Group SMB - SMB Control Software
Group TEC - TEC Control Software
Group TEI - TEI Control Software
Group TIQ - TIQ Control Software
Group VTV - VTV Control Software

Section 249 - ELECTRICAL CONNECTORS, WIRING HARNESSES AND COMPONENTS

Group 40 - Summary of Electrical Components and Harnesses
Group 40A - Electrical Components - Assemblies
Group 40B - Electrical Components - Sensors
Group 40E - Electrical Components - Miscellaneous Devices and Equipment
Group 40F - Electrical Components - Protective Equipment
Group 40G - Electrical Components - Power Supply and Alternator
Group 40H - Electrical Components - Monitoring and Signalling Devices
Group 40K - Electrical Components - Relays
Group 40M - Electrical Components - Electrical Motors
Group 40R - Electrical Components - Resistors
Group 40S - Electrical Components - Switches
Group 40V - Electrical Components - Diodes
Group 40W - Electrical Components - Wiring Harnesses
Group 40XA - Connectors from X0001 to X0099
Group 40XB - Connectors from X0100 to X0199
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Group 40XD - Connectors from X0300 to X0399
Group 40XE - Connectors from X0400 to X0499
Group 40XF - Connectors from X0500 to X0599
Group 40XG - Connectors from X0600 to X0699
Group 40XH - Connectors from X0700 to X0799
Group 40XI - Connectors from X0800 to X0899
Group 40XJ - Connectors from X0900 to X0999
Group 40XK - Connectors from X1000 to X1099
Group 40XL - Connectors from X1100 to X1199
Group 40XM - Connectors from X1200 to X1299
Group 40XW - Connectors and Contacts
Group 40XX - Ground Points
Group 40Y - Electrical Components - Solenoid Valves and Solenoids
Group 40Z - Electrical Components - Other

Section 250A - DRIVE TRAIN (WITHOUT TRANSMISSION)

Group 10 - Drive Train (without Transmission) - Operational Checks
Group 20 - Drive Train (without Transmission) - Theory of Operation
Group 50 - Drive Train (without Transmission) - Tests and Adjustments

Section 250C - POWRQUAD™ TRANSMISSION

Group 05 - PowrQuad™ Transmission - General Information
Group 10 - PowrQuad™ Transmission - Operational Checks
Group 20 - PowrQuad™ Transmission - Theory of Operation
Group 30 - PowrQuad™ Transmission - Schematics
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Section 250E - POWRREVERSER™ TRANSMISSION

Group 05 - PowrReverser™ Transmission - General Information
Group 10 - PowrReverser™ Transmission - Operational Checks
Group 20 - PowrReverser™ Transmission - Theory of Operation
Group 30 - PowrReverser™ Transmission - Schematics
Group 50 - PowrReverser™ Transmission - Tests and Adjustments

Section 250F - SYNCROPLUS™ TRANSMISSION

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AIC 524105.04- Control Lever for E-SCV 2, Voltage Too Low

303

The diagnostic trouble code is generated if the control software detects that the potentiometer signal voltage of E-SCV 2 control lever is out of range.

Diagnosis

Reaction of the control software: Limited or no function of control lever for E-SCV 2.

(1) Check the diagnostic trouble code

Action:

1. Access, record and delete the diagnostic trouble codes for this control software. See Procedure for Dealing with Diagnostic Trouble Codes in Section 245.
2. Try to reproduce the diagnostic trouble code. Perform an operational check of the faulty component/function, or perform a test drive. Then refresh the diagnostic trouble codes.
3. Check if the diagnostic trouble code returns.
4. If the problem is intermittent, repeat the test until the diagnostic trouble code returns.

Result:

YES: Diagnostic trouble code does not return. Diagnosis completed.

NO: Diagnostic trouble code returns. GO TO 2 .

(2) Check the circuit

Action:

PerformS97 - Control Lever E-SCV 2, Circuit Test, Section 240.

Result:

YES: Circuit test completed and problem identified. Repair as needed and perform an operational check.All circuits within specification. Replace component and perform an operational check. SeeS97 - Control Lever for E-SCV 2, Component Informationin Section 249.

NO: Problem still exists. Perform General Information - Electrical System, Troubleshooting Unsolved Problems in Section 210.

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17

The ECU detects an improper pattern or noise on the crankshaft position signal.

For diagnostic procedure, see the relevant CTM for diesel engines (Interim Tier 4/Stage IIIB Platform):

- **000637.10**

→NOTE:

The crankshaft speed sensor is covered in the relevant CTM for diesel engines (Interim Tier 4/Stage IIIB Platform), see Crankshaft Speed Sensor or B5301 - Crankshaft Position Sensor.

Tractor-related information:

- For details of location and information on components, see B202 - Crankshaft Speed Sensor, Component Information in Section 249, Group 40B.
- For a summary of the circuit (layout of leads), see:
  - Electronic Engine Control (Cab), Diagnostic Schematics in Section 240.
  - Electronic Engine Control (Open Operator′s Station), Diagnostic Schematics in Section 240.
- For a summary of wiring harnesses, see Summary of Wiring Harnesses, Summary of References in Section 249, Group 40W.

