

YAMAHA

FZR400RR '92

3TJ-AE1

**SUPPLEMENTARY
SERVICE MANUAL**

FOREWORD

This Supplementary Service Manual has been prepared to introduce new service and data for the FZR400RR ('92). For complete information on service procedures, it is necessary to use this Supplementary Service Manual together with following manual.

FZR400SP Service Manual-3TJ-ME1

FZR400RR ('92)
SUPPLEMENTARY
SERVICE MANUAL

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NOTICE

This manual was written by the Yamaha Motor Company primarily for use by Yamaha dealers and their qualified mechanics. It is not possible to put an entire mechanic's education into one manual, so it is assumed that persons using this book to perform maintenance and repairs on Yamaha motor cycles have a basic understanding of the mechanical concepts and procedures inherent in motorcycle repair technology. Without such knowledge, attempted repairs or service to this model may render it unfit to use and/or unsafe.

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

PARTICULARLY IMPORTANT INFORMATION

This material is distinguished by the following notation:



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 inspecting 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

CONSTRUCTION OF THIS MANUAL

This manual consists of chapters for the main categories of subjects. (See "Illustrated symbols".)

- 1st title ①: This is a chapter with its symbol on the upper right of each page.
- 2nd title ②: This title appears on the upper of each page on the left of the chapter symbol. (For the chapter "Periodic inspection and adjustment" the 3rd title appears.)
- 3rd title ③: This is a final title.

MANUAL FORMAT

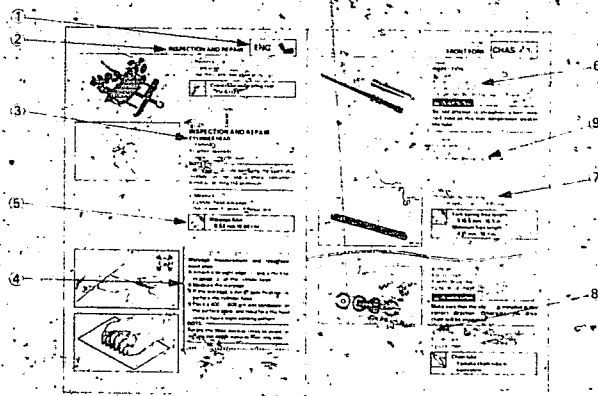
All of the procedures in this manual are organized in a sequential, step-by-step format. The information has been compiled to provide the mechanic with an easy to read, handy reference that contains comprehensive explanations of all disassembly, repair, assembly, and inspections. A set of particularly important procedure ④ is placed between a line of asterisks * with each procedure preceded by •.

IMPORTANT FEATURES

- Data and a special tool are framed in a box preceded by a relevant symbol ⑤.
- An encircled numeral ⑥ indicates a part name, and an encircled alphabetical letter data or an alignment mark ⑦, the others being indicated by an alphabetical letter in a box ⑧.
- A condition of a faulty component will precede an arrow symbol and the course of action required the symbol ⑨.

EXPLODED DIAGRAM

Each chapter provides exploded diagrams before each disassembly section for ease in identifying correct disassembly and assembly procedures.



① GEN INFO	② SPEC
③ INSP 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	㉖
㉗	㉘
㉙	㉚
㉛	㉜
㉝	㉞
㉟	㊱
㊲	㊳
㊴	㊵
㊶	㊷
㊸	㊹
㊺	㊻
㊼	㊽
㊾	㊿

ILLUSTRATED SYMBOLS (Refer to the illustration)

Illustrated symbols ① to ⑨ are designed as thumb tabs to indicate the chapter's number and content.

- ① General information
- ② Specifications
- ③ Periodic inspection and adjustment
- ④ Engine
- ⑤ Cooling system
- ⑥ Carburetion
- ⑦ Chassis
- ⑧ Electrical
- ⑨ Troubleshooting

Illustrated symbols ⑩ to ⑯ are used to identify the specifications appearing in the text.

- ⑩ Filling fluid
- ⑪ Lubricant
- ⑫ Special tool
- ⑬ Tightening
- ⑭ Wear limit, clearance
- ⑮ Engine speed
- ⑯ Ω , V, A

Illustrated symbols ⑰ to ㉞ in the exploded diagram indicate grade of lubricant and location of lubrication point.

- ⑰ Apply engine oil
- ⑱ Apply gear oil
- ㉑ Apply molybdenum disulfide oil
- ㉒ Apply wheel bearing grease
- ㉓ Apply lightweight lithium-soap base grease
- ㉔ Apply molybdenum disulfide grease
- ㉕ Apply locking agent (LOCTITE®)

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GENERAL INFORMATION

MOTORCYCLE IDENTIFICATION

FRAME SERIAL NUMBER

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

Starting serial number:

4DX-000101 (GB)

4DX-001101 (F)

ENGINE SERIAL NUMBER

The engine serial number (1) is stamped into the right side of the engine.

Starting serial number:

4DX-000101 (GB)

4DX-001101 (F)

NOTE:

- The first three digits of these numbers are for model identifications, the remaining digits are the unit production number.
- Designs and specifications are subject to change without notice.

SPECIFICATIONS

GENERAL SPECIFICATIONS

Model	FZR400RR
Model code number	4DX1 (GB)/4DX2 (F)
Frame starting number	4DX 000101 (GB) 4DX-001101 (F)
Engine starting number	4DX 000101 (GB) 4DX 001101 (F)
Dimensions	
Overall length	2,015 mm (79.3 in) (GB) 1,975 mm (77.8 in) (F)
Overall width	705 mm (27.8 in)
Overall height	1,090 mm (42.9 in)
Seat height	760 mm (29.9 in)
Wheelbase	1,370 mm (53.9 in)
Minimum ground clearance	125 mm (4.9 in)
Coolant total amount: (Including all routes)	1.9 L (1.7 imp qt, 2.0 US qt)
Fuel	
Type	Regular unleaded gasoline
Tank capacity	15 L (3.3 imp gal, 4.0 US gal)
Reserve amount	2.5 L (0.6 imp gal, 0.7 US gal)
Transmission	
Primary reduction system	Spur gear
Primary reduction ratio	88/41 (2.170)
Secondary reduction system	Chain drive
Secondary reduction ratio	55/19 (2.895)
Transmission type	Constant mesh 6-speed
Operation	Left foot operation
Gear ratio	
1st	43/13 (3.308)
2nd	40/18 (2.222)
3rd	36/21 (1.714)
4th	33/23 (1.435)
5th	28/22 (1.273)
6th	27/23 (1.174)

GENERAL SPECIFICATIONS

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MAINTENANCE SPECIFICATIONS

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Model	FZR400RR	
	Front	Rear
Tire:		
Type	Tubeless	Tubeless
Size	120/60R17 55H	160/60R17 69H
Manufacturer (Type)	DUNLOP (D201F) MICHELIN (TX11)	DUNLOP (D201) MICHELIN (TX23)
	BRIDGESTONE (CY17)	BRIDGESTONE (CY16)
Bulb Wattage x Quantity:		
Headlight	12V 55/40W x 2 (GB)	
	12V 60/55W x 1 (F)	
Tail/brake light	12V 5W/21W x 2	
Flasher light	12V 21W x 4	
Auxiliary light	12V 4W x 1 (F)	
Indicator light:		
Wattage x Quantity	"METER LIGHT"	12V 1.7W x 4
	"NEUTRAL"	12V 3.4W
	"HIGH BEAM"	12V 3.4W
	"TURN"	12V 3.4W
	"OIL"	12V 3.4W

MAINTENANCE SPECIFICATIONS

ENGINE

Model	FZR400RR	
Clutch:		
Friction plate:		
Thickness		2.9 - 3.1 mm (0.114 - 0.122 in)
Quantity		8 pcs
Wear limit		2.8 mm (0.11 in)
Clutch plate:		
Thickness		1.8 - 2.2 mm (0.072 - 0.085 in)
Quantity		7 pcs
Wear limit		1 mm (0.004 in)
Clutch spring:		
Free length		33.5 mm (1.32 in)
Quantity		5 pcs
Minimum free length		32.5 mm (1.28 in)
Clutch release method		Inner push, screw push
Carburetor:		
I.D. mark		3TJ-01
Main jet	(M.J.)	# 14, # 100, # 23, # 97.5
Main air jet	(M.A.J.)	# 65
Jet needle	(J.N.)	# 14, 5CEW16 3 # 23 5CKP3-3
Needle jet	(N.J.)	X-6
Throttle valve size	(Th.V.)	# 130
Pilot jet	(P.J.)	# 32.5
Pilot air jet	(P.A.J.)	# 110
Bypass 1	(B.P.1)	ø0.8
2	(B.P.2)	ø0.8
3	(B.P.3)	ø0.8
Pilot screw	(P.S.)	2 1/2 turns out
Valve seat	(V.S.)	ø1.0
Starter jet 1	(S.S.1)	# 50
2	(S.S.2)	ø0.6
Fuel level		20.9 - 21.9 mm (0.82 - 0.86 in) Above from the float chamber line
Engine idling speed		1,250 - 1,350 r/min
Vacuum pressure at idling speed		19.1 kPa or more (145-mmHg, 5.7 inHg)
Lubrication system:		
Oil filter type		Paper type
Oil pump type		Trochoid pump type
Tip clearance		0.12 mm (0.0047 in)
Side clearance		0.03 - 0.08 mm (0.0012 - 0.0031 in)

MAINTENANCE SPECIFICATIONS

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Model	FZR400RR
Cooling system:	
Radiator core size	Width 320 mm (12.6 in) Height 238 mm (9.37 in) Thickness 24 mm (0.94 in)
Radiator cap opening pressure	105 - 125 kPa (1.05 - 1.25 kg/cm ² , 14.93 - 17.77 psi)
Reservoir tank capacity	0.3 L (0.26 imp qt, 0.32 US qt)
<From low to full level>	<0.28 L (0.25 imp qt, 0.30 US qt)>
Water pump	
Type	Single-suction centrifugal pump
Reduction ratio	81/41 x 48/49 (2.126)
Thermostat	
Opening temperature	102 - 108°C (216 - 226°F)

MAINTENANCE SPECIFICATIONS

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TIGHTENING TORQUE

Part to be tightened	Part name	Thread size	Qty	Tightening torque			Remarks
				Nm	m·kg	ft·lb	
Camshaft cap	Flange bolt	M 6	24	10	1.0	7.2	
Cylinder head	Nut	M 9	12	37	3.7	27	
Spark plug	M10	4	12.5	1.25	9.0		
Cylinder head cover	Bolt	M 6	8	10	1.0	7.2	
Cylinder (drum)	Bolt	M 6	2	7	0.7	5.1	
Connecting rod	Nut	M 7	8	23	2.3	17	
Camshaft sprocket	Bolt	M 7	4	24	2.4	17	
Timing chain tensioner	Bolt	M 6	2	10	1.0	7.2	
	Bolt	M11	1	20	2.0	14	
Chain tensioner guide (intake)	Bolt	M 6	2	10	1.0	7.2	
Pipe 2	Bolt	M 6	2	10	1.0	7.2	
Thermo unit cover	Bolt	M 6	2	10	1.0	7.2	
	Flange bolt	M 6	2	7	0.7	5.1	
Radiator	Flange bolt	M 6	4	7	0.7	5.1	
Joint	Bolt	M 6	4	10	1.0	7.2	
Water pump cover	Bolt	M 6	4	10	1.0	7.2	
Pipe 1	Bolt	M 6	2	10	1.0	7.2	
Oil pump cover	Screw	M 6	1	7	0.7	5.1	
Oil pump assembly	Bolt	M 6	3	10	1.0	7.2	
Oil strainer housing	Bolt	M 6	2	10	1.0	7.2	
Oil pan	Bolt	M 6	14	10	1.0	7.2	
Drain bolt		M14	1	43	4.3	31	
Oil delivery pipe	Union bolt	M10	1	20	2.0	14	
	Bolt	M 6	1	10	1.0	7.2	
Oil filter		M20	1	17	1.7	12	
Oil filter housing	Union bolt	M20	1	50	5.0	36	
Bypass valve assembly		M20	1	63	6.3	45	
Carburetor joint	Bolt	M 6	8	10	1.0	7.2	
	Screw	M 5	4	5	0.5	3.6	
Air filter case	Flange bolt	M 6	1	7	0.7	5.1	
Exhaust pipe	Nut	M 6	8	10	1.0	7.2	
(CO)	Bolt	M 6	4	10	1.0	7.2	
Muffler	Bolt	M 8	1	20	2.0	14	
EX-UP	Bolt	M 6	3	10	1.0	7.2	
Pulley	Bolt	M 5	1	5	0.5	3.6	
Exhaust joint	Bolt	M 8	1	20	2.0	14	
Exhaust pipe and muffler	Bolt	M 8	1	20	2.0	14	
EX UP cover	Bolt	M 5	3	10	1.0	7.2	
Crankcase upper and lower	Bolt	M 8	12	24	2.4	17	
	Bolt	M 6	22	12	1.2	8.7	
Breather plate	Screw	M 6	2	7	0.7	5.1	
2	Screw	M 6	4	7	0.7	5.1	
AC magneto cover	Bolt	M 6	5	10	1.0	7.2	
Crankcase cover 1	Bolt	M 6	5	10	1.0	7.2	
	Screw	M 5	4	4	0.4	2.9	

