2005-2009

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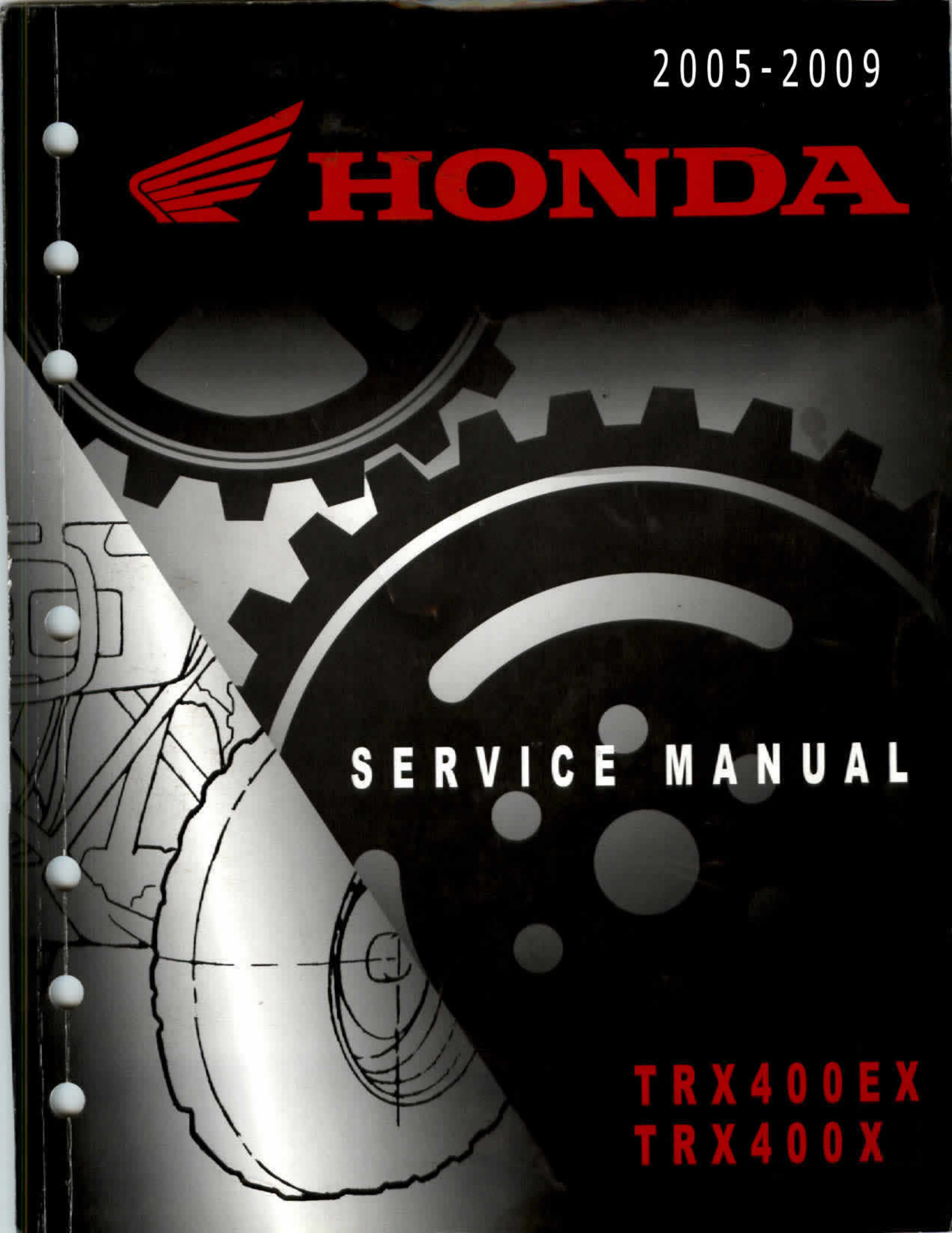


SERVICE MANUAL

TRX400EX
TRX400X

HOW TO USE THIS MANUAL

This service manual describes the service procedures for the TRX400EX.

Follow the Maintenance Schedule (Section 4) recommendations to ensure that the vehicle is in peak operating condition and the emission levels are within the standards set by the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB).

Performing the first scheduled maintenance is very important. It compensates for the initial wear that occurs during the break-in period.

Sections 1 and 4 apply to the whole vehicle. Section 3 illustrates procedures for removal/installation of components that may be required to perform service described in the following sections.
Sections 5 through 19 describe parts of the vehicle, grouped according to location.

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

Most sections start with an assembly or system illustration, service information and troubleshooting for the section. The subsequent pages give detailed procedure.

If you are not familiar with this vehicle, read Technical Feature in Section 2.
If you don't know the source of the trouble, go to section 21 Troubleshooting.

Your safety, and the safety of others, is very important. To help you make informed decisions we have provided safety messages and other information throughout this manual. Of course, it is not practical or possible to warn you about all the hazards associated with servicing this vehicle.
You must use your own good judgement.
You will find important safety information in a variety of forms including:

- Safety Labels – on the vehicle
- Safety Messages – preceded by a safety alert symbol ⚠ and one of three signal words, DANGER, WARNING, or CAUTION. These signal words mean:

⚠DANGER You WILL be KILLED or SERIOUSLY HURT if you don't follow instructions.

⚠WARNING You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.

⚠CAUTION You CAN be HURT if you don't follow instructions.

- Instructions – how to service this vehicle correctly and safely.

As you read this manual, you will find information that is preceded by a **NOTICE** symbol. The purpose of this message is to help prevent damage to your vehicle, other property, or the environment.

CONTENTS

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.

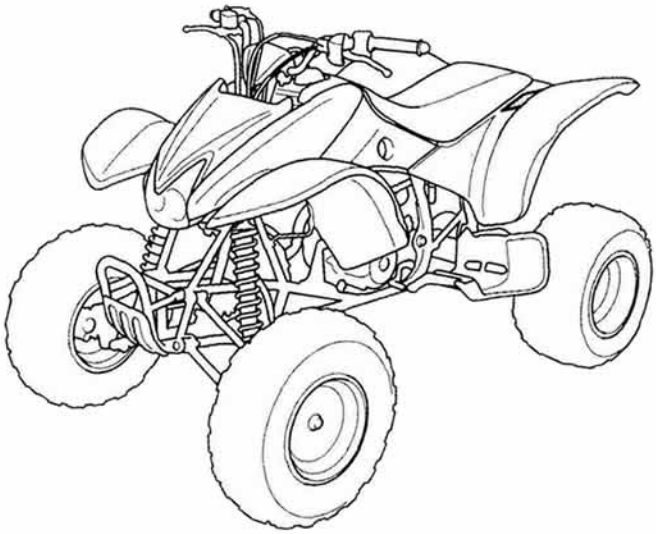
	Replace the part(s) with new one(s) before assembly.
	Use the recommended engine oil, unless otherwise specified.
	Use molybdenum oil solution (mixture of the engine oil and molybdenum grease in a ratio of 1:1).
	Use multi-purpose grease (lithium based multi-purpose grease NLGI #2 or equivalent).
	Use 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 a medium strength locking agent unless otherwise specified.
	Apply sealant.
	Use DOT 4 brake fluid. Use the recommended brake fluid unless otherwise specified.
	Use fork or suspension fluid.

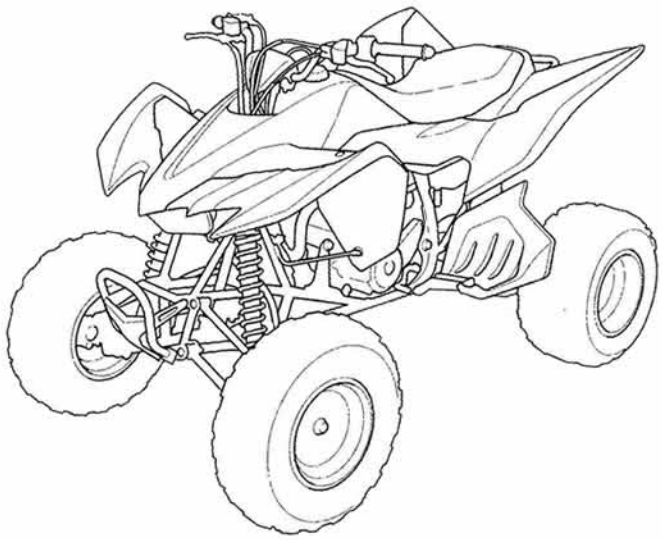
1. GENERAL INFORMATION

SERVICE RULES

1. Use genuine Honda or Honda-recommended parts and lubricants or their equivalents. Parts that do not meet Honda's design specifications may cause damage to the vehicle.
2. Use the special tools designed for this product to avoid damage and incorrect assembly.
3. Use only metric tools when servicing the vehicle. Metric bolts, nuts and screws are not interchangeable with English fasteners.
4. Install new gaskets, O-rings, cotter pins, and lock plates when reassembling.
5. When tightening bolts or nuts, begin with the larger diameter or inner bolt first. Then tighten to the specified torque diagonally in incremental steps unless a particular sequence is specified.
6. Clean parts in cleaning solvent upon disassembly. Lubricate any sliding surfaces before reassembly.
7. After reassembly, check all parts for proper installation and operation.
8. Route all electrical wires as shown in the Cable and Harness Routing (page 1-18).

MODEL IDENTIFICATION



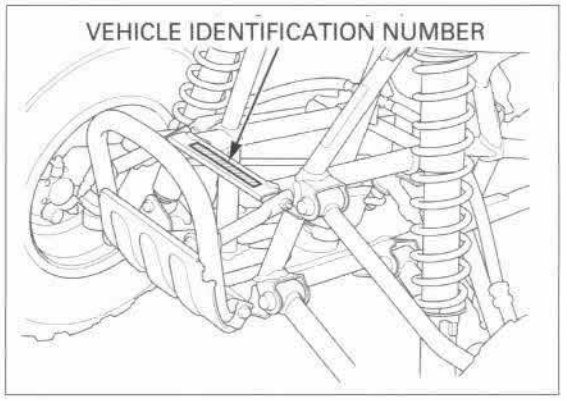


DESTINATION CODES

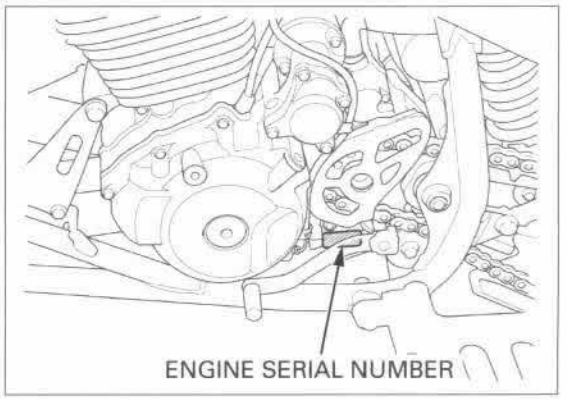
Throughout this manual, the following are used to identify individual types for each region.

DESTINATION CODE	REGION
A	U.S.A.
CM	Canada
U	Australia (New Zealand, European Direct Sales)

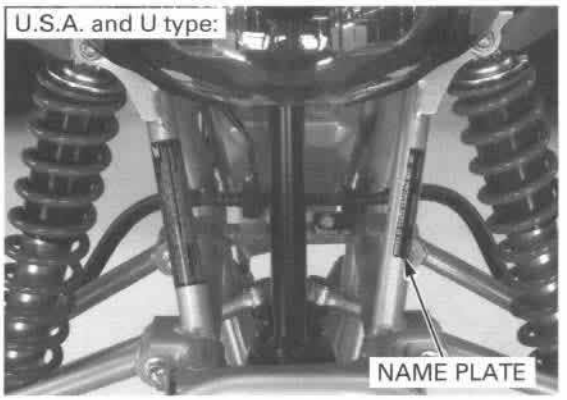
The Vehicle Identification Number (VIN) is stamped on the front of the frame.

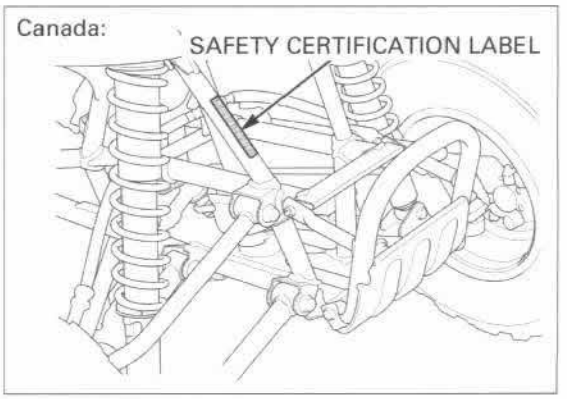


The engine serial number is stamped on the left side of the crankcase.

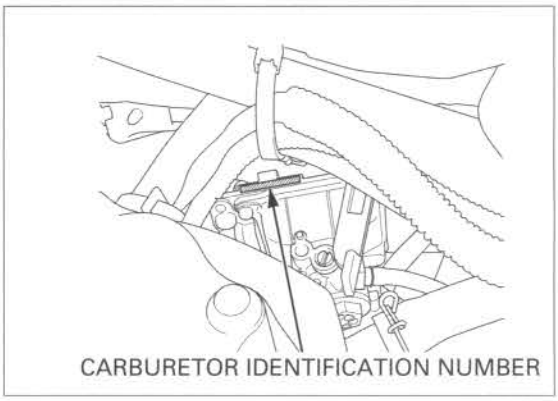


The name plate (U.S.A. and U type) or Safety Certification Label (Canada) is attached on the front frame pipe.

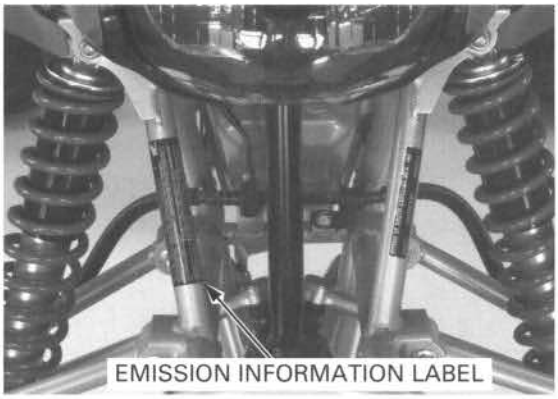




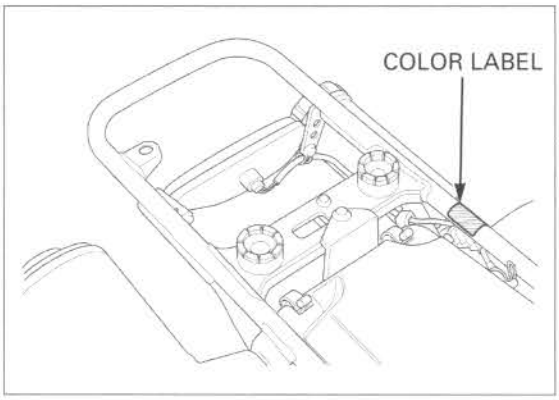
The carburetor identification number is stamped on the left side of the carburetor body.



The Vehicle Emission Information Label is attached on the right front frame pipe (U.S.A. only).



The color label is attached on the left side of the frame under the seat. When ordering color coded parts, always specify the designated color code.



