

Carry-On Portable A/C Units

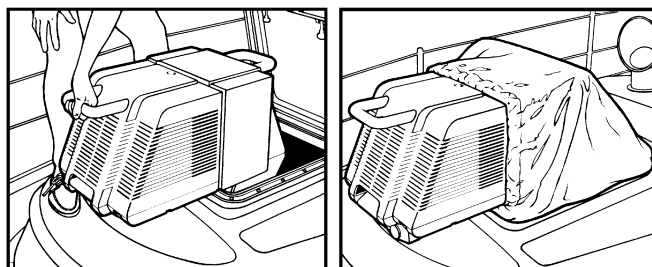
◆ INSTALLATION • OPERATION

English

If this unit was purchased from a catalog or a chain store please call Ocean Marketing at the following number for all service or return issues.

888-452-0349

L-0676st 2-00



U.S. Patent Numbers: D309941; 4,967,569

CARRY-ON™
***Truair*®**

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INTRODUCTION

You have purchased a marine air conditioner that will add to your boating enjoyment. Please read the accompanying instructions to insure proper installation, operation and care.

WARNING

The use of the Carry-On™ is not recommended while the boat is under way because of the potential for damage to the Carry-On or the boat or the potential for personal injury.

NOTE

The Carry-On unit may or may not fit thru your hatch, depending on hatch size. Refer to Carry-On dimension width and height.



Important Information

Please make sure you have the following items. If you are missing any of these items please contact your dealer.

- (1) CO-5000 Carry-On Portable Air Conditioning Unit

A Plastic Bag Containing:

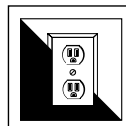
- (1) Hatch Bag
- (2) 23" Batten Rods
- (2) 25½" Batten Rods

Before installing unit you will need:

- (1) power cord rated at 15 amps
(See Safe Operation of Carry-On, Section 5b., pg. 4)

Optional ¾" I.D. (Inside Diameter) flexible drain tubing

(See Installation Instructions, Section 5., pg. 6)



Power Requirements

1. No inverters (Void of warranty with usage)
2. 115/110, 60 Hz dockside power
3. Generator 1800 Watts
 - Running amps: 6
 - Starting amps: 18

Note: Every time the compressor powers on, it is drawing 18 amps.



Safe Operation of Carry-On

1. The use of the Carry-On is not recommended while the boat is under way.
2. Prevent accidents or damage to Carry-On. Always carry or move using the handles. Unplug at receptacle and Carry-On control panel prior to moving.
3. Do not disassemble Carry-On.
4. Be certain the Carry-On has been properly installed according to the Installation Instructions beginning on page 5.
5. Physical and electrical conditions vary greatly from location to location.
 - (a.) Be sure the electrical service is adequate; it should be 115/110 volts, and equipped with a circuit breaker (20 amps minimum).
 - (b.) Use a three-prong (grounded) power cord rated at 15 amps minimum, with a length no longer than needed to reach from the installed Carry-On to a grounded, 3-wire receptacle on your boat, or to a suitable grounded dockside outlet. (See Figure 1.)
 - (c.) **Do not** under any circumstances, cut or remove the grounding prong from the end of your power cord. Your Carry-On must be used with a three-prong

grounding power cord and be used in a properly grounded and polarized three prong receptacle. **DO NOT USE AN ADAPTOR PLUG, OR A TWO BLADE ADAPTOR PLUG THAT BYPASSES THE GROUNDING IN ANY WAY!!!** (See Figure 2).

(d.) It is always desirable to have your on-board or shoreside receptacle protected by a time delay fuse or circuit breaker.

6. If the Carry-On operation is interrupted (turned off, plug pulled out, thunderstorm, etc., accidentally or otherwise) after operation in the COOL mode, **WAIT 3 MINUTES BEFORE RESTARTING**. This allows pressure inside the compressor to equalize. Consequences of attempted restart within the 3 minute period may be a tripped circuit breaker or blown fuse. In this case, turn Carry-On to "OFF", reset breaker (or replace fuse), wait 3 minutes, then restart.
7. If the Carry-On has been stored in any position other than upright within 10 degrees of level, then, after installing, wait 10-15 minutes to allow compressor oil to move to the bottom of the compressor. Otherwise permanent damage may occur, voiding the warranty.

