

Kozmic Motorsports

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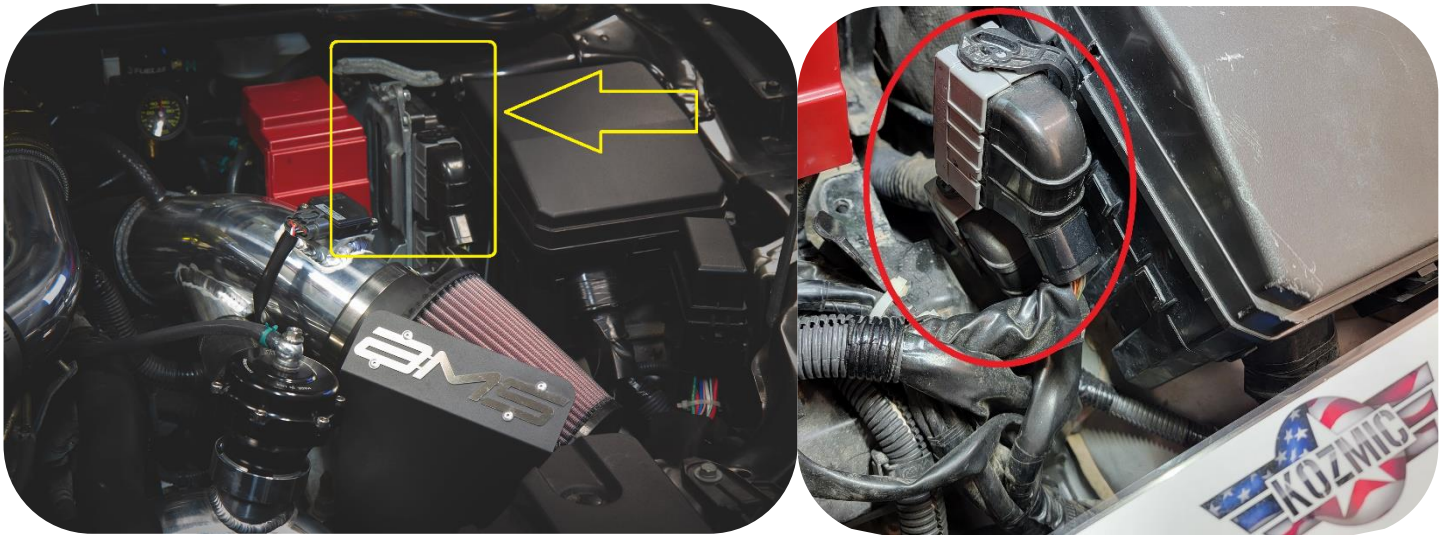


Kozmic Nexus R3 Installation

Revised 1-22-24 v1.2

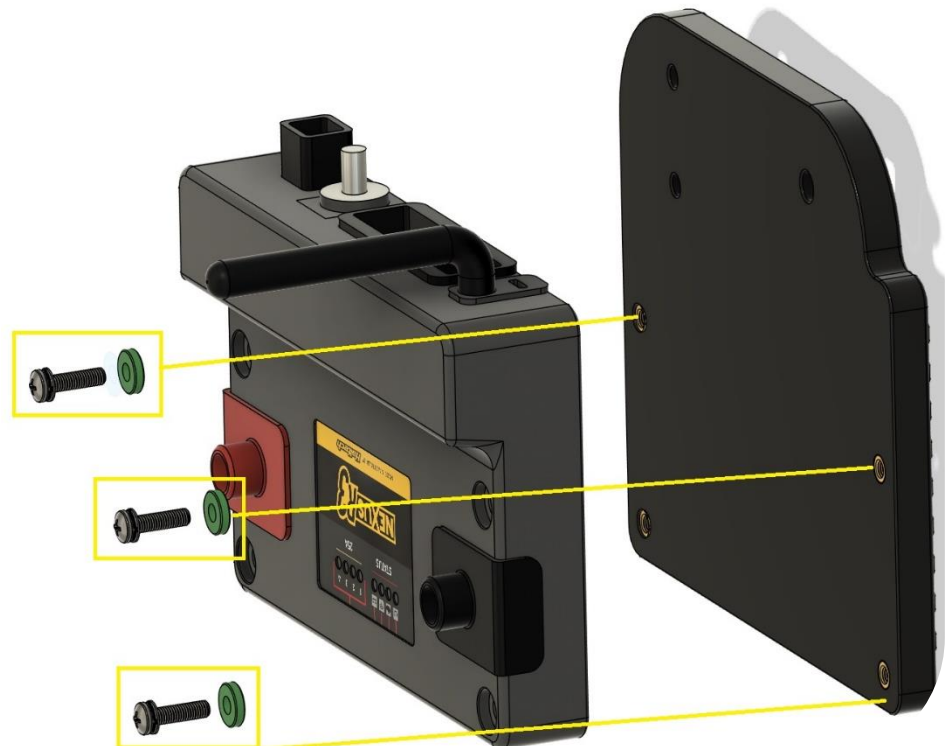
Torque Specs - M8 Fasteners: 10 ft-lbs M5 Fasteners: 22 in-lbs

Step 1: DISCONNECT BATTERY. Remove Air Intake/Air Box Assembly if needed for ease of access. Unplug both OEM Ecu Connectors and remove OEM ECU with its mounting bracket, set aside.



