.
Normally only one address is used per unit. The factory default is 1-00.
However, when using the settings below in ② to use multi-purpose sensors, two addresses are used per unit.
(For example, if the address is set to 2-10 using the DS1 and DS2 settings, 2-10 and 2-11 are thereby used and cannot be set on other AC units.
If the setting is for using the multi-purpose sensors, do not set DS1 and DS2 to 4-15. The multi-purpose sensor detection data cannot be properly monitored by I-Manager.)

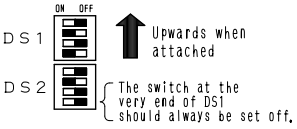
Dipswitch settings for each address



DⅢ－NET Address ※1 － ※2

Ex: 3－10

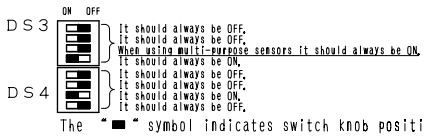




The "■" symbol indicates switch knob position.

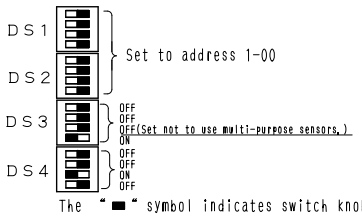
② DS3 and DS4 (sensor-related) settings

DS3 should only have its setting changed if locally-procured sensors are being used.
When using locally procured sensors, set the third switch from the front on.
(The factory default settings are for not using multi-purpose sensors.)
NB: When using multi-purpose sensors, cut the jumper line ③ at the same time as the settings are being done.
There is no need to change the factory default setting for DS4.



The "■" symbol indicates switch knob position.

The following settings should be done for the factory default DS1 to DS4 settings.



The "■" symbol indicates switch knob position.

③ Cutting JP6

When using multi-purpose sensors, cut jumper JP6 on the printed board using nippers, etc.
※: When using multi-purpose sensors, set DS3 at the same time as these settings are being done.
※: Be sure to get rid of line cuttings when cutting the jumper. Failing to remove them may cause the printed board to malfunction.

2－6. Once all settings are complete, Replace the removed cover in 2-1 using the screws.

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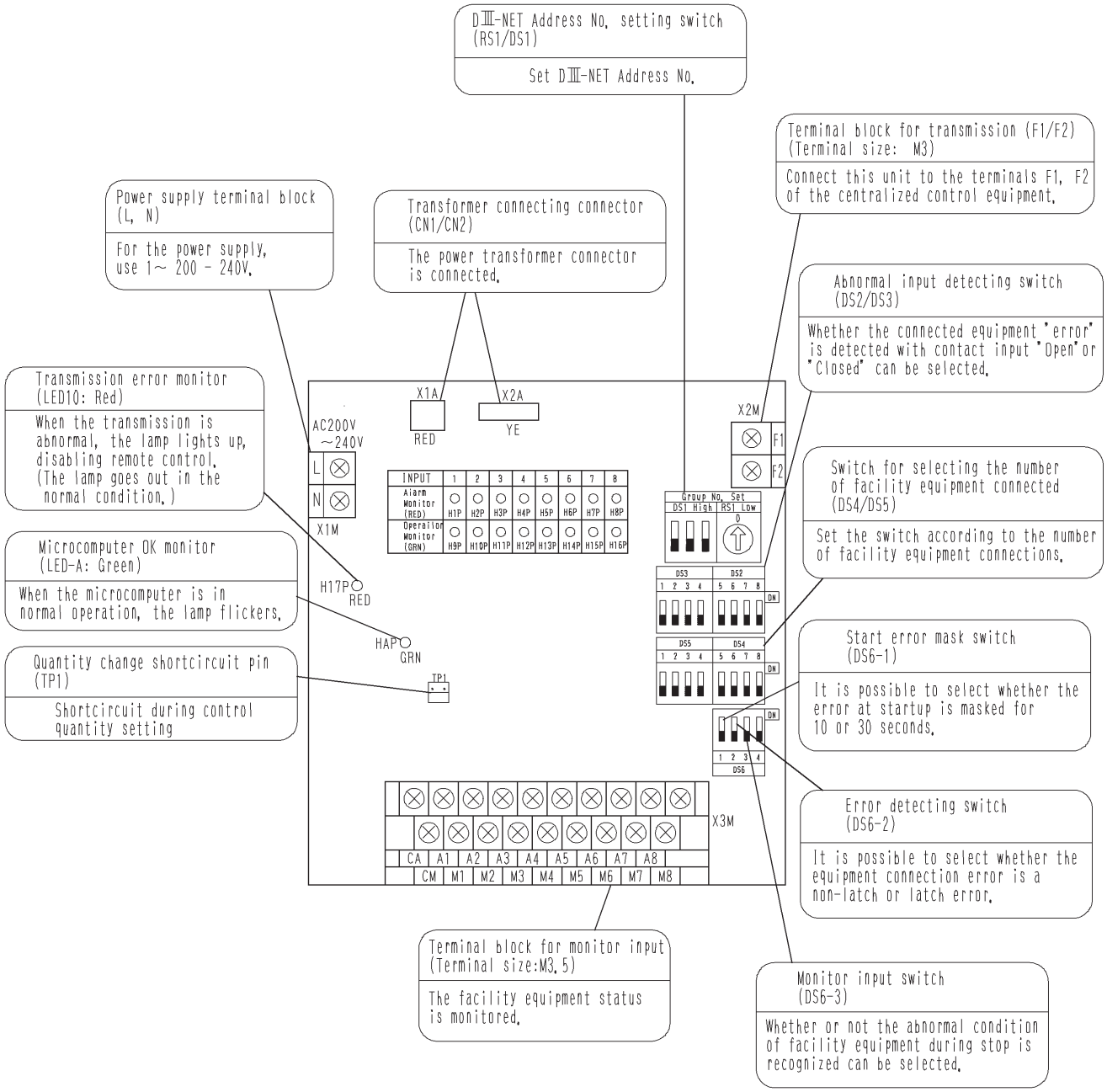
26. Di Unit

26.1 DEC101A51

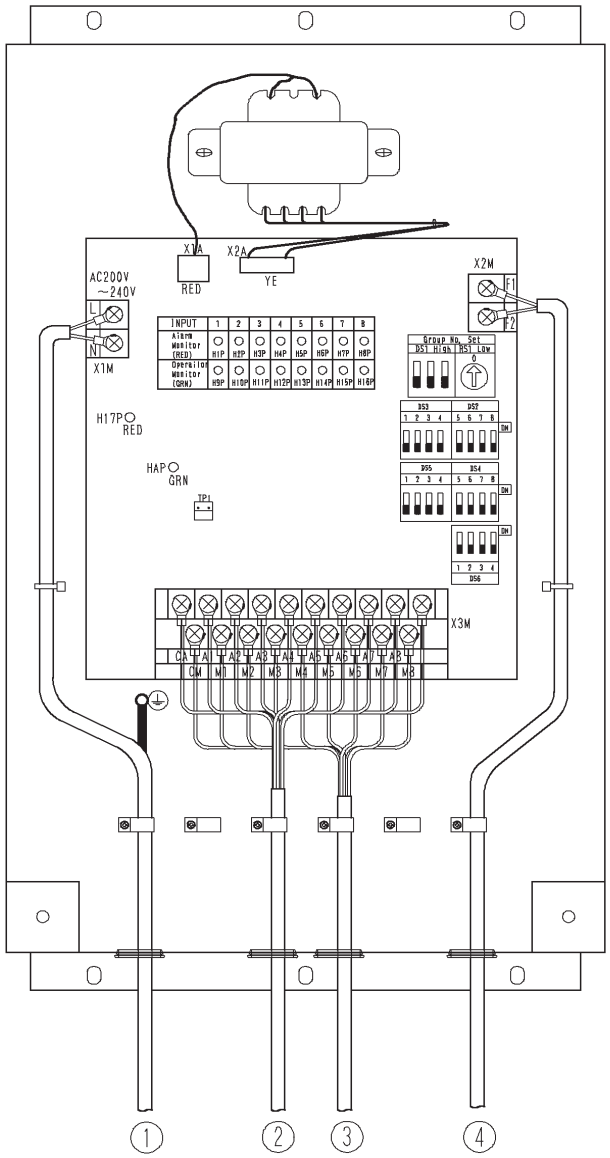
Appearance

Di Unit
DEC101A51



Wiring Lead-In

For wiring connection, remove the front panel (secured with 2 screws) of this equipment. Upon completion of operation given in this paragraph and "⑥ Initial Setting" below, close the front panel with the screws described above.



① To 1 ~ 200 - 240 V and earth

② To facility equipment

③ To facility equipment

④ To terminals F1, F2 of the centralized control equipment or terminals F1, F2 of other equipment (outdoor unit, DEC101A51, 102A51)

(1)Wire connections and wire clamping should be as shown in the figure above.
(2)No simultaneous clamping is allowed for high-voltage wiring (power supply wiring (L/N) & earth wiring), low-voltage wiring <Communication wiring (F1/F2), operation input wiring (CM, M1 to 8) and abnormal input wiring (CA, A1 to 8)> since malfunctioning may result. Also, in case where the wirings described above are routed in parallel, be sure to connect the wirings at least 50 mm apart from the other.

Specifications

		Di board
Input contacts		16 points. 8 pairs based on a pair of On/Off input and abnormality input
		* Contact information (On/Off, Abnormality) is transmitted to intelligent Touch Controller / intelligent Manager III through DIII-Net communication.
Installation method		Indoor installation
Power supply		To be supplied from outside
Rating		AC200-240V, 50/60Hz
Applied Standard		Safety standard: IEC730, EMC standard: CISPR22-A (EMI), CISPR24 (EMS)
Environment for use	Ambient temperature	–15 to 60 °C
	Ambient humidity	95%RH or less (no condensation)
Environment for storage	Ambient temperature	–20 to 60 °C
	Ambient humidity	95%RH or less (no condensation)

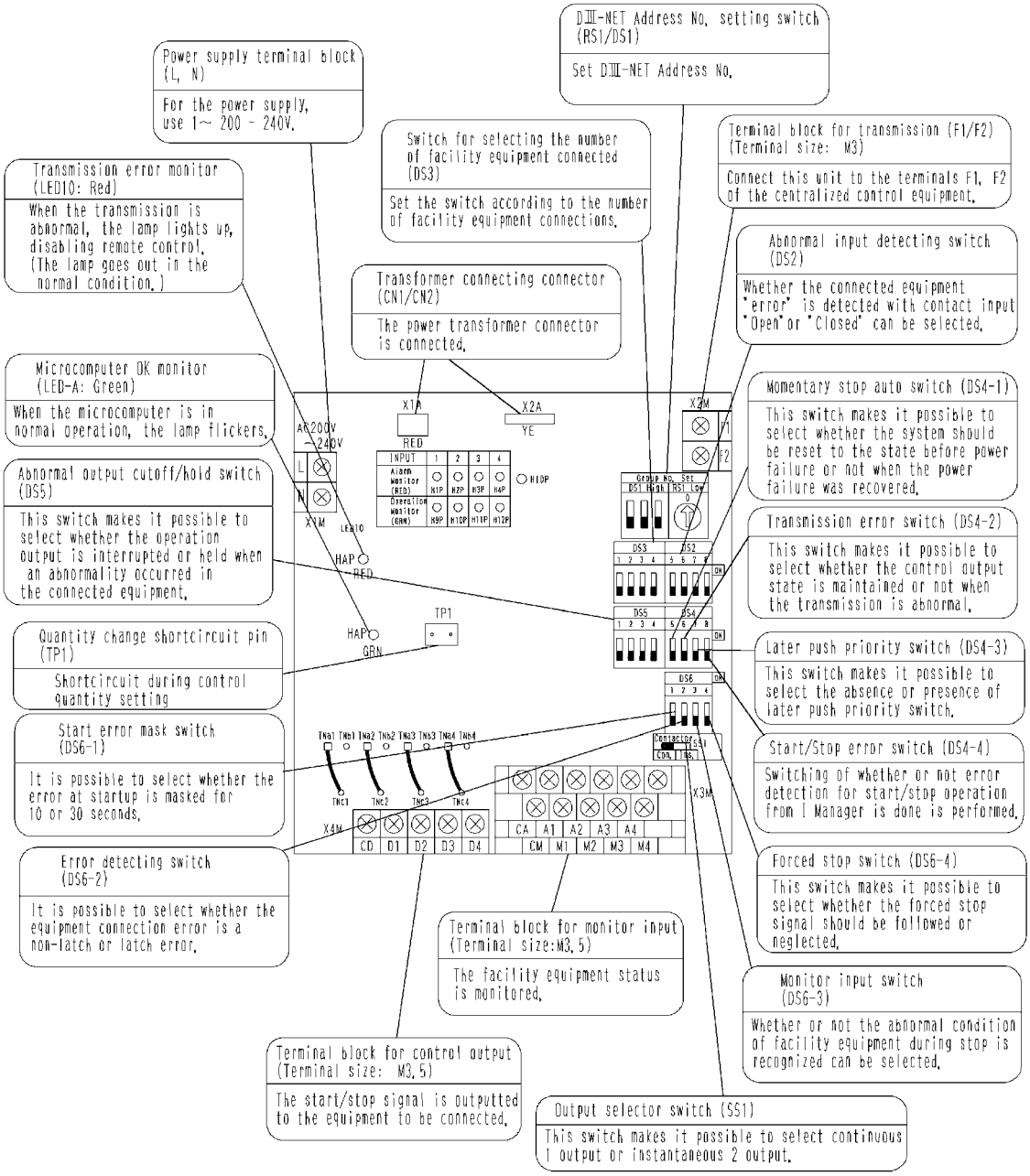
27. Dio Unit

27.1 DEC102A51

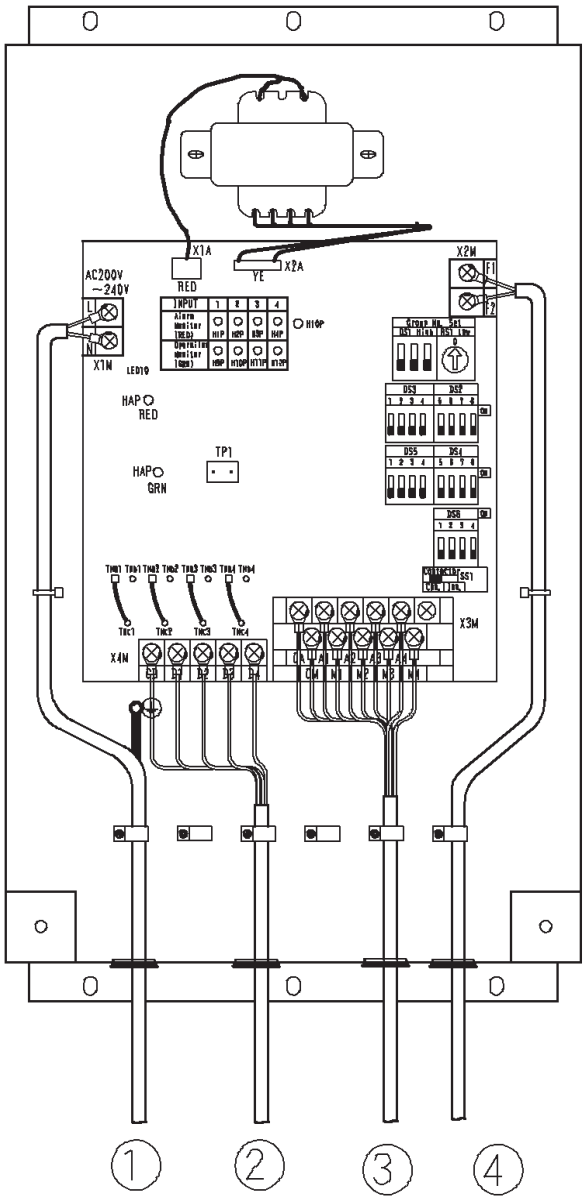
Appearance

Dio Unit
DEC102A51

The figure below shows the printed circuit board built in this equipment.



Wiring Lead-In



No simultaneous clamping is allowed for high-voltage wiring <power supply wiring (L/N), earth wiring, relay output wiring (CD, D1 to 4)>, low-voltage wiring <communication wiring (F1/F2), operation input wiring (CM, M1 to 4) and abnormal input wiring (CA, A1 to 4)> since malfunctioning may result.
Also, in case where the wirings described above are routed in parallel, be sure to connect the wirings at least 50 mm apart from the other.

