

## Introduction

This service manual describes the service procedures for the SK50M.

This Model Specific Manual includes every service procedure that is of a specific nature to this particular model. Basic service procedures that are common to other Honda Motorcycles/Motor Scooters/ATVs are covered in the Common Service Manual. This Model Specific Service Manual should be used together with the Common Service Manual in order to provide complete service information on all aspects of this scooter.

Follow the Maintenance Schedule (Section 3) recommendations to ensure that the vehicle is in peak operating condition. Performing the first scheduled maintenance is very important. It compensates for the initial wear that occurs during the break-in period.

Sections 1 and 3 apply to the whole scooter. Section 2 illustrates procedures for removal/installation of components that may be required to perform service described in the following sections.

While Sections 4 through 17 describe parts of the scooter, grouped according to locations.

Find the section you want on this page, then turn to the table of contents on the first page of the section.

Most sections describe the service procedure through system illustration. Refer to the next page for details on how to use this manual.

If you don't know the source of the trouble, go to section 18 TROUBLESHOOTING.

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## Important Safety Notice

**⚠ WARNING** Indicates a strong possibility of severe personal injury or death if instructions are not followed.

**CAUTION:** Indicates a possibility of equipment damage if instructions are not followed.

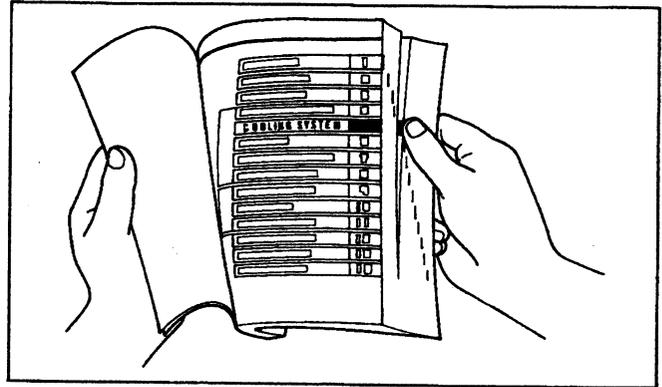
**NOTE:** Gives helpful information.

Detailed descriptions of standard workshop procedures, safety principles and service operations are not included. It is important to note that this manual contains *some* warnings and cautions against some specific service methods which could cause **PERSONAL INJURY** to service personnel or could damage a vehicle or render it unsafe. Please understand that those warnings could not cover all conceivable ways in which service, whether or not recommended by Honda, might be done or of the possibly hazardous consequences of each conceivable way, nor could Honda investigate all such ways. Anyone using service procedures or tools, whether or not recommended by Honda, *must satisfy himself thoroughly* that neither personal safety nor vehicle safety will be jeopardized by the service methods or tools selected.

# How to Use This Manual

## Finding Information You Need

- This manual is divided into sections which cover each of the major components of the motorcycle.
- To quickly find the section you are interested in, the first page of each section is marked with a black tab that lines up with one of the thumb index tabs before this page.
- The first page of each section lists the table of contents within the section.
- Read the service information and troubleshooting related to the section before you begin working.
- An index of the entire book is provided in the last chapter to directly locate the information you need.



## Note on the Explanation Method of This Manual

- The removal and installation of parts are for the most part illustrated by large and clear illustrations that should provide the reader with visual aid in understanding the major point for servicing.
- The system illustrations are augmented by callouts whose numbers or letters indicate the order in which the parts should be removed or installed.
- The sequence of steps represented numerically are differentiated from the ones represented alphabetically to notify the reader that they must perform these steps separately.
- For example, if the steps prior and up to camshaft removal are performed with the engine installed, but the subsequent steps like cylinder head removal require engine removal, the callouts are grouped in numerical and alphabetical orders.
- The illustrations may contain symbol marks to indicate necessary service procedures and precautions that need to be taken. Refer to the next page for the meaning of each symbol mark.
- Also in the illustration is a chart that lists information such as the order in which the part is removed/installed, the name of the part, and some extra notes that may be needed.
- Step by step instructions are provided to supplement the illustrations when detailed explanation of the procedure is necessary or illustrations alone would not suffice.
- Service procedures required before or after the procedure described on that particular page, or inspection/adjustment procedures required following the installation of parts, are described under the title Requisite Service.
- Standard workshop procedures and knowledge covered in the Common Service Manual are abbreviated in this manual.

**Symbol mark**

**System illustration**

**Detailed description of the procedure**

**CYLINDER HEAD/CYLINDER/PISTON**

**CYLINDER HEAD REMOVAL/INSTALLATION**

**REQUISITE SERVICE**

PROCEDURE	QTY	REMARKS
<b>REMOVAL ORDER</b>		
11) Cylinder head special nut	12	Installation is in the reverse order of removal
12) Cylinder head mounting bolt	2	Installation (page 8-5)
13) Cylinder head assembly	1	
14) Gasket	1	Install with the LP mark facing up and rearward
15) Dowel pin	2	
16) Camshaft idle gear case bolt	2	
17) Camshaft idle gear case dowel pin	2	Installation (page 8-5)
18) Sealing washer	1	
18) Camshaft idle gear case	1	At installation, align the insulator groove with the engine lug, with the LP mark facing upwards (rearward side)
110) Carburetor manifold	1	

**CAMSHAFT IDLE GEAR CASE INSTALLATION**

Install the camshaft idle gear case dowel pins properly.

**NOTE**

Without the dowel pins installed properly, the camshaft idle gear may not be able to be installed onto the crank shaft timing gear.

Install the camshaft idle gear case onto the cylinder. While moving the idle gear lightly with the gear case bolt, the gear case should be fitted up snugly from the cylinder.

Install a new sealing washer and mounting bolts. Tighten nuts in a gradual, as shown.

**CYLINDER HEAD NUT/BOLT INSTALLATION**

Install the cylinder head special nuts as shown. Do not tighten them yet.

Install the cylinder head mounting bolts. Tighten the special nuts and mounting bolts in a gradual, cross-torque pattern.

**TORQUE:**  
Special nut: 30 Nm (2.0 kg-m, 22 ft-lb)  
Mounting bolt: 12 Nm (1.0 kg-m, 9 ft-lb)

**8-4**

**Part name**

**Number of parts**

**Extra notes or precaution related to the service procedure**

**8-5**

**11) IDLE GEAR CASE**

**12) DOWEL PINS**

**13) TIMING GEAR**

**14) INCORRECT**

**15) CORRECT**

**11) BOLTS**

**12) SEALING WASHER**

**13) BOLT**

**14) SPECIAL NUT**

**11) BOLT**

**12) SPECIAL NUTS**

**13) BOLT**

## Symbols

The symbols used throughout this manual show specific service procedures. If supplementary information is required pertaining to these symbols, it would be explained specifically in the text without the use of the symbols.

	Replace the part(s) with new one(s) before assembly.
	Use special tool
	Use optional tool. Use the same procedure you use to order parts.
 10 (1.0, 7.2)	Torque specification. 10 N·m (1.0 kg-m, 7.2 ft-lb)
	Use recommended engine oil, unless otherwise specified.
	Use molybdenum oil solution (mixture of the engine oil and molybdenum grease with the ratio 1 : 1).
	Use multi-purpose grease (Lithium based multi-purpose grease NLGI #2 or equivalent)
	Use molybdenum disulfide grease (containing more than 3% molybdenum disulfide, NLGI #2 or equivalent) Example: Molykote® BR-2 plus manufactured by Dow Corning, U.S.A. Multi-purpose M-2 manufactured by Mitsubishi Oil Japan
	Use molybdenum disulfide paste (containing more than 40% molybdenum disulfide, NLGI #2 or equivalent) Example: Molykote® G-n Paste manufactured by Dow Corning, U.S.A. Honda Moly 60 (U.S.A. only) Rocol ASP manufactured by Rocol Limited, U.K. Rocol Paste manufactured by Sumico Lubricant, Japan
	Use silicone grease
	Apply a locking agent. Use the agent of the middle strength, unless otherwise specified.
	Apply sealant
	Use brake fluid, DOT 3 or DOT 4. Use the recommended brake fluid, unless otherwise specified.
	Use Fork or Suspension Fluid.

# 1. General Information

<b>General Safety</b>	<b>1-1</b>	<b>Tools</b>	<b>1-11</b>
<b>Model Identification</b>	<b>1-2</b>	<b>Lubrication &amp; Seal Points</b>	<b>1-12</b>
<b>Specifications</b>	<b>1-3</b>	<b>Cable &amp; Harness Routing</b>	<b>1-14</b>
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## General Safety

### Carbon Monoxide

If the engine must be running to do some work, make sure the area is well ventilated. Never run the engine in an enclosed area.

#### ▲ WARNING

- **The exhaust contains poisonous carbon monoxide gas that can cause loss of consciousness and may lead to death.**

Run the engine in an open area or with an exhaust evacuation system in an enclosed area.

### Gasoline

Work in a well ventilated area. Keep cigarettes, flames or sparks away from the work area or where gasoline is stored.

#### ▲ WARNING

- **Gasoline is extremely flammable and is explosive under certain conditions. KEEP OUT OF REACH OF CHILDREN.**

### Hot Components

#### ▲ WARNING

- **Engine and exhaust system parts become very hot and remain hot for some time after the engine is run. Wear insulated gloves or wait until the engine and exhaust system have cooled before handling these parts.**

### Brake Dust

Never use an air hose or dry brush to clean brake assemblies. Use a vacuum cleaner or alternate method designed to minimize the hazard caused by airborne asbestos fibers.

#### ▲ WARNING

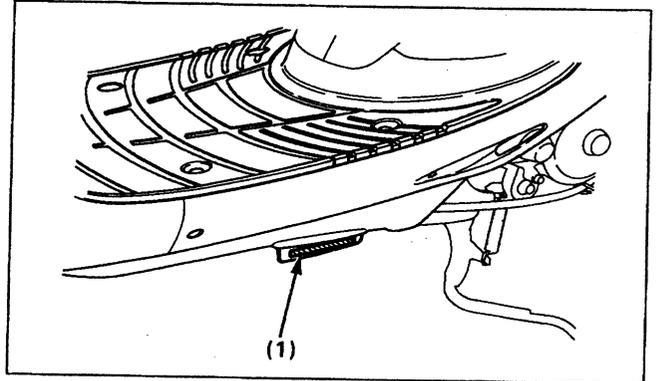
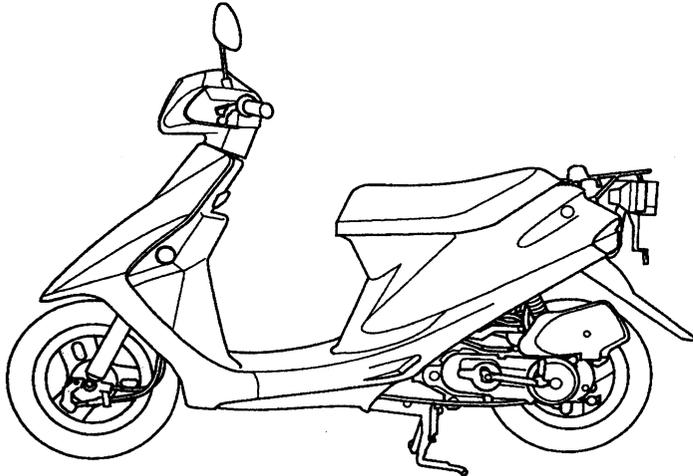
- **Inhaled asbestos fibers have been found to cause respiratory disease and cancer.**

