



YZF-R1S YZF-R1SC

SERVICE MANUAL

EAS00010

**YZF-R1S/YZF-R1SC
SERVICE MANUAL**

**©2003 by Yamaha Motor
Corporation, U.S.A.**

First edition, December 2003

**All rights reserved. Any reproduction
or unauthorized use without the written
permission of Yamaha Motor Corporation,
U.S.A. is expressly prohibited.**

Printed in U.S.A.

P/N LIT-11616-17-55

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.

This model has been designed and manufactured to perform within certain specifications in regard to performance and emissions. Proper service with the correct tools is necessary to ensure that the vehicle will operate as designed. If there is any question about a service procedure, it is imperative that you contact a Yamaha dealer for any service information changes that apply to this model. This policy is intended to provide the customer with the most satisfaction from his vehicle and to conform to federal environmental quality objectives.

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:

- This Service Manual contains information regarding periodic maintenance to the emission control system. Please read this material carefully.
- 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!



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.

CLUTCH **ENG**

CLUTCH
CLUTCH COVER

④ →

⑤ →

⑥ →

⑦ →

Order	Job/Part	Qty	Remarks
Removing the clutch cover			
	High side covering		Remove the parts in the order listed.
	Bottom covering		Refer to "COVERING" in Chapter 3.
	Engine oil		Drain. Refer to "CHANGING THE ENGINE OIL" in Chapter 3.
1	Cover	1	
2	Clutch cable	1	Disconnect.
3	Clutch cover	1	
4	Clutch cover gasket	1	
5	Dowel pin	2	
6	Oil filler cap	1	
For installation, reverse the removal procedure.			

5-46

CLUTCH **ENG**

REMOVING THE CLUTCH

1. Remove:

- clutch cover (1)
- gasket

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. Remove:

- compression spring bolts (1)
- compression springs
- pressure plate (2)
- pull rods (3)

3. Remove:

- friction plate 1

4. Remove:

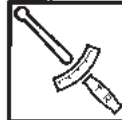
- clutch plate 1 (1)
- reaction plate 2

5. Straighten the clutch cross nut (1).

③ →

⑧ →

5-50

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

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 Chassis
- ⑤ Engine
- ⑥ Cooling system
- ⑦ Fuel injection system
- 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
- ⑳ Molybdenum-disulfide oil
- ㉑ Wheel-bearing grease
- ㉒ Lithium-soap-based grease
- ㉓ Molybdenum-disulfide grease

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

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

TABLE OF CONTENTS

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