

# SERVICE BULLETIN

B-099

February 15, 2010



## BUELL 1125 MODELS CHARGING SYSTEM UPGRADE PRODUCT PROGRAM 0507

### Purpose

Buell Motorcycle Company has determined that a potential charging system issue exists on 2009 and 2010 1125R and 1125CR models as well as 2008 1125R models that have been refitted with a 2009 or 2010 replacement engine. On these models the stator may operate at temperatures that exceed the manufacturer's recommendation when the vehicle is ridden in lower-rpm (below 5,000 rpm) duty cycles. These model motorcycles described above may experience charging system issues related to excessive stator heat.

Buell Motorcycle Company has elected to initiate product program 0507 to remedy this issue.

See Required Dealer Action to perform the product program service.

### Motorcycles Affected

Product Program 0507 applies to certain 2008, 2009 and 2010 1125R and 1125CR motorcycles. A VIN list specific to vehicles shipped to your dealership is available via h-dnet.com and is no longer attached to mailed bulletins. This list may be found by following this path:

h-dnet.com/ServiceToolbox/Product Campaign and  
Open VIN lists. Select 0507 campaign to view VIN list.

#### NOTE

*If the vehicle does not appear on your dealer VIN list, refer to Safety and Product Campaign History by VIN link to verify if vehicle is affected.*

### Customer Notification

Buell Motorcycle Company will send a letter to registered owners of affected products in the United States notifying them of this non-safety-related condition and instructing them to contact their dealer for the product program service. A sample of the customer letter is attached. Customers outside the United States market may not receive this notification.

### Program Duration

This program is effective beginning February 18, 2010. Please be advised that the services delivered under this product program will no longer be rendered at factory expense after two years from the date of the bulletin, February 15, 2010.

### Kit Ordering Information

Product program kit (Part No. 94753Y) will be available the week of **February 15, 2010**. All kits will be shipped no charge, transportation paid via UPS.

Fill in the attached order form and fax it to the Warranty department at 414-343-8347. You must include your dealer number. A VIN is required for each kit ordered.

Upon completion of the service on any vehicle, please be certain to follow the instructions listed under Credit Procedure and submit your Product Program claims promptly.

**Table 1. Product Program Code 0507  
Kit 94753Y Contents**

QUANTITY	PART NO.	DESCRIPTION
1	Y0474.3AM	Wire harness assembly, stator relay
1	Y0475.3AM	ECM wire lead w/connector
4	Y0303.2B	Cable strap
1	CO144.T	Clamp, clutch cable
2	10177	Wire mounting clip

#### IMPORTANT NOTE

In the interest of preserving customer safety and satisfaction, always check for outstanding recalls whenever any motorcycle is brought into your dealership for either maintenance or service.

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

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## Required Dealer Action

### Check VIN

Check the VIN on h-dnet to determine program involvement and to confirm that the product program for motorcycle is still open.

### Prepare the Motorcycle

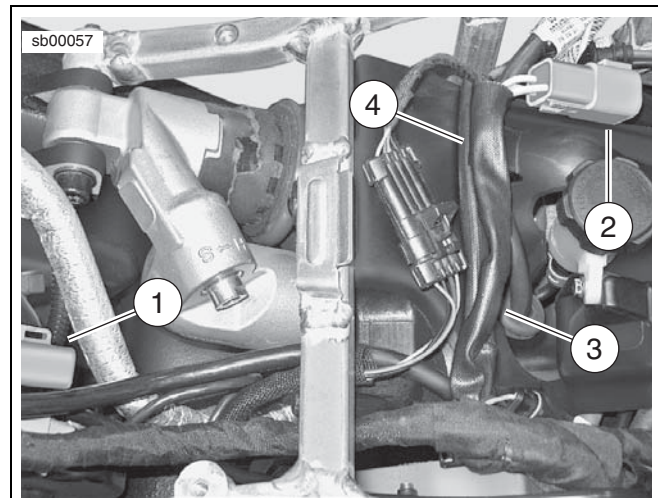
1. Remove:
  - a. The seat
  - b. The passenger seat
  - c. The left radiator shroud
  - d. The main (battery) fuse
2. **CAL Models:** Remove the tail section bodywork.

