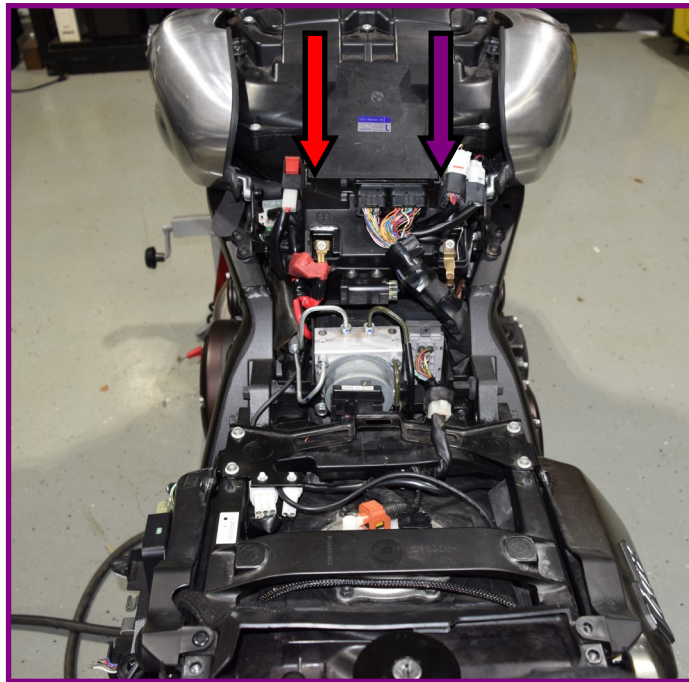


# GURVED GEAR

## Fuse Buddy Box V3

### GG-FBB-V3 Installation Instructions

Start by removing the Seat, Meter 2 hood and Tank cover.



Next, as always when working the batteries, disconnect the **NEGATIVE BATTERY TERMINAL** first.

Then disconnect the **POSITIVE BATTERY TERMINAL** and remove the ECU.



Use the ignition key to remove the left side cover.

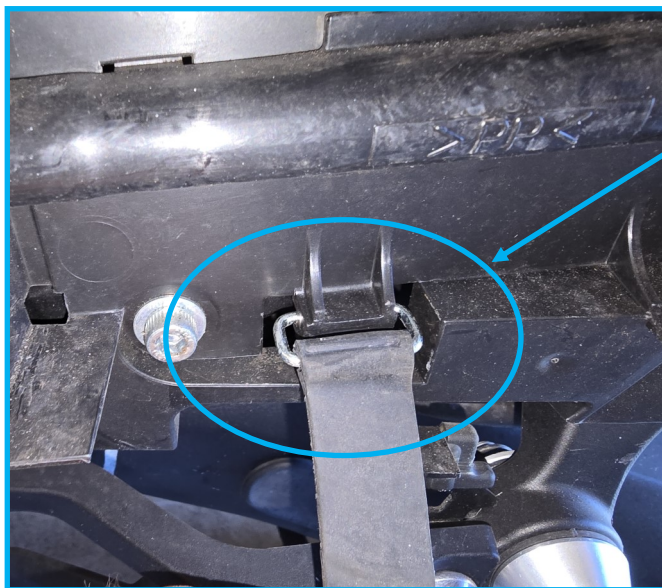
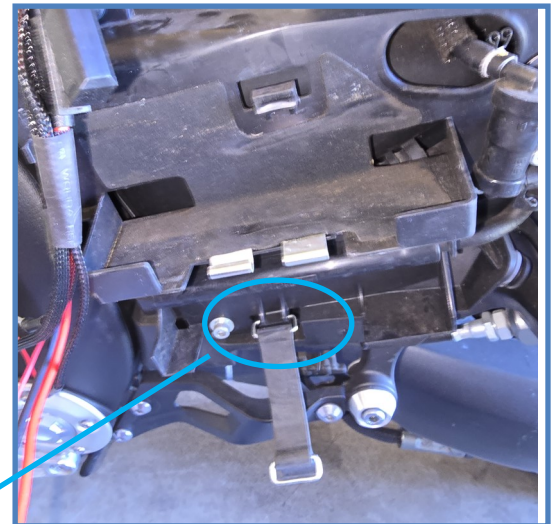
# RELOCATE THE OEM TOOL KIT



The next step is to relocate the OEM Tool Kit. Release the tool kit from it's factory position.

