



# **2020+ Cadillac CT5-V BIG MOUTH “LIT KIT” Ram Air Intake Installation Guide**



## Kit Contents (FULL Lit Kit)

Please review this document before attempting installation.

You will need basic hand tools and 2 hours of installation time.

Kit Contents	Qty
M4 x 20mm socket head screw	2
M4 x 40mm socket head screw	2
Bluetooth controller	1
Rocker switch	1
Positive cable w/ in-line fuse	1
Remote	1
Cable clip	8
8" zip tie	10
M6 x 12mm socket head screw	1
M6 lock nut	3
Assembled BIG MOUTH kit	2
Clamshell	2





## Kit Contents (LIT Flare Only)

Please review the table below and make sure you have received the kit contents.

Kit Contents	Qty
Bluetooth controller	1
Rocker switch	1
Positive cable w/ in-line fuse	1
Remote	1
Cable clip	8
8" zip tie	10
M6 x 12mm socket head screw	1
M6 lock nut	3
Assembled LIT flare	2



**If you already own the Velossa Tech Cadillac CT5-V BIG MOUTH, skip to slide 8 to see install and wiring instructions.**



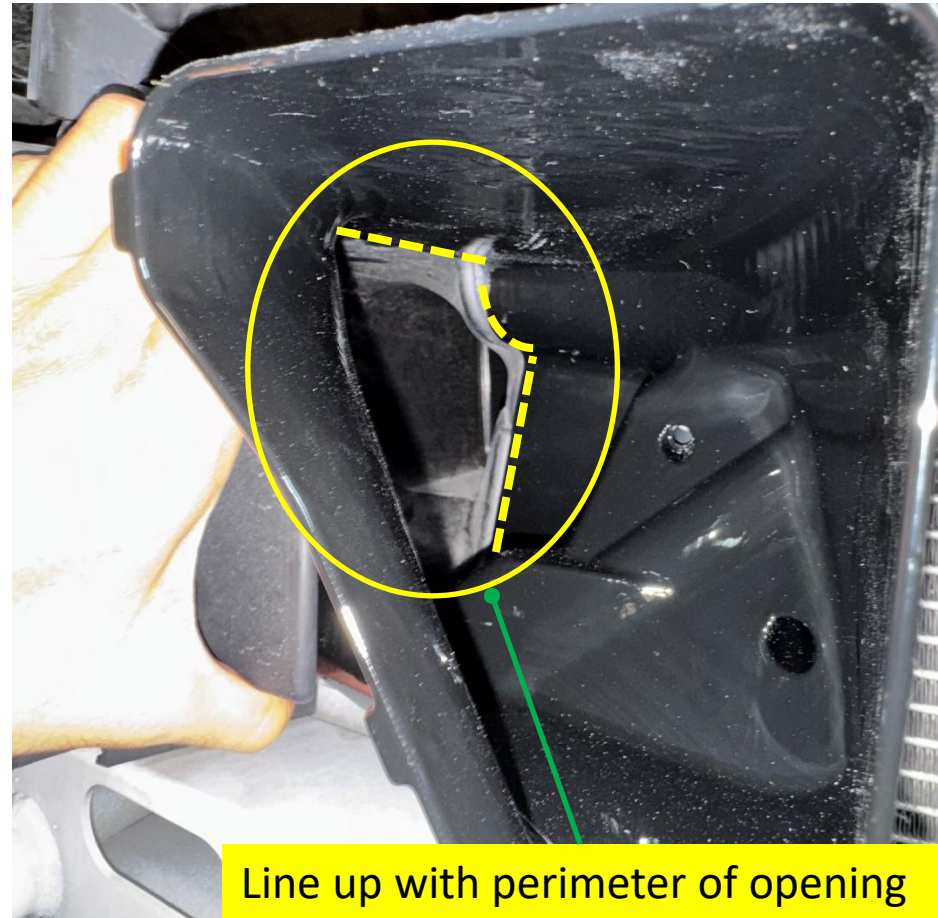
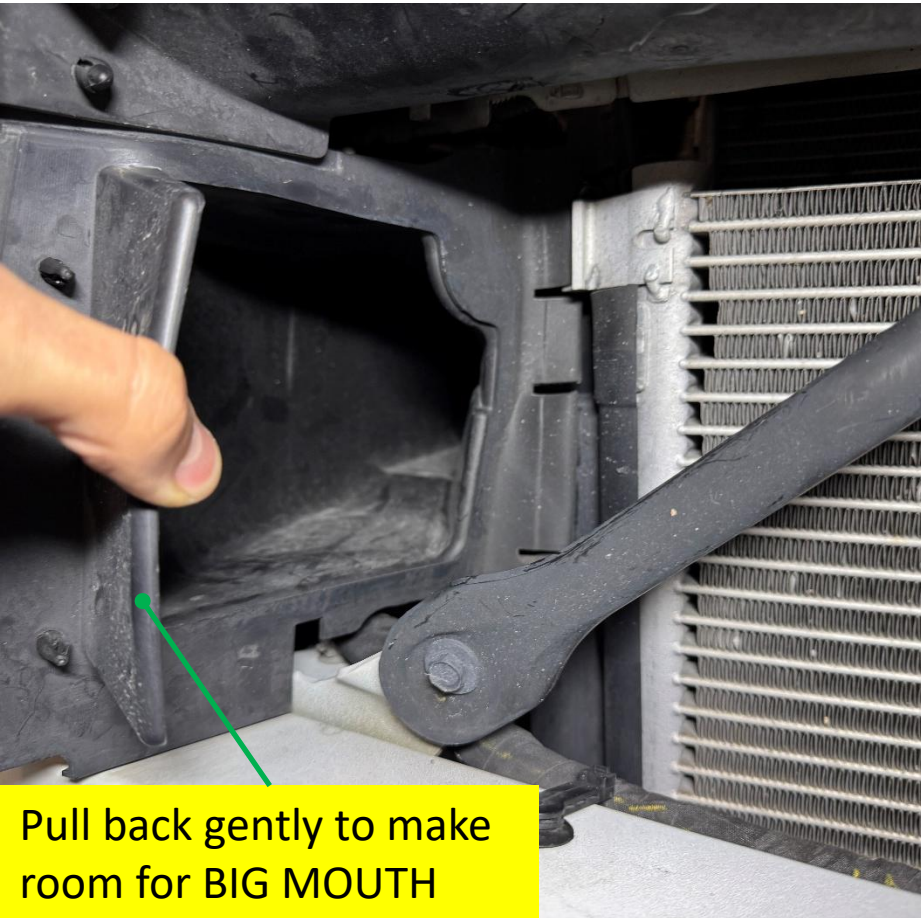
## **Stock Components Removal**