### Disconnect and Route Stator Harness

1. See Figure 1. Disconnect:
  - a. The stator connector [47] (1)
  - b. The active intake solenoid connector [178] (2)
2. Cut the cable strap securing the main harness to the subframe.
3. See Figure 1. Pull the voltage regulator stator connector socket housing [47B] (2) back under the subframe cross member and route the wire harness (3) along the DC lead to the voltage regulator connector [77] (4).

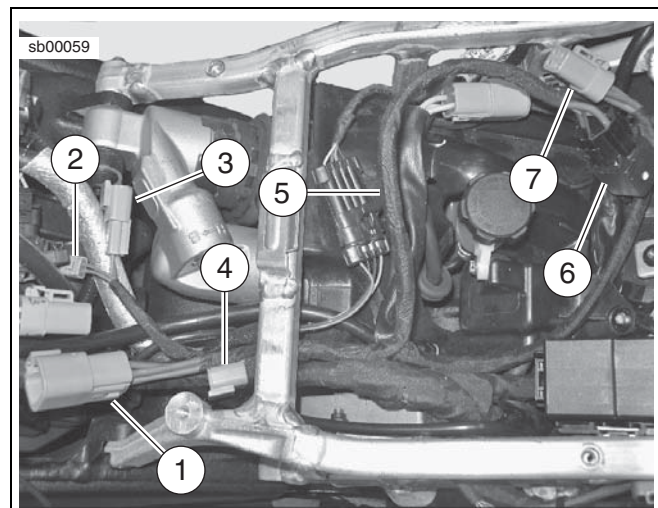
### Install the Relay Sub-Harness

1. See Figure 2. Install and route the sub-harness:
  - a. The 4-place socket housing [47BB] (1), the 2-place socket housing [178BB] (2), the 2-place pin housing [178AA] (3), and the 2-place ECM lead socket housing [360A] (4) forward under the subframe cross member
  - b. The relay sub-harness (5) and the relay (6) along the side of the voltage regulator harness
  - c. The 4-place pin housing [47AA] to the stator connector (7) on top of the starter solenoid cover and the main harness fuse block branch
2. See Figure 3. Connect the housings:
  - a. [47AA] to [47B] (1)
  - b. [178AA] to [178B] (2)
  - c. [178BB] to [178A] (3)
  - d. [47BB] to [47A] (4)



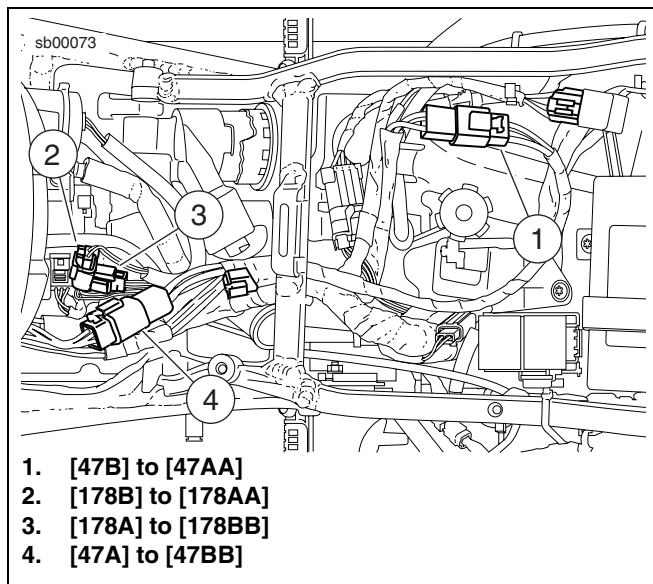
1. Stator connector [47A] pin housing
2. Voltage regulator stator connector [47B] socket housing
3. Wire harness
4. Voltage regulator harness to connector [77]

