

SERVICE BULLETIN



M-1067

June 13, 1997

ELECTRONIC CONTROL MODULE (ECM) RECALIBRATION (PRODUCT PROGRAM NO. 5)

General

Harley-Davidson has learned that the batteries of 1997 fuel injected vehicles may discharge with the Ignition/Light Key Switch in the OFF (FLHTC/U-I) or LOCK (FLHR-I) position. This condition only occurs when the ECM receives a very brief pulse of battery voltage as a result of the switch being in the IGNITION position momentarily. Such pulses can be received by the ECM as follows:

FLHTC/U-I Models:

- The Ignition/Light Key Switch is turned to the ACCESS(ORY) position and then returned to OFF momentarily stopping in the IGNITION position. See upper frame of Figure 1.

FLHR-I:

- The Ignition/Light Key Switch is turned to the IGNITION position and then rapidly returned to LOCK. This may occur if the operator momentarily overshoots the LOCK position while turning the knob from ACCESS(ORY). See lower frame of Figure 1.

In addition to the above, it has been found that a potential for misfire exists at certain RPM and load conditions.

Since both of these problems are the result of software errors in the Electronic Control Module (ECM), Harley-Davidson has elected to have the ECM's of all affected vehicles recalibrated. This program applies to all 1997 fuel injected models assembled and shipped from the York, Pennsylvania assembly plant prior to May 5, 1997, vehicles in which the last six digits of the VIN fall within the following range.

600001 - 621927

Shipment of the Product Program 5 Recalibration Cartridge (Part Number HD-42915) will begin on or around June 22, 1997. All cartridges will be shipped no charge, transportation paid.

Required Dealer Action

1. Check VIN

When a fuel injected vehicle is brought to your dealership, check the VIN to see if the vehicle is involved. Perform the required service on any vehicle

within the VIN range that has not been serviced (as indicated by the absence of the orange colored adhesive dot next to the ECM label).

NOTE

Only owners registered prior to May 30, 1997 will receive notification from us. In the event that the SWR was not received or processed, please contact the owners of all affected fuel injected vehicles sold by your dealership in the month of May.

NOTE

Until the problem is rectified through the appropriate dealer contact, owners also should be advised that the problem can be avoided by leaving the Ignition/Light Key Switch in the IGNITION position at least until the Check Engine Lamp becomes extinguished.

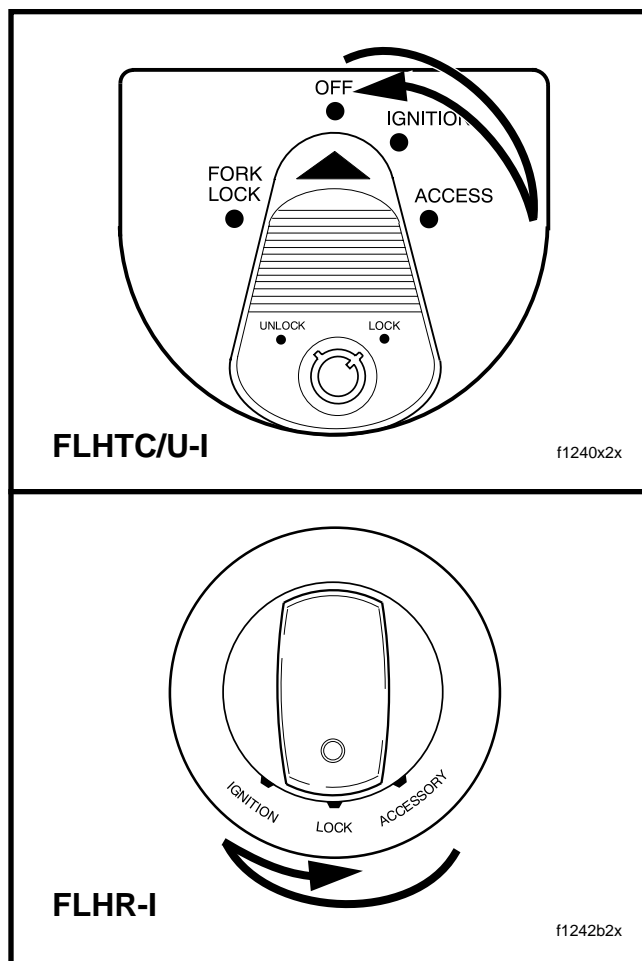


Figure 1. Ignition/Light Key Switch

2. Undelivered Motorcycles

Recalibrate the ECM's on all affected vehicles in your dealership inventory prior to selling or leasing those vehicles.

3. Servicing

Follow the procedure outlined under ECM RE-CALIBRATION below.

