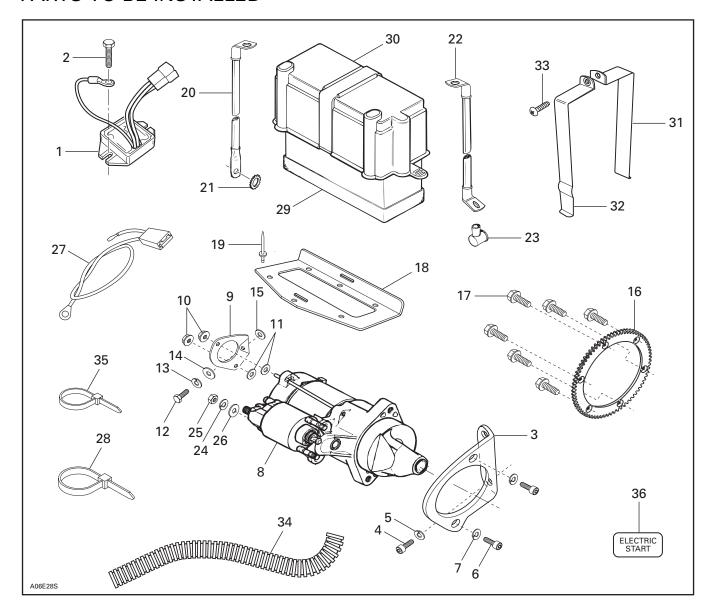


### **WARNING**

For safety reasons, this kit must be installed by an authorized Bombardier snowmobile dealer. Should removal of a locking device be required when undergoing disassembly/assembly, always replace with a new one. This instruction sheet should be given to the purchaser. This kit is designed for specific applicable models only. It is not recommended for vehicles other than those for which it was sold.

NOTE: Installation time is approximately 4 hours.

### PARTS TO BE INSTALLED



- 1. Regulator/Rectifier
- 2. Self-Tapping Screw M6 x 16 (2)
- 3. Starter Support PTO
- 4. Socket Screw M8 x 20 (2)
- 5. Lock Washer M8 (2)
- 6. Socket Screw M8 x 25 (2)
- 7. Lock Washer M8 (2)
- 8. Starter
- 9. Starter Support MAG
- 10. Elastic Flanged Nut M5 (2)
- 11. Washer 7/32 (2)
- 12. Socket Screw M8 x 20
- 13. Lock Washer M8
- 14. Washer M8
- 15. Hardened Washer (2)
- 16. Ring Gear
- 17. Self-Tapping Screw M8 x 16 (6)
- 18. Battery Seat

- 19. Rivet (6)
- 20. Black Negative Ground Cable
- 21. Star Washer 1/4
- 22. Red Positive Battery Cable
- 23. Protector Cap
- 24. Lock Washer M8
- 25. Nut M8
- 26. Washer M8
- 27. Fuse Holder
- 28. Locking Tie (8)
- 29. Battery
- 30. Battery Cover
- 31. Welded Steel Strip
- 32. Steel Strip
- 33. Machine Screw M5 x 20
- 34. Protector
- 35. Locking Tie
- 36. Decal

### **INSTRUCTIONS**

### **Battery Preparation**

Prior to electric starter kit installation, battery must be charged. Refer to *Shop Manual* for procedure.



# **WARNING**

Never charge or boost battery while connected or installed on vehicle.

# Vehicle Preparation

Close fuel shut off valve.

Remove tuned pipes, muffler, belt guard, drive belt, air intake silencer.

Loosen drive pulley retaining screw for later removal.

# Regulator/Rectifier

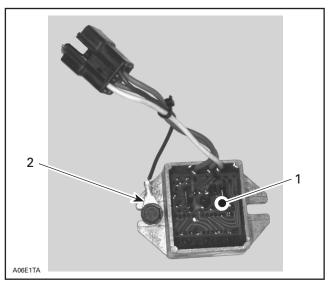
Unscrew front engine support bolts from vehicle frame. Lift engine enough so a hand can pass under to reach the rectifier. Support the engine using a wood block.



# **CAUTION**

In order to prevent oil lines damage, do not lift engine supports more than 4 inches.

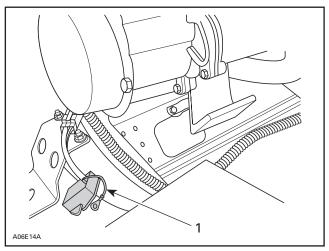
Replace original regulator/rectifier, located along RH side member of frame. Discard fasteners. Secure the regulator/rectifier **no. 1** on both sides with a self-tapping bolt M6 **no. 2** and the ground wire from regulator/rectifier.



