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GENERAL SAFETY

WARNING

If the engine must be running to do some work, make sure the area is well-ventilated. Never run the engine in a closed area. The exhaust contains poisonous carbon monoxide gas.

WARNING

Gasoline is extremely flammable and is explosive under certain conditions. Do not smoke or allow flames or sparks in your working area.

WARNING

The battery electrolyte contains sulfuric acid. Protect your eyes, skin and clothing. In case of contact, flush thoroughly with water and call a doctor if your eyes were exposed.

WARNING

The battery generates hydrogen gas which can be highly explosive. Do not smoke or allow flames or sparks near the battery, especially while charging it.

SERVICE RULES

1. Use genuine HONDA or HONDA-recommended parts and lubricants or their equivalent. Parts that do not meet HONDA's design specifications may damage the motorcycle.
2. Use the special tools designed for this product.
3. Use only metric tools when servicing this motorcycle. Metric bolts, nuts, and screws are not interchangeable with English fasteners. The use of incorrect tools and fasteners may damage the motorcycle.
4. Install new gaskets, O-rings, cotter pins, lock plates, etc. when reassembling.
5. When tightening bolts or nuts, begin with the larger-diameter or inner bolts first, and tighten to the specified torque diagonally in 2-3 steps, unless a particular sequence is specified.
6. Clean parts in non-flammable or high flash point solvent upon disassembly. Lubricate any sliding surfaces before re-assembly.
7. After reassembly, check all parts for proper installation and operation.



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DRIVE TRAIN	Clutch		Wet multi-plate type
	Transmission		5-speed constant mesh
	Primary reduction		2.188 : 1
	Gear ratio I		2.462 : 1
	Gear ratio II		1.647 : 1
	Gear ratio III		1.250 : 1
	Gear ratio IV		1.000 : 1
	Gear ratio V		0.840 : 1
	Final reduction		2.867 : 1
	Gear shift pattern		Left foot operated return system
ELECTRICAL	Ignition		C.D.I.
	Ignition timing	Initial '83	6° BTDC at 1,200 rpm
		'84	11° BTDC at 1,300 rpm
		Full advance	31° BTDC at 4,000 rpm
	Alternator		AC. GENERATOR 0.23 kw/5000 rpm
	Battery capacity		12V-3AH
	Spark plug [STANDARD]		DPR8EA-9 (NGK)
			X24EPR-U9 (ND)
	Spark plug gap		0.8-0.9 mm (0.031-0.035 in)
	Headlight		55/60 watt
	Tail/stoplight		8/27 watt 3/32 cp SAE 1157
	Turn signal light		23/23 watt 32/32 cp SAE 1073
	Speedometer light		1.7 watt x 2 1 cp x 2
Neutral indicator		3.4 watt 2 cp SAE 158	
Turn signal indicator		3.4 watt 2 cp SAE 158	
High beam indicator		1.7 watt 1 cp	



TORQUE VALUES

ENGINE

TIGHTENING POINT	Q'TY	THREAD DIA X PITCH	TORQUE N·m (kg·m, ft·lb)
Kick starter stopper plate	1	8	22-28 (2.2-2.8, 16-22)
Primary drive gear	1	18	50-60 (5.0-6.0, 36-43)
Gear shift drum stopper arm bolt	2	8	22-28 (2.2-2.8, 16-22)
Rocker arm shaft	4	14	25-30 (2.5-3.0, 18-22)
Sub rocker arm shaft (IN)	2	14	25-30 (2.5-3.0, 18-22)
(EX)	2	12	20-25 (2.0-2.5, 14-18)
Cam sprocket	2	7	18-22 (1.8-2.2, 13-16)
Rocker arm adjust screw	4	7	18-22 (1.8-2.2, 13-16)
Shift fork center	1	7	13-17 (1.3-1.7, 9-12)
Change return spring pin	1	8	22-26 (2.2-2.6, 16-19)
Clutch center	1	18	50-60 (5.0-6.0, 36-43)
Flywheel	1	16	100-120 (10.0-12.0, 72-87)
Cylinder bolt	2	10	47-53 (4.7-5.3, 34-39)
Cylinder head	6	8	26-30 (2.6-3.0, 19-22)
Cylinder head cover (SH)	3	6	8-12 (0.8-1.2, 6-9)
(BF)	2	6	10-14 (1.0-1.4, 7-10)
Cylinder head cover (BF)	2	8	20-26 (2.0-2.6, 14-19)
Gear shift drum	1		10-14 (1.0-1.4, 7-10)
Engine oil bolt	1	12	30-40 (3.0-4.0, 22-29)

FRAME

TIGHTENING POINT	Q'TY	THREAD DIA X PITCH	TORQUE N·m (kg·m, ft·lb)
Fuel tank	2	6	8-12 (0.8-1.2, 6-9)
Exhaust pipe joint nut	4	8	8-12 (0.8-1.2, 6-9)
Exhaust pipe protector	2	6	8-12 (0.8-1.2, 6-9)
Steering stem nut	1	24	80-120 (8.0-12, 58-87)
Swing arm pivot bolt	1	14	80-100 (8.0-10.0, 58-72)
Handle holder	4	8	18-30 (1.8-3.0, 14-22)
Front top bridge pinch bolt	4	8	18-30 (1.8-3.0, 14-22)
Front bottom bridge pinch bolt	4	8	30-35 (3.0-3.5, 22-25)
Front fork axle holder	4	6	10-14 (1.0-1.4, 7-10)
Front axle	1	12	50-80 (5.0-8.0, 36-58)
Rear axle nut	1	16	80-110 (8.0-11.0, 58-80)