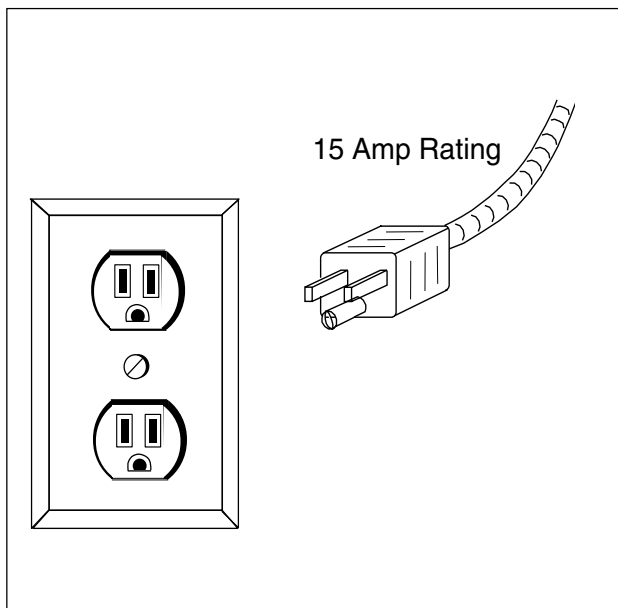


Figure 1. Electrical outlet and 15 amp rated power cord

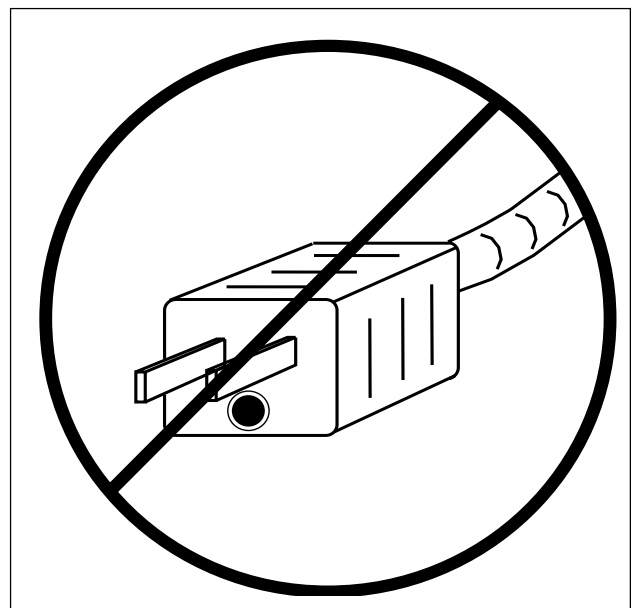


Figure 2. Shows incorrect power cord.



Installation Instructions

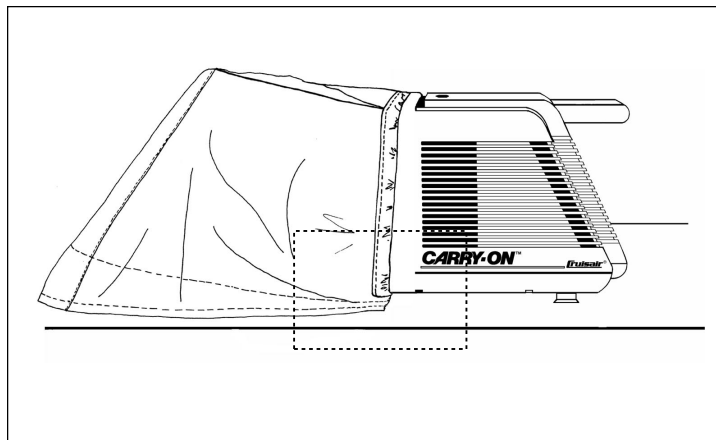


Figure 3. The Carry-On positioned in the boat hatch with the Hatch Bag in place. See inset Figure 4.

