
13. The Rear Wheel, the Rear Brake & Rear Shock

Assembling the Rear Shock

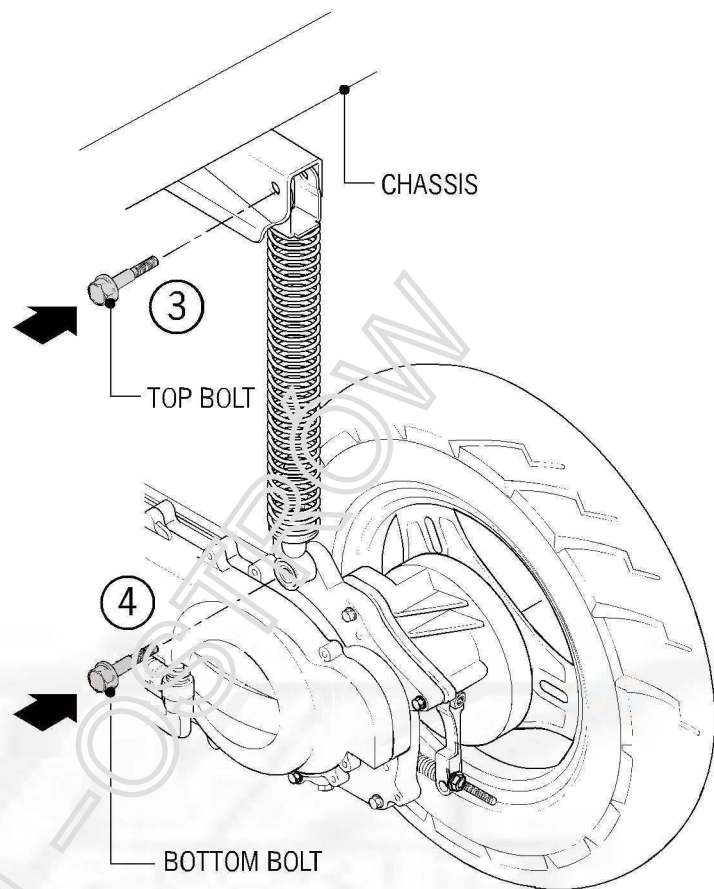
1. Attach the rear shock.
2. Install the top bolt of the shock.
3. Install the bottom bolt of the shock.
4. Tighten the nuts and the bolts.

Torque

Top bolt: 4.5kg•m 30ft lbs

Bottom bolt: 3.0kg•m 20ft lbs

5. Assemble the lid of the body.

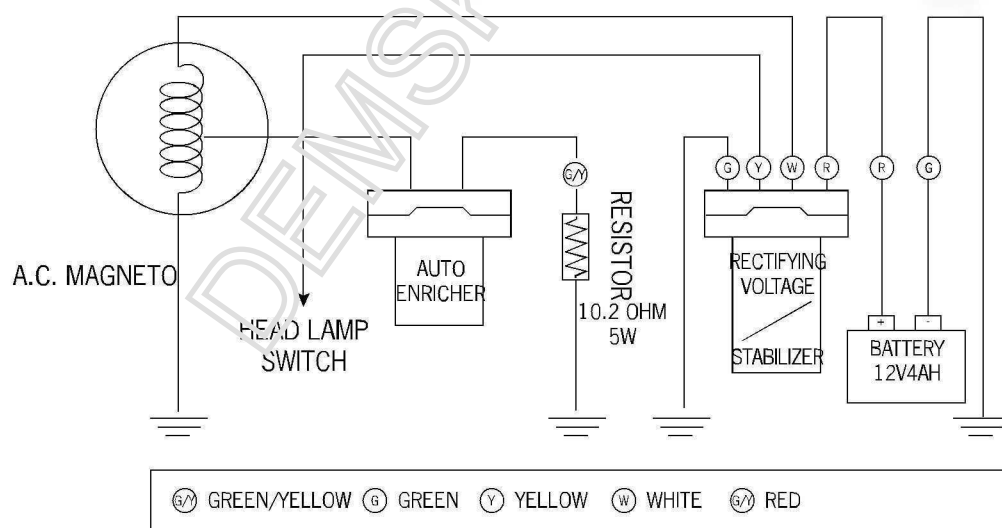
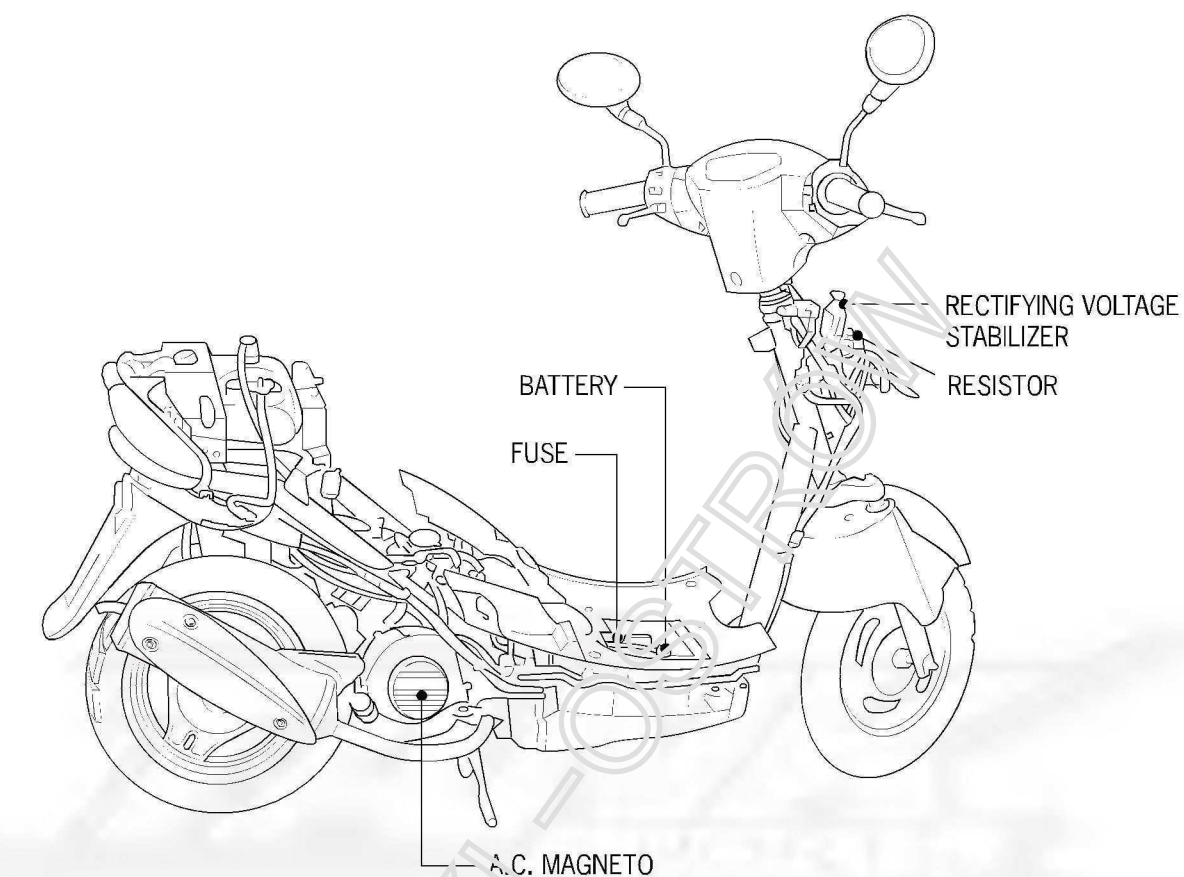


14. The Battery and the Charging System

MEMO

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14. The Battery and the Charging System



14. The Battery and the Charging System

Topic	Page	Topic	Page
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Checking the resistor	14-6	Dismounting the Magneto	14-9
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Important Points

The electrolyte (diluted sulfuric acid) is very toxic. DO NOT allow acid to splash onto clothes, the skin or eyes to protect them from burning. Eye contact with acid may cause blindness. In case of contact with the acid, use a large amount of clean water to flush and rinse the areas in which the acid came into contact. See a Physician immediately. If the electrolyte acid gets into clothes, it will permeate to the skin. Remove tainted clothes immediately and then put them in water to rinse.

- The battery can withstand numerous cycles of charging and discharging as long as it is not left in a discharged condition for a long period of time.
 - If the battery is overcharged, it can be detected by close inspection of the battery itself. If the battery is exposed to an extreme overcharged condition, it can break down and short circuit internally. In this condition, the battery will produce zero voltage under all load and charge conditions. An overcharged battery can “boil off” the electrolyte solution. This problem can be due to excessive time on a battery charger or a failed voltage regulator.
 - If the scooter is left to sit for a long time or is stored, the battery will slowly discharge. It is advisable to recharge the battery before attempting to start the scooter after a period of storage.
 - When filling a new battery with acid, allow it to sit and “breathe” for fifteen minutes before installing it into the scooter or charging it. It is advisable to charge a new battery after filling with acid even though it may appear to have sufficient charge.
 - When working on the scooter’s electrical system, make sure that the main switch is turned off and/or the battery is disconnected. Disconnecting and reconnecting of live circuits can cause high instantaneous currents that can damage the battery and cause injury.
 - Any short-circuiting of the wiring can cause damage to the battery.
-

14. The Battery and the Charging System

Tech Criteria

Item			Data
Battery	Capacity/Type		12 V-4AH or 12V-5AH
	VOLT (20°C)	Fully charging	13.1V
		Low limit	12.3V
	Charging CUR		Standard: 0.4A; Fast: 2A
	Charging hours		Standard: 5-10 hrs; Fast: 1hr
Magneto	Capacity		0.144KW/5000rpm
	Resistance of lighting coil (20°C)		Between yellow-green 0.1-1.0 OHM
	Resistance of charging coil (20°C)		Between white-green 0.2-1.2 OHM
Rectifying Volt Stabilizer	Type		Single phase, half-wave SCR charging; SCR half-wave short circuit mode
	Limited volt	Lighting	12-14/5000 rpm (multimeter, RPM meter)
			13.5 +/- 0.5V
		Charging	14.5 +/- 0.5V/3000-8000rpm
	Resistance (20°C)		5W/4 OHM
Resistor	Resistance (20°C)		30W/7.5 OHM

Torque

The bolt of the triggering coil 0.5kg·m 40in lbs
 The fix bolt of the coil 0.9kg·m 4ft lbs
 The fix bolt of the flywheel 3.8kg·m 25ft lbs
 The bolt of the cooling fan 0.9kg·m 7ft lbs

Tool

Universal fixing wrench
 Fly wheel puller
 Multi-meter

Diagnosis

No power supply

- Battery over-discharging
- Battery wiring improper
- Burnt fuse
- Broken electro switch lock

Unstable current

- Bad battery wiring contact
- Bad contact of discharging system
- Poor contact/short circuit of the lighting system.

Low voltage

- Improper battery charging
- Bad contact
- Poor charging system
- Damaged rectifying volt stabilizer

Poor charging system

- Bad contact, breaking or short circuit of the wiring connector
- Poor rectifying stabilizer
- Damaged magneto

14. The Battery and the Charging System

Detaching the Battery

1. Remove the screws of the battery cover under the floor mat.
2. Open the cover and remove the battery cable attachment screws.



