Sea Breeze

PTAC

Air Conditioner/Heat Pump

INSTALLATION/OWNER'S MANUAL

FOR MODELS

| PTAC49CH3ZC | PTAC49HP3ZC | PTAC412CH3ZC |
| PTAC412HP3ZC | PTAC415CH3ZC | PTAC415HP3ZC |

| PTAC49CH3VC | PTAC49HP3VC | PTAC412CH3VC |
| PTAC412HP3VC | PTAC415CH3VC | PTAC415HP3VC |

Please read carefully before installing or operating this unit. Retain this manual for future reference.

CONTENTS

Unit Inspection: After unpacking examine unit for damage that may have occurred during shipping. Contact shipping company immediately if damage is found.

PROPERLY DISPOSE OF WASTE

SAFETY CONSIDERATIONS

Recognize safety information. This is the safety alert symbol ⚠. When you see this symbol on the unit and in instructions of manuals be alert to the potential for personal injury. Understand these signal words: **DANGER**, **WARNING**, and **CAUTION**. These words are used with the safety alert symbol. **DANGER** identifies the most serious hazards which **will** result in severe personal injury or death. **WARNING** signifies hazards which **could** result in personal injury or death. **CAUTION** is used to identify unsafe practices which **may** result in minor personal injury, product damage, or property damage. **NOTE** is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

⚠ WARNING

PERSONAL INJURY AND/OR PROPERTY DAMAGE HAZARD

Failure to follow this warning could result in personal injury, death and/.or property damage.
For your safety, the information in this manual must be followed to minimize the risk of fire or explosion, electric shock, or to prevent property damage, personal injury, or loss of life.
• This unit must be properly installed in accordance with the Installation Instructions before it is used.
• Immediately repair or replace all electric service cords that have become frayed or otherwise damaged.
• Unplug or disconnect the unit at the fuse box or circuit breaker before making any repairs.

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

GENERAL INFORMATION

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

BEFORE YOU BEGIN
Read these instructions completely and carefully.

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

IMPORTANT: Observe all governing codes and ordinances.

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

NOTE TO OWNER
Keep these instructions for future reference. Be sure to write down the model and serial number of unit on space provided on back page. The model and serial number can be located on the serial number plate attached to unit. These numbers are required for service. (See Fig. 1.)

Sea Breeze
INTERNATIONAL REFRIGERATION PRODUCTS, INC.

Product Code: 425-0045
XYYZ

MODEL:	PTAC49CH3ZC
VOLTS:	208/230VAC-1PH-60HZ
RATED COOLING:	9200/9400 BTU/HR
RATED HEATING:	N/A
EER:	12.1/12.1
ELEC. HEAT:	3.45KW(2.45KW)
FULL LOAD:	15A(10.7A)

ELECTRIC SHOCK PROTECTION:	CLASS I
WATERPROOFING:	IP24
AIRFLOW H/L:	330/294 CFM
NOISE INDOOR/OUTDOOR:	52/61 dB(A)
MAX. HIGH SIDE PRESSURE:	638 PSIG
MAX. LOW SIDE PRESSURE:	377 PSIG
REFRIGERANT:	R410A/23.6 OZ.

AHRI CERTIFIED
Packaged Terminal AC
AHRI Standard 310/380
www.ahridirectory.org

CSA
C US
Energy Verified Only
219425

c UL us
LISTED
SA11088
PACKAGED TERMINAL AIR CONDITIONER

CAUTION: RISK OF ELECTRIC SHOCK. DISCONNECT POWER BEFORE SERVICING UNIT.   **WARNING: USE ON SINGLE OUTLET CIRCUIT ONLY.**

Fig. 1 – Sample Data Information Plate

UNIT FEATURES

This premium unit has many features that
are different from those found on standard PTAC
models. The owner must be familiar with these
features in order to fully understand the operation and
capability of the unit.

• **Intelligence –** Your unit has an on board
computer that utilizes real time diagnostics to prolong
the life of the unit. There is an LED indicator on the
control board behind the front panel that will flash
an error code if the unit has detected some kind of
fault condition. In many cases the unit will
automatically clear the fault condition and continue
operating with no interruption. In some cases the
condition cannot be cleared and the unit will require service. In such cases an "Fx" failure mode will be
displayed on the digital display. For a detailed list of all error codes and "Fx" conditions, see Table 6.
Status LED Indicator Definitions for further details.

Fig. 2

• **Memory** – This unit also has memory, so if power is lost all of the control settings (set point,
mode, fan speed, on/off and configuration) are retained. When power is restored the unit will
start back up in the mode and configuration it was in when power was lost.

• **Sound Reduction** – The unit has 2 fan motors and a tangential blower wheel for noise reduction.
The indoor fan will start a minimum of 10 seconds before the compressor. This helps reduce compressor
noise on start up.

• **Random Compressor Restart** - To help prevent power surges after a power outage (occurs when many
PTACs start at the same time) the compressor is equipped with a 2:45 min. to 3:15 min. random
restart delay feature. When the unit is plugged in or power has been restarted a random compressor
restart will occur.

• **Compressor Protection** - To prevent short cycling of the compressor and maximize it's life, there is a
random start up delay of 3 minutes for the compressor and a minimum compressor run time of 3 minutes.

•**Automatic Room Freeze Protection** – Keeps the temperature in a room above freezing where pipes might
freeze. If the unit is configured for the freeze protection feature to be active, (which is the default condition),
when power is applied to the unit and the unit senses temperature below 40°F the fan motor and electric
heater are turned on and will warm the room to 50 °F. If Freeze Protection is not required change the
configuration switch to turn the feature off (see section on unit configuration).

• **Automatic Defrost Protection (for heat pump models only)** – When the outdoor temperature gets
to approx. 35 °F and the unit can no longer effectively heat with the compressor, the unit will
automatically switch to electric heating. The unit will then heat with electric heat until the outside
temperature rises to approx. 40 °F then compressor can be used again.

• **Automatic Quick Warm-up (for heat pump models only)** - If the room temperature falls to 5 °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 set point is satisfied.
  If the room temperature is less than 5°F from set point the compressor will be turned on in the heating function and
run until the room temperature is satisfied.
  The electric strip heaters and the compressor will not operate simultaneously.

•**LED Indicator's and Buttons** - The touch pad has buttons for MODE, FAN SPEED, ON/OFF,
SET POINT WARMER and SET POINT COOLER. It also has LEDs that correspond to the MODE,
FAN SPEED and SET POINT operation, to indicate the unit's status. The LEDs below the MODE button,
FAN, COOL, and HEAT, indicate what operating mode is active. The LEDs below the FAN button, LOW,
MED and HI, indicate the fan speed that is selected. The LED located in the lower right corner is the unit
On/Off status LED. If the unit is in ON mode the LED will be green. If the unit is OFF, the LED will be red.

• **Configure Fan to Optimize Selected Application** - Unit can be optimized to selected application by
configuring the fan to run in continuous mode or cycle on and off with the compressor and electric
heater (can be different for both heating and cooling modes). In cycle mode, fan will continue to run after
compressor or electric heater stops in order to disperse any residual heat or cool left on the coil.

UNIT FEATURES CONTINUED

• **Unit Configuration** – There are many different configuration possibilities, through both dip switches and the digital keypad. This allows you to configure the unit for your exact application. See section on unit configuration for more details. Following are the configuration selections that have not been previously mentioned:

• **°F or °C** – The unit can display in either °F or °C.

• **Indoor Temperature Sensor Biasing** – Optimize the room temperature sensor reading to your exact application (one for cooling and another for heating).

• **Emergency Heat (for heat pump only)** – Disables the compressor during heating mode operation and heats with electric heat only.

• **Display Set Point or Room Temperature** - The unit can be configured to display the room temperature or set point only during heating and cooling modes. See section on unit configuration for more details.

• **Limit the Set Point Range** - The unit can be configured to limit the controlling set point range. The display will always show the complete set point range but the controlling set point will be limited to the configured minimum and maximum set point selected. See section on unit configuration for more details.

• **Energy Management** – Sometimes known as *Front Desk Control.* An input is provided so that the unit can be manually disabled from a different location. If the unit detects 24 VAC on this input it will turn itself off. If no voltage is detected on the input the unit will run normally.

• **Wall Thermostat Control** - An external wall thermostat can be connected to the unit. If connected the unit must be configured to disable the keypad. See section on wired inputs and unit configuration for more details.

• **Remote Control** - Remote control is available by adding a receiver module to the unit. See the 950-0254 installation manual packaged with the remote control and receiver module.

ELECTRICAL DATA

<table>
<tr><td colspan="2" align="center">⚠ **WARNING**</td></tr>
<tr><td colspan="2" align="center">**ELECTRICAL SHOCK HAZARD**
Failure to follow this warning could result in personal injury, death and/or property damage. DO NOT alter cord or plug or use an extension cord.</td></tr>
</table>

POWER CONNECTION OPTIONS:

The unit ships with a 3KW power cord. Optional power cords 2KW or 5KW are available.
CAUTION: When using cat. no. 2KWPC / 2KWPC265 use a 15 amp breaker, 3KWPC / 3KWPC265 uses a 20 amp breaker and Cat. no. 5KWPC / 5KWPC265 will require a 30 amp breaker.
IMPORTANT: For 265/277 VAC units, if power cord accessory option is selected, the cord is only 18" long and must plug into the accessory electrical 265/277 VAC subbase.
Be sure that your outlet matches the appropriate blade configuration of the plug and that it is within reach of the service cord.
All wiring, including installation of the receptacle must be in accordance with the NEC and local codes, ordinances and regulations. National codes require the use of an arc fault or leakage current detection device on all 208/230 VAC power cords. Be sure to select the correct cord for your installation.

ALL UNITS

Wire Size
Use recommended wire size given in Table 1. Install <u>only</u> on a single branch circuit. The PTAC unit must be the only device connected to the single branch circuit. All wiring must comply with local and national codes.
NOTE: **Use copper conductors only.**

Table 1 - SUGGESTED BRANCH CIRCUIT WIRE SIZES*

NAMEPLATE AMPS	AWG WIRE SIZES†
7.0 to 12	14
12.1 to 16	12
16.1 to 24	10

LEGEND
AWG - American Wire Gauge
* Single circuit from main box.
* Based on copper wire at 140°F (60 °C) temperature rating.

Grounding

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

VOLTAGE SUPPLY

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

Cord Connected Units
The 250 VAC field supplied outlet must match the plug for the standard 208/230 VAC units and be within reach of the service cord. The standard cord-connected 265/277 VAC units require an accessory electrical subbase for operation. Refer to Table 2 for proper receptacle and fuse type.

Power Cord Protection
The power cord for 208/230 (250) VAC units are equipped with a LCDI safety feature that provides fire protection. Power is automatically disconnected when an unsafe condition is detected. Power to the unit can be restored by pressing the reset button on plug head. Upon completion of installation an operational check should be performed on the LCDI plug. See instructions on plug. Always use proper Sea Breeze replacement power cord.
NOTE: The 265/277 VAC units do not incorporate this feature as they require us of the electrical subbase accessory.

