



U.S. Department
of Transportation
National Highway
Traffic Safety
Administration

DOT Auto Safety Hotline

Vehicle Owner's Questionnaire
To Report Vehicle Safety Defects

1-888-DASH-2-DOT
(1-888-327-4236)

INTERNET: www.nhtsa.dot.gov/hotline

FOR AGENCY USE ONLY 100222

Date Received

Repository ☐

Reference No.
10090124

31-AUG-2004

OWNER INFORMATION (Type or Print)

Name

Address

City

DE SOTO

State MO

Zip Code

Daytime Telephone Number

E-mail Address

Evening Telephone Number

Do you authorize NHTSA to provide a copy of this report to the manufacturer of your vehicle? ☐ YES ☒ NO
in the absence of an authorization, NHTSA WILL NOT provide your name or address to the vehicle manufacturer.

Signature of Owner

Date / /

VEHICLE INFORMATION

17-digit Vehicle Identification Number Located at bottom of windshield on driver's side

1GCCS19X6X8

Make

CHEVROLET

Model

S10

Model Year

1999

Date Purchased

Dealer's Name and Telephone Number

Engine:

No. Cylinders

Fuel Type:

Gas

Original Owner

Dealer's City

State

Zip Code

Transmission Type

AUTOMATIC

☒ Antilock Brakes

☒ Cruise Control

Powertrain

REAR WHEEL DRIVE

Vehicle Component Code

353100 EQUIPMENT:ELECTRICAL:ANTI-THEFT DEVICES

Multiple Failure: 1

FAILED COMPONENT(S)/PART(S) INFORMATION

Incident Date(s)

20-JUL-2004

Failure Mileage

59000

Failure Speed

ADDITIONAL ITEMS TO BE COMPLETED WHEN REPORTING A TIRE FAILURE

Tire Make

Tire Model (Name or Number)

Tire Size (Example P215/65R15)

DOT No. (Example: DOTM19ABC036)

☐ Original Equipment
☐ Prior Repair

Failure Location:

Tire Component Code

Tire Failure Type

ADDITIONAL ITEMS TO BE COMPLETED WHEN REPORTING A CHILD SEAT FAILURE

Make:

Date Manufactured:

Model No./Name:

Seat Type:

Installation System:

Child Seat Component Code:

Failed Part:

APPLICABLE INCIDENT INFORMATION

(Please describe in detail the incident(s), failure(s), and injury(ies).)

Crash

☐ Yes ☒ No

Fire

☐ Yes ☒ No

Number of Persons Injured

Number of Deaths

Reported to Police

N

Narrative Description of Incident(s), Crash(es), and Injury(ies).

Please describe (1) events leading up to the failure, (2) failure and its consequences, and (3) what was done to correct the failure; i.e., parts repaired or replaced (and if old part is available).

AFTER ENTERING THE VEHICLE AND TRYING TO START IT THE SECURITY SYSTEM DID NOT LET CONSUMER START THE VEHICLE FOR APPROXIMATELY TEN MINUTES. THE SECURITY LIGHT CAME ON, AND THE VEHICLE HAS TO SIT AND RECALIBRATE IN ORDER TO START. *AK

Include, if available: Police/Fire Department Report, Photos, and Repair Invoice.

ATTACH ADDITIONAL SHEETS IF NECESSARY

The Privacy Act of 1974-Public Law 93-579 This information is requested pursuant to authority vested in the National Highway Traffic Safety Act and subsequent amendments. You are under no obligation to respond to this questionnaire. Your response may be used to assist the NHTSA in determining whether a Manufacturer should take appropriate action to correct a safety defect. If the NHTSA proceeds with administrative enforcement or litigation against a manufacturer, your response, as a statistical summary thereof, may be used in support of the agency's action.

Owners Manual Not Included

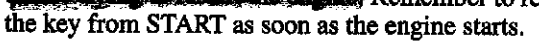
CHEVROLET STEEL PICKUP

 Your vehicle is equipped with the Passlock theft-deterrent system.

