

CORTEX EBC

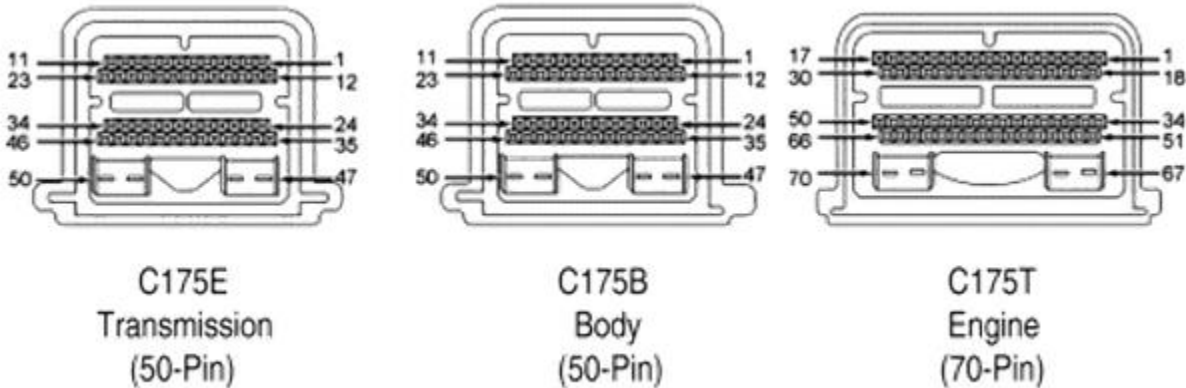
2005-2010 Mustang GT 4.6L Specific Instructions

Rev 3.0.0

WIRING

The 2005-2010 Mustang PCM is in the passenger side of the engine bay next to the fuse box. Power, RPM, vehicle speed, and throttle position signals can be accessed at these connectors. When the PCM is installed in the car the Transmission connector is on the top, the Body connector is in the middle, and the Engine connector is on the bottom.

PCM HARNESS CONNECTORS



The Cortex EBC wiring harness and Speed Sensor Adapter V2 can be connected to the PCM connectors as outlined in the following tables (B = Body Connector, E= Engine Connector, T = Transmission Connector). RPM and vehicle speed signals are required for boost by gear applications. The Speed Sensor Adapter V2 can be connected to the same power and ground source as the Cortex EBC if desired.

CORTEX EBC TO PCM CONNECTIONS

CORTEX SIGNAL	CORTEX WIRE COLOR	PCM SIGNAL	PCM PIN	PCM WIRE COLOR
+12V Power	Red	PCM Power	B-35	Red
Ground	Black (x2)	Connect to Chassis Near EBC	N/A	N/A
Engine Speed	Pink	Cam Position Sensor 1	E-45	Dark Blue / Orange
General-Purpose	Orange	Throttle Position 1	E-61	Gray / White

