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# 2OACH1211

## 1-ton Portable Air-Cooled Heat Pump

### ENGINEERING, INSTALLATION AND SERVICE MANUAL

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Heating &  
Cooling



*Cooling and Heating done Right!*



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## **FORWARD**

This manual provides the user with basic details for the installation and operation of the OceanAire 20ACH1211 heat pump. It is recommended to read and fully understand the instructions outlined within this manual, before operating the 20ACH1211 unit.

As with all commercial air conditioning equipment, it is recommended to have the 20ACH1211 sized and installed by a licensed specifying engineer and contractor, in accordance with all local and state codes. The length of service received can be extended by following the installation and preventive maintenance instructions.

## **NOTICE**

In our ongoing process of continuous improvement, the items and procedures described in this manual are subject to change without notice. Please note model and serial number of the 20ACH1211 unit before contacting the factory.

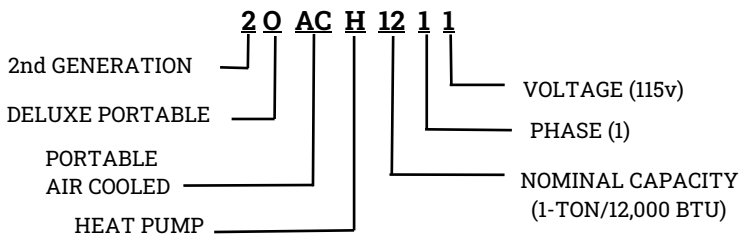
## **GENERAL INFORMATION**

The OceanAire 2OACH1211 is a portable air-cooled heat pump designed for permanent or temporary spot cooling or heating applications. The entire unit has been built in a premium sheet metal cabinet, equipped with heavy-duty casters for mobility. All 2OACH1211 models come standard with a 10-foot power cord for electrical connection and added mobility in service. These units direct heated/cooled air to specific areas or objects through a discharge grille located on the upper-front of the unit, while rejecting cooled/heated air from the top of the unit. The 2OACH1211 model will satisfy most space cooling or heating requirements.

The 2OACH1211 is a self-contained unit with the entire system (evaporator and condenser blower assemblies, electrical and refrigeration components), neatly arranged in a gray and blue polyester powder coated metal cabinet. When connected to the proper source of electrical power, the 2OACH1211 is controlled by a solid-state electronic controller, with numerous options of temperature and airflow controls that will provide the desired level of comfort when cooling or heating.

A wide variety of accessories and factory installed options are available for the 2OACH1211 units allowing for improved performance and added versatility.

## **NOMENCLATURE**



## **CAPACITY RATING**

12.....12,000 BTU/HR

## **NOT APPROVED FOR OUTDOOR USE**

## **WARRANTY**

ALL OCEANAIRE PRODUCTS ARE COVERED BY THE  
OCEANAIRE LIMITED WARRANTY

**1 YEAR ON THE FULL PRODUCT**

PLUS, 4 ADDITIONAL YEARS FOR THE COMPRESSOR

(Restrictions Apply)

## **WARRANTY CARD**

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.

# SPECIFICATIONS

# 20ACH1211

COOLING CAPACITY	11,800 BTUH
HEATING CAPACITY	11,000 BTUH
VOLTAGE	115V, 60Hz, 1PH
AMPS	10.4
TOTAL WATTS	1180
IN RUSH AMPS	60
PLUG TYPE	5-15P, LCDI
EER	10.0
COMPRESSOR	ROTARY
COMPRESSOR HP	1
COMPRESSOR LRA	50
EVAP CFM - HIGH	400
EVAP MOTOR HP	1/8
COND CFM	580
COND MOTOR HP	1/8
CONDENSATE TANK (Pump Optional)	5 GALLON
REFRIGERANT CHARGE	18 oz R-410A
HEIGHT	38.7"
WIDTH	20.0"
DEPTH	26.7"
NET WEIGHT	180 lb.



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**USA**

## SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

- OA **Cooling Capacity** is total BTUH at 80°DB/67°WB return air, 95°F Outdoor at high fan speed
- OA **Heating Capacity** is total BTUH at 70°DB/60°WB indoor, 47°DB/43°WB Outdoor
- OA Dedicated Circuit and Time Delay fuses/circuit breakers are recommended
- EER is determined at high fan speed, with condenser discharge air ducted into another area
- OA CFM with free discharge
- OA Amps & Watts at 115 Volts

**COOLING AMBIENT**  
**HEATING AMBIENT**

**OPERATING RANGE 65° F TO 105°F**  
**OPERATING RANGE 40° F TO 85°F**

**NOT APPROVED FOR OUTDOOR USE**

# **STANDARD FEATURES**

## **CABINET**

The 20ACH1211 Series heat pump has a cabinet that is constructed of 18 gauge steel with a polyester powder coated finish that will compliment any decor. The cool blue front compliments any surrounding space, and is insulated with sound-absorbing insulation for cool, quiet comfort. All units come equipped with handles and premium swivel casters for portability and convenient set-up.

## **DELUXE ELECTRONIC CONTROLLER**

Each 20ACH1211 unit is equipped with a deluxe electronic controller. When power is connected to the unit, the thermostat will control the unit to cool/heat a space to the desired temperature. The thermostat is also capable of controlling the fan to operate automatically when needed, or continuously.

One additional feature of the Deluxe Electronic Controller is that it will display a condition alarm "CON". "CON" displays when a condensate alarm, or a high pressure reset condition has been met. To protect the compressor from short-cycling, there is a built-in time delay. In the event of a power outage, all thermostat settings are saved, and the unit will re-start automatically.

## **FAN SPEED CONTROL**

One of the features of the electronic controller is that the unit supply fan can be controlled either automatically or manually. In AUTO mode, the indoor blower will adjust air flow automatically for added comfort and performance. Or, if desired, the controller can be set to MANUAL fan mode, and the indoor blower will run continuously at one of six levels of fan speed.

