



***PACKAGED TERMINAL
AIR CONDITIONER/HEAT PUMP
INSTALLATION/OWNER'S MANUAL***



Thank you for choosing an ETAC II Packaged Terminal Air Conditioner & Heating Unit!

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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Model: _____

Serial: _____

SAFETY CONSIDERATIONS

Please read the following before installation or use.

Recognize safety information.  This is the safety-alert symbol. When you see this symbol on the unit and in the 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.

WARNING

PERSONAL INJURY AND/OR PROPERTY DAMAGE HAZARD

Failure to follow this warning could result in personal injury, death and/or property damage. For your safety, the information in this manual must be followed to minimize the risk of fire or explosion, electric shock, or to prevent property damage, personal injury, or loss of life.

- This unit must be properly installed in accordance with the Installation Instructions before it is used.
- Immediately repair or replace all electric service cords that have become frayed or otherwise damaged with original equipment manufacturer's (OEM) power cord.
- Unplug the unit and/or disconnect, lockout and tag electrical power at the fusebox or circuit breaker before making any repairs.

NOTE: We strongly recommend that any servicing be performed by a qualified individual.

NOMENCLATURE

GENERAL

Gree packaged terminal air conditioners and heat pumps provide a high standard of quality in performance, workmanship, durability and appearance as they heat and cool the occupied air space year round. This manual provides information for ease of installation, operation and maintenance. All models are designed for through-the-wall installation. Separate installation instructions are included with all accessory components.

BEFORE YOU BEGIN: Read these instructions completely and carefully.

IMPORTANT: Save these instructions for local inspector's use.

IMPORTANT: Observe all governing codes and ordinances.

NOTE TO INSTALLER: Be sure to leave these instructions with the owner.

NOTE TO OWNER: Keep these instructions for future reference. Be sure to write down the model and serial number of unit on the space provided on the front page. The model and serial number can be located on the serial number plate attached to unit.

UNIT INFORMATION

The unit nameplate is located beneath the front panel on the front lip of the base pan. The nameplate contains the model and serial numbers of the unit. It also contains important electrical and operational specifications. See Fig. 1.



Example: ETAC2-12HP 230V A -A

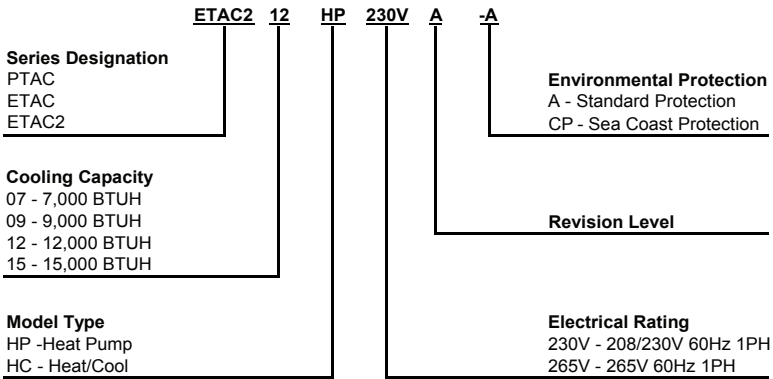


Fig. 1 – Unit Name Plate & Nomenclature Chart

UNIT FEATURES



This ETAC II has many exciting features which are different than those found on standard PTAC models. The owner must be familiar with these features in order to fully understand the operation and capability of the unit.

- **Intelligence** – Your ETAC II unit has an on board computer that utilizes real time diagnostics to prolong the life of your unit. There is an LED indicator on the control board, behind the front panel, that will flash an error code if the unit has detected some type of fault condition. In many cases, the unit will automatically clear the fault condition and continue operating with no interruption. In some cases, the condition cannot be cleared and the unit will require service. In those cases, an “Fx” failure mode will be displayed on the digital display. For a detailed list of all error codes and “Fx” conditions, see Intelligent Self Checking and Control section on page 20 for further details.
- **Memory** – Your ETAC II unit also has memory. If power is lost, all of the control settings (set-point, mode, fan speed, on/off and configuration) are remembered. So when power is restored, the unit will start back up in the mode (and configuration) it was in, when power was lost.
- **Premium Sound** – Your Premium ETAC II is also the quietest Gree PTAC. Not only does it have 2 fan motors and a tangential blower wheel for optimum sound, the indoor fan will always run a minimum of 10 seconds before the compressor, to help reduce any compressor starting noise.
- **Random Compressor Restart** – To help prevent power surges after a power outage (from many of your ETAC IIs starting at the same time), the compressor is equipped with a 165 to 195 second random restart delay feature. Whenever the unit is plugged in, or power has been restarted, a random compressor restart will occur.
- **Dry Mode** – will help to manage and reduce the humidity in the room, making it more comfortable. In DRY mode, the unit will modulate cooling mode at low fan speed until the room temperature is 4 deg. F below the room temperature setting regardless of fan mode selection. Dry mode should not be considered a substitute for a stand alone dehumidifier.
- **Compressor Protection** – To prevent short cycling of the compressor and maximize its life, there is a 3 minute start-up delay on the compressor after power up and between operating cycles and a minimum compressor run time of 3 minutes.

UNIT FEATURES

- **Unit Configuration** – There are many different configuration possibilities, through both dip switches and the digital keypad, that allow you to configure the unit for your exact application. See section on unit configuration for more details. The following are the configuration selections that have not previously been mentioned:
 - **Fahrenheit °F or Celsius °C** – The unit can display in either °F or °C.
 - **Indoor Temperature Sensor Biasing** – Optimize the room temperature sensor reading to your exact application (one for cooling and another for heating).
 - **Display Setpoint or Room Temperature** – The unit can be configured to display the room temperature OR setpoint only, during heating and cooling modes. See section on unit configuration for more details.
 - **Emergency Heat (for Heat Pump Only)** – In the event the compressor becomes non-operational, it can be disabled during heating mode allowing heating with the electric heater only.
 - **Limit the Setpoint Range** – The unit can be configured to limit the controlling setpoint range. The display will always show the complete setpoint range, but the controlling setpoint will be limited to the configured minimum and maximum setpoints selected. See section on unit configuration for more details.
 - **Energy Management** – Sometimes known as Front Desk Control, an input is provided so that the unit can be manually disabled from a different location. If the unit detects 24vac on this input, it will automatically turn itself off. If no voltage is detected on the input, the unit will run normally.
 - **Wall Thermostat Control** – A wired wall thermostat can be connected to the unit. If it is, the unit must be configured to disable the keypad. See section on wired inputs and unit configuration for more details.
- **Automatic Quick Warm-up (for heat pump models only)** – If the room temperature falls to 5°F (2.8°C) below the set point temperature, the reverse cycle heat is shut off and the electric strip heat is turned on for one cycle, until heating is satisfied. Then it reverts back to heat pump.
- **Automatic defrost protection (for heat pump models only)** – When the outdoor temperature gets too cold and the unit can no longer effectively heat with the compressor, the unit will automatically switch to electric heating. The unit will then heat with electric heat until the outside temperature rises enough to defrost the outdoor coil, so the compressor can be used again.
- **Automatic room freeze protection** – When the room is unoccupied for long periods during the colder months, the unit will automatically keep the room between 40°F (4.4°C) and 50°F (10°C). Room freeze protection can be disabled by unit configuration dip switches. See System Configuration section for more information.

