

2007 OWNER'S MANUAL

THANKS FROM BIG DOG MOTORCYCLES for your purchase. With this purchase comes a commitment to provide you support for your handcrafted motorcycle. This Owner's Manual has been prepared to inform you about the care and maintenance of your motorcycle while providing important safety information. Follow these instructions for maximum motorcycle performance, personal motorcycling safety and pleasure.

The information in this manual is based on the most current production information available at the time of printing. Big Dog Motorcycles, L.L.C., reserves the right to make changes to their motorcycles without notice or obligation.



WARNING

THE FIRST 3,000 MILES ARE ESPECIALLY CRITICAL TO THE LONGEVITY AND PERFORMANCE OF YOUR BIG DOG MOTORCYCLE. MAKE SURE YOU FOLLOW THE NEW ENGINE BREAK-IN PROCEDURE OUTLINED ON PAGE 6 IN THIS MANUAL.

NOTE: Some references in this manual may not pertain to your particular motorcycle.

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HOW TO USE THIS MANUAL

Many people read their Owner's Manual from beginning to end when they first receive their new motorcycle. If you do, it will help you learn about the features and controls for the motorcycle. Every warning and caution has been carefully placed to keep you and those around you safe when operating the motorcycle.



WARNING

Emphasizes improper procedures that could jeopardize your personal safety.



CAUTION

Could cause mechanical damage to your motorcycle or reduce its longevity and performance



RIDING TIP

Useful in operating your motorcycle and enhance rider safety.

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SECTION I

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GENERAL INFORMATION

Quick Start Guide | Specifications | Vehicle Identification | Tires | Fueling |
Cargo and Passenger Weight | Safety | Suspension | General Information



CAUTION

- PROLONGED IDLING WITH INADEQUATE AIRFLOW OVER THE ENGINE WILL CAUSE OVERHEATING AND PERMANENT DAMAGE TO THE ENGINE. HEAVY STOP AND GO TRAFFIC AND EXTENDED IDLING SHOULD BE AVOIDED ESPECIALLY DURING THE BREAK-IN PERIOD.
- IT IS THE OWNER'S RESPONSIBILITY NOT TO EXCEED THE MAXIMUM RPM DURING THE BREAK-IN PERIOD. OVER-REVVING THE MOTORCYCLE CAN CAUSE PERMANENT DAMAGE TO THE ENGINE AND WILL VOID THE POWER TRAIN WARRANTY.

INITIAL BREAK-IN Internal engine component wear is critical in the first 3,000 miles. Observe break-in guidelines to assure future performance, durability and to keep your warranty in force.

FIRST 3,000 MILES No higher than 4,000 RPM at any time in or out of gear. DO NOT lug the engine below 2,000 RPM in any gear. Follow the prescribed maintenance schedules. Avoid riding at a constant RPM for a prolonged period of time. Varying the RPM (between 2,000 and 4,000) will prolong the life of your new engine.

AFTER 3,000 MILES Follow the prescribed maintenance schedule located in Section 3 (Maintenance and Storage) in this manual.

RPM TO MPH CONVERSION The chart below converts engine RPM to MPH. It is a guideline only. For more information contact a Big Dog Motorcycles Dealer or Authorized Service Center.

	2,000 ENGINE RPM	3,000 ENGINE RPM
1ST GEAR	19 MPH	23 MPH
2ND GEAR	24 MPH	33 MPH
3RD GEAR	33 MPH	47 MPH
4TH GEAR	42 MPH	56 MPH
5TH GEAR	53 MPH	72 MPH
6TH GEAR	62 MPH	81 MPH

COLD STARTING PROCEDURE FOR CARBURETED MODELS: K-9, CHOPPER, MASTIFF, PITBULL These motorcycles come equipped with electronic compression releases to aid in the starting of the engine.

- Make certain the motorcycle is in neutral.
- Turn fuel valve to the ON position.
- Turn ignition switch to the ON position.
- Depress handlebar ENGINE STOP switch to the RUN position. Note: The handlebar ENGINE STOP switch defaults to OFF every time the ignition switch is turned ON.
- Prime the motor with two twists of the throttle.
- Lift up the carburetor enrichener lever half way.
- Depress start button for no more than five seconds at a time until the engine starts.
- Keep the engine running at fast idle or 1,500 RPM using the throttle.
- Depress the enrichener lever back to the pre-start position when the engine has achieved a constant and steady speed.
- If the enrichener lever is left in the starting position, the spark plugs will foul, causing poor engine performance and/or failed engine start.
- Allow engine to warm approximately three to five minutes before riding.



CAUTION

IF THE THROTTLE IS OPENED WHILE ENGAGING THE STARTER, COMPRESSION WILL INCREASE DRAMATICALLY CAUSING THE STARTER TO KICK BACK, POSSIBLY PRODUCING A STARTER FAILURE.

COLD STARTING PROCEDURE FOR ELECTRONICLY FUEL INJECTED MODELS: BULLDOG These motorcycles come equipped with electronic compression releases to aid in the starting of the engine.

- Make certain the motorcycle is in neutral.
- Turn ignition switch to the ON position. Allow fuel rail to pressurize (approx. 2 seconds).
- Depress handlebar ENGINE STOP switch to the RUN position. Note: The handlebar ENGINE STOP switch defaults to OFF every time the ignition switch is turned ON.
- Depress start button for no more than five seconds at a time until the engine starts.
- Allow engine to warm approximately three to five minutes before riding.

CAUTION

A BATTERY DISCHARGES UP TO 2% PER DAY WHEN IDLE. IF THE MOTORCYCLE IS NOT RIDDEN FOR A MONTH, THE BATTERY MAY NOT HAVE SUFFICIENT CHARGE TO START THE MOTORCYCLE. FOR THE OCCASIONAL RIDER, BIG DOG MOTORCYCLES RECOMMENDS USING A TRICKLE CHARGER (BDM250-00004). BIG DOG MOTORCYCLES DOES NOT RECOMMEND USING A STANDARD AUTOMOTIVE BATTERY CHARGER AS EARLY BATTERY FAILURE NOT COVERED UNDER WARRANTY MAY RESULT.

HOT ENGINE START Use the same procedure as cold start for carbureted and EFI motorcycles. For carbureted motorcycles, do not prime the engine with two (2) twists of the throttle and do not engage the carburetor enrichener.

QUICK START GUIDE

SHUTTING DOWN Use the ENGINE STOP switch on the right handlebar to shut off the engine. Turn the ignition key switch to the OFF position. For carbureted motorcycles, turn the fuel valve to the OFF position.

SHIFTING INTO NEUTRAL This motorcycle is equipped with a Baker six-speed transmission with a positive neutral engagement. This will make shifting to neutral easier from first gear.