GENERAL SPECIFICATIONS

ITEM		SPECIFICATIONS
DIMENSIONS	Overall length	1,822 mm (71.7 in)
	Overall width	1,155 mm (45.5 in)
	Overall height	1,111 mm (43.7 in)
	Wheelbase	1,217 mm (47.9 in)
	Front tread	920 mm (36.2 in)
	Rear tread	900 mm (35.4 in)
	Seat height	808 mm (31.8 in)
	Footpeg height	348 mm (13.7in)
	Ground clearance	105 mm (4.1 in)
	Dry weight	176 kg (388 lbs)
	Curb weight	184 kg (406 lbs)
	Maximum weight capacity	110 kg (243 lbs)
FRAME	Frame type	Double cradle
	Front suspension	Double wish-bone
	Front wheel travel	209 mm (8.2 in)
	Front damper	Double tube
	Rear suspension	Swingarm
	Rear wheel travel	230 mm (9.1 in)
	Rear damper	Single tube
	Front tire size	AT22 x 7-10 ★★
	Rear tire size	AT20 x 10-9 ★★
	Front rim size	10 x 5.5 AT
	Rear rim size	9 x 8.0 AT
	Front tire brand	M/R 101 (Ohtsu)
	Rear tire brand	M/R 501 (Ohtsu)
	Front brake	Hydraulic disc x 2
	Rear brake	Hydraulic disc
	Caster angle	7°
	Trail length	32 mm (1.3 in)
	Camber angle	– 0.8°
	Fuel tank capacity	10 liters (2.6 US gal, 2.2 Imp gal)
	Fuel tank reserve capacity	1.6 liters (0.42 US gal, 0.35 Imp gal)
ENGINE	Cylinder arrangement	Single cylinder, transversely installed
	Bore and stroke	85.0 x 70.0 mm (3.35 x 2.76 in)
	Displacement	397 cm^3 (24.2 cu-in)
	Compression ratio	9.1 : 1
	Valve train	Chain driven OHC with rocker arm
	Intake valve opens at 1 mm (0.04 in) lift	5° BTDC
	Intake valve closes at 1 mm (0.04 in) lift	40° ABDC
	Exhaust valve opens at 1 mm (0.04 in) lift	40° BBDC
	Exhaust valve closes at 1 mm (0.04 in) lift	5° ATDC
	Lubrication system	Forced pressure (dry sump)
	Oil pump type	Trochoid
	Cooling system	Air cooled
	Air filtration	Oiled urethane foam
	Engine dry weight	42.5 kg (93.7 lbs)
CARBURETOR	Carburetor type	Piston valve
	Throttle bore	38 mm (1.5 in)

ITEM			SPECIFICATIONS
DRIVE TRAIN	Clutch system		Multi-plate, wet
	Clutch operation system		Cable operated
	Transmission		Constant mesh, 5-speed + Reverse
	Primary reduction		2.826 (23/65)
	Final reduction		2.785 (14/39)
	Gear ratio	1st	2.727 (11/30)
		2nd	1.789 (19/34)
		3rd	1.363 (22/30)
		4th	1.080 (25/27)
		5th	0.925 (27/25)
		Reverse	2.428 (14/21 x 21/34)
	Gearshift pattern		Left foot operated return system, R-1-N-2-3-4-5
ELECTRICAL	Ignition system		AC–CDI
	Starting system		Electric starter motor
	Charging system		Single phase output alternator
	Regulator/rectifier		Single phase full-wave rectification
	Lighting system		Battery

LUBRICATION SYSTEM SPECIFICATIONS

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT
Engine oil capacity	After draining	1.8 liters (1.9 US qt, 1.6 Imp qt)	–
	After filter change	1.85 liters (1.95 US qt, 1.63 Imp qt)	–
	After disassembly	2.2 liters (2.3 US qt, 1.9 Imp qt)	–
Recommended engine oil		Pro Honda GN4 or HP4 (without molybdenum additives) 4-stroke oil or equivalent motor oil API service classification: SG or Higher JASO T 903 standard: MA Viscosity: SAE 10W-40	–
Oil pump rotor	Tip clearance	0.15 (0.006)	0.20 (0.008)
	Body clearance	0.15 – 0.22 (0.006 – 0.009)	0.25 (0.010)
	Side clearance	0.02 – 0.09 (0.001 – 0.004)	0.12 (0.005)

FUEL SYSTEM SPECIFICATIONS

ITEM		SPECIFICATIONS
Carburetor identification number		QB11A
Main jet		#148
Slow jet		#38
Pilot screw opening	Initial/final opening	See page 6-22
	High altitude adjustment	See page 6-23
Float level		15.9 mm (0.63 in)
Idle speed		1,400 ± 100 rpm (min^{-1})
Throttle grip free play		3 – 8 mm (1/8 – 5/16 in)

CYLINDER HEAD/VALVE SPECIFICATIONS

Unit: mm (in)

ITEM			STANDARD	SERVICE LIMIT
Cylinder compression			686 – 883 kPa (7.0 – 9.0 kgf/cm^2, 100 – 128 psi)	–
Valve clearance		IN	0.10 (0.004)	–
		EX	0.12 (0.005)	–
Camshaft	Cam lobe height	IN	30.673 – 30.773 (1.2076 – 1.2115)	30.57 (1.204)
		EX	30.468 – 30.568 (1.1995 – 1.2035)	30.37 (1.196)
	Runout		–	0.03 (0.001)
Rocker arm	Arm I.D.	IN/EX	11.500 – 11.518 (0.4528 – 0.4535)	11.53 (0.454)
	Shaft O.D.	IN/EX	11.466 – 11.484 (0.4514 – 0.4521)	11.41 (0.449)
	Arm-to-shaft clearance	IN/EX	0.016 – 0.052 (0.0006 – 0.0020)	0.10 (0.004)
Sub-rocker arm	Arm I.D.	IN/EX	7.000 – 7.015 (0.2756 – 0.2762)	7.05 (0.278)
	Shaft O.D.	IN/EX	6.972 – 6.987 (0.2745 – 0.2751)	6.92 (0.272)
	Arm-to-shaft clearance	IN/EX	0.013 – 0.043 (0.0005 – 0.0017)	0.10 (0.004)
Valve, valve guide	Valve stem O.D.	IN	5.475 – 5.490 (0.2156 – 0.2161)	5.46 (0.215)
		EX	5.455 – 5.470 (0.2148 – 0.2154)	5.44 (0.214)
	Valve guide I.D.	IN/EX	5.500 – 5.512 (0.2165 – 0.2170)	5.52 (0.217)
	Stem-to-guide clearance	IN	0.010 – 0.037 (0.0004 – 0.0015)	0.12 (0.005)
		EX	0.030 – 0.057 (0.0012 – 0.0022)	0.14 (0.006)
	Valve seat width	IN/EX	1.0– 1.1 (0.039 – 0.043)	2.0 (0.08)
Valve spring	Free length	Inner	37.19 (1.464)	36.3 (1.43)
		Outer	44.20 (1.740)	43.1 (1.70)
Cylinder head warpage			–	0.10 (0.004)

CYLINDER/PISTON SPECIFICATIONS

Unit: mm (in)

ITEM			STANDARD	SERVICE LIMIT
Cylinder	I.D.		85.000 – 85.010 (3.3465 – 3.3468)	85.10 (3.350)
	Out-of-round		–	0.05 (0.002)
	Taper		–	0.05 (0.002)
	Warpage		–	0.10 (0.004)
Piston, piston pin, piston ring	Piston O.D. at 15 (0.6) from bottom		84.960 – 84.985 (3.3449 – 3.3459)	84.880 (3.3417)
	Piston pin hole I.D.		20.002 – 20.008 (0.7875 – 0.7877)	20.060 (0.7898)
	Piston pin O.D.		19.994 – 20.000 (0.7872 – 0.7874)	19.964 (0.7860)
	Piston-to-piston pin clearance		0.002 – 0.014 (0.0001 – 0.0006)	0.096 (0.0038)
	Piston ring end gap	Top	0.20 – 0.35 (0.008 – 0.014)	0.50 (0.020)
		Second	0.35 – 0.50 (0.014 – 0.020)	0.65 (0.026)
		Oil (side rail)	0.20 – 0.70 (0.008 – 0.028)	0.90 (0.035)
	Piston ring-to-ring groove clearance	Top	0.030 – 0.065 (0.0012 – 0.0026)	0.14 (0.006)
		Second	0.015 – 0.050 (0.0006 – 0.0020)	0.12 (0.005)
Cylinder-to-piston clearance			0.015 – 0.050 (0.0006 – 0.0020)	0.10 (0.004)
Connecting rod small end I.D.			20.020 – 20.041 (0.7882 – 0.7890)	20.067 (0.7900)
Connecting rod-to-piston pin clearance			0.020 – 0.047 (0.0008 – 0.0019)	0.103 (0.0041)

CLUTCH/GEARSHIFT LINKAGE SPECIFICATIONS

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT
Clutch	Lever free play	10 – 20 (3/8 – 3/4)	–
	Spring free length	52.64 (2.072)	50.0 (1.97)
	Disc thickness	2.92 – 3.08 (0.115 – 0.121)	2.69 (0.106)
	Plate warpage	–	0.15 (0.006)
	Outer guide I.D.	22.000 – 22.021 (0.8661 – 0.8670)	22.05 (0.868)
Mainshaft O.D. at clutch outer guide		21.967 – 21.980 (0.8648 – 0.8654)	21.93 (0.863)

ALTERNATOR/STARTER CLUTCH SPECIFICATIONS

Unit: mm (in)

ITEM	STANDARD	SERVICE LIMIT
Starter driven gear boss O.D.	51.705 – 51.718 (2.0356 – 2.0361)	51.67 (2.034)

CRANKCASE/TRANSMISSION/CRANKSHAFT SPECIFICATIONS

Unit: mm (in)

ITEM			STANDARD	SERVICE LIMIT
Shift fork	Fork I.D.		13.000 – 13.018 (0.5118 – 0.5125)	13.04 (0.513)
	Shaft O.D.		12.966 – 12.984 (0.5105 – 0.5112)	12.90 (0.508)
	Fork claw thickness		5.93 – 6.00 (0.233 – 0.236)	5.5 (0.22)
Transmission	Gear I.D.	M4	25.020 – 25.041 (0.9850 – 0.9859)	25.08 (0.987)
		M5	25.000 – 25.021 (0.9843 – 0.9851)	25.06 (0.987)
		C1	23.000 – 23.021 (0.9055 – 0.9063)	23.07 (0.908)
		C2, C3, CR	28.020 – 28.041 (1.1031 – 1.1040)	28.08 (1.106)
		Reverse idle	17.000 – 17.018 (0.6693 – 0.6700)	17.04 (0.671)
	Gear bushing O.D.	M4	24.979 – 25.000 (0.9834 – 0.9843)	24.90 (0.980)
		M5	24.959 – 21.980 (0.8645 – 0.8654)	24.90 (0.980)
		C1	22.959 – 22.980 (0.9039 – 0.9047)	22.90 (0.902)
		C2, C3, CR	27.979 – 28.000 (1.1015 – 1.1024)	27.94 (1.100)
		Reverse idle	16.966 – 16.984 (0.6693 – 0.6700)	16.94 (0.667)
	Gear (mainshaft and counter shaft)-to-bushing clearance		0.020 – 0.062 (0.0008 – 0.0022)	0.10 (0.004)
	Reverse idle gear-to-bushing clearance		0.016 – 0.052 (0.0006 – 0.0020)	0.10 (0.004)
	Gear bushing I.D.	M4	22.000 – 22.021 (0.8661 – 0.8670)	22.10 (0.870)
		C1	20.020 – 20.041 (0.7882 – 0.7890)	20.08 (0.791)
		C2, CR	25.000 – 25.021 (0.9843 – 0.9851)	25.06 (0.987)
		Reverse idle	13.000 – 13.018 (0.5118 – 0.5125)	13.04 (0.513)
	Mainshaft O.D.	at M4	21.959 – 21.980 (0.7866 – 0.7874)	21.92 (0.863)
	Countershaft O.D.	at C1	19.979 – 20.000 (1.1791 – 1.1801)	19.94 (0.785)
		at C2, CR	24.959 – 24.980 (0.9826 – 0.9835)	24.92 (0.981)
	Reverse idle shaft O.D.		12.966 – 12.984 (0.5105 – 0.5112)	12.94 (0.509)
	Bushing-to-shaft (mainshaft and countershaft) clearance		0.020 – 0.062 (0.0008 – 0.0022)	0.10 (0.004)
	Bushing-to-reverse idle shaft clearance		0.016 – 0.052 (0.0006 – 0.0020)	0.10 (0.004)
Crankshaft	Runout		–	0.12 (0.005)
	Big end side clearance		0.05 – 0.45 (0.002 – 0.018)	0.6 (0.02)
	Big end radial clearance		0.006 – 0.018 (0.0002 – 0.0007)	0.05 (0.002)

FRONT WHEEL/SUSPENSION/STEERING SPECIFICATIONS

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT
Minimum tire tread depth		–	4.0 (0.16)
Cold tire pressure	Standard	27 kPa (0.275 kgf/cm^2, 4.0 psi)	–
	Minimum	23 kPa (0.235 kgf/cm^2, 3.4 psi)	–
	Maximum	31 kPa (0.315 kgf/cm^2, 4.6 psi)	–
Shock absorber spring adjuster standard position		2nd from softest position	–
Tie-rod distance between the ball joints		370.9 (14.60)	–
Toe		Toe-in: 11 ± 15 (2/5 ± 3/5)	–

REAR WHEEL/SUSPENSION SPECIFICATIONS

Unit: mm (in)

ITEM			STANDARD	SERVICE LIMIT
Minimum tire tread depth			–	4.0 (0.16)
Cold tire pressure	Standard		27 kPa (0.275 kgf/cm², 4.0 psi)	–
	Minimum		23 kPa (0.235 kgf/cm², 3.4 psi)	–
	Maximum		31 kPa (0.315 kgf/cm², 4.6 psi)	–
Axle runout			–	3.0 (0.12)
Drive chain	Slack		30 – 40 (1-1/4 – 1-5/8)	–
	Size/link	DID	520V6/94	–
		RK	520SMOZ10S/94	–
Shock absorber spring installed length			231.5 (9.11)	–
Compression damping adjuster standard position			2-1/2 turns out from full in	–
Rebound damping adjuster standard position			1-3/4 turns out from full in	–

HYDRAULIC DISC BRAKE SPECIFICATIONS

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT
Recommended brake fluid		DOT 4	–
Brake disc thickness	Front	2.8 – 3.2 (0.11 – 0.13)	2.5 (0.10)
	Rear	3.8 – 4.2 (0.15 – 0.17)	3.5 (0.14)
Brake disc runout		–	0.30 (0.012)
Master cylinder I.D.		12.700 – 12.743 (0.5000 – 0.5017)	12.75 (0.502)
Master piston O.D.		12.657 – 12.684 (0.4983 – 0.4994)	12.65 (0.498)
Caliper cylinder I.D.		33.960 – 34.010 (1.3370 – 1.3390)	34.02 (1.340)
Caliper piston O.D.		33.895 – 33.928 (1.3344 – 1.3357)	33.87 (1.333)