Attention:

First detach the negative (-) terminal wire, then the (+) terminal wire. When detaching the positive (+) terminal wire, make sure that the tool does not contact the frame.

3. When assembling, operate in the opposite sequence of dismounting.



Attention:

In order to prevent short circuiting, first connect the (+) terminal wire, then the negative (-) terminal wire

Checking the charging condition (open circuit volt)

1. Open the battery cover and disconnect the battery.
2. Measure the voltage across the terminals of the battery.

Fully charged: 13.1V

Inadequately charged: 12.3V

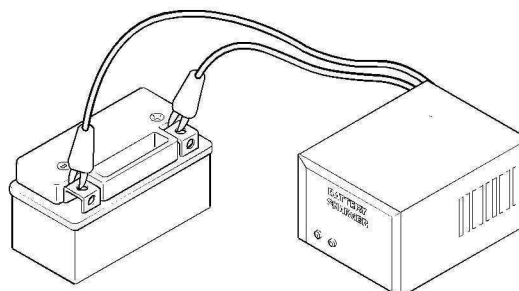
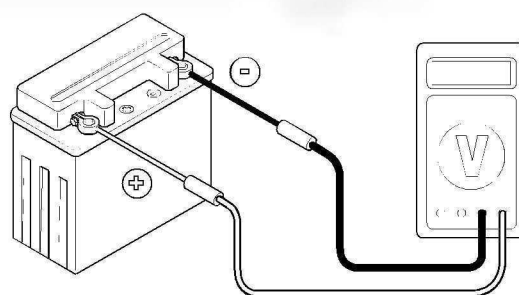
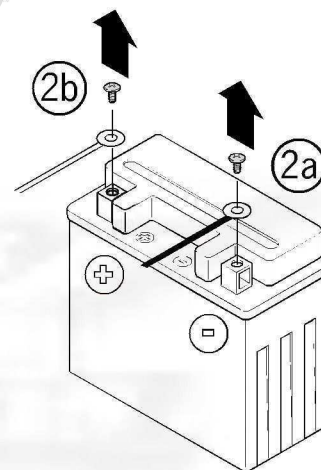
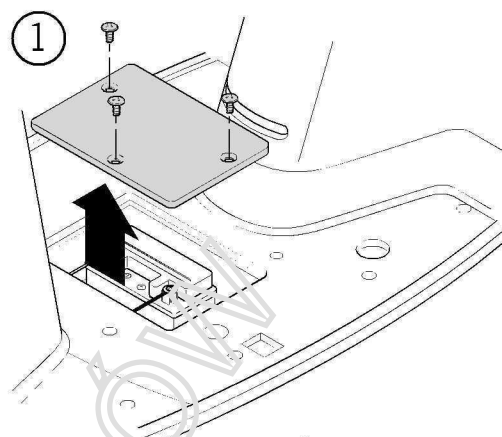


Attention:

Use a volt meter to check the charging condition.

Charging

1. Connect the (+) terminal pole of the charger to the (+) terminal pole of the battery and the negative (-) terminal pole of the charger to the negative (-) terminal pole of the battery.



14. The Battery and the Charging System



Attention:

- No sparks should be allowed around the battery.
- Turn off the charger first, either at the beginning or the end of the charging, to prevent sparks, which can cause an explosion.
- When charging, operate at the current and time marked on the battery.
- Unless in an emergency situation, do not use fast charging.
- Measure the voltage only 30 minutes after charging.

Charging current:

Standard 0.4A

Fast: 2A

Charging Hours:

Standard: 5-10hrs

Fast: 1hrs.

When charging ends:

Open-circuit voltage: above 12.8V

Note: During charging, the temperature of the battery is not allowed to go beyond 45°C (110°F).

14. The Battery and the Charging System

The Charging System

Testing short circuit

1. Detach the earth wire from the battery.
2. Connect the ammeter between the "-" terminal of the battery and the earth wire, the main switch being in the "off" position to check whether it's short-circuited.



Attention:

The (+) terminal of the multi-meter is connected to the "-" pole of the battery, while negative (-) terminal wire of the multi-meter is connected to the earth wire.

3. When an abnormal sign appears, check if there is a short circuit in the main switch and the main cable.

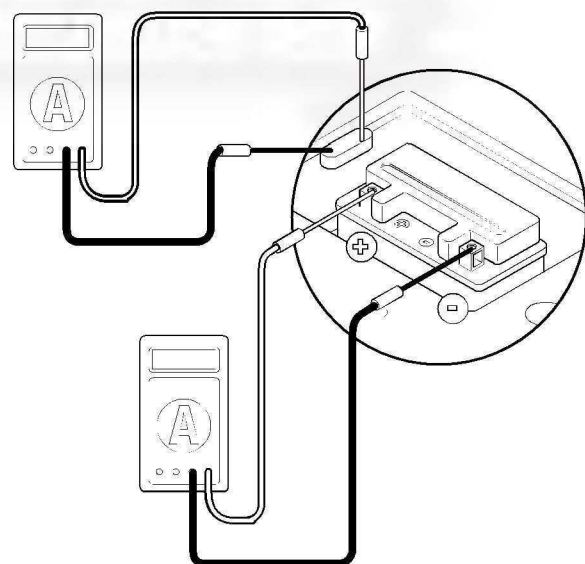
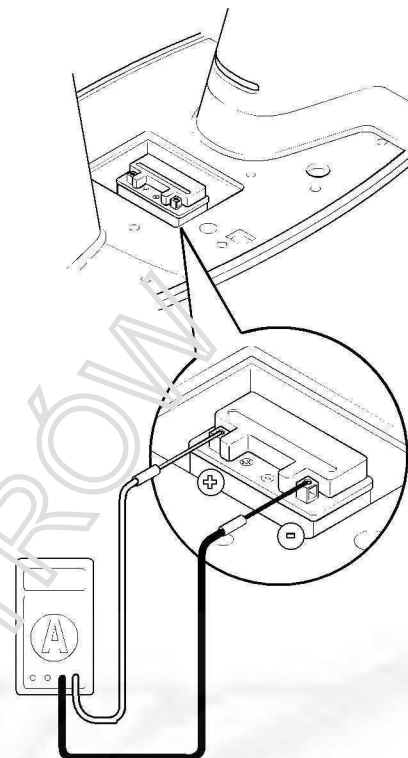
Checking the Charging Condition

1. When the battery is in full charging condition, use a multi-meter to test.
2. After the engine is warmed up, install the fully-charged battery. Connect the voltmeter across the terminals of the battery.
3. Remove the main fuse and connect the ammeter between the terminals.
4. Connect the RPM meter to the engine.
5. Start the engine, when the speed of the engine slowly rises, measure the charging voltage and current.

Limiting Voltage/Current:

Below 14-15V 0.5A (Below 5000rpm)

When the limiting voltage goes beyond the above scope, check the rectifying voltage stabilizer (refer to 14-5).



Switch Position			
RPM	OFF	P	H
2500	>1.0A	>1.0A	>1.0A
5000	>1.5A	>1.5A	>1.5A

14. The Battery and the Charging System

The rectifying voltage stabilizer

- 1. Checking the main cable circuit.
- 2. Detach the 4P plug from the rectifying voltage stabilizer.
- 3. Check the conductivity between terminals of the main cable in the following way:

Item (matching color wire)

Checking the Rectifying Voltage Regulator

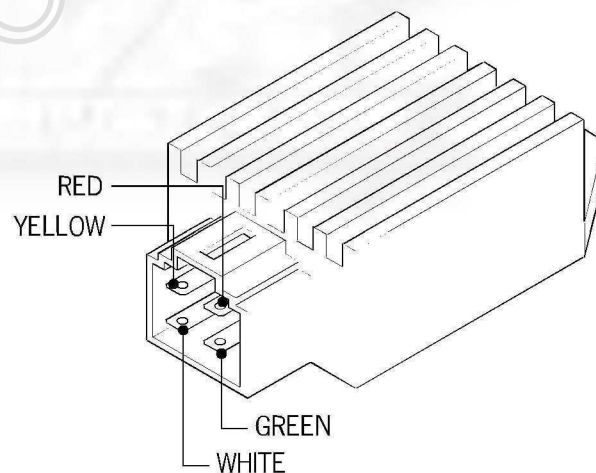
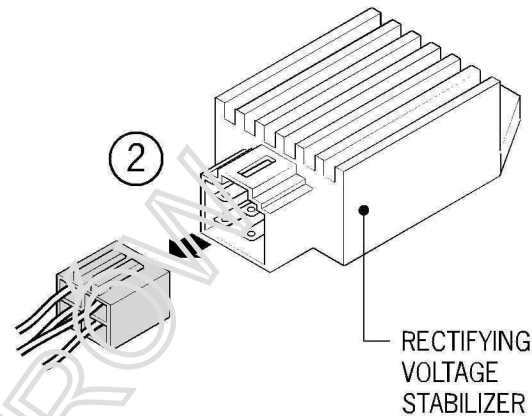
- 1. After the main cable has been tested and found normal, check the plug of the rectifying voltage stabilizer contact well and measure the resistance among the terminals of the regulator.

Attention:
Make sure that your finger doesn't touch the metal part of the test bar of the multi-meter because the human body has resistance.

Use a multi-meter to test.

Test positions per chart.

- 2. When the resistance among the terminals is abnormal, replace the rectifying voltage stabilizer.



Multimeter	White	Yellow	Red	Green
Multimeter				
White		∞	3K-50K	∞
Yellow	∞		∞	5K-100K
Red	∞	∞		∞
Green	∞	5K-100K	∞	

14. The Battery and the Charging System

The Magneto Charging Coil



Attention:

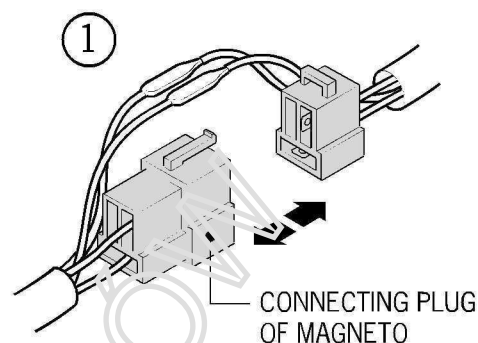
This operation of the magneto charging coil can be accessed within the engine.

Checking

1. Detach the connecting plug of the magneto.
2. Use a multi-meter to measure the resistance between the white wire of the magneto and the ground.

Criterion: 0.2-1.2 OHM (20°C)

When the value goes beyond the criterion, replace the magneto coil.