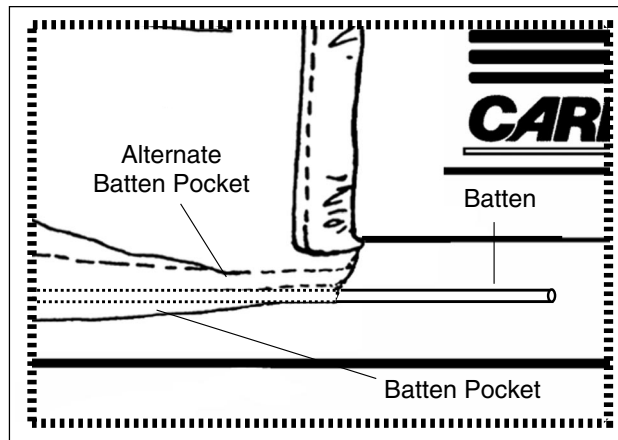
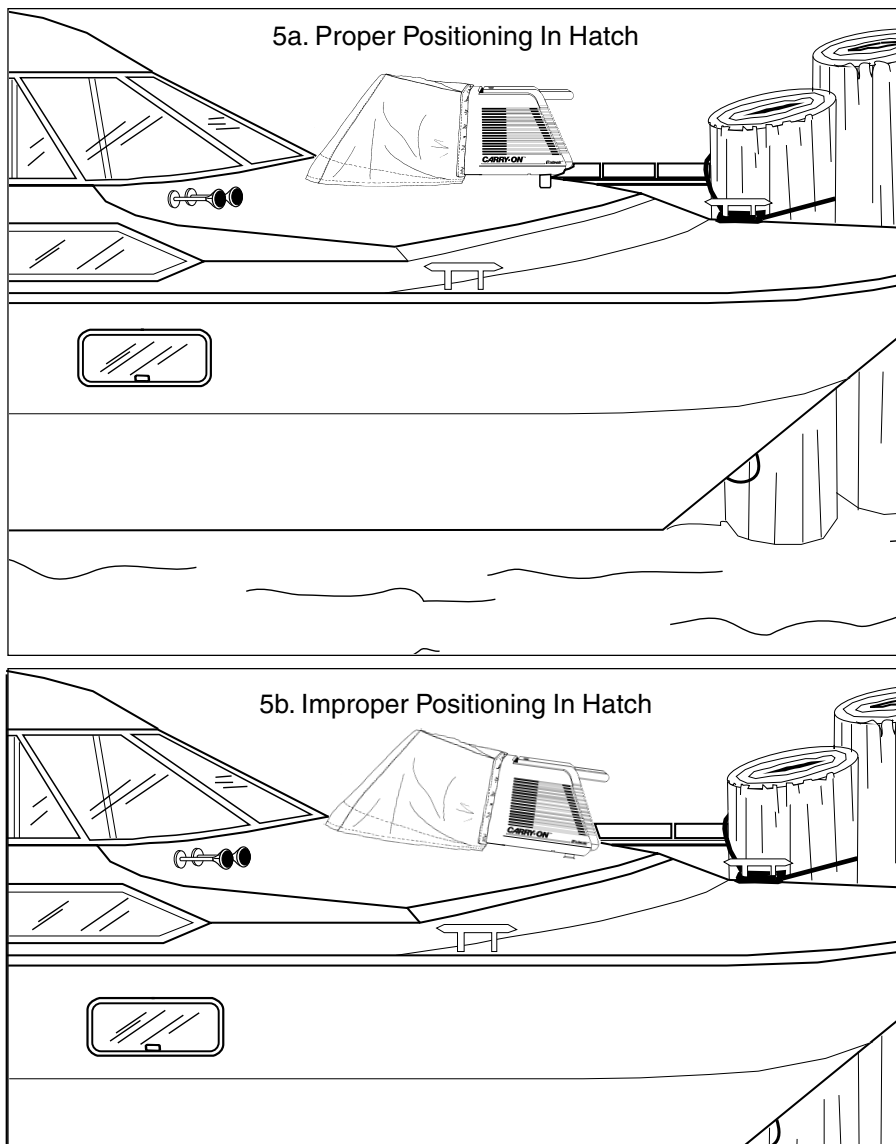


Figure 4. Close-up of Batten and Batten Pockets

1. Place in open hatch as shown. (See Figure 7.) Adjust Carry-On so that the hatch pad protects and insulates the hatch and the Carry-On unit. Make sure that movement of Carry-On is stifled due to wedging action of the hatch pad as it presses against hatch edge.

NOTE: Carry-On may be further secured using the D-ring type "tie downs".

2. Place hatch bag over Carry-On in grooves provided. Do not allow hatch bag to cover air intake vents or condensate drain. (See Fig. 3.)
3. Adjust the hatch bag over the hatch cover and hatch opening. The hatch bag is designed to keep outside air from entering the hatch while the Carry-On is in use. The fit should be as snug as possible. Use the battens provided to form the deckframe. Slide the battens into the pockets provided. Note that there is an alternative set of batten



Figures 5a & 5b. These figures show proper and improper positioning and leveling of the Carry-On unit in the boat hatch. It is very important that the Carry-On be level.

pockets for use with a smaller hatch. Should you decide to use the alternative batten pockets, you must cut the battens to size. A more weathertight seal can be achieved if you adapt the hatch bag to your boat using a Velcro® brand fastener, or snaps. Consult your marine dealer or canvas shop if you need help.

4. Level unit with adjustable cam and leg. Adjust the leg until the indicator bubble is away from the side of the level. It is not necessary to exactly center the bubble. If your hatch location is such that the Carry-On cannot be leveled with the leg fully extended, you must provide an additional means of support to allow the degree of leveling described. Under no circumstances should the Carry-On be operated more than 10 degrees off level, since this could cause loss of proper lubrication to internal parts and void the warranty (See Figures 5a & 5b).
5. A condensate drain is located under the unit (See Figure 6) in a position such that water removed from the air is allowed to drain onto the deck. Should you desire to drain this water to another area, a 3/8" I.D. (See Figure 6) hose fits the condensate drain. **NOTE:** The hose must fall continually with no "up" loops.
6. You are now ready to operate Carry-On. Follow the operating instructions.

