

# INSTALLATION INSTRUCTIONS

## 180°F SINGLE STAGE ELECTRIC FAN THERMOSTAT

### PART # 16738TB

Please read these instructions completely before beginning installation

#### KIT CONTENTS

QTY. DESCRIPTION	QTY. DESCRIPTION
1 Thermostat Switch	2 Red Butt Connectors
1 Push-in Probe	1 20 Amp Fuse Holder
1 1 x 1 Foam Pad	7' 14GA. Red Wire
1 Retaining Clip	1 One-Way Diode
1 Blue Ring Terminal	1 Shrink Tube
2 Blue Butt Connectors	2 Blue Female Connectors

#### TOOLS NEEDED

12V Test Light	Crimping Tool
Wire Stripper	Heat Gun

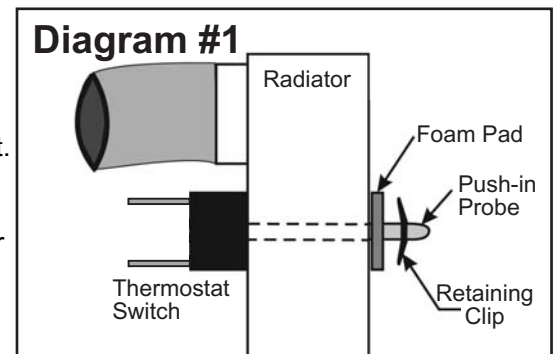
#### **THERMOSTAT PROBE INSTALLATION**

##### **Push-in Radiator Probe** (See Diagram #1)

**Placement:** For best results we recommend installing the probe as close as possible to the water inlet of the radiator. (See Diagram #1)

##### **Installation:**

1. Take the brass probe and thread it clockwise onto the thermostat until tight.
2. Carefully insert the probe/thermostat assembly into the fins of the radiator until thermostat is flush with radiator.
3. Install the 1 x 1 foam pad onto the Push-in Probe protruding from the other side of the radiator core.
4. Install Retaining Clip onto the Push-in Probe until tight. (See Diagram #1)



#### **WIRING**

##### **OPTION 1 (Thermostat Only. No Override Switch)**

Before starting, disconnect the Negative (-) cable on the vehicles battery.

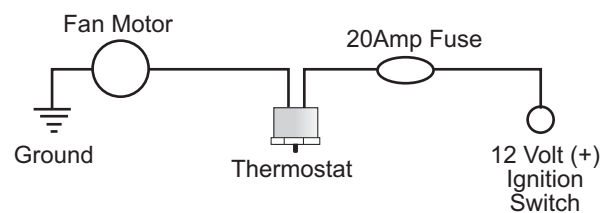
Using the electrical connectors, wire and fuse holder provided, follow the instructions below. See Diagram #2

1. Using a Blue Ring Terminal provided, attach the Negative (-) wire on the electric fan to a good chassis ground (-).
2. Using a Blue Butt Connector, a Blue Female Connector and wire provided, attach the Positive (+) wire on the electric fan to EITHER terminal on the Thermostat Switch.
3. Using the 20 Amp Fuse Holder, a Blue Female Connector and wire provided, attach the remaining terminal on the Thermostat Switch to either wire on the 20 Amp Fuse
4. Using the remaining Blue Butt Connector, attach the remaining wire on the 20 Amp Fuse Holder to a good Positive (+) 12V switched ignition source.

**Note:** If this wire is connected to a constant power source (battery) the electric fan will run after the vehicle has been shut off and could run down the battery.

Reattach the Negative (-) cable on the vehicles battery.

#### **Diagram #2 (Thermostat Only)**



#### IMPORTANT

This single stage electric fan thermostat will control one electric fan with a **MAXIMUM DRAW OF 15 CONTINUOUS AMPS.**

*(Continues on reverse side)*

## **OPTION 2 (Thermostat Switch, One-Way Diode and Override Switch)**

Before starting, disconnect the Negative (-) cable on the vehicles battery.