## **CONDENSATE TANK/PUMP**

The 20ACH1211 unit comes equipped with a means for handling the condensate generated during the cooling/heating process. The tank can be easily removed from the unit and emptied as needed.

An optional automatic condensate pump (UPK-115) is available and can be factory installed. The pump comes with a 20 foot long vinyl hose that allows for the removal of the condensate water to a drain. The automatic pump is capable of a 20ft vertical lift, to handle almost any installation requirement.

## **FILTERS**

All 20ACH1211 units are equipped with washable filters at the air intakes. Electrostatic mesh air filters located behind the evaporator return air grille serve to filter the air before it is cooled/heated, and behind the condenser return air grille to prevent dust build-up. Both filters can be easily removed and cleaned.

## **HIGH PRESSURE SAFETY SWITCH**

Located on the back of the 20ACH1211 unit is a manual re-set high pressure switch, used for the protection of the compressor. If the condensing pressure exceeds the limit setting, the switch will cycle the compressor off, while the evaporator fan remains running. The display will indicate the fault setting "CON". The compressor can then be re-started, once the condensing pressure has equalized, by depressing the "RESET" button.

## **POWER CORDS**

All 20ACH1211 units come standard with a power cord for a convenient connection. It is equipped with LCDI for added safety features.

# **APPLICATIONS**

## **COOLING MODE—SPOT COOLER**

The 2OACH1211 can be used in an open environment to cool specific objects or "spots". Spot Cooling is a convenient and economical way to provide air conditioning, where cooling the entire space is impractical. Cool air is discharged from the unit and is directed where it is needed. Nozzle kits can be used for directional cooling.

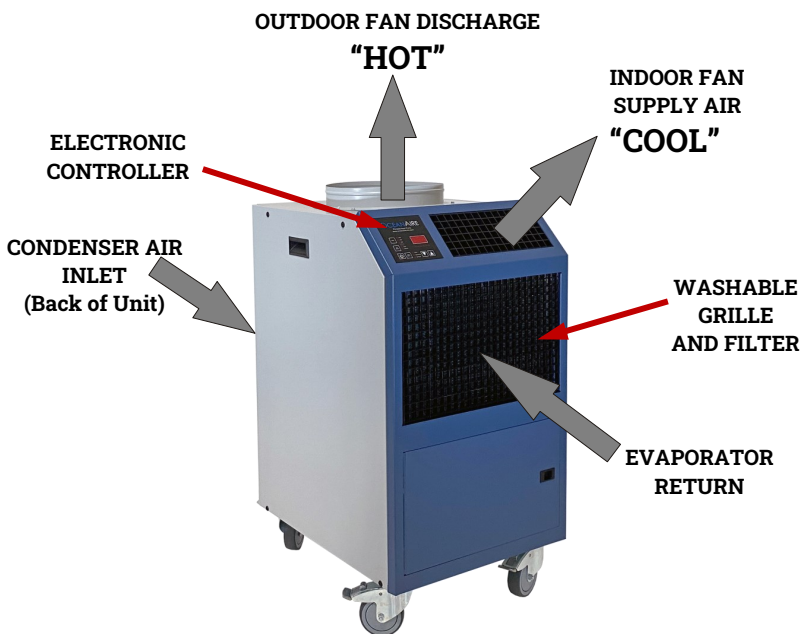
## **AREA COOLER**

When the 2OACH1211 is installed in an open area, the condenser exhaust duct directs the warm air away from the space, allowing the evaporator air to cool the specific area.

## **ROOM AIR CONDITIONER**

When ducted properly, the 2OACH1211 can be used as a room air conditioner to cool an enclosed space. Using the condenser return air plenum, additional ceiling kit, and other accessories, the 2OACH1211 can then operate as a room air conditioner with the condenser air isolated from the conditioned space.

## **2OACH1211—COOLING MODE OPERATION / DESCRIPTION**



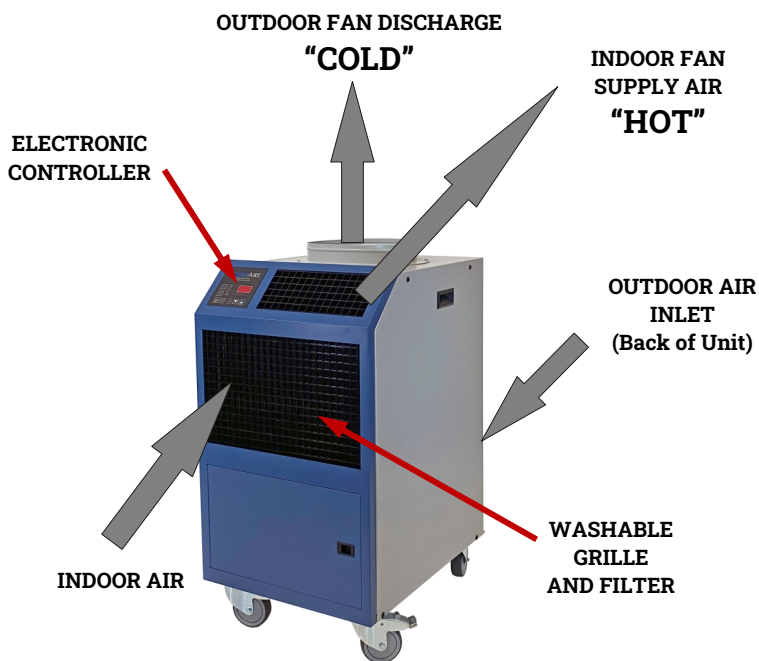
**2OACH1211—COOLING MODE**

# **APPLICATIONS**

## **HEATING MODE—HEAT PUMP**

In HEAT mode, the 20ACH1211 can be used in an open environment to provide heat to a specific area or "spots". The 20ACH1211 is a heat pump, and the supply air will feel warm, but not extremely hot to the touch. Nozzle kits can be used for directional heating.