UNIT FEATURES

- **LED Indicators and Buttons** – The touch pad has buttons for **MODE**, **FAN SPEED**, **ON/OFF**, **SETPOINT UP** and **SETPOINT DOWN**. It also has LEDs that correspond to the mode, fan speed and setpoint operation, to indicate the unit's status. The LEDs below the mode button, **FAN**, **COOL**, and **HEAT**, indicate what operating mode is active. The LEDs below the Fan button, **Low**, **Hi** and **Auto**, indicate the fan speed that is selected. The LED located in the lower right corner is the unit On/Off status LED. If the unit is in **ON** mode, the LED will be green. If the unit is **OFF**, the LED will be red.
- **Configurable Indoor Fan** – The indoor fan can be configured to run in continuous mode or cycle on and off with the compressor and electric heater (this function can be different for both heating and cooling modes). In cycle mode, fan will continue to run 60 seconds after compressor or electric heater stops to remove residual heat and cool off of the coil.

CONDENSATE REMOVAL SYSTEM

ETAC II has a new condensate (water) disposal system. The outdoor fan prop has a built in slinger ring which draws condensate water and sprays it on the warm outdoor coil for evaporation. Thus providing better disposal of excess condensate and improving unit operating efficiency.

It is normal and desirable to have some condensate water in the base pan to boost operating efficiency.

All heat pump units contain a condensate drain valve. This temperature activated drain valve opens when the outdoor temperature drops below 55°F (12.8°C) to prevent water from freezing in the base pan. The water drains from the unit through the wall sleeve and out the wall sleeve's rear condensate drainage holes. If the condensate drain kit accessory is attached to the wall sleeve, water will drain through the condensate drain tube.

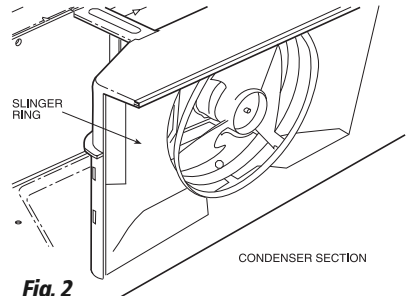


Fig. 2

NOTE: This unit will not always evaporate 100% of the unit generated condensate and blown in rain water. If it is necessary to control 100% of the condensate, the Drain Kit (Part No.: DRAIN-KIT-1PK) and a building condensate drain system is recommended.

ELECTRICAL DATA

WARNING

ELECTRICAL SHOCK HAZARD – Failure to follow this warning could result in personal injury or death and/or property damage. **DO NOT** use an extension cord.

POWER CONNECTION OPTIONS

The appropriate power cord accessory kit is determined by the voltage, and amperage of the branch circuit. The unit does not come with a power cord (or hard wire kit). An accessory power cord kit must be installed on the unit. If the unit is to be hard wired, an accessory hard wire kit must be ordered.

CAUTION

EQUIPMENT DAMAGE HAZARD – Failure to follow this caution may result in equipment damage or improper operation. Using a 30 amp cord on 7000 or 9000 BtuH models could result in damage to the unit. For these models, use 15 or 20 amp power cords only.

Be sure that your outlet matches the appropriate blade configuration of the plug and that it is within reach of the service cord. All wiring, including installation of the receptacle, must be in accordance with the NEC and local codes, ordinances and regulations. National codes require the use of an arc fault or leakage current detection device on all 208/230V power cords. Be sure to select the correct cord for your installation.

IMPORTANT: For 265V units, the power cord is only 18 inches long and must plug into the accessory electrical 265V subbase.

ALL UNITS

WIRE SIZE

Use recommended wire size given in Table 1 and install on a single branch circuit. All wiring must comply with local and national codes. **All units are designed to operate off ONE single branch circuit only.**

NOTE: Use copper conductors only.

ELECTRICAL DATA

Table 1 – SUGGESTED BRANCH CIRCUIT WIRE SIZES*

Nameplate Amps	AWG Wire Size †
7.0 to 12	14
12.1 to 16	12
16.1 to 24	10

LEGEND

AWG – American Wire Gauge
 * Single circuit main power wire from electrical panel to unit.
 AWG based on 240VAC Single Phase, 100 ft. distance 1-way, max. 5% allowable voltage drop.

GROUNDING

For safety and protection, the unit is grounded through the power cord plug or through separate ground wire provided on hard wired units. Be sure that the branch circuit or general purpose outlet is grounded.







VOLTAGE SUPPLY

Check voltage supply at outlet. For satisfactory results, the voltage range must always be within the ranges found on the data information plate.

PROPER WALL RECEPTACLE OUTLET

The unit plug configuration must match the electrical wall outlet and be within reach of the service cord. The standard cord – connected 265v units require an accessory electrical subbase. Refer to Table 2 for proper receptacle and fuse type.

Table 2 – RECEPTACLES AND FUSE TYPES

RECEPTACLE						
AMPS	15	20	30	15	20	30
RATED VOLTS	208/230	208/230	208/230	265	265	265
TIME – DELAY TYPE FUSE (or HACR Circuit Breaker)	15	20*	30	15	20	30

LEGEND
 HACR-Heating, Air Conditioning, Refrigeration
 *May be used for 15-amp applications.

POWER CORD PROTECTION

The power cord for 208/230v units provide power cord safety protection. Unit power automatically disconnects when unsafe conditions are detected. Power to the unit can be restored by pressing the RESET button on LCDI plug head.

Upon completion of unit installation for 208/230V models, an operational check should be performed using the TEST/RESET buttons on the plug head.

NOTE: The 265v models do not incorporate this feature as they require use of the electrical subbase receptacle accessory.

INSTALLATION

CAUTION

PROPER INSTALLATION IS THE RESPONSIBILITY OF THE INSTALLER. Product failure due to improper installation is not covered under the limited Product Warranty.

CHASSIS INSTALLATION

Units are shipped without a sleeve. In applications where unit is a replacement, it is recommended that a standard wall sleeve be used.

These units can retrofit Carrier, General Electric, Amana, Trane, and Friedrich sleeves/grilles (be sure outdoor grille is installed on the sleeve). See Table 3 for details. Gree engineering must approve any other retrofit application.