Checking The magneto lighting coil



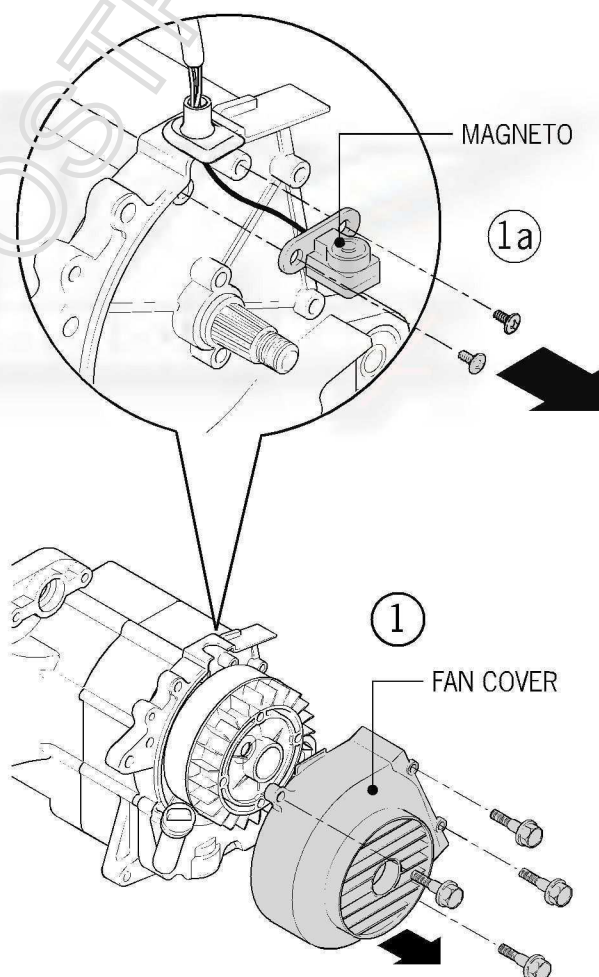
Attention:

This operation of the lighting coil can be accessed within the engine.

1. Detach the connecting plug of the magneto.
2. Use a multi-meter to measure the resistance between the yellow wire and the ground.

Criterion: 0.1-1.00HM (20°C)

When the value goes beyond the criterion, replace the magneto coil.



Checking the Resistor

1. Measure the resistance between the resistor wire and the ground.

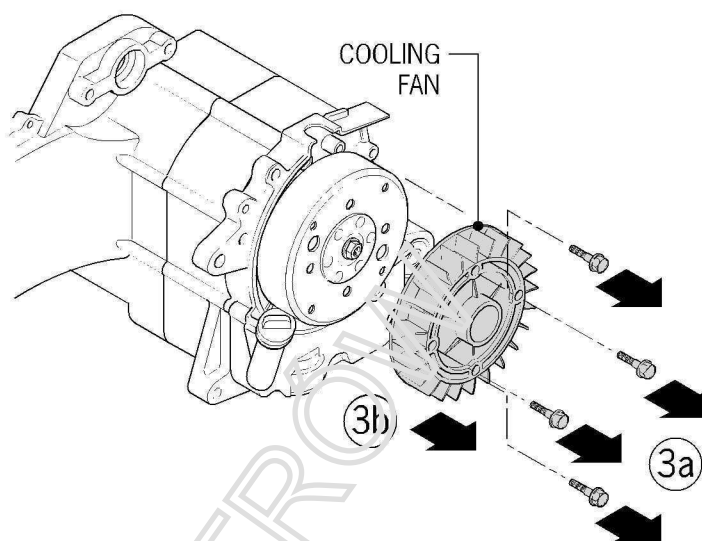
Criterion: 30W7.5 OHM : 6.0-9.0 OHM
5W14 OHM : 13-15 OHM

Dismounting the Magneto

1. Detach the right side guide strip (refer to 2-3)
Remove the four bolts, four screws and remove the fan cover.

14. The Battery and the Charging System

3. Remove the four bolts and remove the cooling fan.



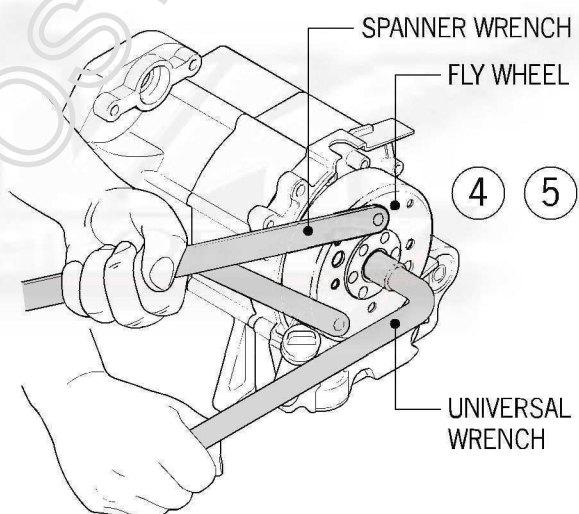
4. Use a universal solid wrench to secure the flywheel. Detach the fix nuts of the flywheel.

5. Use a spanner wrench hold flywheel while removing the retaining nut.

6. Use a flywheel puller to remove the flywheel.

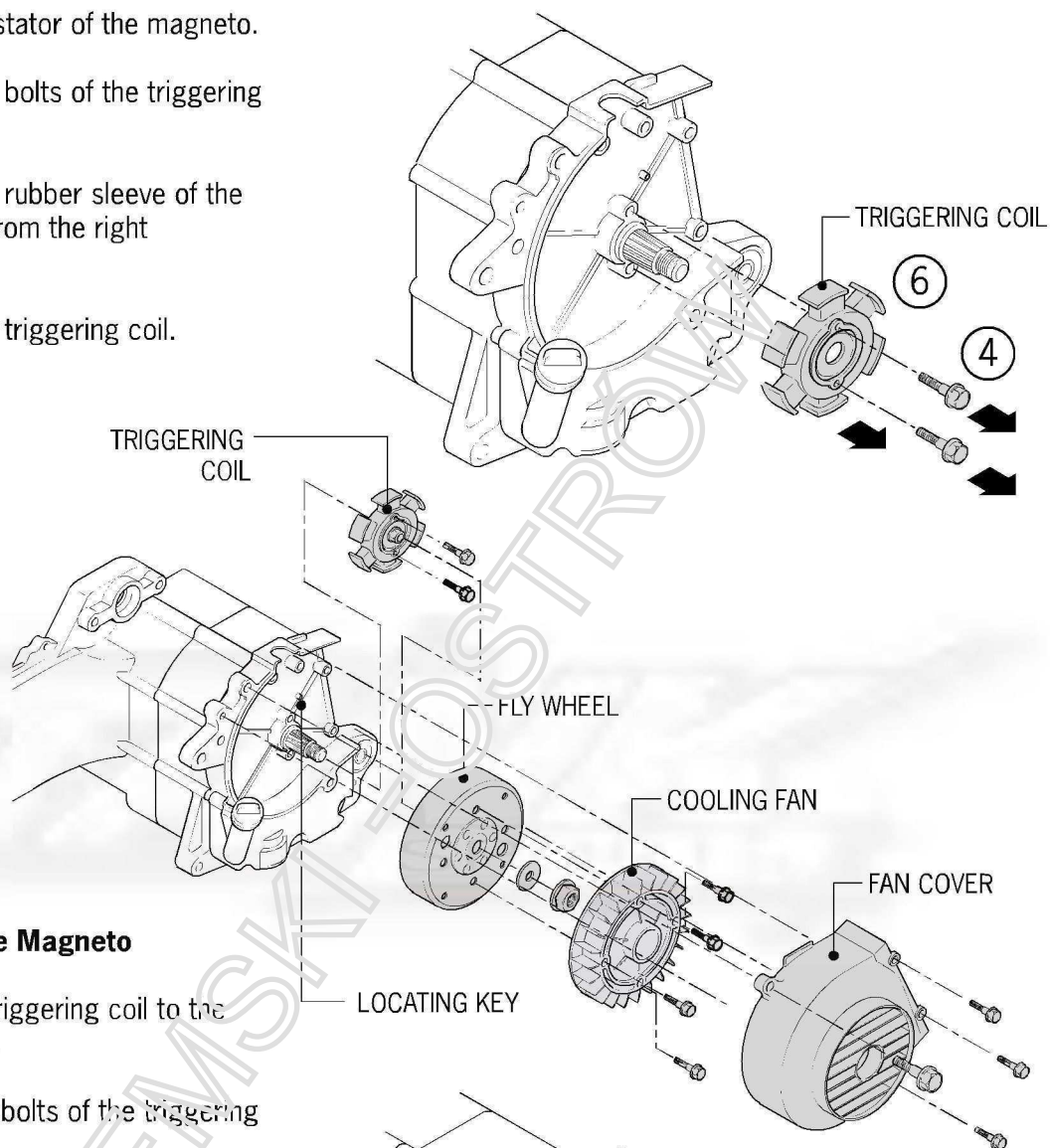
7. Remove and save the key.

8. Detach the connecting wire of the magneto.



14. The Battery and the Charging System

3. Detach the stator of the magneto.
4. Remove the bolts of the triggering coil.
5. Remove the rubber sleeve of the magnetor wire from the right crankcase.
6. Remove the triggering coil.

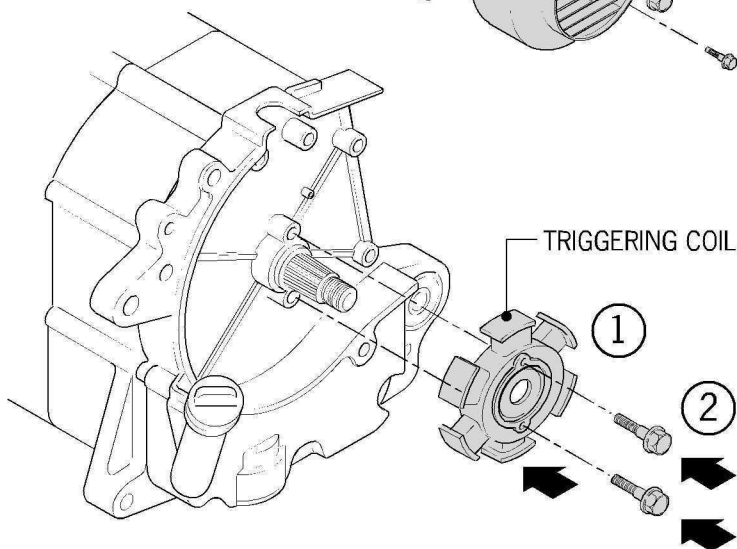


Assembling the Magneto

1. Attach the triggering coil to the right crankcase.
2. Lock the fix bolts of the triggering coil.

Torque:
The triggering coil: 0.5 kg•m
40in lbs
The stator: 0.9kg•m 7ft lbs

3. Set up the rubber sleeve of the magneto wire.



14. The Battery and the Charging System

4. Connect the connecting wire of the magnetor.

5. Clean the cone part of the crankshaft and of the flywheel. Be sure to lay the locating key of the flywheel into the keyway on the crankshaft precisely. Point the groove of the flywheel to the locating key on the crankshaft and then assemble it.



