

SDHQ Motorsports 190 S McQueen Rd Ste 109 Gilbert, AZ 85233 www.SDHQoffroad.com

Product Packing List

<u>Product:</u> <u>SDHQ-11-3003-G4-17</u>

Description: 2017–19 Ford Super Duty Billet Dual Battery Terminal Kit

(1) SDHQ Complete HD Battery Terminal Kit (1) SDHQ Complete Billet Battery Terminal Kit (4) SDHQ 1–2GA Lug & Heat Shrink	SDHQ-02-3003-C1 SDHQ-02-3003-C2
 Compression Lugs OR 	SDHQ-02-3802
∘ Solder Lugs (1) SDHQ 16" Negative 6GA Battery to Body	SDHQ-02-3701 SDHQ-02-3002-U1-E

Inspected and Packaged By: _____

Date:

Included in <u>SDHQ-02-3003-C1</u>:

- (1) SDHQ Billet Positive Battery Terminal
- (1) SDHQ Billet Negative Battery Terminal

(1) Hardware Package

- (1) Positive Terminal Insulator
- (1) Negative Terminal Insulator
- (1) Positive Terminal Post Washer
- (1) Negative Terminal Post Washer
- (2) 5/16" 18 x 1 ½" Battery Terminal Bolt
- (2) 5/16" 18 Battery Shoulder Nut
- (2) 3/8" 16 x 2" S.S. Hex Head Bolt
- (4) 3/8" S.S. Washers
- (2) 3/8" 16 S.S. Nuts

Included in <u>SDHQ-02-3003-C2</u>:

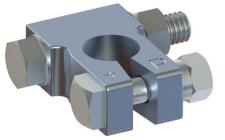
- (1) SDHQ Billet Positive Battery Terminal
- (1) SDHQ Billet Negative Battery Terminal
- (1) SDHQ Negative Terminal Stud
- (1) Hardware Package
 - (1) Positive Battery Protective Boot
 - (1) Negative Battery Protective Boot
 - (1) Positive Terminal Post Washer
 - (1) Negative Terminal Post Washer
 - (2) 5/16" 18 x 1 ½" Battery Terminal Bolt
 - (2) 5/16" 18 Battery Shoulder Nut
 - (6) ¼" 20 x ¾" S.S. Hex Head Bolt
 - (6) ¼″ S.S. Washer
 - (2) 5/16" 18 x 1" S.S. Hex Head Bolt
 - (2) 5/16" S.S. Washer
 - (2) 3/8" 16 x 2" S.S. Hex Head Bolt
 - (4) 3/8″ S.S. Washers
 - (2) 3/8" 16 S.S. Nuts
 - (1) Small Tube of Anti-Seize

SDHQ Negative HD Terminal

SDHQ-02-3003-T2-P-Rev2 SDHQ-02-3003-T2-N-Rev2 SDHQ-02-3003-T2-A SDHQ-02-3003-T2-B

SDHQ Positive HD Terminal





SDHQ-02-3003-T1-P-Rev2 SDHQ-02-3003-T1-N-Rev2 SDHQ-02-3003-T1-A



SDHQ Motorsports 190 S McQueen Rd www.SDHQoffroad.com

INSTALLATION INSTRUCTIONS

Product: SDHQ-11-3003-64-17

Description: 2017–19 Ford Super Duty Billet Dual Battery Terminal Kit



<u>Parts List</u>	<u>Hardware List</u>	<u>Required Tools</u>
(1) SDHQ Complete HD Terminal Kit	N/A	7/16", ½", 9/16" Sockets
SDHQ-02-3003-C1		7mm, 10mm, 12mm Sockets
(1) SDHQ Complete Battery Terminal Kit		Ratchet
SDHQ-02-3003-C2		7/16", ½", 9/16" Wrench
(4) SDHQ 1-2GA Lugs & Heat Shrink		Pliers
SDHQ-02-3802 OR SDHQ-02-3701		Wire Cutters
(1) 16" Negative 6GA Battery to Body Wire		Heat Gun
SDHQ-02-3002-U1-E		Rubber Mallet
Tech Notes		

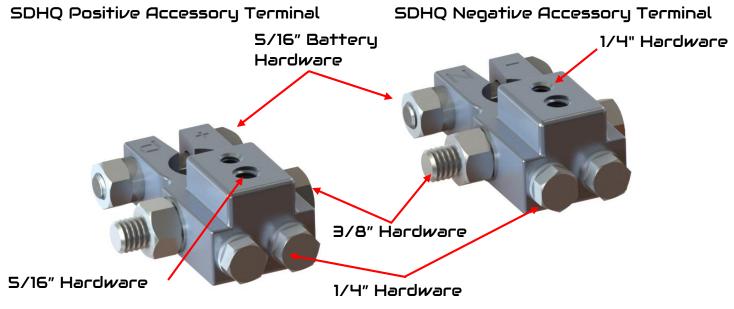
Apply Anti-Seize to all hardware. Fits 2017-2019 Ford F-250/F350 with factory dual batteries. For 2020+ Super Duties, see SDHQ-11-3003-G4-20. Cutting the factory terminals off is required.