Table 2 - RECEPTACLES AND FUSE TYPES

RECEPTACLE (6-15R) / (7-15P) - 15 amps (6-20R) / (7-20P) - 20 amps (6-30R) / (7-30P) - 30 amps						
AMPS	15	20	30	15	20	30
RATED VOLTS	250 VAC	250 VAC	250 VAC	265/277 VAC	265/277 VAC	265/277 VAC
TIME DELAY TYPE FUSE or CIRCUIT BREAKER	15 AMP	20 AMP	30 AMP	15 AMP	20 AMP	30 AMP

INSTALLATION
Proper installation is the responsibility of the installer. Product failure due to improper installation is not covered under warranty.

CHASSIS INSTALLATION
Units are shipped without a sleeve. In applications where unit is a replacement, it is recommended that a Sea Breeze sleeve be used.

The unit will fit General Electric, Amana, Trane, and Friedrich sleeves/grilles (be sure outdoor grille is installed on the sleeve). See Table 3 for details.

For any sleeve retrofit applications, be sure that the foam seals (factory installed on the tube sheets) provide a good seal between the grille and outdoor coil tube sheets. These foam seals provide a barrier to separate outdoor coil leaving air from mixing with the outdoor incoming air (known as air recirculation).

<table>
<tr><td colspan="2" align="center">**Table 3 - Retrofit Wall Sleeves**</td></tr>
<tr><th align="center">**Manufacturer**</th><th align="center">**Wall Sleeve Part Number**</th></tr>
<tr><td>**General Electric**</td><td>Metal Sleeve RAB71</td></tr>
<tr><td></td><td>Plastic Sleeve RAB77</td></tr>
<tr><td>**Amana**</td><td>Metal Sleeve WS900B</td></tr>
<tr><td>**Trane**</td><td>Metal Sleeve SLV149</td></tr>
<tr><td>**Friedrich**</td><td>T−Series Metal $11^{1/2}$−in. Deep Wall Sleeve*</td></tr>
<tr><td></td><td>Standard Depth Wall Sleeve 16 X 42 X $13^{3/4}$−in. PXWS</td></tr>
<tr><td>**Sea Breeze**</td><td>Cat. No. 4250019 - Wall Sleeve</td></tr>
</table>

* FR - SLEEVE - EXT accessory is required for retrofit into Friedrich (T - Series) wall sleeves.

⚠ **CAUTION**

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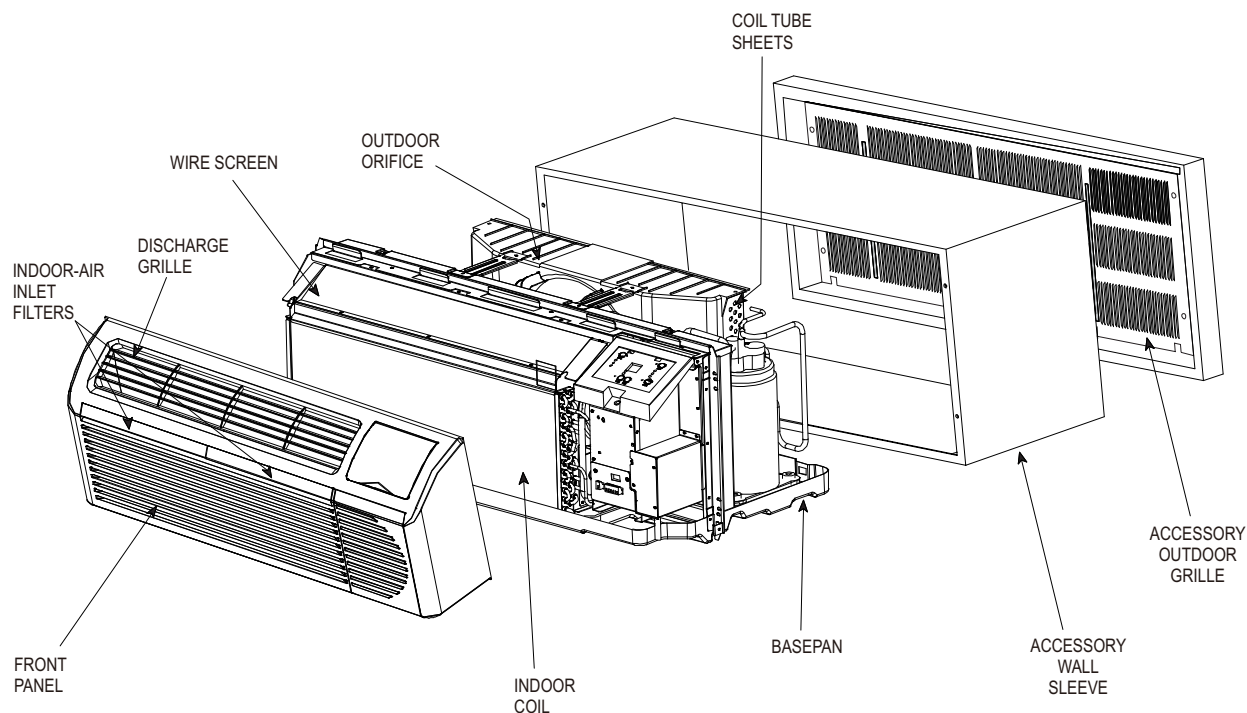

Fig. 4 - Unit Components

RETROFIT SLEEVE PREPARATION

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

⚠ WARNING

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

Remove any existing foam baffles that are installed on competitive outdoor grille, if present. See Fig. 5.

GE Sleeves Only
GE Metal Wall Sleeve - Remove metal clip on mounting rail located on left, inside bottom, of metal sleeve and discard. See Fig. 6.
GE Plastic Sleeve - Remove bottom seal from plastic sleeve. See Fig. 7.

INSTALLATION OF A CARRIER WALL SLEEVE USING A NON CARRIER GRILLE

This application has become more common due to pre-manufactured windows with built-in grilles or renovations where a Carrier sleeve is used with an existing non-Carrier grille.
Use of a Carrier wall sleeve with a non-Carrier grille requires installation of an Accessory Baffle Kit (see Fig. 8), which ensures a good seal between the unit and exterior grille to prevent air recirculation. Air recirculation is a large contributor to performance loss and premature damage to major components.
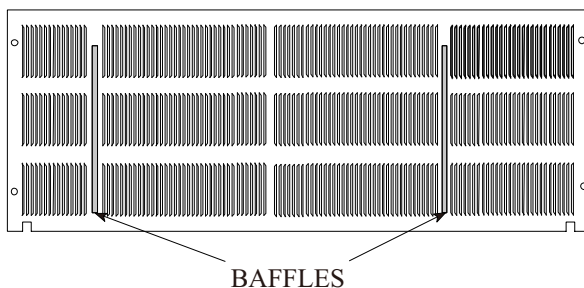

Fig. 5 - Remove Existing Outdoor Grille Baffles on Competitive Grille
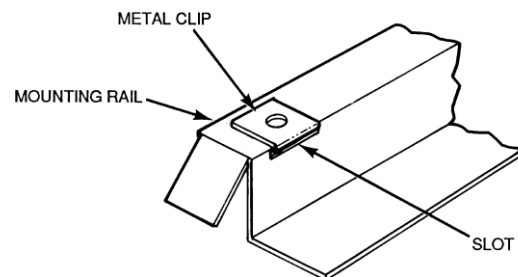
Fig. 6 - Remove Metal Clip on GE Metal Sleeve
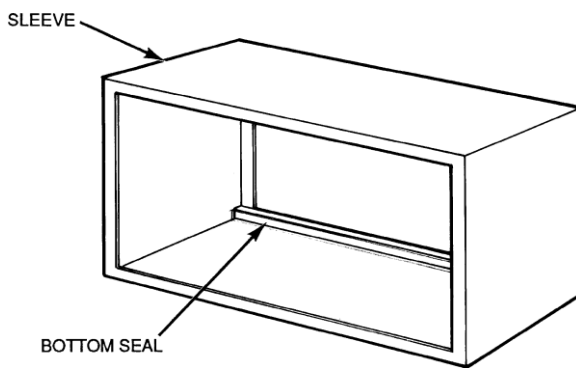
Fig. 7 - Remove Bottom Seal From GE Plastic Sleeve
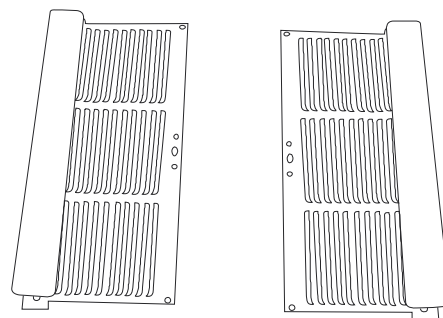
Fig. 8 - Accessory Baffle Kit
Note: Contact with your unit supplier to get the kit and it may be different from the shape shown above.

INSTALLING UNIT INTO WALL SLEEVE

1. Carefully remove shipping tape from the front panel and vent door. See Fig. 9.
2. Remove shipping screw from the vent door, if present. See Fig. 10.
3. Remove front panel. See Fig. 11.
4. Lift unit level and slide unit into wall sleeve until foam seal rests firmly against front of wall sleeve.
5. Secure with four screws (supplied) through the unit flange holes. See Fig. 12.
6. Reinstall front panel. See Fig. 13.

Fig. 11 - Removing Front Panel

! **CAUTION**

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

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

Shipping tape

Fig. 9 - Shipping Tape Location.

Fig. 12 - Securing Unit

Remove shipping screw if present.
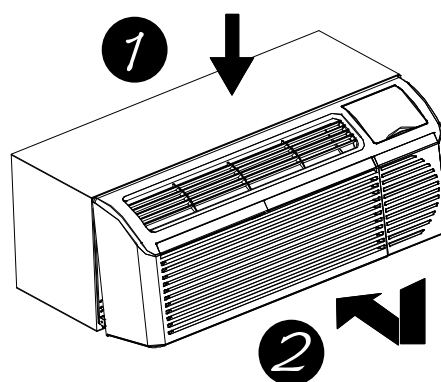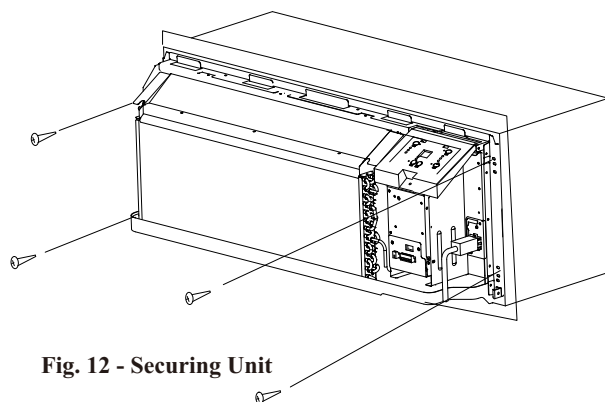
Place tabs over top rail (1). Push inward at bottom until panel snaps into place (2).

Fig. 10 - Shipping Screw Location.