Step 2: Assemble the ECU to the mounting bracket as shown, torque all hardware to spec above. **22 in-lbs**

**M5 Pan Head Screws
+
Black ECU Washers
QTY: 3**



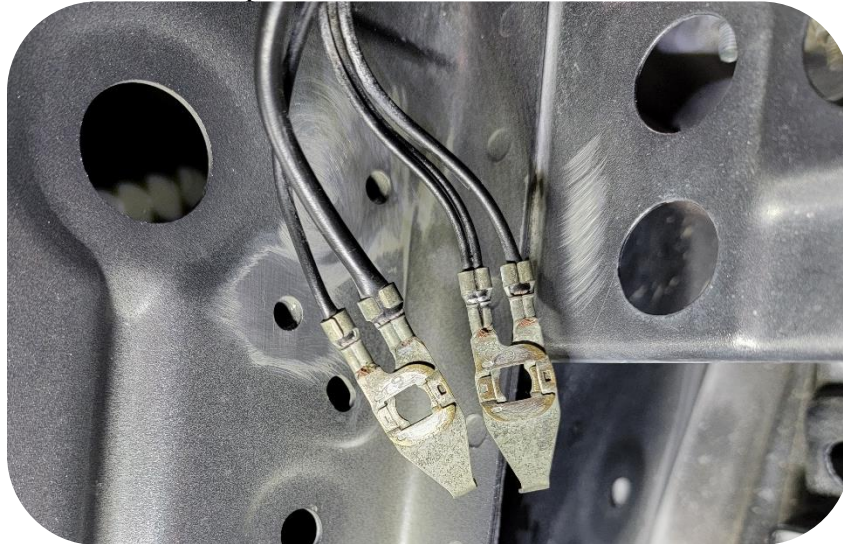
Step 3: Remove front bumper to gain easy access to area under driver's headlight. It is possible to perform this install without bumper removal by pulling back the fender liner if desired.

Step 4: Frame Rail Preparations

- Remove both pictured ground cables from frame rail.



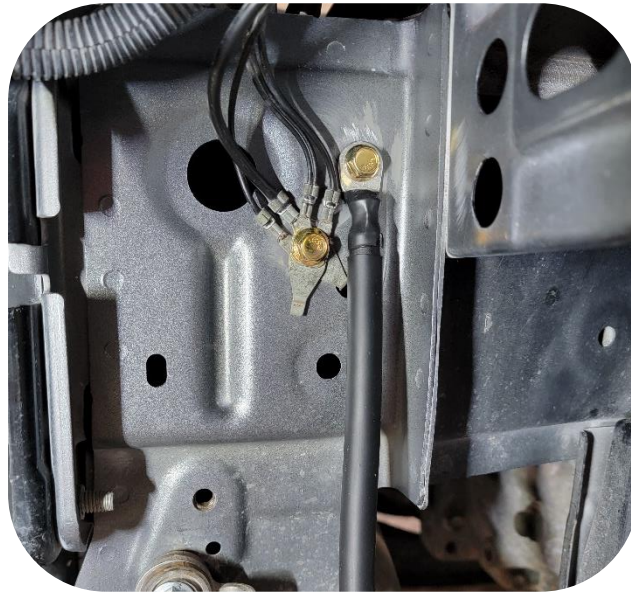
- Clean and prepare ground cables and frame. Using sandpaper or scotch bright pad, clean terminals to remove corrosion as needed. Remove paint from frame rail area around threaded holes.



- Right side ground cable, bend the locating tab to be flat as shown.