ECU 000641.00- VGT Actuator Temperature Extremely High

17

The VGT actuator temperature is extremely higher than a defined threshold in the ECU.

For diagnostic procedure, see the relevant CTM for diesel engines (Interim Tier 4/Stage IIIB Platform):

- **000641.00**

→NOTE:

The VGT actuator is covered in the relevant CTM for diesel engines (Interim Tier 4/Stage IIIB Platform), see VGT Actuator or Y5500 – VGT Actuator.

Tractor-related information:

- For details of location and information on components, see M36 - VGT Actuator, Component Information in Section 249, Group 40M.
- For a summary of the circuit (layout of leads), see:
  - Electronic Engine Control (Cab), Diagnostic Schematics in Section 240.
  - Electronic Engine Control (Open Operator′s Station), Diagnostic Schematics in Section 240.
- For a summary of wiring harnesses, see Summary of Wiring Harnesses, Summary of References in Section 249, Group 40W.

ECU 000641.05- VGT Actuator Drive Circuit Has High Resistance

17

The ECU has detected a fault on the VGT actuator drive circuit.

For diagnostic procedure, see the relevant CTM for diesel engines (Interim Tier 4/Stage IIIB Platform):

- **000641.05**

→NOTE:

The VGT actuator is covered in the relevant CTM for diesel engines (Interim Tier 4/Stage IIIB Platform), see VGT Actuator or Y5500 – VGT Actuator.

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HCC 523833.04- Raise limit potentiometer, Voltage too low

241

The diagnostic trouble code is generated if the control software detects that less than 0.50 V are measured at the signal lead of the raise limit potentiometer. This indicates a short circuit to ground.

Diagnostics

Reaction of the control software: Limited or no function of the hitch.

(1) Check the diagnostic trouble code

Action:

1. Access, record and delete the diagnostic trouble codes for this control software. See Procedure for dealing with diagnostic trouble codes in Section 245.
2. Try to reproduce the diagnostic trouble code. Perform an operational check on faulty component/function, or do a test drive. Then refresh the diagnostic trouble codes.
3. Check to see if diagnostic trouble code returns.
4. If problem is intermittent, repeat test until the diagnostic trouble code returns.

Result:

YES: Diagnostic trouble code does not return. Diagnostics completed.

NO: Diagnostic trouble code reappears. GO TO 2 .

(2) Check the circuit

Action:

Perform test, see B027 - Position feedback unit of rear hitch, Circuit test , in Section 240.

Result:

YES:• Circuit test completed and problem identified. Recondition as needed and perform an operational check.• All circuits are within specification. Replace position feedback unit of the rear hitch, calibrate hitch, and perform an operational check.

NO: Problem still exists. Perform troubleshooting, see General information, Electrical system, Troubleshooting unsolved problems in Section 210.

HCC 523833.13- Raise limit potentiometer, Outside of valid range

241

The diagnostic trouble code is generated if the control software detects that there is too little or too great a range of the raise limit potentiometer. The hitch control lever needs to be recalibrated.

Diagnostics

Reaction of the control software: Limited or no function of the control software.

(1) Check the diagnostic trouble code

Action:

1. Access, record and delete the diagnostic trouble codes for this control software. See Procedure for dealing with diagnostic trouble codes in Section 245.
2. Start the engine.
3. Check to see if diagnostic trouble code returns.
4. If problem is intermittent, repeat test until the diagnostic trouble code returns.

Result:

YES: Diagnostic trouble code does not return. Diagnostics completed.

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PTR 524069.06- Reverse Brake Solenoid Valve, Current Too High

149

The diagnostic trouble code is generated if the control software detects that the current at the signal input of the reverse brake solenoid valve is too high. This may indicate a short circuit.

Diagnostics

Reaction of control software: Tractor is not ready for operation.

(1) Check the diagnostic trouble code

Action:

1. Access, record and delete the diagnostic trouble codes for this control software. See Procedure for Dealing with Diagnostic Trouble Codes in Section 245.
2. Try to reproduce the diagnostic trouble code. Perform an operational check on faulty component/function, or do a test drive. Then refresh the diagnostic trouble codes.
3. Check to see if diagnostic trouble code returns.
4. If problem is intermittent, repeat test until the diagnostic trouble code returns.

Result:

YES: Diagnostic trouble code does not return. Diagnostics completed.

NO: Diagnostic trouble code reappears. GO TO 2 .

(2) Check the circuit

Action:

Perform Y036 - Reverse Solenoid Valve, Circuit Test in Section 240.

Result:

YES:• Circuit test completed and problem identified. Repair as needed and perform an operational check.• All circuits are within specification. Replace solenoid valve and perform an operational check, see Y036 - Reverse Solenoid Valve, Component Information .

NO: Problem still exists. Perform troubleshooting, see General Information, Electrical System, Troubleshooting Unsolved Problems in Section 210.