Use the resources available online to research how to remove the bumper for your specific trim level. There is no need to undo the wiring harness. Propping the bumper up with a non-abrasive support while maintaining slack in the wiring harness will suffice for this install.



## BIG MOUTH Placement

The BIG MOUTH is meant to feed the indicated intake opening. Pull back on the air shield to position the BIG MOUTH over the diagonal brace and line it up with the perimeter of the opening.

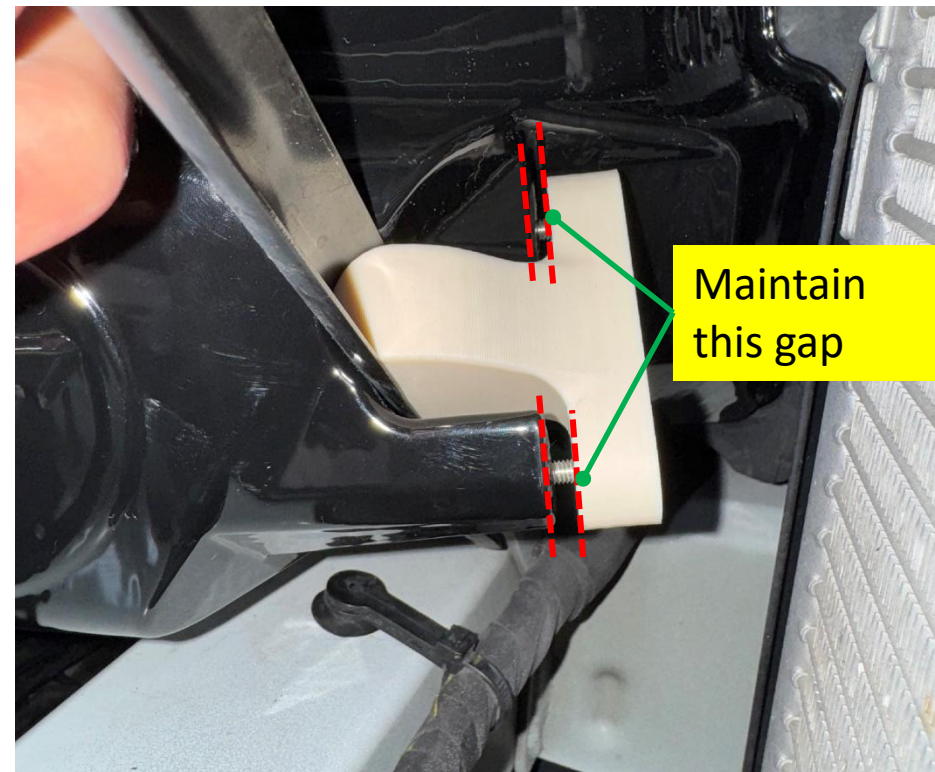
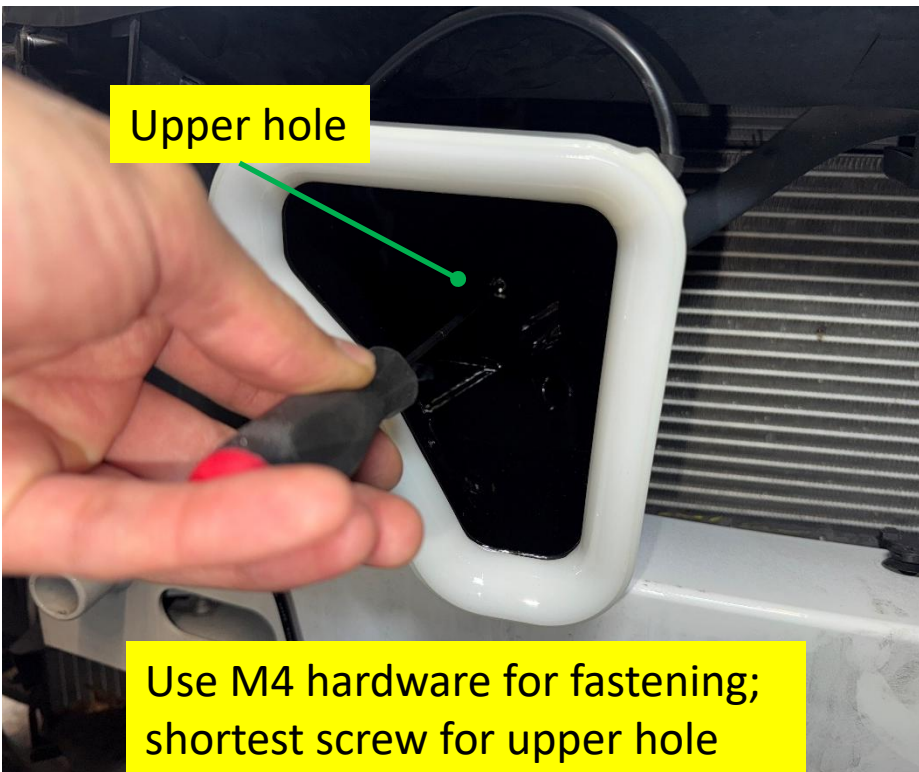






