

4-SPEED HANDSTARTER - SINGLE RELAY - connecting instructions

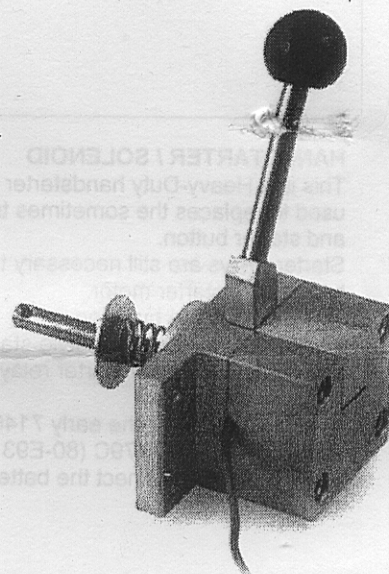
HANDSTARTER / SOLENOID

This is a Heavy-Duty handstarter for 65-86 4-speed Big Twin models. It is used to replace the sometimes troublesome stock style starter solenoid and starter button.

Starter relays are still necessary to make the connection between the battery and starter motor.

This can be done by using:

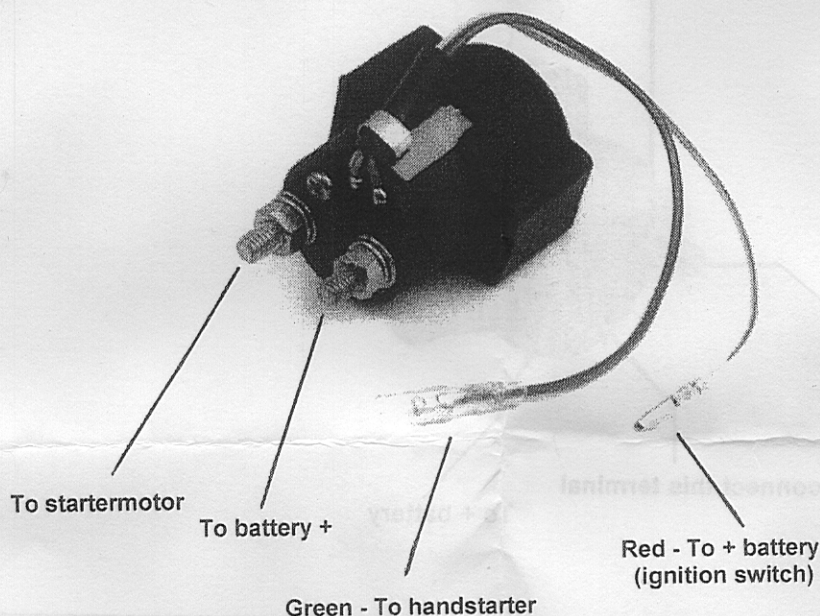
- A) The dual set-up stock style starter relays
- B) The single special starter relay (this connection instruction)



INSTALLATION INSTRUCTIONS

- 1) Disconnect battery cables before working on the bike
- 2) Remove primary cover
- 3) Remove solenoid from inner primary and the solenoid wiring
- 4) Disassemble solenoid and remove the small overrun spring, retainer and the pin. These will be reused.
- 5) Install handstarter on inner primary. Use a new foam gasket or O-ring. Use 1/4" UNC x 1" long bolt, or a solenoid mount kit to mount the handstarter.
- 6) Install overrun spring with retainer & spring.
- 7) Now pull starter handle. Make sure the starter gear moves into the starter ring gear (on the clutch basket) for at least 3/4 of the starter ring gear's width before the starter handle makes the electrical contact. Use an Ohm meter to check the starter handle contact. If contact is made too soon adjust the copper plate with both screws.
- 8) Find a good place to mount the relays.
- 9) Connect wiring for handstarter. Do not connect battery yet.
- 10) Install primary cover with a new gasket. Refill primary case with primary oil (only if you run a 'wet' primary)
- 11) Make sure you have not forgotten anything, then connect battery and start engine.

Single starter relay



Safety note: Starter motors are powerful and potentially harmful & destructive. Make sure hair, fingers, clothing etc. can never get caught by the starter or any other engine, primary or transmission component while working on your bike. Disconnect battery cables.