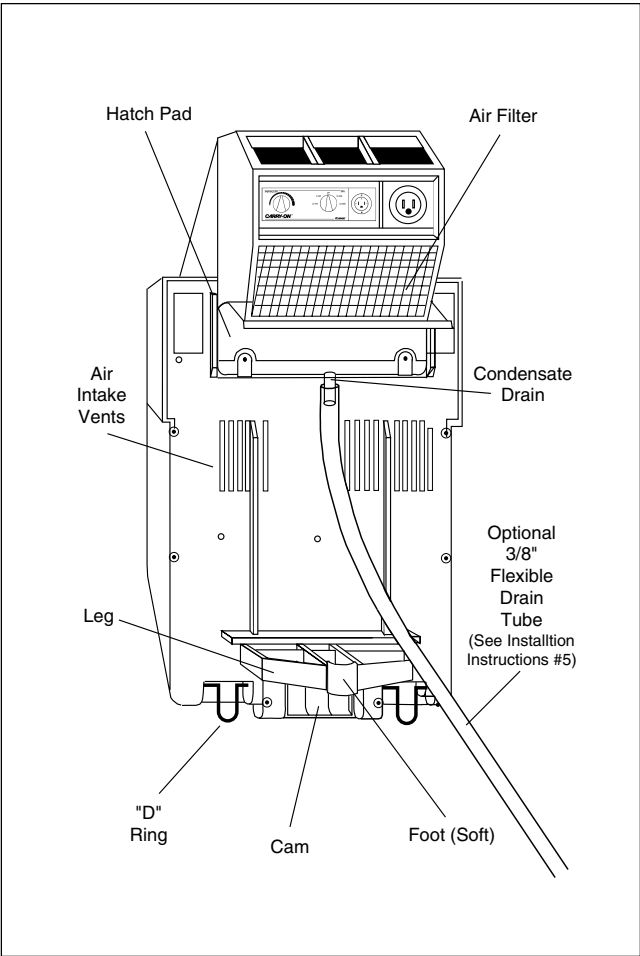


Figure 6. Bottom View of Carry-On

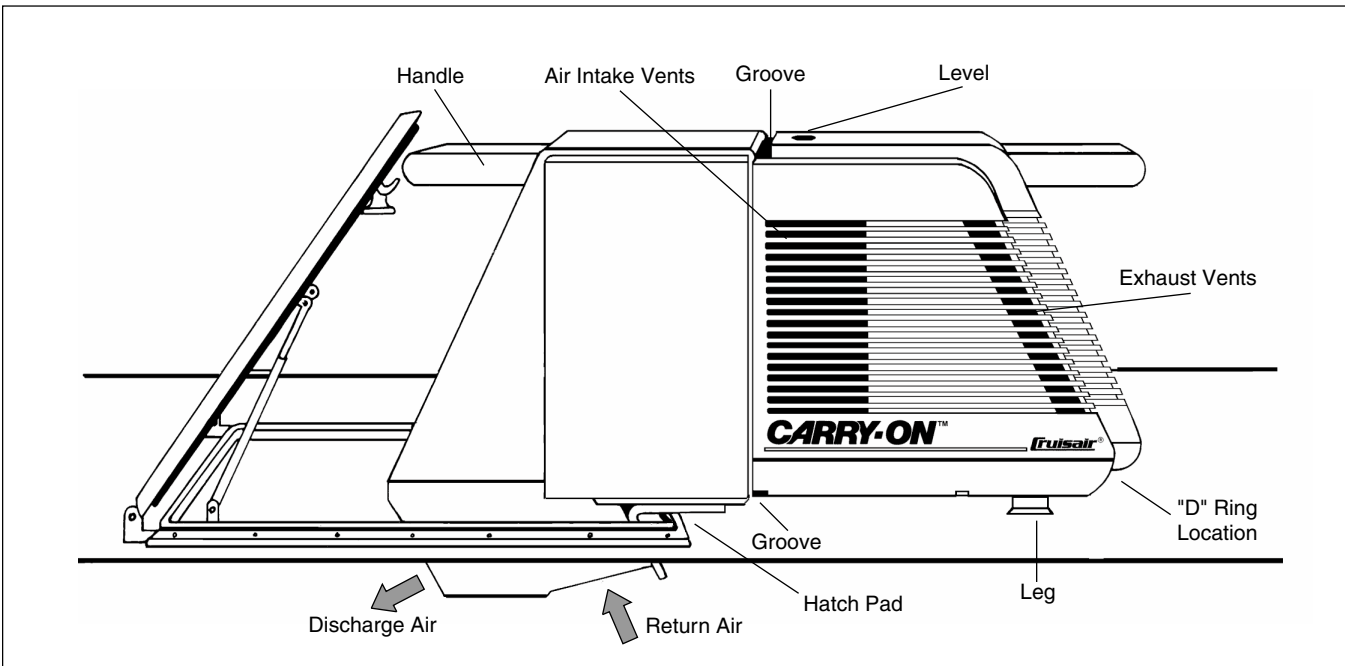


Figure 7. The Carry-On positioned in the hatch of a boat without the hatch bag.



Operation

1. Plug in Carry-On. (See Safe Operation of Carry-On pg. 4)
2. Set the thermostat at the coldest setting (fully clockwise).
3. Set the FAN/COOL selector at HI COOL.
4. Close all windows, vents, hatches, doors and exhaust fans in the area to be cooled by your Carry-On.
5. Once your cabin or boat has cooled, adjust the thermostat and fan speed to suit your comfort level.

