YAMAHA

2004

YZF-R1(S)

5VY1-SE1

SERVICE INFORMATION

FOREWORD

This Service Information has been prepared to introduce new service and data for the YZF-R1(S) 2004. For complete service information procedures it is necessary to use this Service Information together with the following manuals.

YZF-R1(S) 2004 SERVICE MANUAL: 5VY1-ME1

EAS00000

EAS00002

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.

EAS00004

IMPORTANT MANUAL INFORMATION

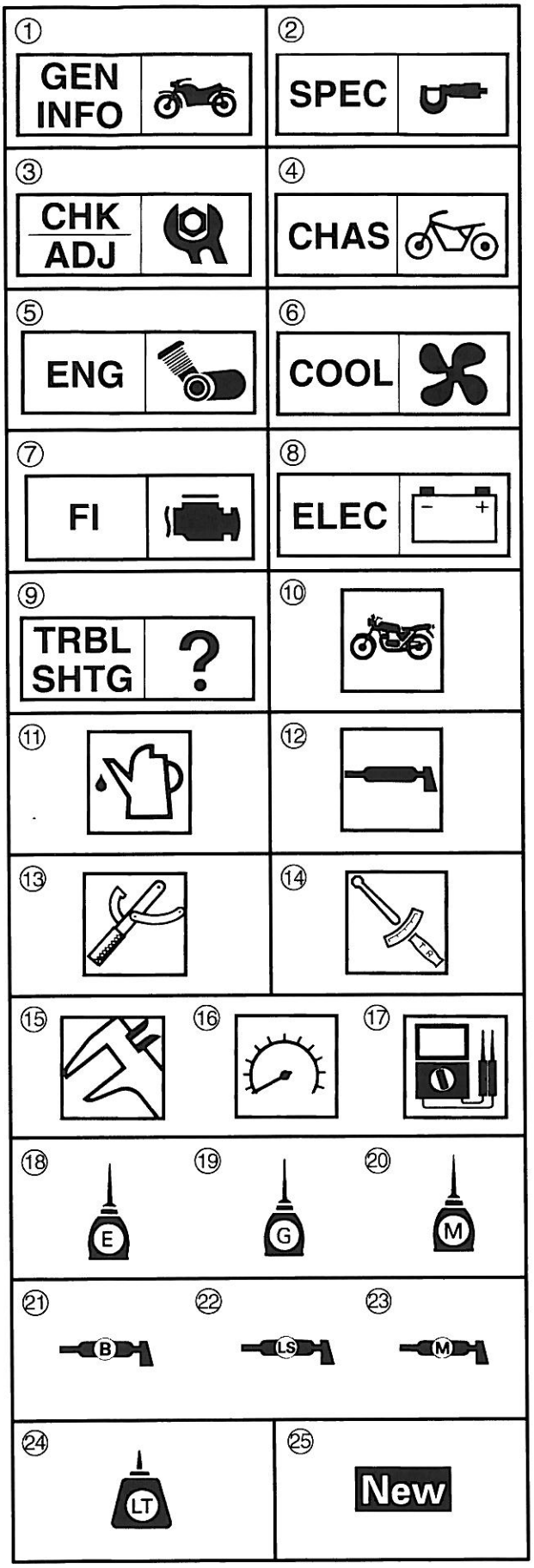
Particularly important information is distinguished in this manual by the following.

⚠ 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.



EAS00008

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

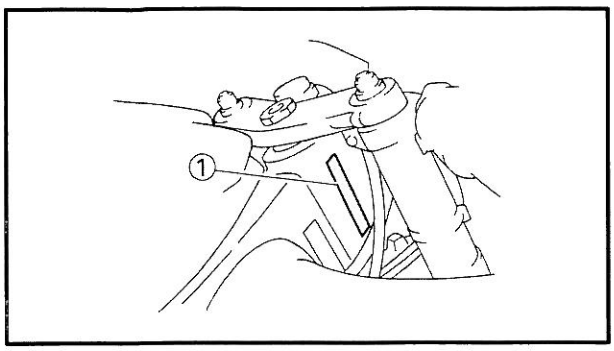
Symbols ⑱ to ㉓ in the exploded diagrams indicate the types of lubricants and lubrication points.

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

CONTENTS



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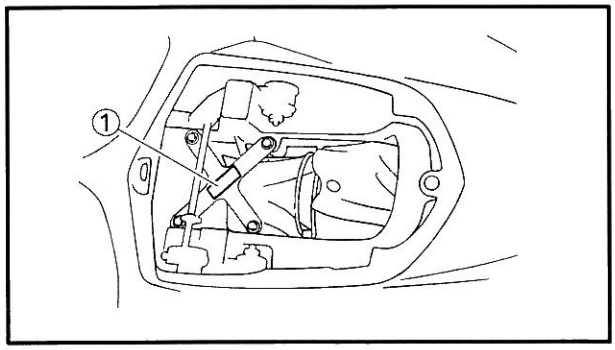
GENERAL INFORMATION

MOTORCYCLE IDENTIFICATION

EAS00017

VEHICLE IDENTIFICATION NUMBER

The vehicle identification number ① is stamped into the right side of the steering head pipe.



EAS00018

MODEL LABEL

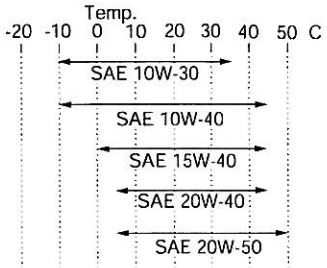
The model label ① is affixed to the frame. This information will be needed to order spare parts.

SPECIFICATIONS

GENERAL SPECIFICATIONS

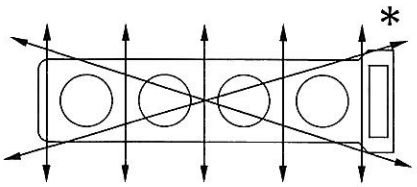
Item	Standard	Limit
Model code	5VY1 (EUR), 5VY2 (FRA), 5VY3 (AUS)	•••
Dimensions		
Overall length	2,065 mm (8.13 in)	•••
Overall width	720 mm (28.3 in)	•••
Overall height	1,105 mm (43.5 in)	•••
Seat height	835 mm (32.9 in)	•••
Wheelbase	1,395 mm (54.9 in)	•••
Minimum ground clearance	135 mm (5.31 in)	•••
Minimum turning radius	3,400 mm (133.9 in)	•••
Weight		
Wet (with oil and a full fuel tank)	193 kg (425 lb)	•••
Maximum load (except motorcycle)	202 kg (445 lb)	•••

ENGINE SPECIFICATIONS

Item	Standard	Limit
Engine		
Engine type	Liquid-cooled, 4-stroke, DOHC	•••
Displacement	998 cm^3 (60.90 cu.in)	•••
Cylinder arrangement	Forward-inclined parallel 4-cylinder	•••
Bore × stroke	77.0 × 53.6 mm (3.03 × 2.11 in)	•••
Compression ratio	12.4 : 1	•••
Engine idling speed	1,150 ~ 1,250 r/min	•••
Vacuum pressure at engine idling speed	22 kPa (165 mmHg, 6.5 inHg)	•••
Standard compression pressure (at sea level)	1,480 kPa (14.80 kg/cm^2,14.80 bar, 210.5 psi) at 350 r/min	•••
Fuel		
Recommended fuel	Premium unleaded gasoline only	•••
Fuel tank capacity		
Total (including reserve)	18 L (3.96 Imp gal, 4.76 US gal)	•••
Reserve only	3.4 L (0.75 Imp gal, 0.90 US gal)	•••
Engine oil		
Lubrication system	Wet sump	•••
Recommended oil	 SAE 20W40 SE or SAE10W30SE API service SE, SF, SG type or higher	
Quantity		
Total amount	3.8 L (3.35 Imp qt, 4.02 US qt)	•••
Without oil filter cartridge replacement	2.9 L (2.55 Imp qt, 3.07 US qt)	•••
With oil filter cartridge replacement	3.1 L (2.73 Imp qt, 3.28 US qt)	•••
Oil pressure	230 kPa at 5,000 r/min (2.3 kg/cm^2 at 5,000 r/min) (2.3 bar at 5,000 r/min) (32.7 psi at 5,000 r/min)	•••
Engine oil temperature	100°C (212°F)	
Relief valve opening pressure	600 ~ 680 kPa (6.0 ~ 6.8 kg/cm^2, 6.0 ~ 6.8 bar, 87.0 ~ 98.6 psi)	

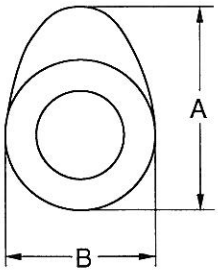
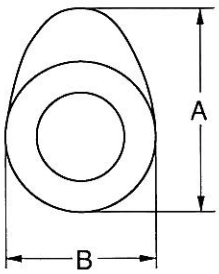
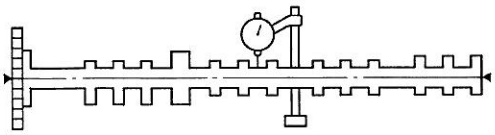
ENGINE SPECIFICATIONS

SPEC

Item	Standard	Limit
Oil filter		
Oil filter type	Paper	•••
Bypass valve opening pressure	80 ~ 120 kPa (0.8 ~ 1.2 kg/cm^2, 0.8 ~ 1.2 bar, 11.6 ~ 17.4 psi)	•••
Oil pump		
Oil pump type	Trochoid	•••
Inner-rotor-to-outer-rotor-tip clearance	0.01 ~ 0.10 mm (0.0004 ~ 0.0039 in)	0.18 mm (0.0071 in)
Outer-rotor-to-oil-pump-housing clearance	0.09 ~ 0.15 mm (0.00035 ~ 0.0059 in)	0.22 mm (0.0087 in)
Cooling system		
Radiator capacity	2.51 L (2.21 Imp qt, 2.65 US qt)	
Radiator cap opening pressure	108 ~ 137 kPa (1.08 ~ 1.37 kg/cm^2, 1.0 ~ 1.3 bar, 15.6 ~ 19.9 psi)	•••
Radiator core		
Width	380 mm (14.96 in)	•••
Height	258 mm (10.2 in)	•••
Depth	24 mm (0.94 in)	•••
Coolant reservoir		
Capacity	0.25 L (0.22 Imp qt, 0.26 US qt)	•••
Water pump		
Water pump type	Single suction centrifugal pump	•••
Reduction ratio	65/43 × 25/32 (1.181)	•••
Max. impeller shaft tilt	•••	0.15 mm (0.006 in)
Starting system type	Electric starter	
Spark plugs		
Model (manufacturer) × quantity	CR9EK (NGK) × 4	•••
Spark plug gap	0.6 ~ 0.7 mm (0.0236 ~ 0.0276 in)	•••
Cylinder head		
Volume	12.5 ~ 13.1 cm^3 (0.76 ~ 0.80 cu.in)	•••
Max. warpage	•••	0.10 mm (0.0039 in)
		

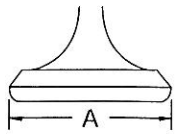
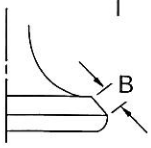
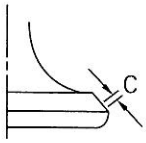
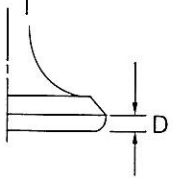
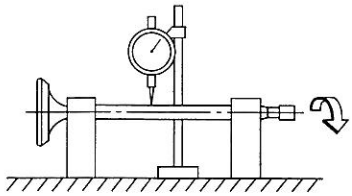
ENGINE SPECIFICATIONS

SPEC

Item	Standard	Limit
Camshafts		
Drive system	Chain drive (right)	•••
Camshaft cap inside diameter	22.500 ~ 22.521 mm (0.8858 ~ 0.8867 in)	•••
Camshaft journal diameter	22.459 ~ 22.472 mm (0.8842 ~ 0.8847 in)	•••
Camshaft-journal-to-camshaft-cap clearance	0.028 ~ 0.062 mm (0.0011 ~ 0.0024 in)	
Intake camshaft lobe dimensions		
		
Measurement A	32.85 ~ 32.95 mm (1.293 ~ 1.297 in)	32.75 mm (1.289 in)
Measurement B	25.14 ~ 25.24 mm (0.990 ~ 0.994 in)	25.04 mm (0.986 in)
Exhaust camshaft lobe dimensions		
		
Measurement A	30.75 ~ 30.85 mm (1.211 ~ 1.215 in)	30.65 mm (1.207 in)
Measurement B	23.09 ~ 23.19 mm (0.909 ~ 0.913 in)	22.99 mm (0.905 in)
Max. camshaft runout	•••	0.03 mm (0.0012 in)
		

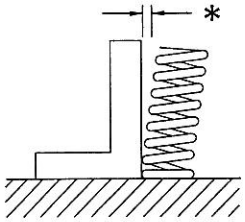
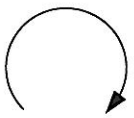
ENGINE SPECIFICATIONS

SPEC

Item	Standard	Limit
Timing chain		
Model/number of links	RH2020/122	•••
Tensioning system	Automatic	•••
Valves, valve seats, valve guides		
Valve clearance (cold)		
Intake	0.11 ~ 0.20 mm (0.0043 ~ 0.0079 in)	•••
Exhaust	0.21 ~ 0.25 mm (0.0083 ~ 0.0098 in)	•••
Valve dimensions		
 Head Diameter	 Face Width	 Seat Width	 Margin Thickness
Valve head diameter A		
Intake	23.4 ~ 23.6 mm (0.9213 ~ 0.9291 in)	•••
Exhaust	24.9 ~ 25.1 mm (0.9803 ~ 0.9882 in)	•••
Valve face width B		
Intake	1.76 ~ 2.90 mm (0.0693 ~ 0.1142 in)	•••
Exhaust	1.76 ~ 2.90 mm (0.0693 ~ 0.1142 in)	•••
Valve seat width C		
Intake	0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in)	1.6 mm (0.06 in)
Exhaust	0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in)	1.6 mm (0.06 in)
Valve margin thickness D		
Intake	0.5 ~ 0.9 mm (0.0197 ~ 0.0354 in)	0.5 mm (0.02 in)
Exhaust	0.5 ~ 0.9 mm (0.0197 ~ 0.0354 in)	0.5 mm (0.02 in)
Valve stem diameter		
Intake	3.975 ~ 3.990 mm (0.1565 ~ 0.1571 in)	3.945 mm (0.1553 in)
Exhaust	4.460 ~ 4.475 mm (0.1756 ~ 0.1762 in)	4.425 mm (0.1742 in)
Valve guide inside diameter		
Intake	4.000 ~ 4.012 mm (0.1575 ~ 0.1580 in)	4.050 mm (0.1594 in)
Exhaust	4.500 ~ 4.512 mm (0.1772 ~ 0.1776 in)	4.550 mm (0.1791 in)
Valve-stem-to-valve-guide clearance		
Intake	0.010 ~ 0.037 mm (0.0004 ~ 0.0015 in)	0.08 mm (0.0032 in)
Exhaust	0.025 ~ 0.052 mm (0.0010 ~ 0.0020 in)	0.10 mm (0.0039 in)
Valve stem runout	•••	0.01 mm (0.0004 in)
		
Valve seat width		
Intake	0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in)	1.6 mm (0.06 in)
Exhaust	0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in)	1.6 mm (0.06 in)

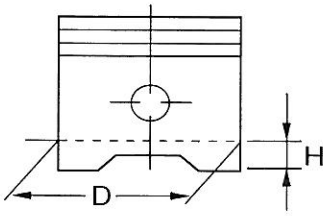
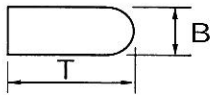
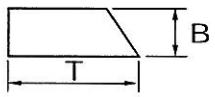
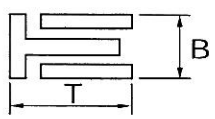
ENGINE SPECIFICATIONS

SPEC

Item	Standard	Limit
Valve springs		
Free length		
Intake	39.3 mm (1.55 in)	37.3 mm (1.47 in)
Exhaust	39.3 mm (1.55 in)	37.3 mm (1.47 in)
Installed length (valve closed)		
Intake	32.7 mm (1.29 in)	•••
Exhaust	32.8 mm (1.29 in)	•••
Compressed spring force (installed)		
Intake	145.9 ~ 167.9 N (14.88 ~ 17.12 kg, 32.80 ~ 37.74 lb)	•••
Exhaust	164.1 ~ 188.9 N (16.73 ~ 19.26 kg, 36.89 ~ 42.46 lb)	•••
Spring tilt 		
Intake	•••	2.5°/1.7 mm (0.07 in)
Exhaust	•••	2.5°/1.7 mm (0.07 in)
Winding direction (top view)		
Intake	Clockwise	•••
Exhaust	Clockwise 	•••
Cylinders		
Cylinder arrangement	Forward-inclined, parallel 4-cylinder	•••
Bore × stroke	77.0 mm × 53.6 mm (3.03 × 2.11 in)	•••
Compression ratio	12.4 : 1	•••
Bore	77.00 ~ 77.01 mm (3.0315 ~ 3.0319 in)	•••
Max. out-of-round	•••	0.005 mm (0.0002 in)

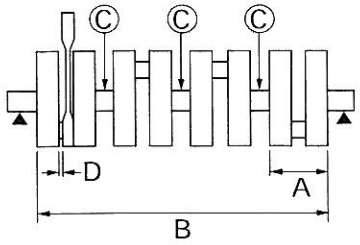
ENGINE SPECIFICATIONS

SPEC

Item	Standard	Limit
Piston		
Piston-to-cylinder clearance	0.010 ~ 0.035 mm (0.0004 ~ 0.0014 in)	0.120 mm (0.0047 in)
Diameter D	76.975 ~ 76.990 mm (3.0305 ~ 3.0311 in)	•••
		