Pop the bottom of the strap loose and move it from the upper position and snap it into the lower position.

NOTE: California Emissions bikes will have a cannister in this position.



Reinstall your tool kit per the photo below



## Installing the Buddy Box



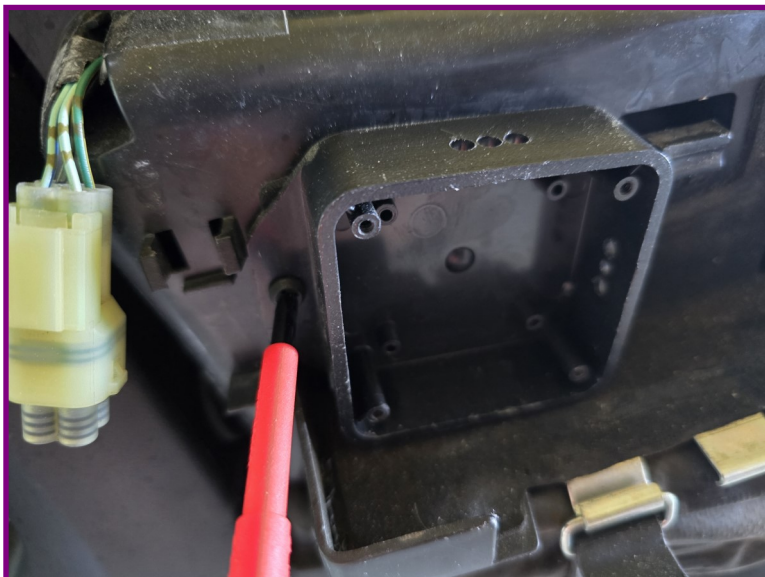
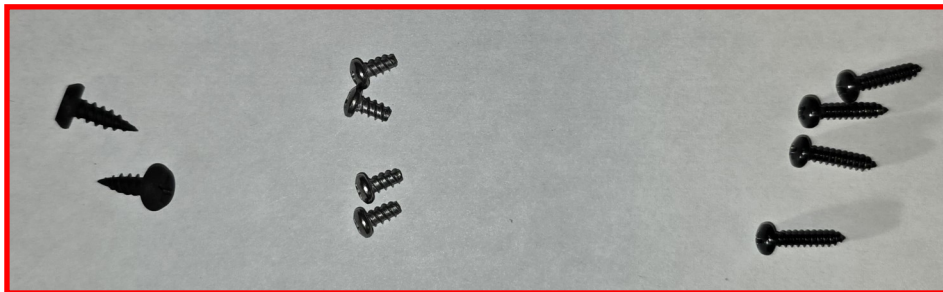
Install the Fuse Buddy Box Base in the now empty upper section of the Left Side Cover. You will have to slightly trim the Buddy Box tab. This can be done by touching it to a grinder wheel or trim it with some side cutters for it to fit properly. You will make a very small notch in the tab to accomplish this.

