



RHOX

Rugged parts for your ride.

LGT-305L / 605L

Club Car DS 93+

Adjustable LED Light Kit
Installation Instructions



Patent Pending™

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 12-48V operation only. Operating this kit at a higher voltage will void any and all warranties. 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. 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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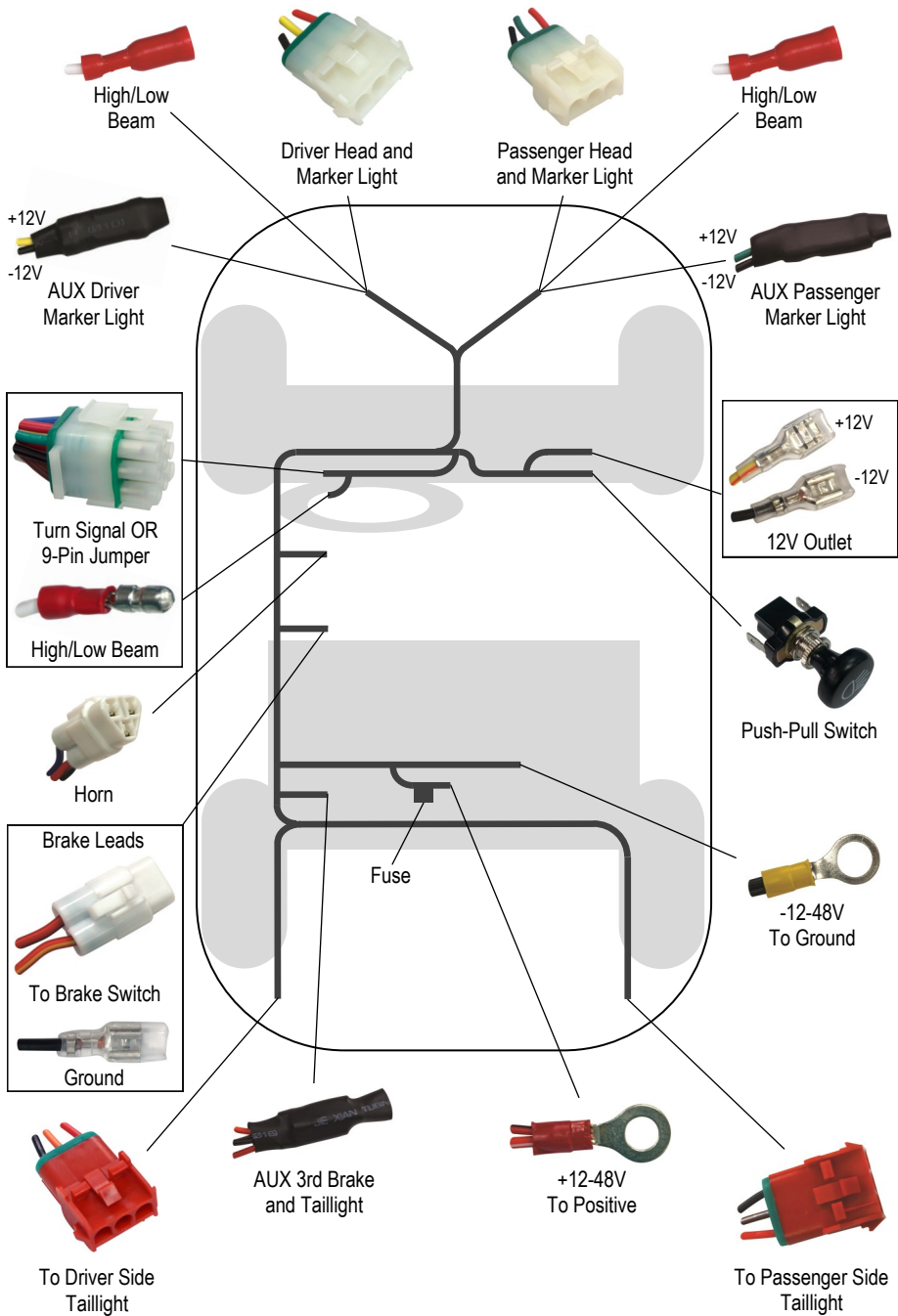
Tools Needed for Installation

