Kawasaki

Includes:
- Important Safety Information
- Operating Instructions
- Maintenance and Storage

Ninja ZX-14R
Ninja ZX-14R ABS
Motorcycle
OWNER'S MANUAL

Quick Reference Guide

This Quick Reference Guide will assist you in finding the information you're looking for.

A Table of Contents is included after the Foreword.

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

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

NOTICE

NOTICE is used to address practices not related to personal injury.

NOTE

○ *NOTE indicates information that may help or guide you in the operation or service of the vehicle.*

⚠ WARNING

Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

NOTICE

THIS PRODUCT HAS BEEN MANUFACTURED FOR USE IN A REASONABLE AND PRUDENT MANNER BY A QUALIFIED OPERATOR AND AS A VEHICLE ONLY.

FOREWORD

Congratulations on your purchase of a new Kawasaki motorcycle. Your new motorcycle is the product of Kawasaki's advanced engineering, exhaustive testing, and continuous striving for superior reliability, safety and performance.

Please read this Owner's Manual carefully before riding so that 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 authorized Kawasaki motorcycle dealer. The Service Manual contains detailed disassembly and maintenance information. Those who plan to do their own work should, of course, be competent mechanics and possess the special tools described in the Service Manual.

Keep this Owner's Manual aboard your motorcycle at all times so that you can refer to it whenever you need information.

This manual should be considered a permanent part of the motorcycle and should remain with the motorcycle when it is sold.

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This publication includes the latest information available at the time of printing. However, there may be minor differences between the actual product and illustrations and text in this manual.

All products are subject to change without prior notice or obligation.

KAWASAKI HEAVY INDUSTRIES, LTD.
Motorcycle & Engine Company

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SPECIFICATIONS

PERFORMANCE		
Minimum Turning Radius		3.1 m (122 in.)
DIMENSIONS		
Overall Length		2 170 mm (85.4 in.)
Overall Width		770 mm (30.3 in.)
Overall Height		1 170 mm (46.1 in.)
Wheelbase		1 480 mm (58.3 in.)
Road Clearance		125 mm (4.92 in.)
Curb Mass	(E)	265 kg (584 lb)
	(F)	268 kg (591 lb)
ENGINE		
Type		DOHC, 4-cylinder, 4-stroke, liquid-cooled
Displacement		1 441 cm^3 (87.9 cu in.)
Bore x Stroke		84.0 × 65.0 mm (3.3 × 2.6 in.)
Compression Ratio		12.3 : 1

Starting System		Electric starter
Cylinder Numbering Method		Left to right, 1-2-3-4
Firing Order		1-2-4-3
Fuel System		FI (Fuel Injection)
Ignition System		Battery and coil (transistorized ignition)
Ignition Timing (Electronically advanced)		10° BTDC @1 100 r/min (rpm) ~ 33.6° BTDC @5 500 r/min (rpm)
Spark Plug		NGK CR9EIA-9
Lubrication System		Forced lubrication (wet sump)
Engine Oil	Type:	API SG, SH, SJ, SL, or SM with JASO MA, MA1 or MA2
	Viscosity:	SAE 10W-40
	Capacity:	4.6 L (4.9 US qt)
Coolant Capacity		3.2 L (3.4 US qt)

TRANSMISSION

Transmission Type	6-speed, constant mesh, return shift
Clutch Type	Wet, multi disc
Driving System	Chain drive

Primary Reduction Ratio		1.556 (84/54)
Final Reduction Ratio		2.471 (42/17)
Overall Drive Ratio		3.980 (Top gear)
Gear Ratio	1st	2.611 (47/18)
	2nd	1.947 (37/19)
	3rd	1.545 (34/22)
	4th	1.333 (32/24)
	5th	1.154 (30/26)
	6th	1.036 (29/28)

FRAME

Castor		23°
Trail		93 mm (3.7 in.)
Tire Size:	Front	120/70ZR17 M/C (58 W)
	Rear	190/50ZR17 M/C (73 W)
Rim Size:	Front	J17M/C × MT3.50
	Rear	J17M/C × MT6.00
Fuel Tank Capacity		22 L (5.8 US gal)

ELECTRICAL EQUIPMENT

Battery		12 V 12 Ah
Headlight	High beam	12 V 55 W + 65 W (× 2)
	Low beam	12 V 55 W (× 2)
Tail/Brake Light		LED

E: ZX1400E
F: ZX1400F

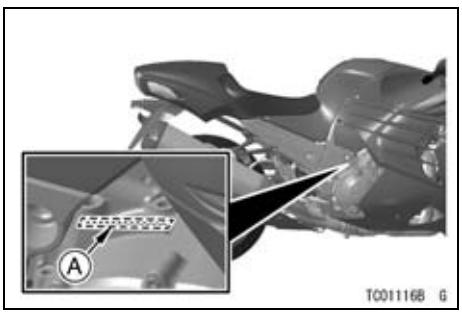
Even if one of LED (Light Emitting Diode) tail/brake light does not go on, consult with an authorized Kawasaki dealer.

Specifications are subject to change without notice.

SERIAL NUMBER LOCATIONS

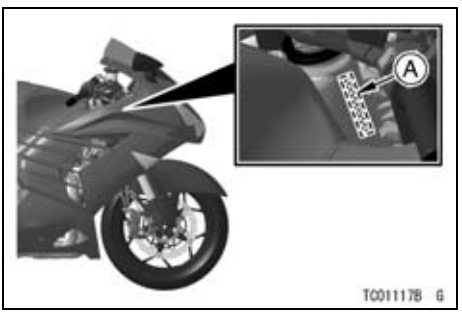
The engine and frame serial numbers are used to register the motorcycle. They are the only means of identifying your particular machine from others of the same model type. These serial numbers may be needed by your dealer when ordering parts. In the event of theft, the investigating authorities will require both numbers as well as the model type and any peculiar features of your machine that can help them identify it.

Engine No.



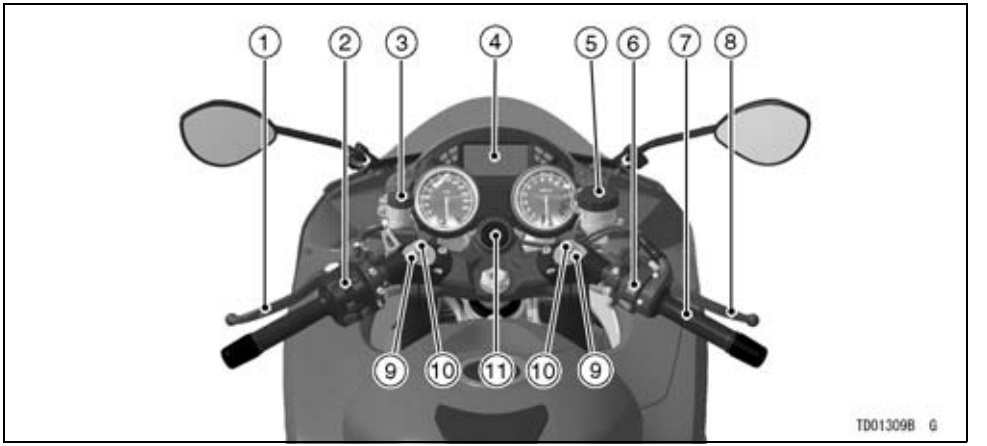
A. Engine Number

Frame No.

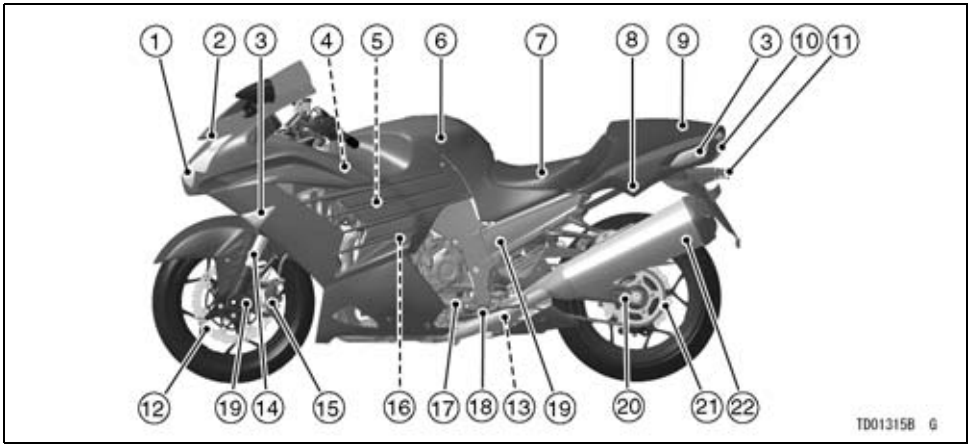


A. Frame Number

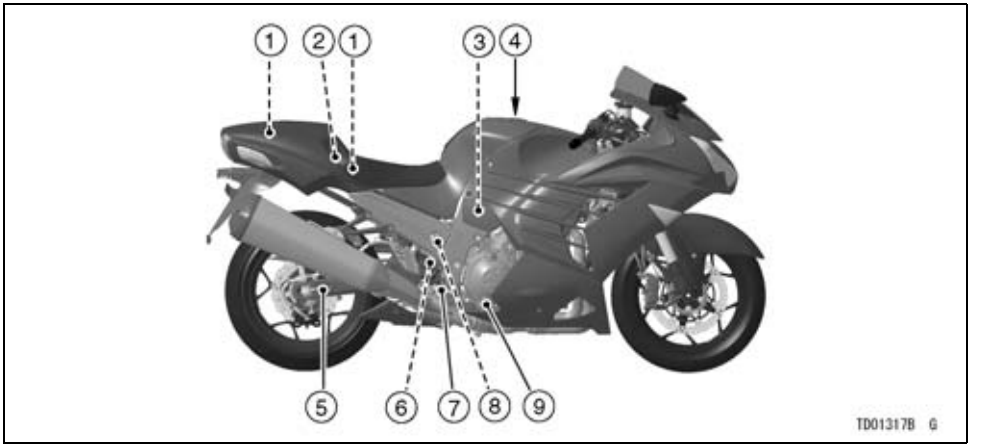
LOCATION OF PARTS



1. Clutch Lever
2. Left Handlebar Switches
3. Clutch Fluid Reservoir
4. Meter Instruments
5. Brake Fluid Reservoir (Front)
6. Right Handlebar Switches
7. Throttle Grip
8. Front Brake Lever
9. Spring Preload Adjuster
10. Rebound Damping Force Adjuster (Front Fork)
11. Ignition Switch/Steering Lock



1. Headlight
2. Air Cleaner Intake
3. Turn Signal Light
4. Air Cleaner
5. Spark Plugs
6. Fuel Tank
7. Seat
8. Seat Lock
9. Single Seat Cover
10. Tail/Brake Light
11. License Plate Light
12. Brake Disc
13. Rebound Damping Force Adjuster
14. Front Fork
15. Brake Caliper
16. Coolant Reserve Tank
17. Shift Pedal
18. Side Stand
19. Compression Damping Force Adjuster
20. Chain Adjuster
21. Drive Chain
22. Muffler



1. Fuse Box
2. Brake Fluid Reservoir (Rear)
3. Battery
4. Fuel Tank Cap
5. Swingarm
6. Rear Brake Light Switch
7. Rear Brake Pedal
8. Rear Shock Absorber
9. Oil Level Inspection Window

LOADING AND ACCESSORIES INFORMATION

⚠ WARNING

Incorrect loading, improper installation or use of accessories, or modification of your motorcycle may result in an unsafe riding condition. Before you ride the motorcycle, make sure it is not overloaded and that you have followed these instructions.

With the exception of genuine Kawasaki Parts and Accessories, Kawasaki has no control over the design or application of accessories. In some cases, improper installation or use of accessories, or motorcycle modification, will void the motorcycle warranty, can negatively affect performance, and can even be illegal. In selecting and using accessories, and in loading the motorcycle, you are personally responsible for your own safety and the safety of other persons involved.

NOTE

○ *Kawasaki Parts and Accessories have been specially designed for use on Kawasaki motorcycles. We strongly recommend that all parts and accessories you add to your motorcycle be genuine Kawasaki components.*

Because a motorcycle is sensitive to changes in weight and aerodynamic forces, you must take extreme care in carrying cargo, passengers and/or in the fitting of additional accessories.

The following general guidelines have been prepared to assist you in making your determinations.

1. Any passenger should be thoroughly familiar with motorcycle operation. The passenger can affect control of the motorcycle by improper positioning during cornering and sudden movements. It is important that the passenger sit still while the motorcycle is in motion and not interfere with the operation of the motorcycle. Do not carry animals on your motorcycle.
2. You should instruct any passenger before riding to keep his feet on the passenger footpegs and hold on to the operator or seat strap. Do not carry a passenger unless he or she is tall enough to reach the footpegs and footpegs are provided.
3. All baggage should be carried as low as possible to reduce the effect on the motorcycle center of gravity. Baggage weight should also be distributed equally on both sides of the motorcycle. Avoid carrying baggage that extends beyond the rear of the motorcycle.
4. Baggage should be securely attached. Make sure that the baggage will not move around while you are riding. Recheck baggage security as often as possible (not while the motorcycle is in motion) and adjust as necessary.
5. Do not carry heavy or bulky items on a luggage rack. They are designed for light items, and overloading can affect handling due to changes in weight distribution and aerodynamic forces.
6. Do not install accessories or carry baggage that impairs the performance of the motorcycle. Make sure that you have not adversely

affected any lighting components, road clearance, banking capability (i.e., lean angle), control operation, wheel travel, front fork movement, or any other aspect of the motorcycle's operation.

7. Weight attached to the handlebar or front fork will increase the mass of the steering assembly and can result in an unsafe riding condition.
8. Fairings, windshields, backrests, and other large items have the capability of adversely affecting stability and handling of the motorcycle, not only because of their weight, but also due to the aerodynamic forces acting on these surfaces while the motorcycle is in operation. Poorly designed or installed items can result in an unsafe riding condition.
9. This motorcycle was not intended to be equipped with a sidecar or to be used to tow any trailer or other vehicle. Kawasaki does not manufacture sidecars or trailers for motorcycles and cannot predict the effects of such accessories on handling or stability, but can only warn that the effects can be adverse and that Kawasaki cannot assume responsibility for the results of such unintended use of the motorcycle. Furthermore, any adverse effects on motorcycle components caused by the use of such accessories will not be remedied under warranty.

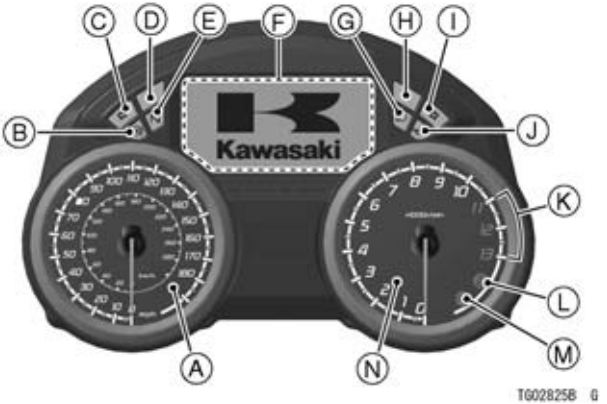
Maximum Load

Weight of rider, passenger, baggage, and accessories must not exceed 175 kg (385 lb).

GENERAL INFORMATION

Meter Instruments

A. Speedometer
B. Yellow ABS Indicator Light (for models equipped with ABS)
C. Green Left Turn Signal Indicator Light
D. Red Warning Indicator Light
E. Green Neutral Indicator Light
F. Multifunction Meter
G. Blue High Beam Indicator Light
H. Yellow Engage/Shift Up Indicator Light
I. Green Right Turn Signal Indicator Light
J. Red Oil Pressure Warning Indicator Light
K. Red Zone
L. Yellow KTRC Warning Indicator Light
M. Yellow Engine Warning Indicator Light
N. Tachometer



Speedometer and Tachometer

The needle of the speedometer and tachometer momentarily sweeps from the minimum to maximum and back to minimum when the ignition key is turned to “ON”. This checks the operation of the meter needles, so if they do not operate correctly, have the function checked by an authorized Kawasaki dealer.

The speedometer shows the speed of the vehicle.

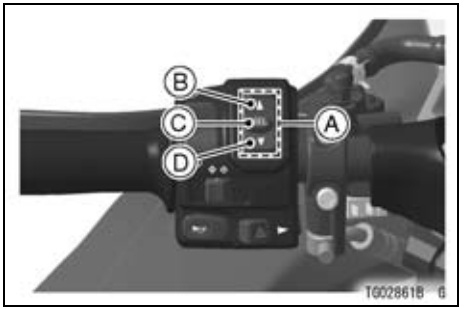
The tachometer shows the engine speed in revolutions per minute (r/min, rpm). On the right side of the tachometer face is a portion called the “red zone”. Engine r/min (rpm) in the red zone is above maximum recommended engine speed and is also above the range for good performance.

NOTICE

Engine r/min (rpm) should not be allowed to enter the red zone; operation in the red zone will overstress the engine and may cause serious engine damage.

Multifunction Button

The multifunction button is located on the left handlebar switches. Select the various functions by pushing the multifunction button.



A. Multifunction Button
B. Upper Button
C. "SEL" Button
D. Lower Button

Multifunction Meter

When turning the ignition key to ON position, the animation and "Kawasaki" are displayed for about 4 seconds. Then, depending on the mode selected, the current mileage, average mileage, cruising range, battery voltage or outside temperature and the odometer or trip meter are displayed.