Passlock is a passive theft-deterrent system. Passlock enables fuel if the ignition lock cylinder is turned with a valid key. If a correct key is not used or the ignition lock cylinder is tampered with, fuel is disabled.

During normal operation, the will go off approximately five seconds after the key is turned to the RUN ignition position.



 Remember to release the key from START as soon as the engine starts.

If the engine does not start after three (3) tries, the vehicle needs service.

If the engine is running and the SECURITY light comes on, you will be able to restart the engine if you turn the engine off. However, your Passlock system is not working properly and must be serviced by your dealer. Your vehicle is not protected by Passlock at this time. You may also want to check the fuse (see "Fuses and Circuit Breakers" in the Index). See your dealer for service.

In an emergency, call the GM Roadside Assistance Center. See "Roadside Assistance" in the Index.

New Vehicle "Break-In"

NOTICE:

Your vehicle doesn't need an elaborate "break-in." But it will perform better in the long run if you follow these guidelines:

- Keep your speed at 55 mph (88 km/h) or less for the first 500 miles (805 km).
- Don't drive at any one speed -- fast or slow -- for the first 500 miles (805 km). Don't make full-throttle starts.
- Avoid making hard stops for the first 200 miles (322 km) or so. During this time your new brake linings aren't yet broken in. Hard stops with new linings can mean premature wear and earlier replacement. Follow this breaking-in guideline every time you get new brake linings.
- Don't tow a trailer during break-in. See "Towing a Trailer" in the Index for more information.

The Insecure Security System

Dear Roy:

The vehicle is a '99, Chevy K2500 4x4, VIN 1GCGK23R9XFO69260, with a 5.7L engine and four-speed automatic transmission. It has 68,000 miles.

About two years ago, I installed a remote starter. Everything was fine for the first few months, and then I started to have trouble starting the truck. The security (Passlock) light would flash but would not let the truck start. I would have to wait with the ignition on for 20 minutes before it would start again.

I decided to take it to a Chevy dealer. The dealer told me that remote starters would not work on this truck, and they advised me to remove it, which I had them do. Things were OK again for few couple months, and then it started to happen again. This time they said that they believed that the Passlock system was the trouble.

They cut me new keys. They said that the aftermarket key that I was using was not exactly cut like the GM key. They also told me that the ignition switch has the (Passlock) system in it and did not like the aftermarket key. My keys do not have the chip in them; it's in the switch.

Things were OK again ... until it would not start again. This time they said that the fuel pump was bad and because the dash gauges were acting weird, that the sensor also could be bad. So after replacing the pump and sensor and about

"I'll be driving and the security light will flash twice...and the engine shuts off. At 60 mph in heavy traffic, it gets a little hairy.

\$700 later, it seemed to be working. HA!

Now while I'm driving, this happens about twice a week. I'll be driving and the security light will flash twice, it will "beep

beep beep" and the engine shuts off. At 60 mph in heavy traffic, it gets a little hairy. I have to shift to Neutral, wait for the rpms to drop, and then restart the engine. It doesn't start the first time, but does on the second try. Then I shift back into Drive and keep going.

It also does not want to start in the morning. It can take as many as six attempts before starting. It doesn't happen every morning, but occurs about three

ANSWER TO THE QUESTION ON PAGE 1:

Tech A Says

THE CORRECT ANSWER IS B, TECHNICIAN B ONLY. Tech A is wrong because a propane gas leak detector cannot detect R134a. Tech B is right, but he must make sure the electronic leak detector is designed for R134a, as many older units are not.

Test your knowledge. Look in *Jump Start* each month for an ASE study guide question to hone your skills.

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Publishing Operations
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CAR
AUTO
1-800

TROUBLESHOOTING

**T
T**

STUMPED?

Let Roy take a crack at your problem:

**Motor Age
Troubleshooters**
150 Stratford Ave.
Suite 210
Wayne, PA 19087
or e-mail for
lgordon@
advanstar.com

We need to know the vehicle year, make, model, engine, transmission, accessories and VIN. Include your name, address and phone number so we can contact you.

times a week.

I've been back to the dealer. They hooked the handheld computer to it and came up with a code for the Passlock. Now they think that it is the ignition switch. They said that they have never heard of the Passlock shutting off the

engine after it was running.

