



# LGT-416L

## Yamaha Drive2

### LED Light Kit, OE Fit

### 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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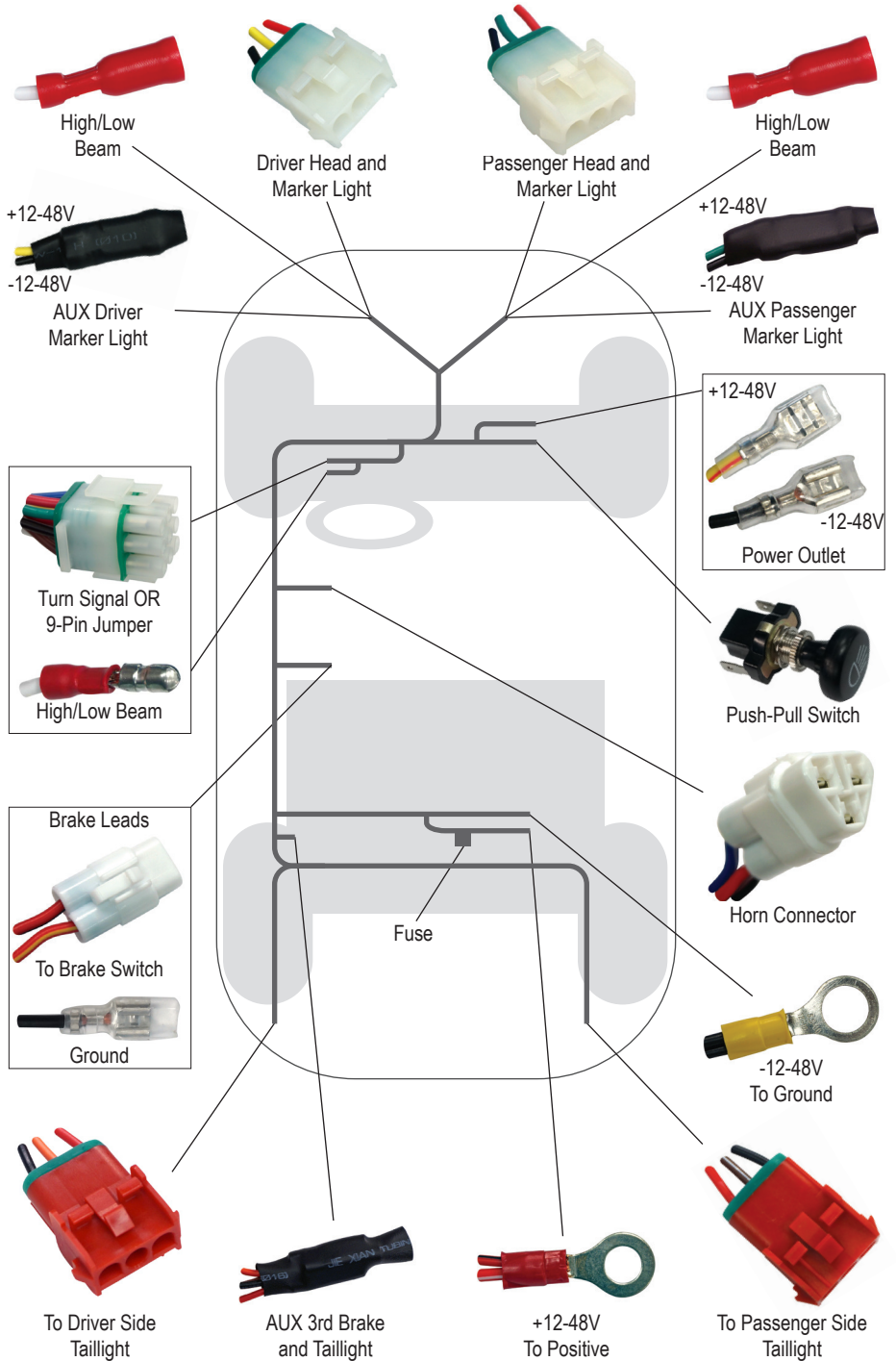
## Tools Needed for Installation

- Screwdriver (Phillips & Flat Head)
- Sockets & Open Ended Wrenches (7/16", 1/2")
- Drill, Drill Bits & Hole Saws (1/8", 3/16", 7/32", 1/4", 5/8", 3/4", 7/16", 1", 1-1/8)
- Rivet Gun
- Rivet Removal Tool
- 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/battery pack.
4. Engage the parking brake.

