



Pilot House Defroster

Installation, Operation & Maintenance Manual



Dometic Marine
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INTRODUCTION

Congratulations on the purchase of your Dometic Pilot House Defroster! This manual will provide necessary information for the proper installation, operation, and maintenance of your system. Dometic units are well-engineered, well-built, and thoroughly tested at the factory. They will provide many years of trouble-free operation if properly installed, operated, and maintained. And if you need help, you have the comfort of knowing you have the marine HVAC industry's largest world-wide network of factory trained dealers to promptly and professionally service your equipment. Moreover, you are backed by Dometic's well-earned reputation for above-and-beyond, world-class customer care.

SAFETY

RECOGNIZE SAFETY SYMBOLS, WORDS AND LABELS

The following symbols and labels are used throughout this manual to indicate immediate or potential safety hazards. It is the owner's and installer's responsibility to read and comply with all safety information and instructions accompanying these symbols. Failure to heed safety information increases the risk of personal injury, property damage, and/or product damage.

**WARNING**

The word "WARNING" indicates hazards or unsafe practices which **COULD** result in severe personal injury or death.

**CAUTION**

The word "CAUTION" indicates hazards or unsafe practices which **COULD** result in minor or moderate personal injury, product damage, or property damage.

OPERATIONAL SAFETY

Installation and servicing of this system can be hazardous due to system pressure, moving parts, heat, and electrical components. Only trained and certified service personnel should install, repair, or service equipment. When working on this equipment, always observe precautions described in the literature, tags, and labels attached to the unit. Follow all safety codes. Wear safety glasses and work gloves and place a fire extinguisher close to the work area. Do not work alone.

**WARNING**

Never install your defroster in the bilge or engine room areas. Ensure that the selected location is sealed from direct access to bilge and/or engine room vapors.

Failure to comply may allow bilge or engine room vapors to mix with the air conditioner's return air and contaminate living areas which may result in injury or death.

**WARNING**

Do not locate the defroster or ducting in locations where they could become conduits for hazardous fumes. For example, do not locate the inlet of a fresh air makeup unit such that it could suck in exhaust fumes or any other hazardous fumes.

**WARNING**

Electrical shock hazard. Disconnect voltage at main panel or power source before opening any cover.

**WARNING**

To minimize the hazard of electrical shock and personal injury, defrosters must be effectively grounded. Refer to installation guidelines for further information.

**WARNING**

The electric heaters inside the defrosters can cause severe burns. After disconnecting power to the heater, allow the blower to continue to run for 5 minutes at high speed before working near the heater. If the blower cannot be used to cool the heater, then let the heater cool for 2 hours after disconnecting power before working near the heater.

**WARNING**

The blowers have moving parts that can cause severe injuries. Never touch a spinning blower wheel. Always turn the blower off and allow it to come to a complete stop before working near it. Always wear eye protection. If a screw or other small object hits the spinning blower wheel, the small object will become a dangerous projectile. Note that drafts can cause the wheel to begin to spin even when there is no power to the blower. Thus, even an unpowered blower wheel can cause injury. Eliminate the draft and wait for the blower wheel to stop spinning.

HOW IT WORKS

When the temperature inside the vessel is warmer than the temperature outside, water molecules tend to condense on the inside surface of the windows and windshields, obscuring visibility. Defrosters combat this phenomenon so that drivers can see through the windows and operate the vessel safely.

The defroster uses a blower and heating coil to supply warm, high velocity air to the windshield. Vents are placed directly below the windshield, facing up toward the ceiling. The air will warm up the temperature of the windows, removing any condensation that may have built up. The higher the velocity of the air on the windshield surface the faster the windshield will defrost.

APPLICATION & INSTALLATION STANDARDS

The application and installation must comply with the applicable standards of American Boat and Yacht Council (ABYC). All ABYC recommendations must be followed, but those sections dealing with breakers, branch circuit protection, circuit ampacity, grounding, and bonding are especially noteworthy.