## BIG MOUTH Fastening

Slide any one of the two clamshells into the groove on the backside of the diagonal brace and line up its threaded inserts with the holes on the BIG MOUTH. Use the provided M4 cap screws to fasten the BIG MOUTH. Use the shorter screw for the uppermost hole. **Tighten in an alternating sequence**. There should be a gap between the rear face of the BIG MOUTH and the clamshell. Repeat for the other side.





## Adjustability

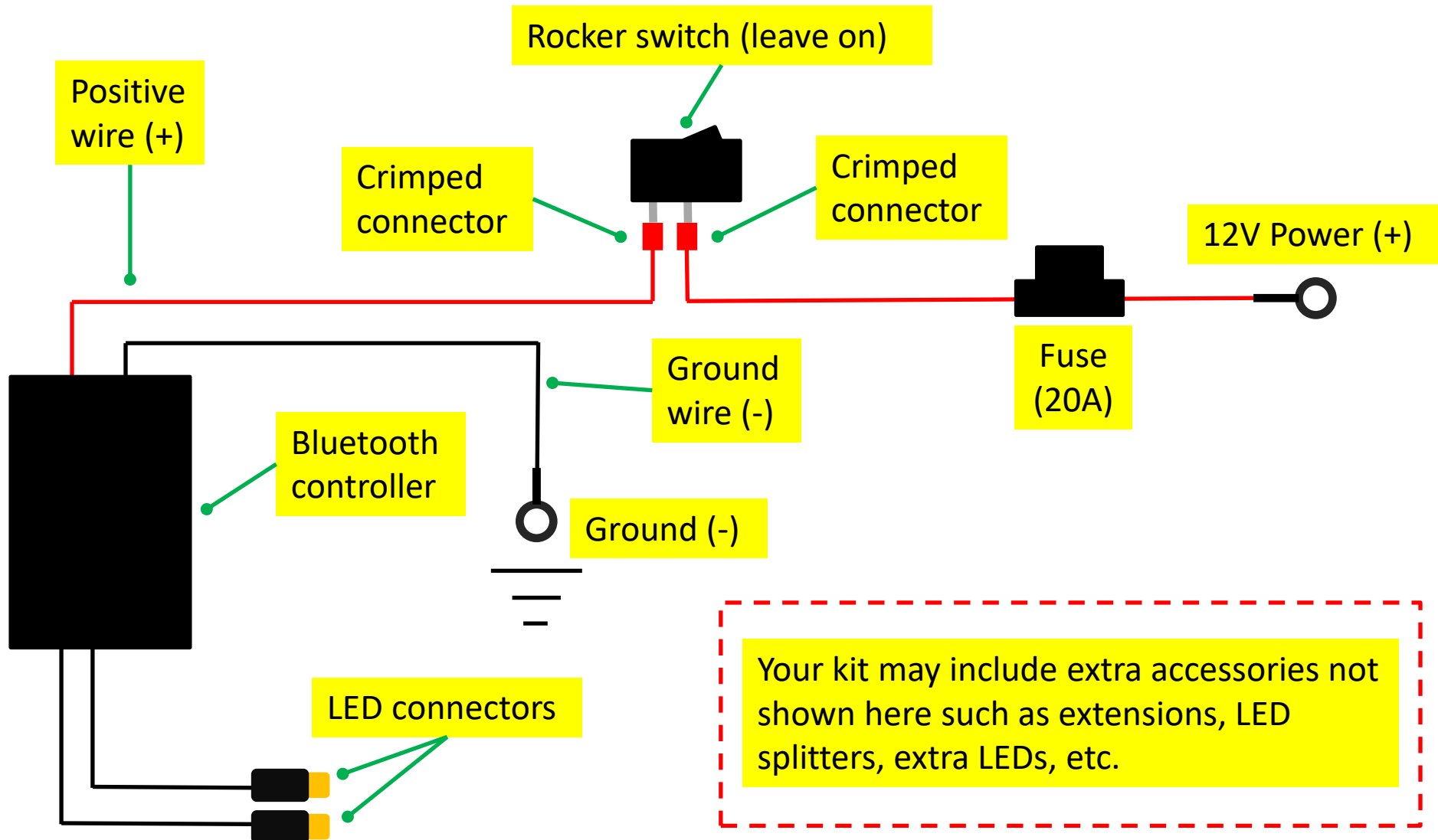
If adjustment is needed, loosen the M4 cap screws and tighten again while holding the corresponding BIG MOUTH in its desired position.





