



Control Systems



PAC-YT52CRA

DESIGN REMOTE CONTROL



PAR-FL32MA

PAR-SL101A-E

WIRELESS REMOTE CONTROL



NEW

PAR-41MAAB

DELUXE REMOTE CONTROL



PZ-62DR-EB

LOSSNAY REMOTE CONTROL



PAR-CT01MA

PRISMA REMOTE CONTROL



PAR-W21MAA

PAR-W31MAA

ECODAN REMOTE CONTROL



PAR-U02MEDA

ADVANCED REMOTE CONTROL



AT-50B

SYSTEM CENTRALIZED CONTROL



AE-200E

3D TOUCH Controller
WEB SERVER CENTRALIZED
CONTROL



EW-50

3D BLIND Controller
WEB SERVER CENTRALIZED
CONTROL



3D TABLET CONTROLLER

WI-FI REMOTE MANAGEMENT
SYSTEM



MELCloud CITY MULTI

CLOUD REMOTE MANAGEMENT
SYSTEM



MELCOTEL

INTERFACE FOR HOTEL
SIMPLIFIED
APPLICATION



RMI

Remote Monitoring Interface
CLOUD REMOTE MANAGEMENT
SYSTEM



B.M.S. INTERFACE

B.M.S. INTEGRATION

PAC-YT52CRA

DESIGN REMOTE CONTROL

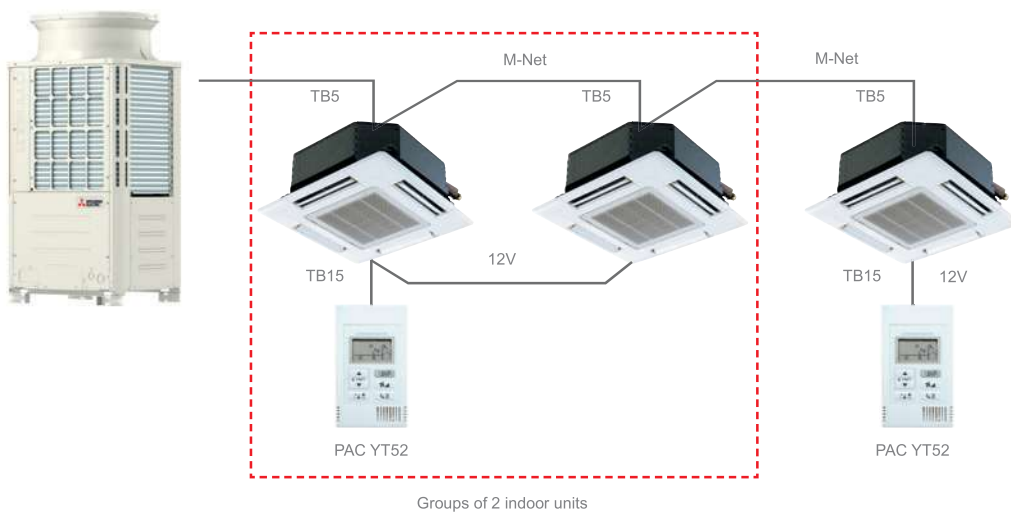


PAC-YT52CRA Design remote control

- Display with white backlighting.
- Simple wall-mounted installation.
- Easy and intuitive with icon-based interface.
- Operating mode selection function.
- Vane position selection function (for compatible indoor units).
- Usable to manage 1 group of up to 16 indoor units.
- Simple connection with single non-polarised two-core wire.
- **MA** self-addressing technology.

- Suitable for all types of indoor unit.
- Recommended for hotels and public spaces, as ambient air temperature display can be disabled.
- Integrated temperature sensor usable instead of indoor unit sensor.
- Configurable temperature range settable from local keypad.

Key Technologies



PAR-41MAAB

DELUXE REMOTE CONTROL UNIT



PAR-41MAAB Deluxe remote control unit

- Display with white (factory setting) or black backlighting and adjustable contrast.
 - Simple wall-mounted installation.
 - Night Set-back function for setting minimum winter temperature or maximum summer temperature in temperature maintenance mode.
 - Effective static overpressure selection function for ducted indoor units (PEFY-P VMHS only).
 - Internal weekly timer function and simplified internal timers (Auto-off, etc.).
 - Usable to manage 1 group of up to 16 indoor units.
 - Easy and intuitive, with icon based graphic interface, direct control buttons and function buttons.
 - Simple connection with single non-polarised two-core wire.
 - **MA** self-addressing technology.
 - Suitable for all types of indoor unit, including GUF.
 - Integrated temperature sensor usable instead of indoor unit sensor.
 - Configurable temperature range settable from local keypad.
 - **View and set setpoint temperatures in 0.5°C increments.**
 - Supports 3D i-see sensor functions
 - **14 languages available** (English, French, Spanish, German, Italian, Dutch, Portuguese, Greek, Russian, Czech, Turkish, Polish, Hungarian, Swedish).
 - 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.

This remote control unit supports the R32 refrigerant leak detection system and requires the following operations to be configured:

Main: functions as a remote control unit and refrigerant leakage alarm for a single indoor unit.

Supervisor: monitors refrigerant leakage in the refrigeration system to which this remote control unit is connected. It is assumed that this function is used at a monitoring site and that the air conditioning units are not operable from the remote control unit.



Key Technologies

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PAR-CT01MA

PRISMA REMOTE CONTROL



PAR-CT01MAA-SB



PAR-CT01MAA-PB

PAR-CT01MA prisma remote control

- Full color touch panel display
- 180 color patterns can be selected for control parameters or background on the display
- Easy wall mounted installation
- Night Set-back function for setting minimum winter temperature or maximum summer temperature in temperature maintenance mode.
- Effective static overpressure selection function for ducted indoor units (PEFY-P VMHS only).
- Internal weekly timer function and simplified internal timers (Auto-off, etc.).
- Usable to manage 1 group of up to 16 indoor units.
- Easy and intuitive, with icon based graphic interface, direct control buttons and function buttons.
- Simple connection with single non-polarised two-core wire.
- MA self-addressing technology.
- Suitable for all types of indoor unit, including GUF.
- Recommended for groups with only one indoor unit.
- Integrated temperature sensor usable instead of indoor unit sensor.
- Configurable temperature range settable from local keypad.
- **View and set setpoint temperatures in 0.5°C increments.**
- **Supports 3D i-see sensor functions for 60 x 60 PLFY-P VFM-E1 cassette and 90 x 90 PLFY-P(M) VEM-E cassette**

Multiple color pattern

180 MULTIPLE COLOR PATTERNS



Key Technologies

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Multilingual support

The smartphone app can be displayed in the language that the guest's smartphone is set to.

Large color backlit touch display

New PRISMA remote control is equipped by 3.5 inch/HVGA Full Color LCD Touch screen,



Display customization

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

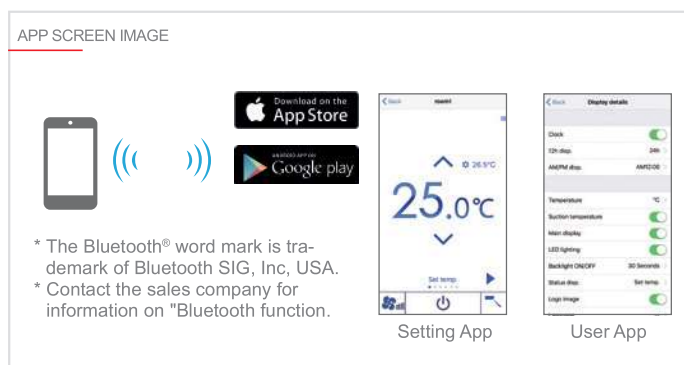
Hotel setting

Simple operation panel is liked by users, especially in hotels. It is available to display only ON/OFF, set temp., fan speed.

Bluetooth connection

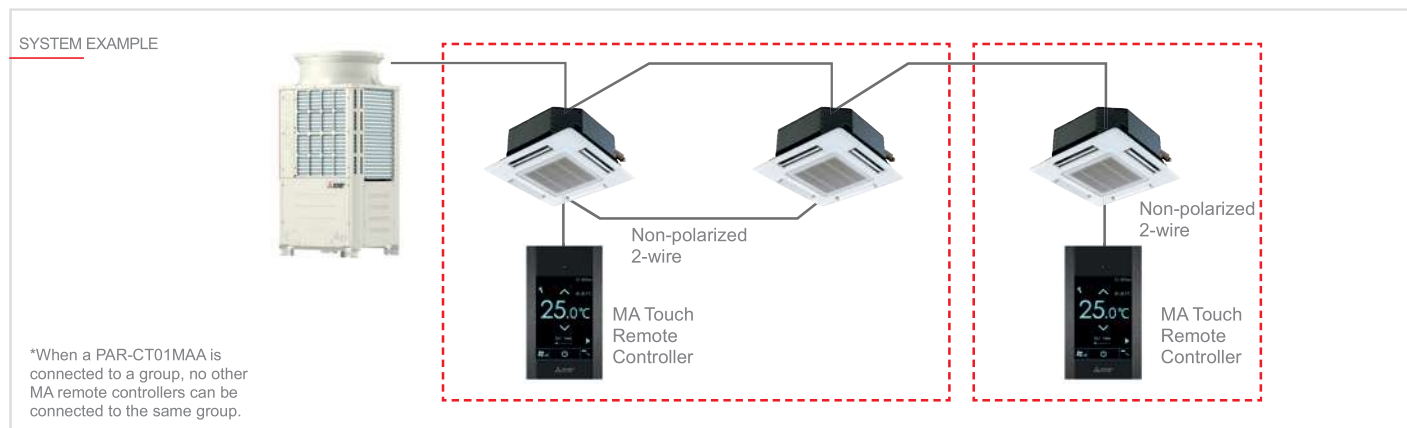
PAR-CT01MA remote control is equipped with Low Energy Bluetooth connection. Thanks to two dedicated Apps (one for installers and one for users) it is possible to connect your smartphone or tablet the the remote control. User App allows to control the air conditioning system connected to PAR-CT, with a simple and intuitive interface.

Installer App allows to easily configure the remote control during maintenance and commissioning. Thanks to this App it is possible to save a settings pattern on mobile device and easily transfer it to the remote control, shortening service and commissioning timing.



Logo image customization

Logo image can be displayed on the initial screen.