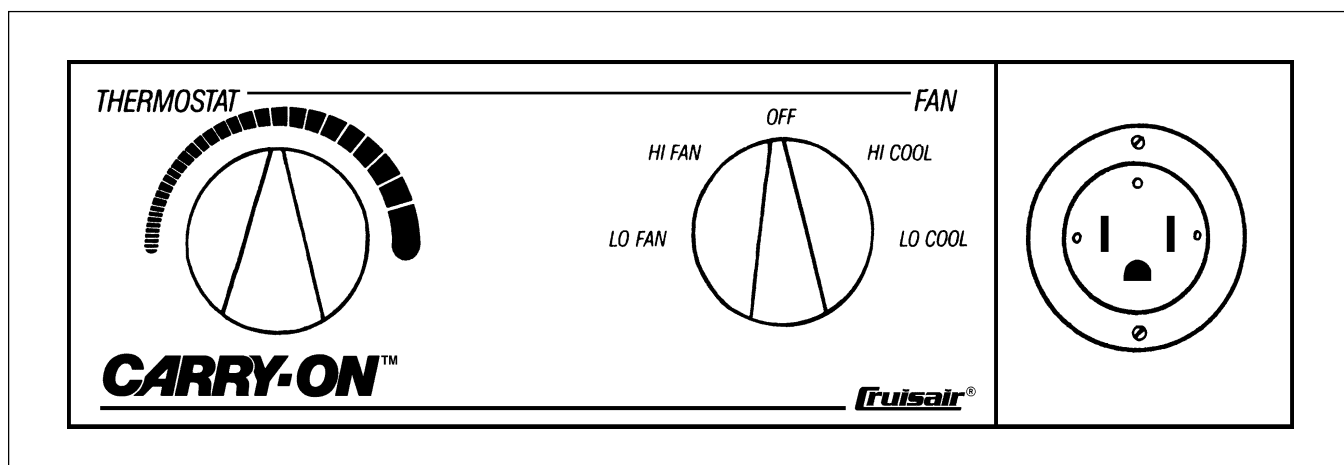


Figure 8. The Carry-On Control Panel



Operational Features

Automatic Thermostat

When either HIGH or LOW COOL MODE is selected, the thermostat automatically turns the compressor on and off in response to the cabin temperature. The fan will run continuously, circulating air in your boat.

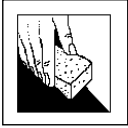
You may find it desirable, once the cabin is comfortable, particularly after sundown, to adjust the thermostat away from the coolest setting before retiring.

After some experience, you will know the optimum setting for your ideal sleeping conditions.

FAN/COOL Selector

The FAN/COOL selector control allows a choice of either cooling cabin air on HI COOL/LOW COOL, or circulating cabin air at existing temperature on HI FAN/LOW FAN. The HIGH/LOW settings in either FAN or COOL determine the air speed only.

Note: The Carry-On will dehumidify your cabin. As the humidity level drops, the cool air from the Carry-On will increase.



Care, Cleaning and Storage

Cleaning Instructions

Clean the Carry-On occasionally to keep it looking new and operating properly. Be sure to unplug the Carry-On before cleaning.

Air Filter

Remove filter. (See Figure 6.) Gently wash by hand in a solution of mild soap and warm fresh water. Allow water to drain and reinstall. Extra filters may be ordered from your dealer.

Cabinet

Wash with mild soap and fresh water. For tougher stains or scuffs a little SOFT SCRUB® may be used. Though Carry-On is designed for adverse conditions, do not intentionally spray water directly into air slots.

Hatch Bag (Hatch Seal) and The Carry-On Cover (Storage Accessory)*

The Hatch Bag and The Carry-On Cover are made out of a fabric called SUNBRELLA, and should be cleaned regularly before substances such as dirt, dust, etc. are allowed to accumulate on it and become embedded in the fabric.

Regular Cleaning: The fabric can be cleaned by simply brushing it off with a clean brush. It may also be hosed down and cleaned with a mild solution of a natural soap such as LUX® or IVORY LIQUID® in lukewarm water (not to exceed 100 degrees F.) Rinse thoroughly to remove soap. Do not use detergents!

For more stubborn cases: You may soak the Hatch Bag or the Carry-On Cover for approximately twenty minutes in a solution of no more than 1/2 cup (4 oz.) CLOROX® and 1/4 cup IVORY or LUX SOAP per gallon of warm water. Rinse thoroughly in cold water to remove all of the soap.

NOTE: Excessive soaking in CLOROX can deteriorate sewing threads. This method of cleaning may remove part of the water repellency and the fabric should receive an application of an air-curing fluorocarbon water repellent treatment such as DUPONT'S SBB® or SCOTCHGUARD®.

Storing Instructions

The Carry-On Hatch Bag and The Carry-On Cover should be cleaned, allowed to dry and stored in a dry, well-ventilated area.

When storing the Carry-On unit for long periods of time, it is advisable to purchase the Carry-On Cover (accessory), cover it with plastic or return it to the original carton. STORE IN OPERATING POSITION in a dry place. These precautions will prevent the accumulation of dust and airborne particles from lowering the efficiency of future performance or necessitating more frequent cleaning.



