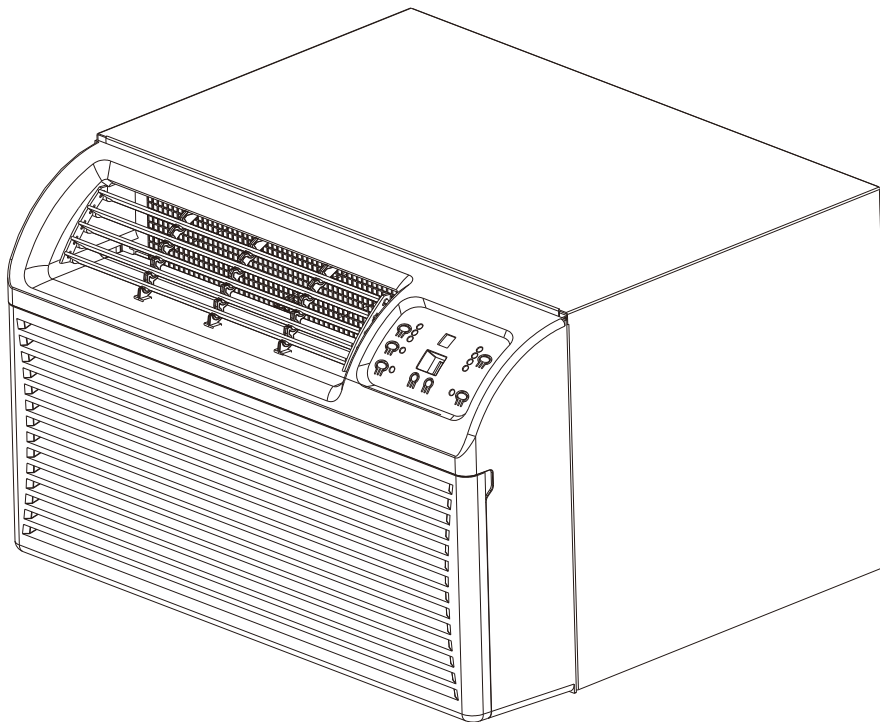


**GENUINE COMFORT**

# **THROUGH THE WALL ROOM AIR CONDITIONER WITH OPTIONAL ELECTRIC HEATER AND HEAT**



## **ATTENTION INSTALLATION PROFESSIONAL**

As a professional installer you need to know the product better than the customer. This instruction includes all safety precautions and related items.

Prior to actual installation, thoroughly familiarize yourself with this instruction manual. Pay special attention to all safety warnings.

During installation or maintenance, it is possible to be in a position which is more hazardous than when the unit is in operation.

Remember it is your responsibility to install the product safely and to know it well enough to be able to instruct a customer in its safe use.

Safety is a matter of common sense, a matter of thinking before acting. Most dealers have a list of specific good safety practices, follow them.

The precautions listed in this Installation Manual are intended as supplements to existed practices.

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## RECOGNIZE THIS SYMBOL AS A SAFETY PRECAUTION

**⚠ WARNING**

THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR ANY INJURY OR PROPERTY DAMAGE ARISING FROM IMPROPER SERVICE OR SERVICE PROCEDURES. IF YOU INSTALL OR PERFORM SERVICE ON THIS UNIT, YOU ASSUME RESPONSIBILITY FOR ANY PERSONAL INJURY OR PROPERTY DAMAGE WHICH MAY RESULT, MANY JURISDICTIONS REQUIRE A LICENSE TO INSTALL OR SERVICE HEATING AND AIR CONDITIONING EQUIPMENT.

**⚠ WARNING**

**HIGH VOLTAGE**  
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENTED, FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

### IMPORTANT NOTES:

Before using this manual, check the serial plate for proper model identification.

The installation and servicing of this equipment must be performed by qualified, experienced technicians only.

Due to policy of continual product improvement, the right is reserved to change specifications and design without notice.

## THE FOLLOWING WARNINGS ARE VERY IMPORTANT FOR SAFETY. PLEASE READ THEM CAREFULLY BEFORE INSTALLATION!

1. The air conditioner must be installed by certificated installers. It's forbidden to install by those amateurs.

2. Please check whether there is ground wire in the power supply system before installation. If not, installers should refuse to install and explain the safety principle to users.

3. To avoid electric shock or even death, the socket or terminal blocks for power supply of the air conditioner(include 277V, 115V, 208V~230V series and the units that have LCDI power cord) must connect to a Ground Fault Circuit Interrupter.

4. During installation, the wire connection must strictly follow the rule that zero line and fire line of the unit should be connected to the zero line and fire line in the power system. The connection in reverse is forbidden. Please make sure the ground wire is firmly connected otherwise it is possible to result in the electrical shock or death.

### OPTIONAL ACCESSORIES

Wall Sleeve Kit  
Filter Kit  
Stamped Louver Kit  
LCDI Power Cord  
IR Remote Controller

**NOTE:** Refer to sales literature for the appropriate voltage and amperage selections.

## IMPORTANT NOTES TO THE OWNER

This equipment is to be serviced by professional and trained personnel only. If this equipment is improperly installed, adjusted or altered by an unqualified person, a safety hazard may result.

## IMPORTANT NOTES TO THE SERVICER

Read this manual and familiarize yourself with the specific items which must be adhered to before attempting to service this unit. The precautions listed in this manual should not supersede existed practices but should be considered as supplemental information.

## TRANSPORTATION DAMAGE

All units are securely packed in shipping containers approved by the National Safe Transit Association. The carton should be checked upon arrival for external damage. If damage is found, make a written request for inspection immediately by the carrier's agent.

In the event of damage:

1. Note on the delivery receipt about any visible damage to shipment or container.
2. Notify carrier promptly and request an inspection.
3. File the claim with the following supporting documents within the six month statute of limitations.
  - a. Original Bill of Lading, certified copy, or indemnity bond.
  - b. Original paid freight bill or indemnity.
  - c. Original invoice or certified copy, showing trade and other discounts or reductions.
  - d. Copy of the inspection report issued by carrier's representative at the time damage is reported to the carrier.

The carrier is responsible for making prompt inspection of damage and for a thorough investigation of each claim. The distributor or manufacturer will not accept claims from dealers for transportation damage.

## UNPACKING THE UNIT

1. Cut the carton banding and open the carton.
2. Remove the literature, hardware pack, upper styrofoam shipping blocks, and styrofoam corner posts.
3. Remove the front assembly.
4. Lift the unit from the remaining carton.
5. Dispose of the cardboard and styrofoam at an approved Recycle Center. Check all contents for damaged or missing parts.

In case of concealed damage, notify the carrier as soon as possible-preferably within 5 days. Refer to step 3 of the Transportation Damage section if damage or missing parts are noted.

## OPERATING INSTRUCTIONS

This unit has many features which are different from those found on conventional units. The servicer must be familiar with these features in order to properly service the unit.