TURN SIGNALS The motorcycle's turn signal system is designed to self-cancel when in gear. In neutral, or with either brake applied, depressing the appropriate signal switch will activate that signal continuously until the motorcycle is put in gear. Once in gear or when brakes are released, the turn signal self-cancels in 10 seconds. You can manually cancel the signal by pressing the same turn signal button. By applying both turn signal buttons at the same time, both signals will flash as hazard lights.

RIDING THE MOTORCYCLE After the engine has warmed up three to five minutes, the motorcycle is ready to ride. Coordination of the throttle and clutch lever assures a smooth positive forward movement of the motorcycle, which is especially important during the break-in period. Avoid over-revving the engine (especially when

shifting). Do not attempt to “speed shift” or shift without using the clutch. Become acquainted with the brake and shifting characteristics of your new motorcycle at a low speed and in a familiar environment.

RIDING TIP



BIG DOG MOTORCYCLES ARE EQUIPPED WITH A BAKER “SIX-SPEED DIRECT DRIVE” TRANSMISSION. WHEN SHIFTING GEARS EITHER UP OR DOWN, THE THROTTLE SHOULD BE CLOSED AND THE CLUTCH DISENGAGED. SPECIAL ATTENTION MUST BE GIVEN WHEN OPERATING IN FIRST AND SECOND GEAR TO PREVENT EXCEEDING ENGINE MAXIMUM RPM DURING ACCELERATION.

NOTE: DURING THE INITIAL BREAK IN PERIOD, DO NOT RUN THE MOTORCYCLE FOR LONG PERIODS AT A CONSTANT RPM. VARYING THE RPM WILL BENEFIT THE ENGINE DURING THIS CRUCIAL PERIOD AND EXTEND ENGINE LIFE.

This “QUICK START GUIDE” is designed to familiarize the owner with their new motorcycle. For any additional questions regarding the operation of the motorcycle, contact the nearest Big Dog Motorcycles Dealer or Authorized Service Center.

SPECIFICATIONS

BULLDOG

Dry Weight Front	295 lbs	Total Length	103"
Dry Weight Rear	433 lbs	Front Brake	PM 4-Piston Diff Bore
Dry Weight Total.....	728 lbs	Rear Brake	PM 4-Piston
GVWR	1155 lbs	Front Tire	MH120/70-21
GAWR Front	400 lbs	Rear Tire	300/40-18
GAWR Rear	755 lbs	Tire Pressure	F-40 psi/R-42 psi
Fuel Capacity - Total.....	4.6 Gal	Engine	OHV 45 degree V-Twin
Fuel Capacity - Main.....	3.0 Gal	Displacement	117 c.i. (1916cc)
Fuel Capacity - Reserve	1.6 Gal	Bore x Stroke	4 1/8" x 4 3/8"
Oil Capacity	2.875 - 3 Qts	Compression Ratio ...	9.6:1
Frame Specs	6" Out, 0" Down	Transmission	Baker 6-Speed
Frame Rake	39 degrees	Primary Drive	Chain
Front Suspension	56mm Inverted	Final Drive	1 1/8" Belt
Tube Length	2" OS	Ignition.....	Electronic Single Fire
Seat Height	23.25"	Charging Output	40 Amp
Ground Clearance	2.5"	Battery Type.....	Sealed AGM
Wheel Base	76.5"	Battery	270 CCA

CHOPPER

Dry Weight Front	260 lbs	Total Length	104"
Dry Weight Rear	405 lbs	Front Brake	PM 4-Piston Diff Bore
Dry Weight Total.....	665 lbs	Rear Brake	PM 4-Piston
GVWR	1085 lbs	Front Tire	MH90-21
GAWR Front	390 lbs	Rear Tire	250/40-18
GAWR Rear	695 lbs	Tire Pressure	F-40 psi/R-42 psi
Fuel Capacity - Total.....	3.8 Gal	Engine	OHV 45 degree V-Twin
Fuel Capacity - Main.....	3.4 Gal	Displacement	117 c.i. (1916cc)
Fuel Capacity - Reserve	0.4 Gal	Bore x Stroke	4 1/8" x 4 3/8"
Oil Capacity.....	2.875 - 3 Qts	Compression Ratio ...	9.6:1
Frame Specs	3" Out, 7" Down	Transmission	Baker 6-Speed
Frame Rake	37 degrees	Primary Drive	Chain
Front Suspension	41mm Telescopic	Final Drive	1 1/8" Belt
Tube Length	10" OS	Ignition.....	Electronic Single Fire
Seat Height.....	25"	Charging Output	40 Amp
Ground Clearance	4.5"	Battery Type.....	Sealed AGM
Wheel Base	77.5"	Battery	270 CCA

SPECIFICATIONS

K-9

Dry Weight Front	267 lbs	Total Length	108"
Dry Weight Rear	443 lbs	Front Brake	PM 4-Piston Diff Bore
Dry Weight Total.....	710 lbs	Rear Brake	PM 4-Piston
GVWR	1130 lbs	Front Tire	MH90-21
GAWR Front	390 lbs	Rear Tire	300/35-18
GAWR Rear	740 lbs	Tire Pressure.....	F-40 psi/R-42 psi
Fuel Capacity - Total.....	4.4 Gal	Engine	OHV 45 degree V-Twin
Fuel Capacity - Main.....	4.0 Gal	Displacement	117 c.i. (1916cc)
Fuel Capacity - Reserve	0.4 Gal	Bore x Stroke	4 1/8" x 4 3/8"
Oil Capacity.....	2.875 - 3 Qts	Compression Ratio ...	9.6:1
Frame Specs	4" Out, 8" Down	Transmission	Baker 6-Speed
Frame Rake	39 degrees	Primary Drive	Chain
Front Suspension	41mm Telescopic	Final Drive	1 1/8" Belt
Tube Length	12" OS	Ignition.....	Electronic Single Fire
Seat Height	24.25"	Charging Output	40 Amp
Ground Clearance	4"	Battery Type.....	Sealed AGM
Wheel Base	82"	Battery	270 CCA