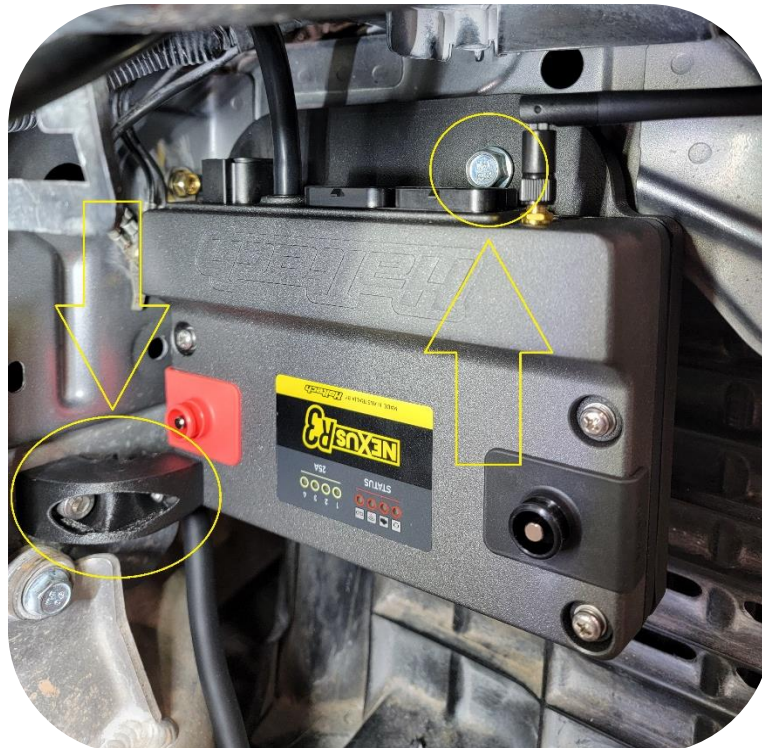


- Install both ground cables using the supplied flange head M6 bolt on LEFT ground thread hole. **55 in-lbs**
- Install supplied Haltech ground cable using the supplied flange head M6 bolt on RIGHT ground thread hole. **55 in-lbs**
- **Recommended:** Using quality liquid electrical tape, apply 1-4 light coats on all hardware, cable ends and raw frame rail areas. This will “seal” from the environment and protect.



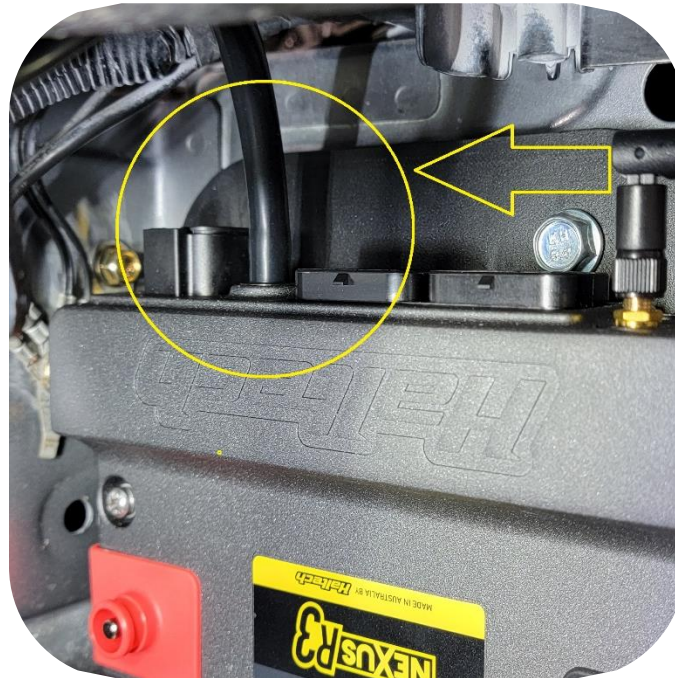
Step 5: Mount the ECU assembly to the chassis as shown.

- Start the M8 bolt on the top right into the OEM threaded hole on the fender support. **Leave this bolt loose for now.** (Note: It may be necessary to clean these threads before installation, test thread a bolt before install to confirm)
- Assemble as shown the provided rear cushion and bolt assembly, install behind the fender support bracket into the ECU mounting plate. **Leave these bolts loose for now.**
- Install the ECU Support bracket to the frame rail with supplied hardware.
- At this time, you can tighten all mounting hardware. **M8 Fasteners: 10 ft-lbs M5 Fasteners: 22 in-lbs**



