

MITSUBISHI ELECTRIC

CITY MULTI Control System ME Remote Controller

Instruction Book



PAR-F27MEA

Thank you for purchasing a Mitsubishi CITY MULTI system.

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

1 Safety Precautions

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

WARNING	This symbol denotes what could lead to serious injury or death if you misuse the PAR-F27MEA.
CAUTION	This symbol denotes what could lead to a personal injury or damage to your property if you misuse the PAR-F27MEA.

WARNING

Ask your dealer or technical representative to install the unit.

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

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

If it is not enough, the controller may drop and cause an injury.

Make sure that the controller is connected to a rated power supply.

If the controller is not connected to a rated power supply, it may cause a fire or damage to the controller.

Stop the operation if any malfunction occurs.

If malfunction occurs (burning smell, etc.) stop the operation and turn off the power supply. Contact the your dealer or technical representative immediate. If the controller continues to operate after a malfunction occurs, this may cause damage, electric shock or fire.

Do not move and re-install the PAR-F27MEA yourself.

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

To dispose of this product, consult your dealer.**Never modify or repair the PAR-F27MEA by yourself.**

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

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

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

CAUTION

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

Flammable gases accumulated around the body of PAR-F27MEA may cause an explosion.

Do not wash with water.

Doing so may cause an electric shock or a malfunction.

Do not touch any control button with your wet hands.

Doing so may cause an electric shock or a malfunction.

Do not use the controller for special applications.

This product is designed for use with the CITY MULTI CONTROL SYSTEM. Do not use the system for other air condition management operation or applications. It may cause malfunctions.

Do not apply insecticide or flammable sprays to the controller.

Do not place flammable spray near the controller and make sure it does not blow directly on the controller as this may cause in fire.

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

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

Do not use in any special environment.

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

Do not press any control button using a sharp object.

Doing so may cause an electric shock or a malfunction.

Operate the controller within the specified temperature range.

Observe the specified temperature range when operating the controller. If the controller is used outside the specified temperature range, it may cause serious damage. Be sure to check the operation temperature range in the operation manual.

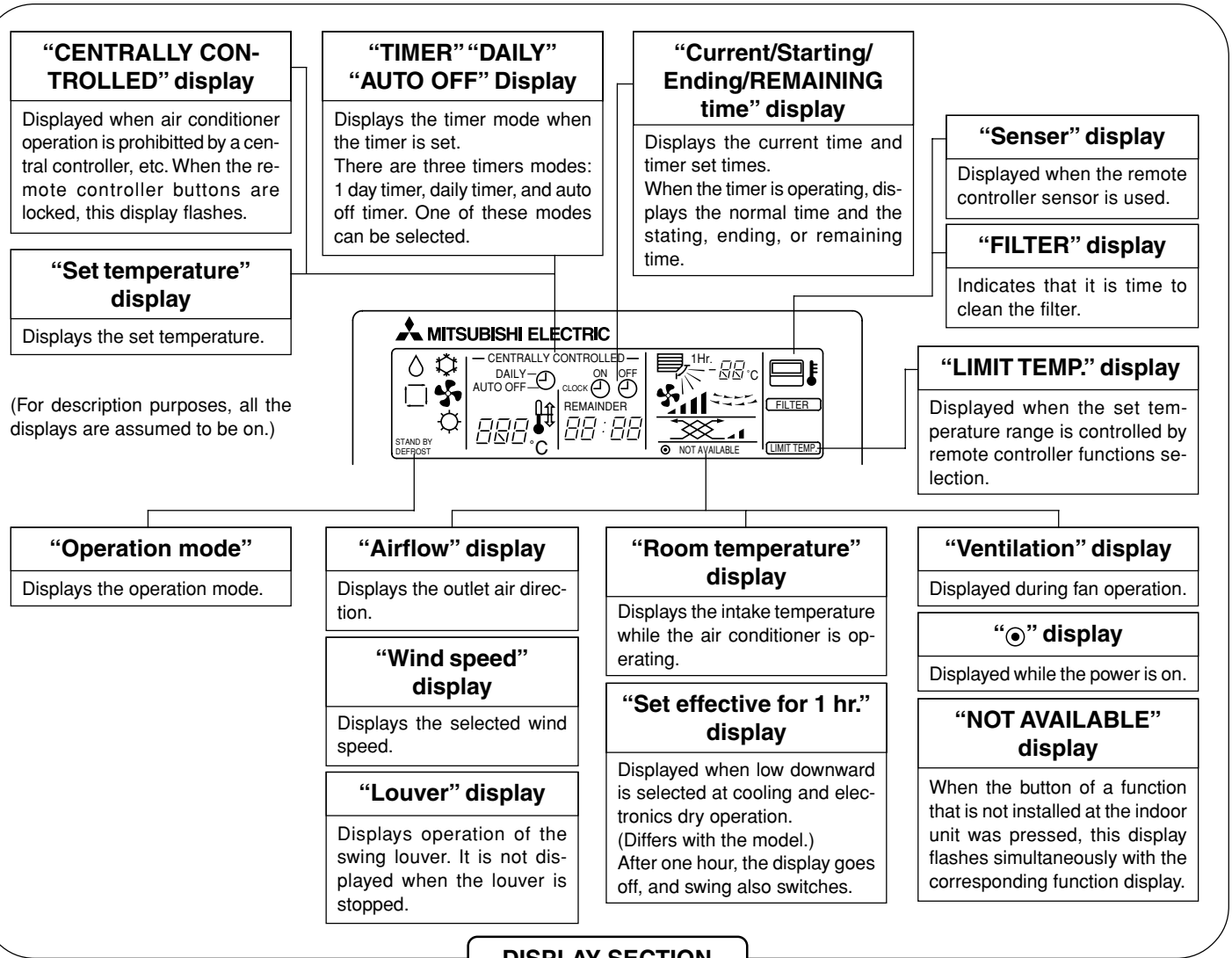
Do not pull or twist the transmission line.

