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 Conversion Calculator**1994 Cadillac DeVille V8-4.9L VIN B MFI**[Vehicle Level](#) → [Accessories and Optional Equipment](#) → [Alarm Module](#) → [Description and Operation](#) → [Universal Theft Deterrent UTD \(RPO UA6\)](#) ←

## Universal Theft Deterrent UTD (RPO UA6)

[Notes](#)

The Universal Theft Deterrent (**UTD**) System is designed to sound the horns and flash the exterior lights when the system is armed and entry is gained forcibly through the doors or trunk.

### Alarms

Operation of the exterior lights and horns when activated, is controlled by the Theft Deterrent Module via the Theft Deterrent Relay. Fuse B3 applies voltage to the Theft Deterrent Relay's coil at all times.

When the alarm is active the Theft Deterrent Module cycles the alarm system control driver (terminal F) on and off once per second. During this cycle ground is applied to the Theft Deterrent Relay coil and then removed. This causes the relay to energize and de-energize. The relay contacts will now cycle open and closed at the same rate as the alarm system control driver.

When the Theft Deterrent Relay's contacts are closed, the Horn, Park Lights, and Headlight Relays are grounded through the Diode Pack, and CKT 624. The relays now energize and the relays respective circuits will turn on. The Diode Pack is installed in the circuit to provide circuit isolation. If the diode pack were to short some unusual symptoms might occur such as the headlights light when the horn is sounded.

### Arming

Arming the Theft Deterrent System is a four step procedure. The arming sequence begins when the ignition is turned OFF. This removes battery voltage at module terminal K, the ignition 1 input. Step 2 occurs when a door is opened and ground is applied to module terminal J, the tamper input. The system is still not armed so grounding the tamper input at this time does not set off the alarms. The SECURITY indicator flashes to alert the operator the system is not armed. Step 3 occurs when the doors are locked electrically, this applies battery voltage to the module's terminal G, the system arm input. The SECURITY indicator is on steady to indicate that the system is armed. The arming sequence is completed when all doors are closed, removing ground from the module's terminal J, the tamper input. The system is now armed. The SECURITY indicator will remain on for a few seconds.

The Remote Keyless Entry (**RKE**) System can also arm the Universal Theft Deterrent System if the ignition is off. When the [Keyless Entry Module](#) locks the doors it simulates a door being opened and then closed by momentarily grounding the Theft Deterrent Module's tamper input, terminal J. The Keyless Entry Module does this by applying

ground through its automatic door lock inhibit terminal C9 and CKT 263. The Keyless Entry Module applies battery voltage to the theft module's system arm input terminal G when it locks the doors. Once the doors are locked the Keyless Entry Module opens its automatic door lock inhibit, this simulates the doors being closed and completes the arming procedure.

### **Cancellation**

The arming sequence can be canceled by unlocking the doors electrically prior to closing the door. When the doors are unlocked, voltage is momentarily applied to the theft module's terminal M. This signals the module not to arm and the module will ignore the door being closed.

### **Disarming**

When one of the front doors is unlocked with a key, the Front Door Lock Cylinder Switch closes. This grounds the Theft Module's disarm input, terminal H. The system is now disarmed and no alarms will operate when a door is opened.

Two other methods of disarming the system are turning the ignition to RUN using the key and using the Keyless Entry transmitter to unlock the doors.

When the [Keyless Entry Module](#) unlocks the doors it simulates a door lock cylinder switch closing to disarm the system. The Keyless Entry Module does this by grounding the Theft Module's disarm input terminal H. This is done through CKT 262 and the low side output driver at the Keyless Entry Module's terminal C8.

Turning the ignition to RUN will not disarm the system when the alarm is active.

### **Tampering**

The alarms are set off when the Theft Module's tamper input, terminal J, is momentarily grounded after the system has been armed. This will occur when a door is opened causing a door ajar switch to ground or when Trunk Lid Tamper Switch closes due to tampering at the trunk lid lock.