MAINTENANCE SPECIFICATIONS

SPEC



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Part to be tightened	Part name	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m·kg	ft·lb	
Bearing plate	Bolt	M 6	2	10	1.0	7.2	Ⓐ
Crankcase cover 2	Bolt	M 6	7	10	1.0	7.2	
Plug (to crankcase 2)	—	M16	1	8	0.8	5.8	
Crankcase cover 3	Bolt	M 6	10	10	1.0	7.2	Ⓐ
	Screw	M 5	4	4	0.4	2.9	
Cover 1	Screw	M 6	1	7	0.7	5.1	
Plug (to crankcase 2)	—	M16	1	25	2.5	18	
Starter clutch assembly	Flange bolt	M10	1	80	8.0	58	
Starter clutch outer	Bolt	M 8	3	30	3.0	22	Ⓐ
Pressure plate	Bolt	M 5	5	6	0.6	4.3	
Clutch boss	Nut	M18	1	70	7.0	50	Ⓐ
Push lever assembly	Screw	M 5	2	4.5	0.45	3.3	Ⓐ
Push rod	Nut	M 8	1	16	1.6	11	
Drive sprocket	Nut	M18	1	70	7.0	50	Ⓐ
Stopper plate	Flange bolt	M 6	1	10	1.0	7.2	Ⓐ
Shift arm	Flange bolt	M 6	1	10	1.0	7.2	
Shift rod	Nut	M 6	2	10	1.0	7.2	
Stopper lever	Bolt	M 6	1	10	1.0	7.2	
Side plate	Screw	M 5	1	4	0.4	2.9	Ⓐ
AC magneto rotor	Bolt	M10	1	80	8.0	58	
Stator	Bolt	M 6	3	10	1.0	7.2	Ⓐ
Pick-up	Screw	M 5	2	5	0.5	3.6	
Starter motor	Flange bolt	M 6	2	10	1.0	7.2	
Neutral switch	Screw	M 6	2	4	0.4	2.9	
Oil pressure switch	—	—	1	12	1.2	8.7	
Thermo switch assembly	—	M16	1	22.5	2.25	16.3	
Thermo unit	Bolt	—	1	15	1.5	11	
Oil pressure lead	Bolt	M 4	1	1	0.1	0.7	

MAINTENANCE SPECIFICATIONS

SPEC



CHASSIS

Model	FZR400RR
Front suspension:	
Front fork travel	120 mm (4.72 in)
Fork spring free length	346 mm (13.6 in)
< Limit >	< 341 mm (13.4 in) >
Spring rate:	6.5 N/mm (0.65 kg/mm, 36.4 lb/in)
Stroke	0.0 - 120 mm (0.0 - 4.72 in)
Optional spring	No
Oil capacity	509 cm ³ (17.9 imp oz, 17.2 US oz)
Oil level	80 mm (3.15 in)
	From top of inner tube fully compressed without spring.
Oil grade	Fork oil 10W or equivalent
Rear suspension:	
Shock absorber travel	70 mm (2.8 in)
Spring free length	205 mm (8.07 in)
Fitting length	200.5 mm (7.9 in)
Spring Rate	59 N/mm (5.9 kg/mm, 330 lb/in)
Stroke	0.0 - 70 mm (0.0 - 2.8 in)
Optional spring	No
Enclosed gas pressure:	
Standard	1,220 kPa (12.2 kg/cm ² , 174 psi)
Spring preload (Adjuster position):	
Standard	5
Minimum	1
Maximum	9
Drive chain:	
Type/Manufacturer	RK428SMD, YAMASAGO
No. of links	139
Chain free play	35 - 45 mm (1.38 - 1.77 in)

MAINTENANCE SPECIFICATIONS

SPEC



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TIGHTENING TORQUE

Part to be tightened	Thread size	Tightening torque			Remarks
		Nm	m.kg	ft.-lb	
Handle crown and inner tube	M 8	22	2.2	17	
Handle crown and steering shaft	M22	110	11.0	80	
Handlebar and inner tube	M 8	22	2.2	17	
Handlebar and handle crown	M 6	11	1.3	9.4	
Steering shaft and ring nut	M 6	6	0.6	4.3	See "NOTE"
Under bracket and inner tube	M10	38	3.8	27	
Brake hose joint and under bracket	M 6	10	1.0	7.2	
Handle crown and main switch	M 6	10	1.0	7.2	
Front master cylinder	M 6	10	1.0	7.2	
Brake hose and union bolt	M10	26	2.6	19	
Upper cowl and stay	M 6	4	0.4	2.9	
Upper cowl and lower cowl	M 5	3	0.3	2.2	
Front flasher light and stay	M 8	16	1.6	11	
Engine mounting bolt (front)	M10	40	4.0	29	
(rear upper)	M10	55	5.5	40	
(rear lower)	M10	55	5.5	40	
(front pinion bolt)	M 8	23	2.3	17	
Frame and rear frame	M 8	33	3.3	24	
Frame and engine bracket (rear)	M 8	33	3.3	24	
Pivot shaft nut	M18	90	9.0	6.5	
Relay arm and frame	M10	40	4.0	29	
Relay arm and arm	M10	40	4.0	29	
Rear arm and arm	M10	40	4.0	29	
Rear shock absorber and relay arm	M10	40	4.0	29	
Rear shock absorber and bracket	M10	40	4.0	29	
Frame and rear shock absorber bracket	M 6	52	5.2	37	
Chain case	M 6	7	0.7	5.1	
Seal garter	M 6	7	0.7	5.1	
Rear brake hose holder	M 6	7	0.7	5.1	
Fuel tank	M 6	7	0.7	5.1	
Fuel cock	M 6	7	0.7	5.1	
Fuel sender	M 6	7	0.7	5.1	
Reservoir tank	M 6	7	0.7	5.1	
Rear fender	M 6	7	0.7	5.1	
Rear flasher light	M 8	16	1.6	11	
Front fork cap bolt		23	2.3	17	
Front fork damper bolt		62	6.2	45	
Front wheel axle holder	M 8	20	2.0	14	
Front wheel shaft	M16	75	7.5	54	
Rear wheel shaft and nut	M18	105	10.5	75	
Front caliper and front fork	M10	35	3.5	25	
Rear caliper and bracket	M10	35	3.5	25	
Rear caliper bracket		55	5.5	40	

MAINTENANCE SPECIFICATIONS

SPEC



Part to be tightened	Thread size	Tightening torque			Remarks
		Nm	m.kg	ft.-lb	
Brake caliper retaining pin	M 8	10	1.0	7.2	
Brake disc and hub	M 8	20	2.0	14	
Rear wheel sprocket and hub	M 8	43	4.3	31	
Bleed screw and caliper	M 8	6	0.6	4.3	
Sidestand bolt	M10	46	4.6	33	
Sidestand locknut	M10	39	3.9	28	
Bracket footrest and frame	M 8	22	2.2	16	
Rear master cylinder and frame	M 8	22	2.2	16	
Rear brake reservoir tank and frame	M 6	4	0.4	2.9	

NOTE:

1. First, tighten the ring nut approximately 38 Nm (3.8 m.kg, 27 ft.-lb) by using the torque wrench, then loosen the ring nut one turn.
2. Retighten the ring nut to specification.

MAINTENANCE SPECIFICATIONS.

SPEC



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GENERAL TORQUE SPECIFICATIONS

SPEC



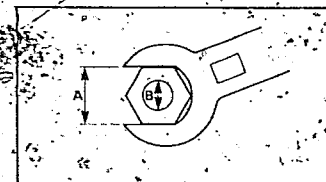
ELECTRICAL

Model	FZR400RR
Ignition coil: Model/Manufacturer Minimum spark gap Primary winding resistance Secondary winding resistance Spark plug cap Type Resistance	CM12-43/HITACHI 6 mm (0.24 in) 1.8 ~ 2.2Ω at 20°C (68°F) 976 ~ 14.4 Ω at 20°C (68°F) Resin type 10 ⁴ kΩ at 20°C (68°F)
A.C. Generator: Model/Manufacturer Nominal output Stator coil resistance	FL-118-17/HITACHI 12V 20.5A at 5,000 r/min 0.31 ~ 0.41Ω at 20°C (68°F) (White ~ White)
Rectifier/Regulator: Model/Manufacturer Type Voltage regulator No load regulated voltage Rectifier Capacity Withstand voltage	SH629A-12/SHINDENGEN Semi conductor - Short circuit type 14.3 ~ 15.3V 25A 240V
Electrical starter system: Type Starter motor: Model/Manufacturer Output Brush - overall length < Limit > Commutator dia. Wear limit Mica undercut (Deep) Starter relay: Model/Manufacturer Amperage rating	Constant mesh type 3HE/YAMAHA 0.7 kW 12.5 mm (0.49 in) < 4 mm (0.16 in) > 28.0 mm (1.10 in) 27.0 mm (1.06 in) 0.7 mm (0.028 in) MS5D-201/HITACHI 100A
Flasher relay (Relay assembly): Type Model/Manufacturer Self cancelling device Flasher frequency Wattage	Semi transistor type GBA-101-03/OMRON No 60 ~ 120 cpl/min 21W x 2 + 3.4W
Thermostat switch: Model/Manufacturer Function temperature	2EL/N, THERMOSTAT 102 ~ 108°C (#16 ~ 226°F): ON 98 ~ 101°C (208 ~ 214°F): OFF

GENERAL TORQUE SPECIFICATIONS

This chart specifies torque for standard fasteners with standard U.S.O. pitch threads. Torque specifications for special components or assemblies are included in the applicable sections of this book. To avoid warpage, tighten multi-fastener assemblies in a crisscross fashion, in progressive stages, until full torque is reached. Unless otherwise specified, torque specifications call for clean, dry threads. Components should be at room temperature.