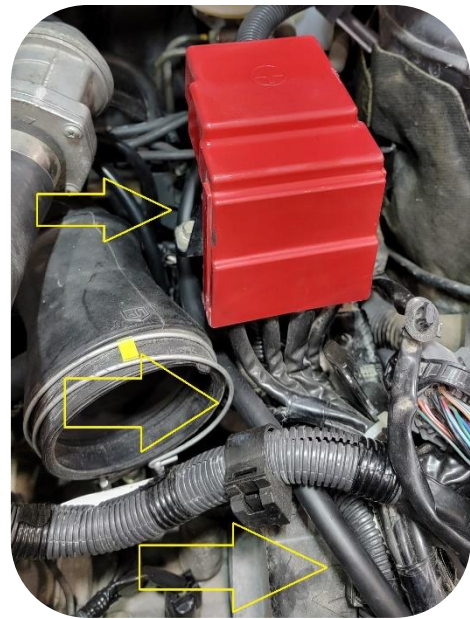
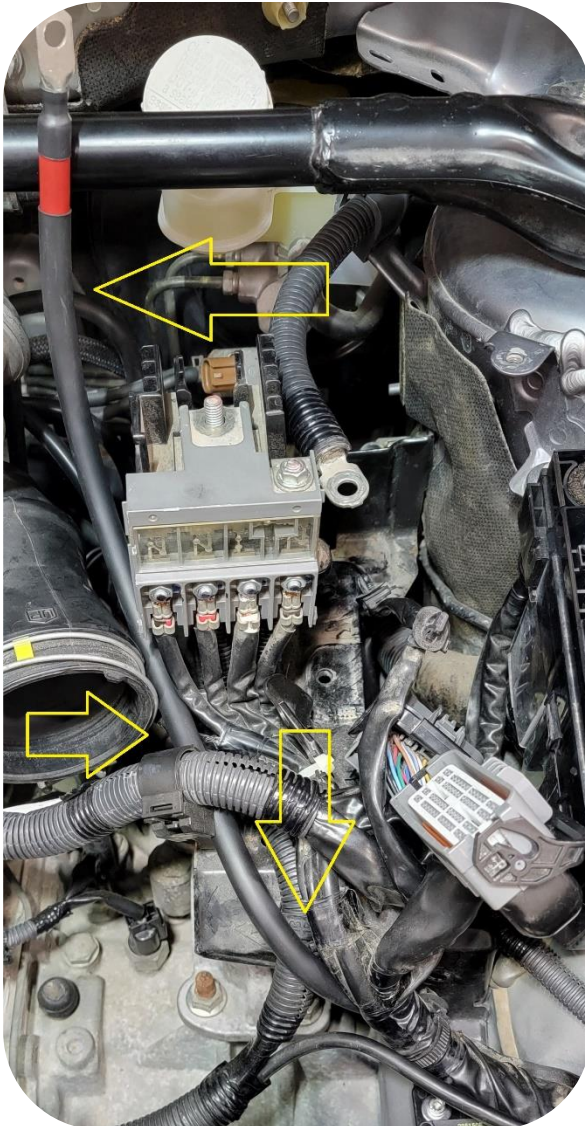
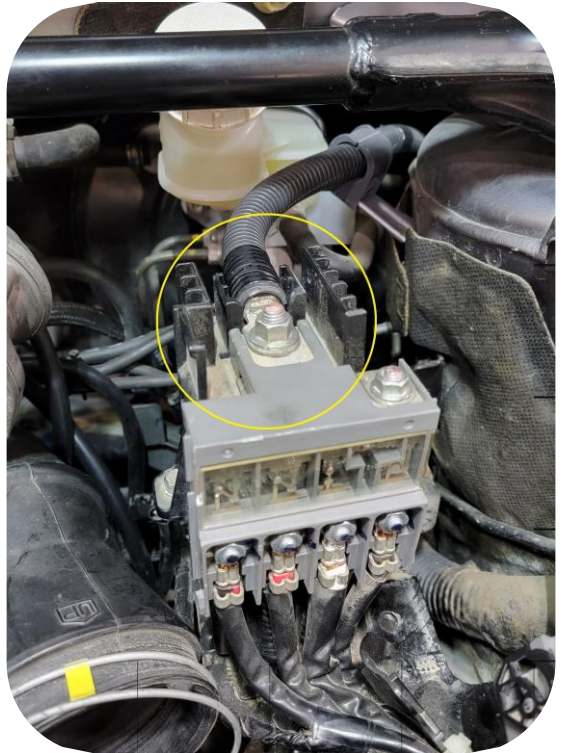
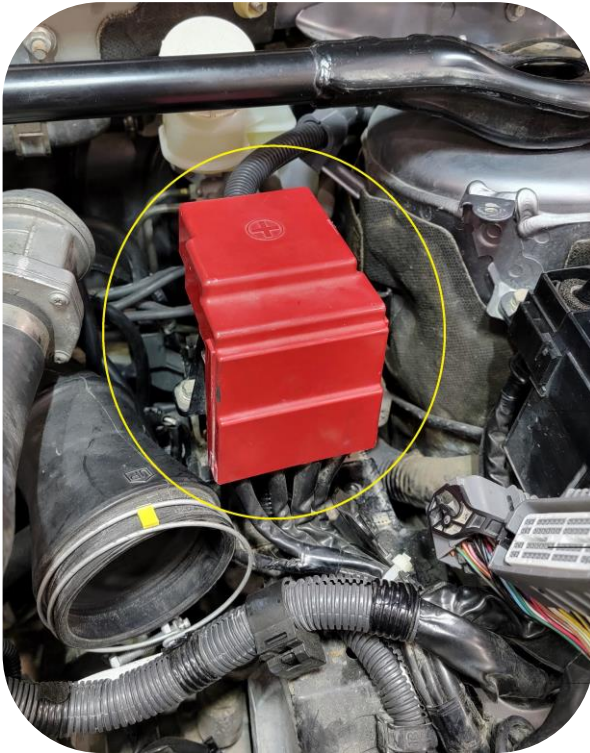


Step 6: Install the supplied silicone vacuum hose onto the onboard MAP sensor of the R3 ECU. Route this hose to the left down in front of the ECU and secure it into the ECU frame support bracket. The ECU uses this sensor for atmospheric pressure calculation when desired so we do not want to cap or plug this source. This hose is just here to keep water and debris from entering the sensor above.