- 1. Regulator/Rectifier
- 2. Connect ground wire here

Apply silicone dielectric grease (P/N 413 7017 00) in connectors of regulator/rectifier and vehicle harness then connect them. Secure connectors with a locking tie **no. 28**.

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1. Regulator/Rectifier

NOTE: Ensure wire colors are matched as follows:

REGULATOR/ RECTIFIER WIRES	VEHICLE WIRES	
RED	RED/BLUE	
YELLOW	YELLOW	
GREEN	YELLOW/BLACK	
BLACK	BLACK	

# Ring Gear

Remove drive pulley. Refer to appropriate Shop Manual to perform drive pulley disassembly/assembly procedures and to proceed with pulley alignment.

Secure ring gear no. 16 on inner half using selftapping screws no. 17. Apply Loctite 271 (red) on screw threads.



# **CAUTION**

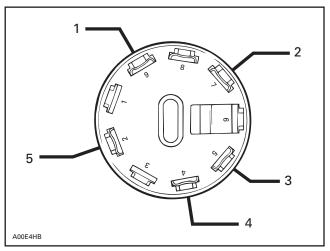
Loctite 271 (red) must be applied to safely assemble ring gear.

Torque screws in a criss-cross sequence to 27 N•m (20 lbf•ft).

Do not reinstall drive pulley at this time.

### Ignition Switch

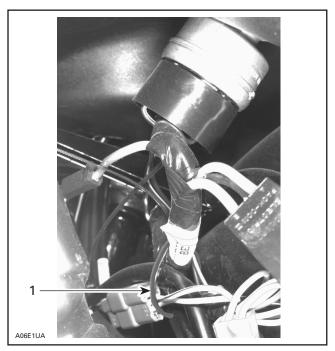
Cut locking tie and separate connector from ignition switch. Slide the shortest wire of fuse holder no. 27 inside connector boot. Connect the terminal in position **no. 7**.



- RED/GREEN wire to solenoid
- 2. RED wire with fuse to battery 3. BLACK 4. RED/BLUE

- 5. BLACK/YELLOW

Replug connector to switch and secure wires with locking ties.



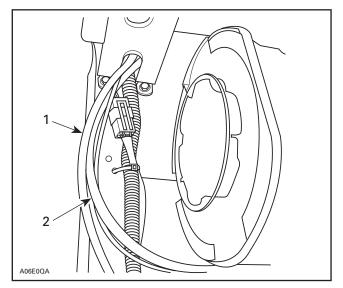
1. Locking tie

# Wire/Cable Connections and Routing

Ensure that 1 terminal of each battery cable no. 20 and no. 22 is bent to 90°. Bend as neces-

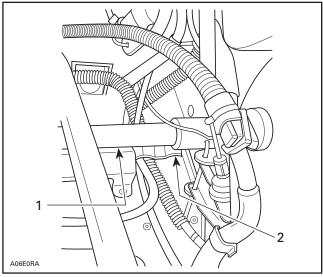
Starting from battery location, route battery cables toward starter location along vehicle harness. The bent terminals will be connected to the battery.

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1. RED cable to battery 2. BLACK cable to battery

NOTE: Route cables through free bracket underneath countershaft.

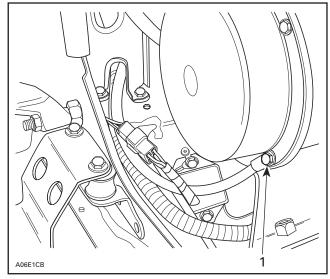


- Countershaft Bracket

Lower engine then secure using existing washers and bolts.

Install BLACK battery ground cable no. 20 with star washer no. 21 to the rewind starter. Secure with the existing rewind starter screw. Refer to the following illustration for proper cable positioning.

NOTE: Connect BLACK ground cable in the specified order. Position star washer first then BLACK ground cable and tighten with original screw.



TYPICAL

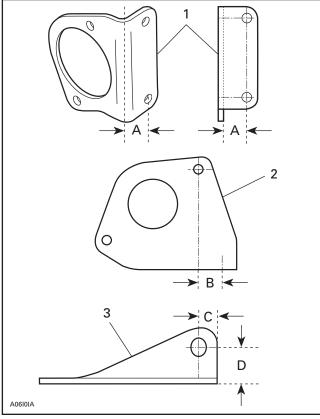
#### **Electric Starter**



Apply Loctite 271 (red) on all fastener threads of starter supports.

Install starter support PTO side no. 3 to engine using socket screws no. 4 and lock washers no. 5. Tighten firmly.