## **20ACH1211—HEATING MODE OPERATION / DESCRIPTION**




## **20ACH1211—HEATING MODE**

# **ELECTRICAL CONFIGURATION**

## **SERVICE CORD**

All 20ACH1211 units are equipped with a standard 10-foot long service cord with plug configuration and receptacle requirement as shown in this chart. 20ACH1211 units come with **LCDI** (Leakage Current Detection & Interruption) devices that serve as a means of electrical protection.

UNIT/MODEL	PLUG CONFIGURATION	RECEPTACLE
<b><u>115 VOLT</u></b> <b>20ACH1211</b>	 <b>15A-125 VOLT</b> <b>NEMA 5-15P</b>	<b>NEMA 5-15R</b>

## **CAUTION**

DO **NOT** USE THE LCDI AS AN ON/OFF SWITCH FOR THE UNIT

**A DAMAGED LCDI POWER SUPPLY CORD MUST  
BE REPLACED WITH A NEW POWER SUPPLY  
CORD AND NOT REPAIRED**

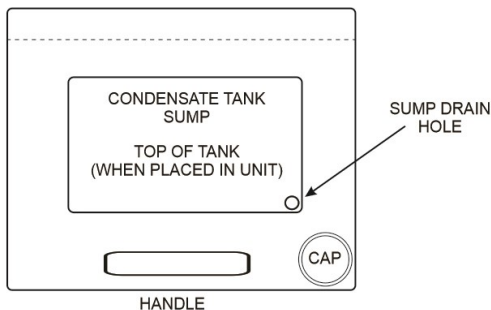
## **USE OF EXTENSION CORDS**

## **CAUTION**

**FOR MODEL 20ACH1211** AN EXTENSION CORD CAN BE USED, PROVIDED IT IS RATED AT LEAST 15 AMPS @ 115 VOLTS WITH GROUNDING-TYPE ATTACHMENT PLUG AND GROUNDING TYPE CONNECTOR (LOAD FITTING)

# CONDENSATE

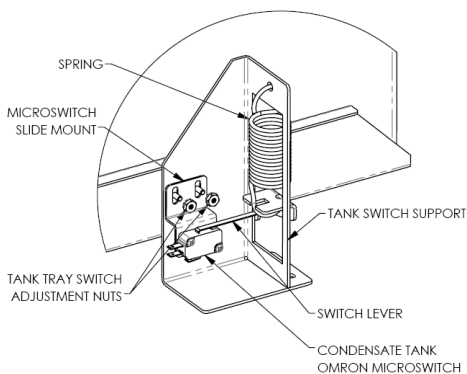
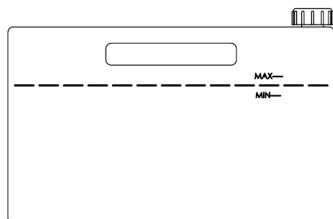
For the 20ACH1211, a 5-gallon polyethylene tank is provided to collect condensate. The tank is located in the lower front section of the unit, and can be accessed through the condensate tank door. When the high water level is reached, a cut-out switch will AUTOMATICALLY cycle off the compressor and condenser fan.



## ADJUSTMENT INSTRUCTIONS

DISCONNECT POWER TO UNIT

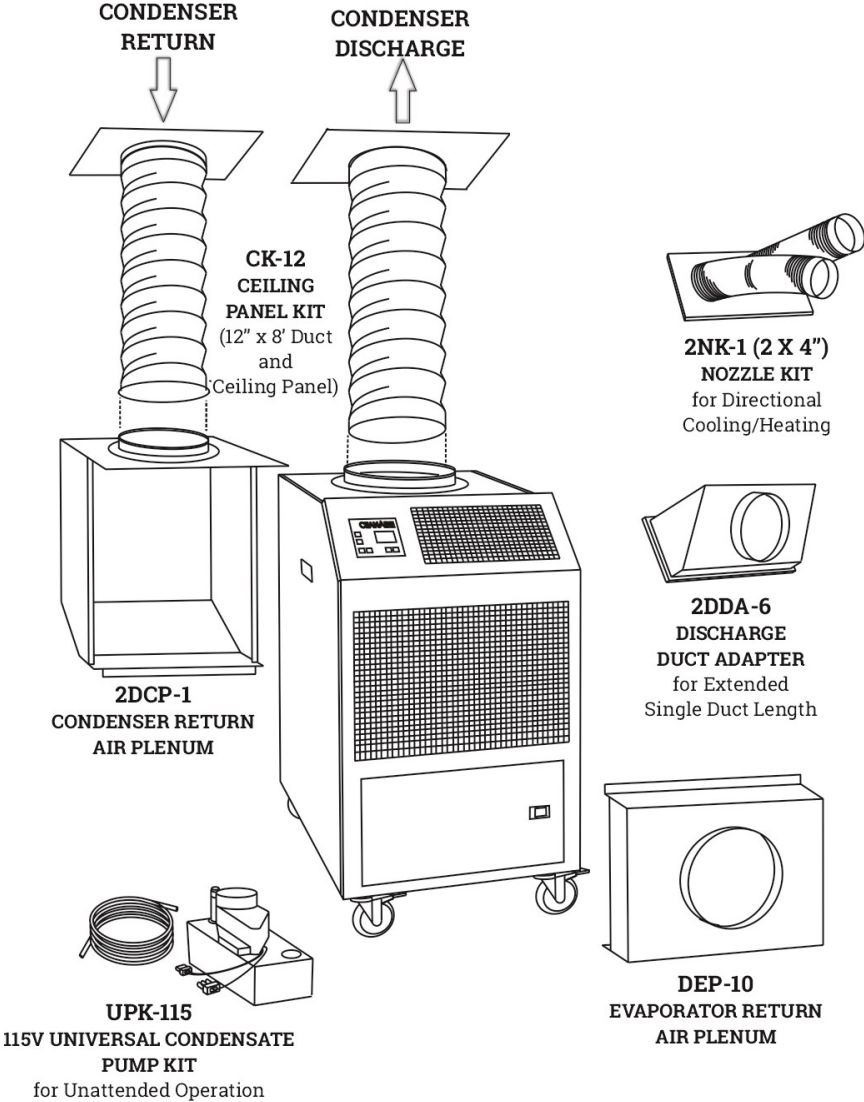
1. REMOVE LEFT SIDE PANEL OF UNIT.
2. LOCATE CONDENSATE TANK TRAY SWITCH.
3. LOOSEN TANK TRAY SWITCH ADJUSTMENT NUTS (2X).
4. POSITION MICROSWITCH SLIDE MOUNT TO ENGAGE WATER LEVEL AT DESIRED LOCATION.
5. THEN, TIGHTEN BOTH ADJUSTMENT NUTS.
6. REPLACE LEFT SIDE PANEL.