FRAME

ITEM	Q'TY	THREAD DIA	TORQUE N·m (kg·m, ft·lb)
Final driven sprocket	6	8	27-33 (2.7-3.3, 20-24)
Rear shock absorber (upper)	1	10	40-50 (4.0-5.0, 29-36)
(lower)	1	10	40-50 (4.0-5.0, 29-36)
Shock arm (Swing arm)	1	12	90-120 (9.0-12.0, 65-87)
Connecting rod (front)	1	10	40-50 (4.0-5.0, 29-36)
(Rear)	1	10	40-50 (4.0-5.0, 29-36)
Change pedal	1	6	8-12 (0.8-1.2, 6-9)
Kick starter pedal	1	8	20-35 (2.0-3.5, 14-25)
Side stand	1	10	35-45 (3.5-4.5, 25-33)
Fuel cock	1	6	8-12 (0.8-1.2, 6-9)
Engine hanger bolt 10 mm bolt	4	10	55-65 (5.5-6.5, 40-47)
8 mm bolt	5	8	30-37 (3.0-3.7, 22-27)
Front brake caliper	2	8	20-30 (2.0-3.0, 14-22)
Front brake disc		6	14-16 (1.4-1.6, 10-12)
Seat	2	6	8-12 (0.8-1.2, 6-9)
Seat band	1	8	15-25 (1.5-2.5, 11-18)
Rear brake pedal pivot	1	12	35-45 (3.5-4.5, 25-33)
Skid plate	2	6	8-12 (0.8-1.2, 6-9)
Oil drain bolt (frame)	1	6	8-12 (0.8-1.2, 6-9)
Air cleaner bolt	2	6	8-12 (0.8-1.2, 6-9)
Foot peg bracket	1	10	38-48 (3.8-4.8, 27-35)

Torque specifications listed above are for the most important tightening points. If a specification is not listed follow the standards below.

STANDARD TORQUE VALUES

TYPE	TORQUE N·m (kg·m, ft·lb)	TYPE	TORQUE N·m (kg·m, ft·lb)
5 mm bolt, nut	4.5-6.0 (0.45-0.6, 3.3-4.3)	5 mm screw	3.5-5 (0.35-0.5, 2.5-3.6)
6 mm bolt, nut	8-12 (0.8-1.2, 6-9)	6 mm screw	7-11 (0.7-1.1, 5-8)
8 mm bolt, nut	18-25 (1.8-2.5, 13-18)	6 mm flange bolt, nut	10-14 (1.0-1.4, 7-10)
10 mm bolt, nut	30-40 (3.0-4.0, 22-29)	8 mm flange bolt, nut	24-30 (2.4-3.0, 17-22)
12 mm bolt, nut	50-60 (5.0-6.0, 36-43)	10 mm flange bolt, nut	30-40 (3.0-4.0, 22-29)



TOOLS

SPECIAL

TOOL DESCRIPTION	TOOL NO.	ALTERNATE TOOL	REF. PAGE
Race remover	07953-KA50000	Race remover 07953-4250002	12-22
Snap ring pliers	07914-3230001	Commercially available in U.S.A.	12-16
Hex wrench, 6 mm	07917-3230000		12-16, 12-19
Cam chain tensioner holder	07973-MG30001		6-22
Bearing remover	07936-3710600	M967X-038-XXXXX (U.S.A. only)	10-9, 13-3
Bearing remover handle	07936-3710100		10-9, 13-3
Bearing remover weight	07936-3710200		10-9, 13-3
Front fork seal driver	07947-4630100		
Valve guide reamer, 6.6 mm	07984-6570100		6-16
Steering stem socket	07916-3710100		12-21, 12-23
Steering stem driver	07946-4300100	Steering stem driver 07946-MB00000 and Attachment GN-HT-54 (U.S.A. only)	12-22, 12-23
Bearing remover, 17 mm	07936-3710300		10-9
Threaded adapter	07931-KF00200		10-10
Assembly collar	07931-KF00100		10-11
Shaft puller	07931-ME40000		10-11
Attachment	07946-3710400		13-14
Digital multimeter	07411-0020000	KS-AHM-32-003 (U.S.A. only)	17-3
Pressure pump		ST-AH-255-MC7 (U.S.A. only)	4-18
Vacuum pump		ST-AH-260-MC7 (U.S.A. only)	4-18

