



# Installation Instructions

## DGK70F/FU Battery Tender

### Kit Contents:

- (1) Battery Tender Charger\Maintainer



- (4) Each - 8-32x3/4" stainless steel screw, 8-32 stainless steel flat washers and 8-32 stainless steel lock nuts.
- (1) M8x1.25x20mm stainless steel bolt
- Cable ties



- (1) DGK70F\FU Battery Tender Installation Template

### Tools & Materials Required:

- 9 mm combination wrench
- Masking tape
- Electrical tape
- Scissors
- Safety knife
- Center point
- Deburring tool
- 1/8" drill bit
- 13/64" drill bit
- Drill (electric or cordless)
- #2 Phillips screwdriver
- Cordless Driver with #2 Phillips (optional)
- 3/8 ratchet or driver with 3" extension
- 10 mm socket - 3/8 drive
- Side cutters
- 13 mm socket - 3/8 drive
- 1/2" ratchet wrench or equivalent
- 13 mm ratchet wrench or equivalent

## INSTALLATION INSTRUCTIONS

- Step 1: Verify Kit Contents
- Step 2: Read through installation instructions before beginning the procedure.
- Step 3: Release the Right Enclosure Rear Door latch. (Figure 1) and open both doors.



Figure 1

- Step 4: Remove nut and washer securing NEGATIVE battery cable to NEGATIVE terminal using a 13 mm wrench. (Figure 2)



Figure 2

- Step 5: Position the negative battery cable out of the way, then reinstall washer and nut to battery terminal. (Figure 3)



Figure 3

- **Step 6:** Using side cutters or equivalent, cut and discard three cable ties securing power cables to the back of the control cabinet. (Figure 4)



Figure 4

- **Step 7:** Release three latches securing the air filter housing cover; remove the cover and both air filters. Store items in a safe secure location for future use. (Figure 5)
- **Step 8:** Prepare battery tender installation template for use; using scissors or safety knife, cut out the template following the dashed lines.

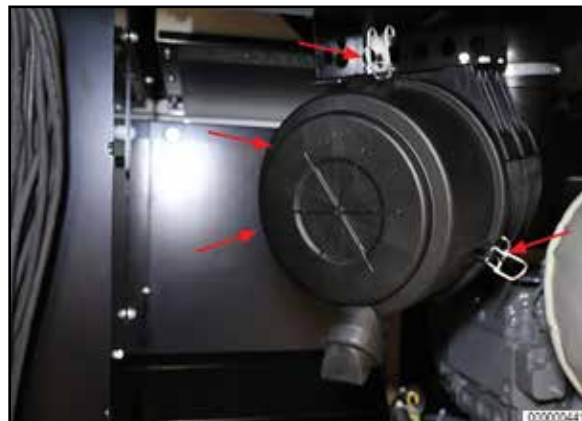


Figure 5

- **Step 9:** Using a phillips screwdriver, poke a hole through the template noted as "Cable Tie Hole". With the screwdriver still in the template, take the screwdriver and template to the control cabinet, using the screw driver as a guide, place the screwdriver into the top cable tie hole. Align the left edge of the template with the control cabinet back edge. Tape the template into place. Remove the screwdriver. (Figure 6)

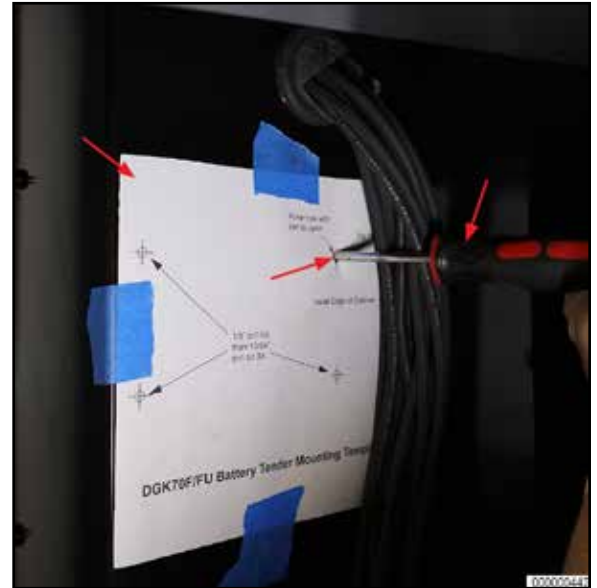


Figure 6

- **Step 10:** Follow the notes on the template; first use a center point to mark the hole locations, then using a drill and a 1/8" drill bill, drill three pilot holes through the template into the back of the control cabinet, then enlarge the holes using a 13/64" drill bit as shown. (Figure 7)

