

Motorcycle Owner's Manual



## (UK MODEL ONLY)



#### WARNING CONTAINS ASBESTOS

Breathing asbestos dust is dangerous to health

Follow safety instructions This warning may apply to any of the following components or any assembly containing one or more of these components:—

Brake Shoes or Pads Clutch Friction Material Gaskets Insulators

#### SAFETY INSTRUCTIONS

- Operate if possible out of doors or in a well ventilated place.
- •Preferably use hand tools or low speed tools equipped, if necessary, with an appropriate dust extraction facility. If high speed tools are used, they should always be so equipped.
- •If possible, dampen before cutting or drilling.
- Dampen dust and place it in properly closed receptacle and dispose of it safely.

#### AUSTRALIAN MODEL ONLY

## TAMPERING WITH NOISE CONTROL SYSTEM

## Owners are warned that the law may prohibit:

- (a) The removal or rendering inoperative by any person other than for 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; and
- (b) the use of the vehicle after such device or element design has been removed or rendered inoperative by any person.

Whenever you see the symbols shown below, heed their instructions! Always follow safe operating and maintenance practices.

## WARNING

•This warning symbol identifies special instructions or procedures which, if not correctly followed, could result in personal injury, or loss of life.

## CAUTION

• This caution symbol identifies special instructions or procedures which, if not strictly observed, could result in damage to or destruction of equipment.

#### NOTE

 This note symbol indicates points of particular interest for more efficient and convenient operation.

#### NOTICE

THIS PRODUCT HAS BEEN MANU-FACTURED FOR USE IN A REASON-ABLE AND PRUDENT MANNER BY A QUALIFIED OPERATOR AND AS A VEHICLE ONLY.

VN-15 ······ VN1500-A VN-15SE ···· VN1500-B



#### **FOREWORD**

We wish to thank you for choosing this fine Kawasaki Motorcycle. Your new motorcycle is the product of Kawasaki's advanced engineering, exhaustive testing, and continuous striving for superior reliability, safety, and performance.

Read this Owner's Manual before riding so you will be thoroughly familiar with the proper operation of your motorcycle's controls, its features, capabilities and limitations. This manual offers many safe riding tips, but its purpose is not to provide instruction in all the techniques and skills required to ride a motorcycle safely. Kawasaki strongly recommends that all operators of this vehicle enroll in a motorcycle rider training program to attain awareness of the mental and physical requirements necessary for safe motorcycle operation.

To ensure a long, trouble-free life for your motorcycle, give it the proper care and maintenance described in this manual. For those who would like more detailed information on their Kawasaki Motorcycle, a Service Manual is available for purchase from any Kawasaki Dealer. The Service Manual contains detailed disassembly and maintenance information.

Due to improvements in design and performance during production, in some cases there may be minor discrepancies between the actual vehicle and the illustrations and text in this manual.

# KAWASAKI HEAVY INDUSTRIES, LTD. CONSUMER PRODUCTS & COMPONENTS GROUP

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#### 

#### (\*: VN1500-B only)

#### PERFORMANCE

Maximum Horsepower

Maximum Torque

Minimum Turning Radius

Braking Distance

#### DIMENSIONS

Overall Length

Overall Width Overall Height Wheelbase

Road Clearance Dry Weight

#### ENGINE

Type Displacement

Bore x Stroke Compression Ratio

Starting System

Cylinder Numbering Method

Firing Order

53.0 kW (72 PS) @4500 r/min (rpm)

© 51.5 kW (70 PS) @3000 r/min (rpm)

123.6 N-m (12.6 kg-m, 91.1 ft-lb) @3000 r/min (rpm) \*127.5 N-m (13.0 kg-m, 94.0 ft-lb) @3000 r/min (rpm)

2.7 m (106.3 in.) \*3.0 m (118.1 in.) 12.5 m from 50 km/h (41 ft from 31 mph)

2410 mm (94.9 in.) \*2375 mm (93.5 in.)

895 mm (35.2 in.)

1180 mm (46.5 in.) \*1195 mm (47.0 in.) 1605 mm (63.2 in.) \*1630 mm (64.2 in.)

135 mm (5 91 in.) \*160 mm (6.3 in.)

257 kg (567 lb) \*249 kg (549 lb)

SOHC, V-type 2-cylinder, 4-stroke, liquid-cooled

1470 mL (89.7 cu in.)

102.0 x 90.0 mm (4.02 x 3.54 in.)

9.0:1

Electric Starter Front to Rear, 1-2

1-2

Carburetors Keihin CVK36 x 2 Ignition System Battery and coil (transistorized ignition) Ignition Timing 5° BTDC @800 r/min (rpm) (Electronically advanced) Spark Plugs NGK DPR7EA-9 or ND X22EPR-U9 A NGK DP7EA-9 or ND X22EP-U9 Lubrication System Forced lubrication (wet sump) Engine Oil SE or SF class SAE 10W40, 10W50, 20W40, or 20W50 Engine Oil Capacity 3.5 L (3.7 US at) Coolant Capacity 2.3 L (2.4 US at) TRANSMISSION Transmission Type 4-speed, constant mesh, return shift Clutch Type Wet, multi disc Driving System Shaft drive Primary Reduction Ratio 1.517 (85/56) Final Reduction Ratio 2.619 (15/21 x 33/9) Overall Drive Ratio 3.838 (Top gear) Gear Ratio: 1st 2.500 (40/16) 2nd 1.590 (35/22) 3rd 1.192 (31/26) 4th 0.965 (28/29) Final Gear Case Oil API GL-5 SAE 90 [above 5°C (41°F)] SAE 80 [below 5°C (41°F)] Final Gear Case Oil Capacity 200 mL (0.21 US at)

#### FRAME

Castor 31° \*32.5°

Trail 128 mm (5.0 in.) \*132 mm (5.2 in.)
Tier Size: Front 100/90-19 57H Tubeless \*Tube-type

Tier Size: Front 100/90-19 57H Tubeless \*Tube-type Rear 150/90-15 74H Tubeless \*Tube-type

Fuel Tank Capacity 16 L (4.2 US gal) \*12 L (3.2 US gal)

**ELECTRICAL EQUIPMENT** 

Battery 12 V 20 AH Headlight 12 V 60/55 W

Headlight 12 V 60/55 W
Tail/Brake Light 12 V 5/21 W x 2

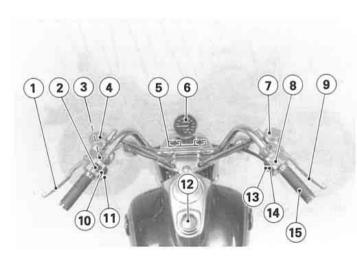
A: Australian Model

(E): European Model

1: Italian Model

Specifications subject to change without notice, and may not apply to every country.

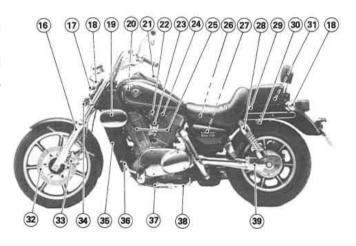
#### ..... LOCATION OF PARTS ......



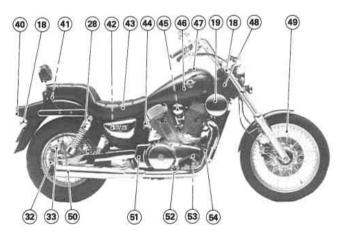
- 1. Clutch Lever
- 2. Dimmer Switch
- 3. Starter Lockout Switch
- 4. Clutch Fluid Reservoir
- 5. Indicator Lights
- Speedometer
- Brake Fluid Reservoir (Front)
- 8. Engine Stop Switch
- 9. Front Brake Lever
- 10. Turn Signal Switch
- 11. Horn Button
- Fuel Gauge (VN1500-A only)
- 13. Starter Button
- Headlight Switch
- 15. Throttle Grip

- 16. Front Fork
- 17. Headlight
- 18. Turn Signal Light
- 19. Air Cleaner Element
- 20. Radiator Cap
- Fuel Tank Outer Cap (VN1500-A only)
- 22. Fuel Tap
- 23. Idle Adjusting Screw
- 24. Choke Knob
- 25. Spark Plugs
- 26. Junction Box (Fuses)
- 27. Battery
- 28. Rear Shock Absorber
- Seat Lock (VN1500-A only)
- 30. Helmet Hook
- 31. Tool Kit
- 32. Brake Disc
- 33. Brake Caliper
- 34. Horn
- 35. Radiator
- 36. Shift Pedal
- 37. Side Stand Switch
- 38. Side Stand
- 39. Final Gear Case

## VN1500-A



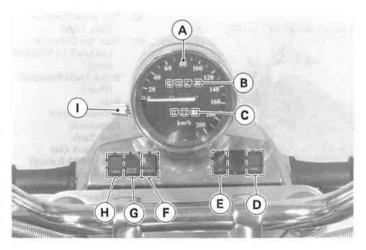
#### VN1500-B



- 40. Tail/Brake/License Plate Light
- 41. Tool Kit Container Lid Lock (VN1500-B only)
- 42. Brake Fluid Reservoir (Rear)
- 43. Seat
- 44. Ignition Switch
- 45. Carburetor
- 46. Fuel Tank
- 47. Fuel Tank Cap (VN1500-B only)
- 48. Steering Lock
- 49. Spokes (VN1500-B only)
- 50. Muffler
- 51. Coolant Reserve Tank
  - 2. Oil Level Gauge
- 53. Rear Brake Light Switch
- 54. Rear Brake Pedal

#### GENERAL INFORMATION .....

#### Meter Instruments



- A. Speedometer
- B. Odometer
- C. Trip Meter
- D. Right Turn Signal Indicator Light
- E. Oil Pressure Warning Light
- F. Neutral Indicator Light
- G. High Beam Indicator Light
- H. Left Turn Signal Indicator Light
- I. Reset Knob

#### Speedometer

The speedometer shows the speed of the vehicle. In the speedometer face are the odometer and trip meter. The odometer shows the total distance that the vehicle has been ridden. The trip meter shows the distance traveled since it was last reset to zero. The trip meter can be reset to zero by turning the reset knob counterclockwise.