### Battery Hydrogen Gas & Electrolyte

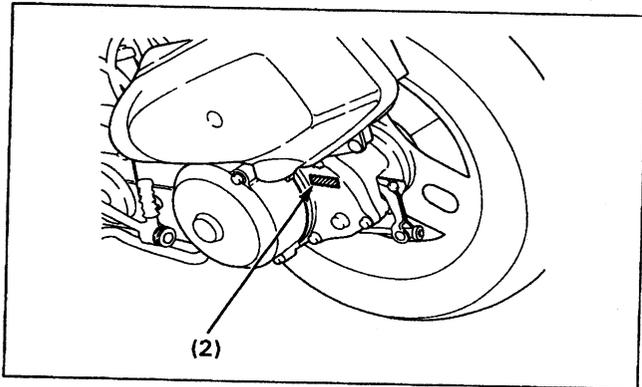
#### ▲ WARNING

- **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. Wear protective clothing and a face shield.**
  - **If electrolyte gets on your skin, flush with water.**
  - **If electrolyte gets in your eyes, flush with water for at least 15 minutes and call a physician.**
- **Electrolyte is poisonous.**
  - **If swallowed, drink large quantities of water or milk and follow with milk of magnesia or vegetable oil and call a physician. KEEP OUT OF REACH OF CHILDREN.**

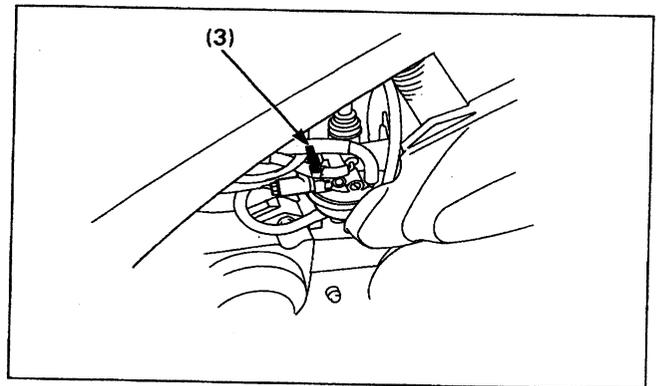
## Model Identification



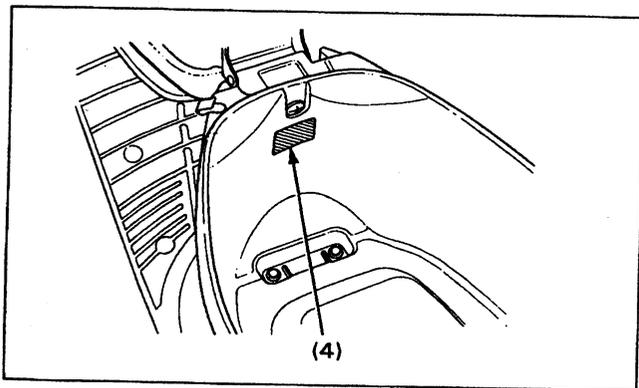
**(1) FRAME SERIAL NUMBER**  
The frame serial number is stamped on the left side of the frame.



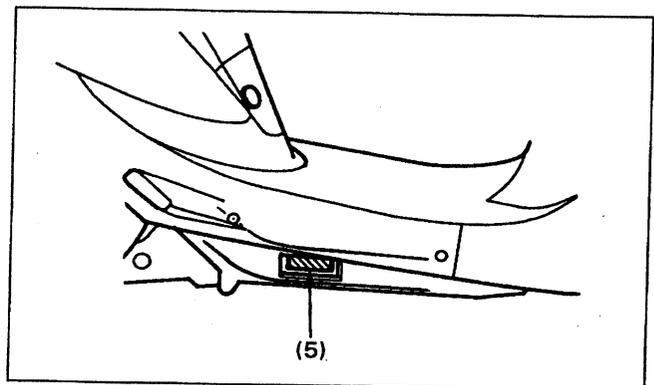
**(2) ENGINE SERIAL NUMBER**  
The engine serial number is stamped on the left side of the transmission cover.



**(3) CARBURETOR IDENTIFICATION NUMBER**  
The carburetor identification number is stamped on the left side of the carburetor body.



**(4) COLOR CODE LABEL**  
The color code label is attached to the luggage box under the seat. When ordering a color coded parts, always specify its designated color.



**(5) SAFETY CERTIFICATION LABEL (CM type only)**  
The safety certification label is attached to the right side of the frame.

## Specifications

Unit: mm (in)

General		
	Item	Specifications
Dimensions	Overall length	1,650 (65.0)
	Overall width	645 (25.4)
	Overall height	990 (39.0)
	Wheelbase	1,145 (45.1)
	Seat height	715 (28.1)
	Footpeg height	360 (14.2)
	Ground clearance	100 (3.9)
	Dry weight	66 kg (146.6 lbs)
	Curb weight	71 kg (157.7 lbs)
	Maximum weight capacity	91 kg (200 lbs)
Frame	Frame type	Under bone
	Front suspension	Telescopic
	Front wheel travel	53.7 (2.11)
	Rear suspension	Final drive unit/swingarm
	Rear wheel travel	60.7 (2.39)
	Front damper	—
	Rear damper	—
	Front tire size	3.00-10 42J
	Rear tire size	3.00-10 42J
	Tire brand (Bridgestone) Front/Rear	ML31/ML32
	Tire brand (Dunlop) Front/Rear	K378F/K378
	Tire brand (IRC) Front/Rear	MB48/MB47
	Front brake	Internal expanding shoe
	Rear brake	Internal expanding shoe
	Caster angle	26° 30'
	Trail length	73 (2.9)
Fuel tank capacity	5.0 liters (1.32 US gal, 1.10 Imp gal)	
Fuel tank reserve capacity	—	
Fork leg oil capacity	—	
Engine	Bore and stroke	39.0 x 41.4 (1.54 x 1.63)
	Displacement	49.4 cm <sup>3</sup> (3.01 cu in)
	Compression ratio	7.1
	Port timing intake open	Reed valve controlled
	Port timing intake close	Reed valve controlled
	Port timing Exhaust open	84° BBDC
	Port timing Exhaust close	84° ABDC
	Port timing Scavenge open	62° BBDC
	Port timing Scavenge close	62° ABDC
	Firing order	—
	Lubrication system	Oil automatically mixed with gasoline
	Oil pump type	Plunger type
	Cooling system	Forced air cooled
	Air filtration	Urethane foam
Crankshaft type	Assembly type	
Engine weight (dry)	16.1 kg (35.5 lbs)	

**General Information**

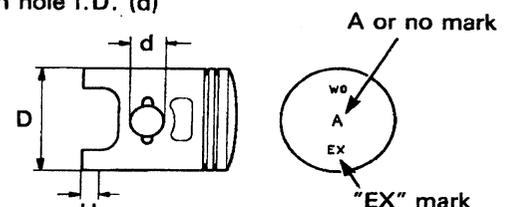
<b>General (cont'd)</b>		Unit: mm (in)
	<b>Item</b>	<b>Specifications</b>
Carburetor	Carburetor type Venturi dia.	Piston valve 14.0 (0.55)
Drive train	Clutch system Primary reduction Final reduction Gear ratio	Dry, automatic centrifugal clutch  12.115 2.450-0.850
Electrical	Ignition system Starting system Charging system Regulator/rectifier type	CDI Electric starter motor/kickstarter Single phase alternator, 12 V-133 W SCR switching regulator, AC regulator built in type/ single phase, half-wave rectifier

## General Information

Unit: mm (in)

Lubrication	Item	Standard	Service limit
	Engine oil tank capacity	1.2 liters (1.27 US qt, 1.06 Imp qt)	—
	Recommended engine oil	Use Honda 2-stroke oil or equivalent	—

Fuel System			
	Carburetor identification number	PB80P	—
	Main jet	#75A	—
	Slow jet	#35	—
	Jet needle clip position	3rd groove	—
	Air screw initial opening	1-1/4 turns out	—
	Air screw high altitude adjustment	—	—
	Float level	8.0 (0.31)	—
	Idle speed	1,800 ± 100 min <sup>-1</sup> (rpm)	—
	Throttle grip free play	2-6 (0.08-0.24 in)	—

Cylinder Head/Cylinder/Piston			
	Cylinder compression	981 kPa (10.0 kg/cm <sup>2</sup> , 142 psi)/600 min <sup>-1</sup> (rpm)	—
	Cylinder head warpage	—	0.01 (0.0004)
	Cylinder warpage	—	0.01 (0.0004)
	Cylinder identification mark location	Lower surface of the cylinder	—
			
	Cylinder I.D. A mark	39.000-39.005 (1.5354-1.5356)	39.05 (1.537)
	No mark	39.005-39.010 (1.5356-1.5358)	39.05 (1.537)
	out of round	—	0.10 (0.004)
	taper	—	0.10 (0.004)
	Piston mark direction	"EX" mark facing exhaust side	—
	Piston O.D. (D) A mark	38.955-38.960 (1.5337-1.5339)	38.90 (1.531)
	B mark	38.965-38.970 (1.5341-1.5342)	38.90 (1.531)
	No mark	38.960-38.965 (1.5339-1.5341)	38.90 (1.531)
	Piston O.D. measurement point (H)	6.5 (0.26) from the bottom	—
	Piston pin hole I.D. (d)	12.002-12.008 (0.4725-0.4728)	12.03 (0.474)
			
	Cylinder-to-piston clearance	0.035-0.050 (0.0014-0.0020)	0.10 (0.004)
	Piston pin O.D.	11.994-12.000 (0.4722-0.2724)	11.98 (0.4717)
	Piston-to-piston pin clearance	0.002-0.014 (0.0001-0.0006)	0.03 (0.001)
	Top ring-to-ring groove clearance	—	—
	Second ring-to-ring groove clearance	—	—
	Top ring end gap	0.10-0.25 (0.004-0.010)	0.40 (0.016)
	Second ring end gap	0.10-0.25 (0.004-0.010)	0.40 (0.016)
	Top ring mark	"N" mark	—
	Second ring mark	"ZT" mark	—

## General Information

Crankshaft		Unit: mm (in)	
Item	Standard	Service limit	
Connecting rod small end I.D.	17.005–17.017 (0.6695–0.6700)	17.03 (0.6705)	
Connecting rod big end side clearance	0.15–0.55 (0.006–0.022)	0.60 (0.024)	
radial clearance	0.007–0.019 (0.0003–0.0007)	0.04 (0.002)	
Crankshaft runout at A	_____	0.15 (0.006)	
at B	_____	0.10 (0.004)	

70 (2.8)      40 (1.6)

Kickstarter/Balancer		
Kickstarter spindle O.D.	_____	_____
bushing I.D.	_____	_____
Kickstarter idle gear I.D.	_____	_____
bushing O.D.	_____	_____
Kickstarter driven gear I.D.	_____	_____
boss O.D.	_____	_____

