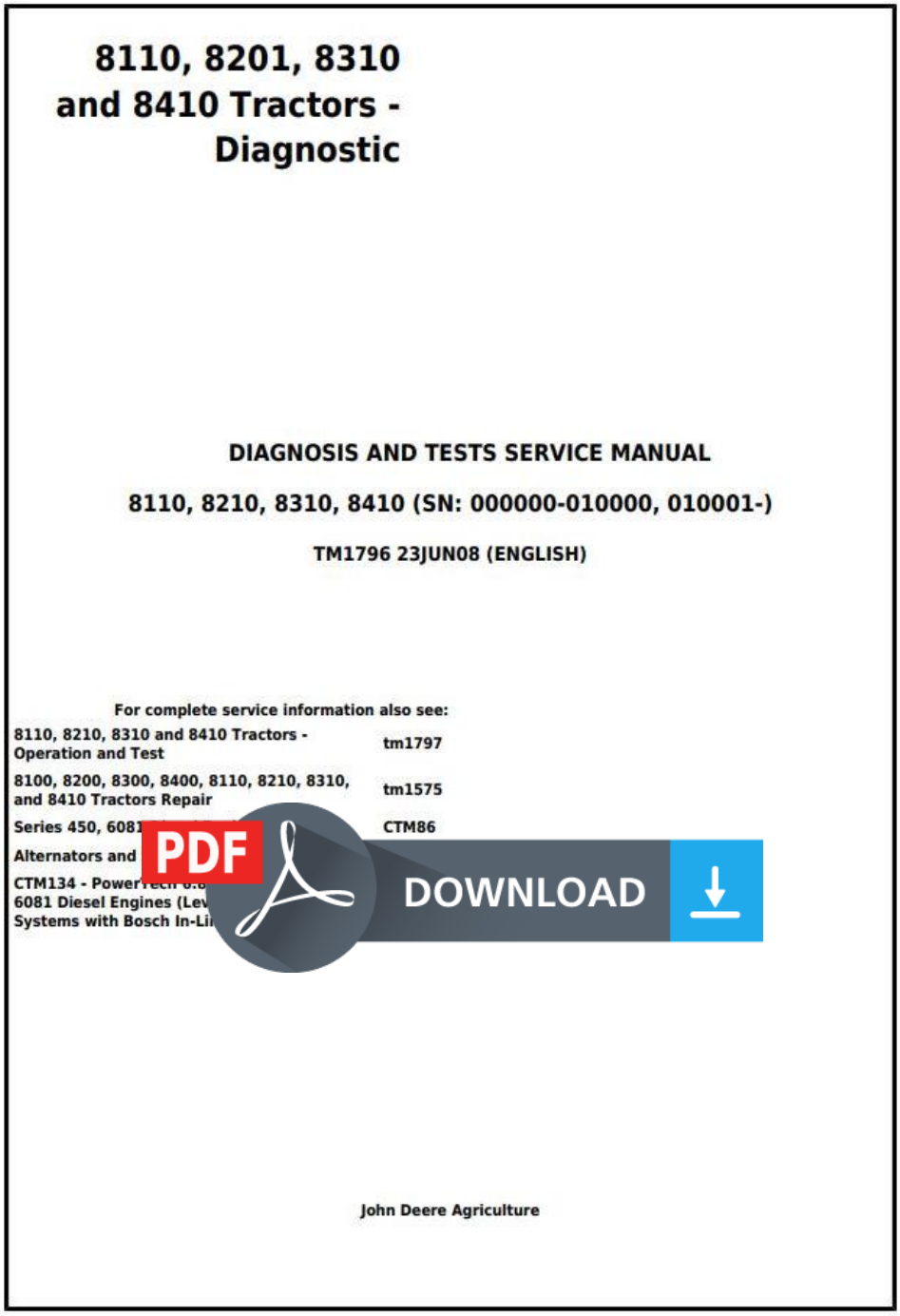
John Deere John 8110, 8210, 8310 and 8410 Tractors Diagnostic and Test Service Manual (tm1796)



Covers: 8110,8210,8310,8410

Type: Service Manual
Language: English
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This service manual contains important information for the maintenance, troubleshooting and servicing of the **John Deere John 8110, 8210, 8310 and 8410 Tractors Diagnostic and Test Service Manual (tm1796)**

In this manual you will find detailed specifications, illustrations, schematics, diagrams and step-by-step procedures to properly service and diagnose the machine to the manufacturer's standards.

Contents:

- General Information
- Specifications
- Serial Number Location
- Engine Specifications
- Engine Diagnostics
- Engine Tests and Adjustments
- Engine Repair
- Power Train
- Transmission
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- PTO
- Hydraulic System
- Electrical System
- Electrical Tests and Diagnostics
- Wiring Diagram / Schematic
- Ignition and Charging
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- Operator's Platform
- Body Panels
- Disassembly and Assembly
- Diagnostics, Tests and Adjustments
- Troubleshooting
- and much more...

