



Installation video

Thank you for your purchase of our **TIPM Plug-In Relay System™ (ASD)**, which is designed to be used with a Totally Integrated Power Module (TIPM-7) fuse box on many 2007-2020 Dodge, Chrysler, Jeep, VW, and Ram vehicles. Please visit our website for a current list of applicable tested vehicles. This part is protected by US patent #10,139,450 and multiple pending trademarks.

Our **TIPM Plug-In Relay System™ (ASD)** will provide power to your fuel pump and prevent battery drainage when your original faulty fuel pump relay cannot, all while maintaining full OEM remote start capabilities. "ASD" is an acronym for Auto Shut Down, since this part enables removal of fuel pump power during a crash when engine rotation ceases or in the event of a severed fuel line. Installation requires no special skills and should take less than 5 minutes. There is no need to remove your TIPM, disconnect complex wire harnesses under your TIPM, or cut any harness wires. No special tools are required for installation.

Installation (Scan QR Code for Optional Video)

- 1) Turn vehicle off and locate the TIPM fuse box under your hood.
- 2) Using the included tool in your fuse box, locate three existing mini-blade fuses M25, M30, and M37 and remove them. See Figure 1 for fuse and tool locations. No other fuses should be removed.

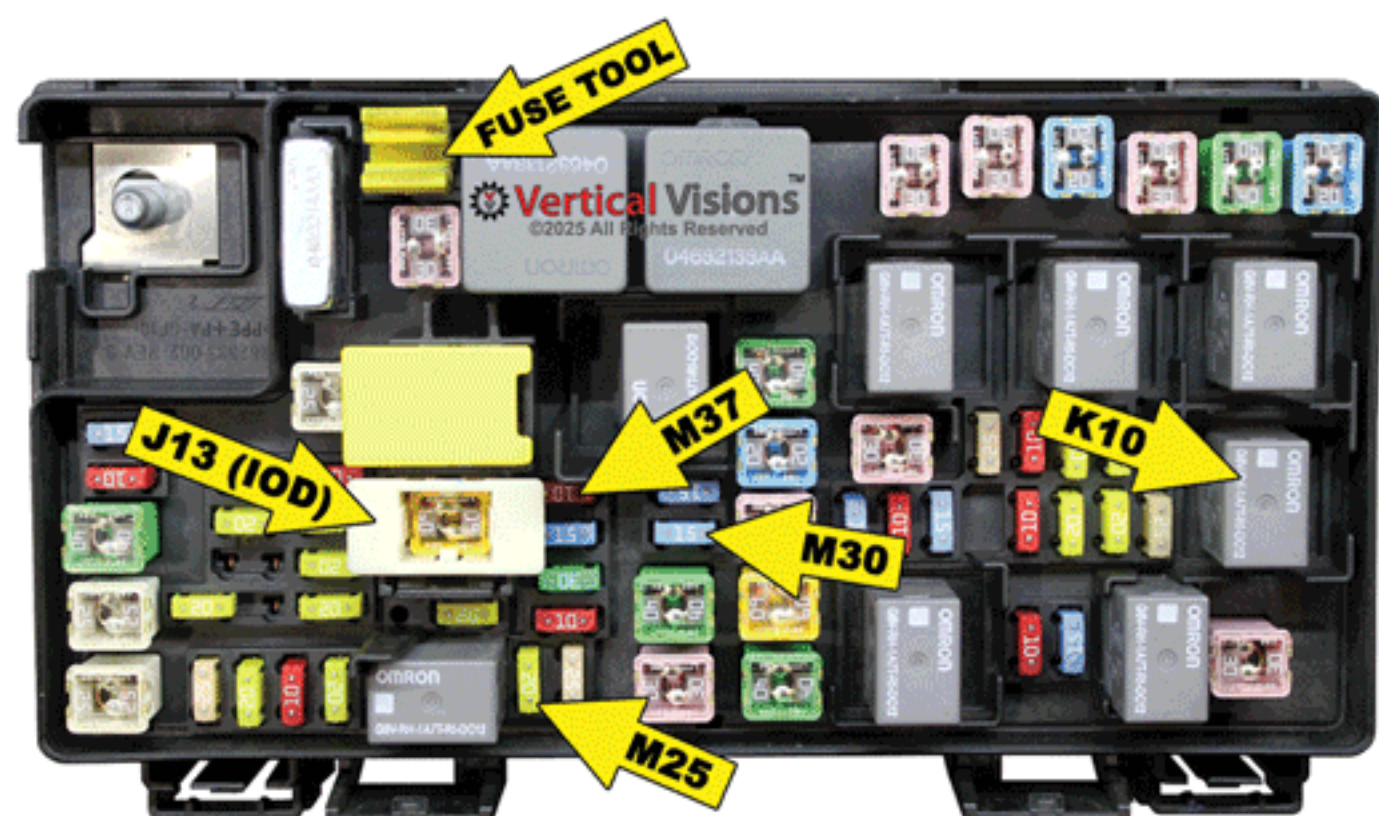


Figure 1 - Location of applicable fuses, relays, and the fuse tool included with your TIPM

- 3) Locate the Omron K10 relay in your fuse box (see Figure 1) and remove it. Your fuse box should now look similar to Figure 2.

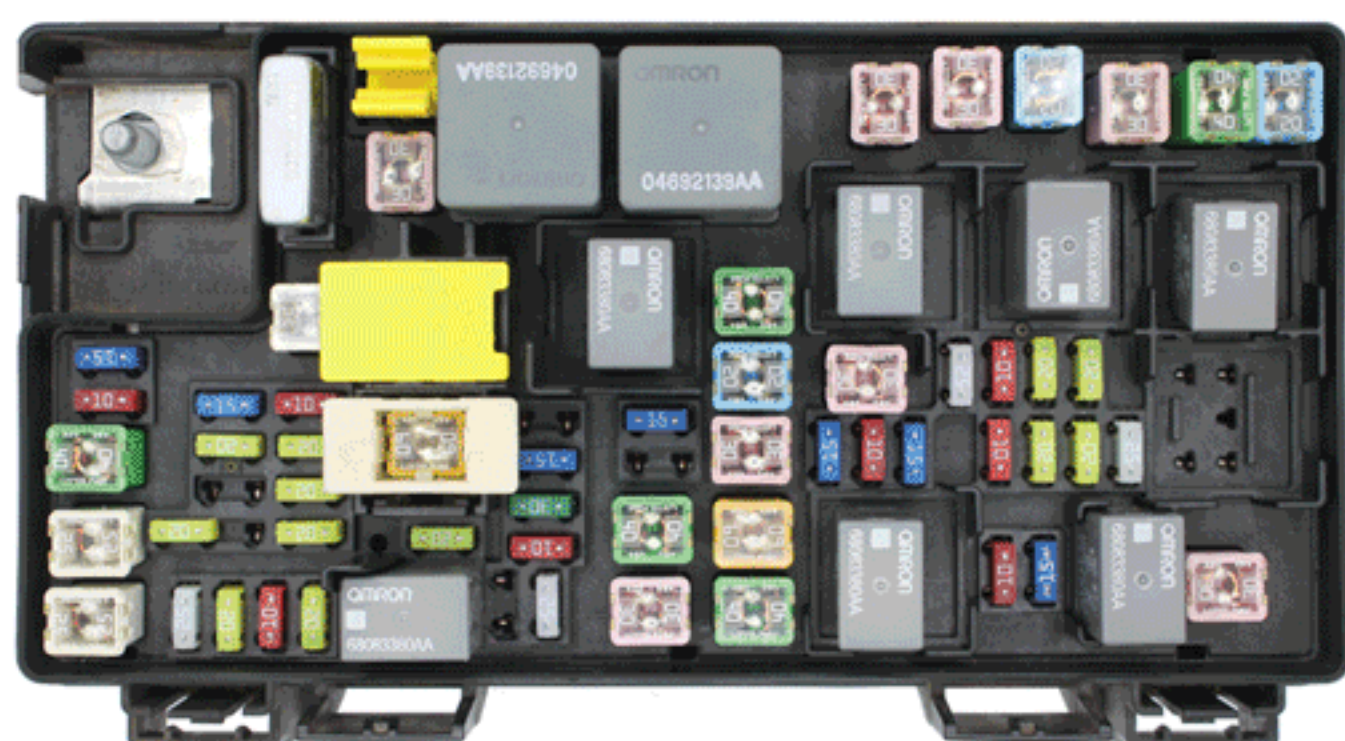


Figure 2 - TIPM shown after removal of the K10 relay and M25, M30, and M37 fuses

- 4) Transfer the M25, M30, and M37 fuses you removed in step #2 to the corresponding labeled fuse holder slots in our **TIPM Plug-In Relay System™ (ASD)** so that it looks similar to Figure 3 below.

