



# Remote Controller

Individual Remote Controller

Centralized Remote Controller

## The importance of control

The need for control is paramount in order to optimise the performance of any air conditioning system and minimize its running costs. Mitsubishi Electric offers a wide range of control options designed to meet such needs.

Operating an air conditioning system without the right control can prove costly. It's therefore important to ensure that every system is correctly specified to the degree of control it requires. Mitsubishi Electric have a wide range of controls available 'off-the-shelf' and individual control systems can be specifically designed to match.

Good controls will benefit any application, large or small. Air conditioning products need to react to a variety of factors: different room sizes, usage and staff levels; changes in the climate; electronic equipment and lighting ...the list goes on. So whatever the application, optimum control of air conditioning systems is essential and will result in a constant, comfortable environment, which in turn is both energy and cost efficient.

### A degree of difference

When an air conditioning system is not properly controlled, it will not run as efficiently as it should. For every degree that the system deviates from the required temperature, energy costs can rise by up to 5%. Specify one of the many control options from Mitsubishi Electric to ensure air conditioning works as intended, whilst giving the optimum amount of control.

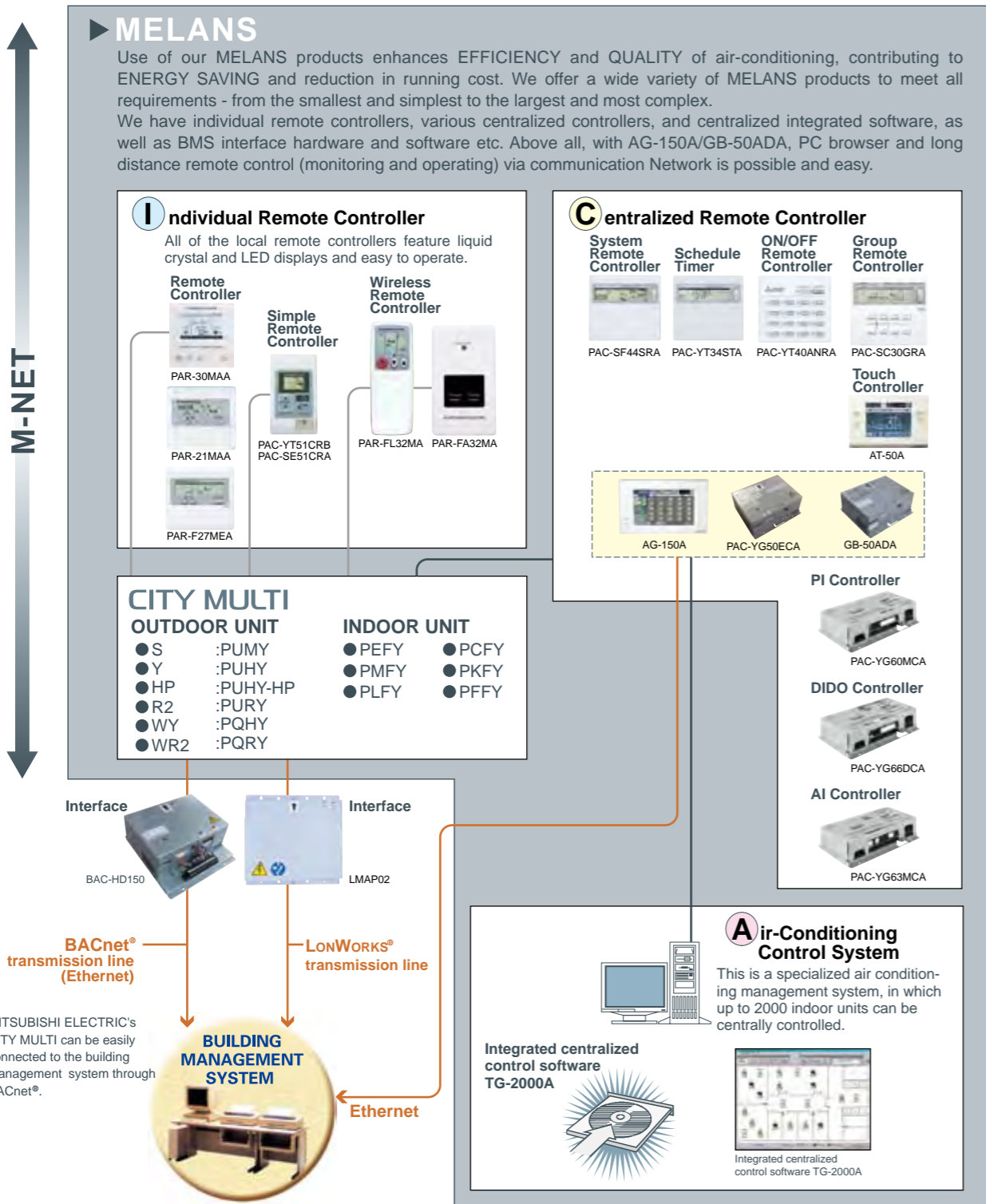
### The simpler, the better

With the array of comprehensive control systems available from Mitsubishi Electric, it becomes simple to design and install air conditioning systems. From a simple hand-held controller to a AG-150A system - you are in control.



# 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's Unique Transmission Network (M-NET)

Model	Local remote controller **10										System controller **10							
	PAR-30MAA	PAR-21MAA	PAR-F27MEA	PAC-YT51CRB	PAC-SE51CRA	PAR-FL32MA	PAC-YT40ANRA	PAC-SC30GRA	PAC-SF44SRA	PAC-YT34STA	AT-50A	AG-150A	AG-150A + PAC-YG50ECA	GB-50ADA	TG-2000A			
Controllable Groups / Indoors (Group / Indoor) *9	1 / 16	1 / 16	1 / 16	1 / 16	1 / 16	1 / 16	16 / 50	8 / 16	50 / 50	50 / 50	50 / 50	50 / 50	150 / 150	50 / 50	2000 / 2000			
■ Operating																		
ON / OFF	○	○	○	○	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎			
Mode (cool / heat / dry / fan)	○	○	○	○	N	○	N	◎	◎	N	◎	◎	◎	◎	◎			
Temperature-set	○	○	○	○	○	○	N	◎	◎	N	◎	◎	◎	◎	◎			
Local Permit / Prohibit	N	N	N	N	N	N	N	N	◎	◎	◎	◎	◎	N	◎			
Fan speed	○	○	○	○	○	○	N	◎	◎	N	◎	◎	◎	N	◎			
