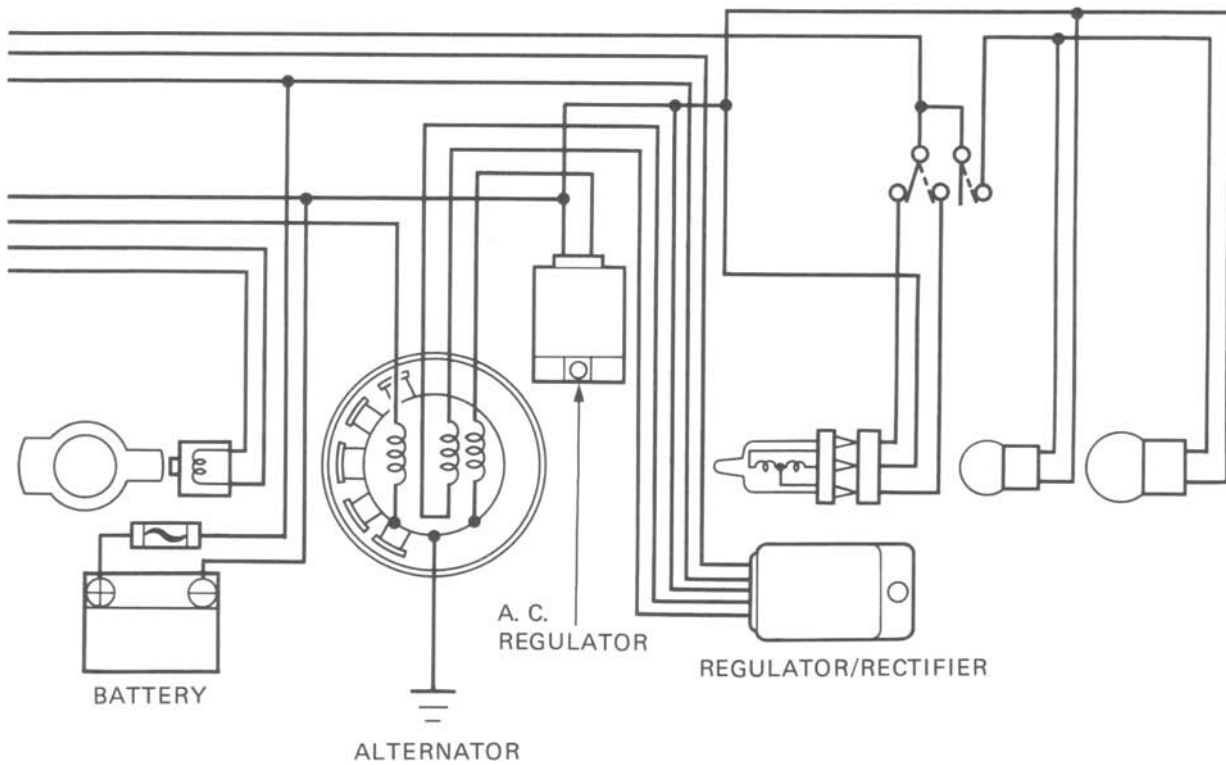
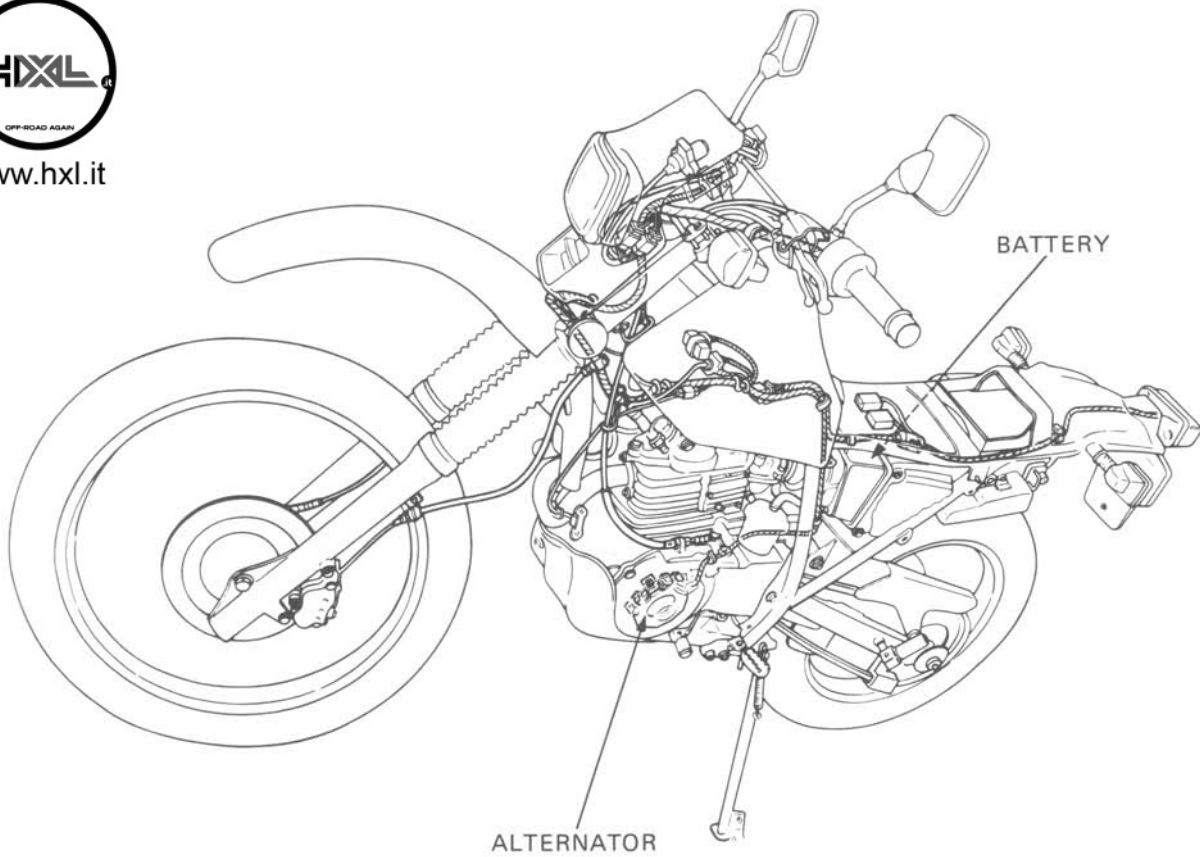