A (Nut)	B (Bolt)	General torque specifications		
		Nm	m.kg	ft.lb
10 mm	6 mm	5	0.6	4.3
12 mm	8 mm	15	1.5	11
14 mm	10 mm	30	3.0	22
17 mm	12 mm	55	5.5	40
19 mm	14 mm	85	8.5	61
22 mm	16 mm	130	13.0	94



A Distance across flats
B Outside thread diameter

LUBRICATION POINT AND GRADE OF LUBRICANT

SPEC

99

B-1-1

LUBRICATION POINT AND GRADE OF LUBRICANT

ENGINE

Lubrication point	Lubricant type
Oil seal lips	
O-ring	
Bearing	
Piston surface	
Piston-pin	
Connecting rod (Big and small end)	
Connecting rod bolt	
Crankshaft journal	
Camshaft cam lobe/journal	
Valve stem (IN, EX)	
Valve stem end (IN, EX)	
Water pump mechanism seal revolution side	Coolant and water
Water pump impeller shaft	
Water pipe or hose	Silicon grease
Oil pump rotor (Inner/outer) shaft	
Oil level gauge	
Cylinder head (Bolt thread)	
Valve lifter outside	
Camshaft cap (Bolt thread)	
Cylinder sleeve (O-ring)	Silicon grease
Starter idler gear (inner gear)	
Starter idler gear shaft	
Push lever assembly	
Clutch push rod	
Transmission gear (Wheel/pinion)	
Axle (Main drive)	
Shift cam	
Shift fork/guide bar	
Shift shaft assembly	
Shift boss (Inner)	
Matching surface (Cylinder head and cylinder head cover)	Yamaha Bond No. 1215
Crankcase matching surface	Yamaha Bond No. 1215

LUBRICATION POINT AND GRADE OF LUBRICANT

SPEC

99

CHASSIS

Lubrication point	Lubricant type
Gear unit (Speedometer)	
Front wheel oil seal lips	
Rear wheel oil seal lips	
Bush (Swingarm) and thrust cover	
Oil seal lips (Swingarm) and bearing	
Pivot shaft (Swingarm)	
Bearing (Relay arm and rear shock absorber)	
Bearing (Relay arm and frame)	
Bearing (Relay arm and connecting rod)	
Bearing (Connecting rod and swingarm)	
Shift pedal shaft	
Bearing (Steering head)	
Tube guide (Throttle grip) inner surface	
Brake lever, sliding surface	
Clutch lever, sliding surface	
Clutch cable end	
Sidestand bolt, sliding surface	
Swingarm	
Relay arm	
Brake pedal and rear master cylinder	

COOLANT DIAGRAM

SPEC

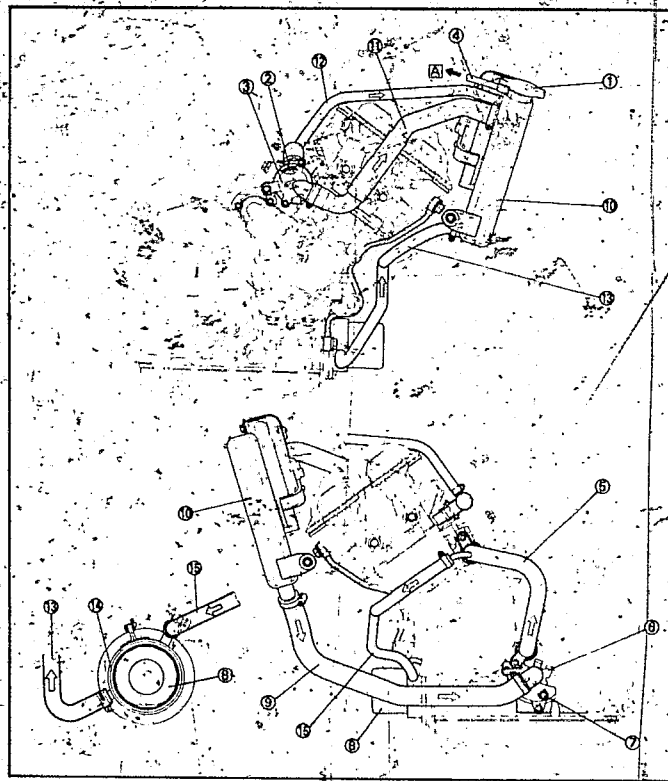
99

B-12

COOLANT DIAGRAM

- ① Radiator cap
- ② Thermostatic valve
- ③ Reservoir tank hose
- ④ Water pipe
- ⑤ Water pump
- ⑥ Drain bolt
- ⑦ Oil filter
- ⑧ Radiator hose (outlet)
- ⑨ Radiator
- ⑩ Radiator
- ⑪ Radiator hose #1 (inlet)
- ⑫ Radiator hose #2 (inlet)
- ⑬ Oil cooler hose (outlet)
- ⑭ Oil cooler
- ⑮ Oil cooler hose (inlet)

Ⓐ To reservoir tank

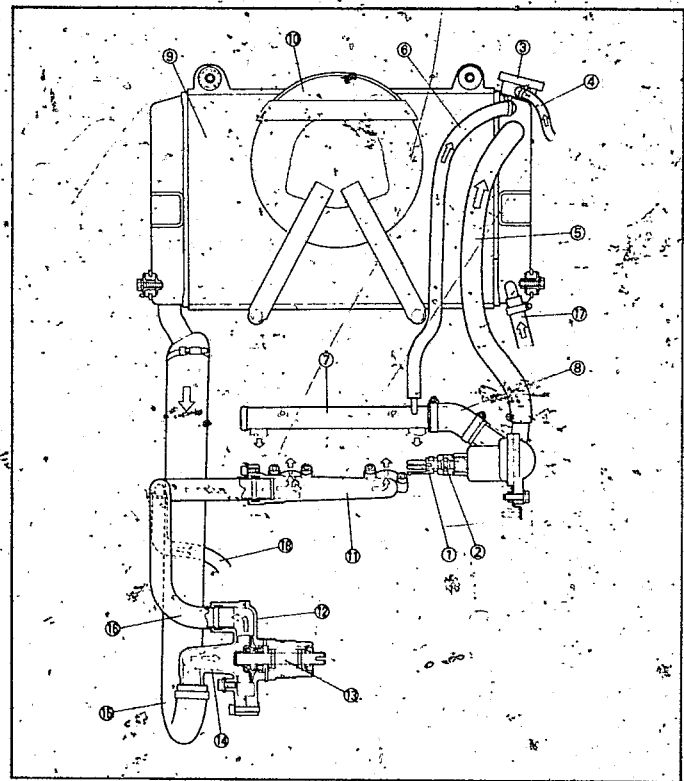


COOLANT DIAGRAM

SPEC

99

- ① Thermo switch
- ② Thermo unit
- ③ Radiator cap
- ④ Reservoir tank hose
- ⑤ Radiator hose #1 (inlet)
- ⑥ Radiator hose #2 (inlet)
- ⑦ Radiator pipe 1
- ⑧ Radiator hose
- ⑨ Radiator
- ⑩ Fan motor assembly
- ⑪ Water jacket joint
- ⑫ Water pump housing
- ⑬ Water pump
- ⑭ Water pump cover
- ⑮ Radiator hose (outlet)
- ⑯ Water pipe
- ⑰ Oil cooler hose (outlet)
- ⑱ Oil cooler hose (inlet)

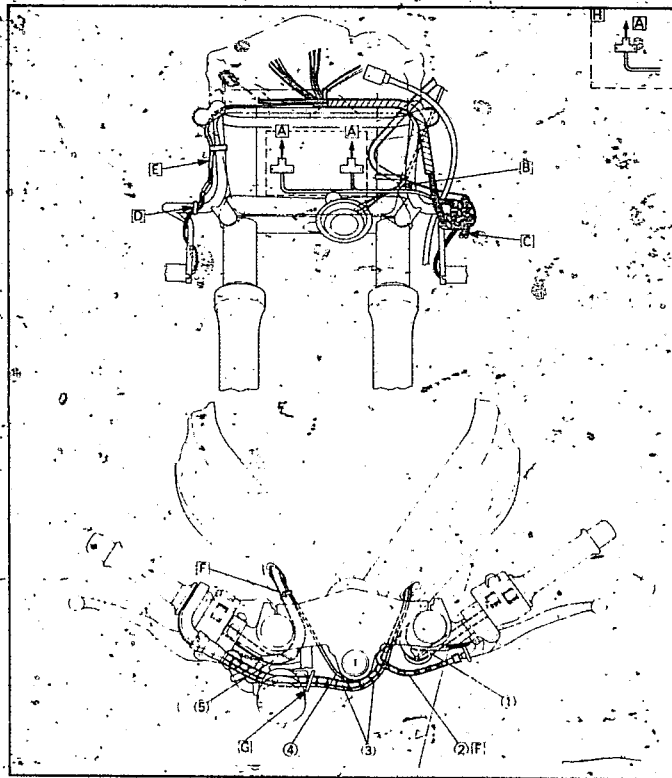




CABLE ROUTING

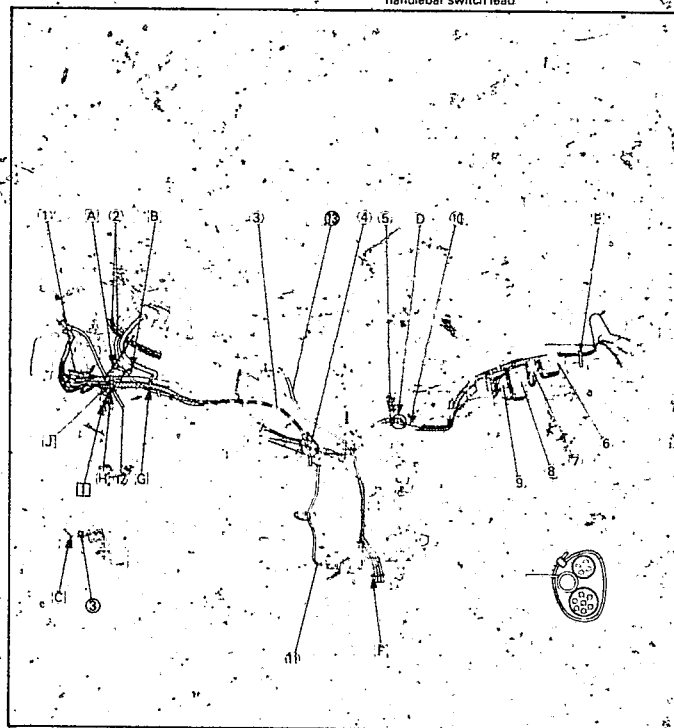
- ① Handlebar switch lead (left)
- ② Clutch cable
- ③ Throttle cable
- ④ Main switch lead
- ⑤ Handlebar switch lead (right)

- A To headlight.
- B To horn.
- C To front flasher light (left).
- D Clamp the flasher light lead.
- E To front flasher light (right).
- F Through inside of throttle cable to under the frame.
- G Through the throttle cables.
- H For F.



- ① Headlight lead
- ② Throttle cable
- ③ Clutch cable
- ④ Starter
- ⑤ Cross tube
- ⑥ Fuse box
- ⑦ Main fuse
- ⑧ Relay
- ⑨ Flasher relay
- ⑩ EX-UP lead
- ⑪ Sidestand switch lead
- ⑫ Speedometer cable
- ⑬ Air cleaner drain hose

- A Clamp the horn lead
- B Connect the fuel tank reserve switch
- C Through to clutch cable over the cable guide
- D Through to the main harness, radiator reservoir hose, over flow hose, ground lead, EX-UP lead, and starter motor (+) lead over the cross tube.
- E Clamp the flasher light lead and taillight lead.
- F Clamp the air filter breather hose, fuel tank breather hose, and over flow hose
- G Clamp the main harness and handlebar switch lead (left)
- H Through the guide.
- I Through the flasher light leads (left and right) under the bracket hole.
- J Clamp the flasher light lead, main harness and handlebar switch lead



CABLE ROUTING

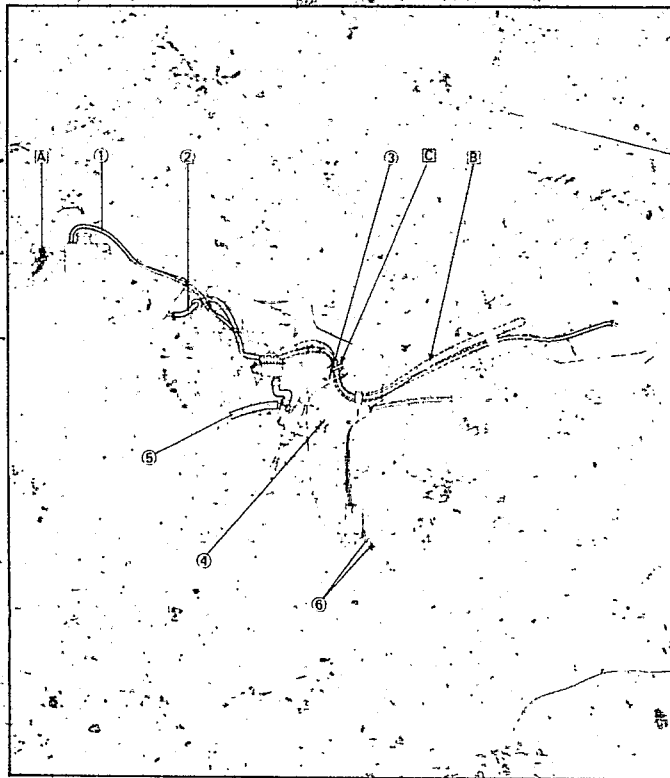
SPEC



B-14

- ① Reservoir tank over flow hose
- ② Reservoir hose
- ③ Brake switch lead
- ④ Rear brake switch
- ⑤ Brake hose
- ⑥ EX-UP cable

- A Clamp the flasher light lead (right)
- B Through the reservoir hose inside of tank rail
- C Clamp the brake switch leads and main harness.