① To 1 ϕ 200 - 240 V and earth
② To facility equipment
③ To facility equipment
④ To terminals F1, F2 of the centralized control equipment or terminals F1, F2 of other equipment
(outdoor unit, DEC101A51, 102A51)

Specifications

		Dio board
Input contacts		8 points. 4 pairs based on a pair of On/Off input and abnormality input
		* Contact information (On/Off, Abnormality) is transmitted to intelligent Manager III through DIII-Net communication.
Output contacts		4 points. In case of normally output, 4 units are controllable. In case of instantaneous output, 2 units are controllable.
		* From intelligent Touch Controller / intelligent Manager III, On/Off and control of the equipment with the external contacts are possible through DIII-NET communication.
Installation method		Indoor installation
Power supply		To be supplied from outside
Rating		AC200-240V, 50/60Hz
Applied Standard		Safety standard: IEC730, EMC standard: CISPR22-A (EMI), CISPR24 (EMS)
Environment for use	Ambient temperature	–15 to 60 °C
	Ambient humidity	95%RH or less (no condensation)
Environment for storage	Ambient temperature	–20 to 60 °C
	Ambient humidity	95%RH or less (no condensation)

Output specs: Voltage free 'a' contact

Voltage specs	Maximum current	Minimum current
AC200–240V	1.5 A (resistance load)	10mA
DC5–24V	2.0 A (resistance load)	10mA

Input specs: Voltage free 'a' contact

Micro current load contact input (DC12V, 1 mA or less)

Wiring length: 150 m

28. Interface for use in BACnet®

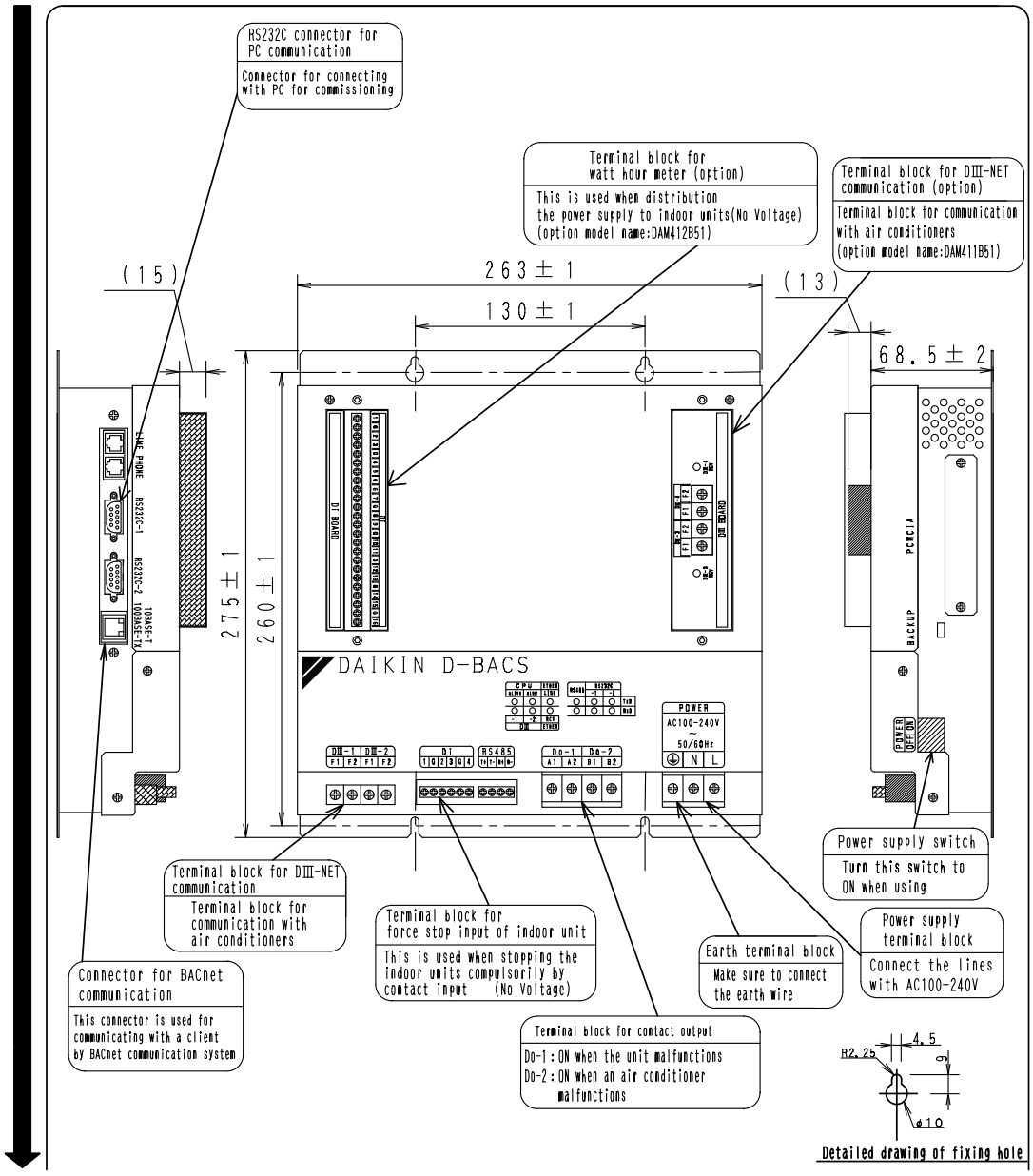
28.1 DMS502B51

❶ Components

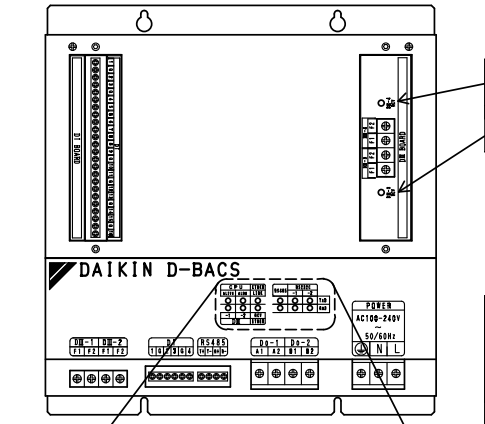
The following parts are attached to this unit.
Make sure to check them before installation.

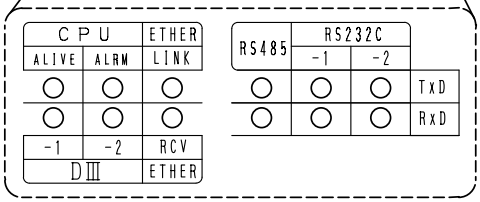
Interface for use in BACnet	1 set
INSTALLATION MANUAL	1 copy

❷ Names and functions of each part



1P191169D





LED display

DIII－4 RCV	It flashes when it receives/transmits data from/to the equipment connected with DIII-4 such as air conditioners
DIII－3 RCV	It flashes when it receives/transmits data from/to the equipment connected with DIII-3 such as air conditioners

LED display

CPU ALIVE	It flashes when the unit is normal operation.
CPU ALRM	It flashes when the unit is abnormal operation.
DIII－1	It flashes when it receives/transmits data from/to the equipment connected with DIII-1 such as air conditioners
DIII－2	It flashes when it receives/transmits data from/to the equipment connected with DIII-2 such as air conditioners
Ether RCV	It flashes when it receives/transmits data from/to BACnet client
Ether Link	It lights when the 10BASE-T cable or 100BASE-TX cable
RS485(TxD)	This LED display cannot be used with this unit
RS485(RxD)	This LED display cannot be used with this unit
RS232C-1(TxD)	It flashes when it transmits data to PC
RS232C-1(RxD)	It flashes when it receives data to PC
RS232C-2(TxD)	This LED display cannot be used with this unit
RS232C-2(RxD)	This LED display cannot be used with this unit

❸ Installation

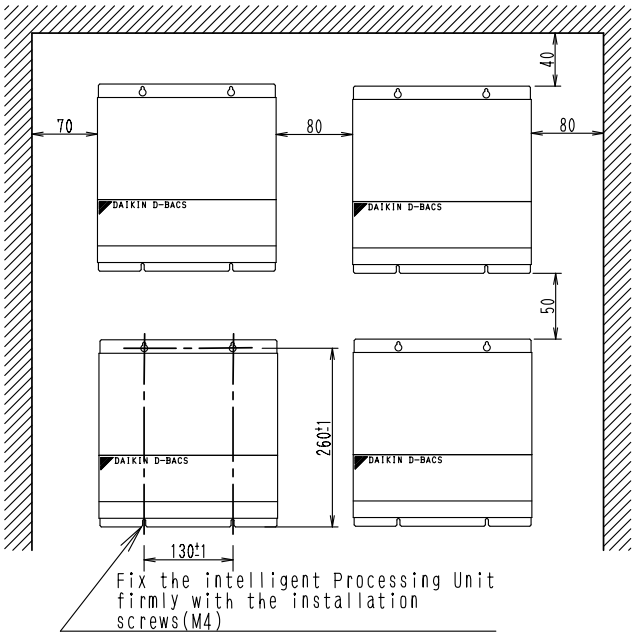
Don't fail to turn OFF the indoor unit power switch before installing Interface for use in BACnet. Failure to observe this instruction could result in electric shock.

●Location

Make sure to install the unit on the inside of the inaccessible and lockable (or needed to use exclusive tools to open) electrical component box installed indoors where the effect of electromagnetic wave or dust can be avoided. The minimum depth required for installation is 100mm

●Required installation space

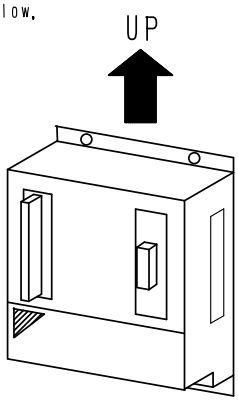
Keep the minimum amount of space indicated in the below drawing from walls, and between units when installed in series.



1P191169D

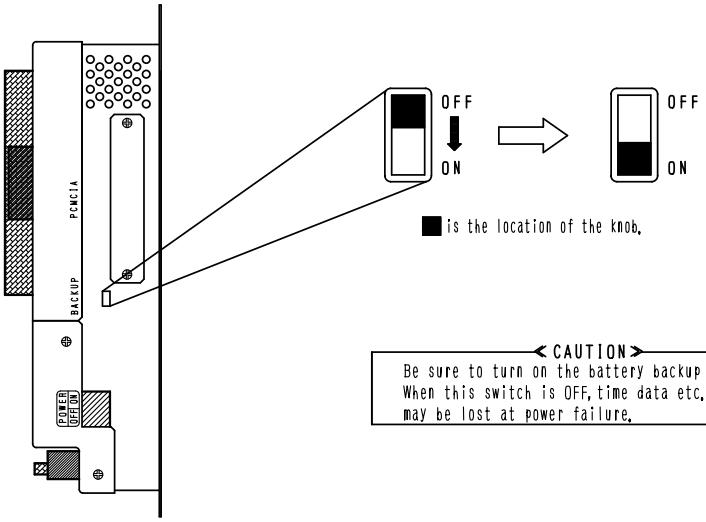
● How to install

For installation direction follow the drawing shown below.



≪CAUTION≫
Make sure to install the unit vertically. Do not install the unit horizontally, because it may cause malfunction.

Setting "BACK-UP BATTERY VALIDATE" switch
(shifted to OFF when being shipped from the shop. -- Back-up battery set to INVALIDATE)
For the switch to back up the clock, etc. in case of any power failure, actuate it from OFF side (knob is located above) to ON side (knob is located below) as shown in the sketch below.



≪CAUTION≫
Be sure to turn on the battery backup switch. When this switch is OFF, time data etc. may be lost at power failure.

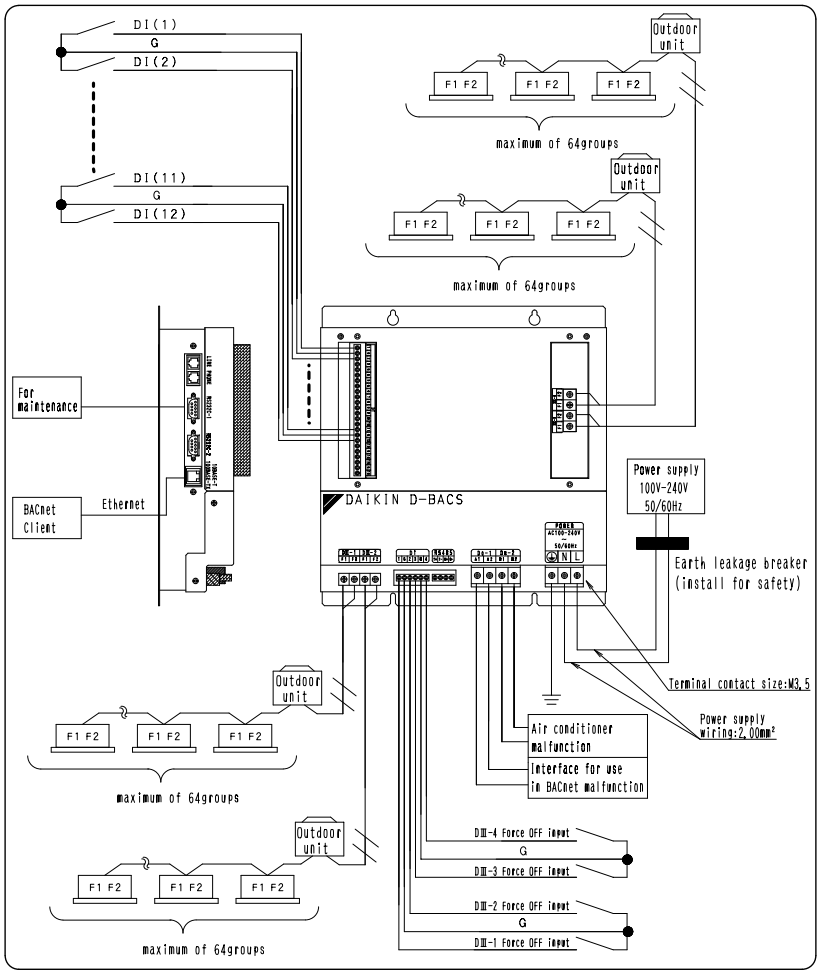
TO BACK

1P191169D

❹「DⅢ-NET master」setting

●Make sure to connect the unit with「DⅢ-NET master」
(Do not remove the master central setting connector.)
Remove the master central setting connectors of the centralized management controllers or ON/OFF controllers When using togeter with other centralized controllers such as centralizedmanagement controllers or ON/OFF controllers.

❺Malfunction of unit

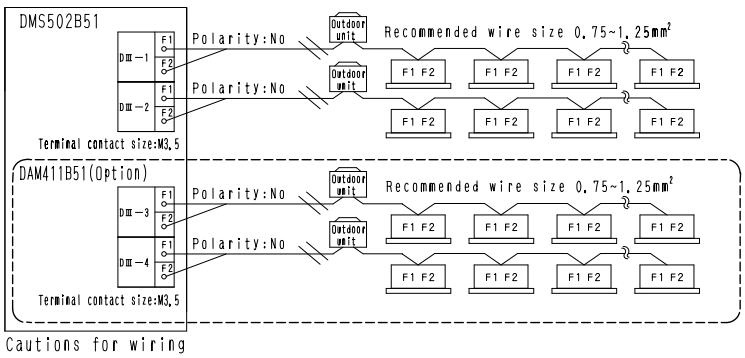


❻Electric Wiring Connection

Don't fail to turn OFF the indoor unit power switch before installing Interface for use in BACnet.
Failure to observe this instruction could result in electric shock.

■Everything relating with field wiring must be supplied in the field.

● DⅢ-NET wiring



Cautions for wiring

1. Do not use multicore cables with three or more cores
2. Use wires of sizes between 0.75mm² and 1.25mm²
3. Do not bind the wire for DⅢ-NET
4. Wirings for DⅢ-NET must be isolated from the power lines
5. Wire length:Max 1000m

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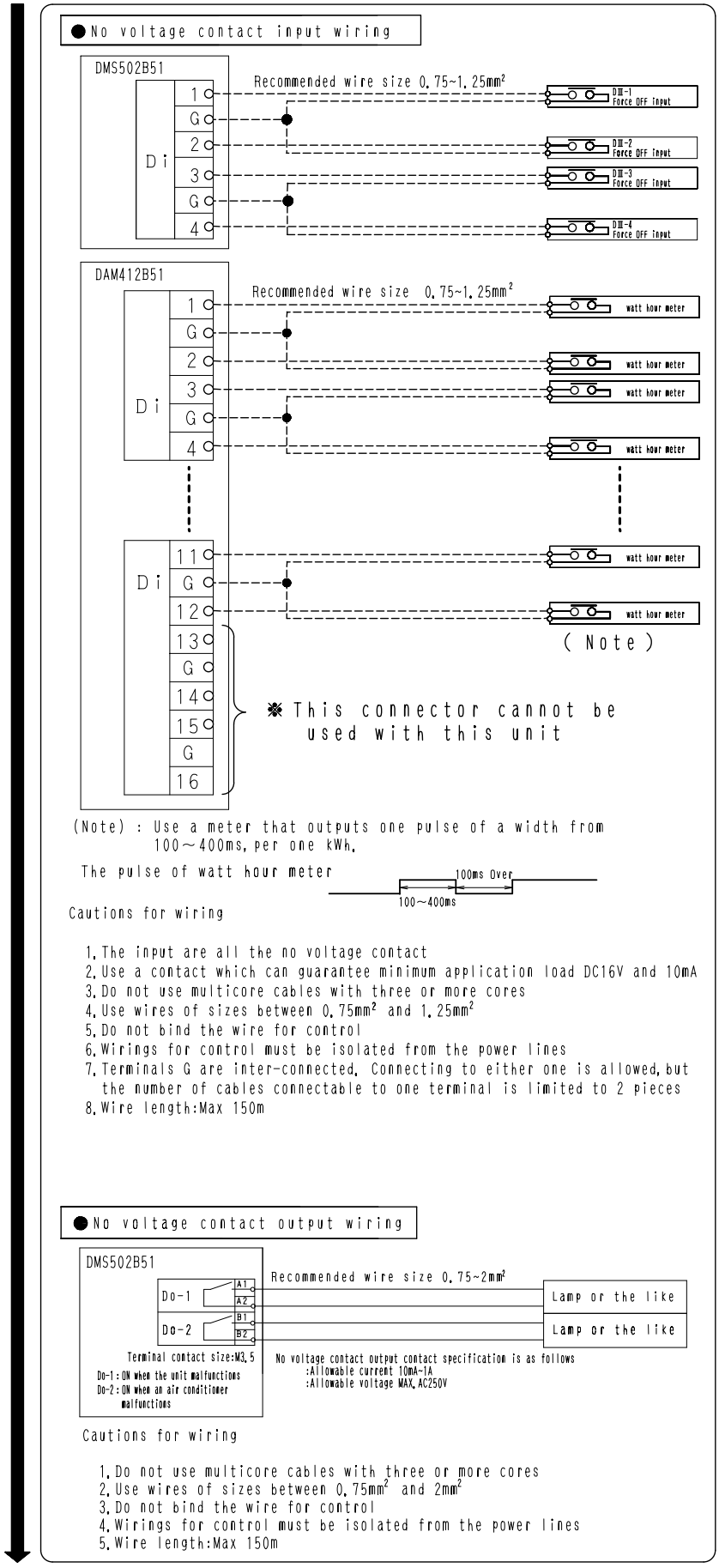
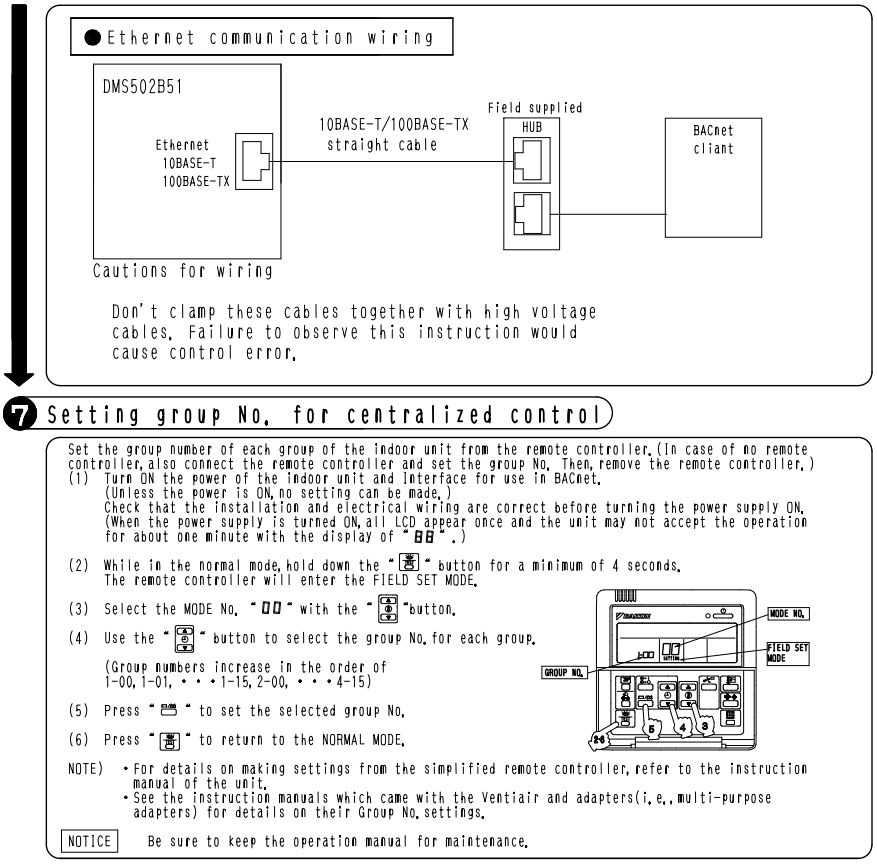

