GENERAL SUMMARY

General

Information about the model

B

D

E

G

M

Technical data

Use and maintenance

Fairings

Controls - Devices

Wheels - Suspension - Brakes

Frame

Fuel / Exhaust System

Injection - ignition system

Engine

Electric system

4	Section A General	
<u> </u>	1 - How to use this manual Layout of the manual	3
	2 - Symbols - Abbreviations - References Product specifications	5 6
3	3 - Hazardous Products - Warnings General safety rules General maintenance indications	8 8 10
)	Section B Information about the model	
	1 - Identification data Identification data for the Superbike 1098	3
F	Section C Technical data	
3 -1 -1	1.1 - Technical specifications General Colours Transmission Timing system/valves Crankshaft Cylinder/Piston Gearbox Cooling system Front wheel Front suspension (1098) Front suspension (1098S) Rear wheel Rear suspension (1098S) Rear suspension (1098S) Hydraulic brakes Charging system/alternator Injection - ignition system Fuel system Lights/instrument panel	3 3 4 4 5 5 5 6 6 6 6 6 7 7 7 7 8 8 8 8 9 9
I	1.2 - Dimensions	10
)	2 - Fuel, lubricants and other fluids 3 - Torque settings Frame torque settings Engine torque settings	11 12 12 13

Immobilizer override procedure

Fuel pressure test

Guided diagnosis

16

16

22

B

3

3

4

5

5

6

6

8

9

9

10 13

14 15

16

17

22

24

35

E

G

M

48 50 53

74 77 81

71

Testing the battery charging system Deactivating the "maintenance" indication on the instrument pallcons table	nel 84 90
Section E Fairings	
1 - Headlight shell - rear-view mirrors Removal of the rear-view mirrors Refitting the rear-view mirrors Removal of the headlight shell Refitting the headlight shell	3 4 5 6 8
2 - Fairing panels Removal of the side fairings Removal of the front shield Refitting the front shield Refitting the side fairings	11 12 14 14 15
3 - Seat - seat cowling and side panels Removal of the seat Removal of the side panels and seat cowling Refitting the side panels and seat cowling Refitting the seats Refitting the pillion seat	17 18 19 22 26 27
4 - Front mudguard Removal of the front mudguard Refitting the front mudguard	28 28 29
Section F Controls - Devices	
1 - Throttle and choke controls Adjusting the throttle cable Removal of the throttle cable Refitting the throttle twistgrip	3 4 4 5
2 - Hydraulic clutch control Removal of the clutch master cylinder assembly Refitting the clutch master cylinder assembly Removal of the clutch slave cylinder Refitting the clutch slave cylinder	7 8 9 11 13
3 - Front brake control Removal of the front brake master cylinder Refitting the front brake master cylinder	16 17 18
4 - Rear brake control Removal of the complete rear brake control Disassembly of the rear brake master control Refitting the rear brake control	19 20 21 22

5 - Gearchange control Removal of the complete gearchange control Disassembly of the gearchange control Refitting the gearchange control	
Section G Wheels - Suspension - Brakes	
1 - Front wheel Removal of the front wheel Overhauling the front wheel Refitting the front wheel	
2 - Front fork (1098) Removal of the front forks Overhauling the front forks Refitting the front forks	
3 - Hydraulic front brake Maintenance operations Removal of the front brake system Refitting the brake discs Overhauling the front brake components Refitting the front brake system	
4 - Rear wheel Removal of the rear wheel Overhauling the rear wheel Refitting the rear wheel	
5 - Rear swingarm Removal of the rear eccentric hub Removal of the rear eccentric hub Removal of the swingarm Inspecting the swingarm pivot shaft Overhauling the rear swingarm Refitting the swingarm	
6 - Hydraulic rear brake Removal of the rear brake caliper Removal of the rear brake disc Refitting the rear brake caliper	
7 - Rear suspension Rear suspension system Removal of the rear shock absorber Overhauling the rear shock absorber Removal of the rear suspension rocker arm Overhauling the rear suspension rocker arm Disassembly and overhaul of the shock absorber tie-rod Refitting the rear suspension	