CABLE-ROUTING

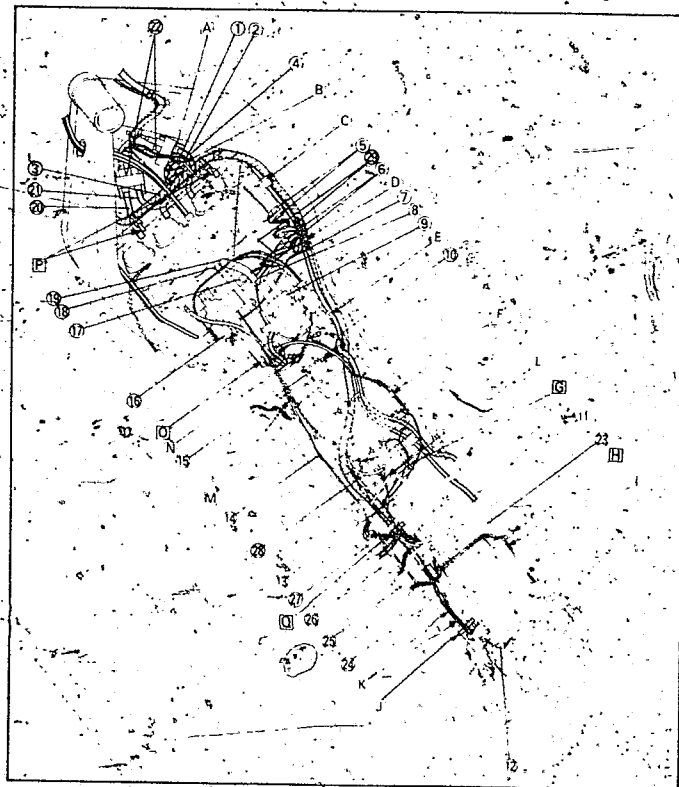
SPEC



- ① Main switch coupler (red)
- ② Handlebar switch-coupler (white)
- ③ High tension cord #2
- ④ High-tension cord #3
- ⑤ Thermo switch/Thermo unit (white)
- ⑥ AC magneto coupler (white)
- ⑦ Sidestand lead (blue)
- ⑧ Fuel pump lead
- ⑨ Fuel pump
- ⑩ Rear brake switch coupler

- ⑪ Over flow hose
- ⑫ Taillight coupler (white)
- ⑬ EX-UP test terminal
- ⑭ EX-UP lead
- ⑮ Regulator
- ⑯ EX-UP motor
- ⑰ Starter motor lead
- ⑱ Air/filter breather hose
- ⑲ Fuel hose (to carburetor)
- ⑳ High tension cord #1

- ㉑ High tension cord #4
- ㉒ Ignitor coil
- ㉓ Ignitor unit
- ㉔ Fuse box
- ㉕ Main fuse
- ㉖ Relay
- ㉗ Flasher relay
- ㉘ Starter relay
- ㉙ Neutral and oil pressure gauge



CABLE ROUTING

SPEC



B-1.5

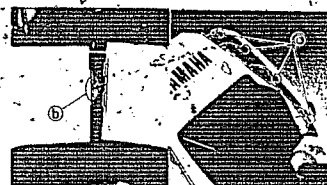
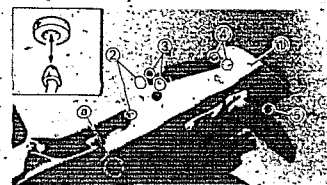
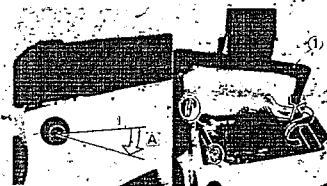
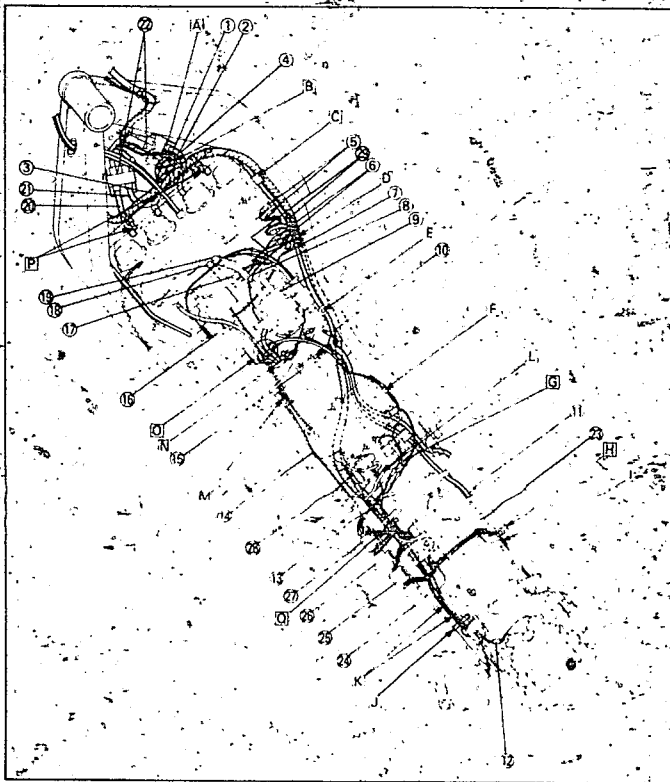
COVERS/FUEL TANK REMOVAL AND INSTALLATION

INSP
ADJ



PERIODIC INSPECTION AND ADJUSTMENT COVERS/FUEL TANK REMOVAL AND INSTALLATION REMOVAL

- A To fan
- B Clamp the handlebar lead (right), main switch lead, fan lead and main harness.
- C Clamp the main harness and radiator reservoir hose
- D Clamp the main harness, sidestand lead, AC magneto lead, thermo switch lead, fuel pump lead, neutral lead and oil pressure lead
- E Clamp the main harness and radiator reservoir hose.
- F Clamp the ground lead ⓪
- G Clamp the ground lead ⓪ and resistor lead
- H Clamp the flasher lead.
- I To the rear flasher light (right)
- J Clamp the flasher light lead and taillight lead
- K To the rear flasher light (left)
- L Clamp the main harness, starter relay, EX-UP lead and ⓪ lead.
- M Clamp the EX-UP lead and starter motor lead
- N Pass through the EX-UP cables
- O Clamp the air filter hose breather hose over flow hose, EX-UP lead and starter motor lead
- P Clamp the main harness to the frame
- Q Clamp the main harness and flasher right lead (F)



Covers

- 1 Remove
- Passenger seat 1

NOTE:

Insert the key into the lock and turn it clockwise.
ⓐ to release the seat lock.

2. Remove

- Bolt 1
- Rider seat 2

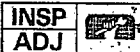
3. Remove:

- Side covers (left and right) 1

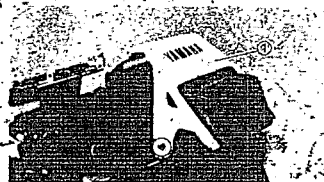
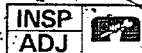
Removal steps:

- Remove the screws 2, 3, 4, 5
- Unhook the projections ⓐ on the side cover from the grommets on the frame
- Unhook the hooks ⓑ, ⓒ on the side cover from the slots in the tail cover

COVERS/FUEL TANK REMOVAL AND INSTALLATION

**B-16**

COVERS/FUEL TANK REMOVAL AND INSTALLATION



4. Remove.
- Tail cover (1)

**Fuel tank**

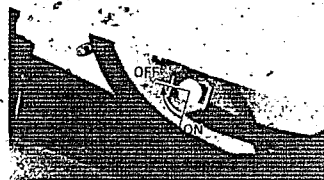
1. Remove.
- Socket head bolt (1)
 - Fuel tank cap (2)

NOTE:

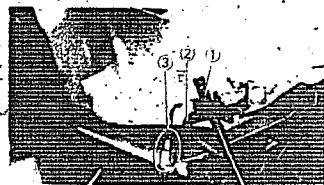
Insert the key (3) into the lock and turn it clockwise 1/4 turn (A) to release the fuel tank cap (2).



2. Remove.
- Fuel tank installing bolts (1)



3. Turn the fuel cock "OFF"



4. Disconnect.
- Breather hose (1)
 - Fuel hose (2)
 - Fuel sender coupler (3)

5. Remove.
- Fuel tank

**INSTALLATION**

Reverse the "REMOVAL" procedure. Note the following points.

1. Install.
- Rider seat (3)
 - Passenger seat (4)

NOTE:

When installing the seat, insert the lobe on the rear into the stay on the frame.

DRIVE CHAIN SLACK ADJUSTMENT

INSP
ADJ



C-1

CHASSIS

*V55A307

DRIVE CHAIN SLACK ADJUSTMENT

NOTE:

Before checking and/or adjusting, rotate the rear wheel several revolutions and check slack at several points to find the tightest point. Check and/or adjust the chain slack with the rear wheel in this "tightest" position.

CAUTION:

Too little of chain slack will overload the engine and other vital parts. Keep the slack within the specified limits.

WARNING:

Securely support the motorcycle so there is no danger of it falling over.

- 1 Place the motorcycle on a level place and hold it in an upright position.

NOTE:

Both wheels should be on the ground without the rider on it.

- 2 Check

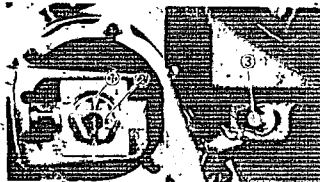
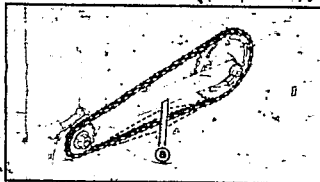
- Drive chain slack (A)
- Out of specification—Adjust



Drive chain slack
35–45 mm (1.38–1.77 in)
with both wheels on ground
without rider

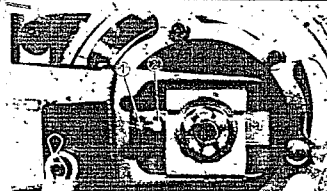
- 3 Remove

- Cotter pin (1)
- 4 Loosen
- Axle nut (2)
- Bolt (3) (brake caliper bracket)



DRIVE CHAIN SLACK ADJUSTMENT

INSP
ADJ



- 5 Adjust

- Drive chain slack,

Adjustment steps.

- Loosen the locknut(s) (1)
- Turn the adjuster(s) (2) in or out until the specified slack is obtained

Turning in—Slack is increased

Turning out—Slack is decreased

NOTE:

Turn each adjuster exactly the same amount to maintain correct axle alignment. (There are marks on each side of swingarm and on each chain puller. Use them to check for proper alignment.)

- Tighten the axle nut to specification while pushing up or down on the chain to zero slack.



Axle nut:
105 Nm (10.5 m•kg, 75 ft•lb)

- Tighten the locknut(s)

- 6 Install

- Cotter pin (1)

CAUTION:

Do not loosen the axle nut after torque tightening. If the axle nut groove is not aligned with the cotter pin hole, align groove with the hole by tightening up on the axle nut.

WARNING:

Always use a new cotter pin.

Tighten

- Bolt (brake caliper bracket)



Bolt (brake caliper bracket):
35 Nm (3.5 m•kg, 25 ft•lb)

FRONT FORK ADJUSTMENT/ REAR SHOCK ABSORBER ADJUSTMENT



C-2

FRONT FORK ADJUSTMENT

- 1 Spring preload

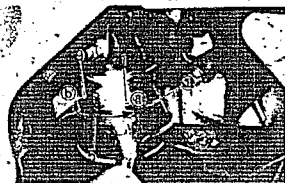
This model does not have the above mechanism.

76032017

REAR SHOCK ABSORBER ADJUSTMENT

WARNING

Securely support the motorcycle so there is no danger of it falling over.



Spring preload

1. Adjust.
 - Spring preload
 - Turn the adjuster ① to direction (a) or (b).

Turning toward (a) - Spring preload is harder.