Drive Train		
Drive belt width	15.5 (0.61)	14.5 (0.57)
Movable drive face bushing I.D.	20.035–20.085 (0.7888–0.7907)	20.60 (0.811)
boss O.D.	20.010–20.025 (0.7878–0.7884)	19.97 (0.786)
weight roller O.D.	15.92–16.08 (0.627–0.633)	15.40 (0.606)
Clutch lining thickness	4.5 (0.18)	2.0 (0.08)
Engine brake clutch lining thickness	_____	_____
I.D.	_____	_____
Drive chain slack	_____	_____
Driven face spring free length	98.1 (3.86)	92.8 (3.65)
Driven face O.D.	33.965–33.985 (1.3372–1.3380)	33.94 (1.336)
Movable driven face I.D.	34.000–34.025 (1.3386–1.3397)	34.06 (1.341)
Final reduction gear case oil capacity at disassembly	90 cc (3.04 US oz, 3.16 Imp oz)	_____
at draining	_____	_____
Clutch outer I.D.	107.0–107.2 (4.21–4.22)	107.5 (4.23)

Cooling System		
Coolant capacity (Radiator and engine)	_____	_____
(Reserve tank)	_____	_____
Radiator cap relief pressure	_____	_____
Thermostat begin to open	_____	_____
Thermostat fully open	_____	_____
Thermostat valve lift	_____	_____

## General Information

Unit: mm (in)

Wheels/Tires	Item	Standard	Service limit
	Cold tire pressure (Front)	125 kPa (1.25 kg/cm <sup>2</sup> , 18 psi)	_____
	(Rear)	200 kPa (2.00 kg/cm <sup>2</sup> , 29 psi)	_____
	Front and rear axle runout	_____	0.2 (0.008)
	Front and rear wheel rim runout (Radial)	_____	2.0 (0.08)
	(Axial)	_____	2.0 (0.08)
	Drive chain slack	_____	_____
	Drive chain size/link (DID)	_____	_____
	(RK)	_____	_____

Front Suspension			
	Fork spring free length	133.5 (5.26)	129.5 (5.10)
	Fork spring free length A	_____	_____
	B	_____	_____
	Fork spring direction	Tightly wound coil facing up	_____
	Fork tube runout	_____	_____
	Recommended fork oil	_____	_____
	Fork oil level	_____	_____
	Fork oil level (Right)	_____	_____
	(Left)	_____	_____
	Fork oil capacity	_____	_____
	Fork oil capacity (Right)	_____	_____
	(Left)	_____	_____
	Fork air pressure	_____	_____
	Steering bearing preload	_____	_____

Rear Suspension			
	Shock absorber spring free length	_____	_____
	Shock absorber spring free length A	_____	_____
	B	_____	_____
	Shock absorber spring direction	_____	_____
	Damper drilling point	_____	_____

Brakes			
	Front brake fluid	_____	_____
	brake lever free play	10-20 (0.4-0.8)	_____
	brake disc thickness	_____	_____
	brake disc runout	_____	_____
	master cylinder I.D.	_____	_____
	master piston O.D.	_____	_____
	caliper cylinder I.D.	_____	_____
	caliper piston O.D.	_____	_____
	brake drum I.D.	95.0 (3.74)	95.5 (3.76)
	brake lining thickness	3.0 (0.12)	1.0 (0.04)
	Rear brake fluid	_____	_____
	brake lever free play	10-20 (0.4-0.8)	_____
	brake pedal free play	_____	_____
	brake disc thickness	_____	_____
	brake disc runout	_____	_____
	master cylinder I.D.	_____	_____
	master piston O.D.	_____	_____
	caliper cylinder I.D.	_____	_____
	caliper piston O.D.	_____	_____
	brake drum I.D.	95.0 (3.74)	95.5 (3.76)
	brake lining thickness	3.0 (0.12)	1.0 (0.04)

## General Information

Battery/Charging System		Unit: mm (in)	
Item	Standard	Service limit	
Alternator charging coil resistance (at 20°C/68°F)	0.4–1.0 Ω (between W and ground)	_____	
lighting coil resistance (at 20°C/68°F)	0.2–0.8 Ω (between Y and ground)	_____	
Regulator/rectifier regulated voltage (Charging)	14.0–15.0 V/5,000 min <sup>-1</sup> (rpm)	_____	
(Lighting)	12.6–13.6 V/5,000 min <sup>-1</sup> (rpm)	_____	
Battery capacity	12 V 3 Ah	_____	
Battery specific gravity (Fully charged)	_____	_____	
(Needs charging)	_____	_____	
Battery charging rate (Normal)	0.4 A x 5 h	_____	
(Quick)	4 A x 0.5 h	_____	
Battery voltage (Fully charged, at 20°C/68°F)	13.0–13.2 V	_____	
(Needs charging, at 20°C/68°F)	12.3 V	_____	
Auto bystarter resistor resistance (6.7 Ω 5 W)	4.7–5.3 Ω	_____	

Ignition System			
Spark plug (Standard)	BR6HSA (NGK)	_____	
(For cold climate/below 5°C/41°F)	W20FR-L (NIPPONDENSO)	_____	
(For extended high speed riding)	BR4HSA (NGK)	_____	
	W14FR-L (NIPPONDENSO)	_____	
	BR8HSA (NGK)	_____	
	W24FR-L (NIPPONDENSO)	_____	
Spark plug gap	0.6–0.7 (0.024–0.028)	_____	
Ignition timing "F" mark	17° BTDC/1,800 min <sup>-1</sup> (rpm)	_____	
Peak voltage ignition coil	100 V minimum	_____	
Exciter coil	100 V minimum	_____	
Pulse generator coil	0.7 V minimum	_____	
Alternator exciter coil resistance (at 20°C/68°F)	400–800 Ω	_____	
Ignition coil resistance (at 20°C/68°F)			
Primary	0.1–0.4 Ω	_____	
Secondary with plug cap	6.5–9.7 kΩ	_____	
Secondary without plug cap	2.7–3.5 kΩ	_____	
Pulse generator resistance (at 20°C/68°F)	50–200 Ω	_____	

Lights/Meters/Switches			
Fuse		10 A	_____
Headlight (high/low beam)	U type	12 V 35/35 W	_____
	CM type	12 V 25/25 W	_____
Brake/taillight	U type	12 V 21/5 W	_____
	CM type	12 V 32/3 cp	_____
Front turn signal light	U type	12 V 21 W x 2	_____
	CM type	12 V 21 cp x 2	_____
Rear turn signal light	U type	12 V 21 W x 2	_____
	CM type	12 V 32 cp x 2	_____
Instrument light		12 V 1.7 W x 2	_____
High beam indicator		12 V 1.7 W	_____
Turn signal indicator		12 V 3.4 W	_____
Fuel level sensor resistance (at full position)			
between G and Y/W		25–45 Ω	_____
between G and Bu/W		400–700 Ω	_____
between Y/W and Bu/W		450–750 Ω	_____
(at empty position)			
between G and Y/W		400–700 Ω	_____
between G and Bu/W		25–45 Ω	_____
between Y/W and Bu/W		450–750 Ω	_____

## Torque Values

Standard			
Fastener Type	Torque N·m (kg-m, ft-lb)	Fastener Type	Torque N·m (kg-m, ft-lb)
5 mm bolt and nut	5 (0.5, 3.5)	5 mm screw	4 (0.4, 2.9)
6 mm bolt and nut	10 (1.0, 7)	6 mm screw	9 (0.9, 6.5)
8 mm bolt and nut	22 (2.2, 16)	6 mm flange bolt (8 mm head)	9 (0.9, 6.5)
10 mm bolt and nut	35 (3.5, 25)	6 mm flange bolt (10 mm head) and nut	12 (1.2, 9)
12 mm bolt and nut	55 (5.5, 40)	8 mm flange bolt and nut	27 (2.7, 20)
		10 mm flange bolt and nut	40 (4.0, 29)

- Torque specifications listed below are for important fasteners.  
Others should be tightened to standard torque values listed above.

Engine	Item	Q'ty	Thread dia. (mm)	Torque N·m (kg-m, ft-lb)	Remarks
	<b>Lubrication system:</b>				
	Oil pump mounting bolt	1	6	10 (1.0, 7)	
	<b>Fuel system:</b>				
	Carburetor mounting bolt	2	6	10 (1.0, 7)	
	Left shroud mounting bolt	2	6	10 (1.0, 7)	
	Intake manifold mounting bolt	4	6	10 (1.0, 7)	
	Air cleaner case mounting bolt	2	6	12 (1.2, 9)	
	<b>Cylinder head/cylinder/piston:</b>				
	Cylinder head bolt	4	6	10 (1.0, 7)	Apply oil to the threads and flange surface.
	Spark plug	1	14	14 (1.4, 10)	
	<b>Kickstarter/drive pulley/clutch/ driven pulley:</b>				
	Left crankcase rear cover bolt	5	6	10 (1.0, 7)	Apply oil to the threads and seating surface.
	Left crankcase front cover bolt	5	6	10 (1.0, 7)	
	Drive pulley nut	1	12	60 (6.0, 43)	
	Clutch outer nut	1	10	40 (4.0, 29)	
	Movable drive face seal bolt	3	4	4.5 (0.45, 3.3)	
	Clutch drive plate nut	1	28	55 (5.5, 40)	
	<b>Final reduction:</b>				
	Transmission cover bolt	5	6	10 (1.0, 7)	
	Transmission oil level check bolt	1	8	13 (1.3, 9)	
	<b>Crankcase/crankshaft:</b>				
	Crankcase bolt	6	6	10 (1.0, 7)	
	<b>Charging system/alternator:</b>				
	Cooling fan cover bolt	2	6	10 (1.0, 7)	
	Cooling fan bolt	4	6	8 (0.8, 5.8)	
	Flywheel nut	1	10	40 (4.0, 29)	
	Stator bolt	2	6	10 (1.0, 7)	
	Pulse generator bolt	2	6	10 (1.0, 7)	
	<b>Electric starter:</b>				
	Starter motor mounting bolt	2	6	10 (1.0, 7)	

## General Information

Frame				
Item	Q'ty	Thread dia. (mm)	Torque N·m (kg-m, ft-lb)	Remarks
<b>Exhaust system:</b>				
Exhaust pipe joint nut	2	6	12 (1.2, 9)	
Muffler mounting bolt	2	8	27 (2.7, 20)	
Exhaust pipe protector bolt	2	6	12 (1.2, 9)	
<b>Engine mount:</b>				
Engine mounting bolt	1	10	50 (5.0, 36)	
Engine mounting bracket bolt	1	10	60 (6.0, 43)	
<b>Front wheel/suspension/steering/brake:</b>				
Speedometer cable set screw	1	4	2 (0.2, 1.4)	
Front axle nut	1	10	45 (4.5, 33)	
Front brake arm bolt	1	5	6 (0.6, 4.3)	
Fork pinch bolt	4	8	27 (2.7, 20)	
Handlebar pinch bolt	1	10	50 (5.0, 36)	
Steering stem lock nut	1	25.4	70 (7.0, 51)	
<b>Rear wheel/suspension/brake:</b>				
Rear axle nut	1	14	120 (12.0, 87)	Apply oil to the threads and seating surface.
Rear brake arm bolt	1	5	6 (0.6, 4.5)	
Shock absorber upper mounting bolt	1	10	40 (4.0, 29)	
Shock absorber lower mounting bolt	1	8	27 (2.7, 20)	

## Tools

• Refer to "Ball bearing replacement" in section 1 of the Common Service Manual.