Check the data specification plate and ensure the proper voltage and current rating for the type of plug on the unit is available. **DO NOT REMOVE THE GROUNDING PRONG FROM THE POWER CORD.** See Fig 1 for the types of acceptable plugs. Do not use an extension cord for the installation of this product. Refer to the data specification plate for electrical requirements.

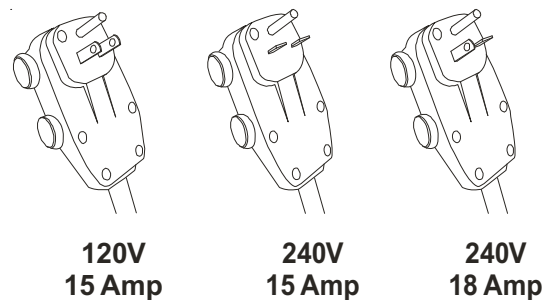
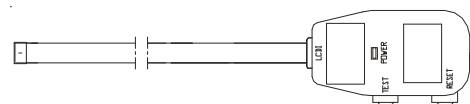


Fig 1

• **LCDI Cords**—Underwriters Laboratories and the National Electric Code (NEC) now require power cords that can sense current leakage and open the electrical circuit to the unit on units rated at 250 volts or less. In the event that unit does not operate, check the reset button located on or near the head of the power cord as part of the normal troubleshooting procedure.



LCDI Power Cord

## VOLTAGE MEASUREMENTS

Before connecting the unit, measure the supply voltage. Voltage must within the voltage utilization range given in Table 1.

Operating Voltage		
Unit Voltage Rating	Voltage Utilization Range	
	Minimum	Maximum
230/208	187	253
115	103	126

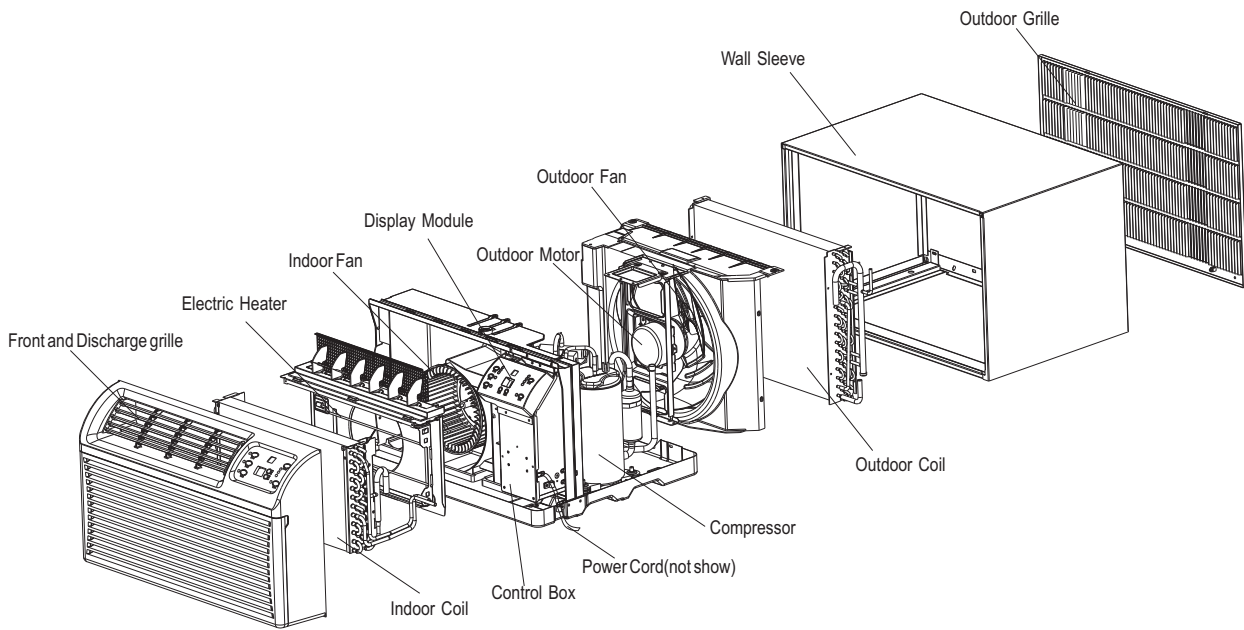
Table 1

# INSTALLATION INSTRUCTIONS

To ensure that the unit operates safely and efficiently, it must be installed, operated and maintained according to these installation and operating instructions and all local codes and ordinances or, in their absence, with the latest edition of the National Electric Code. The proper installation of this unit is described in the following sections. Following the steps in the order presented should ensure proper installation.

**⚠ WARNING**  
**HIGH VOLTAGE**  
 DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENTED, FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

**⚠ WARNING**  
 TO PREVENT ELECTRICAL SHOCK, PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH, DO NOT REMOVE GROUNDING PRONG FROM PLUG. FOLLOW ALL OPERATING INSTRUCTIONS.



## Wall Sleeve Instructions

### Welded integrated wall sleeve

Welded integrated wall sleeve is featured by artistic appearance and stable structure referring to Fig 2. Customers can purchase together with unit.

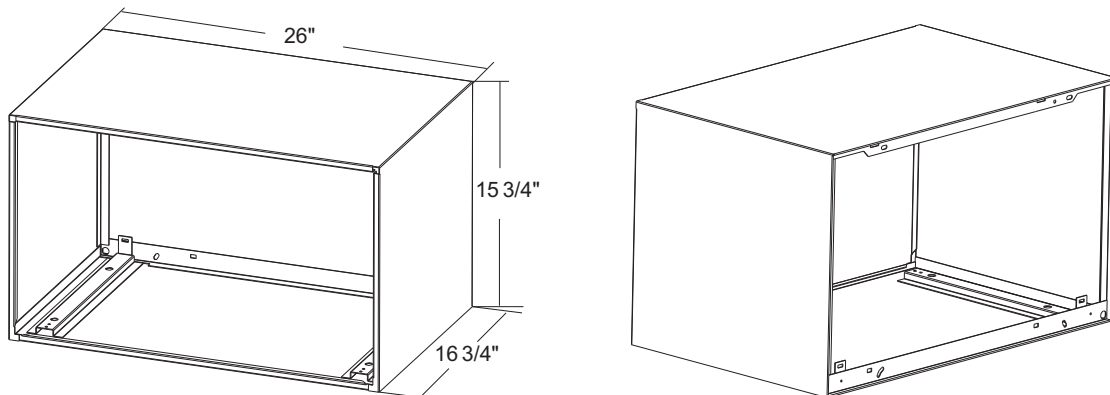


Fig 2

## Sleeve installation

In order for condensate water to drain properly inside the unit, the sleeve must be installed properly:

- Level from right to left.
- A slight downward pitch from the indoor side to the outdoor side as shown below (Fig 3).
- Fasten the wall sleeve (Fig 4).

Refer to the Installation Instructions supplied with the wall sleeve for a complete description of the installation procedure.

