

dickinson MARINE

Direct Draft Propane Heater Operating + Installation Instruction Manual

This instruction manual contains important information necessary for the proper assembly and safe use of the appliance



P9000 & P12000 Model Heaters

****Read and follow all warnings and instructions before assembling and using the appliance. Keep this manual for future reference****



Heater's Serial #: _____

**WARNING****FIRE OR EXPLOSION HAZARD**

Failure to follow safety warnings exactly could result in serious injury, death, or property damage

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance
- Evacuate all persons from the vehicle immediately
- Shut off the gas supply at the gas container or source.
- Do not touch any electrical switch or use any phone or radio in the vehicle
- Do not start the vehicle's engine or electric generator.
- Contact the nearest gas supplier or qualified service technician for repairs.
- If you cannot reach your gas supplier, or a qualified technician, contact the nearest fire department.
- Do not turn on the gas supply until the gas leak(s) has been repaired

Installation and service must be performed by a qualified installer, service agency or the gas supplier

**DANGER**

- Do not operate this heater unattended
- Heater gets hot while in operation. **DO NOT TOUCH**
- Do not store and combustible materials close to or touching the heater
- Follow all directions regarding installation and clearances when installing this heater
- **DO NOT** leave children unattended around this heater when it is in use

Failure to follow these instructions could result in fire, explosion or burn hazard which could cause property damage personal injury or death

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GENERAL WARNINGS

- Leak test all connections before first use
- Leak test connections after each tank refill
- For Marine Use Only
- Always check the heater, tank and hose connections prior to each use
- This heater is configured for propane. Do not use natural gas.
- Never use charcoal, lava rocks or any other source of solid fuel in this heater
- Ensure that flames are coming out of the entire burner. Occasionally insects can enter in when the unit isn't in use and create blockages which can lead to burner fires.
- Never check for leaks using an open flame. Use soapy water on the connections and look for bubbles.
- Never use or store gasoline or any other flammable vapors or liquids in or near your heater
- Keep children and pets away from a hot appliance. DO NOT allow children to operate.
- Do not leave this heater unattended when in use.
- Keep any electrical cords away from the heater when it's in use
- DO NOT operate while under the influence of drugs or alcohol
- Do not use any other regulator other than ones supplied by or ordered from Dickinson Marine
- The heater becomes hot when in use. To avoid burns
 - DO NOT attempt to move
 - Wear protective gloves or mitts
 - DO NOT touch any of the hot surfaces
 - Do not wear loose clothing when using
- This heater is not intended for commercial use.
- Adhere to all clearances listed in this manual
- For recreational vehicle installation, The Standard for Recreational Vehicles, ANSI A119.2, or the Standard for Gas Equipped Recreational Vehicles and Mobile Housing CSA Z240.4
- A manufactured home (USA only) or mobile home OEM installation must conform with the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280, or, when such a standard is not applicable, the Standards for Manufactured Home Installations, ANSI

A225.1/NFPA 501A, or Standard for Gas Equipped Recreational Vehicles and Mobile Housing, CSA Z240.4

- Do not use this appliance if any part has been underwater. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been underwater.
- Toddlers, young children, and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at-risk individuals in the house. To restrict access to a fireplace or stove, install an adjustable safety gate to keep toddlers, young children, and other at-risk individuals out of the room and away from hot surfaces.
- Clothing or other flammable material should not be placed on or near the appliance.
- Any safety screen, guard, or barrier removed for servicing an appliance must be replaced prior to operating the appliance.
- Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation after servicing. Verify proper operation after servicing.
- Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning might be required due to excessive lint from carpeting, bedding material etc. It is imperative that control compartments, burners, and circulating air passageways of the appliance be kept clean.

*****FAILURE TO ADHERE TO THE SAFETY WARNINGS LISTED IN THIS MANUAL COULD RESULT IN DAMAGE O PROPERTY OR SEVERE PERSONAL INJURY*****



LP GAS CYLINDER SPECS AND INSTALLATION

- The heater and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of ½ PSI (3.5kPa)
- The heater must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system in equal or less than ½ PSI (3.5 kPa)
- The LP gas supply cylinder to be used **MUST** be constructed and marked in accordance with the specifications for LP gas cylinders, U.S. Department of Transportation (DOT) or the standard for cylinders, spheres and tubes for the Transportation of Dangerous Goods, CAN/CSA-B339
- The propane supply cylinder system must be installed with proper vapor withdrawal capabilities
- A pressure regulator must be used in the operation with this unit.
- Any replacement regulators must be of those specified by the appliance manufacturer

About a Direct Draft Propane Heater

This direct vent propane heater fireplace is a clean burning low pressure (11"/WC) propane appliance for use on board small marine vessels and many other different applications.

These heaters are equipped with a flexible stainless double walled vent pipe and a combination deckfitting/exhaust cap. Fresh air is pulled from outside, through the outer pipe into the combustion chamber while exhaust gas leaves the vessel through the inner pipe. The air from inside the cabin is not being used for combustion so a fresh air vent is not needed. Since this unit has isolated combustion, the exhaust gases are being taken out via the chimney so no moisture is being created.

These heaters are equipped with a certified safety gas valve. If the flame should ever be extinguished the gas will be shut-off automatically. Manual ignition involves lighting the heater with a long barbeque lighter with the door open and therefore avoids any initial build up of unburned gas. The installation of a gas detector is recommended for all LPG appliances.

***NOTE:** When operating on the higher settings, it is recommended to use the fan on a low or medium speed in order to maximize the heat output of the heater but also, to cool the air intake chimney and keep the flames from creating soot. It is far better to save the propane and burn the heater on low with little air blowing, than to burn the heater on high fire without the fan. This will waste propane and heat up the chimney before all the heat can be extracted from the heater. The fan only draws 0.2 amps, is 12 volts and can be connected to a 115volts 500ma transformer.

