



YFM700RV

SERVICE MANUAL

EBS00001

**YFM700RV
SERVICE MANUAL
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NOTICE

This manual was produced by the Yamaha Motor Company primarily for use by Yamaha dealers and their qualified mechanics. It is not possible to include all the knowledge of a mechanic in one manual, so it is assumed that anyone who uses this book to perform maintenance and repairs on Yamaha vehicle has a basic understanding of the mechanical ideas and the procedures of vehicle repair. Repairs attempted by anyone without this knowledge are likely to render the vehicle unsafe and unfit for use.

Yamaha Motor Company, Ltd. is continually striving to improve all its models. Modifications and significant changes in specifications or procedures will be forwarded to all authorized Yamaha dealers and will appear in future editions of this manual where applicable.

NOTE:

Designs and specifications are subject to change without notice.

IMPORTANT INFORMATION

Particularly important information is distinguished in this manual by the following notations.



The Safety Alert Symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



Failure to follow WARNING instructions could result in severe injury or death to the vehicle operator, a bystander or a person checking or repairing the vehicle.

CAUTION:

A CAUTION indicates special precautions that must be taken to avoid damage to the vehicle.

NOTE:

A NOTE provides key information to make procedures easier or clearer.

HOW TO USE THIS MANUAL

MANUAL ORGANIZATION

This manual consists of chapters for the main categories of subjects. (See “symbols”)

1st title ①: This is the title of the chapter with its symbol in the upper right corner of each page.

2nd title ②: This title indicates the section of the chapter and only appears on the first page of each section. It is located in the upper left corner of the page.

3rd title ③: This title indicates a sub-section that is followed by step-by-step procedures accompanied by corresponding illustrations.

EXPLODED DIAGRAMS

To help identify parts and clarify procedure steps, there are exploded diagrams at the start of each removal and disassembly section.

1. An easy-to-see exploded diagram ④ is provided for removal and disassembly jobs.
2. Numbers ⑤ are given in the order of the jobs in the exploded diagram. A number that is enclosed by a circle indicates a disassembly step.
3. An explanation of jobs and notes is presented in an easy-to-read way by the use of symbol marks ⑥. The meanings of the symbol marks are given on the next page.
4. A job instruction chart ⑦ accompanies the exploded diagram, providing the order of jobs, names of parts, notes in jobs, etc.
5. For jobs requiring more information, the step-by-step format supplements ⑧ are given in addition to the exploded diagram and the job instruction chart.

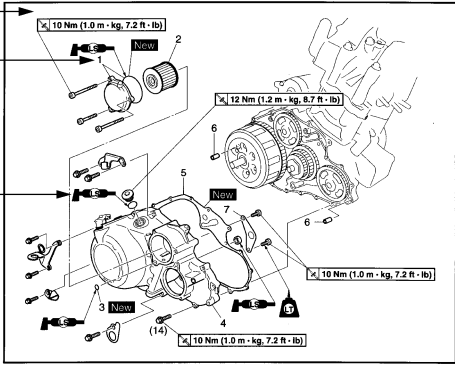
②

CLUTCH

①

ENG

④



⑤

⑥

⑦

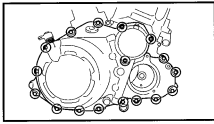
Order	Job/Part	Qty	Remarks
	Removing the clutch cover		Remove the parts in the order listed.
	Engine oil		Drain.
	Front fender		Refer to "SEAT, FENDERS AND FUEL TANK" in chapter 3.
	Rear brake light switch/Right foot rest/ Brake pedal/spring		Refer to "FRONT AND REAR BRAKES" in chapter 7.
	Oil delivery pipe		Refer to "CYLINDER HEAD".
1	Oil filter cover/O-ring	1/1	
2	Oil filter	1	
3	O-ring	1	
4	Clutch cover	1	
5	Clutch cover gasket	1	Refer to "REMOVING THE CLUTCH" and "INSTALLING THE CLUTCH".
6	Dowel pin	2	
7	Oil seal retainer	1	

