

SERVICE BULLETIN



M-1093

Safety Recall Code 0101

November 19, 1999

VAPOR VALVE/BANK ANGLE SWITCH MOUNTING

General

As recently advised in ML-370, Harley-Davidson has learned that certain 1999 and 2000 model year FLT family motorcycles were built with a fuel tank vent system and a bank angle switch that could malfunction. Either of these conditions could cause the engine to stall/quit when riding.

In the interest of motor vehicle safety and customer satisfaction, Harley-Davidson has elected to initiate a voluntary recall campaign (Campaign 0101). This recall applies to all 1999 and 2000 model year FLT family motorcycles manufactured prior to October 14, 1999, with the letters "D" or "F" in the fifth position of the VIN.

Re-mount the vapor valve and bank angle switch following the instructions in this bulletin. On California models, this also entails rerouting of the vent tube from the vapor valve to the charcoal canister. To perform the recall service, start at PRELIMINARY INSTRUCTIONS in the next column.

Dealer Action, Affected Vehicles

Attached please find a complete list of all vehicles shipped to your dealership that are involved in this recall campaign. To ensure the safety of our riders, it is your responsibility to perform the required service on all affected vehicles, even if the motorcycle was not purchased from your dealership. You also are required to perform the recall service on all affected vehicles in your dealership inventory, prior to selling or leasing those vehicles.

If you are not sure that the safety recall service has been completed on a particular motorcycle, contact the Harley-Davidson Recall Information Line at 1-800-448-1708 for a computer check of our recall records. Recall information is also available on TALON and h-dnet.com.

IMPORTANT NOTE

Because only registered owners as shown on the attached list will receive notification from us, we request that you contact any owners of vehicles still listed as unregistered. Advise them of the safety recall and make arrangements for them to come in for recall service. We also require that you provide us with their names, addresses and VIN's as soon as possible to enable us to mail them an owner's letter, as required by the National Traffic and Motor Vehicle Safety Act (as amended).

Harley-Davidson will conduct wave shipments of Safety Recall Code 0101 Kits (P/N 93956) until further notice. Your initial shipment of kits will begin the week of November 22, 1999. All kits will be shipped no charge, transportation paid.

Once notified by Harley-Davidson that wave shipments have been completed, you may order the remaining kits needed. Fill out the attached order form and FAX it to your SPOC team. Harley-Davidson will maintain all orders in a future order status until parts are available for order fulfillment.

NOTE

All orders received prior to the date you are notified wave shipments are complete will be discarded.

PRELIMINARY INSTRUCTIONS

1. Turn on the radio, if equipped, and write down station presets.

Description	Part Number	Qty.
Vapor Valve Bracket	48475-00	1
135° Elbow	48469-00	1
Large Cable Strap	10006	4
Small Cable Strap	10065	1
Bank Angle Switch Bracket	77079-00	1
T40 TORX Screw	3676	1
Hex Head Screw	2366	1

Figure 1. Safety Recall Code 0101 Kit (P/N 93956)

2. Remove Phillips screw to detach seat mounting bracket from top of rear fender. Push seat rearward to free tongue at front of seat from slot in frame backbone. Remove seat from frame.

NOTE

On Police model motorcycles, press down on rear of seat and pull retaining pin from hole in support post. Raise seat toward fuel tank console. Remove two nuts to free back of shroud from rear fender studs. Raise and remove shroud.

CAUTION

To protect against shock and accidental start-up of vehicle, disconnect the negative battery cable before proceeding (leaving the positive battery cable connected). Failure to do so may result in minor or moderate injury.

3. Unthread bolt and remove battery negative cable (black) from battery negative (-) terminal.
4. Raise lid of left side saddle bag. Grasp bail wire inside saddlebag and rotate each stud a full 1/4 turn in a counter-clockwise direction. Remove bail head studs with flat washers. Remove saddlebag.
5. Gently pull side cover from frame downtubes (no tools required).
6. If the vehicle is configured for 49 state operation, see RE-MOUNTING VAPOR VALVE (49 STATE) below. If a California model, see RE-MOUNTING VAPOR VALVE (CALIFORNIA) on page 4.

