



# LGT-402L

## E-Z-Go Express

### LED Light Kit with RGBW Accent Lights

### Installation Instructions



**Caution:** Please read through the instructions carefully. The included lights and light kit wire harness are designed for 12-48V operation only. Operating this kit at a higher voltage will void any and all warranties. **Optional add-on accessories and those sold as part of a Build Your Own Kit for this light kit may not be rated for any voltage over 12V DC and can be damaged if installed at a higher voltage.** A voltage reducer (sold separately) is recommended when installing 12V accessories to avoid damage.

Before starting this project, remove the system's positive and negative connections from the battery or battery pack. 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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## Headlight and Taillight Hardware

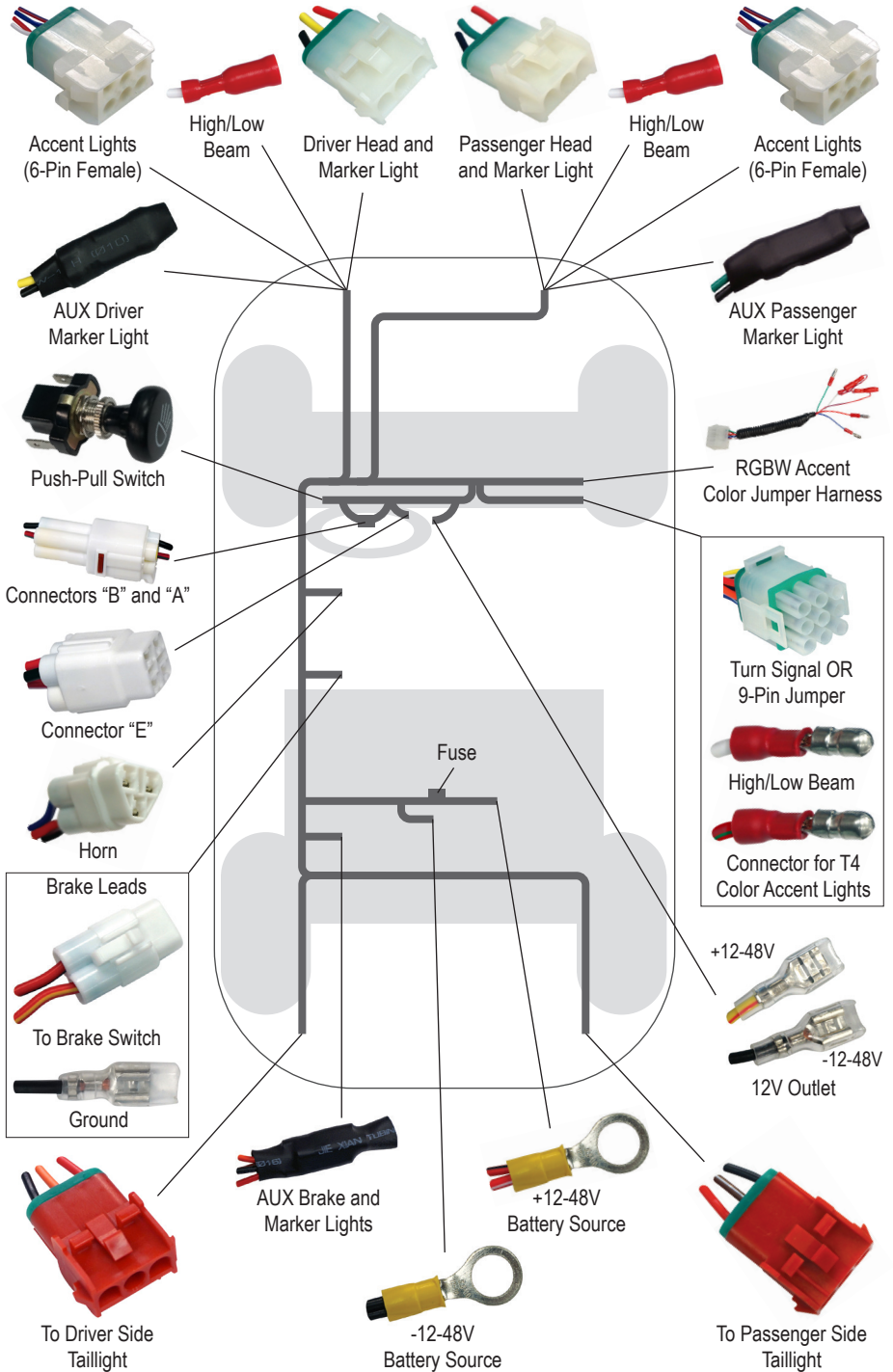


Contents		QTY
a	No. 14 x 3/4" Hex Head Blunt Self Tapping Screws	2
b	No. 14 x 1/2" Hex Head Blunt Self Tapping Screws	6
c	No. 8 x 3/4" Flat Head Sheet Metal Screws	8

## Tools Needed for Installation

- |   |                          |
|---|--------------------------|
| - Safety Glasses  | - Rotary Tool or Jig Saw |
| - Screwdriver (Phillips)  | - Utility Knife          |
| - Scissors  | - Rivet Gun              |
| - Marking Device  | - Hammer                 |
| - Painter's Tape  | - File                   |
| - Wire Cutters  |                          |
| - Sockets & Open Ended Wrenches (3/8", 11mm, 7/16")                                       |                          |
| - Drill, Drill Bits & Hole Saws (1/8", 3/16", 7/32", 1/4", 7/16", 5/8", 3/4", 1", 1-1/8") |                          |

## Wire Harness Overview



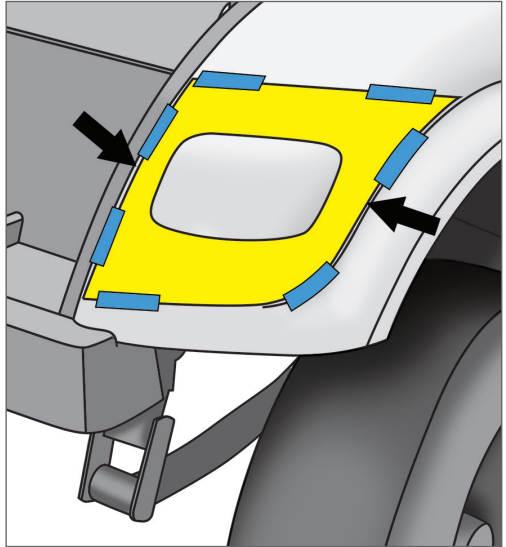
## Before You Start

1. Turn Key OFF.
2. Place Tow/Run Switch in Tow if equipped.
3. Remove the system's positive and negative connections from the battery/battery pack.
4. Engage the parking brake.