Air-flow direction	○	○	○	○	N	○	N	◎	◎	N	◎	◎	◎	N	◎			
■ Status monitoring																		
ON / OFF	○	○	○	○	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎			
Mode (cool / heat / dry / fan)	○	○	○	○	○	○	N	○	○	N	○	○	○	N	○			
Temperature-set	○	○	○	○	○	○	N	○	○	N	○	○	○	N	○			
Local Permit / Prohibit	○	○	○	○	○	○	○	○	○	○	○	○	○	N	○			
Fan speed	○	○	○	○	○	○	N	○	○	N	○	○	○	N	○			
Air-flow direction	○	○	○	N	N	○	N	○	○	N	○	○	○	N	○			
Indoor temperature	○	○	○	N	N	N	N	○	○	N	○	○	○	N	○			
Filter sign	○	○	○	N	N	N	N	○	○	N	○	○	○	N	○			
Error flashing	○	○	○	○	○	○	○	○	○	◎	○	○	○	▲	○			
Error code	○	○	○	○	○	○	N	○	○	○	○	○	○	N	○			
Operation hour	N	N	N	N	N	N	N	N	N	N	N	N	N	N	●			
■ Scheduling																		
One-day	○	○	○	N	N	N	N	N	N	N	○	●	●	●	●			
Times of ON / OFF per day	1	8	1 / 1	N	N	1 / 1	N	N	N	16	16	24	24	24	24			
Weekly	○	○	N	N	N	N	N	N	N	○	○	○	○	○	○			
Times of ON / OFF per week	8 x 7	8 x 7	N	N	N	N	N	N	N	16 x 7	16 x 7	24 x 7	24 x 7	24 x 7	24 x 7			
Annual	N	N	N	N	N	N	N	N	N	N	N	●	●	●	●			
Optimized start-up	N	N	N	N	N	N	N	N	N	N	○	○	○	N	○			
Auto-off timer	○	○	○	N	N	N	N	N	N	N	N	N	N	N	N			
Min. timer setting unit (minute)	5	1	10	N	N	10	N	N	N	5	5	1	1	1	1			
■ Recording																		
Error record	○	N	N	N	N	N	N	○	○	N	○	○	○	○	○			
Daily / monthly report	N	N	N	N	N	N	N	N	N	N	N	N	N	N	◎			
Electricity charge	N	N	N	N	N	N	N	N	N	N	N	N	N	N	●			
■ Other																		
Temp-set limitation by Local R / C	○	○	○	○	N	N	N	N	N	N	N	N	N	N	N			
Temp-set limitation by System controller *4	○ <sup>16</sup>	○ <sup>16</sup>	○	○ <sup>16</sup>	○ <sup>17</sup>	N	N	N	△	N	○ <sup>16</sup>	N	○ <sup>16</sup>	N	○ <sup>16</sup>			
Auto-lock	○	○	○	N	N	N	N	N	N	N	◎	N	N	N	N			
Night setback	○	N	N	N	N	N	N	N	N	N	◎	○	○ <sup>2</sup>	○	○			
Sliding temperature control	N	N	N	N	N	N	N	N	N	N	N	○	○ <sup>2</sup>	○	○			
■ Management (Group / Interlocked)																		
Ventilation interlock	N / ○	N / ○	N / ○	N / ○	N / ○	N	○	N / ○	○	○	○	○	○	○	○			
Group setting	○ <sup>1</sup>	○ <sup>1</sup>	N	○	○ <sup>1</sup>	○	N	○	○	○	○	○	○	○	○			
Block setting	N	N	N	N	N	N	N	N	N	N	N	○ <sup>2</sup>	N	○ <sup>2</sup>	○			
Revision of electricity charge	N	N	N	N	N	N	N	N	N	N	N	N	N	N	□			
■ Operating on LOSSNAY interlocked (Group / Interlocked)																		
ON / OFF	N / ○	N / ○	N / ○	N / ○	N / ○	N / ○	◎	◎	◎	◎	◎	◎	◎	◎	◎			
Fan speed	N / ○	N / ○	N	N	N	N	N	◎	◎	N	◎	◎	◎	◎	◎			
Ventilation mode	N / N	N / N	N	N	N	N	N	◎	N	N	◎	N	◎	N	◎			
■ Status monitoring on LOSSNAY interlocked (Group / Interlocked)																		
ON / OFF	N / ○	N / ○	N	N	N	N	N	N / ○	○	○	○	○	○	○	○			
Fan speed	N / ○	N / ○	N	N	N	N	N	N / ○	○	N	○	○	○	○	○			
Ventilation mode	N	N	N	N	N	N	N	N	○	N	○	N	○	N	○			

