1. GENERAL INFORMATION

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GENERAL SAFETY

A 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 that can cause loss of consciousness and may lead to death.

A WARNING

Gasoline is extremely flammable and is explosive under certain conditions. Work in a well ventilated area with the engine stopped. Do not smoke or allow flames or sparks in your working area or where gasoline is stored.

AWARNING

Brake dust may contain asbestos.

- Inhalled asbestos fibers have been found to cause respiratory disease and cancer. Never use an air hose or dry brush to clean brake assemblies.
- In the United States, use an OSHA approved vacuum cleaner or alternate method approved by OSHA designed to minimize the hazard caused by airborne asbestos fibers.

AWARNING

- 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 magnessia or vegetable oil and call a physician.

CAUTION

 Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods.
 Although this is unlikely unless you handle used oil on a daily basis, it is still advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil.

SERVICE RULES

- 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.
- Use the special tools designed for this product.
- 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.
- Install new gaskets, O-rings, cotter pins, lock plates, etc. when reassembling.
- When tightening a series of bolts or nuts, begin with the larger-diameter or inner bolts first, and tighten to the specified torque diagonally, unless a particular sequence is specified.
- 6. Clean parts in cleaning solvent upon disassembly. Lubricate any sliding surfaces before reassembly.
- After reassembly, check all parts for proper installation and operation.

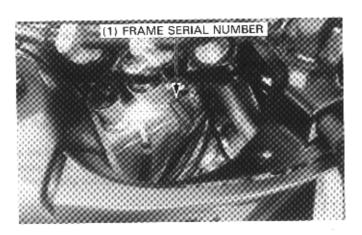
MODEL IDENTIFICATION

'88:

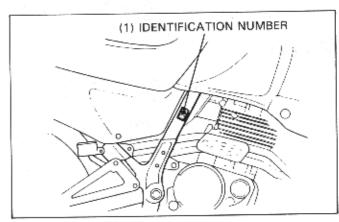


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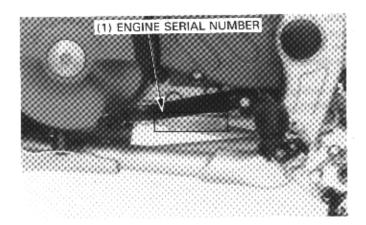




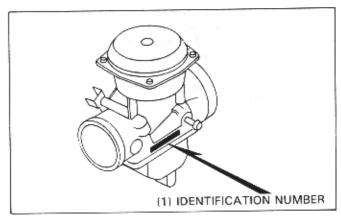
The frame serial number is stamped on the right side of the steering head.



The vehicle identification number (VIN) is on the right side of the frame pipe.



The engine serial number is stamped on the right crankcase.



The carburetor identification number is stamped on the carburetor body.

SPECIFICATIONS

< >: California model

ITEM				SPECIFICATIONS
DIMENSIONS	Overall length Overall width Overall height Wheel base Seat height Ground clearance Dry weight Curb weight			2,195 mm (86.4 in) 890 mm (35.0 in) 1,220 mm (48.0 in) 1,435 mm (56.4 in) 870 mm (34.3 in) 255 mm (10.0 in) 152 kg (335.1 lb) 168 kg (370.3 lb)
FRAME				Semi-double cradle Telescopic fork, 220 mm (8.7 in) Swing arm, 195 mm (7.7 in) 90/90-21 54S 120/90-17 64S
	Cold tire	Rider only	Front	150 kPa (1.50 kg/cm², 22 psi)
	pressures		Rear	150 kPa (1.50 kg/cm², 22 psi)
		Rider and	Front	150 kPa (1.50 kg/cm², 22 psi)
		one passenger	Rear	200 kPa (2.00 kg/cm², 29 psi)
	Front brake Rear brake Fuel capacity Fuel reserve capacity Caster angle Trail Fork oil capacity			Hydraulic, single disc Internal expanding shoes 13 liters (3.4 US gal, 2.9 lmp gal) 2.5 liters (0.66 US gal, 0.55 lmp gal) 28°30' 117 mm (4.6 in) 592 cc (20.0 US oz, 20.8 lmp oz)
ENGINE	Type Cylinder arr Bore and st Displaceme Compression Valve train Oil capacity Lubrication Air filtration Cylinder co Intake valve Exhaust val Valve clear Engine dry	system mpression e Oper Clos live Oper Clos ance (cold) IN EX	es ns	Air cooled 4-stroke Single cylinder, 15° inclined from vertical 100 x 82 mm {3.94 x 3.23 in} 644.0 cc (39.29 cu in) 8.3 : 1 OHC, chain drive, 4-valve 2.3 liters (2.43 US qt, 2.02 lmp qt) after disassembly 1.9 liters (2.01 US qt, 1.67 lmp qt) after draining Forced pressure and dry sump Paper filter 125 kPa (12.5 kg/cm², 178 psi) 5° (BTDC) 40° (ABDC) 45° (BBDC) 5° (ATDC) 0.10 mm (0.004 in) 0.12 mm (0.005 in) 50 kg (110 lb)
CARBURETOR	+	weignt		Constant Vacuum, single carburetor
CANDURETUR	Type I.D. number Main jet Pilot screw opening Float level Idle speed			VE81A <ve82a> #155 3 turns out 18.5 mm (0.7 in) 1,300 ± 100 rpm</ve82a>

