INSTALLATION INSTRUCTIONS

SUBJECT: CHARGING CIRCUIT HARNESS FOR 2020-2022 FORD 6.7L POWERSTROKE

FITMENT: 2020-2022 Ford F-250-550 with 6.7L Power Stroke
KIT P/N: FPE-HAR-FMC-CCH-2022

ESTIMATED INSTALL TIME: 30 Minutes

TOOLS REQUIRED: Flathead screwdriver, Diagonal cutters, 7mm socket or wrench

KIT CONTENTS:

Item #	Description	QTY
1	Charging circuit harness	1
2	Zip ties (not shown)	8

WARNINGS:

- Use of this product may void or nullify the vehicle's factory warranty.
- User assumes sole responsibility for the safe & proper use of the vehicle at all times.
- The purchaser and end user releases, indemnifies, discharges, and holds harmless Fleece Performance Engineering, Inc. from any and all claims, damages, causes of action, injuries, or expenses resulting from or relating to the use or installation of this product that is in violation of the terms and conditions on this page, the product disclaimer, and/or the product installation instructions. Fleece Performance Engineering, Inc. will not be liable for any direct, indirect, consequential, exemplary, punitive, statutory, or incidental damages or fines cause by the use or installation of this product.

OVERVIEW

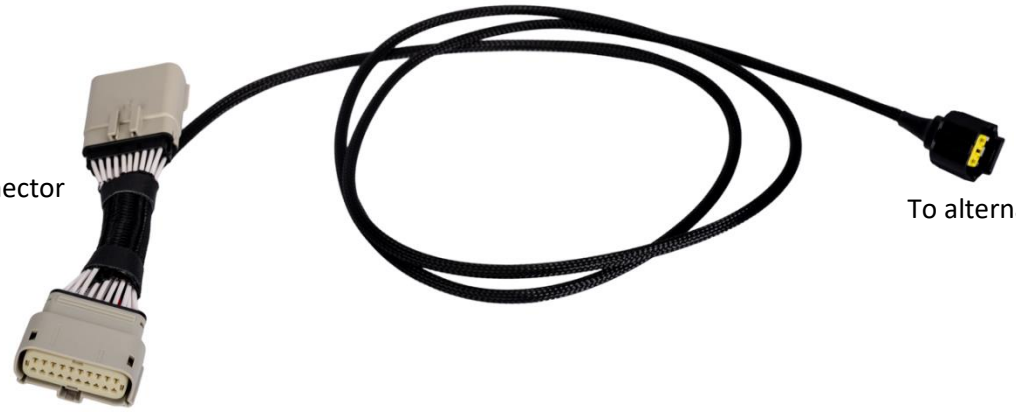
COMPLAINT: Charging circuit MIL illuminated intermittently or continuously on the truck dash.

CAUSE: Damaged, stressed, chaffed, or broken charging circuit sense wires in the OEM harness that are routed from the Powertrain Control Module (PCM) to the alternator resulting in an intermittent or continuously low voltage reading to the PCM.

DESCRIPTION: Due to the routing, exposure, and general lack of protection on the small charging circuit sense wires that are routed from Powertrain Control Module (PCM) to the alternator it is common for wire damage to be experienced. The routing of the OE harness is cumbersome and extremely difficult to replace and diagnose.

FIX/SOLUTION: The Fleece Performance Charging Circuit Harness for the 2020-2022 Ford F250-550 with 6.7L Power Stroke is a drop-in replacement to replace a failed factory harness causing an intermittent or illuminated charging circuit MIL on the dash. The harness installs directly in line with the factory connections with no cutting or splicing and allows you to reroute the alternator connection along the top side of the engine.

