

PACKAGED TERMINAL AIR CONDITIONER / HEAT PUMP

User's Manual





IMPORTANT NOTE: Read this manual carefully before installing or operating your new air conditioning unit. Make sure to save this manual for future reference.

For more information please visit www.klimaire.com

CONTENTS

1. SAFETY PRECAUTIONS	2
2. IMPORTANT SAFETY INSTRUCTIONS	5
3. AIR CONDITIONER FEATURES	6
4. CONTROL PANEL OPERATION	7
5. DIP SWITCHES CONFIGURATION	8
6. DIP SWITCHES CONFIGURATION BY PANEL CONTROL	.10
7. WALL THERMOSTAT TERMINAL	11

Read This Manual

Inside you will find many helpful hints on how to use and maintain your air conditioner properly. Just a little preventive care on your part can save you a great deal of time and money over the life of your air conditioner. You'll find many answers to common problems in the chart of troubleshooting tips. If you review our chart of Troubleshooting Tips first, you may not need to call for service at all.

- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play the appliance. Cleaning and user maintenance shall not be made by children without supervision. (be applicable for the European Countries)
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. (be applicable for other countries except the European Countries)
- Children should be supervised to ensure that they do not play with the appliance.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- The appliance shall be installed in accordance with national wiring regulations.
- Do not operate your air conditioner in a wet room such as a bathroom or laundry room.
- The appliance with electric heater shall have at least 1 meter space to the combustible materials.
- Contact the authorised service technician for repair or maintenance of this unit.
- Contact the authorised installer for installation of this unit.
- When there are wide differences between USER S MANUAL and Remote controller Illustration on function description, the description on USER S MANUAL shall prevail.
- If the air conditioner is knocked over during use, turn off the unit and unplug it from the main power supply immediately. Visually inspect the unit to ensure there is no damage. If you suspect the unit has been damaged, contact a technician or customer service for assistance.
- In a thunderstorm, the power must be cut off to avoid damage to the machine due to lightning.
- To reduce the risk of fire or electric shock, do not use this fan with any solid-state speed control device.
- Do not run cord under carpeting. Do not cover cord with throw rugs, runners, or similar coverings. Do not route cord under furniture or appliances. Arrange cord away from traffic area and where it will not be tripped over.

SAFETY PRECAUTIONS

To prevent injury to the user or other people and property damage, the following instructions must be followed. Incorrect operation due to ignoring of instructions may cause harm or damage. The seriousness is classified by the following indications.

	This symbol indicates the possibility of death or serious injury.			
	This symbol indicates the possibility of injury or damage to property.			
Meanings of symbols	s used in this manual are as shown below.			
\bigcirc	Never do this.			
	Always do this.			
[®] Plug in power p properly.	lug Solution by inserting or bound the unit by inserting or bound the power bound of the power cord. Solution by the power cord by the power cord. Solution by the power cord by			
 Otherwise, it may cause electric shock or fire due to heat generation. It may cause electric shock or fire. If the power cord is damaged, it must be replace by the manufacturer or an authorised service centre or a similarly qualified person in order to avoid a hazard. 				
^① Do not modify p cord length or s the outlet with o appliances.	share wet hands or in damp at room occupants			
 It may cause electri or fire due to heat generation. 	ic shock • It may cause electric shock. • This could damage your health.			
OAlways ensure effective earthin	 ODo not allow water to run into electric parts. ODo not allow water to run into electric parts. ODo not allow water to breaker and a dedicated power circuit. 			
 Incorrect earthing m cause electric shock 				
OUnplug the unit if strange sounds, s or smoke comes it.	 Smell, if it isloose or damaged. SDo not use the socket open the unit during operation. 			
 It may cause fire an electric shock. 	 It may cause fire and electric shock. It may cause electric shock. 			



♥ Do not place obstacles around air-inlets or inside of air-outlet.	^① Ensure that the installation bracket of the outdoor appliance is not damaged due to prolonged exposure.	 Always insert the filters securely. Clean filter once every two weeks.
 It may cause failure of appliance or accident. 	 If bracket is damaged, there is concern of damage due to falling of unit. 	 Operation without filters may cause failure.
Do not use strong detergent such as wax or thinner but use a soft cloth.	O Do not place heavy object on the power cord and ensure that the cord is not compressed.	O not drink water drained from air conditioner.
 Appearance may be deteriorated due to change of product color or scratching of its surface. 	 There is danger of fire or electric shock. 	 It contains contaminants and could make you sick.
[®] Use caution when unpack installing. Sharp edges co injury.	ould cause off at the po off the circu by taking the	ers the unit, turn the unit ower outlet and switch it breaker. Isolate supply e power-plug out and ualified service technician.
^① Clean the evaporator onc three months by profession		
 Otherwise it may cause failure heating feature. 	e of electric	

IMPORTANT SAFETY INSTRUCTIONS

NOTE The power supply cord with this air conditioner contains a current detection device designed to reduce the risk of fire.

