



## JET #60603 Cooling Fan Switch (Optional) Fan Switch Harness

### INTRODUCTION:

The JET part #60603 coolant fan control is a bimetal disc actuated, stud mounted, SPST, single terminal electrical switch. The calibrated bimetal disc responds to engine coolant temperature changes to energize an electrically driven coolant fan motor. The 1/2" bimetal disc snaps from a concave to a convex shape at a predetermined calibration temperature. This snap action occurs in 1/10,000 of a second with the motion directly transferred to the movable arm for precise snap action cut-in and cut-out. Calibrated bimetal discs are recognized for their inherent reliability and calibration stability. This part has been specifically designed to control electrically driven coolant fan motors on late model GM automobiles, i.e. Corvette, Camaro, Firebird and Impala, that operate at high ambient temperatures. The 60603 lowers the coolant temperature, thus maximizing engine performance and reducing engine wear.

### INSTALLATION PROCEDURES:

#### Electric Cooling Fan Controlled by a Fan Control Switch

(1.) Drain the cooling system. **MAKE SURE THE COOLANT IS COOL!** Disconnect the negative (Black) battery cable from the battery. Locate the factory cooling fan switch. The switch is normally located on the cylinder head between spark plugs one and three or six and eight. Refer to a General Motors Corvette Service Manual for the switch location.

*Call 1-800-782-4356 or go to [www.helminc.com](http://www.helminc.com) to order a GM Corvette Service Manual.*

(2.) Unplug the factory cooling fan switch connector. Use a 13/16" deep well socket to remove the factory cooling fan switch. **DO NOT** use a spark plug socket. If your vehicle is not equipped with a factory switch, use a piece of 5/16" square tube to remove the cylinder head water jacket plug.

**USE CAUTION WHEN INSTALLING THE SWITCH INTO THE CYLINDER HEAD!  
CROSS THREADING WILL CAUSE DAMAGE TO THE HEAD AND OR SWITCH!**

(3.) Coat the cooling fan switch threads with sealant to prevent leaks. Use the same 13/16" deep well socket to install the switch. Plug the factory cooling fan switch connector into the switch.

(4.) Reconnect the negative (black) battery cable. Refill the cooling system to the proper level and check for leaks around the switch. Start the engine and allow the coolant to heat to operating temperature to insure the fan(s) operate properly.

**CAUTION! NEVER PLACE HANDS NEAR COOLING FAN(S) AT ANYTIME.  
SEVERE INJURY MAY OCCUR**

## **ELECTRIC COOLING FANS CONTROLLED BY THE ECM/PCM (COMPUTER)**

### **Refer to steps 1-3 on page #1**

(4.) On vehicles that are equipped with ECM/PCM (computer) controlled cooling fan(s), use the JET Fan Switch Harness. Locate the electric cooling fan relay(s). Refer to GM Service Manual for the relay location.

(5.) Locate the fan signal wire coming from the relay connector. Terminal "F" is normally the signal wire on newer oval style relays and terminal "B" on the older rectangle style relays. The connector terminal cavities are identified by letters that are stamped directly on the connector assembly. Always refer to a GM Service Manual for proper signal wire connector cavity location and wire color. Use a test probe if you are unsure which lead is the signal wire.

**WARNING!! Never connect the Fan Switch Harness leads to a 12 volt power source. Damage to the harness will occur.**

#### (6.) A. Single Fan Operation:

Attach the "T-Tap" splice connector to the relay signal wire. Attach pink connector by crimping it to the red or black wire\* of the JET Fan Switch Harness. Plug the pink blade connector into the "T-Tap" splice connector. (Single Fan Operation Only - Cut the extra lead off or tie it up)

#### B. Dual Fan Operation:

Perform step 6A, then attach the remaining "T-Tap" splice connector to the secondary fan relay signal wire. Attach the pink connector, by crimping it to the red or black wire\* of the Jet Fan Switch Harness. Plug the pink blade connector into the "T-Tap" splice connector.

