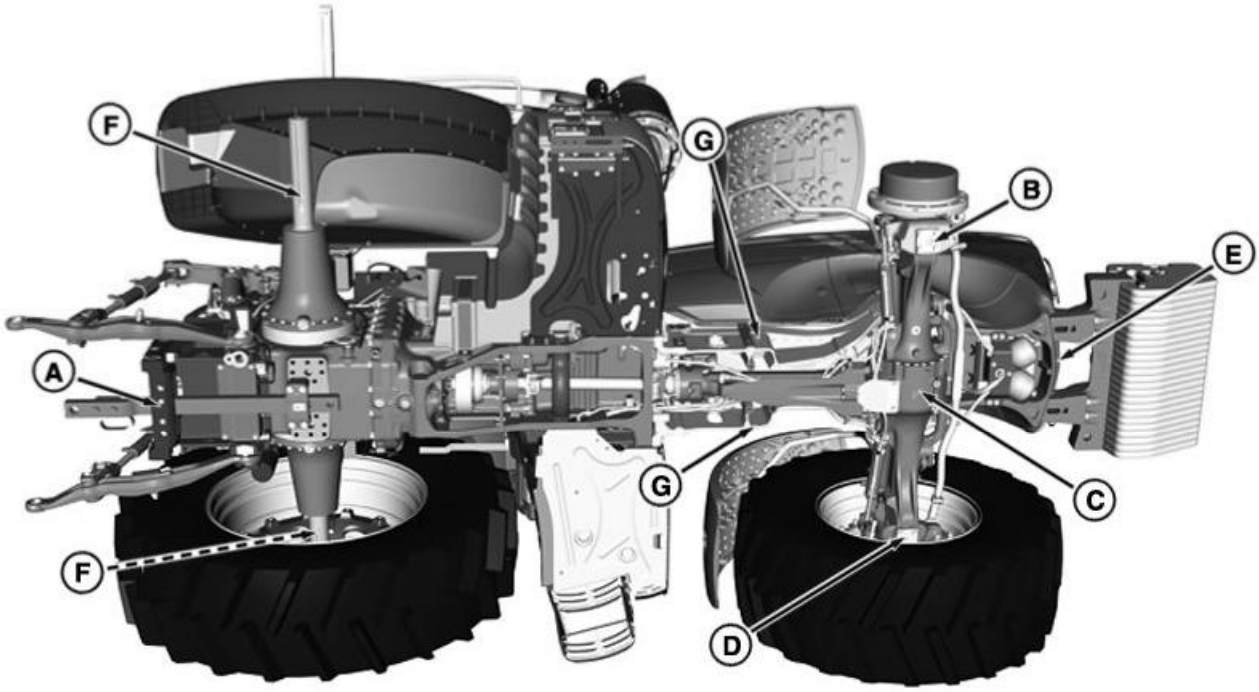
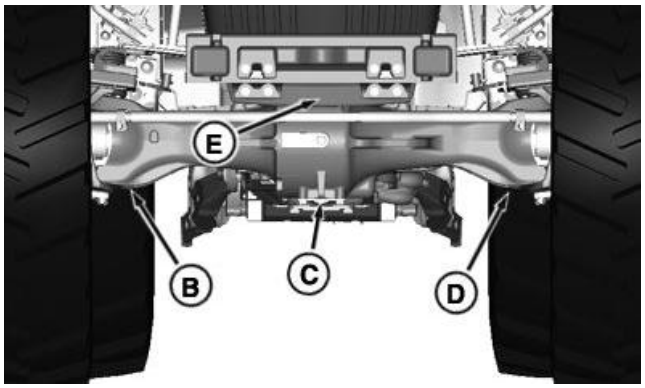
Jack Up the Tractor - Lifting Points and Support Stand Placement

The illustrations show the recommended lifting points for jacking up the tractor. Use appropriate and suitable lifting device.



RXA0132143 —UN—03MAY13

Underside View, Lift Points/Support Stand Placement



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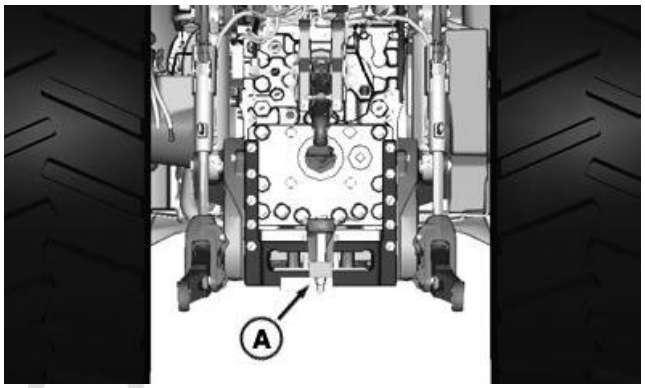
Front Lift Points



RXA0126241 —UN—04MAY12

Rear Lift Point

A- Raise Rear of Tractor, e.g. to Remove Rear Wheel

B- Raise Right End of Front Axle, e.g. to Remove Right Front Wheel

C- Raise Center of Axle (Use Wooden Wedges to Prevent Axle from Tilting)

D- Raise Left End of Front Axle, e.g. to Remove Left Front Wheel

E- Raise Front End of Tractor under the Basic Weight

F- Support Stand Placement on Rear Axles.

G- Support Stand Placement on side of chassis.

Continued on next page

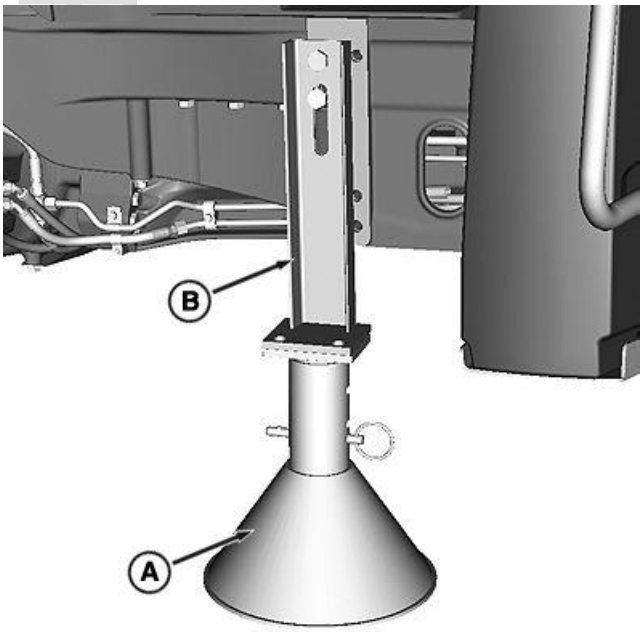
RD47322,0000217 -19-30JUL13-1/3

CAUTION: Use approved lifting equipment only. Jack up tractor on firm, level ground only. Before doing any further work on tractor, first secure it using suitable support stands. The special John Deere tools shown can be used for this purpose. These support stands are available from your John Deere Dealer.

1. Disconnect battery ground cable.
2. Remove front weights or front hitch, if equipped.
3. Raise front of tractor and install JT07211 Rear Differential Support Stand (A) with KJD10539 Support Stand Adapter (B) using M20 x 40 mm (10.9 grade) cap screws to both sides of tractor.

A— JT07211 Rear Differential Support Stand (2 used)

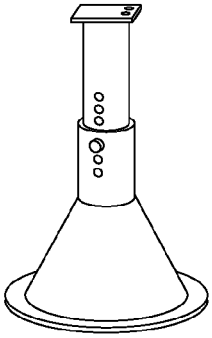
B— KJD10539 Support Stand Adapter (2 used)



RXA0113923 —UN—22FEB11

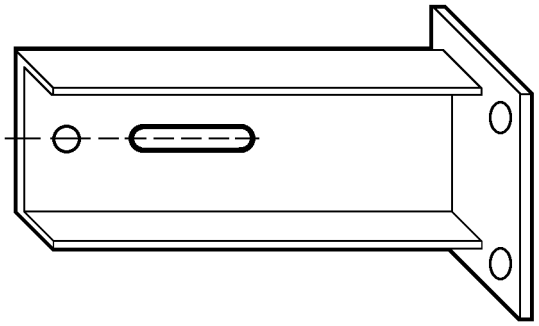
JT07211 Rear Differential Support/ KJD10539 Support Stand Adapter

RD47322,0000217 -19-30JUL13-2/3



JT07211 Support Stand

RXA0084749 —UN—25OCT05



KJD10539

KJD10539 —UN—14DEC06

KJD10539 Support Stand Adapter

RD47322,0000217 -19-30JUL13-3/3

Service and Connect Snap-to-Connect (STC)® Fittings

CAUTION: Do not disconnect STC™ fitting when under pressure. Failure to relieve pressure before disconnecting fitting may result in personal injury, damage to equipment or both.

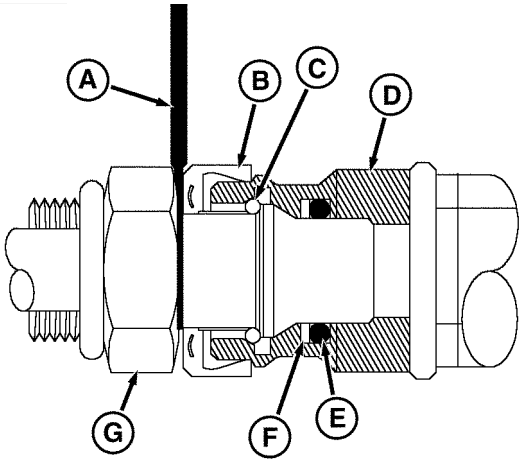
Snap-to-Connect fittings are used on steel lines, hose connections and come in a variety of sizes. JDG1885 STC™ tool (A) is designed as a spacer to move release ring (B) inward which releases retaining ring (C). JDG1885 STC™ tool can be purchased through your John Deere™ dealer.

IMPORTANT: Do not use tool to pry fittings apart. Prying with tool may damage fitting and tool.

NOTE: If retaining ring (C), backup ring (F) or O-ring (E) are damaged, see your John Deere™ dealer for replacement kit and replace all three parts.

1. Insert correct STC™ tool between release ring and fitting.
2. Remove hose or line from connector.
3. Before connecting Snap-to-Connect fitting, check mating surfaces for nicks, scratches or flat spots.
4. Check O-ring, backup ring and retaining ring for wear or damage.
5. Make sure female end (D) and male end (G) are clean and free of contaminates.

Snap-to-Connect (STC) is a trademark of Eaton Corporation



RXA0080095 —UN—31MAR05

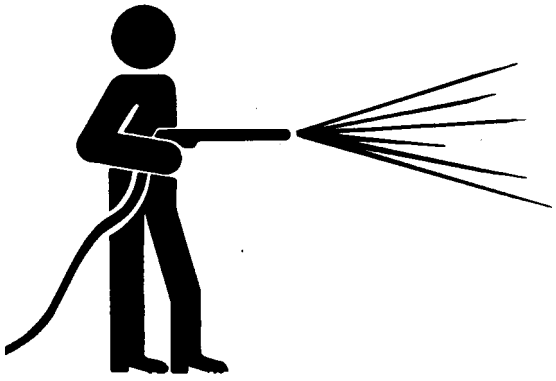
A—JDG1885 STC™ Tool
B—Release Ring
C—Retaining Ring
D—Female End (STC™ Fitting)
E—O-ring
F—Backup Ring
G—Male End (STC™ Fitting)

6. Make sure release ring (B) is on male end fitting.
7. Push fitting halves together until a definite snap and solid stop is felt.
8. Pull back on hose to make sure that fitting halves are locked together.

TO84419,0000214 -19-06SEP13-1/1

Using High-Pressure Washers

IMPORTANT: Directing pressurized water at electronic/electrical components or connectors, bearings and hydraulic seals, fuel injection pumps, exhaust outlet or other sensitive parts and components may cause product malfunctions. Reduce pressure, and spray at a 45 to 90 degree angle. When washing do not direct any water towards the exhaust or any fill tank openings.

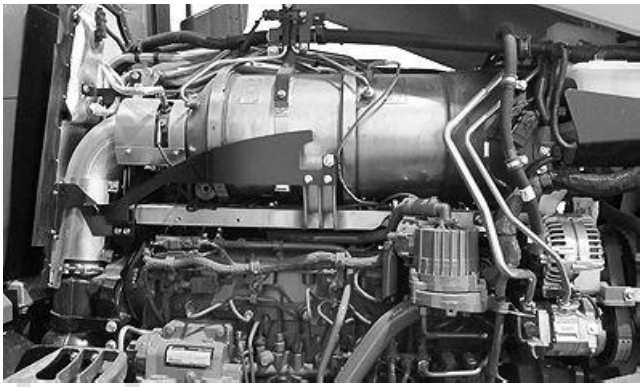


T6642EJ —UN—18OCT88

TO84419,0000215 -19-05SEP13-1/1

Diesel Particulate Filter Service

IMPORTANT: Using incorrect or unapproved aftertreatment components can cause damage to vehicle's aftertreatment system and reduce ability of aftertreatment system to function correctly. Never interchange aftertreatment components between Interim Tier 4/Stage III B and Final Tier 4/Stage IV equipped vehicles.



RXA0134218 —UN—25JUL13

DPF Filter On Top of Engine

Exhaust Filter includes Diesel Oxidation Catalyst (DOC) and Diesel Particulate Filter (DPF). DPF is designed to retain residual ash, which is a noncombustible result of additives used in crankcase lubrication oils and fuel. DPF provides many hours of maintenance free operation. At some point DPF will require professional service to remove accumulated ash. The exact number of hours of operation before service is required will vary depending upon engine's power category, duty cycle and operating conditions, engine oil ash content, and fuel quality. Adhering to John Deere's™ recommended oil and fuel specifications will maximize hours of operation before professional DPF service is required.

As engine owner, you are responsible for performing required maintenance described in your Operator's Manual. During normal equipment operation DPF maintenance requirements will depend on rate at which ash accumulates in it. Generally, DPFs on engines below 175 hp/130 kW will require servicing at about 3,000 hours while engines at or above 175 hp/130 kW will require servicing at about 4,500 hours. As ash levels rise in DPF capacity for soot storage is reduced and back pressure of exhaust system will rise more frequently. Exhaust Filter dash lamp indicator or diagnostic gauge will indicate when DPF needs servicing.

Removal of DPF ash must be done by removing DPF from machine and placing it into specialized equipment. Do not remove ash by using water or other chemicals. Removing ash by these methods may damage material securing DPF in its canister, resulting in the loosening of DPF element in canister and subjecting it to damage from vibration.

Failure to follow approved ash removal methods may violate U.S. federal, state and local hazardous waste laws, along with damage to DPF resulting in potential denial of Diesel Exhaust Filter emissions warranty. It is strongly recommended you take DPF to an authorized John Deere™ service location or other qualified service provider for servicing.

When AUTO PARKED exhaust filter cleaning is enabled, exhaust temperature may be high under no load or light load conditions at certain times during exhaust filter cleaning cycle.

Disable exhaust filter cleaning in conditions where it may be unsafe for elevated exhaust temperatures.

Disable automatic exhaust filter cleaning only when necessary.

TO84419,0000217 -19-19AUG13-1/1

Exhaust Filter/Diesel Particulate Filter (DPF) Ash Handling and Disposal

CAUTION: Under federal, state, and/or local laws or regulations, Diesel Particulate Filter ash may be classified as a hazardous waste. Hazardous wastes must be disposed of in accordance with all applicable federal, state and local laws or regulations governing hazardous waste disposal.

Only a qualified service provider should remove ash from the DPF. Personal protective equipment and clothing, maintained in a sanitary and reliable condition, should be used when handling and cleaning a DPF. See your John Deere dealer or qualified service provider for assistance.

TO84419,0000218 -19-27NOV12-1/1

Exhaust Filter Disposal

CAUTION: Proper management of an Exhaust Filter that has reached the end of its useful life is required, since the ash or catalyst material in the device may be classified as hazardous waste under federal, state, and/or local laws or regulations. Used Exhaust Filters, which include the Diesel Particulate Filter, may be exchanged at any John Deere dealer or qualified service provider.

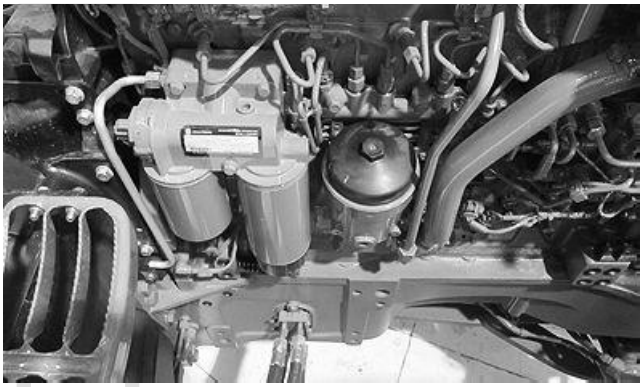
TO84419,0000219 -19-27NOV12-1/1

Do Not Modify Fuel System

IMPORTANT: Increasing horsepower, or altering any aspect of fuel and air delivery on emissions certified engines beyond factory rating, will cause emission levels beyond what is approved by United States Environmental Protection Agency (EPA). Violations of EPA regulations may result in substantial fines to persons or companies committing such violations.