Troubleshooting Checklist

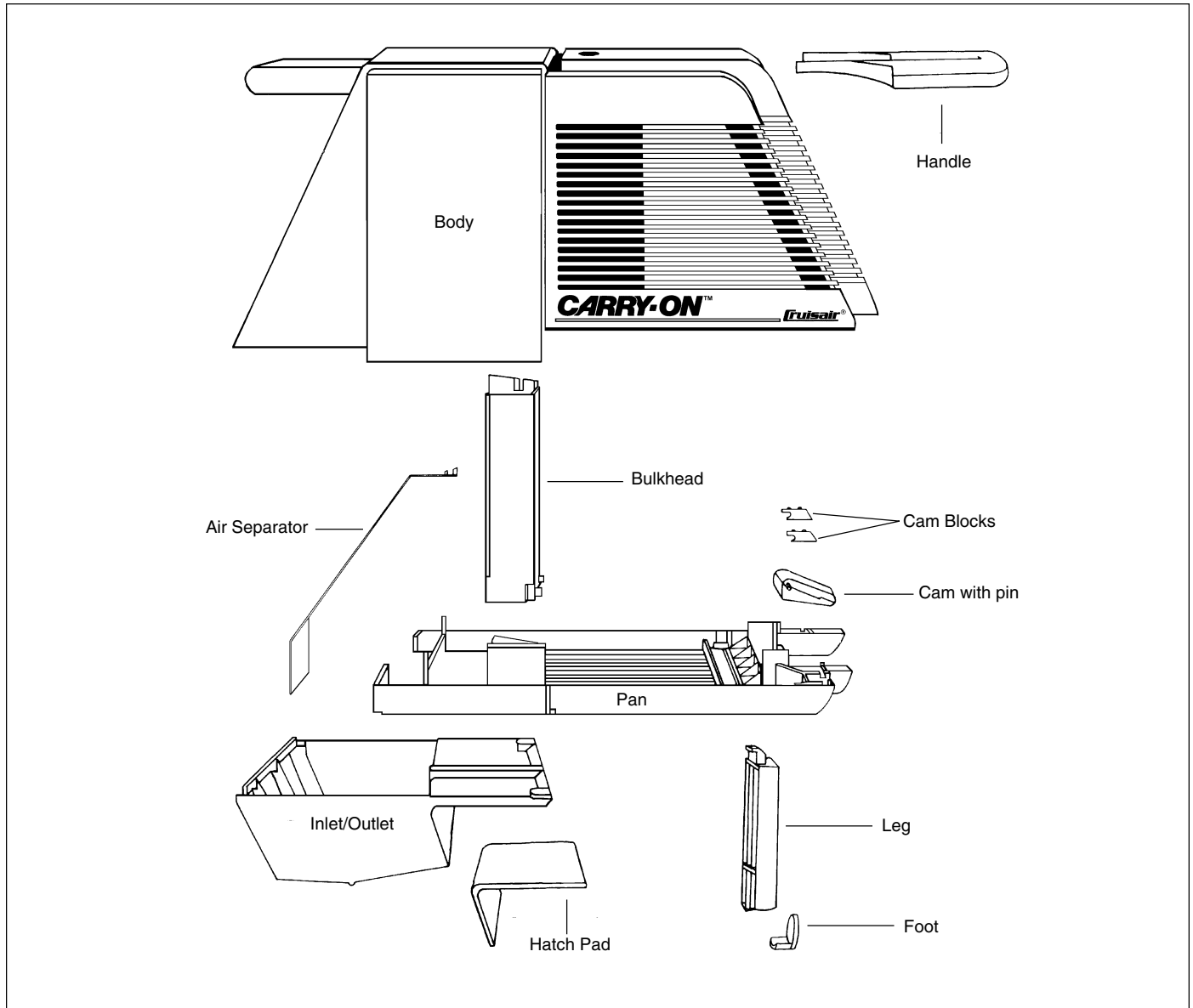
Before you call for service, review this list. It may save you time and expense. This list contains common occurrences that are not a result of defective workmanship or materials.