Turning toward (b) - Spring preload is softer.

Adjuster position:

Standard: 5

Minimum: 1

Maximum: 9

CAUTION:

Never turn the adjuster beyond the maximum or minimum setting.

- 2 Rebound damping/compression damping

This model does not have the above mechanism.

ENGINE REMOVAL/ INSPECTION AND REPAIR/ ENGINE ASSEMBLY AND ADJUSTMENT

ENG

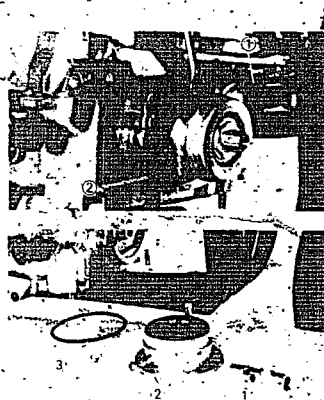


7614100

ENGINE OVERHAUL/ ENGINE REMOVAL

NOTE:

Please insert this section between oil filter and clutch cable.



OIL COOLER

- 1 Disconnect

- Inlet hose (oil cooler) 1
- Outlet hose (oil cooler) 2

- 2 Remove

- Bolt 1 (bypass valve included)
- Oil cooler 2
- O-ring 3

INSPECTION AND REPAIR

OIL COOLER

- 1 Inspect

- Oil cooler
- Cracks/Damage - Replace

- 2 Inspect

- Inlet hose (oil cooler)
- Outlet hose (oil cooler)
- Cracks/Wear/Damage - Replace

ENGINE ASSEMBLY AND ADJUSTMENT

REMOUNTING ENGINE

NOTE:

Please add the following steps after the oil filter installation.

OIL COOLER

1. Clean the mating surfaces of the oil cooler and the crankcase with a cloth dampened with thinner.

ENGINE REMOVAL/ INSPECTION AND REPAIR/ ENGINE ASSEMBLY AND ADJUSTMENT

ENG



C-3

FRONT FORK

CHAS



CHASSIS

FRONT FORK

- 1 Cap bolt
- 2 O-ring
- 3 Spacer
- 4 Spring seat
- 5 Fork spring
- 6 Dust seal
- 7 Stopper ring
- 8 Oil seal
- 9 Plate washer

- 10 Slide metal
- 11 Outer tube
- 12 Gasket
- 13 Drain screw
- 14 Copper washer
- 15 Damper rod assembly
- 16 Inner tube
- 17 Oil lock piece
- 18 Front fork assembly (right)

- 2 Lubricate:
 - O-ring (oil cooler) ①
 - Bolt ②



Engine oil

WARNING

Always use a new O-ring on the oil cooler.

- 3 Install
 - O-ring (oil cooler) ①
 - Oil cooler ②
 - Bolt ③
 - (bypass valve included)

NOTE:

- Make sure the O-ring ① is positioned properly.
- Insert the projection ③ between the two bypasses ⑤.

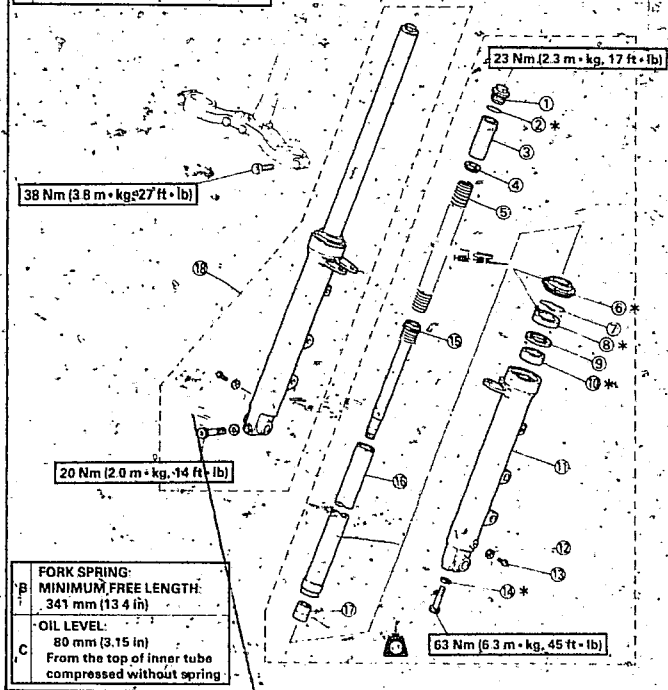


• Bolt (oil cooler):
63 Nm (6.3 m•kg, 45 ft•lb)

- 4 Connect:
 - Inlet hose (oil cooler) ①
 - Outlet hose (oil cooler) ②

• FORK OIL CAPACITY:
509 cm³ (17.9 Imp oz, 17.2 US oz)
GRADE:
Fork oil 10W or equivalent

* D. USE NEW ONE



RM74001

REMOVAL

WARNING

Support the motorcycle securely so there is no danger of it falling over.

- 1 Remove:
 - Lower cowl
 - Upper cowl
 Refer to the "COWLING" section in the CHAPTER 3
- 2 Elevate the front wheel by placing a suitable stand under the engine
- 3 Remove:
 - Front wheel
 Refer to the "FRONT WHEEL-REMOVAL" section.
- 4 Remove:
 - Holders (1) (brake hose)
 - Front fender (2)

- 5 Remove:
 - Horn lead holder (1)
 - Reservoir tank stay (2)

- 6 Loosen:
 - Pinch bolts (1) (handle crown)
 - Pinch bolts (2) (handlebar)
 - Cap bolts (3)

7. Loosen:
 - Pinch bolts (1) (lower bracket)

WARNING

Support the fork before loosening the pinch bolt.

- 8 Remove:
 - Front fork

DISASSEMBLY

- 1 Remove:
 - Cap bolt (1)
 - Spacer (2)
 - Spring seat (3)
 - Fork spring (4)

- 2 Drain:
 - Fork oil

- 3 Remove:
 - Dust seal (1)

NOTE:

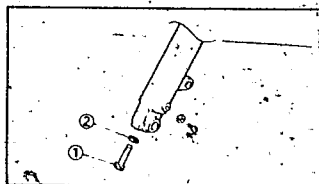
Use a thin screwdriver, and be careful not to scratch the inner fork tube.

- 4 Remove:
 - Stopper ring (1)

NOTE:

Use a thin screw driver, and be careful not to scratch the inner fork tube.

- 5 Remove:
 - Bolt (damper rod) (1)
 - Copper washer (2)



FRONT FORK

CHAS 

C-5

NOTE

Hold the damper rod loosen the bolt (damper rod) by the T-handle ① and holder ②.



T-handle:
90890-01326
Holder:
90890-01327

6. Remove:

- Damper rod ①
- Spring ②

7. Remove:

- Inner tube

Removal steps:

- Hold the fork leg horizontally.
- Clamp the caliper mounting boss of the outer tube securely in a vise with soft jaws.
- Pull out the inner fork tube from the outer tube by forcefully, but carefully, with drawing the inner tube.

CAUTION:

- Excessive force will damage the oil seal and/or the bushes. Damaged oil seal and bushing must be replaced.
- Avoid bottoming the inner tube in the outer tube during the above procedure, as the oil lock piece will be damaged.

8. Remove

- Oil seal ①
- Plate washer ②
- Slide metal ③
- Piston metal ④
- Oil lock piece ⑤

FRONT FORK

CHAS 

10-24007

INSPECTION

1. Inspect

- Inner fork tube ①
- Damper rod ②
- Spring ③
- Scratches/Bends/Damages—Replace.

WARNING

Do not attempt to straighten a bent inner fork tube as this may dangerously weaken the tube.

2. Measure.

- Fork spring (large) free length ④
- Out of specification—Replace

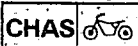


Fork spring (large) free length:
346 mm (13.6 in)
Minimum free length:
341 mm (13.4 in)

3. Inspect

- Oil lock piece ①
- O-ring ② (cap nut)
- Damage—Replace

FRONT FORK



C-6

VER14000

ASSEMBLY

Reverse the "DISASSEMBLY" procedure.
Note the following points.

NOTE:

- In front fork reassembly, be sure to use following new parts:
- Guide bush
- Slide bush
- Oil seal
- Dust seal
- Make sure all components are clean before re-assembly

1. Install

- Piston metal (1) to the inner tube

2. Install

- Inner tube (1)
- Damper rod assembly (2)
- Oil lock piece (3) to the outer tube

CAUTION:

Allow the damper rod to slide slowly down the inner fork tube until it protrudes from the bottom, being careful not to damage the inner fork tube.

3. Install

- Copper washer (new)
- Bolt (damper rod)

4. Tighten.

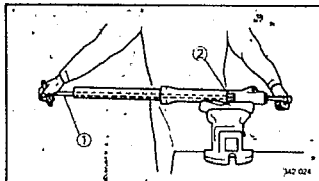
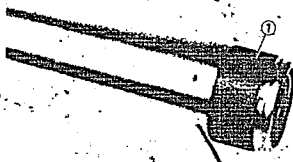
- Bolt (damper rod)



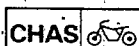
Bolt (damper rod):
63 Nm (6.3 m • kg, 45 ft • lb)
LOCTITE

NOTE:

Tighten the bolt (damper rod) while holding the damper rod with the T-handle (1) and holder (2).



FRONT FORK



T-handle:
90890-01326
Holder:
90890-01327

5. Install

- Slide metal (1)
- Plate washer (2)
- Oil seal (3)

Use the fork seal driver weight (4) and adapter (5).



Fork seal driver weight:
P/N 90890-01367
Adapter:
P/N 90890-01374

CAUTION:

Be sure that the oil seal numbered side face upward.

NOTE:

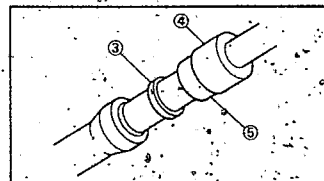
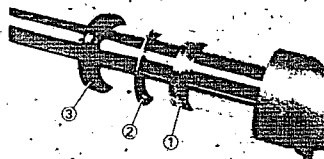
Before installing the oil seal, apply the lithium soap base grease onto the oil seal lips.

6. Install

- Stopper ring (1)
- Dust seal

NOTE:

Fit the stopper ring correctly in the groove in the outer tube.



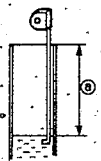


C-7

- 7 Fill
• Front fork oil
until top of inner tube end



Fork oil grade: Fork oil 10WT or equivalent



- 8 Measure Fork oil level

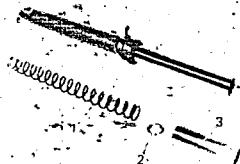


Oil level (B):
80 mm (3.15 in)
From the top of inner tube
compressed without spring

- 9 Install:
- Fork spring, 1
 - Spring seat, 2
 - Spacer, 3

NOTE:

Place the flat surface of spring seat on upright position when installing the spring seat.



- O-ring (1)
- Cap bolts (2)

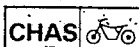
NOTE:

- Before installing the cap bolt, apply the grease to the O-ring.
- Temporarily tighten the cap bolt with your finger.

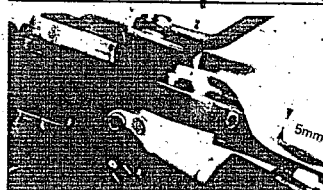
11. Install
• Inner tube

NOTE:

*Temporarily tighten the inner tube



C-7



INSTALLATION

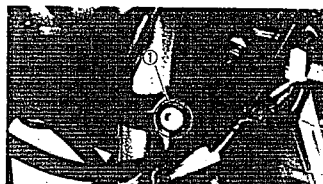
Reverse the "REMOVAL" procedure

Note the following points

- 1) Install
• Front fork
Temporary tighten the pinch bolts

NOTE:

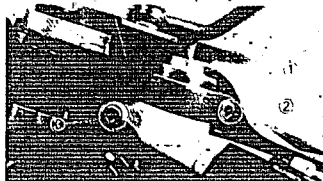
Position the inner fork tube end in such a way that it is 5 mm (0.2 in) with the top of the handle crown.