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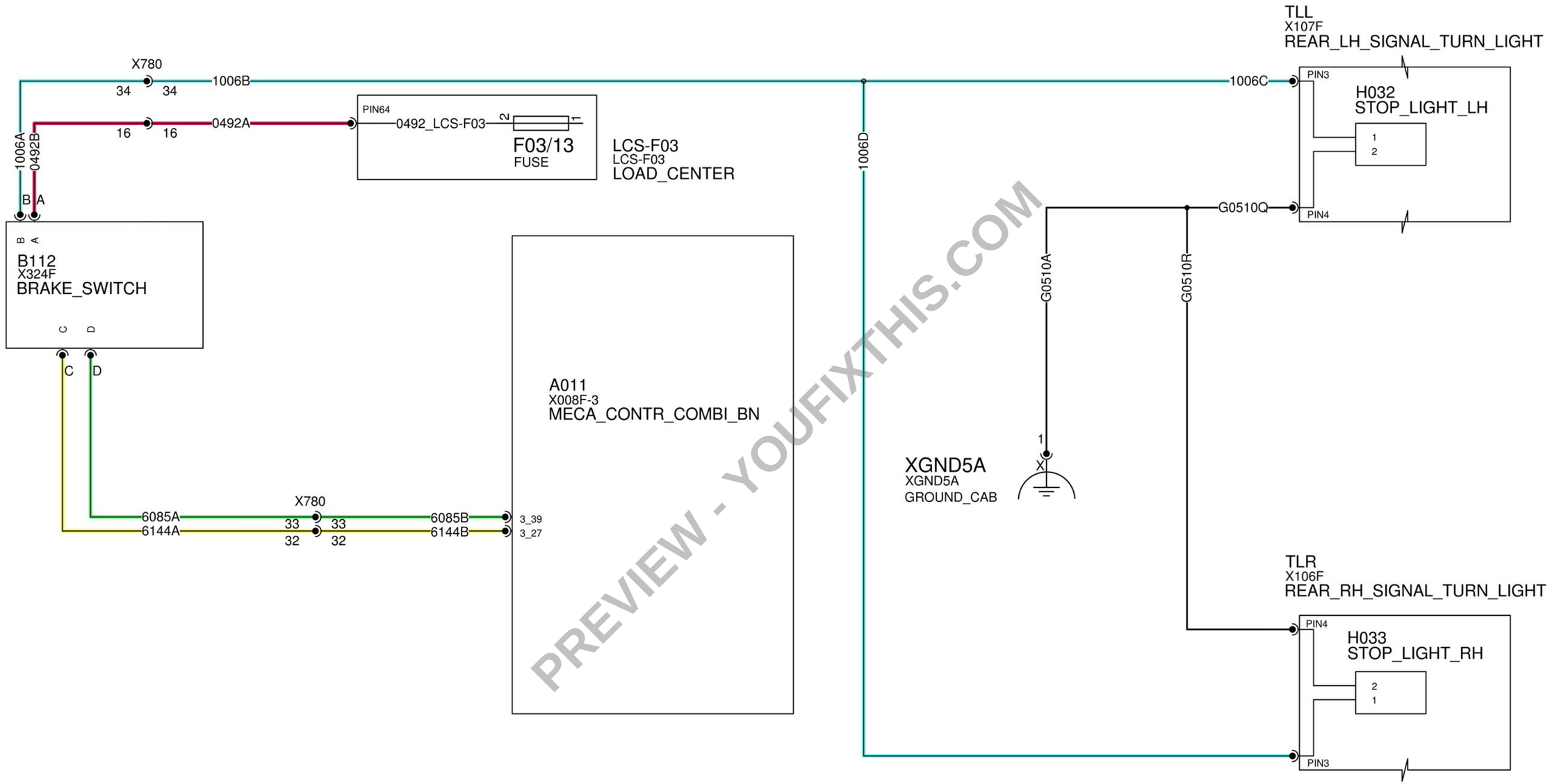
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- Procedure in the Event of a Problem Programming VIN Control Units .

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50BA - Brake Lights (Cab), Diagnostic Schematic



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LX1058793

50BA - Brake Lights (Cab), Diagnostic Schematic

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Result:

YES:GO TO3.

NO: Repair connector and perform an operational check.

(3) Check the ground connection

Action:

1. Key switch OFF.
2. Use a multimeter to measure the resistance as follows:
   - Between connector X402M, pin A (0050) and ground.
3. Check if resistance complies with the following specification:

Item	Measurement	Specification
Continuity check of leads		
Resistance of Lead	Resistance	0—1 ohms

Result:

YES:GO TO4.

NO: Repair defective lead and perform an operational check.

(4) Visual inspection of connector

Action:

1. Key switch OFF.
2. Disconnect X008F-3 - Connector of Main Control Unit .
3. Check the connector for any dirty, pushed back or loose pins. SeeGeneral Information - Electrical System, Check the Connectorsin Section 210.

Result:

YES:GO TO5.

NO: Repair connector and perform an operational check.

