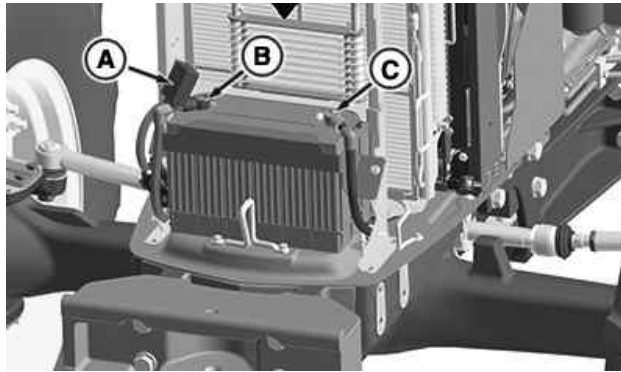


# Electrical and Lighting Maintenance

## Use Booster Battery or Charger



TS204—UN—15APR13



Front of Engine

- A—Cover  
B—Positive Terminal  
C—Negative Terminal

**CAUTION:** Battery gas is explosive. Keep sparks and flames away from battery. Make last connection and first disconnection at a point away from battery.

### Booster Battery

1. Remove protective cover (A) from the positive terminal.
2. Attach positive jumper cable to the machine battery positive terminal (B).
3. Attach positive jumper cable to the booster battery positive terminal.
4. Attach negative jumper cable to the machine battery negative terminal (C).
5. Attach negative jumper cable to the booster battery negative terminal.
6. Turn key to start position.
7. When engine starts, remove negative jumper cables first, then the positive cables.
8. Replace the protective cover on the positive terminal.

### Battery Charger

1. Remove protective cover (A) from the positive terminal.
2. Turn charger OFF.
3. Attach positive charger lead to the battery positive terminal (B).
4. Attach negative charger lead to the battery negative terminal (C).
5. Charge battery according to charger manufacturer instructions.
6. Turn charger OFF.
7. Disconnect negative charger lead first, then positive lead.
8. Replace the protective cover on the positive terminal.

LGCKF7U,0000C23-19-11MAY21

## Battery Maintenance

### MAINTENANCE INTERVAL

Annually

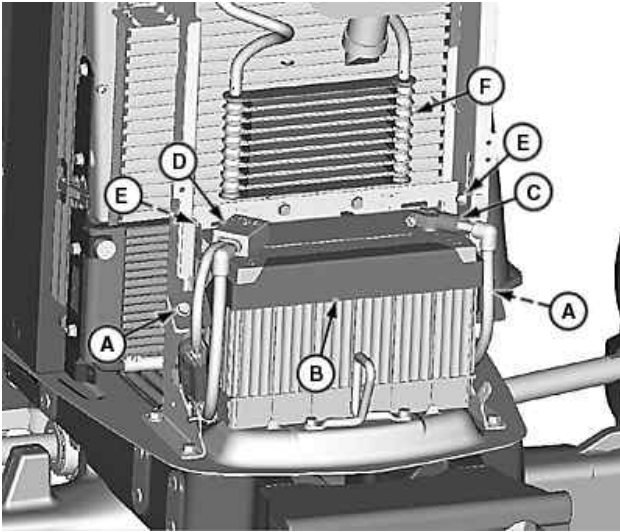
**IMPORTANT:** Do not add water in freezing weather unless machine is run at least 30 minutes to ensure thorough mixing.

*NOTE: Although this battery is a maintenance-free battery, conditions such as long periods of operation at high ambient temperatures and excessive starting could require adding water. See label on the battery.*

1. Clean battery and remove debris buildup from top of battery case as needed.
2. Check level of the electrolyte in each cell as needed. Ensure that every cell has fluid level above the top of plates. Only use clean, soft water to fill up electrolyte level.
3. Wipe battery with a damp cloth.
4. Remove, clean, and tighten connections if needed.
5. Coat terminals with a small amount of grease.
6. If battery is not performing as desired, charge as needed or see your John Deere dealer.

LGCKF7U,0000C24-19-11MAY21

## Replace Battery



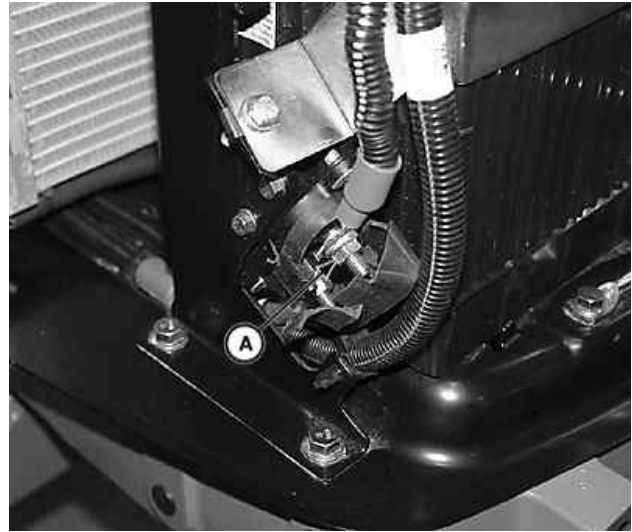
LV14822—UN—27SEP11

- A—Cap Screws**  
**B—Battery Hold-Down**  
**C—Negative Battery Cable**  
**D—Positive Battery Cable**  
**E—Fuel Cooler Support Cap Screws**  
**F—Fuel Cooler**

1. Raise the hood.
2. Remove the rubber boots from both negative and positive battery cables.
3. Remove nut and disconnect negative battery cable (C) first.
4. Remove nut and disconnect positive battery cable (D).
5. Remove cap screws (A) and battery hold-down (B).
6. Loosen fuel cooler support cap screws (E).
7. Slide fuel cooler (F) up and tighten cap screws, securing the fuel cooler in the upper slot position.
8. Remove battery.
9. Reinstall battery in opposite order.
10. Lower hood.