# Wire Harness Overview



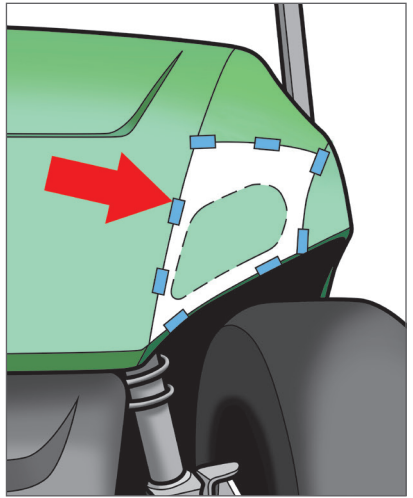
## Headlight & Taillight Preparation

### Headlight Preparation

1. Cut out 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 inside contour of 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 the light fits, remove the tape and sand any rough edges.
5. Flip the template over and repeat Steps 2-4 for the passenger side.

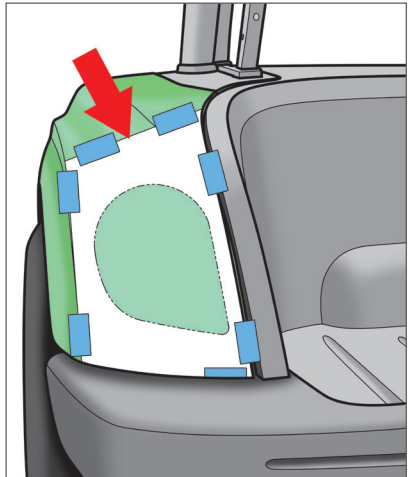


### Taillight Preparation

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 and edge of the rear body. Secure the template with painter's tape.
3. Trace the template using a marking device.

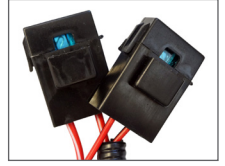
**NOTE:** To prevent chipped paint on a painted body, tape over the drawn line and redraw over the tape using the template.

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.

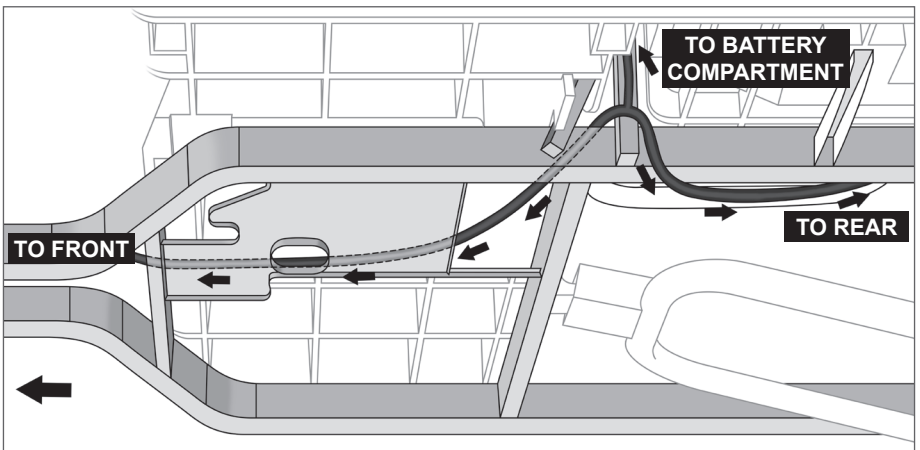


## Wire Harness Installation

1. 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 battery connections and fuses into the battery compartment. Make sure the leads can reach the appropriate terminals. Set the leads to the side and away from the terminals.



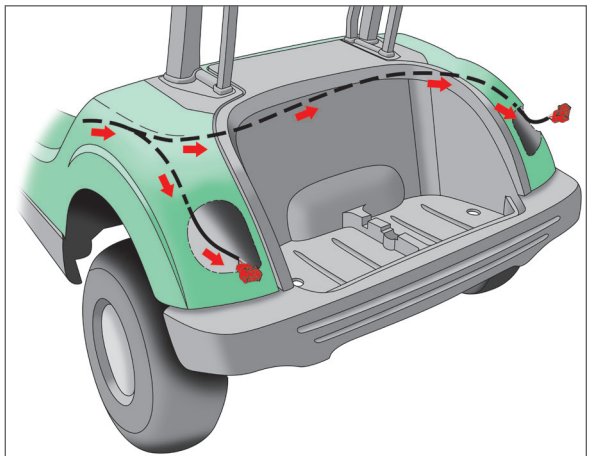
**NOTE:** Leads will be connected after completing the installation of the harness, lights and/or accessories.



