

# ELECTRIC START KIT

## KIT P/N 2878250



**POLARIS**  
The Way Out.®

### Application

All Polaris Pro-Ride Snowmobiles

**Before you begin, read these instructions and check to be sure all parts and tools are accounted for. Please retain these installation instructions for future reference and parts ordering information.**

### This kit includes

Qty	Description	Part Number
1	Asm Stud Plate	1017181
1	Weld Battery Box	1017182
1	Asm-Battery Box Bracket- <b>RMK</b>	1017775
1	Asm-Battery Box Bracket- <b>Switchback</b>	1017820
1	Asm Stud Plate 60.96 mm	1017255
1	Asm-Pinion/Pinion Bracket	1204372
1	Asm Drive Clutch ES	1322800-SP
1	Harness ES, DC-SDI Rush	2411513
1	Circuit Breaker, 12 amp	2411592
1	Cable, Battery/Solenoid	2460393
1	Switch, Magnetic	4012358
1	Cable, 1220 mm, Red	4012711
1	Cable, 1520 mm, Black	4012712
1	Asm-Starter Motor	4012729
2	Hook-"D"	5224468
1	Brkt, Elec Start/ Clip	5252966
1	Brkt, Elec Start/ UCA Tube Upper	5254790
1	Brkt, Elec Start/ UCA Tube Lower	1018033
1	Shield-Heat Battery	5253414
1	Strap-Rubber	5410608
1	Shaft-Flex Starter	6230404
6	Cable Tie	7080138
1	Clamp-Band, Narrow 70-90 mm	7081279
4	Nut, 1/4-20 Nyloc	7542153
6	Nut, M6 x 1.0 FLG-NYLOC Olive	7547339
5	Rivet, 3/16-0.090-0.290	7661637
1	Tie Cable Press Mnt Blk	7080999
2	Screw HXFL M6 x 1 x 16 8.8	7518548
3	Screw M8 x 1.25 x 25	7518699
2	Screw M6 x 1 x 30	7518993
2	Bolt-M6x1.0x15, PH/TX	7518656
1	Foam-Seal, Rear Cooler	5810947
2	Strap Panduit 14"	7080761
1	Clip Routing	7670109
1	Nut 1/4-20 Hex-Y	7542105
1	Washer 1/4 Spring Lock-Y	7552801
1	Instructions	9922962

### You Will Need To Supply:

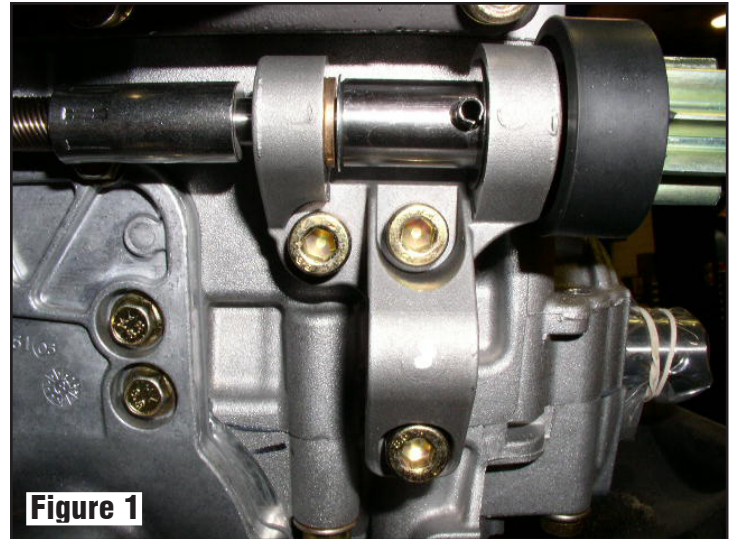
- Battery (PN 4013045)
- Clutch Puller (PN 2872085)
- Strap Puller (PN 2870336)
- Spring Puller
- Flat Screwdriver
- Metric Socket Set
- Metric Wrench Set
- Torque Wrench
- Side Cutter
- Large Phillips Screwdriver
- Rivet Gun
- 6 mm Allen Wrench or Short Allen Socket
- Master Repair Manual (MRM)

**IMPORTANT: Perform all items correctly and completely.**

## INSTALLATION INSTRUCTIONS

**Warning:** Battery electrolyte contains sulfuric acid and is poisonous! Serious burns can result from contact with the skin, eyes, or clothing. Avoid contact with electrolyte.