COMMON

TOOL DESCRIPTION	TOOL NO.	ALTERNATE TOOL	REF. PAGE
Float level gauge	07401-0010000		4-13
Spoke wrench, 5.8 x 6.1 mm	07701-0020300	Commercially available in U.S.A.	3-19
Wrench, 10 x 12 mm	07708-0030200	Valve adjusting wrench 07908-3230000	3-8
Adjusting wrench A	07708-0030300		3-8
Retainer wrench attachment	07710-0010200	Retainer wrench 07910-3230101	13-7
Retainer wrench body	07710-0010401		13-7
Socket wrench, 30 x 32 mm	07716-0020400	Commercially available in U.S.A.	12-21
Extension bar	07716-0020500		12-21
Rotor puller	07733-0020001	Rotor puller 07933-3290001	9-3
Valve guide remover, 6.6 mm	07742-0010200	Valve guide driver 07942-6570100	6-16
Attachment, 32 x 35 mm	07746-0010100		8-5, 12-11
Pilot, 15 mm	07746-0040300		12-11
Attachment, 37 x 40 mm	07746-0010200		10-10, 13-7
Attachment, 42 x 47 mm	07746-0010300		11-8, 13-7
Pilot, 17 mm	07746-0040400		13-7
Pilot, 20 mm	07746-0040500		8-5, 11-8, 13-7
Attachment, 72 x 75 mm	07746-0010600		10-10
Pilot, 40 mm	07746-0040900		10-10
Attachment, 52 x 55 mm	07746-0010400		11-8
Pilot, 25 mm	07746-0040600		11-8
Attachment, 62 x 68 mm	07746-0010500		11-8
Pilot, 35 mm	07746-0040800		10-10
Driver	07749-0010000		8-4, 12-11, 13-14 10-10, 12-22, 11-8, 13-7
Valve spring compressor	07757-0010000	Valve spring compressor 07957-3290001	6-13, 6-20
Lock nut wrench, 17 x 27 mm	07716-0020300	Commercially available in U.S.A.	9-3, 9-4
Flywheel holder	07725-0040000		
Bearing remover expander	07746-0050100	Commercially available in U.S.A.	12-11, 13-6
Bearing remover collet, 15 mm	07746-0050400		12-11
Bearing remover collet, 17 mm	07746-0050500		13-6
Clutch center holder	07724-0050000		8-5, 8-9

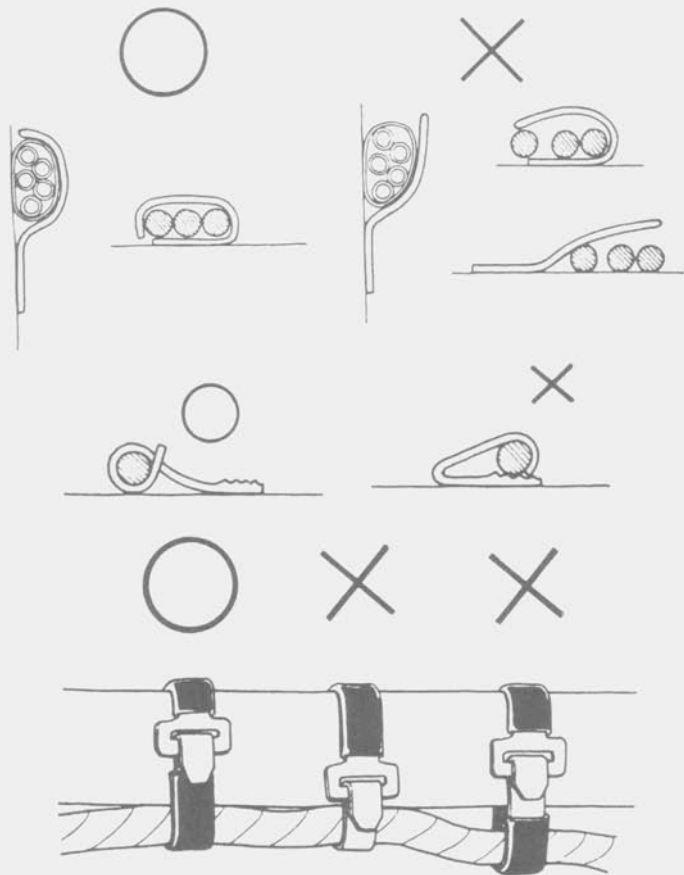


CABLE & HARNESS ROUTING

Note the following when routing cables and wire harnesses.