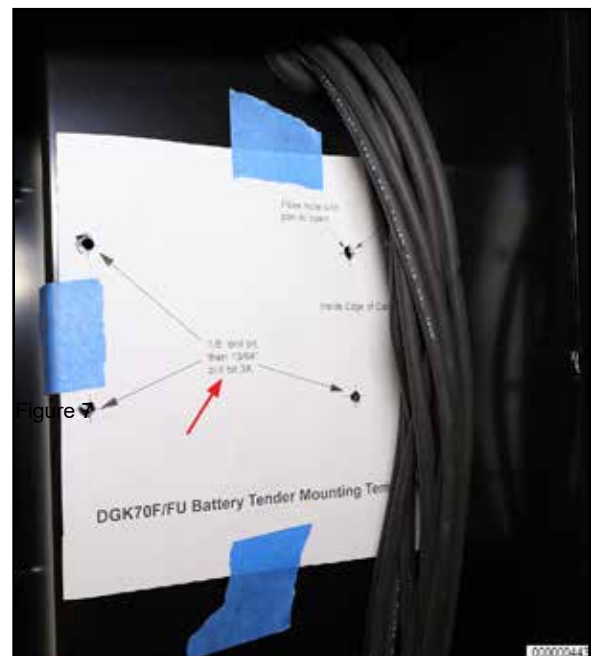


Figure 7

- **Step 11:** Place three cable ties onto power cables as shown (Figure 8)
- **Step 12:** Place battery tender on back of control cabinet, aligning mounting holes with those on the cabinet. Secure in place using the four supplied screws, washers and locknuts. (Figure 8)



Figure 8

**NOTE:** To access the the inside of the cabinet to place the washers and locknuts onto the screws and subsequently tighten the locknuts, loosen the two knobs securing the control cabinet panel; lay the panel forward and reach behind the breakers to access the mounting screws as shown (Figure 9)



Figure 9

- **Step 13:** Route the battery tender A/C power cable down along the existing cables behind cabinet, securing it to the existing power cables using cable ties as shown. (Figure 10)

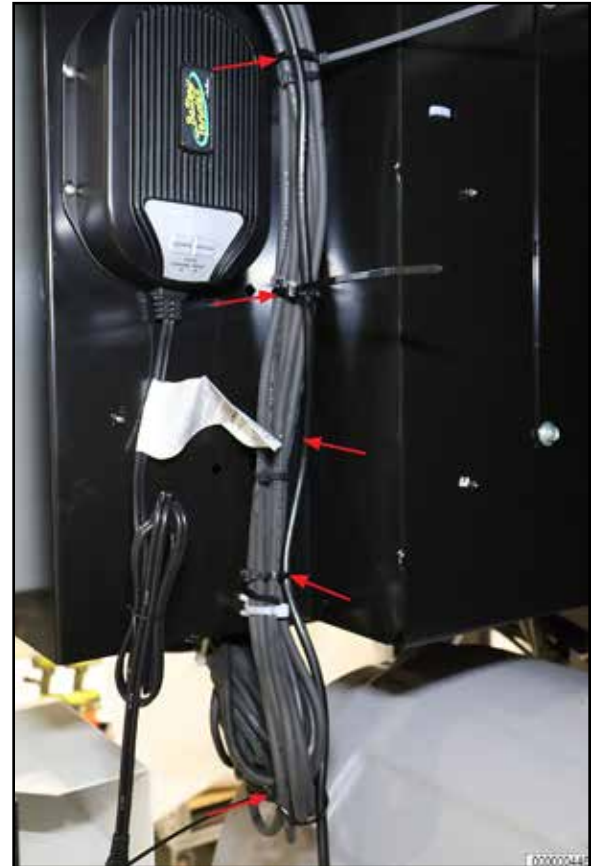


Figure 10

- **Step 14:** Using a 13mm socket and driver, remove eight (8) bolts securing the Front Enclosure Frame Lower Panel to the Front Enclosure Frame. (Figure 11)
- **Step 15:** Open the Fuel door, and using your right hand lift up on the fuel door opening to remove the Front Enclosure Frame Lower Panel. Store front enclosure frame lower panel in a safe secure manner. Retain the bolts for reinstallation.

