

Pinpoint Tests

PINPOINT TEST A: ALARM SYSTEM DOES NOT ARM PROPERLY

A1 CHECK CIRCUIT 24 (DB/O) FOR SHORT TO B+

- Start vehicle; then turn ignition switch to OFF.
- Disconnect anti-theft alarm control module.
- Close all vehicle doors.
- Connect a voltmeter between anti-theft control module connector Pin C2-14 and C2-26.

Is reading greater than 9 volts?

Yes	No
GO to A2 .	Circuit 24 (DB/O) and courtesy lamp switches OK. GO to A3 .

A2 VERIFY COURTESY LAMP SWITCH FOR SHORT TO B+

- Disconnect driver and passenger courtesy lamp switches located in door jamb area that mates to the A pillar.
- Connect a voltmeter between anti-theft control module connector Pin C2-14 and C2-26.

Is reading greater than 9 volts?

Yes	No
SERVICE Circuit 24 (DB/O) for short to B+. RETEST system.	SERVICE courtesy lamp switch(es). RETEST system.

A3 CHECK CIRCUIT 25 (W/P)/DOOR LOCK CYLINDER SWITCH FOR SHORT TO GROUND

- Disconnect anti-theft alarm control module.
- Connect an ohmmeter between anti-theft control module connector Pin C1-6 and C2-26.

Is reading less than 100 ohms?

Yes	No
GO to A4 .	Circuit 25 (DG/P) and door lock cylinder switches OK. GO to A6 .

A4 VERIFY CIRCUIT 25 (W/P)/DOOR LOCK CYLINDER SWITCH FOR SHORT TO GROUND

- Disconnect driver and passenger door lock cylinder switches.
- Connect an ohmmeter between anti-theft control module connector Pin C1-6 and C2-26.

Is reading less than 100 ohms?

Yes	No
SERVICE Circuit 25 (DG/P) for short to ground. RETEST system.	GO to A5 .

A5 CHECK DOOR LOCK CYLINDER SWITCH FOR SHORT TO GROUND

- Connect ohmmeter across driver door lock cylinder switch connector terminals. Verify result.
- Repeat procedure for passenger door lock cylinder switch.

Is reading less than 100 ohms?

Yes	No
REPLACE damaged door lock cylinder switch. RETEST system.	GO to A6 .

A6 CHECK CIRCUIT 117 (PK/BK), CIRCUIT 118 (PK/O), CIRCUIT 163 (R/O) AND CIRCUIT 296 (W/P) FOR SHORT TO BATTERY

- Disconnect anti-theft alarm control module and remote keyless entry module.
- Turn ignition switch to OFF.
- Connect a voltmeter between anti-theft control module Pin C2-8, Circuit 163 (R/O) to Pin C2-26. Take reading.
- Repeat procedure for anti-theft control module connector Pins C1-7, Circuit 118 (PK/O), C2-9, Circuit 117 (PK/BK), C1-4, Circuit 296 (W/P).

Are all readings less than 2 volts?

Yes	No
Circuits 117 (PK/BK), 118 (PK/O), 163 (R/O) and 296 (W/P) OK; GO to A7 .	SERVICE Circuits 117 (PK/BK), 118 (PK/O), 163 (R/O), 296 (W/P) as required for short to battery. RETEST system.

A7 CHECK CIRCUIT 117 (PK/BK), CIRCUIT 118 (PK/O), CIRCUIT 163 (R/O) FOR OPEN CIRCUIT

- Disconnect anti-theft alarm control module and remote keyless entry module.
- Turn ignition switch to OFF.
- Connect a jumper from remote keyless entry module connector Pins C3-16, C3-3 and C3-6 to ground.
- Connect an ohmmeter between anti-theft control module connector Pin C2-9 Circuit 117 (PK/BK) to C2-26 Circuit 359 (GY/R). Take reading.
- Repeat measurement for anti-theft control module connector Pin C1-7, Circuit 118 (PK/O), and Pin C2-8, Circuit 163 (R/O).
- Remove jumper clips.

Are all readings less than 100 ohms?

