

Mitsubishi Electric Air-conditioner Network System

Central Controller Model: G-50A

Instruction Book



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Before using the controller, please read this Instruction Book carefully to ensure correct operation. Store this Instruction Book in a location that is easy to find.

1. SAFETY

Please take a moment to review these safety precautions. They are provided for your protection and to prevent damage to the controller.

This safety information applies to all operators and service personnal.

After you have read this manual, always observe the procedures described in the explanations and store it with the installation manual in a location that is easy to find. If the controller is going to be operated by another person, make sure that this manual is given to them.

Symbols and Terms

Statements identify condition or practices that could result in personal injury or loss of life.
Statements identify condition or practices that could result in damage to the controller or other property.

Specific Precautions

<u> </u>	RNING
• Ask your dealer or technical representative to install. If incorrect inatallation is done by a customer, it may cause an electric shock, fire, etc.	• Do not move and re-install the controller by yourself. If installation is incorrect, it may cause an electric shock, fire,etc. Ask your dealer or technical representative.
• Securely install in a place which can withstand the weight of the controller. If it is not enough, the controller may fall and cause an	• Contact your dealer if the controller will not be used any more or will be scrapped.
 injury. Make sure that the controller is connected to a rated power supply. If the controller is not connected to a rated power supply, it 	• Do not remodel or repair by yourself. If the controller is redesigned or repair is not correct, it may cause an electric shock, fire, etc. Consult your dealer if repair is necessary.
 May cause a fire or damage to the controller. Never remove the cover during operation. Touching the charged parts of the controller may cause severe burns or other personal injury. 	• Stop the operation immediately and notify the your deal- er if an error code is displayed or malfunction occurs. Fire or damage may be caused if the controller is operated in this condition .
• Stop the operation if any malfunction occurs. If malfunction occurs (burning smell, etc.) stop the operation and turn off the power supply. Contact your dealer or techni- cal representative immediately. If the controller continues to operate after a malfunction occurs, this may cause damage, electric shock or fire.	
	UTION
• Do not install the controller in a place where inflam- mable gas could leak. If gas leaks and collects around the controller, it may cause a fire or explosion.	• Do not use the controller in special environments. The performance may be reduce or parts may be damaged if the controller is used in locations subject to large quanti- ties of oil (including machine oil), steam, sulfide gas.
• Do not wash the controller with water. It may cause an electric shock or malfunction.	• Do not touch the switches with sharp objects. It may cause an electric shock or malfunction.
• Do not touch the switch with wet hands. It may cause an electric shock.	• Operate the controller within the specified temperature range.
• Do not use the controller for special applications. This product is designed for use with the MITSUBISHI ELECTRIC BUILDING AIR CONDITIONING CONTROL SYSTEM. Do not use the system for other air condition man- agement operation or applications. It may cause malfunc- tions.	Observe the specified temperature range when operating the controller. If the controller is used outside the specified temperature range, it may cause serious damage. Be sure to check the operation temperature range in the operation manual.
• Do not apply insecticide or flammable sprays to the controller. Do not place flammable spray near the controller and make sure it does not blow directly on the controller as this may cause in fire.	

2. Product Features

The central controller is capable of controlling up to 50 air conditioner units. It supports the following operating function.

[1] User operating function

(1) Operation

1. Virtually almost functions operated by local remote controller are supported.

The central controller can be used to control the indoor units in specific group ON or OFF, select the operating mode (COOL, DRY, FAN, AUTO and HEAT) for the indoor unit or HEAT RECOVERY, BY-PASS, AUTO for the ventilation unit), select the fan speed, select the air direction (4 direction and swing operation), select the ventilation mode (OFF, LOW speed, or HIGH speed), select TIMER MODE and select the temperature setting. In addition, room temperature can be displayed at the unit of each group upon request. (See 5-5 "User setting")

- Local remote control operation can be prohibited for specific functions. Access to specific control functions, such as ON/OFF operation, mode selection ,temperature setting and filter sign reset operation can be prohibited for the local remote controls collectively or per group.
- Collectively setting Operation setting can be performs collectively or per group.

(2) Weekly Schedule

- The weekly schedule enables four different schedule patterns to be set weekly per group. (P1-P4)
 Of these, three patterns are to set ON/OFF schedule and remaining one pattern is to set the pattern to prohibit op eration of the local remote controller.
 Four patterns (daily patterns) mentioned above enable the setting of individual schedule times for every group.
- 2. The respective daily patterns enable the setting of three different ON times (three prohibition times) and three different OFF times (three permission times).
- In addition, it is possible to set ON time only (prohibition time only) and OFF time only (permission time only). 3. Easy setting
 - Daily operation patterns and weekly schedules for one group can easily be copied to the other groups.
- 4. Timer automatic recovery operation when recovering from a power down is supported.

(3) Operating status monitor

- 1. ON/OFF/MALFUNCTION status can be monitored by group or by unit.
- 2. The groups managed by the central controller may be displayed all together by group number or group name (first three characters). Collective display of all unit address is also supported.
- 3. When displaying all groups at once, individual groups can be turned ON or OFF by designating them by the \triangleright indicator .

(4) Malfunction monitor

- 1. The unit address where the malfunction occurred, the error code and address of the unit that detected the malfunction are displayed on the malfunction monitor screen.
- 2. Pressing the reset key stops all the units connected to the same group, refrigerant system or linked group to the unit where the malfunction occurred, all of these are reset.

[2] System configuration setup and maintenance function

(1) Setup for system configuration

1. Registration can be made for the indoor units, local remote controllers and slave system controllers in the same group.

And also registration can be made for the ventilation such as OA processing unit.

- 2. Group name may be specified. (Names may include alphanumeric characters.)
- 3. Group name may be copied.
- 4. Setting of group configuration and specifying the group name may be performed as long as power is being supplied to the central controller. This mean that setting can be performed before the central controller is installed at the site, before installation of individual units is completed or while the power supply to some units is cut off.
- 5. System configuration data setting in the central controller can be deleted at once if necessary when replacing circuits wired board, etc.

(2) Refrigerant system monitor

All unit address (indoor, outdoor, etc.) can be displayed for individual refrigerant system on the refrigerant system monitor screen. This information is useful for checking the installation, such as address setting, transmission line connection and power supply connection.

(3) Interlocked group setting

Setting can be performed for indoor units interlocked with a ventilation unit. If even one of the indoor units interlocked with ventilation have started to operate, the ventilation will be activated.

(4) Malfunction log monitor

- 1. A log of the last 64 malfunction massage, in the order in which they occurred, can be monitored.
- 2. The data and time the malfunction occurred, the address of unit where it occurred, the error code and the address of unit that detected the malfunction are displayed.
- 3. All malfunction logged in the memory of the central controller and indoor unit can be reset at once.

