



Sophisticated yet simple technology

Reliable

Designed and manufactured to the highest standards, the CITY MULTI range offers one of the most reliable air conditioning systems available. Simple to install and easy to maintain, this range provides ideal solutions you can trust to protect your investment.



>All the CITY MULTI outdoor units are made under stringent control.

VRF system

Our answer to VRF

Mitsubishi Electric sets the boundaries of VRF technology with the CITY MULTI range, which is available using R410A refrigerant with zero ODP (Ozone Depletion Potential). The range has been specifically designed for today's building requirements and addresses key market issues such as energy efficiency, adaptability and reliability. With user friendly control systems utilizing internet technology and integrated cooling and ventilation indoor units, CITY MULTI is the benchmark and market leader in VRF technology.

VRF is a multi and direct expansion type air conditioning system where by one outdoor unit can be connected with multiples indoor units. The amount of refrigerant can be regulated freely according to the load on the indoor unit by the inverter driven compressor in the outdoor unit. Zoning in a small office is possible with a small capacity indoor unit. Energy conservation is easily handled because individual indoor units can stop and start their operation as needed. There are various indoor units available in order to suit various interior design needs.



Total Energy Conservation

Intelligent Power Module (IPM) Technology

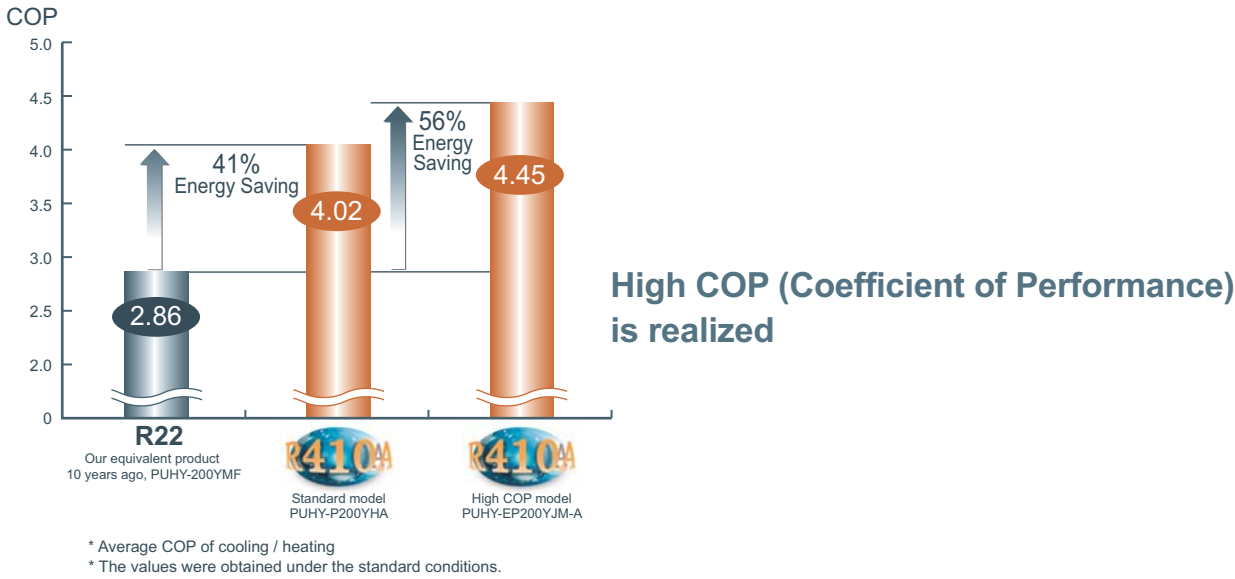
The YHA range from Mitsubishi Electric provides precise control of energy input, through utilization of its Intelligent Power Module (IPM) technology. By employing this technology it is possible to closely match the building requirements, achieving more accurate control of the occupied space. By using incremental 1Hz steps of capacity control, the amount of power input required is significantly reduced, resulting in greatly improved COP's.

In addition, IPM technology ensures effective performance under partial load conditions, a condition that most systems will be in for the majority of the normal working life cycle. By taking account the efficiency at both part load, and peak load conditions, R410A CITY MULTI is designed to provide unbeatable year round/seasonal efficiency.

The difference between YHA/YJM-A and previous Mitsubishi Electric models
Technology is key when increased efficiency is demanded.
The CITY MULTI YHA/YJM-A range is able to deliver this in simple ways.