BATTERY/CHARGING SYSTEM SPECIFICATIONS

ITEM			SPECIFICATIONS
Battery	Capacity		12V – 8 Ah
	Voltage (20°C/68°F)	Fully charged	13.0 – 13.2 V
		Needs charging	Below 12.3 V
	Charging current	Normal	0.9 A/5 – 10 h
		Quick	4.0 A/1 h
Current leakage			0.1 mA max.
Alternator	Capacity		147 W/5,000 rpm (min^{-1})
	Charging coil resistance (20°C/68°F)		0.1 – 1.0 Ω

IGNITION SYSTEM SPECIFICATIONS

ITEM		SPECIFICATIONS
Spark plug	Standard	DPR8Z (NGK), X24GPR-U (DENSO)
	For extended high speed riding	DPR9Z (NGK), X27GPR-U (DENSO)
Spark plug gap		0.6 – 0.7 mm (0.024 – 0.028 in)
Ignition coil primary peak voltage		100 V minimum
Ignition pulse generator peak voltage		0.7 V minimum
Exciter coil peak voltage		100 V minimum
Ignition timing ("F"mark)		8° BTDC at idle

ELECTRIC STARTER SPECIFICATIONS

Unit: mm (in)

ITEM	STANDARD	SERVICE LIMIT
Starter motor brush length	12.5 (0.49)	8.5 (0.33)

LIGHTS/SWITCHES SPECIFICATIONS

ITEM		SPECIFICATIONS
Bulbs	Headlight (High/low beam)	12 V - 30/30 W
	Brake/taillight	LED
	Neutral indicator	12 V - 3 W
	Reverse indicator	12 V - 3.4 W
Fuse	Main fuse	15 A

STANDARD TORQUE VALUES

FASTENER TYPE	TORQUE N·m (kgf·m, lbf·ft)	FASTENER TYPE	TORQUE N·m (kgf·m, lbf·ft)
5 mm bolt and nut	5 (0.5, 3.7)	5 mm screw	4 (0.4, 3.0)
6 mm bolt and nut	10 (1.0, 7)	6 mm screw	9 (0.9, 6.6)
8 mm bolt and nut	22 (2.2, 16)	6 mm flange bolt (8 mm head; small flange)	10 (1.0, 7)
10 mm bolt and nut	34 (3.5, 25)	6 mm flange bolt (8 mm head; large flange)	12 (1.2, 9)
12 mm bolt and nut	54 (5.5, 40)	6 mm flange bolt (10 mm head) and nut	12 (1.2, 9)
		8 mm flange bolt and nut	27 (2.8, 20)
		10 mm flange bolt and nut	39 (4.0, 29)

ENGINE & FRAME TORQUE VALUES

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

Note:
1. Apply locking agent to the threads.
2. Apply engine oil to the threads and seating surface.
3. Apply grease to the threads and seating surface.
4. ALOC bolt: replace with a new one.
5. Lock nut: replace with a new one.
6. Castle nut: tighten to the specified torque and further tighten until its grooves aligns with the cotter pin hole.
7. Stake

ENGINE

MAINTENANCE

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Spark plug	1	12	18 (1.8, 13)	
Valve adjusting hole cap	4	36	15 (1.5, 11)	
Valve adjusting screw lock nut	4	7	24 (2.4, 18)	
Crankshaft hole cap	1	30	8 (0.8, 5.9)	
Timing hole cap	1	14	10 (1.0, 7)	
Engine oil drain bolt (crankcase)	1	12	25 (2.5, 18)	

CYLINDER HEAD/VALVE

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Cylinder head nut	4	10	44 (4.5, 32)	Note 2
Cam sprocket bolt	2	7	20 (2.0, 15)	Note 1
Rocker arm shaft	2	14	27 (2.8, 20)	Note 1
Intake sub-rocker arm shaft	2	14	27 (2.8, 20)	Note 1
Exhaust sub-rocker arm shaft	2	12	27 (2.8, 20)	Note 1
Cylinder head cover bolt	1	8	22 (2.2, 16)	
Cam tensioner lifter plug screw	1	6	4 (0.4, 3.0)	

CYLINDER/PISTON

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Cylinder bolt	4	10	44 (4.5, 32)	Note 2
Cylinder stud bolt	4	10	20 (2.0, 15)	page 9-8

CLUTCH/GEARSHIFT LINKAGE

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Clutch center lock nut	1	18	108 (11.0, 80)	Note 2, 5, 7
Primary drive gear nut	1	18	88 (9.0, 65)	Note 2
Gearshift stopper arm bolt	1	6	12 (1.2, 9)	

ALTERNATOR/STARTER CLUTCH

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Flywheel bolt	1	12	128 (13.0, 94)	Note 2
Starter clutch outer bolt	6	8	30 (3.1, 22)	Note 1
Left crankcase cover stud bolt	1	6	10 (1.0, 7)	

CRANKCASE/TRANSMISSION/CRANKSHAFT

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Mainshaft bearing setting plate bolt	2	6	12 (1.2, 9)	Note 1
Gearshift spindle return spring pin	1	8	24 (2.4, 18)	

LIGHTS/SWITCHES

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Neutral switch	1	10	12 (1.2, 9)	
Reverse switch	1	10	12 (1.2, 9)	

FRAME

FRAME/BODY PANELS/EXHAUST SYSTEM

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Footpeg bolt	4	10	42 (4.3, 31)	
Skid plate bolt	4	8	30 (3.1, 22)	Note 4
Exhaust pipe joint nut	4	8	27 (2.8, 20)	
Muffler mounting bolt	2	8	32 (3.3, 24)	
Muffler band bolt	2	8	23 (2.3, 17)	
Exhaust pipe protector bolt	2	6	20 (2.0, 15)	
Rear frame upper mounting bolt	2	8	42 (4.3, 31)	
Rear frame lower mounting bolt	2	10	54 (5.5, 40)	

MAINTENANCE

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Engine oil drain bolt (oil tank)	1	10	20 (2.0, 15)	
Engine oil strainer screen (oil tank)	1	27	54 (5.5, 40)	
Axle bearing holder pinch bolt	4	8	21 (2.1, 15)	
Front master cylinder reservoir cap screw	2	4	1.5 (0.15, 1.1)	
Parking brake arm lock nut	1	8	17.2 (1.75, 13)	
Rear master cylinder push rod lock nut	1	8	17.2 (1.75, 13)	
Tie-rod lock nut	4	12	54 (5.5, 40)	

LUBRICATION SYSTEM

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Oil pipe joint flare nut	2	16	20 (2.0, 15)	

ENGINE REMOVAL/INSTALLATION

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Upper engine hanger nut	1	10	74 (7.5, 55)	
Front engine hanger plate bolt	4	8	26 (2.7, 19)	
Front engine hanger nut	1	10	54 (5.5, 40)	
Lower engine hanger nut	1	10	74 (7.5, 55)	

CLUTCH/GEARSHIFT LINKAGE

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Gearshift pedal pinch bolt	1	6	20 (2.0, 15)	

FRONT WHEEL/SUSPENSION/STEERING

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Throttle lever pivot nut	1	6	7 (0.7, 5.2)	
Throttle housing cover screw	3	4	3.4 (0.35, 2.5)	
Handlebar switch housing screw	2	5	2 (0.2, 1.5)	
Front wheel nut	8	10	64 (6.5, 47)	
Front wheel hub nut	2	14	69 (7.0, 51)	Note 6
Front brake disc bolt	6	8	42 (4.3, 31)	Note 4
Brake disc cover bolt	2	6	12 (1.2, 9)	Note 4
Shock absorber mounting nut	4	10	44 (4.5, 32)	Note 5
Upper and lower arm pivot nut	8	10	39 (4.0, 29)	Note 5
Upper and lower arm ball joint nut	4	12	32 (3.3, 24)	Note 6
Tie-rod ball joint nut	4	10	44 (4.5, 32)	Note 5
Handlebar lower holder nut	2	10	39 (4.0, 29)	Note 5
Steering shaft end nut	1	14	69 (7.0, 51)	Note 5
Steering shaft holder bolt	2	8	32 (3.3, 24)	

REAR WHEEL/SUSPENSION

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Rear wheel nut	8	10	64 (6.5, 47)	
Axle outer lock nut	1	48	88 (9.0, 65)	Note 1
Axle inner lock nut	1	48	128 (13.0, 94)	Note 1
Rear wheel hub nut	2	18	147 (15.0, 108)	Note 3, 6
Final driven sprocket nut	4	10	59 (6.0, 44)	
Rear brake disc bolt	4	8	42 (4.3, 31)	Note 4
Shock absorber mounting nut	2	10	59 (6.0, 44)	Note 5
Shock arm-to-frame nut	1	10	59 (6.0, 44)	Note 5
Shock link-to-swingarm nut	1	10	44 (4.5, 32)	Note 5
Shock arm-to-shock link nut	1	10	59 (6.0, 44)	Note 5
Swingarm pivot nut	1	14	108 (11.0, 80)	
Brake caliper stay stopper pin bolt	1	12	59 (6.0, 44)	Note 1

HYDRAULIC DISC BRAKE

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Caliper bleed valve	3	8	5.4 (0.55, 4.0)	
Front brake caliper pad pin	4	10	17.2 (1.75, 13)	
Front brake caliper pad pin plug	4	10	2.4 (0.24, 1.8)	
Rear brake caliper pad pin	2	8	17.2 (1.75, 13)	
Brake hose oil bolt	5	10	34 (3.5, 25)	
Front brake lever pivot bolt	1	6	5.9 (0.60, 4.4)	
Front brake lever pivot nut	1	6	5.9 (0.60, 4.4)	
Front brake light switch screw	1	4	1.2 (0.12, 0.9)	
Rear brake reservoir hose joint screw	1	4	1.5 (0.15, 1.1)	Note 1
Rear master cylinder mounting bolt	2	6	13 (1.3, 10)	
Front brake caliper slide pin	2	8	22 (2.2, 16)	Note 1
Front brake caliper bracket pin	2	8	17.2 (1.75, 13)	
Front brake caliper mounting bolt	4	8	30 (3.1, 22)	Note 4
Rear brake caliper slide pin	1	8	22 (2.2, 16)	Note 1
Rear brake caliper bracket pin	1	8	17.2 (1.75, 13)	Note 1
Rear brake caliper mounting bolt	2	8	30 (3.1, 22)	Note 4
Parking brake base bolt	2	8	22 (2.2, 16)	
Brake pedal pivot bolt	1	6	12 (1.2, 9)	Note 1
Front brake pipe joint nut	2	10	17 (1.7, 13)	

LIGHTS/SWITCHES

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Clutch switch retainer bolt	1	5	4 (0.4, 3.0)	Note 1

OTHERS

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Fuel valve mounting bolt	2	6	9 (0.9, 6.6)	
Fuel valve lever screw	1	5	4 (0.4, 3.0)	Note 1
Reverse assist cable drum screw	1	3	0.7 (0.07, 0.5)	
Reverse assist lever housing cover screw	1	3	0.38 (0.04, 0.3)	