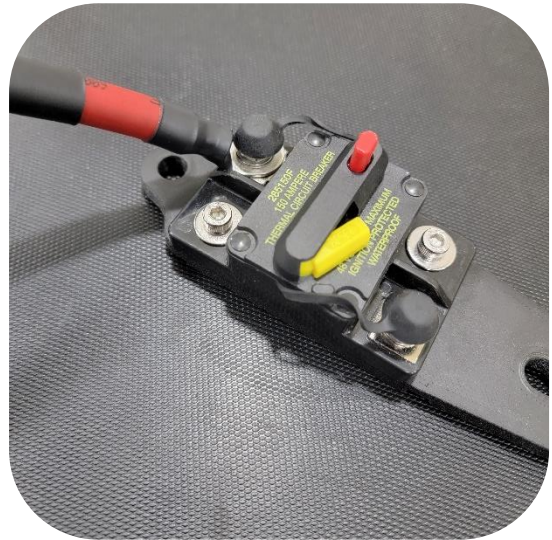
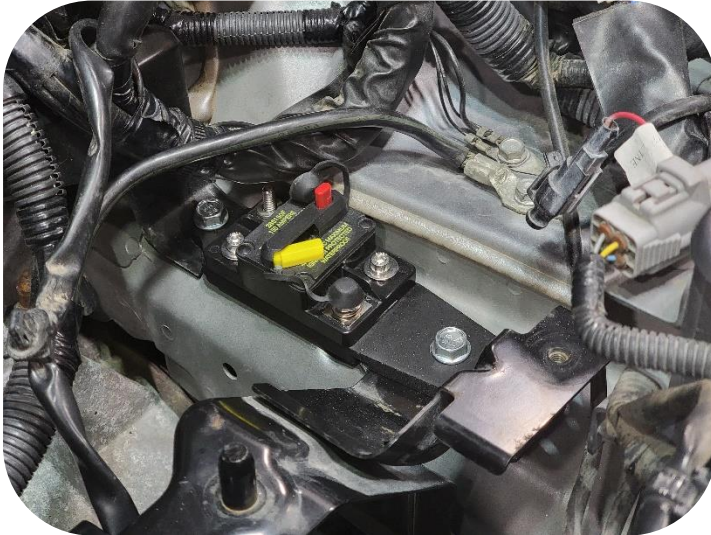
Step 7: Main Power Cable **Attention to detail required for cable routing to avoid chafing or damage**

- Remove power distribution block cover in engine bay. Remove 12mm nut on main inlet power stud and set aside inlet power cable as shown.
- Locate supplied power cable with ring terminals on both ends. Install proper end onto the distribution power stud. This ring terminal will install “upside down” as shown. Apply the OEM power inlet cable on top of this and secure with OEM 12mm nut. Torque to **12 ft-lbs.**
- Route cable as shown down to driver’s frame rail area.



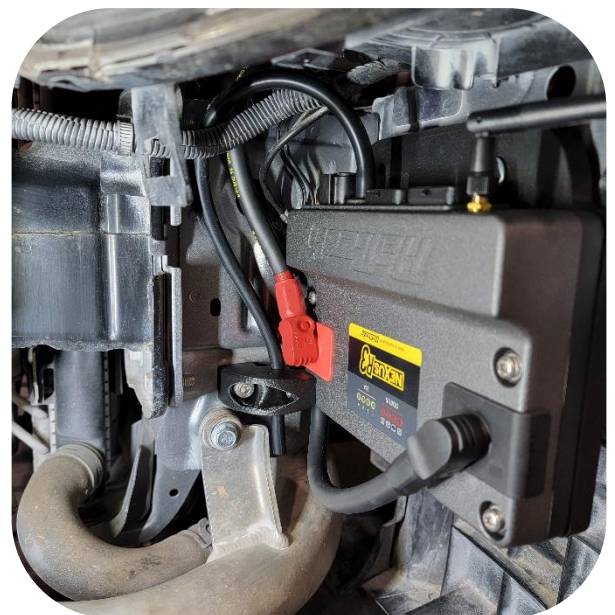
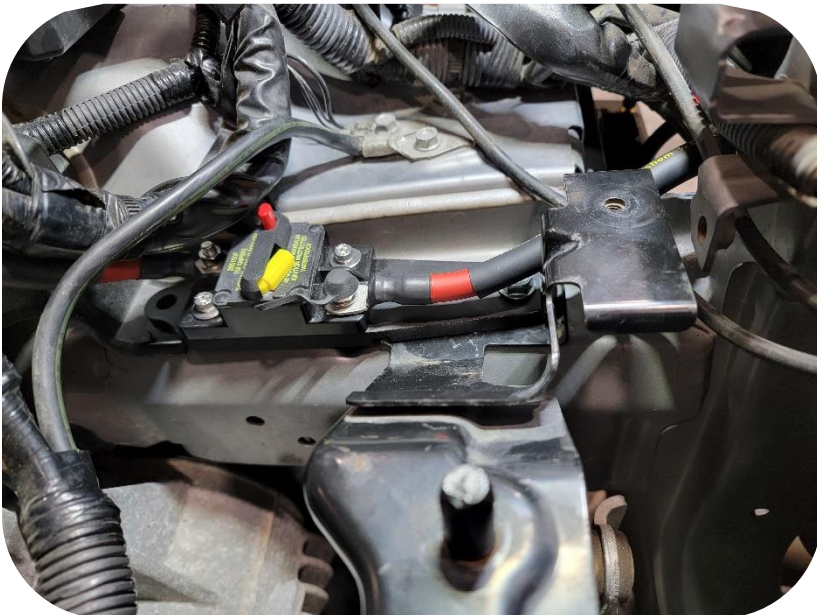
Step 8: Circuit Breaker

- **Press Red Button to “trip” breaker off (reset lever will pop out), it is now disconnected internally.**
- Install the circuit breaker into the mount supplied if not already assembled. BATT terminal side to rear of car as shown. **M5 Fasteners: 22 in-lbs**
- Install the circuit breaker assembly on the frame rail as shown with the 3 supplied M8 flanged bolts to **8 ft-lbs**. You can install this mount with or without the OEM airbox bracket shown below.
- Attach the power cable that was just installed to the circuit breaker BATT side connection as shown. **45 in-lbs**