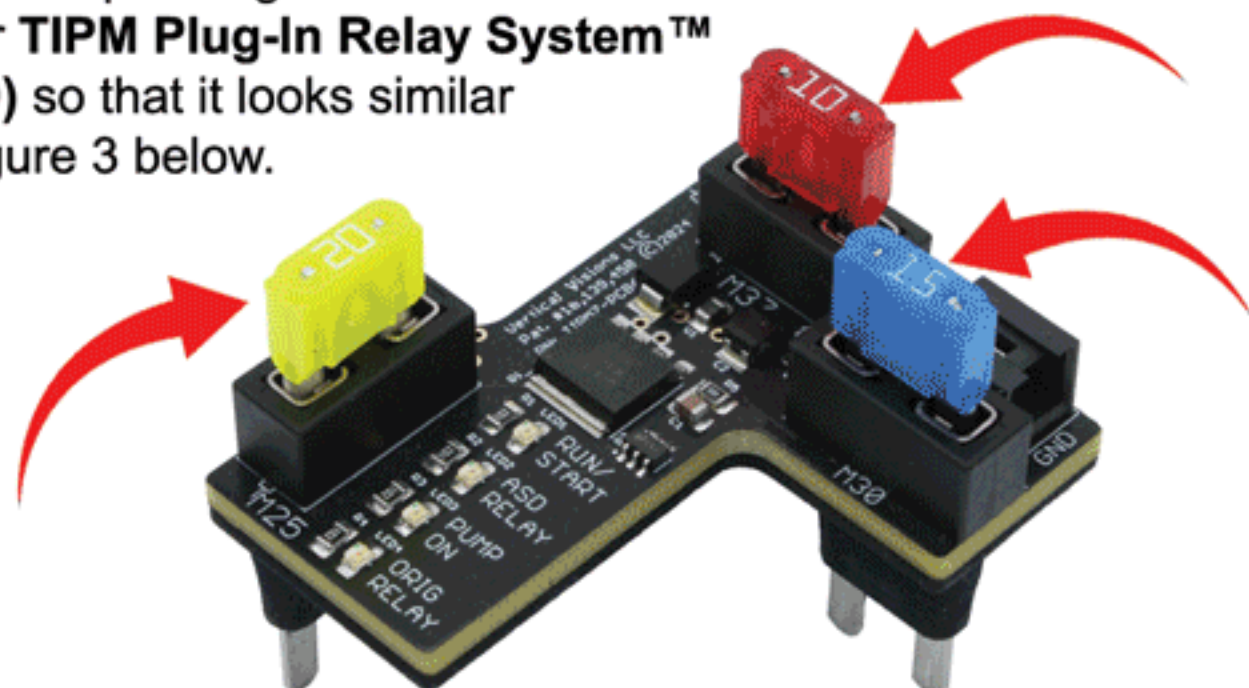


Figure 3 - TIPM Plug-In Relay System™ (ASD)

- 5) Insert and fully seat the **TIPM Plug-In Relay System™ (ASD)** shown in Figure 3 into your fuse box so the six male terminals slide into the empty M25, M30, and M37 fuse slots at the same time. If needed, manually lift the white J13 IOD fuse bezel approximately 1/4" prior to inserting our part (see Figure 1 for location). Be sure to push the J13 white bezel down after the part is installed, otherwise a "NO FUSE" indicator will appear on your dashboard. See Figure 4 and Figure 5.

NOTE: J13 is your Ignition Off Draw (IOD) fuse, which can be lifted up to prevent battery drainage when the vehicle is not driven for weeks.



Figure 4 - Fully main seated circuit board

- 6) Insert the included small K10 circuit board and black ground wire into the empty K10 relay cavity as shown in Figure 5. Connect the black ground wire to the **TIPM Plug-In Relay System™ (ASD)** locking connector and route the black ground wire between fuses.



Figure 5 - Insert small K10 circuit board into the TIPM

- 7) Reinstall your gray rectangular Omron K10 relay through the new K10 circuit board and into the fuse box. See Figure 6 on the next page to view a completed installation.

NOTE: Your K10 relay may be larger than shown if your vehicle is 2010 or older. These installation instructions are still applicable.

- 8) Close and then open the TIPM lid to ensure our part is fully seated. The lid should fully close and latch properly.