Please refer to the section Operation of Current Device' for details. In the event that the power supply cord is damaged, it cannot be repaired-it must be replaced with a cord from the Product Manufacturer.



A WARNING For your safety

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Avoid fire hazard or electric shock. Do not use an extension cord or an adaptor plug. Do not remove any prong from the power cord.

A WARNING Electrical Information

- Be sure the electrical service is adequate for the model you have chosen. This information can be found on the serial plate, which is located on the side of the cabinet and behind the grille.
- Be sure the air conditioner is properly grounded. To minimize shock and fire hazards, proper grounding is important. The power cord is equipped with a three-prong grounding plug for protection against shock hazards.
- Your air conditioner must be used in a properly grounded wall receptacle. If the wall receptacle you intend to use is not adequately grounded or protected by a time delay fuse or circuit breaker, have a qualified electrician install the proper receptacle.
- Ensure the receptacle is accessible after the unit installation.
- Do not run air conditioner without side protective cover in place. This could result in mechanical damage within the air conditioner.
- The appliance shall be installed in accordance with national wiringregulations.
- Do not use an extension cord or an adapter plug.

NOTE:

The shape maybe different according to its model:

Power Card						
Power Suppy	230V,15A	230V,20A	230V,30A	265V,15A	265V,20A	265V,30A

Operation of Current Device(optional)

The power supply cord contains a current device that senses damage to the power cord. To test your power supply cord do the following:

2. The power supply cord will have TWO buttons on the plug head.

Press the TEST button, you will notice a click as the RESET

4. The power supply cord is now supplying electricity to the unit.

3. Press the RESET button, again you will notice a click as the button

(On some products this it also indicated by a light on the plug head.)

1. Plug in the Air Conditioner.

button pops out.

engages.



NOTE: Some plugs have buttons on the top.

NOTES:

- Do not use this device to turn the unit on or off.
- Always make sure the RESET button is pushed in for correct operation.
- The power supply must be replaced if it fails reset when either the TEST button is pushed, or it cannot be reset. A new one can be obtained from the product manufacturer.
- If power supply cord is damaged, it cannot be repaired. It MUST be replaced by one obtained from the product manufacturer.
- When 265V units are to be installed, the power supply must be permanent wiring. Permanent wiring may be done through the accessory subbase. An exposed cord connection on 265V units are not permitted.

AIR CONDITIONER FEATURES

This unit has many featrues. The servicer must be familiar with these features in order to properly service the unit.

Compressor Restart Delay

This feature extends the overall life of compressor by preventing the short-cycling of the air conditioner. When the compressor restarts, the unit is designed to give a minimum of three minutes to have a time of equalizing the refrigerant pressures for optimizing cycling.

Memory

The unit has memory . If power is lost, all of the control settings(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.

 Automatic Evaporator Freeze Protection Automatically to keep the evaporator from freezing, the compressor is tuuned off and the indoor fan is turned on when the evaporator temperature is too lower. If the evaporator temperature is not too lower this function is off. Automatic Quick Warm-up (for heat pump models only)

If the room temperature falls to 4.5°C/8°F 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.

• LED Indicators and Buttons The touch pad has buttons for MODE, FAN, POWER, SETPOINT UP and SETPOINT DOWN. It also has LEDs that correspond to the mode, fan speed, power and setpoint operation, to indicate the unit s status.LEDs for HIGH,MED and LOW indicate the fan speed that is selected. LEDs for FAN, COOL and HEAT indicate what operating mode is active.LED for POWER 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 off.

NOTE: HEAT mode is for Cooling & Heating models only.

• High Temperature Protection In Heating Operation

The compressor and(or) electric heater will be switched off to prevent damage in high indoor blow air temperature or error indoor temperature sensor.

- Unit Configuration
 - °F or °C

The unit can display in either $^{\circ}F$ or $^{\circ}C$.

CONTROL PANEL OPERATION

The control panel keypad will look like the following Fig.1. For some models with REMOTE SIGNAL RECEPTOR, the unit can be controlled by the control panel alone or by the remote. NOTE: Some models have no REMOTE SIGNAL RECEPTOR.