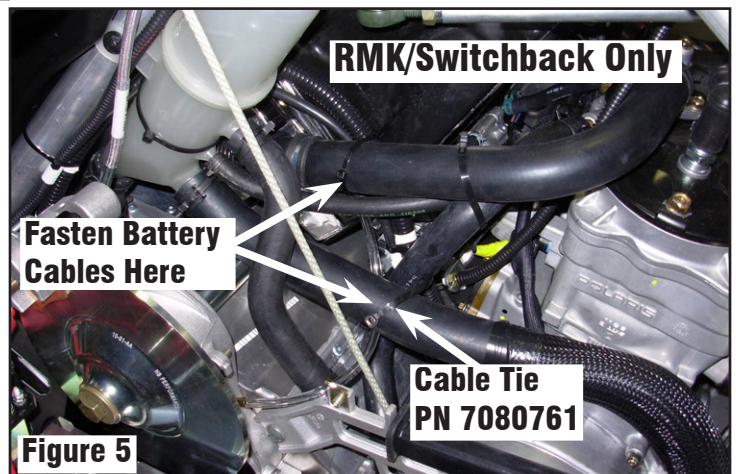
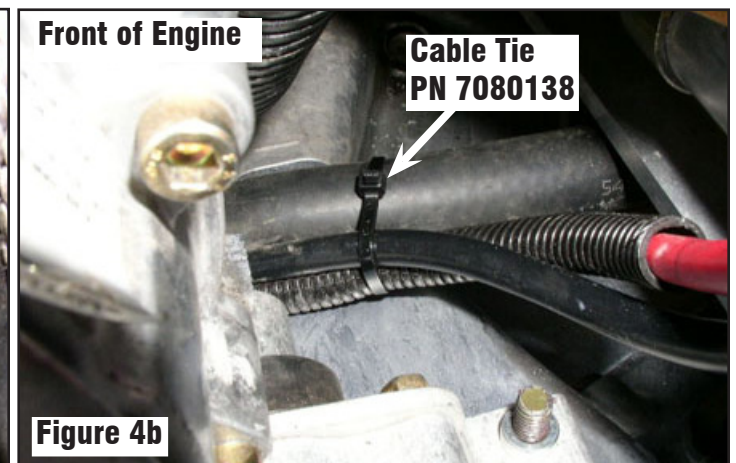
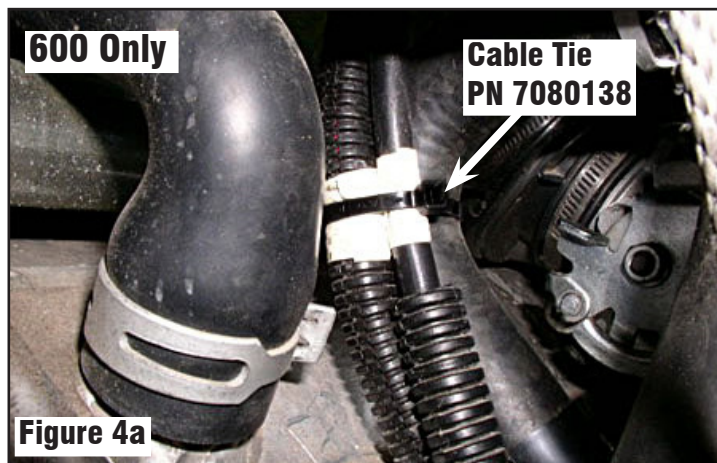
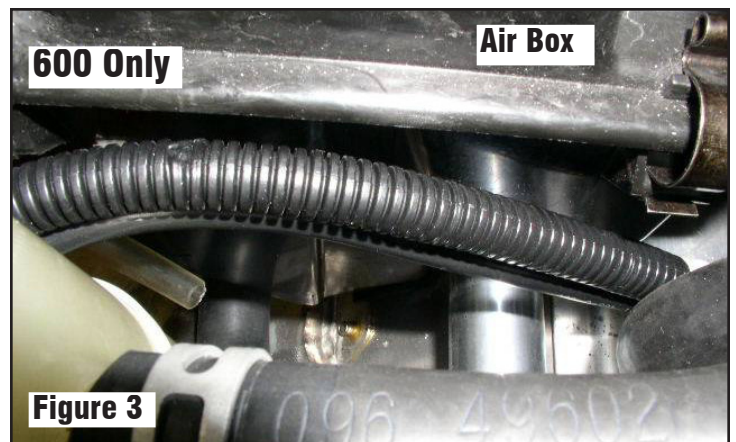
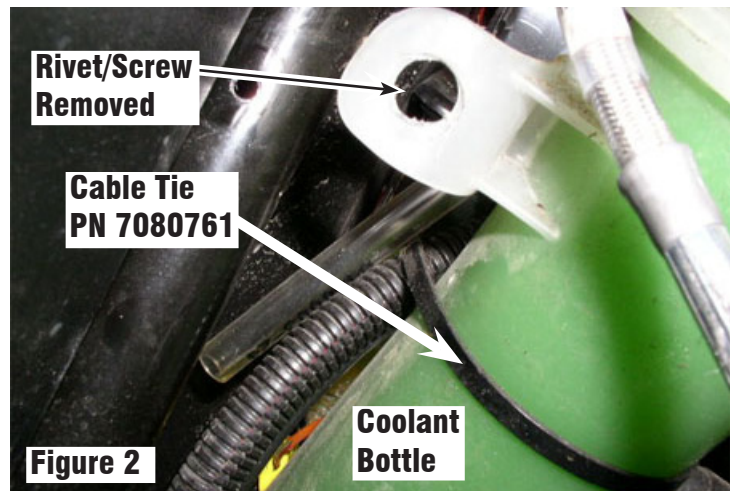
1. Order Battery (PN 4012638).
2. Charge Battery per instructions included with the battery.
3. Remove hood and both side panels.
4. Remove the exhaust pipe and silencer.
5. Verify unit is not in reverse. **NOTE:** Driven will not open if stopped in reverse mode.
6. Apply parking brake and remove drive belt.
7. Remove Drive Clutch per **MRM (Master Repair Manual)**.
8. Remove Y-pipe from engine using a 6 mm Allen socket.
9. Install pinion and pinion bracket assembly (PN 1204372). Figure 1. Torque bolts to 15 ft. lbs. (20.3 Nm).



