

# ROYAL ENFIELD OWNER'S MANUAL

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USA/CALIFORNIA

## FOREWORD

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Welcome to the Royal Enfield family.

Royal Enfield motorcycles are being manufactured by us since 1955 with state of the art technology, while taking care to maintain the traditional Classic looks.

The motorcycle that you have just bought, confirms to United States Environment Protection Agency laws, Federal Motor Vehicle Safety Standards and California Air Resources Board regulations. (Applicable only for motorcycles sold within the state of California.)

This Owner's manual will help you to acquaint with the important aspects of operation, care and minor maintenance of your new Royal Enfield motorcycle. We recommend that you read this manual carefully, before using the motorcycle which will help you to maintain your motorcycle in top riding condition. Major repairs are detailed in the Royal Enfield service manual. Such major repairs require the attention of a skilled technician and use of special tools and techniques. Your Royal Enfield Authorised Dealer has the facilities, experience and genuine Royal Enfield spare parts necessary to render those valuable services in a correct procedure.

We have also provided several vital safety information for the rider and for the care and safety of the motorcycle. Please read and follow these carefully for safe riding and for maximum riding pleasure. Please ride cautiously, safely and within the law. Always wear a helmet, good riding goggles and proper riding clothes while riding the motorcycle. Please insist and ensure that your pillion rider also follows these guidelines while riding with you.

Log on to the exciting world of Royal Enfield web site: [www.royalenfield.com](http://www.royalenfield.com) to get to know more about us and exciting news from time to time.

**We wish you many years of riding pleasure with your Royal Enfield motorcycle.**

**Royal Enfield team  
Chennai, India.**

## **NOTICE**

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**Because of continuous improvements in the product and changes that may occur in the manufacturing process, subsequent to printing of this manual, it is possible some instructions, illustrations, pictures or designs found within this manual may differ from those found on the vehicle. However the technical information found within this manual was correct at the time it was approved for publication.**

**Royal Enfield,  
Chennai  
India.**

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## IMPORTANT

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**United States Environment Protection laws, Federal Motor Vehicle Safety Standards and California Air Resources Board (Applicable only for motorcycles sold within the state of California.) strictly prohibits tampering with the Exhaust Emission Control, Noise Control and Evaporative Emission Control systems:**

We would like to emphasize that any repairs to the induction, emission, exhaust and evaporative systems must be performed only by a Royal Enfield Authorised Dealer so that the motorcycle confirms to the United States Environment Protection laws, Federal Motor Vehicle Safety Standards and California Air Resources Board regulation (Applicable only for motorcycles sold within the state of California.)

It is the responsibility of the Owner / User of the motorcycle to read this manual carefully and to comply with the safety guidelines, operating instructions, and periodical maintenance instructions given here. Keep this manual in a convenient place for easy reference. DO NOT use the motorcycle until you have become familiar with this motorcycle and after reading and understanding this manual completely. In case you need any further clarifications, please contact a Royal Enfield Authorised Dealer, nearest to you, for assistance.

If your motorcycle is being used by a friend, relative, or any other person, it is your responsibility to make certain that they have completely understood the operating procedures of the motorcycle, and the contents in this manual with particular reference to the safety aspects, before riding your motorcycle.

This motorcycle is designed for NORMAL ON ROAD USE ONLY. Operation in off-road usage in some areas may be illegal and could be dangerous. Please obey local laws and regulations.

In the event of your motorcycle being sold to another person, it is your responsibility to hand over this manual along with the motorcycle to the new owner.

## **REPORTING SAFETY DEFECTS**

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If you believe your motorcycle has a defect which could cause a crash and result in serious injury or loss of life, you should immediately contact the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Royal Enfield North America Limited, 226 N Water St., Milwaukee WI 53202 US.

If NHTSA receives similar complaints, it may open an investigation and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in any individual problems between you, and your dealer or Royal Enfield North America Limited.

**To contact NHTSA you may call the Auto Safety Hotline toll-free within the United States on 1-800-424-9393 or write to: NHTSA, 400 Seventh Street SW, Washington, DC 20590. You can also obtain other information about motor vehicle safety from the hotline.**

## **IMPORTANT NOTICE !**

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### **SAFETY DEFINITIONS**

Statements in this manual preceded by the following words are of special significance:



#### **WARNING**

Indicates a potentially hazardous situation, which if not avoided, could result in an accident causing serious injury or loss of life.

#### **CAUTION**

Caution with the safety alert symbol, indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury leading to disability.

#### **Caution :**

Caution without the safety alert symbol indicates a potentially hazardous situation, which if not avoided, may result in damage to the motorcycle and its rider, property etc.

All images in this manual are only for reference and to explain the relevance. They may not be exactly the same in the motorcycle you own. Technical specifications are subject to change without prior notice.

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## SAFE OPERATING RULES

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Royal Enfield motorcycles are designed to serve as a means of personal transport, and for on-road use only. It is not meant to be used as an off-road motorcycle.



### **WARNING**

**Using the motorcycle for Off-road purposes could lead to loss of control which could result in an accident causing serious injury or loss of life.**

Before operating your new motorcycle, it is your responsibility to carefully read and follow the operating and maintenance instructions detailed in this manual for your own safety, your motorcycle and that of others

Before starting the motorcycle, check for proper operation of brakes, clutch, gear shift, electrical components, handle bar controls, tire pressures, fuel and oil levels.

Know and respect the rules of the road. Be a safe rider for your own safety and for other road users.

## FUEL / REFUELING

Royal Enfield motorcycles are designed to perform best with unleaded gasoline only. Use a good quality unleaded gasoline of 87 RON or higher. If 'knocking' or 'pinging' occurs at a steady engine speed under normal load, use a different brand of gasoline or gasoline which has a higher octane rating.



### **WARNING**

**Do not use leaded gasoline in this motorcycle. It will cause serious damage to the internals of the engine, exhaust emission system and the motorcycle will not meet the emission norms. Using leaded gasoline will also render the warranty void.**

**It is illegal to use leaded gasoline as it is known to cause serious health problems**

**Fuels containing methanol should not be used as it can cause damage to the fuel system components.**

## SAFE OPERATING RULES

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### **WARNING**

**Gasoline is extremely flammable and highly explosive under certain conditions. Any fuel leak, spillage, or negligence of adhere to safety norms may lead to a fire hazard or explosion, which could cause damage to property, injury to persons or loss of life. When refueling your motorcycle, please exercise utmost caution and carefully observe the following rules:**

- Turn the ignition switch to the 'OFF' position
- Open the fuel filler cap slowly. This will help to release any pressure that may have built up in the fuel tank.
- **DO NOT** smoke and please ensure that there are no open flames or sparks near the motorcycle, when refueling OR servicing the fuel system.
- Refuel in a well ventilated area.
- **DO NOT** use a mobile telephone. Switch OFF mobile telephones and any other electrical and electronic devices including any appliances with a pilot light.

- **DO NOT** fill the fuel tank to its brim. Please fill fuel only till the bottom of the filler neck insert so as to leave air space for fuel expansion, inside the fuel tank. Overfilling the tank can lead to fuel spillage.
- Avoid filling the tank in rainy or dusty conditions where airborne material can contaminate the fuel. Contaminated fuel may cause damage to fuel system components.
- After refueling, please ensure the fuel filler cap is closed firmly and correctly.



### **WARNING**

**Fuel spilled on the floor or on motorcycle tires will reduce the tire's ability to grip the road. This can result in dangerous riding condition, potentially causing loss of control and could result in an accident If fuel is spilled, thoroughly clean up the spillage immediately. Take care not to spill any fuel on the engine, exhaust pipes, rubber parts or any other part of the motorcycle.**

## SAFE OPERATING RULES

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**Do not store motorcycle with gasoline in the tank, within your home or garage where open flames, pilot lights, spark or any appliance with a pilot light, electric motors are present. Inadequate safety precautions could cause an explosion or fire and could result in damage to property, serious injury or loss of life.**

### **Tires & Suspension**

Please inspect and ensure tires are seated evenly & properly in the rims. Maintain the recommended tire pressures as it is very important for riding stability. Pay strict attention to loose and / or broken spokes. Ensure the front and rear wheels are correctly aligned. Check spokes for correct tightness in the rims and free movement of steering system.

Inspect the tires tread condition periodically and replace worn out tires with approved make only. Failure to do so can lead to improper balance, poor stability, poor handling, and abnormal tread wear.

Please replace tires which are punctured or damaged. Small punctures in the tread area may be repaired from within the tire. The motorcycle should

not be driven over 40 MPH (60 Km/h) for the first 24 hours and over 55 MPH (90 Km/h) thereafter with a repaired tire.



### **WARNING**

**In emergency situations, please ride slowly with least possible load until the tire is permanently repaired or replaced. Failure to heed to this warning could result in serious injury or loss of life.**

Regularly inspect front forks, rear shock absorbers and rear suspensions for any wear, looseness / side play, oil leaks etc. Replace worn parts. Worn parts can adversely affect stability and handling.



### **WARNING**

**DO NOT operate motorcycle with a loose, worn or damaged steering system, including the front and rear suspension system. Contact your Royal Enfield Authorised Dealer for repair of steering or suspension system. Damaged steering or suspension components may adversely affect handling which could result in serious injury or loss of life.**

## SAFE OPERATING RULES

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### Running in

A new motorcycle must be operated according to the special break-in-procedure. (See BREAK-IN-THE FIRST 300 Miles (500 Kms) section.) Operate motorcycle only at moderate speeds and out of traffic until you have become thoroughly familiar with its operation and handling characteristics under all condition

**DO NOT** exceed the legal speed limit or drive too fast for existing conditions. Always reduce speed when poor driving conditions exist. High speed increases the influence of any other condition affecting stability and increases the possibility of loss of control.

### NOTE :

**If you are an inexperienced rider we recommend that you obtain formal training on correct motorcycle riding techniques and become thoroughly familiar with the operation of your particular motorcycle. New riders should gain experience under various conditions while driving at moderate speeds.**



### WARNING

**Avoid over speeding and never travel over the speed limit. Excessive speed may cause loss of control and could result in an accident causing serious injury or loss of life.**

**DO NOT** exceed 70 MPH (110 Kmph) riding solo.

**DO NOT** exceed 55 MPH (90 Kmph) when carrying a passenger and/or cargo.

Pay strict attention to road surfaces and wind conditions. Any two wheeled motorcycle may be subject to the following upsetting forces:

- ★ Wind blasts from passing trucks.
- ★ Rough uneven road surfaces.
- ★ Slippery road surfaces.

These forces may affect the handling characteristics of your motorcycle. If this happens, reduce speed and guide the motorcycle with a relaxed grip to a controlled condition. Do not brake abruptly or force the handlebar.

## SAFE OPERATING RULES

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Operate your motorcycle defensively. Remember, a motorcycle does not afford the same protection as an automobile in an accident. One of the most common accident situations occurs when the driver of the other vehicle fails to see or recognize a motorcycle and turns into the oncoming motorcyclist.

Safe motorcycle operation requires alert mental judgment combined with a defensive driving attitude. **DO NOT** allow fatigue, alcohol or drugs to endanger your safety **OR** that of others.

Wear an approved helmet, clothing, and foot gear suited for riding a motorcycle. Bright **OR** light colors are best for greater visibility in traffic, especially at night. Avoid loose, flowing garments and scarves.

When carrying a pillion rider, **it is your responsibility** to instruct them on proper riding procedures.

**DO NOT** allow other individuals, under any circumstances, to operate your motorcycle unless you know they are experienced, licensed riders and are thoroughly familiar with the operating conditions of your motorcycle

Additional electrical accessories and equipments may overload the motorcycle's electrical system and will result in system and/or component failure.

Maintain your motorcycle in proper operating condition in accordance with the Maintenance intervals chart in this Owner's Manual.

Use only genuine Royal Enfield spare parts and approved accessories. Use of other manufacturer's performance parts may affect the performance of your motorcycle and render the motorcycle void of warranty. Contact your Royal Enfield Authorised Dealer for further details



### **WARNING**

**For your personal welfare, all the listed service and maintenance recommendations should be performed. Lack of regular maintenance at the suggested intervals may affect the safe operation of your motorcycle, which could result in serious injury or loss of life.**

## SAFE OPERATING RULES

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### **WARNING**

Consult your Royal Enfield Authorised Dealer regarding any questions or problems that occur in the operation of your motorcycle. Failure to do so may aggravate an initial problem, cause costly repairs, jeopardize your personal safety and could result in serious injury or loss of life.



### **WARNING**

Avoid any contact with the exhaust system. Wear clothing that will completely cover the legs while riding. The exhaust system gets very hot when the engine is running and remains too hot, even after the engine is turned off. Failure to wear proper or protective clothing could result in serious injury.



### **WARNING**

Exhaust gases contains poisonous carbon monoxide and chemicals, known to cause Cancer, Birth Defects or other reproductive defects. **DO NOT INHALE** exhaust gases. Do not stay inside a closed garage after parking the motorcycle as the residual fumes from the exhaust can contain

harmful gases. Failure to heed to these warnings can result in loss of life.