# VELOSSA TECH

## Wiring Harness Schematic







## LIT KIT TIPS: Controller Placement

When considering where to place your Bluetooth controller, pay attention to the following factors:

- **Distance:** The controller leads need to be able to reach the LEDs so proximity to the BIG MOUTH is important.
- **Bluetooth signal:** Placing the controller as close as possible to the driver will help with signal strength. Place the controller in a location where there is minimal metal mass in between the driver and controller.
- **Heat and weathering:** Avoid subjecting your controller to excessive heat and limit its exposure to environmental wear.

Some commonly found solutions for controller placement include:

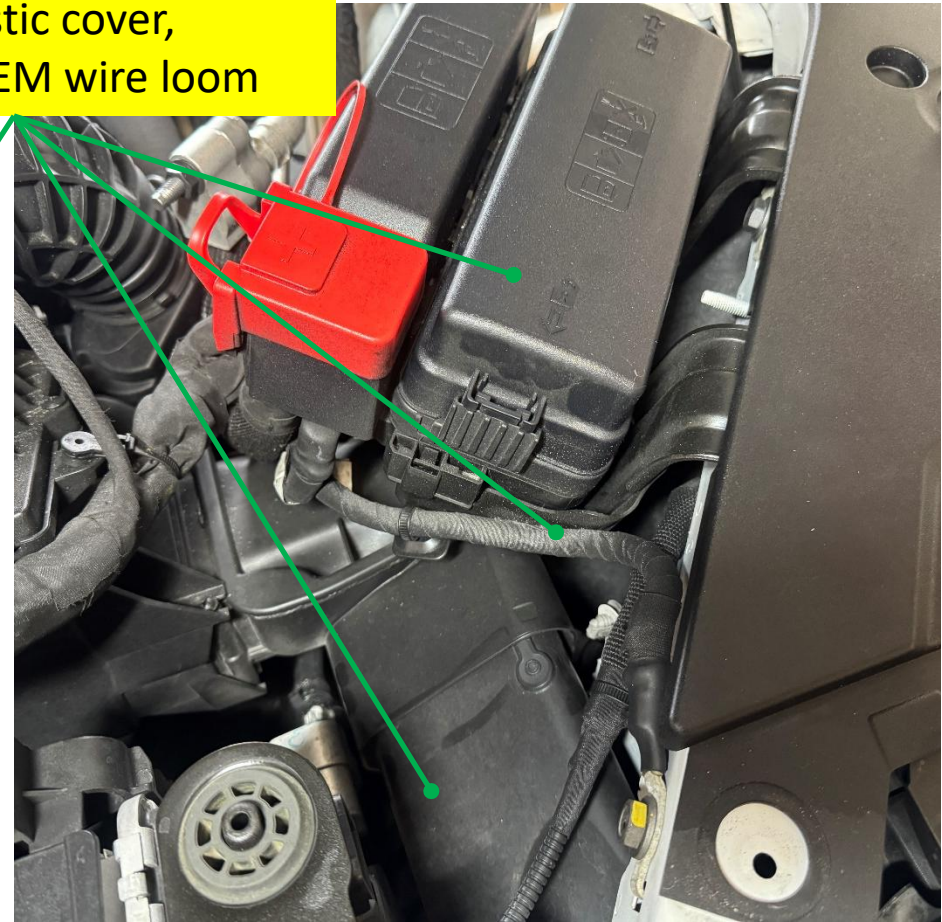
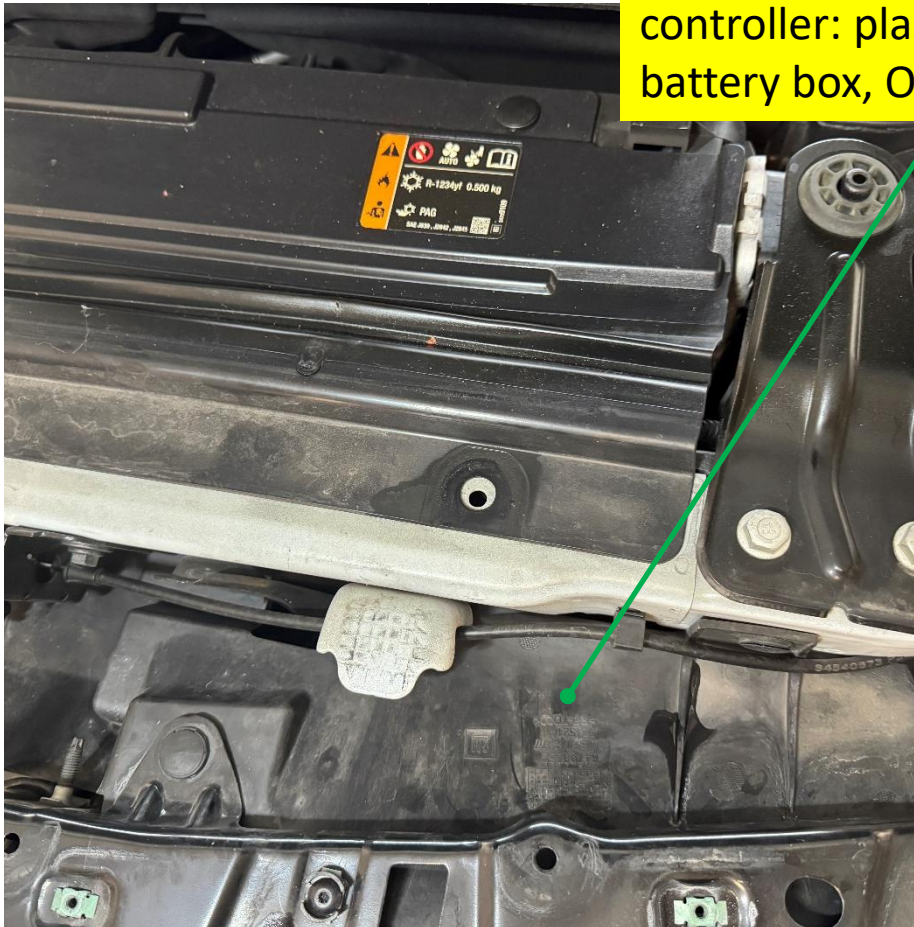
- Adhere to a flat spot on the cowl, inside or near battery box, radiator support (driver side if possible), behind headlight, airbox, etc. using the supplied double-sided tape
- If using a location near the hood latch, take the necessary precautions to ensure the wiring will not get entangled with the hood latch.
- Using zip ties to attach the controller to a thick wire loom is also a handy solution
- Some locations near the firewall/battery tend to be good locations for signal and low temperature.