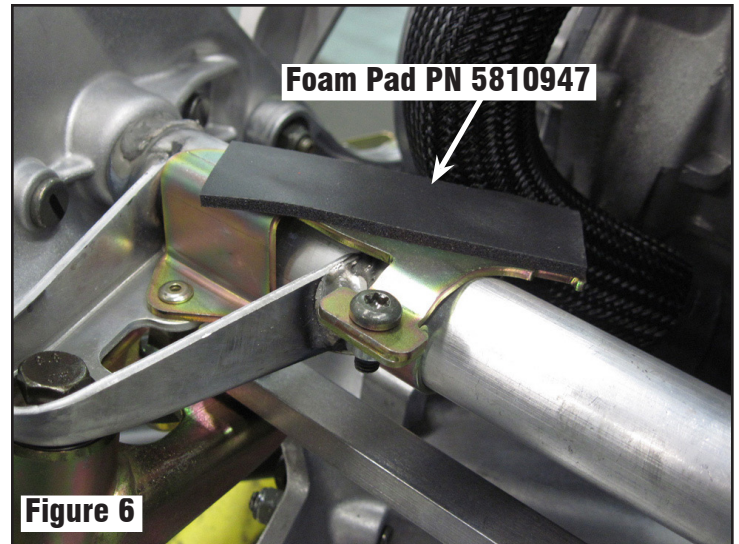
**Figure 1**

10. Remove remove coolant bottle retainer screw. Figure 2.
11. **600 Rush Only:** Route battery cables behind coolant bottle, (Figure 2) beside the air box (Figure 3). Route cables on outboard side of coolant hose and under the engine. Figure 4a (600 Only). Fasten cables with cable tie (PN 7080138). Part number labels on battery cables should be towards battery. Fasten with cable ties PN 7080138. Figures 4a and 4b.