<i>Problem</i>	<i>Possible Cause</i>	<i>Action</i>
Unit will not operate	<ol style="list-style-type: none"> 1. Plug disconnected from receptacle or unit 2. Blown fuse or tripped circuit breaker 3. Thermostat set incorrectly 	<ol style="list-style-type: none"> 1. Connect firmly 2. Replace fuse with time delay type; or reset breaker, check for adequate size (minimum 20 amps) 3. Adjust thermostat to cooler setting
Air from unit does not feel cool enough in cool mode	<ol style="list-style-type: none"> 1. Selector switch on FAN 2. Thermostat set incorrectly 3. Boat temperature below 70° F 4. Air intakes on heat exchanger blocked or restricted. 	<ol style="list-style-type: none"> 1. Move to COOL 2. Turn clockwise to cooler setting. 3. Cooling may not begin until boat is above 70° 4. Be certain all air intake vents (See Figure 6) are clear of hatch bag or other obstructions
Carry-On operating, but cabin failing to cool as normally the case	<ol style="list-style-type: none"> 1. Dirty air filter 2. Thermostat set too cold for night time cooling 3. Air intakes on heat exchanger blocked or restricted. 	<ol style="list-style-type: none"> 1. Clean filter 2. Turn selector switch to FAN position for three minutes and reset thermostat to a warmer setting 3. Be certain all air intake vents (See Figure 6) are clear of hatch bag or other obstructions.
Carry-On turns compressor on and off rapidly	<ol style="list-style-type: none"> 1. Dirty air filter 2. Outside temperature extremely hot 	<ol style="list-style-type: none"> 1. Clean air filter 2. Turn to HI COOL
Water dripping inside cabin through hatch	<ol style="list-style-type: none"> 1. Improper installation 2. Condensate drain blocked 3. Bag over condensate drain 4. Blockage in hose 	<ol style="list-style-type: none"> 1. Tilt Carry-On to accommodate angle of condensate drain 2. Clean out condensate drain 3. Adjust bag to clear drain 4. Clear hose; check downhill routing of hose; You may connect a 3/8" I.D. plastic hose to the condensate drain and send that water overboard
Water dripping outside on weatherdeck	<ol style="list-style-type: none"> 1. Condensate drain-normal 2. Compressor area-normal 	<ol style="list-style-type: none"> 1. Drains are provided to allow rainwater to drain; Some drainage may occur due to water condensing in compressor spaces

If you need service after reviewing the preceding troubleshooting checklist, call your dealer.

Replacement Parts List

ATTENTION: Owners or Independent Service Companies: Use the following guide if replacement parts are required.



Part No. Description

- 1013 CO-Thermostat Air Temp (Ranco)
- 1014 CO-Switch 2-SPD Short
- 1025 CO-Plug 125V 15A Male
- 1027 CO-Fan Motor 115V
- 1050 CO-Fan Motor 220V Flex MT
- 1054 CO-Plug 220V Female
- 4001 CO-Filter
- 4010 CO-Level Acrylic Rnd
- 4012 CO-Hatch Bag
- 4013 CO-Batten 23" X 1/4" LDPE Rod
- 4014 CO-Batten 25.5" X 1/4" LDPE Rod
- 4018 CO-Fan Blade Assy - Evaporator (Resil)
- 4019 CO-Fan Blade Assy - Cond. Alum Hub
- 5005 CO-Cam W/Pin

Part No. Description

- 5011 CO-Bulkhead
- 5012 CO-Pan
- 5017 CO-Foot
- 5023 CO-Shroud Condenser
- 5024 CO-Knob Blk Plastic W/White Pointer
- 7010 CO-Evap. Assembly 9-9 13FPI
- 7011 CO-Condenser Assembly
- 7015 CO-Compressor Panasonic 115V
- 7050 CO-Compressor Panasonic 220V 50HZ
- 9510 CO-Body Assembly (PL-0001)
- 9511 CO-Leg Assembly (PL-0002)
- 9512 CO-Inlet/Outlet Assembly (PL-0004)
- 044801 CO-Overload Assy - 115V (For Pan Comp)
- 4040135 Capacitor Run 25MFD, Carry-On

Owner's Limited Warranty

CARRY-ON™ Air Conditioners **Truisair®**

As hereinafter described, Taylor Made Environmental, Inc. ("TME") limits the duration of any implied warranty to the duration of the express warranty provided herein and also disclaims any liability for consequential damages arising from any application, installation, use or malfunction of any warranted product.

Section I: What does the limited Warranty cover?

Products manufactured by Taylor Made Environmental, Inc. ("TME") are under limited warranty to be free from defects in workmanship or materials under normal use and service with the obligation of TME under this limited warranty being limited to replacing or repairing any components(s) which shall disclose defects within one year from date of purchase and which upon examination by TME or an authorized TME Service Center shall appear to the satisfaction of MPI to be defective or not up to specifications. For warranty claims/repair, please contact Taylor Made Environmental, Inc., 8433 Erle Road, Mechanicsville, Virginia 23116 or call (804) 746-1313.

This limited Warranty is made in lieu of all other express warranties, obligations, or liabilities on the part of TME. In addition, TME shall not be responsible for, without limitation, any incidental or consequential damages. In those instances in which a cash refund is made, such refund shall effect the cancellation of the contract of sale without reservation of rights on the part of the purchaser. Such refund shall constitute full and final satisfaction of all claims which purchaser has or may have against TME due to any actual or alleged breach of warranty, either express or implied, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. Some states do not allow the exclusion or limitation of incidental or consequential damages so the foregoing limitation or exclusion may not apply to you. The terms and conditions of the warranty shall be governed by the laws of the Commonwealth of Virginia.

The Dealer is not an agent for TME except for the sole purpose of administering the above warranty to the extent herein provided, and TME does not authorize the dealer or any other person to assume for TME any liability in connection with such warranty, or any liability or expense incurred in the replacement or repair of its products other than those expressly authorized herein. TME shall not be responsible for any liability or expense except as is specifically authorized and provided in this section.

