

# MITSUBISHI ELECTRIC



Building Air Conditioning Control System

## ON/OFF remote controller

## PAC-YT40ANRA

### Instruction Book

Thank you for purchasing a Mitsubishi CITY MULTI system.

- To use your CITY MULTI system correctly and safely, please read this book before use.
- After reading this book, keep it and the installation manual in a place where the final user can see them at anytime.
- When the end user has changed, forward this book and the instruction manual to the new final user.
- Do not try to install for move this system by yourself. (Safety and functions cannot be ensured)

## 1 Safety Precautions

- The following two symbols are used for dangers that may be caused by incorrect use and their degree of severity:

<b>WARNING</b>	This symbol denotes what could lead to serious injury or death if you misuse the PAC-YT40ANRA.
<b>CAUTION</b>	This symbol denotes what could lead to a personal injury or damage to your property if you misuse the PAC-YT40ANRA.

### WARNING

**Ask your dealer or technical representative to install the unit.**

Any deficiency caused by your own installation may result in an electric shock or fire.

**Securely install in a place which can withstand the weight of the controller.**

If it is not enough, the controller may drop and cause an 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 may cause a fire or damage to the controller.

**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 technical representative immediately. If the controller continues to operate after a malfunction occurs, this may cause damage, electric shock or fire.

**Do not move and re-install the PAC-YT40ANRA yourself.**

Any deficiency caused by installation may result in an electric shock or fire. Ask your distributor or special vendor for moving and installation.

**To dispose of this product, consult your dealer.**

**Never modify or repair the PAC-YT40ANRA by yourself.**

Any deficiency caused by your modification or repair may result in an electric shock or fire. Consult with your dealer about repairs.

**Stop the operation immediately and notify your dealer if an error code is displayed or malfunction occurs.**

Fire or damage may cause if the controller is operated in this condition.

### CAUTION

**Do not install in any place exposed to flammable gas leakage.**

Flammable gases accumulated around the body of PAC-YT40ANRA may cause an explosion.

**Do not wash with water.**

Doing so may cause an electric shock or a malfunction.

**Do not touch any control button with wet hands.**

Doing so may cause an electric shock or a malfunction.

**Do not use the controller for special applications.**

This product is designed for use with the Building Air Conditioning Control System. Do not use the system for other air condition management operation or applications. It may cause malfunctions.

**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 result fire.

**Do not clean the unit using benzene, thinner or other chemicals.**

It may cause discoloration or other damage. If the unit should become particularly dirty, apply a mild cleaner that has been diluted with water to a soft cloth and wipe the unit clean. Be sure to wipe away any residual moisture with a dry cloth.

**Do not use in any special environment.**

Using in any place exposed to oil (including machine oil), steam and sulfuric gas may deteriorate the performance significantly or give damage to the component parts.

**Do not press any control button using a sharp object.**

Doing so may cause an electric shock or a malfunction.

**Operate the controller within the specified temperature range.**

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 pull or twist the transmission line.**

It may cause a fire or malfunction.

**Do not dismantle the unit.**

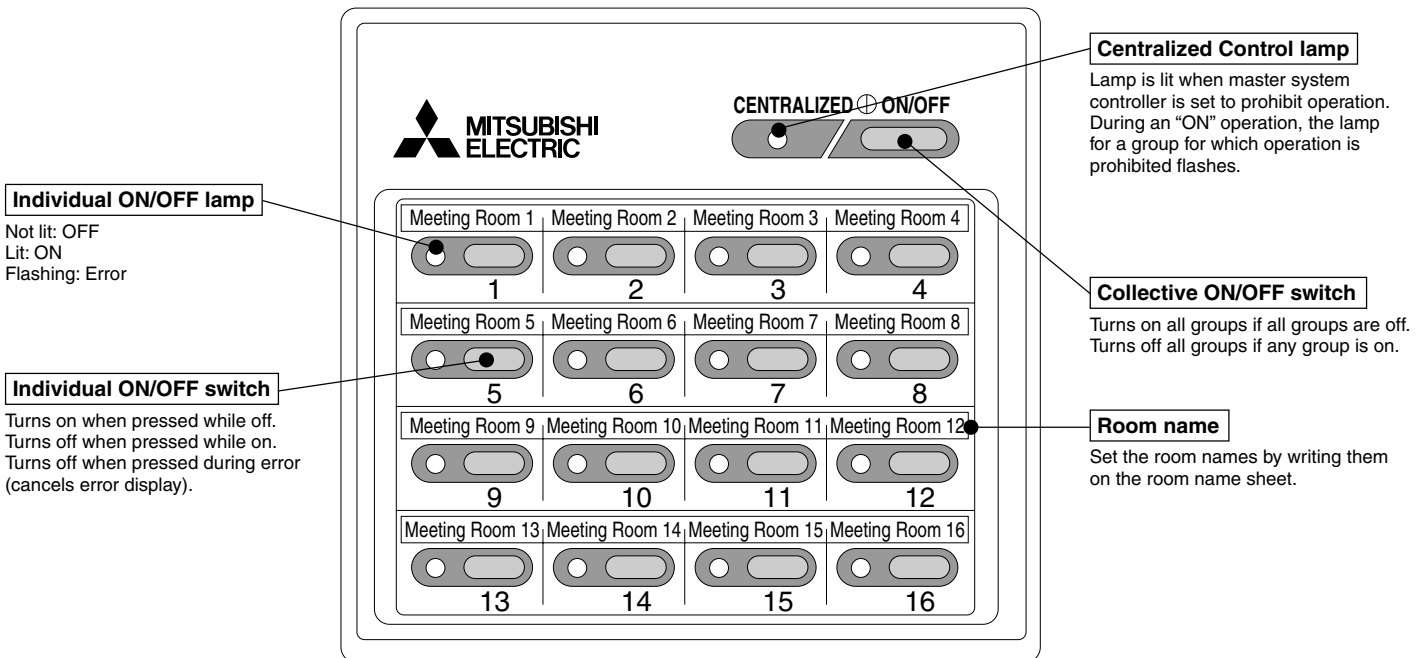
It is dangerous to touch the internal circuit board. It may cause a fire or malfunction.