ECM Recalibration

1. Raise lid of right side saddlebag. Grasp bail wire inside saddlebag and rotate each stud 1/4 turn in a counter-clockwise direction. Remove bail head studs with flat washers. Remove saddlebag.
2. Gently pull side cover from frame downtubes (no tools required).
3. Locate Data Link connector (pin side of 4-place Deutsch) on the electrical bracket. See Figure 2. Push connector up to disengage small end of slot on attachment clip from T-stud.
4. Remove rubber protective plug from open end of Data Link connector.
5. Plug the Scanalyzer (HD-41325) into the Data Link Connector.
6. Turn the Ignition/Light Key Switch to IGNITION. Turn the handlebar mounted Engine Stop Switch to the RUN position (but do not start the engine).
7. Insert the Product Program 5 Recalibration Cartridge into the Scanalyzer. During the next few seconds, the Scanalyzer sequences through a series of screens that reflect a power-on self test, the system copyright, and then an attempt at communications with the ECM. Once communications is established, the Main Menu appears on the Scanalyzer data display.
8. From the Main Menu, press the number "1" key to view the software version code listed under System ID.
 - If the Scanalyzer data display reads "CAL. 242AG338" then the ECM has already been recalibrated. Press the Mode key to return to the Main Menu, disconnect the Scanalyzer, turn the Ignition/Light Key Switch to OFF or LOCK and move to step 10.
 - If the Scanalyzer data display reads "CAL. 220AG338" then the recalibration still needs to be performed. Press the Mode key to return to the Main Menu and then follow the flow chart in Figure 3 to recalibrate the ECM.
9. Upon completion of the recalibration routine, the Scanalyzer returns to the Main Menu. Disconnect the Scanalyzer and turn the Ignition/Light Key Switch to OFF or LOCK. Turn the handlebar mounted Engine Stop Switch to the OFF position.
10. Locate the sheets of orange colored adhesive dots packaged with this service bulletin. To signify that the corrected software has been downloaded to the ECM, place an adhesive dot next to the ECM label. Proper placement (bottom rear corner) will allow the dot to be easily seen upon side cover removal.

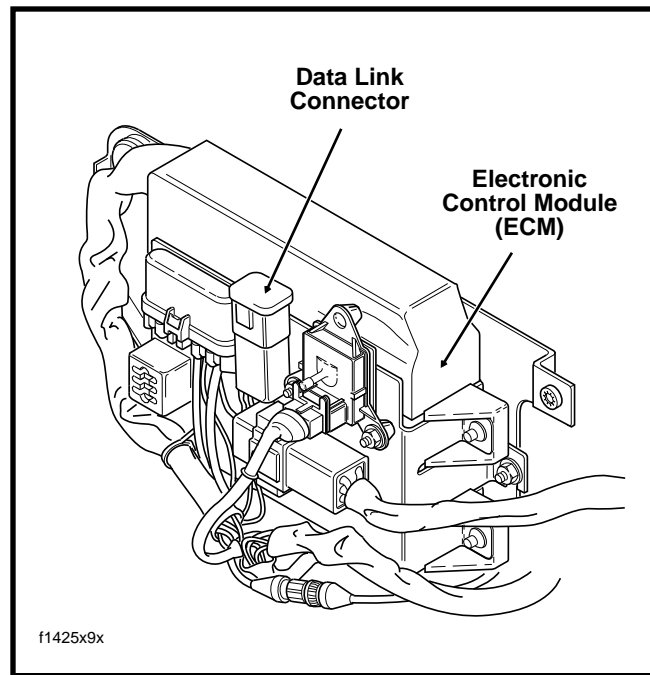


Figure 2. Electrical Bracket Assembly

11. Install the protective plug into pin side of Data Link Connector. Place large end of slot on attachment clip over T-stud on electrical bracket. Push connector toward wire end to engage small end of slot.
12. Align barbed studs in side cover with grommets in frame downtubes and push firmly into place (no tools required).
13. Position right side saddlebag on vehicle. Verify that molded rubber insert at bottom of saddlebag fits snugly on lower saddlebag support rail.
14. Place flat washers on bail head studs. With groove at end of stud held in a horizontal position, insert stud through holes in saddlebag and front mounting bracket. When groove engages wire form of spring plate on inboard side of bracket, turn stud clockwise 1/4 turn until it snaps in place. Install rear bail head stud in the same manner.
15. See CREDIT PROCEDURE on page 4.

NOTE

As part of the software upgrade, the Check Engine Lamp may now be used to transmit current trouble codes, thereby eliminating the need for the Diagnostic Test Lamp (HD-41197).

To activate this feature, proceed as follows:

- a. Turn the Ignition/Light Key Switch to IGNITION for three seconds (one second pause after the fuel pump stops running) and then turn switch back to the OFF (FLHTC/U-I) or LOCK (FLHR-I) position for one second.
- b. Repeat the instructions under step a. above.