It feels just like I'm running out of gas. Could the Passlock be telling the pump to shut off? I'm sorry for the length of this, but I needed to

give as much detail as I could. Please help if you can.

Dennis Huffman,
Supervisor
Huffman's Garage,
Westminster, MD

Dear Mr. Huffman,

When the security lamp flashes, the system has detected a problem. Did the dealer state what code they retrieved with the scan tool?

Nevertheless, here's how this system works: The Passlock sensor contains two Hall-effect sensors, a resistor and a diode. When the key is inserted into the magnet and the lock cylinder is rotated, an analog voltage code is sent to the Passlock module. This is compared to the last learned voltage code. If the codes

match, the Passlock sends a Class 2 message to the injectors.

The two wires that connect the Passlock sensor to the module are critical in the operation on the ground (black) or a 100-ohm signal wire (yellow) to the engine from start.

Your problem appears to be an intermittent connection in the Passlock system. I suspect poor connections such as joints, crimps, corrode and rubbed through in the module and steering column.

When you installed the starter, did you tap in the wires? If you did, I would first.

RUST PROTECTION

What you see is what you get

ASTM B 117 SALT SPRAY TEST

0 HOURS

16 HOURS

168 HOURS



ASTM B 117 SALT SPRAY TEST RESULTS: Gunk Wheel-Nut Treatment (WD-40) and Gunk Wheel-Nut Treatment (WD-40) were tested against 11 competitive products. Results were obtained from tests performed April - August 2003.

Results of these tests are representative only. Gunk Wheel-Nut Treatment (WD-40) is a registered trademark of Gunk Radiator Specialty Company.

GUNK

Radiator Specialty Company / Charlotte, NC
877-60-4-GUNK / www.gunk.co

(Circle 47 on Reader Service Card)

CAR
AUT
1-8

To. NHTSA

①

Since i talked with a
nice intrested ^(at NHTSA) woman, i
took the plastic cover
off my steering column
and blowed everything i
could with compressed air.
To this date 9/21/04 i
have not had any starting
problems.

I always buy a service
manual when i buy a car.
I read about an
opening and thought it
could be dirty. I also

(2)

unplugged the sensors, they
plug them plugged it
back in. I should
mention the shift boat
on the column was
starting to come apart
from normal wear, and
the rubber pins were all
over the column's working
parts. I am enclosing
some copied pages
from my service manual.

I hope this helps
someone like your
nice lady helped me.

(enclosed)

PS Here is a copy of
a story someone gave
me. Its from Motor Age

I have not altered
or added to my electrical
system



SERVICE MANUAL

1999

S/T TRUCK



VOLUME 3 OF 3

GMT/99-ST-3

Ignition Lock Cylinder and Housing

The ignition lock cylinder is located at the upper right side of the steering column. The Passlock™ sensor is in the steering column. The Passlock™ sensor is separate from the key and lock cylinder. The key and the lock cylinder work together in order to determine if the proper ignition key was used to start the vehicle.

In the event of an open Class 2 serial data line between the BCM and the VCM/PCM, the vehicle will become fail-enabled if the VCM/PCM has already received the password from the BCM for that ignition cycle (the engine is running). In this event, the following conditions occur:

- The security telltale will be ON continuously.
- The VCM/PCM will become fail-enabled for future ignition cycles.

If a failure in the Class 2 serial data line occurs before the ignition cycle, when the VCM/PCM is not fail-enabled, the following conditions occur:

- The VCM/PCM will never receive a valid password in order to enable the fuel injectors.
- The vehicle will not start.

Ignition Switch

The lock cylinder and the visible key insert portion of the ignition switch are located at the upper right side of the steering column. The electrical switching portion of the assembly is separate from the key and lock cylinder. The electrical switch portion is hidden inside the steering column. The electrical switch portion and the key and lock cylinder synchronize and work in conjunction through the action of the mechanical assembly between the 2 parts.