## LIT KIT: Controller Placement

Consider these locations for controller placement as they meet the recommendations outlined in the previous slide.

Suitable locations to place controller: plastic cover, battery box, OEM wire loom



## LIT KIT TIPS: Ground

When considering where to ground the circuit, pay attention to the following factors:

- **Location:** The best and most reliable ground connections exist on the chassis, on the engine block or on the negative terminal of your battery. These can exist as a threaded hole, shoulder bolt or stud.
- **Conductivity:** The ground point should be clean, unpainted and free of rust or grease for a solid connection. Fasten it securely to avoid vibration loosening the connection.
- **Distance:** Make sure the location of your chosen ground point is within range of the provided ground wiring.

Reference images only, your vehicle may vary slightly!



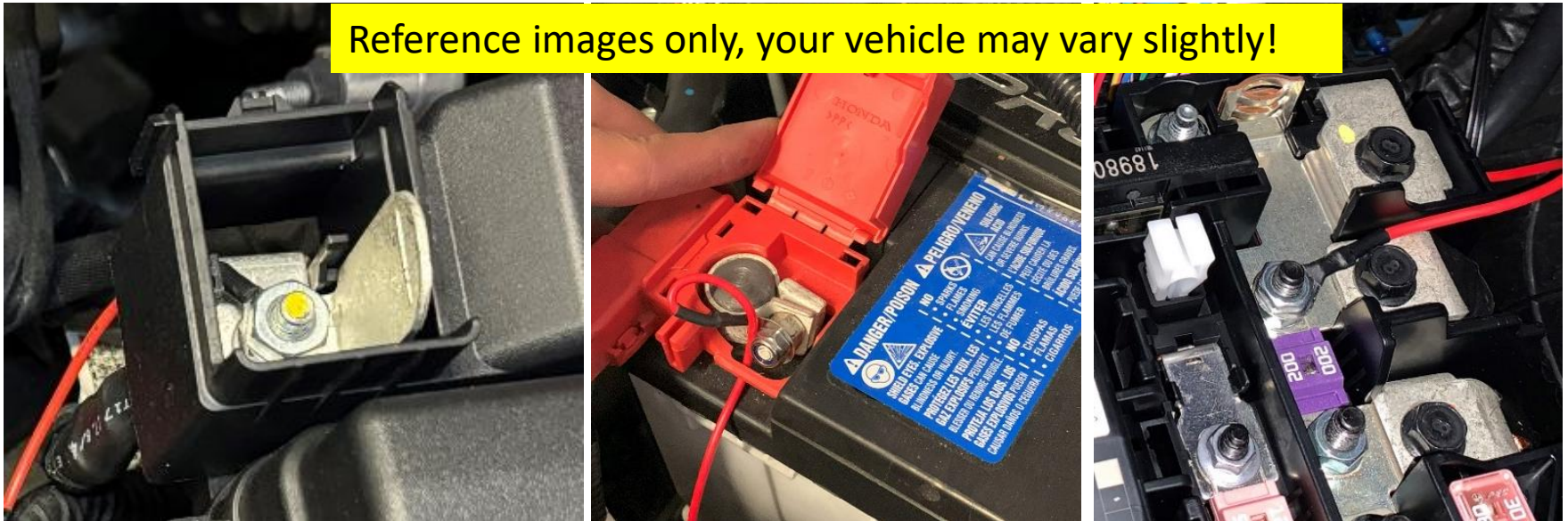


## LIT KIT TIPS: Power

When considering the power side of the circuit, pay attention to the following factors:

- **Location:** By default, our LIT KIT is powered using the positive terminal on the battery. If you decide to re-configure your kit for a switchable power source, we recommend you research the use of a fuse tap and follow best practices outlined online.
