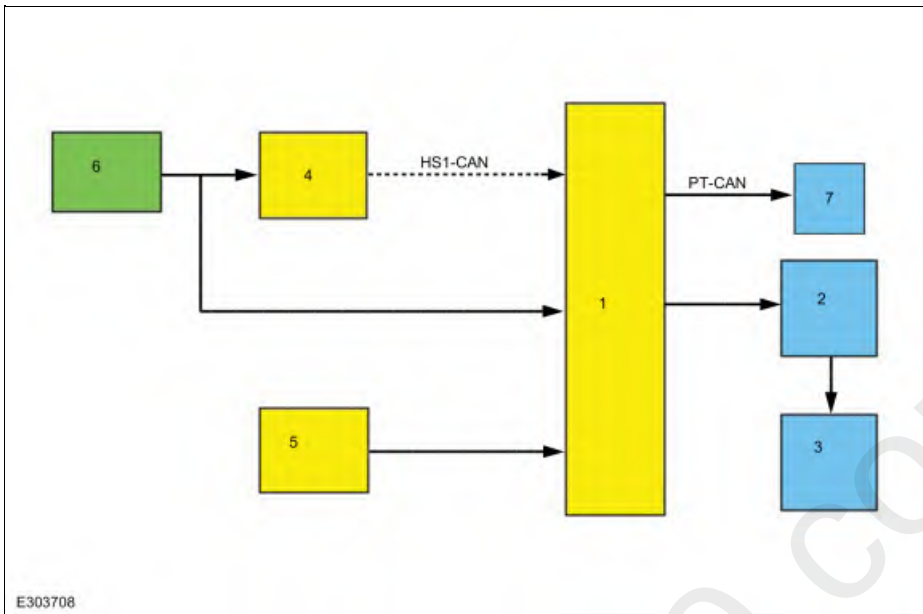


Starting System - System Operation and Component Description

System Operation

System Diagram



Item	Description
1	PCM
2	Starter relay
3	Starter motor
4	BCM
5	Automatic transmission
6	Ignition switch
7	Belt integrated starter

Network Message Chart

Module Network Input Messages Powertrain Control Module (PCM)

Broadcast Message	Originating Module	Message Purpose
Ignition status	BCM	Provides the PCM with ignition mode.

Starting System - 12V Conventional Starter

The BCM controls the ignition modes and, in conjunction with the PCM, the starting system.

During a start event, when the ignition switch is turned to Start (without push button start) or the engine start/stop switch and the brake pedal are pressed simultaneously (with push-button start), the PCM and BCM receive a request to start the engine. The PCM recognizes the correct inputs from the BCM and TR sensor 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 RPM threshold is reached, a set crank time is exceeded or the ignition switch is turned to off (without push button start) or the start/stop button is pressed (with push-button start).