PAR-U02MEDA

ADVANCED REMOTE CONTROL



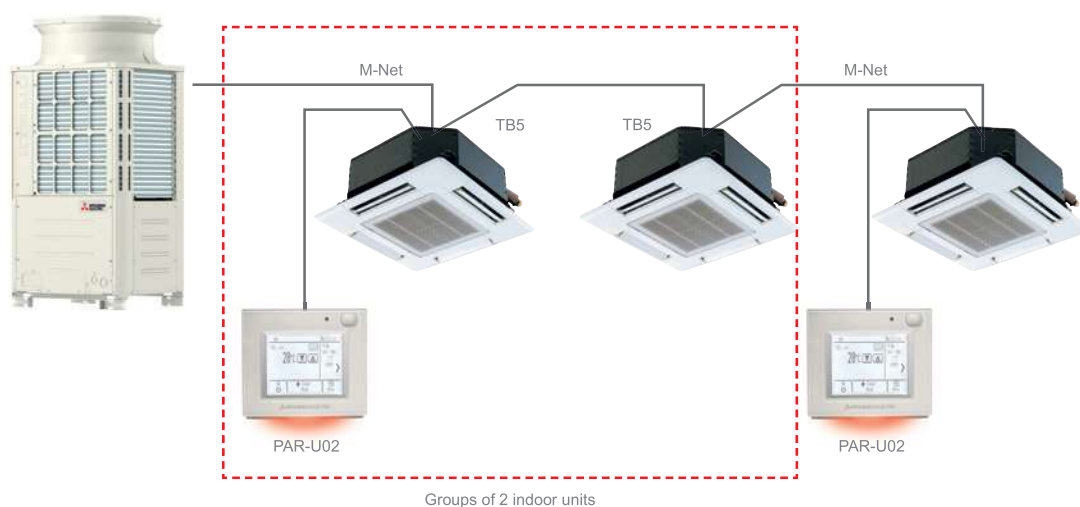
PAR-U02MEDA advanced remote control

The Mitsubishi Electric Advanced remote control may be used to control up to 16 indoor units. While advanced, this controller also offers basic functions such as monitoring and controlling the status of the units in the system, and a weekly hour timer. Four integrated sensors (temperature, humidity, occupancy and light) allow a series of advanced adjustment and control functions. For example, the occupancy sensor can be used to save energy by configuring different modes based on the occupied/vacant status of each room.

- Large monochrome LCD touch screen display with white backlighting.
- Usable to manage 1 group of up to 16 indoor units.
- **Integrated temperature, humidity, occupancy and light sensors.**
- SMART energy saving and comfort functions.

- Contextual colour LED indicating operating status of indoor units.
- **View and set setpoint temperatures in 0.5°C increments**
- **Dual Setpoint** function.
- Internal weekly timer.
- **ME M-Net** addressing technology.
- Extended setting ranges for setpoints (Cool: 19-35°C; Heat: 5-28°C).
- New functions for use in conjunction with AHC Programmable Controller (PLC M-Net), for creating operating strategies with generic devices.

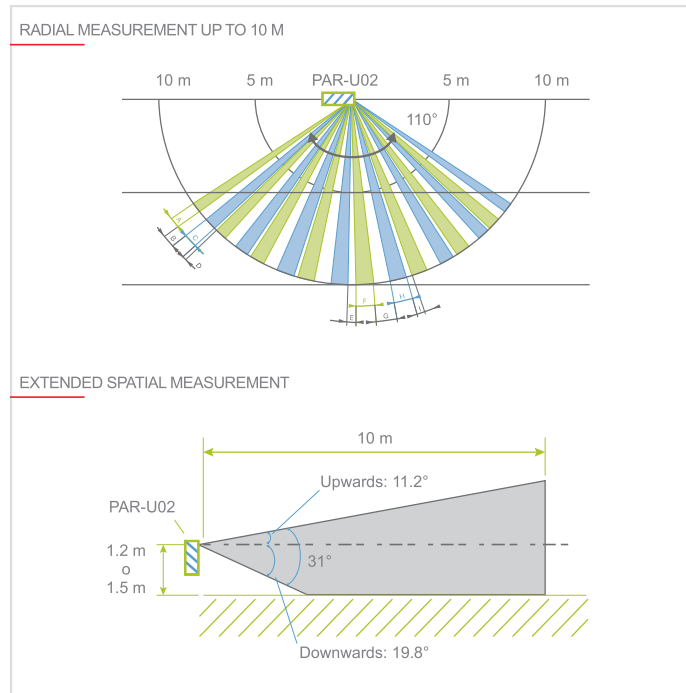
Key Technologies



Occupancy sensor

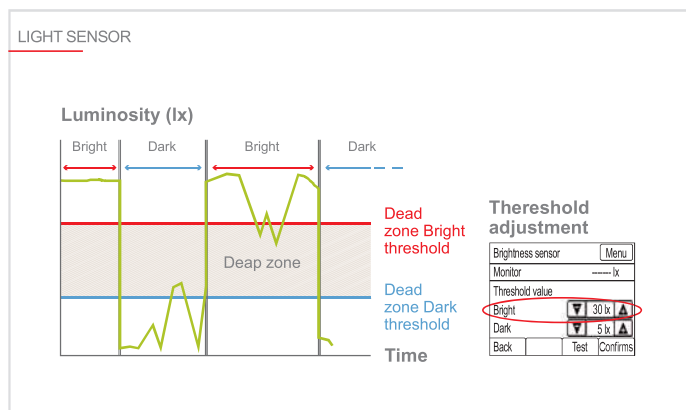
The occupancy sensor detects if a room is vacant and enables automatic control of the indoor units to implement energy saving strategies based on the effective occupancy of each room. The occupancy sensor enables the following energy saving functions:

- Switch indoor units ON/OFF based on occupied/vacant state of room;
- Fan speed control;
- Switch indoor unit from Thermo ON to Thermo OFF state;
- Configure temperature deviation based on occupied/vacant status.



Light sensor

The light sensor measures the light levels in the conditioned room and adjusts the brightness of the remote control display accordingly. Bright/dark thresholds may be set directly from the remote control over an extended luminosity range (1 to 65535 lx). The light sensor is also used in low light conditions to confirm the occupied/vacant status of the room.

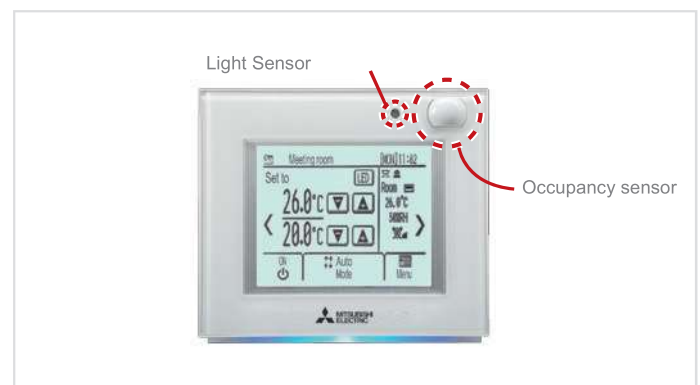
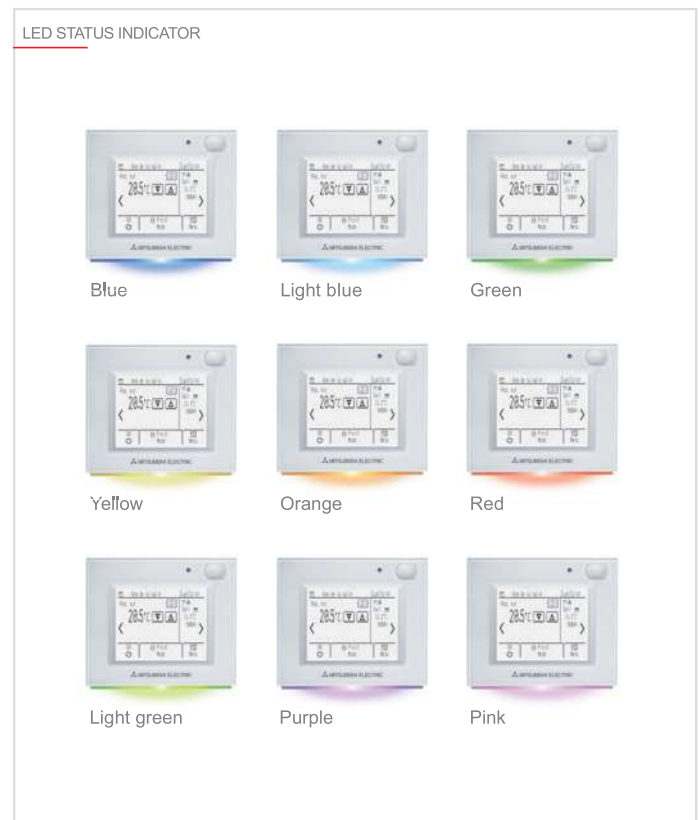


Temperature and humidity sensor

The integrated temperature and humidity sensor may be used to increase perceived comfort levels, while the ability to adjust the temperature with a precision of 0.5°C gives the user an even greater sense of control. The relative humidity sensor, combined with the ability to interlock the remote control with a programmable AHC controller, makes it possible to control humidity with external devices connected to the system via the AHC.

LED status indicator

The LED status indicator indicates the status of active functions on the remote control. Each colour is associated with a status or function: e.g. Red=Heating, Blue=Cooling etc. The LED indicator may be temporarily or permanently disabled.



PAR-FL32MA

WIRELESS REMOTE CONTROL



PAR-FL32MA



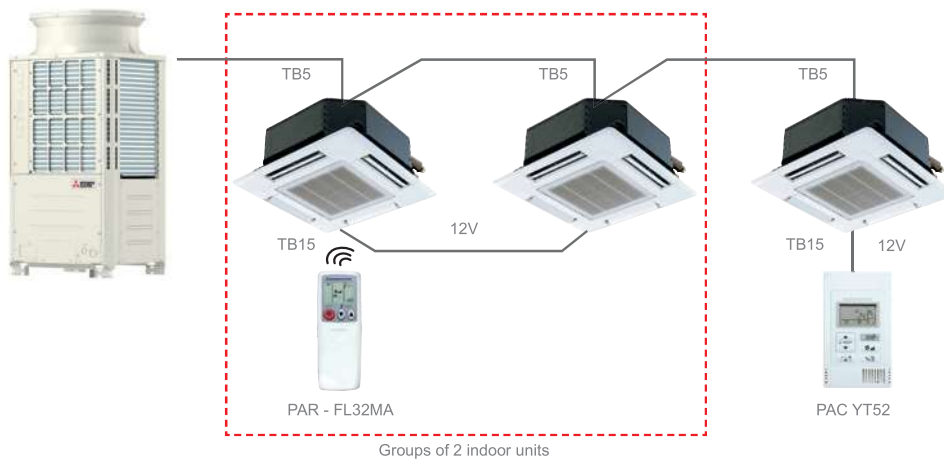
PAR-FA32MA



PAR-SE9FA

PAR-FL32MA wireless remote control

- Usable to manage 1 group of up to 16 indoor units.
- Easy and intuitive with icon-based interface.
- Receiver connected simply with single non-polarised two-core wire.
- MA self-addressing technology.
- Suitable for all types of indoor unit.
- Recommended for groups with only one indoor unit.
- Generic receiver for all indoor unit types: PAR-FA32MA.
- Specific corner receiver for 4-way PLFY-P(M) VEM-E cassette units: PAR-SE9FA.