#### Indicator Lights

**TURN:** When the turn signal switch is turned to left or right, the corresponding turn signal indicator light flashes on and off.

**HIGH BEAM:** When the headlight is on high beam, the high beam indicator light is lit.

**NEUTRAL:** When the transmission is in neutral, the neutral indicator light is lit.

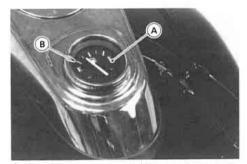
OIL: The oil pressure warning light goes on whenever the oil pressure is dangerously low or the ignition switch is in the ON position with the engine not running, and goes off when the engine oil pressure is high enough. Refer to the Maintenance and Adjustment chapter for more detailed engine oil information.

## Fuel Gauge (VN1500-A only)

The fuel gauge shows the amount of fuel in the fuel tank. When the needle comes near the E(empty) position, turn the fuel tap to RES, and refuel at the earliest opportunity.

#### NOTE

•Make certain that the fuel tap is turned to ON (Not RES), after filling up the fuel tank.



A. Fuel Gauge

B. E (Empty) position

## Key

This motorcycle has a combination key, which is used for the ignition switch, steering lock, fuel tank outer cap (VN1500-A), fuel tank cap (VN1500-B), seat lock (VN1500-A), tool kit container lid lock (VN1500-B), and helmet hook.

Blank keys are available at your Kawasaki Dealers. Ask your Dealer to make any additional spare keys you may need, using your original key as a master.

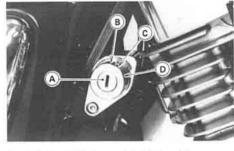
## Ignition Switch

The ignition switch is on the right side behind the rear cylinder. This is a threeposition, key-operated switch. The key can be removed from the switch when it is in the OFF or P(PARK) position.

#### NOTE

olf you leave the PARK position on for a long time (one hour), the battery may become totally discharged.

OFF	Engine off. All electrical circuits off.
ON	Engine on. All electrical equipment can be used.
P (PARK)	Engine off. Tail, city and license plate lights on. All other electrical circuits cut off.



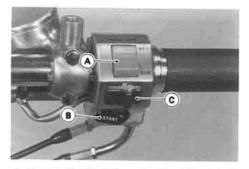
A. Ignition Switch

C. ON position

## Right Handlebar Switches Engine Stop Switch

In addition to the ignition switch, the engine stop switch must be in the RUN position for the motorcycle to operate.

The engine stop switch is for emergency use. If some emergency requires stopping the engine, move the engine stop switch to the OFF position.



A. Engine Stop Switch B. Starter Button

C. Headlight Switch

#### NOTE

OAlthough the engine stop switch stops the engine, it does not turn off all the electrical circuits. Ordinarily, the ignition switch should be used to stop the engine.

#### Starter Button

The starter button operates the electric starter when pushed with the clutch lever pulled in or the transmission in neutral.

## CAUTION

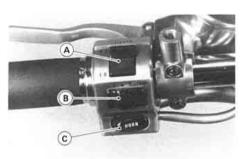
ORefer to the Starting the Engine section of the "How to Ride the Motorcycle" chapter to start the engine.

## Headlight Switch

OFF	The headlight is off with the switch in the OFF position.
0	The city, tail, license plate, and meter lights come on if the switch is pushed to the oposition with the ignition switch in the ON position.
ON	The head, city, tail, license plate, and meter lights come on if the switch is pushed forward to the ON position with the ignition switch in the ON position.

## Left Handlebar Switches Dimmer Switch

High or low beam can be selected with the dimmer switch. When the headlight is on high beam (HI), the high beam indicator light is lit.



A. Dimmer Switch C. Horn Button B. Turn Signal Switch

#### **Turn Signal Switch**

When the turn signal switch is turned to L (left) or R (right), the corresponding turn signals flash on and off.

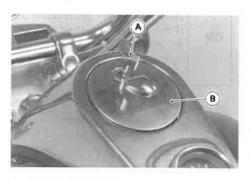
#### Horn Button

When the horn button is pushed, the horn sounds.

## Fuel Tank Cap VN1500-A:

To open the fuel tank cap, open the key hole cover, insert the ignition switch key into the fuel tank outer cap, turn the key to the right, and open the outer cap. Remove the fuel tank cap.

The outer cap is locked when pushed back into place.



A. Ignition Switch Key B. Fuel Tank Outer Cap



A. Fuel Tank Cap

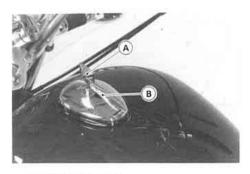
#### VN1500-B:

To open the fuel tank cap, insert the ignition switch key into the lock and turn the key to the right.

To close the cap, push it down into place with the key inserted. The key can be removed by turning it counterclockwise to the original position.

#### NOTE

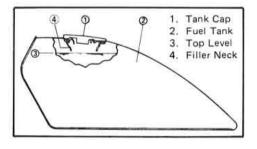
- The tank cap cannot be closed without the key inserted, and the key cannot be removed unless the cap is locked properly.
- ODo not push the cap down with the key, or the cap cannot be locked.



A. Ignition Switch Key B. Fuel Tank Cap

#### Fuel Tank

Avoid filling the tank in the rain or where heavy dust is blowing so that the fuel does not get contaminated.



## WARNING

- OGasoline is extremely flammable and can be explosive under certain conditions. Turn the ignition switch OFF. Do not smoke. Make sure the area is well ventilated and free from any source of flame or sparks; this includes any appliance with a pilot light.
- ONever fill the tank so the fuel level rises into the filler neck. If the tank is overfilled, heat may cause the fuel to expand and overflow through the vents in the tank cap.
- After refueling, make sure the tank cap is closed securely.
- If gasoline is spilled on the fuel tank, wipe it off immediately.

#### Fuel Requirement:

Your Kawasaki engine is designed to use unleaded gasoline. However, except for Australian models, if suitable gasoline is not available then PREMIUM, SUPER, or FOUR-STAR gasolines may be used.

## CAUTION

OUse of leaded gasoline is illegal in some countries, states or territories. Check local regulations before using leaded gasoline.

#### Octane Rating

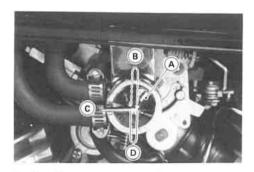
The octane rating of a gasoline is a measure of its resistance to detonation or "knocking." The term commonly used to describe a gasoline's octane rating is the Research Octane No. (RON). Always use a gasoline with an octane rating equal to, or higher than, Research Octane No. (RON) 91.

#### NOTE

Of "knocking" or "pinging" occurs, use a different brand of gasoline or higher octane rating.

## Fuel Tap

The fuel tap has three positions: OFF, ON, and RES (reserve). If the fuel runs out with the tap in the ON position, the last 4.2 L (1.1 US gal) — VN1500-A, or 3.0 L (0.8 US gal) — VN1500-B of fuel can be used by turning the fuel tap to RES.



A. Fuel Tap

B. RES position

C. OFF position
D. ON position

#### NOTE

- Since riding distance is limited when on RES, refuel at the earliest opportunity.
- OMake certain that the fuel tap is turned to ON (Not RES) after filling up the fuel tank.

## WARNING

- OPractice operating the fuel tap with the motorcycle stopped. To prevent an accident you should be able to operate the fuel tap while riding without taking your eyes off the road.
- OBe careful not to touch the hot engine while operating the fuel tap.

#### Stand

The motorcycle is equipped with a side stand.

Whenever the side stand is used, make it a practice to kick the stand fully up before sitting on the motorcycle.



A. Side Stand

## WARNING

 Forgetting and leaving the side stand down and riding away could cause an accident.

