

OCEANAIRE

OCEANAIRE, POLARIS PORTABLE WATER - COOLED PREMIER AIR CONDITIONERS

Engineering, Installation and Service Manual



OCEANAIRE

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polarismancover

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GENERAL DESCRIPTION

POLARIS SERIES Air Conditioners are designed for applications where outside air is not available and spot cooling or air conditioning is needed. The cord connected Polaris Models range from 10500 BTU/HR to 60100 BTU/HR floor mount configuration to satisfy any space requirements. All models are provided with casters for portability.

These models are thoroughly self-contained with the entire refrigeration system, water valve, condensate pump, fan motor and electrical components neatly arranged in a platinum polyester powder coated metal cabinet. Only power, condenser water supply and discharge and condensate drain piping are required for installation. The 24 volt electronic temperature controller provides the desired comfort. The high efficiency design of the water-cooled condenser allows the proper amount of water flow to achieve the desired high and low refrigeration system pressures. Condenser water is regulated by a refrigeration system head pressure actuated water regulating valve.

GENERAL REQUIREMENTS

A MINIMUM WATER PRESSURE OF 20 PSIG IS REQUIRED to actuate the water regulating valve and allow water to flow into the condenser coil. The condenser water temperature leaving the unit should not exceed 112° F. Ignoring this compliance will void the warranty on the refrigeration system.

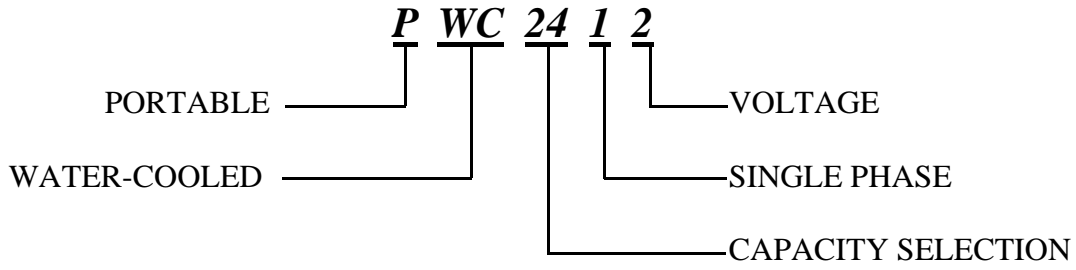
IMPORTANT - Polaris Air Conditioners are designed and engineered for quiet comfort. The length of service received can be extended by following the installation and preventive maintenance instructions. It is important that the warranty card be filled out completely and returned to the factory within fourteen (14) days of installation of the unit in order to receive the benefits of the warranty.

UNIT MODEL CAPACITIES

<u>MODEL</u>	<u>CAPACITY</u>		
PWC1011	10500	BTU/HR	COOLING
PWC1211	13780	BTU/HR	COOLING
PWC1811	18840	BTU/HR	COOLING
PWC2412	23950	BTU/HR	COOLING
PWC3612	36100	BTU/HR	COOLING
PWC3632	36100	BTU/HR	COOLING
PWC6012	60100	BTU/HR	COOLING
PWC6032	60100	BTU/HR	COOLING
PWC6034	60100	BTU/HR	COOLING



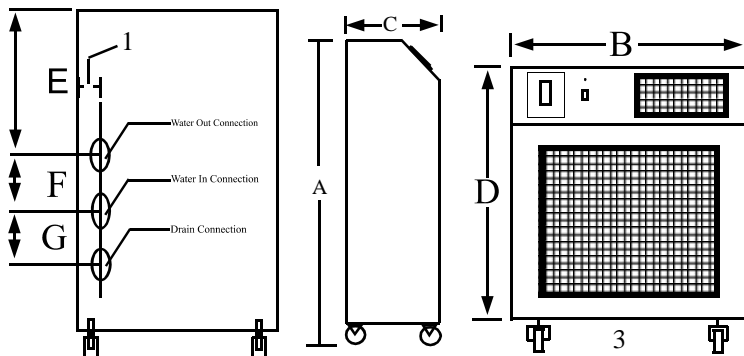
NOMENCLATURE



CAPACITY SELECTION

NUMBER CODE	10.....10500 BTU/HR
	12.....13780 BTU/HR
	18.....18840 BTU/HR
	24.....23950 BTU/HR
	36.....36100 BTU/HR
	60.....60100 BTU/HR

MODEL	PWC1011 12	PWC1211 12	PWC1811 12	PWC2412	PWC3612	PWC3632	PWC6012	PWC6032	PWC6034
Nominal Cooling Capacity ①	10,500	13,780	18,840	23,950	36,100	36,100	60,100	60,100	60,100
Voltage	115/60/1 or 208/230/1			208-230/60/1		208/230/3	208/230/1	208/230/3	460/3
Unit Amps⑤	7.7/3.9	10.5/5.3	12.0/6.2	8.6	13.0	9.4	20.7	14.8	8.0
Unit Watts⑤	970	1050	1400	1990	3000	3000	5350	5350	5350
In Rush Current (Amps)	69.0	79.0	92.6	64.6	109.6	103.4	183.1	134.2	130.6
Fuse\Breaker (Amps)	15	15	15	20	20	20	30	20	20
Plug Type	5-15P	5-15P	5-15P	6-20P	6-20P	L15-20P	6-30P	L15-20P	L16-20P
EER	12.1	13.1	13.5	12.3	12.0	12.0	11.3	11.3	11.3
Compressor HP	3/4	1	1 1/2	2	3	3	5	5	5
Compressor RLA	7.4	9.3	11.4	8.3	17.9	11.4	28.0	20.0	8.2
Compressor LRA	42	58	65	49	88	77	169	123	59.6
Evap CFM ②	300	400	600	810	1310	1310	1950	1950	1950
Evap Motor HP	1/15	1/15	1/5	1/3	1/2	1/2	1	1	1
Evap Motor Watts	200	200	210	350	375	375	550	550	550
Dimension E	18		26 1/4						
Dimension F	5 1/2		3 1/2						
Dimension G	3 1/2		6						
Cond Water Flow at 60°F inlet	0.60	0.75	1.10	1.55	2.20	2.20	5.50	5.50	5.50
in (GPM): at 85°F inlet	2.5	3.0	4.5	6.0	9.0	9.0	15.0	15.0	15.0
Cond Coil Pressure Drop-PSI	0.20	0.40	0.40	0.20	0.40	0.40	0.40	0.40	0.40
Water Valve Pressure Drop PSI	2.0								
Water Valve Connection ④	3/8 MF					5/8 MF			
Drain (Return) Connection	3/8 MF					5/8 MF			
Condensate Pump Head	20 FEET			3/8 MF Connection		All Units			
Sound Level ③	48	52	57	60	62	62	69	69	69
R-22 Charge Oz.	18	19	22	24	36	36	68	68	68
(A) Height with Casters	31 1/2		37 1/2		47			52 1/4	
(D) Height Without Casters	28 1/2		34 1/2		42 1/2			46 1/2	
(B) Width	20 1/8		24 1/4		28 1/4				
(C) Depth	13 1/8		13		15 1/2			39	
Net Weight	110	110	150	160	240		460	520	
Shipping Weight	130	130	170	180	270		500	560	
Shipping Volume	9		18		21		36		



① Nominal Capacity is total BTU/HR at 80°DB/67°WB return air or 85° EWT to 95° LWT(3GPM/Ton) high fan speed.

