

## SAFETY RECALL CODE 0812 - 1999 X1 REAR BRAKE LINE AND POSITIVE BATTERY CABLE

### GENERAL

Buell Motorcycle Company has learned that all 1999 Buell X1 Lightning motorcycles were built with a rear brake line and rear brake reservoir hose which may be susceptible to abrasion. This condition could result in brake fluid loss. Should this occur the rider could experience loss of rear braking capabilities. Buell Motorcycle Company has also learned that the positive battery cable could contact the battery carrier. This condition could cause the engine to stall or quit when riding which could result in an accident. Accordingly, Buell is conducting a voluntary recall campaign to formally recall all potentially affected motorcycles.

This campaign involves all 1999 X1 model Buell motorcycles manufactured between January 4, 1998 and April 20, 1999.

This condition will be remedied by replacing the rear brake line and inspecting the rear brake reservoir hose and positive battery cable routing and correcting either or both if there is any sign of contact on all potentially affected vehicles.

### DEALER ACTION, AFFECTED VEHICLES

Buell Distribution Corporation has attached a complete list of all vehicles shipped to your dealership involved in this recall. To ensure the safety of all affected riders, it is your responsibility to perform the required service on all affected vehicles, even if the motorcycle was not purchased from your dealership.

If you are not sure that a safety recall has been completed on a particular Buell motorcycle, contact the recall information line at 1-800-448-1708. 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 Buell Distribution Corporation, 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 V.I.N.s as soon as possible. This will enable us to mail them an owner's letter as required by National Traffic and Motor Vehicle Safety Act, as amended.**

Initial shipment of recall kits, Part No. 93920Y, will begin on or before June 15, 1999. All kits will be shipped direct from the Franklin Distribution Center, no charge, transportation paid. To order the remainder of kits that may be needed, please fill out the attached order form and send/fax it

to the Warranty Department at (FAX) 414-343-8346.

Buell Distribution Corporation reserves the right to conduct wave shipments in lieu of processing orders and/or adjusting order quantities, depending on the availability of parts.

The Rear Brake Line recall kit (Part No. 93920Y) consists of:

- Rear Brake Line
- (4) Banjo Washers
- (5) Cable Ties (Thick)
- (3) Cable Ties (Thin)
- Loop cushioned clamp
- Tie bar locknut
- Rear Brake Reservoir Hose Kit
- Protective Boot

### INSTALLATION

#### NOTE

*Perform the following procedures according to the guidelines given in the service manual for the model being serviced.*

*Before beginning procedure, verify that you have enough (approximately one 12 fl. oz./355 mL bottle per motorcycle) D.O.T. 5 brake fluid to complete the procedure and refill the rear brake system.*

1. Position motorcycle on a suitable lift and position REAR WHEEL SUPPORT STAND (Part No. B41174) under the swing arm. Secure motorcycle to lift.
2. Remove seat. See 1999 X1 service manual, Section 2 for procedure.

#### WARNING

**To avoid accidental start-up of vehicle, disconnect the battery cables before proceeding. Always disconnect the negative battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion, which could result in death or serious injury.**

3. Disconnect battery cables from battery, negative (-) cable first.
4. Cut cable tie holding oxygen sensor connector to battery strap. Remove battery strap and battery.
5. Remove rear brake fluid reservoir cap and drain brake fluid from rear brake system into suitable container. See 1999 X1 Service Manual Section 2 for instructions.
6. Remove two top bolts from oil tank.