- **Conductivity:** The connection to the battery must be tight and secure. Loose connections create excess heat and shorten the life of the electronics. Ensure the terminal is free from corrosion, damage or debris.
- **Safety:** When working with a car battery, exercise best safety practices such as using insulated tools and wearing the correct protective equipment.

Reference images only, your vehicle may vary slightly!



## LIT KIT TIPS: Wiring Best Practices

When considering how to route the wiring through your engine bay, consider the following:

- **Strain relief:** Use the provided zip ties and cable clips to secure wiring to its environment while maintaining slack at each point. All wiring should be free from strain and tension.
- **Components to avoid:** Avoid moving parts, such as hood latches and pulleys, and exhaust components that can melt wiring. Also take care to avoid pinch points.
- **Routing:** Whenever possible, route the wiring along factory harnesses, underneath trim or along the perimeter of the engine bay. Bundles of wire should be tucked underneath plastic covers and secured using zip ties.

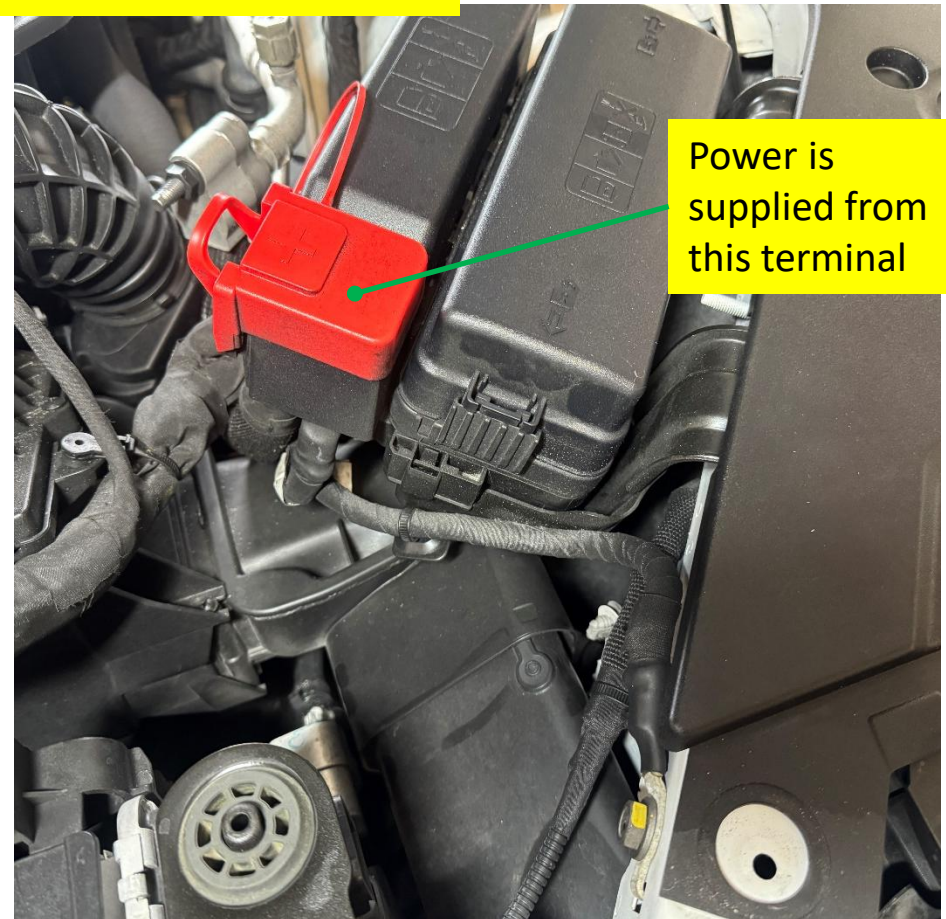
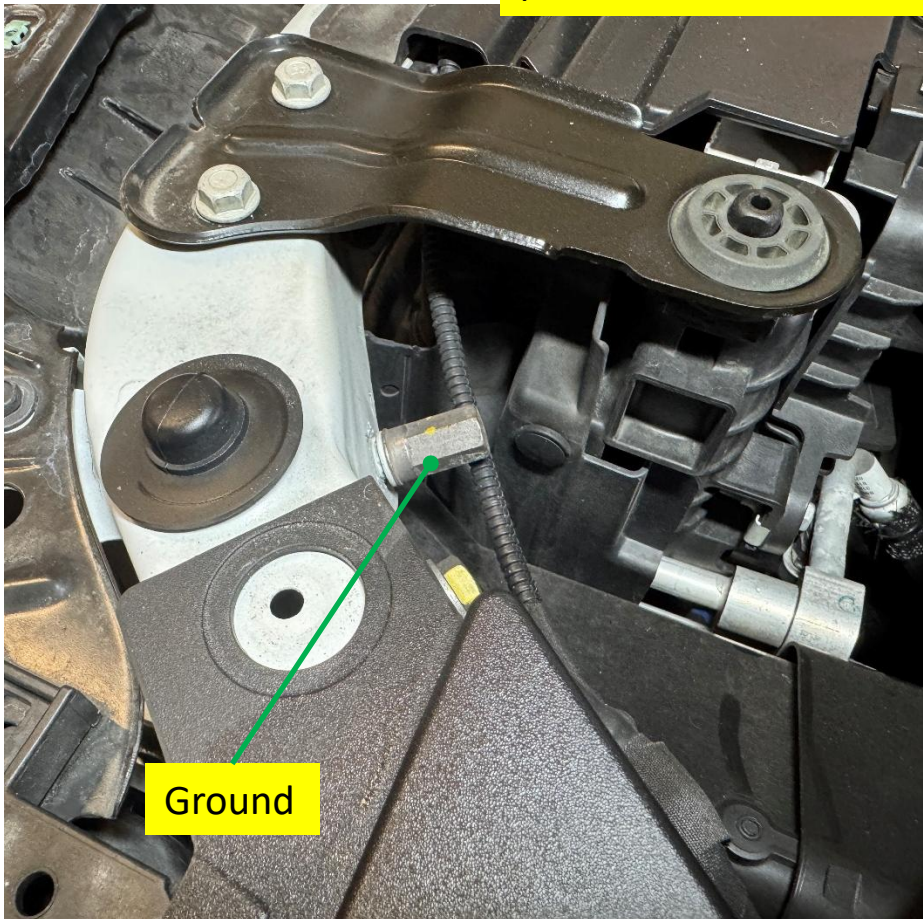
Reference images only, your vehicle may vary slightly!