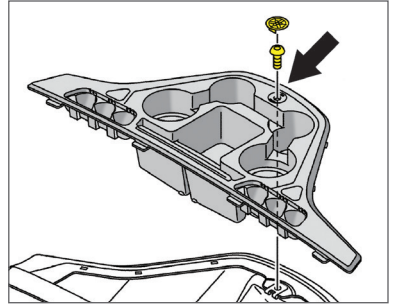
5. Feed the rear portion of the harness through the cart so the taillight connections reach the holes in the rear body. The harness can be run parallel with the cart's harness for a cleaner installation.

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 secure the harness in place and away from any moving parts or areas where it can be pinched.

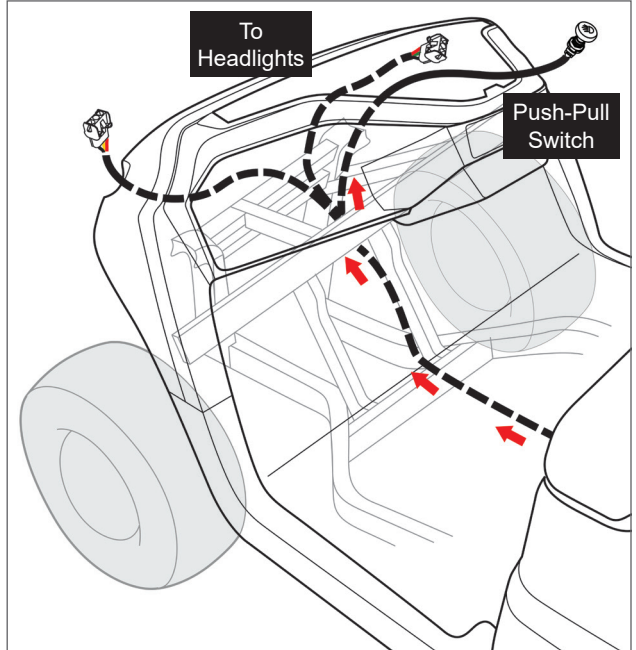


7. Carefully remove the dash insert (cup holder area) from the dash. Retain hardware.

8. Run the front portion of the harness over the cross member in the frame and towards the front of the cart.

9. Once the harness is through the opening, run the driver and passenger headlight connectors up and over the front suspension and towards the openings in the front cowl.

10. Route the push-pull switch and other leads up and into the cup holder area.

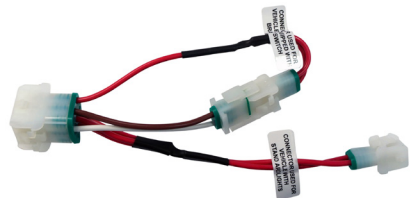


11. Once the harness is in place, use cable ties to secure the harness to the underside of the cart and away from any moving parts or pinch points. If not installing the horn or brakes, secure the leads with the rest of the harness.

12. 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 following the labels. Leave the jumper harness connected to the 9-pin connector.

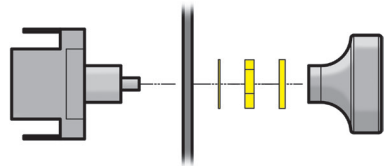


13. Tighten any cable ties left loose in this section.

## Push-Pull Switch Installation

**NOTE:** Do NOT install the push-pull switch if installing a LGT-132A (T3) or LGT-180 (T4) turn signal kit.

1. If powering the lights with a push-pull switch, find a convenient location on the dash to mount the push-pull switch. Mark the center of the mounting location with a marking device.
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.