Figure 1. Stator Connector [47B] and Harness Routing



1. [47BB]
2. [178BB]
3. [178AA]
4. [360A]
5. Relay sub-harness
6. Relay [260B]
7. [47AA]

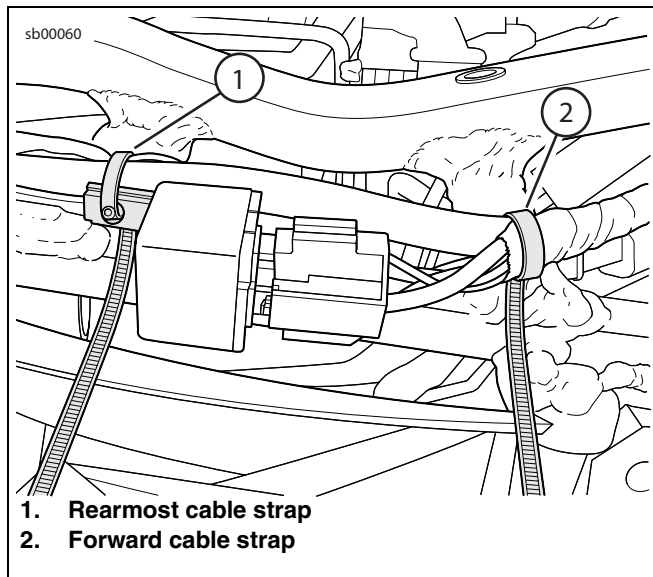
Figure 2. Relay Sub-Harness and Connectors



**Figure 3. Relay Sub-harness Connectors**

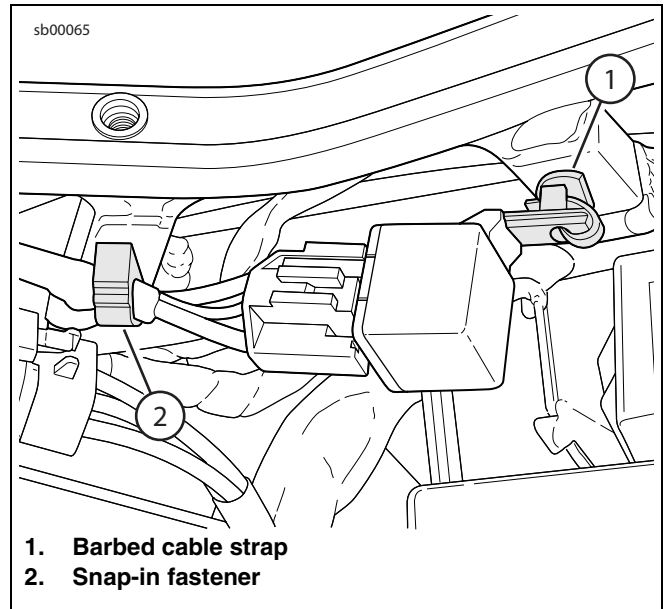
## Install the Relay

1. **CAL Models:** Install the relay:
  - a. Route the relay and harness through the right side subframe.
  - b. Replace the two clips around the battery cable and ground with barbed cable straps (Part No. 10177).
  - c. See Figure 4. Orient the relay mounting tab and strap the sub-harness to the battery cable and the ground at the rearmost cable strap (1).
  - d. Strap the relay harness branch to the battery cable at the forward cable strap (2).
  - e. Trim the cable straps flush.



**Figure 4. CAL Models: Relay Cable Straps**

2. **Non-CAL Models:** Install the relay:
  - a. Install the snap-in fastener in the subframe upright.
  - b. Cable strap a barbed fastener to the hole in the relay mounting tab.
  - c. See Figure 5. Push the barb (1) into the hole in the subframe upright.
  - d. Clamp the relay wire harness in the snap-in fastener (2).
  - e. Trim the cable strap.



