

Please read this manual carefully before installation and keep it for future reference.

Installation & Owner's Manual



MRCOOL®

COMFORT MADE SIMPLE

Hyper-Heat Single-Zone 24K-60K Ducted Air Handler & Condenser

Due to updates and constantly improving performance, the information and instructions within this manual are subject to change without notice. Please visit www.mrcool.com/documentation to ensure you have the latest version of this manual.

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Common Issues

The following events may occur during normal operation, and may not indicate a malfunction or a need for repairs.

Symptom	Cause
Unit does not turn on when pressing ON/OFF button.	The unit has a 3 minute protection feature that prevents the unit from overloading. The unit cannot be restarted within 3 minutes of being turned off.
	Cooling & Heating models: If the operation light and PRE-DEF (pre-heating/Defrost) indicators are illuminated, the outdoor temperature is too cold and the unit's anti-cold wind is activated in order to defrost the unit.
	In Cooling-Only models: If the FAN-ONLY indicator is illuminated, the outdoor temperature is too cold and the unit's antifreeze protection is activated in order to defrost the unit.
The unit changes from COOL/HEAT mode to FAN mode.	The unit may change its setting to prevent frost from forming on the unit. Once the temperature increases, the unit will start operating in the previously selected mode again.
	Once the set temperature has been reached, at this point the unit turns off the compressor. The unit will continue operating when the temperature fluctuates again.
Indoor unit and outdoor unit make noises.	A low hissing sound during operation: This is normal and is caused by refrigerant gas flowing through both indoor and outdoor units.
	A low hissing sound when the system starts, has just stopped running, or is defrosting: This noise is normal and is caused by the refrigerant gas changing direction or stopping.
	Normal expansion and contraction of the plastic and metal parts caused by temperature changes during operation can cause squeaking noises.
The outdoor unit makes noises.	The unit will make different noises based on which mode it is currently operating in.
The unit emits a bad odor.	The unit may absorb odors from the environment (such as furniture, cooking, cigarettes, etc.) which will be emitted during operations.
	The unit's filters have become moldy and should be cleaned.
Outdoor unit fan does not operate.	During operation, the fan speed is controlled to optimize product operation.
Dust is emitted from the indoor or outdoor unit.	The unit may accumulate dust during extended periods of non-use, which will be emitted when the unit is turned on. This can be mitigated by covering the unit during extended periods of not being used.
The compressor continues to run, and the indoor and outdoor motors aren't operational.	During defrosting mode, the compressor continues to run, the indoor and outdoor motors will cease operation, the defrost light on the indoor unit will turn on, and the "df" symbol is displayed.

NOTE: If problem persists, contact a local dealer or your nearest customer service center. Provide them with a detailed description of the unit malfunction as well as the model number of your unit.

For detailed error code list, refer to the Service Manual.

WARNING

In the case of any of the following, turn off the unit immediately!

- Signal/power cable is damaged or abnormally warm
- Burning odor
- Loud or abnormal sounds
- A power fuse or circuit breaker trips frequently
- Water or other objects fall into or out of the unit

DO NOT ATTEMPT TO CORRECT OR FIX THESE ITEMS YOURSELF!

CONTACT AN AUTHORIZED SERVICE PROVIDER IMMEDIATELY!

Before calling for service assistance, troubleshoot a problem by performing the following checks:

Symptom	Possible Causes	Solution
Poor Cooling Performance	Temperature setting may be higher than ambient room temperature.	Lower the temperature setting.
	The air filter is dirty.	Remove the filter and clean it according to the instructions.
	The air inlet or outlet of either unit is blocked.	Turn the unit off, remove the obstruction and turn it back on.
	Doors and windows are open.	Ensure all windows and doors are closed while operating the unit.
	Excessive heat is generated by sunlight.	Close windows and curtains during periods of high heat or bright sunshine.
	Too many other sources of heat in the room (people, computers, electronics, etc.).	Reduce the amount of heat sources.
	Low refrigerant due to a leak or long-term use.	Check for leaks, reseal if necessary, and top off the refrigerant level.
	The heat exchanger on the indoor or outdoor unit is dirty.	Clean the affected heat exchanger.
Non-Working Unit	Power failure.	Wait for power to be restored.
	The power is turned off.	Turn on the power.
	The fuse is burned out.	Replace the fuse.
	Remote control batteries are dead.	Replace the batteries.
	The unit's 3 minute protection feature has been activated.	Wait three minutes after restarting the unit.
	Timer is activated.	Turn timer off.
Frequent Stopping & Starting	System circuit is blocked.	Determine the location of the blockage and repair.
	There's too much or too little refrigerant in the system.	Check for leaks and recharge the system with refrigerant.
	Incompressible gas or moisture has entered the system.	Evacuate and recharge the system with refrigerant.
	The compressor is broken.	Replace the compressor.
	The voltage is too high or too low.	Install a manostat to regulate the voltage.
Poor Heating Performance	The outdoor temperature is extremely low.	Use auxiliary heating device.
	Cold air is entering through doors and windows.	Make sure that all doors and windows are closed during use.
	Low refrigerant due to leak or long-term use.	Check for leaks, re-seal if necessary, and top off refrigerant.

Troubleshooting

Error Display (Indoor Unit)

When the indoor unit encounters a recognized error, the operation lamp will flash in a corresponding series, the timer lamp may turn on or begin flashing, and an error code will be displayed. These error codes are described in the following table:

Display	Error Information	Solution
E400	Indoor unit EEPROM parameter error	TS21
E401	Indoor / outdoor unit communication error	TS22
E416	Communication malfunction between adapter board and outdoor main board	TS47
E403	The indoor fan speed is operating outside of the normal range(for some models)	TS23
E460	Indoor room temperature sensor T1 is in open circuit or has short circuited	TS25
E461	Evaporator coil temperature sensor T2 is in open circuit or has short circuited	TS25
E462	Evaporator coil temperature sensor T2B is in open circuit or has short circuited	TS25
E465	Evaporator coil temperature sensor T2A is in open circuit or has short circuited	TS25
E40C	Refrigerant Leakage Detection	TS26
E40b	Communication error between indoor two chips	TS46
E40E	Water-level alarm malfunction	TS27
E453	Outdoor room temperature sensor T4 is in open circuit or has short circuited	TS25
E452	Condenser coil temperature sensor T3 is in open circuit or has short circuited	TS25
E454	Compressor discharge temperature sensor TP is in open circuit or has short circuited	TS25
E456	Evaporator coil outlet temperature sensor T2B is in open circuit or has short circuited(for free-match indoor units)	TS25
E451	Outdoor unit EEPROM parameter error	TS21
E407	The outdoor fan speed is operating outside of the normal range(for some models)	TS23
PC00	IPM malfunction or IGBT over-strong current protection	TS28
PC01	Over voltage or over low voltage protection	TS29
PC02	Top temperature protection of compressor or High temperature protection of IPM module	TS32
PC04	Inverter compressor drive error	TS30
PC03	Low pressure protection (for some models)	TS31
E40d	Outdoor unit malfunction	TS33
PC0L	Low ambient temperature protection	TS40
FL09	Mismatch between the new and old platforms	TS47