Service Manual

JCB 8250 Fastrac

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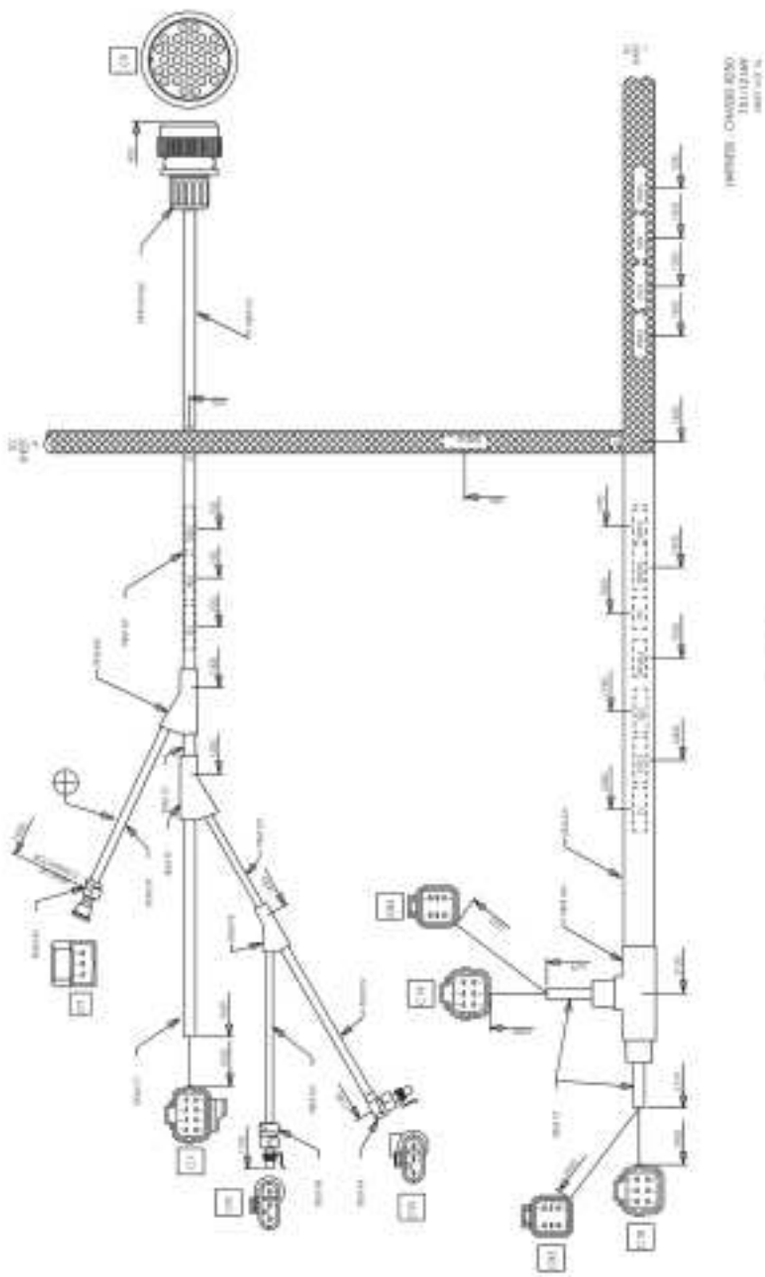


Fig 34.
Chassis Harness sheet 3 ⇨ *Fig 35.* (📄 C-35)

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Error Code	Description and Effect	Possible Cause	Action and Remedy
Q0111	Engine Control Module Critical internal failure – Engine may not start.	This fault code can only be caused by an internal ECM problem.	Repairs are not possible for the ECM. Replace the ECM. *Note: To reduce the possibility of damaging a new ECM, all other active fault codes must be investigated prior to replacing the ECM.*
Q0115	Engine Speed/Position Sensor Circuit lost both signals from the two sensors. Data Erratic, Intermittent, or incorrect. – Fueling to the injectors is disabled. The engine can not be started.	The main engine speed sensor (crankshaft position sensor) and the backup engine speed sensor (camshaft position sensor) are located in close proximity to one another. The same sensor is used in both locations. (Connector key is the same.) A P-clip on the engine wiring harness prohibits the harness connectors from being connected to the incorrect sensors. However, if the P-clip is omitted, it is possible to plug the wiring harness connectors into the incorrect sensors. If this occurs, the ECM will detect the problem and the engine will not start. Once the connector problem is corrected, the engine can be started and the fault code will become inactive.	Make sure that the main engine speed sensor (crankshaft position sensor) and the backup engine speed sensor (camshaft position sensor) are connected to the engine wiring harness correctly.
Q0122	Intake Manifold Pressure Sensor Circuit. Voltage above normal or shorted to high source. – Derate in power output of the engine.	The intake manifold pressure sensor shares supply and return wires in the engine harness with other sensors. Opens and shorts in the engine harness can cause multiple fault codes to be active. Before troubleshooting Fault Code 122, check for multiple faults. Possible causes of this fault code include: – Open return circuit in the engine harness, connectors, or sensor – Signal wire shorted to sensor supply or battery voltage.	Check for damaged wiring or faulty sensor.