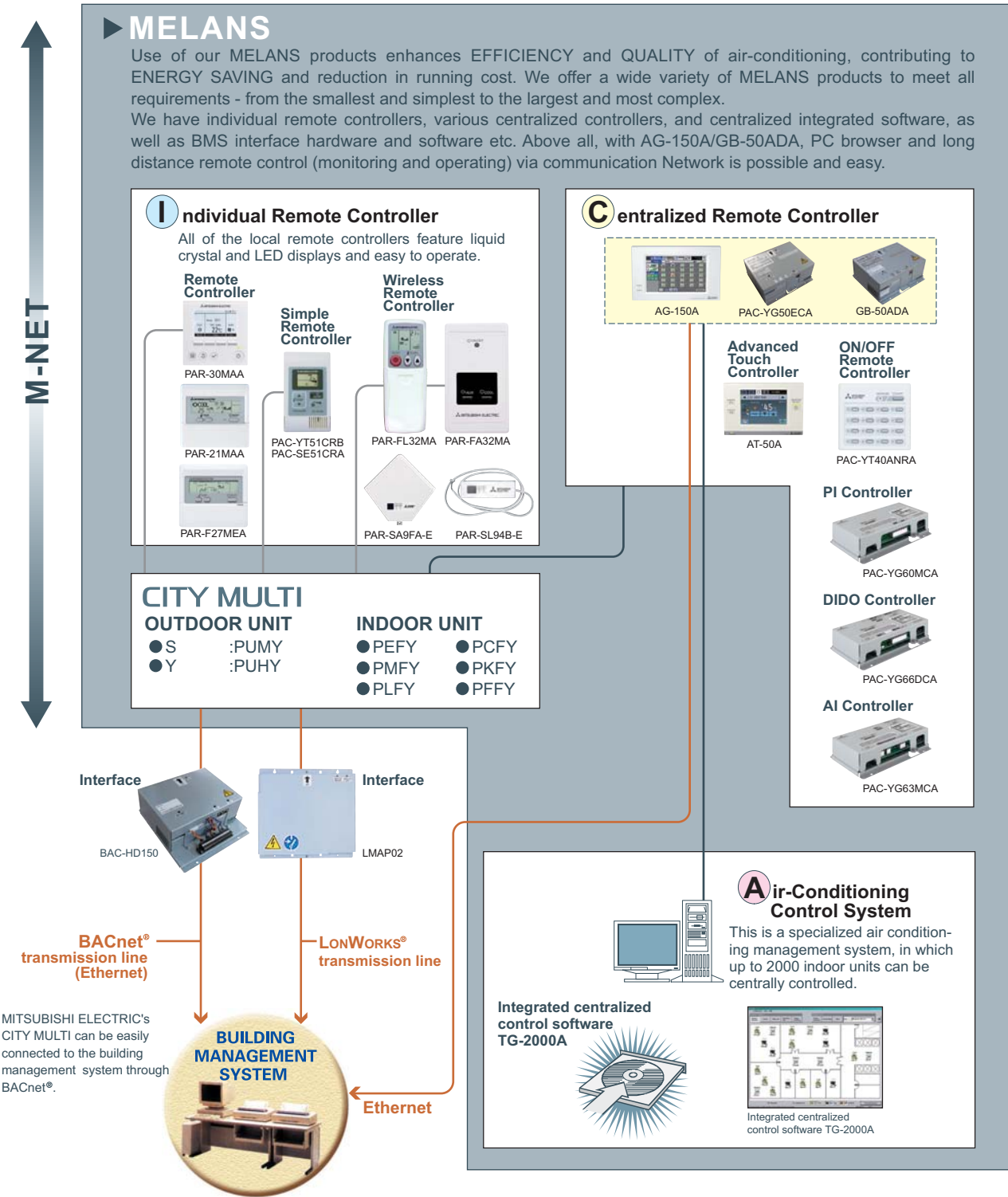
A highly efficient R410A scroll compressor design results in less friction losses at the motor. A simplified refrigerant circuit (low pressure loss) including a new accumulator design also adds a few more points to the efficiency scale. Enhancements to the heat interchange circuit, an inverter driven fan motor and a heat exchanger design again add vital increases to overall system efficiencies and COPs.

Comparison of COP (energy efficiency) – 8HP system



System Controller

MITSUBISHI ELECTRIC's Air-conditioner Network System (MELANS) leads air conditioner management a PC browser and Network era.



