

## MAINTENANCE



### Quick Clean Body

#### Exclusive Quick Clean Kit (Optional)

Our exclusive "Quick Clean Kit" can be easily connected to a household vacuum cleaner for quick and easy cleaning of the heat exchanger.\*

\*Wearing gloves is highly recommended when cleaning the heat exchanger, because touching it with bare hands can cause injury.



### Self-Diagnostic Function (Check Code Display)

Check codes are displayed on the remote controller or the operation indicator to inform the user of malfunctions detected.



### Failure Recall Function

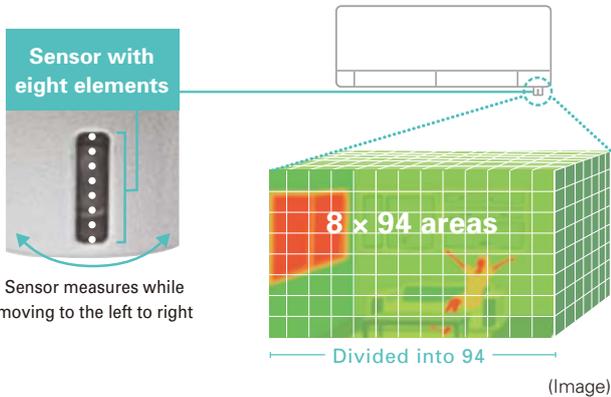
Operation failures are recorded, allowing confirmation when needed.

# FUNCTIONS (1)

## ENERGY-SAVING

### 3D i-see Sensor

The FH Series is equipped with 3D i-see Sensor, an infrared-ray sensor that measures the temperature at distant positions. While moving to the left and right, eight vertically arranged sensor elements analyze the room temperature in three dimensions. This detailed analysis makes it possible to judge where people are in the room, thus allowing creation of features such as "Indirect airflow," to avoid airflow hitting people directly, and "direct airflow" to deliver airflow to where people are.



### Indirect Airflow

The indirect airflow setting can be used when the flow of air feels too strong or direct. For example, it can be used during cooling to avert airflow and prevent body temperature from becoming excessively cooled.



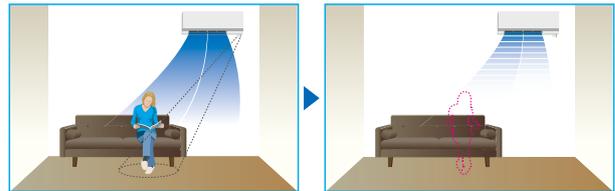
### Direct Airflow

This setting can be used to directly target airflow at people such as for immediate comfort when coming indoors on a hot (cold) day.



### Absence Detection

The sensors detect whether there are people in the room. When no-one is in the room, the unit automatically switches to energy-saving mode.

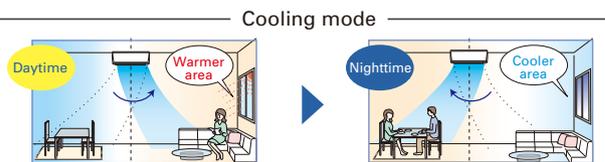


The "3D i-see Sensor" detects people's absence and the power consumption is automatically reduced approximately 10% after 10 minutes and 20% after 60 minutes.



### Area Temperature Monitor

The "i-see Sensor" monitors the whole room in sections and directs the airflow to areas of the room where the temperature does not match the temperature setting. (When cooling the room, if the middle of the room is detected to be hotter, more airflow is directed towards it.) This eliminates unnecessary heating /cooling and contributes to lower electricity costs.



### Econo Cool Energy-Saving Feature

"Econo Cool" is an intelligent temperature control feature that adjusts the amount of air directed towards the body based on the air-outlet temperature. The setting temperature can be raised by as much as 2°C without any loss in comfort, thereby realising a 20% gain in energy efficiency. (Function only available during manual cooling operation.)

	Conventional	Econo Cool
Ambient temperature	35°C	35°C
Set temperature	25°C	27°C
Perceived temperature	30°C	29.3°C

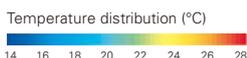
### Econo Cool Mode

A comfortable room environment is maintained even when setting the temperature 2°C higher than the conventional cooling mode.