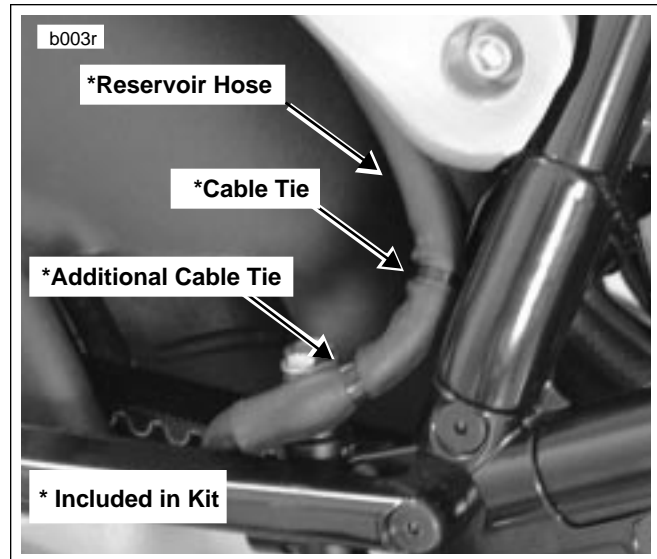
ROUTING	SERVICE MANAGER	SALES MANAGER	PARTS MANAGER	LEAD TECHNICIAN	TECHNICIAN NO. 1	TECHNICIAN NO. 2	TECHNICIAN NO. 3	TECHNICIAN NO. 4	RETURN THIS TO:
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7. See Figure 1. Cut cable tie holding rear brake reservoir hose to rear brake line above rear master cylinder on right side of motorcycle.
8. See Figure 4. Disconnect two wires from rear brake light switch.
9. Remove rear master cylinder banjo bolt and two banjo washers. Discard banjo washers.
10. Remove rear brake caliper banjo bolt and two banjo washers. Discard banjo washers.
11. Carefully push up on bottom of oil tank to allow rear brake line tangs to be freed from studs on the bottom of the oil tank.
12. See Figure 2. Cut cable tie on wiring harness and cable tie on vent tube on left side of bike.
13. Slide rear brake line into area where battery usually sits and then off of bike through left side of frame.
14. See Figure 4. Remove rear brake light switch from original brake line.

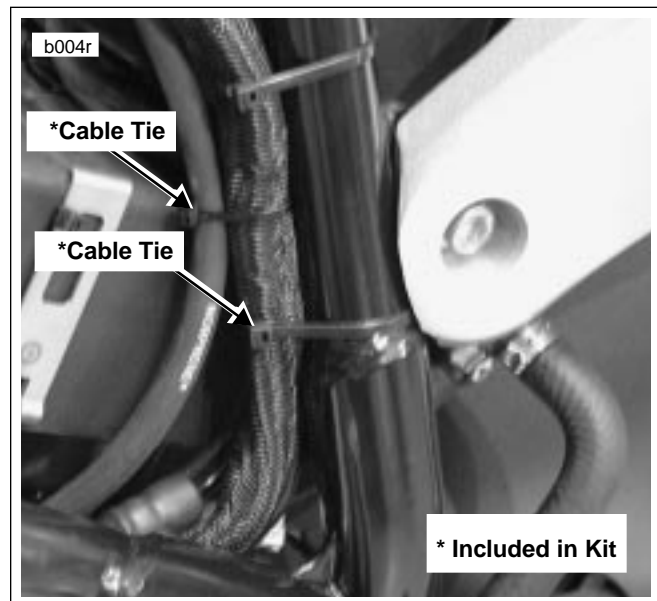
**NOTE**

Place **new** brake line in vise gently (securing hexagonal rear brake light switch fitting) to prevent bending line while installing rear brake lamp switch.