*Some controllers cannot be used in combination with certain models of devices.

Integrated Communications Control with Mitsubishi Electric's Unique Transmission Network (M-NET)

Model	
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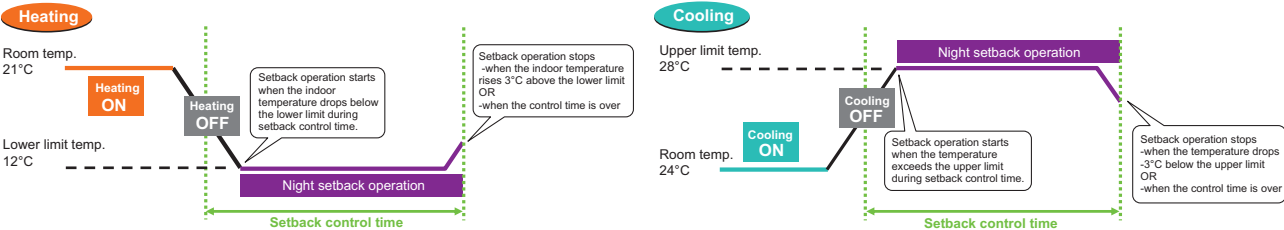
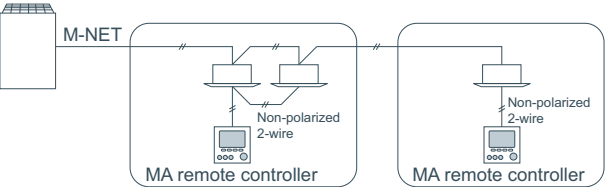
Individual Remote Controller

Wired MA remote controller PAR-30MAA



Dimensions: 120(W) x 120(H) x 19(D) mm
: 4-3/4(W) x 4-3/4(H) x 3/4(D) in.

Example of system configuration



Functions

□: Each unit ○: Each group ●: Group or collective ×: Not available			
Item	Description	Setting	Display
ON/OFF	Switches between ON and OFF.	○	○
Operation mode switching	Switches among Cool/Dry/Fan/Auto/Heat.	○	○
Room temp. setting	The temperature can be set within the following range. Cool/Dry : 19°C - 30°C / 67°F - 87°F Heat : 17°C - 28°C		

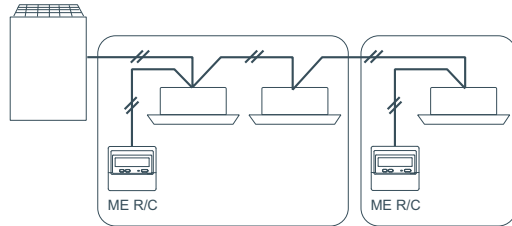
Wired ME remote controller PAR-F27MEA



Dimensions: 130(W) x 120(H) x 19(D) mm
: 5-1/8(W) x 4-23/32(H) x 3/4(D) in.

- This remote control requires non-polar wiring to only one indoor unit.
- Group operation over multiple outdoor units is possible. Grouping can be changed without re-wiring, which makes dividing rooms for tenants easier.
- LCD temperature setting and display in 1°C/1°F increments.

Example of system configuration



Functions

□: Each unit ○: Each group ●: Group or collective ×: Not available			
Item	Description	Operations	Display
ON/OFF	ON and OFF operation for a single group	○	○
Operation mode switching	Switches between Cool / Dry / Auto / Fan / Heat. Operation modes vary depending on the air conditioner unit. Auto mode the CITY MULTI R2 and WR2 series only.	○	○
Temperature setting	Sets the temperature for a single group Range of temperature setting		

Advanced Touch Controller

With our new Advanced Touch Controller AT-50A, easy and simple operation on the touch panel offers an optimal air environment for individual unit.