## Hardware—Screws

2ea—Box Mounting Screws

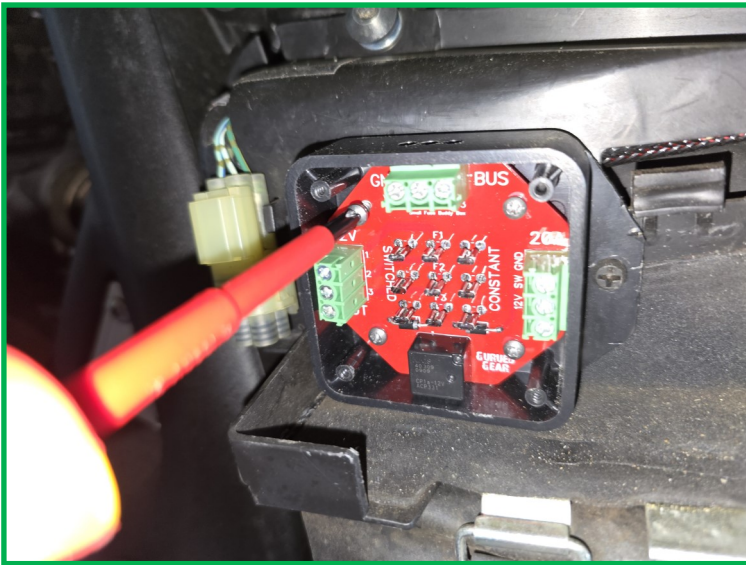
4ea — PCB Mounting Screws

4ea – Lid Screws



Using a Phillis Screw Driver, mount the box in position using the two Box Mounting Screws. The screws will self drill/tap into the soft plastic. Do not over-tighten these screws. I suggest performing this by hand and not use power tools.

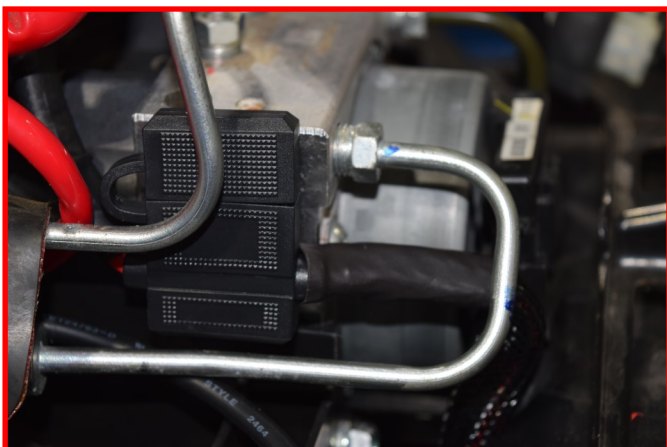
## Mounting the PCB



Now insert the PCB board with the small black cubed relay at the bottom and the board to the Buddy Box using the 4 stainless Phillips screws.

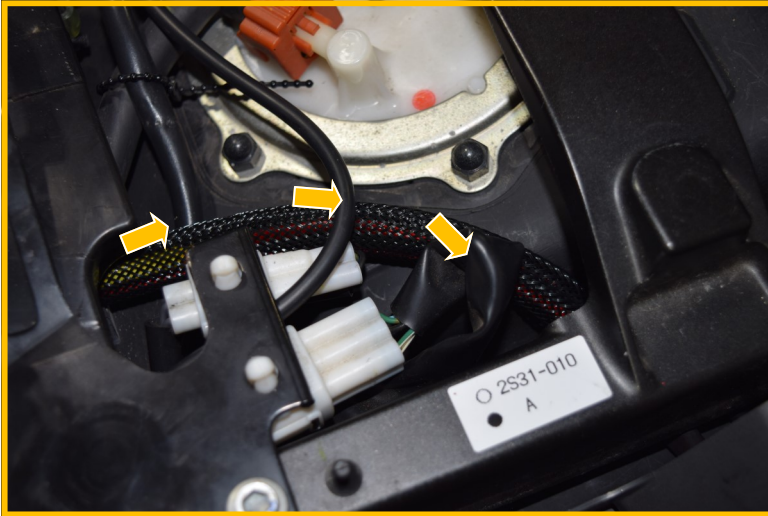
## Installing the Wire Harness

You will be installing the Wire Harness on the left side of the bike. It will run beside the ABS unit and run along the left frame and sub-frame member as shown.