GENERAL INFORMATION

ITEM		SPECIFIC	CATIONS	
DRIVE TRAIN	Clutch		Wet, multi-plate	
	Transmission		5-speed constant mesh	
	Primary drive	en	2.029 (69/34)	
	Final reduction		3.000 (45/15)	
	Gear ratio I		2.666 (32/12)	
	Gear ratio II		1.750 (28/16)	
	Gear ratio III		1.250 (25/20)	
	Gear ratio IV		1.000 (23/23)	
	Gear ratio V		0.840 (21/25)	
	Gear shift pa	ttern	Left foot operated return syste	em, 1-N-2-3-4-5
ELECTRICAL	Ignition Ignition timir	ng Initial Full advance	DC-CDI 8° BTDC at idle 28° BTDC at 4,000 rpm	
	Alternator		AC genarater 0.18 kw/5,000 rpm	
	Battery capa	city	12V 8AH	
	Spark plug		NGK	ND
		Standard	DPR8EA - 9	X24EPR-U9
		For extended high speed riding	DPR9EA-9	X27EPR-U9
	Spark plug g	ар	0.8-0.9 mm (0.031-0.035	in)
	Fuse N	1ain	20A	
	s	ub	10A x 2 + 15A	
	Starting syst	em	Electrical stater	
	Headlight		12V 60/55W	
	Tail/brake lig	ht	12V 32/3cp	
		gnal/running light	12V 32cp x 2	
	Rear turn sig	nal light	12V 32cp x 2	
	Meter lights		12V 1.7W x 4	
	High beam in	ndicator	12V 1.7W	
	Turn signal in		12V 3.4W x 2	
	Neutral indic	ator	12V 3.4W	

TORQUE VALUES

ENGINE

ITEM	QTY	THREAD DIA. (mm)	TORQUE N·m (kg-m, ft-lb)	REMARKS
Crankcase drain plug	1	12	25 (2.5, 18)	
Oil filter cover bolt	3	6	9 (0.9, 7)	
Valve adjusting screw lock nut	4	8	25 (2.5, 18)	
Cylinder head bolt	6	9	36 (3.6, 26)	Apply oil to the threads
Cam sprocket bolt	2	7	20 (2.0, 14)	T Apply a locking agent to the
Rocker arm shaft	2	14	28 (2.8, 20)	threads
Sub-rocker arm shaft (IN)	2	14	28 (2.8, 20)	
(EX)	2	12	23 (2.3, 17)	Ц
Cylinder head cover bolt (8 mm)	1	8	23 (2.3, 17)	
(6 mm)	1	6	10 (1.0, 7)	
(6 mm SH)	11	6	12 (1.2, 9)	
Spark plug	1	12	18 (1.8, 13)	
Cylinder bolt	4	10	50 (5.0, 36)	Apply oil to the threads
Cylinder nut	2	6	10 (1.0, 7)	
Clutch lock nut	1	18	110 (11.0, 80)	
Primary drive gear nut	1	18	110 (11.0, 80)	
Gearshift cam bolt	1	6	12 (1.2, 9)	Apply a locking agent to the threads
Stopper arm bolt	1	8	25 (2.5, 18)	
Right crankcase cover bolt/nut	11	6	12 (1.2, 9)	**
Starter clutch bolt	6	8	30 (3.0, 22)	Apply a locking agent to the threads
Flywheel bolt	1	12	125 (12.5, 90)	Apply MoS2 paste to the threads
Left crankcase cover bolt	7	6	12 (1.2, 9)	
Starter gear cover	5	6	12 (1.2, 9)	
Crankcase bolt	11	6	12 (1.2, 9)	
Center shift fork bolt	1	7	15 (1.5, 11)	