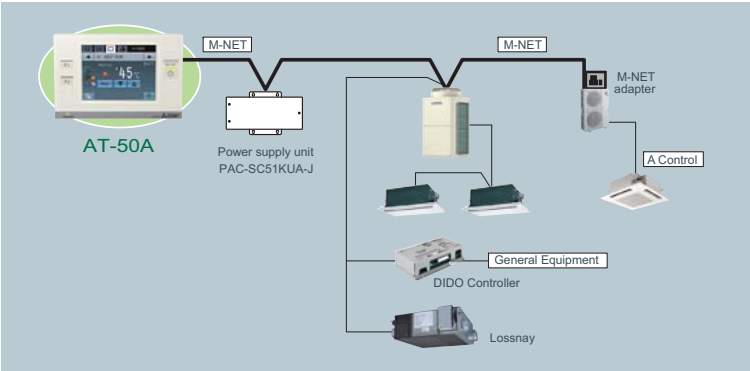
NEW

Touch controller AT-50A



Dimensions: 180(W) x 120(H) x 30(D) mm
: 7-2/16(W) x 4-12/16(H) x 1-3/16(D) in.

System structure



New Design

Backlit LCD (Liquid Crystal Display) Touch Panel

5-inch color LCD touch panel enables easy and simple operation.
The backlight lights up when the panel is touched, and lights off after certain period of time.
The touch panel displays the operation status of the units in GRID, LIST or in GROUP.



GRID (zoom-out) screen
Displays the operation status of all groups.



Centralized Remote Controller

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

ON/OFF remote controller PAC-YT40ANRA

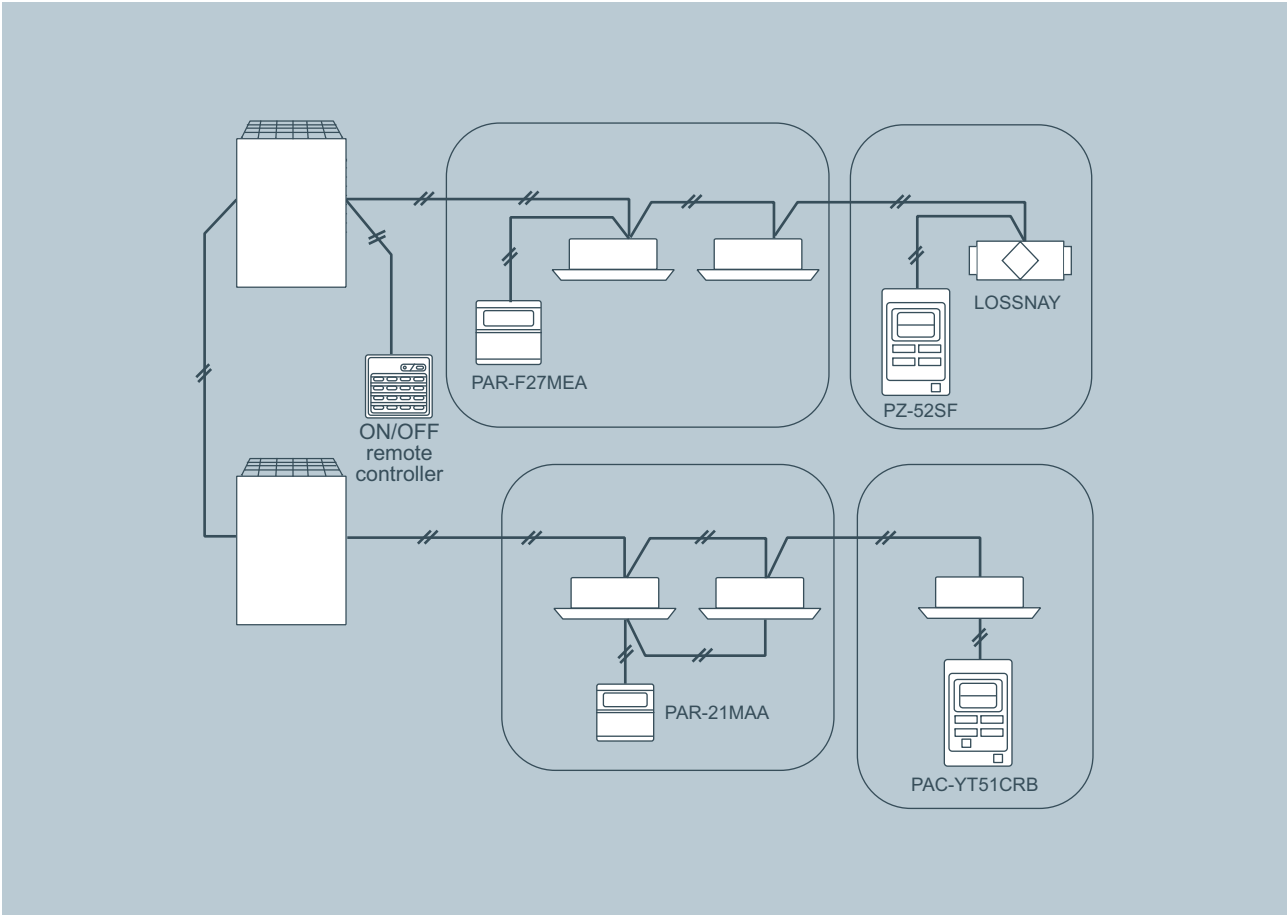


• Dimensions:130(W) x 120(H) x 19(D) mm
:5-1/8(W) x 4-23/32(H) x 3/4(D) in.

