Direct Supply®

PACKAGED TERMINAL AIR CONDITIONER/HEAT PUMP

Owner's Manual

Please keep and refer to this Owner's Manual.

Thank you for purchasing a Direct Supply® Packaged Terminal Air Conditioner/Heat Pump from Direct Supply Equipment & Furnishings®. Please read this entire guide carefully and keep it for future reference. This guide will provide you with instructions, warnings, warranty information and other important information about your Packaged Terminal Air Conditioner/Heat Pump. Share this information with your housekeeping, nursing and maintenance staff to help ensure the Packaged Terminal Air Conditioner/Heat Pump is cared for properly.

1-800-634-7328 DirectSupply.com

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Introduction

Inside this manual 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.

⚠ CAUTION

- This appliance can be used by 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. Always provide appropriate supervision.
- 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.
- Children should be supervised to ensure they do not play with the appliance.
- If the supply cord is damaged, it must be immediately replaced. Contact Direct Supply Equipment & Furnishings and do not use the product until the cord has been replaced.
- 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 combustible materials.
- Contact Direct Supply Equipment & Furnishings for repair or maintenance of this unit.

Definitions and Symbols

NOTE: Indicates a helpful tip.
CAUTION: Indicates correct operating or maintenance procedures in order to prevent damage to or destruction of the equipment or other property.
WARNING: Calls attention to a potential danger that requires correct procedures or practices in order to prevent personal injury.
⚠: Attention! Read the instructions.
PRODUCT: Your Packaged Terminal Air Conditioner/Heat Pump.
YOU and YOUR: The facility, community, or other person or entity that has purchased the product.
WE, US and OUR: Direct Supply Manufacturing, Inc.

Safety Precautions

⚠ **WARNING:** Plug in power plug properly. Otherwise, it may cause electric shock or fire due to excess heat generation.

⚠ **WARNING:** Do not operate or stop the unit by inserting or pulling out the power plug. It may cause electric shock or fire due to heat generation.

⚠ **WARNING:** Do not damage or use an unspecified power cord. It may cause electric shock or fire. If the power cord is damaged, it must be immediately replaced. Do not use a product with a damaged power cord.

⚠ **WARNING:** Do not modify power cord length or share the outlet with other appliances. It may cause electric shock or fire due to heat generation.

⚠ **WARNING:** Do not operate with wet hands or in damp environment. It may cause electric shock.

⚠ **WARNING:** Do not direct airflow at room occupants only. This could damage your health.

⚠ **WARNING:** Always ensure effective earthing. Incorrect grounding may cause electric shock.

⚠ **WARNING:** Do not allow water to run into electric parts. It may cause failure of machine or electric shock.

⚠ **WARNING:** Always install on a dedicated power circuit with a circuit breaker. Incorrect installation may cause fire and electric shock.

⚠ **WARNING:** Unplug the unit if strange sounds, smell or smoke comes from it. It may cause fire and electric shock.

⚠ **WARNING:** Do not use the socket if it is loose or damaged. It may cause fire and electric shock.

⚠ **WARNING:** Do not open the unit during operation. It may cause electric shock.

⚠ **WARNING:** Do not use the power cord close to heating appliances. It may cause fire and electric shock.

⚠ **WARNING:** Do not use the power cord near flammable gas or combustibles, such as gasoline, benzene, thinner, etc. It may cause an explosion or fire.

⚠ **WARNING:** Ventilate room before operating air conditioner if there is a gas leak from another appliance. It may cause explosion, fire and burns.

⚠ **WARNING:** Do not disassemble or modify unit. It may cause failure and electric shock.

⚠ **WARNING:** Do not use a product you suspect is not functioning properly. Immediately contact Direct Supply Equipment & Furnishings.

⚠ **CAUTION:** When the air filter is to be removed, do not touch the metal parts of the unit. It may cause an injury.

⚠ **CAUTION:** Do not clean the air conditioner with water. Water may enter the unit and degrade the insulation. It may cause an electric shock.

⚠ **CAUTION:** Ventilate the room well when used together with a stove, etc. to avoid an oxygen shortage.

⚠ **CAUTION:** When the unit is to be cleaned, switch off and turn off the circuit breaker. Do not clean unit when power is on, as it may cause fire, electric shock or injury.

⚠ **CAUTION:** Hold the power plug by the head when taking it out. Failure to do so may cause electric shock and damage.

⚠ **CAUTION:** Turn off the main power switch when not using the unit for a long time. Failure to do so may cause failure of product or fire.

⚠ **CAUTION:** Do not place obstacles around air-inlets or inside of air-outlet. It may cause failure of appliance or accident.

⚠ **CAUTION:** Ensure the installation bracket of the outdoor appliance is not damaged due to prolonged exposure. If bracket is damaged, there is a risk of damage due to the unit falling out.

⚠ **CAUTION:** Always securely insert the filters prior to use. Clean filter once every two weeks. Operation without filters may cause failure.

⚠ **CAUTION:** Do not use strong detergents to clean the unit. Appearance may be deteriorated due to change of product color or scratching of its surface.

⚠ **CAUTION:** Do not place heavy objects on the power cord. Ensure the cord is not compressed. There is danger of fire or electric shock.

⚠ **CAUTION:** Do not drink water drained from air conditioner. It contains contaminants and could make you sick.

⚠ **CAUTION:** Use caution when unpacking and installing. Sharp edges could cause injury.

⚠ **CAUTION:** If water enters the unit, turn off the unit at the power outlet and switch off the circuit breaker. Isolate supply by taking the power plug out and contact a qualified service technician.

⚠ **CAUTION:** Clean the evaporator once every three months. Otherwise it may cause failure of electric heating feature.