FRAME

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kg-m, ft-lb)	REMARKS
Down tube drain plug	1	10	35 (3.5, 25)	
Oil strainer nut	1.	18	40 (4.0, 29)	
Oil hose flare nut	2	16	40 (4.0, 29)	
Fuel valve cup	1		4 (0.4, 3)	
Spoke			4 (0.4, 3)	
Engine hanger nut (10 mm)	5	10	60 (6.0, 43)	
(8 mm)	6	8	34 (3.4, 25)	
Skid plate bolt	3	6	10 (1.0, 7)	
Oil pipe flare nut	1	18	40 (4.0, 29)	
Handlebar upper holder	4	8	26 (2.6, 19)	
Handlebar lower holder	2	8	26 (2.6, 19)	
Brake disc bolt	4	8	38 (3.8, 27)	
Front axle nut	1	12	65 (6.5, 47)	
Front axle holder nut	4	6	12 (1.2, 9)	
Fork slider socket bolt	2	8	20 (2.0, 14)	Apply a locking agent to the
				threads
Lower fork pinch bolt	4	8	33 (3.3, 24)	
Fork cap bolt	2		23 (2.3, 17)	
Upper fork pinch bolt	4	8	28 (2.8, 20)	
Brake caliper bracket bolt	2	8	27 (2.7, 20)	
Steering adjustment nut	1	26	5 (0.5, 3.6)	
Steering stem nut	1	24	100 (10.0, 72)	

GENERAL INFORMATION

ITEM	ΩϓΥ	THREAD DIA. (mm)	TORQUE (kg-m, ft-lb)	REMARKS
Diving a secolar put	6	10	46 (4.6, 33)	Apply oil to the threads
Driven sprocket nut	1	16	95 (9.5, 69)	
Rear axle nut	l i l	6	10 (1.0, 7)	
Brake arm nut	1 1		90 (9.0, 65)	
Shock absorber spring lock nut	1	10	75 (7.5, 54)	1
Shock absorber mount nut	'	10		
Shock absorber lower mount	1	10	45 (4.5, 32)	
bolt	1	10	45 (4.5, 32)	
Shock arm-to-shock link nut	1	10	45 (4.5, 32)	
Shock link-to-swing arm nut	1	10	45 (4.5, 32)	
Shock arm-to-frame nut	1	14	110 (11.0, 80)	/
Swingarm pivot nut	1	1	6 (0.6, 4)	
Breed valve	1	7	27 (2.7, 20)	
Front brake caliper bracket bolt	2	8	18 (1.8, 13)	
Hanger pin	2	10	2.5 (0.25, 1.8)	
Hanger pin plug	2	10	6 (0.6,4)	Apply oil to the threads
Brake lever pivot nut	1	6		Apply on to the
Master cylinder holder bolt	2	6	12 (1.2, 9)	
Brake hose nut (master cylinder	ì		05 /0 5 05 L	
side)	1	10	35 (3.5, 25)	
Brake hose joint nut	1	10	14 (1.4, 10)	
Brake pipe nut	1	10	14 (1.4, 10)	·
Brake hose bolt	1	10	35 (3.5, 25)	Apply a locking agent to the
Caliper pin bolt	1	8	23 (2.3, 17)	threads
Caliper bracket pin bolt	1	8	13 (1.3, 9)	Apply a locking agent to the threads
	4	В В	22 (2.2, 16)	
Exhaust pipe joint nut	2	6	10 (1.0, 7)	Apply a locking agent to the
Exhaust pipe protector bolt	2			threads
Muffler band bolt	2	8	20 (2.0, 14)	
Muffler mounting bolt	3	8	25 (2.5, 18)	مطه مع مستحد مساعد المساعد الم
Side stand pivot bolt	1	10	50 (5.0, 36)	Apply a locking agent to the threads
Rear carrier mounting bolt (AFTER '88:)	2	8	35 (3.5, 25)	

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

STANDARD TORQUE VALUES

Item	Torque Values N·m (kg-m, ft-lb)	Item	Torque Values N·m (kg-m, ft-lb)
5 mm bolt and nut 6 mm bolt and nut	5 (0.5, 3.5) 10 (1.0, 7)	5 mm screw 6 mm screw 6 mm bolt with 8 mm head	4 (0.4, 3) 9 (0.9, 7) 9 (0.9, 7)
8 mm bolt and nut 0 mm bolt and nut 2 mm bolt and nut	22 (2.2, 16) 35 (3.5, 25) 55 (5.5, 40)	6 mm flange bolt and nut 8 mm flange bolt and nut 10 mm flange bolt and nut	12 (1.2, 9) 27 (2.7, 20) 40 (4.0, 29)