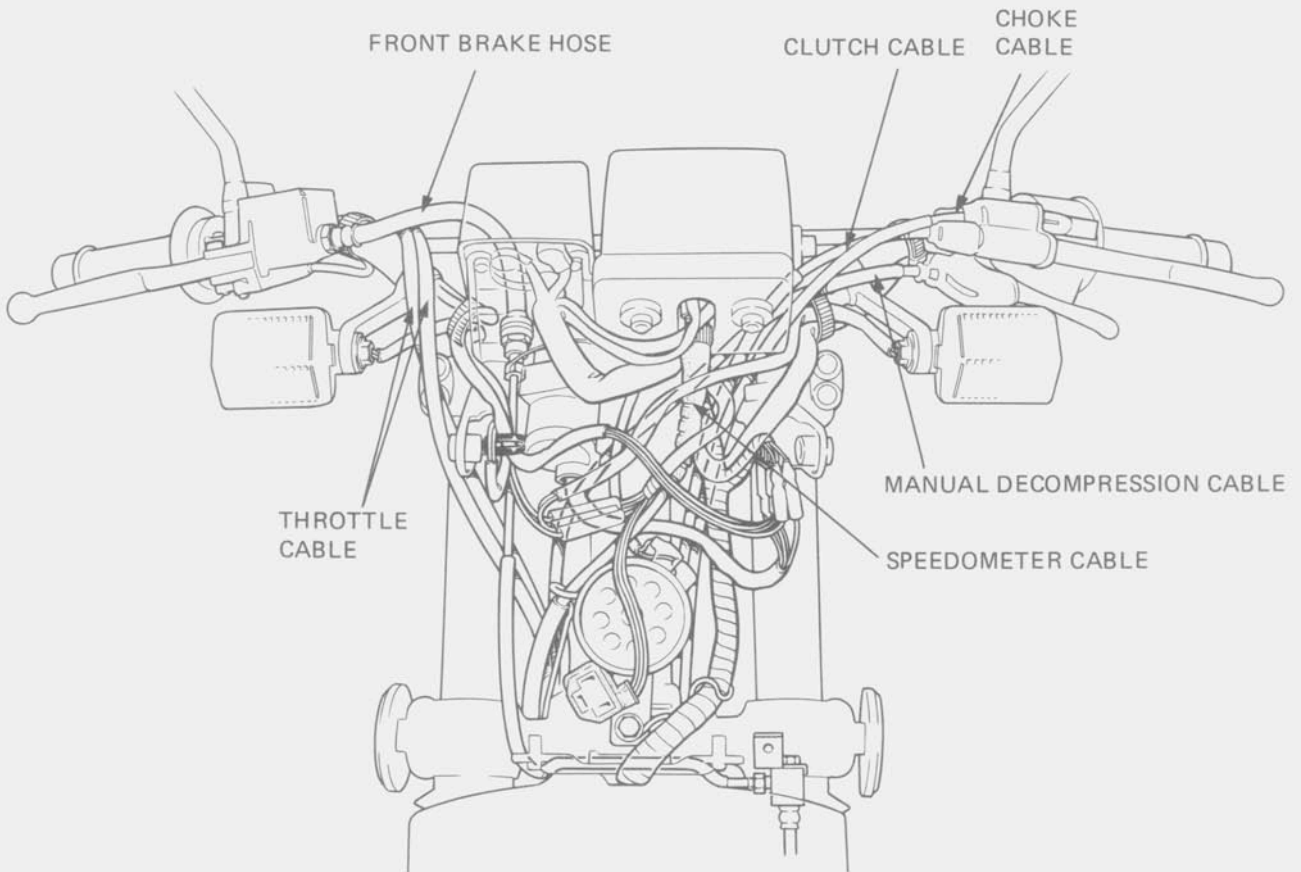
A loose wire, harness or cable can be safety hazard. After clamping, check each wire to be sure it is secure.

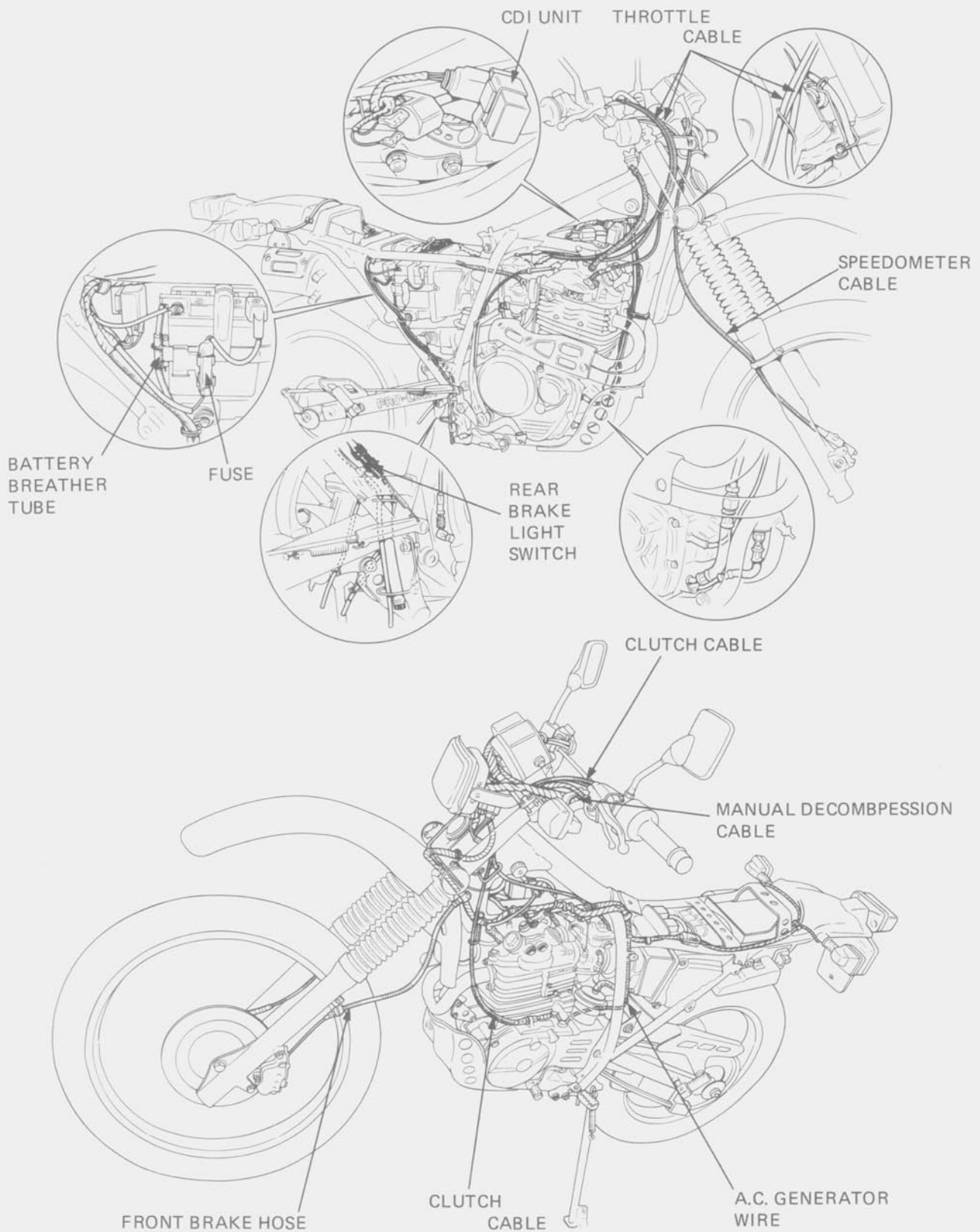
- Do not squeeze wires against the weld or end of its clamp when a weld-on clamp is used.
- Secure wires and wire harnesses to the frame with their respective wire bands at the designated locations. Tighten the bands so that only the insulated surfaces contact the wires or wire harnesses.
- Route harnesses so they are not pulled that or have excessive slack.
- Protect wires and harnesses with electrical tape or tube if they are contact a sharp edge or corner. Clean the attaching surface thoroughly before applying tape.
- Do not use wires or harnesses with a broken insulator. Repair by wrapping them with a protective tape or replace them.
- Route wire harnesses to avoid sharp edges or corners.
- Also avoid the projected ends of bolts and screws.
- Keep wire harnesses away from the exhaust pipes and other hot parts.
- Be sure grommets are seated in their grooves properly.
- After clamping, check each harness to be certain that it is not interfering with any moving or sliding parts.
- After routing, check that the wire harnesses are not twisted or kinked.
- Wire harnesses routed along the handlebars should not be pulled taut, have excessive slack, be pinched, or interfere with adjacent or surrounding parts in all steering positions.

