## SERVICE BULLETIN

1, 1999 AMERICAN MOTORCYCLES

B-022 June 11, 1999

## SAFETY RECALL CODE 0815 - FUEL TANK VENT VALVE ASSEMBLY

## **GENERAL**

Buell Motorcycle Company has learned that certain 1995 through 1999 Buell motorcycles were built with a fuel tank vent valve assembly that could become plugged. Under certain conditions, this could cause the carburetor to overflow fuel which could result in a fire. This condition could also prevent sufficient fuel flow, which may cause the engine to misfire or stall. In addition, certain 1999 M2 Cyclone models may have been manufactured with a component that could restrict airflow into the float bowl of the carburetor. Under certain conditions this could cause the carburetor to overflow fuel which could result in a fire. This condition could also cause excess fuel flow, which may cause the engine to misfire or stall. Accordingly, Buell Motorcycle Company is conducting a voluntary recall campaign to formally recall all potentially affected motorcycles.

This campaign involves all 1995 through 1999 S1 Lightning, S1 White Lightning, M2 Cyclone, S2 Thunderbolt, S2T Thunderbolt, S3 Thunderbolt, S3T Thunderbolt and X1 Lightning model Buell motorcycles manufactured between February 1, 1994 and April 21, 1999.

This condition will be remedied by replacing the fuel tank vent on all potentially affected vehicles and inspecting the snorkel assemblies on all 1999 M2 Cyclones.

# 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 hd-net.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 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 fuel tank vent valve assembly recall kit (Part No. 93923Y) consists of:

- Fuel Tank Vent Valve Assembly (2 pieces and Oring)
- Cable Tie, Thin (for fuel tank vent hose)
- Hose Clamp (for fuel tank hose to fuel supply valve on carbureted models)
- Fuel Fill Warning Decal

In addition to the kit contents, you will require the fuel tank vent tool kit (Part No. 91432-96Y) to install the new fuel tank vent valve assembly. The fuel tank vent tool kit is being shipped to your dealership, free of charge, on or before June 16. Additional tool kits can be purchased as required. The tool kit consists of:

- Fuel Tank Vent Valve Installation Aid
- Fuel Tank Vent Valve Fitting Socket

## **REMOVAL**

#### NOTE

- Perform the following procedures according to the guidelines given in the service manual for the model being serviced
- The fuel tank must be drained to perform this service.
   The fuel tank does not need to be removed.

#### **WARNING**

Do not loosen or remove fuel cap flange under any circumstances while performing this procedure. Fuel tank is pressure tested as an assembly before leaving the factory to ensure proper seal. Breaking the seal under the fuel cap flange may result in inadequate seal and fuel leak which could result in death or serious injury.

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

## **A**WARNING

Always disconnect the negative battery cable when working on motorcycle to prevent accidental startup. 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.

1. Disconnect negative battery cable.

### **A**WARNING

An open flame or spark may cause a fuel tank explosion if all traces of fuel are not purged from the tank. Use extreme caution when servicing fuel tanks. Gasoline is extremely flammable and highly explosive. Inadequate safety precautions could result in death or serious injury.

- 2. Remove gas cap.
- Carbureted Models: Drain fuel tank. Disconnect hose clamp and fuel supply hose from fuel supply valve and drain fuel into suitable, clean container. See appropriate service manual, Section 4 for procedure.

**Fuel Injected Models:** Relieve pressure from fuel system. See appropriate service manual, Section 4 for procedure. Drain fuel tank.

- Using suitable external fuel pump, such as a Gas Caddy, pump fuel from tank and into suitable clean container.
- b. See instructions for external fuel pump for correct use.
- See Figure 1. Cut cable tie holding vent hose to fitting and remove vent hose from fuel tank.

#### NOTE

Fuel tank vent valve fitting socket may be used to remove 1999-style fitting.

While holding vent valve with angled needle nose pliers, remove fitting or from vent valve.

#### **CAUTION**

Do not drop or tip the vent valve while removing. It contains a small plastic and a small metal ball which, if dropped into the fuel tank could cause plugging of fuel lines. This would then necessitate removal and installation of the fuel tank and all fuel lines to remove the balls.

- Using angled needle nosed pliers, pull the vent valve from the gasket. Be careful not to tip or drop the vent valve or check balls.
- 7. Discard the vent valve, check balls and fitting.