Tractor warranty is void if power level is changed from factory specifications.

Do not attempt to service injection pump or fuel injectors yourself. Special training and special tools are required. See your John Deere™ dealer.



RXA0134219 —UN—25JUL13

Never steam clean or spray water on a warm injection pump. This could damage pump parts.

John Deere is a trademark of Deere & Company

RW29387,0000662 -19-26JUL13-1/1

Do Not Open High-Pressure Fuel System

High-pressure fluid remaining in fuel lines can cause serious injury. Do not disconnect or attempt repair of fuel lines, sensors, or any other components between the high-pressure fuel pump and nozzles on engines with High Pressure Common Rail (HPCR) fuel system.

Only technicians familiar with this type of system can perform repairs. (See your John Deere™ dealer.)

TS1343 —UN—18MAR92

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TO84419,000021F -19-27NOV12-1/1

Bleed Fuel System

If Diagnostic Trouble Code (DTC) indicates fuel system problem, and fuel system and filters are found to be correct - or if (even without a DTC present) tractor does not run correctly or fails to start, fuel injection system may need to be bled of air. Turn key switch to run position. Electric fuel pump will start and bleed air from fuel system. Allow pump to run for 30 seconds to 1 minute before attempting an engine restart. If problem persists, see your John Deere™ dealer.

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TO84419,0000220 -19-03JUL13-1/1

Introduction to Electrical Service Section

In addition to fuses and relays mounted in fuse panels (behind operator's seat), tractors are also equipped with solid state load centers located in two electronic control units.

These solid-state load centers replace fused relay circuits previously used. Their primary function is to control the majority of high current loads such as rear fender lights and horn. Load center circuitry monitors loads and voltages providing fast reaction time and ability to alert operator if a circuit overloads or if voltage is out of specification, i.e. open circuit (undercurrent) or short circuit (over-current).

If circuit is faulty and a diagnostic trouble code is generated, circuit will stay OFF and diagnostic trouble code will remain active until circuit is recycled by operator. If circuit or one of its components is turned back ON and problem is no longer present, system will function normally.

As an example, if a light circuit is determined to have an over-current condition, load center system will shut the circuit off. If operator turns light switch off and back on, and system senses zero amps when light controlled by the switch is off, system will turn system back on and normal operation will turn back on.

If total current load of load center exceeds a preset level, software will automatically shut down system, turning off one circuit at a time. Logic circuit will wait a few seconds between circuit shutdowns to determine if total controller current has fallen below preset level, or if additional circuits should be turned off.

Solid state circuits are rated for a fixed value. If additional electrical devices need to be added to tractor, it is recommend to use a power strip or convenience outlets in conjunction with an off/on switch. Splicing into a wire in the wrong location could cause circuit to overload and shut circuit down.

If extra implement lights and controls, such as switches are needed, contact your John Deere™ dealer. A dealer can provide information on correct method to tie in a light switch with one of accessory wires located in 7 pin terminal on back of tractor.

TO84419,0000222 -19-13AUG13-1/1

Disconnect Battery - Final Tier 4 and Stage IV Engines

IMPORTANT: To determine with which engine type tractor is equipped, see Record Engine Serial Number in Identification Numbers Section of this Operator's Manual.

IMPORTANT: Do not disconnect battery until Selective Catalyst Reduction (SCR) system has had enough time to automatically purge system of Diesel Exhaust Fluid (DEF) . If adequate time is not allowed for system to be purged, any DEF remaining can crystallize and plug system. At temperatures below -15°C (5°F), unpurged DEF will freeze and damage system components. If equipped with a battery disconnect system, a light next to disconnect system is illuminated while auto-purge is in progress. It shuts off when complete and safe to disconnect the battery. If tractor is not equipped with battery disconnect, wait at least 4 minutes after tractor stops before disconnecting battery.

RX32825,0000754 -19-03SEP13-1/1

Load Center Fuses

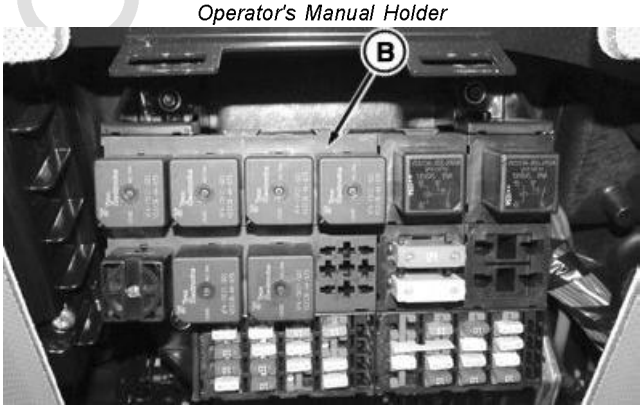
NOTE: Fold seat backrest down to allow easier access, and allow cab lighting to shine on load center when fuses are being inspected or replaced.

Load center fuse panel (B) is found directly behind operator's seat and just below cab rear window. To access load center, lift up on Operator's Manual holder (A).

A—Operator's Manual Holder **B—Load Center Fuse Panel**

RXA0135034 —UN—14AUG13

Operator's Manual Holder



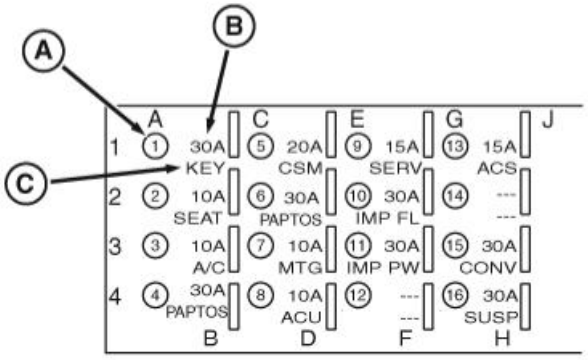
RXA0135035 —UN—14AUG13

Load Center Fuse Panel

TO84419,0000224 -19-29AUG13-1/4

Diagram identifies load center fuse location, size and description.

A—Fuse Location Number **C—Fuse Use/Description**
B—Fuse Size



RXA0129611 —UN—25JAN13

Load Center — Legend

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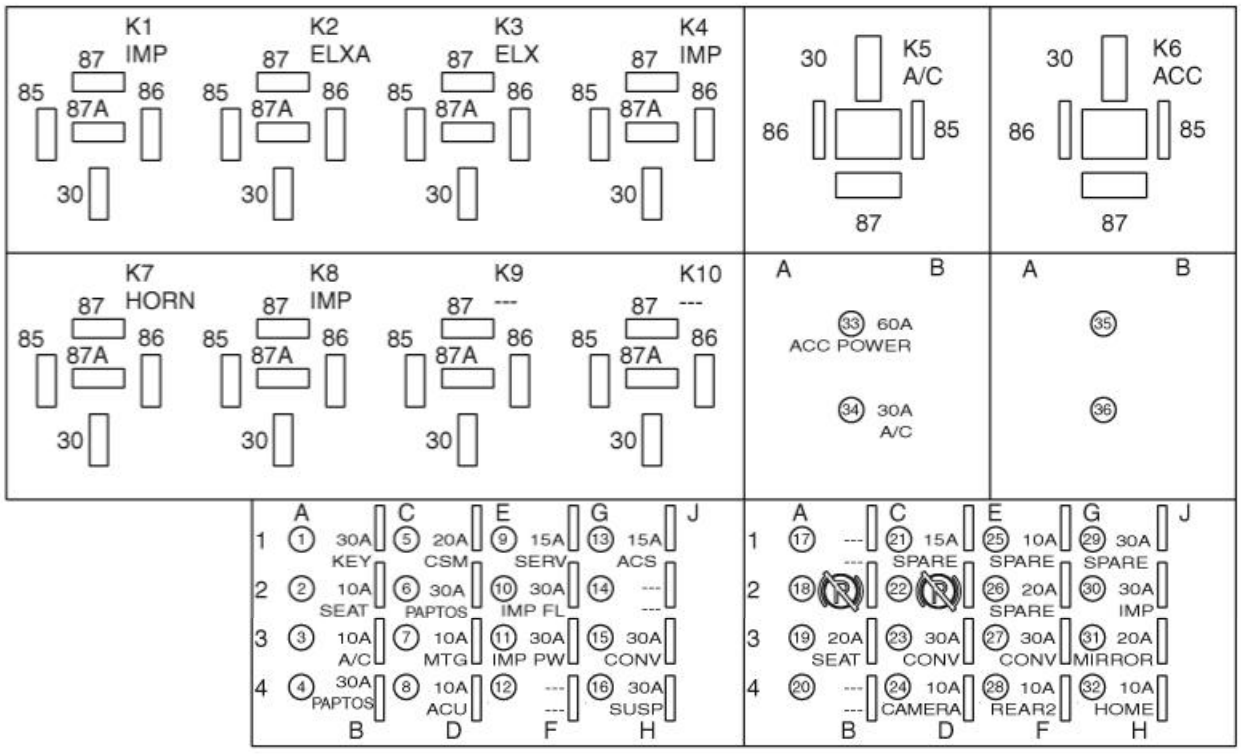
TO84419,0000224 -19-29AUG13-2/4



RXA0127389 —UN—25JAN13

K1—ISO Implement Connector Power Relay
K2—Electronics Relay
K3—Electronics Relay
K4—Implement Accessory Relay
K5—Blower Relay
K6—Accessories Relay
K7—Warning Horn Relay
K8—Implement Flood Relay
K9—Not Used
K10— Not Used
1—Key Switch (30 Amp)
2—Operator Presence Switch (10 Amp)
3—Air Conditioner (10 Amp)
4—PAPTOS (If Equipped)(30 Amp)
5—Radio, Primary Display and Interior Lights (20 Amp)
6—PAPTOS (If Equipped)(30 Amp)
7—Modular Telematics Gateway (10 Amp)
8—Armrest Control Unit (10 Amp)
9—Server (15 Amp)
10—Implement Flood Lights (30 Amp)
11—Implement Accessory (30 Amp)
12—Not Used
13—ActiveCommand Steering (If Equipped) (15 Amp)
14—Not Used
15—Convenience Outlet Battery (30 Amp)
16—Not Used
17—Not Used
18—Park Brake Release
19—Seat Controls (20 Amp)
20—Not Used
21—Spare (15 Amp)
22—Park Brake Release
23—Convenience Outlet Switched (30 Amp)
24—Video Camera Power and Armrest Outlet (10 Amp)
25—Spare (10 Amp)
26—Spare (20 Amp)
27—Convenience Outlet Switched (30 Amp)
28—Rear Chassis Control Unit (10 Amp)
29—Spare (30 Amp)
30—ISO Implement Connector (30 Amp)
31—Remote Mirror (20 Amp)
32—Come Home Mode IVT™/AutoPowr™ (Only)(10 Amp)
33—Accessories Power (60 Amp)
34—Blower Motor (30 Amp)
35—Not Used
36—Not Used

IMPORTANT: (Final Tier 4 and Stage IV Engines only. To determine which engine your tractor is equipped with, see Record Engine Serial Number in Identification Numbers section of this Operator's Manual.) Do not disconnect battery until Selective Catalyst Reduction (SCR) system has had enough time to automatically purge system of Diesel Exhaust Fluid (DEF) . If adequate time is not allowed for system to be purged, any DEF remaining can crystallize and plug system. At temperatures below -15°C (5°F), unpurged DEF will freeze and damage system components. If equipped with a battery disconnect system, a light next to the disconnect system is illuminated while auto-purge is in progress. It shuts off when complete and safe to disconnect the battery. If tractor is not equipped with battery disconnect, wait at least 4 minutes after tractor stops before disconnecting battery.

IMPORTANT: Replacement fuses must be the same rating as original.

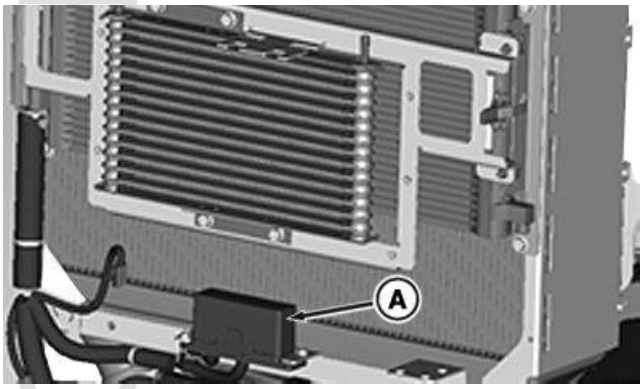
Ensure both negative (-) and positive (+) battery connections are disconnected from both batteries before fuse inspection or replacement.

IVT is a trademark of Deere & Company
AutoPowr is a trademark of Deere & Company

Continued on next page

Open hood. Front load center (B) is at front bottom of radiator. Remove cover (A).

A—Cover
B—Front Load Center Panel
C—F1 - ECU (20 Amp)
D—F2 - ECU (20 Amp)
E—F3 - ECU (20 Amp)
F—F4 - Not Used
G—F5 - Fuel Transfer Pump (15 Amp)
H—F6 - Not Used
I— F7 - Key Switch (10 Amp)
J— F8 - Steering Control Unit (15 Amp)
K—F9 - Front Chassis Control Unit 2 (If Equipped with Front Hitch, Front PTO or Mid-Stack SCV-25 Amp)
L—F10 - Front Chassis Control Unit 1 (If Equipped with Suspended Front Axle-10 Amp)



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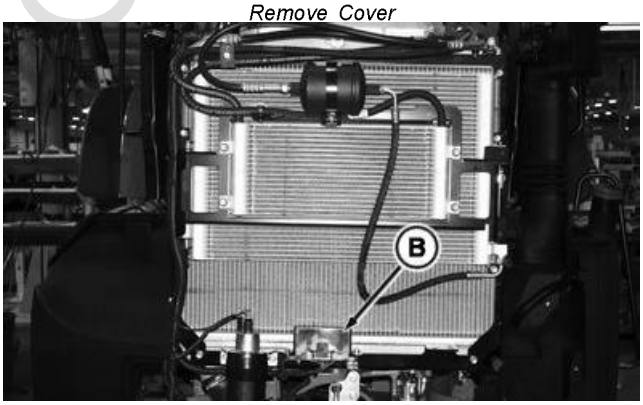
Remove Cover



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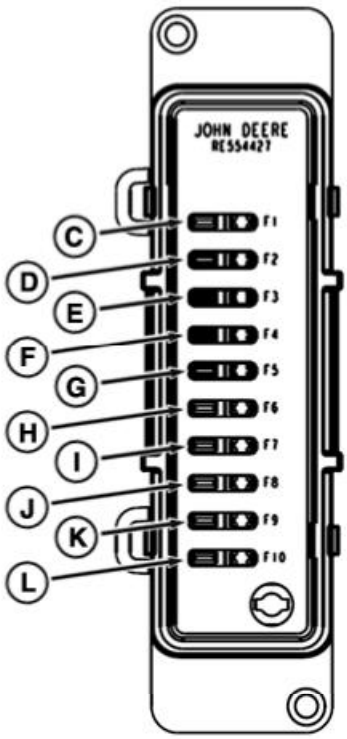
Fuses



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TO84419,0000224 -19-29AUG13-4/4

Master Fuses

IMPORTANT: (Final Tier 4 and Stage 4 Engines only. To determine which engine your tractor is equipped with, see Record Engine Serial Number in Identification Numbers section of this Operator's Manual.) Do not disconnect battery until Selective Catalyst Reduction (SCR) system has had enough time to automatically purge system of Diesel Exhaust Fluid (DEF) . If adequate time is not allowed for system to be purged, any DEF remaining can crystallize and plug system. At temperatures below -15°C (5°F), unpurged DEF will freeze and damage system components. If equipped with a battery disconnect system, a light next to disconnect system is illuminated while auto-purge is in progress. It shuts off when complete and safe to disconnect the battery. If tractor is not equipped with battery disconnect, wait at least 4 minutes after tractor stops before disconnecting battery.

IMPORTANT: Ensure both negative (-) and positive (+) battery connections are disconnected from both batteries before fuse inspection or replacement.

Do not attempt to disassemble master fuses unless instructed by your John Deere™ dealer.

Replacement fuses must be the same rating as original.

Tractors have two or three master fuses. Fuse module is located inside battery compartment.

