2013 EBR OWNERS MANUAL

EBR 1190RS MODEL

Part Number C1000.2B6

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 death or serious injury.

⚠ CAUTION

CAUTION Indicates a potentially dangerous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

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

EBR MOTORCYCLES ARE FOR ON-ROAD USE ONLY

This motorcycle is not equipped with a spark arrester and is configured only to be ridden on the road. Off-road usage in certain areas could be illegal. Please obey local laws and regulations.

NOTE Refers to important information and is placed in Italic type font. Please take special notice of these items.

YOUR OWNER'S MANUAL

Dear new EBR Owner,

Welcome to the American sport motorcycle: EBR! Your motorcycle is the result of years of racing and design knowledge of a dedicated team of sport motorcycling enthusiasts who are also highly trained engineers and technicians. Careful consideration has been given to the form and function of your bike, to bring you an unparalleled riding experience. The unique styling, first rate handling, and exciting community delivered to you by EBR will redefine the way you think about motorcycle riding.

Please read through this manual carefully and thoroughly, and consider the Notes emphasized by the EBR Staff. Take care of yourself and your EBR motorcycle in all the ways detailed in this manual, and the thrill of the road will stretch before you.

Our goal is to delight you with your EBR ownership and riding experience, and to offer you the bike that can bring you an adventure unlike any other.

Best of roads ahead to you,
Erik Buell

Your Owner's Manual contains instructions for the safe operation and minor maintenance required to keep your EBR motorcycle at peak performance. More serious repairs are covered in detail in a separate EBR Service Manual. Such major repairs require the attention of a skilled technician and the use of special tools and equipment. Your EBR dealer has the facilities, experience and genuine EBR parts necessary to properly render this valuable service.

It is recommended that any emission system maintenance be performed by an authorized EBR dealer. Your EBR motorcycle conforms to all applicable U.S. Federal Motor Vehicle Safety Standards and U.S. Environmental Protection Agency regulations effective on the date of manufacture.

When enjoying your EBR motorcycle, be sure to ride safely, defensively and within the limits of the law. Ride with your headlamp to increase your visibility, always wear a helmet, and make sure you have on proper eyewear and protective clothing. Never ride while under the influence of alcohol or drugs.

CUSTOMER SERVICE ASSISTANCE

The majority of all sales or service issues will be resolved at the dealership. However if an issue arises that your dealer cannot resolve, please follow the procedure below.

1. Discuss your problem with the appropriate personnel at the dealership in the Sales, Service or Parts area. If that proves unsuccessful, speak to the owner of the dealership or the general manager.

2. If you cannot resolve the issue with the dealership, you can contact the EBR Customer Service Department by calling 262-642-1627 or write to:

Attention: EBR Customer Service Department
EBR LLC.
2799 Buell Drive
East Troy, WI 53120 USA

For efficient service and support, please have the following information available to give to the Customer Service Representative:
* Your name, address and phone number.
* Motorcycle V.I.N. (Vehicle Identification Number) found on the vehicle registration or stamped on the steering head and on a label located on the motorcycle itself.
* Name and location of the dealership.
* Current mileage.
* Clear description of issue.

PERSONAL INFORMATION

Name: _____

Address: _____

Telephone: _____

Vehicle Identification Number:

_____

Ignition Key Number:

_____

Purchase Date:

_____

DEALER INFORMATION

Name: _____

Address: _____

Telephone: _____

Sales Contact:

_____

Service Contact:

_____

Parts Contact:

_____

This owner's manual illustrates and describes features that are standard or are available as extra cost options. Therefore, some of the equipment options shown in this publication may not be on your motorcycle. EBR reserves the right to change specifications, equipment or designs at any time without notice and without incurring obligation.

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SAFE OPERATING RULES: EBR 1190 MODELS

⚠ WARNING

Motorcycles operate, steer, handle and brake differently from other vehicles. Motorcycles are less visible to other drivers, and offer less crash protection than cars or trucks. Unskilled or improper use could result in loss of control, death or serious injury.

-Take a rider training course, and become familiar with the function and feel of your own motorcycle.

-Read Owner's Manual before riding, adding accessories or servicing.

-Always wear a helmet, eye protection and protective clothing.

-Never tow a trailer.

Before operating your new EBR, it is your responsibility to read and follow the operating and maintenance instructions in this manual. Follow these basic rules for your personal safety.

Know and respect the Rules of the Road. See SAFETY FIRST, Rules of the Road: EBR Models. You should also read and know the contents of the Motorcycle Handbook for your State.

Before starting the engine, check for proper operation of brake, clutch, shifter and throttle controls. Inspect fuel and oil supply.

Do not use aftermarket parts and custom made acces-

⚠ WARNING

Do not use aftermarket parts and custom made accessories which can adversely affect performance and handling. Removing or altering factory installed parts can adversely affect performance and could result in death or serious injury.

Use only EBR Approved parts and accessories. Use of certain “race only” or other manufacturers performance parts will void new motorcycle warranty. See an EBR Dealer for details.

WARNING

Avoid spills. Slowly remove filler cap. Do not fill above bottom of filler neck insert, leaving air space for fuel expansion. Secure filler cap after refueling. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury.

WARNING

Use care when refueling. Pressurized air in fuel tank can force gasoline to escape through filler tube. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury.

WARNING

Do not remove radiator filler cap when engine is hot. The cooling system is under pressure and hot coolant and steam can escape, which could cause severe burns. Allow engine to cool before servicing cooling system.

CAUTION

Cooling fans operate automatically, even when the ignition switch is off. Keep hands away from fan blades. Contact with a rotating fan blade can result in minor or moderate injury.

CAUTION

At operating temperature, the radiator and oil cooler contain hot fluids. Contact with the radiator or oil cooler can result in minor or moderate burns.

WARNING

Engine exhaust from this product contains chemicals known to the State of California to cause cancer, and birth defects or other reproductive harm.

WARNING

Wheel weights may contain lead and lead compounds, chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

⚠ WARNING

Do not run motorcycle in a closed garage or confined area. Inhaling motorcycle exhaust, which contains poisonous carbon monoxide gas, could result in death or serious injury.

See OPERATION, Break-in Riding Rules: EBR 1190RS. A new motorcycle must be operated according to the break-in procedure. Operate motorcycle only at moderate speed and out of traffic until you have become familiar with its operation and handling characteristics under all conditions.

NOTE

We recommend that you obtain information and formal training in the correct motorcycle riding technique. In the United States, the Motorcycle Safety Foundation® offers beginning and experienced rider safety courses. Call (949)727-3227 for information.

⚠ WARNING

Travel at speeds appropriate for road and conditions and never travel faster than posted speed limit. Excessive speed can cause loss of vehicle control, which could result in death or serious injury.

Know your limits as a rider. Do not exceed the legal speed limit or drive too fast for existing conditions. Always reduce speed when poor driving conditions exist and/or you feel the driving situation is uncomfortable. High speed increases the influence of any other condition affecting stability and increases the possibility of loss of control.

The 1190RS is not equipped with passenger accommodations. DO NOT carry a passenger.

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

1. Irregular pavement surfaces, such as holes, patches.

2. Wind blasts from passing vehicles.

3. Oil spills, gravel, etc. on road surface.

4. Inappropriate rider control input.

These forces may influence 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; this may aggravate an unstable condition.

NOTE

New riders should gain experience under various conditions while riding at moderate speeds. 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 left into the oncoming motorcyclist. Riding with headlamp high beam switch on during daylight hours will increase your chances of visibility. Wear a helmet, clothing, and foot gear suited for motorcycle riding. Bright or light colors are best for greater visibility in traffic, especially at night. Avoid loose, flowing garments and scarves.

⚠ WARNING

Avoid contact with exhaust system and wear protective clothing that completely covers legs while riding. Exhaust pipes and mufflers get very hot when engine is running and remain too hot to touch, even after engine is turned off. Failure to wear protective clothing could result in burns or other serious injury.

Do not allow others under any circumstances to operate your motorcycle unless you know they are experienced, licensed riders and are familiar with the operation of your particular motorcycle. Protect your motorcycle against theft. After parking your motorcycle, lock the steering head and remove ignition key from switch.

⚠ WARNING

Perform the service and maintenance operations as indicated in the regular service interval table. Lack of regular maintenance at the recommended intervals can affect the safe operation of your motorcycle, which could result in death or serious injury.

⚠ WARNING

Do not operate motorcycle with loose, worn or damaged steering or suspension systems. Contact an EBR dealer for repairs. Loose, worn or damaged steering or suspension components can adversely affect stability and handling, which could result in death or serious injury.

Be sure all equipment required by law is installed and in good operating condition.

⚠ WARNING

Use EBR replacement fasteners. Aftermarket fasteners can adversely affect performance, which could result in death or serious injury.

See an EBR service manual for proper torque values. Aftermarket fasteners may not have the specific property requirements to perform properly.

WARNING

Do not tow a disabled motorcycle. Towing can adversely affect stability and handling, which could result in death or serious injury.

WARNING

Match tires, air valves and caps to the correct wheel rim. Contact an EBR dealer. Mismatching can result in damage to the tire bead, allow tire slippage on the rim or cause tire failure, which could result in death or serious injury.

WARNING

Be sure tires are properly inflated, balanced and have adequate tread. Inspect your tires regularly and see an EBR dealer for replacements. Riding with excessively worn, unbalanced or under-inflated tires can adversely affect stability and handling, which could result in death or serious injury.

WARNING

Do not exceed the motorcycle's Gross Vehicle Weight Rating (GVWR) or Gross Axle Weight Rating (GAWR). Exceeding these weight ratings can affect stability and handling, which could result in death or serious injury.

- GVWR is the sum of the weight of the motorcycle, accessories, and the maximum weight of the rider, and cargo that can be safely carried.
- GAWR is the maximum amount of weight that can be safely carried on each axle.
- The GVWR and GAWR are shown on the information label, located on the frame steering head.

WARNING

Do not pull a trailer with a motorcycle. Pulling a trailer can cause tire overload, reduced braking efficiency and adversely affect stability and handling, which could result in death or serious injury.

WARNING

Regularly inspect shock absorbers and front forks. Replace leaking, damaged or worn parts that can adversely affect stability and handling, which could result in death or serious injury.

WARNING

Batteries, battery posts, terminals and related accessories contain lead and lead compounds, and other chemicals known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling.

WARNING

Observe warnings on labels of brake and battery fluids and cleaning compounds. Failure to follow warnings could result in death or serious injury.

WARNING

Consult an EBR dealer regarding any questions or problems that occur in the operation of your motorcycle. Failure to do so can aggravate an initial problem, cause costly repairs, cause an accident and could result in death or serious injury.

RULES OF THE ROAD

It is recommended that inexperienced riders complete the beginners Motorcycle Rider Course® sponsored by the Motorcycle Safety Foundation®. Important tips about riding are listed below.

-Always sound your horn but do not rely on it to be your only defense against other riders or drivers of automobiles and trucks.

-Never try to pass another vehicle going in the same direction at street intersections, on curves, or when going up or down a hill.

-When you are at street intersections, give the right-of-way to vehicles according to local regulations. Do not assume you have the right-of-way; the other driver may not know that it is your turn.

-Always use your signals when preparing to pass a vehicle, change lanes, turn or stop.

-All traffic signs, including those used for the control of traffic at intersections, should be obeyed promptly.

-SLOW DOWN signs near schools and caution signs at railroad crossings should always be observed and your actions governed accordingly.

-When intending to turn, signal at least 100 ft (30 m) before reaching the turning point. When turning across an intersection, move over to the centerline of the street (unless road is oily, icy, wet or under construction).

-Watch for debris such as leaves or loose gravel. Weather and traffic conditions on the highway dictate adjusting your speed and driving habits accordingly.

-Never run through a yellow or red traffic light. When a change is indicated, slow down and wait for the light to change.

RULES OF THE ROAD

- While turning either right or left, watch for pedestrians and animals; as well as vehicles.

-Do not leave the curb or parking area without signaling and being sure that your way is clear to enter moving traffic.

- Moving lines of traffic have the right-of-way.

- Be sure that your license plate is installed in the position specified by law and that it is clearly visible at all times. Keeping the plate clean will improve visibility of the motorcycle to other motorists (especially at night).

⚠ WARNING

Travel at speeds appropriate for road and conditions and never travel faster than posted speed limit. Excessive speed can cause loss of vehicle control, which could result in death or serious injury.

⚠ WARNING

Operating this motorcycle in a reckless manner, including performing wheelies, stoppies or burnouts, can lead to parts failure or loss of control, which could result in death or serious injury.

⚠ WARNING

Improper loading of cargo or installation of accessories can affect motorcycle stability and handling, which could result in death or serious injury.

EBR cannot test and make specific recommendations regarding every accessory or combination of accessories sold, the rider must assume responsibility for safe operation of the motorcycle when installing accessories or carrying additional weight. Use the following guidelines when equipping a motorcycle, or carrying cargo.

⚠ WARNING

Do not exceed the motorcycle's Gross Vehicle Weight Rating (GVWR) or Gross Axle Weight Rating (GAWR). Exceeding these weight ratings can affect stability and handling, which could result in death or serious injury.

-The Gross Vehicle Weight Rating (GVWR) and Gross Axle Weight Rating (GAWR) are shown on the information label located on the frame steering head. GVWR is the sum of the weight of the motorcycle and accessories and the maximum weight of the rider and cargo that may be carried safely. Do not pull a trailer with this motorcycle. GAWR is the amount of weight that can on each axle safely. Do not exceed the GVWR or GAWR as indicated on the frame label.

-Keep cargo weight concentrated close to the motorcycle as low as possible to minimize the change in the motorcycle's center of gravity. Distribute weight evenly on both sides of the vehicle and do not load bulky items too far behind the rider, or add weight to the handlebars or front forks.

Be sure cargo is secure and will not shift while riding. Periodically recheck load.

Accessories that change the operator's riding position can increase reaction time and adversely affect handling. Only use such items if they are designed and approved by EBR, built specifically for your motorcycle and installed properly.

Additional electrical equipment can overload the motorcycle's electrical system and cause an unsafe operating condition.

Large surfaces, such as fairings, windshields, backrests and luggage racks, can affect handling. These items should be designed and approved by EBR specifically for the motorcycle model and properly installed.

WARNING

EBR motorcycles are not designed for sidecar use. Sidecar use with an EBR can adversely affect handling and reduce braking efficiency, which could result in death or serious injury.

WARNING

Travel at speeds appropriate for road and conditions and never travel faster than posted speed limit. Excessive speed can cause loss of vehicle control, which could result in death or serious injury.

WARNING

Do not use aftermarket parts which can adversely affect performance and handling. Removing or altering factory installed parts can adversely affect performance and could result in death or serious injury.

WARNING

Keep tail lamp visible at all times. Do not place objects on license plate bracket blocking tail lamp visibility. Low visibility of rider can result in death or serious injury.

VEHICLE IDENTIFICATION NUMBER: EBR 1190RS MODELS

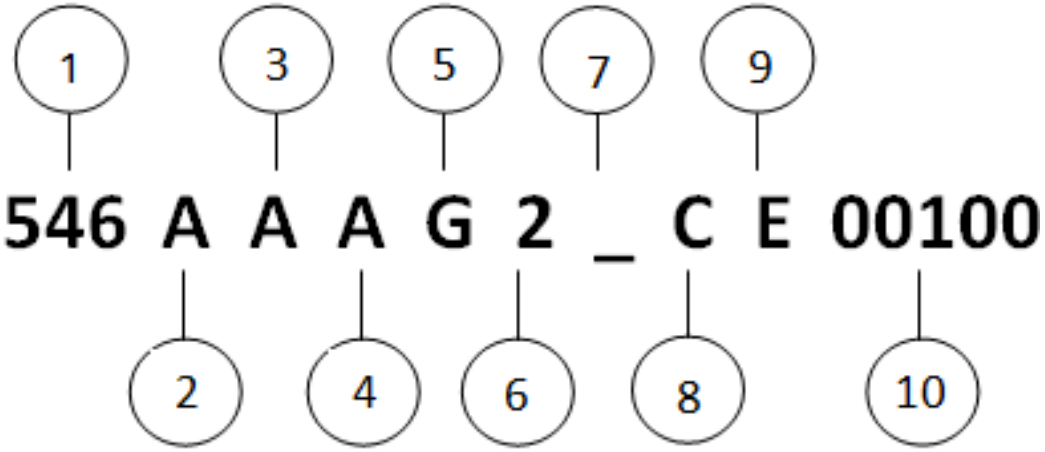


Table 1. EBR V.I.N. Breakdown: 2013 Models

POSITION	DESCRIPTION	POSSIBLE VALUES
1	WMI Code	Erik Buell Racing, LLC vehicle originally manufactured in the United States
2	Motorcycle Type	A = Superbike
3	Body Type	A = Full-faired
4	Market	A = USA B = Europe C = Japan D = Canada
5	Net Brake Horse Power	A = 25-50 HP B = 51 -75 HP C = 76 -100 HP D = 101 - 150 HP F = 151 - 175 HP G = 176 -200 HP

Table 1. EBR V.I.N. Breakdown: 2013 Models

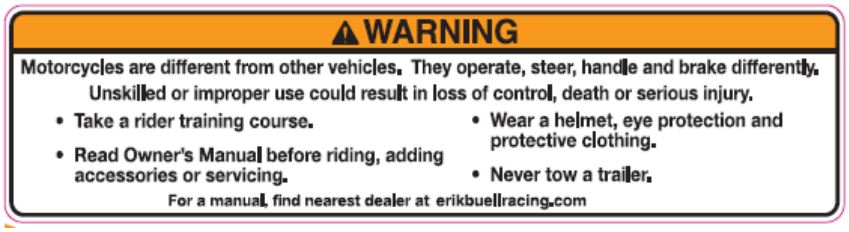
POSITION	DESCRIPTION	POSSIBLE VALUES
6	Engine Type	2 = 2 cylinder
7	Check Digit	Must calculate for each VIN
8	Model Year	C = 2012 D = 2013
9	Plant Location	E = East Troy
10	Sequential Production Number	000001 000002 000003 Etc.

NOTES:

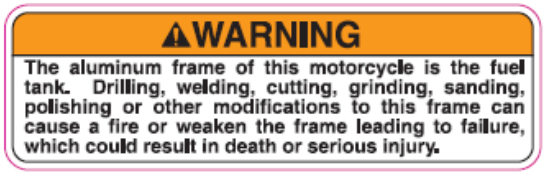
LABELS: EBR MODELS.

See figure 2 for safety and maintenance labels which were on the vehicle when new. If removed, replacement labels may be purchased for your motorcycle. Refer to Table 2 for label descriptions.

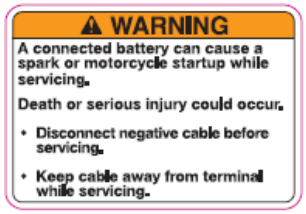
Figure 2. Labels: EBR 1190 RS Models (Part Number C0178.1B6)



General Warning label

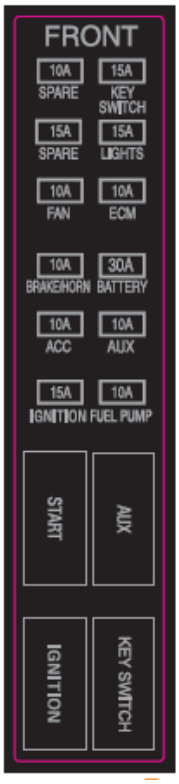


Frame Modification Warning label



Battery Warning label

Fuse and Relay label



SPECIFICATIONS: 2013 EBR 1190RS MODELS

Item	Specification	
Cylinders	2	
Type	72 Degree V-Twin, Liquid Cooled, Four-stroke	
Bore	4.173 in.	106.00 mm
Stroke	2.658 in.	67.50 mm
Displacement	72.6 cu. In.	1190 cc
Compression Ratio	13.6:1	
Valve Train	DOHC, four valves per cylinder	
Fuel Delivery	Electronic Fuel Injection	
Torque	97 ft-lbs @ 9500 RPM	131.5 Nm @ 9500 RPM
Lubrication	Dry sump, reservoir integrated in the engine	
Battery	Li-Ion, 12 volt, 6 amp/hr, 300 CCA	
Spark Plugs	NGK CR9EKB	
Size	10 mm	
Gap	0.032 in.	0.81 mm
Torque	7 - 9 ft-lbs	10 - 12 Nm

NOTE: Specifications in this document may not match those of official certification in some markets due to timing of this documents publication and printing, variance in testing methods, and/or vehicle differences. Customers seeking officially recognized regulatory specifications for their vehicle should refer to certification documents and/or contact their respective dealer or distributor.

Table 5. Drivetrain

Item	Specification
Transmission	6-speed
Clutch	Hydraulic actuation, Slipper Action
Front Sprocket	Compensated
Final Drive	Chain

Table 6. Cooling System

Item	Specification	
Cooling System	Liquid cooled with integrated water pump, thermostat controlled bypass	
Coolant	Ethylene glycol, 50/50 mixture	
Normal operating temperature	140 - 220 F	60 - 104 C
Over temperature threshold (lamp lit)	230 F	110 C

Table 7. Liquid Capacities

Item	US.	Liters
Fuel Tank Total (including reserve)	4.5 Gal.	17.1
Reserve (low) Fuel Lamp	0.8 Gal.	3
Engine Oil with oil filter	3.3 Qt.	3.1
Engine oil without oil filter	3.0 Qt.	2.8
Coolant	2.43 Qt.	2.3

Table 8. Sprocket teeth

Drive	Item	Number of teeth
Primary	Engine	36
	Clutch	65
Final	Front Sproket	16
	Rear Sprocket	41
	Chain (Links)	114

Table 9: Transmission Gear Ratios

Gear	Ratio
First	2.462
Second	1.750
Third	1.381
Fourth	1.174
Fifth	1.042
Sixth	0.960

Table 10. Bulb Chart

Bulbs		Bulbs Required	WATTS	AMPS	Part Number
Headlamps	Low beam	1	55	4.58	Y0425.1B6/H3
	High Beam	1	55	4.58	Y0425.1B6/H3
	Running Lamp (not USA)	1	5	0.37	Y0426.1B6
Marker Lamps	Tail Stop Lamp	LED Assembly. Replace entire assembly upon failure.			
	License Plate lamp	LED Assembly. Replace entire assembly upon failure.			
	Front Turn Lamps	LED Assembly. Replace entire assembly upon failure.			
	Rear Turn lamps	2	10	0.74	Y0042.7AA
Instrument Cluster	LED Assembly. Replace entire assembly upon failure.				

Table 11. Tires

Tire	Type	Solo Riding		Loaded GVWR	
		PSI	kPa	PSI	kPa
Front	Pirelli Super Corsa SP V2 120/70 ZR-17	34	234	34	234
Rear	Pirelli Super Corsa SP V2 190/55 ZR-17	36	248	36	248

Table 12. Dimensions

Item (Without Rider)	in.	mm
Overall Length	82	2083
Overall Width	28.5	724
Overall Height	42.4	1077
Wheel Base	55.4	1407
Seat height	33.125	841
Ground Clearance	4.6	117
Trail	3.78	96
Rake	22.3°	

Table 13. Weights

Item (Without Rider)	lb.	Kg
Weight (Full of fuel)	417	190
Load Capacity	325	147
GVWR	742	337
GAWR Front	375	170
GAWR Rear	403	183

TIRE DATA: EBR MODELS

WARNING

Match tires, air valves and caps to the correct wheel \rim. Contact an EBR dealer. Mismatching can result in damage to the tire bead, allow tire slippage on the rim or cause tire failure, which could result in death or serious injury.

WARNING

Use only EBR approved tires. See an EBR dealer. Using non-approved tires can adversely affect stability, which could result in death or serious injury.

- Tubeless tires are used on all EBR cast wheels. Tire sizes are molded on the tire sidewall.
- Use only recommended tires (the same as original equipment). Other tires may not fit correctly, could adversely affect handling, and may be hazardous to use.

NOTE: Refer to Table 11. Always check tire pressure before riding. Tire pressures are listed with tires cold.

GASOLINE BLENDS: EBR

Your EBR motorcycle was designed to get the optimal performance and efficiency using unleaded gasoline. Most gasoline sold is blended with alcohol and/ or ether, to create "oxygenated" blends. The type and amount of alcohol or ether added to the fuel is important to consider.