② CFM with free discharge.
③ Sound Pressure, dB at 5 feet, commercial configuration.

④ Size 3/8 valve used on models 10, 12, 18, 24 (with 3/8 M flare fitting)
3/4 valve used on model 36, 60 (with 5/8 M flare fitting)

⑤ Amps & Watts at 208 volts

Ambient operating range 65° to 105°
May operate to 55° if equipped with optional
Factory installed hot gas bypass

All units available in 220/50 cycle

Specifications subject to change without notice



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STANDARD FEATURES

SERVICEABILITY

All Polaris Series units are designed with removable panels to provide full service accessibility. Turn to page 11 “Part Replacement Procedure” for removal of the correct panel when replacing a part.

AUTOMATIC WATER VALVE

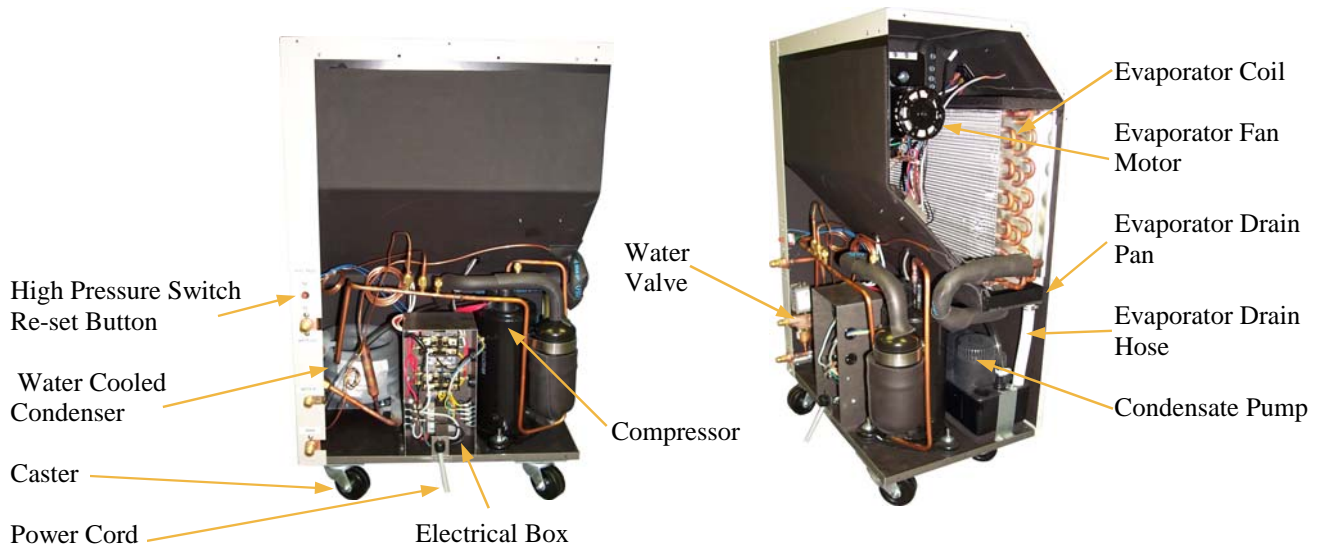
All units are equipped with a direct-acting, refrigeration system head pressure actuated water regulating valve. This valve, factory set for 94° - 100° leaving water temperature (LWT), flows only the amount of water required to achieve the desired refrigeration system operating pressure. Units used for closed loop operation may be ordered without the water valve. If, however, the temperature of the return water is questionable in a closed loop, the water valve may be helpful and left in the system with little pressure drop.

ATTRACTIVE CABINET

The Polaris Series cabinet is constructed of 18 gauge cold rolled steel with a platinum polyester powder coated finish that will compliment any decor. The entire cabinet is insulated with a sound absorbant insulation for cool, quiet comfort. The basepan is 14 gauge galvanized steel and remains dry and free from odor and fungal growth.

HIGH PRESSURE SAFETY SWITCH

All units incorporate a manual re-set high pressure switch for maximum protection of the refrigeration system and compressor. The cut-out pressure setting is 375 ± 5 PSIG for all Polaris models. If the pressure exceeds this setting, the compressor stops and can be re-started by depressing the “RESET” button located on the back panel of the unit. The high pressure control’s capillary line is attached to a schrader valve. This allows replacement of a defective control without recovering the refrigerant.



NOTE: WAIT TWO MINUTES BEFORE RESTARTING UNIT AFTER TRIPPING BY HIGH PRESSURE SWITCH.

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STATE-OF-THE-ART CONTROLS

The electronic thermostat displays room temperature if the cooling system is on. Select the temperature you want by pressing the ▲ or ▼ buttons. (The word COOL and the temperature setting is displayed for 5 seconds). The FAN button controls the evaporator fan motor. In the ON selection, the fan runs continuously. In the AUTO selection, the fan cycles with the compressor. The OUTDOOR button is not used in portable air conditioning. The MODE button controls the cooling function by selecting COOL or OFF. The DAY/NIGHT allows day and night setpoints. A built in 4 minute time delay protects the compressor from short cycling. Pressing the ▲ and ▼ simultaneously switches the display between Celsius and Fahrenheit.

A two position rocker switch located next to the thermostat provides high fan when depressed at the top, low fan speed when depressed at the bottom.

BUILT-IN CONDENSATE PUMP

Every unit is equipped with a condensate pump designed as an automatic condensate removal pump for water dripping off the evaporator coil. The pump is capable of pumping against a 20 ft. head and is controlled by a float/switch mechanism which turns the pump “on” when approximately 2 1/2 inches of water collects in the tank, and automatically switches “off” when the tank drains to a level of approximately 1 1/4 inches. A built-in pump safety switch turns off the air conditioner if the condensate line becomes plugged or motor/pump failure should occur. The red condensate alert light on the front panel will be on if this condition should occur.

CONDENSER COIL

The water cooled copper/steel tube-in-tube type condenser coil is designed for a maximum water side working pressure of 400psi. Optional cupro-nickel condenser coils are available for severe duty and salt-water/brine applications. Low pressure drop and efficient design (high SEER's) fully utilizes the heat transfer capability of this compact coil.


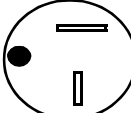
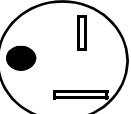
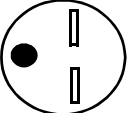
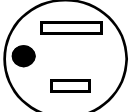




FILTER

All units are equipped with a 1/2 inch thick, washable, foam air filter located behind the return air grille that can easily be removed and cleaned. Just pull the grille out and remove the filter.

SERVICE CORD

All Polaris Series units are equipped with the standard ten foot long service cord with UL listed plug configurations. The following page contains Oceanaire plug configurations for all units.

