

# LGT-311L Bumper LED Light Kit EZ-Go RXV Installation Instructions



**Caution:** Please read through the instructions carefully. Before starting this project, remove the system's positive and negative connections from the battery or battery pack. This kit is designed for a 12V operation only. Operating this kit at a higher voltage will void any and all warranties. Look behind each drill location BEFORE YOU DRILL. Installer is responsible for damage (i.e. drilling into a wiring harness, battery, fuel tank etc.).

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# **Before You Start**

- 1. If the vehicle is ON, turn the key to the OFF position.
- 2. Place the TOW/RUN switch in the TOW position.
- 3. Remove the system's positive and negative connections from the battery or battery pack.
- 4. Engage the parking brake (gas carts only).

Several parts of the following instructions are shown with the cart's body and/or cowl removed to allow for more detailed instructions.

## Headlight and Taillight Preparation

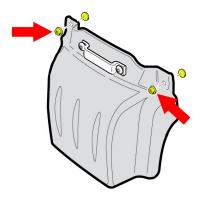




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1. Remove the front bumper and discard. Retain all mounting hardware.



- 2. Cut out the included taillight template following the guidelines.
- Using painter's tape, tape the template to the passenger side rear body of the cart. The bottom line will line up with the bumper. The line on the left will line up with the body line.
- 4. Use a permanent marker or other marking device and trace the inside contour of the template.

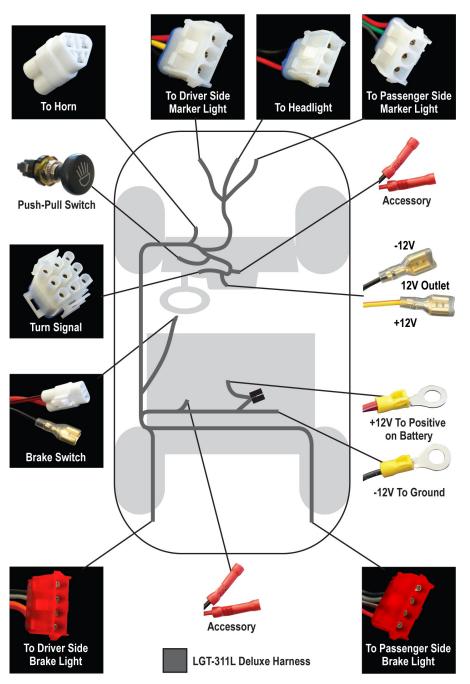
If the body is painted, lay painter's tape over the drawn line and redraw over the tape using the template. This helps to prevent the paint from chipping.

- Using a rotary tool or jigsaw, cut out the INSIDE of the marked area. Test fit the taillight before removing the tape. Remove any excess material if needed and retest. Remove the tape and sand any rough edges.
- 6. Flip the template over and complete Steps 3-5 for the driver side.





# Wiring Harness Overview



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#### Wire Harness Installation



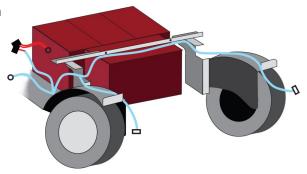
LGT-311L Deluxe Harness

#### Gas & Electric Carts

- 1. Remove the front seat bottom.
- 2. Lay the harness parallel to the driver side of the cart to help with orientation of the harness before installation.
- 3. Disconnect the fuse holders from each other.
- 4. From underneath the cart, gently run the rear portion of the harness (taillight & battery connections) through the opening in the side of the battery compartment.



- Make sure the battery connection leads are able to reach the battery pack. Set the leads to the side. They will be connected after completing the installation of the harness, lights and/or accessories.
- Feed the rear portion of the harness through the cart so the taillight connections reach the holes in the rear body. The shorter cable will rest on top of the driver side fender. Route the



longer cable behind the battery compartment and over the passenger side rear fender.

7. Make sure the taillight leads reach the holes in the body.

Once the leads are in position, lock them into place on top of the fender with the wire keepers and route them through the notch.

Fasten the lead at the taillight to the frame with cable ties.



8. Secure the passenger taillight cable to the rail of the frame with cable ties using the pre-drilled holes in the frame.

**NOTE**: The harness should run below or behind the cross frame so it is not pinched by the seat or body.



 Disconnect the pushpull switch at the 4-pin connector and the jumper from the 9-pin connector.