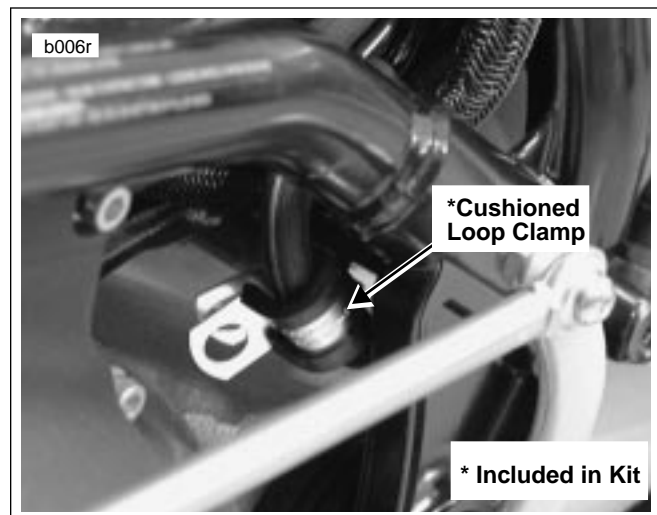
15. Coat threads of rear brake lamp switch with LOCTITE PIPE SEALANT WITH TEFLON and install to **new** brake line. Tighten switch to 84-96 **in-lbs** (9.5-10.8 Nm). Tighten as required to orient terminals perpendicular to brake line.
16. Remove frame side fasteners from rear tie bar (locknut, washer and bolt). Discard locknut. NOTE: Using a 3 inch extension and deep well swivel socket simplifies removal of the tie bar fasteners.
17. See Figure 5. Working from the right side, install **new** brake line and align metal portion of brake line with rear master cylinder. Route caliper side of brake line in front of tie bar and through rear fender opening to rear caliper.
18. Carefully push up on bottom of oil tank and position rear brake line tangs under studs on the bottom of the oil tank. Lower oil tank allowing studs to engage pockets in frame.
19. See Figure 3. Install loop cushioned clamp provided in kit to brake line and then to bolt side of tie bar fasteners. Loop clamp is oriented down and to the left. Install tie bar to frame with bolt, washer and loop cushioned clamp on lower side of tie bar and **new** locknut on upper side of tie bar. Tighten to 30-33 ft-lbs (40.7-44.7 Nm).
20. Install rear master cylinder banjo bolt with supplied banjo washers and torque to 16-20 ft-lbs (21.7-27.1 Nm).
21. Install rear caliper banjo bolt with supplied banjo washers and torque to 16-20 ft-lbs (21.7-27.1 Nm). NOTE: Removing inner fender TORX screw and plastic washer will assist in tightening banjo bolt. If TORX screw and plastic washer are removed, tighten to 72-96 **in-lbs** (8.1-10.8 Nm) when installing.
22. See Figure 1. Inspect rear brake reservoir hose on right side of motorcycle for damage. Replace as required by installing **new** replacement hose provided in kit. If hose is undamaged, proceed to step 23.
23. See Figure 1. Install two cable ties (thick) to reservoir hose and rear brake line in **two** locations as shown in figure. Use care to avoid pinching hose.
24. Install top two bolts to oil tank. Tighten bolts to 10-12 **in-lbs** (1.1-1.4 Nm).



**Figure 1. Rear Brake Line - Right Side**



**Figure 2. Rear Brake Line - Left Side**



**Figure 3. Loop Clamp Orientation Before Installation**

25. See Figure 6. Inspect positive battery cable and vent lines (transmission vent and cam cover vent) for damage. Replace as required.
26. See Figure 2. Cable tie vent hose and wire harness to frame on left side of motorcycle. NOTE: Use thick cable tie on wire harness and thin cable tie on vent hose. Use care to avoid pinching hose.
27. Cut cable tie on frame cross member behind battery tray that secures cam cover vent and transmission vent.
28. See Figure 6. Attach cam cover vent (thinner of two vent lines) to frame cross member in original location with **new** (thick) cable tie. Make sure cam cover vent line is routed inboard of stud and nut on bottom of battery tray.
29. See Figure 7. Reroute transmission vent line to **left** side of motorcycle, **under** battery tray, **over** rear tie bar, **above** rear brake line, **between** oil drain line and tail section, **above** oil return fitting (on oil tank), and **over** the top of the oil tank. Use care to avoid kinking hose after tie bar.
30. See Figure 7. Attach transmission vent line to oil return line as shown with **new** (thick) cable tie.
31. See Figure 6. Reroute positive battery cable from starter solenoid post **under** rear brake light switch wires and **under** cam cover vent line then behind and over battery to positive terminal.
32. See Figure 6. Install protective boot, included in kit, over stud and nut on bottom of battery tray on right hand side of motorcycle.
33. Install battery with strap and nut. Tighten nut to 40 **in-lbs** (4.5 Nm).
34. Attach oxygen sensor connector to battery strap with **new** thin cable tie on left hand side of motorcycle.
35. See Figure 4. Connect rear brake light switch wires to rear brake light switch.
36. See Figure 6. Attach rear brake light switch wires to battery strap with **new** thin cable tie on right hand side of motorcycle. NOTE: HDI (all except Canada, Japan and New Zealand) models do not require this cable tie as the brake light switch wire routing is different.

**WARNING**

Always connect the positive battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion, which could result in death or serious injury.

