

Refer to Instrument Cluster for schematic and connector information.

Normal Operation and Fault Conditions

See PRNDL Indicator. REFER to: Instrument Panel Cluster (IPC) - System Operation and Component Description .

If the transmission gear display or transmission gear display mode message is missing for less than 5 seconds, the display remains in the last indication state (on or off), based upon the last message received.

If the transmission gear display or transmission gear display mode message is missing for 5 seconds or longer, the IPC defaults the display off.

IPC DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
P1706:00	High Vehicle Speed Observed in Park: No Sub Type Information	A continuous and on-demand DTC that sets in the IPC if the IPC detects a park detect input with vehicle speed over 16 km/h (10 mph), indicating the vehicle is in park while in motion.

Possible Sources

- Wiring, terminals or connectors
- Communication concern
- Park detect switch
- Transmission concern
- GWM concern
- BCM
- IPC

Visual Inspection And Diagnostic Pre-checks

Verify the vehicle is not in transport mode.

DIAGNOSIS AND TESTING > INSTRUMENTATION, MESSAGE CENTER AND WARNING CHIMES > PINPOINT TESTS > PINPOINT TEST AG : THE PRNDL, SELECTSHIFT ® OR RANGE SELECT INDICATOR IS NEVER ON OR NEVER DISPLAYS P > PINPOINT TEST AG : THE PRNDL, SELECTSHIFT ® OR RANGE SELECT INDICATOR IS NEVER ON OR NEVER DISPLAYS P

AG1 PERFORM THE IPC (INSTRUMENT PANEL CLUSTER) SELF-TEST

Ignition ON.

Using a diagnostic scan tool, perform the IPC self-test.

Are any DTCs recorded?

Yes	For DTC P1706:00, GO to AG5 For all other Diagnostic Trouble Codes (DTCs), REFER to DTC Chart: IPC .
No	GO to AG2

AG2 CHECK THE GWM (GATEWAY MODULE A) DIAGNOSTIC TROUBLE CODES (DTCS)

Using a diagnostic scan tool, check the GWM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Communications Network .
No	GO to AG3

AG3 PERFORM THE PCM (POWERTRAIN CONTROL MODULE) SELF-TEST

Using a diagnostic scan tool, perform the PCM self-test.

Are any transmission related DTCs recorded?

Yes	Refer to the appropriate article for the procedure.
No	GO to AG4

AG4 CHECK THE TRANSMISSION RANGE INPUT TO THE PCM (POWERTRAIN CONTROL MODULE)

Using a diagnostic scan tool, view the PCM Parameter Identifications (PIDs).

Select the PCM transmission range PID (TR).

Monitor the transmission range input while shifting through the selector lever positions.

Does the transmission range input match the selector lever positions?

Yes	GO to AG5
No	DIAGNOSE the transmission range sensor. REFER to: EXTERNAL CONTROLS .

AG5 BYPASS THE SELECTOR LEVER AND CHECK THE PARK DETECT INPUT TO THE IPC (INSTRUMENT PANEL CLUSTER)

Ignition OFF.

Disconnect Brake Shift Interlock C2008 (Column Shift).

Disconnect Selector Lever C3245 (Floor Shift).

Connect a fused jumper wire:

Column Shift

Lead 1	Measurement / Action	Lead 2
C2008-2		Ground

Floor Shift

Lead 1	Measurement / Action	Lead 2
C3245-2		Ground

Ignition ON.

Monitor the PRNDL indicator with the fused jumper wire installed and with the fused jumper wire removed.

Does the PRNDL display P with the fused jumper wire connected and blank with the fused jumper wire removed?

Yes	REMOVE the fused jumper wire. INSTALL a new selector lever assembly. For column shift, REFER to: Selector Lever Assembly - Vehicles With: Column Shift . For floor shift, REFER to: Selector Lever Assembly - Vehicles With: Floor Shift .
------------	--

No	REMOVE the fused jumper wire. GO to AG6
-----------	---

AG6 CHECK THE SELECTOR LEVER INPUT CIRCUIT FOR AN OPEN BETWEEN THE IPC (INSTRUMENT PANEL CLUSTER) AND THE SELECTOR LEVER

Ignition OFF.

Disconnect IPC C220 .

Measure:

Column Shift

Positive Lead	Measurement / Action	Negative Lead
C220-4	Ω	C2008-2

Floor Shift

Positive Lead	Measurement / Action	Negative Lead
C220-4	Ω	C3245-2

Is the resistance less than 3 ohms?

Yes	GO to AG7
------------	-----------

No	REPAIR the circuit.
-----------	---------------------

AG7 CHECK THE SELECTOR LEVER INPUT CIRCUIT FOR A SHORT TO GROUND AT THE IPC (INSTRUMENT PANEL CLUSTER)

Measure:

Positive Lead	Measurement / Action	Negative Lead
C220-4	Ω	Ground

Is the resistance greater than 10, 000 ohms?

Yes	GO to AG8
------------	-----------

No	REPAIR the circuit.
-----------	---------------------

AG8 CHECK FOR CORRECT IPC (INSTRUMENT PANEL CLUSTER) OPERATION

Ignition OFF.

Disconnect and inspect the IPC connector and related in-line connectors.

Repair:

corrosion (install new connector or terminals - clean module pins)

damaged or bent pins - install new terminals/pins

pushed-out pins - install new pins as necessary

Reconnect the IPC connector and related in-line connectors. Make sure it seats and latches correctly.

Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW TSB instructions. If no Technical Service Bulletins (TSBs) address this concern,
------------	--