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. Do not use a product with a damaged power cord. Contact Direct Supply Equipment & Furnishings to order a replacement.

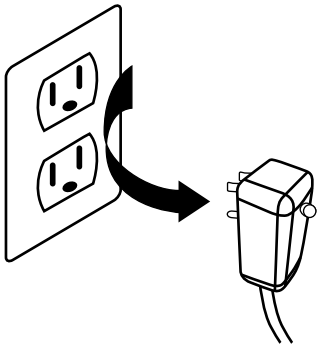
⚠ **WARNING:** For Your Safety

- 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 adapter plug. Do not remove any prong from the power cord.

⚠ **WARNING:** Electrical Information

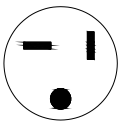
- Be sure the electrical service is adequate for the model you have chosen. This information can be found on the serial plate, which is located on the side of the cabinet and behind the grille.
- Be sure the air conditioner is properly grounded. To minimize shock and fire hazards, proper grounding is 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. **Do not use an extension cord or an adapter plug.**

Do not, under any circumstances, cut, remove or bypass the grounding prong.



Power supply cord with 3-prong grounding plug and current detection device

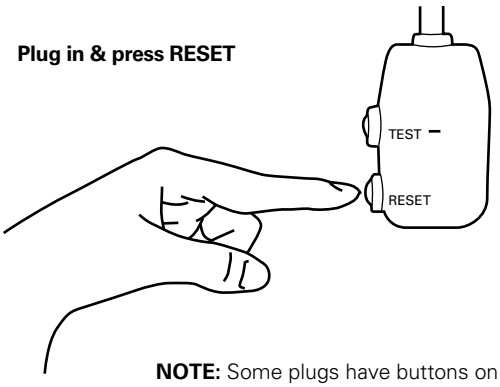
NOTE: The shape may be different according to its model:

Power Card						
Power Supply	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:

1. Plug in the air conditioner.
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 button pops out.
3. Press the RESET button; again, you will notice a click as the button engages.
4. The power supply cord is now supplying electricity to the unit (on some products, this it also indicated by a light on the plug head).



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 Direct Supply Equipment & Furnishings.
- If power supply cord is damaged, it cannot be repaired. It MUST be replaced by one obtained from Direct Supply Equipment & Furnishings.
- 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 is not permitted.

Product Features

DIGITAL TEMPERATURE READOUT
Large, easy-to-read LED display shows the setpoint temperature of the unit

ADVANCED CORROSION PROTECTION
Unique anticorrosive coating on the condenser helps withstand salty air, rain and other corrosive elements. Standard on all models.

FAN SPEED MODE
Direct Supply units feature three fan speeds and AUTO mode for the user to select from

CONSTANT FAN MODE
Fan can be set to run continuously in both heating and cooling mode via DIP switch settings on the control board

INDIVIDUAL MODE AND FAN CONTROL BUTTONS
Separate controls for both fan speed and mode settings

COMPRESSOR RESTART DELAY
Prevents short-cycling of the air conditioner by delaying compressor restart by a minimum of 3 minutes

AUTOMATIC EVAPORATOR FREEZE PROTECTION
Compressor is turned off and fan is turned on when evaporator temperature is too low

DIAGNOSTIC ERROR CODES
Alerts the user with a specific error code when a component failure is detected

AUTOMATIC QUICK WARM-UP (HEAT PUMP MODELS ONLY)
If the room temperature is 8°F below the setpoint temperature, the heat pump will shut off, and the electric heater will turn on until the setpoint is reached

HIGH TEMPERATURE PROTECTION IN HEATING MODE
The compressor and/or electric heater will turn off if the indoor temperature is too high or the indoor temperature sensor fails

REMOTE THERMOSTAT OPERATION
Direct Supply PTAC units can be controlled by a wired or wireless thermostat

ELECTRONIC TEMPERATURE LIMITING
Direct Supply PTAC units offer four different temperature limiting settings, giving the user flexibility in configuring those units

AUTOMATIC EVAPORATOR COIL DEFROSTING
If frost is detected on the evaporator coils, the unit will defrost automatically and the heat pump will turn off

CENTRAL CONTROL READY
Direct Supply PTAC units have low voltage terminals to allow control from a remote location

QUIET OPERATION
Direct Supply PTAC units are among the quietest in the industry

FILTERED FRESH AIR INTAKE
Outdoor air passes through a replaceable filter to prevent particles from entering the room

R-410A REFRIGERANT
Direct Supply PTAC units use an environmentally friendly refrigerant