10. Starting with the 9-pin connector, route the entire front portion of the harness through the cart, towards the dash compartment.



11. Locate the rectangular hole in the bottom of the splash guard. Use a utility knife to enlarge the hole enough to fit the harness.

12. Keeping the harness on the inside of the steering column, route the harness through the hole in the splash guard, one connector at a time.

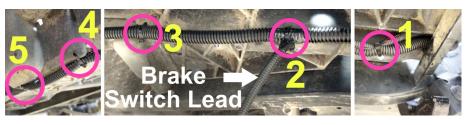




13. Secure the middle portion of the harness to the underbody of the cart. Use a 1/4" drill and drill (5) holes in the plastic underbody.

Secure the harness with cable ties. If more slack is needed, carefully pull from the front portion of the harness.

**NOTE**: If you are <u>not</u> installing a brake switch, secure the brake switch lead to the underbody with the rest of the harness.



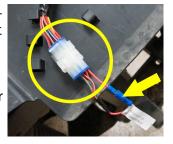
- 14. Secure the harness away from the steering column with a cable tie.
- 15. Run the headlight connections through the clips on the driver side of the splash guard.





16. If you are not installing a turn signal, reconnect the jumper to the 9-pin connector that was removed in Step 9.

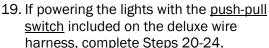
If you plan on using a brake switch and no turn signal, disconnect the bullet connector on the jumper.

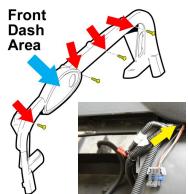


17. Remove the (4) Torx screws that hold in the front dash.

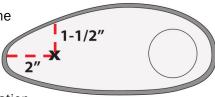
**NOTE**: The same Torx screws hold on the front cowl. Use caution not to damage the cowl.

18. Separate the dash from the body and route the connectors for the push-pull switch and the 12V outlet to the front dash (blue arrow).





20. Measure 2" from the left side of the dash and 1-1/2" down from the top of the dash. Use a marking device to mark the drill location.



- 21. Drill a 1/2" hole at the market location.
- 22. Remove the knob, retaining nuts and washer from the push-pull switch and insert the shaft of the switch into the newly drilled hole.



- 23. Secure using the retaining nuts and washer. Reattach the knob.
- 24. Connect the push-pull switch to the 4-pin connector on the harness.





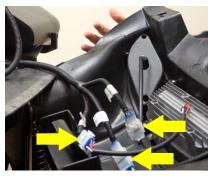
## Headlight Bumper Bar



LGT-311L

**NOTE:** If installing other accessories, do so before installing the headlight bumper bar.

 Connect the (3) wires from the light bar bumper to the (3) wires on the deluxe harness (driver and passenger side marker lights and head light).



2. Install the light bar bumper starting at the bottom. It will fit over and lock into the chassis. Slightly push up the cowl and the splash guard as the bumper is placed into position.





3. Install the headlight bumper using the <u>Original Bumper Hardware</u>. Keep the original nuts and washers in place between the bumper

and the shock.





## **Taillights**



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- Connect the taillights to the wire harness and make sure the harness is secured to the frame.
- Insert the taillight assemblies into the mounting holes. Push firmly until the retaining clips lock the lights into place.



#### **Power Connections**



**NOTE:** Complete this section once all lights and optional accessories have been installed.

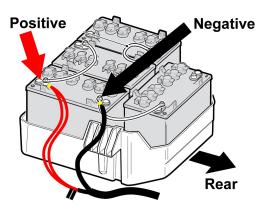
- 1. Verify the cart is in the TOW position and the key is OFF.
- 2. Verify any exposed wires and the push-pull switch are not touching the frame or any metal parts on the cart.
- 3. On a 48V system, select (1) 12V battery and connect the positive and negative wires of the harness to the positive and negative posts on the battery. On a gas cart, connect the wires to the battery. Tighten the nuts but do not over tighten. Over tightening can destroy the battery posts. See figure on Page 12.

On a 48V system with 8V batteries, a voltage reducer is required to reduce the voltage to 12V.

Note: Light sparks can be normal when connecting the batteries, but

a bright arching flash indicates there is a short in the system. The diagram to the right shows the batteries in a factory configuration.

- 4. Put the cart in the RUN position and turn the key ON.
- Turn the lights ON and test the lights and accessories to make sure they function properly.