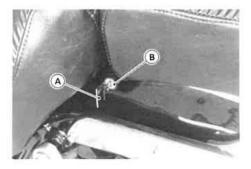
#### NOTE

OWhen using the side stand, turn the handlebar to the left.

#### Seat Lock (VN1500-A)

To open the seat, insert the ignition switch key into the seat lock, turn the key to the right, and pull up on the rear of the rider's seat.

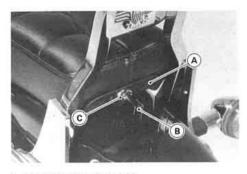
The seat is locked when pushed back into place.



A. Ignition Switch Key B. Seat Lock

#### Seat (VN1500-B)

To open the seat, remove the tool kit container lid with the ignition switch key, unbolt the seat, and pull up on the rear of the seat.



A. Tool Kit Container Lid

B. Ignition Switch Key

C. Lid Lock



A. Bolts

#### Tool Kit

The tool kit is stored under the passenger's seat (VN1500-A) or in the tool kit container (VN1500-B). The minor adjustments and replacement of parts explained in this manual can be performed with the tools in the kit. Also, keep the owner's manual and any papers or documents which should be kept with the motorcycle in the same place.



A. Tool Kit (VN1500-A)



A. Tool Kit (VN1500-B)

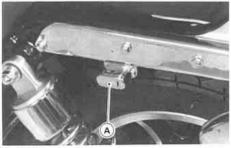
#### Helmet Hook

A helmet can be secured to the motorcycle using the helmet hook.

The helmet hook can be unlocked by inserting the ignition switch key into the lock, and turning the key to the right.

## WARNING

On not ride the motorcycle with a helmet attached to the hook. The helmet could cause an accident by distracting the operator or interfering with normal vehicle operation.



A. Helmet Hook

## Steering Lock

The motorcycle is equipped with the steering lock at the right side of the head pipe.

## To lock the steering:

- 1. Turn the handlebar to the left.
- Push open the key hole cover clockwise.
- 3. Insert the steering lock key.
- 4. Turn the key to the left.
- Push the key in turning the handlebar slightly to the right, and turn the key to the right.
- 6. Pull the key out.

## WARNING

OUnlock the steering before starting the engine. Attempting to drive with the steering locked could cause an accident.



A. Steering Lock

## **Electric Accessory Leads**

The electric power of the battery can be used through the electric accessory leads regardless of ignition switch position. Observe and follow the notes listed below.

## Electric Accessory Leads

Location	Polarity	Lead Color
Inside Left	(+)	White/Blue
Side Cover	()	Yellow/Black
Inside Headlight	(+)	White/Blue
Housing	(-)	Yellow/Black
Maximum C	urrent:	10A

## CAUTION

- OWhenever you leave the motorcycle, stop using the electric accessories.
- OBe careful not to discharge the battery totally. For example, if a current of 20 amperes is continuously taken out with the engine stopped, even an originally-fully-charged battery may become totally discharged in about 20 minutes.

## WARNING

•Take care not to pinch any lead between the seat and the frame or between other parts to avoid a short circuit.



A. Electric Accessory Leads



A. Electric Accessory Leads

## ..... BREAK-IN ......

The first 1,600 km (1,000 mi) that the motorcycle is ridden is designated as the break-in period. If the motorcycle is not used carefully during this period, you may very well end up with a "broken down" instead of a "broken in" motorcycle after a few thousand kilometers.

The following rules should be observed during the break-in period.

•The table shows maximum recommended vehicle speed in km/h (mph) during the break-in period.

Gear position Distance traveled	1st	2nd	3rd	4th
0 ~ 800 km (0 ~ 500 mi)	39 (24)	61 (38)	82 (51)	101 (63)
800 ~ 1,600 km (500 ~ 1,000 mi)	53 (33)	82 (51)	109 (68)	134 (83)

#### NOTE

OWhen operating on public roadways, keep maximum speed under traffic law limits.

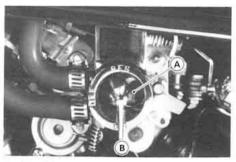
- •Do not start moving or race the engine immediately after starting it, even if the engine is already warm. Run the engine for two or three minutes at idle speed to give the oil a chance to work up into all the engine parts.
- •Do not race the engine while the transmission is in neutral.

In addition to the above, at 800 km (500 mi) it is extremely important that the owner have the initial maintenance service performed by an authorized Kawasaki Dealer.

#### 

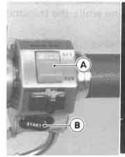
## Starting the Engine

Turn the fuel tap to the ON position.

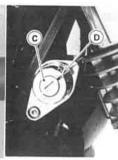


A. Fuel Tap

B. ON position



A. Engine Stop Switch B. Starter Button



C. Ignition Switch

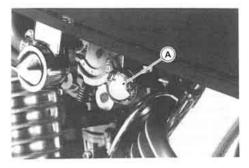
D. ON position

- Check that the engine stop switch is in the RUN position.
- •Turn the ignition switch on.

 Make certain the transmission is in neutral or the clutch is disengaged.



A. Neutral Indicator Light



A. Choke Knob

### If the engine is cold, pull the choke knob all the way up.

#### NOTE

OWhen the engine is already warm or on hot days [higher than 35°C (95°F)], open the throttle part way instead of using the choke, and then start the engine.

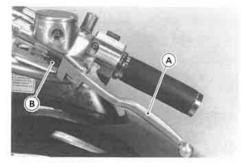
Leaving the throttle completely closed, push the starter button with the clutch lever pulled in until the engine starts.

# CAUTION

ODo not operate the starter continuously for more than 5 seconds or the starter will overheat and the battery power will drop temporarily. Wait 15 seconds between each operation of the starter to let it cool and the battery power recover.

#### NOTE

- Of the engine is flooded, crank the engine over with the throttle fully open until the engine starts.
- The motorcycle is equipped with a starter lockout switch. This switch prevents the electric starter from operating when the clutch is engaged and the transmission is not in neutral.



A. Clutch Lever

B. Starter Lockout Switch

- Gradually return the choke toward the off position a little at a time as necessary to keep the engine running properly during warm-up.
- When the engine is warmed up enough to idle without using the choke, return the choke to the off position.

#### NOTE

Of you drive the motorcycle before the engine is warmed up, return the choke to the off position as soon as you start moving.

# CAUTION

On not let the engine idle longer than five minutes, or engine overheating and damage may occur.

## Jump Starting

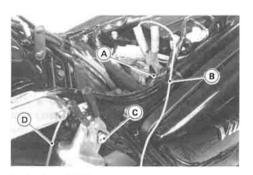
If your motorcycle battery is "run down," it should be removed and charged. If this is not practical, a 12 volt booster battery and jumper cables may be used to start the engine.

## WARNING

OBattery acid generates hydrogen gas which is flammable and explosive under certain conditions. It is present within a battery at all times, even in a discharged condition. Keep all flames and sparks (cigarettes) away from the battery. Wear eye protection when working with a battery. In the event of battery acid contact with skin, eyes, or clothing, wash the affected areas immediately with water for at least five minutes. Seek medical attention.

#### Connecting Jumper Cables

- •Make sure the ignition switch is turned "OFF."
- Connect a jumper cable from the positive (+) terminal of the booster battery to the positive (+) battery cable at the starter relay terminal.



- A. Positive (+) Starter Relay Terminal
- B. To Booster Battery Positive (+) Terminal
- C. Unpainted Metal Surface
- D. To Booster Negative (-) Terminal

 Connect another jumper cable from the negative (—) terminal of the booster battery to your motorcycle rear brake pedal or other unpainted metal surface.
 Do not use the negative (—) terminal of the battery.

## WARNING

- ODo not make this last connection at the carburetor or battery. Take care that you do not touch the positive and negative cables together, and do not lean over the battery when making this last connection. Do not jump start a frozen battery. It could explode.
- On not reverse polarity by connecting positive (+) to negative (-) or a battery explosion and serious damage to the electrical system may occur.

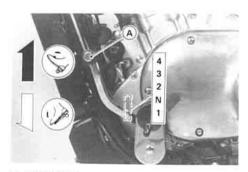
•Follow the standard engine starting procedure.

# CAUTION

- ODo not operate the starter continuously for more than 5 seconds or the starter will overheat and the battery power will drop temporarily. Wait 15 seconds between each operation of the starter to let it cool and the battery power recover.
- After the engine starts, disconnect the jumper cables. Disconnect the positive
   (+) cable from the motorcycle first.

## Moving Off

- Check that the side stand is up.
- •Pull in the clutch lever.
- Shift into 1st gear.
- Open the throttle a little, and start to let out the clutch lever very slowly.
- As the clutch starts to engage, open the throttle a little more, giving the engine just enough fuel to keep it from stalling.