PTAC Specifications

Resistance Heat Models

DS Part Number	#E7822	#E7830	#E7823	#E7831	#E7824	#E7832	#E7825	#E7833	#G1249
PERFORMANCE DATA:									
Cooling Btu	7300/7100	7300	9200/9000	9200	12000/11800	12000	14700/14500	14700	14700/14500
Cooling Watts	613/596	618	814/796	814	1121/1102	1120	1547/1526	1547	1547/1526
Energy Efficiency Ratio, EER	11.9	11.9	11.3	11.3	10.7	10.7	9.7	9.5	9.7
Heater Size (kW)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	3.5
Moisture Removal (pints/hr.)	0.2	0.2	1.2	1.6	3.0	3.4	4.5	4.5	4.5
Sensible Heat Ratio	0.93	0.93	0.87	0.87	0.74	0.74	0.70	0.70	0.70
ELECTRICAL DATA:									
Voltage (1 Phase, 60 Hz)	230/208V	277/265V	230/208V	277/265V	230/208V	277/265V	230/208V	277/265V	230/208V
Current (Amps)	2.7/2.88	2.4	3.54/3.83	3.07	4.88/5.30	4.23	6.73/7.34	5.84	6.73/7.34
Power Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heater Watts	3519/2850	3519	3519/2850	3519	3519/2850	3519	4769/3953	4769	3519/2850
Heater Current	15.30/13.70	13.46/13.1	15.30/13.70	13.46/13.1	15.30/13.70	13.46/13.1	22/19.7	19.25/18.6	15.30/13.70
Minimum Current Ampacity	20	13 / 20	20	18 / 30	20	18 / 30	28	24 / 30	20
Compressor LRA	16	12	18	17	25.9	22	34.5	29	34.5
Compressor RLA	2.8/2.65	2.2	3.75/3.5	2.95	5.0/4.55	4.1	6.35	5.35	6.35
Outdoor Fan Motor, HP	0.093	0.095	0.093	0.095	0.117	0.118	0.117	0.118	0.117
AIRFLOW DATA:									
Indoor CFM, HIGH	417	370	435	370	405	347	388	347	388
Indoor CFM, MEDIUM	405	347	417	347	394	323	376	323	376
Indoor CFM, LOW	382	323	394	323	382	300	364	300	364
Vent CFM	61	61	61	61	62	62	62	62	62
PHYSICAL DATA:									
Sleeve Dimensions (H x W x D)	16 x 42 x 13.75	16 x 42 x 13.75	16 x 42 x 13.75	16 x 42 x 13.75	16 x 42 x 13.75	16 x 42 x 13.75	16 x 42 x 13.75	16 x 42 x 13.75	16 x 42 x 13.75
Dimensions with Front (H x W x D)	16 x 42 x 21	16 x 42 x 21	16 x 42 x 21	16 x 42 x 21	16 x 42 x 21	16 x 42 x 21	16 x 42 x 21	16 x 42 x 21	16 x 42 x 21
Cut Out Dimensions (H x W x D)	16 x 42 x 14.8	16 x 42 x 14.8	16 x 42 x 14.8	16 x 42 x 14.8	16 x 42 x 14.8	16 x 42 x 14.8	16 x 42 x 14.8	16 x 42 x 14.8	16 x 42 x 14.8
Net Weight (lbs.)	99.2	103.4	104.7	104.5	115.7	115.5	117.9	117.7	112.9
Shipping Weight (lbs.)	123.5	129.8	130.1	129.8	141.1	140.8	143.3	143	137.3
R-410A Charge (oz.)	21.16	20.81	21.16	21.16	27.51	27.51	28.92	28.92	28.92
Dimensions with Packaging (inches)	19.3 x 45 x 25.4	19.3 x 45 x 25.4	19.3 x 45 x 25.4	19.3 x 45 x 25.4	19.3 x 45 x 25.4	19.3 x 45 x 25.4	19.3 x 45 x 25.4	19.3 x 45 x 25.4	19.3 x 45 x 25.4

Heat Pump Models

DS Part Number	#E7826	#E7834	#E7827	#E7835	#E7828	#E7836	#E7829	#E7837	#G1250
PERFORMANCE DATA									
Cooling Btu	7200/6800	7200	9000/8800	9000	12000/11800	12000	14700/14500	14700	14700/14500
Cooling Watts	610/576	610	796/778	796	1142/1124	1142	1531/1510	1531	1531/1510
Energy Efficient Ratio, EER	11.9	11.9	11.4	11.3	10.5	10.5	9.7	9.6	9.7
Reverse Heating Btu	6000/5800	6000	8100/7900	8100	10800/10500	10800	13500/13200	13500	13500/13200
Heating Watts	517/500	508	716/699	719	990/963	989	1323/1294	1320	1323/1294
COP	3.4	3.4	3.40	3.3	3.20	3.2	3.0	3.0	3.0
Moisture Removal (pints/hr.)	0.2	0.2	1.0	1.4	3.1	3.3	4.5	4.5	4.5
Sensible Heat Ratio	0.93	0.93	0.87	0.87	0.74	0.74	0.70	0.70	0.70
ELECTRICAL DATA									
Voltage (1 Phase, 60 Hz)	230/208V	277/265V	230/208V	277/265V	230/208V	277/265V	230/208V	277/265V	230/208V
Volt Range	253-187	292-239	253-187	292-239	253-187	292-239	253-187	292-239	253-187
Current (Amps)	2.65/2.76	2.3	3.46/3.75	3.01	4.97/5.4	4.31	6.66/7.26	5.78	6.66/7.26
Heater Watts	3519/2850	3519	3519/2850	3519	3519/2850	3519	4769/3953	4769	3519/2850
Heater Current	15.30/13.70	13.46/13.1	15.3/13.7	13.46/13.1	15.3/13.7	13.46/13.1	22/19.7	29/19.25	15.3/13.7
Reverse Heat Amps	2.25/2.41	2.3	3.04/3.28	3.13	4.3/4.63	4.3	5.74/6.2	4.98	5.74/6.2
Power Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Minimum Current Ampacity	20	13 / 20	20	18 / 30	20	18 / 30	28	24 / 30	20
Compressor LRA	16	12	18	17	25.9	22	34.5	29	34.5
Compressor RLA	2.8/2.65	2.2	3.75/3.5	2.95	5.0/4.55	4.1	6.35	5.35	6.35
Outdoor Fan Motor, HP	0.093	0.095	0.093	0.095	0.117	0.118	0.117	0.118	0.117
AIRFLOW DATA									
Indoor CFM, HIGH	429	370	435	370	435	347	423	347	423
Indoor CFM, MEDIUM	405	347	417	347	423	323	405	323	405
Indoor CFM, LOW	370	323	394	323	411	300	394	300	394
Vent CFM	61	61	61	61	62	62	62	62	62
PHYSICAL DATA									
Sleeve Dimensions (H x W x D)	16 x 42 x 13.75	16 x 42 x 13.75	16 x 42 x 13.75	16 x 42 x 13.75	16 x 42 x 13.75	16 x 42 x 13.75	16 x 42 x 13.75	16 x 42 x 13.75	16 x 42 x 13.75
Dimensions with Front (H x W x D)	16 x 42 x 21	16 x 42 x 21	16 x 42 x 21	16 x 42 x 21	16 x 42 x 21	16 x 42 x 21	16 x 42 x 21	16 x 42 x 21	16 x 42 x 21
Cut Out Dimensions (H x W x D)	16 x 42 x 14.8	16 x 42 x 14.8	16 x 42 x 14.8	16 x 42 x 14.8	16 x 42 x 14.8	16 x 42 x 14.8	16 x 42 x 14.8	16 x 42 x 14.8	16 x 42 x 14.8
Net Weight (lbs.)	101.4	105.6	106.9	106.7	117.9	117.7	120	119.9	116.4
Shipping Weight (lbs.)	126.8	132	132.3	132	143.3	143	145.5	145.2	140.9
R-410A Charge (oz.)	24.69	24	24.69	24	31.39	31.39	37.04	33.16	37.04
Dimensions with Packaging (inches)	19.3 x 45 x 25.4	19.3 x 45 x 25.4	19.3 x 45 x 25.4	19.3 x 45 x 25.4	19.3 x 45 x 25.4	19.3 x 45 x 25.4	19.3 x 45 x 25.4	19.3 x 45 x 25.4	19.3 x 45 x 25.4

