

BMW MOTORCYCLES (USA SPEC ALL MODEL VARIANTS)

Installation is relatively straight forward although reasonable understanding of the auto electrical system on your bike is advisable. If at any stage of the installation you do not fully understand what is required please seek help from a qualified electrical engineer, your local dealer or contact Weiser support for assistance.

The specially designed LED Upgrade kit is designed specifically and only for BMW's G 310 motorcycles. The G310 is not fitted with a CAN-bus electronics system and the kit supplied with this product is not suitable for fitting to any other BMW motorcycle with CAN-bus electronics. Warranty restrictions apply.

BEFORE STARTING THE INSTALLATION

Check you have all the parts as detailed and can identify each one.

You will also need a few hand tools:

- Ensure you only handle the circuit boards by their edges. Do not touch or press down on any of the LEDs or the electronic components on the board as this can cause damage.
- A small Philips screwdriver to remove the turn signal lens retaining screw.
- Electrical wire cutters and strippers suitable for 20AWG wire. Some wires will require ends stripped before connecting.
- Spanner/screwdrivers/hex keys etc for removing access panels and for the battery terminals.
- Insulation tape.
- A multimeter is useful and can aid installs if wire colors and locations are not identified in advance.

INCLUDED IN YOUR KIT/S:

WEISER FRONT DRIVE TURN KIT

- 2x Weiser "3-in-1" wires (purpose marked)
- 1x "3-in-1" drive wire
- 5x cable ties
- 1x Posi-twist
- 1x Posi-tap
- 2x Weiser housing locking keys

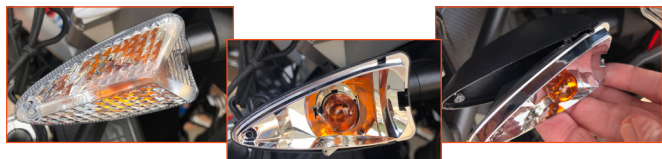
WEISER REAR BRAKE TURN KIT

- 2x "3-in-1" wires (purpose marked)
- 5x cable ties
- 2x Posi-Twists
- 3x Posi-Locks
- 1x Diode wiring kit
- 2 x Weiser housing locking keys

FITTING THE 2-IN-1 DRIVING LIGHTS/TURN SIGNAL LIGHTS TO THE BMW G 310 (ALL VARIANTS)

(If fitting the 2-in-1 brake lights go on to the next section.)

- 1 Make sure the bikes ignition is off.
- 2 Take off the clear lens from the turn signal housing by removing the screw. Carefully remove the lens. Remove the bulb and reflector and unplug the two turn signal wires - earth (brown) and positive (blue) from the back of the reflector.



- 3 The bulb holder assembly that was removed incorporates a locking part in it's molding that prevents the turn signal housing end separating from the stem. In your kit there are two locking keys that will do the same job.

These should be inserted as indicated in the key, making sure the "cut out" side of the key faces inwards towards the bike (it's marked "Bike Side"). Ensure the key is pushed fully in so that the lens will fit back into position correctly when the time comes to replace.



WEISER LOCKING KEY

- 4 Fitting the two Weiser 3-in-1 wires requires feeding the plain end of the wire marked "3-in-1" into the holes through the turn signal into the stem where the existing turn signal wires run, leaving approximately 2 inches of wire with the female connector in the housing (similar length to the existing wires).

This operation needs to be repeated for the other housing on side of the bike. Depending on your bike model the wires can then be run

both together (advised) down one side of the bike. Feed the wire from the right or left to the other side taking care to ensure the wires do no foul any moving parts or is near to any parts that may be very hot when the bike is running.

- 5 The two wires, one from each turn signal housing, are then connected to the 3-in-1 drive wire by means of the blue Posi-twist connector supplied. Remove the cap of the Posi-twist and making sure there is enough exposed copper wire, twist them together and screw the cap back ensuring a good tight connection. (Do not insulate with tape until the circuit has been tested later).



POSI-TWIST CONNECTOR

This wire will allow the 3-in-1 wire to run directly to any 12v wire when the ignition is on, either in the bike's main electrical harness or to a junction in the main fuse block under the seat. A suggestion is to use the wire to the license plate light which is always on with the ignition. Use a multimeter if necessary to identify which wire runs 12v when the ignition is turned on.

- 6 Use the grey and red Posi-tap connector supplied to connect the 3-in-1 wire to the 12v wire you have selected. This finishes the 3-in-1 connections from the turn signal housings to the powered 12v.



