

# ELECTRIC START KIT KIT P/N 2873925



## Application

2002 Polaris EDGE Models with 700 Domestic Engines

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.	Part Description	Part No.
1 ....	Battery Box (Black) .....	1013679-067
1 ....	Battery .....	4140006
1 ....	Cable (Battery/Solenoid) .....	2460393
2 ....	Nylon locking nuts #10-24 ...	7541925
1 ....	Starter Cable, 16.5" (Black) ..	4010107
1 ....	Starter Cable, 11" (Black) ....	4010114
1 ....	Solenoid .....	4010930
1 ....	Insulator Cable/Cap (Red) ...	5410346
1 ....	Starter Assembly .....	2410249
2 ....	Cable Tie .....	7080138
2 ....	Bushing 1.00 x 1.25 x .060 ...	7556509
1 ....	Drive Clutch Assembly .....	1321932
1 ....	Circuit Breaker .....	2434008
1 ....	Rectifier .....	4010196
1 ....	Battery Strap .....	5410424
2 ....	D Hook .....	5224468
6 ....	Battery Pad .....	5810508
1 ....	Short Battery Bolt .....	2200361

Qty.	Part Description	Part No.
1 ....	Battery Vent Tube .....	5432077
1 ....	Cable, Solenoid/Battery 10.5" ..	4010108
2 ....	Nut, 1/4 - 20 .....	7542122
2 ....	Washer, .344 x .875 .....	7555734
2 ....	Bolt, 10-24 x 3/4 .....	7511930
1 ....	Rivet, 3/16 .....	7621467
1 ....	Washer, .219 x .50 .....	7558201
1 ....	Stud Plate .....	1013385
1 ....	Battery Fill Instruction .....	9913265
3 ....	Washer, Spring Lock .....	7552801
3 ....	Nut, 1/4-20 .....	7542105
1 ....	Instructions .....	9917285

## Starter Assembly (P/N 2410249) includes:

4 ....	Bolt .....	7517957
2 ....	Nylok Nut .....	7542153
2 ....	Bolt .....	7512492
2 ....	Lock Washer .....	7552603

## You will need to supply:

5/16" Socket (8 mm)  
7/16" Wrench  
10 mm Wrench  
7/16" Socket  
9/16" Socket  
Petroleum Jelly

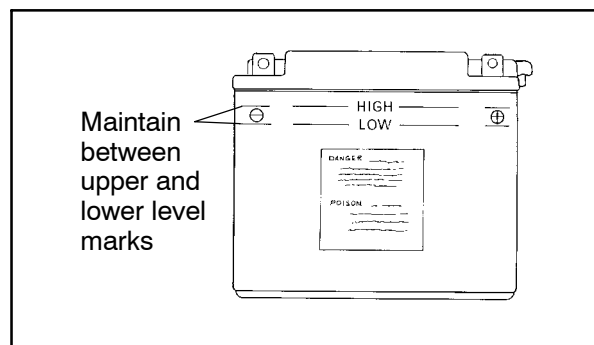
Clutch Puller (PN 2870506)  
Strap Wrench (PN 2870336)  
1/8" Allen Wrench (3 mm)  
3/8" Combination Wrench (10 mm)  
T25 Torx Wrench  
Battery Hydrometer (PN 2870836)

Drill  
3/16" Drill Bit  
3/8" Socket  
Rivet Gun  
Side Cutter  
Large Phillips Screwdriver

**IMPORTANT:** For your safety, and to ensure a satisfactory installation, perform all installation steps correctly in the sequence shown.

## INSTALLATION INSTRUCTIONS

1. Remove the vent plug from the vent fitting of the new battery from the kit.
2. Fill the battery with electrolyte to the upper level marks on the case. **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.
3. Set the battery aside and allow it to cool and stabilize for 30 minutes.
4. Add electrolyte to bring the level back to the upper level mark on the case. **NOTE:** This is the last time that electrolyte should be added. If the level becomes low after this point, add only distilled water.