For competitive retrofit applications, be sure that the foam seals (factory-installed on the tube sheets) provide a good seal between the grille and outdoor coil. **These foam seals provide a barrier to separate outdoor coil discharge air from mixing with the outdoor incoming air (known as air recirculation). Baffles may be required when using non-Gree grills.**

CAUTION

UNIT DAMAGE AND/OR OPERATION HAZARD. Failure to follow this caution may result in equipment damage or improper operation. For retrofit applications, foam seals on outdoor coil tube sheets must make a seal between the coil and the grille or loss of performance and premature damage to the major components can result.

WARNING

PERSONAL INJURY HAZARD – Failure to follow this warning could result in personal injury or death. Chassis weighs up to 150 pounds (68.0kg). Seek help when lifting unit. Lift unit by holding unit basepan.

CAUTION

Unit must be stored/placed in the horizontal position for 3 hours prior to startup, otherwise unit may not start.

INSTALLATION

Fig. 3 – Unit Components

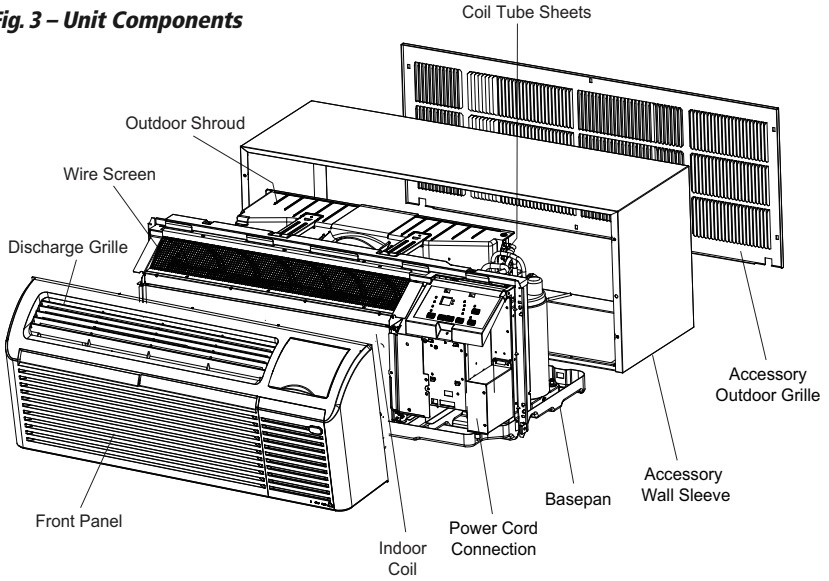


Table 3 – RETROFIT WALL SLEEVES

Manufacturer	Wall Sleeve Part Number
General Electric	Metal Sleeve - RAB71 Plastic Sleeve - RAB77
Amana	Metal Sleeve - WS900B
Gree	Metal Sleeve - PTAC-SLEEVE-SE-INS Plastic Sleeve - SLEEVE-INSUL-1PK
Trane	Metal Sleeve - SLV149
Friedrich	T-Series Metal 11 1/2-in. Deep Wall Sleeve* Standard Depth Wall Sleeve 16 x 42 x 13 3/4-in. PXWS

*FR-Sleeve-EXT accessory is required for retrofit into Friedrich (T-Series) wall sleeves.
Minimum wall sleeve opening must be greater than 14.75" x 40.0".

INSTALLATION

RETROFIT SLEEVE PREPARATION

IMPORTANT: *Inspect wall sleeve thoroughly prior to installation. Manufacturer does not assume responsibility for costs or damages due to defects in sleeve or for improper installation.*

WARNING

ELECTRICAL SHOCK HAZARD – Failure to follow this warning could result in personal injury or death. Disconnect all power to unit to avoid possible electrical shock during installation.

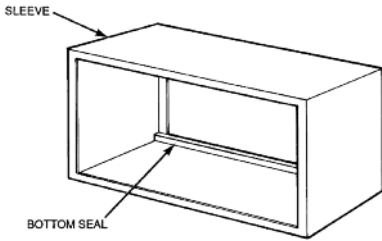


Fig. 4 – GE Plastic Sleeve
Remove bottom seal from plastic sleeve.

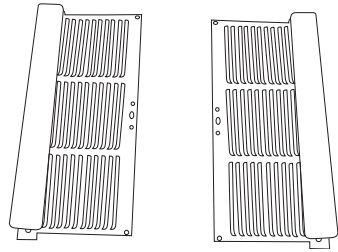


Fig. 5 – Accessory Baffle Kit
(Part# BAFFLE-KIT-1PK)

WINDOW WALL INSTALLATIONS

This application has become more common due to pre-manufactured windows with built-in grilles. Installations using a grille built in a pre-manufactured window assembly may require installation of an Accessory Baffle Kit (see Fig. 5), which ensures a good air seal between the outdoor coil and exterior grille to prevent air recirculation. Air recirculation is a large contributor to capacity loss and premature damage to major components.

INSTALLATION

CHASSIS AND POWER CORD INSTALLATION PREPARATION

- Carefully remove shipping tape from the front panel.

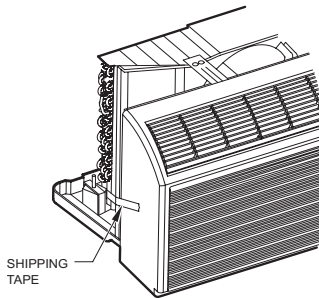


Fig. 6

- Remove front panel.
 - Pull out at the bottom to release it from the tabs (1).
 - Then lift up (2).

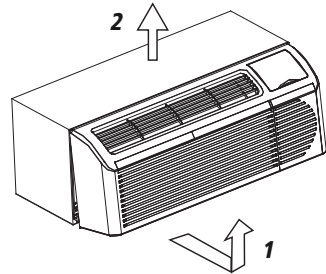


Fig. 7

- Remove junction box.
 - Remove junction box cover by removing three screws from front (save these for later).
 - Remove junction box by taking out top, rear and side screws (save these for later).

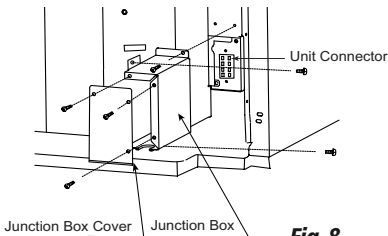


Fig. 8

- Connect power cord connector to unit connector.
 - Units must be installed using the appropriate power cord kit. See Power Connection Chart below.