Fig. 13 - Replacing Front Panel.

HOW TO CONNECT
IMPORTANT: Please read following electrical safety data carefully.

<div style="border:1px solid black;">

⚠ WARNING

ELECTRICAL SHOCK AND/OR UNIT OPERATION AND DAMAGE HAZARD

Failure to follow this warning could result in personal injury or death and/or unit operation and damage.

- Follow the National Electrical Code (NEC) or local codes and ordinances.
- For personal safety, this unit **MUST BE** properly grounded.
- Protective devices (fuses or circuit breakers) acceptable for unit installations are specified on the nameplate of each unit.
- **Do not** use an extension cord with this unit.
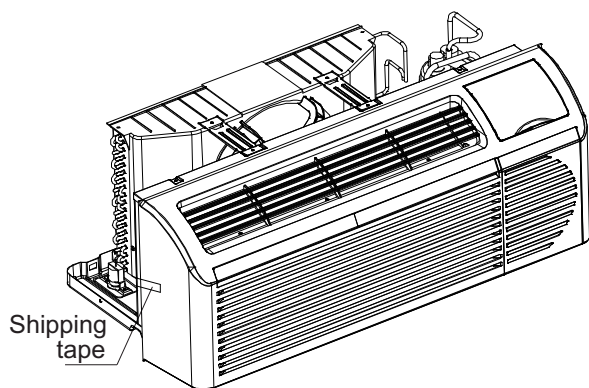- Aluminum building wiring may present special problems -- consult a qualified electrician.
- **When unit is in STOP position, there is still voltage to electrical controls.**
- Disconnect power to unit before servicing by:
  1. Removing power cord (if it has one) from wall receptacle.
  2. Removing branch circuit fuses or turning circuit breakers off at panel.

</div>

1. Remove front panel. See Fig. 11.
2. Remove junction box.
   - Remove junction box cover by removing three screws from front. Remove junction box by taking out top, rear and side screws. See Fig. 14.
3. Connect accessory power supply cord or hard wire connector to unit connector. See Fig. 15.
   - Units must be installed with the appropriate power supply kit. See Table 4 POWER CONNECTION CHART. These connections must be followed.
4. Reinstall junction box and cover.
   - Use wire clamp to attach power cord to base pan. Secure with screws (included) See Fig. 16.
   - Replace junction box and cover with screws removed from Step 2. Tighten securely.
5. Replace front panel. See Fig. 13.
6. Connect power to unit.

Unit connector

Junction box cover   Junction box
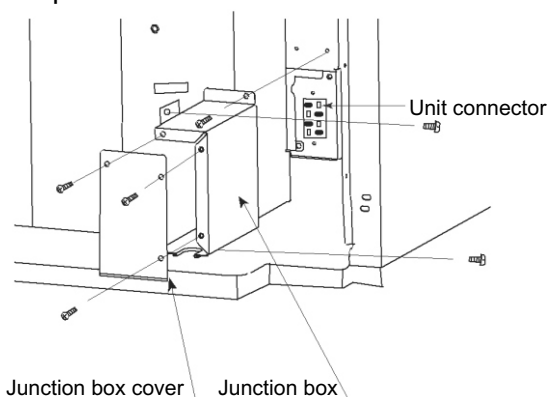
Fig. 14 – Junction Box Location
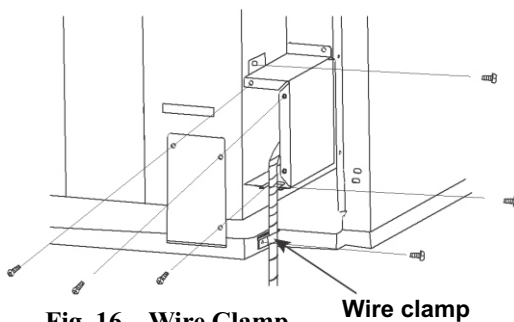
Fig. 16 – Wire Clamp   **Wire clamp**

Fig. 15 – Power Connection   **Accessory Power Supply Cord or Hard Wire**
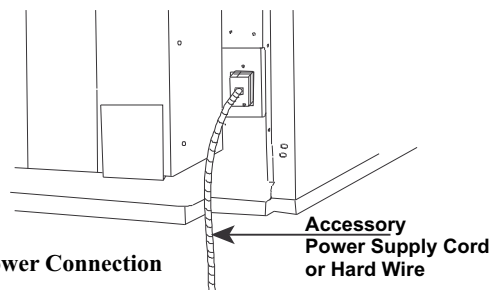
Table 4—POWER CONNECTION CHART

Units can be used with the following power cords.		
Unit Model	2KWPC230 (2450W) 15A	3KWPC230 (3450W) 20A	5KWPC230 (5000W) 30A
PTAC49CH3ZC	X	X	NOT USED
PTAC49HP3ZC	X	X	NOT USED
PTAC412CH3ZC	X	X	X
PTAC412HP3ZC	X	X	X
PTAC415CH3ZC	X	X	X
PTAC415HP3ZC	X	X	X
Unit Model	2KWPC277 (2450W) 15A	3KWPC277 (3450W) 20A	5KWPC277 (5000W) 30A
PTAC49CH3VC	X	X	NOT USED
PTAC49HP3VC	X	X	NOT USED
PTAC412CH3VC	X	X	X
PTAC412HP3VC	X	X	X
PTAC415CH3VC	X	X	X
PTAC415HP3VC	X	X	X

CAUTION - DO NOT modify or substitute power cord. All units are shipped with 3KW power cord.

SYSTEM CONFIGURATION

VENTILATION CONTROL

The ventilation control lever is located at left side of unit, behind front panel.

NOTE: The vent door shipping hardware must be removed before using vent control lever.
See installation instructions.

When set to **CLOSE** only the air inside the room is circulated and filtered.

When set to **OPEN** some outdoor air will be drawn into the room. This reduces heating or cooling efficiency.

Energy Tip: Keep the vent control in the **CLOSE** position. Room air will be filtered and recirculated.

Vent Control (Pull lever through label to operate.)
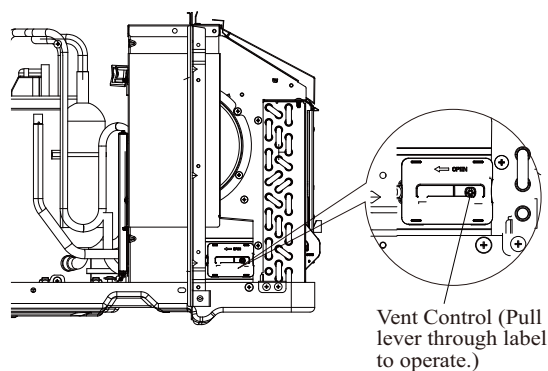
Fig. 17 Ventilation Control Location

ADJUSTING AIR DIRECTION

To adjust air direction:

1. Remove front panel. See Fig. 11.
2. Remove louver screws that hold louver insert in place (from back side of front panel). See Fig. 18.
3. Turn louver insert and rotate 180_. See Fig. 19.
4. Replace louver insert.
5. Replace screws and front panel.

Louver screws

Louver screws

Fig. 18 Backside of Front Panel

Air discharge upward

Air discharge outward (Default)
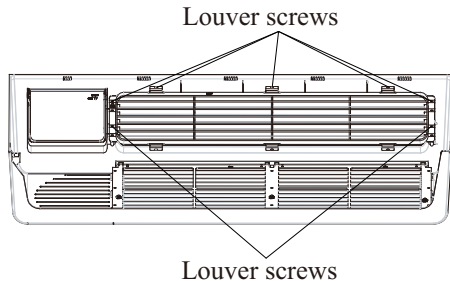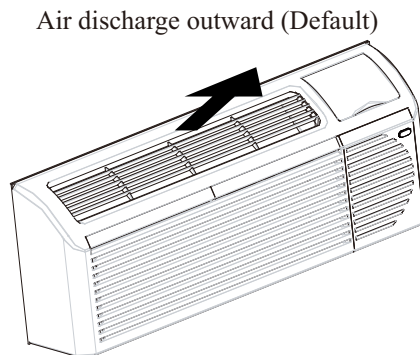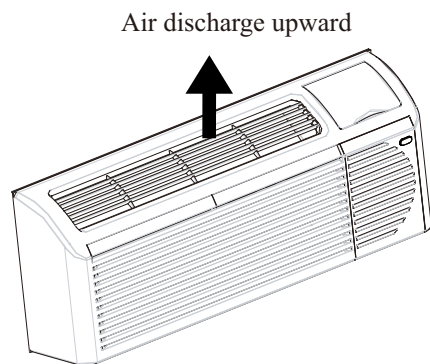
Fig. 19 Adjusting Louvers

DIP SWITCHES

Auxiliary dip switch controls are located behind front panel, through an opening below the control panel. To access, remove front panel. See Fig. 11. Dip switches are accessible without opening the control box. Unit must be powered **OFF** to effectively change their status.

Factory settings for dip switches will be in the **DOWN** position. See Table 5 -- *Dip Switch Functions* for functions of each dip switch position.
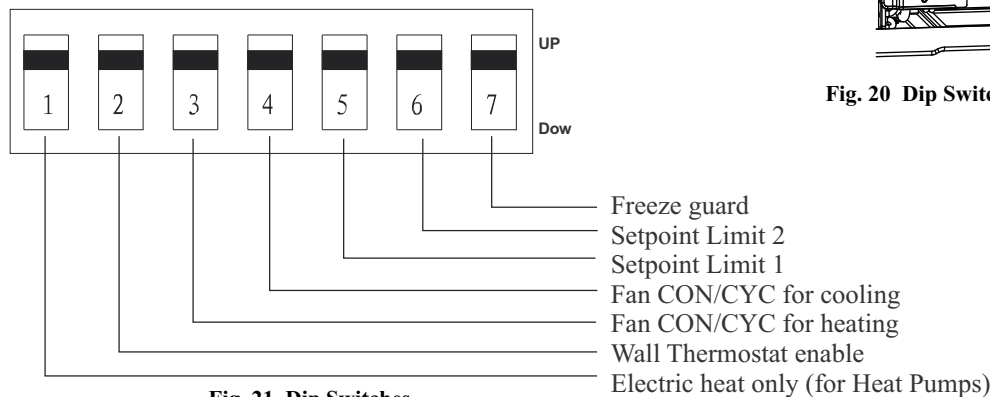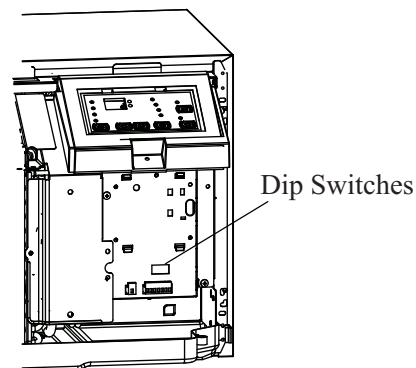
Fig. 20 Dip Switch Location on Unit

- Freeze guard
- Setpoint Limit 2
- Setpoint Limit 1
- Fan CON/CYC for cooling
- Fan CON/CYC for heating
- Wall Thermostat enable
- Electric heat only (for Heat Pumps)

Fig. 21 Dip Switches

Table 5 Dip Switch Functions

No.	UP		DOWN		REMARKS	DEFAULT
1	Electric Heat Only		Heat Pump/Electric Heat		For Heat Pump unit only.	DOWN
2	Wall Thermostat Enable		Control Panel Enable			DOWN
3	Fan Runs Continuous for Heating		Fan Cycles for Heating			DOWN
4	Fan Cycles for Cooling		Fan Runs Continuous for Cooling			DOWN
6*5	6UP*5UP 68−75 °F 20−24 °C	6UP*5DOWN 63−80 °F 18−28 °C	6DOWN*5UP 65−78 °F 19−26 °C	6DOWN*5DOWN 61−86 °F 16−30 °C (full range)	Two configurations (5*6) combine to select set point range. When set point limit set, display always shows full range.	DOWN*DOWN 61−86 °F 16−30 °C
7	Freeze Guard Disable		Freeze Guard Enable			DOWN

Electric Heating Only / Emergency Heat (For Heat Pump Units Only)
This setting is typically used for Emergency Heating.