Height H	5 mm (0.20 in)	•••
Piston pin bore (in the piston)		
Diameter	17.002 ~ 17.013 mm (0.6694 ~ 0.6698 in)	17.043 mm (0.6710 in)
Offset	0.5 mm (0.0197 in)	•••
Offset direction	Intake side	•••
Piston pins		
Outside diameter	16.991 ~ 17.000 mm (0.6689 ~ 0.6693 in)	16.971 mm (0.6682 in)
Piston-pin-to-piston-pin-bore clearance	0.002 ~ 0.022 mm (0.0001 ~ 0.0009 in)	0.072 mm (0.0028 in)
Piston rings		
Top ring 		
Ring type	Barrel	•••
Dimensions (B × T)	0.90 × 2.75 mm (0.04 × 0.11 in)	•••
End gap (installed)	0.15 ~ 0.25 mm (0.0059 ~ 0.0098 in)	0.50 mm (0.0197 in)
Ring side clearance	0.030 ~ 0.065 mm (0.0012 ~ 0.0026 in)	0.115 mm (0.0045 in)
2nd ring 		
Ring type	Taper	•••
Dimensions (B × T)	0.80 × 2.75 mm (0.03 × 0.11 in)	•••
End gap (installed)	0.30 ~ 0.45 mm (0.0118 ~ 0.0177 in)	0.80 mm (0.0315 in)
Ring side clearance	0.020 ~ 0.055 mm (0.0008 ~ 0.0022 in)	0.115 mm (0.0045 in)
Oil ring 		
Dimensions (B × T)	1.50 × 2.25 mm (0.06 × 0.09 in)	•••
End gap (installed)	0.10 ~ 0.40 mm (0.0039 ~ 0.0158 in)	•••

ENGINE SPECIFICATIONS

SPEC

Item	Standard	Limit
Connecting rods		
Crankshaft-pin-to-big-end-bearing clearance	0.034 ~ 0.058 mm (0.0013 ~ 0.0023 in)	0.09 mm (0.0035 in)
Bearing color code	1 = Blue 2 = Black 3 = Brown 4 = Green	•••
Crankshaft		
		
Width A	55.20 ~ 56.60 mm (2.17 ~ 2.23 in)	•••
Width B	298.8 ~ 300.7 mm (11.76 ~ 11.84 in)	•••
Max. runout C	•••	0.03 mm (0.0012 in)
Big end side clearance D	0.160 ~ 0.262 mm (0.0063 ~ 0.0103 in)	•••
Crankshaft-journal-to-crankshaft-journal-bearing clearance	0.014 ~ 0.037 mm (0.0006 ~ 0.0015 in)	0.10 mm (0.0039 in)
Bearing color code	0 = White 1 = Blue 2 = Black 3 = Brown 4 = Green	•••

ENGINE SPECIFICATIONS

SPEC

Item	Standard	Limit
Clutch		
Clutch type	Wet, multiple disc	•••
Clutch release method	Outer pull, rack and pinion pull	•••
Clutch release method operation	Cable operation	•••
Operation	Left-hand operation	•••
Clutch cable free play (at the end of the clutch lever)	10 ~ 15 mm (0.39 ~ 0.59 in)	•••
Friction plates		
Color code	Purple	•••
Thickness	2.9 ~ 3.1 mm (0.114 ~ 0.122 in)	2.8 mm (0.110 in)
Plate quantity	7	•••
Color code	Green	•••
Thickness	2.9 ~ 3.1 mm (0.114 ~ 0.112 in)	2.8 mm (0.110 in)
Plate quantity	1	•••
Color code	–	•••
Thickness	2.9 ~ 3.1 mm (0.114 ~ 0.112 in)	2.8 mm (0.110 in)
Plate quantity	1	•••
Clutch plates		
Thickness	1.9 ~ 2.1 mm (0.07 ~ 0.08 in)	•••
Plate quantity	8	•••
Max. warpage	•••	0.1 mm (0.0039 in)
Clutch springs		
Free length	52.5 mm (2.07 in)	49.9 mm (1.96 in)
Spring quantity	6	•••

ENGINE SPECIFICATIONS

SPEC

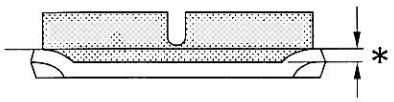
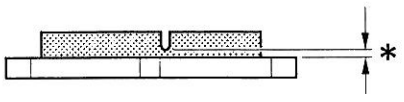
Item	Standard	Limit
Transmission		
Transmission type	Constant mesh, 6-speed	•••
Primary reduction system	Spur gear	•••
Primary reduction ratio	65/43 (1.512)	•••
Secondary reduction system	Chain drive	•••
Secondary reduction ratio	45/17 (2.647)	•••
Operation	Left-foot operation	•••
Gear ratios		
1st gear	38/15 (2.533)	•••
2nd gear	33/16 (2.063)	•••
3rd gear	37/21 (1.762)	•••
4nd gear	35/23 (1.522)	•••
5th gear	30/22 (1.364)	•••
6th gear	33/26 (1.269)	•••
Max. main axle runout	•••	0.08 mm (0.0032 in)
Max. drive axle runout	•••	0.08 mm (0.0032 in)
Shifting mechanism		
Shift mechanism type	Shift drum/Guide bar	•••
Max. shift fork guide bar bending	•••	0.10 mm (0.0039 in)
Air filter type	Oil coated paper element	•••
Fuel pump		
Pump type	Electrical	•••
Model (manufacturer)	5PW (DENSO)	•••
Output pressure	294 kPa (2.94 kg/cm^2, 2.94 bar, 42.6 psi)	•••
Throttle position sensor		
Resistance	4.9 ~ 5.1 kΩ at 20°C (68°F)	•••
Output voltage (at idle)	0.63 ~ 0.73 V	
Throttle bodies		
Model (manufacturer) × quantity	45EIDW (MIKUNI) × 2	•••
Intake vacuum pressure	22 kPa (165 mmHg, 6.4966 inHg)	•••
Throttle cable free play (at the flange of the throttle grip)	3 ~ 5 mm (0.12 ~ 0.20 in)	•••
ID mark	5VY1 00	•••
Throttle valve size	#100	•••

CHASSIS SPECIFICATIONS

Item	Standard	Limit
Frame		
Frame type	Diamond	•••
Caster angle	24°	•••
Trail	97 mm (3.82 in)	•••
Front wheel		
Wheel type	Cast wheel	•••
Rim		
Size	17 M/C × MT3.50	•••
Material	Aluminum	•••
Wheel travel	120 mm (4.72 in)	•••
Wheel runout		
Max. radial wheel runout	•••	1 mm (0.04 in)
Max. lateral wheel runout	•••	0.5 mm (0.02 in)
Rear wheel		
Wheel type	Cast wheel	•••
Rim		
Size	17 M/C × MT6.00	•••
Material	Aluminum	•••
Wheel travel	130 mm (5.12 in)	•••
Wheel runout		
Max. radial wheel runout	•••	1 mm (0.04 in)
Max. lateral wheel runout	•••	0.5 mm (0.02 in)
Front tire		
Tire type	Tubeless	•••
Size	120/70 ZR17 M/C (58W)	•••
Model (manufacturer)	Pilot POWER C (MICHELIN) D218FL (DUNLOP)	•••
Tire pressure (cold)		
0 ~ 90 kg (0 ~ 198 lb)	250 kPa (2.5 kgf/cm^2, 2.5 bar, 35.6 psi)	•••
90 ~ 202 kg (198 ~ 445 lb)	250 kPa (2.5 kgf/cm^2, 2.5 bar, 35.6 psi)	•••
High-speed riding	250 kPa (2.5 kgf/cm^2, 2.5 bar, 35.6 psi)	•••
Min. tire tread depth	•••	1.6 mm (0.06 in)
Rear tire		
Tire type	Tubeless	•••
Size	190/50 ZR17 M/C (73W)	•••
Model (manufacturer)	Pilot POWER G (MICHELIN) D218L (DUNLOP)	•••
Tire pressure (cold)		
0 ~ 90 kg (0 ~ 198 lb)	290 kPa (2.9 kgf/cm^2, 2.9 bar, 41.3 psi)	•••
90 ~ 202 kg (198 ~ 445 lb)	290 kPa (2.9 kgf/cm^2, 2.9 bar, 41.3 psi)	•••
High-speed riding	290 kPa (2.9 kgf/cm^2, 2.9 bar, 41.3 psi)	•••
Min. tire tread depth	•••	1.6 mm (0.06 in)

CHASSIS SPECIFICATIONS

SPEC

Item	Standard	Limit
Front brakes		
Brake type	Dual disc brake	•••
Operation	Right hand operation	•••
Recommended fluid	DOT 4	•••
Brake lever free play	2.3 ~ 11.5 mm (0.09 ~ 0.45 in)	•••
Brake discs		
Diameter × thickness	320 × 4.5 mm (12.60 × 0.18 in)	•••
Min. thickness	•••	4.0 mm (0.16 in)
Max. deflection	•••	0.1 mm (0.004 in)
Brake pad lining thickness (inner)	4.5 mm (0.18 in)	0.5 mm (0.02 in)
Brake pad lining thickness (outer)	4.5 mm (0.18 in)	0.5 mm (0.02 in)
		
Master cylinder inside diameter	14 mm (0.55 in)	•••
Caliper cylinder inside diameter	30.1 mm and 27 mm (1.19 in and 1.06 in)	•••
Rear brake		
Brake type	Single disc brake	•••
Operation	Right foot operation	•••
Recommended fluid	DOT 4	•••
Brake pedal freeplay	4.3 ~ 9.3 mm (0.17 ~ 0.37 in)	•••
Brake discs		
Diameter × thickness	220 × 5 mm (8.66 × 0.20 in)	•••
Min. thickness	•••	4.5 mm (0.18 in)
Max. deflection	•••	0.15 mm (0.006 in)
Brake pad lining thickness (inner)	6.0 mm (0.24 in)	1.0 mm (0.04 in)
Brake pad lining thickness (outer)	6.0 mm (0.24 in)	1.0 mm (0.04 in)
		
Master cylinder inside diameter	12.7 mm (0.5 in)	•••
Caliper cylinder inside diameter	31.8 mm (1.25 in)	•••

CHASSIS SPECIFICATIONS

SPEC

Item	Standard	Limit
Front suspension		
Suspension type	Telescopic fork	•••
Front fork type	Coil spring/oil damper	•••
Front fork travel	120 mm (4.72 in)	•••
Spring		
Free length	236.5 mm (9.31 in)	231.8 mm (9.13 in)
Spacer length	100 mm (3.937 in)	•••
Installed length	222.5 mm (8.76 in)	•••
Spring rate (K1)	8.83 N/mm (0.90 kg/mm, 50.42 lb/in)	•••
Spring stroke (K1)	0 ~ 120 mm (0 ~ 4.7244 in)	•••
Inner tube outer diameter	43 mm (1.69 in)	•••
Inner tube bending limit	•••	0.2 mm (0.01 in)
Optional spring available	No	•••
Fork oil		
Recommended oil	Suspension oil "01" or equivalent	•••
Quantity (each front fork leg)	0.53 L (0.47 Imp qt, 0.56 US qt)	•••
Level (from the top of the outer tube, with the outer tube fully compressed, and without the fork spring)	76 mm (2.99 in)	•••
Spring preload adjusting positions		
Minimum	8	•••
Standard	4.5	•••
Maximum	1	•••
Rebound damping adjusting positions		
Minimum*	26	•••
Standard*	10	•••
Maximum*	1	•••
Compression damping adjusting positions		
Minimum*	25	•••
Standard*	10	•••
Maximum*	1	•••
*from the fully turned-in position		

CHASSIS SPECIFICATIONS

SPEC

Item	Standard	Limit
Steering		
Steering bearing type	Angular bearing	•••
Lock to lock angle (left)	27°	•••
Lock to lock angle (right)	27°	•••
Rear suspension		
Suspension type	Swingarm (link suspension)	•••
Rear shock absorber assembly type	Coil spring/gas-oil damper	•••
Rear shock absorber assembly travel	65 mm (2.56 in)	•••
Spring		
Free length	173.5 mm (6.83 in)	•••
Installed length	163.5 mm (6.44 in)	•••
Spring rate (K1)	83.4 N/mm (8.50 kg/mm, 476.21 lb/in)	•••
Spring stroke (K1)	0 ~ 65 mm (0.00 ~ 2.56 in)	•••
Optional spring available	No	•••
Standard spring preload gas/air pressure	1,200 kPa (12 kg/cm^2, 12 bar, 171 psi)	•••
Spring preload adjusting positions		
Minimum	1	•••
Standard	4	•••
Maximum	9	•••
Rebound damping adjusting positions		
Minimum*	20	•••
Standard*	17	•••
Maximum*	1	•••
Compression damping adjusting positions		
Minimum*	20	•••
Standard*	12	•••
Maximum*	1	•••
*from the fully turned-in position		
Swingarm		
Free play (at the end of the swingarm)		
Radial	•••	1.0 mm (0.04 in)
Axial	•••	1.0 mm (0.04 in)
Drive chain		
Model (manufacturer)	50VA8 (DAIDO)	•••
Link quantity	116	•••
Drive chain slack	25 ~ 35 mm (0.98 ~ 1.38 in)	•••
Maximum ten-link section	•••	150.1 mm (5.91 in)

ELECTRICAL SPECIFICATIONS

Item	Standard	Limit
System voltage	12 V	•••
Ignition system		
Ignition system type	DC. T.C.I.	•••
Ignition timing	5° BTDC at 1,050 r/min	•••
Crankshaft position sensor resistance/color	336 ~ 504 Ω at 20°C (68°F)/Gy-B	•••
T.C.I. unit model (manufacturer)	F8T820 (MITSUBISHI) (EUR, AUS)	•••
	F8T821 (MITSUBISHI) (FRA)	•••
Ignition coils		
Model (manufacturer)	F6T558 (MITSUBISHI)	•••
Minimum ignition spark gap	6 mm (0.24 in)	•••
Primary coil resistance	1.19 ~ 1.61 Ω at 20°C (68°F)	•••
Secondary coil resistance	8.5 ~ 11.5 kΩ at 20°C (68°F)	•••
Charging system		
System type	A.C. magneto	•••
Model (manufacturer)	F4T850 (MITSUBISHI)	•••
Normal output	14 V/560 W at 5,000 r/min	•••
Stator coil resistance/color	0.14 ~ 0.18 Ω at 20°C (68°F)/W-W	•••
Rectifier/regulator		
Regulator type	Semi conductor short circuit	•••
Model (manufacture)	FH011AA (SHINDENGEN)	•••
No-load regulated voltage	14.3 ~ 15.1 V	•••
Rectifier capacity	50 A	•••
Withstand voltage	100 V	•••
Battery		
Battery type	YTZ10S	•••
Battery voltage/capacity	12 V/8.6 Ah	•••
Specific gravity	1.310	•••
Manufacturer	YUASA	•••
Ten hour rate amperage	0.8 A	•••
Headlight type	Halogen bulb	
Bulbs (voltage/wattage × quantity)		
Headlight	12 V 55 W × 4	•••
Auxiliary light	12 V 5 W × 2	•••
Tail/brake light	LED × 1	•••
Turn signal light	12 V 10 W × 4	•••
Licence plate light	12 V 5 W × 1	•••
Meter light	LED × 1	•••

ELECTRICAL SPECIFICATIONS

SPEC

Item	Standard	Limit
Indicator light (voltage/wattage × quantity)		
Neutral indicator light	LED × 1	•••
High beam indicator light	LED × 1	•••
Oil level warning light	LED × 1	•••
Turn signal indicator light	LED × 2	•••
Fuel level warning light	LED × 1	•••
Coolant temparture indicator light	LED × 1	•••
Engine trouble warning light	LED × 1	•••
Shift timing indicator light	LED × 1	•••
Immobilizer indicator light	LED × 1	•••
Electric starting system		
System type	Constant mesh	•••
Starter motor		
Model (manufacturer)	5VY (YAMAHA)	•••
Power output	0.9 kW	•••
Brushes		
Overall length	10.8 mm (0.43 in)	3.6 mm (0.14 in)
Spring force	5.28 ~ 7.92 N (538 ~ 808 g, 18.99 ~ 28.48 oz)	•••
Armature coil resistance	0.0090 ~ 0.0110 Ω at 20°C (68°F)	•••
Commutator diameter	24.5 mm (0.96 in)	23.5 mm (0.93 in)
Mica undercut	1.5 mm (0.06 in)	•••
Starter relay		
Model (manufacturer)	2768079-A (JIDECO)	•••
Amperage	180 A	•••
Coil resistance	4.18 ~ 4.62 Ω at 20°C (68°F)	•••
Horn		
Horn type	Plane	•••
Model (manufacturer) × quantity	YF-12 (NIKKO) × 1	•••
Max. amperage	3 A	•••
Performance	105 ~ 113 db/2 m	•••
Coil resistance	1.15 ~ 1.25 Ω at 20°C (68°F)	•••
Turn signal relay		
Relay type	Full transistor	•••
Model (manufacturer)	FE218BH (DENSO)	•••
Self-cancelling device built-in	No	•••
Turn signal blinking frequency	75 ~ 95 cycles/min.	•••
Wattage	10 W × 2 + 3.4 W	•••
Oil level switch		
Model (manufacturer)	5VY (SOMIC ISHIKAWA)	•••
EXUP servo motor		
Model (manufacturer)	5VY (YAMAHA)	•••

ELECTRICAL SPECIFICATIONS

SPEC

Item	Standard	Limit
Fuses (amperage × quantity)		
Main fuse	50 A × 1	•••
Fuel injection system fuse	15 A × 1	•••
Headlight fuse	25 A × 1	•••
Signaling system fuse	10 A × 1	•••
Ignition fuse	15 A × 1	•••
Radiator fan motor fuse	15 A × 2	•••
Backup fuse (odometer and clock)	10 A × 1	•••
Turn signal light fuse	10 A × 1	•••
Reserve fuse	25 A, 15 A, 10 A × 1	•••

EAS00028

CONVERSION TABLE

All specification data in this manual are listed in SI and METRIC UNITS.
Use this table to convert METRIC unit data to IMPERIAL unit data.
Ex.