◎: Each group / Batched ; ○: Each group ; □: Block (for CITY MULTI Indoor unit, not for all Mr.SLIM) ; ●: AG-150A / GB-50ADA license registration possible.  
 (●): License registration for the optional functions required ; N: Not Available (Not Used.) ; △: Batched only ; ▲: Batched handling (for maintenance) ; ■: Block

\*1. Group setting via wiring between Indoor units with cross-over cable;  
 \*2. Installation possible at Initial setting web browser;  
 \*3. Inter-lock is set at Local remote controller.  
 \*4. AG-150A/GB-50ADA license registration to AG-150A/GB-50ADA is required to monitor and operate the units by browser and TG-2000A.  
 \*5. AG-150A connected with PAC-YG50ECA is compatible with TG-2000A Ver.6.1\* or later. GB-50ADA is compatible with TG-2000A Ver. 6.3\* or later.  
 \*6. This function can be set only on the ME/Simple ME remote controller. This function cannot be used with the MA/Simple MA remote controller.  
 (But, the validity of this function with the MA/Simple MA remote controller depends on the indoor unit model, and there are possibilities that this function can be used with them.)  
 \*7. This function is available only when applying together with TG-2000A, AG-150A and GB-50ADA.  
 \*8. Inter-lock is set from system controller. (Except PAC-YT40ANRA)  
 \*9. The maximum number of controllable units decreases depending on the indoor unit model.  
 \*10. For indoor use only.

