



Remote Controller



Remote controller list

Building Management Zone

Centralized control



LonWorks® Adapter

LMAP04-E

For LonWorks®



AE-200E with BACnet Interface

For BACnet®

Floor Management Zone

System controller



AE-200E

This model, featuring a color LCD screen, can control up to 50 indoor units when used independently, and up to 200 indoor units when connected to AE-50E/EW-50E.



PAC-YT40ANRA

The power can be turned on and off easily for 50 indoor units in up to 16 groups with this single unit.



EW-50E

This model can control up to 50 indoor units when connected to the AE-200E as an expansion unit.



AT-50B

This model is suitable for control on each floor. You can control up to 50 indoor units on the color LCD screen.

The air conditioners in each group can be turned on and off, and their modes can be changed. The weekly timer allows them to be turned on automatically before work starts, and off after closing time.



PAR-40MAA NEW

(MA remote controller)

The temperature can be set in steps of 0.5°C [1°F] increments, and the air flow direction and error icons are displayed on the screen.



PAR-21MAA

(MA remote controller)

The temperature can be set in steps of 1°C/1°F increments. The button panel can be accessed and closed when the buttons are not used.



PAR-U02MEDA

(ME remote controller)

All elements appear on the LCD screen, which features an occupancy sensor. All conditions including grouping can be set on this one controller.



PAC-YT52CRA

(MA remote controller)

A compact remote controller dedicated to setting the temperature and fan speed



PAR-CT01MAA-S

(MA remote controller)

All elements appear on the LCD screen. The background and character colors can be selected.



PAR-SL100A-E

(MA Wireless remote controller)

* Connected only to PLFY-P VEM-PA / PLFY-P VFM-E1



PAR-FL32MA

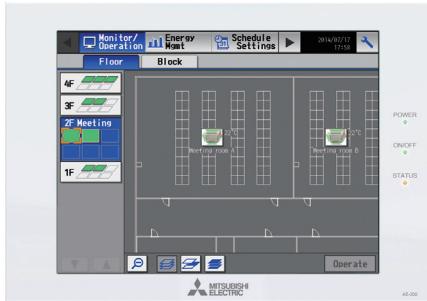
(MA Wireless remote controller)

A suitable remote controller can be selected to control the air conditioners in each room according to each use situation.

Centralized Remote Controller

Centralized controller

AE-200E/AE-50E



Dimensions 284(W) x 200(H) x 65(D) mm
11-3/16(W) x 7-7/8(H) x 2-9/16(D) in.

Promotes energy savings through the comprehensive display of the air-conditioning equipment's energy consumption

- Energy consumption of the air-conditioning equipment can be displayed by individual area in graph form for easier viewing
- Users can easily confirm the operating status by comparing power consumption of the previous year, as well as with the electrical power target.
- Floor layout is displayed on the 10.4-inch LCD touch panel for easier management of air-conditioning equipment.

An optimal system can be easily and flexibly established according to a facility's scale.

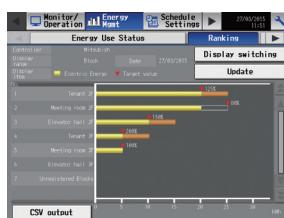
- Up to 50 indoor units can be managed.
- Centralized control of up to 200 indoor units can be performed with three "AE-50E/EW-50E" expansion controllers.
- More than 200 indoor units can be managed by connecting the PC to the web browser.*1

*1. Please contact your local distributor regarding support for this feature.

Screen for Power Consumption



Energy consumption of a targeted area is displayed by month, day, and hour. Energy consumption of two different units, groups, and blocks can be compared. Fan operation time and energy consumption can be displayed.

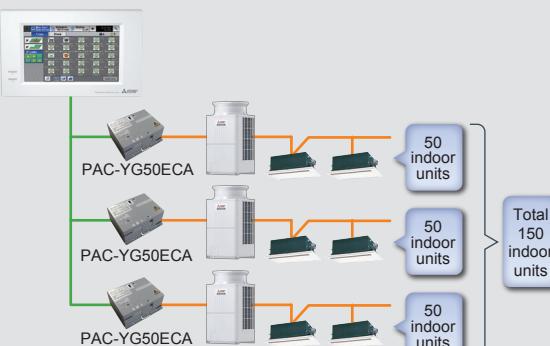


Energy consumption of air-conditioning equipment can be ranked and displayed by individual equipment or area. Visualization of high-load components is possible. Energy consumption can also be compared with electrical energy targets.

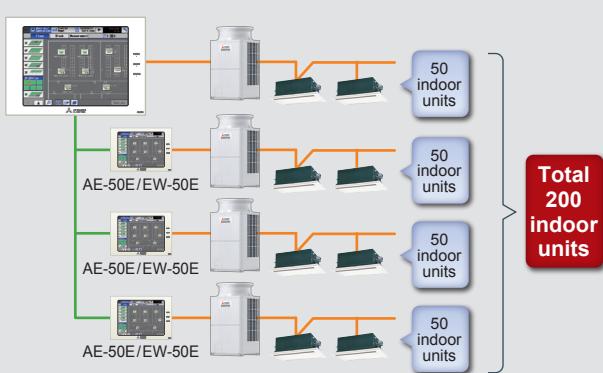
* For the billing function, PI Controller and what -hour meter with pulse transmitter (locally available one) are required.

Comparing the number of connectable units

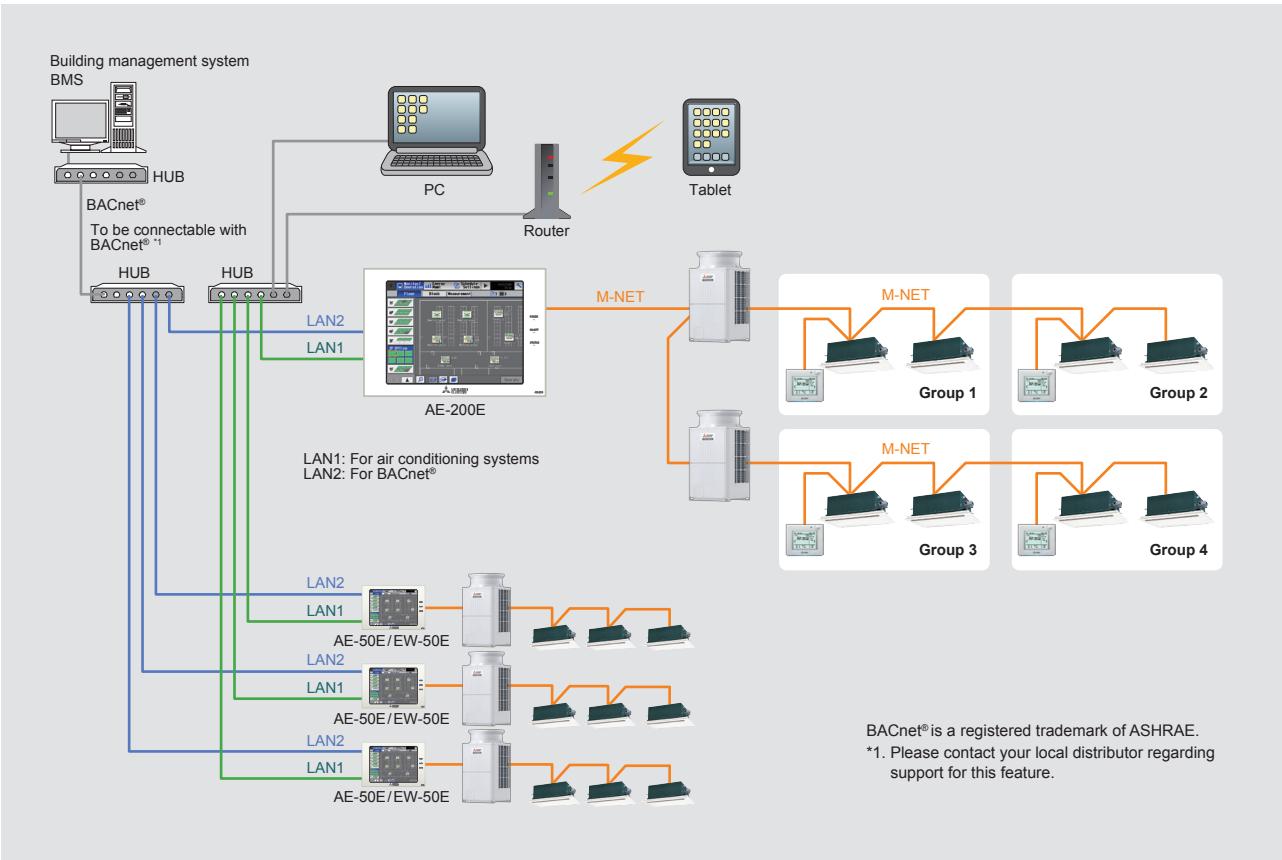
Conventional model: AG-150A



AE-200E



System Structure



Functions

□: Each unit ○: Each group ●: Each block △: Each floor ◎: Collective ✗: Not available