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.

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

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.

Set point Temperature Limits
Provides a restricted range of temperature control.

Room Freeze Protection
If unit senses a room temperature below 40°F, the fan motor and electric strip heat will turn on and warm the room to 50°F. The fan stops a short time after the temperature is satisfied.

KEYPAD CONFIGURATION

Allows further configuration of system to desired application. Changes do not take effect until power is cycled on the unit.

To enter Keypad configuration

Cycle power to unit. Press and hold the FAN SPEED button and the COOLER button for 5 continuous seconds, within 30 seconds of the unit being powered up. If the unit has had power for more than 30 continuous seconds keypad configuration cannot be entered. When keypad configuration mode is first entered it will default to Fahrenheit/ Celsius Display Mode (F/C).

To scroll through the Keypad Configuration Options

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

To modify configuration settings

Press and release the Set Point Up or Set Point Down buttons.

To exit Keypad Configuration

Keypad Configuration will end on its own 30 seconds after the last button press or when the MODE button on the keypad is pressed.

Fahrenheit/ Celsius Display Switch:

Change between degrees Fahrenheit and Celsius on the display. An "F" indicates Fahrenheit display and 'C' indicates Celsius. Default is degrees "F".

Indoor Air Temperature Sensor Biasing for Cooling mode:

Sometimes known as an anticipator the air temperature sensor bias is used to adjust the room air temperature reading when in cooling mode. (Not normally required.)

Indoor Air Temperature Sensor Biasing for Heating mode:

Sometimes known as an anticipator the air temperature sensor bias is used to adjust the room air temperature reading when in heating mode. (Not normally required.)

Indoor Temperature Display:

Change between showing set point only on the display during heating and cooling modes "SP" or displaying room temperature during heating and cooling modes "AA". "SP" mode is the default mode.

• If "SP" is selected, only the set point will be displayed during heating and cooling modes, regardless of what the real temperature is in the room.

• If "AA" mode is selected, the room temperature will be displayed during heating, cooling and fan only modes.

• If the mode button has been changed to either heating or cooling modes, set point will be displayed for 10 seconds. After 10 seconds the room temperature will again be displayed.

• If the on/off button is pressed (when the unit is off) and the last mode was either cooling or heating mode the set point will be displayed for 10 seconds before displaying room temperature.

• During heating and cooling modes, if either the up or down set point key is depressed, the display will show the set point for 10 seconds after the last up or down key has been pressed. The room temperature will be displayed again.**:**

Switch Emergency Auto Cooling Allowed and Emergency Auto Cooling Rejected:

Press WARMER or COOLER to switch between the display of Emergency Auto Cooling Allowed and Emergency Auto Cooling Rejected.

Emergency Auto Cooling Allowed: the diode displays CA.

Emergency Auto Cooling Rejected: the diode displays Cd.

Room temperature will be displayed again.

AUXILIARY CONTROLS

WALL THERMOSTAT TERMINAL
NOTE: Sea Breeze thermostats are recommended.
IMPORTANT: Only trained qualified personnel should access electrical panel on unit and install electrical accessories. Please contact your local electrical contractor or distributor for assistance.

Thermostat Wire Routing
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.

Wiring Thermostat to Unit
Wire wall thermostat input as defined in Fig. 25.
NOTE: Terminal connector can be removed and replaced to simplify the wiring.
NOTE: For heat pump models, anytime there is a second-stage call for heating from the wall thermostat, the unit will automatically switch over to electric heating.

THERMOSTAT WIRE ROUNTING
(UNDER SLEEVE, BEHIND FRONT PANEL)
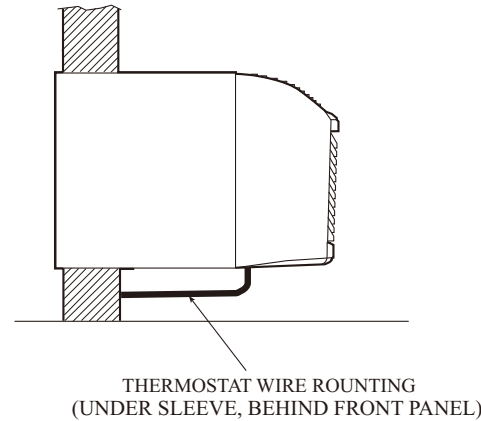
Fig. 22 - Proper Wire Routing Beneath Unit

Install Thermostat wiring.
1. Check to be sure power to unit is disconnected.
2. Pull terminal connector to remove NOTE: Terminal connector can be removed and replaced to simplify thermostat wiring.
3. Connect wires from the thermostat to terminals on unit terminal connector.
4. Reinstall terminal connector.
5. Ensure that unit is configured for wall thermostat enable.
6. Restore power to unit.
NOTE: Refer to thermostat installation instructions for details on installing wall thermostat.
NOTE: For thermostats that have only one fan speed output (on or auto) the fan speed is determined by how the terminal connector is wired. If low fan is desired, wire the G output from the thermostat to GH on the unit's terminal block. If HIGH fan is desired, wire the G output from the thermostat to GH on the unit's terminal block.
NOTE: After proper installation, if your thermostat is not working properly, refer to the Troubleshooting section.
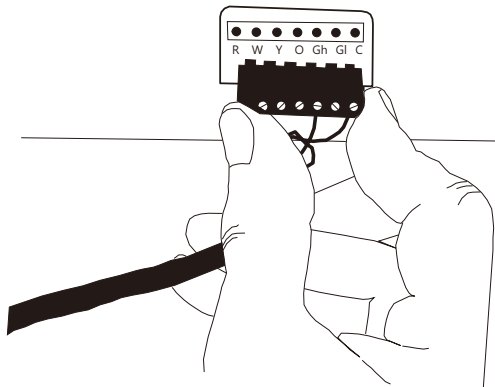
Fig. 23 - Terminal Connector Removal and Replacement

Remove front panel to gain access to STATUS LED, TERMINAL STRIP and DIP SWITCHES.

Status LED

Dip Switches

Energy management terminal (removable)

Wall thermostat terminal connections (removable)
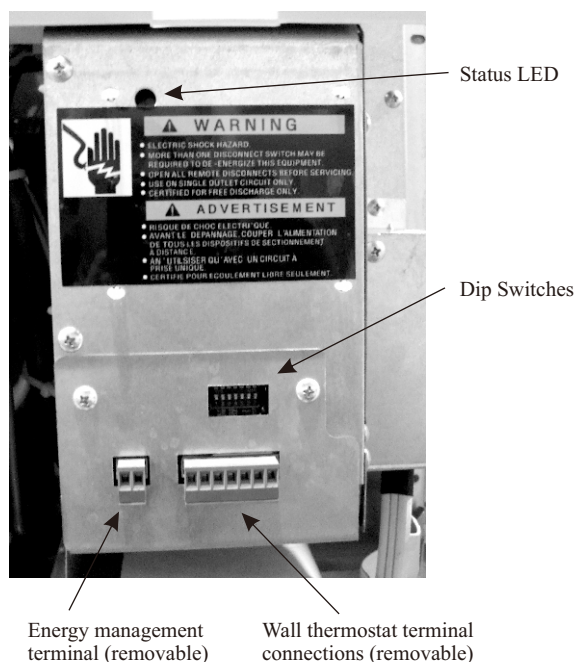
Fig. 24 - Terminal Connector and LED Location

Energy Management 24 VAC Input
Common

TYPICAL WALL THERMOSTAT

R
W
Y
O   SEE NOTE 1
GH
GL
C   SEE NOTE 2
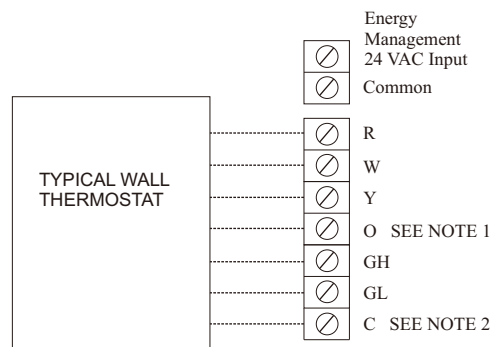
Notes:
1. Use terminal "O" for heat pump connection only.
2. Terminal "C" (common) is typically only required for digital thermostats.

TERMINAL	DESIGNATION
R	24 VAC
W	Electric Heat
Y	Compressor
O	Reversing Valve
GH	High Fan
GL	Low Fan
C	Common

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

Fig. 25 - Thermostat Wiring Connections

⚠ **CAUTION**

UNIT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage or improper operation. Improper wiring may damage unit electronics.

ENERGY MANAGEMENT INPUT (FRONT DESK CONTROL)

The controller can handle a switch signal from remote energy management input, called EM signal or front desk control Input must be 24VAC. If the system receives a 24 VAC signal, it will turn unit off. Otherwise the unit runs in normal   mode. This function will be disabled under Freeze Guard protection. See Fig. 24 and Fig. 25 for terminal connections.

INTELLIGENT SELF-CHECKING CONTROL

Your PTAC has a computer board that continuously monitors key components of the unit to ensure they are operating properly. Under normal operation unit status indicator (STATUS, on main PCB) light is steadily ON.

lf there is a major problem the unit will shut down and display a diagnostic failure code on the unit 's display. If it is only a minor failure and unit will try to correct the fault. The diagnostic code will be flashed on the status LED that can easily be seen when the front panel is removed (See Fig. 24). Failure STATUS codes are defined in the table below.

OPERATION

IMPORTANT: When unit is first started, high humidity conditions can cause condensation to form on discharge grille. Keep doors and windows closed. Room humidity will decrease and moisture will evaporate.