It may cause a fire or malfunction.

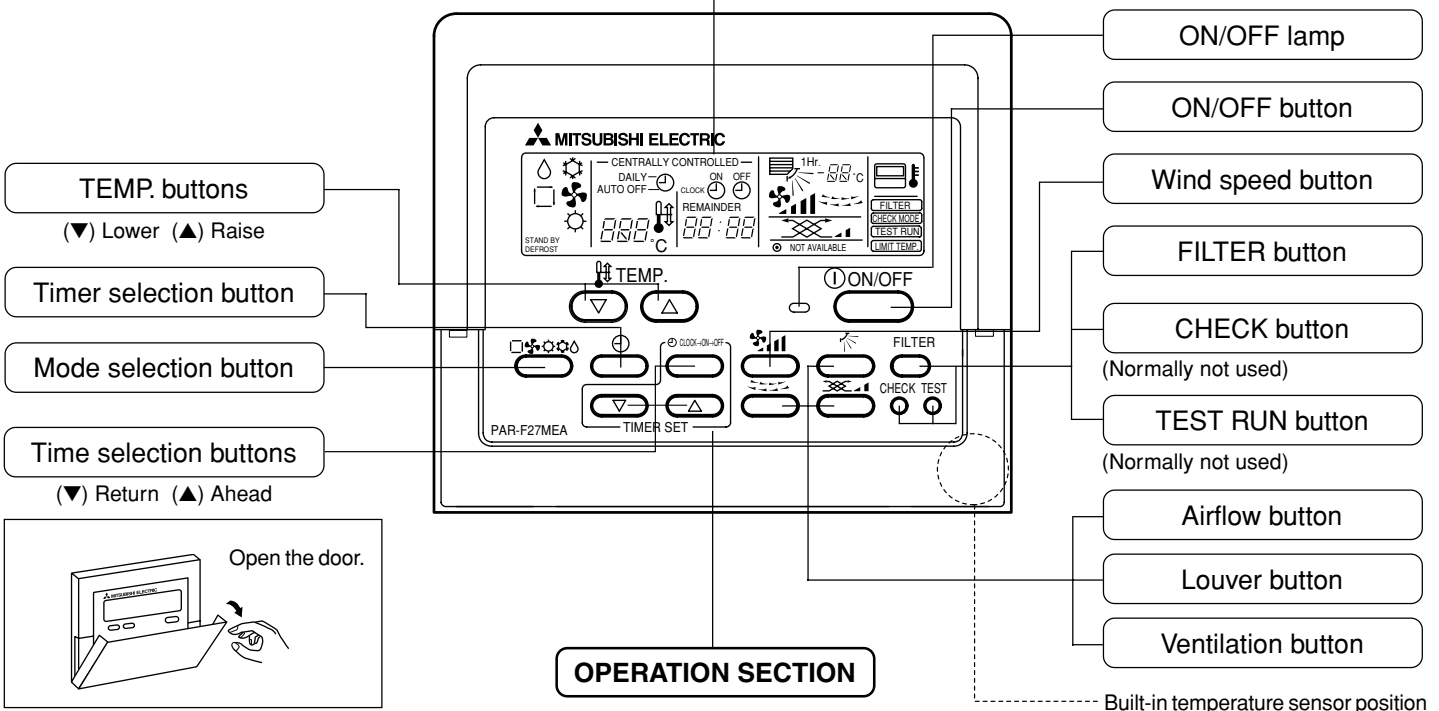
Do not dismantle the unit.