Air Conditioner Features

This unit has many features. The user 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 3 minutes to equalize the refrigerant pressures for optimizing cycling.

Memory

If power is lost, all of the control settings (mode, fan speed, on/off and configuration) are stored. When power is restored, the unit will start back up in the mode and configuration it was in before power was lost.

Automatic Evaporator Freeze Protection

To keep the evaporator from freezing, the compressor is turned off and the indoor fan is turned on when the evaporator temperature is too low. If the evaporator temperature is not too low, this function is off.

Automatic Quick Warm-up (heat pump models only)

If the room temperature falls to 8°F/4.5°C below the setpoint temperature, the reverse cycle heat is shut off and the electric strip heat is turned on for one cycle, until the setpoint is reached.

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.

High Temperature Protection In Heating Operation

The compressor and/or electric heater will be switched off to prevent damage if the indoor temperatures are too high or the indoor temperature sensor fails.

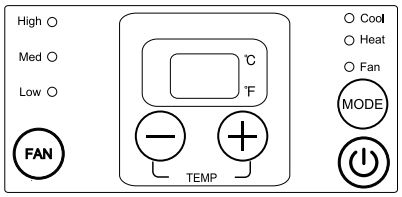
Unit Configuration

°F or °C

The unit can display in either °F or °C.

Control Panel Operation

The control panel keypad will look like the following:



POWER

- Press the POWER button to turn the unit on or off. When the unit is on, the power indicator light will be green. When the unit is off, the light will go out.

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: The default range of set temperatures is 62°F/17°C ~ 86°F/30°C. Cooling begins automatically when the room temperature is above the setpoint and stops when the room temperature is 4°F (2°C) below the setpoint. But the compressor will run 5 minutes at least in COOL mode before stopping. The fan runs in continuous mode.
- HEAT: The default range of set temperature is 62°F/17°C ~ 84°F/29°C. For heat pump models, the unit can alternate to run between reverse cycle heat mode and electric heater mode, according to the difference between the setting temperature and the room temperature. The fan motor cycles on and off with the compressor and electric heater.
  NOTE: The reverse cycle and electric heater cannot be run at the same time. In the following cases, it is normal that the reverse cycle does not operate:
  1. When the outdoor temperature is lower than 40°F/4°C or the room temperature falls to 8°F/4.5°C below the setpoint temperature.
  2. There is a 3-minute minimum compressor run time at any setting to prevent short cycling. The indoor fan motors start before the compressor and stops after the compressor cycles off.
  3. 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.

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°F or 1°C. The temperature setting appears in the display.
  NOTE: Press and hold "+" and "–" buttons together for 3 seconds to alternate the temperature display between °F and °C scale.

FAN (FAN SPEED)

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

DISPLAYS:

- Shows the set temperature in C or F. While on Fan-only mode, it shows the room temperature.

  Control code *(on some models)*:
  LC – PTAC control panel disabled. The unit can only be controlled via wall thermostat.

  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 – Wall thermostat 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 32°F/0°C
  HI – Room temperature is higher than 99°F/37°C

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

Cooling operation	Outdoor temp:	64-109°F/18-43°C
	Indoor temp:	62-90°F/17-32°C
Heating operation	Outdoor temp:	23-76°F/-5-24°C
	Indoor temp:	32-80°F/0-27°C

NOTE: Performance may be reduced if the unit is used outside of these operating temperatures.

NOTE: All the illustrations in this manual are for explanation purposes only. Your air conditioner may be slightly different.

Dip Switch Configurations

Removing The Front Panel

- Dip switch controls are located behind front panel through an opening below the control panel. To access, remove front panel. *(See Fig.1)*
- Dip switches are accessible without opening the control box. *(See Fig.2)*
- Unit must be powered OFF to effectively change their status.

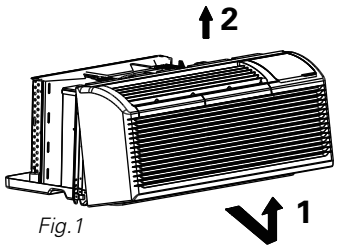


Fig.1

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

Dip Switch Configurations

- See Table 1 and Fig.3 for Dip Switch configurations and functions of each dip switch position.