CAUTION

Do not use gasoline that contains methanol. Doing so can result in fuel system component failure, engine damage and/or equipment malfunction.

- Gasoline containing METHYL TERTIARY BUTYL ETHER (MTBE): Gasoline/MTBE blends are a mixture of gasoline and as much as 15% MTBE. Gasoline/MTBE blends can be used in your motorcycle.

- ETHANOL is a mixture of 10% ethanol (Grain Alcohol) and 90% unleaded gasoline. Gasoline/ethanol blends can be used in your motorcycle if the ethanol does not exceed 10%

- REFORMULATED OR (RFG): "Reformulated gasoline" is a term used to describe gasoline blends that are specifically designed to burn cleaner than other types of gasoline, leaving fewer "tailpipe" emissions. They are also formulated to evaporate less when you are filling your tank. Reformulated gasoline uses additives to "oxygenate" the gas. Your motorcycle will run normally using this type of gas and EBR recommends you use it when possible, as an environmentally friendly alternative to regular unleaded gasoline.

- Do not use race gas or octane boosters. Use of these fuels will damage the fuel system.

You may find that some gasoline blends adversely affect the starting, drivability or fuel efficiency of your bike. If you experience one or more of these problems, we recommend you try a different brand of gasoline or higher octane rating.

FUEL: Refer to Table 14. Always use a good quality unleaded gasoline. Octane ratings are usually found on the pump.

⚠ WARNING

Avoid spills. Slowly remove filler cap. Do not fill above bottom of filler neck insert, leaving air space for fuel expansion. Secure filler cap after refueling. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury.

⚠ WARNING

Use care when refueling. Pressurized air in fuel tank can force gasoline to escape through filler tube. Gasoline is extremely flammable and highly explosive, and a serious refueling accident could result in death or serious injury.

Modern service station pumps dispense a high flow of gasoline into a motorcycle fuel tank making air entrapment and pressurization a possibility.

Table 14. Octane Ratings

SPECIFICATION (R+M)/2	RATING
Pump Octane	91 (95 RON)

CATALYTIC CONVERTERS

This motorcycle is equipped with dual catalytic converters.

CAUTION

Do not operate catalytic converter-equipped vehicle with engine misfire. If you operate the vehicle under this condition, the exhaust will become abnormally hot, which can cause vehicle damage, including emission control loss.

CAUTION

Use only unleaded fuel in catalytic converter-equipped motorcycles. Using leaded fuel will damage the emission control system.

GENERAL: CONTROLS AND INDICATORS

WARNING

Read the CONTROLS AND INDICATORS section before riding your motorcycle. Failure to understand the operation of the motorcycle could result in death or serious injury.

Some features explained in this section are standard equipment on this model. Other features may be available as accessories for your EBR motorcycle. See an EBR dealer for a complete list of accessories that will fit your specific motorcycle.

IGNITION/HEADLAMP KEY SWITCH: EBR 1190RS

WARNING

The automatic-on headlamp feature provides increased visibility of the rider to other motorists. Be sure headlamp is on at all times. Poor visibility of rider to other motorists can result in death or serious injury.

The ignition/headlamp key switch controls the distribution of power to the ignition and lamps.

The key can be removed when the key switch is in the OFF, LOCK or PARKING LAMP position. The key cannot be removed while in the ON position.

The headlamps illuminate when the ignition/headlamp key switch is ON. The tail lamp and running lamps are lit when the ignition/headlamp key switch is in the ON or PARKING LAMP position.

NOTES

- If you leave the key in the ON or PARKING LAMP position for an extended length of time while parked, the lamps will eventually discharge the battery.
- Record your key number in the space provided at the front of this Owner's Manual. The key number is pressed on a plastic tab that comes with the keys.

Turning Motorcycle On/Off

1. See Figure 3. Turn the key clockwise to the ON position.
2. See Figure 7. Check the operation of the Instrument Cluster.

A. The Instrument Cluster will sweep the tachometer and calibrate at zero RPM.

B. The Instrument Cluster will perform a bulb check. All indicator lamps and warning lamps will illuminate briefly. Check that all lamps are lit.

C. The LCD screen will illuminate and display the time, odometer (in its last selected mode before key off), digital speedometer, and an introductory text message.

NOTES

-The check engine lamp may remain lit for up to four seconds longer than other lamps. If the check engine lamp remains on longer, refer to CONTROLS AND INDICATORS, Warning Lamps for more information.

3. See Figure 3. Turn the key counterclockwise to the OFF position to shut the motorcycle off.

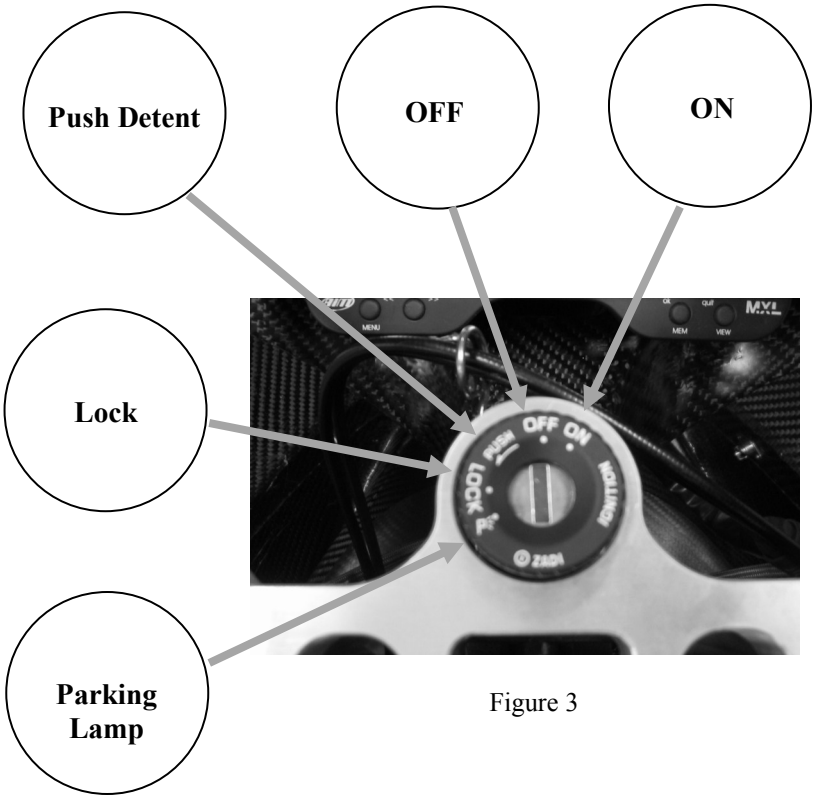


Figure 3

Parking the Motorcycle

Lamps can be turned on to increase the motorcycle's visibility to other motorists while parked.

See Figure 3. When the ignition switch is in the PARKING LAMP position, the running lamps, tail lamps, and instrument cluster are illuminated. The front and rear turn signals can also be activated.

1. Turn handlebars full left.
2. Turn the key counterclockwise to the PARKING LAMP position to turn on the parking lamps. Key may be removed.

Locking Steering Head

Instructions on locking the steering head.

1. Turn the handlebars full left
2. Turn the key counterclockwise to the LOCK position. Key may be removed.

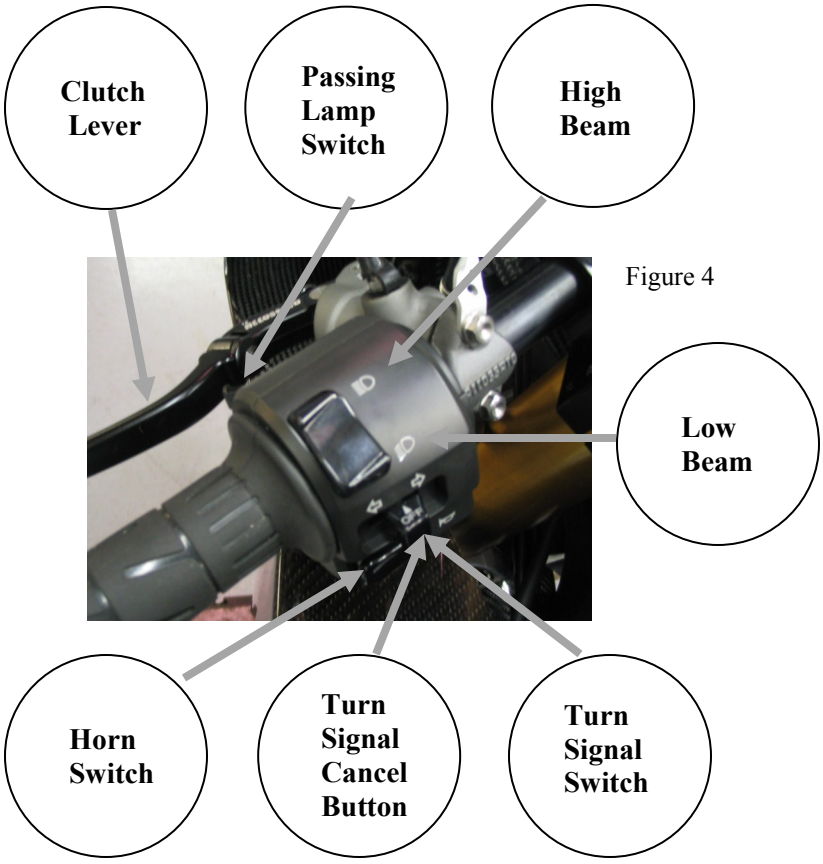


Figure 4

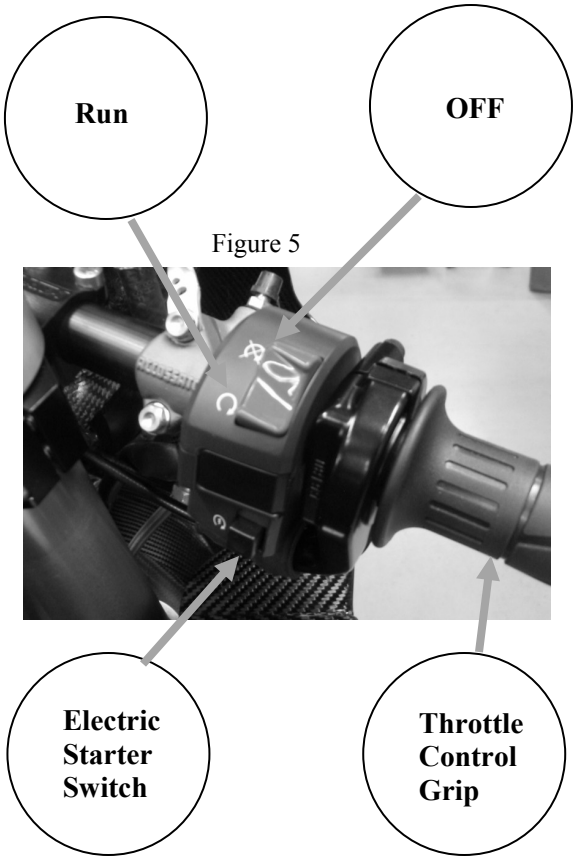


Figure 5

Electric Starter Switch

See Figure 5. The electric starter switch is located on the right hand controls. Pushing in the electric starter switch engages the electric starter and starts the engine if ignition power is ON. See OPERATION, Starting the Engine: EBR 1190RS for operation procedures.

Engine OFF/RUN Switch

See Figure 5. The engine OFF/RUN switch turns the ignition power on or off. The engine OFF/RUN switch is located on the right hand controls. Push the top portion of the engine OFF/RUN switch to turn off ignition power and shut the engine off. Push the bottom portion of the engine OFF/RUN switch to turn on ignition power.

NOTES

-The Engine OFF/RUN switch must be in the RUN position to start or operate the engine.

-The Engine OFF/RUN switch should be used to shut the engine off.

1. To shut the engine off, push the top of the OFF/RUN switch to the ignition OFF position.
2. See Figure 3. Turn the ignition/headlamp key switch counterclockwise to the OFF position to turn the ignition power completely off.

Throttle Control Grip

See Figure 5. The throttle control grip is located on the right handlebar and is operated with the right hand.

1. Turn throttle control grip clockwise (toward the front of the vehicle) to close the throttle and decelerate.
2. Turn the throttle control grip counterclockwise (toward the rear of the vehicle) to open the throttle and accelerate.

Clutch Hand Lever

WARNING

Do not position fingers between the hand control lever and the handlebar grip. Improper hand positioning can impair control lever operation and cause loss of vehicle control, which could result in death or serious injury.

See Figure 4. the clutch hand lever is located on the left handlebar and is operated with the fingers of the left hand.

1. Slowly pull clutch hand lever in against the handlebar grip to fully disengage the clutch.
2. Shift to first gear using the gear shift lever. See CONTROLS AND INDICATORS, Gear Shift Lever.
3. Slowly release the clutch hand lever to engage clutch.

Horn Switch

See Figure 4. The horn is operated by pushing on the horn switch located on the left hand controls.

Headlamp High/Low Beam Switch

The headlamp high/low beam switch is located on the left hand controls. The switch has two positions to activate the headlamps high or low beams.

- See Figure 4. Press the top of the headlamp high/low beam switch to activate the high beam.

- Press the bottom of the headlamp high/low beam switch to return to low beam.

See Figure 6. The (blue) high beam indicator lamp will illuminate when the high beam is on.

Passing Lamp Switch

See Figure 4. The passing lamp switch is located on the front of the left hand controls. Pressing the switch when the headlamp dimmer switch is set to low beam will momentarily flash the high beam headlamp.

Turn Signal Switch

See Figure 4. The left/right turn signal switch is located on the left hand controls and activates the front and rear turn signal flashers.

- Push the turn signal switch to the right to activate the right front and rear turn signal flashers.
- Push the turn signal switch to the left to activate the left front and rear turn signal flashers.
- Press the turn signal switch button manually to cancel the turn signal.

NOTE

If signaling to turn in one direction and the switch is depressed towards the opposite direction, the first signal is cancelled and the opposite side begins flashing.

See Figure 6. The green left or right turn signal indicator will flash when the turn signals are in use.

INSTRUMENT CLUSTER

LCD Screen

See Figure 6. The LCD Screen displays a digital speedometer, odometer, clock, and text messages. The LCD screen is illuminated when the ignition key switch is in the ON or PARKED position. See CONTROLS AND INDICATORS, LCD Screen.

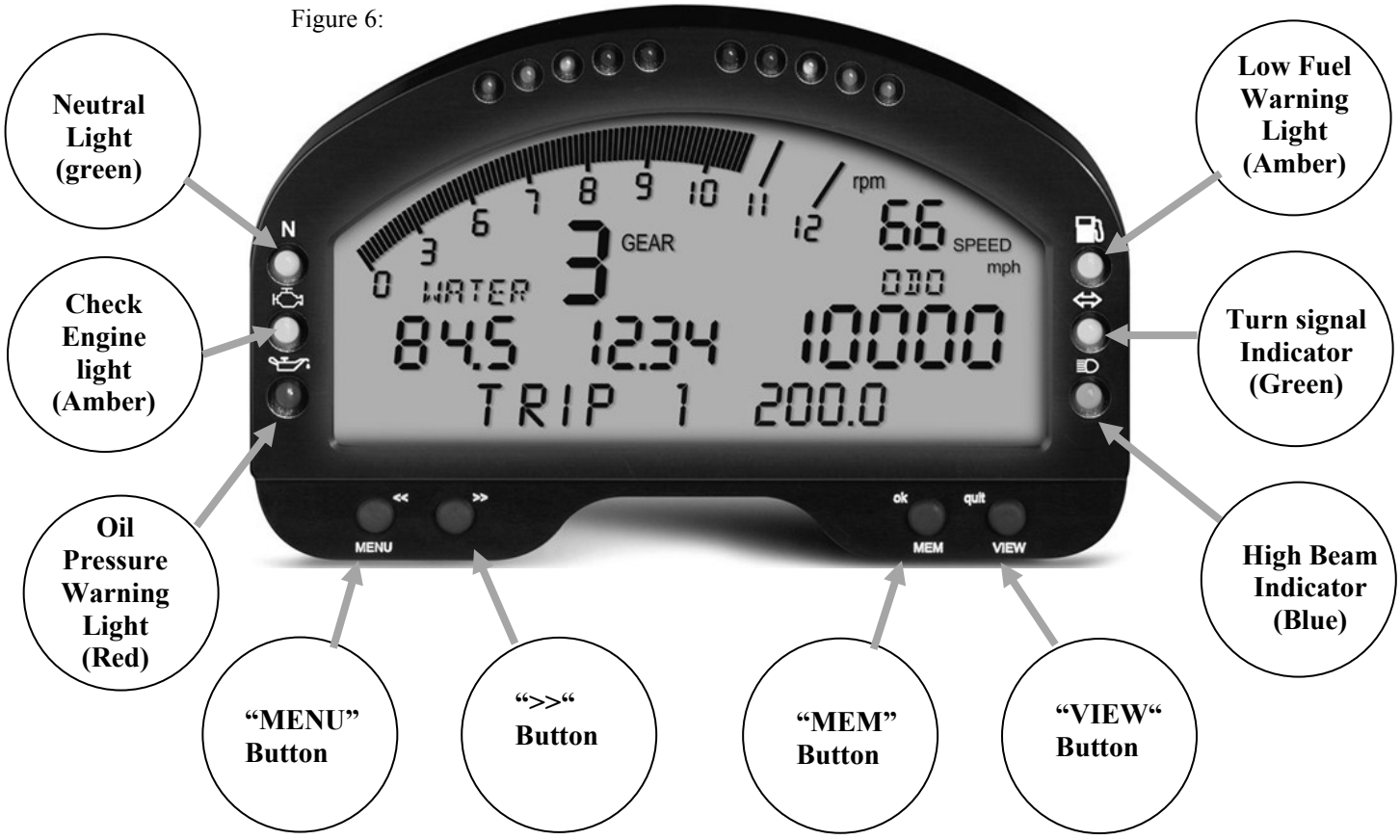
Tachometer

CAUTION

See OPERATING RECOMMENDATIONS section. Do not operate the engine above maximum safe RPM as shown under OPERATION . Lower the RPM by up shifting to a higher gear or reducing the amount of throttle. Failure to lower RPM may cause equipment damage.

The tachometer displays engine speed in revolutions per minute (RPM x 1000). As the tachometer approaches the redline, the LEDs at the top of the Instrument Cluster light from green to yellow to red as RPM is increased.

Figure 6:


Neutral Light (green)
Check Engine light (Amber)
Oil Pressure Warning Light (Red)
Low Fuel Warning Light (Amber)
Turn signal Indicator (Green)
High Beam Indicator (Blue)
"MENU" Button
">>" Button
"MEM" Button
"VIEW" Button
N
rpm
GEAR
SPEED
mph
ODO
WATER
TRIP 1
MENU
MEM
VIEW
ok
quit

Menu Button

The MENU button is used to configure the information shown on the instrument cluster. With the engine running, press the "**MENU**" button to scroll through the following screens::

- Backlight ON/OFF
- 12/24 hour clock setting
- Clear Service Counter
- Units - F/C/Miles/KPH/Imperial
- Diagnostics—Historic codes plus live data
- Clear Lap Data

See Figure 6. Press the "MENU" button to scroll through the list of screens. Then press the ">>" button to find the setting you prefer. Store the selection by pressing the "MEM" button.

>> Button

The **">>"** button is used to select the information being displayed on the bottom row of the LCD screen. With the engine running, press the ">>" button to scroll through the following screens:

- Trip 1
- Trip 2
- Miles to Service
- Lap Mode
- *Low Fuel Trip* ***(If low fuel condition exists)***
- ***Warning Message (If Warning Message exists)***

See Figure 6. Press the ">>" button to scroll to the information you want to display. The selected display will resume after a key off/key on cycle.

View button

The VIEW button is used to select the information being displayed on the right side/center of the LCD screen. With the engine running, press the “VIEW” button to scroll through the following screens:

- Main odometer
- RPM
- Battery voltage
- Lap time

See Figure 6. Press the “VIEW“ button to scroll to the information you want to display. The selected display will resume after a key off/key on cycle.

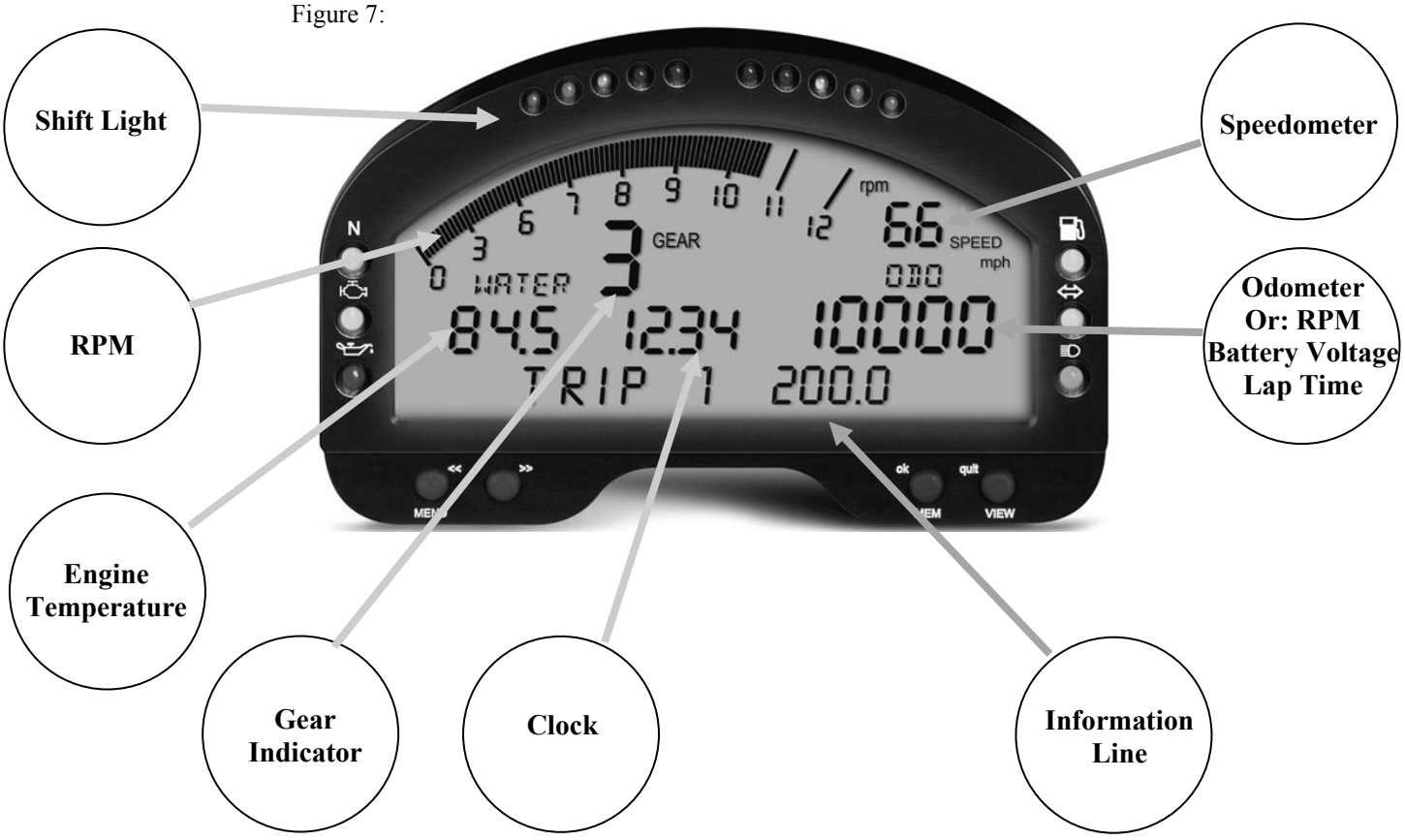
Indicator Lamps

See Figure 6. Three indicator lamps are located along the edges of the instrument cluster.

Warning Lamps

See Figure 6. Three warning lamps are located along the edge of the instrument cluster. These lamps indicate vehicle conditions that require attention.