PANEL OPERATING
It displays the function immediately while press the button, and the corresponding function will be started up in 2 seconds.
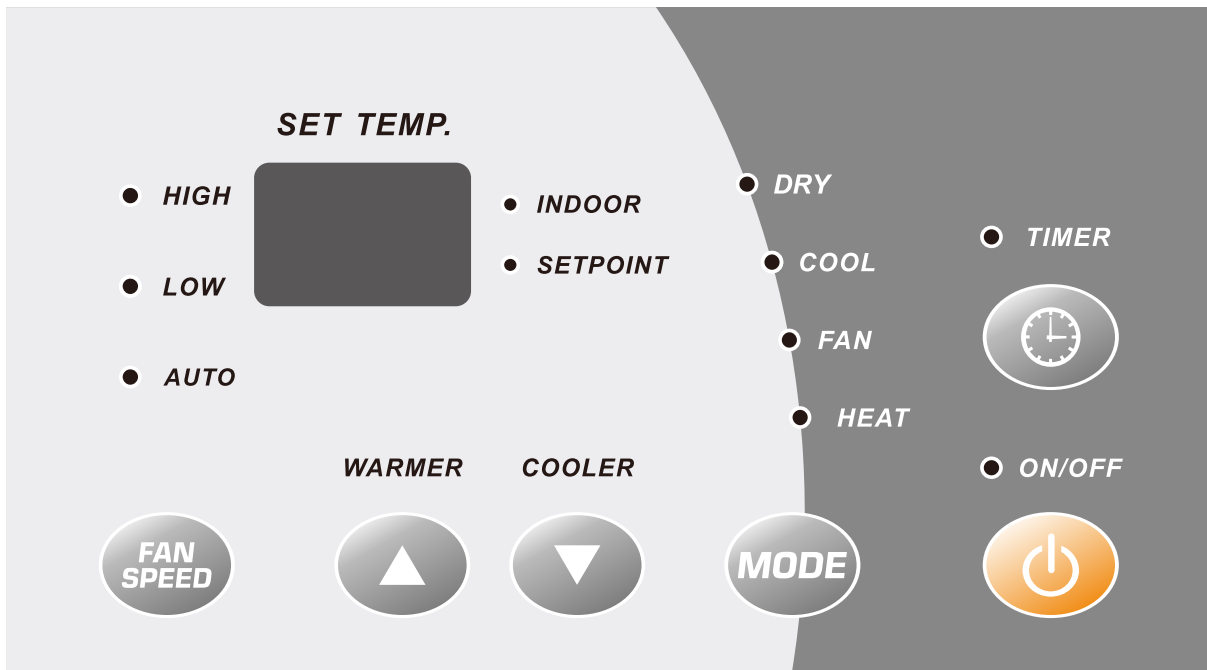
Fig. 26 – PTAC CONTROL PANEL

ABOUT THE CONTROLS ON YOUR UNIT

NOTE: **In case of a power failure, the unit will retain the last programmed settings and will restart to those settings**
.

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

COOLER - Lowers temperature. (Min. temperature setting is 61 °F/16 °C) } See settings for
WARMER - Raises temperature. (Max. temperature setting is 86 °F/30 °C) dip switches 5 &6.

2. FAN SPEED, MODE & ON/OFF
FAN SPEED - Set fan operation for **High**, **Low,** or **AUTO** speed.
MODE - Dry - Set unit to dehumidifying.
MODE - COOL - Set unit to cooling.
MODE - HEAT - Set unit heating.
NOTE: If unit is a heat pump raising the heat setting 5°F will cause unit to use its electric heating elements for one cycle in order to reach the new requested temperature quickly.
MODE - FAN - For fan only operation.
ON/OFF - Turns the unit on or off.
NOTE: The LED above the ON/OFF button will be green when unit is ON and red when the unit is OFF.

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1. TEMP CONTROL

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

COOLER ▼ - Lowers temperature. (Min. temperature setting is 61 °F/16 °C)

WARMER ▲ - Raises temperature. (Max. temperature setting is 86 °F/30 °C)

2. FAN SPEED, MODE & ON/OFF

FAN SPEED - Set fan operation for **High**, **Low** or **Auto** speed.
NOTE: In Auto setting, the indoor fan runs in different speed according to modes or room temperature to achieve higher comfort.
MODE - DRY - Set point temperature can be set as Cooling. The FAN runs at LOW speed only (Fan speed cannot be changed).
MODE - COOL - Set unit to cooling.
MODE - FAN - For fan only operation.
MODE - HEAT - Set unit heating.
NOTE: If unit is a heat pump raising the heat setting 5°F will cause unit to use its electric heating elements for one cycle in order to reach the new requested temperature quickly.
ON/OFF - Turns the unit on or off.

NOTE: 1. Press ▲ / ▼ button while unit is OFF, the diode display will show indoor temperature for 15 seconds and then turn off. 2. Press MODE button while unit is OFF, the unit will restart automatically.
The LED above the ON/OFF button will be green when unit is ON.
All other LEDs will be off when unit is set to OFF mode.

3. TIMER FUNCTION

Timer function can be set either by buttons on the panel or by remote control.
1) Timer ON: When the unit is off, Timer ON can be set. Setting range is 0.5-24 hours. When set time is reached, the unit will operate according to the set mode.
2) Timer OFF: When the unit is on, Timer OFF can be set. Setting range is 0.5-24 hours. When set time is reached, the unit will stop operating.
3) Timer Setting: Press TIMER button to set timer function and timer icon will be on the remote and the LED lamp will illuminate on the panel . Diode display will shown selected time which can be adjusted by pressing

▲ / ▼ buttons. The timer function will be activated and TIMER LED will be on after 5 seconds later of the setting. If "--" is displayed, that means the timer setting is deactivated.
4) Timer Preview: When timer function has been set, press TIMER button to preview the remaining time of timer.
5) If Time function has been set, turning ON/OFF the unit or power failure will cancel timer setting.

4. SLEEP FUNCTION

This function can only be set by remote control. It will bring a more comfortable sleeping environment. This function is not available under FAN mode.

5. EMERGENCY COOLING OPERATION

Emergency cooling, subject to your choice - allowed or rejected. See page 11 for detail setting and display.

When the room temperature ≥86 °F/30 °C, the unit will start cooling automatically. When the room temperature reaches 80 °F/27 °C, the unit will stop operating.

NOTE: **Power remains connected to unit.**

OPTIONAL REMOTE CONTROL AND RECEIVER MODULE
This PTAC unit can be operated with a remote control. The item number is 425-0057. It includes a remote control and receiver.
The installation procedure and operating functions are included with the remote control / receiver module.

NOTE: Be sure there is no obstruction between receiver and remote control. Do not drop or throw the remote control. Do not let any liquid in the remote control and put the remote control directly under the sunlight or any place where is very hot.

RECEIVER MODULE

Receiver   **Mounting Position**

Mounting Holes and Connector
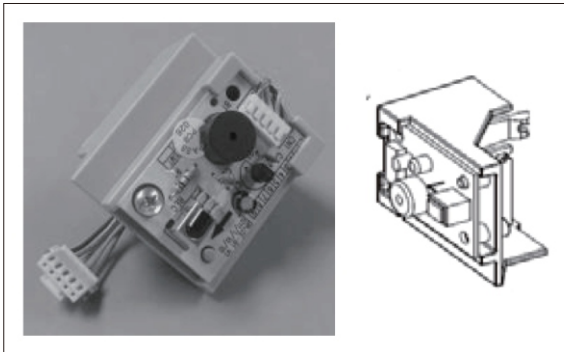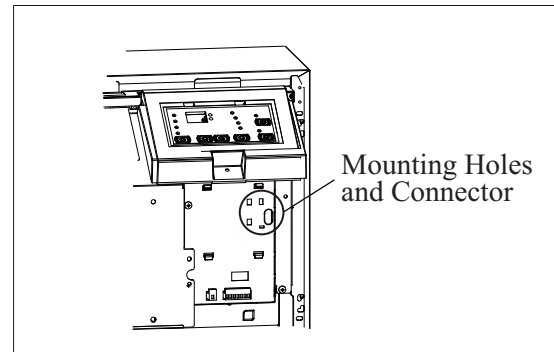
REMOTE CONTROL

KEY PAD FUNCTIONS
• ON/OFF – Turns unit on or off.
• MODE – Select mode, Cool, Dry, Fan, Heat.
• - – Lower set point.
• + – Raise set point.
• FAN – Set fan speed, High, Low, Auto.
• SWING – Set louver swing.
• TIMER – Set timer on/off time.
• SLEEP – Toggle on/off SLEEP mode.
• Backlight – Turns Remote backlight on or off.
• LOCK KEY PAD – No changes can be made.
• º F or º C – Select º F or º C

<u>Not All Features Are Activated</u>
Please check manual 950-0254 for detail.

CARE AND CLEANING
FRONT PANEL AND CASE
Turn unit off and disconnect power supply.

To clean, use water and a mild detergent. **DO NOT** use bleach or abrasives. Some commercial cleaners may damage the plastic parts.

OUTDOOR COIL
Coil on outdoor side of unit should be checked regularly. Unit will need to be removed to inspect dirt build--up that will occur on the inside of the coil. If clogged with dirt or soot, coil should be professionally cleaned.

NOTE: Never use a high pressure spray on coil.
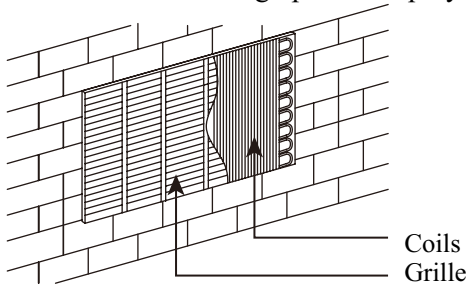
Coils
Grille

Clean inside and outside of outdoor coils regularly.

Fig. 27 – Outdoor Coil

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

BASE PAN
In some installations, dirt or other debris may be blown into unit from outside and settle in base pan (bottom of unit). Check base pan periodically and clean, if necessary.

AIR FILTERS
IMPORTANT: TURN UNIT OFF 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 filters will allow dirt and dust to reach indoor coil and reduce cooling, heating, airflow and efficiency of unit. Airflow restriction may cause damage to unit.

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

Keeping filters clean will:
• Decrease cost of operation.
• Save energy.
• Prevent clogged indoor coil.
• Reduce risk of premature component failure.

To Clean Air Filters:
• Vacuum off heavy soil.
• Run water through filters.
• Dry thoroughly before replacing.