**TANK TRAY SWITCH ASSEMBLY  
"NEW STYLE"**

# 2OACH1211 OPTIONAL ACCESSORIES

**NOTE - IT IS IMPORTANT TO SPECIFY THE  
SERIAL NUMBER WHEN ORDERING ACCESSORIES**



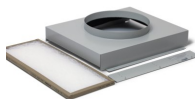
## **2OACH1211 OPTIONAL ACCESSORIES**

**NOZZLE KIT, 2NK-1 (2 X 4")** The optional discharge nozzle kits are used to direct the conditioned air to a specific target area. By concentrating the airflow, the nozzles increase the air velocity towards production lines to cool personnel and/or equipment. In server rooms, the nozzles can be used to direct the airflow through the rack to remove the hot air from the area of the equipment.



### **EVAPORATOR RETURN AIR PLENUM, DEP-10**

The evaporator return air plenum is available for installations where it is required to duct air to the inlet of the evaporator. The evaporator return air plenum allows the user to connect round ducts (flexible or rigid) to the return air intake to reduce air noise and increase the number of options for solving difficult application problems. The plenum attaches to the front of the unit, replacing the return air grille.



### **DISCHARGE DUCT ADAPTER, 2DDA-6**

Discharge duct adapter is available for applications where ducted evaporator discharge is required. The adapters can be easily installed on the unit without fasteners, and be installed for either vertical or horizontal ducting. The standard discharge grille is removed and the 2DDA-6 is attached in the grille opening.



### **CONDENSATE PUMP KIT, UPK-115**

A plug-in condensate pump kit is available for applications where emptying the 5 gallon condensate tank is not practical. The pump kit consists of a condensate pump with mounting hardware and electrical connections, along with the tubing required for the drain and discharge of the condensate water.



### **CEILING PANEL DUCT KIT, CK-12**

A ceiling panel kit is available for discharging the condenser air above a drop ceiling. The ceiling panel duct kits are furnished with a white vinyl coated flexible duct that allows for convenient installation. A 2' x 2' ceiling duct- panel is included to replace a 2' x 2' drop-ceiling panel where the connection is desired. The ceiling panel kit consists of 8 feet of flexible duct, and a 2' x 2' lay in ceiling panel.



### **CONDENSER RETURN AIR PLENUM, 2DCP-1**

Condenser return air plenums are available for installations where it is required to duct air to the inlet of the condenser. The plenum easily fits into place on the back of the unit, and is provided with a flange for connecting 12-inch flexible ducting. A condenser return air plenum can substantially reduce air noise and allow the unit to operate without drawing condenser air from the conditioned space.



# **INSTALLATION INSTRUCTIONS**

## **RECEIVING—INSPECTION**

Upon receiving your 20ACH1211 unit, inspect the packaging for any damage. All units are shipped on a skid, and packaged in a triple-wall carton for added protection.

## **BEFORE INSTALLING**

Check the unit for any damage. All OceanAire products are thoroughly inspected at the factory and carefully packaged. If any damage is evident, contact OceanAire **IMMEDIATELY**.

## **ELECTRICAL REQUIREMENTS**

Check the nameplate located on the back of the unit to confirm the proper power is available for the unit. **Refer to "Specifications"** section for voltage and amperage requirements. For proper NEMA receptacles, refer to "Electrical service plug configuration". When using extension cords, use the proper gauge cord, and check cord voltage to the unit.

**TIME DELAY FUSES/CIRCUIT BREAKERS ARE RECOMMENDED**

**WARNING—OPERATING THE UNIT ON IMPROPER  
VOLTAGE WILL VOID THE WARRANTY**

## **ACCESSORIES**

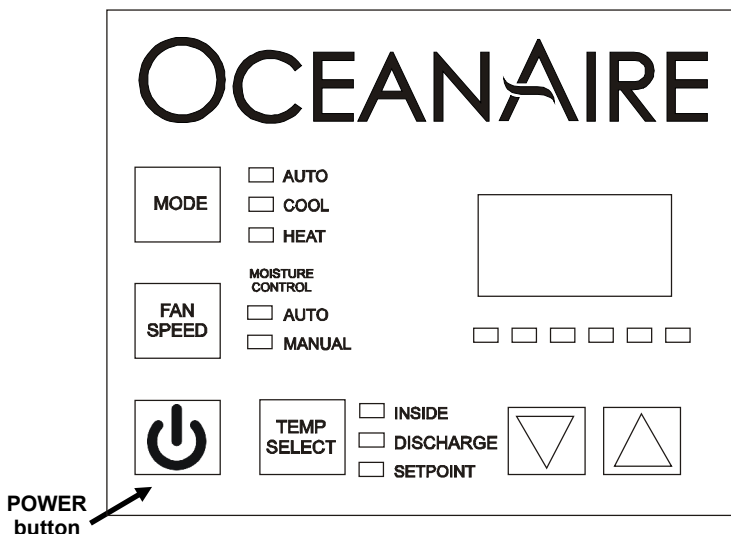
Verify that all accessories are correct for the model, and are installed in accordance with all instructions.

## **START-UP**

Install the unit in accordance with all local and state building codes, and install all accessories. Allow for a clearance around the unit for future maintenance and/or service. Level unit and lock casters. Connect power and test the LCDI on the power cord. Power up unit, via thermostat and check for proper operation. Refer to Thermostat Operation for more details.