Figure 7:


Shift Light
RPM
Engine Temperature
Gear Indicator
Clock
Information Line
Speedometer
Odometer Or: RPM Battery Voltage Lap Time
rpm
GEAR
SPEED
mph
WATER
ODO
TRIP 1
N
MEM
VIEW
ok
quit

LCD SCREEN

Digital Speedometer
See Figure 7. The digital speedometer displays the vehicle forward speed in miles per hour (mph) or kilometers per hour (km/h).
Odometer
The odometer measures the cumulative number of miles (mi) or kilometers (km) traveled since the vehicle was manufactured.
Clock
The clock displays the current time.
Information Line
The message area along the bottom of the LCD screen has one line of digital text. This area displays operational data and messages for other various features available through the instrument cluster.

Refer to Table 15 for a number of general messages that may be displayed during vehicle operation.

NOTE
If diagnostic messages indicate error or malfunction conditions, see an EBR dealer for assistance.

Trip Odometers
Two separate trip odometers record mileage until reset. Use the trip odometers for tracking distances between two points or for determining gasoline consumption between fuel stops. Each trip odometer can be reset separately using the following steps.
1. Turn the ignition key to ON.
2. Click the ">>" button to display the desired trip odometer (TRIP 1 or TRIP 2).
3. Press and hold the "MEM" switch until the selected trip odometer resets to 0.0.
Service Odometer
The service odometer displays the number of remaining miles (kilometers) until regular maintenance is due. Refer to Table 27 for the maintenance intervals.
When the service odometer falls below 1000 mi (1609 km), a service message will be displayed briefly as the vehicle is turned on. Another service message is displayed after the service odometer falls below 200 mi (322 km). When regular maintenance is due, the instrument cluster will display SERVICE NOW.
The service odometer may be reset after regular maintenance has been performed by pressing and holding the "MEM" switch.

Low Fuel Odometer (F-trip)
The low fuel odometer automatically activates when the fuel level drops below 0.8 gal (3.0 L) with vehicle level and upright. This odometer displays the cumulative distance traveled since the low fuel warning lamp turned on. The low fuel odometer resets after a short delay when enough fuel is added to bring the fuel level above 0.8 gal (3.0 L). The low fuel odometer can only be accessed when a low fuel condition exists.

NOTE
During aggressive riding or when riding over very rough surfaces, the movement of fuel in the tank may cause the low fuel odometer to prematurely activate when fuel is at a lower level.

Turn Signal Indicator Lamps
See figure 6. The green turn signal lamp will flash when the left or right turn signals are activated.
Neutral Indicator Lamp
See figure 6. The green neutral indicator lamp illuminates when the transmission is in neutral.
High Beam Indicator Lamp
See figure 6. The blue high beam indicator lamp illuminates when the headlamp high beam is on.

WARNING LAMPS
See Figure 6. Three warning lamps are located on the edges of the instrument cluster. The warning lamps illuminate briefly when the ignition is first turned on. If lamps remain lit, begin flashing, or turn on after the initial diagnostics, the vehicle has a condition that will require attention. When a warning lamp is illuminated, the LCD screen will display the condition.
Low Fuel Lamp
See Figure 6. The amber low fuel lamp illuminates when there is approximately 0.8 gal (3.0 L) of gasoline left in the tank. When the low fuel warning lamp illuminates, the low fuel odometer is activated and counts mileage traveled after low fuel warning lamp illumination.
Check Engine Lamp
See Figure 6. The amber check engine lamp indicates whether the engine management system is operating normally. When an engine malfunction is detected, a check engine message is displayed on the LCD Screen Information Line. The check engine lamp illuminates briefly when the motorcycle's ignition is first turned on. At this time, the engine management system runs a series of self diagnostics.

If the lamp remains continuously lit after the initial diagnostics, begins flashing, or turns on at a later time, see a EBR dealer. This indicates an event has occurred related to the proper operation of the engine management system.

Engine Over Temperature Lamp
See Figure 6. The amber Check Engine lamp illuminates when the coolant temperature is above the normal operating range. When a temperature condition exists, the coolant temperature also flashes on the LCD screen. EBR 1190RS coolant level: Check the coolant level. If the level is adequate and temperature condition persists, see a EBR dealer for service.

Oil Pressure Lamp
See Figure 6. The red oil pressure lamp illuminates when oil is not circulating at the proper pressure through the engine.

NOTE

The oil pressure lamp will illuminate briefly when the ignition is turned on prior to starting engine. Conditions that could cause the red oil pressure indicator lamp to illuminate during operation include:
• Incorrect oil level or diluted oil.
• Oil line clogged with ice and sludge, preventing oil circulation (in freezing weather).
• Grounded oil pressure switch wire.
• Faulty oil pressure switch.
• Damaged or improperly operating bypass valve.
• Improper oil pump operation.

CAUTION

If the oil pressure indicator lamp remains lit, always check the oil supply first. If the oil supply is normal and the lamp is still lit, stop the engine at once and do not ride further until the trouble is located and the necessary repairs are made. Failure to do so may result in engine damage.

If the oil pressure lamp illuminates during operation:
• Stop the engine immediately and check the oil level.
• Add recommended oil as required until proper level is achieved. If the oil pressure indicator lamp illuminates during operation despite proper oil level:
• Stop the engine immediately and do not ride further until the necessary repairs are made. See a EBR dealer.

Low Battery Voltage Lamp
The red low battery voltage lamp illuminates when the battery voltage falls below 11.5 V. When a battery condition exists, a SYSTEM VOLTAGE message is displayed on the LCD screen. If the lamp remains lit or turns on after the initial diagnostics, check the battery voltage and charge the battery if necessary. See MAINTENANCE AND LUBRICATION, Battery: EBR 1190RS.

See an EBR dealer if problems with the charging system are suspected.

INITIALIZATION SEQUENCE
During typical vehicle startup, the instrument cluster will go through the following initialization sequence.
1. Rider turns key to ON position.
2. The instrument cluster performs self diagnostics and bulb check. The indicator lamps and warning lamps illuminate briefly.
3. The LCD screen displays the digital speedometer, clock, odometer (in its last selected mode), and introductory text message.
4. Rider starts engine.
5. If any errors are detected when starting the vehicle, an error message is displayed on the LCD screen.
6. If regular service is due, the LCD screen briefly displays SERVICE XXX (with the remaining distance until service due) or SERVICE NOW.
7. The LCD screen flashes CT COLD until engine is warm.
8. When engine is at normal operating temperature, the gear indicator is displayed.
9. Coolant temperature, battery voltage, and average/instantaneous fuel consumption information can be selected.

NOTES

• The fuel consumption calculations are not displayed until 6 mi (10 km) have been traveled after a reset.
• Depending on the unit settings, the fuel consumption is displayed as miles per gallon (mpg), miles per gallon

Lap Timer Operation

The lap timer requires a motorcycle mounted receiver and a trackside beacon. These are sold separately.

1. Activate by scrolling to the Lap Time mode by pressing the " >>" button
2. Review all lap time info by pressing OK/MEM button
3. When the dash detects a lap signal with the receiver from a beacon, it will automatically switch and show lap time. The lap time will be shown for 10 seconds and then switch to show lap time running of current new lap.

Table 15

Message	Description
TRIP 1	Distance traveled since last reset of "Trip 1" odometer
TRIP 2	Distance traveled since last reset of "Trip 2" odometer
LOW FUEL TRIP	Distance traveled since low fuel level lamp was lit
SYSTEM VOLTAGE	Battery low voltage lamp is lit
ENGINE OVERTEMP	Coolant temperature is over oeration limit
TIPPED KEY OFF	The bank angle sensor has been tripped. The vehicle shut power off to the ingnition and fuel pump. Turn the key switch to off, stand vehicle upright, then restart the vehicle.
SIDE STAND	The sidestand is not in the fully retracted position. The vehicle shut power off to the ignition and fuel pump when the sidestand is down while the vehicle is in gear and the clutch is realeased.
COMM ERROR	A communication error has occurred between the ECM, CCM, and instrument cluster.

GEAR SHIFT LEVER

CAUTION

The clutch must be fully disengaged before attempting a gear shift. Failure to fully disengage the clutch can result in equipment damage.

The gear shift lever is located on the left side of the motorcycle and is operated with the left foot. The transmission is a six speed sequential gear box.

1. See figure 24. Push the gear shift lever all the way down (full stroke) to shift the transmission to the next lower gear.
2. Lift the shift lever all the way up (full stroke) to shift the transmission to the next higher gear.

NOTES

- Release the gear shift lever after each gear change.
- The lever must return to its central position before another gear change can be made.

First gear is the last gear position that can be found by pushing the gear shift lever full stroke downward.

Neutral is located between first and second gear. The green neutral indicator lamp on the dash will illuminate when the transmission is in neutral.

To shift from first gear to neutral, lift the gear shift lever one half of its full stroke.

When the motorcycle is standing still and the engine is not running, shifting gears requires a different technique. Before shifting in this condition, move the motorcycle backward and forward with the clutch fully disengaged (clutch lever pulled in). While maintaining slight pressure on the shift lever, shift from one gear to another.

Even with the engine running and the motorcycle standing still, difficulty may be experienced in shifting gears. This difficulty occurs because transmission gears are not turning and shifting parts are not lined up to permit engagement.

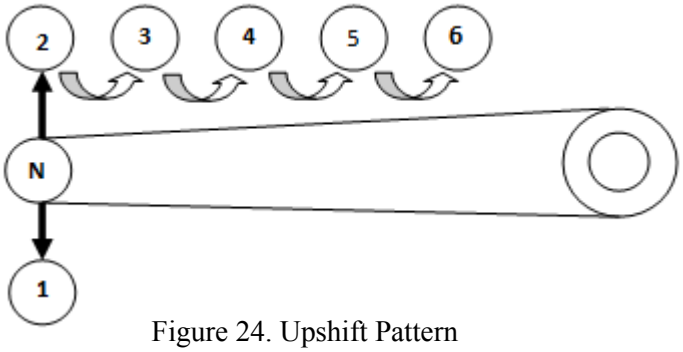


Figure 24. Upshift Pattern

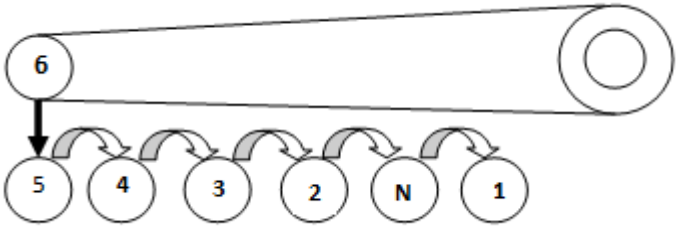


Figure 25. Downshift Pattern

CAUTION

When difficulty of shifting gears is experienced, do not under any circumstances, attempt to force the shift. The results of such abuse will be a damaged or broken shifter mechanism.

See OPERATION, Shifting Gears, for more information.

⚠ WARNING

Do not apply brake strongly enough to lock the wheel. A locked wheel will skid and can cause loss of vehicle control, which could result in death or serious injury.

The rear brake pedal controls the rear wheel brake and is located on the motorcycle's right side. Operate the rear brake pedal with the right foot.
The front brake hand lever controls the front wheel brake and is located on the right handlebar. Operate the hand lever with the fingers of the right hand.

⚠ WARNING

Do not position fingers between hand control lever and handlebar grip. Improper hand positioning can impair control lever operation and cause loss of vehicle control, which could result in death or serious injury.

Brakes should be applied uniformly and evenly to prevent wheels from locking up. A balance between rear and front braking is generally best.

ADJUSTING FOOT CONTROLS

The gear shift and rear brake toe pegs can be adjusted for rider preference.

1. See Figure 26. Loosen the fastener from the toe peg.

1. 2. Slide toe peg to the desired position. Adjust the peg angle as needed.

3. Tighten the fastener to 48-72 in-lbs (5.4-8.1 Nm).

NOTE

To adjust the rear brake master cylinder pushrod, see an EBR Dealer.

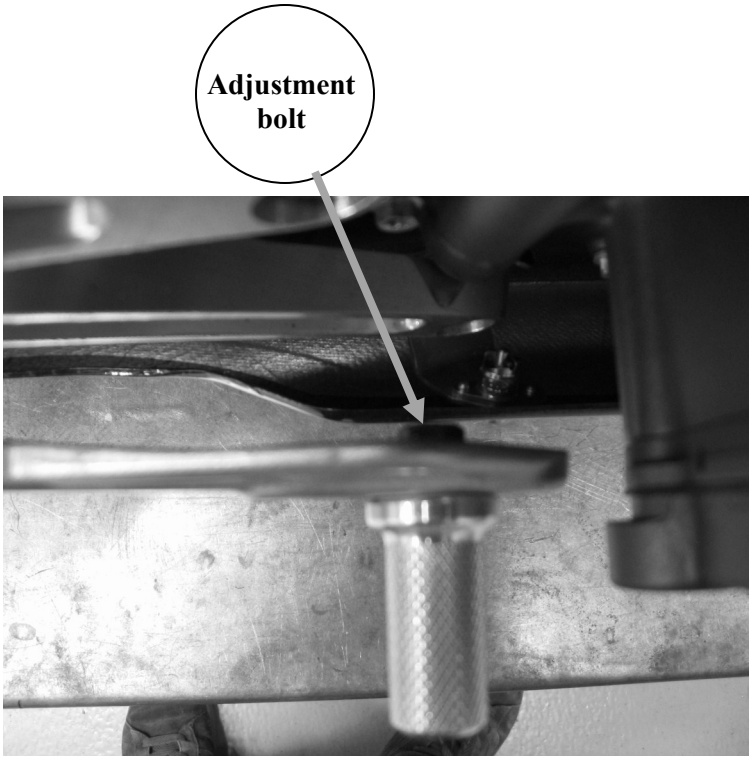


Figure 26

ADJUSTING HAND LEVERS

The clutch and front brake hand levers may be adjusted to the rider's preference.

1. See Figure 27. Turn knob to desired position.

NOTE

After adjusting hand lever position, rotate steering to full left and full right positions to make certain the levers do not contact the fairing.

⚠ WARNING

Do not position fingers between hand control lever and handlebar grip. Improper hand positioning can impair control lever operation and cause loss of vehicle control, which could result in death or serious injury.

Figure 27

FUEL FILLER CAP

WARNING

Avoid spills. Slowly remove filler cap. Do not fill above bottom of fill plate, leaving air space for fuel expansion. Secure filler cap after refueling. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury.

WARNING

Use care when refueling. Pressurized air in fuel tank can force gasoline to escape through filler tube. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury.

CAUTION

Do not spill fuel onto the motorcycle while refueling. Immediately wipe up fuel spills on your motorcycle. Fuel can cause damage to cosmetic surfaces.

Removal

1. See Figure 28. Push down on center lever
2. Turn counterclockwise.
3. Lift cap off.

Installation

1. Replace cap
2. Turn center lever clockwise

Figure 28

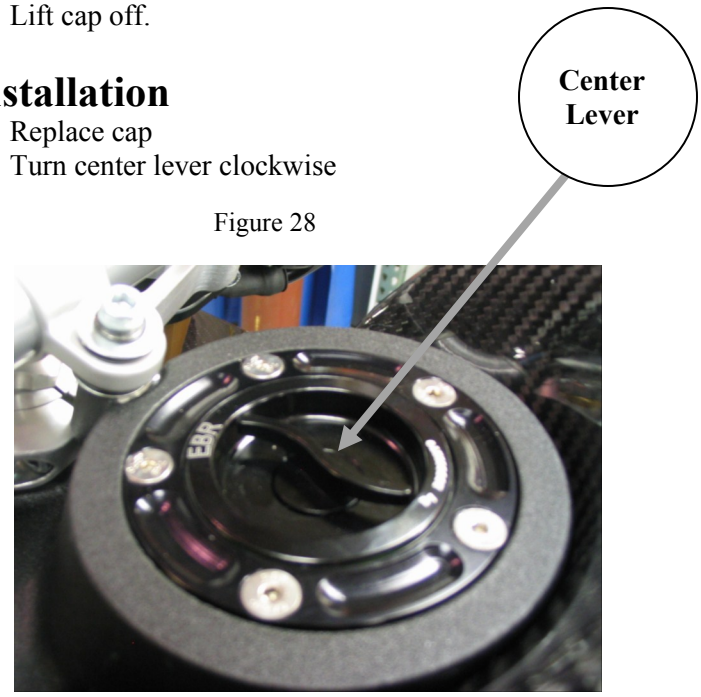
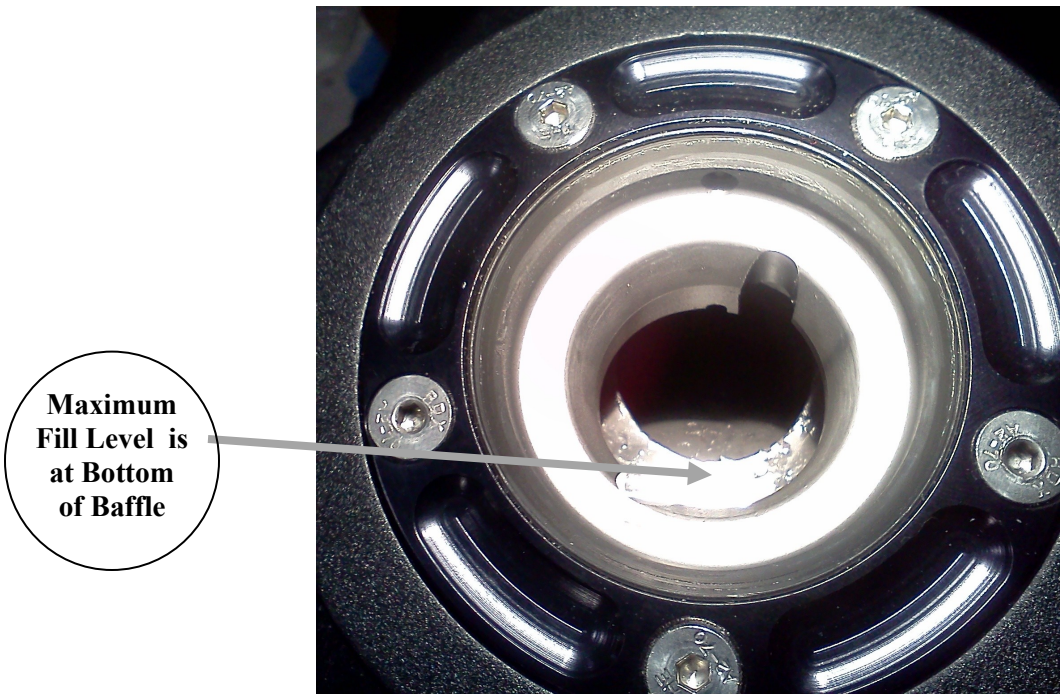


Figure 29



STEERING HEAD LOCK

CAUTION

Protect your vehicle against theft. After parking your motorcycle, lock the steering head and remove ignition key from switch. Failure to lock your motorcycle may result in theft and/or equipment damage.

The steering head lock is located on the ignition/ headlamp key switch and is operated by the ignition key.

1. Verify sidestand is down. Turn handlebars full left.

2. See Figure 3. Verify that key is in the OFF position.

3. Push in on the ignition key and turn it counterclockwise to the steering head LOCK position. Move handlebars slightly until locked.

4. Attempt to turn the handlebars to the right to verify that the steering head is locked. Handlebars should not turn.

5. Remove key from the ignition/headlamp key switch.

SIDESTAND

WARNING

This motorcycle does NOT have a locking sidestand. Park the motorcycle on a level, firm surface. An unbalanced motorcycle can fall, which could result in death or serious injury.

The sidestand is located on the left side of the motorcycle and swings down to support the motorcycle for parking.

WARNING

Be sure side stand is fully retracted before riding. If side stand is not fully retracted, it can contact the road surface causing a loss of vehicle control, which could result in death or serious injury.

REAR VIEW MIRRORS

WARNING

Objects in mirrors are closer than they appear. Use caution when judging distance of objects in mirrors. Failure to judge correct distances could result in death or serious injury.

Your vehicle is equipped with two convex rear view mirrors. This type of mirror is designed to give a much wider view to the rear than a flat mirror. However, cars and other objects seen in this type of mirror will look smaller and farther away than they actually are.

Use caution when judging the size or relative distance of objects seen in rear view mirrors.

Always adjust the rear view mirrors to clearly reflect the area behind the motorcycle before riding. To adjust mirrors, gently press on edge of mirror glass to rotate mirror within the housing. Do not change the position of the mirror housing or stem.

NOTE

Adjust mirrors so you can see a small portion of your shoulders in each mirror, this will help you establish the relative distance of vehicles to the rear of your motorcycle.

OPERATING RECOMMENDATIONS

General

⚠ WARNING

Motorcycles are different from other vehicles. They operate, steer, handle and brake differently. Unskilled or improper use could result in loss of control, death or serious injury.

- Take a rider training course
- Read Owner's Manual before riding, adding accessories or servicing.
- Wear a helmet, eye protection and protective clothing.
- Never tow a trailer.

CAUTION

Do not run the engine at extremely high RPM with clutch disengaged or transmission in neutral. Running an engine at high RPM can result in engine damage.

CAUTION

Do not exceed the maximum safe RPM specified below under any conditions. Exceeding the maximum safe engine RPM can result in equipment damage.

The maximum recommended safe engine speed is 11500 RPM.
Have the engine checked regularly and keep it well tuned.

CAUTION

Do not coast for long distances with the engine off or idling. The transmission is properly lubricated only when the engine is running. Coasting long distances can result in transmission damage.

⚠ WARNING

Do not tow a disabled motorcycle. Towing can adversely affect stability and handling, which could result in death or serious injury.

⚠ CAUTION

Cooling fans operate automatically, even when the ignition switch is off. Keep hands away from fan blades. Contact with a rotating fan blade can result in minor or moderate injury.

⚠ WARNING

When riding on wet roads, brake efficiency and traction are greatly reduced. Failure to use care when braking, accelerating or turning on wet roads can cause loss of control, which could result in death or serious injury.

⚠ WARNING

Continuous use of brake causes overheating and reduced efficiency, which could result in death or serious injury.

BREAK-IN RULES

The First 620 Miles (1000 Km)

The sound design, quality materials, and workmanship that are built into your new motorcycle will give you optimum performance right from the start.
To allow your engine to wear in its critical parts, we recommend that you observe the riding rules provided below for the first 600 mi (1000 km). Adhering to these suggestions will help future durability and performance.

1. During the first 300 mi (500 km) of riding, keep the engine speed below 6000 rpm in any gear. Do not lug the engine by running or accelerating at very low rpm, or by running at high RPM longer than needed for shifting or passing.
2. Up to 600 mi (1000 km), vary the engine speed and avoid operating at any steady engine speed for long periods. Engine speed up to 7500 rpm in any gear is permissible.
3. Drive slowly and avoid fast starts at wide throttle until the engine has warmed up.

4. Avoid lugging the engine by not running the engine at very low speeds in higher gears.
5. New brakes need to be bedded-in. Avoid stops from very high speeds for the first 200 miles (300 kilometers). Proper seating of the pads can be accomplished by using light brake pressure for the first few stops, letting the system cool, then doing several stops using moderate to firm brake pressure.

PRE-RIDING CHECK LIST

WARNING

Read the CONTROLS AND INDICATORS section before riding your motorcycle. Failure to understand the operation of the motorcycle could result in death or serious injury.

Before riding your motorcycle at any time, make a general inspection to be sure it is in safe riding condition.

WARNING

Stop the engine when refueling or servicing the fuel system. Do not smoke or allow open flame or sparks near gasoline. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury.

WARNING

Avoid spills. Slowly remove filler cap. Do not fill above bottom of fill plate, leaving air space for fuel expansion. Secure filler cap after refueling. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury.

WARNING

Use care when refueling. Pressurized air in fuel tank can force gasoline to escape through filler tube. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury.

CAUTION

Do not spill fuel on the motorcycle while refueling. Immediately wipe up fuel spills on your motorcycle. Fuel can cause damage to cosmetic surfaces.

1. Verify fuel is present in tank and add fuel if required. See page 70.
2. Adjust mirrors to proper riding conditions
3. Check coolant level. See MAINTENANCE AND LUBRICATION, Coolant Level. See page 123.
4. Verify oil is present in engine. Check oil level only after warming up motorcycle. See page 107.
5. Check controls to make sure they operate properly. Operate the front and rear brakes, throttle, clutch and shifter. All controls should operate freely without binding.
6. Check steering for proper operating by turning the handlebars through the full operating range. Handlebars should turn smoothly without binding.