LGCKF7U,0000C25-19-11MAY21

## Replace Fusible Link



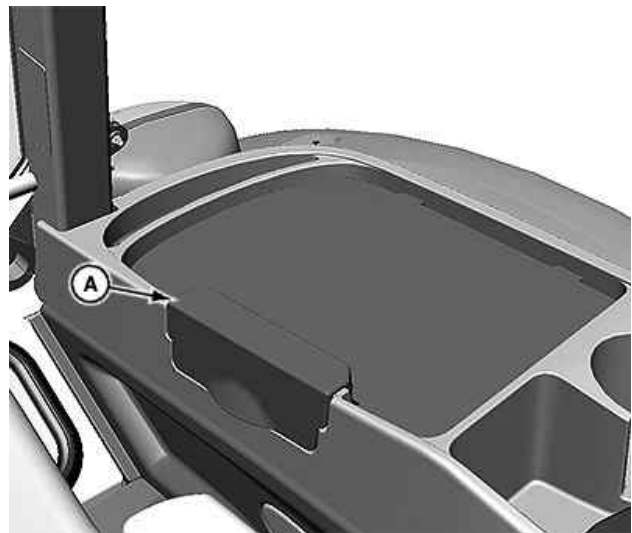
LV14690—UN—07SEP11

### A—Fusible Link

1. Raise hood.
2. Disconnect the battery.
3. Locate the fusible link (A) next to the battery.
4. Open the cover.
5. Replace the fusible link with the correct part from your John Deere dealer.
6. Close cover, reconnect the battery, and lower hood.

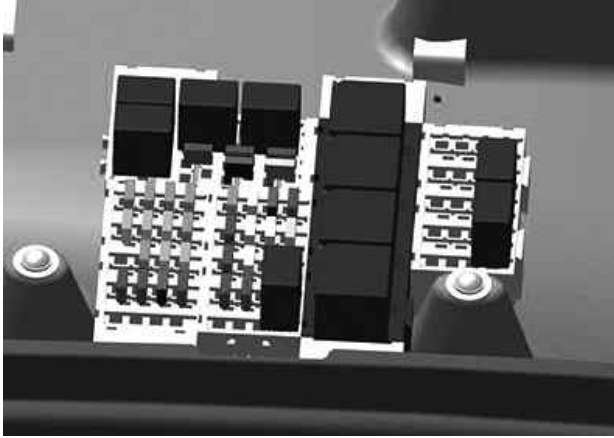
HK75640,0001092-19-14SEP20

## Replace Cab Fuses



LV22822—UN—15AUG14

Left Console



APY36908—UN—08JUN20

Fuse/Relay Block

A—Cover

**IMPORTANT:** Do not replace the original fuse with a higher rated fuse or machine damage occurs. If the original size fuse does not carry electrical load and continues to blow, have the electrical system checked by your John Deere dealer.

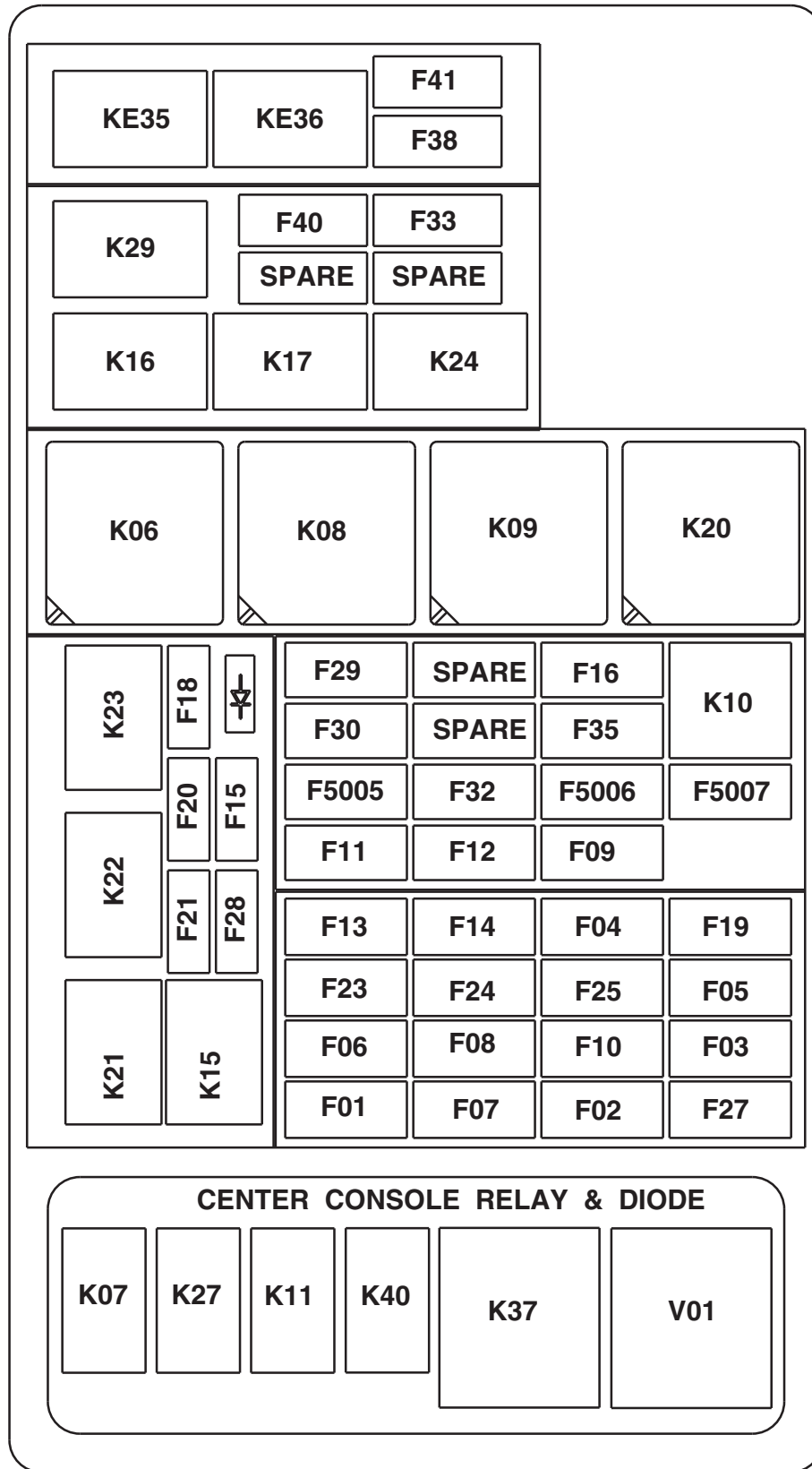
*NOTE:* A fuse and relay reference label is provided under the cover.

Remove cover (A) to access main fuse and relay load center and fuse/relay block.

All electrical circuits are protected by fuses. Amperage rating is marked on each fuse, plus fuses are color coded to ensure proper replacement.