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CLUTCH

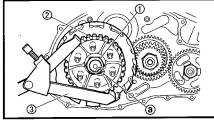
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③

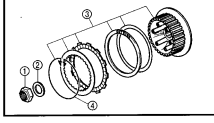


⑧

③



③



③

REMOVING THE CLUTCH

1. Remove:

- clutch cover

NOTE:
Loosen each bolt 1/4 of a turn at a time, in stages and in a crisscross pattern. After all of the bolts are fully loosened, remove them.

2. Straighten the clutch boss nut staked point ④.

3. Loosen:

- clutch boss nut ①

NOTE:
While holding the clutch boss ② with the universal clutch holder ③, loosen the clutch boss nut.








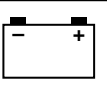







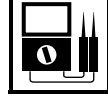







Universal clutch holder
90890-04086, YM-91042

4. Remove:

- clutch boss nut ①
- conical spring washer ②
- clutch boss assembly ③

NOTE:
There is a built-in damper between the clutch boss and the clutch plate. It is not necessary to remove the wire circlip ⑤ and disassemble the built-in damper unless there is serious clutch chattering.

4 - 51

① GEN INFO 	② SPEC 	
③ CHK ADJ 	④ ENG 	
⑤ COOL 	⑥ FI 	
⑦ CHAS 	⑧ ELEC 	
⑨ TRBL SHTG ?	⑩ 	
⑪ 	⑫ 	
⑬ 	⑭ 	
⑮ 	⑯ 	⑰ 
⑱ 	⑲ 	⑳ 
㉑ 	㉒ 	㉓ 
㉔ 	㉕ New	

EBS00006

SYMBOLS

The following symbols are not relevant to every vehicle.

Symbols ① to ⑨ indicate the subject of each chapter.

- ① General information
- ② Specifications
- ③ Periodic checks and adjustments
- ④ Engine
- ⑤ Cooling system
- ⑥ Fuel injection system
- ⑦ Chassis
- ⑧ Electrical
- ⑨ Troubleshooting

Symbols ⑩ to ⑰ indicate the following.

- ⑩ Serviceable with engine mounted
- ⑪ Filling fluid
- ⑫ Lubricant
- ⑬ Special tool
- ⑭ Tightening torque
- ⑮ Wear limit, clearance
- ⑯ Engine speed
- ⑰ Electrical data (Ω , V, A)









Symbols ⑱ to ㉓ in the exploded diagrams indicate the types of lubricants and lubrication points.

- ⑱ Apply engine oil
- ⑲ Apply gear oil
- ⑳ Apply molybdenum disulfide oil
- ㉑ Apply wheel bearing grease
- ㉒ Apply lithium-soap-based grease
- ㉓ Apply molybdenum disulfide grease

Symbols ㉔ to ㉕ in the exploded diagrams indicate where to apply a locking agent ㉔ and when to install a new part ㉕.

- ㉔ Apply the locking agent (LOCTITE®)
- ㉕ Replace

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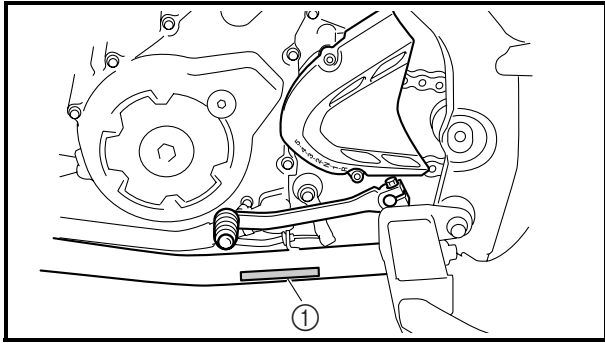
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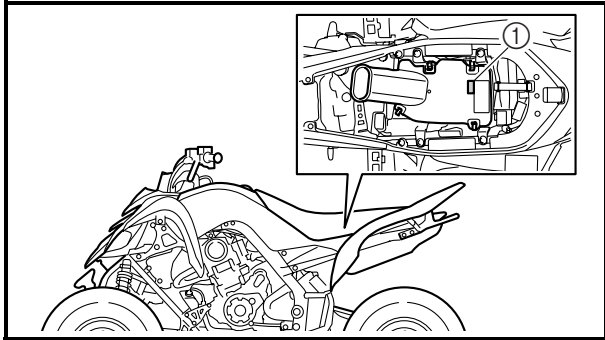
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GENERAL INFORMATION VEHICLE IDENTIFICATION