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SERVICE INFORMATION

GENERAL

- Battery acid level should be checked regularly and fluid with distilled water when necessary.
- Remove the battery from the motorcycle for charging whenever possible. If the battery must be charged on the motorcycle, keep flames and sparks away from a charging battery because it produces hydrogen gas.
- All charging system components can be tested on the motorcycle.
- For alternator removal, see page
- Quick-charging should only be done in an emergency; slow-charging is preferred.

SPECIFICATIONS

Alternator	
Charging rpm	8,000 rpm maximum
Charging output	6.5 amperes maximum at 8,000 rpm 3 amperes minimum at 2,500 rpm
Battery	12V 3AH
Capacity	
Fuse	Main 10A
Rating	
Voltage regulator	Transistorized non adjustable regulator

TROUBLESHOOTING

No Power — Key Turned On:

1. Dead battery
 - Battery not charged
 - Battery electrolyte evaporated
 - Charging system failure
2. Disconnected battery cable
3. Main fuse burned out
4. Faulty ignition switch

Low Power — Key Turned On:

1. Weak battery
 - Low battery electrolyte level
 - Battery run down
 - Charging system failure
2. Loose battery connection

Low Power — Engine Running:

1. Battery undercharged
 - Low battery electrolyte level
 - One or more dead cells
2. Charging system failure

Intermittent Power:

1. Loose battery connection
2. Loose charging system connection
3. Loose connection or short circuit in ignition system
4. Loose connection or short circuit in lighting system

Charging System Failure:

1. Loose, broken, or shorted wire or connection
2. Faulty voltage regulator
3. Faulty rectifier
4. Faulty alternator

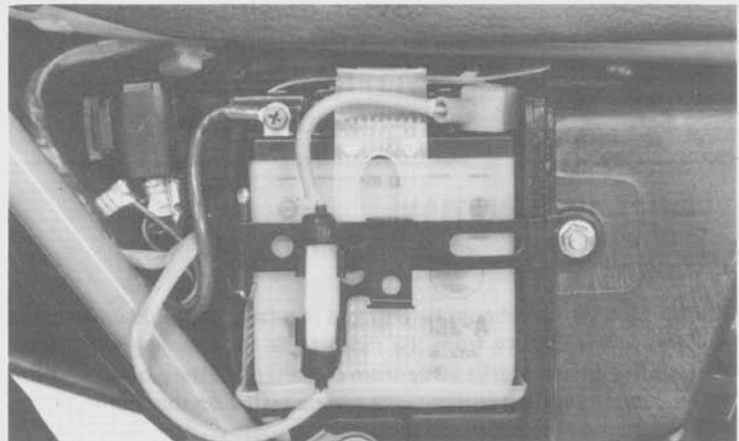


BATTERY/CHARGING SYSTEM

BATTERY

REMOVAL

Remove the right side frame cover.
Remove the nut and open the battery holder.
Disconnect the negative terminal, then positive terminal at the battery.
Remove the battery.



