



RHOX

Rugged parts for your ride.

LGT-402L E-Z-Go Express LED Light Kit with RGBW Accent Lights 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 12-48V 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.).

Table of Contents

1)	Taillight Preparation	Page 4
2)	Wire Harness Installation	Page 5
3)	Accent Lighting Options	Page 8
4)	Headlight Installation	Page 10
5)	Taillight Installation	Page 10
6)	Power Connections	Page 11

Optional Accessory Installation Instructions

1)	Turn Signal Assemblies	Page 12
	LGT-T1 (LGT-143) Basic Turn Signal Switch	
	LGT-T2 (LGT-112) Standard Turn Signal Switch w/ Horn Button	
	LGT-T3 (LGT-132A) Deluxe Turn Signal Switch w/ Horn Button	
2)	Horns	Page 13
3)	12 Volt Receptacle and Dual USB Outlets	Page 15
	ACC-0097 Dual USB Outlet	
	ACC-0088 USB Dual Port Charging Receptacle	
	ACC-0058 12 Volt Outlet	
4)	Brake Light Switches	Page 16
	LGT-B1 (LGT-138) Brake Pad Light Switch, Universal Pedal Mount	
	LGT-B5 (LGT-163) Brake Light Switch w/ Time Delay	
	LGT-B10 Brake Pad Light Switch, OE Fit	

Headlight and Taillight Hardware

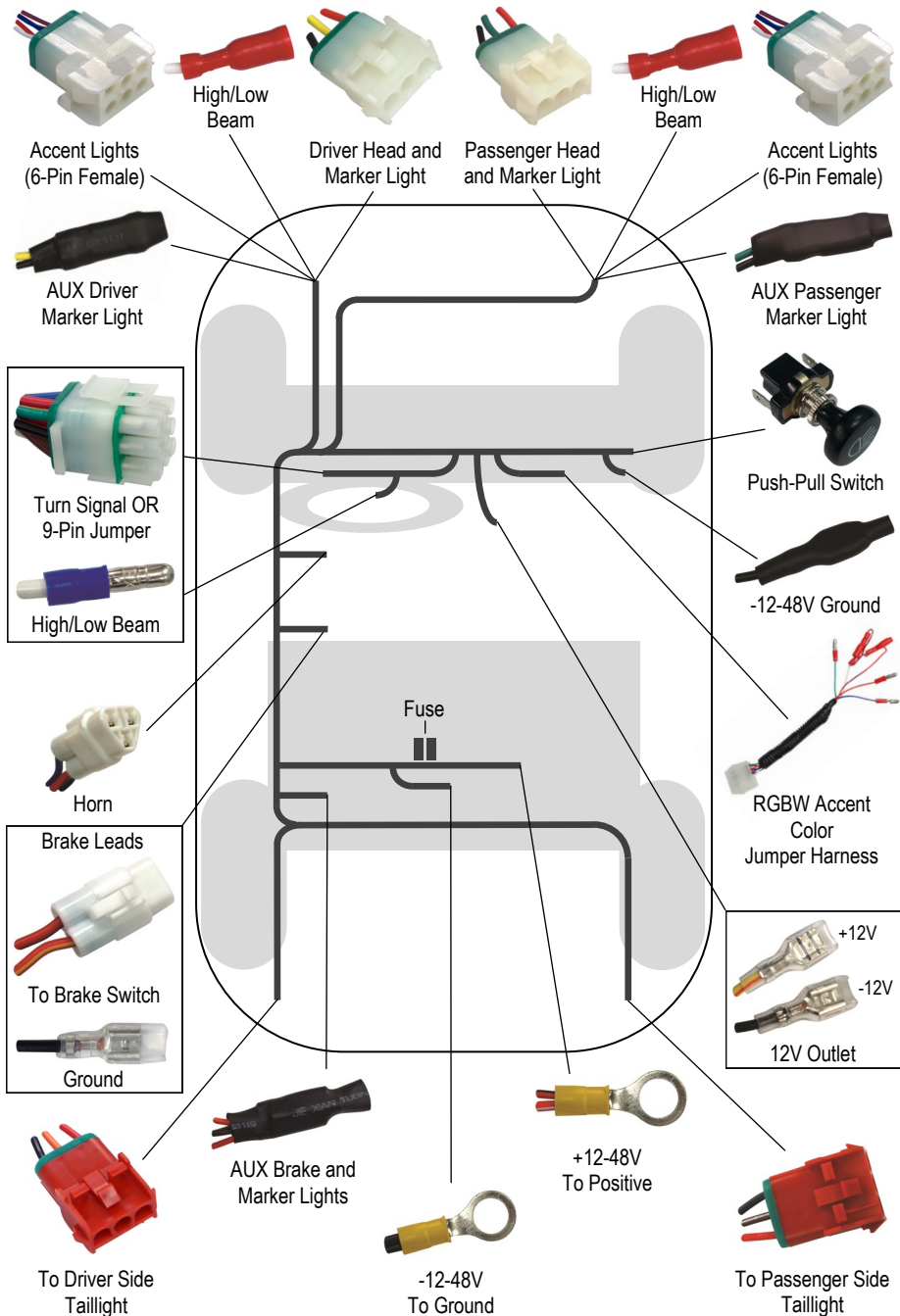


Contents of LGT-402L Hardware Kit		Qty.
a	No. 14 x 3/4" Hex Head Blunt Self Tapping Screws	2
b	No. 14 x 1/2" Hex Head Blunt Self Tapping Screws	6
c	No. 8 x 3/4" Flat Head Sheet Metal Screws	8

