ROYAL ENFIELD OWNER'S MANUAL



AUSTRALIA

FOREWORD

Welcome to the Royal Enfield family.

The 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 Bullet Classic EFI that you have just bought, confirms to all applicable European homologation regulations pertaining to EURO IV.

This manual will help to acquaint yourself 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, to get maximum performance and to maintain your Motorcycle in top riding condition.

We have also detailed, vital safety information for the rider and for the care and safety of the motorcycle. Please read and follow these carefully to get maximum riding pleasure and for safe riding.

We request you to exercise utmost caution while riding. Please ride cautiously, safely and within the law. Always wear a helmet, good riding goggles and proper riding clothes while riding the motorcycle. Please also insist and ensure that your pillion also follows these while riding with you.

Log on to the exciting world of Royal Enfield website : www.royalenfield.com to get to know more about the company, its products 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

Due to continous improvements being carried out 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 motorcycle. 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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Part No. 586246/A

IMPORTANT

- **It is the responsibility of the Owner to read this manual and comply with safety guide lines, operating instructions, service & maintenance instructions set forth therein. Keep this manual in a convenient place for easy reference. DO NOT use the motorcycle until this manual has been read and understood thoroughly.**
- **If any information is not understood in the manual contact an authorized Royal Enfield dealer.**
- **If the motorcycle is being used by any friend, relative or others, it is responsibility of the owner to make certain that this owner's manual is read and fully understood prior to usage and has been instructed on it's safe and proper use.**
- **The motorcycle is designed for normal on road use only. Operation in off-road usage in some areas may be illegal and could be dangerous. *Obey local law and regulations.***
- **In the event you sell your motorcycle to another person, it is your responsibility to hand over this manual along with the motorcycle.**

IMPORTANT NOTICE !

Safety Definitions

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

WARNING

Warning indicates a potentially hazardous situation, which if not avoided, could result in serious injury.

CAUTION

Caution indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury.

Caution :

Caution used without safety alert symbol indicates a potentially hazardous situation, which if not avoided, may result in property damage.

All images shown are for reference to explain and may not to be exactly the same on the model you own. Technical specification are subject to change without prior notice.

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PERSONAL & MOTORCYCLE INFORMATION

Name			
Door No./ Street			
Locality			
City		Country	
Contact	Res :	Off :	
	Mobile :	Email :	
Licence No.		Valid till :	
Model		Color :	
Engine No.			
VIN. No.			
Tyre make	Front :	Rear :	
Tyre Nos.	Front :	Rear :	
Battery make		Battery No.	
Sold by			
Date of Sale			

SAFE OPERATING RULES

- 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.
- Know and respect the rules of the road. Be a safe rider for your own safety and for other road users.
- Before starting the motorcycle, check for proper operation of brakes, clutch, gear shifter, handle bar controls, tyre pressures, fuel and oil levels.

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.

- 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. See your Royal Enfield Authorized Dealer for details.
- Whenever refuelling your motorcycle, please exercise utmost caution and carefully observe the following rules :
  - ★ **DO NOT** smoke and please ensure that there are no open flames or sparks near the motorcycle, when refuelling OR servicing the fuel system.
  - ★ **Switch OFF** mobile phones and other hand held electronic devices.
  - ★ Open the fuel filler cap slowly.
  - ★ Refuel in a well ventilated area with the engine turned off.

★ **DO NOT** fill the tank to its brim. Please fill fuel only till the bottom of the filler neck insert, so as to leave air space in the fuel tank to allow for fuel expansion.

WARNING

Gasoline is extremely flammable and highly explosive. Use care when handling gasoline. Always stop the engine when refuelling or servicing the fuel system. Do not smoke or allow open flames or sparks near gasoline. Do not store motorcycle with gasoline in the tank, within the home or garage where open flames, pilot lights, sparks or electric motors are present. Inadequate safety precautions could cause an explosion or fire which could result in damage to property, serious injury.

- A new motorcycle must be operated according to the special break-in-procedure. See BREAK-IN-THE FIRST 300 MILES (500KM) 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 conditions.
- **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 overspeeding and never travel over the speed limit. Excessive speed may cause loss of control and could result in an accident causing serious injury.

- **DO NOT** exceed 70 MPH (110 km/h) riding solo.
- **DO NOT** exceed 55 MPH (90Km/h) when carrying a passenger 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.

- 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 motorcycle fails to see or recognize a motorcycle and turns into the oncoming motorcyclist.
- 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.

WARNING

Maintain the recommended tyre pressure. Ensure the front and rear wheels are correctly aligned and the tyres are seated evenly & properly in the rims. Check for correct tightness of the spokes in the rims. Inspect your tyres periodically and replace tyres with approved tyres only. Failure to do so can lead to improper balance, abnormal tread wear, poor handling and could result in serious injury.

WARNING

Royal Enfield recommends replacement of any tyre punctured or damaged. In some cases small punctures in the tread area may be repaired from within the demounted tyre by your Royal Enfield Authorized Dealer. Speed should not exceed 60 Km/h (40 MPH) for the first 24 hours after repair and the repaired tyre should Never be used over 90 Km/h (55 MPH).

In emergency situations, if a temporary repair is made ride slowly with as light a load as possible until the tyre is permanently repaired or replaced.

Failure to heed this warning could result in serious injury.

- Safe motorcycle operation requires alert mental judgement combined with a defensive driving attitude. **DO NOT** allow fatigue, alcohol or drugs to endanger your safety or that of others.
- Maintain your motorcycle in proper operating condition in accordance with the Maintenance intervals chart in this Owner's Manual. Particularly important to motorcycle stability is proper tyre inflation pressure, tread condition. Pay strict attention to loose and / or broken spokes, free movement of steering system.

WARNING

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

WARNING

Regularly inspect rear shockabsorbers and front forks for any defective suspension can adversely affect stability and handling which could result in serious injury.

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.

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. Never stand close to the exhaust system of the motorcycle when the engine is running.

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.

WARNING

Consult your Royal Enfield Authorized 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.

WARNING

Use only genuine Royal Enfield replacement fasteners tightened to the proper torque (See your Royal Enfield Work Shop Manual). 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.

WARNING

DO NOT exceed the Gross Motorcycle Weight Rating of your motorcycle. The Gross Motorcycle Weight Rating (GVWR) is shown on the information plate, located on the frame Down tube. (GVWR is the sum of the weight of the motorcycle, accessories, and the maximum weight of the rider, passenger and cargo that may be safely carried.) Exceeding GVWR may lead to instability of the motorcycle, which could cause an accident and result in serious injury.

WARNING

DO NOT tow a disabled motorcycle. The steering and handling for 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.

WARNING

DO NOT pull a trailer behind a motorcycle. Towing a trailer may cause reduced braking efficiency, tyre overloading and unstable handling. Towing a trailer may cause loss of control of the motorcycle in the front, leading to an accident resulting in serious injury.

- Be sure all equipment required by Federal, State, 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.
- 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
  - ★ Icy
  - ★ Wet
- Watch for loose debris, such as leaves, slippery substances or loose gravel that can hamper the stability of your motorcycle.
- **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 death or serious injury.

- Keep to the correct side of the road center line when meeting oncoming motorcycle.
- Always sound your horn, actuate your turn signals, and exercise **caution** when passing other motorcycles going in the same direction. Never try to pass another motorcycle going in the same direction at street intersections, on curves, or when going up/or down a hill.
- At street intersection give the right-of-way to the motorcycle on your left or right. **DO NOT** presume you have the right-of-way.

- Always signal when preparing to stop, turn or pass.
- While turning either right or left, watch for pedestrians, animals, as well as motorcycles.
- 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.
- 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.
- **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.
- **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.
- 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

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.

The following guidelines should be used when equipping a motorcycle, carrying cargo and / or passengers.