METRIC		MULTIPLIER		IMPERIAL
** mm	×	0.03937	=	** in
2 mm	×	0.03937	=	0.08 in

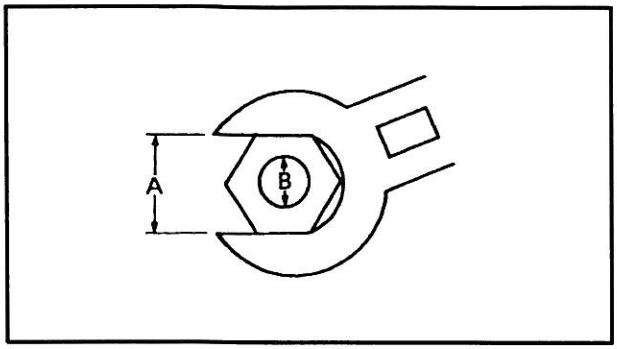
CONVERSION TABLE

METRIC TO IMPERIAL			
	Metric unit	Multiplier	Imperial unit
Tightening torque	m•kg m•kg cm•kg cm•kg	7.233 86.794 0.0723 0.8679	ft•lb in•lb ft•lb in•lb
Weight	kg g	2.205 0.03527	lb oz
Speed	km/hr	0.6214	mph
Distance	km m m cm mm	0.6214 3.281 1.094 0.3937 0.03937	mi ft yd in in
Volume/ Capacity	cc (cm^3) cc (cm^3) lt (liter) lt (liter)	0.03527 0.06102 0.8799 0.2199	oz (IMP liq.) cu•in qt (IMP liq.) gal (IMP liq.)
Misc.	kg/mm kg/cm^2 Centigrade (°C)	55.997 14.2234 9/5+32	lb/in psi (lb/in^2) Fahrenheit (°F)

EAS00030

GENERAL TIGHTENING TORQUE SPECIFICATIONS

This chart specifies tightening torques for standard fasteners with a standard ISO thread pitch. Tightening torque specifications for special components or assemblies are provided for each chapter of this manual. To avoid warpage, tighten multi-fastener assemblies in a crisscross pattern and progressive stages until the specified tightening torque is reached. Unless otherwise specified, tightening torque specifications require clean, dry threads. Components should be at room temperature.



A: Distance between flats
B: Outside thread diameter

A (nut)	B (bolt)	General tightening torques		
		Nm	m•kg	ft•lb
10 mm	6 mm	6	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

TIGHTENING TORQUES

ENGINE TIGHTENING TORQUES

Item	Fastener	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m•kg	ft•lb	
Spark plugs	—	M10	4	13	1.3	9.4	
Cylinder head	Nut	M10	10	See NOTE 1			E
	Bolt	M6	2	12	1.2	8.7	
Camshaft caps	Bolt	M6	28	10	1.0	7.2	M
Cylinder head cover	Bolt	M6	6	12	1.2	8.7	
Cylinder head (exhaust pipe)	Stud bolt	M8	8	15	1.5	11	
Air indication system cap	Bolt	M6	4	10	1.0	7.2	LT
Camshaft sprockets	Bolt	M7	4	24	2.4	17	
Cylinder head and throttle body	Clamp	M5	4	3	0.3	2.2	
Connecting rod caps	Bolt	M8	8	20+150°	2.0+150°	14+150°	M
Generator rotor	Bolt	M10	1	60	6.0	43	E
Timing chain tensioner	Bolt	M6	2	10	1.0	7.2	
Water pump outlet pipe	Bolt	M6	1	10	1.0	7.2	LT
Water pump inlet pipe (water pump side)	Bolt	M6	1	10	1.0	7.2	LT
Water pump inlet pipe (front side)	Bolt	M6	1	10	1.0	7.2	
Oil/water pump assembly sprocket	Bolt	M6	1	15	1.5	11	LT
Water pump	Bolt	M6	2	12	1.2	8.7	LT
Thermostat cover	Nut	M6	2	10	1.0	7.2	
Thermostat inlet pipe	Bolt	M6	1	10	1.0	7.2	
Oil cooler	Bolt	M20	1	63	6.3	46	E
Engine oil drain bolt	Bolt	M14	1	43	4.3	31	
Oil pipe	Bolt	M6	2	10	1.0	7.2	LT
Oil strainer	Bolt	M6	3	10	1.0	7.2	LT
Oil delivery pipe	Bolt	M6	3	10	1.0	7.2	LT
Oil filter union bolt	Bolt	M20	1	70	7.0	51	
Oil filter	—	M20	1	17	1.7	12	E
Oil pan	Bolt	M6	14	12	1.2	8.7	
Oil pan	Bolt	M6	1	12	1.2	8.7	LT
Air filter case cover	Screw	M5	10	1.7	0.17	1.2	
Throttle body and throttle body joint	Clamp	M5	4	3	0.3	2.2	
Throttle body and funnel	Bolt	M5	6	4.2	0.42	3.0	
Throttle cable	Nut	M6	1	4.5	0.45	3.3	
Throttle cable adjuster	Bolt	M6	1	4.5	0.45	3.3	
Stator coil	Screw	M6	3	14	1.4	10	LT
Generator rotor cover and bearing housing	Screw	M6	3	10	1.0	7.2	LT
Pull lever cover	Bolt	M6	2	10	1.0	7.2	
Thermostat assembly stay	Bolt	M6	2	10	1.0	7.2	
Starter clutch idler gear	Bolt	M6	1	10	1.0	7.2	LT
Clutch boss	Nut	M20	1	95	9.5	69	Stake
Clutch spring	Bolt	M6	6	10	1.0	7.2	
Drive sprocket	Nut	M22	1	85	8.5	61	Use a lock washer

TIGHTENING TORQUES

SPEC

Item	Fastener	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m•kg	ft•lb	
Exhaust pipe and cylinder head	Nut	M8	8	20	2.0	14	
Catalyst pipe assembly and muffler	Bolt	M8	2	20	2.0	14	
Exhaust pipe and exhaust valve pipe assembly	Bolt	M6	5	10	1.0	7.2	
Exhaust valve pipe and housing	Bolt	M6	1	10	1.0	7.2	
Pulley and shaft arm	Nut	M6	1	7	0.7	5.0	
EXUP pulley bracket	Bolt	M6	1	10	1.0	7.2	
EXUP pulley cover	Bolt	M6	2	10	1.0	7.2	
Exhaust valve pipe and bracket	Bolt	M8	1	20	2.0	14	
EXUP cable nut	Nut	M6	2	7	0.7	5.0	
Catalyst pipe bracket and frame	Bolt	M8	1	20	2.0	14	
Catalyst pipe and catalyst pipe bracket	Bolt	M8	1	20	2.0	14	
Exhaust valve pipe and catalyst pipe	Bolt	M8	1	20	2.0	14	
EXUP servo motor	Bolt	M6	2	7	0.7	5.0	
Muffler and rear frame	Bolt	M8	2	23	2.3	17	
Muffler cover	Bolt	M6	2	10	1.0	7.2	
Crankcase	Stud bolt	M10	10	8	0.8	5.8	E
Crankcase (main journal)	Bolt	M9	10	See NOTE 2			E
Crankcase	Bolt	M6	10	12	1.2	8.7	E
Crankcase	Bolt	M8	1	24	2.4	17	E, LT
Crankcase	Bolt	M8	5	24	2.4	17	E
Generator rotor cover	Bolt	M6	4	12	1.2	8.7	
Generator rotor cover	Bolt	M8	3	22	2.2	16	
Drive sprocket cover	Bolt	M6	2	10	1.0	7.2	
Drive sprocket cover	Bolt	M6	1	10	1.0	7.2	LT
Crankcase cover (left)	Screw	M6	3	10	1.0	7.2	
Clutch cover	Bolt	M6	7	12	1.2	8.7	
Clutch cover	Bolt	M6	1	12	1.2	8.7	LT
Pickup rotor cover	Bolt	M6	6	12	1.2	8.7	
Breather cover	Bolt	M6	4	12	1.2	8.7	
Breather plate	Bolt	M6	3	10	1.0	7.2	LT
Plate	Bolt	M6	2	10	1.0	7.2	LT
Pickup rotor cover blind bolt	Bolt	M8	1	15	1.5	11	
Generator rotor cover plug	Plug	M20	1	8	0.8	5.8	
Main gallery plug (oil return)	Plug	M16	3	8	0.8	5.8	
Main gallery plug	Plug	M20	1	8	0.8	5.8	
Oil return pipe	Bolt	M6	2	10	1.0	7.2	LT
Oil return plug	Screw	M12	2	24	2.4	17	LT
Stator coil lead	Bolt	M6	1	10	1.0	7.2	LT

TIGHTENING TORQUES

SPEC

Item	Fastener	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m•kg	ft•lb	
Main axle bearing housing	Bolt	M6	3	12	1.2	8.7	LT
Shift fork shaft stopper	Bolt	M6	2	10	1.0	7.2	LT
Stopper screw	Screw	M8	1	22	2.2	16	LT
Shift rod lock nut (rear)	Nut	M6	1	7	0.7	5.0	Left thread
Shift rod lock nut (front)	Nut	M6	1	7	0.7	5.0	
Shift rod joint	Bolt	M6	1	10	1.0	7.2	LT
Shift arm	Bolt	M6	1	10	1.0	7.2	
E.C.U.	Screw	M6	2	7	0.7	5.0	
Neutral switch	—	M10	1	20	2.0	15	
EXUP servo motor cover	Screw	M5	2	2	0.2	1.5	
Coolant temperature sensor	—	M12	1	18	1.8	13	
Cylinder identification sensor	Bolt	M6	1	8	0.8	5.7	LT
Atmospheric pressure sensor	Screw	M5	2	7	0.7	5.0	
Crankshaft position sensor	Bolt	M6	1	10	1.0	7.2	LT
Oil level switch	Bolt	M6	2	10	1.0	7.2	

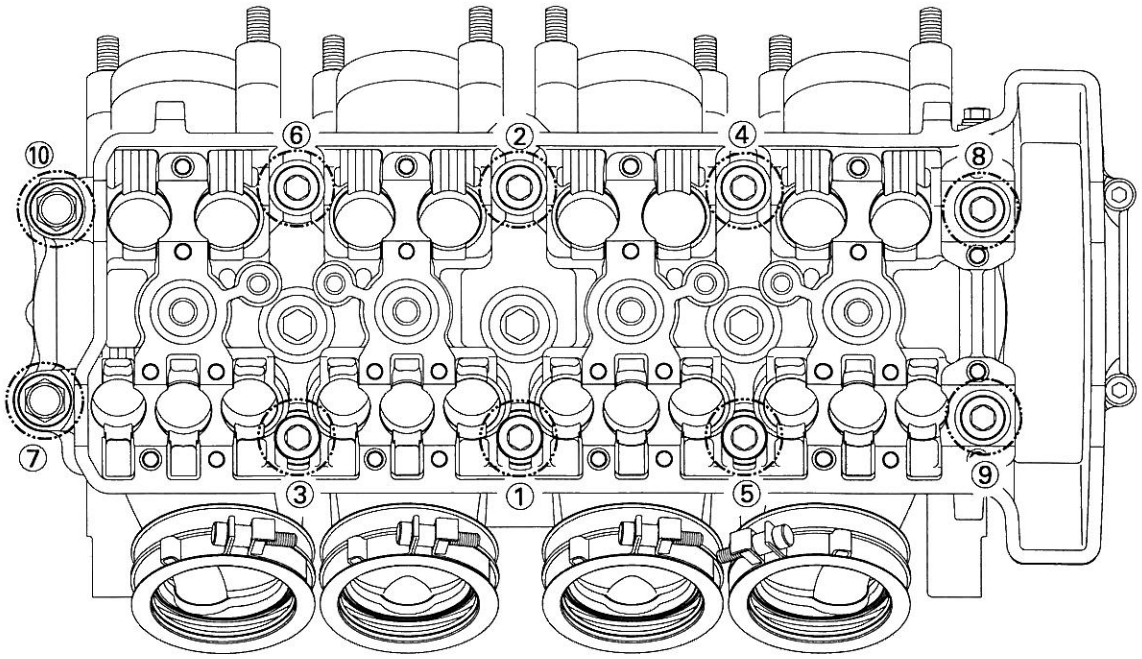
NOTE 1:

1. First, tighten the bolts to approximately 19 Nm (1.9 m•kg, 14 ft•lb) with a torque wrench following the tightening order.
2. Retighten the bolts 67 Nm (6.7 m•kg, 48 ft•lb) with a torque wrench.

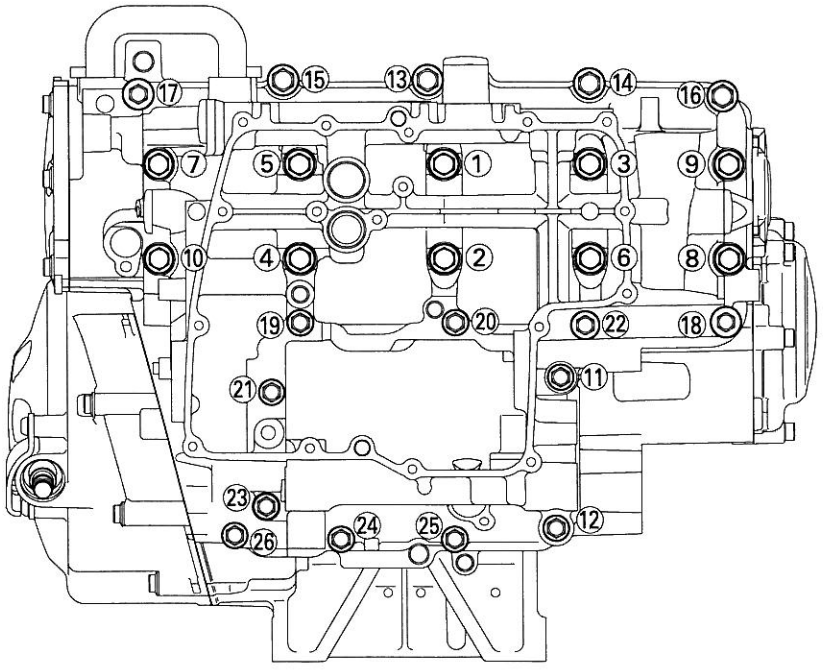
NOTE 2:

1. First, tighten the bolts to approximately 20 Nm (2.0 m•kg, 15 ft•lb) with a torque wrench following the tightening order.
2. Loosen the all bolts one by one following the tightening order and then tighten them to 20 Nm (2.7 m•kg, 15 ft•lb) again.
3. Retighten the bolts further to reach the specified angle (60°).

Cylinder head tightening sequence:



Crankcase tightening sequence.



CHASSIS TIGHTENING TORQUES

Item	Thread size	Tightening			Remarks
		Nm	m•kg	ft•lb	
Upper bracket and outer tube	M8	26	2.6	19	
Upper bracket and steering stem nut	M28	113	11.3	82	
Handlebar and outer tube	M8	17	1.7	12	
Handlebar and upper bracket	M6	13	1.3	9	
Steering shaft and ring nut	M30	18	1.8	13	See NOTE 1
Outer tube and under bracket	M8	23	2.3	17	
Main switch and upper bracket	M8	26	2.6	19	
Front brake master cylinder cap stopper	M4	1.2	0.12	0.9	
Front brake hose union bolts	M10	30	3.0	22	
Front brake master cylinder and bracket	M6	13	1.3	9	
Meter assembly and front cowling stay	—	1.3	0.13	0.9	
Headlight and front cowling stay	—	0.8	0.08	0.6	
Front cowling and headlight assembly	—	1.5	0.15	1.1	
Cover 7, 8 and frame	M6	5	0.5	3.6	
Under cowling and engine	M6	5	0.5	3.6	
Windshield and front cowling	M5	0.4	0.04	0.3	
Duct and console panel	M5	1.3	0.13	0.9	
End grip and handlebar	M6	4	0.4	2.9	
Horn bracket and under bracket	M6	4	0.4	2.9	
Coolant reservoir tank and frame	M6	5	0.5	3.6	
Engine mount front (left and right)	M10	45	4.5	33	See NOTE 2
Engine mount rear upper	M10	51	5.1	37	
Engine mount rear under	M10	51	5.1	37	
Engine mount rear adjust bolt	M16	7	0.7	5.1	
Catalyst pipe stay and frame	M10	44	4.4	32	
Clutch cable lock nut (engine side)	M8	7	0.7	5.1	
Main frame and rear frame	M10	41	4.1	30	
Throttle cable adjust nut (throttle body side)	M6	5	0.5	3.6	
Cover 2 and plate	—	0.8	0.08	0.6	
Pivot shaft and nut	M18	105	10.5	76	
Connecting rod and frame	M10	44	4.4	32	
Relay arm and connecting rod	M10	44	4.4	32	
Relay arm and swingarm	M10	44	4.4	32	
Rear shock absorber and relay arm	M10	44	4.4	32	
Rear shock absorber and upper bracket	M10	44	4.4	32	
Upper bracket and frame	M14	92	9.2	67	
Seal guard	M6	7	0.7	5.1	
Drive chain case	M6	7	0.7	5.1	
Chain puller adjust nut	M8	16	1.6	12	
Fuel tank and fuel pump assembly	M5	4	0.4	2.9	
Fuel tank stay (front side) and frame	M6	7	0.7	5.1	
Fuel tank and fuel tank stay (front side)	M6	7	0.7	5.1	
Fuel tank stay (rear side) and rear frame	M6	7	0.7	5.1	
Side cover and fuel tank	M5	0.4	0.04	0.3	
Rider seat and frame	M6	7	0.7	5.1	
Seat lock plate and rear frame	M6	10	1.0	7	
Side cover (rear side) and frame	M5	4	0.4	2.9	

TIGHTENING TORQUES

SPEC

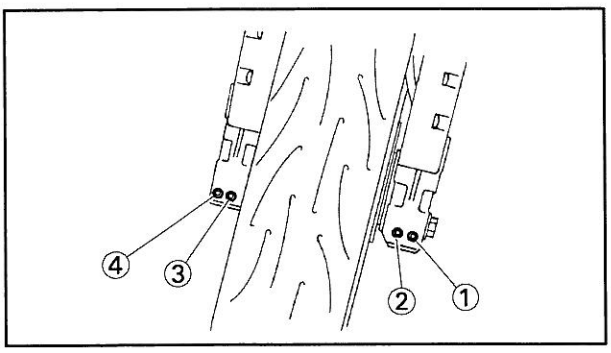
Item	Thread size	Tightening			Remarks
		Nm	m•kg	ft•lb	
Battery box and frame	M6	7	0.7	5.1	
Atmospheric pressure sensor and battery box	—	0.7	0.07	0.5	
Lean angle cut-off switch and battery box	—	2	0.2	1.4	
Foot rest bracket (front) and frame	M8	28	2.8	20	
Foot rest bracket (rear) and frame	M8	28	2.8	20	
Rear brake master cylinder and foot rest bracket	M6	18	1.8	13	
Rear brake hose union bolt	M10	30	3.0	22	
Sidestand bracket and frame	M10	63	6.3	46	
Front wheel axle shaft and bolt	M14	91	9.1	66	
Rear wheel axle nut	M24	150	15.0	109	
Front brake caliper and front fork	M10	35	3.5	25	
Front brake disc and front wheel	M6	18	1.8	13	LT
Rear brake disc and rear wheel	M6	30	3.0	22	LT
Rear wheel sprocket and drive hub	M10	100	10.0	72	
Brake caliper bleed screw	M8	6	0.6	4.3	
Front wheel axle pinch bolt	M8	20	2.0	14	See NOTE 3

NOTE 1:

1. First, tighten the ring nut to approximately 52 Nm (5.2 m•kg, 38 ft•lb) with a torque wrench, then loosen the ring nut completely.
2. Retighten the lower ring nut to specification.