### **WARNING**

Motorcycle batteries contain lead and lead components, acids and chemicals known to cause cancer, birth defects or other reproductive harm. Exercise extreme caution while handling a battery. Wash hands thoroughly whenever a battery is handled.

This motorcycle is not designed to tow a trailer or be used with a sidecar. It is designed to be used as a two wheeler, for carrying a rider and a pillion.



### **WARNING**

Towing a trailer may cause loss of control of the motorcycle in the front, reduced braking efficiency, tire overloading and unstable handling, leading to an accident resulting in serious injury or loss of life.

Using the motorcycle with a side car could cause loss of control, resulting in an accident which may cause serious injury or loss of life.

## SAFE OPERATING RULES

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### **WARNING**

**DO NOT** tow a disabled motorcycle. The steering and handling of the disabled motorcycle will be impaired due to the force of the towline. If a disabled motorcycle must be transported, use a truck or a trailer. Towing a motorcycle may cause loss of control of the motorcycle in the front, leading to an accident resulting in serious injury or loss of life.

DO NOT exceed the Gross Vehicle Weight Rating (GVWR) of your motorcycle which is provided in the information plate, located on the frame down tube. (GVWR is the total sum of the weight of the motorcycle, accessories, rider, pillion and cargo that may be safely carried).



### **WARNING**

Exceeding GVWR may lead to instability of the motorcycle, leading to an accident and result in serious injury or loss of life.



### **WARNING**

Royal Enfield cautions you against the use of certain nonstandard parts such as aftermarket and custom made extended front forks or suspensions, which may adversely affect performance and handling. Removing or altering original parts may adversely affect performance and could result in an accident causing serious injury or loss of life.



### **WARNING**

Use only genuine Royal Enfield replacement fasteners tightened to the proper torque. We caution you against the use of certain nonstandard parts such as aftermarket and custom made fasteners which may not have specific strength, finish and type requirements to perform properly in the assembly and its environment. The use of any nonstandard parts, including fasteners, could result in serious injury or loss of life.

## RULES OF THE ROAD

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- Be sure all equipment required by Federal, State, province and local law is installed and are in good condition.
- Be sure your license plate is installed in the position specified by law and is clearly visible at all times.
- Keep to the correct side of the road center line when meeting oncoming vehicle.
- Watch for loose debris, such as dry or wet leaves, slippery substances or loose gravel that can hamper the stability of your motorcycle.
- **DO NOT** leave the curb or parking area without signaling. Be sure your way is clear to enter moving traffic. A moving line of traffic always has the right of way.
- Always actuate your turn signals, and exercise utmost caution when passing other vehicles going in the same direction. Never try to pass another vehicle going in the same direction at street intersections, on curves, or when going up/or down a hill.
- While turning either right or left, watch out for pedestrians, animals, as well as vehicles.
- At street intersections always allow vehicles from your right and left to pass before turning. **DO NOT assume you have the right of way.**
- Always signal when preparing to stop, turn or pass. When intending to turn, signal at least 100 feet (30.5 meters) before reaching the turning. Be close to the center line (unless local rules require otherwise), slow down and then turn carefully.
- All traffic signs, including manual controls at intersections, should be obeyed promptly. Slow down at traffic signs near schools and caution signs at railroad crossings.



## RULES OF THE ROAD

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- **Never** jump a traffic light. When a change is imminent from GO to STOP (or vice versa) at intersections, slow down and wait for the light to change to green. **Never** run through a yellow or red traffic light.
- Ride at a safe speed that is consistent with the type of road surface you are on. Pay strict attention to whether the surface is
  - ★ Dry.
  - ★ Oily
  - ★ Wet.
  - ★ Icy.
- **DO NOT** Exceed the legal speed limit or drive too fast for existing conditions. Always reduce speed when poor driving conditions exist. High speed increases the influence of any other condition affecting stability and increases the possibility of loss of control.



### WARNING

**Avoid excessive speed and never travel at a speed faster than the speed limit. Excessive speed may cause loss of control of motorcycle, which could result in loss of life or serious injury.**

- Park your motorcycle on a firm and flat surface to prevent it from falling over.
- Protect your motorcycle against theft. After parking your motorcycle, remove Ignition key from switch and lock the steering head.

## ACCESSORIES AND CARGO

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Royal Enfield cannot test and make specific recommendations concerning specific or a combination of accessories sold. Therefore, the rider must be responsible for safe operation of the motorcycle when installing accessories or carrying additional weight.

Please adhere to the following guidelines when carrying a pillion, cargo or when fitting any accessories.

- **DO NOT** exceed 70 MPH (110 km/h) when riding solo.
- **DO NOT** exceed 55 MPH (90 Km/h) when carrying a pillion and/or cargo.
- Keep cargo weight concentrated close to the motorcycle and as low as possible; this minimizes sudden shift in the motorcycle's center of gravity.
- **Distribute weight evenly** on both sides of the motorcycle.

- **DO NOT** load bulky items too far behind the rider or add weight to the handlebars or front forks.
- **DO NOT** exceed 5 pounds (2.3 kgs) maximum hanging load on either side of the motorcycle at the rear end.
- Recheck the cargo periodically to be sure it is secured and will not shift while riding. Accessories secured loosely may affect the riding of the motorcycle and affect the stability of the motorcycle.
- Large surfaces such as fairings, windshields, backrests and luggage racks can adversely affect handling of the motorcycle. Only genuine Royal Enfield accessories, designed specifically for the motorcycle model should be used with proper installation.



### **WARNING**

**DO NOT load weight or install accessories improperly on the motorcycle. Doing so may affect the motorcycle's stability, handling characteristics, and safe operation and could result in an accident causing serious injury or loss of life.**

## ACCESSORIES AND CARGO

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### **WARNING**

Royal Enfield motorcycles have been carefully designed and engineered for riding in their original configuration. **DO NOT** alter the handling characteristics of these motorcycles. Doing so may affect its stability and could cause an accident resulting in serious injury or loss of life.



### **WARNING**

Royal Enfield cautions you against use of nonstandard parts such as aftermarket and custom made extended front forks which may adversely affect the performance and handling of the motorcycle. Removing or altering original parts may adversely affect the performance of the motorcycle, causing an accident, which could result in serious injury or loss of life.



### **WARNING**

**DO NOT** ignore model / design specifications. Doing so constitutes to motorcycle misuse which may adversely affect the handling and performance of the motorcycle causing an accident, which could result in serious injury or loss of life.

## TECHNICAL SPECIFICATIONS

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### Engine

Engine .....	4 Stroke, air cooled, single cylinder
Capacity .....	499 cc (Displacement)
Bore .....	84 mm
Stroke .....	90 mm
Compression ratio .....	8.5 : 1
Max. Power @ RPM .....	20.3 Kw @ 5250 rpm
Max. Torque @ RPM .....	41.3 Nm @ 4000 rpm
Air Filter Element .....	Paper Element
Engine Oil Tank Capacity .	2.75 Litre Dry Fill
Lubrication .....	Forced Lubrication, Wet Sump
Engine Oil Grade .....	15 W, 50 API, SL Grade, JASO MA, ESTER - Semi Synthetic oil
Fuel Supply .....	Electronic Fuel Injection

### Ignition system

Ignition system .....	Digital Electronic Ignition
Spark plug gap .....	0.7 mm
Spark plug .....	WR7DDC4 (Bosch)

### Transmission

Clutch .....	Wet Multiplate
Drive Chain links .....	101 pitch
Primary drive .....	Duplex Chain drive 3/8" pitch
Gear box .....	5 Speed Constant Mesh
Gear Ratios .....	I - 3.063 : 1 II - 2.013 : 1 III - 1.522 : 1 IV - 1.212 : 1 V - 1.000 : 1
Primary Drive Ratio .....	2.15 : 1
Secondary Drive .....	Chain Drive
Secondary ratio .....	2. 11 : 1

## TECHNICAL SPECIFICATIONS

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### Electricals

Generation .....	Alternator
System .....	12V DC
Battery .....	12V - 14 AH
Head lamp .....	12V, 50/35 W
Tail / Brake lamp .....	12V, 5/21 W
Turn signal .....	12V, 10W
Pilot lamp .....	12V, 2 W X 2 Nos. 12V, 5 W X 1 No.
Speedometer lamp .....	12V, 3.4 W X 1 No.
Turn signal / High beam indicator .....	12V, 2 W X 2 Nos.
Neutral Indicator .....	12V, 2 W X 1 No.
Horn .....	12V, 2.5 Amp (Max.)

### Chassis

Frame .....	Tubular Frame
Tire size .....	Front ..... 90 / 90-19" - 52 V Rear ..... 110 / 80-18" - 58 V
Tire pressure .	Front-Solo 18 PSI - Pillion 20 PSI Rear-Solo . 28 PSI - Pillion 30 PSI
Fuel tank capacity .....	3.8 Gallons approx ***

\*\*\* The figures mentioned here are approximate and can vary marginally with each fuel tank.

Suspension ...	Front: ..... Telescopic, Hydraulic Damping
	Rear: ..... Swing arm with gas filled shockabsorbers with adjustable 5 step spring tension load.

## TECHNICAL SPECIFICATIONS

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Brakes ..... Hydraulic Disc Brakes  
Front & Rear with ABS  
System  
Front: ..... 300 mm dia disc with twin  
piston caliper  
Rear: ..... 240 mm dia disc with single  
piston & floating caliper

### Dimensions

Length ..... 2160 mm  
Width ..... 800 mm  
Height ..... 1050 mm  
Wheel base ..... 1370 mm  
Saddle height ..... 800 mm  
Ground clearance ..... 140 mm

### NOTE :

1. Values given above are for your guidelines only.
2. In view of continuous improvements being done on our products, the specifications are likely to change without prior notice.

### Weights

Mass of vehicle in running order ..... 187 Kg  
Max pay load ..... 178 Kg  
Max technical permissible mass ..... 365 Kg

### Performance

Maximum Speed ..... 82 kmph

## RECOMMENDED LUBRICANTS

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Engine oil Grade	15 W 50 API SL Grade JASO MA, ESTER - Semi Synthetic oil
Capacity	2.75 Ltrs. (First Fill only) 2.30 Ltrs. (during oil & filter element replacement in periodical maintenance)
Front Fork	Fork oil
Capacity	200 ml. / leg
Brake Fluid	DOT 3 or DOT 4
Capacity	60 ml.



### WARNING

**DO NOT switch oil brands indiscriminately because some oil interact chemically when mixed. Use of inferior oils or non-detergent oils can damage the engine.**



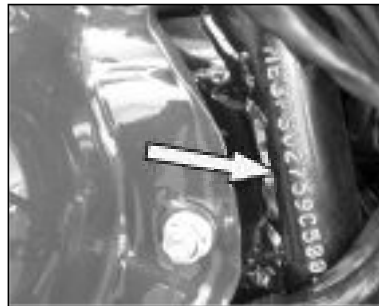


## MOTORCYCLE IDENTIFICATION NUMBER - DETAILS

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### VIN

Punched on the steering head tube



### VIN INFORMATION PLATE

Riveted on the frame down tube.



### VEHICLE EMISSION CONTROL INFORMATION

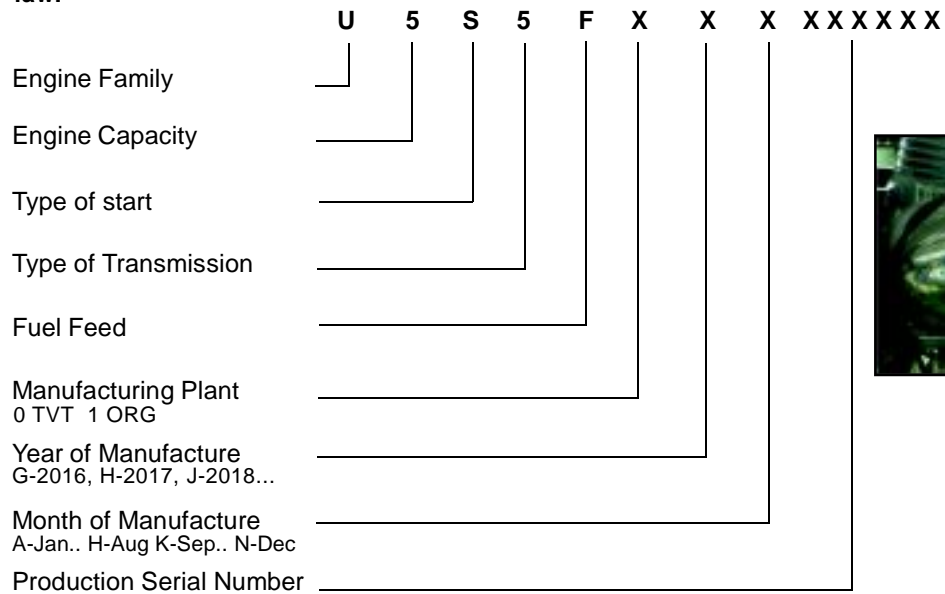


### Caution :

It is illegal of tamper with the VIN / information plate as it is the only means of identification of the motorcycle.