WARNING

DO NOT load weight or install accessories improperly on the motorcycle. Doing so may affect the motorcycle's stability handling characteristics, and safe operating speed which could result in serious accident causing serious injury.

- **DO NOT** exceed 70 MPH (110 Km/h) riding solo.
- **DO NOT** exceed 55 MPH (90 Km/h) when carrying a passenger or cargo.
- Keep cargo weight concentrated close to the motorcycle and as low as possible; this minimizes the change 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 load in each saddlebag.
  - ★ Recheck the cargo periodically.
- Be sure cargo 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.
- Additional electrical accessories and equipments may overload the motorcycle's electrical system and will result in system and/ or component failure.

- 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

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.

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.

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.

TECHNICAL SPECIFICATIONS

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
Idle RPM	1250±50 RPM
Air filter Element	Paper Element
Lubrication	Forced Lubrication, Wet Sump
Fuel Supply	Electronic Fuel Injection

Ignition system

Ignition system	Digital Electronic Ignition
Spark plug gap	0.8 mm
Spark plug	WQR8DC (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	2.235:1

TECHNICAL SPECIFICATIONS

Electricals

Generation	Alternator
System	12V DC
Battery	12V - 14 AH
Head lamp	12V, 60/55 W
Tail / Brake lamp	12V, 5/21 W
Turn signal	12V, 10W X 2 Nos.
Pilot lamp	12V, 2 W X 2 Nos. 12V, 4 W X 1 No.
Speedometer lamp	12V, 3.4 W X 1 No.
Turn signal / High beam indicator	12V, 1.7 W each
Neutral Indicator	12V, 1.7 W X 1 No.
Horn	12V, 2.5 Amp (Max.)

Chassis

Frame		Tubular Frame
Tyre size	Front	90 / 90-19” - 52 V
	Rear	110 / 80-18” - 58 V
Tyre pressure	Front-Solo	18 PSI
	- Pillion	20 PSI
	Rear-Solo	28 PSI
	- Pillion	30 PSI
Fuel tank capacity		14.5 $\pm$ 1 Litres
Suspension	Front:	Telescopic, Hydraulic Damping stroke 110 mm
	Rear:	Swing arm with gas filled shockabsorbers with adjustable 5 step spring tension load.
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
Brake oil grade		DOT 4 or above

TECHNICAL SPECIFICATIONS

Dimensions

Length	2140 mm
Width	800 mm
Height	1080 mm
Wheel base	1360 mm
Saddle height	790 mm
Ground clearance	140 mm

Weights

Mass of motorcycle in running order	270 Kg
Max pay load	95 Kg
Max technical permissible mass	365 Kg

Performance

Maximum Speed	128 kmph

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.**

RECOMMENDED OILS

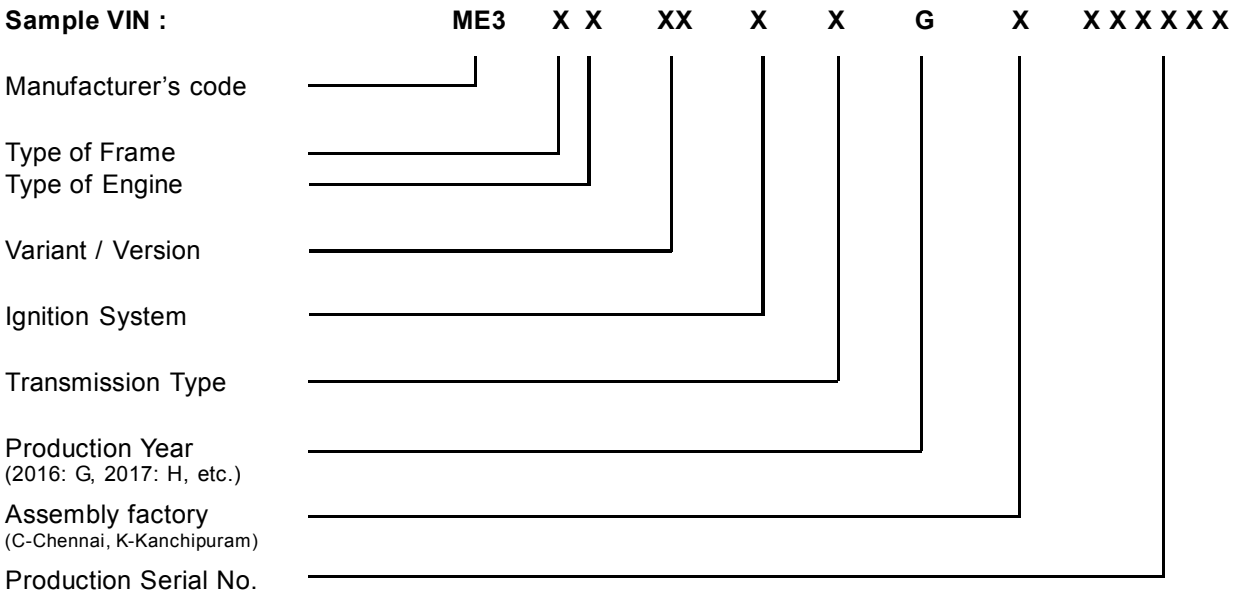
OIL	GRADE	CAPACITY
1. Engine Oil	15W50 API SL JASO MA ESTER Semi synthetic oil	1. Dry Initial Fill : 2.75 Litres 2. Periodical Maintenance fill : 2.30 to 2.50 Litres (Including filter replacement)
2. Front Fork	Fork oil 2W 35	195 ml / leg
3. Brake Fluid	Dot 4 and above	Front : 60 ml Rear : 100 ml

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

The VIN is a 17 digit number punched on the right side steering head tube and in the information plate rivetted to the frame down tube.



MOTORCYCLE IDENTIFICATION NUMBER - DETAILS

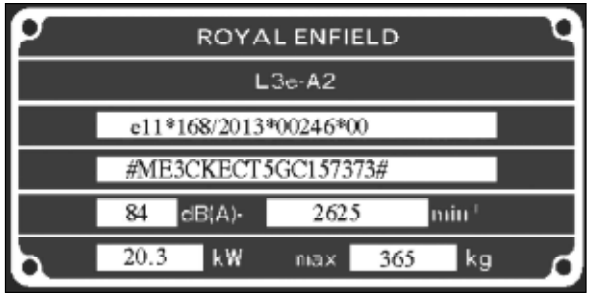
CHASSIS NUMBER

Punched on the steering head tube.



VIN INFORMATION PLATE

Riveted on the frame down tube right side.



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.

U 5 S 5 F X X X XXXXXX

Engine Family

Engine Capacity

Type of Start

Type of Transmission

Fuel Feed

Manufacturing Plant
(0-TVT, 1-ORG)

Year of Manufacture
(G-2016, H-2017, ...)

Month of Manufacture
(A-Jan., H-Aug., K-Sep., N-Dec.)