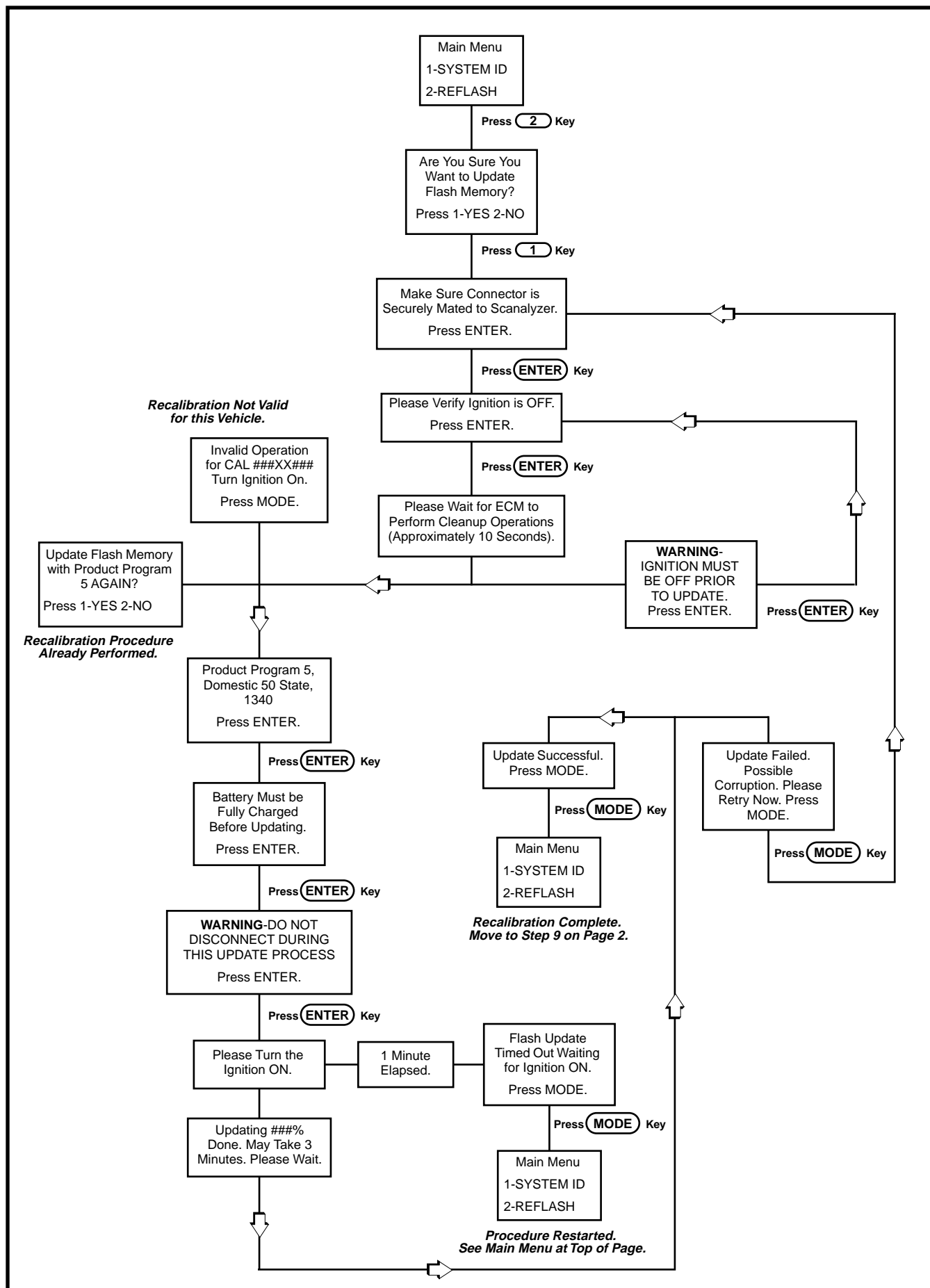


Figure 3. ECM Recalibration Routine

- c. Turn the Ignition/Light Key Switch to IGNITION and wait approximately 8 seconds for the Check Engine Lamp to start flashing. If the lamp flashes at a faster rate than the "one-second-ON, one-second-OFF" sequence typically seen with the Diagnostic Test Lamp, then you are seeing the "Intermission" only, which means no trouble codes are present.
- d. To exit the diagnostic mode, turn the Ignition/Light Key Switch to the OFF (FLHTC/U-I) or LOCK (FLHR-I) position and wait 10 seconds for the ECM relay to click. Vehicle can then be started normally.

Credit Procedure

After servicing each vehicle, complete a regular Warranty Claim Form referencing Service Bulletin M-1067 in the "DESCRIPTION OF REPAIR" section. Fill in the rest of the claim form as follows:

CLAIM TYPE	PP5
QTY.	0
EVENT 1, PROBLEM PART NO.	32423-95A
PART DESCRIPTION	ECM
PRIMARY LABOR CODE	7267
TIME	0.2 hr. * (for All Models)
CUSTOMER CONCERN	9203
CONDITION CODE	9103

* Includes Administrative Time

Send a properly completed claim form to Harley-Davidson for each vehicle serviced. After processing of the claim form, you will be credited for the labor.

ROUTING	SERVICE MANAGER	SALES MANAGER	PARTS MANAGER	LEAD TECHNICIAN	TECHNICIAN NO. 1	TECHNICIAN NO. 2	TECHNICIAN NO. 3	TECHNICIAN NO. 4	RETURN THIS TO:
INITIAL HERE									

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