● No voltage contact input wiring
DMS502B51
Recommended wire size 0.75~1.25mm²
Di
1
G
2
3
G
4
DI-1 Force OFF Input
DI-2 Force OFF Input
DI-3 Force OFF Input
DI-4 Force OFF Input
DAM412B51
Recommended wire size 0.75~1.25mm²
watt hour meter
11
12
13
14
15
16
(Note)
※ This connector cannot be used with this unit
(Note) : Use a meter that outputs one pulse of a width from 100～400ms, per one kWh.
The pulse of watt hour meter
100ms Over
100～400ms
Cautions for wiring
1. The input are all the no voltage contact
2. Use a contact which can guarantee minimum application load DC16V and 10mA
3. Do not use multicore cables with three or more cores
4. Use wires of sizes between 0.75mm² and 1.25mm²
5. Do not bind the wire for control
6. Wirings for control must be isolated from the power lines
7. Terminals G are inter-connected. Connecting to either one is allowed, but the number of cables connectable to one terminal is limited to 2 pieces
8. Wire length:Max 150m
● No voltage contact output wiring
DMS502B51
Recommended wire size 0.75~2mm²
Do-1
Do-2
A1
A2
B1
B2
Lamp or the like
Lamp or the like
Terminal contact size:M3.5
Do-1 : ON when the unit malfunctions
Do-2 : ON when an air conditioner malfunctions
No voltage contact output contact specification is as follows
:Allowable current 10mA~1A
:Allowable voltage MAX. AC250V
Cautions for wiring
1. Do not use multicore cables with three or more cores
2. Use wires of sizes between 0.75mm² and 2mm²
3. Do not bind the wire for control
4. Wirings for control must be isolated from the power lines
5. Wire length:Max 150m

1P191170D


● Ethernet communication wiring
DMS502B51
Ethernet
10BASE-T
100BASE-TX
10BASE-T/100BASE-TX
straight cable
Field supplied
HUB
BACnet
cliant
Cautions for wiring
Don't clamp these cables together with high voltage cables. Failure to observe this instruction would cause control error.
❼ Setting group No. for centralized control
Set the group number of each group of the indoor unit from the remote controller. (In case of no remote controller, also connect the remote controller and set the group No. Then, remove the remote controller.)
(1) Turn ON the power of the indoor unit and interface for use in BACnet.
(Unless the power is ON, no setting can be made.)
Check that the installation and electrical wiring are correct before turning the power supply ON.
(When the power supply is turned ON, all LCD appear once and the unit may not accept the operation for about one minute with the display of "88".)
(2) While in the normal mode, hold down the " " button for a minimum of 4 seconds.
The remote controller will enter the FIELD SET MODE.
(3) Select the MODE No. "00" with the " "button.
(4) Use the " " button to select the group No. for each group.
(Group numbers increase in the order of
1-00, 1-01, • • • 1-15, 2-00, • • • 4-15)
(5) Press " " to set the selected group No.
(6) Press " " to return to the NORMAL MODE.
MODE NO.
FIELD SET MODE
GROUP NO.
NOTE) • For details on making settings from the simplified remote controller, refer to the instruction manual of the unit.
• See the instruction manuals which came with the Ventiair and adapters(i.e., multi-purpose adapters) for details on their Group No. settings.
NOTICE Be sure to keep the operation manual for maintenance.

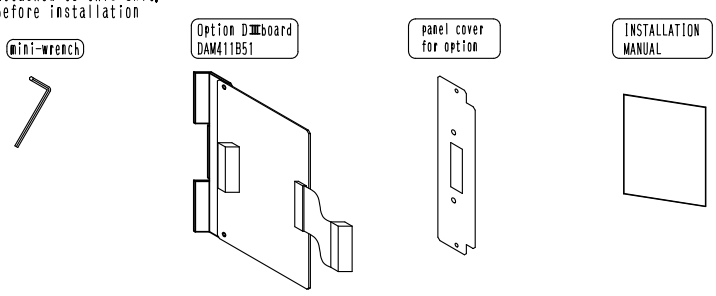
1P191170D

29. Optional DIII Board

29.1 DAM411B51

❶ Components

The following parts are attached to this unit.
Make sure to check them before installation



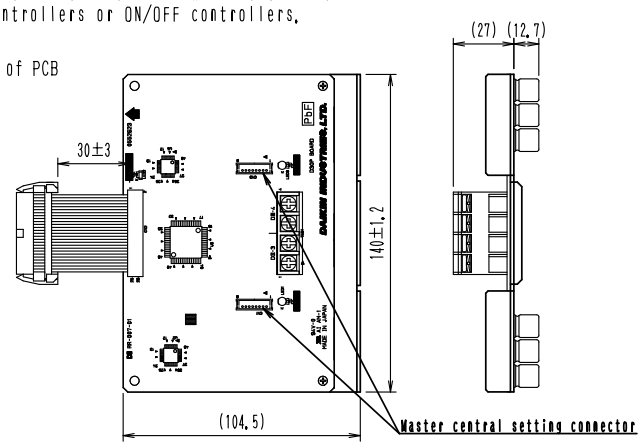
❷ Outline of functions

**Don't fail to turn OFF the indoor unit power switch before Interface for use in BACnet.
Failure to observe this instruction could result in electric shock.**

This unit is for adding 2 port to the DⅢ-NET communication port by installing it on the Interface for use in BACnet DMS502B51.

●Make sure to connect the unit with 「DⅢ-NET master」
(Do not remove the master central setting connector.)
Remove the master central setting connectors of the centralized management controllers or ON/OFF contorollers When using togeter with other centralized controllers such as centralized management controllers or ON/OFF controllers.

Outside dimension of PCB



1P191165C

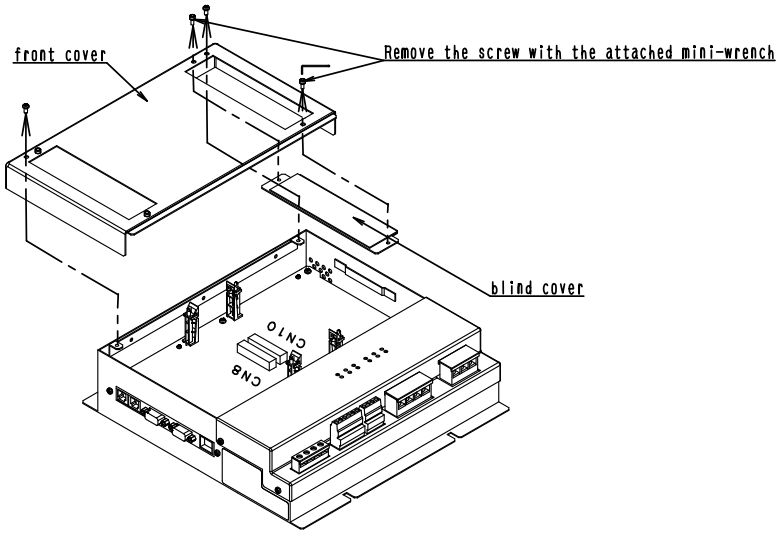
❸ Installation

Don't fail to turn OFF the indoor unit power switch before Interface for use in BACnet. Failure to observe this instruction could result in electric shock.

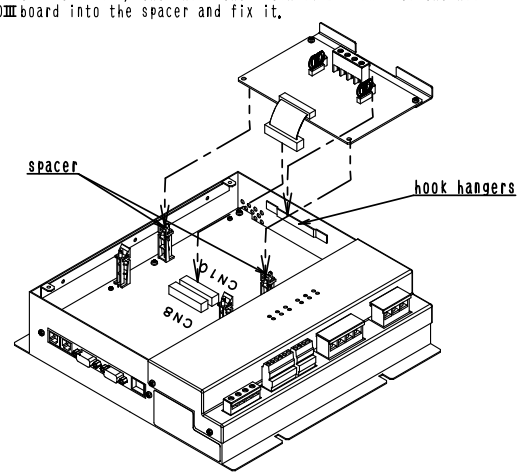
Before installing the PCB, check that the power supply is turned OFF.
Since PCB's are weak to static electricity, make sure to remove the static electricity accumulated in the worker's body.
(The accumulated static electricity can be removed by touching the earthed controlboard and the like.)

① Remove the front cover of Interface for use in BACnet and remove the blind cover attached to the front cover with the attached mini-wrench.

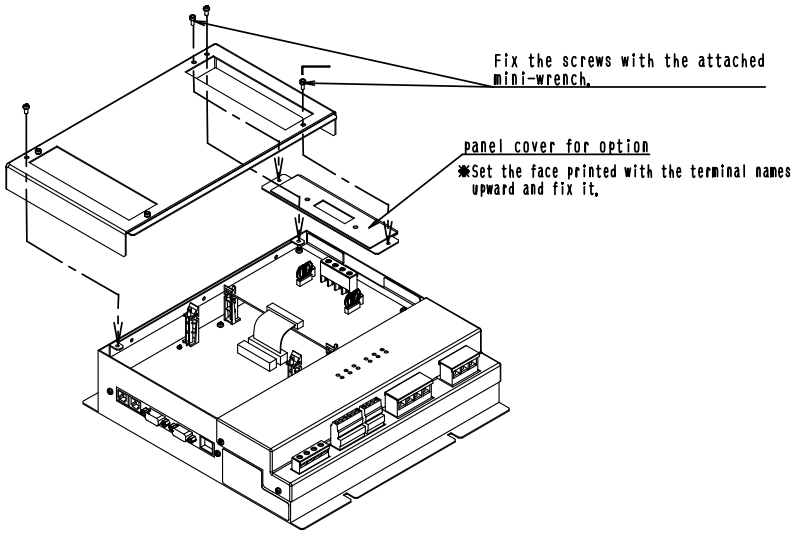
Caution: Keep the removed screws. These screws for fixing the front cover and the blind cover(2 for each) will be required for reassembling.



② As shown in the figure below, insert the connector DⅢboard into the connector CN10 of Interface for use in BACnet until it clicks, then hook the latch of DⅢboard to the hook hanger, and put the hole of DⅢboard into the spacer and fix it.



③ Fix the panel cover for option to the front cover with the attached mini-wrench. After that, fix the front cover to Interface for use in BACnet.

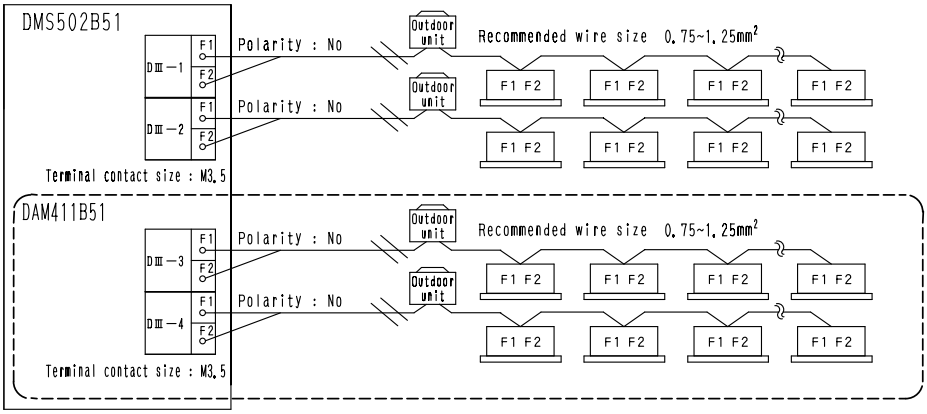


1P191165C

④ For external wiring

(Do not fail to use a round crimp terminal with reinforcing sleeve for safety wiring connection to the Interface for use in BACnet.)

■Everything relating with field wiring must be supplied in the field.



LED display
This unit has the following LED display. When each corresponding port transmits or receives the data the LED flashes.

Cautions for wiring
1. Do not use multicore cables with three or more cores
2. Use wires of sizes between 0.75mm² and 1.25mm²
3. Wire length:Max 1000m
4. Do not bind the wires for DIII-NET
5. Wirings for DIII-NET must be isolated from the power lines.
6. Terminal contact size :M3.5

⑤ Setting group No. for centralized control

Set the group number of each group of the indoor unit from the remote controller. (In case of no remote controller, also connect the remote controller and set the group No. Then, remove the remote controller.)

(1) Turn ON the power of the indoor unit and Interface for use in BACnet.
(Unless the power is ON, no setting can be made.)
Check that the installation and electrical wiring are correct before turning the power supply ON.
(When the power supply is turned ON, all LCD appear once and the unit may not accept the operation for about one minute with the display of "88".)

(2) While in the normal mode, hold down the "[SET]" button for a minimum of 4 seconds.
The remote controller will enter the FIELD SET MODE.

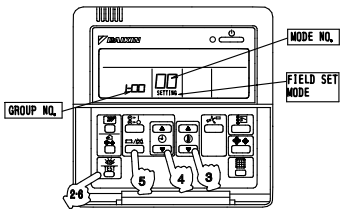
(3) Select the MODE No. "00" with the "[▲▼]"button.

(4) Use the "[▲▼]" button to select the group No. for each group.

(Group numbers increase in the order of
1-00, 1-01, • • • 1-15, 2-00, • • • 4-15)

(5) Press "[TIME]" to set the selected group No.

(6) Press "[SET]" to return to the NORMAL MODE.



NOTE) • For details on making settings from the simplified remote controller, refer to the instruction manual of the unit.
• See the instruction manuals which came with the Ventiair and adapters(i.e., multi-purpose adapters) for details on their Group No. settings.

NOTICE Be sure to keep the operation manual for maintenance.

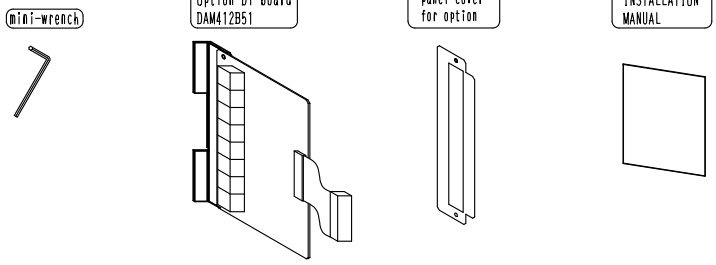
1P191165C

30. Optional Di Board

30.1 DAM412B51

❶ Components

The following parts are attached to this unit.
Make sure to check them before installation

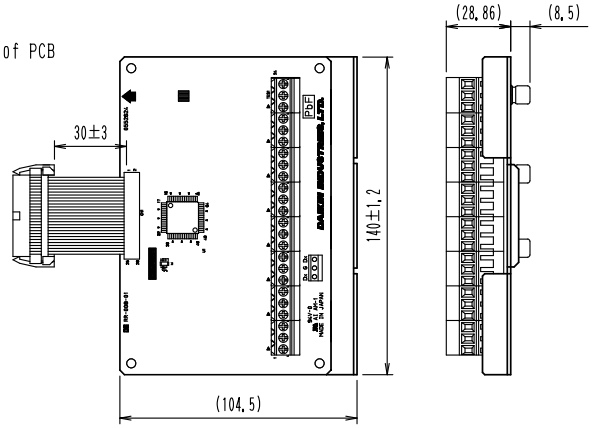


❷ Outline of functions

Don't fail to turn OFF the indoor unit power switch before Interface for use in BACnet.
Failure to observe this instruction could result in electric shock.

This unit is for 12 points of Di input(no voltage contact input) by installing it on the Interface for use in BACnet DMS502B51.

Outside dimension of PCB



1P191166D

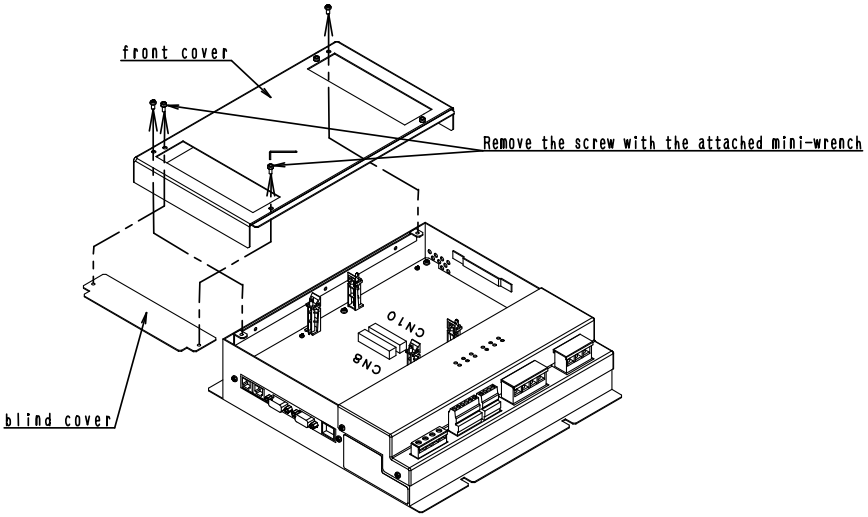
❸ Installation

Don't fail to turn OFF the indoor unit power switch before Interface for use in BACnet. Failure to observe this instruction could result in electric shock.

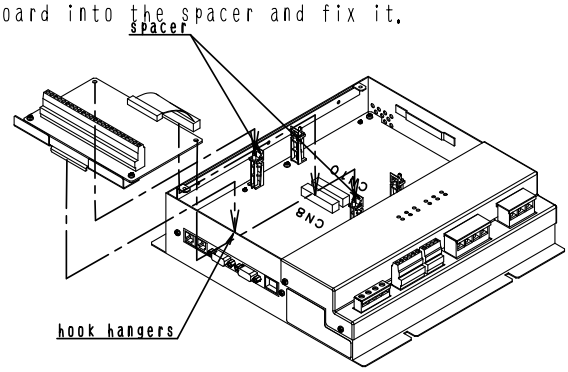
Before installing the PCB, check that the power supply is turned OFF. Since PCB's are weak to static electricity, make sure to remove the static electricity accumulated in the worker's body. (The accumulated static electricity can be removed by touching the earthed controlboard and the like.)

① Remove the front cover of Interface for use in BACnet(DMS502B51) and remove theblind cover attached to the front cover with the attached mini-wrench.

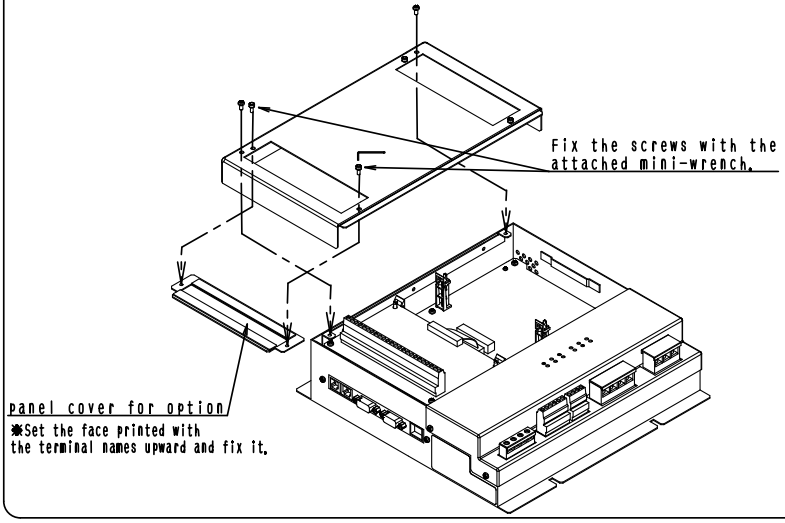
Caution: Keep the removed screws. These screws for fixing the front cover and the blind cover(2 for each) will be required for reassembling.