Tools Needed for Installation

- Screwdriver (Phillips & Flat Head)
- Sockets & Open Ended Wrenches (3/8", 10mm, 11mm, 7/16")
- Drill, Drill Bits & Hole Saws (1/8", 3/16", 7/32", 1/4", 5/8", 7/16", 1", 1-1/2")
- Wire Cutters & Crimpers
- Hammer
- Rivet Gun
- Jig Saw or Rotary Tool
- Sandpaper or File

Wire Harness Overview



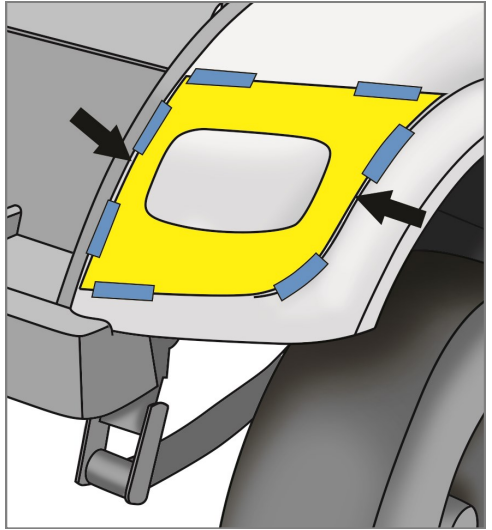
Before You Start

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 or battery pack.
4. Engage the parking brake.

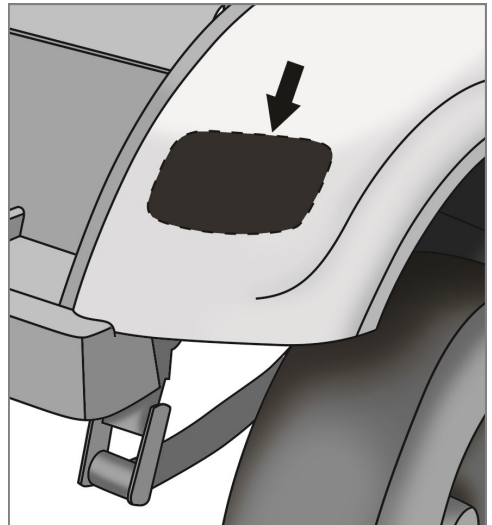
Taillight Preparation

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.



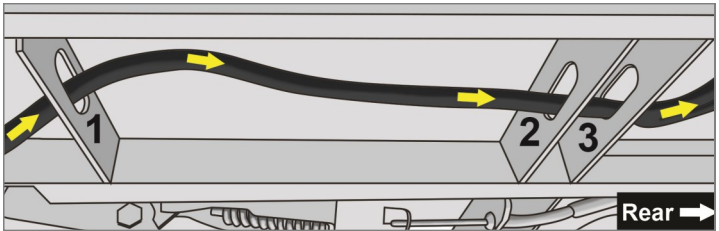
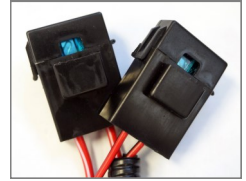
4. Use a jigsaw or rotary tool to cut out the INSIDE of the marked area. Test fit the taillight. If needed, make any modifications and retest. Once it is fitted properly, remove the tape and sand any rough edges.
5. Flip the template over and complete Steps 2-4 for the driver taillight.



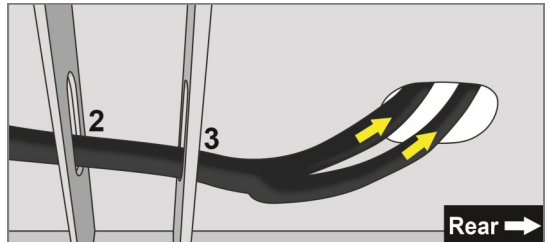
Wire Harness Installation

Gas & Electric Carts

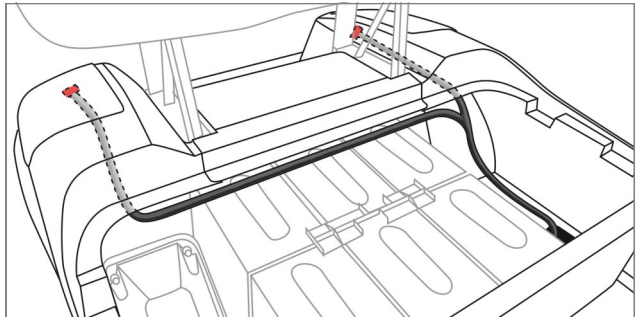
1. Completely remove the front seat bottom assembly.
2. Lay the harness parallel to the driver side of the cart to help with orientation of the harness before installation.
3. Disconnect the fuse holders from each other.
4. From underneath the driver side of the cart, gently run the rear portion of the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



5. 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.