## ENGINE NUMBER - DETAILS

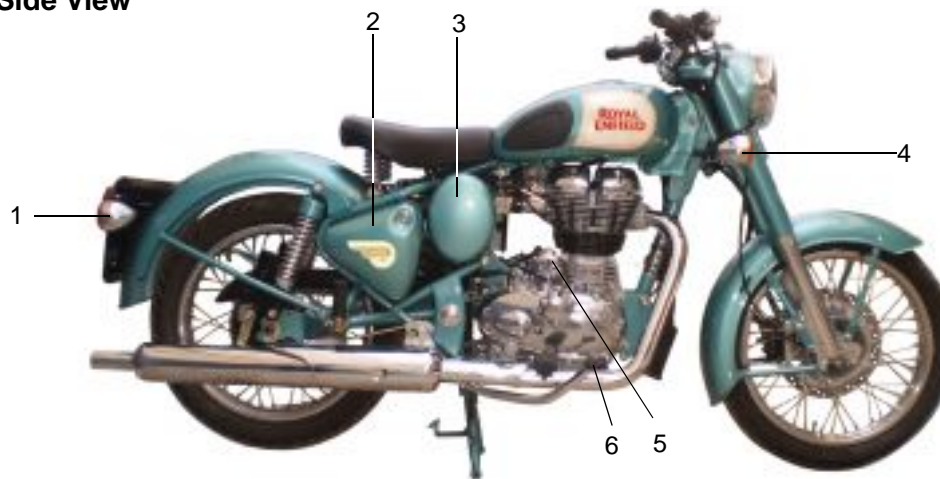
The engine number is punched on the left hand side Crankcase. It is the means of identification of the Engine and its production details. Please do not tamper with the engine number as it is prohibited by law.



## KEY PARTS LOCATION

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### Right Side View

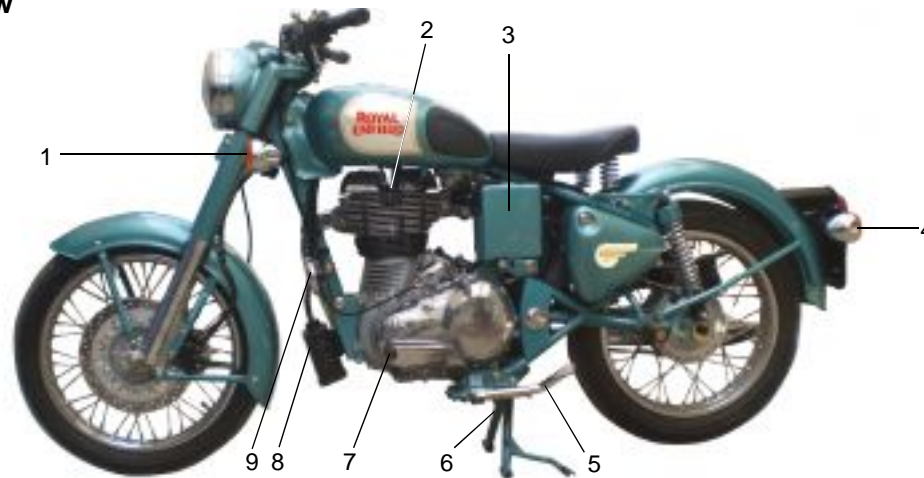


1. Right Trafficator Rear	4. Right Trafficator Front
2. Air Filter Box	5. Starter Motor
3. Oval Utility Box (Tool Box) ABS Cover	6. Brake Pedal

## KEY PARTS LOCATION

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### Left Side View

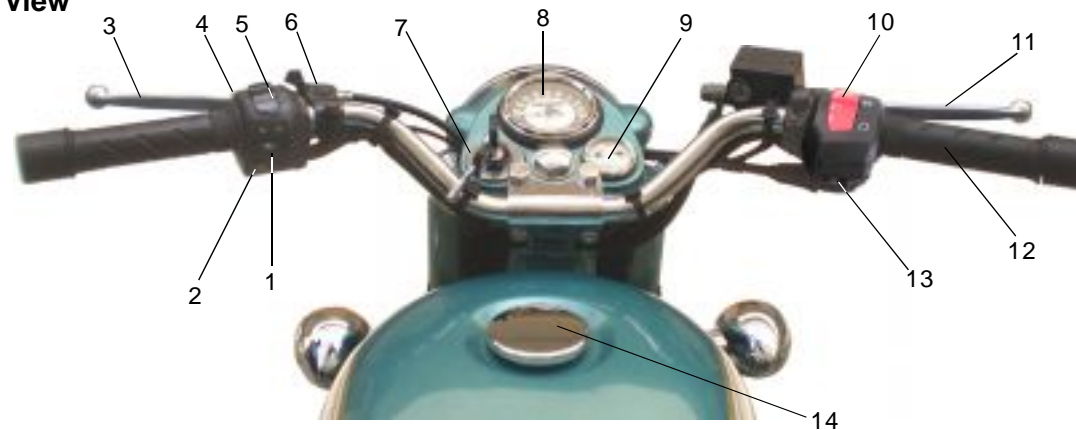


1. Left Trafficator Front	4. Left Trafficator Rear	7. Gear Change Lever
2. Spark Plug	5. Side Stand	8. Evaporative Emission Canister (California Models Only)
3. Battery Cover	6. Center stand	9. Horn

## KEY PARTS LOCATION

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Top View



1. Turn Signal Switch	6. Manual Bi-starter	11. Front Brake Lever
2. Horn Button	7. Ignition Switch	12. Accelerator
3. Clutch Lever	8. Speedometer	13. E-Start Switch
4. Day Flash Switch	9. Malfunction / Low fuel Indicator	14. Fuel Tank Cap
5. Head Lamp Dip Switch	10. Supplementary Stop Switch	

## OPERATION OF CONTROLS

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### Ignition Switch

OFF



ON



### CAUTION

**DO NOT** lubricate barrel locks with petroleum based lubricants or graphite. Inoperative locks may result in damage to your vehicle.

- Lock the steering when leaving motorcycle parked.

### Steering lock

- Turn key clockwise to lock.



### Caution :

**Protect your motorcycle against theft. After parking your motorcycle, remove the ignition key from switch and lock the steering head.**

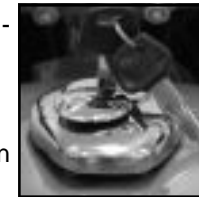
### Fuel tank cap (With Key locking feature)

#### To Open:

- Insert Key and Turn anti-clockwise.
- Cap will spring up.

#### To Close:

- Press cap down with key in position
- Key will return to locked position.
- Remove Key.



### Fuel tank cap

#### To Open:

- Turn cap anticlockwise

#### To Close:

- Locate cap and turn clockwise till click Sound is heard



### NOTE :

**Key can be removed only in locked position.**

## OPERATION OF CONTROLS

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### DIP switch



Low beam



High Beam



### Head Lamp Day Flash

Depress for  
Day Flash



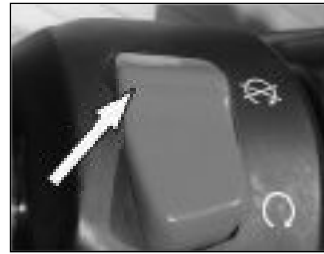
## OPERATION OF CONTROLS

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### Supplementary Engine Stop



⦿ ON



⊗ OFF

### Turn Signal Switch

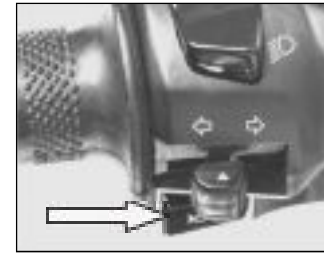


← Left



↑ OFF (Push to off)

### Horn



⦿ Depress



→ Right




## OPERATION OF CONTROLS

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32

**Engine Start Switch**



 Depress

**Manual Bi Starter**



## PRE OPERATIVE CHECKS

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33

A careful check of the following must be carried out everytime before riding and especially after long periods of storage to determine if additional maintenance is necessary.

1. Adequate fuel in the tank.
2. Free play and smoothness of all operating cables.
3. Free movement of steering.
4. Battery electrolyte level.
5. Any cuts, cracks in the tyre and correct tyre pressure.
6. Oil level: Top up if necessary. Do not overfill.
7. Rear chain for proper tension.
8. Brakes, steering and throttle for responsiveness.
9. Wheel spoke for proper tightness, no breakage,
10. Headlamp, tail lamp, brake lamp and directional lamps for proper operation.
11. Check ABS lamp glows as soon as ignition switch & kill switch are 'ON' and goes 'OFF' as soon as vehicle reaches a speed of 5 Km/h (3 mph).



### **WARNING**

**For your personal welfare and safety, all the points mentioned above should be performed periodically. Failure to do so may affect safe operation and damage your motorcycle and could result in an accident causing serious injury or loss of life.**

## SIDE VIEW MIRRORS

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Your motorcycle is equipped with convex mirrors and has a curved surface. This type of mirror is designed to give a wider rear view than a flat mirror; however the objects seen in this type of mirror will look smaller and farther away than when seen in a flat mirror. Use care when judging the size or distance of objects seen in these mirrors.



### NOTE :

To help you establish the relative distance of vehicles behind your motorcycle, adjust each mirror in such a way, that a small portion of your shoulder is visible and a large portion behind your motorcycle is seen clearly.



### WARNING

Objects in mirrors are closer than they appear. Always use caution when judging distances of objects in mirrors. Failure to judge correctly when seeing the objects on mirrors could cause an accident resulting in serious injury or loss of life.

## SAFE & HAPPY RIDING

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### Riding dress

- Please wear a proper riding apparel.
- A pair of riding boots or shoes.
- Soft leather gloves.
- Goggles or spectacles to safe guard eyes.
- A certified helmet. Affix light reflecting strips of stickers at the front and rear.

### NOTE :

**A light coloured shirt enables greater visibility to other road users especially during nights.**

### Caution :

**Loose clothing may get caught on moving parts of your motorcycle.**

### Sitting posture:

Correct sitting posture is a pre-requisite for stable and safe riding

- Sit Straight with your shoulders completely relaxed.
- Keep your elbows close to your body.

- Keep your toes in straight ahead direction.
- Slightly grip the petrol tank with both knees.
- Hold the handle bar grips, close to its inner end.
- Look extensively ahead, including rear view mirrors, without turning the head.

### Braking

- Apply front and rear brakes gently and simultaneously for maximum braking efficiency.



### WARNING

**Applying any one of the brakes suddenly may cause the motorcycle to skid. The hydraulic disc brake fitted on your motorcycle requires very less effort. High effort or sudden application may lock the wheel. Please use utmost caution while applying the brakes.**

- While riding on wet or bad road conditions use brakes cautiously.
- Avoid excessive banking, otherwise footrest may touch the ground and cause instability.

## **RUNNING IN**

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Proper running-in is very important for obtaining maximum life and performance of a new motorcycle. The following guidelines explain proper running-in procedures.

Since the engine is brand new, it should not be loaded excessively for the first 1,000 Kms. (600 Miles). During the first few hundred kilometers, the various parts in the engine wear and polish themselves to the correct operating clearances. Driving with prolonged full throttle operation, or any high speed conditions might result in excessive heating of the engine and cause abnormal wear of the moving parts and hence must be avoided.

### **1. 0 - 300Miles (0- 500 Kms):**

The recommended speed for the first 300 Miles (500 Kms) is 35 - 40 MPH (50 - 60 Kmph). During this period avoid riding the motorcycle with full throttle opening. Stop the motorcycle for about 5 to 10 minutes to let it cool down, after every hour of running. Vary the speed of the motorcycle regularly during running but avoid using the motorcycle above 1/2 throttle opening position.

### **Caution :**

**After covering the first 300 Miles.(500 kms), please replace the engine oil and filter.**

## **RUNNING IN**

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### **2. 300 - 600 Miles (500 - 1000 Kms.):**

The recommended speeds are 45 - 50 MPH (80 - 90 Km/h). Avoid riding the motorcycle with full throttle opening. Vary the speed of the motorcycle regularly but avoid using the motorcycle above 3/4 throttle opening position.

### **3. 600 Miles (1,000 kms) and beyond**

Avoid prolonged full-throttle operation. Vary speed occasionally.

### **Caution :**

**Royal Enfield engines are air-cooled and consequently require forced air cooling of the cylinder head and barrel to maintain proper operating temperature. Extended periods of idling may over heat the engine, resulting in serious engine damage.**

**DO NOT run the engine at extremely high RPM with clutch disengaged or transmission in neutral as it can cause serious engine damage.**

**An engine running long distances at high speed must be given close attention to avoid over heating and possible engine damage.**

## EVAPORATIVE EMISSION IMPORTANT NOTE

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### **California Air Resources Board, Emissions Regulations** (Applicable for motorcycles sold in the State of California)

Your Royal Enfield motorcycle is equipped with an evaporative emission control system consisting of a Canister, rubber hoses and connectors to comply with the stringent California Air Resources Board (CARB) emissions regulations, anti-smog standards.

The equipment does not have any serviceable parts for the user to service. However in order to ensure that the motorcycle is compliant, it is necessary to periodically inspect the rubber tubes and connections for any leaks, cracks, cuts or damage. In case any of the above is noticed, the motorcycle should be taken immediately to a nearest Royal Enfield Authorised Dealer for inspection and necessary correction

The evaporative emission control system is covered under warranty for 18,641 miles (30,000 Kms) OR 5 Years from the date of sale of the motorcycle to the first customer.

