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# SERVICE INFORMATION

#### GENERAL

#### AWARNING

- // the engine must be running to do some work, make sure the area is well-ventilated. Never run the engine in an enclosed area. The exhaust contains poisonous carbon monoxide gas that can cause lass of consciousness and may lead to death.
- The battery gives off explosive gases; keep sparks, flames and cigarettes away. Provide adequate ventilation when charging.
- The battery contains sulfuric acid (electrolyte). Contact with skin or eyes may cause severe burns.
- If electrolyte gets on your skin, flush with water.
- If electrolyte gets in your eyes, flush mth water for at least J5 minutes and call a physician.
- Electrolyte is poisonous.
- If swallowed, drink large quantities of water or milk and follow with milk magnessia or vegetable oil and call a physician.

#### CAUTION

- For battery charging, do not exceed the charging current and time specified on the battery (and shown below). Use of excessive current or charging time may damage the battery.
- Quick charge a battery only in an emergency. Slow-charging is preferred.
- Remove the battery from the frame for charging. If the battery must be charged in the frame, disconnect the battery cables.
- The battery on this motorcycle is a permanently sealed type. Never remove the filler hole caps even when the battery is being charged.
- Be sure to charge the battery with the amount of current and for the time indicated on the battery label and as given below. Charging with excessive current and/or too fast may cause battery failure.

#### Battery charging

#### NOTE

 Refer to the instruction in the Operation Manual for the Honda Battery Tester and Christie Battery Charger for detailed battery charging steps.

After activation, both conventional and maintenance-free batteries must be charged at the appropriate ampere-hour rating for the proper length of time.

Set the Battery Amp. Hr. Selector Switch on the Christie Charger (#MC 1012/2) for the size of the battery being charged. Set the Timer to the NEW BATT position and connect the battery clamps. When the timef reaches the "trickle" position, the charging cycle is complete.

After charging, test the condition of the new battery using the Honda Battery Tester (07GMJ - 0010000) - refer to the Operation Manual for complete details.

#### Battery Charging/Testing equipment

The Christie Battery Charger (#MC 1012/2) is a constant current (amperage) type designed to produce current at a constant rate for the duration of the charge, even if the voltage varies.

The Honda Battery Tester {07GMJ-0010000} puts a "load" on the battery so that the actual battery condition at the time of the load can be measured. This provides an accurate determination of the battery condition — good Igreen), fair (yellow), or poor (red).

# SPECIFICATIONS

ITEM			STANDARD
Battery	Capacity		12 V-6 AH
	Voltage at 20°C (68°F)	Fully charged	13.0-13.2 V (at 25°C)
		Needs charging	12.3 V
	Charging current		0.6 amperes
	Charging time		10 Hr
egulator/rectifier Type		Three-phase/full-wave rectify	
	Regulated voltage		13.5-15.5 V/5,000rpm
Alternator	Charging coil resistance at 20°C (68°F)		0.1-I.Ofl
	Output		0.2 kw/5,000 rpm
	Charging start rpm		1,000 ± 100 rpm

### TOOLS

Digital multimeter Circuit tester (SANWA) or Circuit tester (KOWA) Christie battery charger Honda battery tester 07411 -0020000 or KS-AHM-32-003 (U.S.A. only) 0730S-0020001

TH-5H MC1012/2 (U.S.A. only) 07GMJ-0010000 (U.S.A. only)

# TROUBLESHOOTING

#### NOTE

- If the battery is overcharged, check for --
- Loose or poorly connected black wire terminal at the regulator/rectifier 3P connector
- Open circuit in black wire
- Faulty regulator/rectifier

#### Battery undercharged ABNORMAL Perform the leakage current inspection (page Open or short circuit in wire haness 15-4). Loose connector NORMAL REGULATED Start the engine and perform the regulated volt-Faulty battery age inspection (page 15-5). LOW VOLTAGE (SAME AS BATTERY VOLTAGE) Measure the voltage between the RW (+) and G NO VOLTAGE $(\rightarrow)$ wires and BI and G (with ignition switch ON) Open or short circuit in wire harness of the regulator/rectifier connector (wire har-Loose connector ness side). BATTERY VOLTAGE MEASURED OUT OF ORDER Check the alternator stator coil (page 15-4). Faulty stator coil NORMAL ABNORMAL Check the regulator/rectifier by itself lpage 1 5-Faulty regulator/rectifier 5). NORMAL Loose connector

# 16-3

# BATTERY

#### REMOVAL

#### Remove the seat.

Disconnect the negative terminal from the battery. Remove the holder plate.

Pull out the battery and disconnect the positive terminal. Remove the battery.

#### NOTE

• Refer to the instructions in the Operation Manual for the Honda Battery Tester and Christie Battery Charger for detailed battery testing steps.

### CHARGING

#### NOTE

 Refer to the Operation Manual for the Honda Battery Tester and Christie Battery Charger for details on battery charging steps.

Turn the power switch OFF. Set the Battery Amp. Hr. selector switch for the size of the battery and set the timer to the position indicated by the Honda Battery Tester,

Attach the clamps to the battery terminals — RED to positive, SLACK to negative.

Turn the power switch ON.

After charging is complete,, retest the battery and recharge if necessary.

#### A WARMING

- The battery generates hydrogen gas which can be highly explosive. Do not smoke or allow flames or sparks near the battery, especially while charging.
- If the engine must be running to do some work, make sure the area is well-ventilated. Never run the engine in an enclosed a area. The exhaust contains poisonous carbon monoxide gas that can cause loss of consciousness and may lead to death.
- Turn power ON/OFF at the charger, not at the battery terminals.

#### CAUTION

- Quick-charging should only be done in an emergency; slow charging is preferred.
- Be sure to charge the battery with the correct current and for the time indicated.
- Charging with excessive current and/or too fast may cause battery failure.

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







# **URGING SYSTEM**

#### LEAKAGE CURRENT INSPECTION

Check the battery for ampere leakage before making an charging output inspection.

Turn the ignition switch OFF. Remove the negative cable from the battery.

Connect ammeter between the negative cable and battery *negative (-)* terminal,

The ammeter should indicate below 1 mA with the ignition switch OFF.

### REGULATED VOLTAGE INSPECTION

#### NOTE

order to obtain accurate test readings when checking the merging system, the battery must be fully charged and in good condition before performing this test.

#### WARNING

f" the engine must be running to do some work, make sure the area is well-ventilated. Never run the engine in an enclosed area. The exhaust contains posisonous carbon monoxide gas that can cause loss of consciousness and may lead to death.

Warm up the engine to normal operating temperature, Stop the engine, and connect the voltmeter as shown, Connect the tachometer and restart the engine,

Allow the engine to idle, and increase the engine speed gradually

The voltage should be controlled to 13.5–15.5 V at 5,000 rpm. If it is not; check the regulator/rectifier.

#### DAUTION

• Be careful not to allow the battery positive cable to touch the frame while testing.

# ALTERNATOR

#### NOTE

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

#### INSPECTION

Disconnect the regulator/rectifier (alternator) 3P connector. Check the resistance between the connector terminals.

STANDARD: 0.1-1.0 Q (at 20°C/68°F)

Check for continuity between the connector terminals and ground. There should be no continuity.

Replace the alternator stator if readings are far beyond the standard, or if any wire has continuity to ground. Refer to section 8 for stator removal.







# **REMOVAL/INSTALLATION**

Disconnect the connector and remove the bolts and regulator/ rectifier from the air cleaner case.