Using the electrical connectors, wire and fuse holder provided, follow the instructions below. See Diagram #3

1. Using the #10 Blue Ring Terminal provide, attach the Negative (-) lead from the electric fan to a good chassis ground (-).
2. Using a Blue Female Connector and 14 gauge wire provided, attach one side of the Thermostat Switch to both the Positive (+) lead on the electric fan and a length of wire.
3. Using a Blue Female Connector & length of wire, attach the remaining lead from the Thermostat Switch to the 20 amp Fuse Holder and the top terminal on the toggle switch.
4. Attach the unused end of the 20 amp Fuse Holder to a Positive (+) switched ignition source.
5. Using the two red butt connectors and shrink tube provided, install the One-Way Diode onto the remaining red wire attached to the electric fan Positive (+) lead as indicated below.
  - A. Take the One-Way Diode supplied in the kit and cut 1/2" off each end leaving only 3/8" remaining.
  - B. Using a crimping tool, attach one of the Red Butt Connectors to each end of the One-Way Diode.

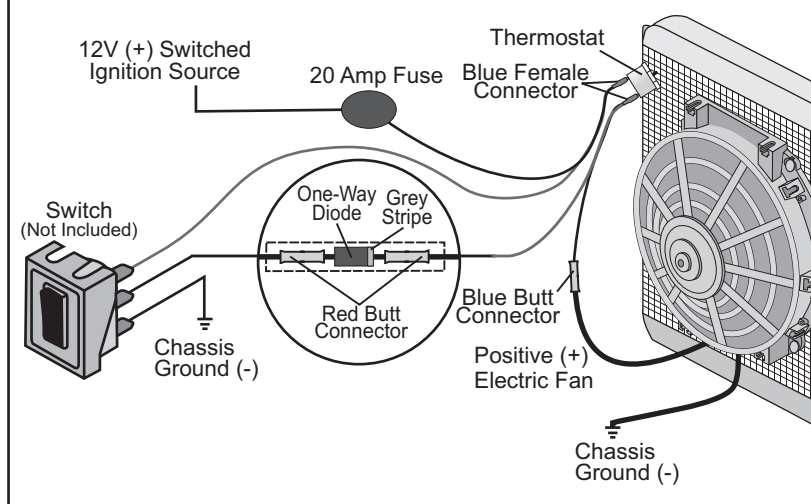
Note: It is very important that the diode is installed in the correct direction. The grey stripe on the side indicates the direction electricity will flow through the diode. The end the stripe is closest to needs to be the end connected to the electric fan lead.

- C. Attach the Positive (+) lead from the electric fan to the end of the One-Way Diode with the grey stripe.
  - D. Take the shrink tube provided and slide it over the diode and down the wire.
  - E. Using a length of wire, attach the other end of the diode to the center terminal on the toggle switch (Not Included).
  - F. Slide the shrink tube back over the diode and two Red Butt Connectors. Take a heat gun and shrink the tube until fully sealed against the wire.
6. Attach the bottom terminal on the toggle switch to a good chassis ground (-).

**Note:** If this wire is connected to a constant power source (battery) the electric fan will run after the vehicle has been shut off and could run down the battery.

Reattach the Negative (-) cable on the vehicles battery.

### **Diagram #3 (Thermostat Switch with Override Circuit)**



### **IMPORTANT**

This One-Way Diode will control one electric fan with a **MAXIMUM DRAW OF 9 CONTINUOUS AMPS.**

## **TROUBLE SHOOTING Q&A**

Q: Why doesn't the fan turn on automatically?

- A:
1. Check all connectors to make sure contacts are crimped correctly.
  2. Check the Ground connection to make sure all paint is sanded off and you are getting a metal to metal contact.
  3. Check the 20 Amp Fuse Holder to make sure the fuse is good and is securely in place.

Q: Why does the electric fan run after the engine is turned off?

- A: Check the ignition wire to make sure this is connected to a switched ignition source and not a constant power source.

**Warning:** Installation of accessories should only be undertaken by those with mechanical knowledge and are familiar with working on vehicles. Always use eye protection (goggles, safety glasses or shield). Park the vehicle in a well lit area, on level ground and apply the parking brake. Only work on a cold vehicle that has been sitting overnight, failure to do so will result in severe burns and injury. Before starting the vehicle, make sure no tools or any other items are left under hood that could interfere with or be drawn into moving parts of the engine. Failure to follow instructions can lead to severe damage and personal injury.