If you are installing a basic light kit, this completes the installation.



**NOTE:** If installing a steering column cover, do so before installing the turn signal.

 Mount the turn signal assembly in a convenient location on the steering column using the included hose clamp for the LGT-112 and the LGT-143. Mount the LGT-132A using the included collar and choose one of the included rubber inserts that best fits the diameter of the steering column.







LGT-112

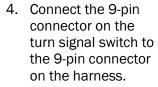
LGT-132A

LGT-143

Page 12

- 2. Remove the cup holder by removing the (3) pal nuts underneath the cup holder. Retain cup holder & hardware.
- 3. Run the turn signal wires down the steering column, under the dash area and into the cup holder area.

NOTE: If the relay is already installed on the turn signal, it may be helpful to remove the relay before routing the wires under the dash.







5. Connect the included flasher relay to the turn signal switch wiring harness.



6. If installing the LGT-132A, remove the push-pull switch at the 4-pin connector and replace it with the LGT-590 relay harness.



7. Secure the relays and any loose wires out of the way of the cup holders with cable ties.



8. Measure from the bottom of the turn signal to the dash. Using a utility knife, saw or tin snips, cut the LGT-107A, universal turn signal switch wire cover, to the measured length & sand rough edges.



- 9. Snap the cover around the wires of the turn signal switch and the steering column.
- 10. Reinstall cup holders with <u>Original Hardware.</u>



## Horn Kit

\* Horn Decal and floor mounted button are not included with the LGT-132A Turn Signal



- Connect the spade connectors on the horn harness to the back of the horn, You can connect the leads to either terminal.
- 2. Mount the horn under the front end of the vehicle in a location that does not interfere with the steering or front tires using the Included hardware. This may require drilling a 1/4" hole in a safe location on the golf cart frame.





3. Connect the triangular plug on the horn harness to the triangular plug on the deluxe harness.

**NOTE:** If your turn signal does NOT have a horn button, follow steps 4-8 below.

4. Locate the predrilled hole for the horn button in the floor of the cart. If the cart has one, it will be behind the floor mat. If not, drill a 5/8" hole through the floor in a safe location. Cut away the floor mat over the hole.



- 5. Insert the horn button in the hole from the underside of the cart. Place the horn decal over the horn button. Screw the rubber button cover onto the horn button. Do not tighten.
- 6. Align the decal so it is straight. Mark the (2) hole locations for the decal onto the floor mat. Remove the horn button, cover and decal. Drill the (2) marked hole locations using a 7/32" bit.



- 7. Install the horn button and decal using the <u>Included Nut and Rubber Bumper Cover</u>. Align the decal. Secure the decal with the (2) <u>Rivets</u>.
- 8. Connect the (2) ring terminals from the horn harness to the back of the horn button. You can connect the leads to either terminal.



## 12 Volt Receptacle and Dual USB Outlet

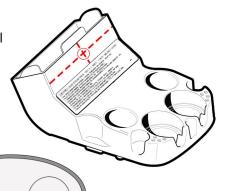




Note: These can be installed on either the cup holder or the dash.

 If mounting on the cup holder, mark the center of the upper panel of the cup holder with a marking device.

If mounting on the dash, mark a convenient location, between the key switch and the push-pull switch.



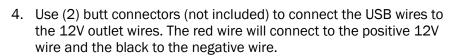
#### 12 Volt Outlet

- 1. Using a 1" hole saw, drill a hole at the marked location.
- 2. Insert the 12V receptacle into the hole and mount it with the Included Hardware to the cup holder.
- 3. Connect the 12V positive lead to the inside/center terminal of the 12V outlet and the 12V negative lead to the outside terminal.

#### **Dual USB Outlet**

1. Using a 1-1/2" hole saw (maximum size), drill a hole at the marked location.

- Insert the dual USB outlet and wires through the protective cap into the cup holder. Secure it with the threaded retaining ring.
- The red and black wires will connect to the connections used for the 12V outlet. If needed, cut the wires to the desired length.



**NOTE**: A fuse holder (ACC-0019) and 15A fuse (ACC-0021) are recommended if direct connecting the USB Ports to a 12V battery, voltage reducer or the accessory connections on the harness.



# All Brake Switches

1. Remove side and upper rocker panels.

2. Remove floor mat and pedal group access cover.

- 3. Retain all hardware.
- 4. Verify cart is in the TOW position (electric) and the key is OFF.