RE-MOUNTING VAPOR VALVE (49 STATE)

1. Obtain small bracket (P/N 48475-00), 135° elbow (P/N 48469-00), and four cable straps, three large (P/N 10006) and one small (P/N 10065), from kit. See Figure 1.

2. Remove 90° elbow from neck at top of vapor valve and then from end of vent tube. Discard elbow. Push 135° elbow onto end of vent tube until contact is made with shoulder on tube.
3. Using a screwdriver, pry on vapor valve to release anchor on clip from hole in frame crossmember. Remove clip from body of vapor valve. Discard clip.
4. Carefully pull vapor valve and bottom vent tube from vehicle.
5. Curl end of large cable strap. Align holes in bracket with holes in frame crossmember. Properly positioned, slotted arm on bracket is on the right side pointing towards the rear of the vehicle.
6. Insert curled end of cable strap through upper hole in bracket and then through upper hole in frame crossmember. Threading the cable strap through the top hole first orients the lock at the bottom.

NOTE

Threading the cable strap through the bottom hole first orients the lock at the top, which could interfere with the vertical orientation of the vapor valve after installation.

7. Feed end of cable strap through lower hole in frame crossmember and then through lower hole in bracket. Mate ends of cable strap, and using a needle nose pliers, pull strap tight. Cut any excess cable strap material. See left frame of Figure 2.

NOTE

Curling the end of the cable strap before insertion yields the best results. If necessary, guide the end of the cable strap through the lower hole by reaching into the hole in the frame crossmember (reserved for routing of the cruise cable), or down through the opening cut into the frame backbone (used for mounting of the turn signal module on 2000 models).