- Screwdriver (Phillips & Flat Head)
- Sockets & Open Ended Wrenches (7mm, 7/16")
- Drill, Drill Bits & Hole Saws (3/16", 7/32", 1/4", 5/8", 7/16", 1", 1-1/8)
- Rivet Gun
- Jig Saw or Rotary Tool
- Sandpaper or File
- Painter's Tape or Masking Tape
- Marking Device
- Utility Knife

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.

Wire Harness Overview



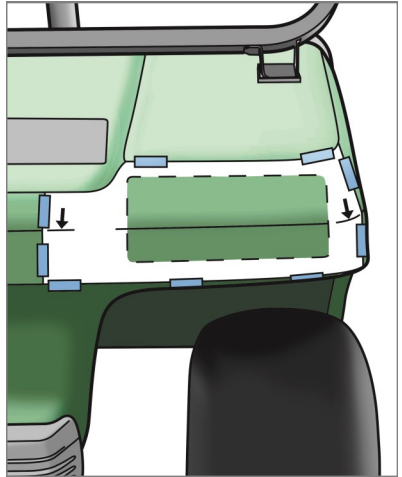
Headlight & Taillight Preparation

Headlight Preparation

1. Cut the headlight template following the guidelines.
2. Place the template on the driver side front cowl and align it with the cowl mold lines and bottom edge of the cowl. Secure with painter's tape.
3. Trace the template using a marking device.

NOTE: To prevent chipped paint on a painted cowl, tape over the drawn line and redraw over the tape using the template.

4. Using a jig saw or rotary tool, cut out the **INSIDE** of the marked area. Test fit the headlight and make any adjustments before removing the tape. Once it fits, remove tape and sand any rough edges.
5. Flip the template over and repeat Steps 2-4 for the passenger side.

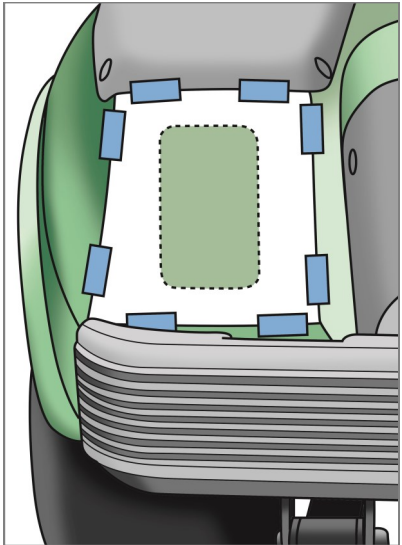


Taillight Preparation

1. Cut out the taillight template following the guidelines.
2. Place the template on the driver side rear body and align it with the body lines. Secure the template with painter's tape.
3. Trace the template using a marking device.

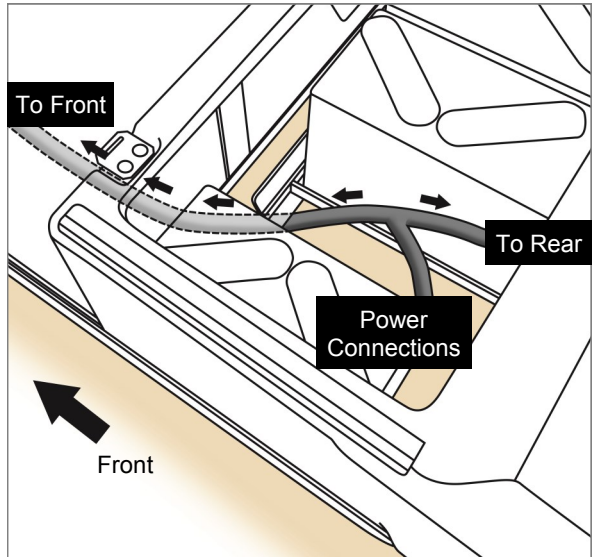
NOTE: To prevent chipped paint on a painted body, tape over the drawn line and redraw over the tape using the template.