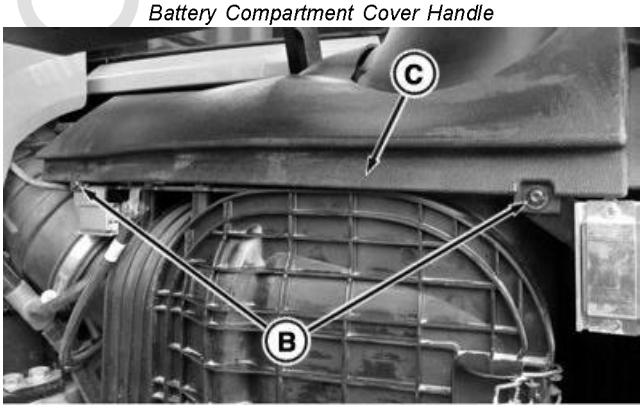
Grasp battery compartment cover handle (A) and pull forward and up to remove cover. Strong magnets secure cover.

Remove top cover retaining screws (B) and remove cover (C) to access master fuse module.

- Backup Hydraulic Pump (If Equipped) (D) — 175 Amps
- Alternator Battery Relay (E) — 300 Amps
- Master Fuse (F) — 300 Amps

RXA0135033 —UN—15AUG13

Battery Compartment Cover Handle



RXA0135049 —UN—14AUG13

Master Fuse Cover

RXA0135032 —UN—15AUG13

Master Fuses

A—Battery Compartment Cover Handle
B—Screws
C—Master Fuse Module Cover
D—Backup Hydraulic Pump (If Equipped)
E—Alternator Battery Relay
F—Master Fuse

TO84419,0000225 -19-03SEP13-1/1

Welding Near Electronic Control Units

IMPORTANT: Do not jump-start engines with arc welding equipment. Currents and voltages are too high and may cause permanent damage.

1. Disconnect the negative (-) battery cable(s).
2. Disconnect the positive (+) battery cable(s).
3. Connect the positive and negative cables together. Do not attach to vehicle frame.
4. Clear or move any wiring harness sections away from welding area.
5. Connect welder ground close to welding point and away from control units.

TS953 —UN—15MAY90

6. After welding, reverse Steps 1—5.

DX,WW,ECU02 -19-14AUG09-1/1

Keep Electronic Control Unit Connectors Clean

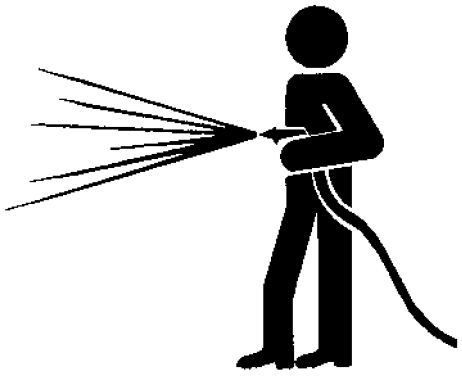
IMPORTANT: Do not open control unit and do not clean with a high-pressure spray. Moisture, dirt, and other contaminants may cause permanent damage.

1. Keep terminals clean and free of foreign debris. Moisture, dirt, and other contaminants may cause the terminals to erode over time and not make a good electrical connection.
2. If a connector is not in use, put on the proper dust cap or an appropriate seal to protect it from foreign debris and moisture.
3. Control units are not repairable.
4. Since control units are the components LEAST likely to fail, isolate failure before replacing by completing a diagnostic procedure. (See your John Deere dealer.)
5. The wiring harness terminals and connectors for electronic control units are repairable.

DX,WW,ECU04 -19-11JUN09-1/1

Using Compressed Air

IMPORTANT: Directing pressurized air at electronic/electrical components or connectors, may cause buildup of static electricity and product malfunctions.

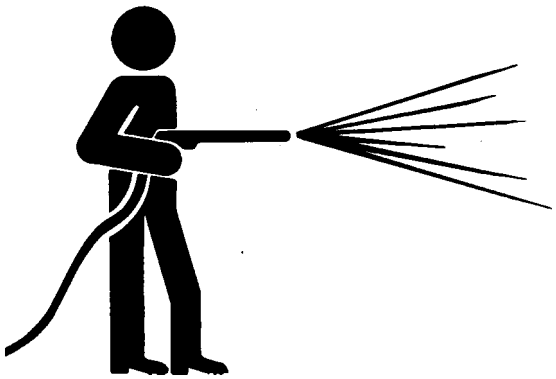


RW56455 —UN—30JUN97

TO84419,0000228 -19-25JUL13-1/1

Using High-Pressure Washers

IMPORTANT: Directing pressurized water at electronic/electrical components or connectors, bearings and hydraulic seals, fuel injection pumps, exhaust outlet or other sensitive parts and components may cause product malfunctions. Reduce pressure, and spray at a 45 to 90 degree angle. When washing do not direct any water towards the exhaust or any fill tank openings.



T6642EJ —UN—18OCT88

TO84419,0000215 -19-05SEP13-1/1

Service Implement Power Relay Module

Remove four cap screws (A) and cab rear cover. Implement Power Relay Module is located in upper left corner of rear cab panel. Module routes power to Implement Bus Breakaway Connector.

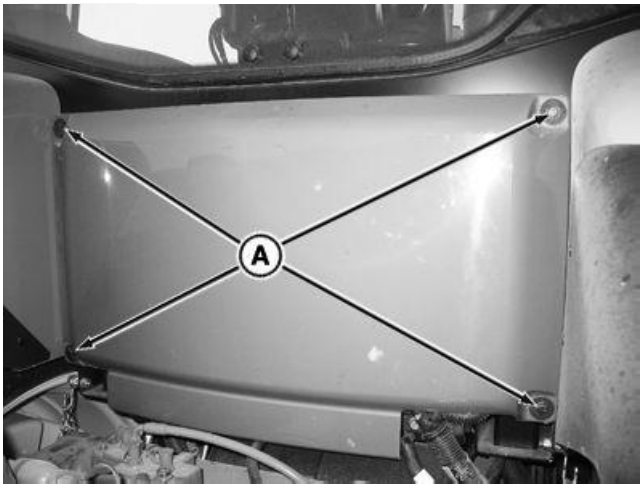
Power comes into module from battery at battery power input stud (H).

Switched power lug (B) is protected by a 60 Amp fuse (F). Unswitched power lug (C) is protected by a 30 Amp fuse (G).

To Change Fuses

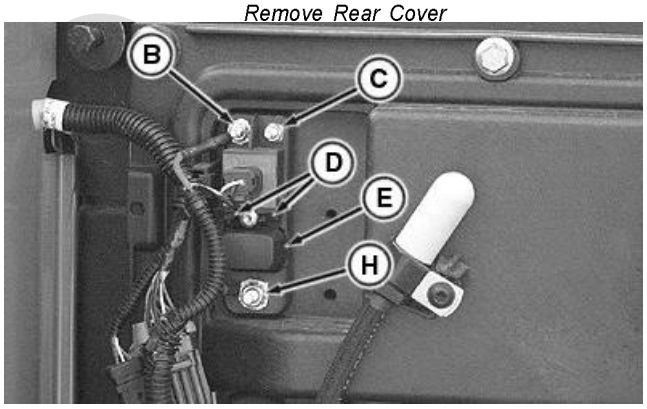
1. Press down on fuse cover tabs (D) and remove fuse cover (E).
2. To remove, pull fuse straight rearward.
3. Replace with new fuse.
4. Reinstall cover and slide tabs over cover edge to secure.

A—Cap Screws
B—Switched Power Lug
C—Unswitched Power Lug
D—Fuse Cover Tabs
E—Fuse Cover
F—60 Amp Fuse
G—30 Amp Fuse
H—Battery Power Input Stud



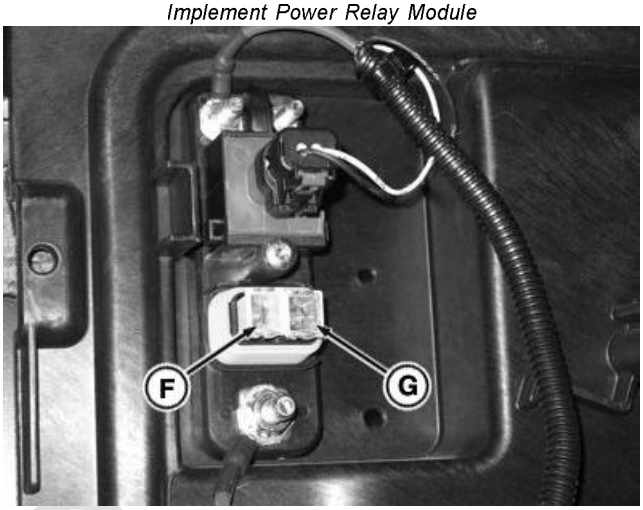
RXA0110047 —UN—26AUG10

Remove Rear Cover



RXA0109345 —UN—16AUG10

Implement Power Relay Module



RXA0100356 —UN—03FEB09

Implement Power Relay Module Fuses

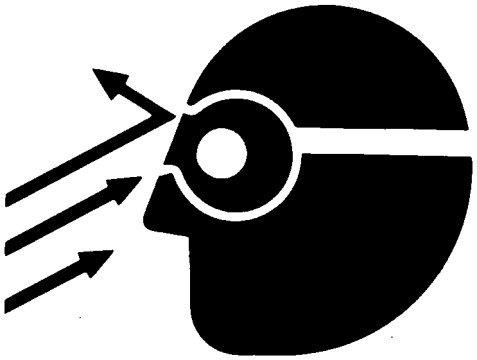
TO84419,0000229 -19-25JUL13-1/1

Handle Halogen Light Bulbs Safely

CAUTION: Halogen bulbs (A) contain gas under pressure. Handling a bulb improperly could cause it to shatter into flying fragments. To avoid possible injury:

- **Turn light switch off and allow bulbs to cool before changing. Leave switch off until bulb change is done.**
- **Wear eye protection.**
- **Handle bulb by its base. Keep bulb oil free; wear gloves to avoid touching glass.**
- **Do not drop or scratch bulb. Keep moisture away.**
- **Place used bulb in the new bulb carton and dispose of properly. Keep out of reach of children.**

A—Halogen Bulb



TS266 —UN—23AUG88

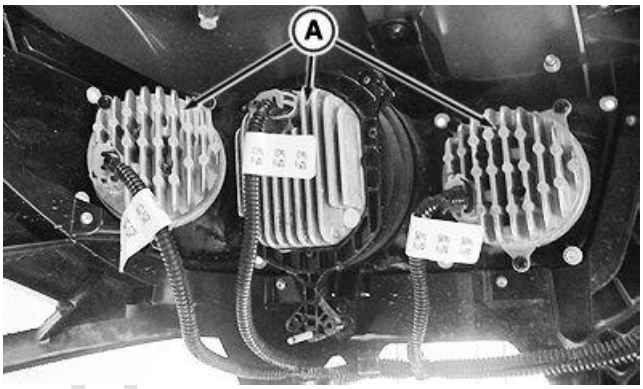
H39474 —UN—30JUN00

TO84419,000022A -19-09APR13-1/1

Replace Front HID/LED Light Assembly

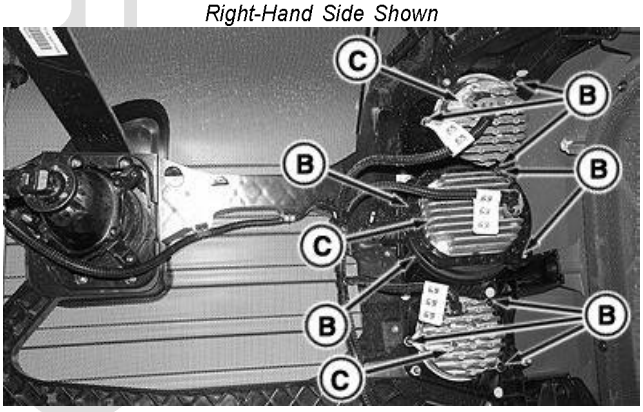
1. Raise hood.
2. Disconnect harness connector (A).
3. Remove screws (B) and light assembly (C).
4. Replace light assembly.
5. Install new light assembly in reverse order of removal.
6. Close and secure hood.

A—Harness Connector
B—Screws
C—Light Assembly



RXA0134245 —UN—31JUL13

Right-Hand Side Shown



RXA0134248 —UN—31JUL13

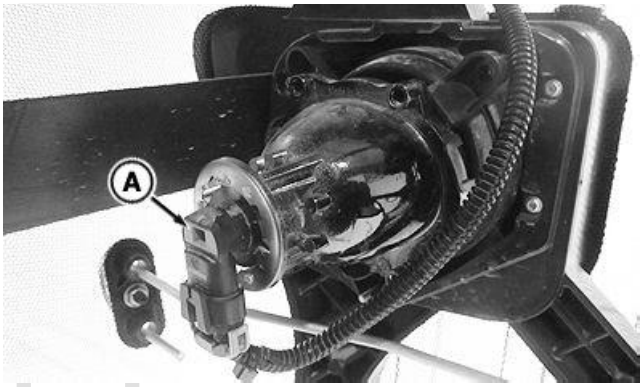
Right-Hand Side Shown

TO84419,000022C -19-06SEP13-1/1

Replace Front Grille Halogen Light Bulbs

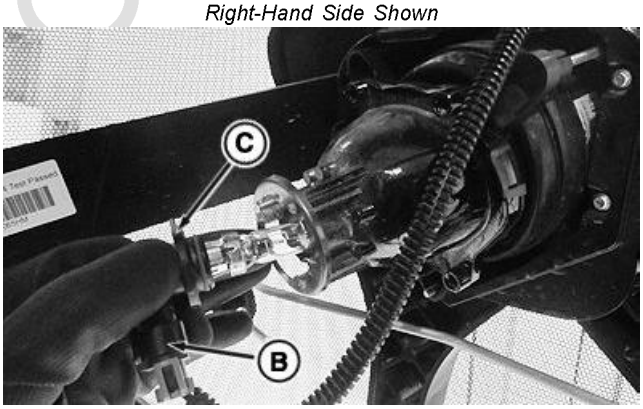
1. Raise hood.
2. Rotate halogen headlight (A) counterclockwise 1/4 turn and remove.
3. Disconnect wiring harness plug by lifting retaining tab (B).
4. Replace light bulb assembly (C).
5. Install new light bulb in reverse order of removal.

A—Halogen Headlight
B—Retaining Tab
C—Light Bulb Assembly



RXA0134246 —UN—31JUL13

Right-Hand Side Shown



RXA0134247 —UN—31JUL13

Right-Hand Side Shown

TO84419,0000007 -19-31JUL13-1/1

Adjust Front Grille Lights

Adjust front grill lights, as needed. Perform adjustments on each side of tractor.

For High Beam Headlights:

To lower high beam, turn high beam adjustment screw (A) counterclockwise.

To raise and tilt in high beam, turn high beam adjustment screw (C) counterclockwise.

To raise and tilt out high beam, turn high beam adjustment screw (D) counterclockwise.

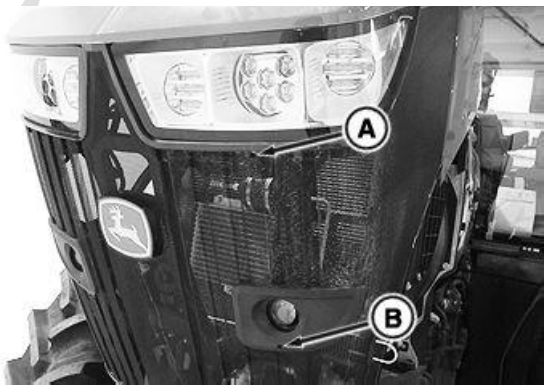
For Inner Hood Work Light:

To lower low beam headlight, turn low beam adjustment screw (B) counterclockwise.

To raise and tilt in low beam headlight, turn low beam adjustment screw (E) counterclockwise.

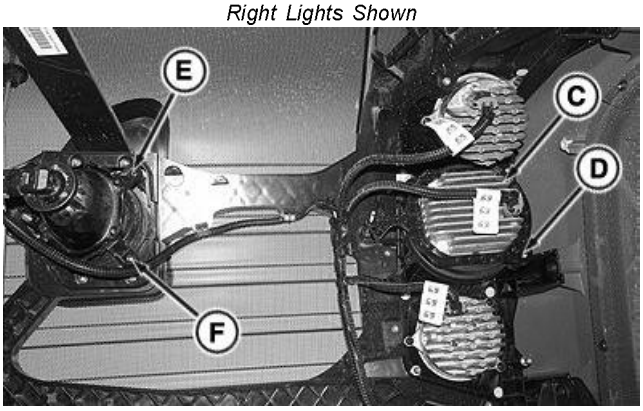
To raise and tilt out low beam headlight, turn low beam adjustment screw (F) counterclockwise.