**Figure 5. Non-CAL Models: Clamp Fastener and Cable Strap**

## Install the ECM Lead (Part No. Y0475.3AM)

1. Route the ECM lead:
  - a. Bend a 0.40 in (1 cm) hook at the end of a length of mechanic's wire 36 in (91 cm) long and hook the socket terminal of the ECM lead.
  - b. See Figure 6. Insert the mechanic's wire between the left side of the frame and the rear cylinder head (1).
  - c. Angle the mechanic's wire to exit over the top of and in front of the engine mount (2).
  - d. Thread the mechanic's wire through the PVC sleeve on the engine harness (3) and pull the ECM lead through the PVC sleeve.
  - e. Separate the ECM lead from the mechanic's wire and remove the mechanic's wire.
2. Disconnect the J1 [11B] gray and J2 [10B] black connectors from the ECM.
3. See Figure 7. Unwrap the engine harness tape from the PVC sleeve to the J2 [10B] black connector.

4. Install the ECM lead terminal in the ECM J2 [10B] connector:
  - a. Bend back the wires to access the cavity.
  - b. See Figure 8. Remove the white seal pin from cavity 21.

**NOTE**

*Do not damage the ECM lead insulation.*

- c. Push the ECM lead terminal into cavity 21 until it stops.

**NOTE**

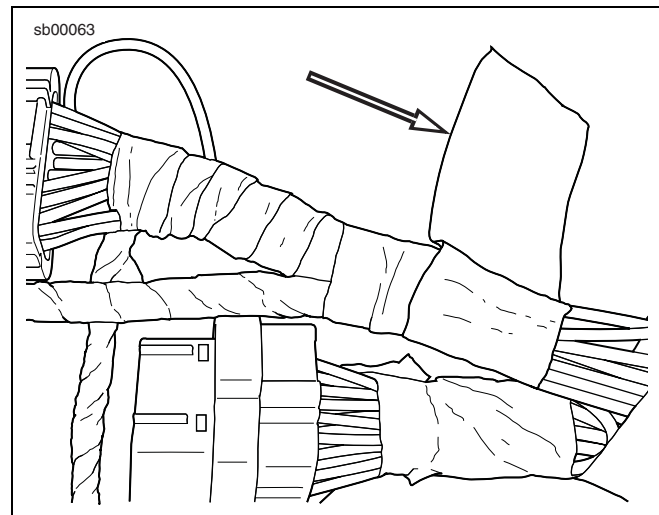
*Do not unseat the original terminals while all the terminals are unlocked.*

- d. See Figure 9. To unlock the terminals, push in the white strip (1) until it clicks.