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

2 Part Names



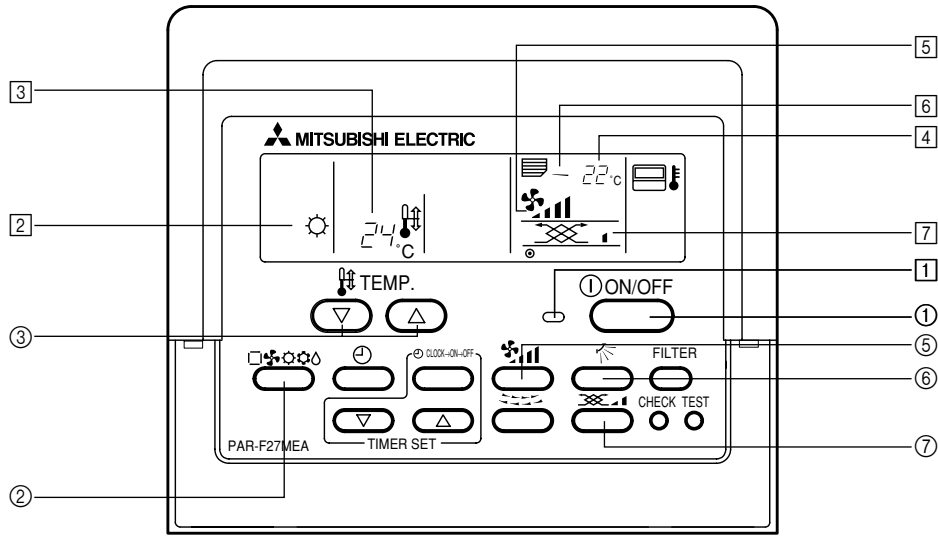
DISPLAY SECTION



NOTE

When an operation button is pressed, if the indoor unit does not have that function, “NOT AVAILABLE” flashes.
When one remote controller controls multiple indoor units, if the master indoor unit has the selected function, this message is not displayed.

3 How to Operate



(1) On/off and operation mode selection and room temperature adjustment

When starting operation

- Press the [ON/OFF] button ①.
 - The ON lamp ① and display light.

NOTE The restarting operation contents are shown below.

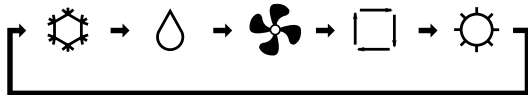
		Remote controller settings	
Operation mode		Last operation mode	
Temperature setting		Last set temperature	
Wind speed		Last set wind speed	
Airflow	Operation mode		Horizontal outlet
			Last setting
			Horizontal outlet

When stopping operation

- Press the [ON/OFF] button ①.
 - The ON lamp ① and display go off.

When selecting the operation mode

- Press the [Mode selection] button ② while the air conditioner is operating.
 - The setting is switched each time the button is pressed. The operation mode is displayed at ③.



NOTE

The auto and heating functions may not be installed, depending on the outdoor unit model.

When you want to change the set temperature

<When you want to lower the room temperature>

- Press the [TEMP. (▽)] button ③.

<When you want to raise the room temperature>

- Press the [TEMP. (△)] button ③.
 - The set temperature changes 1 °C each time the button is pressed. The set temperature is displayed at ④.
 - The following specified temperatures can be set:

Cool/dry operation	Heat operation	Auto operation	Fan
19(14) to 30 °C	17 to 28 °C	19 to 28 °C	Cannot be set.

NOTE

When "LIMIT TEMP." is displayed on the screen, the specified temperature range is limited. Therefore, the temperature range that can be changed becomes narrow.

Room temperature display

During operation, the intake temperature is displayed at ④.

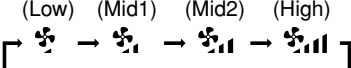
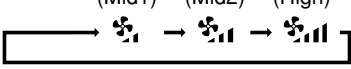
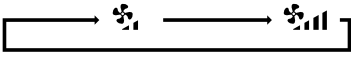
NOTES

- The display range is 8 to 39 °C. When this range is exceeded, the room temperature display flashes at 8 °C or 39 °C.
- When multiple indoor units are controlled, the contents of the master indoor unit are displayed on the remote controller.
- The room temperature sensor position can be selected from "INDOOR UNIT" and "REMOTE CONTROLLER". The initial setting is "INDOOR UNIT". When you want to change the room temperature sensor position to "REMOTE CONTROLLER", consult your dealer.
- When "no room temperature display" was selected by remote controller function selection, the room temperature is not displayed.

(2) Wind speed and wind direction adjustment and fan operation

When you want to change the wind speed

- While the air conditioner is operating, press the [Wind speed] button ⑤.
 - Each time the button is pressed, the setting changes as shown below. The wind speed is displayed at ⑤.
 - The following wind speeds can be selected:

Wind speed	Remote controller display
4-speed model	(Low) (Mid1) (Mid2) (High) 
3-speed model	(Mid1) (Mid2) (High) 
2-speed model	(Mid1) (High) 

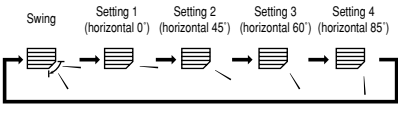
* The wind speeds that can be selected depend on the model.