POSI-TAP CONNECTOR

- 7 Turn on the bikes ignition and test the lights. It is also advisable to turn on the engine when doing your testing if possible.

8 Going back to the front of the bike you can now connect the two Weiser 2-in-1 LED driving light/turn signal circuit boards to the wires in the turn signal housing. To reduce the risk of static damaging the circuits, ensure you touch a metal earth point on your bike. Do this before handling the circuits as it will reduce any static that may have built up.

Remove the circuit boards one at a time from their anti-static bags ensuring you only handle the units by their edges. Do not touch or press down on any of the LEDs or the electronic components of the board as this can cause damage.

Reconnect the existing ground and turn signal wires to the LED panel. Ground connects to E (earth). The turn power wire connects to T and the new Weiser driving lights wire connects to +.

Make sure the connections are tight. Replace the turn signal lens taking care not to force the lens as this can break the plastic tab.



EXAMPLE OF REAR LIGHT CONNECTIONS



REPLACING THE LENS

9 You are now ready to test the lights. Turn on the ignition and test all operations. It is advised to do this with the engine running though this is not essential.

The driving lights will come on with the ignition and stay on when the engine is running. Turn the left turn signal on and the driving light on - the left will turn off and the amber turn signal will come on. Cancel the turn signal and the driving light will return. Repeat this operation to test the right side.

FITTING THE 2-IN-1 BRAKE LIGHT/TURN SIGNALS TO THE BMW G 310 (ALL VARIANTS)

Note: The BMW G 310 has different wiring to the rear brake lights than the rest of the BMW range of motorcycles in the USA market and as such requires a wiring modification to enable additional after-market brake lights to be fitted. Weiser Technik has produced a modification kit that effectively and reliably solves any install issues. Please refer to the supplemental step-by-step instructions supplied.

10 Take off the clear lens from the turn signal housing by removing the screw (depending on your model, the screw may be at the front or the back of the housing). Carefully remove the lens. Remove the bulb and reflector and unplug the two turn signal wires (ground and positive wires) from the back of the reflector.

11 The bulb holder assembly that was removed incorporates a locking part that prevents the turn signal housing end separating from the stem.

In your kit there are two locking keys that will do the same job. These should be inserted as indicated. Making sure the "cut out" side of the key faces inwards towards the bike. Ensure the key is pushed fully in so that the lens will fit back into position correctly when the time comes to replace.

12 Fitting the two Weiser 3-in-1 wires requires feeding the plain end of the wire marked "3-in-1" into the holes through the turn signal and into the stem where the existing turn signal wires run, leaving approximately 2 inches of wire in the housing (similar length to the existing wires). This operation needs to be repeated for the other housing on side of the bike.

Depending on your bike model, the wires can then be run both together (advised) to the relay you placed at the rear of the bike. You may need to drop the panel under the rear of your bike to access the area underneath to feed these wires through.

Feed the wire from the right or left to the other side, taking care to ensure the wires do not foul any moving parts or are near to any parts that may be very hot when the bike is running (such as the exhaust).

13 The two 3-in-1 wires from the rear lights can then be joined using the blue Posi-twist to the black wire on the diode mod kit .

***AT THIS POINT REFER TO SUPPLEMENTAL INSTRUCTIONS TO INSTALL THE DIODE MODIFICATION KIT.**

14 Once you have finished with the supplemental diode modification you can then complete the install of the LED circuits into the turn signal housings.

15 Going back to the front of the bike you can now connect the two Weiser 2-in-1 LED driving light/turn signal light circuit boards to the wires in the turn sign housing. To reduce the risk of static damaging the circuits, ensure you touch a metal earth point on your bike. Do this before handling the circuits as it will reduce any static that may have built up.

Remove the circuit boards one at a time from their anti-static bags ensuring you only handle the units by their edges. Do not touch or press down on any of the LEDs or the electronic components of the board as this can cause damage.

Reconnect the existing ground and turn signal wires to the LED panel. Ground connects to E (earth). The existing turn wire connects to T (turn) and the new Weiser brake lights wire connects to B.

16 Make sure the connections are tight. Replace the turn signal lens, taking care not to force the lens as this can break the plastic tab.

17 Turn on the ignition and test all operations. It is advised to do this with the engine running though this is not essential.

The brake lights will NOT come on with the ignition but only when the brake levers are activated.