Fig.1	high O 촔 med O X bw O ♡	© ℃ % © °F	₩ O cool ∭ O heat Ƴ O fan
	SPEED	temperature fr	

• POWER

- Press the POWER button to turn the unit on or off.
- MODE
 - Push this button to cycle through the modes from COOL-HEAT-FAN-COOL. The indicator light beside the "MODE" option will illuminate, identifying the mode selected.
 - COOL:.Cooling begins automatically when the room temperature is above the set point,and stops when the room temperature is 2°C(4°F) below the set point.But the compressor will run 5 minutes at least in COOL mode before stoping.
 - HEAT: The maximum temperature can be set up to 29°C/84°F. For heat pump models, the unit can alternate to run between in reverse cycle heat mode and electric heater mode according to the difference between the setting temperature and the room temperature.

The fan motor cycles with the compressor stop. NOTE:

The reverse cycle and electric heater cannot be run at the same time. In following cases, it is normal that the reverse cycle does not operate.

- 1.When the outdoor temperatrue is lower than $4^{\circ}C/40^{\circ}F$ or the room temperature falls to $4.5^{\circ}C/8^{\circ}F$ below the set point temperature.
- 2. There is a 3-minute minimum compressor run time at any setting to prevent short cycling. The indoor fan motors starts before the compressor and stops after the compressor cycles off.
- 3.Push the S1 on the DIP SWITCHES to UP (ON) position.
- 4. When frost builds up to the evaporator coils, the unit will defrost automatically and the compressor will cycle off.

- FAN:Fan operation only without heating and cooling. Note: If the unit has DIP SWITCHES feature,the temperature range can be setted is controlled by DIP SWITCHES.See"DIP SWITCHESCONFI-GURATIONS" on page 8 for details.

• UP/DOWN BUTTONS (+ / -)

Push the UP (or DOWN) button to increase (or decrease) the set temperature of the unit in cooling or heating mode. The temperature can be set by increments of 1°C (1°F). The setting temperature appears in the display.
 NOTE: Press and hold "+" and "-" buttons together for 3 seconds will alternate the temperature display between "°C %" °F scale.

• FAN (FAN SPEED)

- Every time you push this button, the fan speed cycles through the settings as follows: HIGH-MED-LOW-HIGH.

• CONSTANT FAN

- In cooling mode, press the button to turn on or off the constant fan function. When the function is turned on, the constant fan light will illuminate, identifying the fan continuous run for cooling. When the function is turnd off, the constant fan light will go out, identifying the fan cycle run with compressor stop.

NOTE: Every time the unit is turned on, the function will work as the **DIP SWITCHES CONFIGURATIONS**

• DISPLAYS:

- Shows the set temperature in ^oC or ^oF. While on Fan only mode,it shows the room temperature. *Control code (on some models):*
 - *LC*-Pads on the control panel is not available.The unit can be setted by using wire cotroller only.
 - **FC**-Pads on the control panel and wire controller are not available. The unit can be setted by using FRONT DESK CONTROL only.

Error codes:

- AS-Room temperature sensor error;
- ES-Evaporator temperature sensor error;
- CS-Condenser temperature sensor error;
- **OS-**Outside temperature sensor error;
- HS-Exhaust temperature sensor error;
- LE-Wire cotroller error;
- NOTE:When error occurs,unplug the unit and plug it back in.If error repeats, call for service.

Other codes:

LO-Room temperature is lower than 0°C/32°F; *HI*-Room temperature is higher than 37°C/99°F; *FP*-Low temp. Protection.

NOTE: All the illustrations in this manual are for explanation purpose only. Your air conditioner may be slightly different. The actual shape shall prevail.

CONTROL PANEL OPERATION (CONTINUED)

NOTE:This air conditioner is designed to be operated under condition as follows:

Cooling		18-43°C/64-109°F (18-52°C/64-125°F
operation		for special tropical models)
operation	Indoor temp:	17-32°C/62-90°F
Heating	Outdoor temp:	-5-24°C/23-76°F
operation	Indoor temp:	0-27°C/32-80°F

Note: Performance may be reduced outside of these operating temperatures.





NOTE:When the unit displays LC (Pads on the control panel is not available. The unit can be setted by using wire cotroller only.) You can install the Accessory on the control panel.

NOTE: For some models, there is corresponding operation happened after 3 seconds when pressing any button.

NOTE: When there are wide differences between "USER'S MANUAL" and "Remote controller Illustration" on function description, the description on "USER'S MANUL" shall prevail.

DIP SWITCHES CONFIGURATIONS (Optional)

• REMOVING THE FRONT PANEL

- Dip switches controls are located behind front panel, through an opening below the control panel.To access,remove front panel.See Fig.2.
- Dip switches are accessible without opening the control box.See Fig.3.
- Unit must be powered OFF to effectively change their status.