LUBRICATION & SEAL POINTS

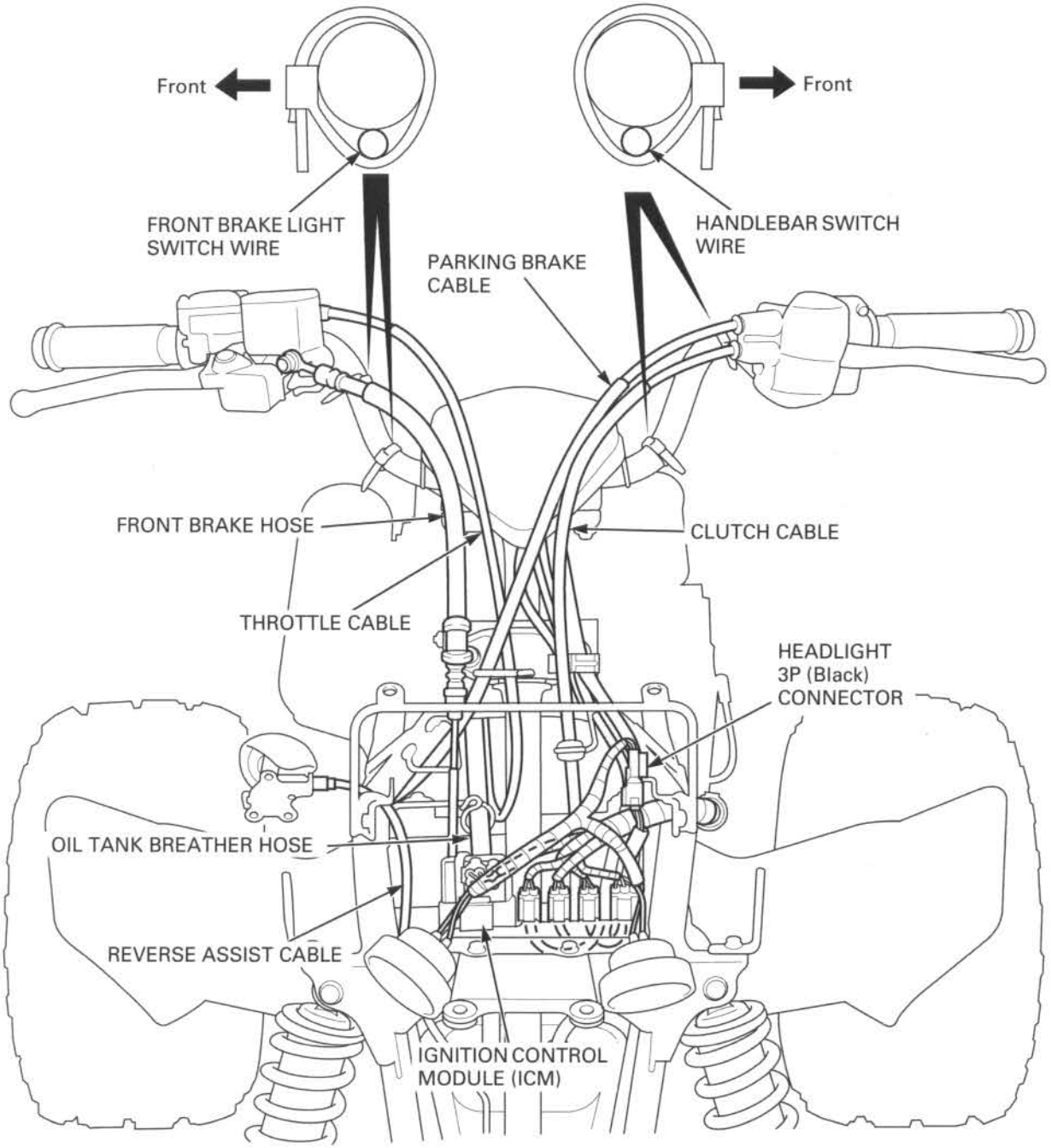
ENGINE

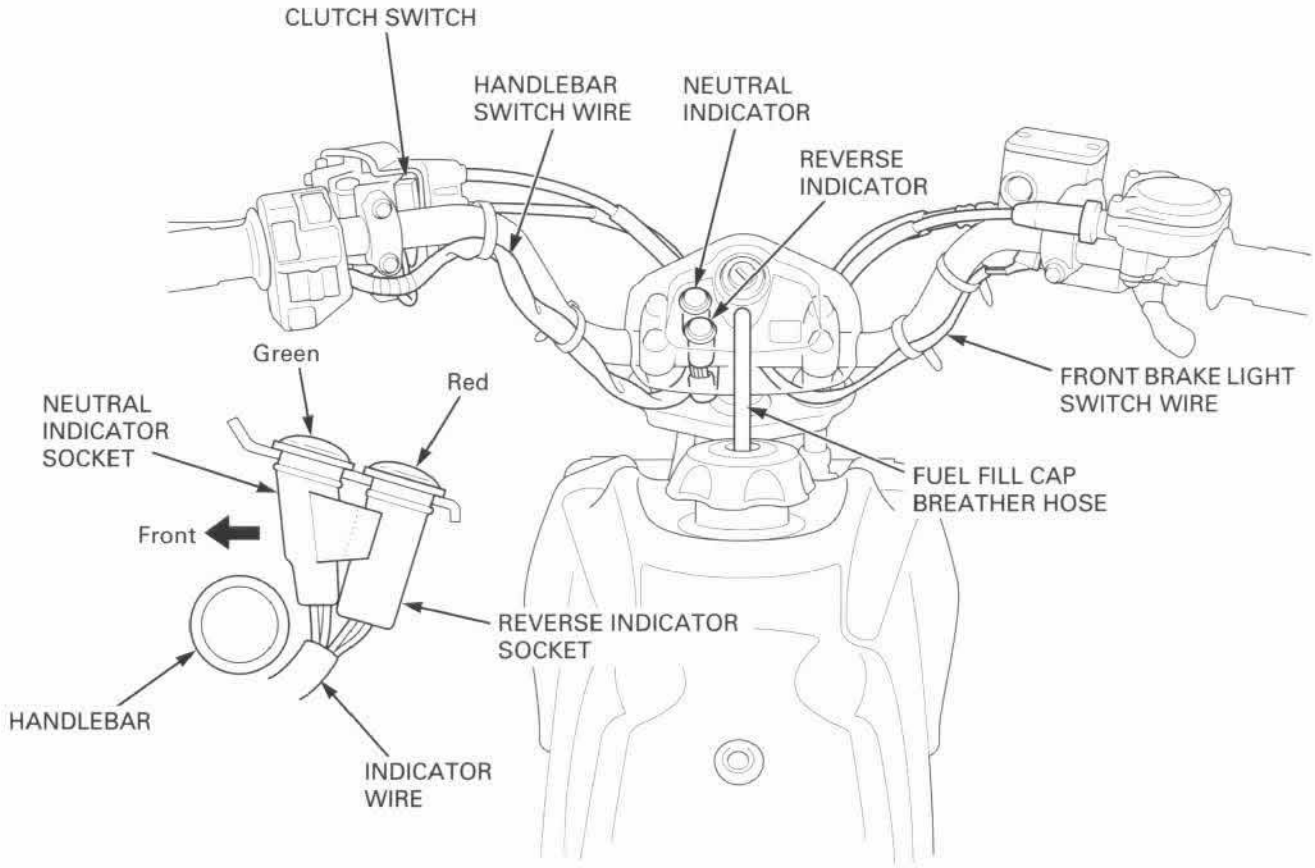
LOCATION	MATERIAL	REMARKS
Camshaft cam lobes and journals Rocker arm slipper surface Sub-rocker arm slipper surface Valve stem sliding surface Clutch outer guide inner and outer surfaces Piston pin outer surface Connecting rod piston pin hole Starter reduction gear teeth Starter reduction gear shaft outer surface Starter idle gear teeth Starter idle gear shaft outer surface Transmission gear rotating surface Connecting rod big end bearing	Molybdenum oil solution (a mixture of engine oil and molybdenum disulfide grease in a ratio of 1:1)	
Rocker arm shaft arm sliding surface Sub-rocker arm shaft arm sliding surface Cam chain Cylinder head nut threads and seating surface Piston outer surface and piston pin holes Piston rings Cylinder bore Cylinder 10 mm bolt threads and seating surface Clutch lifter arm spindle Clutch lifter piece Clutch disc linings Clutch center lock nut threads and seating surface Primary drive gear nut threads and seating surface Reverse stopper shaft journals Flywheel bolt threads and seating surface Transmission gear teeth Transmission gear (M2/3, C4, C5) shifter groove Shift fork shaft outer surface Shift fork shaft guide pin and inner surface Shift drum guide grooves Each bearing rotating area Each oil seal outer surface Each O-ring	Engine oil	
Each oil seal lip	Multi-purpose grease	
Rocker arm shaft threads Sub-rocker arm shaft threads Cam sprocket bolt threads Gearshift cam plate bolt threads Left crankcase cover stud bolt threads Alternator wire clamp bolt threads Ignition pulse generator bolt threads Starter clutch outer bolt threads Mainshaft bearing setting plate bolt threads Cam chain tensioner bolt threads	Locking agent	Coating area: page 8-25 Coating area: page 8-25 Coating width: 5 mm from tip Coating width: 6.5 mm from tip Coating width: 6.5 mm from tip Coating width: 6.5 mm from tip Coating width: 6.5 mm from tip Coating width: 6.5 mm from tip Coating width: 6.5 mm from tip Coating width: 6.5 mm from tip
Alternator/ignition pulse generator wire grommet seating surface	Sealant	

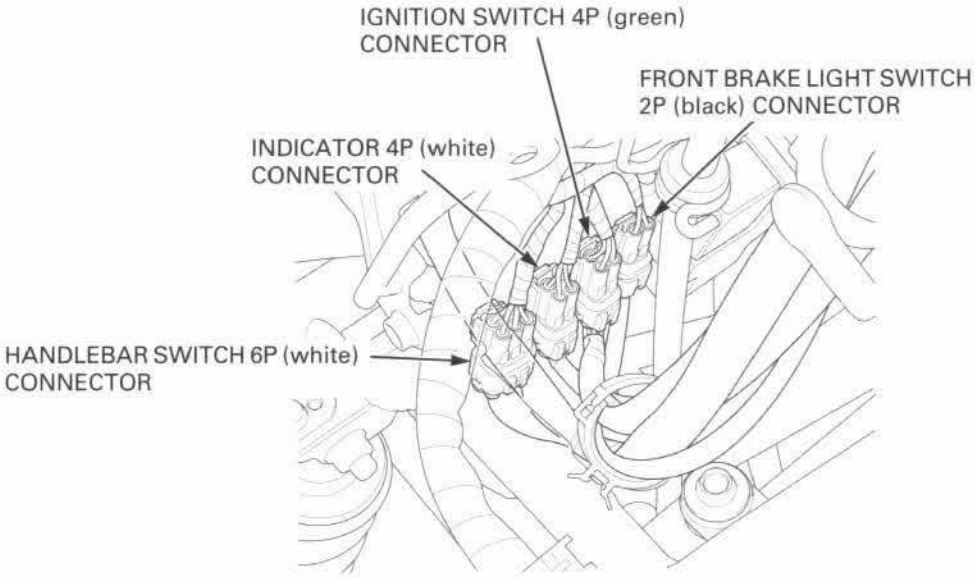
FRAME

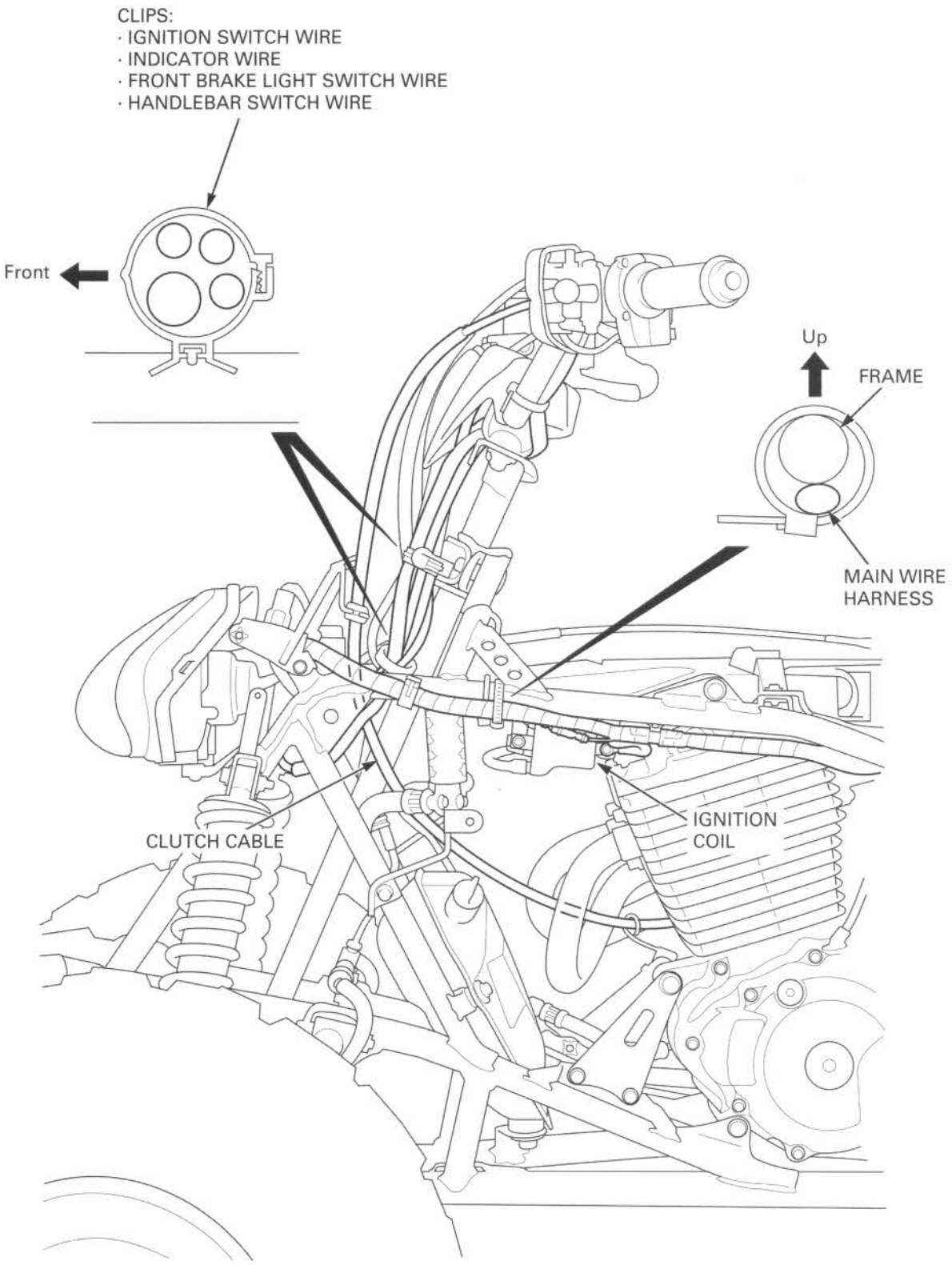
LOCATION	MATERIAL	REMARKS
Throttle cable end Throttle cable adjuster threads Throttle lever pivot and dust seal lips Parking brake cable end Parking lock arm pivot (screw) Reverse assist cable drum sliding area Front wheel hub dust seal lips Upper and lower arm pivot bearings Upper and lower arm dust seal lips Front shock absorber lower bearing Front shock absorber dust seal lips Steering shaft bushing inner surface Steering shaft dust seal lips Rear shock absorber upper bearing Rear shock absorber dust seal lips Shock arm and link bearings Shock arm and link dust seal lips Swingarm pivot bearings Swingarm pivot dust seal lips Rear axle bearing holder seating surface Rear axle bearing holder dust seal lips Rear brake caliper stay inner surface Rear axle splines (at brake disc seating area) Rear axle outer lock nut stopper ring Rear wheel hub nut threads and seating surface Brake pedal pivot (grease groove) Brake pedal pivot dust seal lips	Multi-purpose grease	Fill up 3 g per each bearing Fill up 3 g per each bearing
Throttle inner cable Clutch inner cable	Cable lubricant	
Handlebar grip rubber inside Swingarm rubber plug mating groove	Honda bond A or Pro Honda Hand Grip Cement (U.S.A. only) or equivalent	
Front brake lever-to-master piston contacting area Front brake lever pivot Rear brake master piston-to-push rod contacting area Rear brake master cylinder push rod boot groove Brake caliper slide pin grease groove Brake caliper bracket pin boot inside Rear brake caliper parking brake shaft inner and outer threads, and boot groove	Silicone grease	
Brake master piston and cups Brake caliper piston and seals Rear brake reservoir hose joint O-ring Rear brake caliper piston rod O-ring	DOT4 brake fluid	
Rear axle inner and outer lock nuts threads Rear brake caliper stay stopper pin bolt threads Front brake caliper slide pin threads Rear brake reservoir hose joint screw threads Rear brake caliper slide pin threads Rear brake caliper bracket pin threads Brake pedal pivot bolt threads Fuel valve lever screw threads	Locking agent	