While holding the brake on, turn the left turn signal on and the brake light on. The left will turn off and the amber turn signal will come on. Cancel the turn signal and the brake light will return until the brake is released. Repeat this operation to test the right side.

18 Finally, before replacing any panels you have loosened or removed, tidy your install by using the zip-ties and insulating tape where required.

TROUBLESHOOTING

Feel free to contact us at +1 831.713.4365 or info@weiser technik.com

- i. Firstly please check all your connections have power where necessary. You can do this with a multimeter if unsure.
- ii. Check you have identified the correct trigger wires in your bike's electronics harness if lights fail to illuminate.
- iii. Check the connections on the back of each circuit board have been wired correctly.
- iv. If a light works on one side and not another, swap the lights over to the other side to see if the problem follows or not. It could be a sign of a poor power connection to one side.

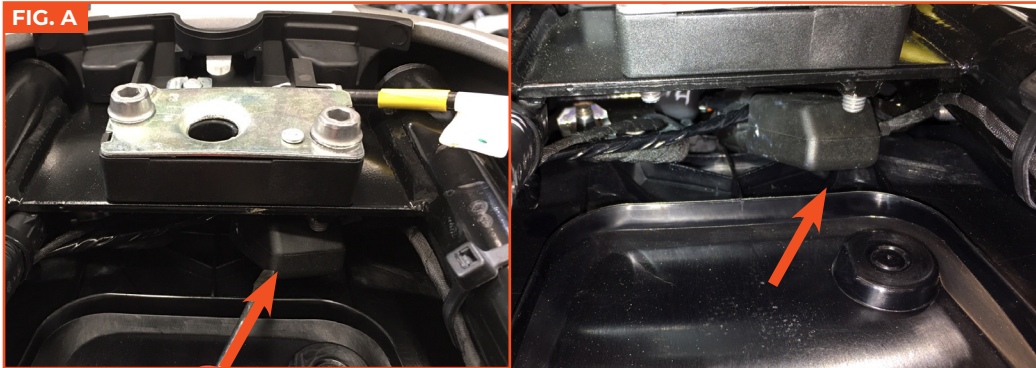
The relay and associated harness supplied with our kits is only intended for use with Weiser Technik's own products and is not necessarily compatible with any other manufacturer's components.

*We warranty our lights for normal use and against manufacturing defect under our no quibble guarantee for up to four years. **Note:** it is not possible for us to warranty a claim for forward compatibility to motorcycle model years ahead of the year and bike model for which the product was originally sold. For example, moving a product from a 2016 model year bike to a 2019 model year could void warranty due to incompatibility issues.*

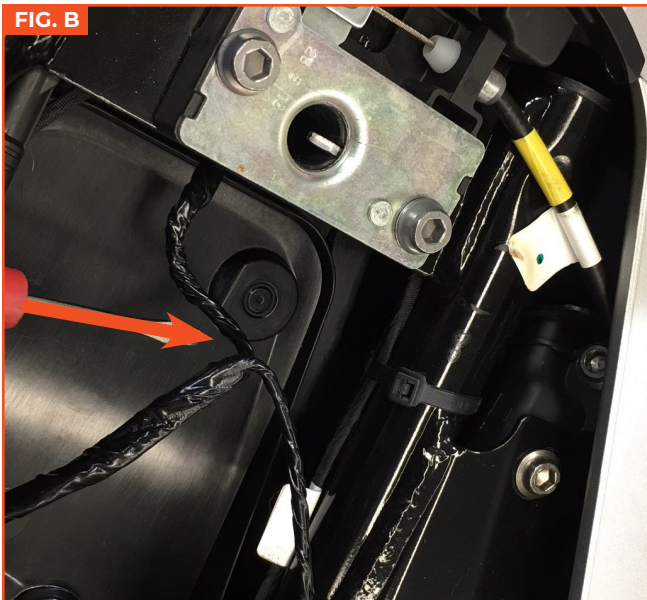
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DIODE MODIFICATION