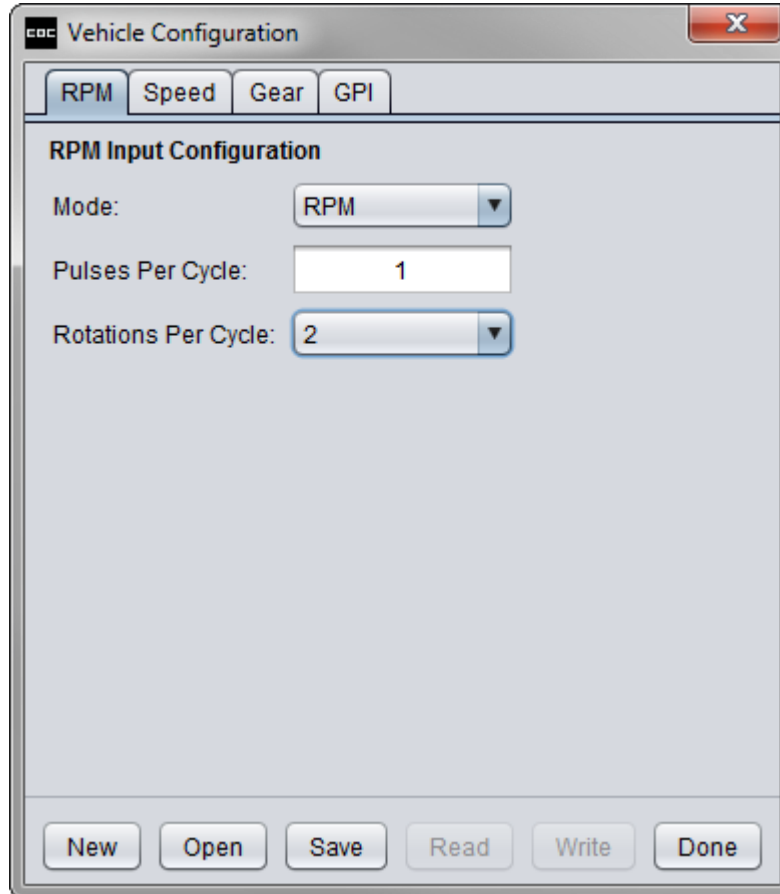
SPEED SENSOR ADAPTER V2 CONNECTIONS

SPEED SENSOR ADAPTER V2 SIGNAL	SPEED SENSOR ADAPTER V2 WIRE COLOR	PCM SIGNAL	PCM PIN	PCM WIRE COLOR
Sensor IN+	Green	Output Shaft Speed	T-3	Dark Blue / Yellow