Torque Specifications

Torque the ¹/₄" – 20 bolts to 4 ft-lb. Torque the 5/16" – 18 bolts to 8 ft-lb. Torque the 3/8" – 16 hardware to 18 ft-lb.

Be cautious when tightening the Compression Lugs as the threads can strip. Approx. Install Time: 1+ Hour

For questions or help with the installation, please email help@sdhqoffroad.com Mon.-Fri. 8:00am-5:30pm and Sat. 8:00am-3:30pm Arizona Time. www.sdhqoffroad.com Page 3 of 6

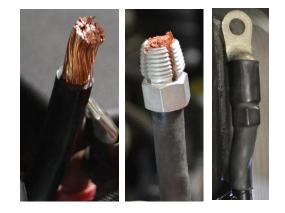


***READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! ***

- **1.** Unbox the parts and verify all parts are present. Familiarize yourself with the parts and diagram above.
- 2. Disconnect the negative terminals on both batteries. Loosen the hose clamp connecting the intake tube to the engine. Disconnect the MAF harness and remove (4) clips holding the top of the intake on. Remove the intake. This will give you more space to work with when wiring.
- 3. Removing the Terminals. Starting on the passenger side battery, remove the positive terminal from the battery. Cut off close to both terminals as shown right. Use a 10mm socket to remove the negative wire connected to the fender. This wire will be replaced later. Remove the tape connecting the negative wire to the battery hold down.
- **4. Installing Lugs.** Strip 1" of insulation off the negative wire and slide heat shrink onto the wire.

Compression Lugs: Slide compression end of the 1-2GA lug over the stripped positive wire. Using the 9/16" wrench and pliers, tighten the compression lug until it is snug. Be mindful of the orientation of the lugs for ease of wiring to the terminals later. <u>Be cautious not to over</u> <u>tighten as the threads can strip</u>. Heat the 3" of 3/4" heat shrink over the lug and wire.





Solder Lugs: Using pliers/channel locks to hold the 1-2 GA solder lug, heat the lug upright with the wire inserted. Twist the wire back and forth applying downward pressure until it is fully seated in the solder lug and let cool. Check the connection for a strong bond then place 3" of heat shrink over the lug and wire and heat to secure. Repeat the process for the negative wire. ****Recommended to have an extra person to hold the torch or heat gun when installing the solder lug.****

- **5.** Repeating Step 4 for the positive wire. Pull up on the positive wire to stretch it out and help with wiring.
- 6. Repeat Steps 3-5 for the driver side battery. No ground wire to remove from the driver fender.
- 7. Installing Battery Terminals. Place the Terminal Post Washers on their corresponding posts. Install the SDHQ HD Battery Terminals (02-3003-C1) onto the driver side battery. Install the SDHQ Built Complete Billet Battery Terminals (02-3003-C2) onto the passenger side battery. Lightly tap on the top of the terminals using a rubber mallet to set it on the battery post. Tighten the 5/16" Battery Bolt and Nut, using ½" wrench on both to prevent damaging the battery post.
- 8. Connect the smaller ring terminal on the 16" 6GA Negative Battery to Fender (02-3002-U1-E) wire to the factory fender location. Connect all negative wires to the negative terminal on the passenger side battery. Connect all positive wires to the positive terminal on the passenger side battery. Install the positive and negative Battery Protective Boots onto the Accessory Terminals. If you have dual alternators, the alternator wires can be flattened to simplify wiring. Secure the thick negative wire to the battery hold down using (2) small zip ties.



9. Connect the negative wire to the negative terminal on the driver side battery. Slide the positive terminal insulator over the positive wire. Connect the positive wire to the positive terminal.



For questions or help with the installation, please email <u>help@sdhqoffroad.com</u> Mon.–Fri. 8:00am–5:30pm and Sat. 8:00am–3:30pm Arizona Time. www.sdhqoffroad.com Page 5 of 6 **10.** Install the intake in the reverse order of Step 2. You have completed the SDHQ Ford Super Duty Battery Terminal Upgrade!

Double check all hardware is installed correctly and tight

Re-torque ALL bolts after 100 miles



190 S McQueen Rd Ste 109 Gilbert, AZ 85233 <u>www.sdlrqoffroad.com</u>

Follow us on:





For questions or help with the installation, please email <u>help@sdhqoffroad.com</u> Mon.-Fri. 8:00am-5:30pm and Sat. 8:00am-3:30pm Arizona Time. www.sdhqoffroad.com Page 6 of 6