EBS00010

VEHICLE IDENTIFICATION NUMBER

The vehicle identification number ① is stamped into the left side of the frame.



EBS00011

MODEL LABEL

The model label ① is affixed to the air filter case cover. This information will be needed to order spare parts.

EAS20170

FEATURES

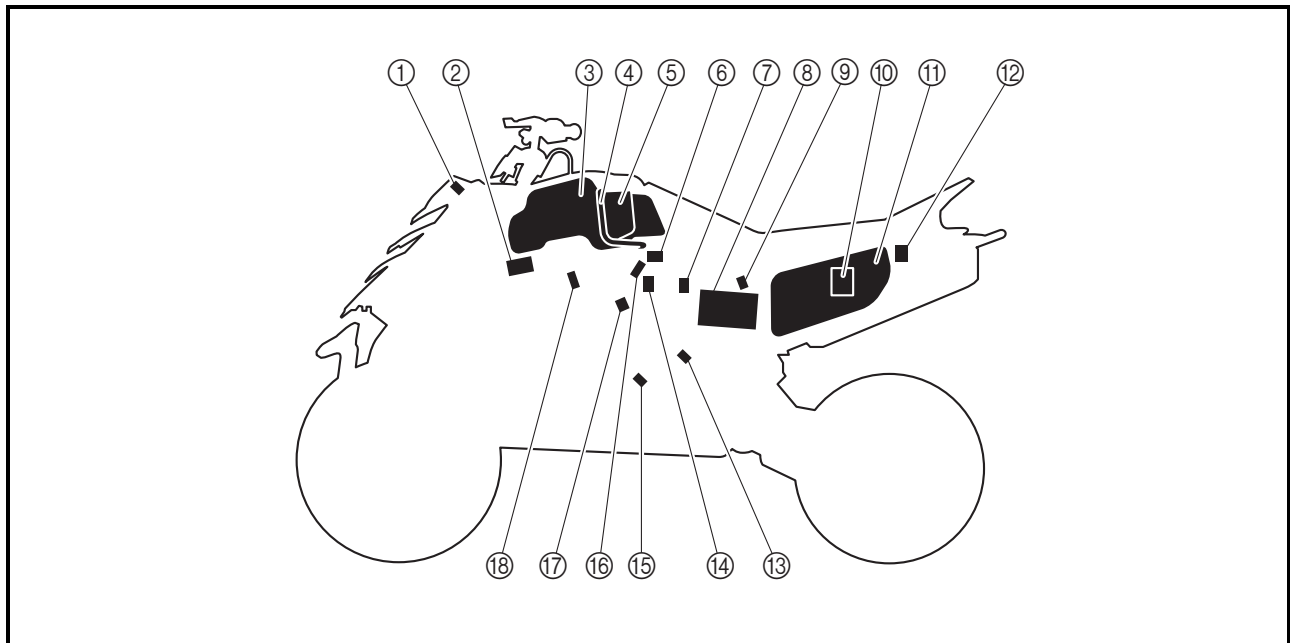
OUTLINE OF THE FI SYSTEM

The main function of a fuel supply system is to provide fuel to the combustion chamber at the optimum air-fuel ratio in accordance with the engine operating conditions and the atmospheric temperature. In the conventional carburetor system, the air-fuel ratio of the mixture that is supplied to the combustion chamber is created by the volume of the intake air and the fuel that is metered by the jet used in the respective carburetor.