## LGT-138 Brake Light Pad Switch

- Center the LGT-138, brake light pad switch, on the lower portion of the brake pedal assembly and align it with the ridges in the pedal.
- If mounting the switch using the <u>Included Screws</u>, fasten the pad directly to the pedal.

If mounting the switch using the <u>Included Rivets</u>, mark the hole locations and drill (6) 3/16" holes through the pedal. Mount the pad with the rivets.

- Run the brake pad wire around the back of the brake pedal from the passenger side to the driver side of the cart. Make sure it is secured so it will not be pinched.
- Connect the brake pad to the deluxe wire harness. Secure any loose wires out of the way of the pedal group with a cable tie to the existing group of wires.

**NOTE:** Black ground wire is not used with this switch.

5. Reinstall brake access panel, floor mat, side and upper rocker panels with <u>Original Hardware</u>.



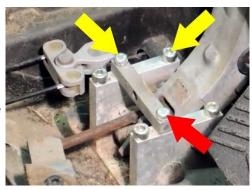






### LGT-160 Brake Light Switch (Gas Carts Only)

- Lock the brake pedal. Make sure the brake area is free and clear of debris.
- 2. Remove the bolts with the yellow arrows and loosen the one with the red arrow.



- 3. Slide the brake switch under the stop bar until the holes align. Reinstall the <u>Original Hardware</u> but do not tighten completely.
- Release the brake. It should stop at the stop bar. Slowly press the brake until the micro-switch clicks. There should be a small amount of travel

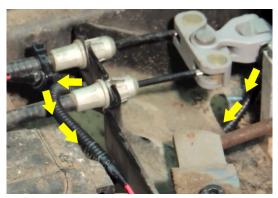
before it clicks and activates the brake.

 Make any adjustments in the brake switch position and tighten all hardware.

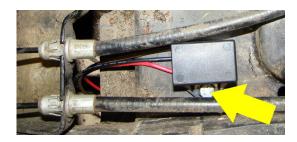




 Run the brake switch wire through the holes in the pedal compartment so it is next to the brake connector on the deluxe harness.



7. Install the LGT-142, time delay, underneath the brake cables using the Included Hardware. There is already a predrilled hole in this location.



- 8. Connect the LGT-142H harness to the deluxe harness.
- 9. Connect the black wire (spade connector) on the time delay to the black wire (spade connector) on the deluxe harness. Connect the brown wire (bullet connector) on the time delay to the brown wire

(bullet connector) on the LGT-142H harness. Connect the remaining wires, black to black and red to red (bullet connectors).

- 10. Secure the loose wires to the brake cable with a cable tie. Make sure they are not in the way of moving parts.
- 11. Reinstall brake access panel, floor mat, side and upper rocker panels with Original Hardware.



## LGT-161 Brake Light Switch (Electric Carts Only)

- 1. Loosen all (4) bolts on the stop bracket.
- 2. Completely remove the (2) bolts on the driver side of the stop bracket (blue arrow). Push the brake pedal slightly to remove any pressure.



 Slide the LGT-161 brake switch bracket under the original stop bracket on the driver side. The wires should face the rear. Align the slots with the holes in the brake assembly. Reinstall the <u>Original</u> <u>Hardware</u>. Do not tighten.





- 4. Release the brake. It should stop at the stop bar. Slowly press the brake until the micro-switch clicks. There should be a small amount of travel before it clicks and activates the brake.
- 5. Make any adjustments in the brake switch position and tighten all hardware.
- 6. Route the wire under the brake cable & follow the gray wire from the sensor. Place it into the notch in the pedal box under existing wire.
- Locate the connector from the deluxe harness. The ground (black spade connector) will not be used. Run this portion under the group of wires towards the driver side of the cart Connect it to the brake switch.
- Using cable ties, secure the connection and ground to the existing group of wires. Also secure the brake switch wire to the gray sensor wire. Make sure all wires are out of the way of moving parts.
- Reinstall brake access panel, floor mat, side and upper rocker panels with <u>Original Hardware.</u>





Your RXV Light Kit is now complete. Please enjoy your RXV safely!

Watch this installation and others on YouTube: http://www.youtube.com/channel/UCuhw7pbimukg3DpDcZrb9Bg