- The group setting is kept in nonvolatile memory. No need to worry about re-setting at power failure.
- No individual AC power supply is needed.
The power can be supplied from one outdoor unit (R410A) or Power supply unit.

FUNCTION	DESCRIPTION	PAC-YT40ANRA	
UNITS	Max No.Units	50 units/16 groups	
		OPERATIONS	DISPLAY
ON/OFF	Run and stop 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 indoor unit. *The fan rate and mode cannot be changed. The LED will turn ON only during operation after interlocking.	✓	✓
EXTERNAL INPUT	On/Off/Fire Alarm	✓	—
EXTERNAL OUTPUT	On/Off/Faults	—	✓

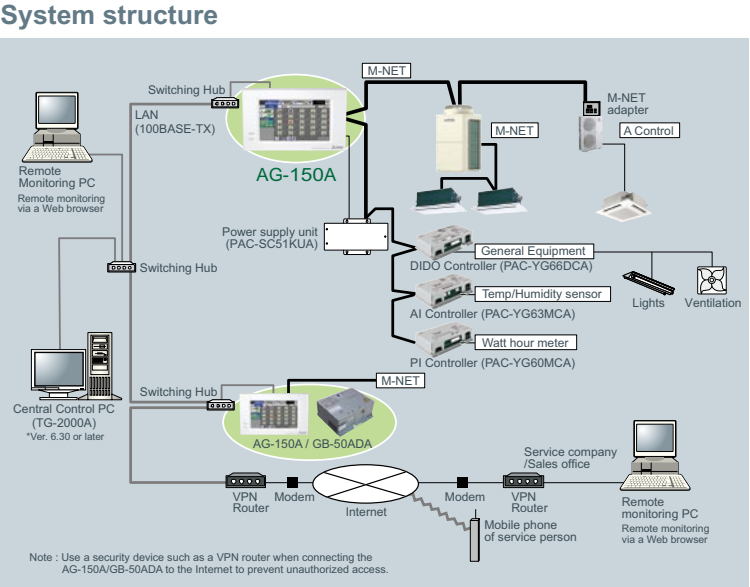
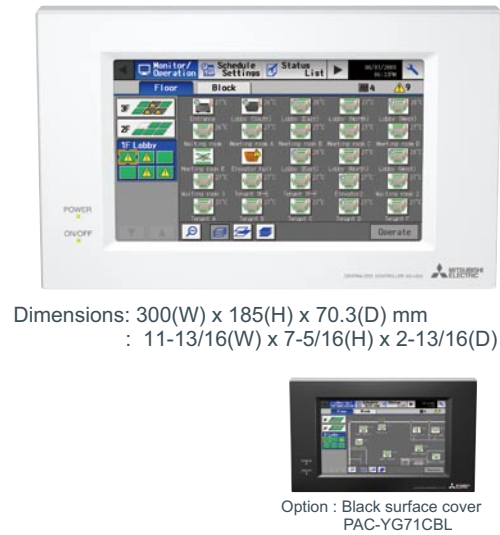
System example



Centralized Remote Controller

With a new colored touch panel, and continuation of all the G-50A functions, AG-150A visualizes its functions from basic control to advanced operations and bringing an ultimate controller to reality.

Centralized controller AG-150A



Expansion Controller PAC-YG5

Centralized Remote Controller

DIDO Controller PAC-YG66DCA



Dimension: 200(W) x 120(H) x 45(D) mm
: 7-7/8(W) x 4-3/4(H) x 1-13/16(D) in.