## 2 Product Features

- This unit enables selective ON/OFF operations for a maximum of 50 units comprised of air conditioners, ventilation units spread over a maximum of 16 groups.

Feature		Details	
Regular operation functions	Operation	ON/OFF	
	Monitor	Operation state	ON/OFF operation as a collective/group Display operation state of each group using individual ON/OFF lamps (lit: ON/not lit: OFF)
		Error	Display error state of each group using individual ON/OFF lamps (flashing: Error)
	External input/output	External input	It is possible to use a choice of input (level) of Emergency stop, input (level) of ON/OFF or input (pulse) of ON/OFF + Prohibit local remote controller operation.
External output		It is possible to output unit operation state as a collective or output error state as a collective.	
Initial setting functions	Initial setting	Group setting	Register units (air conditioner units, ventilation units or general purpose equipment), local remote controllers and slave system controllers in groups.
		Controlled group range setting	Set the range of groups controlled by this unit.
	System	Master system controller/slave system controller	Set the switching between master system controller and slave system controller when using multiple system controllers. See the installation manual.
System control	Number of controlled units	Number of controlled units	Maximum of 50 units
		Number of units in one group	1-16 units
		Number of local remote controllers and slave system controllers in one group	1-4 units, including both local remote controllers and slave system controllers. If the system controller is only connected to an ON/OFF remote controller, at least one local remote controller is necessary for each group (otherwise operations other than ON/OFF would not be possible).

## 3 Parts List and Functions



- NOTE**
- If ON/OFF operation is prohibited by another system controller, the prohibited group's Individual ON/OFF button and the Collective ON/OFF switch cannot be operated. When this operation is attempted, the Under Central Control lamp will flash twice.
  - Operation of Individual ON/OFF switches of groups that do not contain any air conditioners etc. is disabled. When operation of such a group is attempted, that group's Individual ON/OFF lamp will flash twice.
  - When external input is being used and Emergency stop is being input or the level signal ON/OFF setting is being defined, the Under Central Control lamp will always flash. While in this state, the Individual ON/OFF switches and the Collective ON/OFF switch will be disabled.

## 4 When Errors Occur

- When an error is occurring in a group, that group's Individual ON/OFF lamp will constantly flash. Moreover, when an error is detected by the controller, an output function can be used to give an output signal.

Error details		Individual ON/OFF lamp
①	Unit error (air conditioner, ventilation unit)	Individual ON/OFF lamp of the group in which the error is occurring will constantly flash. The error display is cancelled when the Individual ON/OFF switch of the group in which the error is occurring is operated.
②	Error on ON/OFF remote controller itself/Error when starting up system	All Individual ON/OFF lamps will constantly flash. The error display is cancelled when the Collective ON/OFF switch is operated.

When errors of type ① listed in the above table occur, check the error code and error source address that are displayed on the local remote controller connected to that group.

When errors of type ② listed in the above table occur, the error code and error source address will be displayed alternatively on the screen when the remote controller cover is removed using a slotted screwdriver. Check the error details here. (When the error of type ① listed in the above table occur, the error details will also be displayed on this screen.)

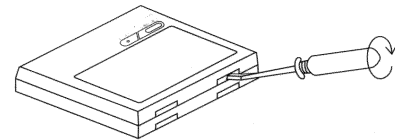
Make a note of the error details and call the nearest Mitsubishi Electric supplier or call the dealer who sold the system.

## 5 Modifying Room Name Details

- When you want to change the room names, use a slotted screwdriver to remove the remote controller cover and pull out the room name sheet.

[Removing the remote controller cover]

Insert the head of a slotted screwdriver into one of the open slots and remove the cover by gently rotating the screwdriver as shown in the diagram on the right.