Item	Description	Operations	Display
Controllable number of units	Up to 50 units/50 groups		
ON/OFF	ON and OFF operation for the air conditioning units and general equipment. (PAC-YG66DCA is required to operate general equipment.)	○ ○ △ ●	○ ○
Operation mode	Switches between several operation modes depending on the air conditioning unit. Air conditioning unit: Cool/Dry/Auto(*)/Fan/Heat LOSSNAY unit: Heat Recovery/Bypass/Auto * Auto mode is for CITY MULTI R2 and WR2 Series only.	○ ○ △ ●	○
Temperature setting	Cool/Dry: 19-35°C [67-95°F] (14-30°C [57-87°F]) Heat: 4.5-28°C [40-83°F] (17-28°C [63-83°F]) Auto: 19-28°C [67-83°F] (17-28°C [63-83°F]) The range of temperature depends on the air conditioning unit. Values in parentheses (" ") are in cases where the middle-temperature is used on PDFY, PEFY-VML/VMR/MS/VMH by setting DipSW7-1 to ON. Note: PEFY-P-VMH-E-F is excluded.	○ ○ △ ●	○
Fan speed setting	Models with 4 air flow speed settings: Hi/Mid-2/Mid-1/Low Models with 3 air flow speed settings: Hi/Mid/Low Models with 2 air flow speed settings: Hi/Low Fan speed setting (including Auto) varies depending on the model.	○ ○ △ ●	○
Air flow direction setting	Air flow direction angles, 4-angles or 5-angles Swing, Auto (Louver cannot be set)	○ ○ △ ●	○
Schedule operation	Weekly schedule can be set by groups based on daily operation pattern.	○ ○ △ ●	○
Permit/prohibit local operation	Individually prohibits operation of each local remote controller function. (ON/OFF, Operation mode, Set temperature, Filter sign reset, Air Direction*, Fan Speed*, Timer*) * This function depends on the model.	○ ○ △ ●	○
Indoor unit intake temperature	Measures the intake temperature of the indoor unit only when the indoor unit is operating.	✗	○
Error	When an error is currently occurring on an air conditioning unit, the affected unit and the error code are displayed.	✗	□ ○
Test run	This operates air conditioning units in test run mode.	○ ○ △ ●	○
Ventilation interlock	The ventilation unit (LOSSNAY) is able to automatically start its operation when operation of the interlocked indoor unit starts.	○ ○ △ ●	○
External input (timer connection, emergency stop input, etc.)	Using a level signal or pulse signal, it is possible to input the following: Level signal: Emergency Stop Input, Batch ON/OFF, and Demand Input. Pulse signal: Batch ON/OFF or Operation Disable/Enable * Requires an external power supply and external I/O adapter (PAC-YG10HA) sold separately. Only one input can be selected from the above inputs.	○	○
Energy Management	Bar Graph: Indoor unit Electric Energy, FAN operation time, Thermo-ON time (TOTAL, Cooling, Heating) can be displayed hourly, daily, and monthly. Line Graph: Outdoor temp., Room temp., Set temp. (Heating, Cooling) input from PAC-YG63MCA and temp. from AHC.	✗	□ ○ ●
Advanced HVAC Controller (AHC)	The status of AHC can only be monitored.	✗	○
ME remote controller	The status of sensor on this controller can be monitored.	✗	○
Smartphone/Tablet	The specified web browser on iOS and Android OS can monitor and operate the AE-200E. *1	○	○
New web design	Revised web screen design for a more user friendly interface. *1	○ ○ △ ●	○
Initial setting software	The initial setting can be configured without an AE-200E connection *1	✗	✗
Apportionment of power consumption	Apportionment of power consumption can be calculated on the AE-200 *2	●	□ ●
BACnet® communication	ANSI/ASHRAE 135-2010 (ISO16484-5) is supported and approved by the BTL. *1	○	✗

*1. Please contact your local distributor regarding support for this feature.

*2. Even when the number of indoor units is 50 or less, the system must consist of AE-200E and EW-50E/AE-50E.

Centralized Remote Controller

Centralized controller
EW-50E



Dimensions 209(W) x 172(H) x 92(D) mm
8-1/4(W) x 6-25/32(H) x 3-5/8(D) in.

Main Features

- **Can be used as an expansion controller for the AE-200E**

Up to 200 indoor units can be operated and monitored by connecting three EW-50E units to an AE-200E controller.

- **Function to apportion electricity charges**

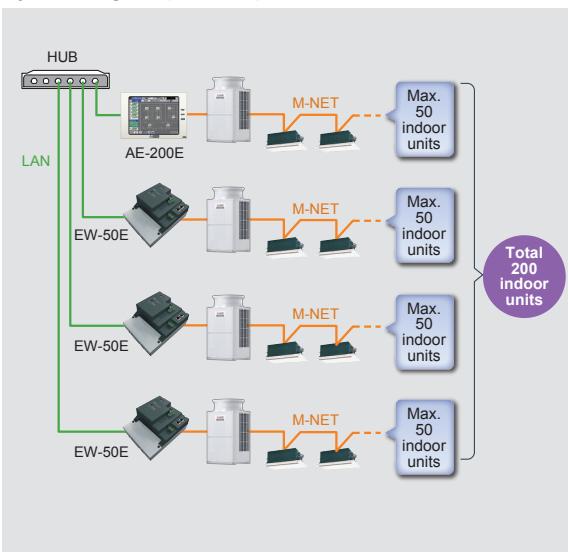
The power consumption of each air conditioner can be calculated with an AE-200E controller. The calculated data can be output to a PC via a USB memory device or LAN, and billing charges can be prepared using a specific charge calculation tool.

*To use the function to apportion electricity charge, the AE-200E and EW-50E are required.

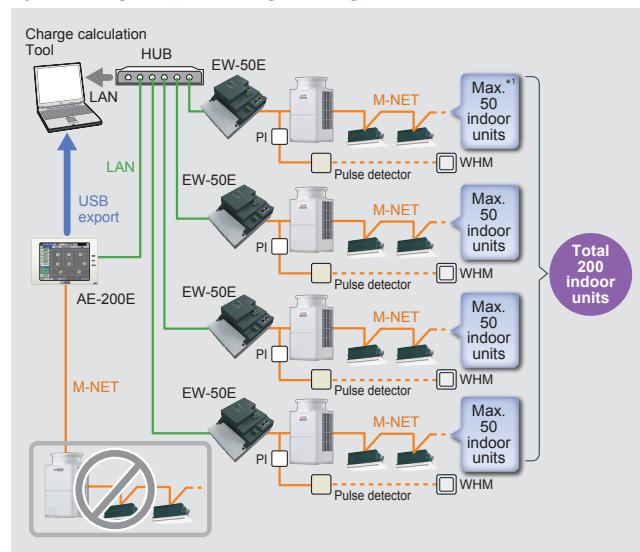
*For other restrictions, refer to the Installation Manual and Instruction Book.

System Structure

System diagram (standard)



System diagram (with charge setting)



* When the AE-200E M-NET is not used, a maximum of four EW-50E units can be connected.

- **Air conditioner units can be operated and monitored independently using a PC**

Even without an AE-200E controller, the EW-50E can operate and monitor air conditioner units using browser software^{*1}.

Air conditioners can be operated and monitored remotely via the Internet. In addition, air conditioners in multiple buildings can be operated collectively.^{*2}

* 1. This operation has been confirmed on Internet Explorer 11, Edge or on Google Chrome ver.54, and Safari 10.

Microsoft® Internet Explorer is a trademark or registered trademark of Microsoft Corporation in the United States and other countries.

Google is a registered trademark of Google Inc.

Google Chrome is a registered trademark of Google Inc. in the U.S. and other countries.

Edge is a trademark or registered trademark of Microsoft Corporation in the U.S. and other countries.

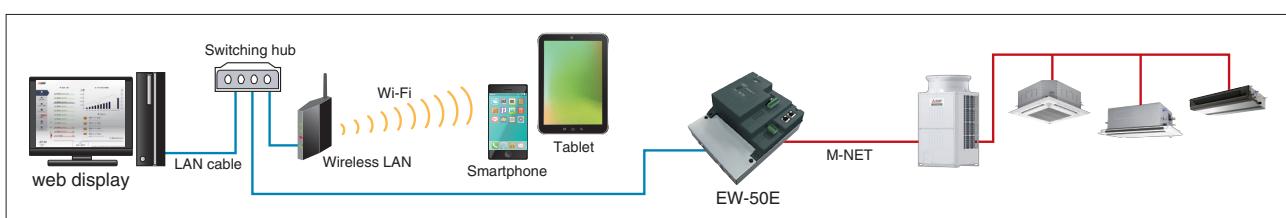
Internet Explorer is a trademark or registered trademark of Microsoft Corporation in the U.S. and other countries.