MASTIFF

Dry Weight Front	279 lbs	Total Length	103"
Dry Weight Rear	433 lbs	Front Brake	PM 4-Piston Diff Bore
Dry Weight Total.....	712 lbs	Rear Brake	PM 4-Piston
GVWR	1130 lbs	Front Tire	MH120/70-21
GAWR Front	390 lbs	Rear Tire	300/35-18
GAWR Rear	740 lbs	Tire Pressure	F-41 psi/R-42 psi
Fuel Capacity - Total.....	4.6 Gal	Engine	OHV 45 degree V-Twin
Fuel Capacity - Main.....	3.9 Gal	Displacement	117 c.i. (1916cc)
Fuel Capacity - Reserve	0.7 Gal	Bore x Stroke	4 1/8" x 4 3/8"
Oil Capacity	2.875 - 3 Qts	Compression Ratio ...	9.6:1
Frame Specs	6" Out, 0" Down	Transmission	Baker 6-Speed
Frame Rake	39 degrees	Primary Drive	Chain
Front Suspension	41mm Telescopic	Final Drive	1 1/8" Belt
Tube Length	2" OS	Ignition.....	Electronic Single Fire
Seat Height	24.25"	Charging Output	40 Amp
Ground Clearance	4"	Battery Type.....	Sealed AGM
Wheel Base	77.5"	Battery	270 CCA

SPECIFICATIONS

PITBULL

Dry Weight Front253 lbs
Dry Weight Rear400 lbs
Dry Weight Total.....653 lbs
GVWR1085 lbs
GAWR Front390 lbs
GAWR Rear695 lbs
Fuel Capacity - Total.....4.6 Gal
Fuel Capacity - Main.....3.9 Gal
Fuel Capacity - Reserve 0.7 Gal
Oil Capacity.....2.875 - 3 Qts
Frame Specs-1" Down, 6" Out
Frame Rake39 degrees
Front Suspension41mm Telescopic
Tube Length2" OS
Seat Height24.25"
Ground Clearance4"
Wheel Base77.5"

Total Length103"
Front BrakePM 4-Piston Diff Bore
Rear BrakePM 4-Piston
Front TireMH120/70-21
Rear Tire300/35-18
Tire PressureF-41 psi/R-42 psi
EngineOHV 45 degree V-Twin
Displacement117 c.i. (1916cc)
Bore x Stroke4 1/8" x 4 3/8"
Compression Ratio ...9.6:1
TransmissionBaker 6-Speed
Primary DriveChain
Final Drive1 1/8" Belt
Ignition.....Electronic Single Fire
Charging Output40 Amp
Battery Type.....Sealed AGM
Battery270 CCA

VEHICLE IDENTIFICATION



VEHICLE ID NUMBER

The full 17-digit Vehicle Identification Number (VIN) is stamped on the steering head. Always give the full 17-digit number when ordering parts or making any inquiries about the motorcycle.

Example VIN:

5J11YBJ116W000004



ENGINE ID NUMBER

The engine identification number can be located on the upper left of the engine case.

Example Engine ID:

GE01233X



TRANSMISSION ID NUMBER

The transmission identification number is found on the right topside of the case.

Example Transmission ID:

N226 068

WARNING



- REPLACE TIRES WITH BIG DOG MOTORCYCLES APPROVED TIRES ONLY. SERVICING TIRES AND WHEELS REQUIRES SPECIAL TOOLS AND SKILLS. WE RECOMMEND YOU SEE A BIG DOG MOTORCYCLES DEALER OR AUTHORIZED SERVICE CENTER FOR THESE SERVICES. TIRES, RIMS AND AIR VALVES MUST BE CORRECTLY MATCHED IN ORDER TO INSURE YOUR PERSONAL SAFETY. MISMATCHING TIRES, RIMS AND AIR VALVES MAY RESULT IN DAMAGE TO THE TIRE BEAD DURING MOUNTING OR MAY ALLOW THE TIRE TO SLIP ON THE RIM, POSSIBLY CAUSING TIRE FAILURE. IN ADDITION, USING TIRES OTHER THAN THOSE SPECIFIED MAY ADVERSELY AFFECT MOTORCYCLE STABILITY. TIRE SIZES ARE MOLDED ON THE TIRE SIDEWALL. IMPROPER TIRE INFLATION WILL CAUSE ABNORMAL TREAD WEAR AND COULD RESULT IN UNSTABLE HANDLING. UNDER-INFLATION COULD RESULT IN THE TIRE SLIPPING ON THE RIM OR SUDDEN TIRE FAILURE. INSPECT TIRE TREAD FOR PUNCTURES, CUTS, BREAKS, ETC., AT LEAST WEEKLY (IF IN DAILY USE) OR BEFORE EACH TRIP (IF USED ONLY OCCASIONALLY).
- IF THERE IS UNCERTAINTY WITH THE TIRE INTEGRITY, HAVE A BIG DOG MOTORCYCLES DEALER OR AUTHORIZED SERVICE CENTER REMOVE AND CAREFULLY INSPECT THE INSIDE AS WELL AS THE OUTSIDE OF THE TIRE. A DAMAGED TIRE CAN FAIL CAUSING PERSONAL INJURY. RIDING WITH EXCESSIVELY WORN, UNBALANCED OR IMPROPERLY INFLATED TIRES IS HAZARDOUS AND WILL ADVERSELY AFFECT TRACTION, STEERING AND HANDLING.

TIRES

TIRE INTEGRITY Maintaining tire integrity cannot be stressed enough. Because the traction of your motorcycle is directly related to the condition of the tires, make every effort to ensure the integrity of the tires each time you ride. Be sure to keep tires properly inflated. See the information on air pressure in this section for correct cold tire pressure. Maximum inflation pressure must not exceed specifications on tire sidewalls.

CUTS AND ABRASIONS Part of your pre-ride inspection should be to inspect the tires. You should look for cuts, abrasions or abnormalities. Cuts on the tire, nails or glass fragments embedded in the tire can all be very dangerous. If you find these conditions, you should have the tire replaced.

CAUTION



- SHOULD ANY ABNORMALITY OCCUR IN THE OPERATION OF YOUR MOTORCYCLE, IMMEDIATELY CONTACT A BIG DOG MOTORCYCLES DEALER OR SERVICE CENTER FOR CORRECTION OF THE PROBLEM.
- BE SURE ALL EQUIPMENT REQUIRED BY FEDERAL, STATE AND LOCAL LAW IS INSTALLED AND IN GOOD OPERATING CONDITION. REGULARLY INSPECT SHOCK ABSORBERS AND FRONT FORKS, CHECKING FOR LEAKS. WORN PARTS CAN AFFECT STABILITY.
- USE ONLY AUTHORIZED REPLACEMENT FASTENERS TIGHTENED TO THE PROPER TORQUE. SUBSTITUTION COULD CAUSE FASTENER FAILURE.

FUELING Use only unleaded gasoline. Ethanol blended gasoline with up to 20% ethanol is approved as long as it has 87 octane minimum. Methanol or methanol blended fuel is NOT approved for use in your motorcycle.

Do not use decorative type fuel cap covers, which may possibly cause the caps to loosen from the tank upon impact. Your motorcycle does not come equipped with a fuel gauge. Always reset the trip odometer to "0" after refueling and get to know the range of the motorcycle.



