

The IPC receives the stability-traction control indicator request message from the GWM over the HS-CAN3. The GWM receives the stability-traction control indicator request message from the ABS over the HS-CAN2.

Refer to ABS/Brake/Stability-Traction Control System Indication description for information on the conditions when the stability-traction control RTT (sliding car Off icon) is turned on. Refer to: Instrument Panel Cluster (IPC) - System Operation and Component Description .

TPMS

The IPC receives the tire pressure warning indicator message from the GWM over the HS-CAN3. The GWM receives the tire pressure warning indicator message from the BCM over the HS-CAN1.

If the BCM determines the tire pressure has exceeded the low tire pressure limits, the tire pressure warning indicator request message is sent to the IPC to illuminate the TPMS RTT.

If a TPMS monitor or sensor fault condition exists, the BCM sends the tire pressure warning indicator request message to the IPC to flash the TPMS RTT. The IPC flashes the TPMS warning indicator for 75 seconds then turns the indicator on solid.

DESCRIPTION AND OPERATION > MESSAGE CENTER - SYSTEM OPERATION AND COMPONENT DESCRIPTION > WARNING MESSAGES

4WD

The message center provides messages to check the 4x4 system and provide a system status when a fault condition exists. The IPC receives the 4WD service required message from the GWM over the HS-CAN3. The GWM receives the 4WD service required message from the TCCM over the HS-CAN2.

Adaptive Cruise Control

The message center provides messages explaining the need for driver intervention and system status. The adaptive cruise control messages are supplemental to the cruise control RTT and the adaptive cruise control warning chime. The IPC receives the adaptive cruise control message display from the GWM over the HS-CAN3. The GWM receives the adaptive cruise control message display from the CCM over the HS-CAN2.

Auto Engine Idle Shut Down

The message center provides messages explaining the status of an impending engine idle shut down. The IPC receives the engine idle shut down message request from the GWM over the HS-CAN3. The GWM receives the engine idle shut down message request from the PCM over the HS-CAN1.

Auto Stop-Start

The message center provides messages explaining the need for driver intervention and system status. The IPC receives the stop/start text message display request from the GWM over the HS-CAN3. The GWM receives the stop/start text message display from the PCM over the HS-CAN1.

Blind Spot Monitoring System (BLIS ®)/Cross Traffic Alert (CTA)

The message center provides messages indicating the reason for the Blind Spot Monitoring System (BLIS ®)/Cross Traffic Alert (CTA) fault. The IPC receives the side obstacle sensor status-left and side obstacle sensor status-right messages from the GWM over the HS-CAN3. The GWM receives the side

obstacle sensor status-left and side obstacle sensor status-right messages from the SODL and SODR, respectively, over the MS-CAN.

Brake System

The message center provides brake system warning messages for the following concerns and status:

- Low brake fluid level
- Parking brake status and faults
- ABS faults

The IPC receives all network messages required to operate the brake warning indicator from the GWM over the HS-CAN3.

When a base brake system fault exists, the ABS module sends the brake (red) warning indicator request to the GWM over the HS-CAN2 to display the check brake system message center warning.

When the parking brake is applied on a manual parking brake vehicle, the BCM sends the parking brake warning indicator request to the GWM over the HS-CAN1 to display the parking brake engaged message center warning.

When the parking brake is applied on an electronic parking brake vehicle, the BCM sends the electronic park brake (red) indicator request to the GWM over the EPB module over the HS-CAN2 to display the parking brake engaged message center warning.

When a low brake fluid level condition exists, the BCM sends the red brake warning indicator request to the GWM over the HS-CAN1 to display the brake fluid level low message center warning.

Charging System

The message center provides a warning message indicating the status of the charging system. When a fault is present in the charging system, the BCM sends the battery low state of charge message to the GWM over the HS-CAN1. The IPC receives the battery low state of charge message from the GWM over the HS-CAN3.

Check Fuel Fill Inlet

The message center provides a check fuel fill inlet message to warn the driver there is a problem with the fuel fill inlet pipe resulting in a significant evaporative emission leak following vehicle refueling. The IPC receives the check fuel fill inlet message request from the GWM over the HS-CAN3. The GWM receives the check fuel fill inlet message request from the PCM over the HS-CAN1.