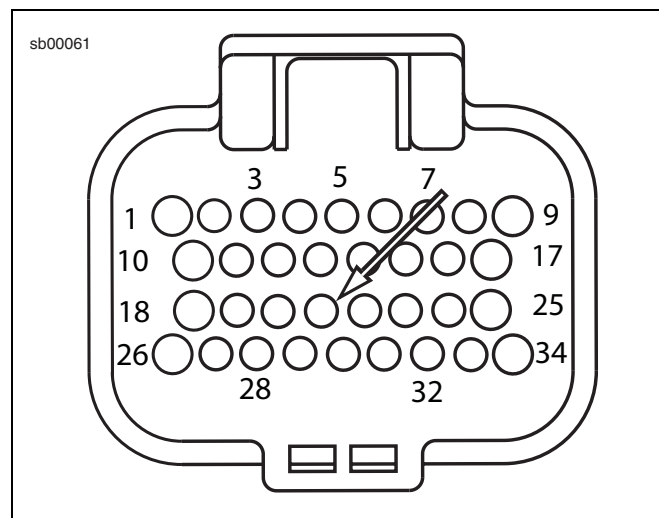
**NOTE**

*The socket is seated when it is flush with the housing face.*

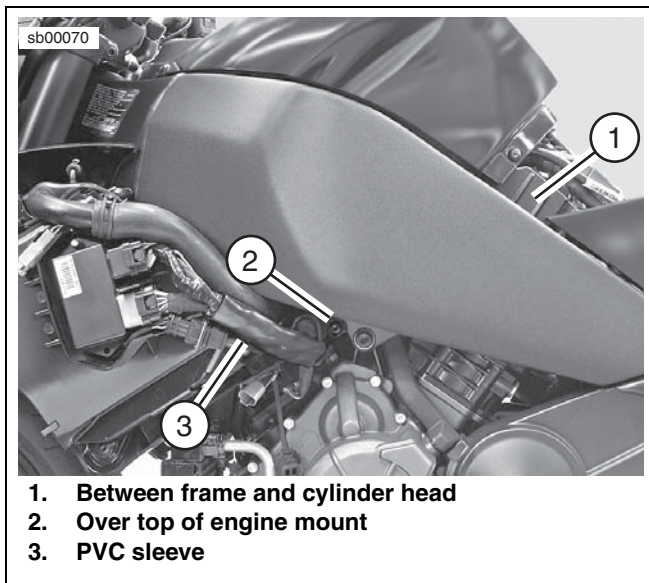
- e. Seat the ECM lead terminal.
  - f. To lock the terminals, push in the two white pins (2) on the side opposite the white strip.
5. Wrap the harness tape around the engine harness and the ECM lead.
  6. Connect the ECM J1 [11B] gray and J2 [10B] black connectors to the ECM.
  7. Connect the ECM lead socket connector housing [360B] to the relay sub-harness pin connector [360A].



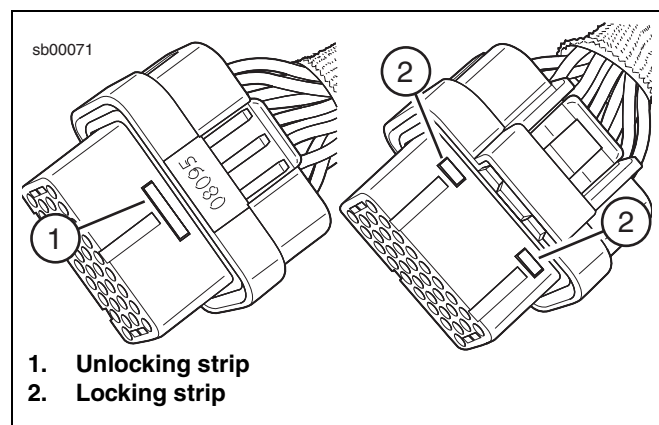
**Figure 7. Unwrap Engine Harness Tape**



**Figure 8. ECM J2 [10B] Black Connector Cavity 21**



**Figure 6. Route the ECM Lead**



**Figure 9. ECM J2 [10B] Black Connector Terminal Lock**



## Cable Strap the Sub-Harness

1. See Figure 10. Cable strap the relay wire harness, the wire harness and the connector, [47B] to [47AA], and the negative battery cable to the voltage regulator DC lead (1).
2. Cable strap the stator connector wire lead to the main wire harness fuse block wire lead (2).
3. Cable strap the sub-harness stator connector pin housing, the main wire harness, and the starter power cable to the subframe cross member (3).
4. Cable strap the ECM lead to the main harness, the sub-harness, and the active intake convolute tubing (4).
5. Trim the cable straps flush.

## Return to Service

1. **CAL Models:** Install the tail section body work.
2. **All Models:** Install:
  - a. The main (battery) fuse.
  - b. The seat
  - c. The passenger seat
  - d. The left radiator shroud
3. Test ride the motorcycle.