NOTES

- In cases such as the following, the liquid crystal display and unit wind speed are different:
 - When "HEAT STAND BY" or "DEFROSTING" is displayed.
 - Immediately after heating operation (while waiting for mode selection)
 - When the room temperature is higher than the set temperature in the heating mode.
 - Dry operation
- For 3-speed models, a central controller wind speed display and the remote controller wind speed display may be different.

When you want to change the wind direction

- While the air conditioner is operating, press the [Airflow] button ⑥.
 - Each time the button is pressed, the setting changes as shown below. The wind direction is displayed at ⑥.
 - The following wind directions can be selected:

Display						
Operation mode	Wind Speed	Swing	Horizontal outlet	Downward 45°	Downward 60°	Downward 85°
Heat/fan	High/Mid1 Mid2/Low					
Cool	High	Swing	Horizontal outlet	Downward 45°	Downward 60°	Downward 85°
	Mid1/Mid2/Low					
Dry	Not settable		* Horizontal after 1 hour			
Airflow setting when operation mode was changed	-	Cool Dry Fan operation	-	-	Heating operation	

- * After one hour, automatically returns to the horizontal position.
- * During swing operation, remote controller display and airflow vane position cannot be synchronized.
- * There may not be an airflow function, depending on the model.

NOTE

- In cases such as the following, the liquid crystal display and unit airflow may be different.
 - When "HEAT STANDBY" or "DEFROSTING" is displayed
 - Immediately after heating operation (Waiting for mode selection)
 - When the room temperature is higher than the set temperature in the HEAT mode

Fan operation

<When operating fan interlocked with indoor unit>

When the indoor unit is operated, the fan is automatically operated also. Fan operation is displayed at ⑦.

<When operating fan only while indoor unit stopped>

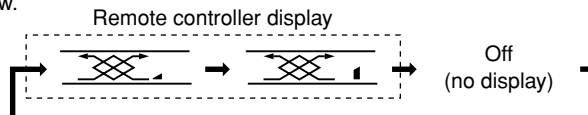
- While the air conditioner is stopped, press the [Ventilation] button ⑦. The ON/OFF lamp ① lights and fan operation is displayed at ⑦.

NOTES

- Depending on the indoor unit and fan model, the indoor unit may operate even when only the fan was operated.
- When "NOT AVAILABLE" is displayed when the [Ventilation] button ⑦ was pressed, the fan is not interlocked.

<When you want to change the fan wind speed>

- Press the [Ventilation] button ⑦. Each time the button is pressed, the wind speed is changed as shown below.



(3) How to operate the timer

There are the following three timer modes. Select one of them.

1) 1 day timer mode

In this mode, the ON and OFF timers (10-minute units) can each be set to one time within 24 hours.

This mode has the following three setting methods:

- ON timer operation : Timer only starts the air conditioner.
- OFF timer operation : Timer only stops the air conditioner.
- ON/OFF timer operation: Timer both starts and stops the air conditioner.

2) Daily timer mode

Operation of this mode is the same as that of the 1 day timer mode. However, timer operation can be set to the same time each day in accordance with the set ON/OFF timer time. (ON/OFF timer each 1 time/daily)

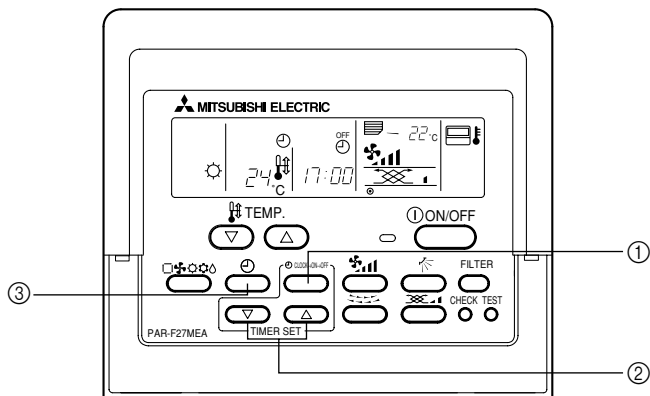
3) Auto off timer mode

The OFF timer can be easily set in 30-minute units. (30 minutes to 4 hours range) When the remaining time reaches 0:00, the air conditioner stops. When the Auto off timer mode is selected, the next time the air conditioner is started, the OFF timer operates automatically so that the timer can be used to turn off the air conditioner if you should forget.

NOTE

When ON/OFF operation from the central controller, etc. was restricted when timer operation was set, the set ON/OFF timer is not executed. After the restriction is removed, timer operation is performed at the ON/OFF time.

