



Typical disabled times

Vehicle speed, mph (km/h)	Time, minutes
1.3 (2)	40
12.5 (20)	33
15.6 (25)	17
25.0 (40)	9
31.3 (50)	6

Diagnostics

While the ignition is on, the diagnostics function of the SLABS ECU monitors the system for faults. In addition, the return pump is tested by pulsing it briefly immediately after the engine starts provided vehicle speed exceeded 4.4 mph (7 km/h) during the previous ignition cycle. If a fault exists in a warning lamp circuit, the lamp will not illuminate during the lamp check at ignition on but, provided there are no other faults, the related function will otherwise be fully operational. If a fault is detected during the power up, the SLABS ECU stores a related fault code in memory and illuminates the appropriate fault warning lamps. If a fault is detected later in the drive cycle, the SLABS ECU also sounds the audible warning three times.

Fault codes and diagnostic routines can be accessed by connecting Testbook to the vehicle's diagnostic connector in the driver's footwell.

Warning lamp fault operation

Item	Check	Warning lamp			
		ABS	Brake	ETC	HDC fault
ABS sensors	Resistance (to check status)	On	On	On	On
Brake lamps relay	Open/Short circuit	Off	Off	Off	On
Engine data	Sticking throttle, signal failure, data corruption	Off	Off	On	On
Inlet solenoid valves	Open/Short circuit	On	On	On	On
Outlet solenoid valves	Open/Short circuit	On	On	On	On
Reference earth	Connection to earth	On	On	On	On
Return pump monitor	Correct pump operation	On	On	On	On
Return pump relay	Open/Short circuit	On	On	On	On
Shuttle valve switches	Open/Short circuit	On	On	On	On
SLABS ECU	Internal failure	On	On	On	On
Supply voltages	Range (10 to 16 V)	On	On	On	On

After detecting a fault, the SLABS ECU selects an appropriate default strategy which, where possible, retains some operational capability. A shuttle valve switch fault and throttle position signal fault are classified as permanent faults. If a permanent fault is detected, the related warning lamp illumination and default strategies are automatically employed in subsequent ignition cycles, even if the fault is intermittent, until the fault has been rectified and cleared from memory. If a non permanent fault is detected, the related warning lamp illumination and default strategies will only be employed in subsequent ignition cycles if the fault is still present.

After rectification of an ABS sensor fault, the ABS and ETC functions are disabled, and the ABS warning lamp remains illuminated after the lamp check, until vehicle speed exceeds 9.4 mph (15 km/h) (to allow additional checks to be performed).