- 2 Tighten: 
• Pinch Bolts 1 (under bracket)



Pinch bolt (under bracket):
38 Nm (3.8 m•kg, 27 ft•lb)



- Cap bolt 1
- Pinch bolts 2 (handle crown)
- Pinch bolt 3 (handle bar)



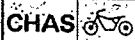
Cap bolt
23 Nm (2.3 m • kg, 17 ft • lb)
Pinch bolt (handle crown)
22 Nm (2.2 m • kg, 17 ft • lb)
Pinch bolt (handlebar)
22 Nm (2.2 m • kg, 17 ft • lb)

- 4- Install: c
- Brake caliper



Bolt (brake caliper)
35 Nm (3.5 m • kg, 25 ft • lb)

FRONT FORK



5. Install
 - Front wheel



Wheel shaft:
75 Nm (7.5 m • kg, 54 ft • lb)
Pinch bolt (wheel shaft):
20 Nm (2.0 m • kg, 14 ft • lb)

Refer to the "FRONT WHEEL—INSTALLATION" section.

6. Adjust
 - Front fork setting

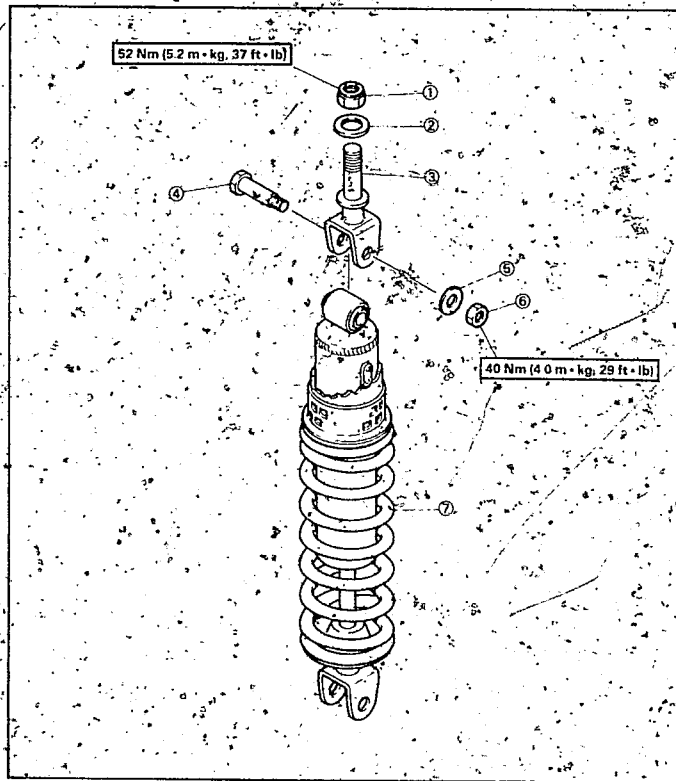
Refer to the "FRONT FORK ADJUSTMENT" section in the CHAPTER 3.

REAR SHOCK ABSORBER AND SWINGARM



REAR SHOCK ABSORBER AND SWINGARM

1. Nut
2. Spacer
3. Bracket
4. Bolt
5. Plate washer
6. Nut
7. Rear shock absorber assembly





1617001

HANDLING NOTE

WARNING

This shock absorber contains highly pressurized nitrogen gas. Read and understand the following information before handling the shock absorber. The manufacture can not be held responsible for property damage or personal injury that may result from improper handling.

- Do not tamper with or attempt to open the cylinder assembly.
- Do not subject shock absorber to an open flame or other high heat source. This may cause the unit to explode due to excessive gas pressure.
- Do not deform or damage the cylinder in any way. Cylinder damage will result in poor damping performance.
- Take care not to scratch the contact surface of the piston rod with the cylinder; or oil could leak out.
- When scrapping the shock absorber, refer to the "NOTES ON DISPOSAL" section.

1617002

NOTES ON DISPOSAL

Disposal steps:

1. Gas pressure must be released before disposing of shock absorber. To do so, drill a 2-3 mm (0.08-0.12 in) hole through the cylinder wall at a point 15-20 mm (0.6-0.8 in) from the end of the gas chamber.

WARNING

Wear eye protection to prevent eye damage from escaping gas and/or metal chips.

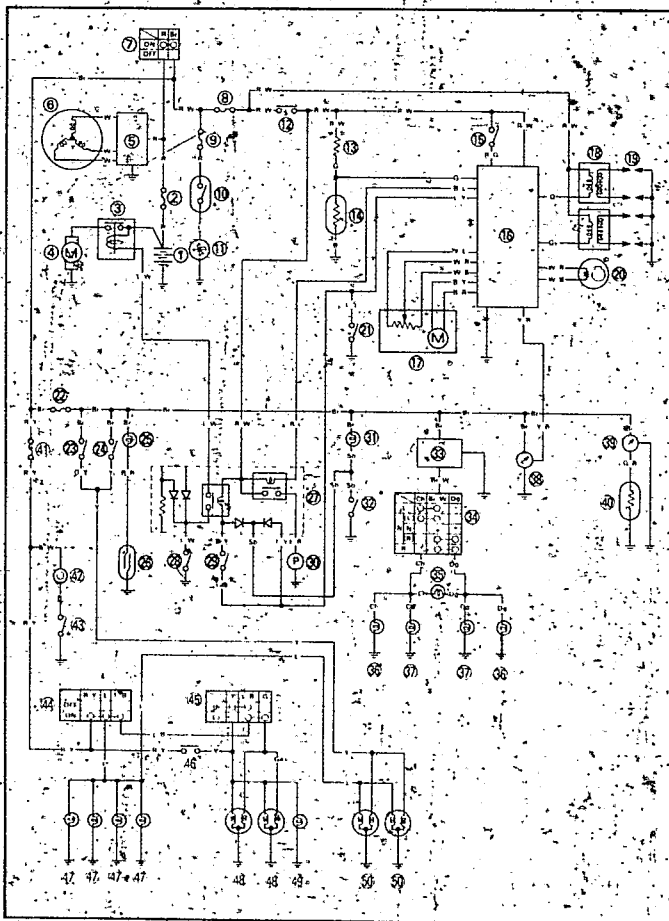
FZR400RR CIRCUIT DIAGRAM

ELEC

C-10

ELECTRICAL

FZR400RR CIRCUIT DIAGRAM (For GB)



FZR400RR CIRCUIT DIAGRAM

ELEC

- 1 Battery
- 2 Fuse (main)
- 3 Starter relay
- 4 Starter motor
- 5 Rectifier/regulator
- 6 AC magneto
- 7 Main switch
- 8 Fuse (ignition)
- 9 Fuse (fah)
- 10 Thermo switch
- 11 Fan motor
- 12 "ENGINE STOP" switch
- 13 Resistor
- 14 Fuel sender
- 15 Reserve switch
- 16 Ignitor
- 17 EXUP
- 18 Ignition coil
- 19 Spark plug
- 20 Pick up
- 21 Sidestand switch
- 22 Fuse (signal)
- 23 Front brake switch
- 24 Rear brake switch
- 25 "OIL" warning indicator light
- 26 Oil pressure switch
- 27 Relay
- 28 "START" switch
- 29 Clutch switch
- 30 Fuel pump
- 31 "NEUTRAL" indicator light
- 32 Neutral switch
- 33 Flasher relay
- 34 "TURN" signal switch
- 35 "TURN" indicator light
- 36 Front flasher light
- 37 Rear flasher light
- 38 Tachometer
- 39 Engine temperature gauge
- 40 Thermo unit
- 41 Fuse (headlight)
- 42 Horn
- 43 "HORN" switch
- 44 "LIGHTS" switch
- 45 "LIGHTS" (Dimmer) switch
- 46 "PASS" switch
- 47 Meter light
- 48 Headlight
- 49 "HIGH BEAM" indicator light
- 50 Tail/Brake light

COLOR CODE

B	Black	W	White	L/W	Blue/White
Br	Brown	Y	Yellow	L/Y	Blue/Yellow
Ch	Chocolate	B/L	Black/Blue	R/G	Red/Green
Dg	Dark green	B/R	Black/Red	R/Y	Red/Yellow
G	Green	B/W	Black/White	R/W	Red/White
Gy	Gray	B/Y	Black/Yellow	W/B	White/Black
L	Blue	Br/W	Brown/White	W/R	White/Red
O	Orange	G/R	Green/Red	Y/B	Yellow/Black
R	Red	G/Y	Green/Yellow	Y/L	Yellow/Blue
Sb	Sky blue	L/B	Blue/Black		

FZR400RR CIRCUIT DIAGRAM

ELEC



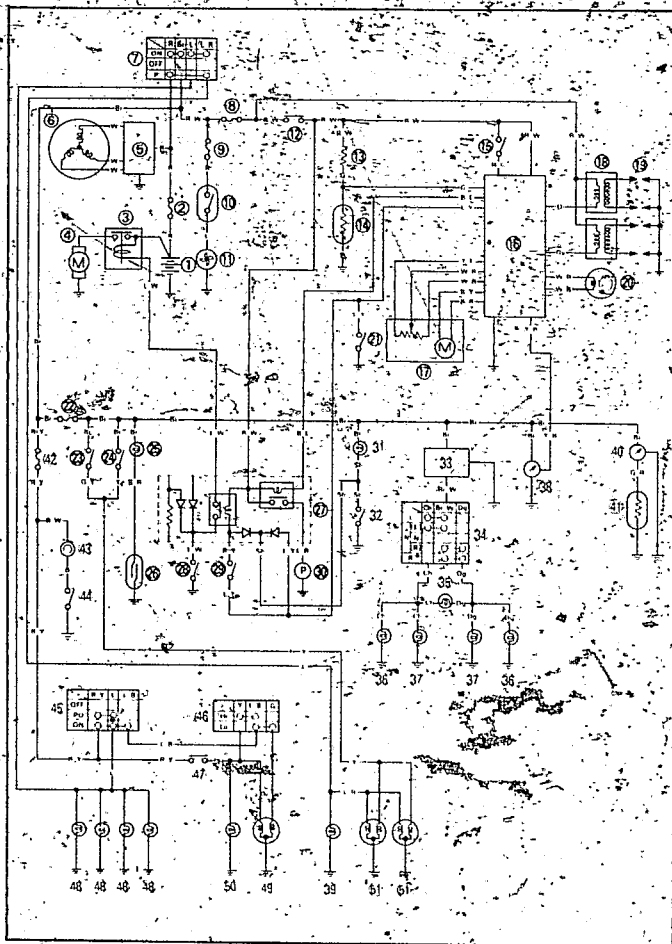
C-11

FZR400RR CIRCUIT DIAGRAM

ELEC



FZR400RR CIRCUIT DIAGRAM (For F)



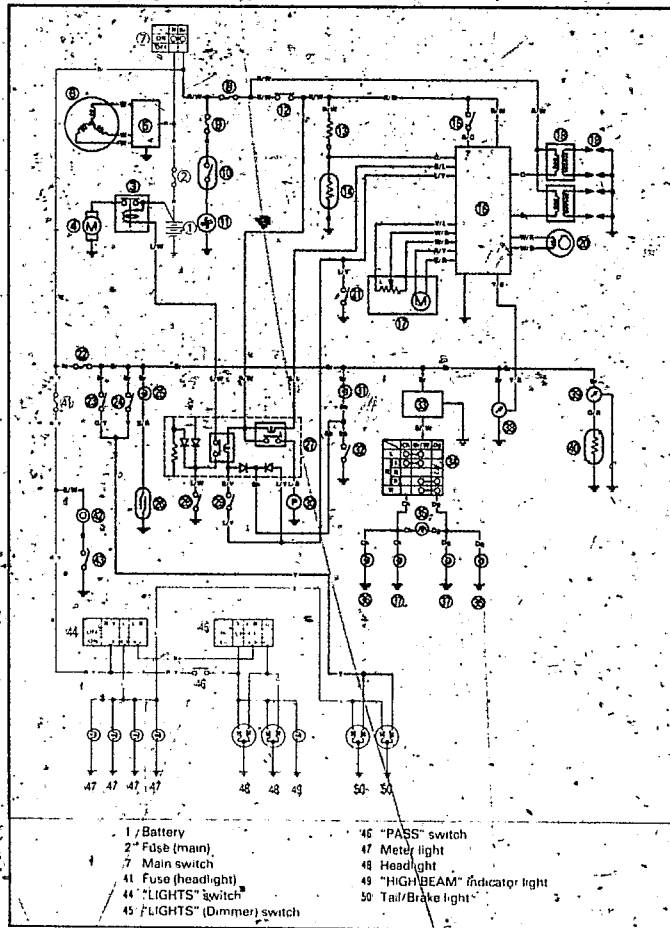
1. Battery
2. Fuse (main)
3. Starter relay
4. Starter motor
5. Rectifier/regulator
6. AC magneto
7. Main switch
8. Fuse (ignition)
9. Fuse (fan)
10. Thermo switch
11. Fan motor
12. "ENGINE STOP" switch
13. Resistor
14. Fuel sender
15. Reserve switch
16. Ignitor
17. EXUP
18. Ignition coil
19. Spark plug
20. Pick up
21. Sidestand switch
22. Fuse (signal)
23. Front brake switch
24. Rear brake switch
25. "OIL" warning indicator light
26. Oil pressure switch
27. Relay
28. "START" switch
29. Clutch switch
30. Fuel pump
31. "NEUTRAL" indicator light
32. Neutral switch
33. Flasher, relay
34. "TURN" signal switch
35. "TURN" indicator light
36. Front flasher light
37. Rear flasher light
38. Tachometer
39. Auxiliary light
40. Engine temperature gauge
41. Thermo unit
42. Fuse (headlight)
43. Horn
44. "HORN" switch
45. "LIGHTS" switch
46. "LIGHTS" (Dimmer) switch
47. "PASS" switch
48. Meter light
49. Headlight
50. "HIGH BEAM" indicator light
51. Tail/Brake light

