VELOSSA TECH

2012-2021 (Mk7/Mk7.5) Volkswagen GTI BIG MOUTH LIT KIT Ram Air Intake Installation Guide

VELOSSA TECH

Kit Contents

Please review this document before attempting installation.

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

Kit Contents	Qty
M5 x 14mm button head screw	4
M5 lock nut	4
5mm large washer	4
Bluetooth controller	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
Cutting template	1
U-channel edge trim (18" pc)	2

VELOSSA TECH

Kit Contents (LIT Flare Only)

Please review this document before attempting installation.

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

Kit Contents	Qty
Bluetooth controller	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 Volkswagen Golf Mk7 BIG MOUTH, skip to slide 10 to see install and wiring instructions.

VELOSSA TECH

Stock Components Removal

Front bumper removal is not required for the installation of this BIG MOUTH; only the removal of the grille is required. Use the tools available online to research how to remove the grille from your specific car trim.

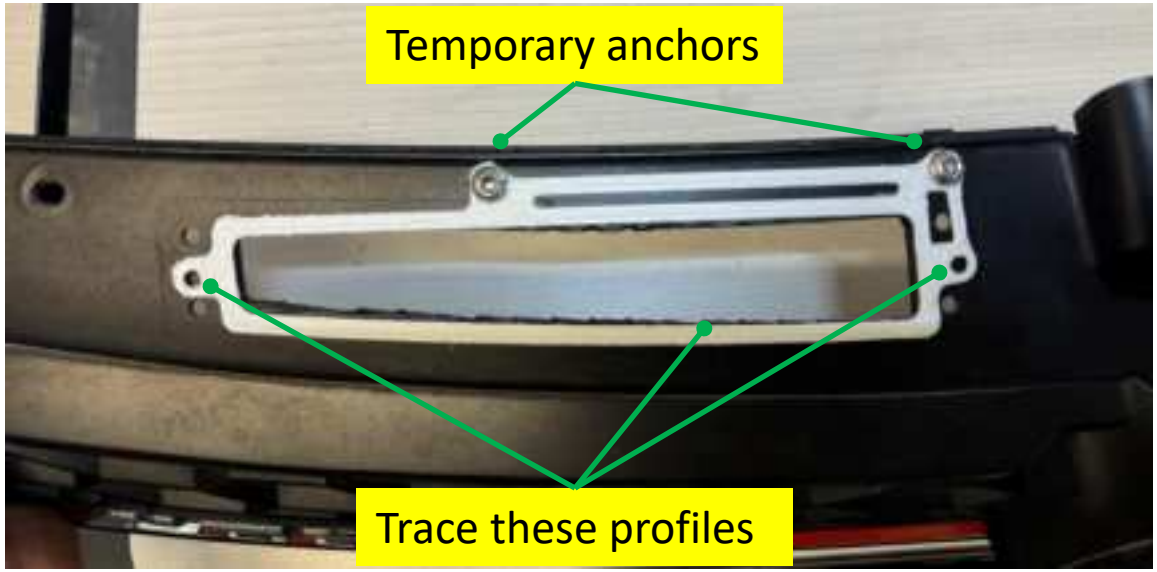
Note: The installation as intended calls for the modification of the plastic cover that is attached to the grille.

VELOSSA TECH

Template

The template is meant to serve as a guide for (a) the opening that is needed for the incoming air and (2) for the holes that will be used for the fastening screws. Start with the passenger side. Place two of the supplied M5 screws in the indicated holes as temporary anchors that will hold the template in place. Keep the screws centered throughout the tracing process.

