

TM607119 - 5083E and 5093E Tractors Diagnostic Technical Manual (March 2015)

Wheel Speed Sensor Theory of Operation

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LV11409-UN: Wheel Speed Sensor

LEGEND:

A - Wheel Speed Sensor

The wheel speed sensor (B10) (A) is located on the left side of the transmission housing.

The wheel speed sensor is provided with a 12 V supply voltage via circuit 0072 and is grounded via circuit 0050.

The wheel speed sensor is a hall-effect type sensor and provides both the controller and instrument cluster with an input. The input indicates how many times per second a gear tooth passes the sensor. The wheel speed sensor's input to the controller is represented at [CCU Address 006](#) . The actual speed is internally calculated using this input to display speed in meters per hour at [CCU Address 055](#) .

CCU address 006 uses a two-digit display (XX). The left digit represents the wheel speed sensor. The left digit will toggle between 0 and 1 as pulses from the speed sensor are detected. The display may appear erratic under normal conditions.

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Wiring Diagram and Schematic Information

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All vehicle wires are identified by a number which corresponds to the circuit number and the wire color.

Example:

A wire with number 226 would be found in an accessories circuit (22X), and it would be light blue (XX6).

-: Wiring Circuit Number and Wire Color

Circuit No	Function	Color No	Wire Color
000—099	Power	XX0	Black
100—199	Lighting	XX1	Brown
200—299	Accessories	XX2	Red
300—499	Engine	XX3	Orange
500—699	Transmission	XX4	Yellow
700—799	Hydraulics	XX5	Dark green
800—899	Hitch [Wire numbers may be machine specific.]	XX6	Lt. Blue
900—999	Other	XX7	Purple
		XX8	Gray
		XX9	White

System Functional Schematic

The system functional schematic shows individual circuits, wire numbers, color, and a schematic symbol for each component (electrical device). Each schematic symbol was assigned an identification letter (indicating the type of device) and a number. For example, the Key Switch is designated as S001. The "S" designates a switch and the "001" designates the first switch to be assigned a number.

System Circuit Diagram

The system circuit diagram shows each individual wiring harness and main connectors on each harness. Each diagram represents each section of the entire electrical functional schematic (for example, SE1, SE2, etc.). Each component of the wiring diagram has a wire number, color, and connector. The main interconnections have an "X" as the identification letter.

Subsystem Circuit Diagram

Subsystem circuit diagrams are individual circuits of the system circuit diagram. Each circuit is shown with all components represented by a connector and mnemonic.