



# AirDog® PTC Heater Kit

## INSTALLATION MANUAL

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

PLEASE READ  
THESE INSTRUCTIONS  
THOROUGHLY  
BEFORE BEGINNING  
INSTALLATION



Revised 10/2/2020

Part No. FHK-1000



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.

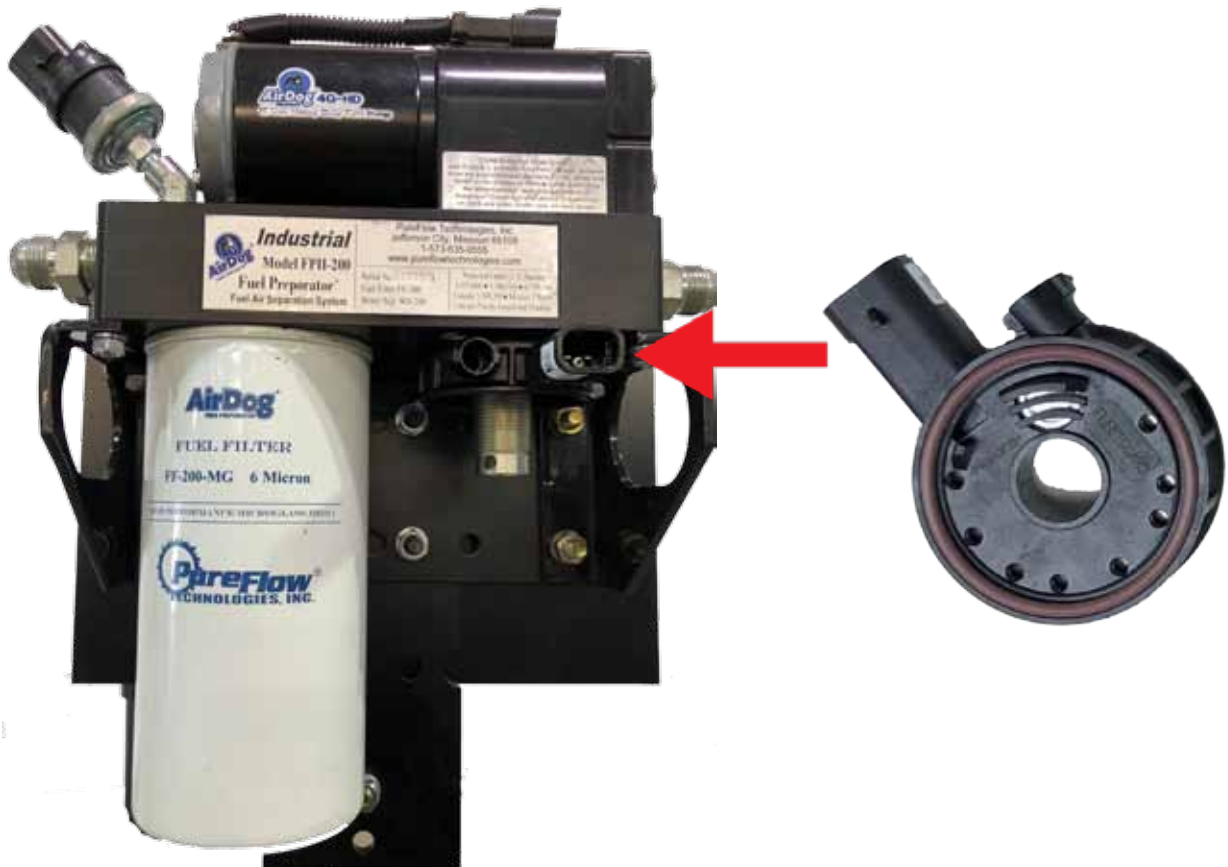
### SAFETY GUIDELINES

**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.



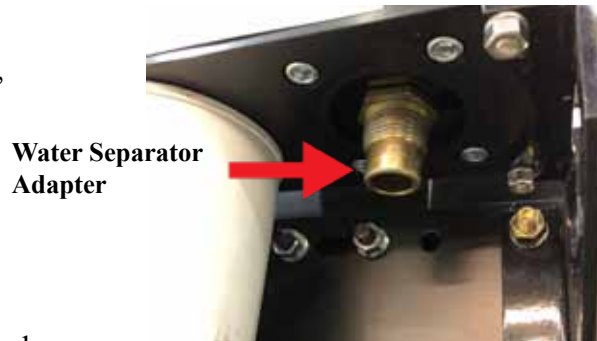
**PTC Heater Kit Parts List**

1	Installation Manual	206-1-FHK	
1	Fuel Heater Wire Harness	5E-2-019-FH	
1	Fuel Heater Nipple	001-8HN-0001	
1	Fuel Heater Lock Nut	001-8HNLN-0002	
1	Fuel Heater	4H-4-00001	
1	Add-a-Fuse	908-5E-2-018	

**Installation Instructions**

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

2. Using a 1-1/8” deep-well socket 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 1-1/8” 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. Be sure the holes in the side of the second piece 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 element 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 WIRING HARNESS

**\*VERY IMPORTANT: The AirDog® wiring 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® Wiring Harness Relay to the Vehicle

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



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8-2. Route the AirDog® Heater wiring 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® wiring 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

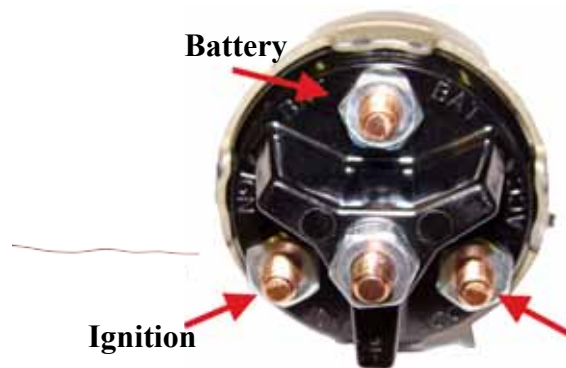
**OR**

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**



## 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.





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Bulletin No. 206-1-FHK  
Revised October 06, 2020