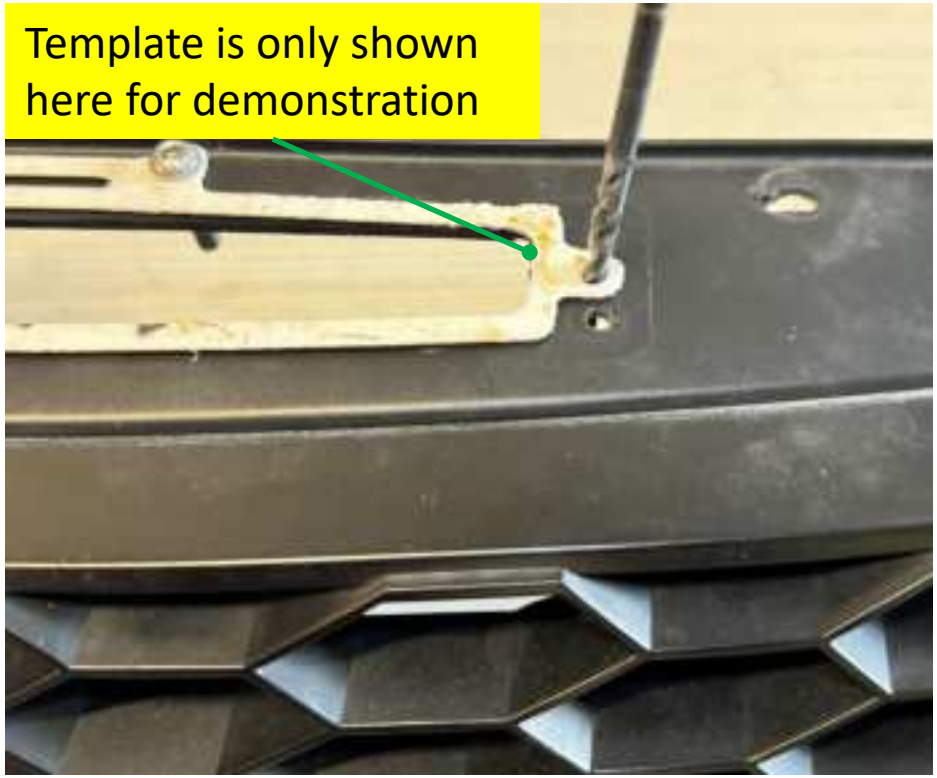
Next, use a marker to trace the inner perimeter of the template and to trace the holes to the left and right of that profile. Once the markings have been made, remove the template, flip it along the Y-axis and repeat for the driver side.



VELOSSA TECH

Cutout and Drill

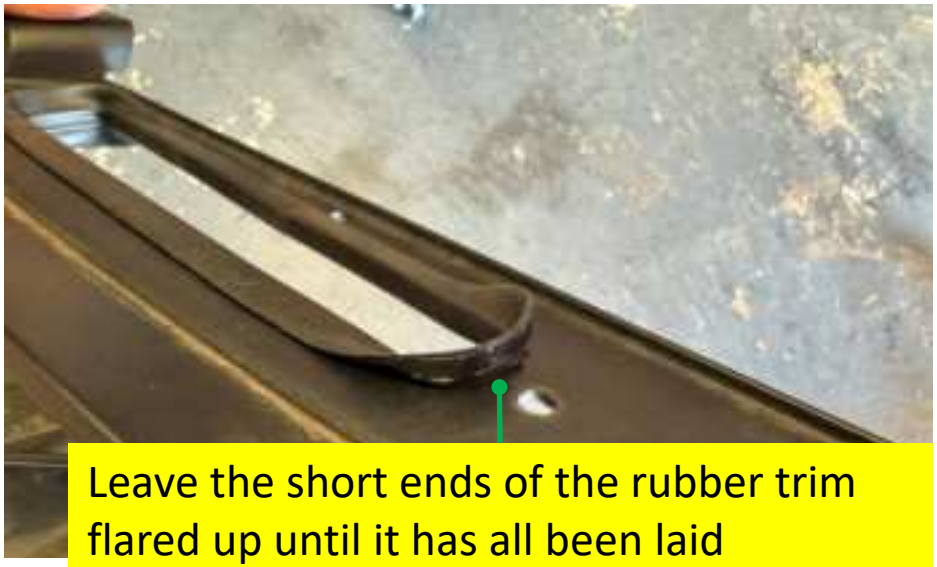
Using the proper protective equipment, use a rotary tool (Dremel) to cut along the profile that was marked in the previous step. Next, use a drill to make the fastening holes, starting with a pilot hole and working up to a ¼” bit. Use a deburring tool or a file to clean up the edges.



VELOSSA TECH

Application of Edge Trim

Once the cutting is complete, the supplied edge trim will be used to disguise the jagged edges of the cut. First, use a cleaning agent to clean up the area around the cut so the edge trim can adhere. Next, remove the red-backed adhesive inside the U-profile and loosely start laying it down on the rear straight edge (do not press down on the adhesive yet). Slowly and carefully wrap around the perimeter and leave the short edges flared up as shown. Push up against the wall of the cut plastic with your fingers to prevent gaps. Once the entire perimeter has been wrapped, lay down the flared edges and squeeze the entire perimeter to adhere.