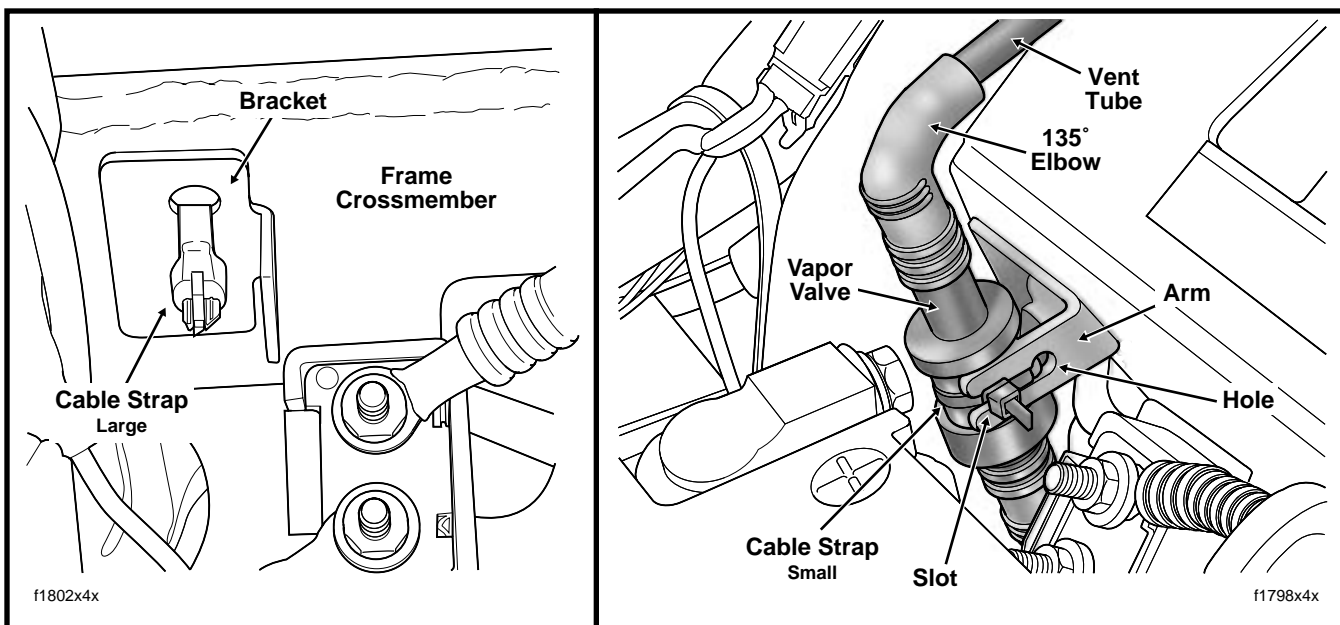


Figure 2. Re-Mount Vapor Valve

8. Place vapor valve on vehicle near its original position (with long necked end at the top). Route vent tube at bottom of vapor valve through opening above fuse block bracket (weldment between downtubes) to outboard side. Orient vent tube so that it runs downward along the back of the forward frame downtube. Loosely install large cable strap to secure vent tube to downtube.

NOTE

Leaving vent tube inboard of frame weldment allows it to come into contact with other parts of the vehicle. Any contact can influence position of vapor valve and prevent it from assuming a completely vertical orientation.

9. From right side of bracket, insert end of **small** cable strap through hole in arm and then around body of vapor valve. Mate ends of cable strap and pull tight engaging strap in slot of arm. Cut any excess cable strap material. See right frame of Figure 2.
10. Install free end of 135° elbow onto neck at top of vapor valve.
11. Tighten cable strap to secure vent tube at bottom of vapor valve to back of forward frame downtube. Cut any excess cable strap material.
12. Install **new** cable strap to secure vent tube at top of vapor valve to main harness (largest conduit bundle on left side of frame backbone). Position cable strap approximately 4 inches forward of 135° elbow. Cut any excess cable strap material.
13. Verify that vapor valve is completely vertical. Momentarily push on top of vapor valve to verify that it returns to the completely vertical position.
14. See RE-MOUNTING BANK ANGLE SWITCH below.

RE-MOUNTING BANK ANGLE SWITCH

NOTE

Before proceeding, look at the inside left wall of the battery box to see if a reinforcement plate has been installed in production. See Figure 3. All 2000 model vehicles built after October 14, 1999, have the plate to help eliminate the flexing/vibrating potential. Skip this procedure if the plate is present. If the plate is absent, then reinforce the existing mount using the items in the recall kit.

1. Obtain large bracket (P/N 77079-00), cable strap (P/N 10006), T40 TORX screw (P/N 3676), and hex head screw (P/N 2366) from kit. See Figure 1.
2. Remove hex head screw to release bank angle switch from bracket at left side of battery box. Discard screw.
3. Cut cable strap at hole in frame weldment to release wire harness conduit. Pull cable strap from hole.
4. Position bracket so that weldnut is aligned with hole from which cable strap was removed. Properly positioned, bracket must be inboard of weldment with weldnut facing fender. Start T40 TORX screw through hole in frame weldment and into weldnut on bracket. See Figure 4.

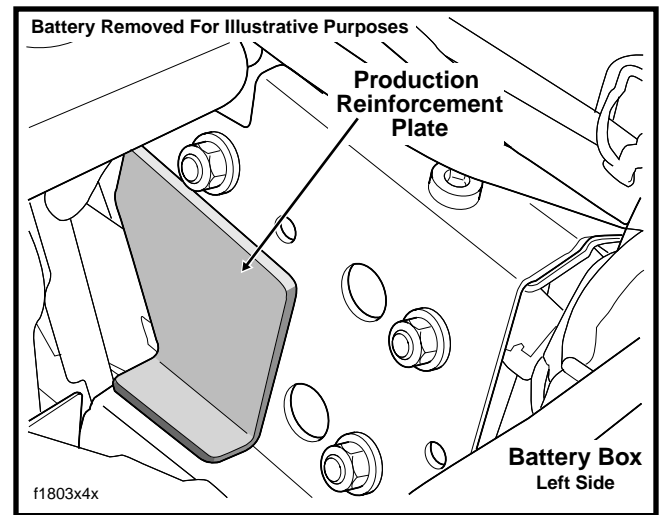


Figure 3. Current Production Reinforcement Plate (Ultra Model Shown)

5. With connector side down, fit locating nub on bank angle switch into inboard hole on opposite side of bracket. Holding switch in position, rotate bracket so that outboard hole is aligned with hole in old bracket at side of battery box.
6. With hole in switch aligned with holes in **both** brackets, install longer hex head screw from kit. Tighten screw to 15-20 **in-lbs** (1.7-2.3 Nm).
7. Tighten T40 TORX screw to 15-20 ft-lbs (20-27 Nm).