Figure 6 - Fully installed TIPM Plug-In Relay System™ (ASD)

LED Feedback

The TIPM Plug-In Relay System™ (ASD) contains four LEDs that can provide diagnostic feedback.

- 1) **Green RUN/START LED** - Illuminates when the "run/start" signal is detected on the M37 fuse. 12 VDC on M37 fuse in ON/RUN key position is normal, but LED is not lit due to no ASD ground.
- 2) **Green ASD LED** - Illuminates when the K10 relay's ASD ground connection is present, which occurs for a few seconds in the ACC key position and while the engine is starting or running. After a crash, the ASD ground connection is not present, removing power to the fuel pump.
- 3) **Green PUMP ON LED** - If power is present at the M25 fuse and is being sent to the fuel pump, this LED will be illuminated. If not illuminated, your fuel pump will not be powered on and your vehicle will not start. If your vehicle will not start while this LED is illuminated, you could have a faulty fuel pump or wiring problem between the fuse box and fuel pump.
- 4) **Green ORIG RLY LED** - If this LED is not illuminated or illuminates intermittently during engine cranking or while running, your original fuel pump relay inside your fuse box is faulty at that moment.

OFF	ACC	ON/RUN	START
			Green
	Green for 2 secs		Green
			Green
			Green if OEM fuel relay works

Table 1 - Key Position vs. Normal LEDs

NOTE: LEDs will ONLY illuminate when the ASD ground connection is present from the K10 relay. To test your fuel pump with your key in the RUN position, see our installation video.

Frequently Asked Questions (Visit the online FAQ at www.VerticalVisions.com for additional questions and answers)

- 1) **The fuel pump relay inside my TIPM is faulty and stuck in the ON position (draining my battery). Will this part resolve my issue?**
Answer: Yes. Our system is designed to completely disconnect a faulty fuel pump relay from the fuel pump circuit.
- 2) **After installation, a "NO FUSE" light is illuminated on my instrument panel. How can I make it go away?**
Answer: Simply push down on the white bezel surrounding your J13 fuse (see Figure 1 for the location).
- 3) **Will my remote start and safety mechanisms be affected by this device?**
Answer: Users will maintain full functionality of their remote start and safety features of the vehicle, including fuel pump shutoff during a crash.
- 4) **My car still won't start after installing the system. What should I check?**
 - Check fuses M25, M30, and M37 that were transferred from your fuse box to the TIPM Plug-In Relay System™ (ASD) to ensure they're not blown.
 - Ensure your K10 relay was reinstalled in your fuse box and you see the ASD LED light up for two seconds when cycling the key to the ACC position.
 - Check your fuel pump to confirm it is working. See our installation video to see how to turn your fuel pump on while the vehicle is off.
 - Verify the top three LEDs are illuminated during the engine cranking process and while driving. Illumination of the PUMP ON green LED indicates power is being sent to your fuel pump. If this LED is illuminated, the system is working properly and the problem is elsewhere within your vehicle.
 - Do you have gas in the vehicle? Is your fuel gauge working properly?
 - If someone inserted a fuse tap, temporary wire, or other bypass device in your M25/M37/M30 fuse slots, the fuse box terminals might be too wide to properly grab our part. You can test for this by inserting a fuse into the affected slot. If the fuse feels loose, tighten the fuse box terminals.
 - Make sure you do not have an external relay installed. If so, change the external relay. If you permitted your dealer to cut harness wires under the TIPM, our TIPM Plug-In Relay System™ (ASD) will not work properly. This mostly affects 2011-2013 Durango and Jeep Grand Cherokee vehicles.
 - Check/replace your camshaft and/or crankshaft sensors and perform a fuel pump pressure test.
 - There are dozens of things that can prevent a vehicle from starting, which our TIPM Plug-In Relay System™ (ASD) was not designed to solve. If you turn your key and nothing happens, you do not have a fuel pump relay issue and should focus on the starter, starter relay, or battery connections.
 - If you're experiencing a stalling while driving problem and the vehicle will only restart after 10-30 minutes, you may have a Star connector, PCM integrated circuit, thermal expansion, or other electrical issue.

Warranty and Evaluation Period

If your vehicle problem is not resolved after using this part, you can return it for a full refund (less shipping) within the return window. A two year warranty from the purchase date is standard and we'll cover shipping costs both ways for valid warranty claims.

Questions? Please contact us via email or telephone. We greatly appreciate your business.