Heater Specs



P9000 P12000

Width	8.5"	10"
Height	14"	16"
Depth	5.5"	7.25"

Mounting Backplate

Width	8.375"	9.875"
Height	23"	23"
Depth	0.650"	0.650"

BTUS

Low	3200	4000
High	4500	5500

Gas Consumption (per 1lb)

Low	7hrs	5.5hrs
High	5hrs	3.9hrs

Gas Consumption (per 20lb)

Low	140hrs	110hrs
High	100hrs	78hrs

Installation

Here are some important notes to remember when installing a Dickinson direct draft propane heater:

- Mounting & location, 12v power hook-up, minimum 20” and a maximum 56” of chimney, the location of hole for the chimney & the fuel supply.
- If not connecting your heater using one of Dickinson’s propane hoses then you will need to find fittings to match the heaters. The valve on the heater has a male 3/8” flare fitting SAE, 45° flare standard gas fitting.
- Install a separate low pressure regulator that reduces pressure to 11” W/C

Location

When installing your new propane heater, keep in mind the location of the heater and where it will maximize the heating capability. This propane heater is equipped with a 12v fan that will blow hot air from the top of the heater down to the floor.

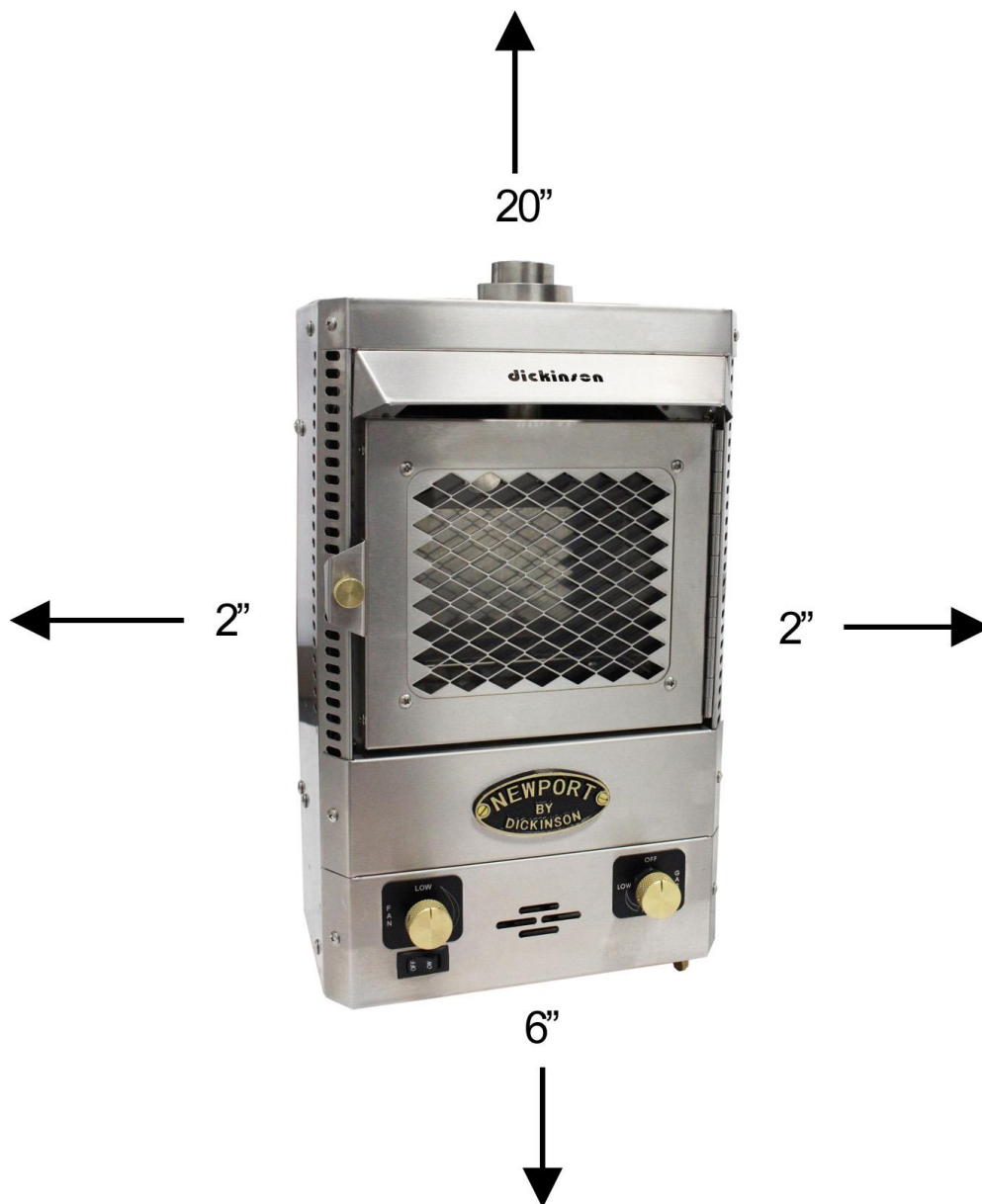
This increases heating efficiency and provides good circulation of hot air. Mounting the heater lower will allow for more efficient circulation of heat in the cabin. Plan your heaters location prior to installing to ensure the location chosen will fit the specifications and safety clearances.



NOTE

Peel all paper before firing the stove. You will need to loosen the screws slightly before peeling paper.

Safety Clearances



Combustible material such as the deck/ceiling or walls that are closer to the heater than the specified safety clearances must be insulated with insulation or cement board with a metal liner, a .5" standoff is best for air movement behind. Another alternative is using insulation or cement board and ceramic tile.

Mounting

Secure the heater mounting plate directly onto the mounting surface. No additional insulation is required. Use appropriate fasteners for mounting.

Chimney Pipe

The stainless double walled flue pipe that is included with the heater is 28” (71cm) long. Four springs are between the inside and outside pipe to ensure that an even air space is provided. It is important that two springs be located at any bend in order to prevent the pipes from touching.

Extensions are available in 10” (25.4cm) part# 19-005 and 28” (71cm) part# 19-000. The maximum total length of the flue exhaust pipe can be 56” only. Locate your heater so the distance between the heater and the pipe conform to the available pipe lengths.

Cutting the Chimney Pipe

We DO NOT recommend you cut the pipe but the pipe can be cut with a fine hacksaw blade to the required length. To do so, twist the pipe to tighten the pipes flexibility, then tape the area of the pipe you are cutting and install a hose clamp on the side of the pipe that you are keeping. This is so the clamp is left on the pipe and only removed after or during installing. Cut with fine tooth hack saw blade then use a round file to remove the large burrs in the inside of the pipe. If possible, it is recommended to tack weld or spot weld the end that you have cut to prevent any expansion of the pipe. Use caution as the flexible pipe can be easily damaged. DO NOT use a power saw of any kind as it can catch the pipe and cause it to unravel.