SPECIFIC GRAVITY TEST

Test each cell by drawing electrolyte into a hydrometer.

SPECIFIC GRAVITY (20°C/68°F)

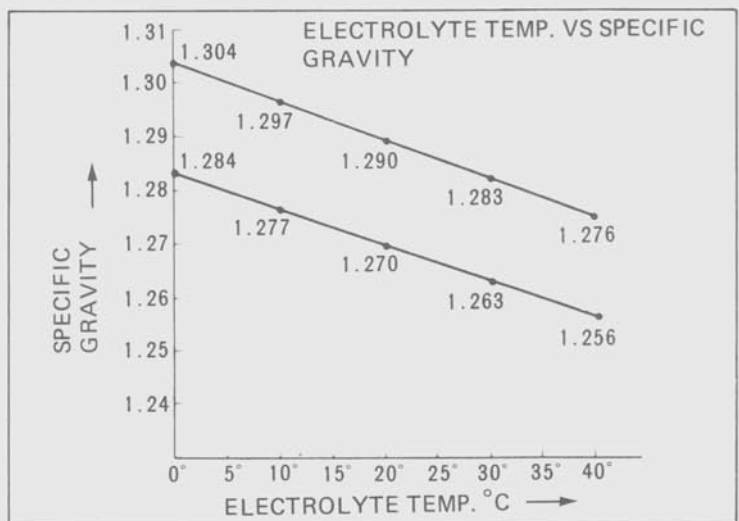
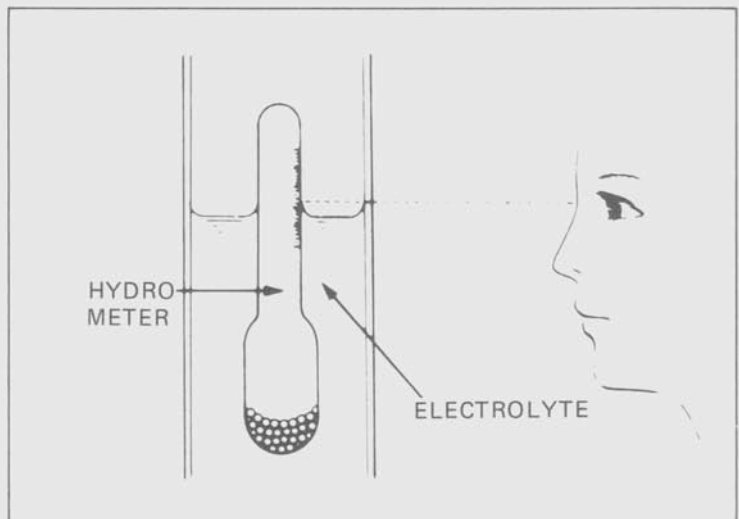
1.27–1.29 Fully charged
1.26 or below Undercharged

NOTE

- The battery must be recharged if the specific gravity is below 1.23.
- The specific gravity varies with the temperature as shown.
- Replace the battery if sulfation is evident.
- The battery must be replaced if there is sediment on the bottom of the cell.

WARNING

*The battery contains sulfuric acid. Avoid contact with skin, eyes, or clothing.
Antidote: Flush with water and get prompt medical attention.*





BATTERY CHARGING

Connect the charger positive (+) cable to the battery positive terminal.

Connect the charger negative (-) cable to the battery negative (-) terminal.

Charging current:
1.2 amperes maximum

Charging:
Charge the battery until specific gravity is 1.27~1.29 at 20°C (68°F)

WARNING

- Before charging a battery, remove the cap from each cell.
- Keep fire and sparks away from a charging battery.
- Turn power ON/OFF at the charger, not at the battery terminals.
- Discontinue charging if the electrolyte temperature exceeds 45°C (117°F).