[3] Other

(1) Overall statues display lamp

Displays normal operation/all OFF/malfunction status for the entire system. (Normal operation/all OFF/malfunction status is indicated by the lamp being lit, not lit or blinking respectively)

(2) Collective ON/OFF switch

This switch allows turning all of the unit in the system ON or OFF at once.

(3) Power supply wiring

The central controller is supplied power from the PAC-SC50KUA Power Supply Unit via the M-NET transmission line and DC power line. The DC power between the PAC-SC50KUA Power Supply Unit and the central controller should be 10m or less. The central controller allows to be connected to M-NET transmission line at any position. (M-NET transmission line is the central control line which connects TB7 terminal of the outdoor unit)

(4) M-NET transmission line

The combined maximum distance between the outdoor units and the central controller, and between the outdoor units and farthest indoor units connected to the same refrigerant system or their remote controller, may be extended up 500 meters.

Therefore, even if the total distance is made longer by installing the outdoor units all in row, there will be no problem so long as the above maximum total distance limitation is not exceeded.

3. Functions

3-1 Specifications

Item		Specification			
Source power requirement		Input voltage		DC24V,0.02A(Maximum loading) Power received from PAC-SC50KUA Power Supply Unit via M-NET transmission line. DC12V,0.2A(Maximum loading) Power is received from the PAC-SC50KUA Power Supply Unit via the DC power line.	
Environment	al condition	Temperature		Operating 0 °C ~ +40 °C / 32 °F ~ +104 °F Non operating -20 °C ~ +60 °C / -4 °F ~ +140 °F	
		Humic	Humidity 30~ 90%RH (No condensation)		
Dimonsions		mm	120(H)	\times 300(W) \times 80[*19](D) *[]: indicate the thickness from the	
DIMENSIONS		in	4-3/4(⊦	H) ×11-13/16(W) × 3-1/8[*3/4](D) wall.	
Woight		Kg	1.0		
weight		lb	2-1/4		
System conc	lition		•		
Number of control unit *3		Indoo Numb Numb Numb	r unit or 50 er of uni *Note er of ren : 1 er of sys : 0 : 0 er of ind : 0	 independent OA processing unit or LOSSNAY 0 units maximum (50 groups maximum) its (indoor or independent OA processing unit or LOSSNAY) in one group -16 units Indoor unit, independent OA processing unit and LOSSNAY can not register to the same group. note controllers in one group 1-2 stem controllers in one group 0-4 (including the number of remote controller in one group) 0-3 for groups which have one remote controller. loor units interlocked with one OA processing unit or LOSSNAY 0-16 (some types of OA processing unit can only be operated when interlocked to a maximum of 9 units) 	
User operati	ng function				
	ON/OFF	The C	N/OFF	operation can be performed as a collective or per group.	
	Operation mode *1	The s or per	The switch operation for the operation mode setting can be performed as a or per group. [Selectable operation mode for the indoor unit] Cool/Dry/Fan/Auto/Heat [Selectable operation mode for the independent ventilation] Heat recovery/By-pass/Auto		
Operation	Fan speed *1	The switch operation to set the High and Low speed can be performed as or per group. (The 4 fan speed setting is available to the indoor that has 4 levels)		peration to set the High and Low speed can be performed as a collective speed setting is available to the indoor that has 4 levels)	
	Air direction and swing operation *1	The a tive or	ir flow di r per gro	irection can be switched to 4 directions and swing operation as a collec- up	
	Temperature setting	Temp	erature s [Setting Cool Heat Auto	setting can be performed collectively or per group.temperature range](Dry) operation: $19 \sim 30 \degree C / 67 \sim 87 \degree F$ toperation: $17 \sim 28 \degree C / 63 \sim 83 \degree F$ operation: $19 \sim 28 \degree C / 67 \sim 83 \degree F$	

Item		Specification
	Prohibit local remote control	The specific functions of a local remote controller can be prohibited as a collective or per group. [Prohibit function] ON/OFF operation, Operation mode setting, Temperature setting and Filter sign reset operation.
Operation	Timer operation	The set schedule operations can be switched to ON/OFF (local remote controller operation prohibition/permission) for each group.
	Filter sign reset	The filter sign reset operation after the air filters are cleaned can be performed as a collective or per group.
	Ventilation operation *1 *3	The ventilation operation of the interlocked OA processing unit or LOSSNAY can be coll- ective or per group. [Ventilation operation] Low speed/High speed/Ventilation OFF
	Collective operation	The overall status lamp displays conditions of the collective statues.
	Each group operation	Each group operation is displayed on the operation setting screen (group) or operation monitor screen.
	Operation mode	
	Fan speed	
	Air direction	
	Temperature setting	
	Timer operation	
	Filter sign	
Monitor	Local remote	
	control prohibition	Displayed on the operation setting screen (group).
	Ventilation operation *3	
	Room temperature display	
	Central control prohibition	
	External	
	input signal condition	
	Malfunction	The unit address and error code are displayed on the malfunction monitor screen when a malfunction occurs.
	Current time back-up	When the power is cut off, the current time is backed up for approximately one week. (When the controller is fully charged. The controller is fully charged by twenty-four hours after power feed.)
Other	Timer setting	 Operation pattern setting can be performed. Operation interval : Minimum 10 minutes The daily operation pattern and weekly schedule for each group can be set. A pattern of one day : P1/P2/P3/P1 / P2/P3 / P4/ - * ON/OFF setting up to three times a day are possible for P1/P2/P3. * P4 enables to set operation prohibition of 3 times per day for the remote controller. * P1 / P2 / P3 implement the schedule which has combined P1/P2/P3 of ON/OFF pattern and P4 of remote controller operation prohibition pattern together. (P1 = P1 + P4 / P2 = P2 + P4 / P3 = P3 + P4 is displayed.) * - is a day without timer operation. "The reference temperature and set-back value" or "Setting temperature" which are linked with timer operation.
1		linked with timer operation can be set.

Item		Specification
	Group name designation	Group name can be specified and display on the operation setting screen. * Group name setting is need at the initial setting.
Other	External signal input interface	Emergency stop/normal, ON/OFF, prohibit/permit for local remote operation can be controlled for units being controlled with a non-voltage contact signal input from an external source.
	External signal output interface	When one or more units being controlled are operating, the "ON" signal will be out- put, and if a malfunction occurs in one or more units, the "malfunction" signal will be output.
Initial setting	(for installation	and maintenance)
Connecting information	Group setting *3	The group setting operation for units (indoor units local remote controllers, independ- ent OA processing unit, LOSSNAY and slave system controllers) are performed on the group setting screen.
setting	Interlocked setting *3	The interlocked setting for the ventilation equipment as the OA processing unit or LOSSNAY, etc to indoor unit is performed on the interlocked setting screen.
Monitor	Malfunction history	A maximum of the 64 most recent malfunction are displayed on the malfunction log monitor.
MONITO	Refrigerant system monitor	The connected unit address are displayed on the refrigerant monitor screen.
	User setting	Some of the indication and function that appear on the each screen can be specified to match the needs of the user.
	Master system controller/ Slave system controller setting *2	Master/Slave setting of the system controller. * G-50A does not support slaves.
Other	Prohibition setting enable /disable	The setting of a system controller which the local remote control is prohibition enable or disable.
	The prohibited controller range setting	Selecting of the prohibited controller which is only local remote controller or both local remote controller and the other system controller.
	K-control type *3	The system composed of K-control type air conditioner equipment can be controlled using the K transmission converter (PAC-SC25KAA)

*1 Each operation is available in accordance with the function of unit.