Fuse Rating	Color
5 A	Tan
10 A	Red
15 A	Blue
20 A	Yellow
25 A	Neutral
30 A	Green

*NOTE:* Most fuses and relays are located in the main load center as shown. Additional relays and a diode block are located inside the front console.



Cab Load Center

APY36906—UN—08JUN20

F01—Key Switch 20 A

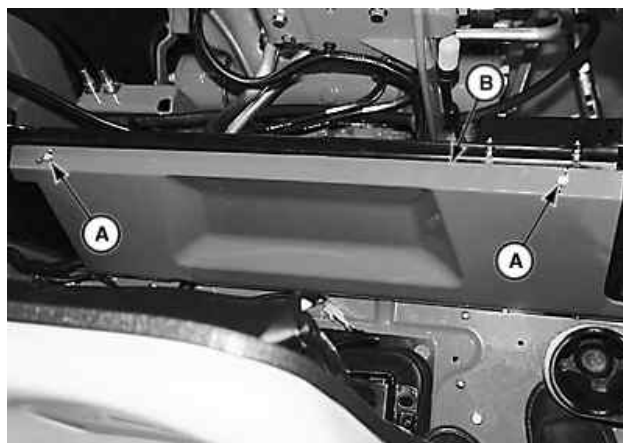
F02—SBBC 15 A

F03—Dome Light /Subwoofer 15 A  
 F04—Light Switch 20 A  
 F05—Headlight 30 A  
 F06—Junction Block Unswitched Power 30 A  
 F07—Instrument Panel 20 A  
 F08—Instrument Panel 20 A  
 F09—Turn Signal 5 A  
 F10—Implement Power 20 A  
 F11—Junction Block Switched Power 30 A  
 F12—Radio 10 A  
 F13—Rear Worklight 30 A  
 F14—Front Worklight 30 A  
 F15—Rear Taillight 15 A  
 F16—Brakelight 20 A  
 F18—ELX Power 10 A  
 F19—Transmission Control 10 A  
 F20—CCU Sensor 10 A  
 F21—Transmission Control 10 A  
 F23—Heating, Ventilation, and Cooling Right Blower 30 A  
 F24—Wiper 25 A  
 F25—Left Blower 20 A  
 F27—Backup Alarm 5 A  
 F28—Brake Light 15 A  
 F29—ACC 5 A  
 F30—Beacon Light 15 A  
 F32—Electrohydraulic Pickup Hitch 10 A  
 F33—Trailer 10 A  
 F35—Backup Alarm Switch, Air Seat, Modular Telematics Gateway 30 A

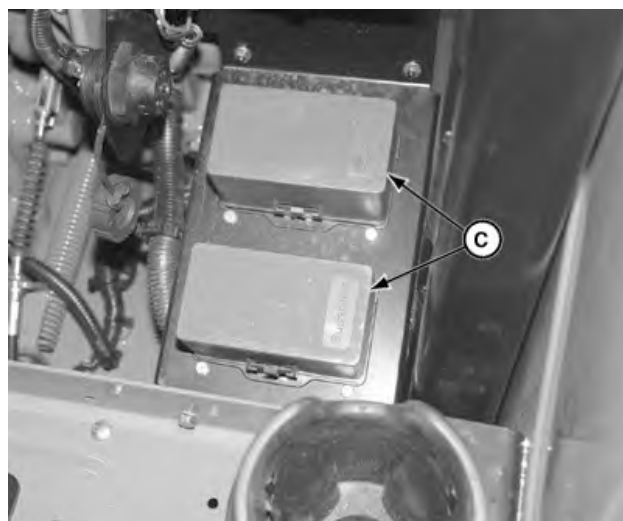
F38—Front Hitch 10 A  
 F40—Shifter 10 A  
 F41—Front PTO 10 A  
 F5005—Engine Control Unit Power 30 A  
 F5006—Engine Control Unit Power 25 A  
 F5007—Engine Control Unit Power 25 A  
 K06—Trailer Power Relay  
 K07—Accessory Power Relay  
 K08—Rear Worklight Relay  
 K09—Front Worklight Relay  
 K10—Accessory Power 2 Relay  
 K11—Neutral Relay (PowrReverser Only)  
 K15—Electrohydraulic System Relay  
 K16—Not Neutral Relay (PowrReverser Only)  
 K17—Transmission Enable Relay (PowrReverser Only)  
 K20—Heating, Ventilation, and Cooling Relay  
 K21—Wiper Relay  
 K22—Left Blower Relay  
 K23—Right Blower Relay  
 K24—Forward HI Relay (PowrReverser Only)  
 K27—Head Lamp Relay  
 K29—Tail Lamp Relay  
 K37—Interval Front Wiper Relay  
 K40—Brakelight Relay  
 KE35—Front Hitch Left Turn Relay  
 KE36—Front Hitch Right Turn Relay  
 V01—Diode Module  
 SPARE—Extra Fuses (10, 20, 25, and 30 A)

LGCKF7U,0000C26-19-11MAY21

## Replace OOS Fuses



LV14698—UN—25AUG11



LV14694—UN—24AUG11

A— Wing Nuts  
 B— Access Panel  
 C— Cover

**IMPORTANT:** Do not replace the original fuse with a higher rated fuse or machine damage occurs. If the original size fuse does not carry electrical load and continues to blow, have the electrical system checked by your John Deere dealer.

**NOTE:** A fuse and relay reference label is provided under cover.

Remove wing nuts (A) and access panel (B). Remove cover (C) to access main fuse and relay load center.