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- Starter support PTO side
- Starter support MAG side (front view)
- Starter support MAG side (side view)
- A. 23.6 mm (29/32 in)
- B. 16.7 mm (5/8 in)
- C. 10 mm (3/8 III) D. 19.6 mm (3/4 in)

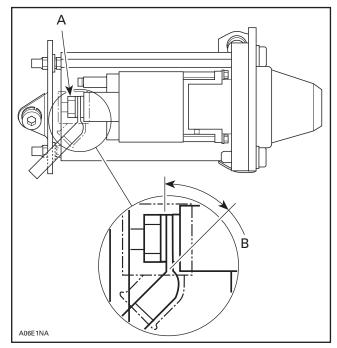
Install electric starter no. 8 on support, bottom bolts first and secure it using M8 x 25 socket screws no. 6 and lock washers M8 no. 7.

Install flat washers M6 no. 11 over nuts of starter through bolts.

Install starter support MAG side no. 9 to starter and secure with M5 nuts no. 10.

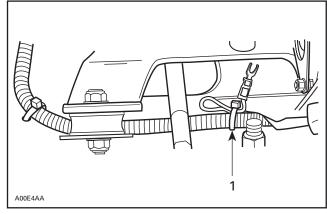
If necessary, install hardened washer(s) no. 15 to fill the gap between the support and the engine. Secure the support to engine with M8 x 20 screw no. 12, flat washer no. 14 and lock washer no. 13.

Slide protector no. 34 and protection cap no. 23 on the positive RED battery wire no. 22. Install RED wire, flat washer M8 no. 26, lock washer M8 no. 24 and nut M8 no. 25 to the starter, turn cable end as much as possible towards the engine. Tighten nut to 13 Nom (10 lbfoft). Bend cable end at 45° and cover the terminal with protector cap no. 23.



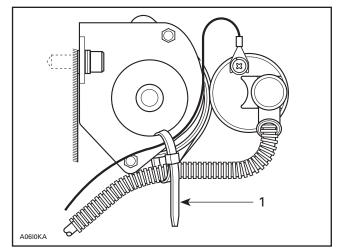
A. 13 N•m (10 lbf•ft) B. 45 °

Cut the locking tie as illustrated. Connect RED/GREEN wire to the small post on solenoid. Position terminal under lock washer.



1. Locking tie

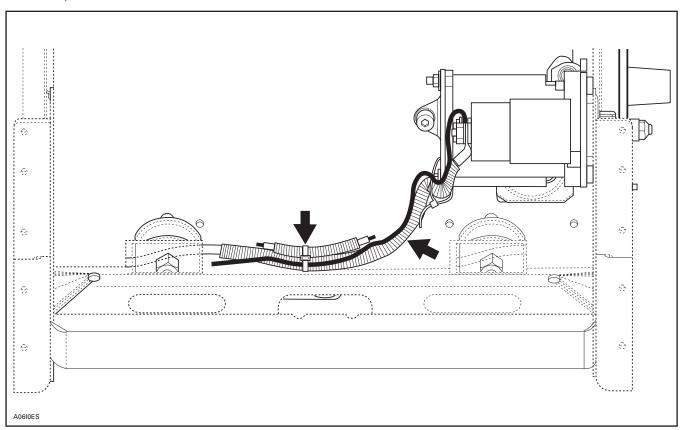
Using locking tie no. 28, tie down positive cable loosely to starter rear bracket as illustrated.



Pull out excess amount of cable from underneath engine.

Using long locking tie **no. 35** secure harnesses to torsion bar under central steering tie-rod as illustrated on the following illustration.

1. Tie loosely



TOP VIEW

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Secure all cables/wires with locking ties no. 28 supplied.



# **WARNING**

Ensure all terminals are properly crimped on wires/cables and that all connector housings are properly fastened. Keep wires away from any rotating, moving, heating, vibrating and sharp edge. Use proper fastening devices as required.

### Battery and Rack

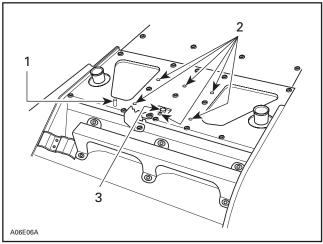


### CAUTION

Cover carburetor intakes with a clean rag during the following drilling operation.

Drill 6 holes in chassis with a 5.2 mm (13/64 in) drill bit as shown. Use existing holes in chassis as a template. Push down the plastic cap.

Secure battery rack with rivets no. 19.



- 1 Hollow rivet
- Drill 5.2 mm (13/64 in) holes
- 3. Push down plastic cap

Install battery no. 29 in rack. Connect vent tube to battery and other end to hollow rivet of chassis. Cut vent tube to proper length as necessary. Ensure that the tube used is not kinked or bent.



### **WARNING**

Vent tube must be free and open. A kinked or bent tube will restrict battery ventilation and allow gas accumulation that could cause an explosion.