ABYC standards are available from:

American Boat and Yacht Council
613 Third Street, Suite 10
Annapolis, MD 21403 USA
Phone: +1 410-990-4460
Fax: +1 410-990-4466
www.abycinc.org

INSTALLATION

A defroster will only perform as well as the quality of the installation. This consists mainly of ducting and wiring, which can be handled by most boatyards. Each aspect of the installation should be thoroughly planned to minimize time-consuming mistakes and maximize performance.

MOUNTING

LOCATION OF DEFROSTERS

Depending on available installation space, the defroster can be mounted either vertically or horizontally. See Figure 1 on page 3.

The defroster is furnished with mounting legs for ease of installation. These legs contain vibration-isolation grommets to help eliminate noise. The legs can be positioned with the unit situated in either horizontal or vertical orientations. Additionally, the legs can be removed completely to minimize the overall dimensions of the unit. This is not recommended due to the loss of the vibration isolation.



CAUTION

The defroster contains position-sensitive thermal overloads. The unit must only be mounted in one of the recommended positions as shown in Figure 1. Mounting the unit oriented in a position not recommended may cause a fire or a potential burn hazard.

SAFETY FIRST!

Never install a defroster in the bilge or engine room areas. Ensure that the selected location is sealed from direct access to bilge and/or engine room vapors.

Do not locate the defroster or ducting in locations where they could become conduits for hazardous fumes. For example, do not locate air inlets or discharges near sources of exhaust fumes.

Refer to “Operational Safety” on page 1.

SOLID AND LEVEL

The defroster must be securely mounted to a strong, unmoving structure. The defroster will tip with the boat when the boat tips, but when the boat is level, the defroster must also be level.