A—High Beam Adjustment Screw
B—Low Beam Adjustment Screw
C—High Beam Tilt Up And In Adjustment Screw
D—High Beam Tilt Up And Out Adjustment Screw
E—Low Beam Tilt Up And In Adjustment Screw
F—Low Beam Tilt Up And Out Adjustment Screw



RXA0134244 —UN—31JUL13

Right Lights Shown

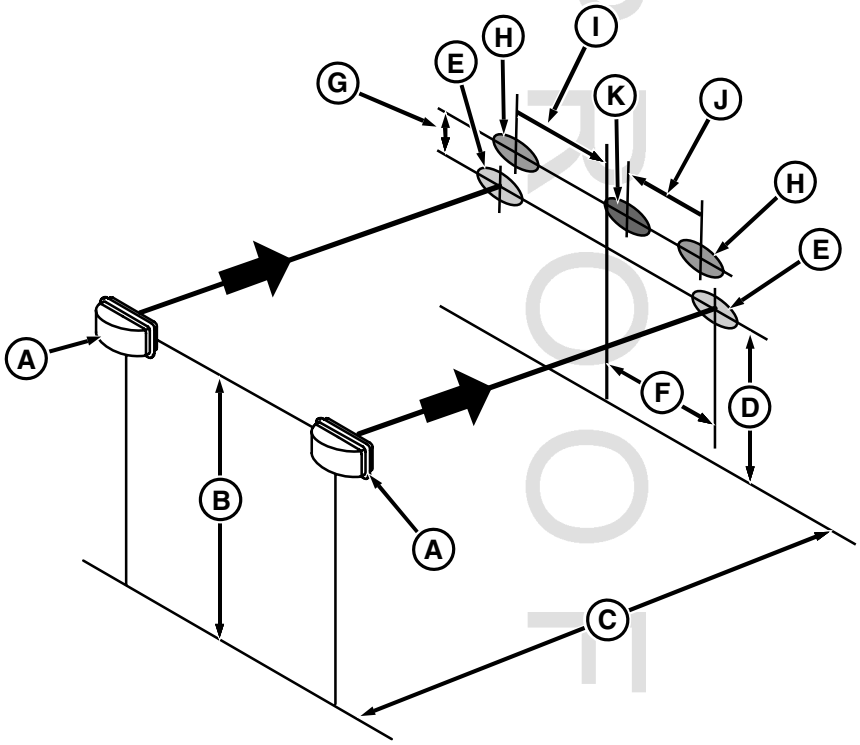


RXA0134249 —UN—31JUL13

Right Lights Shown

TO84419,000022E -19-31JUL13-1/1

Aim Headlights



RXA0107269 —UN—03JUN10

A—Low Beam Road Lights
B—Distance, Road Light Low Beam Center To Ground
C—Distance, 7.5 meters (25 ft)
D—Horizontal Line on Wall
E—Road Light Low Beam Center
F—Distance, 914 mm (36 in.)
G—Distance, 355 mm (14 in.) (*Road Light Low Beam Center* To High Beam Center)
H—Road Light High Beam Center
I—Distance, 787 mm (31 in.) (Road Light High Beam Center To Tractor Center Line)
J—Distance, 635 mm (25 in.) (Road Light High Beam Center To Inner Hood Light Beam Center)
K—Inner Hood Light Beam Center

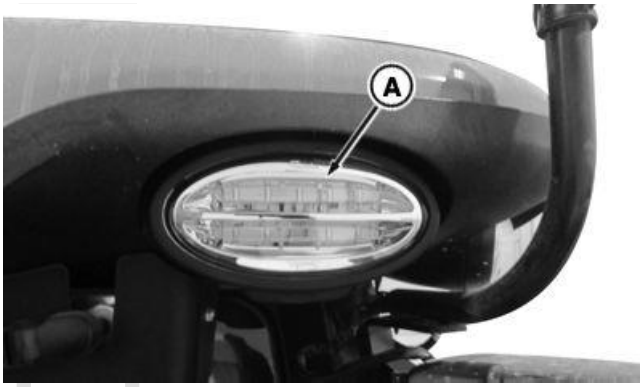
1. Park tractor on level surface with low beam road lights (A) 7.5 meters (25 ft) (C) from a straight wall. Turn on low beam road lights.
2. Measure distance (B) from center of road light low beam lamps to ground.
3. Mark a horizontal line on wall at same height as center of road light low beams.
4. On wall, mark each road light low beam center.
5. On wall, determine and mark vertical center line between center of road light low beams.
6. Distance (F) between centers of road light low beams and center line should be 914 mm (36 in.). Adjust if this is not the measurement.
7. Turn on road light high beam.
8. Adjust road light high beams so edge of bright area (H) is **at least** one tenth of distance (B) **above** road light low beam centers (E).
9. On wall, mark each road light high beam center (H), then mark a horizontal center line between center of road light high beams.
10. Distance (I) between center of road light high beams and center line should be 787 mm (31 in.).
11. Make sure inner hood lights are configured as ON, then turn on field lights. Inner hood light beam center (K) should be on horizontal line between center of road light high beams.
12. Distance (J) between inner hood light beam center (K) and light center line should be 635 mm (25 in.).

TO84419,000022F -19-27NOV12-1/1

Replace Front, Side And Rear Cab Roof Light Assembly

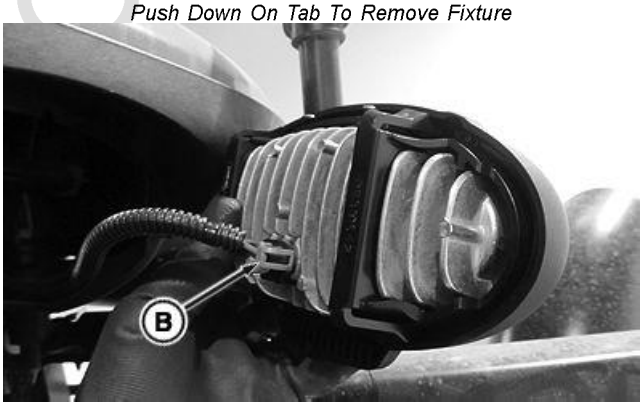
1. Push down light fixture latch tab (A). Remove fixture.
2. Disconnect harness connector (B) and replace light assembly.
3. Connect harness connector.
4. Insert fixture into cab roof until it seats and tab snaps into place.

A—Light Fixture Tab **B—Harness Connector**



RXA0134250 —UN—31JUL13

Push Down On Tab To Remove Fixture



RXA0134251 —UN—31JUL13

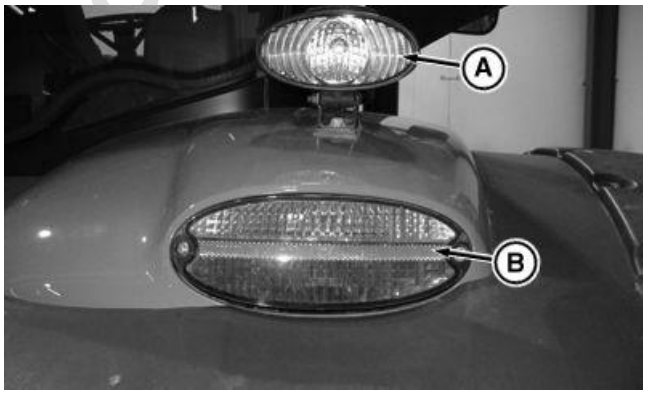
Remove Bulb

TO84419,0000230 -19-31JUL13-1/1

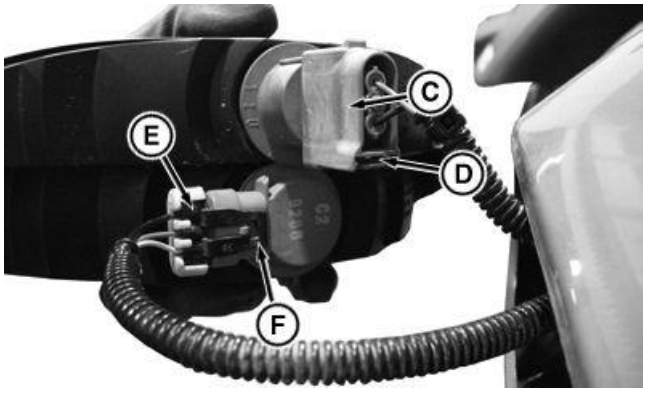
Replace Brake or Turn Signal Light Bulb

1. Remove screws and tail light lens (B).
2. Press turn signal tab (D) and remove turn signal wiring harness (C).
3. Lift brake light tab (F) and remove brake light wiring harness (E).
4. Turn turn signal (H) or brake light bulb fixture (G) 1/4 turn counterclockwise and remove from housing.
5. Turn brake light bulb fixture (H) 1/4 turn counterclockwise and remove.
6. Pull bulb (I) out of fixture (J).
7. Install new bulb (I) in fixture (J) and turn fixture (J) 1/4 turn clockwise to install.
8. Reinstall wiring harnesses (C and E).
9. Reinstall lens and screws.

A—HID Light
B—Tail Light Lens
C—Turn Signal Wiring Harness
D—Turn Signal Tab
E—Brake Light Wiring Harness
F—Brake Light Tab
G—Turn Signal Bulb Fixture
H—Brake Light Bulb Fixture
I— Bulb
J— Fixture



RXA0109540 —UN—18AUG10



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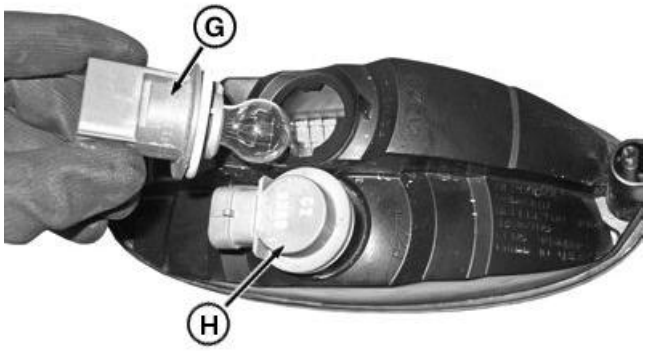
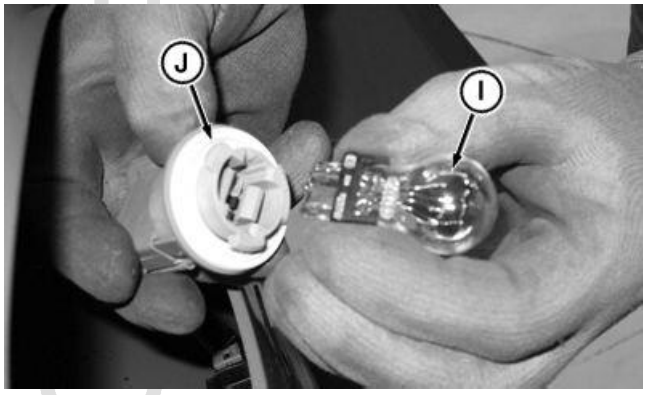


RXA0109544 —UN—08OCT10



RXA0109551 —UN—18AUG10

TO84419,0000231 -19-02APR13-1/1

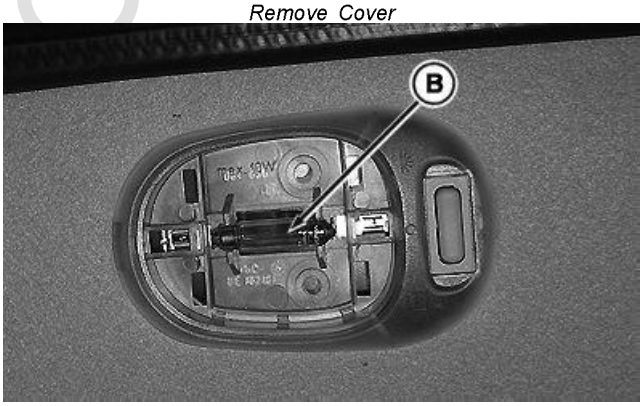
Replace Dome Light Bulb

1. Remove lens cover (A).
2. To remove light bulb (B), grasp firmly and pull straight down.
3. Gently push new bulb into fixture until it seats.
4. Reinstall cover.

A—Cover **B—Light Bulb**

RXA0099130 —UN—19SEP08

Remove Cover



RXA0099128 —UN—19SEP08

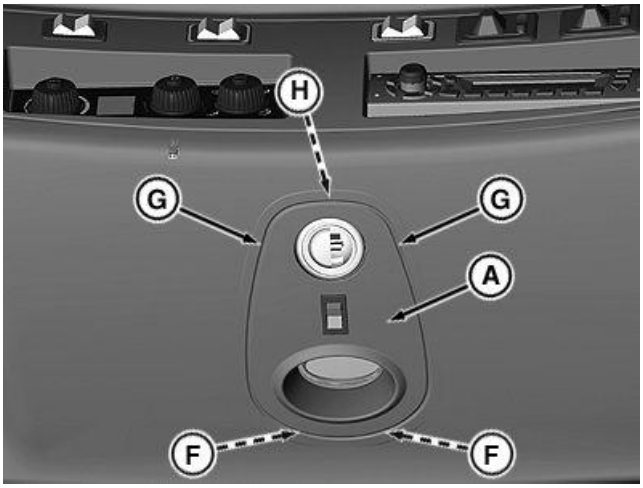
Remove And Replace Bulb

TO84419,0000232 -19-02APR13-1/1

Replace Courtesy Light Bulb

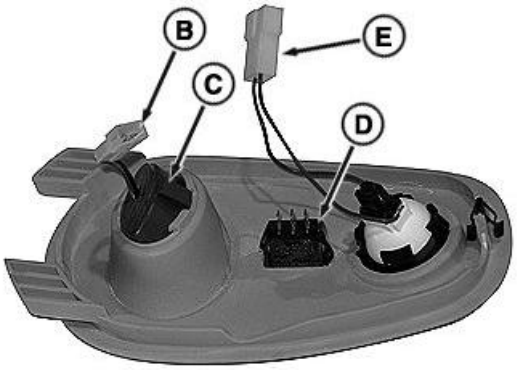
1. Carefully insert fingers under edges (G) of cover, then pull cover (A) down to expose bulbs.
2. Pull down on cover front disconnecting front clip (H).
3. Remove rear clips (F) by sliding cover toward cab center.
4. Unplug courtesy light connector (B).
5. Disconnect plug (D), courtesy light connector (B), and map light connector (E). Cover with bulb assembly is now free from cab roof.
6. Remove courtesy light bulb (C) from cover.
7. Install new bulb in cover.
8. Slide rear clips into roof.
9. Reconnect connectors (B and E), plug (D), then install rear clips before swinging cover front up and snapping front clip (H) into place.

A—Cover
B—Courtesy Light Connector
C—Courtesy Bulb
D—Plug
E—Map Light Connector
F—Rear clips
G—Edges of Cover
H—Front Clip



RXA0101058 —UN—19MAR09

Carefully Pull Cover Down



RXA0099147 —UN—18FEB09

RXA0099143 —UN—19SEP08

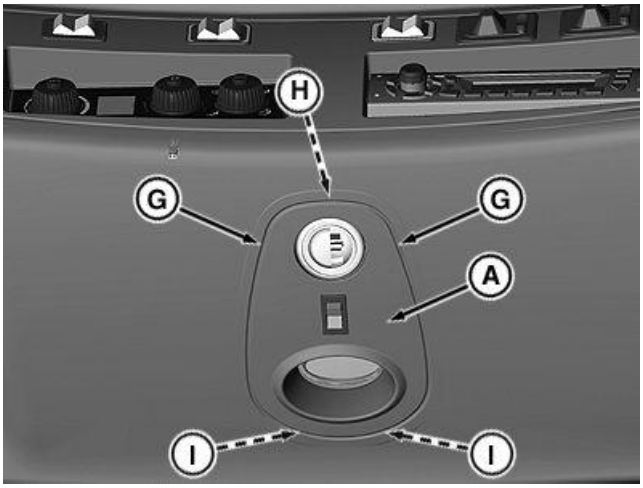
Remove Bulb From Retaining Ring

GH15097,0000545 -19-01MAY13-1/1

Replace Map Light Bulb

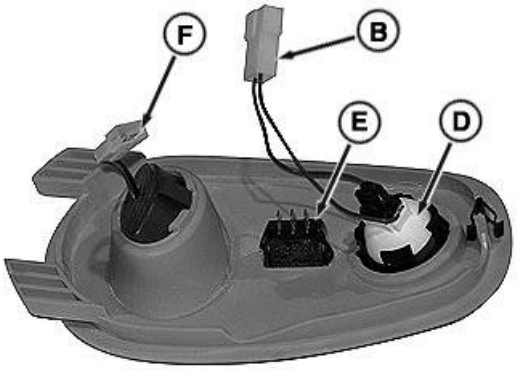
1. Carefully insert fingers under edges (G) of cover, then pull cover (A) down to expose bulbs.
2. Pull down on cover front disconnecting front clip (H).
3. Remove rear clips (I) by sliding cover toward cab center.
4. Disconnect plug (E), courtesy light connector (F), and map light connector (B). Cover with bulb assembly is now free from cab roof.
5. Remove bulb (D) from retaining ring (C).
6. Install new bulb in retaining ring.
7. Snap retaining ring with bulb into cover.
8. Slide rear clips into roof.
9. Reconnect connectors (B and F), plug (E), then install rear clips before swinging cover front up and snapping front clip into place.