Leave the short ends of the rubber trim flared up until it has all been laid

Push into the short edges of the cut plastic to leave no gap

VELOSSA TECH

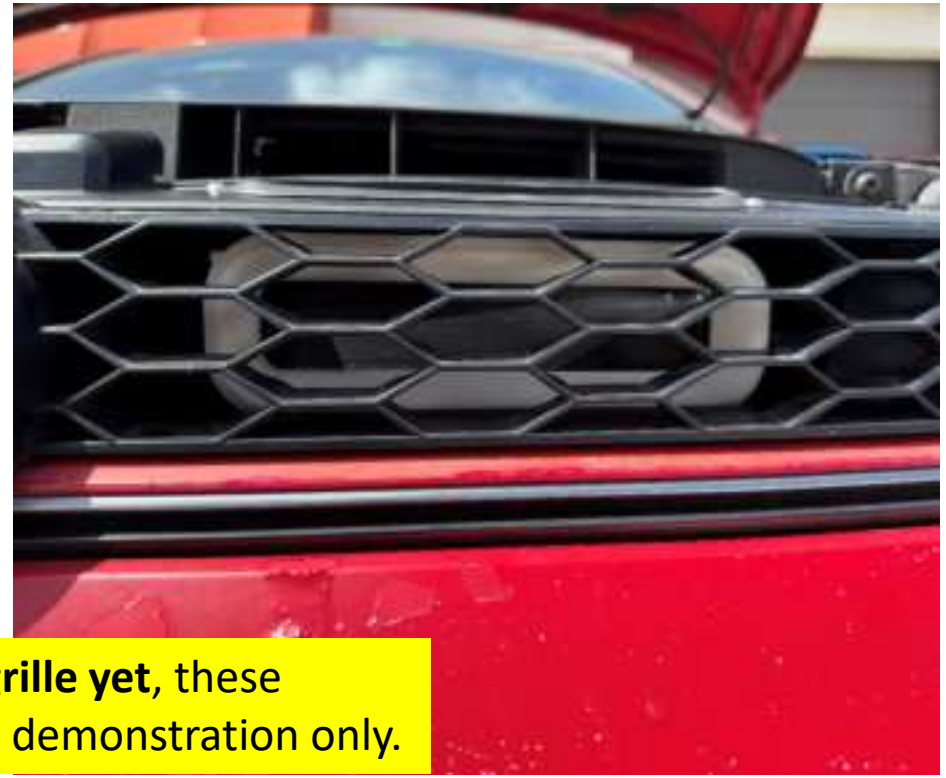
Application of Edge Trim

Push down on all sides of the rubber edge trim so the adhesive grips and use a blade to cleanly trim around the drill holes if there is overlap.

VELOSSA TECH

BIG MOUTH Installation

Take note that each body is specific to one side: ‘D’ for driver side and ‘P’ for passenger side. Starting with any one side, line up the part to its respective section on the plastic cover. Use the supplied hardware to fasten the part, taking care **NOT TO OVERTIGHTEN.** The button head should face up; use the provided washers if the hole is too oversized. **Do not reinstall the grille yet**.



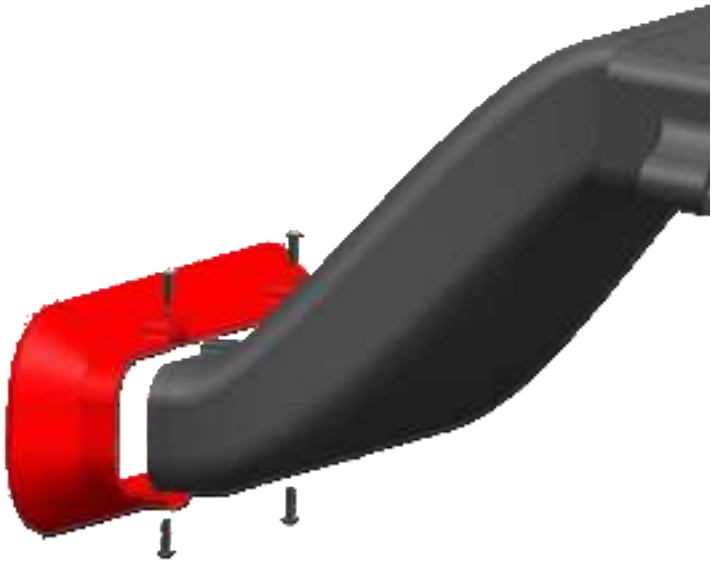
Do not reinstall the grille yet, these images are meant for demonstration only.