Door-Hood Ajar

The IPC provides a door and hood ajar warnings to indicate the status of the doors and hood. The IPC receives the driver door ajar, passenger door ajar, left rear door ajar, the right rear door ajar status and hood ajar status messages from the GWM over the HS-CAN3. The GWM receives the driver door ajar, passenger door ajar, left rear door ajar, the right rear door ajar status and hood ajar status messages from the BCM over the HS-CAN1. The BCM monitors each of the ajar inputs and sends the specific door ajar status message to the IPC to display the ajar warning indicator and corresponding warning message.

Electronic Park Brake

The message center provides messages to indicate the status of the electronic parking brake system.

The messages displayed are a combination of informational messages, warning and system fault messages. The IPC uses the following messages to display the applicable message center message.

- Electronic park brake message request
- Electronic park brake (red) indicator request
- Brake (red) warning indicator request
- Brake fluid level low message request

The IPC receives all messages required to display the electronic park brake messages from the GWM over the HS-CAN3.

The GWM receives the electronic park brake message request and the electronic park brake (red) indicator request from the EPB module over the HS-CAN2.

The GWM receives the brake (red) warning indicator request from the ABS module over the HS-CAN2.

The GWM receives the brake fluid level low message request from the BCM module over the HS-CAN1.

ELD

The message center provides informational and fault messages to inform the driver of the ELD status. The IPC receives the rear locking differential service required message and the rear differential lock message request from the GWM over the HS-CAN3. The GWM receives the rear locking differential service required message and the rear differential lock message request from the TCCM over the HS-CAN2.

EPAS

The IPC provides a message center message to indicate there is an EPAS system concern. When a fault exists in the EPAS, the PSCM sends a request to the IPC through the GWM.

The IPC receives the EPAS failure message from the GWM over the HS-CAN3.

The GWM receives the EPAS failure message from the PSCM over the HS-CAN2.

Engine On

The message center provides the engine on warning message to inform the driver they are exiting the vehicle when the engine is running. The IPC uses multiple inputs to determine the vehicle is stopped and the driver is preparing to exit the vehicle. The messages required to control the engine on warning message are as follows:

- Driver door ajar status
- Engine status
- Transmission gear display mode
- Vehicle speed

The IPC receives the driver door ajar status from the GWM over the HS-CAN3. The GWM receives the driver door ajar status from the BCM over the HS-CAN1.

The IPC receives the engine status, transmission gear display mode and the vehicle speed messages from the GWM over the HS-CAN3. The GWM receives the engine status, transmission gear display

mode and the vehicle speed messages from the PCM over the HS-CAN1.

Engine Over-Temperature

The message center provides the engine coolant over-temperature message to supplement the engine over-temperature RTT and alert the driver the engine is over temperature. The IPC receives the engine overheat indication request and the engine coolant temperature data from the GWM over the HS-CAN3. The GWM receives the engine overheat indication request and the engine over-temperature message from the PCM over the HS-CAN1.

Factory-Transport Mode

During vehicle build, some modules, such as the IPC and the BCM, are set in factory mode. While in the factory mode the IPC displays FACTORY MODE CONTACT DEALER in the message center. If the vehicle is set in factory mode, the system does not automatically exit the mode and must be manually set to either the transport or normal operation mode.

When the vehicle build is complete, the vehicle is set to transport mode. While in transport mode, the IPC displays TRANSPORT MODE CONTACT DEALER in the message center. Transport mode is used to reduce the drain on the battery during longer periods where the vehicle is not used. Various systems may be altered or are disabled when in the transport mode. The vehicle automatically reverts to normal operation mode after being driven 201 km (125 mi).

The IPC receives the factory mode message and the transport mode messages from the GWM over the HS-CAN3. The GWM receives the factory mode message and the transport mode message from the BCM over the HS-CAN1.

Forward Collision

The message center provides the forward collision warning messages to inform the driver of the forward collision status. The IPC receives the forward collision warning message request from the GWM over the HS-CAN3. The GWM receives the forward collision warning message request from the CCM over the HS-CAN2.

Hill Descent Control

The message center provides informational and fault hill descent control messages to inform the driver of the hill descent control system status. The IPC receives the hill descent message request from the GWM over the HS-CAN3. The GWM receives the Hill descent message request from the ABS module over the HS-CAN2.