Econo Cool on



Conventional cooling mode



### Demand Function (Onsite Adjustment)

The demand function can be activated when the unit is equipped with a commercially available timer or an On/Off switch is added to the CNDM connector (option) on the control board of the outdoor unit. Energy consumption can be reduced up to 100% of the normal consumption according to the signal input from outside.

[Example: Power Inverter Series]

Limit energy consumption by changing the settings of SW7-1, SW2 and SW3 on the control board of the outdoor unit. The following settings are possible.

SW7-1	SW2	SW3	Energy consumption
ON	OFF	OFF	100%
	ON	OFF	75%
	ON	ON	50%
	OFF	ON	0% (Stop)

\*PUHZ outdoor only

## ATTRACTIVE



### Pure White

Pure white is adopted for the unit colour; white expressing the essence of cleanliness and easily matching virtually all interior décor.



### Auto Vane

The vane closes automatically when the air conditioner is not running, concealing the air outlet and creating a flat surface that is aesthetically appealing.

## AIR QUALITY



### Plasma Quad

Plasma Quad attacks bacteria and viruses from inside the unit using a strong curtain-like electrical field and discharge of electric current across the whole inlet-air opening of the unit.



### Air Cleaning Filter

The filter is charged with static electricity, enabling it to attract and capture dust particulates that regular filters don't.



### Fresh-air Intake

Indoor air quality is enhanced by the direct intake of fresh exterior air.



### Anti-allergy Enzyme Filter

The anti-allergy enzyme filter works to trap allergens such as molds and bacteria and decompose them using enzymes retained in the filter.



### High-efficiency Filter

This high-performance filter has a much finer mesh compared to standard filters, and is capable of capturing minute particulates floating in the air that were not previously caught.



### Nano Platinum Filter

The filter has a large capture area and incorporates nanometre-sized platinum-ceramic particles that work to kill bacteria and deodorise the circulating air.



### Catechin Filter

Catechin is a bioflavonoid by-product of green tea with both antiviral and antioxidant qualities. It also has an excellent deodorising effect, which is why Mitsubishi Electric uses the compound in its air conditioner filters. In addition to improving air quality, it prevents the spreading of bacteria and viruses throughout the room. Easily removed for cleaning and maintenance, when the filter is washed regularly the deodorising action is rated to last more than 10 years.



### Oil Mist Filter

The oil mist filter prevents oil mist from penetrating into the inner part of the air conditioner.



### Long-life Filter

A special process for the entrapment surface improves the filtering effect, making the maintenance cycle longer than that of units equipped with conventional filters.



### Filter Check Signal

Air conditioner operating time is monitored, and the user is notified when filter maintenance is necessary.



### Electrostatic Anti-allergy Enzyme Filter

This function features both the Air Cleaning Filter and Anti-allergy Enzyme Filter.

## AIR DISTRIBUTION



### Double Vane

Double vane separates the airflow in the different directions to deliver airflow not only across a wide area of the room, but also simultaneously to two people in different locations.



### Horizontal Vane

The air outlet vane swings up and down so that the airflow is spread evenly throughout the room.



### Vertical Vane

The air outlet fin swings from side to side so that the airflow reaches every part of the room.



### High Ceiling Mode

In the case of rooms with high ceilings, the outlet-air volume can be increased to ensure that air is circulated all the way to the floor.



### Low Ceiling Mode

If the room has a low ceiling, the airflow volume can be reduced for less draft.



### Auto Fan Speed Mode

The airflow speed mode adjusts the fan speed of the indoor unit automatically according to the present room conditions.

# FUNCTIONS (2)

## CONVENIENCE

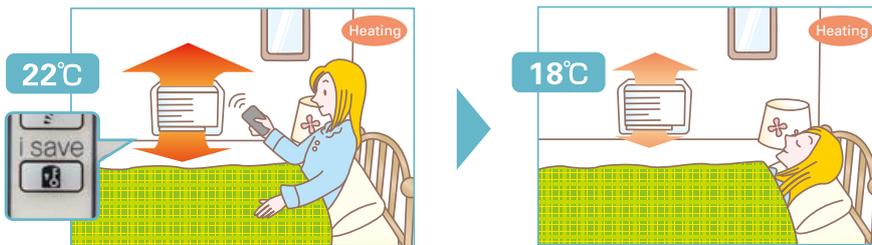
### On/Off Operation Timer

Use the remote controller to set the times of turning the air conditioner On/Off.

