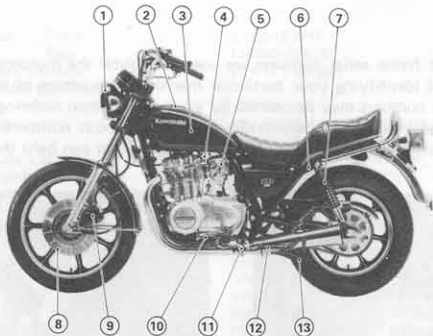


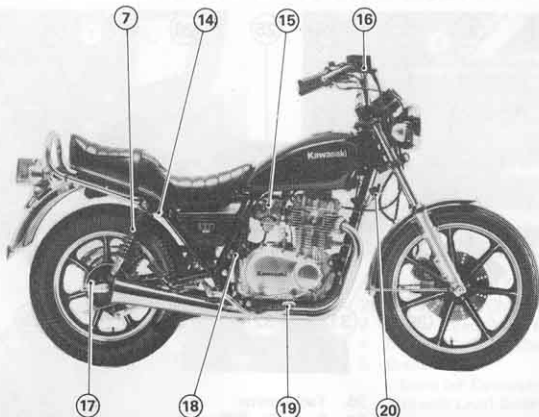
//////////////////// LOCATION OF PARTS //////////////////////



1. Headlight
2. Fuel Tank Cap
3. Fuel Tank
4. Fuel Tap
5. Choke Lever

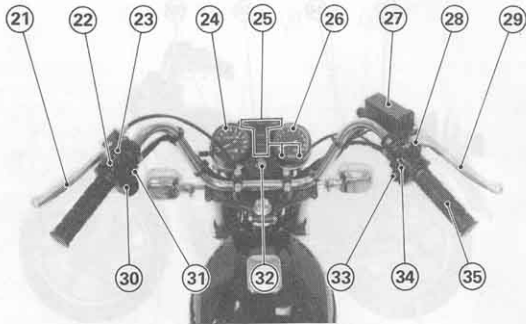
6. Helmet Holder
7. Rear Shock Absorber
8. Disc
9. Caliper
10. Shift Pedal

11. Automatic Side Stand
Return Mechanism
12. Side Stand
13. Center Stand



- 14. Seat Lock
- 15. Carburetors
- 16. Front Brake Light Switch
- 17. Brake Lining Wear Indicator

- 18. Rear Brake Light Switch
- 19. Rear Brake Pedal
- 20. Horn



- 21. Clutch Lever
- 22. Dimmer Switch
- 23. Automatic Turn Signal
Cancel Switch
- 24. Speedometer
- 25. Indicator Lights

- 26. Tachometer
- 27. Brake Fluid Reservoir
- 28. Engine Stop Switch
- 29. Front Brake Lever
- 30. Horn and Passing Button

- 31. Turn Signal Switch
- 32. Ignition Switch
- 33. Starter Button
- 34. Headlight Switch
- 35. Throttle Grip

OIL

The red 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 section on Pg. 44 and 45 for more detailed information.)

STOP LAMP

The brake light failure indicator light labeled "STOP LAMP", located on the lower part of the tachometer face, is used to detect brake light failure.

If the brake light is functioning properly, the indicator light goes on whenever one or both brakes are applied, and goes off whenever the brake or brakes are released.

If the brake light is not functioning properly, the light will still go on whenever one or both brakes are applied; however, when neither brake is applied, the light will flash on and off indicating that the brake light circuit or the brake light itself is faulty.

If the indicator light does not go on when a brake is applied, one of the brake switches, the indicator light switch under the fuel tank, or the indicator light itself is not functioning properly, or the ground circuit is interrupted.

Fuel Requirements

LEAD CONTENT

Your Kawasaki engine is designed to use unleaded gasoline, which offers extended spark plug life compared to leaded gasolines. Low lead, leaded regular, or premium gasolines can be used with some reduction in spark plug life.

OCTANE RATING

The octane rating of a gasoline is a measure of its resistance to detonation or "knocking". Use a gasoline with an octane rating equal to or higher than that shown in the table below.

Octane Rating Method	Minimum Rating
Antiknock Index $\frac{(\text{RON} + \text{MON})}{2}$	87
Research Octane No. (RON)	91

The Antiknock Index is an average of the Research Octane No. (RON) and the Motor Octane No. (MON). The Antiknock Index is posted on service station pumps in the U.S.A. Research Octane No. is a commonly used term describing a gasoline's octane rating.

Fuel Tap

The fuel tap is an automatic type which shuts off the fuel supply when the engine is stopped in the ON or RES position.

The fuel tap has three positions: ON, RES (reserve), and PRI (prime). If the fuel runs out with the tap in the ON

////////////////////// BREAKING 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 engine rpm (r/min) during the break-in period.


Distance traveled	Maximum engine rpm (r/min)
0 ~ 800 km (0 ~ 500 mi)	4,000 rpm (r/min)
800 ~ 1,600 km (500 ~ 1,000 mi)	6,000 rpm (r/min)

- 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 gears are 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 a competent mechanic following the procedures in the Service Manual.

Periodic Maintenance Chart

Operation	Frequency	Whichever comes first 	**Odometer Reading km (mi)						
			800 (500)	5,000 (3,000)	10,000 (6,000)	15,000 (9,000)	20,000 (12,000)	25,000 (15,000)	30,000 (18,000)
	Every month		●	●	●	●	●	●	See Page
Battery electrolyte level—check †	month		●	●	●	●	●	●	78
Brake adjustment—check †			●	●	●	●	●	●	63
Brake wear—check †				●	●	●	●	●	62,64
Brake fluid level—check †	month		●	●	●	●	●	●	61
*Brake fluid—change	year				●		●	●	61
Clutch—adjust			●	●	●	●	●	●	55
Carburetors—adjust			●	●	●	●	●	●	54
Throttle cable(s)—adjust			●	●	●	●	●	●	52
Steering play—check †			●	●	●	●	●	●	65
Drive chain wear—check †				●	●	●	●	●	60
Front fork—inspect/clean			●	●	●	●	●	●	66
Rear shock absorbers—inspect			●	●	●	●	●	●	67
Nuts, bolts, fasteners—check and torque			●		●		●	●	92
Spark plugs—clean and gap †			●	●	●	●	●	●	47
Valve clearance—check †			●	●	●	●	●	●	48

Operation	Frequency	Whichever comes first 	**Odometer Reading km (mi)							See Page
			800 (500)	5,000 (3,000)	10,000 (6,000)	15,000 (9,000)	20,000 (12,000)	25,000 (15,000)	30,000 (18,000)	
Air cleaner element—clean		Every	•			•		•		50
Air cleaner element—replace	5 cleanings			•		•			•	52
Fuel system—clean			•	•	•	•	•	•	•	84
Tire tread wear—check †			•	•	•	•	•	•	•	69
Engine oil—change	year		•	•	•	•	•	•	•	45
Oil filter—replace			•	•		•			•	45
General lubrication—perform			•	•	•	•	•	•	•	87
*Front fork oil—change				•		•			•	66
Timing advancer—lubricate				•		•			•	91
*Swing arm—lubricate				•		•			•	91
*Wheel bearings—grease	2 years					•				91
*Speedometer gear housing—grease	2 years					•				91
*Brake camshaft—grease	2 years					•				91
*Steering stem bearings—grease	2 years					•				91
Drive chain—lubricate	Every 300 km (200 mi)									87
Drive chain—adjust	Every 800 km (500 mi)									58

*Should be serviced by an authorized Kawasaki Dealer.

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

†Replace, add or adjust if necessary.

TROUBLESHOOTING GUIDE

Engine doesn't start

- No fuel in tank
- Throttle opened with choke on (cold)
- Fuel not reaching carburetors
 - Fuel tap obstructed or defective
- Flooded
- Starter motor not rotating
 - Battery voltage low
 - Relay not contacting or operating
 - Starter defective
- Starter clutch not operating
- Compression leakage
 - Cylinder wear
 - Piston ring trouble
 - Valve trouble
 - Spark plugs loose

- Cylinder head not sufficiently tightened down

- No spark to plug
 - Plugs dirty or defective
 - High tension wire defective

Engine stops

- No fuel
- Fuel tap clogged
- Fuel tank cap air vents obstructed
- Carburetors defective or maladjusted
- Overheating
 - Engine oil low
 - Incorrect spark plugs
 - Carburetors adjusted too lean

- Carbon built up in combustion chamber

- Clutch slipping

- Mixture too rich or too lean

- Carburetors defective or maladjusted

- Carburetor link mechanism loose

- Air cleaner clogged or damaged

- Intake manifold loose or damaged

- Cylinder head not sufficiently tightened down

- Clutch slipping

- Clutch maladjusted or assembled wrong

- Clutch parts worn

- Engine oil incorrect

- Carburetor or fuel pipe clogged

- Mixture too rich or too lean (see above)

- Incorrect firing

- Spark plug defective

- Ignition coil defective

No power

- Compression leakage

- Cylinder wear

- Piston ring trouble

- Valve trouble

- Spark plugs loose

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 in accordance with the Periodic Maintenance Chart (Pg. 43).

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

- Situate the motorcycle so that it is perpendicular to the ground (on its center stand).
- 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

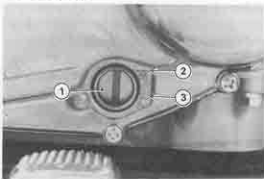
Run the engine at idle speed at least until the oil pressure warning light turns off. Racing the engine before the oil reaches every part can cause engine seizure.