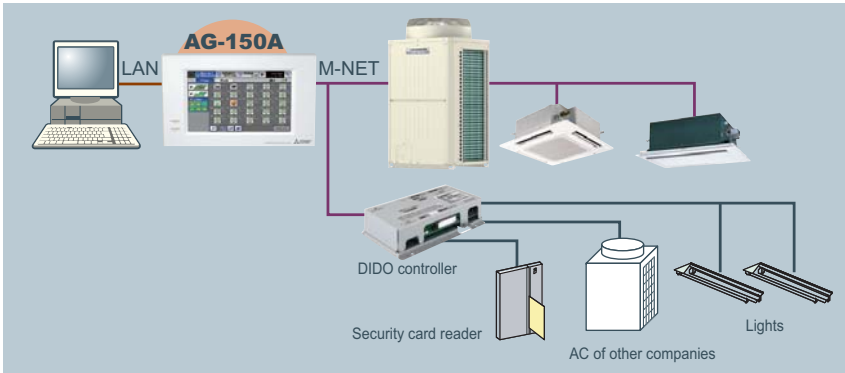
General-purpose equipment Control

Enables to control and monitor equipment other than air-conditioners (air-conditioners of other companies, lights, ventilators, etc.)

System Structure

- In addition to above, the air-conditioners can be interlocked with general-purpose equipment. E.g. Interlock between indoor units and security system.
- The indoor units can be turned ON/OFF when the security system is activated/deactivated.

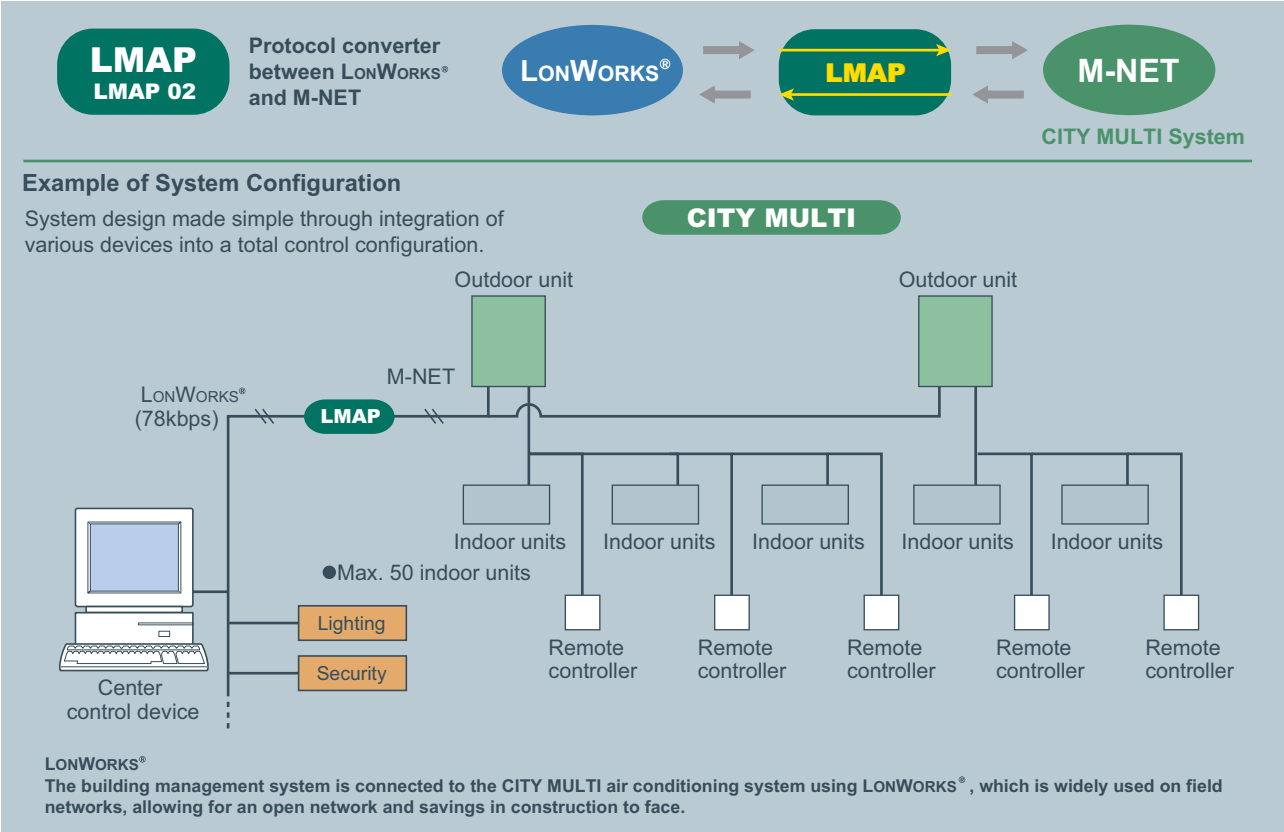
Icon display (Lights)



LONWORKS® (LMAP02)

CITY MULTI can easily combine into a Building Management System (BMS) via the LONWORKS® and M-NET adapter LMAP02. 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®.