ELECTRICAL SERVICE PLUG CONFIGURATION

UNIT/MODEL	PLUG CONFIGURATION	RECEPTACLE
<u>115 VOLT</u> PWC1011, PWC1211, PWC1811 PAC1011, PAC1211, OWC1211, OWC1811, OAC1211, OACH1211	 15A-125 VOLT NEMA 5-15P	NEMA-5-15R
<u>115 VOLT</u> PAC18, OAC18, OACH18	 20A-125 VOLT NEMA 5-20P	NEMA 5-20R
<u>208/230 VOLT SINGLE PHASE</u> PAC1012,1212,1812,2412 OAC1212,1812,2412 OACH1212,1812,2412 PWC1012,1212,1812,2412,3612 OWC1212,1812,2412,3612	 20A-250 VOLT NEMA 6-20P	NEMA 6-20R
<u>208/230 VOLT SINGLE PHASE</u> PAC3612, OAC3612, OACH3612 PWC6012, OWC6012	 30A-250 VOLT NEMA 6-30P	NEMA 6-30R
<u>208/230 VOLT SINGLE PHASE</u> PAC6012, OAC6012, OACH6012	 50A-250 VOLT NEMA 6-50P	NEMA 6-50R
<u>208/230 3 PHASE</u> OAC/PAC3632 OACH3632 OWC3632,PWC3632	 20A-250 VOLT NEMA L15-20P	NEMA L15-20R
<u>208/230 3 PHASE</u> PAC6032 OAC6032,OACH6032 PWC6032,OWC6032	 30A-250 VOLT NEMA L15-30P	NEMA L15-30R
<u>460/480 3 PHASE</u> OAC/PAC3634 OACH3634 PWC/OWC3634	 20A-460 VOLT NEMA L16-20P	NEMA L16-20R
<u>460/480 3 PHASE</u> OAC6034, PAC6034 OACH6034 PWC/OWC6034	 30A-460 VOLT NEMA L-16-30P	NEMA L16-30R

OPTIONAL FEATURES

HOSE KIT

10, 25, and 40 foot hose kits with flare connectors to match fittings on units, banded 3-in-one design for easy and convenient installation, are available. When using these hoses in applications with water pressures exceeding 50 PSIG, a water pressure reducing valve must be installed in the water supply line prior to the hose kit; otherwise warranty on the hose kits will be void. The water out and condensate of the three-section flexible plastic hose can be fed to a sink or permanent drain. When using a hose kit, avoid sharp corners, hot water pipes and kinking to assure proper water flow of the supply and return lines.



HIGH PRESSURE WATER VALVE

High pressure water regulating valves, designed for use with up to 350 psig or 425 \pm 5 psig water inlet pressure, are available.

V-46 water regulating valve
installed in unit



CUPRO-NICKEL CONDENSER

When chemically treated water, salt water or brine is used in the condenser coil, it is recommended that the air conditioner be equipped with a 90/10 Naval Spec. Cupro/Nickel condenser.



TREATED EVAPORATOR COIL

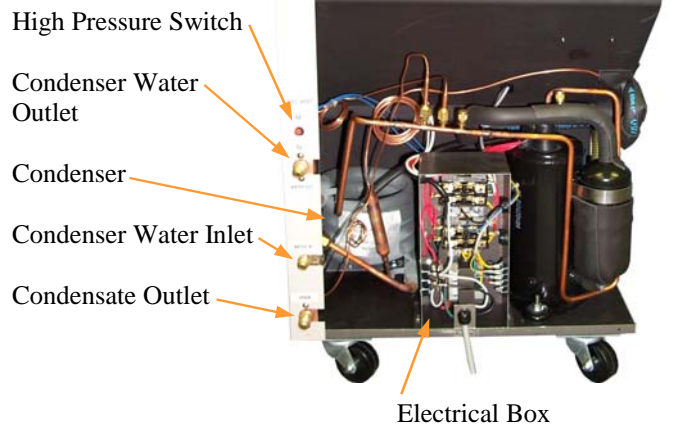
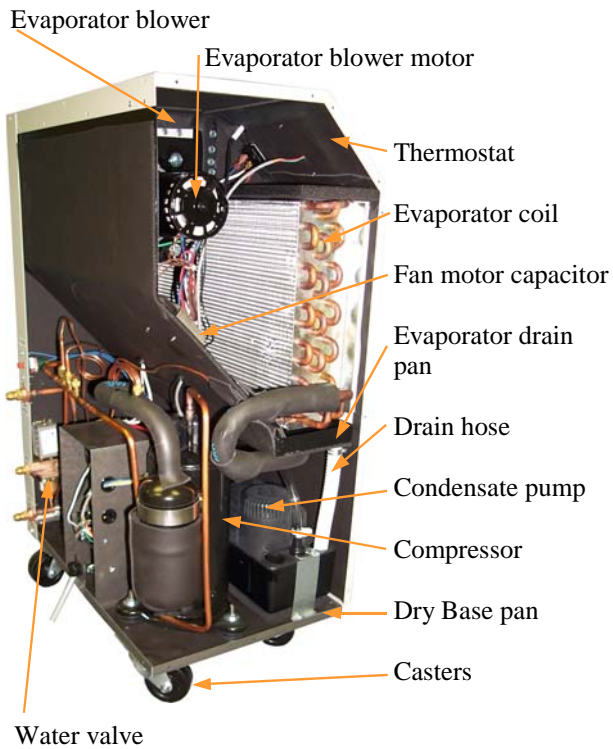
When airborne contaminants are a problem for air conditioning applications, acrylic coated evaporator coils are recommended to guard against pitting or corroding.

UNIT CONSTRUCTION

FRONT



BACK



INSTALLATION INSTRUCTIONS

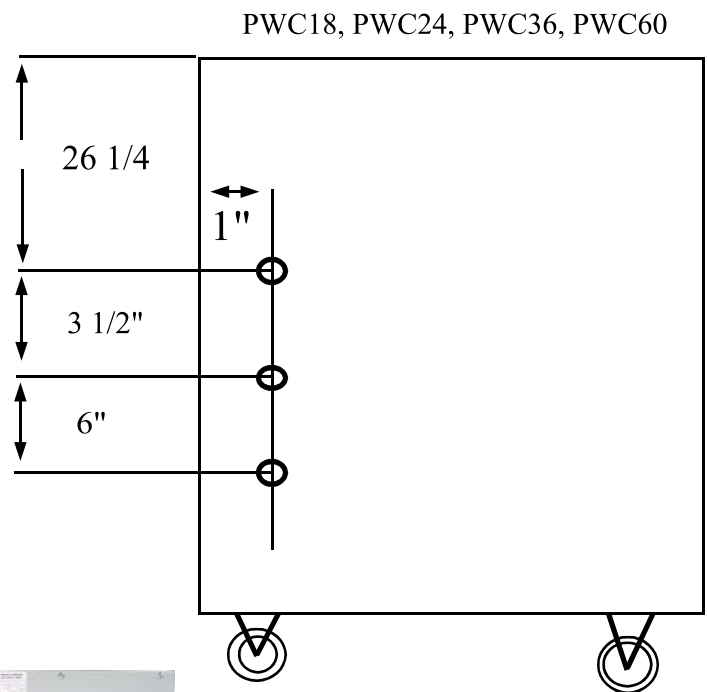
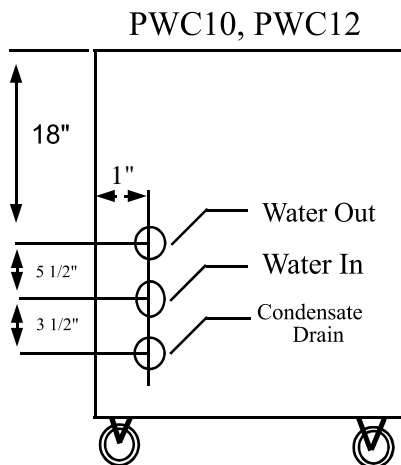
ELECTRICAL REQUIREMENTS

Adhere to the data plate on the back of the unit and make certain that the proper power is used. Refer to the "Specifications" section for voltage and fuse requirements. Make sure that proper wall outlets and receptacles are used as described in "Standard Features" section of this manual. Operating the unit on improper voltage will void the warranty. CAUTION: the use of an extension cord must meet amperage requirement and have grounding-type attachment plug and grounding-type connector (load fitting).