**\*NOTE: The black and red wires are tied together and perform the same function.**

When the engine coolant reaches the turn-on point of approximately 200 degrees F, the fan switch will close to ground. The ground signal will be sent to the cooling fan relay(s). The cooling fan(s) will turn-on and remain on until they cool the engine coolant to a turn-off point of approximately 185 degrees F. The fan switch has approximately 15 degree F hysteresis with + or - 5 degrees.

Note: Analog and digital temperature gauges are not completely accurate. The turn-on and turn-off temperature may vary slightly from what the vehicle gauge reads. Furthermore, the gauge sensor is located in a different location than the CFS Switch location. Coolant temperature may vary at different engine coolant stream locations.

(7.) Reconnect the negative (Black) battery cable. Refill the cooling system to the proper level and check for leaks around the JET 60603 Cooling Fan Switch. Start the engine and allow the coolant to heat up to operating temperature to insure the fan(s) operate properly.

**Caution!! Never place hands or loose clothing near the cooling fan(s) at anytime. Severe injury may occur.**

## INSTALLATION CHART

<b>Year</b>	<b>Model</b>	<b>Main Fan</b>	<b>Auxiliary Fan</b>	<b>60603 Install Location</b>	<b>Optional Harness Req.</b>
1984	Corvette	Yes (1)	Not Available	Right Side Cylinder Head	NO
1985	Corvette	Yes (2)	Optional (1)	Right Side Cylinder Head	YES (3)
1986	Corvette	Yes (2)	Optional (1)	Left Side Cylinder Head	YES (3)
1987	Corvette	Yes (2)	Optional (1)	Left Side Cylinder Head	YES (3)
1988	Corvette	Yes (2)	Optional (1)	Left Side Cylinder Head	YES (3)
1989	Corvette	Yes (2)	Optional (1)	Left Side Cylinder Head	YES (3)
1990	Corvette	Yes (2)	Optional (1)	Left Side Cylinder Head	YES (3)
1991	Corvette	Yes (2)	Not Available (4)	Left Side Cylinder Head	YES
1992	Corvette	Yes (2)	Not Available (4)	Left Side Cylinder Head	YES
1993	Corvette	Yes (2)	Not Available (4)	Left Side Cylinder Head	YES
1994	Corvette	Yes (2)	Not Available (4)	Left Side Cylinder Head	YES
1995	Corvette	Yes (2)	Not Available (4)	Left Side Cylinder Head	YES
1996 – 2014 Corvette: THIS PRODUCT IS NOT APPLICABLE					

- (1) – Controlled by a brass cooling fan switch.
- (2) – Controlled by the ECM/PCM (Computer).
- (3) - The JET Fan Switch Harness is only required if main cooling fan control is desired.
- (4) – This model is equipped with a secondary-cooling fan that is controlled by the ECM/PCM.

1984 Corvette – The main cooling fan is controlled by a brass cooling fan switch identical to the JET 60603. It's located on the passenger side cylinder head between spark plugs six and eight. Remove the factory connector by squeezing and pulling it at the same time. Remove the factory switch and replace it with the JET 60603 Switch.