## **DELUXE ELECTRONIC CONTROLLER**


The 20ACH1211 controller is equipped with many features for a more precise level of comfort and operation. Additionally, the controller can be removed from the unit and installed for remote operation (additional parts are required).



### **OCEANAIRE DELUXE ELECTRONIC CONTROLLER**

When power is connected, the controller will display "888" momentarily, and will then disappear. Press the **POWER** button, then press the **TEMP SELECT** button until the **SET POINT** is displayed. Adjust the **SET POINT** to the desired temperature, and the unit will heat/cool as programmed.

#### **The systems controls temperature within +/- 2°**

**POWER**  Turns the unit on/off when power is supplied

**MODE** Select the mode of operation from  
**AUTO...COOL....HEAT ....MOISTURE CONTROL.**

**AUTO** The controller will heat or cool as required. **HEAT or COOL** will display accordingly. A 4° differential is needed to change between cooling and heating modes.

**COOL** The system will operate in **cooling mode, only.**

**HEAT** The system will operate in **heating mode, only.**



**MOISTURE CONTROL** The system operates in the cooling mode to reduce humidity within the conditioned space. Every 4 hours, the fan is started, circulating the air, and the air temperature is recorded by the controller. The cooling cycle is started for one hour, or until the room temperature drops 2°, which ever comes first. This cycle repeats every four hours.

**FAN SPEED** The operator can select between **AUTO** or **MANUAL** fan speed control. Pressing the **FAN SPEED** button will switch speed from **AUTO** to **MANUAL**. In **MANUAL** mode, pressing the **FAN SPEED** button will change fan speed from low to high. In **AUTO** mode, the fan speed is controlled automatically. In cooling mode, the controller automatically adjusts the fan speed to high, and as the inside temperature approaches the set point, the fan speed will reduce. In heat mode, the fan speed adjusts from low to high as the temperature reaches the set point


**TEMP SELECT** Allows the operator to view the controller temperatures

**INSIDE** return air temperature

**DISCHARGE** supply air temperature,



**SET POINT** can be seen and adjusted by pressing  or 

## CONTROLLER PROGRAMMING MENU

- 1) Make sure the unit has  power.
- 2) Press the power button "**OFF**".
- 3) Press the following buttons in sequence "**S-U-D-S**"  
(**Select**—**Up** arrow — **Down** arrow — **Select**)
- 4) The display will begin flashing P1 and a number.



*If there is no display, repeat the sequence,  
making sure the unit has power, but is turned OFF.*

- 5) To adjust any program feature, press the **ARROW UP**  or **ARROW DOWN**  button until the desired value is displayed.
- 6) Use the "**MODE**" button to scroll through the programmable settings P1 through P16.
- 7) If no buttons are pressed, the display will then return to the "**OFF**" position after about 50 seconds.

## PROGRAM SETTINGS

**P1—High Fan Speed Limit Setting, 56 - 85**

**P2—Low Fan Speed Limit Setting, 30 - 55**

**P4—Temperature Sensor Calibration, +/- 10°**

**P10— Temperature Display, °F or °C**

**P13—Supply Fan Operation, Cycling or Continuous**

**P1, P2** - To adjust fan speed settings, P1 represents the high fan speed parameter, while P2 represents the low fan speed parameter. When using nozzle kits, discharge duct adapters and evaporator plenums, setting P1 to 85 will help to avoid freeze ups.

**P4** - Adjust the P4 setting to match the actual **INSIDE** room temperature, if needed.

**P10** - Use this parameter to display temperatures in the desired units.

**P13** - To cycle the evaporator fan with the compressor, access code P-13. Press the up or down button to switch to "**CYC**", which means cycle the fan with the compressor. The factory default setting is "**CON**", which means continuous fan operation.

**8)** Press **POWER** - you should see an alphanumeric code.

Press **POWER** and the unit will start at the new settings.

## 2OACH1211 PROGRAM SETTINGS

MODEL	CODE SETTINGS
2OACH1211	P1 = 65, P2 = 45

### NOTICE

**Program Parameters are NOT controller default values.  
They are OceanAire Factory Settings**

### DISPLAY FAULTS

**LAC.....** Low AC line power

**AAA or - - - .....** Failed Air Sensor (unit will not run)

**CON.....** Empty Condensate Bucket—Units with a bucket  
Condensate Pump Over-Flow Alarm—Units with pump  
High Pressure Cut-Out—Restricted Air Flow  
correct problem, and re-set unit at HP RESET

### **TO CHECK THE NUMBER OF COMPRESSOR HOURS ON THE UNIT**

- 1) Disconnect unit power, and reconnect unit power.
- 2) When "888" appears in display, push and release the arrow down button



- 3) The first set of numbers displayed reads thousands of hours:  
02 = 2000, 04 = 4000 hours, 00 means less than 1000 hours.
- 4) The second set of numbers read hours directly:  
58 = 58 hours. 742 = 742 hours.
- 6) Add the 2 number sets together to get total hours.  
03 and 486 = 3486 hours. 01 and 59 = 1059 hours.

**TOTAL HOURS REPRESENTS COMPRESSOR "RUN" TIME**

# **REPLACEMENT PARTS PROCEDURE**

**IT IS RECOMMENDED THAT ALL OCEANAIRE UNITS  
BE SERVICED BY A QUALIFIED AIR CONDITIONING SERVICE TECHNICIAN**

***WARNING—TO AVOID INJURY, DISCONNECT UNIT POWER  
PRIOR TO SERVICING***

## **A. FAN MOTORS/BLOWER WHEELS**

Remove cabinet's left-side panel (when looking at the front of the unit)

- Evaporator fan motor—disconnect evaporator motor wires from run capacitor and power module terminals.
- Condenser fan motor—disconnect motor wires from run capacitor and power module terminals.
- Blower wheel assembly—remove screws securing motors and inlet rings to housing (all screws are external and visible) . Remove blower wheel set screw and disassemble the blower wheel from the motor shaft, and remove the wheel, then remove the motor if needed.