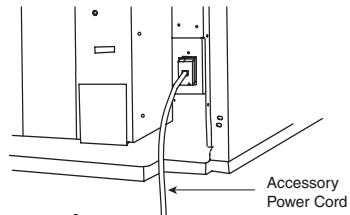


Fig. 9

POWER CONNECTION CHART

Unit Model	Electric Heater - Amp (KW)			Unit Model	Electric Heater - Amp (KW)		
	15A (2.5KW)	20A (3.5KW)	30A (5.0KW)		15A (2.5KW)	20A (3.5KW)	30A (5.0KW)
230/208 VOLTS							
ETAC2-07HC230VA-A	E2CORD-230V15A	E2CORD-230V20A	Not available*	ETAC2-07HC265VA-A	E2CORD-265V15A	E2CORD-265V20A	Not available*
ETAC2-09HC230VA-A			E2CORD-230V30A	ETAC2-09HC265VA-A			E2CORD-265V30A
ETAC2-12HC230VA-A			Not available*	ETAC2-12HC265VA-A			Not available*
ETAC2-15HC230VA-A			Not available*	ETAC2-15HC265VA-A			Not available*
ETAC2-07HP230VA-A			E2CORD-230V30A	ETAC2-07HP265VA-A			E2CORD-265V30A
ETAC2-09HP230VA-A				ETAC2-09HP265VA-A			
ETAC2-12HP230VA-A							
ETAC2-15HP230VA-A							
265 VOLTS							
ETAC2-07HC265VA-A			Not available*	ETAC2-07HC265VA-A			Not available*
ETAC2-09HC265VA-A				ETAC2-09HC265VA-A			
ETAC2-12HC265VA-A				ETAC2-12HC265VA-A			
ETAC2-15HC265VA-A				ETAC2-15HC265VA-A			
ETAC2-07HP265VA-A				ETAC2-07HP265VA-A			
ETAC2-09HP265VA-A				ETAC2-09HP265VA-A			
ETAC2-12HP265VA-A				ETAC2-12HP265VA-A			
ETAC2-15HP265VA-A				ETAC2-15HP265VA-A			

* Using 30A on these units could result in damage to your unit.

INSTALLATION

5. Re-install junction box and cover. Secure power cord.
 - a. Re-install junction box.
 - b. Use wire clamp to secure power cord to basepan with screw provided.
 - c. Replace junction box cover.

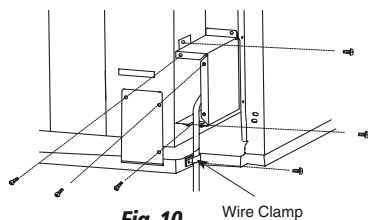


Fig. 10

6. Lift unit level and slide into wall sleeve until seal rests firmly against front of wall sleeve.
 - a. Secure with 4 mounting screws provided with the unit.
 - b. Careful not to over tighten and strip the screws.

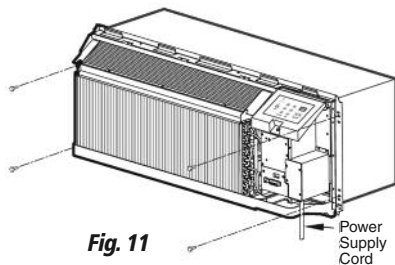


Fig. 11

7. Replace front panel.
 - a. Place tabs over top rail (1).
 - b. Push Inward at bottom until panel snaps into place (2).
 - c. Plug unit in and turn power on.

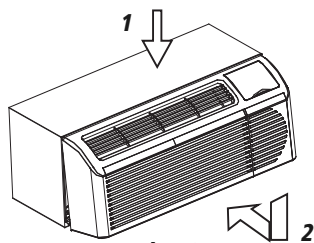


Fig. 12

SYSTEM CONFIGURATION

VENTILATION CONTROL

The unique ventilation system is activated by a two position control. Fresh outside air is redirected by the vent door to the indoor room. A polymer air filter prevents dirt and debris from entering the room from outdoors. The ventilation control lever is located at left side of unit, behind the front panel.

CAUTION

UNIT DAMAGE HAZARD – Failure to follow this caution may result in equipment damage or improper operation. Failure to remove shipping tape and screw will prevent fresh air vent door from opening and may result in damage to vent door cable.

NOTE: The vent door is screwed shut for shipping purposes. Remove shipping screw before using vent control lever. See Installation Instructions.

When vent is set at CLOSE, only the air inside the room is circulated and filtered.

When vent is set at OPEN, some outdoor air will be drawn into room. This will reduce heating or cooling efficiency.

ADJUSTING AIR DIRECTION

The bi-directional discharge grille is constructed of durable polycarbonate and is reversible. Air flows upward at a 40 degree angle to the floor but can easily be adjusted to an 80 degree angle to the floor.

To adjust air direction:

1. Remove front panel.
2. Remove louver screws that hold louver insert in place (from back side of front panel).
3. Turn louver insert and rotate 180°.
4. Replace louver insert.
5. Replace screws and front panel.

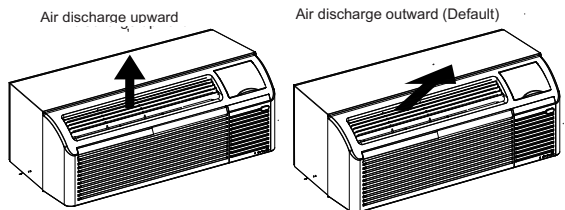


Fig. 16 – Adjusting Louvers

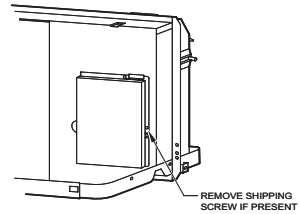


Fig. 13 – Shipping Screw Removal

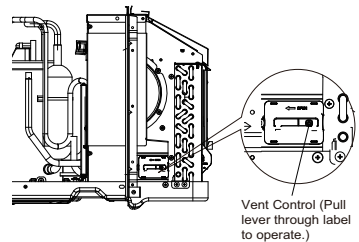


Fig. 14 – Ventilation Control

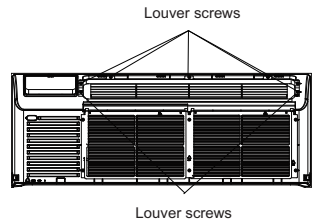


Fig. 15 – Backside of Front Panel

SYSTEM CONFIGURATION

DIGITAL CONTROL USER INPUT CONFIGURATION

The adjustable control dip switches are located at the lower portion of the control box. The inputs are only visible and accessible with the front cover removed from the PTAC.

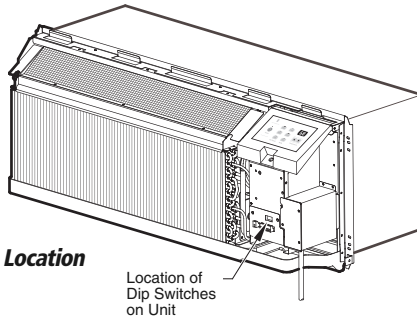


Fig. 17 – Dip Switch Location

DIP SWITCH SETTING

- **Emergency Heat Override – Switch 1**

In the unlikely event of a compressor failure a heat pump unit maybe switched to operate in only the electric heat mode until repairs can be made. Move Dip Switch 1 up to 'ON'.