Keypad Factory Code

The message center can display the original keypad factory code when requested. The IPC receives the keypad factory code data from the GWM over the HS-CAN3. The GWM receives the keypad factory code data from the BCM over the HS-CAN1. For information on how to retrieve the factory code, Refer to: Handles, Locks, Latches and Entry Systems - System Operation and Component Description .

Lane Keeping System

The message center provides a warning message for the lane keeping alert and system fault messages for the over all lane keeping system. The IPC receives all required messages from the GWM over the HS-CAN3. The GWM receives the lane keeping system message request, the lane keeping system status display and the camera status display message from the IPMA over the HS-CAN2.

Load Shed

The message center provides load shed messages to inform the driver to use less options to conserve battery voltage. The IPC receives the power shed level request from the GWM over the HS-CAN3. The GWM receives the power shed level request from the BCM over the HS-CAN1.

Memory Seat Status

The message center provides memory seat status messages to provide the driver confirmation that memory position storing was successful and that recalling a memory position can not be recalled while driving the vehicle. The IPC receives the memory command message from the GWM over the HS-CAN3. The GWM receives the memory command message from the DSM over the MS-CAN.

Neutral Tow

The message center provides towing system messages to indicate the status of the neutral tow feature when the neutral tow system is enabled and the vehicle is capable of free-rolling. The IPC receives a 4WD status message from the GWM over the HS-CAN3. The GWM receives the 4WD status message from the TCCM over the HS-CAN2.

Off Road Mode

The message center provides off road informational messages to indicate the status of the off road system status. The IPC receives a 4WD status message from the GWM over the HS-CAN3. The GWM receives the 4WD status message from the TCCM over the HS-CAN2.

Oil Life

The instrument cluster provides messages to inform the driver about the oil life status, oil life reset status and when an oil change is required. The duration of the interval between oil changes is calculated in the PCM and varies due to driving conditions. The PCM assumes a base mileage of 16, 090 km (10, 000 mi) or 1 year for normal driving. However, this number is adjusted down for conditions such as high engine temperature, high engine RPM, use of flex fuel and possibly low oil level. The PCM calculates and provides the engine oil life percent message to the IPC. The IPC further converts the remaining oil life using the driver's configured oil life start value and displays the oil life percentage, indicating the remaining oil life. The oil change minder can be reset at any time by the driver.

The IPC receives the engine oil life message from the GWM over the HS-CAN3. The GWM receives the engine oil life message from the PCM over the HS-CAN1.

The PCM receives the engine oil life data reset message from the GWM over the HS-CAN1. The GWM receives the engine oil life data reset message from the IPC over the HS-CAN3.

Parking Aid System

The IPC provides messages to indicate the status of the parking aid system. The IPC receives the parking aid fault status message from the GWM over the HS-CAN3. The GWM receives the parking aid fault status message from the PAM over the HS-CAN1.

PATS And Passive Key And Immobilizer System

The message center provides the starting system fault message to indicate there is a concern with the PATS. The message center provides passive key and immobilizer system messages to indicate the key is in the luggage compartment, the key is left in the vehicle, no key is detected, accessory power is active, to press the brake to start the vehicle or to place the key in the backup slot. The IPC uses the immobilizer message display messaged input from the BCM to display the applicable message center message.

The IPC receives the immobilizer message display data from the GWM over the HS-CAN3.

The GWM receives the immobilizer message display data from the BCM over the HS-CAN1.

Perimeter Alarm And Reduced Guard (Intrusion/Motion)

The message center provides the perimeter alarm message to indicate the perimeter alarm has been activated and to start the vehicle to stop the alarm. The IPC receives the perimeter alarm chime request message from the GWM over the HS-CAN3. The GWM receives the perimeter alarm chime request from the BCM over the HS-CAN1.

The message center also provides a menu to set up the reduced guard (intrusion/motion) feature of the alarm system. The message center displays a message to inform the driver whether the alarm is set up to disable the intrusion and motion sensor inputs. The IPC receives the reduced guard status message from the GWM over the HS-CAN3. The GWM receives the reduced guard status message from the BCM over the HS-CAN1.

Power Child Lock-Switch Inhibit And Low Key Fob

The IPC provides a power child lock warning to inform the driver the child lock feature did not function properly. The power child lock feature is activated through the rear window lockout switch on the driver side master window control switch.