Production Serial Number



KEY PARTS LOCATION

Right Side View



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

KEY PARTS LOCATION

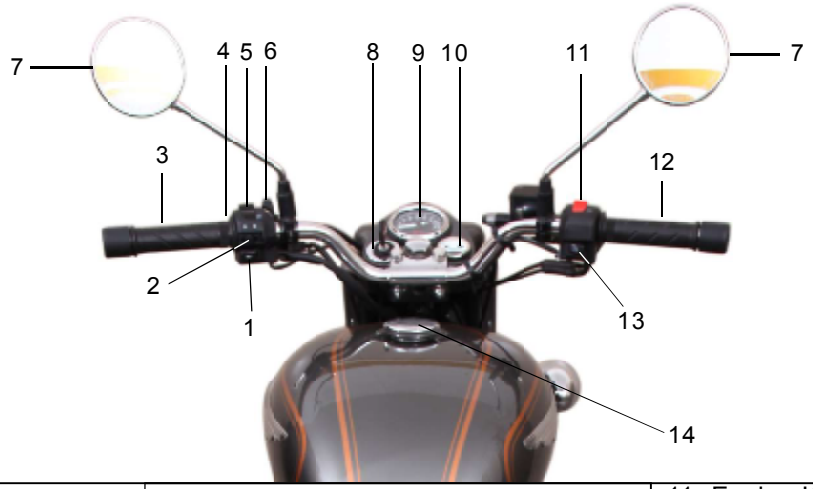
Left Side View



1. Left Trafficator Front	4. Center stand	7. Gear Change Lever
2. Electrical & Tool Box	5. Side Stand	8. Spark plug
3. Left Trafficator Rear	6. Battery Cover	9. Horn

KEY PARTS LOCATION

Top View



1. Horn button	6. Manual Bistarter	11. Engine Kill switch
2. Turn signal switch	7. Rear View Mirrors	12. Front Brake Lever
3. Clutch lever	8. Ignition switch	13. Starter Switch
4. Day flash switch	9. Speedometer	14. Fuel tank cap
5. Head lamp dip switch	10. Malfunction / Low fuel Indicator	

Ignition Switch

OFF



ON



CAUTION

DO NOT lubricate barrel locks with petroleum based lubricants or graphite. In-operative locks may result in damage to your motorcycle.

- **Lock the steering when leaving motorcycle parked.**

Steering lock

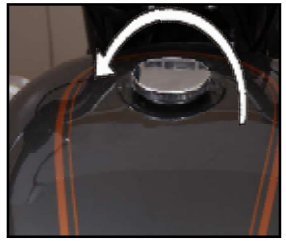


- Turn key clockwise to lock.

Caution :

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

Fuel tank cap



To Open:

- Turn cap anticlockwise

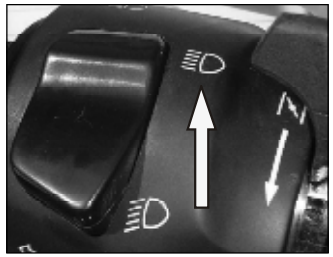
To Close:

- Locate cap and turn clockwise till click Sound is heard.

DIP switch



Low Beam



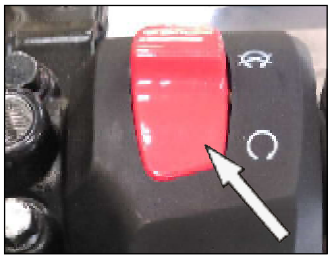
High Beam

Head lamp day flash



Depress to flash

Kill switch

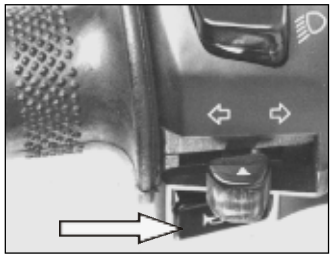


Run



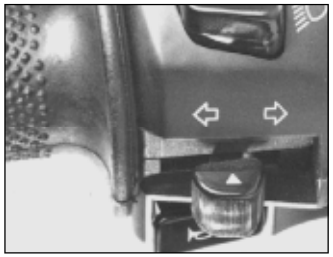
Stop

Horn

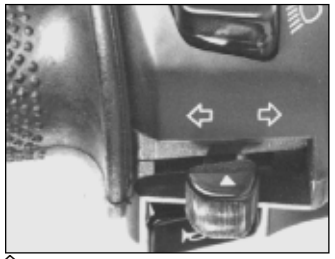


Depress

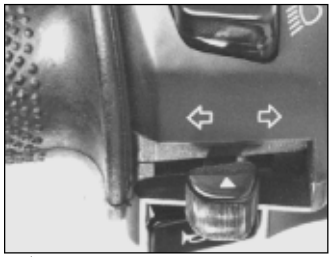
Turn Signal Switch



Left

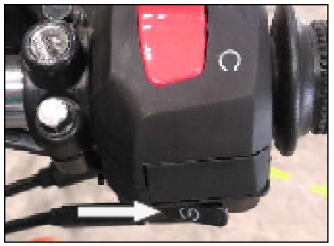


OFF (Push to off)



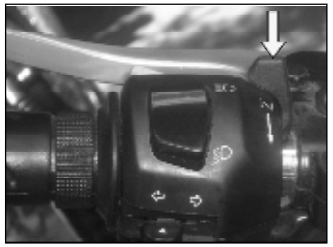
Right

Engine Start Switch



Depress

Manual Bi Starter



PRE OPERATIVE CHECKS

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.

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 loss of control & inefficient braking. The hydraulic disc brake fitted on your motorcycle requires very less effort. Please use utmost caution while applying the brakes.

- While riding on wet or bad road conditions use brakes cautiously.
- Please do not lean too much or bank excessively as it may cause the foot peg to touch the road surface and result in loss of control of the motorcycle.

RUNNING IN

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

This will help the various parts of the engine and vehicle to "bed in" smoothly with prolonged full throttle operation, or in high speed conditions might result in excessive heating of the engine and cause abnormal wear of the moving parts and result in premature failure.

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

The recommended speeds for the first 300 Miles (500 Kms) is 50-60 Km/h (35-40 MPH). During this period avoid operating 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 500 Kms (300 Miles), please replace the engine oil and filter.

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

The recommended speeds is 80-90 Km/h (40-50 MPH). Avoid driving 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. 1,000 kms (600 Miles) and beyond

Avoid prolonged full-throttle operation. Vary speed occasionally.

CAUTION

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

CAUTION

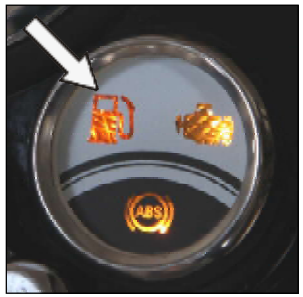
DO NOT run the engine at extremely high RPM with clutch disengaged or transmission in neutral as it can cause serious engine damage.

CAUTION

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

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

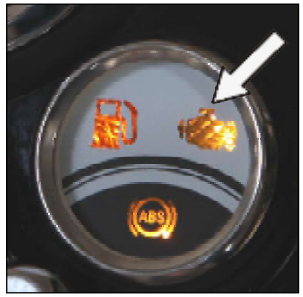
1. Low Fuel Indication



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

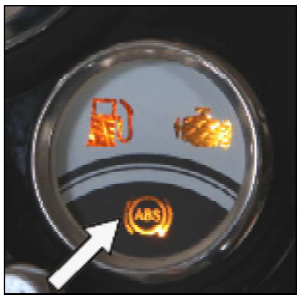


A Malfunctioning Indicator Lamp (MIL) is provided in the small meter.

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 a 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 continously 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 continously '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.

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.

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

Do's	Don'ts
● 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).	● **DO NOT RELEASE** 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.
● 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	
● Apply both the brakes simultaneously for better efficiency while braking	● DO NOT APPLY only the front OR rear brake as it can lead to inefficient braking.
● 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.	

4. Roll over Sensor

In the event of motorcycle falling over on eitherof 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.

WARNING

Before starting engine, always shift gears to neutral.

Caution :

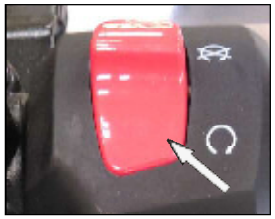
Do not force the gear lever while attempting to shift to neutral. Move the motorcycle back & forth and simultaneously depress gear lever to come to neutral. Ensure neutral indicator light comes 'ON' in the Speedometer.