Compatibility table		
	Wireless signal receiver	Wireless remote control
PMFY-P VBM PLFY-P VLMD PEFY-P VMR/VMH PEFY-P VMS1 PEFY-M VMA PEFY-P VMA3 PEFY-P VMHS PFFY-P VLEM/VKM/VCM PCFY-P*VKM	PAR-FA32MA	PAR-FL32MA
PLFY-P/M VEM PLFY-P VFM-E1	PAR-FA32MA	PAR-FL32MA

Compatibility table		
	Wireless signal receiver	Wireless remote control
PKFY-P VLM PKFY-P VKM	Built in	PAR-FL32MA

PAR-SL101A-E

WIRELESS REMOTE CONTROL

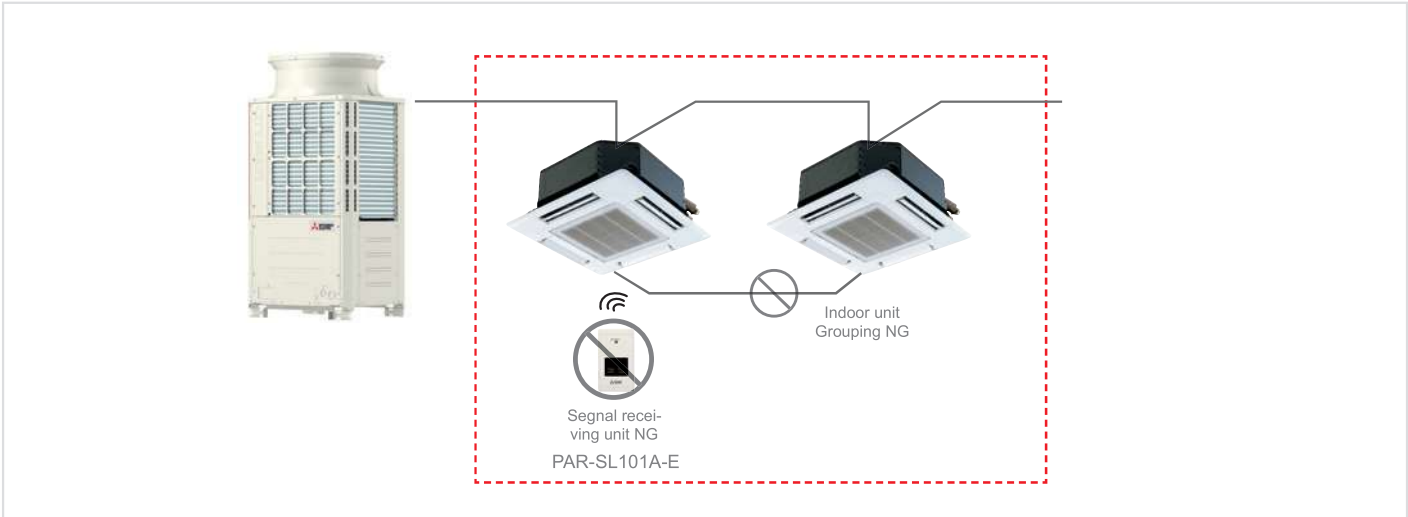


Wireless remote control PAR-SL101A-E

- Compatible with PLFY-VFM and PLFY-VEM
- **Backlighting**
- Group with up to 16 units
- **Direct/Indirect function** with corner PAC-SF1ME-E (3D i-see sensor)
- **Single vane control**
- Temperature view and setting 0,5°C
- **3D i-see sensor compatible**

Key Technologies

				
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Compatibility table		
	Wireless signal receiver	Wireless remote control
PLFY-P/M VEM-E	PAR-SE9FA-E	PAR-SL101A-E
PLFY-P*VFM-E1	SLP-2FAL	

PZ-62DR-EB

LOSSNAY REMOTE CONTROL



PZ-62DR-EB remote control for Lossnay

- Specific remote control for Lossnay heat recovery units.
- Usable to manage one group of up to 15 Lossnay units.
- Easy and intuitive with icon-based interface.
- Simple connection with single non-polarised two-core wire.
- Internal weekly timer.
- Custom ventilation strategies for mode switching (Auto/recovery/bypass).
- Night purge function for active night-time ventilation in summer.
- On-display service messages.

- Backlit LCD screen.
- Energy management

3 Languages are added
Greek, Slovenian, Denmark

Compatibility
PZ-62DR-EB are compatible with both RVX and RVS.

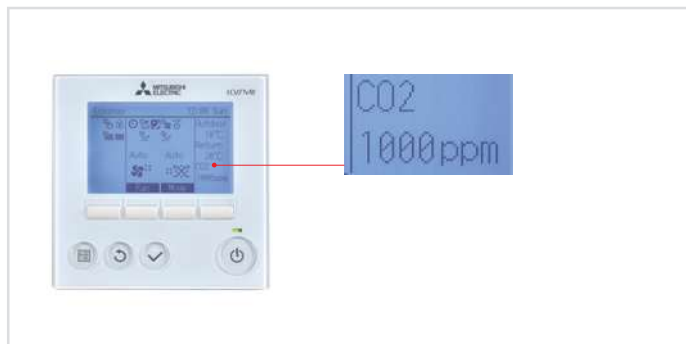


*Not compatible with LGF

Dedicated PZ-62DR-EB wired controller

The new PZ-62DR-EB controller can be used to control all the functions of the LGH-RVS unit.

If the PZ-70CSW-E (optional) or PZ-70CSB-E (optional) CO₂ sensor is used, the carbon dioxide concentration in the room can be displayed on the control unit's display.



Function	PZ-62DR-E
Fan speed selection	4 fan speeds and Auto (Auto is available when using a CO2 sensor)
Control with a CO2 sensor	Yes (Fan speed automatically changes from 25% to 100% depending on the CO2 concentration*)
Ventilation mode selection	Energy recovery/Bypass/Auto
Night-purge	Yes
Function setting from remote controller	Yes
Bypass temp. free setting	Yes
Multi-stage air flow control	Yes (Both supply and exhaust fan speeds can be set separately from 25% to 100% in 5% pitches)
ON/OFF timer	Yes
Auto-off timer	Yes
Weekly timer	Yes
Fan speed timer	Yes
Operation restrictions (ON/OFF, ventilation mode, fan speed)	Yes
Operation restrictions (fan speed skip setting)	Yes
Screen contrast adjustment	Yes
Language selection	Yes
CO2 concentration indication	Yes (available when using a CO2 sensor)
Filter cleaning sign	Yes (maintenance interval can be changed)
Error indication	Yes (displays model name, serial number, contact information if they are input)
Error history	Yes
OA/RA/SA temp. display	Yes

*When using a CO₂ sensor. Upper and lower limits may be changed.

PAR-W21MAA / PAR-W31MAA

ECODAN REMOTE CONTROL



PAR-W21MAA / PAR-W31MAA remote control for hydronic modules and HWHP units / E-SERIES

- (PAR-W21MAA) Remote control for hydronic modules, HWS and ATW units and Hot Water Heat Pump package systems (HWHP) CAHV&CRHV.
- Usable to manage 1 group of up to 16 indoor units.
- Easy and intuitive with icon-based interface.

- Simple connection with single non-polarised two-core wire.
- MA self-addressing technology.
- Operating mode selection (Heating, Heating ECO, Hot water, etc.).
- Internal weekly timer.
- Customisable water temperature ranges for switching operating mode from local keypad.
- On-display service messages.
- PAR-W31MAA specific for E-SERIES



AT-50B

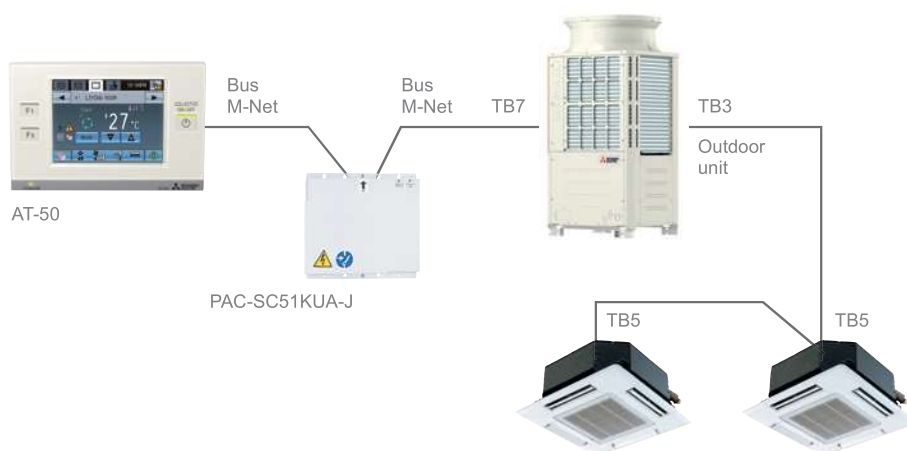
SYSTEM CONTROLLER



AT-50B system controller

- 5" backlit LCD touch screen.
- Usable to manage 50 groups of up to 50 indoor units.
- Individual or collective group control, with groups displayed in grid, list or group format.
- **Dual-Setpoint** function.
- **View and set setpoint temperatures in 0.5°C increments.**
- Two weekly timers (for seasonal switching) and one daily timer.
- Simple connection with single non-polarised two-core wire.
- ME M-Net addressing technology.
- Two function buttons programmable to access any of a choice of functions (Night Set-back, weekly hour timer setting, switch operating mode, adjustable temperature range restriction, local restrictions).
- Recommended for controlling a single system.