Install new components, reversing the removal procedure.

## **B. ELECTRONIC CONTROLLER (THERMOSTAT)**

To remove the heat/cool display, remove the cabinet's left-side panel (from front). Locate the two nuts securing the display to the front panel. Unplug the display cable and remove display. Install new display and secure. Plug in display cable.

## **C. POWER MODULE**

To remove the power module, remove the rear control box cover. Disconnect wires (one at a time), and re-attach each wire, while holding replacement module in other hand. Once all wires have been reconnected in accordance with the wiring diagram, install new power module.

## **D. CONDENSATE PUMP (ON UNITS WHERE THE CONDENSATE PUMP KIT HAS BEEN INSTALLED)**

1. Remove left side panel.
2. Remove brackets securing pump in condensate tank tray pan.
3. Disconnect pump wire leads at Molex connectors. Remove retainer clamp and tubing.
4. Replace pump, install by reversing procedure.

## **E. HIGH PRESSURE SAFETY SWITCH**

1. Remove right side panel.
2. Using two wrenches, remove flare nut that secures capillary to the refrigeration system high pressure side. A schrader valve is located in the discharge port which allows removal without losing the refrigerant charge.
3. Remove two screws that secure high pressure switch.
4. Disconnect wire leads from power module and condensate pump safety switch.
5. Install new High Pressure Switch, and splice in new wire leads with existing control wires. Then reverse in order to complete procedure.

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

# **TROUBLESHOOTING GUIDE**

The following steps and procedures are recommended for correcting the problems indicated. In the event that the problem can not be corrected, service may be required.

## **SERVICE SHOULD BE PERFORMED BY A QUALIFIED AIR CONDITIONING SERVICE TECHNICIAN**

### ***PROBLEM: UNIT DOES NOT POWER UP***

**CAUSE:** Power interruption

**REMEDY:** Check LCDI. Check external power supply making sure that the disconnect is ON. Check for blown fuses or tripped circuit breakers. Reset or replace if needed.

**CAUSE:** Loose display cable

**REMEDY:** Re-seat display cable at display and power module.

### ***PROBLEM: EVAPORATOR FAN RUNS BUT COMPRESSOR AND CONDENSER FAN DO NOT START***

**CAUSE:** SET POINT — setting may be too high for cooling or too low for heating.

**REMEDY:** Make sure set-point is adjusted accordingly. You should see a red dot to the right of the temperature display indicating compressor ON.

***Note—there is a time delay for the compressor***

**CAUSE:** Loose Display Cable

**REMEDY:** Examine the control unit for loose wires. Tighten any loose connections.

**CAUSE:** Condition Alarm—"CON".

**REMEDY:** Check condensate tank and empty if needed. Check condensate pump and confirm pump is working properly. Check drain line is open and not collapsed.

**CAUSE:** High Pressure Cut-Out—"CON" Check High Pressure Cut-out Switch.

**REMEDY:** Press Reset and clear away any obstructions to the condenser intake or condenser discharge.

**CAUSE:** Defective Power Module

**REMEDY:** Replace Power Module

# **PREVENTIVE MAINTENANCE**

20ACH1211 Heat Pumps 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:

## **BLOWER MOTORS**

The motors on all units have permanently lubricated bearings. No oiling is necessary

## **FILTERS**

A clogged filter will cause the unit to operate at greatly reduced efficiencies. We recommend that the filter be inspected on a regular basis **every six weeks or less**, depending on the environment. The evaporator filter is located behind the return air grille and can be easily removed and cleaned. The condenser filter is located on the backside of the unit. The filters must be washed periodically as needed by placing them in a dishwasher or soaking them in a solution of warm water and detergent for 10 minutes. Then rinsing them clean with hot water and shaking excess moisture from filter.

## **CONDENSATE PUMP**

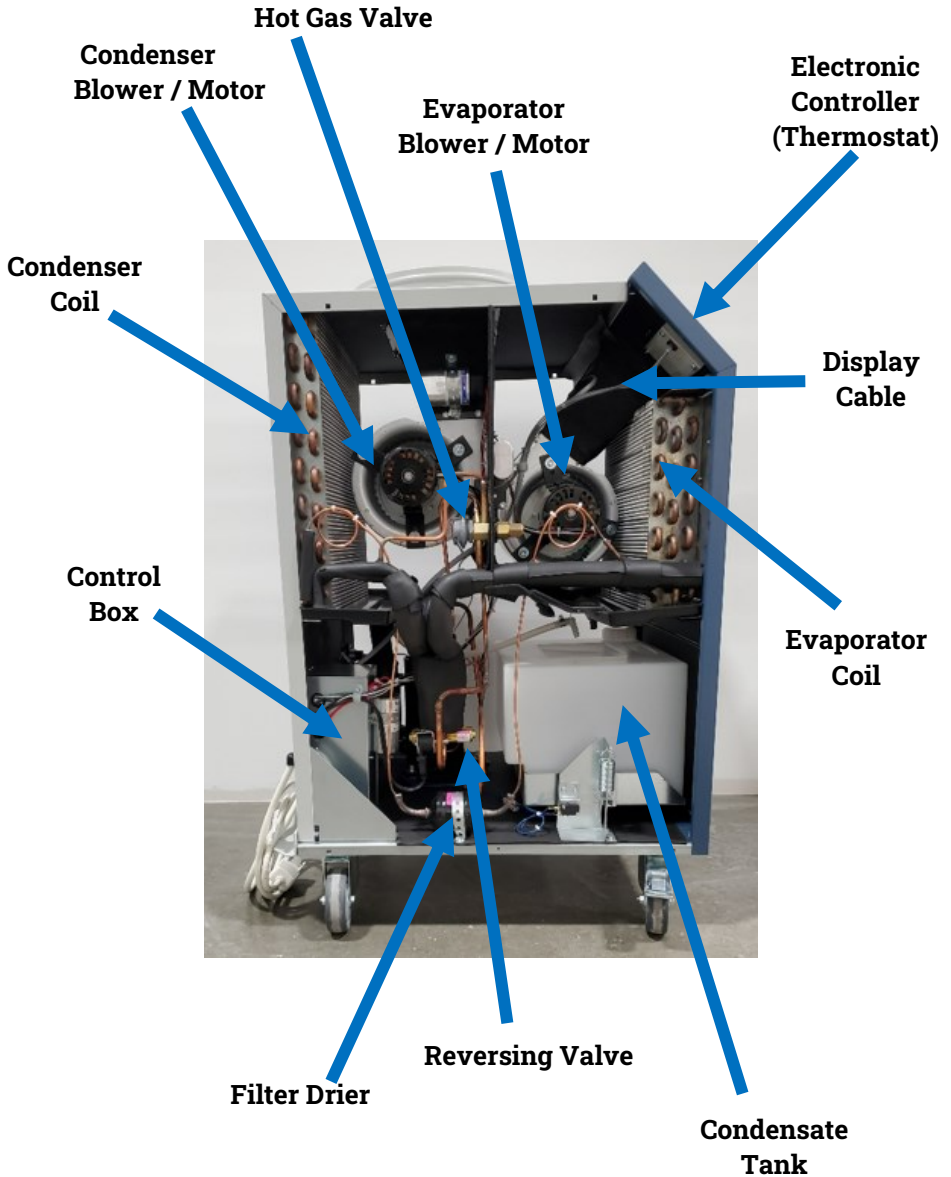
When servicing pump follow these steps;