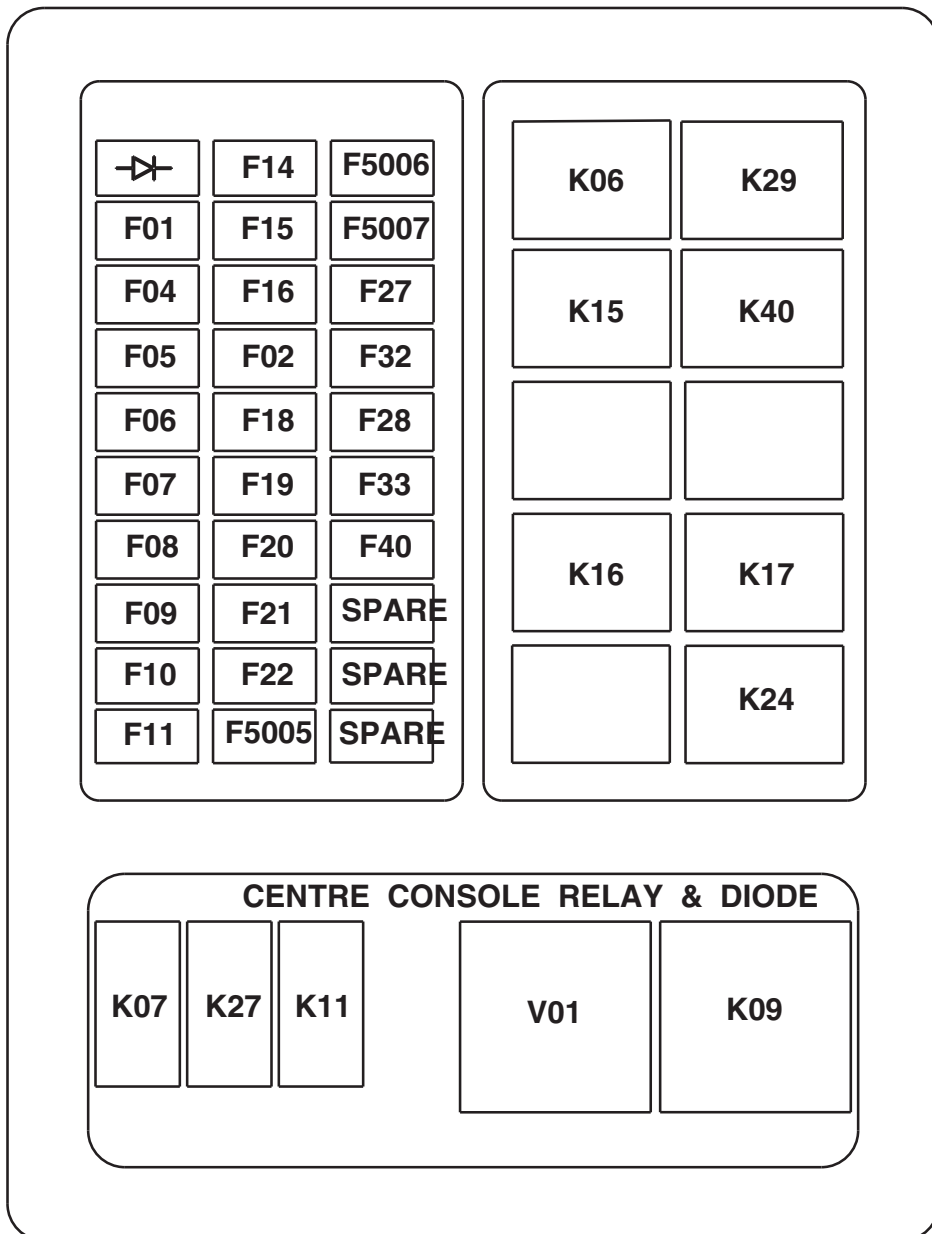
All electrical circuits are protected by fuses. Amperage

rating is marked on each fuse, plus fuses are color coded to ensure proper replacement.

Fuse Rating	Color
5 A	Tan
10 A	Red
15 A	Blue
20 A	Yellow

Fuse Rating	Color
25 A	Neutral
30 A	Green

*NOTE: Most fuses and relays are located in the main load center as shown. Additional relays and a diode block are located inside the front console.*



F01—Key Switch 30 A  
 F02—Trailer Brake 15 A  
 F04—Light Switch 20 A  
 F05—Headlamp 30 A  
 F06—Junction Block Unswitched Power 30 A  
 F07—Instrument Cluster 20 A  
 F08—Instrument Cluster 20 A  
 F09—Turn Signal 20 A

F10—Implement Power 20 A  
 F11—Junction Block Switched Power 30 A  
 F14—Front Worklight 30 A  
 F15—Right Tail Light 15 A  
 F16—Brakelight 20 A  
 F18—ELX Power 10 A  
 F19—Transmission Control Unit 10 A  
 F20—Cab Control Unit Sensor 10 A

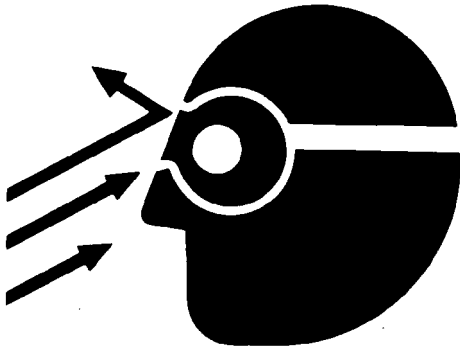
APY36907—UN—08JUN20

F21—Transmission Control Unit 10 A  
F22—Horn 10 A  
F27—Backup Alarm 5 A  
F28—Left Tail Lamp 15 A  
F32—Electrohydraulic Hitch 10 A  
F33—Worklight 10 A  
F40—Loader 10 A  
F5005—Engine Control Unit Power 30 A  
F5006—Engine Control Unit Power 25 A  
F5007—Engine Control Unit Power 25 A  
K06—Implement Power  
K07—Accessory Power Relay

K09—Front Worklight Relay  
K11—Neutral Relay (PowrReverser Only)  
K15—Electrohydraulic System Relay  
K16—Not-Neutral Relay (PowrReverser Only)  
K17—Transmission Enable Relay (PowrReverser Only)  
K24—Forward HI Relay (PowrReverser Only)  
K27—Headlight Relay  
K29—Tail/Clearance Relay  
K40—Brakelight Relay  
VO1—Diode Module  
Diode Symbol—Single Diode  
SPARE—Extra Fuses (10, 20, and 30 A)

LGCKF7U,0000C27-19-11MAY21

## Handle Halogen Light Bulbs Safely



TS266—UN—23AUG88



H39474—UN—30JUN00

A—Halogen Bulb

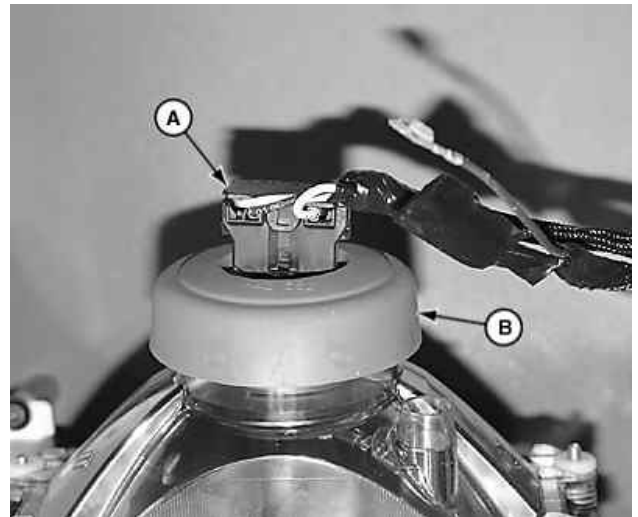
**CAUTION:** Halogen bulbs (A) contain gas under pressure. Handling a bulb improperly can cause it to shatter into flying fragments. To avoid possible injury:

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

dispose of properly. Keep out of the reach of children.