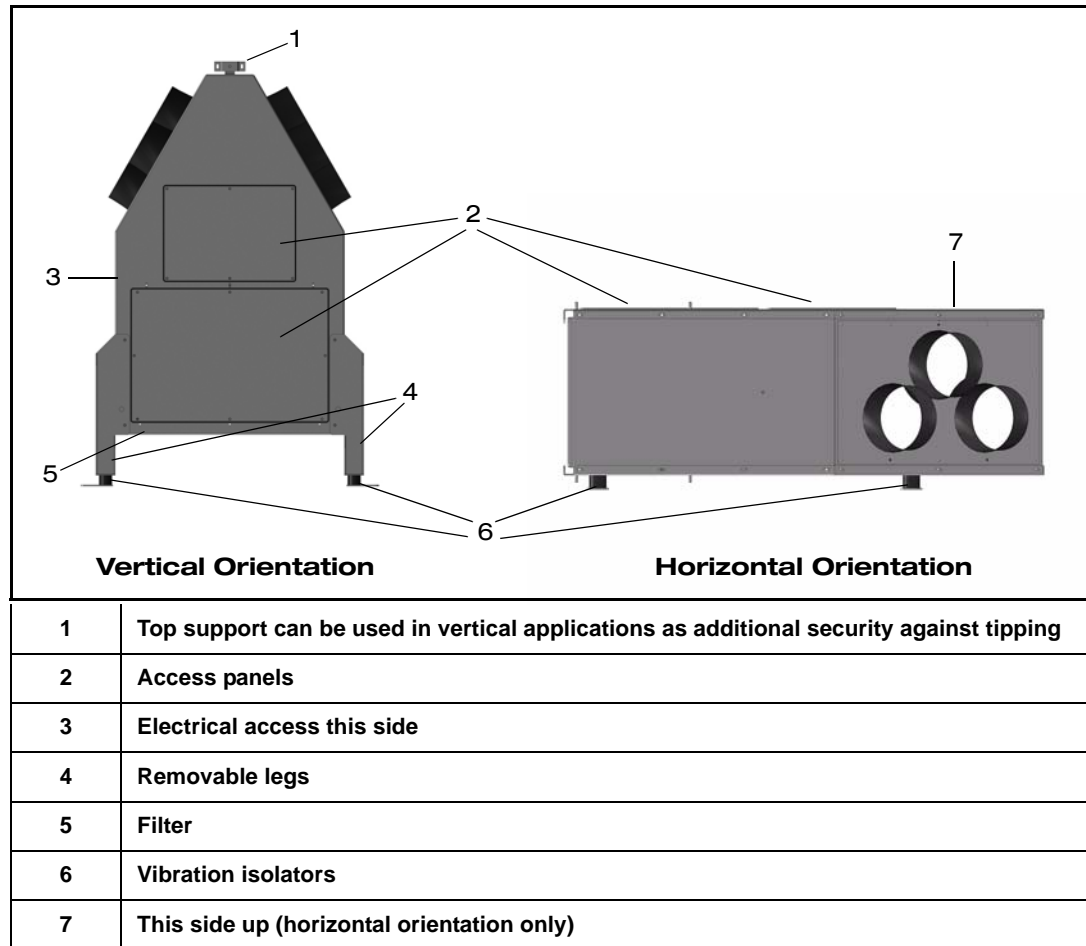
ACCESS

Select a location that allows good access for service, visual inspection, and removal of the unit. It is especially important to make sure that the filter can be conveniently replaced. The electric heat, manual thermal overload, blower, and duct connection must all be accessible for service.

AUDIBLE NOISE

Finding good locations for the unit, duct, diffusers, and return-air grille is a good start towards a quiet room. For details see "Minimizing Audible Noise" below.

Figure 1: Recommended Mounting Positions - Vertical or Horizontal



MINIMIZING AUDIBLE NOISE

Air movement causes noise. Thus, a certain amount of noise is an unavoidable consequence of any air-moving device. The more air is moved, the louder the noise will be. However, some ways of moving air cause less noise than others.

KEY PRINCIPLES

- Rigid, heavy materials tend to reflect airborne noise. Soft, THICK materials tend to dissipate a small fraction of the noise passing through them. Thus, these two types of material tend to work well together, especially when layered. The (first) layer of soft material should be between the noise source and the heavy, rigid layer.
- In general, anything that causes turbulence or restriction is likely to create noise. Exception: There are sound absorbing boxes and duct configurations that are restrictive and perhaps even turbulent, but their net effect is to REDUCE the transmitted noise.
- Sharp transitions tend to create more noise than smooth transitions.
- Slow moving air tends to make less noise than fast moving air. Thus, large duct tends to create less noise than small duct. (However, do not grossly oversize the duct if it means creating sharp transitions.) Large diffusers tend to create less noise than small diffusers. However, do not grossly over-size the diffuser. Grossly oversizing a diffuser will reduce the velocity and momentum of the leaving air (its "throw"). This can cause the air in the room to be poorly mixed.
- Straight duct tends to create less noise than bends.

- A gradual bend (large radius) in the duct tends to create less noise than a sharp bend (small radius).