As the vehicle owner, it is your responsibility to ensure that the motorcycle is taken to the nearest Royal Enfield Authorised Dealer to carry out the required

maintenance listed in the Owner's Manual. Royal Enfield recommends that you retain all receipts covering maintenance on your motorcycle. It is also your responsibility to present take your motorcycle to a Royal Enfield Authorised Dealer, if a



problem in the evaporative emission system. As the vehicle owner, you should also be aware that Royal Enfield may deny your warranty coverage if your vehicle or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications. If you have any questions regarding your warranty rights and responsibilities or if a Royal Enfield Authorised Dealer cannot repair your motorcycle or honor your claim within a reasonable period of time, contact Royal Enfield for assistance@ 312-569-1075. If you are not satisfied with the way in which a warranty claim is resolved by Royal Enfield, you may write directly to:

Director of Field Operations      OR      California Air Resources  
Board Support Division (E14-397F)      9480 Telstar Ave. Suite 4  
Environmental Protection Agency      El Monte, CA 91731  
401 M Street, S.W. Washington,  
D.C. 20460

## WARNING INDICATIONS & SAFETY SYSTEMS

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Your motorcycle is fitted with the following warning indications and safety systems:

### 1. Low Fuel Indication

The Low fuel indication in the small meter will glow if the fuel level in the fuel tank is approximately 3.5 litres. (0.77 Imperial Gallons).

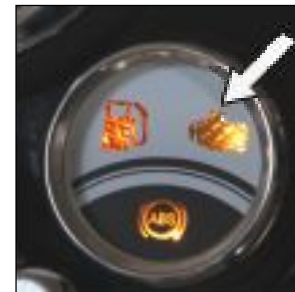
Please ensure the motorcycle is not used with the low fuel indicator lamp "ON" continuously. It may not only result in the motorcycle running out of fuel. BUT will also cause serious damage to the fuel pump. Please refuel as soon as the low fuel indication comes ON.



### 2. Engine Malfunction indicator lamp

A Malfunctioning Indicator Lamp (MIL) is provided in the small meter.

When both the Ignition & Engine kill switch is "ON" and after vehicle is started, the MIL will



glow for few seconds and switch OFF, this indicates that all the functions of Electronic fuel injection (EFI) system is functioning normally.

In the event of any malfunction in the EFI System the MIL will glow continuously. It is recommended to take the motorcycle to a nearest Royal Enfield Authorized service station for a detailed inspection and correction of the EFI system.



### 3. Anti-lock braking system (ABS)

Anti-Lock Braking System (ABS) will help prevent the brakes from locking the wheels, during sudden application of the brakes at high speeds. This will help the rider to have better traction and



control over the motorcycle and prevent the motorcycle from skidding which can cause an accident.

In the event of sudden and hard application of the brakes by the rider, the sensors in the braking system will signal the ABS moderator to momentarily and continuously reduce the hydraulic

pressure and thereby prevent the brakes from locking the wheels while reducing the speed of the vehicle. This will help the rider to control the motorcycle.

An ABS indicator lamp is provided in the console (as shown in adjacent image) to warn the rider in the event of any malfunction of the ABS.

When the ignition and kill switch are switched 'ON', the ABS sign light up and remain 'ON' till the motorcycle attains a speed of 5 Kmph (3MPH) and switch 'OFF'. This indicates the ABS is working properly. In the event the lamp does not switch 'OFF' and remains continuously 'ON' at higher speeds, it is recommended not to drive the motorcycle and get the brake system inspected and corrected through a nearest authorized Royal Enfield Distributor. Failure to do so can result in a serious injuries and loss of life.

## **WARNING INDICATIONS & SAFETY SYSTEMS**

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### **CAUTION : (ABS)**

ABS is a safety feature to help prevent locking of wheels during sudden application of brakes. It is by no means a substitute for good riding practices and anticipatory braking.

Please ride carefully and apply brakes cautiously, especially while cornering. ABS cannot estimate the “weight shifts” and momentum of the motorcycle while negotiating a corner and therefore prevent skidding due to loss of traction.

Please anticipate the stopping distance required for the speed of travel and apply brakes well in advance so as to bring the motorcycle to a safe stop.

Please apply both brakes to stop - front brake momentarily earlier, followed by rear brake, to have better traction and control of the motorcycle

Always ensure that you ride well within the legal speed limits

Failure to adhere to the above can cause an accident resulting in serious injuries and loss of life.

## WARNING INDICATIONS & SAFETY SYSTEMS

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### Do's & Don't's : (ABS)

Do's	Don'ts
<ul style="list-style-type: none"><li>• While starting the engine do check the ABS indicator comes ON and switches OFF when the vehicle speed exceeds 5 km/h (3.1 mph).</li></ul>	<ul style="list-style-type: none"><li>• <b>DO NOT RELEASE</b> the brake lever/pedal when pulsations are felt during hard application of the brakes in an emergency situation. The pulsations only indicate that the ABS is activated.</li></ul>
<ul style="list-style-type: none"><li>• Please check the brake fluid at MAX level in the front and rear brake master cylinders and there is no leak in the brakes systems</li></ul>	
<ul style="list-style-type: none"><li>• Apply both the brakes simultaneously for better efficiency while braking</li></ul>	<ul style="list-style-type: none"><li>• <b>DO NOT APPLY</b> only the front OR rear brake as it can lead to inefficient braking.</li></ul>
<ul style="list-style-type: none"><li>• In the event of the ABS indicator remaining continuously ON please take the motorcycle to a nearest authorized Royal Enfield service station to inspect the brakes system control of the vehicle.</li></ul>	

### 4. Roll over Sensor

In the event of motorcycle falling over on either of its sides with the engine running and the gears engaged the Roll over sensor will "disable" both the ignition and fuel systems and switch 'OFF' the engine. This is to prevent any damage to the motorcycle and its rider. To reset the Roll over sensor and reactivate the ignition and fuel systems.

- Ensure the motorcycle is made upright and is on its center stand.
- Ensure gears are in correct neutral and the neutral lamp is glowing in the instrument console.
- Switch OFF both ignition & stop switches, wait for a few seconds and switch ON the Ignition and stop switch again, to start the engine.

## STARTING

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### WARNING

Before starting engine, always shift gears to neutral.

### Caution :

Do not force the gear lever while attempting to shift to neutral with the engine stalled. Move the motorcycle back & forth and simultaneously depress gear lever to select neutral. Ensure neutral indicator light comes 'ON' in the Speedometer.

### NOTE :

- Depress starter button and release as soon as the engine starts.
- If the engine does not start on the first attempt in a cold climate, release the starter button, wait for 30 seconds before depressing the starter button again.
- A clutch safety switch is provided in the system for the safety of the rider. This will prevent the engine from starting if the gears are engaged.

To start the engine, always ensure the gear is shifted to neutral before starting. However if the engine has stalled and has to be started when the gears are engaged, pull in the clutch lever, depress starter button to start the engine in gear.

- A side stand ON safety switch is fitted on the side stand of the motorcycle. If the side stand is in extended position, it will prevent the engine from starting. Please ensure the side stand is retracted fully before attempting to start engine.

- Turn ignition switch 'ON'



- Ensure the side stand is in released position
- Ensure gears are in neutral and neutral lamp is glowing.

## STARTING

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- Ensure ignition stop switch is in 'RUN' position
- Depress Clutch Lever



- Depress Starter Button and release as soon as engine starts.



### Caution :

**Never accelerate the engine immediately after a cold start. The engine should be allowed to run slowly for 15-30 seconds. This will allow the engine to warm up and let oil reach all surfaces needing lubrication. Failure to adhere may result in damage to the Engine.**

- Manual Bi Starter



## STARTING

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### NOTE :

If may be necessary to depress and hold the manual birstarter for a minimum of one minute when starting the engine for the first time in cold mornings, temperatures below 10oC or at higher altitudes, to keep the engine idling RPM steady.

As soon as the engine sufficiently warms up the RPM will raise at which time the manual birstarter should be released.

Warm up engine for 2 minutes - till idling is consistent.

Prior to riding, check to see if the low fuel indicator is glowing continuously.



The low fuel indicator will glow continuously if the fuel level in the tank is below 0.93 US Gallon.

### Caution :

Please ensure the motorcycle is not used with the low fuel indicator lamp "ON" continuously. It may not only result in the motorcycle running out of fuel. BUT will also cause serious damage to the fuel pump. Please ensure fuel is filled up as soon as the low fuel lamp comes "ON".

Check for MIL Lamp coming ON & Switching off after starting engine ABS lamp comes ON & Switches OFF when vehicle speed attains 5 Km/h (3 Miles/h).

## GEAR SHIFTING

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### CAUTION

The clutch must be fully disengaged before attempting to shift gears. Failure to fully disengage the clutch may cause a jerky start and / OR stalling of the engine besides causing damage to transmission parts.

- Warm up engine for 2 minutes - till idling is consistent.
- Pull clutch lever towards the hand grip.
- Depress gear lever with toe to engage 1st gear.
- Gently open throttle and release clutch simultaneously. If clutch is released suddenly, the engine may stall and cause a jerky start.



### NOTE :

Always start motorcycle in neutral. Always move motorcycle in first gear.

- Lift the gear lever with toe to engage 2nd and higher gear.
- Follow the same procedure for 3rd, 4th and 5th gear.



### NOTE :

When engine speed decreases, while climbing a gradient or running at a reduced speed, shift to the appropriate lower gear to prevent the engine from stalling or straining to pull.

### CAUTION

When difficulty of shifting gears is experienced, do not under any circumstance, attempt to force the shift. The results of such abuse will be a damaged or broken shifter mechanism, which if not avoided may result in minor or moderate injury.

### CAUTION

Shift gears to neutral before stopping engine. Shifting mechanism can be damaged by shifting gears while engine is stopped.



### WARNING

Shifting to lower gears when motorcycle speed is too high, can severely damage the transmission or cause the rear wheel to lose traction resulting in possible loss of vehicle control and loss of life or serious injury.

## PARKING

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### Parking Motorcycle on Center Stand



- Select a firm, flat surface.
- Hold handle bar straight.
- Lower center stand, and ensure that both the legs of the stand are resting evenly on firm ground.
- Apply pressure on the fulcrum lever on the center stand and pull motorcycle backwards, gently.

### Parking Motorcycle on Side Stand



- Select a firm, flat surface.
- Lower side stand and gently tilt motorcycle to the left till it rests firmly.
- A Safety switch is provided in the side stand. If the side stand is in extended position and rider engages gear to ride the motorcycle, this switch will cut off ignition and stop the engine. Please ensure side stand is retracted before starting the engine.



### **WARNING**

**Always park the motorcycle on a firm and flat surface. Parking in a soft ground may cause stand to sink and the motorcycle to fall, causing injury to you or to others and damage to the motorcycle parts.**



## PERIODICAL MAINTENANCE

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The maintenance schedule detailed here will help you maintain your Royal Enfield motorcycle meticulously and to get a long trouble free service. The schedule provided herein is based upon average riding conditions and indicates the mileage at which regular inspections, adjustments, replacements and lubrications must be carried out. The frequency of the maintenance must be shortened depending upon the severity of the driving condition OR if the motorcycle is used in a very dusty environment, severe climatic cold and hot conditions, bad roads, stagnant water etc., Contact a nearest Royal Enfield Authorised Dealer for expert advice and to carry out the periodical maintenance.