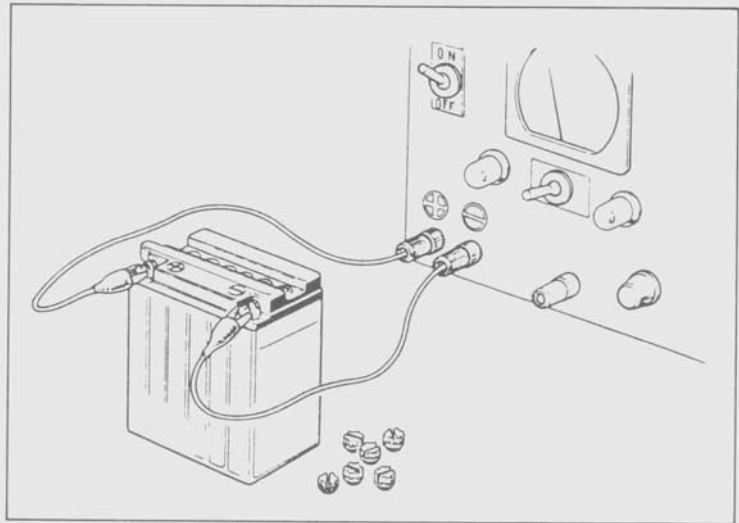
CAUTION

Quick-charging should only be done in an emergency; slow-charging is preferred.

After installing the battery, coat the terminals with clean grease.

CAUTION

Route the breather tube as shown on the battery caution label.



CHARGING SYSTEM

NOTE

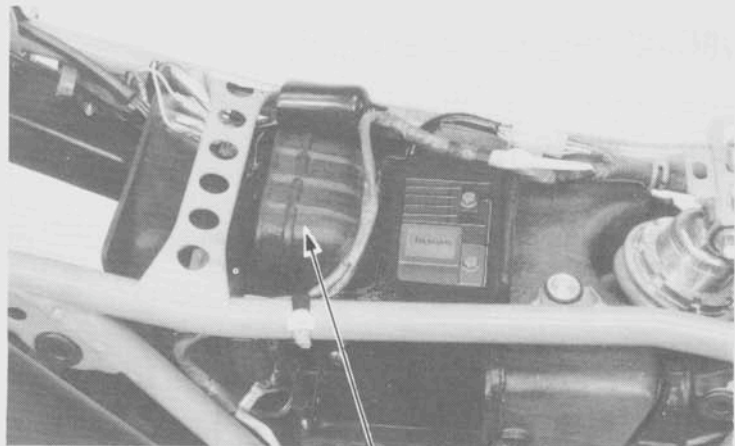
Use a fully charged battery to check the charging system output.

Warm up the engine by riding for 10 minutes before taking the reading. Disconnect the wire from the regulator/rectifier coupler.

NOTE

The regulator/rectifier is a critical part. Be careful not to damage it.

Disconnect the headlight, taillight and running lights.



REGULATOR/LECTIFIER



BATTERY/CHARGING SYSTEM

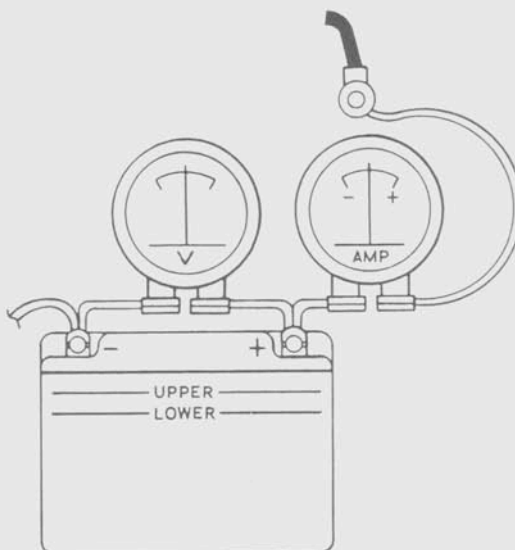
Connect a voltmeter and an ammeter to check the charging system output.

Start the engine and check the meter readings while increasing engine speed slowly.

• TECHNICAL DATA

Charging start begins at 1,000 rpm
2,500 rpm 16.8V/3A min.
8,000 rpm 18.4V/6.5 max.

If there is no charging current, check each charging circuit connection for looseness. If the connections are good, check the alternator charging coil for continuity.



AC GENERATOR

NOTE

It is not necessary to remove the stator to make this test.

CHARGING COIL:

The charging coil is good if there is continuity between the pink wire and the yellow wire.

RESISTANCE IN NORMAL DIRECTION:
0.95–1.29Ω

LAMP COIL

The lamp coil is good if there is continuity between the white/yellow wire and ground.

RESISTANCE IN NORMAL DIRECTION:
0.4–0.55Ω

If there is no continuity, there is an open circuit; replace the stator coil.