A. Shift Pedal

#### NOTE

The motorcycle is equipped with a side stand switch. This switch is designed so that the engine stops if the clutch is engaged with the transmission in gear when the side stand has been left down.

## Shifting Gears

- •Close the throttle while pulling in the clutch lever.
- Shift into the next higher or lower gear. For smooth riding, shift up or down when the motorcycle is operated at the speeds shown in the table below.

## WARNING

OWhen shifting down to a lower gear, do not shift at such a high speed that the engine r/min (rpm) jumps excessively. Not only can this cause engine damage, but the rear wheel may skid and cause an accident.

 Open the throttle part way, while releasing the clutch lever.

#### NOTE

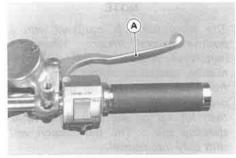
oThe transmission is equipped with a positive neutral finder. When the motorcycle is standing still, the transmission cannot be shifted past neutral from 1st gear. To use the positive neutral finder, shift down to 1st gear, then lift up on the shift pedal while standing still. The transmission will shift only into neutral.

### Vehicle speed when shifting

Shifting up	km/h (mph)	Shifting down	km/h (mph)
1st → 2nd	20 (12)	4th → 3rd	35 (21)
2nd → 3rd	35 (21)	3rd → 2nd	25(15)
$3rd \rightarrow 4th$	45 (27)	2nd → 1st	15 (9)

## **Braking**

- Close the throttle completely, leaving the clutch engaged (except when shifting gears) so that the engine will help slow down the motorcycle.
- Shift down one gear at a time so that you are in 1st gear when you come to a complete stop.
- •When stopping, always apply both brakes at the same time. Normally the front brake should be applied a little more than the rear. Shift down or fully disengage the clutch as necessary to keep the engine from stalling.
- •Never lock the brakes, or it will cause the tires to skid. When turning a corner, it is better not to brake at all; but if this is unavoidable, use only the rear brake.
- For emergency braking, disregard downshifting, and concentrate on applying the brakes as hard as possible without skidding.



A. Front Brake Lever



A. Rear Brake Pedal

## Stopping the Engine

- •Close the throttle completely.
- Shift the transmission into neutral.
- Turn the ignition switch off.
- Turn the fuel tap to the OFF position.
- Support the motorcycle on a firm level surface with the side stand.
- Lock the steering.

## Stopping the Motorcycle in an Emergency

Your Kawasaki Motorcycle has been designed and manufactured to provide you optimum safety and convenience. However, in order to fully benefit from Kawasaki's safety engineering and craftsmanship, it is essential that you, the owner and operator, properly maintain your motorcycle and become thoroughly familiar with its operation. Improper maintenance and insufficient riding skills can create a dangerous situation known as throttle failure. Two of the most common causes of throttle failure are:

- During removal of the air cleaner by the owner, dirt is allowed to enter and jam the carburetor.
- A novice may forget which direction the throttle rotates; then jerk the throttle wide open thinking he has shut it off; panic when the machine accelerates suddenly instead of slowing

down; and "freeze," holding the throttle wide open.

In an emergency situation such as throttle failure, your motorcycle may be stopped by disengaging the clutch and applying the brakes. Once this stopping procedure is initiated, the engine stop switch may be used to stop the engine. If the engine stop switch is used, turn off the ignition switch after stopping the motorcycle.

## Parking

- Shift the transmission into neutral and turn the ignition switch OFF.
- Turn the fuel tap to the OFF position.
- Support the motorcycle on a firm level surface with the side stand.

# CAUTION

- On not park on a soft or steeply inclined surface or the motorcycle may fall over.
- •If parking inside a garage or other structure, be sure it is well ventilated and the motorcycle is not close to any source of flame or sparks; this includes any appliance with a pilot light.

## WARNING

Gasoline is extremely flammable and can be explosive under certain conditions.

Lock the steering to help prevent theft.

#### NOTE

- OWhen stopping near traffic at night, you can leave the tail, city and license plate lights on for greater visibility by turning the ignition switch to the P (park) position.
- ODo not leave the switch at P position too long, or the battery will discharge.

## ..... SAFE OPERATION .....

## Daily Safety Checks

Check the following items each day before you ride. The time required is minimal, and habitual performance of these checks will help ensure you a safe, reliable ride.

If any irregularities are found during these checks, refer to the Maintenance and Adjustment chapter or see your dealer for the action required to return the motorcycle to a safe operating condition.

## WARNING

Failure to perform these checks every day before you ride may result in serious damage or a severe accident.

Fuel . . . . . . . . . . Adequate supply in tank, no leaks.

Engine oil . . . . . . Oil level between level lines.

Tires . . . . . . . . Air pressure (when cold)

Front	200 kPa (2	.0 kg/cm <sup>2</sup> , 28 psi)
Deer	Up to 97.5 kg (215 lb) load	200 kPa (2.0 kg/cm <sup>2</sup> , 28 psi)
Rear	97.5 ~ 184 kg (215 ~ 406 lb) load	225 kPa (2.25 kg/cm², 32 psi)

Brakes..... No brake fluid leakage.

Brake pad wear: Lining thickness more than 1 mm (0.04 in.) left.

Throttle. . . . . . . . . . . Throttle grip play  $2 \sim 3$  mm (0.08  $\sim 0.12$  in.).

Clutch . . . . . . . . . . No clutch fluid leakage.

Coolant . . . . . . . . . . . No coolant leakage.

Coolant level between level marks (when engine is cold).

Final gear case . . . . . . . No oil leakage.

Electrical equipment . . . . All lights and horn work.

Engine stop switch. . . . . . Stops engine.

Side stand . . . . . . . . Returns to its fully up position by spring tension.

Return spring not weak or not damaged.

Refer to "Daily Safety Checks" caution label attached to the igniter inside the right side cover.

## Additional Considerations for High Speed Operation

- Brakes: The importance of the brakes, especially during high speed operation, cannot be overemphasized. Check to see that they are correctly adjusted and functioning properly.
- Steering: Looseness in the steering can cause loss of control. Check to see that the handlebar turns freely but has no play.
- Tires: High speed operation is hard on tires, and good tires are crucial for riding safety. Examine their overall condition, inflate to the proper pressure, and check the wheel balance.
- Spark Plugs: For demanding operation such as racing, install spark plugs with one heat colder range — Italian and Australian model: NGK DP8EA-9 or ND X24EP-U9, other than Italian and Australian model: NGK DPR8EA-9 or ND X24EPR-U9.
- Fuel: Have sufficient fuel for the high fuel consumption during high speed operation.
- Engine Oil: To avoid seizure and resulting loss of control, make certain the oil level is at the upper level line.
- Coolant: To avoid overheating, check that the coolant level is at the upper level mark.
- Final Gear Case Oil: To avoid seizure and resulting loss of control, make certain the oil level is correct.
- Electrical Equipment: Make certain that the headlight, tail/brake light, turn signals, horn, etc., all work properly.
- Miscellaneous: Make certain that all nuts and bolts are tight and that all safety related parts are in good condition.

## WARNING

OHandling characteristics of a motorcycle at high speeds may vary from those you are familiar with at legal highway speeds. Do not attempt high speed operation unless you have received sufficient training and have the required skills.

# ..... MAINTENANCE AND ADJUSTMENT .....

The maintenance and adjustments outlined in this chapter are easily carried out and must be done in accordance with the Periodic Maintenance Chart to keep the motorcycle in good running condition. The initial maintenance is vitally important and must not be neglected.

If you are in doubt as to any adjustment or vehicle operation, please ask your authorized Kawasaki Dealer to check the motorcycle.

Please note that Kawasaki cannot assume any responsibility for damage resulting from incorrect maintenance or improper adjustment done by the owner.

## Periodic Maintenance Chart

Frequency	Whicheve comes fir	st	/		neter R	eading	7	m (m	300
Operation	Every	100	0000		20	3/25	v/~ 5	, a	Page
Carburetor synchronizationcheck †		•	•		•	:0:	•	•	71
Idle speedcheck †		0		0		0	•	0	71
Throttle grip playcheck †		0						•	69
Spark plugclean and gap †			0	•		0	0		65
(S)K Air suction valvecheck †			0	•	0		0	•	67
Air cleaner elementclean		0				•		۰	68
Air cleaner elementreplace	5 clear	ings				•			68
Fuel system-check †				•		•		•	90
Battery electrolyte levelcheck †	month	•	•	0	•	•	•	0	84
K Brake light switchcheck †		•	0	0	•	•		•	77
Brake pad wear-check †			•		•	•	0	•	74
Brake/clutch fluid level-check †	month	0				0	•	•	74,73
K Brake/clutch fluidchange	2 years								74,73

Frequency	Whichev comes f	1000		*Odor	neter F	Reading	3	km (m	i)
Operation	Every	000	1000'5	0000	15,000	000	0000	3000	o o Se Pag
K Steeringcheck †					•	•	•	•	-
Final gear case oil level-check †						•		•	62
Final gear case oilchange								•	62
K Propeller shaft jointlubricate				•				0	-
Nut, bolt, fastener tightnesscheck †		•		•		•			=
K Spoke tightness and rim runout check † (VN1500-B only)		•	•	•	•	•	•		\ <del>\</del>
Tire wearcheck †				•	0	•	•	•	82
Engine oilchange	year	•		•				•	56
Oil filterreplace		•				•			56
Oil screenclean									56
General lubricationperform			•	•					_
K Front fork oilchange									-
K Swing arm pivotlubricate									_

Prequency	Whichev comes fi	rst	/ /	er Reading	km (m)	,
K Coolantchange	2 years		77	17	7.	Page 62
Radiator hoses, connections check †	year	•	•			62
K Steering stem bearinglubricate	2 years					_
K Brake/clutch master cylinder cup and dust sealreplace	2 years					550
K Caliper piston seal and dust seal-replace	2 years					-
K Clutch slave cylinder piston sealreplace	2 years					-
K Brake/clutch hose and pipe-replace	4 years					-
K Fuel hosereplace	4 years					

K: Should be serviced by an authorized Kawasaki Dealer.