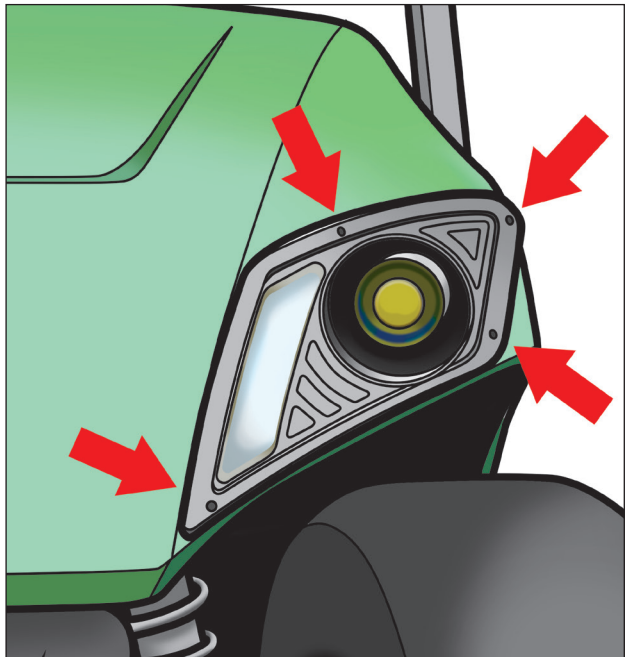


## **Headlight Installation**

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

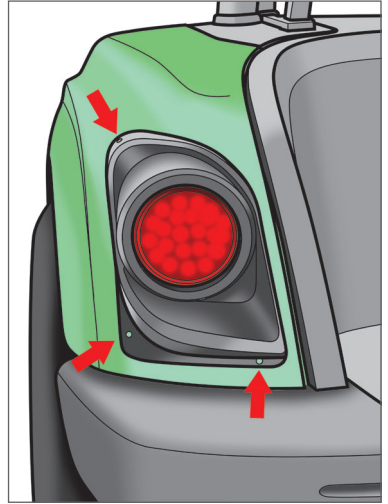
**HIGH / LOW BEAM NOTE:** High / low beams can be controlled by the T3 or T4 turn signal switches OR the LGT-169 high / low beam switch. If installing a T3 or T4 turn signal with high low beam capabilities, connect the bullet connector on the headlight to the bullet connector on the plug & play harness to enable the low beam option.

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 3-pin connector on the wire harness that was pulled through the hole in the rear body.
1. Install the taillight using the Mounting Screws.
2. 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 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.

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

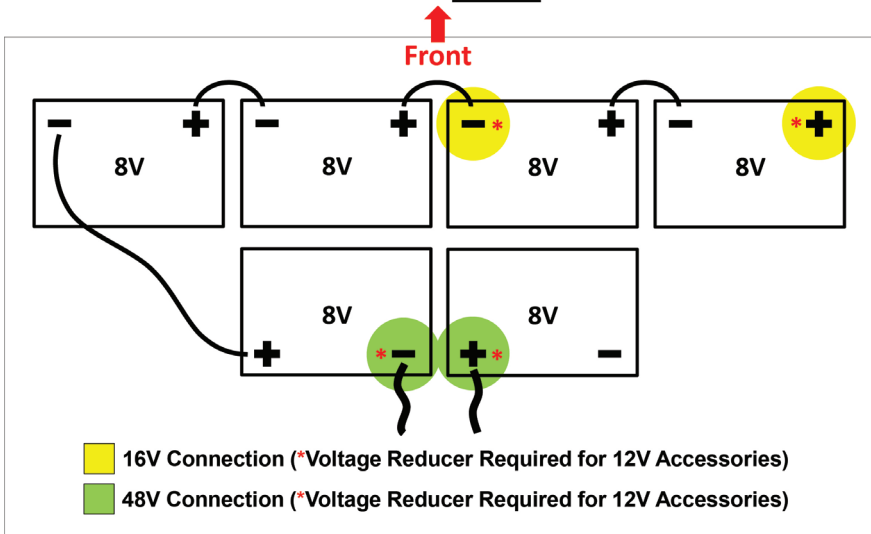
48V Electric Carts with 8V Batteries for 12V Output: A voltage reducer is required to reduce the voltage to 12V. This is the safest option if installing optional accessories.



48V Electric Carts with 8V Batteries for 48V Output: This option is not recommended if installing optional accessories rated for any voltage less than 48V without a voltage reducer.