Yes	No
Circuits 117 (PK/BK), 118 (PK/O), 163 (R/O) OK; GO to A8 .	SERVICE suspect Circuits 117 (PK/BK), 118 (PK/O), 163 (R/O) as required for open circuit condition. RETEST system.

A8 CHECK CIRCUIT 117 (PK/BK), 118 (PK/O), 163 (R/O) FOR SHORT TO GROUND

- Disconnect anti-theft alarm control module and remote keyless entry module.
- Connect an ohmmeter from anti-theft control module connector Pin C1-7, Circuit 118 (PK/O) to C2-26. Take a reading.
- Repeat procedure for anti-theft alarm control module connector Pin C2-8, Circuit 163 (R/O), and Pin C2-9, Circuit 117 (PK/BK).

Are readings less than 100 ohms?

Yes	No
SERVICE Circuits 117 (PK/BK), 118 (PK/O), 163 (R/O) as required for short to ground. RETEST system.	Circuit 117 (PK/BK), 118 (PK/O), 163 (R/O) OK; GO to A9 .

A9 CHECK CIRCUIT 196 (DB/O)/IN-LINE FUSE FOR OPEN CIRCUIT

- Disconnect anti-theft alarm control module and remote keyless entry module.
- Connect an ohmmeter from anti-theft control module connector Pin C1-1 to C2-26.

Is reading greater than 9 volts?

Yes	No
Circuits 196 (DB/O)/In-Line Fuse (20A) OK; GO to A11 .	GO to A10 .

A10 CHECK IN-LINE FUSE (20A) NOT OPEN CIRCUIT

- Remove in-line Fuse (20A) from fuse junction panel.

Is fuse blown?

Yes	No
REPLACE in-line Fuse (20A). RETEST system.	SERVICE Circuit 196 (DB/O) for open circuit condition. RETEST system.

A11 CHECK REMOTE KEYLESS ENTRY ARMING (LOCK) PULSE

- Reconnect anti-theft alarm control module and remote keyless entry module.
- Using a voltmeter, verify anti-theft alarm control module connector Pin C1-7, Circuit 118 (PK/O) is less than 2 volts and a momentary B+ signal is present at anti-theft alarm control module connector Pin C2-9, Circuit 117 (PK/BK) when the doors are locked via the keyless entry lock code (7/8 and 9/0) or the remote transmitter LOCK button.

Is voltage less than 2 volts on Pin C1-7, Circuit 118 (PK/O) and is momentary B+ present on Pin C2-9, Circuit 117 (PK/BK)?

Yes	No
REPLACE anti-theft alarm control module. RETEST system.	GO to A12 .

A12 VERIFY REMOTE KEYLESS ENTRY ARMING (LOCK) PULSE

- Disconnect anti-theft alarm control module connectors.
- Using a voltmeter, verify anti-theft alarm control module connector Pin C1-7, Circuit 118 (PK/O) is less than 2 volts and a momentary B+ signal is present at anti-theft alarm control module Pin C2-9, Circuit 117 (PK/BK) when the doors are locked via the remote transmitter LOCK button.

Is voltage less than 2 volts on Pin C1-7, Circuit 118 (PK/O) and is momentary B+ present on Pin C2-9, Circuit 117 (PK/BK)?

Yes	No
REPLACE anti-theft alarm control module. RETEST system.	SERVICE keyless entry system and/or keyless entry remote transmitter. RETEST system.

PINPOINT TEST B: ALARM SYSTEM DOES NOT DISARM PROPERLY

B1 CHECK CIRCUIT 163 (R/O) AND 118 (PK/O) FOR OPEN CIRCUIT

- Start vehicle then turn ignition switch to OFF.
- Disconnect anti-theft alarm control module and remote keyless entry module.
- Turn ignition switch to OFF.
- Connect a jumper from remote keyless entry module connector Pins C3-3 and C3-6 to ground.
- Connect an ohmmeter between anti-theft control module connectors Pin C2-8, Circuit 163 (R/O) to C2-26. Take resistance reading.
- Repeat procedure for anti-theft control module connector Pin C1-7, Circuit 118 (PK/O) to C2-26.
- Remove jumper clips.

Are both readings less than 100 ohms?

