

1998-2001



SERVICE MANUAL

VFR800FI
INTERCEPTOR®

HOW TO USE THIS MANUAL

This service manual describes the service procedures for the VFR800FI.

Follow the Maintenance Schedule (Section 3) 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 and California Air Resources Board.

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 motorcycle. Section 2 illustrates procedures for removal/installation of components that may be required to perform service described in the following sections.

Section 4 through 19 describe parts of the motorcycle, 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 motorcycle, read Technical Features in section 21.

If you don't know the source of the trouble, go to section 22 Troubleshooting.

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HONDA MOTOR CO., LTD.
SERVICE PUBLICATION OFFICE

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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.

	<p>Replace the part(s) with new one(s) before assembly.</p>
	<p>Use recommended engine oil, unless otherwise specified.</p>
	<p>Use molybdenum oil solution (mixture of the engine oil and molybdenum grease in a ratio of 1 : 1).</p>
	<p>Use multi-purpose grease (Lithium based multi-purpose grease NLGI #2 or equivalent).</p>
	<p>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</p>
	<p>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</p>
	<p>Use silicone grease.</p>
	<p>Apply a locking agent. Use a middle strength locking agent unless otherwise specified.</p>
	<p>Apply sealant.</p>
	<p>Use DOT 4 brake fluid. Use the recommended brake fluid unless otherwise specified.</p>
	<p>Use Fork or Suspension Fluid.</p>

1. GENERAL INFORMATION

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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.

USED ENGINE OIL

▲ WARNING

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. KEEP OUT OF REACH OF CHILDREN.

BRAKE DUST

Never use an air hose or dry brush to clean the brake assemblies.

▲ WARNING

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

BRAKE FLUID

CAUTION:

Spilling fluid on painted, plastic or rubber parts will damage them. Place a clean shop towel over these parts whenever the system is serviced. KEEP OUT OF REACH OF CHILDREN.

GENERAL INFORMATION

COOLANT

Under some condition, the ethylene glycol in engine coolant is combustible and its flame is not visible. If the ethylene glycol does ignite, you will not see any flame, but you can be burned.

▲ WARNING

- *Avoid spilling engine coolant on the exhaust system or engine parts. They may be hot enough to cause the coolant to ignite and burn without a visible flame.*
- *Coolant (ethylene glycol) can cause some skin irritation and is poisonous if swallowed. KEEP OUT OF REACH OF CHILDREN.*
- *Do not remove the radiator cap when the engine is hot. The coolant is under pressure and could scald you.*
- *Keep hands and clothing away from the cooling fan, as it starts automatically.*

BATTERY HYDROGEN GAS & ELECTROLYTE

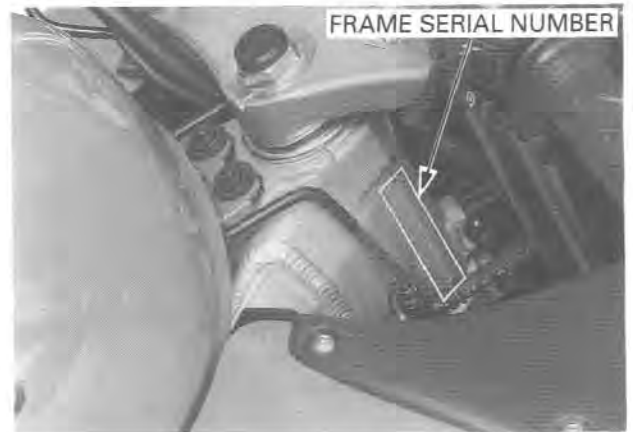
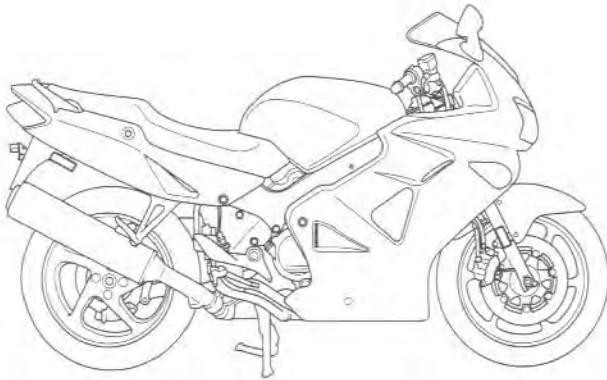
▲ WARNING

