

Wiring Kit Installation Instructions for Powerstroke 6.0 Vehicles

FICMrepair.com offers two different cable kit options:

Basic

- Pre-terminated on both ends 1/0 wire from the alternator to the fuse block
 - Fuse block
 - 250 amp fuse
 - Pre-terminated on both ends 1/0 wire from the fuse block to the battery
 - Pre-terminated on both ends 1/0 wire from the alternator to the vehicle frame
- Please note: No additional bolts, screws, or other hardware is necessary with the Basic Kit

Complete Kit

This kit contains everything from the Basic Kit, and also includes:

- Pre-terminated on both ends 4/0 wire from the passenger side (positive post) battery to the driver side (positive post) battery
 - Replacement bolts, nuts, and washers to replace the one-use only factory bolts
 - Slide in place heat shrink tubing to further protect the 4/0 wire from the sharp edges of the radiator core supports
 - 1/0 grounding wire to go from the already existing negative grounding wire on the driver side battery where it connects to the frame on the driver's side to the driver's front of the motor
 - Hardware to mount extra grounding wire to existing drilled and tapped hole on driver's side of engine
- **NOTE: If using this kit with aftermarket battery terminals such as the ones included in the starter cable replacement kit, you will need to increase the inner diameter of the end lug holes where they connect to the batteries to accommodate for the larger bolts used. We recommend using a Dremel or equivalent for this process.**

Basic Wiring Kit Steps

1. Begin by removing the negative battery cables from BOTH batteries.
2. Install the black ground wire on the right/driver's side of the alternator, using the alternator mounting bolt. Tighten to 35 foot pounds. Note that if you purchased the complete kit, you will be installing the longer of the two black cables at this location.
3. Remove the nut from the existing factory power wire and charge stud. Mount charge lead onto the left/passenger side, on top of the factory wire and replace nut. Retighten to manufacturers suggested torque specifications.

Please Note: If you have purchased one of our DC Power units, tighten the charge lead to 71 inch pounds (which is only 5.91 foot pounds. DO NOT over torque unless you want to damage your alternator! This should just feel snug with a 1/4" ratchet for those of you that don't have torque wrenches!!

4. Route the red/blue charge lead and ground wire together. Direct them around and NOT over the CAC tube and back towards the wire loom. Directing around the CAC tube ensures that there is no contact between the charge lead/ground and CAC tube (the tube

gets hot enough to melt the insulation on your wires!). Use the provided zip ties to secure the charge lead and ground to the wire loom.

5. Route grounding wire to existing bolt in passenger fender well where fender attaches to the vehicle. Route red/blue charge lead to passenger side fender and connect into fuse block. You can use Velcro or double sided tape (not included) to the fender if you prefer, but most opt to just have the 1/0 cable itself support the fuse block without impacting the build of the truck. Install shorter red/blue cable section from fuse block to passenger side positive battery. Install directly on top of factory power wire using existing vertically positioned stud. **NOTE: If using this kit with aftermarket battery terminals such as the ones included in the starter cable replacement kit, you will need to increase the inner diameter of the end lug holes where they connect to the batteries to accommodate for the larger bolts used. We recommend using a Dremel or equivalent for this process.**

If you purchased the Basic Cable kit only, reconnect the negative battery terminals and you are DONE! If you purchased the complete kit, LEAVE the negative cables disconnected and read on!

Installing Interconnect Wire and Additional Grounding Wire for Complete Kit

The complete cable kit adds to the basic kit with a massive 4/0 wire intended to better interconnect the batteries along with an additional ground that better connects the driver side of the engine to the drive side vehicle frame.

Steps:

1. Use included bolts to replace the OEM bolts on passenger and driver side positive battery post connectors. **NOTE: If using aftermarket battery terminals such as the ones included in the starter cable replacement kit, these bolts won't be used as you will use the ones already used in the aftermarket terminals.**
2. Remove both radiator support brackets that run across the front of the engine bay. There are two 10mm bolts per side.
3. Slide both sections of heat shrink onto the interconnect wire before attaching to both positive battery post connectors.
4. Connect 4/0 wire to positive battery posts on each battery. . **NOTE: If using this kit with aftermarket battery terminals such as the ones included in the starter cable replacement kit, you will need to increase the inner diameter of the end lug holes where they connect to the batteries to accommodate for the larger bolts used. We recommend using a Dremel or equivalent for this process.**
5. Align heat shrink with radiator support brackets. Use hair dryer to tighten heat shrink around cable before reattaching radiator support brackets. The heat shrink is to provide additional protection for the wire from the sharp edges of the radiator support.
6. Reinstall both radiator support products.
7. Remove air box from vehicle.

8. Trace negative battery cable from the driver side battery to the vehicle frame. Remove the bolt on the vehicle frame and use a wire wheel, sandpaper, or other abrasive to clean up the connection on the frame and the factory lug.
9. Install remaining (shorter) black grounding wire from this location on the frame to the driver's side front of the motor using the included larger diameter bolt and washer. There is a pre-existing drilled and tapped hole on the upper most driver side section of the cylinder head (under the rocker box) on the front face of the block. See image at end of these directions.
10. Reinstall air box.
11. Reconnect negative battery cables.
12. Start the truck and verify proper operation
13. Enjoy an adult beverage as you deem necessary!

Red circle depicting location of ground cable installation on block:

