



**BMW of N.A.**  
Service Department

Group: 13  
Fuel Supply &  
Adjustments

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13 014 86  
(2228)

For USA Only

## Modification of the Evaporative Emission Control System

- Model Year 1986 and later K-Models, sold and registered in 49 states only -

**COMPLAINT:** The motorcycle runs rough at idle and is hard to start when operated in extreme ambient temperatures. This condition may be aggravated by vehicle operation in stop-and-go traffic conditions.

**CAUSE:** An over-rich fuel mixture. The evaporative emission control system directs vapors from the gas tank into the crankcase. In high ambient temperatures and certain driving conditions the gas tank emits vapors at a rate which makes the air/fuel mixture in the crankcase and air intake system extremely rich. This richness, along with the starting enrichment, can cause the condition stated above.

**INFORMATION:** In recent years gasoline quality has been decreasing and fuel volatility in 49 states has been increasing constantly. Because of this increase in vapor pressure, increased amounts of vapors must be handled by the control system. In addition, alcohol in fuel aggravates this problem by further increasing volatility.

The following conditions increase fuel vaporization:

1. engine heat rising which warms the fuel tank;
2. sunlight rays;
3. fuel system picking up engine heat;
4. humidity;

Since motorcycles sold and registered in the 49 states are not subject to evaporative emission standards and regulations, an evaporative emission control system is not required.

**MODIFICATION**  
**PROCEDURE:**

**Note:** The following should be performed on an as-needed basis only; i.e., motorcycles operated in cooler climatic conditions will not require this procedure.

Remove the vapor hose from the fuel tank and plug the hose end with a bolt or other suitable hardware. Secure the bolt which plugs the hose with a plastic wire tie. Leave the pressure relief valve in line and connected to the crankcase; strap the disconnected hose to the frame with a plastic wire tie.

MODIFICATION

PROCEDURE:

(contd)

Install a fuel hose (Part No. 13 11 1 337 827) on the tank vent fitting. Route this hose to match the water drain hose. Loosely tie the hose to the rear master cylinder feed hose. The hose must be cut approximately 1" below the right foot peg bracket.

After finishing this modification, affix one of the enclosed stickers adjacent to the "Vehicle Emission Control Information" label on the rear fender underneath the seat.

IMPORTANT:

The filler cap and flapper door must not be changed or altered.

The movement of fuel caused by abrupt changes in riding speeds or directions, will increase gasoline vaporization. Therefore, the filler neck flapper must not be modified.

Very truly yours,

BMW OF NORTH AMERICA, INC.



Richard Dampf  
National Technical Manager  
Motorcycle Group

RD:jel  
Enc.



**This motorcycle has been modified after sale and conforms to Federal EPA standards and regulations only.**

**MCS 016**



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**MCS 016**

