

Broadcast Message	Originating Module	Message Purpose
Crank request	BCM	Provides the PCM with indication that the driver has commanded the engine to crank.
Power mode	BCM	Provides the PCM with ignition mode.
Ignition status	BCM	Provides the PCM with ignition mode.

Module Network Input Messages Body Control Module (BCM)

Broadcast Message	Originating Module	Message Purpose
Intelligent access system status	RFA module	The response from the BCM request for the RFA module ID. If the RFA module ID response is incorrect, then the PATS is disabled.

DESCRIPTION AND OPERATION > STARTING SYSTEM - SYSTEM OPERATION AND COMPONENT DESCRIPTION > PUSH BUTTON START SYSTEM

This vehicle is equipped with a PATS that disables the engine from cranking if an unprogrammed PATS key is used or an invalid PCM ID is received. The PATS is controlled by the BCM. If there is a PATS concern that causes the engine to be disabled, the IPC displays the corresponding message in the message center. For additional information, Refer to: Passive Anti-Theft System (PATS) - System Operation and Component Description .

Ignition modes are controlled by the RFA module and the BCM. For additional information on the ignition switch - push button start modes, Refer to: Steering Wheel and Column Electrical Components - System Operation and Component Description .

The ignition switch - push button start is connected to the RFA module and the BCM as a backup in case of a failure. If there is a circuit failure to either module from the ignition switch - push button start, the modules communicate the ignition switch - push button start request to each other over the Medium Speed Controller Area Network (MS-CAN).

During a start event the ignition switch - push button start is pressed in combination with either the brake pedal (automatic transmission) or the clutch pedal (manual transmission) input. The RFA module, the BCM and the PCM receive a request to start the engine. The PCM recognizes the correct inputs and provides voltage and ground to energize the starter relay coil and close the starter relay contacts. The starter relay contacts close, providing voltage to the starter solenoid, allowing the starter motor to crank the engine. The PCM disengages the starter motor once an engine Revolutions Per Minute (RPM) threshold is reached, a set crank time is exceeded or the ignition switch - push button start is pressed indicating an engine shutdown.

DESCRIPTION AND OPERATION > STARTING SYSTEM - SYSTEM OPERATION AND COMPONENT DESCRIPTION > REMOTE START