## LIT KIT TIPS: Visual Aid

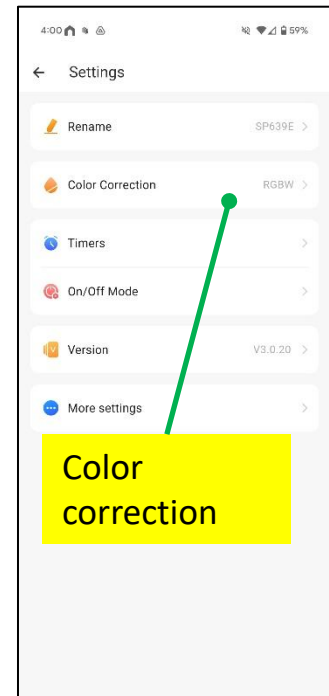
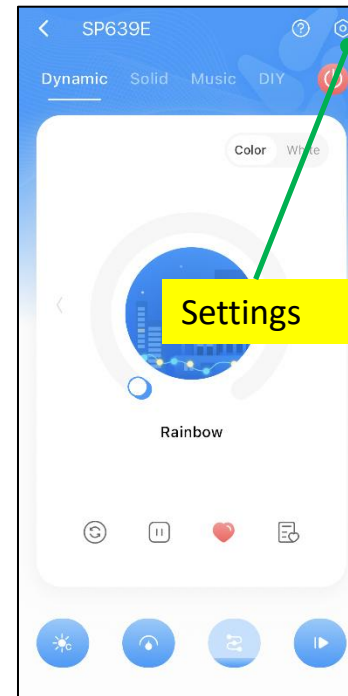
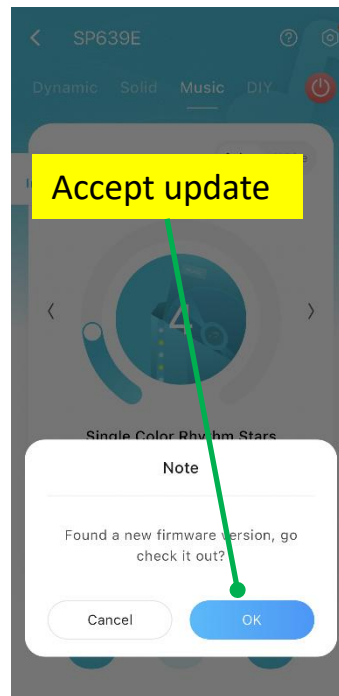
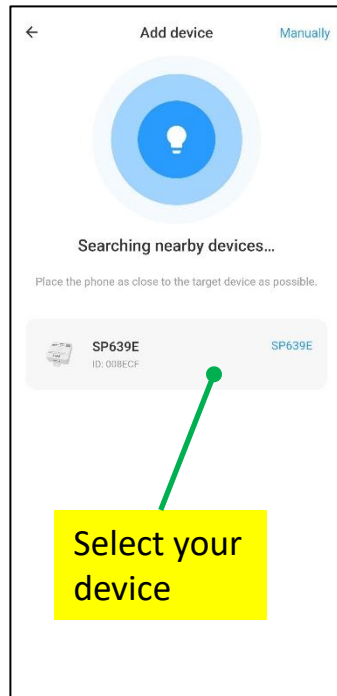
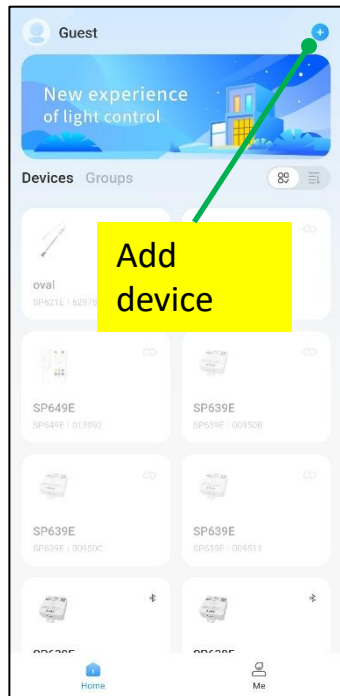
Wiring should be routed cleanly and bundled neatly. Exercise strain relief. Use cable clips and zip ties for cable management. Watch for pinch points.