# Individual Remote Controller

**NEW**

## Wired MA remote controller PAR-30MAA

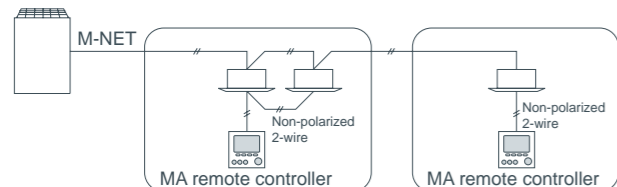


### [Advanced Functions]

- Error information
- Timer
- Operation lock
- Temperature range restriction
- Language selection

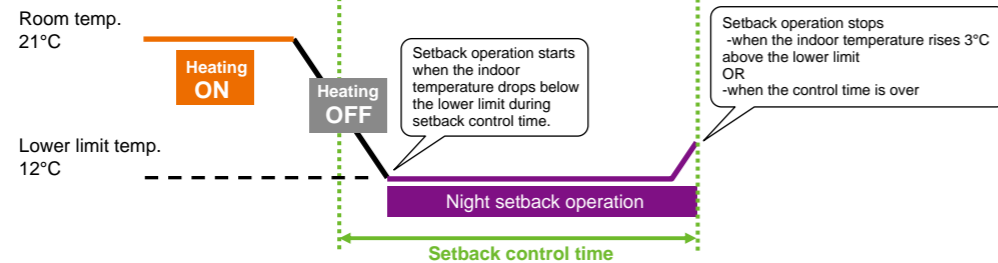
- Backlit LCD (Liquid Crystal Display)  
Large, easy-to-see display  
Full-dot LCD display with large characters for easy viewing  
Contrast also adjustable
- Auto Return  
Function to return the set temperature to the originally preset temperature after certain amount of time  
Auto return can be set respectively for cooling operation and for heating operation.  
Time can be set to a value from 30 and 120 in 10-minute increments.
- Night Setback  
To prevent indoor dew or excessive temperature rise, this control starts heating operation when the control object group is stopped and the room temperature drops below the preset lower limit temperature. Also, this control starts cooling operation when the control object group is stopped and the room temperature rises above the preset upper limit temperature.
- Dimensions: 120(W) x 120(H) x 19(D) mm

### Example of system configuration

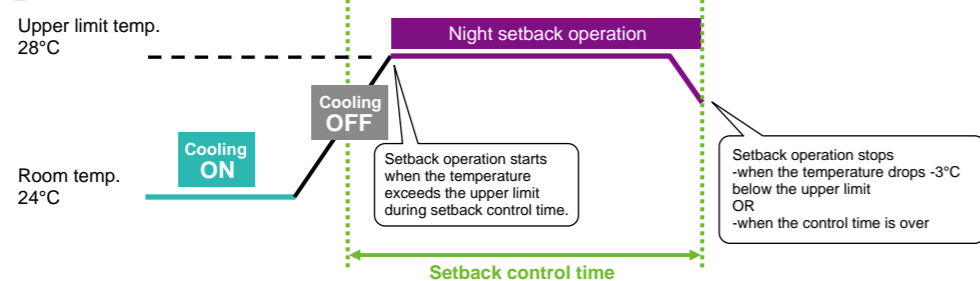


\*It's not possible to connect two 30MAA (Main/Sub) to one indoor unit.

### Heating



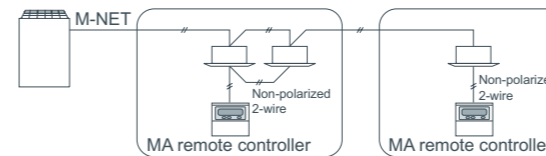
### Cooling



## Wired MA remote controller PAR-21MAA



### Example of system configuration



### New display-Larger, easier-to-see characters

Various information is displayed and conveyed clearly, enabling more accurate operation of the air conditioner.