Yes	No
Circuits 163 (R/O) and 118 (PK/O) OK. GO to B2 .	SERVICE Circuit 163 (R/O) or 118 (PK/O) as required for open circuit condition. RETEST system.

B2 CHECK CIRCUIT 296 (W/P)/FOR OPEN CIRCUIT

- Disconnect anti-theft alarm control module and remote keyless entry module.
- Turn ignition switch to RUN.
- Connect a voltmeter from anti-theft control module connector Pin C1-4 to Pin C2-26.

Is reading greater than 9 volts?

Yes	No
Circuit 296 (W/P)/Fuse 5 (10A) OK. GO to B4 .	GO to B3 .

B3 VERIFY FUSE 5 (10A) FOR OPEN

- Remove Fuse 5 (10A) from fuse junction panel.
- Inspect fuse.

Is fuse blown?

Yes	No
REPLACE Fuse 5 (10A). RETEST system.	SERVICE Circuit 296 (W/P) for open circuit condition. RETEST system.

B4 CHECK DOOR LOCK CYLINDER SWITCHES/CIRCUIT 25 (DG/P) FOR OPEN CIRCUIT

- Disconnect anti-theft alarm control module.
- Connect remote keyless entry module.
- Unlock driver door with key, leaving key in cylinder rotated to UNLOCK position.
- Connect an ohmmeter between anti-theft control module connector Pin C1-6 and C2-26. Take reading.
- Repeat procedure for passenger door.

Are both readings less than 100 ohms?

Yes	No

Circuit 25 (DG/P) and door lock cylinder switches OK. GO to [B6](#).

GO to [B5](#).

B5 VERIFY DOOR LOCK CYLINDER SWITCHES/CIRCUIT 25 (DG/P) FOR OPEN CIRCUIT

- Disconnect driver door lock cylinder switch.
- Connect ohmmeter across door lock cylinder switch connector terminals.
- Using key, rotate switch mechanism to UNLOCK position. Verify result.
- Repeat procedure for passenger door lock cylinder switch.

With key turned to UNLOCK, does switch show short circuit and with key turned to LOCK/key out of cylinder show open circuit?

Yes	No
SERVICE Circuit 25 (DG/P) for open circuit condition. RETEST system.	REPLACE damaged door lock cylinder switch/switches. RETEST system.

B6 CHECK REMOTE KEYLESS ENTRY DISARMING PULSE

- Reconnect anti-theft alarm control module and remote keyless entry module.
- Using a voltmeter, verify anti-theft alarm control module connector Pin C2-9, Circuit 117 (PK/BK) is less than 2 volts and a momentary B+ signal is present at anti-theft alarm control module connector Pin C2-8, Circuit 163 (R/O) when the door is unlocked via the keyless entry unlock code or the remote transmitter UNLOCK button.

Is voltage less than 2 volts on Pin C2-9, Circuit 117 (PK/BK) and is momentary B+ present on Pin C2-8, Circuit 163 (R/O)?

Yes	No
REPLACE anti-theft alarm control module. RETEST system.	GO to B7 .

B7 VERIFY REMOTE KEYLESS ENTRY DISARMING (UNLOCK) PULSE

- Disconnect anti-theft alarm control module.
- Verify anti-theft alarm control module connector Pin C2-9, Circuit 117 (PK/BK) is less than 2 volts and a momentary B+ signal is present at anti-theft alarm control module connector Pin C2-8, Circuit 163 (R/O) when the door is unlocked via the keyless entry unlock code or the remote transmitter UNLOCK button.

Is voltage less than 2 volts on Pin C2-9, Circuit 117 (PK/BK) and is momentary B+ present on Pin C2-8, Circuit 163 (R/O)?

Yes	No
REPLACE anti-theft alarm control module. RETEST system.	SERVICE keyless entry system and/or keyless entry remote transmitter. RETEST system.

PINPOINT TEST C: ALARM SYSTEM DOES NOT ACTIVATE PROPERLY

C1 CHECK CIRCUIT 23 (T/LG)/HOOD/LUGGAGE COMPARTMENT SWITCH NOT OPEN CIRCUIT

- Start vehicle then turn ignition switch to OFF.
- Disconnect anti-theft alarm control module.
- Open hood.
- Connect ohmmeter between anti-theft alarm control module connector Pin C1-5 and C2-26. Take reading.