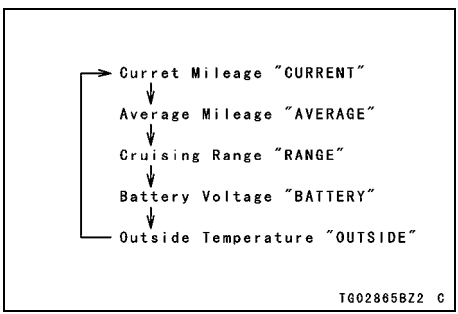
A. "Kawasaki" Display

The multifunction meter displays the following modes.

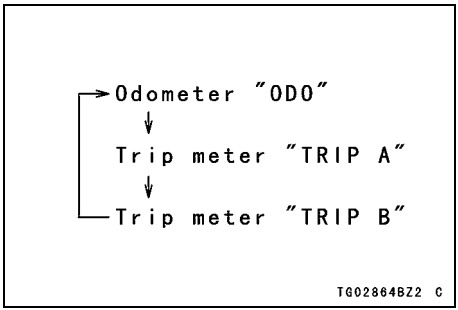
- Odometer/Trip Meter A/Trip Meter B
- Coolant Temperature Meter
- Fuel Gauge
- Clock
- Mileage (Current Mileage/Average Mileage/Cruising Range)

- Battery Voltage
- Outside Temperature
- Gear Position
- Economical Riding Indicator
- Power Mode Indicator
- KTRC Mode Indicator
- KTRC Level Indicator

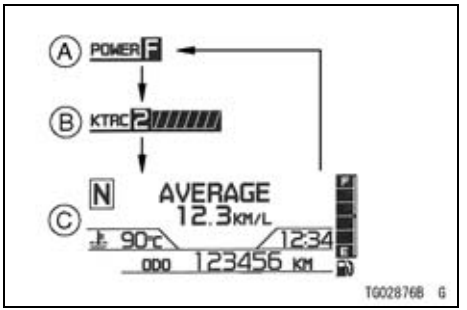
When the upper button is pushed, the display mode can be shifted as follows.



When the lower button is pushed, the display mode can be shifted as follows.



When the “SEL” button is pushed, the display can be shifted as follows.



A. Power Mode Indicator
B. KTRC Mode Indicator
C. Main Display

For more detailed information about the KTRC or Power mode, see “Kawasaki TRaction Control (KTRC)” or “Power Mode” section in the HOW TO RIDE THE MOTORCYCLE chapter.

Odometer/Trip Meters -

“ODO/TRIP A/TRIP B”

The trip meter and odometer can be shifted to ODO, TRIP A and TRIP B by pushing the lower button.

The odometer shows the total distance in kilometers or miles that the vehicle has been ridden. This meter cannot be reset.

NOTE

- *The data is maintained even if the battery is disconnected.*
- *When the figures come to 999999, they are stopped and locked.*
- *The measurement unit of the odometer can be changed, refer to the “Setting Menu” item in this section.*

The trip meter shows the distance in kilometers or miles traveled since they were last reset to 0.0.

TRIP A/B: 0.0 ~ 9999.9

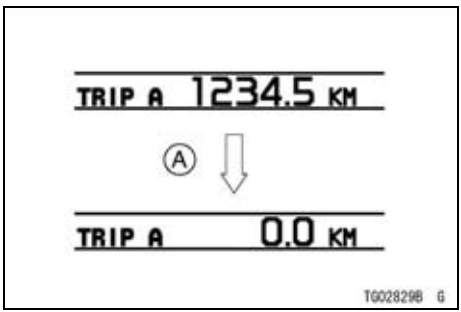
NOTE

- *The data is maintained even if the battery is disconnected.*
- *When the trip meter reaches 9999.9 while riding, the meter resets to 0.0 and continues counting.*
- *The measurement unit of the trip meter can be changed, refer to the "Setting Menu" item in this section.*

A. ODO/TRIP A/TRIP B

To reset the trip meter:

- Push the lower button to display the TRIP A or TRIP B.
- Push the lower button for 2 seconds.



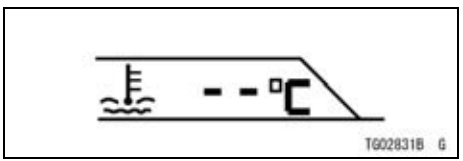
A. Push Lower Button for 2 Seconds

Coolant Temperature Meter -

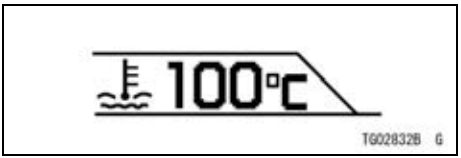
The coolant temperature meter indicates temperature of the engine coolant.

A. Coolant Temperature Meter

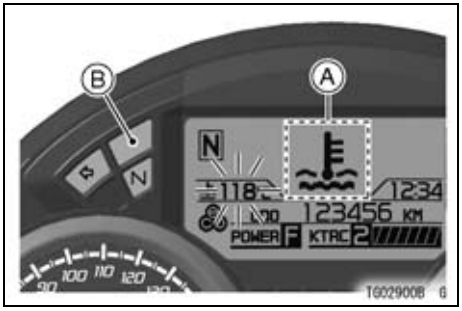
- If the coolant temperature is below 40°C (104°F), "– –" is displayed.



When the coolant temperature rises to above 40°C (104°F), the numerical value of the coolant temperature at the present state is displayed.

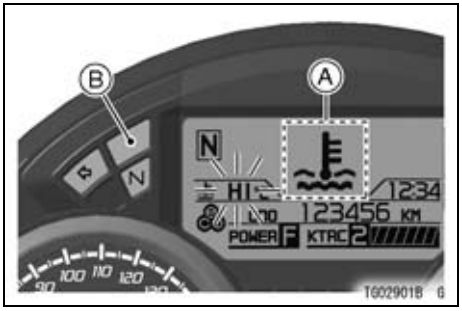


- If the coolant temperature rises to above 115°C (239°F) and below 120°C (248°F), the numerical value of the current coolant temperature starts blinking and the coolant warning symbol is displayed and the warning indicator light also goes on. This warns the operator that the coolant temperature is high.



A. Coolant Warning Symbol “ ”
B. Red Warning Indicator Light

If the coolant temperature rises to above 120°C (248°F), “HI” is displayed and starts blinking and the coolant warning symbol is displayed and the warning indicator light also goes on. This warns the operator that the coolant temperature is too high. Stop the engine and check the coolant level in the reserve tank after the engine cools down.



A. Coolant Warning Symbol “ ”
B. Red Warning Indicator Light

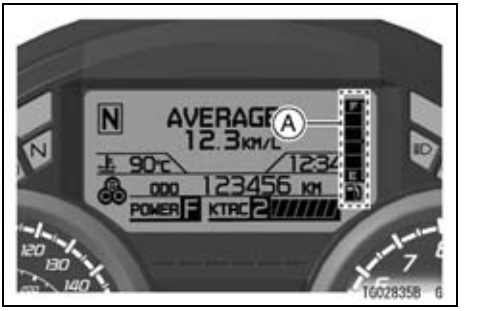
NOTICE

Do not let the engine continue running when the coolant temperature shows “HI”. Prolonged engine operation will result in severe engine damage from overheating.

Fuel Gauge -

The fuel in the fuel tank is shown by the number of segments displayed. When the fuel tank is full, all 6 segments are displayed. When the vehicle stands with the side stand, the fuel gauge cannot show the amount of fuel in the fuel tank exactly. Stand upright the vehicle to check the fuel level.

If the fuel gauge is not correctly displayed, have the fuel gauge checked by an authorized Kawasaki dealer.



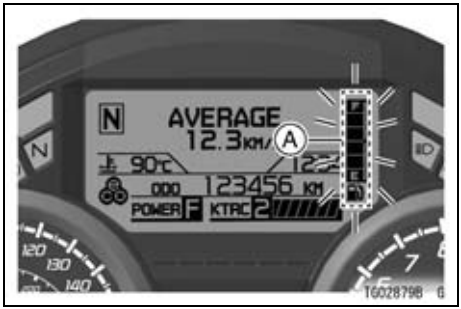
A. Fuel Gauge

As the fuel level in the tank goes down, the segments disappear one by one from F (full) to E (empty). When the “E” segment is displayed in the fuel gauge, the “E” segment and the fuel symbol (⛽) are blinking in the multifunction meter. This indicates that the usable remaining in the tank is approximately 4.2 L (1.1 US gal). Refuel at the earliest opportunity if the “E” segment

and fuel symbol ( ) are blinking in the multifunction meter.

A. "E" Segment and Fuel Symbol ( )

All of the segments and fuel symbol will blink in case of the open or short of the wiring. Have the wiring inspected by an authorized Kawasaki dealer immediately.



A. All Segments and Fuel Symbol ( )

Clock -

This display shows the time.

When adjusting the clock, refer to the "Setting Menu" item in this section.

A. Clock

NOTE

○ *The clock works normally from the back-up power while the ignition switch is turned to OFF.*

Current Mileage / Average Mileage / Cruising Range -

"CURRENT"

This display shows the instantaneous or current mileage by numerical value, and indicates the current fuel consumption.

- Push the upper button to display the current mileage.

A. Current Mileage

NOTE

○ *This display indicates the current fuel consumption, not average fuel consumption.*

○ *The measurement unit of the mileage can be changed, refer to the "Setting Menu" item in this section.*
○ *The numerical value shows "– –.–" until 4 seconds have passed and a speed of 5 km/h (3 mph) is reached.*

A. Current Mileage

"AVERAGE"

This display shows the average mileage by numerical value, and indicates the average fuel consumption counted from the start of measuring to present time.

● Push the upper button to display the average mileage.

A. Average Mileage

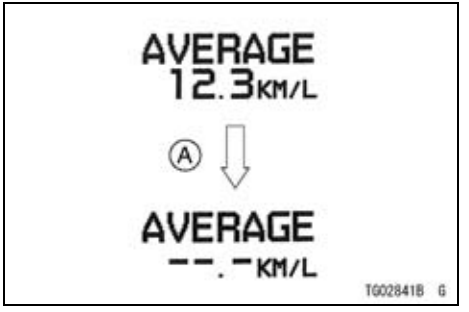
NOTE

○ *The data is maintained by back up power if the ignition key is turned off.*

○ *The measurement unit of the mileage can be changed, refer to the "Setting Menu" item in this section.*

To reset the "AVERAGE" display:

● Push the upper button for 2 seconds while the average mileage is displayed, and the average mileage resets to "– –. –".



A. Push Upper Button for 2 Seconds

NOTE

○ *When the battery is disconnected, the average mileage resets to "– –.–" for a few seconds.*

○ *After resetting the average mileage, the numerical value is not displayed until 5 mL (0.2 US oz.) of fuel has been used and 100 m (328 ft) has been traveled.*

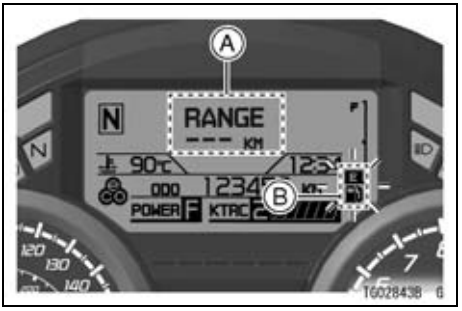
"RANGE"

This display shows the cruising range by numerical value, and indicates the cruising range from the remaining fuel in the fuel tank.

● Push the upper button to display the cruising range.

A. Cruising Range

When the fuel symbol (⛽) and "E" segment start blinking, the numerical value shows "– – –" until the ignition key is turned to OFF.



A. Cruising Range "– – –"
B. Fuel Symbol and "E" Segment

NOTE

- *The measurement unit of the cruising range can be changed, refer to the "Setting Menu" item in this section.*
- *The display range for cruising range unit is 0 ~ 999.*

Battery Voltage -

"BATTERY"

This display shows the battery voltage.

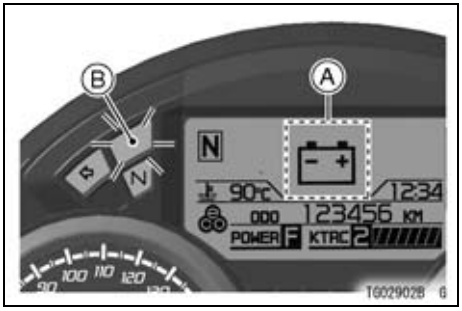
- Push the upper button to display the battery voltage.

A. Battery Voltage

NOTE

- *The battery voltage may not be displayed correctly in this meter except when the battery voltage is 9.0 V ~ 16.0 V.*
- *The battery voltage shown in this display may differ from the numerical value measured by the another device.*
- *When the all indicator light and display of the multifunction meter go off, the battery voltage is insufficient. Have the machine checked by an authorized Kawasaki dealer promptly because the engine might stop suddenly when keeping running in that condition.*

When the battery voltage high/low, the battery warning symbol is displayed and the warning indicator light goes on. If the warning symbol is displayed and the warning indicator light goes on, have the battery voltage checked by an authorized Kawasaki dealer.



A. Battery Warning Symbol
B. Red Warning Indicator Light

Outside Temperature - "OUTSIDE"

This display shows the outside temperature by numerical value. The outside temperature display is renewed every 5 seconds.

- Push the upper button to display the outside temperature.

A. Outside Temperature

NOTE

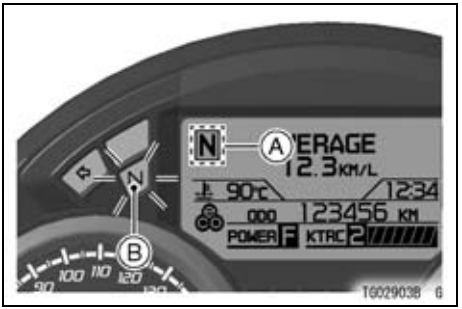
- *The outside temperature can be displayed from –20°C (–4°F) to 60°C (140°F).*
- *The outside temperature may not be displayed correctly in this meter when the speed is less than 20 km/h (12 mph), or the outside temperature sensor gets wet. The display value of the outside temperature does not*

increase when the speed 20 km/h (12 mph) or less.

- *The measurement unit of the outside temperature can be changed, refer to the "Setting Menu" item in this section.*

Gear Position -

This display shows the corresponding gear position when the transmission is shifted. As the transmission is shifted, the corresponding gear position (1st ~ 6th) is shown in this display. When the transmission is in neutral, "N" is displayed, and the neutral indicator light goes on.



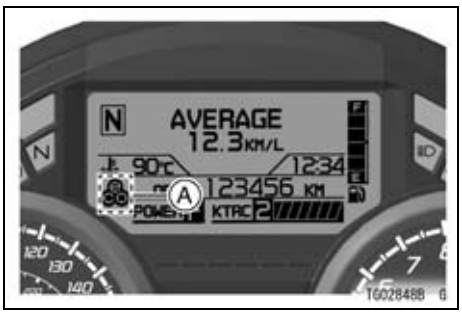
A. Gear Position
B. Green Neutral Indicator Light

NOTE

- *If the gear position indicator in the multifunction meter shows "□", the transmission is not properly shifted to neutral. Be sure to shift the transmission.*

Economical Riding Indicator -

When the operator is driving the motorcycle for optimum fuel-efficiency, the economical riding indicator appears on the multifunction meter to indicate favorable fuel consumption. Monitoring the economical riding indicator can help the rider maximize fuel efficiency.



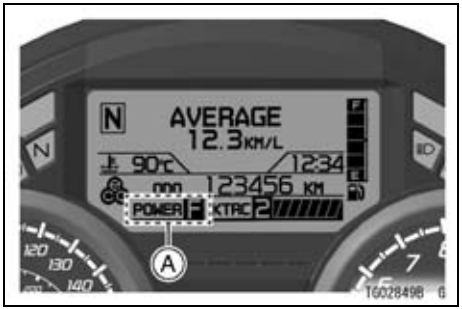
A. Economical Riding Indicator

⚠ WARNING

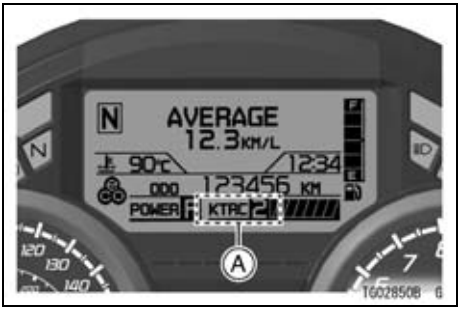
Failing to properly observe the road ahead increases the chance of an accident resulting in severe injury or death. Do not concentrate on the economical riding indicator by taking your eyes off the road; observe using peripheral vision.

Power Mode Indicator -

This indicator shows the selected Power Mode. For more detailed information about the power mode, see power mode section in the HOW TO RIDE THE MOTORCYCLE chapter.



A. Power Mode Indicator



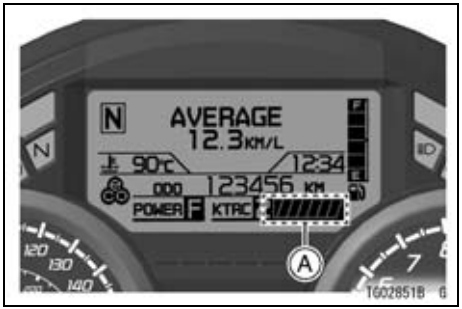
A. KTRC Mode Indicator

KTRC Mode Indicator -

This indicator shows the selected KTRC mode. For more detailed information about the KTRC mode, see Kawasaki TRaction Control (KTRC) section in the HOW TO RIDE THE MOTORCYCLE chapter.

KTRC Level Indicator -

The instantaneous strength and weakness of the KTRC operation can be checked with the KTRC level indicator in the multifunction meter while the motorcycle is running. The stronger the traction control works, the more the segments go on.



