

2022 CHEVROLET CORVETTE SERVICE MANUAL

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Power Door Locks Description and Operation

Door Latch System Components

The power door latch system consists of the following components:

- Driver door lock switch (contains lock indicator)
- Passenger door lock switch (contains lock indicator)
- Driver front side door window control switch
- Passenger front side door window switch
- Driver front side door latch
- Passenger front side door latch
- Exterior door handle switches
- Interior door handle switches
- Body control module

Driver and Passenger Door Lock Switches

The driver or passenger front side door window control switch will monitor the voltage of their respective door lock switches. When the driver or passenger door lock switch is in the open position, the voltage level in the signal circuit will be near 7 V. When the driver or passenger door lock switch is pressed to the lock position, the voltage level in the lock signal circuit will drop to 0 V and the corresponding front side door window switch will detect the voltage drop, illuminate the door lock indicators and will send a serial data message to the body control module to disable the functions of the driver and passenger exterior door handle switches. When the driver or passenger door lock switch is pressed to the unlock position, the voltage level in the unlock signal circuit will drop to 0 V and the corresponding front side door window control switch will detect the voltage drop and will send a serial data message to the body control module to restore the functions of the driver and passenger exterior door handle switches. The body control module will automatically perform the lock command then the vehicle speed exceeds 3 Kph and will send a serial data message to the window switches to illuminate the lock indicators.

Interior Door Handle Operation

The interior door handle switch signal circuits provide inputs to the body control module when the interior door handle switches are activated. These inputs allow the body control module to detect a door unlatch request. The body control module provides a 7 V signal to each interior door handle switch. When a interior door handle switch is pressed, the switch closes and the voltage signal within the signal circuit is pulled to ground. The body control module will detect the voltage drop and will command the respective door to unlatch allowing the door to be pushed open.

Exterior Door Handle Operation

The exterior door handle switch signal circuits provide inputs to the body control module when the exterior door handle switches are activated. These inputs allow the body control module to detect a door unlatch request. The body control module provides a 7 V signal to each exterior door handle switch via the door handle switch signal circuits. When a door handle switch is pressed, the switch closes and the voltage signal within the signal circuit is pulled to ground. The body control module will detect the voltage drop and a low frequency antenna will transmit a challenge to the keyless entry transmitter. If the challenge is met, the keyless entry transmitter will respond, and the body control module will command the respective door to unlatch allowing the door to be pulled open.

Power Door Dead Lock Operation

Vehicles equipped with the dead lock feature include an additional reversible dead lock motor contained within each door latch assembly. Each door latch assembly is wired to the body control module through 2 control circuits; the door lock dead lock control circuit and the door lock actuator unlock control circuit. To disable the interior floor door unlatch levers, the door locks are activated by momentarily applying voltage to the

door lock dead lock control circuits, and ground to the door lock actuator unlock control circuits. Ground to the dead lock actuators is provided through the door lock actuator unlock control circuits. Once the doors are locked with dead lock, the mechanical lock/unlock linkage within the door lock actuator is physically disconnected so that the door cannot be opened by using the interior floor door unlatch levers. If the content theft feature is armed at the same time, the interior door lock switches will not operate the locks.

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