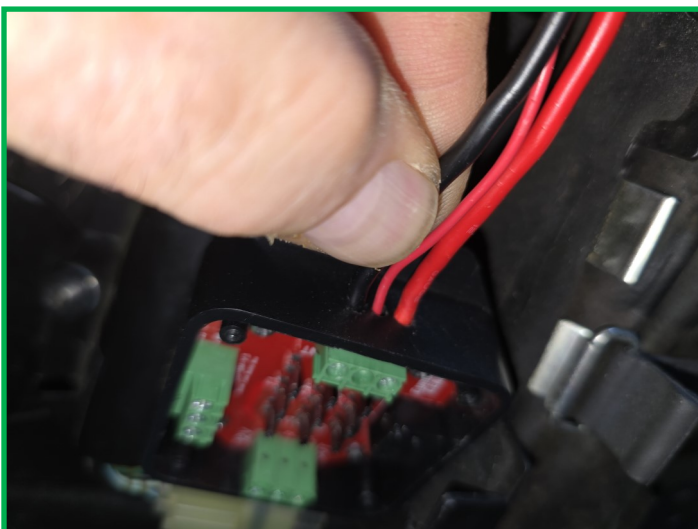
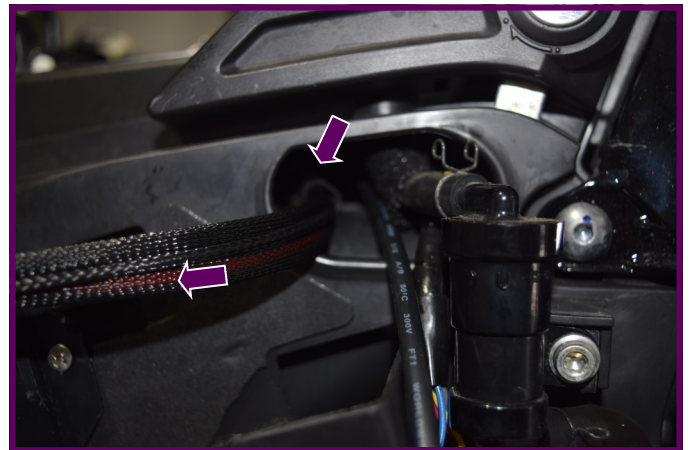
Start by installing the 20A fuse in the harness fuse holder. Route the wire harness beside the ABS unit and then fish the bare wire ends toward the fuel tank

## Wire Harness Cont.



Route along connectors and under side rail.

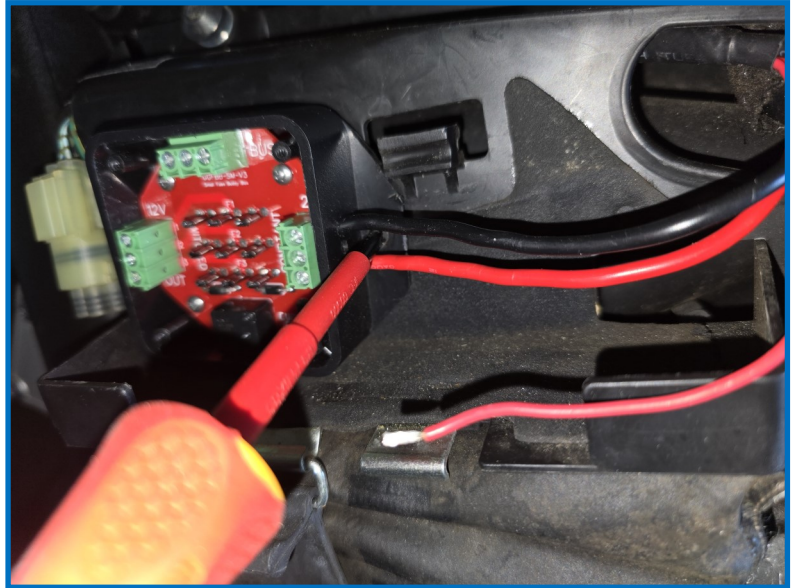
Pass the ends thru the existing hole in the side cover.