+ : For higher odometer readings, repeat at the frequency interval established here.

† : Replace, add, adjust, or torque if necessary.

(S): US and Swiss model only

## **Engine Oil**

In order for the engine, transmission, and clutch to function properly, maintain the engine oil at the proper level, and change the oil and oil filter and clean the oil screen in accordance with the Periodic Maintenance Chart. Not only do dirt and metal particles collect in the oil, but the oil itself loses its lubricative quality if used too long.

## WARNING

•Motorcycle operation with insufficient, deteriorated, or contaminated engine oil will cause accelerated wear and may result in engine or transmission seizure, accident, and injury.

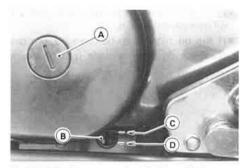
#### Oil Level Inspection

•If the oil has just been changed, start the engine and run it for several minutes at idle speed. This fills the oil filter with oil. Stop the engine, then wait several minutes until the oil settles.

# CAUTION

Racing the engine before the oil reaches every part can cause engine seizure.

- If the motorcycle has just been used, wait several minutes for all the oil to drain down.
- •Check the engine oil level through the oil level gauge. With the motorcycle held level, the oil level should come up between the lines next to the gauge.



A. Oil Filler Cap B. Oil Level Gauge

C. High Level Line
D. Low Level Line

- If the oil level is too high, remove the excess oil, using a syringe or some other suitable device
- •If the oil level is too low, add the correct amount of oil through the oil filler opening. Use the same type and brand of oil that is already in the engine.

# CAUTION

olf the engine oil gets extremely low or if the oil pump or oil passages clog up or otherwise do not function properly, the oil pressure warning light will light. If the light stays on when the engine is running slightly above the idle speed, stop the engine immediately and find the cause.



A. Oil Pressure Warning Light

### Oil and/or Oil Filter Change, Oil Screen Cleaning

- Warm up the engine thoroughly, and then stop the engine.
- •Place an oil pan beneath the engine drain plug.
- Remove the engine drain plug and oil screen plug.

- •With the motorcycle held level, let the oil completely drain.
- •If the oil filter is to be changed, remove the cartridge and replace it with a new one.



A. Drain Plug

B. Oil Screen Plug



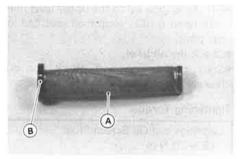
A. Cartridge

 Apply a thin film of oil on the gasket and tighten the cartridge to the specified torque.



A. Gasket

•If the oil screen is to be cleaned, clean it in a bath of a high flash-point solvent. The oil screen is taken out when the oil screen plug is removed.



A. Oil Screen

B. Rubber Gasket

•Install the engine drain plug with its gasket and oil screen plug, and tighten them to the specified torque.

#### NOTE

- OReplace the damaged gasket with a new
- OBE sure to put in the oil screen with the rubber gasket end inside.

- •Fill the engine up to the upper level line with good quality motor oil specified in the table.
- Check the oil level.
- Start the engine and check for oil leakage.

#### Tightening Torque

Cartridge and Oil Screen Plug:

15 ~ 20 N-m

 $(1.5 \sim 2.0 \text{ kg-m}, 11.0 \sim 14.5 \text{ ft-lb})$ 

Engine Oil Drain Plug:

20 N-m (2.0 kg-m, 14.5 ft-lb)

#### Engine Oil

Grade: SE or SE class

Viscosity: SAE 10W40, 10W50,

20W40, or 20W50

Capacity: 2.5 L (2.6 US qt)

[when filter is not removed]

2.7 L (2.9 US qt)

[when filter is removed]

## Cooling System

### Radiator and Cooling Fan

Check the radiator fins for obstruction by insects or mud. Clean off any obstructions with a stream of low-pressure water.

## WARNING

• The cooling fan turns on automatically, even with the ignition switch off. Keep your hands and clothing away from the fan blades at all times.

# CAUTION

Ousing high-pressure water, as from a car wash facility, could damage the radiator fins and impair the radiator's effectiveness. On not obstruct or deflect airflow through the radiator by installing unauthorized accessories in front of the radiator or behind the cooling fan. Interference with the radiator airflow can lead to overheating and consequent engine damage.

#### Coolant

Coolant absorbs excessive heat from the engine and transfers it to the air at the radiator. If the coolant level becomes low, the engine overheats and may suffer severe damage. Check the coolant level each day before riding the motorcycle, and replenish coolant if the level is low. Change the coolant in accordance with the Periodic Maintenance Chart.

#### Information for Coolant

To protect the cooling system (consisting of the aluminum engine and radiator)

from rust and corrosion, the use of corrosion and rust inhibitor chemicals in the coolant is essential. If coolant containing corrosion and rust inhibitor chemicals is not used, over a period of time, the cooling system accumulates rust and scale in the water jacket and radiator. This will clog up the coolant passages, and considerably reduce the efficiency of the cooling system.

# WARNING

OUse coolant containing corrosion inhibitors made specifically for aluminum engines and radiators in accordance with the instructions of the manufacturer. Chemicals are harmful to the human body.

Soft or distilled water must be used with the antifreeze (see below for antifreeze) in the cooling system.

# CAUTION

Olf hard water is used in the system, it causes scale accumulation in the water passages, and considerably reduces the efficiency of the cooling system.

If the lowest ambient temperature encountered falls below the freezing point of water, use permanent antifreeze in the coolant to protect the cooling system against engine and radiator freeze-up, as well as from rust and corrosion.

Use a permanent type of antifreeze (soft water and ethylene glycol plus corrosion and rust inhibitor chemicals for aluminum engines and radiators) in the cooling system. On the mixture ratio of coolant, choose the suitable one referring to the relation between freezing point and strength directed on the container.

## CAUTION

OPermanent types of antifreeze on the market have anti-corrosion and anti-rust properties. When it is diluted excessively, it loses its anti-corrosion property. Dilute a permanent type of antifreeze in accordance with the instructions of manufacturer.

#### NOTE

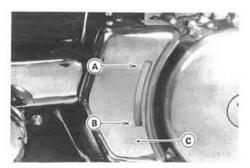
OA permanent type of antifreeze is installed in the cooling system when shipped. It is colored green, contains a 43% solution of ethylene glycol, and has the freezing point of -30°C (-22°F).

## Coolant Level Inspection

 Situate the motorcycle so that it is perpendicular to the ground.  Check the coolant level through the coolant level gauge. The coolant level should be between the upper and lower level marks. •If the amount of coolant is insufficient, remove the reserve tank cover, pull open the cap from the reserve tank, and add coolant through the filler opening to the FULL mark. Install the cap and cover.

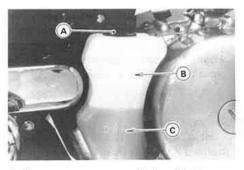
#### NOTE

Check the level when the engine is cold (room or atmospheric temperature).



A. Upper Level Mark

C. Reserve Tank Cover
B. Lower Level Mark



A. Cap B. Full Mark

C. Low Mark

#### NOTE

OIn an emergency you can add water alone to the coolant reserve tank, however it must be returned to the correct mixture ratio by the addition of antifreeze concentrate as soon as possible.

# CAUTION

olf coolant must be added often, or the reserve tank completely runs dry, there is probably leakage in the system. Have the cooling system inspected by your authorized Kawasaki Dealer.

### Coolant Change

Have the coolant changed by an authorized Kawasaki Dealer.

#### Final Gear Case Oil

In order for the pinion and ring gears in the final gear case to function properly, check the oil level, and change the oil in accordance with the Periodic Maintenance Chart.

## WARNING

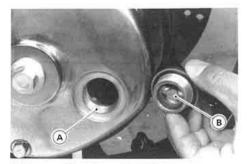
OMotorcycle operation with insufficient, deteriorated, or contaminated oil causes accelerated wear and may result in seizure of the pinion and ring gears. Seizure can lock the rear wheel and skid the rear tire, with consequent loss of control.