1. Oil Pressure Warning Light

- 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 in the lower right side of

the engine. With the motorcycle held level or on the center stand, the oil level should come up between the lines next to the gauge.



1. Oil Level Gauge 3. Lower Level Line
2. Upper 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 make of oil that is already in the engine.

CAUTION If the engine oil gets extremely low or if the oil pump or oil passages clog up or otherwise do not function properly, the red oil pressure warning light in the indicator light panel will light. If this light stays on when the engine speed is above 1,500 rpm (r/min), stop the engine immediately and find the cause.

WARNING If the engine is run without oil, it will be severely damaged. In addition, the engine may suddenly seize, locking the rear wheel and causing an accident if the clutch lever is not pulled in fast enough.

Engine Oil and Oil Filter Change

The engine oil and oil filter must be changed periodically (Pg. 43) to ensure long engine life. Not only do dirt and

metal particles collect in the oil, but the oil itself loses its lubricative quality if used too long.

To change the oil and oil filter:

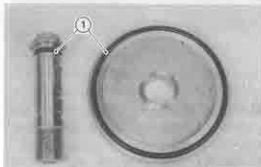
- Warm up the engine thoroughly, and then stop the engine.
- Position the vehicle on its center stand and place the oil pan beneath the engine.
- Remove the drain plug.



1. Drain Plug 2. Oil Filter Mounting Bolt

- If the oil filter is to be changed, remove the oil filter mounting bolt, drop out the oil filter, and replace the oil filter element.
- After the oil has completely drained out, install the oil filter and drain plug. Replace the damaged gasket with a new one.

Note: ○ Check for O ring damage.
○ When installing the oil filter, make sure the O rings are in place.

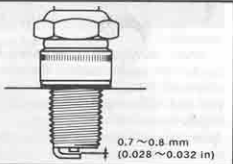


1. O Rings

- Fill the engine up to the upper level with SE class SAE 10W40, 10W50, 20W40, or 20W50 motor oil. It will take about 2.9 ℓ (3.1 US qt) when the filter is changed. When the filter is not changed, a refill takes about 2.5 ℓ (2.7 US qt).

Note: After the engine has been run and then stopped for a few minutes, the oil level should be between the upper and lower level lines.

Spark Plug Maintenance



The standard spark plug is a ND W22ES-U or NGK B7ES. It should have a 0.7 ~ 0.8 mm (0.028 ~ 0.032 in) gap, and be tightened to 2.8 kg-m (20 ft-lbs) of torque.

Maintenance

The spark plugs should be taken out periodically for cleaning and to reset the gaps (Pg. 42). If any 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 or its equivalent.

Camshaft Chain

The camshaft chain tensioner on this motorcycle is an automatic type. Since the camshaft chain slack (developed by chain and chain guide wear) is taken up by this automatic camshaft chain tensioner, the tensioner requires no periodic maintenance.



1. Camshaft Chain Tensioner

Valve Clearance Adjustment

Valve and valve seat wear decreases valve clearance, upsetting valve timing.

CAUTION If valve clearance is left unadjusted, the wear will eventually cause the valves to remain partly open; which lowers performance, burns the valves and valve seats, and may cause serious engine damage.

Valve clearance for each valve should be checked and, if incorrect, adjusted in accordance with the Periodic Maintenance Chart (Pg. 42) and any time clearance may have been affected by disassembly.

When carrying out adjustment, be careful to adjust within the specified clearance. Adjusting to a larger value will both disturb valve timing and cause engine noise.

Note: Valve clearance must be checked when the **ENGINE IS COLD**.

To check and adjust the valve clearance:

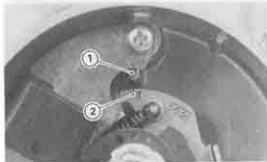
- Remove the fuel tank.
- Remove the valve adjusting caps.



1. Valve Adjusting Caps

- Remove the contact breaker cover.
- Using a 17 mm wrench, turn the crankshaft counterclockwise while watching the movement of the inlet valve (the valve to the rear) on the right side. When the valve has just finished opening

and closing (moving downward and returning upward), turn the crankshaft in the same direction (counterclockwise) for about another $\frac{1}{4}$ turn until the "T" mark on the timing advancer aligns with the timing mark.

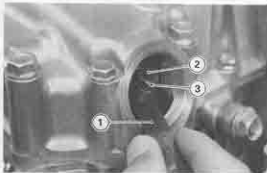


1. Timing Mark

2. "T" Mark

- At this crankshaft position, the piston in the right cylinder is at the end of its compression stroke such that the inlet and exhaust valve for the right cylinder can be checked.

- Measure the clearance of each valve by inserting a thickness gauge (special tool) between the adjusting screw and the valve stem. The correct clearance for the inlet and exhaust valves is 0.17 ~ 0.22 mm (0.007 ~ 0.009 in).



1. Thickness Gauge 3. Locknut
2. Adjusting Screw

- If a valve clearance is incorrect, loosen its adjusting screw locknut, and turn the adjusting screw until correct clearance is obtained.

- Tighten the locknut.
- After finishing with the right cylinder valves, turn the crankshaft counterclockwise one full turn so that the "T" mark again aligns with the timing mark. Check the left cylinder valves, and adjust if necessary.
- Install the valve adjusting caps together with O rings.
- Install the contact breaker cover and its gasket.
- Install the fuel tank.

Note: If necessary, ask a competent mechanic to make the inspection and adjustment according to the procedures in the Service Manual.

Air Cleaner Maintenance

A clogged air cleaner restricts the engine's air intake, increasing fuel

consumption, reducing engine power, and causing spark plug fouling.

Air Cleaner Element Cleaning

The air cleaner element must be cleaned periodically (Pg. 43). 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.

ELEMENT REMOVAL

- Unlock the seat and swing it open.
- Remove the air cleaner body mounting screws, and take off the air cleaner body.
- Pull out the element.

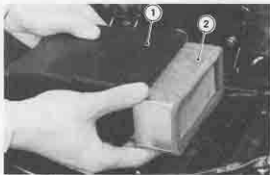
Note:○Element installation is performed in the reverse order of removal.

○Install the air cleaner body so that the sponge gasket securely contacts against the front wall of the air cleaner housing.



1. Air Cleaner Body

2. Mounting Screws



1. Air Cleaner Body

2. Element

ELEMENT CLEANING

- Clean the sponge filter in a bath of a high flash-point solvent, and squeeze it dry.
- After cleaning, saturate the sponge filter with SE class SAE 30 oil, squeeze out the excess, then wrap it in a clean rag and squeeze it dry as possible. Be careful not to tear the sponge filter.

CAUTION

○ Clean the element in a well-ventilated area, and take ample care that there are no sparks or flame anywhere near the working area.

○ Because of the danger of highly flammable liquids, do not use gasoline or a low flash-point solvent to clean the element.

○ A break in the element material or damage to the sponge gasket will allow dirt and dust to pass through into the carburetor and eventually damage the engine.

If any part of the element is damaged, the element must be replaced.

Element Replacement

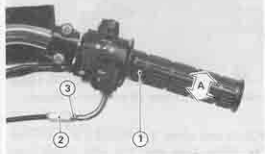
The element should be changed periodically (Pg. 43) or if it is damaged.

Throttle Cable Adjustment

There is a throttle cable to open the butterfly valves in the carburetors. If the cable is too loose due either to cable stretch or maladjustment, the excessive play in the throttle grip will cause a delay in throttle response which will be especially noticeable at low rpm. Also, the butterfly valves may not open fully at full throttle. On the other hand, if the cable is too tight, the throttle will be hard to control, and the idle speed will be erratic.

To check the throttle cable adjustment:

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



1. Throttle Grip 2. Adjuster 3. Locknut
A. 2 ~ 3 mm (0.08 ~ 0.12 in)

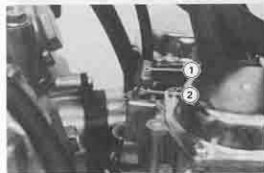
To adjust the throttle cable:

If the cable has improper play, adjust it as follows:

- Loosen the locknut at the throttle grip, and turn the adjusting nut until the

proper amount of throttle grip play is obtained. Tighten the locknut.

Note. If the throttle cable cannot be adjusted by using the cable adjusting nut at the upper end of the throttle cable, use the cable adjuster at the lower end of the throttle cable (at the carburetor). Do not forget to securely tighten the adjuster locknut.



1. Adjuster

2. Locknut

Carburetor Adjustment

- Start the engine, and warm it up thoroughly.
- Adjust the idle speed to 1,100 ~ 1,300 rpm (r/min) by turning the idle adjusting screw.



1. Idle Adjusting Screw



1. Idle Adjusting Screw (West German Model)

- Open and close the throttle a few times to make sure that the idle speed does not change. Readjust if necessary.

Note: With the engine idling, turn the handlebar to each side. If handlebar movement changes idle speed, the throttle cable may be improperly adjusted or incorrectly routed, or it may be damaged.

WARNING

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

Note: If fine adjustment of carburetor synchronization is necessary, have a competent mechanic do the job using vacuum gauges, according to the procedures in the Service Manual.

Clutch Adjustment

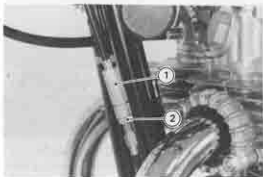
Due to the friction plate wear and the clutch cable stretch over a long period of use, the clutch must be adjusted periodically (Pg. 42).

