

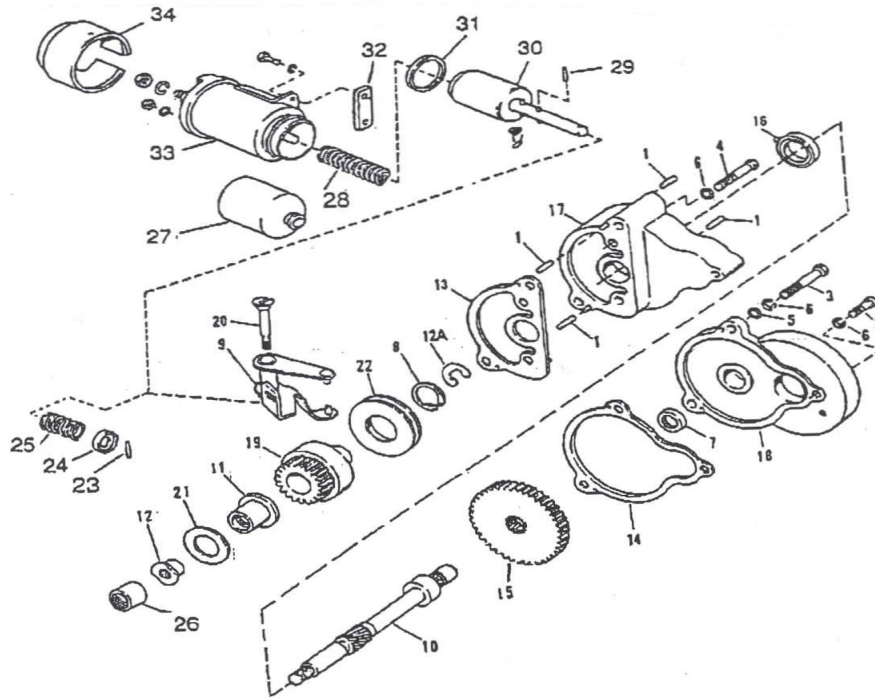
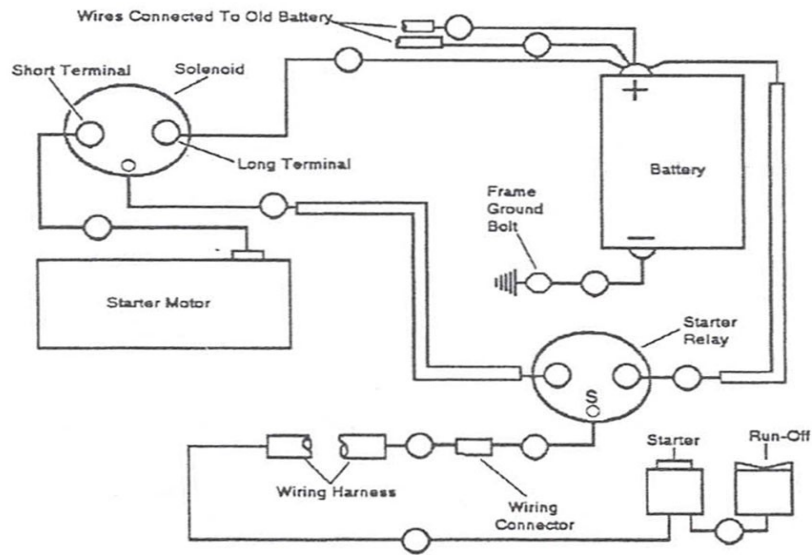
**V-Twin Mfg.**  
**Electric Start Conversion Kit**  
**Fits 1980-1984 FXB; 1982-1984 FLH**  
**HYTACHI TYPE**  
**VT No. 32-0004 & 32-0008**

**This is a custom application and rider safety depends on proper installation. This product should only be installed by a knowledgeable and trained motorcycle technician. V-Twin Mfg. accepts no responsibility for improper installation.**

For 1980-84. FX 4-speed models. Kit Includes Hitachi type starter. battery box. solenoid and related hardware, relay and wiring and complete instructions. Can be used on 1982-84 FLH models as a starter update. Replaces OEM 33217-73, Your existing clutch drum should have a starter ring gear attached. VT No. 18-1135 or purchase complete drum with ring gear attached VT No. 18-1134. Order battery, side cover, top-strap separately.