Passlock™ Sensor

The passlock™ sensor is inside the upper right side of the steering column. The passlock™ sensor contains 2 hall effect sensors. The tamper hall effect sensor is on the top. The security hall effect sensor is under the tamper hall effect sensor. Both of the hall effect sensors monitor the magnet of the lock cylinder through an air gap. The tamper hall effect sensor is physically placed on top of the security hall effect sensor. The placement enables the tamper hall effect sensor to engage first if an intruder attempts to bypass the passlock™ sensor by placing a large magnet around that area of the steering column. There is a tamper resistor inside the passlock™ sensor in order to help prevent tamper to the system. Passlock™ equipped vehicles have a selection of 10 different security resistors ranging up to 13K ohms. Install any of the security resistors inside the passlock™ sensor in order to generate a unique passlock™ code. All 10 combinations of the passlock™ sensor have the same part number. However, you cannot simply replace the passlock™ sensor and expect the system to operate properly. Always start by performing the Diagnostic System Check first and following the instructions.

Body Control Module

The Body Control Module (BCM) contains the theft deterrent system logic. The BCM reads the passlock™ data from the passlock™ sensor. If the passlock™ data is correct, the BCM will pass theft. The BCM then transmit the code password to the VCM/PCM.

During the tamper mode the vehicle may start. The vehicle will then stall. If the BCM receives the wrong passlock™ data, the VTD will immediately enter into the tamper mode.

~~The vehicle will not inject fuel for 10 minutes.~~ The SECURITY indicator will flash while the VTD is in tamper mode.

If the passlock sensor sends a correct password the BCM when the ignition is in the ON position, the BCM will send a fuel enable signal to the VCM/PCM. The VCM will not disable the fuel due to any BCM message for the remainder of the ignition cycle.

SECURITY Indicator

The SECURITY indicator is on the instrument cluster. If the SECURITY indicator flashes or if the SECURITY indicator lights continuously during the vehicle operation, refer to the system diagnosis.

Vehicle/Powertrain Control Module

The VCM/PCM communicates with the BCM over the Class 2 serial data line. When the BCM determines a no start condition, it sends a Class 2 serial data password to the VCM/PCM in order to disable the injection system. If the BCM receives the expected voltage from the Passlock™ sensor, the BCM sends the Class 2 serial data password to the VCM/PCM in order to enable the fuel injection system. The VCM/PCM then allows the vehicle to start correct. If the Class 2 serial data password from the BCM to the VCM is not within the Vehicle Security Status Message, the fuel injectors will shut OFF during the attempt. The SECURITY telltale will be illuminated for. If the VCM/PCM does not receive the same password from the BCM as the last learned one, the vehicle will start and then stalls due to the Fuel Lockout.