PRACTICAL SUGGESTIONS

- **Vibration:** Transmission of vibration generated by defrosters is rarely if ever an issue. But, make sure the defroster is securely fastened to a rigid, massive structure. If vibration isolators are included with the defroster, use them. Aside from that, focus on airborne noise.
- **Blower type:** Consider using units with DC blowers. At low speed DC blowers are quieter than standard blowers.
- **Return-air grilles:** Putting the unit close to the return-air grille is usually a good idea. But if noise is critical, it may be better to put it at a slight distance. Airborne sound likes to travel down a short, straight path with heavy, rigid walls that channel the noise. So, make the distance long. Include one or more 90-180° changes of direction. Use heavy, rigid walls to keep the noise from escaping, but line these walls with a soft, sound-absorbing material. Cautions: Be sure the unit is drawing its air from the space it is conditioning. Be sure that the return-air path is generously sized. (The cross-sectional area at every point in the return-air path should be at least as large as the minimum return-air grille size. Any restriction here will adversely affect the units airflow and performance, and will tend to cause air to be drawn in from undesirable places.) Be sure the unit is still accessible for service and removal. Be sure that the materials you use are suitable from a flammability and smoke-generation standpoint. The filter can be remote from the unit, but be sure that air cannot bypass the filter. Be sure the filter is readily replaceable.
- **Duct length:** Most defrosters should have at least five feet (1.52 m) of duct. This length reduces motor noise and blower vane tip noise transmitted to the space.
- **Bends:** ONE 90° bend in the supply duct is desirable, because it will attenuate noise that was generated upstream. It should be downstream of the unit and any transition boxes. Each additional elbow will provide successively decreasing noise attenuation, and the benefit of any additional noise attenuation is usually outweighed by the additional noise generated by the restriction.
- **Blower speed:** Do not use duct work or diffusers to reduce airflow. This will create noise. Instead, reduce the blower speed.
- **Experiment:** The more realistic the relevant conditions are, the more significant the results will be. Some top-quality yacht builders routinely assemble mock systems outside the vessel. They can easily modify it and try different things because it is not installed in a boat. They know how well a given duct design will work BEFORE they install it, perhaps even before the layout of the boat is finalized.

AIR DISTRIBUTION

Good air flow is critical for the performance of the entire system. It is highly dependent on the quality of the ducting installation. The ducting should be run as straight, smooth and taut as possible. Minimize the number of bends.

THERMAL INSULATION

Comfort and Efficiency: Thermal insulation is one of the most cost-effective improvements to comfort and efficiency that can be made. Once insulation is installed, it is virtually maintenance free. It costs nothing to operate, and has no moving parts. Thermal insulation also tends to dampen audible noise. NEVER underestimate the importance of good insulation! Insulation is NOT just for ducts.

Vessel Envelope: The entire vessel envelope should be insulated. Insulation is especially important for the semi-horizontal areas exposed to the sun. Even areas below the water-line need to be insulated. This is especially important for boats in cold water. If there is no insulation or no vapor barrier, then cold seawater temperature will make the hull cold, and water vapor from inside the warm boat will condense on the hull and become a breeding ground for mold and mildew.

R-Value: Most duct should be at least R4 (1" fiberglass). Duct in very hot spaces, such as above or in front of a flybridge, should be at least R6 (1.5" fiberglass). And, the hot space itself should be insulated with at least R4 insulation. Return ducts in semi-conditioned spaces do not require insulation unless there is reason to believe the temperature in a given space may be more than 5° warmer than the return duct. The most critical feature is that the supply duct be adequately insulated. This not only keeps the supply air cold, but it prevents condensation from forming.

Do Not Compress: Do not compress the insulation. For example, do not use tie wraps or wire to support insulation. The localized compression will cause poor performance, and eventually damage the insulation. Use broad straps to support the duct. Ideally, support for flex duct should wrap around the bottom half of the duct, and should be at least 6" long. This will spread the weight out so the insulation will not be pinched.

ATTACHING FLEX DUCT TO MOUNT RING

1. Pull back the fiberglass insulation exposing the inner duct hose.
2. Slide the inner duct hose around the mount ring until it bottoms out. (The "mount ring" is the plastic ring on the discharge of the unit.)
3. Screw 3 or 4 stainless steel sheet metal screws through the duct hose into the mount ring. Make sure to catch the wire in the duct hose with the heads of the screws.
4. Wrap duct tape around the ducting and ring joint to prevent any air leaks. Do NOT use mastic on the defroster, because it will make servicing the unit difficult.
5. Pull the insulation back up over the mylar to the base of the ring and again secure with duct tape.

OVAL DUCT RINGS

When screwing duct to an oval duct ring, use washers with the screws. This will help make sure the wire does not shift out from under the screw head. The screw will pull through the duct if the wire shifts out from under the screw.

DUCT INSTALLATION

CRITICAL: Ducting **MUST** be installed **BEFORE** other systems. Otherwise, conduit, wiring, plumbing, etc. will prevent the duct from going in properly. The resulting compromises will decrease performance and increase noise.