4-SPEED HANDSTARTER - DUAL RELAY - connecting instructions

HANDSTARTER / SOLENOID

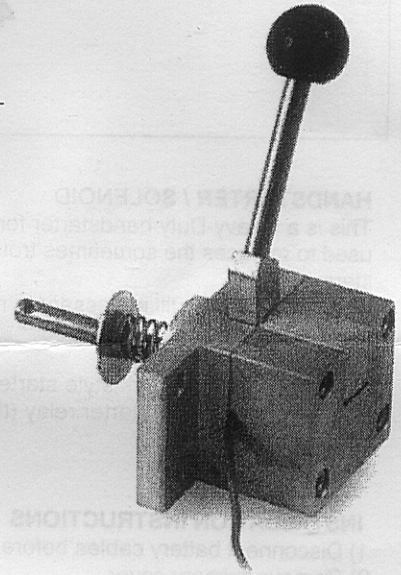
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Starter relays are still necessary to make the connection between the battery and starter motor.

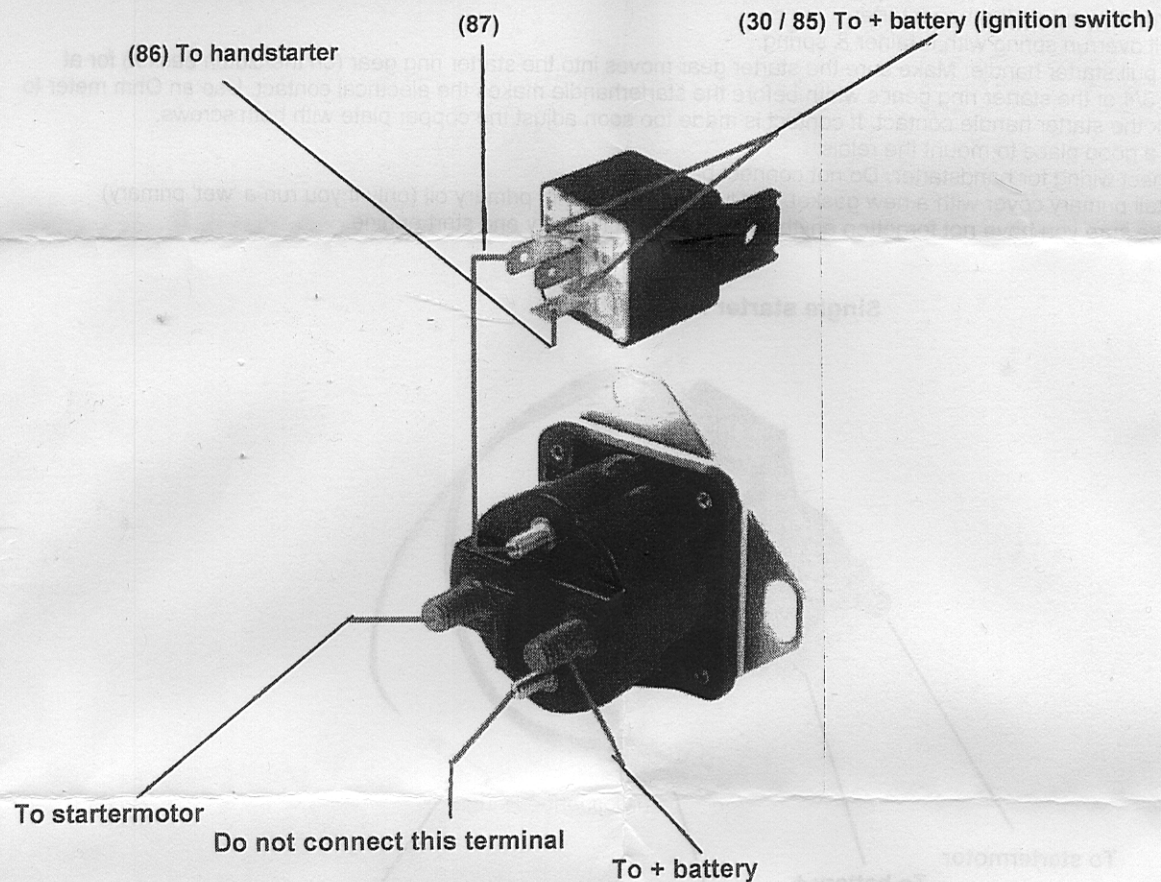
This can be done by using:

- A) The dual set-up stock style starter relays (this connection instruction)
- B) The single special starter relay

The combination of the early 71463-73A (73-79 FX; 74-79 FL; 75-79 XL) and the later 31506-79C (80-E93 B.T., XL) has proven to be a simple and effective way to connect the battery power to the starter motor.



LATE STYLE STARTER RELAY + EARLY STYLE STARTER RELAY



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