4. Using a jig saw or rotary tool, cut out the **INSIDE** of the marked area. Test fit the taillight and make any adjustments before removing the tape. Once the light fits, remove tape and sand any rough edges.
5. Flip the template over and repeat Steps 2-4 for the passenger side.



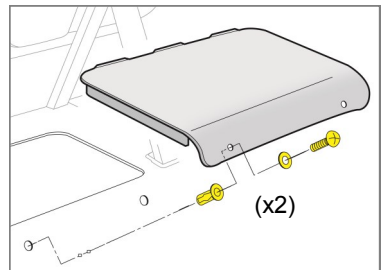
Wire Harness Installation

1. Lay the harness parallel to the driver side of the cart to help with the orientation of the harness before installation.
2. Feed the front portion of the harness through the hole in the battery compartment. The taillight and power connections will remain in the battery compartment.
3. Make sure the power leads can reach the appropriate terminals. Set the leads aside and away from the terminals.



NOTE: Leads will be connected after completing the installation of the harness, lights and/or accessories.

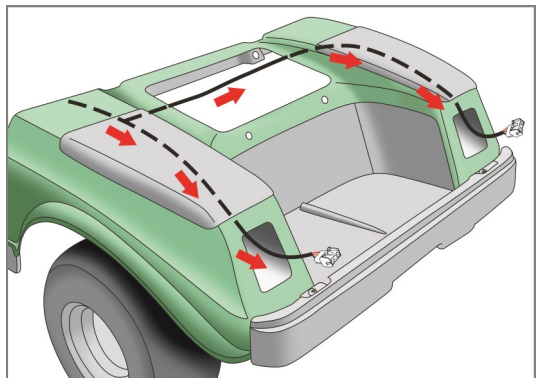
4. Remove the rear access panel. Retain hardware.
5. Feed the rear portion of the harness through the cart so the taillight connections reach the holes in the rear body. Run the harness parallel with the cart's harness for a cleaner installation.



The shorter cable will rest on the top of the driver side wheel well.

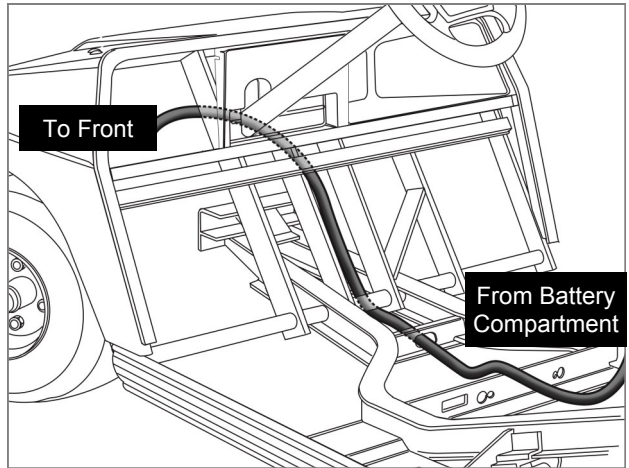
Route the longer cable behind the battery compartment and over the passenger side wheel well.

6. Make sure the taillight leads reach the holes in the rear body. Once the leads are in

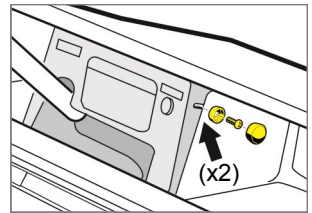


position, use cable ties to loosely secure the harness in place and away from any moving parts or areas where it can be pinched.