VELOSSA TECH

Install the LIT BIG MOUTH Flare

SKIP THIS SLIDE IF YOU PURCHASED A FULL LIT KIT

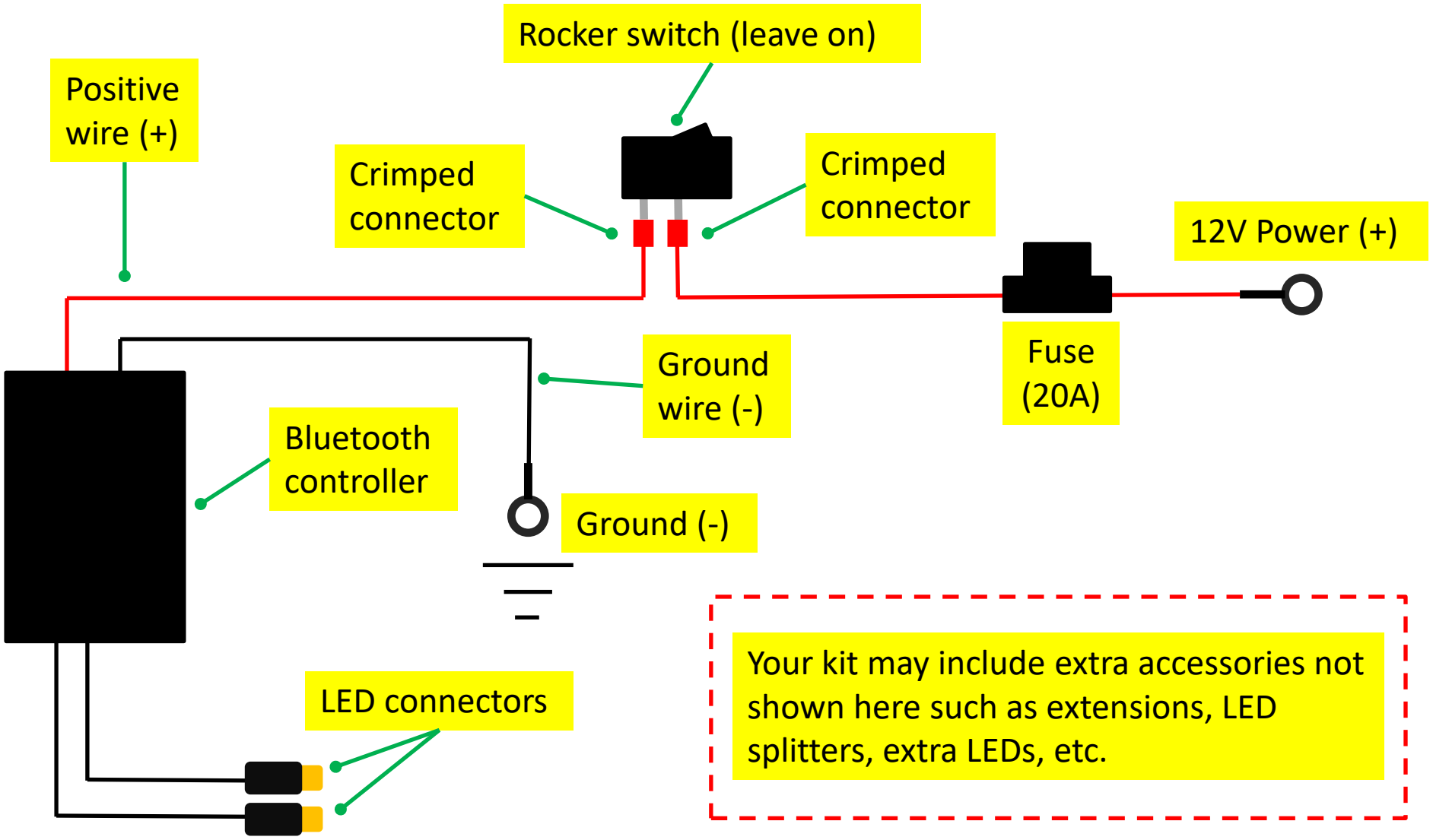
Attach the supplied cable clip to your BIG MOUTH as shown. Fasten the cable and provide enough slack to not strain the cable.



If you purchased a LIT flare-only and already have a Gen 4 BIG MOUTH. Remove old flare and install the LIT flare with the 4 screws as shown.