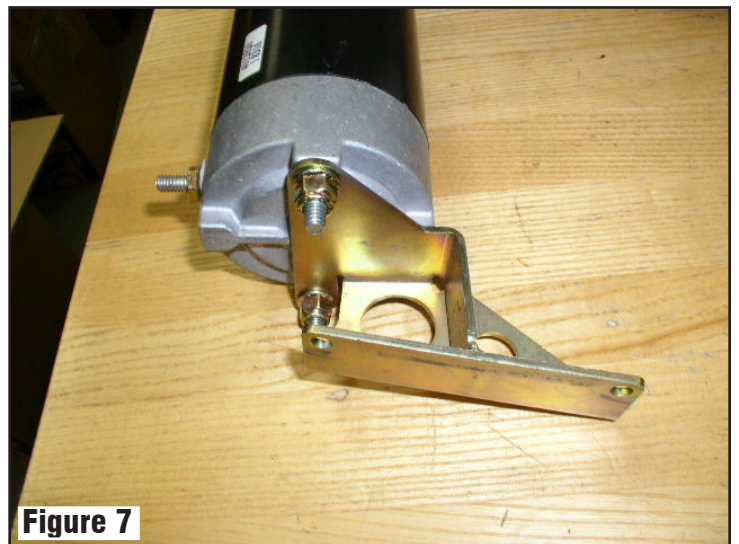
**RMK and Switchback Only:** Route Battery cables behind coolant bottle, (Figure 2) beside the airbox and under engine. Fasten cables with cable ties (PN 7080138) as shown in Figure 5.



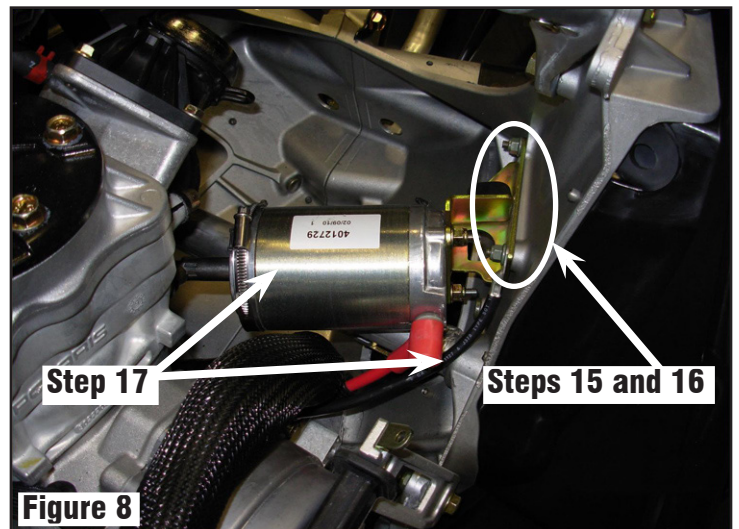
12. Install upper e-start bracket (PN 5254790) and lower e-start bracket (PN 1018033) on crosstube. Ensure that the brackets are tight to the tube before installing screws (PN 7518656). Install third rivet to hole in steering frog support. Install foam pad (PN 5810947) to top of bracket as shown in Figure 6.



13. Install starter motor bracket (Bracket, Electric Start/ Clip, PN 5252966) on end of starter as shown in Figure 7.
14. Install flex drive on starter drive assembly. Loosely install band clamp over starter motor.

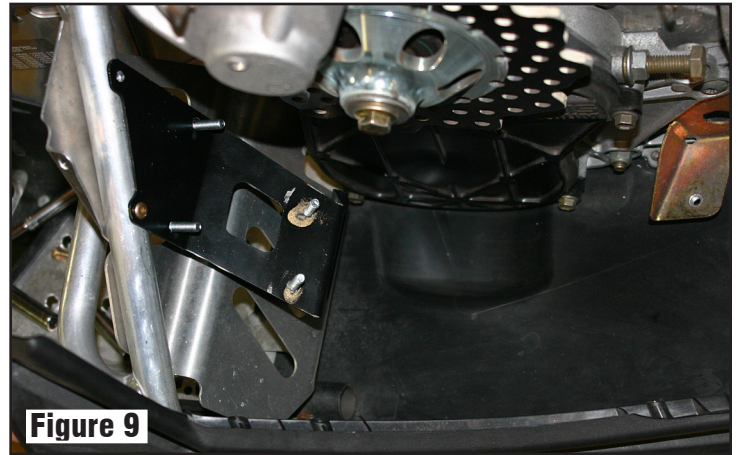


15. Lay starter motor on e-start bracket. Install two 6 mm bolts (PN 7518993) and nuts (PN 7547339) through side casting and starter motor bracket with nuts on inside toward starter motor. Figure 8.
16. Install black battery cable (PN 4012712) on rear 6 mm starter motor bracket bolt and install nut. Torque both 6 mm bolts to 8 ft. lbs. (10.8 Nm). Figure 8.
17. Tighten band clamp around starter motor and lower e-start bracket. Fasten red battery cable (PN 4012711) using washer (PN 7552801) and nut (PN 7542105) to starter motor terminal. Install protective cover.