Windows is a trademark or registered trademark of Microsoft Corporation in the U.S. and other countries.

Safari is a trademark or registered trademark of Apple Inc. in the U.S.

Company names and product names in this brochure may be trademarks or registered trademarks of the respective rights holder.

* 2. When connecting an EW-50E via the Internet, do not connect the EW-50E directly to the Internet. Instead, always connect via a router using the VPN function to ensure security.



• Manage air conditioner usage conditions

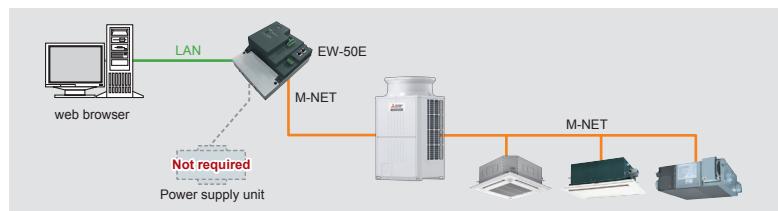
Energy consumption of air conditioners can be displayed in an easy-to-understand manner using a web browser.

* For the billing function, PI Controller and watt-hour meter with pulse transmitter (locally available one) are required.



• Operable without the transmission line power supply unit

The EW-50E unit is equipped with a power supply function. Power supplied by a transmission line power supply unit is not necessary. Since an outside power supply is not needed, self-sustained operation is possible even when the outdoor unit system is down. (In cases where the power consumption factor exceeds 1.5, a power supply unit is needed.)



• Energy-saving control

With the addition of an energy-saving control license (optional product), the set temperature can be automatically changed* according to the room temperature around the air conditioner unit to allow greater energy savings without sacrificing comfort.

* 1. With this function, the set temperature can be changed in +2°C/2°F increments for cooling and -2°C/2°F increments for heating during a set time interval.
In cases where the intake temperature and the set temperature are significantly different, exclusion from the energy-saving target is possible.

Functions

* The functions and specifications are subject to change.

◎: By group or multiple groups ○: By group □: Batch only

Item	Remarks	Setting	Display
ON/OFF	Switches air conditioners and general equipment ON or OFF.	○	○
Operation mode switching	Switches to cool, dry, auto, fan, or heat operation. * Some modes are not available depending on the unit.	○	○
Room temperature setting	The temperature can be set within the following range. Cool/Dry: 19-35°C [67-95°F] Heat: 4.5-28°C [40-83°F] Auto (single set point): 19-28°C [67-83°F] Auto (dual set points) [Cool] Same as the set temp. range for Cool mode. [Heat] Same as the set temp. range for Heat mode.	○	○
Set temperature 0.5°C/1°F increments	The temperature can be set and displayed in 0.5°C/1°F increments. * With some unit combinations, the temperature is set in 1°C/1°F increments.	○	○
Fan speed setting	The fan speed can be set to 4 levels, 3 levels, 2 levels, or automatic. * Available fan speeds differ depending on the unit.	○	○
Air direction setting	Fixed swing in 5 levels or auto air direction can be set. * Available air directions differ depending on the unit.	○	○
Prohibition of local remote controller operation	It is possible to disable the ability to use to local remote controller to run or stop the operation mode, set temperature, filter sign reset, wind speed, wind direction and timer operation. * In the Lossnay group, only ON/OFF and filter reset can be disabled. * Disabling of the fan speed, air direction, and timer operation can be set for the AT-50B, PAR-32MA (6), PAR-U02MEDA, and PAC-YT52CR models.	○	○
Room temperature display	Displays the suction temperature of the indoor unit.	—	○
Error display	Displays the current error content together with the address.	—	○
Schedule operation	Today/weekly/weekly by season/yearly Setting content: ON/OFF, operation mode, set temperature, disable local remote controller, air direction/fan	○	○
Energy management	Displays the power consumption* or operating hours. * Optional part required.	—	○
Ventilator operation (solo)	Group operation is possible for free plan Lossnay units only. * The above group operation mode includes auto ventilation, heat exchange, and normal ventilation.	○	○
Ventilator operation (interlocked)	Free plan Lossnay units and indoor units can be interlocked and operated together. * At this point, air volume can be operated, but the ventilation mode cannot be selected.	○	○
External input (timer connection, emergency stop input, etc.)	Using a level signal or pulse signal, it is possible to input the following: Level signal: Emergency Stop Input, Batch ON/OFF, and Demand Input. Pulse signal: Batch ON/OFF or Operation Disable/Enable * Requires an external power supply and external I/O adapter (PAC-YG10HA) sold separately. Only one input can be selected from the above inputs.	□	—
External output (error output, operation output)	Using the level signal, ON/OFF, and Error/Normal are output. * Requires an external power supply and external I/O adapter (PAC-YG10HA) sold separately.	—	□
Web browser	Monitor/operation, failure, filter sign monitoring, schedule setting, interlocked control setting (option), energy-saving control setting (option), energy-saving peak cut setting (option), set temperature range restrictions, other	○ *1	○ *1
Filter reset	Filter sign reset	○	○
Connectable location	Centralized system transmission line: Connectable Recommended Indoor and outdoor transmission line: Connectable	—	—

* Functions and specifications differ depending on the connected equipment and model.

* Electric energy can be proportionally divided using the EW-50E alone.

However, the apportioned electricity charge function requires an AE-200E.

■Notes

* 1. Some items do not support the multi group setting and display.

■Connectable equipment: CITY MULTI

A Mr. Slim Control (Can be connected using an M-NET adapter or special outdoor unit)

Room air conditioner (Requires a system control interface or M-NET control interface)

Lossnay

AI controller, PI controller, DIDO controller

Centralized Remote Controller

Advanced Touch controller

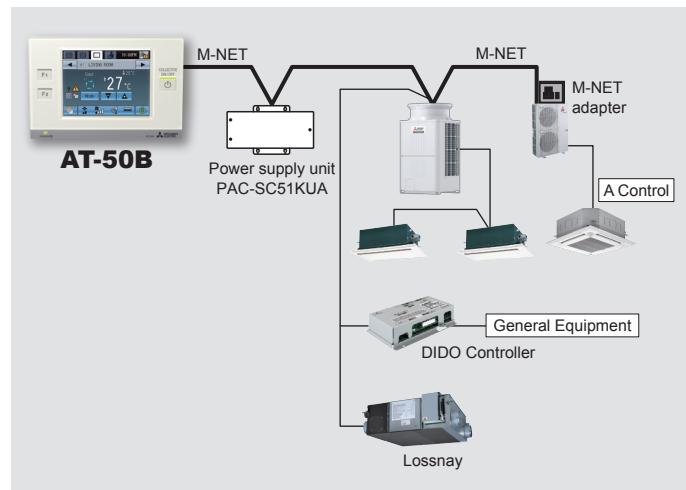
AT-50B



Dimensions 180(W) x 120(H) x 30(D) mm
7-2/16(W) x 4-3/4(H) x 1-3/16(D) in.

The color touch panel is easy to see and operate.
The operation screen can be selected according to the intended use.

System structure



Design

Backlit LCD Touch Panel

The 5-inch color LCD (Liquid Crystal Display) touch panel enables easy and simple operations.

When the backlight is off, touching the panel turns on the backlight. The backlight will remain on for a preset length of time. The touch panel displays operation status of the units in GRID, LIST, or in GROUP form.



GRID (zoom out) screen

Displays operation status of all groups.



GRID (zoom in) screen

Displays the operation status details of each group by group name.



LIST screen

Displays the operation status details of each group.



GROUP screen

Displays the operation status details of each group. Sets group operations.

Functions

Controls 50 indoor units in all

One screen shows the operation conditions of 50 connected indoor units.

Weekly and daily schedule

Five one-day schedule patterns and 12 weekly schedule patterns (max. 16 settings per pattern)

Two weekly schedules can be set.

System changeover

The operation mode can be changed according to the indoor temperature settings, target temperature of each group, or a representative indoor unit.

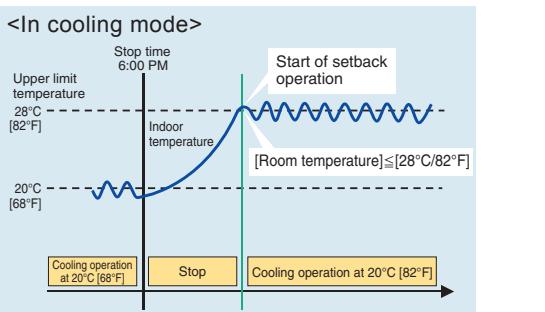
Main system controller/Sub-system controller

The AT-50B can be used as any of the main and sub system controllers. When it is connected to a system controller, such as the AE-200E, it is used as a sub controller. When some units of the AT-50B are connected, the main and sub controllers can be determined.