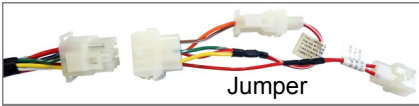
6. Route the taillight leads to the holes that were cut out for the taillights. The shorter lead will go over the driver side inner fender. The longer lead will go behind the battery pack and over the passenger fender.



7. 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.

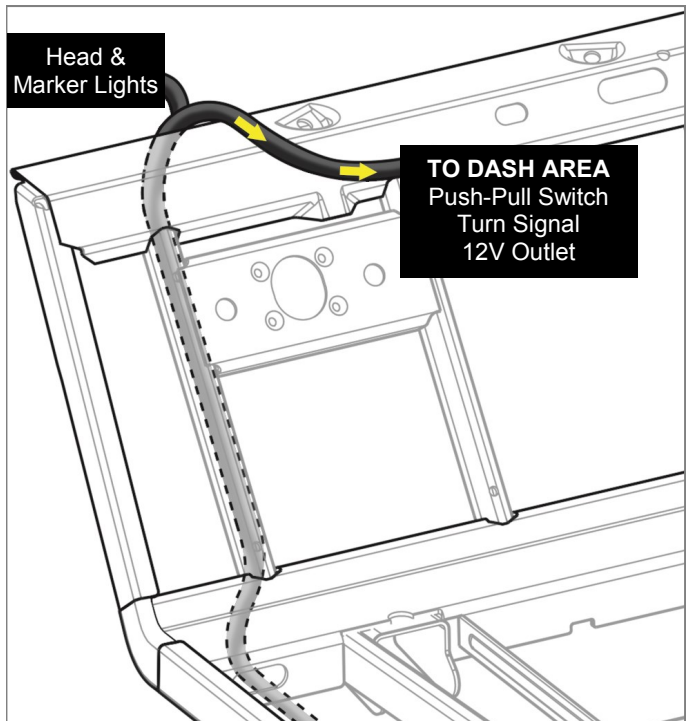
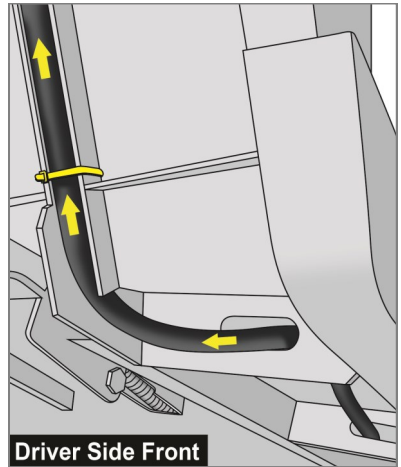
8. Configure the jumper harness on the turn signal connector:



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

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

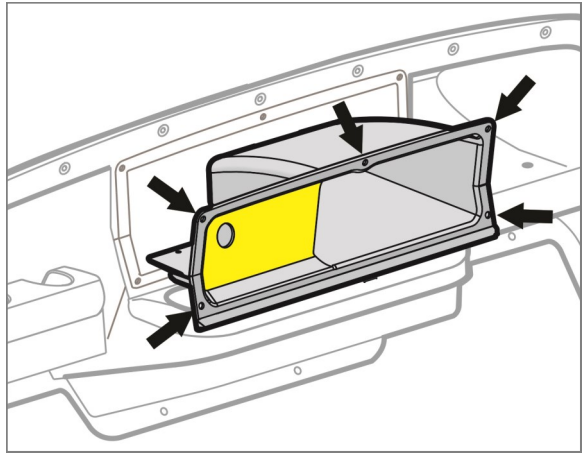
9. Route the push-pull switch, 12V outlet and turn signal leads over the chassis and into the dash area. The headlight leads will remain in front.



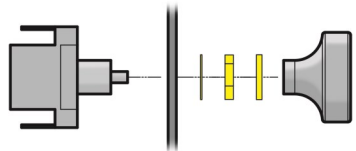
Push-Pull Switch Installation

NOTE: If installing the LGT-132A (T3) deluxe turn signal switch or the KEY-51 key switch, 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.

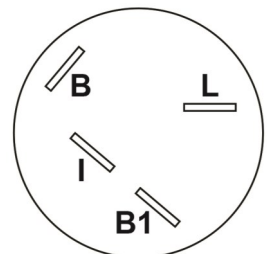


3. Mark the center of the mounting location and safely drill a 1/2" hole. File any rough edges.
4. Remove the knob, retaining nuts and lock washer from the push-pull switch and insert the shaft of the switch into the newly drilled hole.
5. Secure using the lock washer and retaining nuts. Reattach the knob.