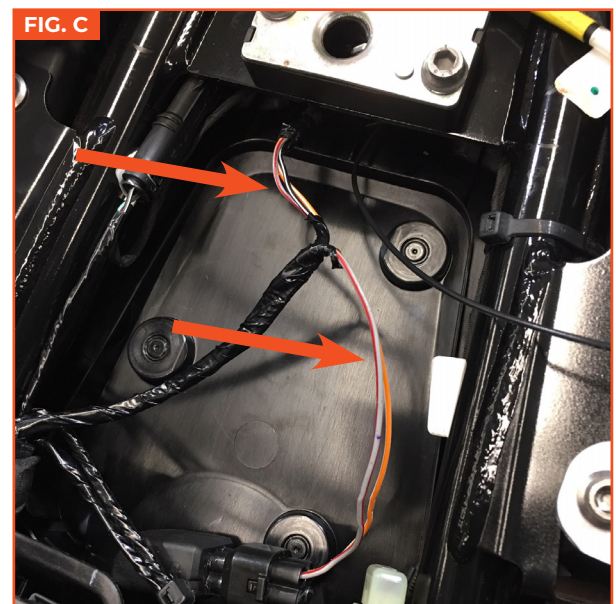
- 1 Remove seat
- 2 Under seat latch, locate BMW resistor. (Small black box) (FIG. A)



- 3 Cut zip tie and pull out BMW resistor
- 4 Pull the resistor out to locate where the wires T. (FIG. B)
You may need to cut a zip-tie along the right side of the rear frame to fully access this wire.



- 5 Remove the black tape from both sides of the T. (FIG. C)



6

Just past the T section (towards rear of bike) cut the Grey/Red wire only, (FIG. D)

You are going to reuse the longer section of the Grey/Red wire that goes to the tail light later.

The short cut section going to the T will not be reused and can be re-insulated with tape.

Fit a Posi-Lock to the wire that goes to the tail light. This will later connect to the blue wire from the diode modification kit. (FIG. E)

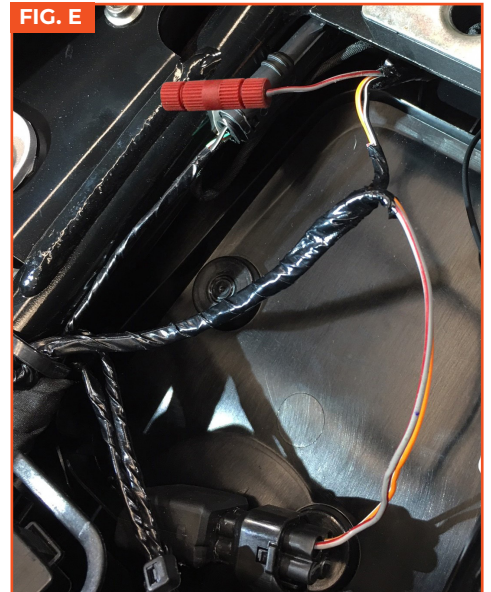
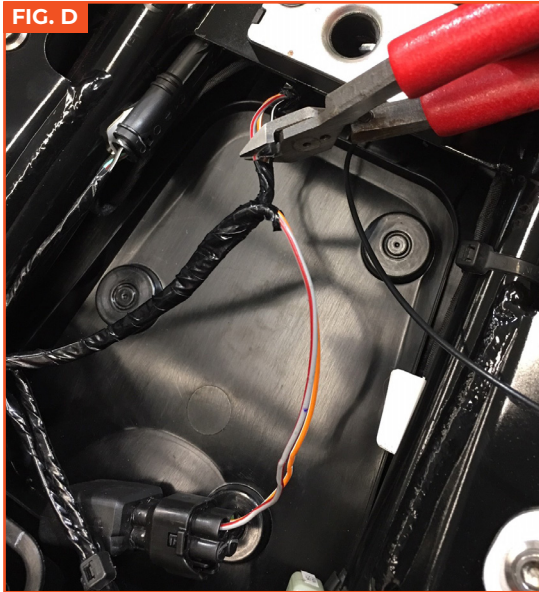


FIG. F

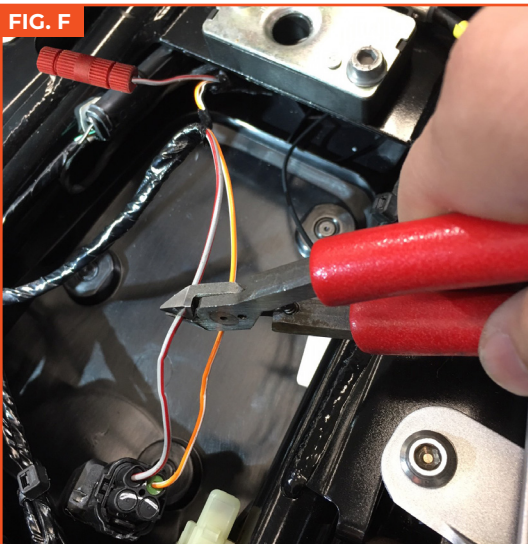


FIG. G



7

Locate the Grey/Red wire running between the T section and the BMW resistor and cut the Grey/Red wire. (FIG. F)

Connect a Posi-Lock to each cut end. (FIG. G)

The wire going to the resistor will connect to the Red wire from the diode. The other will connect to the Yellow wire.