**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.

### 48V Drive2 with 8 Volt Batteries

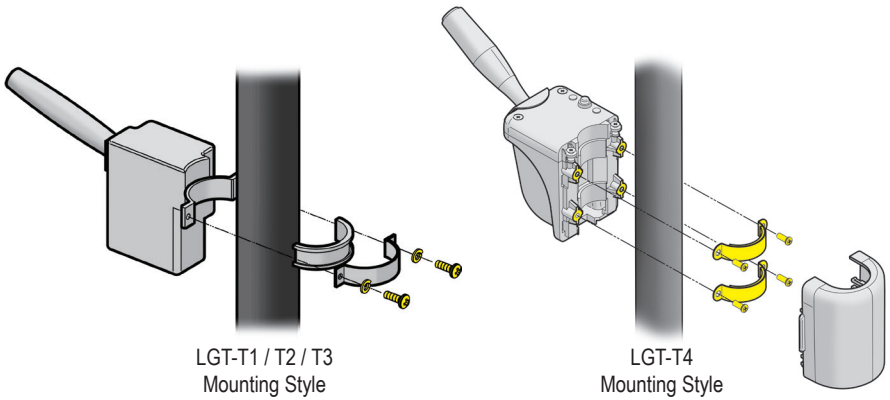


4. Put the cart in the RUN position and turn the key ON.
5. Turn the lights ON and test the lights and accessories to make sure they function properly.
6. Secure any loose wires with cable ties.



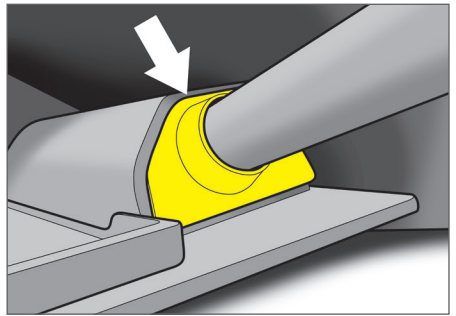
**NOTE:** If installing a steering column cover, do so before installing the turn signal.

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



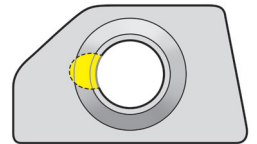
2. Peel back the rubber boot at the base of the steering column.

3. Use a utility knife or other cutting device to carefully cut a small notch on the left side of the rubber boot, next to the steering column. The notch should be large enough to accommodate the turn signal harness.



4. Run the turn signal harness down the steering column, through the rubber boot and behind the dash compartment.

**NOTE:** If the control box or the relay is installed on the turn signal, remove it before routing the wires through the dash.



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

6. All Turn Signals: Connect the 9-pin connector on the turn signal to the 9-pin on the plug & play harness.

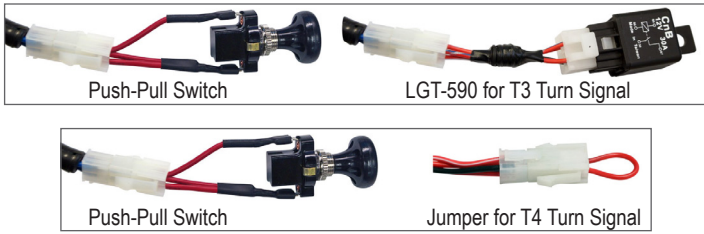


High/ Low Beam Function (T3 and T4 only): Connect the bullet connector on the turn signal harness labeled "dimmer" to the corresponding bullet connector on the plug & play harness to enable the low beam function.

7. Connect the flasher relay to the turn signal harness (T3). Reconnect any control boxes or relays removed in Step 4.

8. Push the rubber boot on the steering column back into place with the turn signal harness nested in the notch cut out in Step 3.

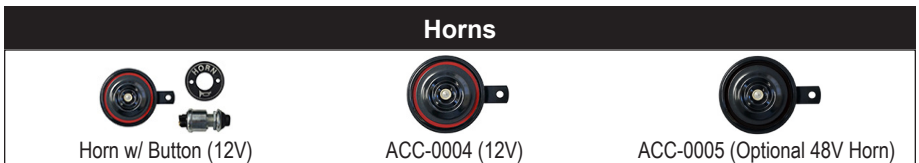
- If installing the LGT-T3 or T4 turn signals, remove the push-pull switch from the 4-pin connector on the plug & play harness and replace it with the LGT-590 relay (T3) or the jumper harness (T4).



- 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 and sand rough edges.

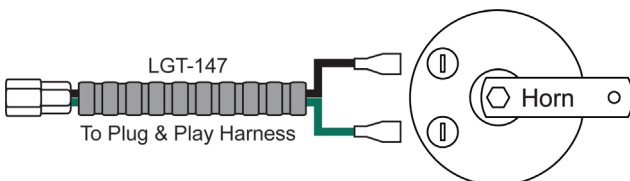
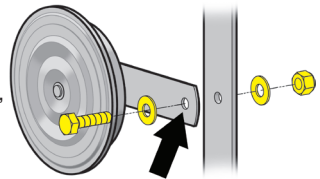


- Snap the cover around the turn signal wires and the steering column. Secure any loose wires behind the dash.