Functions [Basic Functions]

- ON/OFF
- Operation mode switching
- Temperature setting
- Fan speed setting
- Airflow direction setting
- Louver setting

Advanced Functions



Night setback function

When the room temperature goes outside of a certain range during the predetermined period, this function automatically starts heating or cooling operation to prevent dew condensation or an excessive temperature increase in the room.

Simple button arrangement

The F1 and F2 buttons beside the main screen can be customized for frequently used functions.
(Schedule/Operation Mode/Temperature Correction/Remote Controller Restriction)

□: Each unit ○: Each group ◎: Group or collective ✕: Not available

Item	Description	Operations	Display
Permit / Prohibit	The ON/OFF, operation mode, setting temperature, fan speed, air direction, filter sign reset operations, and timer using the local remote controllers can be prohibited. Only ON/OFF and filter reset can be prohibited for the LOSSNAY group. *The settable items vary depending on the models.	○	○
Operation lock	The operation lock can be set to the input operation of the AT-50B. Each button can be set. (Function Button 1, Function Button 2, Collective ON/OFF, Touch Panel) Each function can be set. (Operation mode, Setting temperature, Fan speed, Menu button) The password for the lock release can be set.	○	○
Error display	When an error is occurring on an air conditioner unit, the affected unit and the error code are displayed. * When an error occurs, the "ON/OFF" LED flashes. The operation monitor screen shows an abnormal icon over the unit. The error monitor screen shows the abnormal unit address and error code. The error log monitor screen shows the time and date, the abnormal unit address, error code, and source of detection.	✗	□○
Ventilation (independent)	Switches the mode "Bypass/Heat recovery/Auto" for LOSSNAY groups.	○	○
Ventilation (interlocked)	The LOSSNAY will run in interlock with the operation of the indoor unit. The mode cannot be changed. The LED will turn ON during operation after interlocking.	○	○
Temperature set limitation	Batch-setting to temperature range limit in cooling, heating, and auto modes. This function cannot be used with the MA remote controller. (Depends on the indoor unit model.)	○	○
Specific mode operation prohibit (Cooling prohibit, heating prohibit, cooling/heating prohibit)	When set as the main controller, operation of the following modes with the local remote controllers can be prohibited: When cooling is prohibited: Cooling, dry, automatic can not be chosen. When heating is prohibited: Heating, automatic can not be chosen. When cooling/heating is prohibited: Cooling, dry, heating, automatic can not be chosen.	○	○
External input (Emergency stop input, etc.)	The following input with level signals or pulse signals are available. Level signal: "Emergency stop input" or "Collective ON/OFF" Pulse signal: "Collective ON/OFF" or "Local remote controller prohibit/permit" One input can be selected from those above. * An external input/output adapter (PAC-YT51HAA (sold separately)) is required. Relays and DC power supply or other devices must be prepared at the site.	○	○
External output (Error output, operation output)	"ON/OFF" and "error/normal" are output with the level signal. * An external input/output adapter (PAC-YT51HAA (sold separately)) is required. Relays and DC power supply or other devices must be prepared at the site.	○	○
Checking the Gas Amount	Use this function to check for a refrigerant leak from the outdoor unit. * When this function is used, the gas amount checking function of the outdoor unit cannot be used. This function is for CITY MULTI R2 and Y (PUMY is excluded.) Series only.	□	□
Schedule operation	Weekly schedule setting of up to 12 patterns is available. In one pattern, up to 16 settings for "ON/OFF", "Operation mode", "Set Temperature", "Fan speed", "Air flow direction", and "Permit / Prohibit local operation" can be scheduled. Two types of weekly schedules (Summer/Winter) can be set. Today's schedule allows setting of up to 5 patterns.	○	○

* Depending on the installation conditions, power supply unit (PAC-SC51KUA) is required. Please contact your local distributor or MITSUBISHI ELECTRIC branch office for further information.

Centralized Remote Controller

ON/OFF remote controller

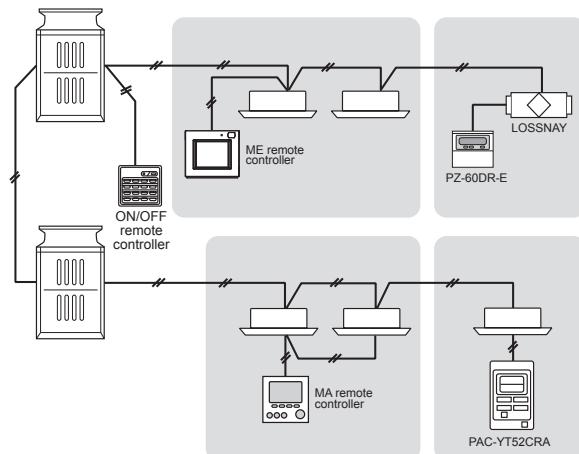
PAC-YT40ANRA

Just press a switch to start. All of the units can be switched ON/OFF by pressing the main switch, and each unit in the group can be switched ON/OFF with individual switches. The PAC-YT40ANRA also has a hardwired connection available (ON/OFF input, fire alarm input, run output, fault output).



Dimensions 130(W) x 120(H) x 19(D) mm
5-1/8(W) x 4-3/4(H) x 3/4(D) in.

System example



• Control of up to 16 groups/50 indoor units is possible

- Up to 16 groups/50 units can be operated with one ON/OFF remote controller.
- A general-purpose interface is available for control, allowing general devices to also be turned ON and OFF.

• Just press a switch to start

- All of the units can be started and stopped by pressing the main switch, and each unit in the group can be started and stopped with individual switches.

• LED flashing during failure

- If any error should occur in the air conditioner, its details can be confirmed easily with the flashing LED. The LED also indicates whether each group is running or stopped.

• Interlock operation with external system is possible

- It can be flexibly interlocked with a card reader, fire alarm system, or building management system, etc., using the incorporated external input/output function.

• Flexible group setting

- Groups can be easily configured, allowing the group pattern to be freely set according to the layout.
- The ON/OFF remote controller can be connected at the indoor/outdoor transmission line without the power supply unit.

NOTE

The dual set point function is available depending on the controller version. Please contact your local distributor regarding the availability of this function.

○: Each group □: Batch only ×: Not available

Function	Description		PAC-YT40ANRA	
UNITS	Max No.Units		Operations	
ON/OFF	ON and OFF operation		○	○
Error indication	LED flashes during failure. (The error code can be confirmed by removing the cover.)		×	○
Ventilation operation (Independent)	Group operation of only LOSSNAY units possible. *Only ON/OFF of group.		○	○
Ventilation operation (Interlocked)	The LOSSNAY will run in interlock with the operation of the indoor unit. *The fan rate and mode cannot be changed. The LED will turn ON only during operation after interlocking.		○	○
External input	On and Off operation / Fire Alarm*		□	×
External output	On and Off operation / Faults*		×	□

* Applicable to collective only
Not applicable to groups

Individual Remote Controller

Wired MA remote controller PAR-40MAA

NEW



Dimensions 120(W) x 120(H) x 14.5(D) mm
4-23/32(W) x 4-23/32(H) x 37/64(D) in.

Highlight display

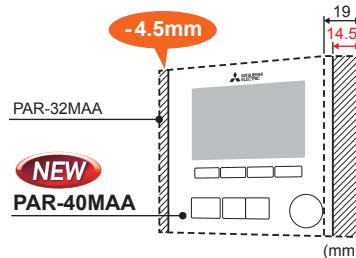
The screen background can be set to black to suit the ambience of the room.



*Factory setting : White

More slim

Compared to the previous version (PAR-32MAA), the new remote controller is slimmer by 4.5 mm (depth), allowing for more flexible installation.



• Backlit LCD (Liquid Crystal Display)

Large, easy-to-see display

Full-dot LCD display with large characters for easy viewing
Contrast also adjustable

• Night Setback

When the room temperature goes outside of a certain range during the predetermined period, this function automatically starts heating or cooling operation to prevent dew condensation or an excessive temperature increase in the room.

• 3D i-see sensor*

Settings for 3D i-see sensor can be performed.

• Draft reduction*

"Close" has been added to the manual vane angle selection. The air outlet can be closed to reduce drafts from the air conditioner.

• Auto descending panel*

Panels can be lowered/raised using the remote controller. The descending distance of the panel can also be selected.

*The availability of the function depends on the indoor unit model. For details, please contact your local distributor.