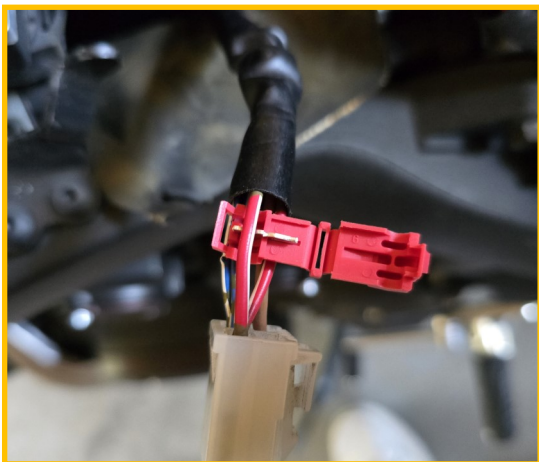
This step may seem counter productive but it is best to remove the box mounting screws to make it easier to install the large Ground and 12V Positive wire in the right side terminal block. Using a Jewelers Screwdriver, secure the two large wires. Leave out the small switched center wire for now so you can re-secure the box in place using the original holes.

## Wire Harness Cont.

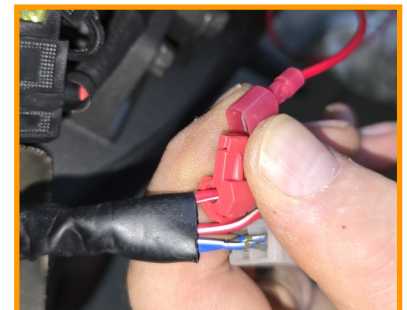
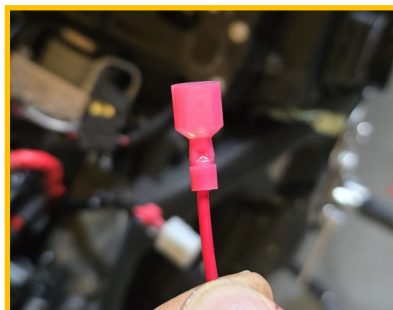
Once you have resecured the box base in the original holes you made, insert the small switched wire into the center position of the right side terminal block and secure it with a Jewellers Screwdriver.



Find the Switched Supply wire that is located on the left side of the battery box just below the Main 30A fuse. Locate the Red Wires with White Stripes. There are two. Either is acceptable for tapping.