### **WARNING**

**For your personal welfare, all the listed service and maintenance recommendations should be performed. Lack of regular maintenance at the suggested intervals may affect the safe operation of your motorcycle causing the motorcycle to malfunction and stall abruptly resulting in an accident and cause serious injury or loss of life.**

## PERIODICAL MAINTENANCE

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S. No.	DESCRIPTION	SCHEDULE												
		Kms (x 1000)		0.5	3	6	9	12	15	18	21	24	27	30
		Miles (x 1000)		0.3	2	3.75	6	7.5	9.5	11.25	13	15	17	18.75
1	Engine Oil	R		R		R		R		R		R		R
		Check level every 500 Kms or earlier as required												
2	Engine oil filter element	R		R		R		R		R		R		R
3	Engine sump filter (oil strainer)	C		C		C		C		C		C		C
4	Magnetic drain plug under gear box and secondary drain plug under crankshaft in crankcase right	C		C		C		C		C		C		C
5	Spark plug	A	A	A	A	A	R	A	A	A	A	A	A	R
6	HT lead	I	I	I	I	I	I	I	I	I	I	I	I	I
7	Fuel hose	I	I	I	I	R	I	I	I	I	R	I	I	I
8	Fuel Pump	Check for screw tightness in all services												
9	Accelerator cable play	A	A	A	A	A	A	A	A	A	A	A	A	A
10	Rubber hose, Air filter to Throttle body	I	I	I	I	R	I	I	I	I	R	I	I	I

**A : Adjust      C : Clean      D : De-carbonise      I : Inspect      L : Lubricate      R : Replace**

## PERIODICAL MAINTENANCE

50

S. No.	DESCRIPTION	SCHEDULE												
		Kms (x 1000)		0.5	3	6	9	12	15	18	21	24	27	30
		Miles (x 1000)		0.3	2	3.75	6	7.5	9.5	11.25	13	15	17	18.75
11	Rubber hose, Inlet manifold / Adaptor	I	I	I	I	R	I	I	I	R	I	I	I	I
12	Air filter paper element	C	C	C	C	R	C	C	C	R	C	C	C	C
13	Inlet/Exhaust valve seating (compression/vaccum test)						I							I
14	Cylinder head													D
15	Exhaust system													D
16	Clutch free play	Adjust every 1000 Kms or earlier as required												
17	Rear brake pedal pivot	L	L	L	L	L	L	L	L	L	L	L	L	L
18	Battery terminals (apply petroleum jelly)	C	C	C	C	C	C	C	C	C	C	C	C	C
19	Battery Electrolyte level	I	I	I	I	I	I	I	I	I	I	I	I	I
20	Earth wire eyelet (behind battery carrier)					I								I
21	Rear Wheel Drive Chain	Lubricate & Adjust every 1000 Kms/Clean, Lubricate & Adjust every 3000 Kms or earlier as required												

**A : Adjust      C : Clean      D : De-carbonise      I : Inspect      L : Lubricate      R : Replace**

## PERIODICAL MAINTENANCE

51

S. No.	DESCRIPTION	SCHEDULE											
		Kms (x 1000)	0.5	3	6	9	12	15	18	21	24	27	30
	Miles (x 1000)	0.3	2	3.75	6	7.5	9.5	11.25	13	15	17	18.75	
22	Front Fork oil				R			R			R		
23	Rear brake play	Adjust every 1000 Kms or earlier as required											
24	Rear brake cams			L		L		L		L		L	
25	Steering ball races play	I	A	L	A	L	A	L	A	R	A	L	
26	Spokes tightness / Wheel rim run out front & rear	I		I		I		I		I		I	
27	Pivot-Side Stand, Center Stand, Pillion Foot Rest	L	L	L	L	L	L	L	L	L	L	L	
28	Tire wear pattern (Front & Rear)	I	I	I	I	I	I	I	I	I	I	I	
29	Hand levers pivot	Lubricate every 1000 Kms or earlier as required											
30	Front Disc Brake Oil level check	I	I	I	I	I	R	I	I	I	I	R	
31	Evaporative Emission Equipment rubber hoses★	I	I	I	I	R	I	I	I	R	I	I	

**A : Adjust      C : Clean      D : De-carbonise      I : Inspect      L : Lubricate      R : Replace**

Applicable only for Motorcycles sold in the state of California.

### NOTE :

For maintenance after 30,000 Kms, (18,750 miles) please repeat the same frequency levels specified above, in consultation with a Royal Enfield Authorised Dealer.

## TOOLS KIT

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S. No.	Description	Qty.
1.	Tommy bar	1
2.	Tubular spanner (21 × 24mm)	1
3.	Screw driver	1
4.	Double end spanners :	
	(10 × 13 mm)	2
	(8 × 10 mm)	1
	(14 × 15 mm)	1
5.	Allen Keys :	
	(5 mm)	1
	(3 mm)	1
6.	Tire Lever	2
7.	Single end ring spanner (24mm)	1
8.	Extension tube	1

## WHEEL REMOVAL / ASSEMBLY

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### Front Wheel removal

- Place the motorcycle on its center stand on a firm and flat surface.
- Provide a suitable support below the front end of the engine such that the front wheel is about 4 inches (10 cms) above the ground.
- Disconnect speedo cable.
- Loosen the pinch bolt on the right side fork end.
- Hold the axle on the right side and loosen the axle nut on the left side.
- Remove the axle nut and washer.
- Tap the axle out gently from the left side and remove completely from the right side



- Slide out the wheel from the fork legs along with the speedo drive, and spacer on the left side.
- Remove the speedo drive, small spacer on the right side and stepped spacer on the left side of the wheel hub.

### Caution :

Do not depress the front brake lever when wheel is removed as this will result in the brake pads coming too far out of the brake caliper.

- Place a 4 mm thick wooden piece or cardboard sheet between the brake pads to avoid pads activation in the event the front brake lever is accidentally depressed.

### Front Wheel Reassembly

- Remove the wooden piece / card board sheet placed between the brake pads.
- Locate small spacer and speedo drive over the wheel hub on the right side.

## WHEEL REMOVAL / ASSEMBLY

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- Locate stepped spacer in the left side of the hub with its larger face outside.
- Locate front wheel between the fork ends duly ensuring the spacer and the speedo drive do not fall off and the brake disc is correctly positioned between the brake pads.

- Ensure the peg in the speedo drive is correctly positioned in the slot in the right side fork end.



Insert axle through the right side fork end and gently tap it in fully.

- Locate washer and nut on the left side.



- Hold the axle from the right side and tighten nut on left side to a torque of 7 KgM (70 Nm).
- Hold the pinch bolt and tighten the U-Nut on the right side fork end.



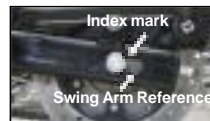
- Rotate the wheel and check for smooth rotation.
- Connect the speedo cable to speedo drive and check for proper working of speedo meter.
- Depress brake lever 2 or 3 times to check front brake efficiency.

## WHEEL REMOVAL / ASSEMBLY

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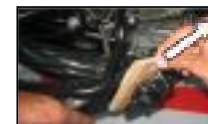
### Rear wheel removal

- Place the motorcycle on center stand on a firm and flat surface.
- Note the alignment index marks in the both side of swing arm.
- Remove wheel spindle from left side as shown.
- Remove the brake hose pipe from the swing arm clips.
- Remove the caliper assembly with bracket by pulling out from the swing arm slot.
- Place the wooden piece/ card board sheet in between the brake pads.
- Remove the left side spacer from rear wheel hub.
- Tilt motorcycle to right side and slide out rear wheel.



### Rear wheel reassembly

- Ensure the four Cush rubbers are in position inside the rear wheel hub.
- Tilt motorcycle to right side and insert the wheel assembly between the swing arms.
- Position the rear wheel with cush rubber on the rear chain sprocket.
- Fix the left side spacer in rear wheel hub.
- Remove the wooden piece / card board sheet in between the brake pads.
- Insert the caliper assembly with bracket by matching the slots given in the caliper and swing arm.





## WHEEL REMOVAL / ASSEMBLY

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### NOTE :

Ensure the brake disc is located in between the brake pads.

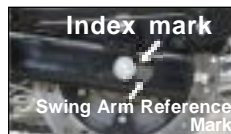
- Align the caliper bracket, wheel and swing arm holes all are in one line.
- Insert and tap the rear wheel axle gently from left side.



### Caution :

Do not force the spindle into the wheel as the threads may get damaged. Tap it through the wheel gently.

- Note the alignment index marks in the both side of swing arm.



- Fix the brake hose pipe in swing arm clips properly.



### Caution :

Please check the brake hose pipe routing from Reservoir to Master cylinder, Master cylinder to Rear wheel caliper.

There should not be any twist or pinch in routing which may affect braking performance.



### WARNING

Ensure the motorcycle does not come off center stand while assembling / disassembling the wheel assembly. Failure to adhere could result in damage or serious injury.

## MINOR MAINTENANCE TIPS

57

The following minor maintenance can be carried out easily with simple tools. However, In case, it is felt that the adjustments are best done by an expert, we recommend that the motorcycle be taken to a nearest Royal Enfield Authorised Dealer.

### Control Cables, Handle bar lever, pivots, Center / Side Stand Pivots

- Lubricate after using the motorcycle in rain, after waterwash or if used in dusty conditions.
- Wipe the area free of dirt / grease.
- Apply a few drops of oil on the pivots.



### Oil Level Inspection

- Place motorcycle on its center stand on a firm surface.
- Start the engine, warm up for a few minutes & switch off
- The oil level should be at the middle or slightly over the middle level in the oil window in the right Crank case cover.
- Top up with recommended oil if required



### Caution :

**Do not fill oil over MAX mark. It may cause the engine to smoke and result in loss of power. Do not use the motorcycle if the oil is at the MIN mark. Doing so will cause serious damage to the moving parts inside the engine and result in an engine lock up.**

## MINOR MAINTENANCE TIPS

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### Engine - Oil Change

(Refer Periodical Maintenance Chart for frequency)

- Place motorcycle on its center on a firm flat surface.
- Keep a clean tray below the engine.
- Start engine and warm sufficiently so as to help the oil to drain out quickly.
- Remove the oil drain plug and the suction filter at the bottom of the crankcase.
- Remove the oil filter on the right Crankcase cover.
- Allow maximum oil to drain out by tilting the motorcycle to both sides.
- Wash the drain plug and the suction filter thoroughly and refit on the crankcase
- Soak a new filter element in oil and refit on the right Crankcase cover.

- Fill recommended oil till the oil level is between the MAX and MIN marks in the oil level window in the right Crank case cover.
- Start the engine, warm up for a few minutes & switch off
- Check the oil level after two minutes to see if the oil level is at the middle or slightly over the middle level in the oil window.
- Top up with recommended oil if required.

### NOTE :

**Replace oil filter whenever oil is replaced.**

## MINOR MAINTENANCE TIPS

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### Caution :

Do not fill oil over MAX mark. It may cause the engine to smoke and result in loss of power. Do not use the motorcycle if the oil is at the MIN mark. Doing so will cause serious damage to the moving parts inside the engine and result in an engine lock up.



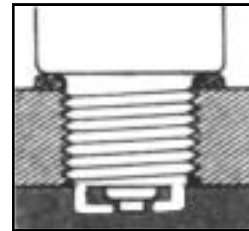
### WARNING

**DO NOT** switch oil brands indis-criminately. Some oils may react chemically when mixed. Use of wrong grade, inferior OR non detergent oils can damage the engine and lead to a potentially hazardous situation which, if not avoided, could result in severe damage to the engine parts and cause the engine to lock up and stop the motorcycle abruptly, which may result in an accident and cause serious injury or loss of life.

### Spark Plug

#### Cleaning and adjusting gap (Refer Periodical Maintenance Chart for frequency)

- Remove the spark plug cap from the spark plug
- Remove the spark plug from the cylinder head using a suitable plug spanner.
- Clean the insulator tip and electrodes of the plug carefully in a spark plug cleaning and testing equipment.
- Set the gap between 0.7 to 0.8 mm.
- Refit the spark plug on the cylinder head and fit the spark plug cap.



## MINOR MAINTENANCE TIPS

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### Inspection of Tires and Wheels

Use only standard tires & tubes inflated to correct pressure. Using a motorcycle with improperly inflated tires can cause instability while riding or cornering.

#### Tire pressure

##### Front

Solo	1.27 kg/cm <sup>2</sup> (18 PSI)
With Pillion	1.41 kg/cm <sup>2</sup> (20 PSI)

##### Rear

Solo	2.00 kg/cm <sup>2</sup> (28 PSI)
With Pillion	2.11 kg/cm <sup>2</sup> (30 PSI)

Please inspect and ensure tires are seated evenly & properly in the rims. Check proper seating of the tire beading on the rim. Inspect the tires periodically for tread wear, cracks and cuts. Maintain the recommended tire pressures as it is very important for riding stability. Pay strict attention to loose and / or broken spokes. Check spokes for correct tightness in the rims. Whenever a new tire is installed, ensure rim and spokes do not get damaged on account of using wrong levers. Ensure

the front and rear wheels are correctly aligned, and free movement of steering system.

Check and remove stone, splinters, nails or other particles embedded in the tire treads.

Inspect the tires tread condition periodically and replace worn out tires with approved make only. Failure to do so can lead to improper balance, poor stability, poor handling, and abnormal tread wear.

#### Minimum tread depth :

Front tire : 1mm

Rear tire : 2 mm



#### WARNING

Tires, rims and air valves must be correctly matched to wheel rims. Mismatching tires, tubes, rims and air valves may result in damage to the tire bead during mounting which will cause tire slippage on the rim and cause tire failure. Please replace tires if bald spots or swelling is noticed. Replace tires which are worn out, punctured or damaged. Small punctures in the tread area may be repaired from within the tire. Do not ride the motorcycle over 40 MPH (60 Km/h) for the first 24 hours and over 55 MPH (90 Km/h) thereafter with a repaired tire. In emergency situations, please ride slowly with least possible load until the tire is permanently repaired or replaced. Failure to heed to this warning could result in serious injury or loss of life.

## MINOR MAINTENANCE TIPS

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### Brake Fluid

Check if oil is below 'MIN' level. To top Up, remove cover and diaphragm, then top up with DOT 4 as specified.

FRONT BRAKE



REAR BRAKE



### Caution :

Brake fluid is highly corrosive and can cause damage to painted parts. Please ensure that brake fluid does not spill on any part of the motorcycle. In the event of a spill, please clean the area immediately with a soft cloth (preferably a wet cloth) to avoid damage.