Functions

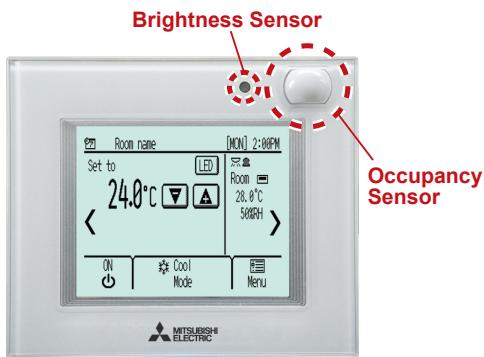
○: Each group ×: Not available

Item	Description	Operations	Display
ON/OFF	Switches between ON and OFF.	○	○
Operation mode switching	Switches between Cool / Dry / Fan / Auto / Heat.	○	○
Room temp. setting	The temperature can be set within the following range. Cool / Drying: 19-35°C [67-95°F] Heat: 4.5-28°C [40-83°F] Auto (single set point): 19-28°C [67-83°F] Auto (dual set points) [Cool] Same as the set temp. range for Cool mode. [Heat] Same as the set temp. range for Heat mode. * Set temperature range varies depending on the model.	○	○
Air flow direction setting	Changes airflow direction. * Available airflow directions vary depending on the model.	○	○
Louver setting	Switches between louver ON/OFF.	○	○
Ventilation equipment control	Interlocked setting and interlocked operation setting with CITY MULTI LOSSNAY units can be performed. The Stop/Low/High settings of the ventilation equipment can be controlled.	○	○
Error information	When an error occurs, an error code and the unit address appear. Air conditioning unit model, serial number, and contact number can be set to appear when an error occurs. (The above information needs to be entered in advance.) * An error code may not appear depending on the error.	—	○
Timer	ON/OFF timer Turns ON and OFF daily at a set time. • Time can be set in 5-minute increments. • It is also possible to set the ON time only or the OFF time only. Auto-OFF timer Turns off the unit after a certain period of operation. • Operation time can be set to a value from 30 to 240 minutes in 10-minute increments.	○	○
Allows/disallows local operation	The following operation can be prohibited by applying certain settings on the centralized controller: ON/OFF, operation mode, temperature, filter sign reset, air direction, fan speed and timer. * While an operation is prohibited, the operation icon lights up (only on the Main display in "Full" mode).	×	○
Operation lock	The following operations can be prohibited: "Location," "ON/OFF," "Mode," "Set temp.," "Menu," "Fan," "Louver," or "Vane."	○	○
Temperature range restriction	The room temperature range for each operation mode can be restricted.	○	○
Auto return	The units operate at the preset temperature after a designated period. (Time can be set to a value from 30 to 120 minutes in 10-minute increments.) * Not valid when the temperature setting range is restricted.	○	×
Daylight saving time	The start / end time for daylight saving time can be set. The daylight saving time function will be activated based on the setting contents.	○	○

Individual Remote Controller

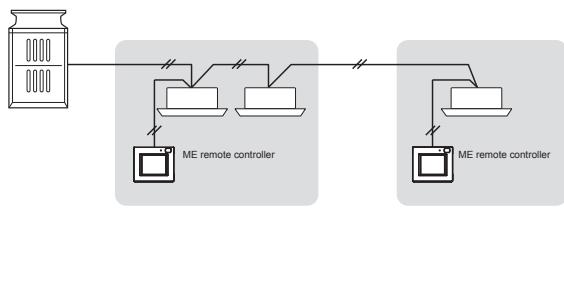
ME remote controller

PAR-U02MEDA



Dimensions 140(W) x 120(H) x 25(D) mm
5-9/16(W) x 4-3/4(H) x 1(D) in.

Example of system configuration



• Occupancy Sensor

The occupancy sensor detects when the room is empty and provides energy-saving control.

• Touch Panel & Backlit LCD

The operation settings screen is a touch panel. When the backlight is off, touching the panel turns on the backlight. The backlight will remain on for a preset length of time.

• LED Indicator

The color of the LED indicator indicates operation status. The LED indicator is lit during normal operations, and is not lit when units are stopped. In case of error, the indicator blinks.

• Brightness Sensor

The brightness sensor detects brightness in the room and provides energy-saving control.

• Temperature & Humidity Sensor

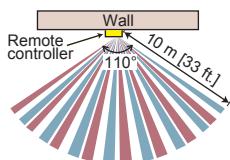
The sensor detects room temperature and relative humidity.

• Device control via AHC (Advanced HVAC Controller)

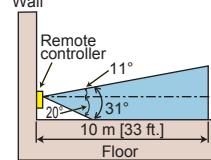
Products from other manufacturers can be connected via AHC.

Occupancy Sensor detection zone

Horizontal direction



Vertical direction



Functions

○: Each group ×: Not available

Item	Description	Operations	Display
ON/OFF	Switches between ON and OFF.	○	○
Operation mode switching	Switches between Cool / Dry / Fan / Heat / Auto. Operation modes vary depending on the indoor unit model.	○	○
Temperature setting	The temperature can be set within the following range. Cool / Drying: 19-35°C [67-95°F] Heat: 4.5-28°C [40-83°F] Auto: (single set point): 19-28°C [67-83°F] Auto: (dual set points) [Cool] Same as the set temp. range for Cool mode. [Heat] Same as the set temp. range for Heat mode. * The temperature ranges that can be set vary depending on the indoor unit model.	○	○
Fan speed setting	Changes fan speed. * Available fan speeds vary depending on the model.	○	○
Air flow direction setting	Changes airflow direction. * Available airflow directions vary depending on the model.	○	○
Allows/disallows local operation	The following operation can be prohibited by applying certain settings on the centralized controller: ON/OFF, operation mode setting, temperature setting, fan speed, air direction, and filter sign reset. * While an operation is prohibited, the operation icon lights up.	×	○
Error information	When an error occurs, an error code and the unit address appear. A contact number can be set to appear when an error occurs. (The information above needs to be entered in the Service menu.)	—	○
Schedule (Weekly timer)	Weekly ON/OFF times, operation mode, and set temperatures can be set. • Time can be set in 5-minute increments. Up to 8 schedule patterns can be set per day of the week. * Not valid when the ON/OFF timer is set.	○	○
Timer	ON/OFF timer • Turns ON and OFF daily at a set time. • Time can be set in 5-minute increments. • It is also possible to set the ON time only or the OFF time only. Auto-OFF timer • Turns off the unit after a certain period of operation. • Operation time can be set to a value from 30 to 240 in 10-minute increments.	○	○
Energy-save control during vacancy	When vacancy is detected by the occupancy sensor, the energy-save control assist function is activated. Four control types are available for selection: ON/OFF/Set temperature/Fan speed/Thermo-off. The brightness sensor can be used in conjunction with the occupancy sensor to detect the occupancy/vacancy status more accurately.	○	○

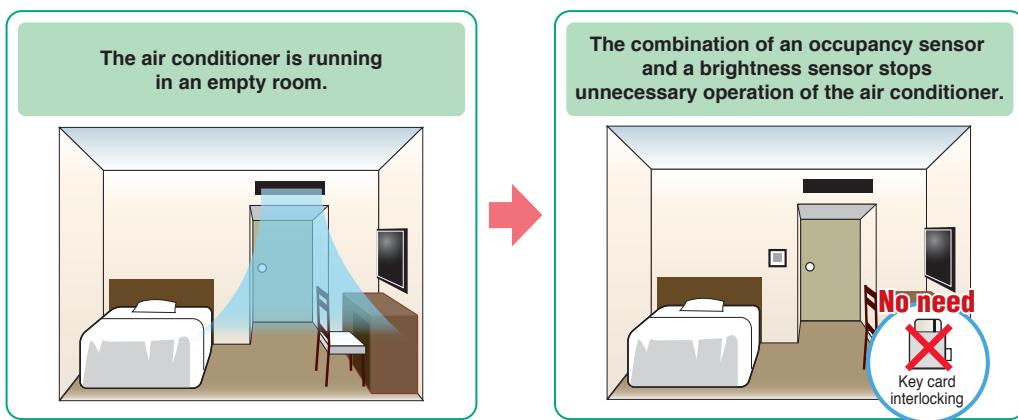


Example of use of PAR-U02MEDA

Automatic turning off air conditioners

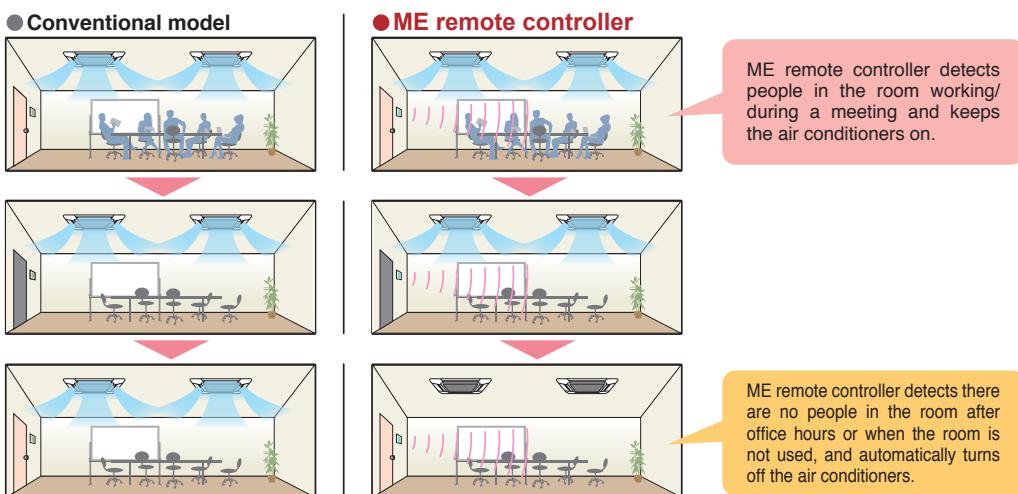
Mitsubishi Electric remote controller has an occupancy sensor to automatically turn off the air conditioner when the room is empty.