Is reading less than 100 ohms?

Yes	No
Circuit 23 (T/LG) and hood anti-theft control switch OK. GO to C3 .	GO to C2 .

C2 CHECK HOOD SWITCH FOR OPEN CIRCUIT

- Open hood.
- Disconnect hood switch.
- Connect ohmmeter between hood switch connector terminals.
- Depress and then release plunger.

Is reading greater than 100 ohms when plunger is depressed and less than 100 ohms when plunger is released?

Yes	No
SERVICE Circuit 23 (T/LG) for open circuit condition. RETEST system.	REPLACE damaged hood anti-theft control switch. RETEST system.

C3 CHECK CIRCUIT 24 (DB/O)/DOOR OPEN WARNING LAMP SWITCH FOR OPEN CIRCUIT

- Reconnect anti-theft alarm control module.
- Open driver door only.
- Connect voltmeter between anti-theft alarm control module connector Pins C2-14 and C2-26. Verify result.
- Close driver door and open passenger door.
- Repeat measurement.

Are readings greater than 9 volts?

Yes	No
Circuit 24 (DB/O)/courtesy lamp switches OK. GO to C5 .	GO to C4 .

C4 CHECK CIRCUIT 24 (DB/O)/COURTESY LAMP SWITCH FOR OPEN CIRCUIT

- Disconnect driver courtesy lamp switch located in the door jamb area that mates to the A pillar.
- Connect a jumper between the wiring harness terminals.
- Connect a voltmeter between anti-theft alarm control module connector Pins C2-14 and C2-26. Verify result.
- Repeat for passenger side courtesy lamp switch.

Are readings greater than 9 volts?

Yes	No
SERVICE courtesy lamp switches. RETEST system.	SERVICE Circuit 24 (DB/O) for open circuit condition. RETEST system.

C5 VERIFY ALARM SOUNDS WHEN TRIGGERED

- Arm alarm system with window down.
- Open door using inside door handle.

Does system trigger/sound?

Yes	No

System OK.	REPLACE damaged anti-theft alarm control module only. If sections C1-C4 have been performed, RETEST system.
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PINPOINT TEST D: ENGINE WILL NOT CRANK

NOTE: On 4.6L vehicles, there is also a Passive Vehicle Protection system (refer to [Section 13-11B](#)).

On 4.6L vehicles, if the vehicle cranks for 1 second and then stalls, refer to [Section 13-11B](#) for no start condition.

The anti-theft alarm control system described in this Section cuts ALL power to the starter relay. Pinpoint Test D below is only for if the vehicle does not crank at all.

D1 RESET ALARM

- Arm then disarm system.
- Turn ignition switch to START.

Does vehicle start?

Yes	No
System OK.	GO to D2 .

D2 CHECK STARTER INTERRUPT RELAY FUNCTIONALITY

- Turn ignition switch to OFF.
- Disconnect anti-theft alarm control module.
- Connect a jumper between anti-theft alarm module connector Pins C2-12 and C2-24.

Does vehicle start?

Yes	No
REPLACE anti-theft alarm control module only if answer to D1 is NO. RETEST system.	GO to D3 .

D3 CHECK CIRCUIT 33 (W/PK) FOR OPEN CIRCUIT

- Turn ignition switch to OFF.
- Connect voltmeter between anti-theft alarm control module connector Pins C2-12 and C2-26.

Is reading greater than 9 volts?

Yes	No
GO to D4 . RETEST system.	SERVICE open in Circuit 33 (W/PK). RETEST system.

D4 CHECK CIRCUIT 32 (R/LB) FOR OPEN CIRCUIT

- Turn ignition switch to OFF.
- Connect a jumper between anti-theft alarm control module connector Pins C2-12 and C2-24.
- Connect voltmeter across starter motor solenoid terminals.
- Turn ignition switch to START.

Is reading greater than 9 volts?

Yes	No
SERVICE starter motor solenoid. RETEST system.	SERVICE Circuit 32 (R/LB) for open circuit condition. RETEST system.