KEY-51 Key Switch Installation

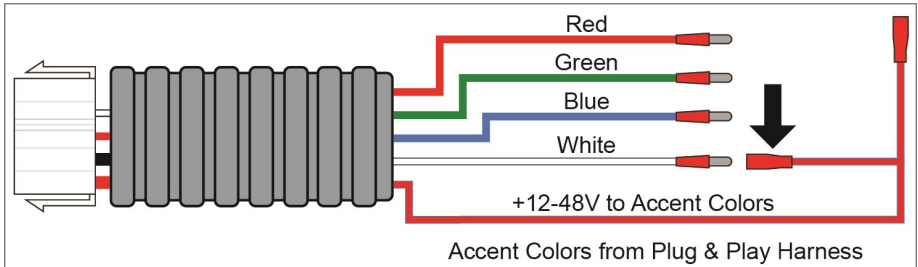
1. Disconnect the original key switch and remove it from the center compartment. Retain the hardware.
2. Install KEY-51 in the same location where the original key switch was removed using the Original Hardware.
3. Disconnect the push-pull switch at the spade terminals.
4. Connect the two spade connectors 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)

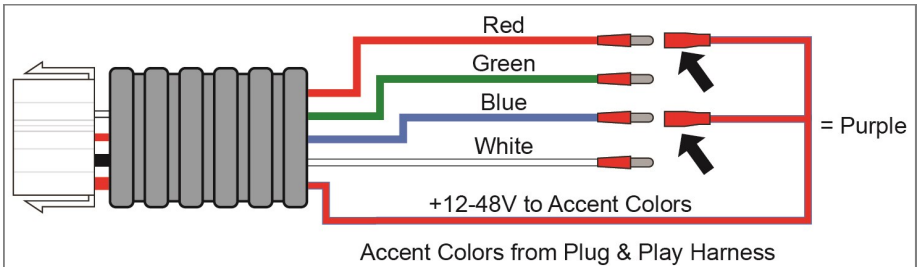
1. For WHITE accent lighting only, configure the plug & play harness as shown.
Cover the un-used male bullet connectors with electrical tape to protect them.



2. 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).
Cover the un-used male bullet connectors with electrical tape to protect them.

2 Color Combination Accent Lighting

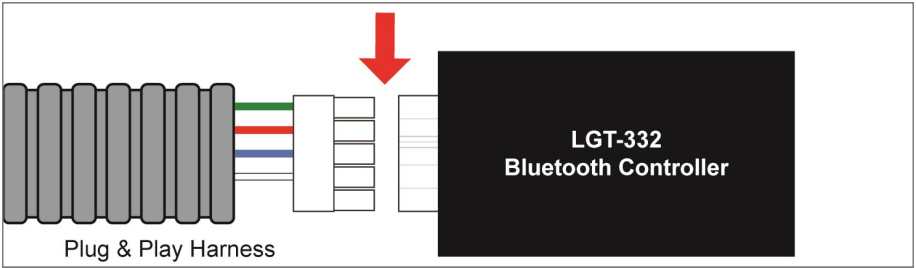
1. For two color combination accent lighting, connect the (2) female bullet connectors to any (2) of the RGBW color wires (RED, GREEN, BLUE or WHITE) for a single combined color (i.e. RED + BLUE = PURPLE).
Cover the un-used male bullet connectors with electrical tape to protect them.



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

1. Remove the RGBW jumper harness from the plug & play harness and replace it with the LGT-332 Bluetooth Controller as shown on Page 9.
2. Download the "Magic Lumen" App on a smart device by scanning the QR code or searching for it in the App Store.

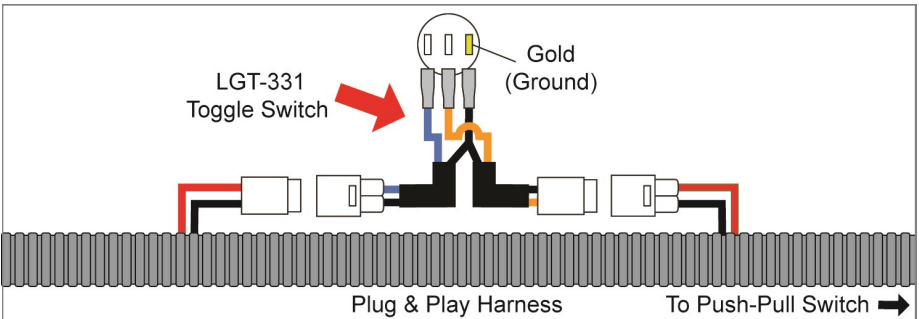




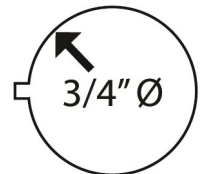
3. Once downloaded, enable Bluetooth on your smart device. Connect the Magic Lumen App to the LGT-332 controller per the device's Bluetooth instructions.

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

1. Locate the white 4-pin connectors near the push-pull switch and separate them.
2. Connect the ON/OFF toggle switch between the (2) white connectors as shown.



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 above.



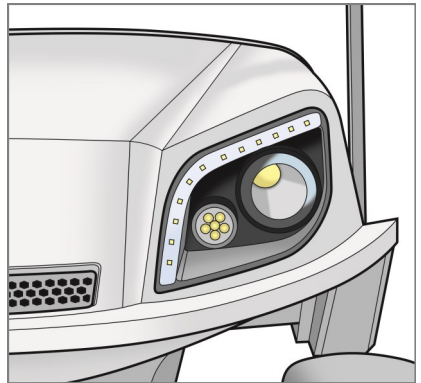
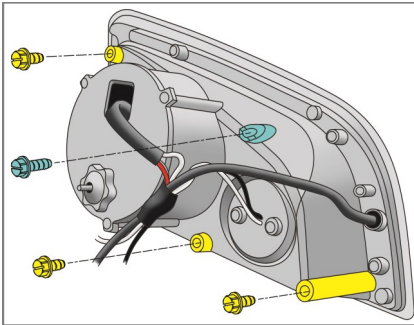
Headlight Installation

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. **NOTE:** If installing a T3 turn signal with high low beam capabilities, connect the bullet connector on the headlight to the bullet connector on the plug & play harness to enable the low beam option.