CAUTION

If the wire harness is in contact with the sharp edges of the switch, the conduit and eventually the wires will be chafed or cut. To avoid electrical problems, cable strap the harness to the upper frame tube making sure there is enough clearance between harness and switch.

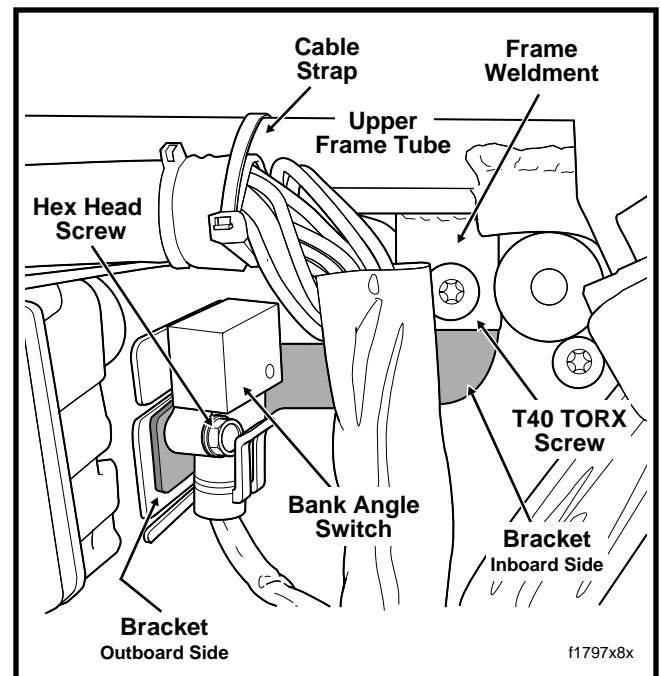


Figure 4. Re-Mount Bank Angle Switch

8. Pulling harness up and away from sharp corners on switch, install cable strap to secure harness to upper frame tube. Cut any excess cable strap material.
9. See FINAL INSTRUCTIONS below.

FINAL INSTRUCTIONS

1. Insert bolt through battery negative cable (black) into threaded hole of battery negative (-) terminal. Tighten bolt to 60-96 **in-lbs** (6.8-10.9 Nm).
2. Place seat on frame backbone. Firmly push front of seat downward and rearward until tongue engages slot in frame backbone. Push seat forward until rear fender seat retention nut is centered in hole of mounting bracket. Install Phillips screw.

WARNING

Pull up on seat to verify that it is properly secured, front and rear. A loose seat may shift during vehicle operation and startle the rider, possibly causing loss of vehicle control that could result in death or serious injury.

NOTE

On Police model motorcycles, slide front ends of shroud beneath extension at rear of fuel tank console. Align holes at rear of shroud with studs in rear fender. Install two nuts to secure shroud to rear fender. Verify that air lines and cable conduit are not pinched by shroud as nuts are tightened. Move seat down until support post engages hole in rear seat bracket. While pressing down on rear of seat, insert retaining pin in hole of support post.

3. Align barbed studs in side cover with grommets in frame downtubes and push firmly into place (no tools required).
4. Position left side saddlebag on vehicle. 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 a full 1/4 turn. Install rear bail head stud in the same manner.
5. As a customer courtesy, turn on the radio, if equipped, and set station presets.
6. See CREDIT PROCEDURE on page 6.