PINPOINT TEST E: ALARM INDICATOR IS ON ALL THE TIME

NOTE: On 4.6L vehicles, the theft indicator light is shared by the anti-theft alarm ([Section 13-11A](#)) and the passive vehicle protection system (Refer to [Section 13-11B](#)).

THIS ANTI-THEFT ALARM SYSTEM (13-11A) USES THE THEFT INDICATOR WHEN THE KEY IS "OFF" OR REMOVED FROM THE IGNITION. THE PASSIVE VEHICLE PROTECTION SYSTEM (13-11B) ONLY USES THE THEFT INDICATOR WHEN THE KEY IS TURNED TO THE RUN/START POSITION.

E1 RESET ALARM

- Take key out of the ignition.
- Close all doors and unlock vehicle (not armed).

Is alarm indicator lamp flashing continuously?

Yes	No
GO to E3 .	GO to E2 .

E2 CHECK CIRCUIT 343 (DB/LG) FOR SHORT TO GROUND

- All doors closed and vehicle unlocked (not armed).
- Key is out of the ignition.

Is alarm indicator lamp on solid continuously?

Yes	No
GO to E5 .	System OK.

E3 CHECK CIRCUIT 24 (DB/O) FOR SHORT TO GROUND

- Disconnect anti-theft alarm control module.
- Close all doors.
- Connect voltmeter between anti-theft alarm control module connector Pins C2-14 and C2-26.

Is reading greater than 9 volts?

Yes	No
GO to E4 .	REPLACE damaged anti-theft alarm control module. RETEST system.

E4 CHECK CIRCUIT 24 (DB/O)/COURTESY LAMP SWITCH(ES) FOR SHORT TO B+

- Disconnect driver and passenger courtesy lamp switches located in door jamb area that mates to the A pillar.
- Connect a voltmeter between anti-theft control module connector Pins C2-14 and C2-26.

Is reading greater than 9 volts?

Yes	No
SERVICE Circuit 24 (DB/O) for short to B+. RETEST system.	SERVICE courtesy lamp switch(es). RETEST system.

E5 CHECK CIRCUIT 343 (DB/LG) FOR SHORT TO GROUND

- Disconnect anti-theft alarm control module.

Does alarm indicator lamp extinguish?

Yes	No
REPLACE anti-theft alarm control module. RETEST system.	SERVICE Circuit 343 (DB/LG) for short to ground. RETEST system.

PINPOINT TEST F: ALARM INDICATOR DOES NOT TURN ON TO INDICATE ARMING

F1 CHECK ALARM INDICATOR LAMP POWER/CONTINUITY

- Start vehicle and then turn ignition switch to OFF.
- Disconnect anti-theft alarm control module.
- Connect jumper between anti-theft alarm control module connector Pin C1-15 and Pin C2-26.

Does alarm indicator lamp come on?

Yes	No
REPLACE anti-theft alarm control. RETEST system.	GO to F2 .

F2 VERIFY CIRCUIT 343 (DB/LG)/54 (LG/Y)/INT LPS FUSE (15A) NOT OPEN CIRCUIT

- Remove INT LPS Fuse (15A) from fuse junction panel and alarm indicator bulb from socket assembly in instrument cluster.
- Using an ohmmeter, measure resistance of fuse then alarm indicator lamp.

Are readings less than 100 ohms?

Yes	No
SERVICE Circuits 54 (LG/Y) and/or 343 (DB/LG) for open circuit condition. RETEST system.	REPLACE INT LPS Fuse (15A) and/or alarm indicator lamp as required. RETEST system.

PINPOINT TEST G: HORN, HEADLAMPS/EXTERIOR LAMPS ON ALL THE TIME

G1 HORN ON ALL THE TIME

- Disconnect anti-theft control module.

Does horn turn off?

Yes	No

REPLACE damaged anti-theft alarm control module. RETEST system.	SERVICE Circuit 6 (Y/LG) for short to ground and/or SERVICE horn relay and bracket. RETEST system.
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G2 HEADLAMPS ON ALL THE TIME

- Leave anti-theft control module disconnected.