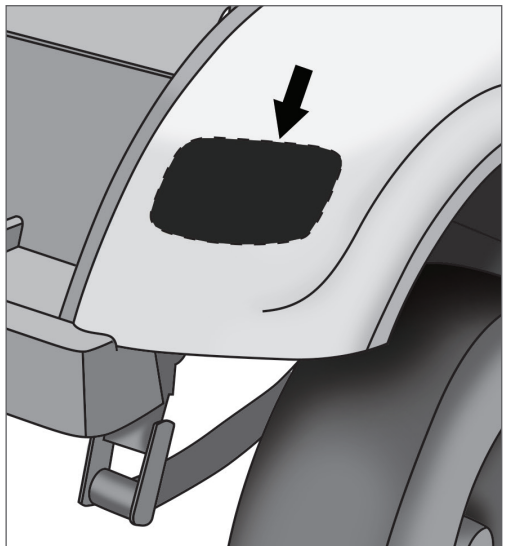
## Taillight Preparation

1. Cut out the included taillight template following the guidelines.
2. Use painter's tape to tape the template to the passenger side rear body of the cart. Align the template with the body lines as indicated on the template.
3. Use a marking device to trace the inside contour of the template onto the body.

**NOTE:** To prevent the paint from chipping, lay painter's tape down first and trace over the tape.



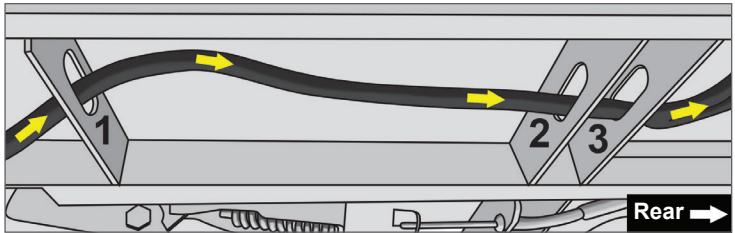
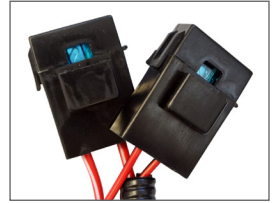
4. Use a jigsaw or rotary tool to cut out the INSIDE of the marked area. Test fit the taillight. If needed, make any modifications and retest. Once it is fitted properly, remove the tape and sand any rough edges.
5. Flip the template over and complete Steps 2-4 for the driver taillight.



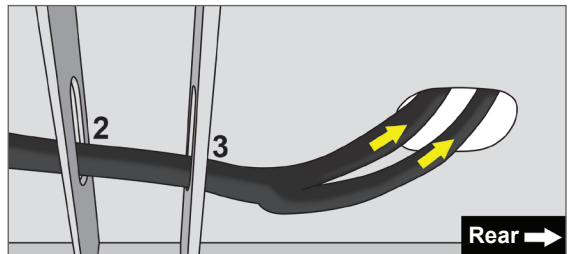
## Wire Harness Installation

### Gas & Electric Carts

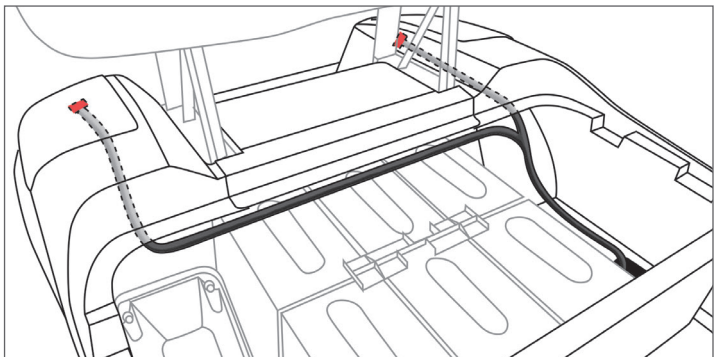
1. Lay the harness parallel to the driver side of the cart to help with orientation of the harness before installation.
2. Disconnect the fuse holders from each other.
3. From underneath the driver side of the cart, gently run the rear portion of the harness (taillight & battery connections) through the (3) openings in the frame, starting at the front and working towards the rear.



4. Route the taillight and battery connections up through the access hole that leads to the battery compartment. Set the battery leads to the side. They will be connected after installation of the harness, lights and/or accessories.

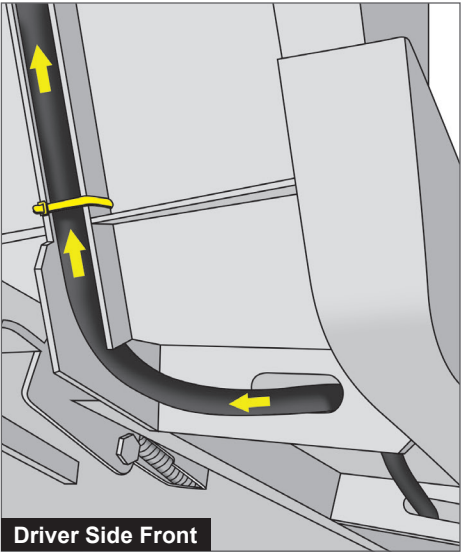


5. Route the taillight leads to the holes that were cut out for the taillights. The shorter lead will go over the driver side inner fender. The longer lead will go behind the battery pack and over the passenger fender.