(5) Continuity Check of Lead

Action:

1. Key switch OFF.
2. Use a multimeter to measure the resistance as follows:
   - Between connector X402M, pin B (1009) and connector X008F-3, pin 21 (1009).
3. Check if resistance complies with the following specification:

Item	Measurement	Specification
Continuity check of leads		
Resistance of Lead	Resistance	0—1 ohms

Result:

YES:GO TO6.

NO: Repair defective lead and perform an operational check.

(6) Check leads for shorts to ground

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W027 - Radio Antenna, Circuit Test

Additional References:

- **Diagnostic schematic:**
  - **50CF - Radio (Cab), Diagnostic Schematic**

  For a summary of the circuit (layout of leads), see 50CF - Radio, Summary of References in Section 240.
- **Component:** For details of location and information on components, see:
  - W027 - Radio Antenna, Component Information in Section 249.

→NOTE:

When the key switch is ON, disconnected connectors may cause additional diagnostic trouble codes. The fault memory must be cleared once the circuit / harness test has been completed.

Test procedure

→NOTE:

Required tools:

1. **JT05791A or JDG1478 - Multimeter.**
2. **JDG10466 - Flexible Test Kit.**

→NOTE:

Unless specifically instructed otherwise, use a chassis ground point for voltage checks.

(1) Visual inspection of connector

Action:

1. Key switch OFF.
2. Disconnect X613F-1 - Connector for Voltage Supply of Radio (ECE) .
3. Disconnect X613F-2 - Connector for Voltage Supply of Radio (SAE) .
4. Disconnect X158M - Connector of Ground Connection for Radio Antenna .
5. Check the connector for any dirty, pushed back or loose pins. SeeGeneral Information - Electrical System, Check the Connectorsin Section 210.

Result:

YES:GO TO2.

NO: Repair connector and perform an operational check.

(2) Continuity check of leads

Action:

1. Key switch OFF.
2. Use a multimeter to measure the resistance as follows:
   - Between connector X613F, pin 5 (2069) and connector X158M, pin 1 (2069).
3. Check if resistance complies with the following specification:

Item	Measurement	Specification
Continuity check of leads		
Resistance of Lead	Resistance	0—1 ohms

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Y036 - Reverse Solenoid Valve, Circuit Test

- **Component:** For details of location and information on components, see:
  - Y036 - Reverse Solenoid Valve, Component Information in Section 249.
- **Circuit:**
  - **Ground point:** See: XGND5A - Ground Point
  - **Functional schematic:** See: 50GA - Transmission, Summary of References in Section 240.

Test procedure

→NOTE:

Required tools:

1. **JT05791A or JDG1478 - Multimeter.**
2. **JDG10466 - Flexible Test Kit.**

→NOTE:

Unless specifically instructed otherwise, use a chassis ground point for voltage checks.

(1) Operational check

Action:

Perform an operational check.

See:

1. PTQ 062 - Test Mode of Proportional Solenoid Valves for Forward Clutch/Reverse Brake in Section 245.
2. PTQ 063 - Proportional Solenoid Valves for Forward Clutch/Reverse Brake, Current in Section 245.

1. Key switch ON (engine OFF).
2. With ignition on, use a magnetic tester to check for solenoid valve activation directly at the valve. With ignition on, it should be clearly heard that the solenoid valve is activated.

Result:

YES: Test completed. Return to diagnosis in progress.

NO:GO TO2.

(2) Visual inspection of connector

Action:

1. Key switch OFF.
2. Disconnect X494F - Connector of Reverse Solenoid Valve .
3. Check the connector for any dirty, pushed back or loose pins. SeeGeneral Information - Electrical System, Check the Connectorsin Section 210.

Result:

YES:GO TO3.

NO: Repair connector and perform an operational check.

(3) Check the component

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→NOTE:

Every time diagnostic trouble codes are accessed, this action is saved in Service ADVISOR™ in the Readings Logs of the job that is being processed. Exporting the job makes it easy to access this information.

The diagnostic trouble code can be accessed via the Sessions and Logs menu.

Result:

YES: Go through the relevant diagnostic procedure.

(5) Status of diagnostic trouble codes in Service ADVISOR™

Action:

- Status: ACTIVE (priority 1):
  - Diagnostic trouble code cannot be cleared.
  - Current problem with the tractor.
- Status: SAVED (priority 2):
  - Diagnostic trouble code can be cleared.
  - At present the problem is not recognized by the control unit (example: faulty solenoid valve, switch or circuit not activated at the moment).

Result:

YES: Go through the relevant diagnostic procedure.

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Switched Voltage Supply for Socket (Implement CAN Bus)

BLC 040 - Switched Voltage Supply for Socket (Implement CAN Bus)	*6M.BIN datapoint - BLC_040*
Status	
Not activated	0XXXXX.XX
Activated	1XXXXX.XX
Displayed in amps	
Current at this moment (00.00 to 12.00 amps)	1XXX**XX.XX**

→NOTE:

The voltage supply to the implement is switched in relation to the configuration made at Address BLC 057.

