Adjustable Electric Fan Control Kit

Catalog #1995

INSTALLATION INSTRUCTIONS

This Adjustable Electric Fan Control Kit will operate one (1) or two (2) cooling fans. The electronic module is preset to turn the fan(s) "On" at 180° Fahrenheit and is adjustable from 140°-220°. When properly installed, temperature sensor probe and electronic module will activate fan(s) when ignition key is in the "On" position. Electric fan(s) will turn "Off" and not operate when ignition key is in the "Off" position.

Caution: *Electric fan(s) may turn "On" automatically if engine is not running and ignition key is left "On" when engine coolant temperature is "Hot". To avoid bodily injury keep fingers away from fan blade when electric fan(s) are operating.*

Note: *Before beginning installation, be sure engine and radiator are cool to the touch. Examine radiator and cooling fins, radiator must be in good physical condition. If cooling fins are soft, damaged, or loose from coolant transfer tubes, radiator must be recored.*

Electronic Module Installation

1. Locate module in an easy access location within 20 inches of top radiator hose. To protect the wiring, avoid high heat areas near exhaust manifolds/headers or pipes. Route wiring away from moving parts and secure using wire ties. Refer to figure 1.

2. Mark and center-punch module mounting holes at desired location. Drill two (2) 3/32" holes and secure module using two (2) #8 X 3/4" slotted sheet metal screws (supplied).

Radiator Temperature Sensor Probe Installation

Install temperature probe two (2) to three (3) inches below top radiator hose in an easy access location. From engine side of radiator (rear), carefully insert probe into cooling fins and push completely in. It is important that a good tight fit is established. A loose fit dramatically changes the thermal conductivity resulting in incorrect temperatures being sensed. Refer to figure 1.

Electrical Wiring Connections
Single Electric Fan Installation

In some applications wires may need to be shortened or lengthened as required. When adding additional lengths of wire, use the same type and gauge (14ga.) as supplied in the electrical wiring harness. Allow some additional wire to compensate for movement. Use correct size electrical terminals or connectors to properly connect wires together. Pull test all wires to make sure all connection are secure.

Caution: *Do not route electrical wiring underneath chassis of vehicle as foreign objects on the road or bottoming out can sever wiring. Always route wiring in a protected area upward away from the bottom of chassis. If necessary drill a 3/8" diameter hole in the side of existing fan shroud to route wiring from fan motor(s) to electronic module.*

Note: *Refer to figure 2 and 3 for color coded wire harness electrical connections.*

1. Disconnect negative (-) battery cable.

Caution: *When removing or connecting the battery cable terminal, use care to avoid intermittent contact (arcing or sparking) between battery post or battery mounting surface and terminal end. This generates voltage spikes that can damage sensitive ECM (Electronic Control Module) components or memory circuits.*

2. Color coded module and wire harness: The module and wire harness is color coded for your convenience. Follow the color code on wire harness and module. Install custom plug-in connectors from wire harness onto module.

3. Orange Stripe Wire: Locate fuse block (refer to Vehicle Manufactures Service Manual if necessary for location). Using a volt/ohm meter, check for available full 12-volt power source that is "Ignition" key activated. Crimp female terminal (supplied) onto wire and connect to power source.

Note: *Electronic module requires a full 12-volt power source. Low or fluctuating voltage will cause failure.*

4. Red Stripe Wire: Connect red stripe wire to a continuous full 12-volt power source. The positive (+) side of the battery is the most convenient location for this connection. Crimp ring terminal (supplied) onto wire and connect to positive (+) battery terminal.

5. Blue Stripe Wire: Connect blue wire with in-line fuse to the 12-volt wire lead from electric fan.

Important!
Primary Cooling Electric Fan (Puller Air Flow)
All Mr. Gasket electric cooling fans are assembled with fan blade installed in the "puller" air flow position. Fan blade must rotate in a "clockwise" direction.

Note: *When using this style fan connect male terminal on "blue" wire to 12-volt power source with in-line fuse. Connect male terminal on "black" wire to a good negative "ground" source.*

Auxiliary Cooling Electric Fan (Pusher Air Flow)
To convert electric fan to "pusher" air flow. Fan blade must rotate in a "counterclockwise" direction.