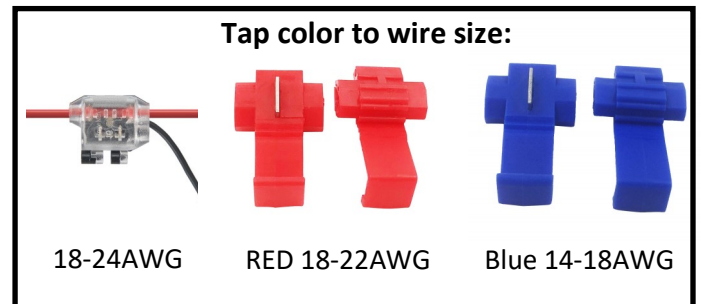
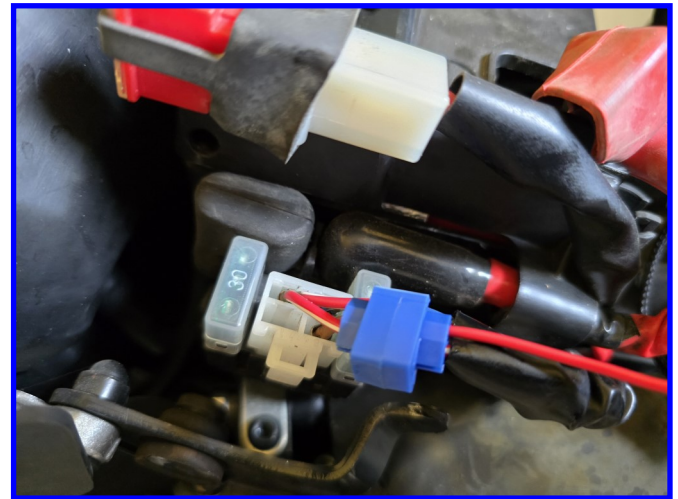
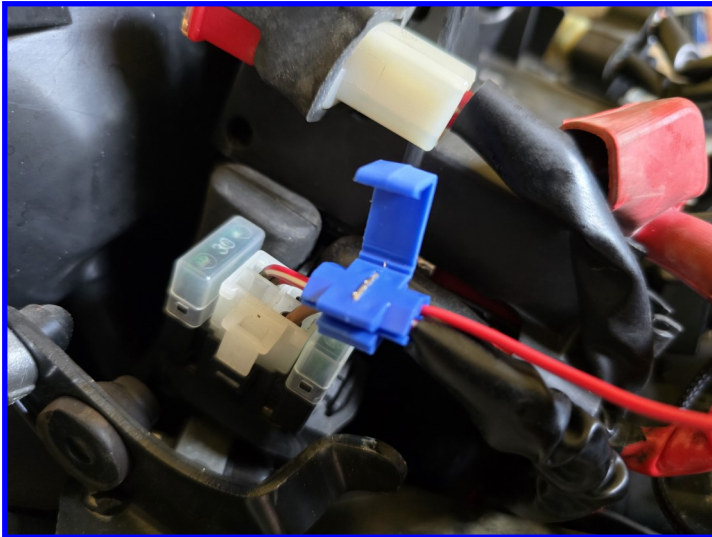


The kit is generic and will include several different types of connections to tap into this switched supply. Pictured is a Red "T" Tap. Another more permanent option would be Blue Parallel taps on the next page.

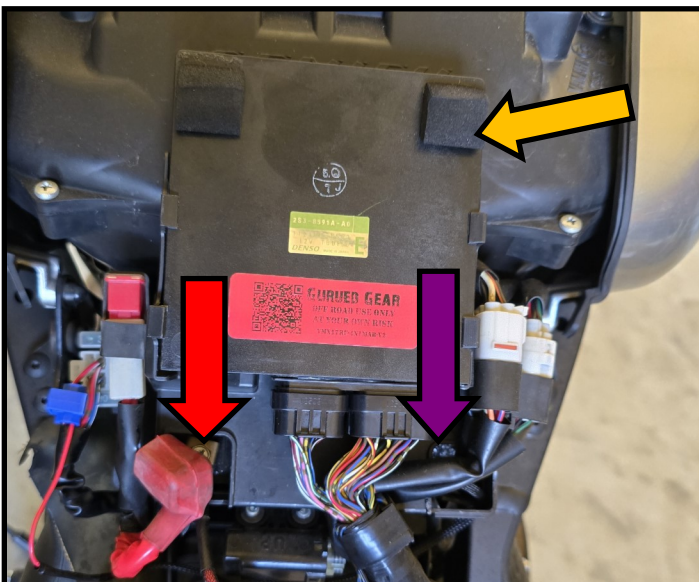


## Wire Harness Cont.

Another option may be a parallel tap. Make sure to insert the wire with the bitter end fully into the correct hole before crimping it with pliers.



