



U Match

SLIM CONCEALED DUCT UNIT

OWNER'S MANUAL

Models:

UMAT18HP230V1AD

UMAT24HP230V1AD

UMAT30HP230V1AD

UMAT36HP230V1AD

UMAT42HP230V1AD

UMAT48HP230V1AD



Thank you for choosing a U-Match Slim Concealed Duct Air Conditioning & Heating System!

You can feel confident in your selection because the same pride in craftsmanship and engineering knowledge that goes into millions of other Gree installed products worldwide has gone into your unit.

Please read this owner's manual carefully before operation and retain it for future reference.

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INTRODUCTION

Superior Design for Superior Performance

Compact and powerful, this Gree U-Match Slim Concealed Duct indoor unit offers the ultimate in flexibility and discretion. It is designed to be concealed above suspended ceilings or within open closet spaces to deliver conditioned air via ducting and suitable ceiling or wall grilles. This arrangement provides immense flexibility, in terms of both the distribution of conditioned air and the type of grille or diffuser that best complements any room's styling. Your unit is easily operated with the wall-mounted Wired Tether controller.

Like all Gree Ductless systems, this unit provides quiet comfort and energy efficient heating and cooling. For many residential and light commercial applications, it is the ideal solution to balance comfort, efficiency and ease of use.

This Inverter-driven system offers Seasonal Energy Efficiency Ratings (SEER) up to 16. With individual room control and variable speed compressor operation, comfort is boosted throughout your home or office, while utility bills are held in check.

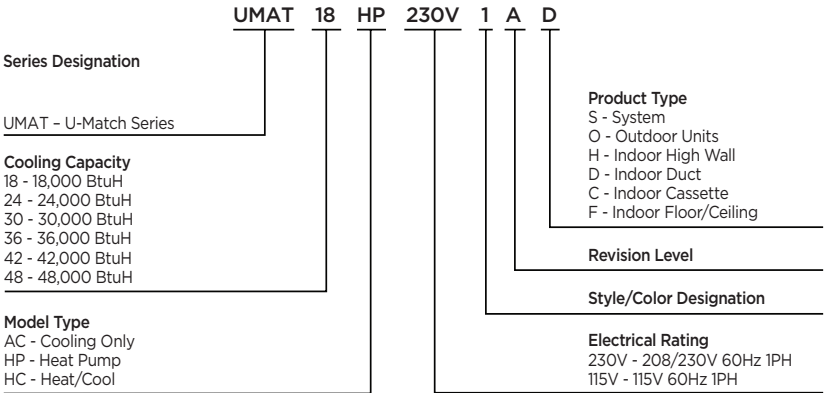
The Slim Concealed Duct unit works in conjunction with the U-Match outdoor compressor section, featuring Gree's exclusive G-10 Inverter technology. The Inverter constantly adjusts compressor speed to save energy, reduce outdoor noise and maintain a steady room temperature, by eliminating the harsh starts and stops of conventional systems.

Thank you for selecting this Gree air conditioner. Before use, please read this manual carefully and retain it for further reference.

NOMENCLATURE

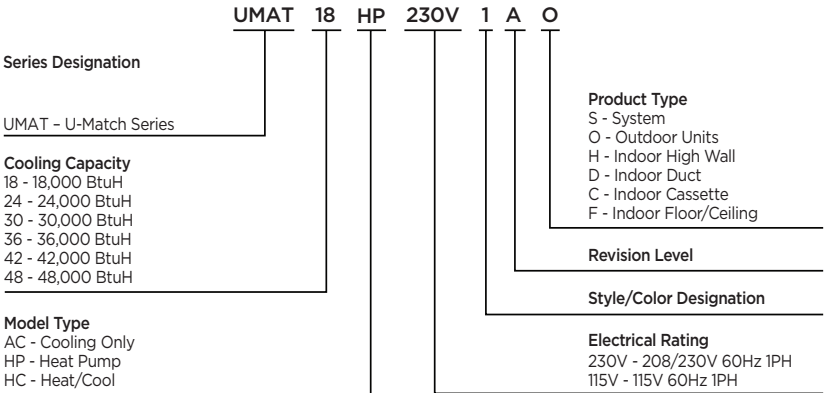
Indoor unit

Example: UMAT18HP230V1AD




Outdoor unit

Example: UMAT18HP230V1AO



SAFETY PRECAUTIONS

Please read the following before operation.