② As shown in the figure below, insert the connector Di board into the connector CN8 of Interface for use in BACnet until it clicks, then hook the latch of Di board to the hook hanger, and put the hole of Di board into the spacer and fix it.



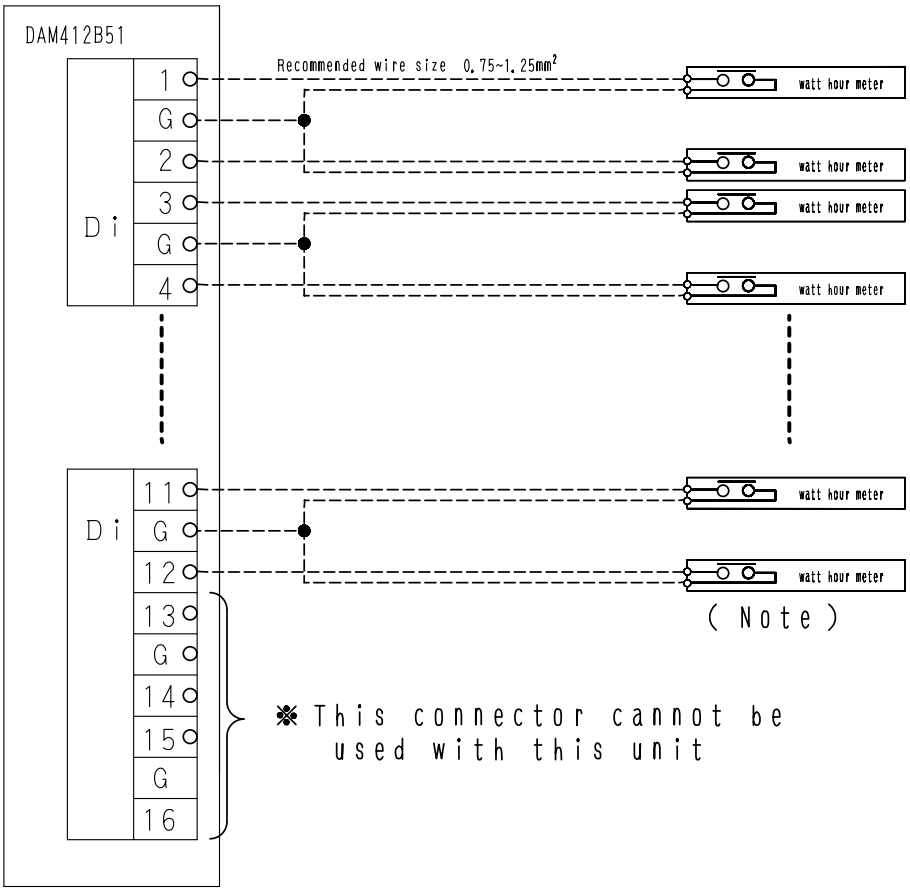
③ Fix the panel cover for option to the front cover with the attached mini-wrench.
After that, fix the front cover to Interface for use in BACnet.



1P191166D

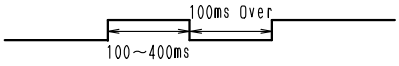
❹ For external wiring

■Everything relating with field wiring must be supplied in the field.



(Note) : Use a meter that outputs one pulse of a width from 100～400ms, per one kWh.

The pulse of watt hour meter



Cautions for wiring

1. The input are all the no voltage contact
2. Use a contact which can guarantee minimum application load DC16V and 10mA
3. Do not use multicore cables with three or more cores
4. Use wires of sizes between 0.75mm² and 1.25mm²
5. Do not bind the wire for control
6. Wirings for control must be isolated from the power lines
7. Terminals G are inter-connected. Connecting to either one is allowed, but the number of cables connectable to one terminal is limited to 2 pieces
8. Wire length:Max 150m

1P191166D

31. Interface for use in LONWORKS®

31.1 DMS504B51

31.1.1 Installation

This manual must be read prior to installation.
Make sure the power supply is off
when carring out the installation.

WARNING
This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Please carefully read the "Safety Precautions" as follows and install the controller as instructed.

- The precautions given herein are classified as " ! WARNING" and " ! CAUTION". However, particular precautions which, unless they are observed in installing that could result in death and serious injury are identified by "! WARNING". Needless to say even other precautions which are not identified by "! CAUTION" could lead to a serious accident unless they are observed. Therefore, please do not fail to observe these precautions.
- After completion of the installation, please conduct a test run on the controller to check that it is free from any fault and in addition simultaneously instruct the user how to operate and maintain it correctly (in accordance with the Operation Manual).
  Furthermore, request the user to keep this manual together with the Operation Manual for future reference.

⚠WARNING

The installation work must be requested by the dealer.
Installation by user himself could cause electric shock, fire, etc.

Install correctly in accordance with this installation manual.
Incorrect installation, if any, may cause electric shock, fire, etc.

Installing; don not fail to use the accessories and specific parts which are supplied together with the indoor unit.
Failure to observe this instruction may cause electric shock, fire, etc.

Perform correctly the electric wiring connection using the specified cables and firmly clamp each terminal connector to prevent cable load from being transferred thereto.
Unstable and improper cable connecting and clamping could cause overheat, fire, etc.

⚠CAUTION

Grounding.
Do not connect the grounding wire to any of gas pipes, city water pipes, lightning rods, or telephone grounding wire. Imperfect grounding would cause electric shock.

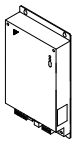
Avoid installing at the following locations.
1. Cuisine and other place where the controller is inevitably exposed to mineral oil, scattered oil or steam. Installing at such places could cause deterioration of the resin parts, corrosion or short circuit.
2. Where corrosive gases such as sulfur dioxide generate inevitably.
3. Where a machine as generates electromagnetic waves. Installing at such a place could cause trouble of the control line and failure of normal air-conditioning operation.
4. Where leak of combustible gas is forecast and place where volatile ignitable gases such as thinner, gasoline, etc. are handled.
   Should such gas leak and accumulate around the devices, could cause igniting.

SETTING THE BACPUP BATTERY SWITCH.

1 Components

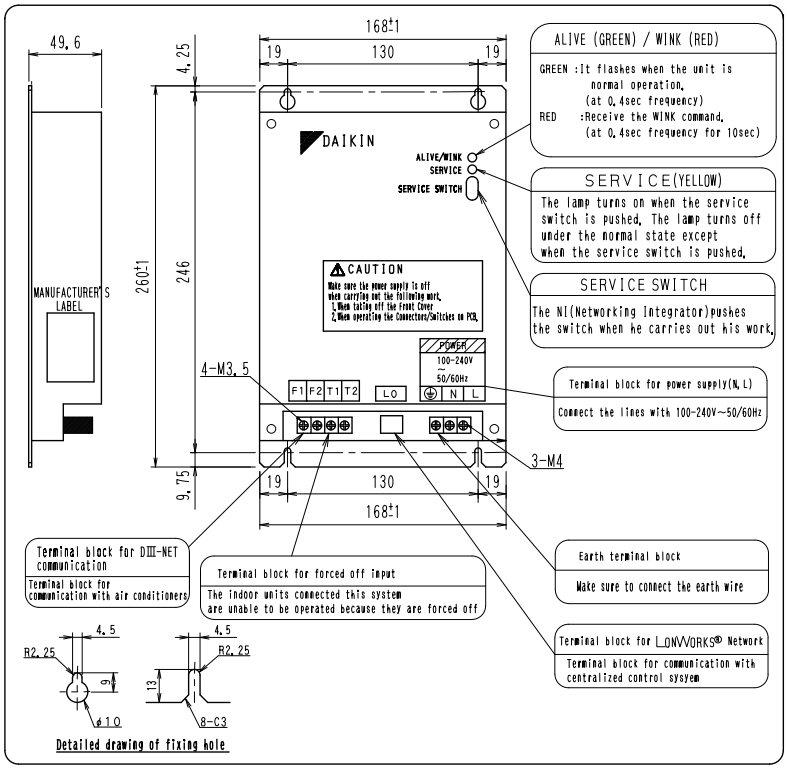
The following parts are attached to this unit.
Make sure to check them before installation.

DMS-IF
DMS504B51



INSTALLATION MANUAL

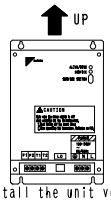
2 Names and functions of each part



1P111315-1-1

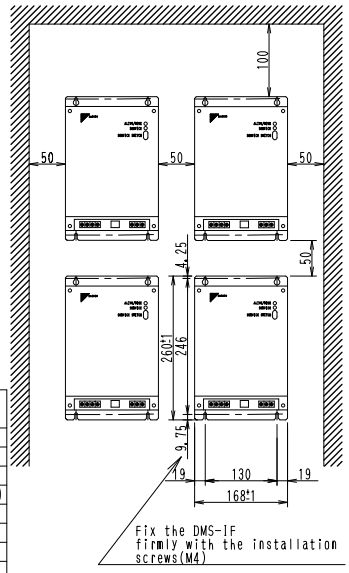
❸ Installation

- Make sure to install the unit on the inside of the inaccessible and lockable (or needed to use exclusive tools to open) electrical component box installed indoors where the effect of electromagnetic wave or dust can be avoided. The minimum depth required for installation is 80mm
- Keep the minimum amount of space indicated in the below drawing from walls, and between units when installed in series.
- For installation direction follow the drawing shown below.



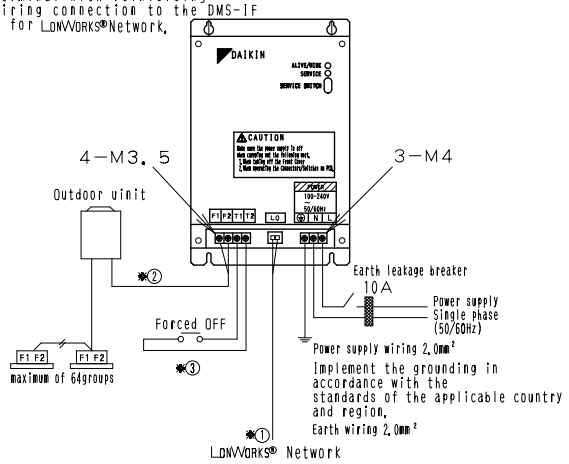
Make sure to install the unit vertically. Do not install the unit horizontally, because it may cause malfunction.

1)Electrical rating	(1)Rated voltage and frequency : Single phase AC100~240V 50/60Hz	
	(2)Rated power consumption : maximum 5W	
2)Conditions	(1)Power supply fluctuation : ±10%	
	(2)Ambient temperatyre : -10~+50℃	
	(3)Ambient humidity : 0~95% (Sweating is not acceptable)	
	(4)Preservation : -20~+60℃	
3) Performance : Insulation resistance : 50MΩ or more by DC500 megohmmeter		
4)Mass : 1.5Kg		
5)Colour of the unit : stainless steel sus304-NO.4		



❹ Electric Wiring Connection

- Use a round crimp terminal with reinforcing sleeve for safety wiring connection to the DMS-IF except the terminal for LONWORKS® Network.

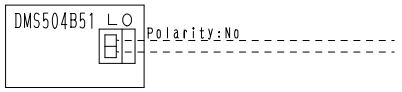


❺ Wiring specification

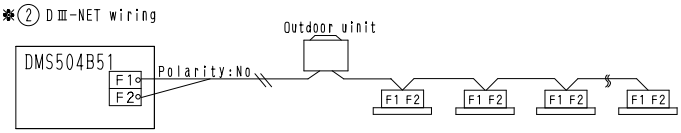
■ Everything relating with field wiring must be supplied in the field.

※① LONWORKS® Network communication wiring

Use the dedicated line for the LONWORKS® Network.



※② DIII-NET wiring

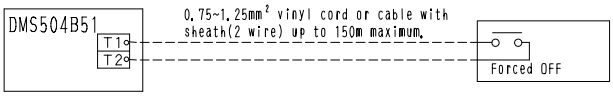


1. Do not use multicore cables with three or more cores.
2. Use wires of sizes between 0.75mm² and 1.25mm²
3. Wire length:Max 1000m

1P111315-1-2

4. Do not bind the wire for DⅢ-NET
5. Wirings for DⅢ-NET must be isolated from the power lines.
6. Terminal contact size:M3.5

※③ Forced OFF



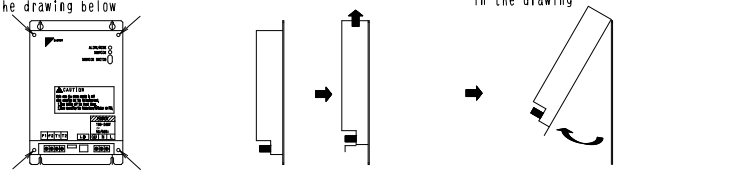
Cautions for wiring
When Forced OFF INPUT is kept on, the indoor units connected this system are unable to be operated because they are Forced OFF.

1. Use a no voltage contact.
2. Use a contact which can guarantee minimum application load DC16V and 10mA.
3. Do not use multicore cables with three or more cores.
4. Wirings must be isolated from the power lines.
5. Terminal contact size:M3.5.

⑥ Names and functions of P.C.B ASSY

① How to open the cover

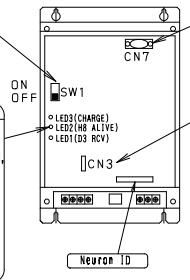
- Remove the 4 screws as shown in the drawing below
- Slide the cover upward
- Lift the cover to the front as shown in the drawing



② Names and functions of P.C.B ASSY

Backup battery switch
- **Turn ON** the switch to bring the backup battery effective. This mark ■ shows the swtich position when DMS-IF is shipped out of the factory

LED display
LED3 turns on during the battery is charged. Even after the battery is completely charged, the lamp slightly turns on.
LED2 flashes (at 0.4sec frequency) when the CPU for DⅢ-Net communication is normal.
LED1 flashes when receiving data by DⅢ-Net communication.



Connector for service PC
- This connector is to be connected to the PC when commissioning is carried out by a service person

Connector for setting the master of centalized control
- The connector must be permanetly connected (The connector is connected when shipped out of the factory, Do not pull out the connector)

Since the control substrate is weak to static electricity, do not touch the parts on the substrate. Make sure to dischange static electricity from human body before starting the work. (Static electricity can be discharged by touching the sheet metal of the control panel which is earthed)

⑦ 「DⅢ-NET master」 setting

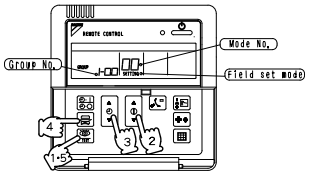
Make sure to connect the unit with 「DⅢ-NET master」

⑧ Setting the backup battery switch

When shipped out of the factory, the backup battery switch is turned off (the battery is ineffective).
Turn ON the switch for backup of set data such as the information regarding the network variables at power failure.
- Guaranteed hours of power failure. One month (31days)
- The lithium battery is used and is rechargeable. After the power is restored it is necessary to continuously electrify the battery for approximately one day until the it is completely charged. (The battery is completely charged when shipped out from the factory.)

⑨ Setting group No. for centralized control

Turn ON the power to the DMS-IF Following the below procedure, set the group numbers for the indoor units connected to the DⅢ-NET. This group number is set for each indoor unit system. (When not using the remote controller, the remote controller is to be connected just for making settings but must be disconnected when finished.)



Pre-paration	● Check no troubles exist with installation and wiring before turning ON the power. ● Turn ON the power to the indoor unit and DMS-IF. Setting is not possible with the power OFF.

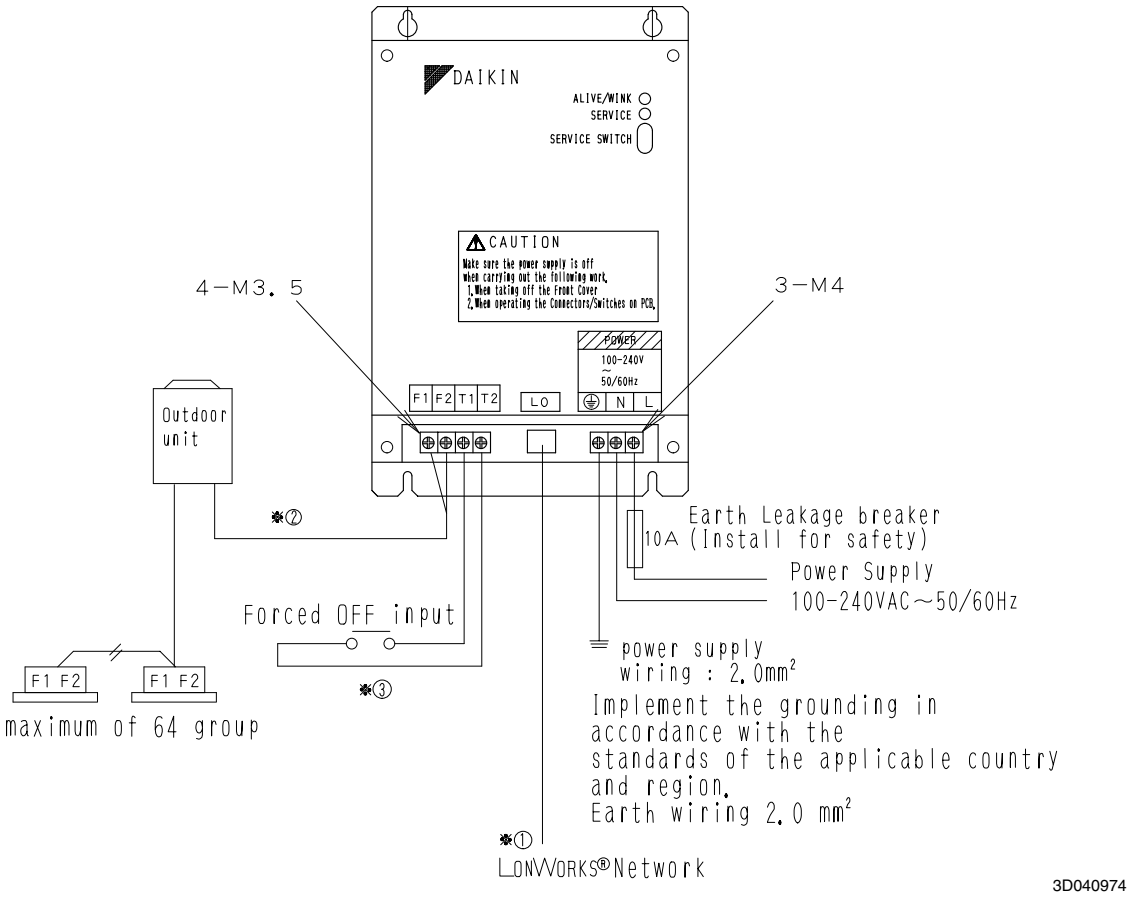
● Nothing is wrong with the equipment if "88" is displayed when power is turned ON. This may happen and the unit may not respond to operation, but the situation should last only a moment.