Description	Tool Number	Application	Section
Float level gauge	07401-0010000	Carburetor float level inspection	5
Clutch center holder	07724-0050001	Drive pulley face removal/installation	8
Universal holder	07725-0030000	Clutch outer removal/installation	
Clutch spring compressor	07960-KM10000	Clutch/driven pulley disassembly/assembly	
Lock nut wrench, 39 x 41 mm	07GMA-KS40100		
Bearing driver	07945-GC80000	Driven face outer bearing installation	
Crankcase assembly collar	07965-GM00100	Driveshaft installation	9
Crankcase assembly shaft	07965-GM00300		
Shaft protector	07931-1870000		
Case puller	07935-GK80000	Crankcase separation	10
Case/driven gear puller	07935-KG80000	Crankshaft removal	
Universal bearing puller	07631-0010000	Crankshaft bearing removal	
Shaft protector	07931-1870000	Crankcase separation, crankshaft removal	
Crankcase assembly collar	07965-GM00100	Crankshaft installation	
Crankcase assembly shaft	07965-1660200		
Crankcase assembly collar	07965-GM00100	Crankcase assembly	
Crankcase assembly shaft	07965-GM00300		
Lock nut wrench A	07916-KM10000	Steering stem lock nut removal/installation	11
Lock nut wrench B	07916-1870100		
Ball race remover	07946-GA70000	Steering head ball race removal	
Driver	07749-0010000	Steering head ball race installation	
Attachment, 42 x 47 mm	07746-0010300		
Snap ring pliers	07914-3230001	Fork disassembly/Assembly	
Universal holder	07725-0030000	Flywheel removal/installation	13
Flywheel puller	07733-0010000	Flywheel removal	

## Tools

• Refer to "Ball bearing replacement" in section 1 of the Common Service Manual.

Description	Tool Number	Application	Section
Float level gauge	07401-0010000	Carburetor float level inspection	5
Clutch center holder Universal holder Clutch spring compressor Lock nut wrench, 39 x 41 mm Bearing driver	07724-0050001 07725-0030000 07960-KM10000 07GMA-KS40100 07945-GC80000	Drive pulley face removal/installation Clutch outer removal/installation Clutch/driven pulley disassembly/assembly Driven face outer bearing installation	8
Crankcase assembly collar Crankcase assembly shaft Shaft protector	07965-GM00100 07965-GM00300 07931-1870000	Driveshaft installation Driveshaft removal	9
Case puller Case/driven gear puller Universal bearing puller Shaft protector Crankcase assembly collar Crankcase assembly shaft Crankcase assembly collar Crankcase assembly shaft	07935-GK80000 07935-KG80000 07631-0010000 07931-1870000 07965-GM00100 07965-1660200 07965-GM00100 07965-GM00300	Crankcase separation Crankshaft removal Crankshaft bearing removal Crankcase separation, crankshaft removal Crankshaft installation Crankcase assembly	10
Lock nut wrench A Lock nut wrench B Ball race remover Driver Attachment, 42 x 47 mm Snap ring pliers	07916-KM10000 07916-1870100 07946-GA70000 07749-0010000 07746-0010300 07914-3230001	Steering stem lock nut removal/installation Steering head ball race removal Steering head ball race installation Fork disassembly/Assembly	11
Universal holder Flywheel puller	07725-0030000 07733-0010000	Flywheel removal/installation Flywheel removal	13

**General Information**

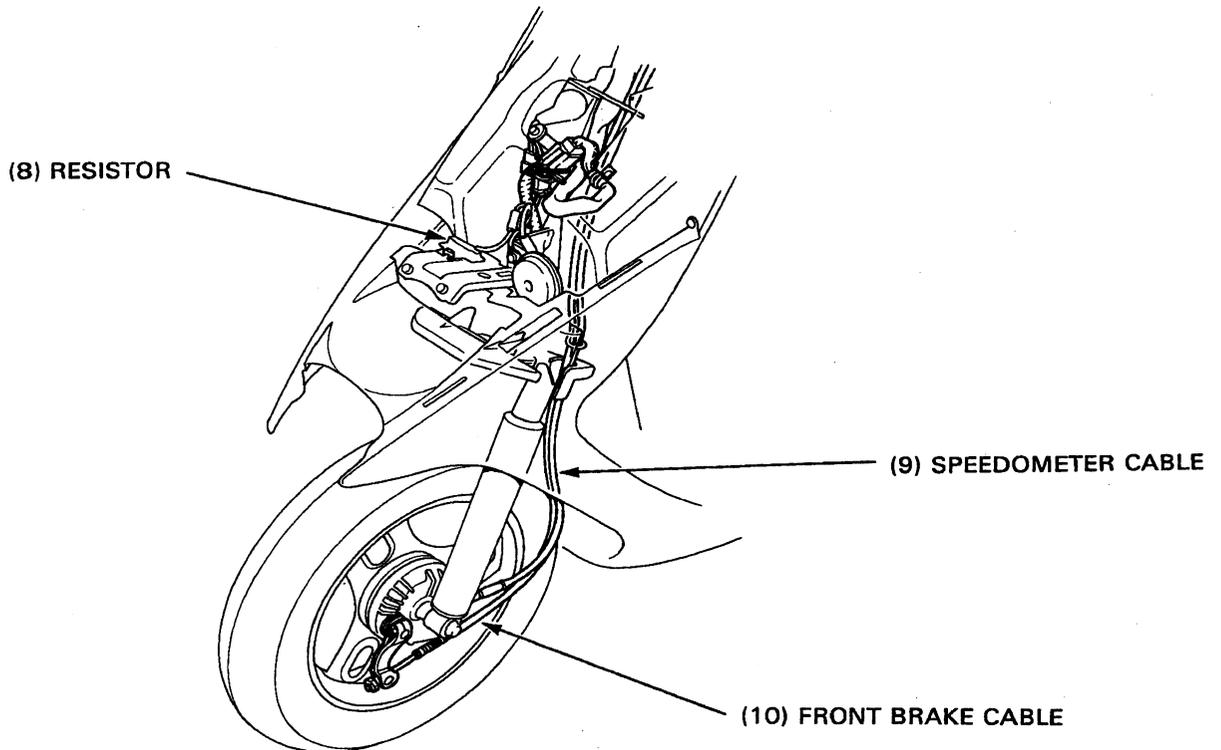
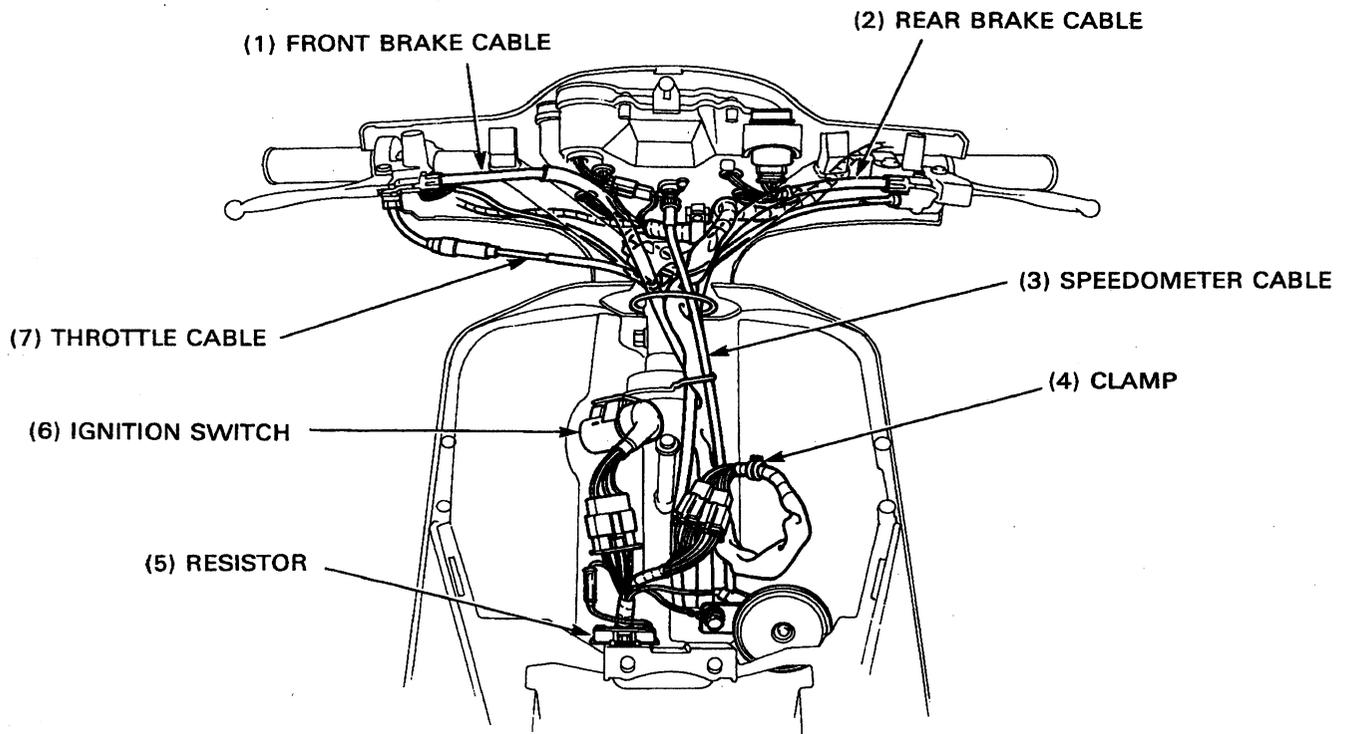
**Lubrication & Seal Points**