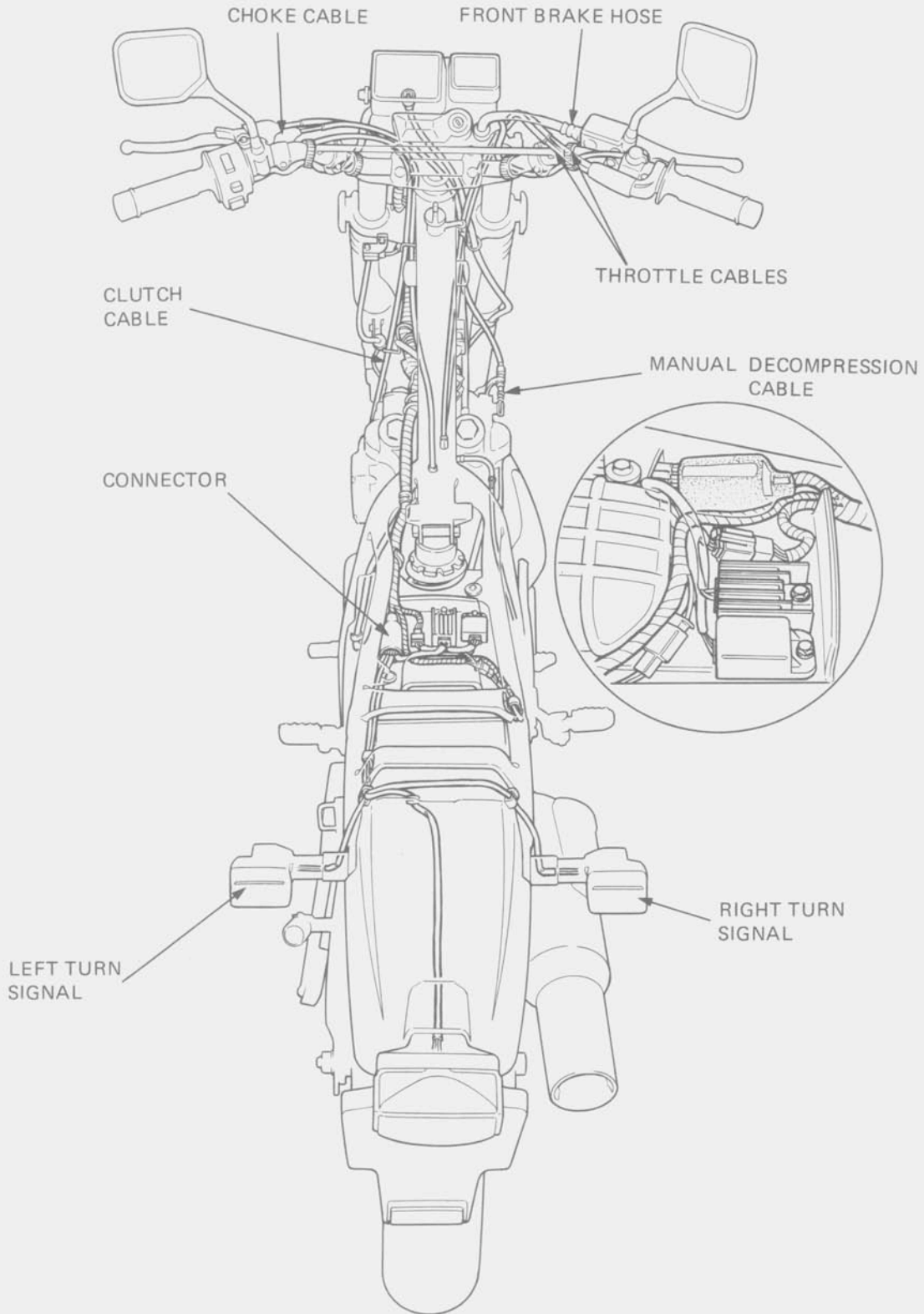




WIRING DIAGRAM



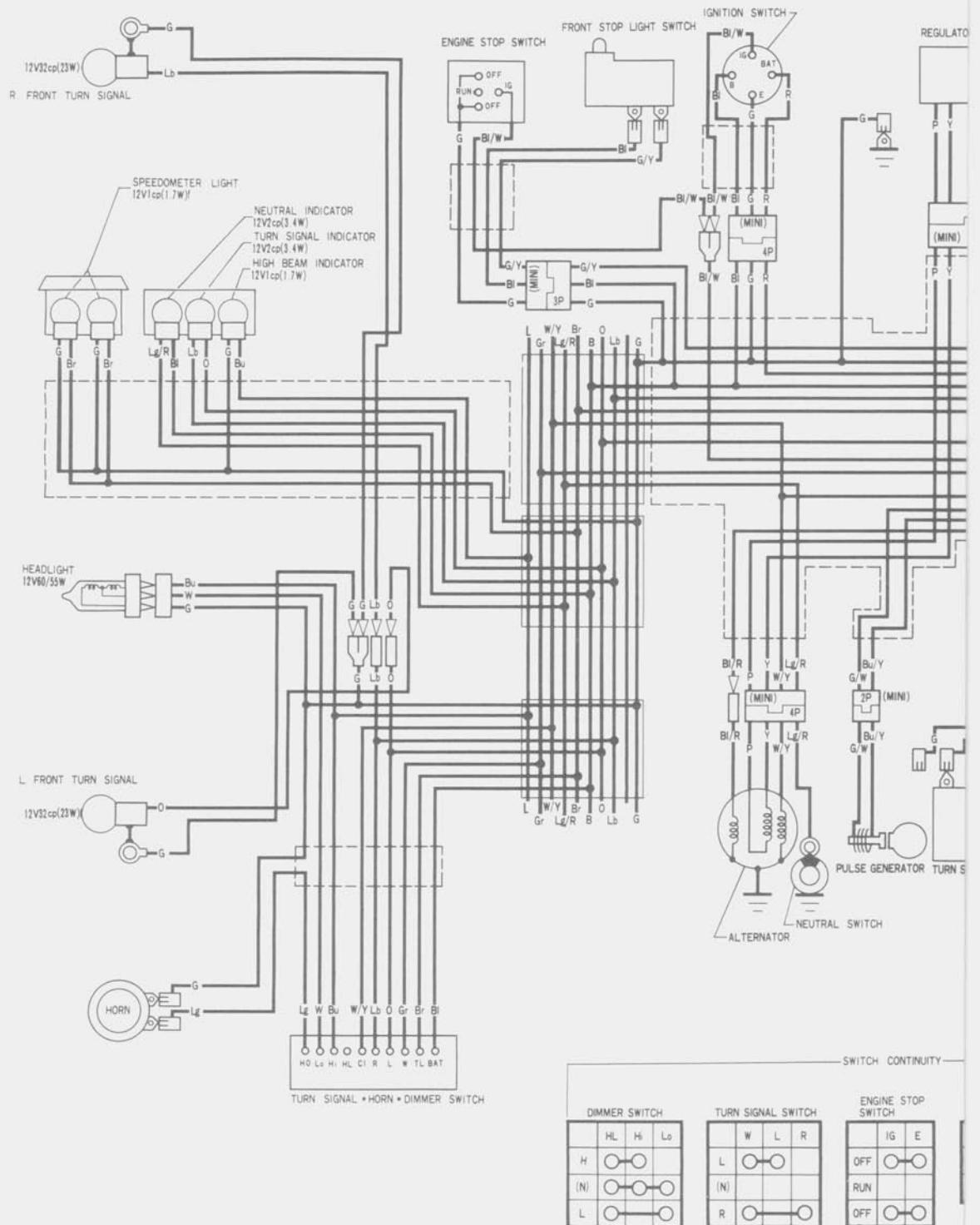




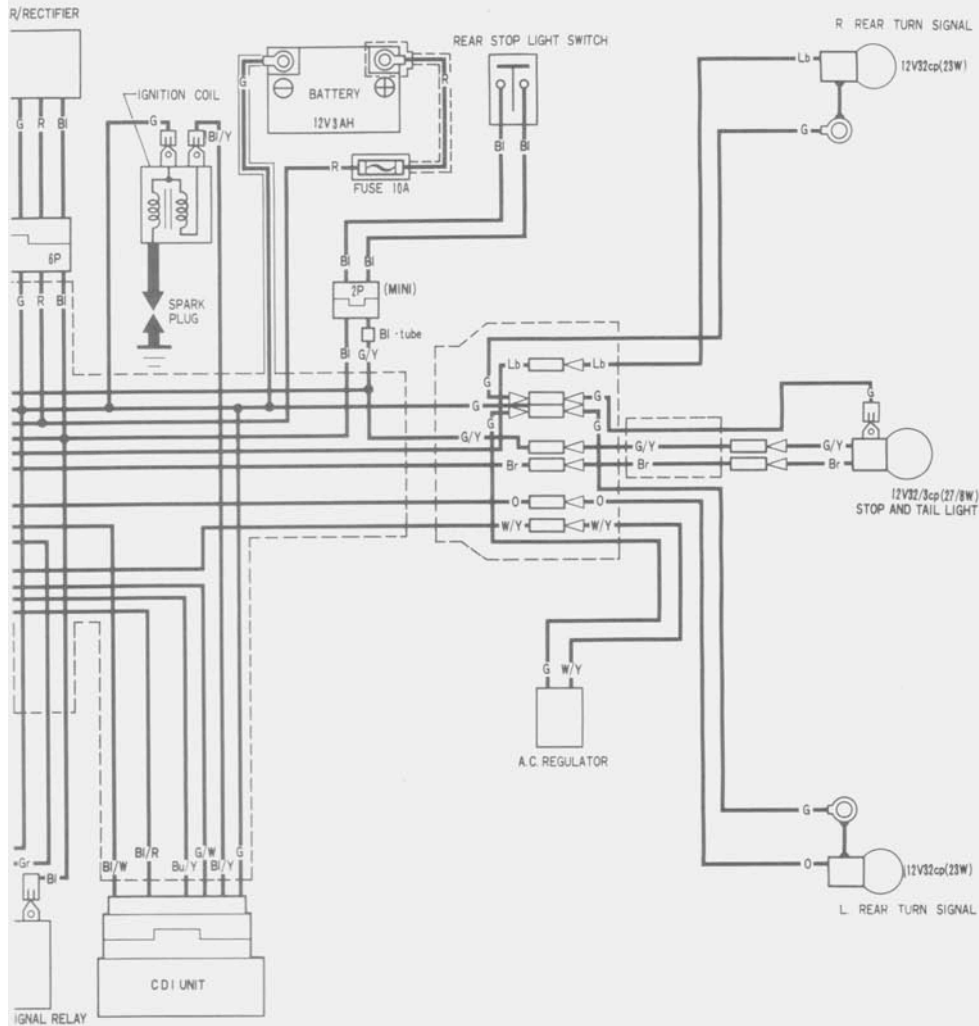


HONDA XL600R

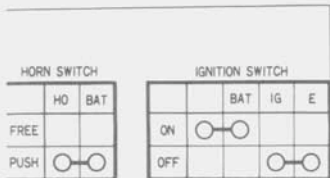
WIRING DIAGRAM



GENERAL INFORMATION



- | | | | |
|----|--------|----|-------------|
| BI | BLACK | Br | BROWN |
| Y | YELLOW | O | ORANGE |
| Bu | BLUE | Lb | LIGHT BLUE |
| G | GREEN | Lg | LIGHT GREEN |
| R | RED | P | PINK |