*2 Master system controller and slave system controller.



When G-50A controls another system controller or when the system contains only G-50A :

G-50A is set as the master system controller.

* G-50A performs the group setting in this configuration.



When G-50A is controlled by another system controller : (Example: MJ-300Gateway)

G-50A is set as the slave system controller.

- * The group setting is performed by Master system controller.
- *3 OA processing unit (LOSSNAY) and the K transmission converter (PAC-SC25KAA) are not included in systems shipped to North America (USA & Canada).

NOTE :

The following group setting cannot be performed.

• Unit groups which are not under the management of the master controller and are managed by the slave system controller.





3 - 2 Display Screen



4. User operation

Operation monitor screen	This screen displays ON/OFF and malfunction condition of unit.
	G-50A normally displays this screen.
Operation setting screen	The unit operations can be performed by individual group or collective
	operation. These operation include the ON/OFF, operation mode, fan speed,
	temperature setting, air direction, ventilation setting, timer operation
	ON/OFF, local remote controller prohibition and filter sign reset are
	performed by group or collectively. In addition, this screen can also displays
	the room temperature of each group.

Used the following two screens when user operation is performed.

• The collective operation can be performed on any screen (except for the menu screen) in the user operation mode

<Shifting to the operation monitor screen and operation setting screen>

Refer to section "4-2 Operation setting".

4 - 1 Operation condition monitor

- This function displays the ON/OFF/Malfunction status of specific units or group.
- ON/OFF/Malfunction status is shown by the indication corresponding to the unit or group appearing in inverse, normal or blinking display.
- The user may select display items by unit address, group number or group name.
- Refer to section "5-7 User setting (page 34)" for detail of user setting.
- During the user operation mode, this screen returns from any screen if there is no operation for approximately 10 minutes.

(1) Operation Method

• Note that operation is different for each of the following display methods.

 \langle Unit address displayangle

MONITOR	7		WED	15:29
G00	G00		ECTIVE	LY
001	002	03	004	0.05
006	007	800	009	010
011	012	013	014	015
016	017	018	019	020
021	022	023	024	025
026	027	028	029	030
031	032	033	034	035
036	037	038	039	040
041	042	043	044	045
046	047	048	049	050
SETTING				

①Press the GROUP Switch to change the display group in desired operation and monitor.

2 When displaying the units in a given group, press the 0 switch turn all the units in that group ON or OFF.

<g< th=""><th>iroup</th><th>nur</th><th>mber</th><th>displa</th><th>y></th></g<>	iroup	nur	mber	displa	y>
MONI	TOR			WED	15:29
	01	02	03	04	05
-	06	07	08	09	10
	11	12	13	14	15
	16	17	18	19	20
	21	22	23	24	25
	26	27	28	29	30
	31	32	33	34	35
	36	37	38	39	40
	41	42	43	44	45
	46	47	48	49	50
SETTIN	G				

①Press the \uparrow \downarrow \rightarrow \leftarrow switch to move the " \triangleright " select the group number to be operated.

Press the $\underbrace{\mathbb{O}_{\text{ONOFF}}}_{1}$ switch to set the displayed group unit is indicated by the " \triangleright " symbol to the on/off mode.

	<gre< th=""><th>oup na</th><th>ame d</th><th>isplay</th><th>\rangle</th></gre<>	oup na	ame d	isplay	\rangle
МО	NITOP	٦		WED	15:29
				•	
	1F1	1F2	1F3	1F4	1F5
	2E1 3E1	2F2 8152	21-3	21-4	215
	0. 1				
SET	TING				

①Press the \uparrow \downarrow \rightarrow \leftarrow switch to move the ">" symbol. Select the group name to be operated.

②Press the \bigcirc_{1}^{\bigcirc} switch to set the displayed group unit is indicated by the " \triangleright " symbol to the on/off mode.

*Displays up to the first 3 characters of the set group name.

Reverse:ON Normal:OFF Blinking: Malfunction during 15:29 MONITOR WED units is off G00 COLLECTIVELY Blinking and Reverse: 002 007 004 009 001 003 005Malfunction during 006 008 010 015 unit is on. 012 013 014 018 023 020 025 016 017 019 024 022 SETTING

*When a malfunction occurs, refer to section "4-4 Malfunction (page 23) ".

(2) Display contents

4 - 2 Operation setting

• There are two methods for the operation, performing the operation classified by groups or collective operation.

4 - 2 - 1 Group operation setting

No.	Name of switches	Function	Display
5	Current time setting switch	These switches are used when the current time is set.	Refer to section "4-5 Current time setting" .
6	Air direction setting switch	The Air flow direction can be selected. The air flow direction can be selected to four directions and swing operation (auto vane).	Air flow direction $(swing)$
7	Ventilation setting switch	The operation mode of the interlocked ventilation can be performed. *Where there is no interlocked ventilation, the operation of this switch is invalid. *"Ventilation" is OA processing unit or LOSSNAY	Ventilation volume setting display
8	Remote operation prohibit switch	Used to prohibit for the local remote control.	PROHIBIT : Local remote control specified on the prohibit setting screen is not possible. PERMIT : Local remote control is possible.
9	Timer more switch	The timer operation can be performed according to a previously set operation pattern.	Timer operation display $\Box ON \rightarrow \Box OFF $
10	Reset switch	The filter sign display reset is per- formed.The reset processing is com- pleted by pressing this switch two times.	Filter display └ Filter J → No display
1	Group select switch	The display group is changed.	Group number display This switch displays 1~ 50 group numbers. The switch can also display group names.
12	Back screen switch	Use to back to the user menu screen.	The menu screen will be returned.
13	Cursor position switch	The position of a cursor can be moved when a cursor is appear.	The cursor position (blinking) moves.

*1: Room temperature can be displayed by selecting the room temperature display function per "5-7User Setting".(but limited to indoor unit group)

(1) Local remote control operation prohibition setting.

• G-50A can prohibit the operation of item such as connected local remote controller or slave system controller for each group. The prohibit items are ON/OFF operation, operation mode, temperature setting and filter sign reset operation.

- The prohibit setting is completed.
- **NOTE:** The system controller that performed the local remote control operation prohibition setting can operate the prohibited items.
 - When the No.4 function select is set ON, the prohibit setting of the local remote control operating cannot be made. For details, refer to "5-3 Function setting."