- *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 immediately.*
- *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.*

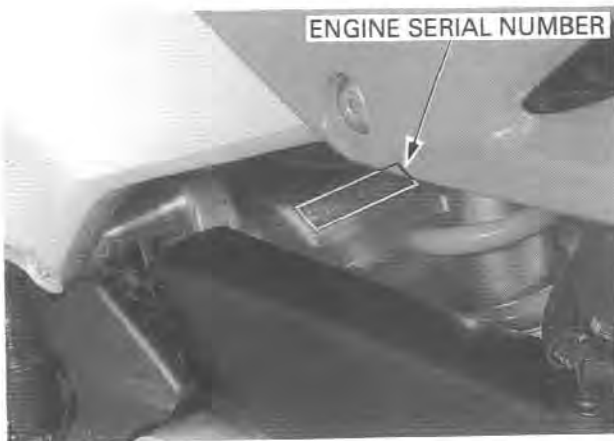
SERVICE RULES

1. Use genuine HONDA or HONDA-recommended parts and lubricants or their equivalents. Parts that don't meet HONDA's design specifications may cause damage to the motorcycle.
2. Use the special tools designed for this product to avoid damage and incorrect assembly.
3. Use only metric tools when servicing the motorcycle. 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 show on pages 1-24 through 1-43, Cable and Harness Routing.

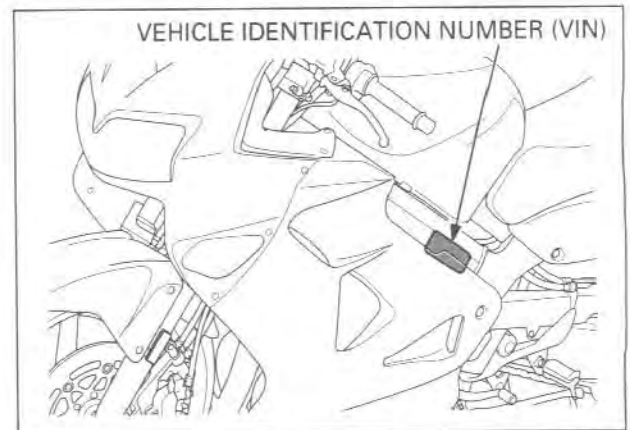
MODEL IDENTIFICATION



- (1) The frame serial number is stamped on the right side of the steering head.



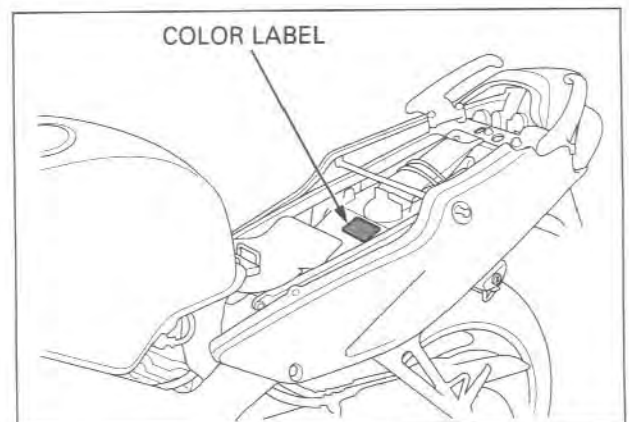
- (2) The engine serial number is stamped on the lower left side of the cylinder block.



- (3) The Vehicle Identification Number (VIN) is located on left side of the frame on the Safety Certification Label.



- (4) The throttle body identification number is stamped on the front side of the throttle body as shown.



- (5) The color label is attached as shown. When ordering color-coded parts, always specify the designated color code.