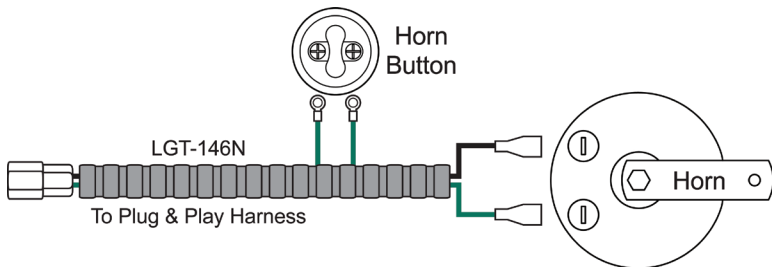
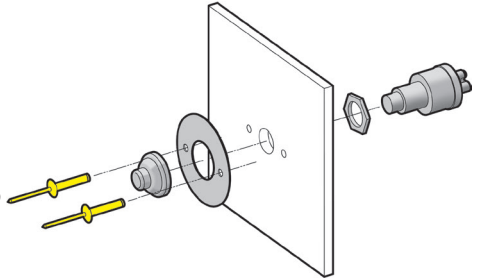
**Horn Only (For use with LGT-T2, LGT-T3 and LGT-T4 Turn Signals)**

- 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)

1. Mount the horn as shown on Page 11, Step 2.
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.
7. 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.



### 12V Power Socket and Dual USB Outlet



ACC-0058 (12V)



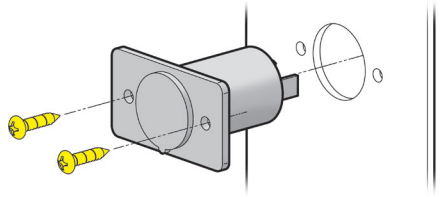
ACC-0097 (12-48V)

**CAUTION:** 12V Power Sockets are designed for 12V operation ONLY. Operating at a voltage higher than 12V will damage accessories plugged into the socket.

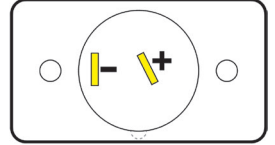
1. Find a convenient location on the dash or center compartment to mount the socket or outlet.
2. Mark the center of the mounting location with a marking device.

## **ACC-0058 12V Power Socket**

1. Drill a 1" hole at the marked location.
2. Insert the 12V socket into the hole and mount it with the Included Hardware.
3. Connect the +/- 12V socket leads on the light kit harness to the +/- 12V terminals on the back of the ACC-0058.

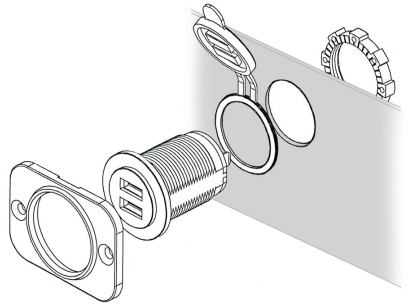


**NOTE:** A fuse holder (ACC-0019) and 15A fuse (ACC-0021) are recommended if direct connecting the socket to a 12V battery or voltage reducer.

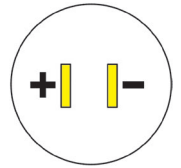


## **ACC-0097 12-48V Dual USB Outlet**

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 +/- 12-48V outlet leads on the light kit harness to the +/- 12-48V 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 12-48V battery or voltage reducer.



## **Brake Light Switches**



LGT-B1 (12-48V)



LGT-B12 (12-48V)



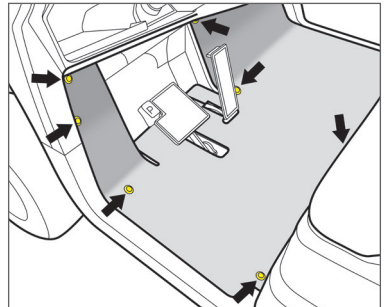
LGT-B13 (12-48V)



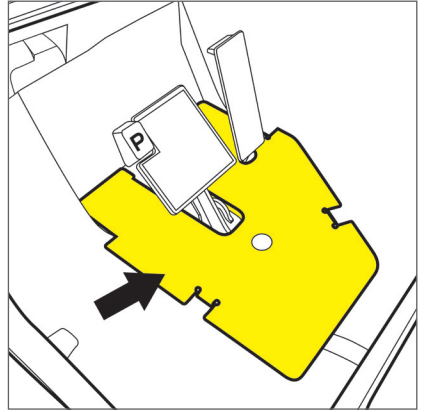
LGT-B14 (12-48V)

## **All Brake Switches**

1. Verify cart is in TOW position (if equipped), key is OFF and wheel is chocked.
2. Remove the rivets holding down the driver side floor mat and peel back the mat. Retain rivets for reuse.