- **Wall Thermostat – Switch 2**

To enable wall thermostat control and disable the keypad, move Dip Switch 2 up to 'ON'.

- **Heating Fan Control – Switch 3**

Set indoor fan to continuous mode with Dip Switch 3 up or cycle mode with Dip Switch 3 down (factory default).

- **Cooling Fan Control – Switch 4**

Set indoor fan to cycle mode with Dip Switch 4 up or continuous mode with Dip Switch 4 down (factory default).

- **Electronic Temperature Limiting – Switches 5-6**

The factory default temperature range is 65°F to 78°F. Three other temperature ranges may be selected with the Dip Switches. See Table 4 for available ranges.

- **Room Freeze Protection – Switch 7**

Room Freeze Protection can be switched off at the owner's preference by moving Dip Switch 7 up to 'OFF'. This feature will monitor the indoor room conditions and in the event that the room falls below 40°F the unit will cycle on high fan with the electric heater. This occurs regardless of mode. Units are shipped from the factory with the room freeze protection enabled.

SYSTEM CONFIGURATION

DIP SWITCH CONFIGURATION

Fig. 18 – Dip Switches

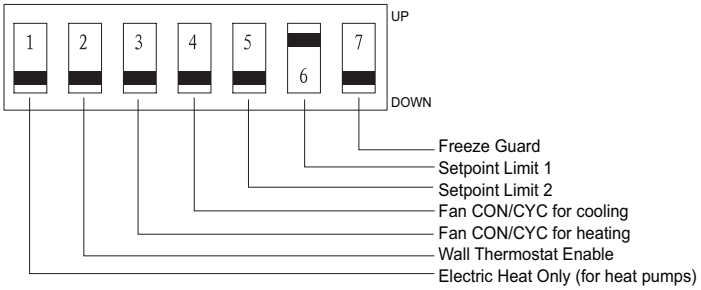


Table 4 – Dip Switch Functions

No.	Up		Down		Remarks	Default
1	Electric Heat Only		Heat Pump		For Heat Pump Unit Only	DOWN
2	Wall Thermostat Enable		Control Panel Enable			DOWN
3	Fan Continuous Run for Heating		Fan Cycle for Heat			DOWN
4	Fan Cycle for Cooling		Fan Continuous Run for Cooling			DOWN
5*6	UP*UP 68-75°F 20-24°C	UP*DOWN 63-80°F 18-28°C	DOWN*UP 65-78°F 19-26°C	DOWN*DOWN 61-86°F 16-30°C (full range)	Two configurations (5*6) combine to select set point range. When set point limit is set, display always shows full range.	DOWN*UP 65-78°F 19-26°C
7	Freeze Guard Disable		Freeze Guard Enable			DOWN

SYSTEM CONFIGURATION

KEYPAD CONFIGURATION

Additional unit configurations are available using the keypad.

- **To Enter Configuration Mode**

Apply power to unit. Within 30 seconds press and hold the Fan Speed and Setpoint Down ▼ button for 5 seconds.

- **To scroll through the Keypad Configuration options**

Press and release the Fan Speed button. The stored value will be displayed.

- **To modify Configuration settings**

Press and release the Setpoint Up ▲ or Setpoint Down ▼ buttons.

- **To exit Keypad Configuration**

Press MODE button on Keypad or wait 30 sec for automatic exit.

1. FAHRENHEIT/CELSIUS DISPLAY SWITCH

Use the Setpoint Up ▲ and Setpoint Down ▼ buttons to change between degrees Fahrenheit (°F) and Celsius (°C) on the display. Default is Fahrenheit.

2. INDOOR AIR TEMPERATURE SENSOR BIASING FOR COOLING MODE

Sometimes known as an anticipator, the air temperature sensor bias is used to adjust the room air temperature reading when in cooling mode. (Not normally required.) Default biasing value is zero. Use the Setpoint Up ▲ and Setpoint Down ▼ buttons to set a bias between -6°F to +6°F (-3°C to +3°C).

3. INDOOR AIR TEMPERATURE SENSOR BIASING FOR HEATING MODE

This operates the same as above, but for heating mode.

4. INDOOR TEMPERATURE DISPLAY

Use the Setpoint Up ▲ and Setpoint Down ▼ buttons to change between Setpoint Only display (SP mode) and Room Temperature/Setpoint display (AA mode).

SP Mode – Only the setpoint is displayed during heat, cool, and dry modes (factory default).

AA Mode – The unit will display both setpoint and room temperature.

- Room temperature will be displayed in heat, cool, dry and fan only modes.
- Setpoint will be displayed for 10 seconds immediately after a mode change.
- Setpoint will be displayed for 10 seconds immediately after changing the setpoint.

SYSTEM CONFIGURATION

WALL THERMOSTAT INSTALLATION

ETAC II heat pump and heat/cool models will work with most common 24vac single stage wall thermostats.

CAUTION

ELECTRICAL SHOCK HAZARD – The unit and accessories should be installed and serviced only by trained, qualified installers and service technicians.

1. Disconnect all electrical power to unit including disconnecting plug, fuses and circuit breakers.
2. Select a proper location on the wall for mounting the wall thermostat
3. Install switch box (if required by code) and thermostat back plate.
4. Install thermostat wire (field supplied) between the thermostat and ETAC II. Unless otherwise instructed, use standard 18-20AWG solid copper thermostat wire.
5. Route thermostat wire beneath ETAC II unit and up under the front panel on the power cord side (see Fig. 19). Never route thermostat wire through the wall sleeve.
6. Locate thermostat connection terminal on control box (see Fig. 21). Carefully remove terminal block from unit (see Fig. 20).