A—Cover
B—Map Light Connector
C—Retaining Ring
D—Bulb
E—Plug
F—Courtesy Light Connector
G—Edges of Cover
H—Front Clip
I— Rear Clips

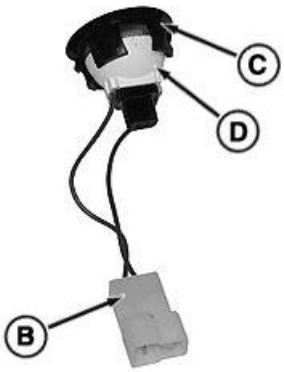


RXA0099148 —UN—18FEB09

Carefully Pull Cover Down



RXA0099146 —UN—18FEB09



RXA0099141 —UN—19SEP08

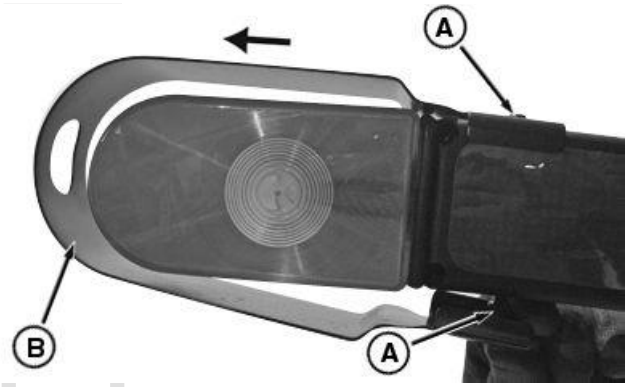
Remove Bulb From Retaining Ring

GH15097,0000546 -19-11JUN13-1/1

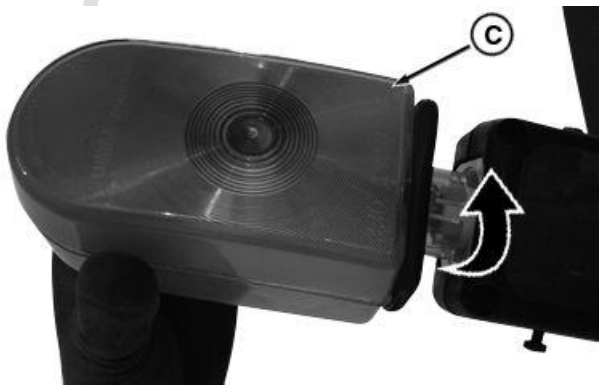
Replace Extremity Warning Light Bulb (If Equipped)

1. Loosen screws (A).
2. Slide shield (B) away from lens cover to remove.
3. Turn lens cover (C) counterclockwise to access light bulb.
4. Install new bulb (D) in reverse order of removal.

A—Screws
B—Shield
C—Lens Cover
D—Light Bulb



RXA0108609 —UN—29JUL10



RXA0108611 —UN—29JUL10

RXA0108613 —UN—29JUL10

TO84419,0000233 -19-01MAY13-1/1

Engine Troubleshooting

Symptom	Problem	Solution
Engine hard to start or will not start	Fuel pump not operating properly	Turn key on and listen for pumping noise to make sure fuel pump is working
	Incorrect starting procedure	Review starting procedure
	Blown fuse	Check fuse
	No fuel	Check fuel tank
	Air in fuel line	Bleed fuel line (Turn key to **RUN** for 60 seconds with engine off)
	Cold weather	Use cold weather starting aids
	Slow starter speed	See Starter Cranks Slowly
	Crankcase oil too heavy	Use correct oil viscosity
	Incorrect type of fuel	Consult fuel supplier. Use correct fuel type for operating conditions
	Water, dirt, or air in fuel system	Drain, flush, fill, and bleed system
	Clogged fuel filter	Replace filter elements
	Dirty or faulty injectors	Have your John Deere™ dealer check injectors
	Injection pump shutoff not reset	Turn key switch to OFF, then to ON
Engine knocks	Insufficient oil	Add oil
	During warm-up, pilot injection system will activate and deactivate depending on engine operating temperature	This is normal operation
	Low coolant temperature	Replace thermostats
	Engine overheating	See Engine Overheats
Engine runs irregularly or stalls frequently	Low coolant temperature	Replace thermostats
	Clogged fuel filters	Replace filter elements
	Water, dirt, or air in fuel system	Drain, flush, fill, and bleed system
	Vent on fuel tank obstructed	Clean vent under rear cab panel
	Dirty or faulty injectors	Have your John Deere™ dealer check injectors

Continued on next page

Symptom	Problem	Solution
Below normal engine temperature	Defective thermostat	Replace thermostats
	Defective temperature gauge or sender	See your John Deere™ dealer
Throttle does not allow full engine rpm	IVT™/AutoPowr™ Auto Shift (or Load Control) may not be set properly	See Operating IVT™/AutoPowr™ Transmission
	FieldCruise™ may be on and limiting max engine rpm	Check the settings for FieldCruise™ in the CommandCenter™. Make sure full rpm has been selected on display
	Cold oil can limit engine speed to 1500 rpm	Warm up transmission/hydraulic oil See your John Deere™ dealer if problem persists
Lack of power	Engine overloaded	Reduce load or shift to lower gear
	Low fast idle speed	Make sure FieldCruise™ is set to MAX rpm Make sure IVT™/AutoPowr™ is set correctly If problem persists, see your John Deere™ dealer
	Intake air restriction	Service air cleaner
	Clogged fuel filters	Replace fuel filter elements
	Incorrect type of fuel	Use correct fuel
	Overheated engine	See Engine Overheats
	Below normal engine temperature	Remove and check thermostat
	Incorrect valve clearance	See your John Deere™ dealer
	Dirty or faulty injectors	Have your John Deere™ dealer check injectors
	Turbocharger not functioning	See your John Deere™ dealer
	Leaking exhaust manifold gasket	See your John Deere™ dealer
	Implement incorrectly adjusted	See implement operator's manual
	Restricted fuel inlet	Clean or replace fuel line
	Incorrect ballast	Adjust ballast to load. See Performance Ballasting

Continued on next page

Symptom	Problem	Solution
Low oil pressure	Low oil level	Add oil
	Incorrect type of oil	Drain, fill crankcase with correct quality and viscosity of oil
High oil consumption	Crankcase oil too light	Use correct viscosity oil
	Oil leaks	Check for leaks in lines, around gaskets and drain plug
	Defective turbocharger	See your John Deere™ dealer
	Restricted engine breather tube	Unclog engine breather tube
Engine emits smoke	Incorrect type of fuel	Use correct fuel
	Clogged or dirty air cleaner	Service air cleaner
	Engine overloaded	Reduce load or shift to a low gear
	Injection nozzles dirty	See your John Deere™ dealer
	Turbocharger not functioning	See your John Deere™ dealer
Engine overheats	Dirty radiator core, oil cooler, or grille screens	Remove all trash and clean coolers
	Engine overloaded	Shift to lower gear or reduce load
	Low engine oil level	Check oil level. Add oil as required
	Low coolant level	Fill de-aeration tank to correct level, check radiator, and hoses for loose connections or leaks
	Faulty radiator cap	Replace radiator cap
	Loose or defective fan belt	Check and replace belt as needed
	Cooling system needs flushing	Flush cooling system
	Defective thermostat	Replace thermostat
	Defective temperature gauge or sender	See your John Deere™ dealer
High fuel consumption	Clogged or dirty air cleaner	Service air cleaner
	Engine overloaded	Reduce load or shift to lower gear
	Injection nozzles dirty	See your John Deere™ dealer

Continued on next page

Symptom	Problem	Solution
	Implement incorrectly adjusted	See implement operator's manual
	Excessive ballast	Adjust ballast to load. See Performance Ballasting

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TO84419,0000234 -19-27NOV12-4/4

Transmission Troubleshooting

Symptom	Problem	Solution
Transmission oil overheats	Low oil supply	Fill system with correct oil
	Excessive oil supply	Remove oil as needed
	Oil cooler air passages clogged	Clean oil coolers
	Clogged transmission/hydraulic oil filter	Replace filter
IVT™/AutoPowr™ transmission external vent leaks oil	Clogged scavenge pump screen	Clean screen
Transmission warning displays	Diagnostic trouble code has been stored	See PTI or PTQ codes in the Diagnostic Trouble Codes section
Low transmission oil pressure	Low oil supply	Fill system with correct oil
	Clogged transmission/hydraulic oil filter	Replace filter
Transmission shifts slowly and tractor steers hard	Cold oil	See Transmission/Hydraulic System Warm-Up in Operating the Tractor section
IVT™/AutoPowr™, e23™ or CommandQuad™ transmission starts out too fast/slow	No problem	Startup gear can be changed through the CommandCenter™ settings. See Adjusting Set Speeds.
		If problem persists, see your John Deere™ dealer

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TO84419,0000235 -19-04SEP13-1/1

Hydraulic System Troubleshooting

Symptom	Problem	Solution
Entire hydraulic system fails to function	Low oil supply	Check sight glass and fill system with correct oil
	Clogged transmission/hydraulic filter	Replace hydraulic filter
	Clogged hydraulic return screen	Clean screen
	Oil cooler air passages clogged	Clean oil cooler
	High-pressure internal leak	See your John Deere™ dealer
Hydraulic oil overheats	Low or high oil supply	Check sight glass and fill system with correct oil
	Oil cooler air passages clogged	Clean oil cooler
	Internal hydraulic leak	See your John Deere™ dealer
	Implement hydraulic load not matched to tractor or not properly routed back into tractor hydraulic system	See Remote Hydraulic Connections
	Mid-mount valve (If Equipped) flow and detent settings incorrect	Adjust settings. (See Hydraulics and Selective Control Valves section.)
	Clogged transmission/hydraulic oil filter	Replace filter

TO84419,0000236 -19-27NOV12-1/1

Hitch Troubleshooting

Symptom	Problem	Solution
Insufficient transport clearance	Center link too short	Adjust center link
	Center link in wrong position	Put center link of tractor in correct hole. See Hitch section.
	Lift links too short	Adjust lift links
	Implement not level	Level implement
	Implement not correctly adjusted	See implement operator's manual
	Upper height limit not correctly set	Adjust upper height limit in CommandCenter™
Hitch fails to follow lever	Malfunction in lever position sensor circuit or hitch position sensor	See your John Deere™ dealer
Poor position control	Load/depth mix control on wrong position	Adjust upper height limit in CommandCenter™
	System is reset	Enable system
	Malfunction in lever position sensor circuit or hitch position sensor	See your John Deere™ dealer
Hitch drops slowly	Hitch rate-of-drop not correctly set	Adjust rate-of-drop in CommandCenter™
Hitch fails to lift or lifts slowly	Excessive load on hitch	Reduce load
	Center link in wrong position	Put center link of tractor in correct hole. See Hitch section.
	Hitch valve leak	See your John Deere™ dealer
	Raise limit switch setting may be limiting lift	Check settings in CommandCenter™
Implement will not operate at desired depth	Lift links too short	Adjust lift links
	Lack of penetration	See implement operator's manual
	Draft sensor failed	See your John Deere™ dealer
Insufficient or no hitch response to draft load	Load/depth mix control in wrong position	Adjust load/depth mix in CommandCenter™
	System is reset	Enable system
	Rate-of-drop too slow	Adjust rate-of-drop in CommandCenter™

Continued on next page

Symptom	Problem	Solution
Hitch too responsive	Load/depth mix control not correctly set	Adjust load/depth mix in CommandCenter™
Hitch settles too fast after tractor is parked and engine shut off	Internal circuit leakage	See your John Deere™ dealer
Hitch will not move (controls not working, including rear raise/lower switches)	Fuse(s) blown	Replace fuses
External raise/lower switches will not move hitch	Failure of raise/lower switches, connector, or wiring harness	See your John Deere™ dealer
	Lever in transport lock	Move lever out of transport. Unlock hitch at CommandCenter™

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TO84419,0000237 -19-08AUG13-2/2

Selective Control Valve (SCV) Troubleshooting

Symptom	Problem	Solution
Remote cylinder will not lift load	Flow check	Cycle SCV levers
	Excessive load	Reduce load
	Hoses not completely installed	Attach hoses correctly
	Incorrect remote cylinder size	Use correct size cylinder
	SCV control lever lock engaged	Release SCV control lever lock
	Incorrect or damaged hose tips	Replace hose tips
Remote cylinder rate of travel too fast or too slow	Incorrect flow rate	Adjust flow rate on CommandCenter™
Direction of remote cylinder travel is reversed	Incorrect hose connections	Reverse hose connections
Hoses will not couple	Incorrect hose male connectors	Replace connectors with ISO standard connectors
Detent does not hold or releases too soon	Detent time set incorrectly	Set time correctly
	Pressure restriction with some implements	Reduce oil flow by changing metering valve setting
	Flow control or detent release setting incorrect	Adjust detent relief setting
SCV lever does not release	Float is being ”commanded”	Do not push lever down in forward position
	Lever mechanism failed	See your John Deere™ dealer
	Built in pressure leakage with some implements	Increase oil flow by changing metering valve setting
	Flow control or detent release setting incorrect	Adjust detent relief setting
Implement does not operate or does not operate correctly	Incorrect hose connections	Reverse hose connections
		See your John Deere™ dealer

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TO84419,0000238 -19-08AUG13-1/1

TouchSet Depth Control Troubleshooting

Symptom	Problem	Solution
Depth control does not function correctly	Implement transport lock-up valve closed	Open valve
	Cylinders not ”rephased” (synchronized)	”Rephase” (synchronize) cylinders
		IMPORTANT: Be sure all air is bled from depth control system
	Machine operating at different depths	Work on softer ground and/or in normal operating conditions
		See implement operator's manual
	Cylinder leakage	Check for leakage
		Repair or replace cylinders; see your John Deere™ dealer
	Insufficient tractor hydraulic pressure	Check tractor hydraulic pressure; use correct size cylinders for tractor pressure
	Hydraulic hoses not connected correctly	Reconnect correctly

TO84419,0000239 -19-26MAR13-1/1

Electrical System Troubleshooting

Symptom	Problem	Solution
Voltage indicator displayed when there is low battery voltage (key ON and engine OFF)	Defective battery	Check electrolyte level and specific gravity
	Low charging voltage	Have your John Deere™ dealer check charging circuit
	High resistance in charging circuit	Have your John Deere™ dealer check charging circuit
	Indicator malfunction	Have your John Deere™ dealer check indicator
Voltage symbol displayed and service alert indicator flashing indicating low charging voltage (engine running)	Low engine speed	Increase speed
	Alternator belt slipping, alternator not charging	Check belt tension
	Defective battery	Check electrolyte level and specific gravity
	Defective alternator	Have your John Deere™ dealer check alternator
	Excessive electrical load	Decrease load
Voltage symbol displayed and service alert indicators flashing indicating excessive charging voltage	Faulty connection to alternator	Check wiring connections
	Defective regulator	Have your John Deere™ dealer check alternator
Chirping noise from side console	Noise is normal	7R series tractors use solid-state electronic drivers instead of relays to control turn signal lights. The tractor warning system provides a turn signal indicator beep replacing the relay clicking noise.
Batteries will not charge	Loose or corroded connections	Clean and tighten connections
	Sulfated or worn-out batteries	Check electrolyte level and specific gravity
	Loose or defective alternator belt	Adjust belt tension or replace belt
Starter inoperative	Transmission in gear	Place transmission in PARK
	Faulty neutral start switch or starter solenoid malfunction	See your John Deere™ dealer
	Loose or corroded connections	Clean and tighten loose connections

Continued on next page

Symptom	Problem	Solution
	Low battery output	See your John Deere™ dealer
	Blown fuse	Replace fuse
Starter turns over slowly	Low battery output	Check electrolyte level and specific gravity
	Crankcase oil too heavy	Use correct viscosity oil
	Loose or corroded connections	Clean and tighten loose connections
Light system does not function; rest of electrical system functions	Blown fuse	Replace fuse
Entire electrical system does not function	Faulty battery connection	Clean and tighten connections
	Sulfated or worn out batteries	Check electrolyte level and specific gravity
	Blown master fuse	Replace master fuse
Blower malfunctioning	Blower does not work	Check for stored codes, total cab electrical load may be exceeding solid-state load center capacity
	Blown fuse	Replace fuse
Blower operates only in PURGE	Blown blower resistance assembly	See your John Deere™ dealer