### "i save" Mode

"i save" is a simplified setting function that recalls the preferred (preset) temperature by pressing a single button on the remote controller. Press the same button twice in repetition to immediately return to the previous temperature setting.

Using this function contributes to comfortable waste-free operation, realising the most suitable air conditioning settings and saving on power consumption when, for example, leaving the room or going to bed.



\* Temperature can be preset to 10°C when heating in the "i-save" mode.



Photo of MFZ Series remote controller

### Auto Changeover

The air conditioner automatically switches between heating and cooling modes to maintain the desired temperature.

### Auto Restart

Especially useful at the time of power outages, the unit turns back on automatically when power is restored.

### Low-temperature Cooling

Intelligent fan speed control in the outdoor unit ensures optimum performance even when the outside temperature is low.

### Low-noise Operation (Outdoor Unit)

System operation can be adjusted to prioritise less noise from the outdoor unit over air conditioning performance.

### Ampere Limit Adjustment

Dip switch settings can be used to adjust the maximum electrical current for operation. This function is highly recommended for managing energy costs.

\*Maximum capacity is lowered with the use of this function.

#### ■ Dip Switch Setting (Board for MXZ-5D102)

SW2	Ampere Limit
	10.5A
	15.5A
	Full (default setting)

\* MXZ-5D102

### Operation Lock

To accommodate specific use applications, cooling or heating operation can be specified when setting the control board of the outdoor unit. A convenient option when a system needs to be configured for exclusive cooling or heating service.

#### ■ Dip Switch Setting (Board for MXZ-5D102)

SW1 COOL/DRY HEAT

## Weekly Timer Built-in Weekly Timer Function

Easily set desired temperatures and operation ON/OFF times to match lifestyle patterns. Reduce wasted energy consumption by using the timer to prevent forgetting to turn off the unit and eliminate temperature setting adjustments.

### Example Operation Pattern (Winter/Heating mode)

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
6:00	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C
8:00	Automatically changes to high-power operation at wake-up time						
10:00	OFF	OFF	OFF	OFF	OFF	ON 18°C	ON 18°C
12:00	Automatically turned off during work hours					Midday is warmer, so the temperature is set lower	
14:00							
16:00							
18:00	ON 22°C	ON 22°C	ON 22°C	ON 22°C	ON 22°C	ON 22°C	ON 22°C
20:00	Automatically turns on, synchronized with arrival at home					Automatically raises temperature setting to match time when outside-air temperature is low	
22:00 (during sleeping hours)	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C
	Automatically lowers temperature at bedtime for energy-saving operation at night						

#### Settings

**Pattern Settings:** Input up to four settings for each day

**Settings:** •Start/Stop operation •Temperature setting \*The operation mode cannot be set.

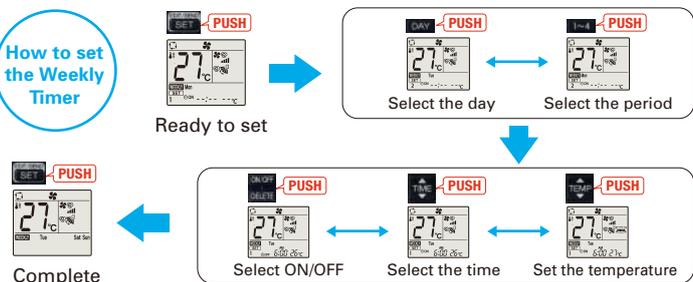
### Easy set-up using dedicated buttons



The remote controller is equipped with buttons that are used exclusively for setting the Weekly Timer. Setting operation patterns is easy and quick.



#### How to set the Weekly Timer



- Start by pushing the "SET" button and follow the instructions to set the desired patterns. Once all of the desired patterns are input, point the top end of the remote controller at the indoor unit and push the "SET" button one more time. (Push the "SET" button only after inputting all of the desired patterns into the remote controller memory. Pushing the "CANCEL" button will end the set-up process without sending the operation patterns to the indoor unit.)
- It takes a few seconds to transmit the Weekly Timer operation patterns to the indoor unit. Please continue to point the remote controller at the indoor unit until all data has been sent.