NOTE 2:

Refer to "INSTALLING THE ENGINE" in chapter 5.



NOTE 3:

1. Insert the front wheel axle from the right side and tighten it with the flange bolt from the left side to 91 Nm (9.1 m•kg, 65.8 ft•lb).
2. In the order from the pinch bolt ② → pinch bolt ① → pinch bolt ②, tighten each bolt to 20 Nm (2.0 m•kg, 14 ft•lb) without performing temporary tightening.
3. Check that the end face of the axle head and the end face of the fork side are flush-mounted. If they are out of alignment, make sure to fit them by adding the external force by hand or with a plastic hammer, etc.
   If the end face of the axle is not parallel to the end face of the fork, align them so that one point of the axle circumference is positioned on the end face of the fork.
   At this stage, it can be accepted if the end face of the axle becomes partially concave to the end face of the fork.
4. In the order from the pinch bolt ④ → pinch bolt ③ → pinch bolt ④, tighten each bolt to 20 Nm (2.0 m•kg, 14 ft•lb) without performing temporary tightening.

EAS00031

LUBRICATION POINTS AND LUBRICANT TYPES

ENGINE

Lubrication point	Lubricant
Oil seal lips	LS
O-rings	LS
Bearings	E
Crankshaft pins	E
Piston surfaces	E
Piston pins	E
Crankshaft journals	E
Camshaft lobes	M
Camshaft journals	M
Valve stems (intake and exhaust)	M
Valve stem ends (intake and exhaust)	M
Water pump impeller shaft	E
Oil pump rotors (inner and outer)	E
Oil pump housing	E
Oil strainer	E
Clutch (pull rod)	LS
Oil/water pump drive sprocket and washer	E
Clutch (thrust plate)	E
Starter clutch idle gear inner surface	E
Starter clutch assembly	E
Primary driven gear	E
Transmission gears (wheel and pinion)	M
Main axle and drive axle	M
Shift drum	E
Shift forks and shift fork guide bars	E
Shift shaft	E
Shift shaft boss	E
Cylinder head cover mating surface	Yamaha bond No.1215
Crankcase mating surface	Yamaha bond No.1215
Clutch cover (crankcase mating surface)	Yamaha bond No.1215
Generator rotor cover (crankcase mating surface)	Yamaha bond No.1215
Pickup rotor cover	Yamaha bond No.1215

LUBRICATION POINTS AND LUBRICANT TYPES

SPEC

EAS00032

CHASSIS

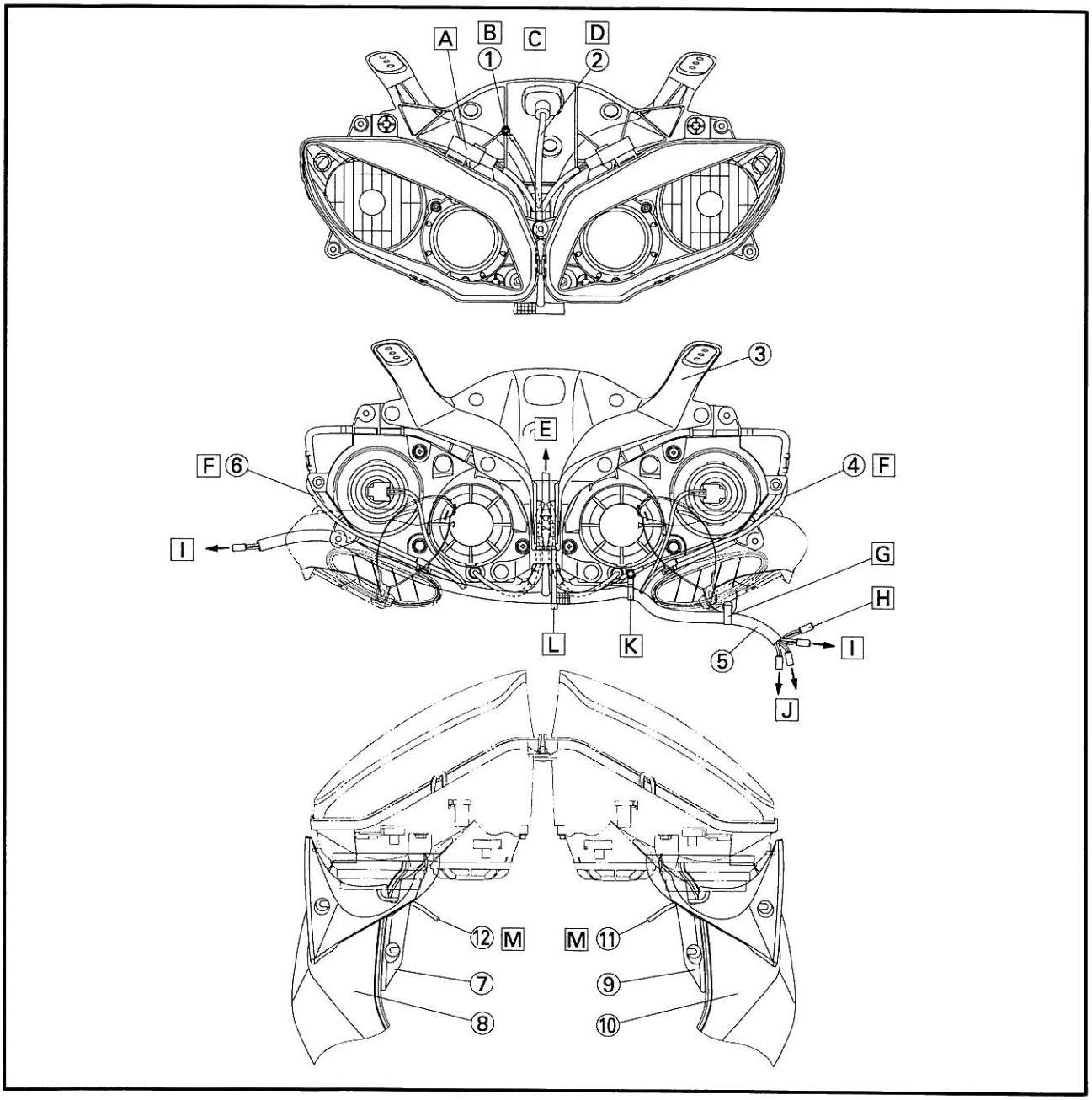
Lubrication point	Lubricant
Steering bearings and bearing races (upper and lower)	LS
Throttle grip inner surface	LS
Brake lever pivoting point and metal-to-metal moving parts	LS
Clutch lever pivoting point and metal-to-metal moving parts	LS
Engine mount bolts (rear upper and lower)	LS
Relay arm, connecting rod and rear shock absorber collar	LS
Pivot shaft	E
Swingarm pivot bearing	LS
Swingarm head pipe end, oil seal and bush	LS
Oil seal (relay arm, connecting arm and rear shock absorber)	LS
Seat lock assembly moving parts	LS
Sidestand pivoting pint and metal-to-metal moving parts	LS
Link and sidestand switch contact point	LS
Sidestand hook and spring	LS
Shift shaft joint	LS
Front wheel oil seal (right and left)	LS
Front axle shaft	LS
Rear wheel oil seal	LS
Rear wheel drive hub oil seal	LS
Rear wheel drive hub mating surface	LS

EAS00035

CABLE ROUTING

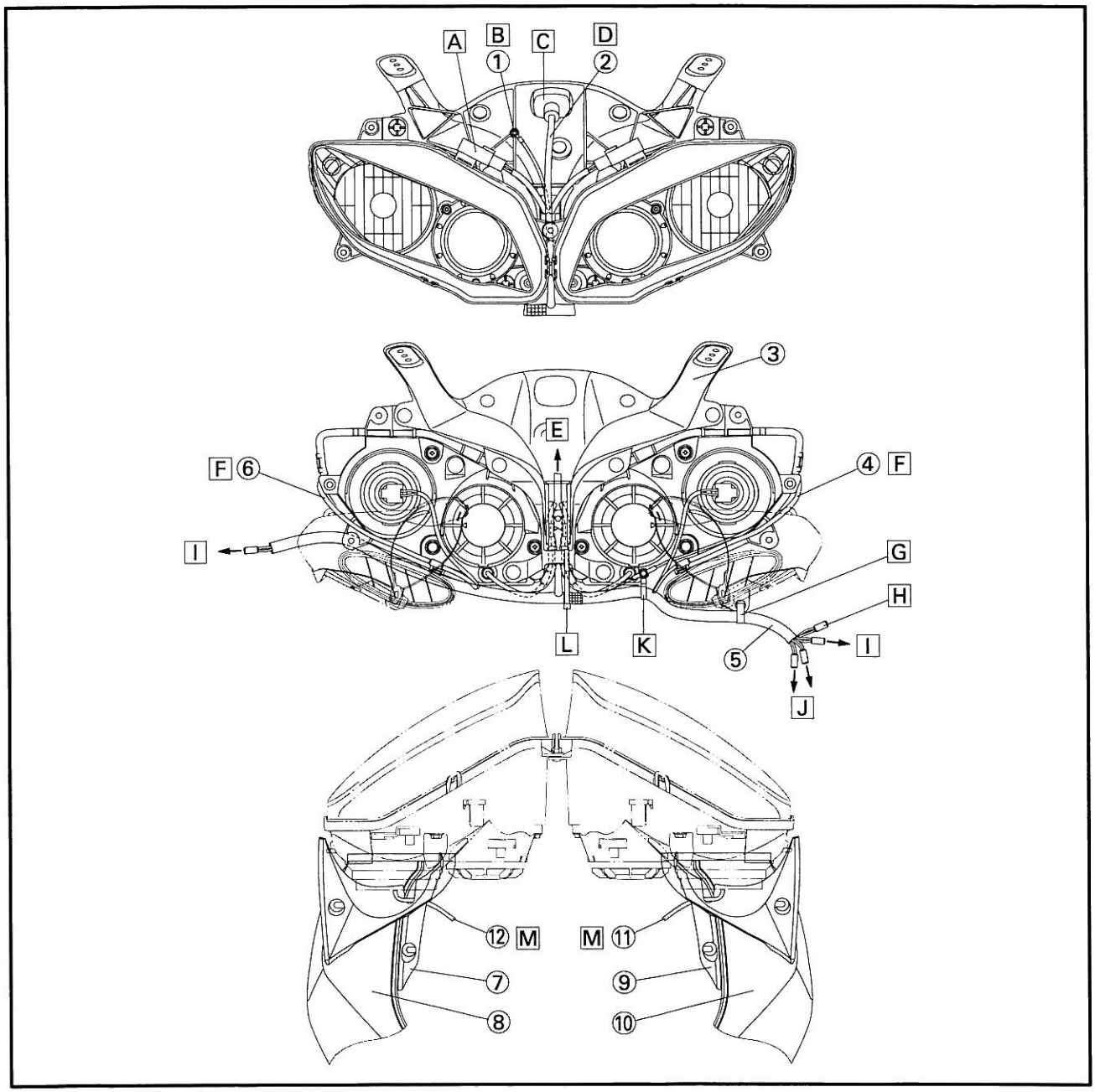
① Ground lead
② Meter lead
③ Stay 1
④ Auxiliary light lead (right)
⑤ Headlight lead
⑥ Auxiliary light lead (left)
⑦ Console panel 1
⑧ Duct 1
⑨ Console panel 2
⑩ Duct 2
⑪ Headlight lead (right)
⑫ Headlight lead (left)

[A] Insert to the rib of the head light. (Either location of the right and left relays is acceptable.)
[B] The lead should not stretch too much.
[C] Make sure to insert the coupler and boot to the stay 1 hole.
[D] The speedometer lead should not be strained.
[E] To the stay 1 hole
[F] Connect after passing over the upper side of the duct.
[G] Clamp the head light lead by wrapping and insert it to the intake air grill hole. (only at the right side.)
[H] Do not connect the wire to the coupler with the plug for options.
[I] To the turn signal light
[J] To the wire harness
[K] Cut the tip of the clamp.



[L] Clamp the head light lead to the stay 1 at the positioning white tape section. There should be no slack when clamping. Point the tip of the clamp (excessive part) to the front side of the vehicle. Fasten the head light lead with a clamp.

[M] Feed a lead wire through the U shape cutout of the console panel.