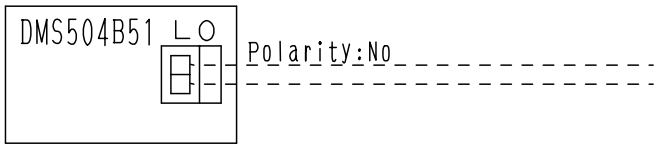
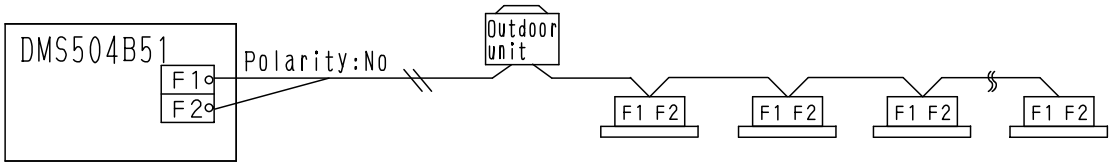
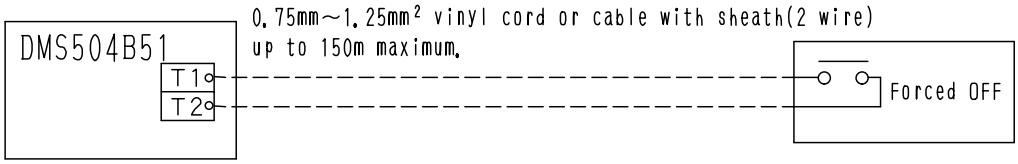
1	Hold down TEST for 4 seconds or more to enter the field set mode.
2	Press ▲▼ and set the mode NO. to "00"
3	Press ▲▼ and set the group No. Group No. increases in the order of 1-00, 1-01 ... 1-15, 2-00,... 4-15. Set the group No. when "GROUP" on the liquid crystal display is flashing. Press the SET button to initiate flashing of "GROUP" on the liquid crystal display.
4	Press SET to set the group No.
5	Press TEST. This will return the system to the normal mode.

- For details on making settings from the simplified remote controller, refer to the instruction manual of the unit.
- For details on making settings of the group No. of the Ventilaire or adapters (wiring adapter for other air conditioners, etc.), refer to the instruction manual of the said unit.

1P111315-1-3

31.1.2 System Wiring Diagram



NO ※	Wiring specification
①	● LONWORKS® Network Communication wiring Use the dedicated line for the LONWORKS® Network 
②	● DIII-NET wiring  Cautions for wiring 1. Do not use multicore cables with three or more cores. 2. Use wires of sizes between 0.75mm² and 1.25mm² 3. Wire length:MAX 1000m 4. Do not bind the wire for DIII-NET 5. Wirings for DIII-NET must be isolated from the power lines. 6. Terminal contact size :M3.5
③	● Forced OFF input  When forced OFF input is kept on, the indoor units connected this system are unable to be operated because they are forced off. 1. Use a no voltage contact. 2. Use a contact which can guarantee minimum application load DC16V and 10mA 3. Do not use multicore cables with three or more cores. 4. Wirings must be isolated from the power lines. 5. Terminal contact Size:M3.5

Everything relating with field wiring must be supplied in the field.

3D040974

1. Object Request Input(Node Request)
It features objects for a group of 64 indoor units.
As shown below, the object name and the last " _nn" in the " nv Name" correspond with the DIII-NET location setting address.

Table 1 Object Request Input

Controlling items	nv Name	TYPE	(Value, State) :Operation
On/OFF Command	nviOnOff_nn	SNVT_switch	(0, 1) or (★, 0) : OFF , (>0, 1) : ON
Operation Mode Setting	nviHeatCool_nn	SNVT_hvac_mode	0 :Auto 1 : Heating 3 : Cooling 9 : Ventilation
Temperature Setting	nviSetpoint_nn	SNVT_temp_p	Temperature ℃
Airflow Rate Setting	nviFanSpeed_nn	SNVT_switch	(0<value<=100, 1) : low, (>100, 1) : high
Filter Sign Reset	nviFSReset_nn	SNVT_switch	value= 0 or 1 : Reset
Forced Thermostat OFF Setting	nviThermoOff_nn	SNVT_switch	(0, 1) or (★, 0) : Reset, (>0, 1) : OFF Setting
Remote ON/OFF Control Rejection	nviRejOnOff_nn	SNVT_switch	(0, 1) or (★, 0) : permitted, (>0, 1) : Prohibited
Remote Operation Mode Control Rejection	nviRejMode_nn	SNVT_switch	(0, 1) or (★, 0) : permitted, (>0, 1) : Prohibited
Remote Temperature Setting Control Rejection	nviRejSetpoint_nn	SNVT_switch	(0, 1) or (★, 0) : permitted, (>0, 1) : Prohibited
System Forced OFF Setting	nviSystemOff	SNVT_switch	(0, 1) or (★, 0) : Reset, (>0, 1) : Forced OFF
Sub Group Address Control Rejection Setting	nviRejLC	SNVT_switch	(0, 1) or (★, 0) : permitted, (>0, 1) : Prohibited

★ Any (0～255)

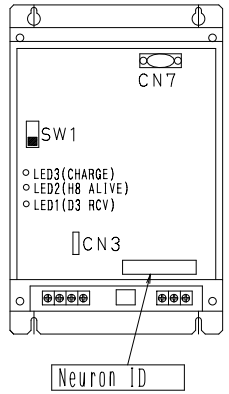
The system is designed to keep the memory of the set conditions even when the air conditioner stops due to a power failure. Each time when the setting of temperature, ON/OFF, heat/cool mode, or air volume is changed, it is written into the non-volatile memory. The frequency of writing the setting into the non-volatile memory is limted and if the setting is frequently written into the memory after exceeding the limit, it may cause malfunction.
Therefore, take caution so that the frequency of changing the setting of each indoor unit may not exceed 7000 times/year when changing the setting of temperature, ON/OFF, heat/cool mode, or air volume frequently by automatic control or the like from the central monitoring panel.

2. Object Status Output (Object Status)

Table 2 Object Status Output

Monitoring items	nv Name	TYPE	(Value, State) :Condition
ON/OFF Status Report	nvoOnOff_nn	SNVT_switch	(0, 0) : OFF, (200, 1) : ON
Operation Mode Status Report	nvoHeatCool_nn	SNVT_hvac_mode	1 : Heating 3 : Cooling 9 : Ventilation
Temperature Setting Report	nvoSetpoint_nn	SNVT_temp_p	Temperature ℃
Room Temperature Report ★2	nvoSpaceTemp_nn	SNVT_temp_p	Temperature ℃
Airflow Rate Setting Report	nvoFanSpeed_nn	SNVT_switch	(100, 1) : low, (200, 1) : high
Filter Sign Report	nvoFiltersign_nn	SNVT_switch	(0, 0): No Filter Sign, (200, 1) : Filter Sign
Error Status Report	nvoFailure_nn	SNVT_switch	(0, 0) : Nomal, (200, 1) : Error
Error Code Report	nvoErrStatus_nn	SNVT_count	0 : Normal, >0 Error Code 2-character ASCII decimal code ★1
Thermostat Status Report	nvoThermo_nn	SNVT_switch	(0, 0) : OFF, (200,1) : ON
Forced Thermostat OFF Setting Status Report	nvoThermoOff_nn	SNVT_switch	(0, 0) : Reset, (200, 1) : OFF Setting
Remote ON/OFF Operation Rejection Report	nvoRejOnOff_nn	SNVT_switch	(0, 0) : Permitted, (200, 1) : Prohibited
Remote Control Operation Mode Setting Rejection Report	nvoRejMode_nn	SNVT_switch	(0, 0) : Permitted, (200, 1) : Prohibited
Remote Control Temperature Setting Operation Rejection Report	nvoRejSetpoint_nn	SNVT_switch	(0, 0) : Permitted, (200, 1) : Prohibited
System Forced OFF Setting Report	nvoSystemOff	SNVT_switch	(0, 0) : Reset, (200, 1) : Forced OFF
Sub Group Address Control Operation Rejection Setting Report	nvoRejLC	SNVT_switch	(0, 0) : Permitted, (200, 1) : Prohibited
A/C Communication Statuss Report	nvoHvacExist_nn	SNVT_switch	value=0 : No connection 1 : Normal Connection 2 : Communication error state=1

[NOTE]
When the Front Cover is removed, Neuron ID is shown on P.C.B.

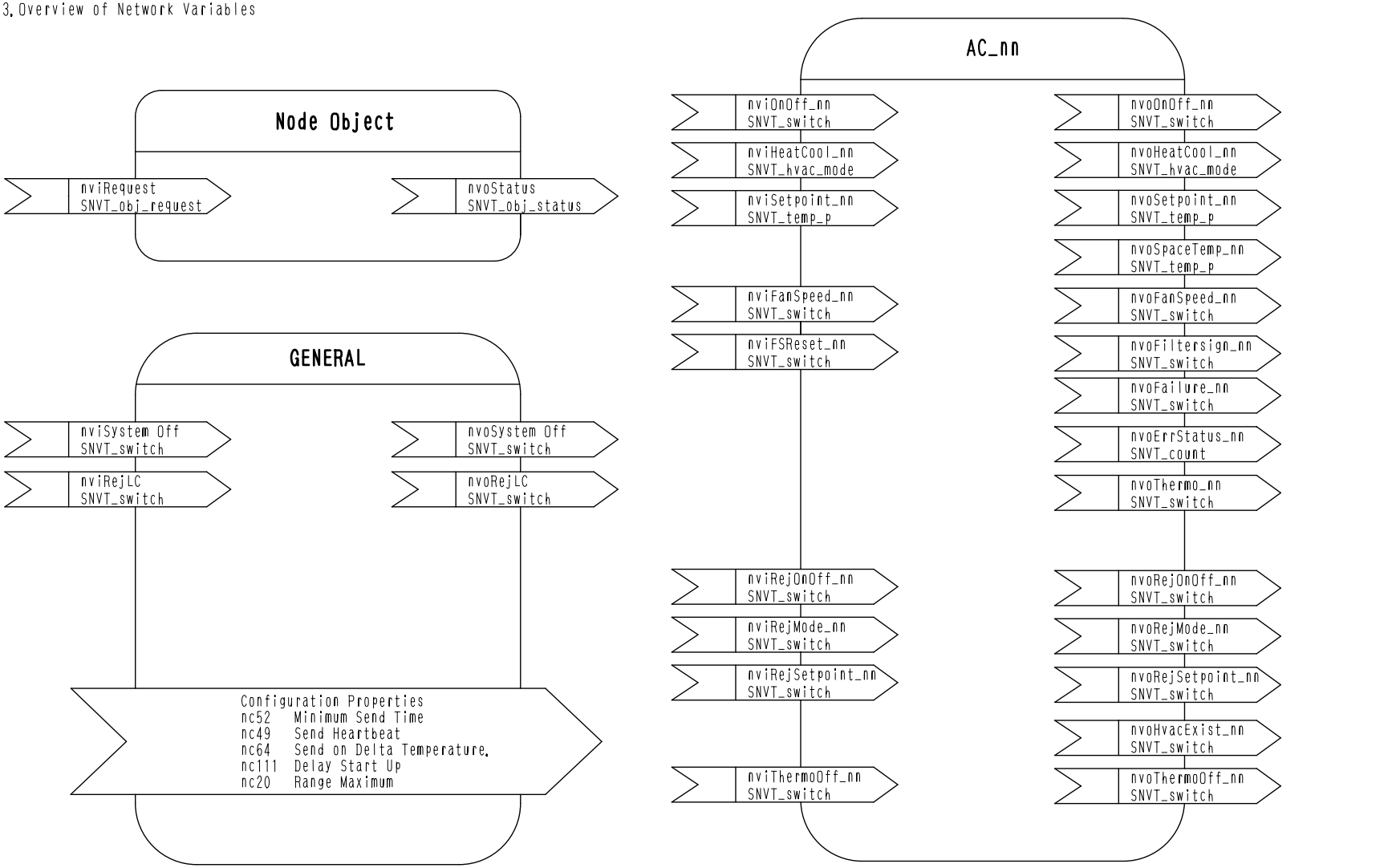


★1 These error codes are shown in a 2-character ASCII decimal code specified by DAIKIN.

★2 As the indoor fan stops when the operation is in special operation mode such as thermostat off, at rest or defrosting, the 'Room Temperature Report' is affected by the heat exchanger and the sensor may happen to detect the temperature different from that to the indoor and transmit the signal. Due to the above mentioned reason, consider the temperature as a rule of thumb. If the system control is to be based on this temperature (such as changeover of operation mode and changing the set temperature), the manufacturer of the building management system is kindly requeated to carry out on its own responsibility.

Model Name	DMS504B51 DMS504C71
XIF File	DMS_IF02.XIF

3. Overview of Network Variables



3D040976A

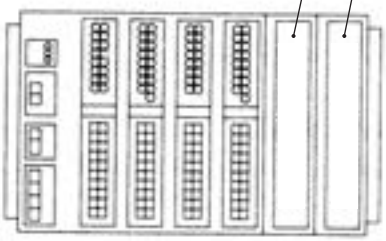
32. Parallel Interface

32.1 DPF201A51 — Basic Unit

1 COMPONENT

This kit contains the following components.
Confirm them before installation.

Body



Installation manual	1 pc.
Switch status label	1 pc.

Four M6 mounting screws are necessary for installing the body.

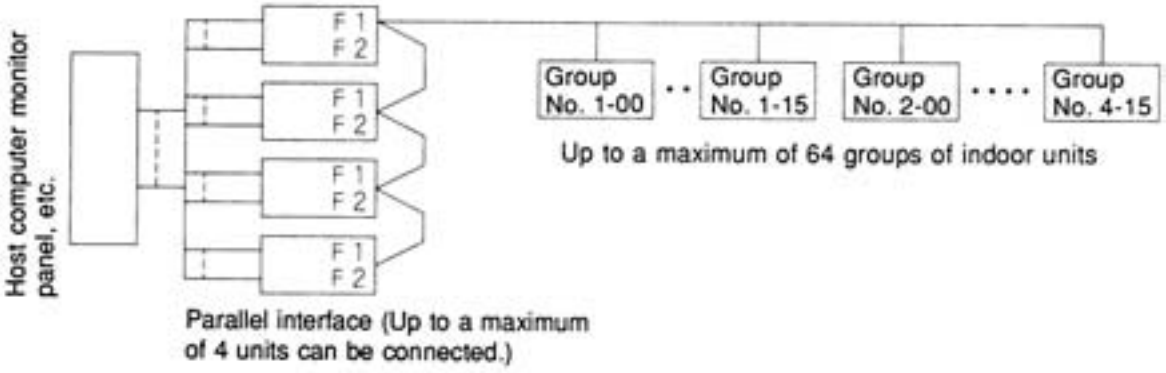
2 SYSTEM CONFIGURATION

DESCRIPTION OF FUNCTIONS

1) A maximum of 16 groups of indoor units can be turned ON/OFF individually by entering the contact point.
2) Operating conditions, abnormal conditions, and display time to clean air filter can be monitored at no-voltage normally open contactors.
3) All indoor units connected to the centralized control line can be stopped simultaneously by forced OFF input.
4) By installing up to 4 additional units of this kit, a maximum of 64 groups of indoor units of the centralized control line can be controlled and monitored individually.

When combined with optional accessories, the following functions can be realized.
For details, refer to the installation manuals of respective units.

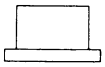
5) Room temperature unit (DPF201A52)
   This unit converts indoor temperatures between 0 and 50°C of any 4 groups of indoor units (air inlet temperature) to 0 to 5V DC and outputs the voltage.
6) Temperature set unit (DPF201A53)
   By applying 1.6 to 3.2VDC, the indoor temperature of 16 groups can be set individually.



(Note that this kit cannot be used with the optional wiring adaptor for electrical appendices.)

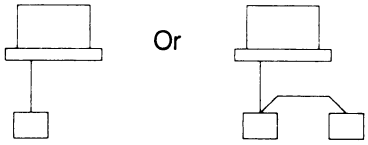
A group of indoor units is defined as follows.

① One indoor unit without remote controller

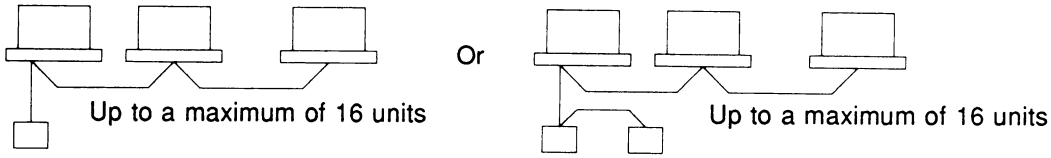


Note)
Without remote controller

② One indoor unit controlled by one or two remote controllers



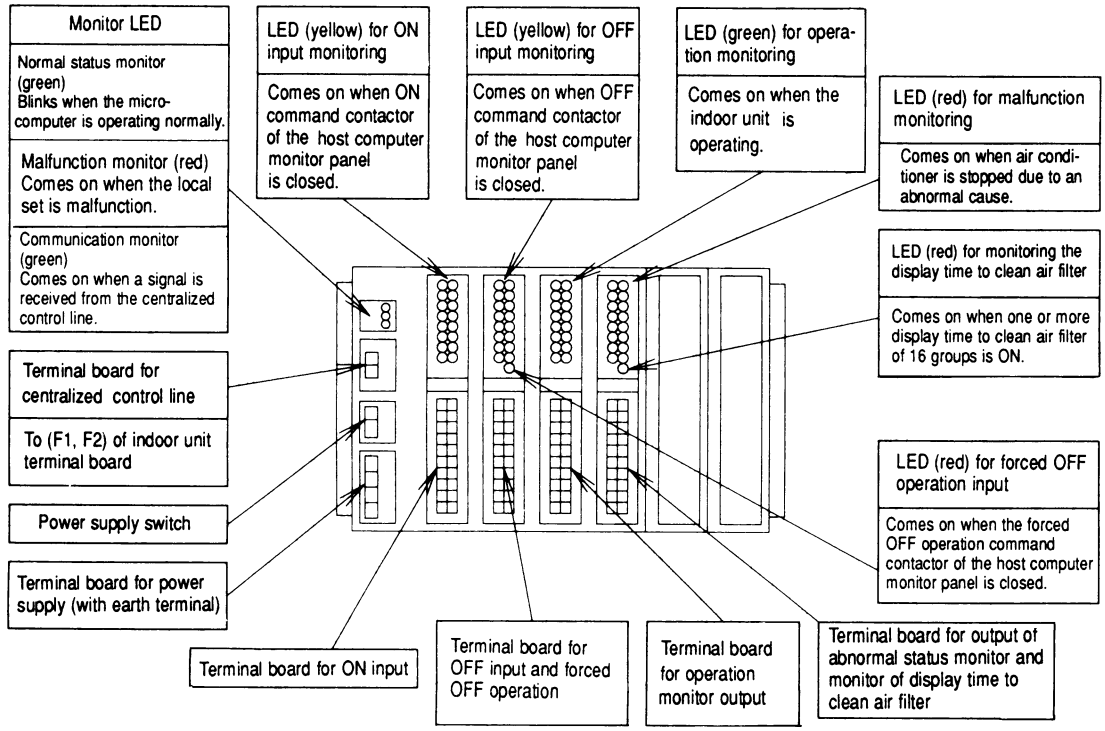
③ Maximum of up to 16 indoor units controlled by 1 or 2 remote controllers



Remote controller
2 remote controllers

NOTE) Parallel interface cannot change the air flow direction or the fan speed and cannot reset the display time to clean air filter.
When connecting a group of indoor units without remote controller, use of the central remote controller is recommended.