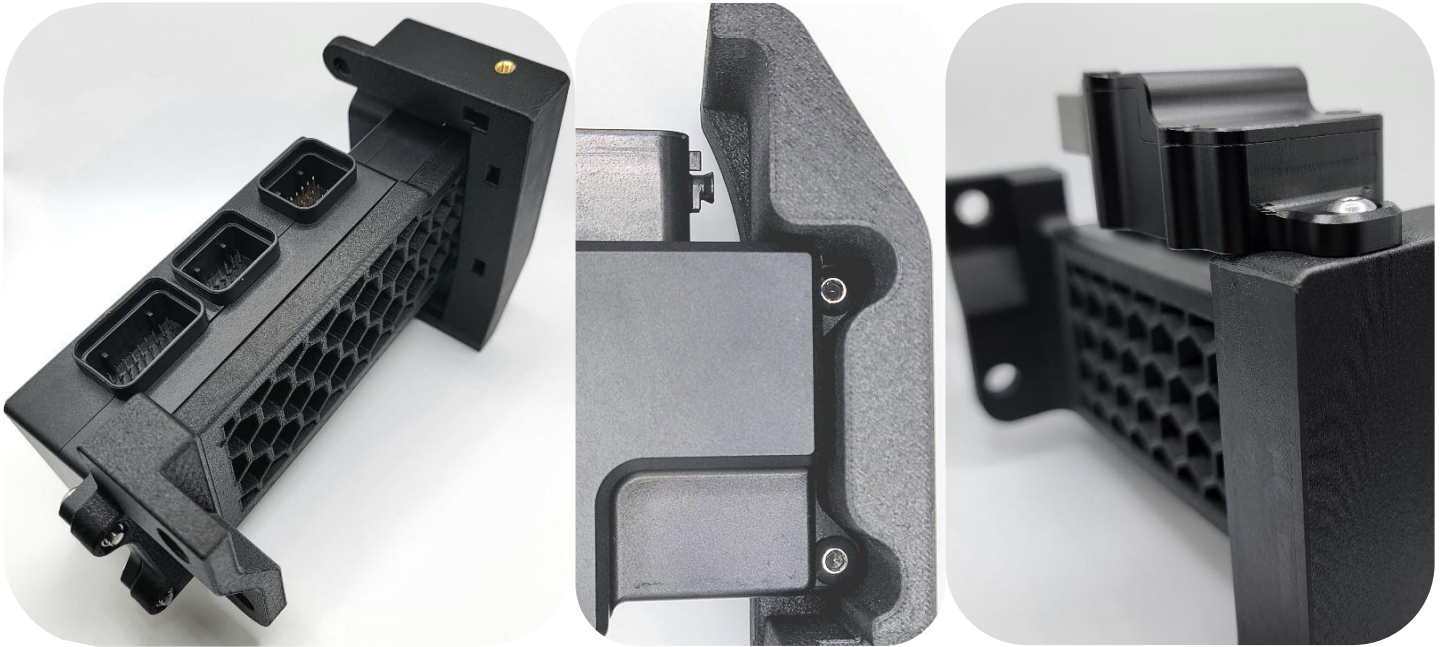


Step 9: ECU Power Cables **Attention to detail required for cable routing to avoid chafing or damage**

- Install and route the ECU Power cable to the circuit breaker AUX side connection as shown. **45 in-lbs**
- Connect the other end to the ECU via the Radlok connector, these “push to seat” and you typically hear and feel a ***click*** once seated properly. ****To remove a Radlok, push the small lock release button on the side and gently pull back off the ECU.****
- Route and install the ground cable Radlok connection to the ECU as shown.
- Attach the power cable that was just installed to the circuit breaker BATT side connection as shown. **45 in-lbs**