SEE SPECIFICATIONS FOR YOUR MODEL ELECTRICAL REQUIREMENTS

WATER FITTING LOCATION

Check the exact location of the water fittings on the unit back panel before placing the air conditioner in the desired position. Water lines should be securely attached to the proper connections.

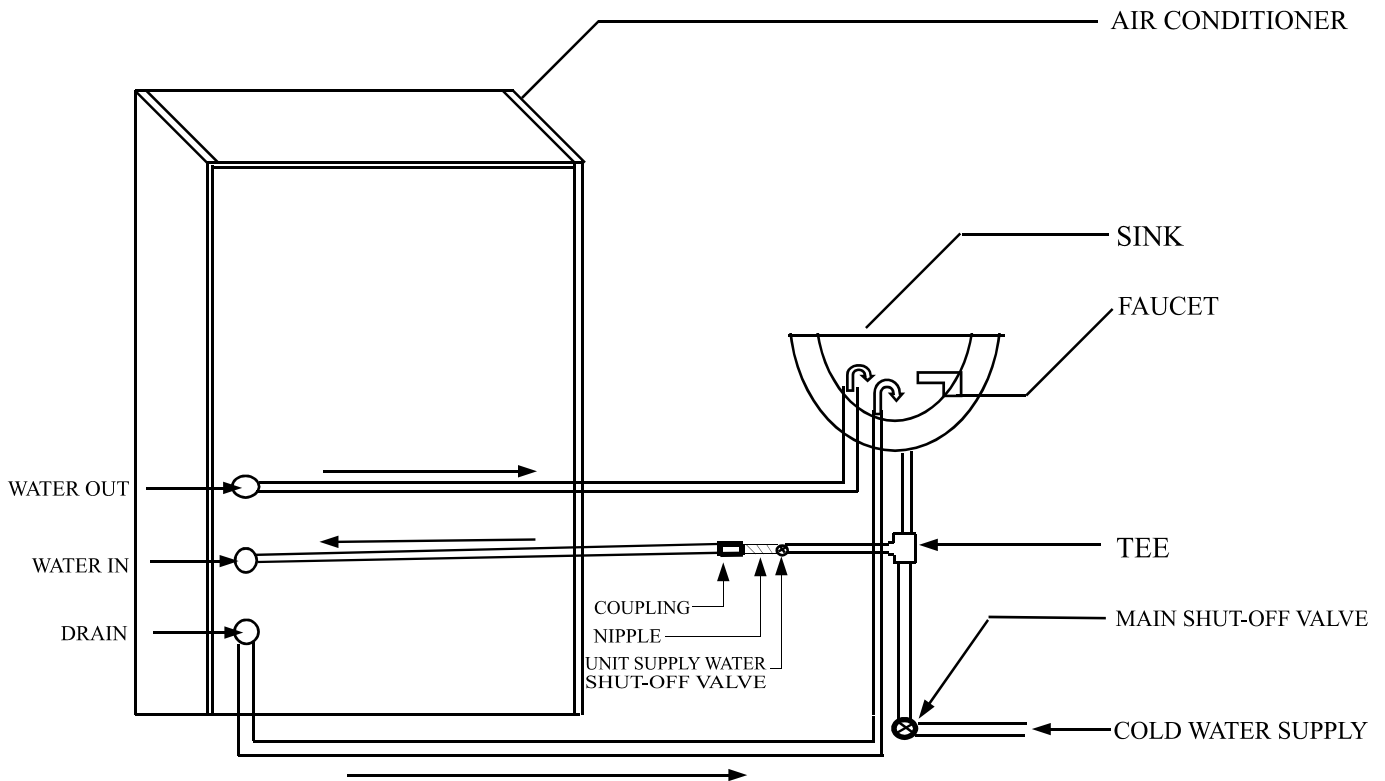


PRACTICAL INSTALLATION

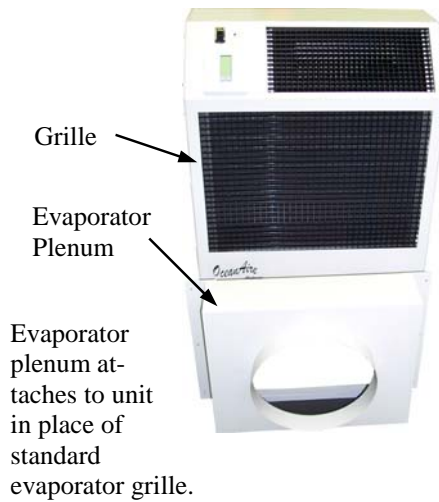
Proper installation can be achieved by following these simple steps:

1. Turn off cold water supply.
2. Install "T" between faucet of cold water line and supply valve.
3. Connect shut-off valve to "T" branch.
4. Insert a 3/8 pipe nipple in discharge end of water shut-off valve.
5. Thread coupling onto 3/8 pipe nipple and secure.

An alternate installation method: Drill a 5/16 diameter hole in the cold water line and attach a saddle valve to the line. Complete installation by following above steps.



ACCESSORIES



Model Evaporator Plenum	Round Duct Size	Fits PWC 10	Fits PWC 12	Fits PWC 18	Fits PWC 24	Fits PWC 36	Fits PWC 60
EP-10	10 inch	Yes	Yes	No	No	No	No
EP-12	12 inch	No	No	Yes	Yes	No	No
EP-16	16 Inch	No	No	No	No	Yes	Yes
Maximum Equivalent Feet (ESP)		25 (.15)	25 (.15)	50 (.25)	50 (.25)	50 (.25)	100 (.50)

Duct Adaptor Model	Round Duct Size	PWC 10	PWC 12	PWC 18	PWC 24	PWC 36	PWC 60
DDA-6	6 inch	Yes	Yes	No	No	No	No
DDA-10	10 inch	No	No	Yes	Yes	Yes	No
DDA-16	16 inch	No	No	No	No	No	Yes
Maximum Equivalent Feet (add 6 feet for each 90° elbow)		25	25	50	50	50	100
Maximum E.S.P		.15	.15	.25	.25	.25	.50



Model Nozzles	Round Duct Number/Diameter Compressed Length	Approximate Extended Length	PWC 10	PWC 12	PWC 18	PWC 24	PWC 36	PWC 60
NK-1	2 x 4 inch 15 inches	21 inches	Yes	Yes	No	No	No	No
NK-2	2 x 6 inch 22 inches	32 inches	No	No	Yes	Yes	Yes	No
NK-3	2 x 8 inch 20 inches	29 inches	No	No	No	No	No	Yes



Hose kits are available in 10, 25 and 40 foot lengths. Check specifications for correct size and application.