37. Connect positive battery cable. Tighten to 40 **in-lbs** (4.5 Nm).
38. Connect negative battery cable. Tighten to 40 **in-lbs** (4.5 Nm).
39. Bleed rear brake system and install reservoir cap. See 1999 X1 Service Manual, Section 2 for procedure.

**WARNING**

After installing seat, pull upward on front of seat to be sure it is locked in position. If seat is loose, it could shift during vehicle operation resulting in loss of control of vehicle and death or serious injury.

40. Install seat. See 1999 X1 Service Manual, Section 2.

**B-020**

**WARNING**

Check for proper brake lamp operation before riding motorcycle. Visibility is a major concern for motorcyclists. Failure to have proper brake lamp operation could result in death or serious injury.

41. Turn ignition key ON, depress rear brake pedal and check for proper brake light operation.

**WARNING**

After completing repairs or bleeding the system, always test motorcycle brakes at low speed. If brakes are not operating properly or braking efficiency is poor, testing at high speeds may result in death or serious injury.

42. Test ride motorcycle and check for proper brake operation.

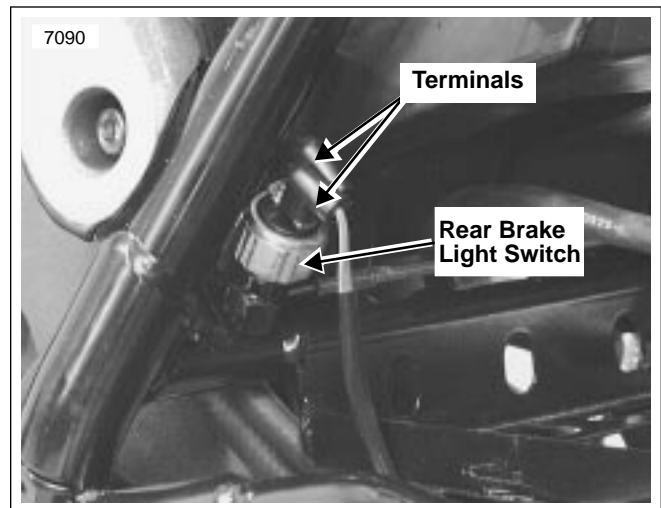


Figure 4. Rear Brake Light Switch

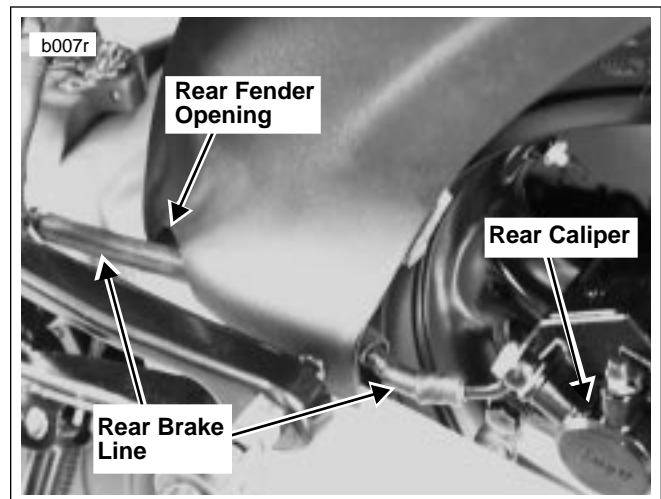


Figure 5. Rear Brake Line Routing

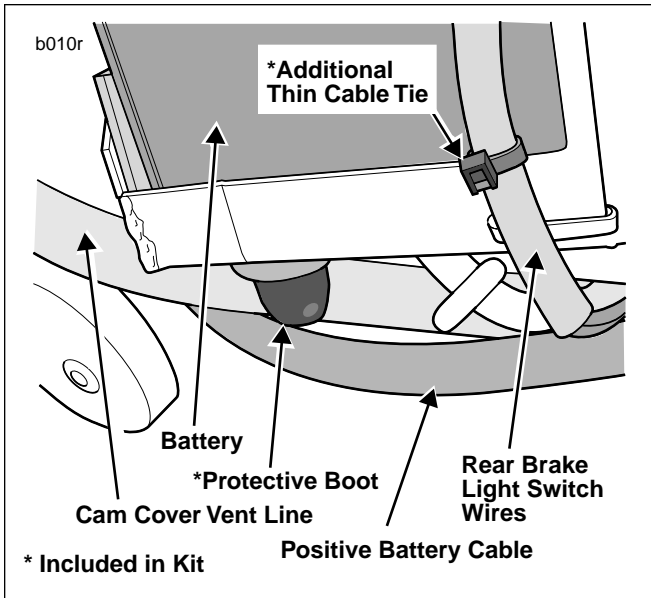


Figure 6. Positive Battery Cable Routing

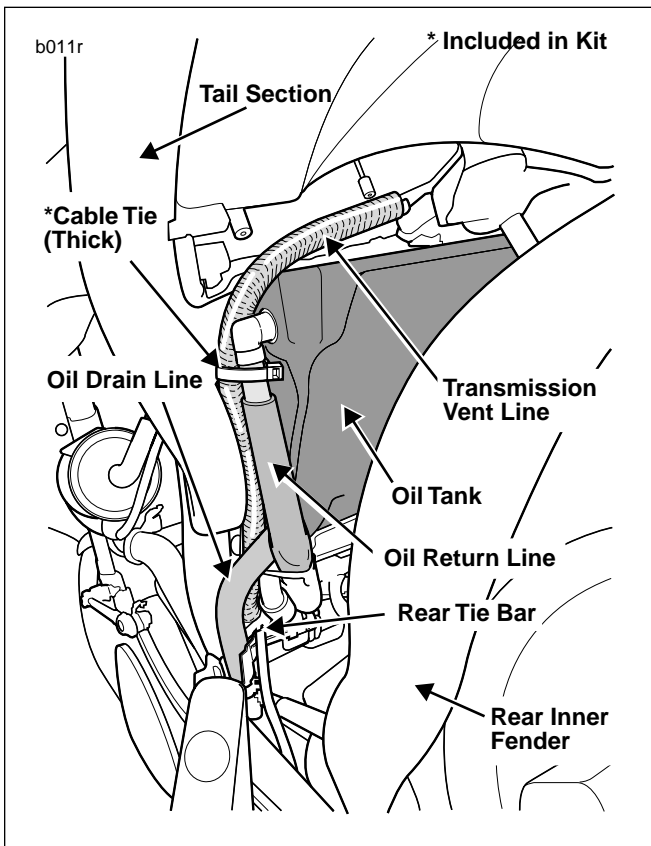


Figure 7. Transmission Vent Line Routing (Rear View)