### **Security Indicator**

The Security indicator reminds the operator to arm the system by flashing and indicates that the system is armed when it stays on steady. The Theft Deterrent Module controls the indicator by grounding it through the indicator control driver at terminal D. The PASS-Key system also uses the SECURITY indicator to inform the driver about its status.

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1994 Cadillac DeVille V8-4.9L VIN B MFI

Vehicle Level → Accessories and Optional Equipment → Alarm Module → Description and Operation → PASS-Key ←

### PASS-Key

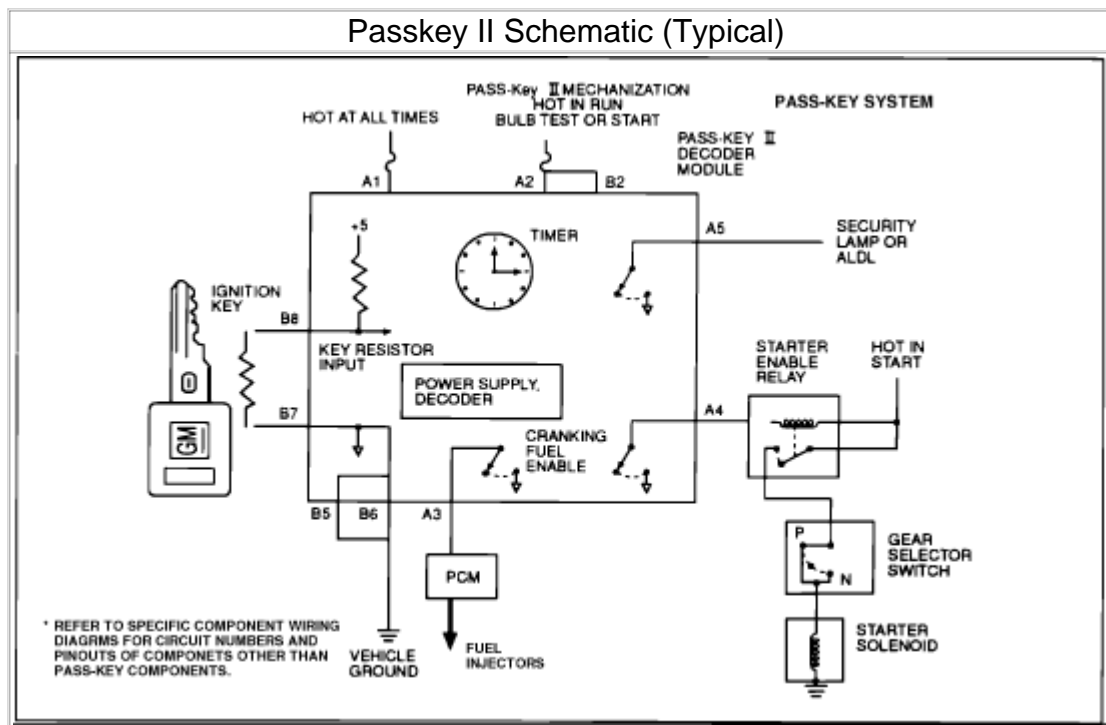
[Notes](#)

#### PURPOSE

The Personal Automotive Security System (**PASS-Key**) is designed to disable vehicle operation if the incorrect key or starting procedure is used.