WARNING

CONCENTRATE CARGO WEIGHT CLOSE TO THE MOTORCYCLE AND AS LOW AS POSSIBLE TO MINIMIZE CHANGES TO THE CENTER OF GRAVITY (BALANCE POINT). DISTRIBUTE WEIGHT EVENLY ON BOTH SIDES OF THE MOTORCYCLE AND DO NOT LOAD BULKY ITEMS OR ADD WEIGHT TO THE HANDLEBARS OR FRONT FORKS. DO NOT EXCEED 15 POUNDS MAXIMUM LOAD IN EACH SADDLEBAG. IMPROPER LOADING CAN CAUSE VEHICLE HANDLING PROBLEMS AND RESULT IN PERSONAL INJURY.

CARRYING A PASSENGER When carrying a passenger, it is your responsibility to instruct them on proper riding procedures as well as the proper clothing to wear. Do not attempt to carry more than one passenger at a time.

CARRYING TRAVEL GEAR Overloading, particularly at the rear of a motorcycle, can cause instability. Carefully check any approved accessories for the maximum weight capacities. Luggage racks are designed for light weight items only. Do not overload racks. Be sure cargo is secure and will not shift while riding. Recheck load periodically.

The addition of accessories and additional weight to the motorcycle can affect the stability, handling characteristics and safe operating speed. Because Big Dog Motorcycles cannot test and make specific recommendations concerning every accessory or combination of accessories, riders must be responsible for safe operation of the motorcycle when operating with accessories or carrying additional weight.

The following guidelines should be used when equipping your motorcycle with accessories or carrying a passenger and cargo:

1. Your motorcycle is carefully engineered to be ridden in its original configuration or only with authorized Big Dog Motorcycles accessories.
2. Unauthorized accessories that change the operator's riding position may reduce reaction time and alter handling characteristics.
3. Overloading the motorcycle by exceeding Gross Vehicle Weight Rating (GVWR) will alter handling characteristics and reduce braking efficiency.
4. Do not attempt "custom" alterations such as extended forks or frame modifications.
5. Never attach or attempt using a sidecar.
6. Do not tow a trailer with your motorcycle under any circumstance.
7. Modifications and/or additional electrical equipment are not recommended. Any alterations to the electrical system (turn signals, additional lighting, etc.) could overload printed circuits and will void your warranty coverage.

WARNING



PILLION PADS CANNOT BE USED ON MOTORCYCLES WITH FLAT MATTE FINISH PAINT JOBS DUE TO INADEQUATE SUCTION TO THE REAR FENDER. INSTALLING A PILLION PAD ON THIS PARTICULAR PAINT FINISH COULD RESULT IN THE PILLION PAD SLIDING OFF THE REAR FENDER RESULTING IN INJURY TO THE PASSENGER.

SAFETY

HEAT The engine, drive train, exhaust pipes and muffler on the motorcycle become very hot when the engine is running and remain too hot to touch for some time after the engine is turned off. Make sure that you, as well as any passenger you carry, wear clothing that will completely cover legs when riding. Avoid contact with the exhaust system.

EXHAUST HAZARDS Motorcycle exhaust contains carbon monoxide gas. Do not inhale exhaust fumes and NEVER run the engine in a closed space like a closed garage or indoors.

SECURITY To help protect the motorcycle against theft, lock the ignition and remove the key from the switch when leaving the motorcycle unattended.

TOWING Do not tow a disabled motorcycle with another vehicle. If a disabled motorcycle must be transported, load into a truck or trailer for transportation.

LOANING TO OTHERS Do not allow others to operate your motorcycle unless you are certain they are experienced, licensed riders and are familiar with the operation of your particular motorcycle.

ROAD CONDITIONS Pay strict attention to your surroundings. Avoid riding when the weather is a serious factor such as high wind, heavy fog, rain, snow, ice or other factors that would make the ride less safe. Know your limitations and do not ride when the weather is beyond your skills or comfort zone. The first 15 minutes of a rainstorm brings all oil and contaminants to the road surface causing a slippery condition.

PARKING To park, come to a complete stop, put the transmission in neutral, shut the engine off, turn off ignition, remove key, turn fuel off and use the kickstand to support the motorcycle. Park on solid, level ground. If parking on a slope is unavoidable, face the motorcycle uphill. Parking on asphalt during an extremely hot day is not advised. The asphalt may compress under the load from the side stand allowing the motorcycle to tip over.

WARNING

MAKE SURE KICKSTAND IS FULLY RETRACTED BEFORE RIDING. IF THE KICKSTAND IS NOT FULLY RETRACTED, IT COULD CONTACT THE ROAD SURFACE CAUSING LOSS OF CONTROL OF THE MOTORCYCLE.

SAFETY

GOOD JUDGMENT Safe motorcycle operation requires mental awareness and good judgment, combined with a defensive driving attitude.

SAFE SPEED Operate your motorcycle only at moderate speed in and out of traffic until you have become thoroughly familiar with its operation and handling characteristics under all conditions. If you are an inexperienced rider, we recommend that you take a certified course on motorcycle riding.



RIDING TIP

MAKE SURE YOU ARE WEARING A D.O.T. RATED HELMET, EYE PROTECTION, CLOTHING AND FOOTGEAR SUITED FOR MOTORCYCLE RIDING. BRIGHT OR LIGHT COLORS ARE BEST FOR VISIBILITY IN TRAFFIC, ESPECIALLY WHEN DRIVING AT NIGHT OR IN LOW LIGHT CONDITIONS. AVOID CLOTHING THAT MAY GET TANGLED IN ANY PART OF THE MOTORCYCLE. NEVER WEAR DARK GLASSES AT NIGHT OR IN LOW LIGHT SITUATIONS. SHORTS AND SANDALS ARE NOT A GOOD CHOICE WHILE RIDING A MOTORCYCLE. NEVER RIDE UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.

FRAME CONSTRUCTION The frame is made from high-strength seamless steel tubing and utilizes a high tensile strength welding process held to extremely tight tolerances.

Any attempt to modify the frame of the motorcycle is extremely dangerous and will void the manufacturer's warranty. Altering the frame in any way takes the motorcycle out of its original configuration and may expose it to stresses that it was never intended to withstand.

The front suspension is vital to the motorcycle's handling. Broken or worn parts need immediate attention. Do not attempt to service the suspension. Please contact a Big Dog Motorcycles Dealer or Authorized Service Center for any problems with these components.

REAR SUSPENSION (Chopper, K-9, and Mastiff) These motorcycle have an adjustable rear suspension. It is important to pay close attention to the way the motorcycle handles. If there is a change in handling you should immediately have the problem diagnosed and corrected by a Big Dog Motorcycles Dealer or Authorized Service Center.