COLOR CODE

B	Black	W	White	L/R	Blue/Red
Br	Brown	Y	Yellow	L/W	Blue/White
Ch	Chocolate	B/L	Black/Blue	L/Y	Blue/Yellow
Dg	Dark green	B/R	Black/Red	R/G	Red/Green
G	Green	B/W	Black/White	R/Y	Red/Yellow
Gy	Gray	B/Y	Black/Yellow	R/W	Red/White
L	Blue	Br/W	Brown/White	W/B	White/Black
Q	Orange	G/R	Green/Red	W/R	White/Red
R	Red	G/Y	Green/Yellow	Y/B	Yellow/Black
Sb	Sky blue	L/B	Blue/Black	Y/L	Yellow/Blue

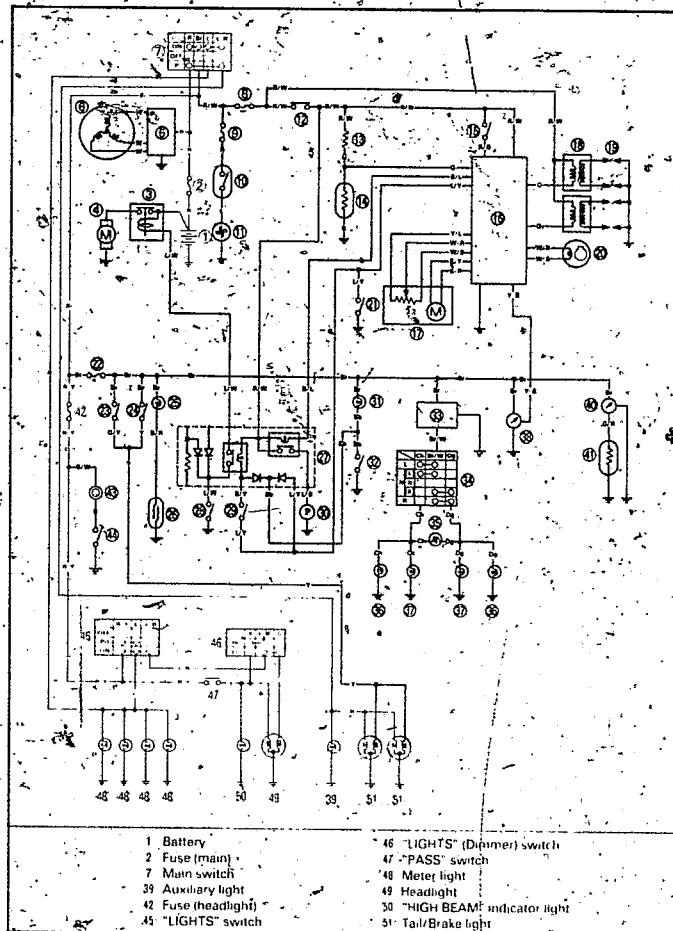
LIGHTING SYSTEM (For GB)

CIRCUIT DIAGRAM



LIGHTING SYSTEM (For F)

CIRCUIT DIAGRAM



TROUBLESHOOTING

HEADLIGHT "HIGH BEAM" INDICATOR LIGHT, TAILLIGHT, AUXILIARY LIGHT AND/OR METER LIGHT DO NOT COME ON.

Procedure

- Check:
1. Fuse (main and head)
 2. Battery
 3. Main switch
 4. "LIGHTS" switch
 5. "LIGHTS" (Dimmer) switch
 6. "PASS" switch
 7. Wiring connection (Entire lighting system)

NOTE:

- Remove the following parts before troubleshooting:
 - 1) Seat
 - 2) Tail cover
 - 3) Fuel tank
 - 4) Air filter case
- Use the following special tool(s) in this troubleshooting.

 Pocket tester.
90890-03112

1. Fuse (main and head)
 - Remove the fuses
 - Connect the pocket tester (1) x 1 to the fuses
 - Check the fuses for continuity
 - Refer to the "FUSE INSPECTION" in the CHAPTER 3

NO CONTINUITY

Replace fuse(s).

CONTINUITY

2. Battery
 - Check the battery condition.
 - Refer to the "BATTERY INSPECTION" section in the CHAPTER 3.

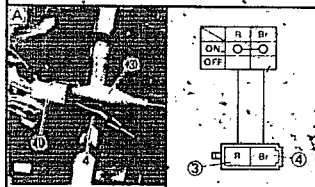
INCORRECT

- Clean battery terminals
- Recharge or replace battery.

CORRECT

3. Main switch

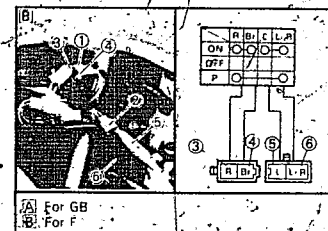
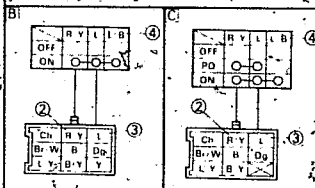
- Disconnect the main switch coupler, 1, 2 from the wireharness.
 - Check the switch component for the continuity between "Red 3, and Brown 4" and "Blue 5) and Blue/Red 6) (F)" and "Red 3) and Blue/Red 6) (F)".
- Refer to the "CHECKING OF SWITCHES" section.



CORRECT

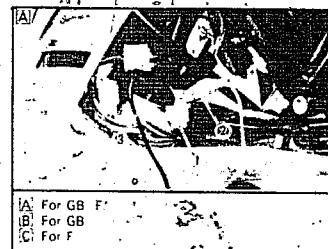
4. "LIGHTS" switch

- Disconnect the handlebar switch (left) coupler, 1 from the wireharness.
 - Check the switch component for the continuity between "Red/Yellow 2 and Blue 3" and "Red/Yellow 2 and Blue/Black 4".
- Refer to the "CHECKING OF SWITCHES" section.



INCORRECT

Replace main switch.

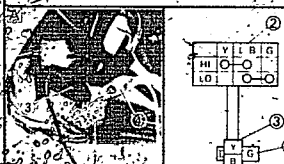


INCORRECT

Replace handlebar switch (left)

5. "LIGHTS" (dimmer) switch

- Disconnect the handlebar switch (left) coupler (1) from the wireharness.
- Check the switch component for the continuity between "Blue/Black (2) and Yellow (3)" and "Blue/Black (2) and Green (4)". Refer to the "CHECKING OF SWITCHES" section.



CORRECT

6. "PASS" switch

- Disconnect the handlebar switch (left) couplers (1), (2) from the wireharness.
- Check the switch component for the continuity between "Red/Yellow (3) and Yellow (4)". Refer to the "CHECKING OF SWITCHES" section.



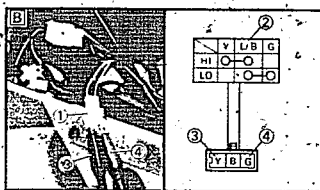
INCORRECT

Replace handlebar switch (left)

INCORRECT

Replace handlebar switch (left)

[A] For GB
[B] For F



7. Wiring connection

- Check the entire lighting system for connections. Refer to the "WIRING DIAGRAM" section.

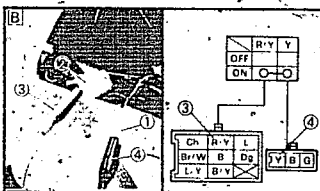
POOR CONNECTION

Correct

CORRECT

- Check condition of each circuit for lighting system. Refer to "LIGHTING SYSTEM CHECK" section.

[A] For GB
[B] For F



INCORRECT

Replace handlebar switch (left)

LIGHTING SYSTEM

ELEC



C-15

LIGHTING SYSTEM

ELEC



LIGHTING SYSTEM CHECK

1. Headlight and "HIGH BEAM" indicator light do not come on.

1. Bulb and bulb socket

• Check the bulb and bulb socket for continuity. Refer to the "CHECKING OF BULBS" section.

NOCONTINUITY

Replace bulb and/or bulb socket

CONTINUITY

2. Voltage

• Connect the pocket tester (DC20V) to the headlight and "HIGH BEAM" indicator light couplers.

Headlight:

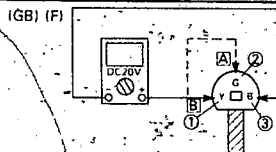
Tester (+) lead → Yellow ① or Green ② lead.

Tester (-) lead → Black ③ lead

"HIGH BEAM" indicator light:

Tester (+) lead → Yellow ④ lead

Tester (-) lead → Black ⑤ lead

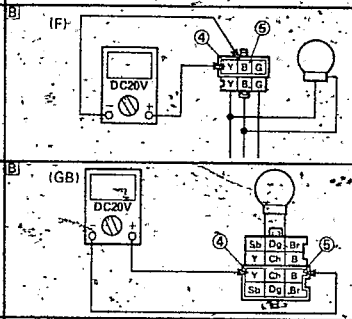


Ⓐ When "LIGHTS" (dimmer) switch is "LO" position.
Ⓑ When "LIGHTS" (dimmer) switch is "HI" position.

• Turn the main switch to "ON".
• Turn the "LIGHTS" switch to "ON".
• Turn the "LIGHTS" (dimmer) switch to "LO" or "HI" position.
• Push the "RASS" switch.
• Check voltage (12V) on the "Green" and "Yellow" lead at bulb socket connectors.

MEETS SPECIFICATION (12V)

This circuit is good.



Wiring circuit from main switch to bulb socket connector is faulty, repair.

1. Meter light does not come on.

1. Bulb and bulb socket

• Check the bulb and bulb socket for continuity. Refer to the "CHECKING OF BULBS" section.

NOCONTINUITY

Replace bulb and/or bulb socket

CONTINUITY

2. Voltage

• Connect the pocket tester (DC20V) to the bulb socket coupler ①, ②.

Tester (+) lead → Blue ③ terminal

Tester (-) lead → Black ④ terminal



Ⓐ For GB, F

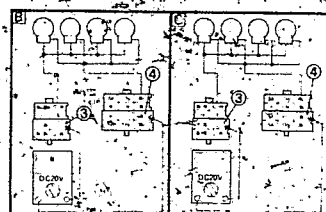
Ⓑ For GB

Ⓒ For F

• Turn the main switch to "ON".
• Turn the "LIGHTS" switch to "PO" or "ON".
• Check for voltage (12V) on the "Blue" lead at the bulb socket connector.

MEETS SPECIFICATION (12V)

This circuit is good.



OUT OF SPECIFICATION

Wiring circuit from main switch to bulb socket connector is faulty, repair.