TOOLS

SPECIAL

DESCRIPTION	TOOL NUMBER	REFER TO SECTION
Compression gauge attachment	07908-KK60000 or equivalent commercially	
	availabel in U.S.A.	3
Cam chain tensioner holder	07973-MG30002 or 07973-MG30003	6
Valve guide reamer	07984-5510000 or	
	07984-657010C (U.S.A. only)	6
Universal bearing puller	07631-0010000	10
Bearing puller catch	07931-MK20100 or equivalent commercially	10
Bearing remover	07936-MK50100 available in U.S.A.	10
Remover handle	07936-KC10100	10
Remover sliding weight	07741-0010201	10
Needle race remover	07GMC-MK50100	10
Bearing remover shaft	07746-0060100	10
Puller shaft	07931 - ME40000 or 07931 - ME4000A	10
Assembly collar	07931—KF00100	10
Thread adaptor	07931-KF00200	10
Attachment, 78 x 90 mm	07GAD-SD40101	10
Fork seal driver	07947-KA50100	12
Fork seal driver attachment	07947-KF00100	12
Steering stem socket	07916-KA50100	12
Steering stem driver	07946-4300101 or 07946-MB00000	12
Ball race remover	07953-MJ10000	12
Ball race remover attachment	07953-MJ00100	12
Driver handle	07953-MJ00200	12
Driver shaft	07946-MI00100	13
Needle bearing remover	07931 – MA70000 Not available in U.S.A.	13
Snap ring pliers	07914-3230001	14
Honda battery tester	07GMJ-0010000	' '
Christie battery charger	MC 1012/2	16
Adjustable pin spanner	07702-0020001	16
Steering bearing attachment	GN HT54 (U.S.A. only)	12
Bearing remover, 20 mm	07936—3710600	
Remover handle	07936-3710100	
Remover sliding weight	07936-3710100	
Terror Stiding Weight	07330-3710200	

COMMON

DESCRIPTION	TOOL NUMBER	REFER TO SECTION
Spoke wrench C, 5.8 x 6.1 mm	07701-0020300 or equivalent commercially	
,	available in U.S.A.	3
Float level gauge	07401-0010000	4
Valve spring compressor	07757-0010000	6
Valve guide remover, 6.6 mm	07742-0010200 or 07984-6570100	6
Clutch center holder	07724-0050001 or equivalent commercially	
	available in U.S.A.	8
Gear holder	07724-0010100 Not availble in U.S.A.	8
Flywheel holder	07725-0040000 or equivalent commercially	
,	available in U.S.A.	9
Rotor puller	07733-0020001 or	
	07933-3290001 (U.S.A. only)	9
Torx bit (T40)	07703-0010100 or equivalent commercially	
	available in U.S.A.	9
Driver	07749-0010000	10, 12, 13
Pilot, 35 mm	07746-0040800	10
Attachment, 52 x 55 mm	07746-0010400	10
Pilot, 25 mm	07746-0040600	10
Attachment, 42 x 47 mm	07746-0010300	10, 12, 13
Pilot, 40 mm	07746-0040900	10
Attachment, 32 x 35 mm	07746-0010100	10, 12, 13
Attachment, 62 x 68 mm	07746-0010500	10
Attachment I.D., 35 mm	07746-0030400	10
Bearing remover head, 15 mm	07746-0050400	10
Bearing remover shaft	07746-0050100	10, 13
Attachment, 72 x 75 mm	07746-0010600	10
Pilot, 20 mm	07746-0040500	10
Pilot, 15 mm	07746-0040300	12
Lock nut wrench, 30 x 32 mm	07716-0020400- or equivalent commercially	12
Extension bar	07716-0020500- available in U.S.A.	12
Bearing remover head, 17 mm	07746-0050500	13
Attachment, 37 x 40 mm	07746-0010200	13
Pilot, 17 mm	07746-0040400	13
Attachment, 24 x 26 mm	07746-0010700	13
Pilot, 20 mm	07746-0040500	13
Pilot, 22 mm	07746-0041000	

VALVE SEAT CUTTER

DESCRIPTION	TOOL NUMBER	REFER TO SECTION
Cutter holder, 6.6 mm Float cutter IN/EX 38.5 mm (32°) Interior cutter IN/EX 37.5 mm (60°) Seat cutter IN 40.0 mm (45°) Seat cutter EX 35.0 mm (45°)	07781 – 0010201 – 07780 – 0012400 – 07780 – 0014100 – 07780 – 0010500 – 07780 – 0010400 –	9