Key Technologies



AE-200E

WEB SERVER CENTRALIZED CONTROLLER



3D TOUCH controller

- Generously sized backlit 10.4" SVGA touch screen with graphic layout display function.
- Built-in 240 V AC 50 / 60 Hz power supply.
- Standalone configuration: management of up to 50 indoor units.
- Extended configuration: management of up to 200 indoor units (with 3 expansion controllers EW-50).
- Individual or collective control of groups, blocks or zones.
- Ethernet interface for connection to BMS supervisor systems.
- Integrated WEB server software for management using Internet Explorer®.
- Integrated 2 GB SD memory card for storing system data.
- Direct management of 4 impulse meters with no external interface.
- Power consumption data for billing downloadable via internet connection.
- Complete support for all advanced RMI platform functions for energy consumption monitoring and for multi-installation and multi-user management.
- Temperature setpoints settable and viewable with a precision of 0.5°C.
- Energy saving functions: Maintenance temperature, Sliding temperature, Optimised start, Dual Setpoint.
- M-Net interfacing with Ecodan package Hot Water Heat Pump systems (CAHV and CRHV).
- **Allows direct connection to BMS BACnet NEW**

Superior management, functional and monitoring capabilities with new Mitsubishi Electric controller systems

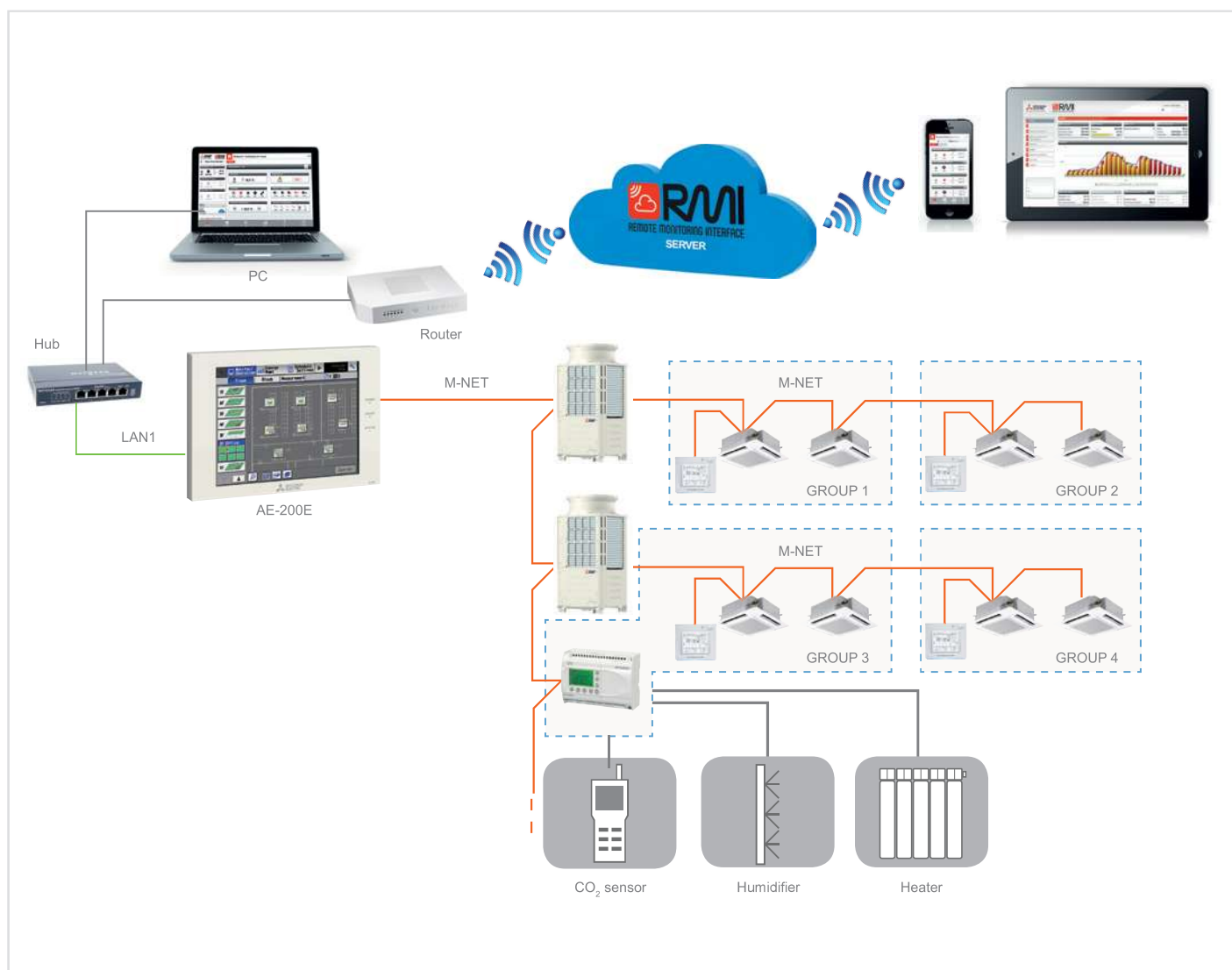
The 3D TOUCH Controller supports the management, operational and monitoring capabilities of all the new functions offered by the new **ADVANCED remote control**.

Information concerning **occupancy, light levels**, relative humidity in the **indoor space and dual setpoints** is accessible directly from the display and via the WEB.



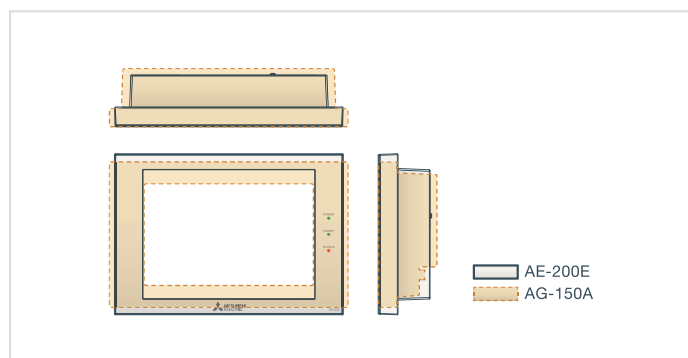
Key Technologies

				
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Power and flexibility in a compact device

While measuring practically the same as the previous AG-150, the new 3D TOUCH Controller WEB Server centralized controller offers a larger screen area, greater processing power and expandable flexibility for future applications.



RMI Ready



The **3D TOUCH Controller WEB Server** centralized controller performs the crucial role of acquiring and monitoring data via the M-Net data transmission bus linking all the components of the VRF CITY MULTI, Mr. Slim or Residential system.

A router (available as wired ADSL or 3G Mobile versions) creates a secure, protected communication channel with the RMI Server. The modular flexibility of the RMI Server makes it possible to store enormous volumes of data, which is acquired, processed and archived for access from portable devices.

This infrastructural complexity, combined with superior processing, management and security capabilities, is encapsulated in an extremely user friendly concept, to help users optimise the energy usage of their systems.



EW-50

WEB SERVER CENTRALIZED CONTROLLER

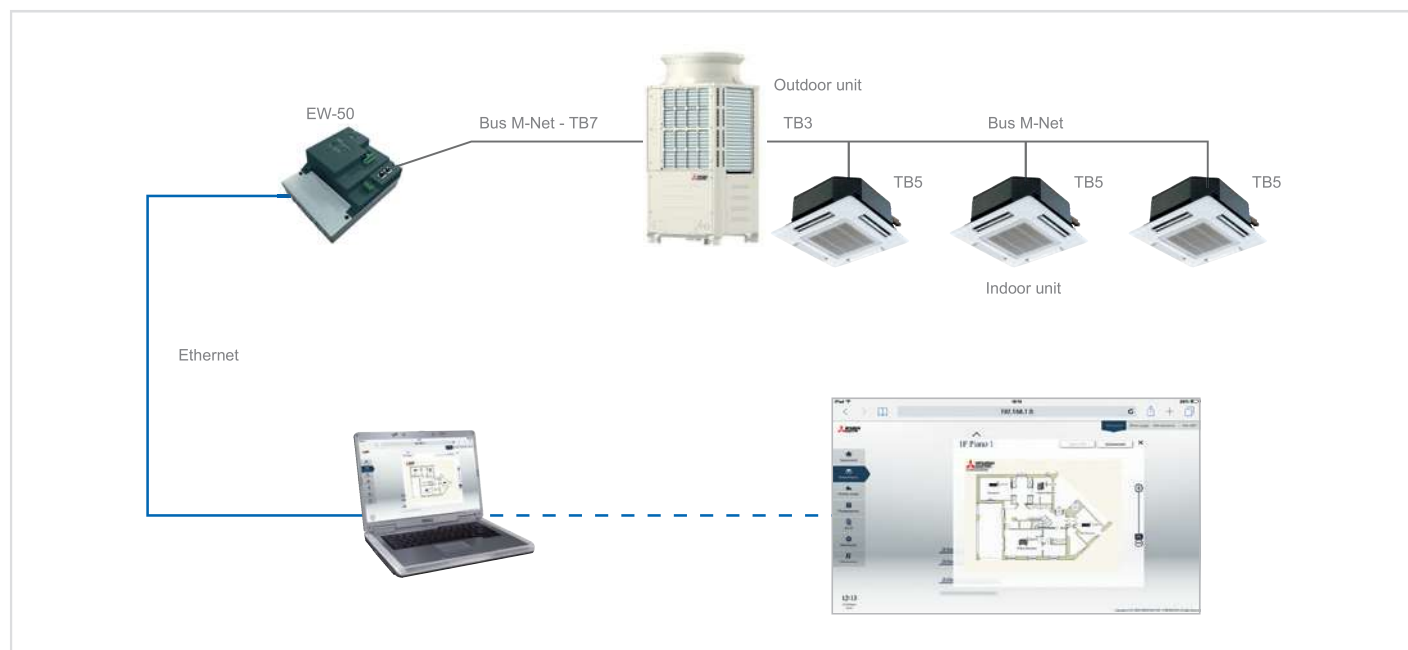


3D blind controller

- "Black Box" version (no display).
- Compact dimensions (external 230V AC power supply).
- Usable to manage 50 groups for a total of up to 50 indoor units.
- Individual or collective group control.
- Ethernet interface for connection to supervisor systems.
- Integrated WEB server software for management using Internet Explorer®.
- Simplified connection, with single non-polarised two-core wire, using ME technology.
- Integrated 2 GB SD memory card for storing system data.
- Direct management of 4 impulse meters with no external interface.

- Status indicator LED indicating data transmission status and/or errors.
- Consumption data for billing downloadable via internet connection.
- A wide choice of energy saving functions offered as standard, with additional optional functions accessible with PIN code licenses.
- Complete support for all advanced RMI platform functions for energy consumption monitoring and for multi-installation and multi-user management.
- **Expansion controller for AE-200.**
- Allows direct connection to BMS BACnet NEW

Key Technologies



INTERFACE FOR HOTEL SIMPLIFIED APPLICATION



- Integrated solution interface for small-medium hotels;
- Centralized solution;
- Higher level of control and therefore greater energy saving and a substantial reduction in running costs;

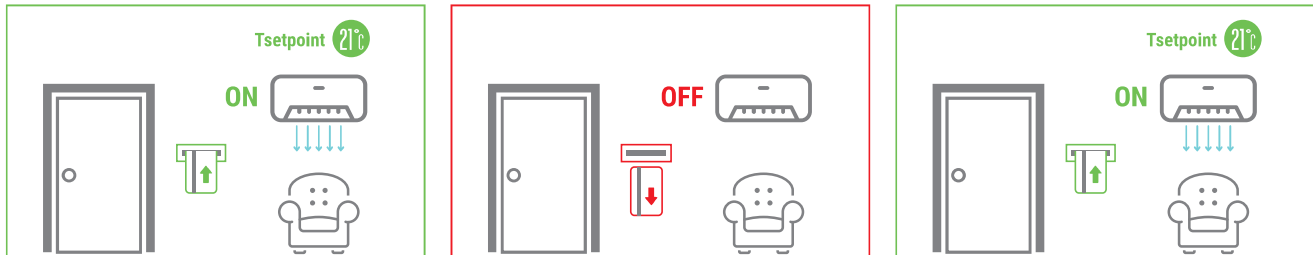
- Key Card contact and Window contact management (1 PAC-SE55RA for each indoor unit is required)
- It works in combination with 1 AE-200 and up to 3 more Web Server Centralized Controllers AE-200/EW-50 (up to 200 Indoor Units).