All ducting should:

- Be appropriately sized for each application.
- Run as smoothly and be as taut as possible.
- Have as few bends or loops as possible.
- Be securely fastened to prevent sagging during boat operation.
- Have all excess ducting lengths trimmed off.
- Not be flattened or kinked.
- Be appropriately insulated, especially in hot or humid spaces (hull side, mechanical compartments, fly bridge ceilings, etc.)

SIZING OF DUCTS, GRILLES, AND PLENUMS

The lowest acceptable velocity for a supply grille on a windshield is 500 feet per minute (152 m per minute). Thus, the maximum recommended area of supply air grille(s) is 88 square inches (568 square cm) of free area. The narrow direction should be perpendicular to the windshield. A minimum of 4 inches (10 cm) is recommended for the narrow direction of these vents. These vents should be evenly spread apart to maximize the air circulation on the windshield.

The cross-sectional area of the supply air ducts must be at least 58 square inches (374 square cm).

Larger duct size may be needed when the duct runs are longer than 20 feet (6 m), have more than three 90° bends, or have a transition box.

FREE AREA

Free area is the area NOT occupied by the vanes of the grille. Free area is the total cross-sectional area through which the air can actually pass. For some grilles, especially some "linear diffusers", the free area may be considerably less than the face area of the grille.

CALCULATING AREA

1. The area of a square or rectangle in square inches (or square cm): Multiply the length by the width.
2. The cross-sectional area of a round duct in square inches (or square cm): The radius equals half the internal diameter. Multiply the radius (r) by itself (r^2), and multiply that number by 3.1416 (pi). The result is the cross-sectional area of the duct.

SUPPLY-AIR GRILLES

Locate the supply-air grille directly beneath the windows and windshields. Airflow should be directed upwards towards the roof across the windshield.

RETURN-AIR GRILLES

- Locate the return-air grille as low as possible.
- The return-air grille should be very close to the defroster to provide minimally restricted airflow to the coil.

- If a filter is put in the return-air grille, then it is important to force ALL the air going to the unit to go through that filter. Carefully seal up all gaps where air might bypass the filter. If a filter is NOT put in the return-air grille, then the filter must be attached to the defroster.
- The return-air grille must be appropriately sized or it will restrict the airflow.
- The return-air grille must have free area of at least 130 square inches (839 square cm).

ELECTRIC HEAT

**WARNING**

DANGER! ELECTRIC SHOCK! Be sure to turn off power at the circuit breaker before attempting to work on or near the heater or overloads.

DANGER! BURNS! Be sure to let the heater cool off before working on or near it. With the heater off, let the blower run for five minutes to cool the heater down before working on or near it. If the blower cannot run, let the heater cool off for 2 hours after disconnecting power.

The heater assembly has two thermal overloads. One automatically resets, and it may cycle on/off for various reasons. The other must be manually reset. (Older models may have a thermal link instead of a manual overload. Thermal links must be replaced if they trip. They are like fuses. They cannot be reset.)

If power is cut to the unit while the heater is operating, the manual overload may trip. If the manual overload trips for any OTHER reason, it must not be reset until the root cause is found and corrected. Note that the overload cannot be reset until it has sufficiently cooled.

SMELL: It is normal to detect an odor the first few times you use a heater every year.

ELECTRICAL

WIRING DIAGRAM

Connect power and accessories per the wiring diagram that came with the unit. The diagram will normally be found in the electric box.

MAX FUSE - CIRCUIT BREAKERS

"Max fuse" is indicated on the unit's label. It is the maximum allowable size for the HACR breaker or fuse. Smaller sizes are allowable and may be desirable. However, sizing the breaker too small invites nuisance trips. Breakers are usually sized at 175% to 200% of the current load. Always check with regulation codes (ABYC or Coast Guard) for final sizing of breakers or wiring.