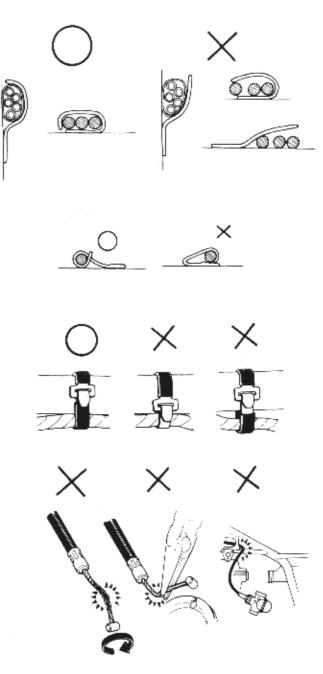
TESTERS

TOOL NUMBER	REFER TO SECTION
07411-0020000 or KS-AHM-32-003 (U.S.A. only)	
07308-0020000	16, 17, 18, 19
	07411-0020000 or KS-AHM-32-003 (U.S.A. only)

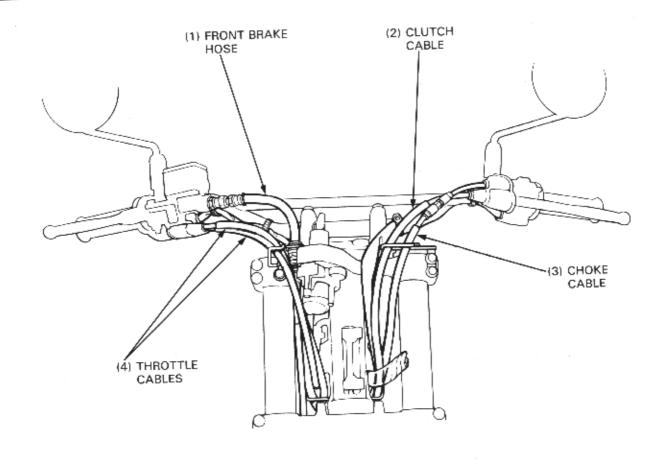
CABLE & HARNESS ROUTING

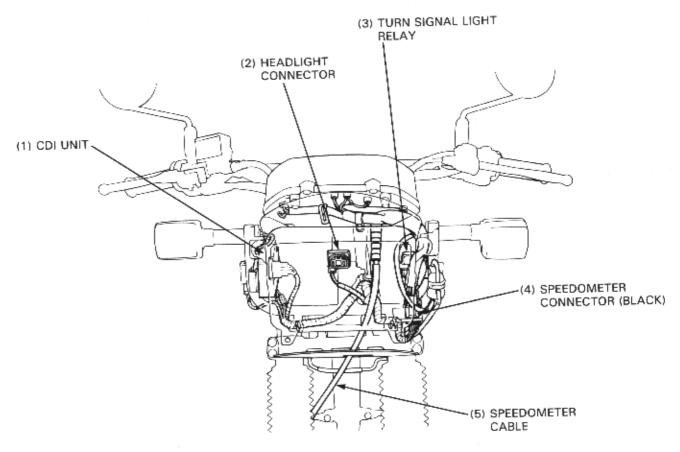
Note the following when routing cables and wire harnesses:

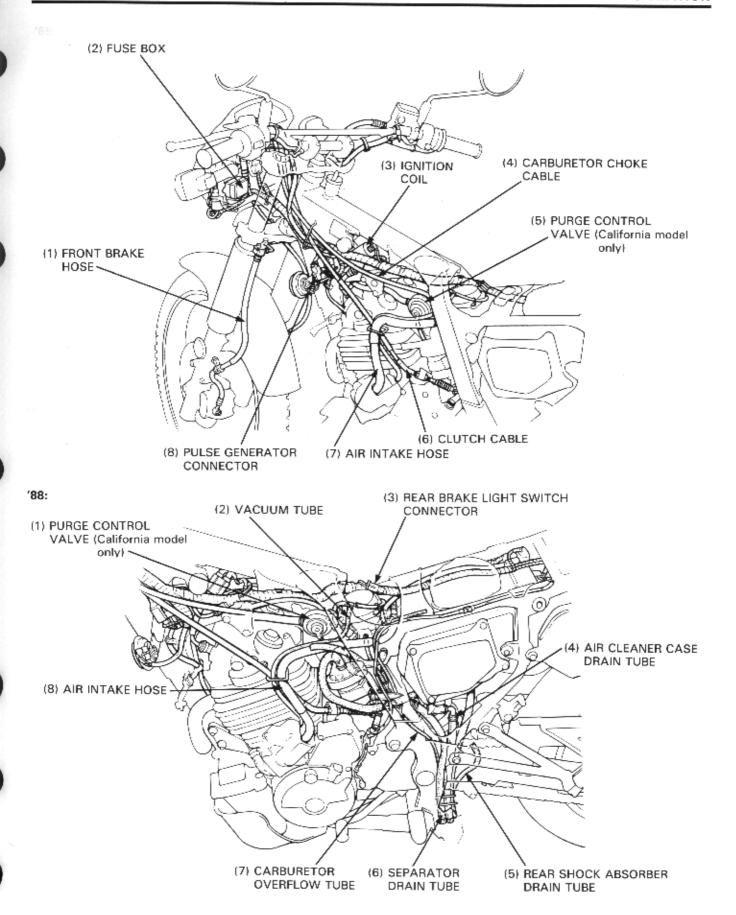
- A loose wire, harness or cable can be a safety hazard. After clamping, check each wire to be sure it is secure.
- Do not squeeze wires against a weld or the end of a clamp.
- Secure wires and wire harnesses to the frame with bands at the designated locations. Tighten the bands so that only the insulated surfaces contact the wires or wire harnesses.
- Route harnesses so they are not pulled taut or have no excessive slack.
- Protect wires and harnesses with electrical tape or tubing where they contact a sharp edge or corner.
- Do not use wires or harnesses with damaged insulation.
 Repair by wrapping them with 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 a long the handlebar should not be pulled taut, have excessive slack, or interfere with adjacent or surrounding parts in all steering positions.
- Do not bend or twist control cables. Damaged control cables will not operate smoothly and may stick or bind.