Locate and run the vent pipe such that no low points occur where water or debris can accumulate and thus block the exhaust or intake. The direct vent chimney is flexible and can be bent to provide any angle of offset. The chimney pipe can also exit horizontally at a 45°.



Horizontal Flue Exit

We recommend the flue be as straight as possible but also we recognize that in some installations it may be necessary to vent out of a wall. In these cases you would need to follow a specific method to ensure the draft does not slow down to the point it affects the heater.

To exit out of a wall you would need to ensure the bend is made with the entire 28" length of pipe as this will ensure a gradual slope rather than a severe bend. The bend must start at the top of the heater and end where the pipe exits the wall. It will be necessary to place the spacer springs - located on the inner pipe - accordingly so that the inner and outer pipes do not touch at any point. This could create hot spots which will impede the cooler fresh air that is coming back down the outer pipe to supply the flame.

In installations where the chimney must travel through a wall thicker than 3" or walls lined with insulation it may be necessary to drill an exit hole at 4.5" diameter as well as line the exit hole with a length of stainless steel pipe to protect the inside of the wall as there may be some heat buildup.

Deckfitting and Exhaust Cap

- Step - 1** Measure, cut or drill a 3" hole through the deck, ceiling or wall where the exhaust cap will be located.
NOTE: in walls/decks thicker than 3" increase the hole size to 4.5"
- Step - 2** Make sure the sealing gasket is installed under the above deck-flange before screwing down the fitting. Holding the deck flange firmly in position and secure with the 6 stainless screws supplied.
- Step - 3** Attach the dress ring on the inside, underneath the fitting with the 4 stainless screws supplied. (Make sure that the opening lines up with the underside of the deckfitting or the pipe will not fit correctly).

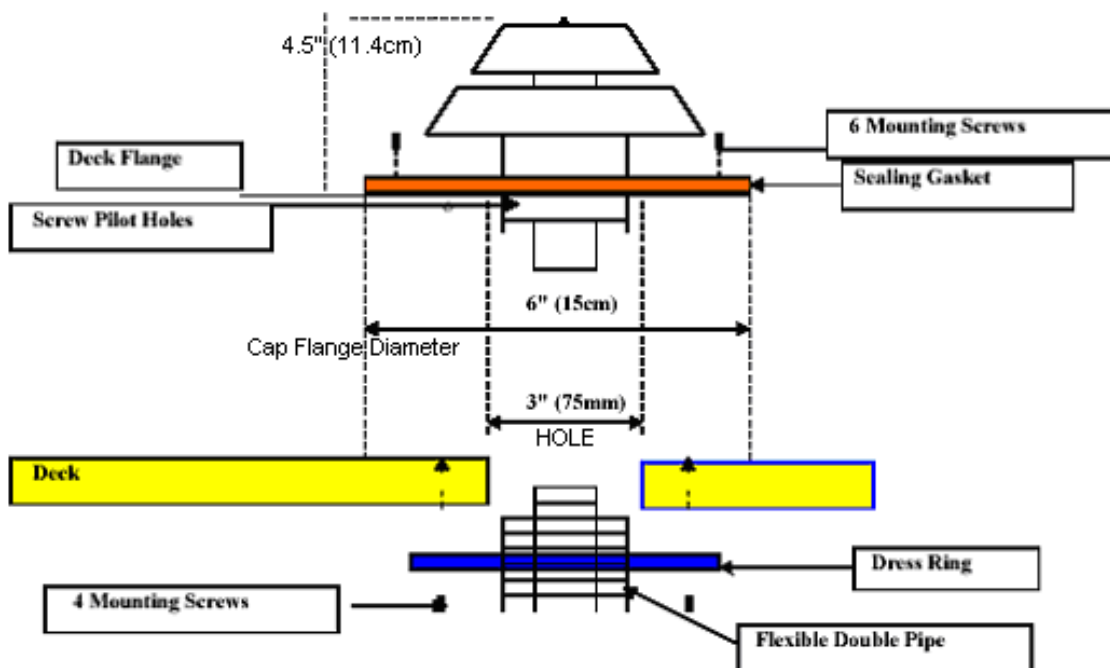
Step - 4 Install the flexible pipe on the heater. It is very important that the small pipe fit tightly against the flue collar on the heater (even adding some muffler tape or tin foil to fill in any gaps of the pipe to ensure an airtight connection, the cap and any other connections are not as important).

Step - 5 Make whatever bends are necessary in the flexible pipe and push into the deckfitting.

Step - 6 Attach the back mounting plate and secure the heater in position.

WARNING: Do not install the external flue cap within 20 inches (500mm) of a refueling fitting or fuel tank vent.

NOTE: If the cap is positioned close to an edge where it can get an upward wind then it may give some turbulence to the air intake. If this position is in the best spot then consider the cap guard part# 19-080 that has a shield to block the upward winds.



4. Connecting the Propane Fuel

This is a low pressure propane appliance. Do not use high pressure propane. **The heater only operates on low pressure propane (11' WC or 27.4 mbars)** and should have a low pressure regulator (part# 19-151 or 19-163) installed within the fuel line. The **propane gas connection is a 3/8" flare male fitting (SAE 45° flare)** and can either come from an already installed propane system, a single 10 or 20 lbs tank or a 1 lb disposable bottle. The propane tank should always face upwards. To run the fuel to the unit, copper tubing or a rubber approved hose can be used. The size of the fuel line should be no smaller than 3/8" in diameter. When running the fuel line, make sure the ends are sealed so no debris can get inside the line. This can block the gas coming through the heater small orifice. Make sure to blow through the fuel line before connecting.