GENERAL INFORMATION

Riding your motorcycle can be an enormous source of enjoyment. However, there are risks associated with riding any motorcycle. To minimize these risks, you should:

1. Review and follow the operating and maintenance instructions in this manual.
2. Take notice of every warning in this manual.
3. Recognize and respect the “rules of the road.” To ensure your personal safety, obtain a copy of your state’s “Motorcycle Handbook” and understand the contents.
4. Enroll in a Certified Rider Training Course approved by the Motorcycle Safety Foundation (MSF). New riders as well as experienced riders will benefit from successfully completing a riding course. In many states, completing a riding course could lower your insurance premium. For more information about a MSF training course near you go to www.msf-usa.org or call the national toll-free number: 1 (800) 446-9227 (USA only).
5. Be sure to keep your motorcycle in proper operating condition in accordance with the maintenance intervals chart in this Owner’s Manual. Particularly important to motorcycle stability is proper tire pressure, tread condition and sound condition of wheel bearings and steering head bearings.
6. Do not operate a motorcycle with a loose, worn or damaged steering or suspension system.

SECTION 2

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MAJOR COMPONENTS

Controls | Battery | Gear Shifter | Power Train System | Clutch | Electrical System |
Ignition Switch | Display | Brake System | Fuel System | Fuel Valve

CONTROLS

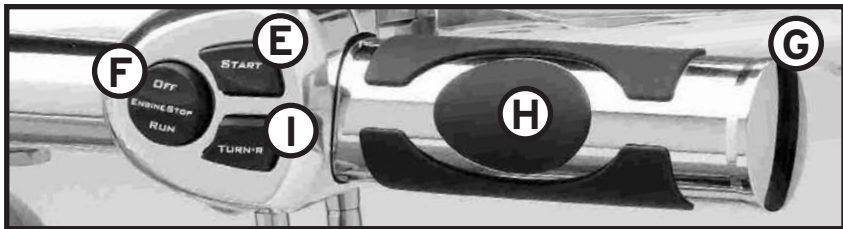


- A. CLUTCH HAND LEVER** The clutch hand lever is operated with the left hand. Pull the lever against the handlebar grip to disengage clutch; release the lever smoothly outward to engage clutch.
- B. HEAD LAMP HI/LO SWITCH** The head lamp switch controls the head lamp HI and LO beams.
- C. HORN SWITCH** The horn is operated by depressing the HORN switch.
- D. LEFT TURN SIGNAL** The left turn signal is operated by the TURN-L switch.



RIDING TIP

KEEP YOUR FINGERS FROM BETWEEN HAND CONTROL LEVERS AND HANDLEBAR GRIPS OR YOU WILL BLOCK FULL USE OF THE CONTROLS.



- E. ELECTRIC STARTER SWITCH** After the ignition key is turned to the ON position, press RUN on the ENGINE STOP switch before pressing the START switch.
- F. ENGINE OFF SWITCH** The ENGINE OFF switch turns the ignition on or off and should be used every time to stop the engine.
- G. FRONT BRAKE HAND LEVER** The front brake hand lever is operated with the right hand. Pull the lever in towards the handlebar grip to engage the front brake.
- H. THROTTLE CONTROL GRIP** Turn the control grip towards yourself to open the throttle and away from yourself to close it.
- I. RIGHT TURN SIGNAL** The right turn signal is operated by the TURN-R switch.

BATTERY

BATTERY The battery and electrical components are located under the seat. This motorcycle was equipped at the factory with a sealed, maintenance-free battery. Any attempt to open the battery is extremely dangerous and will void the warranty. You cannot check the battery electrolyte level or add distilled water as you would with a conventional type battery. If the battery seems weak, fully charge the battery. If slow starting or other electrical problems persist, contact a Big Dog Motorcycles Dealer or Authorized Service Center.

If you do not ride frequently, Big Dog Motorcycles recommends using a Trickle Charger (BDM250-00004) to maintain the battery's charge level.



CAUTION

BATTERY POSTS AND TERMINALS CONTAIN LEAD AND LEAD COMPOUNDS. WASH YOUR HANDS THOROUGHLY AFTER HANDLING.

SEAT REMOVAL To remove the seat, place fingers under the seat or pillion pad and locate the suction release tabs. Release the suction cups by pulling up on the

suction release tabs. Remove seat carefully to avoid damage to painted surfaces. Failure to use the suction release tabs prior to seat removal may cause the suction cups to separate from the seat.

GEAR SHIFTER

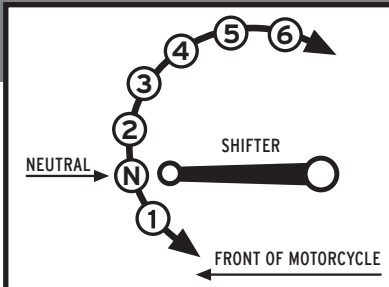


CAUTION

- DO NOT FORCE THE TRANSMISSION TO SHIFT UNDER ANY CIRCUMSTANCES. FORCING A SHIFT MAY DAMAGE THE SHIFT LEVER OR TRANSMISSION COMPONENTS.
- DO NOT RIDE WITH YOUR FOOT ON THE GEAR SHIFTER.
- WHEN UP-SHIFTING OR DOWNSHIFTING, THE THROTTLE SHOULD BE CLOSED AND THE CLUTCH FULLY DISENGAGED.



GEAR SHIFTER

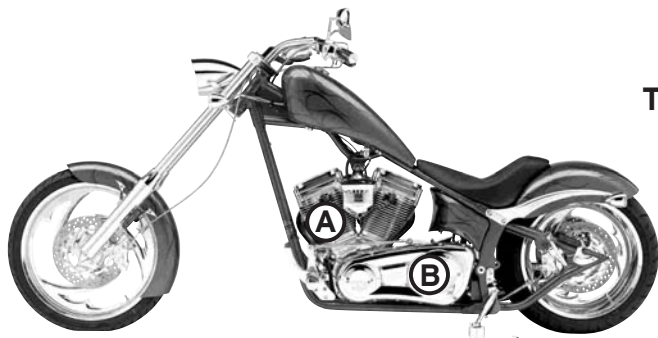


The gear shifter is located on the left forward foot control. There are six forward gears and no reverse. Pushing the lever down shifts the transmission into the next lower gear, lifting the shift lever up shifts the transmission into the next higher gear.