When ON/OFF operation was restricted during AUTO OFF timer operation, the remaining time at the point operation was restricted is memorized and the air conditioner is stopped after the memorized remaining time from the time the restriction was removed.



[Timer setting display example]

- 1 day timer mode
 ← 1 day timer mode
8 A.M. operation start
- Daily timer mode
 ← Daily timer mode
5 P.M. daily operation stop
- Auto off timer mode
 ← Auto off timer mode
Operation stop when 2 hours remain

When setting the current time

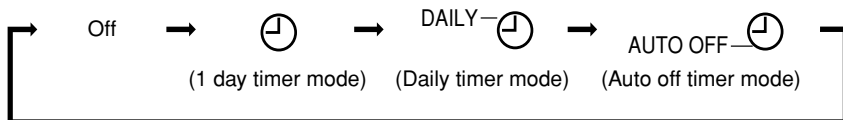
- Press the [Time selection] button ① and display “CLOCK”.
 - Each time the button is pressed, the time is switched as shown below.



- Each time the [Time selection (Δ)] button ② is pressed, the time advances one minute and each time the [Time selection (∇)] button ② is pressed, the time returns one minute.
 - When the button is held down, the time advances or returns continuously. The time changes in 1 minute units → 10 minutes units → 1 hour units order.
 - About 10 seconds after the end of setting, the remote controller display goes off.
- * When a power failure occurs, the current time is reset. Reset the clock.

When performing ON timer operation (1 day timer mode/daily timer mode)

- Press the [Time selection] button ① and check “Current time (CLOCK)” and display “Starting time (ON ⌚)”.
 - Set the ON time by pressing the [Time selection (Δ) or (∇)] button ②.
 - Set the OFF time to “-- : --” display.
 - “-- : --” display is displayed between 23 : 50 and 0 : 00.
- Press the [Timer selection] button ③ and set the display to “⌚” (1 day timer mode) or “⌚” + “DAILY” (daily timer mode).
 - Each time the button is pressed, the timer mode is switched as shown below.



* The Auto off timer mode is skipped at the OFF window.

When performing OFF timer operation (1 day timer mode/daily timer mode)

- Press the [Time selection] button ① and check “Current time (CLOCK)” and set the display to “Ending time (OFF ⌚)”.
 - Set the OFF time by pressing the [Time selection (Δ) or (∇)] button ②.
 - Set the ON time to “-- : --” display.
- Press the [Timer selection] button ③ and set the display to “⌚” (1 day timer mode) or “⌚” + “DAILY” (daily timer mode).

When performing ON/OFF timer operation (1 day timer mode/daily timer mode)

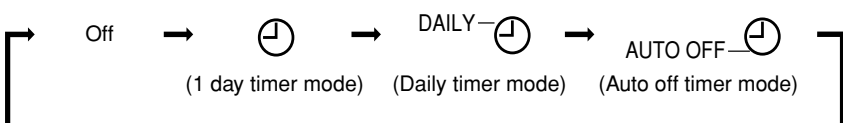
- See the setting when performing ON timer and OFF timer operation and check “Current time (CLOCK)” and set both the ON time and OFF time.
- Press the [Timer selection] button ③ and set the display to “⌚” (1 day timer mode) or “⌚” + “DAILY” (daily timer mode).

When performing AUTO OFF timer operation (AUTO OFF timer mode)

- The Auto off timer can only be set while the air conditioner is operating.
- Press the [Timer selection] button ③ and set the display to “⌚” + “AUTO OFF” (Auto off timer mode).
- Set the desired remaining time by pressing the [Time selection (Δ) or (∇)] button ②. (30 minutes units, 30 minutes to 4 hours)
After remaining time setting, the timer automatically starts.

When releasing timer operation

- Press the [Timer selection] button ③ and turn off the “TIMER” display.



* The Auto off timer mode is skipped at the OFF window.

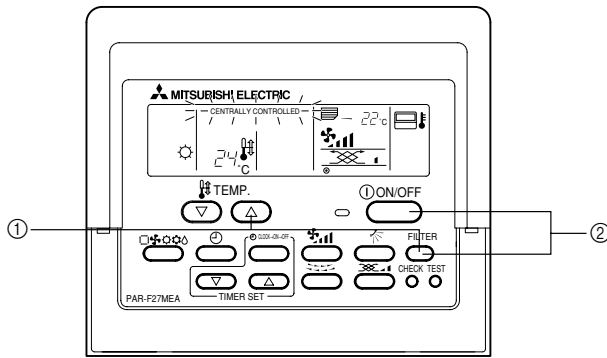
(4) Auto lock

Remote controller buttons operation can be locked. There are two kinds of auto lock.