TO84419,000023A -19-04SEP13-2/2

Operator Enclosure Troubleshooting

Symptom	Problem	Solution
Blower not keeping dust out of operator enclosure	Defective seal around filter element	Check seal condition
		Check filter for correct installation
	Defective filter	Replace filter
	Excessive air leak	Seal air leaks
	Blower air flow too low	See Blower Air Flow Too Low
Blower air flow too low	Clogged filter or air intake screen	Clean
	Heater core or evaporator core clogged	Clean
Heater will not shut off	Heater hoses connected incorrectly	See your John Deere™ dealer
Cab pressure indicator reads low	Blower switch off	Turn switch on
	Blower speed too low	Use higher blower speed
	Door or window not latched	Latch door or window
	Restricted fresh air filter	Clean or replace filter
	Damaged door or window seal	Replace damaged seals
	Loss of seal around evaporator housing, hoses, refrigerant lines, control linkage, wires, etc.	Seal any openings
Air conditioner not cooling	Low voltage	See your John Deere™ dealer
	Low refrigerant	See your John Deere™ dealer
	Belt slipping	Check belt tension
	Heater on	Turn heater to off position.
	Compressor stuck	Rock compressor pulley back and forth
Intermittent cooling	Air restriction	Clean side screens, radiator and oil cooler/condenser.
Water leaking from under seat	Plugged air conditioning condensate drain hoses	Clean drain hoses
	Heater hoses leaking	Replace heater hoses
Seat suspension sticking	Foreign objects under seat	Keep area under seat completely clear

Continued on next page

Symptom	Problem	Solution
Seat suspension not working	Blown fuse	Replace fuse
Radio does not function	Blown fuse	Replace fuse

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TO84419,000023B -19-27NOV12-2/2

Tractor Operation Troubleshooting

Symptom	Problem	Solution
Tractor bounces or jumps	Power hop/wheel hop	See Controlling Wheel Hop in the Performance Ballasting section
		Check weight split
		Check ballast
		Check inflation pressures
		See your John Deere™ dealer

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TO84419,000023C -19-27NOV12-1/1

Premium Radio Troubleshooting

Symptom	Problem	Solution
"NO CD" displayed	CD will not play	No CD has been loaded in the player
"NO PLAYABLE DISC" displayed	No playable files on media	Change media
"NO MUSIC FILES" displayed	No playable files on media	Include music files to media
"Front AUX UNPLUGGED" displayed	No Front Aux connected while iPod connected	Connect front Aux cable
"iPod NOT SUPPORTED" displayed	iPod connected not supported	Disconnect iPod
"USB NOT SUPPORTED" displayed	USB connected not supported	Disconnect USB
Bad sound quality, skipping, difficulty in finding tracks, and/or difficulty in loading or ejecting	CD-R may be affected by a CD-R's quality, the method of recording, the *quality* of the music that has been recorded or the way the CD-R has been handled.	Play CD you know is good to see if error corrects itself. If an error occurs repeatedly or if an error cannot be corrected, contact your dealer. If radio displays an error message, write it down and provide it to dealer when reporting problem.

TO84419,000023D -19-25MAR13-1/1

STOP, Service Alert, and Information Indicators

NOTE: All STOP, Service Alert, and Information Indicators are accompanied by an informative message, diagnostic trouble code, and/or fault description shown on CommandCenter™.

STOP Indicator (A): Light flashes and alarm sounds continuously. A serious malfunction has occurred, requiring immediate attention or the tractor will be damaged. Control unit (B), diagnostic trouble code (C) , system (D) and solution (E) are identified on CommandCenter™. When control unit detects a malfunction or condition "out of range", a diagnostic trouble code containing the control unit followed by an industry standard number are displayed. Numbers to the left of the decimal indicate the malfunction and numbers to the right of decimal indicate the condition.

IMPORTANT: Engine will shut down automatically if STOP signal is received when operator is out of the seat for longer than 3 seconds and the transmission control is in PARK. CommandCenter™ display can be reset by cycling key switch.

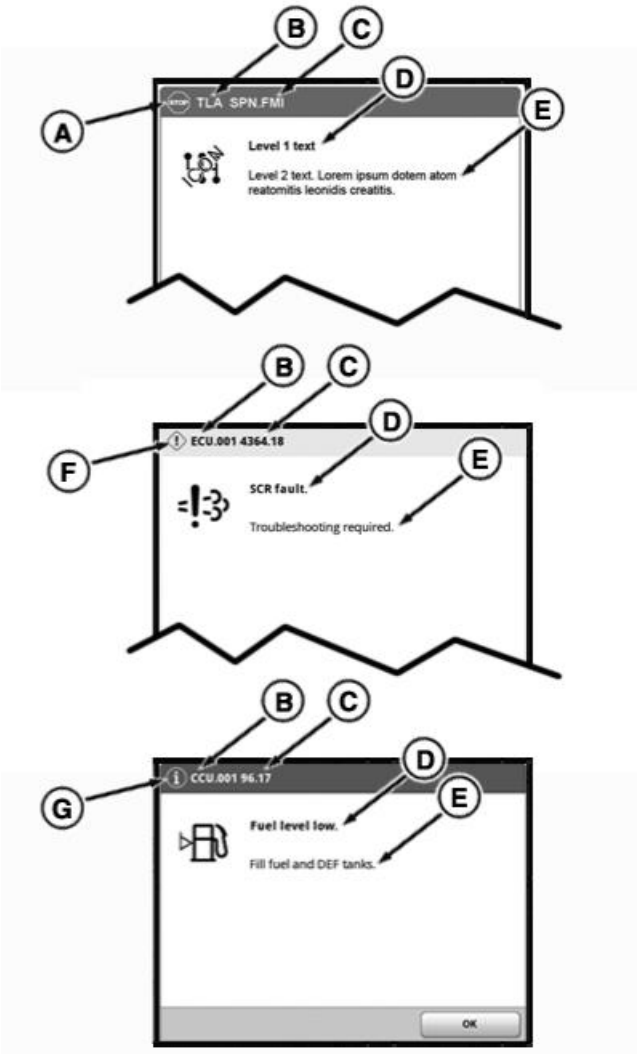
If situation allows to stop operations immediately, reduce engine speed to idle, then shut down engine and turn key ON to observe CommandCenter™ display for problem identification and solution. It may be necessary to access the stored codes, see Using Diagnostics, Stored Codes and CAN Statistics. Correct problem before restarting.

Follow solution on CommandCenter™ or if situation cannot be corrected contact your John Deere™ dealer.

When either a Service Alert or Information Indicator is displayed, place tractor in park and shut off engine.

Service Alert Indicator (F): Light flashes and alarm sounds five times indicating a performance or operational problem has been detected, which must be resolved as soon as possible. Continued operations can cause a Service Alert to escalate into a STOP indicator. If appropriate corrective action is not taken soon (serviced, repaired, operated in a different manner), a significant reduction in performance and/or damage to machine will occur.

Information (INFO) Indicator (G): Light comes on continuously and alarm sounds for 2 seconds, indicating a fault condition. Tractor operations can continue without damage; but, performance of some functions may be degraded. Operating in a different manner may correct and clear out of range condition. Some Service Alerts and Information Indicators can be "acknowledged" and cleared by pressing CommandARM™ Controls Confirm button. If condition still exists, diagnostic trouble code may reappear later. Restart engine to verify active diagnostic trouble code still exists before contacting your John Deere™ dealer.



RXA0133357 —UN—26JUL13

Diagnostic Trouble Codes

A—STOP Indicator
B—Control Unit
C—Diagnostic Trouble Code
D—System
E—Solution
F—Service Alert Indicator
G—Information Indicator

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TO84419,000023E -19-25AUG13-1/1

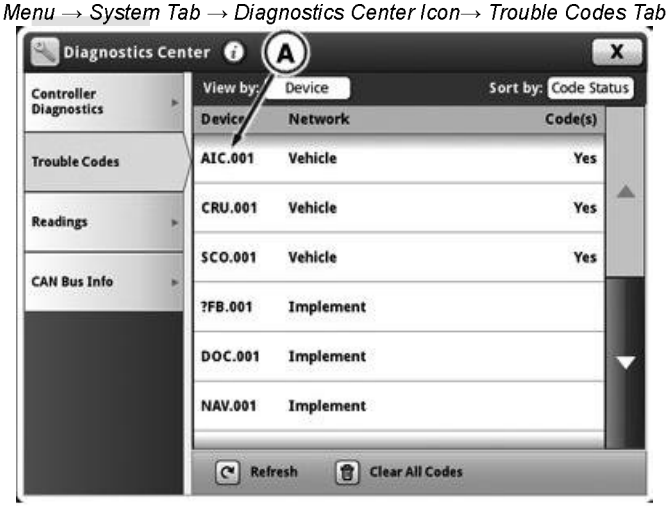
Accessing Diagnostic Trouble Codes

1. Select **Menu.**
2. Select **System tab.**
3. **Diagnostics Center icon**
4. Select **Trouble Codes tab.**
5. Select control unit (A) desired.
6. Select diagnostic code (B) for code display.

A—Control Unit **B—Diagnostic Code**

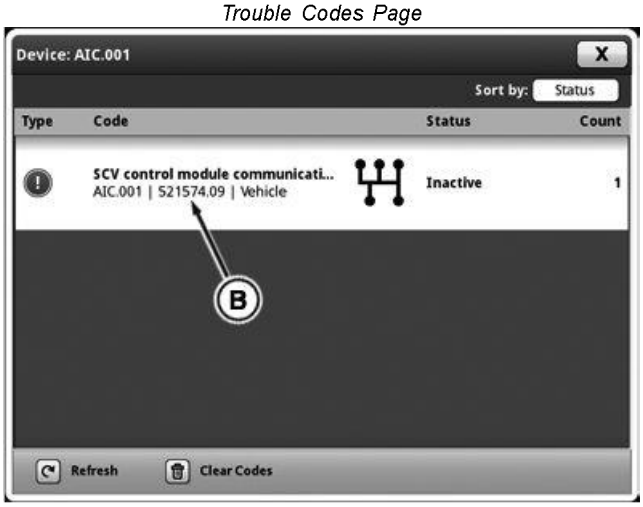
RXA0133360 —UN—26JUL13

Menu → System Tab → Diagnostics Center Icon→ Trouble Codes Tab



RXA0133359 —UN—26JUL13

Trouble Codes Page



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Diagnostic Trouble Code

TO84419,000023F -19-26JUL13-1/1

Armrest Interface Control Unit (AIC) Diagnostic Trouble Codes

Although diagnostic codes listed below are not a complete list of diagnostic trouble codes, they do reflect codes which may be observed while operating tractor and have corrective action operator can take. Many codes which appear may be corrected simply by cycling key switch or by following the solution on CommandCenter™ page, then cycling key switch.

If corrective action cannot be taken after cycling power to tractor or if there are any questions, contact your John Deere™ dealer.

Diagnostic Trouble Code	System	Solution
AIC 000158.04	Electrical System	Armrest switched supply voltage low. Reduce electrical load or increase engine rpm to attempt vehicle recovery.
AIC 000628.12	Electrical System	Control unit in programming mode.
AIC 000629.12	Electrical System	Restart engine to attempt recovery
AIC 000639.12	Electrical System	Restart engine to attempt recovery
AIC 520285.02	Operator Controls	Rear Hitch Lock Switch fault. Put switch to center position to attempt system recovery.
AIC 520285.03	Operator Controls	Rear Hitch Lock Switch voltage fault. Set switch to un-pressed position to attempt system recovery.
AIC 520285.11	Operator Controls	Rear Hitch Lock Switch stuck fault. Set switch to center position to attempt system recovery.
AIC 520286.02	Operator Controls	Rear Hitch Lower set point switch fault. Put switch to center position to attempt system recovery.
AIC 520286.04	Operator Controls	Rear Hitch lower set point switch voltage fault. Set switch to un-pressed position to attempt system recovery.
AIC 520286.11	Operator Controls	Rear hitch lower set point switch stuck fault. Set switch to center position to attempt system recovery.
AIC 520870.02	Operator Controls	Configuration data fault and reset to factory default.
AIC 520871.02	Operator Controls	Configuration data fault and reset to factory default.
AIC 520872.02	Operator Controls	Configuration data fault and reset to factory default.
AIC 521128.02	Operator Controls	Range switch CDE circuit fault. Switch disabled.
AIC 521128.08	Operator Controls	Range switch CDE stuck fault. Set switch to unpressed position to attempt system recovery.
AIC 521132.02	Operator Controls	Range switch C circuit fault. Switch disabled.
AIC 521132.08	Operator Controls	Range switch C stuck fault. Set switch to unpressed position to attempt system recovery.
AIC 521133.02	Operator Controls	Range switch B circuit fault. Switch disabled.
AIC 521133.08	Operator Controls	Range switch B stuck fault. Set switch to unpressed position to attempt system recovery.
AIC 521136.02	Operator Controls	Range switch A circuit fault. Switch disabled.
AIC 521136.08	Operator Controls	Range switch A stuck fault. Set switch to unpressed position to attempt system recovery.
AIC 521422.02	Operator Controls	Rear hitch position control fault. Rotate control to attempt recovery.
AIC 522189.02	Operator Controls	iTEC sequence switch 3/4 circuit fault. Switch disabled.
AIC 522546.02	Operator Controls	Upshift/downshift switch circuit fault. Switch disabled
AIC 523349.02	Operator Controls	AutoTrac resume switch voltage fault. Set switch to un-pressed position to attempt system recovery.
AIC 523349.09	Operator Controls	AutoTrac resume switch voltage fault. Set switch to un-pressed position to attempt system recovery.
AIC 523670.02	Operator Controls	Drive lever circuit fault. Ground speed lever disabled.
AIC 523670.11	Operator Controls	Drive lever stuck fault. Set lever to neutral position to attempt system recovery.
AIC 523671.02	Operator Controls	Driver lever speed band switch fault. Return to park and restart engine to attempt recovery.
AIC 523776.02	Operator Controls	Transport Lock switch stuck fault. Set switch to un-pressed position to attempt system recovery.
AIC 523923.02	Operator Controls	SCV I control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 523923.04	Operator Controls	SCV I control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 523953.02	Operator Controls	IVT speed control lever sensor circuit fault. Return vehicle to Park to attempt vehicle recovery.
AIC 523953.03	Operator Controls	IVT speed control lever sensor circuit voltage high. Return vehicle to Park to attempt vehicle recovery.
AIC 523953.04	Operator Controls	IVT speed control lever sensor circuit voltage low. Return vehicle to Park to attempt vehicle recovery.
AIC 524019.31	Operator Controls	Ground speed control lever position fault. Return to Park position to attempt system recovery.
AIC 524020.31	Operator Controls	Reverser lever out of park. Return to park and restart engine to attempt recovery.

Continued on next page

Diagnostic Trouble Code	System	Solution
AIC 524021.31	Operator Controls	Reverse drive lever switch fault. Lever disabled.
AIC 524096.02	Operator Controls	Hand throttle voltage fault. Hand throttle disabled.
AIC 524096.03	Operator Controls	Hand throttle voltage fault. Hand throttle disabled.
AIC 524096.04	Operator Controls	Hand throttle voltage fault. Hand throttle disabled.
AIC 524101.02	Operator Controls	SCV VI control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 524101.03	Operator Controls	SCV VI control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 524101.04	Operator Controls	SCV VI control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 524102.02	Operator Controls	SCV V control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 524102.03	Operator Controls	SCV V control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 524102.04	Operator Controls	SCV V control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 524103.02	Operator Controls	SCV IV control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 524103.03	Operator Controls	SCV IV control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 524103.04	Operator Controls	SCV IV control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 524104.02	Operator Controls	SCV III control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 524104.03	Operator Controls	SCV III control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 524104.04	Operator Controls	SCV III control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 524105.02	Operator Controls	SCV II control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 524105.03	Operator Controls	SCV II control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 524105.04	Operator Controls	SCV II control lever sensor voltage fault. Set lever to neutral position to attempt system recovery.
AIC 524212.02	Operator Controls	Rear hitch switches (raise or lower) stuck fault. Set switch to un-pressed position to attempt system recovery.

TO84419,0000240 -19-02APR13-2/2

ActiveSeat™ Control Unit (ASU) Diagnostic Trouble Codes

Although diagnostic codes listed below are not a complete list of diagnostic trouble codes, they do reflect codes which may be observed while operating tractor and have corrective action operator can take. Many codes which appear may be corrected simply by cycling key switch or by following the solution on CommandCenter™ page, then cycling key switch.