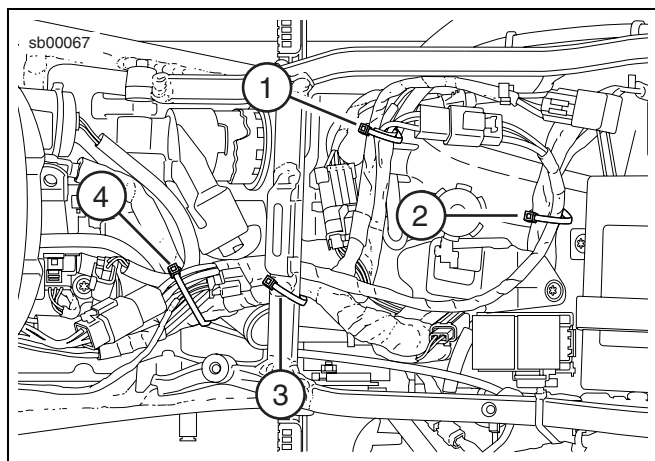


Figure 10. Cable Strap Locations

## Copy and File

Attach a copy of this service bulletin to the 2009 and the 2010 Buell 1125 Models Service Manuals.

## ECM Calibration

The calibration activates the relay and shuts off one leg of the alternator system under certain conditions preventing the overheating [of the alternator] that may lead to an alternator failure.

### NOTE

*Do not connect the A/C power to the Tech Link until prompted during the reflash procedure.*

On vehicles that are covered under the product program, verify the current calibration using Digital Technician and reflash the calibration if updated calibration is not present. Refer to Table 2. and Table 3.

Table 2. ECM Calibrations: 1125R

Market	2008 Calibration	2009 Calibration	2010 Calibration
US	M3HUS062	M3HUS142	M3HUS142
CAL	M3HCA062	M3HCA142	M3HCA142
CAN	M3HUS062	M3HUS142	M3HUS142
EUR/ENG	M3HEC062	M3HEC142	M3HEC142
FRA/105 hp	M3HFR062	M3HFR142	M3HFR142
BZ	M3HBZ062	M3HBZ142	M3HBZ142
AU	M3HAU062	M3HAU142	M3HAU142

Table 3. ECM Calibrations: 1125CR

Market	2009 Calibration	2010 Calibration
US	M3PUS152	M3PCA152
CAL	M3PCA152	M3PCA152
CAN	M3PUS152	M3PUS152
EUR/ENG	M3PEC152	M3PEC152
FRA/105 hp	M3PFR152	M3PFR152
BZ	M3PBZ152	M3PBZ152
AU	M3PAU142	M3PAU142

## Diagnostics

### NOTE

The following diagnostics are NOT a part of Product Program 0507. These procedures supplement those found in the service manual and the electrical diagnostic manual and support motorcycles equipped with the relay sub-harness.

## Sub-Harness Relay Troubleshooting

### NOTE

Using DT II, identify the current calibration and, if necessary, flash with the calibration listed in this service bulletin. Refer to Table 2. and Table 3.

When the charging system fails to charge or does not charge at the normal rate (low battery voltage indicator lamp and SYSTEM VOLTAGE LCD message), test the charging system, the battery, the stator and the voltage regulator, before performing these tests.

## Sub-Harness Continuity Test

1. Disconnect:
  - a. See Figure 11. The sub-harness 4-place pin connector [47AA] from the stator connector [47B]
  - b. The sub-harness 4-place socket housing [47BB] from the stator connector [47A] pin housing
2. Turn the ignition key to ON.
3. Test for continuity between pin 1 of the sub-harness 4-place pin housing [47AA] and socket 1 of the sub-harness 4-place socket housing [47BB].
4. Is there continuity?
  - a. **Yes.** Perform the **Sub-Harness Resistance Test**.
  - b. **No.** Perform the **Relay 12V Test**.

## Sub-Harness Resistance Test

1. Test for resistance between pin 1 of the sub-harness 4-place pin housing [47AA] and socket 1 of the sub-harness 4-place socket housing [47BB].

2. Is the resistance greater than 0.5 Ohm?
  - a. **Yes.** Replace the stator sub-harness relay.
  - b. **No.** Perform the **Relay 12V Test**.