Attention:

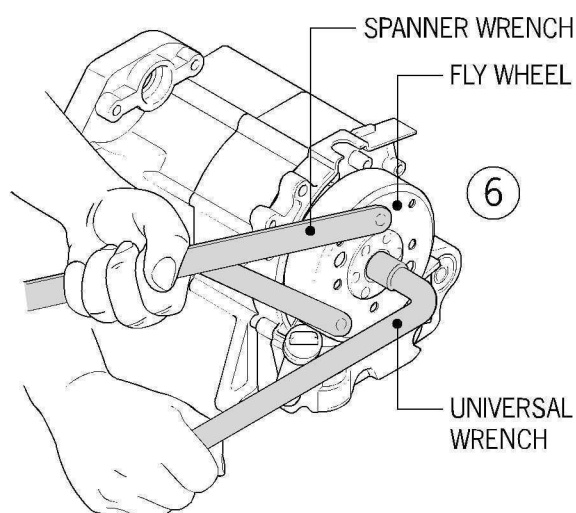
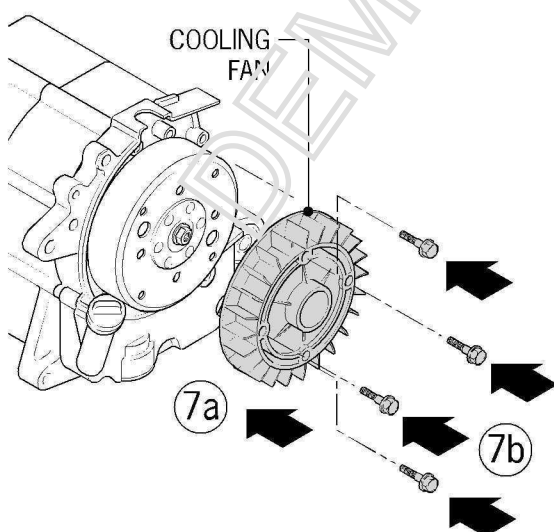
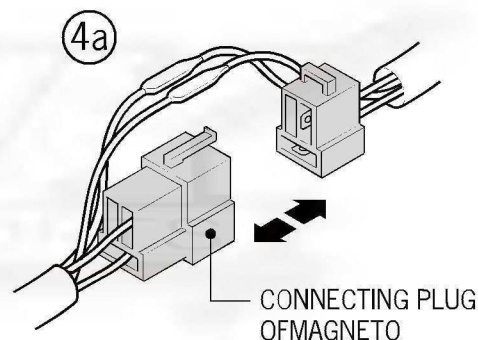
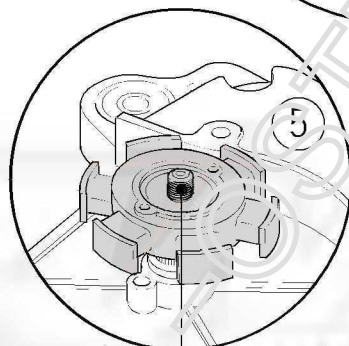
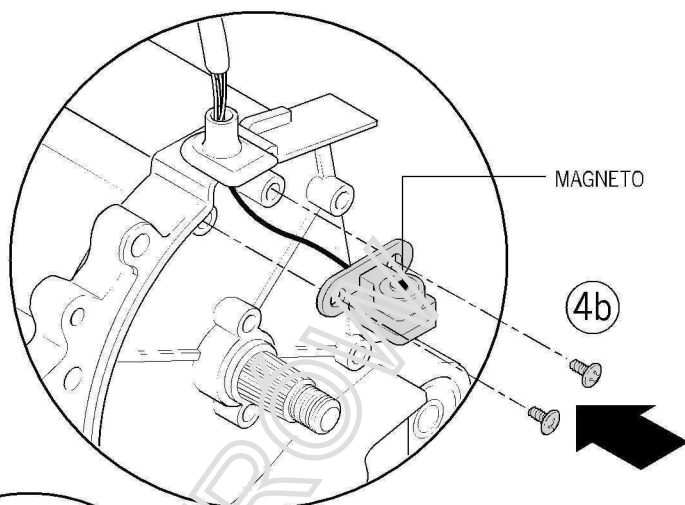
Make sure that there is no bolt/nut inside the flywheel, and then assemble it.

6. Use a universal solid wrench to hold the flywheel, and then lock the nut.

Torque: $3.8 \cdot m$

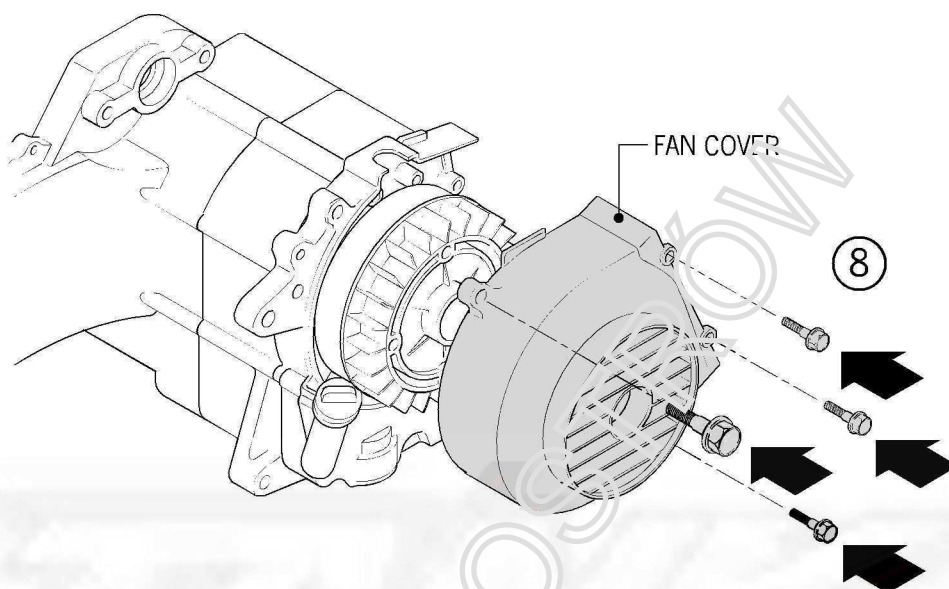
7. Set up the cooling fan

Torque: $0.9 kg \cdot m$



14. The Battery and the Charging System

8. Install the fan cover and securely tighten fasteners.

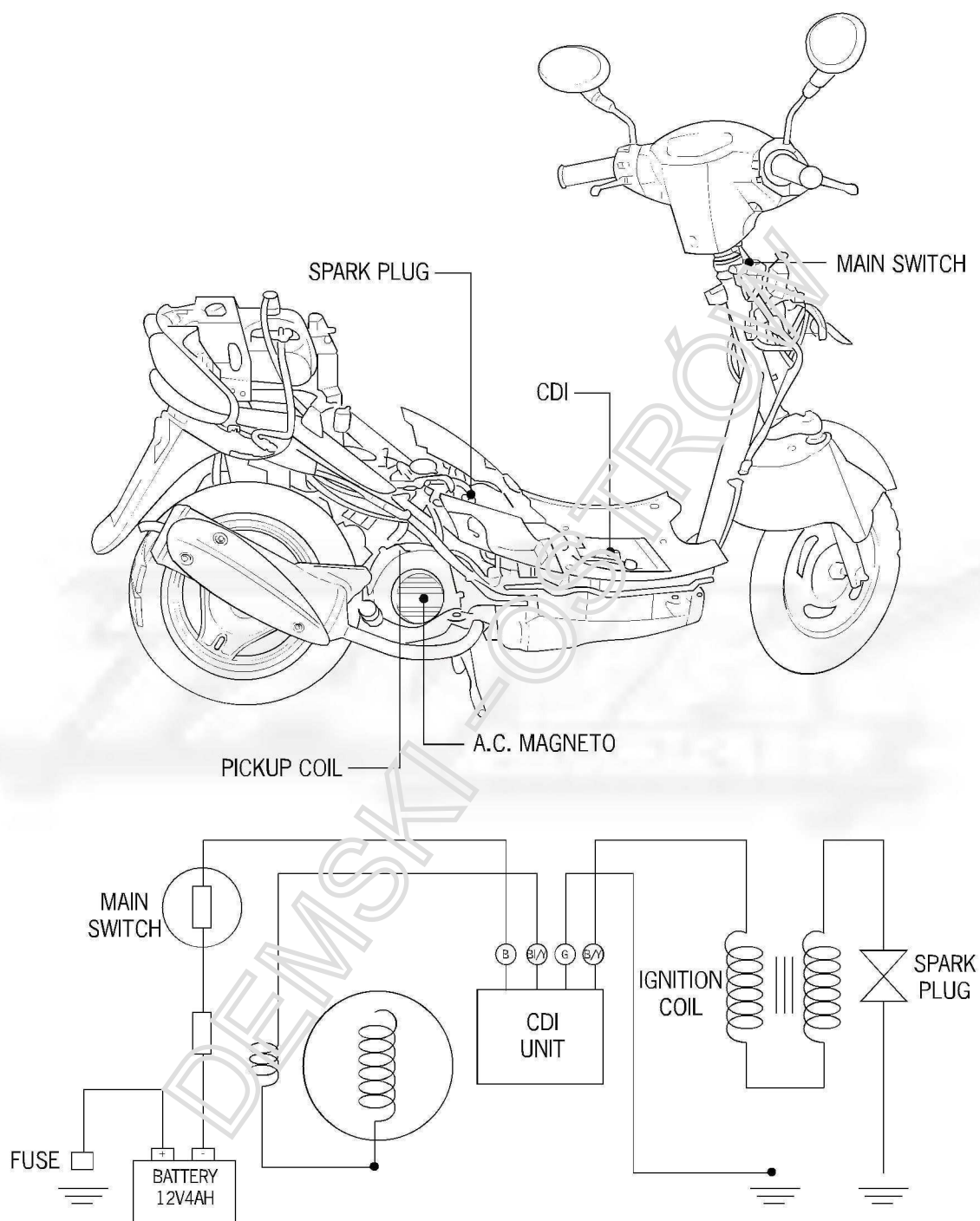


14. The Battery and the Charging System

MEMO

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15. Ignition System



(B) BLUE (B/Y) BLUE/YELLOW (BY) BLACK/YELLOW (G) GREEN

15. Ignition System

Topic	Page
General Information	15-2
Troubleshooting	15-3
CDI unit inspection	15-4
Ignition Coil Removal Steps	15-5
Magneto Pickup Coil Inspection	15-6
Spark Advance Angle Inspection	15-6

General Information

- Check ignition system in accordance with the troubleshooting procedure in Section 15-2.
- As the ignition system has an electric automatic spark control in the CDI unit, there is no need for spark advance angle adjustment.
- CDI should not be disconnected or subjected to input. Damage or failure can occur.
- Poor contact may be the cause of many faulty ignition system cases. Check all terminal connections to be sure they are clean and tight whenever troubleshooting an electrical problem.
- Make sure spark plug heat range is correct. Using an incorrect spark plug will result in improper engine operation or spark plug damage.
- Peak voltage is used as reference point in tests. Record coil resistance tests.
- When inspecting spark plug, refer to related instructions in Chapter 3.
- When removing AC generator and pickup coil, refer to instructions in Chapter 14.