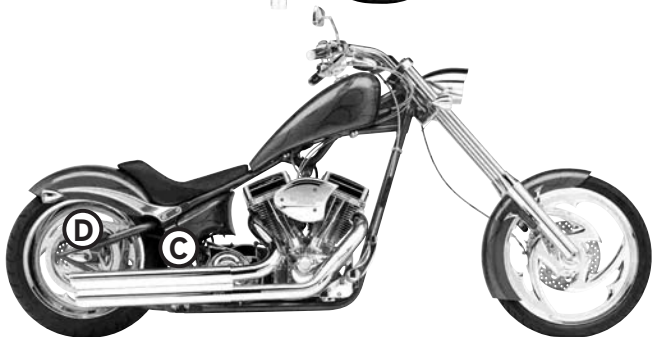
This motorcycle comes equipped with a Baker six-speed transmission. Fourth and fifth gears are “helical cut” to reduce noise, improve gear engagement and ease shifting effort. The operator must release the gearshift lever after each gear change and allow the lever to return to its central position before another gear change can be made.

The neutral position is between first and second gear. To shift into neutral from first gear, raise the shift lever slightly until you feel a slight “click”. If the key is on, the green neutral indicator light will stay on after you release the pressure on the shift lever if you are in neutral. To shift to neutral from second gear, reverse the procedure. If the motorcycle is not running, it may be necessary to rock the motorcycle backward or forward slightly with the clutch lever pulled in while maintaining steady pressure on the shift lever to shift into neutral.

POWER TRAIN SYSTEM



TYPICAL



SYSTEM COMPONENTS The power train of this motorcycle is composed of:

- A. V-TWIN, 117 CUBIC-INCH, FOUR-STROKE ENGINE**
- B. CHAIN DRIVEN PRIMARY DRIVE** The primary drive delivers power from the engine to the transmission. The primary drive of this motorcycle is composed of a double row drive chain running from the crankshaft sprocket inside the primary drive case to the clutch.
- C. BAKER 6-SPEED TRANSMISSION** The transmission delivers the power it receives from the engine to the rear wheel via the final drive belt. The transmission also allows the engine to operate within its limitations under varying speeds and conditions. Proper gear selection while riding will enhance your enjoyment, safety and help to ensure longevity of the engine.
- D. RIGHT SIDE BELT DRIVEN FINAL DRIVE** The final drive is the last link in the power train and connects the transmission to the rear wheel. This motorcycle utilizes a durable synthetic belt for the final drive which gives a quieter, smoother ride.

CLUTCH

MANUAL, MULTI-PLATE CLUTCH The purpose of the clutch is to engage and disengage the flow of power from the engine to the transmission. The clutch assembly is attached to the transmission input shaft. The transmission drive sprocket is attached to this clutch basket and driven by the engine via a double row primary chain. A starter ring gear, also attached to this clutch assembly, engages with the starter motor's pinion gear to start the engine. The clutch is manually operated through a lever mounted on the left side handlebar.

Clutch life can be greatly prolonged by following these simple guidelines:

1. Resist the urge to "ride" the clutch (holding the clutch lever partially compressed).
2. When shifting gears, make sure the throttle is closed before you engage or disengage the clutch.
3. Keep your fingers from between the clutch hand lever and the handlebar grip when compressing so the clutch can fully disengage.
4. From a dead stop or at slow speeds in low gears, the clutch should be engaged slowly yet deliberately. At higher speeds and in higher gears, engage and disengage the clutch with a swift and deliberate action.

CLUTCH ADJUSTMENTS Maintaining the proper tension on the clutch cable is critical to the longevity of the motorcycle's clutch.

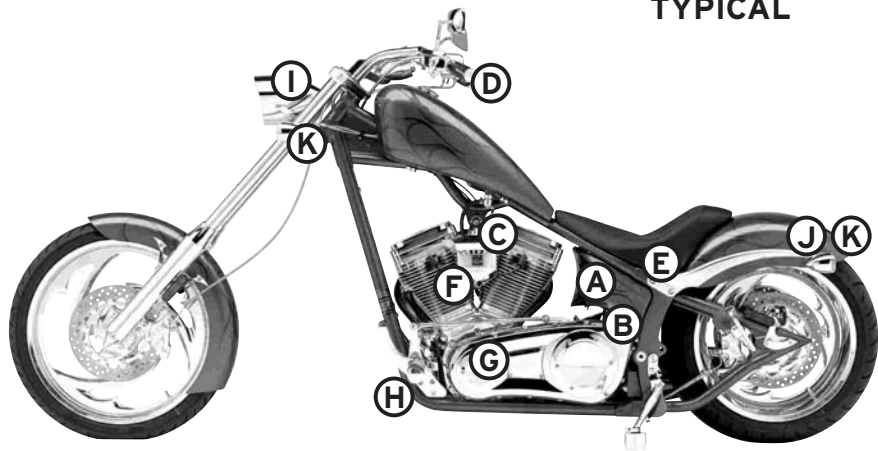
If the clutch cable is too tight, the clutch plates will not fully engage. This causes the clutch to slip. If the clutch cable has too much slack, the clutch will not completely release. This may cause hard shifting, vehicle creep, overheating and warping of the clutch plates and may make finding neutral difficult.

CAUTION



AN IMPROPERLY ADJUSTED CLUTCH CABLE CAN CAUSE CLUTCH PLATES, CLUTCH PUSH RODS AND CLUTCH THROW-OUT-BEARINGS TO OVERHEAT AND/OR WARP. CLUTCH REPAIRS AND ADJUSTMENTS ARE A SERIOUS MATTER AND SHOULD ONLY BE PERFORMED BY A BIG DOG MOTORCYCLES DEALER OR AUTHORIZED SERVICE CENTER.

TYPICAL



The electrical system supplies electrical power to all the various components of the motorcycle. The electrical system of this motorcycle can be broken down into four major systems:

1. STARTING

A. BATTERY; B. STARTING MOTOR.

2. IGNITION

**C. IGNITION SYSTEM; D. ENGINE OFF/RUN SWITCH;
E. ELECTRICAL HARNESS; F. SPARK PLUGS/WIRES.**

3. CHARGING

G. ALTERNATOR; H. VOLTAGE REGULATOR.

4. LIGHTING

I. HEADLIGHT; J. TAIL LIGHT; K. TURN SIGNALS.



CAUTION

IGNITION TIMING ADJUSTMENT IS NOT POSSIBLE. TIMING IS DETERMINED BY THE CRANK SENSOR AND THE IGNITION MODULE CALIBRATES THE FIRING SEQUENCE. DO NOT ATTEMPT TO REPROGRAM OR ADJUST THE IGNITION MODULE.