A. KTRC Level Indicator

Setting Menu

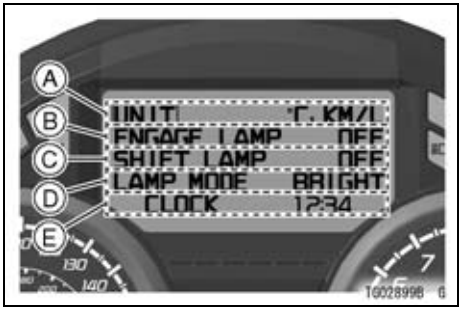
The various settings in the multi function meter can be performed in this setting menu.

NOTE

○ *This setting menu cannot be shifted while riding. Operate this setting menu with the vehicle stopped.*

The following settings can be adjusted in the multifunction meter.

- Language Setting: [ENGLISH] [FRANCAIS]
- Unit Setting (UNIT): [°C, KM/L] [°C, L/100KM] [°F, MPG USA] [°C, MPG UK]
- Engage Indicator Light Setting (ENGAGE LAMP): [OFF] [1 200 ~ 6 000 rpm (r/min)]
- Shift Up Indicator Light Setting (SHIFT LAMP): [OFF] [7 500 ~ 11 000 rpm (r/min)]
- Engage/Shift Up Indicator Light Lighting Mode (LAMP MODE): [BRIGHT] [DIM] [BLINK]
- Clock Adjustment (CLOCK)

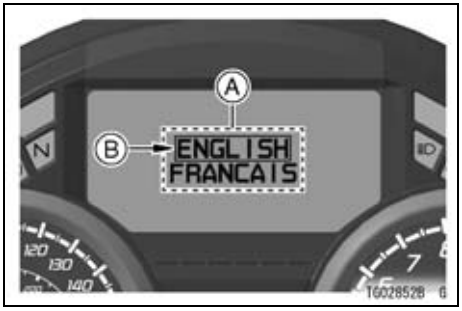


A. Unit Display Setting in Mileage and Temperature
B. Engage Indicator Light Setting
C. Shift Up Indicator Light Setting
D. Engage/Shift Up Indicator Light Lighting Mode
E. Clock Adjustment

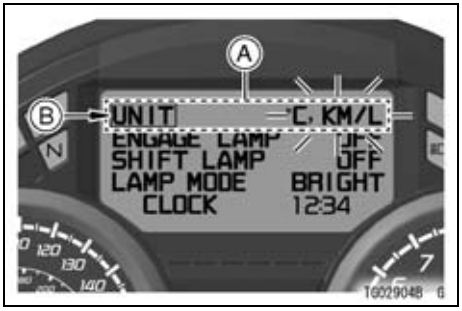
Language Setting: ENGLISH/ FRANCAIS -

The language displayed in the multi function meter can be changed between English and French in this Language Setting Menu.

- Push the “SEL” button for 2 seconds.
- Align the cursor and select language to display by pushing the upper/lower button.
- Push the “SEL” button, if advancing to the setting menu for changing the unit of the mileage, engage indicator light setting, shift up indicator light setting, engage/shift up indicator light lighting mode or adjusting the clock.
- Push the “SEL” button for 2 seconds, if not advancing to the other setting menu.



A. Language Setting Menu
B. Cursor



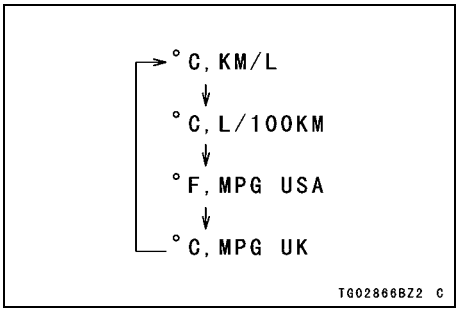
A. Unit Display Setting (UNIT)
B. Cursor

Unit Setting: KM/L, L/100 KM, MPG USA, MPG UK -

"UNIT"

The unit setting in the multifunction meter can be changed according to local regulations. Make sure the unit setting is correctly displayed before riding.

- Push the upper/lower button to align the cursor to "UNIT" after setting the language in the Language Setting Menu.
- Push the "SEL" button, and then the previous unit setting starts blinking.
- Select the unit to display by pushing the upper/lower button.
- The unit shifts as the following order.



- Push the “SEL” button to set the display unit after setting.

NOTE

○ *Do not operate the vehicle with the multi function meter displaying in the wrong unit.*

Engage / Shift Up Indicator Light Lighting Mode –

“ENGAGE LAMP”, “SHIFT LAMP”, “LAMP MODE”

The engage/shift up indicator lighting mode has 3 modes: light on (bright), light on (dim), and blinking.

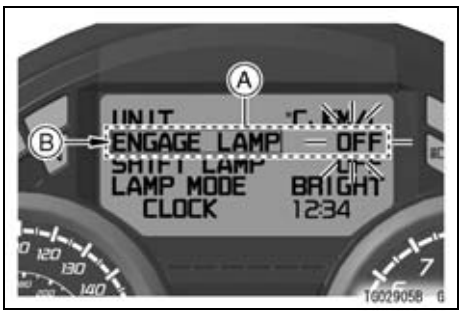
The engage/shift up indicator light can be used in closed course competition. Do not use the engage/shift up indicator light during everyday riding.

Engage Indicator Light

The engage indicator light is used to indicate the preferred timing for clutch engagement under the following conditions: transmission is in 1st gear; the clutch lever is pulled in; and the vehicle speed is less than 5 km (3 mph).

To adjust the engage indicator light engine speed setting in the tachometer, do the following while the engine is stopped.

- Push the upper/lower button to select the “ENGAGE LAMP” after setting language in the Language Setting Menu.
- To adjust the engage indicator light engine speed, align the cursor to “ENGAGE LAMP” by pushing the “SEL” button. The previous engage indicator light setting starts to blink.
- Push the upper/lower button to adjust the engage indicator light engine speed setting. The engine speed timing advances in 100 r/min (rpm) increments up to its maximum setting.
- Select the OFF mode to disable the engage indicator light function when it is not required.
- The adjustment range for this function is between 1 200 ~ 6 000 r/min (rpm).
- Once the maximum engine speed setting for the engage indicator light has been reached, the increments revert to the minimum setting engine speed.
- Push the “SEL” button to confirm the engage indicator light engine speed setting after adjustment.



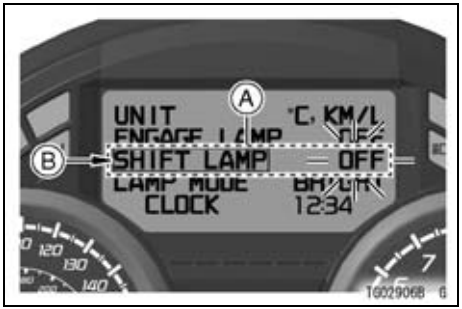
A. Engage Indicator Light Setting (ENGAGE LAMP)
B. Cursor

Shift Up Indicator Light

The shift up indicator light can be used to indicate the timing for next up shift to prevent engine damage by illuminating the engage shift up indicator light once a pre-set engine speed is reached.

To adjust the shift up indicator light engine speed setting in the tachometer, do the following while the engine is stopped.

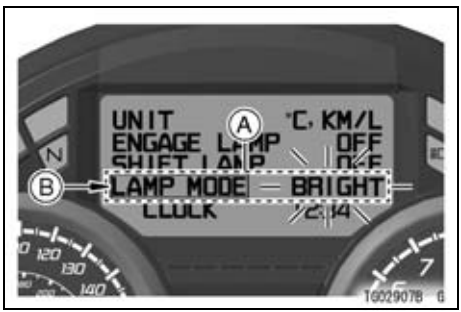
- Push the upper/lower button to select the “SHIFT LAMP” after setting language in the Language Setting Menu.
- To adjust the shift up indicator light engine speed, align the cursor to “SHIFT LAMP” by pushing the “SEL” button. The previous shift up indicator light setting starts to blink.
- Push the upper/lower button for adjusting the shift up indicator light engine speed. The engine speed timing advances in 100 r/min (rpm) increments up to its maximum setting.
- Select the OFF mode to disable the shift up indicator light function when it is not required.
- The engine speed adjustment range for this function is from 7 500 ~ 11 000 r/min (rpm).
- Once the maximum engine speed setting for the shift up indicator light of 11 000 r/min (rpm) has been reached, the increments revert to minimum engine speed.
- Push the “SEL” button to confirm the shift up indicator light engine speed setting after adjustment.



A. Shift Up Indicator Light Setting (SHIFT LAMP)
B. Cursor

Lighting Mode Change

- Push the upper/lower button to align the cursor to the “LAMP MODE” after setting language in the Language Setting Menu.
- Push the “SEL” button, and then the previous lighting mode of “LAMP MODE” starts blinking.
- To change the engage/shift up indicator light lighting mode, push the upper/lower button and the lighting mode of “LAMP MODE” will shift between light on (bright), light on (dim) and blinking while engage/shift up indicator light goes on or blinks.
- Push the “SEL” button to confirm the engage/shift up indicator light lighting mode setting after adjustment.



A. Lighting Mode (LAMP MODE)
B. Cursor

⚠ WARNING

Failing to properly observe the road ahead increases the chance of an accident. Do not concentrate on the shift lamp by taking your eyes off the road, observe using peripheral vision.
When 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. Downshifting should be done below 5 000 r/min (rpm) for each gear.

NOTE

○ *Pushing and holding the upper/lower button advances the engage/shift up indicator light engine speed continuously.*
○ *The data are maintained even if the battery is disconnected.*

NOTICE

Engine r/min (rpm) should not be allowed to enter the red zone; operation in the red zone will overstress the engine and may cause serious engine damage.

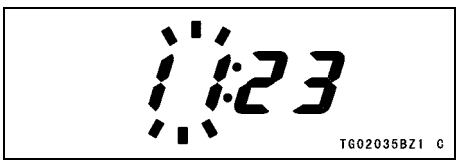
Clock -

"CLOCK"

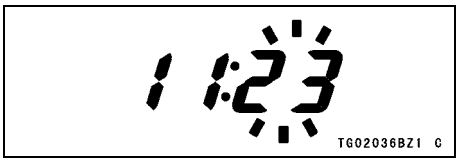
● Push the upper/lower button to align the cursor to the "CLOCK" after setting language in the Language Setting Menu.

A. Clock Setting (CLOCK)
B. Cursor

- Push the “SEL” button. When only the hour display blinks, push the upper/lower button to advance the hours.



- Push the “SEL” button. The hour display stops blinking and the minute display starts blinking. Push the upper/lower button to advance the minutes.



- Push the “SEL” button. The displays stop blinking and the clock starts working.

NOTE

○ *Pushing the upper/lower button advances the hours or minutes step by step. Pushing and holding the button advances the hours or minutes continuously.*

- *The clock works normally from the back-up power while the ignition switch is turned off.*
- *When the battery is disconnected, the clock resets to "1:00" and starts working again when the battery is connected.*

Warning/Indicator Lights

N : When the transmission is in neutral, the neutral indicator light goes on.

: When the headlight is on high beam, the high beam indicator light goes on.

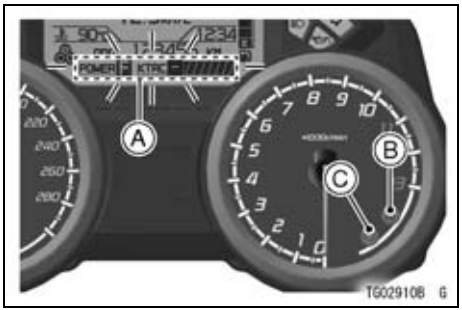
: When the turn signal switch is pushed to the left or right, the turn signal indicator light blinks.

: The oil pressure warning indicator light goes on whenever the oil pressure is dangerously low or the ignition key 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.

Yellow Engine Warning Indicator Light -

: The engine warning indicator light goes on when ignition key is turned to "ON" and goes off soon after ensuring that its circuit functions properly. The indicator light also goes on whenever the troubles occur in digital fuel injection system (DFI). When the engine warning indicator light goes on, the KTRC warning indicator light goes on and the KTRC mode/level indicator and Power mode indicator blinks by trouble condition.

If the indicator light goes on, have the DFI system checked by an authorized Kawasaki dealer.



A. Power Mode/KTRC Mode/KTRC Level Indicator
B. Yellow KTRC Warning Indicator Light
C. Yellow Engine Warning Indicator Light

Yellow KTRC Warning Indicator Light -

: The KTRC warning indicator light and engine warning indicator light go on and the KTRC mode/level indicator and Power mode indicator blink whenever the trouble occurs in the KTRC system. At this time the KTRC system does not function.

If the indicator lights go on and mode indicator blinks, have the KTRC system checked by an authorized Kawasaki dealer.

Yellow Engage/Shift Up Indicator Light: This indicator light goes on or blinks at preset timing for the engage indicator light and/or the shift up indicator light. For more detail the engage/shift up indicator light, see “Engage/Shift Up Indicator Light/Lighting Mode” section in this chapter.

Red Warning Indicator Light: This warning indicator light has the three warning functions: coolant temperature warning, oil pressure warning and

battery charging system warning. For more detailed information, see appropriate sections in this chapter.

Yellow ABS Indicator Light (For models equipped with ABS)

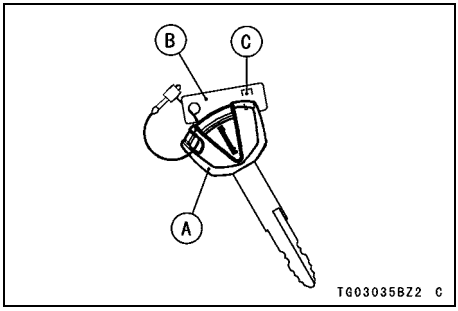
(ABS) : The ABS (Anti-lock Brake System) indicator light goes on when the ignition switch is turned to “ON” and goes off shortly after the motorcycle starts moving. If the ABS is normal, it stays off. If something is wrong with the ABS, the light goes on and remains lit. When the light goes on, the ABS does not function but if the ABS fails, the conventional brake system will still work normally.

For more detailed information about ABS, see the Anti-lock Brake System (ABS) section in the HOW TO RIDE THE MOTORCYCLE chapter.

Keys

This motorcycle has a combination key, which is used for the ignition switch, steering lock, seat lock, and fuel tank cap.

Included with the key is a key number, which may be stamped on a separate plate. Record the key number in the space provided and store the number in a safe place. If your keys came with a plate, store it in a safe place as well.



A. Ignition Key
B. Tag
C. Key Number

Write your key number here.

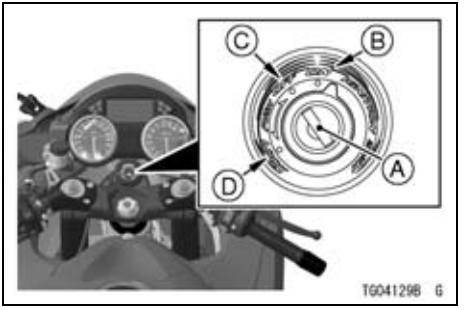
In the event you lose your keys, you will need the key number to have a duplicate made. If you cannot locate your key number, contact the dealer where

you purchased your Kawasaki motorcycle. It's possible the dealer may have the number in its records. If the key number is lost completely, you will need to replace the ignition switch and all other locks operated by that key.

Contact your Kawasaki dealer to purchase additional spare keys either using your original key as a master or using the key code on the tag or your key. Store one key at home and keep another spare in your wallet or riding gear, in case the original is lost.

Ignition Switch/Steering Lock

This is a three-position, key-operated switch. The key can be removed from the switch when it is in the OFF or LOCK position.

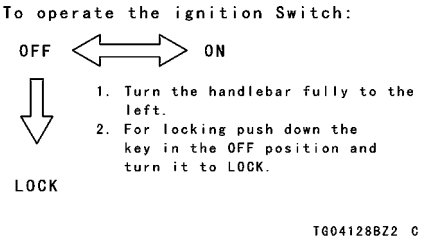


A. Ignition Switch/Steering Lock
B. ON position
C. OFF position
D. LOCK position

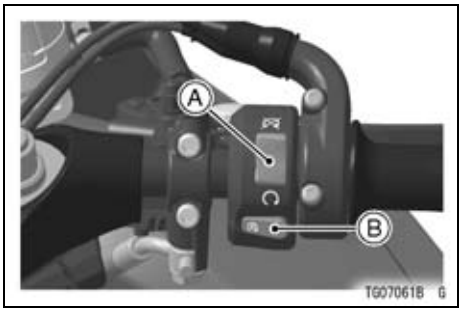
OFF	Engine off. Electrical circuits off.
ON	Engine on. All electrical equipment can be used.
LOCK	Steering locked. Engine off. Electrical circuits off.

NOTE

- *The tail, city and license plate lights are on whenever the ignition key is in the ON position. Headlights go on when the starter button is released after starting the engine. To avoid battery discharge, always start the engine immediately after turning the ignition key to "ON".*
- *If you leave the ON position on for a long time, the battery may become totally discharged.*



Right Handlebar Switches



A. Engine Stop Switch
B. Starter Button

Engine Stop Switch

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

The engine stop switch is for emergency use. If required, move the switch to the ⊠ position.

NOTE

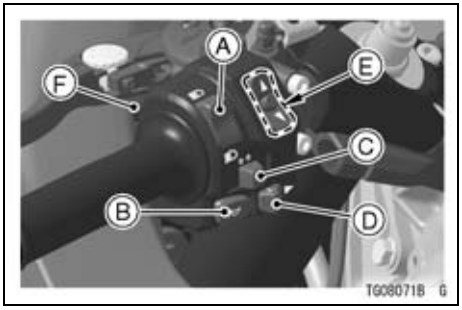
○ *Although the engine stop switch stops the engine, it does not turn off all the electrical circuits. Ordinarily, the ignition switch should be used to stop the engine.*

Starter Button

The starter button operates the electric starter when the transmission is in neutral.

