

This BMW motorcycle manual 792 pages

CHAPTER ONE / GENERAL INFORMATION

Manual Organization / Warnings, Cautions, and Notes / Safety / Serial Numbers / Fasteners / Shop Supplies / Basic Tools / Precision Measuring Tools / Electrical Fundamentals / Basic Service Methods / Storage / Specifications

CHAPTER TWO / TROUBLESHOOTING

Operating Requirements / Starting The Engine / Starting Difficulties / Engine Performance / Engine Noises / Engine Lubrication / Cylinder Leakdown Test / Clutch / Transmission / Final Drive / Electrical Testing / Lighting System / Starting System / Charging System / Ignition System / Front Suspension and Steering / Brake System

CHAPTER THREE / LUBRICATION, MAINTENANCE AND TUNE-UP

Fuel Type / Pre-Ride Check List / Tires and Wheels / Battery / Engine Oil and Filter / Transmission / Final Drive / Control Cable Service / Rear Brake Pedal Pivot Shaft Bolt and Bushing Lubrication / Shift Lever Cleaning and Lubrication / Sidestand / Windshield Adjust Shaft (RS Models) / Air Filter / Brake System / Clutch / Fuel Filter Replacement / Fuel Hose Inspection / Crankcase Breather Inspection / Evaporative Emission Control System / Exhaust System / Handlebars / Handlebar Grips / Front Suspension Inspection / Rear Suspension Inspection / Rear Frame Inspection / Fastener Inspection / Tune-Up Procedures / Cylinder Head Fasteners / Valve Clearance / Ignition Timing / Engine Compression Test / Spark Plugs (Single Plug Ignition System) / Spark Plugs (Dual-Plug Ignition System) / Spark Plug Inspection / Throttle And Choke Cable Adjustment (All Models Except R850C and 1200C Models) / Throttle Cable Adjustment (1993-1995 R850C and R1200C Models) / Throttle Body Synchronization and Idle Speed Adjustment / Alternator Drive Belt Adjustment / Specifications

CHAPTER FOUR / ENGINE TOP END

Engine Service Notes / Cylinder Head Cover / Cylinder Head / Valve Gear Holder / Valves and Valve Components / Cylinder and Piston / Piston and Piston Rings / Specifications

CHAPTER FIVE / ENGINE LOWER END

Engine Service Notes / Servicing The Engine In Frame / Engine Removal and Installation (GS, R, RS and RT Models) / Engine Removal and Installation (R1100S Models) / Engine Removal and Installation (R850C and R1200C Models) / Alternator Support Cover / Auxiliary Drive Shaft Mechanism / Oil Pump / Crankcase / Rear Main Seal Replacement / Auxiliary Drive Shaft, Camshaft Chains and Tensioner Assemblies / Crankshaft / Connecting Rods / Oil Coolers and Hoses / Engine Break-In / Specifications

CHAPTER SIX / CLUTCH

Clutch Release Mechanism / Master Cylinder / Clutch Release Cylinder / Specifications

CHAPTER SEVEN / FIVE SPEED TRANSMISSION AND GEARSHIFT MECHANISMS

Transmission Case / Neutral Switch and Gear Position Switch / Transmission Housing Cover / Transmission Shafts and Gearshift Mechanism / Transmission Shafts / Gearshift Mechanism / Transmission Housing, Housing Cover Bearings and Seals / Specifications

CHAPTER EIGHT / SIX SPEED TRANSMISSION AND GEARSHIFT MECHANISMS

Transmission Case / Neutral/Gear Position Switch / Transmission Housing / Transmission Shafts and Gearshift Mechanism / Transmission Housing and Housing Cover / Transmission Shafts / Gearshift Mechanism / Transmission Housing and Housing Cover Oil Seals / Specifications

CHAPTER NINE / FUEL, EMISSION CONTROL AND EXHAUST SYSTEMS

Depressurizing The System / Fuel Injectors / Throttle Body / Pressure Regulator / Motronic Control Unit / Throttle Position Sensor / Air Filter Assembly / Throttle Cables / Increase Idle Choke / Fuel Tank / Rollover Valve / Fuel Filter / Fuel Pump / Fuel Pump Pressure Test / Fuel Level Sending Unit / Crankcase Breather System / Evaporative Emission Control System / Exhaust System/ Specifications

CHAPTER TEN / ELECTRICAL SYSTEM

Electrical Component Replacement / Charging System / Alternator / Ignition System / Hall Sensor Unit / Main Ignition Coil / Direct Ignition Coils / Spark Plug Secondary Wires / Spark Plug Primary Wires (Dual-Plug Models) / Starting System / Starter / Starter Relay / Lighting System / Headlight / Taillight/Brake Light And License Plate Light / Turn Signals / Switches / Rider Information Display (RID) (1993-1998 GS, RS and RT Models) / Instrument Panel / Central Electrical Equipment Box or Modules Relays / Fuses