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Technical Data

Brake System

Operating Pressure (air)	8 bar	120 lbf/in²

Parking Brake

Minimum Permissible Lining Thickness	3 mm	(0.12 in)
Disc Thickness		
New	9.5 mm	(0.374 in)
Minimum after Skimming	8.9 mm	(0.350 in)

Foot (Service) Brake

Minimum Lining Thickness (at renewal)	3 mm	(0.12 in)
Front Disc Thickness		
New	22 mm	(0.866 in)
Minimum after Skimming	19.8-20.2 mm	(0.780-0.795 in)
Rear Disc Thickness		
New	22 mm	(0.866 in)
Minimum after Skimming	19.8-20.2 mm	(0.780-0.795 in)

Safety

⚠ WARNING

Before working on or around the brake system, always observe the following precautions:

1 **Stop the engine and block all four wheels.**

2 **When the air system is being exhausted, keep hands away from the park brake actuator pushrod and caliper, as they may move and trap your fingers.**

3 **Take care if disconnecting an air hose containing pressure as it may whip as air escapes.**

4 **Never remove or dismantle a component until air pressure has been exhausted and you have read and understood the recommended procedures.**

5 **Never remove or dismantle a component until air pressure has been exhausted and you have read and understood the recommended procedures.**

BRAK-8-3_1

⚠ WARNING

Upon completion of any work on the brake system of machines fitted with ABS, the ABS test within Servicemaster must be run satisfactorily before the machine is driven. It is not sufficient to rely on the ABS self-check which can only check for the presence of components, not that they are correctly installed.

0091

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3 As the first instrument panel buzzer has finished sounding engage the transport lock **K**.

4 Before the second instrument panel buzzer has finished sounding, cycle the green spool lever **1** from its central neutral position to extend **A**, then to retract **B**, and back to neutral **N**. ⇨ *Fig 132. (C-92)*

The instrument panel will display a code and begin to count down from 25 seconds. Upon access, the current valve slice configuration status will be displayed.

Valve Slices Currently Configured

Upon accessing Configuration Mode the spool valve slices which are configured for that particular machine will be displayed on the instrument panel.Slices configured for 8000 series can be identified by the prefix 'CV'.

Some examples of valve slice configuration that may be seen on the instrument panel are as follows. ⇨ *Fig 133. (C-93)* to ⇨ *Fig 137. (C-93)*

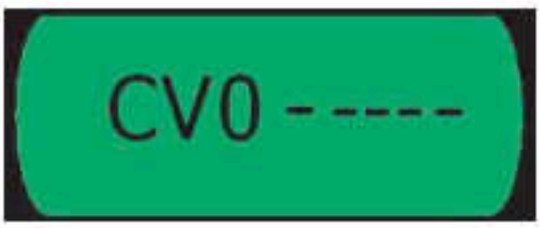


Fig 133. No slices connected or configured.



Fig 134. All five slices connected and configured correctly.



Fig 135. Valve slice number 2 just fitted.



Fig 136. Slices 1, 3 and 5 configured to an 8000 series Fastrac. Slices 2 and 4 either not connected or not in a Bosch state.



Fig 137. Either: No slices connected or the slices that are connected are not in a Bosch state.

Configuring 'Bosch' Slices to an 8000 Series Fastrac

The object of this procedure is to make sure that each valve slice is correctly identified to its proper position number on the Fastrac. ⇨ *Table 5. (C-92)* When configured, each valve slice will store this identity even if it is unplugged.

To wipe the slice memory it must be restored to Bosch state, ⇨ *Returning 8000 Series Configured Slices to Bosch State (C-95)*

As with 3000 series machines, only one new valve slice can be configured at a time.