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

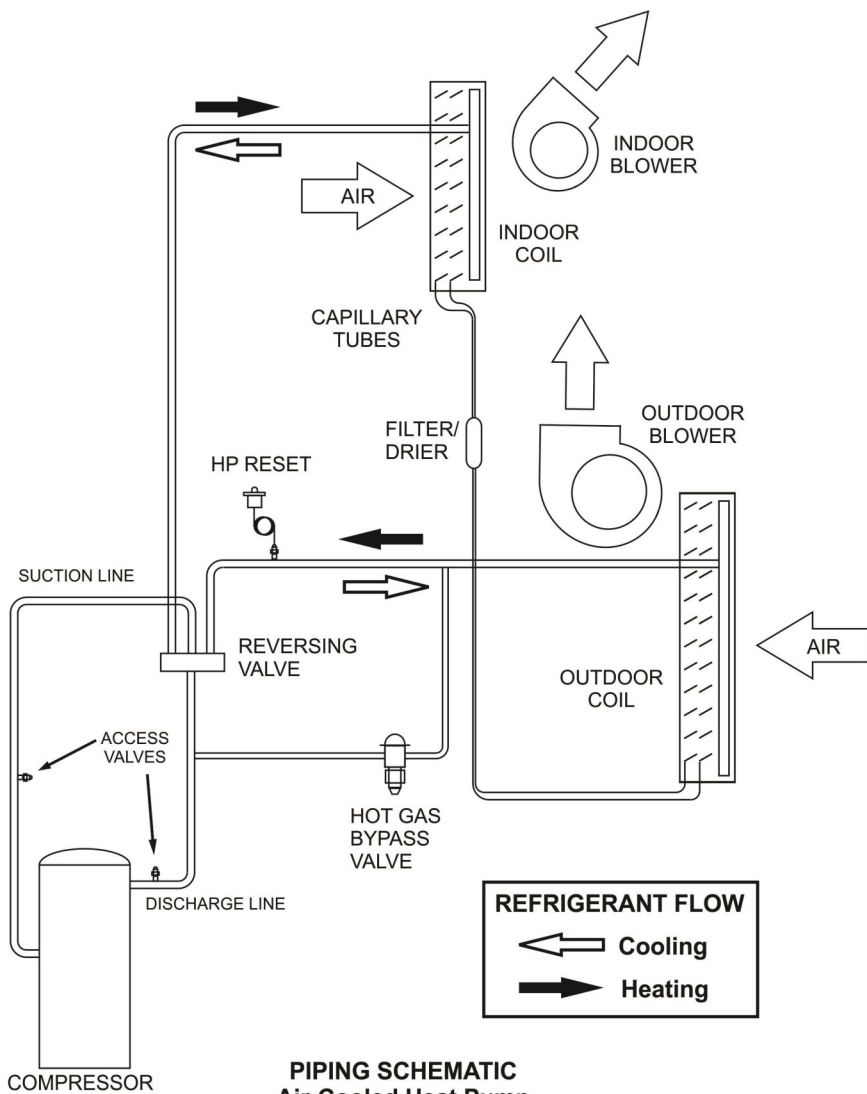
## **GENERAL**

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.