Dirty filter-
Needs cleaning

Clogged filter -
Greatly reduces cooling, heating and airflow.
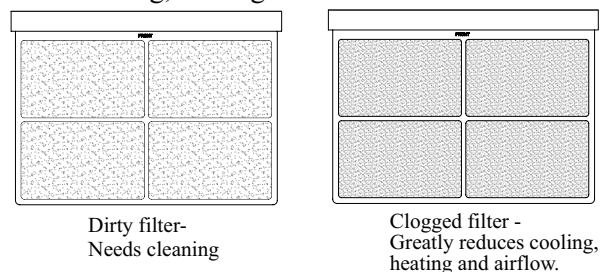
Fig. 28 – Identifying Clogged Filter

Pull up

2 Air filters

Push down

Removing Air Filter

Replacing Air Filter
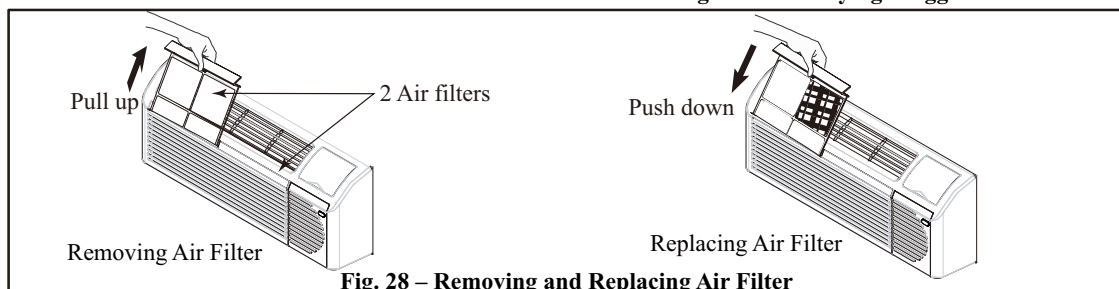
Fig. 28 – Removing and Replacing Air Filter

PREVENTATIVE MAINTENANCE

Preventative maintenance is essential to proper unit operation, efficiency and longevity.
To ensure equipment operates properly, it must be properlymaintained. Equipment operation should be checked and verified several times during each year. During regular unit inspection and maintenance, follow the guidelines below:
• Clean both sides of outdoor coil. (Never use high pressure spray on coils.)
• Clean basepan and outdoor vent filter.
• Clean outdoor orifice and fan.
• Clean indoor coil. (Never use high pressure spray on coils.)
• Clean indoor fan, wire screen and front panel.
• Clean or install new indoor--air inlet filter(s).
• Clean wall sleeve and outdoor grille.
• Inspect cord and receptacle.
• Secure electrical connections.
• Ensure front panel is properly mounted and not damaged.
• Ensure wall sleeve is installed properly.
• Ensure heat and cool cycles operate properly.

Note: The Electric heater has two limit switches.
1) The lower limit switch will turn the heaters off at 140°F and turn the heater on when the heater temperature is below 140°F.
2) The second limit switch will turn the heaters of at 176°F. This switch is not re-setable. It is a failsafe switch - the heater assembly must be replaced.

ACCESSORIES

Additional accessories for the Sea Breeze PTAC include:

CAT. NO.	DESCRIPTION
2KWPC230	PTAC Power Cord, 15 amp, for 2KW heater, LCDI plug.
3KWPC230	PTAC Power Cord, 20 amp, for 3KW heater, LCDI plug. (Unit ships with a 3KW power cord.)
5KWPC230	PTAC Power Cord, 30 amp, for 5KW heater, LCDI plug.
4250024	Outdoor grill, stamped aluminum, standard grill.
4250025	Outdoor grill, clear anodized, architectural grill.
4250026	Outdoor grill, powder coated dark bronze, architectural grill.
4250027	Outdoor grill, powder coated soft dove, architectural grill.
4250028	Drain kit.
4250029	Leveling legs.
425-0057	Remote Control & Receiver Module.
2KWPC277	PTAC Power Cord, 15 amp, for 2KW heater of 265/277 VAC units
3KWPC277	PTAC Power Cord, 20 amp, for 3KW heater of 265/277 VAC units. (Unit ships with a 3KW power cord.)
5KWPC277	PTAC Power Cord, 30 amp, for 5KW heater of 265/277 VAC units.

TROUBLESHOOTING

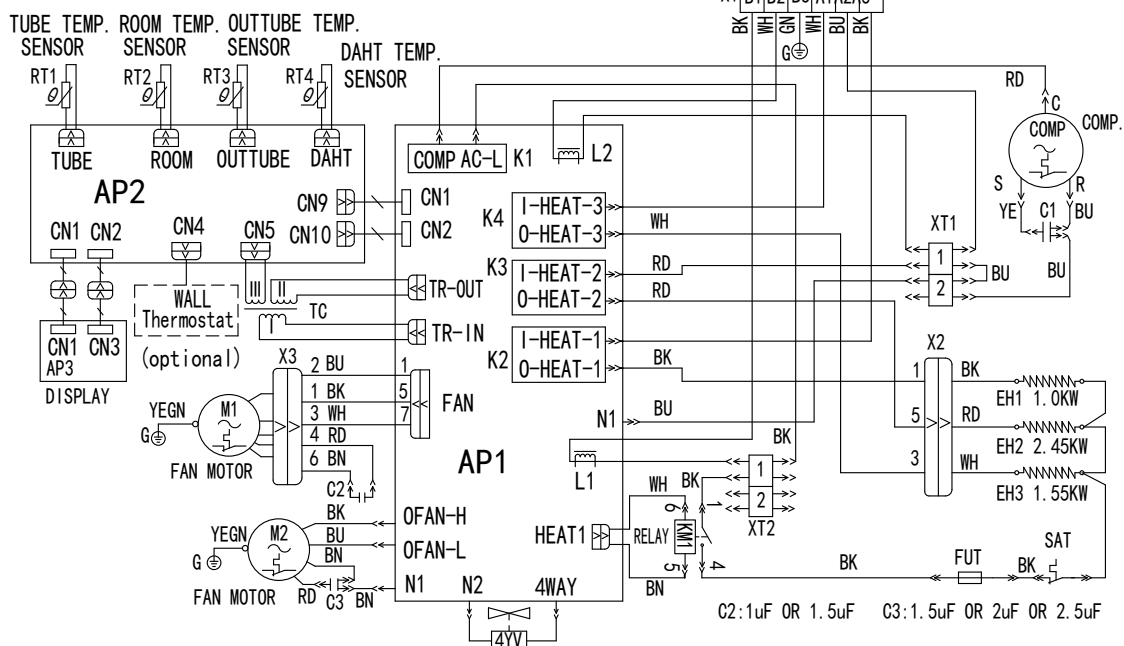| POSSIBLE CAUSES	SOLUTIONS
UNIT DOES NOT START • Unit may be unplugged. • Fuse may have blown. • Circuit breaker may have been tripped. • Circuit breaker may have been tripped. • Unit may be off or in wall thermostat mode • Check section on dipswitch settings to verify dipswitches are set properly. • Unit may be in a protection or diagnostic failure mode. - See section on Intelligent Self checking control.	• Check that plug is plugged securely in wall receptacle. Note: Plug has a test/reset button on it. Make sure that the plug has not tripped. • Replace the fuse. See Note 1. • Reset circuit breaker. See Note 1. • Turn unit on (bottom right button on keypad). Note: If the unit turns on the LED will be green. If the unit is off the LED will be red. If there is no LED on there is a problem with power or damage to the control.
UNIT NOT COOLING/HEATING ROOM • Unit air discharge section is blocked • Temperature setting is not high or low enough. Note: Setpoint limits may not allow the unit to heat or cool the room to the temperature desired. • Check section on dipswitch settings. • Unit air filters are dirty. • Room is excessively hot or cold when unit is started. • Vent door left open. • Unit may be in a protection or diagnostic failure mode. Check section on Intelligent Self checking control. • Compressor is in time delay. There is a protective time delay (approx. 3 minutes) on starting the compressor after a power outage (or restarting after it has been turned off), to prevent tripping of the compressor overload.	• Make sure that curtains, blinds or furniture are not restricting or blocking unit airflow. • Reset to a lower or higher temperature setting. • Remove and clean filters. • Allow sufficient amount of time for unit to heat or cool the room. Start heating or cooling early before outdoor temperature, cooking heat or gatherings of people make room uncomfortable. • Close vent door. • Check dipswitch settings for desired comfort. Wait approximately 3 minutes for compressor to start
DISPLAY HAS STRANGE NUMBERS - CHARACTERS ON IT.	• The unit may be in a diagnostic condition. Check Intelligent Self checking Control section to determine if unit has had a failure. • The unit may be set for °C (instead of °F), see the keypad configuration section.
UNIT MAKES 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 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.
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 delay of 3 minutes and a minimum compressor run time of 3 minutes.

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.

SCHEMATIC/FAILURE CODES FOR HEAT PUMP

Circuit diagram:

TUBE TEMP. SENSOR RT1 — TUBE
ROOM TEMP. SENSOR RT2 — ROOM
OUTTUBE TEMP. SENSOR RT3 — OUTTUBE
DAHT TEMP. SENSOR RT4 — DAHT

X1 B1 B2 B3 A1 A2 A3
BK WH GN WH BU BK
G

AP2
CN1 CN2 CN4 CN5 CN9 CN10
CN1 AP3 CN3
DISPLAY

WALL Thermostat (optional)

YEGN M1 G — FAN MOTOR
X3 2 BU / 1 BK / 3 WH / 4 RD / 6 BN
FAN 1 5 7

YEGN M2 G — FAN MOTOR
BK / BU / BN / RD
OFAN-H / OFAN-L / C2 / C3

COMP AC-L K1 L2
CN1 / CN2
K4 I-HEAT-3 / O-HEAT-3 WH
K3 I-HEAT-2 / O-HEAT-2 RD / RD
K2 I-HEAT-1 / O-HEAT-1 BK / BU
TR-OUT / TR-IN TC
N1 BU
L1 BK
HEAT1 RELAY KM1
AP1
N1 N2 4WAY
4YV
BN

COMP
RD C
S R
YE C1 BU
XT1 1 2 BU BU

X2 1 BK / 5 RD / 3 WH
EH1 1.0KW
EH2 2.45KW
EH3 1.55KW

XT2 1 2
BK FUT BK SAT

C2:1uF OR 1.5uF   C3:1.5uF OR 2uF OR 2.5uF

Malfunction Display:

1	Indoor ambient temperature sensor is open-circuited or short-circuited	Dual-8 nixie tube displays 'F1', and STATUS indicator will flash once and off 3s circularly
2	Indoor tube temperature sensor is open-circuited or short-circuited	Dual-8 nixie tube displays 'F2', and STATUS indicator will flash twice and off 3s circularly
3	Outdoor tube temperature sensor is open-circuited or short-circuited	Dual-8 nixie tube displays 'F4', and STATUS indicator will flash four times and off 3s circularly
4	Malfunction of temperature sensor at air outlet FJ	Dual-8 nixie tube displays "FJ"
5	Low temperature prevention protection	Dual-8 nixie tube displays "FP"
6	Wrong wire connection indication for wired controller	STATUS indicator will flash nine times and off 3s circularly
7	Freeze prevention protection for evaporator	STATUS indicator will flash five times and off 3s circularly
8	High temperature prevention protection for outdoor condenser	STATUS indicator will flash six times and off 3s circularly
9	Frost prevention (heat pump)	STATUS indicator will flash seven times and off 3s circularly
10	High temperature prevention protection for evaporator	STATUS indicator will flash eight times and off 3s circularly
11	Freon-lacking protection	Dual-8 nixie tube displays "F0"
12	Overload detection protection	Dual-8 nixie tube displays "H3"
13	Malfunction protection for electric heating	Dual-8 nixie tube displays "A2"
14	Overcurrent protection of compressor	Dual-8 nixie tube displays "E5"