VELOSSA TECH

Wiring Harness Schematic

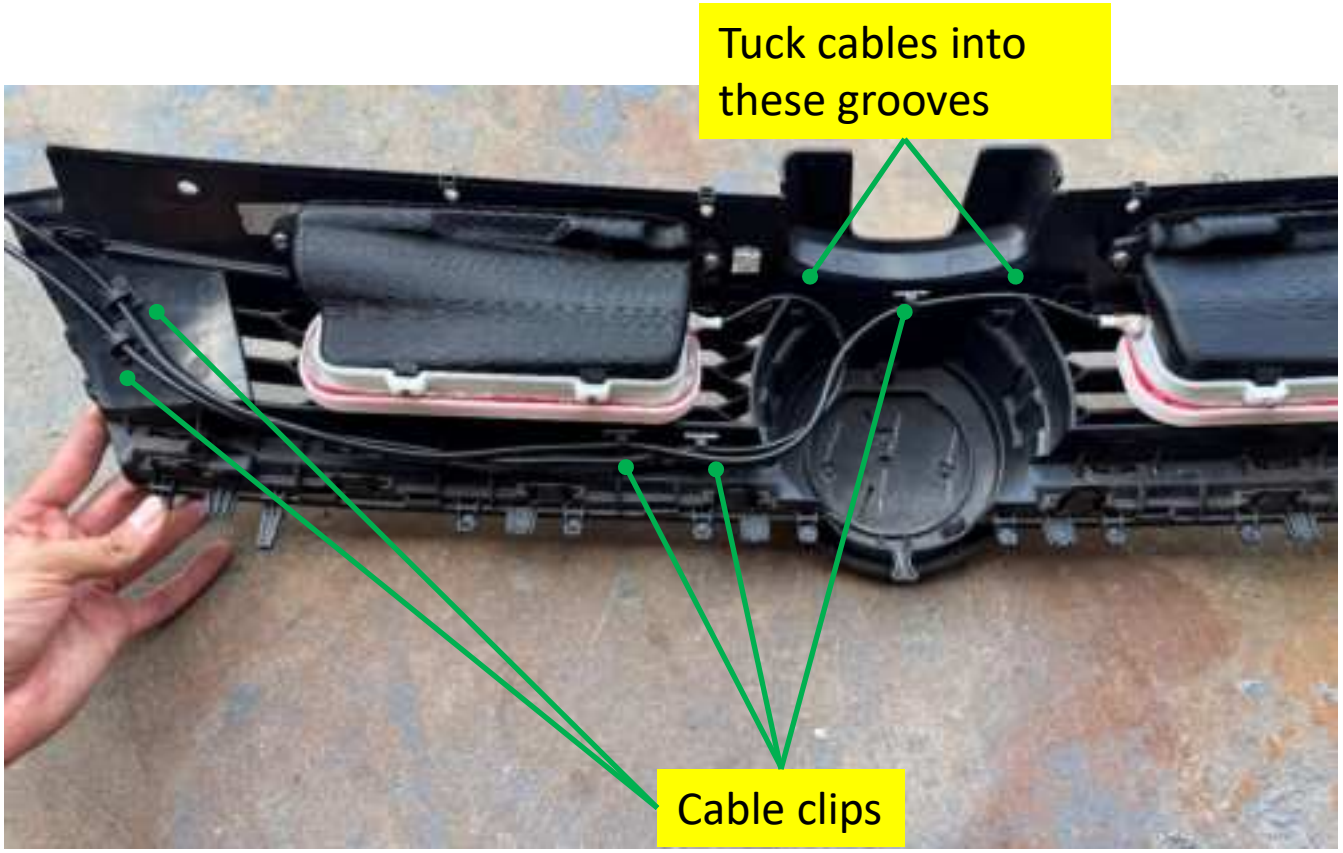


Your kit may include extra accessories not shown here such as extensions, LED splitters, extra LEDs, etc.

VELOSSA TECH

Wire Management

Use the provided cable clips to ensure proper wire management. There is not much room to work with without running into interference so take that into consideration. As you manage the wires using this recommended method, ensure the cables cannot get tangled with the hood latch.