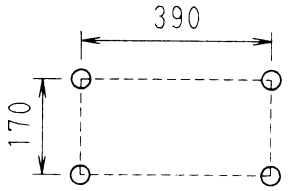
3 NAME AND OPERATION OF COMPONENT

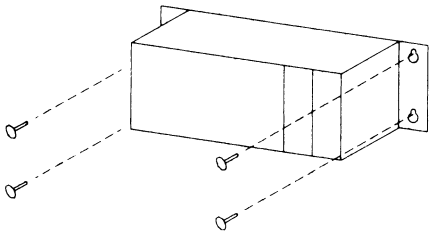


4 INSTALLATION

Securely fix the basic unit with the mounting screws (M6).

Mounting pitch

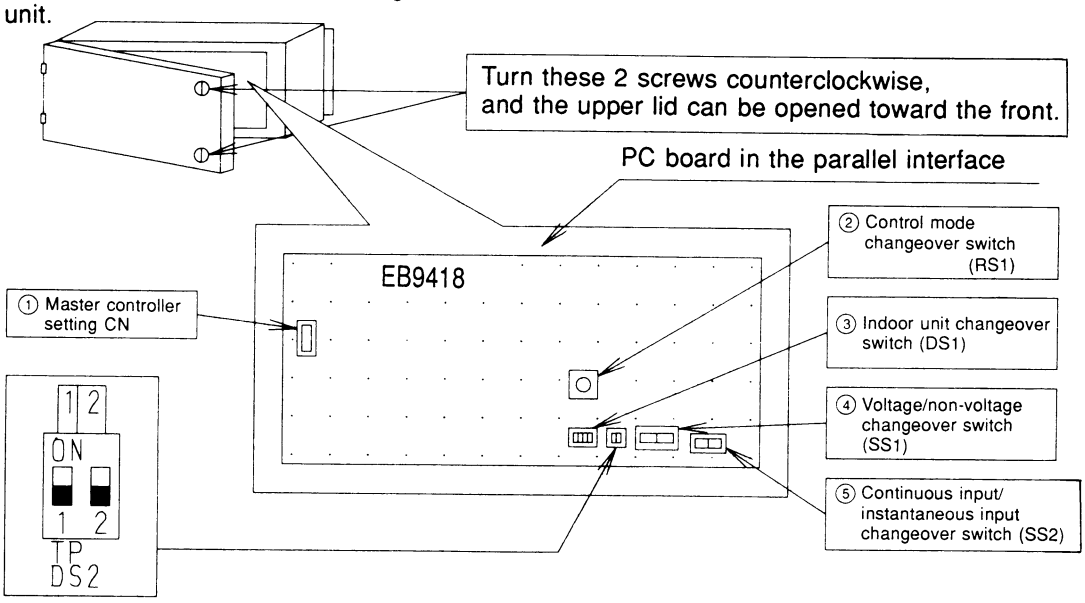




NOTE) To protect against the influence of electromagnetic interference or dust, install the basic unit in the switch box. (A mounting space of W x H x D = 450 x 290 x 150 mm or more is necessary.)

5 INITIAL SETTING

Before wiring, set the initial setting switches and connectors on the PC board in the basic unit.



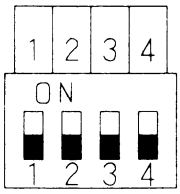
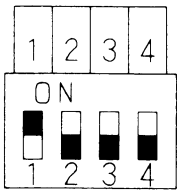
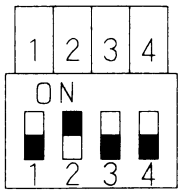
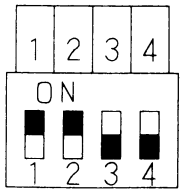
NOTE) Do not change DS2 from the factory set position shown above.
"■" indicates the switch position. The same notation applies to the following switches.

① Master controller setting CN (CN1: With the factory equipped connector)
When connecting 2 to 4 units of this kit from 1 centralized line, use only the connector equipped with parallel interface of one unit.
Remove connectors of other units.
When using this kit with data calculate unit, remove the connector of this kit.

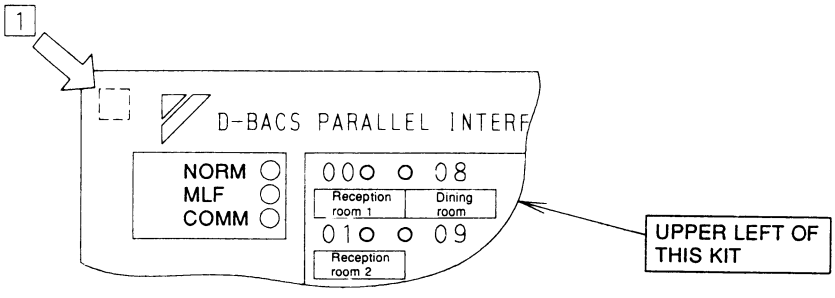
② Control mode changeover switch (RS1: Set to the factory set position 1.)
Set the control mode of the indoor unit according to the setting of the rotary switch.

Position	Function	Remote controller operation
RS1 	Individual	Always enabled.
RS1 	Centralized	Enabled when operated from this kit. Disabled when this kit does not operate.
RS1 	Remote controller operation mode disabled.	Only the control mode is always disabled.

③ Indoor unit changeover switch (DS1: Control is factory set to 1-00 to 1-15.)
The switch sets the range of the group numbers of the indoor unit to be controlled by this kit.

Setting range	1–00 ~ 1–15	2–00 ~ 2–15	3–00 ~ 3–15	4–00 ~ 4 –15
Setting of DS1	 DS1 ADDRESS/ INDOOR	 DS1 ADDRESS/ INDOOR	 DS1 ADDRESS/ INDOOR	 DS1 ADDRESS/ INDOOR

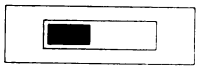
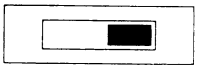
After setting the group numbers, paste the numbered seals of respective control ranges to the attached display sticker.



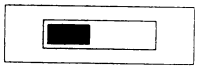
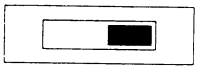
(Example) Paste 1 for 1-00 to 1-15.

Paste the room name label near the LED for ON/OFF input monitoring, as shown above.

④ Voltage/non-voltage changeover switch (SS1: Factory set to voltage side.)
Set the switch as shown below according to the specification of the ON/OFF operation input from the host computer monitor panel.

Position	Input from host computer monitor panel
VOLTAGE NON VOLTAGE  SS1	Voltage (16 to 24VDC is applied upon command.)
VOLTAGE NON VOLTAGE  SS1	Non-voltage normally open contactor (Contactor "closes" upon command.)

⑤ Continuous input/instantaneous input changeover switch (SS2: Factory set to instantaneous side.) Set the switch as shown below according to the specification of the ON/OFF operation input from the host computer monitor panel.

Position	Input from host computer monitor panel
CONT INST  SS2	Continuous "a" contactor input
CONT INST  SS2	Instantaneous (200 msec or more) "a" contactor input

NOTE) When the continuous input is used in the individual mode, the indoor unit may stop operation by the remote controller during operation command (starts with operation command contactor of host computer monitor panel "close").
To restart the unit, "open" the operation command contactor once and "close" the contactor again.

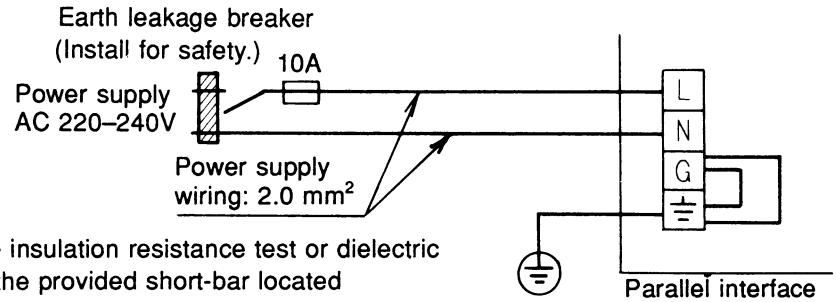
6 ELECTRICAL WIRING

GENERAL PRECAUTIONS

- All wiring and locally supplied parts and materials shall satisfy the standards of the applicable country and region.
- Only use copper wires for wiring.
- The electrical wiring work should be carried out by an authorized contractor.
- Install the switches and fuses shown below in the power supply lines.

POWER SUPPLY WIRING

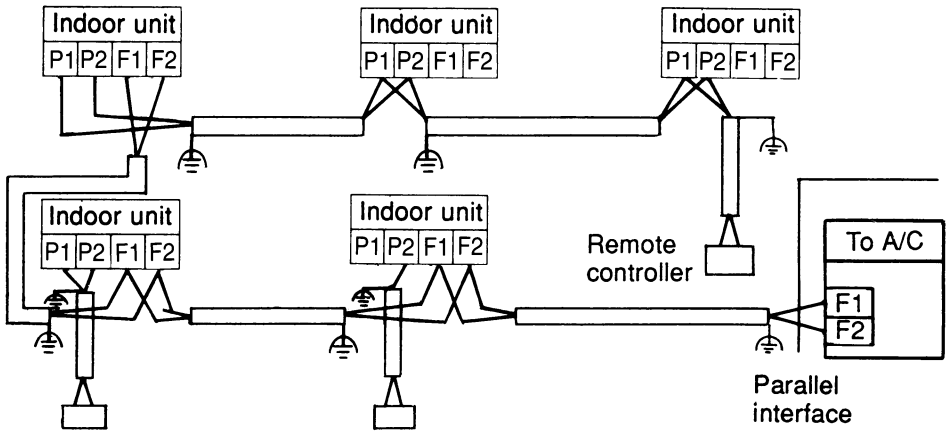
Implement the grounding in accordance with the standards of the applicable country and region.



NOTE) Before conducting the insulation resistance test or dielectric voltage test, remove the provided short-bar located between terminals G and ⏚

WIRING TO INDOOR UNIT

Install wiring as shown below, from terminals (F1, F2) for centralized control line of the parallel interface to terminals (F1, F2) of the indoor unit.(Since there is no polarity, F1 and F2 may be reversed.)

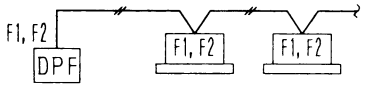


NOTE) 1. For wiring to the indoor unit of the centralized line (F1, F2), install the wiring to either one of the indoor units in the same group (may be wired to the indoor unit to which the remote controller is not connected directly).
If, however, the data calculate unit is used with the indoor unit, install wiring to all of the indoor units.
2. For transmission wiring between indoor units, use 0.75 to 1.25 mm^2 shield wire (2 wire), and ground the shield part as shown above. (overall length of 1000 meters)

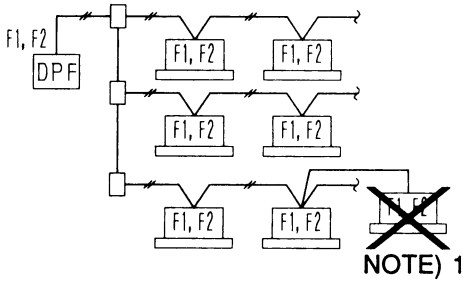
EXAMPLES OF CENTRALIZED LINE WIRING

DPF : Parallel interface
: Indoor unit
: Terminal board (Field supplied)

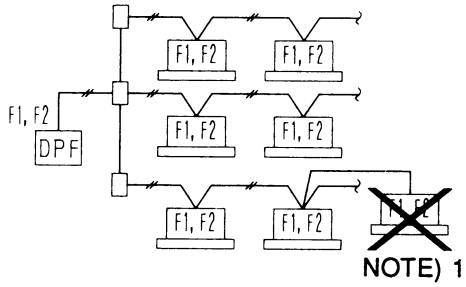
① Series wiring



② Bus type wiring
Example of 3 branching



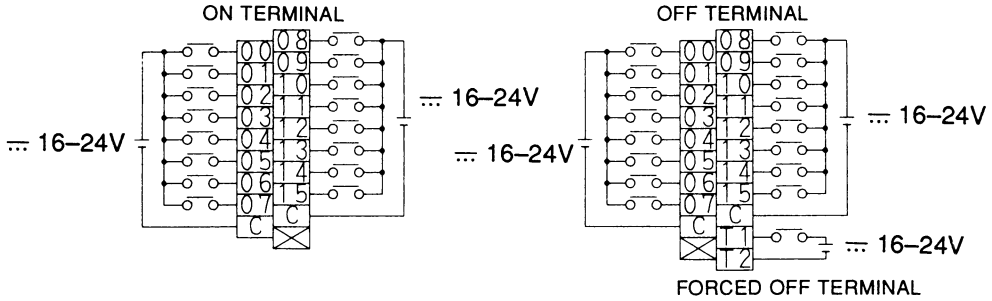
③ Star type wiring
Example of 3 branching



NOTE) 1. Branched wiring cannot be branched further.
2. For branching more than 3 control wirings from the same terminal board, use a relay terminal board (field supplied).

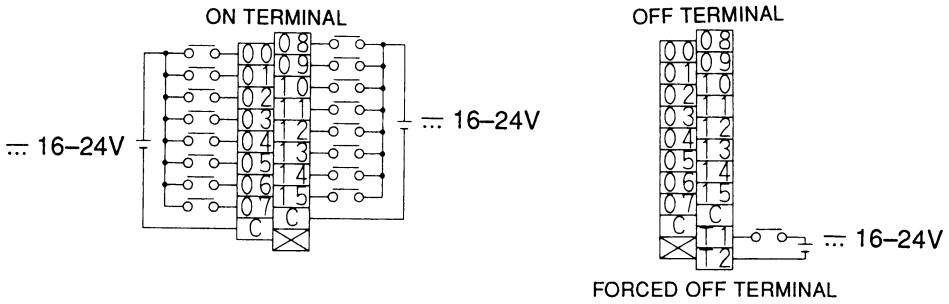
ON/OFF OPERATION INPUT WIRING

① For voltage input of instantaneous "a" contactor from host computer monitor panel:



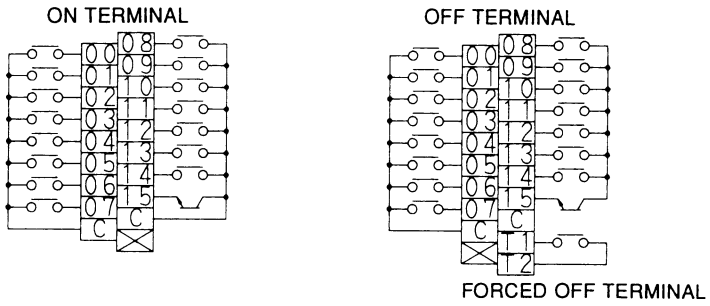
NOTE) 1. Necessary input current is about 10mA per contactor.
For relay contactor, use contactor for micro current.
2. The number of the terminal board corresponds to the group number.
(Example) Connect the contactor controlling the indoor unit group No. 1–08 to the input terminal No. 08.
3. For ON/OFF command mode, "close" the contactor for 200 msec or longer.
4. Recommended power supply for external wiring:
Sheathed vinyl cord or cable of 0.75–2mm^2.
Other: Wiring length should be 150 meters or less and separated from the power line to prevent malfunction.

② For voltage input of continuous "a" contactor from host computer monitor panel:



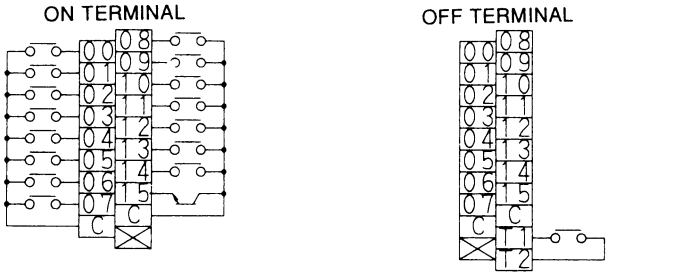
NOTE) 1. Necessary input current is about 10mA per contactor.
For relay contactor, use contactor for micro current.
2. The number of the terminal board corresponds to the group number.
(Example) Connect the contactor controlling the indoor unit group No. 1–08 to the input terminal No. 08.
3. Recommended power supply for external wiring:
Sheathed vinyl cord or cable of 0.75–2mm^2.
Other: Wiring length should be 150 meters or less and separated from the power line to prevent malfunction.

③ For non-voltage input of instantaneous "a" contactor from host computer monitor panel:



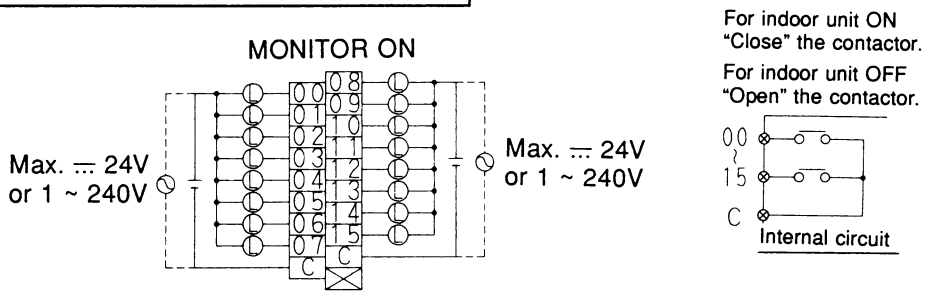
NOTE) 1. Necessary input current is about 10mA per contactor.
For relay contactor, use contactor for micro current.
2. The number of the terminal board corresponds to the group number.
(Example) Connect the contactor controlling the indoor unit group No. 1–08 to the input terminal No. 08.
3. For ON/OFF command mode, "close" the contactor for 200 msec or longer.
4. Recommended power supply for external wiring:
Sheathed vinyl cord or cable of 0.75–2mm^2.
Other: Wiring length should be 150 meters or less and separated from the power line to prevent malfunction.