Key card contact and window contact management

The Melcotel Interface allows a hotel to have more accurate control over its air conditioning and can be used to control and monitor up to 200 bedrooms.

KEY CARD CONTACT MANAGEMENT

It allows the resetting of the status (Setpoint Temperature) set by Melcotel when key card is reinserted

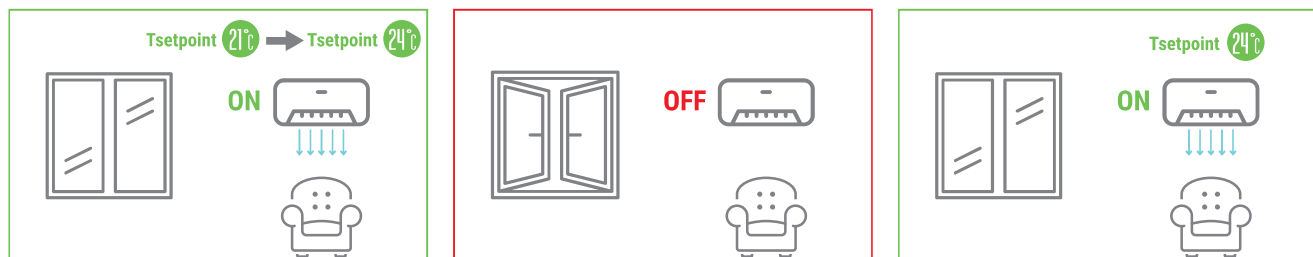


Application example:

When key card is inserted, the indoor unit switches on with the setpoint temperature set by MELCOTEL, for example 21°C. The chamber customer changes the setpoint to 24°C. When key card is removed the indoor unit switches off and remote control is disabled. When key card is reinserted, the indoor unit switches to ON with the setpoint of 21 °C, the one set by MELCOTEL, in order to guarantee energy savings.

WINDOW CONTACT MANAGEMENT

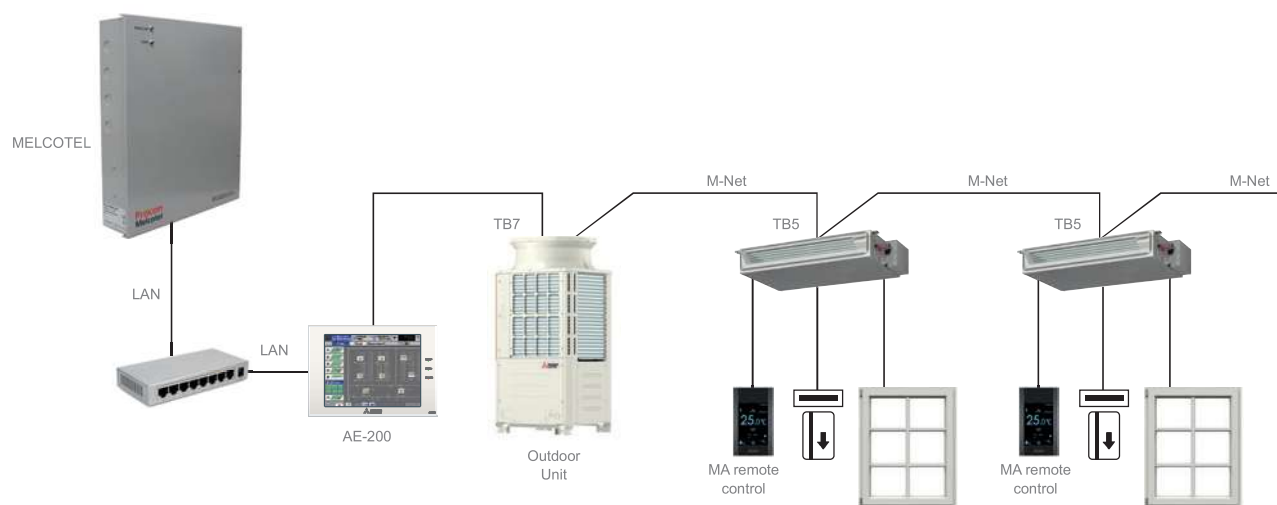
It allows restoring the previous state (ON / OFF status, Setpoint Temperature) when the window is reclosed;



Application Example:

The indoor unit is on and with a setpoint temperature equal to that set by MELCOTEL, for example 21°C. The chamber customer changes the setpoint to 24°C. When the window is opened, the indoor unit switches off and remote control is disabled in order to avoid energy waste. When the window is reclosed, the state prior to opening is restored, i.e. the indoor unit returns to ON and to the setpoint previously set by the customer chamber, i.e. 24 °C.

ARCHITECTURE



First Centralized Controller HAVE to be necessarily AE-200;
In order to implement the window and/or key card contact system it is necessary to provide one PAC-SE55RA for each indoor unit.





Remote monitoring and control system



3D Tablet Controller

3D Tablet Controller is the new solution by Mitsubishi Electric allowing portable system management from Smartphone and Tablet **inside the building**. User configuration, with restrictions and privileges, makes it the ideal solution in those application serving different environments, such as offices or apartments.

Thanks to its simple and intuitive interface the user is able to control and monitor **air conditioning** and **hot water production** units on **mobile device**, just as easily as he would on a traditional remote control.

This is possible thanks to WEB Server 3D centralized control installed on site, connected to the building Wi-Fi router*1.

*1 Not supplied by Mitsubishi Electric.

INSIDE THE BUILDING



MELCloud[®] MELCloud CITY MULTI

• Cloud remote **monitoring and control** system.

- Born for residential applications, it's now being expanded to VRF CITY MULTI.
- **Complete and intuitive** solution with all main control and monitoring functions.
- Does not require WEB Server 3D centralized control (AE-200, EW-50).

RMI RMI REMOTE MONITORING INTERFACE

• Cloud remote monitoring and control system **for professional use**.

- Allows all main remote control and monitoring functions.
- **Advanced energy monitoring** features are available, such as hourly consumption view, custom charts and data collection and display.
- Geo-localized **multi-site** management.
- **Multi-user** management for centralized systems.
- **Energy consumption apportioning**^{*2}.

			
Group/Individual simplified management ^{*2}	•	•	•
Available for Smartphone and Tablet	•	•	•
Dedicated App		•	•
User restrictions	•	•	•
Outside the building (Cloud)		•	•
Internet connection needed		•	•
WEB Server centralized control needed	•		•
Advanced energy monitoring			•
Monthly/Custom charts and reports			•
Multi-site management			•
Energy consumption apportioning			•

^{*2} For compatible product lines please refer to catalogues or contact headoffice

OUTSIDE THE BUILDING



3D TABLET CONTROLLER

WI-FI REMOTE MANAGEMENT SYSTEM



New Wi-Fi management system by Mitsubishi Electric

3D Tablet Controller allows system management and control through Smartphone and Tablet under LAN Wi-Fi coverage.

Simple and intuitive interface

Thanks to its simple and intuitive interface the user is able to freely control air conditioning and water production units from mobile device, inside the building.

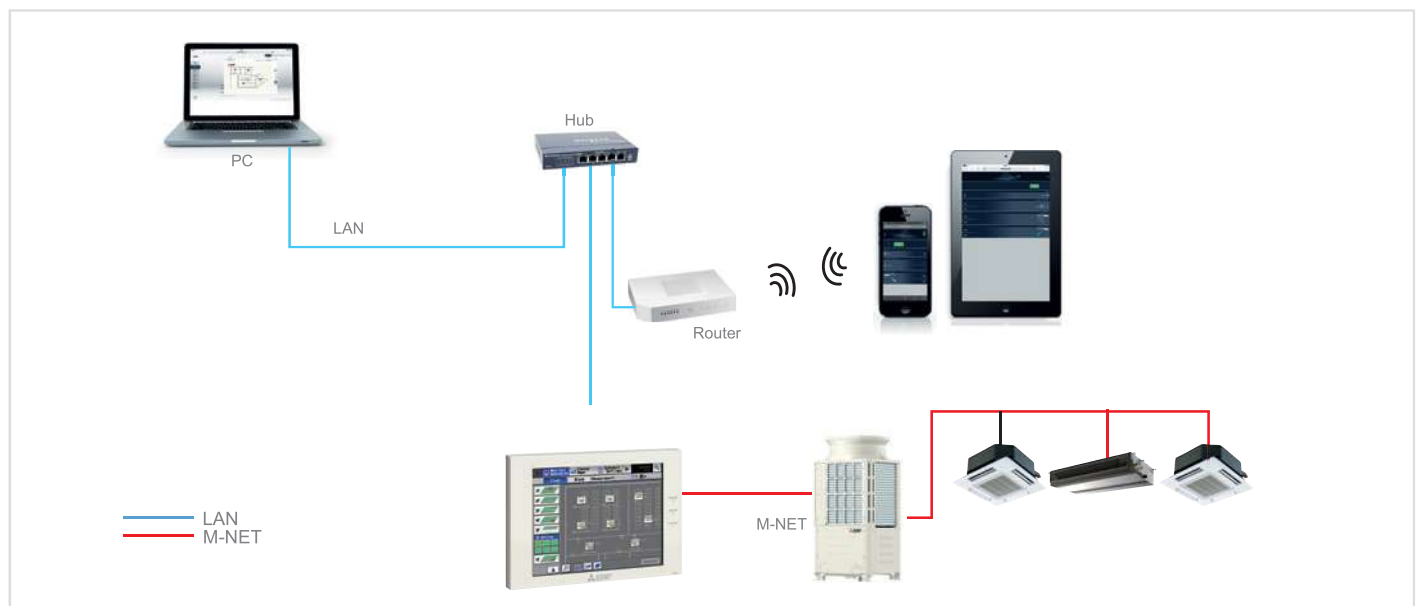
This interface has been designed to have the look&feel of a typical App for Smartphone, with immediate feedback from units and fast setting of operating parameters.

Access and components

WEB Server centralized control connected to Wi-Fi router is needed. 3D Tablet Controller is compatible with all Smartphone and Tablets, thank to access through internet browser.