- 1) All buttons lock: Locks all the remote controller buttons.
- 2) Lock other than [ON/OFF] button: Locks all the remote controller buttons except the [ON/OFF] button.

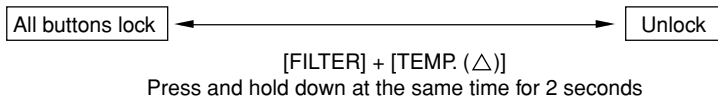
NOTE

When auto lock is set, “- CENTRALLY CONTROLLED -” flashes.



When locking/unlocking all buttons

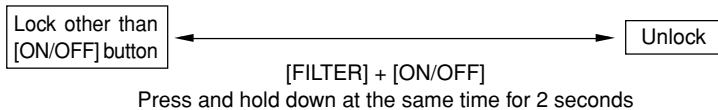
- When the [TEMP. (Δ)] button ① is pressed two seconds successively while pressing the [FILTER] button, all the remote controller buttons are locked or unlocked.



- While locked, all the remote controller buttons cannot be operated. When all the buttons are locked in the timer mode, timer operation is performed even though the buttons are locked.

When locking/unlocking all the buttons other than the [ON/OFF] button

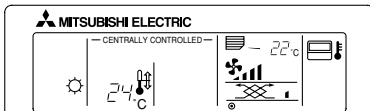
- When the [ON/OFF] button ② is pressed and held down for two seconds while pressing the [FILTER] button, all buttons other than [ON/OFF] button are locked or unlocked.



- While locked, buttons other than the [ON/OFF] button cannot be operated. When locked in the timer mode, the timer operation is performed even though the buttons are locked.

(5) Other displays and flashing

– “CENTRALLY CONTROLLED” display –

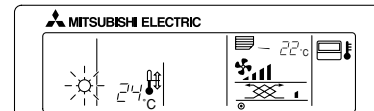


- Displayed when operation is controlled by central controller, etc. Restricted operations are shown below.
 - ON/OFF (including timer operation)
 - Operation mode
 - Set temperature

NOTE

May also be individually restricted.

– “Operation mode” flashing –



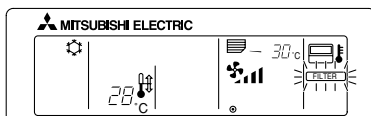
<When flashes continuously>

- Displayed when another indoor unit connected to the outdoor unit is already operating in a different operation mode. Match with the operation mode of the other indoor unit.

<When mode switched after display flashes>

- Displayed when operation mode is restricted for each season by central controller, etc. Use another operation mode.

– “FILTER” flashing –

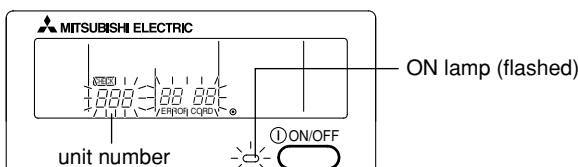


- Indicates that the filter needs cleaning. Clean the filter.
- When resetting “FILTER” display
When the [FILTER] button is pressed two times successively after cleaning the filter, the display goes off and is reset.

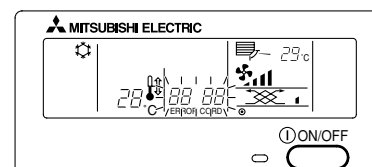
NOTES

- When two or more different types of indoor unit are controlled, the cleaning period differs with the type of filter. When the master unit cleaning period arrives, “FILTER” is displayed. When the filter display goes off, the cumulative time is reset.
- “FILTER” indicates the cleaning period when the air conditioner was used under general indoor air conditions by criteria time. Since the degree of dirtiness depends on the environmental conditions, clean the filter accordingly.
- The filter cleaning period cumulative time differs with the model.

– “ERROR CODE” flashing –



- When both the “ON” lamp and “ERROR CODE” flash, trouble occurred in the air conditioner and the air conditioner stops. Jot down the unit number and error code and turn off the air conditioner power and consult your dealer.



- When only “ERROR CODE” flashes (ON lamp remains a steady light)
The air conditioner continues to operate, but there is the possibility of trouble occurring. Jot down the error code and consult your dealer.

(6) How to select the remote controller functions

In the remote controller function selection mode, three functions can be selected and changed. Select and change them as required.

1) Operation mode display selection mode (Automatic mode cool/heat display selection)

When the AUTO operation mode was set by remote controller, the indoor unit is judged from the room temperature and the cooling or heating operation is performed automatically. In this case, "AUTO" "COOL" or "AUTO" "HEAT" is displayed at the remote controller. However, "AUTO" can be displayed alone without the "COOL" or "HEAT" display.

2) Room temperature display selection mode (Room temperature display/no display selection)

Normally, the intake temperature is displayed at the remote controller, but setting can be performed so that it is not displayed.