Recognize safety information.  This is the safety-alert symbol. When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury. Understand these signal words: **DANGER**, **WARNING**, and **CAUTION**. These words are used with the safety-alert symbol.

DANGER identifies the most serious hazards which will result in severe personal injury or death.

WARNING signifies hazards which could result in personal injury or death.

CAUTION is used to identify unsafe practices which may result in minor personal injury or product and property damage.

NOTE is used to highlight suggestions which will result in enhanced installation, reliability, or operation.

NOTE: Your actual air conditioning & heating system and related devices may differ from the images shown in this manual.

This appliance is not intended for use by children without responsible adult supervision. Proper care should be taken to ensure safety.



WARNING

Heat pumps, air conditioners & heating equipment should be installed, started up, and serviced only by qualified installers and service technicians. Air conditioning, heat pumps and refrigeration systems are hazardous due to high voltage electrical components, high refrigerant pressures, and moving parts.

SAFETY PRECAUTIONS

Please read the following before operation.



WARNING

- *Disconnect electrical power to the indoor and outdoor units before performing any maintenance or cleaning.*
- *Do not attempt to repair the Gree system yourself. Incorrect repairs may cause electric shock or fire. Contact a qualified service technician for all service requirements.*
- *Keep combustible materials away from the unit.*

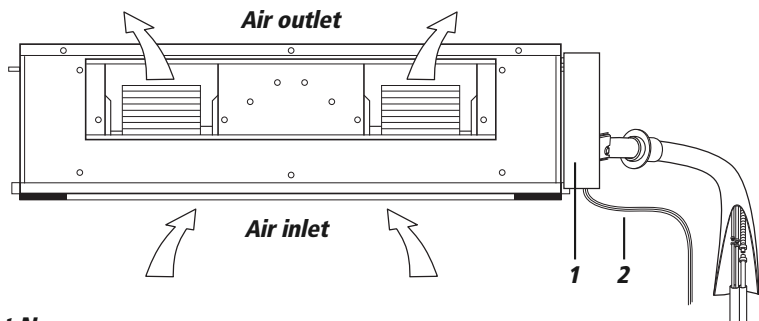


CAUTION

- *Do not put hands or any objects into the air inlets or outlets. This may cause personal injury or damage the unit.*
 - *When cleaning, be careful not to splash water on the unit. Doing this may cause electric shock or damage to unit.*
-
- *Do not use or place any flammable, combustible or noxious substance next to the unit.*
 - *In the event of a failure (burning smell, etc.), immediately disconnect all electrical power to indoor and outdoor units.*
 - *Never insert your finger or any other object into the air outlet/inlet grille.*
 - *Check the supporting frame of the unit on a periodic basis to see if it is damaged over a prolonged period of time.*
 - *Never try repairing the system yourself; contact a qualified service technician for all repairs.*
 - *Cut off the main power supply prior to the cleaning of the unit or the replacement of the air filter.*

PART NAMES

Indoor unit

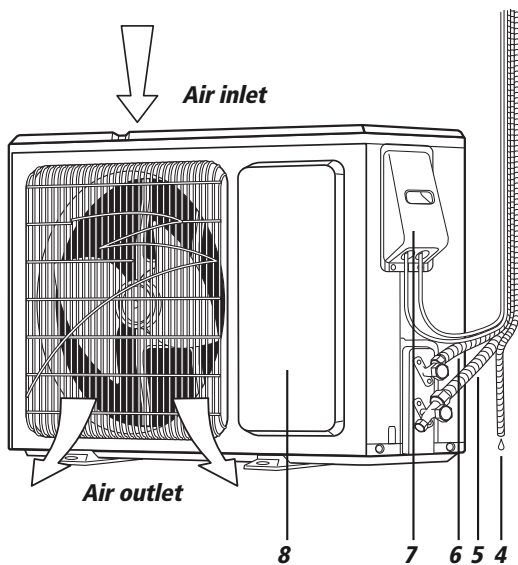


Part Name

1. Electric Box
2. Power Supply
3. Wired Controller
4. Drain Hose
5. Gas Pipe
6. Liquid Pipe
7. Service Cover
8. Front Panel



Outdoor unit



SYSTEM FUNCTIONS

WHISPER QUIET

Not only are the Gree systems energy efficient but they are quiet too. Slim Concealed Duct operates with sound levels starting as low as 28 dB(A).