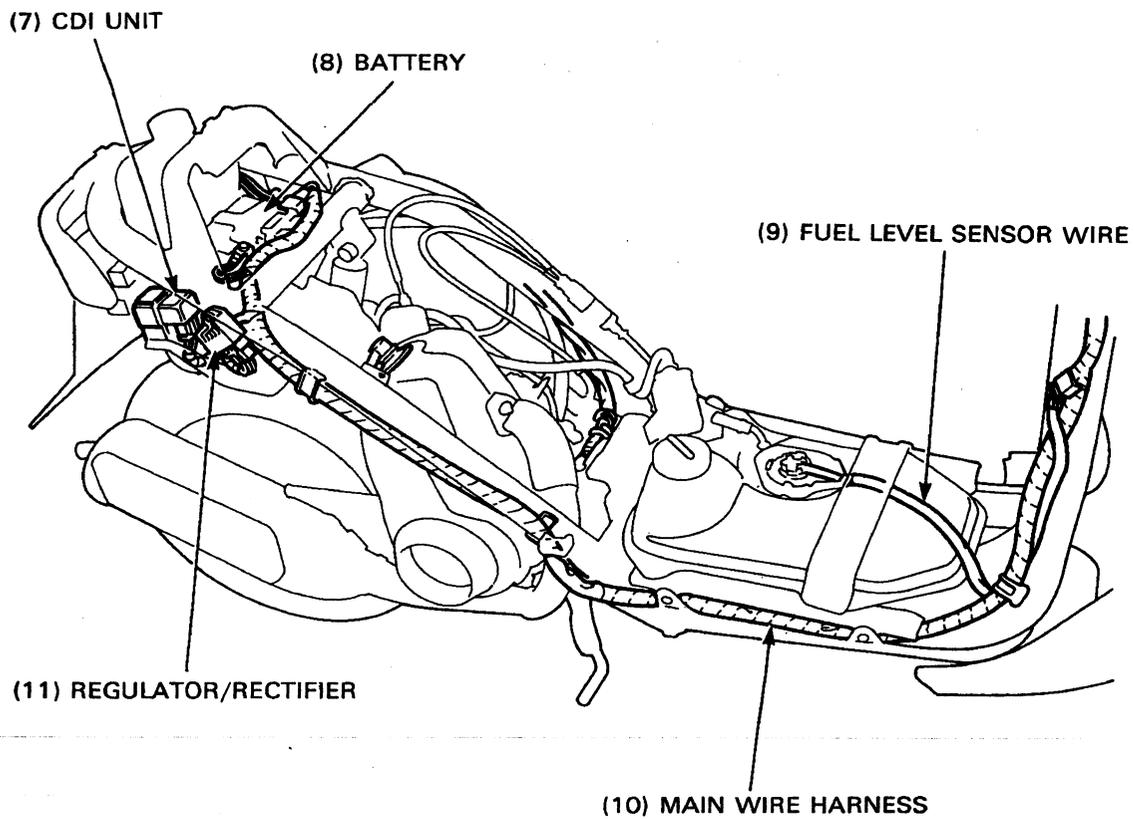
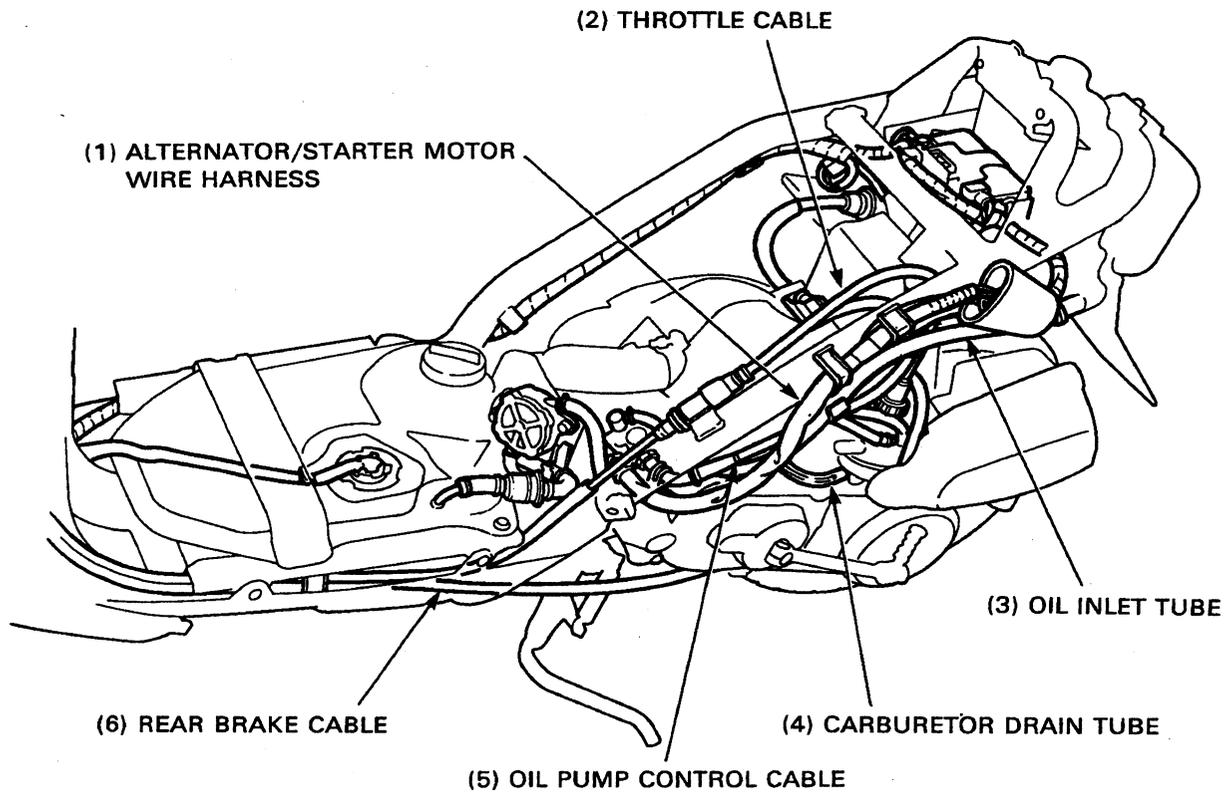
<b>Engine</b>		
Location	Material	Remarks
Crankcase mating surfaces	Liquid sealant	
Oil pump O-ring Oil pump shaft bearing Cylinder Piston Piston pin Connecting rod small end bearing Crankshaft oil seals Crankshaft 12 mm threaded portion	Honda 2-stroke engine oil	
Crankshaft bearings	Multipurpose grease	
Oil pump gear	Molybdenum disulfide grease	
Driven face  Kickstarter driven gear Kickstarter spindle bearing Starter pinion bearing	Lithium based grease – MITSUBISHI: HD-3 – NIPPON SEKIYU: LIPANOX DELUX 3 – IDEMITSU: AUTOLEX B	Pack 5.0–5.5 g (0.18–0.19 oz) of grease to the inside.
Transmission (final reduction) case	Hypoid gear oil #90	90 cc (3.04 US oz, 3.16 Imp oz)
Transmission (final reduction) oil seal Cylinder head bolts	4-stroke engine oil	

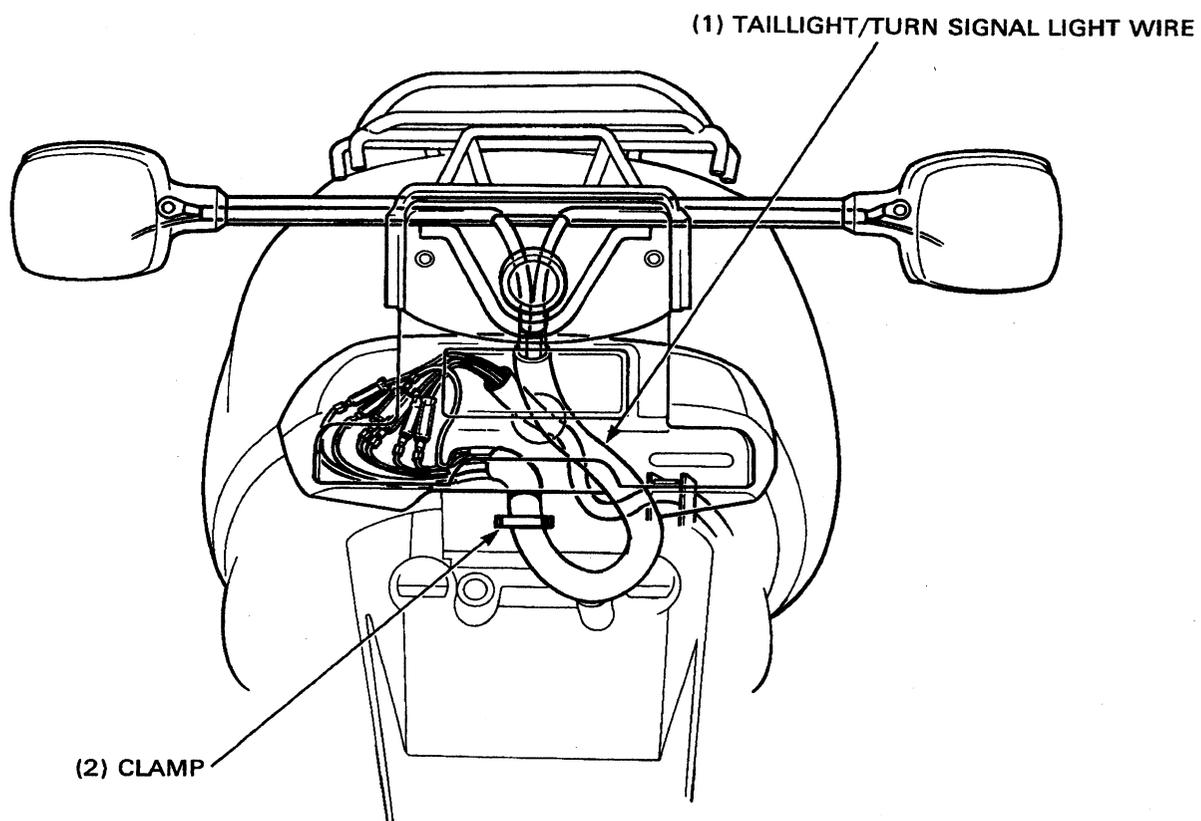
<b>Frame</b>		
Location	Material	Remarks
Front wheel dust seal lip Fork  Fork dust seal lip Fork tube bushing sliding surface Rebound spring Fork spring tightly wound coils Front brake cam Front brake panel anchor pin Front brake panel oil seal lip Rear brake cam Rear brake anchor pin Steering stem bearings Steering stem bearing races Speedometer cable Seat lock pivot Center stand pivot Speedometer gear Speedometer pinion	Multipurpose grease	Pack 1.5–2 g (0.05–0.07 oz) of grease between the bottom case and fork tube (page 11-9).
Inside of the front brake cable boot Inside of the rear brake cable boot	Silicone grease	

<b>Frame</b>	<b>Location</b>	<b>Material</b>	<b>Remarks</b>
Brake cam felt seals Brake cables		Engine oil	
Inside surface of handle grip		Honda Bond A or equivalent	
Air cleaner connecting tube-to-case joint		Semedain #540	
Air cleaner element Engine oil tank		Honda 2-stroke engine oil	

# Cable & Harness Routing







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## 2. Frame/Body Panels/Exhaust System

<b>Service Information</b>	<b>2-1</b>	<b>Fuel Tank Removal/Installation</b>	<b>2-8</b>
<b>Troubleshooting</b>	<b>2-1</b>	<b>Muffler Removal/Installation</b>	<b>2-9</b>
<b>Frame Cover Removal/Installation</b>	<b>2-2</b>		

### Service Information

**▲ WARNING**

- **Gasoline is extremely flammable and explosive under certain conditions.**
- **Serious burns may result if the exhaust system is not allowed to cool before components are removed or serviced.**

- Work in a well ventilated area. Smoking or allowing flames or sparks in the working area or where gasoline is stored can cause a fire or explosion.
- This section covers removal and installation of the frame covers, fuel tank and exhaust system. Frame cover installation is in the reverse order of removal, unless noted otherwise.
- When removing the cover, be careful not to damage any tab or groove of a cover.
- Always inspect the exhaust system for leaks after installation.

### Troubleshooting

**Excessive exhaust noise**

- Broken exhaust system
- Exhaust gas leak

**Poor performance**

- Deformed exhaust system
- Exhaust gas leak
- Clogged muffler

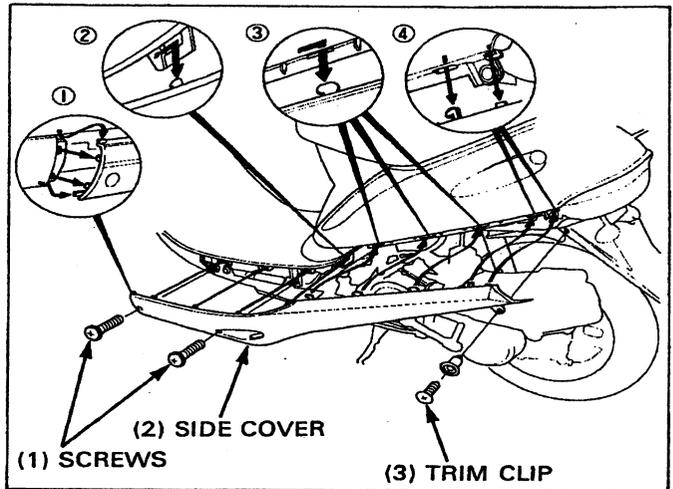
**Side Cover**

Remove the trim clip and two screws.