⚠ WARNING

Be sure tires are properly inflated, balanced and have adequate tread. Inspect your tires regularly and see an EBR dealer for replacements. Riding with excessively worn, unbalanced or under-inflated tires can adversely affect stability and handling, which could result in death or serious injury.

7. Check tire condition and pressure. Incorrect pressure will result in poor riding characteristics and affect handling and stability. See pages 43 and 130.
8. Check all electrical equipment and switches including the headlamp, stop lamp, turn signals and horn, for proper operation.

NOTE

Check horn operation with engine running.

⚠ WARNING

Be sure headlamp, tail lamp, stop lamp and turn signals are operating properly before riding. Poor visibility of rider to other motorists can result in death or serious injury.

9. Check for any fuel, oil, coolant or hydraulic fluid leaks.
10. Check chain for wear and damage. Service as necessary.

SIDESTAND INTERLOCK

⚠ WARNING

Some models are equipped with a sidestand interlock feature. If the sidestand is down, the transmission is in gear, and the clutch is released, the vehicle will stall. The message SIDE STAND will be displayed in the instrument cluster to indicate the condition.
The vehicle will start and run with the sidestand down while the transmission is in neutral and the clutch is released.

STARTING THE ENGINE

⚠ WARNING

Shift transmission to neutral before starting engine to prevent accidental movement, which could result in death or serious injury.

CAUTION

The engine should be allowed to run slowly for 30-60 seconds. This will allow the engine to warm up and let oil reach all surfaces needing lubrication. Failure to comply can result in engine damage.

NOTE

EBR motorcycles feature a starter interlock. Before starting the engine, all the following conditions must be met.

1. Engine OFF/RUN switch on handlebar control group must be in the ON position.
2. Clutch lever must be applied (pulled in) before starting motorcycle in gear. It is not necessary to apply clutch lever if motorcycle is being started in neutral.

NOTE

The electronic fuel injection system compensates for all outside and engine temperatures for positive starts.

1. See figure 30. Turn engine OFF/RUN switch to RUN.
2. Be sure the throttle is closed.
3. Raise the sidestand.
4. Turn ignition/headlamp key switch to ON.
5. Verify transmission is in NEUTRAL position by observing lit green neutral indicator lamp on dash panel, and verify neutral position by rolling motorcycle forward and rearward.
6. Press electric starter switch to operate starter.
7. Release electric starter switch when engine starts.

NOTE

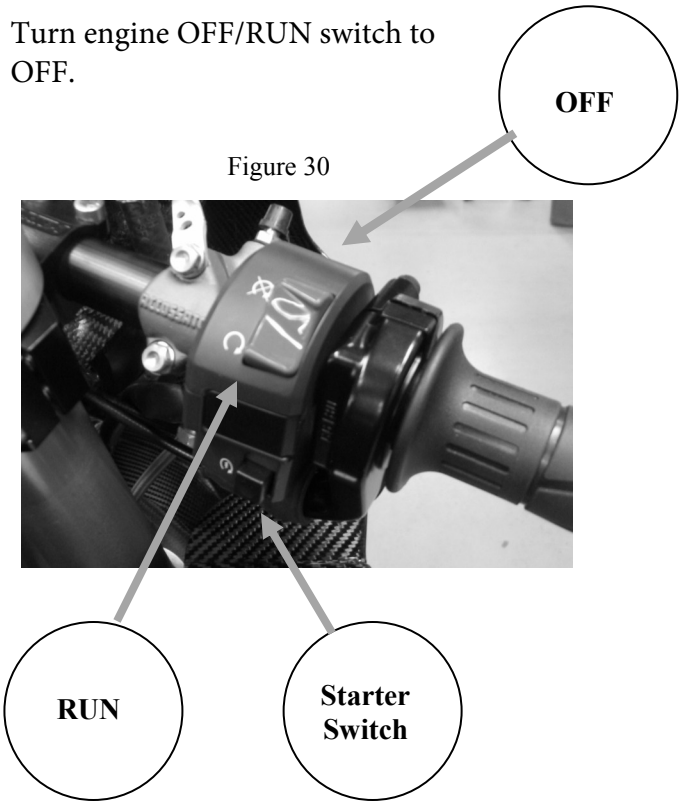
The motorcycle will have a reduced RPM range until the engine is warmed up.

If you read this section and still have questions about the correct operation of your motorcycle, talk to an authorized EBR dealer for assistance.

STOPPING THE ENGINE

Turn engine OFF/RUN switch to OFF.

Figure 30



SHIFTING GEARS

Getting Started

CAUTION

The clutch must be fully disengaged before attempting a gear shift. Failure to fully disengage the clutch can result in equipment damage.

NOTE

Always start engine with transmission in neutral. Always Start motorcycle forward motion from first gear.

1. With motorcycle engine running and sidestand retracted, pull the clutch hand lever in against handlebar grip to fully disengage the clutch.
2. Push the foot shift lever down to the end of its travel and release it. The transmission is now in first gear.
3. To start forward motion, release the clutch lever slowly to engage the clutch and at the same time, gradually open the throttle in one smooth motion.

Upshift (Acceleration)

See figure 32. Gear shift pattern is first gear down, next five gears up. Engage second gear after the motorcycle has reached the appropriate shifting speed. Refer to Table 15.

1. Close the throttle
2. Disengage the clutch (pull clutch lever in)
3. See Figure 31. Lift the gear shift lever up to the end of its travel and release.
4. Engage the clutch (release clutch lever) and gradually open the throttle.
5. Repeat the previous steps to engage third, fourth, fifth, and sixth gears.

NOTES

- *Disengage the clutch completely before each gear change.*
- *Partially close the throttle so the engine will not drag when the clutch is again engaged (clutch lever released).*

Figure 31

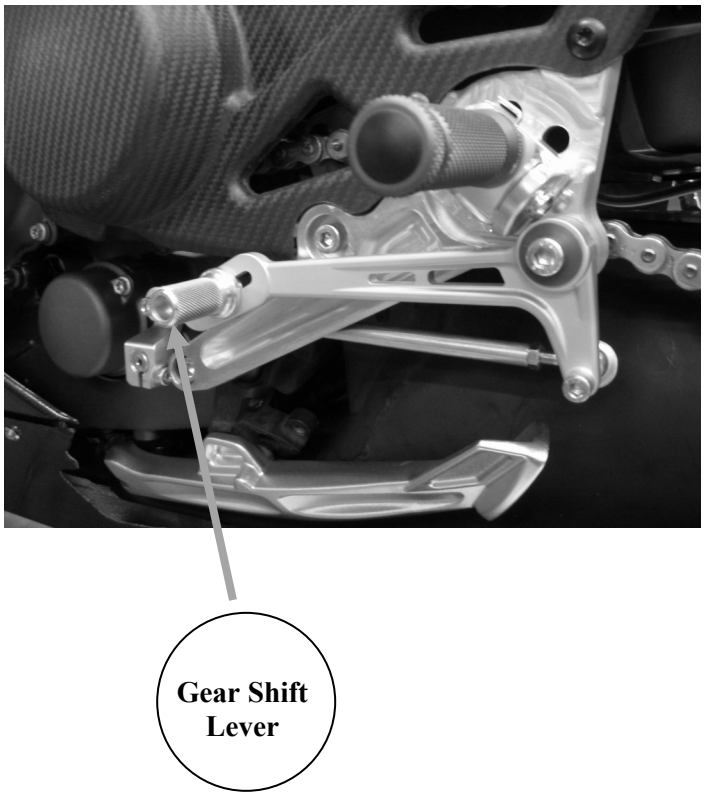


Table 15

GEAR CHANGE	MPH	KPH
First to Second	15	25
Second to Third	25	40
Third to Fourth	35	55
Fourth to Fifth	45	70
Fifth to Sixth	55	85

Downshift (Deceleration)

WARNING

Do not downshift at speeds higher than those listed in the Changing Gear Speeds table. Shifting to lower gears when speed is too high can cause the rear wheel to lose traction and lead to loss of vehicle control, which could result in death or serious injury.

See Figure 32. Gear Shift pattern is first gear down, next five gears up. Refer to table 16 for shifting speeds.

NOTE

The shifting speeds shown in the tables are a recommendation. Vehicle owners may determine that individual shifting habits differ from those stated and remain appropriate for individual riding styles.

See Figure 32. When engine speed decreases, as in climbing a hill or running at reduced speed, shift to the next lower gear while partially closing the throttle so the engine accelerates as soon as the clutch lever is released.

NOTES

- *Disengage the clutch completely before each gear change.*
- *Partially close the throttle so the engine will not drag when clutch is again engaged (clutch lever is released.).*

CAUTION

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

The gear shift mechanism permits shifting the transmission to neutral from first gear.

Figure 32

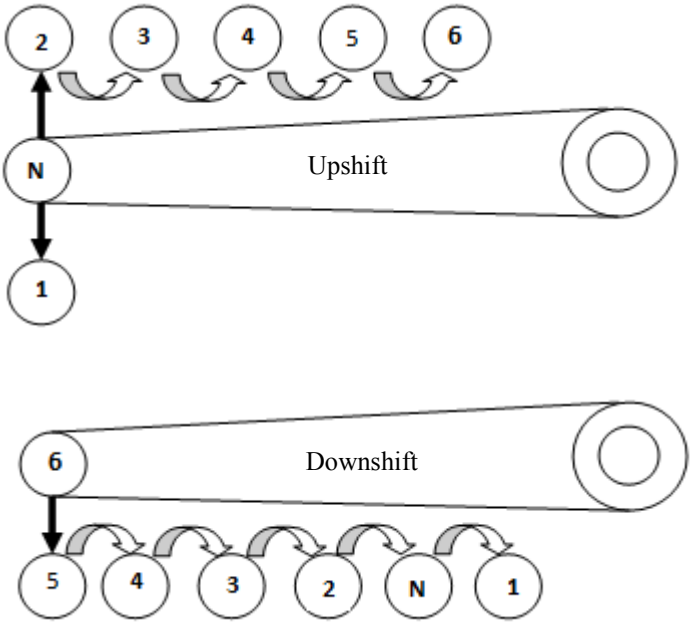


Table 16. Downshift (Deceleration) Gear Speeds

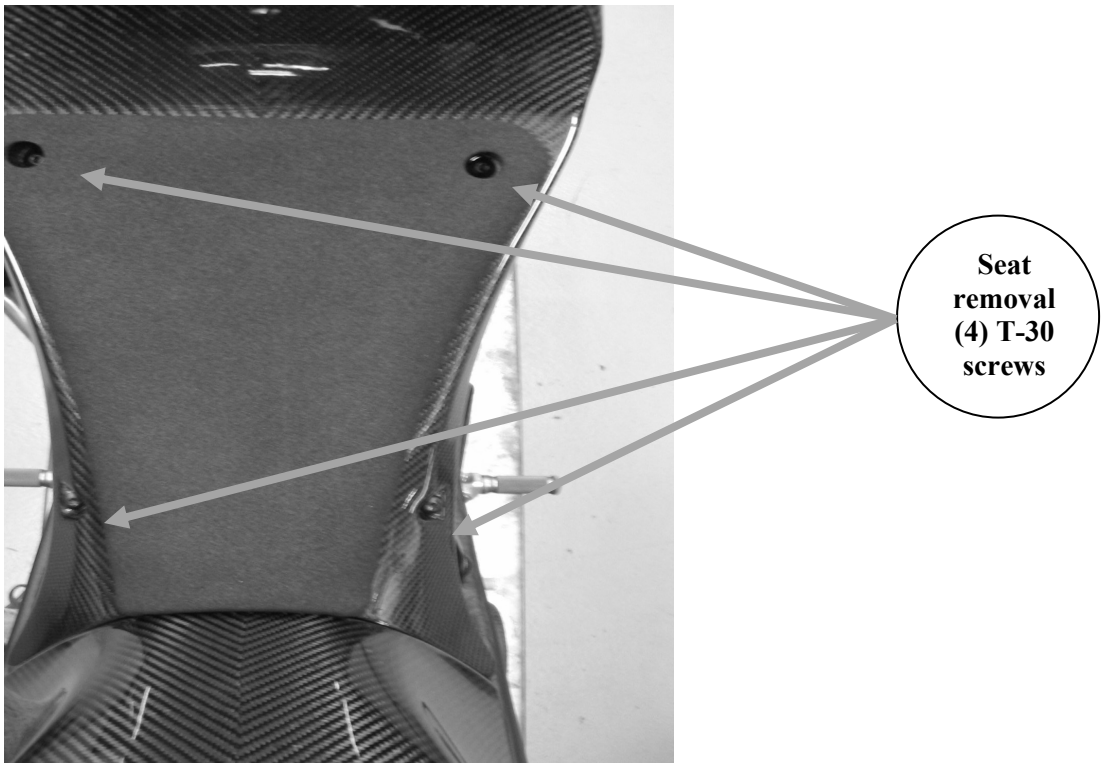
GEAR CHANGE	MPH	KPH
Sixth to Fifth	**50**	**80**
Fifth to Fourth	**40**	**65**
Fourth to Third	**30**	**50**
Third to Second	**20**	**30**
Second to First	**10**	**15**

SEAT

Rider Seat Removal

1. See Figure 34. Remove four T30 TORX screws.
3. Slide tail cowl assembly rearward to remove

Figure 34: Seat Fasteners

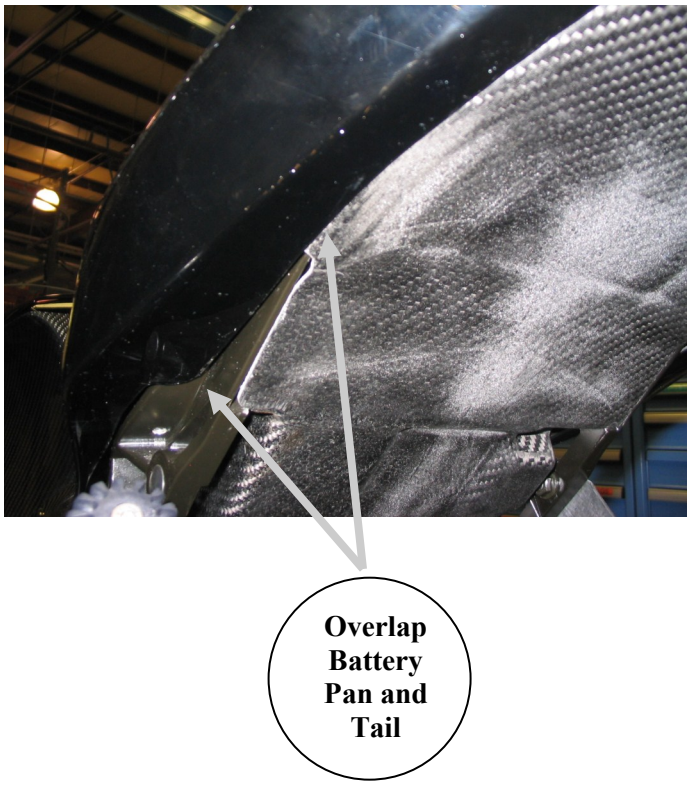


Rider Seat Installation

1. See figure 35. Slide seat cowl onto bike from the rear.
2. Overlap rear of cowl with rear of tail.
3. Rotate front of cowl down while sliding it forward
4. See Figure 36. Overlap the battery pan with the cowl as the cowl is rotated down and slid forward.
5. Install seat with four T30 TORX screws and tighten to **85-94 in-lbs (9.6-10.6 Nm)**

Figure 35

Figure 36



WARNING

After installing seat, pull upward on seat to be sure it is locked in position. While riding, a loose seat can shift, causing loss of control, which could result in death or serious injury.

WARNING

Do not carry a passenger. Seat cowl is a cosmetic part that is not designed to support passenger weight. Operating motorcycle with a passenger seated on seat cowl can adversely affect passenger safety, which could result in death or serious injury.

SUSPENSION ADJUSTMENTS

Each EBR motorcycle uses suspension components tailored to the vehicle weight and function. On all models, the front and rear preload setting will need to be adjusted for the riders weight and cargo. This adjustment should be made before the motorcycle is ridden any distance .

Your EBR dealer can assist you in setting the preload when you take delivery of your motorcycle.

If the preload adjustment is correct and you have the rebound and compression damping set at the factory recommended points, the motorcycle should handle and ride properly. Damping is set at the factory for the average solo rider under normal riding conditions. The rider may make adjustments to compensate for individual riding styles and varying road conditions. Evaluating and changing the rebound and compression damping is a very subjective process with many variables and should be approached carefully.

SUSPENSION DEFINITIONS

Damping: Resistance to movement. Damping affects how easily the suspension can move and limits oscillations of the system once the movement has begun.

Compression: The suspension is compressed when the wheel moves upwards.

Rebound: The suspension is rebounding when it is moving back from being compressed.

Vehicle Sag: The amount the rear shock and fork springs are compressed by the weight of the motorcycle.

Rider Sag: The amount the rear shock and fork springs are compressed by the weight of the rider on the motorcycle.

Preload: An adjustment made to the rear shock and front fork springs to limit vehicle and rider sag to a standard percentage of total suspension travel.

CAUTION

Compression and rebound adjusting valves may be damaged if too much force is used to turn the adjustors at either end of the adjustment range.

Before Evaluating and adjusting suspension settings, check the motorcycles tires. Refer to Table 11. They must be in good condition and properly inflated.

FINE TUNING SUSPENSION

See OPERATION, Factory Suspension Settings. The settings are the best balance of handling, ride, and stability. Suspension can be changed to accommodate rider preferences for ride quality, handling, road conditions and load changes.

NOTES

- *Do not continue to repeat the steps involved with the following settings beyond those which are listed.*
- *Adjust suspension to the recommendation if possible, but never force adjusters beyond the mechanical stops.*

WARNING

Do not operate motorcycle with loose, worn or damaged steering or suspension systems. Contact an EBR dealer for repairs. Loose, worn or damaged steering or suspension components can adversely affect stability and handling, which could result in death or serious injury.

Changes in Load

Changes in the load carried requires changes in the preload settings. Carrying less weight than was used for setting up the suspension requires decreasing the amount of preload. Increasing the load carried requires adding more preload.

WARNING

Do not exceed the motorcycles Gross Vehicle Weight Rating (GVWR) or Gross Axle Weight Rating (GAWR). Exceeding these weight ratings can affect stability and handling, which could result in death or serious injury.

- GVWR is the sum of the weight of the motorcycle, accessories, and the maximum weight of the rider, and cargo that can be safely carried.
- GAWR is the maximum amount of weight that can be safely carried on each axle.
- The GVWR and GAWR are shown on the information plate, located on the frame steering head.

Ride Quality Enhancement

The stock settings are designed to offer sufficient chassis control, but some may choose to enhance ride comfort over rougher road conditions or for long rides. Adjusting the compression setting will reduce both high and low speed damping.

1. Adjust suspension for rider weight. See OPERATION, Factory Suspension Settings.
2. Increase ride quality by reducing front and rear compression damping by turning adjuster counterclockwise 1/4 - 1 turn.
3. If additional ride quality is desired, reduce front preload by turning adjuster counterclockwise one turn.
4. If maximum ride quality is desired, decrease front and rear rebound damping by turning adjusters counterclockwise by 1/4 - 1/2 turn.

Enhanced Steering Quickness

The response to steering input (quickness) may be enhanced by adjusting the vehicles front/rear ride height. This adjustment effectively decreases the vehicles rake angle. This is achieved by adjusting the preload to increase front sag and reduce rear sag.

1. Adjust suspension for rider weight. See OPERATION, Factory Suspension Settings.
2. Reduce steering effort by increasing the rear preload one position.
3. If more enhanced steering and cornering control is desired, reduce front preload by turning adjuster counterclockwise one turn.
4. If additional enhanced steering and cornering control is desired, increase rear compression damping by turning adjuster clockwise by 1/4-1/2 turn.
5. If maximum enhanced steering and cornering control is desired, increase front rebound damping by turning adjuster clockwise 1/4 turn.

Chassis Control/Handling Enhancement

To provide more road surface feedback on smoother road conditions, increase compression and rebound settings.

1. Adjust suspension for rider weight. See OPERATION, Factory Suspension Settings.
2. Increase chassis/handling control by increasing front and rear compression damping by turning adjuster clockwise by 1/2-1 1/2 turns.
3. If maximum chassis control/handling control is desired, increase front and rear rebound damping

Cold Weather Riding Less than 65°F (18 °C)

The viscosity (resistance to flow) of the suspension fluid increases as the temperature decreases. As the fluid viscosity increases, so does the damping. It is recommended to compensate for the varying fluid viscosity by readjusting the damping adjuster positions when operating outside the normal ambient temperature range of 65-95° F (18-35° C).

1. Adjust suspension for rider weight. See OPERATION, Factory Suspension Settings.
2. Reduce front and rear compression damping and rebound damping by turning adjuster counterclockwise.

⚠ WARNING

Do not operate motorcycle with loose, worn or damaged steering or suspension systems. Contact an EBR Dealer for repairs. Loose, worn or damaged steering or suspension components can adversely affect stability and handling, which could result in death or serious injury.

Make all suspension adjustments in small increments. Radical setting changes may cause you to skip the best adjustment, but always remember that any setting chosen is a compromise.
Refer to Table 18. Possible suspension and operating characteristics and their probable causes are listed. This table is helpful in keeping your motorcycle in good operating condition.

Notes

Notes

To achieve the proper settings, you will need the preload properly adjusted, the tires properly inflated and a familiar bumpy road. It is useful if the road contains a variety of different kinds of bumps from small sharp bumps such as potholes or frost heaves, to large cracks.
See Operation, Factory Suspension Settings. Begin the process by putting all the damping settings as recommended. Ride the motorcycle over a variety of surfaces and bumps at different speeds. If the suspension is set properly, the vehicle will feel stable and comfortable.

CHANGES IN LOAD

Changes in the load carried requires changes in the preload settings.

Carrying less weight than was used for setting up the suspension requires decreasing the amount of preload. Increasing the load carried requires adding more preload.

Table 18

SUSPENSION CHARACTERISTICS	SOLUTION
Bike Wallows through turns.	Increase rebound damping.
Bike feels loose or vague after bumps.	
Wheel tends to “pogo” or suffer continuous bouncing after passing a bump. This is often noticeable by watching the bike as it travels over bumps.	
Wheel responds to bump but doesn’t return to ground quickly after bumps. This is more pronounced over a series of bumps and is often referred to as “packing down”	Reduce rebound damping.
Bike bottoms in dips or while cornering.	Increase compression damping.
Bike has excessive brake dive	
Harsh ride, particularly over washboard surfaces.	Reduce compression damping.
Bumps transfer through handlebars or seat	
Suspension seems not to respond to bumps. Tires chatter through corners or rider is jolted over rough roads.	

WARNING

Do not exceed the motorcycles Gross Vehicle Weight Rating (GVWR) or the Gross Axle Weight Rating (GAWR). Exceeding these weight ratings can affect stability and handling, which could result in death or serious injury.

- GVWR is the sum of the weight of the motorcycle, accessories, and the maximum weight of the rider, and cargo that can be safely carried.
- GAWR is the maximum amount of weight that can be safely carried on each axle.
- The GVWR and GAWR are shown on the information plate located on the frame steering head.

WARNING

Do not pull a trailer with a motorcycle. Pulling a trailer can cause tire overload, reduced braking efficiency and adversely affect stability and handling, which could result in death or serious injury.

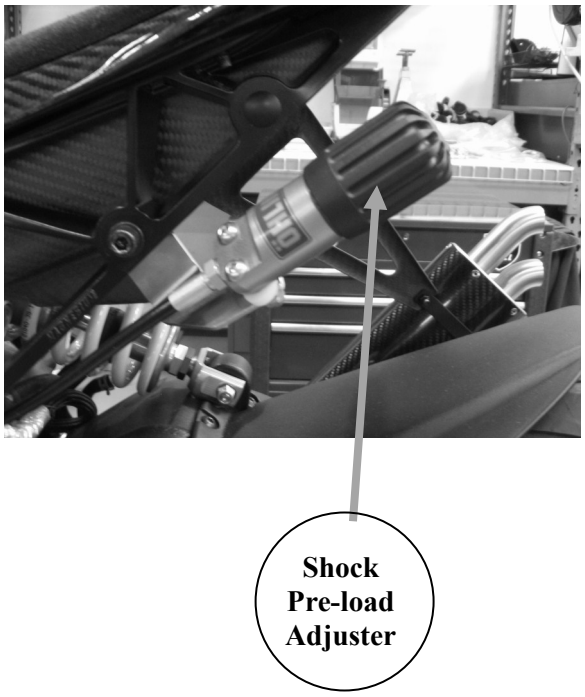
ADJUSTING PRELOAD

See OPERATION, Suspension Adjustments, for more information about suspension tuning.

