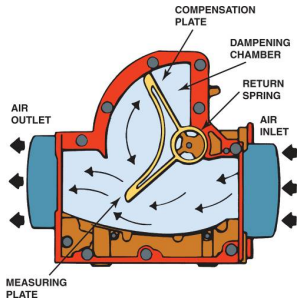
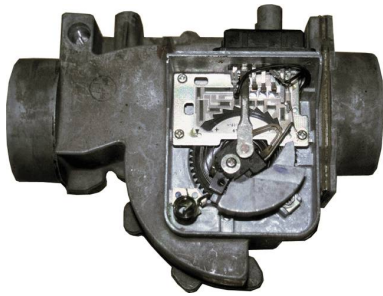


FIGURE 16-1 A vane air flow (VAF) sensor.



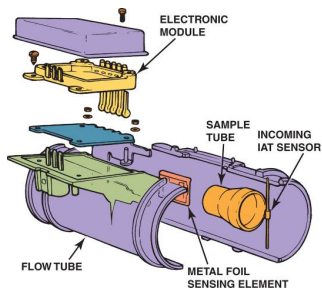
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FIGURE 16-2 A typical air vane sensor with the cover removed. The movable arm contacts a carbon resistance path as the vane opens. Many air vane sensors also have contacts that close to supply voltage to the electric fuel pump as the air vane starts to open when the engine is being cranked and air is being drawn into the engine.



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FIGURE 16-3 This five-wire mass air flow sensor consists of a metal foil sensing unit, an intake air temperature (IAT) sensor, and the electronic module.



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FIGURE 16-4 The sensing wire in a typical hot wire mass air flow sensor.

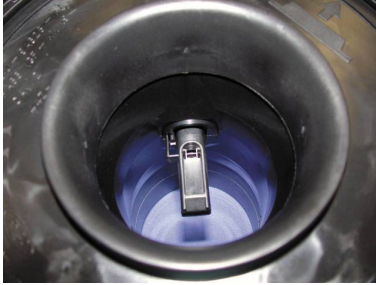


FIGURE 16-5 A Karman Vortex air flow sensor uses a triangle-shaped rod to create vortices as the air flows through the sensor. The electronics in the sensor itself converts these vortices to a digital square wave signal.

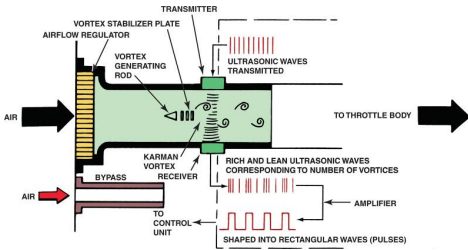


FIGURE 16-6 Carefully check the hose between the MAF sensor and the throttle plate for cracks or splits that could create extra (false) air into the engine that is not measured by the MAF sensor.