## Testing the Installation

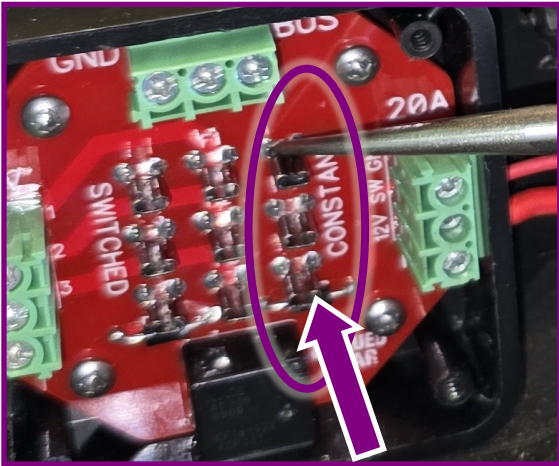


It is time to install the ring terminals under the screws on the battery post. Start by attaching the Positive battery lead and Ring Terminal attached to the Red wire to the Positive (+) 12V battery post first.

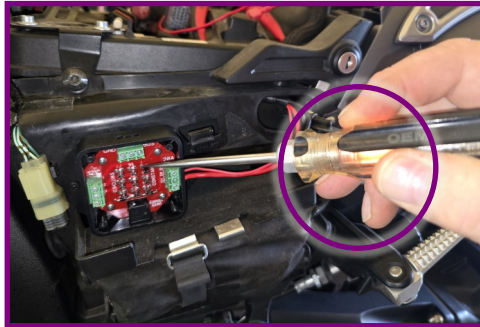
Next attach the Negative battery lead and Ring Terminal attached Black wire to the Negative (—) battery post.

Lastly, Reinstall the ECU.

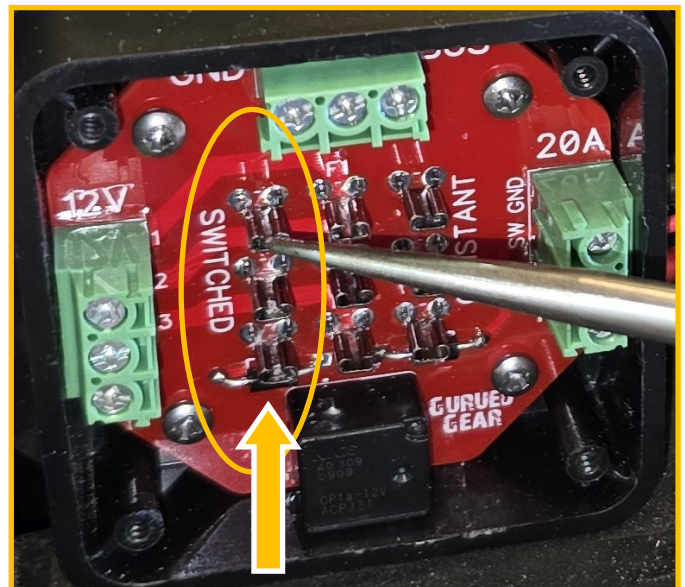
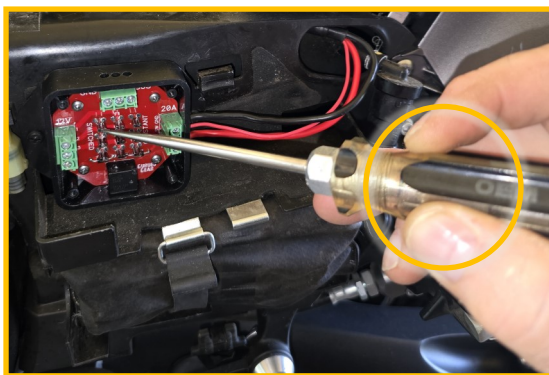
## Testing the Installation continued



Using a Multimeter or test light, test for positive voltage. Start by testing the fuse clips on the **CONSTANT** supply side. This should have Positive Battery volts present. If there is no voltage, check the main wire harness 20A fuse and battery attachment.



Next test the **SWITCHED** side and make sure it is **OFF**.



Now turn on the Ignition key and make sure there is Positive Voltage on the **SWITCHED** fuse clips. If positive voltage is missing, test for voltage on the Switched Input. If no voltage is present, check your connections to the switched input wire and solderless connector.