Reference Standard

Item			Standard valve
Specific spark plug	Standard		(NGK)C7HSA Champion Z9Y
	Hot		(NGK)C6HSA
	Cold		(NGK)C8HSA
Spark plug gap			0.6-0.7mm
Spark advance angle	Maximum advance in "F" position		13° +/- 1° (2000r/min)
Ignition coil resistance	Primary coil		0.1-1.0 OHM
	Secondary coil	With cap	7-9K OHM
		Without cap	3-4K OHM
Pickup coil resistance			1-10 OHM
Primary ignition coil peak voltage			Over 120V
Pickup coil peak voltage			Over 2.1V

15. Ignition System

Troubleshooting

High Tension Voltage Too Low

- Crankshaft revolution too slow or battery voltage too low
- Ignition system wiring loose
- Faulty ignition coil
- Faulty CDI unit
- Faulty pickup coil

High Tension Voltage Intermittent

- Faulty main switch
- Poor CDI terminal connection
- Poor CDI ground
- Faulty pickup coil
- Poor high-tension lead terminal connection
- Faulty CDI unit

High Tension Voltage Normal but No Spark

- Faulty spark plug
- Faulty spark plug cap

No High Tension Voltage

- Faulty main switch
- Battery discharged or faulty rectification system
- Faulty charge system
- Faulty ignition coil
- Faulty CDI United Equine Foundation No

Intermittent High Tension Voltage

- Faulty ignition coil
 - Battery voltage too low
 - Faulty charge system
-

15. Ignition System

CDI Inspection

1. Remove the three screws from the battery case cover.
2. Disconnect the CDI module from the wire harness.
3. Test resistance of the terminals with a multi-meter.

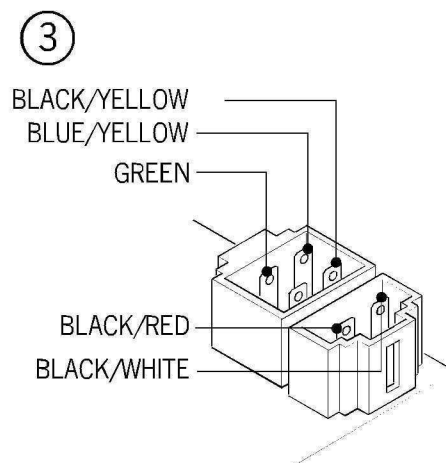
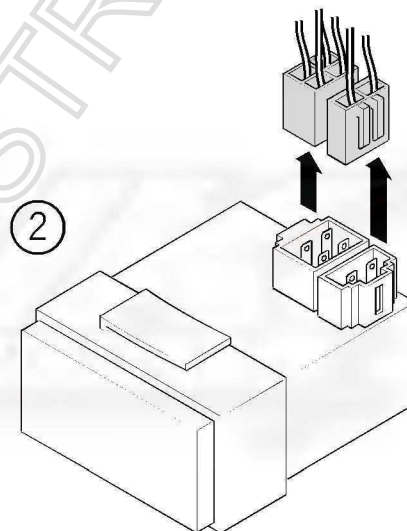
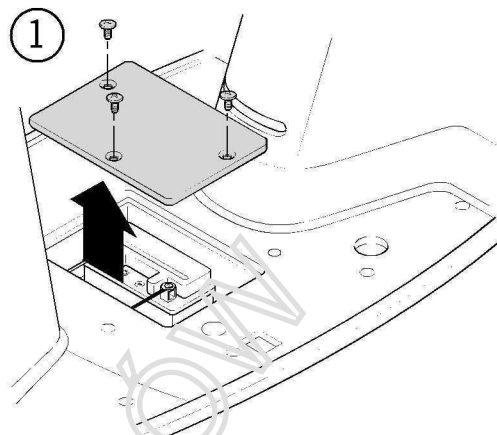


Attention:

Since there is a semiconductor in return circuit, testing results may be significantly different if different multi-meters are used.



If the pointer on the dial flickers and finally stops during testing, it should be regarded as normal. Because the capacitor in the CDI module is charged while being tested, it cannot discharge.



15. Ignition System

Ignition Coil Removal Steps

1. Remove the middle box.
2. Remove the spark plug cap.
3. Disconnect the wires, remove the ignition coil jam nuts and remove the ignition coil.

Inspection

4. Check the ignition coil circuit. The spark advance angle does not need to be adjusted.

If the spark advance is abnormal, check the CDI, pickup coil or magneto. Replace the ignition coil if necessary.

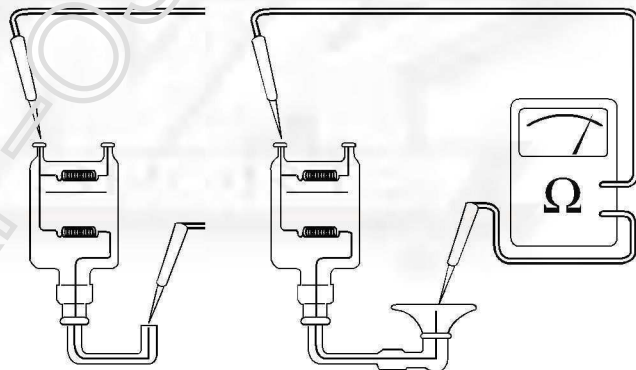
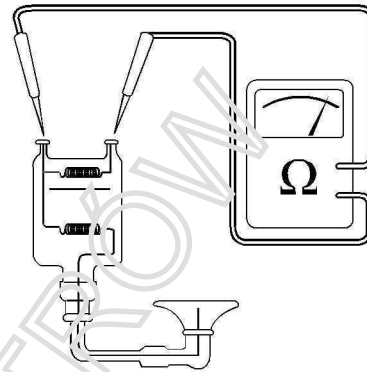
5. Test the primary coil resistance, the standard value of which should be $0.1-1.0\Omega$.

6. Test the secondary coil resistance from spark plug cap negative terminals. The standard value should be $7-9k\Omega$ (with cap) and $3-4k\Omega$ (without cap).

7. Test coil using after-market spark tester.
8. Perform the following inspection in accordance with the operating instructions in the manual.

- a. Set the ignition coil tester switch to 12V and connect the tester to the ignition coil.
- b. Turn the switch to the ON position to check spark frequency from the inspection door.

In good condition: Sparking continuously
In faulty condition: Sparking abnormally.



15. Ignition System

Magneto Pickup Coil Inspection

⊙ This test is to be conducted with the stator mounted in the engine.

1. Remove the fan cover.
2. Disconnect the magneto.
3. Test the pickup coil resistance between the blue/yellow and green lead terminals whose standard value is 80-160.
4. Dismounting the magneto (refer to 14-6).

Charging Coil Inspection

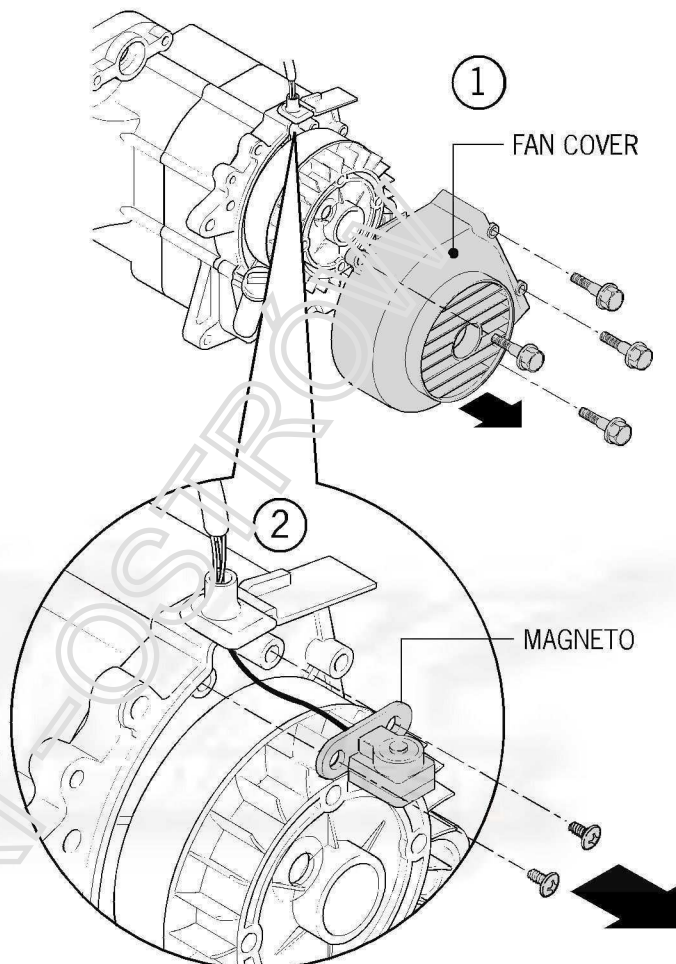
1. Test the charging coil resistance between the black/red and the green lead terminals whose standard value is 500-600 .

Spark Advance Angle Inspection

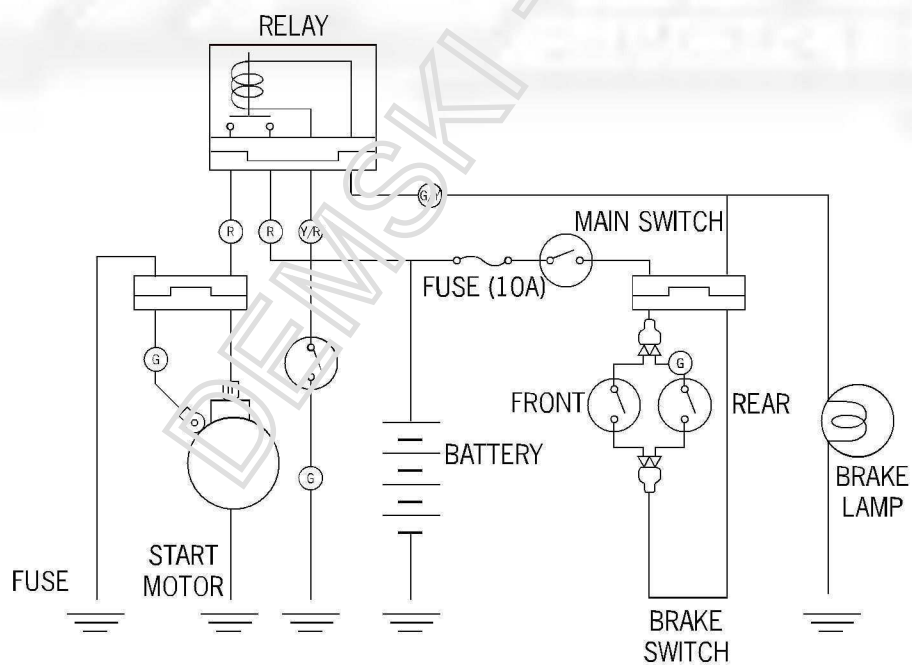
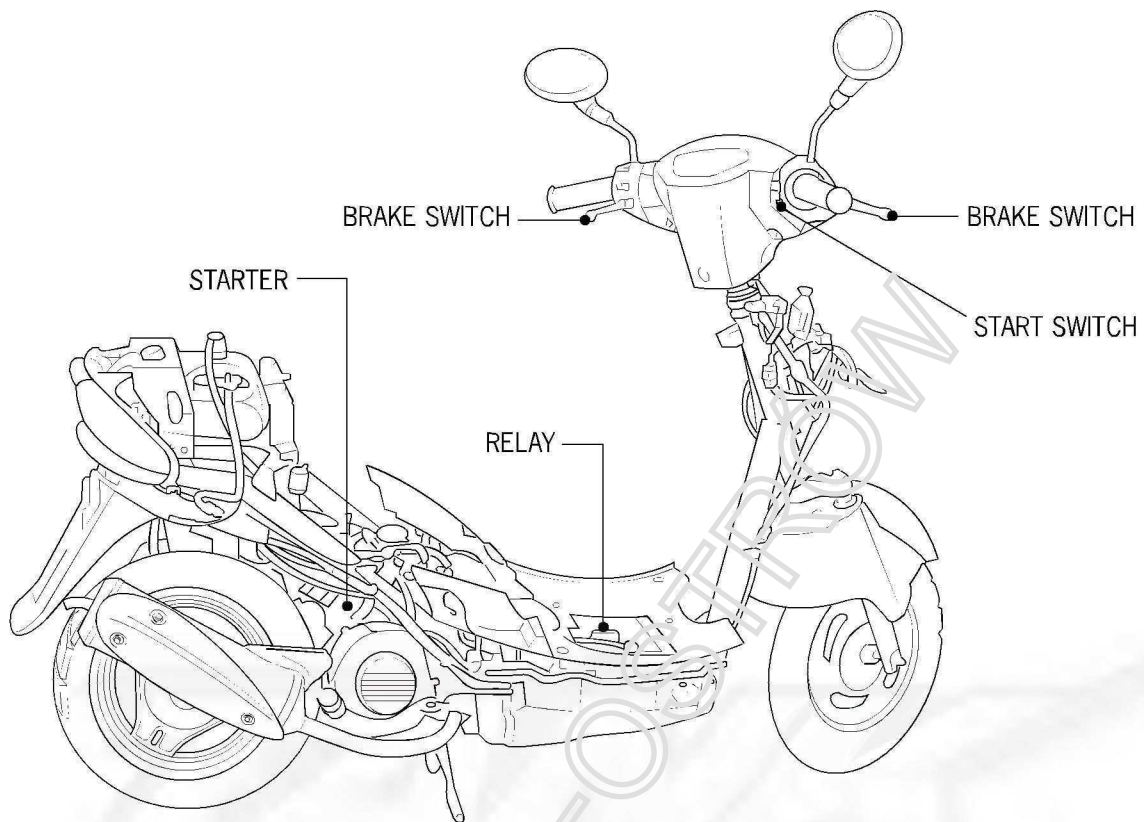
- ⊙ Since a CDI is used, there is no need to adjust the timing advance.
- ⊙ If the spark advance is abnormal, inspect CDI, pickup coil or magneto. Replace if necessary.