WARNING

To avoid a serious burn, never touch the hot engine or an exhaust pipe during clutch adjustment.

To adjust the clutch:

- Loosen the locknut, and turn in fully the adjusting nut at the middle of the clutch cable to give the cable plenty of play.

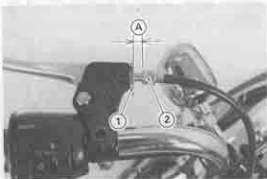


1. Adjusting Nut

2. Locknut

- Loosen the knurled locknut at the clutch lever just enough so that the adjuster will turn freely, and then turn the

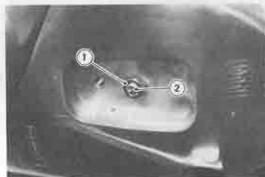
adjuster to make a 5 ~ 6 mm (0.2 ~ 0.24 in) gap between the adjuster and the knurled locknut.



1. Knurled Locknut 2. Adjuster
A. 5 ~ 6 mm (0.2 ~ 0.24 in)

- Remove the clutch release adjusting cover.
- Loosen the locknut, and turn in the adjusting screw until the screw turns without drag.

- Turn out the adjusting screw until it becomes hard to turn. This is the point where the clutch is just starting the release.



1. Locknut 2. Adjusting Screw

- Turn in the adjusting screw $\frac{1}{4}$ turn from that point, and tighten the locknut.
- Take up all the cable play with the adjusting nut at the middle of the cable, and then tighten the locknut.

WARNING

Be sure the cable is fully seated in the engine sprocket cover hole, or it could slip into place later, creating enough cable play to prevent clutch disengagement, resulting in a hazardous riding condition.

- Turn the adjuster at the clutch lever so that the clutch lever will have 2 ~ 3 mm (0.08 ~ 0.12 in) of play and tighten the knurled locknut.



1. Adjuster 2. Knurled Locknut
A. 2 ~ 3 mm (0.08 ~ 0.12 in)

- Install the clutch release adjusting cover.
Note: ○ After the adjustment is made, start the engine and check that the clutch does not slip and that it releases properly.
○ For minor corrections, use the adjuster at the clutch lever.

Drive Chain Maintenance

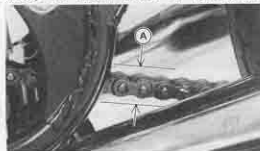
The drive chain must be kept properly adjusted for safety and to prevent excessive wear. If the chain becomes badly worn or maladjusted — either too loose or too tight — the chain could jump off the sprockets or break.

WARNING

A chain that breaks or jumps off the sprockets could snag on the engine sprocket or lock the rear wheel, severely damaging the motorcycle and causing it to go out of control.

Inspection

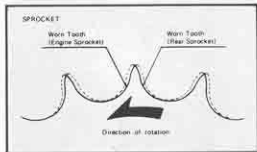
With the motorcycle resting on the center stand, the chain should have 25 ~ 35 mm (1.0 ~ 1.4 in) slack measured midway between the sprockets. Rotate the rear wheel to find the place where the chain is tightest (because it wears unevenly). If there is less than 25 mm (1.0 in) or more than 35 mm (1.4 in) slack, the chain should be readjusted.



A. 25 ~ 35 mm (1.0 ~ 1.4 in)

In addition to checking the slack, rotate the rear wheel to inspect the drive

chain and sprockets for damaged rollers, loose pins and links, unevenly or excessively worn teeth, and damaged teeth. **Note:** Sprocket wear is exaggerated for illustration. See Service Manual for wear limits.



If there is any irregularity, have the drive chain and/or the sprockets replaced by an authorized Kawasaki Dealer.

Adjustment

- Remove the safety clip, and loosen the nut at the rear end of the troque link.



1. Torque Link Nut

CAUTION If you don't loosen the torque link nut, it may lead to brake panel fracture when the chain adjusters are set.

- Loosen the left and right chain adjuster locknuts.
- Remove the axle cotter pin.
- Loosen the axle nut.
- If the chain is too tight, back out the left and right chain adjusting bolts

evenly, and kick the wheel forward until the chain is too loose.

- Turn the left and right chain adjusting bolts evenly until the drive chain has 25 ~ 30 mm (1.0 ~ 1.2 in) of slack. To keep the chain and wheel aligned, the notch on the left chain adjuster should align with the same swing arm mark that the right chain adjuster notch aligns with.



1. Marks
2. Notch
3. Axle Nut

4. Locknut
5. Adjusting Bolt

Note: Wheel alignment can also be checked using the straightedge or string method.

WARNING Misalignment of the wheel will result in abnormal wear, and may result in an unsafe riding condition.

- Tighten both chain adjuster locknuts.
- Center the brake panel assembly in the brake drum. This is done by tightening the axle lightly, spinning the wheel, and depressing the brake pedal forcefully. The partially tightened axle allows the brake panel assembly to center itself within the brake drum.

Note: This procedure can prevent a soft, or "spongy feeling" brake.

- Tighten the axle nut securely.
- Insert the new cotter pin through the axle, and spread its end.
- Rotate the wheel, measure the chain slack again at the tightest position, and readjust if necessary.

- Tighten the rear torque link nut securely, and insert the safety clip.

WARNING If the axle and torque link nuts are not securely tightened and the cotter pin and clip are not installed, an unsafe riding condition may result.

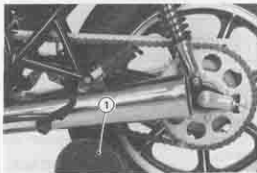
- Check the rear brake and rear brake light switch (Pg. 63, 65).

Chain Replacement

Check chain wear by first stretching the chain tight [adjust it taut or hang a 10 kg (20 lbs) weight on it] and then measure the length of 20 links. If the distance from the center of the 1st pin to the center of the 21st pin is more than 323 mm (12.7 in), the chain should be replaced.

WARNING For safety, use only the standard chain: ENUMA

EK530D-G. Have it installed by a Kawasaki Dealer.



1. Weight

Brake Adjustment

Front Brake

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

brake. However if the brake lever has a soft, or "spongy feeling", check the brake fluid level in the reservoir and bleed the air from the brake line.

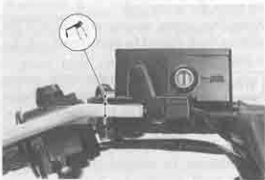
Note: Disc brake maintenance except for adding fluid should be performed only by a Kawasaki Dealer.

WARNING If the brake lever comes close to the handlebar when it is applied, or if it feels mushy, 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.

DISC BRAKE FLUID

The disc brake fluid reservoir must be filled up to the level line with one of the recommended brake fluids. Fill the reservoir up to more than lower level line (reservoir held horizontal). If none of the

recommended brake fluids are available, use extra heavy-duty brake fluid only from a container marked D.O.T.3.



1. Lower Level

Recommended Disc Brake Fluid
Atlas Extra Heavy Duty
Shell Super Heavy Duty
Texaco Super Heavy Duty
Wagner Lockheed Heavy Duty
Castrol Girling-Green
Castrol GT (LMA)
Castrol Disc Brake Fluid

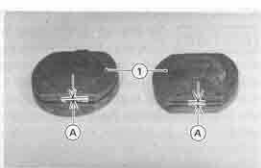
The fluid should be changed periodically (Pg. 42). It should also be changed if it becomes contaminated with dirt or water.

CAUTION

- Do not spill brake fluid onto any painted surface.
- Do not mix two brands of fluid.
- Do 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.

PAD REPLACEMENT

Inspect the pads for wear. Check the thickness of the pad linings, and replace both pads as a set if the thickness of either pad is less than 1 mm (0.04 in).



1. Pads

A. 1 mm (0.04 in)

Rear Brake Adjustment

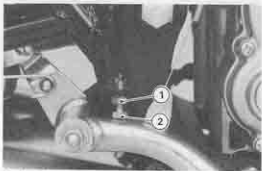
Rear brake adjustment consists of two separate adjustments: brake pedal position and brake pedal travel.

BRAKE PEDAL POSITION

Check that the top of the brake pedal in its rest position is 20 ~ 30 mm (0.8 ~ 1.2 in) lower than the upper surface of the right front footpeg. To adjust pedal position, loosen the locknut, turn the adjusting bolt, and then tighten the locknut.



A. 20 ~ 30 mm (0.8 ~ 1.2 in)

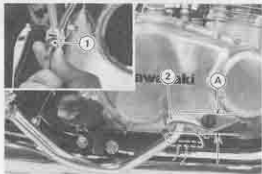


1. Locknut

2. Adjusting Bolt

BRAKE PEDAL TRAVEL

- The brake pedal should have 20 ~ 30 mm (0.8 ~ 1.2 in) of travel from the rest position to the fully applied position when the pedal is pushed down lightly by hand. Adjustment is made by turning the adjusting nut at the end of the brake rod.



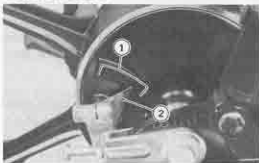
1. Adjusting Nut 2. Rear Brake Pedal
A. 20 ~ 30 mm (0.8 ~ 1.2 in)

- Check the rear brake light switch.
- Check for brake drag.

- Check braking effectiveness.

CAUTION

On the rear brake panel is a brake lining wear indicator. If the brake lining wear indicator does not point within the **USABLE RANGE** when the brake is fully applied, the brake shoe linings have worn past the service limit. In this case, the brake shoes must be replaced and the drum and other brake parts examined by an authorized Kawasaki Dealer.