MCA -MINIMUM CIRCUIT AMPACITY

MCA is indicated on the unit's label. Your wiring must be designed to continuously carry this electrical current. Be sure to read ABYC concerning wire type, size, ambient conditions, etc.

ELECTRICAL GROUNDING

**WARNING**

Failure to properly ground the unit can result in injury or death.

All units must be effectively grounded to minimize the hazard of electric shock and personal injury. This should be done by connecting a ground wire to the ground inside the electric box. Custom units, such as those lacking an electric box, may require other methods of grounding. Ground any given unit as indicated by the wiring diagram that comes with it. AC (alternating current) grounding (green wire) must be provided with the AC power conductors and connected to the ground terminal (marked "GRND") at the AC power input terminal block of the unit(s), per ABYC standard E-8, or equivalent.

CONTROLS

The unit is supplied wired to accept incoming power to a terminal bus located inside the unit. The electrical connections can be accessed through the side access panel on the unit.

A two-position on/off electrical switch is required to operate the unit (not provided). Mount the switch in a location that is easy to access and safe from flammable and electrical hazards.

START-UP

FINAL DEFROSTER INSPECTION

AIR DISTRIBUTION SYSTEM

- Is there unobstructed airflow from the return-air grille to the coil?
- Is there a lint screen or filter in the return-air path where it is accessible for regular cleaning?
- Have flexible ducts been pulled tight to remove bends and constrictions?
- Are grills and ducts correctly sized for the system?
- Have all gaps been plugged to prevent air from bypassing the return-air grille's filter?

CONTROLS AND WIRING

- Are all wiring harnesses properly secured?
- Are wiring connections made, color to color, correctly at terminal strips?
- Are plugs and pins properly aligned and securely connected?
- Are all components properly grounded?
- Are the breakers and wire of the correct size and type?
- Are terminal strips located in a dry, safe place and properly covered?

OPERATION

CONTROLS

The defroster operates using an on/off switch. The defroster only runs in one mode while under power, and this mode activates both the heater and the blower.

CIRCUIT BREAKERS

When the unit is on, both the electric heater and the blower motor become energized.

- If a thermal overload trips due to a unit malfunction, power to the electric heaters will disconnect while allowing the blower to continue to run and cool the unit.
- If the manual overload trips, it will need to be manually reset in order for the unit to function. The overload is accessible through the front access panel.



CAUTION

Ensure the power at the breaker is off before accessing thermal overloads for reset.

MAINTENANCE

MONTHLY

AIR FILTERS

Dirty filters will reduce airflow and capacity. At least once a month, check the lint screen or filter behind the return-air grille or on the face of the defroster. Replace or clean if necessary.

RUN THE SYSTEM

It is recommended that systems be operated regularly.

TROUBLESHOOTING

**CAUTION**

Do not leave any safeties switched/jumped out. They are safety devices designed to protect people. Damage to the defroster or personal injury could result if the safety devices are not working.

**CAUTION**

If a safety trips, it is important to find out **WHY** it tripped and fix the root problem. Not correcting the source of the problem is considered negligence and is **NOT** covered under warranty. **DO NOT IGNORE THE SAFETIES!** Find and fix the root cause.

BLOWER NOT RUNNING

- Check the circuit breaker. Turn it completely off, then back on.
- If it trips again immediately, then do **NOT** turn the breaker back on—there is likely a dangerous short-circuit. Call a trained technician to locate and fix the short-circuit.
- Read the control manual. Are you sure the blower **SHOULD** be running?
- If there is voltage at the blower but it is not running, then the blower motor or capacitor (if any) is bad.

BLOWER RUNNING, BUT NOT HEATING

- Airflow is low:
 - Dirty filter - at the return-air grille or on the unit
 - Blower is at low speed
 - Low voltage (more than 10% below the rated voltage) to the blower. Note: Many controls adjust blower voltage to adjust the airflow. Multi-meters often have difficulty reading the "chopped" voltage accurately. Read your control manual for details on fan speed control.
 - Restriction in the ductwork
 - Wrong or faulty capacitor
- The heat load may be exceeding design. Look out for external loads such as open doors and windows.