| W | WHITE | Gr | GRAY |



0030Z—MG2—6710



EMISSION CONTROL SYSTEM (U.S.A. only)

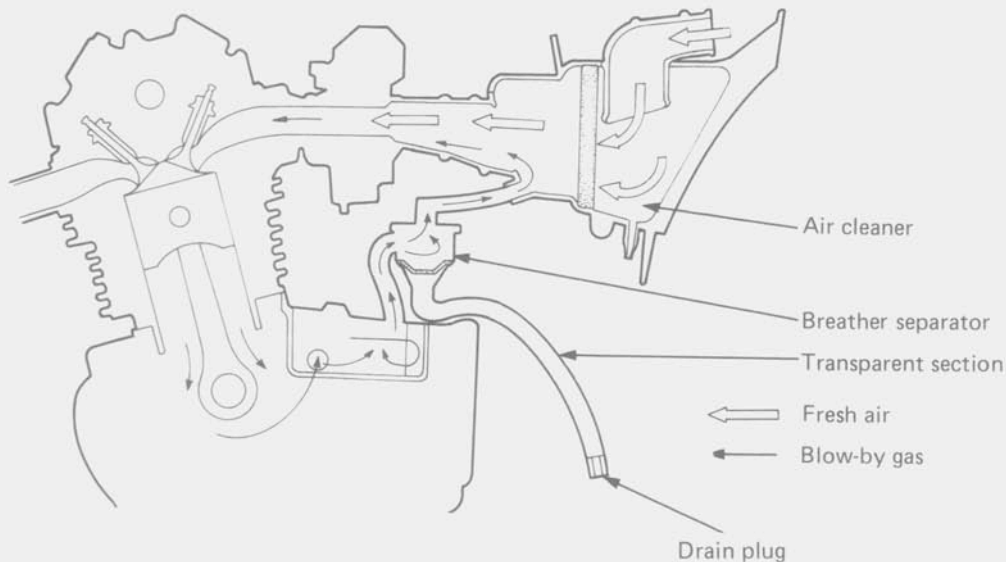
The U.S. Environmental Protection Agency and California Air Resources Board (CARB) require manufacturers to certify that their motorcycle comply with applicable exhaust emissions standards during their useful life, when operated and maintained according to the instructions provided, and that motorcycles built after January 1, 1983 comply with applicable noise emission standards for one year or 6,000 km (3,730 miles) after the time of sale to the ultimate purchaser, when operated and maintained according to the instructions provided. Compliance with the terms of the Distributor's Warranties for Honda Motorcycle Emission Control Systems is necessary in order to keep the emissions system warranty in effect.