## INSTALLATION

#### NOTE:

All fuel tanks will take the new 1999-style fitting included with the kit regardless of the previous fitting.

- Wipe inside and outside vent valve mounting hole to make sure there is no gasoline or excess Hylomar sealant present.
- See Figure 2. Using the fuel vent valve installation aid, lower the **new** fuel tank vent valve into the fuel tank through the fuel filler neck.

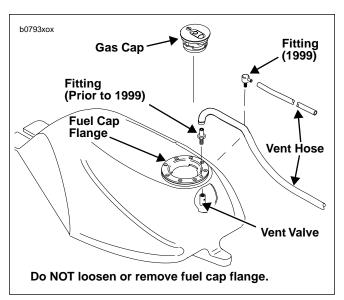


Figure 1. Previous Fuel Tank Vent

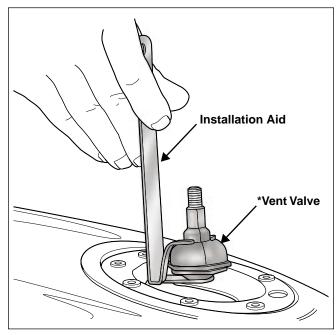


Figure 2. Installing Fuel Tank Vent

 Position the fuel tank vent valve so the threaded portion at the top protrudes from the fuel vent opening on the fuel cap flange. Verify hole on top of vent valve is not blocked by Hylomar sealant and that vent protrudes completely from hole.

#### NOTE

The fuel vent fitting is installed dry. Do NOT use teflon tape or loctite products when installing vent fitting.

- See Figure 3. Install new O-ring in groove on bottom of new fitting.
- While holding vent valve with fuel vent valve installation aid, install fitting and O-ring to threaded portion of vent valve. Do not tighten. Remove fuel vent valve installation aid.

#### NOTE:

It may take a few tries and slight rotation of the vent valve to get the alignment mentioned in Step 6.

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See Figure 4. Align fitting so right front point of hex is oriented to 12:00 position when fitting is tightened finger tight. Make sure O-ring remains in groove of fitting while tightening.

#### **CAUTION**

Do not overtighten vent fitting or attempt to tighten with standard "click-type" torque wrench. Overtightening vent will cause it to snap off and fall into fuel tank, requiring fuel tank removal.

7. Using a dial-type torque wrench, tighten vent fitting to 40-60 **in-lbs**. (4.5-6.8 Nm) until top fitting nozzle points to 12:00 position.

#### NOTE:

If fitting nozzle does not point to 12:00 position when tightening within specified torque range, loosen fitting, rotate vent valve and try again. Repeat as required to get proper alignment of nozzle within specified torque range.

- 8. See Figure 3. Attach vent hose to nozzle on fitting with **new** cable tie included with kit.
- See Figure 3. Install fuel fill warning decal provided in kit to fuel tank. NOTE: Decal indicates that fuel tank should not be filled above 1 inch (25.4 mm) below bottom of the filler neck insert. Orient decal so rider can read while seated on motorcycle.
- Carbureted models: Install fuel supply line to fuel supply valve with new hose clamp (small) provided in kit. Fill fuel tank with proper fuel (91 Octane) and install gas cap.
   Fuel Injected models: Fill fuel tank with proper fuel (91 Octane) and install gas cap.
- Connect negative battery cable. Tighten to 40 in-lbs (4.5 Nm).
- 12. Pressurize fuel system (fuel injected models only).
- 13. Check for leaks. See appropriate service manual, Section 4 for procedure if leaks are found.
- 14. **1999 M2 Cyclone Models Only:** See Figure 5. Remove four screws, nylon washers and air cleaner cover. Inspect snorkel where it mounts to carburetor.
  - If snorkel has four holes, three with fasteners and one open for overflow vent, go to step 15.
- If snorkel has only three holes and no overflow vent, replace snorkel with correct 4-hole snorkel (Part No. 27547-96Y). See 1999 M2 service manual, Section 4 for procedure.
- Apply LOCTITE THREADLOCKER 222 (Purple) to threads of cover screws. Install air cleaner cover with four screws and nylon washers. Tighten screws to 18-22 in-lbs (2.0-2.5 Nm).
- 16. Test ride motorcycle.