LGCKF7U,0000C28-19-11MAY21

## Replace Halogen Headlight Bulb



LV14699—UN—25AUG11



LV9511—UN—01AUG04

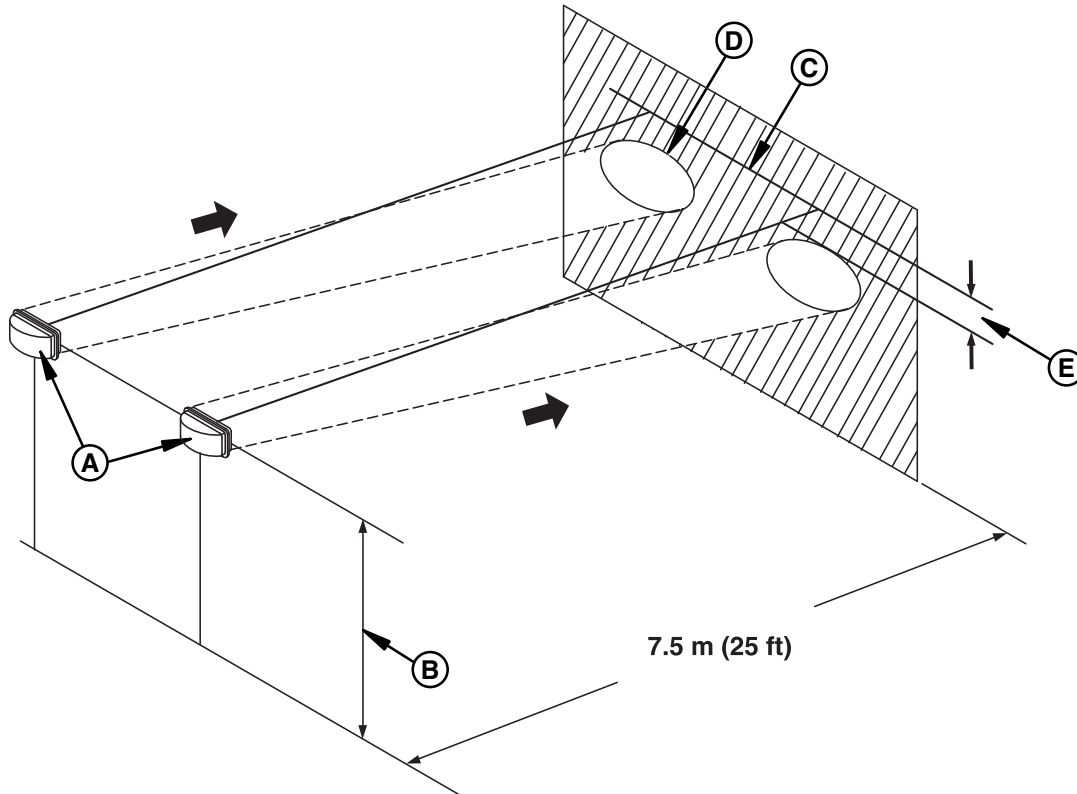
A—Wiring Harness Plug  
B—Dust Boot  
C—Retaining Spring

**CAUTION:** See Handle Halogen Light Bulbs Safely in this section.

1. Raise hood.

2. Disconnect wiring harness plug (A).
3. Remove dust boot (B).
4. Unlatch retaining spring (C) and remove light bulb.
5. Install new bulb in reverse order of removal.
6. Adjust headlights, if necessary.

### Adjust Headlight



Headlight Aiming Diagram

PULV000659—UN—05MAY08

A—Headlights  
B—Distance from Center of Headlight to Ground  
C—Horizontal Line on Wall

D—Border of Bright Area  
E—10% of Distance (B)

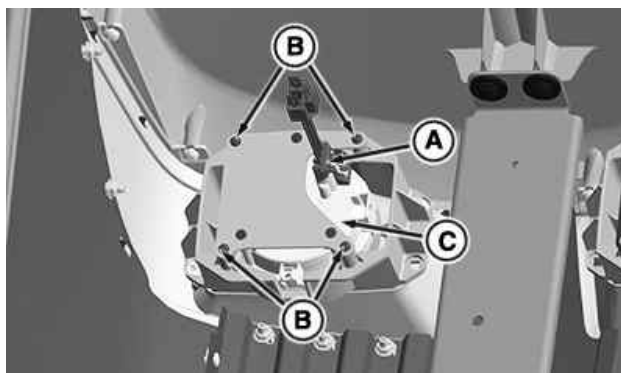
1. Park machine on a level surface with headlights (A) 7.5 m (25 ft) from a vertical wall.
2. Measure the distance (B) from the center of a headlight to the ground.

3. Mark a horizontal line (C) on the wall, the same distance from the ground as (B).
4. Turn headlight switch to low beam and observe bright areas on the wall.
5. Use screws at the back of lights for adjustment.

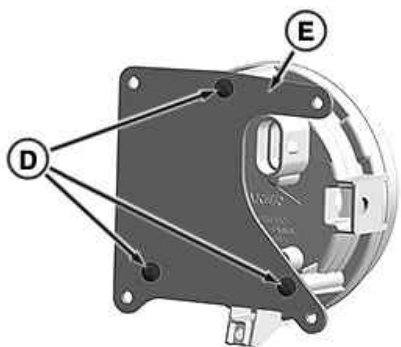
LGCKF7U,0000C29-19-11MAY21



## Replace LED Headlight



RXA0154413—UN—01NOV16



RXA0154414—UN—01NOV16

A—Harness Connector  
B—Light Retaining Screws  
C—LED Headlight Bulb  
D—Backing Plate Screw  
E—Backing Plate

1. Raise hood.
2. Disconnect wiring harness connector (A).
3. Remove light retaining screws (B).
4. Remove LED headlight bulb (C).
5. Remove screws (D) from backing plate (E).
6. Replace headlight bulb with a new part and reassemble in reverse order.