(2) G-50A operation prohibition

• The operation of this controller is prohibited when an operation prohibition setting for this controller is received from a system controller other than this controller or when an external input signal is used.

The **PROHI-BITED** is displayed and the prohibition operation is display in reverse display when operation of this controller is prohibited by another system controller or an external input signal used.

The prohibition operation which is displayed in reverse display is not possible to operate in this condition.

(3) Using the function area

To select the function from the function area, use the \leftarrow or \rightarrow switch to move the cursor to the blinking to the function of your choice and press the \rightarrow switch. The current cursor position appears as a blinking indication on screen.

- MON. (MONITOR)
- PROH. (PROHIBIT)
- COL. (COLLECTIVE)
- M (memory)
- MR (memory read)
- : Shift to the operation monitor screen
- : Shift to the prohibit setting screen
- : Shift to the collective operation setting screen
 - : Stores the setting currently shown on the screen in memory.
 - : Reads the setting stored in memory and activates them for the currently displayed group.

4 - 2 - 2 Collective operation setting

- A collective operation setting and a collective prohibit setting can be performed for all the group managed by this controller at one time.
- (1) Collective operation setting

The collective setting is executed. The collective setting takes approximately 20 seconds.

NOTE: The display of setting contents is erased when shift to another screen.

The collective setting is completed when the previous items light. (After the setting are completed, start from step ③ to perform operation again if change operation are required.)

(2) Collective prohibit setting

OPERATION SETTINGS GOO COLLECTIVELY PRESS THE SWITCH CORRESPONDING TO THE COLLECTIVE OPERATION. GROUP PROM.	①Press the → switch to set "PROH. (PROHIBIT)" in blinking display and press the switch on the collective operation setting initial screen.
OPERATION SETTINGS GOO COLLECTIVELY PRESS THE SWITCH CORRESPONDING TO THE COLLECTIVE PROHIBITION.	 ②The collective prohibit setting initial screen is displayed. ③Select the items to be prohibited or permitted on the collective prohibit setting initial screen. Each time to press the switch corresponding to the prohibition item, the prohibition or permission is selected. Prohibition setting : The prohibited item is displayed in reverse with blinking. Permission setting : The permitted item is displayed with blinking. The selection method concerning to prohibit/ permit item is same as described in section "4-2-1 (1) Local remote control operation prohibit setting". (page 14)
OPERATION SETTINGS GOO COLLECTIVELY ON/OFF OPERATION OFERATION MODE SET PROHIBIT FILTER SETTING RESET M MR	 ④ The items selected for the prohibition or permission are displayed with blinking. And the "SET" is displayed with blinking in the function area. ⑤ When all setting are completed, press the switch one time to complete this settings.
OPERATION SETTINGS GOO COLLECTIVELY UNDER COLLECTIVE SETTING	OPERATION SETTINGS G00 COLLECTIVELY ON OFF OPERATION OPERATION MODE SET TEMP C PROHIBIT FILTER SETTING RESET

(6) The collective prohibit setting is excused.

The collective prohibit setting takes approximately 20 seconds.

- ⑦The collective setting prohibition/permission item setting is completed when the previous item light.
- (B) After setting of prohibit/permit items, press the (Mathematical Stress) switch to back to the collective operation setting initial screen.

OPERATION SETTINGS GOO COLLECTIVELY PRESS THE SWITCH CORRESPONDING TO THE COLLECTIVE OPERATION.	The collective operation setting initial screen is displayed. Press the BENOTE TO SWITCH TO SET "REMOTE CONTROL PROHIBIT_". SWITCH TO SET "REMOTE CONTROL PROHIBIT_".
GROUP PROM.	
OPERATION SETTING G00 COLLECTIVELY REMOTE CONTROL PROMIBIT GROUP PROH.	 Remote operation prohibition/permission display ("REMOTE CONTROL PROHIBIT") is displayed with blinking. Press the or switch to display the "SET" in blinking display for the indicated function area. Press the switch one time to complete the collective prohibit setting.
OPERATION SETTING GOO COLLECTIVELY UNDER COLLECTIVE SETTING	^(IJ) The collective prohibit setting is executed. It takes approximately 20 seconds.
OPERATION SETTING G00 COLLECTIVELY REMOTE CONTROL PROHIBIT ©ROUP PROH.	⁽¹⁾ The collective prohibit setting is completed when the remote operation prohibition/permission display is change to be light.

- NOTE: • The display of setting contents is erased when shift to another screen.
 - The following restrictions in the collective operation settings.

 - 1. Temperature setting The range that can be set falls within 19°C ~ 28°C /67°F ~ 83°F regardless of the operation mode. 2. Operation mode selection, fan speed selection, air direction, etc., can be collectively set regardless
 - of the functions of the unit. However, actual setting to a unit without functions cannot be performed. To obtain the correct setting contents, refer to the respective group operation setting screens.

4-3 Timer operation

- A weekly schedule setting can be specified for each group.
- Possible to set on the timer the schedule to prohibit operation of the local remote controller in addition to ON/OFF schedule.
- Always set to current time on the current time setting screen when the schedule setting is performed. Refer to section "4-5 Current time setting".

NOTE: When browser monitoring, or schedule setting from central monitoring PC, was performed, the timer screen of this function cannot be used. "This function is set from a higher level." is displayed on this screen.

<Schedule setting function summary>

- (1) The ON and OFF (PROHIBITION and PERMISSION) times can set in 10-minute units.
- ②The daily operation schedule can include up to three ON (PROHIBITION) time settings and three OFF (PERMISSION) time settings.
- ③ Three types (P1-P3) of daily ON/OFF pattern and one type (P4) of prohibition/permission pattern are available respectively, each of which can be set every to each group.

Week day which is not set in timer pattern is displayed with (-).

In addition, it is also possible to set the schedule which has combined P1 -P3 and P4 together .

(P1/P2/P3) In this case, both of ON/OFF pattern and prohibition/permission pattern are daily executed.

Any one of these options may be selected for each separate day of the week.

- (4) The schedule patterns can be copied easy to other group by the memory and memory read functions because the schedule contents can be recorded in the memory.
- ⑤ The setting temperature or set-back value setting can also be supported during timer operation.

<Shifting to the schedule setting screen>

(1) Schedule pattern (P1~P3) setting

- Follow the procedures described below to set each daily schedule pattern for each group.
- The setting temperature or set-back values setting are also performed in the schedule setting operation. To enter the setting temperature or set-back value setting select SET-BACK or SET TEMP. Accordance with section "5-7 user setting (page 34)" in advance.
- The setting temperature or set-back value selected in this way take effect only during timer operation. Also setback operation is cancelled if the setting temperature is changed using this central controller or a local remote controller.