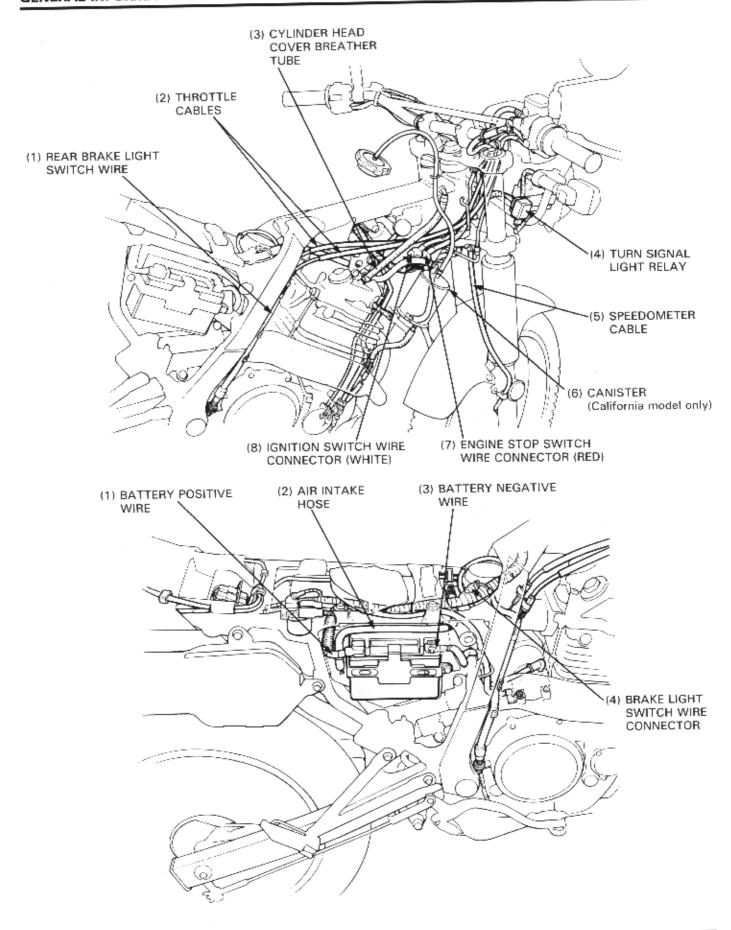


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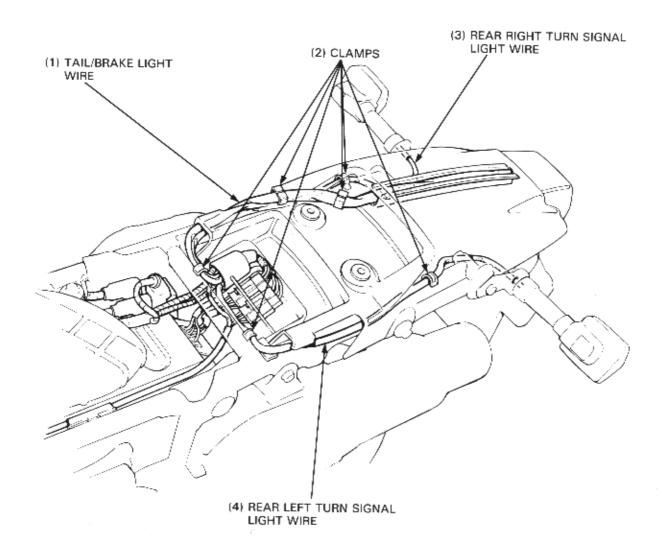