RE-MOUNTING VAPOR VALVE (CALIFORNIA)

NOTE

*If the vehicle is an Ultra, start at step 1 below. If the vehicle is **not** an Ultra model, proceed directly to step 7.*

1. Unthread bolt and remove battery positive cable (red) from battery positive (+) terminal.

2. Squeeze wings on clamp with pliers and pull vent tube, if present, from nipple on positive terminal side of the battery. Tuck end of vent tube under wire harness conduit to keep from falling into battery box.
3. Using a T-40 TORX drive head, loosen bolt to move lip of hold-down clamp off edge of battery. Remove battery from battery box.
4. Standing on left side of vehicle, lift the locking latch and remove the cruise module connector [17] at side of cruise module.
5. From inside battery box, remove the two front and one rear locknut from cruise module mounting studs. Carefully pull cruise module from battery box. Exercise caution to avoid losing grommets on studs.
6. To prevent damage to chrome on heat shield, wrap cruise module in clean shop rag and set on top of exhaust piping.
7. Pull fuse blocks from tabs on mounting panel. Tabs on panel fit into slots on each side of fuse block cover.
8. Obtain small bracket (P/N 48475-00), 135° elbow (P/N 48469-00), and three cable straps, two large (P/N 10006) and one small (P/N 10065), from kit. Discard the single large cable strap remaining. See Figure 1.
9. Remove 90° elbow from neck at top of vapor valve and then from end of vent tube. Discard elbow. Push 135° elbow onto end of vent tube until contact is made with shoulder on tube.
10. Using a screwdriver, pry on vapor valve to release anchor on clip from hole in frame crossmember. Remove clip from body of vapor valve. Discard clip.
11. Reaching in through opening above fuse block bracket (weldment between downtubes), pull hose fitting on vent tube from bottom fitting on charcoal canister.
12. Remove vapor valve and bottom vent tube from vehicle.
13. Pull hose fitting on vent tube from fitting on vapor valve. Set vapor valve aside.
14. Pull hose fitting from vapor valve end of vent tube. Cut 2-1/4 inches from end of tube. Insert tube back into same end of hose fitting until end of tube just reaches start of bend in hose. See left frame of Figure 5.
15. Curl end of large cable strap. Align holes in bracket with holes in frame crossmember. Properly positioned, slotted arm on bracket is on the right side pointing towards the rear of the vehicle.
16. Insert curled end of cable strap through upper hole in bracket and then through upper hole in frame crossmember. Threading the cable strap through the top hole first orients the lock at the bottom.

NOTE

Threading the cable strap through the bottom hole first orients the lock at the top, which could interfere with the vertical orientation of the vapor valve after installation.

