



## ***GM No-Crank in vehicles with Vehicle Anti-Theft System (VATS)***

A No-Crank condition in GM vehicles with Vehicle Anti-Theft Systems may be caused by either a bad ignition key or a problem in the ignition switch/VATS wiring harness. (Switch/harness assembly problems seem to be more common than key failures.)

**Test 1)** Check the ignition key. Each key contains a resistance pellet. Remove the key and check the pellet's resistance. The chart below shows possible resistance values for ignition keys. If the key resistance matches one of the chart values, go to Test 2. If the key's resistance value doesn't match one of the values in the chart, replace it with a new one. Your GM dealer can provide part number information if you give him the VAT module identification number.

**Test 2)** Insert the ignition key in the ignition switch. Remove the lower dash bezel. Locate the two-terminal white connector near the base of the steering column, and disconnect it. (See the next tip for a schematic.) Insert your ohmmeter leads across the terminals of the connector half containing the white wires and measure the resistance. The resistance value measured across the connector should match the key resistance. If it doesn't, then the problem is in the switch/harness assembly. Replace the assembly.

### **Resistance Value Chart for GM VATs** (Lists possible resistance values, including acceptable ranges)

- **402 ohms** (acceptable range 386-438)
- **523 ohms** (acceptable range 502-564)
- **681 ohms** (acceptable range 650-728)
- **887 ohms** (acceptable range 850-942)
- **1130 ohms** (acceptable range 1085-1195)
- **1470 ohms** (acceptable range 1411-1549)
- **1870 ohms** (acceptable range 1795-1965)
- **2370 ohms** (acceptable range 2275-2485)
- **3010 ohms** (acceptable range 2890-3150)
- **3740 ohms** (acceptable range 3590-3910)
- **4750 ohms** (acceptable range 4560-4960)
- **6040 ohms** (acceptable range 5798-6302)
- **7500 ohms** (acceptable range 7200-7820)
- **9530 ohms** (acceptable range 9149-9931)
- **11800 ohms** (acceptable range 11328-12292)

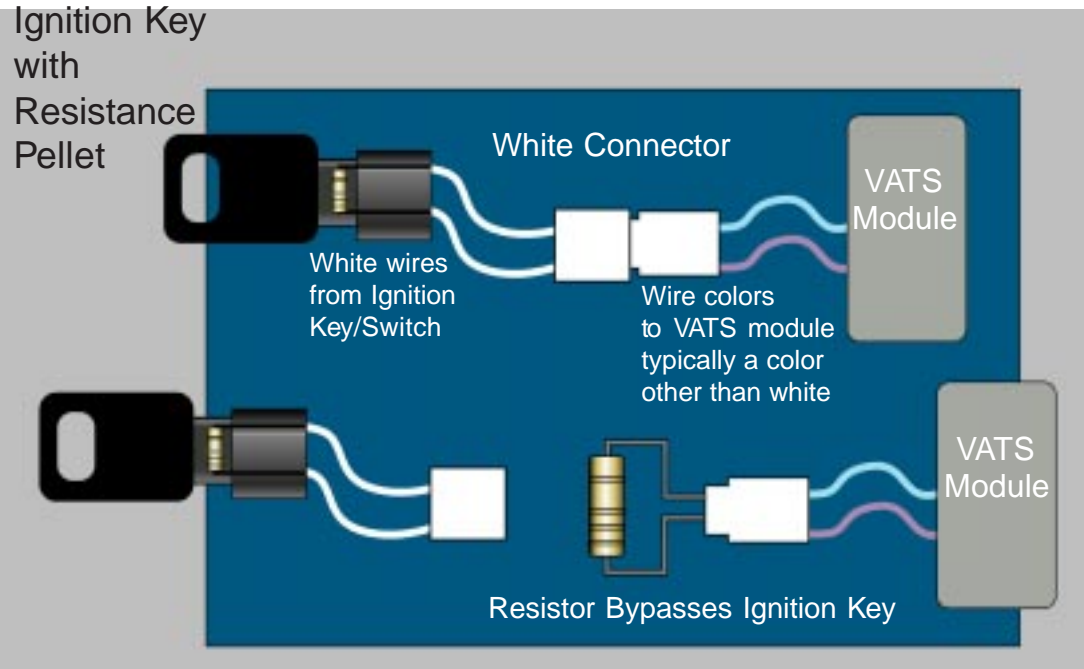
## Silver Bullets

## Temporary Fix for GM No-Crank in Vehicles with Vehicle Anti-Theft System (VATS)

Experience suggests that VAT ignition key failures are less common than no-cranking conditions caused by switch/harness failures.

If you need to start a car to get it into the shop, try this:

- Remove the ignition key and measure the resistance of the pellet in the key.
- Drop the steering column bezel and disconnect the white wire connector.



- Connect your sensor simulator across the terminals of the harness connected to the VATS module and “dial in” a resistance equal to the key pellet resistance, or simply insert a fixed resistor of the correct value.

This bypasses the key/harness and, in many instances, it will allow you to start the vehicle and drive it into the shop.