VELOSSA TECH

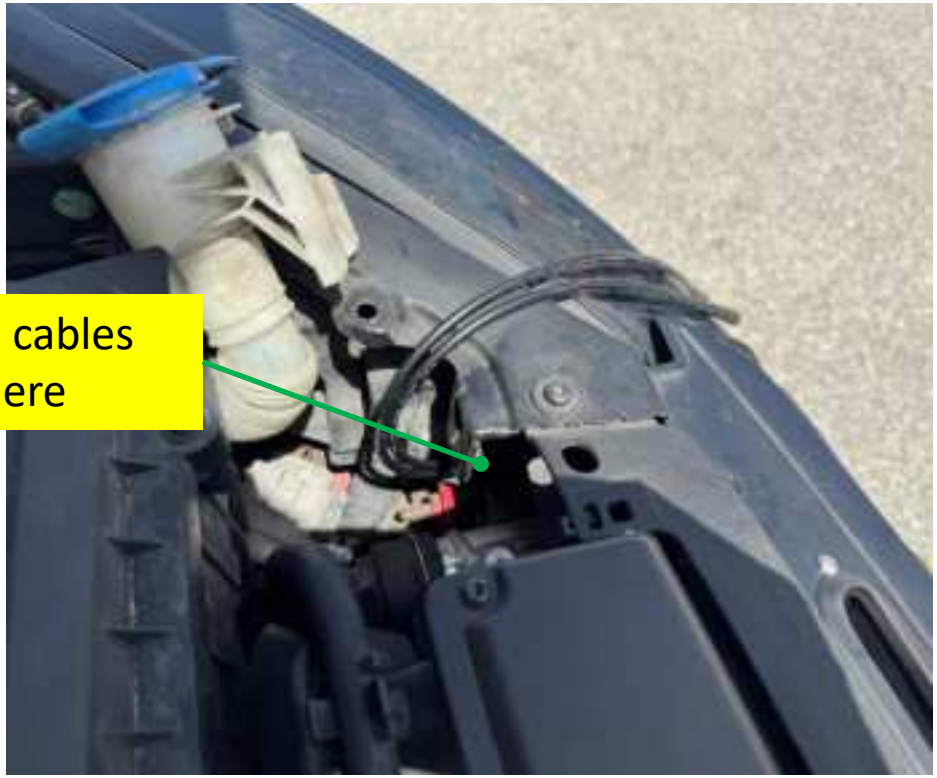
Stock Components Removal

Push on the indicated clip for the reservoir to allow it to come up and out. Once loose, move it out of the way to make room for the LED cables (more details on the next slide).

VELOSSA TECH

Wire Management

Once the reservoir has been dislodged, snake the LED cables into the engine bay through the indicated crevice.



VELOSSA TECH

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.

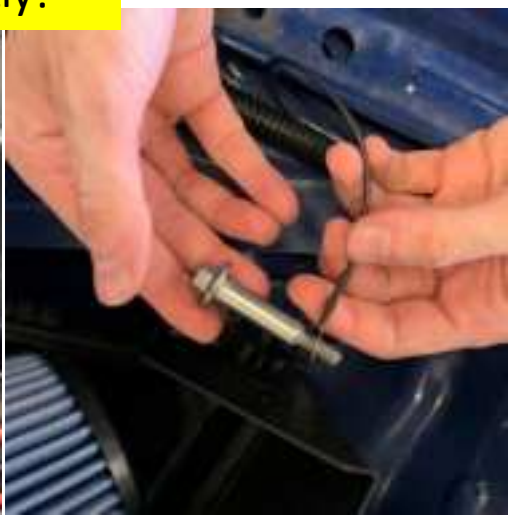
VELOSSA TECH

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!



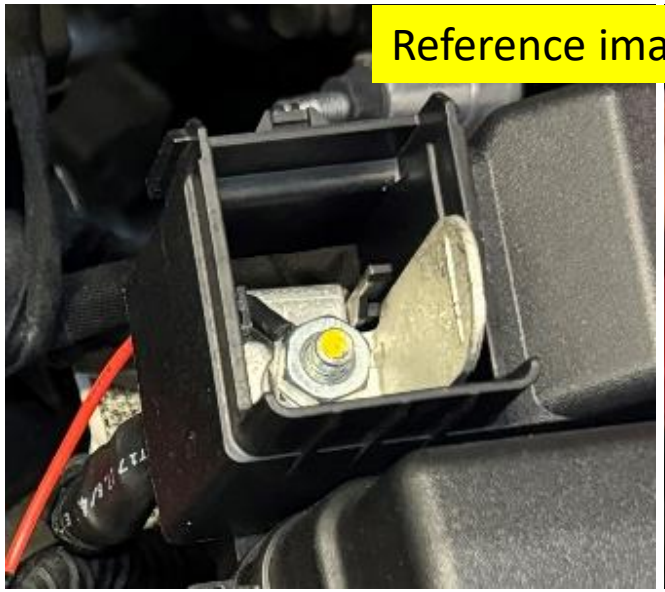
VELOSSA TECH

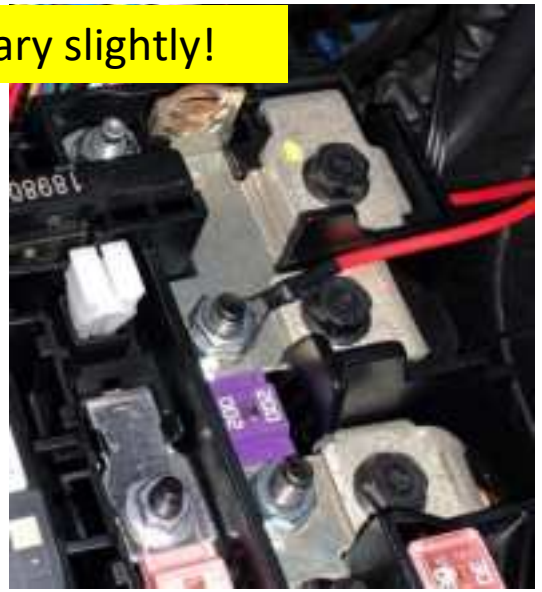
LIT KIT TIPS: Power

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!





