

# John Deere 6650, 6750, 6850, 6950 Self-Propelled Forage Harvester (SN.504341-) Diagnostic Manual (tm4631)

**2654G and 2654GLC  
Forestry Excavator  
Operation and Test**  
(PIN: 1FF2654G\_\_F260001—)



JOHN HARE



COLLECTION

**OPERATION & TEST TECHNICAL MANUAL**  
**2654G and 2654GLC Forestry Excavator (PIN:**  
**1FF2654G\_\_F260001—)**

TM14033X19 01DEC18 (ENGLISH)

For complete service information also see:

2654G and 2654GLC Forestry Excavator Operators  
Manual..... OMT388071X19  
2654G and 2654GLC Forestry Excavator Repair ..... TM14034X19  
PowerTech 6068 OEM Diesel Engines (Final Tier  
IV platform) Level 33 ECU..... 19



Worldwide Construction and  
Forestry Division

**Covers:** 504341-);,6650,6750,6850,6950

**Type:** Service Manual

**Language:** English

**Pages:** 1742

**Format:** PDF

**Features:** Bookmarked, searchable, printable

**Compatibility:** Windows/Mac/Tablet/Mobile

This service manual contains important information for the maintenance, troubleshooting and servicing of the **John Deere 6650, 6750, 6850, 6950 Self-Propelled Forage Harvester (SN.504341-) Diagnostic Manual (tm4631)**

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
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- 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.

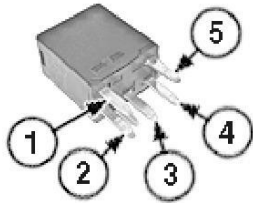
## Electrical Component Checks

The following checks can be used to test electrical components in all machine circuits.

### Component Checks

#### 1 Relay Check

##### Action:



TX1054856A-UN: Relay

##### LEGEND:

- 1-Terminal 30
- 2-Terminal 85
- 3-Terminal 87A
- 4-Terminal 87
- 5-Terminal 86

Turn key switch to OFF position.

Remove relay from machine.

Measure continuity between terminal 30 (1) and terminal 87A (3). Is continuity measured?

Connect battery voltage to terminal 86 (5). Ground terminal 85 (2). Does relay click?

With battery voltage still applied to terminal 86 (5), measure continuity between terminal 30 (1) and terminal 87 (4). Is continuity measured?

##### Result:

##### YES:

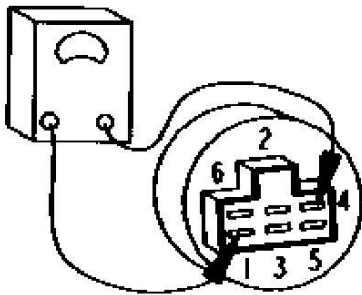
Relay is good. Check wiring harness.

##### NO:

Replace relay.

#### 2 Key Switch Check

##### Action:



T8357AK-UN: Key Switch  
Check

##### LEGEND:

- 1-B Terminal
- 2-G1 Terminal
- 3-G2 Terminal
- 4-ACC Terminal
- 5-M Terminal
- 6-ST Terminal

Remove starter switch harness (W29) from key switch (S1). [See Starter Switch Harness \(W29\) Component Location.](#) (Group 9015-10.)

Turn key switch to ACC position.

Measure continuity between key switch B terminal (1) and ACC terminal (4).

Turn key switch to ON position.

Measure continuity between key switch B terminal (1) and M terminal (5) and between B terminal and ACC terminal (4).

Turn key switch to START position.

Measure continuity between key switch B terminal (1) and ST terminal (6), between B terminal and M terminal (5), and between B terminal and G2 terminal (3).

LOOK: Is continuity measured between terminals?

##### IMPORTANT:

Avoid connector damage. Do not install connector with impact wrench or power tools. Over torquing will result in permanent damage to connector. Torque only to specification.

Item	Measurement	Specification
Cab Harness-to-Machine Harness 100-Pin Connector (X3)	Torque	10 N·m 89 lb·in

##### Result:

##### YES:

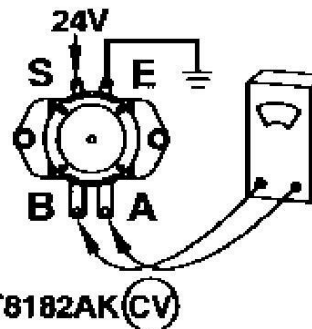
Key switch is OK. Check the wiring harness. [See Cab Harness \(W1\) Wiring Diagram](#) and [see Starter Switch Harness \(W29\) Wiring Diagram.](#) (Group 9015-10.)

##### NO:

Key switch has malfunctioned. Replace the key switch.

#### 3 Battery Relay Check

##### Action:



T8182AK-UN: Battery  
Relay Check

Disconnect machine harness (W2) from battery relay (K19). [See Machine Harness \(W2\) Component Location.](#) (Group 9015-10.)

Connect 24 volts to small terminal S and ground small terminal E.

LISTEN: Does the relay click?

Connect the multimeter to large terminals A and B.

LOOK: Is continuity measured?

##### IMPORTANT:

Avoid connector damage. Do not install connector with impact wrench or power tools. Over torquing will result in permanent damage to connector. Torque only to specification.

Item	Measurement	Specification
Cab Harness-to-Machine Harness 100-Pin Connector (X3)	Torque	10 N·m 89 lb·in

##### Result:

##### YES:

Battery relay is OK. Check the wiring harness. [See Machine Harness \(W2\) Wiring Diagram.](#) (Group 9015-10.)

##### NO:

Battery relay has malfunctioned. Replace the relay.

#### 4 Battery Voltage Check

##### Action:



Thank you very much  
for your reading.  
Please click here  
to get more information.