## MINOR MAINTENANCE TIPS

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### Adjustments

#### Clutch cable (play 2-3 mm)

##### a. Clutch Play Adjustment

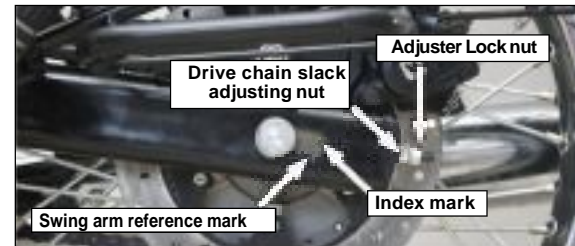


- Loosen lock nut.
- Screw in or out the adjuster for setting the required play.
- Tighten lock nut.
- Refit the clutch cable boot.



### Drive Chain Tension Adjustment

- Place motorcycle on its center stand on a firm surface. Ensure gears are in neutral and the rear wheel rotates freely.
- Check the drive chain tension at the bottom run of the chain. It must be 25 - 30 mm.



To adjust, proceed as follows:

- Hold the rear wheel axle on the left side and loosen rear wheel axle nut and sprocket nut on the right side.

## MINOR MAINTENANCE TIPS

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- Loosen the locknuts at both ends of the swing arm.

### To reduce the free play:

- Tighten the adjuster nut on the right side swing arm chain tensioner.



### To increase the free play:

- Loosen the adjuster nut on the right side swing arm chain tensioner and push the rear wheel forward.
- Check for correct chain tension adjustment. If required, tighten or loosen adjuster nut on right side chain tensioner slowly to achieve the desired chain tension.



## Wheels Alignment

- Note the matching reference marks of the chain tensioner and the swing arm on the right side.
- Tighten / Loosen adjuster nut on the left side chain tensioner such that the same reference marks can be aligned on the left side swing arm also.
- Hold the handle bar straight and visually also check for proper alignment of the front and rear wheels.





## MINOR MAINTENANCE TIPS

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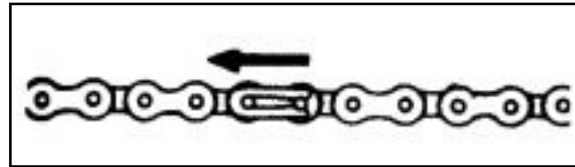
- Holding the adjuster nuts, tighten the lock nuts against the adjuster nuts on both the left and right sides of the swing arm.
- Tighten the sprocket nut on the right side to a torque of 7KgM(70 Nm).



### Drive Chain Lock Fitment

If for any reason the chain link lock is removed, it should be fitted such that the closed end of the lock is towards the direction of the chain rotation.

Please ensure the chain lock is located properly in the chain link and is locked in place.



### WARNING

Failure to adhere to this procedure will result in the chain lock to fall off, cause the rear chain to snap and stop the motorcycle abruptly. This if not avoided, can lead to a potentially hazardous situation causing an accident, which could result in serious injury or loss of life.

## MINOR MAINTENANCE TIPS

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### Pre load spring tension adjustment of rear shockabsorber



- The spring tension of the rear shockabsorbers can be increased or decreased to suit different riding conditions.
- The adjuster provided at the bottom of the spring has five notches and can be rotated using a special 'C' spanner.
- Rotate adjuster "clockwise" to increase spring

tension and "anticlockwise" to reduce spring tension.

- Ensure the spring tension is the same in both the left and right side shockabsorbers
- After adjustment, ensure the adjuster notches are seated correctly against the peg in the shockabsorber.



### WARNING

Riding the motorcycle with the notches adjusted in different positions can cause loss of control and may lead to an accident.

**In case of fitting any luggage rack or tying cargo to the rear end of the motorcycle, please ensure they do not hamper the free travel and movement of the shockabsorbers.**

**Failure to do so may adversely affect the stability of the motorcycle, causing an accident, which could result in serious injury or loss of life.**

## MINOR MAINTENANCE TIPS

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### Removal of Battery from the Motorcycle

- The battery is located on the left side of the motorcycle near the electrical box.
- Ensure the motorcycle is parked on its center stand, in a well-ventilated area
- Ensure the ignition switch and engine stop switch are in OFF position.
- Unlock and remove the battery cover.
- Remove the two straps holding the battery to the battery carrier.
- Pull the battery out slightly from the carrier and Disconnect the -VE terminal FIRST and the +VE terminal next.
- Remove the battery from the carrier.



### Battery Maintenance

#### Care Maintenance :

- Clean the battery well using a soft and wet cloth.
- Inspect the battery carefully for any deformation of its housing. If found deformed, replace the battery immediately.
- Clean the terminals using a soft wire brush to remove any oxidations.
- Check the electrolyte level to see if it is between MAX and MIN lines.
- If necessary top up ONLY with pure and clean distilled water till the level is between the MAX and MIN lines. DO NOT OVERFILL as it will overflow through the vent hole of the battery and cause irreparable damage to the motorcycle parts.
- Check and ensure the specific gravity of the electrolyte and the terminal voltage are as per the recommendations of the battery manufacturer.
- Always get the battery tested through an authorized battery service center OR Royal Enfield service center.

## MINOR MAINTENANCE TIPS

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### Care during long duration storage:

- In the event the motorcycle is not used for a long duration, the battery must be disconnected from the motorcycle and connected to a suitable automatic battery charger.
- If a battery gets discharged, it can lead to sulphation of the internals and the terminals and reduce the life of the battery.
- Keeping the battery fully charged will reduce the chances of the battery from “freezing” during cold weather and minimize the battery from an internal damage



### WARNING

- **Always disconnect the -ve terminal first and then the +ve terminal, while removing the cable connections**
- **Batteries contain lead, sulphuric acids and other chemicals, which are known to cause cancer and birth defects or reproductive harm.**
- **Battery electrolytes are highly acidic and corrosive in nature. Avoid contact with eyes, skin, clothing etc. as it causes excessive burning, irritations and other harmful infections.**
- **Always wear approved protective face shield, rubberized gloves, and protective clothing when working with batteries.**
- **Handle batteries with care and wash hands well with soap, whenever batteries are removed, charged or assembled in the motorcycle.**

## MINOR MAINTENANCE TIPS

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- **KEEP BATTERIES AND ELECTROLYTES OUT OF REACH OF CHILDREN.**
- Always charge the battery **ONLY** in a well-ventilated area.
- Ensure the battery vent and filler plugs are clean and open during charging to prevent the battery from exploding.
- Use only an appropriate and recommended battery charger to charge batteries.
- Ensure there are no open flames, sparks and inflammable material near the battery charger or the battery during charging.
- In the event the battery becomes excessively hot or the electrolyte “boils over”, stop charging the battery as overheating or electrolyte boiling over can result in an explosion.
- Always ensure the battery charger is in **OFF** mode while connecting it to the battery for charging.

- Failure to adhere to the above warnings can result in an explosion of the battery, causing serious Injury or loss of life.

### CAUTION

- Electrolyte should be maintained **ONLY** between the MAX and MIN levels indicated in the battery
- Using a battery with a low or weak electrolyte, low battery charge, can seriously harm the battery and also the electrical and electronic systems in the motorcycle.
- Filling Electrolyte over the “MAX” mark will cause the electrolyte to spill out through the vent hole in the battery and severely damage the motorcycle parts and injure the occupants.
- Whenever required to top up electrolyte, please use only distilled water meant for use in batteries and from a sealed container to prevent damage to battery internals.

## MINOR MAINTENANCE TIPS

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### Reassembly of Battery on Motorcycle

- Locate the battery in the carrier with the terminals facing inside.
- Connect the +VE terminal wire first.
- Connect the -VE terminal wire next.
- Ensure the terminals are firmly connected.
- Apply a coat of petroleum jelly or battery terminal protector to prevent oxidation of the terminals.
- Ensure the protective covers are properly located over the terminals to prevent any metal coming in contact with the terminals and causing a short circuit.
- Position the battery correctly and fully inside the carrier and strap the battery securely using the two rubber straps.
- Locate the battery cover over the battery and lock it in place.

### Changing Electrical Components Head Lamp Bulb

- Loosen the rim holding screw on top and take out the head lamp.
- Disconnect electrical connections.
- Remove the rubber grommet.
- Thumb push and remove the bulb holding clamp.
- Remove bulb.



## MINOR MAINTENANCE TIPS

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- Position new bulb inside the reflector such that the three projections on the bulb align with the slot on the reflector.
- Refix the bulb holding clamp.
- Fit the rubber grommet and connect the electrical connections.
- Position head lamp onto the head lamp casing and tighten the mounting screw on top.

### Caution :

**Never touch the bulb glass with bare fingers as it leave finger prints on the glass and reduce the lighting intensity.**

**Hold the bulb only at its base near the terminals.**

### Tail Lamp Bulb

- Remove the two nuts holding the rear license plate.
- Remove the three screws holding the tail lamp to the bracket.

- Twist the bulb holder anticlockwise and remove.
- Remove the old bulb and replace with a new bulb.



- Refit the bulb holder and turn clockwise to lock the bulb holder.
- Refit the tail lamp on the bracket and rear license plate.

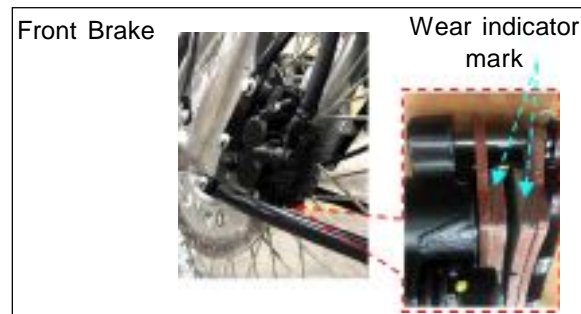


## MINOR MAINTENANCE TIPS

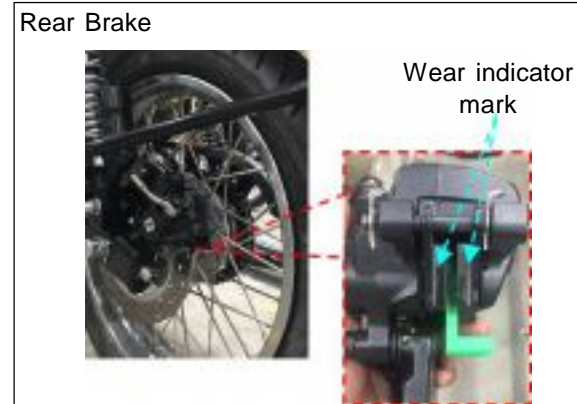
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### Brake pad wear

- Brake pad wear depends upon the severity of usage, the type of riding and road condition.



Check the wear indicator mark on each pad. if either pad is worn to the wear indicator mark. replace both pads as set. Visit royal enfield dealer for this service.



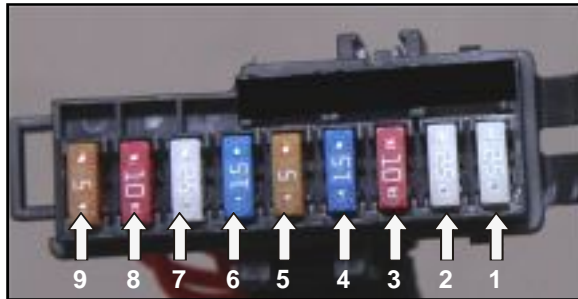
Check the wear indicator mark on each pad. if either pad is worn to the wear indicator mark. replace both pads as set. Visit royal enfield dealer for this service.



## MINOR MAINTENANCE TIPS

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### Fuse



- The fuse box is located inside the left side electrical box.
- Gently remove the fuse box from the rubber strap holding it to the bracket in the box.
- Open the fuse box lid to access the fuses.
- For easy reference the individual fuse ratings and its function is mentioned inside the lid of the fuse box.
- Whenever a spare fuse is used, please ensure it is replenished at the earliest opportunity

- Always get the circuit checked to ascertain the cause of a fuse blowout and rectify to prevent fuses blowing frequently.

### Blade Fuse Usage List

Fuse No.	Colour	Remarks
1	White	Charging Fuse (25A)
2	White	Main Fuse (25A)
3	Blue	Ignition - EFI Fuse (15A)
4	Red	Signalling Fuse (10A)
5	Brown	Spare Fuse (5A)
6	Blue	Lighting Fuse (15A)
7	White	ABS Main Fuse 1 (25A)
8	Red	ABS Main Fuse 2 (10A)
9	Brown	ABS ECU (5A)

## MINOR MAINTENANCE TIPS

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### Air Filter Cleaning

- Unlock and open the right filter box.
- Remove the nut and take out the lid.
- Remove the metal plate. Remove the Air filter Element.
- Tap off the dirt.
- Blow compressed air on the Filter element from inside out.
- Replace element if it is cracked or punctured.
- Place element inside air filter box.
- Fix the air filter cover plate.
- Fix the Air filter lid and tighten the nut.
- Close the filter box lid and lock in Position.

### Caution :

**Do not wash the element in any solvent.**



### WARNING

**Compressed air can pierce the skin and cause injury. Never direct compressed air on your hand or any part of your body to check for air flow pressure. Wear safety glasses to shield your eyes from flying dirt and debris. Failure to comply could result in serious injury.**

## LONG TRIP PRECAUTIONS

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### Checks prior to the commencement of long journey

- Service the motorcycle through a Royal Enfield Authorised Dealer as per periodical maintenance chart.
- Ensure there is sufficient quantity of petrol in the fuel tank.
- Correct tire pressure.
- Correct oil levels in Engine, brake master cylinder.
- Good battery condition and electrolyte level.
- Proper chain tension and correctly adjusted rear brakes.
- Check for proper functioning of all lights & horn etc.,

### Checks after every 930 miles (1500 kms) of run

- Tightness of all fasteners.