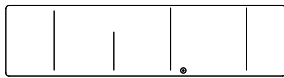
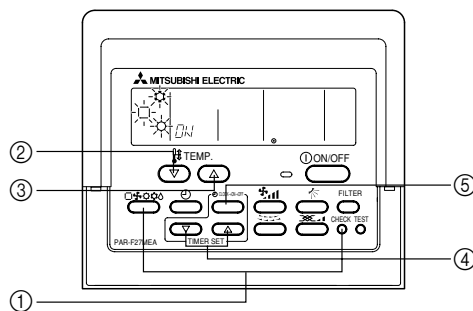
3) Set temperature range limit mode

Normally, the set temperature adjustment range of the standard air conditioner can be freely set to a temperature within the respective temperature adjustment range, 19°C to 30°C for cooling and dry, 17°C to 28°C for heating and 19°C to 28°C for AUTO mode. However, further limitation can be applied to the lower limit temperature and the upper limit temperature of these temperature adjustment ranges.

For example, if a higher than normal lower limit temperature is set for cooling and dry (19°C → 25°C) and a lower upper limit temperature is set for heating (28°C → 20°C), substantial energy savings can be realized by preventing excessive cooling or heating.

NOTE

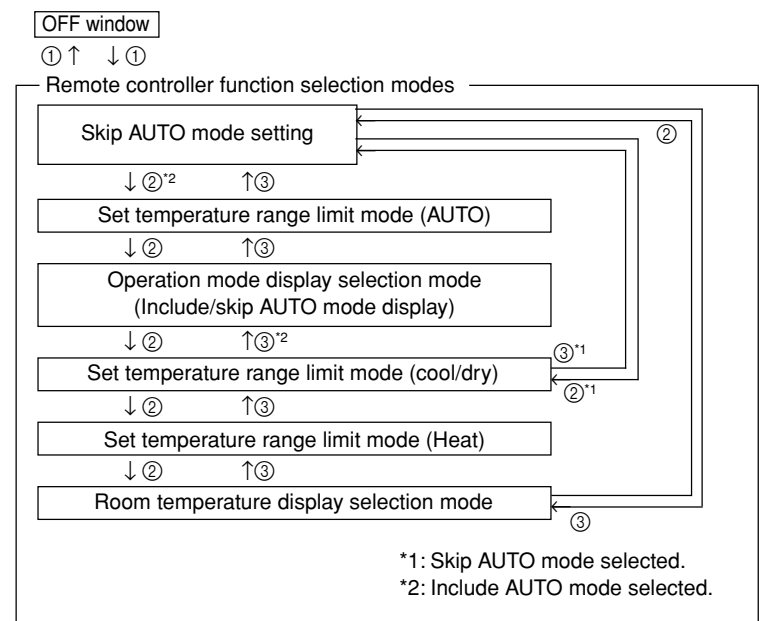
- If using an air conditioner with AUTO mode that simultaneously runs cooling and heating operations, before you can use the set temperature adjustment range limit mode and enjoy the benefits of saving energy, you must first choose to skip automatic mode using the skip automatic mode setting. This energy saving function may not work if AUTO mode was used.
- If the controller is connected to an air conditioner without AUTO mode, skip AUTO mode setting mode, set temperature range limit mode (AUTO), operation mode display selection mode will be unavailable.
- "LIMIT TEMP" only lights when the set temperature range limit mode have been modified.



[Remote controller OFF window display]

- ①: Press and hold down the [CHECK] and [Mode selection] buttons at the same time for 2 seconds
- ②: [TEMP. (▽)] button
- ③: [TEMP. (△)] button

[Remote controller function selection mode transition]



[PROCEDURE]

1. Set the air conditioner to the off state with the remote controller [ON/OFF] button. The remote controller display shifts to the OFF window display shown above.
2. When the [CHECK] and [Mode selection] buttons ① are pressed and held down at the same time for two seconds, the remote controller switches to the remote controller function selection mode and the "Skip AUTO mode setting" window appears. The other three modes can be selected by operating the [TEMP.] (▽) button ② or (△) button ③. Display the mode whose function you want to change.

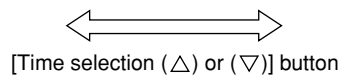
Skip AUTO mode setting (when you want to skip AUTO mode)

This setting is only valid when connected to an air conditioner with AUTO mode that supports simultaneous cooling and heating operations.

"□" flashes and "ON" or "OFF" lights. Each time the [Time selection (△) or (▽)] buttons ④ are pressed in this state, the "ON" and "OFF" display is switched.



Include AUTO mode selected.



[Time selection (△) or (▽)] button

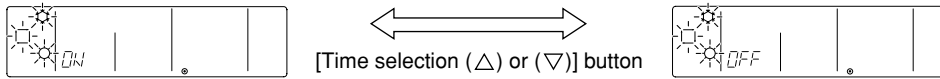


Skip AUTO mode selected.