(The set-back operation resumes at the next timer-ON time)

<Schedule pattern setting(P1~P3, P4) >

SCHEDULE WED 15:29 G01 1F1ROOM SU MO TU WE TH FR SA - - 0 12 24 P1 P2 P3 P4	 ①Press the ▲ GHOUP → switch to display the group in desired a timer setting. ②Press the → → ↑ ↓ switch to move the cursor position to the pattern (P1~P3, 24) to be setting. ③Press the → switch one time.
SCHEDULE WED 15:29 G01 1F1ROOM SU MO TU WE TH FR SA - -	 ④The schedule pattern setting screen is displayed. ⑤Press the → ↑ ↑ ↓ switch to move the cursor position to the first ON (PROHIBITION) time.
P 1 ON OFF 8 : 0 0	 ⑥Press the ^{OCLOCK/PATTERN}/ ^S switch to select the ON (PROHIBITION) time. (time is changed by 10 minutes unit.) ⑦Press the ^{ENTER}/ ^S switch one time to set ON (PROHIBITION) schedule. (The cursor moves to the next setting position.)
P 1 ON OFF 8 : 0 0 1 2 : 0 0 1 3 : 0 0 2 0 : 0 0 : :	 ⑧ Perform operation ⑥ to select OFF (PERMISSION) time. ⑨ Perform operation ⑦ to set the OFF (PERMISSION) time. 10 Repeat operation ⑥ to ⑨ to set the second and third ON/OFF (PRO-HIBITION/PERMISSION) schedules in the same manner. When the second or third ON/OFF (PROHIBITION/PERMISSION) schedule is not used, the characters ": " remain display and press the switch one time.
P4 PROH. PERM. 8:30 12:00 13:00 17:00 18:00 21:00 Setting example in case of P4	 To cancel the ON/OFF (PROHIBITION/PERMISSION) time that was set previously, use the i i i switch to move the cursor to the time position to be cancelled and press the switch. When the P1 setting are completed, perform operation (2) to (1) as necessary to perform the setting for P2 or P3 or 24.

(2) Set-back values and setting temperature setting

 Setting the set-back values and setting temperature can be performed only when selecting either "SET BACK" or "SET TEMP" on the user setting screen in the initial setting mode.

Set-back operation

Set-back operation is a method which reduces the air conditioner running cost by controlling the operation with specified time band for lowered load. In other words the unit operates at a few degrees higher for cooling and a few degrees lower for heating in the specified time band.

- **«EXAMPLE**» When the reference temperature is 24°C / 75°F and the set-back value is set to 2°C / 4°F. Cooling operation : 24°C+2°C=26°C / 75°F+4°F=79°F
 - Heating operation : 24°C-2°C=22°C / 75°F-4°F=71°F

SCHEDULE

мо τu

247

24°C

24°C

Setting temperature

G01

SU

Р1

Setting temperature operation

This operation sets the temperature when timer ON is set to a predesignated temperature regardless of the operation mode.

Setting temperature selected>

WF

ON

8

1 3

: 0 : 0

0

0 0

1F1ROOM

ΤН FR

WED 15:29

OFF

2

2

SA

_

0

0 0

Set-back operation selected> SCHEDULE WED 15:29 G01 1F1ROOM sυ мо τu WF TH FR SA OFF **ON** P 1 0°C 0 0 2 2 0 0 0°C 0 0 2 1 3 24°C _ Set-back value

Referance temperature

SCHEE	DULE				WED	15:29
G01			1F1R	001	1	
SU	мо	τu	WE	тн	FR	SA
_	—	—	_	_	—	—
P 1			ON		OF	F
0.4	070 010	1	8:0		12:	
24℃	0°C	_	- : -		:	
L						
				•		

S	CHEE	DULE				V	VED) 1	5:2	9
[G01			1F1	ROO	DM				
	SU	мо	τu	WE	Т	н	FR	S	A	
	—	—	_	_	-	_	_	-	_	
	D 1			0	J		0	FF		
	ΡI	25°C		8:	00		12	: 0	0	
		24 C 24 C	_	3 : — :	00	-		: 0 : -	0	
_								1		_

_				
①Press the	(🗕)	(\rightarrow)	(†)	(])

switch to move the cursor position to the set-back reference temperature or setting temperature.

- **NOTE:** The temperature display can be switched between Celsius (°C) or Fahrenheit (°F) (page 34).
- 2 Press the (₅ ▲) / (в ▼) (CLOCK/PATTERN) switch to select the following items.
- Set-back value: The reference temperature and set-back value for each ON time period are selected.
- Setting temperature: The setting temperature for each ON time period is selected.
- ③Press the 斗 switch to make setting.
- (4) Repeat operations (2) and (3) to set the set-back value or setting temperature for each ON/OFF schedule.
- 5 Press the SCREW switch, when finished.

(3) Weekly schedule setting

The set-back value

* The selecting range:

• The reference temperature for set-back operation

The schedule pattern P1 to P3, local remote control prohibition (P4), P1 to P3 of a composite pattern composed of P1 to P3 and P4, and non-timer operation(-) are set for each day.

: 19°C~28°C (1°C unit) / 67°F~83°F (2°F unit)

: $0 \sim 9$ degree (1 degree unit)

• The setting temperature : 19°C~28°C (1°C unit) / 67°F~83°F (2°F unit)

/ 0 ~18 degree (2 degree unit)

schedule setting.

2 Press the \leftarrow \leftarrow \rightarrow \uparrow \downarrow switch to move the cursor to the pattern position to be set.

- ③Press the ₅ ▲ / ⊛ ▼ (CLOCK/PATTERN) switch to select P1 to P4 or ().
- ④Press the switch one time to complete the setting.(The cursor will move to the next setting position.)

⑤Repeat operations ③ and ④ to assign the schedule pattern to each day.

NOTE: When the No.4 function setting is set ON, P4 cannot be set.

(4) Copying schedule content to other groups (memory,memory read)

- The schedule pattern P1 to P3, weekly schedule pattern, set-back value or setting temperature of one group can be recorded and copied to memory or to another desired group.
- Correction and modification can be easily performed after the copy operation is completed.

The same contents are displayed.

The contents stored in memory can be copied to other groups any number of times because these contents will not be erased even if the memory read operation is used.

4 - 4 Malfunction

- The malfunction monitor function is used for conforming to the details of the malfunction condition when a malfunction is displayed on the operation monitor screen.
- The malfunction monitor function can display data describing up to nine malfunctions in the address number sequence on one page. This data contains the unit address where the malfunction occured, the error code and the unit address where the malfunction was detected.
- After checking the unit address where the malfunction occurred and the error code, please contact your dealer or technical representative as soon as possible.

< Shifting to the malfunction monitor screen >

NOTE: When there is no malfunction taking place, [NO ERROR] lights up instead of [ERROR CODE].

Page change operation

	The page change	operation is	performed b	y the 🗔	-		-		\prod	switch.
--	-----------------	--------------	-------------	---------	---	--	---	--	---------	---------

Pressing the \rightarrow or \uparrow switch shows the current display page +1.