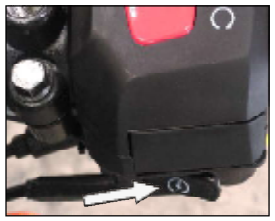
NOTE :

- **If the engine does not start on the first attempt in cold climate, release the starter button, wait for 30 seconds before depressing the starter button again.**
- **Depress starter button and release starter switch once the engine starts.**
- **A clutch switch is provided in the system for the safety of the rider. This is to prevent the motorcycle from starting when the motorcycle is in gear. To start the engine when it is in gear, pull in the clutch lever, depress starter button and release as soon as the engine starts.**

- Turn ignition switch 'ON'
- Ensure the side stand is in released position
- Ensure gears are in neutral and neutral lamp is glowing.
- Ensure ignition stop switch is in 'RUN' position
- Press 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 to 30 seconds. This will allow the engine to warm up and let oil reach all surfaces needing lubrication. Failure to adhere in damage to the engine.

- Manual Bi-Starter

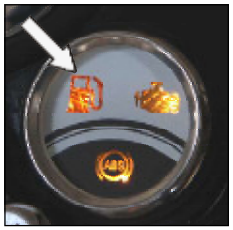


NOTE :

It is mandatory, necessary to depress and hold the Manual Bi-starter for a minimum of one minute when starting the engine for the first time in cold morning, every time when the temperatures are below 10 deg C, and at higher altitudes to keep the engine idling RPM steady.

As soon as the engine sufficiently warms up then Manual Bi-starter should be released.

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



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

This will glow continuously if the fuel level in the tank in below 3.5 litres.

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 7 Switches OFF when vehicle speed attains 5 Km/h (3 Miles/h).

GEAR SHIFTING

CAUTION

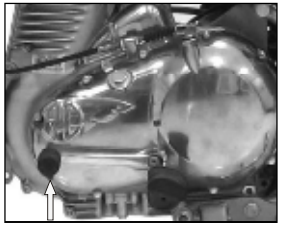
The clutch must be fully disengaged before attempting a gear shift. Failure to fully disengage the clutch may cause a jerky start and / OR stalling the engine besides causing damage to transmission parts.



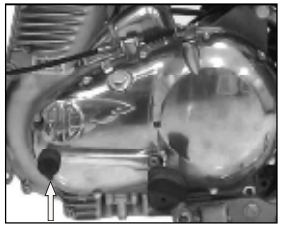
- Warm up engine for 2 minutes - till idling is consistent.
- Pull clutch lever towards the hand grip.
- Depress gear lever with toe to engage 1st gear.
- Gently open throttle and release clutch simultaneously. If clutch is released suddenly, the engine may stall and cause a jerky start.

NOTE :

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



- Lift the gear lever with toe to engage 2nd gear.



- Follow the same procedure for 3rd, 4th and 5th gears.

NOTE :

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

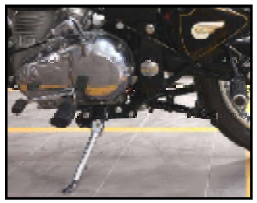
PARKING

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.

Caution :

When Side stand is in extended position.

a) Engine will start if vehicle is in neutral, but will cut-off (ignition and fuel) when gear is engaged.

b) Engine will not start if gear is engaged already.

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

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 Authorized 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

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
		Check level every 500 Kms or earlier as required										
2	Engine oil filter element	R		R		R		R		R		R
3	Engine sump filter (oil strainer)	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
5	Spark plug	A	A	A	A	A	R	A	A	A	A	R
6	HT lead	I	I	I	I	I	I	I	I	I	I	I
7	Fuel hose	I	I	I	I	R	I	I	I	R	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
10	Rubber hose, Air filter to Throttle body	I	I	I	I	R	I	I	I	R	I	I

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

PERIODICAL MAINTENANCE

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
12	Air filter paper element	C	C	C	C	R	C	C	C	R	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
18	Battery terminals (apply petroleum jelly)	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
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

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	Tyre 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

NOTE :

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

TOOLS KIT

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) (8 × 10 mm) (14 × 15 mm)	 2 1 1
5.	Allen Keys : (5 mm) (3 mm)	 1 1
6.	Tyre Lever	2
7.	Single end ring spanner (24mm)	1
8.	Extension tube	1

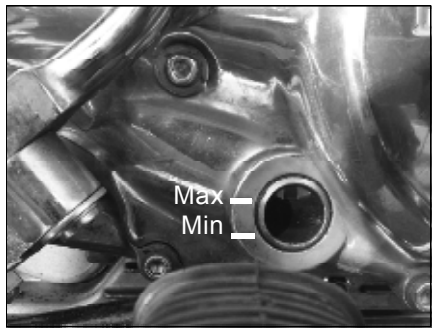
The following minor maintenance can be carried out easily with simple tools. However, in case, if it is felt that the adjustments are best done by an expert, we recommend that the motorcycle be taken to a nearest Royal Enfield Authorized Service center.

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.
- Warm up engine for a few minutes & switch off
- The level is correct if the oil level is in the middle of the oil level window.
- Top up with recommended oil if required.



Engine - Oil Change

(Refer Periodical Maintenance Chart for frequency)

- Place motorcycle on its center on a firm flat surface.
- Start engine and warm up for few minutes & switch off the engine.
- Keep a clean tray below the engine.
- Remove the oil drain plug and the suction filter underneath the crankcase.
- Remove the oil filter on the right Crankcase cover.
- Allow the oil to drain completely by tilting the motorcycle to both sides.
- Wash the drain plug and the suction filter thoroughly and refit with **new Copper washer and "O" ring** on the crankcase.
- Soak a new filter element in oil and refit on the right Crankcase cover.
- Fill recommended oil in the tank till the oil level is between the 'MAX' and 'MIN' marks in the oil window in the right side Crank case cover.

NOTE :

- Replace oil filter whenever oil is replaced.

- Do not reuse "O" ring and Copper Washers.

Caution :

DO NOT fill oil over "Max" mark. It will result in smoke and loss of power.

DO NOT use the motorcycle with engine oil at "MIN" mark. It will cause oil starvation to the moving parts in the engine and may also result in an engine lock up.



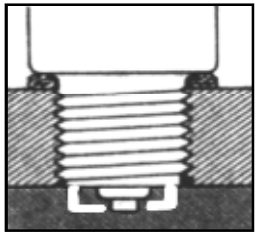
WARNING

DO NOT switch oil brands indiscriminately Use of wrong grade 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 motorcycle to stop abruptly and result in an accident causing serious injury or death.

Spark Plug

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

- Remove HT Lead and the spark plug from the cylinder head using the plug spanner and tommy bar.
- Clean the insulator tip and electrodes of the plug carefully using a pointed scraper or spark plug cleaner.
- Set the gap between 0.8 to 0.9 mm.
- Refit the spark plug on the cylinder head and connect H.T. Lead.



Brake Fluid

Check brake fluid level in the reservoirs of front and rear brakes. Top up if necessary with DOT 4 or higher brake fluid only. DO NOT OVERFILL ABOVE MAX LEVEL.



Front Brake



Rear Brake

Caution :

Brake fluid is highly corrosive. Please take care not to spill brake fluid on painted, plated, buffed surfaces and other parts of the motorcycle as it will cause irreparable damage.

Inspection of tyres and wheels

- Inspect the tyres periodically for tread wear, cracks and cuts.

Minimum tread depth :	
Front tyre : 1mm	Rear tyre : 2 mm

- Check and remove stone, splinters, nails or other particles embedded in the tyre treads.
- Bald spots / swelling may be caused by internal damage. Replace the tyres, if defective.
- Replace tyres when the tread depth has reached the minimum as specified.
- Periodically inspect wheels for spokes breakage and wheel rim run out.
- Check proper seating of the tyre beading on the rim whenever the tyre is reassembled.
- Whenever a new tyre is installed, ensure rim and spokes do not get damaged on account of using wrong levers.
- Use only standard tyres & tubes inflated to correct pressure.