Rear Shock Preload Settings

See Figure 38. The factory setting is 8 revolutions clockwise from the minimum position. The minimum position is found by turning the adjustor counter clockwise until it stops. Do not force. For recommended spring preload, see OPERATION, Factory Suspension Settings.

Figure 38



Setting Rear Shock Preload

1. See figure 38. Change the preload by turning the black preload adjuster knob. See OPERATION, Factory Suspension Settings, for factory suspension settings (table 19).

A. Rotate adjuster clockwise to increase preload.
B. Rotate adjuster counter clockwise to decrease pre-load.

Setting Front Fork Preload

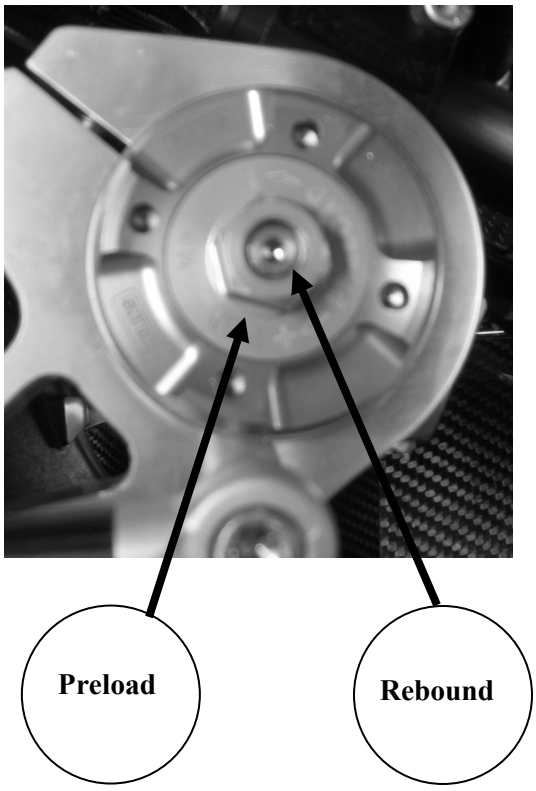
1. See Figure 39. Turn preload adjuster nut counter-clockwise until it stops. This is the minimum preload setting.

WARNING

Both forks should be adjusted equally. Forks that are not properly adjusted can lead to loss of control, which could result in death or serious injury.

2. Turn the preload adjuster nut clockwise the recommended amount specified in OPERATION, Factory Suspension Settings (table 19).

Figure 39: Right fork



ADJUSTING SUSPENSION DAMPING

For the recommended rebound and compression damping settings for various road and riding conditions, see OPERATION, Factory Suspension Settings.

NOTE

Adjust suspension to the recommendation if possible, but never force adjusters beyond their mechanical stops.

Setting Front Fork Rebound Damping

1. See Figure 39. Using a screwdriver, turn the rebound adjuster screw clockwise until it stops. This is the maximum rebound damping setting.
2. Turn the adjuster screw counterclockwise the recommended amount specified in table 19.

Setting Front Fork Compression Damping

1. See Figure 40. Using a screwdriver, turn the compression damping adjuster clockwise until it stops. This is the maximum compression damping setting.
2. Turn the adjuster counterclockwise the recommended amount specified in table 19.

Figure 40: left Fork

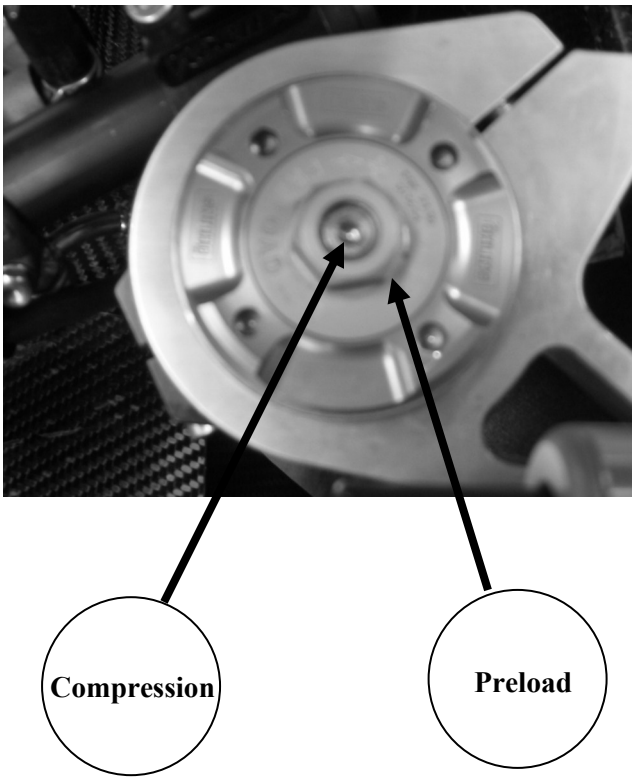
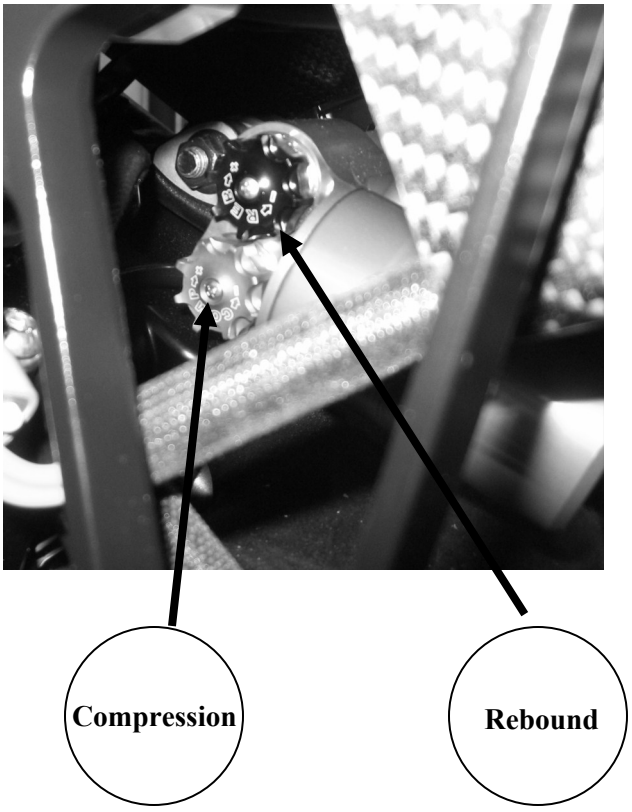


Figure 41: Shock



Setting Rear Shock Rebound Damping

1. See Figure 41. Turn the rebound adjuster clockwise until it stops. This is the maximum rebound damping setting.
2. Turn the rebound adjuster counterclockwise the recommended amount specified in table 19.

Setting Rear Shock Compression Damping

1. See Figure 41. Turn the compression adjuster clockwise until it stops. This is the maximum compression damping setting.
2. Turn the compression adjuster counterclockwise the recommended amount specified in table 19.

Table 19: Recommended Suspension Settings.

LOAD***		FRONT FORKS			REAR SHOCK		
LB	KG	PRELOAD TURNS IN FROM MIN-IMUM*	COMPRES-SION: TURNS OUT FROM MAX-IMUM **	REBOUND: TURNS OUT FROM MAX-IMUM **	PRELOAD: NOTCH (#1 IS LIGHTEST SETTING)	COMPRES-SION: CLICKS OUT FROM MAX-IMUM **	REBOUND: TURNS OUT FROM MAXIMUM **
Less than 170	Less than 77	7	13	13	7	13	13
170-190	77-86	8	12	12	8	12	12
190-210	86-95	9	11	11	9	11	11
210-230	95-104	10	10	10	10	10	10
230-250	104-113	11	9	9	11	9	9
250-270	113-122	12	8	8	12	8	8
270 to GVWR	122 to GVWR	13	7	7	13	7	7

*Front spring preload is set by loosening adjuster counterclockwise until it stops at minimum, then counting the number of turns in to get to the desired setting. **All damping adjuster settings are done by tightening adjuster counterclockwise to the desired setting. *** Load Includes rider, cargo, accessories and riding gear.

SAFE OPERATING MAINTENANCE

WARNING

Perform the service and maintenance operations as indicated in the regular service interval table. Lack of regular maintenance at the recommended intervals can affect the safe operation of your motorcycle, which could result in death or serious injury.

Good maintenance creates a safe motorcycle. A careful check of certain equipment must be made after periods of storage. Also, frequently inspect the motorcycle between the regular service intervals to determine if additional maintenance is necessary.

Check the following items:

1. Tires for correct pressure, abrasion or cuts.
2. Drive chain for wear or damage
3. Brakes, steering and throttle for responsiveness and freedom from binding.
4. Brake fluid level and condition. Hydraulic lines and fittings for leaks. Also check brake pads and discs for wear.
5. Cables for fraying or crimping and free operation.
6. Engine oil level.
7. Engine coolant level.
8. Clutch fluid level and condition. Hydraulic lines and fittings for leaks.
9. Headlamp, tail lamp, brake lamp, and directional lamp operation.

BREAK-IN MAINTENANCE

NOTE

New Motorcycle initial service is required to keep your new motorcycle warranty in force and make sure the emissions system operates properly.

After a new motorcycle has been ridden its first 620 miles (1000 kilometers) take it to an authorized EBR Dealer to have an initial service performed.
If it is impossible to take it to a dealer at the mileage intervals noted, the owner should:

1. Give the following outlined items attention or arrange to have the motorcycle serviced.
2. Take the motorcycle to a dealer for more complete service as soon as possible.

We recommend a Dealer perform the initial service.

⚠ WARNING

When supporting motorcycle, do not place supports under rear brake pedal. Damage to the brake system can occur, which could result in death or serious injury.

INITIAL SERVICE CHECK

First 620 Miles (100 Kilometers)

The first scheduled maintenance is at 620 miles (1000 Kilometers). See MAINTENANCE SCHEDULING, Regular Service Intervals: EBR MODELS for a complete list of required services.

1. Change engine oil and clean magnetic drain plug.
2. Replace oil filter cartridge.
3. Inspect brake fluid level and condition. Check hydraulic brake lines and fittings for leaks.
4. Check brake pads and rotors for wear.
5. Check clutch fluid level. Check hydraulic lines and fittings for leaks.
6. Check oil lines for leaks.
7. Check tire pressure and inspect tread.
8. Check throttle cable adjustments.
9. Check operation of all electrical equipment and switches.
10. Check coolant level in expansion tank. Check tightness of hose clamps. Clean radiator and oil cooler fins.
11. Check drive chain and sprockets.
12. Check sidestand.
13. Check exhaust system.
14. Road Test.

SERVICE INTERVALS AND PERFORMANCE

Regular lubrication and maintenance will help keep your new EBR operating at peak performance. Your EBR Dealer knows best how to service your motorcycle with factory approved methods and equipment assuring you of thorough and competent workmanship.

See MAINTENANCE SCHEDULING, Regular Service Intervals, for more information.

NOTE

Refer to table 26. Regular maintenance interval operations are required to keep your new motorcycle warranty in force. The Use of other than EBR approved parts and service procedures may void the warranty. Any alterations to the emission system components, such as the electronic fuel injection and exhaust system, may be in violation of law.

⚠ WARNING

Perform the service and maintenance operations as indicated in the regular service interval time table. Lack of regular maintenance at the recommended time intervals can affect the safe operation of your motorcycle, which could result in death or serious injury.

⚠ WARNING

If you operate your motorcycle under adverse conditions (severe cold, extreme heat, very dusty environment, very bad roads, through standing water, etc.) you should perform the regular maintenance intervals more frequently to ensure the safe operation of your motorcycle. Failure to maintain your motorcycle could result in death or serious injury.

ENGINE LUBRICATION

Engine oil is a major factor in the performance and service life of the engine. Always use the proper grade of oil for the lowest temperature expected before the next scheduled oil change. Your authorized dealer has the proper oil to suit your requirements.
Refer to Table 20. EBR recommends using AMSOIL Dominator Synthetic 15W50 Racing Oil (RD50)when adding or changing oil. If AMSOIL is not available and addition of motor oil is required, SAE 20W50 may be used. Although SAE 20W50 is compatible with AMSOIL we suggest the mixture of fluids be changed as soon as possible.

If AMSOIL or SAE 20W50 are not available, the final option would be to add a synthetic 15W-50 oil that meets SG and JASO MA specifications. We again suggest the mixture of fluids be changed as soon as possible. At the first opportunity, see an authorized dealer to change back to 100 percent AMSOIL.

CAUTION

Do not switch lubricant brands indiscriminately because some lubricants interact chemically when mixed. Use of inferior lubricants can damage the engine.

Table 20. Recommended Engine Oils

Advanced Synthetic Motorcycle Oil	**Viscosity**	**Product #**	**Lowest Ambient Temperature**	**Cold Weather Starts Below 50° F(10°C)**
AMSOIL	SAE 15W50	RD50QT-EA	Above 40° F (4° C)	Excellent
AMSOIL	SAE 10W30	RD30QT-EA	Below 40° F (4° C)	Excellent

CHECKING OIL LEVEL

An accurate engine oil level reading can only be obtained with the engine at normal operating temperature. The engine will require a longer warm up period in colder temperatures if using the hot check procedure.

NOTES

- *As part of the pre-ride inspection, verify that there are no oil leaks from the oil filter cover or oil lines prior to the operating of the motorcycle.*
- *The motorcycle should be on the sidestand when checking the oil level.*
- *Refer to table 20. Use only recommended oil specified.*

CAUTION

Do not allow oil level to fall below the MIN mark on the sight gage. Doing so can result in equipment damage and/or equipment malfunction.

CAUTION

Do not overfill oil tank. Doing so can result in oil carryover to the air box leading to equipment damage and/or equipment malfunction.

CAUTION

Do not switch lubricant brands indiscriminately. Some lubricant brands will interact with each other chemically when they are mixed together. Use of inferior lubricants can damage the engine.

Oil Level Cold Check

Perform engine oil level Cold Check as follows:

An accurate engine oil check can only be made with the engine at normal operating temperature .

1. With motorcycle on the side stand look at the oil level in the sight gauge. An indicated oil level between the lower and upper lines on the oil level sight gauge is acceptable for safe engine operation.
2. If there is no oil present in the sight gauge lift the motorcycle to a straight up and down position to see if any oil appears in the sight gauge.

3. If oil appears proceed to the Hot Check.
4. If no oil appears place motorcycle on sidestand and add oil in 3.4 fl oz (0.1 L) increments just until you see oil in the gauge and then proceed to the Hot Check. See Figure 44.

Oil Level Hot Check

Perform engine oil level HOT CHECK as follows:
1. To bring the motorcycle to normal operating temperature, ride the motorcycle for a least 10 minutes and 5 miles (8 kilometers).
2. Park the motorcycle on the sidestand while idling and remove the oil fill plug.
3. Idle the engine one (1) minute. Shut off the engine.
4. Read the oil level in the sight gauge.
a. **Below the lower line:** Add oil in 3.4 fl oz (0.1 L) increments until the level is between the upper and lower lines. Refer to Table 20.
b. **Between the upper and lower lines:** It is safe to operate the motorcycle.
c. **At (or above) the upper line:** Drain oil at 6.8 fl oz (0.2 L) increments until the oil level is between the lines.
5. Install the oil fill plug.

Figure 44. filler plug:

Figure 45. Oil Site Glass Location: Right side in front of clutch

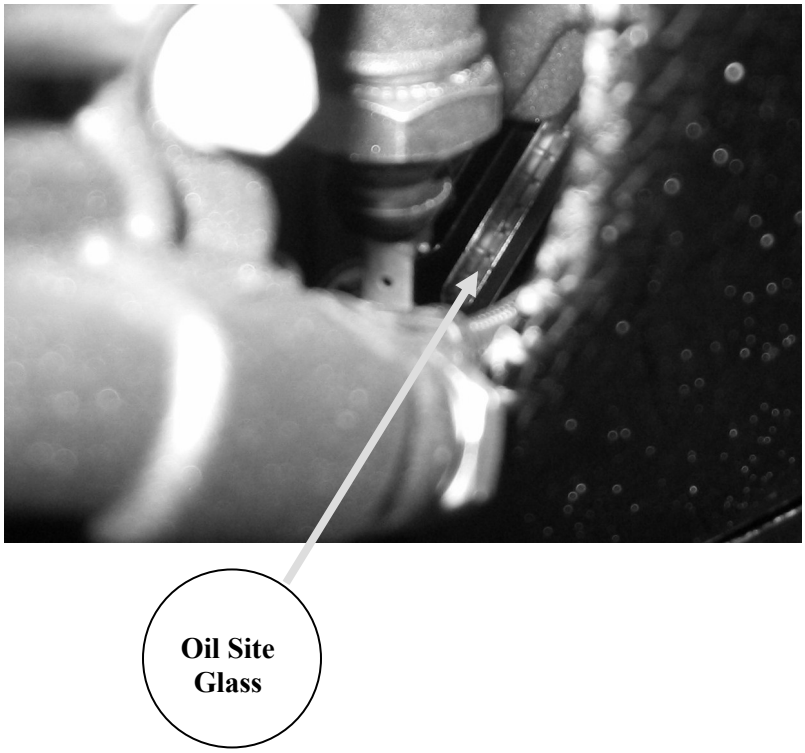
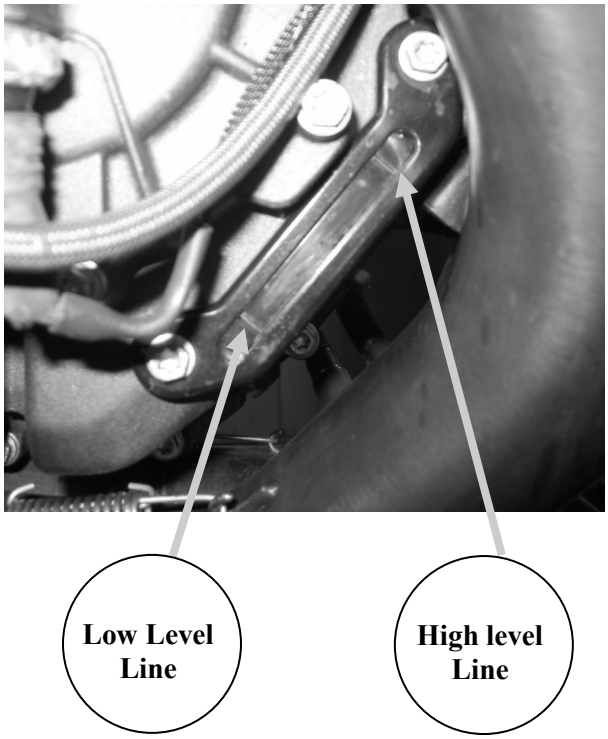


Figure 46. Oil Site Glass Level Indication



ENGINE OIL CHANGE

CAUTION

Do not switch lubricant brands indiscriminately because some lubricants interact chemically when mixed. Use of inferior lubricants can damage the engine.

WARNING

Be sure that no lubricants or fluids get on tires, wheels, or brakes when changing fluid. Traction can be adversely affected, which could result in loss of control of the motorcycle and death or serious injury.

NOTE

The engine oil also lubricates the clutch and transmission

1. Place a suitable container under the motorcycle.
2. See figure 44. Unscrew and remove fill plug from oil fill hole. Replace o-ring if torn or damaged.
3. See Figure 47. Remove the left engine oil drain plug located in the crank case. Wipe any accumulated debris from magnetic tip on drain plug and replace the aluminum washer.
4. See Figure 48. Remove the right oil drain plug located under the clutch cover. Wipe any accumulated debris from plug and replace the aluminum washer.
5. After all oil has drained, tilt vehicle to the right side to drain any remaining oil from the right side of the engine.

Figure 47. Engine oil drain plug left side

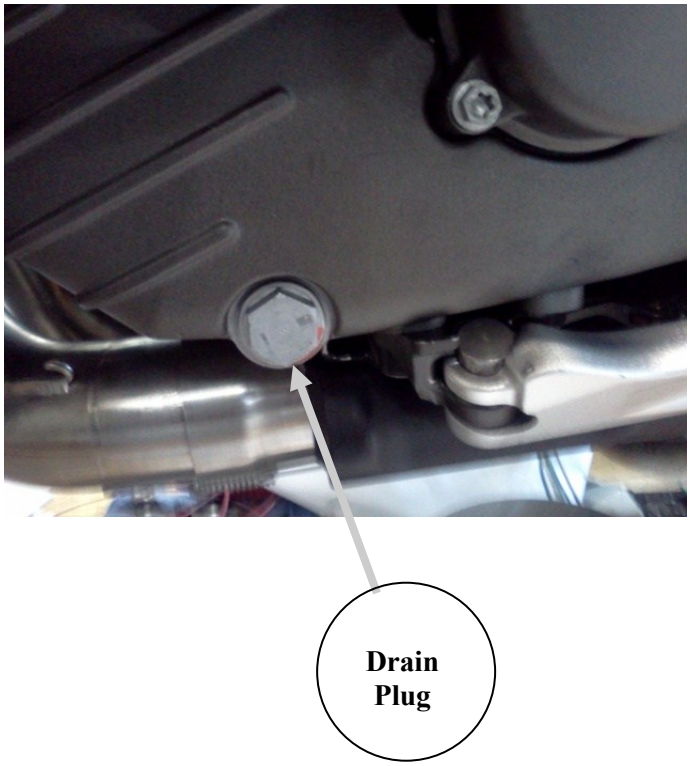
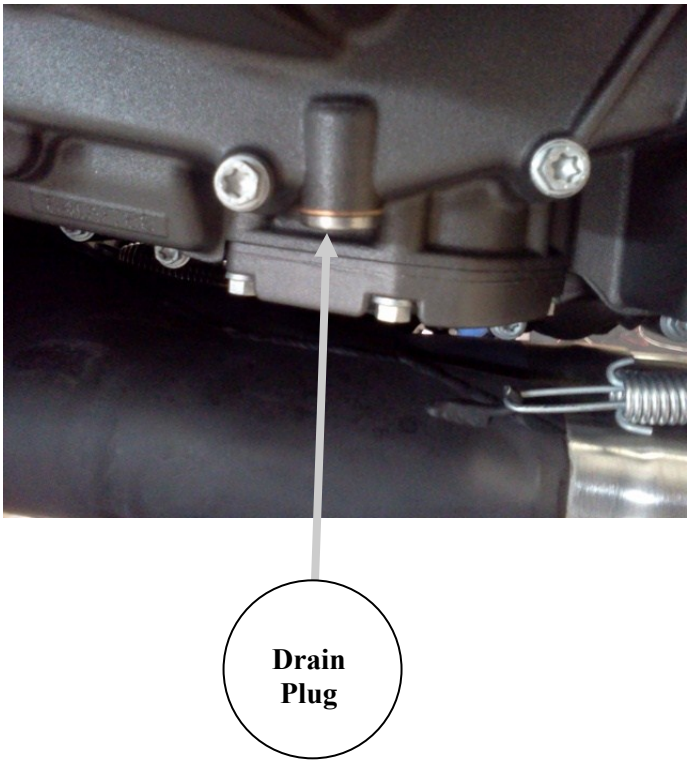


Figure 48. Engine oil drain plug. Right side



NOTE

Refer to Table 26 to determine if the oil filter cartridge needs to be replaced.

6. If replacing the oil filter cartridge, perform the following:

A. See figure 49 (Page 113). Remove the two screws to detach the oil filter cover.

B. Clean the cover and inside the oil filter recess in the crankcase. Remove any debris.

7. Install both drain plugs after oil is thoroughly drained.

A. Tighten left engine oil drain plug to 18 ft-lbs (25 Nm).

B. Tighten right engine oil drain plug to 11 ft-lbs (15 Nm).

8. Install new oil filter cartridge (Part No. Q1064.1B6), if removed.

A. Apply a light film of clean engine oil to the rubber contact surface on the new oil filter cartridge.

B. Push new oil filter cartridge into cover until properly seated.

C. Install oil filter cover (with filter) onto crankcase with two screws. Tighten screws to 97 in-lbs (11 Nm).

9. Fill oil through filler hole using recommended oil from Table 20. Always verify proper hot oil level in sight glass. Do not overfill.