- ① Release the front tabs of the cover from the front fender while sliding the cover rearward.
- ② Push the cover rearward and release the four front tabs outward.
- ③ Push the cover rearward and release the three tabs from the frame body cover downward.
- ④ Release the two rear tabs while pulling down the rear of the cover.

**NOTE**

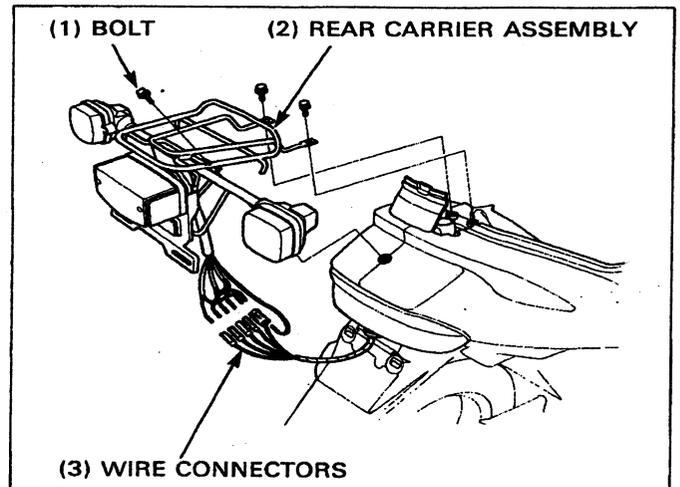
Attach the rear of the front fender with the side cover front screw.



**Frame Body Cover**

Remove the luggage box (page 2-4).

Disconnect the turn signal light and taillight wire connectors. Remove the three bolts and the rear carrier assembly.

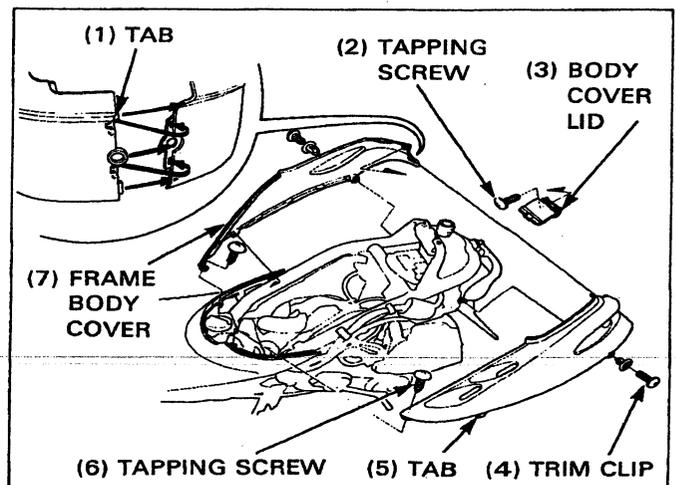


Remove the side covers.

Remove the center cover (page 2-4).

Remove the two tapping screws and two trim clips.

- ① Release the front tabs upward.
- ② Remove the frame body cover rearward.
- ③ Remove the two tapping screws and the body cover lid.
- ④ Pull the left frame body cover back to release the two tabs and separate the left and right frame body covers.



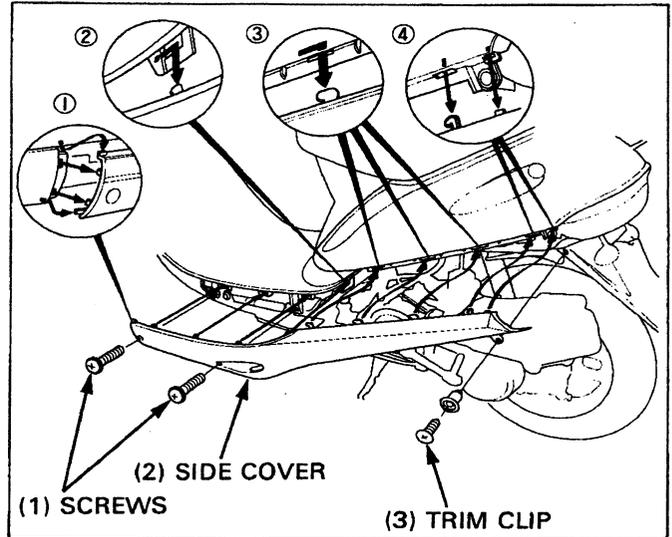
**Side Cover**

Remove the trim clip and two screws.

- ① Release the front tabs of the cover from the front fender while sliding the cover rearward.
- ② Push the cover rearward and release the four front tabs outward.
- ③ Push the cover rearward and release the three tabs from the frame body cover downward.
- ④ Release the two rear tabs while pulling down the rear of the cover.

**NOTE**

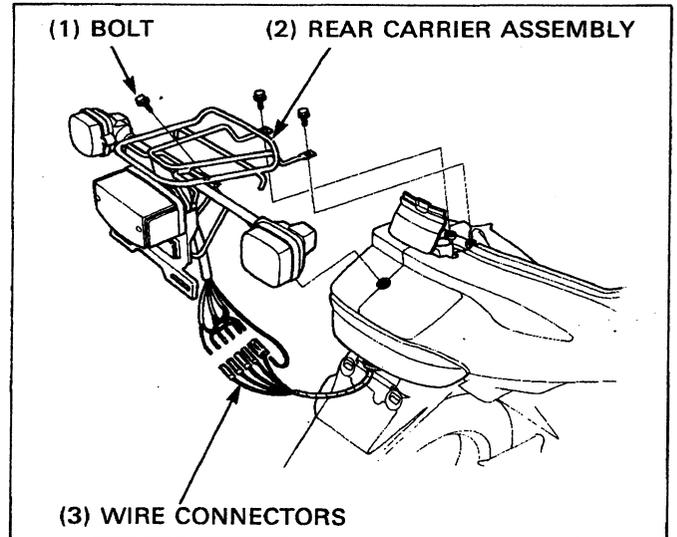
Attach the rear of the front fender with the side cover front screw.



**Frame Body Cover**

Remove the luggage box (page 2-4).

Disconnect the turn signal light and taillight wire connectors.  
Remove the three bolts and the rear carrier assembly.

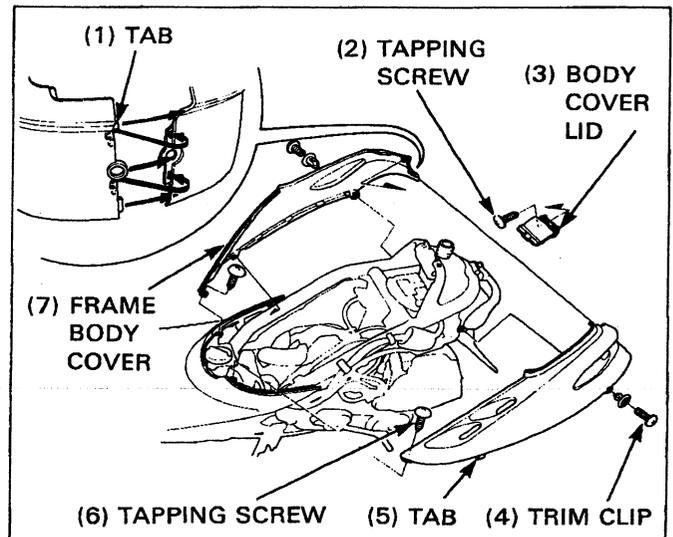


Remove the side covers.

Remove the center cover (page 2-4).

Remove the two tapping screws and two trim clips.

- ① Release the front tabs upward.
- ② Remove the frame body cover rearward.
- ③ Remove the two tapping screws and the body cover lid.
- ④ Pull the left frame body cover back to release the two tabs and separate the left and right frame body covers.



## Frame/Body Panels/Exhaust System

### Luggage Box

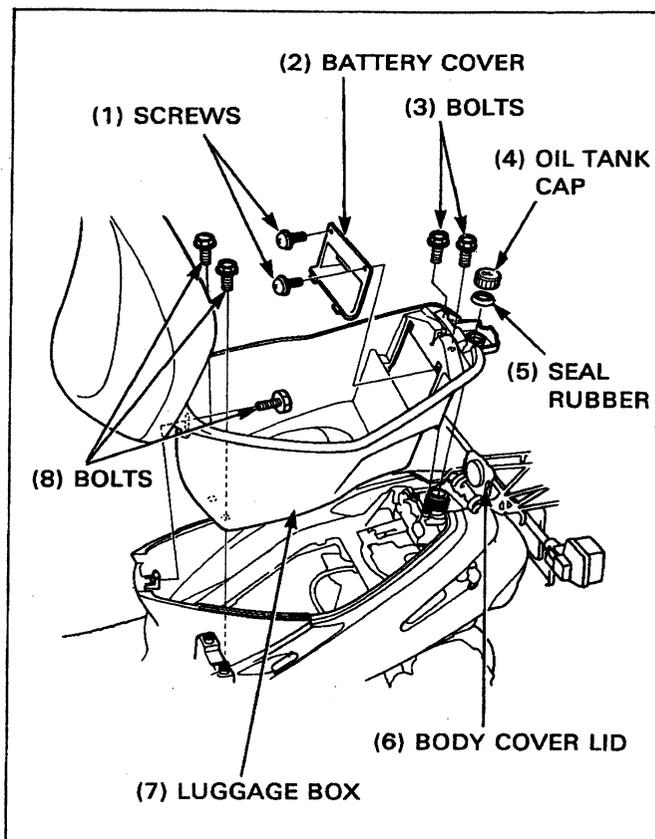
#### NOTE

- The luggage box can be removed together with the seat.

Open the seat.  
Remove the two screws and the battery cover.  
Open the body cover lid.  
Remove the oil tank cap and seal rubber.  
Remove the five bolt and the luggage box.

#### NOTE

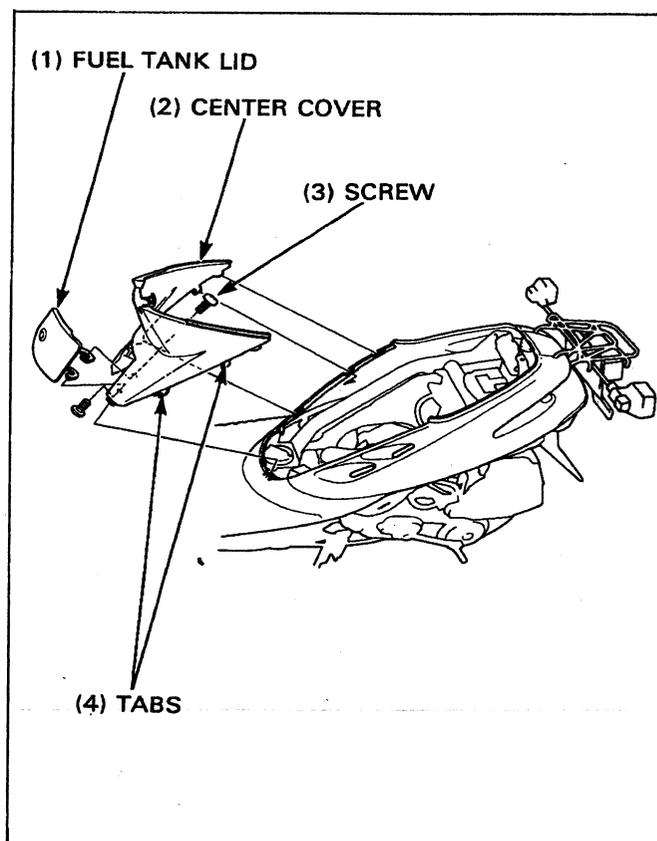
- After removing the luggage box, install the seal rubber and oil tank cap to prevent dirt and dust from entering the oil tank.



