

**INSTALLER:** Leave this manual with the appliance.

**CONSUMER:** Retain this manual for future reference.

# DICKINSON 12v FAN REPLACEMENT INSTALLATION INSTRUCTIONS



These instructions apply to Dickinson part numbers:

- 01-999P
- 01-999H
- 01-999-NEWALA
- 01-999-SIG
- 01-997H
- 01-997-NEWALA

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*As of 2024 all Dickinson appliances will be equipped with upgraded fans and speed controls. If you are purchasing a replacement fan or speed control for an appliance made before 2024, both components (fan + speed control) will need to be replaced*

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## I. APPLIANCE FAN UPGRADE

**Caution! Failure to adhere to the safety warnings listed in this manual could result in damage to property or severe personal injury!**

- **ALWAYS** DISCONNECT ALL POWER FROM APPLIANCE BEFORE SERVICING
- **ALWAYS** USE ORIGINAL UNUSED DICKINSON REPLACEMENT PARTS ON YOUR DICKINSON APPLIANCE
- **ALWAYS** FOLLOW THE OEM INSTALLATION AND OPERATION PROCEDURES FOR THE APPLIANCE.
- **NEVER** USE FORCE OR TOOLS TO OPERATE THE APPLIANCE
- **NEVER** MODIFY OR ALTER YOUR APPLIANCE, IT'S COMPONENTS OR CONTROLS
- **NEVER** OPERATE THE APPLIANCE WITH ANY OF ITS PANELS OR SAFEGUARDS REMOVED

Table 1

### APPLIANCE FAN CHANGES

Dickinson appliances now come equipped with upgraded, longer-lasting draft & blower fans.

Appliances manufactured in 2024 and later will now be equipped with an upgraded fan. The upgraded fans will also fit older appliances including all Dickinson Marine diesel stoves, heaters and propane fireplaces.

**Appliances equipped or upgraded with a new fan must also have an updated speed control** – an older speed control will not perform adequately in conjunction with a new fan, both must be replaced.

Fan part number	For models	Voltage	Current A	Speed RPM	Speed control
01-999P	All propane fireplaces	12	0.40	4800	#01-998
01-999H	Diesel Stoves (all) Lofoten & Antarctic	12	0.40	4800	#01-998
01-999-NEWALA	Alaska & Newport	12	0.40	4800	#01-998
01-999-SIG	Sig marine diesel heaters	12	0.40	4800	#01-998
01-997H	Diesel Stoves (all) Lofoten & Antarctic	24	0.20	4800	#01-996
01-997-NEWALA	Alaska & Newport	24	0.20	4800	#01-996

\*32v Fan & Fan Speed Control is no longer available\*

## II. REPLACEMENT FAN TYPES

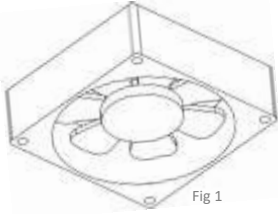


Fig 1

### 01-999P

The fan is manufactured from plastic rated to UL 94V-0, which is the highest level of flame retardancy. High heat resistance and an extended life expectancy will help this fan last many times longer than previously.

The replacement fans for propane fireplaces don't require a protective housing but can be installed directly into the appliance. It can be attached using the same mounting holes as the previous fan.



Fig 2

### 01-999H & 01-997H (24v)

For all stove models and the Lofoten & Antarctic heaters models – the replacement fan comes mounted inside a protective stainless steel housing.

It can be attached using the same mounting holes as the previous fan.

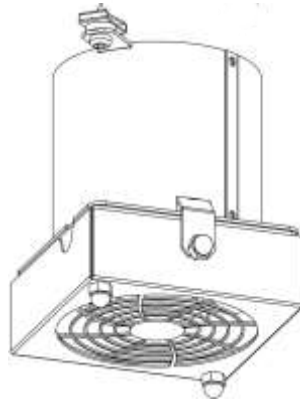


Fig 3

### 01-999-NEWALA & 01-997-NEWALA (24v)

For the Newport and Alaska models only – this replacement fan comes inside a stainless steel housing featuring an attached cowling. It can be attached using the same mounting holes as the previous fan.