MULTI FAN SPEEDS

Whether operating in either Cooling or Heating mode, the indoor fan can be set to your choice of three different speeds (Low, Medium or High) to achieve maximum comfort.

BUILT IN CONDENSATE LIFT PUMP

The unit features a built-in drain pump that lifts condensate up to 11 inches above the drain pan to a gravity condensate drain system. In most cases, the internal condensate lift mechanism will avoid the need for an external condensate pump.

CONDENSATE SENTRY

The unit's fail-safe mechanism recognizes when there is a high level in the condensate pan and shuts off the system to prevent overflow.

INTELLIGENT PRE-HEATING

The U-Match system guards against the annoying cool air blown into the room in heating mode. The system constantly monitors the discharge air temperature. It will delay the indoor fan until the indoor coil has warmed up to prevent blowing uncomfortable cool air into the room.

TETHER CONTROLLER

The Gree wired Tether Controller mounts to the wall up to 25 feet from the unit. It provides complete control over your unit's operation mode, desired temperature, fan speed, airflow direction and more.

INTELLIGENT DEFROST

The U-Match Intelligent Defrost function increases room comfort and saves energy by eliminating unnecessary defrost cycles. In heating mode, the unit will monitor the outdoor coil for frost buildup. Once frost buildup has been detected, the system will switch into a defrost mode to remove the frost.

In defrost mode the wired Tether Controller display will show "H1" and the indoor fan and outdoor fan will turn off while the system removes frost from the outdoor coil. Once the frost has been removed, the wired Tether Controller display shows room set point and the system will revert back to normal heating operation.

SYSTEM FUNCTIONS

POWER FAILURE MODE

Power interruptions are no problem for the U-Match system. User selections and system parameters are stored in non-volatile memory. These parameters are retained during a power failure. When power is returned, the slim duct system will automatically return to the last operating mode.

TURBO MODE

Use Turbo Mode for situations where you wish to achieve the desired room temperature in the shortest possible time. This mode runs the unit at ultra high speeds for quickest results.

CLOCK

Using the clock feature, you can control each function in real time, for the most user-friendly operation.

MODE BUTTON

The unit can be set to five different operating modes: HEAT, COOL, DRY, FAN ONLY and AUTO. Note: AUTO MODE has fixed setpoints of 68° F heating and 78° F cooling, which are not adjustable. The system will automatically select heating or cooling to maintain room temperature within this band.

TIMER MODE

The unit can be programmed to turn ON or OFF after a specific amount of time. The time period is adjustable between one half and 24 hours.

SLEEP MODE

The unit will automatically adjust room temperature during your sleep time. This slight change in temperature will not affect your comfort level due to the natural effects that sleeping has on the body, but it will save on energy consumption and will lower electric bills.

X-FAN MODE

When operating in humid areas, U-Match has a Dry Coil function called X-Fan that will allow the indoor fan to run for a pre-determined amount of time after the unit is turned off (cooling or dry modes) to ensure that additional moisture is removed from coil.

FAHRENHEIT °F / CELSIUS °C

The wired Tether Controller can be set to display in either °F or °C.

SYSTEM FUNCTIONS

SELF-DIAGNOSIS

With an on-board computer using real-time diagnostics, the Gree U-Match system helps to prolong its own life. The automatic diagnosis feature continuously scans for unacceptable operating conditions or malfunctions. If such conditions occur, the system takes corrective action or stops. Error codes are shown on the unit display to facilitate easy troubleshooting and repair.

PRIVACY LOCK MODE

The wired Tether Controller has a Privacy Lock. The Privacy Lock averts unauthorized access or tampering with system settings.

AGENCY LISTINGS

All systems are listed with AHRI (Air conditioning, Heating, and Refrigeration Institute) and are ETL certified per UL Standards.

OPERATING INSTRUCTIONS

ON/OFF BUTTON

Press On/Off to turn on the unit. Press again to turn it off.

NOTE: The display shown in Fig.3.1.1 indicates the OFF state of the unit. The display shown in Fig.3.1.2 indicates the "On" state.