GO TO next address required or return to diagnosis in progress.

BLC 045 - Control Software Input Current, Display in Amps

Read-only address

- Turn ignition ON.

BLC 045 - Control Software Input Current, Display in Amps

BLC 045 - Control Software Input Current, Display in Amps	*6M.BIN datapoint - BLC_045*
Displayed in amps	
Current at this moment	**XXX.X**

GO TO next address required or return to diagnosis in progress.

BLC 050 - Headlights on Cab Frame, Configuration

Input address

- Turn ignition ON.

Headlights on Cab Frame, Configuration

BLC 050 - Headlights on Cab Frame, Configuration	*6M.BIN datapoint - BLC_050*
Status	
Not present	0
Present	1

If necessary, change the value.*6M.BIN calibration - CalBLC_050*

GO TO next address required or return to diagnosis in progress.

BLC 051 - Front Corner Worklights, Configuration

Input address

- Turn ignition ON.

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PTQ 167 - Declutch Switch on Range Shift Lever Present/Not Present, Configuration

PTQ 167 - Declutch Switch on Range Shift Lever Present/Not Present, Configuration	***6M.BIN datapoint - PTQ_167***
Status	
Declutch switch on range shift lever not present	0
Declutch switch on range shift lever present	1

→NOTE:

This address is connected to address PTQ 168.

If necessary, change the value.*6M.BIN calibration - CalPTQ_167*

GO TO next address required or return to diagnosis in progress.

PTQ 168 - Declutch Switch on Range Shift Lever, Configuration

Input address

- Ignition ON.
- Make sure that the information displayed complies with the following:

PTQ 168 - Declutch Switch on Range Shift Lever, Configuration

PTQ 168 - Declutch Switch on Range Shift Lever, Configuration	***6M.BIN datapoint - PTQ_168***
Status	
Declutch switch on range shift lever and diagnostics not present	0
Declutch switch on range shift lever and diagnostics present	1
Declutch switch on range shift lever present, diagnostics not present	2

→NOTE:

This address is connected to address PTQ 167.

If necessary, change the value.*6M.BIN calibration - CalPTQ_168*

GO TO next address required or return to diagnosis in progress.

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NO: Replace the component and perform an operational check.

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Continuity Table, with Switch at Various Positions

Switch in OFF position	No continuity between pin B and pin A
Switch in ON position	Continuity between pin B and pin A

Result:

YES: Test completed.

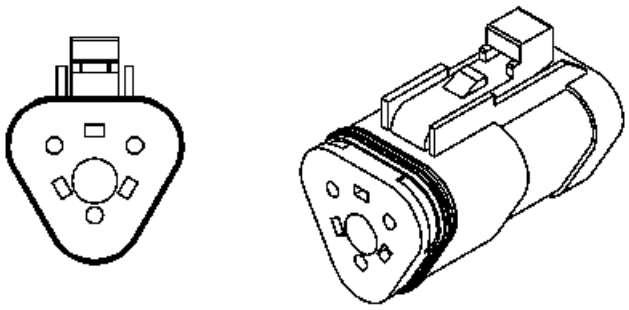
NO: Replace the component and perform an operational check.

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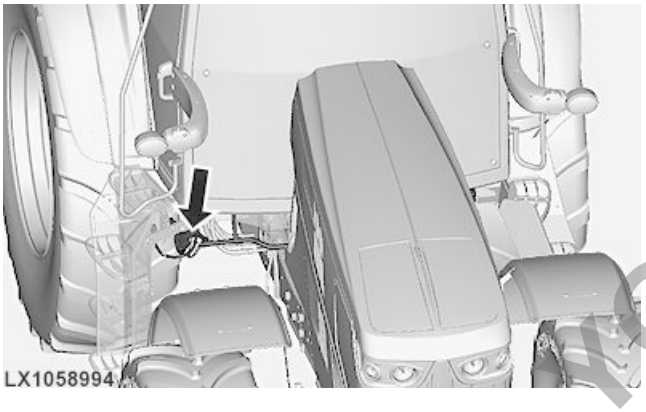
X007F - Connector of CAN Bus Terminating Resistor (Vehicle CAN Bus)

Tractors with Exhaust Cleaning System - Electronic Engine Control (Level 23 ECU)



LX201156

X007F - Connector of CAN Bus Terminating Resistor (Vehicle CAN Bus)



X007F - Connector of CAN Bus Terminating Resistor (Vehicle CAN Bus)

Component Information

Component information	
Number of pins:	3
Spare part number:	57M8637
Manufacturer / repair information:	For repair information, see Section 40, Group 05 of the relevant repair manual
Connection point:	A010, see A010 - CAN Bus Terminating Resistor (Vehicle CAN Bus), Component Information in Section 249, Group 40A
Wiring harness:	W511, see Summary of Wiring Harnesses, Summary of References in Section 249, Group 40