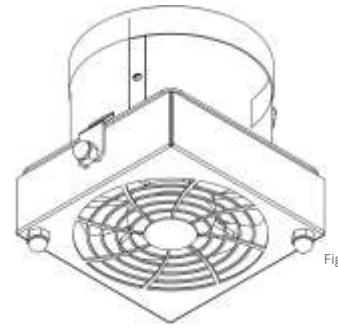


Fig 4

### 01-999-SIG

For Sig Marine heaters only – this replacement fan comes inside a stainless steel housing featuring an attached cowling and clamp to attach to Sig heater ducting.

## III. REPLACEMENT FAN WIRING

Where 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.*

The fan can be supplied using AC power with a transformer plug (AC connection) from a 12v battery or other 12v power supply.

If using a 19-211 AC power adapter, the black and white wire is the positive lead, and must be connected to the red wire connected to the fan ON/OFF switch.

### AC CONNECTION

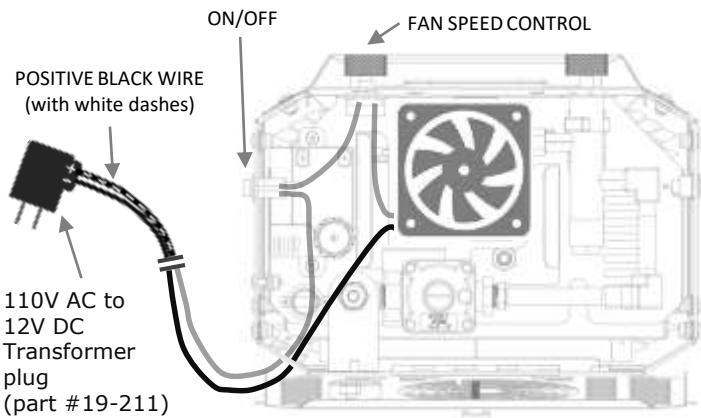


Fig 5

Every appliance fan is wired through an ON/OFF switch and variable resistor fan speed control. See below (Fig 7) for a diagram of how these are wired in sequence.

A 4 amp fuse is recommended if supplying power to the fan from a battery.

### DC CONNECTION

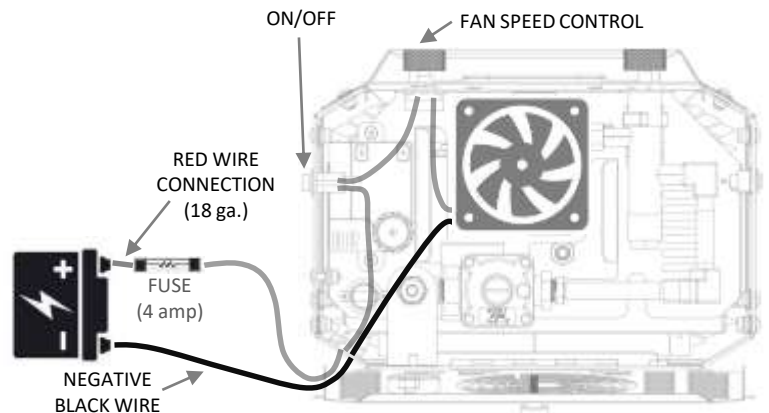


Fig 6

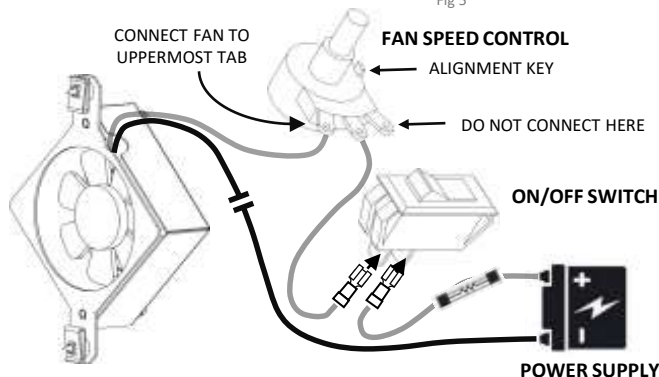


Fig 7

### FAN WIRING (Fig 7)

The red fan wire connects to the uppermost tab on the speed control. Verify which tab is uppermost by selecting the tab farthest from the alignment key .

Connect the middle tab of the speed control to the offset tab on the ON/OFF switch.