SCHEMATIC/FAILURE CODES FOR A/C

Circuit diagram:

Malfunction Display:

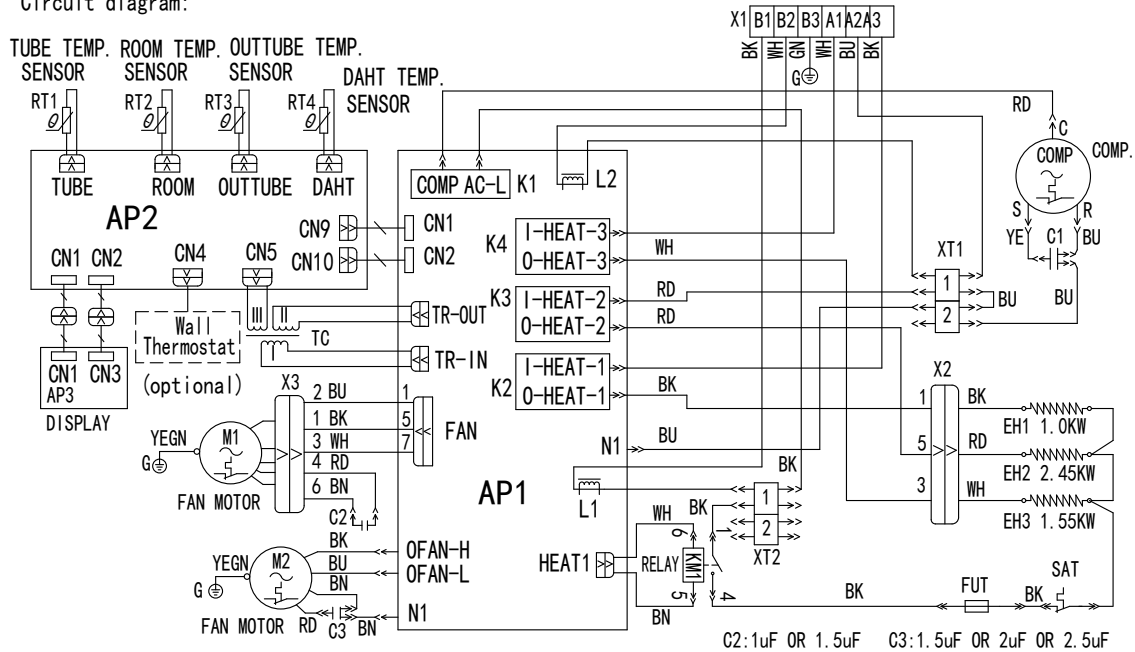|		
1	Indoor ambient temperature sensor is open-circuited or short-circuited	Dual-8 nixie tube displays 'F1', and STATUS indicator will flash once and off 3s circularly
2	Indoor tube temperature sensor is open-circuited or short-circuited	Dual-8 nixie tube displays 'F2', and STATUS indicator will flash twice and off 3s circularly
3	Outdoor tube temperature sensor is open-circuited or short-circuited	Dual-8 nixie tube displays 'F4', and STATUS indicator will flash four times and off 3s circularly
4	Malfunction of temperature sensor at air outlet FJ	Dual-8 nixie tube displays "FJ"
5	Low temperature prevention protection	Dual-8 nixie tube displays "FP"
6	Wrong wire connection indication for wired controller	STATUS indicator will flash nine times and off 3s circularly
7	Freeze prevention protection for evaporator	STATUS indicator will flash five times and off 3s circularly
8	High temperature prevention protection for outdoor condenser	STATUS indicator will flash six times and off 3s circularly
9	Frost prevention (heat pump)	STATUS indicator will flash seven times and off 3s circularly
10	High temperature prevention protection for evaporator	STATUS indicator will flash eight times and off 3s circularly
11	Freon-lacking protection	Dual-8 nixie tube displays "F0"
12	Overload detection protection	Dual-8 nixie tube displays "H3"
13	Malfunction protection for electric heating	Dual-8 nixie tube displays "A2"
14	Overcurrent protection of compressor	Dual-8 nixie tube displays "E5"

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Specifications of 208-230 VAC units

Model Number	PTAC49CH3ZC	PTAC49HP3ZC	PTAC412CH3ZC	PTAC412HP3ZC	PTAC415CH3ZC	PTAC415HP3ZC
AHRI Reference Number	10090937(with 2kW) 10090938(with 3kW)	10090940	10090941(with 2kW) 10090942(with 3kW) 10090943(with 5kW)	10090944	10090945(with 2kW) 10090946(with 3kW) 10090947(with 5kW)	10090948
Refrigerant type/charge	R410A / 23.6 oz	R410A / 33.9 oz	R410A / 35.3 oz	R410A / 35.3 oz	R410A / 35.3 oz	R410A / 38.8 oz
Voltage Input (V/PH/Hz)	208-230V/1/60	208-230V/1/60	208-230V/1/60	208-230V/1/60	208-230V/1/60	208-230V/1/60
Operating Temperature Range (Room temp. setting range)	61°F to 86°F	61°F to 86°F	61°F to 86°F	61°F to 86°F	61°F to 86°F	61°F to 86°F
Operating Temperature Range *	55°F to 115°F	55°F to 115°F	55°F to 115°F	55°F to 115°F	55°F to 115°F	55°F to 115°F
Cooling Capacity 208/230V (Btu/Hr)	9200 / 9400	9200 / 9400	11600 / 11800	11600 / 11800	14200 / 14500	14200 / 14500
Heating Capacity 208/230V (Btu/Hr)	N/A	8100 / 8300	N/A	10400 / 10600	N/A	13000 / 13300
Electric Heating (Watts)	3450 (power cord with LCDI plug)	3450 (power cord with LCDI plug)	3450 (power cord with LCDI plug)	3450 (power cord with LCDI plug)	3450 (power cord with LCDI plug)	3450 (power cord with LCDI plug)
Dehumidification (Pints/Hour)	2.11	2.11	2.75	2.75	3.17	3.17
EER (BTU/h.W)	12.1	12.1	11.6	11.6	10.4	10.4
COP (W/W)	N/A	3.5	N/A	3.4	N/A	3.1
AIR FLOW (H / L) CFM	330 / 294	330 / 294	341 / 306	341 / 306	341 / 306	341 / 306
Cooling Power Input (Watts)	760 / 775	760 / 775	1000 / 1015	1000 / 1015	1365 / 1390	1365 / 1390
Heating Power Input (Watts)	N/A	675 / 695	N/A	895 / 910	N/A	1225 / 1255
Rated Input (Watts)	951	951	1306	1306	1860	2162
Rated Current (A)	5.9	5.9	7.1	7.1	10.2	12
Electric Heat Current	15A	15A	15A	15A	15A	15A
Breaker Min. Size (with electric heat)	20A	20A	20A	20A	20A	20A
Compressor Brand	RECHI	RECHI	RECHI	RECHI	RECHI	RECHI
Compressor Model	44B202GK&FEKD	44B202GK&FEKD	44B262UK&FEKD	44B262UK&FEKD	44B342UL-FEKD	44B342UL-FEKD
Compressor Type	Rotary	Rotary	Rotary	Rotary	Rotary	Rotary
Compressor LRA / RLA	19.5 / 3.5	19.5 / 3.5	21.5 / 4.7	21.5 / 4.7	28.9 / 5.9	28.9 / 5.9
Compressor Power Input (W)	655	655	1005	1005	1330	1330
Outdoor Fan Motor Speed （rpm)	1340 / 1120	1340 / 1120	1550 / 1390	1550 / 1390	1550 / 1390	1600 / 1400
Outdoor Fan Motor Power Output (W)	20	20	65	65	65	65
Outdoor Fan Motor RLA	0.21	0.21	0.52	0.52	0.52	52
Outdoor Fan Motor Capacitor (uF)	2	2	2.5	2.5	2.5	2.5
Sound Pressure Level Max (dBa)	52 (Indoor) 61 (Outdoor)	52 (Indoor) 61 (Outdoor)	53 (Indoor) 63 (Outdoor)	53 (Indoor) 63 (Outdoor)	54 (Indoor) 64 (Outdoor)	54 (Indoor) 64 (Outdoor)
Coil Type	Aluminum fin Copper Tube	Aluminum fin Copper Tube	Aluminum fin Copper Tube	Aluminum fin Copper Tube	Aluminum fin Copper Tube	Aluminum fin Copper Tube
Unit Dimensions (W X H X D)	42.1" x 16" x 21.5"	42.1" x 16" x 21.5"	42.1" x 16" x 21.5"	42.1" x 16" x 21.5"	42.1" x 16" x 21.5"	42.1" x 16" x 21.5"
Package Dims. (L X W X H)	45.2" x 25.7" x 18.5"	45.2" x 25.7" x 18.5"	45.2" x 25.7" x 18.5"	45.2" x 25.7" x 18.5"	45.2" x 25.7" x 18.5"	45.2" x 25.7" x 18.5"
Net Wt. (lbs.)	113.5	117.9	117.9	120.2	119	122.4
Ship Wt. (lbs.)	133.4	137.8	137.8	140	138.9	142.2
Certifications	UL / CSA / AHRI	UL / CSA / AHRI	UL / CSA / AHRI	UL / CSA / AHRI	UL / CSA / AHRI	UL / CSA / AHRI
Design Pressure High/Low Side (PSIG)	500 / 300	500 / 300	500 / 300	500 / 300	500 / 300	500 / 300
Max. Pressure High/Low Side (PSIG)	638 / 377	638 / 377	638 / 377	638 / 377	638 / 377	638 / 377
OPTIONAL Electric Heat (Watts)	2450	2450 / 5000	2450 / 5000	2450 / 5000	2450 / 5000	2450 / 5000
Electric Heat Current	2450W - 10.7A	2450W - 10.7A	5000W - 21.8A 2450W - 10.7A	5000W - 21.8A 2450W - 10.7A	5000W - 21.8A 2450W - 10.7A	5000W - 21.8A 2450W - 10.7A
Breaker Min. Size (with electric heat)	2450W - 15A	2450W - 15A	5000W - 30A 2450W - 15A	5000W - 30A 2450W - 15A	5000W - 30A 2450W - 15A	5000W - 30A 2450W - 15A
Power Cord Part Numbers (with LCDI plug)	2KWPC230 3KWPC230	2KWPC230 3KWPC230	2KWPC230 3KWPC230 5KWPC230	2KWPC230 3KWPC230 5KWPC230	2KWPC230 3KWPC230 5KWPC230	2KWPC230 3KWPC230 5KWPC230
Optional Remote & Receiver - Part Number	425-0057					

Note: * Operating Temperature Range (outdoor), the outdoor temperature at which the unit operates normally.

If the outdoor temperature is out of this range the unit can still operate but error codes or protections may occur.