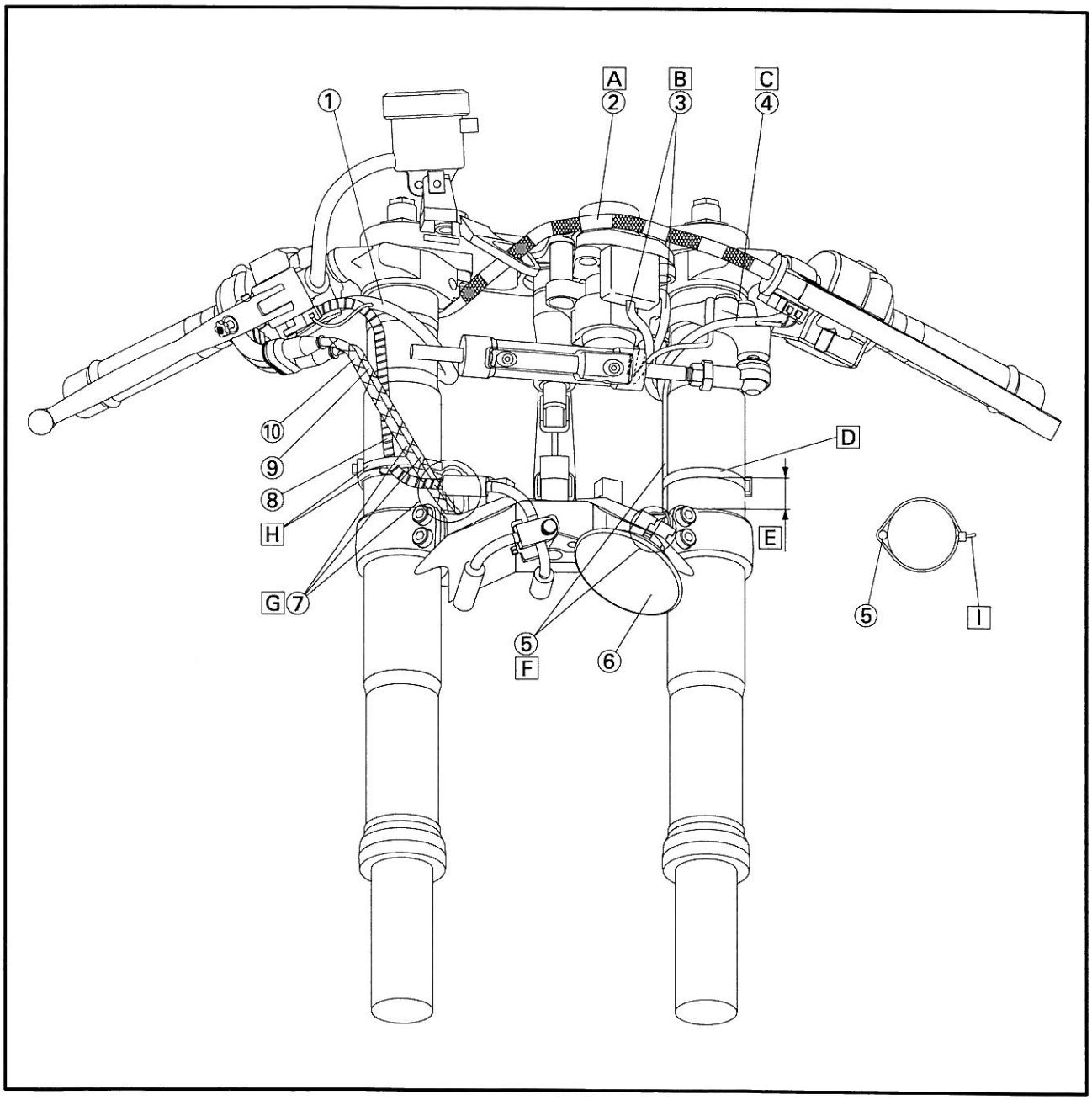


CABLE ROUTING

SPEC

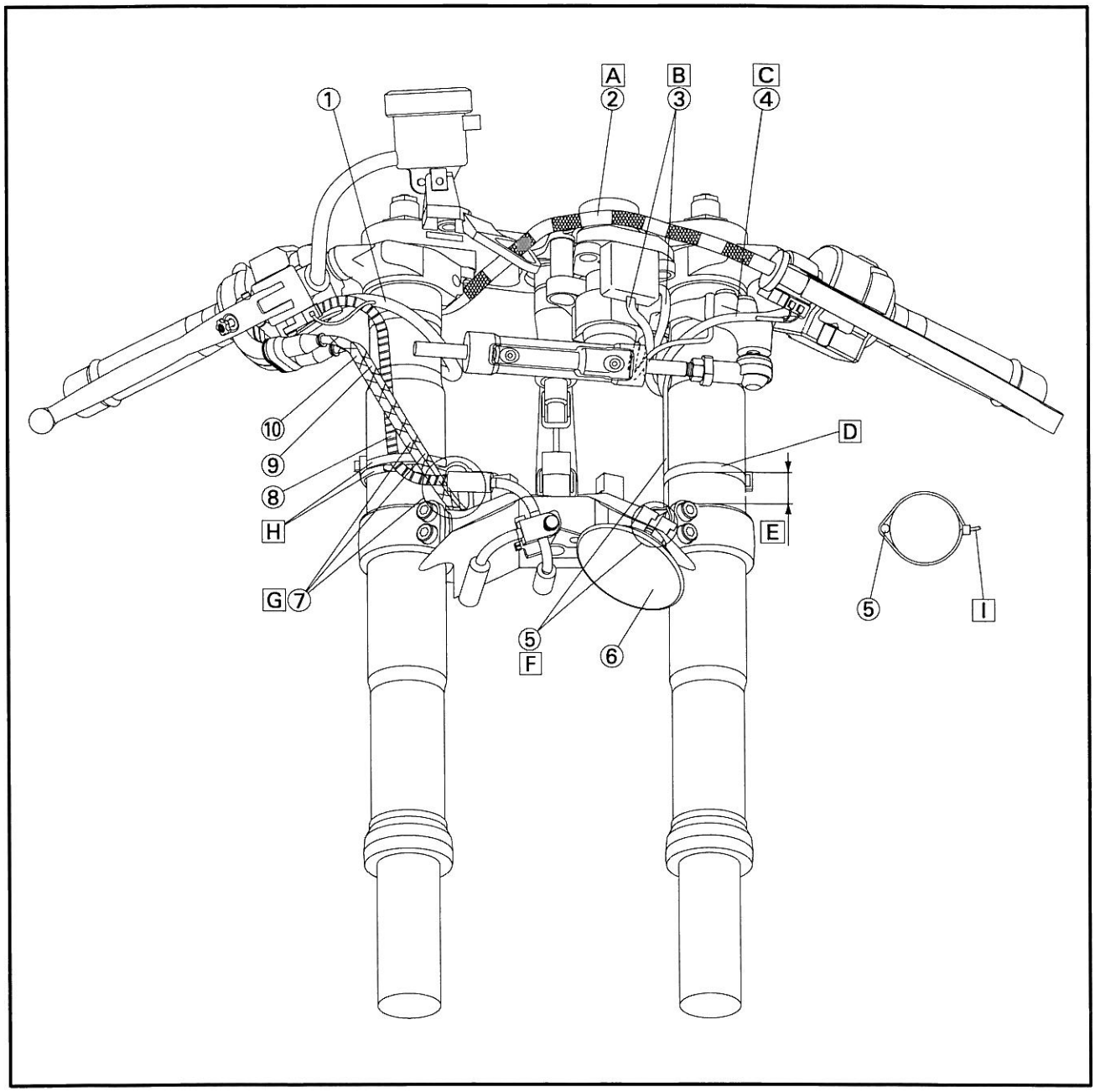
① Right handlebar switch lead
② Clutch cable
③ Main switch lead
④ Left handlebar switch lead
⑤ Horn lead
⑥ Horn
⑦ Throttle cables
⑧ Brake hose
⑨ Throttle cable (return side)
⑩ Throttle cable (pull side)

[A] Route the clutch cable so as to get along the front side of the main switch after passing it through the guide.
[B] Pass the main switch lead through the guide wire.
[C] Pass the left handlebar switch lead through the guide wire.
[D] Point the tip of the band (excessive part) to the rear side of the vehicle and cut the surplus section. Clamp it to the outer tube.
[E] Clamp the section between 0 and 20 mm (0 and 0.79 in) from the split of the under bracket.
[F] Clamp the leads inside the front fork of the vehicle. Point the exit of the horn lead to the left front fork side.
[G] Two throttle cables should not cross with each other.
Route two throttle cables behind the brake hose, pass between the inside of the under bracket's upper side front fork and guide wire assembly, and then pass it through the clamp that is inserted to the cover 3 under the frame.



[H] Clamp the assembly of the clamp and guide wire to the front fork outer tube. Cut the tip of the clamp leaving 2 to 4 mm (0.08 ~ 0.16 in). Point the binding part to the external part of the vehicle. Clamp it to the outer tube.

[I] Cut the tip leaving 2 to 4mm (0.08 ~ 0.16 in).

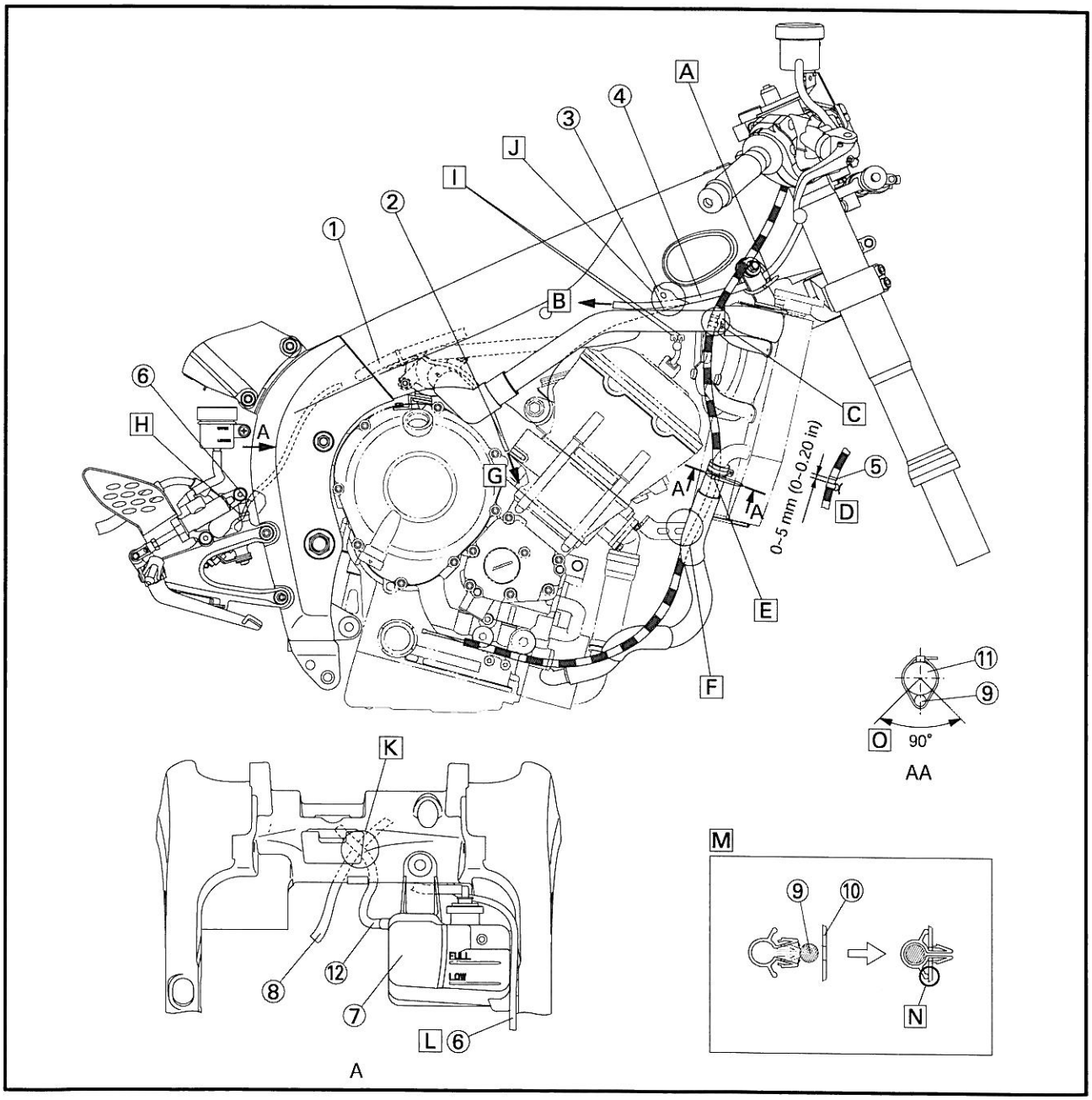


CABLE ROUTING

SPEC

① Wire harness
② Crankshaft position sensor lead
③ Heat protector
④ Right handlebar switch lead
⑤ Positioning guide
⑥ Rear brake light switch lead
⑦ Coolant reservoir tank
⑧ Speed sensor lead
⑨ Clutch cable
⑩ Radiator
⑪ Oil cooler outlet hose
⑫ Coolant reservoir tank drain hose

[A] Clamp it after passing between the frame and radiator stay. Point the tip of the clamp (excessive part) to the front side of the vehicle. Fasten the right handlebar switch lead with a clamp.
[B] To the wire harness
[C] The clutch cable positioning guide should be above the upper end of the clamp. Fasten the clutch cable with a clamp. (Refer to [M])
[D] Position relation between the clamp and guide.
[E] Clamp the clamp upper end along the line of lower end of the hose clamp assembly. Point the tip of the clamp (surplus section) to the front side of the vehicle. Clutch cable is what the clamp fastens.
[F] The clutch cable doesn't project outside the water hose and the cylinder head in the box part in the figure.
[G] To the engine
[H] Clamp behind the bracket 3.



[I] The coupler for the air induction solenoid lead and camshaft sensor lead should be connected above the ignition coil sub wire harness and it should not drop on the cylinder head cover behind the ignition coil.

[J] Pass the right handlebar switch lead between the frame and heat protector.

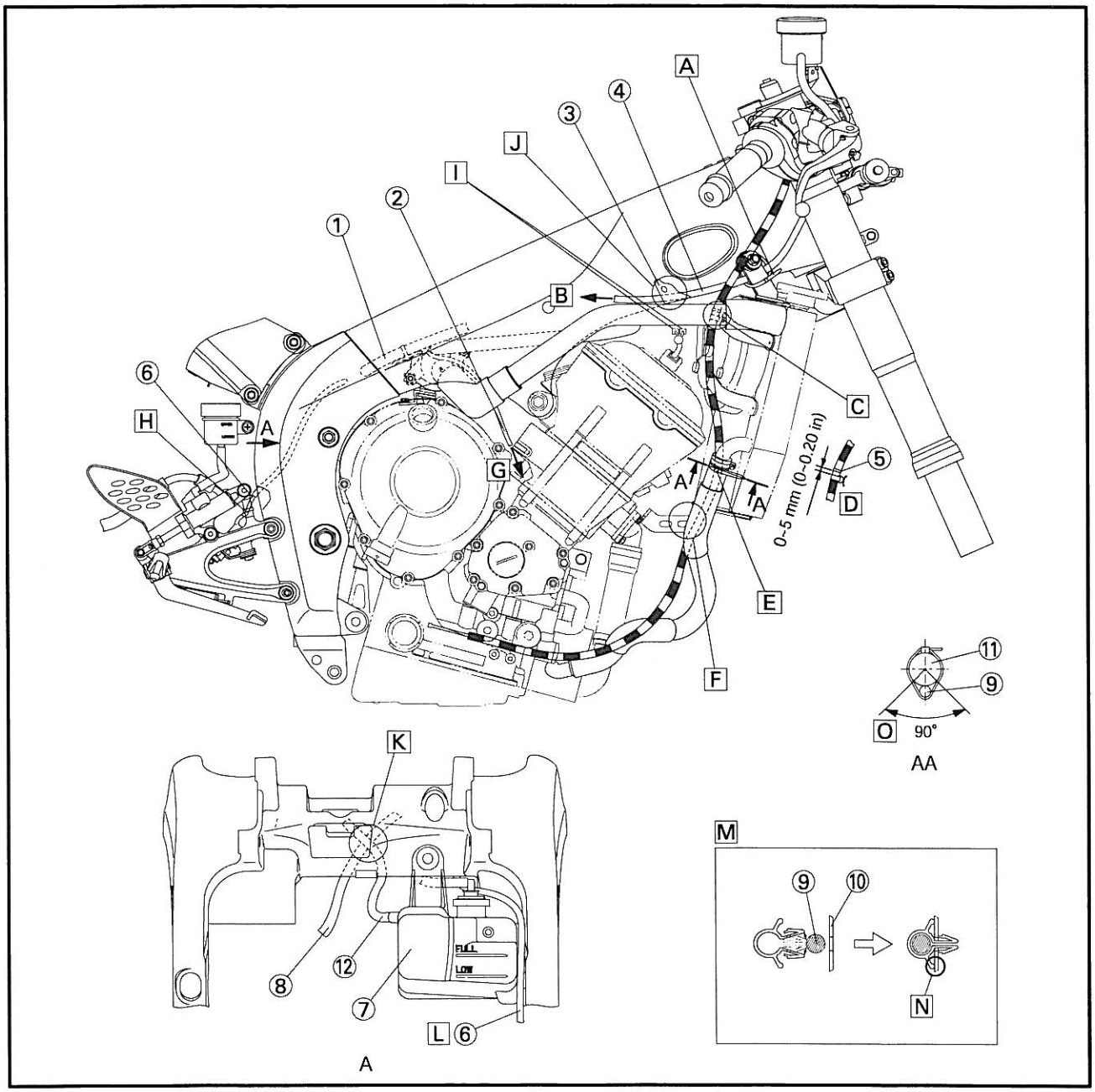
[K] Coolant reservoir tank drain hose should cross with the speed sensor lead under the swingarm bracket. Route the coolant reservoir tank drain hose over the up side of the vehicle.

[L] Pass the rear brake light switch lead between the swingarm bracket and coolant reservoir tank.

[M] Release the tip of the clamp and install it to the clutch cable.
Insert the clamp to the hole located on the right back side of the radiator.
Radiator fan motor lead should not be caught while inserting the clamp.

[N] Push the clamp until it hits the radiator side stay. Radiator fan motor lead should not be caught.

[O] Clamp the clutch cable so that it is within this specified clamp.



CABLE ROUTING

SPEC

① Heat protector
② Main switch lead
③ Left handlebar switch lead
④ Immobilizer lead
⑤ EXUP servo motor lead
⑥ Coolant reservoir tank drain hose
⑦ Fuel tank drain hose
⑧ Coolant outlet pipe
⑨ Sidestand switch lead
⑩ Oil level switch lead
⑪ A.C.magneto lead
⑫ Fuse box stay
⑬ Water hose
⑭ Stay 1
⑮ Chain case cover

[A] Clamp the leads so that they are positioned inner of the vehicle than the washer position after routing them between the frame and radiator stay. Align the clamp position with the taping sections of leads. Point the tip of the clamp (surplus section) to the down front side of the vehicle.
What the clamp fastens at this stage are the handlebar switch, main switch and immobilizer leads.

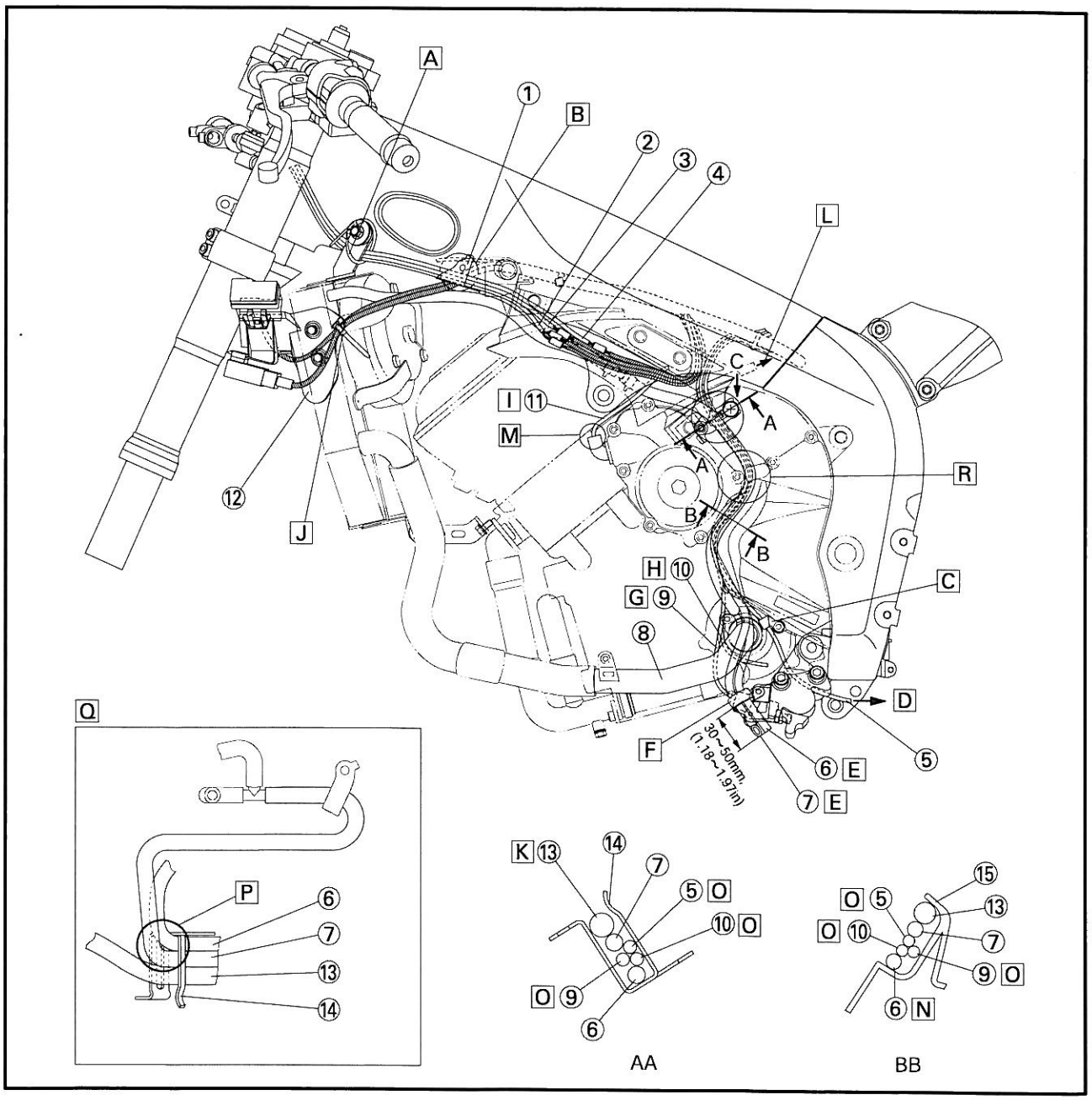
[B] Pass the main switch lead, left handlebar switch lead and immobilizer lead between the frame and the heat protector.