Refer to the “Starting the Engine” section of the HOW TO RIDE THE MOTORCYCLE chapter for starting instructions.

Left Handlebar Switches



A. Dimmer Switch
B. Horn Button
C. Turn Signal Switch
D. Hazard Switch
E. Multifunction Button
F. Passing Button

Dimmer Switch

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

High beam.....(≡D)
Low beam.....(≡D)

Turn Signal Switch

When the turn signal switch is turned to the left (⇦) or right (⇨), the corresponding turn signals blink on and off.

To stop blinking, push the switch in.

Horn Button

When the horn button is pushed, the horn sounds.

Hazard Switch

If an emergency requires you to park on the highway shoulder, turn on the hazard lights to warn other drivers of your location.

Push in the hazard switch with the ignition switch in the ON position. All the turn signals and turn signal indicator lights will blink on and off.

NOTICE

If you leave the switch on for a long time, the battery may become totally discharged. So be careful not to use the hazard lights for more than 30 minutes.

Multifunction Button

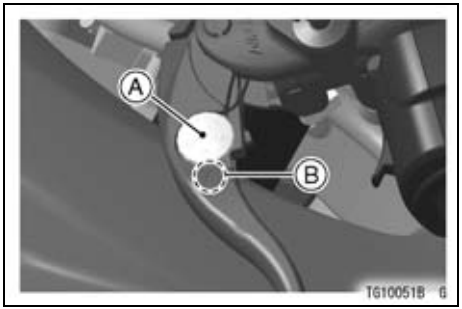
Refer to “Multifunction Button” and “Multifunction Meter” section in this chapter.

Passing Button

When the passing button is pushed, the headlight high beam (passing beam) goes on to signal the driver of the vehicle ahead that you are about to pass. The passing light is shut off as soon as the button is released.

Brake/Clutch Lever Adjuster

There are adjusters on both the brake and clutch levers. The brake lever adjuster has 6 positions and the clutch lever adjuster has 5 positions so that the released lever position can be adjusted to suit the operator’s hands. Push the lever forward and turn the adjuster to align the number with the mark on brake lever holder and the mark on the clutch lever holder. The distance from the grip to the released lever is minimum at Number 6 for the brake lever and Number 5 for the clutch lever, and maximum at Number 1 for both.



A. Adjuster
B. Mark

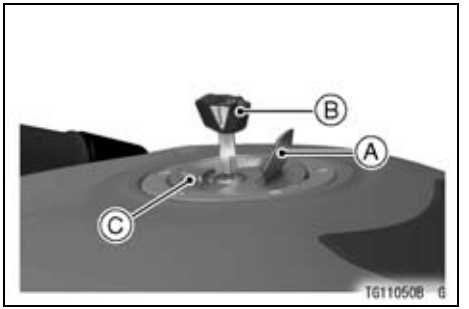
Fuel Tank Cap

To open the fuel tank cap, pull up the key hole cover. Insert the ignition key into the fuel tank cap 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 to the left to the original position. Close the key hole cover.

NOTE

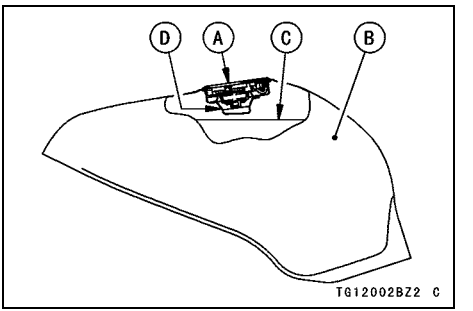
- *The fuel tank cap cannot be closed without the key inserted, and the key cannot be removed unless the cap is locked properly.*
- *Do not push on the key to close the cap, or the cap cannot be locked.*



A. Key Hole Cover
B. Ignition Key
C. Fuel Tank Cap

Fuel Tank

The following octane rating gasoline is recommended for the fuel tank. Avoid filling the tank in the rain or where heavy dust is blowing so that the fuel does not get contaminated.



A. Tank Cap
B. Fuel Tank
C. Top Level
D. Filler Neck

⚠ WARNING

Gasoline is extremely flammable and can be explosive under certain conditions, creating the potential for serious burns. When refueling, servicing fuel system, draining gasoline and/or adjusting the carburetor: Stop engine and allow it to cool before refueling. DO NOT smoke. Make sure the area is well ventilated and free from any source of flame or sparks, including the pilot light of any appliance. DO NOT fill the tank so the fuel level rises into the filler neck or level surface of level gauge. If the tank is overfilled, heat may cause the fuel to expand and overflow through the vents in the tank cap. Wipe off any spilled gasoline immediately.

NOTICE

California model only: Never 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 flow into the Evaporative Emission Control System resulting in hard starting and engine hesitation and in compliance with the emission regulation.

Fuel Requirement

Fuel Type

Use clean, fresh unleaded gasoline with a minimum Antiknock Index of 90. The Antiknock Index is posted on service station pumps. The octane rating of a gasoline is a measure of its resistance to detonation or “knocking.” The Antiknock Index is an average of the Research Octane Number (RON) and

the Motor Octane Number (MON) as shown in the table.

Octane Rating Method		Minimum Rating
Antiknock Index	$\frac{(RON + MON)}{2}$	90

NOTICE

Use minimum of 90 octane gasoline only to prevent severe engine damage.

NOTICE

If engine "knocking" or "pinging" occurs, use a different brand of gasoline of a higher octane rating. If this condition is allowed to continue it can lead to severe engine damage.

Gasoline quality is important. Fuels of low quality or not meeting standard industry specifications may result in unsatisfactory performance. Operating problems that result from the use of poor quality or nonrecommended fuel may not be covered under your warranty.

Fuels Containing Oxygenates

Gasoline frequently contains oxygenates (alcohols and ethers) especially in areas of the U.S. and Canada

which are required to sell such reformulated fuels as part of a strategy to reduce exhaust emissions.

The types and volume of fuel oxygenates approved for use in unleaded gasoline by the U.S. Environmental Protection Agency include a broad range of alcohols and ethers, but only two components have seen any significant level of commercial use.

Gasoline/Alcohol Blends - Gasoline containing up to 10% ethanol (alcohol produced from agricultural products such as corn), also known as “gasohol” is approved for use.

NOTICE

Avoid using blends of unleaded gasoline and methanol (wood alcohol) whenever possible, and never use “gasohol” containing more than 5% methanol. Fuel system damage and performance problems may result.

Gasoline/Ether Blends - The most common ether is methyl tertiary butyl ether (MTBE). You may use gasoline containing up to 15 % MTBE.

NOTE

○ *Other oxygenates approved for use in unleaded gasoline include TAME (up to 16.7 %) and ETBE (up to 17.2 %). Fuel containing these oxygenates can also be used in your Kawasaki.*

NOTICE

Never use gasoline with an octane rating lower than the minimum specified by Kawasaki.
Never use "gasohol" with more than 10% ethanol, or more than 5% methanol. Gasoline containing methanol must also be blended with cosolvents and corrosion inhibitors.
Certain ingredients of gasoline may cause paint fading or damage. Be extra careful not to spill gasoline or gasoline oxygenate blends during refueling.
When not operating your Kawasaki for 30 to 60 days, mix a fuel stabilizer (such as STA-BIL) with the gasoline in the fuel tank. Fuel stabilizer additives inhibit oxidation of the fuel which minimizes gummy deposits.

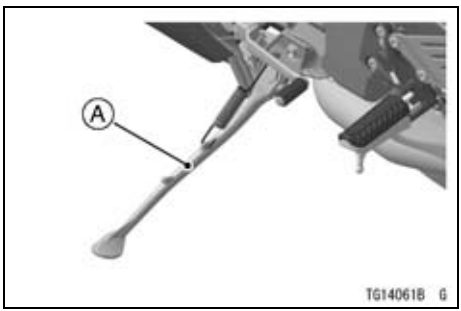
NOTICE

Never store this product with "gasohol" in the fuel system. Before storage it is recommended that you drain all fuel from the fuel system. See the Storage section in this manual.

Stand

Side Stand

The motorcycle is equipped with the side stand.



A. Side Stand

NOTE

○ *When using the side stand, turn the handlebar to the left.*

Do not sit on the motorcycle while it is on its side stand. Always kick the stand fully up before sitting on the motorcycle.

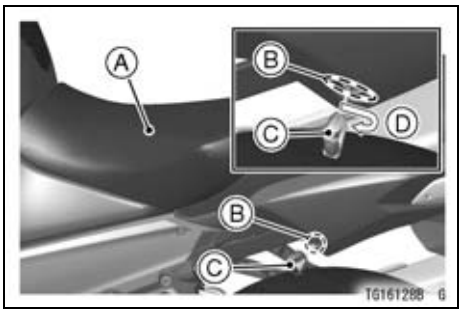
NOTE

○ *The motorcycle is equipped with a side stand switch. This switch is designed so that the engine does not start if the transmission is in gear and the side stand is down.*

Seat

Seat Removal

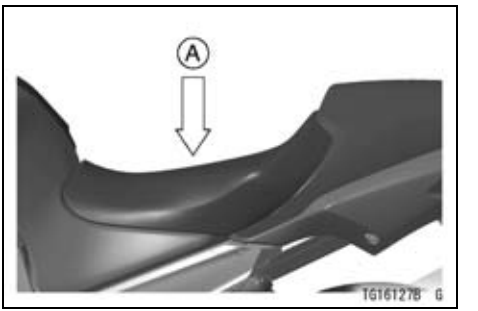
Remove the seat by inserting the ignition key into the seat lock and turning it clockwise.



A. Seat
B. Seat Lock
C. Ignition Key
D. Turn clockwise

NOTE

○ *If the seat removal is hard, be sure to insert the ignition key fully into the seat lock, then turn the key clockwise while strongly pushing down the middle part of the seat.*

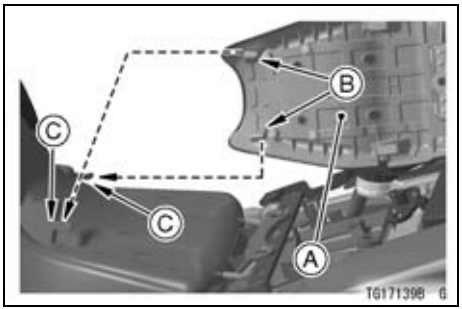


A. Push down.

Seat Installation

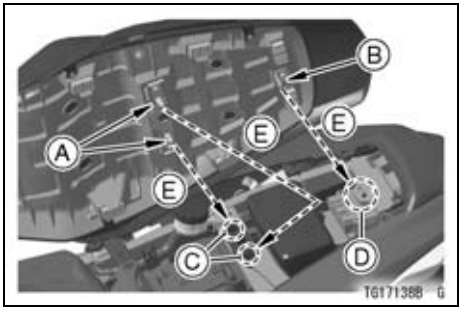
Install the seat in the reverse order of removal.

- Place the brackets on each side of the fuel tank into the slots on the front of the seat.



A. Seat
B. Slot
C. Bracket

- Insert the projections on the middle of the seat into the slots of the frame, and hook on the rear end of the seat into slot on the rear end of the frame.



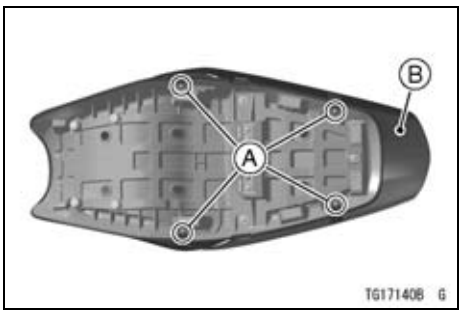
A. Projections
B. Hook
C. Slot (Middle on the frame)
D. Slot (Rear end on the frame)
E. Insert

- Push down the middle part of the seat until the lock clicks.
- Pull up the front and rear end of the seat to make sure they are securely locked.

Single Seat Cover

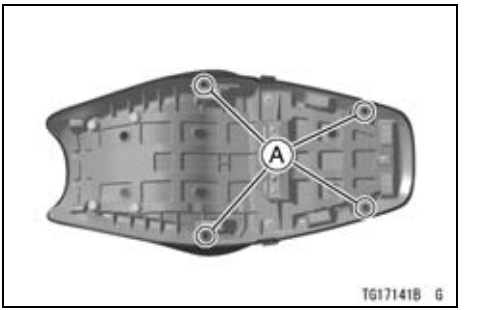
Single Seat Cover Removal

- Remove the seat.
- Remove the bolts and washers, and separate the single seat cover from the seat.



A. Bolts and Washers
B. Single Seat Cover

- Remove the wellnuts.



C. Wellnuts

Single Seat Cover Installation

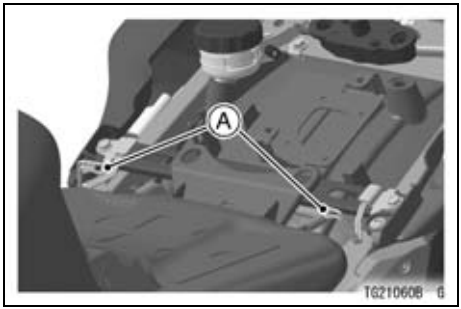
Install the single seat cover in the reverse order of removal.

Helmet Hooks

Helmets can be secured to the motorcycle using the helmet hooks. The helmet hooks located under the seat.

⚠ WARNING

Riding with helmets attached to the hooks could cause an accident by distracting the operator or interfering with normal vehicle operation. Do not ride the motorcycle with helmets attached to the hooks.

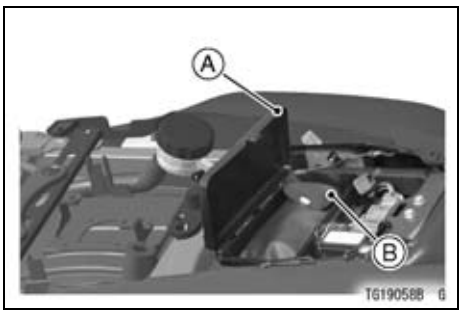


A. Helmet Hooks

Tool Kit Compartment

The tool kit compartment is located under the seat.

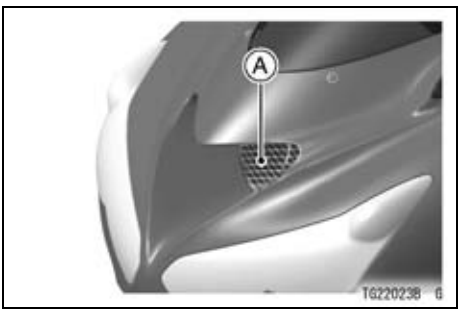
The kit contains tools that can be helpful in making roadside repairs, adjustments, and some maintenance procedures explained in this manual. Keep the tool kit in the compartment.



A. Tool Kit Compartment
B. Tool Kit

Air Cleaner Intake

The air cleaner intake allows air to enter the fuel system. Never allow anything to restrict the flow of air into the air cleaner. A restricted air cleaner will reduce performance and increase exhaust emissions.



A. Air Cleaner Intake

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 engine speed during the break-in period.

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

NOTE

○ *When 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.

⚠ WARNING

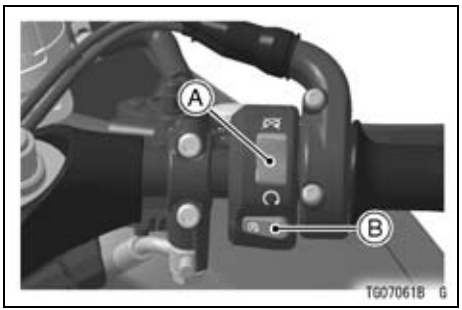
New tires are slippery and may cause loss of control and injury.
A break-in period of 160 km (100 miles) is necessary to establish normal tire traction. During break-in, avoid sudden and maximum braking and acceleration, and hard cornering.

In addition to the above, at 1 000 km (600 mi) it is extremely important that the owner has the initial maintenance service performed by a competent mechanic following the procedures in the Service Manual.

HOW TO RIDE THE MOTORCYCLE

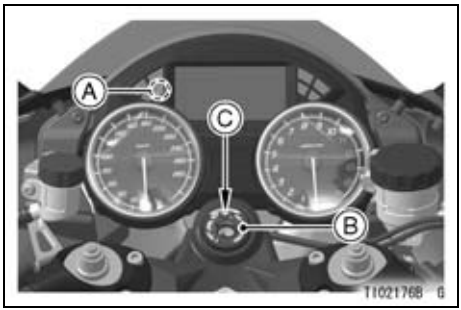
Starting the Engine

- Check that the engine stop switch is in the ⟳ position.



A. Engine Stop Switch
B. Starter Button

- Turn the ignition key to “ON”.
- Make sure the transmission is in neutral.



A. Green Neutral Indicator Light
B. Ignition Switch
C. ON position

NOTE

○ *The motorcycle is equipped with a vehicle-down sensor which causes the engine to stop automatically if the motorcycle falls down. The engine warning indicator light ( ) blinks*

when the starter button pressed if the engine cannot be started. After righting the motorcycle, first turn the ignition key to "OFF" and then back to "ON" before starting the engine.

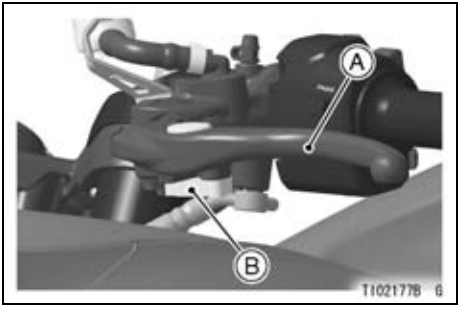
- Without holding the throttle grip, push the starter button to start the engine.