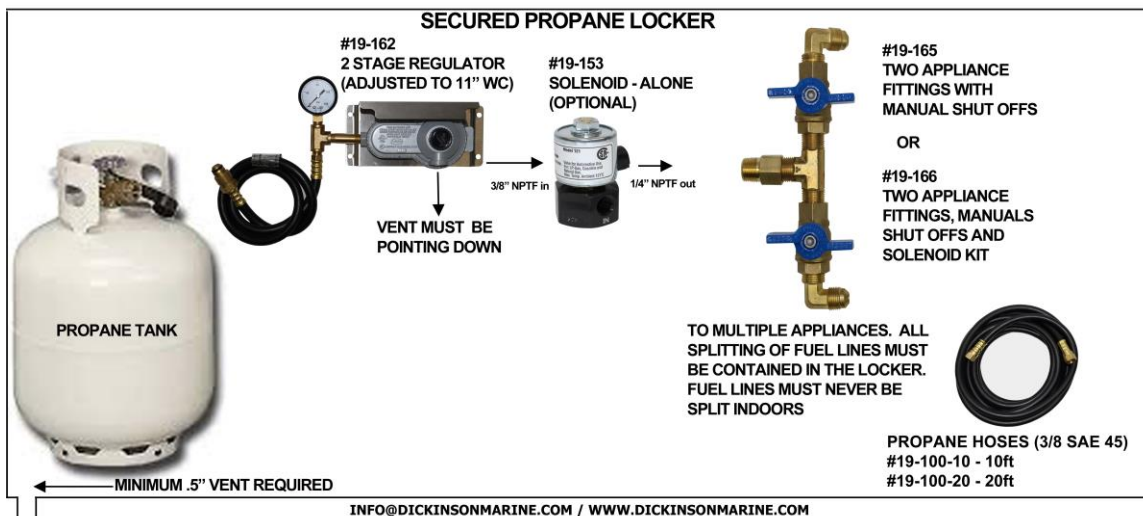
NOTE: All splitting of connections need to be located outside. Any connections are a hazard as they are potential leak points

Reasons for having a separate low pressure regulator for each appliance:

1. The ABYC Standards state- **1.7.2** – Each appliance shall be served by a separate low pressure regulator unless a 2 stage low pressure regulator which we recommend (part # 19-162) and supply line that shall originate inside the cylinder locker. We recommend you follow the ABYC standard.
2. The regulator only serves a very low pressure of gas, through a small 3/8" gas line, and depending on the distance, 1 regulator for 2 appliances may starve the burners of gas for 1 appliance.

The diagram on pg. 9 is to illustrate a typical installation only and should not be used to illustrate any particular regulatory code, insurance requirement or to override manufacturer's instructions on any fittings or components.

Install your propane system in accordance to local, national or industry specific regulations. Retain the installation and owner's manual for your gas components such as the solenoid and regulator. Installation requirements for some of these components vary by manufacturer. Install components as directed by manufacturer's instructions.



WARNING:

- Never connect this heater directly to the propane/LPG supply. This heater requires an external regulator that is not supplied.
- **After the gas connection is hooked-up, test all gas lines and connections for leaks with a soap solution. Test all lines and fittings before the heater is lit for the first time.**
- **Propane Locker Caution Plate Installation**

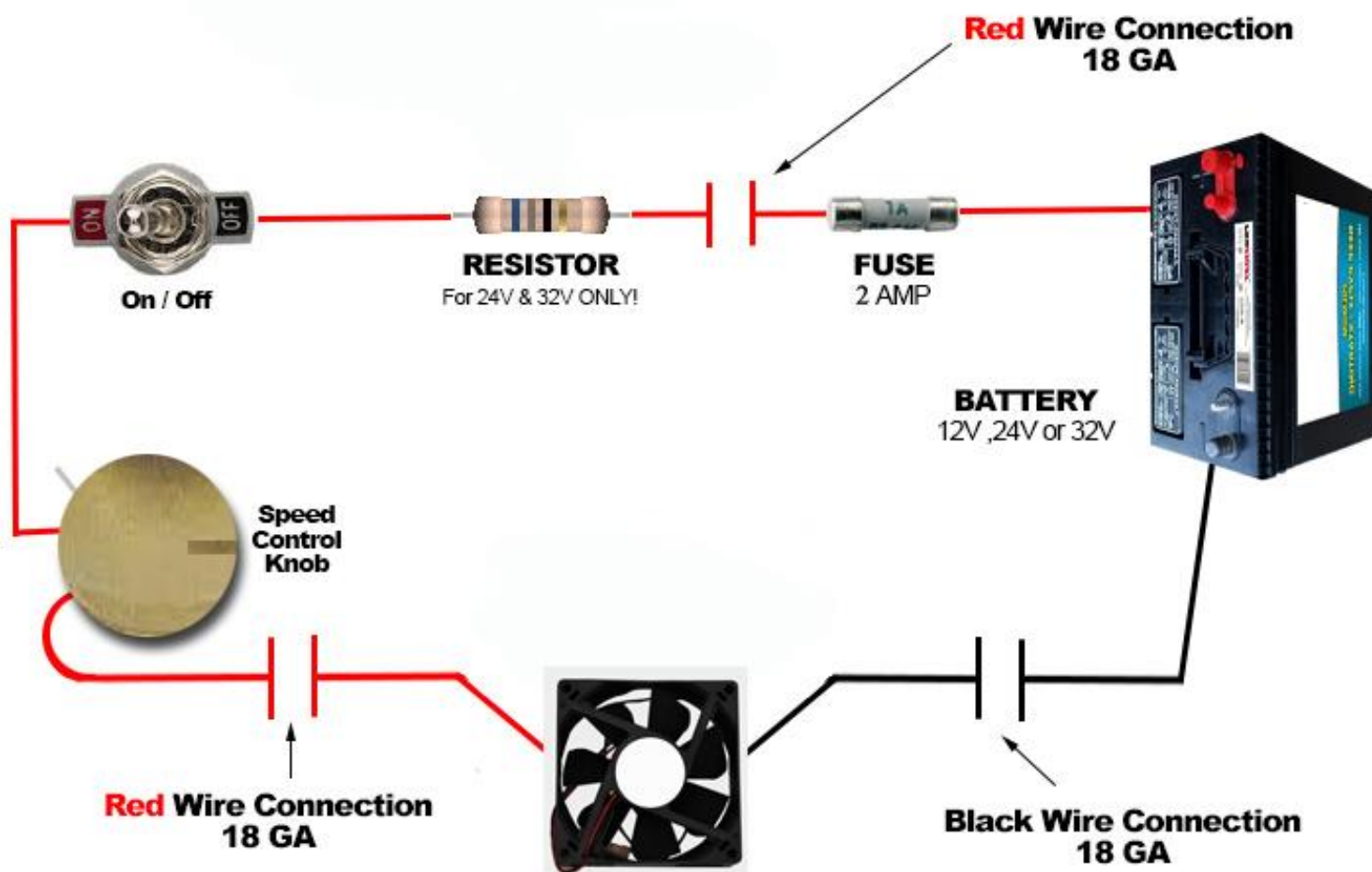
Install your propane locker CAUTION plate on or inside your propane locker for important safety reminders.