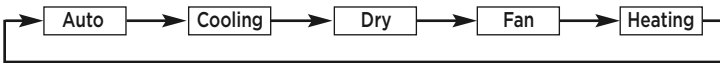
Fig.3.1.1 "Off" State



Fig.3.1.2 "On" State

MODE SETTING

When the unit is ON, press Mode button to select an operating mode. It will change sequentially as shown below: Auto–Cooling–Dry–Fan–Heating



TEMPERATURE SETTING

Press ▲ or ▼ to increase/decrease the preset temperature. By pressing and holding either button, the temperature will be increased or decreased as shown in Fig.3.3.1.

In Cooling, Dry, Fan or Heating mode, the temperature setting range is 60°-86°F. In Auto mode, the setting temperature is not adjustable.



Fig.3.3.1

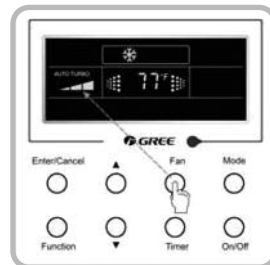
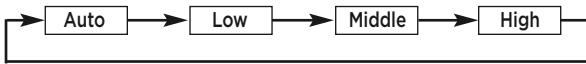


Fig.3.4.1

OPERATING INSTRUCTIONS

FAN SETTING

When the unit is ON, press Fan button to select the fan speed of the indoor unit. It will change sequentially as shown in Fig.3.4.1.



TIMER SETTING (See diagrams on page 12.)

When the unit is ON, press Timer button to turn the timer off. When the unit is OFF, press Timer button to turn the timer on.

Timer On Setting

- When in the OFF state without a timer setting, if the Timer button is pressed, the LCD will display the hours, with ON blinking. In this case, press ▲ or ▼ to adjust hours and then press Timer to confirm.

Timer Off Setting

- When in the ON state without a timer setting, if the Timer button is pressed, LCD will display the hours, with OFF blinking. In this case, press ▲ or ▼ to adjust hours and then press the timer to confirm.

Cancel Timer

- After setting the timer, it may be cancelled by pressing the Timer button.

OPERATING INSTRUCTIONS

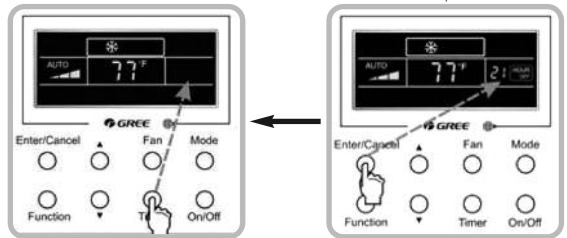


Turn on the unit, without **Timer** activated

Press **Timer** repeatedly to access **Settings**

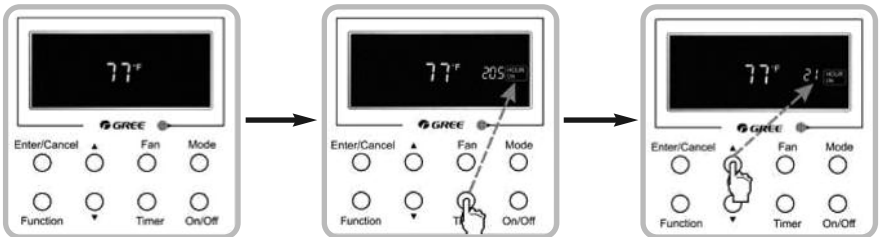
Press **▲** or **▼** to adjust the time

Fig.3.5.1
Timer Off Setting



Press **Timer** to cancel setting

Press **Enter/Cancel** to confirm setting

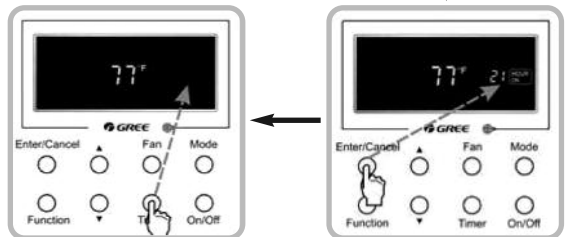


Turn on the unit, without **Timer** activated

Press **Timer** repeatedly to access **Settings**

Press **▲** or **▼** to adjust the time

Fig.3.5.2
Timer On Setting



Press **Timer** to cancel setting

Press **Enter/Cancel** to confirm setting

Timer range: 0.5-24hr. Every press of **▲** or **▼** will increase or decrease the set time by one-half hour. If either is pressed continuously, the set time will increase/decrease by one-half hour every 5 seconds.