Note: *When using this style fan, be sure to carefully read the instructions included with the Mr. Gasket electric fan on proper procedure for "reversing" the fan blade. Connect male terminal on "black" wire to 12-volt power source with in-line fuse. Connect male terminal on "blue" wire to a good negative "ground" source.*

Dual Electric Fan Wire Installation
Jumper wire lead for 12-volt power supply and "ground" wire lead for Auxiliary fan is not included and must be fabricated to complete wire connections on dual fan installations. Additional automotive grade wire (14ga.), electrical female terminal, ring terminal and butt splice connector is required to complete Auxiliary fan wire connections.

Important! *When using a combination of both Primary (puller) and Auxiliary (pusher) electric fan(s), be sure blue wire with in-line fuse from module is connected to the correct color 12-volt wire lead from each fan motor.*

6. Black Wire: Connect black wire from module to a good negative "ground" (metal surface) source. If there is not an existing "ground" source, remove paint to bare metal, mark and center-punch "ground" mounting hole location. Drill 3/32" hole and secure using #8 X 3/4" sheet metal screw (supplied).

Note: *A black wire lead (supplied) with one (1) female and one (1) ring terminal, measuring two (2) feet long, is to be used as a "ground" wire for electric fan. Use the same "ground" location listed above.*

7. White Stripe Wire: Optional wiring, this wire can be used for an "On/Off" rocker switch or air conditioned vehicles. Fan(s) can be turned "On" by a manual switch or on air conditioned vehicles when A/C is being used if desired.

"On/Off" Rocker Switch Part Mr. Gasket part #1993, cut wire (before it connects to Black Wire), splice additional length of wire and connect to middle terminal on rocker switch. This will override the temperature sensor probe and allow fan(s) to turn "On" before engine coolant reaches 180° Fahrenheit.

Air Conditioned Vehicles, cut wire (before it connects to Black Wire), splice additional length of wire and connect to A/C compressor/clutch "ground" wire lead. This will activate fan(s) when A/C is turned "On".

Note: *Compressor/clutch has two (2) wire leads, using a volt/ohm meter or test light, determine which wire is the "ground" wire lead when A/C is turned "On".*

8. Reconnect negative (-) battery cable.

9. Check coolant level in radiator before starting engine. Be sure radiator is sufficiently cool before attempting to remove radiator cap. Place a heavy shop towel over cap. Carefully turn and allow any pressure that is still inside radiator to escape completely and remove cap. Check coolant inside radiator to be sure it is at the proper level. This is mandatory to insure the probe senses ambient temperature accurately at the correct engine coolant temperature and should be checked on a regular basis. Reinstall radiator cap and tighten securely.

Note: *It is recommended that a mechanical water temperature gauge be installed to monitor engine coolant temperature. This will also help to calibrate a temperature setting adjustment made to the module.*

10. Check electric cooling fan operation. Allow engine to warm up to normal operating temperature. Fan(s) should turn "On" automatically when engine coolant reaches 180° Fahrenheit.

Warning: *If engine coolant temperature reaches 225° Fahrenheit and electric fan(s) are not operating, turn engine "Off". Wait until engine and radiator have cooled down completely, then re-check electrical wire connections and fuse.*

Temperature Adjustment: *The electronic module is preset at 180° Fahrenheit and is adjustable from 140°-220°. If you elect to change the temperature setting, use a small flat blade screwdriver and insert*

into white slot located on the top of module. Turn "counterclockwise" to increase and "clockwise" to decrease temperature setting. Refer to figure 2.