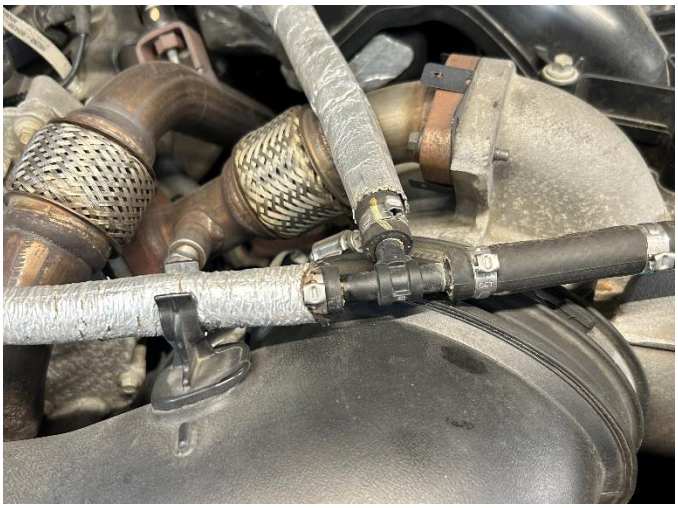
HARNESS CONNECTIONS:



PROCEDURE:

STEP 1: Disconnect the batteries

STEP 2: Disconnect the MAF sensor connector on the top of the airbox. Loosen the hose clamp connecting the intake tube to the upper airbox.



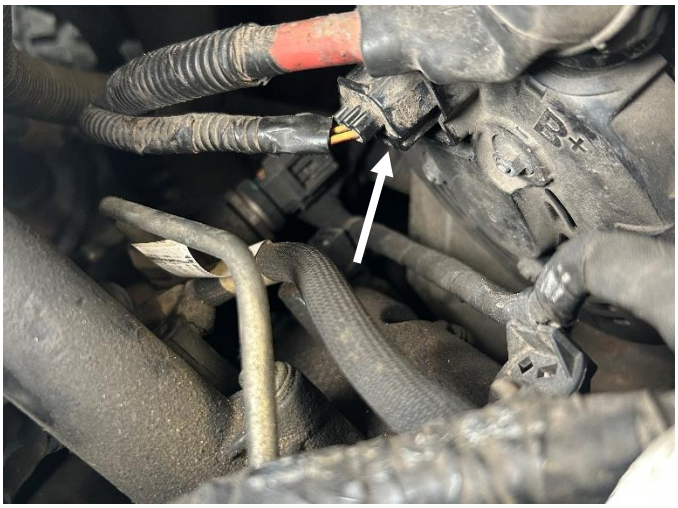
STEP 3: Carefully lift the coolant de-gas line to remove it from the clip on the top of the intake tube. Loosen the hose clamp connecting the intake tube to the upper intake manifold. Remove the intake tube and set aside.

STEP 4: Remove the upper airbox assembly and set it aside. Remove the plastic pop rivet retaining the airbox inlet as shown at right. Remove the airbox inlet.

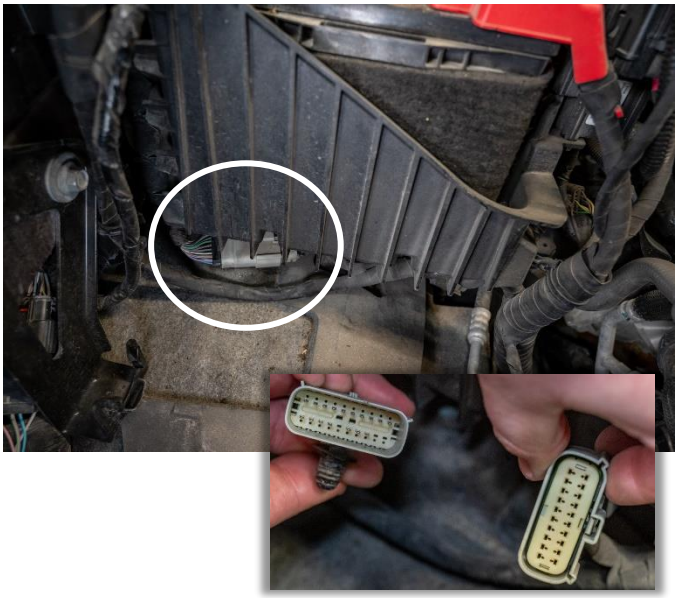
STEP 5: Locate the screw retaining the lower airbox assembly to the front core support. Using a 7mm socket or wrench, remove the screw. Gently pull upwards on the lower airbox assembly to remove. A fir tree harness retainer may be present on the underside of the airbox. Carefully remove the retainer from the lower airbox assembly.