Electrical 12v Fan

The fan inside the heater is 12V DC .17 amps and the power supply must be brought to the wire connectors of the fans ON/OFF switch through the grommet installed at the bottom of the heater. The fan installed in this heater is CE approved and EM compliant for FCC and CSA regulations. The fan must have an inline fuse rated at 2 amps.

If applicable, this appliance must be electrically grounded in accordance with local codes or in absence of local codes, with the *National Electrical Code, ANSI/NFPA 70*, or the *Canadian Electrical Code, CSA C22.21*.

NOTE: Red wire goes to the positive side of the battery and the black (or possibly blue) wire goes to the negative side.



5. Lighting Procedure

- 1) With the door open ensure the gas knob is in the off position



- 2) Apply a flame above the burner inside the heater
- 3) Depress the knob and turn it to low



- 5) Close the door and hold the knob in for an additional 15 seconds to allow the thermocouple time to engage the valve



WARNING: DO NOT touch the heater during operation as the glass window, external surfaces and the vent pipe of the heater get very hot and can cause burns. NOT closing the door of the heater properly may cause:

- depletion of oxygen within the cabin
- Exhaust gas to enter the cabin, possibly including Carbon Monoxide.

Carbon Monoxide (CO) is a colorless, tasteless, invisible toxic gas, which can cause serious health problems or death. NOTE: Only on first lighting, the lubricating oil on the stainless steel pipe will produce smoke and burn off. THIS IS NORMAL. We suggest that windows and hatches be opened. Smoke from the inside pipe will be emitted outside, through the flue cap.

Flame Characteristics

When lighting the heater, the flames will create a roaring sound for about 5 minutes until the direct draft system stabilizes and reaches the operating temperature. Initially the flame is extremely blue and vibrant. After a short period of time the flames will increase in size and become less vibrant with more yellow tips. This will create more of the fireplace effect.

At the high setting the baffle at the top of the combustion chamber will glow red. This is normal and maximizes the efficiency of the heater.



6. Maintenance

To keep the heater operating safely and trouble free, it is recommended to periodically perform the following simple inspections:

1. Clean the outside of the heater to maintain the shining appearance of the stainless steel. Use a soft, non-flammable cleaning agent.
2. Refrain from using steel wool or any metal abrasive as this leaves impurities behind.
3. Inspect the propane supply system and tank for age and wear.
4. If the flame is becoming lower and lower over time or suddenly becomes very low, inspect the orifice of the heater. Accumulations of dirt and moisture inside the orifice can build over time and can be removed if they obstruct the orifice.



WARNING

Do not operate this appliance with the glass removed, cracked, or broken.

Replacement of the glass should be done by a licensed or qualified service person

Thermocouple and Orifice Cleaning

The entire propane assembly is removable. Simply undo the 4 screws holding the nameplate panel and the fan control panel to the shroud. The name plate panel will lift free while the fan control panel will remain attached to the gas control. With the name plate panel out of the way, undo the 2 6/32 nuts that hold on the propane panel to the body. This will free the assembly. Now lift the assembly slightly and unclip the fan wire and the power wire and everything will come free. (Picture on next page)



To clean the orifice you will need to undo the compression fitting holding the copper line to the brass elbow fitting. Once free, unscrew the elbow fitting from the burner. When the elbow fitting is free use a small needle to break up any debris that is in the orifice and tap the open end to make sure it does not get blown back in after the heater is re-assembled. DO NOT ream the orifice as you may widen the hole which will increase the BTU's and therefore change the burn conditions in the heater which may cause it to burn inefficiently.

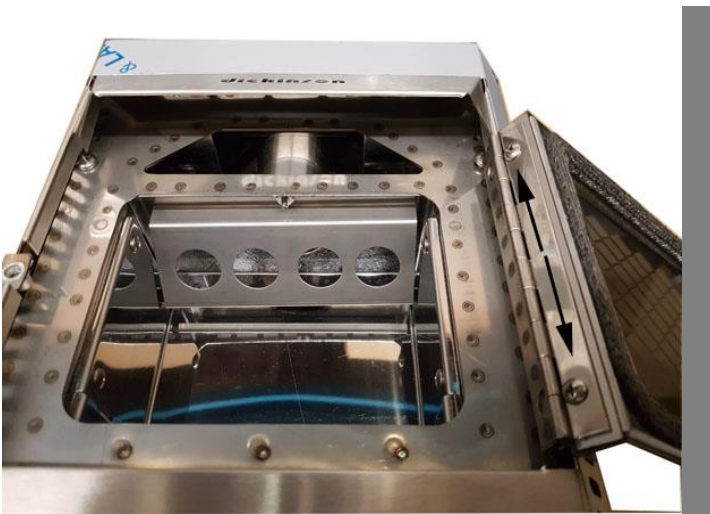


To clean the thermocouple all you need to do is remove the brass wire at the base of the valve. Remove the probe and lightly sand it with scotchbrite or fine sand paper to remove any corrosion. Screw it back into the bottom of the valve ensuring it is tight.