OPERATING INSTRUCTIONS

SLEEP SETTING

Sleep On Setting

- When the unit is ON, press Function until the unit enters the Sleep setting state. After that, press Enter/Cancel to confirm this setting.

Sleep Off Setting

- When the Sleep function is activated, press Function button to enter the Sleep setting status. After that, press Enter/Cancel to cancel this function.

In Cool or Dry Modes

- The unit will run at current room setpoint for 1 hour. After 1 hour, the setpoint will increase by 2°F. After 2 hours, the setpoint will increase by 4°F and maintain this setpoint until Sleep Mode is cancelled.

In Heat Mode

- The unit will run at current room setpoint for 1 hour. After 1 hour, the setpoint will decrease by 2°F. After 2 hours, the setpoint will decrease by 4°F and maintain this setpoint until Sleep Mode is cancelled.

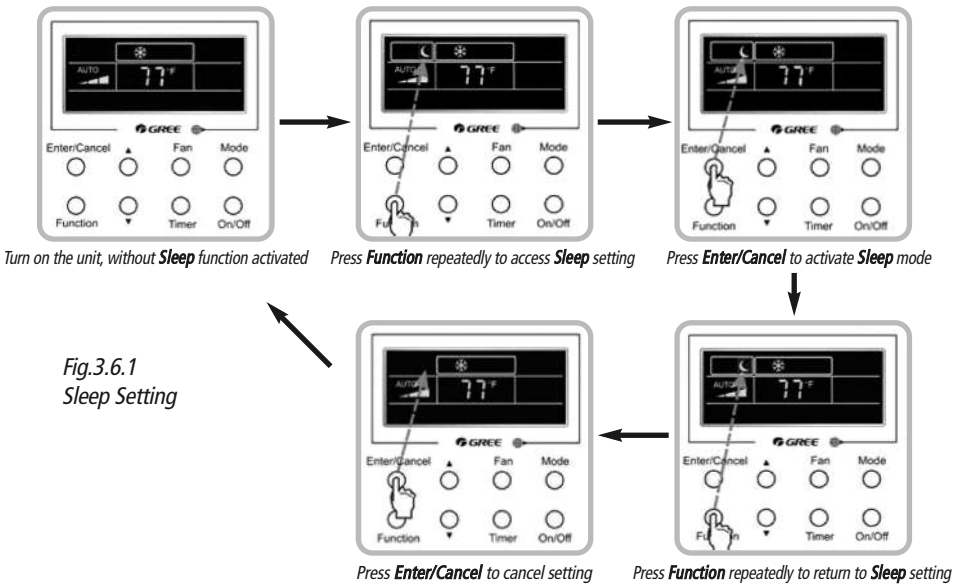


Fig.3.6.1
Sleep Setting

OPERATING INSTRUCTIONS

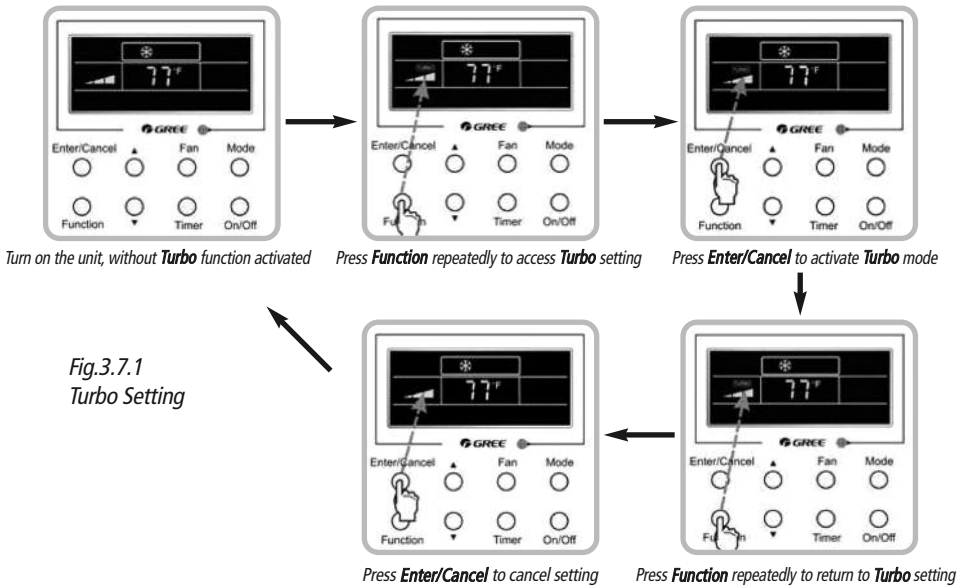
TURBO SETTING

Turbo Function

- The desired room temperature, either heating or cooling, can be achieved faster using Turbo Mode.