STEP 6: Locate the alternator. Disconnect the OE charging circuit harness connector from the rear of the alternator.

NOTE: For vehicles equipped with dual alternators, you will only disconnect the charging circuit harness from the driver's side alternator (primary alternator).

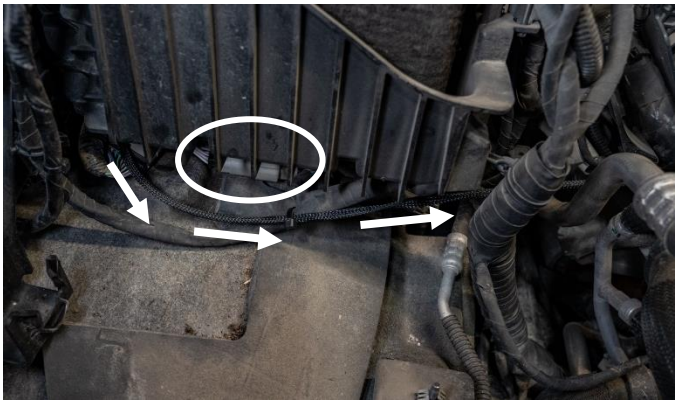


STEP 7: Locate the 20-pin PCM harness connector underneath the front facing side of the battery box (circled at right). Disconnect the harness connector by pressing on the release tab and pulling the connector apart.



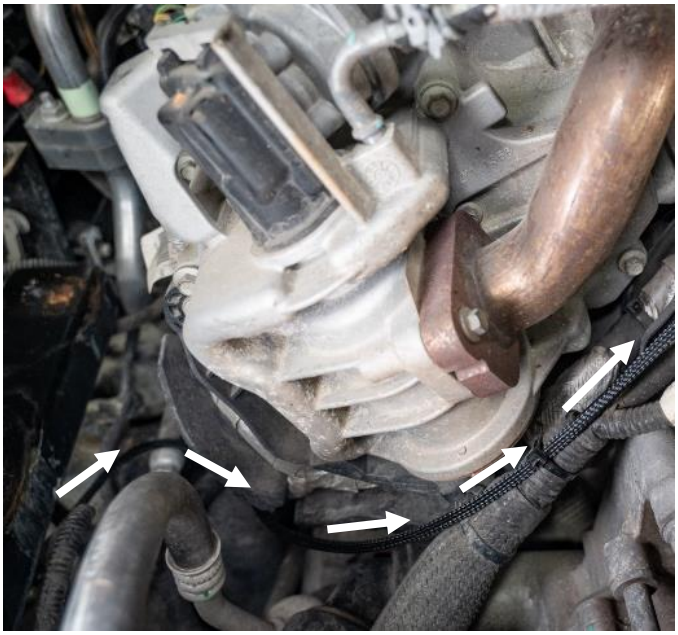
STEP 8: Connect the passthrough connector onto both ends of the PCM harness as shown at right. Push the red locking tab into the connector to secure the connection.

STEP 9: Tuck the connector underneath the battery box as shown at right. Route the alternator signal harness wire towards the driver's side of the vehicle.