Tyre pressure

	Front
Solo	1.27 kg/cm^2 (18 PSI)
With Pillion	1.41 kg/cm^2 (20 PSI)

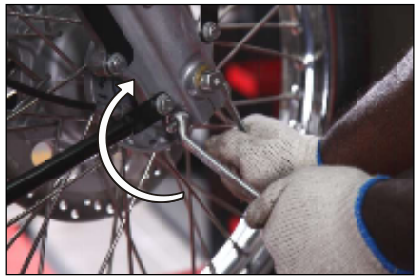
	Rear
Solo	2.00 kg/cm^2 (28 PSI)
With Pillion	2.11 kg/cm^2 (30 PSI)

WARNING

Tyres and tubes must be correctly fitted and seated to the wheel rims. Only the approved specified tyres and tubes must be used for replacements. Tyre fitments must also be carried out only by an experienced and authorized personnel. Failure to do so will result in an accident causing serious injury and result in loss of life.

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.

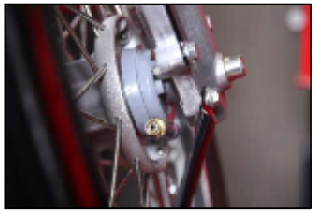
Caution :

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 accidently 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.
- 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).



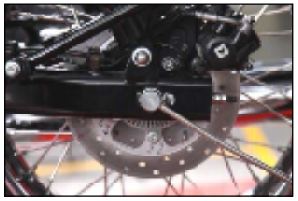
- Hold the pinch bolt and tighten the nylock nut on the right side fork end.



- 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.

Rear Wheel Removal

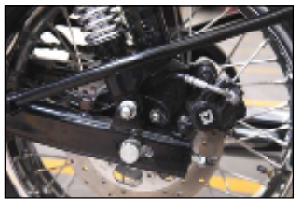
- Place the motorcycle on its center stand, on a firm and flat surface such that the rear wheel is about 4 inches (10 cms) above the ground.



- Hold the axle from the left side, loosen and remove the axle nut on the right side



- Remove wheel spindle from left side.
- Gently release the brake hose from the holding clips in the swing arm.



- Remove the caliper assembly by gently pulling out from the swing arm slot and support the caliper suitably.



- Ensure the distance collar is removed and stored carefully
- Gently pull rear wheel towards the left so that the hub becomes free from the lugs in the sprocket.
- Carefully tilt motorcycle to one side and remove the wheel from the swing arm.

CAUTION :

Do not press the rear brake pedal 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 rear brake pedal is accidently pressed.

WARNING

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

Rear Wheel Reassembly

- Remove the wooden piece / card board sheet placed between the brake pads.
- Ensure the four Cush rubbers are in position in the rear wheel hub.
- Tilt motorcycle and position wheel assembly between the swing arms such that the brake disc is on the left side.
- Locate rear wheel on the sprocket, ensuring the cush rubbers are seated on the lugs correctly.
- Locate the caliper assembly on the lug in the swing arm. Ensure the brake disc is located in between the brake pads.
- Ensure the Chain tensioner is correctly located inside the swing arm on the left side.
- Position the spacer correctly between the hub and the caliper assembly.
- Align the caliper bracket, spacer, hub and chain tensioner holes.
- Insert the wheel spindle from left side fully.
- Ensure that chain tensioner stopper plate is firmly seated against the left side swing arm.
- Hold the axle from the left side and tighten the axle nut on the right side to a torque of 7KgM (70 Nm)
- Gently locate the brake hose into the holding clips in the swing arm.

CAUTION :

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

Adjustments

Clutch cable (play 2-3 mm)

a. Clutch Play Adjustment

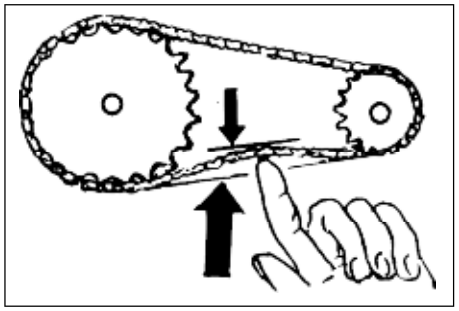


- Loosen lock nut.
- Screw in or out the adjuster for setting the required play.
- Tighten lock nut.
- Refit the clutch cable boot.



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.

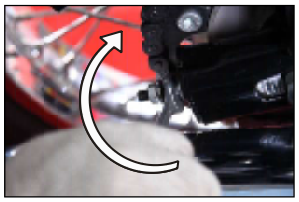


To adjust, proceed as follows:

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

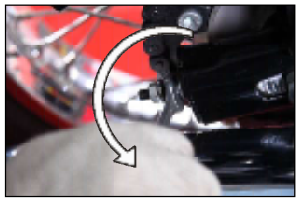
- Loosen the locknuts at both ends of the swing arm.

To reduce the free play:



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

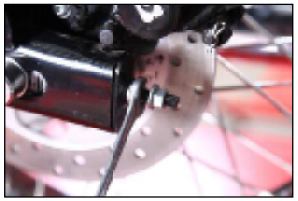
To increase the free play:



- 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 Alighnment

- 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.

- Holding the adjuster nuts, tighten the lock nuts against the adjuster nuts on both the left and right sides of the swing arm.

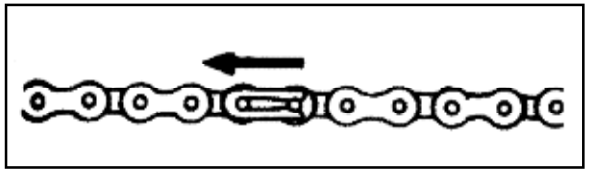


- Tighten the sprocket nut on the right side to a torque of 7KgM(70 Nm).

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.

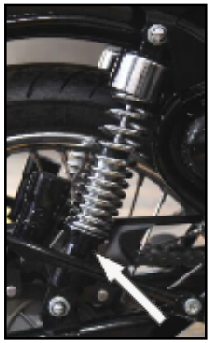
Please ensure the chain lock is located properly in the chain link and is locked in place.



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.

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.

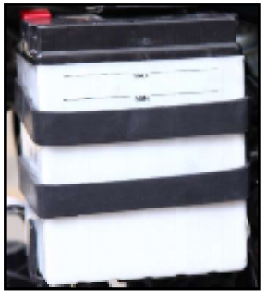
WARNING

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.

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.

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.**

- **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

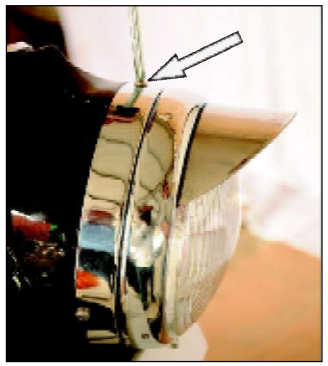
- Electrolyte should be maintained ONLY between the MAX and MIN levels indicated in the battery.
- Using a battery with a low or weak electrolyte, low battery charge, can seriously harm the battery and also the electrical and electronic systems in the motorcycle.
- Filling Electrolyte over the "MAX" 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.

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.



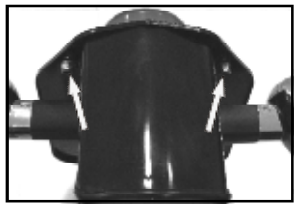
- Position new bulb inside the reflector such that the three projections on the bulb align with the slot on the reflector.
- Refix the bulb holding clamp.
- Fit the rubber grommet and connect the electrical connections.
- Position head lamp onto the head lamp casing and tighten the mounting screw on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

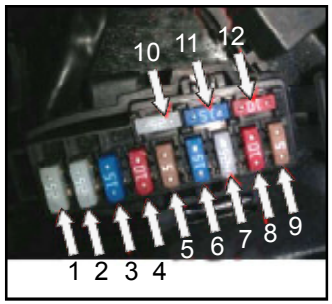
- Remove the two nuts holding the rear license plate.
- Remove the three screws holding the tail lamp to the bracket.
- Twist the bulb holder anticlockwise and remove.
- Remove the old bulb and replace with a new bulb.