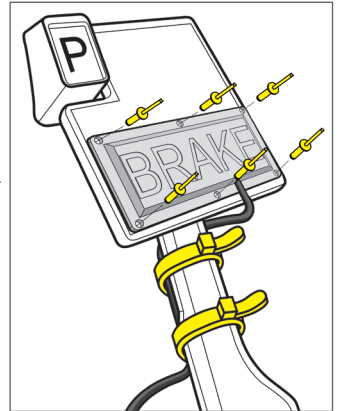
- Remove the pedal cover using a flat head screwdriver to lift it off of the floor.
- If installing a brake switch without a turn signal, switch the (2) 2-pin male connectors on the jumper harness located on the turn signal connector following the labels. Leave the jumper on the harness.



### **Brake Pad Light Switches (LGT-B1, LGT-B13 and LGT-B14)**

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

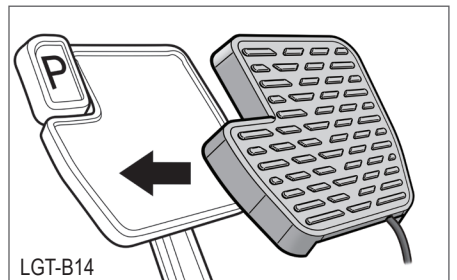
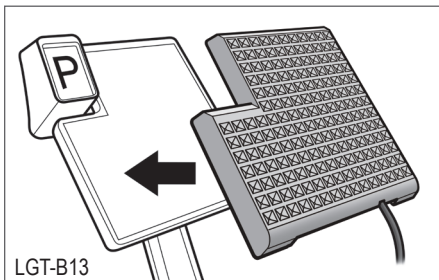
- Lock the brake pedal. Center the brake pad on the lower portion of the brake pedal assembly.
- Mark the hole locations and drill (6) 3/16" holes through the pedal. Mount the pad using the Included Rivets.



#### LGT-B13 Brake Pad Light Switch, OE Fit, Yamaha Drive2 17-19

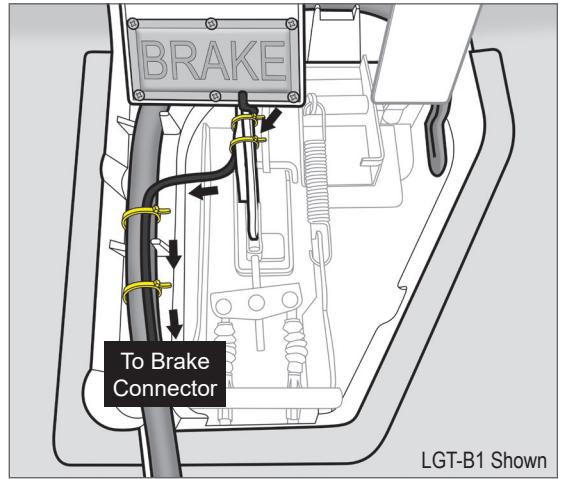
#### LGT-B14 Brake Pad Light Switch, OE Fit, Yamaha Drive2 20+

- Lock the brake pedal.
- Install the brake pad by fitting it over the plate on the OE brake pedal.



## All Brake Pad Light Switches

1. With the brake pedal out of PARK, run the lead from the pad down the back side of the pedal and into the left side of the pedal compartment. Keep the wire close to the driver side so it does not get pinched.
2. Secure the brake pad lead to the pedal and cart's harness with a cable tie. 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.
3. From under the pedal group, connect the brake pad lead to the triangular plug on the plug and play harness.