Routing Instructions:

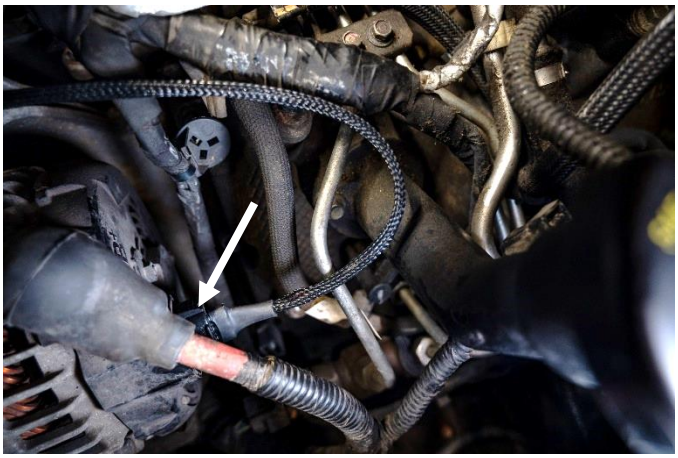
STEP 10: Route the alternator signal wire harness towards the front of the engine and along the OE wiring harness.



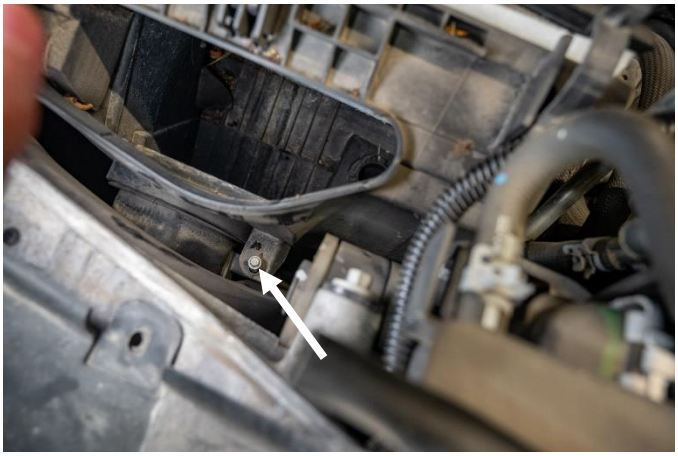
Continue routing the alternator signal harness across the front of the engine bay and along the plastic channel underneath the intake manifold.

Connect the end of the alternator signal wire harness to the rear of the primary alternator.

STEP 11: Use the included zip ties at even intervals to retain the alternator signal wire harness.



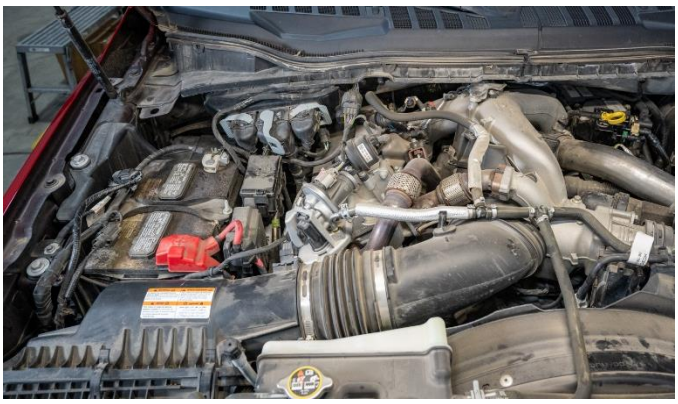
STEP 12: Install the lower airbox housing. If present, press the fir tree retainer into the rear of the housing to retain the MAF sensor harness. Using a 7mm socket or wrench, torque the mounting screw to 53 in-lb.



STEP 13: Install the airbox inlet onto the lower airbox assembly. Place the plastic pop rivet into the mounting hole as shown at right and press down to fasten.

STEP 12: Install the intake tube. Connect the tube to the intake manifold first, then tighten the hose clamp. Fasten the retaining clips onto the upper airbox housing. Place the degas line into the clip on the top of the intake tube. Reconnect the MAF sensor connector

STEP 13: Reconnect the battery terminals.



STEP 13: Start the vehicle and check that the alternator signal is reading correctly, and that the charging MIL is no longer illuminated. The use of a scan tool may assist in this step.