Despite the same volume of intake air, the fuel volume requirement varies with the engine operating conditions, such as acceleration, deceleration, or operating under a heavy load. Carburetors that meter the fuel through the use of jets have been provided with various auxiliary devices, so that an optimum air-fuel ratio can be achieved to accommodate the constant changes in the operating conditions of the engine.

As the requirements for the engine to deliver more performance and cleaner exhaust gases increase, it becomes necessary to control the air-fuel ratio in a more precise and finely tuned manner. To accommodate this need, this model has adopted an electronically controlled fuel injection (FI) system, in place of the conventional carburetor system. This system can achieve an optimum air-fuel ratio required by the engine at all times by using a microprocessor that regulates the fuel injection volume according to the engine operating conditions detected by various sensors.

The adoption of the FI system has resulted in a highly precise fuel supply, improved engine response, better fuel economy, and reduced exhaust emissions.



- ① Engine trouble warning light
- ② Ignition coil
- ③ Fuel tank
- ④ Fuel hose
- ⑤ Fuel pump
- ⑥ Intake air pressure sensor
- ⑦ Lean angle sensor
- ⑧ Battery
- ⑨ Intake air temperature sensor

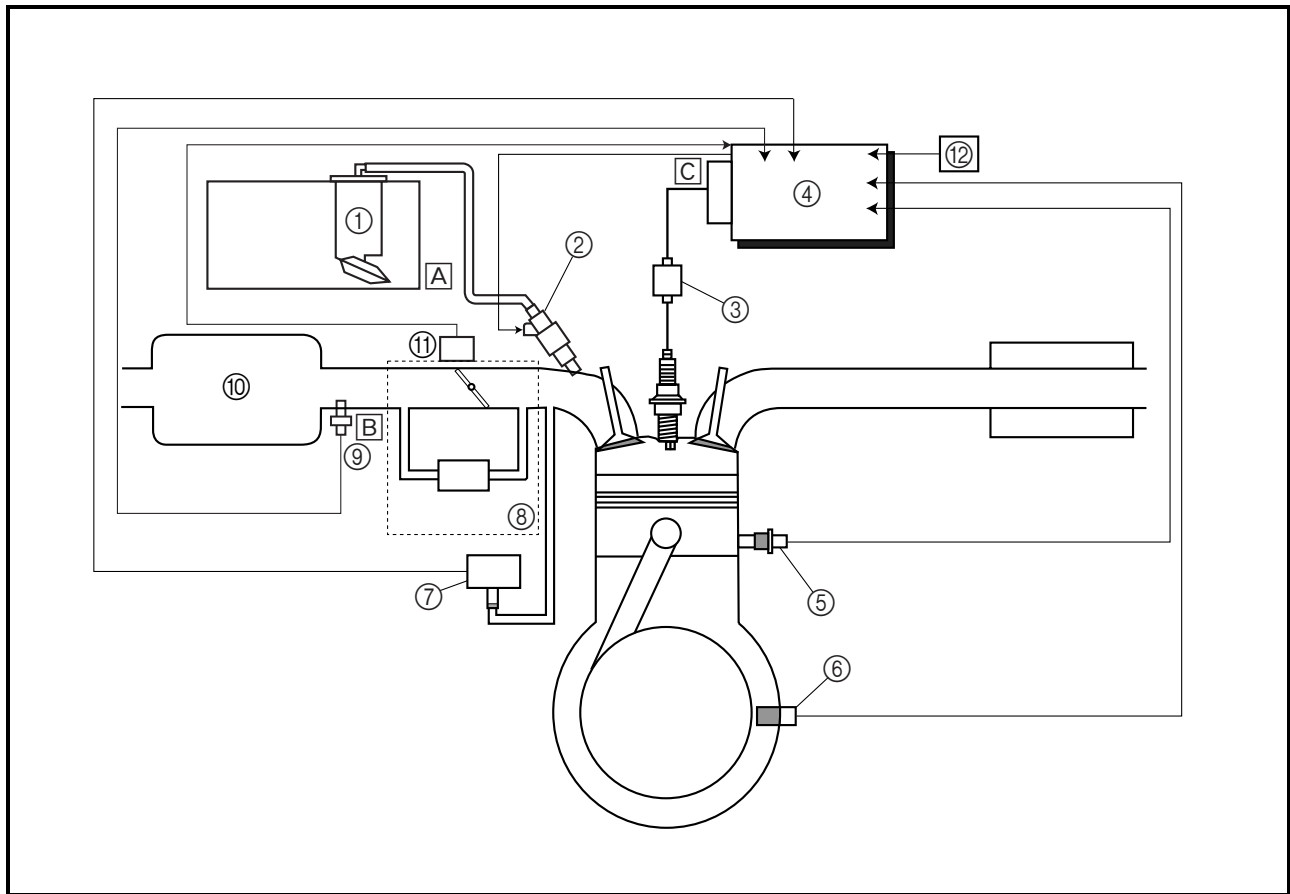
- ⑩ ECU (electronic control unit)
- ⑪ Air filter case
- ⑫ Relay unit (fuel pump relay)
- ⑬ Speed sensor
- ⑭ Throttle position sensor
- ⑮ Crankshaft position sensor
- ⑯ Fuel injector
- ⑰ Coolant temperature sensor
- ⑱ Spark plug