HK75640,0001097-19-14SEP20

## Replace Auxiliary Drive Light Bulb



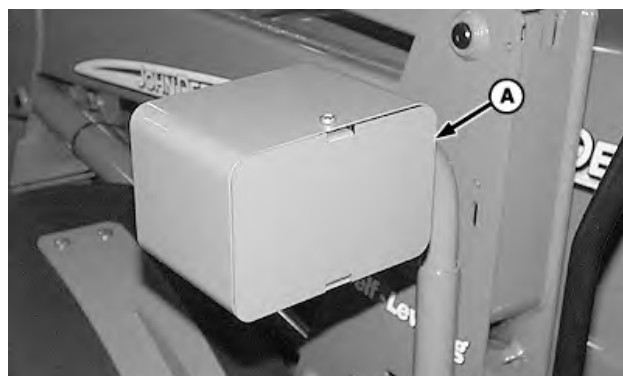
APY48043—UN—26APR21

A—Screws  
B—Light Assembly

1. Remove screws (A) and cover.
2. Remove light assembly (B) and disconnect wiring harness.
3. Remove and install the new bulb in reverse order of removal.

LGCKF7U,0000B9A-19-26APR21

## Replace Loader Light Bulb



LV9548—UN—03AUG04



RXA0162297—UN—22FEB18



RXA0162298—UN—22FEB18

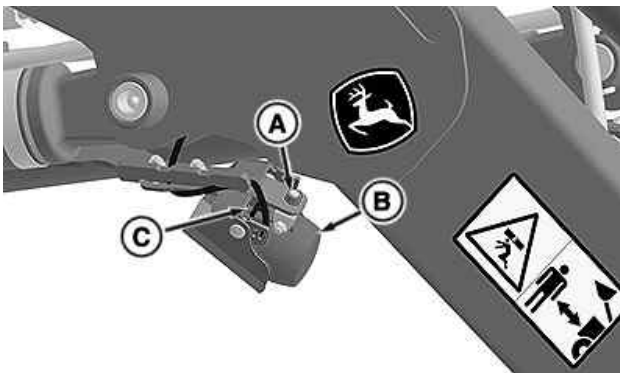
- A—Cover  
B—Dust Boot  
C—Wiring Harness Plug  
D—Retaining Spring

**CAUTION:** See Handle Halogen Light Bulbs Safely in this section.

1. Remove two screws and cover (A).
2. Disconnect wiring harness plug (C).
3. Remove dust boot (B).
4. Unlatch retaining spring (D) and remove light bulb.
5. Install new bulb in reverse order of removal.
6. Adjust, if necessary.

LGCKF7U,0000C2A-19-11MAY21

## Replace Bucket Light



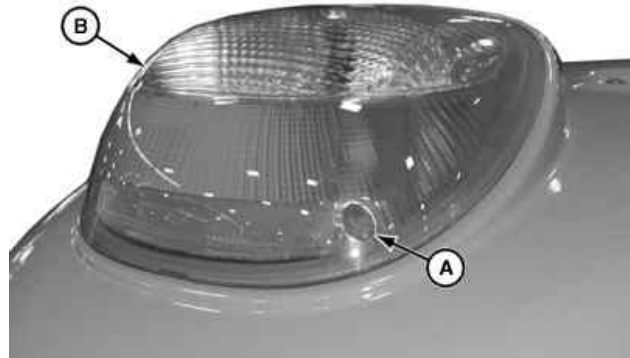
RXA0158319—UN—22MAR17

- A—Nut  
B—Light Fixture  
C—Wiring Harness

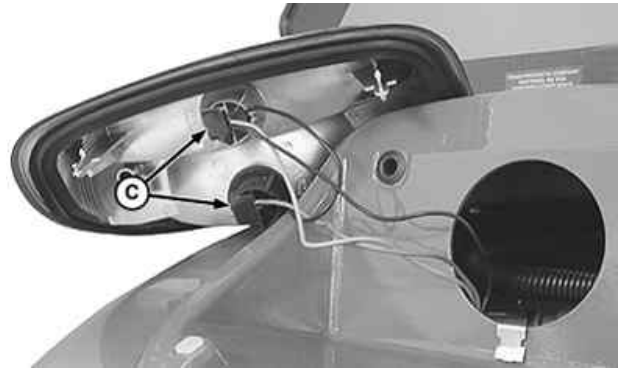
1. Remove nut (A).
2. Remove light fixture (B).
3. Disconnect wiring harness (C).
4. Install new light fixture in reverse order.
5. Adjust, if necessary.

LGCKF7U,0000C2B-19-11MAY21

## Replace Fender Tail/Turn/Brake Light Bulb



LV14850—UN—04OCT11



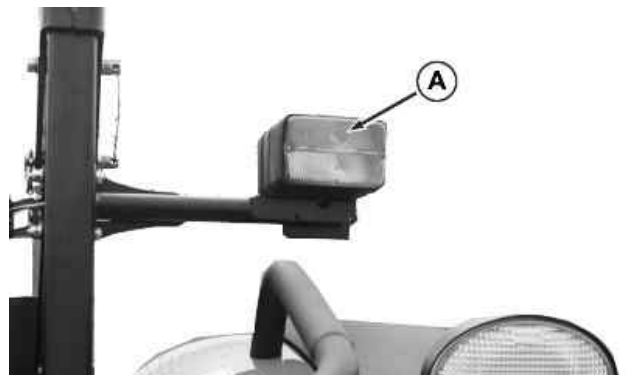
LV12532—UN—13APR05

- A—Screw (2 used)  
B—Housing  
C—Socket (2 used)

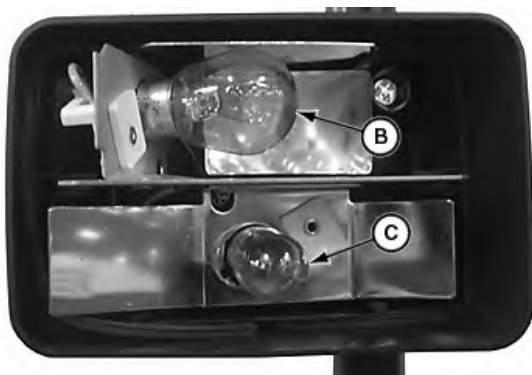
1. Remove screws (A).
2. Pull housing (B) away from fender.
3. Rotate socket (C) and remove from housing.
4. Pull bulb to remove from socket.
5. Install new bulb in socket.
6. Reinstall in reverse order.