6. Route the front portion of the harness through the vertical channel on the driver side. Loosely secure with cable ties.

**NOTE:** If you are not installing a brake switch, secure the brake lead to the channel with the rest of the harness.



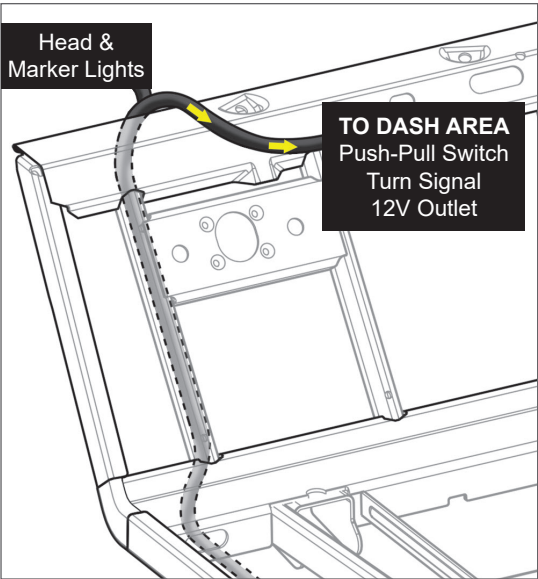
7. Configure the jumper harness on the turn signal connector:

If installing a turn signal, remove the jumper from the 9-pin connector. Retain jumper.

If installing brakes without a turn signal, switch the (2) male 2-pin connectors. Leave the jumper harness connected to the 9-pin connector.



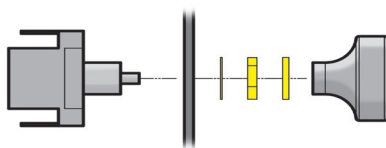
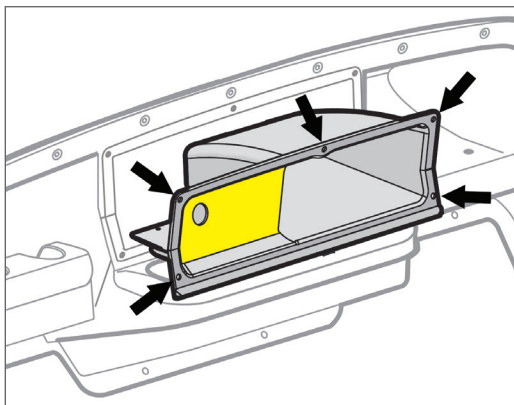
8. Route the push-pull switch, 12V outlet and turn signal leads over the chassis and into the dash area. The headlight leads will remain in front.



## **Push-Pull Switch Installation**

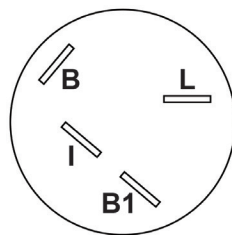
**NOTE:** If installing the LGT-132A (T3), LGT-180 (T4) or LGT-137 (T5) turn signal switches or a key switch with ON/OFF light capability, do NOT install the push-pull switch.

1. Remove the center compartment from the dash by removing the (5) screws. Use caution not to damage any wires.
2. If powering the lights with a push-pull switch, locate a free space near the key switch area (shown in yellow) to install the push-pull switch. This area should be free and clear of wires and accessories.
3. Mark the center of the mounting location and safely drill a 7/16" hole. File any rough edges.
4. Remove the knob, retaining nuts and lock washer from the push-pull switch and insert the shaft of the switch into the newly drilled hole.
5. Secure using the lock washer and retaining nuts. Reattach the knob.



## **KEY-51 Key Switch Installation**

1. Disconnect the original key switch and remove it from the center compartment. Retain the hardware.
2. Install KEY-51 in the same location where the original key switch was removed using the Original Hardware.
3. Disconnect the push-pull switch at the spade terminals.
4. Connect the two spade connectors from the original key switch to "B" and "I" on the back of KEY-51. Connect the two spade connectors from the push-pull switch to "B1" and "L".

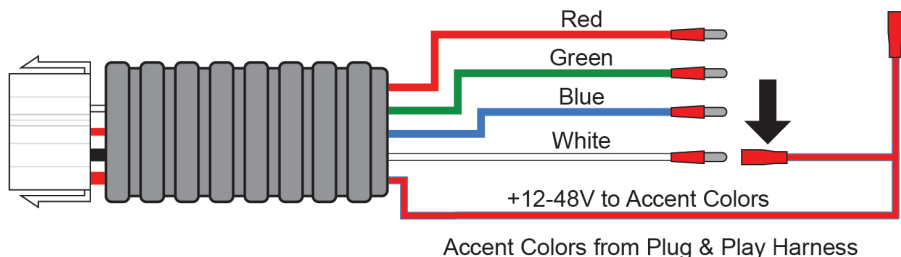


## **Accent Lighting Options**

### **Single Color Accent Lighting (Out of the Box)**

1. For WHITE accent lighting only, configure the plug & play harness as shown on Page 8.

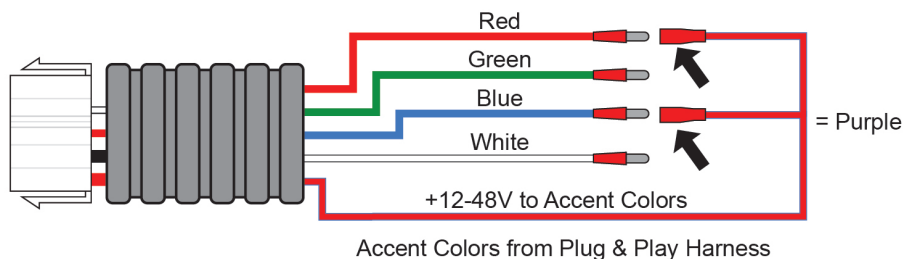
Cover the un-used male bullet connectors with electrical tape to protect them.