HOSE KIT

FAN ONLY

Plug unit in and push FAN button once. This turns the evaporator fan blower on. To turn the blower off, push the FAN button once again. This turns the fan blower off.

To change fan speeds, push the fan speed rocker switch up for high speed or down for low speed.

COOLING CYCLE

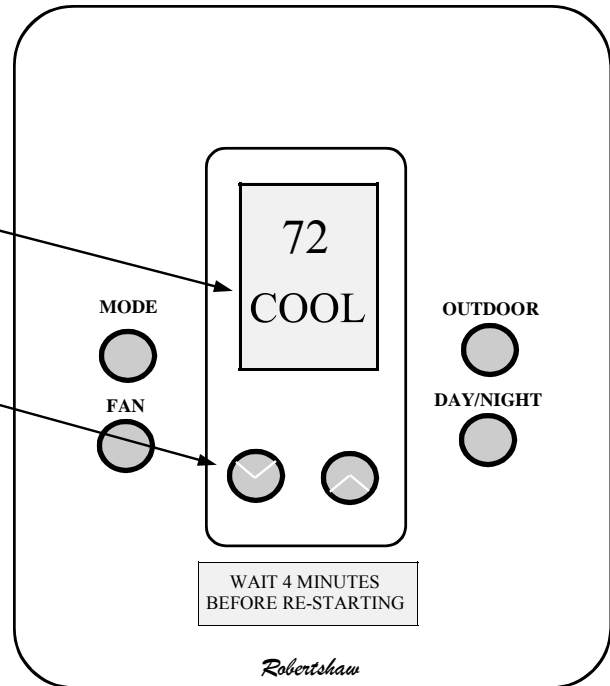
To operate unit for cooling, push MODE button to display COOL in the window.

Push down arrow button multiple times to lower set point to desired temperature.

The display will show the setpoint temperature for 5 seconds, then it will return to room temperature display.

After a slight pause, the fan motor and compressor will start, beginning the cooling cycle.

Remember, the setpoint must be lower than the room temperature for the unit to start.



The OUTDOOR and DAY/NIGHT buttons are not used and do not apply to portable air conditioning.

GENERAL INFORMATION

This is a cooling only thermostat. Select the temperature you want by pressing the ▲ or ▼ buttons. The word COOL and the temperature setpoint is displayed for 5 seconds.

To change display to Celsius, simultaneously press the ▲ and ▼ buttons. Press them again to change back to Fahrenheit.

No batteries are required. In the event of a power failure, when the power is restored the thermostat will continue operating as if the power had never been off.

Compressor short cycle protection is built-in to the thermostat. A 4 minute time delay will protect the unit.

Electrical rating	24 to 30VAC
Control Range	60° to 88°
Temperature differential	± 1°
Anticipation	Electronic
Manufacturer	Robertshaw

REPLACEMENT PROCEDURE FOR PARTS

A. FAN MOTOR

1. Remove cabinet's left-hand (when looking at the front of the unit) side panel.
2. Disconnect motor wires from evaporator contactor and fan speed rocker switch.
3. Remove screws securing motor and O-ring to blower housing. All screws are external and visible.
4. Loosen clamp around motor and remove motor.
5. Install new motor, reversing the removal procedure.

B. THERMOSTAT AND BATTERIES

1. No batteries are used in the thermostat.

C. PANEL INDICATOR LIGHT

1. To replace pilot light on all models, disconnect wire from control panel, bend tinnerman clip retaining light and pull out. Install new light, reversing the procedure.

D. CONDENSATE PUMP

1. Remove cabinet's left hand side panel.
2. Remove front bracket securing condensate pump in base pan by removing nut from weld stud.
3. Disconnect pump wire leads from terminal block. Remove retainer clamp and tubing. Replace pump, install by reversing procedure.

E. PRESSURE ACTUATED WATER VALVE

1. Remove back panel.
2. Remove nut that secures sensing capillary to the refrigeration system's high pressure side. A built in schrader valve allows removal without need to remove refrigerant charge..
3. Remove two screws that retain valve to right side panel.

4. Disconnect valve from "water in" line.
5. Install new valve, reversing the procedure.

F. HIGH PRESSURE CONTROL

1. Follow the first two steps in "E".
2. Remove two screws that retain switch to right side panel.
3. Disconnect wire leads from compressor contactor and condensate pump safety switch.
4. Install new High Pressure Control, reversing the procedure.

To gain access to compressor and compressor run capacitor, remove left hand side panel.

TROUBLESHOOTING GUIDE

The following steps and procedures are recommended for correcting the problems indicated. Service, other than routine maintenance, should be performed only by a qualified refrigeration serviceman.

PROBLEM: THE ENTIRE UNIT DOES NOT RUN.

1. **CAUSE:** POWER INTERRUPTION

REMEDY: Check external power supply. Look for blown fuses or tripped circuit breakers. Reset or replace if needed.

2. **(REASON) THERMOSTAT INOPERABLE.**

REMEDY: Setting may be too high; check and reset. Thermostat may be out of calibration or otherwise defective...remove and replace.

3. **(CAUSE) ELECTRICAL PANEL:**

a) 24 volt transformer defective; (b) contactor coil defective, contacts stuck open, burned or dirty; (c) loose wires.

(REMEDY) Correct as follows: (a) Replace; (b) Correct or change; (c) Tighten connections

PROBLEM: FAN RUNS BUT COMPRESSOR DOES NOT START

1. **(REASON) Low Voltage.**

(FIXING) Check power supply for voltage outside the range of 106-126 volts on the 115 volt unit and 187-253 volts on the 208/230 volt unit.

2. (CAUSE) Thermostat

(REMEDY) Examine the control unit for loose wires. Tighten any loose connections. Wait 4-minutes before re-start.

3. (REASON) High Pressure Control cutting turning unit off

(FIXING) Check for loose wire connections, broken or burned contacts. If switch is defective, replace.
Not enough water flow to unit or water is too warm.

4. (CAUSE) Compressor contactor open or burned.

(CURE) Replace

5. (REASON) Refrigerant leak no freon.

(REMEDY) Locate leak and repair. Evacuate unit and recharge.

6. (CAUSE) Loose or defective wires.

(FIXING) Tug on wires to see if they will separate from connections.

7. (REASON) Defective compressor

(REMEDY) Check for shorts, opens and grounds. Remove and replace compressor.

8. CAUSE) Shorted or open run capacitor

(FIXING) Remove and replace.

PROBLEM: COMPRESSOR STARTS AND RUNS, BUT, FAN DOES NOT RUN.

1. (CAUSE) Faulty rocker switch

(REMEDY) Replace

2. (REASON) Open fan motor coil circuit

(FIXING) Replace fan motor.

3. (CAUSE) Shorted or open fan motor capacitor

(REMEDY) Replace capacitor.

4. (REASON) Loose or defective wires

(REMEDY) Trace and repair

PROBLEM: INSUFFICIENT COOLING

1. (CAUSE) Insufficient air flow through evaporator coil due to:

- A. Dirty air filter in unit
- B. Dirty evaporator coil
- C. Ice on evaporator coil
- D. Obstructed air intake

(REMEDY) Correct as noted:

- A. Clean filter (see "Preventive Maintenance" section of this manual)
- B. Clean filter with a vacuum cleaner & hose.
- C. Defrost; turn on fan only.
- D. Remove obstruction

2. (REASON) IMPROPER SIZING OF UNIT

(FIXING) Check to make sure unit is properly sized for load. Add supplemental unit if required.

