



# INSTALLATION INSTRUCTIONS ADJUSTABLE ELECTRIC FAN CONTROLLER PART # 16749

Please read these instructions completely before beginning installation

## KIT CONTENTS

QTY.	DESCRIPTION	QTY.	DESCRIPTION
1	Fan Control Module	2	Blue Butt Connectors
1	40/60 Amp Relay	1	Blue 5/16" Ring Terminal
1	Wire harness with 3/8" NPT Thread-in Probe	1	Blue #10 Ring Terminal
1	5' 12Ga. Red Wire	1	Blue Wire Tap Connector
3	#10 Sheet Metal Screws	4	Red Butt Connectors
		4	4" Wire Ties

## TOOLS NEEDED

Drill	Standard Screw Driver
5/32" Drill Bit	(1/8" wide blade)
Teflon Tape	Wire Stripper
12V Test Light	Wire Crimping Tool
Standard Screw Driver or a 5/16" Nut Driver	3/4" Open End Wrench

## IMPORTANT

**This unit utilizes a GROUND switching circuit.**

The unit will activate the Electric Fan(s) at one set temperature. It is not designed to have two activating temperature set points. Please read instructions carefully to insure proper installation.

## WARNING

This unit is designed to control up to 2 electric fans with a combined **MAXIMUM DRAW OF 25 CONTINUOUS AMPS**. If fans exceed 25 amps combined, we recommend installing one controller per electric fan.

## CONTROL MODULE INSTALLATION

1. Choose a convenient location, preferably along the vehicles core support near the battery. Take in consideration probe placement and wire routing requirements. Avoid mounting near HOT engine components or a location that would be in direct contact with water or road debris.
2. Using the module as a template, mark and drill two 5/32" holes in the proper location.
3. Using the two #10 sheet metal screws supplied, secure the unit in place.

## THERMOSTAT PROBE INSTALLATION

**Placement:** Locate a 3/8" NPT port either on the radiator, waterneck, intake manifold or cylinder heads.

**Installation:** Using Teflon Tape or suitable sealant, thread-in the 3/8" NPT probe into the desired port. Be careful not to over tighten.

**Note:** Probe wires can be lengthened if necessary. When lengthening wires always use good quality wire and connections to assure proper function.

## WIRING

Before starting, disconnect the Negative (-) cable on the vehicles battery. Plug in the wire harness into the fan control Module.

Using the electrical connectors and wire ties provided, follow the instructions below. (See Diagram #3 on reverse side)

### Red (Loose wire): Positive (+) Battery to Positive (+) Fan Lead

Using the Blue 5/16" Ring Terminal provided, attach one end of the Red loose wire to the vehicles Positive (+) terminal on the battery.

Using the Blue Butt Connector provided, attach the other end of the loose Red wire to the Positive (+) lead on the electric fan.

### Red (Fused Harness wire): To Negative (-) Electric Fan Lead

Using the Blue #10 Butt Connector provided, attach the Red wire to the Negative (-) lead on the electric fan. If you are running two small electric fans, the total continuous amperage cannot exceed 25 amps. The Red wire can be connected in parallel to both Negative (-) fan leads.

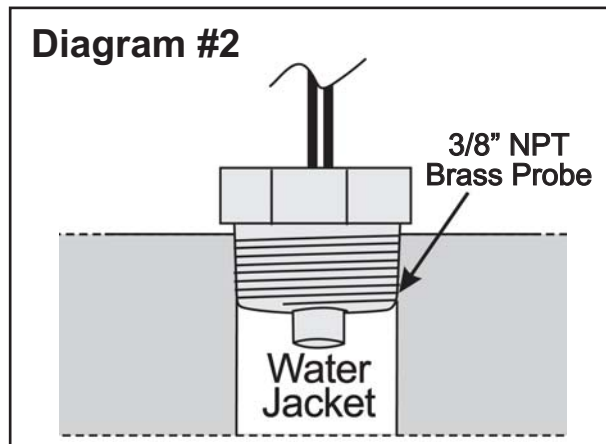
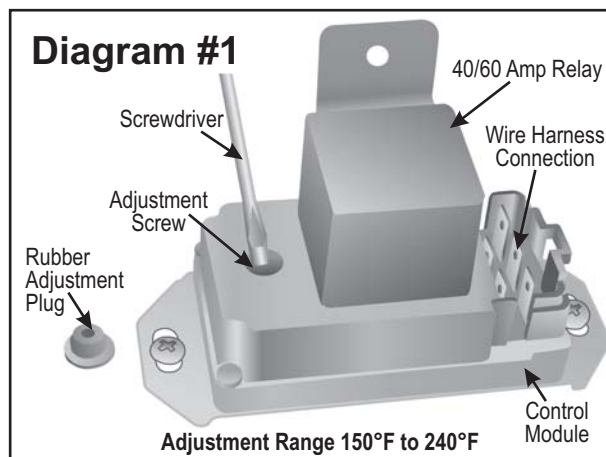
### Black Wire: Chassis Ground (-)

Using the Blue Ring Terminal provided, attach the black wire to a good chassis ground.

