# SERVICE BULLETIN

M-1137 June 03, 2003



### **VOLTAGE REGULATOR INFORMATION UPDATE**

# **Purpose**

To communicate a need for dealers to make corrections to the Electrical Diagnostic manuals of models with series style voltage regulator/rectifier.

# **Motorcycles/Manuals Affected**

- 2001 Softail Electrical Diagnostic Manual (Part No. 99498-01).
- 2002 Softail Electrical Diagnostic Manual (Part No. 99498-02 and 99498-02A).
- 2003 Softail Electrical Diagnostic Manual (Part No. 99498-03).
- 2002 Touring Electrical Diagnostic Manual (Part No. 99497-02).
- 2003 Touring Electrical Diagnostic Manual (Part No. 99497-03).
- 2002 VRSCA Electrical Diagnostic Manual (Part No. 99499-02 and 99499-02A).
- 2003 VRSCA Electrical Diagnostic Manual (Part No. 99499-03).

# **Required Dealer Action**

Update service literature and notify all service personnel.

# **Touring Models**

2002 and 2003 touring models incorporate a series style regulator/rectifier. Certain information in the 2002 and 2003 Electrical Diagnostic Manual does not reflect the use of this type of regulator/rectifier.

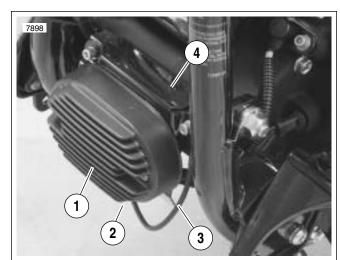
- In Section 1.7, replace page containing Test 1.7 (Part 1 of 2) of both manuals with a copy of page 3 of this bulletin.
- In Section 1.7 under Testing, remove the Regulator Bleed Test from the manuals.

#### Softail Models

The 2001, 2002 and 2003 Electrical Diagnostic Manuals contain incorrect voltage regulator information.

- In Section 1.7 under General, the voltage regulator is referred to as "a series regulator with shunt control."
  Remove the phrase "with shunt control."
- In Section 1.7 under Troubleshooting, the technician is instructed to test that the regulator/rectifier base is grounded. The regulator is not grounded at the base. The regulator is grounded by a wire that is connected to the regulator mounting bracket.

See Figure 1-1. To test if voltage regulator (1) is grounded, check that ground wire (3) leading from the regulator to the regulator bracket (4) has a good ground. Also check that the voltage regulator connector (2) is clean and tight.



- 1. Voltage regulator
- 2. Connector (under bracket)
- 3. Ground wire
- 4. Voltage regulator bracket

Figure 1-1. Voltage Regulator

#### **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	LEAD TECHNICIAN	TECHNICIAN NO.1	TECHNICIAN NO. 2	TECHNICIAN NO. 3	TECHNICIAN NO. 4	RETURN THIS TO	
INITIAL HERE										
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### **VRSCA Model**

The 2002 and 2003 VRSCA Electrical Diagnostic Manuals contain incorrect voltage regulator information.

- In Section 1.7 under General, the voltage regulator is referred to as "a series regulator with shunt control."
  Remove the phrase "with shunt control."
- In Section 1.7 under Troubleshooting, the technician is instructed to test that the regulator/rectifier base is grounded. The regulator is not grounded at the base. The regulator is grounded by a wire that is routed to the ground at the rear of the front cylinder head.

See Figure 1-2. To test if voltage regulator is grounded, check that ground wire leading from regulator to front cylinder head has a good ground.

### **Dyna Models**

Dyna models utilize a voltage regulator/rectifier with shunt control. The voltage regulator is compatible with the Regulator Bleed Test.

If voltage regulator is equipped with a ground strap, ground strap must have good ground between voltage regulator and frame.

### **Sportster Models**

Sportster models utilize a voltage regulator/rectifier with shunt control. The voltage regulator is compatible with the Regulator Bleed Test. No change to the manuals is necessary.

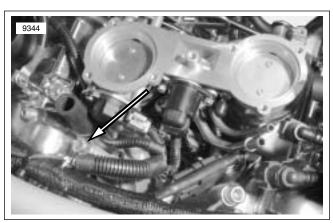
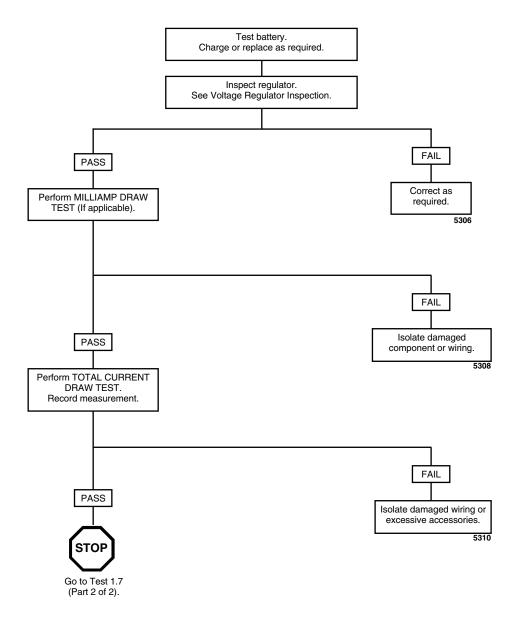


Figure 1-2. Voltage Regulator Grounding Fastener

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### **SYMPTOM: BATTERY BECOMES DISCHARGED**



#### NOTE

Whenever a charging system component fails a test and is replaced, retest the system to be sure the problem has been corrected.

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