**Instructions:**

1. Remove the seat Disconnect the battery wires from the battery. Remove the ground wire first and discard, Remove the battery strap cover and battery from the motorcycle and discard.
2. Remove the present battery carrier and battery carrier lower bracket. Remove rubber mount from batter carrier bracket and discard battery carrier and bracket. Retain rubber mount.
3. Remove Starter cover plate, gasket and screws and discard.
4. Assemble starter mounting stud to primary chain case, by assembling two nuts tightened together on line thread end of stud to allow installation with socket. After installation of studs, remove nuts.
5. Insert starter shaft gear into starter shaft housing.
6. Assemble oil deflector plate on starter mounting studs with O-ring flange toward left side of motorcycle.
7. Assemble starter to Studs using lock washers and nuts. A slight amount of grease on the nuts will retain them in a socket to assist installation. Remove primary chain case cover, place pan under primary chain case to receive oil.
8. Remove starter solenoid hole cover and gasket and discard.
9. Remove oil tank mounting nuts and rubber mounts from frame brackets. Push tank to right side of motorcycle to gain access to shifter lever pivot bolt. Remover shifter lever pivot bolt from primary chain case.
10. Facing engine left side, position starter gear shifter lever behind starter ring gear and insert starter shaft through oil deflector into starter shaft housing, making sure that during insertion, gear shifter lever is engaged on starter shaft collar. Also make sure that the shaft fully seats into starter gear splines.
11. Assemble shifter lever pivot bolt through chain case hole into shifter lever.
12. Assemble black rubber boot to solenoid plunger. Drive 3/4" roll pin into plunger shaft center hole. Insert long spring and plunger into solenoid. With spacer between solenoid and chain case assemble solenoid gasket to primary chain case using lock washers and bolts, making sure that solenoid plunger is inserted through shifter lever hole.
13. Assemble short spring on solenoid plunger securing with retaining cup and pin, making sure that retaining cup open side is away from spring to prevent from falling out.
14. Assemble needle bearing into chain case cover, using suitable tool. Position thrust washer on end of starter shaft.
15. Assemble oil tank rubber mounts to frame brackets and secure oil tank to rubber mount using lock washers and nuts.
16. Assemble new battery carrier support bracket to transmission cover studs and starter motor stud using washers and nuts.
17. Assemble rubber mounts to frame down tube hole and battery carrier front side.
18. Position starter relay on battery carrier in rearward position to keep terminals from contacting starter motor and tighten.
19. Assemble battery carrier to oil tank using original bolts. Assemble nuts to rubber mounts.
20. Route wire between starter relay mounting and Starter stud. Secure with nuts.
21. Assemble feed wire from starter button to small terminal on starter relay.
22. Position solenoid boot over ends of heavy black wires. Assemble both heavy black wires to starter solenoid terminals. Route wire from short solenoid terminal to starter terminal. Route wire from long solenoid terminal to battery positive terminal. Do not connect.
23. Route wire between starter relay and battery positive terminal location. Route wire between starter relay and starter solenoid small terminal. Solder the jumper wire to the terminal on the "Run-off" switch. With the wire attached, solder the other end of the jumper wire to starter switch. Remove the tape from the loose wire in handlebar housing and solder it to the other terminal on the start switch. If there is no wire see service manual.
24. Install battery in carrier with positive terminal toward front of motorcycle. Remove screw from battery positive terminal and discard. Use longer screw included in kit to connect 4 wires to batter negative terminal and motorcycle ground bracket welded to the frame using bolt and lock washer.
25. Assemble battery cover to battery using strap. Reassemble seal to motorcycle. For further information refer to the service manual.



**Parts List:**

#	Item	#	Item	#	Item	#	Item	#	Item
1	Roll Pins	8	Shaft collar Retaining ring	15	Gear starter shaft	22	Shifter collar	30	Solenoid Plunger
2	1/4"-20x1 Socket head screw	9	Shifter lever	16	Oil seal start shaft housing	23	Pin #12-1176	31	Solenoid Gasket
3	1/4-20x2.5" Hex bolt	10	Starer shaft	17	Starter shaft housing	24	Retaining cup	32	Spacer
4	1/4-20x1.25" Hex bolt	11	Spacer starter shaft	18	Starter cover	25	Short Spring	33	Solenoid
5	1/4" Flat washer	12	Nut Starter shaft	19	Starter driver gear	26	Needle Bearing	34	Solenoid boot
6	1/4" lock washer	13	Gasket Starter motor	20	Pivot bolt	27	Long spring	35	1/2" roll pin
7	Needle bearing	14	Gasket Starter Generator cover	21	Thrust washer	29	Roll pin #12-1180		