7. Reinstall the access panel.
8. Run the front portion of the harness over the cross member in the frame and towards the front of the cart. Keep the harness behind the front suspension components.
9. Make sure the headlight leads reach the openings in the front cowl.



10. Remove the center dash panel and retain hardware.
11. Route the push-pull switch and other leads into the dash area.



12. Once the harness is in place, use cable ties to secure the harness to the underside of the cart and away from any moving parts or pinch points. If not installing the horn or brakes, secure the leads with the rest of the harness.
13. Configure the jumper harness on the turn signal connector:

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

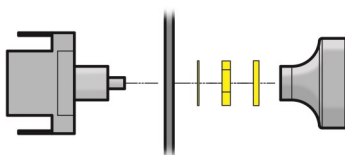
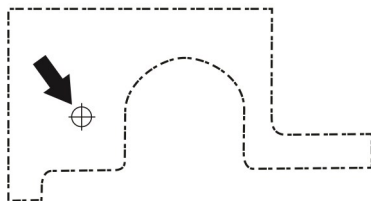
If installing brakes without a turn signal, switch the (2) male 2-pin connectors. Leave the jumper harness connected to the 9-pin connector.



Push-Pull Switch Installation

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

1. If powering the lights with a push-pull switch, use the included template to mark the center of the mounting location.
2. Carefully drill a 7/16" hole at the marked location. File any rough edges.
3. 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.
4. Secure using the lock washer and retaining nuts. Reattach knob.
5. Reinstall the dash panel if not installing other accessories.

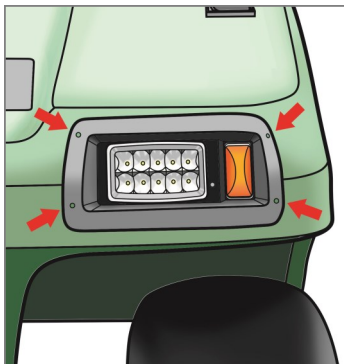


Headlight Installation

1. Connect the driver side headlight to the driver side headlight 3-pin connector.

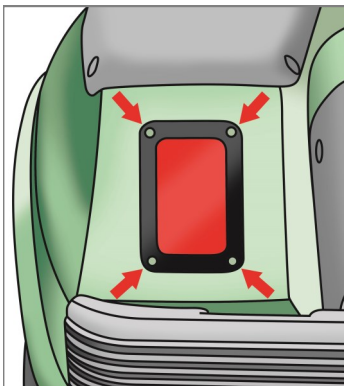
NOTE: If installing a T3 turn signal with high low beam capabilities, connect the male bullet connector on the headlight to the bullet connector on the plug & play harness to enable the low beam option. For constant low beams, connect the two bullet connectors on the back of the headlight together.

2. Install the headlight using the Mounting Screws.
3. Repeat for the passenger headlight.



Taillight Installation

1. Connect the driver side taillight to the driver side taillight lead that was pulled through the hole in the rear body.
2. Install the taillight using the Mounting Screws.
3. Repeat for the passenger taillight.



Power Connections

NOTE: Complete this section once all lights and optional accessories have been installed. 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 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 must be used with 12V add-on accessories to avoid damage.

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 appropriate batteries. Tighten the nuts but do not over tighten. Over tightening can destroy the battery posts.

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

36V Electric Carts with 6V Batteries for 12V Output: Connect the light kit to (2) 6V batteries totaling 12V OR connect the light kit to a voltage reducer to reduce the voltage to 12V. This is the safest option if installing optional accessories.

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.

36V Electric Carts with 6V Batteries for 36V Output: This option is not recommended 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. Always test the batteries with a voltage meter as each configuration may vary.