For constant low beams, connect the bullet connectors on the back of the headlight together.

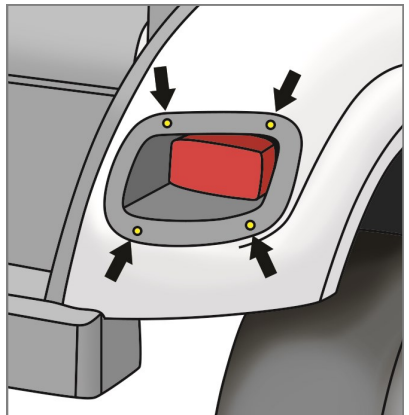
3. Install the headlight to the front cowl using (1) 1/4"-20 x 3/4" Hex Head Self-Tapping Screw (shown in blue) and (3) 1/4"-20 x 3/4" Hex Head Self-Tapping Screws (shown in yellow).



4. Repeat Steps 1-3 for passenger side.

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.

CAUTION: This light kit is designed to operate at a DC voltage range of 12-48V. Please be advised that add-on accessories for this light kit may not be rated for any voltage over 12V DC and can be damaged if installed at a higher voltage.

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.

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

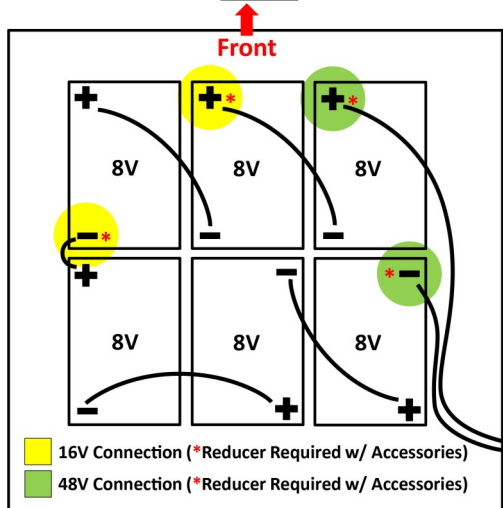
48V Electric Carts with 8V Batteries for 12V Output:

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.

Carts with 8 Volt Batteries



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 shows the batteries in factory configuration. Always test the batteries with a voltage meter as battery configurations 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.

Turn Signal Assemblies



LGT-107A



LGT-T1



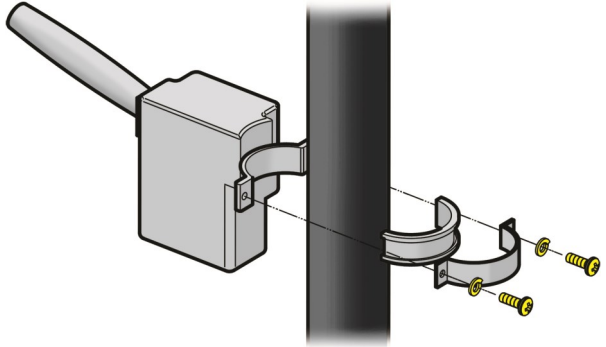
LGT-T2



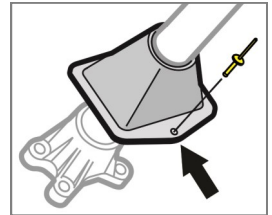
LGT-T3

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

1. Mount the turn signal assembly in a convenient location on the steering column using the included collar and one or more of the included rubber inserts that best fits the diameter of the steering column.

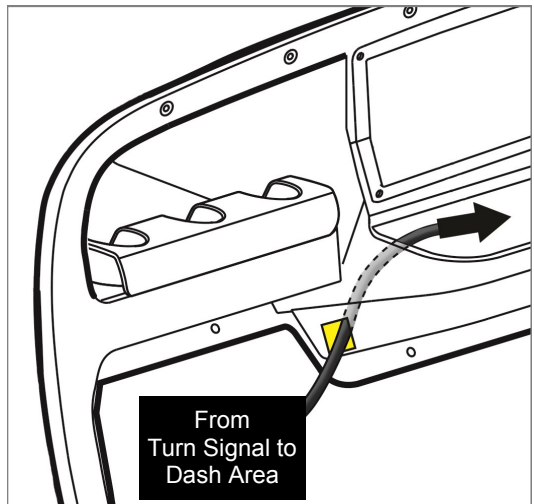


2. Peel back the floor mat to expose the area around the steering column boot. Remove the rivet securing the boot to the floor and slide the boot out of the way.



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.

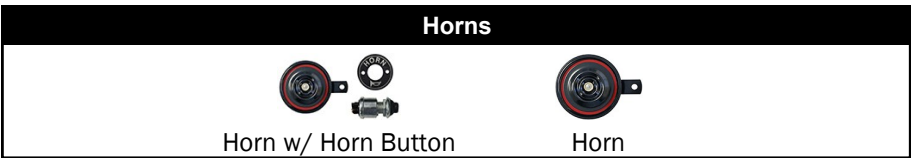
NOTE: If the relay is already installed on the turn signal, it may be helpful to remove the relay before routing the wires through the dash.