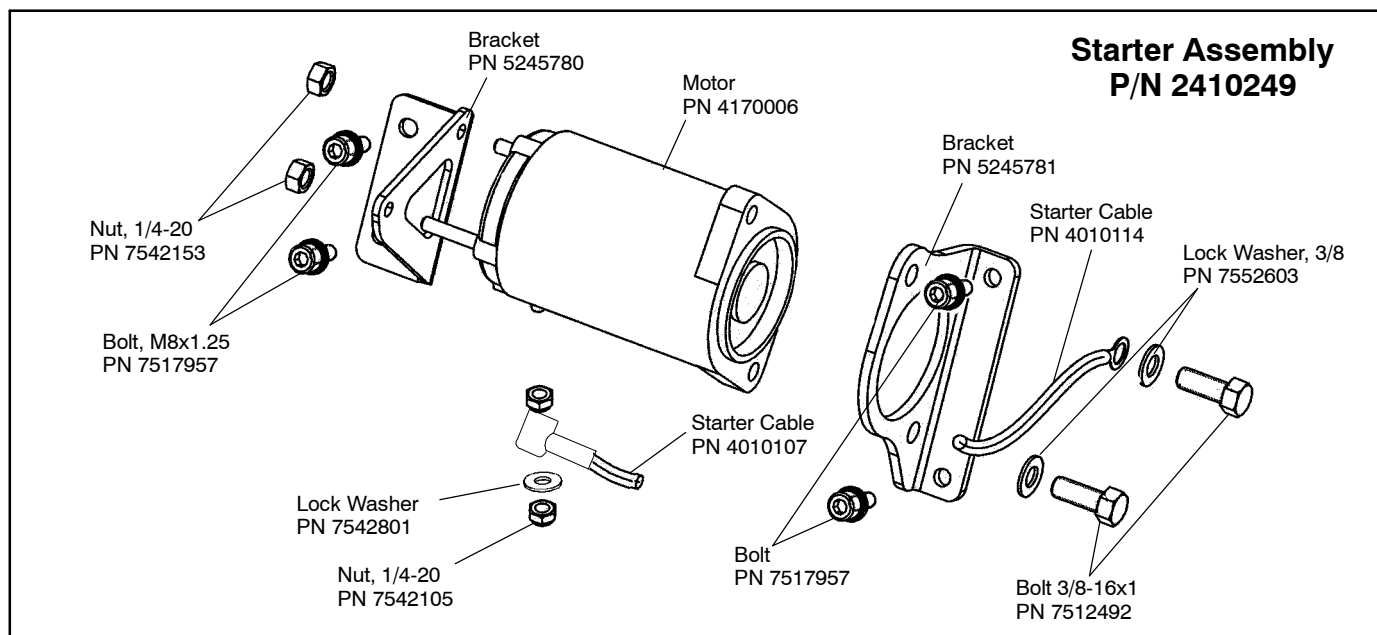
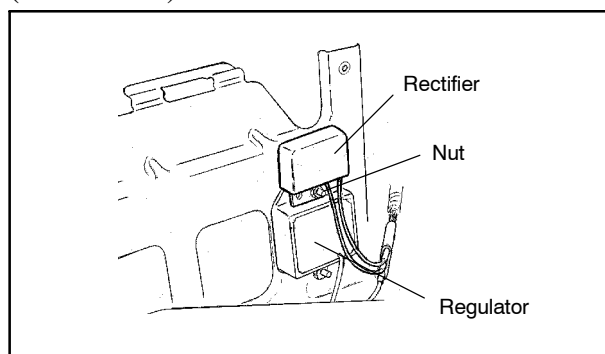


5. Charge the battery at 1/3 of its amp/hr rating for up to two hours. **NOTE:** This charge rate is to be used only on new batteries during the first-time charge. After this charge, they should be charged at the normal 1/10 of amp/hr charge rate.
6. Check the specific gravity of each cell with a hydrometer to ensure each has a reading of 1.270 or higher.
7. Lift the hood, release the springs securing the muffler, and remove the muffler.
8. Open the clutch guard and remove the drive belt and drive clutch.
9. Remove the spring and weights from the drive clutch. Refer to the *Polaris Snowmobile Service Manual*, Chapter 7, for instructions.
10. Install the spring and weights removed in step 9 into the new clutch assembly (PN 1321932) from the kit.

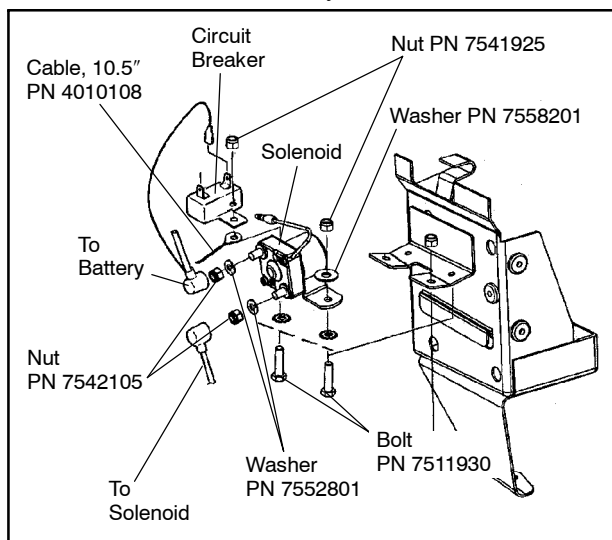
**NOTE:** Refer to the Starter Assembly illustration below for the following steps.

11. Install the insulator cable/cap (PN 5410346) to the 16.5" starter/solenoid cable (PN 4010107). Pull back the cap and install the cable end to the stud as shown. Secure with a lock washer (PN 7552801) and nut (PN 7542105). Securely reinstall the cap over the cable end.
12. With the starter cable stud pointed down, attach the large hole end of the 11" cable (PN 4010114) from the kit to the front starter bracket (PN 5245781) to the starter (PN 4170006) using a washer (PN 7552603) and bolt (PN 7512492). **NOTE:** Leave the bolt with the starter cable loose until it is mounted securely to the engine. Then torque to 14-16 ft. lbs.
13. Attach the rear starter bracket (PN 5245780) to the starter using two nuts (PN 7542153).