The user can login at the address:

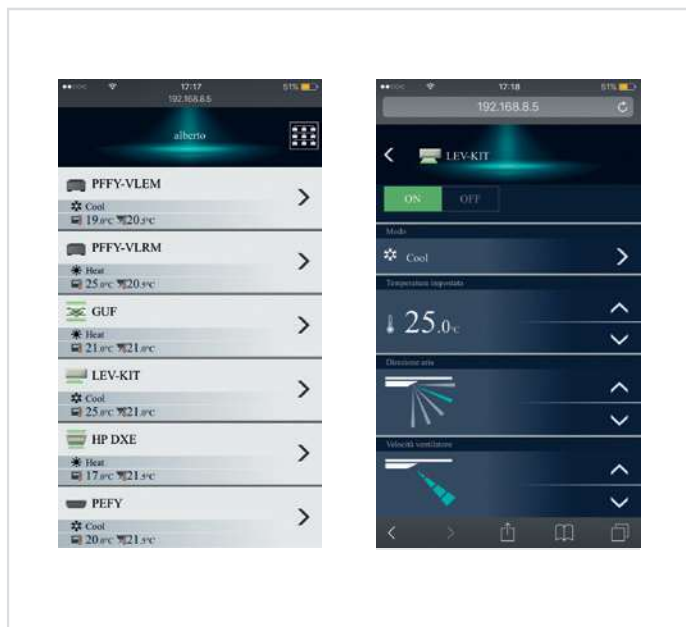
[http://\[AE-200/EW-50 IP address\]/mobile](http://[AE-200/EW-50 IP address]/mobile)





Mobile interface

The web interface has been designed following the modern style of App for Smartphone and Tablet, maximizing easy of use and intuitiveness for mobile use.



Advantages

- Compatible with all Smartphone and Tablet mobile devices, regardless of the brand and operating system.
- No need for internet connection, communication is direct between device, router and centralized controller.
- Possibility to replace the wired remote controls
- Possibility of configuring different users with privileges/restrictions on the available functions

MELCLOUD CITY MULTI

CLOUD-BASED REMOTE MANAGEMENT AND SUPERVISOR SYSTEM



MELCloud, the Wi-Fi controller for VRF CITY MULTI systems.

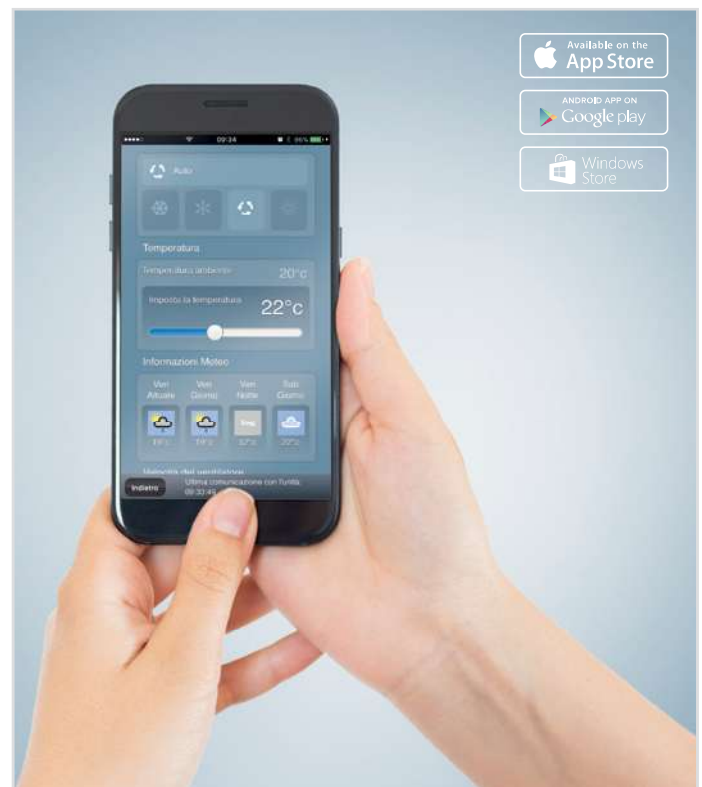


MELCloud, the new Wi-Fi controller for your Mitsubishi Electric VRF system. By using the cloud for sending and receiving information and the dedicated Wi-Fi interface (MAC-567IF-E), you can now control your VRF system easily wherever you are from any PC, tablet or smartphone with an internet connection.

The MELCloud service has been designed to ensure complete compatibility with PCs, tablets and smartphones via dedicated apps or via a web browser

Registering the system

The system must be registered to activate the MELCloud service. Once the interface is connected to the indoor unit and paired with the router, the system itself may be registered. To activate Wi-Fi control capability, simply access the website www.melcloud.com, sign up as a user and register the interface used. After registering, you will be able to take full advantage of the potential offered by the MELCloud service and manage your VRF system from any location over the internet.



Control functions for CITY MULTI indoor units

Main functions:

- On / Off
 - Mode (Auto/Heat./Cool./Ventilation)
 - Fan speed
 - Programmable weekly timer
 - Louvre angle setting
 - View and set ambient temperature
 - Local weather information
- (availability of functions depends on the model of indoor unit connected to the controller)



Control functions for Lossnay ventilation systems

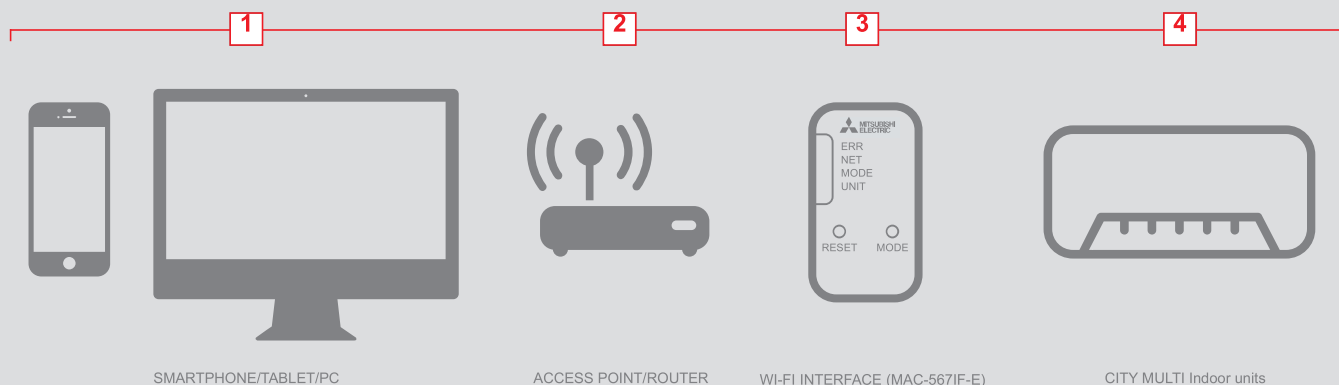
Main functions:

- On / Off
- Ventilation mode
- Fan speed
- Timer



MELCloud® CITY MULTI - SYSTEM ELEMENTS

WWW.MELCLOUD.COM



BlackBerry 10 Android Apple iOS / MAC OS Microsoft Windows

Visit the website www.melcloud.com for more information

REMOTE MONITORING INTERFACE

CLOUD REMOTE MANAGEMENT SYSTEM



The Cloud system by Mitsubishi Electric for large installations

The RMI system lets you control your air conditioning, heating and domestic hot water production system remotely from a smartphone, tablet or PC. The system may be used to monitor the performance of your appliances, programme functions, check consumption and view operating states to optimise the efficiency of the system.

Your perfect climate in an App!

Control your air conditioner, adjust temperature and air flow settings, view and manage hot and cold water production status and check for system faults.

ALL FROM AN APP ON YOUR SMARTPHONE OR TABLET.



Simplified control for all of your systems

Set weekly programmes and special events, and view and analyse the operating parameters of your system remotely from a mobile device with a graphic interface that lets you change settings instantaneously when needed.



Manage your systems with detailed information and analytical functions

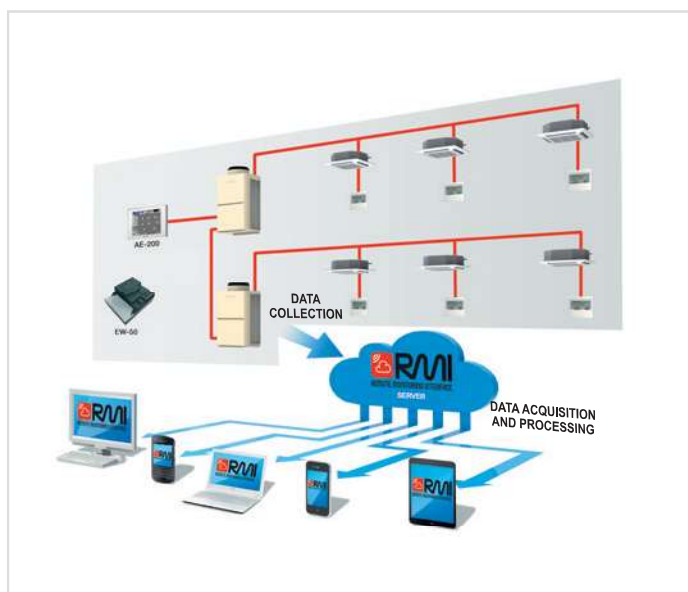
Manage multiple installations with different sizes and architectures conveniently from the application on your PC, view function parameters in a summarised dashboard interface, and analyse specifically created reports to make your installation work even more efficiently. RMI is also the ideal solution for the centralized management and supervision of multiple installations in different locations.



System architecture

The 3D TOUCH Controller WEB Server centralized controller performs the crucial role of acquiring and monitoring data via the M-Net data transmission bus linking all the components of the VRF CITY MULTI, Mr. Slim or Residential system.

A router (available as wired ADSL or 3G Mobile versions) creates a secure, protected communication channel with the RMI Server. The modular flexibility of the RMI Server makes it possible to store enormous volumes of data, which is acquired, processed and archived for access from portable devices. This infrastructural complexity, combined with superior processing, management and security capabilities, is encapsulated in an extremely user friendly concept, to help users optimise the energy usage of their systems.



The project

The RMI project is the result of a forward thinking idea by Mitsubishi Electric to offer its customers the capability of managing their installations from portable devices, adding a significant new advantage offered by these systems. The all-new **RMI** system is the **FIRST** system of its kind based on **Cloud Computing** technology, which lets you interface with your system via a simple yet secure internet connection. RMI makes it possible to manage Mitsubishi Electric air conditioning solutions, with **energy consumption monitoring and maintenance functions**, from **smartphone** and **tablet** apps for the **iOS** and **Android** operating systems, and via a private **WEB Client** area from a **PC**. The RMI system is based on a dedicated infrastructure (RMI Server), which may be described as a container for installation data that is collected and made accessible **simply and intuitively**, and filtered and represented appropriately for the type of user analysing and using the data.