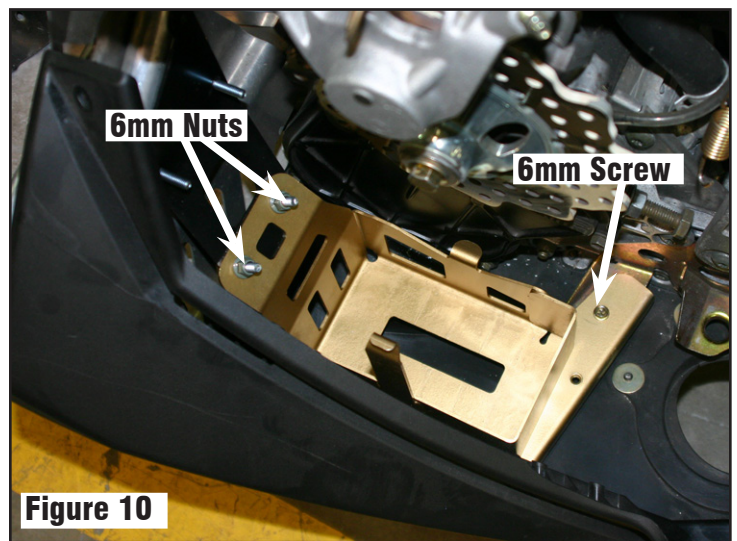
18. **RMK:** Drill out two lower footrest rivets to mount bracket (PN 1017775). Use four rivets (PN 7661637) supplied in kit to mount bracket.

**SWITCHBACK:** Mount bracket (PN 1017820) to footrest with four rivets (PN 766637).



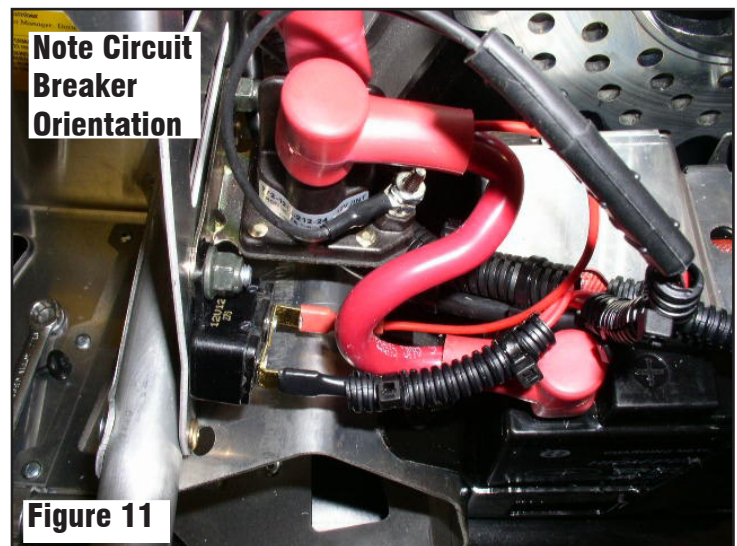
**Figure 9**

19. Install battery box (PN 1017182) as shown in Figure 10 using two 6 mm nuts (PN 7547339), one 6 mm screw (PN 7518548) and stud plate (PN 1017181).



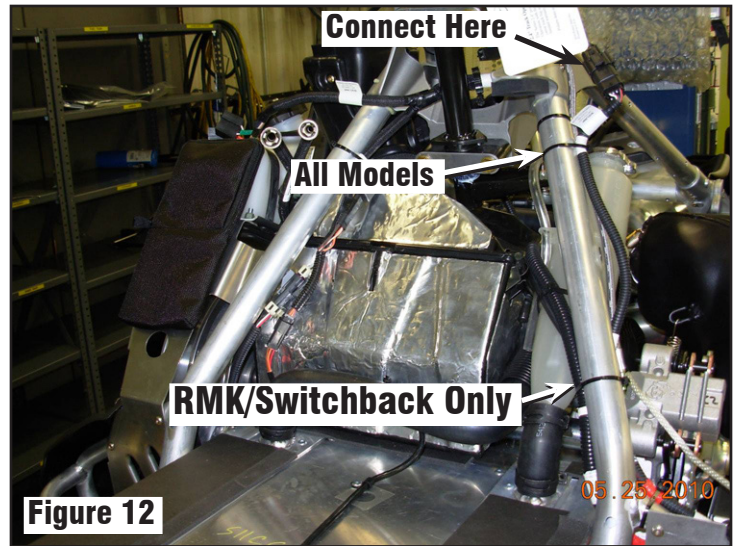
**Figure 10**

20. Install stud plate (PN 1017255). Mount solenoid switch and circuit breaker to stud plate using two nuts (PN 7547339). Figure 11.