## CREDIT PROCEDURES - VEHICLE REPAIR

For each vehicle serviced, place a "C" in the letter box on the Buell Dealer Service Card. **Destroy and discard the original brake line and banjo washers, locknut and reservoir hose, if replaced.** Send the properly completed dealer service cards to Buell Distribution Corporation. Upon receipt and processing of your properly completed dealer service cards, you will be credited for 1.6 hours. The time includes 0.1 hour administrative time and your cost for D.O.T. 5 Brake Fluid, Loctite PST, reservoir hose replacement and vent line replacement, if required. No credit will be issued for the kits as they were sent no charge, transportation paid. File a separate warranty claim following appropriate warranty claim procedures to obtain credit for any additional parts (i.e. positive battery cable, vent lines, etc.) that may be required to complete the repair that are not included in the kit. No additional labor credit will be issued.

## CREDIT PROCEDURES - DEALER STOCK PARTS

Remove all affected rear brake lines, (Part No. 45139-99Y), from your inventory. To receive credit, complete a Buell warranty claim referencing Service Bulletin B-020 in the "Description of Repair" section. Fill in the rest of the claim as follows:

Table 1. Credit for Parts

Claim Type	BDS
Quantity	See Note Below
Event 1, Problem Part No.	45139-99Y
Part Description	Rear Brake Line
Customer Concern Code	9205
Condition Code	9111

**NOTE**

"Quantity may vary depending upon what you have in stock.

Upon receipt of properly completed claim for parts in dealer stock, you will receive the appropriate credit for parts. **Destroy and discard all affected parts from your stock.** Buell Distribution Corporation will advise at a later date how to order updated rear brake lines to replenish your stock. **Do not order the recall kits to restock your inventory!**