• EXHAUST EMISSION CONTROL SYSTEM

The exhaust emission control system is composed of a factory pre-set carburetor. No adjustments should be made except to idle speed with the throttle stop screw. This system is separate from the crankcase emission control system.

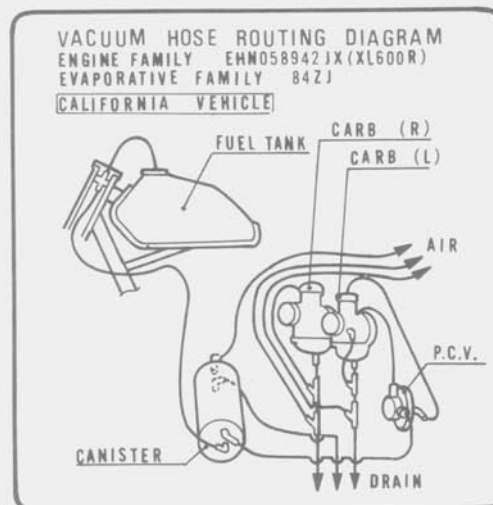
• CRANKCASE EMISSION CONTROL SYSTEM

Blow-by gas is returned to the combustion chamber through the breather tube, separator and intake pipe.



• EVAPORATIVE EMISSION CONTROL SYSTEM (California model only)

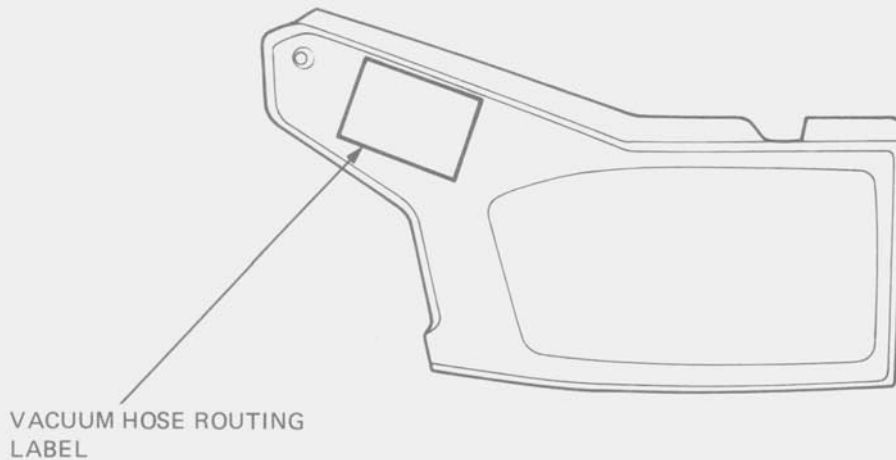
Fuel vapor from the fuel tank is directed into the charcoal canister where it is absorbed and stored while the engine is stopped. When the engine is running, fuel vapor in the charcoal canister is drawn into the engine through the carburetor.





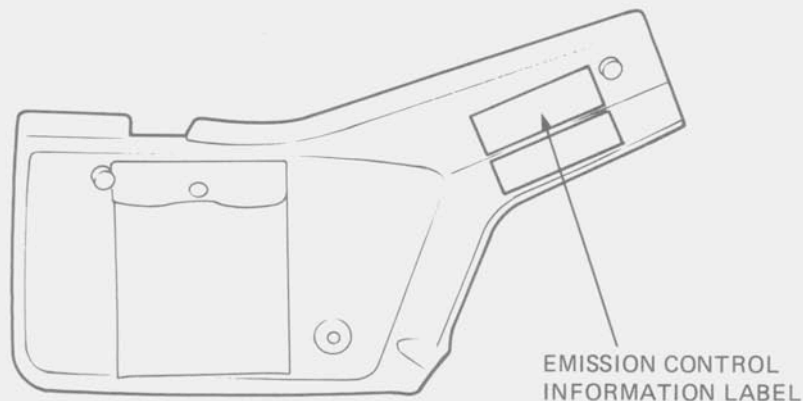
- VACUUM HOSE ROUTING LABEL ('84 California model only)

The Vacuum Hose Routing Label is attached to the inside of the right side cover.



- EMISSION CONTROL INFORMATION LABEL

The Vehicle Emission Control Information Label is attached to the left side cover.



- NOISE EMISSION CONTROL SYSTEM

TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED: Federal law prohibits 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 ACTS LISTED BELOW:

1. Removal of, or puncturing the muffler, bafflers, 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 than those specified by the manufacturer.



HONDA
XL600R

GENERAL INFORMATION

MEMO