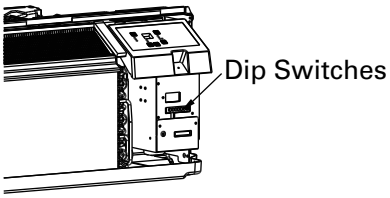


Fig.2

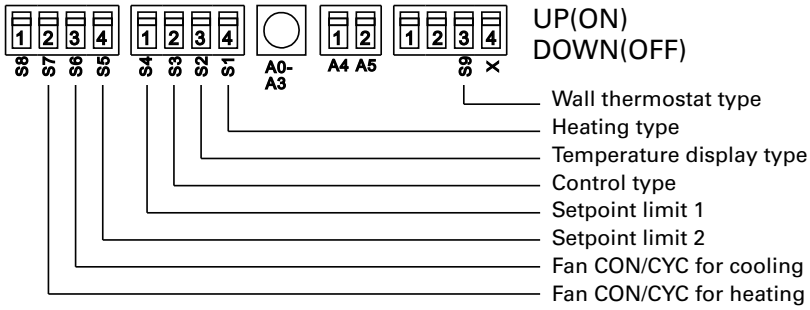


Fig.3

Table 1 Dip Switches Configurations

No.	UP (ON)	DOWN (OFF)	Notes
S1	Electric Heat Only	Electric Heat and Pump Heat	For Heat Pump unit only
S2	Temperature Display in ºC	Temperature Display in ºF	
S3	Wall Thermostat Enable	Control Panel Enable	
S4*S5	UP*UP: 61ºF - 86ºF (16ºC - 30ºC) UP*DOWN: 65ºF - 78ºF (18ºC - 26ºC) DOWN*UP: 63ºF - 80ºF (17ºC - 27ºC) DOWN*DOWN: 68ºF - 75ºF (20ºC - 24ºC)		Two configurations (S4*S5) combine to select setpoint range
S6	Fan Continuous Run for Heating	Fan Cycle for Heating	
S7	Fan Continuous Run for Cooling	Fan Cycle for Cooling	
S9	Used with some types of wall thermostats	Used with other types of wall thermostats	Try with switch in the UP position first. If this doesn't work, try again with the switch in the DOWN position

NOTE: In heating mode, the temperature setting can not be higher than 29ºC/84ºF.

Electric Heat Only (for heat pump unit only) Switch S1

- This setting is typically used for Emergency Heating.

Wall Thermostat Enable Switch S3

- 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.

Heat and Cool Fan CON/CYC Switches S6 and S7

- Allow the fan to operate in continuous or cycle modes while the unit is in heating and cooling mode.
- CON (Continuous)
  Allows the fan to run continuously, circulating air even when the temperature setting has been met. This switch helps 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 met.

Setpoint Temperature Limit Switches S4 and S5

- Provide a restricted range of temperature control within 4 ranges:
  - 61° - 86°F
  - 65° - 78°F
  - 63° - 80°F
  - 68° - 75°F

Wall Thermostat Terminal

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

Thermostat Wire Routing

Thermostat wire is not supplied with the PTAC. 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 terminal connector.

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

Proper Wire Routing Beneath Unit

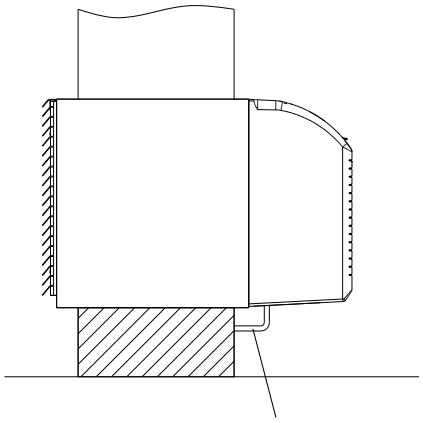
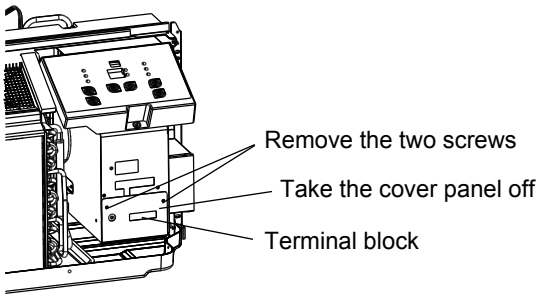


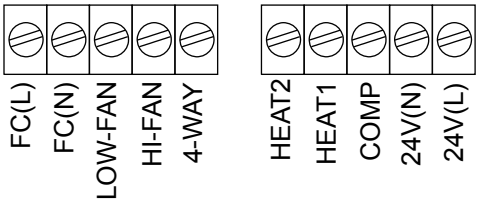
Fig.3 THERMOSTAT WIRE ROUTING (UNDER SLEEVE, BEHIND FRONT PANEL)

Installation Instruction of PTAC Wall Thermostat

Remove the two screws as shown and take the cover panel off.



Terminal block for thermostat connections



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

⚠ **CAUTION: UNIT DAMAGE HAZARD.** Failure to follow this caution may result in equipment damage or improper operation.

⚠ **CAUTION: UNIT DAMAGE HAZARD.** Improper wiring may damage unit electronics. Common busing is not permitted. Damage or erratic operation may result.

Notes

- Use terminal 4-way for heat pump connection only.
- The PTAC has a built-in 3-minute compressor protection time. If the compressor protection time on the thermostat is set for less than 3 minutes, the default PTAC 3-minute compressor protection time will take precedence.
- If connecting thermostat to a heat pump unit, thermostat must be set to heat pump operation, with the 4-way valve connection set to be energized in heat mode.
- 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 thermostat to (HI-FAN) on the unit's terminal block.
- A connected thermostat will only control the set temperature of the PTAC within the temperature range setting of the PTAC.
- For 15k BTU resistance heat units: if the wall thermostat only has one electrical heater output, connect heater output to HEAT1; jumper HEAT1 and HEAT2 together
- Please do not remove the control panel.