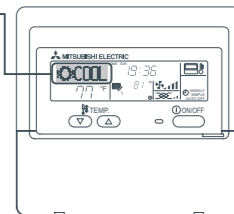
### Dot Liquid Crystal Display (LCD)

The dot liquid crystal display enables quick understanding of the operation state.

- Dot matrix liquid crystal screen
- Set temperature in 1°C/°F increment
- Weekly timer  
Up to 8 ON/OFF/temperature setting per day in 1 minute increment. Setting kept in nonvolatile memory. No need to worry about re-setting at power failure.
- Room temperature control with thermostat sensor inside the unit
- Limit set temperature (upper/lower)
- Restrict setting changes (all changes/all except ON/OFF)
- Self-diagnosis function immediately informs error code in case of malfunction
- Dimensions: 130(W) x 120(H) x 19(D) mm  
: 5-1/8(W) x 4-23/32(H) x 3/4(D) in.

### • Display example [Operation mode]

Dot liquid crystal display



### • Display example [Cool mode]



### Multi-language Display

In addition to English, contents can be displayed in seven other languages.

### Multi-language Display Example [Dot display table]

Language	English	German	Spanish	Russian	Italian	Chinese	French	Japanese	
Waiting for start-up	PLEASE WAIT	←	←	←	←	←	←	←	
Operation mode	Cool	COOL	Kühlen	FRÍO	Холод	COOL	制冷	FRROID	冷房
	Dry	DRY	Trocknen	DESHUMIDIFICACIÓN	Сушка	DRY	除湿	DESHU	ドライ
	Heat	HEAT	Heizen	CALOR	Тепло	HEAT	制热	CHAUD	暖房
	Auto	AUTO	AUTO	AUTOMÁTICO	Авто	AUTO	自动	AUTO	自動
	Auto(Cool)	COOL	Kühlen	FRÍO	Холод	COOL	制冷	FRROID	冷房
	Auto(Heat)	HEAT	Heizen	CALOR	Тепло	HEAT	制热	CHAUD	暖房
	Fan	FAN	Lüfter	VENTILACIÓN	Вент	VENTILAZIONE	送风	VENTI	送風
	Ventilation	VENTILATION	Gelüfte	VENTILACIÓN	Вентиляция	ARIA ESTERNA	换气	VENTI	换气
	Stand by (Hot adjust)	STAND BY	STAND BY	CALENTANDO	Обогрев	STAND BY	准备中	PRECHAUFFAGE	準備中
	Defrost	DEFROST	Auftauen	DESCONGELACIÓN	Оттаивание	SBRINAMENTO	除霜中	DEGIVRAGE	霜取中
Not use button	NOT AVAILABLE	nicht verfügbar	NO DISPONIBLE	НЕ ДОСТУПНО	NON DISPONIBILE	无效按钮	NON DISPONIBILE	無効ボタン	
Check (Error)	CHECK	Prüfen	COMPROBAR	ПРОВЕРКА	CHECK	检查	CONTROLE	点検	
Test run	TEST RUN	Testbetrieb	TEST FUNCIONAMIENTO	ТЕСТОВЫЙ ЗАПУСК	TEST RUN	试运行	TEST	试运行	
Self check	SELF CHECK	selbst-diagnose	AUTO REVISIÓN	Самодиагностика	SELF CHECK	自我诊断	AUTO CONTROLE	自己診断	
Unit function selection	FUNCTION SELECTION	Funktion auswählen	SELECCIÓN DE FUNCIÓN	Выбор функции	SELEZIONE FUNZIONI	功能选择	SELECTION FONCTIONS	メニュー選択	
Setting of ventilation	SETTING OF VENTILATION	Lüfterstufen wählen	CONFIG. VENTILACIÓN	Настройка вентилятора	IMPOSTAZIONE ARIA ESTERNA	换气设定	SELECTION VENTILATION	换气設定	