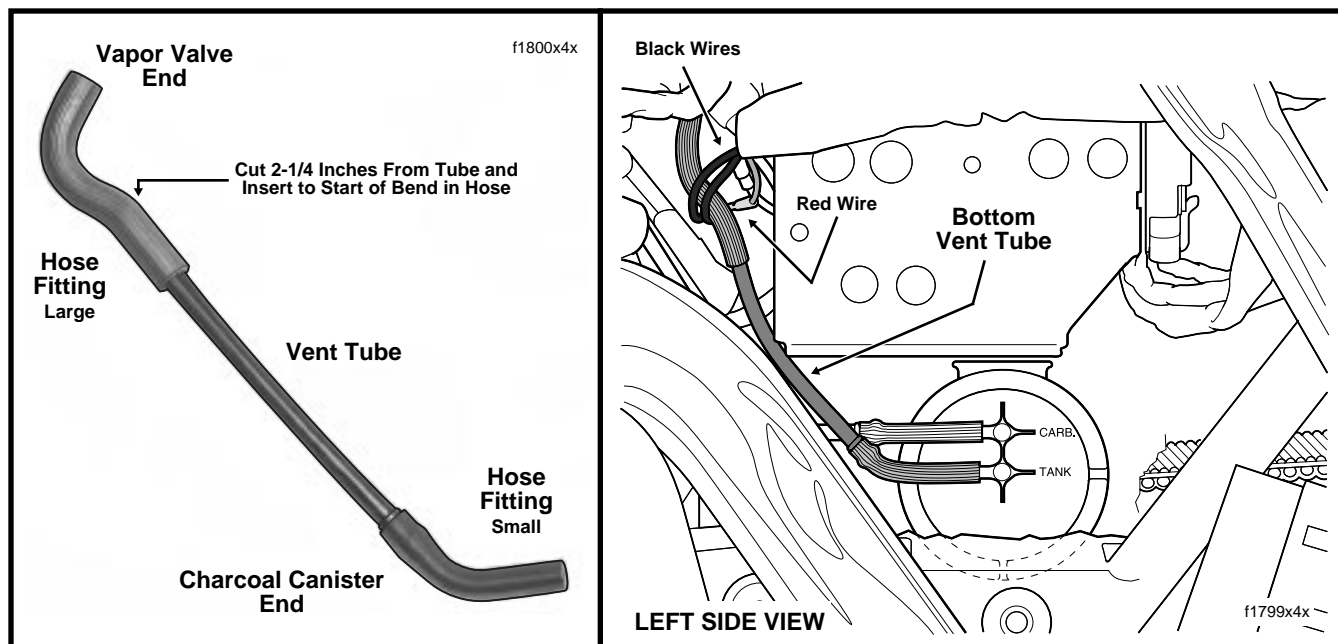


Figure 5. Bottom Vent Tube Routing (Charcoal Canister to Vapor Valve - California Models Only)

17. Feed end of cable strap through lower hole in frame crossmember and then through lower hole in bracket. Mate ends of cable strap, and using a needle nose pliers, pull strap tight. Cut any excess cable strap material. See left frame of Figure 2.

NOTE

Curling the end of the cable strap before insertion yields the best results. If necessary, guide the end of the cable strap through the lower hole by reaching into the hole in the frame crossmember (reserved for routing of the cruise cable), or down through the opening cut into the frame backbone (used for mounting of the turn signal module on 2000 models).

18. From right side of bracket, insert end of **small** cable strap through hole in arm and then around body of vapor valve. Verify that long necked end of vapor valve is at the top. Mate ends of cable strap and pull tight engaging strap in slot of arm. Cut any excess cable strap material. See right frame of Figure 2.
19. Reach in through opening above fuse block bracket (weldment between downtubes) and attach smaller hose fitting on vent tube to bottom fitting on charcoal canister. See left frame of Figure 5.
20. Route opposite end of vent tube forward and then upward in front of battery box (stepped area) to bottom fitting on vapor valve.
To avoid interference that may influence the position of the valve, route tube in front of the red wire to the circuit breaker (silver post), and rear of the two black wires to the left side ground post. See right frame of Figure 5. If more separation is needed, use a finger to push the black wires forward and the red wire rearward.
21. Install hose fitting on vent tube to bottom fitting of vapor valve. Recheck routing to be sure that hose fittings are not pinched or kinked, and that there is no contact with the drive belt.

22. Install free end of 135° elbow onto neck at top of vapor valve.
23. Install **new** cable strap to secure vent tube at top of vapor valve to main harness (largest conduit bundle on left side of frame backbone). Position cable strap approximately 4 inches forward of 135° elbow. Cut any excess cable strap material.
24. Verify that vapor valve is completely vertical. Momentarily push on top of vapor valve to verify that it returns to the completely vertical position.
25. Slide fuse blocks into position on mounting panel. Tabs on panel fit into slots on each side of fuse block cover.

NOTE

*If the vehicle is **not** an Ultra model, move to step 32.*

26. Install grommets onto studs of cruise module. Place the cruise module into position on left side of battery box. Use rear holes of battery box on carbureted models, front holes on fuel injected models.
27. Install locknuts on front and rear mounting studs. Tighten locknuts to 9-11 ft-lbs (12-15 Nm).
28. Install cruise module connector [17] and engage locking latch.

NOTE

When test riding vehicle, be sure to verify proper cruise operation.