**NOTE:** Wall sleeve is not shipped with chassis and must be purchased separately.

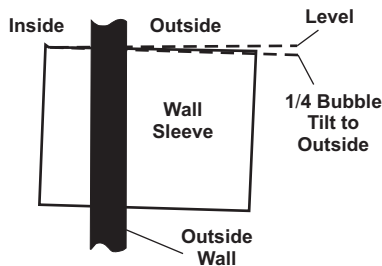


Fig 3 Proper Sleeve Tilt

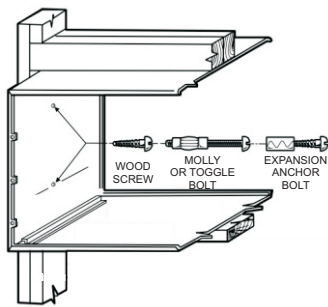
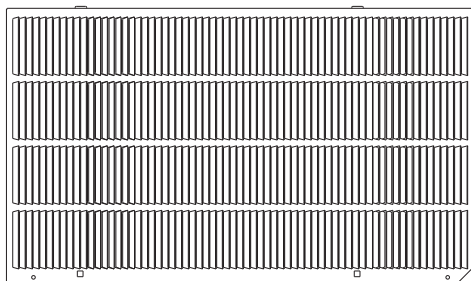


Fig 4

## OUTDOOR GRILLE

An outside grille must be installed to direct air flow for proper unit operation and also the outdoor coil protection. The grille must be installed before installing the chassis.

When replacing an old chassis with an existed grille or using a specialized grille in a new installation, please contact with after-sales engineer to confirm if the new chassis can be used with the non-standard specialized grille. An improper outdoor grille may cause poor cooling or heating effect, a higher power input and shorten the unit service life and possibly void the warranty.



Aluminium Stamped Louver

## CHASSIS INSTALLATION

1. Remove front grille. See Fig A.

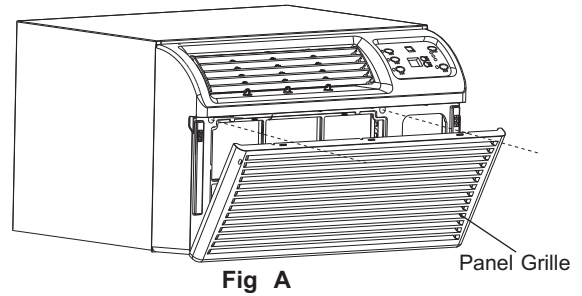
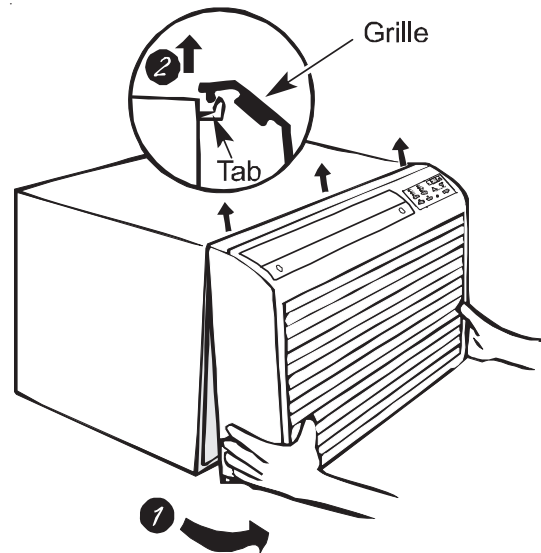


Fig A

The front grille can be removed for more thorough cleaning or to make the model and serial numbers accessible. Open the panel and remove the two grille screws can remove the grille.



Pull the grille out from the bottom and lift up from the tabs on the top of the case.

2. Remove the ground screw and wire next to the grounding symbol on right side of chassis control panel (Fig 5). Attach other end of ground wire to the hole in the bottom right side of the sleeve with #8×3/8" blunt point sheet metal screw. The hole on the sleeve is indicated by grounding symbol on the sleeve. Slide chassis part of the way into the sleeve and reattach the ground wire back to the hole on the right side on the control panel area next to the ground symbol.

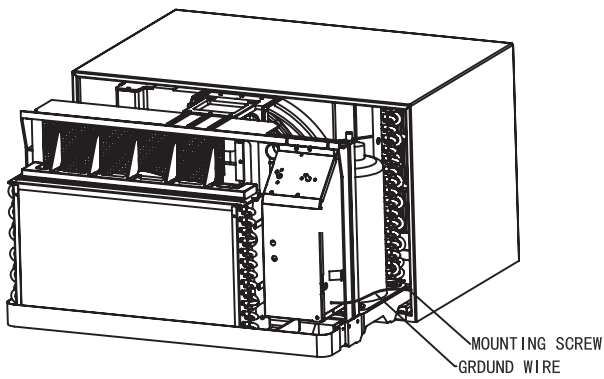


Fig 5

3. Remove shipping pads inside air conditioner next to compressor. (See Fig B)



Fig B

4. Carefully slide the chassis into the sleeve. Ensure that the ground wire is not pinched or blew by the condenser fan.

5. Loosen locking plate screw and rotate tab with tab behind wall case flange (See Fig C) then tighten locking plate screw.

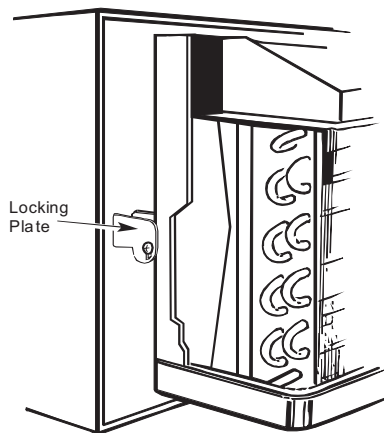


Fig C

6. If outlet is on the left side of the unit, route power cord as shown in Fig D.

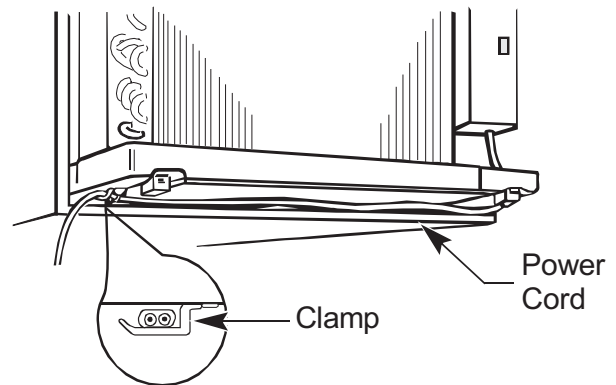
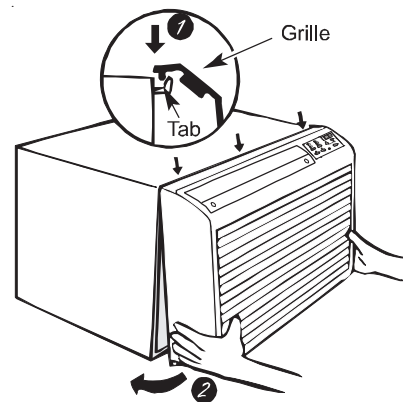


Fig D

To replace front grille:



Hook the tabs on the front grille with the tabs on the case and snap into place. Replace the screws and filter. Refer to page 4, Fig A.

