



# AirDog® PTC Heater Kit

## INSTALLATION MANUAL

### AirDog® Positive Temperature Coefficient (PTC) Heater Kit

PLEASE READ  
THESE INSTRUCTIONS  
THOROUGHLY  
BEFORE BEGINNING  
INSTALLATION



FHK-1000



FHK-0125



Revised 9/15/2022



Part No. FHK-1000

AND

Part No. FHK-0125



Proudly Made in the USA

[www.airdogdiesel.com](http://www.airdogdiesel.com)

1-573-635-0555 or

1-877-463-4373

*Providing "Test Cell Performance" in "Real World Conditions" Since 1993.*

# PureFlow® Technologies, Inc.

## AirDog® PTC Heater Kit

### Guidelines & Parts List

The AirDog® PTC Heater is an extra step of thermal protection, to help prevent the fuel system from gelling in cold climates.

The AirDog® Positive Temperature Coefficient (PTC) Heater Kit features a top-of-the-line 300W heater element, manufactured by Fleetguard (Cummins Filtration). This heater system provides a simple solution, to add heat to your fuel system. The PTC fuel heater is an electric, self-regulating, and self-protecting heater. Power to the heater varies by temperature, and it requires the minimum current, and does not need any additional thermostat for controlling its heating function.

### SAFETY GUIDELINES

**CAUTION:** Chock the vehicle's tire to prevent from rolling.

**CAUTION:** Wear safety glasses when operating power tools such as drills and grinders or when using a punch or chisel.

**CAUTION:** Route the fuel lines keeping them away from hot exhaust components and/or moving parts. Properly secure the fuel lines to prevent chaffing.















If you are uncertain of any installation procedure, contact *PureFlow® Technologies, Inc.* for technical assistance.



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## AirDog® PTC Heater Kit

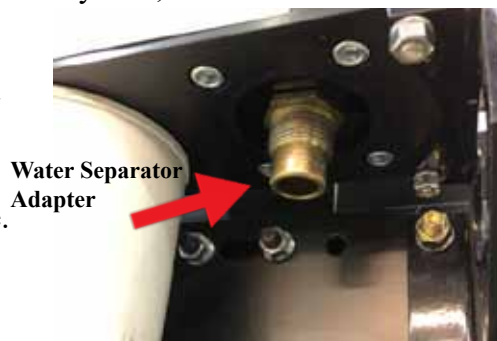
### PTC Heater Kit Parts List

			FHK-1000	FHK-0125
1	Installation Manual	206-9-FHK		
1	Fuel Heater Wire Harness	5E-2-019-FH		
1	Fuel Heater Nipple 125	001-8HN-0125	N/A	
1	Fuel Heater Nipple 150/200	001-8HN-0001		N/A
1	Fuel Heater Lock Nut 125	001-8HNLN-0125	N/A	
1	Fuel Heater Lock Nut 150/200	001-8HNLN-0002		N/A
1	Fuel Heater Element	4H-4-00002		
1	Add-a-Circuit Fuse TAP Adapter	908-5E-2-018		
15	12" Zip Tie	5H-2-1-12		

### Installation Instructions

1. Remove the water separator from the AirDog® diesel fuel system; set aside for reuse.

2. Using a deep-well socket (29mm hex for Heavy Duty 150/200 systems or 1" hex for 125 Industrial and Pickup Truck systems) with ratchet, carefully remove the threaded water separator adapter from the AirDog® base.



3. Unscrew the lock nut from the fuel heater nipple.



4. Install the fuel heater nipple into the AirDog® base. Tighten securely with the deep-well socket and ratchet.



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5. Install the 300W Heater Element, o-ring facing upward (toward the AirDog® base) over the fuel heater nipple. Hold in place.



6. Install the lock nut by threading onto the nipple.

- HD 150/200 Systems: Be sure the holes in the side of the lock nut are at the bottom of the lock nut as you install it (see image below). Using a small phillips screwdriver, tighten the lock nut to secure the heater in place.
- 125 Industrial and Pickup Truck Systems: Use the 1" hex deep-well socket and ratchet to secure the heater in place.

**SNUG – BUT DO NOT OVER-TIGHTEN,  
OR YOU COULD CRACK THE HEATER ELEMENT.**



7. Reinstall the Water Separator (or install new), and tighten as normal (hand-tighten + max of ¾ turn with a filter wrench).

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### THE AIRDOG® PTC HEATER WIRE HARNESS

**\*VERY IMPORTANT: The AirDog® wire harness requires a 15 amp fuse.**



Fuel Heater Lead (8-2)



Battery Positive Lead - Red (8-5)



Battery Negative Lead - Green (8-4)



Relay Trigger Lead (No Connector/Plug) (8-3)

### Securing the AirDog® Wire Harness Relay to the Vehicle

8-1. Secure the AirDog® Heater wire harness relay to the vehicle. Here the relay is mounted on the firewall.





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8-2. Route the AirDog® Heater wire harness heater lead with the green seal to the AirDog® PTC Heater.



#### Relay Trigger Lead

The Relay Trigger Lead must be connected to a contact point that is electrically “HOT” when the key is in the “RUN” position. This could be either in a spare fuse holder in the fuse panel or on the ignition switch itself.

**Note: DO NOT** connect the AirDog® wire harness relay trigger lead to a point that is “HOT” when the key is in the ACCESSORY position.

8-3. Connect the red relay trigger lead to a fuse holder in the fuse panel (using provided Add-A-Circuit) that is “HOT” when the ignition key is in the “RUN” position

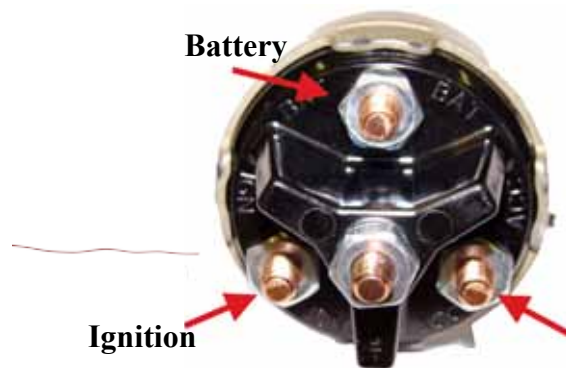
**OR**

connect the red relay trigger lead to a terminal on the ignition switch that is “HOT” when the ignition key is in the “RUN” position.

**THIS**

**OR**

**THIS**



**Accessory  
DO NOT  
Connect Here**

## CONNECTING THE POWER SUPPLY LEADS

The power supply leads can be easily connected to the appropriate contacts on the battery. Another alternative option would be to connect the power supply leads to the appropriate contacts on the alternator. Any high amperage terminal that is always “HOT” is OK for the Positive + (RED) lead. Be sure the NEGATIVE - (GREEN) lead is connected to a reliable chassis ground.

8-4. Route the red & green power leads to the battery. Connect the green (-) ground lead to the negative battery terminal post.

8-5. Connect the red (+) positive lead to the positive battery terminal post.



**NOTE: Use included 12” zip ties to properly secure harness.**



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