4. Put the cart in the RUN position 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



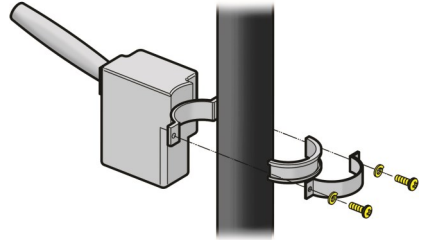
LGT-T2



LGT-T3

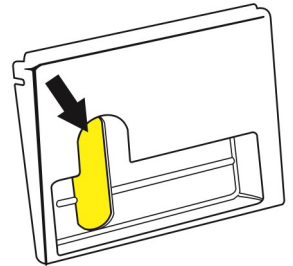
NOTE: If installing a steering column cover, do so before installing the turn signal.

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 fit the diameter of the steering column.



2. Run the turn signal harness down the steering column, and through the hole in the dash panel.

NOTE: If the flasher relay is already installed on the turn signal, remove it before running the wires into the dash.



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



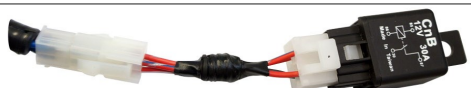
4. Connect the 9-pin connector on the turn signal to the 9-pin on the plug & play harness. If installing a LGT-T3 turn signal, connect the bullet connector on the turn signal harness to the bullet connector on the plug & play harness to enable the low beam function.

5. Connect the flasher relay to the turn signal harness.

6. 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.



Push-Pull Switch

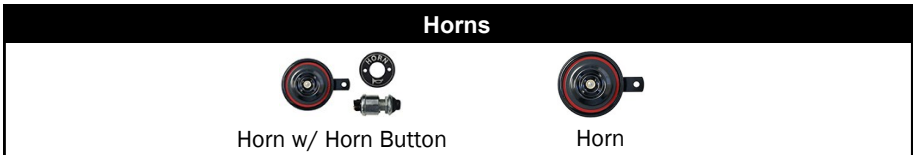


LGT-590

- Measure from the bottom of the turn signal to the where the steering column meets the dash. 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.



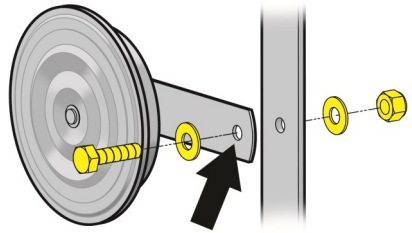
- Snap the cover around the turn signal harness and the steering column. Secure any loose wires behind the dash.



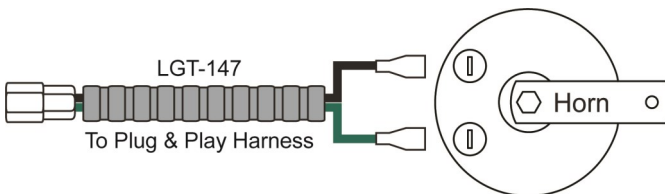
Horn Only (For use with LGT-T2 and LGT-T3 Turn Signals)

- Connect the spade connectors on the horn harness to the back of the horn on either terminal as shown below.

- 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.



- Connect the triangular plug on the horn harness (LGT-147) to the triangular plug on the plug and play harness. Secure any loose wires with cable ties.

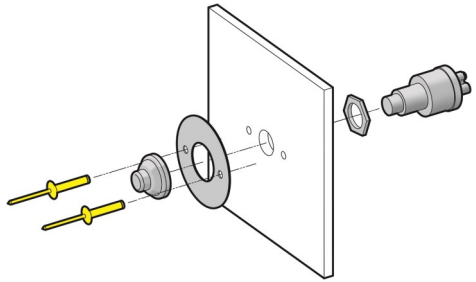


Horn w/ Horn Button (For use alone or with LGT-T1 Turn Signal)

- Mount the horn as shown above in Step 2.
- Find a convenient location on the floor to mount the horn button. This area should be free and clear of obstacles and wiring harnesses. Drill a 5/8" hole through the floor at the location. Cut away the floor mat over the hole.

3. 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.