Pressing the \frown or \bigcirc switch shows the current display page -1.

Malfunction reset operation

Press the reset (DEL) switch to reset all malfunctions.

The reset operation can be performed on any page.

NOTE: When operation of the G-50A is prohibited, reset operation is invalid.

4 - 5 Current time setting

The current time, day, month and year are set on the current time setting screen.

< Sifting to the current time setting screen >

5. Initial setting

5 - 1 Shifting to initial setting menu

• Shift to the initial setting menu by continuously pressing + (2seconds or longer) on the user operation menu screen.(Refer to section "3-2".)

Shift to the user operation menu by continuously pressing + + (2seconds or longer) on the initial setting screer (Refer to section "3-2".)

When group information is not saved, the following initial setting screen is displayed when power is turned on at this controller.

5 - 2 M-NET address setting

- (1) Select 6 "6.ADDRESS SETTING" (or 1 "1.ADDRESS SETTING).
- (2) Set the controller address by pressing the \bigcirc to \bigcirc is switches.(000,201 ~ 250).
- (3) When the (BACK) switch is pressed after setting, the screen returns.

• When the controller is shipped from the factory, the address is set to "000". (Always set the address to "000" When the K transmission converter is managed.)

NOTE :	 E: Observe the following precautions when this controller manages the M-NET models and K control models by using the K transmission converter (PAC-SC25KAA). Refer to the K transmission converter instruction manual for further details. Address of this controller Always set the address of this controller to "000". 					
	 Function select setting of this controller Always set the No.3 function setting to ON. Indoor unit address Set all the M-NET models of indoor units from 001, next, set the address of the K control indoor un 					
	Indoor unit address $\begin{array}{c} 001 & M-NET \text{ indoor unit maximum address} \rightarrow K \text{ control indoor unit minimum address} \sim 050 \end{array}$					
	* The K transmission converter (PAC-SC25KAA) is not included in systems shipped to North America (USA & Canada).					

5 - 3 Function setting

- The functions of this controller are set according to the function settings.
- The functions selects are set to OFF when the controller is shipped from the factory.
- (1) Select (7 ▼) "7.FUNCTION SETTING"(or (2) "2. FUNCTION SETTING").
- (2) Switch the function by pressing the function No. you want to change, or the 1 to $\overline{\bullet}$ witch of the same number.

Each time the switch is pressed, the ON/OFF state of that No. is switched. (NO. 1 and NO. 2 cannot be changed.)

<Operation example>

1)When Input (3) switch was pressed.

(3) When the switch is pressed at the end of function switching, the screen returns.

MENU	WED 15:29	to select"7FUNCTION	FUNCTION SETTING
6 ADDRESS 7 FUNCTION 8 IP ADDRE	SETTING I SETTING SS SETTING	SELECT"	0N OFF
		Press the	
BACK		to the initial setting menu.	

<Function selects>

- Reserved for future use (Leave this switch set to OFF)
 Reserved for future use (Leave this switch set to OFF)
 OFF : No K transmission converter installed
 OFF : Operation prohibit setting valid
 OFF : Emergency stop broadcast enabled (Be sure to use) No. 1
- No. 2 -No. 3 -
- No. 4 -
- No. 5 -
- No. 6 -
- External input changeover (refer to section "7 External input/output function") No. 7 -
- The range of a controller which the operation is prohibited OFF : Both of the system controller and the local remote controller \checkmark ON : Only the local remote controller No. 8 -

ON : K transmission converter installed ON : Operation prohibit setting invalid
 ON : Emergency stop broadcast disabled

5 - 4 Group configuration setting

- Registration can be made for the indoor units, local remote controllers and slave system controllers in the same group.
- Registration can be also performed for the group which is composed of only OA processing unit or LOSSNAY. (Independent ventilation group)

< Example for the group configuration >

Supply the power from the power supply unit (PAC-SC50KUA) through the M-NET transmission line and DC line.
Perform the following procedures to set the group configuration because the interlocked operation setting will not be performed if the group configuration settings have not been performed.

MENU WED 15:29 1 ADDRESS SETTING 2 FUNCTION SETTING 3 IP ADDRESS SETTING 4 GROUP SETTING PLEASE SET INITIAL SETTING	 When the power is supplied to the controller, the screen shown on the left is displayed. Press the () (or () switch to select "1 GROUP SETTING". (or "4 GROUP SETTING")
GROUP SETTING G01 ADDRESS UNIT GROUT CONTROLLER GROUP NAME SET	 The group configuration setting screen is displayed. ③Press the switch to display the group number to be set. ④Press the switch to display the group number to be set. ④Press the switch to be set. ⑤Used the numeric keypad switch to set the address of the indoor unit, local remote controller, slave system controller in the display group number. < Operation example > When the indoor unit which address is 012. Input "0" Input "0" Input "2" Press the switch 012 * It is also possible just enter "1" "2". < When the input is incorrect > Before pressing switch, continue to input the data. After pressing street must be addressed to be deleted and press the switch to delete these addresses.
 NOTE: Do not set interlocked ver Even if the addresses are dress. The independent ventilation interlocked ventilation unit 	ntilation unit such as OA processing unit or LOSSNAY. input any order, it is switched to a sequence starting with low-order ad- on unit can not set to the indoor unit group and it can not be set to as an t.

Additions

Group configuration date collective deletion

• Display "G00" in the group configuration setting screen and press the result in the switch two times continuously to delete the all group configuration data and all interlocked operation data.

NOTE: • When this unit is set to the slave system controller by the function select , group registration can not be made. However confirmation of the contents of group registration is possible.

• Simultaneously press the 1 and 4 keys on the user operation menu screen for 2 seconds to perform group configuration setting. The initial setting menu screen is displayed. Select "1. GROUP SETTING" on the setting menu screen, wait for the group setting screen to appear, and change the setting.

When the necessary initial settings are complete, simultaneously press the

 and keys on the user operation menu screen for 2 seconds.

 When returned to the user operation screen, register processing for the group configuration information and initial set up processing for each unit and each controller is executed.(This process takes approximately 5~7 minutes.)

5 - 5 Interlocked operation setting

• Registration of interlocked operation of Ventilation unit (OA processing unit and LOSSNAY) with single or multiple indoor unit is performed. All indoor units to be interlocked with ventilation unit for operation should be registered for the interlocking with ventilation unit.

<Example for the interlocked group configuration>

NOTE: When this unit is set to slave system controller by No.2 function select, interlocked operation settings cannot be adjusted. However monitoring of the contents of the interlocked operation settings is possible.

5 - 6 Group name setting

(1) Setting method

- Specify new group name.
- Either alphabet, numeric characters, hyphens or spaces can be used for name setting.
- Maximum of ten characters can be set.
- When the group name is displayed on the operation monitor screen, the first three characters of the group name are displayed.