NOTICE

Do 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

○ *The motorcycle is equipped with a starter lockout switch. This switch is designed so that the engine does not start if the transmission is in gear and the side stand is down. However, the engine can be started if the clutch lever is pulled and the side stand is fully up.*



A. Clutch Lever
B. Starter Lockout Switch

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

Jump Starting

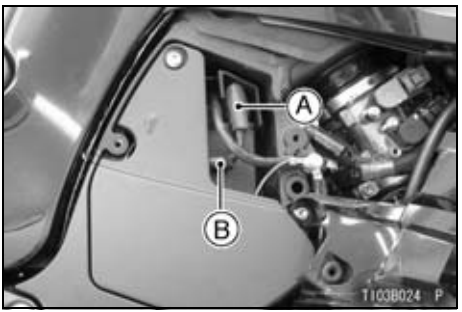
If your motorcycle battery is “run down”, it should be removed and charged. If this is not practical, a 12 volt booster battery and jumper cables may be used to start the engine.

⚠ DANGER

Battery 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 key is turned to "OFF".
- Remove the right fairing cover (Refer to the "Battery" section in the MAINTENANCE AND ADJUSTMENT chapter).
- Slide the red cap from the positive (+) terminal.

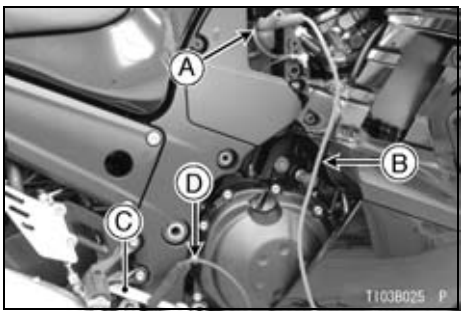


A. Red Cap
B. Positive (+) Cable

- Connect a jumper cable from the positive (+) terminal of the booster battery to the positive (+) terminal of the motorcycle battery.

NOTICE

Be careful not to contact the jumper cable slip on the positive battery terminal to the frame, or it cause a short circuit.



A. Motorcycle Battery Positive (+) Terminal
B. From Booster Battery Positive (+) Terminal
C. Rear Brake Pedal
D. From Booster Battery 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.

⚠ DANGER

Batteries contain sulfuric acid that can cause burns and produce hydrogen gas which is highly explosive. Do not make this last connection at the fuel system or battery. Take care not to touch the positive and negative cables together, and do not lean over the battery when making this last connection. Do not connect to a frozen battery. It could explode. Do 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.

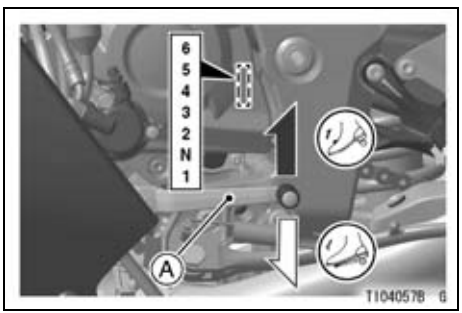
NOTICE

Do 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 has started, disconnect the jumper cables. Disconnect the negative (–) cable from the motorcycle first.
- Reinstall the parts removed.
- Check the cables are correctly routed (Refer to “Battery” section in the MAINTENANCE AND ADJUSTMENT chapter).

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 does not start if the transmission is in gear and the side stand is down.*

Shifting Gears

- Close the throttle while pulling in the clutch lever.
- Shift into the next higher or lower gear.
- Open the throttle part way, while releasing the clutch lever.
- For smooth riding, each gear position should cover the proper rate of speed shown in the table.

⚠ WARNING

Downshifting to a lower gear at high speed causes engine rpm to increase excessively, potentially damaging the engine and it may also cause the rear wheel to skid and cause an accident. Downshifting should be done below the vehicle speeds for each gear shown in the table.

Vehicle speed when shifting

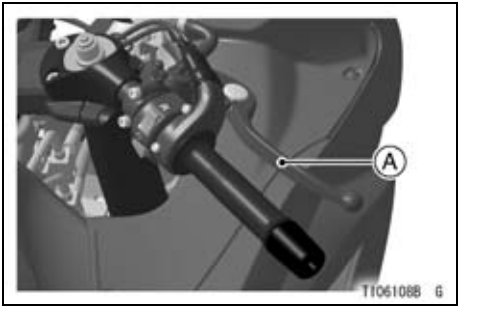
Shifting up	km/h (mph)	Shifting down	km/h (mph)
1st → 2nd	15 (9)	6th → 5th	30 (19)
2nd → 3rd	25 (15)	5th → 4th	25 (15)
3rd → 4th	35 (21)	4th → 3rd	20 (12)
4th → 5th	45 (27)	3rd → 2nd	15 (9)
5th → 6th	55 (34)	2nd → 1st	15 (9)

NOTE

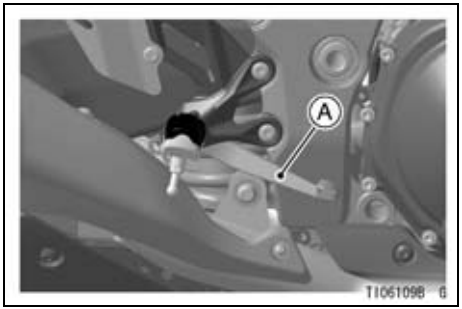
○ *The transmission is equipped with a positive neutral finder. When the motorcycle is standing still, the transmission cannot be shifted past neutral from 1st gear. To use the positive neutral finder, shift down to 1st gear, then lift up on the shift pedal while standing still. The transmission will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

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. Reduce your speed before you get into the corner.
- Even in motorcycles equipped with ABS, braking during cornering may cause wheel slip. When turning a corner, it is better to limit braking to the light application of both brakes or not to brake at all. Reduce your speed before you get into the corner.
- 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

Anti-lock Brake System (ABS) for models equipped with ABS

ABS is designed to help prevent the wheels from locking up when the brakes are applied hard while running straight. The ABS automatically regulates brake force. Intermittently gaining gripping force and braking force helps prevent wheel lock-up and allows stable steering control while stopping.

Brake control function is identical to that of a conventional motorcycle. The brake lever is used for the front brake and the brake pedal for the rear brake.

Although the ABS provides stability while stopping by preventing wheel lock-up, remember the following characteristics:

- To apply the brake effectively, use the front brake lever and rear brake pedal simultaneously in the same

manner as conventional motorcycle brake system.

- ABS cannot compensate for adverse road conditions, misjudgment or improper application of brakes. You must take the same care as with motorcycles not equipped with ABS.
- ABS is not designed to shorten the braking distance. On loose, uneven or downhill surfaces, the stopping distance of a motorcycle with ABS may be longer than that of an equivalent motorcycle without ABS. Use special caution in such areas.
- ABS will help prevent wheel lock-up when braking in a straight line, but it cannot control wheel slip which may be caused by braking during cornering. When turning a corner, it is better to limit braking to the light application of both brakes or not to brake at all. Reduce your speed before you get into the corner.
- Same as conventional brake system, an excessive sudden braking may cause wheel lock up that makes it harder to control a motorcycle.
- During braking, ABS will not prevent the rear wheel lifting.

⚠ WARNING

ABS cannot protect the rider from all possible hazards and is not a substitute for safe riding practices. Be aware of how the ABS system operates and its limitations. It is the rider's responsibility to ride at appropriate speeds and manner for weather, road surface and traffic conditions.

- The computers integrated in the ABS compare vehicle speed with wheel speed. Since non-recommended

tires can affect wheel speed, they may confuse the computers, which can extend braking distance.

⚠ WARNING

Use of non-recommended tires may cause malfunctioning of ABS and can lead to extended braking distance. The rider could have an accident as a result. Always use recommended standard tires for this motorcycle.

NOTE

- *ABS indicator light may come on under motorcycle riding condition. (ex. The front or rear wheel races.) In this case, first turn the ignition key to "OFF", and then back to "ON". ABS indicator light goes off by this operation, but if ABS indicator light remains lit after the motorcycle runs at the speed of approx. 6 km/h or below, you should have the ABS checked by an authorized Kawasaki dealer.*
- *When the ABS is functioning, you may feel a pulsing in the brake lever or pedal. This is normal. You need not suspend applying brakes.*
- *ABS does not function at speeds of approx. 6 km/h or below.*
- *ABS does not function if the battery is discharged.*

Yellow ABS Indicator Light

Normally the ABS indicator light comes on when the ignition switch is turned on and goes off shortly after the motorcycle starts moving.

If the indicator light shows any of the following, a fault or faults may have occurred in the ABS. You should have the ABS checked by an authorized Kawasaki dealer.

- The light does not come on when the ignition switch is turned on.
- The light remains lit after the motorcycle starts moving.
- The light comes on and remains lit after the motorcycle starts moving.

Remember that the ABS does not function when the indicator light is on, but if the ABS fails, the conventional brake system still works normally.

Stopping the Engine

- Close the throttle completely.
- Shift the transmission into neutral.
- Turn the ignition key to “OFF”.
- Support the motorcycle on a firm, level surface with the side stand.
- Lock the steering.

NOTE

○ *The motorcycle is equipped with a vehicle-down sensor which causes the engine to stop automatically if the motorcycle falls down. The engine warning indicator light (* *) blinks when the starter button pressed if the engine cannot be started. After righting the motorcycle, first turn the ignition key to “OFF” and then back to “ON” before starting the engine.*

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 can create a dangerous situation known as throttle failure. Two of the most common causes of throttle failure are:

1. An improperly serviced or clogged air cleaner may allow dirt and dust to enter the throttle body and stick the throttle open.
2. During removal of the air cleaner, dirt is allowed to enter and jam the fuel injection system.

In an emergency situation such as throttle failure, your vehicle may be stopped by applying the brakes and disengaging the clutch. 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

⚠ WARNING

Operating or parking the vehicle near flammable materials can cause a fire, and can result in property damage or severe personal injury.
Do not idle or park your vehicle in an area where tall or dry vegetation, or other flammable materials could come into contact with the muffler or exhaust pipe.

⚠ WARNING

The engine and exhaust system get extremely hot during normal operation and can cause serious burns.
Never touch a hot engine, exhaust pipe, or muffler during operation or after stopping the engine.

- Shift the transmission into neutral and turn the ignition key to “OFF”.
- Support the motorcycle on a firm, level surface with the side stand.

NOTICE

Do 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, creating the potential for serious burns. Turn the ignition switch to "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.

- Lock the steering to help prevent theft.

Catalytic Converter

This motorcycle is equipped with a catalytic converter in the exhaust system. The converter reacts with carbon monoxide, hydrocarbons and nitrogen oxides to convert them into carbon dioxide, water, nitrogen and oxygen resulting in much cleaner exhaust gases to be discharged into the atmosphere.

For proper operation of the catalytic converter, the following cautions must be observed.

⚠ WARNING

Operating or parking the vehicle near flammable materials can cause a fire, and can result in property damage or severe personal injury.
Do not idle or park your vehicle in an area where tall or dry vegetation, or other flammable materials could come into contact with the muffler or exhaust pipe.

⚠ WARNING

The engine and exhaust system get extremely hot during normal operation and can cause serious burns.
Never touch a hot engine, exhaust pipe, or muffler during operation or after stopping the engine.

- Use only unleaded gasoline. Never use leaded gasoline. Leaded gasoline significantly reduces the capability of the catalytic converter.
- Do not operate the vehicle with the engine or any one cylinder misfiring. Under these conditions unburned air/fuel mixture flowing out of engine excessively accelerates reaction in the converter allowing the converter to overheat and become damaged when the engine is hot, or reduces converter performance when the engine is cold.

KTRC (Kawasaki TRaction Control)

KTRC is an intelligent system that calculates the slip level of the rear wheel (wheelspin) during acceleration and controls the optimum slip ratio to suit the riding conditions. KTRC can contribute to a stable ride not only for sports riding but also when riding on a rough or slippery road surface.

KTRC is designed for use on public roads. KTRC cannot respond to every condition. Acceleration may be delayed under certain conditions.

⚠ WARNING

KTRC cannot protect the rider from all possible hazards and is not a substitute for safe riding practices. All riders must be aware of how the KTRC system operates and its limitations. It is still your responsibility to ride at appropriate speeds and throttle control for weather, road surface and traffic conditions.

If a wheelie occurs due to excessive acceleration, KTRC will control the engine output to make the front wheel contact the road surface. In this case, slightly release the throttle grip so that the front wheel stays in contact with the road surface.

⚠ WARNING

Use of nonrecommended tires could cause a malfunction or improper operation of KTRC. Always use recommended standard tires for this motorcycle.

KTRC determines the traction control characteristics with three mode selections. KTRC can also be set to OFF.

KTRC and the Power mode can be set separately. By combining each setting, the rider can get various riding feelings. For further details on the combined use of the KTRC and the Power mode, refer to "KTRC and Power Mode Combination".

Mode 1:

KTRC least intervenes among the three modes. This mode gives maximum acceleration for sport riding.

Mode 2:

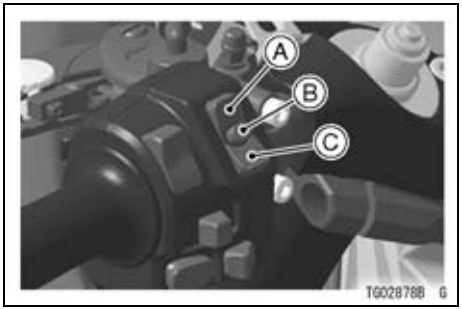
KTRC intervention is at the intermediate level between the mode 1 and mode 3.

Mode 3:

KTRC intervenes early enough to prevent the rear wheel from spinning whenever possible. This mode is used in low grip situations.

KTRC mode setting -

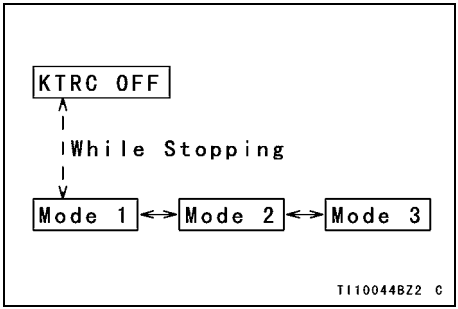
- Close the throttle grip completely.
- Push the "SEL" button to select the KTRC mode indicator. When the KTRC mode indicator is selected, it blinks.



A. Upper Button
B. "SEL" Button
C. Lower Button

- Push the Upper or Lower button to select the KTRC mode. The KTRC OFF can be selected only when the motorcycle is at a stop.

Upper Button:
Mode3 → Mode2 →Mode1 → OFF
Lower Button:
OFF → Mode1 → Mode2 → Mode3



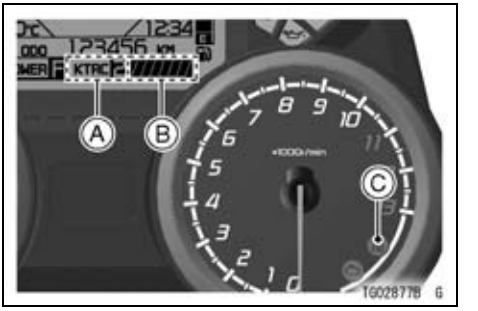
NOTE

- *When changing the mode, stop the motorcycle.*
- *When 30 seconds have passed or the throttle is opened after the KTRC mode indicator starts blinking, it*

stops blinking and the selected mode is fixed.

- ○ *The mode can be changed only when the throttle grip is closed completely.*
- ○ *The display/mode is switched when the button is released. When the button is held for more than two seconds, the switching function does not work.*
- ○ *Operate the throttle carefully while the KTRC is OFF because wheelspin of the rear wheel cannot be controlled.*

- ● Check the indicator to make sure that the mode has been changed. When the traction control is activated rear wheel starts to break traction, the segment(s) of the KTRC level indicator goes on.



A. KTRC Mode Indicator
B. KTRC Level Indicator
C. Yellow KTRC Warning Indicator Light

For more detailed information about the KTRC warning indicator light and the KTRC indicator light, see “Warning/Indicator Light” section in the GENERAL INFORMATION chapter.

NOTE

- ○ *In the KTRC mode 1-3, the selected mode is maintained even when the*

ignition switch is turned to OFF position, or the battery is discharged or removed.

- *In the KTRC OFF, the mode is automatically switched to 1, whenever the ignition switch is turned to OFF position. Also, the mode is automatically switched to 1, when the ignition switch is turned to ON position after the battery is discharged or removed.*

Power Mode

The Power mode determines the engine power output characteristics and has two settings.

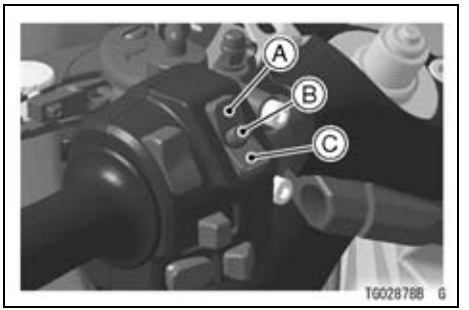
The Power mode and the KTRC can be set separately. By combining each setting, the rider can get various riding feelings. For further details on the combined use of the Power mode and the KTRC, refer to “KTRC and Power Mode Combination”.

Mode F (Full power):
The highest engine power output is achieved. The rider can feel the full throttle response of the engine.

Mode L (Low Power):
About 75% of the highest engine power output is achieved. The throttle response is milder than F mode.

Power mode setting -

- Close the throttle grip completely.
- Push the “SEL” button to select the Power mode indicator. When the Power mode indicator is selected, it blinks.