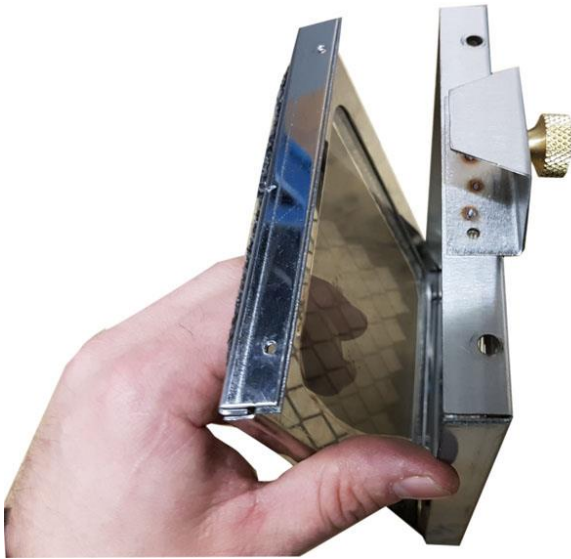


Removing the Door Grate for Cleaning

1. Open the door and undo the two screws holding it to the hinge



2. Remove the screws holding the glass into the outer door
3. Gently push the glass out of the outer frame by pushing through the grate



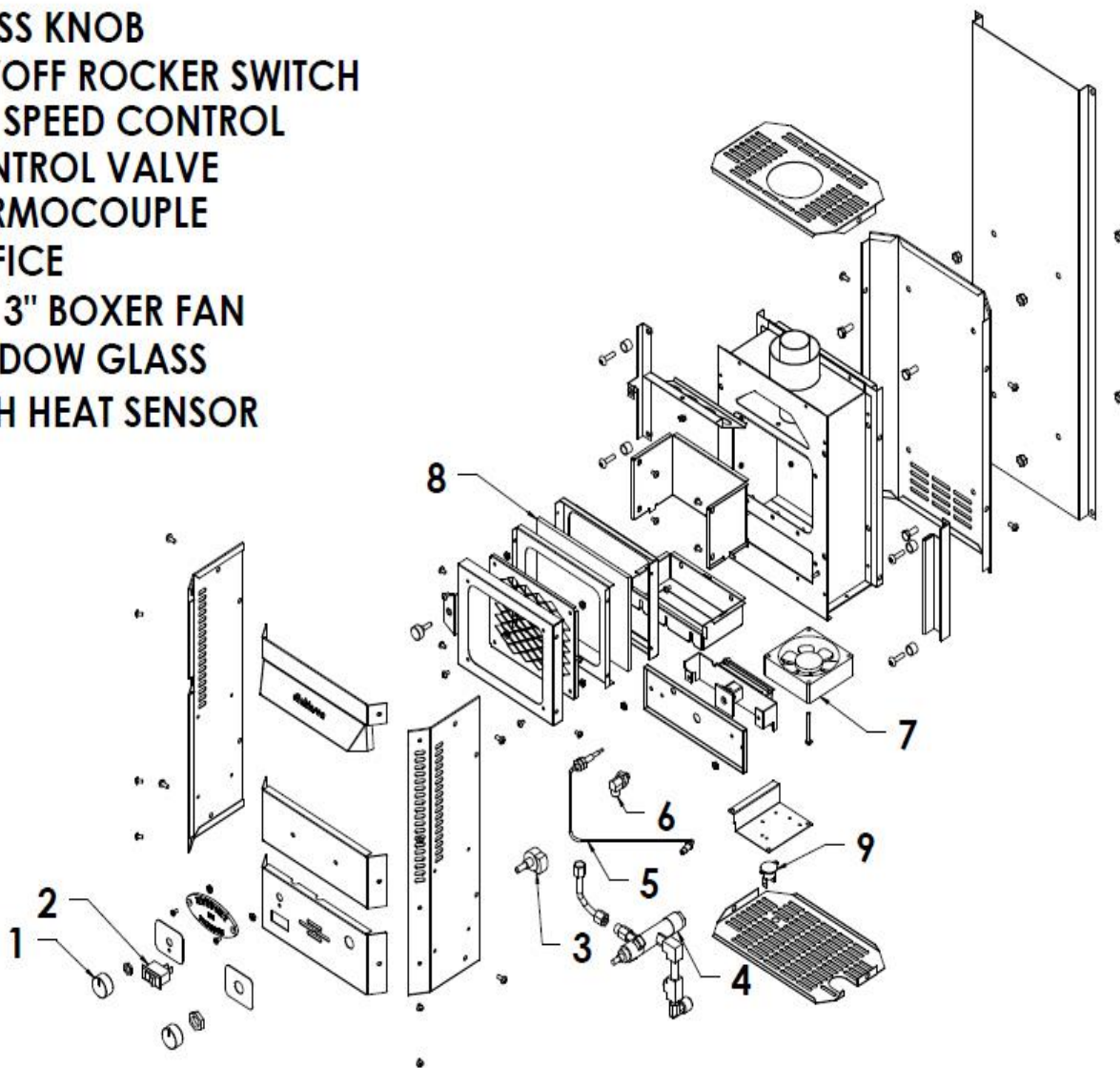
4. Undo the nuts holding on the grate and remove.
5. If you are going to leave the grate off, replace the screws in the mounting holes and tighten the nuts to secure them to the outer frame



6. Push the glass and the internal pieces back into the outer frame ensuring that the gasket is facing out of the door and that the seam on the gasket is located by the door knob.
7. Replace the screws that hold the internal brackets in place on the handle side and then re-connect the door to the hinge.