I. Oil capacity **with** filter change is approximately 3.3 U.S. quarts (3.1 liters).

J. Oil capacity **without** filter change is approximately 3.0 U.S. quarts (2.8 liters).

10. Install (screw in) fill plug into oil fill hole. Make sure fill plug is screwed in completely.

NOTE

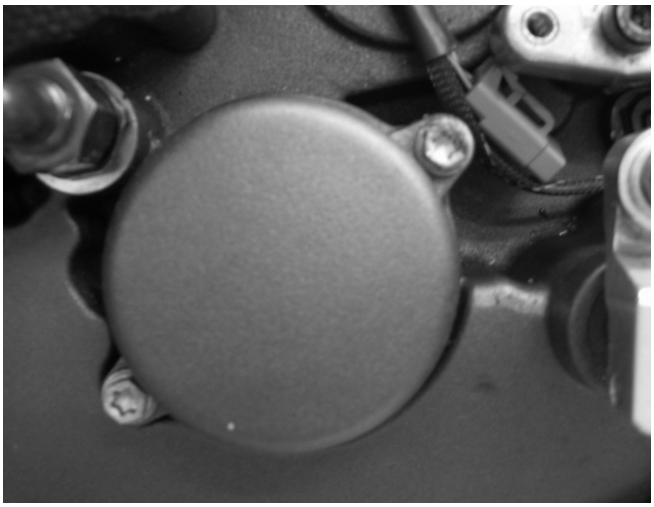
For ease of installation, apply a light film of clean engine oil to the fill plug o-ring.

⚠ WARNING

Compressed air can pierce the skin and flying debris from compressed air could cause serious eye injury. Wear safety glasses when working with compressed air. Never use your hand to check for air leaks or to determine air flow rates.

11. Inspect oil cooler fins for debris or damage. Blow out any debris from fins with compressed air from the inside of the cooler.
12. Wipe up any spilled oil on the vehicle.
13. Start engine. Verify that oil pressure signal lamp on instrument panel turns off after a few seconds when engine speed is 1000 RPM or above.
14. Check oil filter cover, drain plugs, hoses and oil cooler for leaks.
15. Check (hot) oil level. See MAINTENANCE AND LUBRICATION, Checking Oil Level.

Figure 49



WINTER LUBRICATION

In colder climates, the engine oil should be changed often. If motorcycle is used frequently for short trips, less than 15 miles (24 kilometers), in ambient temperatures below 60° F (16 C) oil change intervals

should be reduced to 1500 miles (2400 km). Motorcycles used only for short runs must have a thorough tank flush out before new oil is put in. The tank flush out should be performed by an authorized dealer or qualified technician.

NOTE

The further below freezing the temperature drops, the shorter the oil change interval should be.

Water vapor is a normal by-product of combustion in any engine. During cold weather operation, some of the water vapor condenses to liquid form on the cool metal surfaces inside the engine. In freezing weather, this water will become slush or ice, and if allowed to accumulate for too long, may block the oil lines and cause damage to the engine.

If the engine is run frequently and allowed to thoroughly warm up, most of this water will become vapor again and will be blown out through the crankcase breather. If the engine is not run frequently, and now allowed to warm up, this water will mix with the engine oil to form a sludge that will harm the engine.

FUEL FILTER

The fuel pump assembly located in the frame fuel cell includes a fuel filter. The fuel filter does not require any maintenance.

CHAIN DRIVE

See figure 52. Adjust chain to 35 mm +/- 2 mm as shown. To adjust chain:

1. See figure 50. Loosen rear axle three turns
2. See figure 51. Turn adjusters on each side of the swingarm evenly to adjust chain tension
3. Lift chain until it is tight and check chain tension by measuring the distance from the bottom of a chain link to the top of the chain rub block. Adjust distance to 35 mm +/- 2 mm as shown in figure 52.
4. Measure axle adjuster positions on both sides of the swingarm to ensure they are even on each side of the swingarm . This check will ensure rear sprocket is aligned with front sprocket. See figure 50.
5. Tighten axle to 49—51 ft-lbs (66.4—69.1 Nm)

Figure 50: Axle

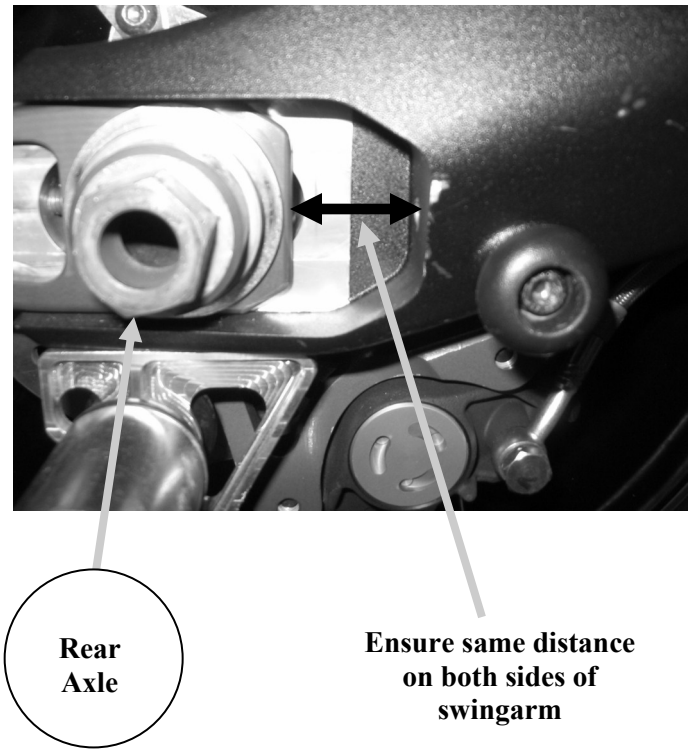


Figure 51: Chain tension adjustors

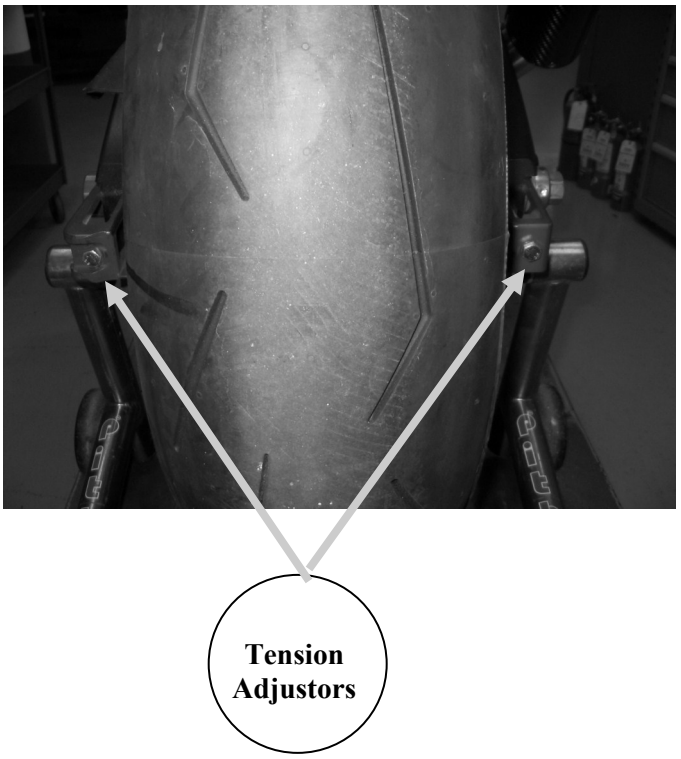
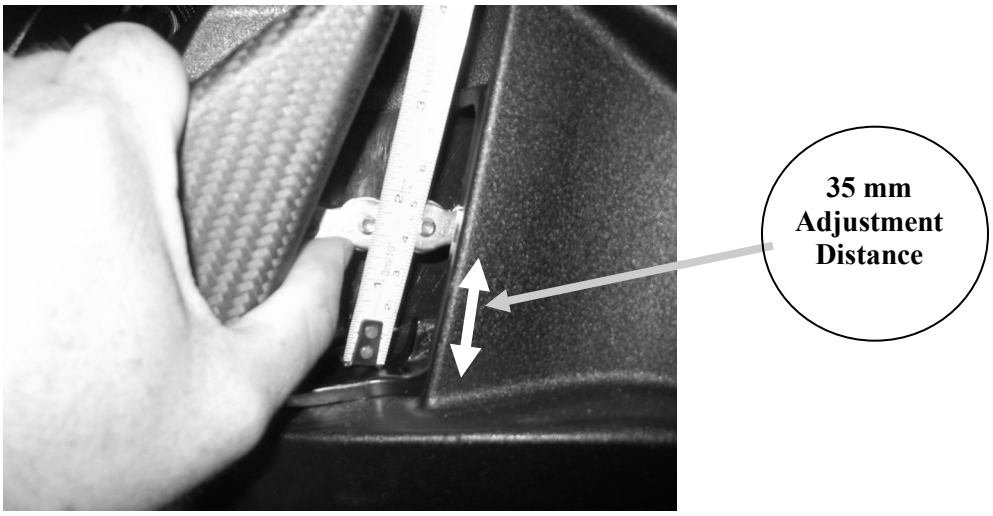


Figure 52: Adjustment Measurement



Notes

CHASSIS LUBRICATION

CAUTION

Do not switch lubricant brands indiscriminately because some lubricants interact chemically when mixed. Use of inferior lubricants can damage the engine.

1. The steering head bearings are sealed, angular contact bearings and do not require additional lubrication. Check for smooth range of movement and proper operation.
2. Front and rear wheel bearings are sealed and do not require additional lubrication. Check at every tire change (more often in adverse conditions) or yearly if operated under winter conditions. Replace bearing spacers if they show any wear or distortion.
3. Inspect throttle control grip, throttle control cables, brake controls, clutch controls, fuel filler cap, ignition switch and sidestand every 6200 miles (10,000 km). Check for a smooth range of movement and proper operation. See an EBR Dealer for service as required.
4. Rear swingarm pivot bearings are sealed and do not require additional lubrication. Check for smooth range of movement and proper operation. See an EBR Dealer for service as required.

NOTE

Lubricate all control connections and parts regularly. Pay particular attention to lubrication needs after washing motorcycle or driving in wet weather.

CAUTION

Do not use pressure washers to clean wheel bearings, sprocket bearings, steering head bearings and swingarm pivot bearings. Doing so can result in equipment damage.

FRONT FORK OIL

WARNING

Incorrect amount of fork oil can adversely affect handling and lead to loss of vehicle control, which could result in death or serious injury.

Drain front fork oil and refill with a *AMSOIL Shock Therapy Suspension Fluid #10 Medium* fork oil at the proper mileage intervals. Refer to Table 26.

If either fork leaks oil or does not seem to be working properly, see an EBR Dealer. Forks must contain equal amounts of fork oil for proper damping.
Incorrect recoil action will result if there is insufficient oil in either side of fork.

AIR FILTER

⚠ CAUTION

Install air filter before running engine. Failure to do so can draw debris into the engine and could result in engine damage.

See Figure 56. Remove air box cover and air filter cover and inspect filter element at proper mileage intervals. Refer to Table 26. Inspect more often under dusty conditions. See an EBR dealer or service manual for more information.

Figure 56: Air Filter Element

STORAGE

CAUTION

Proper storage is important for the trouble-free operation of your motorcycle. See your Owner's Manual for storage recommendations or see an EBR dealer. Improper storage procedures can lead to equipment damage.

If the motorcycle will not be operated for several months, such as during the winter season, follow the procedure below. Proper storage preparation will protect parts against corrosion, preserve the battery, and prevent the build-up of gum and varnish in the fuel system. Improper storage may adversely affect the warranty. See WARRANTIES AND RESPONSIBILITIES, Warranty and Service Information section for more information.

NOTE

List everything you do and fasten it to a handlebar. When you take the motorcycle out of storage, this list will be your reference/checklist to get your motorcycle in operating condition.

WARNING

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. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury.

Placing Motorcycle in Storage

If motorcycle is to be covered, use a material such as light canvas that will breathe. Plastic materials that do not breathe promote the formation of condensation which can damage the finish of a motorcycle.

1. Warm motorcycle to operating temperature. Change oil and turn engine over to circulate the new oil.
2. Fill fuel tank and add a gasoline stabilizer. Use one of the commercially available gasoline stabilizers and follow the manufacturers instructions.
3. Run engine until gasoline stabilizer has had a chance to reach fuel injectors.

COOLANT LEVEL

Coolant Type

CAUTION

Use only high quality extended life antifreeze and coolant. Use of other coolants/mixtures may lead to engine damage.
The Anti-Freeze & Coolant needs to be a 50-50 mixture of de-ionized water and Ethylene Glycol-based Anti-freeze.

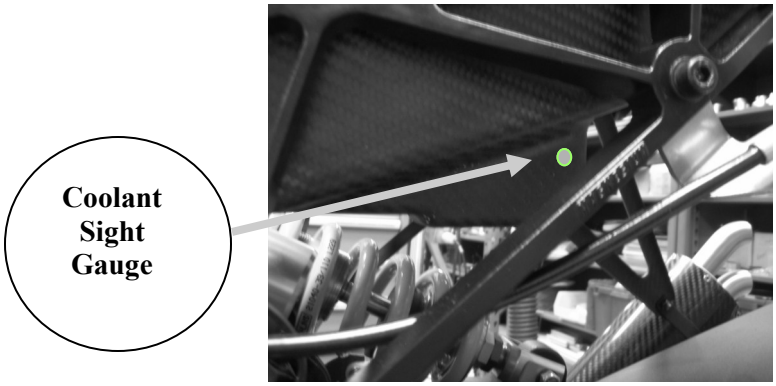
CAUTION

De-Ionized water must be used with the antifreeze in the cooling system. Hard water can cause scale accumulation in water passages which reduces cooling system efficiency, leading to overheating and engine damage.

Checking Level in Coolant Sight Gauge. (Quick Check)

See Figure 57. A coolant sight gauge is located in the tail section under the rider seat, on the left side of the bike. The sight gauge shows whether the coolant level is near the COLD FULL line on the expansion tank. With the coolant cool and the motorcycle on its side-stand, look inside the sight gage. If fluid is visible in the sight gauge, the coolant level is at or above the COLD FULL line.

Figure 57: Coolant Sight Gage



Checking and Adding Coolant in Expansion Tank

1. See Rider Seat Removal.
2. View the expansion tank. The fluid level should be in the middle of the tank when the bike is cold.
3. To add coolant, unscrew the cap on the plastic expansion tank and fill to the midpoint of the tank.

⚠ WARNING

Coolant mixture contains toxic chemicals, which may be fatal if swallowed. If swallowed, do not induce vomiting; call a physician immediately. Use in a well ventilated area. Irritation to skin or eyes can occur from vapors or direct contact. In case of skin or eye contact, flush thoroughly with water and go to the hospital, if necessary. Dispose of used coolant according to federal, state and local regulations.

⚠ WARNING

Do not remove the radiator filler cap when the engine is hot. The cooling system is under pressure and hot coolant and steam can escape, which could cause severe burns. Allow engine to cool before servicing

⚠ CAUTION

At operating temperature, the radiator and oil cooler contain hot fluids. Contact with the radiator or oil cooler can result in minor or moderate burns.

NOTE

If the coolant expansion tank is empty when the engine is cold, it is possible that air has been drawn into the cooling system. The system must be purged of any trapped air and refilled with coolant. See the service manual for instructions on the correct procedure.

CAUTION

Clean the inlet surface of the radiator regularly. Leaves and other debris can collect on the radiator surface and degrade radiator performance which could lead to engine overheating and engine damage.

CLEANING YOUR EBR

Aluminum parts must be maintained regularly to retain their original shine and luster. Frequently clean and wax your new EBR motorcycle to inhibit rust and corrosion. To aid in keeping your motorcycle clean, see an EBR dealer for cleaning, touch-up, polishing and waxing products.

CAUTION

Do not use pressure washers to clean wheel bearings, sprocket bearings, steering head bearings and swingarm bearings. Doing so can result in equipment damage.

⚠ WARNING

Observe warnings on labels of cleaning compounds. Failure to follow warnings could result in death or serious injury.

⚠ WARNING

Do not wash brake discs with cleaners containing chlorine of silicone. Cleaners containing chlorine and silicone can impair brake function, which could result in death or serious injury.

CAUTION

Do not use abrasive cleaners on frame, side stand, swingarm and wheels. The finish on these parts could be damaged if abrasive cleaners are used.

WINDSHIELD MAINTENANCE

CAUTION

Polycarbonate windscreens/windshields require proper attention and care to maintain. Failure to maintain polycarbonate properly can result in damage to the windshield/windscreen.

CAUTION

Do not use benzene, paint thinner, gasoline or any other type of harsh cleaner on the windshield. Doing so will damage the windshield surface.

- Do not clean in hot sun or high temperature.
- Powdered, abrasive or alkaline cleanser will damage the windscreen/windshield.

Windshields require special care. EBR recommends using a soft cloth and a high quality glass cleaner to clean your windshield. To minimize swirl marks, cleaning should be done when the motorcycle is cool and parked in the shade.

NOTE
Faint swirl marks are normal and may be more visible on tinted windshields than on clear windshields.

BODY PANEL CARE

CAUTION

Use of abrasive products or powered buffing equipment will cause permanent cosmetic damage to body panels. Use only recommended products and techniques outlined in this manual to avoid damaging body panels.

Washing

To wash follow the instructions below:

1. Rinse surface with water.
2. Wash with a high quality car wash
3. Rinse surface thoroughly with water.
4. Dry with a clean chamois or soft dry natural fiber cloth.

Polishing

Polishing body panels results in greater surface gloss and a protective coating.

1. Clean and dry surfaces to be polished. See Washing.
2. Apply a high quality Carnauba Wax per package instructions.

Minor Scratch Removal

CAUTION

Use of abrasive products or powered buffing equipment will cause permanent cosmetic damage to body panels. Use only recommended products and techniques outlined in this manual to avoid damaging body panels.

To remove minor scratches form body panels follow the instructions below:

1. To remove light surface scratches and rubs, use a high quality scratch remover as recommended.
2. Make sure treatment is applied with a moist cloth and by hand (not machine).

NOTE

Black body panels are more prone to suffer permanent cosmetic damage if attempts to remove scratches are overdone.

Major Scratch Removal

There is no repair procedure for severely scratched surfaces. Severely scratched body panels must be replaced.

WHEEL CARE

To maintain the original luster and appearance of the wheels on your EBR motorcycle, clean and polish wheels as often as possible to inhibit rust and corrosion. Damage from harsh chemicals, acid based wheel cleaners, brake dust and lack of maintenance can occur. Regular washing and the use of corrosion protection will help to maintain their original appearance.

NOTES

- *Use nickel based anti-seize on all bolts that are being installed in front and rear wheels*
- *It is imperative that the wheels are cared for weekly to guard against corrosion and pitting.*
- *Corrosion of these components is not considered to be a defect in materials or workmanship.*

See an EBR dealer for cleaning, polishing, and waxing products.

FRAME AND SWINGARM CARE

WARNING

The aluminum frame of this motorcycle is the fuel tank. Drilling, welding, cutting, grinding, sanding, polishing or other modifications to this frame can weaken it or cause a fire, which could result in death or serious injury.

To aid you in cleaning the frame and swing arm, see an EBR dealer for cleaning supplies and touch up paint.

HYDRAULIC CLUTCH

General

The clutch is hydraulically actuated. Squeezing the left hand lever actuates the clutch master cylinder applying hydraulic pressure through the clutch fluid line to the secondary clutch actuator. The secondary actuator acts on the clutch pressure plate compressing the clutch springs and disengaging the clutch.

The slipper action clutch reduces undesired engine braking when the engine is down shifted at speed.

Checking Fluid Level

Refer to table 26. Check the fluid level as follows:

1. Stand the motorcycle upright (not leaning on the sidestand) on a level surface, turn the handlebar so the clutch master cylinder reservoir is level.
2. Verify the fluid level in the fluid reservoir.
3. If the fluid level is at or below the MIN line, rotate the front forks to access the fluid reservoir and remove the cover, stiffener and diaphragm.
4. Inspect the cover, stiffener and diaphragm for damage. Replace the diaphragm if necessary.

CAUTION

D.O.T. 4 hydraulic brake fluid is used in the hydraulic clutch. Use AmsOil Series 600 racing DOT4 racing Brake Fluid or equivalent. Do not use other types of fluids as they are not compatible and could cause equipment damage.

CAUTION

Do not allow dirt or debris to enter the master cylinder reservoir. Dirt or debris in the reservoir can cause improper operation and equipment damage.

⚠ WARNING

The clutch failing to disengage can cause loss of control, which could result in death or serious injury. Prior to starting after extended periods of storage, place transmission in gear and push vehicle back and forth several times to assure proper clutch disengagement.

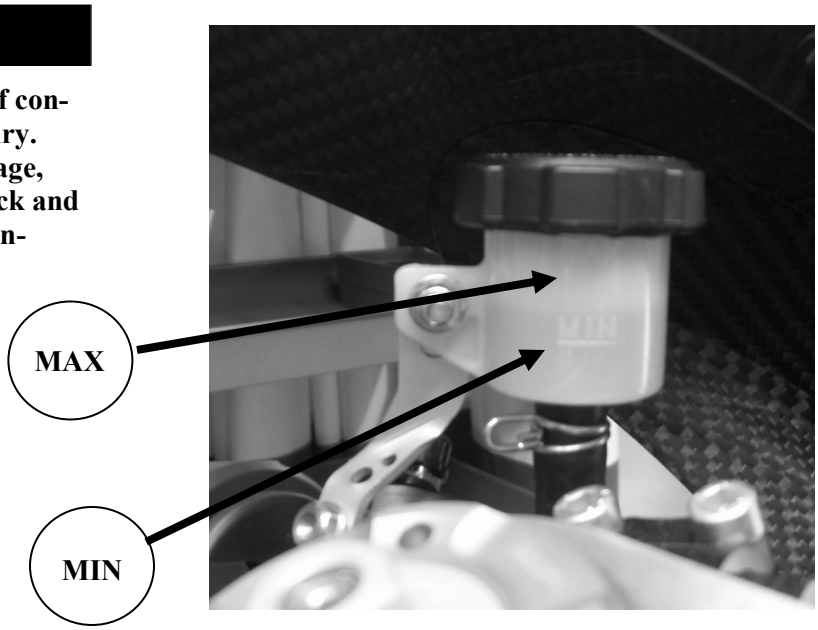


Figure 57

CAUTION

Direct contact of D.O.T. 4 brake fluid with eyes can cause irritation. Avoid eye contact. In case of eye contact flush with large amounts of water and get medical attention. Swallowing large amounts of D.O.T. 4 brake fluid can cause digestive discomfort. If swallowed, obtain medical attention. Use in a well ventilated area. KEEP OUT OF REACH OF CHILDREN.

CAUTION

D.O.T. 4 brake fluid will damage painted and body panel surfaces it comes in contact with. Always use caution and protect surfaces form spills whenever brake work is performed. Failure to comply can result in cosmetic damage.

5. Add D.O.T. 4 BRAKE FLUID until the level is above the LOWER line. Use Amsoil Series 600. or equivalent.

NOTE

Do not overfill the clutch master cylinder reservoir. Leave sufficient volume in the reservoir to accommodate the rise in fluid level as the clutch friction disks wear.

6. Carefully place the diaphragm, stiffener, and cover on the master cylinder reservoir and tighten by hand.

BRAKES

WARNING

Inspect brake pads for wear at service intervals. If you ride under adverse conditions (steep hills, heavy traffic, etc.), inspect more frequently. Excessively worn out brake pads can lead to brake failure, which could result in death or serious injury.

The brake system needs routine inspections and maintenance at certain levels. Refer to Table 26 for more information.

WARNING

Brakes are a critical safety component. Contact an EBR dealer for brake repair or replacement. Improperly serviced brakes can adversely affect brake performance, which could result in death or serious injury.

