over the HS-CAN2. The GWM receives the HUD display intensity, HUD shift point and HUD mode messages from the IPC over the HS-CAN3.

DESCRIPTION AND OPERATION > MESSAGE CENTER - SYSTEM OPERATION AND COMPONENT DESCRIPTION > MESSAGE CENTER DISPLAYS

Average Fuel Economy (AFE)

Average Fuel Economy (AFE) is calculated using the following messaged inputs:

- Fuel flow volume display
- Odometer count
- Ignition key type
- Vehicle speed
- Engine RPM data
- Engine status

All messaged inputs, except for the ignition key type, are sent to the GWM by the PCM over the HS-CAN1. The GWM sends all message inputs, except for the ignition key type, to the IPC over the HS-CAN3. The GWM receives the ignition key type message from the BCM over the HS-CAN1. The IPC receives the ignition key type message from the GWM over the HS-CAN3.

Compass

The compass is displayed as a 1 or 2 character display in the message center that indicates the current direction of the vehicle (N, NE, E, SE, S, SW, W, or NW). The IPC receives the GPS compass direction from the GWM over the HS-CAN3. The GWM receives the GPS compass direction from the GPSM over the MS-CAN.

DTE

The DTE is calculated in the IPC using the Running Average Fuel Economy (RAFE), which is the fuel economy over the last 480 km (300 miles), and the fuel level input from the fuel sender(s) to determine how many miles the vehicle can be driven based on the remaining fuel in the fuel tank. If the fuel economy is relatively constant, the DTE can be off over a 50 mile range by -24% to +38%. The DTE display and the fuel gauge both use the fuel level input from the fuel tank to provide their respective functions. If the fuel gauge doesn't function correctly, both the fuel gauge and the DTE display are affected.

The IPC defaults to around 21 mpg when the battery is initially connected and changes based on driving habits and conditions. Generally, the driver should be getting somewhere between 13-27 mpg.

> *NOTE: The actual DTE can be higher or lower than the DTE displayed in the message center due to changes in driving conditions. It is important to understand how the DTE is calculated and the factors that impact the DTE display when determining how to address any DTE concerns.*