Connector layout

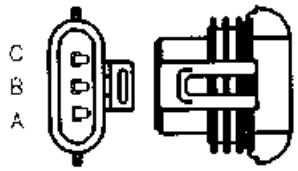
Connector layout		
Terminal no.	**Lead no.**	**Lead color**
1	9034E	yellow
2	9035E	green
3	-	-

Tractors without Exhaust Cleaning System - Electronic Engine Control (Level 16 ECU)

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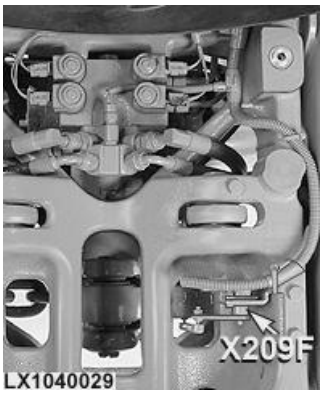
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X209F - Connector of Suspended Front-Wheel Drive Axle Position Sensor



LX1017885

X209F - Connector of Suspended Front-Wheel Drive Axle Position Sensor



X209F - Connector of Suspended Front-Wheel Drive Axle Position Sensor

Component Information

Component information	
Number of pins:	2
Spare part number:	57M7255
Manufacturer / repair information:	For repair information, see Section 40, Group 05 of the relevant repair manual
Connection point:	B053, see B053 - Suspended Front-Wheel Drive Axle Position Sensor, Component Information in Section 249, Group 40B
Wiring harness:	W701, see Summary of Wiring Harnesses, Summary of References in Section 249, Group 40

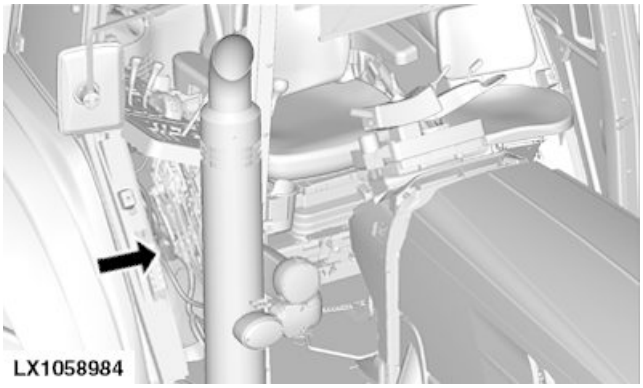
Connector Layout

Connector layout		
Pin no.	**Lead no.**	**Lead color**
A	0151AC	brown
B	7008A	gray
C	0153AC	orange

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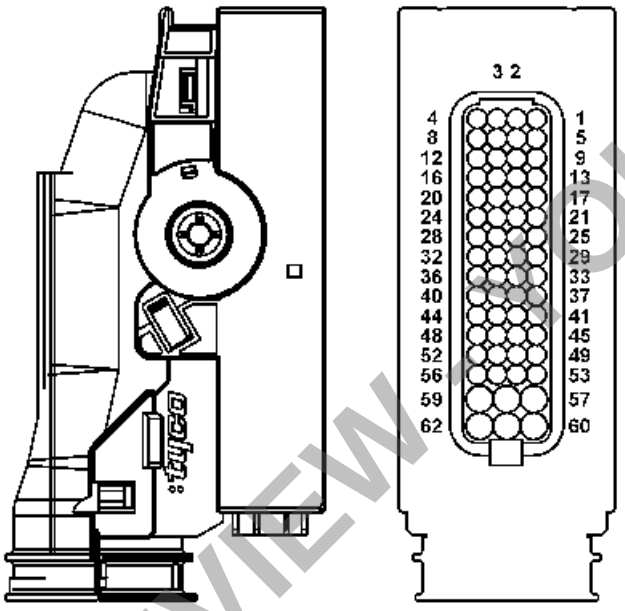
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X780 - Connection Point between Harnesses W201 and W211 (Cab)



X780 - Connection Point between Harnesses W201 and W211 (Cab)

X780F - Connection Point on Wiring Harness W201



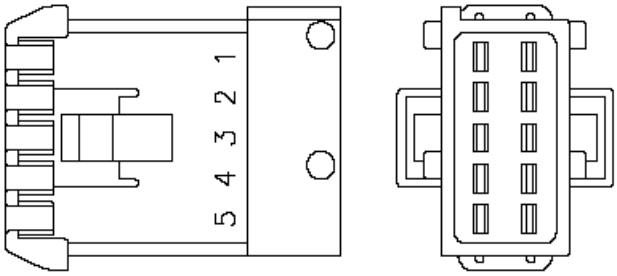
X780F - Connecting Point on Harness W201

Component Information

Component information	
Number of pins:	62
Spare part number:	57M8730
Manufacturer / repair information:	For repair information, see Section 40, Group 05 of the relevant repair manual
Wiring harness:	W201 on tractors with cab, see Summary of Wiring Harnesses, Summary of References in Section 249, Group 40

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LX1026295

X1233M-2 - Connection Point on Wiring Harness W101 (with Worklight)