PROBLEM: NOISY OPERATION

1.(CAUSE) Copper tubing vibrating

(REMEDY) Adjust by bending slightly to firm position. Segregate tubes touching cabinet or each other.

2.(REASON) Loose cabinet or internal component

(FIXING) check and tighten loose screws.

3.(CAUSE) Machine vibrating out of level

(CURE) Level unit base.

4.(REASON) Loose blower wheel

(REMEDY) Tighten screws on blower wheel to motor shaft.

5.(CAUSE) Blower wheel hitting housing.

(REMEDY) Adjust wheel position on motor shaft.

6. (CAUSE) Blower motor bearing defective.

(REMEDY) Replace blower motor.

PROBLEM: WATER LEAKING FROM PAN

1. (CAUSE) Leaky drain pan

(REMEDY) Locate leak and repair pan.

2. (CAUSE) Loose evaporator, drain or condensate pump hose

(REMEDY) Tighten connections.

3. (CAUSE) Defective condensate pump or excessive lift on pump

(REMEDY) Examine to see if elevation exceeds 20 ft. (if it does, a larger pump will be required). Otherwise, change pump if defective. Pump will operate properly against 20 ft. of water total head pressure on pump. If combination of vertical height and horizontal drain line exceeds 20 ft. of water pressure drop, problems will occur.

PROBLEM: THERMOSTAT (LCD) LIQUID CRYSTAL DISPLAY WINDOW DOES NOT ILLUMINATE.

1. (CAUSE) Weak or dead batteries.

(REMEDY) Replace batteries.

PREVENTIVE MAINTENANCE

Polaris Series air conditioners are designed to last a long time and to give maximum performance and reliability with minimum maintenance. To prolong the life of the unit, regular maintenance must be performed as specified below:

1. BLOWER MOTOR

The motors for all 208/230 volt models are sealed bearings and require no oiling. The 115 volt motors have oil ports and should be oiled annually.

2. FILTER

A clogged filter will cause the unit to operate at greatly reduced efficiencies. We recommend that the filter be inspected on a regular bases every six weeks or more often depending on the environment. The foam filter is located behind the return air grille and can be easily removed by pulling the grille out. The filter must be washed periodically as needed by placing it in a dishwasher or soaking it in a solution of warm water and detergent for 10 minutes. Then rinsing it clean with hot water and shaking excess moisture from filter.

3. CONDENSATE PUMP

When servicing pump follow these steps;

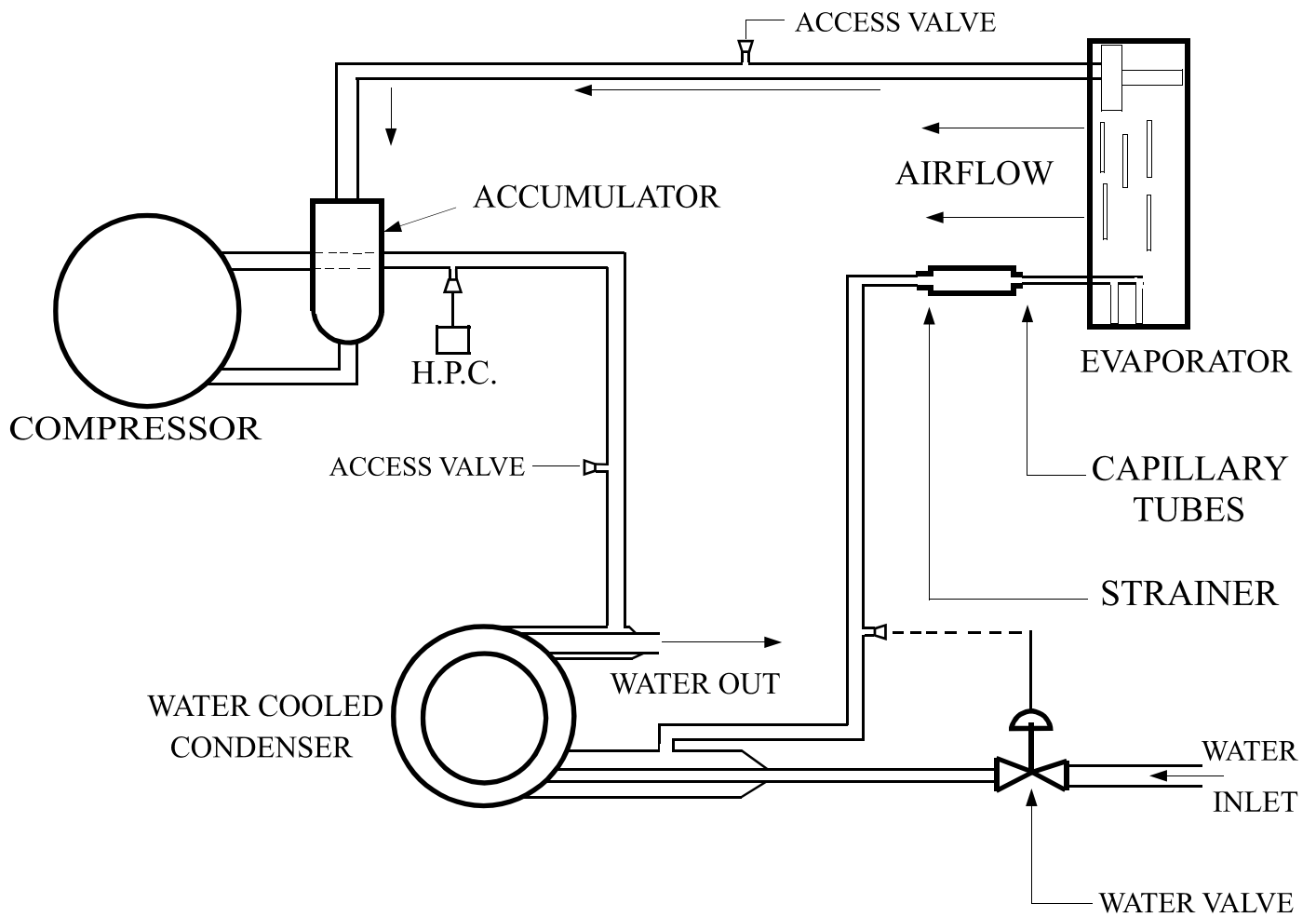
1. Make certain that the unit is disconnected from the power source before attempting to service or remove any component.
2. Be sure the floats move freely. Clean as necessary.
3. Remove the volute and check for obstructions. Clean as needed.
4. Clean the tank with warm water and mild soap when mineral deposits are visible.
5. Check the inlet and outlet piping. Clean as necessary. Be sure there are no kinks in the lines that would inhibit flow.