### Center Cover

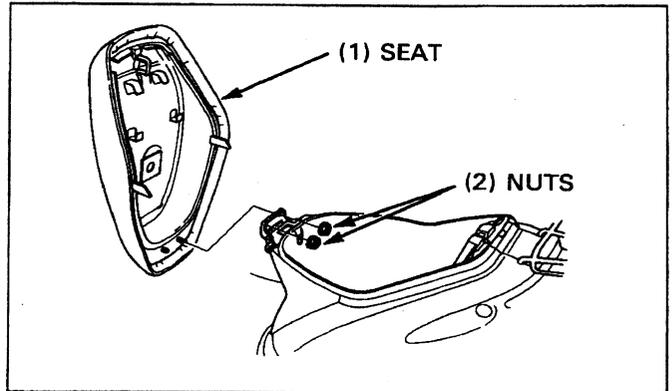
Remove the luggage box.  
Slide the center cover upward to release the two tabs from the frame body cover and remove the center cover.

Open the fuel tank lid.  
Remove the two screws and the fuel tank lid.



**Seat**

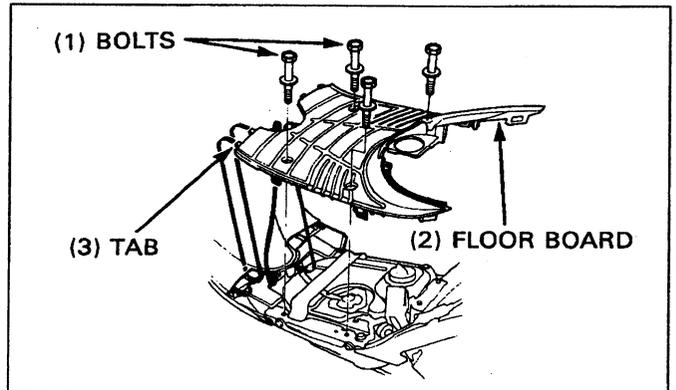
Open the seat.  
Remove the two nuts and the seat.



**Floor Board**

Remove the frame body cover (page 2-3).

Remove the four bolts.  
Raise the rear of the floor board slightly, pull the floor board rearward to release the tabs and remove it.

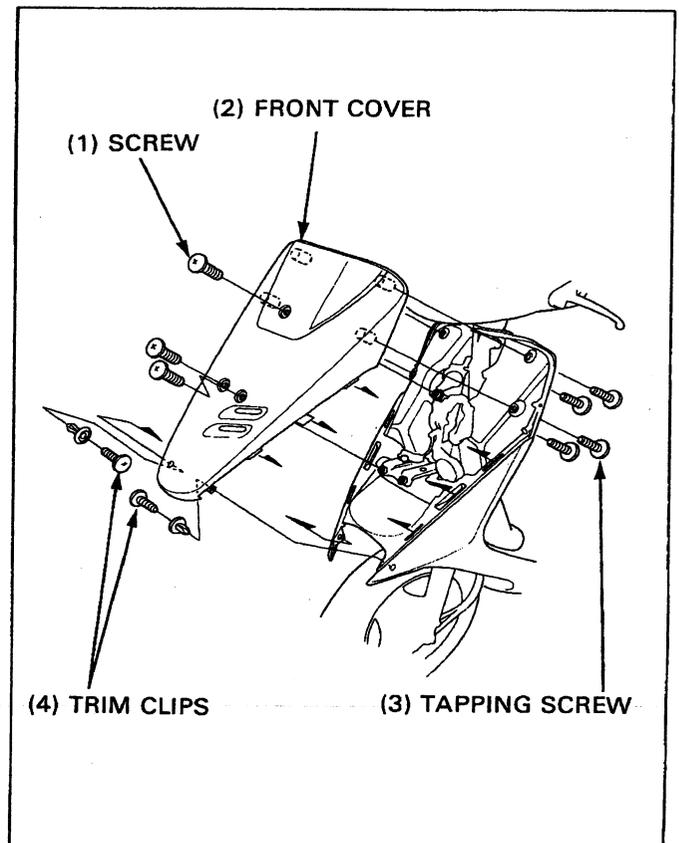


**Front Cover**

Remove the four tapping screws.  
Remove the two trim clips.  
Remove the three screws.  
Release the tabs while pushing both sides of the cover inward and the remove cover.

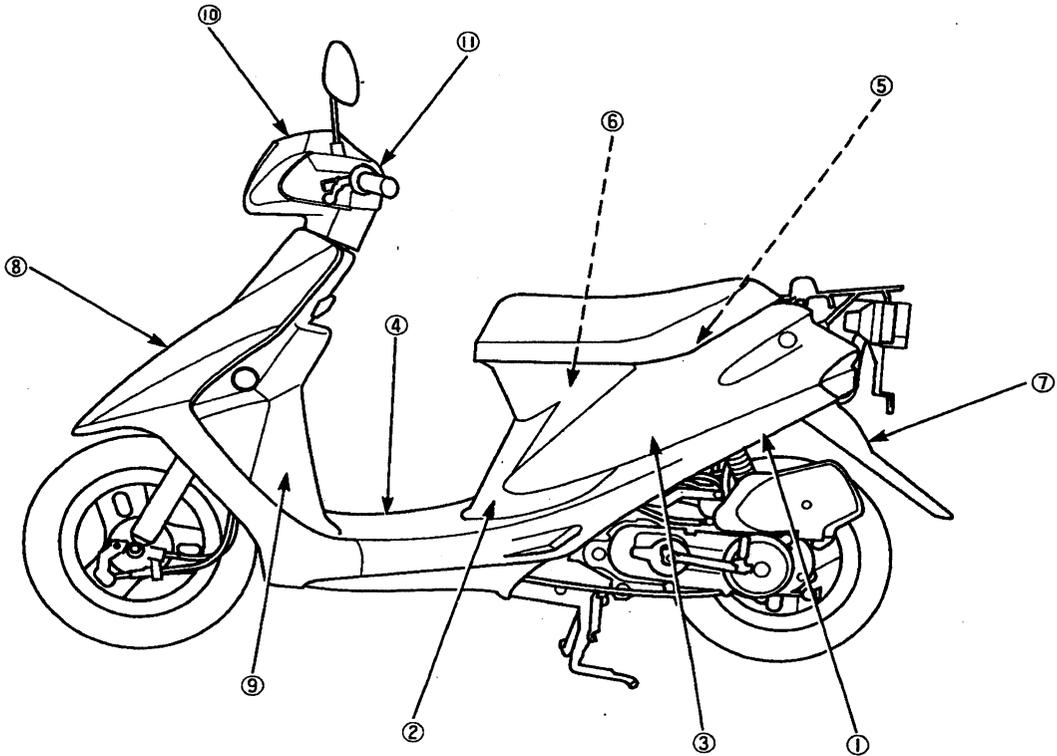
**NOTE**

• When installing, make sure that the tabs are aligned with the slots properly before tightening the screws.



# Frame Cover Removal/Installation

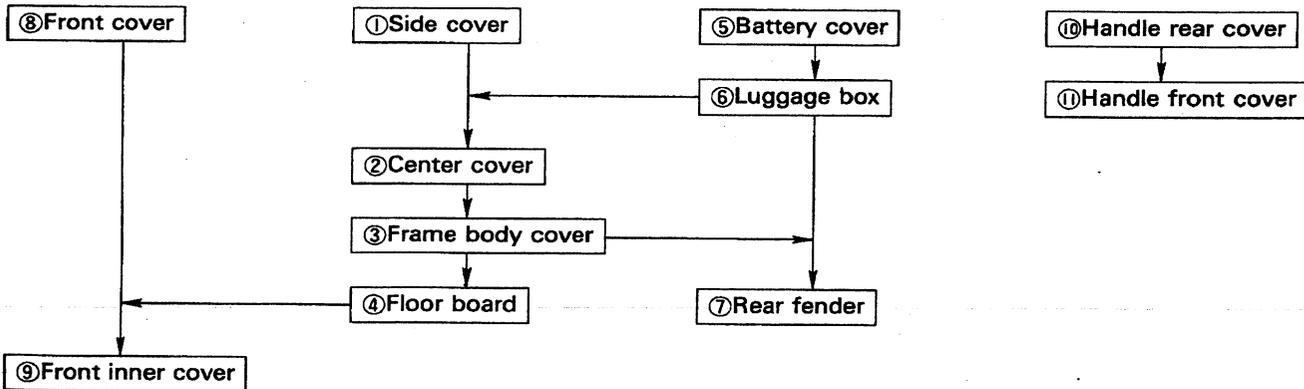
## Frame Cover Locations



- ① Side cover
- ② Center cover
- ③ Frame body cover
- ④ Floor board
- ⑤ Battery cover
- ⑥ Luggage box
- ⑦ Rear Fender
- ⑧ Front cover
- ⑨ Front inner cover
- ⑩ Handle front cover
- ⑪ Handle rear cover

## Frame Cover Removal Chart

• This chart shows removal order of frame covers by means of arrow.



## Frame/Body Panels/Exhaust System

### Front Inner Cover

Remove the floor board (page 2-5).

Remove the front cover (page 2-5).

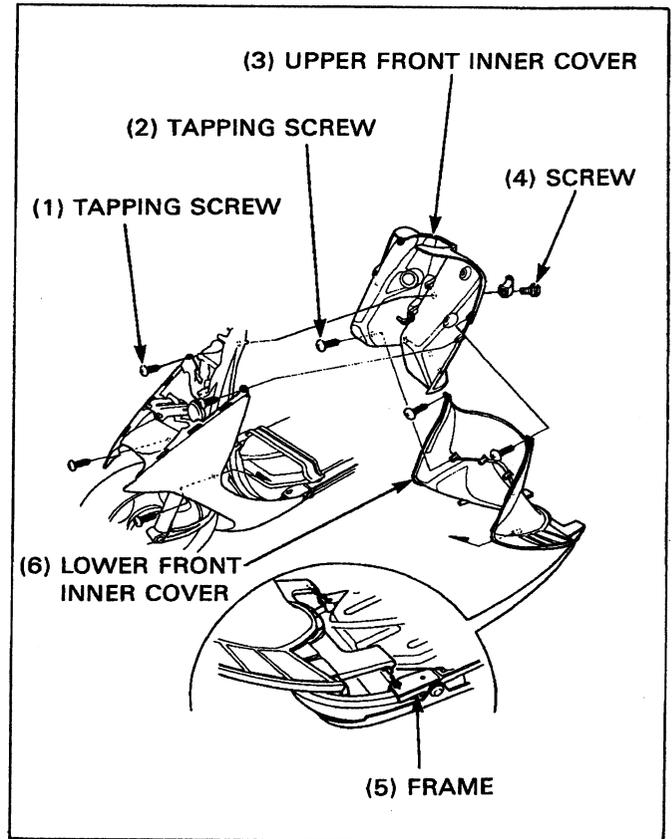
Remove the four tapping screws attaching the inner cover to the front fender.