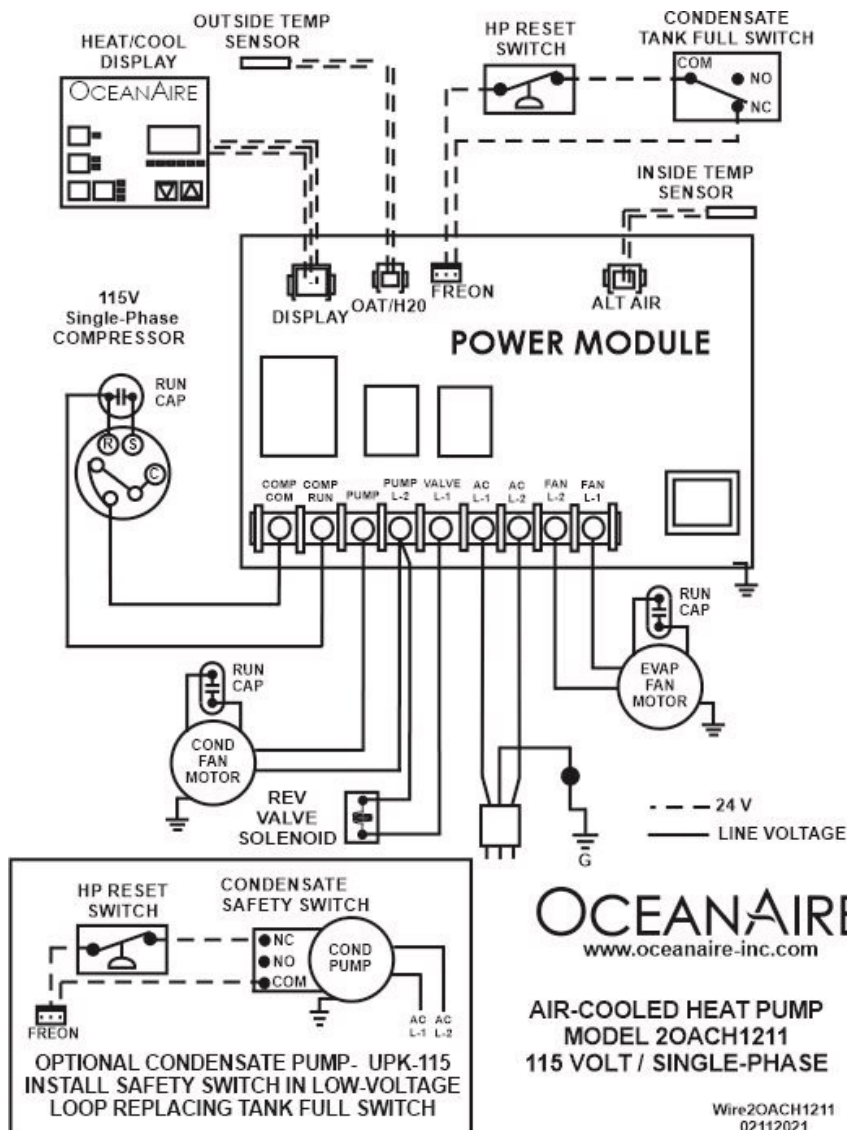
## 2OACH1211 INTERIOR VIEW



**PIPING SCHEMATIC**



# WIRING SCHEMATIC FOR 2OACH1211



## **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.

***Compressor warranty shall be pro-rated for years 2 – 5 at the sole discretion of OceanAire.***

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 to:

- a) Product that 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) Product that has been subjected to any abnormal power conditions such as loss of power, power surges, voltage irregularities such as brown-outs or phase loss on three-phase equipment).
- c) any expenses, including labor or material, incurred during removal or reinstallation of the Product.
- d) any workmanship of the installer of the Product.

This limited warranty is conditional upon:

- a) return to the Manufacturer, of the 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 defective 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 EXPRESSED 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.

## OTHER PORTABLE HEAT PUMP MODELS AVAILABLE

MODEL: 20ACH	1211	1811	2412	3612	3632	3634	6012	6032	6034
COOLING CAPACITY	11,800	16,800	24,020	36,050			60,100		
HEATING CAPACITY	11,000	15,600	22,000	32,500			53,500		
VOLTAGE (V/Phase) at 60Hz	115/1		208-230/1		208-230/3	460/3	208-230/1	208-230/3	460/3
AMPS	10.4	14.1	14.9	19.6	17.2	8.7	32.0	20.4	14.8
TOTAL WATTS	1180	1670	2700	3620			6000		
IN-RUSH CURRENT (AMPS)	60	75	68	113	93	60	178	162	87
PLUG TYPE	5-15P LCDI	5-20P LCDI	6-20P LCDI	6-30P LCDI	L15-30P	L16-20P	6-50P	L15-30P	L16-20P
EER	10.0		8.9		10.0				
COMPRESSOR	ROTARY				SCROLL				
COMPRESSOR HP	1	1.5	2	3			5		
COMPRESSOR LRA	9.5	12.3	10.5	13.6	8.8	5.0	27.6	18.1	9.0
EVAP CFM - HIGH	400	600	810	1200			1950		
EVAP MOTOR HP	1/8		1/3				1		
CONDENSER CFM	580	930	1010	1390			2200		
COND MOTOR HP	1/8		1/3		1				
CONDENSATE	5 Gallon Condensate Tank - STANDARD (Pump Optional)						Pump - STANDARD (20 ft. Lift)		
R-410A CHARGE (oz.)	18	40	37	66			80		
(A) HEIGHT (in.)	38.7	46.7		52.7			54.2		
(B) WIDTH (in.)	20.0	24.0		28.2					
(C) DEPTH (in.)	26.7	31.5		37.0			41.0		
NET WEIGHT (lb.)	180	260		365		380	485		520
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE									
20ACHSPCS01012022									

20ACHSPECS01012022

### NOTES

- \* Dedicated Circuit and Time Delay fuse or Circuit Breaker are recommended.
- \* Cooling Capacity is total BTUH at 80° DB/67°WB return air, with 95°DB Condenser Air
- \* Heating Capacity is total BTUH at 70° DB/60°WB Indoor, 47°DB/43° WB Outdoor
- \*CFM with free discharge
- \*Cooling EER is determined at high fan speed, with condenser air ducted into another area
- \*Amps and Watts at 208 Volts (208-230V/Models)

COOLING AMBIENT

OPERATING RANGE 65° TO 105°

May COOL down to 55° if equipped with hot gas bypass (factory installed)

HEATING AMBIENT

OPERATING RANGE 45° TO 85°



Heating &  
Cooling

PROUDLY MADE IN THE  
**USA**

## END USER INFORMATION

MODEL: \_\_\_\_\_

SERIAL NUMBER: \_\_\_\_\_

Date Purchased: \_\_\_\_\_

Purchased from: \_\_\_\_\_

Date Installed: \_\_\_\_\_

**For Technical Support or service parts,  
contact our**

**Keep Cool Team at 847-583-0311**

**In order to receive the benefits of our warranty,  
please register on-line at  
[www.oceanaire-inc.com](http://www.oceanaire-inc.com)**



*Cooling and Heating done Right!*



**OCEANAIRE-INC.COM**



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**Phone: (847) 583-0311**

**Fax: (847) 583-0312**