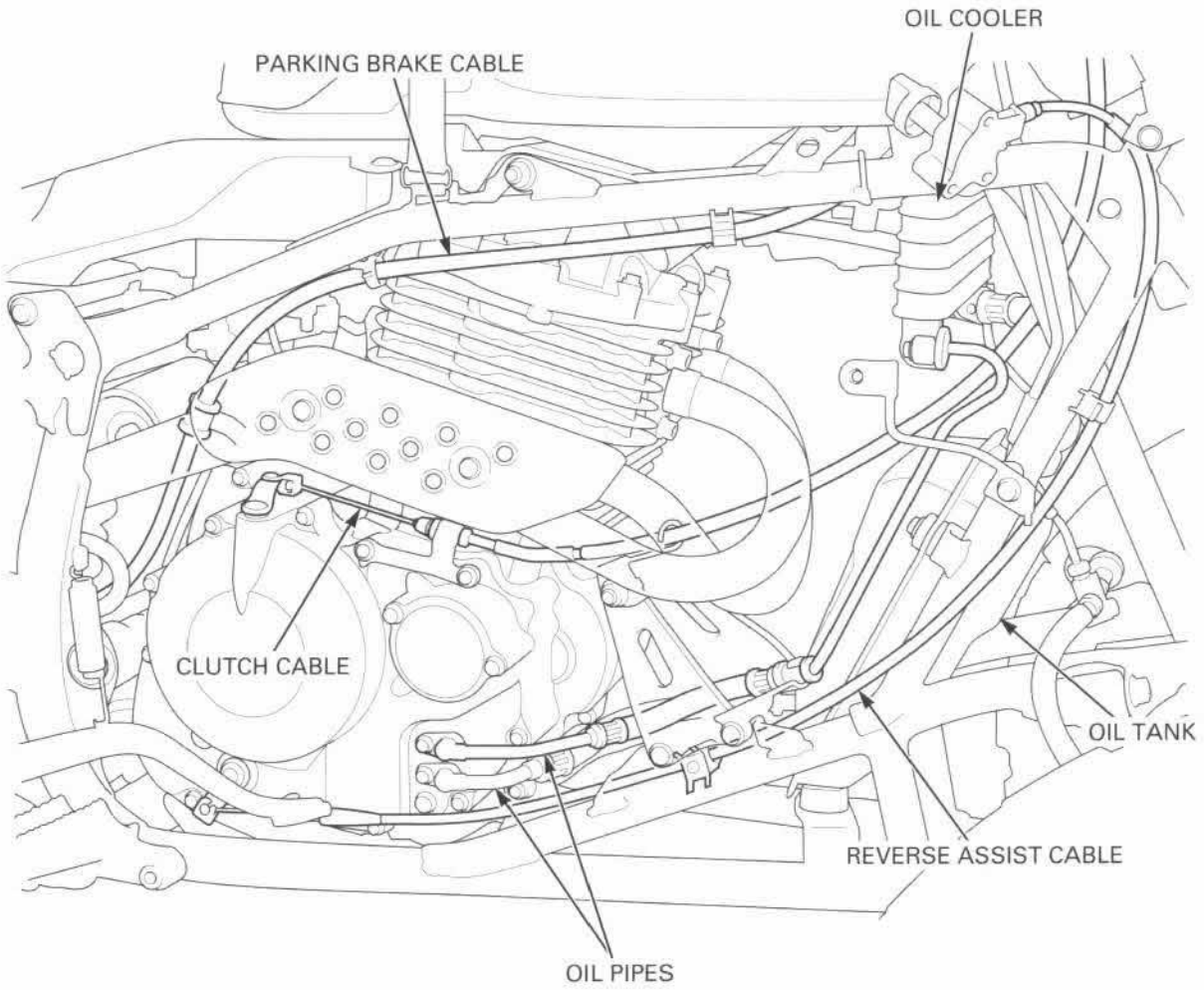
CABLE & HARNESS ROUTING

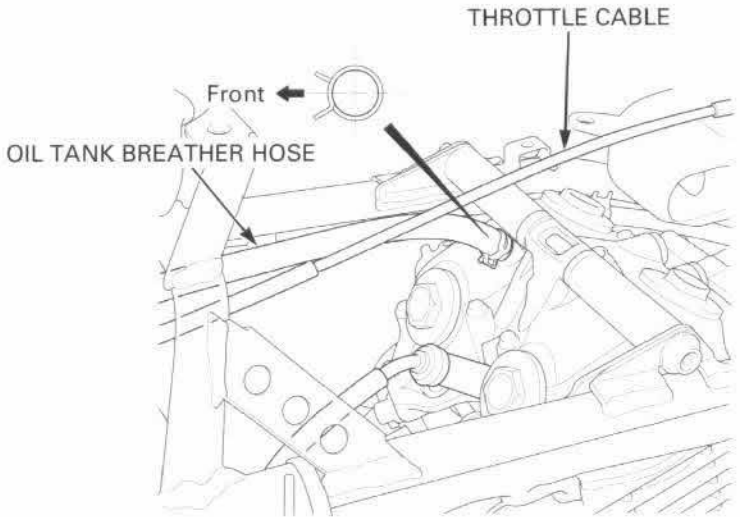


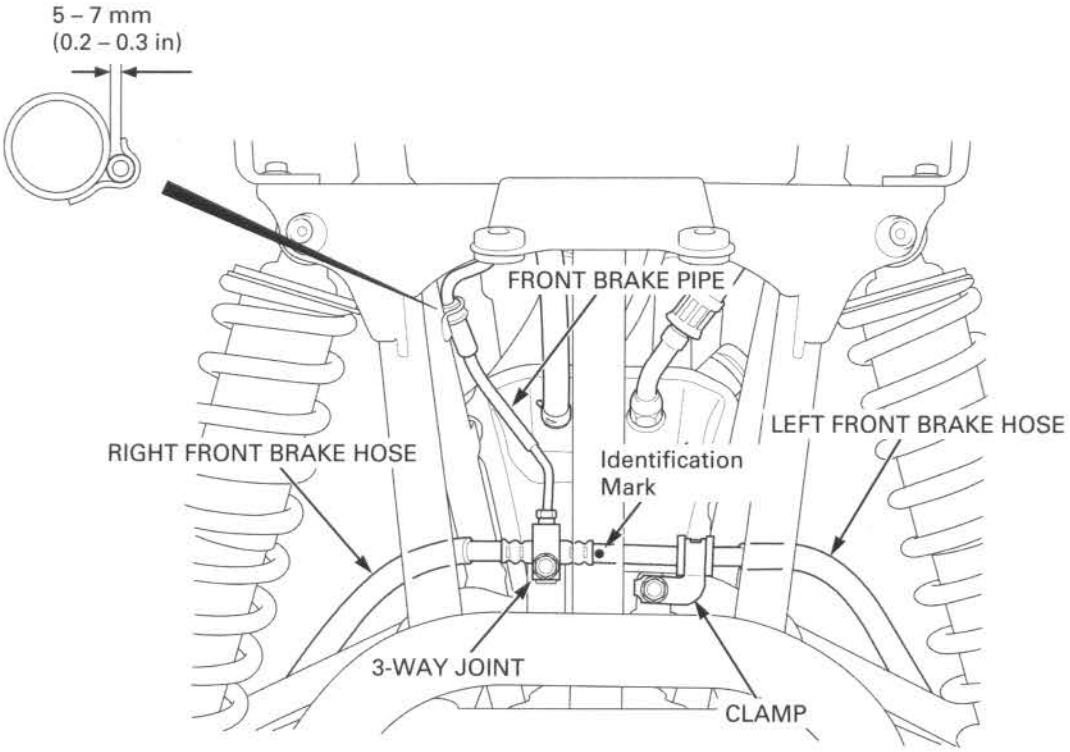

CLUTCH SWITCH
HANDLEBAR SWITCH WIRE
NEUTRAL INDICATOR
REVERSE INDICATOR
Green
Red
NEUTRAL INDICATOR SOCKET
Front
FRONT BRAKE LIGHT SWITCH WIRE
FUEL FILL CAP BREATHER HOSE
REVERSE INDICATOR SOCKET
HANDLEBAR
INDICATOR WIRE

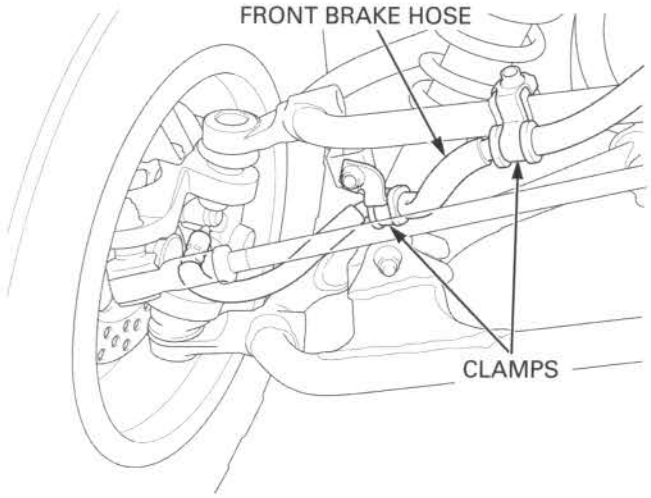

IGNITION SWITCH 4P (green) CONNECTOR
FRONT BRAKE LIGHT SWITCH 2P (black) CONNECTOR
INDICATOR 4P (white) CONNECTOR
HANDLEBAR SWITCH 6P (white) CONNECTOR

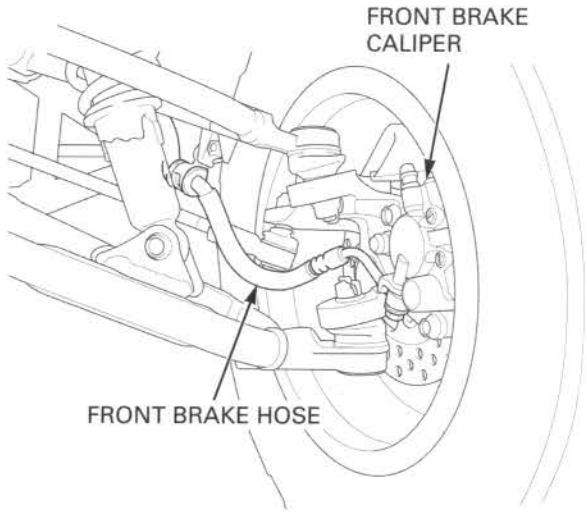

CLIPS:
· IGNITION SWITCH WIRE
· INDICATOR WIRE
· FRONT BRAKE LIGHT SWITCH WIRE
· HANDLEBAR SWITCH WIRE
Front
Up
FRAME
MAIN WIRE HARNESS
CLUTCH CABLE
IGNITION COIL

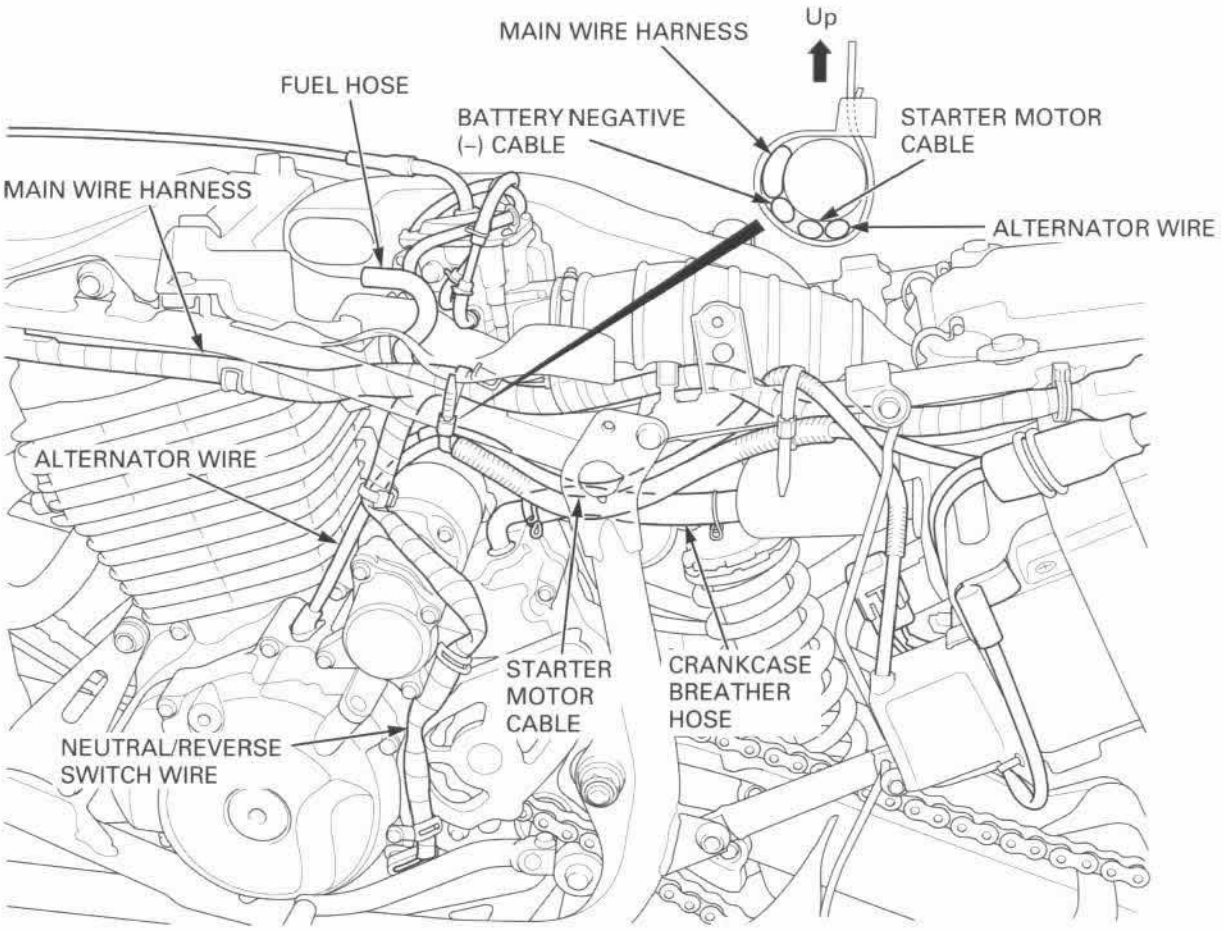

OIL COOLER
PARKING BRAKE CABLE
CLUTCH CABLE
OIL TANK
REVERSE ASSIST CABLE
OIL PIPES

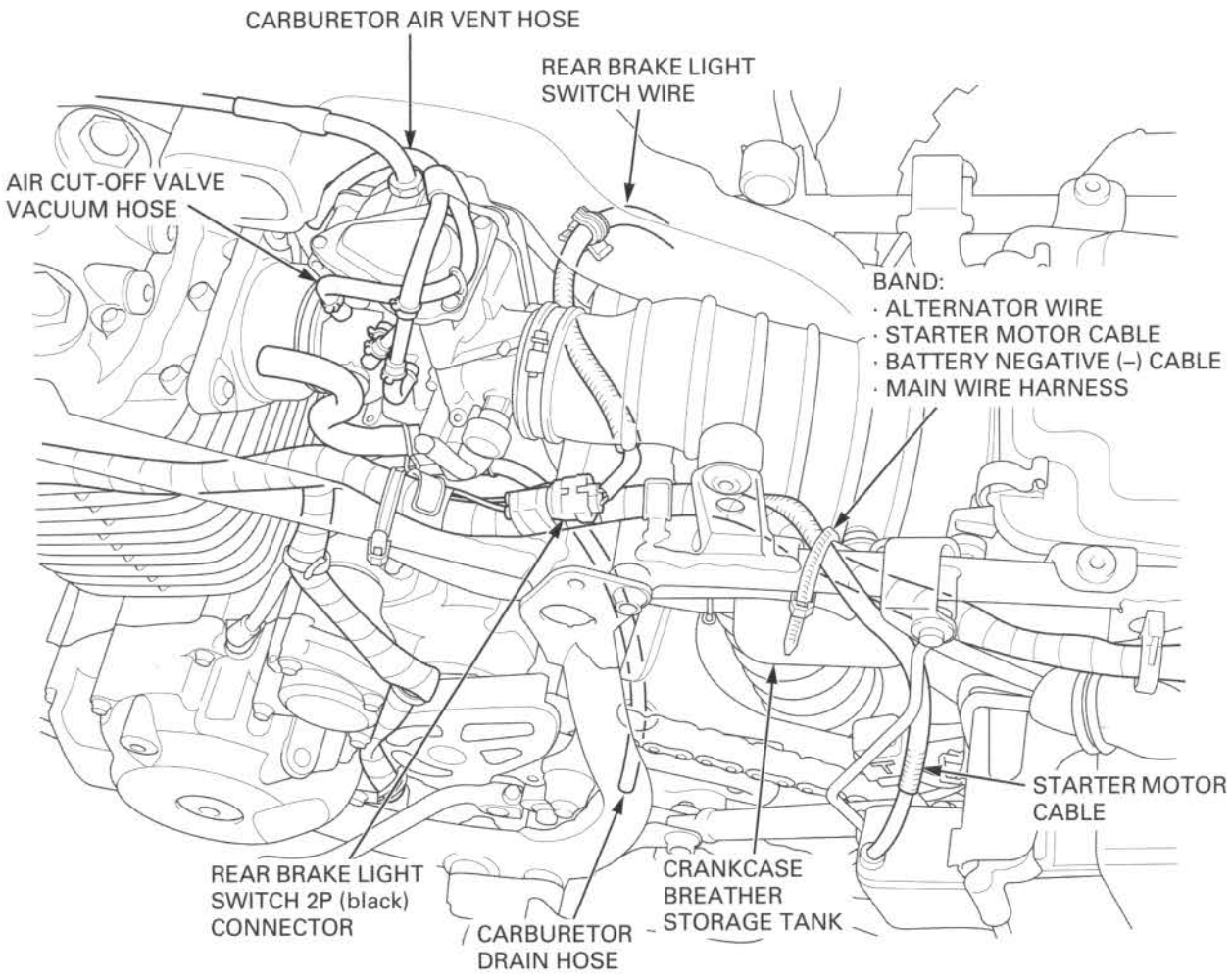

THROTTLE CABLE
Front
OIL TANK BREATHER HOSE

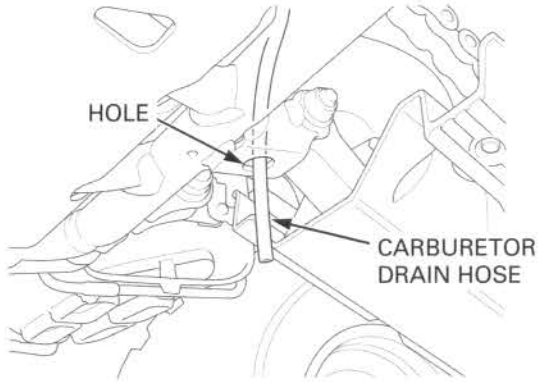

5 – 7 mm
(0.2 – 0.3 in)
FRONT BRAKE PIPE
RIGHT FRONT BRAKE HOSE
Identification
Mark
LEFT FRONT BRAKE HOSE
3-WAY JOINT
CLAMP