A. Upper Button
B. “SEL” Button
C. Lower Button

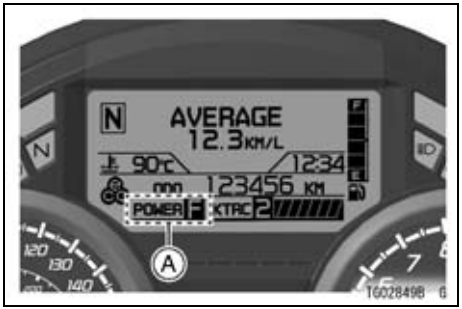
- Push the Upper or Lower button to select the Power mode.

Upper Button: Mode F (Full Power)
Lower Button: Mode L (Low Power)

NOTE

- *When changing the mode, stop the motorcycle.*
- *When 30 seconds have passed or the throttle is opened after the Power mode indicator starts blinking, it stops blinking and the selected mode is fixed.*
- *The mode can be changed only when the throttle grip is closed completely.*
- *The display/mode is switched when the button is released. When the button is held for more than two seconds, the switching function does not work.*

- Check the indicator to make sure that the mode has been changed.



A. Power Mode Indicator

NOTE

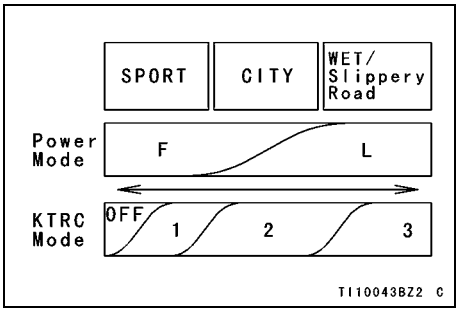
○ *The Power mode setting is maintained if the ignition switch is turned to OFF position, or if the battery is disconnected.*

KTRC and Power Mode Combination

By combining the KTRC mode and Power mode, the eight-pattern settings are available to suit the various conditions. For example, on a slippery road surface, combining the Power mode "L" with the KTRC mode "3" can reduce the rear wheelspin.

The combination of each mode should be decided according to the driving skill and road conditions. Set the combination with reference to the following table.

examples of mode combinations



SAFE OPERATION

Safe Riding Technique

The points given below are applicable for everyday motorcycle use and should be carefully observed for safe and effective vehicle operation.

For safety, eye protection and a helmet are strongly recommended. You should be aware of and verify the applicable safety regulations in force prior to riding your motorcycle. Gloves and suitable footwear should also be used for added protection in case of a mishap.

A motorcycle does not provide the impact protection of an automobile, so defensive riding in addition to wearing protective apparel is extremely important. Do not let protective apparel give you a false sense of security.

When riding always keep both hands on the handlebars and both feet on the footpegs. Removing your hands from the handlebars or feet from the footpegs while riding can be hazardous. If you remove even one hand or foot, you can reduce your ability to control the motorcycle.

Before changing lanes, look over your shoulder to make sure the way is clear. Do not rely solely on the rear view mirror; you may misjudge a vehicle's distance and speed, or you may not see it at all.

In general your actions should be smooth as sudden acceleration, braking or turning may cause loss of control, especially when riding in wet conditions or on loose roadway surfaces, when the ability to maneuver will be reduced.

When going up steep slopes, shift to a lower gear so that there is plenty of power to spare rather than overloading the engine.

When applying the brakes, use both the front and rear brakes. Applying only one brake for sudden braking may cause the motorcycle to skid and lose control.

When going down long slopes, control vehicle speed by closing the throttle. Use the front and rear brakes for auxiliary braking.

In wet conditions, rely more on the throttle to control vehicle speed and less on the front and rear brakes. The throttle should also be used judiciously to avoid skidding the rear wheel from too rapid acceleration or deceleration.

Riding at the proper rate of speed and avoiding unnecessarily fast acceleration are important not only for safety and low fuel consumption but also for long vehicle life and quieter operation.

On rough roads, exercise caution, slow down, and grip the fuel tank with the knees for better stability.

When quick acceleration is necessary as in passing, shift to a lower gear to obtain the necessary power.

Do not downshift at too high an r/min (rpm) to avoid damage to the engine from overrevving.

Avoiding unnecessary weaving is important to the safety of both the rider and other motorists.

Daily 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 before operation may result in serious damage or an accident. Always perform daily checks before operation.

⚠ DANGER

Exhaust gas contains carbon monoxide, a colorless, odorless poisonous gas. Inhaling carbon monoxide can cause serious brain injury or death. DO NOT run the engine in enclosed areas. Operate only in a well-ventilated area.

Fuel ..... Adequate supply in tank, no leaks.
Engine oil ..... Oil level between level lines.
Tires ..... Air pressure (when cold):

Front	290 kPa (2.90 kgf/cm², 42 psi)
Rear	290 kPa (2.90 kgf/cm², 42 psi)

Install the air valve cap.

Drive chain ..... Slack 25 ~ 30 mm (1.0 ~ 1.2 in.).
Lubricate if dry.

Nuts, bolts, fasteners .. Check that steering and suspension components, axles, and all controls are properly tightened or fastened.

Steering ..... Action smooth but not loose from lock to lock. No binding of control cables.

Brakes ..... Brake pad wear: Lining thickness more than 1 mm (0.04 in.) left. No brake fluid leakage.

Throttle ..... Throttle grip play 2 ~ 3 mm (0.08 ~ 0.12 in.).

Clutch ..... No clutch fluid leakage.

Coolant ..... No coolant leakage. Coolant level between level lines (when engine is cold).

Electrical equipment ... All lights (Head, Tail/Brake, Turn Signal, Warning/Indicator) and horn work.

Engine stop switch ..... Stops engine.

Side stand ..... Return to its fully up position by spring tension. Return spring not weak or not damaged.

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 them to the proper pressure, and check the wheel balance.

Fuel: Have sufficient fuel for the high fuel consumption during high speed operation.

Engine Oil: To avoid engine seizure and resulting loss of control, make sure that the oil level is at the upper level line.

Coolant: To avoid overheating, check that the coolant level is at the upper level line.

Electrical Equipment: Make sure that the headlight, tail/brake light, turn signals, horn, etc., all work properly.

Miscellaneous: Make sure that all nuts and bolts are tight and that all safety related parts are in good condition.

⚠ WARNING

Handling 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 must be carried out 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.**

With a basic knowledge of mechanics and the proper use of tools, you should be able to carry out many of the maintenance items described in this chapter. If you lack proper experience or doubt your ability, all adjustments, maintenance, and repair work should be completed by a qualified technician.

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

EMISSION CONTROL INFORMATION

To protect the environment in which we all live, Kawasaki has incorporated crankcase emission (1) and exhaust emission (2) control systems in compliance with applicable regulations of the United States Environmental Protection Agency and California Air Resources Board. Additionally, Kawasaki has incorporated an evaporative emission control system (3) in compliance with applicable regulations of the United States Envitonmental Protection Agency and California Air Resources Board and California Air Resources Board.

1. Crankcase Emission Control System

This system eliminates the release of crankcase vapors into the atmosphere. Instead, the vapors are routed through an oil separator to the intake side of the engine. While the engine is operating, the vapors are drawn into the combustion chamber, where they are burned along with the fuel and air supplied by the fuel injection system.

2. Exhaust Emission Control System

This system reduces the amount of pollutants discharged into the atmosphere by the exhaust of this motorcycle. The fuel, ignition and exhaust systems of this motorcycle have been carefully designed and constructed to ensure an efficient engine with low exhaust pollutant levels. The exhaust system of this model motorcycle includes a catalytic converter system.

3. Evaporative Emission Control System

The evaporative emission control system for this vehicle consists of low permeation fuel hoses and fuel tank.

3. Evaporative Emission Control System (California)

Vapors caused by fuel evaporation in the fuel system are not vented into the atmosphere. Instead, fuel vapors are routed into the running engine to be burned, or stored in a canister when the engine is stopped.

High Altitude Performance Adjustment Information

High Altitude adjustment is not required.

MAINTENANCE AND WARRANTY

Proper maintenance is necessary to ensure that your motorcycle will continue to have low emission levels. This Owner's Manual contains those maintenance recommendations for your motorcycle. Those items identified by the Periodic Maintenance Chart are necessary to ensure compliance with the applicable standards.

As the owner of this motorcycle, you have the responsibility to make sure that the recommended maintenance is carried out according to the instructions in this Owner's Manual at your own expense.

The Kawasaki Limited Emission Control System Warranty requires that you return your motorcycle to an authorized Kawasaki dealer for remedy under warranty. Please read the warranty carefully, and keep it valid by complying with the owner's obligations it contains.

You should keep a maintenance record for your motorcycle. To assist you in keeping this record, we have provided space on pages 217 through 222 of this manual where an authorized Kawasaki dealer, or someone equally competent, can record the maintenance. You should also retain copies of maintenance work orders, bills, etc., as verification of this maintenance.

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED:

Federal law prohibits the following acts or the causing thereof: (1) 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, or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Among those acts presumed to constitute tampering are the acts listed below:

* Replacement of the original exhaust system or muffler with a component not in compliance with Federal regulations.
* Removal of the muffler(s) or any internal portion of the muffler(s).
* Removal of the air box or air box cover.
* Modifications to the muffler(s) or air intake system by cutting, drilling, or other means if such modifications result in increased noise levels.

Periodic Maintenance Chart

K : Should be serviced by an authorized Kawasaki dealer.
* : For higher odometer readings, repeat at the frequency interval established here.
# : Service more frequently when operating in severe conditions: dusty, wet, muddy, high speed, or frequent starting/stopping.
(e) : Emission Related Item

1. Periodic Inspection (Engine Related Items)

	Frequency / Operation (Engine Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1 000 (mile × 1 000) 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
K	Valve clearance - inspect (e)						●			134
	Throttle control system (play, smooth return, no drag) - inspect (e)	year	●		●		●		●	142
K	Engine vacuum synchronization - inspect (e)				●		●		●	144
	Idle speed - inspect (e)		●		●		●		●	145
K	Fuel leak (fuel hose and pipe) - inspect	year	●		●		●		●	–
K	Fuel hoses damage - inspect	year	●		●		●		●	–

	Frequency / Operation (Engine Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1 000 (mile × 1 000) 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
K	Fuel hoses installation condition - inspect	year	●		●		●		●	–
	Coolant level - inspect		●		●		●		●	128
	Coolant leak - inspect	year	●		●		●		●	126
	Radiator hose damage - inspect	year	●		●		●		●	126
	Radiator hoses installation condition - inspect	year	●		●		●		●	126

	Frequency / Operation (Engine Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1 000 (mile × 1 000) 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
	Evaporative emission control system - function (California model only) (e)		●	●	●	●	●	●	●	133
K	Air suction system damage - inspect (e)				●		●		●	135

2. Periodic Inspection (Chassis Related Items)

Frequency / Operation (Chassis Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1000 (mile × 1000) → 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
Clutch and drive train:									
Clutch operation (play, engagement, disengagement) - inspect		●		●		●		●	145
Clutch fluid level - inspect	6 months	●	●	●	●	●	●	●	145
Clutch fluid leak - inspect	year	●	●	●	●	●	●	●	–
Clutch hose damage - inspect	year	●	●	●	●	●	●	●	–

Frequency / Operation (Chassis Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1000 (mile × 1000) → 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
Clutch hose installation condition - inspect	year	●	●	●	●	●	●	●	–
Drive chain lubrication condition - inspect #	every 600 km (400 mile)								153
Drive chain slack - inspect #	every 1 000 km (600 mile)								147
Drive chain wear - inspect #				●		●		●	151
K Drive chain guide wear - inspect				●		●		●	–
Wheels and tires:									
Tire air pressure - inspect	year			●		●		●	174

Frequency / Operation (Chassis Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1000 (mile × 1000) → 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
Wheels/tires damage - inspect				●		●		●	175
Tire tread wear, abnormal wear - inspect				●		●		●	175
K Wheel bearings damage - inspect	year			●		●		●	–
Brake system:									
Brake fluid leak - inspect	year	●	●	●	●	●	●	●	155
Brake hoses and pipe damage - inspect	year	●	●	●	●	●	●	●	155
Brake pad wear - inspect #			●	●	●	●	●	●	155

Frequency / Operation (Chassis Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1000 (mile × 1000) → 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
Brake hose installation condition - inspect	year	●	●	●	●	●	●	●	155
Brake fluid level - inspect	6 months	●	●	●	●	●	●	●	156
Brake operation (effectiveness, play, drag) - inspect	year	●	●	●	●	●	●	●	157
Brake light switch operation - inspect		●	●	●	●	●	●	●	158
Suspensions:									
Front forks/rear shock absorber operation (damping and smooth stroke) - inspect				●		●		●	160/ 168

Frequency / Operation (Chassis Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1000 (mile × 1000) → 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
Front forks/rear shock absorber oil leak - inspect	year			●		●		●	160/ 168
K Rocker arm operation - inspect				●		●		●	–
K Tie rods operation - inspect				●		●		●	–
Steering system:									
K Steering play - inspect	year	●		●		●		●	–
K Steering stem bearings - lubricate	2 years					●			–

Frequency / Operation (Chassis Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1000 (mile × 1000) → 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
Electrical system:									
Lights and switches operation - inspect	year			●		●		●	–
Headlight aiming - inspect	year			●		●		●	189
Side stand switch operation - inspect	year			●		●		●	–
Engine stop switch operation - inspect	year			●		●		●	–
Chassis:									
K Chassis parts - lubricate	year			●		●		●	–
K Bolts and nuts tightness - inspect		●		●		●		●	–

3. Periodic Replacement

	Frequency / Change/Replacement Items	Whichever comes first ⬇ / Every	➡ *Odometer Reading km × 1 000 (mile × 1 000) 1 (0.6)	12 (7.5)	24 (15)	36 (22.5)	48 (30)	See Page
	Air cleaner element - replace (e) #	every 18 000 km (11 250 mile)						136
K	Engine oil - change #	year	●	●	●	●	●	123
K	Oil filter - replace	year	●	●	●	●	●	123
K	Fuel hoses - replace	5 years						–
K	Coolant - change	3 years				●		132
K	Radiator hoses and O-rings - replace	3 years				●		–
K	Brake hoses and pipe - replace	4 years					●	–
K	Brake fluid (front and rear) - change	2 years			●		●	157

	Frequency / Change/Replacement Items	Whichever comes first ⬇ Every	➡ *Odometer Reading km × 1 000 (mile × 1 000) 1 (0.6)	12 (7.5)	24 (15)	36 (22.5)	48 (30)	See Page
K	Rubber parts of master cylinder and caliper - replace	4 years					●	–
K	Clutch hoses - replace	4 years					●	–
K	Clutch slave cylinder piston seal - replace	4 years					●	–
K	Clutch fluid - change	2 years			●		●	–
K	Spark plug - replace (e)			●	●	●	●	132

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 replace the oil filter 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. Check the oil level before each ride and change the oil according to the periodic maintenance chart in the Owner's Manual.

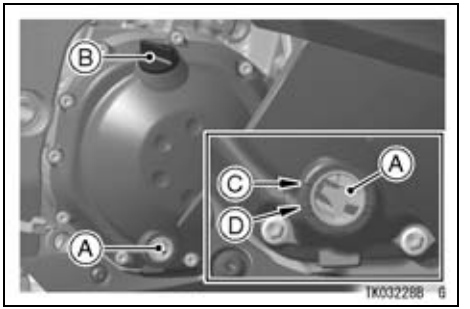
Oil Level Inspection

- 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.

NOTICE

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 inspection window. With the motorcycle held level, the oil level should come up between the upper and lower level lines next to the inspection window.

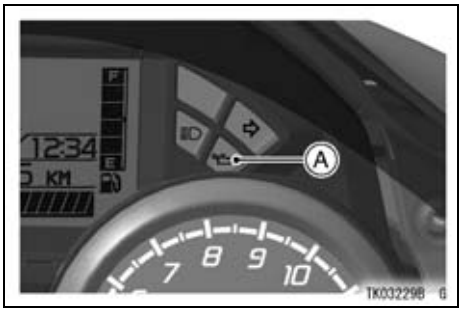


A. Oil Level Inspection Window
B. Oil Filler Cap
C. Upper Level Line
D. Lower Level Line

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

NOTICE

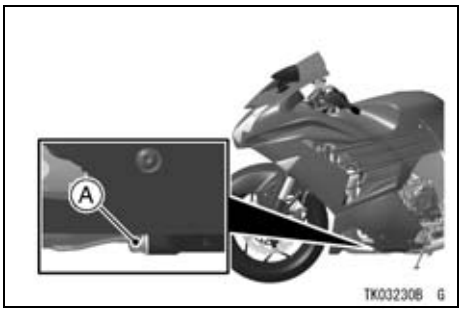
If the engine oil gets extremely low or if the oil pump does not function properly or oil passages are clogged, the oil pressure warning indicator light will go on. If it stays on when the engine speed is above idle, stop the engine immediately and have it serviced. Failure to do so could cause serious engine damage.



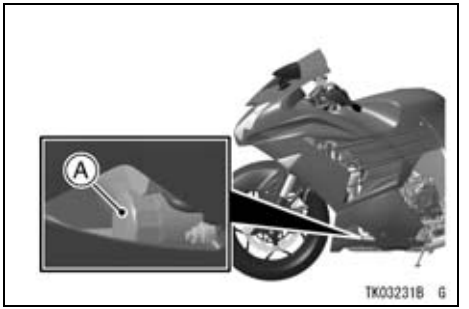
A. Red Oil Pressure Warning Indicator Light

Oil and/or Oil Filter Change

- To change the engine oil and replace oil filter, the engine oil drain bolt and oil filter must be removed. The oil change and oil filter replacement should be done by an authorized Kawasaki dealer.