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Electronics System

Main Components Diagram

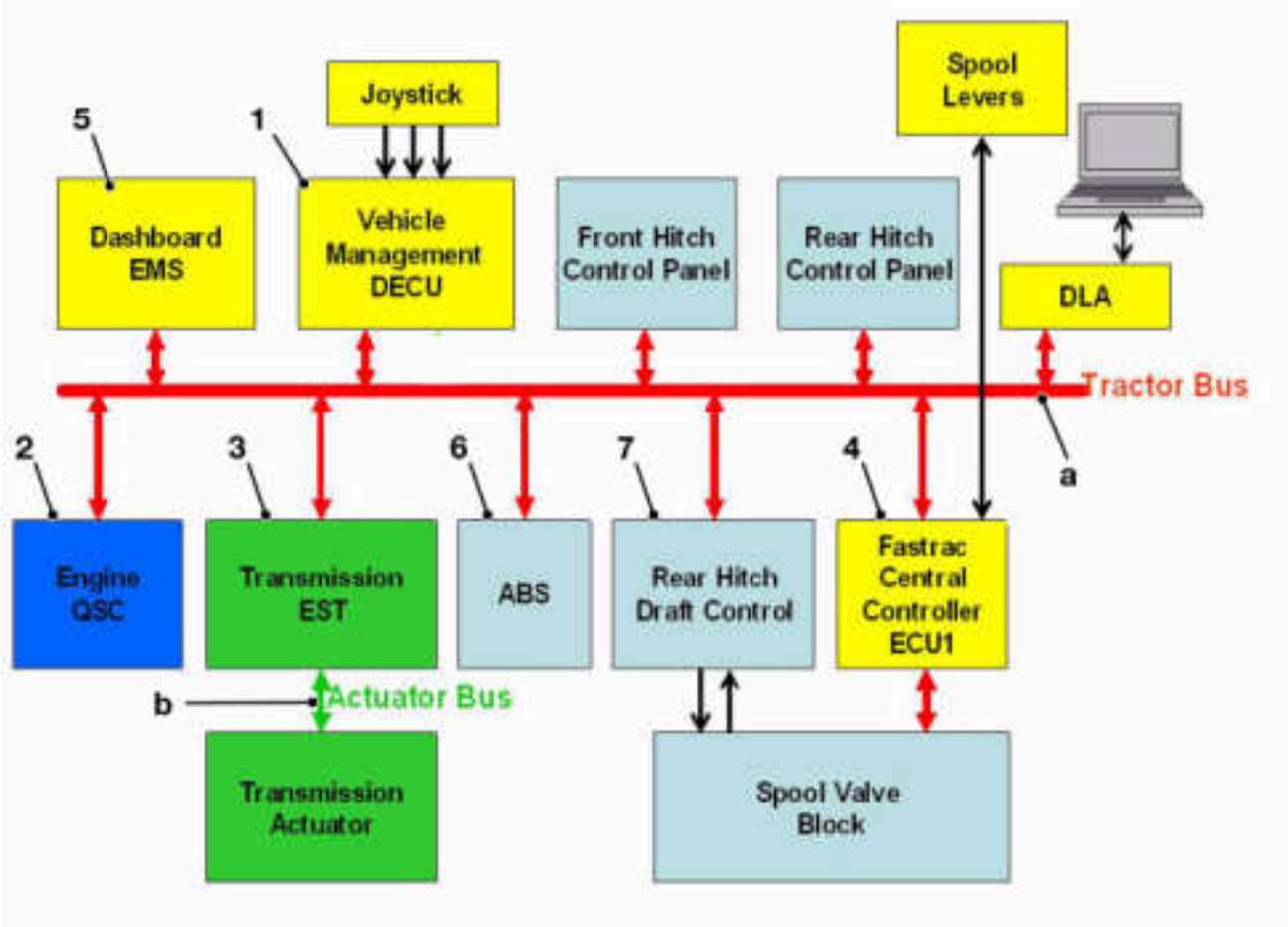


Fig 16.

The electronic system consists of several main components. These all communicate with each other over one of the CAN bus networks on the vehicle. The illustration shows all of the main components and their interconnection. The main controller for the machine is the Touch Screen Display (DECU). This acts as the overall vehicle management controller. Briefly, the main components are: -

1 Touch Screen Display (DECU)

A colour VGA Liquid Crystal Display with touch-screen. It provides a graphical user interface in order to keep the driver informed of the vehicle status. Various menus are accessible for additional configuration purposes. The main user inputs for controlling transmission ratio, engine speed control, etc. are all processed by the DECU.

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