### Yellow Wire: Switched Ignition source

Using the Red Butt Connector provided, attach the yellow wire to a positive (+) switched ignition source.

(Wiring Continues on reverse side)



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

### **Green Wire: Override Circuit (Optional)**

The green wire is designed to work in two different configurations. When used, this will allow the fan(s) to be turned on regardless of the temperature of the thermostat as it simply overrides all other functions. If you choose to not use this option cut any exposed copper and tape or shrink wrap the end of the wire.

1. A/C Override - Using the Blue Wire Tap provided, attach the green wire to the positive lead on the air conditioning compressor.
2. Manual Switch Override - Attach the Green Wire to the manual switch (not provided) with a positive feed.  
For Manual Switch installation always follow manufactures instructions.

### **TEMPERATURE ADJUSTMENT**

#### **DO NOT ADJUST TEMPERATURE UNTIL AFTER VEHICLE IS RUNNING!**

Refer to the VEHICLE TESTING section.

**WARNING:** Adjustment range is only 3/4 turn total rotation.

Do not force past the stop or all warranty is void!

1. Remove the Rubber Adjustment Plug on the Control Module. **(See Diagram #1)**
2. Turn adjustment screw counter clockwise to lower the fan turn-on temperature.
3. Turn adjustment screw clockwise to raise the fan turn-on temperature.
4. Replace the Rubber Adjustment Plug.

### **VEHICLE TESTING**

1. Before you start the vehicle, make sure all wires are safely zip tied and away from any moving parts.
2. Start the vehicle.
3. If the Manual Override function is being used either turn on the air conditioning of the vehicle or flip the Manual Switch on. The electric fan should start running immediately.
4. Turn off the Manual Override function and allow the engine to warm up to operating temperature.
5. If the electric fan has not turned on, take a Screw Driver and turn the Adjustment Screw counter clockwise in small increments until fan starts.
6. Allow the electric fan to run and shut off automatically, and possibly cycle on again. If the electric fan turns on too early, turn the Adjustment Screw clockwise.
7. Once you have the fan cycling on and off using the control module, take the vehicle for a short test drive. For personal preference, some adjusting may still be necessary.
8. Make sure the Rubber Adjustment Plug is securely in place.

### **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. Using a 12V Test Light, check to make sure the fan has power on the Positive (+) fan lead even when the vehicle is off.

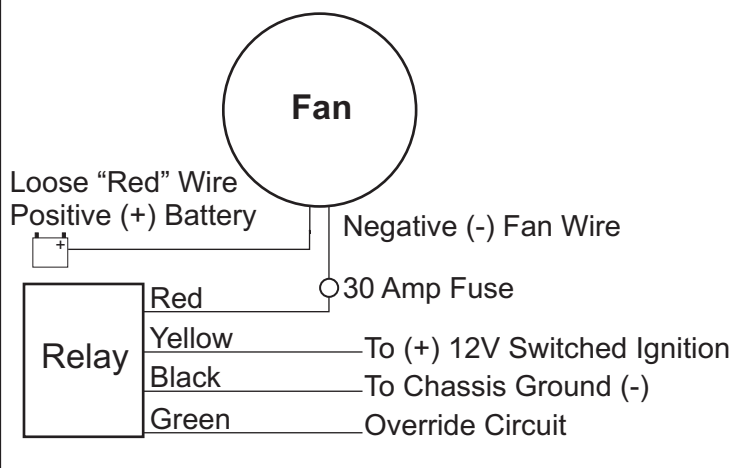
Q: Why does the fan run after the engine is turned off?

A: Check the Yellow Wire, this wire should be connected to a switched ignition source.

Q: Why doesn't the electric fan turn on when I turn on the A/C or Manual Switch?

A: To quickly test the Manual Override Circuit, disconnect the Green wire and run a jumper wire directly to the Positive (+) terminal on the battery. Electric fan should start immediately. If fan started reattach the Green wire to the proper (+) wire on the A/C clutch or Manual Switch.

**Diagram #3**



**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.