GROUP NAME		
G01 MEETING A		
$ \leftarrow \leftarrow \leftarrow \rightarrow \rightarrow \rightarrow \rightarrow$		
1234567890-		
ABCDEFGHIJKLM		
NOPQRSTUVWXYZ		
	м	MR

(9) When the group name setting is completed, press the $\mathbb{S}_{\leftarrow}^{\text{BACK}}$ switch.

GROUP	SETTING
G01	MEETING A
ADDRES	S
UNIT	•
001	002
REMOTE 101	CONTROLLER
SYSTEM	
010120	oon noteen
GROUP N	AME SET

The group configuration setting screen is displayed. (1) Repeat operation (3) to (9) and perform the group name setting for each group.

1 When all the group name settings are complete, press the setting switch.

⑦ The initial setting menu screen is displayed.

To perform the setting, refer to section "5-6 User setting (page 34)".

Simultaneously press the <u>t</u> and <u>keys</u> on the initial setting menu screen for 2 seconds to complete user operation. Next refer to section " 4 User operation " and perform user operation.

Group name cursor Group name cursor movement mark

When performing corrections to the group name, move the group name cursor to the character to be correct.

Group name cursor movement method

Move the cursor to one of the group name cursor movement mark using the (-) (-) (+) switch.

- Deletion methods Move the group name cursor to the character to deleted and press the _____ switch to delete the character.
- Insertion methods Move the group name cursor to the location where character is to be insert and press the (*) [INSERTION IN THE CONTRACT INTERCE.

(2) Group name copy

- A certain group name can be copied to another group. (This method use the "M" (memory) and "MR" (memory read) functions.)
- It is convenient to use a group name for other groups because a group name that was copied can also be corrected.

⁽⁸⁾Preformed the memory read for the group name. Befer to section " (1) setting method (page 31)" and perfo

Refer to section " (1) setting method (page 31)" and perform the correction of the group name.

5-7 User setting

• To match the needs for the user this menu is to specify some of the indications and functions that appear on the user operating screen.

the us	er operating screen.		
	MENU		Press the $$ switch to select "5 USER SETTING" on the initial
1 GRO	OUP SETTING		setting menu screen.
2 INTE	ERLOCKED		
3 REFI	SETTING RIGERANT		
	MONITOR		
4 MAL	MONITOR		
5 USE	R SETTING	1	
NEXT			
USER S			I ne user setting screen is displayed.
GROU	UP NO./NAME TADDRESS		
2 SCHEDULE DATA			③When all the selection are completed, press the [SOLE SOLE SOLE SOLE SOLE SOLE SOLE SOLE
			to the initial setting menu screen.
4 GROUE	E/INDICATE P.NO. DISPLAY		
NONI			
6 ROOM	TEMPERATURE		
7 TEMP.	UNIT °C / °F		
Setup cond	lition before delivery fro	m the sh	юр
Item 1.	Operation monitor s	creen d	isplay settings
	"GROUP NO."	: Gr	oups are indicated by group number on the operation monitor screen.
	"NAME"	: Gr	oups are indicated by their first three characters of the group name on the
	"UNIT ADDRESS'	": Inc	dividual units are indicated by their unit address on the operation monitor
		SC	reen.
ltem 2.	Setting the set-back	value a	and the setting temperature used in conjunction with schedule operation.
	 The set-back valu 	ie or the	e setting temperature setting are possible when operation is linked with the
	schedule operatio	on.	awa patting apt back value used in paniunation with ON/OFF patterns during
	JEI-DAUN	: All scl	hedule operation.
	"SET TEMP"	: All	ows setting of the setting temperature used in conjunction with ON/OFF pat-
		ter	ns during schedule operation.

- "NONE" : The schedule operation is only performs normal ON/OFF patterns.
- Item 3. Setting filter sign indication "INDICATE" : Allows the indication of filter sign. "NONE" : Filter sign is not indicated.

Item 4. Group number display "INDICATE" : Enable display of group number on the operation setting screen and the schedule setting screen. "NONE" : Group number is not indicated.

Item 5. Change to the sequence of current time

"2001-1-1"

: Current time indicate in a sequence of year, month and date on the current time setting screen.

- "1-1-2001" : Current time indicate in a sequence of date,month and year on the current time setting screen.
- Item 6. Room temperature indication "INDICATE" : Indicated every each group "NONE" : Not indicated every each group
- Item 7. Temperature unit "°C" : Setting Centigrade "°F" : Setting Fahrenheit

5-8 IP address setting

• This function allows setting of the IP address and mask address needed at LAN connection.

MENU WED 15:29	
6 ADDRESS SETTING 7 FUNCTION SETTING 8 IP ADDRESS SETTING	on the initial setting menu screen.
BACK	
IP ADDRESS SETTING	The IP address setting screen appears.
IP ADDRESS : 192.168.001.001	② Move the cursor to the address setting position by pressing the ↔ , ↔ , ↑ and ↓ keys.
MASK ADDRESS : 255.255.255.000	③ Set the address with the 0 to 9 numeric switches.
	④When all address setting are complete, return to the initial setting menu screen by pressing switch.

5-9 Initial setting tool connection function

- This function connects the initial setting tool PC by LAN.
- Group setting, interlocked setting, and other information can be downloaded to this unit by using the initial setting tool Refer to the initial setting tool manual for an explanation of the initial setting tool functions and operating procedures.

А

В

- (1) Remove the cover from the controller by inserting a flat blade screwdriver into the gap between the cover and body and twisting the screwdriver.
- ②Use the dedicated cable (sold separately) to connect the initial setting tool PC to the service LAN connector.
- ③ When changed to FRONT with the LAN changeover switch, the initial setting tool PC is connected to the service LAN connector.
- ④When setting with the initial setting tool is complete, return the LAN changeover switch to the REAR position.
 - *When a service LAN connector is used, the option Model PAC-YG00FA-E is necessary.

6. Maintenance

6-1 Refrigerant system monitor

• This function allows monitoring of the address of the outdoor units, and BC controller connected to the refrigerant system. It is useful for checking address settings, transmission line connection during installation.

MENU 1 GROUP SETTING	①Press the ③ switch to select "3 REFRIGERANT MONITOR" on the initial setting menu screen.
2 INTERLOCKED SETTING 3 REFRIGERANT MONITOR 4 MALFUNCTION MONITOR 5 USER SETTING	
NEXT	
BEEBIGEBANT MONITOR	The process for monitoring of the refrigerant system is executed.

REFRIGERANT MONITOR	The Ple
under monitoring	

The process for monitoring of the refrigerant system is executed. Please wait.