Cooling or Heating Mode

- Press Function button until the unit enters the Turbo setting status. Then press Enter/Cancel to confirm the setting. To cancel, press the Function button to re-enter the Turbo setting status, then press Enter/Cancel.



OPERATING INSTRUCTIONS

X-FAN SETTING

X-Fan Function

- After the unit is turned off, the X-Fan function will keep the indoor fan running for 2 minutes to dry the indoor evaporator coil to help avoid mold and mildew growth.

Cooling or Dry Mode

- Press Function button until unit enters the X-Fan setting status and then press Enter/Cancel to activate this function. To cancel, press the Function button to re-enter the X-Fan setting status, then press Enter/Cancel.

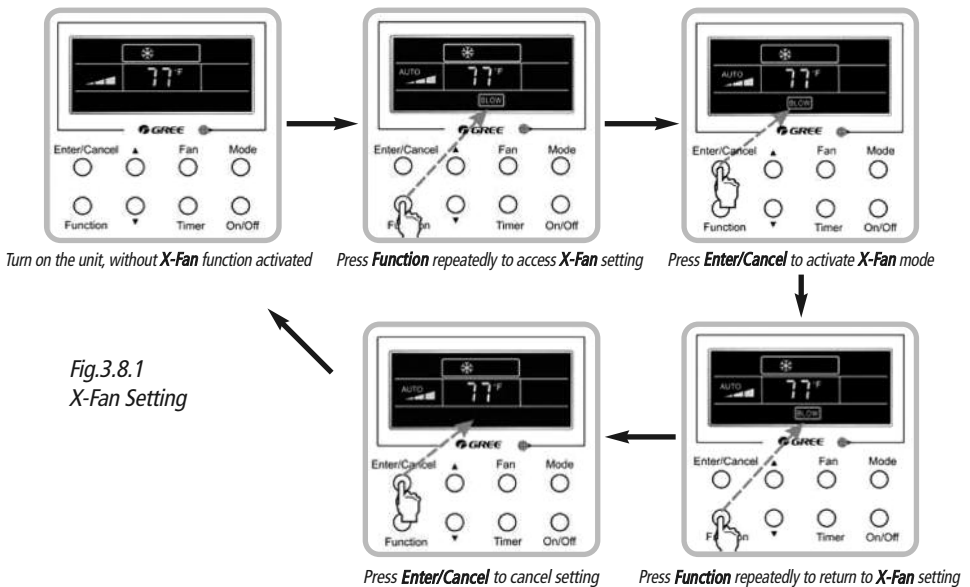


Fig.3.8.1
X-Fan Setting

NOTE: When the X-Fan function is activated, if turning off the unit by pressing On/Off, the indoor fan will run at low speed for 2 minutes, with "X-FAN" displayed on the LCD. If the X-Fan function is deactivated, the indoor fan will be turned off directly. X-Fan function is unavailable in the Fan or Heating modes.

OPERATING INSTRUCTIONS

OTHER FUNCTIONS

Privacy Lock

- *During normal startup, press ▲ and ▼ at the same time for 5 seconds until the wired Tether Controller enters the Lock function. In this case, LCD displays. After that, repress these two buttons at the same time for 5 seconds to quit this function. When locked, all other buttons will become inoperable.*

Memory

- *Memory switchover: When the unit is off, simultaneously press Mode button and ▲ for 5 seconds to switch between memory on and memory off. When this function is activated, Memory will be displayed. If this function is not set, the unit will remain off after any power failure and recovery.*
- *Memory recovery: If this function has been set, the wired controller will resume its original running state upon recovery after a power failure.*

CARE AND CLEANING



CAUTION

Take notice of the following items before cleaning your air conditioning unit.