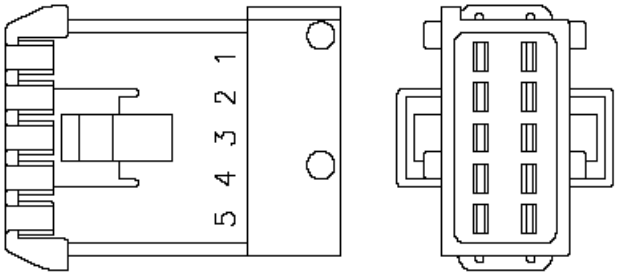
Component Information

Component Information	
Number of pins:	10
Service Part Number	57M8068
Manufacturer / repair information:	For repair information, see Section 40, Group 05 of the relevant repair manual
Wiring harness:	W101, see Summary of Wiring Harnesses, Summary of References in Section 249, Group 40

Connector layout

Connector layout		
Terminal no.	**Lead no.**	**Lead color**
1	1011a	brown
2	1065a	green
3	1024a	yellow
4	1039a	white
5	1036a	blue
6	1053a	orange
7	-	-
8	0310AG	black
9	0310AA	black
10	0310AD	black

X1233M-2 - Connection Point on Wiring Harness W101 (without Worklight)



LX1026295

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→NOTE:

The PTO should not engage with a jerk (i.e. undamped). When the PTO is turning, no unusual noises should occur.

Engage PTO.

CAUTION:

If the engine is shut off and then restarted while the PTO is running, the PTO will not operate. The relevant indicator light remains on.

The PTO shaft should rotate.

[3] - Disengage PTO.

At maximum engine speed, the PTO should stop within 7 seconds.

Result:

YES: Check complete.

NO: If there are diagnostic trouble codes related to the AIC and RPT control software, these codes must be processed first.

NO: See Drive Train (without Transmission) - System Check in Section 250A.

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Disengage the park lock cable (A).

→NOTE:

Loosen the lock nut on the yoke before disengaging the bowden cable.

[3] -

IMPORTANT:

Make sure that the park lock is completely disengaged.

Do this by pressing the bowden cable (A) down (use force).

[4] - Pull gently on the cable yoke to remove free play before actuation (approx. 2 mm; 0.08 in.) from the cable yoke. Hold the cable in this position (free of play) and turn the yoke so that the yoke holes and shift quadrants are precisely aligned.

[5] - Engage the bowden cable again. Secure the yoke with the locknut and make sure the yoke is not twisted on the parking lock quadrant.

[6] - Install the locking pins so that the open side of retaining clip (B) is facing to the front (seen in the direction of travel).

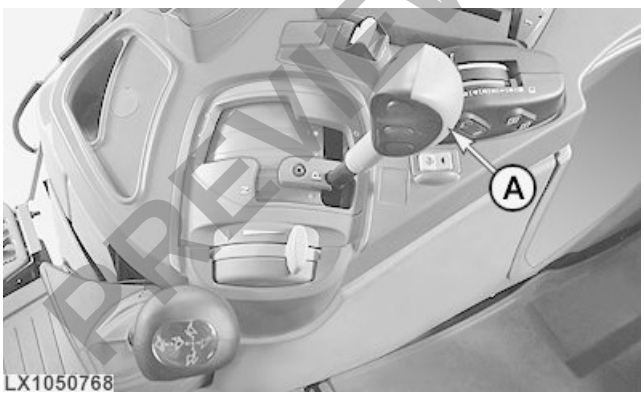
→NOTE:

The locking pin will only fit in the bore intended for it.

[7] - Recheck adjustment.

Check park lock

[1] -



LEGEND:

A	Range Shift Lever

Park Position

Drive tractor on a slope (ramp) and bring it to a standstill.

[2] - Move reverse drive lever to neutral position.

[3] - Move shift lever (A) to its park position.

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spring force and no power is transmitted to the transmission any more.

When the clutch pedal is released, oil flows to the clutch piston again and the clutch is engaged.

The speed with which the clutch is engaged or disengaged is controlled by the clutch pedal. The faster the clutch pedal is pressed or released, the greater the amount of pressure oil that flows through the valve (correspondingly, the slower the pedal is pressed or released, the smaller the amount of pressure oil). The operator can thus control the duration of the disengaging or engaging function as desired.

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Group 40B - Brakes - Component Information

Brakes - Component Information, Summary of References

Brakes - Component Information, Summary of References

- Hydraulic Trailer Brake - Transmission Ratio, Component Information
- Hydraulic Trailer Brake - Quick Coupler with Shut-Off Valve, Component Information
- Air Brake System - Delay Valve with Shuttle Valve, Component Information
- Air Brake System - Compressor, Component Information
- Air Brake System - Pressure-Regulating Valve, Component Information
- Air Brake System - Compressed-Air Tank, Component Information
- Air Brake System - Trailer Control Valve (Dual-Line Brake), Component Information
- Air Brake System - Trailer Control Valve (Single-Line Brake), Component Information
- Air Brake System - Coupling Ends, Component Information