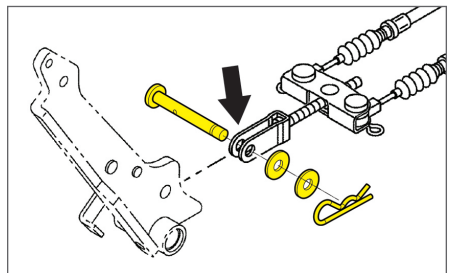
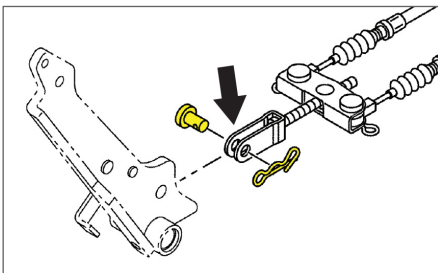


- NOTE:** Black ground wire is not used with the brake pad. The ground wire is only used with the time delay.
4. Use cable ties to secure the brake leads and harness close to the chassis and away from any moving parts.
  5. Reinstall the pedal cover and floor mat with the Original Hardware.

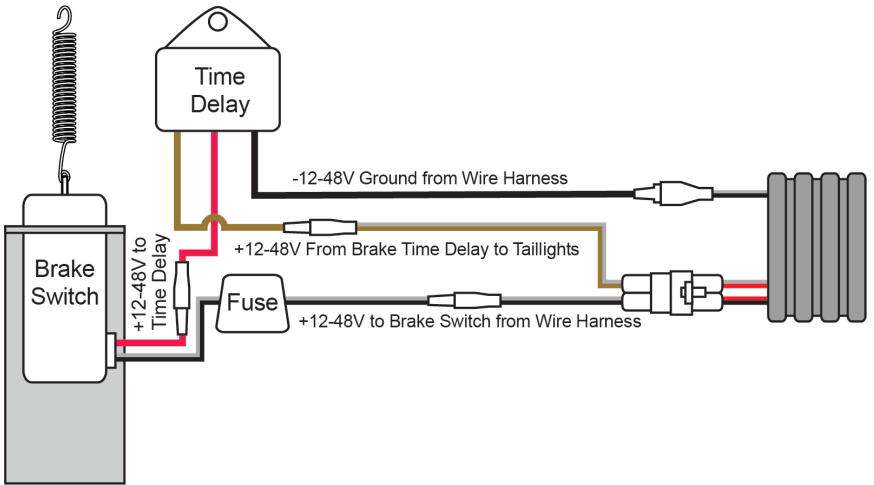
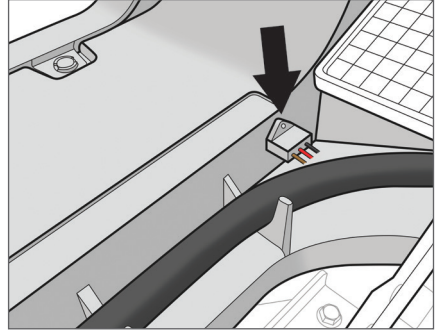
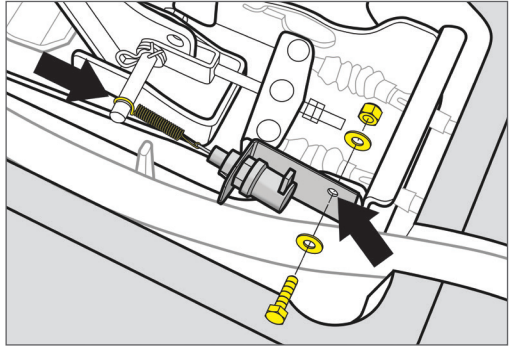
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## LGT-B12 Linkage Activated Brake Switch with Time Delay

1. Remove the pin and cotter pin holding the brake cable assembly to the brake pedal. Discard.
2. Replace the original hardware with the Included Pin, Spacer(s) and Cotter Pin. Use spacers to fill gap between the cotter pin and the brake rod clevis.



3. Mount the plunger to the brake bracket. Mount the bracket to the pedal group as shown using the included (1) 1/4-20 x 1" Hex Head Bolt, (2) Flat Washers and (1) Nylock Nut.
4. Connect the spring to the pin.
5. Locate an area on the side of the pedal compartment to mount the time delay. Drill a 1/4" hole at the location. Fasten the time delay to the pedal compartment using (1) 1/4-20 x 1" Hex Head Bolt and (1) Nylock Nut.
6. Connect the brake switch to the time delay and the light kit's harness as shown in the diagram.
7. Secure all loose wires away from moving parts with cable ties.
8. Reinstall the pedal cover and floor mat using the Original Hardware.



Your Yamaha Drive2 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>