#### Oil Level Inspection

- •Have a helper hold the motorcycle vertical on level ground.
- Remove the filler cap.

# CAUTION

- OBe careful not to allow any dirt or foreign materials to enter the gear case.
- •Check the oil level. If it is low, add oil as necessary. The oil level should come to the bottom thread of the filler opening with the motorcycle held vertical on level ground.



A. Bottom Thread

B. Filler Cap

#### NOTE

Ouse the same type and brand of oil that is already in the final gear case.

Oil Change

#### NOTE

- Final gear case oil drains easily and picks up any sediment when the oil is warmed up by running the motorcycle.
- •Put the motorcycle on its side stand.
- Place an oil pan beneath the gear case.
- Remove the filler cap and the drain plug.



A. Drain Plug

## WARNING

- OWhen draining or filling the gear case, be careful that no oil gets on the tire, rim, and brake disc. Clean off any oil that inadvertently gets on them with soap and water.
- After the oil has completely drained out, install the drain plug and gasket.

Replace the damaged gasket with a new one.

•With the motorcycle held vertical on level ground, fill the gear case up to the bottom thread of the filler opening with the oil specified below.

#### Final Gear Case Oil

Oil	about 200 mL
Capacity	(0.21 US qt)
Oil . Type	API "GL-5" Hypoid gear oil above 5°C (41°F) SAE 90 below 5°C (41°F) SAE 80

#### NOTE

- o"GL-5" indicates a quality and additive rating. "GL-6" rated hypoid gear oils can also be used.
- Install the filler cap.

## Spark Plugs

The standard spark plug is shown in the table. The spark plugs should be taken out periodically in accordance with the Periodic Maintenance Chart for cleaning, inspection, and resetting of the plug gap.

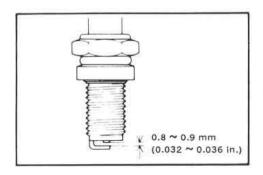
#### Maintenance

If the plug is oily or has carbon built up on it, have it cleaned, preferably in a sand-blasting device, and then clean off any abrasive particles. The plug may also be cleaned using a high flash-point solvent and a wire brush or other suitable tool. Measure the gap with a wire-type thickness gauge, and adjust the gap if incorrect by bending the outer electrode. If the spark plug electrodes are corroded or damaged, or if the insulator is cracked, replace the plug. Use the standard plug.

#### Spark Plug

	NGK DPR7EA-9 or
Standard Plug	ND X22EPR-U9
	*NGK DP7EA-9 or
	ND X22EP-U9
Plug	0.8 ~ 0.9 mm
Gap	(0.032 ~ 0.036 in.)
Tightening	14 N-m
Torque	(1.4 kg-m, 10.0 ft-lb)

#### \* : Italian and Australian models



# CAUTION

OFor cold weather and/or low speed riding, a hotter spark plug shown in the table may be used for quicker warm-ups and more efficient engine operation.

### Hotter Spark Plug

NGK DPR6EA-9 or ND X20DEPR-U9 \*NGK DP6EA-9 or ND X20EP-U9

\* : Italian and Australian model

#### Valve Clearance

Valve and valve seat wear is automatically compensated for the valve clearance. So inspection and adjustment of the valve clearance are not necessary on this motorcycle.

# Kawasaki Clean Air System (only on U.S. and Swiss model)

The Kawasaki Clean Air System (KCA) is a secondary air suction system that helps the exhaust gases to burn more completely. When the spent fuel charge is released into the exhaust system, it is still hot enough to burn. The KCA System allows extra air into the exhaust system so that the spent fuel charge can continue to burn. This continued burning action tends to burn up a great deal of the normally unburned gases, as well as changing a significant portion of the poisonous carbon monoxide into harmless carbon dioxide.

port. Any air that has passed the air suction valve is prevented from returning. Inspect the air suction valves in accordance with the Periodic Maintenance Chart. Also, inspect the air suction valves whenever stable idling cannot be obtained, engine power is greatly reduced, or there are abnormal engine noises.

Air suction valve removal and inspection should be done only by an authorized Kawasaki Dealer.

#### Air Suction Valves:

The air suction valve is essentially a check valve which allows fresh air to flow only from the air cleaner into the exhaust

#### Air Cleaner

A clogged air cleaner restricts the engine's air intake, increasing fuel consumption, reducing engine power, and causing spark plug fouling.

The air cleaner element must be cleaned and replaced in accordance with the Periodic Maintenance Chart. In dusty areas, the element should be cleaned more frequently than the recommended interval. After riding through rain or on muddy roads, the element should be cleaned immediately. The element should be replaced if it is damaged.

Air cleaner element cleaning should be done only by your authorized Kawasaki Dealer.



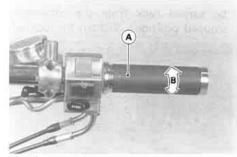
A. Air Cleaner

## Throttle Grip

The throttle grip controls the throttle valves. If the throttle grip has excessive play due to either cable stretch or maladjustment, it will cause a delay in throttle response, especially at low engine speed. Also, the throttle valves may not open fully at full throttle. On the other hand, if the throttle grip has no play, the throttle will be hard to control, and the idle speed will be erratic. Check the throttle grip play periodically in accordance with the Periodic Maintenance Chart, and adjust the play if necessary.

### Inspection

- Check that there is 2 ~ 3 mm (0.08 ~ 0.12 in.) throttle grip play when lightly turning the throttle grip back and forth.
- olf there is improper play, adjust it.



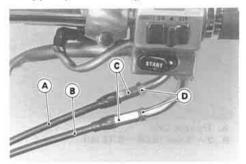
A. Throttle Grip

B. 2 ~ 3 mm (0.08 ~ 0.12 in.)

### Adjustment

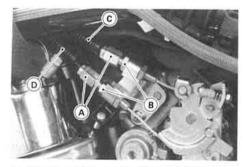
- Loosen the locknuts, and screw both throttle cable adjusters in completely at the upper ends of the throttle cables so as to give the throttle grip plenty of play.
- •While holding the throttle grip stop against the stopper inside, turn out the decelerator cable adjuster stopping at the point where the grip just starts to

be turned back from the completely stopped position. Tighten the locknut.



- A. Accelerator Cable
  B. Decelerator Cable
- C. Adjusters D. Locknuts
- Turn the accelerator cable adjuster until
   2 ~ 3 mm (0.08 ~ 0.12 in.) of throttle
   grip play is obtained. Tighten the lock-nut.
- •If the throttle cables cannot be adjusted by using the cable adjusters at the upper ends of the throttle cables, use the adjusters at the lower ends of the cables.

- First give the throttle grip plenty of play at the upper ends of the throttle cables as mentioned above. Tighten the locknuts.
- Loosen the locknuts, and screw both throttle cable adjusting nuts in fully at the lower ends of the throttle cables so as to give the throttle grip plenty of play.



A. Adjusting Nuts
B. Locknuts

C. Decelerator Cable
D. Accelerator Cable

- •Turn out the decelerator cable adjusting nut in the same way with the adjuster at the upper end of the decelerator cable, making sure that the throttle grip is not turned back at all. Tighten the locknut.
- Turn the accelerator cable adjusting nut until the correct throttle grip free play is obtained. Tighten the locknut.

### WARNING

Operation with improperly adjusted, incorrectly routed, or damaged cables could result in an unsafe riding condition.

#### Carburetors

The carburetor adjustments, idle speed and synchronization, should be performed in accordance with the Periodic Maintenance Chart or whenever the idle speed is disturbed.

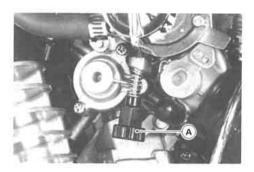
The following procedure covers the idle speed adjustment. Carburetor synchronization should be done only by your authorized Kawasaki Dealer.

#### NOTE

Poor carburetor synchronization will cause unstable idling, sluggish throttle response, and reduced engine power and performance.

#### Adjustment

- Start the engine, and warm it up thoroughly.
- Adjust the idle speed to the lowest stable speed by turning the idle adjusting screw.



A. Idle Adjusting Screw

- Open and close the throttle a few times to make sure that the idle speed does not change. Readjust if necessary.
- •With the engine idling, turn the handlebar to each side. If handlebar movement changes the idle speed, the throttle cables may be improperly adjusted or incorrectly routed, or they may be damaged. Be sure to correct any of these conditions before riding.

### WARNING

Operation with a damaged cables could result in an unsafe riding condition.

#### Clutch

The motorcycle is equipped with a hydraulically operated clutch that requires no adjustment except fluid level inspection in accordance with the Periodic Maintenance Chart.

### Fluid Level Inspection

- The fluid level in the reservoir must be kept above the lower level line (reservoir held horizontal).
- •Fill the reservoir to above the lower level line.