The project was designed from the start with security in mind, to protect the installation and the client against unauthorised access with a secure VPN connection (Virtual Private Network).

Who can use RMI?

Because of its many different functions, the RMI system is suitable for all types of installation, from centralized residential systems to commercial applications and large scale installations.

The remote management and monitoring functions are intended for end users (e.g. tenants), owners, administrators, energy/building managers, global service providers and installing and maintenance technicians.

RMI Service packages

RMI can also be applied to an existing VRF CITY MULTI system, by interfacing through the installation's existing WEB Server centralized controllers. Contact head office to check compatibility between hardware and available functions.

See DEMO RMI at:

<http://demo-it.rmi.cloud>

RMI IS AVAILABLE IN THE FOLLOWING PACKAGES

RMI SMART
REMOTE MONITORING INTERFACE

RMI ADVANCED
REMOTE MONITORING INTERFACE

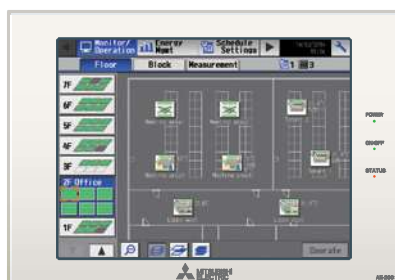
RMI MULTI-TENANT
REMOTE MONITORING INTERFACE

RMI PLAN
REMOTE MONITORING INTERFACE

RMI CHARGE
REMOTE MONITORING INTERFACE

XML

BMS INTERFACE FOR ETHERNET NETWORKS



AE-200

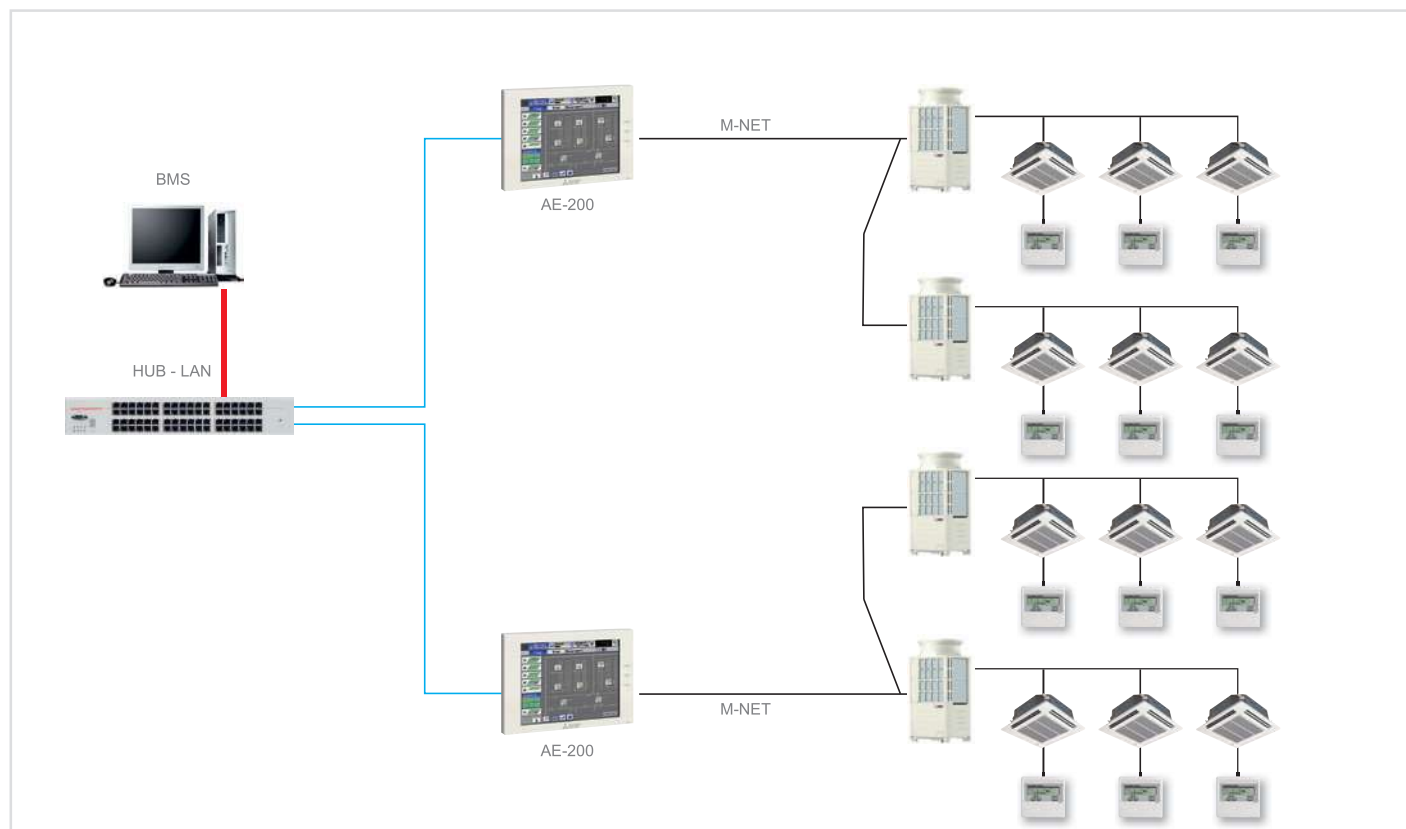


EW-50

XML BMS interface for ethernet networks

XML is an innovative new communication system developed specifically for exchanging data over the web. XML makes it possible to create custom software extremely simply, which can even be used with a standard internet browser. The XML protocol makes it possible to integrate with a BMS system using the AE-200E or EW-50 WEB Server centralized controllers, with no additional dedicated hardware interfaces. As all the information necessary for the BMS system is available in XML

format directly over the Ethernet communication port of the AE-200E / EW-50 controller, all that needs to be done is to connect both the AE-200E / EW-50 WEB Server centralized controllers and the BMS computer system to the same network. Connecting to a BMS system with the XML protocol is extremely simple, as the Ethernet network platform is used. No dedicated conversion or interface hardware is needed, as shown in the typical layout schematic.



ME-AC-MBS-KNX-100

B.M.S. INTERFACE FOR MODBUS® AND KNX NETWORKS®



ME-AC-MBS-KNX-100

With this gateway **ME-AC-MBS-KNX-100**, you can easily integrate Mitsubishi Electric's City Multi systems into an installation based on Modbus TCP, Modbus RTU, KNX, BACnet/IP. To do this, the gateway acts as a server device for the installation itself, accessing all signals from each air-conditioning unit and controlling the entire air-conditioning network.

The gateway is continuously interrogating the air conditioning network, storing in its memory the current status of each signal to be monitored and providing this data to the installation when requested.

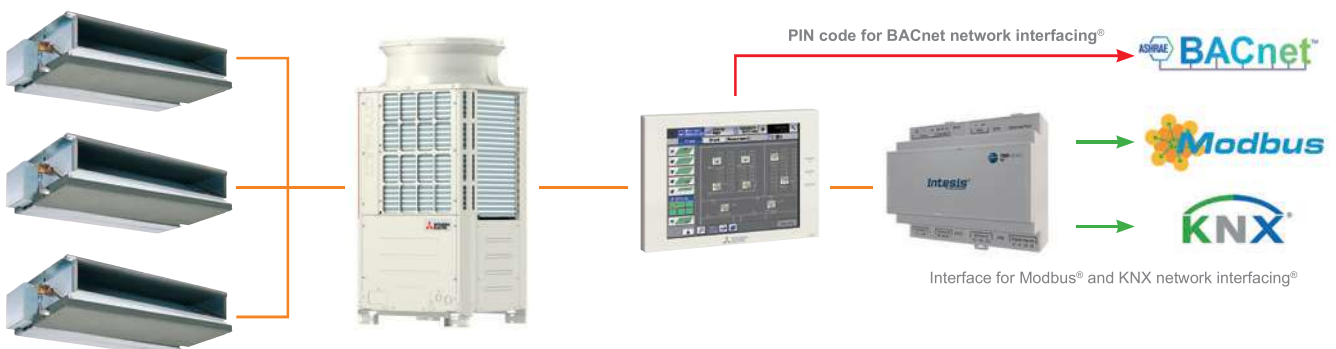
In addition, when the status of a signal changes, the gateway sends a write telegram to the installation, waits for a response and performs the corresponding action. A non-response from a signal triggers a communication error, allowing you to know which signal from which airconditioning unit is malfunctioning.

The interface is connected to the Modbus supervisory system via an RS232/RS485 or TCP/IP over Ethernet connection and via Ethernet to the Mitsubishi Electric VRF CITY MULTI system.

NEW B.M.S INTERFACE FOR

ModBus TCP
ModBus RTU
KNX
Control up to a maximum of 100 IUs

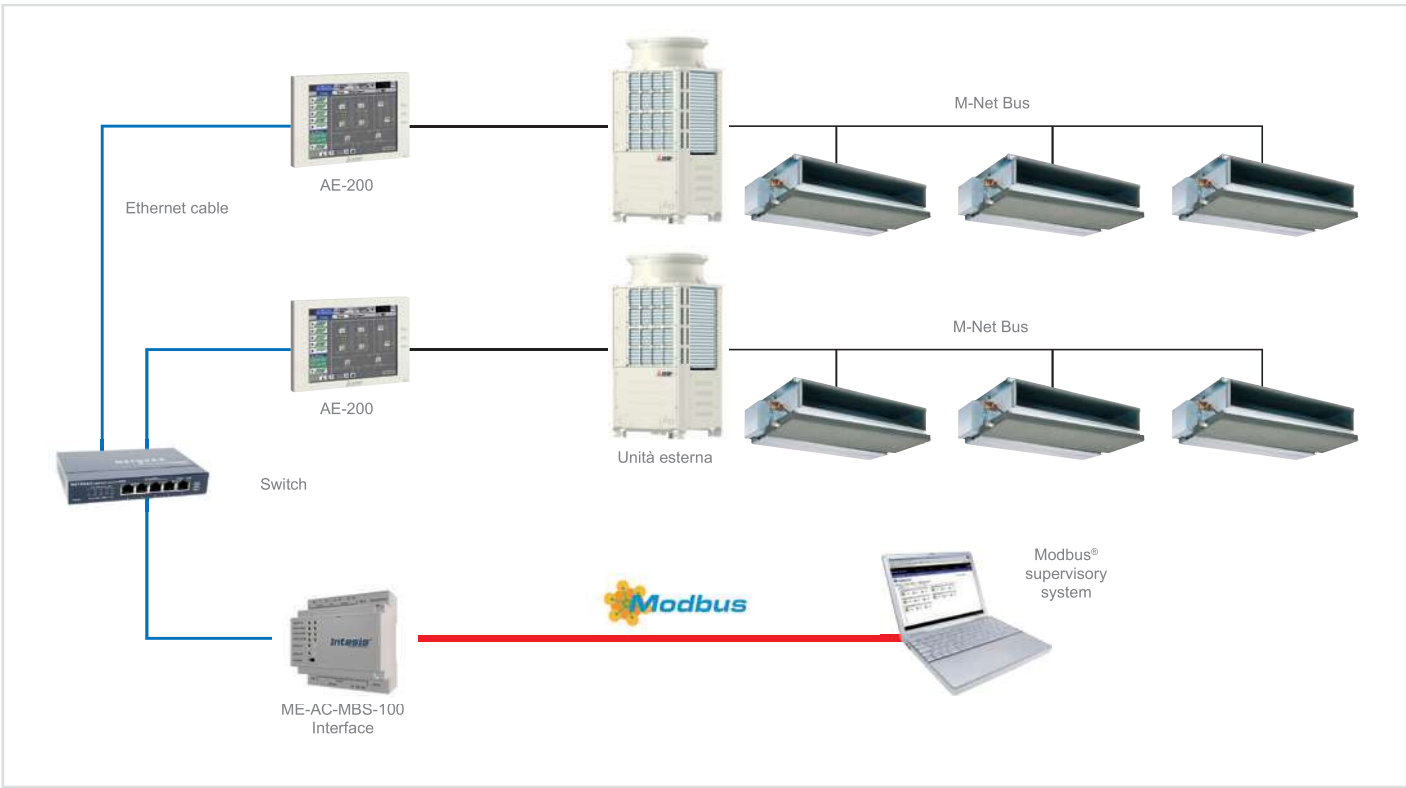
Fully backward compatible with the same variable addresses used in the old hardware