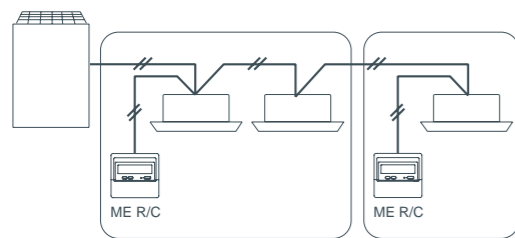
# Individual Remote Controller

## Wired ME remote controller PAR-F27MEA

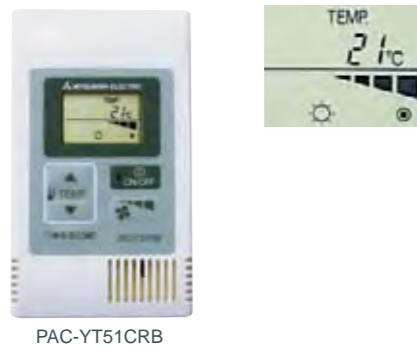


- This remote control requires non-polar wiring to only one indoor unit.
- Group operation over multiple outdoor units is possible. Grouping can be changed without re-wiring, which makes dividing rooms for tenants easier.
- **Timer operation**
  - \*Daily timer operation of one ON/OFF setting everyday
  - \*Auto-off timer : 0:30, 1:00, 1:30, 2:00...4:00
  - \*The setting is kept in nonvolatile memory.
- **Function lock**
  - All functions or all functions except ON / OFF can be selected.
- **Set temperature range limit**
- **Interlock setting and operation of LOSSNAY**
- Dimensions:130(W) x 120(H) x 19(D) mm  
:5-1/8(W) x 4-23/32(H) x 3/4(D) in.
- **LCD temperature setting and display in 1°F increments.**

Example of system configuration

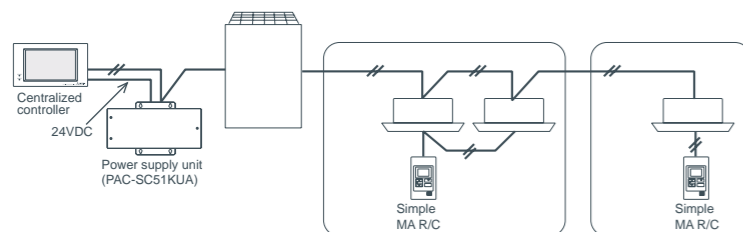


## Simple remote controller PAC-YT51CRB (MA)



- **Control: START/STOP, room temperature, fan speed, and operation mode**
- The only wiring required is cross-over wiring based on two-wire signal lines.
- Room temperature sensors are built-in.
- LCD temperature setting and display in 1°C /1°F increments.
- **Set temperature range limit**
- **Can operate all types of indoor units**
  - \*Since this controller has limited functions, it should always be used in conjunction with standard controller or centralized controller.
- Dimensions:70(W) x 120(H) x 41(D) mm  
:2-3/4(W) x 4-23/32(H) x 1-5/8(D) in.

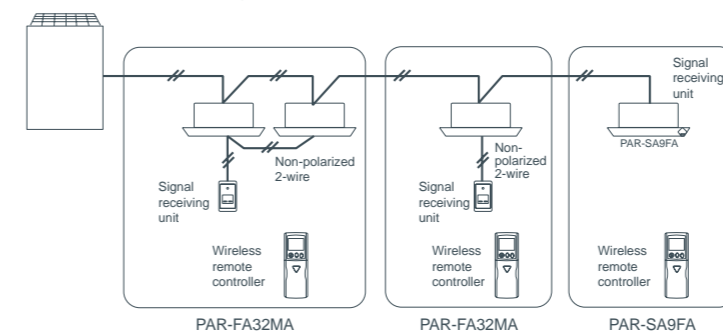
Example of system configuration



## Wireless remote controller PAR-FL32MA / PAR-FA32MA



Example of system configuration



- **No need to configure addresses for group operation.**
- **Lit LED keeps you informed of operation - blinking even gives you the error code 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.
- **LCD temperature setting and display in 1°C /1°F increments.**
- Dimensions:58(W) x 159(H) x 19(D) mm  
:2-5/16(W) x 6-5/16(H) x 3/4(D) in.