Hydraulic Trailer Brake - Transmission Ratio, Component Information

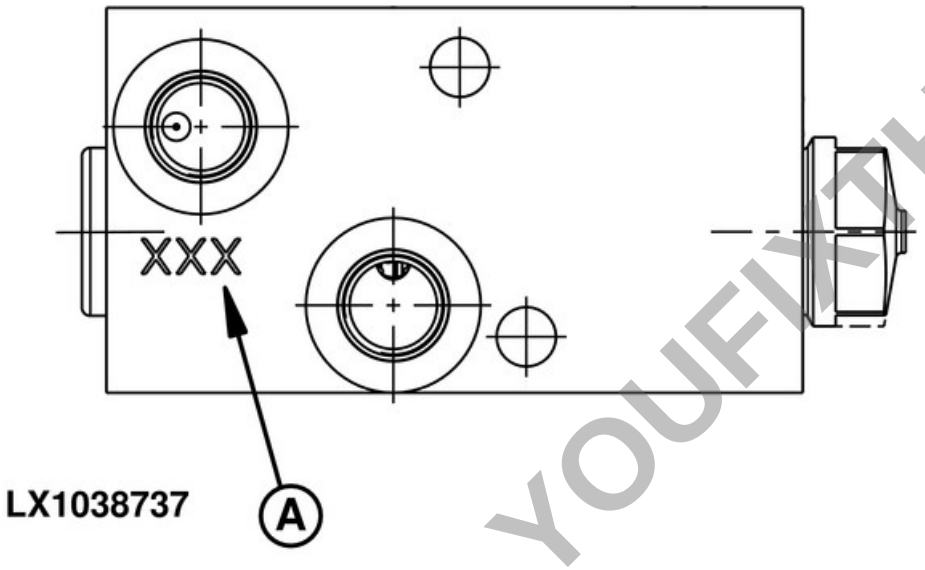


Figure for Transmission Ratio

LEGEND:

A	Figure for Transmission Ratio

At the location indicated by the arrow is a figure showing the ratio of pilot pressure to brake pressure at the coupler.

The following example explains the ratio of pilot pressure to brake pressure:

Example: Pilot pressure = 1200 kPa (12 bar) (174 psi) and the figure "9" is indicated on the trailer brake valve. This means that brake pressure at the coupling is 10800 kPa (108 bar) (1566 psi).

Hydraulic Trailer Brake - Quick Coupler with Shut-Off Valve, Component Information

Component information

Component information	
Designation	Quick coupler with shut-off valve
Position	The quick coupler with shut-off valve is located in the supply line to the trailer brake valve.
Specifications	Mechanical valve
Theory of operation	The quick coupler only enables the pilot pressure to the trailer brake valve if there is a connected device. The following example explains the ratio of pilot pressure to brake pressure: Example: Pilot pressure = 1200 kPa (12 bar) (174 psi) and the figure "9" is indicated on the trailer brake valve. This means that brake pressure at the coupling is 10800 kPa (108 bar) (1566 psi).

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Minimum LS pressure, priority circuit 1 (steering) too high.

1. Priority circuit 1, check LS pressure (steering). GO TO: 7

Flow control valve, LS relief (priority 3 control block) dirty or defective.

1. Check the flow control valve, see Repair the Priority 3 Control Block in Section 70 of the relevant Repair Manual.

A control valve (e.g. steering valve, SCV, hitch valve, etc.) in the hydraulic system is not in neutral position or defective (stuck).

1. Check control valves in the hydraulic system and repair as necessary, see Section 70 of the relevant Repair Manual.

Result:

NO: Repair as needed and perform an operational check. Then GO TO: 5

Action:

5.3 Maximum system pressure too low

Possible causes

Priority 3 valve (priority 3 control block) dirty or defective.

LS pressure relief valve (priority 3 control block) dirty or defective.

Shuttle valve (LS pressure priority circuit 1/2 - 3, priority 3 control block) dirty or defective.

1. Check the valves, see Repair the Priority 3 Control Block in Section 70 of the relevant Repair Manual.

Pressure-and-flow regulator of hydraulic pump is dirty or defective.

1. Perform a visual inspection of the regulator and replace, if necessary. See Hydraulic Pump - Remove and Install the Pressure-and-Flow Regulator in Section 70 of the relevant Repair Manual.

Hydraulic pump is defective.

1. Perform a visual inspection of the hydraulic pump and replace, if necessary. See Remove and Install the Hydraulic Pump in Section 70 of the relevant Repair Manual.

Seal rings between control valves in priority circuits 2 and 3 are defective.

1. Check seal rings between the control valves and replace as necessary, see Section 70 of the relevant Repair Manual.

Result:

NO: Repair as needed and perform an operational check. Then GO TO: 5

Action:

5.4 Maximum system pressure too high

Possible causes

Pressure-and-flow regulator of hydraulic pump is dirty or defective.

1. Perform a visual inspection of the regulator and replace, if necessary. See Hydraulic Pump - Remove and Install the Pressure-and-Flow Regulator in Section 70 of the relevant Repair Manual.

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