Battery Case / Horn / Color Wiring Diagrams / Specifications

CHAPTER ELEVEN / WHEELS, HUBS AND TIRES

Front Wheel / Rear Wheel / Front Hub / Wheel Runout And Balance / Spoke Wheel Service / Tire Changing / Tire Repairs / Specifications

CHAPTER TWELVE / FRONT SUSPENSION AND STEERING

Handlebar / Controls / Lever / Upper Fork Bridge / Lower Fork Bridge / Front Fork / Front Strut Adjustments / Front Strut / Front Suspension A-Arm / Steering Damper/ Specifications

CHAPTER THIRTEEN / REAR SUSPENSION AND FINAL DRIVE

Swing Arm and Drive Shaft Paralever and Monolever Models / Final Drive Unit Paralever and Monolever Models / Pinion Gear-To-Ring Gear / Tapered Roller Bearing Preload/ Specifications

CHAPTER FOURTEEN / BRAKES

Brake Fluid Selection / Preventing Brake Fluid Damage / Brake Service / ABS II System / Integral ABS System / Brake Pads / Brake Calipers / Caliper Overhaul / Brake Fluid Filler Adapter / Front Master Cylinder (R850R and All R1100 Except R1100S) / Front Master Cylinder (R850S, R1100S, R1150 and R1200C) / Rear Master Cylinder / Brake Disc and Sensor Wheel / ABS Sensor / ABS Unit (ABS II Models) / ABS Pressure Modulator (Integral ABS Models) / ABS Relay (ABS II) / Brake Hose and Line Replacement / Rear Brake Pedal / Brake Bleeding (Non-ABS and ABSII Models) / Brake Bleeding (Integral ABS Models) / Specifications

CHAPTER FIFTEEN / BODY AND FRAME

Seat / Seat Backrest (R850C and R1200C Models) / Front Fender and Mud Guard / Rear Fender and Mud Guard / Body Side Panels (R Models) / Windshield (GS Models) / Body Panels (RS Models) / Body Panels (RT Models) / Body Panels (R1100S Models) / Luggage And Luggage Carrier / Windshield Cleaning (All Models) / Sidestand / Centerstand / Footrests (R1100GS, R1100R and R1100RS Models) / Footrests (R1150GS Models) / Footrests (RT Models) / Footrests (R1100S Models) / Footrests (R150GS Models) / Front Safety Bars / Handle (RT Models) / Engine Guard / Main Frame (R1100S Models) / Front Frame (R850C and R1200C Models) / Rear Frame / Raising Rear Frame / Specifications

INDEX

COLOR WIRING DIAGRAMS

Models covered: 1995 1996 1997 1998 1999 BMW R1100GS 1994 1995 1996 1997 1998 1999 2000 BMW R1100GS (U.K.) 1995 1996 1997 1998 1999 2000 2001 BMW R1100R (U.S. and U.K.) 1993 1994 1995 1996 1997 1998 1999 2000 2001 BMW R1100RS 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 BMW R1100RS (U.K.) 1996 1997 1998 1999 2000 2001 BMW R1100RT 1995- 1996 1997 1998 1999 2000 2001 BMW R1100RT (U.K.) 1999 2000 2001 2002 2003 2004 2005 BMW R1100S 2000 2001 2002 2003 2004 BMW R1100S (U.K.) 2000 2001 2002 2003 2004 2005 BMW R1150GS/Adventure 1999 2000 2001 2002 2003 2004 BMW R1150GS/Adventure (U.K.) 2002 2003 2004 2005 BMW R1150R/Rockster 2000 2001 2002 2003 2004 BMW R1150R/Rockster (U.K.) 2002 2003 2004 BMW R1150RS 2001 2002 2003 BMW R1150RS (U.K.) 2002 2003 2004 BMW R1150RT 2000 2001 2002 2003 2004 BMW R1150RT (U.K.) 1998 1999 2000 2001 2002 2003 2004 BMW R1200C (U.S. and U.K.) 2000 2001 BMW R850C (U.K.) 2000 2001 BMW R850GS (U.K.) 1996-1998 BMW R850R 1995-2001 BMW R850R (U.K.)

```
Clymer Manuals BMW R1100GS Manual
Clymer Manuals BMW R1100RS Manual
Clymer Manuals BMW R1100RS Manual
Clymer Manuals BMW R1100RS Manual
Clymer Manuals BMW R1100RT Manual
Clymer Manuals BMW R1100RT Manual
Clymer Manuals BMW R1100S Manual
Clymer Manuals BMW R1150GS Adventure Manual
Clymer Manuals BMW R1150R Rockster Manual
Clymer Manuals BMW R1150RS Manual
Clymer Manuals BMW R1150RT Manual
Clymer Manuals BMW R1200C Manual
Clymer Manuals BMW R850C Manual
Clymer Manuals BMW R850GS Manual
Clymer Manuals BMW R850R Manual
```

Clymer Manuals R1100GS Manual