Correspondence table

	receiver	transmitter	
PMFY-P VBM	PAR-FA32MA	PAR-FL32MA	
PLFY-P VCM/ VLMD			
PCFY-P VKM			
PFFY-P VKM			
PEFY-P VMR-E-L/R/ VMH			
PFFY-P VLEM/VKM/VLRM/VLRMM			
PEFY-P VMS1(L)			
PEFY-VMA(L)			
PLFY-P VBM-E			PAR-SA9FA-E
PKFY-P VBM-E			Built-in
PKFY-P VHM/VKM			

# Advanced Touch Controller

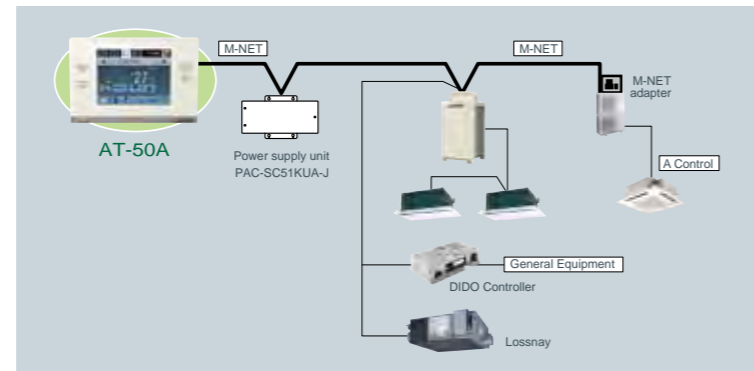
With our new Advanced Touch Controller AT-50A, easy and simple operation on the touch panel offers an optimal air environment for individual unit.

## Touch controller AT-50A NEW



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

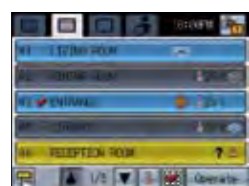
5-inch color LCD touch panel enables easy and simple operation. The backlight lights up when the panel is touched, and lights off after certain period of time. The touch panel displays the operation status of the units in GRID, LIST or in GROUP.



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



**GRID (zoom-in) screen**  
Displays the detailed operation status of each group.



**LIST screen**  
Displays the detailed operation status of each group with group name.



**GROUP screen**  
Displays the detailed operation status of each group. Sets group operations.

### New Functions

#### Three in One

- The following three features are integrated into AT-50A.
- Control up to 50 indoor units from one location
  - A weekly programmable timer, being able to control up to 50 indoor units
  - Control up to 50 units/50 groups of air conditioners

#### Weekly and daily schedule

5 patterns of one day and 12 patterns of weekly schedule (16 settings max. per pattern). Two types of weekly schedule can be set.

#### System changeover

Operation mode can be switched depending on indoor temperature setting and target temperature of each group or a representative indoor unit.

#### Night setback function

This function allows having a two-temperature setting to keep the desired room temperature when the units are not in operation and during the time this function is effective. The unit automatically starts heating (cooling) operation when the temperature drops below (rises above) the preset lower (upper) limit temperature. This is not only for comfort environment, but also for saving energy.

#### Main system controller/Sub system controller

AT-50A can be set to Sub System controller. When connecting multiple system controllers, designate the system controller with many functions as the "Main", and set the system controllers with few functions as the "Sub".

#### Simple button arrangement

The F1 (Function 1) and the F2 (Function 2) button can be set as a run button of the following collective operation. (Setback/Schedule/Operation Mode/Temperature Correction/Remote Controller Prohibition)

### Functions

#### [Basic Functions]

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

### Advanced Functions

Item	Description	Operations	Display
Permit / Prohibit	The ON/OFF, operation mode, setting temperature and filter sign reset operations using the local remote controllers can be prohibited. Only ON/OFF and filter reset can be prohibited for the LOSSNAY group.	○	○
Operation lock	The operation lock can be set to the input operation of AT-50A. 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 currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed. * When an error occurs, the "ON/OFF" LED flashes. The operation monitor screen show 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 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 at cooling, heating, and auto mode. 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-YT41HAA (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-YT41HAA (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 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 up to 12 pattern is available. In one pattern, up to 16 setting of "ON/OFF", "Operation mode", "Set Temperature", "Fan speed", "Air flow direction" and "Permit / Prohibit local operation" can be scheduled. Two types of weekly schedule(Summer/Winter) can be set. Today's schedule setting up to 5 pattern in available.	○	○

\* 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.