 B

C

D

E

F

G

Н

M

3	8 - Final drive Inspecting the final drive Removal of the front sprocket Refitting the front sprocket Renewal of the rear sprocket Refitting the rear sprocket Uashing the chain Lubricating the chain	61 62 63 65 67 68 69 69
	Section H	
	Frame	
	1 - Handlebars Removal of the handlebars Refitting the handlebars	3 4 5
	2 - Steering	6
	Adjusting the steering head bearings Steering angle adjustment Removal of the steering head components Refitting the steering head components	7 8 9 11
	3 - Steering damper (1098) Removal of the steering damper Refitting the steering damper	14 15 16
	4 - Footrest brackets Removal of the footrests Refitting the footrests	17 18 19
	5 - Stands	20
1	Removal of the sidestand. Refitting the sidestand	21 23
	6 - Frame inspection	24
	Disassembly of structural components and the frame Checking the frame Reassembly of structural components and the frame	25 29 31
	7 - Number plate holder	33
۱	Removal of the number plate holder	34
	Section L	
	Fuel / Exhaust System	
	2 - Fuel tank Removal of the fuel tank	3 4
	Removal of the fuel filler cap assembly	6
	Refitting the fuel filler cap assembly Renewal of the fuel tank flange	7 8
	Refitting the fuel tank flange Refitting the fuel tank	9 10

6 - Airbox - Throttle Body Removal of the throttle body Refitting the airbox and throttle body	14 15 23
7 - Air intake Removal of the air filters Refitting the air filters	29 [°] 30 31
8 - Exhaust system Removal of the exhaust system Refitting the exhaust system	32. 33 37
Section M Injection - ignition system	
2 - Fuel injection-ignition system	3,
3 - System components Electronic Control Unit (ECU) Removal of the battery support Refitting the battery support Electric injector Air pressure sensor Coolant temperature sensor Air temperature sensor Ignition coils Throttle Position Sensor (TPS) Rpm/timing sensor Injection relay CAN Line	4 6 9 14 15 16 17 18 21 22 23 24
Section N	
Engine	
1 - Removal—refitting of the engine assembly Removal of the engine Refitting the engine	5 6 9
2.1 - Lubrication system: oil pump Removal of the oil pump Disassembly of the oil pump Reassembly of the oil pump Refitting the oil pump	10 11 12 13 14
2.2 - Lubrication system: oil cooler Removal of the lubrication system Oil cooler inspection Refitting the lubrication system	15 16 18 18

B

D

E

G

M

A	3.2 - Cooling system: radiator Removal of the radiator Renewal of the cooling fan Refitting the radiator Removal of the cooling system hoses and unions Refitting the cooling system hoses and unions	20 21 23 24 26 29
В	3.3 - Cooling system: water pump Removal of the water pump Refitting the water pump	32 33 36
C	4.1 - Cylinder head assemblies: checks and adjustments Checking and adjusting the valve clearances Checking valve lift Checking the engine timing	41 42 44 46
D	4.2 - Cylinder head assemblies: timing Removal of the timing belt covers Removal of the tensioner pulley/timing belt	49 50 51
E	Removal of the camshaft pulleys/idler pulley Removal of the tensioner and idler pulley mounting studs Disassembly of the camshaft pulleys Removal of the timing belt driveshaft pulleys Refitting the timing belt driveshaft pulleys	51 52 53 54 56
F	Refitting the idler and tensioner pulley mounting studs Reassembly of the timing pulleys Refitting the camshaft pulley/idler pulley Refitting the timing belts Refitting the timing covers	58 59 60 63 65
G H	4.4 - Cylinder head assemblies: camshafts Removal of the camshafts Checking the camshafts and supports Refitting the camshafts Removal of the intake manifold and coolant union Refitting the intake manifold and coolant union	66 67 69 70 76
L	4.5 - Cylinder head assemblies: valves—rocker arms Removal of the cylinder heads Removal of the valves Removal of the valve rocker arms Overhaul of cylinder head components Reassembly of the cylinder head Fitting the cylinder head assemblies	78 79 80 81 84 91
M	5 - Cylinder/piston assemblies Disassembly of the cylinder/piston Overhaul of the cylinder barrel/piston components Refitting the cylinder/piston assembly	100 101 104 109
N	6.1 - Clutch assembly: clutch Description Disassembly of the clutch	113 114 115
P	Inspection and overhaul of the clutch components Reassembly of the clutch	120 122