HK75640,000109B-19-14SEP20

## Replace Turn Signal/Hazard and Clearance Light Bulb—Open Operator's Station



PULV004548—UN—13JUN09



LV15013—UN—09NOV11

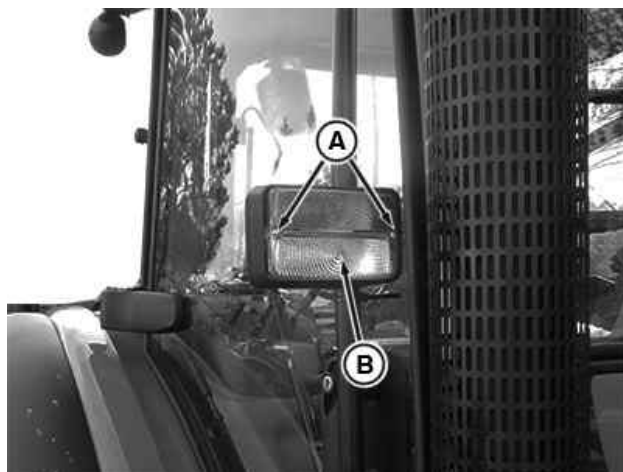
A—Lens Housing  
B—Turn Signal/Hazard Light Bulb  
C—Clearance/Hazard Light Bulb

*NOTE: Bulb replacement procedure also applies to additional front directional, hazard, and clearance lights mounted on loader frames and rear hazard and directional lights.*

1. Remove screws and lens housing (A).
2. Push and twist bulb (B or C) to remove from socket.
3. Install new bulb, lens housing (A), and screws.

LGCKF7U,0000C2C-19-11MAY21

## Replace Park Hazard Light Bulb—Cab



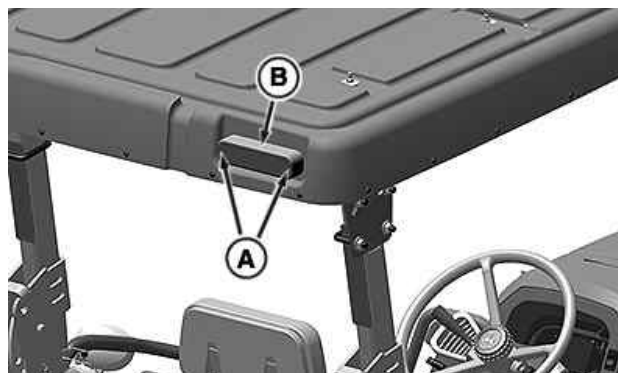
PY42037—UN—09MAY17

A—Screw  
B—Lens

1. Remove screw (A) and lens (B).
2. Pull the required bulb to remove from socket.
3. Install new bulb in socket.
4. Reinstall in reverse order.

LGCKF7U,0000C2D-19-11MAY21

## Replace Canopy Hazard Light Bulb



RXA0158323—UN—22MAR17

A—Screws  
B—Lens

1. Remove screws (A) from the light housing.
2. Remove lens (B).
3. Remove and replace the bulb.
4. Reinstall lens in reverse order.

HK75640,000109E-19-14SEP20

## Replace Cab Halogen Worklight Bulb



LV5569—UN—07DEC00



LV5570—UN—07DEC00



LV5571—UN—07DEC00

- A—Screw Cover Slot  
B—Retaining Ring Screw (4 used)  
C—Retaining Ring  
D—Wiring Connector (2 used)  
E—Lens

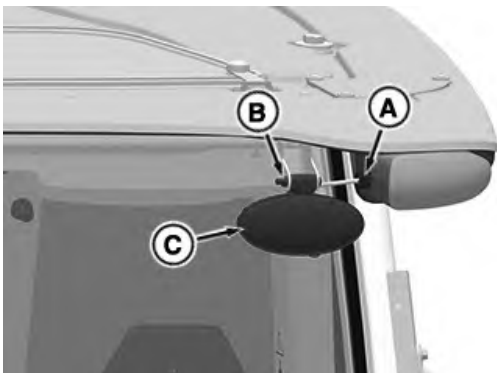
**CAUTION:** See Handle Halogen Light Bulbs Safely in this section.

**NOTE:** Bulb replacement procedures for front, rear, and optional auxiliary worklights are the same.

1. Remove screw cover by prying in the cover slot (A) with a screwdriver.
2. Remove retaining ring screws (B), retaining ring (C), and lens (E).
3. Disconnect wiring connectors (D).
4. Install new bulb and connect wiring connectors.
5. Install lens, retaining ring, and screws.
6. Install cover.

LGCKF7U,0000C2E-19-11MAY21

## Replace Cab LED Worklight



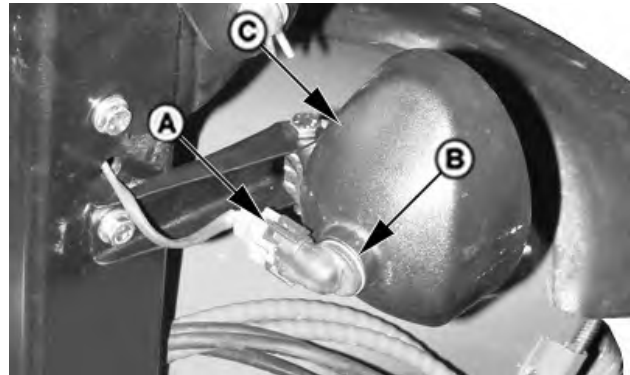
RXA0158320—UN—22MAR17

- A—Wiring Harness Connector  
B—Retaining Bolt  
C—LED Worklight

1. Disconnect wiring harness connector (A).
2. Remove retaining bolt (B).
3. Replace LED worklight (C).
4. Reinstall in reverse order.