• DIP SWITCHES CONFIGURATIONS

- See Table 1 and Fig.4 for Dip Switches configurations and functions of each dip switch position.



Pull out at the bottom to release it from the tabs ①.
Then lift up ②.

Dip Switches

Fig.2



DIP SWITCHES CONFIGURATIONS (Optional)

Na			
No.	UP(ON)	DOWN(OFF)	Remarks
S1	Electric Heat Only	Electric Heat and Pump Heat	For Heat Pump unit only
S2	Temperature Display in $^{\circ}$ F	Temperature Display in $^\circ$ C	
S3	Wall Thermostat Enable	Control Panel Enable	
	UP*UP:61°F~86°F(16°C~30°C);		Two configurations (S4*S5)
S4*S5	UP*DOWN:65°F~78°F(18°C~26°C);	combine to select set point
	DOWN*UP:63°F~80°F(17°C~27°C);		range.
	DOWN*DOWN:68°F~75°F(20°C~2	24°C);	
S6	Fan Continuous Run for Heating	Fan Cycle for Heating	
S7	Fan Continuous Run for Cooling	Fan Cycle for Cooling	
S8	Low temp. Protection enable	Low temp. Protection disable	Optional
S9 (S3 UP)	Use some types of wall Thermostat	Use PTAC other Wall Thermostat	you can consult with the sales agency or manufacturer for details
S9 (S3 DOWN)	Use Control Panel only	Use Control Panel or some types of wall Thermostat	Use control Panel or some types of wall Thermostat, the other one must be turned off
Sw11	Load delay for 3 seconds	Normal	Optional

Table 1— DIP SWITCHES CONFIGURATIONS

NOTE: On heating mode, the setting temperature can not be higher than 29°C/84°F.

Wall Thermostat Enable

- A wired wall thermostat can be connected to the unit .If it is, this dip switch must be moved to the Wall Thermostat Enable Position, before the wall thermostat will begin control.

Low temp. Protection(optional)

- If unit senses a room temperature below 32°F (0°C), the fan motor and electric strip heat will turn on and warm the room to $40^{\circ}F(4.4^{\circ}C)$. The fan stops a short time after the temperature is satisfied.

- Electric Heat Only (for heat pump unit only)
 - This setting is typically used for Emergency Heating.

• Heat and Cool Fan CON/CYC Dip-switches - Allows the fan to operate in continuous or cycle modes while the unit is in heating and cooling mode.

CON(Continuous)

-Allows fan to run continuously, circulating air even when the temperature setting has been satisfied. This switch helps to maintain the room temperature closer to the thermostat setting. CYC(Cycle)

-This setting allows the fan to cycle on and off with the compressor or electric heater. The fan stops a short time after the temperature setting is satisfied.

Setpoint Temperature Limits

- Provides a restricted range of temperature control.

DIP SWITCHES CONFIGURATIONS by PANEL CONTROL (Optional)

• DIP SWITCHES CONFIGURATIONS by PANEL CONTROL

- Turn off the unit.
- Press the up (+) and down (-) buttons together for 3 seconds to activate the dip switches configurations by panel control (see Fig.4).
- See Table 1 for Dip Switches configurations and functions by panel control.

NOTE: Press the up (+) and down (-) buttons together for 3 seconds again or no operation within 30 seconds to exit the dip switches configurations by panel control and the unit will save the last settings.

- Display function settings with 2 digitals in LED display window, high (left) for dip switches, low (right) for functions (see Fig.4).
- Press up (+) button to set the dip swithces, press down (-) button to set the functons.



Fig.4

No.	High(left)	Low(right)		Remarks	
/	0	1-by panel control 0-by dip switches			
S1	1	1-electric heat only	0-electric heat and pump heat	For Heat Pump unit only	
S2	2	1-tmperature display in $^\circ$ F	0-temperature display in $^{\circ}$ C		
S3*S9	3	3- use control panel or some 2-use some types of wall the wall thermostat; 0-control pan	You can consult with the sales agency or manufacturer for details		
S4*S5	4	4-62°F~86°F(17°C~30°C); 3-6 2-65°F~78°F(18°C~26°C); 1-6 0-68°F~75°F(20°C~24°C);			
S6	6	1-fan continuous run for heating	0-fan cycle for heating	Not available for" use PTAC	
S7	7	1-fan continuous run for cooling	0-fan cycle for cooling	other wall thermostat".	
S8	8	1-low temp. protection enable 0-low temp. protection disable		Optional	
SW7	Α	1-front desk control disable	0-front desk control enable	Optional	
Sw11	В	1-Load delay for 3 seconds	0-normal	Optional	

Table 1 DIP SWITCHES CONFIGURATIONS by PANEL CONTROL

NOTE:

- 1. The LED display window will show "00" when you first enter the setting mode, only when you set "01" you can start the next settings.
- 2. To activate front dest control function, you need to pull the dip switch "SW7" to "DOWN(OFF)", and then set the panel control to "A0".
- 3. After all set, press up (+) and down (-) buttons together for 3 seconds to exit the operation interface and cut off the power. When re-power on, the settings are activated.