A. Engine Oil Drain Bolt



A. Oil Filter

⚠ WARNING

Engine oil is a toxic substance. Dispose of used oil properly. Contact your local authorities for approved disposal methods or possible recycling.

Tightening Torque

Engine Oil Drain Bolt:
30 N·m (3.1 kgf·m, 22 ft·lb)
Oil FIlter:
17 N·m (1.7 kgf·m, 13 ft·lb)

Recommended Engine Oil

Type:
Kawasaki Performance 4-Stroke Motorcycle Oil*
Kawasaki Performance 4-Stroke Semi-Synthetic Oil*
Kawasaki Performance 4-Stroke Full Synthetic Oil*
or other 4-stroke oils with API SG, SH, SJ, SL, SM and JASO MA, MA1, MA2 rating
Viscosity:
SAE10W-40

*Kawasaki Performance Oils and Lubricants have been specifically engineered for your vehicle. Consistent

use of these products meets or exceeds warranty and service requirements and can help to extend the life of your Kawasaki.

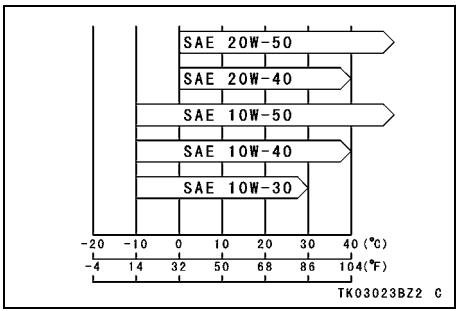
NOTE

○ *Do not add any chemical additive to the oil. Oils fulfilling the above requirements are fully formulated and provide adequate lubrication for both the engine and the clutch.*

Engine Oil Capacity

Capacity:	3.8 L (4.0 US qt)
	[when filter is not removed]
	4.2 L (4.4 US qt)
	[when filter is removed]
	4.6 L (4.9 US qt)
	[when engine is completely dry]

Although 10W-40 engine oil is the recommended oil for most conditions, the oil viscosity may need to be changed to accommodate atmospheric conditions in your riding area.



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 spins at high speed and can cause serious injuries. Keep your hands and clothing away from the cooling fan blades at all times.

NOTICE

Using high-pressure water, as from a car wash facility, could damage the radiator fins and impair the radiator's effectiveness. Do 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.

Radiator Hoses -

Check the radiator hoses for leakage, cracks or deterioration, and connections for leakage, or looseness each day before riding the motorcycle, and in accordance with the Periodic Maintenance Chart.

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, also in accordance with the Periodic Maintenance Chart 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 are 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

Coolant containing corrosion inhibitors for aluminum engines and radiators include harmful chemicals for human body. Drinking coolant can result in serious injury or death. Use coolant in accordance with the instructions of the manufacturer.

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

NOTICE

If 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.

NOTICE

Permanent 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 the manufacturer.

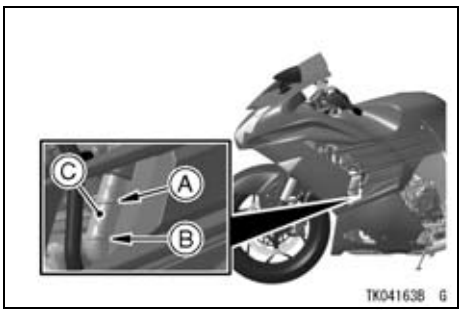
NOTE

○ *A permanent type of antifreeze is installed in the cooling system when shipped. It is colored green and contains ethylene glycol. It is mixed at 50% and has the freezing point of –35°C (–31°F).*

Coolant Level Inspection

● Position the motorcycle so that it is perpendicular to the ground.

- Check the coolant level through the coolant level gauge on the reserve tank located to the left of the engine. The coolant level should be between the F (Full) and L (Low) level lines.



A. F (Full) Level Line
B. L (Low) Level Line
C. Reserve Tank

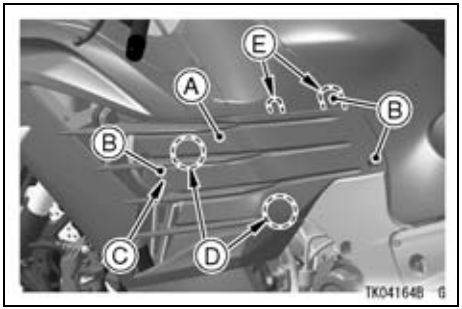
NOTE

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

- If the amount of coolant is insufficient, add coolant into the reserve tank.

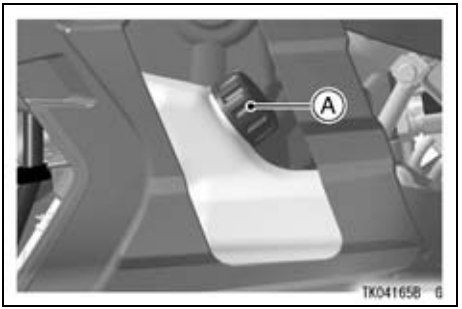
Coolant Filling

- Remove the bolts and washers on the left fairing cover.
- Pulling out the left fairing cover out slowly to clear the projections.
- Clear the left inner rubber cover from the left fairing cover, and remove the left fairing cover backward.



A. Left Fairing Cover
B. Bolts and Washers
C. Left Inner Rubber Cover
D. Projections
E. Tabs

- Remove the cap from the reserve tank and add coolant through the filler opening to the F (Full) level line.



A. Reserve Tank Cap

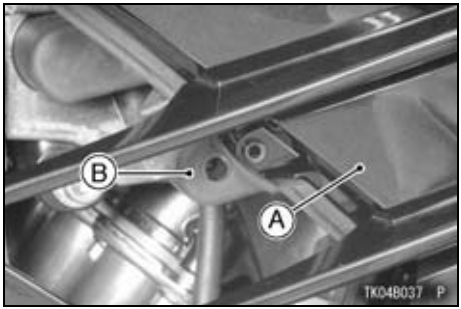
NOTE

○ *In 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.*

NOTICE

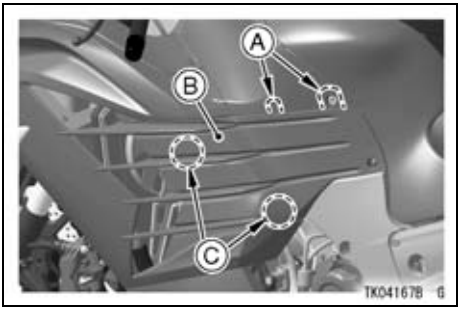
If coolant must be added often, or the reserve tank completely runs dry, there is probably leakage in the system. Have the cooling system inspected by your authorized Kawasaki dealer.

- Install the reserve tank cap.
- Insert the left fairing cover halfway, and fit the left inner rubber cover to the left fairing cover.



A. Left Fairing Cover
B. Left Inner Rubber Cover

- Insert the front part of the left fairing cover securely.
- Insert the tabs on the left fairing cover under the fuel tank cover first, and then fit the projections to the holes.
- Tighten the bolts.



A. Tabs
B. Left Fairing Cover
C. Projections

Coolant Change

Have the coolant changed by an authorized Kawasaki dealer.

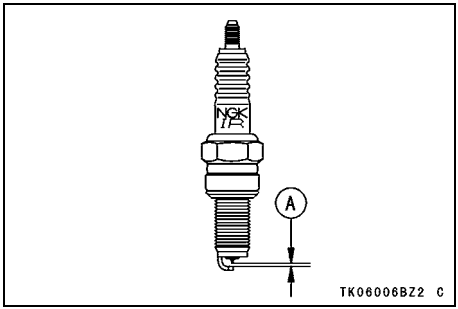
Spark Plugs

The standard spark plug is shown in the table. The spark plugs should be replaced in accordance with the Periodic Maintenance Chart.

Spark plug removal should be done by an authorized Kawasaki dealer.

Spark Plug

Standard Plug:	NGK CR9EIA-9
Plug Gap:	0.8 ~ 0.9 mm (0.031 ~ 0.035 in.)
Tightening Torque:	13 N·m (1.3 kgf·m, 115 in·lb)



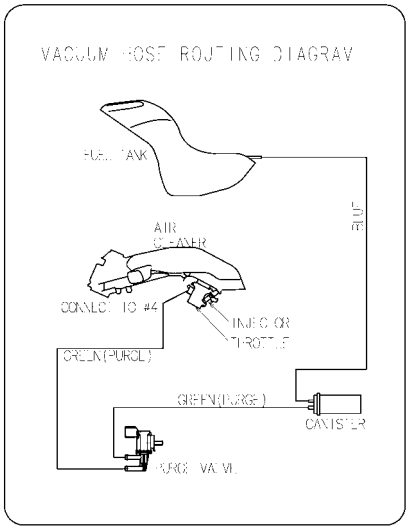
A. 0.8 ~ 0.9 mm (0.031 ~ 0.035 in.)

Evaporative Emission Control System (California model only)

This system routes fuel vapors from the fuel system into the running engine or stores the vapors in a canister when the engine is stopped. Although no adjustments are required, a thorough visual inspection must be made at the intervals specified by the Periodic Maintenance Chart.

Inspection

- Check that the hoses are securely connected.
- Replace any kinked, deteriorated, or damaged hoses.



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Valve Clearance

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

NOTICE

If valve clearance is left unadjusted, 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 adjusted in accordance with the Periodic Maintenance Chart.

Inspection and adjustment should be carried out by an authorized Kawasaki dealer.

Kawasaki Clean Air System

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 carbon monoxide into carbon dioxide.

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 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 carried out by an authorized Kawasaki dealer.

Air Cleaner

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

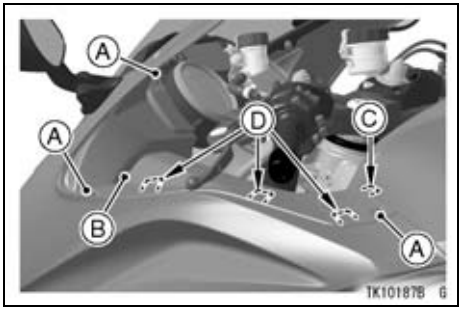
This motorcycle's air cleaner element consists of a wet paper filter, which cannot be cleaned.

The air cleaner element must be replaced in accordance with the Periodic Maintenance Chart. In dusty, rainy, or muddy conditions, the air cleaner element should be serviced more frequently than the recommended interval.

NOTICE

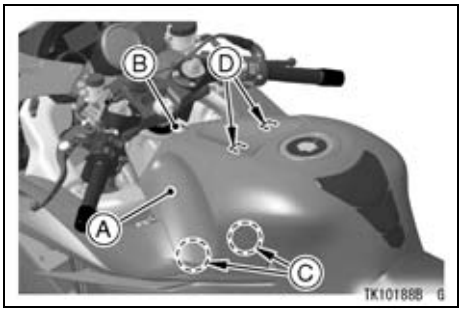
Use only the recommended air cleaner element (Kawasaki part number 11013-0718). Using the any other air cleaner element will wear the engine prematurely or lower the engine performance.

- Remove the left and right fairing covers. (Refer to "Cooling System" section and "Battery" section in this chapter.)
- Remove the left and right inner covers by removing the bolts and washers on both sides.



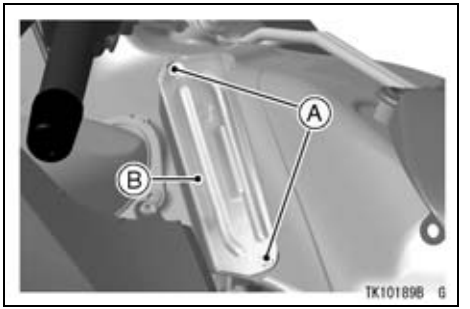
A. Bolts and Washers
B. Inner Cover (Left Side)
C. Tab
D. Hooks

- Remove the bolt.
- Spread the fuel tank cover evenly outward to clear the projections on both sides.
- Remove the fuel tank cover forward.



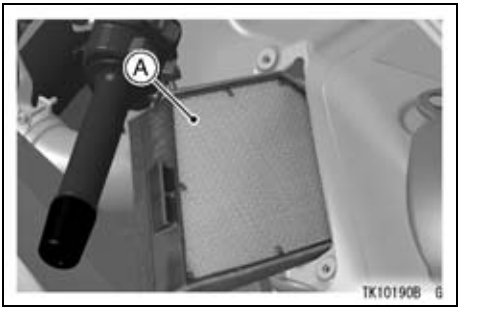
A. Fuel Tank Cover
B. Bolt
C. Projections
D. Tabs

- Remove the air cleaner element cover by removing the bolts.



A. Bolts
B. Air Cleaner Element Cover

- Pull out the air cleaner element.



A. Air Cleaner Element

- Put a clean, lint-free towel over the air cleaner element slot to keep dirt or other foreign material from entering.

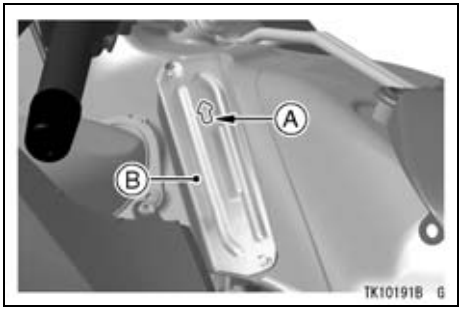
⚠ WARNING

If dirt or dust is allowed to pass through into the fuel injection system, the throttle may stick or become inoperable resulting in a hazardous operating condition.

NOTICE

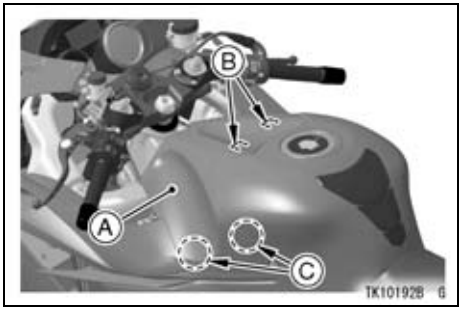
If dirt gets through into the engine, excessive engine wear and possibly engine damage will occur.

- Element and the removed parts installation is performed in the reverse order of removal.
- Install the air cleaner element cover so that arrow mark faces up ward.
- Install the bolts.



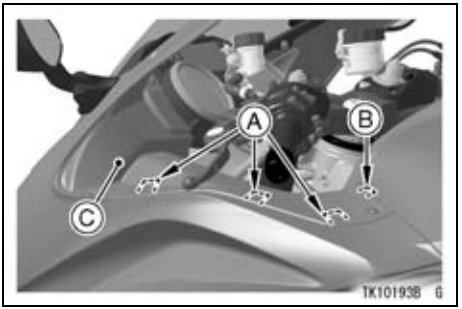
A. Arrow Mark
B. Air Cleaner Element Cover

- Fit the tabs of the fuel tank into the slots of the fuel tank cover.
- Fit the projections to the holes on both sides.
- Install the bolt.



A. Fuel Tank Cover
B. Tabs
C. Projections

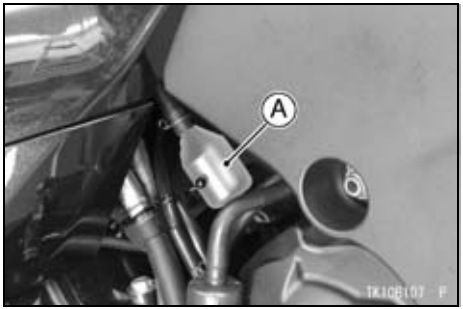
- Insert the hook on the front part of the inner cover to the slot of the bracket.
- Insert the tab into the slot of the fuel tank cover first, and then insert the hook on the rear part of the inner cover under the middle fairing.
- Install the bolts and washers.



A. Hooks
B. Tab
C. Inner Cover

Oil Draining

- Inspect the transparent reservoir located under the left side of the engine to see if any oil has run down.



A. Reservoir

- If there is any oil in the reservoir, remove the reservoir from the lower end of the drain hose and drain the oil.

⚠ WARNING

Oil on tires will make them slippery and can cause an accident and injury. Be sure to install the reservoir in the drain hose after draining.

Throttle Control System

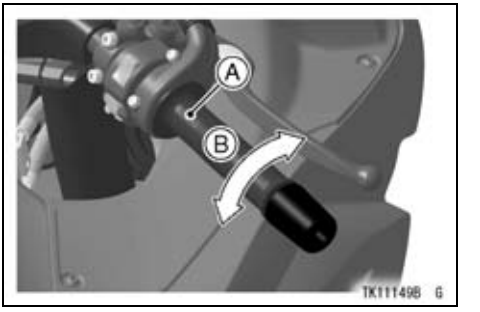
Check the throttle grip play each day before riding the motorcycle, and carry out maintenance and adjustment in accordance with the Periodic Maintenance Chart. Adjust it if necessary.

Throttle Grip -

The throttle grip controls the butterfly valves in the throttle body. 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 valve 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.

Inspection

- Check that the throttle grip play is correct by lightly turning the throttle grip back and forth.



A. Throttle Grip
B. Throttle Grip Play

Throttle Grip Play

2 ~ 3 mm (0.08 ~ 0.12 in.)

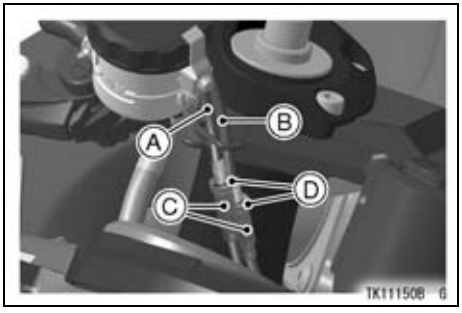
- If there is improper play, adjust it.

Adjustment

- Loosen the locknuts at the lower ends of the throttle cables, and screw

both throttle cable adjusters in completely so as to give the throttle grip plenty of play.