LGCKF7U,0000C2F-19-11MAY21

## Replace OOS Worklight Bulb



PULV007318—UN—29NOV10

Left-Hand Side

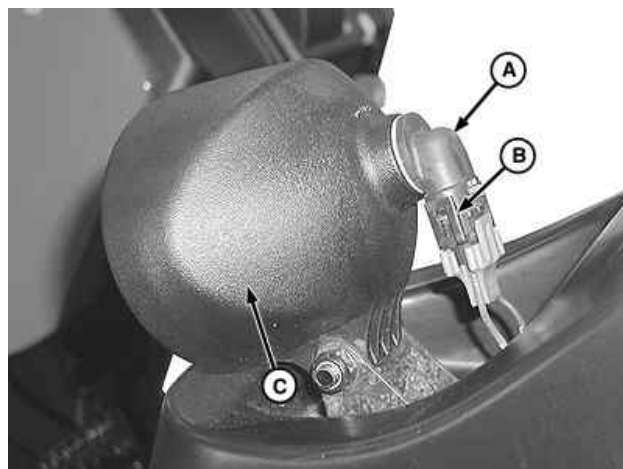
- A—Wiring Harness Connector  
B—Bulb  
C—Housing

1. Disconnect wiring harness connector (A).
2. Rotate bulb (B) counterclockwise and remove from housing (C).
3. Install new bulb into the housing and rotate clockwise.
4. Connect wiring harness connector.

**NOTE:** Premium Open Operator's Station has two worklights.

LGCKF7U,0000C30-19-11MAY21

## Replace OOS Fender Light Bulb



LV8586—UN—14AUG03

Left Side Shown

A—Bulb  
B—Wiring Harness Connector  
C—Housing

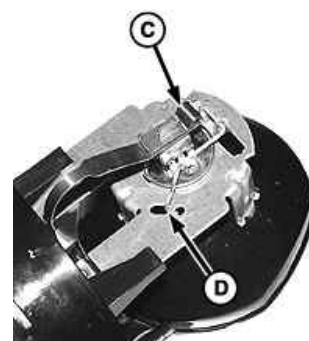
1. Disconnect wiring harness connector (B) from bulb (A).
2. Rotate bulb counterclockwise and remove from housing (C).
3. Install new bulb into the housing and rotate clockwise.
4. Connect wiring harness connector.

HK75640,00010A2-19-14SEP20

## Change Bulb



LV9695—UN—19AUG04



LV9696—UN—19AUG04

A—Tab  
B—Lens  
C—Tab  
D—Retaining Spring

**CAUTION:** See Handle Halogen Light Bulbs Safely in this section.

1. Depress tab (A) and rotate the lens (B) counterclockwise to remove.
2. Pull tab (C) away from bulb.
3. Unlatch retaining spring (D) and remove the light bulb.
4. Install new bulb in reverse order of removal.

HK75640,00010A3-19-14SEP20

## Replace Beacon Light Bulb

### Remove Assembly



LV12523—UN—13APR05



LV12524—UN—13APR05

A—Wing Nut  
B—Rubber Cap

1. Loosen wing nut (A) and remove beacon light assembly.
2. Install rubber cap (B).

## Replace Dome Light Bulb



LV12533—UN—13APR05



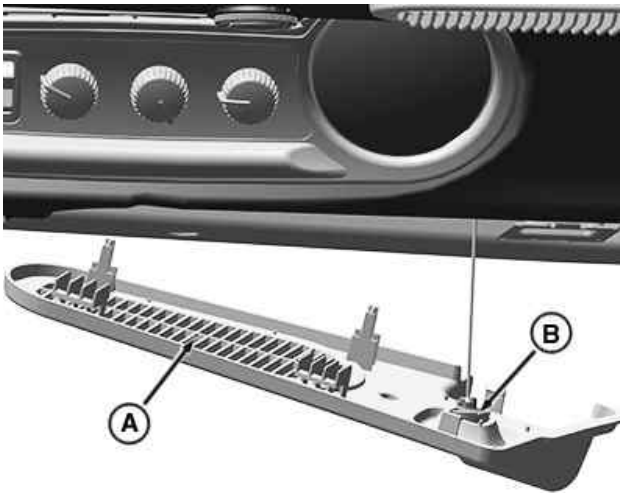
LV12534—UN—13APR05

A—Housing  
B—Cover  
C—Bulb

1. Remove cover (B) from housing (A).
2. Pull bulb (C) from socket.
3. Install new bulb and cover.

HK75640,00010A4-19-14SEP20

## Replace Right-Hand Console Light Bulb



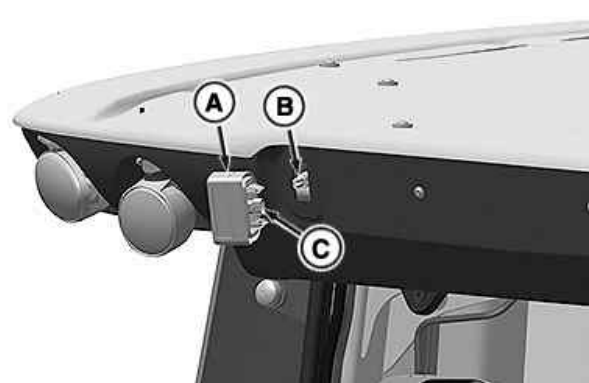
RXA0153099—UN—29JUL16

A—Panel  
B—Light Bulb Retainer

1. Pry off panel (A).
2. Rotate light bulb retainer (B) counterclockwise to remove.
3. Pull out light bulb.
4. Install new bulb in reverse order of removal.

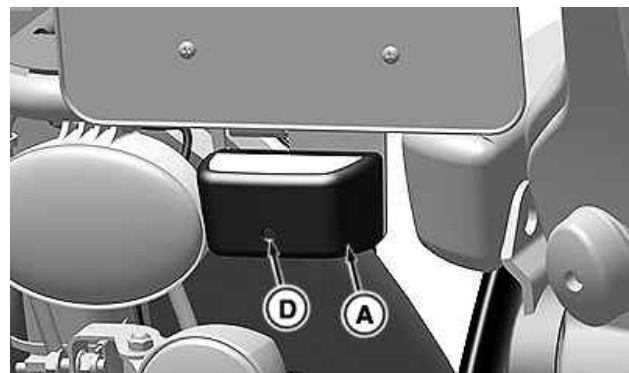
HK75640,00010A5-19-14SEP20

## Replace License Plate Light Bulb



RXA0156048—UN—02DEC16

Cab



RXA0159206—UN—11MAY17

OOS

A—Light Cover  
B—Roof Harness  
C—Bulb Socket  
D—Cover Screw

### Cab

1. Pull outward from cab roof to remove light cover (A).
2. Disconnect harness (B) from bulb socket (C).
3. Rotate bulb socket (C) and remove from light cover (A).
4. Remove and install a new bulb.
5. Reinstall in reverse order.

### OOS

1. Remove screw (D) and light cover (A).
2. Remove and install the new bulb.
3. Install light cover (A) and screw (D).

HK75640,00010A6-19-14SEP20