Sensor IN-	Blue	Signal Return	T-41	Gray / Red
-	-	CORTEX SIGNAL	-	CORTEX WIRE COLOR
Output	White	Vehicle Speed	-	Green

VEHICLE CONFIGURATION SETTINGS

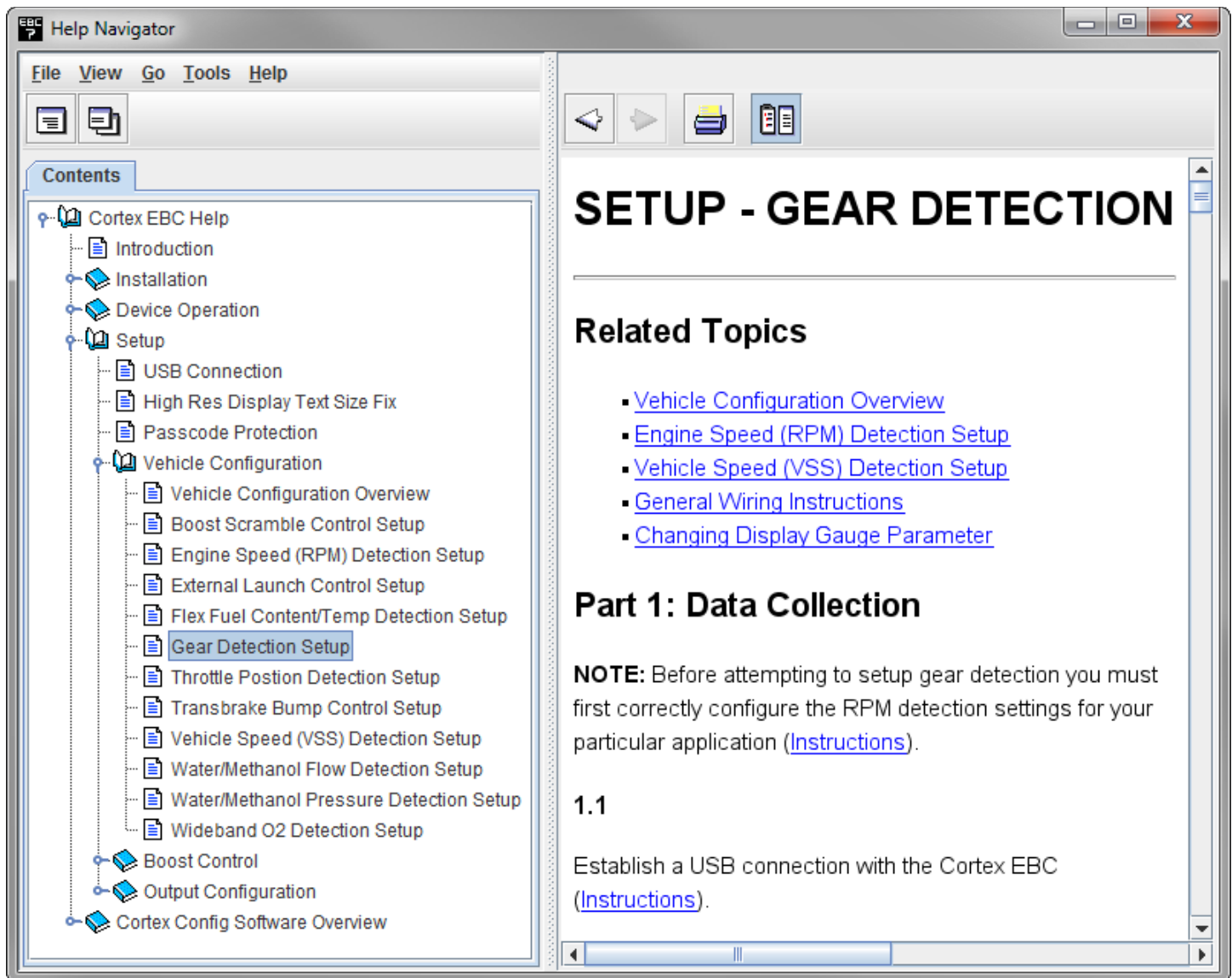
RPM DETECTION:

- Mode: RPM
- Pulses Per Cycle: 1
- Rotations Per Cycle: 2



GEAR DETECTION:

- Follow the steps in the **Setup – Gear Detection** section of the Help utility to determine the correct EVS ratio settings for gear detection.



The screenshot shows the Cortex EBC Help Navigator window. The left pane displays a tree view of the help contents, with 'Gear Detection Setup' selected under the 'Vehicle Configuration' folder. The main pane displays the 'SETUP - GEAR DETECTION' page, which includes a 'Related Topics' section with links to 'Vehicle Configuration Overview', 'Engine Speed (RPM) Detection Setup', 'Vehicle Speed (VSS) Detection Setup', 'General Wiring Instructions', and 'Changing Display Gauge Parameter'. Below this is 'Part 1: Data Collection', which contains a 'NOTE' about configuring RPM detection settings and a sub-section '1.1' titled 'Establish a USB connection with the Cortex EBC' with a link to '(Instructions)'.

SETUP - GEAR DETECTION

Related Topics

- [Vehicle Configuration Overview](#)
- [Engine Speed \(RPM\) Detection Setup](#)
- [Vehicle Speed \(VSS\) Detection Setup](#)
- [General Wiring Instructions](#)
- [Changing Display Gauge Parameter](#)

Part 1: Data Collection

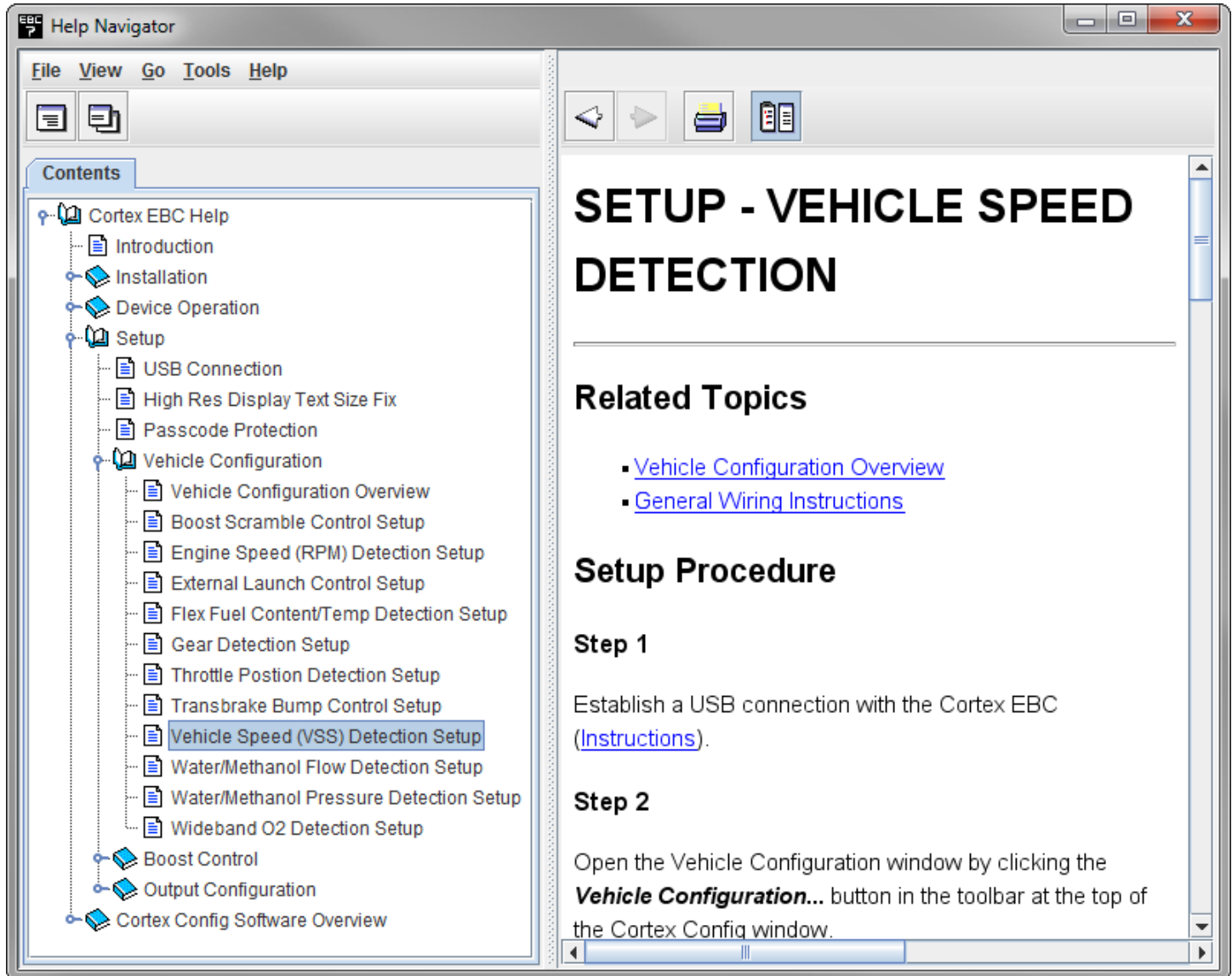
NOTE: Before attempting to setup gear detection you must first correctly configure the RPM detection settings for your particular application ([Instructions](#)).

1.1

Establish a USB connection with the Cortex EBC ([Instructions](#)).

SPEED DETECTION:

- Follow the steps in the **Setup – Vehicle Speed Detection** section of the Help utility to determine the correct Pulses Per Mile setting.
- **NOTE:** Gear detection setup should be performed before calibrating the Pulses Per Mile setting.



THROTTLE POSITION DETECTION:

- Follow the steps in the **Setup – Throttle Position Detection** section of the Help utility to determine the correct Closed TPS Voltage and Open TPS Voltage settings.