One LM ADAPTER unit can connect up to 50 Groups/50 indoor units. Using a single LONWORKS® adapter (LM ADAPTER), 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® INTERFACE	
FUNCTION	CONTENT
Control	
ON/OFF	Run/Stop
Mode Operation	Cooling/Drying/Heating/Auto/Fan
Setpoint Adjustment	Cooling 19-30°C,Heating 17-28°C,Auto 19-28°C
Fan Speed Control	Lo

INDOOR UNIT
Ceiling cassette type
1-way airflow
PMFY-P VBM-E



Compact and lightweight body perfect for limited ceiling space applications.



Compact size for smooth installation and maintenance

Unit body size has been standardized for all models at 812mm for easier installation. Body weight is only 14kg for the main unit and 3kg for the panel, making this unit one of the lightest in the industry.

Quiet operation

Newly developed airflow control technology reduces noise level to only 27dB (P20VBM) for industry-leading quiet performance.

Sound pressure level table

Sound pressure level	Capacity		P20	P25	P32	P40
	Fan Speed	High	35	37	39	
		Mid 1	33	36	37	
		Mid 2	30	34	35	

INDOOR UNIT
Ceiling concealed type

PEFY-P VMR-E-L/R

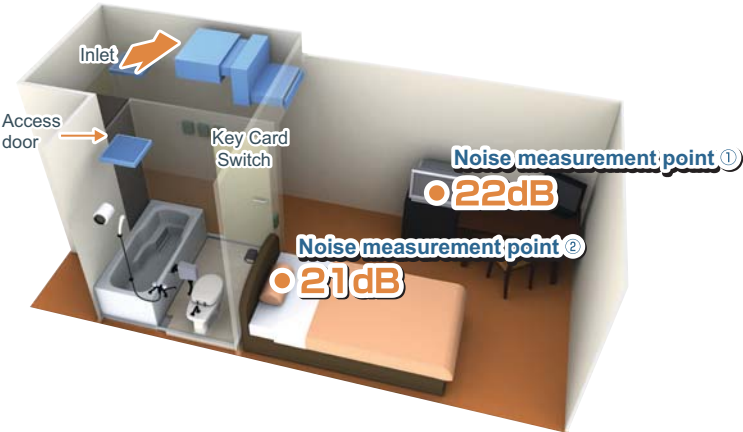
Static Pressure
5Pa

Width
640mm
25-6/32in.

Ultra
Low Noise

Piping connection
L model
R model

Problem solver for residential hotels, museums, libraries,
or hospitals where low noise is especially a must!



Operable by key card switch

It is possible to operate / stop by taking a key card in and out.

Enables to install for symmetric design room

Left or right piping and control boxes are available depending on the layout of each room. Plus, as in the above figure, easy maintenance is possible from the access door in the bathroom.
*Seen from the front, the pipe and control box are on the right side for -R models.

Easy Maintenance

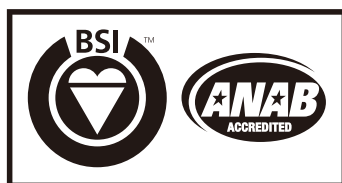
Drain pan and heat exchangers are washable from the access door in the bathroom, making maintenance easy and cost saving.





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.



FM33568 / ISO 9001;2008

The Air Conditioning & Refrigeration Systems Works acquired ISO 9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of Quality management for the production of refrigeration and air conditioning equipment.

ISO Authorization System

The ISO 9000 series is a plant authorization system relating to quality management as stipulated by the ISO. ISO 9001 certifies quality management based on the "design, development, production, installation and auxiliary services" for products built at an authorized plant.



The Air Conditioning & Refrigeration Systems Works acquired environmental management system standard ISO 14001 certification.

The ISO 14000 series is a set of standards applying to environmental protection set by the International Standard Organization (ISO). Registered on March 10, 1998.

⚠ Warning