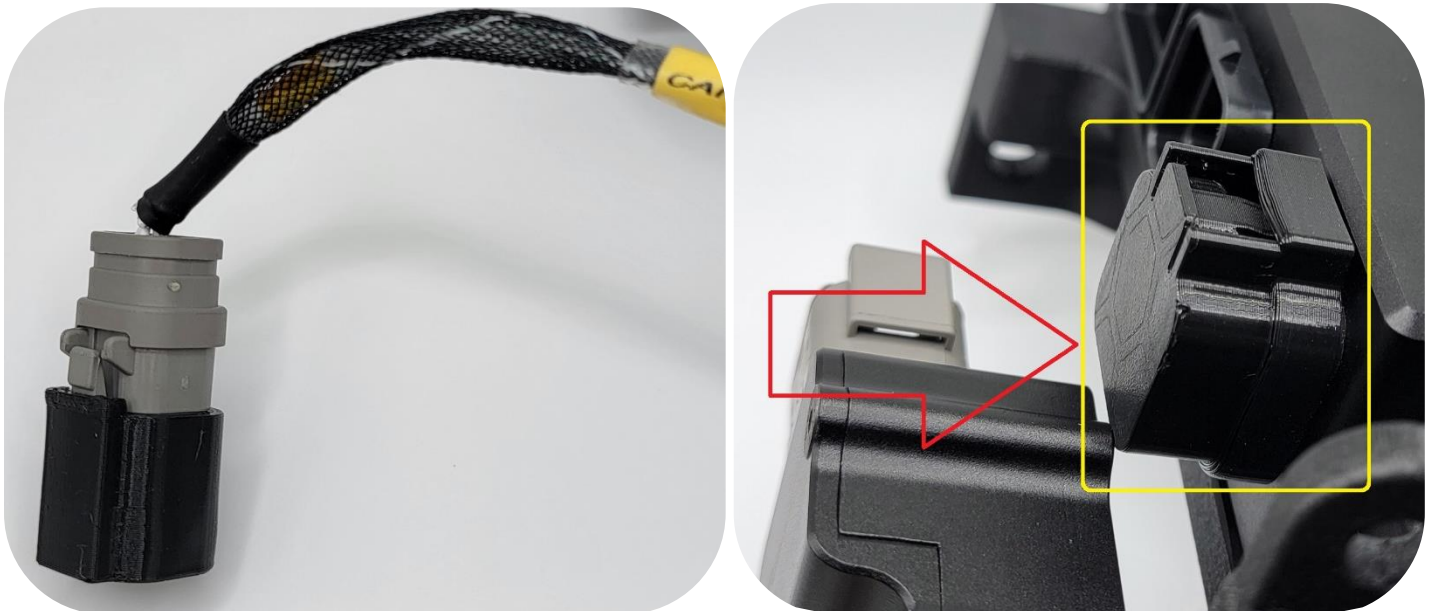


Step 10: Assemble the Patch Adapter if not already complete as shown below. Install CAN Gateway Module, torque to **6 ft-lbs**. Tighten all other hardware to list torque spec.



Step 11: *Depending on your ordered setup you may or may not have the below shown connector cap or plug.*

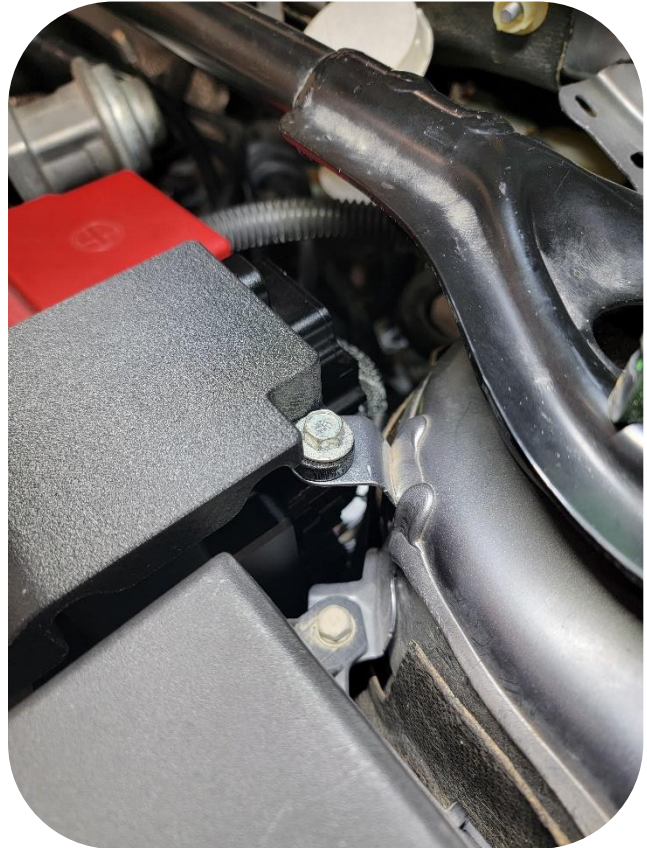
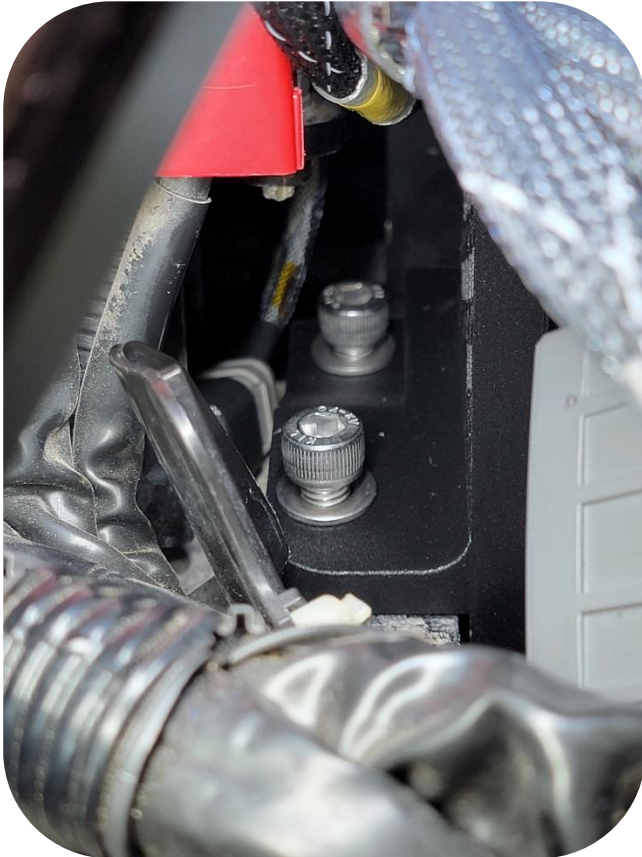
- *DTM 4 CAP* - If you are not using a CAN wideband kit or other Haltech CAN product, install the DTM 4 position cap on the CAN breakout connector in the new ECU harness as shown below.
- *Expansion AMP 26 PLUG* – If you are not using any of the additional auxiliary inputs, install the plug as shown into the expansion plug on the patch adapter. (Top 26 pin port).