WALL THERMOSTAT TERMINAL (Optional)

IMPORTANT: Only trained, qualified personnel should access electrical panel on unit and install electrical accessories. Please contact your local electrical contractor, dealer, or distributor for assistance.

<u>Thermostat Wire Routing</u>

Thermostat wire is field supplied. Recommended wire gauge is 18 to 20 gauge solid thermostat wire. **NOTE:** It is recommended that extra wires are run to unit in case any are damaged during installation. Thermostat wire should always be routed around or under, NEVER through, the wall sleeve. The wire should then be routed behind the front panel to the easily accessible terminal connector.



THERMOSTAT WIRE ROUTING (UNDER SLEEVE, BEHIND FRONT PANEL)

Fig. A - Proper Wire Routing Beneath Unit

NOTE: Refer to thermostat installation instructions for details on installing wall thermostat.

• Installation instruction of some types of wall Thermostat (you can Consult with the sales agency or manufacturer for details)

- Pull the dip switch to the DOWN(OFF) position as shown below.



- Insert the wire connector of the wall thermostat into the relevant terminal according to different shapes as shown below.



• Installation instruction of PTAC other Wall Thermostat

- Remove the two screws as shown below and take the cover panel down.



Terminal of PTAC other Wall Thermostat(MODE A)



0	\bigcirc	\bigcirc	\bigcirc	0
HEAT2	HEAT1	COMP	24V(N)	24V(L)

TERMINAL	DESIGNATION
FC(L)	Front desk control terminal L
FC(N)	Front desk control terminal N
LOW-FAN	Low fan speed
HI-FAN	High fan speed
4-WAY	4-way valve; Reverse cycle (Energized in Heat) For heat pump models
HEAT2	Electrical heater 2
HEAT1	Electrical heater 1
COMP	Compressor
24V(N)	24VAC terminal N(Neutral),Common
24V(L)	24VAC terminal L

WALL THERMOSTAT TERMINAL (Optional)

Terminal of PTAC other Wall Thermostat(MODE B)

UNIT DAMAGE HAZARD

- •Failure to follow this caution may result in equipment damage or improper operation.
- Improper wiring may damage unit electronics.Common busing is not permitted. Damage or erratic operation may result.

NOTE:

- Use terminal 4-way for heat pump connection only.
- Suggest set the compressor protection time morn than 3 minutes in wall thermostat. If set less than 3 minutes, the compressor will restart delay 3 minutes still.
- Wall thermostat must be heating changeover 4-way valve.
- 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 (LOW-FAN) on the unit's terminal block. If High fan is desired, wire the G output from the themostat to (HI-FAN) on the units terminal block.
- The range of set tempreture of Wall thermostat must be in consonance with the range of DIP switch setting.
- Wall thermostat must be set the type properly in consonance with the unit type : heat pump or no heat pump.
- If the Wall thermostat has only one electrical heater output, connect the two terminals of HEAT 1 and HEAT 2, the unit can operate two electrical heaters(only for the unit has two electrical heaters). Otherwise operate one electrical heater.
- Please do not remove the control panel.

• FRONT DESK CONTROL

The controller can handle a switch signal from FC(L) and FC(N) input, called front desk control. Input must be 24VAC. If system doesn't receive a 24VAC signal, it will turn unit off; otherwise, the unit runs in normal control.

- The DIP switch can control the FRONT DESK CONTROL feature. The DIP switch is on the DOWN position, the unit will be turn off; otherwise,the unit runs in normal control. See FigB.



FigB.



The Klimaire logo is a registered Trademark of Klimaire Products inc. Copyright 2020 Klimaire Products Inc.

 2190 NW 89 Place, Doral, FL 33172 - USA

 Tel: (305)594-4972
 Fax (305) 675-2212

 www.klimaire.com
 sales@klimaire.com

The design and specifications are subject to change without prior notice for product improvement. Consult with the sales agency or manufacturer for details.