2007 ELECTRONIC DEVICES AND THEIR DEFAULTS Incorporated in the electrical system are:

1. Electronically controlled compression releases.
2. Turn signals that self-cancel after a 10-second interval. Signals do not cancel with brake applied or while in neutral.
3. Fault Indicating EHC (Electronic Harness Control).
4. LED tail light, turn signals, tag light and front and rear brake lights.
5. Ignition switch OFF, returns the headlight to low beam for the next time ignition switch is turned on.
6. Ignition switch OFF, returns the RUN/OFF switch on the right handlebar to the OFF position.

7. With the engine not running, the hazard lights can be activated by applying both turn signals. The head light defaults to the OFF position to conserve battery power and will remain in the OFF position until the RUN/START button is engaged or the hazard lights are deactivated. Hazard lights can be deactivated by applying either turn signal.

For any electrical problems, it is best to take your motorcycle to a Big Dog Motorcycles Dealer or Authorized Service Center. They have the parts, equipment and training to diagnose the problem and make the necessary repairs.

IGNITION SWITCH

The ignition switch activates the EHC which controls the electrical functions of the motorcycle.



COIL COVER & IGNITION SWITCH



IGNITION KEY OFF



IGNITION KEY ON

SWITCH POSITIONS There are only two ignition key positions. Vertical, or up and down, is ignition OFF and the key is removable in this position. Horizontal, or sideways, is ignition ON and the key should not be able to be removed. In the horizontal or ON position, the following will occur:

- A. The speedometer will display a self-test read out.
- B. Power up: Headlight - defaults to low beam; annunciator lights; tail, tag and running lights - front and rear; speedometer.

After shutting down the engine, always turn the switch to the OFF position. If you leave the ignition ON, the lights will run down the battery. To help protect the motorcycle against theft, lock the ignition and remove the key from the switch when leaving the motorcycle unattended.

CAUTION



- DO NOT ATTACH LARGE, HEAVY KEY RINGS OR OTHER OBJECTS TO THE IGNITION KEY AS THIS CAN DAMAGE THE COIL COVER AND THE IGNITION SWITCH.
- IF THE IGNITION IS TURNED ON IMMEDIATELY AFTER THE ENGINE IS STOPPED, THE OIL PRESSURE LIGHT MAY NOT COME BACK ON IMMEDIATELY DUE TO RETAINED OIL PRESSURE.
- DO NOT MODIFY THE LIGHT SWITCH WIRING TO CIRCUMVENT THE AUTOMATIC-ON HEADLIGHT FEATURE. HIGH VISIBILITY IS AN IMPORTANT SAFETY CONSIDERATION FOR MOTORCYCLE RIDERS.



CAUTION

IT IS ILLEGAL TO TAMPER WITH OR ALTER THE VEHICLE ODOMETER.

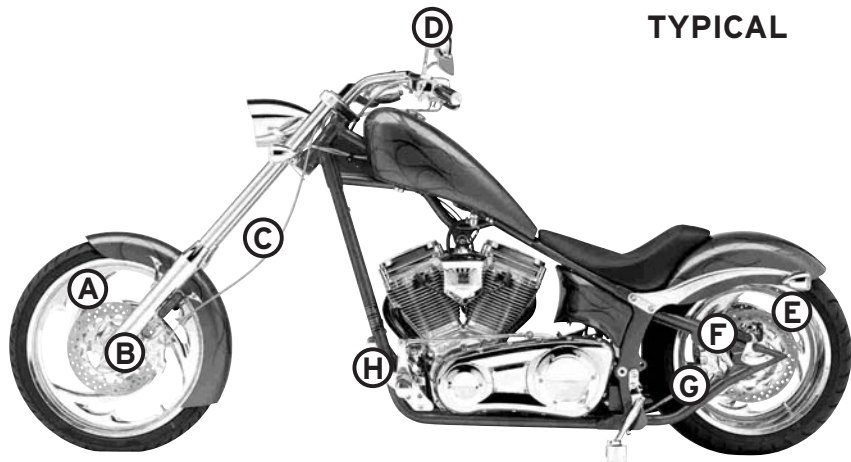


- A. TURN INDICATOR LIGHTS** The yellow turn signal will flash when the left or right turn signal is activated.
- B. OIL INDICATOR LIGHT** The red oil pressure light signals low oil pressure when lit. This light will come on when the ignition is on, and turn off when minimum engine oil pressure is reached.
- C. TRANSMISSION NEUTRAL LIGHT** The green light indicates when the transmission is in neutral.
- D. HI BEAM LIGHT** The blue light indicates when the hi beam is on.
- E. SPEEDOMETER** The speedometer registers speed in miles per hour.

- F. ODOMETER/TRIP ODOMETER** The odometer registers the total number of miles the vehicle has traveled. The trip odometer registers the total miles the motorcycle traveled since it was last reset. To reset the trip odometer, depress and hold the black button under the odometer when the total miles ridden are displayed. This will zero out and reset the trip odometer. Upon starting the motorcycle, the display will default to odometer or trip odometer - depending on which setting was last used for the last 6 minutes of operation.
- G. TACHOMETER** The tachometer registers in 500 RPM (Revolutions Per Minute) increments. If the engine falls below 900 RPM, all LED's will flash, warning the rider of engine lugging. At 4,500 RPM the Yellow LED's will illuminate and at 6,000 RPM the Red LED's will illuminate as the rev limiter engages.
- H. LOW FUEL LIGHT** (Available on EFI models only) Indicates that fuel supply has automatically switched to reserve supply.
- I. MALFUNCTION INDICATION LIGHT** (Available on EFI models only)

CAUTION

AFTER STARTING, IF THE OIL PRESSURE INDICATOR LIGHT FAILS TO GO OFF WITHIN THREE TO FIVE SECONDS, IMMEDIATELY SHUT THE ENGINE OFF. CHECK THE OIL SUPPLY. IF OIL SUPPLY IS NORMAL, AND THE ENGINE THE LIGHT STILL DOES NOT GO OFF AFTER RESTARTING, SHUT OFF THE ENGINE AT ONCE AND DO NOT ATTEMPT TO START UNTIL THE TROUBLE IS LOCATED AND NECESSARY REPAIRS ARE MADE.



FRONT BRAKE COMPONENTS The front brake is a hydraulic disc type, which is operated by the hand lever on the right handle bar. It is composed of:

- A. FRONT DISC ROTOR**
- B. FOUR-PISTON CALIPER**
- C. BRAIDED STAINLESS STEEL LINE**
- D. 5/8" BORE MASTER CYLINDER & RESERVOIR**

REAR BRAKE COMPONENTS The rear brake is a hydraulic disc type, which is operated by the pedal on the right foot rest. It is composed of:

- E. REAR DISC ROTOR**
- F. FOUR-PISTON CALIPER**
- G. BRAIDED STAINLESS STEEL LINE**
- H. 5/8" BORE MASTER CYLINDER & RESERVOIR**

**CAUTION**

NOTE: THE REAR BRAKE PEDAL IS LOCATED ON THE RIGHT FORWARD FOOT CONTROL. DO NOT RIDE WITH YOUR FOOT RESTING ON THE BRAKE PEDAL. THIS WILL CAUSE PREMATURE WEAR OF THE BRAKE PADS AND CAN REDUCE YOUR BRAKING ABILITY.