Specifications of 265-277 VAC units

Model Number	PTAC49CH3VC	PTAC49HP3VC	PTAC412CH3VC	PTAC412HP3VC	PTAC415CH3VC	PTAC415HP3VC
AHRI Reference Number	10090949(with 2kW) 10090950(with 3kW)	10090952	10090953(with 2kW) 10090954(with 3kW) 10090955(with 5kW)	10090956	10090957(with 2kW) 10090958(with 3kW) 10090959(with 5kW)	10090960
Refrigerant type/charge	R410A / 23.6 oz	R410A / 33.9 oz	R410A / 35.3 oz	R410A / 35.3 oz	R410A / 35.3 oz	R410A / 38.8 oz
Voltage Input (V/PH/Hz)	265-277V/1/60	265-277V/1/60	265-277V/1/60	265-277V/1/60	265-277V/1/60	265-277V/1/60
Operating Temperature Range (Room temp. setting range)	61°F to 86°F	61°F to 86°F	61°F to 86°F	61°F to 86°F	61°F to 86°F	61°F to 86°F
Operating Temperature Range *	55°F to 115°F	55°F to 115°F	55°F to 115°F	55°F to 115°F	55°F to 115°F	55°F to 115°F
Cooling Capacity (Btu/Hr)	9400	9400	11800	11800	14500	14500
Heating Capacity (Btu/Hr)	N/A	8300	N/A	10600	N/A	13300
Electric Heating (Watts)	3450	3450	3450	3450	3450	3450
Dehumidification (Pints/Hour)	2.11	2.11	2.75	2.75	3.17	3.17
EER (BTU/h.W)	12.1	12.1	11.6	11.6	10.4	10.4
COP (W/W)	N/A	3.5	N/A	3.4	N/A	3.1
MOP. (A)	20 (optional 15A)	20 (optional 15A)	20 (optional 15A/25A)	20 (optional 15A/25A)	20 (optional 15A/25A)	20 (optional 15A/25A)
MCA. (A)	17 (optional 12A)	17 (optional 12A)	17 (optional 12A/24A)	17 (optional 12A/24A)	17 (optional 12A/24A)	17 (optional 12A/24A)
AIR FLOW (H / L) CFM	330 / 294	330 / 294	341 / 306	341 / 306	341 / 306	341 / 306
Cooling Power Input (Watts)	775	775	1015	1015	1390	1390
Heating Power Input (Watts)	N/A	695	N/A	910	N/A	1255
Rated Input (Watts)	951	951	1264	1264	1684	1684
Rated Current (A)	4.2	4.2	5.17	5.17	7.1	7.1
Electric Heat Current	13.1A	13.1A	13.1A	13.1A	13.1A	13.1A
Breaker Min. Size (with electric heat)	20A	20A	20A	20A	20A	20A
Compressor Brand	RECHI	RECHI	RECHI	RECHI	PANASONIC	PANASONIC
Compressor Model	44B207GK&FEKD	44B207GK&FEKD	44B267HK&FEKD	44B267HK&FEKD	5PS136LCA21	5PS136LCA21
Compressor Type	Rotary	Rotary	Rotary	Rotary	Rotary	Rotary
Compressor LRA / RLA	13.5 / 3	13.5 / 3	19 / 3.9	19 / 3.9	26 / 5.1	26 / 5.1
Compressor Power Input (W）	645	645	1010	1010	1320	1320
Outdoor Fan Motor Speed （rpm）	1340 / 1120	1340 / 1120	1550 / 1380	1550 / 1380	1550 / 1380	1550 / 1380
Outdoor Fan Motor Power Output (W)	20	20	45	45	45	45
Outdoor Fan Motor Capacitor (uF)	1.5	1.5	2	2	2	2
Outdoor Fan Motor RLA	0.16	0.16	0.31	0.31	0.31	0.31
Outdoor Fan Motor FLA	0.3	0.3	0.4	0.4	0.4	0.4
Indoor Fan Motor FLA	0.18	0.18	0.2	0.2	0.2	0.2
Sound Pressure Level Max (dBa)	52 (Indoor) 61 (Outdoor)	52 (Indoor) 61 (Outdoor)	53 (Indoor) 63 (Outdoor)	53 (Indoor) 63 (Outdoor)	54 (Indoor) 64 (Outdoor)	54 (Indoor) 64 (Outdoor)
Coil Type	Aluminum fin Copper Tube	Aluminum fin Copper Tube	Aluminum fin Copper Tube	Aluminum fin Copper Tube	Aluminum fin Copper Tube	Aluminum fin Copper Tube
Unit Dimensions (W X H X D)	42.1" x 16" x 21.5"	42.1" x 16" x 21.5"	42.1" x 16" x 21.5"	42.1" x 16" x 21.5"	42.1" x 16" x 21.5"	42.1" x 16" x 21.5"
Package Dimensions (L X W X H)	45.2" x 25.7" x 18.5"	45.2" x 25.7" x 18.5"	45.2" x 25.7" x 18.5"	45.2" x 25.7" x 18.5"	45.2" x 25.7" x 18.5"	45.2" x 25.7" x 18.5"
Net Wt. (lbs.)	113.5	117.9	116.8	117.9	119	120.2
Ship Wt. (lbs.)	133.4	137.8	136.7	137.8	138.9	142.2
Certifications	UL / CSA / AHRI	UL / CSA / AHRI	UL / CSA / AHRI	UL / CSA / AHRI	UL / CSA / AHRI	UL / CSA / AHRI
Design Pressure High/Low Side (PSIG)	500 / 300	500 / 300	500 / 300	500 / 300	500 / 300	500 / 300
Max. Pressure High/Low Side (PSIG)	638 / 377	638 / 377	638 / 377	638 / 377	638 / 377	638 / 377
OPTIONAL Electric Heat (Watts)	2450	2450	2450 / 5000	2450 / 5000	2450 / 5000	2450 / 5000
Electric Heat Current	2450W - 9.3A	2450W - 9.3A	5000W - 18.9A 2450W - 9.3A	5000W - 18.9A 2450W - 9.3A	5000W - 18.9A 2450W - 9.3A	5000W - 18.9A 2450W - 9.3A
Breaker Min. Size (with electric heat)	2450W - 15A	2450W - 15A	5000W - 25A 2450W - 15A	5000W - 25A 2450W - 15A	5000W - 25A 2450W - 15A	5000W - 25A 2450W - 15A
Power Cord Part Numbers	2KWPC277 3KWPC277	2KWPC277 3KWPC277	2KWPC277 3KWPC277 5KWPC277	2KWPC277 3KWPC277 5KWPC277	2KWPC277 3KWPC277 5KWPC277	2KWPC277 3KWPC277 5KWPC277
Optional Remote & Receiver - Part Number	425-0057					

Note: * Operating Temperature Range (outdoor), the outdoor temperature at which the unit operates normally.

If the outdoor temperature is out of this range the unit can still operate but error codes or protections may occur.

All specifications given at 265 VAC.

Power Cord Specifications

For 208/230 VAC units

CATALOG No.	PTAC49CH3ZC	PTAC49HP3ZC	PTAC412CH3ZC	PTAC412HP3ZC	PTAC415CH3ZC	PTAC415HP3ZC
Suitable Power Cord Useable with Listed PTAC Unit	2KWPC230 3KWPC230	2KWPC230 3KWPC230	2KWPC230 3KWPC230 5KWPC230	2KWPC230 3KWPC230 5KWPC230	2KWPC230 3KWPC230 5KWPC230	2KWPC230 3KWPC230 5KWPC230
Electric Heat Current for 2KWPC	10.7A	10.7A	10.7A	10.7A	10.7A	10.7A
Breaker Min. Size for 2KWPC	15A	15A	15A	15A	15A	15A
2KWPC LCDI Plug Current Rating	15A	15A	15A	15A	15A	15A
Electric Heat Current for 3KWPC	15A	15A	15A	15A	15A	15A
Breaker Min. Size for 3KWPC	20A	20A	20A	20A	20A	20A
3KWPC LCDI Plug Current Rating	20A	20A	20A	20A	20A	20A
Electric Heat Current for 5KWPC	N/A	N/A	21.8A	21.8A	21.8A	21.8A
Breaker Min. Size for 5KWPC	N/A	N/A	30A	30A	30A	30A
5KWPC LCDI Plug Current Rating	N/A	N/A	30A	30A	30A	30A

For 265/277 VAC units

CATALOG No.	PTAC49CH3VX	PTAC49HP3VB	PTAC412CH3VX	PTAC412HP3VB	PTAC415CH3VX	PTAC415HP3VX
Suitable Power Cord Useable with Listed PTAC Unit	2KWPC277 3KWPC277	2KWPC277 3KWPC277	2KWPC277 3KWPC277 5KWPC277	2KWPC277 3KWPC277 5KWPC277	2KWPC277 3KWPC277 5KWPC277	2KWPC277 3KWPC277 5KWPC277
Electric Heat Current for 2KWPC	9.3A	9.3A	9.3A	9.3A	9.3A	9.3A
Breaker Min. Size for 2KWPC	15A	15A	15A	15A	15A	15A
2KWPC LCDI Plug Current Rating	15A	15A	15A	15A	15A	15A
Electric Heat Current for 3KWPC	13.1A	13.1A	13.1A	13.1A	13.1A	13.1A
Breaker Min. Size for 3KWPC	20A	20A	20A	20A	20A	20A
3KWPC LCDI Plug Current Rating	20A	20A	20A	20A	20A	20A
Electric Heat Current for 5KWPC	N/A	N/A	18.9A	18.9A	18.9A	18.9A
Breaker Min. Size for 5KWPC	N/A	N/A	25A	25A	25A	25A
5KWPC LCDI Plug Current Rating	N/A	N/A	30A	30A	30A	30A

WARRANTY

International Refrigeration Products, Inc. warrants the accompanying PTAC unit to be free of defects in material and workmanship for the applications specified in the operation manual and installation manual for a period of (1) year on parts and five (5) years on the compressor, valid from date of original retail purchase in the United States or Canada. LABOR and SHIPPING are not covered under warranty. If the unit exhibits a defect in normal use and it is determined to be within the warranty period International Refrigeration Products, Inc. will, at its option, either provide parts for repair or replace the unit free of charge within a reasonable time after the unit is returned.

This warranty DOES NOT cover:

• Damage, accidental or otherwise, to the unit while in possession of the consumer that is not a result of a defect in material or workmanship.

• Damaged caused by consumer misuse, tampering, or failure to follow all care and maintenance instructions in the manual.

• Damage to the finish of the case or other parts caused by water.

• Damage caused by repairs or alterations to the unit by anyone other than a qualified technician.

• Air Filters

• Normal wear and tear.

• Freight and insurance cost for the warranty service.

• Out of carton issues must be reported within one day.

Warranty activation card must be completed and sent in to activate the warranty for the accompanying unit.

TECHNICAL ASSISTANCE

IF YOU STILL NEED SERVICE:

Please contact the installation contractor, or call International Refrigeration Products, Inc. at (215) 750-9876 between the hours of 8:00 a.m. and 4:30 p.m. E. T. , Monday through Friday.

For faster service, please have the model and serial numbers of the unit available when you call.

International Refrigeration Products, Inc.
1035 Wheeler Way
Langhorne, PA 19047
www.irproducts.biz