5. Connect the 9-pin connector on the turn signal switch to the 9-pin connector on the harness. Connect the flasher relay to the turn signal switch harness.
6. If installing the LGT-T3 turn signal, remove the push-pull switch from the 4-pin connector and replace it with the LGT-590 relay harness.

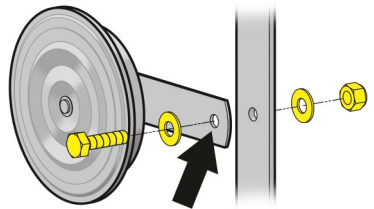


7. Secure the excess wires in the dash compartment. Reinstall the boot and floor mat.
8. Measure from the bottom of the turn signal to the boot. Using a utility knife, saw or tin snips, cut the LGT-107A, universal turn signal switch wire cover, to the measured length & sand rough edges.
9. Snap the cover around the turn signal switch wires and the steering column.

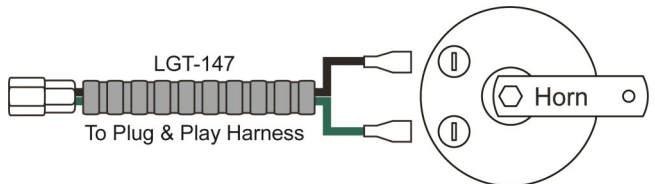


Horn Only (For use with LGT-T2 and LGT-T3 Turn Signals)

1. Connect the spade connectors on the LGT-147 horn harness to the back of the horn on either terminal.
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 it's passengers.



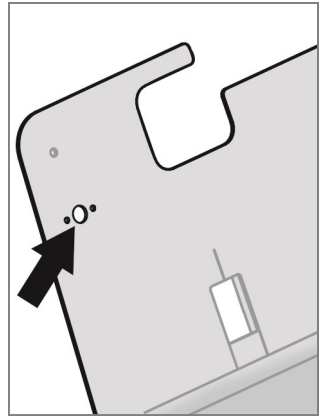
3. Connect the triangular plug on the horn harness to the triangular plug on the light kit's harness.



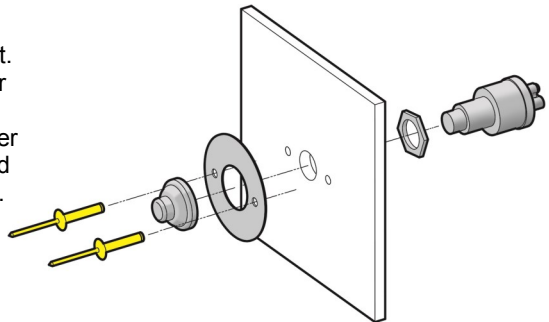
- Secure any loose wires with cable ties.

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

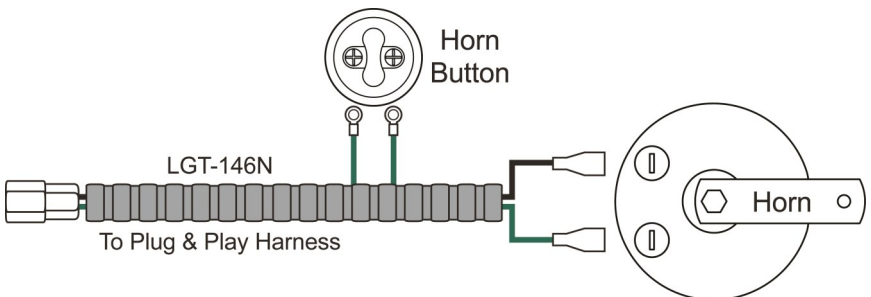
- Mount the horn as shown on Page 13.
- Locate the pre-drilled hole for the horn button in the floor of the cart. If there is a predrilled hole, it will be behind the driver side floor mat. If not, drill a 5/8" hole through the floor in a safe location. Cut away the floor mat over the hole.
- Locate 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.
- 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.



- 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.
- Install the horn button and decal as shown using the Included Rivets.



- 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.
- Connect the triangular plug on the horn harness to the triangular plug on the light kit's harness.



- Secure any loose wires with cable ties.

12 Volt Receptacle and Dual USB Outlets



ACC-0097



ACC-0088



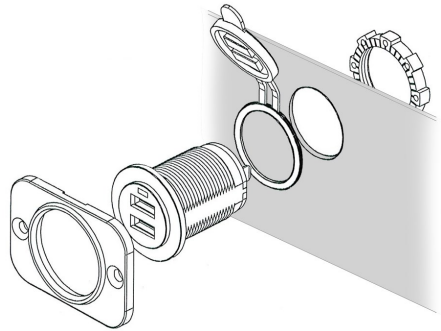
ACC-0058

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

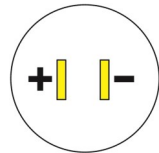
- Find a convenient location on the dash or center compartment to mount the 12V receptacle and/or USB outlet.
- Mark the center of the mounting location with a marking device.

ACC-0097 Dual USB Outlet

- Drill a 1-1/8" hole (maximum size) at the marked location.
- 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.
- Connect the +/- 12V outlet leads on the light kit harness to the +/- 12V terminals on the back of the ACC-0097.