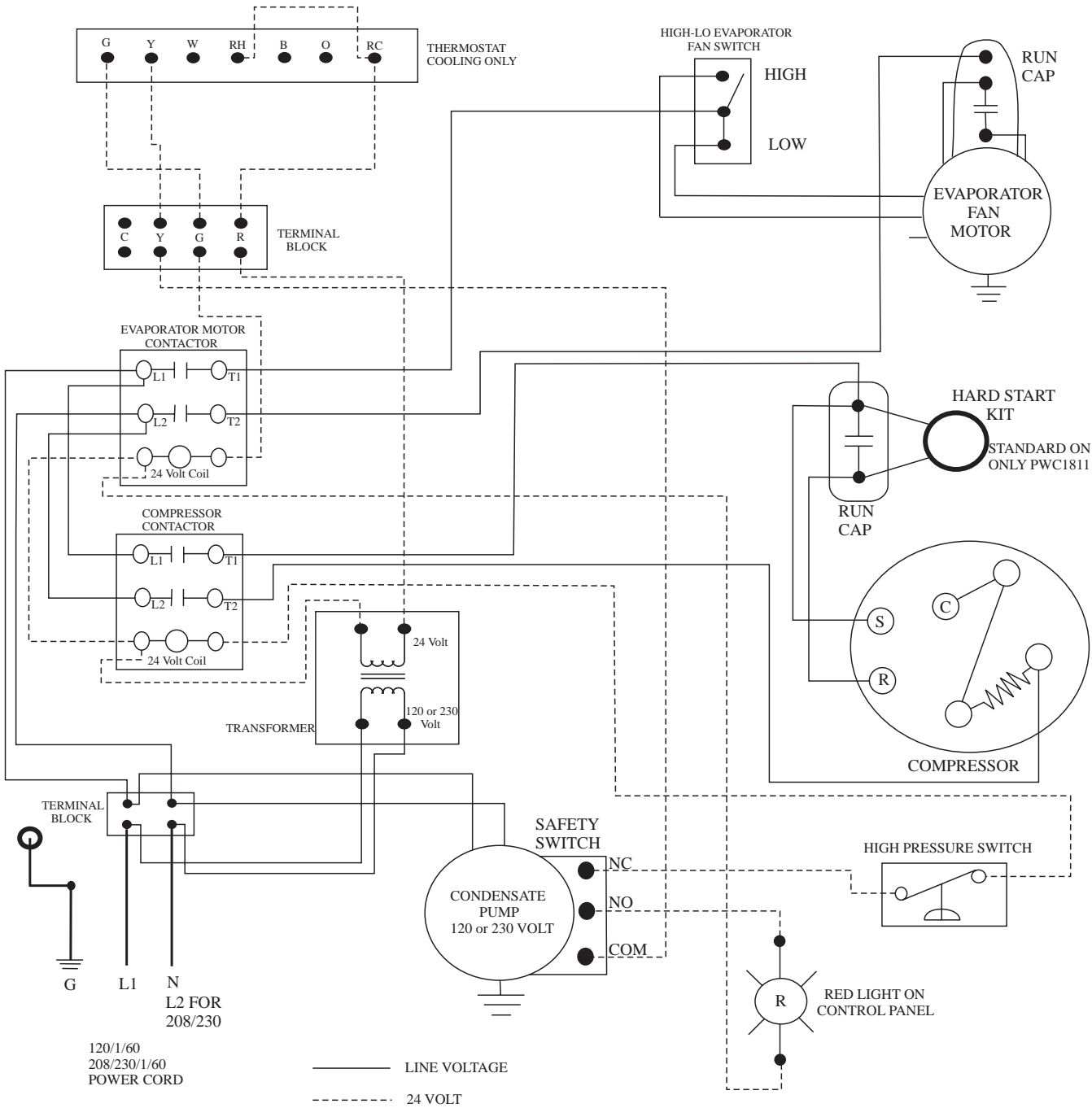
GENERAL

When necessary maintenance steps outlined above are followed, the air conditioner will provide long and reliable service. The refrigeration and electrical circuits of the system should only be serviced by a fully qualified service technician.

PIPING SCHEMATIC

WATER COOLED AIR-CONDITIONER

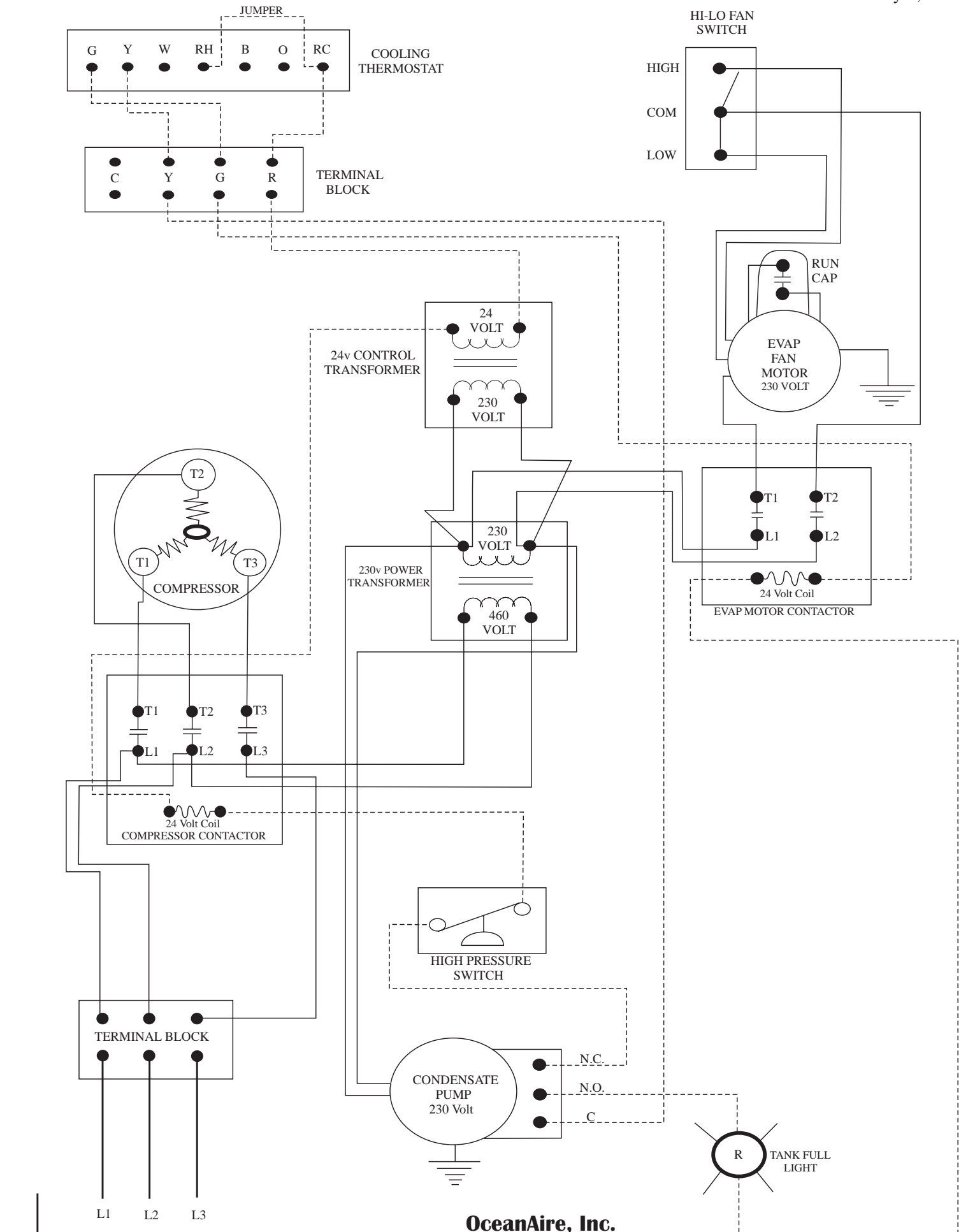




Hard Start Kit is factory installed only on the PWC1811.