### VENT CONTROL AND AIR DIRECTION (See Fig E)

The vent control is located behind the front grille on the right side of the air discharge area. When set at CLOSE only the air inside the room will be circulated and conditioned. When set at OPEN, some inside air is exhausted outside.

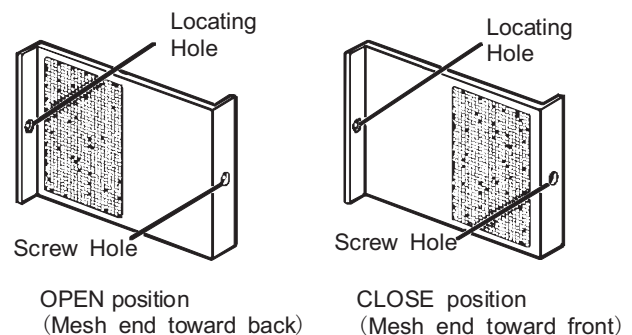


Fig E

To open or close the vent:

1. Remove the front grille.
2. Remove the vent card screw.
3. Remove the vent card, turn it over and replace it by locating rear hole in card over locating pin inside air discharge and reattaching screw at front.

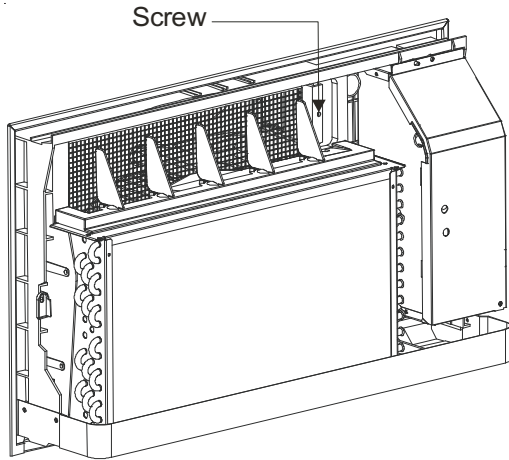
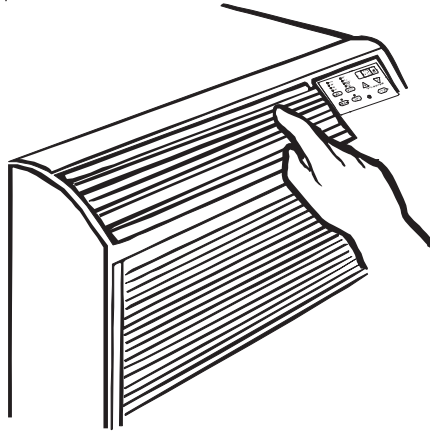


Fig 6

### AIR DIRECTION:

Horizontal louvers on the front grille let you control the air direction up and down.



Remove the front grille to adjust the vertical louvers side-to-side to direct the air left or right.

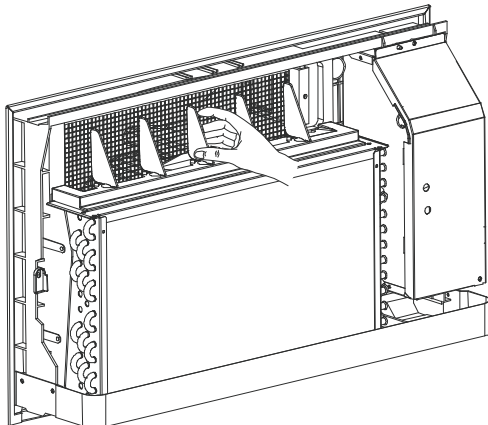


Fig 7

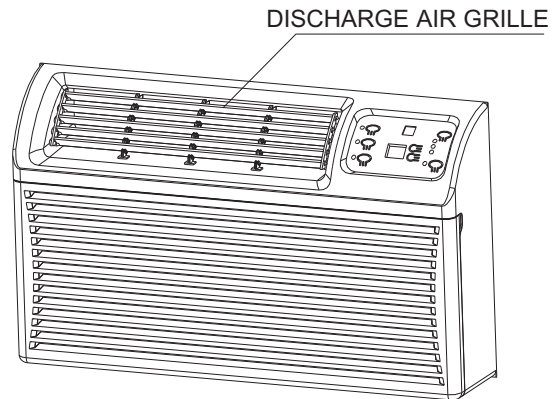


Fig 8

### IMPORTANT NOTES:

1. The unit is equipped with a rubber-grommet-mounted compressor. These grommets are set by factory and no need to adjust.
2. Check if there are any obstruction before the indoor and outdoor grilles, the obstruction must be removed to ensure there is no obstruction. If air is obstructed and/or deflected back into the unit, the air conditioner's compressor may cycle start/stop rapidly. This could cause damage to the compressor.

## MONTHLY MAINTENANCE AND CLEANING

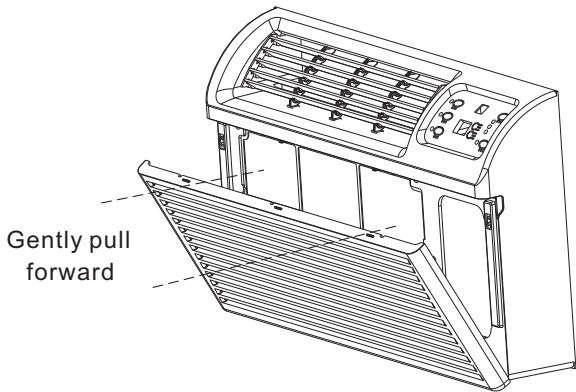
### Intake Air Filters

To properly maintain the operation performance of TTW unit, it is extremely important that the inlet air filters be cleaned once per month or more often if operated in dusty or dirty locations or conditions. The intake air filters are constructed of durable polypropylene. The "air intake" air filters can be easily inserted into the cabinet front by using the filter guides. Before cleaning the intake filter, turn off the unit by setting the mode switch to the OFF position. Filter should be cleaned as required.

The following procedure is used to remove the intake filler:

1. Grasp each filter by its molded handle, located on the front edge of the front below the discharge grill.
2. Pull the filter straight up and remove.
3. Clean filter with vacuum or running water.

Reverse this procedure to reinstall the filter.



- NOTE:** 1. Remove the filter is not necessary to remove the front panel .
2. Filter is removed by opening the grille panel and gently pulling forward.

### Vent Screen

Before cleaning the vent screen, disconnect power to the unit by unplugging the power cord at the wall outlet or subbase, or disconnect power at the fuse box or circuit breaker. If the unit is operated with vent door closed, the vent screen does not need to be cleaned.