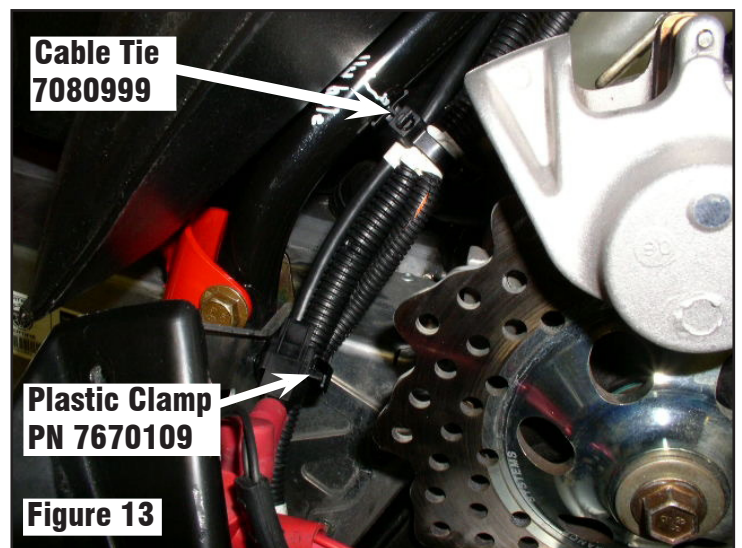
**Figure 11**

21. Connect e-start harness to connector at top right side of steering post casting. Install cable ties in locations shown in Figure 12.

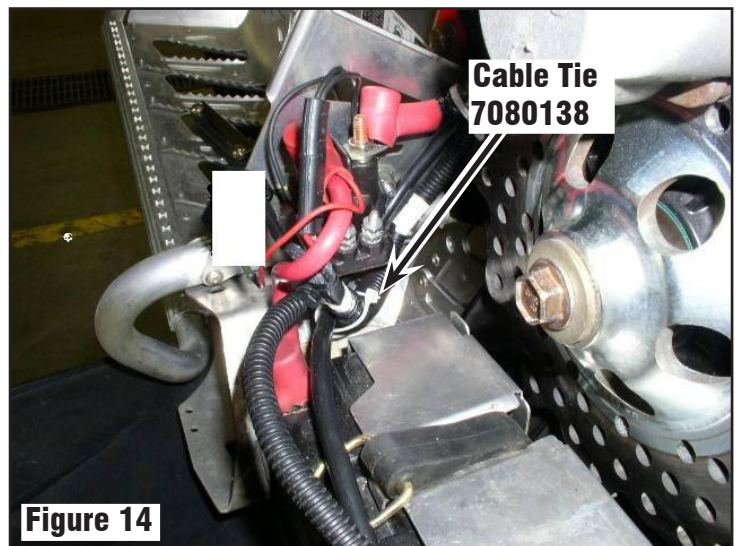


22. **600 Rush Only:** Install cable tie (PN 7080999) in 1/4" hole in right upright tube. Tie both battery cables and e-start harness (PN 2411513) to upright tube using cable tie around tape mark. Figure 13.

Install plastic clamp (PN 7670109) in hole located at top inside corner of foot rest. Install both battery cables and e-start harness in clamp and close clamp. Figure 13.



23. Connect e-start harness to solenoid switch and circuit breaker. Connect red battery cable to inside terminal of solenoid switch. Install protective cover over terminal. Tie e-start harness to black battery cable directly under solenoid with cable tie (PN 7080138). Figure 14.



24. Install battery (PN 4013045) into battery box. Install battery heat shield with rubber tie down strap and screw (PN 7518548) as shown in Figure 15.
25. Install short red battery cable (PN 2411592) on outside terminal of starter solenoid and to positive terminal of battery as shown in Figure 11. Install protective covers. Connect end of small gauge wire to circuit breaker.
26. Install new e-start clutch and torque to spec. Install belt, Y-pipe, exhaust pipe and resonator.
27. Install hood, connect hood electrical harness to chassis harness. Install side panels.