#### OPERATION

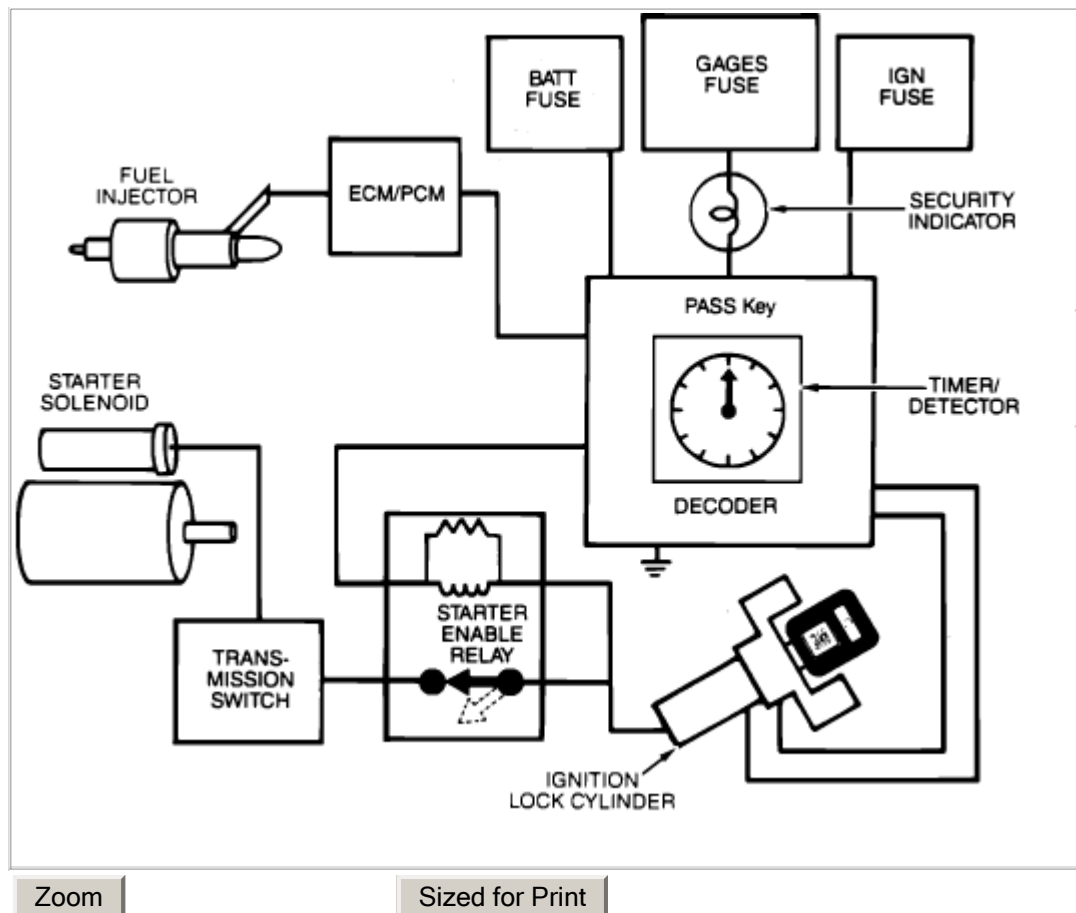
The PASS-Key decoder module sends a signal to the [Powertrain Control Module \(PCM\)](#), on circuit 229, if the correct key is being used. If the proper signal does not reach the PCM, it will not pulse the fuel injectors "ON" and thus not allow the vehicle to start.



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Passkey System Diagram - Typical



## CIRCUIT OPERATION

Resistor sensing contacts are located in the ignition key lock cylinder. These contact the key resistor pellet on the key when it is inserted. When the lock is rotated, battery voltage is applied through a fuse to the PASS-Key decoder module. The pellet resistance is then compared against a fixed resistance in the module.

If the key pellet is the proper resistance, terminal A4 is grounded, energizing the starter enable relay. At the same time, a signal is applied at terminal A3 to enable the Electronic Control Module (ECM). When this signal is received by the Electronic Control Module (ECM), it allows fuel injector pulses to begin.