- When "ON" is selected, AUTO mode can be selected using the mode selection button.
- When "OFF" is selected, AUTO mode cannot be selected using the mode selection button and automatic operation is not possible. (When pressing the mode selection button, AUTO mode is skipped.)

OPERATION MODE DISPLAY SELECTION MODE (When you want to change the AUTO mode display)

- This setting is unavailable when the controller is connected to an air conditioner without AUTO mode.
- "AUTO" "COOL/HEAT" flashes and "ON" or "OFF" lights. Each time the [Time selection (Δ) or (▽)] button ④ is pressed in this state, the "ON" and "OFF" display is switched.



- When "ON" was selected, "AUTO" "COOL" or "AUTO" "HEAT" is displayed during AUTO mode operation.
- When "OFF" was selected, only "AUTO" is displayed during AUTO mode operation.

Set Temperature range limit mode (when you want to change the set temperature adjustment range)

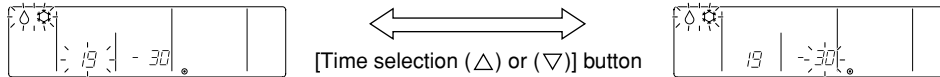
1) COOL/DRY mode temperature selection

"COOL/DRY" lights on the display. The set temperature adjustment range for COOL (DRY) mode is displayed.

Lower limit temperature: set temperature display

Upper limit temperature: timer display

Select the lower limit temperature setting or upper limit temperature setting by pressing the [Time selection] button ⑤. When a temperature setting is selected, the temperature value flashes.



The above display is shown when setting the lower limit temperature (Set temperature adjustment range for cool/dry is 19°C to 30°C)

Each time a [Time selection (Δ) or (▽)] button ④ is pressed, the temperature value is increased or decreased. Set it to the desired set temperature adjustment range.

[Lower limit temperature adjustment range]: 19°C (*1) → 30°C (Can be adjusted as high as the displayed upper limit temperature.)

[Upper limit temperature adjustment range]: 30°C → 19°C (*1) (Can be adjusted as low as the displayed lower limit temperature.)

*1: Mid temperature indoor units have a lower limit temperature of 14°C.

2) HEAT mode temperature selection

"HEAT" lights on the display. The set temperature adjustment range for HEAT mode is displayed.

The method used to set the HEAT mode temperature range settings is the same as the method used to set the COOL/DRY mode temperature range settings (using the three time selection buttons [Time selection], [Δ] and [▽])

[Lower limit temperature adjustment range]: 17°C → 28°C (Can be adjusted as high as the displayed upper limit temperature.)

[Upper limit temperature adjustment range]: 28°C → 17°C (Can be adjusted as low as the displayed lower limit temperature.)

3) AUTO mode temperature selection

This setting is unavailable when the controller is connected to an air conditioner without AUTO mode operation.

"AUTO" lights on the display. The set temperature adjustment range for AUTO mode is displayed.

The method used to set the AUTO mode temperature range settings is the same as the method used to set the COOL/DRY mode temperature range settings (using the three time selection buttons [Time selection], [Δ] and [▽])

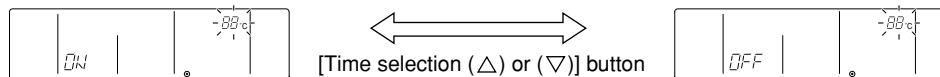
[Lower limit temperature adjustment range]: 19°C (*2) → 28°C (Can be adjusted as high as the displayed upper limit temperature.)

[Upper limit temperature adjustment range]: 28°C → 19°C (*2) (Can be adjusted as low as the displayed lower limit temperature.)

*2: Mid temperature indoor units have a lower limit temperature of 17°C.

ROOM TEMPERATURE DISPLAY SELECTION MODE (When you want to change room temperature display/no display)

- "88 °C" flashes at the room temperature display and "ON" or "OFF" lights. Each time the [Time selection (Δ) or (▽)] button ④ is pressed in this state, the "ON" and "OFF" display is switched.



- When "ON" was selected, the room temperature is continuously displayed in the ON window.
- When "OFF" was selected, the room temperature is not displayed in the ON window.

- At the end of selection of each function, release the remote controller function selection mode and display the OFF window by pressing the [CHECK] and [Mode selection] buttons ① at the same time for two seconds.

4 Specifications

Item	Contents
Size	120 (H) × 130 (W) × 19 (D) mm
Weight	0.2 kg
Power requirement	DC30 V Power supplied from M-NET transmission line (Normally, power is received from the outdoor unit over the indoor/outdoor unit M-NET transmission line.)
Power consumption	0.5 W
Environmental conditions	Temperature 0 to 40 °C, humidity 30 to 90 % RH (No condensation)
Material	PS