The IPC provides a switch inhibit warning to notify the driver that some switches have been purposely inhibited and are inoperative. For security purposes, interior switches are inhibited by the BCM 20 seconds after the vehicle is electronically locked and prevents someone from using a stick (or other object) through an open window and activating the switch.

The IPC provides a low key fob battery warning to alert the driver the key fob battery needs to be replaced. The low key fob battery warning is not displayed in RUN or START modes if the power child lock warning is active to prevent the BCM from cycling between the two warnings, causing the chime associated with the power child lock warning from repeatedly sounding every 4 seconds.

The IPC receives the lock system message request from the GWM over the HS-CAN3. The GWM receives the lock system message request from the BCM over the HS-CAN1.

Powertrain Cooling

On vehicles equipped with a Gasoline Turbo Direct Injection (GTDI) engine, the IPC provides a message to inform the driver that vehicle performance is reduced to allow the engine to cool. This feature is part of the smart cooling function in the PCM and provides powertrain cooling protection under high ambient temperature conditions.

The IPC receives the powertrain cooling message request from the GWM over the HS-CAN3. The GWM receives the powertrain cooling message request from the PCM over the HS-CAN1.

PRNDL Not In Park (Shift To Park)

The message center provides a shift to park message to inform the driver the vehicle is not in PARK (P) under 2 sets of conditions. First, the IPC displays the shift to park message if the selector lever is not in PARK (P), the ignition is OFF and the driver door is open or ajar. Second, the message center displays the shift to park message if the selector lever is not in PARK (P), the ignition is ON or in ACC, the driver door is open or ajar and the brake pedal is not applied with vehicle speed less than 5 km/h (3 mph). The IPC uses multiple messages to control the shift to park message.

The IPC receives all required messages from the GWM over the HS-CAN3.

The GWM receives the transmission gear display mode and vehicle speed messages from the PCM over the HS-CAN1.

The GWM receives the driver door ajar status, transport mode and ignition status message from the BCM over the HS-CAN1.

The IPC also uses the park position detect input to determine whether the vehicle is in PARK (P) along with the transmission gear display mode message.

See Park Position Detect Switch component description. Refer to: Instrument Panel Cluster (IPC) - System Operation and Component Description .

Remote Start

The IPC provides remote start messages to inform the driver the vehicle is in the remote start active state and how to change the state to a drivable state. The remote start message display is active as soon as the vehicle is remote started (that is, the engine is running, but the ignition status is off).

The IPC receives the remote start status message from the GWM over the HS-CAN3. The GWM receives the remote start status message from the BCM over the HS-CAN1.

Snow Plow Mode

The message center provides the snow plow mode active warning to inform the customer the functionality of some electrical features like heated seats and heated steering wheel are restricted due to activation of the snow plow. This feature enables the snow plow to function at full power. The IPC receives the snow plow mode message from the GWM over the HS-CAN3. The GWM receives the snow plow mode message from the FCIM over the MS-CAN.

Spinout Detection System

The spinout detection feature activates the hazard indicator to alert other vehicles approaching the vehicle following a spin-out, potentially reducing the risk of collision, especially in low visibility weather conditions. A spinout is defined as a slip angle greater than 40 degrees followed by 5 seconds of vehicle at rest.

When a spinout is detected, the system activates the hazard indicator and the IPC displays a message to inform the driver that the hazards have been turned on. The IPC receives the vehicle dynamics SOS message from the GWM over the HS-CAN3. The GWM receives the vehicle dynamics SOS message from the ABS module over the HS-CAN2.

Stability - Traction Control

The message center provides stability-traction control system messages to indicate the stability-traction control system status or if the stability-traction control system has a fault and requires service.

When the stability-traction control system has been selected off or on, the ABS module sends the stability-traction control on/off message request to the GWM over the HS-CAN2. The GWM sends the stability-traction control on/off message request to the IPC over the HS-CAN3.

When a fault condition exists in the stability-traction control system, the ABS module sets a DTC and sends the stability-traction control chime request to the GWM over the HS-CAN2. The GWM sends the stability-traction control chime request to the IPC over the HS-CAN3.

Starting System

The message center provides a starting system message to inform the driver of further actions required