

## BATTERY TESTING PROCEDURE - BATTERY INSTALLED ON MOTORCYCLE

**Equipment required: Voltmeter, battery charger.**

### STARTING LOAD TEST

- Set voltmeter to 0-20v DC range
- Connect a voltmeter to battery (+ to +) (- to -)
- Operate starter and note voltage reading whilst cranking

**Results:** Battery voltage should not drop below 9.5v

### CHARGING SYSTEM TEST

- Set voltmeter to 0-20v DC range
- Connect a voltmeter to battery (+ to +) (- to -)
- Start motorcycle and run engine
- at 3000-5000rpm
- Note voltage reading

**Results:** With engine running as above the voltage should maintain 13-14.5v. If battery voltage is lower, then proceed to check the charging system and associated wiring.

### STATIC BATTERY TEST

- Wait 1 hour if battery freshly charged or switch on ignition for 3 minutes, switch off and wait 10 minutes before proceeding.
- Set voltmeter to 0-20v DC range
- Connect a voltmeter to battery (+ to +) (- to -)
- Note voltage reading

### Results:

12.6v = fully charged  
12.4v = 75% charged  
12.1v = 50% charged  
11.9v = 25% charged

If battery less than fully charged, charge battery, remove from charger and rest for 1 hour and retest.

### VOLTAGE LEAKAGE TEST

- Set multimeter to read current (amps)
- Remove the negative (-) cable from the battery
- Connect multimeter negative (-) lead to battery negative (-) terminal
- Connect multimeter positive (+) lead to free end of battery negative (-) cable
- Note current flow (amps)

**Results:** Compare reading to vehicle specifications in Mike Technik. A typical reading is 2mA. A high current flow indicates a short circuit in the charging system or wiring. Take into account any accessories fitted with a constant current draw such as alarm or accessories not switched by the ignition circuit.

**Note:** When charging the motorcycle battery always use a charger suitable for the type of battery when charging Sealed (MF) or Lithium Ion batteries.

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## BATTERY TESTING PROCEDURE - BATTERY ON BENCH

**Equipment required: Voltmeter, Battery Load Tester**

### STARTING LOAD TEST

- Commence test with a fully charged battery
- Connect to battery load tester such as a Battery Mate 150-9
- Refer to the specific battery tester instructions and ensure the tester is set to the correct rated Ampere-hour (Ah) capacity of the battery
- Perform a simulated load test (typically 15 seconds in duration)

**Results:** Battery voltage should not drop below 9.5v

### STATIC BATTERY TEST

- Wait 1 hour if battery freshly charged
- Set voltmeter to 0-20v DC range
- Connect a voltmeter to battery (+to +) (-to-)
- Note voltage reading

### Results:

12.6v = fully charged  
12.4v = 75% charged  
12.1v = 50% charged  
11.9v = 25% charged

If battery less than fully charged, charge battery, remove from charger and rest for 1 hour and retest.

**Note:** When charging the motorcycle battery always use a charger suitable for the type of battery when charging Sealed (MF) or Lithium Ion batteries.

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