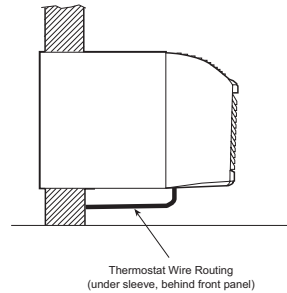


Fig. 19 – Proper Wire Routing

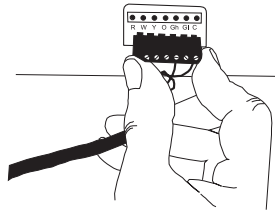


Fig. 20 – Terminal Connector Removal and Replacement

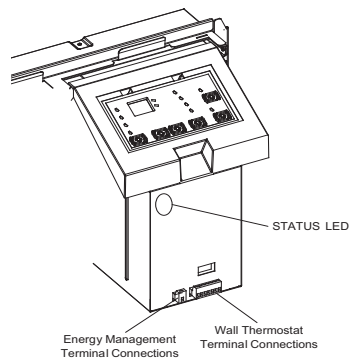
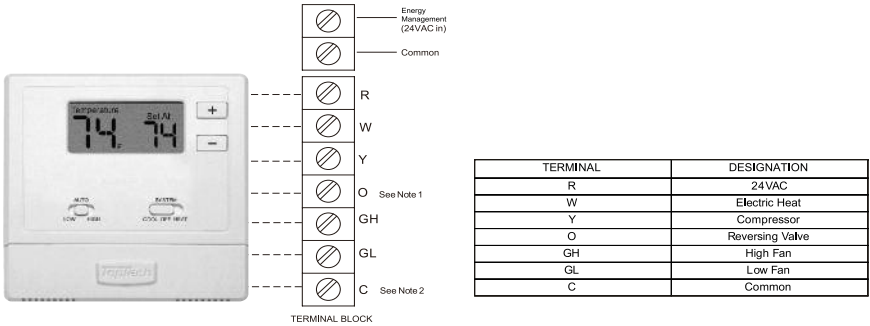


Fig. 21 – Terminal Connector and Status LED Location

SYSTEM CONFIGURATION

WALL THERMOSTAT INSTALLATION (CON'T)

7. Connect thermostat wire to the ETAC II thermostat connection terminals per wire diagram (see Fig. 22).



NOTES:

1. Use terminal "O" for heat pump connection only.
2. Terminal "C" (common) is typically only required for digital thermostats.

NOTES:

Any illegal input combinations will be captured as thermostat wiring failures and will light the STATUS LED indicator on main board (see Intelligent Self-Checking Control section).

Fig. 22 – Wiring Connections

NOTE: For thermostats that have only one fan speed output (on or auto), the fan speed is determined by how the terminal connector is wired. If Low fan is desired, wire the G output from the thermostat to GL on the unit's terminal block. If Hi fan is desired, wire the G output from the thermostat to GH on the unit's terminal block.

8. Carefully re-attach thermostat terminal block on unit.
9. Locate configuration dip switches above thermostat terminal connections. Set switch #2 "UP" for Wall Thermostat Mode (see Fig. 17).
10. Install thermostat escutcheon label over touchpad control panel (see Fig. 23). Included in I/O packet.
11. Mount, wire and configure wall thermostat per instructions provided by the manufacturer.
12. Restore power to unit and verify wall thermostat operation.



Fig. 23 – Wall Thermostat Control Panel Label
(Part# 62261101)

SYSTEM CONFIGURATION

ENERGY MANAGEMENT INPUT (FRONT DESK CONTROL)

The ETAC II can interface to a switch signal from remote energy management input, called EM signal or front desk control. The input signal must be 24 VAC. If unit receives a 24 VAC signal, it will turn off; otherwise, the unit runs normally. This function will be disabled under Freeze Guard protection. See Fig. 21 for terminal connections.

INTELLIGENT SELF-CHECKING CONTROL

Your ETAC II has a computer on board that continuously checks key components of the unit to ensure they are operating properly. Under normal operation, unit status indicator (STATUS, on main PCB), light is steadily ON. If there is a major problem, the unit will shut down and display a diagnostic failure code on the unit's display. If it is only a minor failure and unit is correcting the fault by itself, the diagnostic code will be flashed on the status LED that can easily be seen when the front panel is removed (see Fig. 21). Failure STATUS codes are defined in the table below.

Table 5 – STATUS LED Indicator Definitions

1	Indoor air temp sensor open/short	ETAC II Display 'F1', with STATUS light flash 1 times and off 3 sec, repeat
2	Indoor coil sensor open or short	ETAC II Display 'F2', with STATUS light flash 2 times and off 3 sec, repeat
3	Outdoor coil sensor open/short	ETAC II Display 'F4', with STATUS light flash 3 times and off 3 sec, repeat
4	Freeze Guard protection	ETAC II Display 'FP'
5	Indoor coil freeze protection	STATUS LED light flash 5 times and off 3 sec, repeat
6	Outdoor coil high temp protection	STATUS LED light flash 6 times and off 3 sec, repeat
7	Defrost (heat pump type)	STATUS LED light flash 7 times and off 3 sec, repeat
8	Indoor coil high temp protection	STATUS LED light flash 8 times and off 3 sec, repeat
9	Thermostat wiring error	STATUS LED light flash 9 times and off 3 sec, repeat
10	High pressure protection (optional)	ETAC II Display 'E1', (the highest display grade)

NOTE: The ETAC II is operating normally when the Status LED continuously flashes ON for 1 second and OFF for 1 second.

OPERATION

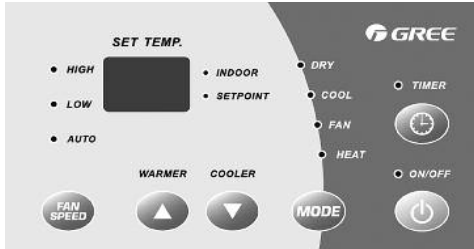


Fig. 24 – ETAC II Display and Touchpad

ABOUT THE CONTROLS ON YOUR UNIT

NOTE: After power failure, unit automatically restores last programmed settings.

1. ON and OFF MODES

ON MODE – Places unit in ready or operation mode. **OFF MODE** – Places unit in standby mode.

NOTE: The LED above the ON/OFF button will be green when unit is ON and red when the unit is OFF. All other LEDs will be off when unit is set to OFF mode. Power remains connected to unit.

2. TEMP CONTROL

Temp Control is used to maintain room temperature. Compressor will cycle on and off to keep room at the requested level of comfort.

COOLER – Lowers temperature. Minimum temperature setting is 61°F/16°C.

WARMER – Raises temperature. Maximum temperature setting is 86°F/30°C.

3. OPERATING MODE

MODE-COOL – For cooling **MODE-DRY** – For cooling with additional moisture removal.

MODE-HEAT – For heating **MODE-FAN** – For fan-only operation

NOTE: For heat pumps, raising the heat setting 5°F (2.8°C) will cause unit to use electric heating elements for one cycle, to reach new requested temperature quickly.

4. FAN SPEED Set fan operation for HI, LO and AUTO speed.

Auto Fan Mode – Adjusts the indoor fan speed to balance comfort and quietness. Fan speed will increase the farther away from the selected room temperature to quickly reach desired room temperature. As the unit approaches selected temperature, the indoor fan slows down to a quieter comfort level.

5. TIMER MODE

Timer ON – When the unit is ON, the Timer ON function can be set. Time setting range is 0.5 to 24 hrs. When the selected time is reached, the unit will turn ON and operate according to system settings.

Timer OFF – When the unit is OFF, the Timer OFF function can be set. Time setting range is 0.5 to 24 hrs. When the selected time is reached, the unit will turn OFF.