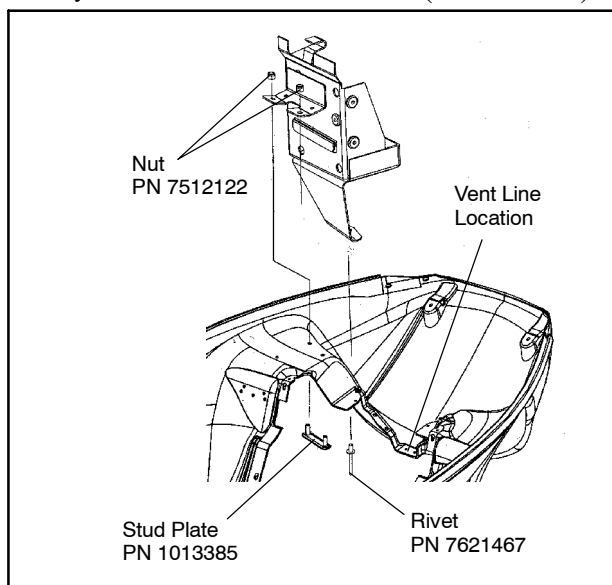
14. Install the starter motor to the engine crankcase by sliding the assembly in from the clutch side. Loosely install the bolts (PN 7517957) on the front and rear starter brackets.
15. Check for a minimum of 1/4" (.64 cm) clearance between the clutch ring gear and bulkhead. Also check to ensure the ring gear clears at the forward end. If additional clearance is needed, the bulkhead may be tapped inward with a soft-face hammer. **NOTE:** A minimum of 1/4" (.64 cm) clearance is required. When high torque loads are placed on the engine, the rear of the clutch will move closer to the bulkhead.
16. Tighten the front and rear starter bracket bolts to the crankcase. Torque to 19-26 in. lbs.
17. Torque the drive clutch to 45 ft. lbs.
18. Check the driven clutch offset and use washers (PN 7555734) to adjust it if necessary. **NOTE:** Clutch offset with the ring gear installed is 1" (2.54 cm). Add washers to the clutch bolt as needed. Refer to the *Polaris Snowmobile Service Manual* for additional instructions.
19. Reinstall the drive belt and close the clutch guard.
20. Remove the nut from the top bolt securing the voltage regulator to the chassis. Mount the rectifier (PN 4010196) to this bolt and reinstall the nut.



21. Install the jumper wire (PN 4010108), solenoid and circuit breaker to the battery box. See illustration.



22. Insert battery pads (PN 5810508) into the battery box: two on the left side, two on the bottom, one on the front side and one on the right side.
23. Remove the two plugs covering the holes in the left shock tower and discard. From the bottom side, insert the stud plate (PN 1013385) from the kit. Set the battery box over the studs and secure with nuts (PN 7512122). From the bottom of the pan, line up the hole in the pan with the hole in the battery box and secure with a rivet (PN 7621467).



24. Install the cable from the starter to the bottom stud on the solenoid. Secure with a lock washer (PN 7552801) and nut (PN 7542105). See Starter Assembly illustration.
25. Install the 7" battery cable (PN 2460393) to the other stud on the solenoid (with the single wire end going to the battery). Secure with a lock washer (PN 7552801) and nut (PN 7542105).
26. Install the small red wire from the solenoid to the battery side of the circuit breaker.
27. Connect the bullet terminal from the main wire harness to the bullet connector on the solenoid.
28. Connect the spade connector on the main wire harness to the open connector on the circuit breaker.
29. Install the battery with the terminals toward the clutch side.
30. Connect the red battery cable to the positive terminal.
31. Connect the ground cable and the other end of jumper wire (PN 4010108) to the battery and tighten. **CAUTION:** To avoid the possibility of explosion, always connect the black ground cable last. When removing the battery, remove the black ground cable first.
32. Attach D hooks (PN 6224468) to the battery strap (PN 5410424).
33. Attach the battery hold down strap to the tabs provided on the battery box.
34. Install one end of the battery vent tube into the stand pipe and the other end through the drain hole in the center of the lower pan brace hole. *(If the unit has a skid plate, reinstall it now. Leave 1/8" (.3 cm) of vent tube protruding through the skid plate.)* Cut any excess vent tubing which may hang below the bulkhead. **CAUTION:** Check the vent tube to be sure it's open and not kinked or pinched. A kinked or pinched vent tube will allow battery gases to accumulate, which could result in an explosion.
35. Reinstall the muffler.
36. Insert the key and test the electric start. If the starter doesn't function, re-check the wiring.