[C] Fold back the clamp and secure it after passing the lead through the clamp.

[D] To the EXUP servo motor

[E] Pass the coolant reservoir tank drain hose and fuel tank drain hose through the clamp from the outer side of the water pump inlet pipe after routing it behind the water pump breather hose.
The lengths of two hose ends are allowed to be random. Any direction of cut edges can be accepted. (Only for the fuel tank drain hose)

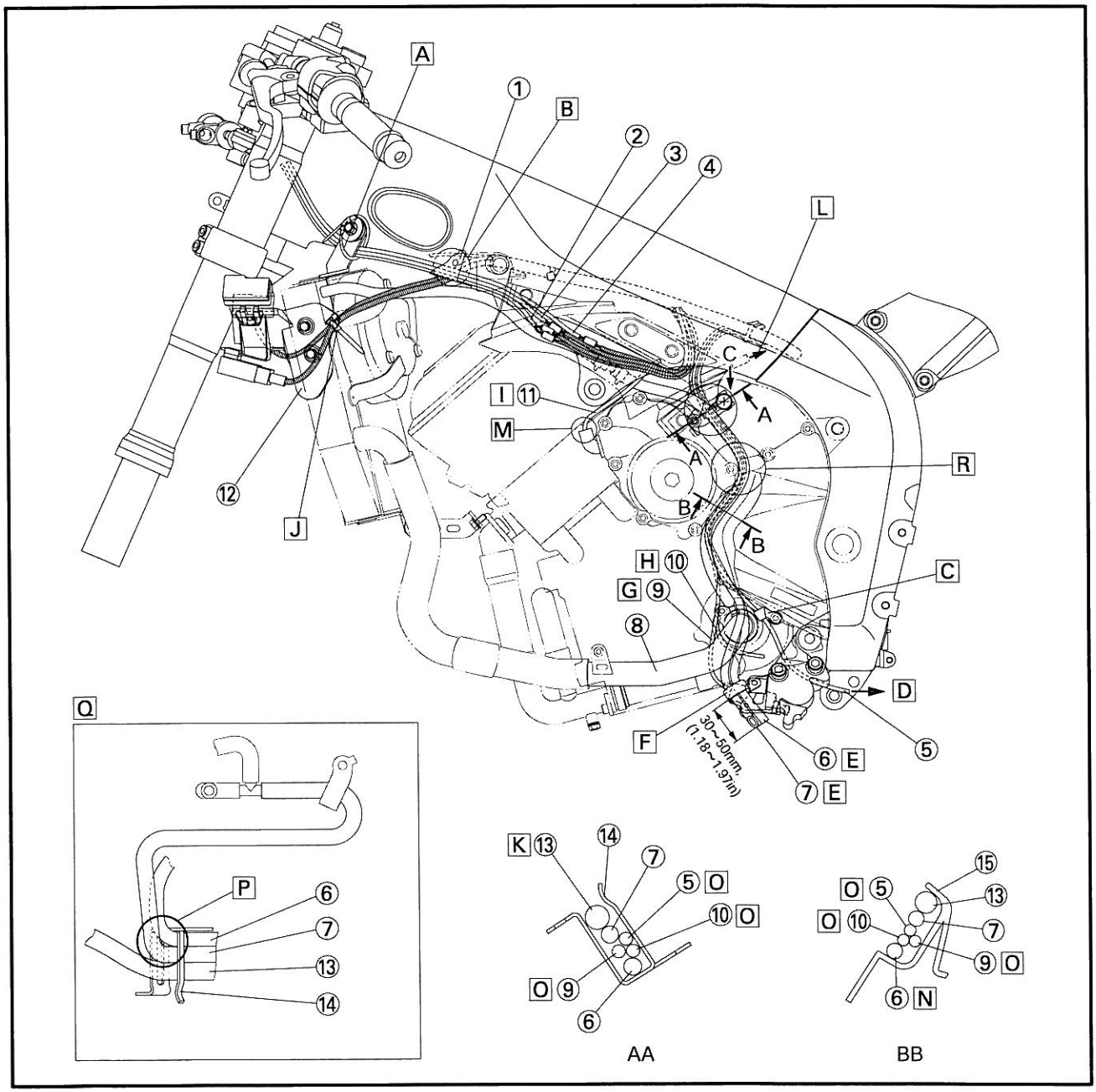
[F] Clamp the fuel tank drain hose and fuel tank breather hose.



CABLE ROUTING

SPEC

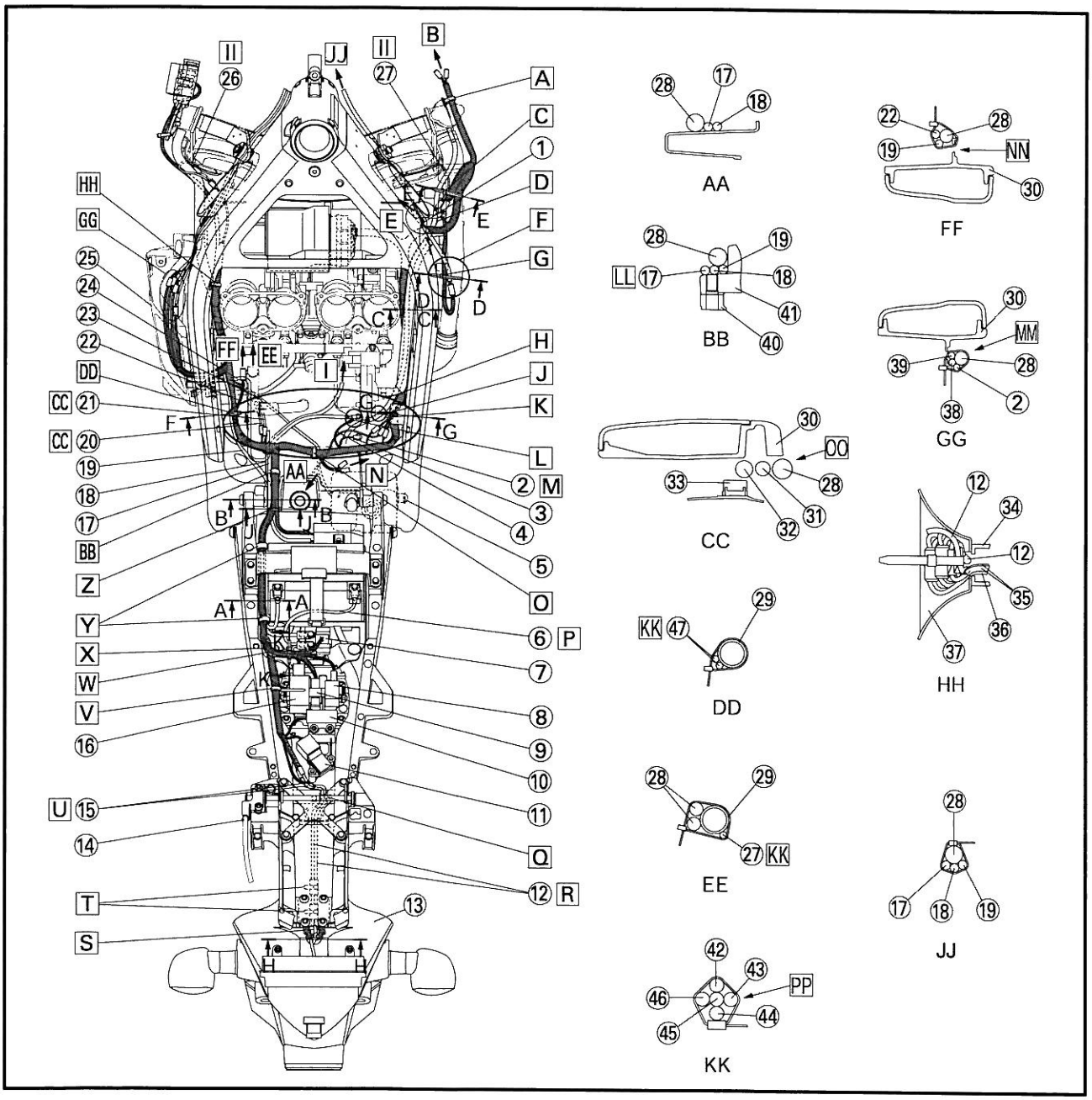
[G] Route the lead by the inside of the water hose and water pipe.
[H] Route the lead by the inside of the water hose and water pipe.
[I] Route by the outside of vehicle away from the water hose.
[J] Point the tip of the clamp (excessive part) to the down rear side of the vehicle. Fasten the wire harness with a clamp.
[K] Route the water hose so that it is placed at the outermost position finally after routing other leads and hoses in the guide.
[L] To the coolant reservoir tank
[M] There should be no exposure of bared conductors due to the displacement of the tube.
[N] Route the coolant reservoir tank drain hose so that it is routed at the innermost position to each hose and lead.
[O] Can be routed in any order.
[P] Align the molded part of the fuel tank drain hose with the stay 1.
[Q] Routing of the fuel tank drain hose.
EXUP servo motor, oil level switch and sidestand switch leads are omitted in this drawing.
[R] Arrange so as not for each hose to cross in the part between "BB" from the section "AA" which is in the illustration.



CABLE ROUTING

SPEC

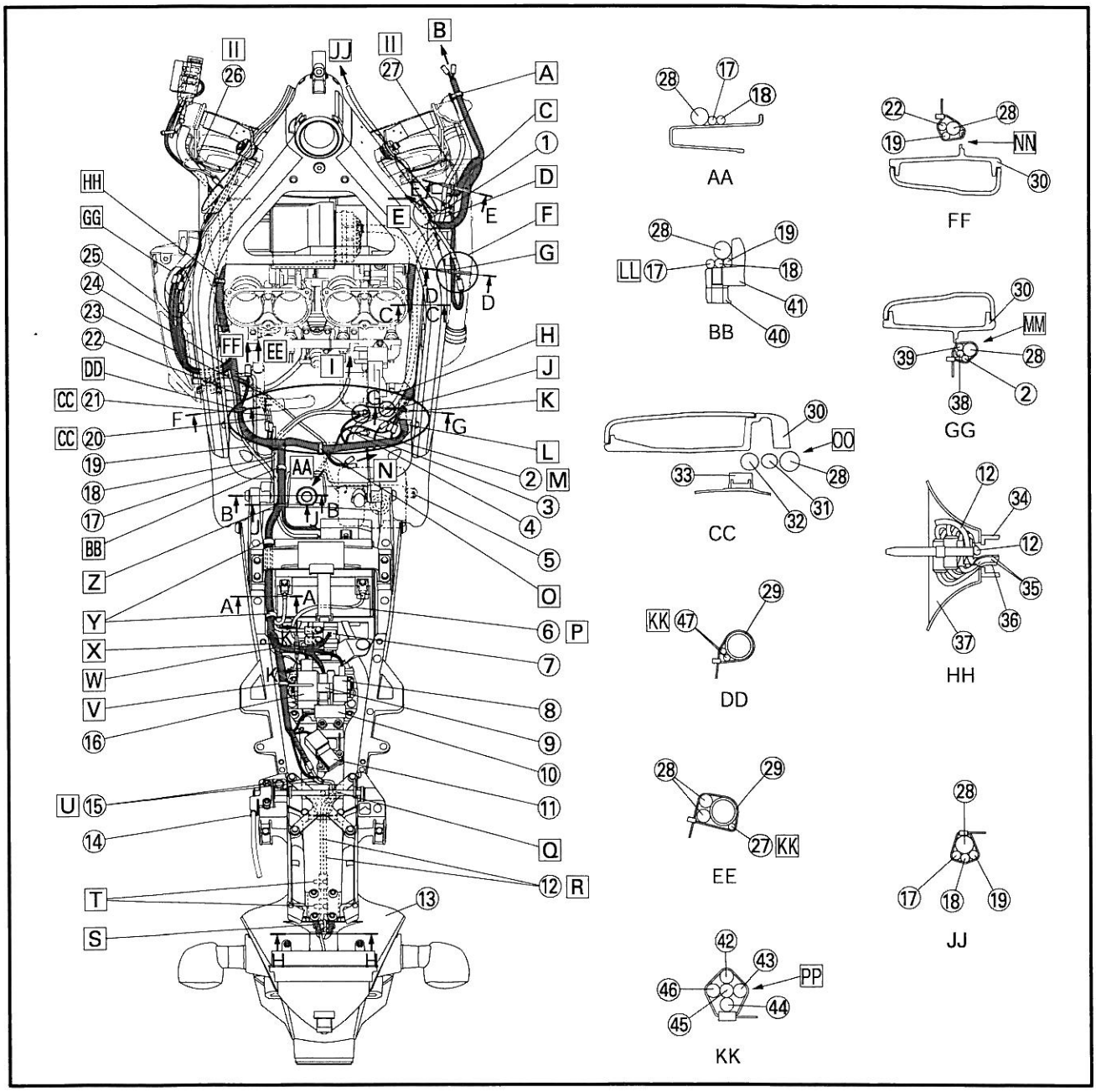
① Heat protector
② Crankshaft position sensor lead
③ Neutral switch lead
④ Ground lead
⑤ Coolant reservoir tank
⑥ Battery positive lead
⑦ Starter relay
⑧ Turn signal relay
⑨ Main fuse
⑩ Lean angle cut-off switch
⑪ Atmospheric pressure sensor
⑫ Tail/brake light lead
⑬ Rear fender
⑭ Seat lock cable
⑮ Anti safety alarm coupler
⑯ Starting circuit cut-off relay
⑰ Battery negative lead
⑱ Starter motor lead
⑲ A.C.magneto lead
⑳ Oil level switch lead
㉑ Sidestand switch lead
㉒ Throttle body lead
㉓ Coolant reservoir tank drain hose
㉔ Fuel tank drain hose
㉕ Cover 7
㉖ Radiator fan motor lead (left)
㉗ Radiator fan motor lead (right)
㉘ Wire harness
㉙ Pipe 3
㉚ Frame
㉛ Coolant reservoir tank hose
㉜ Thermo stat assembly breather hose
㉝ Throttle body side cap
㉞ Mud guard
㉟ Turn signal light lead
㊱ License plate light lead
㊲ Rear fender rib
㊳ Speed sensor lead
㊴ Rear brake light switch lead
㊵ Rear frame
㊶ Swingarm bracket
㊷ Main fuse lead
㊸ Starting circuit cut-off relay lead
㊹ Turn signal light relay lead
㊺ Starter relay lead
㊻ Main fuse lead (To the battery positive lead)
㊼ Right handlebar switch lead