④ For non-voltage input of continuous "a" contactor from host computer monitor panel:



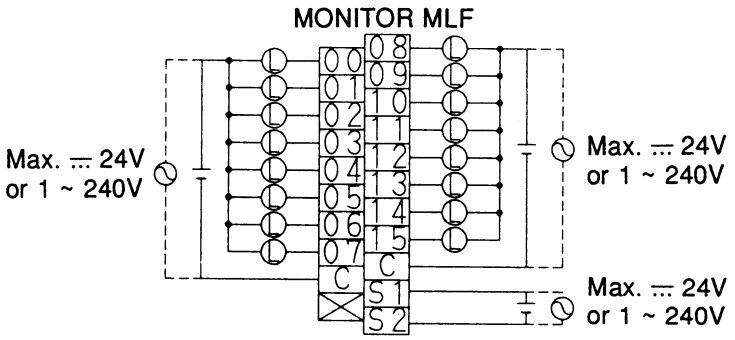
NOTE) 1. Necessary input current is about 10mA per contactor.
For relay contactor, use contactor for micro current.
2. The number of the terminal board corresponds to the group number.
(Example) Connect the contactor controlling the indoor unit group No. 1–08 to the input terminal No. 08.
3. Recommended power supply for external wiring:
Sheathed vinyl cord or cable of 0.75–2mm^2.
Other: Wiring length should be 150 meters or less and separated from the power line to prevent malfunction.

OPERATION MONITOR OUTPUT WIRING



NOTE) 1. When using an external power supply of 1~100–240V and separate from the input wiring.
2. Rating of output relay contactor in this kit is 3A maximum (resistance load). Minimum applicable load is ⎓ 12V/10 mA.
For Ⓛ section, connect a general load which satisfies the specification of the output relay contactor.

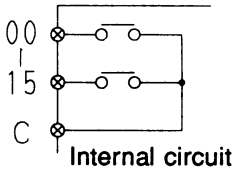
MALFUNCTION MONITOR OUTPUT WIRING



Output of display time to clean air filter

For indoor unit malfunction "close" the contactor.

For indoor unit normal operation or OFF "open" the contactor.



NOTE) 1. When using an external power supply of 1~100–240V and separate from the input wiring.
2. Rating of output relay contactor in this kit is 3A maximum (resistance load). Minimum applicable load is ⎓ 12V/10 mA.
For Ⓛ section, connect a general load which satisfies the specification of the output relay contactor.

NOTE)
Do not connect the power supply line (1~200–240V) to the terminal board for centralized control and the terminal board for input.
If connected by mistake, breakdown and burning of this kit and electronic parts of the indoor unit may result, which is extremely dangerous.
Check the wiring before turning on the power switch.

7 SETTING OF GROUP NO. FOR CENTRALIZED CONTROL

Set the group No. of each group of indoor units using the remote controller. (For the indoor unit without the remote controller, connect the remote controller to the indoor unit when setting the group No., and remove the remote controller after setting.)

① Turn the indoor unit power and the parallel interface ON.
(Setting cannot be made unless power is supplied.)
Before turning the power ON, confirm that installation and electrical wiring are all correct.
(When the power is supplied, all the liquid crystal displays come on simultaneously and may not accept operations while [8 8] is displayed, for about one minute.)

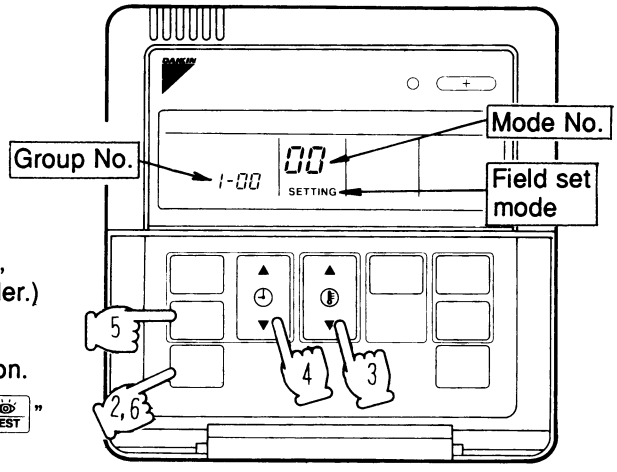
② Carry out the set mode.
Depress "TEST" button for 4 seconds or more to activate the field set mode.

③ Select the mode No.
Select the mode number 00 by "⏱".

④ Select the group No.
Select the group No. by "⏲" toggle switch. (Group No. increases from 1–00, 1–01, ~, 1–15, 2–00, ~, 4–15 in that order.)

⑤ Determine the group No.
Determine the group No. by "⏲" button.

⑥ Return to the normal mode. Depress "TEST" button.



NOTE) • Refer to the installation table when using a simple remote controller.
• For setting the group No. of Venti Air and various adaptors (such as wiring adaptor for other air conditioners), refer to respective manuals.

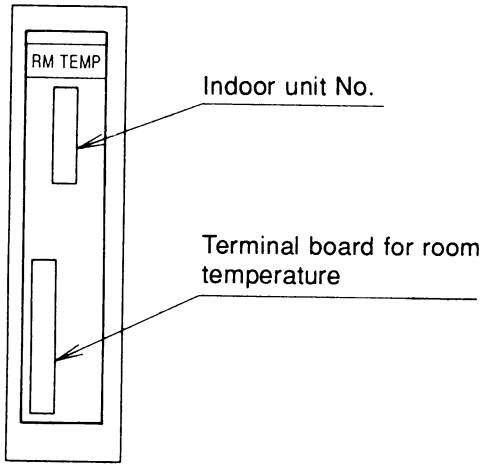
8 CONFIRMATION OF OPERATION

Before the test operation, turn on the power switches of the indoor and outdoor units and the parallel interface and depress the ON/OFF button.
Flashing of the operation lamp of the remote controller indicates malfunction of the indoor unit of that group.
Lighting of the malfunction LED of the parallel interface indicates a faulty setting of the centralized equipment.
Refer to this manual and the installation manuals of related equipment and correct any abnormalities.

NOTE
- When power is supplied, the MALFUNCTION LED of the parallel interface comes on for about 30 seconds for the initial setting, not an abnormal condition.
- For test operations of indoor and outdoor units, refer to the installation manual attached with the unit.
- If the input from the host computer monitor panel is not executed 2 minutes or more after the power is supplied to this kit, check the following.
  - Check for correct setting of the connector for setting master controller.
  - Check that the group No. for centralized control of the indoor unit has been set.
  - Except when the data calculate unit is used, check that the centralized line is not connected to two or more indoor units in the same group.

32.2 DPF201A52 — Temperature Measurement Units

1 APPEARANCE AND PART NAMES



Room temperature Unit
[DPF201A52]

NOTE When handling, be careful not to damage the electronic components on the PC board.

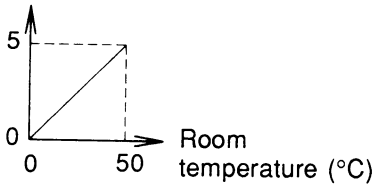
2 DESCRIPTION OF FUNCTIONS

Room temperature Unit [DPF201A52]

Converts the room temperature (air inlet temperature/0–50°C) of any four groups of indoor units controlled/monitored by the basic unit into analog output (⎓ 0–5V) and outputs.

Output characteristics

Analog output (⎓)

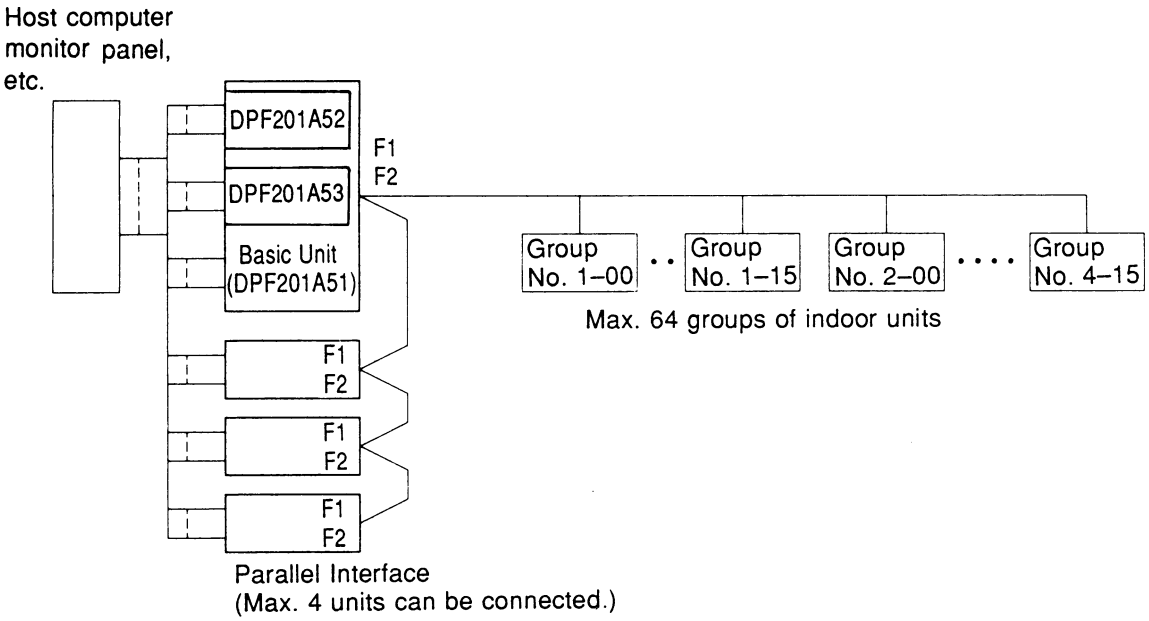


Output resolution:
0.2°C units

NOTE: The permissible load resistance for the room temperature unit is 5 kΩ or more.

C: 2PA53243

System Configuration Diagram

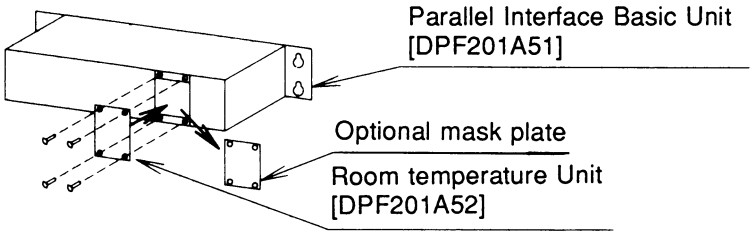


3 INSTALLATION

First, carry out installation and make initial settings for the basic unit. Then, with the basic unit's power turned off, install the kit on the basic unit according to the following procedure.

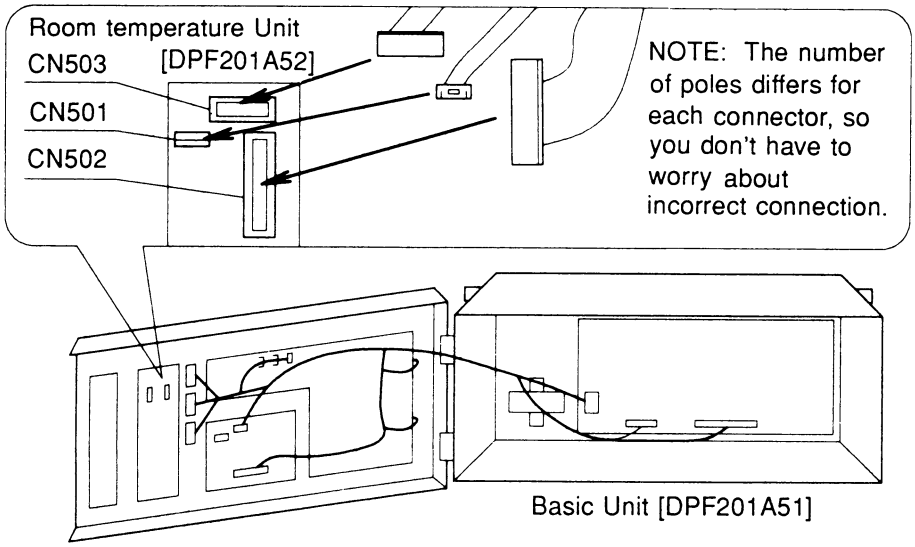
Room temperature Unit [DPF201A52]

① Remove the optional mask plate on the left side of the basic unit, and fasten the kit with screws.



C: 2PA53243

② Plug the basic unit's connector into the kit.
- Loosen the knurling screw on the front right side of the basic unit and open the upper cover towards yourself as shown in the figure below.
- Remove the clamp binding the three connector leads, and firmly plug the connectors into the three places shown in the figure below.
- Close the basic unit's upper cover.



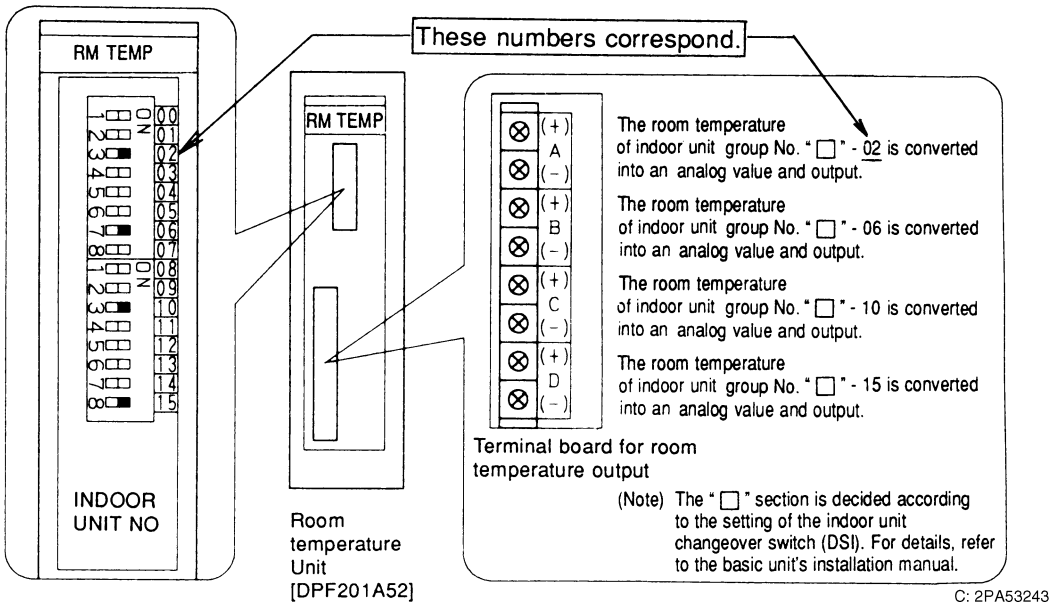
4 INITIAL SETTING

Room temperature Unit [DPF201A52]

Use the method described below to select the indoor unit group No. for which room temperature measuring is to be carried out. Set exactly four of sixteen indoor unit No. selector switches to ON. (All set to OFF for factory set)

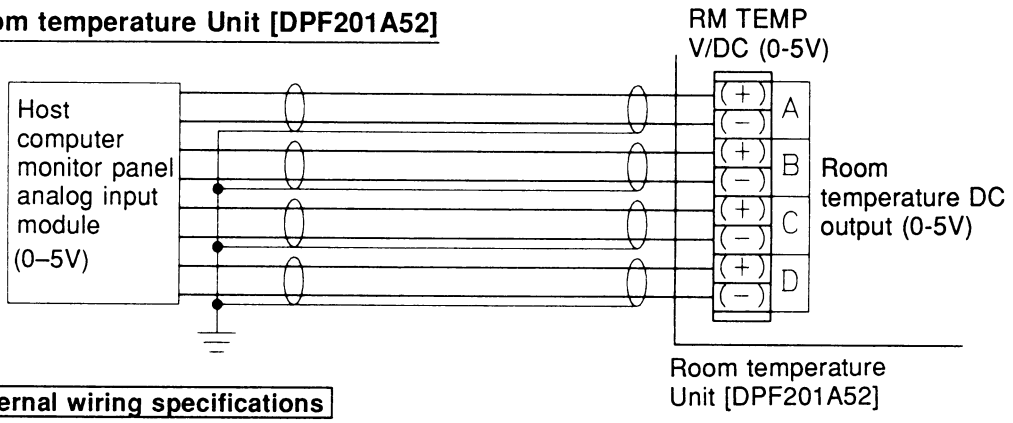
(NOTES)
- The numbers of the switches set to ON correspond to analog output of terminals A through D of the terminal board for room temperature measuring output, in order starting from the smallest number.
- If more than four switches are set to ON, the smallest number switch set to ON to the fourth are effective.

Example of switch settings and corresponding output terminals



5 ELECTRIC WIRING

Room temperature Unit [DPF201A52]



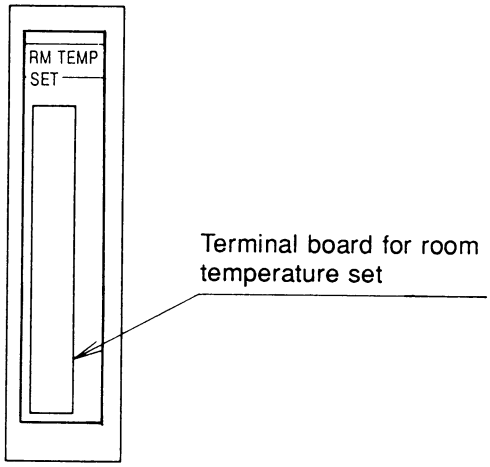
External wiring specifications

Recommended cable:	0.9 mm CPEV-S (2 wire) or 0.9 mm^2 CVV-S (2 wire)
Wiring length:	Max. 150 m per cable, however if the limit for the host computer monitor panel is 150 m or less, it is given priority.
Other:	Ground the shield part at one side as shown in the figure above. Keep separate from the power line in order to prevent malfunction.

C: 2PA53243

32.3 DPF201A53 — Temperature Setting Units

1 APPEARANCE AND PART NAMES



Room temperature set Unit
[DPF201A53]

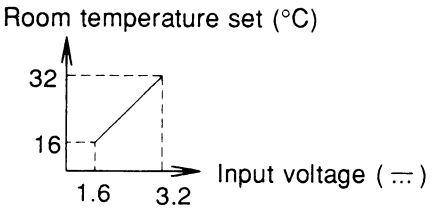
NOTE When handling, be careful not to damage the electronic components on the PC board.

2 DESCRIPTION OF FUNCTIONS

Room temperature set Unit [DPF201A53]

By applying ⎓ 1.6–3.2V, the room temperature can be individually set for sixteen groups of indoor units controlled / monitored by the basic unit.