- For RED, GREEN or BLUE accent lights, switch the WHITE color wire with either of the three different RGB color wires (RED, GREEN or BLUE) as shown.  
**Cover the un-used male bullet connectors with electrical tape to protect them.**

## **2 Color Combination Accent Lighting**

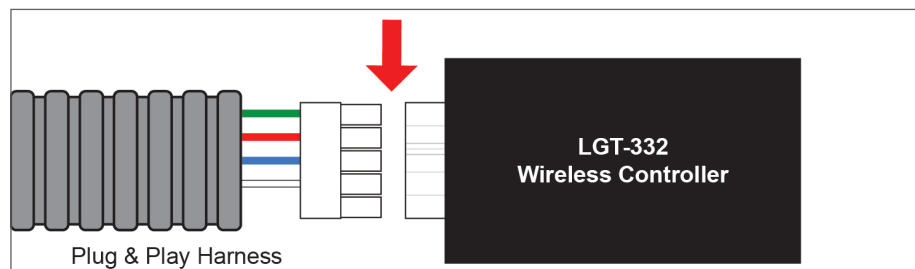
- For two color combination accent lighting, connect the (2) female bullet connectors to any (2) of the RGBW color wires (RED, GREEN, BLUE or WHITE) for a single combined color (i.e. RED + BLUE = PURPLE). See diagram on Page 10.



- Cover the un-used male bullet connectors with electrical tape to protect them.**

## **Multi-Color Combination Accent Lighting (LGT-332 Controller Required)**

- Remove the RGBW jumper harness from the plug & play harness and replace it with the LGT-332 Wireless Controller.



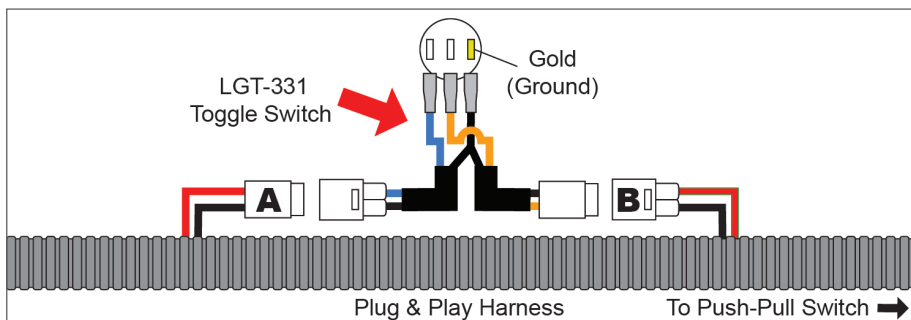
- Scan the QR code on the controller to download the app to a smart device.



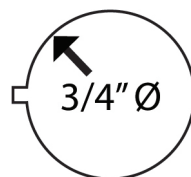
3. Once downloaded, enable Bluetooth® on your smart device. Connect the App to the LGT-332 controller per the device's Bluetooth® instructions.

### **Independent ON/OFF Toggle Switch for Accent Lighting (LGT-331 Required)**

1. Locate connectors "A" and "B" near the push-pull switch and separate them.
2. Connect the ON/OFF toggle switch between the connectors "A" and "B".



3. Find a convenient location on the dash to mount the toggle switch. Mark the center of the mounting location with a marking device.
4. Drill a 3/4" hole at the marked location. File any rough edges. Use a small file to make a small notch on the left side of the mounting hole. This notch will align with the raised line on the left side of the toggle switch to prevent the switch from rotating.
5. Disconnect the wires from the toggle switch and insert the switch in the newly drilled hole. Reconnect the leads to the toggle switch as shown.

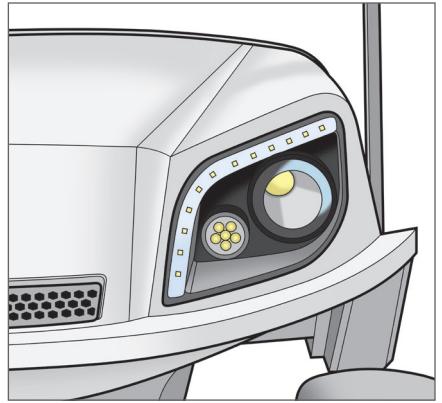
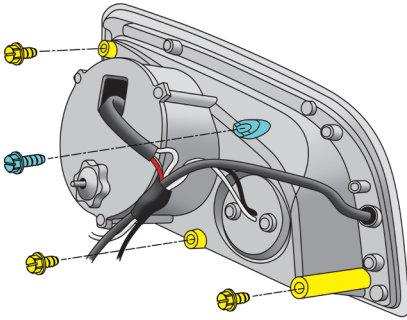


## **Headlight Installation**

**NOTE:** If installing other accessories, do so before installing the headlights.

1. Connect the driver side headlight to the driver side headlight 3-pin connector and the 6-pin accent lights connector.
2. HIGH / LOW Beam Function: High/low beams can be controlled by the T3, T4 or T5 turn signal switches OR the LGT-169 high / low beam switch. If installing a T3, T4 or T5 turn signal with high low beam capabilities, connect the bullet connectors on the headlights to the bullet connectors on the plug & play harness to enable the low beam option.
3. Install the headlight to the front cowl using (1) 1/4"-20 x 3/4" Hex Head Self-Tapping Screw (shown in blue on Page 10) and (3) 1/4"-20 x 3/4" Hex Head Self-Tapping Screws (shown in yellow on Page 10).

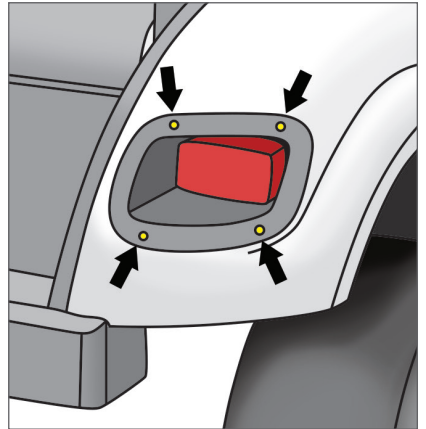
4. Repeat Steps 1-3 for passenger side.