## SYSTEM CONTROL



### PAR-31MAA/PAC-YT52CRA

Units are compatible for use with the PAR-31MAA or PAC-YT52CRA remote controller, which has a variety of management functions.



### System Group Control

The same remote controller is capable of controlling the operational status of up to 16 refrigerant systems.



### M-NET Connection

Units can be connected to MELANS system controllers (M-NET controllers) such as the AG-150A.



### COMPO (Simultaneous Multi-unit Operation)

Multiple indoor units can be connected to a single outdoor unit. (Depending on the unit combination, connection of up to four units is possible; however, all indoor units must operate at the same settings.)



### MXZ Connection

Connection to the MXZ multi-split outdoor unit is possible.



### Wi-Fi Interface

Interface enabling users to control air conditioners and check operating status via devices such as personal computers, tablets and smartphones.

# FUNCTIONS (3)

## INSTALLATION



### Cleaning-free Pipe Reuse

It is possible to reuse the same piping. It allows cleaning-free renewal of air conditioning systems that use R22 or R410 refrigerant.

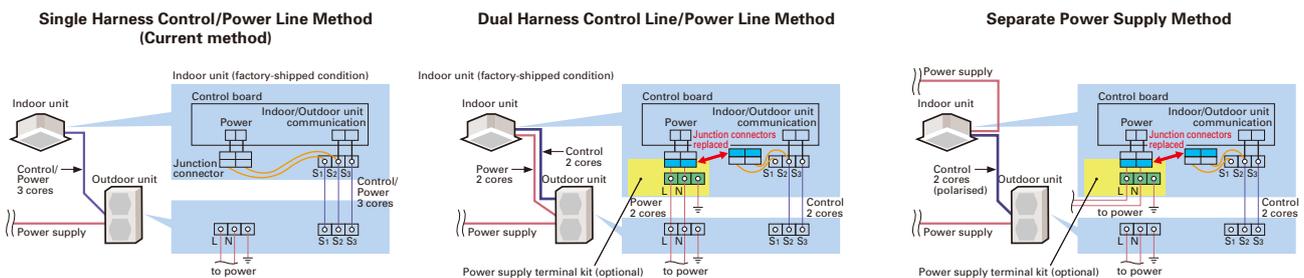


### Reuse of Existing Wiring

**Wiring recycling problem solved! Compatible with other wiring connection methods\***

The wiring method has been improved, making it possible to use methods different from that utilized for control and power supply. Units are compatible with the dual harness control line/power line method and the separate power supply method. Using a power supply terminal kit, wire can be efficiently reused at the time of system renewal regardless of the method the existing system uses.

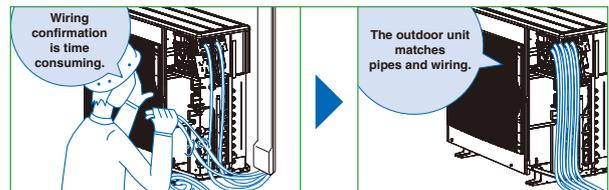
\*Optional. Usage may be limited due to wiring type diameter.



### Wiring/Piping Correction Function\*

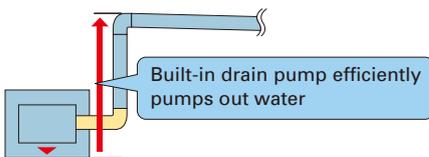
The push of a single button is all that is required to confirm that piping and wiring are properly connected. Corrections are made automatically if a wiring error is detected, eliminating the need for complicated wiring confirmation work when expanding the number of rooms served.

\* This function cannot be used when the outdoor temperature is below 0°C. The correction process requires 10–20 minutes, and only works when the unit is set to the Cooling mode.



### Drain Pump

A built-in drain pump enables drain piping to be raised.



### Flare Connection

Flare connection to cooling pipe work is possible.



### Pump Down Switch

Enables smooth and easy recovery of refrigerant. Simply press the "Pump Down" switch before moving or changing the unit.

Outdoor unit control circuit board



\*Photo of Model PUHZ-P100

**Pump Down Switch**



Push this switch to start/stop refrigerant recovery operation automatically. (Valve in refrigerant circuit is opened/closed.)

Pump down switch