- *To avoid electric shock or injury, do not attempt to clean the unit unless it has been turned off and disconnected from the main power supply.*
- *Do not wash the unit with water; this may cause an electric shock.*
- *During cleaning, be sure to use a stable standing platform.*

CLEANING THE FILTER

- *Never remove the air filter from the unit except for cleaning; otherwise it may cause dust or dirt to restrict airflow to the unit.*
- *When the air conditioning unit is used in an environment with heavy dust, the air filter should be cleaned often (generally once every two weeks).*

Perform the following on an annual basis:

- *Clean or replace air filter.*
- *Inspect drain line for potential clogs or leaks.*
- *Hose off both sides of the coil in the outdoor unit to remove loose debris or dirt buildup.*

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES
<i>Failed startup</i>	<ul style="list-style-type: none">• <i>There is no power supply</i>• <i>Circuit breaker is tripped due to electrical leakage</i>
<i>Unit runs, then stops</i>	<ul style="list-style-type: none">• <i>Air inlet/outlet of the indoor/outdoor unit is clogged</i>
<i>Poor cooling effect</i>	<ul style="list-style-type: none">• <i>Air filter screen is too dirty or clogged</i>• <i>There are too many heat sources in the room</i>• <i>A door or window is open</i>• <i>There are obstacles at the air inlet/outlet</i>• <i>Temperature is set too high</i>
<i>Poor heating effect</i>	<ul style="list-style-type: none">• <i>Air filter screen is too dirty or clogged</i>• <i>A door or window is open</i>• <i>Temperature is set too low</i>

NOTE: *If the air conditioner still malfunctions after checking these possible causes, contact an authorized service technician.*

DIAGNOSTIC CODES

EQUIPMENT FAULT	ERROR CODES	POSSIBLE CAUSES
<i>Indoor Configuration Jumper</i>	<i>C5</i>	<i>Missing Configuration Jumper on Indoor Control Board</i>
<i>Indoor/Outdoor Mismatch</i>	<i>LP</i>	<i>Indoor and Outdoor Units Do Not Match (Model or Capacity)</i>
<i>High Current Protection</i>	<i>E5</i>	<i>Power Supply is not Stable and Voltage Range is too Large</i>
<i>Communication Error</i>	<i>E6</i>	<i>Mis-wired or Communication Failure</i>
<i>Indoor Air Temp. Thermistor</i>	<i>F1</i>	<i>Bad Connection, or Indoor Air Sensor Failure</i>
<i>Indoor Coil Temp. Thermistor</i>	<i>F2</i>	<i>Bad Connection, or Indoor Coil Sensor Failure</i>
<i>Outdoor Air Temp. Thermistor</i>	<i>F3</i>	<i>Bad Connection, or Outdoor Ambient Sensor Failure</i>
<i>Outdoor Coil Temp. Thermistor</i>	<i>F4</i>	<i>Bad Connection, or Outdoor Coil Sensor Failure</i>
<i>Compressor Discharge</i>	<i>F5</i>	<i>Bad Connection, or Discharge Sensor Failure</i>
<i>Compressor Overload Protection</i>	<i>H3</i>	<i>Low Refrigerant Charge, Blocked Capillary, or Compressor Motor Failure</i>
<i>IPM Module Protection</i>	<i>H5</i>	<i>IPM Module Temperature Too High, High Ambient, Low Voltage, or Bad Connections</i>
<i>Indoor Fan Malfunction</i>	<i>H6</i>	<i>Indoor Fan Stopped or Running too Slow</i>
<i>Compressor Synchronism</i>	<i>H7</i>	<i>High Pressure, Low Voltage, or Bad Connections</i>
<i>4-Way Valve Malfunction</i>	<i>U7</i>	<i>Bad Connection, Solenoid Failure, or Valve Malfunction</i>
<i>Defrost Mode</i>	<i>H1</i>	<i>No failure, system is defrosting indoor coil</i>
<i>High Pressure Protection</i>	<i>E1</i>	<i>Too much refrigerant, High Ambient conditions or low airflow</i>