- Tire treads condition and wear of tires.
- Battery condition and electrolyte level.
- Correct level of oil in engine, brake fluid.
- Working of all lights and horn.
- Proper chain tension.

### Items to be carried

- Tool kit
- Bulbs for headlight, trafficator light, rear tail lamp and fuse (20 Amps).
- Accelerator, clutch, and Bi starter cables.
- Rear chain link lock assembly.
- Spare tube, tire puncture repair kit - cold vulcanizing type.
- Foot operated air pump.
- Insulation tape.
- Spark plug, spark plug cap, fuel hose.

## WASHING PROCEDURE

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### Precautions

- Wash motorcycle when the engine is cold.
- Cover the silencer tail end and control switches with suitable plastic bags and tie it firmly to prevent water entry into them.
- Remove ignition key and seal key hole using adhesive tape.
- Use a suitable engine degreaser, available with your local parts store, to remove dirt or grease from the engine external parts if required. Follow the directions in the label carefully before using the degreaser.
- Use low pressure jet of water to clean the entire motorcycle.
- Never spray water with great force on head lamp, speedometer, flasher lights, front and rear wheel hubs, electrical connections and wires, control cables, Throttle body, sparkplug, battery, etc.
- Use Luke warm water and mild detergent on the painted components to remove dirt, etc.
- Rinse motorcycle thoroughly with plain water to remove the detergent and wipe motorcycle dry.
- If possible, use compressed air and blow off water particles from the obscure areas of the motorcycle, electrical connections, etc.

### After washing

- Ensure, the motorcycle is thoroughly dry by wiping with a clean soft absorbent cloth or chamois leather.
- Remove all plastic bags and adhesive tapes.
- Lubricate control cables, pivot and rear chain with lube oil
- Polish the painted and plated surfaces using polishing wax.
- Start engine and allow to run at idling speed for a few minutes to warm up engine.
- Drive the motorcycle slowly, applying both brakes intermittently to dry up the brake shoes.
- Test brakes for full efficiency.



### WARNING

**Observe warnings and cautions given on labels of cleaning compounds.**

**When washing your motorcycle, be careful not to get the brakes, engine, mufflers or air cleaner etc., too wet. Wet brake shoe and / or brake drum can affect braking. Ensure brakes and the motorcycle is operating properly before riding in traffic.**

## STORAGE PRECAUTIONS

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Incase your Motorcycle is not going to be used for a month or more, we advice the following precautions to be taken.

- Carryout required repair / adjustments on the motorcycle.
- Wash the motorcycle thoroughly and lubricate as per the maintenance chart.
- Start the engine, warm up for a few minutes and switch off.
- Drain out the fuel completely from the fuel tank and fuel lines.
- Remove spark plug. Pour in about 50ml of clean engine oil through spark plug hole. Close the hole and crank engine several times and refit spark plug.
- Clean rear chain thoroughly and apply a thin film of lube oil.
- Remove battery from the motorcycle. Clean the terminals free of corrosion and apply petroleum jelly to terminals.
- Maintain electrolyte level between “max” or “min” mark, by adding distilled water and wipe the battery dry.
- Store the battery in a cool, dry and well ventilated place.
- Do not place the battery in direct sun light, near open flame or where temperature is above 40°C or below 0°C
- Cover the silencer with plastic bags to prevent moisture entry. Set the motorcycle on its center stand.
- Apply anti rust solutions on all plated parts. Take care not to apply this solution on rubber or painted parts.
- Store motorcycle in a clean covered area free - of moisture and keep it covered to prevent dust settling on it.
- It is advised to disconnect battery terminals and remove the battery. Before refitting the battery in the motorcycle, check the battery voltage is within specification, if not, recharge it from authorized service workshop / battery dealer.

## STORAGE PRECAUTIONS

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### Preparing the motorcycle for reuse

- Remove the anti rust solution from all plated parts and clean the motorcycle well.
- Inflate the tires to the correct tire pressure.
- Ensure battery is fully charged and proper electrolyte level is maintained.
- Connect the battery.
- Lubricate all control cables and pivots.
- Check proper level of oil in engine.
- Fill fuel tank with fresh petrol.
- Check fuel line for any cracks or cuts.
- Clean the air filter.
- Remove plastic covering from the silencer.
- Remove spark plug on cylinder head and pour in a few drops of engine oil. Crank engine a few times to lubricate cylinder walls and piston. Clean spark plug and refit

- Switch on ignition switch.
- Start motorcycle and warm up engine for a few minutes before riding the motorcycle.

### NOTE :

**Do not raise the engine rpm the moment it is started, but allow the engine to run at idling speed.**

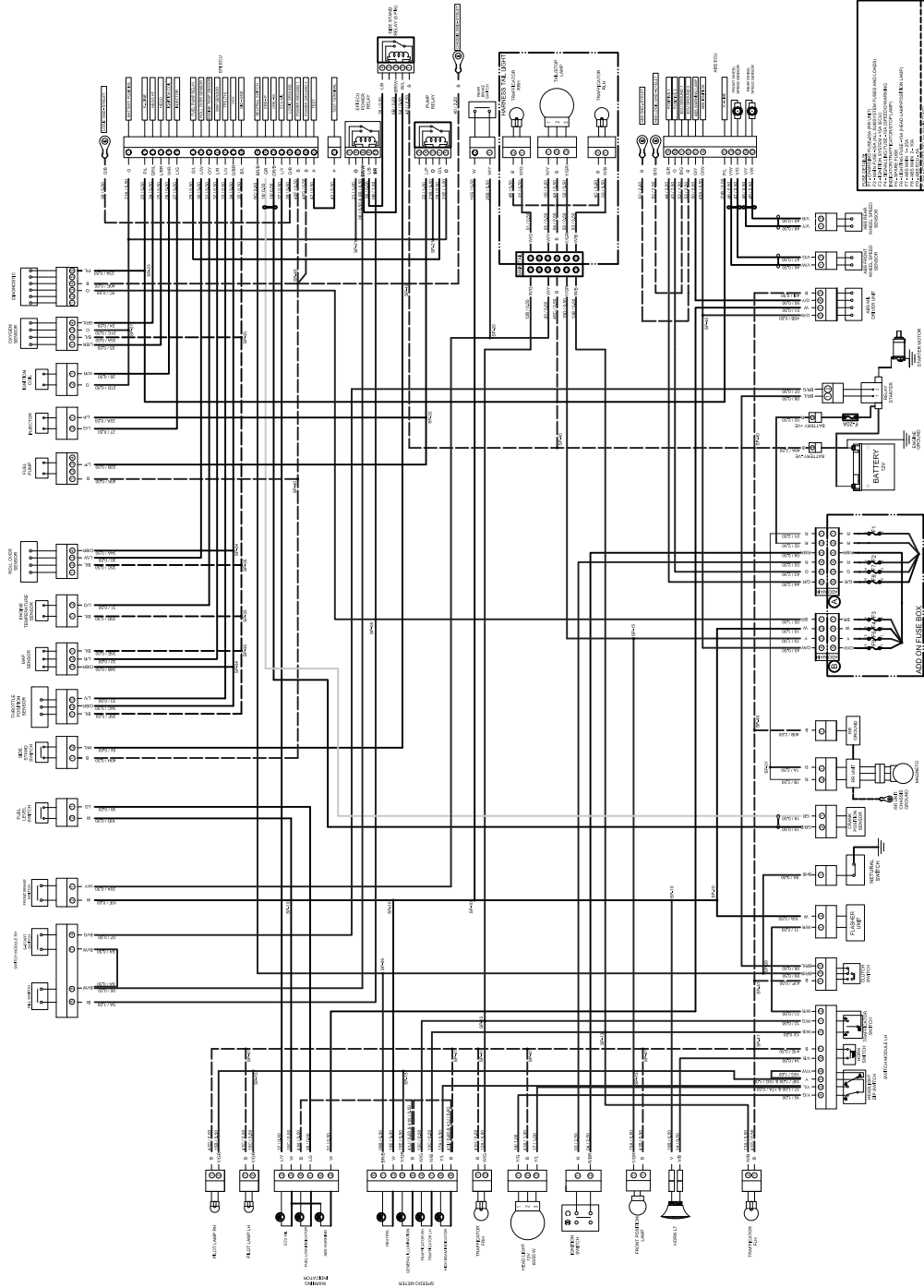
### Caution :

**Proper long-term storage is important for the safe, trouble-free operation of your Royal Enfield motorcycle.**

# WIRING DIAGRAM

USA/CALIFORNIA

## CLASSIC 500 - ABS + AHO - SCHEMATICS



## TROUBLE SHOOTING

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### WARNING

The trouble shooting section of this Owner's Manual is intended solely as a guide to diagnosing problems. Carefully read the appropriate sections of this manual before performing any work. Repair and maintenance operations not listed in this Owner's Manual should be performed by your Royal Enfield Authorised Dealer only. Improper repair and/or maintenance could result in the motorcycle not functioning properly, serious injury or loss of life.

Causes	Remedies
<b>I. Engine fails to start</b>	
1) Stop switch in 'OFF' Position .....	Push stop switch to 'ON' position.
2) Side stand not retrieved .....	Retrieve side stand.
3) Vent hole clogged in fuel tank cap .....	Clean vent hole.
4) Spark plug cap / lead not connected .....	Fix cap / lead firmly
5) Spark plug electrode dirty / fouled .....	Clean spark plug
6) Spark plug insulation cracked .....	Replace spark plug
7) Clutch slipping .....	Adjust clutch cable free play

\* Contact Royal Enfield Authorised Dealer



## TROUBLE SHOOTING

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Causes	Remedies
<b>II. Engine misfiring</b>	
1) Water in petrol tank .....	Clean petrol tank. Fill tank with fresh petrol.
2) Loose spark plug cap .....	Fix cap / lead firmly
3) Spark plug fouled .....	Clean spark plug.
<b>III. Engine starts, but runs irregularly &amp; stops</b>	
1) Faulty fuel supply ..... (fuel pump, filter blocked)	Remove fuel pump & clean.
<b>IV. Poor pickup</b>	
1) Accelerator cable free play excessive .....	Adjust cable free play
2) Faulty fuel supply ..... Fuel pump / filter blocked	Remove fuel pump & clean.
3) Choked air filter .....	Clean / Replace air filter
4) Brakes adjusted too tight .....	Re-adjust properly

\* Contact Royal Enfield Authorised Dealer

## TROUBLE SHOOTING

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Causes	Remedies
5) Rear chain adjusted too tight .....	Re-adjust properly
6) Clutch Slipping .....	Adjust clutch cable free play
7) Under inflated tires .....	Inflate to correct pressure
<b>V. White/blue smoke</b>	
Oil level in tank above the Top line in the ..... oil level window	Check and drain excess oil
<b>VI. Engine overheating</b>	
1) Cylinder fins not clean .....	Clean the cylinder fins at regular intervals
2) Clutch slipping .....	Check and correct
<b>VII. Excessive fuel consumption</b>	
1) Fuel leakage .....	Check and rectify
2) Choked air filter .....	Clean / Replace
3) Under inflated tires .....	Inflate to correct pressure

\* Contact Royal Enfield Authorised Dealer

## TROUBLE SHOOTING

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Causes	Remedies
<b>VIII. Brakes poor</b>	
1) Not adjusted properly .....	Adjust properly
2) Oil / grease on lining or drum or disc .....	Clean and refit
3) Linings worn / Uneven wear .....	Replace linings
4) Drums scored / Uneven wear .....	Rectify or Replace drums
<b>IX. Vehicle wobbles</b>	
1) Wheel rim runout .....	Rectify
2) Loose / Broken spokes .....	Tighten / Replace spokes
3) Tires not fitted correctly .....	Refit tires correctly
4) Wheels misaligned .....	Ensure proper alignment
5) Under inflated tires .....	Inflate to correct pressure
<b>X. Electricals</b>	
<b>Bulbs do not light</b>	
1) Loose / improper connection .....	Check and correct
2) Bulb fused .....	Replace bulb
3) Fuse blown .....	Check and Replace fuse

\* Contact Royal Enfield Authorised Dealer

## TROUBLE SHOOTING

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	<b>Causes</b>	<b>Remedies</b>
<b>Horn not working</b>		
1)	Loose connections ..... *	Check and correct
<b>Trafficators not working</b>		
1)	Loose / improper connections .....	Check and correct
2)	Bulb fused .....	Replace
<b>Brake light remains on</b>		
(1)	Switch link not adjusted properly ..... *	Adjust connecting links properly
(2)	Switch sticky .....	Replace switch
<b>XI. Electronic Fuel Injection</b>		
<b>MIL Blinking continuously</b>		
(1)	Sensor Loose Connection ..... *	Check & Correct
<b>XII. ABS (Anti lock Braking system)</b>		
1)	ABS lamp continuously ON. ....	Take the vehicle to service center for diagnosis

\* Contact Royal Enfield Authorised Dealer

## WARRANTY

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Royal Enfield warrants its Motorcycle to be free from manufacturing and materials defects, under normal use subject to following conditions.