Connect the middle tab on the ON/OFF switch to the power supply.

Connect the negative (black) wire to the negative lead of your power supply.

## IV. REPLACEMENT FAN INSTALLATION

### 01-999H & 01-997H

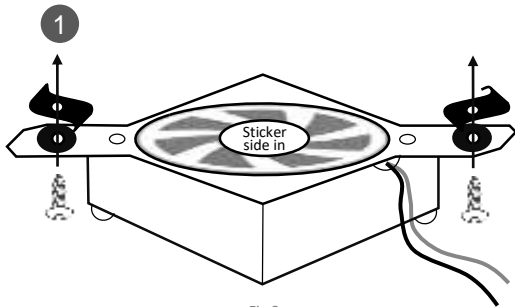


Fig 8

- If you are replacing an older model fan, or the fan in a fireplace manufactured before 2024, the speed control will also need to be replaced with a new one. Replacing only one of these components may result in limited fan power and adjustment.
- Remove the old fan by disconnecting the wires from it and undoing the 2 screws securing it in place.
- With the old fan removed, attach the replacement fan assembly using the screws, washers and black metal clips as attached (1) Tighten the screws to secure the fan in place.
- Remove any connecting tabs from the existing appliance wiring, and attach the red power wire from the speed control to the new fans red wire using a splice or terminal block.
- Attach the negative wire from your power supply to the new fans black wire.
- The fan should be mounted with it's sticker side facing into the appliance, toward the burner.
- This fan mounts below the burner on the Antarctic, Pacific, Bering, Adriatic and Atlantic models. The fan is mounted behind the appliance on the Lofoten and Bristol models.

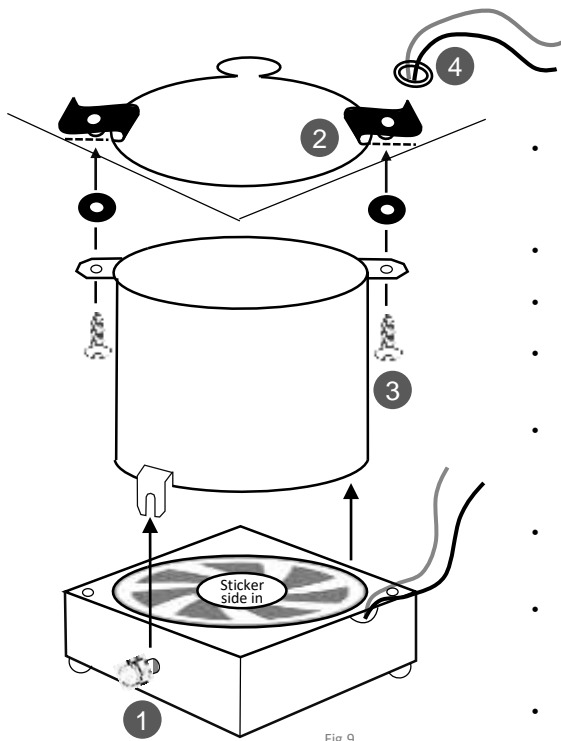


Fig 9

### 01-999-NEWALA & 01-997-NEWALA

- If you are replacing an older model fan, or the fan in a fireplace manufactured before 2024, the speed control will also need to be replaced with a new one. Replacing only one of these components may result in limited fan power and adjustment.
- Undo any screws securing the bottom panel of the heater and remove it.
- Remove the old fan by disconnecting the wires from it and undoing the 2 screws securing it in place.
- Before installing the 01-999-NEWALA replacement fan, you'll need to remove the screws, washers and black metal clips, and the fan box from the cowling by loosening the 2 acorn nuts on its sides (1)
- Slide the clips around the panel the old fan was secured to, so that the holes in the clip line up with the mounting hole for the fan (2) The raised side of the clip should end up inside the heater, with the flat side exposed to receive screws.
- Attach the fan cowling to the clips using the washers and screws provided (3) The washers should sit between the cowling and the panel it's being attached to.
- Feed the wires of the new fan through white grommet in the bottom panel of the heater (4) Once through, using a splice or terminal block, connect the new fans wiring to the wires disconnected from the old fan (If the wires have tabs attached, it will be necessary to cut these off and strip the wires)
- With the wiring done, reattach the bottom panel. With the bottom panel replaced, secure the fan box outside it by slotting it onto the cowling brackets and tightening the acorn nuts to secure it in place. The fan guard should face outward, and the side of the fan bearing a sticker should face into the heater.