#### NOTE

OUse the same fluid as is used in the brakes and keep the same requirements mentioned in the "Brakes" section.

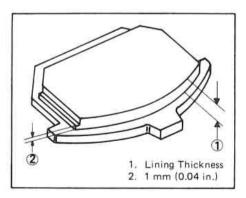


A. Lower Level Line

#### Brakes

#### Brake Wear Inspection

In accordance with the Periodic Maintenance Chart, inspect the brakes for wear. For each front and rear disc brake caliper, if the thickness of either pad is less than 1 mm (0.04 in.), replace both pads in the caliper as a set. Pad replacement should be done by an authorized Kawasaki Dealer.



#### Disc Brake Fluid:

In accordance with the Periodic Maintenance Chart, inspect the brake fluid level in the reservoirs and change the brake fluid. The brake fluid should also be changed if it becomes contaminated with dirt or water.

#### Fluid Requirement

Recommended fluids are given in the table below. If none of the recommended brake fluids are available, use extra heavy-duty brake fluid only from a container marked D.O.T.4.

#### Recommended Disc Brake Fluid

Castrol Girling-Universal
Castrol GT (LMA)
Castrol Disc Brake Fluid
Check Shock Premium Heavy Duty

# CAUTION

- ODo not spill brake fluid onto any painted surface.
- On not use fluid from a container that has been left open or that has been unsealed for a long time.
- Check for fluid leakage around the fittings.
- Check for brake hose damage.

### Fluid Level Inspection

•The brake fluid level in the front brake reservoir must be kept above the lower level line and in the rear brake reservoir between the upper and lower level lines with the reservoirs held horizontal. The rear brake reservoir is located inside the right side cover.



A. Lower Level Line



A. Upper Level Line B. Lower Level Line

•Fill the reservoirs to above the lower level line (front) and to the upper level line (rear).

### WARNING

On not mix two brands of fluid. Change the brake fluid in the brake line completely if the brake fluid must be refilled but the type and brand of the brake fluid that is already in the reservoir are unidentified.

#### Fluid Change

Have the brake fluid changed by an authorized Kawasaki Dealer.

#### Front and Rear Brakes:

Disc and disc pad wear is automatically compensated for and has no effect on the brake lever or pedal action. So there are no parts that require adjustment on the front and rear brakes.

#### WARNING

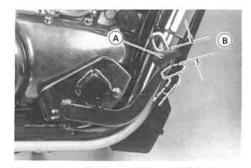
olf the brake lever or pedal feels mushy when it is applied, there might be air in the brake lines or the brake may be defective. Since it is dangerous to operate the motorcycle under such conditions, have the brake checked immediately by an authorized Kawasaki Dealer.

### **Brake Light Switches**

When either the front or rear brake is applied, the brake light goes on. The front brake light switch requires no adjustment, but the rear brake light switch should be adjusted in accordance with the Periodic Maintenance Chart.



- Turn on the ignition switch.
- •The brake light should go on when the front brake is applied.
- •If it does not, ask your authorized Kawasaki Dealer to inspect the front brake light switch.
- •Check the operation of the rear brake light switch by depressing the brake pedal. The brake light should go on after about 15 mm (0.6 in.) of pedal travel.

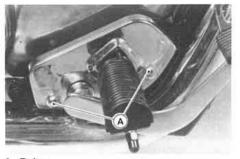


A. Rear Brake Pedal B. 15 mm (0.6 in.)

If it does not, adjust the rear brake light switch.

#### Adjustment

 Loosen the right footpeg bracket cover mounting bolts.

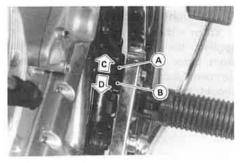


#### A. Bolts

 Adjust the rear brake light switch by moving the switch up or down. To change the switch position, turn the adjusting nut.

# CAUTION

•To avoid damaging the electrical connections inside the switch, be sure that the switch body does not turn during adjustment.

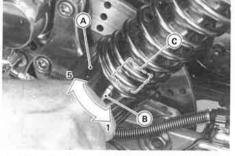


- A. Rear Brake Light Switch
- B. Adjusting Nut
- C. Lights sooner.
- D. Lights later.

#### Rear Shock Absorbers

Spring Adjustment

The spring adjusting sleeve on each rear shock absorber has 5 positions so that the spring can be adjusted for different road and loading conditions.



- A. Adjusting Sleeve
- B. Wrench
- C. Setting Positions

If the spring action feels too soft or too stiff, turn each adjusting sleeve to be aligned with the desired positions on the shock absorber by using the nipple wrench in the tool kit in accordance with the following table:

The standard setting position for an average-build rider of 68 kg (150 lb) with no passenger and no accessories is No.2.

Position	1	2	3	4	5
Spring Action	(		>	Stro	nger

## WARNING

Olf both spring adjusting sleeves are not adjusted equally, handling may be impaired and a hazardous condition may result.

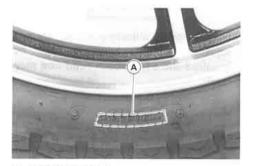
#### NOTE

OBE sure to turn back the adjusting sleeve counterclockwise from position 5 when softening the spring action.

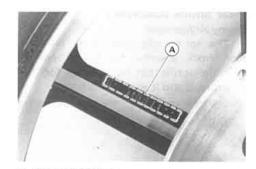
#### Wheels

VN1500-A only: Tubeless tires are installed on the wheels of this motorcycle. The indications of TUBELESS on the tire side wall and the rim show that the tire and rim are specially designed for tubeless use.

The tire and rim form a leakproof unit by making airtight contacts at the tire chamfers and the rim flanges instead of using an inner tube.



A. TUBELESS Mark



A. TUBELESS Mark

### WARNING

#### VN1500-A only:

• The tires, rims, and air valves on this motorcycle are designed only for tubeless type wheels. The recommended standard tires, rims, and air valves must be used for replacement.

- On not install tube-type tires on tubeless rims. The beads may not seat properly on the rim causing tire deflation.
- On not install a tube inside a tubeless tire. Excessive heat build-up may damage the tube causing tire deflation.

### Tires: (Both VN1500-A and VN1500-B) Payload and Tire Pressure

Failure to maintain proper inflation pressures or observe payload limits for your tires may adversely affect handling and performance of your motorcycle and can result in loss of control. The maximum recommended load in addition to vehicle weight is 184 kg (406 lb), including rider, passenger, baggage, and accessories.

Check the tire pressure often, using an accurate gauge.



A. Tire Pressure Gauge

#### NOTE

Measure the tire pressure when the tires are cold (that is, when the motorcycle has not been ridden more than a mile during the past 3 hours).

OTire pressure is affected by changes in ambient temperature and altitude, and so the tire pressure should be checked and adjusted when your riding involves wide variations in temperature or altitude.

Tire Air Pressure (when cold)

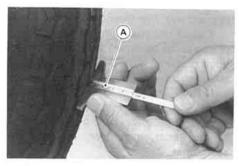
Front	200 kPa (2.0 kg/cm <sup>2</sup> , 28 p	
Rear	Up to 97.5 kg (215 lb) load	200 kPa (2.0 kg/cm², 28 psi)
	97.5 ~ 184 kg (215 ~ 397 lb) load	225 kPa (2.25 kg/cm², 32 psi)

#### Tire Wear, Damage

As the tire tread wears down, the tire becomes more susceptible to puncture and failure. An accepted estimate is that

90% of all tire failures occur during the last 10% of tread life (90% worn). So it is false economy and unsafe to use the tires until they are bald.

•In accordance with the Periodic Maintenance Chart, measure the depth of the tread with a depth gauge, and replace any tire that has worn down to the minimum allowable tread depth.



A. Tire Depth Gauge

#### Minimum Tread Depth

Front	1 mm (0.04 in.)	
Rear	2 mm (0.08 in.)	

- Visually inspect the tire for cracks and cuts, replacing the tire in case of bad damage. Swelling or high spots indicate internal damage, requiring tire replacement.
- Remove any imbedded stones or other foreign particles from the tread.

## WARNING

- •To ensure safe handling and stability, use only the recommended standard tires for replacement, inflated to the standard pressure.
- OVN1500-A only: Tires that have been punctured and repaired do not have the same capabilities as undamaged tires. Do not exceed 100 km/h (60 mph) within 24 hours after repair, and 180 km/h (110 mph) at any time after that.

#### NOTE

OHave the wheel balance inspected whenever a new tire is installed.

#### NOTE

OWhen operating on public roadways, keep maximum speed under traffic law limits.