Remove the screw attaching the inner cover to the frame. Pull the upper portion of the cover back out of the frame. Slide the cover upward along the frame and remove it.

Remove the six tapping screws and separate the upper and lower inner covers.

#### NOTE

- When installing, align the bosses of the inner cover with the holes in the frame properly.



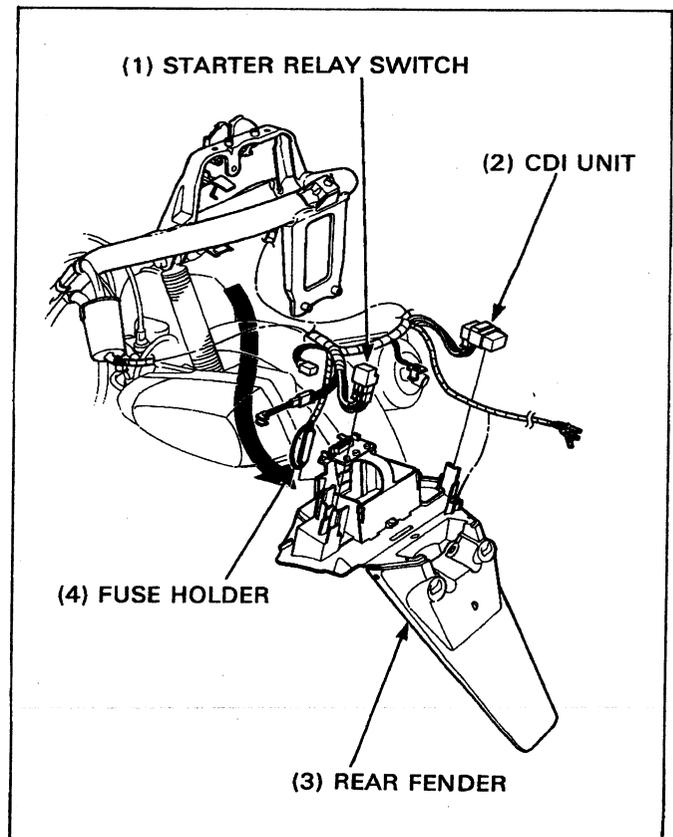
### Rear Fender

Remove the oil tank (page 4-4).

Remove the ignition coil (page 14-6).

Remove the CDI unit, starter relay switch and fuse holder from the rear fender.

Remove the rear fender from the frame.

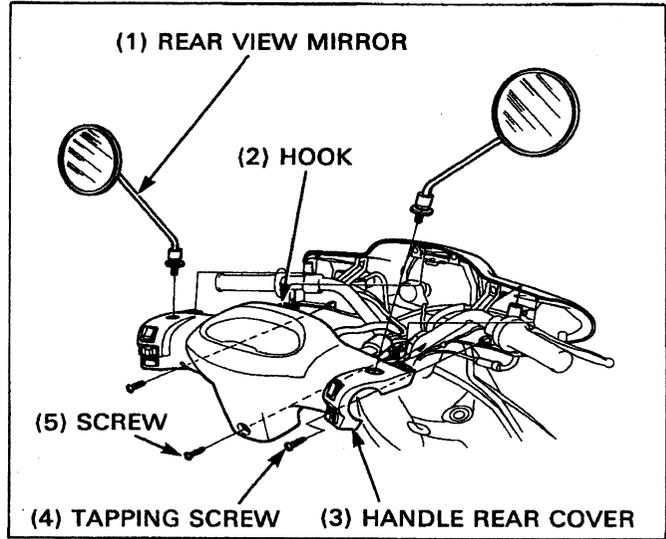


**Handle Rear Cover**

Remove the rearview mirrors.  
 Remove the two tapping screws and the screw.  
 Release the three hooks by pushing down the cover and sliding it rearward.  
 Remove the cover from the handlebar.

**NOTE**

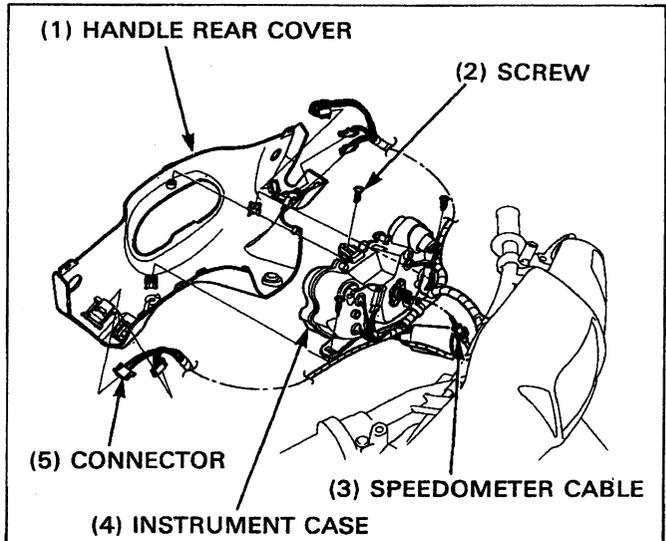
• When installing, be careful not to pinch the wires.



Disconnect the speedometer cable from the speedometer.  
 Disconnect the five connectors from the handlebar switches.  
 Remove the three screws and the cover from the instrument case.

**NOTE**

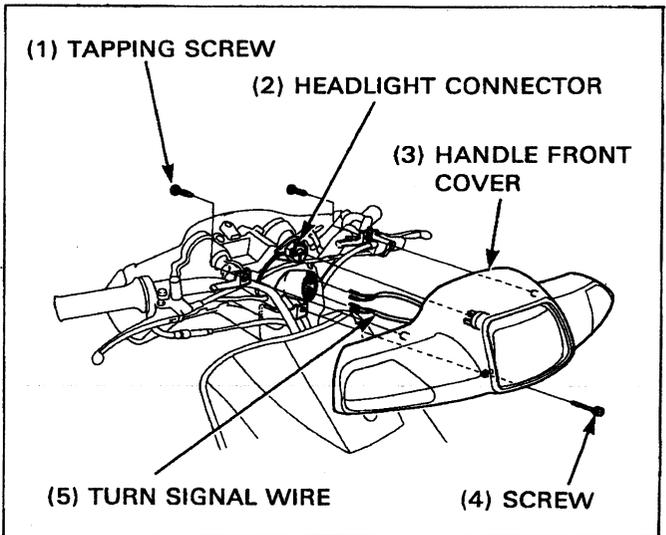
• It is not necessary to remove the handle rear cover from the instrument case to remove the handle front cover.



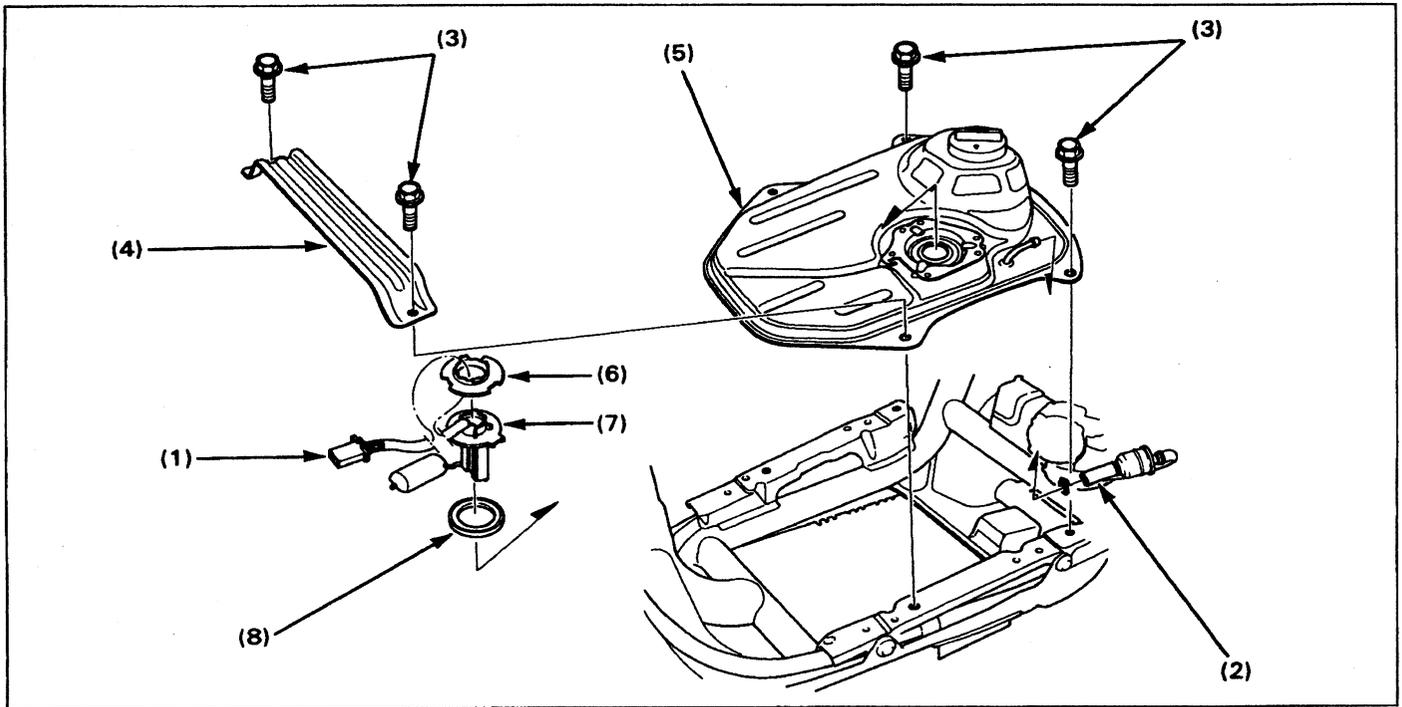
**Handle Front Cover**

Remove the handle rear cover from the handlebar.

Remove the two tapping screws and the screw.  
 Disconnect the headlight connector.  
 Disconnect the turn signal light wire connectors and remove the handle front cover.



## Fuel Tank Removal/Installation



**▲ WARNING**

• Gasoline is extremely flammable and is explosive under certain condition. KEEP OUT OF REACH OF CHILDREN.

• Work in a well ventilated area. Smoking or allowing flames or sparks in the work area or where gasoline is stored can cause a fire or explosion.

### Requisite Service

• Front inner cover removal/installation (page 2-6)

Procedure		Q'ty	Remarks
<b>Removal Order</b>			Installation is in the reverse order of removal.
(1)	Fuel unit wire connector	1	<b>NOTE</b> • Plug or clamp the fuel line to prevent gasoline from flowing out.
(2)	Fuel line	1	
(3)	Fuel tank mounting bolt	4	
(4)	Floor plate	1	
(5)	Fuel tank	1	
<b>Fuel level sensor</b>			
(6)	Retainer	1	
(7)	Fuel level sensor	1	
(8)	Seal rubber	1	