Step 12:

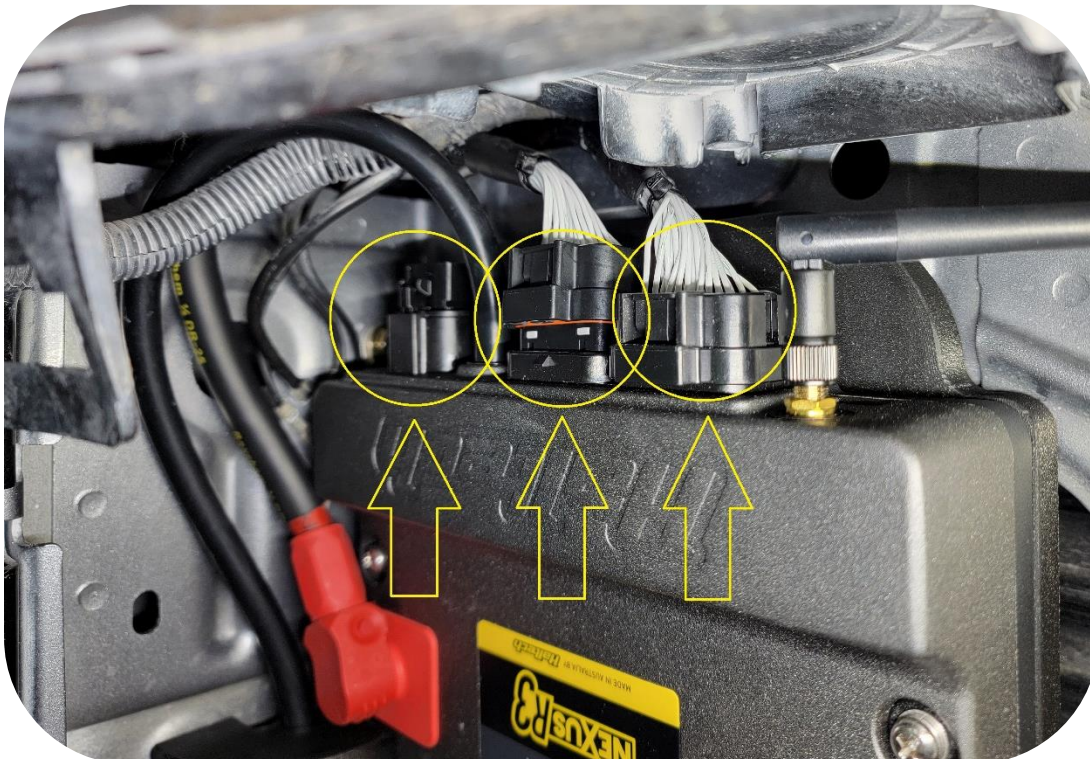
- Connect the new ECU harness to the patch adapter and plug in the CAN Gateway Module.
- Connect the OEM ecu connectors to the patch adapter.
- Loosely install patch adapter in the OEM ECU location using the supplied M8 bolts with lock and flat washers, do not tighten yet. When installing, route the harnesses as shown.
- Install the M6 flanged hex bolt on the top of the patch cover to the strut tower OEM ecu bracket mount.

- Tighten all mounting hardware to listed torque spec, a 1/4" drive - 6mm Allen socket with 6" Extension is a great tool to have here for the lower mounting hardware. **M8 Fasteners: 10 ft-lbs** **M6 Mount: 45 in-lbs**



****Lock washers not shown in picture above but required****

Step 13: Connect the harness to Haltech ECU. Confirm harness routing as shown, securing as needed with zip ties. Install the provided DTP connector plug into ECU unless purchased with an AUX Power Harness (Such as direct fuel pump control, etc), then connect the DTP Power connector and run the wiring as desired.



Step 14: Reinstall intake assembly and connect battery. Close reset lever on circuit breaker. ECU Installation is now complete. If you have a new basemap provided, you can plug into the USB port and flash as needed. ECU setup calibrations need to be performed at this time, once complete first start may take place.



If you purchased additional sensors for better tuning strategies, safeties, etc installation of these may take place at any time, however we prefer them to be installed before the initial ecu setup calibrations are performed. Refer to the installation guides on the back of your pinout sheet provided with the ECU kit for these if purchased from Kozmic Motorsports. These are also listed on the downloads section of our website.

Sample AUX Harness and Pinout Sheet:

Need a base map?
Ready to get tuned?
Let us know!

Contact us via email for technical assistance.
Sales@KozmicMotorsports.com