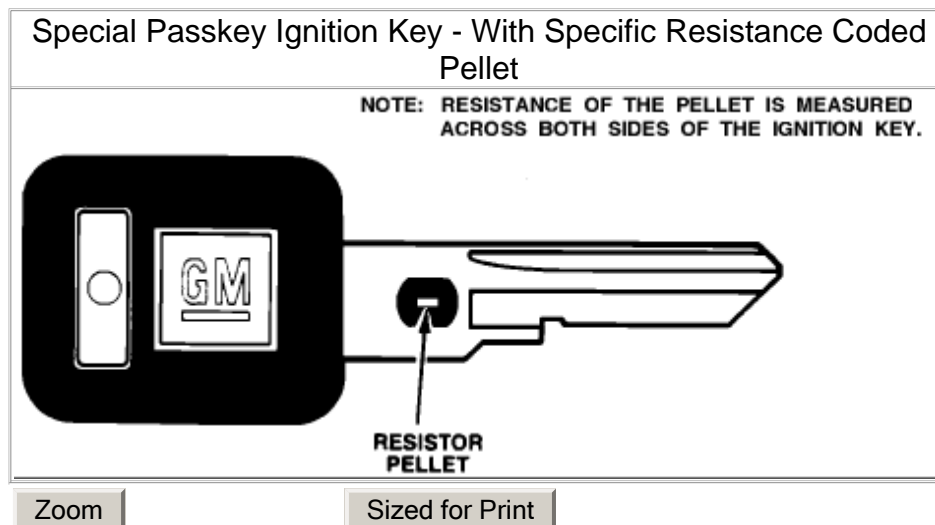
If the key resistor pellet is the wrong value, the PASS-Key decoder module will shut down for 2 to 4 minutes. During this interval there will be no output at terminals A3 or A4.

If the ignition switch is turned on again during this interval, the timer will remain shut down for another 2 to 4 minutes. The PASS-Key decoder module will continue this process even if a key with the correct pellet is used to turn the ignition back on. The timer is restarted by the ignition switch voltage at terminal A2 when the ignition switch is turned to RUN.

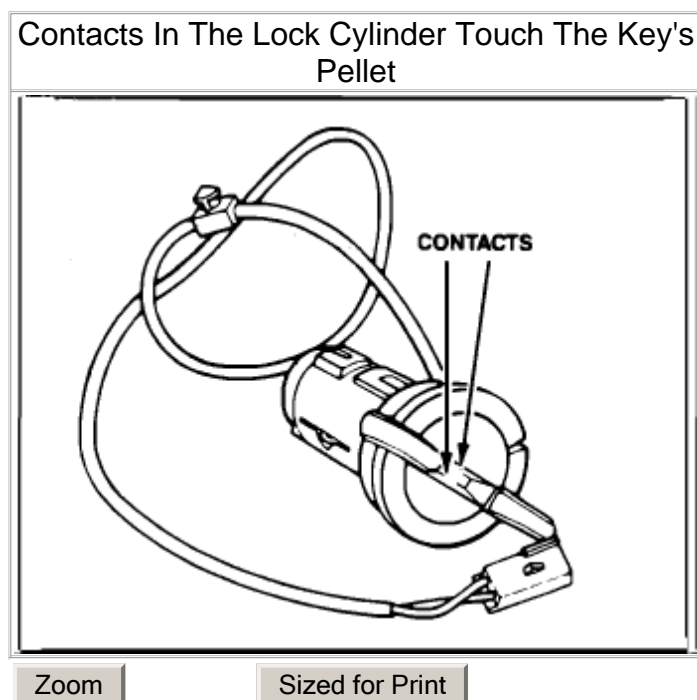
Once the timer has completed its 2 to 4 minute cycle with the ignition off, the PASS-Key decoder module and timer are reset. A key having the correct code can then be used to

start the engine.

The security indicator is controlled directly by the PASS-Key decoder module. If there is a PASS-Key failure this indicator will be grounded by the PASS-Key decoder module with the ignition in RUN, BULB TEST, or START. When the ignition switch is first placed in RUN, BULB TEST, or START the indicator lights for about 2 seconds as a bulb check.



The special ignition key used for the PASS-Key system includes a special coded resistor pellet.



The special PASS-Key ignition lock cylinder contains a set of contacts that touch the

coded resistor pellet in the key. A two wire harness carries this key code signal to the PASS-Key decoder module.

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