LIGHTING SYSTEM

ELEC



C-16

3. Auxiliary light does not come on. (For F)

NO CONTINUITY

1. Bulb and bulb socket

• Check the bulb and bulb socket for continuity.
Refer to the "CHECKING OF BULBS" section.

CONTINUITY

2. Voltage

• Connect the pocket tester (DC20V) to the bulb socket connector.

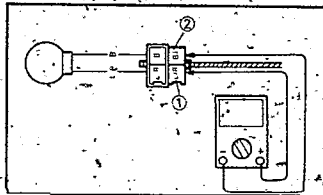
Tester (+) lead → Blue/Red ① lead.
Tester (-) lead → Black ② lead

• Turn the main switch to "ON".
• Turn the "LIGHTS" switch to "OFF".
• Check for voltage (12V) on the Blue/Red lead at the bulb socket connector.

MEETS SPECIFICATION (12V)

This circuit is good.

Bulb and/or bulb socket are faulty, replace.



OUT OF SPECIFICATION

Wiring circuit from main switch to bulb socket connector is faulty, repair.

LIGHTING SYSTEM

ELEC



4. Taillight does not come on.

NO CONTINUITY

1. Bulb and bulb socket

• Check the bulb and bulb socket for continuity.
Refer to the "CHECKING OF BULBS" section.

CONTINUITY

2. Voltage

• Connect the pocket tester (DC20V) to the bulb socket connector.

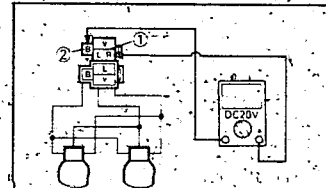
Tester (+) lead → Blue/Red ① terminal
Tester (-) lead → Black ② terminal

• Turn the main switch to "ON".
• Check for voltage (12V) on the Blue/Red lead at the bulb socket connector.

MEETS SPECIFICATION (12V)

This circuit is good.

Replace bulb and/or bulb socket.

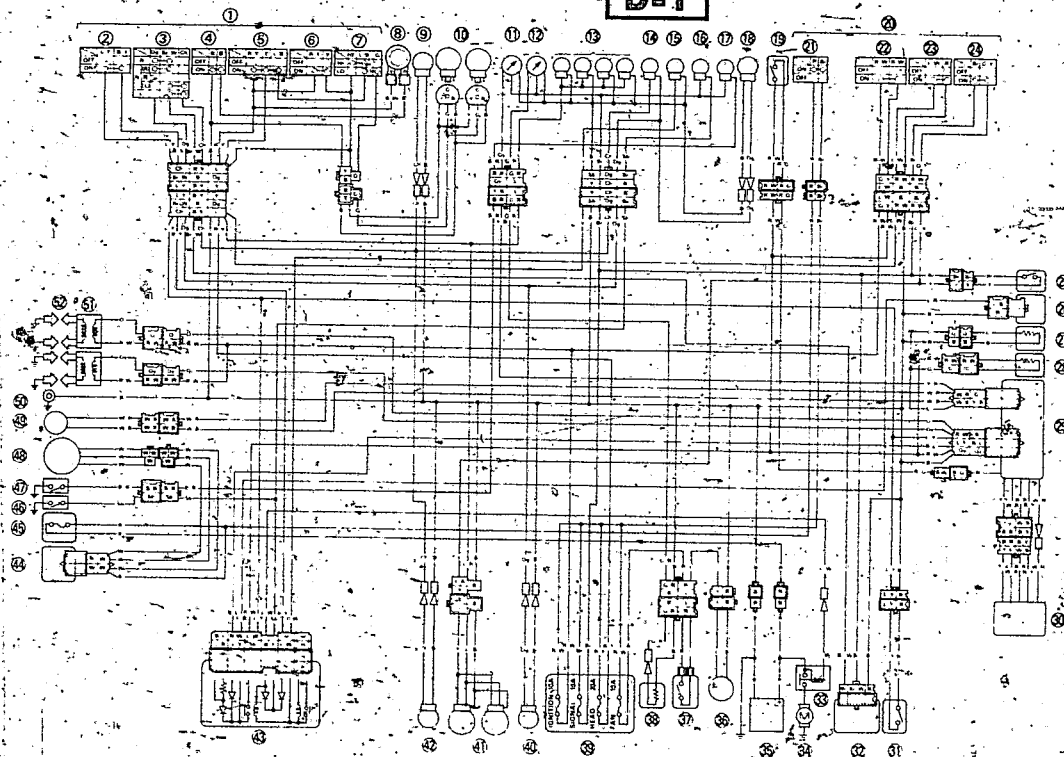


OUT OF SPECIFICATION

Wiring circuit from main switch to bulb socket connector is faulty, repair.

FZR400RR WIRING DIAGRAM (For GB)

D-1



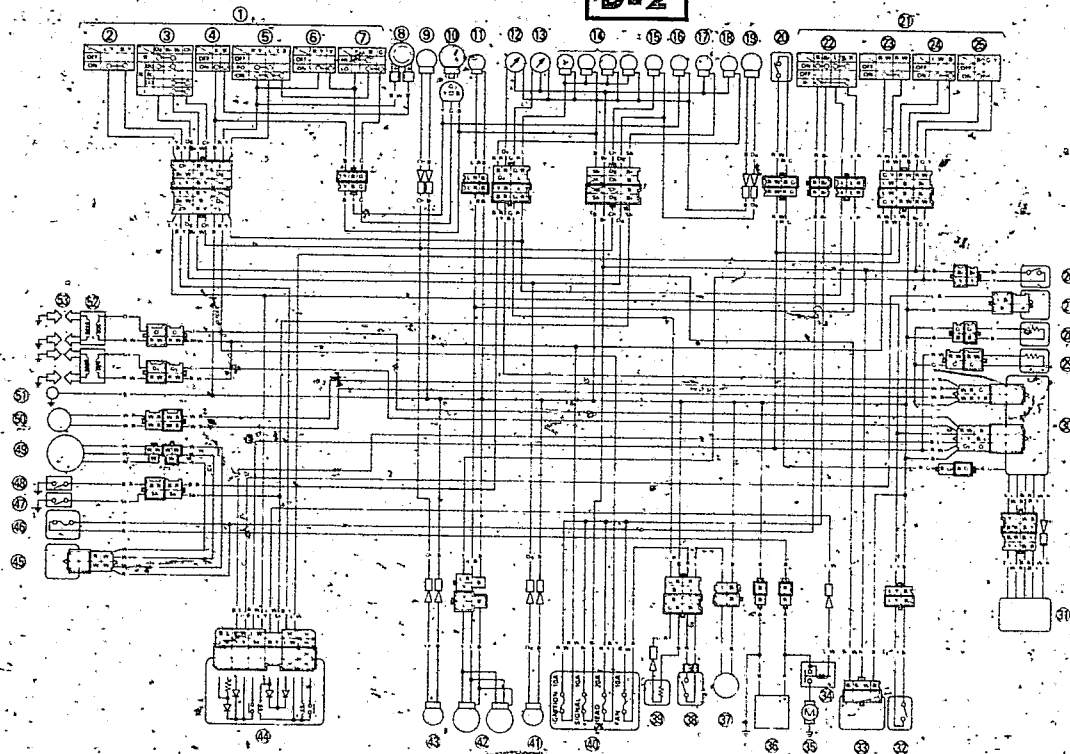
- ① Handlebar switch (left)
- ② Clutch switch
- ③ "TURN" signal switch
- ④ "HORN" switch
- ⑤ "LIGHTS" switch
- ⑥ "PASS" switch
- ⑦ "LIGHTS" (Dimmer) switch
- ⑧ Horn
- ⑨ Front flasher light (left)
- ⑩ Headlight
- ⑪ Tachometer
- ⑫ Engine temperature gauge
- ⑬ Meter light
- ⑭ "TURN" indicator light
- ⑮ "HIGH BEAM" indicator light
- ⑯ "NEUTRAL" indicator light
- ⑰ "OIL" warning indicator light
- ⑱ Front flasher light (right)
- ⑲ Reserve switch
- ⑳ Handlebar switch (right)
- ㉑ Main switch
- ㉒ "ENGINE STOP" switch
- ㉓ "START" switch
- ㉔ Front brake switch
- ㉕ Rear brake switch
- ㉖ Fuel pump
- ㉗ Fuel sender
- ㉘ Resistor
- ㉙ Ignitor unit
- ㉚ Ex-up
- ㉛ Sidestand switch
- ㉜ Flasher relay
- ㉝ Starter relay
- ㉞ Starter motor
- ㉟ Battery
- ㊱ Fan motor
- ㊲ Thermo switch
- ㊳ Thermo unit
- ㊴ Fuse box
- ㊵ Rear flasher light (right)
- ㊶ Tail/brake light
- ㊷ Rear flasher light (left)
- ㊸ Relay
- ㊹ Rectifier/Regulator
- ㊺ Main fuse
- ㊻ Neutral switch
- ㊼ Oil pressure switch
- ㊽ A.C. magneto
- ㊾ Pickup coil
- ㊿ Frame earth
- 1 Ignition coil
- 2 Spark plug

COLOR CODE

B	Black	B/Y	Black/Yellow
Br	Brown	Br/W	Brown/White
Ch	Chocolate	G/R	Green/Red
Dg	Dark green	G/Y	Green/Yellow
G	Green	L/B	Blue/Black
Gy	Gray	L/W	Blue/White
L	Blue	L/Y	Blue/Yellow
O	Orange	R/G	Red/Green
R	Red	R/W	Red/White
Sb	Sky blue	R/Y	Red/Yellow
W	White	W/B	White/Black
Y	Yellow	W/R	White/Red
B/L	Black/Blue	Y/B	Yellow/Black
B/R	Black/Red	Y/L	Yellow/Blue
B/W	Black/White		

FZR400RR WIRING DIAGRAM (For F)

D-2



- ① Handlebar switch (left)
- ② Clutch switch
- ③ "TURN" signal switch
- ④ "HORN" switch
- ⑤ "LIGHTS" switch
- ⑥ "PASS" switch
- ⑦ "LIGHTS" (Dimmer) switch
- ⑧ Horn
- ⑨ Front flasher light (left)
- ⑩ Headlight
- ⑪ Auxiliary light
- ⑫ Tachometer
- ⑬ Engine temperature gauge
- ⑭ Meter light
- ⑮ "TURN" indicator light
- ⑯ "HIGH BEAM" indicator light
- ⑰ "NEUTRAL" indicator light
- ⑱ "OIL" warning indicator light
- ⑲ Front flasher light (right)
- ⑳ Reserve switch
- ㉑ Handlebar switch (right)
- ㉒ Main switch
- ㉓ "ENGINE STOP" switch
- ㉔ "START" switch
- ㉕ Front brake switch
- ㉖ Rear brake switch
- ㉗ Fuel pump
- ㉘ Fuel sender
- ㉙ Resistor
- ㉚ Ignitor unit
- ㉛ Ex-up
- ㉜ Sidestand switch
- ㉝ Flasher relay
- ㉞ Starter relay
- ㉟ Starter motor
- ㊱ Battery
- ㊲ Fan motor
- ㊳ Thermo switch
- ㊴ Thermo unit
- ㊵ Fuse box
- ㊶ Rear flasher light (right)
- ㊷ Tail brake light
- ㊸ Rear flasher light (left)
- ㊹ Relay
- ㊺ Rectifier/Regulator
- ㊻ Main fuse
- ㊼ Neutral switch
- ㊽ Oil pressure switch
- ㊾ A.C. magneto
- ㊿ Pickup coil
- 1 Frame earth
- 2 Ignition coil
- 3 Spark plug

COLOR CODE

B	Black	B/Y	Black/Yellow
Br	Brown	Br/W	Brown/White
Ch	Chocolate	G/R	Green/Red
Dg	Dark green	G/Y	Green/Yellow
G	Green	L/B	Blue/Black
Gy	Gray	L/W	Blue/White
L	Blue	L/Y	Blue/Yellow
O	Orange	L/R	Blue/Red
R	Red	R/G	Red/Green
Sb	Sky blue	R/W	Red/White
W	White	R/Y	Red/Yellow
Y	Yellow	W/B	White/Black
B/L	Black/Blue	W/R	White/Red
B/R	Black/Red	Y/B	Yellow/Black
B/W	Black/White	Y/L	Yellow/Blue