29. Place battery in battery box, terminal side forward. Rotate the hold-down clamp so that the lip (with rubber pad) rests on the edge of the battery. Using a T-40 TORX drive head, tighten the clamp bolt to 15-20 ft-lbs (20-27 Nm).
30. Insert bolt through battery positive cable (red) into threaded hole of battery positive (+) terminal. Tighten bolt to 60-96 **in-lbs** (6.8-10.9 Nm).

31. Squeeze wings on clamp with pliers and install vent tube, if present, onto nipple on positive terminal side of the battery.
32. See RE-MOUNTING BANK ANGLE SWITCH on page 3.

CREDIT PROCEDURE

For each vehicle serviced, completely fill out a Dealer Service Card. Place a "C" in the letter box. Send all properly completed Dealer Service Cards directly to the Warranty Department.

When Harley-Davidson receives your properly completed Dealer Service Card, you will be credited the labor shown by model in the following table. All times include 0.1 hour for dealer administration time. No credit will be issued for the kits as they were sent no charge, transportation paid.

MODEL	TIME
49 STATE FLHT (DD) FLHRCI (FR) FLHTC (DJ) FLTR (FP) FLHTCI (FF) FLTRI (FS) FLHTCUI (FC) FLHP (FJ) FLHR (FD) FLHPI (FH) FLHRI (FB) FLHTPI (FM) FLHTC-Shrine (DG) FLHTCUI-Shrine (FL)	0.4 hrs.
CALIFORNIA (NON-ULTRA) FLHT (DD) FLTR (FP) FLHTC (DJ) FLTRI (FS) FLHTCI (FF) FLHP (FJ) FLHR (FD) FLHPI (FH) FLHRI (FB) FLHTPI (FM) FLHRCI (FR) FLHPEI (FT) FLHTC-Shrine (DG)	0.5 hrs.
CALIFORNIA (ULTRA) FLHTCUI (FC) FLHTCUI-Shrine (FL)	0.8 hrs.

DEALER INVENTORY

Remove all 66281-97 battery boxes from your inventory. To receive credit, complete a Warranty Claim referencing Service Bulletin M-1093 in the "Description of Repair" section. Fill in the rest of the claim as shown below. Destroy and discard the battery trays.

CLAIM TYPE	DFS
QTY. EVENT 1	*
EVENT 1, PROBLEM PART NO.	66281-97
PART DESCRIPTION	Battery Box
CUSTOMER CONCERN	9205
CONDITION CODE	9111
*Will vary depending upon quantity in stock.	

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									

1999 Harley-Davidson® Motor Company



S
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NAME _____

ADDRESS _____

T
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CITY/STATE/ZIP _____

S H I P NAME _____

T O ADDRESS _____

 CITY/STATE/ZIP _____

DEALER ORDER
ORDER DATE
DEALER NO.
ORDER TYPE
D-W
WARRANTY CLAIM NO.

FOR OFFICE USE ONLY
ACCT: 174-410.1
FRT: 174-410.1 ACCT:

[illegible]

ALL ORDERS SUBJECT TO ACCEPTANCE AT MILWAUKEE. WI 53201

All goods covered by this order, including goods back-ordered, will be billed at prices current at the time of shipment. Goods are purchased for resale and delivery is made to purchaser F.O.B. factory, Milwaukee, Wisconsin on or prior to date of origin. It is accepted that any delay in shipment of goods to availability of goods to seller for delivery to purchaser. Any delay in shipment shall not relieve purchaser of responsibility for the accepted order and seller shall not be liable for any loss or damage due to delay in shipment or failure to deliver. Any request for cancellation of this order or any part thereof must be received by seller prior to the date of origin. If cancellation is requested after the date of origin, the purchaser shall pay the entire cost connected therewith, plus ten or twenty-five percent of selling price, as determined by Company policy at the time of shipment, and in case of reacceptance or return of goods to seller, purchaser shall pay the entire cost connected therewith, plus ten or twenty-five percent of selling price, as determined by Company policy at the time of shipment. Seller and local laws that apply on the retail end of the business shall be responsible for collection and payment of all Federal, State and local taxes that apply on the retail end of the business.

PLEASE USE PART NUMBERS
DO NOT USE FOR
CORRESPONDENCE

F-1040

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