

YAMAHA

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SERVICE MANUAL

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**YZF - R1
SERVICE MANUAL
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NOTICE

This manual was produced by the Yamaha Motor Company, Ltd. 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. Therefore, anyone who uses this book to perform maintenance and repairs on Yamaha vehicles should have a basic understanding of mechanics and the techniques to repair these types of vehicles. Repair and maintenance work attempted by anyone without this knowledge is likely to render the vehicle unsafe and unfit for use.

Yamaha Motor Company, Ltd. is continually striving to improve all of 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 MANUAL INFORMATION

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



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

⚠ WARNING

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

CAUTION:

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

NOTE:

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

HOW TO USE THIS MANUAL

This manual is intended as a handy, easy-to-read reference book for the mechanic. Comprehensive explanations of all installation, removal, disassembly, assembly, repair and check procedures are laid out with the individual steps in sequential order.

① The manual is divided into chapters. An abbreviation and symbol in the upper right corner of each page indicate the current chapter.

Refer to "SYMBOLS".

② Each chapter is divided into sections. The current section title is shown at the top of each page, except in Chapter 3 ("PERIODIC CHECKS AND ADJUSTMENTS"), where the sub-section title(-s) appears.

③ Sub-section titles appear in smaller print than the section title.

④ To help identify parts and clarify procedure steps, there are exploded diagrams at the start of each removal and disassembly section.

⑤ Numbers are given in the order of the jobs in the exploded diagram. A circled number indicates a disassembly step.

⑥ Symbols indicate parts to be lubricated or replaced.

Refer to "SYMBOLS".

⑦ A job instruction chart accompanies the exploded diagram, providing the order of jobs, names of parts, notes in jobs, etc.

⑧ Jobs requiring more information (such as special tools and technical data) are described sequentially.

⑥

②

①

CLUTCH

ENG

CLUTCH

ENG

④

⑤

⑦

Order	Job/Part	Qty	Remarks
Removing the clutch cover:			
	Bottom cowl and right side cowl-ing		Remove the parts in the order listed. Refer to "COWLING" in chapter 3.
	Engine oil		Drain. Refer to "CHANGING THE ENGINE OIL" in chapter 3.
1	Clutch cable	1	
2	Clutch cover	1	
3	Clutch cover gasket	1	
4	Dowel pin	2	
For installation, reverse the removal procedure.			

8-15 REMOVING THE CLUTCH

1. Remove:

- clutch cover ①

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

2. Straighten the lock washer tab.

3. Loosen:

- clutch boss nut ③

NOTE:
While holding the clutch boss ② with the clutch holding tool ④, loosen the clutch boss nut.

Clutch holding tool
90899-04036

4. Remove:

- clutch boss nut ③
- lock washer ②
- clutch boss assembly ⑤

NOTE:
There is a built-in damper between the clutch boss and the friction plate. It is not necessary to remove the wire clip ⑥ and disassemble the built-in damper unless there is serious clutch chattering.

8-16 CHECKING THE FRICTION PLATES

The following procedure applies to all of the friction plates.

1. Check:

- friction plate

Damage/wear → Replace the friction plates as a set.









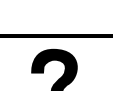











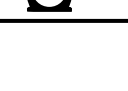



2. Measure:

- friction plate thickness

Out of specification → Replace the friction plates as a set.

NOTE:
Measure the friction plate at four places.

Friction plate thickness
2.9 ~ 3.1 mm
Limits: 2.8 mm

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

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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 Carburetor(-s)
- ⑦ Chassis
- ⑧ Electrical system
- 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










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

- ⑱ Engine oil
- ⑲ Gear oil
- ㉑ Molybdenum disulfide oil
- ㉒ Wheel bearing grease
- ㉓ Lithium soap base grease
- ㉔ Molybdenum disulfide grease

Symbols ㉔ to ㉕ in the exploded diagrams indicate the following.

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

CHAPTER TITLES

GENERAL INFORMATION		
	GEN INFO	1
SPECIFICATIONS		
	SPEC	2
PERIODIC CHECKS AND ADJUSTMENTS		
	CHK ADJ	3
ENGINE		
	ENG	4
COOLING		
	COOL	5
CARBURETION		
	CARB	6
CHASSIS		
	CHAS	7
ELECTRICAL		
	ELEC	8
TROUBLESHOOTING		
	TRBL SHTG	9