For Hotels



The occupancy sensor of the ME remote controller detects the conditions in the room, and the ME remote controller will automatically turn the air conditioners on or off.

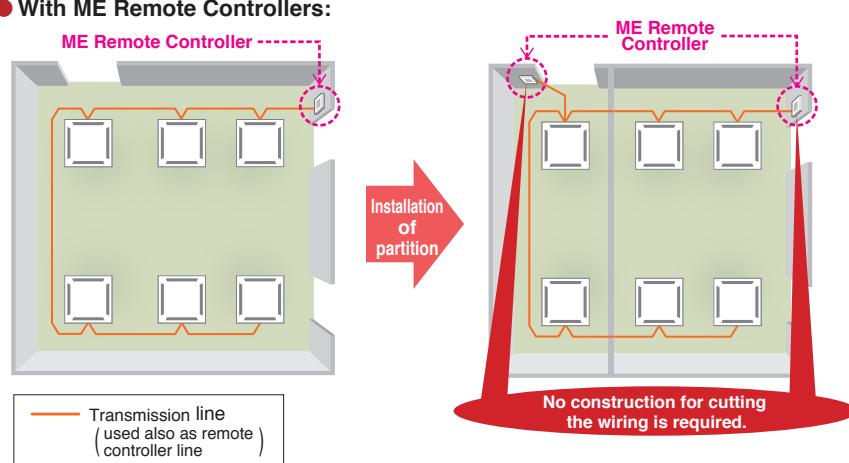
For Offices



Partitioning can be installed later when a ME Remote Controller is used.

For Offices

For Commercial Facilities



The ME remote controller can be operated when it is connected with any of the indoor units. When changing the room layout, you can set the groups easily with the remote controller.

Individual Remote Controller

MA remote controller

PAR-CT01MAA-S



Dimensions 65(W) x 120(H) x 14.1(D) mm
2-9/16(W) x 4-3/4(H) x 9/16(D) in.

User-friendly

Full color touch panel display



Touch Panel



3.5 inch/HVGA
Full Color LCD

- **User-friendly**

Large icons are easily visible on the full color touch panel display.

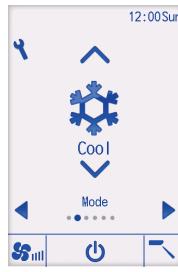
- **Flexibility**

Customized display, color of parameter and background, editable parameter on the initial display.

Operation panels



Temperature setting



Operation mode



Fan speed



Vane control



Ventilation



Louver control

Flexibility

Multiple color patterns

180 color patterns can be selected for the display's control parameters or background.

Control parameter customization

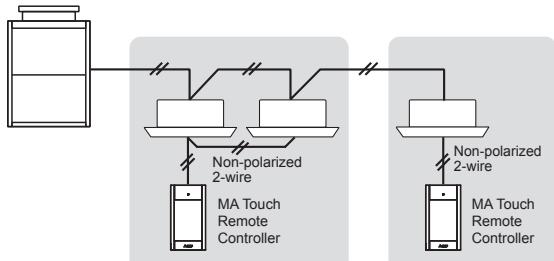
Users can customize the panel to display the selected parameters only.



Available in a wide variety of colors to suit the decor of any room.

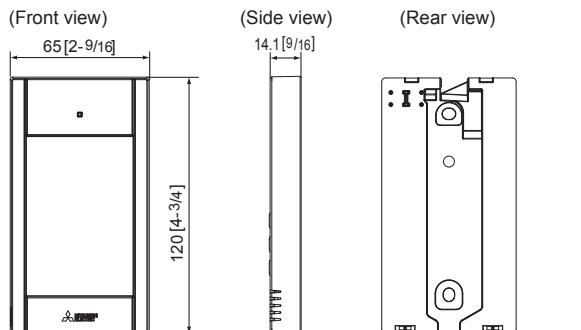


System example



*When a PAR-CT01MAA is connected to a group, no other MA remote controllers can be connected to the same group.

External dimension



Functions

○: Each group ×: Not available

Item	Description	Operations	Display
ON/OFF	Switches between ON and OFF.	○	○
Operation mode switching	Switches between Cool / Dry / Fan / Auto / Heat.	○	○
Room temp.setting *1	The temperature can be set within the following range. Cool / Dry: 19-35°C [67-95°F] Heat: 4.5-28°C [40-83°F] Auto (single set point): 19-28°C [67-83°F] Auto (dual set points) [Cool] Same as the set temp. range for Cool mode. [Heat] Same as the set temp. range for Heat mode. * Set temperature range varies depending on the model.	○	○
Air flow direction setting	Changes airflow direction. * Available airflow directions vary depending on the model.	○	○
Louver setting	Switches between louver ON/OFF.	○	○
Ventilation equipment control	Interlocked setting and interlocked operation setting with CITY MULTI Lossnay units can be performed. The Stop/Low/High settings of the ventilation equipment can be controlled.	○	○
Daylight saving time	The start/end time for daylight saving time can be set. The daylight saving time function will be activated based on the settings.	○	○
Error information	When an error occurs, an error code and the unit address appear. Air conditioning unit model, serial number, and contact number can be set to appear when an error occurs. (The information above needs to be entered in advance.) * An error code may not appear depending on the error.	—	○
Touch panel	The touch panel can be cleaned and calibrated.	—	○
Timer	ON/OFF timer Turns ON and OFF daily at a set time. • Time can be set in 5-minute increments. • It is also possible to set the ON time only or the OFF time only. Auto-OFF timer Turns off the unit after a certain period of operation. • Operation time can be set to a value from 30 to 240 minutes in 10-minute increments.	○	○
Allows/disallows local operation	The following operation can be prohibited by applying certain settings on the centralized controller: ON/OFF, operation mode setting, temperature setting, and filter sign reset. * While an operation is prohibited, the operation icon lights up (only on the Main display in "Full" mode).	×	○
Operation lock	The following operations can be prohibited: "Location," "ON/OFF," "mode," "Set temp.," "Menu," "Fan," "Louver," or "Vane."	○	○
Temperature range restriction	The room temperature range for each operation mode can be restricted.	○	○
Auto return	The units operate at the preset temperature after a designated period. (Time can be set to a value from 30 to 120 minutes in 10-minute increments.) * Not valid when the temperature setting range is restricted.	○	×
Design	The color of the screen can be changed.	○	○

*1 Temperature will be displayed either in Celsius in 0.5- or 1-degree increments, or in Fahrenheit, depending on the indoor unit model and the display mode setting on the remote controller.

Individual Remote Controller

Simple remote controller PAC-YT52CRA (MA)



Dimensions 70(W) x 120(H) x 14.5(D) mm
2-3/4(W) x 4-3/4(H) x 19/32(D) in.

- **Backlit LCD**

Backlight for operation in dark areas

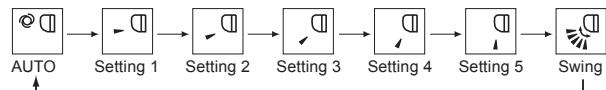
- **Flat back**

Slim and flat type. Hole-free installation on walls
Less than 14.5 mm [19/32 in.] thick.

- **Vane button (standard)**

A vane adjustment button has been added to allow the user to change the direction of the air flow (ceiling-cassette and wall-mounted types).

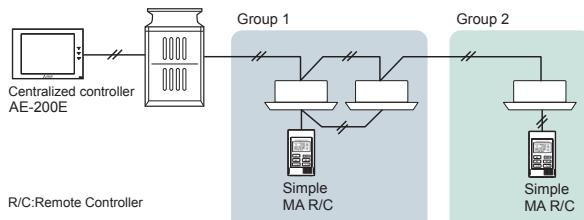
Pressing the button will switch the vane directions.



* Air flow direction settings will vary depending on the connected indoor unit model.