## Phone App: Initialization

Download the **BanlanX** app from your app store and turn on your LIT KIT through the switch. Open the app and select the + sign at the top right of your screen. If you are within range and Bluetooth is on, your phone will search for nearby devices, and you will likely see your Bluetooth controller available as SP639E. Select your SP639E Bluetooth controller. Once selected, it is very likely that you will be prompted to update the firmware. Once the update is complete, navigate to the Settings -> Color Correction. Choose the colors that are displayed on your LEDs and once the calibration is done, go back to the 'Home' screen.



## Phone App: Control

Once on the 'Home' screen, go to the 'Dynamic' tab, familiarize yourself with the interface and have fun with the presets! There are many ways to customize your LIT KIT, including DIY configurations.

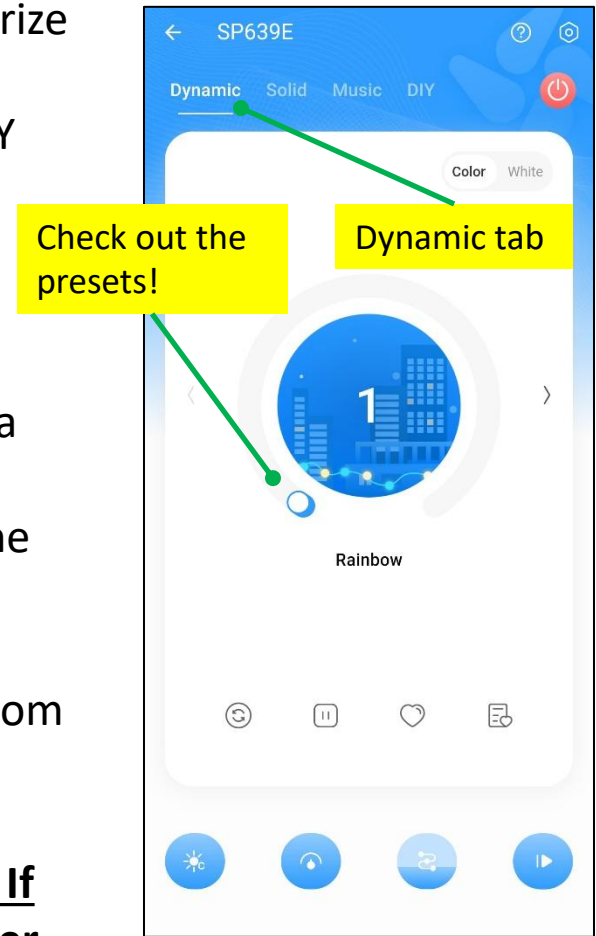
### Troubleshooting

If you are having trouble connecting, cycle the power to the Bluetooth controller by toggling the power switch and wait a few seconds, then turn it back on.

Wait for the app to detect the controller. It will pop up on the app screen as a Bluetooth controller. If necessary, cycle the power once more to refresh the controller.

If the problem persists, reach out to [support@velossatech.com](mailto:support@velossatech.com)

**Note that if you mounted your controller behind a lot of metal components, this may degrade the signal and range. If this is your case, reconsider the placement of your controller.**







**Finalize**



Reinstall the bumper the say way it was removed and enjoy!