Timer Setting – Press Timer button to set timer function. The Timer LED will turn ON and “88” will be displayed. Press the up or down arrows to select the desired time.

CARE AND CLEANING

Preventive maintenance is essential to proper unit operation, efficiency and longevity, and required to maintain equipment warranty.

To ensure equipment operates properly, it must be properly maintained. Equipment operation should be checked and verified several times during each year. For typical unit inspection and maintenance, follow the guidelines below:

FRONT PANEL AND CASE

Turn unit off and disconnect power supply. To clean, use water and a mild detergent. DO NOT use bleach or abrasives. Some commercial cleaners may damage the plastic parts.

OUTDOOR COIL

Coil on outdoor side of unit should be checked regularly. Unit will need to be removed from wall sleeve to inspect dirt buildup that will occur on the inside of the coil. Clean both sides of outdoor coil with warm water and a mild detergent. Do not use corrosive coil cleaners.

NOTE: Never use a high-pressure spray on coil. Clean inside and outside of outdoor coils regularly.

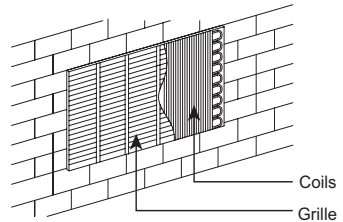


Fig. 25 – Outdoor Coil

CAUTION

UNIT DAMAGE HAZARD – Failure to follow this caution may result in equipment damage or improper operation. Airflow restriction may cause damage to the unit.

BASEPAN

In some installations, dirt or other debris may be blown into unit from outside and settle in base pan (bottom of unit). In some areas of the United States, a “jell-like” substance may be seen in the basepan. Check basepan periodically and clean, if necessary.

CAUTION

UNIT DAMAGE HAZARD – Failure to follow this caution may result in equipment damage or improper operation. Do not operate unit without filters in place. If a filter becomes damaged, it should be replaced immediately.

Operating the unit without filters or with damaged filters will allow dirt and dust to reach indoor coil and reduce cooling, heating, airflow and efficiency of unit. Airflow restriction may cause damage to the unit; thereby voiding equipment warranty.

CARE AND CLEANING

AIR FILTERS

IMPORTANT: Turn unit off before cleaning.

IDENTIFYING CLOGGED FILTER

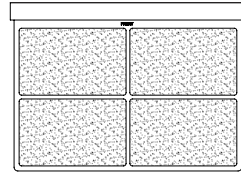
The most important thing you can do to maintain unit efficiency is to clean the filters at least every 30 days (or sooner depending on application). Clogged filters reduce cooling, heating and airflow.

Keeping filters clean will:

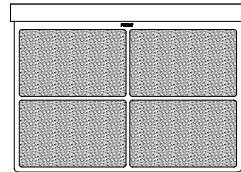
- Decrease cost of operation.
- Save energy.
- Prevent clogged indoor coil.
- Reduce risk of premature component failure.

To Clean Air Filters:

- Vacuum off heavy soil.
- Run water through filters.
- Dry thoroughly before replacing.



Dirty filter -
Needs cleaning



Clogged filter -
Greatly reduces cooling,
heating and airflow.

Fig. 26 – Identifying Clogged Filter

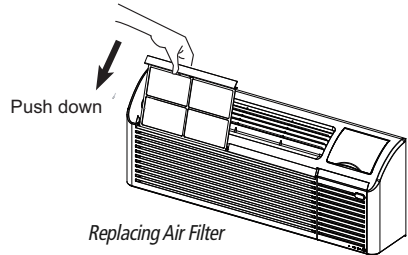
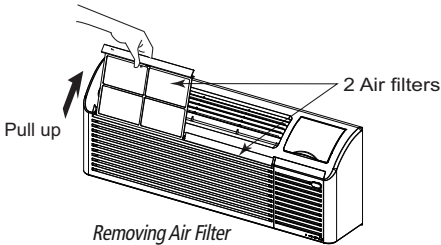


Fig. 27 – Removing and Replacing Air Filter

TROUBLESHOOTING

POSSIBLE CAUSES	SOLUTIONS
<p>UNIT DOES NOT START</p> <ul style="list-style-type: none">• Unit may have become unplugged• Fuse may have blown• Circuit breaker may have been tripped• Unit may be off or in wall thermostat mode. Check section on dip switch settings to verify dip switches are set properly.• Unit may be in a protection or diagnostic failure mode. See section on Intelligent Self-checking Control.	<ul style="list-style-type: none">• Check that plug is plugged securely in wall receptacle. Note: Plug has a test/reset button on it. Make sure that the plug has not tripped.• Replace the fuse. See Note 1.• Reset circuit breaker. See Note 1.• Turn unit on (bottom right button on keypad). Note: If the unit turns on, the LED will be green. If the unit is off, the LED will be red. If there is no LED on, there is a problem with power or damage to the control.
<p>UNIT NOT COOLING/HEATING ROOM</p> <ul style="list-style-type: none">• Unit air discharge section is blocked• Temperature setting is not high or low enough. <i>Note:</i> Setpoint limits may not allow the unit to heat or cool the room to the temperature desired. Check section on dip switch settings.• Unit air filters are dirty.• Room is excessively hot or cold when unit is started.• Vent door left open• Unit may be in a protection or diagnostic failure mode. Check section on Intelligent Self-checking Control.• Compressor is in time delay. There is a protective time delay (approx. 3 minutes) on starting the compressor after a power outage (or restarting after it has been turned off), to prevent tripping of the compressor overload.	<ul style="list-style-type: none">• Make sure that curtains, blinds or furniture are not restricting or blocking unit airflow.• Reset to a lower or higher temperature setting.• Remove and clean filters.• Allow sufficient amount of time for unit to heat or cool the room. Start heating or cooling early before outdoor temperature or gatherings of people make room uncomfortable.• Close vent door.• Check dip switch settings for desired comfort. Wait approximately 3 minutes for compressor to start.
<p>DISPLAY HAS STRANGE NUMBERS/CHARACTERS ON IT</p>	<ul style="list-style-type: none">• The unit may be in a diagnostic condition. Check Intelligent Self Checking Control section to determine if unit has had a failure.• The unit may be set for °C (instead of °F), see the keypad configuration section.
<p>UNIT MAKING NOISES</p>	<ul style="list-style-type: none">• Clicking, gurgling and whooshing noises are normal during operation of unit.