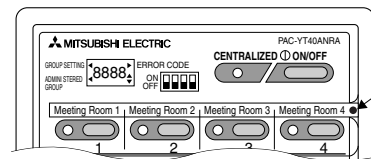


[Removing and inserting the room name sheet]

Pull out the room name sheet sideways to the right by using onto the hole on the right side of the room name sheet.

If the names are written in pencil, use an eraser to remove the old names and write new names in pencil.

After writing the new room names, insert the room name sheet by following the above procedure in the reverse order.



Use this hole to remove the room name sheet.

[Refitting the remote controller cover]

First hook the cover to the two upper claws and then fit it to the remote controller.

- NOTE
- When rotating the slotted screwdriver to remove the remote controller cover, rotate it in a gentle fashion taking care not to apply much force. If too much force is applied, it could break the claw parts.
  - When refitting the remote controller cover, press it down until it snaps securely shut. If the cover is not securely shut, it may fall off.
  - When using the room name sheet for the first time, you need to remove the protective sheet from the front surface of the sheet.

## 6 Using the External Input and Output

### 1. External signal input function

\*In order to use external signal input, use the 5 wire cable for external input that comes with the unit.

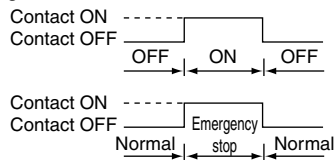
#### (1) External input

By using an external no voltage contact signal, it is possible to send Emergency stop/Normal, ON/OFF or Prohibit/Permit local remote controller operation commands to all units being controlled. (This is selected by the SW4 setting. SW4 is mounted on the main unit board.)

No.	External input signal functions	SW4		Comment
		No.2	No.3	
1	Do not use external input signal (This is the factory setting.)	OFF	OFF	
2	Send a level signal for Emergency stop/Normal	OFF	ON	The Emergency stop state prohibits the ON/OFF operation from the local remote controller and the ON/OFF operation and the change Prohibit/Enable operation from this unit.
3	Send a level signal for ON/OFF	ON	OFF	This state prohibits the ON/OFF operation from both the remote controller and this unit.
4	Send a pulse signal for ON/OFF and Prohibit/Enable	ON	ON	When the contact is ON, make the pulse duration 0.5 sec or longer.

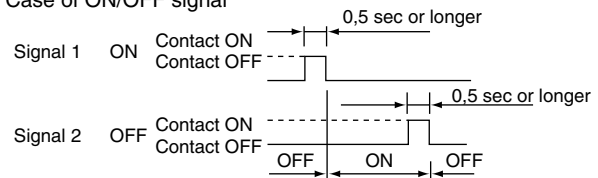
#### (2) Level signal and pulse signal

##### (A) Level signal



##### (B) Pulse signal

(Example) Case of ON/OFF signal



#### (3) External input specification

\*Prohibit/Permit is same.

CN2	Lead wires (5 wires)	Level signal for Emergency stop/Normal	Level signal for ON/OFF	Pulse signal for ON/OFF, Prohibit/Permit
No. 1	Green	Emergency stop/Normal input	ON/OFF input	On input
No. 2	Yellow	Not used	Not used	Off input
No. 3	Orange	Not used	Not used	Prohibit local remote controller operation input
No. 4	Red	Not used	Not used	Permit local remote controller operation input
No. 5	Brown	Common 0V		

##### (A) Level signal cases

- In the case where the Emergency stop/Normal signal is selected, when the external input signal contact OFF changes to contact ON, "Normal" changes to "Emergency stop". When contact ON changes to contact OFF, "Emergency stop" changes to "Normal".
- In the case where the ON/OFF signal is selected, when the external input signal contact OFF changes to contact ON, "OFF" changes to "ON", and when contact ON changes to contact OFF, "ON" changes to "OFF".

##### (B) Pulse signal cases

- If the "ON" signal is sent while the equipment is on, the equipment remains on. (The same applies to OFF, Prohibit and Permit.)
- In the case where local remote controller operation is prohibited, the ON/OFF operations by the local remote controllers are prohibited.
- Set the pulse duration (contact ON period) to 0.5 sec or longer.

### 2. External signal output function

\*In order to use external signal output, use the 4 wire external output cable that comes with the unit.

#### (1) External output

In the case when one or more units are running "on" and an error occurs in one or more units, a signal indicating that an error is occurring is output.

#### (2) External output specification

CN3	Lead wires (4 wires, with black tube)	Detail of each terminal
No. 1	Yellow	ON/OFF
No. 2	Orange	
No. 3	Red	Error/Normal
No. 4	Brown	

- "On" is output even when there is "Error".

## 7 Specifications

### Main Unit Specifications

Item	Details
Power supply	DC 30V (Supplied from an outdoor unit or dedicated power supply unit (Model: PAC-SC34KUA))
Power consumption	2 W
Environmental conditions	Temperature 0 to 40°C, humidity 30 to 90% RH (No condensation)
Weight	0,2 kg
Dimensions (H × W × D)	120 × 130 × 19