NOISY DEFROSTER

- Any foreign object inside the blower can create loud noise and possibly damage the blower.
- Shipping or handling damage may cause the spinning blower wheel to rub on the blower inlet.
- Air noise may be caused from duct problems or a bad blower. Read the section on Audible Noise.

OWNERS LIMITED WARRANTY

As hereinafter described, Dometic limits the duration of any implied warranty to the duration of the underlying express warranty and also disclaims any liability for consequential or incidental damages arising from any application, installation, use or malfunction of any warranted product.

SECTION I - WHAT'S COVERED

What does the Limited Warranty cover?

Products manufactured by Dometic Corporation (Dometic) are under limited warranty to be free from defects in workmanship or materials. This being under normal use and service, with the obligation of Dometic under this limited warranty, being limited to replacing or repairing any component(s) which shall disclose defects within the limits defined in **Section III**. Which upon examination by Dometic, shall appear to the satisfaction of Dometic to be defective or not up to specifications.

This Limited Warranty is made in lieu of all other express warranties, obligations, or liabilities on the part of Dometic. In addition, Dometic shall not be responsible for 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 the purchaser has or may have against Dometic due to any actual or alleged breach of warranty, either express or implied, including, without limitation, any implied warranty or merchantability or fitness for a particular purpose.** Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation may not apply to you.

The Dealer is not an agent for Dometic, except for the purpose of administering the above warranty to the extent herein provided. Dometic does not authorize the dealer or any other person to assume for Dometic 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. Dometic shall not be responsible for any liability or expense except as is specifically authorized and provided in this section.

Dometic reserves the right to improve its products, through changes in design or material without being obligated to incorporate such changes in products of prior manufacture. Dometic can make changes at any time in design, materials, or part of units of any one, model year, without obligation or liability to owners of units of the same year's model of prior manufacture.

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 rights is limited to the duration of the express warranty as found in Section III.** Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

SECTION II - WHAT'S NOT COVERED

What does this Limited Warranty not cover?

This Warranty Shall Not Apply to:

1. Failures resulting from improper installation or use contrary to instructions.
2. Failures resulting from abuse, misuse, accident, fire, or submergence.
3. Any part manufactured by Dometic, which shall have been altered so as to impair its original characteristics.
4. Any parts which fail as a result of misuse, improper application or improper installation.
5. Items not manufactured by Dometic, i.e., items, which are purchased from another manufacturer and supplied as received by Dometic without alteration or modification except as any part of a Dometic manufactured unit or component.
6. Components or parts used by or applied by the purchaser, as an integral part of products not manufactured by Dometic.
7. Labor resulting from difficult access to a Dometic product. The original installer or OEM is responsible for accessibility of unit.
8. Freight Damage.
9. Logic boards with water damage.
10. Logic boards with blown MOV's (Power Surge)
11. Mis-programmed displays.
12. Display heads with water damage.
13. Dirty condensers and/or evaporators.

14. Failures due to improper winterization.
15. Unit damage as a result of improper return packaging.
16. Replacement of refrigerant with substitute without authorization from factory.
17. Environmental and/or Recovery Fees.
18. Welding and Nitrogen Fees.
19. Travel costs are included in the hourly labor allowances and should not be billed as a separate item without preapproval from the factory.

Installation and application of Dometic components is not warranted by Dometic, because Dometic has no control or authority over the selection, location, application, or installation of these components.

SECTION III - COVERAGE PERIOD

What is the period of coverage?

(See **Limited Warranty Periods** at the end of this book).