1. Remove the front panel as described in Front Removal.
2. Remove the six screws securing the chassis to the wall sleeve.
3. Slide the chassis out of the wall sleeve far enough so that the vent screen is accessible.
4. Clean the vent screen, slide the chassis back into the wall sleeve, secure it in place with six screws and reinstall the front cabinet.

### Cabinet Front

The Cabinet Front and discharge air grille can be cleaned with a water dampened cloth. Under no circumstances should hydrocarbon-based cleaners (e.g. acetone, benzene, naphtha gasoline, etc.) or ammonia based cleaners be used to clean the front or air grilles. Be careful when cleaning the control area.

## WIRING

Before wiring the unit, please carefully read the following warnings and cautions.

### ⚠ WARNING

**HIGH VOLTAGE**  
 DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES BE PRESENTED, FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.  
 DO NOT SERVICE THIS UNIT WITHOUT FIRST CUTTING OFF THE POWER OF THE UNIT FROM THE CIRCUIT BREAKER AND/OR REMOVING THE UNIT CORD SET PLUG FROM THE WALL OUTLET.

### ⚠ WARNING

TO AVOID THE RISK OF ELECTRIC SHOCK, PERSONAL INJURY OR DEATH, DO NOT SERVICE THIS UNIT WITHOUT FIRST OPENING ALL DISCONNECTS AND/OR REMOVING THE UNIT CORD SET PLUG FROM THE WALL OUTLET.

### ⚠ WARNING

TO AVOID THE RISK OF ELECTRIC SHOCK, PERSONAL INJURY, OR PROPERTY DAMAGE, DO NOT USE AN EXTENSION CORD WITH THIS UNIT.

### ⚠ WARNING

TO AVOID THE RISK OF FIRE, PROPERTY DAMAGE, OR PERSONAL INJURY, USE COPPER CONDUCTORS ONLY.

### ⚠ WARNING

TO AVOID THE RISK OF PERSONAL INJURY, WIRING TO THE UNIT MUST BE PROPERLY POLARIZED AND GROUNDED.

### ⚠ WARNING

THIS AIR CONDITIONER IS NOT MEANT TO PROVIDE UNATTENDED COOLING OR LIFE SUPPORT FOR PERSONS OR ANIMALS WHO ARE UNABLE REACT TO THE FAILURE OF THIS PRODUCT.

THE FAILURE OF AN UNATTENDED AIR CONDITIONER MAY RESULT IN EXTREME HEAT IN THE CONDITIONED SPACE CAUSING OVERHEATING OR DEATH OF PERSONS OR ANIMALS. TAKE PROPER PRECAUTIONS TO AVOID UNATTENDED OPERATION.



## UNIT FEATURES

- **Automatic 3-minute Compressor Lockout**—After the compressor cycles off, it will not restart for three minutes.
- **Random Restart Delay**—To help eliminate power surges after a power outage, the unit is equipped with a two to four minutes random restart delay feature. Whenever the unit is plugged in with the master switch turned on and the mode switch set in the cool or heat mode, a random restart will occur. A random restart condition can be avoided by setting the mode switch in the fan only or off position before applying power to the unit.
- **Indication LEDs**—The control panel has LEDs that correspond to fan operation and to indicate unit status.
- **High Temperature Protection in Outside** —In COOL mode, the unit will shut off compressor automatically when detects the outdoor condenser temperature is too high to continue operating. Only when the temperature decrease to a safe level , will the unit restart. If this failure occurs 4 times within an hour, the control panel will show the error code—E9.
- **Failure Tolerance**—If the unit in protection mode has less than 4 times in one hour, the accumulation times will reset to avoid system failure. Only when the unit enters protection mode reaches 4 times in one hour, will the system fail to restart automatically and need manually restart.
- **Weather-Protected Electrical Components**—Vital electrical components are protected from the weather by locating them on the indoor side of the weather barrier.
- **Highly Featured Microprocessor Controls**—Microprocessor controls are programmed to interface with the temperature sensors to maximize comfort conditions for the room occupant and provide outstanding features.

Thermistors are used to sense small changes in temperature to give excellent room control and allow the microprocessor to monitor and react to changing conditions.

- **Automatic Emergency Heat on Heat Pump Units**—Automatically use electric resistance heat if the heat pump fails .
- **High-Temperature Heat Pump Operation Protection** —Automatically protect the compressor if heat pump is operated with high indoor coil temperatures. Power to the outdoor fan and the compressor will be turned off if the indoor coil gets too hot during heat pump operating to prevent damaging the compressor.

- **Fan Motors Permanently Lubricated**—All units have two fan motors with quiet and maximum operating efficiency.

Motors are permanently lubricated to reduce maintenance and totally enclosed to keep dirt and water out of the motor windings.

- **Indoor Fan Speed Selections AUTO/LOW /MEDIUM/HIGH**—Unit may be operated in low, medium or high fan speed, or you may select AUTO, the unit will auto choose the best running speed.

- **Outdoor Two Fan Speed—LOW/HIGH**—Unit detects outdoor condenser coil temperature. During the night when outdoor ambient temperature drops, the outdoor fan may auto switch to LOW fan speed to lower the noise for better sleeping.

- **Rotary Compressor** —Smoother operation for quiet, dependable service and high efficiency.

- **Energy saver** —In COOL and HEAT mode, after compressor shut down for 15s, the indoor fan will shut down to save energy.

- **Ls Control (Front-Desk Control)** is an optional accessory. The unit can be turned ON/OFF by front desk control switch. This function interface locates on the 24V thermostat connection board.

- **Optional 24V General Thermostat interface**—This unit is available for 24V general thermostat. It is an optional accessory, and easy to fix.