# Installing fuses



Use Needle Nose pliers to install the fuses!!

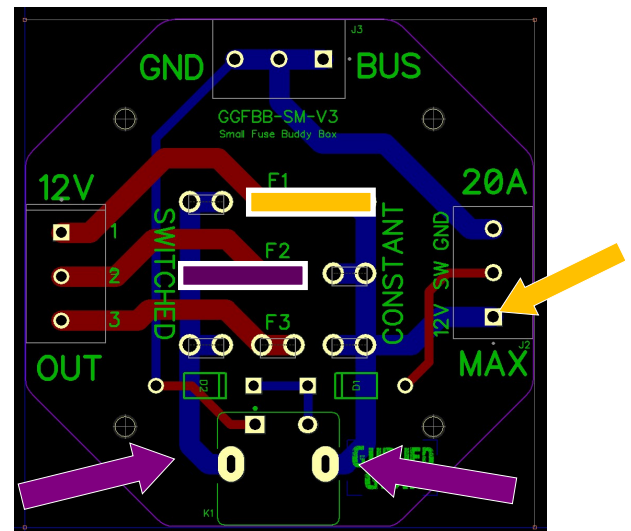


Using Needle Nose Pliers will help keep the Mini fuse straight during insertion into the fuse clips. Especially the first time a fuse is inserted. Otherwise the fuse may flip to it's side during insertion and bend/snap off the fuse clip.

## How the fuses work

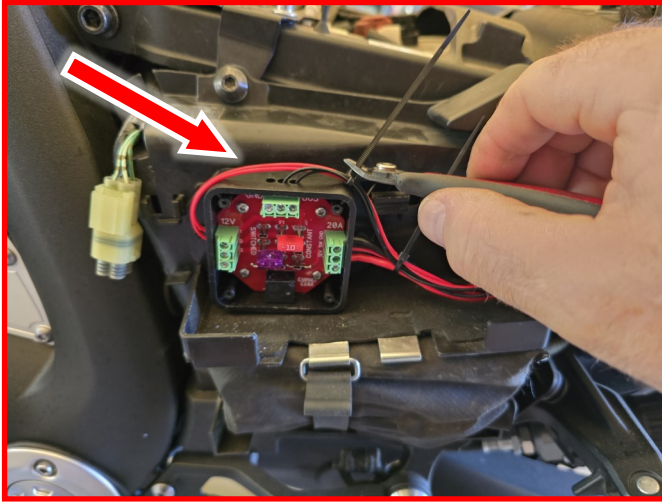
This picture is an actual screen grab from the PCB routing software. Red runs on the PCB are top layers and blue runs are bottom.

The Yellow arrow shows where 12V comes into the right terminal block and powers all of the Right side or CONSTANT fuse clips. If a fuse is installed per the yellow box, the F1 output will be constantly powered with 12V. This is good for items that need to be powered all the time or a battery tender input.



I show with Purple arrows where the 12V input also goes to a small relay footprint (relay not pictured). When the Ignition Switch is turned on, the relay closes and powers all of the SWITCHED side fuse clips. If you install a fuse per the Purple Square in the F2 position, the output will be switched with the Ignition Key. Most accessories will use this position.

# Finishing



**After installing all of your additional circuits and testing them, it will be time to tidy the wires and install the lid. Bundle the wires tightly to the top of the Buddy Box and use the included Zip Ties to secure them in place.**

I included wiring positions on the lid. Make sure to align the lid with in inner PCB and secure it with the 4 lid screws. Once the lid is secure, test fit the side cover. Make sure the wires are not going to be pinched between the side cover and the Buddy Box.

Your installation is now complete.

Thank you for your business!!



## Specs

Max Power	20A	Max Per Circuit	10A
Max Volts	15V	Min Volts	9.5V

\* Enclosure not rated for wet locations. Box must be mounted in dry and protected location.

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