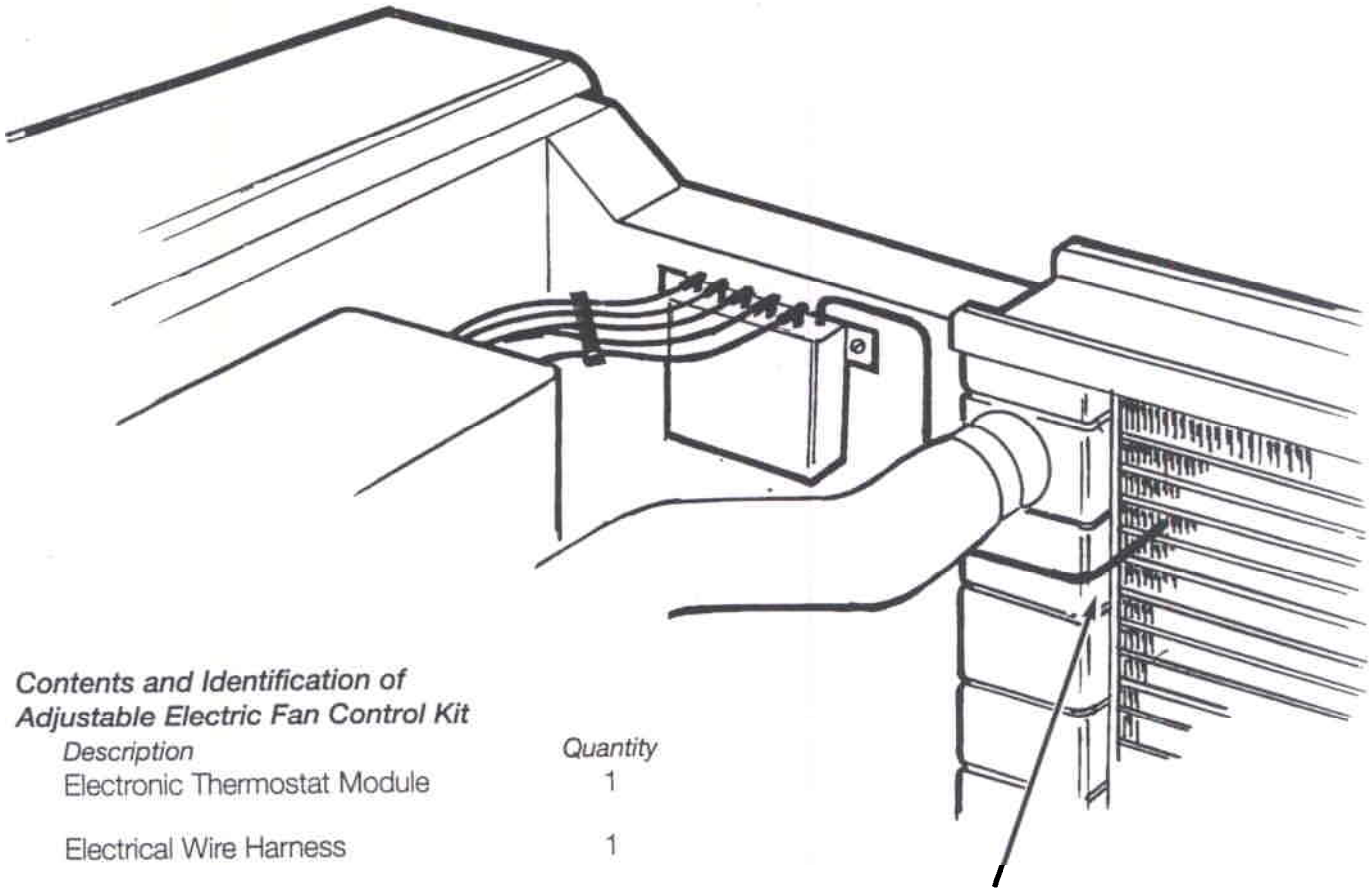
11. To verify fan(s) are rotating in the proper direction, place a piece of paper two (2) to three (3) inches away from the electric fan safety shroud while fan(s) are operating. The Auxiliary fan (pusher air flow) will draw the paper inward against the safety shroud and Primary fan (puller air flow) will blow the paper outward away from safety shroud.