1. **USABLE RANGE**
2. Brake Lining Wear Indicator

Brake Light Switch Adjustment

The rear brake light switch must turn on the brake light after about 15 mm (0.6 in) of brake pedal movement.

Adjust it by turning the adjusting nut so that the brake light will go on after the correct amount of brake pedal travel.



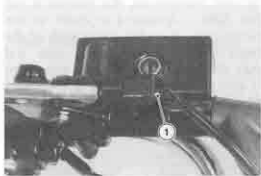
- | | |
|----------------------------|------------------|
| 1. Rear Brake Light Switch | A. Lights sooner |
| 2. Adjusting Nut | B. Lights later |

CAUTION

To avoid damaging the electrical connections inside

the switch, be sure that the switch body does not turn during adjustment.

The brake light will also light when the front brake is applied. However, the front brake light switch requires no adjustment.



1. Front Brake Light Switch

Steering Inspection

The steering should be checked periodically (Pg. 42).

To check the steering adjustment, first place a stand or block under the engine so that the front wheel is raised off the ground. Push the handlebar lightly to either side; if it continues moving under its own momentum, the steering is not too tight. Squatting in front of the motorcycle, grasp the lower ends of the front fork at the axle, and push and pull the front fork end back and forth; if play is felt, the steering is too loose.



Note: Since the steering adjustment is sensitive and crucial for safe operation,

have it performed only by an authorized Kawasaki Dealer.

Front Fork Maintenance Inspection

Pushing down on the handlebar with the front brake fully applied, check that the front fork functions properly. Check the dust seals for damage, and look for any signs of oil leakage.



A. Push down.

If there is dust seal damage or oil leakage, or if the front forks do not absorb shocks properly, consult your authorized Kawasaki Dealer.

Maintenance

Dirt or sand that has worked its way past a dust seal will eventually damage the oil seal, causing oil leakage. Periodically, slide up the dust seals and clean out any dirt or sand. Be careful not to damage either the oil seal or the inner tube surface.



1. Dust Seal

Since the front fork oil deteriorates with use, have the oil in both tubes changed periodically by your authorized Kawasaki Dealer (Pg. 43).

Rear Shock Absorber Inspection and Adjustment

Inspection

Since the rear shock absorbers are sealed units and cannot be disassembled, only external checks of operation are necessary.

Check that the rear shock absorbers function properly and that there is no oil leakage and no mounting bushing damage. Make sure that the mounting fasteners are tight.

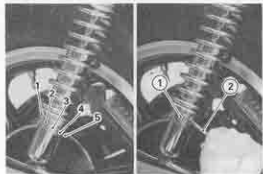
In case any irregularity is found during inspection, consult your authorized Kawasaki Dealer.

Adjustment

The rear shock absorbers have 5 positions so that the springs can be adjusted for different road and loading conditions.

If the spring action feels too soft or too stiff, adjust it in accordance with the following table:

Position	1	2	3	4	5
Spring Action	Stronger —————>				



1. Adjusting Sleeve 2. Screw Driver

WARNING

If the rear shock absorbers are not adjusted equally, handling may be impaired and a hazardous condition may result.

Wheel Inspection

Wheel Balance

An unbalanced wheel will cause the vehicle to vibrate or the steering to wobble, especially at high speeds. Since wheel balance greatly affects motorcycle safety, have the wheels inspected by a Kawasaki Dealer whenever abnormal handling is experienced during riding. Also, have the wheel balance inspected whenever a new tire is mounted.

Rim Runout

The wheels are manufactured to very high standards of accuracy and trueness, and should remain within manufacturing

tolerances for runout. The rim runout should be checked whenever the wheels have been subjected to severe impact.

The rim axial runout should be under 0.5 mm (0.02 in), and the rim radial runout should be under 0.8 mm (0.032 in). If either runout exceeds the service limit, the rim should be replaced since adjustment is not possible.

Note: If necessary, ask your authorized Kawasaki Dealer for inspection.

Tires and Tubes

Good traction and power transmission during acceleration and braking, especially on bad surfaces, depend on many things including proper loading and inflation of your tires. 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 155 kg (342 lbs), including rider, passenger, baggage and accessories.

Remember that tire 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.

Proper tire inflation pressure is essential for safety, comfort, and economy. Abnormally high or low tire air pressure has a bad effect on stability and handling. Underinflation could result in tire failure due to flexing, and overinflation could result in tire failure due to the decreased ability of the tire to cushion shock. Improper inflation will also cause the tire treads to wear unevenly, with most of the wear along the outside of the treads when the tire is underinflated, and along the

center of the tread when the tire is over-inflated. Check the tire pressure often, using an accurate gauge. 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).



1. Tire Pressure Gauge

Near the end of their useful life, the tires become increasingly vulnerable to puncture or blowout. 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. Tread wear limits are specified in this manual to give you a guide for deciding when the tires should be replaced. In addition, a visible check of tread wear should be made frequently.

Replace any tire that has worn down to the minimum allowable tread depth.

WARNING To ensure safe handling and stability, use only tires recommended by Kawasaki. Use of components not recommended may result in an unsafe condition, leading to accident and injury.

In the event of a flat tire resulting from a punctured tube, replace the tube only with a Kawasaki replacement tube. Repair of the tube is not recommended, but if undertaken, it must be done with extreme care to prevent a subsequent flat tire, and possible loss of control.

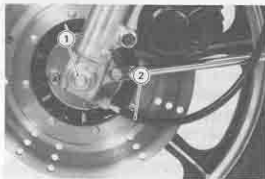
	Air Pressure (Cold)		Tire Size	Make Type	Minimum Tread Depth	
Front	1.75 kg/cm ² (25 psi, 175 kPa)		3.25S-19 4PR	YOKOHAMA Y-986	1 mm (0.04 in)	
Rear	Up to 97.5 kg (215 lbs) load	1.50 kg/cm ² (21 psi, 150 kPa)	130/90-16 67S	YOKOHAMA Y-987C	Under 110 kph (70 mph)	2 mm (0.08 in)
	97.5~155 kg (215~342 lbs) load	1.75 kg/cm ² (25 psi, 175 kPa)			Over 110 kph (70 mph)	3 mm (0.12 in)
	156~196 kg (344~432 lbs) load	2.0 kg/cm ² (28 psi, 200 kPa)				

Wheel Removal

If a wheel must be removed from the motorcycle for tire repair or replacement, carry out the following steps:

Front Wheel Removal

- Disconnect the lower end of the speedometer cable with pliers.
- Remove the front axle nut.



1. Axle Nut

2. Speedometer Cable

- Use a jack under the engine or other suitable means to lift the front of the motorcycle.
- Holding the front wheel to facilitate axle removal, pull out the axle, and then remove the wheel from the motorcycle.

CAUTION

Do not lay the wheel on the ground with the brake disc facing down to prevent damaging the disc.

- Insert the wood wedge [5 ~ 6 mm (0.20 ~ 0.24 in)] between the disc brake pads. This prevents the pads from being moved out of their proper position, should the brake lever be squeezed accidentally.

Front Wheel Installation

- Remove the wedge from between the disc brake pads.
- Check that the speedometer gear housing is properly fitted on the front hub, and

check that the collar is on the right side of the hub.



1. Speedometer Gear Housing



1. Collar

- Hold the front wheel in its place between the front fork tubes. Insert the axle from the right side, and install the washer and front axle nut finger tight.
- Turn the speedometer gear housing so that it points to the two o'clock position. Be sure that the small projection on the gear housing does not catch on the lower part of the left tube.



1. Projections

CAUTION Failure to correctly align the speedometer gear housing may result in breakage of the gear housing or cable.

- Holding the axle with an open end wrench so that it does not turn, tighten the axle nut securely.

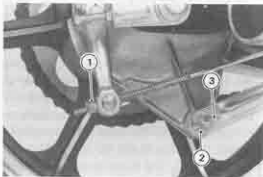
WARNING If the axle is not securely tightened, an unsafe riding condition may result.

- Insert the speedometer inner cable into the housing while turning the wheel so that the slot in the end of the cable will seat in the tongue of the speedometer pinion. Tighten the cable nut with pliers.
- Check the front brake for drag.

WARNING The front brake lever must be pumped to move the brake pads into operating position. If this is not done, the first few applications of the brake may be ineffective and an unsafe riding condition could result.

Rear Wheel Removal

- Put the motorcycle up on its center stand.
- Take out the safety clip from the torque link bolt, and remove the rear torque link nut and bolt.

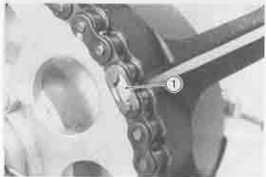


1. Adjusting Nut
2. Torque Link Nut
3. Safety Clip

- Being careful not to bend or otherwise damage it, free the rear brake light

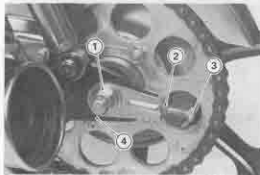
switch spring from the tab on the brake pedal.

- Remove the adjusting nut from the end of the brake rod, and free the rod from the cam lever by depressing the brake pedal. Remove the brake rod spring and joint.
- Remove the clip from the drive chain master link using pliers, and remove the master link.



1. Clip

- Free the drive chain from the sprocket, being careful that the chain does not get dirty from contact with the ground.
- Remove the cotter pin and axle nut.