5. For Headlights Only (No Brake or Turn Signal Switch): Configure the jumper harness on the 9-pin turn signal connector so the connector labeled "Connector Used for Running Lights Only" is plugged into the 2-pin female connector next to it.

## Taillight Installation

1. Connect the taillights to the taillight leads on the main harness.
2. Insert the taillight assemblies into the holes cut out earlier. Once in place, secure with the (8) Included Screws.
3. Secure the taillight wires to the frame with cable ties so they are safely out of the way of the tires.



## Power Connections

**NOTE:** Complete this section once all lights and optional accessories have been installed. The following diagram shows the batteries in factory configuration. Each configuration may vary. Test all batteries with a voltage meter prior to installation to determine the output voltage.

**CAUTION:** This light kit is designed to operate at a DC voltage range of 12-48V. Please be advised that add-on accessories and those sold as part of a Build Your Own Kit for this light kit may not be rated for any voltage over 12V DC and can be damaged if installed at a higher voltage. A voltage reducer (sold separately) is required when installing optional 12V accessories to a power source greater than 12V DC.

**CAUTION:** Installer must use extreme caution when connecting accessories to DC voltage. Improperly installing accessories to DC voltage of 12-48 Volts may lead to serious injury. We highly recommend professional installation for any accessory operating at a DC voltage greater than 12 Volts.

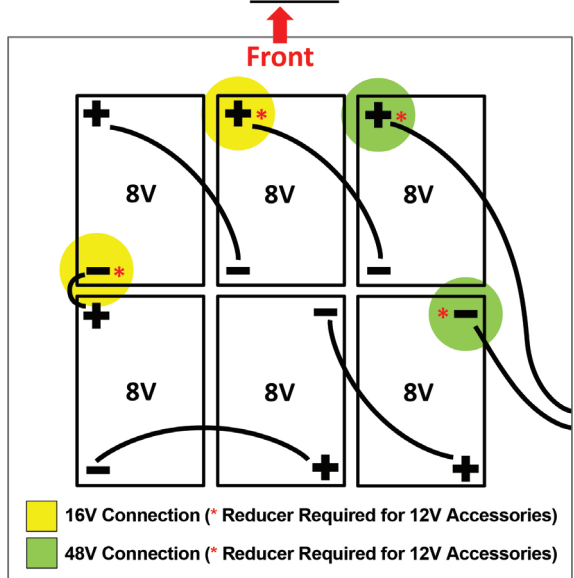
1. Verify the cart is in the TOW position (if equipped) and the key is OFF.
2. Verify any exposed wires and the push-pull switch are not touching the frame or any metal parts on the cart.
3. Connect the positive and negative battery connections from the light kit's harness to the batteries. Tighten the nuts but do not over tighten. Over tightening can destroy the battery posts.

## Carts with 8 Volt Batteries

Gas Carts: Connect the wires to a 12V battery.

48V Electric Carts with 8V Batteries for 12V Output:  
A voltage reducer is required to reduce the voltage to 12V. This is the safest option if installing optional accessories.

48V Electric Carts with 8V Batteries for 48V Output:  
This option is not recommended if installing optional accessories.



**NOTE:** Light sparks can be normal when connecting batteries, but a bright arching flash indicates there is a short in the system. The diagram below shows the batteries in factory configuration. Always test the batteries with a voltage meter as each configuration may vary.

4. Put the cart in the RUN position (if equipped) and turn the key ON.
5. Turn the lights ON and test the lights and accessories to make sure they function properly.
6. Secure any loose wires with cable ties.

## Turn Signal Assemblies



LGT-107A



LGT-T1



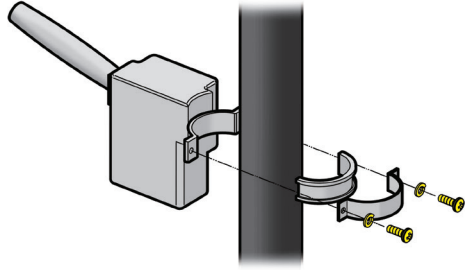
LGT-T2



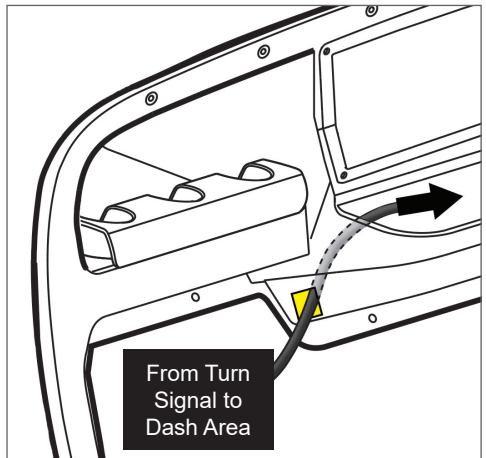
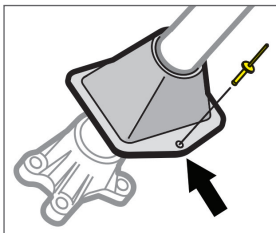
LGT-T3

**NOTE:** If installing a steering column cover, do so before installing the turn signal. See individual instructions for LGT-180 (T4) and LGT-137 (T5) turn signal assemblies.

1. Mount the turn signal assembly in a convenient location on the steering column using the Included Hardware.



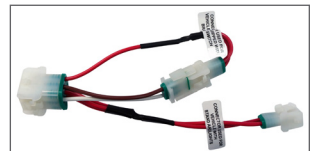
2. Peel back the floor mat to expose the area around the steering column boot. Remove the rivet securing the boot to the floor and slide the boot out of the way.
3. Using a rotary tool, cut an access hole into the dash compartment large enough to fit the turn signal connectors.