### 01-999-SIG

- If you are replacing an older model fan, or the fan in a fireplace manufactured before 2024, the speed control will also need to be replaced with a new one. Replacing only one of these components may result in limited fan power and adjustment.
- Sig Marine diesel appliances (no longer in production) are equipped with a collar beneath the burn chamber.
- The replacement fan has a split cowling attached which can be drawn tight over the collar by means of the supplied hose clamp.
- Splice or use a terminal block to connect the new fans red wire to the red power wire from the speed control.
- Attach the negative wire from your power supply to the new fans black wire.

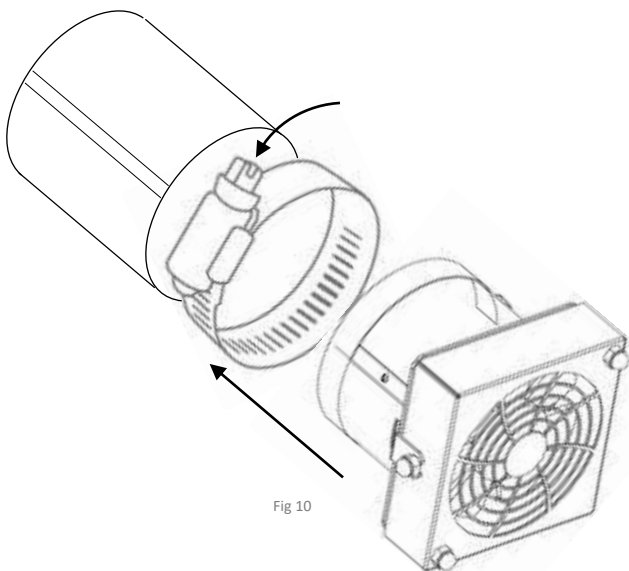
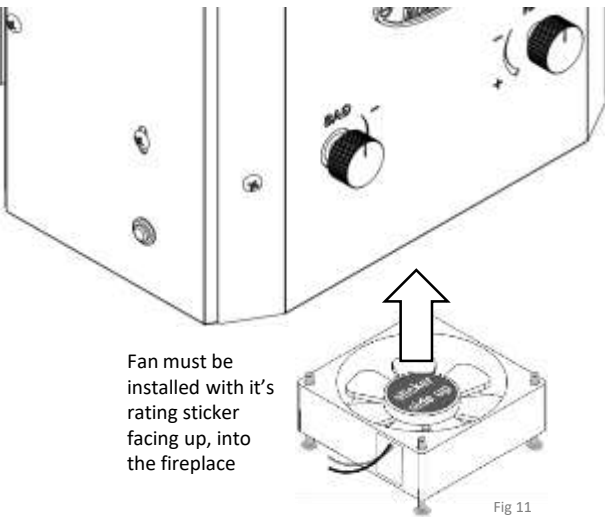


Fig 10

## 01-999P



Fan must be installed with it's rating sticker facing up, into the fireplace

Fig 11

- If you are replacing an older model fan, or the fan in a fireplace manufactured before 2024, the speed control will also need to be replaced with a new one. Replacing only one of these components may result in limited fan power and adjustment.
- On a P9000 & P12000 model, remove the screws on the bottom of each side that hold in the bottom panel. With the screws removed, the bottom panel will drop out.
- On an Explorer model, the bottom panel of the heater hinges down to provide. Unscrew the single connecting screw visible on the bottom panel and pull down.
- Remove the old fan by disconnecting the wires from it and undoing the 2 screws securing it in place
- On the Newport P9000 & P12000 models, the boxer fan is secured with 2 self tapping screws. A replacement fan for these models is attached in the same way. The fans have 4 mounting holes – mounting screws must be positioned in opposite corners
- If you are replacing a metal fan in an older P9000 or P12000 model, the new fan will fit the same mounting holes with the use of longer screws (included)
- If you are replacing the fan in a Newport Explorer model, the fan is attached using 3 long 8-32 bolts. Remove all the 3 bolts to remove the old fan and disconnect its wires. Install new fan in the same manner, and connect the replacement fan wires