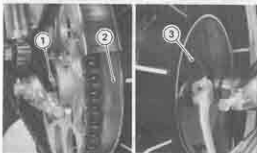


- | | |
|-------------|-------------------|
| 1. Axle Nut | 3. Adjusting Bolt |
| 2. Locknut | 4. Cotter Pin |

- Raise the rear wheel enough to pull out the axle, and remove the axle. The chain adjusters and spacer will drop out.

Rear Wheel Installation

- Apply a little grease to the inside surface of the hole in the coupling where the rear hub fits.
- Check to see that the wheel coupling, coupling collar, coupling sleeve, rubber damper, and brake panel are in place.

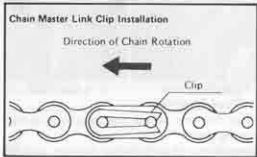


- | | |
|--------------------|----------------|
| 1. Coupling Collar | 3. Brake Panel |
| 2. Wheel Coupling | |

- Slip the rear wheel into the end of the swing arm.
- Install the chain adjuster on each side of the swing arm. The chain adjusters

should be installed with the notch mark side facing out.

- Slide the axle through from right to left. Do not forget to put the spacer in place between the brake panel and the right chain adjuster.
- Attach the rear axle nut loosely.
- Fit the drive chain onto the rear sprocket and install the drive chain master link and clip. The direction of the master link clip should be as shown.



- Fit the brake rod joint to the cam lever.

- Install the spring on the end of the brake rod, fit the rod through the joint, and screw on the adjusting nut.
- Insert the torque link bolt into the brake panel, and install the torque link, lockwasher, and nut finger tight.
- Adjust the drive chain (Pg. 58).
- Adjust the rear brake (Pg. 63).
- Check the rear brake light switch and adjust if necessary (Pg. 65).

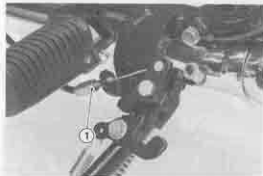
Automatic Side Stand Return Mechanism Adjustment

Check and adjust the automatic side stand return mechanism on the West German model whenever it does not work satisfactorily, or whenever it was disassembled.

To check the mechanism:

- Situate the motorcycle so that it is perpendicular to the ground.

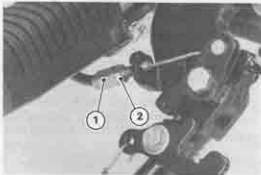
- Swing down the side stand, and pull in the clutch lever. The side stand should return to its rest position when the clutch lever pulled in.



1. Automatic Side Stand Return Mechanism

If it is not, adjust the mechanism as follows:

- Loosen the locknut at the lower end of the mechanism cable.



1. Adjusting Nut

2. Locknut

- Turn the adjusting nut so that the proper adjustment is obtained.
- Tighten the locknut.
- Check the mechanism operation, and readjust if necessary.

Battery Maintenance

Battery Electrolyte Level Inspection

Keep the electrolyte level between the upper and lower level lines. When it gets low, remove the battery filler caps and fill with distilled water until the electrolyte level in each cell reaches the upper level line.



- | | |
|----------------------|----------------|
| 1. Battery Vent Hose | 3. Lower Level |
| 2. Upper Level | 4. Filler Caps |



Add 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 Charging

- Unlock the seat and swing it open.
- Remove the air cleaner body.



1. Air Cleaner Body

- Remove the holder screw and holder.



1. Holder Screw

2. Holder

- Disconnect first the negative (–) ground lead connection and then the positive (+) lead, and remove the battery.
- Clean the battery using a solution of baking soda and water. Be sure that the terminals are clean.

CAUTION Always remove the battery from the motorcycle for charging. If the battery is charged while still installed, battery electrolyte may spill and corrode the frame or other parts of the motorcycle.

- Check that the electrolyte level in each cell is between the upper and lower level lines, and add distilled water if necessary.

CAUTION Do not use ordinary tap water to fill the battery. Tap water contains impurities which will shorten battery life.

- Remove the caps from all the cells and connect the battery charger leads to the battery terminals (red to +, black to –).



1. + Lead

2. – Lead

3. Battery Charger

4. Filler Caps

WARNING

Because the battery gives off an explosive gas mixture of hydrogen and oxygen, keep any sparks or open flame away from the battery during charging. When using a battery charger, connect the battery to the charger before turning on the charger. This procedure prevents sparks at the battery terminals which could ignite any battery gases.

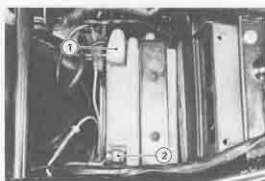
● Charge the battery at a rate that is 1/10th of the battery capacity. For example, the charging rate for a 10AH battery would be 1.0 ampere.

CAUTION

Do not use a high rate battery charger, as it typically employed at automotive service stations, unless the charging rate can be reduced to the level required for motorcycle batteries. Charging the battery at a rate higher than specified may ruin the battery. Charging at a high rate causes excess

heat which can warp the plates and cause internal shorting. Higher-than-normal charging rates also cause the plates to shed active material. Deposits will accumulate, and can cause internal shorting. If the temperature of the electrolyte rises above 45°C (115°F) during charging, reduce the charging rate to lower the temperature, and increase charging time proportionately.

- After charging, check the electrolyte level in each cell. If the level has fallen, add distilled water to bring it back up between the level lines.
- Check that the battery case rubber dampers are properly in place.
- Put the battery in the battery case, and route the battery vent hose as shown on the caution label.
- Connect the capped lead to the positive (+) terminal, and then connect the black lead to the negative (—) terminal.



(+) Terminal

2. (-) Terminal

- Put a light coat of grease on the terminals to prevent corrosion.
- Cover the positive (+) terminal with its protective cap.

CAUTION

Make sure the battery vent hose is kept away from the chain and exhaust system. Battery electrolyte can corrode and dangerously weaken the chain. Do not let the vent hose become folded, pinched, or melted

by the exhaust system. An uneven battery will not keep a charge and it may crack from built-up gas pressure.

- Install the air cleaner body so that the sponge gasket of the element securely contacts against the front wall of the air cleaner housing.

Headlight Beam 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 dazzle oncoming drivers.

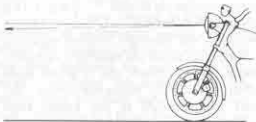
Vertical Adjustment

- Loosen the headlight housing mounting bolts, and adjust the headlight vertically.

Note. On high beam, the brightest point should be slightly below horizontal. Adjust the headlight to the proper angle according to local regulations.



1. Mounting Bolt



- Tighten the headlight housing mounting bolts.

Bulb Replacement

When replacing bulbs, be sure that the replacement is the proper bulb.

The proper bulbs are as follows:

Headlight Bulb: 12V 50/35W * 12V 35/35W

Ⓕ 12V 36/36W

City Light Bulb: 12V 3.4W * 12V 4W

Turn Signal Light Bulb: 12V 23W * 12V 21W

Tail/Brake Light Bulb: 12V 8/27W

* 12V 5/21W

(* European model, Ⓕ French model)

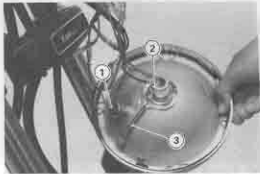
Headlight and City Light Bulb Replacement

- Remove the two mounting screws.



1. Mounting Screw

- Pull the headlight unit from the headlight housing.
- Remove the large spring, and take off the headlight bulb socket.
- Press the bulb inward, twist it to the left, and pull it out.
- Press the city light bulb socket inward, twist it to the left, and pull it out.
- Press the city light bulb inward, twist it to the right, and pull it out.



1. City Light Bulb Socket

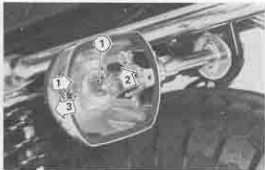
3. Large Spring

2. Headlight Bulb Socket

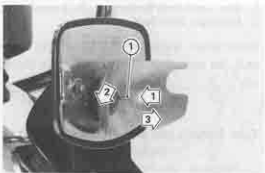
Note: When installing the headlight beam unit, be sure that the **TOP** mark is facing up.

Turn Signal Light and Tail/Brake Light Bulb Replacement

Remove the lens, press the bulb inwards, twist it to the left, and pull it out.



1. Turn Signal Light Bulb



1. Tail/Brake Light Bulb

Note: When installing a lens, tighten the screws uniformly, but not too tightly, in order to avoid damaging the lens.

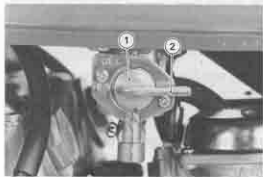
Fuel System Cleaning

Accumulation of moisture in the fuel tank will restrict the flow of fuel and cause the carburetors to malfunction. The fuel system should be cleaned out periodically (Pg. 43) in the following manner:

WARNING

- Clean the fuel system in a well-ventilated area, and take ample care that there are no sparks or flame anywhere near the working area.
- Never clean out the fuel system when the engine is still warm.
- Wipe any fuel off the engine before starting it.

- Turn the fuel tap lever to the "PRI" position.



1. Fuel Tap 2. Tap Lever

- Run the ends of the overflow tubes into a suitable container.
- Loosen the drain screws to drain the tank and carburetor float bowls through the overflow tubes until only fuel comes out, and tighten the drain screws.



1. Drain Screw 2. Overflow Tube

- Turn the tap to the "ON" or "RES" position.
- If any dirt comes out, ask a competent mechanic to clean the fuel system according to the procedures in the Service Manual.