4. Run the turn signal wires down the steering column, through the access hole and into the dash area.

**NOTE:** If a control box and/or flasher relay is already installed on the turn signal, remove them before running the wires into the dash.

5. Remove the jumper harness from the 9-pin turn signal connector on the plug and play harness. Retain jumper.



6. **All Turn Signals:** Connect the 9-pin connector on the turn signal to the 9-pin on the plug & play harness. Reconnect control box and/or flasher relay removed in Step 4.

**High/ Low Beam Function (T3 only):** Connect the bullet connector on the turn signal harness labeled "HI/LOW" to the corresponding bullet connector on the plug & play harness to enable the low beam function.

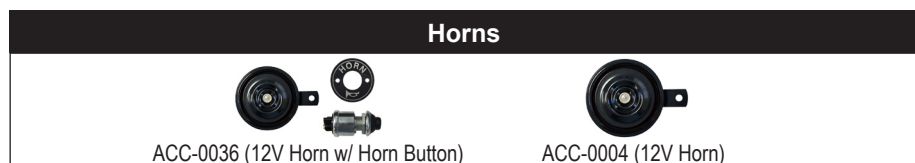
7. If installing the LGT-T3 turn signal, remove the push-pull switch from the 4-pin connector on the plug & play harness and replace it with the LGT-590 relay.



8. Reinstall the boot to the floor.
9. Measure from the bottom of the turn signal to the boot. Using a utility knife, saw or tin snips, cut the LGT-107A (universal turn signal switch wire cover) to the measured length and sand rough edges.

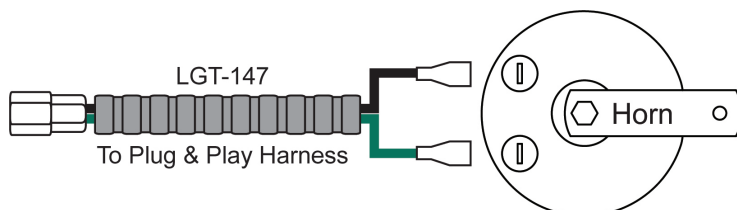
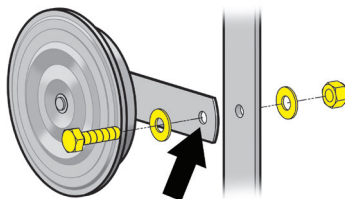


10. Snap the cover around the turn signal wires and the steering column.



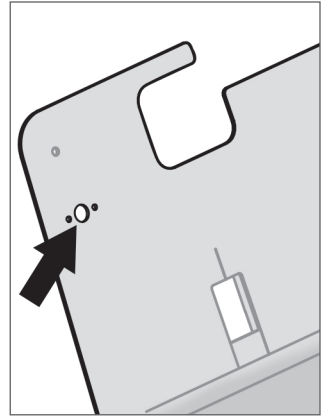
### **Horn Only (For use with LGT-T2, LGT-T3, LGT-T4 and LGT-T5 Turn Signals)**

1. Connect the spade connectors on the horn harness to the back of the horn on either terminal as shown below.
2. Mount the horn under the driver side front end of the vehicle in a location free of moving parts using the Included Hardware. Use a pre-drilled hole or drill a 1/4" hole in a safe location on the golf cart frame. The horn should face away from the cart and its passengers.
3. Connect the triangular plug on the horn harness (LGT-147) to the triangular plug on the plug & play harness. Secure any loose wires with cable ties.

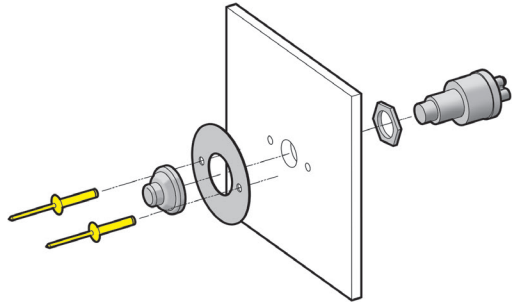


## **Horn w/ Horn Button (For use alone or with LGT-T1 Turn Signal)**

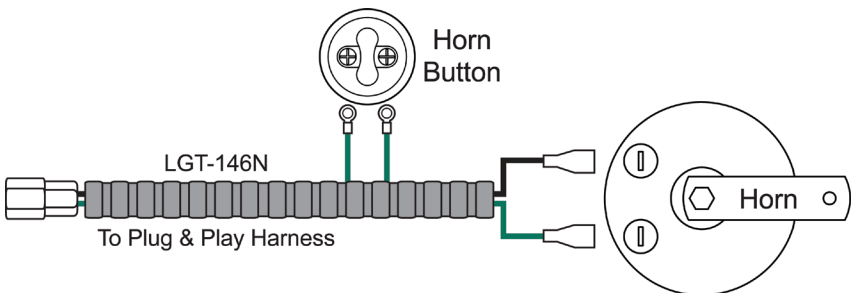
1. Mount the horn as shown on Page 13.
2. Locate the pre-drilled hole for the horn button in the floor of the cart. If there is a predrilled hole, it will be behind the driver side floor mat. If not, drill a 5/8" hole through the floor in a safe location. Cut away the floor mat over the hole.
3. Locate the (2) pre-drilled holes for the rivets, if your cart has them. Remove the floor mat over the holes with a 7/32" drill bit. If your cart does not have pre-drilled holes, follow Steps 4-5 below.
4. 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.



5. 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 with a 7/32" bit.



6. Install the horn button and decal as shown using the Included Rivets.
7. Connect the (2) ring terminals on the horn harness to the back of the horn button and connect the (2) spade terminals to the horn. You can connect the leads to either terminal.
8. Connect the triangular plug on the horn harness to the triangular plug on the light kit's harness.