3. Remove timing lid.
4. After the engine is warmed up, check the spark advance angle by the spark timing lamp. It is proper for "F" to align with + 2° with the engine revolving at a speed of 1700rpm.

The spark advance angle should be 13° + 1° (2000r/min).



16. Starter System



(R) RED (Y/R) YELLOW/RED (G/Y) GREEN/YELLOW (G) GREEN

16. Starter System

Topic	Page	Topic	Page
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Troubleshooting	16-2	Starter Motor Installation	16-6
Starter Motor Removal	16-3	Starter Pinion Removal	16-7
Starter Disassembly	16-3	Starter Pinion Inspection	16-7
Starter Inspection	16-3	Starter Pinion Installation	16-7
Inspecting the Starter Relay	16-5		

General Information

- The starter motor can be removed without disassembly of the engine.

Installation Reference Standard

Item	Standard valve	Wear Limit
Starter motor brush length	8.5 mm (.335 in.)	5 mm (.2 in.)

Fastener Torque Specification

Starter motor clutch cover bolt

1.2kg-m 8-9 ft lbs

Starter motor clutch jam nut

9.5kg-m 65-68ft lbs



Hex key



Open end wrenches

Troubleshooting

Starter Motor Does Not Turn

- Fuse broken
- Battery discharged
- Faulty main switch
- Faulty starter clutch
- Faulty brake switch

Starter Motor Turns Over Slowly

- Battery discharged
- Poor or faulty cable connections
- Starter motor gear seized by a foreign object

Starter Motor Turns – Engine Does Not Rotate

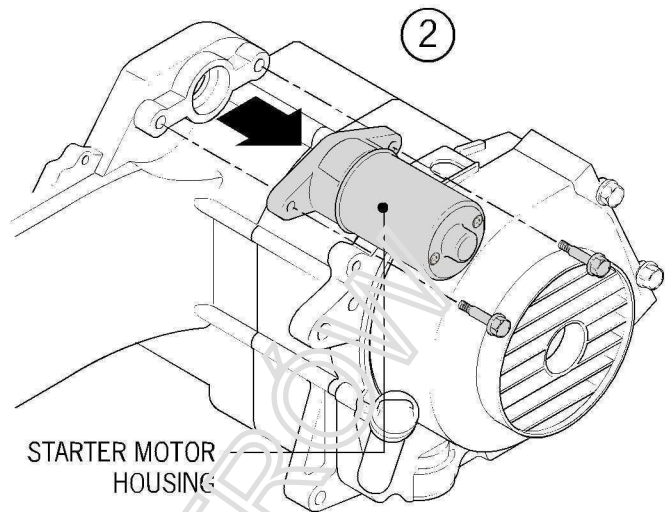
- Faulty starter clutch
 - Starter motor reversal
 - Battery discharged
-

16. Starter System

Starter Motor Removal

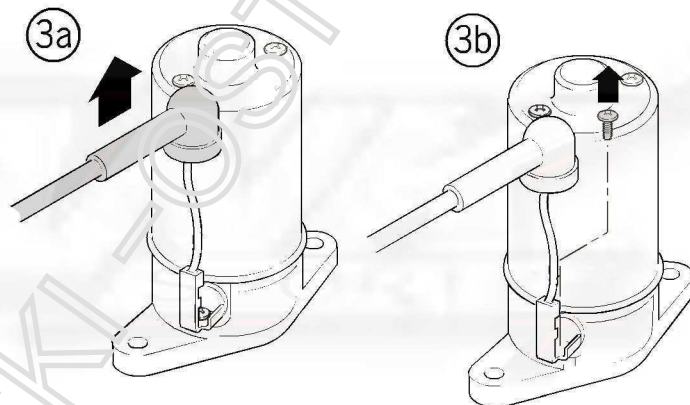
- ⦿ Never work on the starter motor until main switch is turned off and the battery ground wire is disconnected to ensure that the motor cannot turn.

1. Remove the starter motor lead clamp.
2. Remove the two bolts and remove the starter motor.
3. Roll up the water-proof rubber cover to disconnect the starter motor.



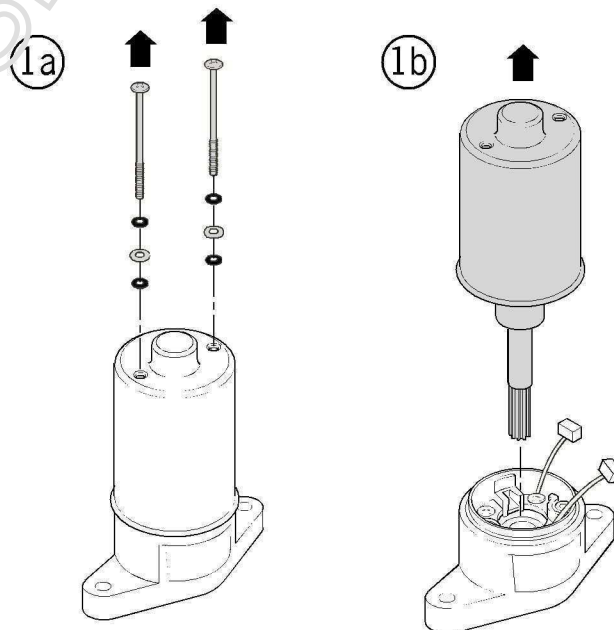
Starter Disassembly

1. Remove the two case bolts and remove the motor housing from the internal parts.



Starter Inspection

2. Inspect brushes and commutator for wear, damage or discoloration. Replace if necessary.
3. Clean attached metal particles from the commutator surfaces.
4. Measure the resistance between each contact surface of the components.
5. Make sure there is no conduction current between each commutator segment and the armature shaft.



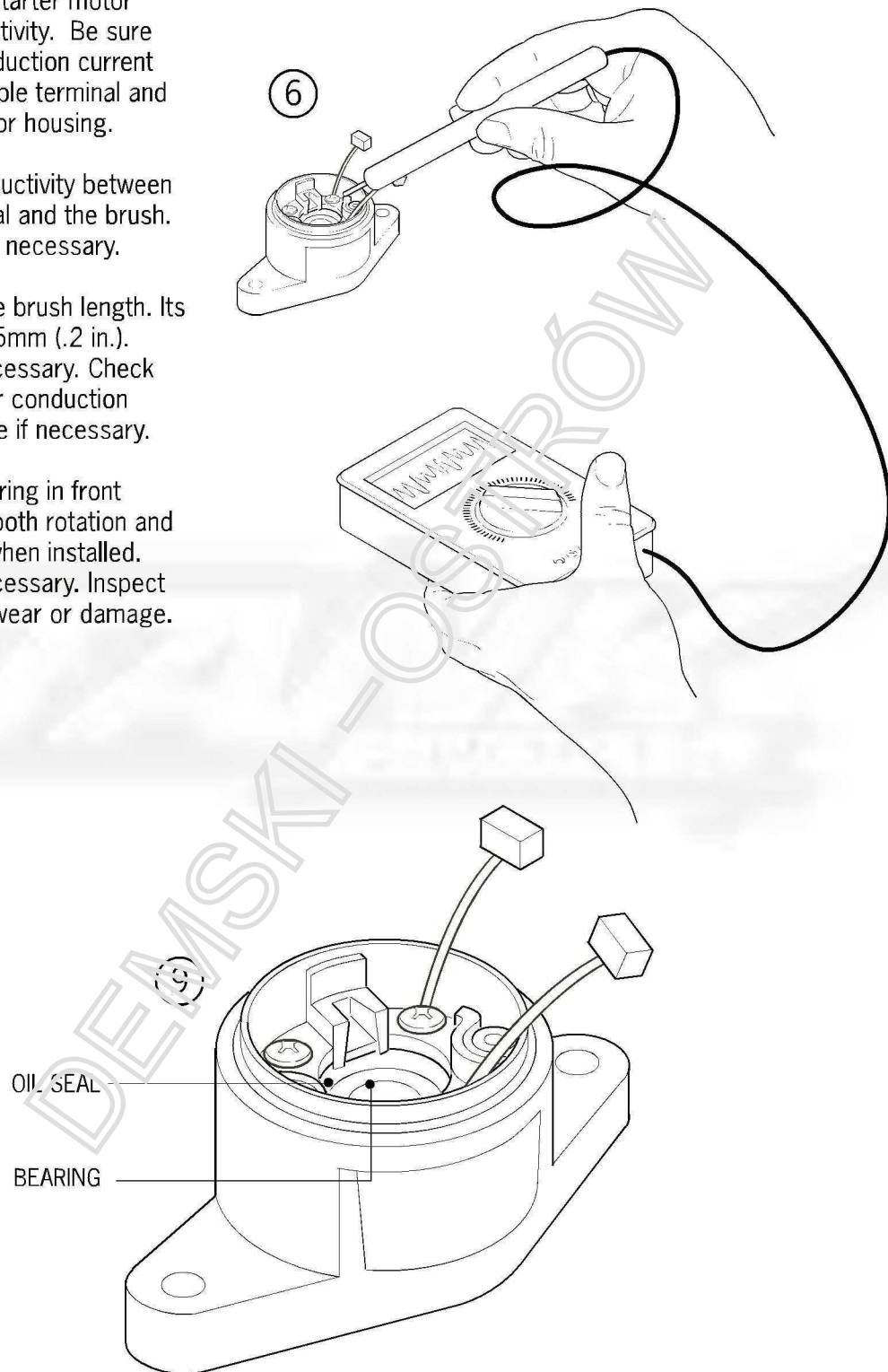
16. Starter System

6. Check the starter motor housing conductivity. Be sure there is no conduction current between the cable terminal and the starter motor housing.