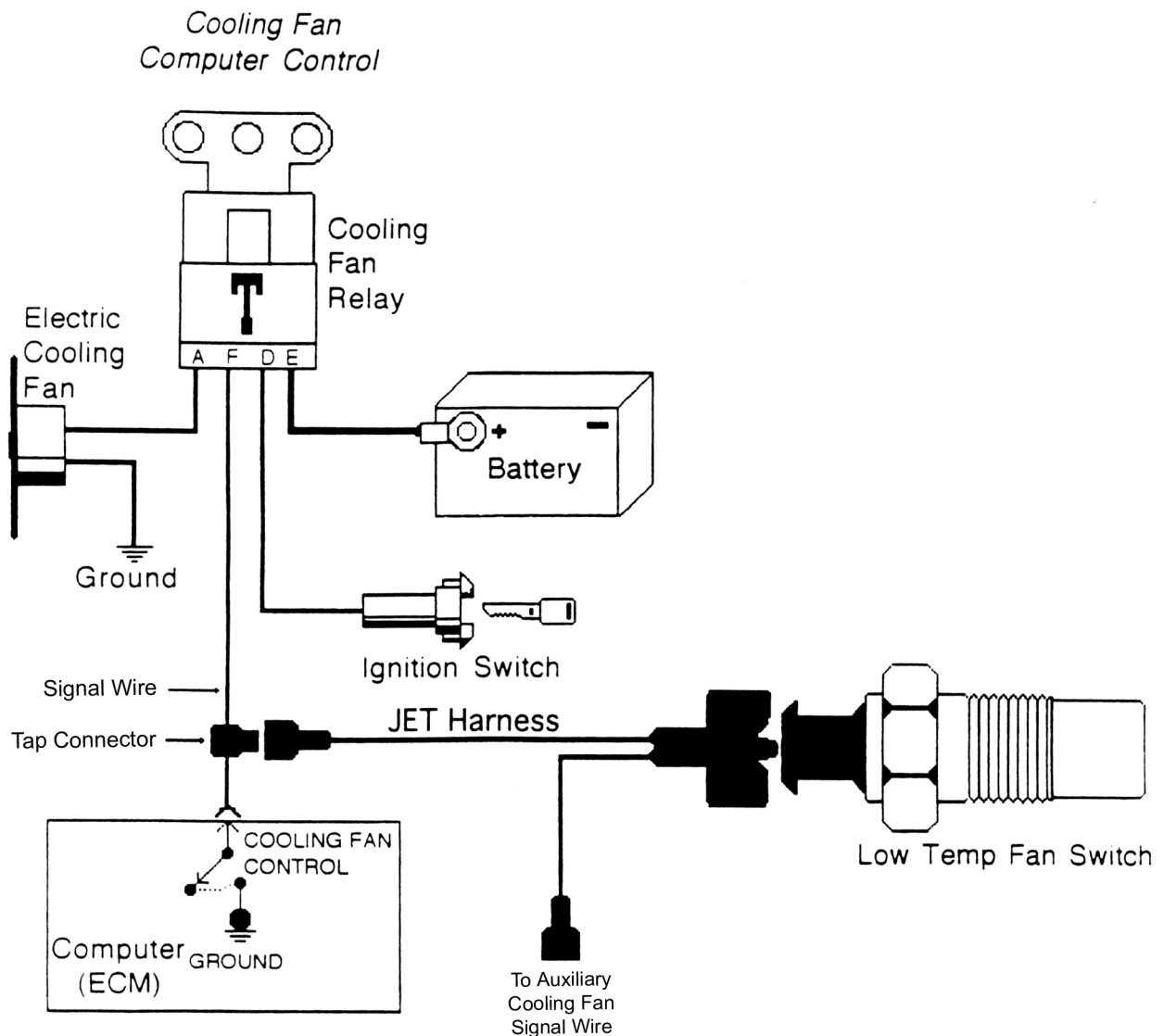
1985 Corvette – The main cooling fan is controlled by the ECM. If equipped with an optional auxiliary cooling fan (B4P), the fan is controlled by a brass cooling fan switch identical to the JET 60603. It's located on the passenger side cylinder head between spark plugs six and eight. The JET 60603 replaces the factory switch.

1986-1989 Corvette - The main cooling fan is controlled by the ECM. If equipped with an optional auxiliary cooling fan (B4P), the fan is controlled by a brass cooling fan switch identical to the JET 60603. It's located on the driver side cylinder head between spark plugs one and three. The JET 60603 replaces the factory switch.

1990-1995 Corvette – The primary and secondary cooling fans are controlled by the ECM/PCM (Computer). The JET 60603 is installed in the driver side cylinder head between spark plugs one and three. A small 3/8" water jacket plug must be removed with a piece of 5/16" piece of square tube. The JET 60603 replaces the plug. The JET Fan Switch harness is required.

# JET #60603 Cooling Fan Switch

## JET Cooling Fan Switch Harness (Optional)



Mechanization Diagram