9. Secure any loose wires with cable ties.

## 12 Volt Receptacle and Dual USB Outlets



ACC-0058



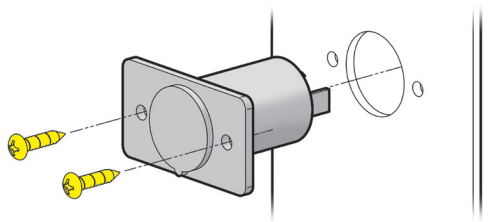
ACC-0097

**CAUTION:** 12V Outlets are designed for 12V operation ONLY unless otherwise stated. Operating at a voltage higher than 12V will damage accessories plugged into the outlet.

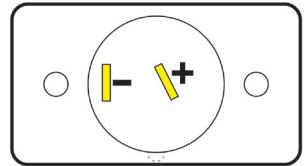
1. Find a convenient location on the dash or center compartment to mount the 12V receptacle and/or USB outlet.
2. Mark the center of the mounting location with a marking device.

### ACC-0058 12 Volt Outlet

1. Drill a 1" hole at the marked location.
2. Insert the 12V receptacle into the hole and mount it with the Included Hardware.

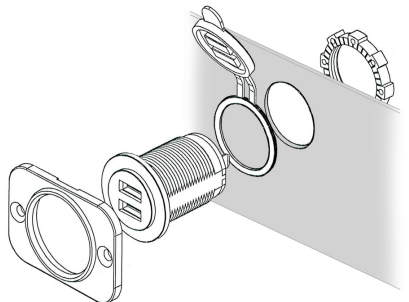


3. Connect the +/- 12V outlet leads on the light kit harness to the +/- 12V terminals on the back of ACC-0058.

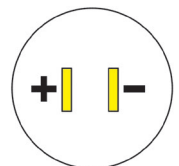


### ACC-0097 Dual USB Outlet 12-48V

1. Drill a 1-1/8" hole (maximum size) at the marked location.
2. Insert the outlet through the protective cap and into the mounting area. Secure it with the retaining nut. Mount the flat panel cover over the outlet (not required) using the Included Screws.
3. Connect the +/- 12V outlet leads on the light kit harness to the +/- 12V terminals on the back of the ACC-0097.



**NOTE:** A fuse holder (ACC-0019) and 15A fuse (ACC-0021) are recommended if direct connecting the USB receptacle to a battery source or voltage reducer.



## Brake Light Switches



LGT-B1 (12-48V)



LGT-B5 (12-48V)



LGT-B10 (12-48V)

### All Brake Switches

1. Verify cart is in TOW position (if equipped), key is OFF and wheel is chocked.
2. If installing a brake switch without a turn signal, switch the (2) 2-pin male connectors on the jumper harness located on the turn signal connector. Leave the jumper on the harness.



### LGT-B1 (LGT-138) Brake Pad Light Switch, Universal Fit

1. Lock the brake pedal and center the brake pad on the lower portion of the brake pedal assembly.
2. If mounting the switch using the Included Screws, fasten the pad directly to the pedal.

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

3. Run the wire under the brake pedal, under the brake assembly and through the opening in the floor. Secure the brake pad wire to the bottom side of the assembly using cable ties.
4. Connect the brake pad to the light kit's wire harness. Use a cable tie to secure the wires to the existing wire harness in the channel. Make sure the wires are clear of any moving parts.

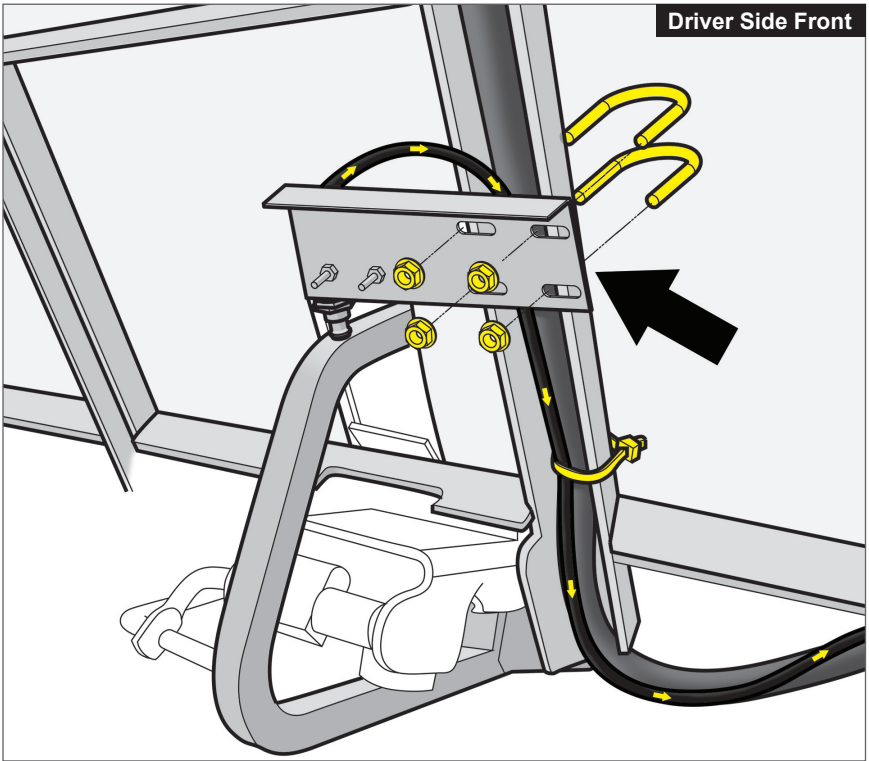


**NOTE:** Black ground wire is not used with the LGT-138 brake pad switch.

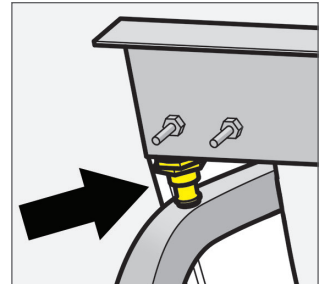
### LGT-B5 (LGT-163) Brake Switch with Time Delay

1. Unlock the brake pedal and chock the wheels.
2. Place the (2) Included U-Bolts behind the channel adjacent to the brake pedal assembly. Slide the threaded ends of the U-bolts through the (4) slots on the brake switch bracket. Tighten the Nuts on the U-bolt so they are snug but still adjustable.