ENERGY SAVING TIPS

- 1. Relaxing room temperature at night is OK:** During the nighttime hours you don't require the same level of conscious cooling or heating. Try using Sleep Mode to gradually relax room temperature and allow the unit to run less and save energy.
- 2. Curtains and shades:** In the summer, you need to block the effects of the sun. Close window curtains and shades on the south and west side of your home to help block solar heat. In winter, the sun is your friend. Open curtains and shades to allow solar heat into your room.
- 3. Close doors:** If you don't need to heat and cool your whole home, confine the heating and cooling to one room by closing doors. Limit the space you're heating and cooling to specified capability of the unit.
- 4. Service the unit:** Some basic maintenance might be all you need. The outdoor unit will greatly benefit from a good hosing out, especially in treed areas where seeds and other debris can stick to coil fins and make the unit work up to 15% harder!
- 5. Rearrange the room:** Furniture that obstructs airflow means you could be heating and cooling the back of a chair or the front of a sofa instead of the actual living space. Remove or rearrange obstacles blocking airflow.
- 6. Try 75 degrees:** 75°F is a good point for an air conditioner to run at its optimal performance level. Even a 5-degree change in temperature can make your unit use up to 40% more energy!
- 7. Lighting:** Turning lights off can help reduce your heat. Each light bulb is a tiny heater. Your air conditioner must waste energy overcoming the heat from your lights to reach and hold your desired room temperature.
- 8. Is anyone home?** If possible, while you're away turn your unit to Auto mode and make sure windows and drapes are closed. Although room temperature may be less than optimal for a few minutes when you come home, the unit will soon have the room back to your desired temperature.
- 9. Don't forget the fan:** The fan is much like a car. The faster it runs, the more energy it uses. Sometimes we need the car to go fast, but slow is good enough most of the time. Try saving money by using the comfortable quiet low fan speed as much as possible.



GREE ELECTRIC APPLIANCES, INC.

www.greecomfort.com



LIMITED WARRANTY

GREE distributor (hereinafter "Company") warrants this product against failure due to defect in materials or workmanship under normal use and maintenance as follows. All warranty periods begin on the date of original installation. If the date cannot be verified, the warranty period begins one hundred twenty (120) days from date of manufacture. If a part fails due to defect during the applicable warranty period Company will provide a new or remanufactured part, at Company's option, to replace the failed defective part at no charge for the part. This limited warranty is subject to all provisions, conditions, limitations and exclusions listed below.

- Seven (7) years on compressor and Five (5) years on all parts to the original registered end-user.
- One (1) year warranty on remote controller unit.
- Proper installation – Limited warranty applies only to systems that are installed by a state certified or licensed HVAC contractor, under applicable local and state law in accordance with all applicable building codes and permits; GREE installation and operation instructions and good trade practices.
- Warranty applies only to products remaining in their original installation location.
- Defective parts must be returned to the distributor through a registered servicing dealer for credit.

LIMITATIONS OF WARRANTIES: ALL IMPLIED WARRANTIES AND/OR CONDITIONS (INCLUDING IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE OR PURPOSE) ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY, SOME STATES OR PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY OR CONDITION LASTS, SO THE ABOVE MAY NOT APPLY TO YOU. THE EXPRESS WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON, WHATSOEVER.

THIS WARRANTY DOES NOT COVER:

1. Labor or other costs incurred for diagnosing, repairing, removing, installing, shipping, servicing or handling of either defective parts, or replacement parts, or new units.
2. Normal maintenance as outlined in the installation and servicing instructions or Owner's Manual, including filter cleaning and/or replacement and lubrication.
3. Failure, damage or repairs due to faulty installation, misapplication, abuse, improper servicing, unauthorized alteration or improper operation.
4. Failure to start due to voltage conditions, blown fuses, open circuit breakers, or damages due to the inadequacy or interruption of electrical service.
5. Failure or damage due to floods, winds, fires, lightning, accidents, corrosive environments (rust, etc.) or other conditions beyond the control of the Company.
6. Parts not supplied or designated by Company, or damages resulting from their use.
7. Products installed outside USA and Canada.
8. Electricity or fuel costs, or increases in electricity or fuel costs from any reason whatsoever, including additional or unusual use of supplemental electric heat.
9. Any cost to replace, refill or dispose of refrigerant, including the cost of refrigerant.
10. Any special, indirect or consequential property or commercial damage of any nature whatsoever. Some states or provinces do not allow the exclusion of incidental or consequential damages, so the above limitation may not apply to you.

For additional warranty exclusions, visit www.GreeComfort.com.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state or province to province.

For warranty service or repair, contact your installing contractor. You may find the installer's name on the equipment or in your Owner's packet.

Complete product registration below and send back by e-mail at service@twclimate.com

PRODUCT REGISTRATION

Model No. _____

Serial No. _____ Date of Installation _____

Owner Name _____

Address of Installation _____

Installing Contractor _____

Address _____

Phone No. / E-mail _____