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



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 / Horn 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)
10	White	Spare Fuse (25A)
11	Blue	Spare Fuse (15A)
12	Red	Spare Fuse (10A)

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 safely glasses to shield your eyes from flying dirt and debris. Failure to comply could result in serious injury.

LONG TRIP PRECAUTIONS

Checks prior to commencement of a long ride and every day during the trip

- Ensure sufficient quantity of fuel in the fuel tank.
- Correct oil levels in Engine, brake master cylinders.
- Correct tyre pressure and no loose/ broken spokes.
- Proper chain tension.
- Good battery condition
- Proper functioning of all lights, horn etc.,
- Tightness of all fasteners.

NOTE :

It is recommended that the motorcycle be checked and serviced by an authorized Royal Enfield service center prior to embarking on a long ride.

WASHING PROCEDURE

Precautions

- Wash motorcycle when the engine is cold.
- Cover the silencer tail end and control switches with suitable plastic bags to prevent water entry.
- Remove ignition key and seal key hole using adhesive tape.
- Use a suitable engine degreaser, 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, spark plug, 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 throughly 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.
- 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.
- Test brakes for full efficiency.

NOTE :

Observe warnings and cautions given on labels of cleaning compounds.



WARNING

Do not use High pressure washer to clean the motorcycle, as it will force water entry into the engine and other parts of the motorcycle and damage parts like bearings etc.

Do not spray high pressure water on lamps, instruments, switches, brake cylinders and brake calipers, below fuel tank, steering head bearings, suspension, air intake duct as it will cause serious damage to the parts and affect performance.

Do not use strong soaps, detergents that are highly alkaline as they will leave a permanent stain on the painted, buffed and plated surfaces.

STORAGE PRECAUTIONS

Incase your Motorcycle is not going to be used for a prolonged period of time, the following precautions should be taken.

- Carryout required repair / adjustments on the motorcycle.
- Wash the motorcycle thoroughly and lubricate.
- 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 few drops 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 lubricate.
- 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.
- Store the battery in a cool, dry and well ventilated place.
- 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.

STORAGE PRECAUTIONS

Preparing the motorcycle for reuse

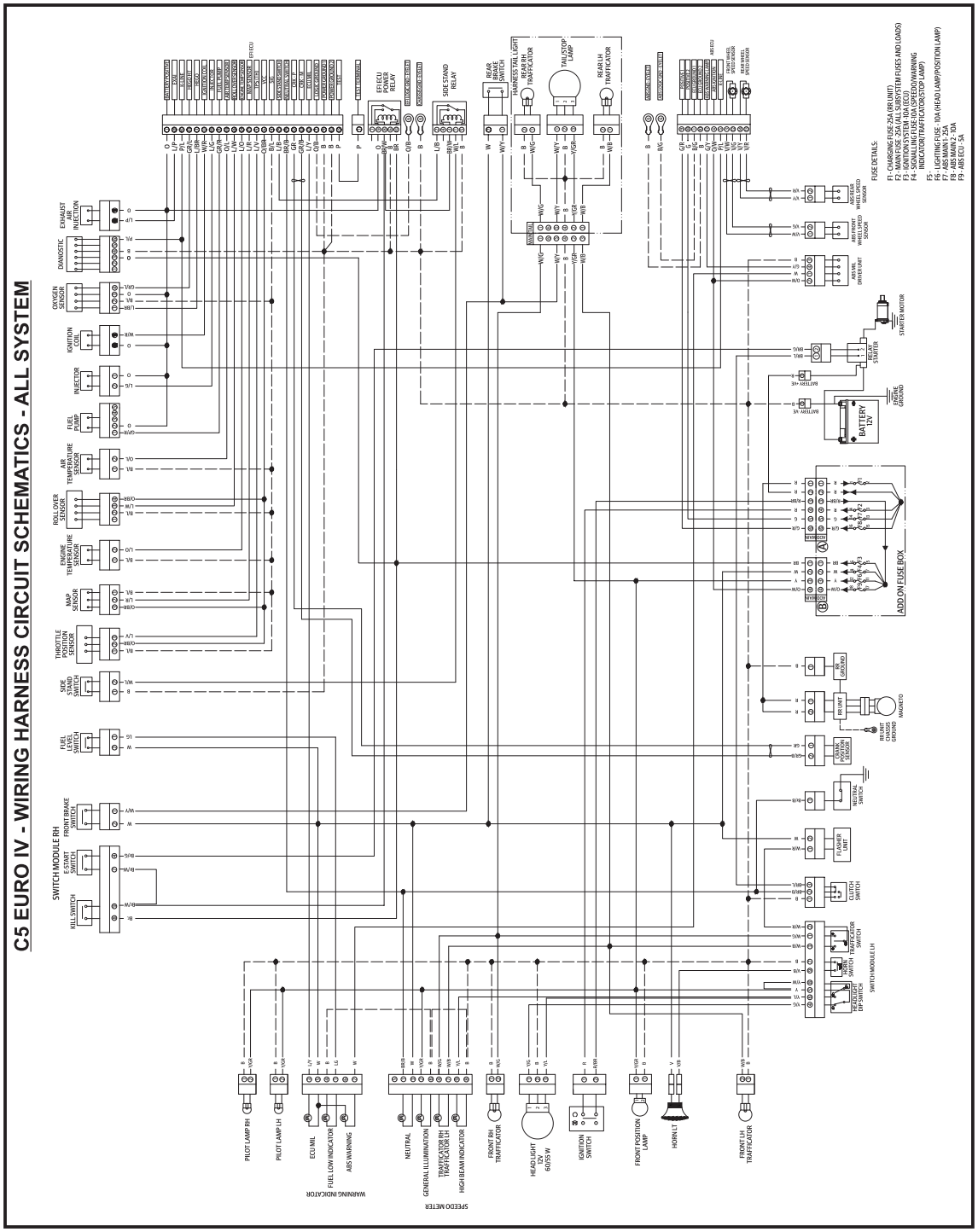
- Remove the anti rust solution from all plated parts and clean the motorcycle well.
- Inflate the tyres to the correct tyre pressure.
- Ensure battery is fully charged and proper electrolyte level is maintained.
- Connect the battery.
- Lubricate all control cables and pivots.
- Check proper level of 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.
- 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.