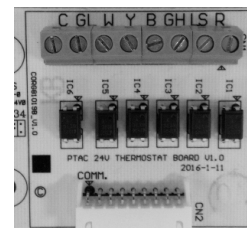
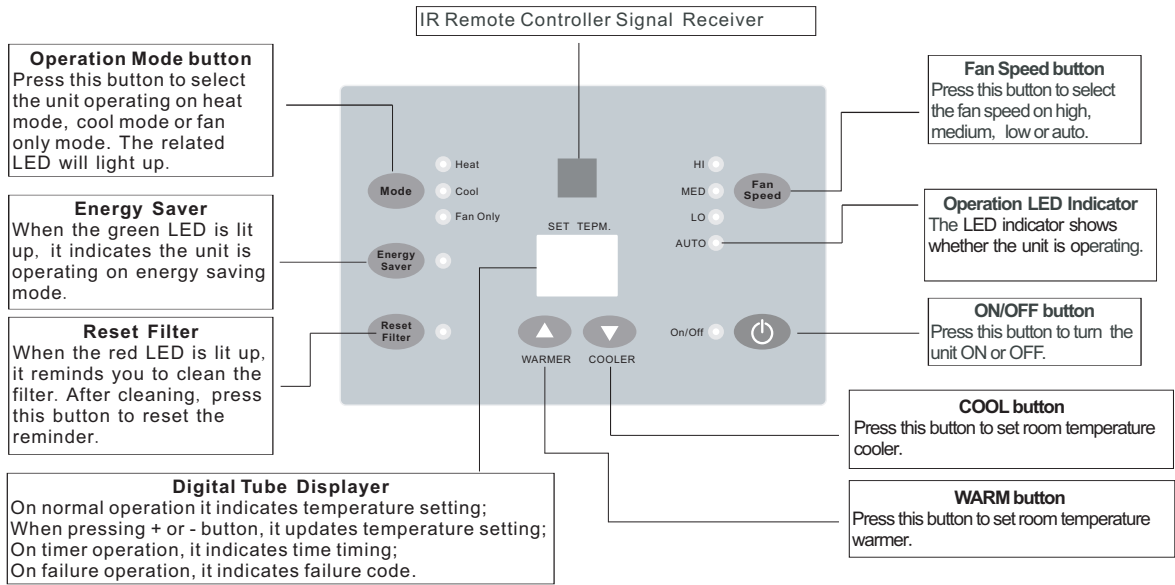
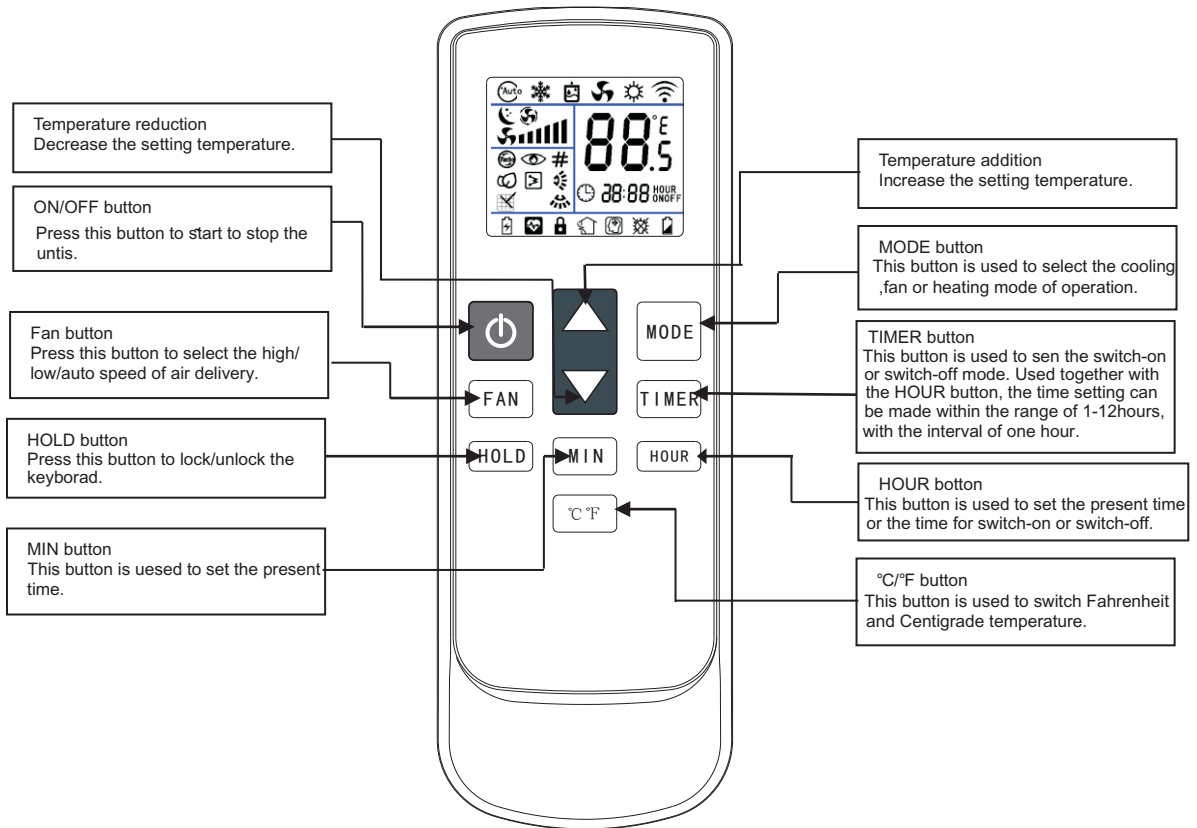


Fig 9 24V General Thermostat Interface

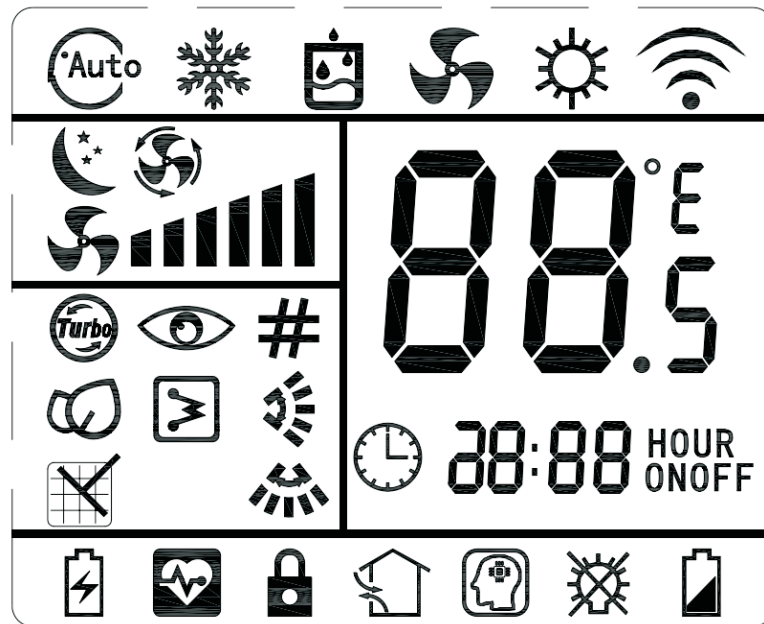
# OPERATING INSTRUCTIONS



**Fig 10 Unit Mounted Control Panel**



**Fig 11 Hand Held Remote Controller**



- 1) For reference, subject to actual conditions.
- 2) At the first power on, the LCD of the remote controller displays all the icons first and then enters the standby state, displaying only the clock 12:00 .
- 3) Introduction of LCD screen icon:
  - Mode display: cooling ❄️ 、 fan 🌀 and heating ☀️ .
  - Temperature display: 88<sup>°E</sup> displays temperature, which range between 16 ~ 31°C or 61 ~ 88°F .
  - Wind speed display: 📊 means wind speed. 🌀 means automatic wind speed.
  - Timer display: <sup>HOUR</sup>ON means TIME ON. <sup>HOUR</sup>OFF means TIME OFF.
  - Other display: 🕒 means clock. 🔒 means lock. 🔋 means lack of electricity.

### Control panel operation guide:

When power is connected (stand by condition), you can operate the air conditioner by the control panel.

#### 1. Turn ON the unit



Press the ON/OFF button to turn on the unit.