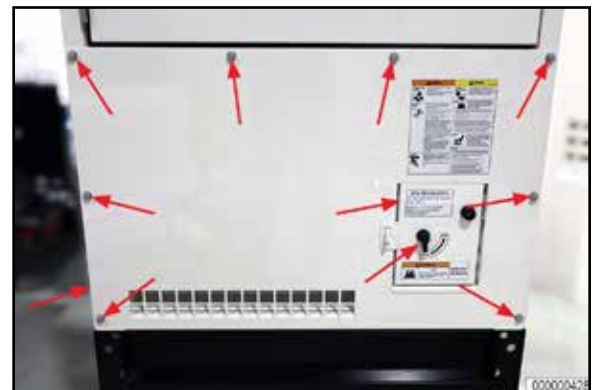


Figure 11

- **Step 16:** Continue routing the battery tender A/C power cable down past the alternator, then routing the cable to left side. Secure the cable to the Base Frame Right Side Alternator Mount using a cable tie as shown. (Figure 12)



Figure 12



- **Step 17:** Remove the electrical tape covering one of the electrical receptacles; plug the battery tender A/C power cord into the shore power receptacle. Use electrical tape to secure the joined plugs (Battery Tender A/C Power Plug and Shore Power Receptacle) to prevent them from possibly becoming disconnected. (Figure 13)



Figure 13

- **Step 18:** Secure the battery tender A/C power cable to the Base Frame Left Side Alternator Mount using a cable tie as shown. (Figure 14)



Figure 14

- **Step 19:** Reinstall the Front Enclosure Frame Lower Panel, securing in place using a 13 mm socket and driver, and the eight (8) previously removed bolts. (Figure 15)



Figure 15

- **Step 20: Locate the Battery Tender to Battery Cable in kit. (Figure 16)**

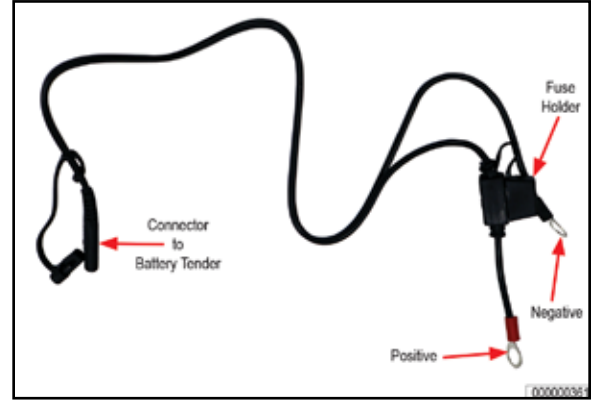


Figure 16

- **Step 21: Using a 1/2 inch ratchet wrench, remove the POSITIVE Battery Bolt, then discard bolt. Route the red wire from the Battery Tender to Battery Cable through the RED terminal cover, then combine RED wire lead from Battery Tender connector with cable (as shown). Attach to POSITIVE side of battery using new bolt from kit and 13mm inch ratchet wrench. DO NOT OVERTIGHTEN - Snug bolt (Figure 17)**



Figure 17

- **Step 22: Remove bolt and lockwasher from NEGATIVE battery terminal. Reposition and reattach NEGATIVE battery cable to NEGATIVE battery terminal, adding the new negative wire lead from Battery Tender to Negative battery cable. Secure the bolt and washer using a 13mm wrench. DO NOT OVERTIGHTEN bolt - Snug only. (Figure 18)**



Figure 18



- **Step 23: Connect plug ends (from Battery Tender to the the Battery Cable Ends). To prevent plugs from separating, secure with electrical tape. (Figure 19)**



Figure 19

- **Step 24: Secure the Battery Tender battery leads to existing cable harnesses using cable ties. Remove excess cable tie material (tails) where ever they are still present. (Figure 20)**
- **Step 25: Close Right Enclosure Doors making sure the latch fully engages.**

**Installation of the Battery Tender is now complete.**



Figure 20