Cleaning

1) Preparation for washing

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

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

2) Where to be careful

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

- Speedometer and tachometer
- Disc brake caliper and master cylinder
- Rear hub

If water gets inside the rear hub, the rear brake will not function until it dries out.

- Under the fuel tank and the seat

If water gets into the ignition coil or into the spark plug cap, 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.

3) After washing

- Remove the plastic bags and tape, and clean the air cleaner intake.
- Lubricate the points listed in the Lubrication Section (Pg. 87).
- Test the brakes before motorcycle operation.
- Start the engine and run it for 5 minutes.

WARNING

Never wax or lubricate the brake disc. Loss of braking and an accident could result. Clean the disc with an oil-less solvent such as trichloroethylene or acetone. Observe the solvent manufacturer's warnings.

Lubrication

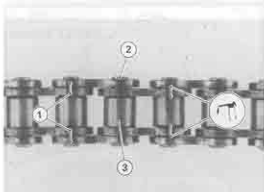
Lubricate exposed parts which are subject to rust, with either motor oil or regular grease whenever the vehicle has been operated under wet or rainy conditions, and especially after using a high-pressure spray washer. Before lubricating each part, clean off any rusty spots with rust remover and wipe off any grease, oil, dirt, or grime.

In accordance with the Periodic Maintenance Chart (Pg. 43), in addition to the points shown here, other parts should be inspected and lubricated by a Kawasaki Dealer.

DRIVE CHAIN

The drive chain should be oiled after riding through rain or on wet roads, after washing the motorcycle, or any other time the chain appears dry.

Use a heavy oil such as SAE 90 weight gear oil to lubricate the chain. A lighter oil is better than no oil at all, but a heavier oil will stay on the chain longer and provide better lubrication. Apply oil to the sides of the rollers and between the links so that the oil will penetrate to the pins and bushings. Wipe off any excess oil.



1. Links

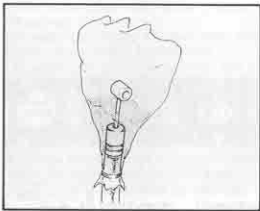
2. Pin

3. Roller

CLUTCH CABLE

The best way to lubricate the cable is to let oil seep in between the inner and outer cables by forming some sort of reservoir to hold the oil. Lubricate the cable as shown.

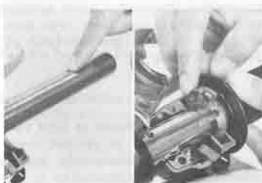
Note: After connecting the upper end of the clutch cable, adjust the clutch (Pg. 55).

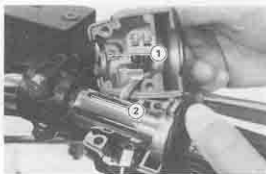


THROTTLE GRIP AND CABLE

Apply grease to the handlebar where the throttle grip turns.

Apply a light coat of grease to the exposed portion of the throttle inner cable and the catch in the throttle grip. Fit the throttle cable into the throttle grip. Fill the compartment in the lower half of the housing with oil, and wait until the oil has seeped in between the inner and outer cables.





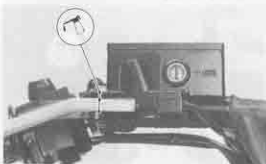
1. Pin

2. Hole

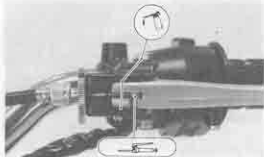
BRAKE LEVER

Note: Making sure that the pin in the upper half of the housing fits into the hole in the handlebar, reassemble the engine stop switch housing. Tighten the screws securely.

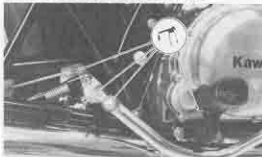
After throttle grip assembly, check that the throttle grip turns properly and that the inner cable slides smoothly.



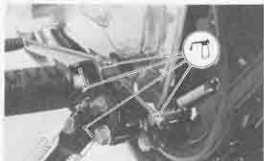
CLUTCH LEVER



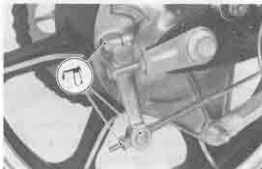
RIGHT FOOTPEG, BRAKE PEDAL



**LEFT FOOTPEG, SIDE STAND,
SHIFT PEDAL**



BRAKE ROD JOINT



SPEEDOMETER AND TACHOMETER CABLES

Apply grease sparingly to the inner cables.



TIMING ADVANCER

If the timing advancer mechanism does not move smoothly, the ignition timing will not advance smoothly or it may stick in one position.

For disassembly and assembly procedures, see the Service Manual.

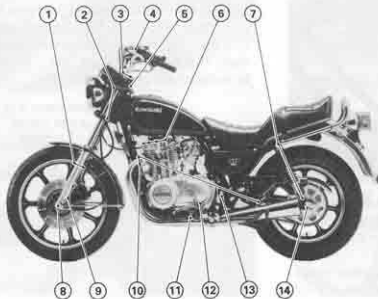
OTHERS

The swing arm, wheel bearings, speedometer gear housing, brake camshaft, and steering stem bearing should be lubricated by an authorized Kawasaki Dealer.

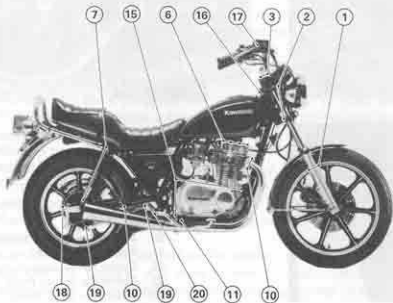
Note: A few drops of oil are effective to keep bolts and nuts from rusting and sticking. This makes removal easier. Badly rusted nuts, bolts, etc., should be replaced with new ones.

Bolt and Nut Tightening

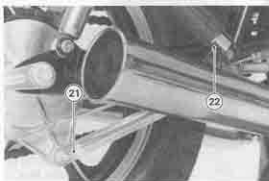
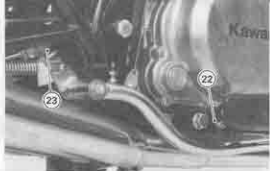
In accordance with the Periodic Maintenance Chart (Pg. 42), it is very important to check the tightness of the bolts and nuts listed here. Also, check to see that each cotter pin is in place and in good condition. Please refer to the Service Manual for torque values.



1. Front Fender Mounting Bolts
2. Front Fork Clamp Bolts
3. Handlebar Clamp Bolts
4. Clutch Lever Holder Bolt
5. Stem Head Bolt
6. Cylinder Head Bolts
7. Rear Shock Absorber Nuts and Bolts
8. Front Axle Nut
9. Caliper Mounting Bolt
10. Muffler Mounting Nuts and Bolts
11. Footpeg Bolts
12. Shift Pedal Bolt
13. Swing Arm Pivot Shaft Nut
14. Rear Axle Nut



- 15. Engine Mounting Nuts
- 16. Stem Head Clamp Bolt
- 17. Front Brake Lever Holder Bolt
- 18. Brake Cam Lever Bolt
- 19. Torque Link Nuts
- 20. Brake Pedal Nut



- 20. Cotter Pin (Center Stand)
- 21. Clip (Torque Link)
- 22. Cotter Pin (Footpeg)
- 23. Cotter Pin (Brake Rod)
- 24. Cotter Pin (Rear Axle)

STORAGE

When the motorcycle is to be stored for any length of time, such as during the winter season, it should be prepared for storage as follows:

- Clean the entire vehicle thoroughly.
- Empty the fuel from the fuel tank, and empty the carburetors by unscrewing the drain screw at the bottom of each carburetor. (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 cc (½ pint) of motor oil into the tank, roll the tank around to coat the inner surfaces thoroughly, and pour out the excess oil.
- Remove the spark plugs and put several drops of SE class SAE 30 oil into each cylinder. Push the starter button 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 the drive chain and 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 freezes.

- Tie a plastic bag over the exhaust pipes to prevent moisture from entering.
- Put a cover over the motorcycle to keep dust and dirt from collecting on it.

To put the motorcycle back into use 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 routed away from the chain.
- Make sure the spark plugs are tight.
- Fill the fuel tank with fuel.
- Run the engine for about five minutes to warm the oil, and drain the engine oil.
- Put in fresh engine oil (Pg. 44).
- Check all the points listed under the Daily Safety Checks (Pg. 38, 39).
- Lubricate the points listed in the Lubrication Section (Pg. 87).