These Brake tasks may include:

1. Inspecting front and rear brake pads and brake disks for wear.
2. Checking the fluid level in the front and rear master cylinder reservoirs.
3. Replacing the front and rear brake pads and pin.
4. Changing the brake fluid and having the brakes serviced. Use only D.O.T. 4 Hydraulic Brake Fluid. Use Amsoil Series 600 racing DOT4 racing Brake Fluid or equivalent.

Always take your motorcycle to an EBR Dealer for brake system maintenance.

NOTE: Use nickel based anti-seize on all bolts that are being installed in front and rear wheels

CAUTION

D.O.T. 4 brake fluid will damage painted and body panel surfaces it comes in contact with. Always use caution and protect surfaces form spills whenever brake work is performed. Failure to comply can result in cosmetic damage.

Direct contact of D.O.T. 4 brake fluid with eyes can cause irritation. Avoid eye contact. In case of eye contact flush with large amounts of water and get medical attention. Swallowing large amounts of D.O.T. 4 brake fluid can cause digestive discomfort. If swallowed, obtain medical attention. Use in a well ventilated area. KEEP OUT OF REACH OF CHILDREN.

TIRES

Keep the tires properly inflated. Check tire pressure before riding when tires are cold.

WARNING

Be sure tires are properly inflated, balanced and have adequate tread. Inspect your tires regularly and see an EBR dealer for replacements. Riding with excessively worn, unbalanced or under inflated tires can adversely affect stability and handling, which could result in death or serious injury.

Check inflation pressure and inspect tread for punctures, cuts, breaks, etc. Inspect at least weekly if in daily use or before each trip if used only occasionally.
Refer to Table 11 for tire pressures and sizes.

WARNING

Match tires, air valves and caps to the correct wheel rim. Contact an EBR dealer. Mismatching can result in damage to the tire bead, allow tire slippage on the rim, or cause tire failure, which could result in serious injury or death.

Replace worn tires with new tires identical to those that came on the motorcycle as original equipment. Other tires may not fit correctly or may be hazardous to use.

WARNING

Tires are a critical safety component. Contact an EBR dealer for tire repair or replacement. Improper tire service can adversely affect stability and handling, which could result in death or serious injury.

WARNING

Replace punctured or damaged tires. In some cases, small punctures in the tread may be repaired from within the demounted tire by an EBR dealer. Speed should NOT exceed 50mph (80 km/h) for the first 24 hours after the repair, and the repaired tire should NEVER be used over 80 MPH (130 km/h). Failure to follow this warning could result in death or serious injury.

⚠ WARNING

Striking an object, such as a curb, can cause internal tire damage. If an object is struck, remove and inspect both the inside and outside of the tire. A damaged tire can adversely affect stability and handling, which could result in death or serious injury.

TIRE REPLACEMENT

Inspection

Tread wear indicator bars will appear on tire tread surfaces when 1/16th in. (1.6 mm) or less of tire tread remains. Always replace tires before the tread wear indicator bars appear on the surface of the tire.

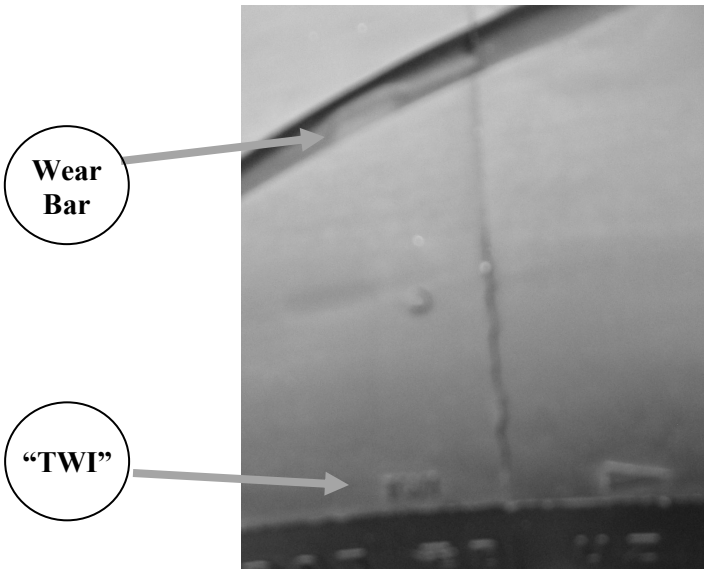
See Figure 58. The location of tread wear indicator bars are identified by 'TWI' markings on the tire sidewalls.

When to Replace Tires

New tires are needed if any of the following conditions exist:

1. Tread wear indicator bars become visible on the tread surfaces.
2. Tire cords or fabric become visible through cracked sidewalls, snags, or deep cuts.
3. A bump, bulge, or split in the tire.
4. Puncture, cut, or other damage to the tire that cannot be repaired.

Figure 58



SHOCK ABSORBER

The rear shock absorber requires inspections and maintenance at proper mileage intervals. Refer to Table 26.

- Inspect shock absorber for oil leaks.
- Inspect shock eye bushings for deterioration
- Check for loose mounting hardware.

See an EBR dealer for all shock absorber repairs.

SPARK PLUGS/COILS

Refer to Table 26. Spark plugs require inspection and

⚠ CAUTION

Do NOT pull on any electrical wires. Pulling on electrical wires may damage the internal conductor causing high resistance, which may result in minor or moderate injury.

The engine is equipped with plug-top coils. To inspect the spark plugs, the coils must be removed. See the service manual for proper service procedure.

Refer to Table 4. Only the specified spark plugs with the proper gap should be installed.

IGNITION TIMING

Spark timing is advanced electronically as engine speed increases to suit starting, low speed and high speed requirements.

IDLE SPEED

Idle speed is monitored and controlled by the Electronic Control Module (ECM) and Idle Air Control (IAC) and is not adjustable.

Table 21. Engine Idle Speed

MODEL	REGULAR IDLE
1190 RS	1450 RPM nominal

WHEEL BEARINGS

The wheel bearings are sealed units. No greasing or maintenance is required.
Inspect wheel bearings each time the wheel is removed. Replace when worn.

NOTE: Excessive play or roughness indicates worn bearings that require replacement.

NOTE: Use Nickel based anti-seize on all bolts that are being installed in front and rear wheels

VOLTAGE REGULATOR

The alternator output is controlled and changed to direct current by the voltage regulator.

- The voltage regulator increases charging rate when battery voltage is low.
- The voltage regulator decreases charging rate when battery charge is up.

CAUTION

It is possible to overload your motorcycles charging system by adding too many electrical accessories . If your combined electrical accessories operating at any one time consume more electrical current than your vehicle's charging system can produce, the electrical consumption can discharge the battery and cause vehicle electrical system damage. See an EBR dealer for advice about the amount of current consumed by additional electrical accessories, or for necessary wiring changes.

NOTE

The voltage regulator does not require any scheduled maintenance. If any electrical system trouble is experienced that might be traceable to the alternator or voltage regulator, take the motorcycle to an EBR dealer. Dealers have the necessary parts and testing equipment to perform electrical service.

BATTERY: GENERAL

Type

Your motorcycle uses a permanently sealed, maintenance free, Lithium-Ion battery. All batteries are shipped pre-charged and ready to be put into service. Do not attempt to open the battery for any reason.

⚠ WARNING

Batteries, battery posts, terminals and related accessories contain lead and lead compounds, and other chemicals known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling.

⚠ WARNING

Do not burn or incinerate battery. Battery may explode, and toxic fumes and materials are created causing personal injury or death.

⚠ WARNING

Never remove warning label attached to top of battery. Failure to read and understand all precautions contained in warning, could result in death or serious injury.

Voltmeter Test

The voltmeter test provides a general indicator of battery condition. Check the voltage of the battery to verify that it is in a charged condition. If the open circuit (disconnected) voltage reading is below 12.3 V, charge the battery and then re-check the voltage.

Cleaning and Inspection

Battery top must be clean and dry. Dirt and electrolyte on the battery can cause battery to self-discharge.

1. Clean battery.
2. Clean cable connectors and battery terminals using a wire brush or fine grit sandpaper to remove any oxidation.
3. Inspect and clean the battery screws, clamps and cables. Check for breakage, loose connections and corrosion.

4. Check the battery posts for melting or damage caused by over tightening.
5. Inspect the battery for discoloration, a raised top or a warped or distorted case. This might indicate that the battery has been frozen, overheated or overcharged.
6. Inspect the battery case for cracks or leaks.

Figure 58: Battery Warning Label

WARNING; TO REDUCE THE RISK OF INJURY, THE USER MUST READ AND UNDERSTAND THE INSTRUCTION MANUAL. USE ONLY IN EBR MODEL 1190RS. DO NOT DISASSEMBLE. DO NOT USE IF BATTERY IS DAMAGED OR CRACKED. LITHIUM ION; DO NOT BURN OR INCINERATE; MUST RECYCLE.

Charging

Never charge a battery without first reviewing the instructions for the charger being used. In addition to the manufacturer's instructions, follow these general safety precautions. Charge the battery if any of the following conditions exist:

• Vehicle lamps appear dim.
• Electric starter sounds weak.

WARNING

Unplug or turn OFF battery charger before connecting charger cables to battery. Connecting cables with charger ON can cause a spark , which could result in death or serious injury.

WARNING

Connect positive (+) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, causing sparks , which could result in death or serious injury.

1. Perform a voltmeter test to determine the state of charge. If battery needs to be charged, proceed to the next step.
2. Place the battery on a level surface.

WARNING

Connect positive (+) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, causing sparks , which could result in death or serious injury.

WARNING

Do not reverse the charger connections described in the following steps or the charging system of the motorcycle could be damaged.

NOTES

• Use an automatic charger. The charger to determine when charging is complete.
• Do not use chargers with excessively high voltage designed for flooded batteries or excessively high current designed for much larger batteries. Charging should be limited to no more than 2 amps at no more than 14.6 volts.

3. Connect the red battery charger lead to positive (+) terminal of the battery.
4. Connect the black battery charger lead to negative (-) terminal of the battery.

NOTE
If the battery is still in the vehicle, connect the negative lead to the chassis ground. Make sure that the ignition and all electrical accessories are turned off.
5. Step away from the battery and turn on the charger.

⚠ WARNING

Unplug or turn OFF battery charger before disconnecting charger cables from battery. Disconnecting clamps with charger ON can cause a spark , which could result in death or serious injury.

6. After the battery is fully charged, turn OFF the charger and disconnect the black battery charger lead to the negative (-) terminal of the battery.
7. Disconnect the red battery charger lead to the positive (+) terminal of the battery.
8. Mark the charging date on the battery.

Storage

The EBR Nano-teck lithium-ion battery was designed to have minimal self-discharge. In the event of extended battery idle, the battery should be cared for as follows.

1. A battery that is stored in the vehicle is affected by quiescent loads. Quiescent loads occur from things like diode leakage and maintaining computer memory with the vehicle off. If the battery is going to be left in an unridden bike for more than 2 months (8 weeks), disconnect and remove the battery from the vehicle.
2. If the battery is removed from a bike after sitting for 2 months or more, attach a trickle charger to the battery to top it off and then store it as you normally would.
3. The EBR Lightweight Nano-Teck Battery has a specially designed balance board to increase its electrical performance which also means it has a very minimal quiescent electrical draw. Due to this minimal draw, a sitting not-in-use battery should be topped off via trickle charger every 6-8 months.

When storing the battery, always keep it in a warm, dry location.

The battery terminals can be accessed under the seat. Clean connections and check tightness annually. Battery terminals should be tightened to 60-70 **in-lbs** (6.8-7.9 Nm). If it is necessary to remove the battery from your motorcycle, see the service manual for detailed instructions.

NOTE
Use only the battery specified for this model. If installing a new battery, check the polarity marked on the terminals before installation.

JUMP-STARTING EBR MOTORCYCLES

EBR does not recommend jump-starting a motorcycle. However, there may be circumstances when it is necessary to do so. Therefore, we suggest jump-starting be performed as follows:

⚠ WARNING

Be sure jumper cables touch only appropriate battery terminals or ground. Allowing jumper cables to touch each other can result in sparks and a battery explosion, which could result in death or serious injury.

CAUTION

EBR motorcycles have a 12 volt battery. Be sure the booster vehicle has a 12 volt system. Failure to do so could result in vehicle damage.

NOTES

• This procedure presumes the BOOSTER battery is in another vehicle. DO NOT jump start from a running booster vehicle. The high output charging systems on some vehicles can damage the electrical components on the motorcycle.

• Make sure the motorcycle and the BOOSTER vehicle are not touching one another.

1. Turn off all unnecessary lamps and accessories.

Positive Cable

2. Connect one end of a jumper cable to the DISCHARGED battery positive (+) terminal.
3. Connect the other end of the same cable to the BOOSTER battery positive (+) terminal.

Negative Cable

4. Connect one end of a jumper cable to the BOOSTER battery negative (-) terminal.

CAUTION

Do not connect the negative (-) cable to painted or chrome parts. Doing so could result in discoloration at the attachment point.

5. Connect other end of the same cable to a safe ground (4), (away from the DISCHARGED battery).
6. Start motorcycle.
7. Disconnect cables in reverse order of steps 2, 3, 4, 5.That is: steps 5, 4, 3, 2.

HEADLAMP

The low beam and position lamps are lit whenever the ignition key is turned on. All bulbs are lit when the high beam switch is activated or when passing lamp switch is pressed.
See an EBR dealer or service manual for bulb replacement.

CAUTION

Never touch the quartz bulb. Fingerprints will etch the glass and decrease the bulb life. Grab the bulb with paper or a clean, dry cloth. Failure to do so could result in bulb damage.

WARNING

Handle bulb carefully and wear eye protection. Bulb contains gas under pressure, which, if not handled carefully, could cause serious eye injury.

Figure 59 headlamp assembly

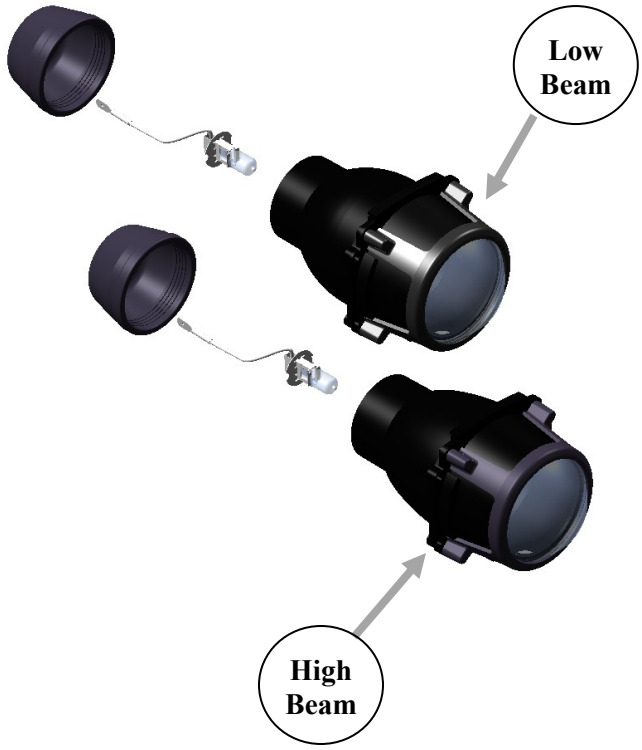
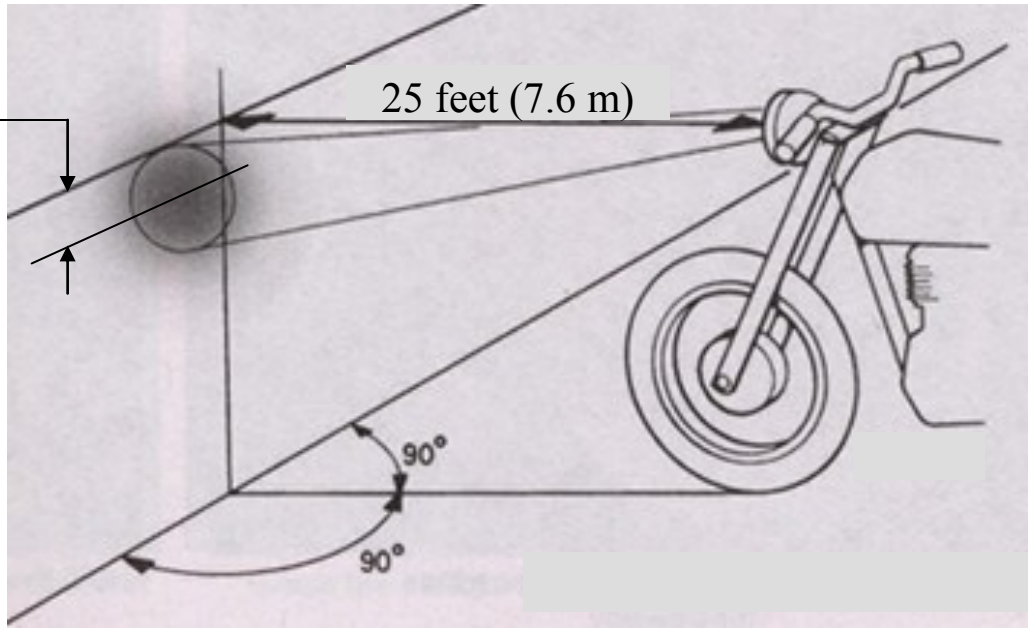


Figure 60: Headlight Alignment



HEADLAMP ALIGNMENT

WARNING

The automatic-on headlamp feature provides increased visibility of the rider to other motorists. Be sure headlamp is on at all times. Poor visibility to other motorists can result in death or serious injury.

NOTE

This vehicle has beam headlamps that are individually aimed and should be adjusted so both lamps converge into one pattern.

1. Verify that front and rear tire inflation pressures are correct and that suspension is adjusted to the weight of the principal rider. See SPECIFICATIONS.
2. Fill fuel tank or add ballast to equal the weight of fuel needed.

NOTE

See Figure 60. To aid in properly placing the motorcycle, a perpendicular line can be drawn on the floor. For best results, choose an area with minimum light.

3. See Figure 60. Draw a vertical line on the wall.
4. Position motorcycle so that the front axle is 25 feet (7.6 meters) from the wall.

NOTE

As the weight of the rider will compress the suspension slightly, have a person whose weight is approximately the same as that of the principal rider sit on the motorcycle.

5. With the motorcycle laden and upright, point the front wheel straight forward at the wall and measure the distance from the floor to the center of the LOW BEAM bulb.
6. Draw a horizontal line through the vertical line on the wall that is 2.1 in. (53.3mm) lower than the measured bulb centerline.

NOTE

As the weight of the rider will compress the suspension slightly, have a person whose weight is approximately the same as that of the principal rider sit on the motorcycle.

7. See Figure 60. Verify headlamp alignment. Turn the ignition switch to IGNITION and set the headlamp switch to HIGH beam.

A. The center of the hot spot (brightest area of light beam) should be centered where the two lines intersect.

B. Adjust headlamp alignment if necessary.

HEADLAMP ADJUSTMENT

Horizontal Adjustment

Horizontal adjusters are located behind the fairing/ headlamp assembly. If horizontal adjustment (left or right) is required, locate adjuster screw on right side of bike behind fairing.

• To move beam to the right, turn adjuster clockwise.

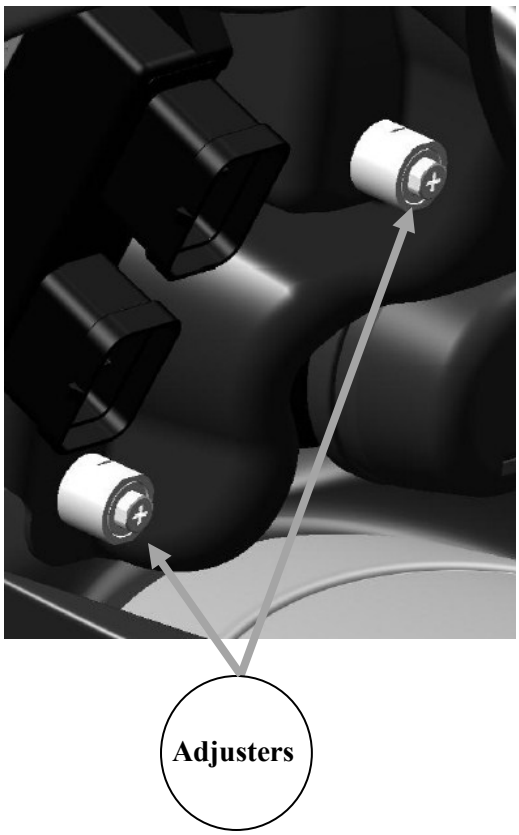
• To move beam to the left, turn adjuster counter clockwise.

Figure 61:Right Side

VERTICAL ADJUSTMENT

Vertical Adjustment
See Figure 62. The vertical headlamp adjusters are located on the left side of the bike behind the fairing.
• To lower beam, turn adjuster clockwise.
• To raise beam, turn adjuster counter clockwise.

Figure 62: Left side



TROUBLESHOOTING: GENERAL

WARNING

The troubleshooting section of the Owner's Manual is a guide to diagnose problems. Read the service manual before performing any work. Improper repair and/or maintenance could result in death or serious injury.

The following checklist of possible operating troubles and their probably causes will be helpful in keeping your motorcycle in good operating condition. More than one of these conditions may be causing trouble and should be carefully checked.

ENGINE

Starter Does not Operate or Does Not Turn Engine Over.

1. Engine run switch in OFF position.
2. Ignition switch is not ON.
3. Discharged battery or loose or corroded connections (solenoid chatters)
4. Clutch lever not squeezed against handlebar or transmission not in neutral.
5. Blown fuse.

Engine Turns Over But Does Not Start or Starts Hard.

1. Fuel tank is empty.
2. Discharged Battery or loose or damaged battery terminal connections.
3. Spark Plugs are loose, defective, fouled, have improper gap, or not according to specification.
4. Spark plug coils are defective, have loose connection, or wiring in bad condition and shorting.
5. Engine oil too heavy (winter operation).
6. No output from ECM. See dealer.
7. Clogged fuel filter. See dealer.
8. Inadequate fuel pressure in fuel lines. Possible leak. See dealer.

9. Clogged fuel injectors. See dealer.
10. Inoperative fuel pump. See dealer.
11. Water or dirt in fuel system. See dealer.
12. Engine management system failure. See dealer.
13. Intake Manifold Leak. See dealer.
14. Tripped bank angle sensor. Turn key to OFF, and then back to ON again. Start Engine.

Starts But Runs Irregularly or Misses.

1. Spark plugs in bad condition or partially fouled.
2. Spark plug gap too close or too wide.
3. Battery nearly discharged.
4. Damaged wire or loose connection at battery terminals or coils.
5. Intermittent short circuit due to damaged wire insulation.
6. Water or dirt in fuel system. See dealer.
7. Fuel level too low. Add gasoline.
8. Inoperative fuel injector. See dealer.
9. Obstructed fuel tank vent valve or pinched vent tube. See dealer.
10. Engine management system failure. See dealer.
11. Intake manifold leak. See dealer.

A Spark Plug Fouls Repeatedly.

1. Fuel mixture too rich. See dealer.
2. Incorrect spark plug.

Pre-Ignition or Detonation (Knocks or Pings)

1. Incorrect Fuel.

Overheats.

1. Insufficient oil supply or oil not circulating.
2. Heavy carbon deposit from lugging engine. See dealer.
3. Oil cooler obstructed.
4. Cooling fans inoperative. See dealer.
5. Thermostat stuck closed. See dealer.
6. Plugged or restricted radiators or coolant lines.
7. Airflow to radiators obstructed.

Excessive Vibration

1. Engine mounts loose. See dealer.
2. Swingarm pivot shaft loose. See dealer.
3. Damaged frame. See dealer.
4. Drive chain badly worn.
5. Wheels and/or tires damaged. See dealer.

Poor Fuel Economy

1. O2 sensor damaged or malfunctioning (engine running rich). See dealer.
2. Clogged air filter.

LUBRICATION SYSTEM

Engine Leaks Oil from Cases or Hoses.

1. Loose parts. See dealer.
2. Imperfect seal at gaskets, washers, etc. See dealer.
3. Restricted oil line or oil screen. See dealer.

ELECTRICAL SYSTEM

Alternator Does Not Charge

1. Regulator not grounded. See dealer.
2. Engine ground wire loose or damaged. See dealer.
3. Loose or damaged wires in charging circuit. See dealer.