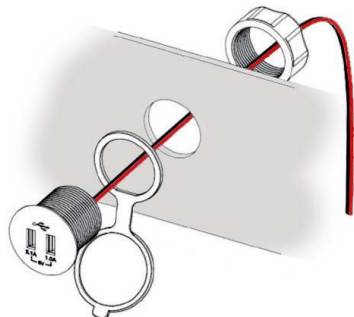
NOTE: A fuse holder (ACC-0019) and 15A fuse (ACC-0021) are recommended if direct connecting the USB ports to a 12V battery or voltage reducer.



ACC-0088 Dual Port USB Charging Receptacle

- 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 drilled hole. Secure 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.

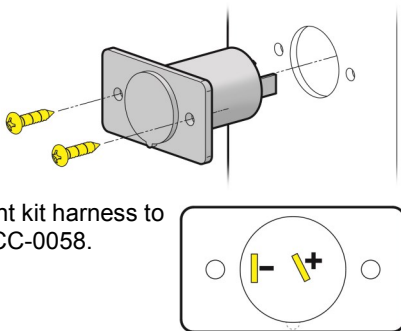
NOTE: A fuse holder (ACC-0019) and 15A fuse (ACC-0021) are recommended if direct



connecting the USB ports to a 12V battery or voltage reducer.

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 the ACC-0058.



Brake Light Switches



LGT-B1



LGT-B5



LGT-B10

All Brake Switches

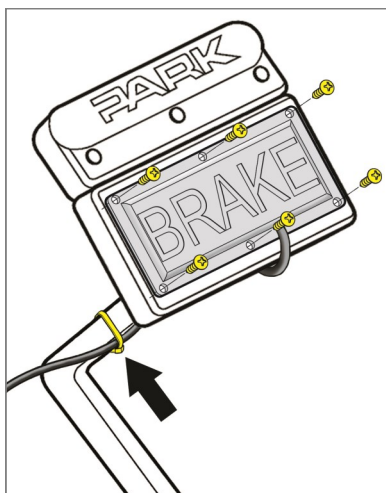
1. Verify cart is in TOW position (if equipped), key is OFF and wheel is chocked.

LGT-B1 (LGT-138) Brake Light Pad 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

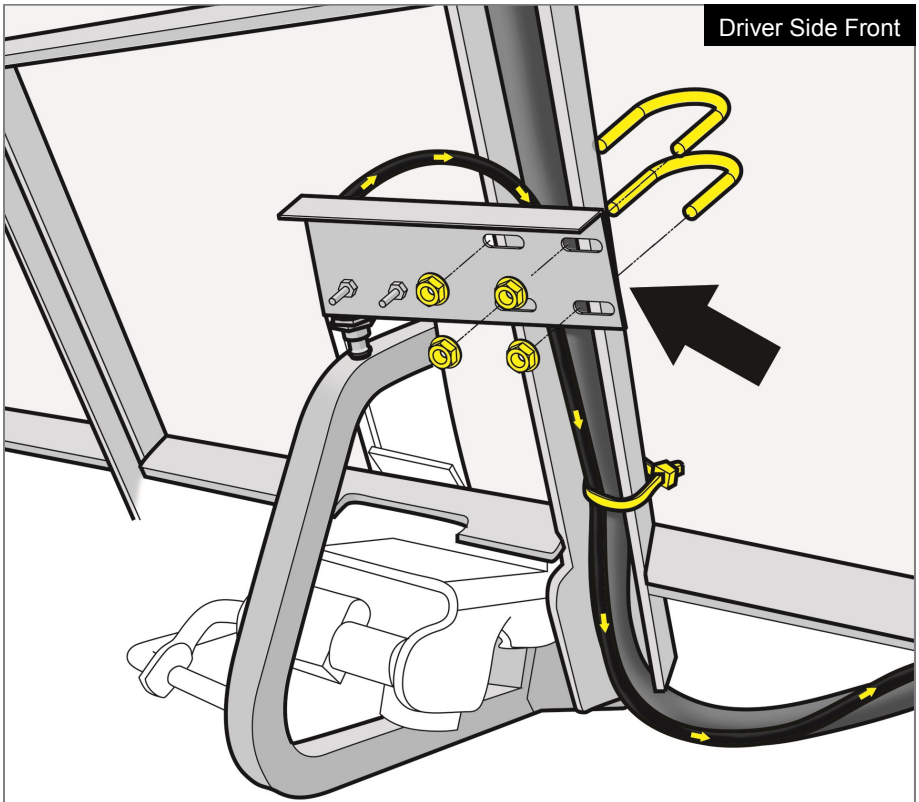


any moving parts.

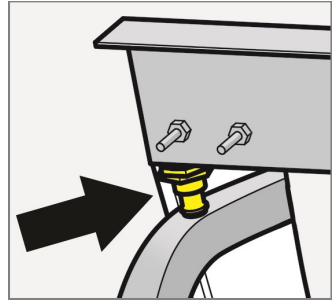
NOTE: Black ground wire is not used with the LGT-138 brake pad switch.