B.M.S. interface - for Modbus networks®

The Modbus protocol is a communication protocol originally used for PLC networks. Mitsubishi Electric offers an interface for the management of up to 100 indoor units (ME-AC-MBS-KNX-100) for management via B.M.S. of the VRF CITY MULTI system.

The interface is connected to the Modbus supervisory system via either an RS232/RS485 or TCP/IP over Ethernet connection and via



Function table

OPERATION	
FUNCTION	DESCRIPTION
On/Off	Unit on/off setting
Mode	Setting the operating mode
Set Temperature	Setpoint temperature setting
Air direction	Setting airflow direction
Fan speed	Setting ventilation speed
Prohibit remote control	Remote control prohibition setting
Prohibit Local On/Off	Setting prohibition command On/Off
Prohibit local mode change	Operation mode change command prohibition setting
Prohibit Temperature Set	Setpoint setting prohibition
Prohibit local filter signal reset	Filter signal reset prohibition setting
Lossnay ventilation set	Lossnay ventilation speed setting
Reset filter signalling	Reset filter signal
Reset error status	Reset error status
Active polling	Activation/deactivation of group polling
Forced off	Forced shutdown

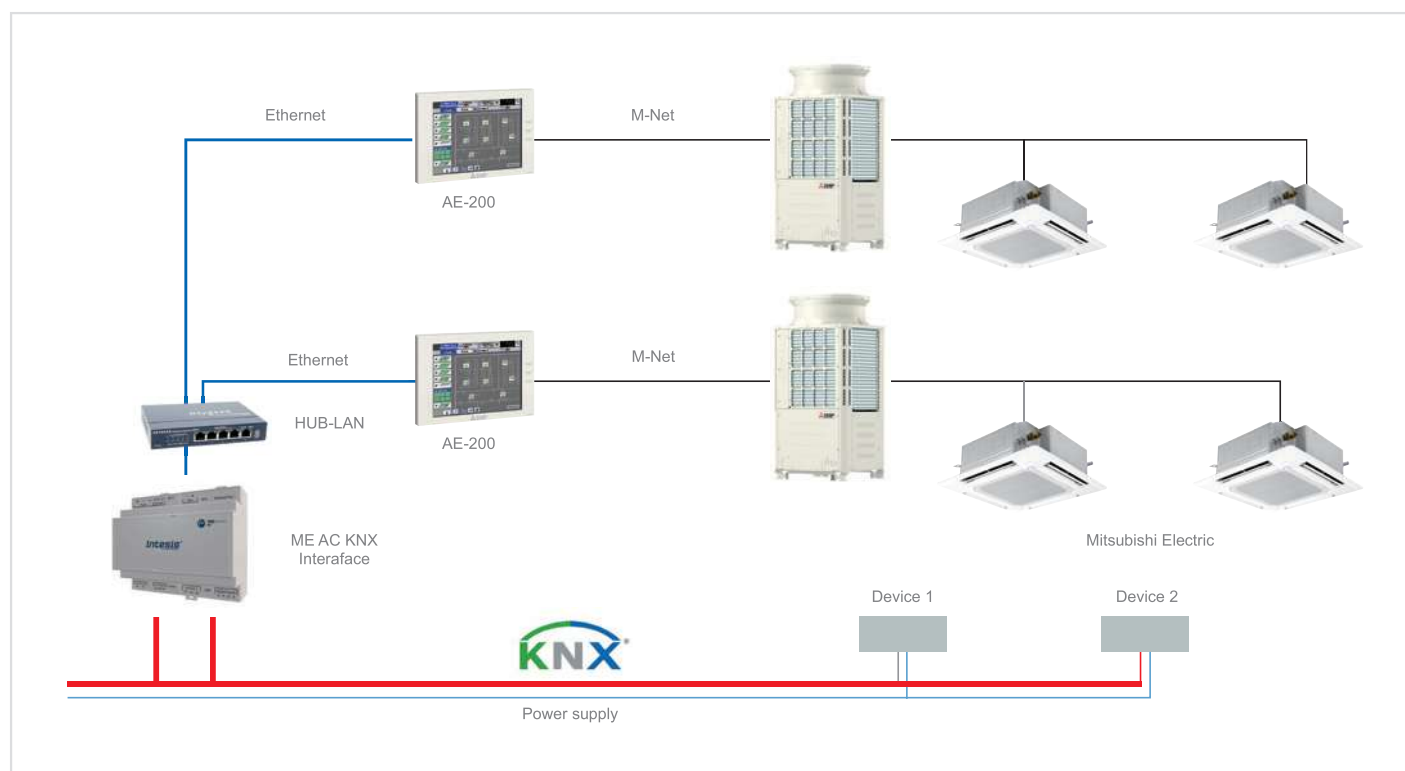
Function table

MONITORING	
FUNCTION	DESCRIPTION
On/Off	Unit on/off setting
Communication error	Communication error with centraliser
Mode	Setting the operating mode
Set Temperature	Setpoint temperature setting
Air direction	Airflow direction setting
Fan speed	Setting ventilation speed
Prohibit remote control	Remote control prohibition setting
Prohibit Local On/Off	Setting prohibition command On/Off
Prohibit local mode change	Operation mode change command prohibition setting
Prohibit Temperature Set	Setpoint setting prohibition
Prohibit local filter signal reset	Filter signal reset prohibition setting
Lossnay ventilation set	Lossnay ventilation speed setting
Signal filter	Dirty filter signal
Error signal	Unit signal in error
Internal temperature	Indoor room temperature display
Reset filter signalling	Reset filter signal
Reset error status	Reset error status
Group communication error	Group communication error
Active polling	Polling on/off display per group
Forced off	Forced shutdown

B.M.S. interface - for KNX networks®

KNX is one of the world's standard protocols for home and building control. This open protocol ensures product interoperability and compatibility of third-party products. Mitsubishi Electric offers an interface for the management of up to 100 indoor units (ME AC KNX - 100) for

management via B.M.S. of the VRF CITY MULTI system. The interface is connected directly to the EIB bus to the KNX world and via Ethernet to Mitsubishi Electric's VRF CITY MULTI system.



Function table

OPERATION	
FUNCTION	DESCRIPTION
On/Off	Unit on/off setting
Mode	Setting the operating mode
Set Temperature	Setpoint temperature setting
Air direction	Setting airflow direction
Fan speed	Setting ventilation speed
Prohibit remote control	Remote control prohibition setting
Prohibit Local On/Off	Setting prohibition command On/Off
Prohibit local mode change	Operation mode change command prohibition setting
Prohibit Temperature Set	Setpoint setting prohibition
Prohibit local filter signal reset	Filter signal reset prohibition setting
Lossnay ventilation set	Lossnay ventilation speed setting
Reset filter signalling	Reset filter signal
Reset error status	Reset error status
Inlet Temp	Virtual setpoint setting (temperature supplied by KNK)
MONITORING	
FUNCTION	DESCRIPTION
On/Off	Unit on/off setting
Communication error	Communication error with centraliser
Mode	Setting the operating mode
Set Temperature	Setpoint temperature setting
Air direction	Setting airflow direction
Fan speed	Setting ventilation speed
Prohibit remote control	Remote control prohibition setting
Prohibit Local On/Off	Setting prohibition command On/Off
Prohibit local mode change	Operation mode change command prohibition setting
Prohibit Temperature Set	Setpoint setting prohibition
Prohibit local filter signal reset	Setting prohibition reset filter signalling
Lossnay ventilation set	Lossnay ventilation speed setting
Signal filter	Dirty filter signal
Error signal	Unit signal in error
Internal temperature	Indoor room temperature display
Reset filter signalling	Reset filter signalling
Reset error status	Reset error status
Group communication error	Group communication error
Inlet Temp	Virtual temperature display (provided by KNK)

Compatibility list

MONITORING	
G-50	AE-200
G-50A	AE-50
GB-50A	AG-150A
GB-50ADA	EW-50
AB-150	EB-50GU

BACnet® PIN CODE

BMS INTERFACE FOR BACNET® NETWORKS



BACnet® PIN code

The BACnet® protocol was originally developed by ASHRAE in North America specifically for HVAC applications (Heat, Ventilation, Air Conditioning). It was subsequently also adopted in Europe as one of the standard communication solutions for air conditioning systems, together with LonWorks® and other protocols. One of the greatest advantages of this protocol is the extraordinary degree of cross-compatibility it offers, allowing systems from different manufacturers to be integrated with each other. New BACnet PIN code allows communication between Mitsubishi Electric system and BACnet BMS network with the same monitoring

information and settings which were available with BAC-HD150. **BACnet PIN code is available only for WEB Server 3D centralized controls (AE-200, EW-50).** Physical connection is via Ethernet cable through a dedicated port on centralized control. Thanks to new BACnet PIN code it is possible to remove one hardware component (BAC-HD150) from the system, simplifying its structure and removing one potential source of malfunction. Each centralized control equipped with BACnet PIN code is able to handle up to 50 indoor units and 50 groups.