All Dometic components bear a data plate on which there are model and serial numbers. The serial number is date coded. To determine whether or not any Dometic component is in warranty, proceed as follows:

1. Determine the manufacture date of the component from the serial number on the data plate. If you are not familiar with the date code, write or call the Dometic Customer Service Department to obtain the manufacture date. The hours of the Customer Service Department are 8:00 a.m. - 5:00 p.m. (USA, Eastern Standard Time Zone) Monday through Friday excluding holidays.
2. It is possible that there might exist a considerable time lag between the date a component is manufactured and the date it is put in service. In such instances, the date of manufacture could indicate that the item is out of warranty. However, based on the date the equipment is first put in service, the item may still be covered by the Dometic warranty as described in **Section I**. For proof of date put in service, Dometic will require a copy of the bill of sale of the Dometic equipment from the installer or new boat dealer to the original owner.

SECTION IV - GETTING SERVICE

How do you get service?

Please read the following Warranty Procedure:

If the failure of a Dometic component is determined to be covered under the Dometic warranty and the time in service is determined to be within the warranty time limit, the owner has the following three options:

1. Preferred option: Have a Dometic authorized Servicing Dealer, perform the work needed. The customer needs to call Dometic Customer Service Department for a recommendation as to the closest dealer. If the customer already knows an authorized servicing dealer, the dealer should be contacted directly.
2. Second option: If the customer contacts Dometic Service Department for a Servicing Dealer and Dometic has no one in that particular area, Dometic will authorize the use of a local service company and Dometic will work with the local company to assist in any way possible.
3. Third option: The customer may send his equipment back to the factory to have the repair work done. Dometic will make every effort to return the equipment to the customer within a three week time period. If the claim represents a legitimate warranty problem, Dometic will pay the freight both ways. Dometic prefers option one first, option two second, and option three only if one and two are not available.

The customer may contact the Dometic Service Department at (954) 973-2477 Monday through Friday, 8:00am - 5:00pm Eastern Time.

After hours (evenings and weekends) technical support is offered through Dometic's 24/7 Hotline at (888) 440-4494.

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DOMETIC - DEFROSTERS		
Important Notes:		
<ol style="list-style-type: none"> 1. Warranty periods begin from the date of possession of the boat by the first owner if OEM installed or date of installation if dealer installed, but not to exceed three (3) years from date of production. The warranty is transferable and will carry the remainder of the original owner's warranty based on the original date of purchase or date of installation. 2. Proof of purchase or installation may be required to verify warranty coverage. 3. Any unit or replacement part installed due to a warranty failure carries the remainder of the original warranty. Warranty coverage does not start over from the repair/replacement date. 4. Warranty coverage shall not exceed three (3) years from the date of production. 5. These warranty periods are effective March 1, 2010. 		
DOMETIC		
Product	Sale Type	Warranty Coverage
Defroster	OEM or Dealer Installed	1-Year Warranty, parts and labor. Not to exceed three (3) years from date of manufacture.

GLOSSARY

BTU: (British Thermal Unit) A common term used to define and measure capacity or refrigeration effect.

CFM: Abbreviation for "cubic feet per minute", a term used to specify the volume of airflow through the defroster and ducting. (1 CFM = 1.7 m³/h)

CIRCUIT BREAKER: An electrical device which provides high current and short circuit protection for the defroster. HACR (heating, air conditioning & refrigeration) type circuit breakers are recommended for the ship's panel. HACR circuit breakers have a long delay to compensate for the electrical surge associated with compressor.

R-VALUE: R-value is the industry standard measure of a material's resistance to heat transfer. The higher the R-value, the more effective it is as an insulator.

RUN CAPACITOR: An electrical storage device used to reduce amperage to some electric motors for more efficient operation.

SEMICONDITIONED SPACE: A semiconditioned space is a space that meets the following requirements:

- It is at least 95% bounded by conditioned spaces, or by other semiconditioned spaces, or by vertical surfaces with at least R4 insulation.
- It is not exposed to outside air. There must be an effective vapor barrier.
- It is exposed to conditioned, return air.
- It is not conditioned with its own diffusers.

One example is the horizontal crawl space that divides two conditioned decks. Another example is the vertical space between a salon and the wall that separates it from the outdoors. In such a case, the wall should be insulated with at least R4 insulation.