RESISTOR

8

The other wire on this side of the diode will connect to the section of Grey/Red wire cut past the T that goes to the tail light.

The remaining Black wire from the diode joins to the 2 Black wires that come from the 3-in-1 Weiser brake/turn lights. (FIG. H)

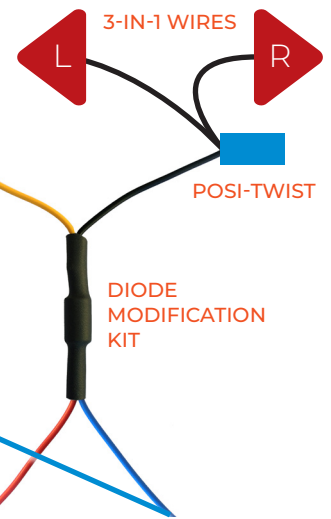
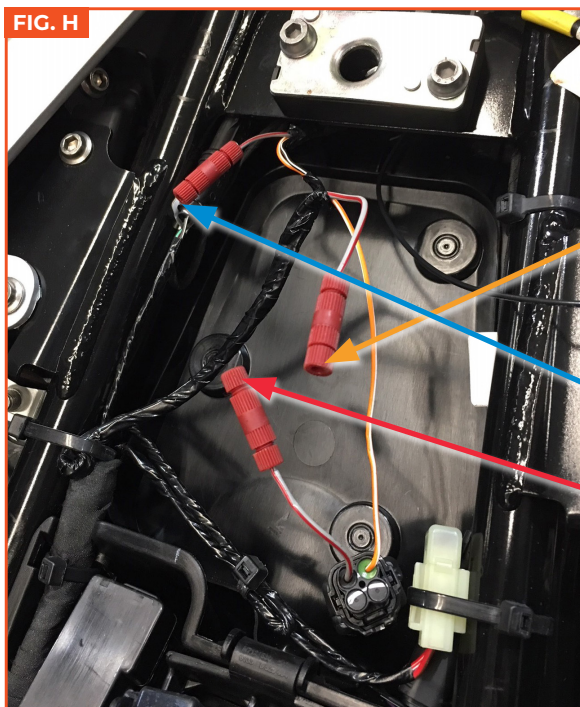
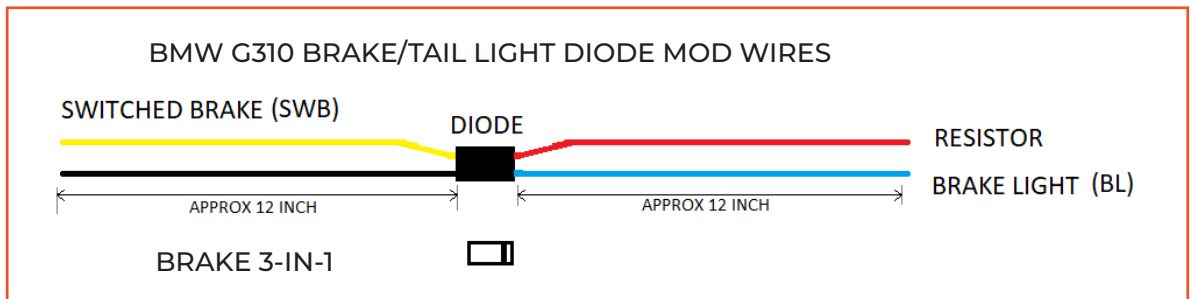
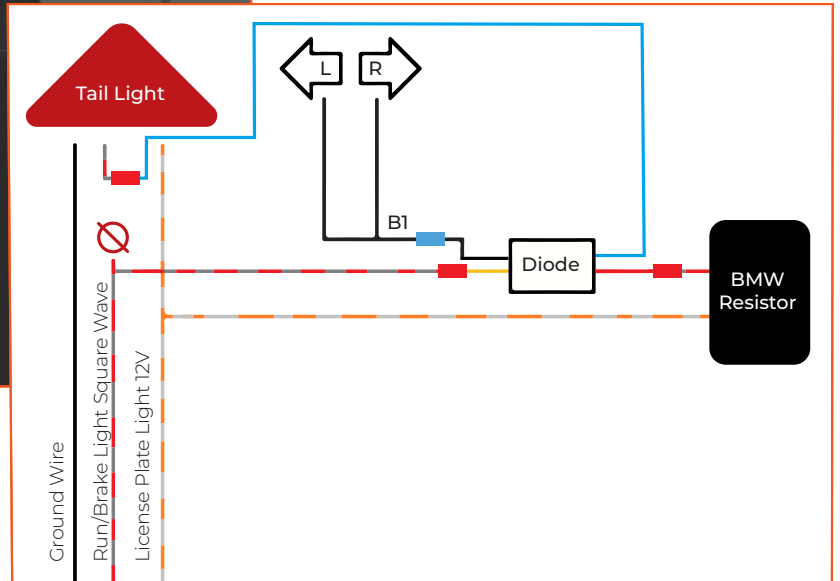
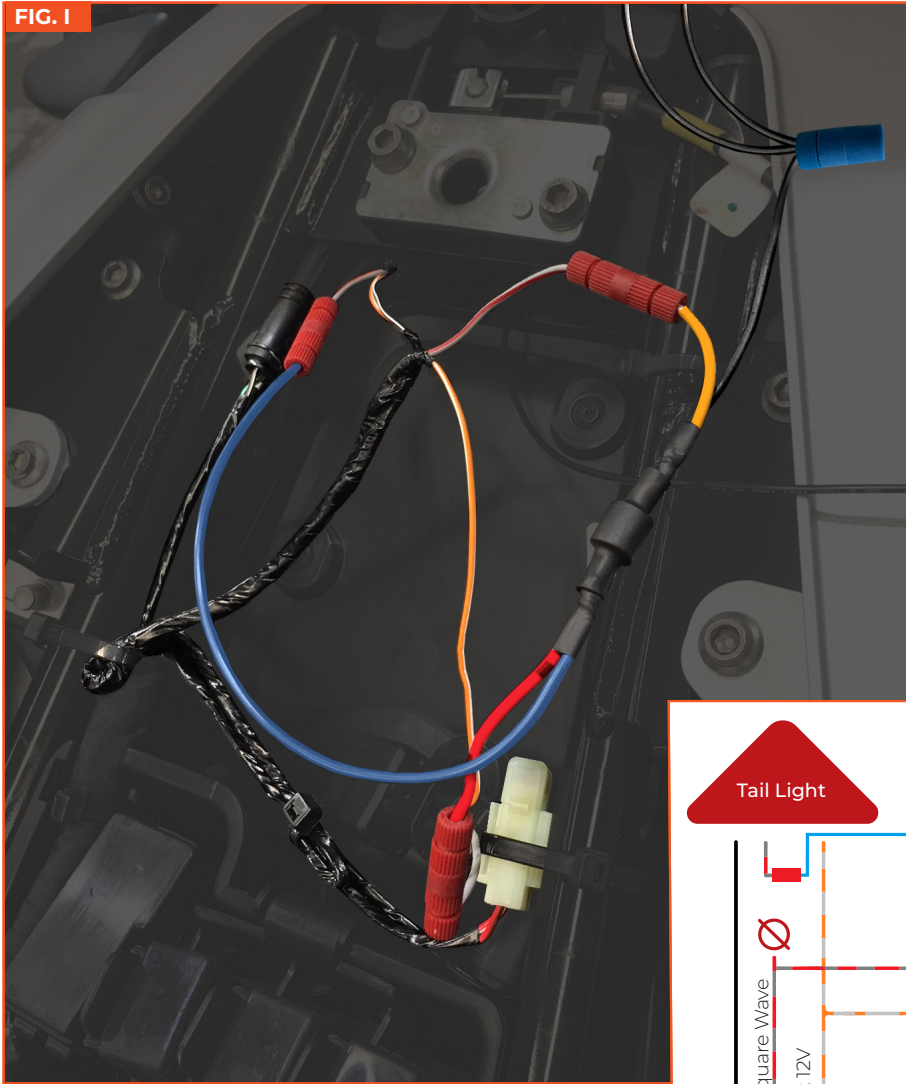


FIG. 1



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