Please note this manual is in **downloadable PDF format only.** If you have any questions about this product or would like to request sample pages, please contact us and reference the product name or SKU.

Loads. Repair As Necessary. GO TO (3) .

(3) Operational Check

Action:

Place Tractor Key Switch (S1) In Run Position. Check For Battery Voltage On Terminals 4 And 7 Of Trailer Lighting And Accessory Outlet (7 Pin) (X26).

Place Road Light Switch (S17) In Field 1 And Field 2 Positions. Check For Battery Voltage On Terminal 2 Of Trailer Lighting And Accessory Outlet.

Place Road Light Switch In Road Position. Check For Battery Voltage On Terminal 6 Of Trailer Lighting And Accessory Outlet.

Place Turn Signal Switch (S15) In Left Turn Position. Check For Pulsating Battery Voltage On Terminal 3 Of Trailer Lighting And Accessory Outlet.

Place Turn Signal Switch In Right Turn Position. Check For Pulsating Battery Voltage On Terminal 5 Of Trailer Lighting And Accessory Outlet.

Place Warning Switch (S20) In On Position. Check For Pulsating Voltage On Terminals 3 And 5.

Check For Continuity To Ground On Terminal 1 Of Trailer Lighting And Accessory Outlet.

Result:

YES: All Terminals Have Voltage Corresponding To Their Switch Positions. Continuity To Ground On Terminal 1. Diagnostic Complete.

NO: Low Or No Voltage On Terminal 4 And / Or 7. GO TO (5) .

NO: Low Or No Voltage On Terminal 2 In Field 1 And / Or 2 Position. GO TO (6) .

NO: Low Or No Voltage On Terminal 3 When Left Turn Is Activated. GO TO (9) .

NO: Low Or No Voltage On Terminal 5 When Right Turn Is Activated. GO TO (9) .

NO: No Pulsating Voltage On Terminals 3 And 5 When Hazard Switch (S20 Is On). GO TO (13) .

NO: Low Or No Voltage On Terminal 6. Repair Circuit 118 As Necessary. Repeat Step.

NO: No Continuity To Ground On Terminal 1. Repair As Necessary. Repeat Step.

(4) Fuse F35 Voltage Supply Check

Action:

Low Or No Voltage Has Been Indicated On Terminal “a” Of Fuse F35 (20A). Disconnect Light Switch (S17). Check For 12 V On Terminal “b” Of Light Switch Connector.

Check For Continuity Through The Light Switch From Terminal “b” To The Following Switch Position Terminals:

Light Switch Position Terminals

Light Switch Position	Terminal "B" Should Have Continuity To
Delay	5
Off	none
Road	2 / 1
Field 1	3 / 1
Field 2	4 / 1

PCU 025- Park Brake Engaged But Tractor Moving

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PCU 025 is stored when Park is engaged and wheel speed is greater than 3 km/h. The Park Brake lamp will flash until the condition no longer exist. Troubleshoot Service Code CCU 026, if present, before proceeding with this diagnostic.

Service Code Diagnosis

→NOTE:

Additional References:

- **Park Brake Sensor Theory (See Reference 245-CCU-216)**
- **List of Power Shift (PST) Drawings (See Reference 250-25-001)**
- **List of Power Shift (PST) Transmission Theories (See Reference 250-20-001)**
- **CCU Wiring Diagram (See Reference 245-CCU-300)**
- **ACU Wiring Diagram (See Reference 245-ACU-300)**
- **General References (See Reference 210-15-001)**

(1) Preliminary Check

Action:

→NOTE:

Recall, Record and Clear Codes before proceeding. (See Reference 245-05-001 .)

Perform the following checks:

- Transmission-Hydraulic Oil Level in sight glass located at rear of tractor, beneath SCV valve stack. Run engine at 1000 rpm for at least one minute; then shut off engine and wait two minutes before checking oil level. Make sure tractor is on level ground and hitch in lowered position. Oil level should be at upper mark on glass.
- Determine if 750 hours of operation have occurred since last Transmission-Hydraulic Filter change. If so, replace filter. Remember to lubricate new filter packing with hydraulic oil only.

Result:

YES: GO TO **(2)** .

NO: GO TO **(2)** .

(2) Operational Check

Action:

Perform**Park Brake Operational Check** in the**Transmission Operational Check** . (See Reference 250-10-001)

CAUTION:

Park Brake may not be functioning even though wheel speed is zero. Be sure area is clear of personnel and other obstructions before performing.

Result:

YES: Park Brake OK. Diagnostic completed.

NO: Part one of Operational Check did not pass. GO TO **(3)** .