#### Standard Tire (VN1500-A)

Front	100/90-19 57H DUNLOP F11L Tubeless	
Rear	150/90-15 74H DUNLOP K425AL Tubeless	

### Standard Tire (VN1500-B)

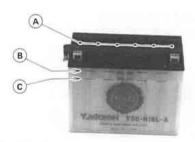
Front	100/90-19 57H DUNLOP F11L
Rear	Tube-type 150/90-15 74H
	DUNLOP K425AL Tube-type

#### Battery

#### Battery Electrolyte Level Inspection

The battery electrolyte level must be kept between the upper and lower level lines. Check the electrolyte level in each cell in accordance with the Periodic Maintenance Chart.

- Remove the battery from the motorcycle (see Battery Removal).
- Check that the electrolyte level in each cell is between the upper and lower level lines.



A. Filler Cap B. Upper Level

C. Lower Level

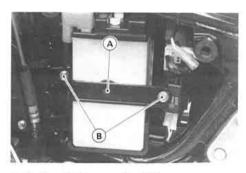
- •If the electrolyte level is low in any cell, fill with distilled water as follows.
- Remove the battery filler caps and fill with distilled water until the electrolyte level in each cell reaches the upper level line.

# CAUTION

OAdd only distilled water to the battery.
Ordinary tap water is not a substitute for distilled water and will shorten the life of the battery.

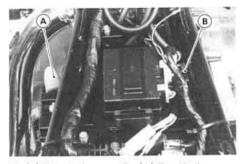
#### Battery Removal

- Remove the seat.
- Remove the left side cover.
- Unboit the battery holder.



A. Battery Holder B. Bolts

 Disconnect the leads from the battery, first from the (-) terminal and then the (+) terminal.



A. (+) Terminal

B. (-) Terminal

- Take the battery out of the case.
- Clean the battery using a solution of baking soda and water. Be sure that the lead connections are clean.

#### Battery Installation

•Check that the rubber damper on the battery holder is properly in place.

- Put the battery in the battery case, and route the battery vent hose as shown on the caution label.
- Put a light coat of grease on the terminals to prevent corrosion.
- •Connect the capped lead to the (+) terminal, and then connect the black lead to the (-) terminal.
- Cover the (+) terminal with its protective cap.

# CAUTION

OMake sure the battery vent hose is kept away from the drive system and exhaust system. Battery electrolyte can corrode and dangerously weaken the drive system. Do not let the vent hose become folded, pinched, or melted by the exhaust system. An unvented battery will not keep a charge and it may crack from built-up gas pressure.

### Headlight Beam

Horizontal Adjustment

The headlight beam is adjustable horizontally. If not properly adjusted horizontally, the beam will point to one side rather than straight ahead.

 Turn the upper adjusting screw on the headlight rim in or out until the beam points straight ahead.



A. Adjusting Screw

#### Vertical Adjustment

The headlight beam is adjustable vertically. If adjusted too low, neither low nor high beam will illuminate the road far enough ahead. If adjusted too high, the high beam will fail to illuminate the road close ahead, and the low beam will blind oncoming drivers.

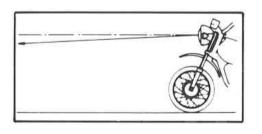
 Turn the lower adjusting screw on the headlight rim in or out to adjust the headlight vertically.



A. Adjusting Screw

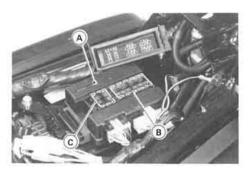
#### NOTE

On high beam, the brightest point should be slightly below horizontal with the motor-cycle on its wheels and the rider seated. Adjust the headlight to the proper angle according to local regulation.



#### **Fuses**

Fuses are arranged in the junction box located under the seat and the main fuse is fixed on the starter relay near the junction box. If a fuse fails during operation, inspect the electrical system to determine the cause, and then replace it with a new fuse of proper amperage.



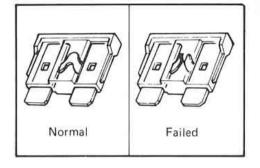
A. Junction Box B. Fuses

C. Spare Fuses





B. Starter Relay



### WARNING

- ODo not use any substitute for the standdard fuse.
- Replace the blown fuse with a new one of the correct capacity, as specified on the junction box.

### **Fuel System**

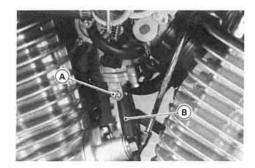
Accumulation of moisture or sediment in the fuel system will restrict the flow of fuel and cause carburetor malfunction. The system should be checked in accordance with the Periodic Maintenance Chart.

#### Inspection

- Turn the fuel tap to the ON position.
- Connect a suitable hose to the fitting at the bottom of each carburetor float bowl.

### WARNING

- Gasoline is extremely flammable and can be explosive under certain conditions. Turn the ignition switch OFF. Do not smoke. Make sure the area is well ventilated and free from any source of flame or sparks; this includes any appliance with a pilot light.
- •Make sure the engine is cold before working. Wipe any fuel off the engine before starting it.



A. Drain Screw

B. Suitable Hose

- •Run the lower ends of the hoses into a suitable container.
- Turn out each drain screw a few turns to drain the carburetors, and check to see if water or dirt has accumulated in the carburetors.
- Tighten the drain screws.

#### NOTE

olf any water or dirt appears during the above operation, have the fuel system checked by an authorized Kawasaki Dealer

### Cleaning

For the prolonged life of your motorcycle, wash it down immediately after it has been splashed with seawater or exposed to the sea breeze; operated on rainy days, rough roads, or in dusty areas; or operated on roads on which salt has been scattered for ice removal.

#### Preparation for Washing

Before washing, precautions must be taken to keep water off the following places:

- Rear openings of each muffler; Coverwith plastic bags secured with rubber bands.
- Clutch and brake levers, switch housings on the handlebar; Cover with plastic bags.
- Ignition switch; Cover the keyhole with tape.
- Air cleaner intake; Close up the intake with tape, or stuff with rags.

#### Where to be Careful

Avoid spraying water with any great force near the following places:

- Meter instruments
- Disc brake/clutch master cylinders and calipers
- •Under the fuel tank; If water gets into the ignition coils or into the spark plug caps, the spark will jump through the water and be grounded out. When this happens, the motorcycle will not start and the affected parts must be wiped dry.
- Front and rear wheel hubs
- Steering pivot (steering stem head pipe)
- Swing arm pivot

#### NOTE

•Coin operated, high pressure spray washers are not recommended. The water may be forced into bearings and other components causing eventual failure from rust and corrosion. Some of the soaps which are highly alkaline leave a residue or cause spotting.

#### After Washing

- Remove the plastic bags and tape, and clean the air cleaner intake.
- Lubricate the pivots, bolts and nuts.
- Test the brakes before motorcycle operation.
- Start the engine and run it for 5 minutes.

### WARNING

ONever wax or lubricate the brake discs. Loss of braking and an accident could result. Clean the discs with an oilless solvent such as trichloroethylene or acetone. Observe the solvent manufacturer's warnings.

#### ..... STORAGE .......

### Preparation for Storage:

- Clean the entire vehicle thoroughly.
- Empty the fuel from the fuel tank, and empty the carburetors by unscrewing the drain screw at each float bowl. (If left in for a long time, the fuel will break down and could clog the carburetors.)
- •Remove the empty fuel tank, pour about 250 mL (½ pint) of motor oil into the tank, roll the tank around to coat the inner surfaces thoroughly, and pour out the excess oil.

### WARNING

- OGasoline is extremely flammable and can be explosive under certain conditions. Turn the ignition switch OFF. Do not smoke. Make sure the area is well ventilated and free from any source of flame or sparks; this includes any appliance with a pilot light.
- •Remove the spark plugs and put several drops of SE class SAE 30 oil into each cylinder.
  Push the starter button for a few seconds to coat the cylinder walls with oil, and install the spark plugs.
- Reduce tire pressure by about 20%.
- Set the motorcycle on a box or stand so that both wheels are raised off the ground. (If this cannot be done, put boards under the front and rear wheels to keep dampness away from the tire rubber.)

- Spray oil on all unpainted metal surfaces to prevent rusting. Avoid getting oil on rubber parts or in the brakes.
- Lubricate all the cables.
- •Remove the battery, and store it where it will not be exposed to direct sunlight, moisture, or freezing temperatures. During storage it should be given a slow charge (one ampere or less) about once a month. Keep the battery well charged during cold weather so that the electrolyte does not freeze and crack open the battery. The more discharged the battery becomes, the more easily it freezes.
- •Tie plastic bags over the exhaust pipes to prevent moisture from entering.
- •Put a cover over the motorcycle to keep dust and dirt from collecting on it.

#### Preparation after Storage:

- •Check the electrolyte level in the battery, charge the battery if necessary, and install it in the motorcycle. Be careful that the battery vent hose is not pinched and that it is kept away from the driving system and other frame parts.
- •Make sure the spark plugs are tight.
- •Fill the fuel tank with fuel.
- Change the engine oil.
- •Check all the points listed in the Daily Safety Checks section.
- Lubricate the pivots, bolts and nuts.



# VN1500-A2 VN1500-B2

# **KAWASAKI**

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