#### 2. Adjust setting temperature



Press the UP or DOWN button to set your desired temperature.

#### 3. Select fan speed



Press the FAN SPEED button to set your desired speed.

#### 4. Select operation mode



Press the MODE button to set your desired operation mode of the unit.

#### 5. Energy saver function



The default setting of the unit is operating in energy saving mode. Indoor fan will continue to run for a short time after the compressor or electric heater cycles off. You can cancel this function by pressing ENERGY SAVER button, the green LED indicator turns off.

#### 6. Reset Filter



The red LED indicator lights up means the indoor fan has been running for 250 hours accumulated. It is time to clean the filter. After finishing cleaning, press this button to reset the time counting.

## SENIOR SETTINGS

1) **Temperature unit shift key:** When unit is under stand by mode (power is connected but all LEDs on the control panel are OFF), press UP and DOWN buttons at the same time for 3 seconds, the temperature will shift between Fahrenheit and Centigrade.

2) **Temperature setting range limitation:** When unit is under stand by mode, press UP and FAN SPEED buttons at the same time to enter the maximum and minimum temperature setting range. R1~R8 will be display every 3 seconds. When display the right range, release the two keys to save the settings. The temperature setting range is between 60°F~90°F as factory default.

#### Chart . Temperature setting range

R1	R2	R3	R4	R5	R6	R7	R8
Heating Temperature Limits(°F)							
86	86	90	74	92	90	72	90
Cooling Temperature Limits(°F)							
63	65	72	72	67	69	68	60

3) **Control shift between 24V General Thermostat and Control Panel:** Under standby mode, press MODE and UP buttons at the same time for 3 seconds, the buzzer will chime and LED will display "P" or "R".

**P:** unit is controlled by control panel, the buzzer chime once.

**R:** unit is controlled by 24V general thermostat, the buzzer chime twice.

4) **LS Control (Front-Desk Control):** It is suggested that use the normal open button to control.

1. Turn ON unit: Press the normal open button then release for once within 5 seconds.

2. Turn OFF unit: Press the normal open button then release for twice within 5 seconds.

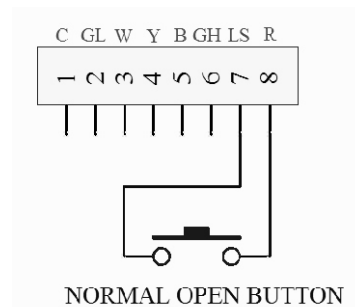


Fig 12 Recommended wiring diagram for LS control

## IR remote controller operation guide:

1. When power is connected (stand by condition), you can operate the air conditioner through the remote controller.

2. When unit is on, each time you press the button on remote controller, the sending signal icon "📶" on the display will blink once. If the air conditioner gives out a beep sound, it means the signal has been received.

3. This is a general use remote controller, it could be used for the air conditioners with multifunction. For some functions that the model doesn't have, if press the corresponding button on the remote controller, the unit will keep the original running state.

#### 1. ON/OFF button

Press this button to turn unit ON/OFF.

#### 2. MODE button

Pressing this button once can select your required mode. It will cycle as bellow:

- When selecting cool mode, air conditioner will operate under cool mode. Then press + or - button to adjust temperature. Press FAN SPEED button to adjust fan speed.
- When selecting heat mode, air conditioner will operate under heat mode. Then press + or - button to adjust temperature. Press FAN SPEED button to adjust fan speed. (cooling only unit will not act when receives the heating signal.)
- When selecting fan mode, air conditioner will operate under fan mode. Press FAN SPEED button to adjust fan speed.

### 3. +/- button

- Pressing + or - button once will increase or decrease set temperature by 1°C(°F).

### 4. Fan speed button

- Pressing fan speed button can select fan speed circularly as: high(■) -low(■) -auto(Icon ■) flashing).

NOTE: under AUTO speed, air condition will select proper fan speed automatically according to ambient temperature.

### 5. Timer button

- When unit is ON, press this button to set Timer Off. " OFF" will show up. Then press HOUR button to set the time for Timer Off. Hours can be set from 1H to 12H. Press TIMER button again will cancel Timer Off.
- When unit is OFF, press this button to set Timer On. " ON" will show up. Then press HOUR button to set the time for Timer On. Hours can be set from 1H to 12H. Press TIMER button again will cancel Timer On.

### 6. °C/°F button

Press this button to choose Fahrenheit or Centigrade temperature.

### 7. HOLD button

Press this button to lock or unlock other buttons except the ON/OFF button of the remote controller.

#### • Present clock setting

When battery cells are installed, the present time is AM 0:00. Open the back cover, push the CLK button. The time indicator is flickering and able to set the present time.

1. Press HOUR button to set hour.
2. Press MIN button to set minute.
3. Press CLK button again to save settings and close the back cover.

#### • Operation guide

1. After putting through the power, press "ON/OFF" button on the remote controller to turn on the air conditioner.
2. Press "MODE" button to select your required mode.
3. Press "+" or "-" button to set your required temperature.
4. Press FAN SPEED button to set your required fan speed.

#### • Replacement of batteries in remote controller

1. Press and pull the back cover to open it.
2. Replace two No.7(AAA 1.5V) dry batteries and make sure the positions of + and - polar are correct.
3. Reinstall the back cover.

#### NOTICE

1. During operation, point the remote control signal sender at the receiving window on the control panel.
2. The distance between signal sender and receive window should not be more than 8 meters, and there should be no obstacles between them.
3. Signal may be interfered easily in a room where there is fluorescent lamp or wireless telephone; remote controller should be close to indoor unit during operation.
4. Replace new batteries of the same model when replacement is required.
5. When you don't use remote controller for a long time, please take out the batteries.
6. If the display on remote controller is fuzzy or even no display, please replace batteries.

## AUXILIARY CONTROLS-DIP SWITCHES

The auxiliary dip switch controls are located behind the room cabinet as show in this figure.

The owner is responsible for checking switches and ensuring they are in the desired position.

#1 Reserved

#2 Heat Pump Enabled (UP) or Disabled (DOWN)

When this switch is disabled (DOWN), heat pump will never operate.

#3 Electric Heat Enable (UP) or Disabled (DOWN)

When this switch is disabled (DOWN), electric heater will never operate.

#4 Heating Priority

This function is only for heat pump with electric heater model. When this switch is DOWN, electric heat takes priority. When this switch is UP, heat pump takes priority.

### #5 Auto Heating (Freeze Protect)

The unit must have heating function (cooling only model does not share this function). When the unit is connected to the power supply, and room temperature is lower than 10°C /50°F for 3 minutes, unit will start heating automatically no matter what the setting mode is. Only when room temperature reaches 13°C/55°F will heating stop.

### #6 Electric Power-Off Memory.

After power on, the unit will operate the same settings as before power off. The default setting is enabled(UP).