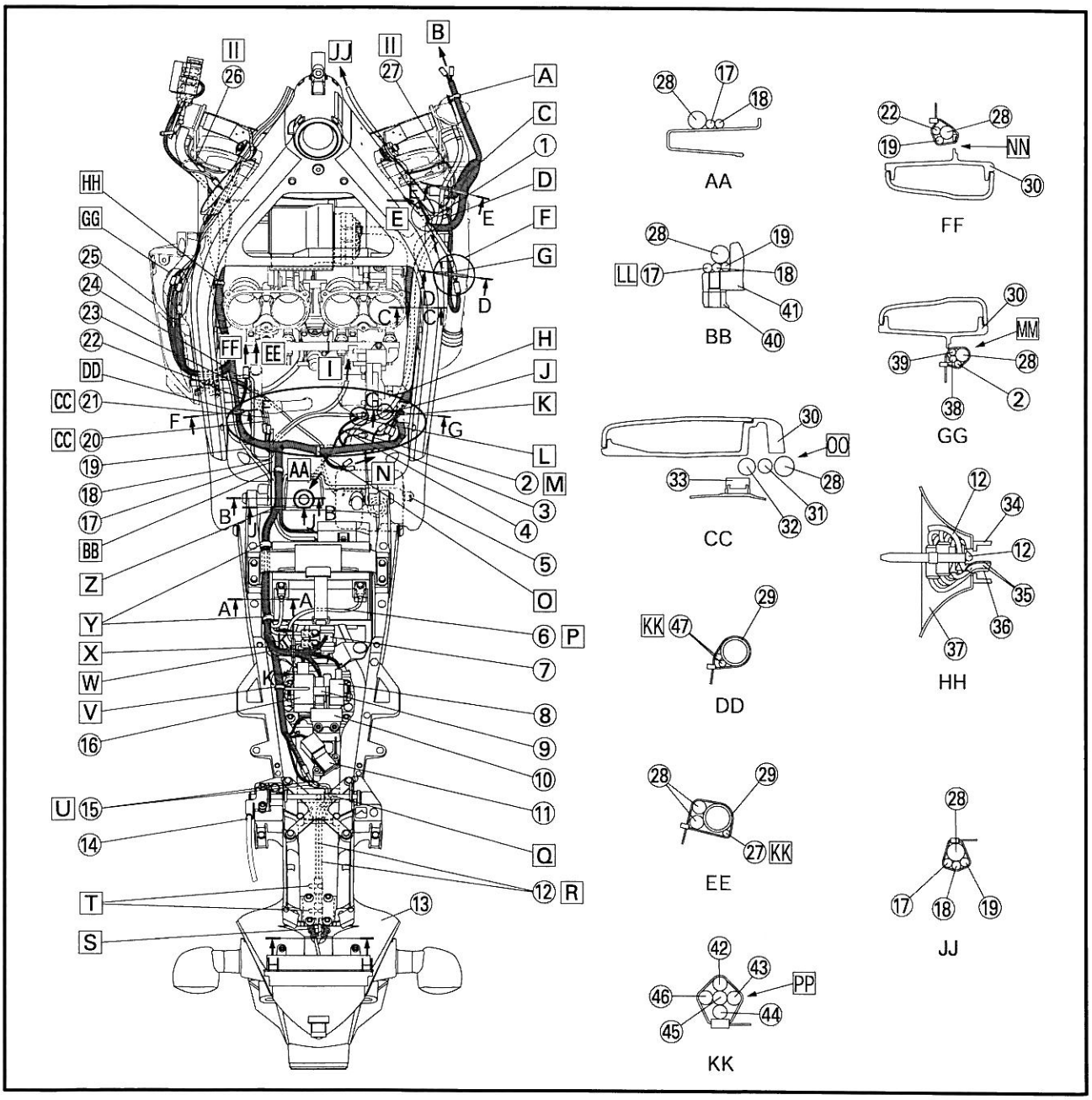
CABLE ROUTING

SPEC

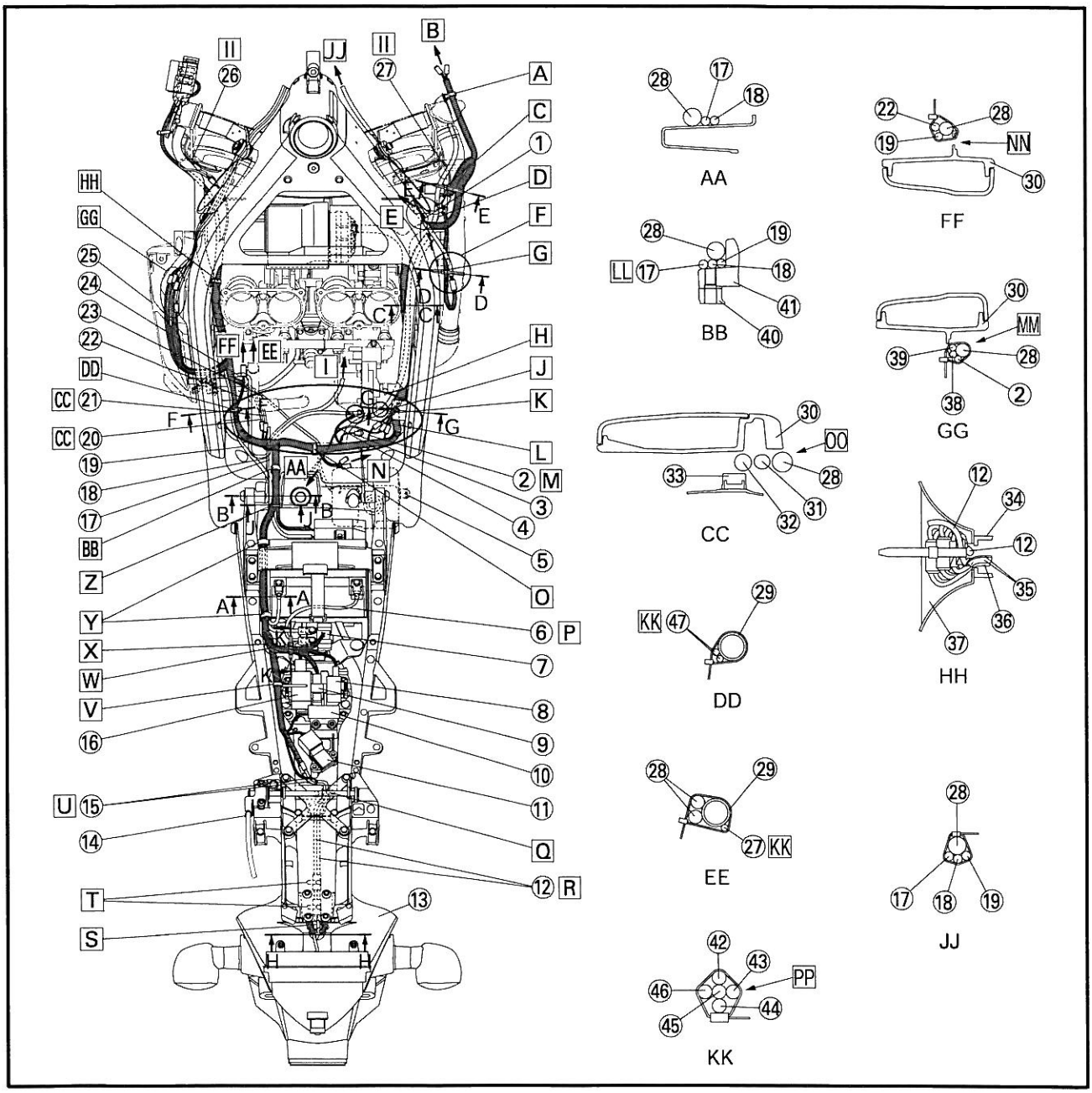
[A] Pass the wire harness through the clamp inserted to the radiator stay.
[B] To the headlight lead
[C] Clamp the lead between three protrusions of the pipe (the first and second parts from the vehicle front). Point the tip of the clamp (excessive part) to the inside of the vehicle.
[D] To the vehicle right side diagram
[E] To the engine
[F] Clamp the lead between three protrusions of the pipe (the inside and outside of the vehicle).
[G] Point the tip of the clamp (excessive part) to the inside of the vehicle.
[H] All hoses and leads should be routed over the vehicle's upper side above the heat protector.
[I] To the starter motor
[J] Fasten the wire harness, clank shaft position sensor lead, rear brake light switch lead and speed sensor lead with a clamp. Then, point the tip of the clamp (cut the tip of the clamp leaving 2 to 4 mm (0.08 to 0.16 in).) to the inside of the vehicle.
[K] Pass the water hose lower side of the thermostat, and between the ground lead and the neutral switch.
[L] Install the leads so that the engine ground lead is positioned lower and the battery negative lead to be upper. Install the protrusion of each lead to be above the vehicle.
[M] Route the crankshaft position sensor lead under the wire harness.
[N] To the fuel pump
[O] Clamp the wire harness winding in and insert it to the frame hole.



[P] Pass the lead through inside of the battery band.
[Q] Press on the tip of the clamp after passing the leads through it.
[R] Insert the tail/brake light lead to the rear frame hole.
[S] Insert the clamp from the vehicle front to the rear side and fasten each lead, coupler and onion-head to the fender rib, and then point the tip of the clamp (excessive part) to the upper side of the vehicle.
[T] Hold down the clamp tips after passing each lead.
[U] Make sure to position the coupler at the downmost position of leads. However, the coupler should be set in the rear frame so that it is not caught by the seat bottom, cover and other components.
[V] Point the tip of the clamp (excessive part) to the inside of the vehicle. Fasten the wire harness with a clamp.
[W] Point the tip of the clamp (surplus section) to the rear side of the vehicle. Fasten the starter relay lead, turn signal relay lead, main fuse lead, main fuse lead (from the battery positive lead) and starting circuit cut-off relay lead with a clamp.
[X] Route each lead under the wire harness.
[Y] Fasten the wire harness, battery negative lead and starter motor lead with a clamp. Point the tip of the clamp (excessive part) to the inside of the vehicle.



Z Point the tip of the clamp (excessive part) to the down side of the vehicle. Fasten the wire harness, battery negative lead, A.C. magneto lead and starter motor lead with a clamp.
AA To the speed sensor
BB Insert the wire harness wrapping clamp to the hole of the frame.
CC After passing the lead between the wire harness and starter motor leads, fastening by the clamp should be cancelled and route the lead under the idle remote controller.
DD Fasten the wire harness, A.C.magneto lead, and throttle body lead with a clamp. Point the tip of the clamp (cut the tip of the clamp leaving 2 to 4 mm (0.08 to 0.16 in).) to the inside of the vehicle.
EE To the air filter
FF To the throttle body
GG To install the cover 7, install so as to set each coupler in the cover. Make sure that each lead is not caught by the cover 7.
HH Insert the wire harness wrapping clamp to the hole of the frame.
II Make sure that the lead is fastened with the guide of the radiator stay.
JJ To the right handlebar switch
KK Do not place it beyond pipe 3 in the direction to the external part of the vehicle.
LL Battery negative lead should not run on the swingarm bracket.

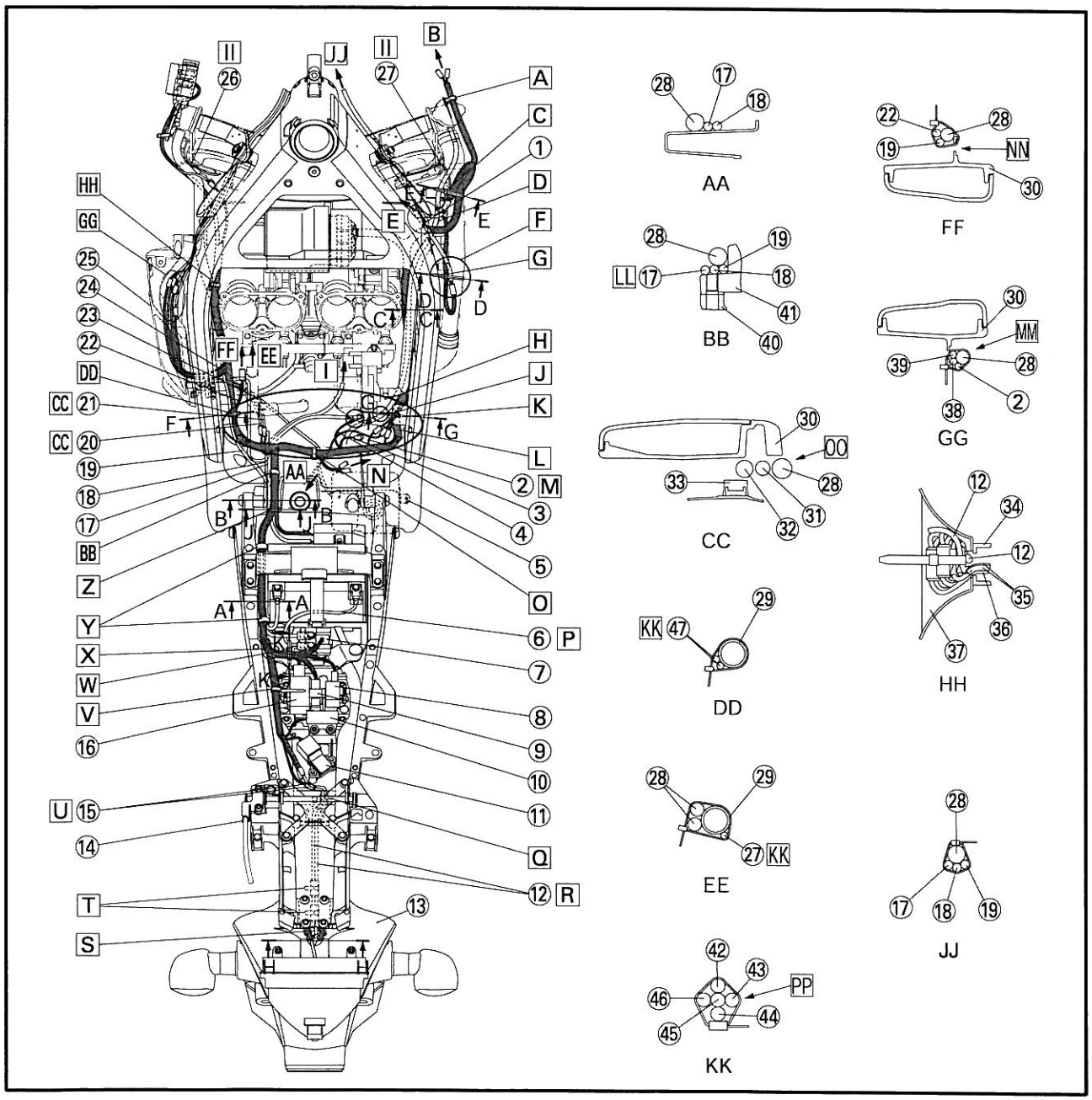


[MM] Route each lead lower than the frame plate. Leads should be routed in random order.
Clamp can be inserted in any direction.

[NN] Route each lead higher than the frame plate, pass it to the inside of the vehicle from the hole. Leads should be routed in random order.
Clamp can be inserted in any direction.

[OO] The hoses should not be located higher than the throttle body side cap over the up side of the vehicle.

[PP] Route the leads in random order.



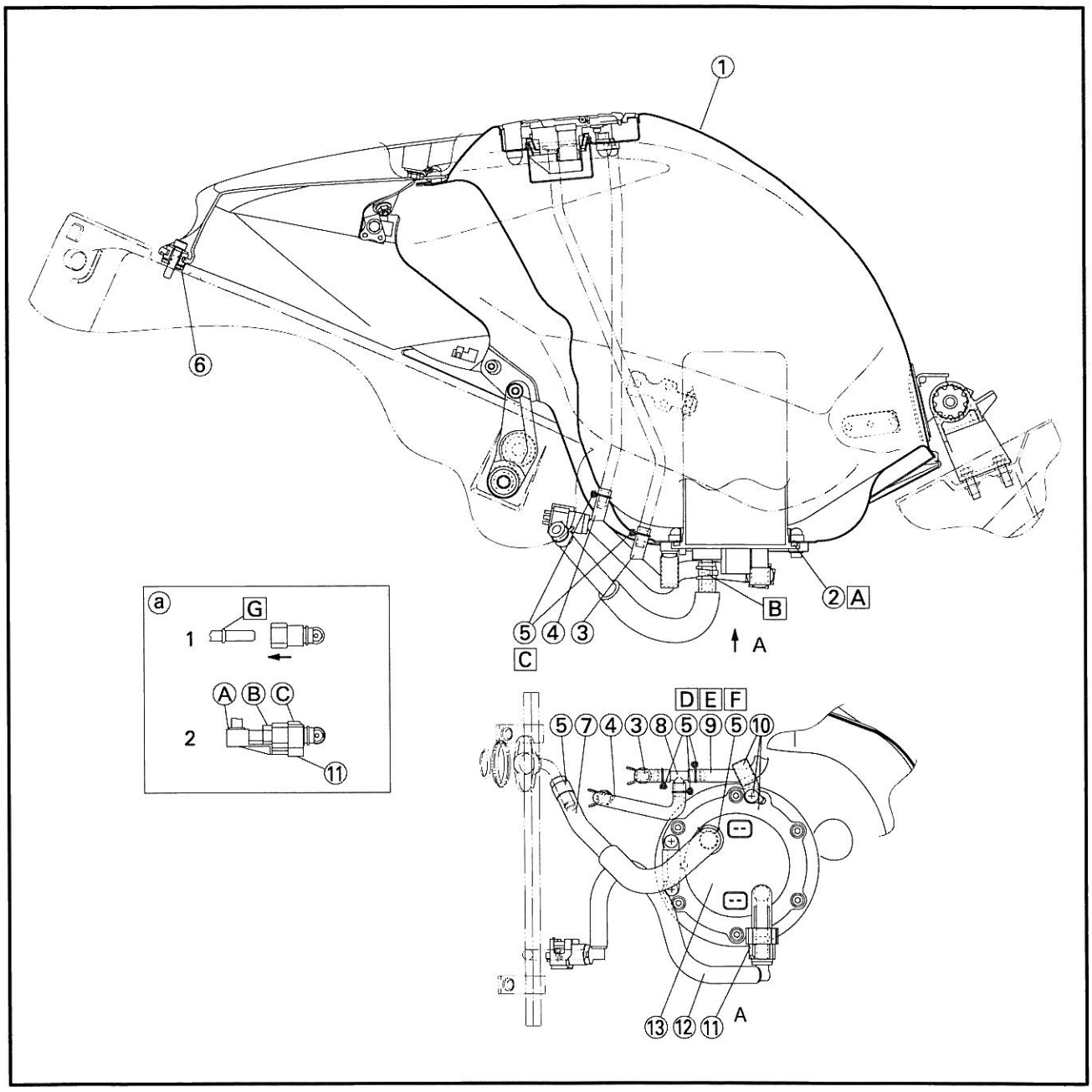
CABLE ROUTING

SPEC

① Fuel tank
② O-ring
③ Fuel tank drain hose
④ Fuel tank breather hose
⑤ Clip
⑥ Air filter stay
⑦ Fuel hose 2
⑧ 3 way connector
⑨ Pipe
⑩ Fuel tank bracket
⑪ Fuel hose clamp
⑫ Fuel hose 1
⑬ Fuel pump assembly

A Install the lip of O-ring facing upward.
B Install the part pointing the white paint part of the hose to the left side of the vehicle.
C Any direction of the clip grip can be accepted.
D Install the clip grip as specified in the drawing.
E Install the part pointing the white paint part of the hose to the left side of the vehicle.
F Point the clip grip to the left side of the vehicle.