* For models without a vane adjustment function, air flow direction cannot be set.
In such cases, the vane icon blinks when the button is pressed.

Example of system configuration



- **Only cross-over wiring based on two-wire signal lines is required.**

- **Room temperature sensor is built-in.**

- **Can be used to operate all types of indoor units.**

* As this controller has limited functions, please use it in conjunction with the standard controller or a central controller.

- **LCD temperature settings and display are in 1°C /1°F increments.**

Functions

: Each unit : Each group : Not available

Item	Description	Operations	Display
ON/OFF	Switches between ON and OFF.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Operation mode switching	Switches between Cool / Dry / Fan / Heat / Auto. Operation modes vary depending on the indoor unit model.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Temperature setting	The temperature can be set within the following range. Cool/Drying: 19-35°C [67-95°F] Heat: 5-28°C [40-83°F] Auto (single set point): 19-28°C [67-83°F] Auto (dual set points) [Cool] Same as the set temp. range for Cool mode. [Heat] Same as the set temp. range for Heat mode. * Set temperature range varies depending on the model.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fan speed setting	Changes fan speed. * Available fan speeds vary depending on the model.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Permit / Prohibit local operation	By setting a centralized controller, the following local operations can be prohibited: ON/OFF, operation mode, preset temperature. * The CENTRAL icon appears while local operations are prohibited.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Error	Displays the current error status with the address. * The address may not be displayed depending on the error status.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ventilation equipment	When the CITY MULTI indoor unit is connected, interlocked setting of the CITY MULTI LOSSNAY unit is possible. When the Mr. SLIM indoor unit (A-control) is connected, interlocked operation LOSSNAY unit (LGH-R(V) X Type) is possible.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Set temperature range limit	The preset temperature range can be restricted for each operation mode (COOL/HEAT/AUTO).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Wireless remote controller



PAR-FL32MA

Dimensions

58(W) x 159(H) x 19(D) mm
[2-5/16(W) x 6-5/16(H) x 3/4(D) in.]



PAR-SE9FA-E

(PLFY-P VEM-PA signal receiver)

Dimensions

273(H) x 29(D) mm



PAR-SL100A-E

(PLFY-P VEM-PA, PLFY-P VFM-E1 only)

Dimensions

66(W) x 188(H) x 22(D) mm
[2-5/8(W) x 7-13/32(H) x 7/8(D) in.]



PAR-FA32MA

Dimensions

70(W) x 120(H) x 22.5(D) mm
[2-3/4(W) x 4-3/4(H) x 7/8(D) in.]



PAR-SF9FA-E

(PLFY-VFM-E1 signal receiver)

Dimensions

214(H) x 25.5(D) mm



PAR-SL94B-E

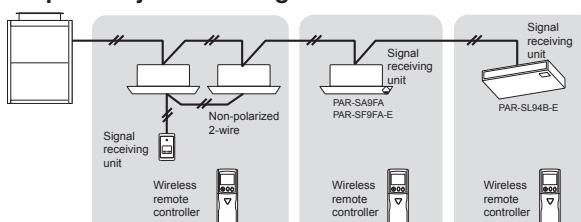
(Wireless remote controller kit for ceiling-suspended type)

Dimensions

182(W) x 57(H) x 31(D) mm
[7-3/16(W) x 2-1/4(H) x 1-1/4(D) in.]

- No need to configure addresses for group operation
- Lit LED keeps you informed of operation - the LED also provides you with error codes via the number of blinks
- Can be used with the MA remote controller
 - *When used in group configurations, wiring between indoor units is required.
 - *Combining ME remote controller and/or LOSSNAY remote controller in a group is not possible.
- Multiple indoor units cannot be controlled from the PAR-SL100A-E
Only one indoor unit can be used in each group
- LCD temperature setting and display in 1°C /1°F increments

Example of system configuration



Compatibility table

	Receiver	Transmitter
PMFY-P VBM PLFY-P VLMD PFFY-P VKM PEFY-P VMR-E/R/VMH(S)-E(2) PFFY-P VLEM/VKM/VLRMV/LRMM PEFY-P VMS1(L) PEFY-P VMA(L)	PAR-FA32MA	
PCFY-P VKM	PAR-FA32MA PAR-SL94B-E	PAR-FL32MA
PKFY-P VBM-E PKFY-P VHM/VKM	Built-in	
PLFY-P VEM-PA NEW	PAR-SE9FA-E	PAR-SL100A-E
PLFY-P VFM-E1	PAR-SF9FA-E	

○: Each group X: Not available

Functions

Item	Description	Operations	Display
ON/OFF	ON and OFF operation for a single group	○	○
Temperature setting	Sets the temperature for a single group Range of temperature setting: Cool/Dry: 19°C - 30°C (14°C - 30°C) / 67°F - 87°F (57°F - 87°F) Heat : 17°C - 28°C (17°C - 28°C) / 63°F - 83°F (63°F - 83°F) Auto : 19°C - 28°C (17°C - 28°C) / 67°F - 83°F (63°F - 83°F) () For PEFY/PFFY by setting DipSW 7-1 to ON and limits to HIGH fan speed only. * Set to PAR-FL32MA according to its Installation Manual 4 "Model setting".	○	○
Air flow direction setting	Air flow direction angles (4-angle, Swing) Auto Louver ON/OFF. Air flow direction settings vary depending on the model.	*1	*1
Timer operation	One ON/OFF setting can be set per day.	○	○
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (ON/OFF, Change operation mode, Set temperature, Reset filter). *3 If operation is performed when the local remote controller inactivation command is received from the main system controller, a buzzer will sound and an LED will flash.	X	○ ³
Ventilation equipment	Up to 16 indoor units can be connected to an interlocked system that has one LOSSNAY. The LOSSNAY will run in interlock with the operation of the indoor unit.	*2	X

*1 Some models will have a different display for the air flow direction and fan speed.

Set the air flow direction and fan speed when performing initial setting.

*2 The fan rate and mode cannot be changed.

Open network supported

The following options are available to enable connection of CITY MULTI to an open network.

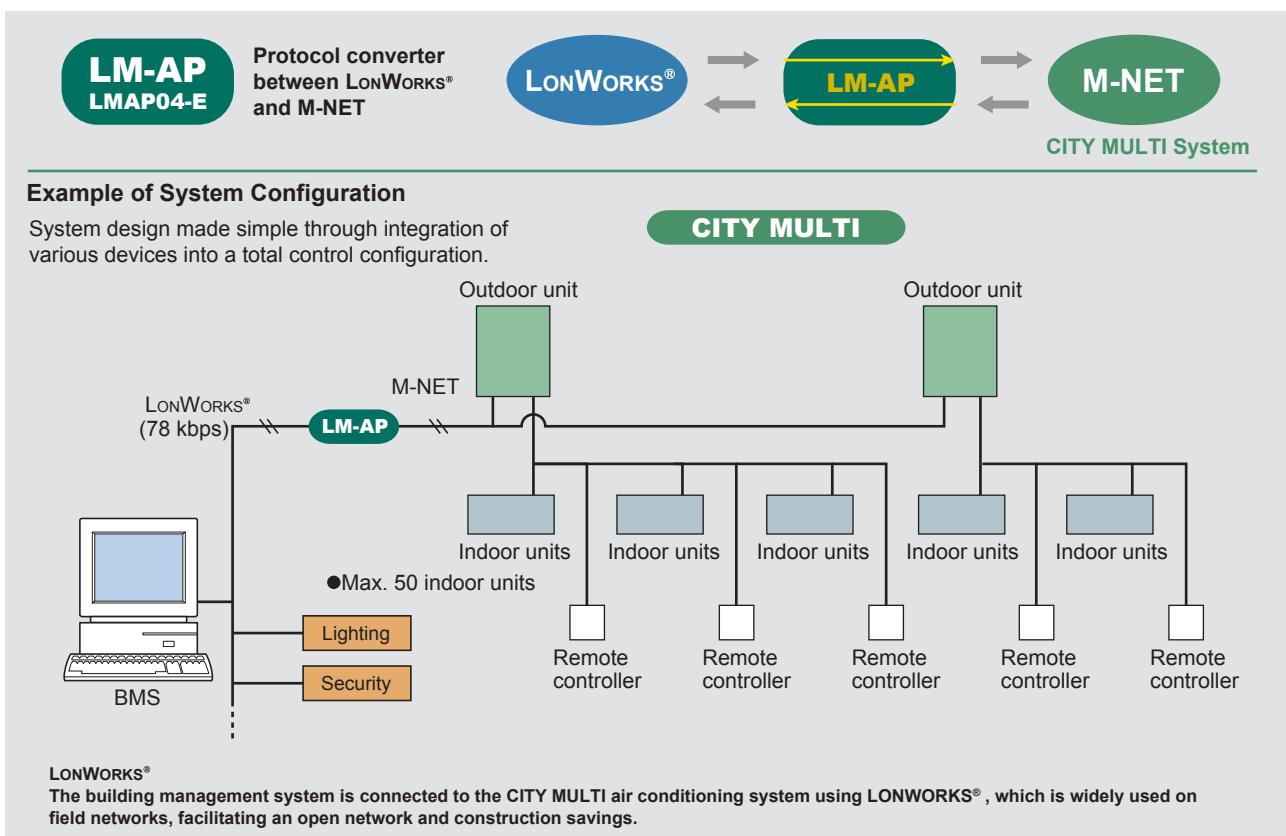
LONWORKS®(LMAP04-E)

CITY MULTI can easily combine into a Building Management System (BMS) via the LONWORKS® and M-NET adapter LMAP04-E. LONWORKS® is an opened transmission protocol widely used at BMS, and related equipment control. CITY MULTI is therefore compatible with large-scaled BMS management via LONWORKS®.