### #7 Filter Dirty Reminder

When this switch is enabled(UP), the red LED on the control panel will light up after 250 hours of accumulated fan running time. It serves as a reminder to clean the filter. After cleaning the filter, press the [Reset Filter] button, the reminder red LED will go out. When this switch is disabled(DOWN), the function is disabled. The default setting is enabled(UP).

### #8 Power of Electric Heater

This function is only for models with electric heat. 208-230V models with 3.4kW electric heater should set it to DOWN, while 115V models with 1.2kW electric heater should set it to UP. This setting is for a senior protection of electric heating.

**WARNING:** Before service, you must disconnect the power cord. Dip switches of #2,#3,#8 is forbidden to change the default setting, otherwise the unit will not operate properly or even cause some undesired trouble.

If you forget the default setting, please refer to the wiring diagram, make sure #2,#3,#8 are the same with the diagram.

## NORMAL OPERATING SOUNDS AND CONDITIONS

### Water trickling sounds

Water is picked up and distributed over the coil which improves the efficiency and helps with water removal.

### Water dripping

Water will collect in the base pan during high humidity days. This can cause overflow and drip from the outside of the unit.

### Air sounds

The fan cycle switch sets the operational mode of the fan. In ON position the fan will run continuously whenever power is applied in this mode. In AUTO position, the fan will cycle on and off with the compressor or electric heater.

## Starting delay

You may notice a few minutes' delay in the starting if you try to restart the unit too soon after turning it off or if you adjust the thermostat right after the compressor has shut off. This is due to a built-in delay to protect the compressor.

## Buzzer Response

The buzzer will chime "Di"(0.1 sec) as response when received the effective order from key pad control and remote control.

## ERROR CODES

Error code	Content of defect
E2	Room temperature sensor loose or broken
E3	Indoor coil temperature sensor loose or broken
E4	1. Air outlet temperature sensor loose or broken 2. Air outlet over heating fault in Electric Heat Mode
E5	Outdoor coil temperature sensor loose or broken
E8	Defrosting in Cool Mode or over heating protection in Heat pump Mode
E9	High pressure protection in Cool Mode

### SOLUTIONS:

For E2, E3, E5, check the sensors' plug, make sure that they are inserted firmly. Or replace the related sensor.

E4-Follow the 3 steps for repairing:

1. Check whether there is any obstacle in front of the unit that block the room return air flow, if so, remove the obstacle.
2. Check the indoor fan, make sure it is running properly, if not, repair the fan.
3. Check the related sensor plug, make sure that it is inserted firmly. Or replace the sensor.

E8-If the ambient temperature is too high to run heat pump mode, or it is too low to run cooling mode, it may cause the E8 error. Otherwise, follow the same steps as E4 to solve the issue.

E9-If the outdoor ambient temperature is too high to run cooling mode, it may cause the E9 error, otherwise, follow the 3 steps for repairing.

1. Check whether there is any obstacle blocks the outdoor unit air flow, if so, remove the obstacle.
2. Check the outdoor fan, make sure it is running properly, if not, repair the fan.
3. Check the outdoor coil sensor plug, make sure that it is inserted firmly. Or replace the sensor.

# TROUBLE SHOOTING

POSSIBLE CAUSES	SOLUTIONS
<p><b>UNIT DOES NOT START</b></p> <ul style="list-style-type: none"> <li>• Unit may have become unplugged</li> <li>• Fuse may have blown</li> <li>• Circuit breaker may have been tripped</li> <li>• Unit may be off or in 24V thermostat control mode.</li> </ul> <p>Check section on <b>SENIOR SETTINGS</b> to verify control set properly.</p> <ul style="list-style-type: none"> <li>• Unit may be in a protection or diagnostic failure mode. See section on ERROR codes.</li> </ul>	<ul style="list-style-type: none"> <li>• Check that plug is plugged securely in wall receptacle.</li> </ul> <p><b>Note</b> : Plug has a test/reset button on it. Make sure that the plug has not tripped.</p> <ul style="list-style-type: none"> <li>• Replace the fuse.</li> <li>• Reset circuit breaker.</li> <li>• Turn unit on.</li> </ul>
<p><b>DISPLAY HAS STRANGE NUMBERS/CHARACTERS ON IT</b></p>	<ul style="list-style-type: none"> <li>• The unit may be in a diagnostic condition. Check diagnostic codes --- checking Control section to determine if unit has had a failure.</li> <li>• The unit may be set for °C (instead of °F), see the <b>SENIOR SETTINGS</b>.</li> </ul>
<p><b>UNIT MAKING NOISES</b></p>	<ul style="list-style-type: none"> <li>• Clicking, gurgling and whooshing noises are normal during operation of unit.</li> </ul>
<p><b>UNIT NOT COOLING / HEATING ROOM</b></p> <ul style="list-style-type: none"> <li>• Unit air discharge section is blocked</li> <li>• Temperature setting is not high or low enough</li> </ul> <p>Note: Set point limits may not allow the unit to heat or cool the room to the temperature desired. Check section on <b>SENIOR SETTINGS</b>.</p> <ul style="list-style-type: none"> <li>• Unit air filters are dirty.</li> <li>• Room is excessively hot or cold when unit is started</li> <li>• Vent door left open</li> <li>• Unit may be in a protection or diagnostic failure mode. Check section on Intelligent Self --- checking Control.</li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Make sure that curtains, blinds or furniture are not restricting or blocking unit airflow.</li> <li>• Reset to a lower or higher temperature setting.</li> <li>• Remove and clean filters.</li> <li>• Allow sufficient amount of time for unit to heat or cool the room.</li> </ul> <p>Start heating or cooling early before outdoor temperature, cooking heat or gatherings of people make room uncomfortable.</p> <ul style="list-style-type: none"> <li>• Close vent door.</li> <li>• Wait approximately 3–5 minutes for compressor to start</li> </ul>
<p><b>WATER DRIPPING OUTSIDE</b></p>	<ul style="list-style-type: none"> <li>• If a drain kit has not been installed, condensation runoff during very hot and humid weather is normal. See Note 2. If a drain kit has been installed and is connected to a drain system, check gaskets and fittings around drain for leaks and plugs.</li> </ul>
<p><b>WATER DRIPPING INSIDE</b></p> <ul style="list-style-type: none"> <li>• Wall sleeve is not installed level</li> </ul>	<ul style="list-style-type: none"> <li>• Wall sleeve must be installed level for proper drainage of condensation. Check that installation is level and make any necessary adjustments.</li> </ul>
<p><b>ICE OR FROST FORMS ON INDOOR COIL</b></p> <ul style="list-style-type: none"> <li>• Low outdoor temperature</li> <li>• Dirty filters</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Remove and clean filters.</li> </ul>
<p><b>COMPRESSOR PROTECTION</b></p> <ul style="list-style-type: none"> <li>• Power may have cycled, so compressor is in a restart protection.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Random Compressor restart</b>—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.</li> <li>• <b>Compressor Protection</b> — To prevent short cycling of the compressor, there is a random startup delay of 3 minutes and a minimum compressor run time of 3 minutes</li> </ul>