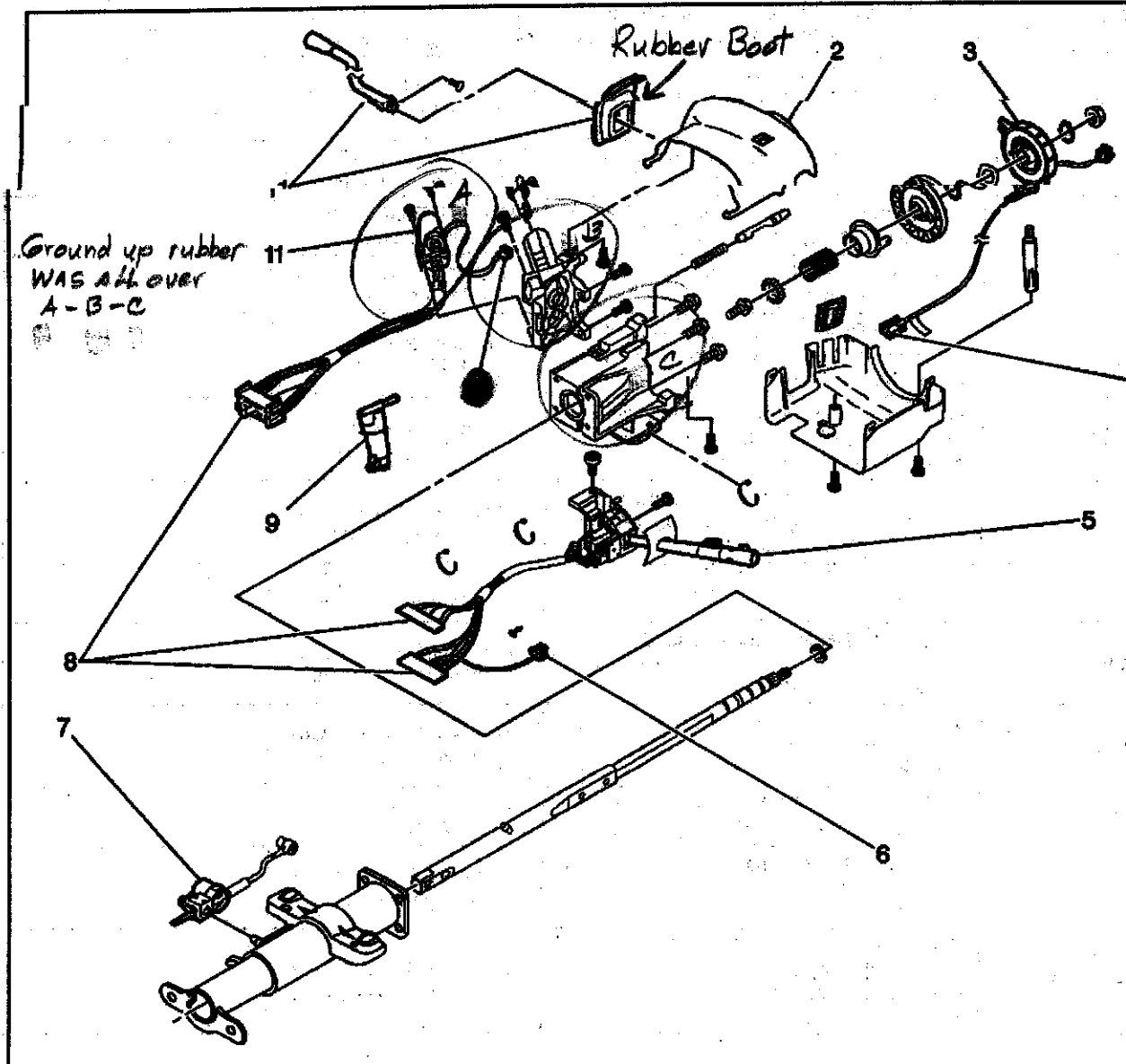
Fuel Lockout Cycle

The Passlock™ system has a lockout cycle of approximately 10 minutes. Once the vehicle is in the lockout cycle, the vehicle remains in the lockout cycle for 10 minutes, even if the ignition switch is turned from the RUN position to the OFF position.

The Passlock™ system uses the lockout cycle in order to synchronize all of the Passlock™ components when any Passlock™ related part is changed. The Passlock™ system requires 3 consecutive lockout cycles in order to complete the 30 minute learn procedure for a changed component.

Theft Deterrent System Component Views

Steering Column Components



Legend

- | | |
|--|--|
| (1) Shift Lever Assembly | (7) Brake Transmission Shift Interlock Solenoid |
| (2) Upper Shroud | (8) C211 |
| (3) Supplemental Inflatable Restraint Steering Wheel Module Coil | (9) Transmission Shift Lever |
| (4) C214 | (10) Paslock ™ Sensor Connector |
| (5) Multifunction Switch | (11) Ignition Switch and Ignition Key All Switch |
| (6) Park Lock Solenoid Connector | |

Ignition 1 – Range: ACTIVE/INACTIVE: The BCM uses this data in order to determine the position of the ignition switch. When the ignition switch is in the RUN or CRANK position, ACTIVE is displayed. When the ignition switch is not in the RUN or CRANK position, INACTIVE is displayed.

Ignition 3 – Range: ACTIVE/INACTIVE: The BCM uses this data in order to determine the position of the ignition switch. When the ignition switch is in the RUN position, ACTIVE is displayed. When the switch is not in the RUN position, INACTIVE is displayed.