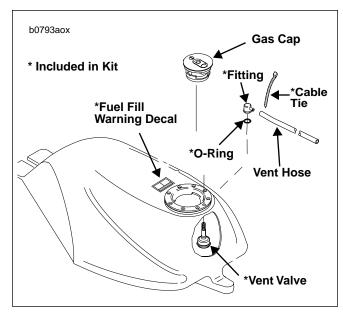


Figure 3. New Fuel Tank Vent

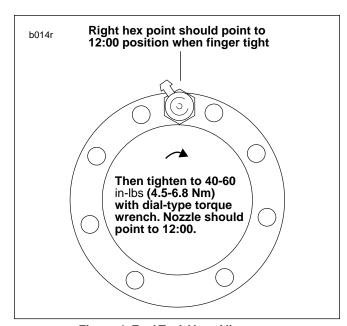


Figure 4. Fuel Tank Vent Alignment

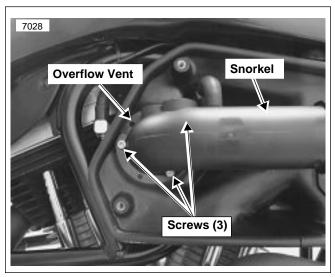


Figure 5. 1999 M2 Cyclone Snorkel Inspection

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## 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 fuel tank vent and fitting. 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 0.8 hours for M2, S1, S1W, S2, S2T, S3 and S3T models and 0.9 hours for 1999 X1 and S3 models. The time includes 0.1 hour administrative time and your cost for loctite. No credit will be issued for the kits as they were sent no charge, transportation paid.

## CREDIT PROCEDURES - DEALER STOCK PARTS

Remove all affected fuel tank vent valve assemblies (Part Nos. 62175-94Y and 62175-99Y) from your inventory. To receive credit, complete a regular warranty claim referencing Service Bulletin B-022 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,<br>Problem Part No. | 62175-94Y            |
| Part Description             | Fuel Tank Vent Valve |
| Event 2,<br>Problem Part No. | 62175-99Y            |
| Part Description             | Fuel Tank Vent Valve |
| Customer Concern<br>Code     | 9205                 |
| Condition Code               | 9109                 |

#### NOTE

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 fuel tank vent valve assemblies to replenish your stock. **Do not order the recall kits to restock your inventory!** 

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<sup>&</sup>quot;Quantity" may vary depending upon what you have in stock.



BUELL DISTRIBUTION CORPORATION P.O. BOX 594, MILWAUKEE, WI U.S.A 53201 PARTS & ACCESSORY ORDER

ON CODER TYPE IDENTIFICATION
R REGULAR IDENTIFICATION
P POLICE NUMBER
D DOWN VEHICLE
W WARRANTY

| DEALER<br>ORDER<br>ORDER |                    |
|--------------------------|--------------------|
| DATE                     |                    |
| DEALER<br>NO.            |                    |
| ORDER<br>TYPE            | D-W                |
| WARRANT                  | WARRANTY CLAIM NO. |

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| QUANTITY | PART NUMBER |                                                                                        |
|----------|-------------|----------------------------------------------------------------------------------------|
|          | 93923Y      | Code 0815: FUEL TANK VENT                                                              |
|          |             | <b>NOTE:</b> All orders subject to approval. You may not receive the total quantity of |
|          |             | kits ordered, due to parts a availability. If this happens, please submit another      |
|          |             | ordered for the balance.                                                               |
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All goods covered by his order, including goods back-ordered, will be billed at prices current at the time of shipment. Goods are punchased for resale and delivery is made to purchaser F.O.B. factory, Milwarkee, Wisconsin or other point of origin. Il acceptant his order as accepted shall be subject to availability of goods to saler for delivery to purchaser. Any delay in shipment and an expensional process. Any other in similant or letieve purchaser of responsibility for his acceptance and expensional process or demage due to delay a shipment of railure to deliver. Any expension of this corder or any pust the received by seler prior to the date of shipment, and in case of reconsignment or return of goods to seler, purchaser shall put the entire cost connected threatiff, sand, are or weary-like precent of selling price, as determined by Company policy from time to time, as iquidated damages for loss of sale. Purchaser will be responsible for collection and payment of all Federal, State and local taxes that apply on the retail safes.