Connect RED positive battery cable and RED wire with fuse (from ignition switch) to battery then connect BLACK ground cable. Secure cables on top of the battery posts.

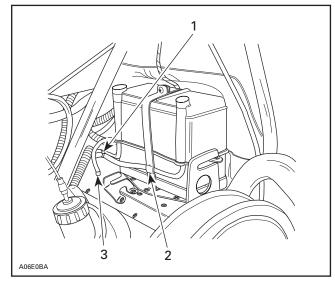


### WARNING

Always connect the battery cables exactly in the specified order. Connect RED positive cable first, then BLACK negative ground cable.

Install battery cover no. 30 and secure with strips, no. 32 and no. 31 and M5 x 20 screw no. 33. Position RED cable and RED wire in indentation on strip.

Fasten battery cables using a locking tie **no. 28** as shown.



- Locking tie on battery cables here
- RED cable secured by St.
  Vent tube on hollow rivet RED cable secured by strip

# Finalizing Assembly

Refer to the Ski-Doo Shop Manual for proper reinstallation procedure.

Reinstall drive pulley.

Check pulley alignment.



#### **WARNING**

Drive pulley alignment must always be checked whenever pulleys have been removed, replaced or disassembled.

415 0543 00 PAGE 7 OF 8 Reinstall remaining removed parts.

**NOTE:** Apply Dow Corning sealer no. 736 RTV on exhaust manifold ball joint.

Test electrical starting and ignition cut-out systems as per normal starting procedure for electric starter models.

#### Decal

Clean decal region with soapy water or isopropyl alcohol using a soft clean cloth and dry thoroughly.



# **CAUTION**

Do not apply isopropyl alcohol on decal.

Remove backing from decal.

Apply decal **no. 36** beside heating grip decal on the left side of hood.

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# 861 5031 00

1.	515 1639 00	Regulator/Rectifier	Régulateur/redresseur
2.	732 6000 02	Self-Tapping Screw M6 x 16 (2)	Vis autotaraudeuse M6 x 16 (2)
3.	512 0521 00	Starter Support PTO	Support de démarreur côté PDM
4.	222 9820 65	Socket Screw M8 x 20 (2)	Vis à tête creuse M8 x 20 (2)
5.	420 9457 52	Lock Washer M8 (2)	Rondelle-frein M8 (2)
6.	222 9825 65	Socket Screw M8 x 25 (2)	Vis à tête creuse M8 x 25 (2)
7.	224 7811 40	Lock Washer M8 (2)	Rondelle-frein M8 (2)
8.	410 2124 00	Starter	Démarreur
9.	512 0520 00	Starter Support MAG	Support de démarreur côté MAG
10.	228 7510 45	Elastic Flanged Nut M5 (2)	Écrou à épaulement élastique M5 (2)
11.	391 3017 00	Washer 7/32 (2)	Rondelle 7/32 (2)
12.	222 9820 65	Socket Screw M8 x 20	Vis à tête creuse M8 x 20
13.	420 9457 52	Lock Washer M8	Rondelle-frein M8
14.	224 0811 71	Washer M8	Rondelle M8
15.	503 0079 00	Hardened Washer (2)	Rondelle trempée (2)
16.	415 0431 00	Ring Gear	Couronne de lancement
17.	732 6012 46	Self-Tapping Screw M8 x 16 (6)	Vis autotaraudeuse M8 x 16 (6)
18.	517 2862 00	Battery Seat	Base de batterie
19.	390 4022 00	Rivet (6)	Rivet (6)
20.	515 1575 00	Black Negative Ground Cable	Câble de masse négatif (NOIR)
21.	394 0019 00	Star Washer 1/4	Rondelle-étoile 1/4
22.	515 1613 00	Red Positive Battery Cable	Câble positif de la batterie (ROUGE)
23.	570 1510 00	Protector Cap	Capuchon de protection
24.	420 9457 52	Lock Washer M8	Rondelle-frein M8
25.	228 0810 45	Nut M8	Écrou M8
26.	224 0811 71	Washer M8	Rondelle M8
27.	515 1573 00	Fuse Holder	Porte-fusible
28.	414 1152 00	Locking Tie (8)	Attache (8)
29.	410 3011 00	Battery	Batterie
30.	570 0220 00	Battery Cover	Couvercle de batterie
31.	517 2860 00	Welded Steel Strip	Bande d'acier soudée
32.	517 2861 00	Steel Strip	Bande d'acier
33.	222 0520 65	Machine Screw M5 x 20	Vis à métaux M5 x 20
34.	414 6273 00	Protector	Gaine de protection
35.	748 0010 01	Locking tie	Attache
36.	418 0013 00	Decal	Autocollant