Battery Voltage – Range: 9.0–16.0 Volts: The voltage value displayed refers to the battery system voltage measured by the BCM on CKT 1140.

Passlock™ Power – Range:

ACTIVE/INACTIVE: The BCM supplies 12 volts and a ground for the Passlock™. The Passlock™ power is active whenever the BCM is awake. After the ignition switch is turned to the OFF position, the BCM may require up to 20 minutes in order to power down. When the ignition switch is turned to the OFF position, a momentary loss of voltage may occur at the Passlock™ sensor. This occurrence is normal due to the BCM internal self test when the ignition switch is turned to the OFF position.

Passlock™ Data Voltage – Range: 0–5 Volts: The Passlock™ data voltage displayed indicates the return voltage from the Passlock™ sensor to the BCM. The BCM also determines if the voltage received is a valid voltage window or an invalid voltage window. The BCM has 10 valid voltage windows, an OPEN voltage window, a TAMPER voltage window, and a SHORTENED voltage window. The value displayed on the scan tool will be within 0.0–5.0 volts. The BCM converts this analog voltage to a class 2 serial data password. The password is then sent to the PCM/VCM. The PCM/VCM must receive the same password that was learned in the last learn procedure. If the PCM/VCM does not receive a valid password from the BCM, the PCM/VCM will not enable the fuel injection system. Refer to *PASSLOCK Reprogramming Seed and Key* (10 minutes), or *PASSLOCK Reprogramming Auto Learn* (30 minutes).

Passlock™ State – Displays: IGNITION OFF/TAMPER/FAIL ENABLE/FAIL ENABLE DEC/SEEDKEY LRN PEND/SEEDKEY LEARN/AUTO LEARN PEND/LEARN PASSLOCK/MONITOR PASSLOCK/NORMAL DECISION/AUTO LEARN: The display refers to the state of the Passlock™ system.

Passlock™ Code – Range:

OPEN/SHORTED/TAMPER/NUMERIC: The Passlock™ code displayed indicates the inter Passlock™ sensor resistance value. The BCM determines if the Passlock™ code received is a Passlock™ code or an invalid Passlock™ code. The BCM has 10 valid Passlock™ codes, an OPEN Passlock™ code, a TAMPER Passlock™ code, a SHORTED Passlock™ code. The scan tool will display any valid Passlock™ code as a numeric value. The value displayed on the scan tool should be within 1–10 (i.e. valid code 7), SHORTED, TAMPER, or OPEN.

Tamper Timer – Range: 0–600 Seconds: The tamper timer as part of the interactive procedure in order to allow the BCM to display the time remaining when in the tamper mode. The tamper timer starts when the ignition switch is turned to the RUN position, and the BCM receives a Passlock™ data voltage that is different from the last learned Passlock™ voltage. The tamper timer has a lockout timer of approximately 10 minutes. The vehicle must remain in the tamper mode even if the ignition switch is turned from the RUN position to the OFF position during the 10 minute period.

Auto Learn Timer – Range: 0–600 Seconds:

Use the auto learn timer as part of the interactive procedure in order to allow the BCM to learn valid Passlock™ data from the Passlock™ sensor. The learn procedure consists of 3 consecutive cycles of approximately 30 minutes. The auto learn timer does not display the time in which the PCM is in the lockout mode.

Security Lamp State – Displays:

ON/OFF/FLASHING: The security lamp will turn ON steady for 3 seconds and then turn OFF when the ignition switch is turned from the OFF position to the RUN position. The security telltale should have 3 states: OFF, ON STEADY and FLASHING. If the IPC is unable to communicate with the BCM, the security telltale will stay ON STEADY (after the check). The Passlock™ system will function as long as the IPC is not communicating, as long as class 2 communication is possible. If the vehicle is in the lockout cycle, the security telltale flashes momentarily and then turns ON STEADY for approximately 10 minutes. The Passlock™ system requires 3 consecutive lockout cycles in order to complete the 30 minute Auto Learn procedure for a changed component, refer to *PASSLOCK Reprogramming Auto Learn*. A 10 minute Seed and Key learn procedure is also available, refer to *PASSLOCK Reprogramming Seed and Key*.