Oceanaire, Inc.

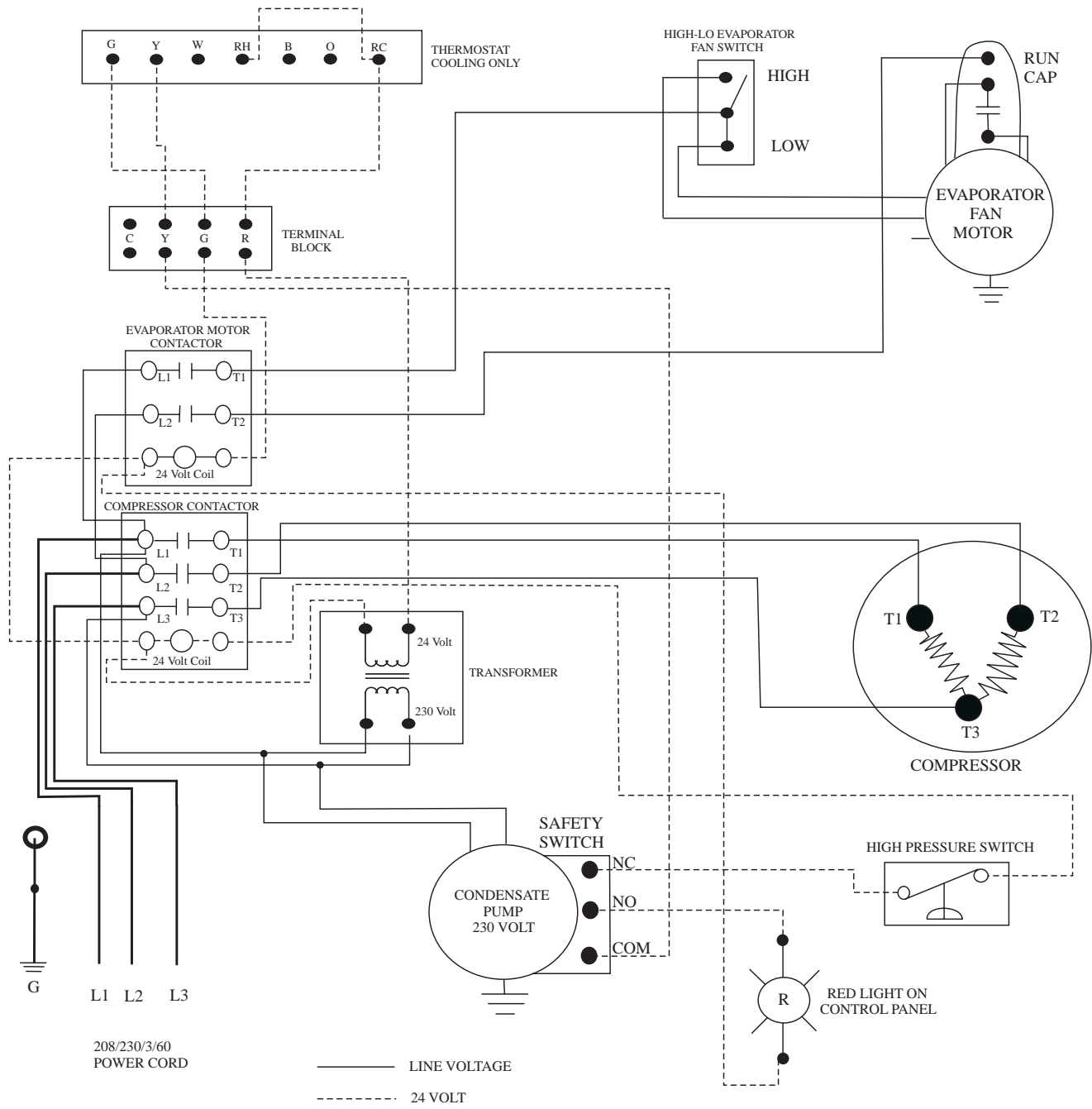
**POLARIS, (WATER COOLED) MODELS
MODELS PWC10, 12, 18, 24, 36, 60
120/1/60 208/230/1/60**



OceanAire, Inc.
POLARIS (WATER COOLED)
MODEL PWC6034

460VOLT 3-PHASE

----- 24 VOLT
 _____ LINE VOLTAGE



Oceanaire, Inc.

**POLARIS, (WATER COOLED) MODELS
 MODEL PWC6032 and PWC3632
 208/230/3/60**

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 Air Marketing Group LLC

LIMITED WARRANTY

The Manufacturer (OceanAire, Inc.) warrants to the original owner that the Product will be free from defects in material or workmanship for a period not to exceed one (1) year from date of installation. If upon examination by the Manufacturer the Product is shown to have a defect in material or workmanship during the warranty period, the Manufacturer will repair or replace, at its option, that part of the Product which is shown to be defective.

The Manufacturer further warrants that the product's compressor-motor will be free from defects in materials and workmanship for five (5) years from the date of installation. If upon examination by the Manufacturer the Product is shown to have a defect in materials or workmanship during the warranty period, the Manufacturer will repair or replace, at its option, that Part of the Product which is shown to be defective. Electrical parts (such as relays, overloads, capacitors, etc...) and the sealed refrigeration system (condenser and evaporator) are included in the one year limited warranty, but not with the five year limited warranty of the compressor. This limited warranty does not apply:

- a) if the Product has been subjected to misuse or neglect, has been accidentally or intentionally damaged, has not been installed, maintained or operated in accordance with the furnished written instructions, or has been altered or modified in any way.
- b) to any expenses, including labor or material, incurred during removal or reinstallation of the Product.
- c) to any workmanship of the installer of the Product.

This limited warranty is conditional upon:

- (a) shipment, to the Manufacturer, of that part of the Product thought to be defective. Goods can only be returned with prior written approval from the Manufacturer. All returns must be freight prepaid.
- (b) determination, in the reasonable opinion of the Manufacturer that there exists a defect in material or workmanship.

Repair or replacement of any part under this Limited Warranty shall not extend the duration of the warranty with respect to such repaired or replaced part beyond the stated warranty period.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, AND ALL SUCH OTHER WARRANTIES, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED AND EXCLUDED FROM THIS LIMITED WARRANTY. IN NO EVENT SHALL THE MANUFACTURER BE LIABLE IN ANY WAY FOR ANY CONSEQUENTIAL, SPECIAL, OR INCIDENTAL DAMAGES OF ANY NATURE WHATSOEVER, OR FOR ANY AMOUNTS IN EXCESS OF THE SELLING PRICE OF THE PRODUCT OR ANY PARTS THEREOF FOUND TO BE DEFECTIVE. THIS LIMITED WARRANTY GIVES THE ORIGINAL OWNER OF THE PRODUCT SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY BY EACH JURISDICTION.

OCEANAIRE