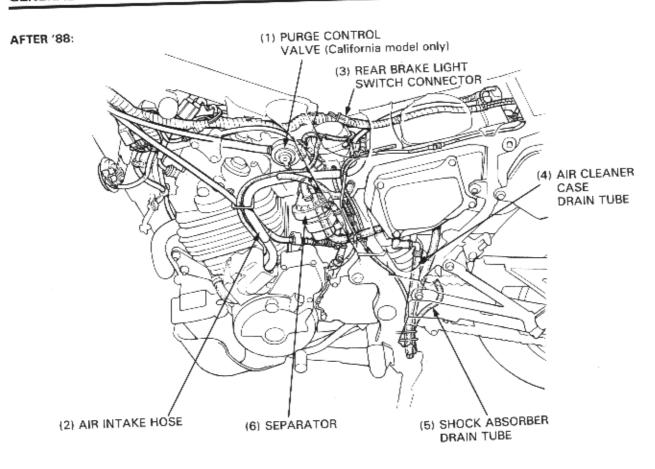


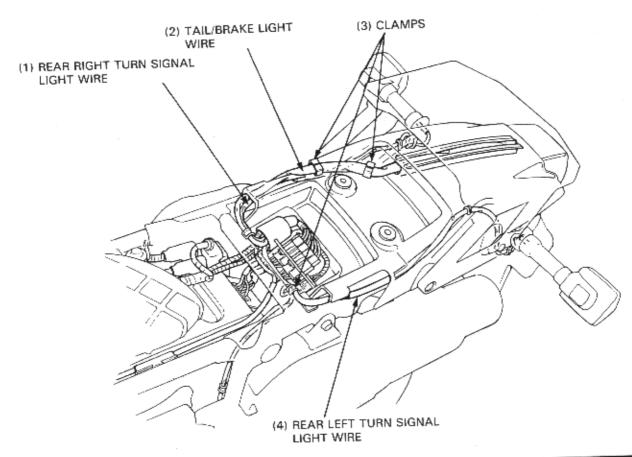


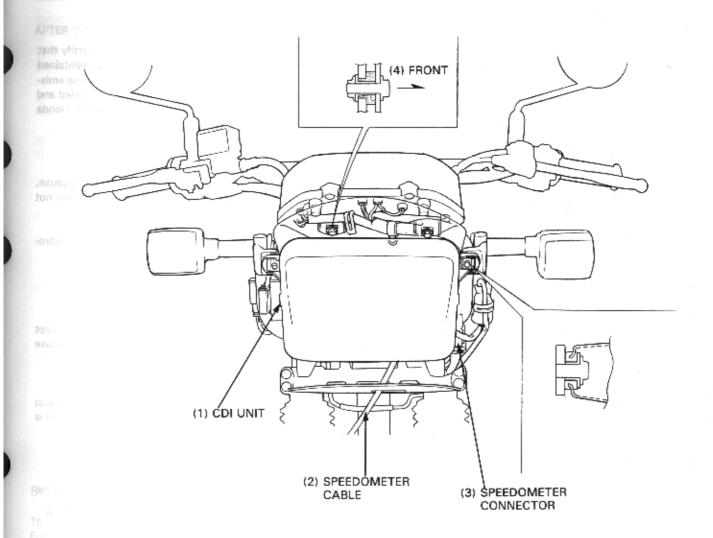


'88:









EMISSION CONTROL SYSTEMS

The U.S. Environmental Protection Agency and California Air Resources Board (CARB) require manufacturers to certify that their motorcycles 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 Limited Warranty for Honda Motorcycle Emission Control Systems is necessary in order to keep the emissions system warranty in effect.

SOURCE OF EMISSIONS

The combustion process produces carbon monoxide and hydrocarbons. Control of hydrocarbons 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 lean carburetor settings as well as other systems, to reduce carbon monoxide and hydrocarbons.

EXHAUST EMISSION CONTROL SYSTEM

Except for California:

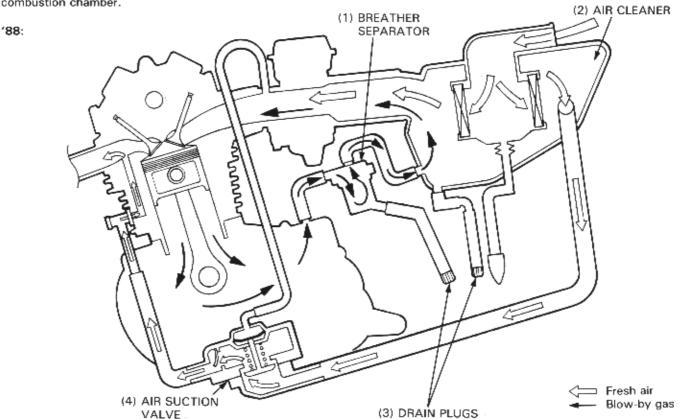
The exhaust emission control system is composed of a lean carburetor setting, and no adjustments should be made except idle speed adjustment with the throttle stop screw. The exhaust emission control system is separate from the crankcase emission control system.