> ***Note:*** *Retain this Instruction Sheet for Future Reference.*

TECHNICAL SERVICE

A highly trained technical service department is maintained by Mr. Gasket to answer your technical questions, provide additional product information and offer various recommendations. See your local retailer of Mr. Gasket products for specific prices. For best results, technical service calls, correspondence and warranty questions should be directed to the following address:

FIGURE 1 *CONTROL MODULE AND TEMPERATURE SENSOR PROBE INSTALLATION*



Contents and Identification of Adjustable Electric Fan Control Kit

Description	*Quantity*
Electronic Thermostat Module	1
Electrical Wire Harness	1
Female Terminal, Solderless	1
Ring Terminal, Solderless	1
#8 X 3/4" Sheet Metal Screw	3

FIGURE 2 *ADJUSTABLE CONTROL MODULE*

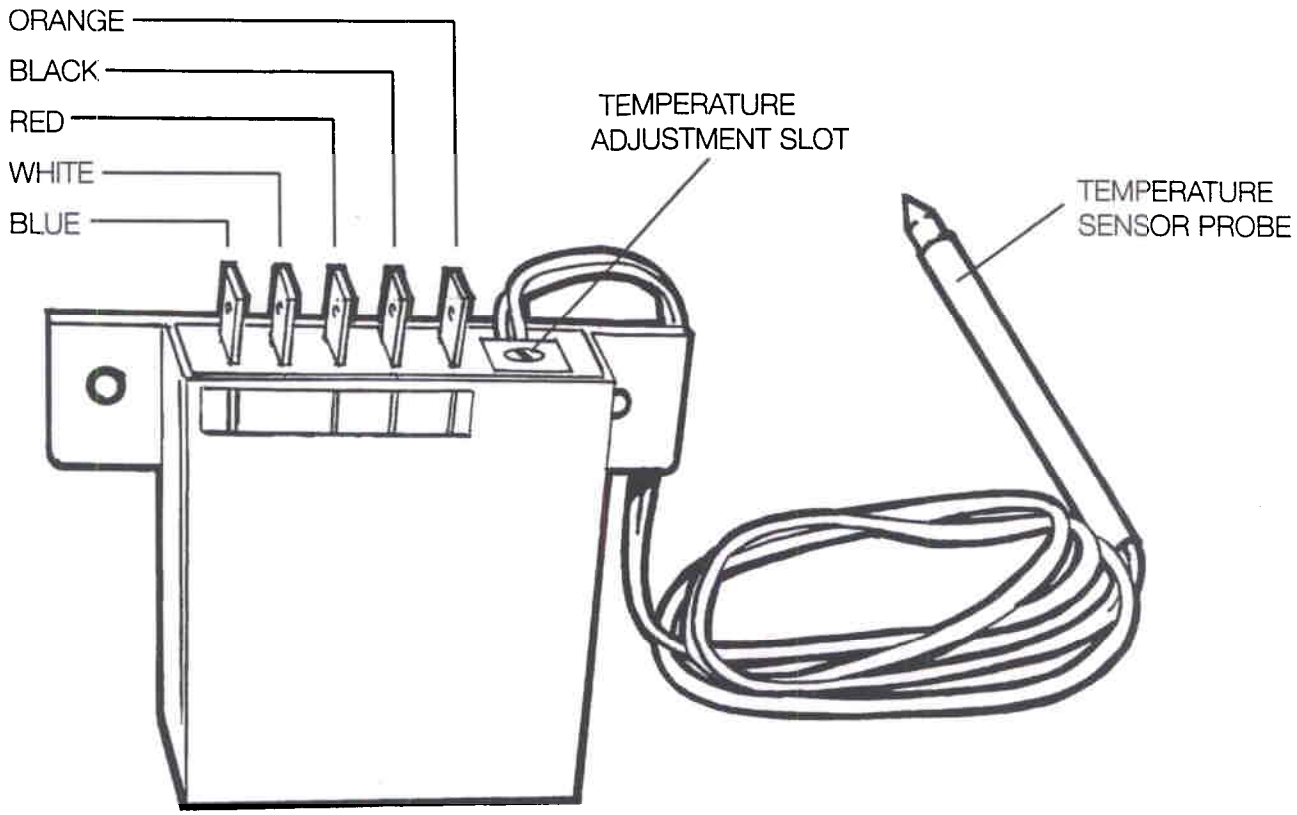
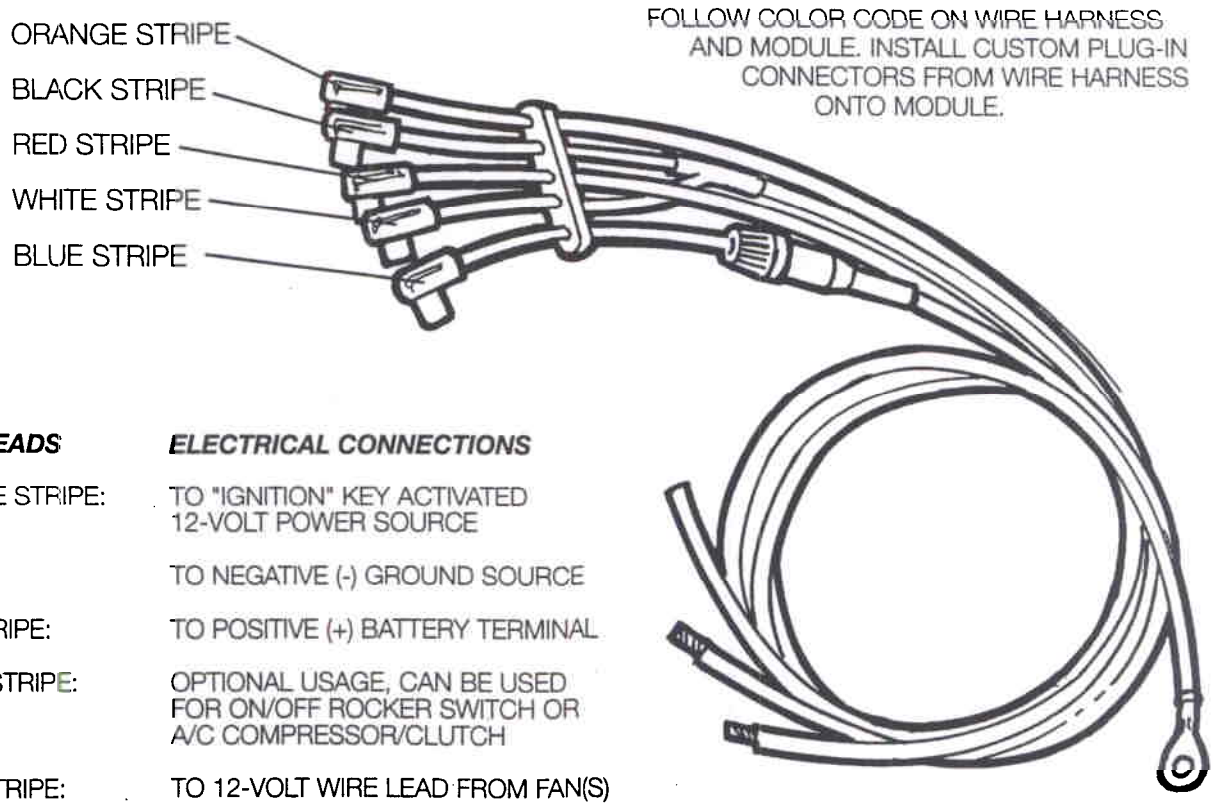


FIGURE 3 *COLOR CODED WIRE HARNESS ELECTRICAL CONNECTIONS*



WIRE LEADS	***ELECTRICAL CONNECTIONS***
ORANGE STRIPE:	TO "IGNITION" KEY ACTIVATED 12-VOLT POWER SOURCE
BLACK:	TO NEGATIVE (-) GROUND SOURCE
RED STRIPE:	TO POSITIVE (+) BATTERY TERMINAL
WHITE STRIPE:	OPTIONAL USAGE, CAN BE USED FOR ON/OFF ROCKER SWITCH OR A/C COMPRESSOR/CLUTCH
BLUE STRIPE:	TO 12-VOLT WIRE LEAD FROM FAN(S)

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THERMOSTATIC TEMPERATURE SENSOR
WIRING DIAGRAM AND CONNECTIONS INCLUDING OPTIONAL MANUAL ON/OFF ROCKER SWITCH