

MR-02

The MR-02H/DT series is a high quality control unit for air conditioner based on MICOM technology. The high speed microcomputer measures the temperature of environment and control the hardware components to offer a most comfortable living condition for people. Besides of these, the IR remote control, built in timer function make the air conditioner an easy to use and easy to maintain equipment.

Each set of controller consists of:

- Main control board
- Remote controller with mounting bracket
- Display unit
- Control cable

FEATURES:-

MAIN CONTROL UNIT:

- Cool, Dry, Heat and Fan four operation modes.
- Auto fan, High, Medium and Low four kinds of indoor fan speed.
- Float switch and water pump function for Cassette type.
- Sleep function.
- 3 minutes compressor restart protection timer.
- Key/tone beeper echo.
- Dual 7 segments LED display for room temperature, setting timer display and compressor, timer indicator.
- 12 hours autostart / autostop function.
- Auto restart function.

WIRELESS LCD REMOTE CONTROLLER:

- A full function IR remote controller with LCD display. It is very convenience and clear to use this controller.
- Preset ON/OFF timer operation.

SEPCIFICATIONS:-

MAIN CONTROL BOARD:

1. Power supply: (190-240)VAC 50Hz/60Hz
2. Power consumption: 0.1VA max(Load excluded)

3. Input:

- A 0.2A, 250V glass type fuse is connected in series with the power line (LINE) entry to the system.
- Temperature setting:
Setting range: (15-30) °C
- Temperature measurement sensor:
TH1: Indoor room temperature sensor
TH2: Evaporator temperature sensor
TH3: Outdoor temperature sensor
- Precision: ±1°C

4. Output:

- Compressor control
Contact type: Mechanical relay
Rating: 10A, 277VAC
- Indoor fan speed control
Contact type: Mechanical relay
Rating: 10A, 277VAC
- Swing control
Contact type: Mechanical relay
Rating: 3A, 277VAC
- Outdoor fan control
Contact type: Mechanical relay
Rating: 10A, 277VAC
- Reversing Valve control
Contact type: Mechanical relay
Rating: 10A, 277VAC
- Water pump control
Contact type: Mechanical relay
Rating: 3A, 277VAC

LCD REMOTE CONTROLLER:

1. Power supply: 1.5V AAA size*2
2. Battery life: 1year (normal operating condition)
3. Wireless remote transmitting distance: 8meters
4. Input:
 - Temperature setting:
Setting range: (15-30)°C
Setting unit: 1°C

FUNCTIONS:-

1. Power ON/OFF:

Pressing **POWER** button will turn on or off the air conditioner. When turn on, it will operate according to the setting shown on the Remote unit.

2. Operating mode:

Pressing **MODE** button is to select the operation mode.

- 3 operating modes if the COOL version is ordered.



- 4 operating modes if the HEAT/COOL version is ordered.



2.1 COOL mode:

The system will operate as the air-conditioner.

- The compressor will operate if room temperature \geq setting temperature +1.
- The compressor will stop if room temperature \leq setting temperature.
- The minimum off time of compressor is 3min each time it stops.

2.2 DRY mode:

The system will operate as the dehumidifier.

- The fan speed is forced to low.
 - Compressor runs at a rate of 6min on and 6min off.
- SLEEP and FAN function is not valid in this mode.

2.3 HEAT mode:

The system will operate as the heat pump by switching on the reversing valve.

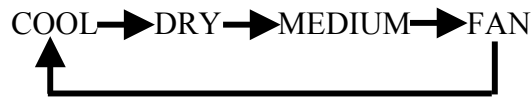
- The compressor will operate if room temperature \leq setting temperature -1.
- The compressor will stop if room temperature \geq setting temperature.
- The minimum off time of compressor is 3min each time it stops.

2.4 FAN mode:

The system will operate as the only. The SLEEP- and SLEEP+ buttons are not valid in this mode.

3. Fan:

Pressing FAN button is to select the fan speed; high, medium, low and auto fan respectively.



Auto fan:

When the fan speed is in auto fan, the speed will be adjusted automatically according to the difference between the room temperature and setting temperature.

- The speed will be high fan, if the difference is $\geq 3^{\circ}\text{C}$.
- The speed will be medium fan, if the difference is 2°C .
- The speed will be low fan, if the difference is $\leq 1^{\circ}\text{C}$.
- Auto fan is not valid in FAN mode.

FAN button can not be used in DRY mode.

4. Temperature setting:

Pressing TEMP-or TEMP+ is to adjust the setting temperature range between $(15-30)^{\circ}\text{C}$.

5. SLEEP:

Pressing SLEEP button will start the sleep function. In cool mode, the setting temperature will raise up by 1°C after one hour.

6. SWING:

Pressing SWING button will on/off the swing motor.

7. LOUVER:

Pressing LOUVER button is to change the angle of louver (working by stepper motor).

8. SEND:

Press SEND button to transmit all settings shown on the LCD to the main control board.

9. TIMER:

The setting timer range is 10minute to 12hours.

To do autostart, by pressing TIMER button during the system is off.

To do autostop, by pressing TIMER button during the system is on.

- Press HOUR button to set the hour.
- Press MINUTE button to set the minute.

To cancel this function, press TIMER button again.

10. EMERGENCY button:

Press this button to turn on/off the air-conditioner with the last setting of operation.