California only:

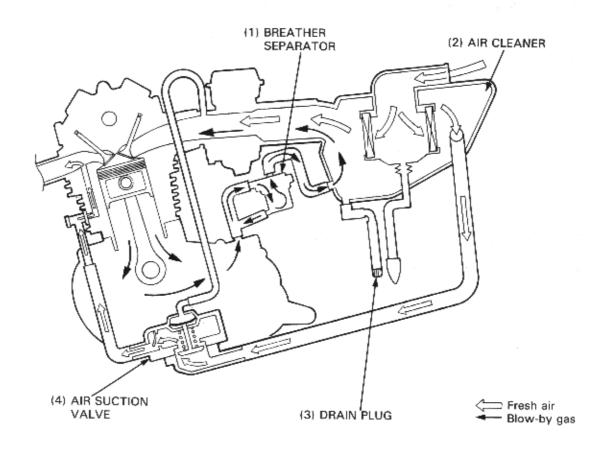
The exhaust emission control system consists of a secondary air supply system which introduces filtered air into the exhaust gases in the exhaust port. No adjustments to this system should be made, although periodic inspection of the components is recommended. The secondary air supply system helps improve emission performance.

CRANKCASE EMISSION CONTROL SYSTEM

The engine is equipped with a closed crankcase system which routes crankcase emissions through the air cleaner into the combustion chamber.



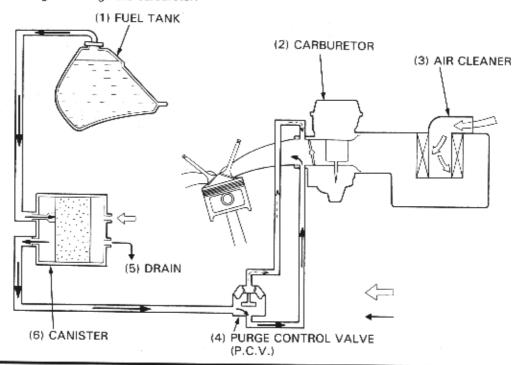
AFTER '88:



EVAPORATIVE EMISSION CONTROL SYSTEM (California model only)

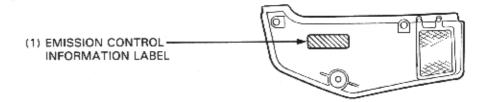
This model complies with California Air Resources Board evaporative emission requirements.

Fuel vapor from the fuel tank and carburetor is directed into the charcoal canister where it is adsorbed and stored while the engine is stopped. When the engine is running and the purge control diaphragm valve is open, fuel vapor in the charcoal canister is drawn into the engine through the carburetor.



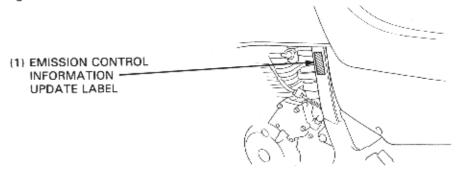
EMISSION CONTROL INFORMATION LABELS (U.S.A. only)

An Emission Control Information Label is located on the inside of the right side cover as shown. It contains basic tune-up specifications.



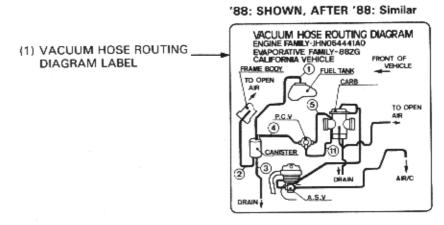
EMISSION CONTROL INFORMATION UPDATE LABEL

After making a high altitude carburetor adjustment (page 4-17), attach an update label on the right side frame down pipe. Instructions for obtaining the update label are given in Service Letter No. 132.



VACUUM HOSE ROUTING DIAGRAM LABEL (California model only)

The Vacuum Hose Routing Diagram Label is on the inside of the left side cover. Route the vacuum hoses as shown on this label.



NOISE EMISSION CONTROL SYSTEM

TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED: Federal law prohibits the following acts ro 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 of 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 than those specified by the manufacturer.