Output characteristics

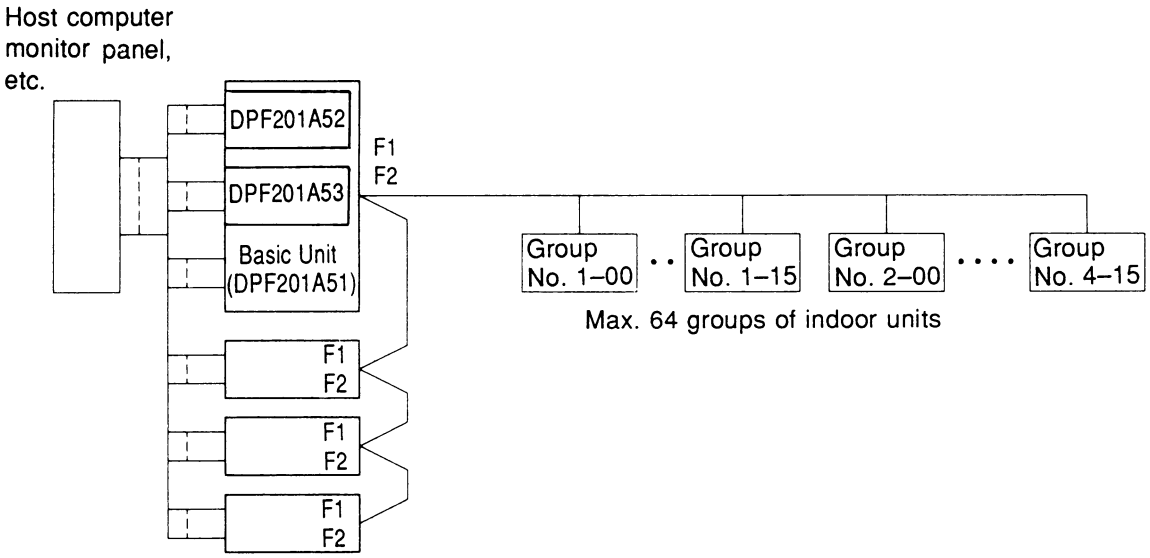


Input resolution:
1.0°C units

NOTE: The impedance interface for the room temperature set unit is 10 kΩ or more.

C: 2PA53243

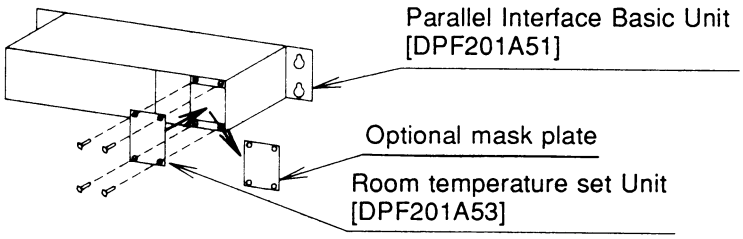
System Configuration Diagram



3 INSTALLATION

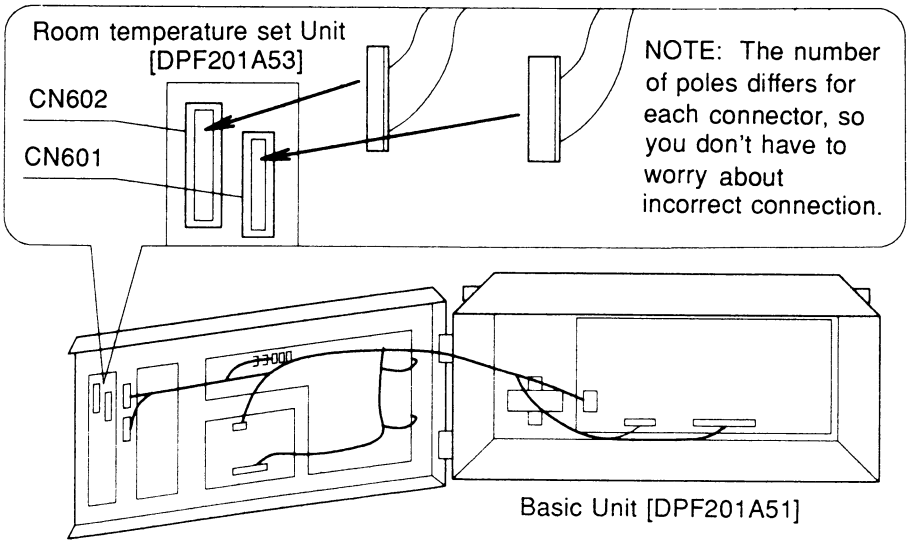
Room temperature set Unit [DPF201A53]

① Remove the optional mask plate on the right side of the basic unit, and fasten the kit with screws.



C: 2PA53243

② Plug the basic unit's connector into the kit.
- Loosen the knurling screw on the front right side of the basic unit and open the upper cover towards yourself as shown in the figure below.
- Remove the clamp binding the 2 connector leads, and firmly plug the connectors into the 2 places shown in the figure below.
- Close the basic unit's upper cover.



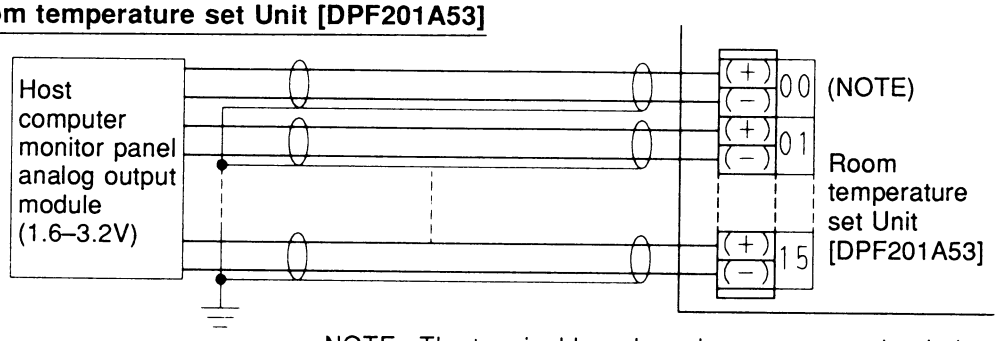
4 INITIAL SETTING

Room temperature set Unit [DPF201A53]

There are no initial setting parameters.

5 ELECTRIC WIRING

Room temperature set Unit [DPF201A53]



NOTE: The terminal board numbers correspond to indoor unit group numbers.
Example: Wire the contact that controls indoor unit group No. 1-08 to input terminal No. 08.

External wiring specifications

Recommended cable:	0.9 mm CPEV-S (2 wire) or 0.9 mm^2 CVV-S (2 wire)
Wiring length:	Max. 150 m per cable, however if the limit for the host computer monitor panel is 150 m or less, it is given priority.
Other:	Ground the shield part at one side as shown in the figure above. Keep separate from the power line in order to prevent malfunction.

C: 2PA53243

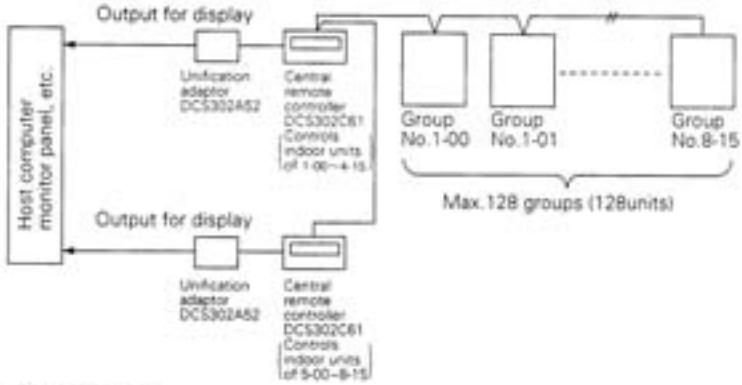
33. Unification Adaptor for Computerized Control

33.1 DCS302A52

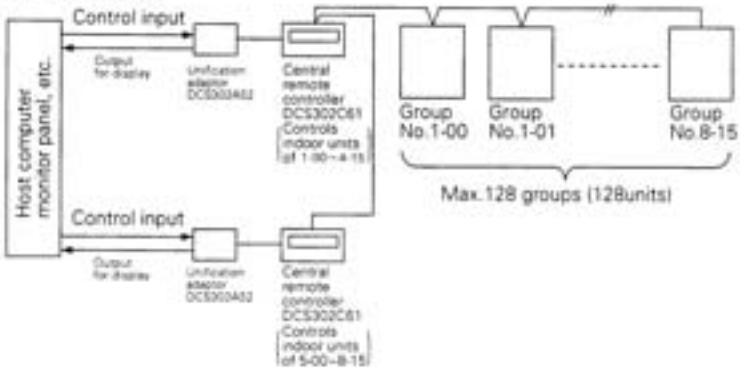
■ Function

When connected to the central remote controller, this kit enables unified display (operation/malfunction) and unified control (operation/stop).

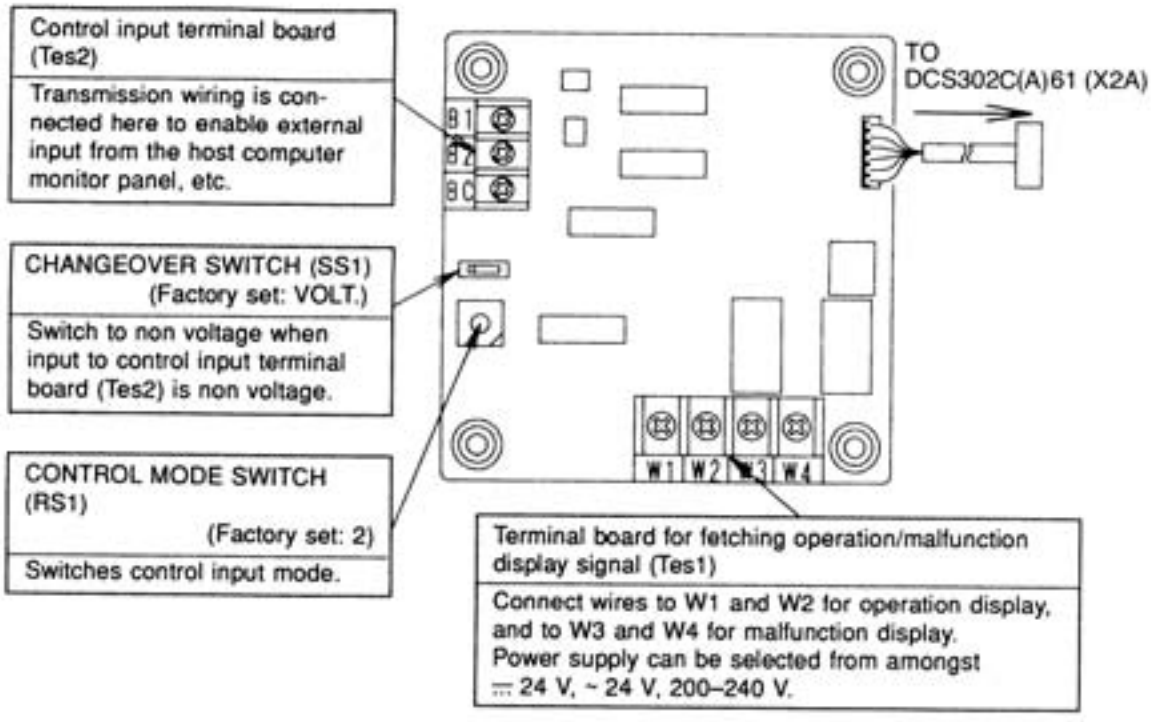
1. Unified display



2. Unified control



■ Names of parts and function



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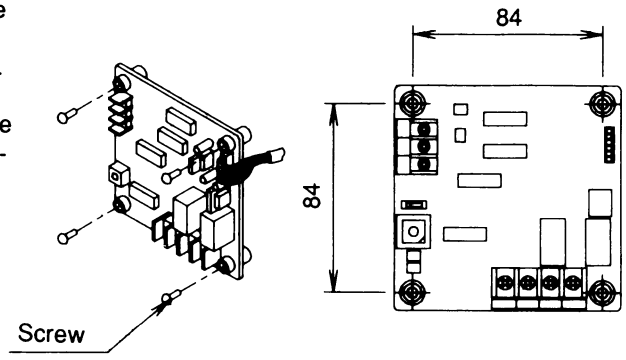
■ Installation

- Securely install the adaptor inside the electric panel box (field supplied) with the 4 attached screws.
- Install the adaptor in a place within 5 m from the central remote controller to enable cable connection.



NOTE

1. Do not damage the PC board with your screwdriver, etc.
2. Install the adaptor inside an electric panel box to protect from electromagnetic waves and dust.

■ Electric wiring work and initial setting

First, wire between the indoor and outdoor units, and between each unit and the power supply source. Then, wire between the indoor unit and remote controller. Finally, check operation is normal.

- For details, refer to the installation manuals for the indoor and outdoor units.

Next, wire between the indoor unit and the central remote controller. Then, wire the central remote controller to the power supply source and make the necessary settings. Finally, check operation is normal.

- For details, refer to the installation manual for the central remote controller.

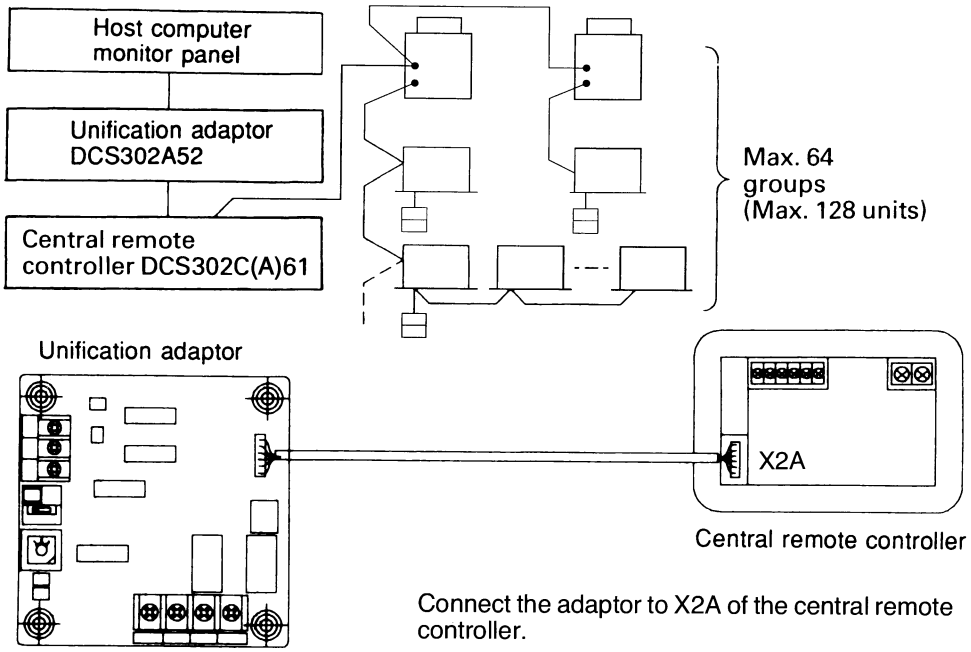
Wire between the unification adaptor for computerized control and the central remote controller.

- Refer to WIRING TO THE CENTRAL REMOTE CONTROLLER.

Set the CHANGE OVER SWITCH and CONTROL MODE SWITCH. And, wire to the host computer monitor panel or other external input device.

- Refer to WIRING TO EXTERNAL INPUT DEVICES.

WIRING TO THE CENTRAL REMOTE CONTROLLER



Connect the adaptor to X2A of the central remote controller.

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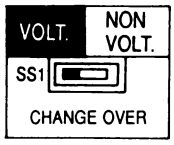
WIRING TO EXTERNAL INPUT DEVICES

(Wire specifications)
0.75 – 1.25 mm^2 gauge sheathed vinyl cord or cable (2-wire)
Max. length: 150 m

1. Control input (Unified operation/stop)
Wire as explained here following, depending on whether input carries a voltage (VOLT.) or not (NON VOLT.).

① Input with voltage

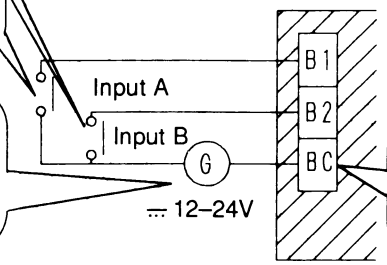
Set the CHANGE OVER SWITCH(SS1) to VOLT.. (Factory set: VOLT.)



The ■ mark indicates switch position.

Use a small voltage contact of a minimum current load of ⎓ 12 V, 1 mA or less.

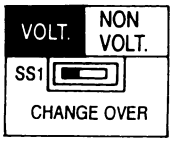
Utilize an external ⎓ 12–24 V power supply. Each contact requires approximately 10 mA, therefore carefully select power supply capacity.



Connect to the common side of control input (non-polarized).

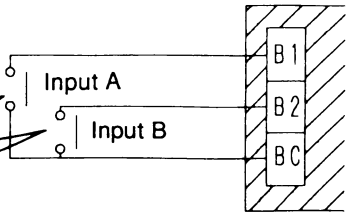
② Input with non voltage

Set the CHANGE OVER SWITCH to NON VOLT.. (Factory set: VOLT.)



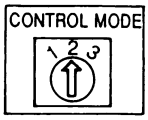
The ■ mark indicates switch position.

Use a small voltage contact of a minimum current load of ⎓ 12 V, 1 mA or less.



2. CONTROL MODE SWITCH (RS1) setting

Control mode can be selected from input A and B at this switch on the PC board adaptor.
(Factory set: 2)



① For normal operation by input A

Position	Input A
2	OFF → ON: Unified operation
	ON → OFF: Unified stop

* Input B can be disregarded.

② For instantaneous operation by input A and B
(Use an instantaneous input of 400 msec or more at ON time.)

Position	Input A	Input B
3	ON: Unified operation	ON: Unified stop

③ Do not set the switch to position 1. This switch can be set at any time.

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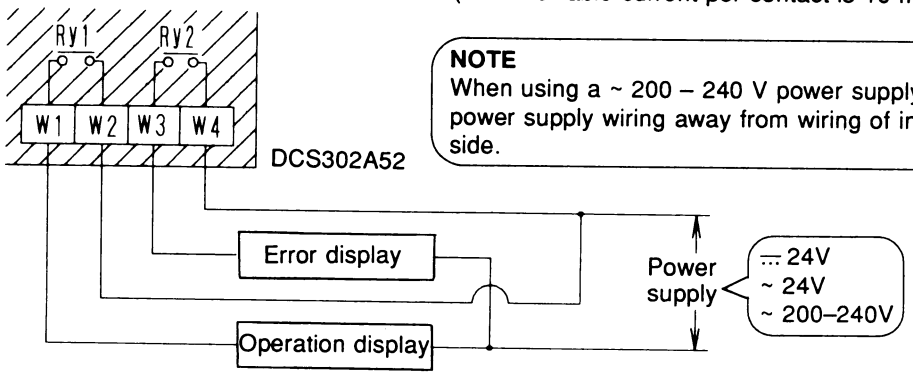
3. Fetching the display signal

Terminals W1 – W4 are non voltage contacts used in normal operation to output operation display (W1 and W2) and malfunction display (W3 and W4) signals.

(The allowable current per contact is 10 mA – 3 A.)



Output conditions are indicated as below.

When Ry1 and Ry2 are OFF	When only Ry1 is ON	When only Ry2 is ON
All indoor units are stopped.	No error has occurred with the indoor units, and at least 1 unit is operating.	At least 1 unit has stopped operating due to malfunction, or a communications error has occurred between tbe central remote controller and the indoor unit.

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