VOLTAGE REGULATOR/RECTIFIER

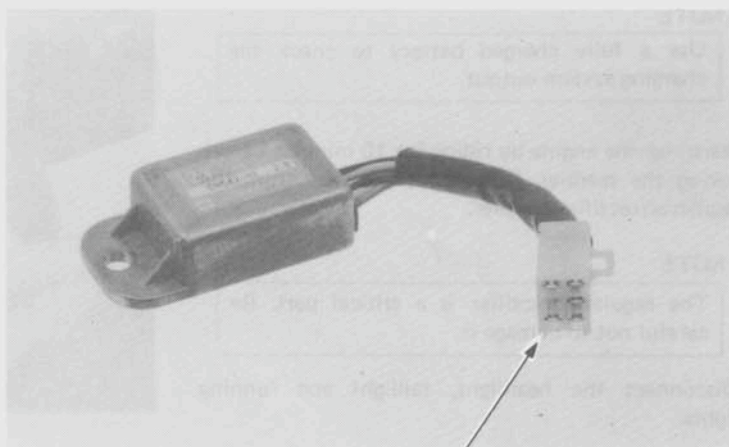
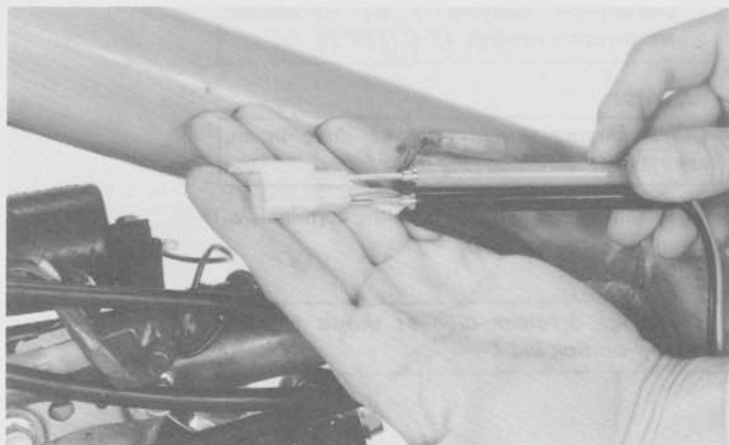
REGULATOR/RECTIFIER PERFORMANCE TEST

Disconnect the regulator/rectifier couplers.

Check the resistances between the leads with an ohmmeter. If the resistance is out of the specifications, replace the regulator rectifier.

NOTE

- Use a SANWA [SP-10D] or KOWA [TH-5H] tester.
- The regulator/rectifier has a semiconductor, that if using a different tester the test results will be out of specification.



REGULATOR/RECTIFIER COUPLERS



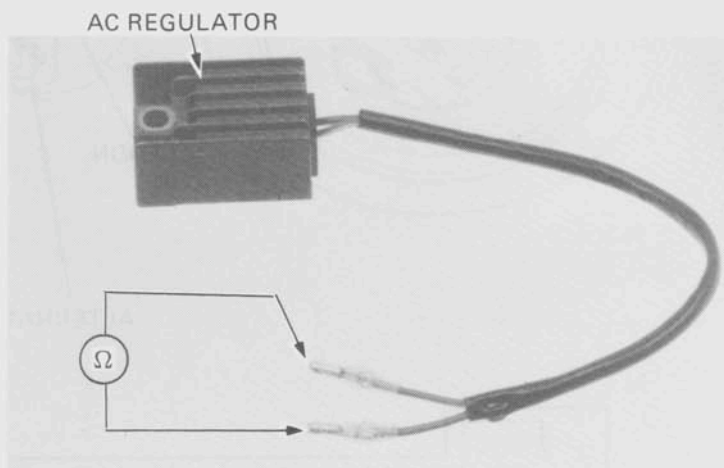
Tester range: KOWA X100Ω, SANWA XK Ω

+ Probe - Probe	Yellow	Pink	Green	Red	Black
Yellow		∞	∞	1-20	∞
Pink	∞		∞	1-20	∞
Green	1-20	1-20		3-100	0.2-20
Red	∞	∞	∞		∞
Black	1-50	1-50	0.2-10	3-100	

AC REGULATOR

Remove the headlight and connect a voltmeter.
Switch the dimmer to "HI" position.
Start the engine and check the meter readings while increasing engine speed slowly.

SPECIFIC VOLTAGE: 13.5-14.5V at 5,000 rpm



Check the resistance between the leads.

Tester range: KOWA X 100Ω, SANWA X K Ω

+ Probe - Probe	White	Green
White		10-900
Green	10-900	