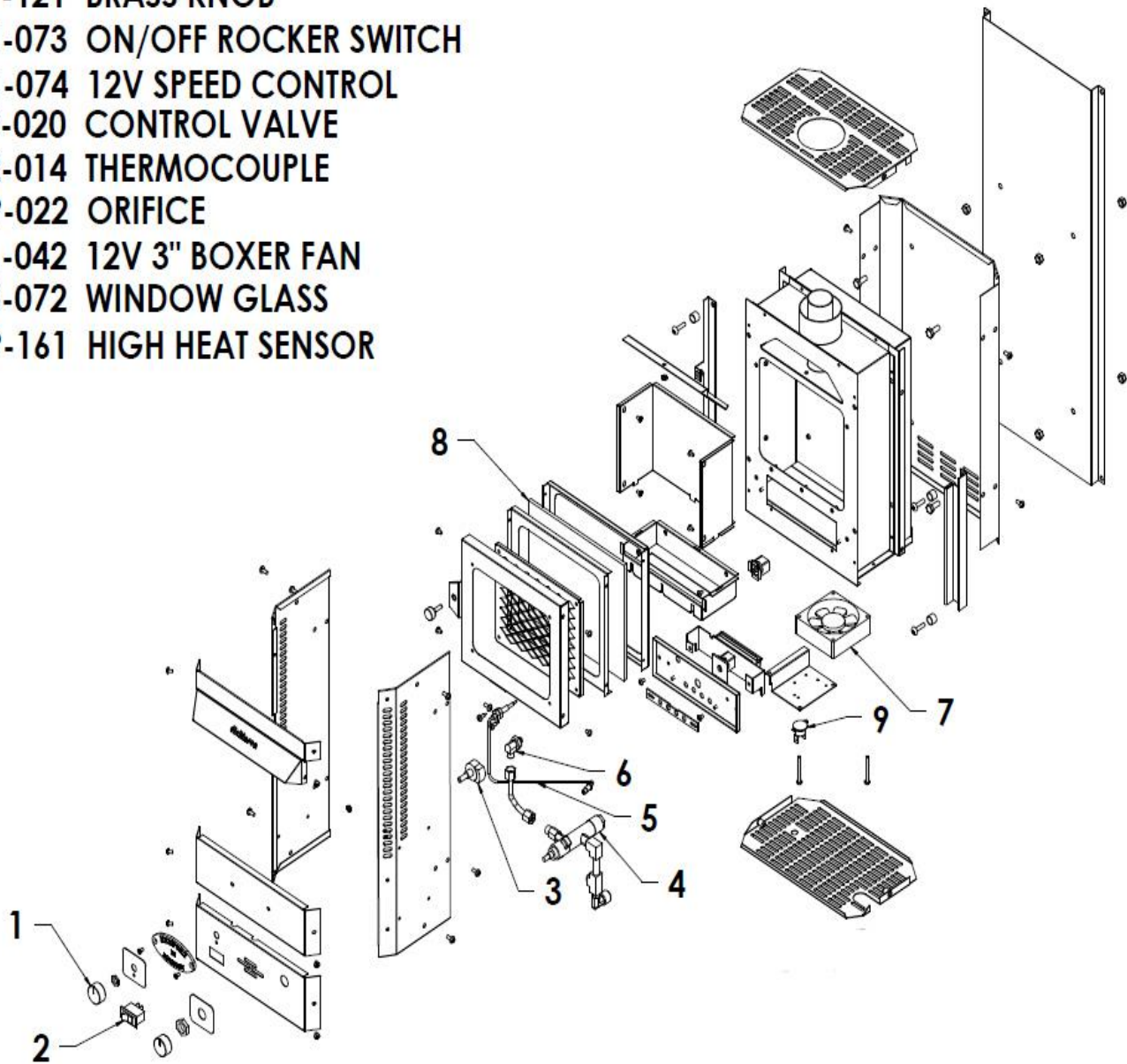
P9000 EXPLODED

1. 01-121 BRASS KNOB
2. 01-073 ON/OFF ROCKER SWITCH
3. 01-074 12V SPEED CONTROL
4. 19-020 CONTROL VALVE
5. 02-014 THERMOCOUPLE
6. 19-021 ORIFICE
7. 01-042 12V 3" BOXER FAN
8. 05-071 WINDOW GLASS
9. 19-161 HIGH HEAT SENSOR



P12000 EXPLODED

1. 01-121 BRASS KNOB
2. 01-073 ON/OFF ROCKER SWITCH
3. 01-074 12V SPEED CONTROL
4. 19-020 CONTROL VALVE
5. 02-014 THERMOCOUPLE
6. 19-022 ORIFICE
7. 01-042 12V 3" BOXER FAN
8. 05-072 WINDOW GLASS
9. 19-161 HIGH HEAT SENSOR



Troubleshooting

Problem	Remedy
No gas to burner on lighting	Check gas supply, regulator, solenoid
	Check that knob is exactly on LOW which is 9 o'clock when pressed in.
	Orifice is clogged due to dirt build up or material in new hose installation.
Fire does not stay lit when knob released	Depress knob, light burner and almost close door. Release knob and then CLOSE COMBUSTION CHAMBER DOOR
	Check that the door seal is good
	Check that the internal exhaust pipe is installed correctly
Fireplace shuts off during use	No gas supply – check gas pressure
	Blockage of the air intake – check the vent pipe for any object, including water that may block the intake.
Fan does not work	Check power supply (12 V DC)
	Check connection of wires
	Check proper functioning of switch
	Replace fan
Gas odor even when control knob is in OFF position	1. Gas leak. See Warning. Locate and correct all leaks
	2. Check and, if required, replace the control valve. If operation is attempted with high pressure gas, the valve could fail.
Slight smoke or odor during initial operation	This is a normal event, caused by burning off of residues from the manufacturing process. Smoke and odor should stop after a few hours of operation

Propane P9000/ P12000 Fireplace Heater Accessories & Replacement Parts

Part# 19-000: 28" Extension Kit with connecting coupling
Part# 19-005: 10" Extension Kit with connecting coupling
Part# 19-030: 2.5" x 18" Stainless Flue Guard
Part# 19-100-10: 10ft Low Pressure Propane Hose
Part# 19-100-20: 20ft Low Pressure Propane Hose
Part# 19-150: Disposable bottle kit (includes regulator #19-151)
Part# 19-151: Low Pressure Single Stage Regulator
Part# 19-152: Fittings Kit for the 19-151
Part# 19-153: Solenoid Valve SV-S121 1/4" NPT Female
Part# 19-162: Low Pressure 2 Stage Regulator
Part# 19-080: Stainless Exhaust Cap Guard
Part# 19-080A: Stainless Exhaust Cap Guard (Caps made after 2014)
Part# 19-200: Weather Guard to use alone
Part# 19-200A: Weather Guard to use alone (Caps made after 2014)
Part# 19-210: Weather Guard to use with part# 19-080 Exhaust Cap Guard
Part# 19-210A: Weather Guard to use with part# 19-080A Exhaust Cap Guard (Caps made after 2014)

Part# 01-042: Replacement 12v Fan
Part# 01-073: On/ Off Switch
Part# 01-074: 12v Fan Speed Control
Part# 02-014: Replacement Thermocouple
Part# 19-020: Replacement Control Valve
Part# 19-050: Replacement Stainless Deckcap Fitting, Gasket & Dress Ring

*For replacement parts not shown here please e-mail us for more information. info@dickinsonmarine.com

7. Warranty Policy

We at Dickinson wish to maintain a reasonable and easy system for returns, warranty, returns and exchanges. To accomplish this, we would like to inform you of some helpful guidelines and procedures to use and follow when sending back product to the Dickinson Marine. All correspondence regarding returns, warranties and exchanges will go through the factory of Dickinson Marine in Surrey, BC, Canada and the product MUST be returned to this location.