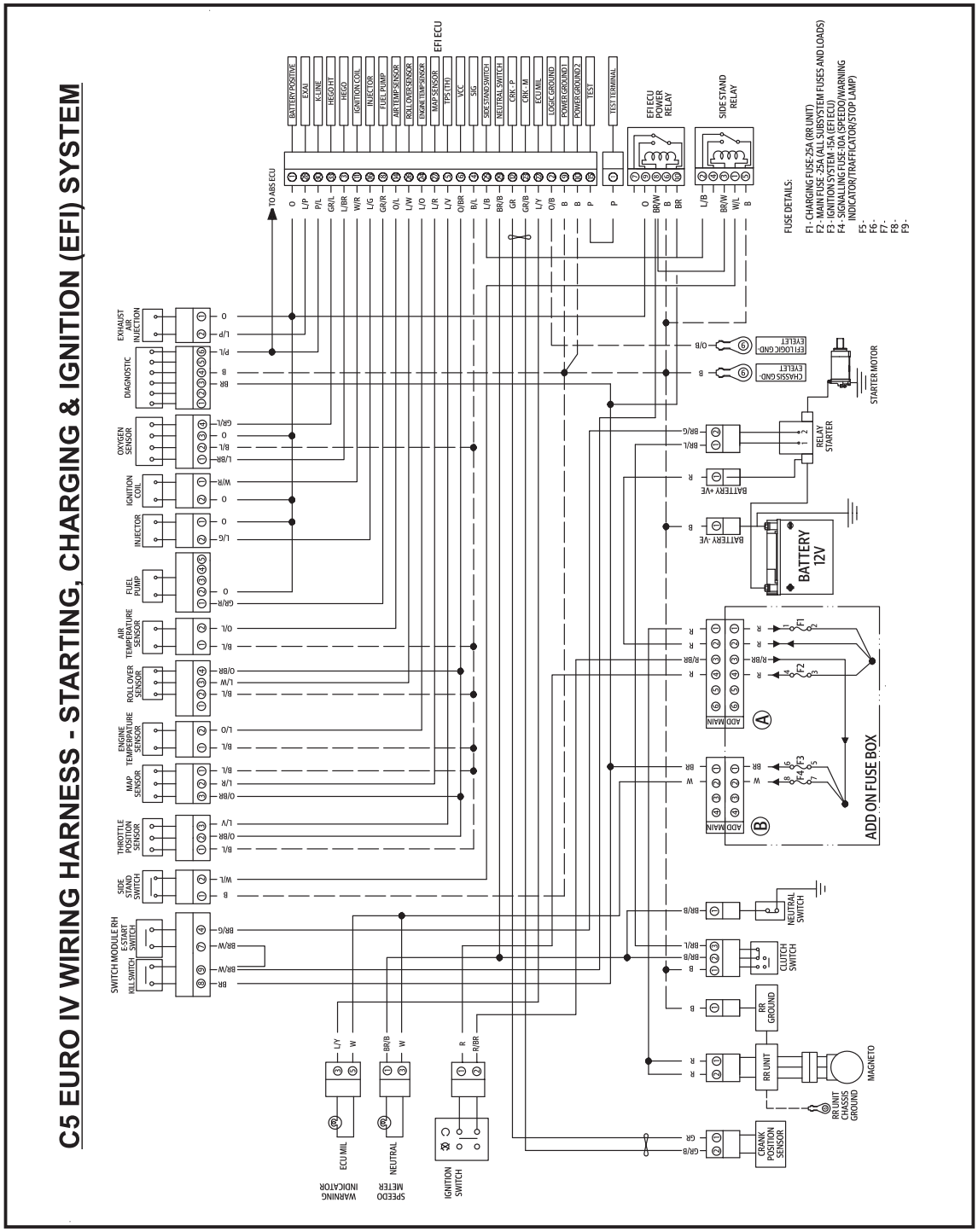
WIRING DIAGRAM

AUSTRALIA



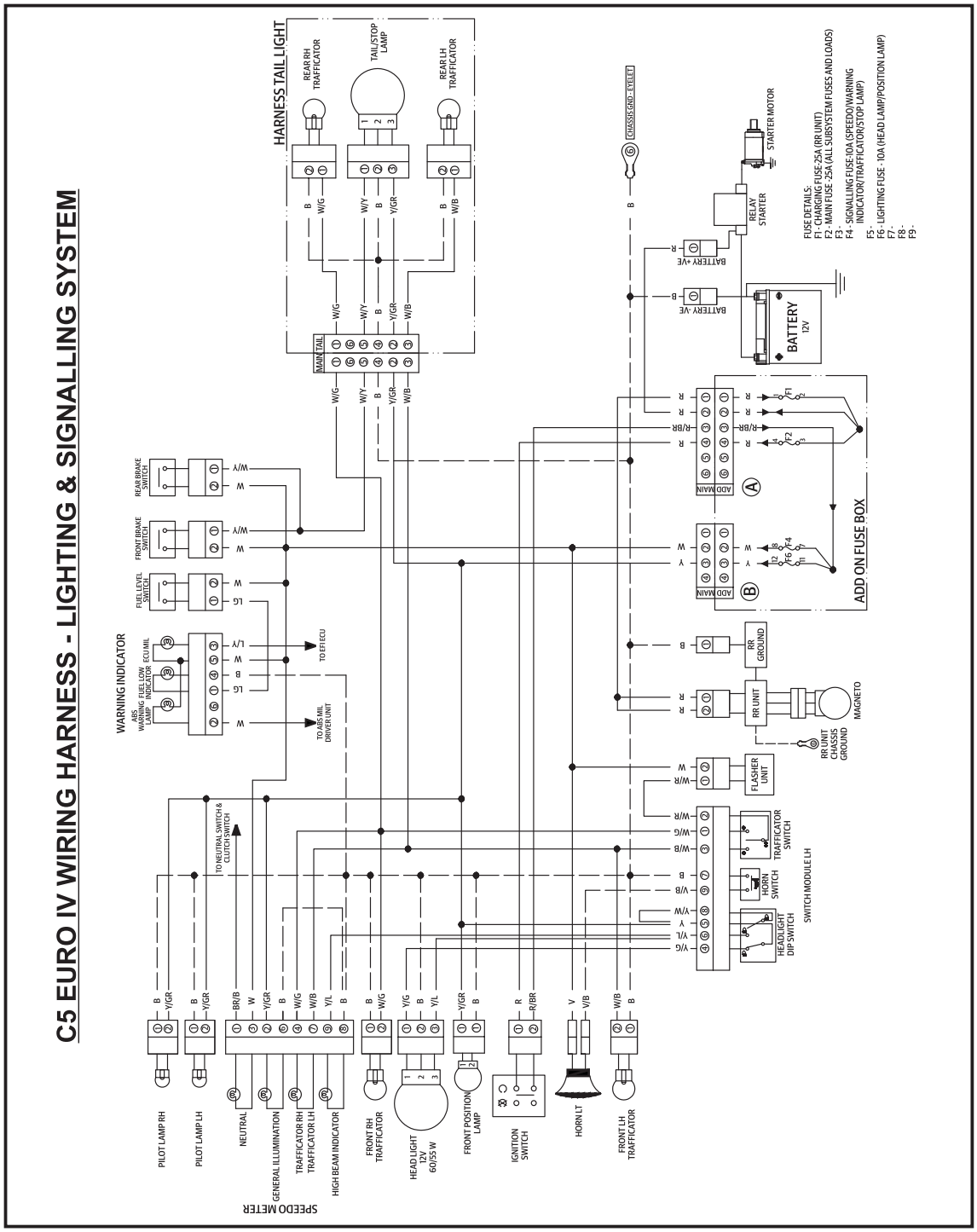
WIRING DIAGRAM

AUSTRALIA



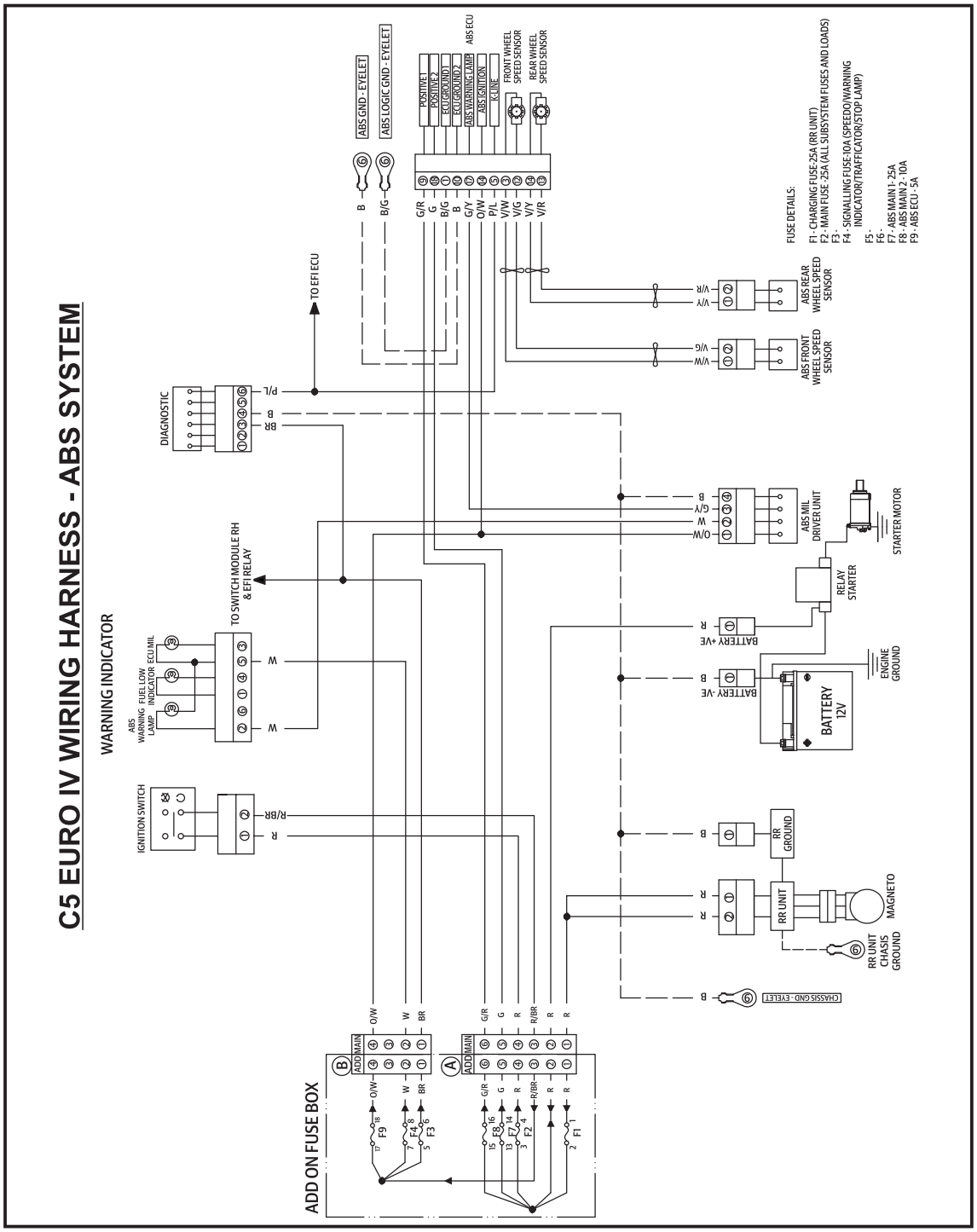
WIRING DIAGRAM

AUSTRALIA



WIRING DIAGRAM

AUSTRALIA



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 Authorized Dealer only. Improper repair and/or maintenance could result in the motorcycle not functioning properly, serious injury or death.

Causes	Remedies
I. Engine fails to start	
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
8) Engine Cranking but not starting	Check if gear is engaged and the side stand is down.
	If the ambient Temperature is low use Bistarter

* Contact Royal Enfield Authorized Dealer

Causes		Remedies
II. Engine misfiring		
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.
4) Engine Misfires & Runs erratically		Check if the MIL Lamp is glowing; If yes, Contact Authorized Service Center
III. Engine starts, but runs irregularly & stops		
1) Faulty fuel supply (fuel pump, filter blocked)	*	Remove fuel pump & clean.
2) Engine Starts but shuts of immediately		Check if the MIL Lamp is glowing; If yes, Contact Authorized Service Center
IV. Poor pickup		
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

* Contact Royal Enfield Authorized Dealer

	Causes		Remedies
4)	Brakes adjusted too tight	*	Re-adjust properly
5)	Rear chain adjusted too tight	*	Re-adjust properly
6)	Clutch Slipping	*	Adjust clutch cable free play
7)	Under inflated tyres		Inflate to correct pressure
8)	Poor pickup		Check if the MIL Lamp is glowing; If yes, Contact Authorized Service Center
V. White/blue smoke			
	Oil level in tank above the Top line in the oil level window		Check and drain excess oil
VI. Engine overheating			
1)	Cylinder fins not clean		Clean the cylinder fins at regular intervals
2)	Clutch slipping	*	Check and correct
VII. Excessive fuel consumption			
1)	Fuel leakage	*	Check and rectify
2)	Choked air filter		Clean / Replace
3)	Under inflated tyres		Inflate to correct pressure

* Contact Royal Enfield Authorized Dealer

Causes		Remedies
VIII. Brakes poor		
1) Oil/grease on brake pads/disc		Check & Correct
2) Brake Fluid leaking/Air in brake system		Check & Correct, Bleed Brake System
3) Linings worn / Uneven wear		Replace linings
4) Brake Pads / Disc Uneven wear		Check & replace
IX. Motorcycle wobbles		
1) Wheel rim runout	*	Rectify
2) Loose / Broken spokes	*	Tighten / Replace spokes
3) Tyres not fitted correctly	*	Refit tyres correctly
4) Wheels misaligned	*	Ensure proper alignment
5) Under inflated tyres		Inflate to correct pressure
X. Electricals		
Bulbs do not light		
1) Loose / improper connection	*	Check and correct
2) Bulb fused	*	Replace bulb
3) Fuse blown	*	Check and Replace fuse

* Contact Royal Enfield Authorized Dealer

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

* Contact Royal Enfield Authorized Dealer

WARRANTY

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

1. Warranty shall be in force until the expiry of a period of 2 years 20,000 Kms. from the first date of sale to the first customer and to any subsequent owners for the balance of the remaining period, until expiry of 24 months from the date of first sale/ registration of the motorcycle.