7. Check conductivity between the lead terminal and the brush. Replace them if necessary.

8. Measure the brush length. Its service limit is 5mm (.2 in.). Replace it if necessary. Check brush holder for conduction current. Replace if necessary.

9. Inspect bearing in front bracket for smooth rotation and for looseness when installed. Replace it if necessary. Inspect dust cover for wear or damage.



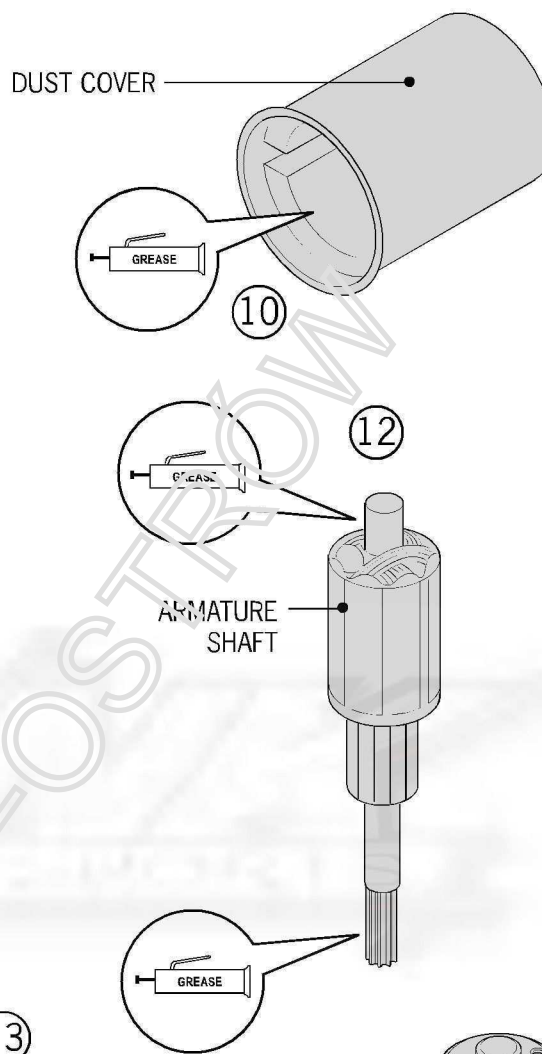
16. Starter System

10. Apply grease to the dust cover.
11. Install spring brush in its holder.
12. Apply a light film of grease to both ends of the sliding surfaces of the armature shaft.
13. Install armature in front bracket.

- ⊙ Make sure the surfaces between the brush and the armature are not damaged.
- ⊙ Be sure the dust cover lip is not damaged by the armature mount shaft.

14. Install a new o-ring in front bracket.
15. Engage motor housing with that of front bracket. Install two housing bolts.

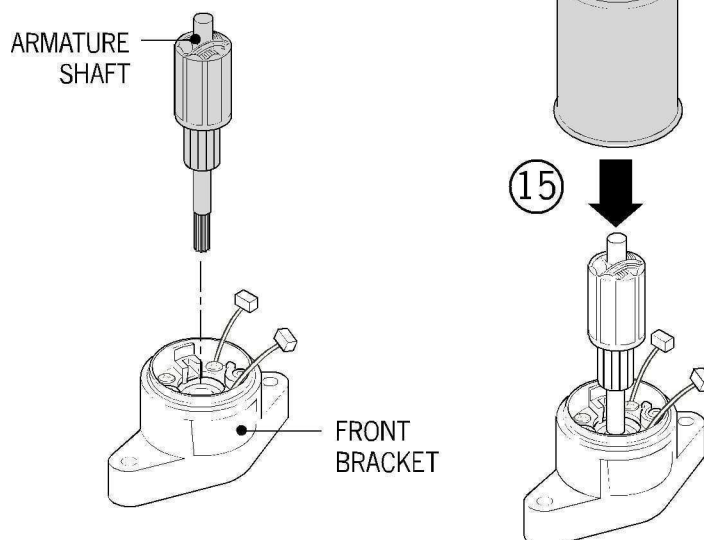
- ⊙ When engaging the housing with the front bracket, install the armature first, hold the armature shaft and then install the housing in case the armature is drawn out by the magnet.



Starter Relay Inspection

1. Remove right side body panel.
2. With main switch in the "on" position, depress the starter button to check for a click, which indicates proper operation of relay. If starter button is depressed without a click, perform the following steps.

- Test starter relay voltage.
- Inspect starter relay ground return circuit.
- Inspect starter relay.



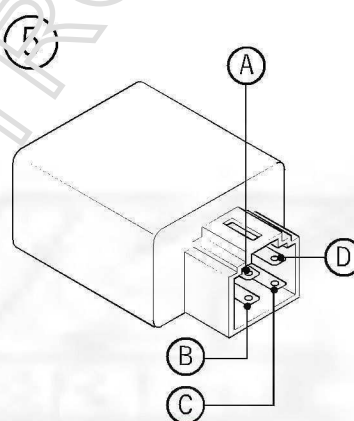
16. Starter System

3. To inspect starter relay voltage: Stand the scooter on its center stand, measure the voltage between the starter relay negative terminal (green/yellow cable) and the ground.

Turn the main switch to “on”, pull the brake levers and make sure the battery voltage is available at the relay (12 volts). If there is no battery voltage, inspect the brake switch electrical conductivity and wiring.

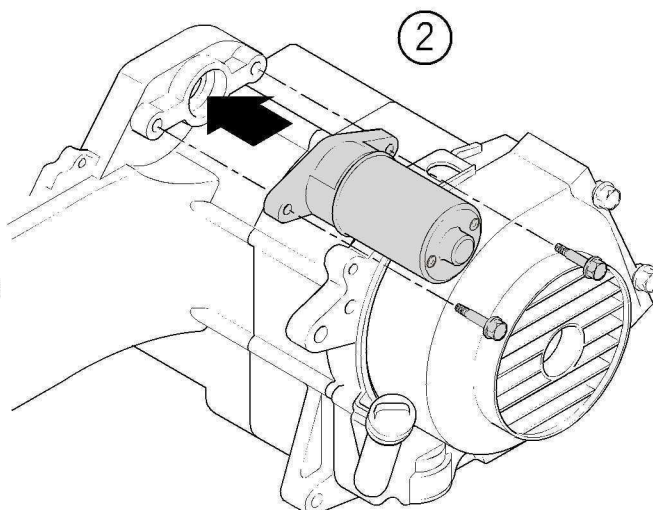
To inspect starter relay:

1. Remove the right side body panel.
2. Disconnect the starter relay unit coupler from the wire harness and remove it. Use ohm meter or continuity tester to check coil.
3. Connect the meter to terminals card D. This circuit should read closed. Use ohm meter or continuity tester C.
4. Check contactor.
5. Connect the meter to terminals A and B. This circuit should read open with terminals C and D disconnected and read closed with terminals C and D applied to 12 volt supply.



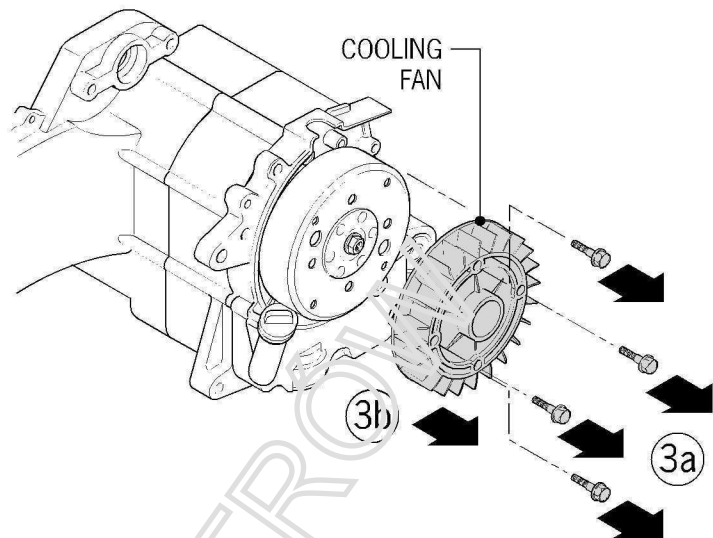
Starter Motor Installation

1. Apply grease to the starter motor o-ring and install the starter motor.
2. Install the two bolts.
3. Connect the starter motor terminals to the harness.



16. Starter System

3. Remove the four bolts and remove the cooling fan.



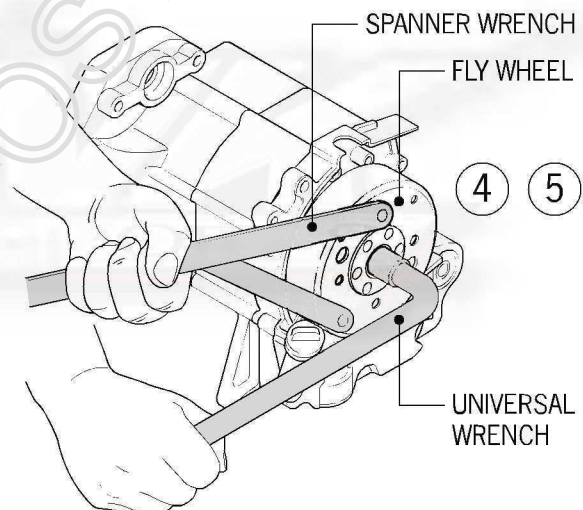
4. Use a universal solid wrench to secure the flywheel. Detach the fix nuts of the flywheel.

5. Use a spanner wrench hold flywheel while removing the retaining nut.

6. Use a flywheel puller to remove the flywheel.

7. Remove and save the key.

8. Detach the connecting wire of the magneto.



17. Meters, Switches and Lighting System

MEMO

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17. Meters, Switches and Lighting System

Topic	Page	Topic	Page
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Troubleshooting	17-2	Main Switch Inspection	17-5
Fuel Sensor Removal	17-3	Replacing the Main Switch	17-5
Fuel Sensor Installation	17-3	Brake Light Switch Inspection	17-6
Fuel Sensor Testing	17-3	Horn Inspection	17-6
Fuel Gauge Inspection	17-3	Replacing the Horn Switch	17-6
Handlebar switch	17-2	Speedometer Removal and	17-6
Light Switch Inspection	17-4	Reinstallation	
Starter Switch Inspection	17-4	Headlight Removal and Installation	17-7
Dimmer Switch Inspection	17-4	Bulb Replacement and Installation	17-7
Turn Light Switch Inspection	17-4	Taillight, brake light, rear	17-7
Engine Stop Switch Inspection	17-4	position light or license light	
Horn Switch	17-5		

Maintenance

Operating Points

- Always be sure that colors match when wires are connected, that wires are installed in harness tube or supported by insulating tape after connection and that connectors match wire color in assembly.
- Make sure connectors fit properly to assure connection.
- Be sure to always test switch operation after installation.