GENERAL (cont'd)		
	ITEM	SPECIFICATIONS
CARBURETION	Type Throttle bore	PGM-FI (Programmed Fuel Injection) 36 mm (1.4 in)
DRIVE TRAIN	Clutch system Clutch operating system Transmission Primary reduction Final reduction Gear ratio 1st 2nd 3rd 4th 5th 6th Gearshift pattern	Multi-plate, wet Hydraulic operated type Constant mesh, 6-speed 1.939 (64/33) 2.529 (43/17) 2.846 (37/13) 2.062 (33/16) 1.631 (31/19) 1.333 (28/21) 1.153 (30/26) 1.035 (29/28) Left foot operated return system, 1 - N - 2 - 3 - 4 - 5 - 6
ELECTRICAL	Ignition system Starting system Charging system Regulator/rectifier Lighting system	Computer-controlled digital transistorized with electric advance Electric starter motor Triple phase output alternator SCR shorted/triple phase, full wave rectification Battery

GENERAL INFORMATION

Unit: mm (in)

LUBRICATION SYSTEM		STANDARD	SERVICE LIMIT	
ITEM				
Engine oil capacity	At draining	2.9 liter (3.1 US qt, 2.6 Imp qt)	—	
	At disassembly	3.8 liter (4.0 US qt, 3.3 Imp qt)	—	
	At oil filter change	3.1 liter (3.3 US qt, 2.7 Imp qt)	—	
Recommended engine oil		HONDA GN4 4-stroke oil or equivalent motor oil API service classification SF or SG Viscosity: SAE 10W-40	—	
Oil pressure at oil pressure switch		490 kPa (5.0 kgf/cm ² , 71 psi) at 6,000 rpm/(80°C/176°F)	—	
Oil pump rotor	Feed pump	Tip clearance	0.15 (0.006) max.	0.20 (0.008)
		Body clearance	0.15 – 0.22 (0.006 – 0.009)	0.35 (0.014)
		Side clearance	0.02 – 0.07 (0.001 – 0.003)	0.10 (0.004)
	Cooler pump	Tip clearance	0.15 (0.006) max.	0.20 (0.008)
		Body clearance	0.15 – 0.22 (0.006 – 0.009)	0.35 (0.014)
		Side clearance	0.02 – 0.07 (0.001 – 0.003)	0.10 (0.004)

FUEL SYSTEM (Programmed Fuel Injection)		SPECIFICATIONS
ITEM		
Throttle body identification number	49 states/Canada type	GQ30A
	California type	GQ30B
Starter valve vacuum difference		20 mmHg
Base throttle valve for synchronization		No. 1
Idle speed	49 states/Canada type	1,200 ± 100 rpm
	California type	1,300 ± 100 rpm
Throttle grip free play		2 – 6 mm (1/12 – 1/4 in)
Intake air temperature sensor resistance (at 20°C/68°F)		1 – 4 kΩ
Engine coolant temperature sensor resistance (at 20°C/68°F)		2.3 – 2.6 kΩ
Cam pulse generator resistance (at 20°C/68°F)		400 – 600 Ω
Fuel injector resistance (at 20°C/68°F)		13.0 – 14.4 kΩ
Bypass solenoid valve resistance (at 20°C/68°F)		28 – 32 Ω
PAIR solenoid valve resistance (at 20°C/68°F)		20 – 24 Ω
Purge control solenoid valve resistance (at 20°C/68°F)		30 – 34 Ω
Cam pulse generator peak voltage (at 20°C/68°F)		0.7 V minimum
Ignition pulse generator peak voltage (at 20°C/68°F)		0.7 V minimum
Manifold absolute pressure at idle		200 – 250 mmHg
Fuel pressure at idle		250 kPa (2.55 kgf/cm ² , 36 psi)
Fuel pump flow (at 12 V)		150 cc (5.0 US oz, 5.3 Imp oz) minimum/10 seconds



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aservicemanualpdf@yahoo.com