Are headlamps off?

Yes	No
REPLACE damaged anti-theft alarm control module. RETEST system.	SERVICE Circuit 13 (R/BK) for short to B+ and/or SERVICE headlamps. GO to G3 .

G3 PARKLAMPS ON ALL THE TIME

- Leave anti-theft control module disconnected.

Are park lamps off?

Yes	No
REPLACE damaged anti-theft alarm control module. RETEST system.	SERVICE Circuit 14 (BR) for short to B+. RETEST system.

PINPOINT TEST H: SYSTEM ACTIVATES FALSELY

H1 VERIFY VEHICLE IS IN FALSELY ACTIVATING MODE

NOTE: Before performing Steps H2 to H5, it is imperative that system activates falsely on a regular basis.

- Disconnect anti-theft alarm control module.
- Close all doors and hood.
- Connect ohmmeter between anti-theft alarm control module connector Pins C1-5, and C2-26.

Is reading less than 100 ohms?

Yes	No
GO to H2 .	GO to H7 .

H2 CHECK ANTI-THEFT ALARM CONTROL MODULE PIN C1-5 FOR SHORT TO GROUND

- Open hood and luggage compartment.
- Disconnect both hood switch and luggage compartment lock cylinder switch.
- Connect ohmmeter between anti-theft alarm control module connector Pins C1-5 and C2-26.

Is reading less than 100 ohms?

Yes	No
SERVICE Circuit 23 (T/LG) for short to ground. RETEST system.	GO to H3 .

H3 CHECK HOOD SWITCH FOR SHORT TO GROUND

- Connect ohmmeter across hood switch connector terminals.
- Depress plunger then release.

Does reading show open circuit when switch depressed and short circuit when switch released?

Yes	No
GO to H4 .	REPLACE damaged hood anti-theft control switch. RETEST system.

H4 CHECK ADJUSTMENT OF HOOD SWITCH BRACKET

- Reconnect hood switch.
- Close hood.
- Connect ohmmeter between anti-theft alarm control module connector Pins C1-5 and C2-26.

Is reading less than 100 ohms?

Yes	No
ADJUST hood switch bracket up higher to ensure switch plunger is depressed when hood is closed. RETEST system.	GO to H5 .

H5 CHECK LUGGAGE COMPARTMENT LOCK CYLINDER SWITCH FOR SHORT TO GROUND

- Connect ohmmeter across luggage compartment lock cylinder switch connector terminals.
- Jiggle luggage compartment lock cylinder spring wiring and jiggle key in lock cylinder.

Does reading show short or intermittent short?

Yes	No
REPLACE damaged luggage compartment lock cylinder switch. RETEST system.	REPLACE damaged anti-theft alarm control module. RETEST system.

H6 CHECK ANTI-THEFT ALARM CONTROL MODULE PIN C2-14 FOR SHORT TO B+

- Reconnect anti-theft alarm control and remote keyless entry module.
- Close all vehicle doors.
- Connect ohmmeter between anti-theft alarm control module connector Pins C2-14 and C2-26.

Is reading greater than 9 volts?

Yes	No
GO to H7 .	GO to H8 .

H7 CHECK CIRCUIT 24 (DB/O)/COURTESY LAMP SWITCH(ES) FOR SHORT TO B+

- Disconnect driver and passenger courtesy lamp switches located in door jamb area that mates to the A pillar.
- Connect a voltmeter between anti-theft alarm control module connector Pins C2-14 and C2-26.

Is reading greater than 9 volts?

Yes	No
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SERVICE Circuit 24 (DB/O) for short to B+. RETEST system.

SERVICE courtesy lamp switch(es). RETEST system.

H8 CHECK IGNITION LOCK ANTI-THEFT SWITCH FOR OPEN/SHORT CIRCUIT

- Disconnect anti-theft alarm control module.
- Connect ohmmeter between anti-theft alarm control module connector Pins C2-10 and C2-26. Take reading.

Is reading between 150 and 175 ohms?

Yes	No
REPLACE anti-theft alarm control module only if Steps H1 to H4 have been performed. RETEST system.	REPLACE ignition lock anti-theft switch. RETEST system.