If corrective action cannot be taken after cycling power to tractor or if there are any questions, contact your John Deere™ dealer.

Diagnostic Trouble Code	System	Solution
ASU 000628.12	Electrical System	ActiveSeat control unit programming. System disabled.
ASU 524010.31	Electrical System	ActiveSeat raise and lower solenoid circuit fault. Restart engine to attempt recovery.

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TO84419,0000241 -19-02APR13-1/1

Automatic Temperature Control Unit (ATC) Diagnostic Trouble Codes

Although diagnostic codes listed below are not a complete list of diagnostic trouble codes, they do reflect codes which may be observed while operating tractor and have corrective action operator can take. Many codes which appear may be corrected simply by cycling key switch or by following solution on CommandCenter page, then cycling key switch.

If corrective action cannot be taken after cycling power to tractor or if there are any questions, contact your John Deere dealer.

Diagnostic Trouble Code	System	Solution
ATC 000628.12	HVAC System	Control unit programming. System disabled.
ATC 000639.14	HVAC System	Restart engine to attempt vehicle recovery.
ATC 520870.02	HVAC System	Configuration data fault and reset to factory default.
ATC 520871.02	HVAC System	Configuration data fault and reset to factory default.
ATC 520872.02	HVAC System	Configuration data fault and reset to factory default.
ATC 523848.07	HVAC System	Air flow mode motor restricted motion. Cycle mode switch to attempt recovery.
ATC 524219.02	HVAC System	Defog sensor fault. Automatic function disabled. Use manual mode.

TO84419,0000242 -19-14JUN13-1/1

Brake Control Unit (BRC) Diagnostic Trouble Codes

Although diagnostic codes listed below are not a complete list of diagnostic trouble codes, they do reflect codes which may be observed while operating the tractor and have corrective action operator can take. Many codes which appear may be corrected simply by cycling key switch or by following solution on CommandCenter™ page, then cycling key switch.

If corrective action cannot be taken after cycling power to tractor or if there are any questions, contact your John Deere™ dealer.

Diagnostic Trouble Code	System	Solution
BRC 000158.04	Brake System	Control unit switched supply voltage low. Reduce electrical load or increase engine rpm to attempt vehicle recovery.
BRC 000628.12	Electrical System	Control unit in programming mode.
BRC 002602.18	Hydraulic System	Hydraulic oil level low. Check oil level according to Operator's Manual procedure.
BRC 523841.31	Secondary Brake System	Secondary brake position fault. Return to Park. Cycle secondary brake lever. Restart engine to attempt vehicle recovery.
BRC 524088.31	Brake System	Brake cooling cycle fault. Restart engine and cycle the brake pedal to attempt vehicle recovery.

TO84419,0000243 -19-27NOV12-1/1

Chassis Control Unit (CCU) Diagnostic Trouble Codes

Although diagnostic codes listed below are not a complete list of diagnostic trouble codes, they do reflect codes which may be observed while operating tractor and have corrective action operator can take. Many codes which appear may be corrected simply by cycling key switch or by following solution on CommandCenter page, then cycling key switch.

If corrective action cannot be taken after cycling power to tractor or if there are any questions, contact your John Deere dealer.

Diagnostic Trouble Code	System	Solution
CCU 000096.03	Fuel System	Low fuel level. Fuel vehicle.
CCU 000096.17	Fuel System	Fuel level low. Fill fuel and DEF tanks.
CCU 000107.00	Engine System	Engine air filter restricted. Engine power limited. Replace engine air filter.
CCU 000126.00	Transmission System	Transmission oil filter restricted. Replace transmission oil filter.
CCU 000126.15	Transmission System	Transmission oil filter restricted. Replace transmission filters. Continued operation may limit operation.
CCU 000126.16	Transmission System	Replace transmission oil filter.
CCU 000237.12	Identification System	Vehicle identification numbers do not match between control units. Tractor with restricted function. Restart engine to attempt vehicle recovery.
CCU 000628.12	Electrical System	Control unit in programming mode.
CCU 001069.02	Tires	Tire size incorrect. Vehicle speed restricted.
CCU 001086.03	Trailer Brake System	Air trailer brake pressure sensor circuit fault. Place lever in park to attempt recovery.
CCU 001086.18	Trailer Brake System	Insufficient pressure to deactivate air brakes. Allow pressure to increase. Drain moisture from system.
CCU 001638.00	Hydraulic System	Temperature high. Reduce load. Check cooling system for debris.
CCU 001638.16	Hydraulic System	Hydraulic oil temperature out of specified operation range. Check cooling system for debris. Check hydraulic oil level.
CCU 001713.00	Hydraulic System	Hydraulic oil filter restricted. Replace hydraulic filters.
CCU 002602.01	Hydraulic System	Hydraulic oil level extremely low. Inspect for obvious signs of hydraulic leaks. Check hydraulic level.
CCU 003359.16	Transmission System	Transmission oil filter restricted. Replace transmission oil filter.
CCU 521891.16	Hydraulic System	Axle lubrication oil filter restricted. Replace oil filter.
CCU 522517.14	Drivetrain System	Driveline oscillation detected. Reduce load or slip to prevent damage.
CCU 522847.03	Trailer Brake System	Air trailer brake valve solenoid circuit fault. Place lever in park to attempt recovery.
CCU 523916.00	Hydraulic System	Hydraulic oil filter restriction. Replace hydraulic filter.
CCU 523916.15	Hydraulic System	Hydraulic oil filter restriction. Operation may be limited. Replace hydraulic filter.
CCU 523916.16	Hydraulic System	Hydraulic oil filter restriction. Engine speed limited. Replace hydraulic filter.
CCU 524191.03	Trailer Brake System	Solenoid valve circuit fault. System disengaged.
CCU 524191.05	Trailer Brake System	Solenoid valve circuit fault. System disengaged.
CCU 524191.06	Trailer Brake System	Solenoid valve circuit fault. System disengaged.
CCU 524235.03	Trailer Brake System	MFWD valve solenoid circuit fault. MFWD is engaged. Cycle switch to attempt recovery.

TO84419,0000244 -19-14JUN13-1/1

Cab Load Center Control Unit (CLC) Diagnostic Trouble Codes

Although diagnostic codes listed below are not a complete list of diagnostic trouble codes, they do reflect codes which may be observed while operating tractor and have corrective action operator can take. Many codes which appear may be corrected simply by cycling key switch or by following solution on CommandCenter™ page, then cycling key switch.

If corrective action cannot be taken after cycling power to tractor or if there are any questions, contact your John Deere™ dealer.

Diagnostic Trouble Code	System	Solution
CLC 000444.06	Lighting System	Roof circuit overload. Some lights disabled. Reduce electrical load.
CLC 000630.13	Electrical System	Cab load center control unit fault. Replace control unit.
CLC 000639.14	Electrical System	CAN Bus overload
CLC 002368.05	Lighting System	Left turn signal circuit fault. Check bulb.
CLC 002370.05	Lighting System	Right turn signal circuit fault. Check bulb.
CLC 002372.05	Lighting System	Brake light circuit fault. Check bulb.
CLC 002378.05	Lighting System	Tail light circuit fault. Check bulb.
CLC 520870.02	Electrical System	Cab control unit configuration data incorrect and reset to factory default. System with restricted function.
CLC 521545.05	Lighting System	Left rear inner work light circuit fault. Check bulb.
CLC 521546.05	Lighting System	Left rear outer work light circuit fault. Check bulb.
CLC 521563.05	Lighting System	Right rear inner work light circuit fault. Check bulb.
CLC 521564.05	Lighting System	Right rear outer work light circuit fault. Check bulb.
CLC 524259.00	Electrical System	Cab control unit temperature too high. Reduce electrical load and switch off engine to cool down.
CLC 524259.16	Electrical System	Cab control unit temperature high. Reduce electrical load.

TO84419,0000245 -19-02APR13-1/1

Cab Roof Control Unit (CRU) Diagnostic Trouble Codes

Although diagnostic codes listed below are not a complete list of diagnostic trouble codes, they do reflect codes which may be observed while operating tractor and have corrective action operator can take. Many codes which appear may be corrected simply by cycling key switch or by following solution on CommandCenter™ page, then cycling key switch.

If corrective action cannot be taken after cycling power to tractor or if there are any questions, contact your John Deere™ dealer.

Diagnostic Trouble Code	System	Solution
CRU 002850.03	Cab Control System	Antenna circuit fault. Check antenna connection.
CRU 002850.05	Cab Control System	Antenna circuit fault. Check antenna connection.
CRU 002850.06	Cab Control System	Antenna circuit fault. Check antenna connection.
CRU 524259.00	Cab Control System	CD drive temperature high. Turn off radio and allow to cool.
CRU 524259.31	Cab Control System	Amplifier temperature high. Turn off radio and allow to cool.

SV81855,0000016 -19-02APR13-1/1

Cab Suspension Control Unit (CSC) Diagnostic Trouble Codes

Although diagnostic codes listed below are not a complete list of diagnostic trouble codes, they do reflect codes which may be observed while operating tractor and have corrective action operator can take. Many codes which appear may be corrected simply by cycling key switch or by following solution on CommandCenter page, then cycling key switch.

If corrective action cannot be taken after cycling power to tractor or if there are any questions, contact your John Deere dealer.

Diagnostic Trouble Code	System	Solution
CSC 000084.15	Cab Suspension System	Cab suspension calibration fault. Stop tractor. Repeat calibration.
CSC 000190.17	Cab Suspension System	Cab suspension calibration fault. Increase engine speed. Repeat calibration.
CSC 520870.02	Cab Suspension System	Cab suspension control unit fault. Configuration data reset to default.
CSC 520870.13	Cab Suspension System	Cab suspension fault. Check setting.
CSC 520871.02	Cab Suspension System	Operating mode reset to default. Check setting.
CSC 520871.13	Cab Suspension System	Operating mode reset to default. Check setting.
CSC 523666.04	Cab Suspension System	Control unit supply voltage low. Function disabled. Reduce electrical load or increase engine speed to attempt vehicle recovery.
CSC 523973.18	Cab Suspension System	Cab suspension position sensor fault. Repeat bleeding.

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Cab Switch Module (CSM) Diagnostic Trouble Codes

Although diagnostic codes listed below are not a complete list of diagnostic trouble codes, they do reflect codes which may be observed while operating tractor and have corrective action operator can take. Many codes which appear may be corrected simply by cycling key switch or by following solution on CommandCenter™ page, then cycling key switch.

If corrective action cannot be taken after cycling power to tractor or if there are any questions, contact your John Deere™ dealer.

Diagnostic Trouble Code	System	Solution
CSM 000628.12	Electrical System	Cab switch module control unit programming in progress. System disabled.
CSM 000630.02	Electrical System	Cab switch module calibration data reset to factory default.
CSM 521160.02	Operator Controls	Switch module radio volume decrease button fault. Use controls on radio.
CSM 521161.02	Operator Controls	Switch module radio volume increase button fault. Use controls on radio.
CSM 521162.02	Operator Controls	Switch module radio previous button fault. Use controls on radio.
CSM 521163.02	Operator Controls	Switch module radio next button fault. Use controls on radio.
CSM 521164.02	Operator Controls	HVAC fan speed increase button fault. Press button to attempt recovery.
CSM 521165.02	Operator Controls	Switch module radio mute button fault. Use controls on radio.
CSM 521166.02	Operator Controls	HVAC temperature increase button fault. Press button to attempt recovery.
CSM 521167.02	Operator Controls	HVAC fan speed decrease button fault. Press button to attempt recovery.
CSM 521168.02	Operator Controls	HVAC air flow mode button fault. Press button to attempt recovery.
CSM 521169.02	Operator Controls	HVAC temperature decrease button fault. Press button to attempt recovery.
CSM 521856.02	Operator Controls	Navigation bar X button fault. Press button to attempt recovery.
CSM 522558.02	Operator Controls	Differential lock button fault. Press button to attempt recovery.
CSM 522559.02	Operator Controls	Differential lock auto button fault. Press button to attempt recovery.
CSM 522560.02	Operator Controls	Beacon light button fault. Press and release button to attempt recovery.
CSM 522563.02	Operator Controls	Field light button fault. Press and release button to attempt recovery.
CSM 522564.02	Operator Controls	ISOBUS button fault. Press and release button to attempt recovery.
CSM 522565.02	Operator Controls	SCV lock switch fault. Press and release switch to attempt recovery.
CSM 522566.02	Operator Controls	Front-wheel drive on switch fault. Press and release button to attempt recovery.
CSM 522567.02	Operator Controls	Front-wheel drive auto switch fault. Press and release button to attempt recovery.
CSM 522568.02	Operator Controls	Navigation bar button 15 circuit fault. Press and release button to attempt recovery.
CSM 522569.02	Operator Controls	Navigation bar button 16 circuit fault. Press and release button to attempt recovery.
CSM 522570.02	Operator Controls	Navigation bar button 13 circuit fault. Press and release button to attempt recovery.
CSM 522571.02	Operator Controls	Navigation bar button 14 circuit fault. Press and release button to attempt recovery.
CSM 522572.02	Operator Controls	Navigation bar button 11 circuit fault. Press and release button to attempt recovery.
CSM 522573.02	Operator Controls	Navigation bar button 12 circuit fault. Press and release button to attempt recovery.
CSM 522574.02	Operator Controls	Navigation bar button 9 circuit fault. Press and release button to attempt recovery.
CSM 522575.02	Operator Controls	Navigation bar button 10 circuit fault. Press and release button to attempt recovery.
CSM 522576.02	Operator Controls	Navigation bar button 5 circuit fault. Press and release button to attempt recovery.
CSM 522577.02	Operator Controls	Navigation bar button 6 circuit fault. Press and release button to attempt recovery.
CSM 522578.02	Operator Controls	Navigation bar button 3 circuit fault. Press and release button to attempt recovery.
CSM 522579.02	Operator Controls	Navigation bar button 4 circuit fault. Press and release button to attempt recovery.
CSM 522580.02	Operator Controls	Navigation bar button 1 circuit fault. Press and release button to attempt recovery.
CSM 522581.02	Operator Controls	Navigation bar button 2 circuit fault. Press and release button to attempt recovery.

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Engine Control Unit (ECU) Diagnostic Trouble Codes

Although diagnostic codes listed below are not a complete list of diagnostic trouble codes, they do reflect codes which may be observed while operating tractor and have corrective action operator can take. Many codes which appear may be corrected simply by cycling key switch or by following solution on CommandCenter page, then cycling key switch.

If corrective action cannot be taken after cycling power to tractor or if there are any questions, contact your John Deere dealer.

Diagnostic Trouble Code	System	Solution
ECU 000027.03	Engine System	EGR sensor circuit fault. Engine power limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 000027.04	Engine System	EGR sensor circuit fault. Engine power limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 000027.07	Engine System	EGR valve not responding or out of adjustment. Engine power limited.
ECU 000051.03	Engine System	Air Throttle valve position sensor circuit fault. Engine power limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 000051.04	Engine System	Air Throttle valve position sensor circuit fault. Engine power limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 000051.07	Engine System	Air throttle valve not responding or out of adjustment Engine power limited.
ECU 000051.14	Engine System	EGR system fault. Engine power limited.
ECU 000094.17	Engine System	Fuel pressure low. Check fuel supply and filters.
ECU 000094.18	Engine System	Fuel pressure low. Engine power limited. Check fuel supply and filters.
ECU 000097.16	Engine System	Water Separator full. Engine power limited. Drain Water Separator.
ECU 000100.01	Engine System	Oil pressure low. Engine power limited. Check engine oil level.
ECU 000100.02	Engine System	Oil pressure detected at zero engine speed.
ECU 000100.18	Engine System	Oil pressure low. Engine power limited. Check engine oil level.
ECU 000101.00	Engine System	Crankcase pressure extremely high. Engine power limited. Check open crankcase ventilation filter.
ECU 000101.16	Engine System	Crankcase pressure very high. Check open crankcase ventilation filter..
ECU 000102.03	Engine System	Boost pressure sensor circuit fault. Engine power limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 000102.04	Engine System	Boost pressure sensor circuit fault. Engine power limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 000102.07	Engine System	Boost pressure sensor fault. Engine power limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 000103.00	Engine System	Turbocharger speed high. Engine power limited. Reduce engine speed and load.
ECU 000105.00	Engine System	Intake Manifold air temperature extremely high. Engine power limited. Reduce engine speed and load. Check cooling system for debris.
ECU 000105.03	Engine System	Intake manifold air temperature sensor circuit fault. Engine power limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 000105.04	Engine System	Intake manifold air temperature sensor circuit fault. Engine power limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 000105.15	Engine System	Intake Manifold air temperature high. Reduce engine speed and load. Check cooling system for debris.
ECU 000105.16	Engine System	Intake Manifold air temperature high. Engine power limited. Reduce engine speed and load. Check cooling system for debris.
ECU 000107.00	Engine System	Engine Air Filter is restricted. Engine power limited. Clean or replace air filter.
ECU 000107.15	Engine System	Engine Air Filter is restricted. Clean or replace air filter.
ECU 000107.16	Engine System	Engine Air Filter is restricted. Engine power limited. Clean or replace air filter.
ECU 000109.01	Engine System	Coolant pressure extremely low. Engine power limited. Check coolant level per operator's manual.
ECU 000109.17	Engine System	Cooland pressure low. Engine power limited. Check coolant level per operator's manual.
ECU 000109.18	Engine System	Coolant pressure low. Engine power limited. Check coolant level per operator's manual.
ECU 000109.31	Engine System	Coolant pressure low. Check coolant level per operator's manual..
ECU 000110.00	Engine System	Engine coolant temperature extremely high. Engine power limited. Reduce engine speed and load. Check cooling system for debris.
ECU 000110.15	Engine System	Engine coolant temperature high. Reduce engine speed and load. Check cooling system for debris.