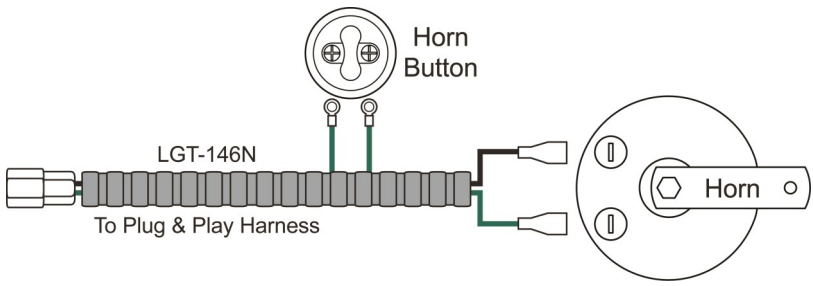
4. Align the decal so it is straight. Mark the (2) hole locations for the decal onto the floor mat. Remove the horn button, cover and decal. Drill the (2) marked hole locations with a 7/32" bit.



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

6. 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 plug and play harness. Secure any loose wire with cable ties.



12 Volt Receptacle and Dual USB Outlet



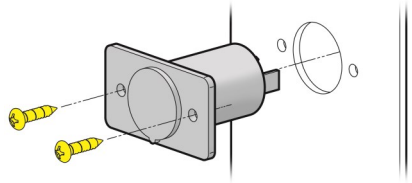
CAUTION: 12V Outlets are designed for 12V operation ONLY. Operating at a voltage higher than 12V will damage accessories plugged into the outlet.

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

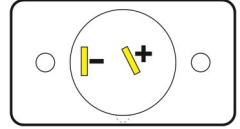
ACC-0058 12 Volt Outlet

1. Drill a 1" hole at the marked location.

2. Insert the 12V receptacle into the hole and mount it with the Included Hardware.

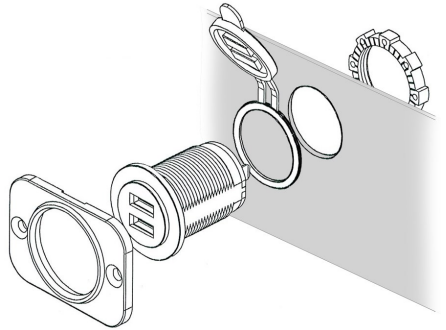


3. Connect the +/- 12V outlet leads on the light kit harness to the +/- 12V terminals on the back of the outlet.



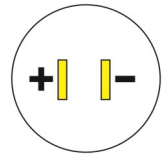
ACC-0097 Dual USB Outlet

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 ports to a battery or voltage reducer.



Brake Light Switches



LGT-B1



LGT-B2

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 connectors on the jumper harness located on the turn signal connector. Leave the jumper on harness.



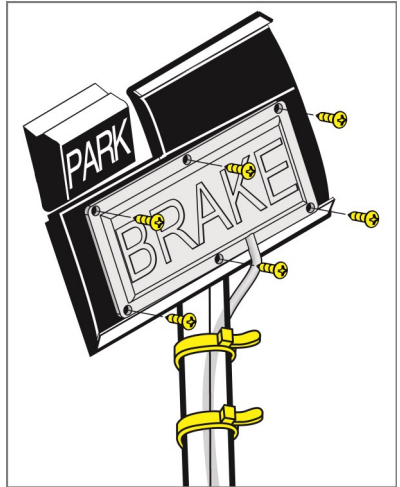
LGT-B1 (LGT-138) Brake Pad Light Switch, Universal Fit

1. Lock the brake pedal. 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. With the brake pedal out of PARK, run the lead from the pad down the back side of the pedal arm and through the hole in the floor.
4. Secure the LGT-B1 lead to the pedal arm with cable ties. Make sure the lead is free and clear of any moving parts so it does not get pinched. Slowly lower the pedal into PARK and recheck the lead. Readjust the cable ties if necessary.