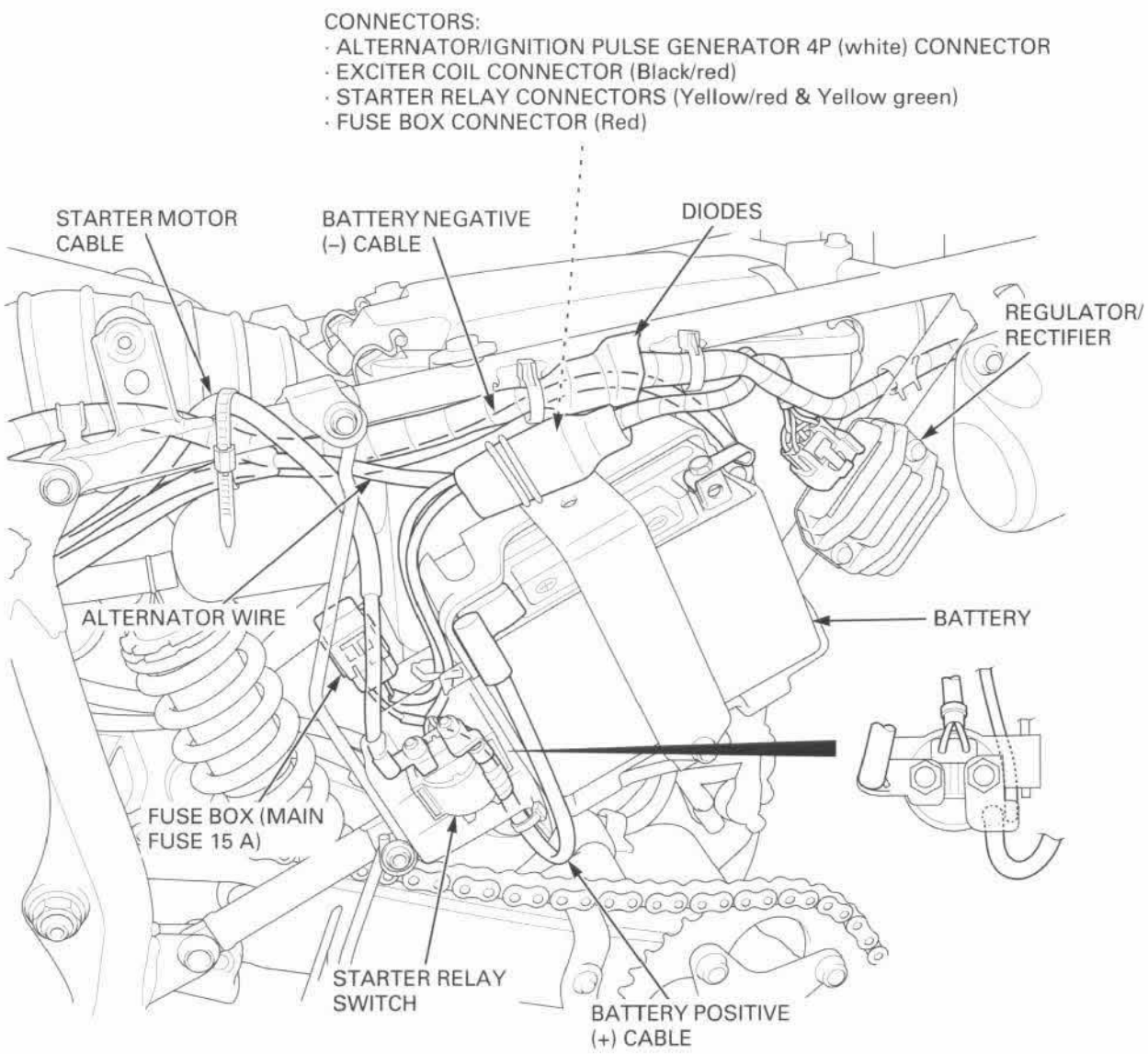

FRONT BRAKE HOSE
CLAMPS

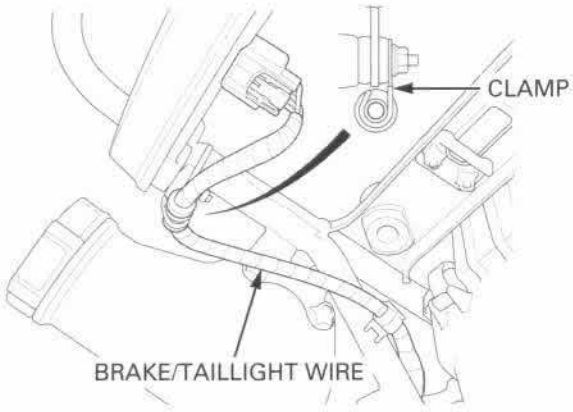

FRONT BRAKE
CALIPER
FRONT BRAKE HOSE

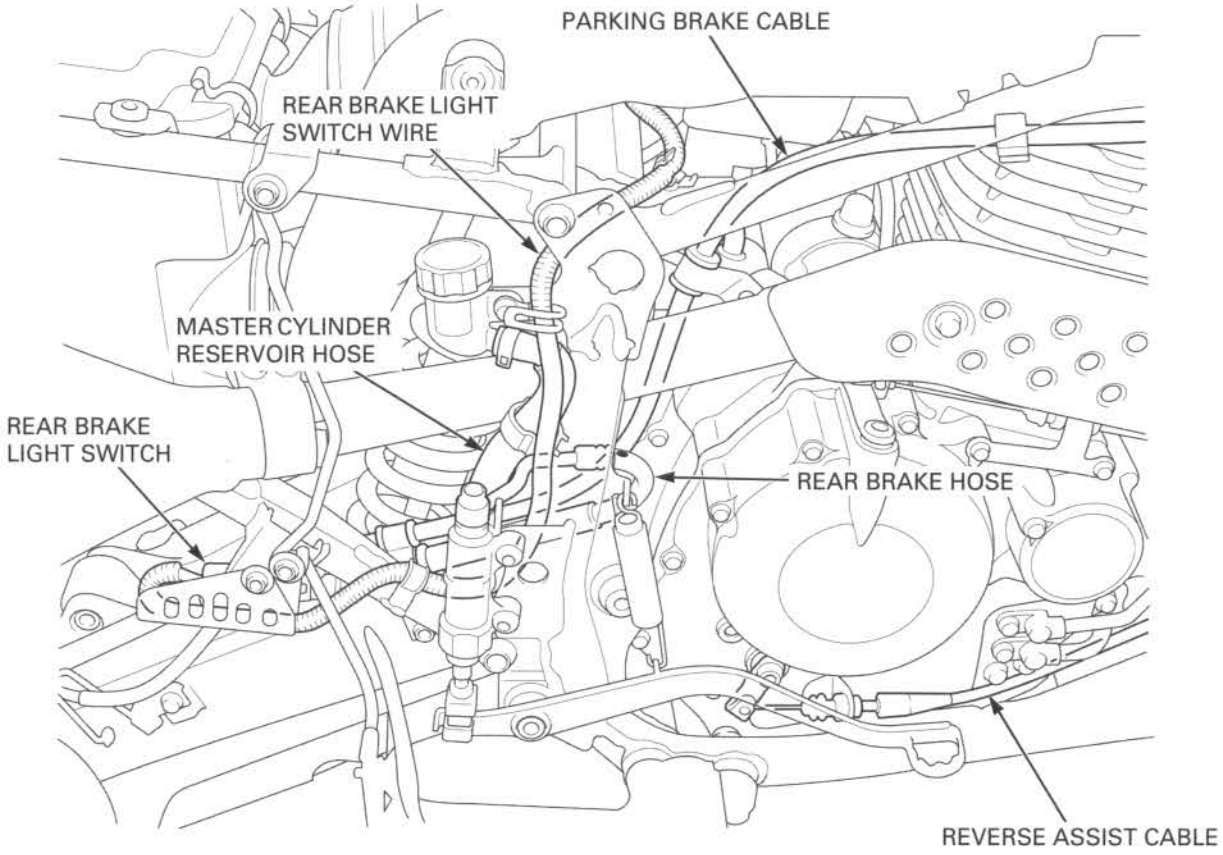

MAIN WIRE HARNESS
Up
FUEL HOSE
BATTERY NEGATIVE (–) CABLE
STARTER MOTOR CABLE
MAIN WIRE HARNESS
ALTERNATOR WIRE
ALTERNATOR WIRE
STARTER MOTOR CABLE
CRANKCASE BREATHER HOSE
NEUTRAL/REVERSE SWITCH WIRE

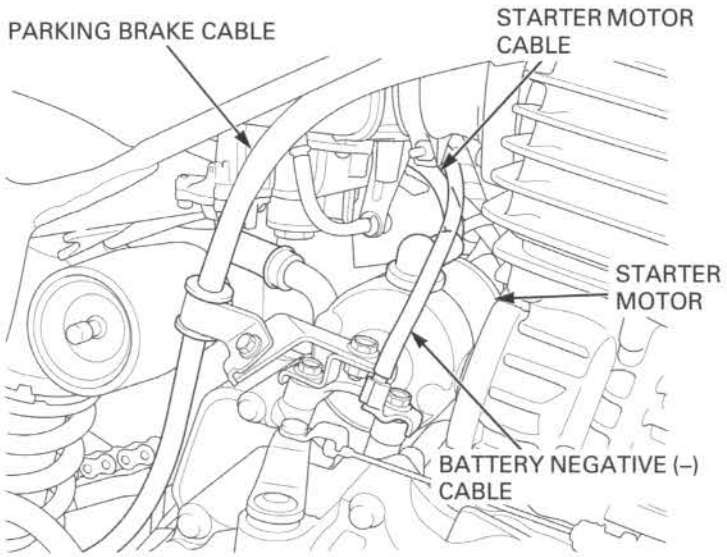

CARBURETOR AIR VENT HOSE
REAR BRAKE LIGHT SWITCH WIRE
AIR CUT-OFF VALVE VACUUM HOSE
BAND:
· ALTERNATOR WIRE
· STARTER MOTOR CABLE
· BATTERY NEGATIVE (–) CABLE
· MAIN WIRE HARNESS
STARTER MOTOR CABLE
REAR BRAKE LIGHT SWITCH 2P (black) CONNECTOR
CARBURETOR DRAIN HOSE
CRANKCASE BREATHER STORAGE TANK

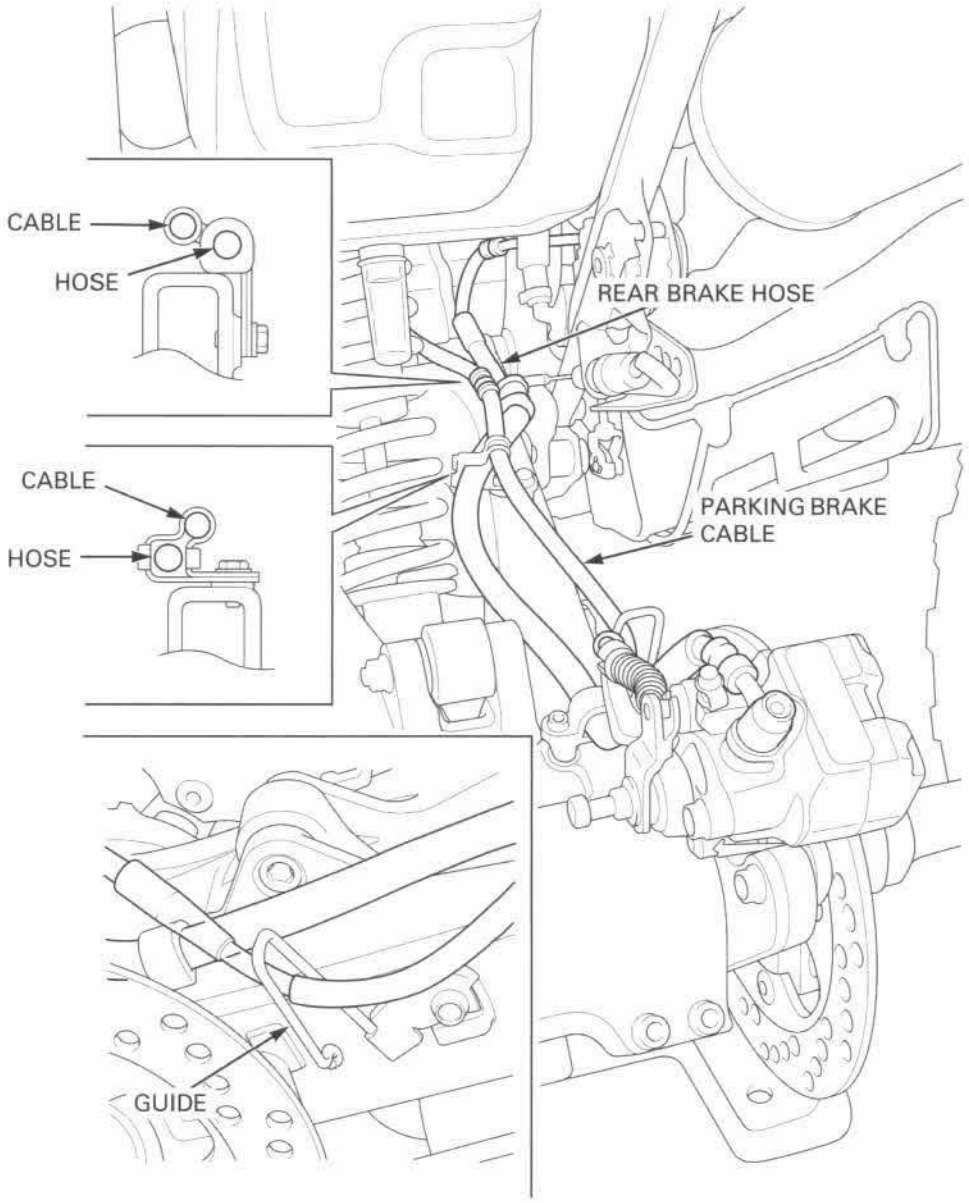

HOLE
CARBURETOR DRAIN HOSE


CONNECTORS:
· ALTERNATOR/IGNITION PULSE GENERATOR 4P (white) CONNECTOR
· EXCITER COIL CONNECTOR (Black/red)
· STARTER RELAY CONNECTORS (Yellow/red & Yellow green)
· FUSE BOX CONNECTOR (Red)
STARTER MOTOR CABLE
BATTERY NEGATIVE (–) CABLE
DIODES
REGULATOR/ RECTIFIER
ALTERNATOR WIRE
BATTERY
FUSE BOX (MAIN FUSE 15 A)
STARTER RELAY SWITCH
BATTERY POSITIVE (+) CABLE


CLAMP
BRAKE/TAILLIGHT WIRE


PARKING BRAKE CABLE
REAR BRAKE LIGHT SWITCH WIRE
MASTER CYLINDER RESERVOIR HOSE
REAR BRAKE LIGHT SWITCH
REAR BRAKE HOSE
REVERSE ASSIST CABLE


PARKING BRAKE CABLE
STARTER MOTOR CABLE
STARTER MOTOR
BATTERY NEGATIVE (–) CABLE


CABLE
HOSE
CABLE
HOSE
REAR BRAKE HOSE
PARKING BRAKE CABLE
GUIDE

EMISSION CONTROL SYSTEMS

The U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) require that ATV comply with applicable exhaust emissions standards during its useful life, when operated and maintained according to the instruction provided.