Recommended Wired and Wireless Thermostat Settings and Connections

DIP Switch Settings for All Thermostats (U = Up, D = Down)

S8	S7	S6	S5	S4	S3	S2	S1	A4	A5	S11	S10	S9	X	Upper Blue	Lower Blue
U	D	D	U	U	U	D	D	U	U	U	U	D	U	D	U

Connections Between PTAC Terminal Block & Thermostat Terminal Block

Thermostat Model	PTAC Type/ BTU Rating	Low Fan	Hi Fan	4-Way	Heat1	Heat2	Comp	24V(N)	24V(L)
Pro1 Wireless Thermostat	Resistance Heat (7k, 9k, 12k models only)	GL	GH	-	W	-	Y	C	R
	Resistance Heat (15k models only)	GL	GH	-	W	W	Y	C	R
	Heat Pump (all models)	GL	GH	O/B	-	-	Y	C	R
Honeywell PRO3000 Wired Thermostat	Resistance Heat (7k, 9k, 12k models only)	-	G	-	W	-	Y	C	R
	Resistance Heat (15k models only)	-	G	-	W	W	Y	C	R
	Heat Pump (all models)	-	G	B	-	-	Y	C	R

Front Desk Control

The PTAC can be remotely turned on and off via the front desk control by applying a 24VAC signal across terminals FC(L) and FC(N). If 24VAC is present, the PTAC will turn on.
If 24VAC is not present, the PTAC will turn off.

The FRONT DESK CONTROL dip switch can turn the front desk control feature on and off. If the dip switch is in the DOWN position, the front desk control feature is disabled. If the dip switch is in the UP position, the front desk control feature is enabled.

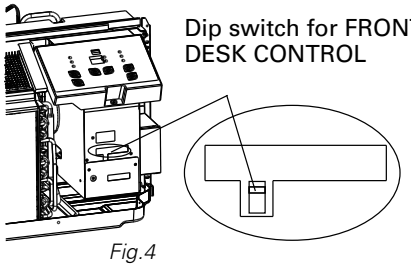


Fig.4

How To Install The Unit

⚠ **CAUTION:** There are sharp edges that can cause serious cuts. When lifting the air conditioner, it is HEAVY. Use two people to lift.

- If installing into an existing sleeve, you should measure the wall sleeve dimensions prior to installation to ensure proper fit.
- Install the new air conditioner according to these installation instructions to achieve the best performance. All wall sleeves used to mount the new air conditioner must be in good structural condition and have a rear grille that securely attaches to the sleeve or the flange of the sleeve to secure the new air conditioner.
- If installing into an existing sleeve, remove all baffles from the rear grille prior to installation of the PTAC.
- To avoid vibration and noise, make sure the unit is installed securely and firmly.
- When installing the sleeve, make certain there is nothing within 20 of the back that would interfere with heat radiation and exhaust airflow. *(See Fig.1)*

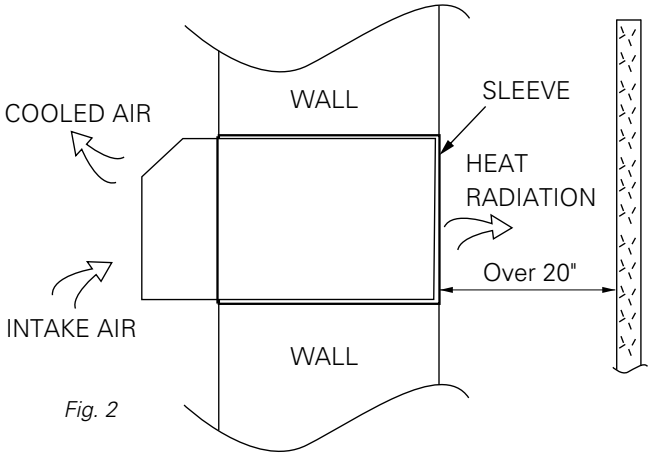


Fig. 2

PREPARATION OF SLEEVE ASSEMBLY (optional)

- Refer to the installation instructions of sleeve assembly for details.

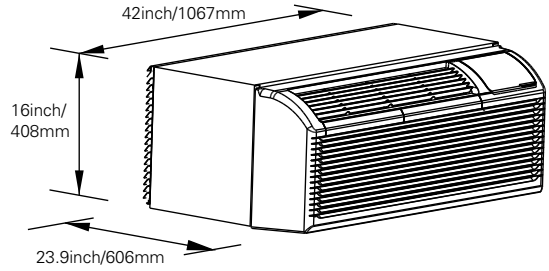
PREPARATION OF REAR GRILLE ASSEMBLY (optional)

- Refer to the installation instructions of rear grille assembly for details.