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

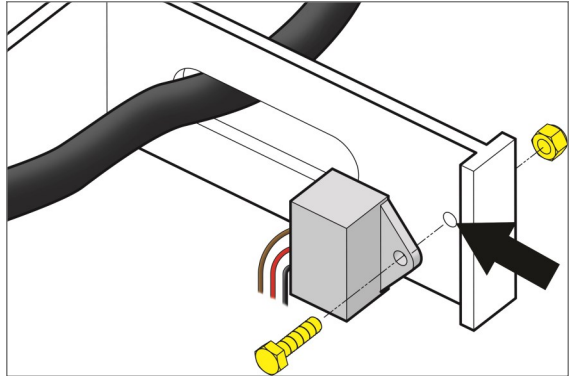
1. Unlock the brake pedal and chock the wheels.
2. Place the (2) Included U-Bolts behind the channel adjacent to the brake pedal assembly. Slide the threaded ends of the U-bolts through the (4) slots on the brake switch bracket. Tighten the nuts on the U-bolt so they are snug but still adjustable.



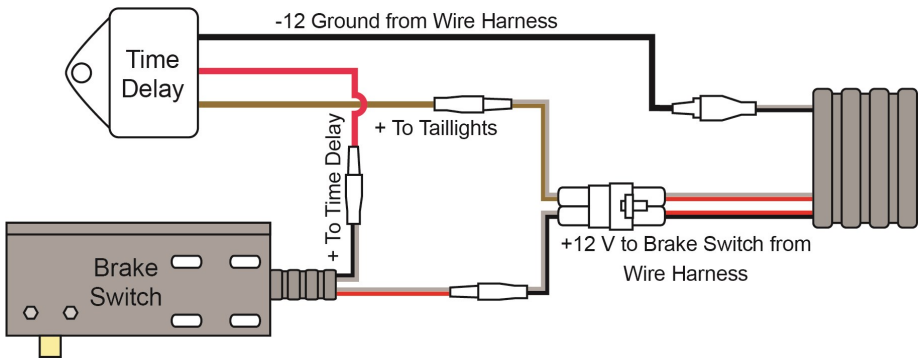
- With the brake pedal unlocked, position the bracket so the switch is centered above the pedal assembly. Lower it until the switch is activated (it will click). Tighten the nuts to lock the bracket into position.
- Slide the brake switch wire and the brake lead from the light kit's harness behind the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



- 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.



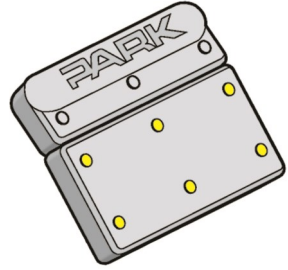
- Connect the brake switch to the time delay and the light kit's harness as shown in the diagram below:



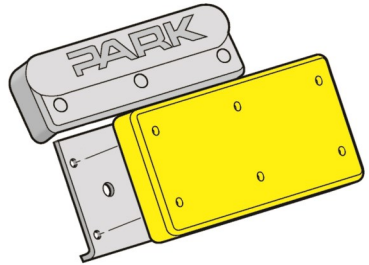
- Secure all loose wires to the frame with cable ties.

LGT-B10 Brake Pad Light Switch, OE Fit

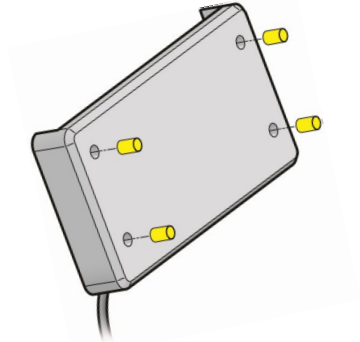
1. Drill through the center of the (6) rivets on the parking brake with a 3/16" drill bit (shown in yellow).



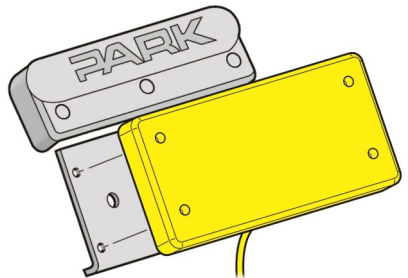
2. Remove the lower portion of the OE brake pad.



3. Push the (4) Included Spacers into the (4) holes on the new LGT-B10 brake pad.



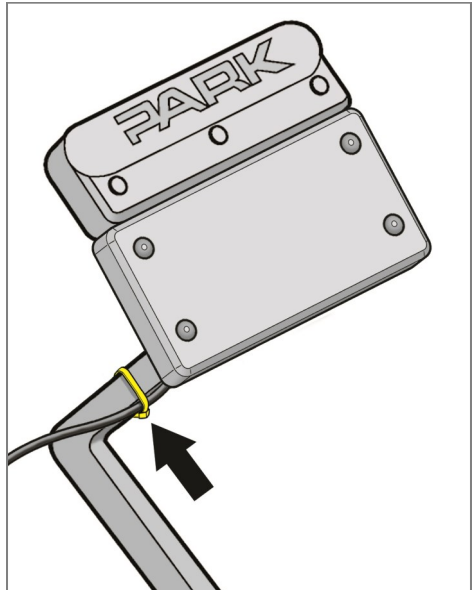
4. Place the LGT-B10 over the brake pedal plate with the wire at the bottom.



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 Express Light Kit is now complete.
Please enjoy safely!

Scan QR code or use the link below to view the installation video.
<https://vimeo.com/user39935056>