SOURCE OF EMISSIONS

The combustion process produces carbon monoxide, oxides of nitrogen and hydrocarbons. Control of hydrocarbons and oxides of nitrogen is very important because, under certain conditions, they react to form photochemical smog when subjected to sunlight. Carbon monoxide does not react in the same way, but it is toxic.

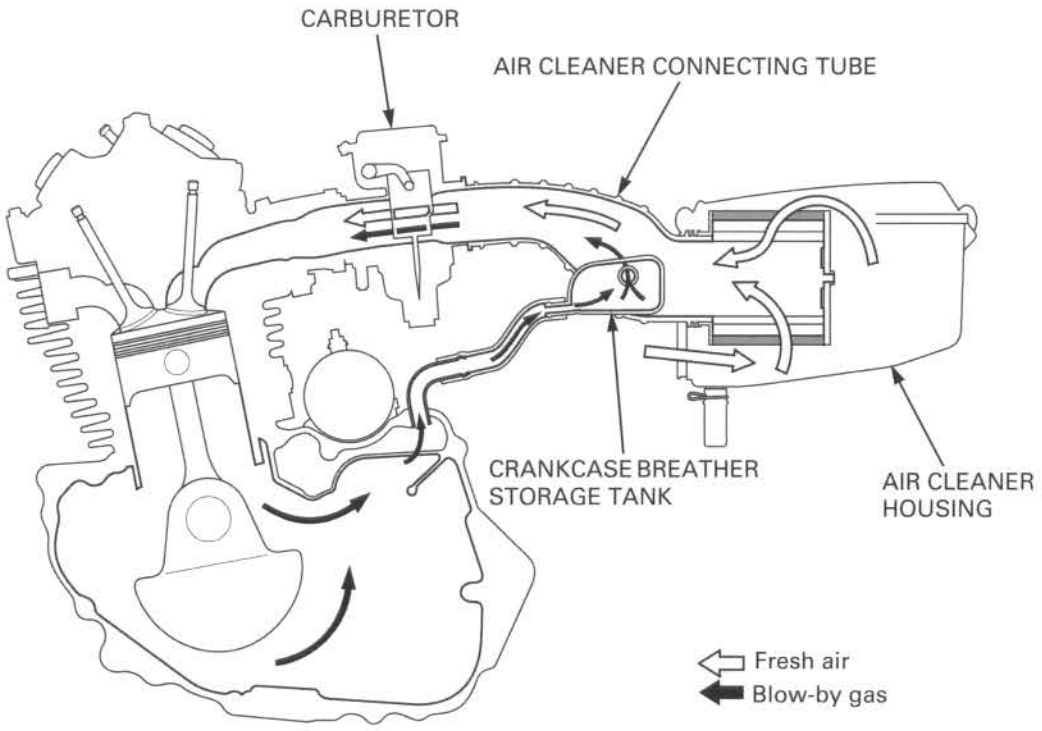
Honda Motor Co., Ltd. utilizes appropriate carburetor settings as well as other systems, to reduce oxides of nitrogen, carbon monoxide and hydrocarbons.

EXHAUST EMISSION CONTROL SYSTEM

The exhaust emission control system is composed of a appropriate carburetor setting, and no adjustments should be made except idle speed adjustment with the throttle stop screw. The exhaust emission control system is separate from the crankcase emission control systems.

CRANKCASE EMISSION CONTROL SYSTEM

The engine is equipped with a closed crankcase system to prevent discharging crankcase emissions into the atmosphere. Blow-by gas is returned to the combustion chamber through the air cleaner connecting tube and carburetor.



SERVICING THE HONDA

U.S.A. only

Maintenance, replacement or repair of the emission control devices and system may be performed by any ATV repair establishment or individual using parts that are "certified" to EPA standards.

PROHIBITED ACTIONS

The following prohibitions apply to everyone with respect to the engines emission control system.

You may not remove or disable any device or element of design that may affect an engine's emission levels. This restriction applies before and after the engine in placed in service.

NOISE EMISSION CONTROL SYSTEM (except U type)

TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED: State laws prohibit, or Canadian provincial laws may prohibit the following acts or the causing thereof: (1) The removal or rendering inoperative by any person, other than for purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE FOLLOWING ACTS:

1. Removal of, or puncturing the muffler, baffles, header pipes or any other component which conducts exhaust gases.
2. Removal of, or puncturing of any part of the intake system.
3. Lack of proper maintenance.
4. Replacing any moving parts of the vehicle, or parts of the exhaust or intake system, with parts other then those specified by the manufacturer.

NOISE EMISSION CONTROL SYSTEM (U type only)

TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED: Laws may prohibit: (1) The removal or rendering inoperative by any person, other than for purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

REBUILT ENGINE

When you rebuild the engine including a major overhaul in which you replace the engine's piston or power assemblies or make other changes that significantly increase the service life of the engine, the vehicle will continue to comply with all emissions regulations if you:

- Make sure you are technically qualified to rebuild the engine and have the proper tools
- Use only Genuine Honda parts or equivalents
- Make sure to maintain all specifications as described in this Service Manual

MEMO

2. TECHNICAL FEATURE

REVERSE SYSTEM

The reverse system for this model consists of the reverse stopper shaft, reverse gears and reverse switch incorporated in the transmission.

OPERATION

1. Stop of the vehicle and squeeze the clutch lever when the engine is running.
2. Turn the reverse assist lever to release the reverse inhibitor.
   - The reverse stopper plate on the stopper shaft is turned by the reverse assist cable.
   - The stopper plate releases the shift drum lock.
3. Shift the transmission down from the 1st to reverse position.
   - The reverse drive gear (on the mainshaft), reverse idle gear and reverse driven gear (on the countershaft) are engaged.
   - The reverse switch turns to ON. The reverse indicator comes on and the ignition control module (ICM) detects the reverse position.

The transmission can be shifted from the reverse to 1st position without operating the reverse assist lever.

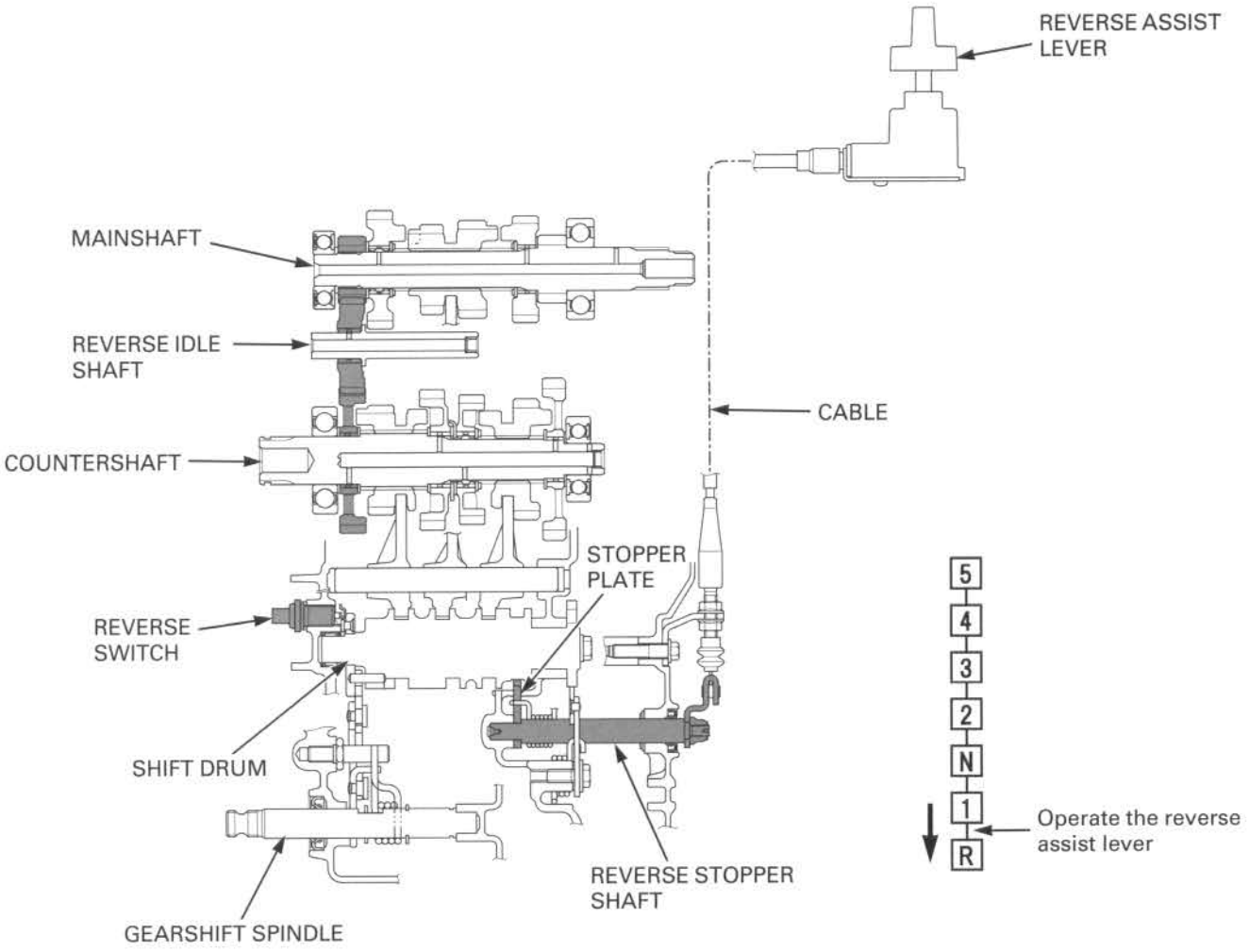
IGNITION CONTROL

When the vehicle is driving in reverse, the ICM limits the engine speed to 4,000 rpm (min^{-1}).

When the engine is stopped and the transmission is in the reverse position (the reverse switch is turned to ON), the ICM stops the ignition to prevent starting the engine.

NOTE:

The reverse assist cable requires periodic inspection in accordance with the maintenance schedule (page 4-3). Misadjustment of the assist cable may cause incorrect operation of the reverse system.



3. FRAME/BODY PANELS/EXHAUST SYSTEM

SERVICE INFORMATION

GENERAL

- This section covers removal and installation of the body panels, fuel tank and exhaust system.
- Always replace the gaskets after removing the exhaust system.
- Always inspect the exhaust system for leaks after installation.

TORQUE VALUES

Footpeg bolt	42 N·m (4.3 kgf·m, 31 lbf·ft)
Skid plate bolt	30 N·m (3.1 kgf·m, 22 lbf·ft) ALOC bolt: replace with a new one.
Exhaust pipe joint nut	27 N·m (2.8 kgf·m, 20 lbf·ft)
Muffler mounting bolt	32 N·m (3.3 kgf·m, 24 lbf·ft)
Muffler band bolt	23 N·m (2.3 kgf·m, 17 lbf·ft)
Exhaust pipe protector bolt	20 N·m (2.0 kgf·m, 15 lbf·ft)

TROUBLESHOOTING

Excessive exhaust noise
- Broken exhaust system
- Exhaust gas leak

Poor performance
- Deformed exhaust system
- Exhaust gas leak
- Clogged muffler

SEAT/REAR FENDER

NOTE:

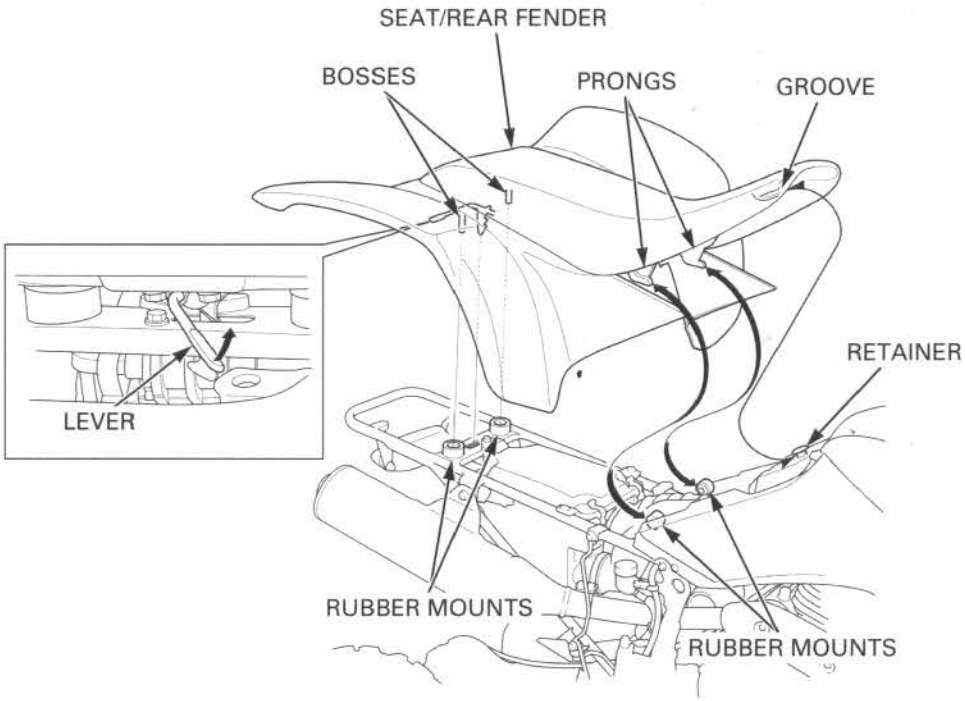
- Do not allow the assembly to contact the muffler when the exhaust system is hot.
- Take care not to scratch the side covers with the rear fender.

REMOVAL

Unlock the seat by pulling the release lever up.
While spreading the front portion of the rear fender, pull the seat/rear fender assembly back and remove it.

INSTALLATION

Install the seat/rear fender assembly by inserting the groove under the retainer, and the prongs onto the front rubber mounts.
Push the assembly forward and align the mounting bosses with the rear rubber mounts, then press down to lock it.