KAWASAKI LIMITED MOTORCYCLE WARRANTY

Kawasaki Motors Corp., U.S.A., 2009 East Edinger Avenue, Santa Ana, California (hereinafter "Kawasaki") warrants for a period of six (6) months from the date of initial retail purchase from an authorized Kawasaki motorcycle dealer that each new Kawasaki motorcycle shall be free, under normal use and maintenance, from any defect in material and workmanship subject to the following conditions, exclusions, obligations and limitations:

1. **EXCLUSIONS.** The following are specifically excluded from the terms and provisions of this warranty:
 - (a) All KR and KX designated model Kawasaki motorcycles.
 - (b) Any Kawasaki motorcycle engaged in competitive racing or related use.
2. **COVERAGE.** Any material or workmanship found to be defective by Kawasaki within the six (6) month warranty term shall be repaired or replaced without charge for parts or labor at any authorized Kawasaki motorcycle dealer located within the continental United States of America.
3. **OWNER'S OBLIGATIONS.** The following obligations must be fulfilled by owner to maintain the validity of the Kawasaki warranty:
 - (a) After the first 500 miles and before the first 1,000 miles of operation, owner must deliver the motorcycle for inspection and service adjustments to an authorized Kawasaki dealer or equally qualified service facility capable of performing adjustments to prescribed Kawasaki specifications. The inspection and service adjustments are to be performed at owner's expense.
 - (b) Owner must present either a temporary registration form issued at time of purchase or owner's Kawasaki Service Card to an authorized Kawasaki motorcycle dealer at the time warranty repairs are performed on the motorcycle.
4. **LIMITATIONS.** This warranty shall not apply to or include any of the following:
 - (a) Repair or replacement required as a result of (i) accident, (ii) misuse or neglect, (iii) lack of reasonable and proper maintenance, (iv) repairs improperly performed or replacements improperly installed, (v) use of replacement parts or accessories not conforming to Kawasaki specifications, (vi) modifications not recommended or approved in writing by Kawasaki, and/or (vii) normal wear and deterioration occasioned by the use of the motorcycle.
 - (b) Routine maintenance services and adjustments.
5. **LIMITED LIABILITY**
 - (a) The liability of Kawasaki under this six (6)-month warranty is limited solely to the repair or replacement of defective material or workmanship by an authorized Kawasaki motorcycle dealer at its normal place of business during normal business hours. This warranty does not include any expense of or related to transportation of the motorcycle to or from a Kawasaki dealer or compensation for inconvenience or loss of use while the motorcycle is being repaired. KAWASAKI SHALL NOT BE LIABLE FOR ANY OTHER EXPENSE, LOSS OR DAMAGE, WHETHER DIRECT, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY ARISING IN CONNECTION WITH THE SALE OR USE OF OR INABILITY TO USE THE KAWASAKI MOTORCYCLE FOR ANY PURPOSE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.
 - (b) NO EXPRESS WARRANTY IS GIVEN BY KAWASAKI WITH RESPECT TO THE KAWASAKI MOTORCYCLE EXCEPT AS SPECIFICALLY SET FORTH HEREIN. ANY WARRANTY IMPLIED BY LAW, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS EXPRESSLY LIMITED TO THE SIX (6) MONTH WARRANTY TERM SET FORTH HEREIN. THE FOREGOING STATEMENTS OF WARRANTY ARE EXCLUSIVE AND IN LIEU OF ALL OTHER REMEDIES. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.
 - (c) No dealer or any agent or employee thereof, is authorized to extend or enlarge this Kawasaki warranty.
6. **LEGAL RIGHTS.** THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

10. Tighten the chain adjuster locknuts and the rear torque link nut (Figure 28).
11. Recheck chain play.
12. Adjust the rear brake as described in this chapter.

Final Drive Belt

Inspection/Adjustment

The final drive belt stretches very little after the first 500 miles of operation, but it should be inspected for tension and alignment according to the maintenance schedule (Table 2 or Table 3).

NOTE

Some models come equipped with a Kawasaki belt tension gauge in the bike's tool kit (Figure 30). If you have such a gauge, follow the instructions provided with the gauge. The procedure given here applies to all models and can be used if the gauge has been lost or damaged.

1. Put the motorcycle on its centerstand.
2. Apply 10 lb. (4.5 kg) of force to the middle of the belt run. Deflection of the belt should be as follows:

- a. KZ440: 3/8-5/8 in. (8.5-17 mm). See Figure 31.
- b. EN450: 3/8-3/4 in. (8.5-18 mm). See Figure 32.

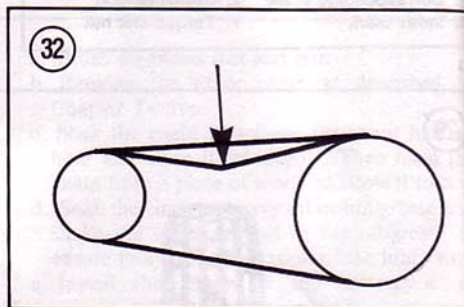
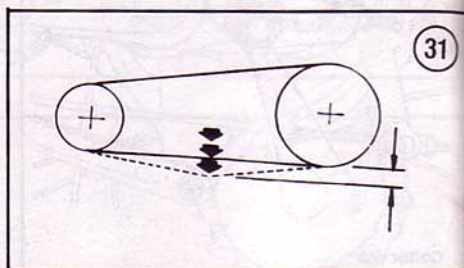
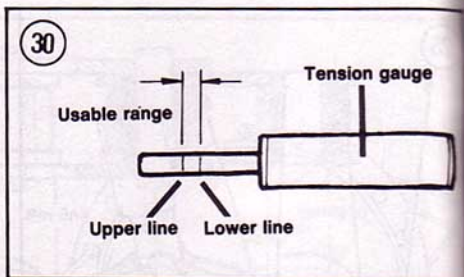
NOTE

When checking belt tension on EN450 models with the Kawasaki tension gauge, place the gauge at the point indicated in Figure 33.

3. Turn the wheel a little and recheck belt deflection. It should be within specifications at the tightest and loosest parts of the belt.
4. If the belt tension is not within specification as the belt is rotated, adjust the belt tension.
5. Check the sprocket alignment. Place a straightedge along the side of the rear sprocket near the top. There should be an equal space between the belt and the straightedge all along the belt.
6. If the belt tension or alignment is out of specification, adjust as follows.

NOTE

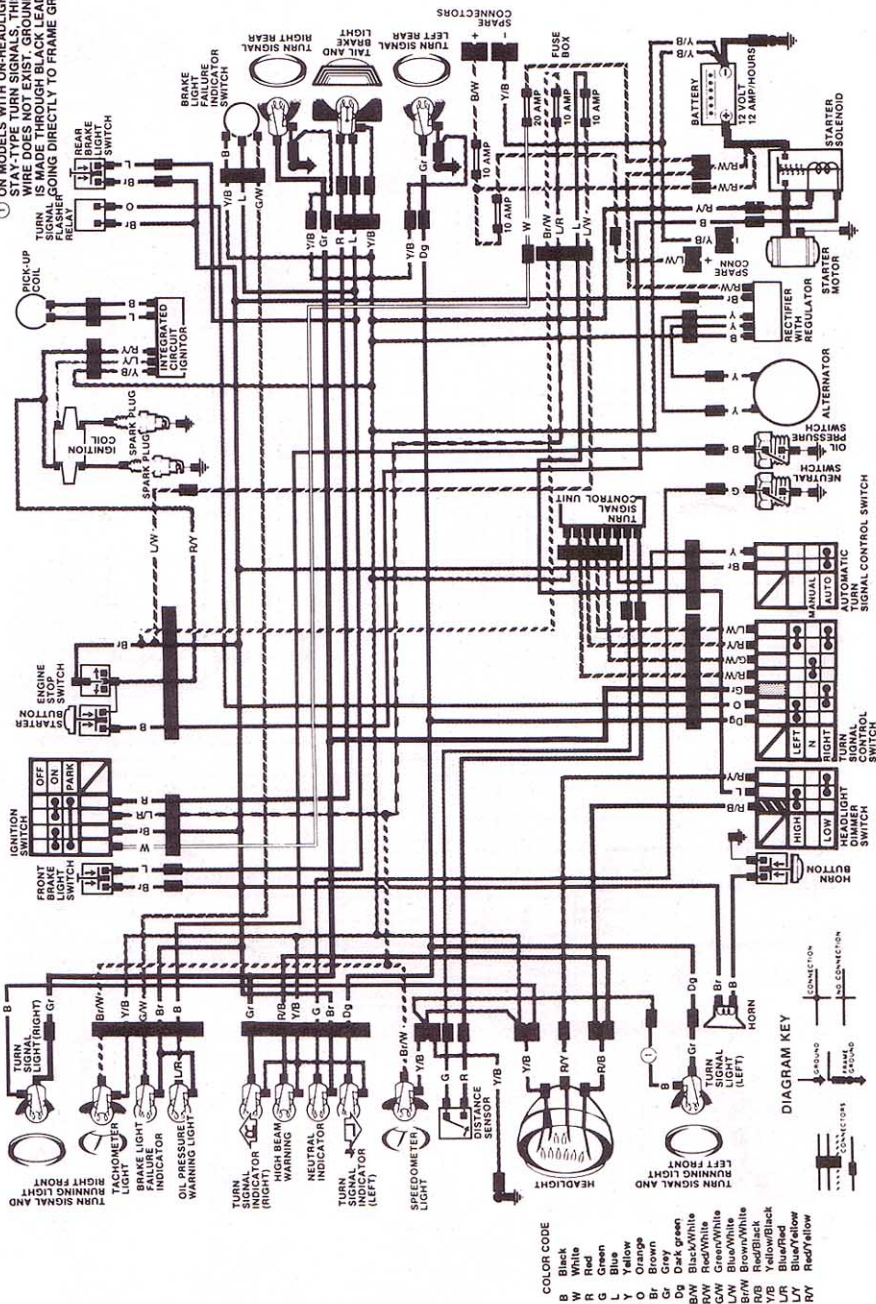
When adjusting the final drive belt, rear wheel and sprocket alignment must be maintained. A misaligned rear wheel will drastically shorten belt life and it may cause poor handling and pulling to one side or the other. Once the alignment is set correctly, if both adjusters are moved an equal amount, the rear wheel will be aligned correctly.