BRAKE SYSTEM

FOR NORMAL BRAKING Apply both front and rear brakes. The brake system supplies best stopping when rear brake is applied slightly before front. Pull in the clutch lever to prevent the engine from stalling. **ONLY APPLYING THE REAR BRAKE CAN REDUCE YOUR BRAKING ABILITY BY UP TO 70%.**



WARNING

HARD BRAKING MAY CAUSE WHEEL LOCK AND CAN RESULT IN LOSS OF CONTROL OF THE MOTORCYCLE. THINGS SUCH AS WATER, OIL OR DEBRIS ON THE ROAD SURFACE CAN ADVERSELY AFFECT YOUR BRAKING ABILITY AND MAY CAUSE LOSS OF CONTROL UNDER EXTREME BRAKING. ALWAYS LEAVE YOURSELF ENOUGH ROOM TO STOP WITHOUT LOSS OF CONTROL.

MAINTAINING BRAKE SYSTEM INTEGRITY Keeping the braking system performance at its best requires both master cylinder fluid reservoirs to be kept full of DOT 5 brake fluid. Having adequate wear surface on the brake pads is equally important. Remember, brake fluid level will drop slightly as the brake pads wear. Low brake fluid level may allow air to enter the brake system causing it to feel “spongy” and become ineffective. Inspect brake fluid level and brake pads for wear on a regular basis. Both front and rear master cylinders should be filled to, but not above reservoir undercut.

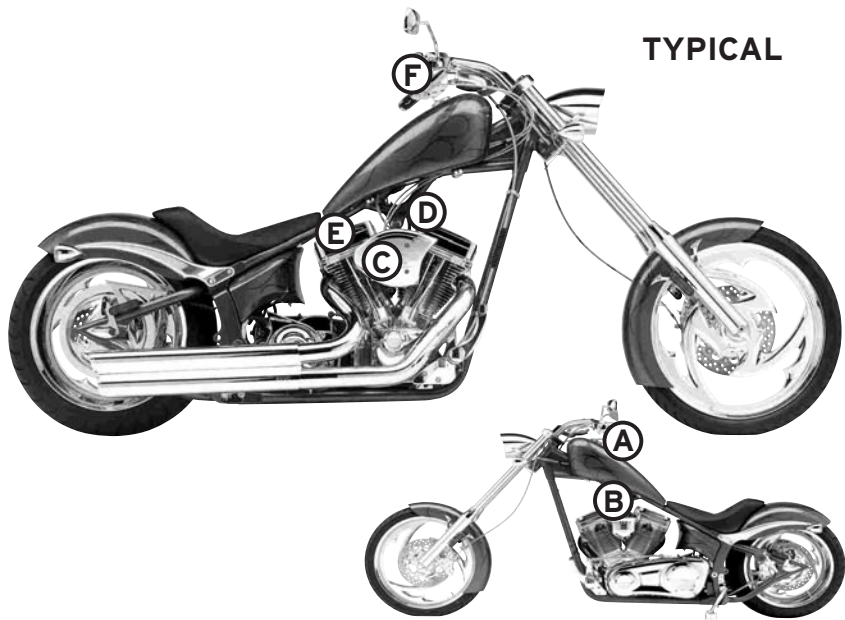
CAUTION



- “RIDING” THE BRAKES CAN CAUSE OVERHEATING, REDUCING THEIR EFFECTIVENESS. NEVER RIDE WITH YOUR FOOT RESTING ON THE BRAKE PEDAL OR YOUR HAND PUTTING PRESSURE ON THE FRONT BRAKE LEVER EXCEPT WHEN STOPPING.
- AVOID PROLONGED BRAKE APPLICATION. THIS CAN OVERHEAT THE BRAKES AND REDUCE THEIR EFFECTIVENESS.

If you experience trouble with the brake system, have it inspected by a Big Dog Motorcycles Dealer or Authorized Service Center. You can also refer to the Troubleshooting section for help.

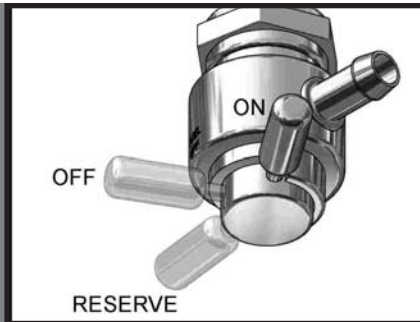
TYPICAL



The conventional fuel system is composed of:

- A. FUEL TANK** One-piece tank design incorporating gas-cap vents. To open the gas cap turn counterclockwise.
- B. FUEL VALVE** (See illustration on next page)
- C. CARBURETOR** The carburetor is the central part as well as the most complex part of the fuel system. For information on maintenance of the air filter see Section 3.
- D. FUEL LINE**
- E. ENRICHENER** Facilitates cold starting by creating a richer than normal fuel condition. The enrichener lever is positioned on the top of the carburetor behind the air filter housing. Lift up the enrichener lever for cold starting. Push down the enrichener lever to close as the engine begins to warm.
- F. THROTTLE GRIP AND CABLES** The throttle grip and cables are connected to the throttle plate inside the carburetor. Check the cables for breaks, kinks or other visible damage and ease of opening and closing of the throttle prior to riding each time.

FUEL VALVE



IN THE FUEL ON POSITION, FUEL ENTERS THE VALVE FROM APPROXIMATELY ONE INCH ABOVE THE BOTTOM OF THE TANK. THE RESERVE POSITION ALLOWS THE FUEL THAT IS LEFT IN THE BOTTOM OF THE TANK TO ENTER THE VALVE IF YOU USE THE FUEL RESERVE, REMEMBER TO TURN THE VALVE FROM THE RESERVE TO THE ON POSITION AFTER REFUELING.

FUEL VALVE This motorcycle (except for EFI models) comes equipped with a high performance, high flow fuel valve. The fuel valve is located under the fuel tank on the left side of the motorcycle. The valve position is marked on the base of the fuel valve just above the lever. Always close the fuel valve when the engine is not running. Failure to do so can result in flooding the engine with fuel, making the motorcycle difficult to start.

FUEL ON Turn the lever until it has stopped in the ON position.

FUEL OFF Turn the lever until it is centered between the ON and RESERVE positions.

FUEL RESERVE Turn the lever until it has stopped in the RESERVE position.