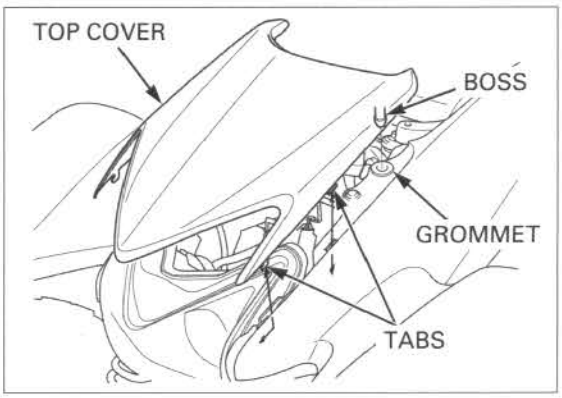


TOP COVER

REMOVAL/INSTALLATION

Release the two bosses from the grommets and remove the top cover by releasing the four tabs.

Installation is in the reverse order of removal.



SIDE COVER

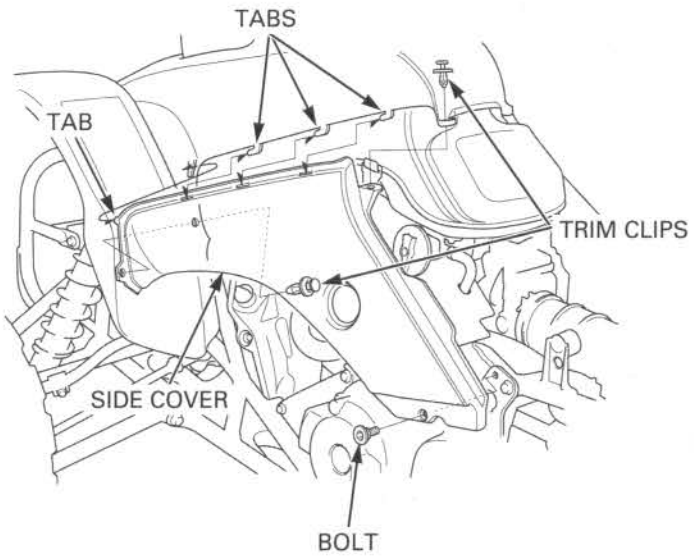
REMOVAL/INSTALLATION

Remove the seat/rear fender (page 3-3).

Remove the socket bolt.
Release the trim clip by pulling the center pin and remove them.

Release the front end tab from the fender.
Release the side cover from the three tabs by sliding it forward and remove the side cover.

Installation is in the reverse order of removal.



FUEL TANK UPPER COVER

REMOVAL/INSTALLATION

Remove the seat/rear fender (page 3-3).

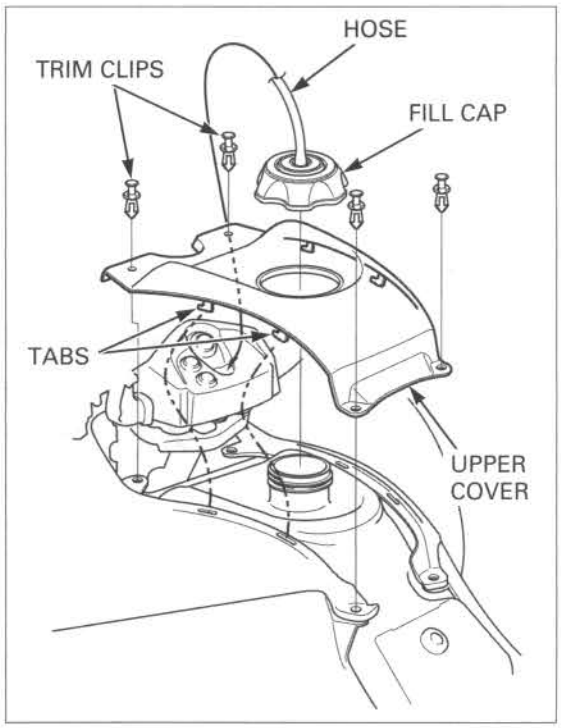
Release the trim clip by pulling the center pin and remove them.

Remove the breather hose and fuel fill cap.

Release the four tabs from the front fenders by sliding the upper cover rearward and remove it.

Install the fuel fill cap.

Installation is in the reverse order of removal.



FRONT FENDER

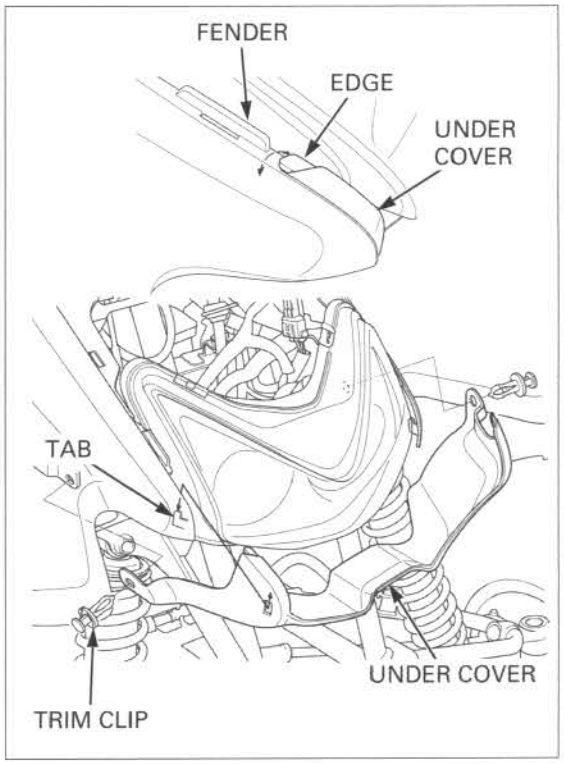
REMOVAL/INSTALLATION

Remove the following:
- fuel tank upper cover (page 3-4)
- top cover (page 3-3)

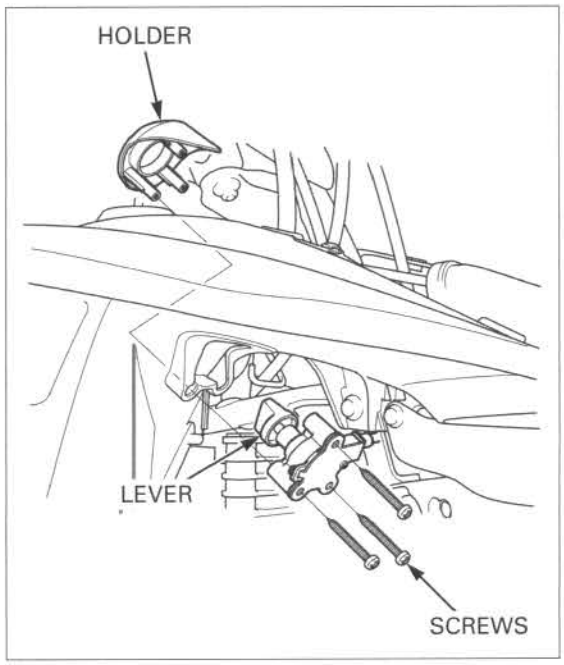
Remove the two trim clips.

Set the upper edges of the headlight under cover behind the front fenders.

Release the under cover from the from the two tabs by sliding it upward and remove it.

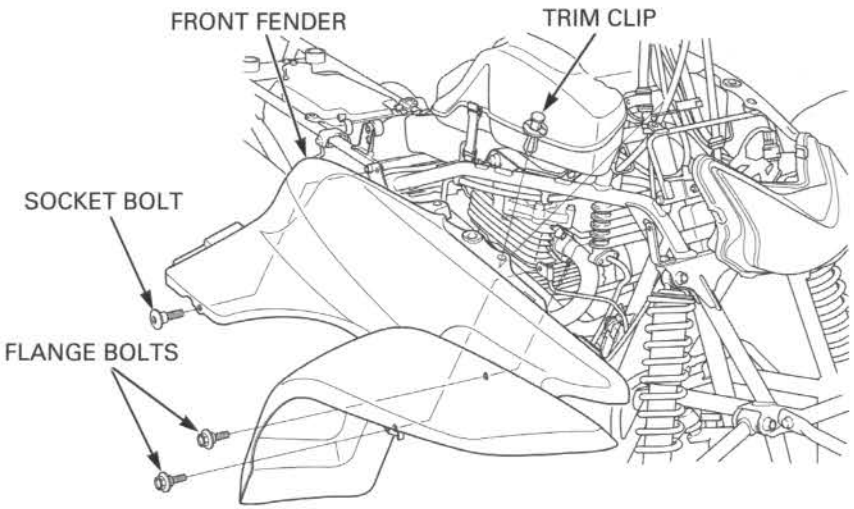


Right side only: Remove the following from the right front fender:
- three screws
- lever holder
- reverse assist lever



Remove the following:
- trim clip
- socket bolt
- two flange bolts
- front fender

Installation is in the reverse order of removal.



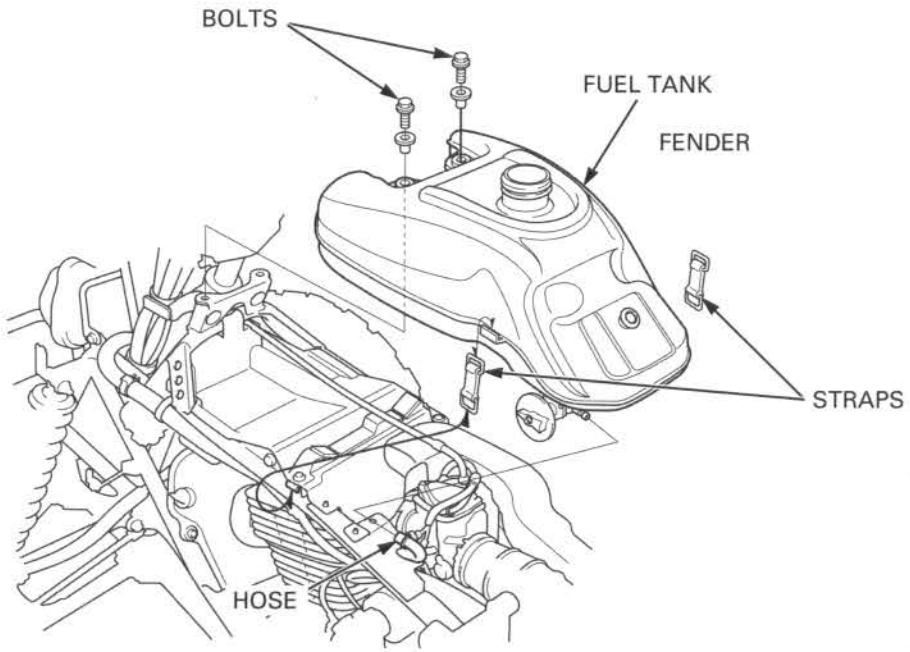
FUEL TANK

REMOVAL/INSTALLATION

Remove the following:
- side covers (page 3-4)
- fuel tank upper cover (page 3-4)

Turn the fuel valve to OFF and remove the following:
- fuel hose (disconnect from the fuel tank)
- mounting straps
- two bolts
- fuel tank (while spreading the front fenders)

Installation is in the reverse order of removal.



HEAT GUARD PLATE

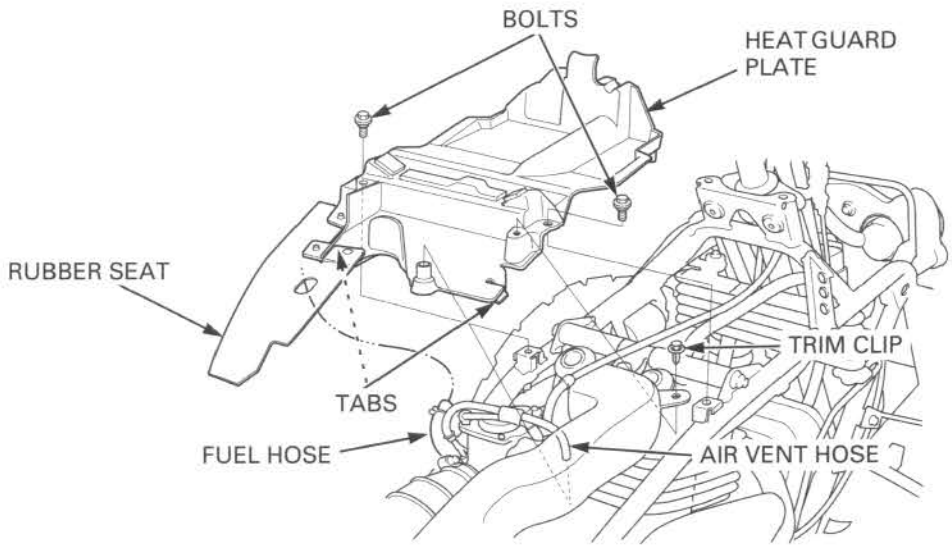
REMOVAL/INSTALLATION

Remove the fuel tank (page 3-6).

Remove the following:
- carburetor air vent hose (from the hose holder of the heat guard plate)
- trim clip
- fuel hose (release from the rubber seat)
- two bolts

Release the two tabs of the rear side of the plate from the frame pipes. Pull the throttle cable aside and remove the heat guard plate.

Installation is in the reverse order of removal.



SKID PLATE

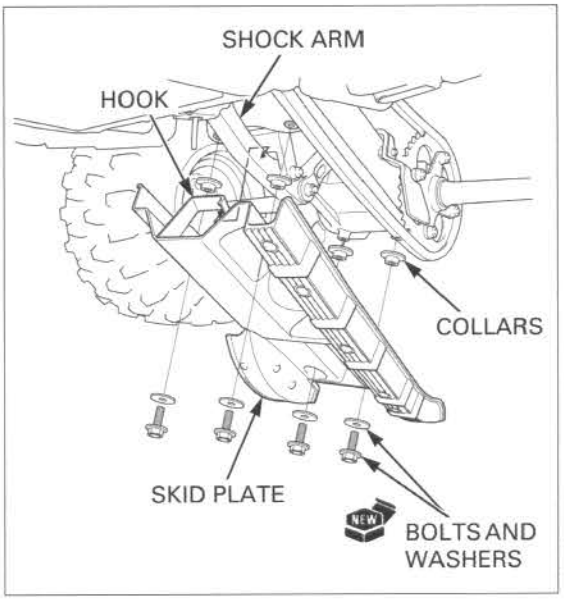
REMOVAL/INSTALLATION

Remove the following:
- four bolts and washers
- skid plate (release the hook from the shock arm)
- four collars

Always replace the ALOC bolts with new ones.

Installation is in the reverse order of removal.

TORQUE: 30 N·m (3.1 kgf·m, 22 lbf·ft)



MUD GUARD & FOOTPEG

REMOVAL/INSTALLATION

MUD GUARD

Remove the following:
- four screws
- socket bolt and nut
- mud guard

FOOTPEG AND STAY

Remove the following:
- washer-bolt (from bottom of the footpeg)
- inner mud guard stay
- washer-bolt (from the lower rear frame)
- outer mud guard stay
- two socket bolts and washers
- footpeg

Installation is in the reverse order of removal.

TORQUE: Footpeg bolt: 42 N·m (4.3 kgf·m, 31 lbf·ft)