ⓐ Fuel piping connector attachment directions. (fuel pump side)
1. Insert the connector until the click sound is heard and check that the connector does not come off. Make sure that no foreign matter is caught in the sealing section. (It is prohibited to wear the cotton work gloves or equivalent coverings.)
G This part works as a dropout stopper.
2. After Item 1 mentioned above is finished, check that the clamp is inserted from the down side, and Ⓐ, Ⓑ and Ⓒ-sections are perfectly equipped.



EAS00036

PERIODIC CHECKS AND ADJUSTMENTS

INTRODUCTION

This chapter includes all information necessary to perform recommended checks and adjustments. If followed, these preventive maintenance procedures will ensure more reliable vehicle operation, a longer service life and reduce the need for costly overhaul work. This information applies to vehicles already in service as well as to new vehicles that are being prepared for sale. All service technicians should be familiar with this entire chapter.

EAS00037

PERIODIC MAINTENANCE AND LUBRICATION INTERVALS

NOTE:

- The annual checks must be performed every year, except if a kilometer-based maintenance is performed instead.
- From 50,000 km, repeat the maintenance intervals starting from 10,000 km.
- Items marked with an asterisk should be performed by a Yamaha dealer as they require special tools, data and technical skills.

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (× 1,000 km)					ANNUAL CHECK
				1	10	20	30	40	
1	*	Fuel line (See page 3-33)	• Check fuel hoses for cracks or damage.		√	√	√	√	√
2	*	Spark plugs (See page 3-23)	• Check condition. • Clean and regap.		√		√		
			• Replace.			√		√	
3	*	Valves (See page 3-11)	• Check valve clearance. • Adjust.	Every 40,000 km					
4		Air filter element (See page 3-32)	• Replace					√	
5		Clutch (See page 3-31)	• Check operation.	√	√	√	√	√	
6	*	Front brake (See page 3-42, 44, 45)	• Check operation, fluid level and vehicle for fluid leakage.	√	√	√	√	√	√
			• Replace brake pads.	Whenever worn to the limit					
7	*	Rear brake (See page 3-43, 44, 45)	• Check operation, fluid level and vehicle for fluid leakage.	√	√	√	√	√	√
			• Replace brake pads.	Whenever worn to the limit					
8	*	Brake hoses (See page 3-46)	• Check for cracks or damage.		√	√	√	√	√
			• Replace.	Every 4 years					
9	*	Wheels (See page 4-3)	• Check runout and for damage.		√	√	√	√	
10	*	Tires (See page 3-58)	• Check tread depth and for damage. • Replace if necessary. • Check air pressure. • Correct if necessary.		√	√	√	√	√
11	*	Wheel bearings (See page 4-3)	• Check bearing for looseness or damage.		√	√	√	√	
12	*	Swingarm (See page 4-72)	• Check operation and for excessive play.		√	√	√	√	
			• Lubricate with lithium-soap-based grease.	Every 50,000 km					
13		Drive chain (See page 3-49, 50)	• Check chain slack. • Make sure that the rear wheel is properly aligned. • Clean and lubricate.	Every 800 km and after washing the motorcycle or riding in the rain					
14	*	Steering bearings (See page 3-51)	• Check bearing play and steering for roughness.	√	√	√	√	√	
			• Lubricate with lithium-soap-based grease.	Every 20,000 km					
15	*	Chassis fasteners (See page 2-23)	• Make sure that all nuts, bolts and screws are properly tightened.		√	√	√	√	√

PERIODIC MAINTENANCE AND LUBRICATION INTERVALS

CHK ADJ

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (× 1,000 km)					ANNUAL CHECK
				1	10	20	30	40	
16		Sidestand (See page 3-61)	• Check operation. • Lubricate.		√	√	√	√	√
17	*	Sidestand switch (See page 3-61, 8-4)	• Check operation.	√	√	√	√	√	√
18	*	Front fork (See page 3-53)	• Check operation and for oil leakage.		√	√	√	√	
19	*	Shock absorber assembly (See page 3-56, 4-68)	• Check operation and shock absorber for oil leakage.		√	√	√	√	
20	*	Rear suspension relay arm and connecting arm pivoting points (See page 4-72)	• Check operation.		√	√	√	√	
21	*	Electronic fuel injection (See page 3-17, 21)	• Adjust engine idling speed and synchronization.	√	√	√	√	√	√
22		Engine oil (See page 3-26, 28)	• Change. • Check oil level and vehicle for oil leakage.	√	√	√	√	√	√
23		Engine oil filter cartridge (See page 3-28)	• Replace.	√		√		√	
24	*	Cooling system (See page 3-37, 38, 39)	• Check coolant level and vehicle for coolant leakage.		√	√	√	√	√
			• Change.	Every 3 years					
25	*	Front and rear brake switches (See page 3-45) (See page 8-4)	• Check operation.	√	√	√	√	√	√
26		Moving parts and cables (See page 3-61)	• Lubricate.		√	√	√	√	√
27	*	Throttle grip housing and cable (See page 3-22)	• Check operation and free play. • Adjust the throttle cable free play if necessary. • Lubricate the throttle grip housing and cable.		√	√	√	√	√
28	*	Air induction system (See page 7-46)	• Check the air cut-off valve, reed valve, and hose for damage • Replace any damaged parts if necessary.		√	√	√	√	√
29	*	Muffler and exhaust pipe (See page 3-35)	• Check the screw clamp for looseness.	√	√	√	√	√	
30	*	EXUP system (See page 3–36)	• Check operation, cable free play and pulley position.	√		√		√	
31	*	Lights, signals and switches (See page 3-70)	• Check operation. • Adjust headlight beam.	√	√	√	√	√	√

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NOTE:

- Air filter
  - This model's air filter is equipped with a disposable oil-coated paper element, which must not be cleaned with compressed air to avoid damaging it.
  - The air filter element needs to be replaced more frequently when riding in unusually wet dusty areas.
- Hydraulic brake service
  - Regularly check and, if necessary, correct the brake fluid level.
  - Every two years replace the internal components of the brake master cylinders and calipers, and change the brake fluid.
  - Replace the brake hoses every four years and if cracked or damaged.

YZF-R1(S) 2004 WIRING DIAGRAM

① Main switch
② A.C. magneto
③ Rectifier/regulator
④ Fuse (main)
⑤ Fuse (backup)
⑥ Immobilizer unit
⑦ Battery
⑧ Fuse (fuel injection)
⑨ Starter relay
⑩ Starter motor
⑪ Starting circuit cut-off relay
⑫ Neutral switch
⑬ Sidestand switch
⑭ Fuel pump
⑮ ECU
⑯ Ignition coil #1
⑰ Ignition coil #2
⑱ Ignition coil #3
⑲ Ignition coil #4
⑳ Spark plug
㉑ Injector #1
㉒ Injector #2
㉓ Injector #3
㉔ Injector #4
㉕ Air induction system solenoid
㉖ Sub-throttle position sensor
㉗ EXUP
㉘ Speed sensor
㉙ Coolant temperature sensor
㉚ Intake air temperature sensor
㉛ Option switch
㉜ Crankshaft position sensor
㉝ Throttle position sensor
㉞ Intake air pressure sensor
㉟ Atmospheric pressure sensor
㊱ Cylinder identification sensor
㊲ Lean angle cut-off switch
㊳ Meter assembly
㊴ Immobilizer indicator light
㊵ Fuel level warning light
㊶ Oil level warning light
㊷ Neutral indicator light
㊸ Tacho meter
㊹ Shift timing indicator light
㊺ Multi function meter
㊻ Engine trouble warning light
㊼ Coolant temperature indicator light
㊽ Hi beam indicator light
㊾ Turn signal indicator light (left)
㊿ Turn signal indicator light (light)
(51) Meter light
(52) Oil level switch
(53) Right handlebar switch
(54) Front brake light switch
(55) Engine stop switch
(56) Start switch
(57) Turn signal relay
(58) Left handlebar switch
(59) Hazard switch
(60) Pass switch
(61) Dimmer switch
(62) Horn switch
(63) Clutch switch
(64) Turn signal switch
(65) Horn
(66) Front turn signal light (left)
(67) Front turn signal light (right)
(68) Rear turn signal light (left)
(69) Rear turn signal light (right)
(70) Headlight
(71) Auxiliary light
(72) License light
(73) Rear brake light switch
(74) Tail/brake light
(75) Headlight relay (on/off)
(76) Headlight relay (dimmer)
(77) Fuse (ignition)
(78) Fuse (turn)
(79) Fuse (signal)
(80) Fuse (headlight)
(81) Anti safety alarm
(82) Radiator fan motor relay
(83) Fuse (radiator fan motor left)
(84) Fuse (radiator fan motor light)
(85) Radiator fan motor 2
(86) Radiator fan motor 1
(87) Ground

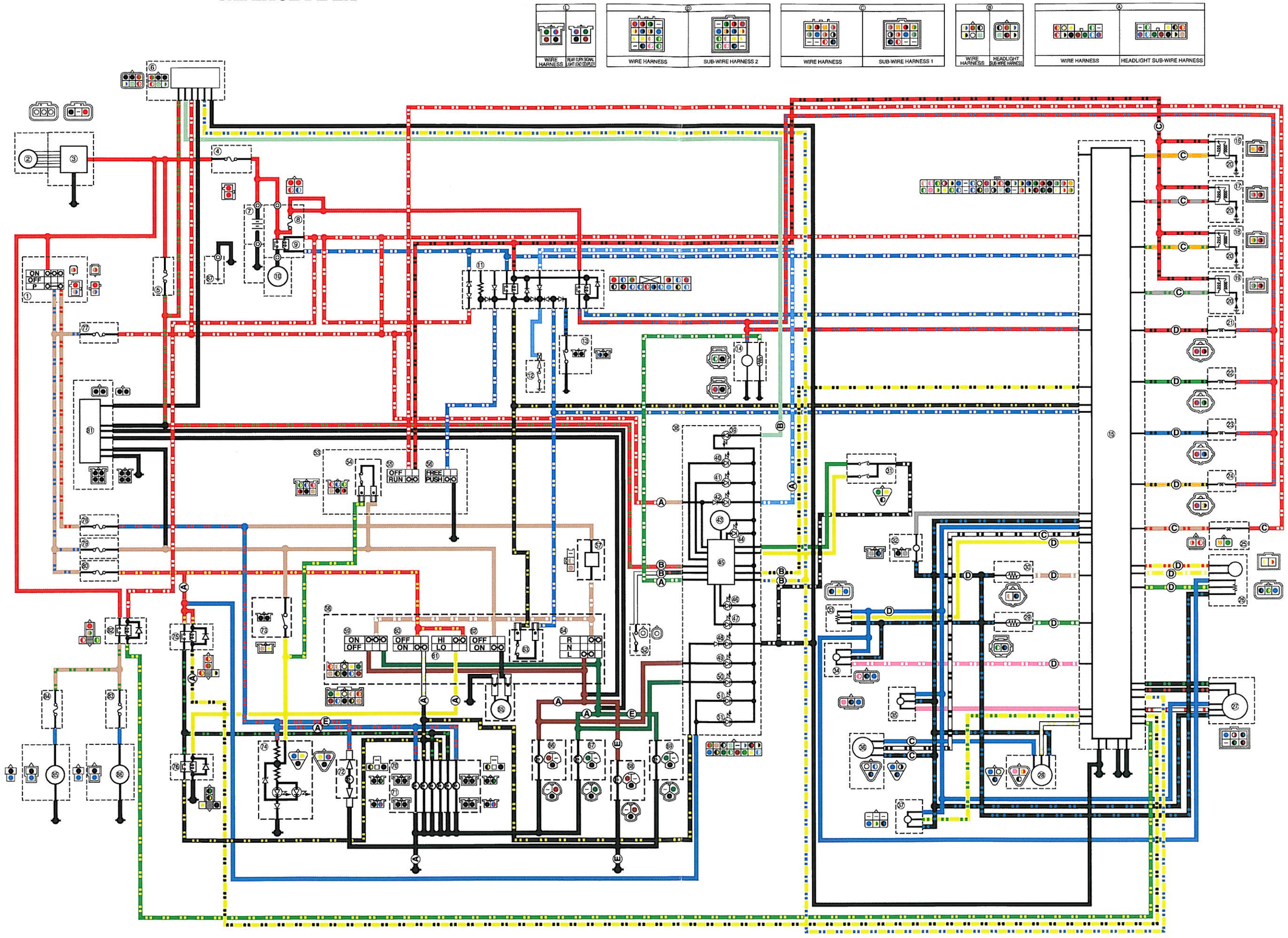
YZF-R1 (S) 2004
WIRING DIAGRAM

YZF-R1 (S) 2004
SCHEMADE CABLAGE DE LA

YZF-R1 (S) 2004
SCHALTPLAN

YZF-R1 (S) 2004
SCHEMA IMPLANTO

YZF-R1 (S) 2004
DIAGRAMA DEL CABLEADO



YZF-R1 (S) 2004 WIRING DIAGRAM
YZF-R1 (S) 2004 SCHEMADE CABLAGE DE LA
YZF-R1 (S) 2004 SCHALTPLAN
YZF-R1 (S) 2004 SCHEMA IMPLANTO
YZF-R1 (S) 2004 DIAGRAMA DEL CABLEADO

COLOR CODE/CODE DE COLEUR
FARBENKODIERUND/CODIE COLORI
CODIGO DE COLOR

Black Noir Schwarz Nero Negro	Black/Blue Noir/Bleu Schwarz/Blau Nero/Blu Negro/Azul	Blue/White Bleu/Blanc Blau/Weiß Blu/Bianco Azul/Blanco	White/Yellow Blanc/Jaune Weiß/Gelbt Bianco/Giallo Blanco/Amarillo
Brown Brun Braun Marrone Marrón	Black/Red Noir/Rouge Schwarz/Rot Nero/Rosso Negro/Rojo	Blue/Yellow Bleu/Jaune Blau/Gelb Blu/Giallo Azul/Amarillo	Yellow/Black Jaune/Noir Gelb/Schwarz Giallo/Nero Amarillo/Negro
Chocolate Chocolat Schokoladenfarbe Cioccolate Chocolate	Black/White Noir/Blanc Schwarz/Weiß Nero/Bianco Negro/Blanco	Orange/Black Orange/Noir Orange/Schwarz Aranjado/Nero Naranja/Negro	Yellow/Green Jaune/Vent Gelb/Grün Giallo/Verde Amarillo/Verde
Dark green Vart foncé Dunkelgrün Verde scuro Verde oscuro	Black/Yellow Noir/Jaune Schwarz/Gelbt Nero/Giallo Negro/Amarillo	Orange/Green Orange/Vent Orange/Grün Aranjado/Verde Naranja/Verde	Yellow/Blue Jaune/Bleu Gelb/Blau Giallo/Blu Amarillo/Azul
Green Vent Grün Verde Verde	Brown/Blue Brun/Bleu Braun/Blau Marrone/Blu Marrón/Azul	Orange/Red Orange/Rouge Orange/Rot Aranjado/Rosso Naranja/Rojo	Yellow/Red Jaune/Rouge Gelb/Rot Giallo/Rosso Amarillo/Rojo
Gray Gris Grau Grigio Gris	Brown/Green Brun/Vent Braun/Grün Marrone/Verde Marrón/Verde	Pink/White Rose/Blanc Rosa/Weiß Rosa/Bianco Rosado/Blanco	Yellow/White Jaune/Blanc Gelb/Weiß Giallo/Bianco Amarillo/Blanco
Blue Bleu Blau Blu Azul	Brown/Red Brun/Rouge Braun/Rot Marrone/Rosso Marrón/Rojo	Red/Black Rouge/Noir Rot/Schwarz Rosso/Nero Rojo/Negro	
Light green Vent clair Hellgrün Verde chiaro Verde claro	Brown/White Brun/Blanc Braun/Weiß Marrone/Bianco Marrón/Blanco	Red/Green Rouge/Vent Rot/Grün Rosso/Verde Rojo/Verde	
Orange Orange Orange Aranjado Naranja	Green/Black Vent/Noir Grün/Schwarz Verde/Nero Verde/Negro	Red/Blue Rouge/Bleu Rot/Blau Rosso/Blu Rojo/Azul	
Pink Rose Rosa Rosa Rosado	Green/White Vent/Blan Grün/Weißz Verde/Bianco Verde/Blanco	Red/White Rouge/Blanc Rot/Weiß Rosso/Bianco Rojo/Blanco	
Red Rouge Rot Rosso Rojo	Green/Yellow Vent/Jaune Grün/Gelb Verde/Giallo Verde/Amarillo	Red/Yellow Rouge/Jaune Rot/Gelb Rosso/Giallo Rojo/Amarillo	
Sky blue Bleu ciel Himmelblau Celeste Azul cielo	Gray/Green Gris/Vent Grau/Grün Grigio/Verde Gris/Verde	Sky blue/White Bleu ciel/Blanc Himmelblau/Weiß Celeste/Bianco Azul cielo/Blanco	
White Blanc Weiß Bianco Blanco	Gray/Red Gris/Rouge Grau/Rot Grigio/Rosso Gris/Rojo	White/Black Blanc/Noir Weiß/Schwarz Bianco/Nero Blanco/Negro	
Yellow Jaune Gelb Giallo Amarillo	Blue/Black Bleu/Noir Blau/Schwarz Blu/Nero Azul/Negro	White/Blue Blanc/Bleu Weiß/Blau Bianco/Blu Blanco/Azul	
Black/Green Noir/Vent Schwarz/Grün Nero/Verde Negro/Verde	Blue/Red Bleu/Rouge Blau/Rot Blu/Rosso Azul/Rojo	White/Red Blanc/Rouge Weiß/Rot Bianco/Rosso Blanco/Rojo	

YAMAHA

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