_																				
F	R E	F	R	1(GE	ER	A	N	Т	Ν	10	Ν	I٦	0	R					
		õ	Ŋ	Т	D	õ	0	Ŗ	<u> ٦</u>	A	D	þ	R	Ē	S	S		5	1	
		в	C	/	0	5		A	υ	U	ĸ	E	2	5				5	2	
	^	Ų	Ν	Ĭ	Ţ		A	D	D	R	Ē	S	S	5		^	6		^	7
	ŏ	8		Ŏ	96		1	ŏ		1	1		1	2		1	3		1	4
	'	5		1	0															
┝																				

The refrigerant system monitor screen of the lowest outdoor unit address is displayed.

Press the \bigcirc group \bigcirc switch to change the displayed refrigerant system.

When the monitoring is end, press the ${\rm ext}$ switch to back to the initial setting menu screen.

6-2 Malfunction log monitor

- This function allows monitoring of a log of the last 64 malfunctions.
- The contents of malfunction and time the malfunction occurred is displayed. The contents of malfunction is the address of the unit where it occurred, the error code and the address of the unit that detected the malfunction.
- This data are remains in the memory even if supplied power is cut off.
- The malfunction log data can be deleted using the malfunction log reset operation. If the malfunction log data is reset after the system is serviced, the log will provide a convenient record of the malfunction that have occurred after that time when the system is next serviced.

①Press the
Switch to select "4 MALFUNCTION MONITOR" on the initial setting menu screen.

The malfunction log monitor screen is displayed. ②Changing pages on the malfunction log monitor screen.

Each time this switch is pressed, the current page +1 is displayed.

Each time this switch is pressed, the current page -1 is displayed.

③Malfunction log reset operation

Press the reset switch to clear the malfunction log.

7.External input/output function

* External signal input requires the external I/O adapter (Model : PAC-YG10HA-E) sold separately.

7-1 External input function

(1) The function of external input

- Emergency stop/normal operation, ON/OFF, local remote control prohibit/permit can be controlled for all air conditioners being controlled with a non-voltage contact signal input from an external input source. (Select with the dip switches)
- The condition of external input signal is displayed on the operation setting screen for each group.

No	Function of output clipsus cignol	Function		Bomarks	
INO.	Function of external input signal	No.6	No.7	nemarks	
1	External input signal not used	OFF	OFF		
2	Perform emergency stop with level signal	OFF	ON	During emergency stop, only ON/OFF of the central controller and local remote controller's operation will be prohibit.	
3	Perform ON/OFF operation with level sig- nal	ON	OFF	Only the ON/OFF operation of the central controller and the local remote controller will be prohibit.	
4	Perform ON/OFF operation,prohibit/per- mit operation with pulse signal	ON	ON	Set the pulse width while the contact is ON to 0.5 to 1.0 second.	

(2) Level signal and pulse signal

(3) Specification of external input interface

CN2	Lead wire	Emergency stop/normal level signal	ON/OFF level signal	ON/OFF , prohibit/premit pulse signal
No.5	Orange	Emergency stop/normal input	ON/OFF input	ON input
No.6	Yellow	Not used	Not used	OFF input
No.7	Blue	Not used	Not used	Local remote controller prohibit input
No.8	Gray	Not used	Not used	Local remote controller permit input
No.9	Red	Common(DC12V or DC24V)		

(A) Level signal

(1) When the level signal is selected, the operation (only ON/OFF operation) for the central controller and the local remote controller are prohibited (except during normal operation).

⁽²⁾When the emergency stop/normal operation signal is selected, the status will be changed from normal operation to emergency stop when the external input signal contact turns OFF to ON, and will be changed from emergency stop to normal operation when external input signal contact turns ON to OFF.

③When ON/OFF input signal is selected, the status will be changed from OFF to ON when the external input signal contact turns OFF to ON, and will be changed from ON to OFF when the external input signal contact turns ON to OFF.

- (B) Pulse signal
 - $(\hat{\mathbb{T}}$ Even if the ON signal is input during ON, the status will remain at the ON status.

(2)When the local remote controller is prohibited, the ON/OFF operation, operation mode selection and temperature setting from the local remote controller is prohibited.

3Set the pulse width (contact ON time) to 0.5 to 1.0 second.

7-2 External output function

(1)The function of external output

- •The "ON" signal is output when one or more air conditioner are in the ON operation.
- •The "Malfunction" signal is output when one or more air conditioner malfunctions.

(2)Specification of external output interface

CN2	Lead wire	Description of each terminal			
No.1	Green Common (0V)				
No.2	Black	ON/OFF			
No.3	Brown	Malfunction/Normal			

"ON" signal and "Malfunction" signal will both be output.

Appendix 1 : Initial setting (abridged)

Interlocked setting

User setting

- GROUP NO. DISPLAY 2001-1-1/**1-1-2001**
- ROOM TEMPERATURE NONE/INDICATE TEMP. UNIT C/°F

Refrigerant monitor

F	REF	R	IGE	RA	N	Т	М	٦N	ШΤ	OF	l			
	Q	Ņ	TDO	00	Ŗ	п		PP	RE	Ę S	S	5	1	
			103		_	_			00	,		5	2	
	U 01 08 15	N	IT 02 09 16	A 0 1	D 3 0	D	R E 0 4 1 1	S	S 01 12	52	0613		07 14	
											- 1			

Malfunction log

M-NET address setting

M-NET ADDRESS M-NET ADDRESS: 000

Function setting

- ... Registration of interlocked operation of ventilation unit with single or multiple indoor unit is performed.
 - GROUP SELECT ►
- : Select the address number of the interlocked OA processor unit or LOSSNAY.
- I : Move the cursor to address display position.
- Numeric keypayed
- : Set the address of the indoor unit.
- ... Select the display method and timer settings.
 - \rightarrow \uparrow \downarrow \cdot : Select the items. • [

... The unit address are displayed for each refrigerant system.

- \blacksquare GROUP \blacksquare : Change the displayed refrigerant system.
- ... The function allows monitoring of a log of the last 64 malfunction.
 - GROUP SELECT Changing pages.
 - : Clear the malfunction log. DEL. • (
- ... Displays, or sets, the controller M-NET address.
 - Numeric keypayed : Set the controller address. $(000, 201 \sim 250)$
 - *Initial value is 000.

... Sets the function of the controller.

- Numeric keypayed : Set ON/OFF
- () ()

: Move the cursor. □ : Active

When No.3 is set to ON, the KA address input field is displayed. Numeric keypayed : Set the address of the K transmission conveter.

... Sets the LAN IP address.

*Setting is unnecessary when a LAN is used.

- (\leftarrow) (\rightarrow) (\uparrow) (\downarrow) : Move the cursor to the address setting position.
- Numeric keypayed : Set the address $(0 \sim 255)$

Appendix 2 : User operation (abridged)

Shows the operation panel, screen, etc. for user operation.

This product is designed and intended for use in the residential, commercial and light -industrial environment.

The product at hand is based on the following EU regulations:

• Low Voltage Directive 73/23/EEC

 Electromagnetic Compatibility Directive 89/ 336/EEC

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide resonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio / TV technician for help.