VELOSSA TECH

LIT KIT TIPS: Wiring Best Practices

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

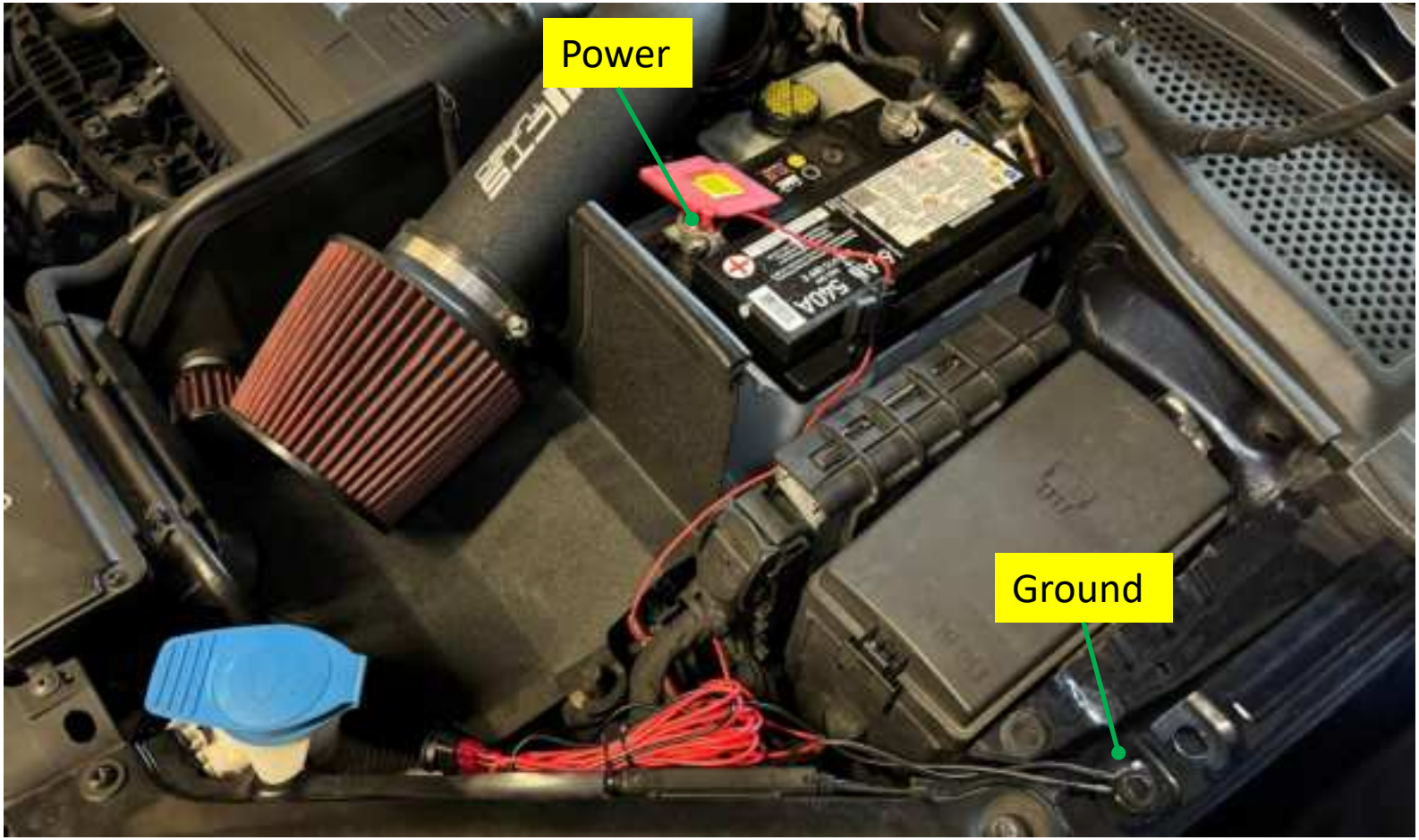
- **Strain relief**: Use the provided zip ties and cable clips to secure wiring to its environment while maintaining slack at each point. All wiring should be free from strain and tension.
- **Components to avoid**: Avoid moving parts, such as hood latches and pulleys, and exhaust components that can 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!

VELOSSA TECH

Wiring Overview

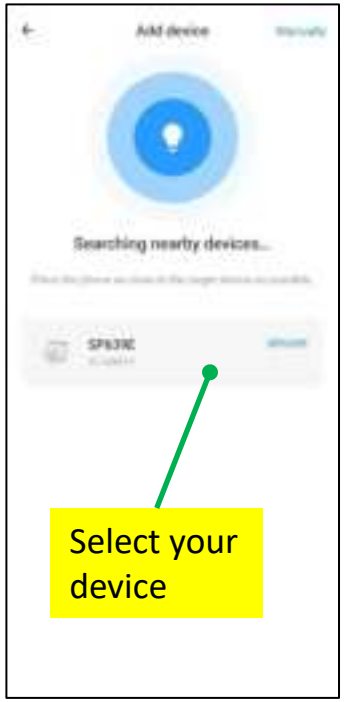
Ensure tight connections at the power and ground locations along with clean, organized wiring throughout.