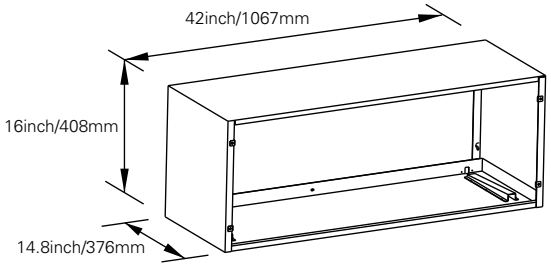
UNIT INSTALLATION

- Carefully remove shipping tapes from the front panel. *(See Fig.3)*
- Remove the front panel. *(See Fig.4)*
- Remove shipping screw from the vent door. *(See Fig.5)*

Dimension of air conditioner



Dimension of sleeve assembly (optional)



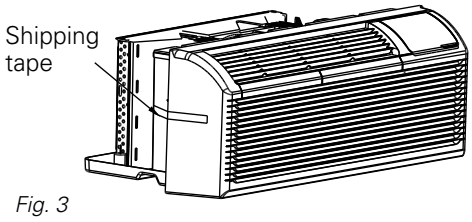


Fig. 3

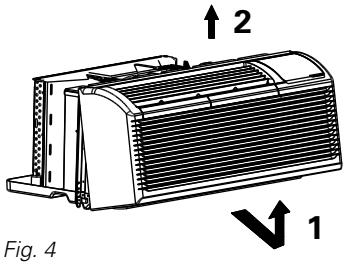


Fig. 4

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

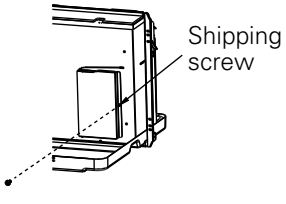


Fig. 5

Unit Installation *(cont.)*

- Rotate the vent control lever to either open or close the vent door. *(See Fig.6)*

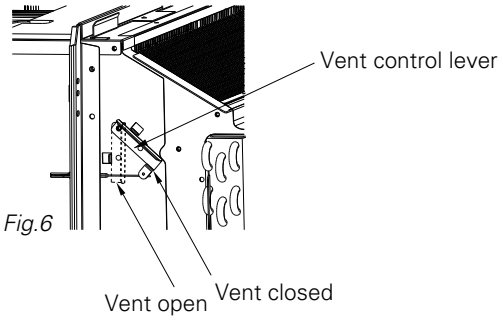


Fig.6

NOTE: When vent control lever is set to CLOSE, only the air inside the room is circulated and filtered. When set to OPEN, some outdoor air will be drawn into room. This will reduce heating or cooling efficiency.

Lift unit level and slide unit into wall sleeve until firmly against front of wall sleeve and secure with four screws and washers (supplied in the SLEEVE ASSEMBLY) through the unit flange holes. *(See Fig.7 and Fig.8)*

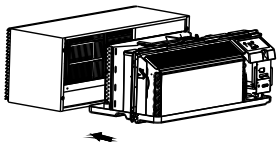


Fig.7

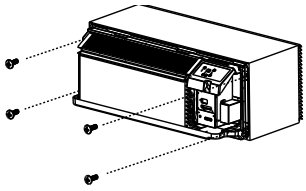
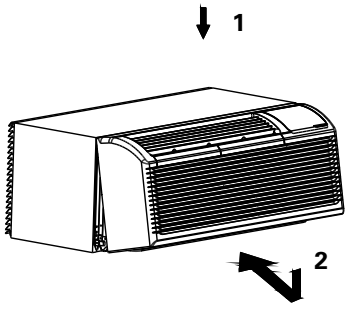


Fig.8

- Reinstall front panel. *(See Fig.9)*



Place tabs over top rail **1**.
Push inward at bottom until panel snaps into place **2**.

⚠ **CAUTION:** Do not put obstacles around air-inlet or inside of air-outlet of the unit, such as window curtain, etc. Always insert the filter securely, and clean filter once every two weeks as required.

Care & Cleaning

Front Panel and Case

- Turn off unit and disconnect power supply. To clean, use water and a mild detergent. **DO NOT** use bleach or abrasive cleaners. 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 to inspect dirt buildup that will occur on the inside of the coil. If clogged with dirt and soot, coil should be professionally cleaned. Clean inside and outside of outdoor coils regularly.

NOTE: Never use a high-pressure spray on 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.

AIR FILTERS

IMPORTANT: TURN OFF UNIT BEFORE CLEANING.

⚠ **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 torn or damaged, it should be replaced immediately. Operating without filters in place or with damaged filter will allow dirt and dust to reach indoor coil and will reduce cooling, heating, airflow and efficiency of the unit. Airflow restriction may cause damage to the unit.

- The most important thing you can do to maintain unit efficiency is to clean the filters once every two weeks as required.
- 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 filter.
  - Dry thoroughly before replacing.

- Removing Air Filter

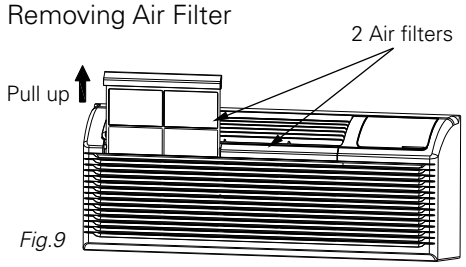


Fig.9

- Replacing Air Filter

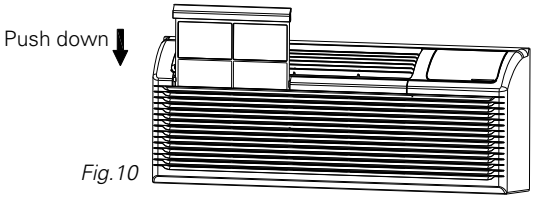


Fig.10

VENT DOOR FILTER

IMPORTANT: TURN UNIT OFF BEFORE CLEANING.

- Replacing the vent filter, access requires the removal of the unit from the wall sleeve. Clean the vent filter twice a year or as required.
- Make sure to remove the shipping screw from the vent door. *(See Fig.5)*
- Rotate the vent control lever to open the vent door. *(See Fig.6)*
- Remove four screws from the vent door filter. *(See Fig.11)*
- First pull out the vent door steel wire from the hole of the vent door, then take off the vent door and filter. *(See. Fig.11)*
- Clean the filter. Dry thoroughly before replacing.
- Replace the vent door and filter.
- Reinstall the four screws.
- Reinsert the vent door steel wire into the hole of the vent door.