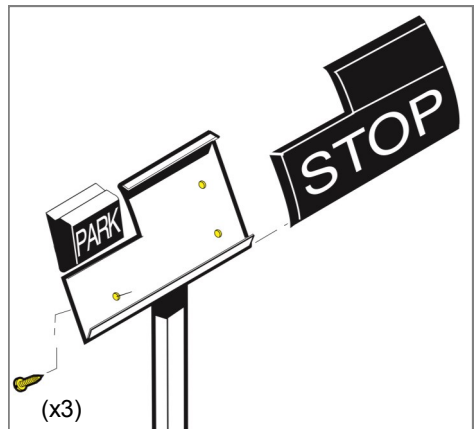
5. From under the cart, connect the LGT-B1 lead to the white connector on the plug and play harness.

NOTE: Black ground wire is not used with the LGT-B1.

6. Use cable ties to secure the brake leads and harness close to the chassis and away from any moving parts.

LGT-B2 (LGT-641) Micro Switch Activated Brake Switch

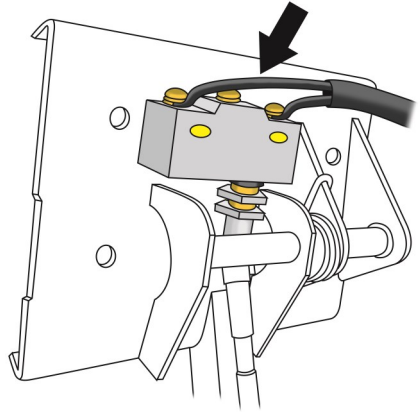
1. Remove the brake pad portion from the pedal by removing the screws and sliding the pad to the right.
2. From underneath of the cart, feed the micro switch (without the mounting bracket) through the hole in the floor towards the brake pedal.



3. Install the micro switch (without the mounting bracket) to the back of the brake pedal using the (2) M4-.70 x 25mm Pan Head Phillips Machine Screws and (2) M4 Nylock Nuts.

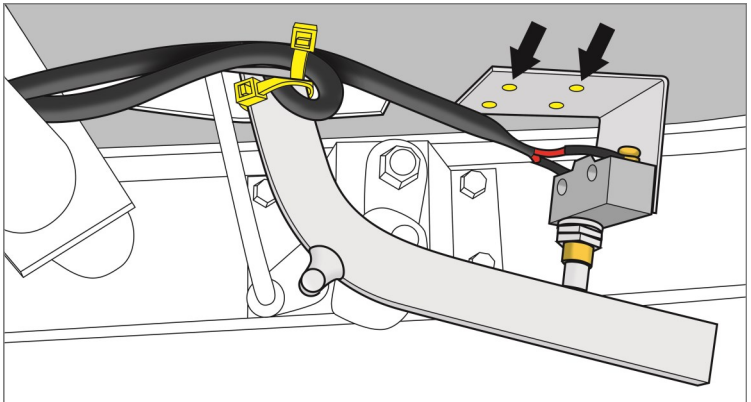
NOTE: Do NOT overtighten the hardware as it will crack the micro switch.

4. Secure the lead to the pedal arm with cable ties. Make sure the lead is free and clear of any moving parts so it does not get pinched. Slowly lower the pedal into PARK and recheck the lead. Readjust the cable ties if necessary.



5. Reinstall the brake pad to the pedal using the Original Hardware.
6. Lift up the floor mat above the pedal area to expose the (2) preexisting holes over the brake lever.
7. With the brake pedal in PARK, install the micro switch with the bracket to the underside of the golf cart using the (2) preexisting holes in the floorboard. Fasten using (2) M4-.70 x 12mm Pan Head Phillips Machine Screws and (2) M4 Nylock Nuts.

NOTE: The bracket comes with (2) sets of mounting holes. When oriented correctly, the micro switch will be depressed when in contact with the brake lever, when the pedal is in PARK.



8. Attach the 2-pin connector on the LGT-B2 harness to the white connector on the plug and play harness marked To Brake Switch.

NOTE: Black ground wire is not used with the LGT-B2.

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