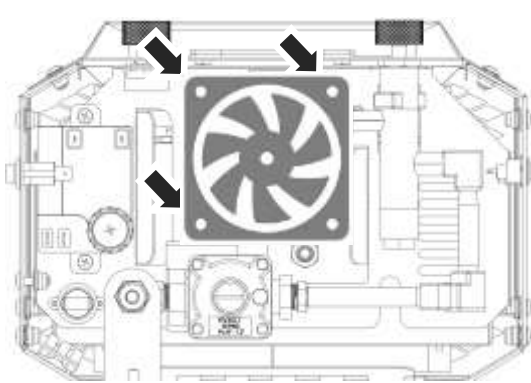


Fig 12

**EXPLORER**

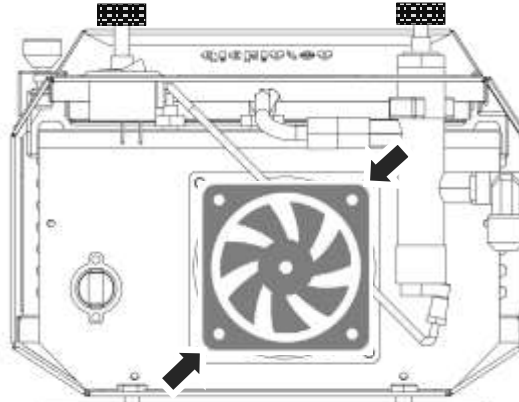


Fig 13

**P12000**

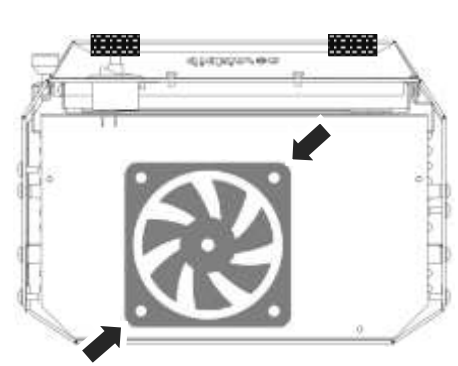


Fig 14

**P9000**

## V. TROUBLESHOOTING

Problem	Possible causes	Solution
<b>Fan noise</b>	High pitched whine – indicates	Fan is receiving too much power from power source
	Low rumbling sound – indicates	Fan is receiving too little power from power source
	Flicking or rubbing sound – indicates obstruction	Check for wiring or other obstruction resting on the fan blades
	Scraping noise – fan mounting may be over-tightened	Make sure screws securing fan are not deforming its housing
	Normal fan noise, but louder than expected	Fan may be receiving too much power
<b>Fan doesn't run</b>	Fan may be disconnected from power supply	Reconnect fan to power
	12v power supply system may have blown fuse	Inspect system for blown fuse
	Disconnected wiring	Examine fan/speed control/switch for disconnected wiring
<b>Fan speed doesn't adjust</b>	Fan motor has reached end of life	Replace fan
	Replacement fans may require a replacement speed control (see page 1, appliance fan changes)	Replace speed control
<b>Fan runs low when set to high</b>	Rheostat failure	Replace speed control
	Speed control is wired incorrectly	See, page 3, fig 7 to correct wiring
<b>Fan runs on high when set to low</b>	Mismatched fan and speed control	(see page 1, appliance fan changes)
	Speed control is wired incorrectly	See, page 3, fig 7 to correct wiring
<b>Fan only runs on high setting</b>	Mismatched fan and speed control	(see page 1, appliance fan changes)
	Speed control not receiving enough power	Check power supply voltage
<b>Fan doesn't spread hot air</b>	Mismatched fan and speed control	(see page 1, appliance fan changes)
	Fan may be installed upside-down	Verify that fan is installed with the correct orientation (page 4, fig 11)
	Obstruction within fireplace shell	Make sure no dust/cobwebs are obstructing vents & spaces inside
<b>On/off switch doesn't control fan</b>	Obstructions on fan motor	Make sure no dust/cobwebs have settled inside fan
	Check wiring for on/off switch (page 3, fig 7)	Connect wiring as shown in diagram (fig 7)