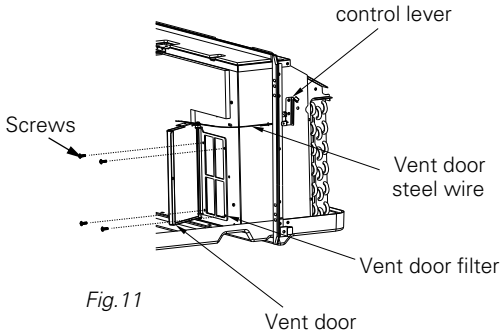


Fig.11

Troubleshooting

Possible Causes	Solutions
Unit Does Not Start	
• Unit may have become unplugged • Fuse may have blown • Circuit breaker may have been tripped • Unit may be off • Unit may be in a protection mode	• Check that plug is plugged securely in wall receptacle. **NOTE:** Plug has a test/reset button on it. Make sure 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).
Unit Not Cooling/Heating Room	
• Unit air discharge section is blocked • Temperature setting is not high or low enough • 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 mode • Compressor is in time delay	• Make sure 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, cooking heat or gatherings of people make room uncomfortable. • Close vent door. • Wait approximately 3 minutes for compressor to start.
Display Has Strange Numbers/Characters On It	
	• The unit may be in a protection mode. • The unit may be set for °C (instead of °F).
Unit Making Noises	
	• Clicking, gurgling and whooshing noises are normal during operation of unit.
Water Dripping Outside	
	• If a drain kit has not been installed, condensation runoff during 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.
Water Dripping Inside	
Wall sleeve is not installed level	• Wall sleeve must be installed level for proper drainage of condensation. Check that installation is level and make any necessary adjustments.
Ice Or Frost Forms On Indoor Coil	
Low outdoor temperature Dirty filters	• When outdoor temperature is approximately 55°F 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.
Compressor Protection	
Power may have cycled, so compressor is in a restart protection	• 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 startup delay of 3 minutes and a minimum compressor run time of 3 minutes.
Electric Heating Failure	
	• Clean the evaporator once every three months.

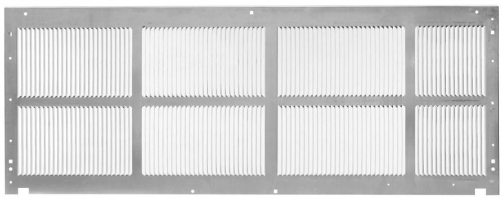
NOTES:

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.

Accessories

#C9779 Direct Supply PTAC Foldable Wall Sleeve

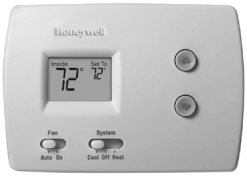
#E7838 Sub Base Assembly for Direct Supply PTAC Units, 265V, 30-Amp Units



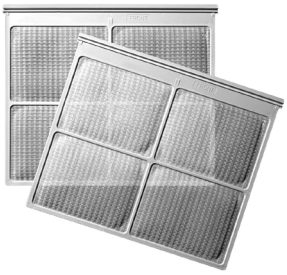
#C9780 Direct Supply PTAC Aluminum Grill

#E7839 Sub Base Assembly for Direct Supply PTAC Units, 265V, 20-Amp Units

#**C9781** Direct Supply PTAC Extruded Architectural Grill

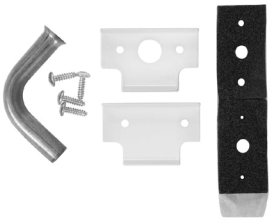


#F1770 Honeywell PRO 3000 Wired Digital Thermostat

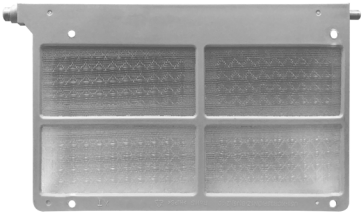


#C9783 Direct Supply PTAC Air Filter

#F1769 PRO1 IAQ Wireless Electronic Digital Themostat



#C9782 Direct Supply PTAC Drain Kit



#G4100 Direct Supply PTAC, Fresh Air Filter

Limited Warranty and Customer Service

Limited Warranty

We, Direct Supply Manufacturing, Inc., offer to you, as the original purchaser, a warranty for this Direct Supply PTAC. Our warranty applies for the limited warranty period stated below. If any product or product part listed below has an original defect in material or workmanship during the applicable limited warranty period, we will replace it at our cost. A similar piece may be used for replacement if the original pattern is no longer available. Our warranty applies only if the product is properly maintained by the original purchaser for use and does not cover normal wear and tear, modification of the product or damage caused by abuse, improper use, failure to maintain, use which exceeds the published product limitations or the combination of any product with another product. In addition, our warranty does not cover fading, colorfastness, stains, spills or exposure to chemicals, odors, heat or light. Our warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. Please note that our limited warranty period begins when we ship the product to you. The limited warranty period and our obligations under the warranty end once you transfer the product to someone else, or at the end of the applicable limited warranty period identified below, whichever is earlier.

Product	Warranty Period
Direct Supply PTAC (complete unit)	3 years
Direct Supply PTAC (sealed system)	5 years
Direct Supply PTAC (accessories & replacement parts)	30 days

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Customer Service

Our promise to you is that you will have a convenient and easy ordering experience, receive a quality Packaged Terminal Air Conditioner/Heat Pump and enjoy outrageous customer service. If you have any questions about the Packaged Terminal Air Conditioner/Heat Pump you have purchased or would like to request warranty service, please contact: **Direct Supply Equipment & Furnishings** at 1-800-634-7328, 6767 N. Industrial Road, Milwaukee, WI 53223, SalesSupport@DirectSupply.com.

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