## Relay 12V Test

1. Remove the stator sub-harness relay.

### NOTE

The sub-harness relay is controlled by a switch to ground: 12V is present at pin 4 with the ignition key ON.

2. Test for 12 VDC between socket 4 (GY wire) relay terminal 86 and socket 2 (BK wire) relay terminal 85 of the relay connector [260B].
3. Is 12 V present?
  - a. **Yes.** Perform a **ECM Circuit Continuity Test**.
  - b. **No.** Perform the **Active Intake Solenoid 12V Test**.

## ECM Circuit Continuity Test

1. Disconnect the ECM J2 [10B] black connector from the ECM.
2. Test for continuity between socket 2 (BK wire) relay terminal 85 of the stator sub-harness relay connector [260B] and socket 21 of the ECM J2 [10B] black connector.
3. Is there continuity?
  - a. **Yes.** Replace the stator sub-harness relay.
  - b. **No.** Find and repair the open circuit.

## Active Intake Solenoid 12V Test

1. Disconnect the stator sub-harness 2-place socket housing [178BB] from the active intake [178A] pin housing.
2. Test for 12 VDC between pin 2 (GY wire) and pin 1 (GY/O wire) of the active intake [178A] pin housing.
3. Is 12 V present?
  - a. **Yes.** Find and repair the open circuit.
  - b. **No.** Troubleshoot the engine wire harness.

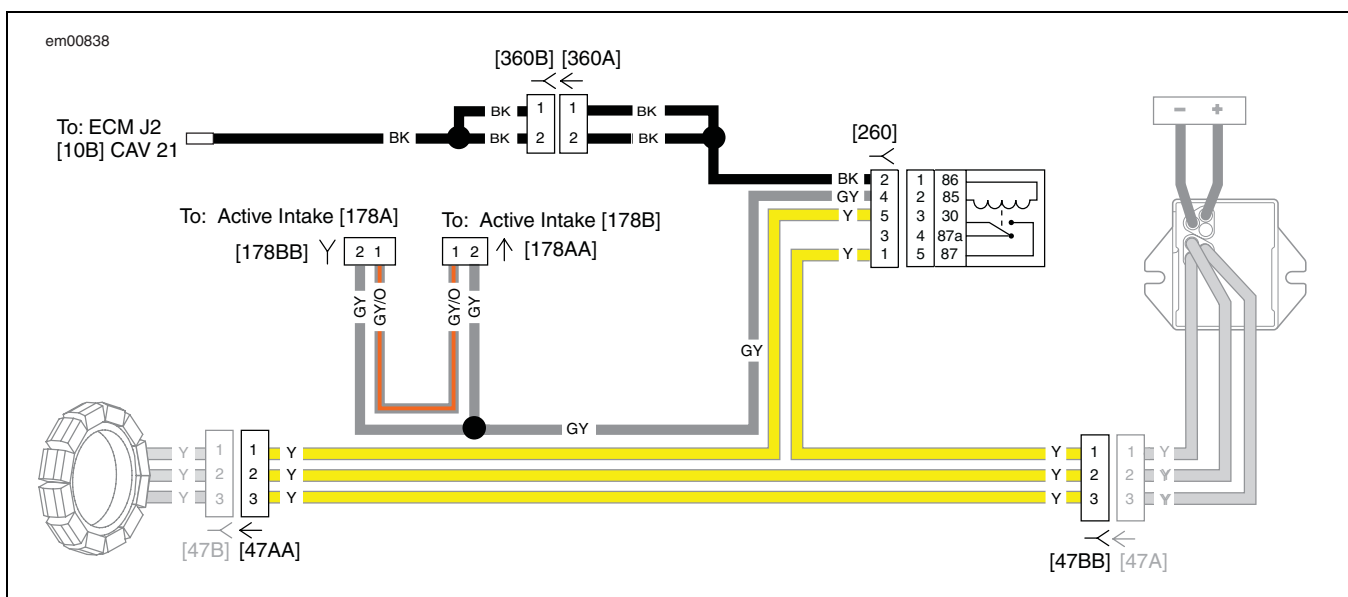


Figure 11. Relay Sub-Harness Circuit

## Credit Procedures - All Systems

Complete a separate warranty claim for each vehicle serviced. Reference Service Bulletin B-099 in the "comments" or "notes" section and be sure to include the VIN of the vehicle on which the repair was performed. Fill in the rest of the claim as follows:

**Table 4. Credit Procedures for Talon/  
h-dnet.com/Lightspeed**

ENTRY FIELD	ENTER
Claim Type	PPC
Problem Part	Y0442.2AM
Quantity	Leave Blank
* Primary Labor Code	7848
Time	1.2 CAL 1.0 All Others
* Customer Concern Code	0507
Condition Code	9981
Replacement Kit Part No.	94753Y
Quantity	1
*These new codes may need to be downloaded into your system.	

Upon receipt and processing of the properly completed claim, you will be credited for labor as noted above for performing the required service. No credit will be issued for parts as they were shipped to you at no charge.

Each vehicle completion must be filed on an individual claim. Please do not submit additional warranty events on these claims.





**HARLEY-DAVIDSON MOTOR COMPANY**  
**P.O. BOX 594, MILWAUKEE, WI U.S.A 53201**  
**RECALL AND PRODUCT CAMPAIGN ORDER FORM**

**B-099 Buell 1125 Models Charging System Upgrade Product Program 0507**

TYPE CODE	ORDER TYPE	VEHICLE IDENTIFICATION NUMBER(S)
RC	RECALL	
PC	PRODUCT CAMPAIGN	

ORDER DATE
DEALER NUMBER

QUANTITY (MAX 5)	PART NUMBER	ITEM
	94753Y	Code 0507: 1125 CHARGING SYSTEM UPGRADE KIT
		<b>NOTE:</b> All orders are subject to approval. You may not receive the total quantity of kits ordered due to parts availability. If this happens, please submit another order for the balance, following all order procedures indicated in the Service Bulletin. Fax orders to the warranty department: 414-343-8346. You must include VIN number (if required) and your dealer number.

**ALL ORDERS SUBJECT TO ACCEPTANCE AT MILWAUKEE, WI USA 53201**

**NOTE:** An order acknowledgement is automatically generated and faxed to your dealership's fax number as listed in GDIS the same day as your order is entered at HDMC. This acknowledgement will provide you with the order status and order number. To retrieve order information based on the Harley-Davidson order number, go to P&A Order Inquiry on h-dnet.com under the Parts and Accessories link, select H-D Order Number, enter the order number and click "Submit". At the bottom of the page, click on "Track Part" to view tracking information for the order.



February 15, 2010

Dear Buell Motorcycle Owner,

Our records indicate you are the owner of a 2009 or 2010 1125R / 1125CR model, or a 2008 1125R model with a replacement engine. As part of our continuous improvement efforts, Buell Motorcycle Company has recently implemented a new charging system harness on the production line. This updated harness offers improved charging system durability in low rpm conditions.

In the interest of customer satisfaction, Buell Distribution Company, LLC is offering a no cost upgrade installation of a sub-harness which provides the improved charging system durability on the motorcycles described above built prior to September 24, 2009.

While this is not a safety issue, we do urge you to contact your authorized Buell motorcycle dealer as soon as possible to schedule an appointment to have this upgrade service performed. The service will be performed at no cost to you while the vehicle is under factory warranty, and will require less than one hour to perform. Due to scheduling however, the dealer may request to have your motorcycle for a longer period of time. Parts availability at your dealership will begin the week of February 15, 2010.

This no cost offer expires two years from the date of the program release, which would be February 15, 2010.

To verify that the service has been completed, your dealer will ask you to sign an acknowledgement when you pick up your motorcycle.

Thank you for your cooperation. We regret any inconvenience this may cause, but we have taken this action in the interest of your continued satisfaction with our product.

Sincerely,

Buell Distribution Company, LLC