This warranty gives you, the purchaser, specific legal rights, and you may also have other rights which vary from state to state. You also have implied warranty rights, including an implied warranty of merchantability, which means that your product must be fit for the ordinary purposes for which such goods are used. The duration of any implied warranty is limited to the duration of the foregoing express warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty extends only to the original purchaser (or, in the case of resale by TME, to the purchaser from TME) of TME warranted equipment and any other such person who is entitled, under applicable state law, to enforce against TME the obligations of the warranty.

Section II: What does the limited Warranty not cover?

The limited warranty and any implied warranty shall not apply to:

1. Failures resulting from abuse, accident, fire or submergence or failure to adhere to the foregoing installation, operation and care and cleaning instructions provided by TME.
2. Any part manufactured by TME which shall have been altered.

GENERAL: Since it is the responsibility of the consumer to establish the warranty period by verifying the original purchase date, Taylor Made Environmental, Inc. recommends that a bill of sale, or some other appropriate record be kept for that purpose.

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WARNING

Taylor Made Environmental, Inc. (TME) manufacturers of Cruisair, Grunert, Marine Air and Sentry Products, makes the following safety warnings concerning the application, installation, use and care of its products. Although these warnings are extensive, there may be specific hazards which may arise out of circumstances which we have not outlined herein. Use this as a guide for developing an awareness of potential hazards of all kinds. Such an awareness will be a key factor in assuring your SAFETY and comfort.

ELECTRICITY - Many TME products operate on 115, 230 or 440 volt AC power. Such voltages can be LETHAL; therefore, the chassis, cabinets, bases, etc., on all components must be grounded together and connected to the vessel's grounding system. Sparks can occur as switches, thermostats and relays open and close in the normal operation of the equipment. Since this is the case, ventilating blowers for the removal of hazardous fumes or vapors should be operated at least 5 minutes before and during operation of any TME product or group of TME products. All electrical connections must be covered and protected so accidental contact cannot be made by persons using the equipment, as such contact could be LETHAL.

ELECTROLYSIS - Electrical leakage of any component can cause electrolytic deterioration (electrolysis) of thru-hull components which could result in leakage serious enough to sink a vessel which could result in loss of life. All TME components must be kept clean and dry and checked periodically for electrical leakage. If any electrical leakage is detected, the component should be replaced or the fault causing the leakage corrected before the component is put back into service.

GAS - CRUISAIR, MARINE AIR and GRUNERT components utilize R134a refrigerant, tetrafluoro-ethane or R404A, R125/R143a/R134 (44%/52%/47%) which are non-toxic, non-flammable gases; however, these gases contain no oxygen and will not support life. Refrigerant gas tends to settle in the lowest areas of the compartment. If you experience a leak, evacuate all personnel, and ventilate area. Do not allow open flames in the area of leaks because refrigerant gas, when burned, decomposes into other potentially LETHAL gases. Refrigerant components operate at high pressure and no servicing should be attempted without gloves, long-sleeved clothing and eye protection. Liquid refrigerant gas can cause severe frost burns to the skin and eyes.

VENTILATION - To cool or heat air, CRUISAIR, MARINE AIR and GRUNERT components are designed to move air through a heat exchanger by a blower or propeller fan. This design necessarily produces a suction on one side of the air handling component and a pressure on the other side. Air handling components must be installed so that the suction-pressure action does not: (1) pressurize an area to the extent that structural failure occurs which could cause harm to

occupants or bystanders, or (2) cause a suction or low pressure in an area where hydrogen gas from batteries, raw fuel vapor from fuel tanks, carbon monoxide from operating propulsion engines, power generators or heaters, methane gas from sewage holding tanks, or any other dangerous gas or vapor could exist. If an air handling unit is installed in such a manner that allows potentially lethal gases or vapors to be discharged by the air handling unit into the living space, this could result in loss of life.

Maximum protection against the introduction of dangerous gases or vapors into living spaces can be obtained by providing living spaces which are sealed from all other spaces by use of airtight bulkheads and decks, etc., and through the introduction of clean air into the living space. Bear in mind that the advent of air conditioning, whether it be for cooling or for heating, naturally leads to the practice of closing a living space tightly. Never close all windows and doors unless auxiliary ventilating systems, which introduce clean outside air into the living space, are used. Always leave enough window and door openings to provide adequate ventilation in the event potentially lethal gases or fumes should escape from any source.

CONDENSATE - All cooling units produce water condensate when operating on the cooling cycle. This water must be drained from the cooling unit overboard. If condensate is allowed to drip on a wooden structure, rotting or decay and structural failure may occur which could result in loss of life. If condensate is allowed to drip on electrical components, deterioration of the electrical components could result in hazardous conditions. When an air conditioning system is in operation, condensate drains may be subjected to negative pressure. Always locate condensate drains as far as possible from points where engine waste and other dangerous gases are exhausted so no such dangerous gases can be drawn into the condensate drains.

Warning

Never sleep in a closed area on a boat when any equipment, which functions as a result of the combustion of a volatile fuel, is in operation (such as engines, generators, power plants, or oil-fired heaters, etc.) At any time, the exhaust system of such devices could fail, resulting in a build-up of LETHAL gases within the closed area.

Warning Revised: 7-6-99



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