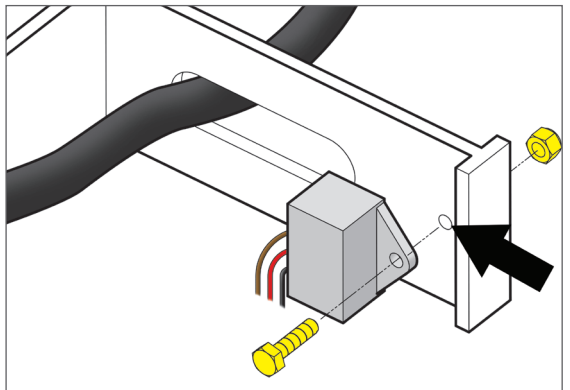




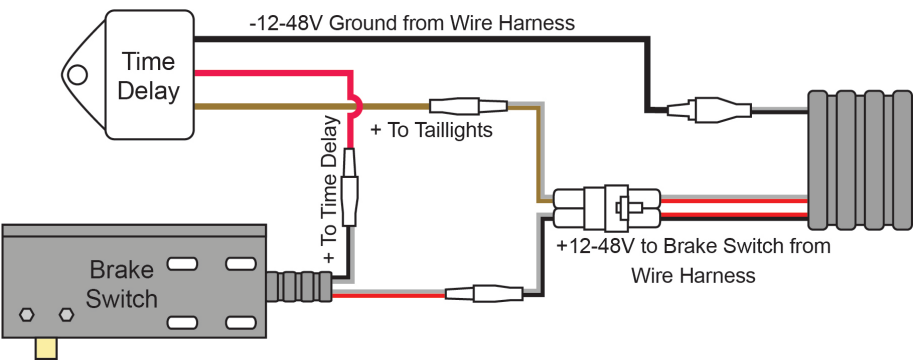
3. With the brake pedal unlocked, position the bracket so the switch is centered above the pedal assembly. Lower it until the switch is activated (it will click). Tighten the nuts to lock the bracket into position.
4. Slide the brake switch wire and the brake lead from the light kit's harness behind the bracket and down the channel with the existing harness shown in Step 2.



5. Install the LGT-142, time delay, near the first opening in the frame next to the light kit's wire harness. Mark the hole location and drill an 1/8" pilot hole. Drill a 1/4" hole through the pilot hole. Mount the time delay with the Included Hardware.



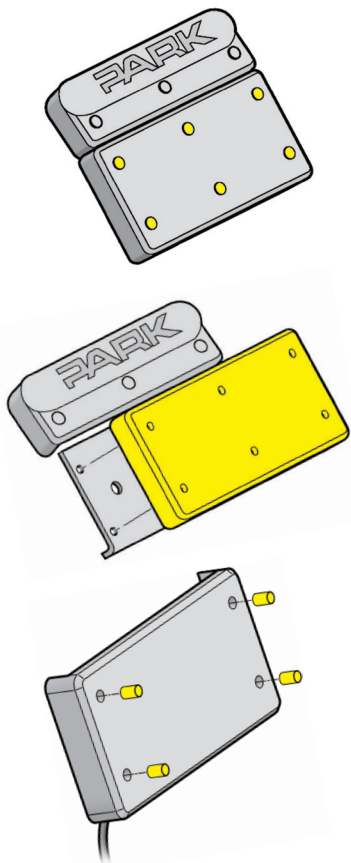
6. Connect the brake switch to the time delay and the light kit's harness as shown in the diagram below:



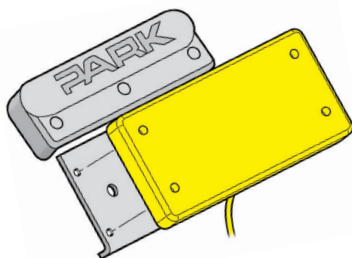
7. Secure all loose wires to the frame with cable ties.

**LGT-B10 Brake Pad Light Switch, OE Fit**

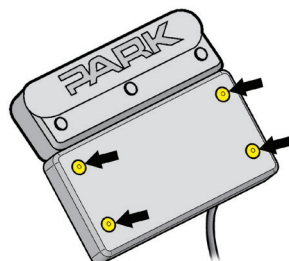
1. Drill through the center of the (6) rivets on the parking brake with a 3/16" drill bit (shown in yellow).
2. Remove the lower portion of the OE brake pad.
3. Push the (4) Included Spacers into the (4) holes on the new LGT-B10 brake pad.



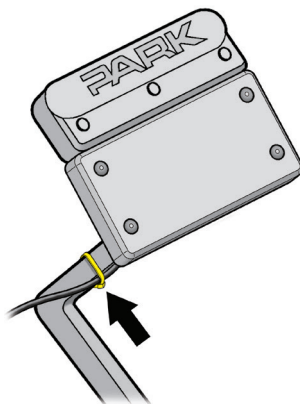
4. Place the LGT-B10 over the brake pedal plate with the wire at the bottom.



5. Attach the LGT-B10 to the brake pedal plate with the (4) Included Rivets.



6. Route the LGT-B10 wire under the brake pedal and through the opening in the floor. Keep the wire on the bottom side of the pedal's arm and away from any pinch points.
7. Use zip ties (not included with brake pad) to secure the wire to the bottom of the pedal's arm.
8. Connect the LGT-B10 to the light kit's wire harness. Use a cable tie to secure the wires to the existing wire harness in the channel. Make sure the wires are clear of any moving parts.



**NOTE:** Black ground wire is not used with the LGT-B10 brake pad switch.

Your E-Z-Go Express Light Kit is now complete.  
Please enjoy safely!

Scan QR code or use the link to view our installation video library.  
<https://www.youtube.com/user/golfcartinstructions>



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