Alternator Charge Rate is Below Normal

1. Weak battery.
2. Excessive use of add-on accessories.
3. Loose or corroded connections.
4. Extensive periods of idling or low speed riding.

TRANSMISSION

Transmission Shifts Hard

1. Transmission shifting mechanism worn. See dealer.

Transmission Jumps Out of Gear

1. Worn shifter dogs in transmission. See dealer.

Clutch Slips

1. Clutch fluid reservoir overfilled.
2. Worn friction discs. See dealer.
3. Insufficient clutch spring tension. See dealer.

Clutch Drags or Does Not Release

1. Improper fluid level.
2. Insufficient clutch spring tension. See dealer.
3. Clutch discs warped. See dealer.
4. Loss of slipper clutch action.

Clutch Chatters

1. Friction discs or steel discs worn or warped. See dealer.

BRAKES

Brakes Do Not Hold Normally

1. Master cylinder low on fluid. See dealer.
2. Brake line contains air bubbles. See dealer.
3. Master cylinder piston worn. See dealer.
4. Brake pads contaminated with grease or oil. See Dealer.
5. Brake pads badly worn. See dealer.
6. Brake discs badly worn or warped. See dealer
7. Brake fades because of heat build up. Excessive braking or pads dragging. See dealer.
8. Brake drags. Insufficient hand lever free play. See dealer.

COOLING SYSTEM

Overheats

1. Air flow through the radiator is obstructed.
2. The radiator is internally plugged.
3. Insufficient coolant.
4. Cooling fans not operating.
5. Thermostat stuck closed.

WARRANTY AND MAINTENANCE

See MAINTENANCE SCHEDULING, Regular Service Intervals. This Owner's Manual contains your new motorcycle warranty and a maintenance record.

The maintenance record is a scheduled mileage interval that contains a specific maintenance checklist for upkeep of your motorcycle. It is the owners responsibility to follow the scheduled mileage intervals as specified. All of the specified maintenance services must be performed to keep your warranty valid.

1. Make an appointment with an EBR dealer for inspection and service prior to first 620 miles (1000 km).
2. Bring this owners manual with you when you visit the dealer to have your motorcycle inspected and serviced.
3. Have the owner record stubs dated and signed for required proof of service during the warranty period.
4. Keep receipts covering any parts, service or maintenance performed.

These records should be transferred to each subsequent owner.

⚠ WARNING

Do not use aftermarket parts which can adversely affect performance and handling. Removing or altering factory installed parts can adversely affect performance and could result in death or serious injury.

Use only EBR approved parts and accessories. Use of certain other manufacturers performance parts may void your warranty. See an EBR dealer.

EBR dealerships are independently owned and operated and may sell parts and accessories that are not manufactured or not approved by EBR. Therefore, you should understand that we are not, and cannot be responsible for the quality, suitability, or safety of any non-EBR part, accessory or design modifications, including labor, which may be sold and/or installed by our dealers.

NOTE

If you move from your present address or sell your motorcycle, fill out and mail the post card at the back of this manual. This is necessary in the event that the EBR Company needs to contact the owner concerning information that could affect the safe operation of this motorcycle.

KEEPING IT ALL EBR

Insist that your dealer uses only Genuine EBR replacement parts to keep your EBR motorcycle and its warranty intact.

NOTE

Installing off-road or competition parts to enhance performance may void your new motorcycle warranty. See an EBR dealer for details.

CAUTION

It is possible to overload your motorcycle's charging system by adding too many electrical accessories. If your combined electrical accessories operating at any one time consume more electrical current than your vehicles charging system can produce, the electrical consumption can discharge the battery and cause the vehicle electrical system damage. See an EBR dealer for advice about the amount of current consumed by additional electrical accessories, or for necessary wiring changes.

CALIFORNIA EVAPORATIVE EMISSION CONTROL

All new 2012 EBR motorcycles sold in the state of California are equipped with an evaporative emission control system.
This system is designed to meet the CARB regulations in effect at the time of manufacture.

The system requires a small amount of maintenance. Periodic inspection is required to make sure hoses are properly routed, not kinked or blocked, and that all fittings are secure. Mounting hardware should also be checked periodically for tightness.

EPA NOISE REGULATIONS IN THE UNITED STATES

EPA Noise regulations require that the following statements be included in the Owner's Manual.

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED: Federal law prohibits the following acts of the causing thereof. (1.) The removal or rendering inoperative by any person other than for the purposes of maintenance, repair, or replacement of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use, or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW.

1. Replacing the muffler(s) and/or entire exhaust system with parts not certified to be noise legal for street use.
2. Removing or modifying the muffler internal baffles in any way.
3. Replacing the air intake/cleaner assembly with one not certified to be noise legal for street use.
4. Modifying the air intake/cleaner assembly in such a way as to make the vehicle no longer noise legal for street use.

EBR recommends that any and all noise related maintenance be done by an authorized EBR dealer using genuine EBR parts.

WARRANTY AND SERVICE INFORMATION

Any authorized EBR dealer is responsible for providing the warranty repair work on your motorcycle. If you have any questions regarding the warranty obligations contact your selling dealer.

For normal service work or warranty work under the above conditions, you may obtain the name and location of your nearest EBR dealer see www.ErikBuellRacing.com

REPORTING SAFETY DEFECTS IN THE UNITED STATES

U.S. Only

Safety defects must be reported to the National Highway Traffic Safety Administration (NHTSA) and EBR.

NHTSA Statement

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying EBR.

If the 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 individual problems between you, your dealer, or EBR. Refer to table 25.

Table 25. NHTSA Contacts

ITEM	DATA
PHONE	Call the Auto Safety Hot Line toll-free at 1-888-DASH-2DOT
MAIL	U.S. Department of Transportation, National Highway Traffic Safety Administration, Office of Defects Investigation, NVS-210, 400 7th Street S.W., Washington, D.C. 20590
Web Site	www.nhtsa.dot.gov

You can also obtain other information about motor vehicle safety from the hot line.

NOTE

If you move from your present address, or sell your motorcycle, please fill out and mail the post card at the back of this manual. This is necessary in the event that the Company needs to contact the owner concerning information that could affect the safe operation of this motorcycle.

OWNER TRANSFER IDENTIFICATION FORM

When purchasing a pre-owned EBR, we encourage you to submit an Owner Transfer Notification Form. It is critical that the new owner information is sent to EBR. New owner information is required to be on file with EBR to transfer an Extended Service Plan Contract. EBR is also required by the National Traffic and Motor Vehicle Safety Act to notify all owners in the event of a recall. The form may be obtained at any EBR dealer.

2013 EBR MOTORCYCLE LIMITED WARRANTY 24 Months/Unlimited Miles

EBR warrants for any new 2012 EBR motorcycle that an authorized EBR dealer will repair or replace without charge any parts found under normal use to be defective in factory materials or workmanship. Such repair and replacement will be EBR's sole obligation and the customer's sole remedy under this warranty.

THERE IS NO OTHER EXPRESS WARRANTY (OTHER THAN THE SEPARATE EMISSIONS AND NOISE WARRANTIES) ON THE MOTORCYCLE. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE IS LIMITED TO THE DURATION OF THIS WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

TO THE FULLEST EXTENT ALLOWED BY LAW, EBR AND ITS DEALERS SHALL NOT BE LIABLE FOR LOSS OF USE, INCONVIENIENCE, LOST TIME, COMMERCIAL LOSS, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES.
Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.
The following terms and conditions apply to this warranty:

Duration

1. The duration of this limited warranty is twenty four months, starting from the earlier of (a) the date of the initial retail purchase and delivery from an authorized EBR dealer, or (b) the second anniversary of the last day of the model year of the motorcycle. Your dealer will submit an electronic Sales and Warranty Registration form to initiate your warranty.

2. Any unexpired portion of this limited warranty will be transferred to subsequent owners, upon the resale of the motorcycle during the warranty period.

Owner's Obligations

To obtain warranty service, return the motorcycle at your expense within the warranty period to an authorized dealer. Our dealer should be able to provide warranty service during normal business hours and as soon as possible, depending on the workload of the dealers service department and the availability of necessary parts.

EBR
2799 Buell Drive
East Troy, WI 53120 USA

Exclusions

This warranty will not apply to any motorcycle as follows:

1. Which has not been operated or maintained as specified in the Owner's Manual.
2. Which has been abused, misused, improperly stored, used "off the highway" or used for racing or competition of any kind.
3. Which is not manufactured to comply with the laws of the market in which it is registered.
4. Installing off-road or competition parts to enhance performance may void all of part of your new motorcycle warranty. See an EBR dealer for details.
5. Acts of God, war, riot, insurrection, natural disasters, including but not limited to, nuclear contamination, lightning, dust storms, hail storms, ice storms, earthquakes, floods, or for other circumstances out of EBR's control.

Other Limitations

This warranty does not cover:

1. Parts and labor for normal maintenance as recommended in the Owner's Manual, or the replacement of parts due to normal wear and tear including such items as the following: tires, lubrication, oil and filter change, fuel system cleaning, battery maintenance, engine tune up, spark plugs, brake, clutch and chain/ adjustment (including chain replacement).
2. Cosmetic concerns that arise as a result of owner abuse, lack of proper maintenance or environmental conditions (except concerns that result from defects in material or workmanship, which are covered by this warranty for the duration of the warranty period).
3. Any cosmetic condition existing at the time of retail delivery that has not been documented by the selling dealer prior to retail delivery.
4. Defects or damage due to the motorcycle caused by alterations outside of EBR factory specifications.

Important: Read Carefully

1. Our dealers are independently owned and operated and may sell other products. Because of this, EBR IS NOT RESPONSIBLE FOR THE SAFETY, QUALITY, OR SUITABILITY OF ANY NON-EBR PART, ACCESSORY OR DESIGN MODIFICATION INCLUDING LABOR WHICH MAY BE SOLD AND/OR INSTALLED BY OUR DEALERS.
2. This warranty is a contract between you and the manufacturer. It is separate and apart form any warranty you may receive or purchase from the dealer. The dealer is not authorized to alter, modify, or in any way change the terms and conditions of this warranty.
3. Any warranty work or parts replacement authorized by the manufacturer will not preclude the manufacturer from later relying on any exclusion where applicable.

2013 EBR NOISE CONTROL SYSTEM LIMITED WARRANTY

The following warranty applies to the noise control system, is in addition to the MOTORCYCLE LIMITED WARRANTY and applies only to motorcycles sold in the U.S.

EBR warrants that this vehicle is designed and built so as to conform at the time of sale with applicable regulations of the U.S. Environmental Protection Agency (as tested following f-76 Drive-By test procedure) and that it is free from defects in materials and workmanship which would cause this motorcycle not to meet such U.S. Environmental Protection Agency Standards within 1 year from initial retail purchase and delivery from an authorized EBR dealer, or one year from the second anniversary of the last day of the model year of the motorcycle, or 3,730 miles (6,000 km) whichever expires first. Any unexpired portion of this limited warranty will be transferred to subsequent owners, upon the resale of the motorcycle during the warranty period. If the motorcycle was used as a demonstrator, then the Warranty period may have started and/or expired prior to the initial retail sale. See an EBR dealer for details.

THERE IS NO OTHER EXPRESS WARRANTY (OTHER THAN THE SEPARATE MOTORCYCLE AND EMISSIONS WARRANTIES) ON THE MOTORCYCLE. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE IS LIMITED TO THE DURATION OF THIS WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

The warranty period shall begin on the date the motorcycle is delivered to the first retail purchaser or, if the motorcycle is placed in service as a demonstrator or company vehicle prior to sale at retail, on the date it is first placed in service.

THE FOLLOWING ITEMS ARE NOT COVERED BY THE NOISE CONTROL SYSTEM WARRANTY

1. Failures which arise as a result of misuse, alterations, or accident as specified in the Owner's Manual.
2. Replacing, removing, or modifying any portion of the NOISE CONTROL SYSTEM (consisting of the exhaust system and air intake/cleaner assembly) with parts not certified to be legal for street use.
3. Any motorcycle on which the odometer mileage has been changed so that the mileage cannot be determined.
4. TO THE FULLEST EXTENT ALLOWED BY LAW, EBR AND ITS DEALERS SHALL NOT BE LIABLE FOR LOSS OF USE, INCONVIENCIENCE, LOST TIME, COMMERCIAL LOSS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow the exclusion or limitation or consequential damages, so the above limitation or exclusion may not apply to you.

Other Rights

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

Recommendations for Required Maintenance

It is recommended that any noise system maintenance be performed by and authorized EBR dealer using genuine EBR replacement parts. The maintenance, replacement, or repair of the noise control system may be performed by any other qualified service outlet or individual. Non-genuine parts may be used only if such parts are certified to comply with U.S. Environmental Protection Agency Standards.

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2799 Buell Drive, Unit C
East Troy, WI 53120 USA

2013 EBR EMISSION CONTROL SYSTEM LIMITED WARRANTY

The following warranty applies to the emission control system, is in addition to the LIMITED MOTORCYCLE WARRANTY and NOISE CONTROL SYSTEM LIMITED WARRANTY, and applies only to motorcycles sold in the U.S.

EBR Motor Company warrants that this vehicle is designed and built so as to conform at the time of sale with the applicable regulations of the U.S. Federal Environmental Protection Agency, and that it is free from defects in materials and workmanship which would cause this motorcycle not to meet such U.S. Environmental Protection Agency Standards within five (5) years from initial retail purchase and delivery from an authorized EBR dealer, or five (5) years from the second anniversary of the last day of the model year of the motorcycle, or 18,641 miles (30,000) km whichever expires first. Any unexpired portion of this limited warranty will be transferred to Subsequent owners, upon the resale of the motorcycle during the warranty period. If the motorcycle was used as a demonstrator, then the warranty period may have started and/or expired prior to the initial retail sale. See an EBR dealer for details.

THERE IS NO OTHER EXPRESS WARRANTY (OTHER THAN THE SEPARATE MOTORCYCLE AND EMISSIONS WARRANTIES) ON THE MOTORCYCLE. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE IS LIMITED TO THE DURATION OF THIS WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.
The warranty period shall begin on the date the motorcycle is delivered to the first retail purchaser or, if the motorcycle is placed in service as a demonstrator or company vehicle prior to sale at retail, on the date it is first placed in service.

THE FOLLOWING ITEMS ARE NOT COVERED BY THE EMISSION CONTROL SYSTEM WARRANTY

1. Failures which arise as a result of misuse, alterations, accident or non-performance of maintenance as specified in the Owner's Manual.
2. The replacement of parts (such as spark plugs, fuel and oil filters, etc.) used in required maintenance.
3. Any motorcycle on which the odometer mileage has been changed so that the mileage cannot be determined.
4. TO THE FULLEST EXTENT ALLOWED BY LAW, EBR AND ITS DEALERS SHALL NOT BE LIABLE FOR LOSS OF USE, INCONVIENCIENCE, LOST TIME, COMMERCIAL LOSS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow the exclusion or limitation or consequential damages, so the above limitation or exclusion may not apply to you.

Other Rights

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

Recommendations for Required Maintenance

It is recommended that any emission system maintenance be performed by an authorized EBR dealer using genuine EBR replacement parts. The maintenance, replacement or repair of the emissions control system may be out performed by any other qualified service outlet or individual. Non-genuine parts may be used only if such parts are certified to comply with U.S. Environmental Protection Agency Standards

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East Troy, WI 53120 USA

REGULAR SERVICE INTERVALS

Regular lubrication and maintenance will help keep your new EBR operating at peak performance. Your EBR dealer knows how to best service your motorcycle with factory approved methods and equipment assuring you of thorough and competent workmanship.

NOTES

- *Refer to Table 26. Regular maintenance interval operations are required to keep your new motorcycle warranty in force. The use of other than EBR approved parts and service procedures may void the warranty. Any alterations to the emission system components, such as fuel and exhaust system, may be in violation of Federal and State laws.*
- *Refer to Table 27. When servicing your motorcycle, bring this owners manual to the dealership and complete the information needed in the blank columns listed.*

⚠ WARNING

Perform the service and maintenance operations as indicated in the regular service interval table. Lack of regular maintenance at the recommended intervals can affect the safe operation of your motorcycle, which could result in death or serious injury.

⚠ WARNING

If you operate your motorcycle under adverse conditions (severe cold, extreme heat, very dusty environment, very bad roads, through standing water, etc.), you should perform the regular maintenance intervals more frequently to ensure the safe operation of your motorcycle. Failure to maintain your motorcycle could result in death or serious injury.

NOTE: Use Nickel based anti-seize on all bolts that are being installed in front and rear wheels

Table 26. Regular Service Intervals

Items serviced	Procedure	620 mi 1000 km	6,200 mi 10,000km	12,400 mi 20,000 km	18.600 mi 30,000 km	24,800 mi 40,000 km	31,000 mi 50,000 km	37,200 mi 60,000 mi	NOTES
Engine oil	Replace	X	X	X	X	X	X	X	1
Engine oil filter cartridge	Replace	X		X		X		x	
Air Cleaner	Replace filter element			X		X		X	
Crankcase breather	Inspect			X		X		X	
Tires	Check condition, pressure, tread	X	X	X	X	X	X	X	4
Drive chain and sprockets	Inspect, adjust and lubricate	X	X	X	X	X	X	X	2
Throttle, brake, clutch, controls, sidestand	Inspect, service as required	X	X	X	X	X	X	X	2

Items Serviced	Procedure	620 mi 1000 km	6,200 mi 10,000 km	12,400 mi 20,000 km	18,600 mi 30,000 km	24,800 mi 40,000 km	31,000 mi 50,000 km	37,200 mi 60,000 km	Notes
Brake Fluid	Check levels and condition	X	X	X	X	X	X	X	3
Brake pads and disks	Inspect for wear	X	X	X	X	X	X	X	
Spark Plugs	Replace			X			X		2
Electrical switches and equipment	Check operation	X	X	X	X	X	X	X	
Front Fork Oil	Replace				X			X	2
Exhaust System	Inspect for leaks, cracks, and loose or missing fasteners or heat shields	X	X	X	X	X	X	X	5
Battery	Check Battery and clean connections								5
Cooling System	Inspect level, check clamps for tightness	X	X	X	X	X	X	X	2
Coolant	Replace	Replace every 31,000 miles (50,000 km)							2,6

Table 26. Regular Service Intervals

Item Serviced	Procedure	620 mi 1000 km	6,200 mi 10,000 km	12,400 mi 20,000 km	18,600 mi 30,000 km	24,800 mi 40,000km	31,000 mi 50,000 km	37,200 mi 60,000 km	Notes
Radiators and oil cooler fins	Clean	X	X	X	X	X	X	X	
Brake system, clutch actuating system and oil lines	Inspect for leaks	X	X	X	X	X	X	X	2
Critical Fasteners	Check tightness			X		X		X	2
Valve clearance	Inspect		X	X	X	X	X	X	4,2
Road test	Verify compo-nent and system functions	X	X	X	X	X	X	X	
Notes	1. Perform annually or at least specified interval, whichever comes first. 2. Should be performed by an authorized EBR dealer, unless you have proper tools, data, and qualifications 3. Change D.O.T. 4 fluid and flush brake and clutch systems every 2 years 4. Could vary with frequency of operation and riding style. 5. Perform annually 6. Perform every two years or at specified interval, whichever comes first.								

Table 27. Owner's Maintenance Records

Service Mile Interval	Date	Dealer Number	Technician Name	Technician Signature
620 mi (1000 km)				
6,2000 mi (10,000 km)				
12,400 mi (20,000 km)				
18,600 mi (30,000 km)				
24,800 mi (40,000 km)				
31,000 mi (50,000 km)				
37,200 mi (60,000 km)				
43,400 mi (70,000 km)				
49,6000 mi (80,000 km)				

SERVICE LITERATURE

Visit any EBR dealer or go to ErikBuellRacing.com to purchase a service or parts manual for your motorcycle. Factory authorized manuals are the most complete and detailed source of information outside of your EBR dealer.

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Axle nut, rear (1)	148-152	ft-lbs	200-206	N-m
Axle pinch bolts, front (2)	16-20	ft-lbs	21.6-27	N-m
Axle, front (1)	38-42	ft-lbs	51-57	N-m
Banjo bolts, brake and clutch line (4)	14-16	ft-lbs	19-22	N-m
Battery cable mount bolts (2)	38-42	In-lbs	51-57	N-m
Brake rotor mount bolts, front (6)	16-18	In-lbs	21-24	N-m
Brake rotor mount bolts, rear (3)	16-18	ft-lbs	21-24	N-m
Caliper mount bolts, front (2)	34-36	ft-lbs	46-49	N-m
Caliper mount bolts, rear (2)	18-22	ft-lbs	24-29	N-m
Clutch cover bolts (8)	95-98	In-lbs	10.6-10.9	N-m
Footpeg clevis mount bolt (2)	28-30	ft-lbs	38-40	N-m
Footpeg mount bolt (2)	66-78	In-lbs	7.4-8.7	N-m
Footrest mount bolts (6)	18-20	ft-lbs	24-27	N-m
Frame to engine mount bolts(M10) (6)	34-38	ft-lbs	46-51	N-m
Frame to engine mount pinch bolts (M8) (2)	14-16	ft-lbs	19-21	N-m
Front fender mount bolts (4)	38-42	In-lbs	4.4-4.7	N-m
Front module mount bolts (2)	16-19	ft-lbs	21-25	N-m
Fuel cap mount bolts (3)	40-45	In-lbs	4.5-5.0	N-m
Fuel vent mount bolts (2)	32-36	In-lbs	3.6-4.0	N-m

Handlebar clip on bolts (clip-on to handlebar) (4)	100-105	In-lbs	11.2-11.6	N-m
Handlebar clip-on bolts (to fork leg) (4)	100-106	In-lbs	11.2-11.7	N-m
Header mount nuts (8)	14-16	ft-lbs	19-21	N-m
I-braket to frame mount bolts (M8) (2)	23-26	ft-lbs	31-35	N-m
Injector holder mount bolts (4)	84-88	In-lbs	9.4-9.8	N-m
Intake manifold mount bolts (4)	10.5 -13	ft-lbs	14-17	N-m
Master Cylinder, brake and clutch,mount bolts (4)	38-42	In-lbs	4.2-4.6	N-m
Mirror mount nuts (4)	38-42	In-lbs	4.2-4.7	N-m
Muffler mount bolts (2)	18-20	ft-lbs	24-27	N-m
O2 Sensor (2)	40-45	ft-lbs	54-60	N-m
Oil drain plugs, left (1)	17-19	ft-lbs	23-25	N-m
Oil drain plugs, right (1)	11-13.0	ft-lbs	14-17	N-m
Oil filter cover mount bolts (2)	95-98	In-lbs	10.6-10.9	N-m
Pedal mount bolts, brake and shift (2)	24-26	ft-lbs	32-35	N-m
Rear brake M/C clevis bolt (1)	55-65	In-lbs	6.1-7.3	N-m
Seat cowl mount bolts (4)	38-42	In-lbs	4.2-4.7	N-m
Shock bottom bolt through swingarm (1)	20-22	ft-lbs	27-29	N-m
Shock top bolt through sub-frame to frame (1)	34-38	ft-lbs	46-51	N-m
Sidestand mount bolts (2)	34-38	ft-lbs	46-51	N-m

Sprocket mount bolt (1), front	78-82	ft-lbs	105-111	N-m
Sprocket mount bolts (6), rear	26-28	ft-lbs	35-38	N-m
Steering damper mount bolts (2)	78-82	In-lbs	8.7-9.2	N-m
Steering stem nut (1)	38-42	ft-lbs	51-56	N-m
Sub-frame mount bolts (qty 3)	21-23	ft-lbs	28-31	N-m
Swingarm pivot (1)	44-46	ft-lbs	59-62	N-m
Swingarm slider bolts (2)	95-98	In-lbs	10.6-10.9	N-m
Tail light assembly mount bolts (3)	38-42	In-lbs	4.2-4.7	N-m
Tank cover mount bolts (4)	38-42	In-lbs	4.2-4.7	N-m
Toe peg, brake and shift (2)	55-65	In-lbs	6.1-7.3	N-m
Triple clamp pinch bolts, top (3)	14-16	ft-lbs	19-21	N-m
Tripple clamp pinch bolts, bottom (6)	20-22	ft-lbs	27-30	N-m