Troubleshooting

If the brake light or turn light fails to come on with the ignition switch "ON," it may be caused by:

- Bad bulb
- Faulty switch
- Lead broken
- Fuse blown
- Battery discharged
- Faulty wire matching
- Bad flasher

If the fuel indicator fails to come on:

- Lead disconnected
- Wire broken
- Improper float operation
- Faulty fuel sensor
- Bad meter

If light is dim:

- Faulty magneto lighting coil
- Excessive voltage at matching wire or switch
- Faulty rectifier regulator

If the dimmer switch does not operate properly:

- Bad bulb
- Faulty switch

If fuel indicator pointer moves unsteadily:

- Loose lead connection
- Faulty fuel sensor
 - Faulty meter
-

17. Meters, Switches and Lighting System

Fuel Sensor Removal

4

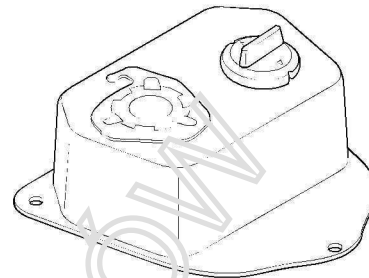
- ⦿ Avoid sparks and flames when working on the fuel system.

1. Remove the middle luggage box.
2. Remove the right body panel.
3. Disconnect the fuel sensor from the wire harness.
4. Remove the bolt of the fuel sensor.

- ⦿ Make sure not to damage the fuel sensor lead.

5. Remove the fuel sensor.

- ⦿ Be sure that the fuel sensor float is not damaged.



Fuel Sensor Installation

6. Reverse the removal procedure for installation.
7. Be sure to align the groove on the fuel sensor with the mark on the fuel tank.
8. The mark on the sensor should be aligned with that on the fuel tank.

Fuel Sensor Testing

1. Remove the fuel sensor.
2. Measure the resistance of each terminal with the float in each position.

Lead Terminal	Float Up	Float Down
Gree-Blue/White	7+/- 2 OHM	96+/- 2 OHM

Fuel Gauge Inspection

With the ignition switch "ON," connect the lead. Turn on the turn signal to be sure the battery-return circuit is intact before performing the inspection. Check the gauge reading by changing the float position.

Float Position	Reading
Up	F
Down	E

17. Meters, Switches and Lighting System

Handlebar Switches Inspection

1. Remove the speedometer cover.
2. Disconnect the handlebar connector and check each terminal for conduction.
3. Inspect each switch if abnormal.

Lights Switch

Color	Blue/White	Yellow	Brown	Brown/White	Pink
Code	Bl/W	Y	Br	Br/W	P
●		○			○
☰ ☐ ☐		○	○	○	
☀	○	○	○		

Set an Ohm meter at X1 OHM when using it.

Starter Switch

Color	Yellow/Red	Green
Code	Y/R	G
Released		
Depressed	○	○

Dimmer Switch

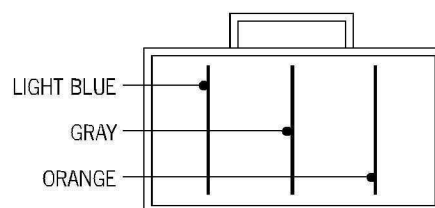
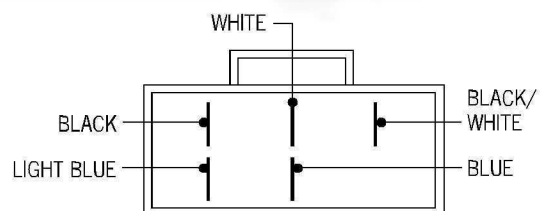
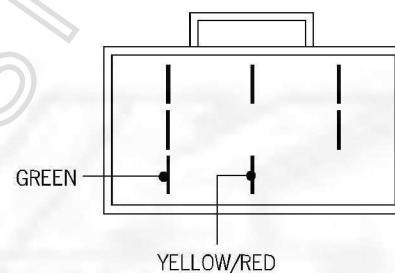
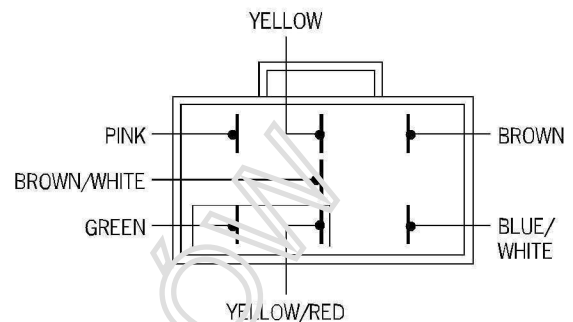
Color	Blue/White	Blue	White
Code	Bl/W	Bl	W
☰ Hi	○	○	
☰ Lo	○		○

Turn Light Switch

Color	Blue/White	Blue	White
Code	Gr	LBl	W
R	○	○	
Off			
L	○		○

Engine Stop Switch

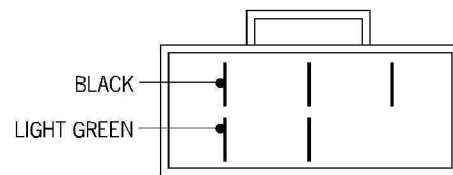
	Black 1	Black 2
Run		
Stop	○	○



17. Meters, Switches and Lighting System

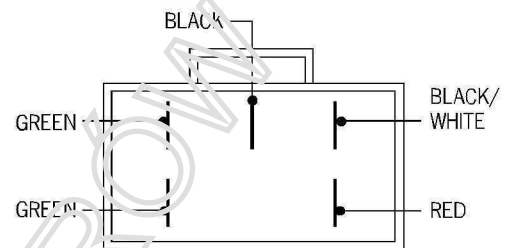
Horn Switch

Color	Light Green	BLACK
Code	LG	B
Released		
Depressed		



Replacing the horn switch:

1. Remove the front panel.
2. Remove the handlebar cover.
3. Disconnect the wire connector.
4. Remove switch from housing.
5. Reverse the removal procedure for installation.



Main Switch Inspection

1. Remove the front panel.
2. Disconnect the main switch wire connector to check the connection at each terminal.

Main Switch

Color	Red	Black	Black/White	Green
Code	R	B	B/W	G
On				
Off				

Replacing the main switch:

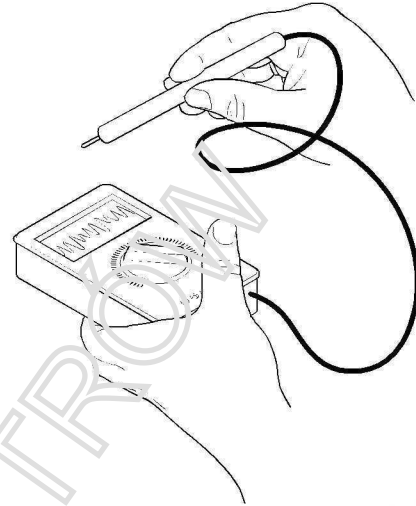
1. Remove the front panel.
2. Disconnect the main switch wire connector.
3. Remove the two mounting bolts and remove the main switch.
4. Reverse the removal procedure for installation.



17. Meters, Switches and Lighting System

Brake Light Switch Inspection

1. Remove the speedometer cover.
2. Disconnect the front brake switch lead.
3. Operate the front brake lever to check the switch for proper operation.
4. Disconnect the rear brake switch wire connector.
5. Operate the rear brake lever to check for proper operation.
6. The above tests can be conducted with a continuity tester or ohm meter.



Horn Inspection

1. Remove the front panel.
2. Disconnect the horn wire connector and connect the terminal to a battery (12V).
3. The horn is good if it sounds properly.
4. Check operation of switch with ohm meter or continuity tester.

To replace the horn switch:

5. Disconnect the horn switch wire connector.
6. Remove the mounting bolt.
7. Remove the horn.
8. Reverse the procedure for installation.

Speedometer Removal and Reinstallation

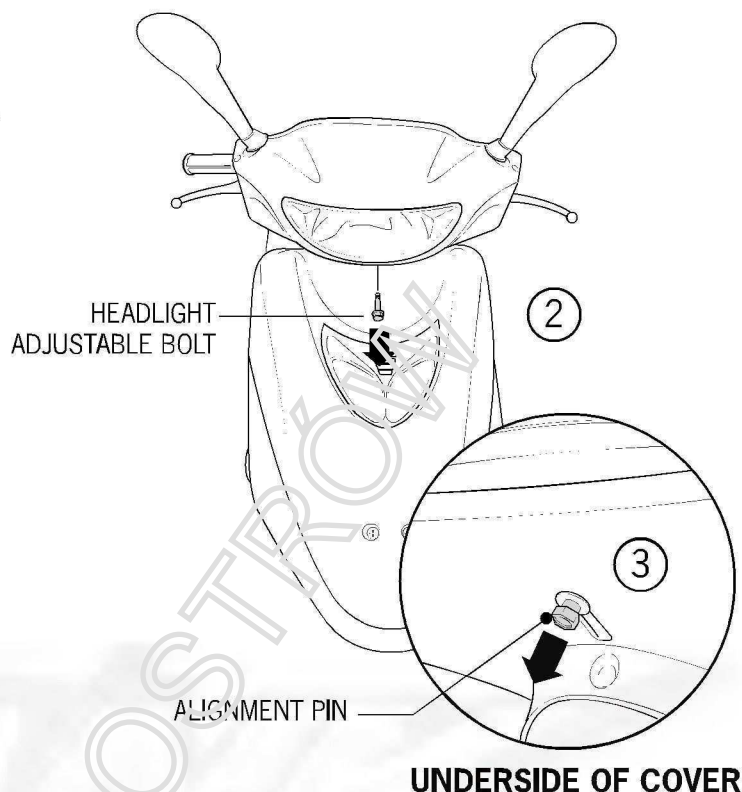
1. Remove front and rear handlebar covers (refer to 12-2).
 2. Disconnect all the wiring connectors.
 3. Remove the three set screws and speedometer.
 4. Reverse the removal procedure for installation.
-

17. Meters, Switches and Lighting System

Headlight Removal and Installation

1. Remove the speedometer cover (refer to 2-1).
2. Remove the headlight adjustable bolt.
3. Remove the alignment pin and headlight.
4. Reverse the removal procedure for installation.

- Be sure to align the headlight tab with groove in odometer cover.
- The headlight beam should be adjusted after installation (3-12).



Bulb Replacement and Installation

1. Remove the speedometer cover.
2. Remove the headlight or front marker light bulb for replacement.
3. Reverse the procedure for installation.

Taillight, brake light, rear position light or license light

1. Remove the two screws in the rear panel.
2. Remove the rear panel, two set screws in rear light cover and light cover.
3. Remove the light bulb for replacement.
4. Reverse the procedure for installation.