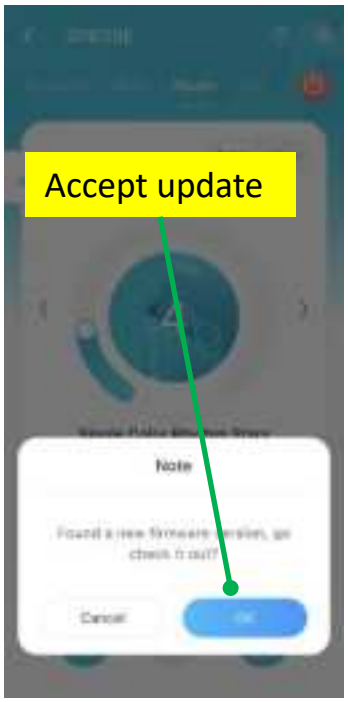


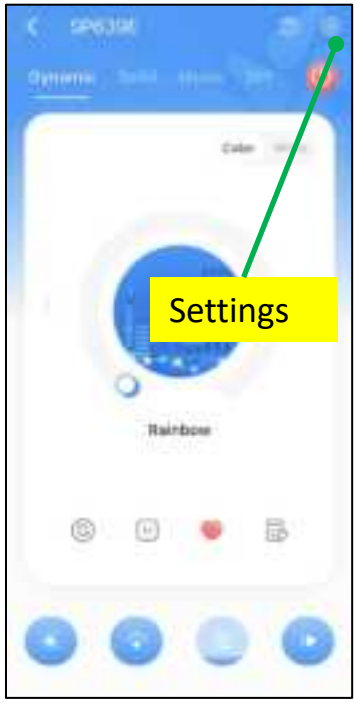
VELOSSA TECH

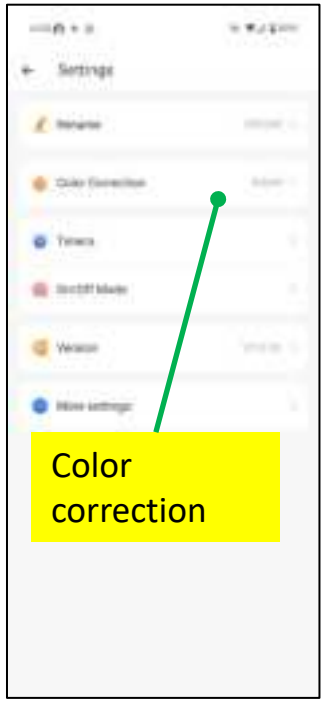
Phone App: Initialization

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.





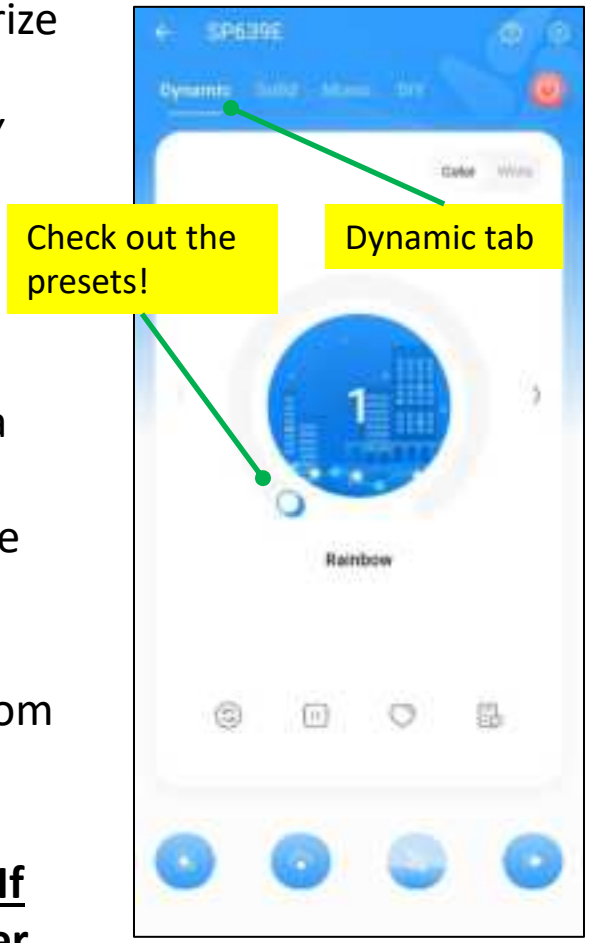




VELOSSA TECH

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

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.

VELOSSA TECH

Finalize

Reinstall the grille the same way it was removed and enjoy!