6.2 - Clutch assembly: right-hand side crankcase cover Removal of the right-hand side crankcase cover Disassembly of the right-hand side crankcase cover Reassembly of the right-hand crankcase cover Refitting the right-hand side crankcase cover
6.3 - Clutch assembly: primary drive gears Removal of the primary drive gears Refitting the primary drive gears and checking backlash
7.1 - Gearbox assembly: gearchange mechanism Removal of the gearchange mechanism Disassembly of gear interlock plunger and pawl assembly Refitting the gear interlock plunger and pawl assembly Refitting the gearchange mechanism
7.2 - Gearbox assembly: gearbox shafts Removal of the gearbox assembly Disassembly of the gearbox shafts Overhaul of the gearbox Inspection of the gear selector forks Inspection of the gear selector drum Reassembly of the gearbox shafts Reassembly of the gearbox
8 - Flywheel/alternator Removal of the left-hand side crankcase cover Disassembly of the left-hand crankcase cover Removal of the flywheel/alternator assembly Overhaul of the flywheel/alternator assembly Refitting the flywheel/alternator assembly Refitting the left-hand crankcase cover
9.1 - Crankcase assembly: external components Removal of external components Refitting the external components Removal of the timing gears Refitting the timing gears Removal of the starter motor idler gear Refitting the starter motor idler gear Checking the engine sensor air gap
9.2 - Crankcase assembly: crankcase halves Separation of the crankcase halves Overhaul of the crankcase halves Main bearings Reassembly of the crankcase halves Shimming the shafts Reassembly of the crankcase halves
9.3 - Crankcase assembly: connecting rods Removal of the connecting rods assembly Disassembly of the connecting rods Overhaul of the connecting rods Reassembly of the connecting rods Refitting the connecting rods.

M

B

C

D

E

G

A	Section P	
	Electric system	
В	1 - Wiring diagram Key to wiring diagram Wiring colour codes Key to fusebox	2 5 6
С	Routing of wiring on frame Plate 1 Plate 2 Plate 3 Plate 4	7 9 10 10
D	Plate 5 Plate 6 Plate 7 Plate 8 Plate 9	11 11 12 13
Ε	Plate 10 Plate 11 Plate 12 Plate 13 Plate 14	14 15 15 16 17
F	Plate 15 Plate 16 Plate 17 Plate 18	18 19 20 21
G	Plate 19 Plate 20 Plate 21 Plate 22 Plate 23	22 23 24 24 25
Н	Plate 24 Plate 25 Plate 26 Plate 27 Plate 28	26 27 28 29 30
L	Plate 28 Plate 29 Plate 30 Plate 31 Plate 32	31 32 33 34 35
M	Plate 33 Plate 34 Plate 35	36 37 38
N	2 - Battery charging system Checking the battery charging system Recharging the battery Topping up the electrolyte	39 39 40 41
	Battery Alternator Regulator/rectifier	44 46 49

General summan

3 - Electric starting system Electric starting system Starter motor Starter contactor	52 52 53 56
4 - Lights and indicating devices Changing light bulbs High beam headlights relay Headlight aim	59 59 62 64
5 - Indicating devices Checking the indicating system components Coolant temperature sensor Fan relay Checking operation of the fan relay Changing light bulbs	65 65 72 73 73
6 - Protection and safety devices Checking protection and safety device components Checking the fuses	78 78 80
7 - Instruments Instrument panel Instrument panel system Display settings and functions	81 81 82 84
8 - Immobilizer and transponder	102
9 - Diagnostic instruments Using a multimeter to check the electrical systems	110 110
10 - USB Data Acquisition (DAQ) (for 1098S only)	112

В

C

D

E

G

Н

M

N