TROUBLESHOOTING

POSSIBLE CAUSES	SOLUTIONS
<p>WATER DRIPPING INSIDE</p> <ul style="list-style-type: none"> • Wall sleeve is not installed level • Clogged drain 	<ul style="list-style-type: none"> • Wall sleeve must be installed with a 1/4 bubble pitch toward the outside for proper drainage of condensation. Check that installation is level and make any necessary adjustments. • The condensate drain may be partially or fully plugged.
<p>ICE OR FROST FORMS ON INDOOR COIL</p> <ul style="list-style-type: none"> • Low outdoor temperature • Dirty filters 	<ul style="list-style-type: none"> • When outdoor temperature is approximately 55°F (12.8°C) or below, frost may form on the indoor coil when unit is in Cooling mode. Switch unit to FAN operation until ice or frost melts. • Remove and clean filters.
<p>COMPRESSOR PROTECTION</p> <ul style="list-style-type: none"> • Power may have cycled, so compressor is in a restart protection. 	<ul style="list-style-type: none"> • Random Compressor restart – Whenever the unit is plugged in, or power has been restarted, a random compressor restart will occur. After a power outage, the compressor will restart after approximately 3 minutes. • Compressor Protection – To prevent short cycling of the compressor, there is a random start up delay of 3 minutes and a minimum compressor run time of 3 minutes.
<p>WALL THERMOSTAT PROBLEM</p>	<ul style="list-style-type: none"> • Verify wiring is correct between thermostat and unit. • Dip Switch settings are only read during power up. Unplug unit and verify Dip Switch Settings, then plug unit in.

NOTES:

1. If circuit breaker is tripped or fuse is blown more than once, contact a qualified electrician.
2. If unit is installed where condensation drainage could drip in an undesirable location, an accessory drain kit should be installed and connected to drain system.



GREE ELECTRIC APPLIANCES, INC.

www.greecomfort.com

LIMITED WARRANTY

TWO-YEAR PARTS AND LABOR LIMITED WARRANTY – During the first two years after purchase, GREE will, through its authorized independent servicing dealer or service stations*, and free of charge to the user or subsequent users, repair or replace any parts that fail due to defect in material or workmanship. The replacement part can be a new or remanufactured part as provided at GREE'S sole option.

EXTENDED THREE-YEAR PARTS AND LABOR LIMITED WARRANTY ON SEALED REFRIGERATION SYSTEM ONLY – During the third through fifth years after date of original purchase, GREE will, through its authorized servicing dealers and service stations* and free of charge to the end user or subsequent users, remove, repair or replace the compressor, condenser, evaporator or connecting tubing if it failed due to defect in material or workmanship. This includes system refrigeration charge. The replacement part can be new or a remanufactured part at GREE'S sole option.

EXTENDED THREE-YEAR PARTS ONLY LIMITED WARRANTY ON NON-SEALED REFRIGERATION SYSTEM ONLY – During the third through fifth years after date of original purchase, Gree will provide, through its authorized servicing dealers and service stations and free of charge to the end user or subsequent users, any non-sealed system part (motor, solenoid, thermistor, circuit boards, relays, switch, capacitor, overload, drain valve, fan, stator) if failed due to defect in material or workmanship. The replacement part can be new or a remanufactured part at GREE'S sole option. **THIS LIMITED WARRANTY DOES NOT INCLUDE LABOR**, user is responsible for labor, including cost of diagnosis of problem, removal and transportation of the air conditioner to and from the service center, and reinstallation charges necessary to accomplish repair.

LIMITATION OF WARRANTIES – ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR USE OR PURPOSE) ARE HEREBY LIMITED IN DURATION TO THE PERIOD FOR WHICH EACH LIMITED WARRANTY IS GIVEN AND APPLIES. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON WHATSOEVER. ALL WORK UNDER THE TERMS OF THIS WARRANTY SHALL BE PERFORMED DURING NORMAL WORKING HOURS. ALL REPLACEMENT PARTS, WHETHER NEW OR REMANUFACTURED, ASSUME AS THEIR WARRANTY PERIOD ONLY THE REMAINING TIME PERIOD OF THIS WARRANTY.

ALL WORK UNDER THE TERMS OF THIS WARRANTY SHALL BE PERFORMED DURING NORMAL WORKING HOURS. ALL REPLACEMENT PARTS, WHETHER NEW OR REMANUFACTURED, ASSUME AS THEIR WARRANTY PERIOD ONLY THE REMAINING TIME PERIOD OF THIS WARRANTY.

GREE WILL NOT BE RESPONSIBLE FOR:

1. CLEANING REQUIRED PRIOR TO WARRANTY REPAIR.
2. Standard maintenance, cleaning or damage resulting from failure to perform normal maintenance as outlined in the owner's manual.
3. Instruction on methods of control and use of air conditioning unit after initial installation.
4. Damage or repairs needed as consequence of faulty installation or application. This is the responsibility of the installer.
5. Failure to start due to voltage conditions, blown fuses, open circuit breakers or any other damages due to the inadequacy or interruption of electrical services.
6. Damage or repairs needed as consequence of any misapplication, abuse, unauthorized alteration, improper servicing or operation.
7. Damage as a result of floods, winds, fires, lightning, accidents, corrosive environment, or other conditions beyond the control of GREE.
EXCEPTION TO CORROSIVE ENVIRONMENT EXCLUSION IN ABOVE PARAGRAPH – Packaged terminal units built with corrosion protection are exempt from the exclusion – "Corrosive Environment." The unit model number is identified on the nameplate with CP suffix.
8. Reimbursement for replacement parts or repair services which are not supplied or designated by GREE and which are specifically covered under this warranty.
9. GREE products installed outside the continental U.S.A., Alaska, Hawaii, and Canada.
10. Shipping damage or damage as a result of transporting the unit. This is the responsibility of the selling dealer or the authorized service station.
11. ANY SPECIAL, INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.
12. Warranty coverage of accessory items (wall thermostats, wall sleeves, etc.)
13. Installations of non-corrosion protected models within one (1) mile of a corrosive body of water or environment shall void the EXTENDED THREE-YEAR PARTS AND LABOR LIMITED WARRANTY ON SEALED REFRIGERATION SYSTEM ONLY and EXTENDED THREE-YEAR PARTS ONLY LIMITED WARRANTY ON NON-SEALED REFRIGERATION SYSTEM ONLY limited warranties.

* Authorized independent dealers or service stations are registered with Gree through its distributor organization. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

IF YOUR AIR CONDITIONER DOES NOT WORK, FOLLOW THESE STEPS IN ORDER:

1. CHECK THE THINGS YOU CAN DO YOURSELF. These include being sure the air conditioner is plugged in firmly in an appropriate receptacle, checking the fuse or circuit breaker and ensuring its replacement or resetting, if necessary, and rereading the instruction book to ensure that all controls are set properly. By doing this you can save money. Many unnecessary service calls result in the serviceman doing what the owner can do for him or herself.
2. CONTACT YOUR DEALER OR THE AUTHORIZED SERVICE CENTER HE RECOMMENDS. They have been set up to handle the great majority of all possible service problems. The quickest, surest and best way to get your air conditioner back in service is to use this step before proceeding further.