1. Warranty shall be in force until the expiry of a period of 24 months from the date of sale. The Warranty period begins from the date of retail sales invoice of the Motorcycle to the first owner. The retail invoice date is considered as start date for the warranty period. Once the warranty period has begun, it cannot be stopped or interrupted.
2. Warranty repairs, if any and periodical servicing requirements should be availed only at the Royal Enfield Authorised distributor's service facility OR at their authorised dealership.
3. During the warranty period, Royal Enfield's obligation is limited to repair or replacing free of charge, such part or parts of the vehicle, which in examination shall be deemed defective in opinion of Royal Enfield and / or their distributors / authorised dealers. Such defective part / s, which have been replaced, shall become the property of Royal Enfield.
4. Cost of consumables like fuel, Oils etc., Labour, shipping charges of replacement parts for any warranty replacement are chargeable to the customer.
5. Warranty is not applicable for the following parts:
  - Normal ageing of parts like rubber parts, tires & tubes, hand grips, glass, plastic, soft items like seat rexene, cushion etc.
  - Dullness of chrome plated parts, discolourisation of chromed exhaust pipe / silencer, buffed parts, painted surfaces etc
  - Normal wear & tear items such as control cables, brake pads/ shoes, clutch plates etc
  - Electrical items like bulbs, wiring harness, switches, battery, fuses, electric start motor etc.
6. Warranty will become void under the following conditions:
  - Damages due to lack of proper maintenance, periodic services not carried out as per Royal Enfield recommendation etc.
  - Damages caused by any unauthorised repairs carried out in any part of the motorcycle

## WARRANTY

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- Failures occurred due to use of non recommended grade lubricants, fuel or improper level.
  - Use of non genuine Royal Enfield parts
  - Damages caused due to unauthorised alterations to any part of the motorcycle.
  - Use of accessories not supplied by Royal Enfield
  - Motorcycles fitted with side cars
  - Motorcycles used in rallies, off road, dirt track, races etc
  - Motorcycles involved in accidents, collisions etc.
  - Damages that occur due to extreme operating conditions beyond the limitation or specifications as given by Royal Enfield, such as Maximum load carrying capacity, engine speed etc.
  - Damages that occur due to long/improper storage, transportation of motorcycle etc.
7. Royal Enfield reserves the right to finally decide on all warranty claims
  8. Royal Enfield reserves the right to make changes in the motorcycle without any obligation to install these changes on previously sold motorcycles.
  9. Royal Enfield authorised distributors and /or their dealers are independently owned and operated. They may hence deal with other aftermarket products for which Royal Enfield is not responsible for the performance, safety, quality, reliability and suitability of such products. Defects, if any in such parts OR that may arise in the motorcycle due to use of such parts is not liable to be covered by Royal Enfield and may render this warranty void.
  10. There is no other express OR implied warranty in the motorcycle. Any implied warranty of merchantability or fitness is limited to the duration of this warranty.
  11. To the fullest extent allowed by law, Royal Enfield and its authorised distributors and/or dealers shall not be liable for loss of use, inconvenience, loss of time, commercial losses or other incidental or consequential damages.

## **EMISSION CONTROL SYSTEM WARRANTY**

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The following warranty applies to the emission control system and is in addition to the LIMITED WARRANTY, NOISE CONTROL SYSTEM WARRANTY & CALIFORNIA AIR RESOURCES BOARD REGULATIONS. EVAPORATIVE EMISSION CONTROL SYSTEM WARRANTY. (Applicable only for motorcycles sold within the state of California.)

Royal Enfield Motors warrants the first owner and each subsequent owner, that this motorcycle is designed and built so as to conform, at the time of sale, with applicable regulations specified by the U.S. Federal Environmental Protection Agency and California Air Resources Board Regulations, that the Emission control system related parts fitted to this motorcycle are free from defects in materials and workmanship which may cause this motorcycle not to meet the U.S. Federal Environmental Protection Agency standards for a period of 5 years OR 18,641 Miles (30,000 Kms.), whichever occurs first, from the date of first use of the motorcycle.

The Warranty period shall begin, on the date the motorcycle is delivered to the first retail purchaser OR from the first date the motorcycle is used as a demonstrator OR as a display and/or trial motorcycle.

### **THE FOLLOWING ITEMS ARE NOT COVERED BY THE EMISSION CONTROL SYSTEM WARRANTY:**

1. Failures which may arise as a result of misuse, alterations, accidents OR non performance of routine maintenance, as specified in the Owner's Manual.
2. Replacement of parts such as Spark plugs, Air filter, fuel filter, Oil filter, fuel injector, lubricating oils etc that are required to be replaced during routine maintenance at specified intervals as mentioned in this Owner's Manual.

## **EMISSION CONTROL SYSTEM WARRANTY**

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3. Loss of time, inconvenience, loss of motorcycle use or any other consequential loss or damages.
4. Any motorcycle in which the Odometer has been tampered with, OR the speedo cable has been disconnected for any reason Or is broken and not replaced immediately, due to which the exact distance covered cannot be determined.

### **RECOMMENDATIONS FOR REQUIRED MAINTENANCE**

IT IS RECOMMENDED THAT THE ROUTINE MAINTENANCE OF THE MOTORCYCLE BE CARRIED OUT AT SPECIFIED INTERVALS AND ANY MAINTENANCE TO THE EMISSION CONTROL SYSTEMS SHOULD BE PERFORMED ONLY BY AN AUTHORISED ROYAL ENFIELD SERVICE DEALER AND USING ONLY GENUINE ROYAL ENFIELD SPARE PARTS.

REPAIRS TO THE EMISSION CONTROL SYSTEM MAY BE PERFORMED BY ANY OTHER QUALIFIED SERVICE OUTLET OR INDIVIDUAL AND USE OF PARTS OTHER THAN GENUINE ROYAL ENFIELD SUPPLIED PARTS IS PERMISSIBLE, ONLY IF SUCH AGENCY OR INDIVIDUALS AND THE NON GENUINE PARTS USED, ARE CERTIFIED TO COMPLY WITH THE U.S. ENVIRONMENTAL PROTECTION AGENCY STANDARDS.



## **NOISE CONTROL SYSTEM WARRANTY**

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The following warranty applies to the noise control system and is in addition to the LIMITED WARRANTY, EMISSION CONTROL SYSTEM WARRANTY & CALIFORNIA AIR RESOURCES BOARD REGULATIONS. EVAPORATIVE EMISSION CONTROL SYSTEM WARRANTY. (Applicable only for motorcycles sold within the state of California.)

Royal Enfield Motors warrants the first owner and each subsequent owner, that this motorcycle is designed and built so as to conform, at the time of sale, with applicable regulations specified by the U.S. Federal Environmental Protection Agency and California Air Resources Board Regulations, that the Noise control system emission related parts fitted to this motorcycle are free from defects in materials and workmanship which may cause this motorcycle not to meet the U.S. Federal Environmental Protection Agency standards for a period of 5 years OR 18,641 Miles (30,000 Kms.), whichever occurs first, from the date of first use of the motorcycle.

The Warranty period shall begin, on the date the motorcycle is delivered to the first retail purchaser OR from the first date the motorcycle is used as a demonstrator OR as a display and/or trial motorcycle.

### **THE FOLLOWING ITEMS ARE NOT COVERED BY THE NOISE CONTROL SYSTEM WARRANTY:**

1. Failures which may arise as a result of misuse, alterations, accidents OR non performance of routine maintenance, as specified in the Owner's Manual.
2. Replacing OR removing OR modifying any portion of the NOISE CONTROL SYSTEM (consisting of Exhaust, Air intake/cleaner assembly) with parts not certified to be genuine and noise legal in the USA for street use.

## **NOISE CONTROL SYSTEM WARRANTY**

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3. Loss of time, inconvenience, loss of motorcycle use or any other consequential loss or damages.
4. Any motorcycle in which the Odometer has been tampered with, OR the Speedo cable has been disconnected for any reason or is broken and not replaced immediately, due to which the exact distance covered cannot be determined.

### **RECOMMENDATIONS FOR REQUIRED MAINTENANCE**

IT IS RECOMMENDED THAT THE ROUTINE MAINTENANCE OF THE MOTORCYCLE BE CARRIED OUT AT SPECIFIED INTERVALS AND ANY MAINTENANCE TO THE NOISE CONTROL SYSTEMS SHOULD BE PERFORMED ONLY BY AN AUTHORISED ROYAL ENFIELD SERVICE DEALER AND USING ONLY GENUINE ROYAL ENFIELD SPARE PARTS.

REPAIRS TO THE NOISE CONTROL SYSTEM MAY BE PERFORMED BY ANY OTHER QUALIFIED SERVICE OUTLET OR INDIVIDUAL AND USE OF PARTS OTHER THAN GENUINE ROYAL ENFIELD SUPPLIED PARTS IS PERMISSIBLE, ONLY IF SUCH AGENCY OR INDIVIDUALS AND THE NON GENUINE PARTS USED, ARE CERTIFIED TO COMPLY WITH THE U.S. ENVIRONMENTAL PROTECTION AGENCY STANDARDS.

## **EVAPORATIVE EMISSION CONTROL SYSTEM WARRANTY** 90

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### **(Applicable only for the state of California)**

The following warranty applies to the evaporative emission control system and is in addition to the LIMITED WARRANTY, EMISSION CONTROL SYSTEM WARRANTY & NOISE CONTROL SYSTEM WARRANTY.

Royal Enfield Motors warrants the first owner and each subsequent owner, that this motorcycle is designed and built so as to conform, at the time of sale, with applicable regulations specified by the California Air Resources Board AND that the evaporative emission control system related parts fitted to this motorcycle are free from defects in materials and workmanship which may cause this motorcycle not to meet applicable regulations of the California Air Resources Board standards, for a period of 5 years OR 18,641 Miles (30,000 Kms.), **whichever occurs first, from the date of first use of the motorcycle.**

The Warranty period shall begin either on the date the motorcycle is delivered to the first retail purchaser OR from the first date the motorcycle is used as a demonstrator OR as a display and/or trial motorcycle.

### **THE FOLLOWING ITEMS ARE NOT COVERED BY THE EVAPORATIVE EMISSION CONTROL SYSTEM WARRANTY:**

1. Failures which may arise as a result of misuse, alterations, accidents OR non performance of routine maintenance, as specified in the Owner's Manual.
2. Replacing OR removing OR modifying any portion of the EVAPORATIVE EMISSION CONTROL SYSTEM (consisting of Fuel tank, fuel tank cap, Canister, purge valve, throttle body, vapor hoses, fuel hoses and hose connectors) with parts not certified to be genuine and approved by California Air Resources Board.

## **EVAPORATIVE EMISSION CONTROL SYSTEM WARRANTY** 91

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3. Loss of time, inconvenience, loss of motorcycle use or any other consequential loss or damages.
4. Any motorcycle in which the Odometer has been tampered with, OR the Speedo cable has been disconnected for any reason OR is broken and not replaced immediately, due to which the exact distance covered cannot be determined.
5. Normal ageing of parts such as fuel hoses, vapor hoses, gaskets & rubber components.

### **RECOMMENDATIONS FOR REQUIRED MAINTENANCE**

IT IS RECOMMENDED THAT THE ROUTINE MAINTENANCE OF THE MOTORCYCLE BE CARRIED OUT AT SPECIFIED INTERVALS AND ANY MAINTENANCE TO THE EVAPORATIVE EMISSION CONTROL SYSTEMS SHOULD BE PERFORMED ONLY BY AN AUTHORISED ROYAL ENFIELD SERVICE DEALER AND USING ONLY GENUINE ROYAL ENFIELD SPARE PARTS.

REPAIRS TO THE EVAPORATIVE EMISSION CONTROL SYSTEM MAY BE PERFORMED BY ANY OTHER QUALIFIED SERVICE OUTLET OR INDIVIDUAL AND USE OF PARTS OTHER THAN GENUINE ROYAL ENFIELD SUPPLIED PARTS IS PERMISSIBLE, ONLY IF SUCH AGENCY OR INDIVIDUALS AND THE NON GENUINE PARTS USED, ARE CERTIFIED TO COMPLY WITH THE CALIFORNIA AIR RESOURCES BOARD.

## SERVICE MAINTENANCE RECORD

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S. No.	Date	Job Card No.	KMS/ Miles	Brief details of work / service	Royal Enfield Authorised Dealer
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

## SERVICE MAINTENANCE RECORD

93

S. No.	Date	Job Card No.	KMS / Miles	Brief details of work / service	Royal Enfield Authorised Dealer
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					

## SERVICE MAINTENANCE RECORD

94

S. No.	Date	Job Card No.	KMS/ Miles	Brief details of work / service	Royal Enfield Authorised Dealer
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					

## SERVICE MAINTENANCE RECORD

95

S. No.	Date	Job Card No.	KMS / Miles	Brief details of work / service	Royal Enfield Authorised Dealer
25.					
26.					
27.					
28.					
29.					
30.					
31.					
32.					



## NOTES

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**ROYAL ENFIELD**

Part No. RAM00003/A

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