Warranty

Dickinson Marine warranties all of its products for a period of one year dated from the purchase of the product by the end user with proof of purchase or a registered warranty. The warranty card should be copied for your records and returned to Dickinson to activate your warranty within 90 days of your purchase. You can also activate it online at www.dickinsonmarine.com

A copy of the warranty card must have been received or a proof of purchase must be presented to receive the warranty.

1. The customer can contact us directly to settle any warranty issues. We are pleased to help. Call us toll free 1-800-659-9768 or email: info@dickinsonmarine.com
2. If the customer is returning a complete product they see as defective, be sure the product has been assembled correctly and is being used correctly. If you are not sure please call our Technical Help Department @ 1-800-659-9768. Dickinson Marine will not provide credit for used products that are not defective. In these cases, it is best to call the factory to determine if the product is being used correctly, has been assembled correctly or is in fact defective.
3. All products being sent back to Dickinson Marine must have a Return Authorization Number. Contact us at Dickinson Marine toll free 1-800-659-9768 or e-mail info@dickinsonmarine.com to obtain a Return Authorization Number. This allows us to track and process your return. Once you have received an RA# from us, include your proof of purchase and ship to the address below. We recommend you

ship using the mail service insured and retain a tracking number. Customers are responsible for the shipping costs for all returns and exchanges.

Dickinson Marine Returns
#101-17728 66th Avenue
Surrey, BC
V3S 7X1, Canada

4. Products that are demonstrably older than the warranty period or those that have obviously been misused will not be returned, exchanged, or repaired.

Non-defective Returns & Exchanges

Dickinson reserves the right to apply a 20% restocking fee for returned product sent back. An RA # will be needed from the factory to facilitate any return. Credits will be made at the last purchased price for that part number.

Limited Warranty

WARRANTY PROVISIONS: Dickinson warrants this product to be free of defects in workmanship and materials for a period of one year. This warranty is limited to claims submitted in writing within a one-year period following the date of purchase. If any part of your new product fails because of a manufacturing defect within the warranty period Dickinson offers to replace said parts free of charge, provided, however, that such parts have not been improperly repaired, altered or tampered with or subjected to misuse, abuse or exposed to corrosive conditions. This warranty, however, is limited by certain exclusions, time limits and exceptions as listed below. Read these limitations and exclusions carefully.

TIME LIMIT: This warranty is given too and covers only the original purchaser. Coverage terminates one year from the date of purchase for parts replacement.

EXCLUSIONS : This warranty does not cover or include : (a) Any normal deterioration of the product and appearance of items, due to wear and/or exposure; (b) any guarantees, promises, representations, warranties or service agreements given or made by an authorized distributor or other person selling this product, other than those specifically stated herein; (c) any damage or defect due to accident, improper repair, alteration, unreasonable use including failure to provide reasonable and necessary maintenance, misuse or abuse of the equipment, or exposure to corrosive conditions. This warranty is conditioned upon normal use, reasonable and necessary maintenance and service of your product, and written notice being given promptly upon Buyer's discovery of a warranty claim, pursuant to paragraph 6 below. Reasonable and necessary maintenance is

maintenance which you are expected to do yourself or have done for you. It is maintenance, which is necessary to keep your product performing its intended function and operating at a reasonable level of performance.

DAMAGE LIMITATION WARNING : IN NO EVENT SHALL Dickinson BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING (BUT NOT LIMITED TO) LOSS OF USE OF THE PRODUCT, LOSS OF TIME, INCONVENIENCE, EXPENSES FOR TRAVEL, LODGING TRANSPORTATION CHARGES, LOSS BY DAMAGE TO PERSONAL PROPERTY OR LOSS OF INCOME, PROFITS OR REVENUE.

ORAL OR IMPLIED WARRANTY LIMITATIONS: The foregoing warranty is exclusive and in lieu of all other warranties, written or oral, expressed or implied, including but not limited to any warranty or merchantability or fitness for a particular purpose.

TRANSFER LIMITATIONS: This warranty is not assignable or transferable. It covers only the original purchaser.

CLAIM PROCEDURE: In the event of a defect, problem or that a breach of this warranty is discovered, in order to protect any warranty rights you must promptly notify Dickinson. Give name, address, and model name, location of unit, description of problem and where you can be reached during business hours.

RESERVED RIGHT TO CHANGE: Dickinson reserves the right to make changes or improvements to products it produces in the future without imposing on itself any obligations to install the same improvements in the products it has previously manufactured.

SECOND OR SUBSEQUENT OWNER: Dickinson does not give any warranty to secondary or subsequent purchasers, and it disclaims all implied warranties to such owners.

INSPECTION: To assist you in avoiding problems with your product and to validate this warranty you are required to do the following: (a) read the warranty; (b) inspect the product. Do not accept delivery until you have examined the product with your supplier; (c) ask questions about anything you do not understand concerning the product.

OWNER REGISTRATION: Fill out the WARRANTY CARD within 90 days from the date of delivery. **WARRANTY: RETURN OF THE CARD IS CONDITION PRECEDENT TO WARRANTY COVERAGE AND PERFORMANCE. IF YOU DO NOT FILL OUT AND MAIL THE CARD AS DIRECTED, YOU WILL NOT HAVE A WARRANTY.**

8. Register your Warranty.....

Please register your warranty with Dickinson Marine. Fill out and send back the warranty registration below. Make sure to include the serial # for our records.

No warranty will be extended for improper installations. Use of any unapproved materials, equipment, or installation procedures will result in a voided warranty. Do not use any substitutes of the heaters valve, burner or fan other then the ones supplied by Dickinson. Dickinson Marine accepts no liability for any damage or loss of service resulting from unapproved modifications.

Warranty Form

I have read and understand the Limited Warranty and the entire Instruction Manual and agree to the terms and conditions. (PLEASE PRINT)

Name: _____

Address: _____

Phone: _____

Heater Model Name: _____

Heater Serial #: _____

Date of Purchase: _____

Seller's Name: _____

Seller's Location: _____

Signature: _____

This warranty form can also be filled out online. www.dickinsonmarine.com

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