Dual
Set
Point

One LM ADAPTER unit can connect up to 50 Groups/50 indoor units

Using a single LonWORKS® adapter (LM-AP), you can connect up to a maximum of 50 indoor units.



LON, LONWORKS® and the Echelon logo are trademarks of Echelon Corporation registered in the United States and other countries.

LONWORKS® Function

FUNCTION	CONTENT
Control	
ON/OFF	ON / OFF
Mode Operation	Cool / Dry / Heat / Auto / Fan
Set point Adjustment	Cooling 19-30°C [67-87°F], Heating 17-28°C [63-83°F], Auto 19-28°C [67-83°F]
Fan Speed Control	High / Mid-1 / Mid-2 / Low
Permit / Prohibit	ON / OFF, Mode, Set point
Emergency Stop	-
Monitoring	
ON/OFF	ON / OFF
Mode	Cool / Dry / Heat / Auto / Fan
Set point	Cooling 19-35°C [67-95°F], Heating 4.5-28°C [40-83°F], Auto 19-28°C [67-83°F]
Fan Speed	High / Mid-1 / Mid-2 / Low
Permit / Prohibit	On / Off, Mode, Set point
Alarm State	Normal / Error
Room Temperature	-10-50°C (14-122°F)
Thermo ON/OFF	ON / OFF

BACnet®

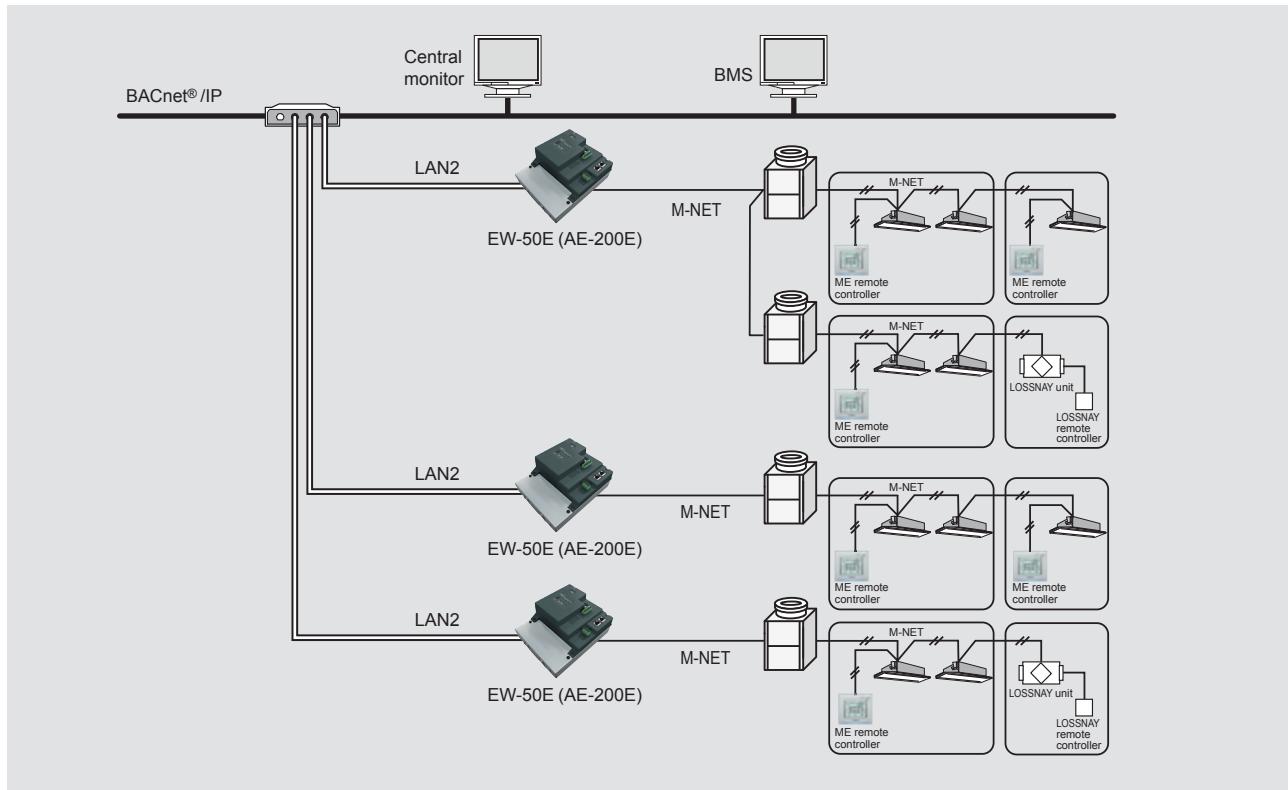
CITY MULTI can easily combine into a Building Management System (BMS) via EW-50E (AE-200E). BACnet® is an open transmission protocol widely used at BMS, and related equipment control. CITY MULTI is compatible with large-scal BMS management via BACnet®.

**Dual
Set
Point**

EW-50E (AE-200E) can control up to 50 units/groups (including LOSSNAY).

*To use the BACnet® function on EW-50E (AE-200E), BACnet® license registration is required.

System example



BACnet® and M-NET Function

FUNCTION	CONTENT
Operation	
ON/OFF	ON/OFF
Mode	Cool/Dry/Heat/Auto/Fan
Fan Speed	Low-Mid2-Mid1-High-Auto
Air Direction	Horizontal-60°-80°-100°swing
Set Temperature	Cooling 19-35°C [67-95°F], Heating 4.5-28°C [40-83°F], Auto 19-28°C [67-83°F]
Filter Sign Reset	Normal/Reset
Permit/Prohibit	ON/OFF, Mode, Filter sign reset, Set temp, Fan speed
Forced Off	Reset/Execute
Ventilation Mode	Heat Recovery/Bypass/Auto
Air to Water Mode	Heating/ECO/Hot Water/Antifreeze/Cooling

FUNCTION	CONTENT
Monitoring	
ON/OFF	ON/OFF
Mode	Cool/Dry/Heat/Auto/Fan
Fan Speed	Low-Mid2-Mid1-High-Auto
Air Direction	Horizontal-60°-80°-100°swing
Set Temperature	Cooling 19-35°C [67-95°F], Heating 4.5-28°C [40-83°F], Auto 19-28°C [67-83°F]
Filter Sign	ON/OFF
Permit/Prohibit	ON/OFF, Mode, Filter sign reset, Set temp, Fan speed
Indoor Temperature	Temperature
Alarm Signal	Normal/Error
Error Code	2 Character code- Indicates all unit alarms
Error Code Detail	4 Character code- Indicates all unit alarms
Communication State	Normal/Error
Ventilation Mode	Heat Recovery/Bypass/Auto
Air to Water Mode	Heating/ECO/Hot Water/Antifreeze/Cooling
Apportioned Electric Energy	Group, Interlocked Units 0.1 kWh
PI controller Electric Energy	0.1 kWh
Apportionment Parameter	Available*
Night Purge State	ON/OFF
Thermo On/Off State	ON/OFF
External Heat Source State	ON/OFF
Trend Log	Indoor Temp, Apportioned Electric Energy, PI controller Electric Energy, Apportionment Parameter

* To use this function, the license to charge, AE-200E (not connected to the M-NET), PI controller, watt-hour meter with pulse transmitter (locally available one) are required.



for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.

⚠ Warning

- Do not use refrigerant other than the type indicated in the manuals provided with the unit and on the nameplate.
 - Doing so may cause the unit or pipes to burst, or result in explosion or fire during use, during repair, or at the time of disposal of the unit.
 - It may also be in violation of applicable laws.
 - MITSUBISHI ELECTRIC CORPORATION cannot be held responsible for malfunctions or accidents resulting from the use of the wrong type of refrigerant.
- Our air-conditioning equipments and heat pumps contain a fluorinated greenhouse gas, R410A.

MITSUBISHI ELECTRIC CORPORATION

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