2. In order to effect Warranty, it is a prerequisite that the maintenance schedule prescribed by Royal Enfield in this Owner's manual and warranty repairs if any, has been carried out at the Authorized Distributor's service facility OR at their Authorized dealership's service facility.
3. Record of all the regular services and periodical maintenance that have been carried out, along with proof of service history will be required to be verified by the Authorized Distributor's service facility OR their Authorized dealership's service facility, prior to carrying out a warranty service.
4. Proof of Ownership, in the form of Sales Registration OR Proof of Purchase documentation of the motorcycle, clearly mentioning the Engine & VIN numbers, must be provided to the Distributor's service facility OR their Authorized dealership's service facility.
5. During the warranty period, Royal Enfield's obligation is limited to repair or replacing free of charge, such part or parts of the motorcycle, which in examination shall be deemed defective in the opinion of Royal enfield and/or their distributors/ authorized dealers. Such defective part/s, which has been replaced, shall become the property of Royal Enfield.
6. Cost of Consumables like fuel, Oils etc, Labour, Shipping charges of replacement parts for any warranty replacement are chargeable to the customer.
7. Warranty is not applicable for the following parts:
   - Normal ageing of parts like rubber parts, tyres & 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.

8. 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 unauthorized repairs carried out in any part of the motorcycle
   - 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 unauthorized 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.
9. Royal Enfield reserves the right to finally decide on all warranty claims
10. Royal Enfield reserves the right to make changes in the motorcycle without any obligation to install these changes on previously sold motorcycles.
11. Royal Enfield authorized 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.
12. 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.
13. To the fullest extent allowed by law, Royal Enfield and its authorized distributors and/or dealers shall not be liable for loss of use, inconvenience, loss of time, commercial losses or other incidental or consequential damages.

EVAPORATIVE EMISSION CONTROL SYSTEM WARRANTY

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 European Union 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 European Union for a period of **24 Months 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.

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 AUTHORIZED ROYAL ENFIELD SERVICE DEALER AND USING ONLY GENUINE ROYAL ENFIELD SPARE PARTS.

SERVICE MAINTENANCE RECORD

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

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

NOTES



ROYAL ENFIELD

Part No. 586246/A

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