7. Refer to Figure 34. Loosen the rear torque link nut (A) and the axle nut (B).
8. Loosen the belt adjuster locknut (C) on both sides of the wheel.
9. Turn each adjuster bolt clockwise to take up tension in the belt. To loosen the chain, turn each adjuster bolt counterclockwise. Be sure to turn each adjuster stud equally to maintain rear wheel alignment. Adjust the belt until the correct amount of tension is obtained (Step 2). See Figure 31 or Figure 32. If you are using the Kawasaki tension gauge, insert the gauge again to be sure the tension is correct.
10. Partially tighten the axle nut, spin the wheel and stop it forcefully with the brake pedal, then tighten the axle nut. This centers the brake shoes in the drum and prevents a "spongy" feeling brake.

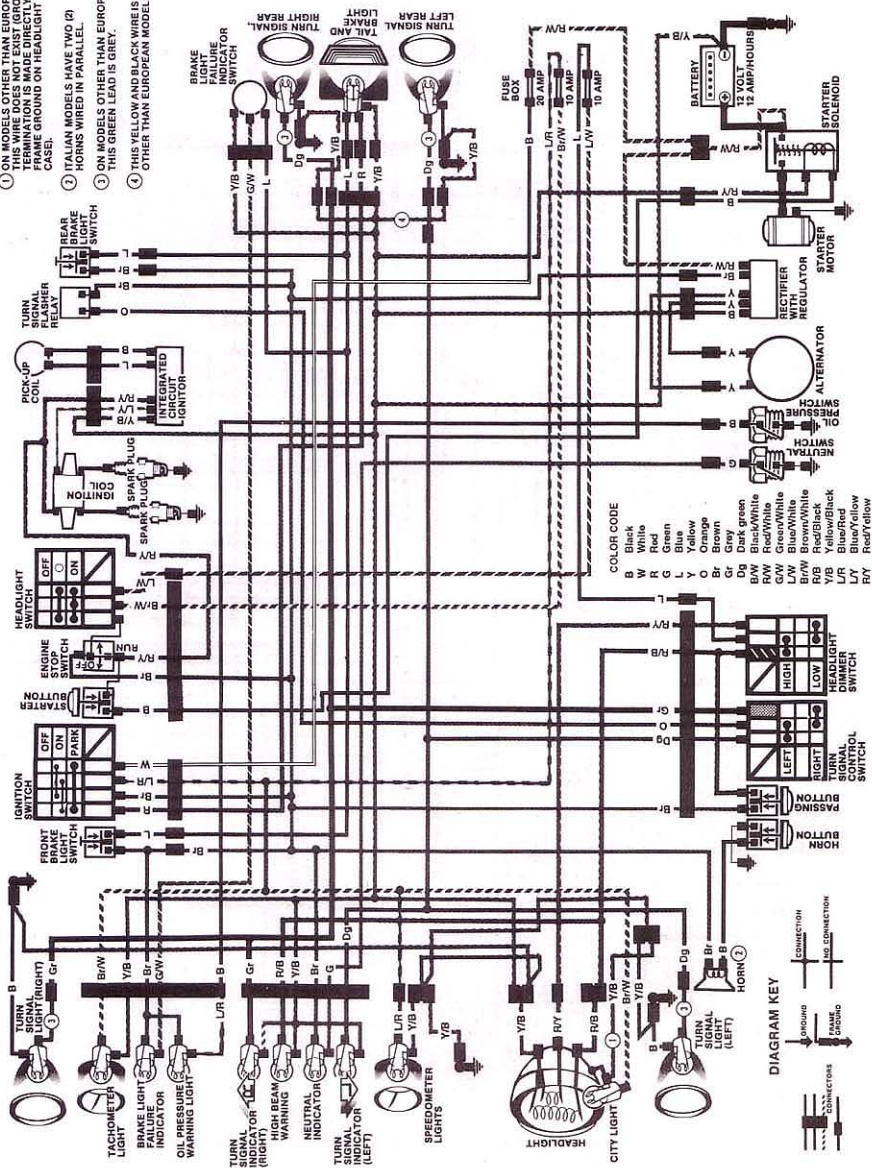
1981 KZ440A AND D — U.S. AND CANADA

① ON MODELS WITH ON-HEADLIGHT-STAY-TYPE TURN SIGNALS, THIS WIRE DOES NOT EXIST. GROUND IS MADE THROUGH BLACK LEAD GOING DIRECTLY TO FRAME GROUND.



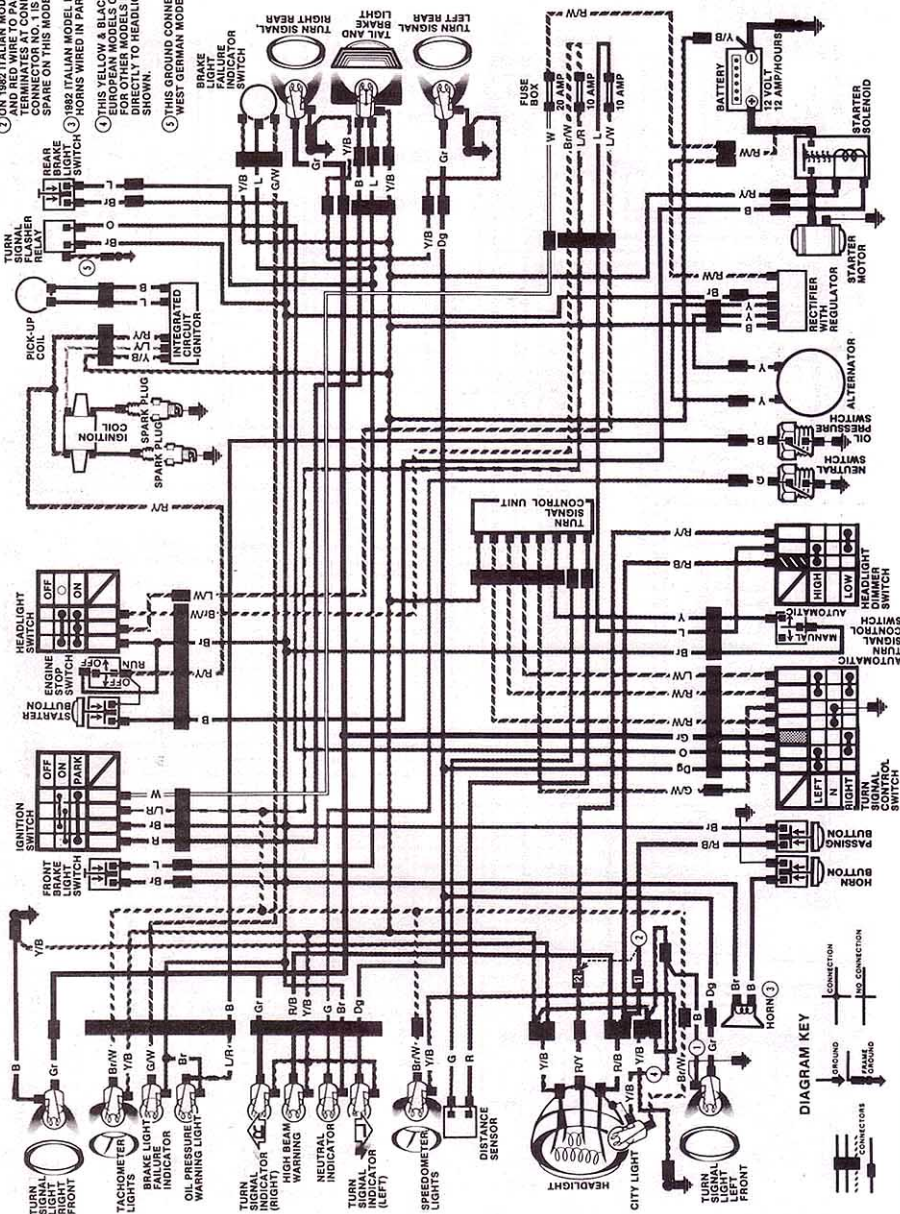
1982-1983 KZ440H — EUROPE

- 1 ON MODELS OTHER THAN EUROPEAN
THE WIRE COLOR AND
TERMINATION IS MADE DIRECTLY TO
FRAME GROUND ON HEADLIGHT
CASE.
- 2 ITALIAN MODELS HAVE TWO (2)
HORNS WIRED IN PARALLEL.
- 3 ON MODELS OTHER THAN EUROPEAN
THIS GREEN LEAD IS GREY.
- 4 THIS YELLOW AND BLACK WIRE IS USED ON
OTHER THAN EUROPEAN MODELS



1981-1983 Z440A AND D — EUROPE

- 1 THIS BLACK WIRE IS ON 1982 GENERAL EXPORT MODEL. GROUND FOR OTHERS IS AS SHOWN.
- 2 ON 1982 ITALIAN MODELS THE BLACK AND RED WIRE TO PASSING BUTTON CONNECTOR NO. 1 IS LEFT AS A SPARE ON THIS MODEL.
- 3 1983 ITALIAN MODEL HAS TWO (2) HORNS WIRED IN PARALLEL.
- 4 THIS YELLOW & BLACK LEAD IS ON EUROPEAN MODELS ONLY. GROUND FOR OTHER MODELS IS MADE DIRECTLY TO HEADLIGHT CASE AS SHOWN.
- 5 THIS GROUND CONNECTION IS ON WEST GERMAN MODELS ONLY.



COLOR CODE

B Black
W White
R Red
G Green
Y Yellow
O Orange
Gr Grey
Dg Dark Green
Br Brown
B/W Blue/White
R/W Red/White
G/W Green/White
B/W Brown/White
R/B Red/Black
Y/B Yellow/Black
L/Y Light Yellow
Br/Y Brown/Yellow
R/Y Red/Yellow