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Diagnostic Trouble Code	System	Solution
ECU 000110.16	Engine System	Engine coolant temperature very high. Engine power limited. Reduce engine speed and load. Check cooling system for debris.
ECU 000110.17	Engine System	Engine coolant temperature Low. Check thermostat.
ECU 000111.01	Engine System	Coolant level extremely low. Engine power limited. Add coolant per operator's manual.
ECU 000111.07	Engine System	Coolant level circuit fault. Check coolant level per operator's manual.
ECU 000111.17	Engine System	Coolant level low. Add coolant per operators manual.
ECU 000111.18	Engine System	Coolant level very low. Add coolant per operators manual.
ECU 000157.01	Engine System	Fuel rail pressure extremely low. Engine power limited. Check fuel supply.
ECU 000157.03	Engine System	Fuel rail pressure sensor circuit fault. Engine power limited.
ECU 000157.04	Engine System	Fuel rail pressure sensor circuit fault. Engine power limited.
ECU 000157.17	Engine System	Fuel rail pressure low during starting. Check fuel level and filters.
ECU 000157.18	Engine System	Fuel rail pressure very low. Check fuel level and fitlers.
ECU 000158.31	Engine System	Switched power and key switch status mismatch. Restart engine to attempt recovery.
ECU 000168.01	Electrical System	Battery voltage extremely low. Reduce electrical load or increase engine speed to attempt recovery.
ECU 000174.00	Engine System	Fuel temperature extremely high. Engine power limited. Check cooling system for debris.
ECU 000174.16	Engine System	Fuel temperature very high. Check cooling system for debris.
ECU 000189.31	Engine System	A condition exists which is causing the engine to derate. Engine speed limited.
ECU 000190.00	Engine System	Engine speed extremely high. Reduce engine speed.
ECU 000237.02	Identification System	Vehicle identification conflict. Engine power limited. Restart engine to attempt vehicle recovery.
ECU 000237.13	Identification System	Vehicle identification fault. Restart engine to attempt recovery.
ECU 000237.31	Identification System	Communication fault. Restart engine to attempt recovery.
ECU 000412.00	Engine System	EGR temperature extremely high. Engine power limited. Reduce engine speed and load. Check cooling system for debris.
ECU 000412.15	Engine System	EGR temperature high. Engine power limited. Reduce engine speed and load. Check cooling system for debris.
ECU 000412.16	Engine System	EGR temperature very high. Engine power limited. Reduce engine speed and load. Check cooling system for debris.
ECU 000611.03	Engine System	Fuel injector circuit fault. Engine power limited.
ECU 000611.04	Engine System	Fuel injector circuit fault. Engine power limited.
ECU 000612.03	Engine System	Fuel injector circuit fault. Engine power limited.
ECU 000612.04	Engine System	Fuel injector circuit fault. Engine power limited.
ECU 000629.12	Engine System	Engine control unit fault. Restart engine to attempt recovery.
ECU 000637.08	Engine System	Crankshaft position sensor signal fault. Engine power limited.
ECU 000637.10	Engine System	Crankshaft position sensor signal fault. Engine power limited.
ECU 000641.00	Engine System	Turbocharger actuator temperature extremely high. Engine power limited.
ECU 000641.07	Engine System	Turbocharger actuator self calibration fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 000641.12	Engine System	Turbocharger actuator self calibration fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 000641.13	Engine System	Turbocharger actuator calibration fault. Engine power limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 000641.16	Engine System	Turbocharger actuator temperature very high. Reduce engine speed and load.
ECU 000651.02	Engine System	Fuel injector #1 fault. Engine speed limited.
ECU 000651.13	Engine System	Fuel injector #1 calibration fault. Engine speed limited.
ECU 000652.02	Engine System	Fuel injector #2 fault. Engine speed limited.
ECU 000652.13	Engine System	Fuel injector #2 calibration fault. Engine speed limited.
ECU 000653.02	Engine System	Fuel injector #3 fault. Engine speed limited.
ECU 000653.13	Engine System	Fuel injector #3 calibration fault. Engine speed limited.
ECU 000654.02	Engine System	Fuel injector #4 fault. Engine speed limited.
ECU 000654.13	Engine System	Fuel injector #4 calibration fault. Engine speed limited.
ECU 000655.02	Engine System	Fuel injector #5 fault. Engine speed limited.
ECU 000655.13	Engine System	Fuel injector #5 calibration fault. Engine speed limited.

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Diagnostic Trouble Code	System	Solution
ECU 000656.02	Engine System	Fuel injector #6 fault. Engine speed limited.
ECU 000656.13	Engine System	Fuel injector #6 calibration fault. Engine speed limited.
ECU 000676.05	Engine System	Cold start aid circuit fault. System disabled.
ECU 000676.06	Engine System	Cold start aid circuit fault. System disabled.
ECU 000676.14	Engine System	Cold start aid circuit fault. Check relay.
ECU 000676.31	Engine System	Cold start aid circuit fault. Check relay.
ECU 000970.31	Immobilizer System	Key authentication or control unit authentication failed. Engine control unit commanded engine shutoff. Check for the correct vehicle key. Restart engine to attempt vehicle recovery.
ECU 001110.31	Engine System	Engine Protection Shutdown.
ECU 001136.00	Engine System	Engine control unit internal temperature extremely high. Engine speed limited.
ECU 001180.00	Engine System	Turbocharger inlet exhaust temperature extremely high. Engine power limited. Reduce engine speed and load. Check cooling system for debris.
ECU 001180.16	Engine System	Turbocharger inlet exhaust temperature very high. Engine power limited. Reduce engine speed and load. Check cooling system for debris.
ECU 001209.03	Engine System	Exhaust pressure sensor circuit fault. Engine power limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 001209.04	Engine System	Exhaust pressure sensor circuit fault. Engine power limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 001209.07	Engine System	Exhaust pressure sensor fault. Engine power limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 001322.31	Engine System	Engine cylinder misfire. Engine power limited. Restart engine to attempt recovery.
ECU 001569.31	Engine System	Engine power derate condition exists. Engine power limited.
ECU 001639.01	Engine System	Engine fan speed extremely low. Check fan drive system.
ECU 001639.18	Engine System	Engine fan speed very low. Check fan drive system.
ECU 001761.01	Engine System	Diesel exhaust fluid is extremely low. Engine power and speed derated. Fill tank.
ECU 001761.17	Engine System	Fill fuel and DEF tanks.
ECU 001761.18	Engine System	Diesel exhaust fluid is extremely low. Engine power and speed derated. Fill fuel and DEF tanks.
ECU 002630.00	Engine System	Charge Air Cooler temperature extremely high. Engine power limited. Reduce engine speed and load. Check cooling system for debris.
ECU 002630.15	Engine System	Charge air cooler outlet temperature high. Check cooling system for debris.
ECU 002630.16	Engine System	Charge Air Cooler outlet temperature very high. Engine power limited. Reduce engine speed and load. Check cooling system for debris.
ECU 002659.03	Engine System	EGR Delta pressure sensor circuit fault. Engine power limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 002659.04	Engine System	EGR Delta pressure sensor circuit fault. Engine power limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 002659.14	Engine System	EGR system flow fault. Engine power limited.
ECU 002659.15	Engine System	EGR system flow fault. Engine power limited.
ECU 002659.17	Engine System	EGR system flow fault. Engine power limited.
ECU 002790.16	Engine System	Turbocharger outlet temperature high. Engine power limited. Reduce engine speed and load.
ECU 002791.07	Engine System	EGR valve position fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 002791.13	Engine System	EGR valve position fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 002795.03	Engine System	Turbocharger position sensor circuit fault. Engine power limited.
ECU 002795.04	Engine System	Turbocharger position sensor circuit fault. Engine power limited.
ECU 002795.07	Engine System	Turbocharger position actuator fault. Engine power limited.
ECU 002795.10	Engine System	Turbocharger actuator fault. Engine power limited.
ECU 002795.13	Engine System	Turbocharger calibration fault. Engine speed limited.
ECU 002795.31	Engine System	Turbocharger actuator fault. Check turbocharger linkage.
ECU 003216.12	Exhaust Filter System	Inlet NOx sensor fault. SCR disabled.
ECU 003226.12	Exhaust Filter System	Outlet NOx sensor fault. SCR disabled.
ECU 003246.00	Exhaust Filter System	Exhaust filter outlet temperature extremely high. Engine power limited.
ECU 003353.31	Electrical System	Alternator without function. Check for broken drive belt.

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Diagnostic Trouble Code	System	Solution
ECU 003464.07	Engine System	Air throttle valve position fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 003464.13	Engine System	Air throttle valve out of calibration. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 003471.03	Exhaust Filter System	Fuel dosing control valve circuit fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 003471.04	Exhaust Filter System	Fuel dosing control valve circuit fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 003471.05	Exhaust Filter System	Fuel dosing control valve circuit fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 003471.07	Exhaust Filter System	Fuel dosing control valve fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 003471.11	Exhaust Filter System	Fuel dosing control valve circuit fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 003480.01	Exhaust Filter System	Fuel dosing inlet pressure extremely lowt. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machinery availability.
ECU 003480.03	Exhaust Filter System	Fuel Dosing Pressure sensor circuit fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machinery availability.
ECU 003480.04	Exhaust Filter System	Fuel Dosing Pressure sensor circuit fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machinery availability.
ECU 003480.07	Exhaust Filter System	Fuel dosing inlet pressure fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machinery availability.
ECU 003482.03	Exhaust Filter System	Fuel dosing shutoff valve circuit fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 003482.04	Exhaust Filter System	Fuel dosing shutoff valve circuit fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 003482.05	Exhaust Filter System	Fuel dosing shutoff valve circuit fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 003482.16	Exhaust Filter System	Fuel Dosing Shutoff valve fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 003511.03	Engine System	Sensor supply 3 circuit fault.
ECU 003511.04	Engine System	Sensory supply 3 circuit fault.
ECU 003556.16	Exhaust Filter System	Fuel dosing nozzle pressure very high. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 003556.18	Exhaust Filter System	Fuel dosing nozzle pressure very low. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 003587.05	Engine System	Ether starting aid circuit fault. System disabled.
ECU 003587.06	Engine System	Ether starting aid circuit fault. System disabled.
ECU 003597.01	Engine System	Injector high voltage is extremely low..
ECU 003659.04	Engine System	Fuel injector #1 circuit fault. Engine power limited.
ECU 003660.04	Engine System	Fuel injector #2 circuit fault. Engine power limited.
ECU 003661.04	Engine System	Fuel injector #3 circuit fault. Engine power limited.
ECU 003662.04	Engine System	Fuel injector #4 circuit fault. Engine power limited.
ECU 003663.04	Engine System	Fuel injector #5 circuit fault. Engine power limited.
ECU 003664.04	Engine System	Fuel injector #6 circuit fault. Engine power limited.
ECU 003711.14	Exhaust Filter System	Exhaust Filter inlet temperature low. Active Exhaust Filter cleaning unavailable.
ECU 003711.31	Exhaust Filter System	Exhaust Filter inlet temperature low. Active Exhaust Filter cleaning unavailable.
ECU 003719.00	Exhaust Filter System	Exhaust Filter extremely restricted. Engine power limited.
ECU 003719.10	Exhaust Filter System	Exhaust Filter restricted. Engine power limited.
ECU 003719.13	Exhaust Filter System	Exhaust Filter recovery high. Exhaust filter system requires service.
ECU 003719.14	Exhaust Filter System	Exhaust Filter extremely restricted. Engine power limited. Start parked filter cleaning per operators manual.
ECU 003719.16	Exhaust Filter System	Exhaust Filter restricted. Engine power limited. Start parked filter cleaning on engine settings page per Operators Manual.
ECU 003720.15	Exhaust Filter System	Exhaust filter restricted with ash. Service filter per operators manual.
ECU 003720.16	Exhaust Filter System	Exhaust filter restricted with ash. Service filter per operators manual.
ECU 003936.00	Exhaust Filter System	Exhaust filter inlet and oulet temperature fault. Engine power limited. Active exhaust filter cleaning unavailable. Continued operation will result in loss of machine availability.

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Diagnostic Trouble Code	System	Solution
ECU 003936.16	Exhaust Filter System	Exhaust filter inlet and outlet temperature fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 004077.07	Exhaust Filter System	Fuel dosing inlet pressure fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 004334.00	Exhaust Filter System	Diesel exhaust fluid supply module pressure extremely high. System disabled. Restart to attempt recovery.
ECU 004334.01	Exhaust Filter System	Diesel exhaust fluid supply module pressure extremely high. System disabled. Engine power limited.
ECU 004334.11	Exhaust Filter System	Diesel exhaust fluid supply module pressure extremely high. System disabled. Restart to attempt recovery.
ECU 004376.31	Exhaust Filter System	Diesel exhaust fluid supply module pressure extremely high. System disabled. Restart to attempt recovery.
ECU 004765.00	Exhaust Filter System	DOC inlet temperature extremely high. Reduce load.
ECU 004765.12	Exhaust Filter System	DOC inlet temperature sensor fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 004766.12	Exhaust Filter System	DOC outlet temperature sensor fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 004766.15	Exhaust Filter System	DOC outlet temperature high. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 004766.16	Exhaust Filter System	DOC outlet temperature very high. Active exhaust filter cleaning unavailable
ECU 004766.17	Exhaust Filter System	DOC outlet temperature low. Cleaning aborted. Active exhaust filter cleaning unavailable.
ECU 004766.18	Exhaust Filter System	DOC outlet temperature low too often. Cleaning aborted. Active exhaust filter cleaning unavailable.
ECU 004795.13	Exhaust Filter System	Exhaust filter fault. Engine speed limited. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 004795.31	Exhaust Filter System	Exhaust Filter fault. Engine power limited.
ECU 005018.00	Exhaust Filter System	DOC unexpected temperature fault. Engine power limited. Active exhaust filter cleaning unavailable.
ECU 005018.16	Exhaust Filter System	DOC unexpected temperature fault. Engine power limited. Active exhaust filter cleaning unavailable.
ECU 005298.01	Exhaust Filter System	Exhaust filter system fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 005298.18	Exhaust Filter System	Exhaust filter system fault. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 005456.00	Exhaust Filter System	Fuel dosing temperature extremely high. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 005456.01	Exhaust Filter System	Fuel dosing temperature extremely low. Active Exhaust Filter cleaning unavailable. Continued operation will result in loss of machine availability.
ECU 005745.05	Exhaust Filter System	Diesel exhaust fluid dosing heater circuit fault. Restart engine to attempt recovery.
ECU 520629.31	Engine System	Engine control unit programming fault. Reprogramming required.
ECU 521192.11	Immobilizer System	Key authentication or control unit authentication failed. Engine control unit commanded engine shutoff.
ECU 521192.14	Immobilizer System	Key authentication or control unit authentication failed. Check immobilizer key.
ECU 521192.31	Immobilizer System	Key authentication or control unit authentication failed. Check fuse..
ECU 521214.09	Immobilizer System	Key authentication or control unit authentication failed. Engine control unit commanded engine shutoff.
ECU 521214.14	Immobilizer System	Vehicle identification conflict. Use correct key.
ECU 523653.01	Engine System	Engine control unit circuit fault. Check fuse.
ECU 523653.14	Engine System	Battery disconnect switch operated prematurely. Continued improper operation will cause damage.
ECU 523665.01	Engine System	Engine control unit circuit fault. Check fuse.
ECU 523666.01	Engine System	Engine control unit circuit fault. Check fuse.
ECU 563744.09	Engine System	Vehicle control unit communication fault. System with restricted function. Restart engine to attempt recovery.

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