FI SYSTEM

The fuel pump delivers fuel to the fuel injector via the fuel filter. The pressure regulator maintains the fuel pressure that is applied to the fuel injector at only 324 kPa (3.24 kg/cm², 46.1 psi). Accordingly, when the energizing signal from the ECU energizes the fuel injector, the fuel passage opens, causing the fuel to be injected into the intake manifold only during the time the passage remains open. Therefore, the longer the length of time the fuel injector is energized (injection duration), the greater the volume of fuel that is supplied. Conversely, the shorter the length of time the fuel injector is energized (injection duration), the lesser the volume of fuel that is supplied.

The injection duration and the injection timing are controlled by the ECU. Signals that are input from the throttle position sensor, crankshaft position sensor, intake air pressure sensor, intake air temperature sensor, coolant temperature sensor and speed sensor enable the ECU to determine the injection duration. The injection timing is determined through the signals from the crankshaft position sensor. As a result, the volume of fuel that is required by the engine can be supplied at all times in accordance with the driving conditions.

Illustration is for reference only.

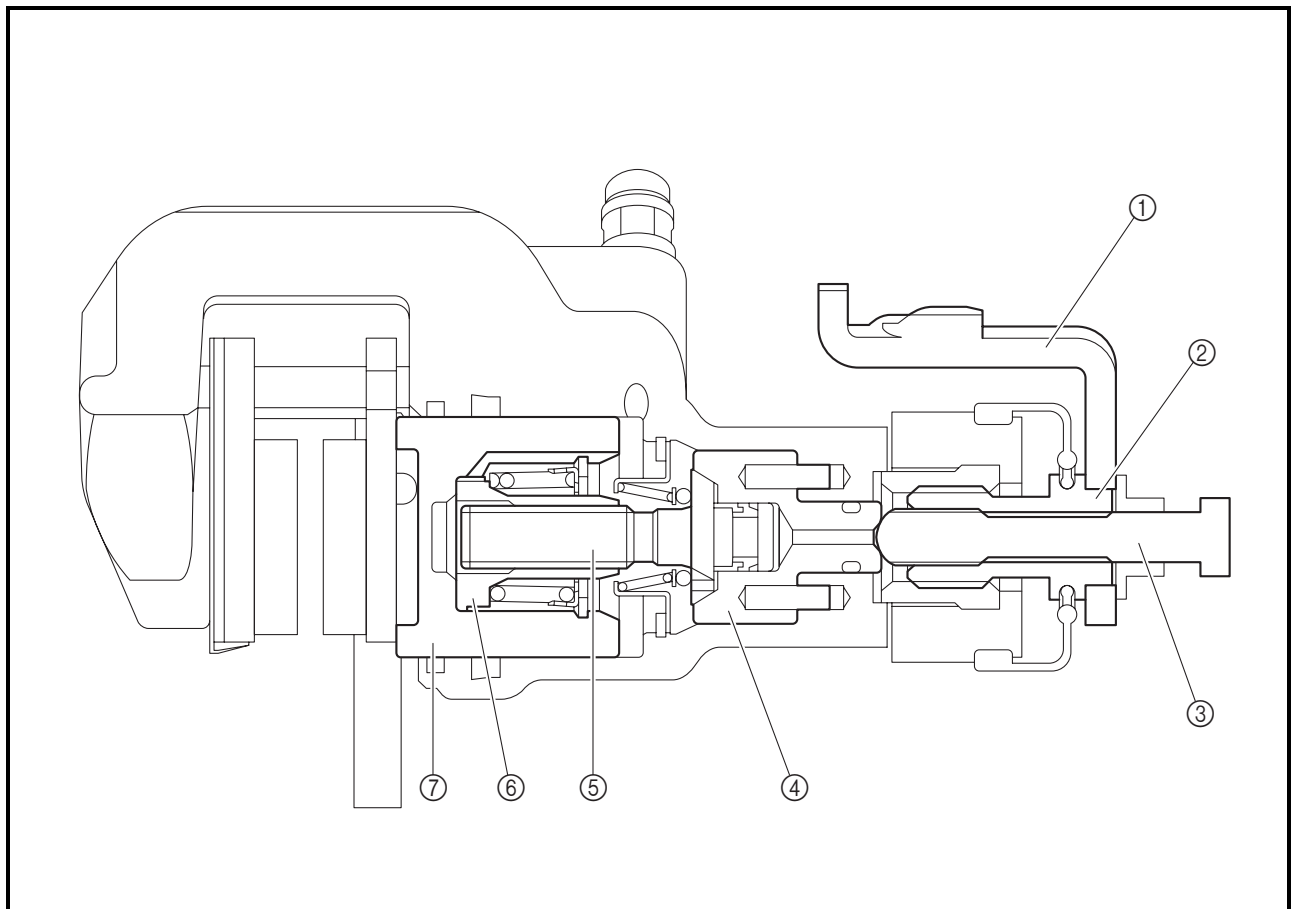


- ① Fuel pump
- ② Fuel injector
- ③ Ignition coil
- ④ ECU (electronic control unit)
- ⑤ Coolant temperature sensor
- ⑥ Crankshaft position sensor
- ⑦ Intake air pressure sensor
- ⑧ Throttle body
- ⑨ Intake air temperature sensor
- ⑩ Air filter case
- ⑪ Throttle position sensor
- ⑫ Speed sensor
- A Fuel system
- B Air system
- C Control system

SELF-ADJUSTING PARKING BRAKE MECHANISM

Usually, for vehicles equipped with a parking brake that must be adjusted manually, it is necessary to adjust the adjusting bolt ⑤ to achieve the proper clearance between the brake caliper piston ⑦ and the adjusting bolt ⑤.

This adjustment procedure is unnecessary for vehicles equipped with a self-adjusting parking brake mechanism. The proper clearance is automatically maintained at all times, ensuring stable braking performance when parking the vehicle.



- ① Parking brake arm
- ② Parking brake shaft
- ③ Adjusting bolt
- ④ Adjusting bolt sleeve
- ⑤ Adjusting bolt
- ⑥ Nut
- ⑦ Brake caliper piston