- Turn out the decelerator cable adjuster until there is no play when the throttle grip is completely closed. Tighten the locknut.



A. Decelerator Cable
B. Accelerator Cable
C. Adjusters
D. Locknuts

- Turn out the accelerator cable adjuster until 2 ~ 3 mm (0.08 ~ 0.12 in.) of throttle grip play is obtained. Tighten the locknut.
- If the throttle cables cannot be adjusted with the adjuster at the upper of the throttle cable, further adjustment of the throttle cables should be done by an authorized Kawasaki dealer.
- 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 in correctly routed, or they may be damaged. Be sure to correct any of these conditions before idling.

⚠ WARNING

Operation with improperly adjusted, incorrectly routed, or damaged cables could result in an unsafe riding condition. Be sure the control cables are adjusted and routed correctly, and are free from damage.

Engine Vacuum Synchronization

Engine vacuum synchronization must be checked and adjusted periodically in accordance with the Periodic Maintenance Chart by an authorized Kawasaki dealer.

NOTE

○ *Poor engine vacuum synchronization will cause unstable idling, sluggish throttle response, and reduce engine power and performance.*

Idle Speed

The idle speed inspection should be performed in accordance with the Periodic Maintenance Chart.

This motorcycle is equipped with the idle speed control valve. So adjustment of the idle speed is not necessary on this motorcycle. If the idle speed is disturbed, inspection of the idle speed control should be done by an authorized Kawasaki dealer.

Idle Speed

1 050 ~ 1 150 r/min (rpm)

Clutch

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

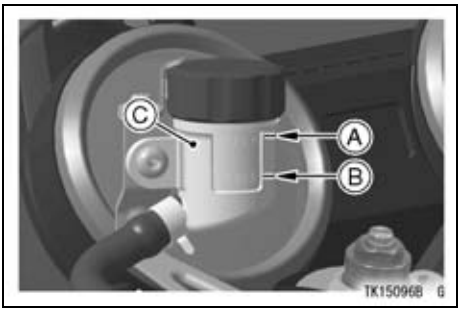
Clutch Operation Inspect

- If the clutch lever play becomes excessive and the motorcycle creeps or stalls when shifted into gear, there is probably air in the clutch system and it must be bled out by an authorized Kawasaki dealer.

Fluid Level Inspection

- With the clutch fluid reservoir held horizontal, the clutch fluid level must be kept between the upper and lower level lines.

- If the fluid level is lower than the lower level line, check for fluid leaks in the clutch line, and fill the clutch fluid reservoir to the upper level line.



A. Upper Level Line
B. Lower Level Line
C. Clutch Fluid Reservoir

NOTE

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

Drive Chain

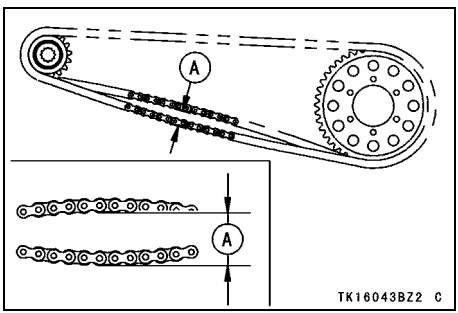
The drive chain slack and lubrication must be checked each day before riding the motorcycle, and in accordance with the Periodic Maintenance Chart for safety and to prevent excessive wear. If the chain becomes badly worn or maladjusted - either too loose or too tight - the chain could jump off the sprockets 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. Inspect the chain for damage and proper adjustment before each ride.

Chain Slack Inspection

- Set the motorcycle up on its side stand.
- Rotate the rear wheel to find the position where the chain is tightest, and measure the maximum chain slack by pulling up and pushing down the chain midway between the engine sprocket and rear wheel sprocket.



A. Chain Slack

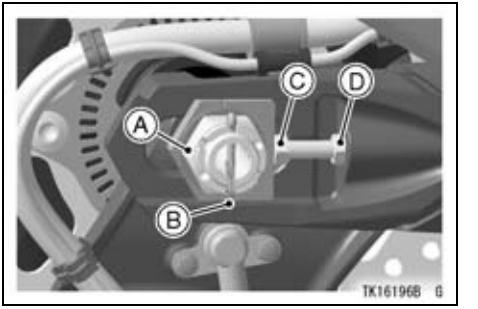
- If the drive chain is too tight or too loose, adjust it so that the chain slack is within the standard value.

Drive Chain Slack

Standard: 25 ~ 30 mm (1.0 ~ 1.2 in.)

Chain Slack Adjustment

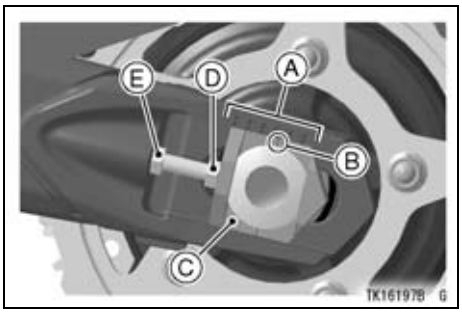
- Loosen the left and right chain adjuster locknuts.
- Remove the cotter pin, and loosen the axle nut.



A. Axle Nut
B. Cotter Pin
C. Adjuster
D. Locknut

- If the chain is too loose, turn out the left and right chain adjusters evenly.
- If the chain is too tight, turn in the left and right chain adjusters evenly.
- Turn out both chain adjusters evenly until the drive chain has the correct amount of slack. To keep the chain and wheel properly aligned, the notch on the left wheel alignment

indicator should align with the same swingarm mark that the right indicator notch aligns with.



A. Marks
B. Notch
C. Indicator
D. Adjuster
E. Locknut

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. Align the rear wheel using the marks on the swingarm or measuring the distance between the center of the axle and swingarm pivot.

- Tighten both chain adjuster locknuts.
- Tighten the axle nut to the specified torque.

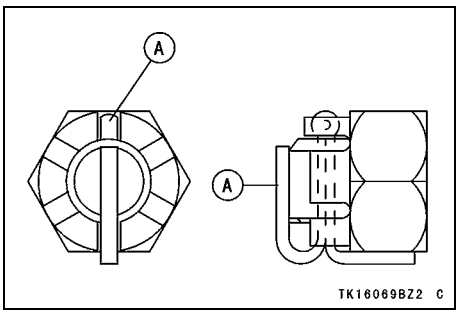
Tightening Torque

Axle Nut: 127 N·m (13.0 kgf·m, 94 ft·lb)

NOTE

○ *If a torque wrench is not available, this item should be serviced by a Kawasaki dealer.*

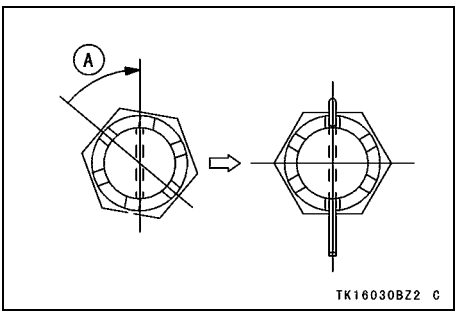
- Rotate the wheel, measure the chain slack again at the tightest position, and readjust if necessary.
- Install a new cotter pin through the axle nut and axle, and spread its ends.



A. Cotter Pin

NOTE

○ *When inserting the cotter pin, if the slots in the nut do not align with the cotter pin hole in the axle shaft, tighten the nut clockwise up to the next alignment.*
○ *It should be within 30 degrees.*
○ *Loosen once and tighten again when the slot goes past the nearest hole.*



A. Turn Clockwise

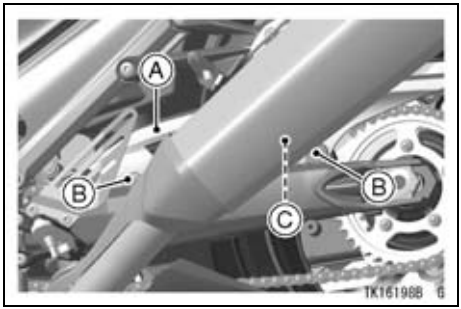
⚠ WARNING

A loose axle nut can lead to an accident resulting in serious injury or death. Tighten the axle nut to the proper torque and install a new cotter pin.

- Check the rear brake (see the Brakes section).

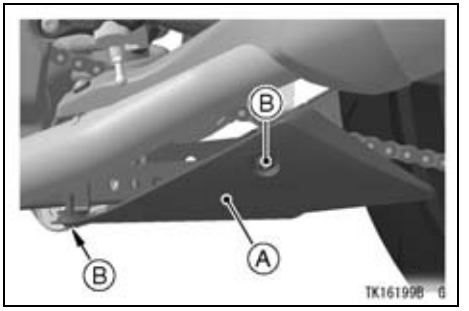
Wear Inspection

- Remove the screws.
- Clear the projection from the swingarm, and remove the chain cover.



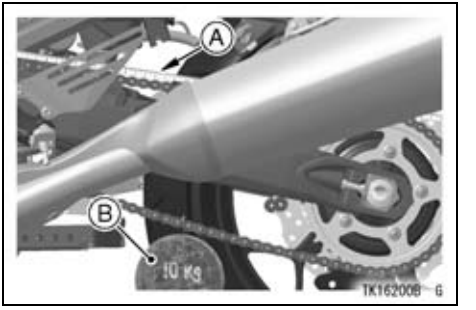
A. Chain Cover
B. Screws
C. Projection

- Remove the bolts and under cover.



A. Under Cover
B. Bolts

- Stretch the chain taut either by using the chain adjusters, or by hanging a 10 kg (22 lb) weight on the chain.
- Measure the length of 20 links on the straight part of the chain from pin center of the 1st pin to pin center of the 21st pin. Since the chain may wear unevenly, take measurements at several places.
- If the length exceeds the service limit, the chain should be replaced.



A. Measure
B. Weight

Drive Chain 20-Link Length

Service Limit: 319 mm (12.56 in.)

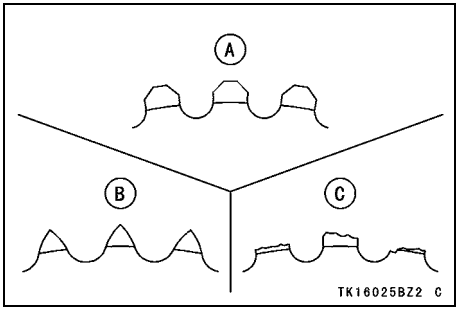
⚠ WARNING

For safety, use only the standard chain. It is an endless type and should not be cut for installation; have it installed by an authorized Kawasaki dealer.

- Rotate the rear wheel to inspect the drive chain for damaged rollers, and loose pins and links.
- Also inspect the sprockets for unevenly or excessively worn teeth, and damaged teeth.

NOTE

○ *Sprocket wear is exaggerated for illustration. See Service Manual for wear limits.*



A. Good Teeth
B. Worn Teeth
C. Damaged Teeth

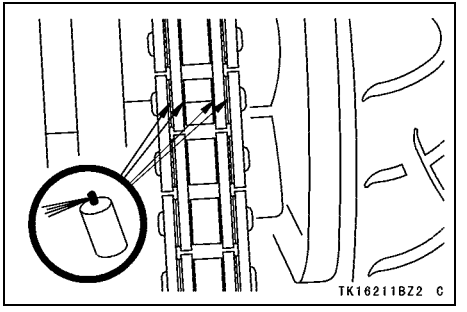
- If there is any irregularity, have the drive chain and/or the sprockets replaced by an authorized Kawasaki dealer.

Lubrication

Lubrication is necessary after riding through rain or on wet roads, or any time that the chain appears dry.

Use a lubricant for sealed chains to prevent deterioration of chain seals. If the chain is especially dirty, clean it using a cleaner for sealed chains following the instructions supplied by the chain cleaner manufacturer.

- Apply lubricant to the sides of the rollers so that it will penetrate to the rollers and bushings. Apply lubricant to the seals so that the seals will be coated with lubricant. Wipe off any excess lubricant.

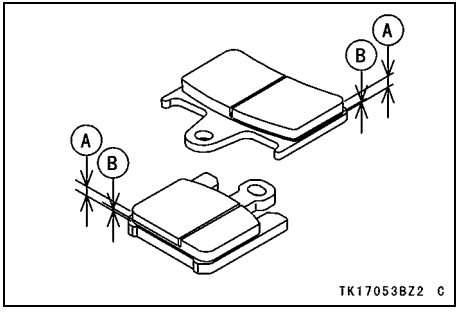


- Wipe off any lubricant that gets on the tire surface.

Brakes

Brake Wear Inspection

Inspect the brakes for wear. For each front and rear disc brake caliper, if the thickness of either pad linning 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.



A. Lining Thickness
B. 1 mm (0.04 in.)

Brake Fluid -

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

Fluid Requirement

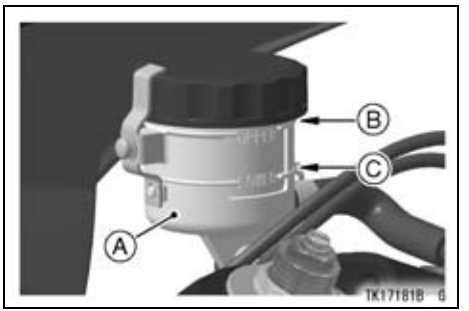
Use DOT4 rated heavy-duty brake fluid only.

NOTICE

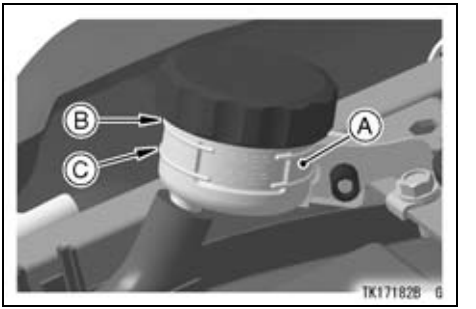
Do not spill brake fluid onto any painted surface.
Do not use fluid from a container that has been left open or that has been unsealed for a long time.
Check for fluid leakage around the fittings.
Check brake hose for damage.

Fluid Level Inspection

- With the brake fluid reservoirs held horizontal, the brake fluid level must be kept between the upper and lower level lines.



A. Front Brake Fluid Reservoir
B. Upper Level Line
C. Lower Level Line



A. Rear Brake Fluid Reservoir
B. Upper Level Line
C. Lower Level Line

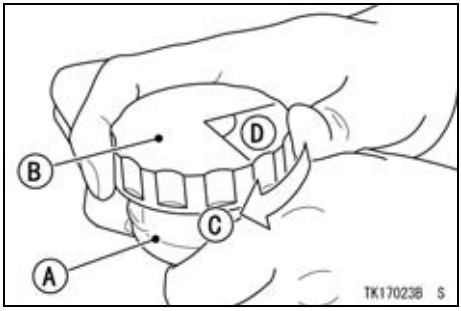
- If the fluid level in either reservoir is lower than the lower level line, check for fluid leaks in the brake lines, and fill the reservoir to the upper level line.

⚠ WARNING

Mixing brands and types of brake fluid can reduce the brake system's effectiveness and cause an accident resulting in injury or death. Do not mix two brands of brake 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.

NOTE

○ *First, tighten until slight resistance is felt indicating that the cap is seated on the reservoir body; tighten the cap an additional 1/6 turn while holding the brake fluid reservoir body.*



A. Reservoir
B. Cap
C. Clockwise
D. 1/6 turn

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 or rear brakes.

⚠ WARNING

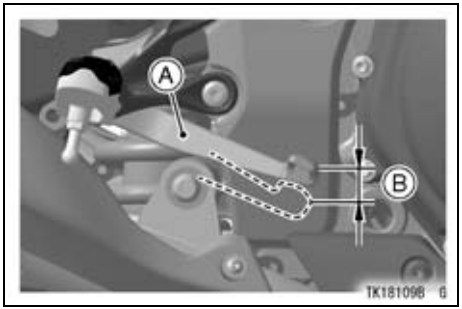
Air in the brake lines diminish braking performance and can cause an accident resulting in injury or death. If the brake lever or pedal feels mushy when it is applied, there might be air in the brake lines or the brake may be defective. Have the brake checked immediately by an authorized Kawasaki dealer.

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.

Inspection

- Turn the ignition key to ON.
- 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 the proper pedal travel.



A. Brake Pedal
B. 10 mm (0.4 in.)

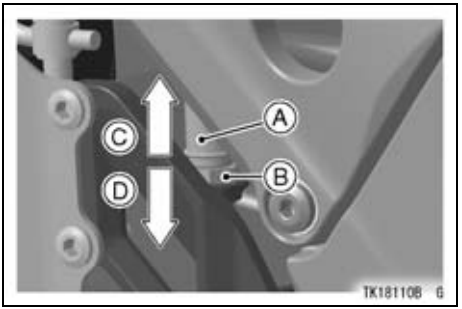
- If the light does not come on, adjust the rear brake light switch.

Brake Pedal Travel

10 mm (0.4 in.)

Adjustment

- To adjust the rear brake light switch, move the switch up or down by turning the adjusting nut.



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

NOTICE

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

Front Fork

The front fork operation and oil leakage should be checked in accordance with the Periodic Maintenance Chart.

For various riding or load conditions the front fork can be adjusted for:

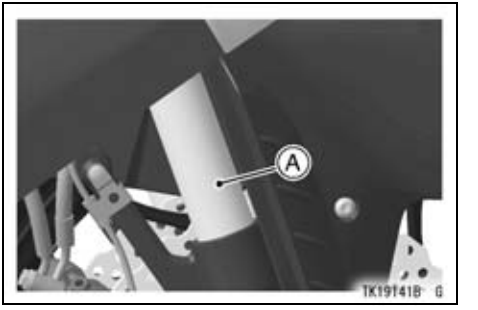
– Spring preload
– Rebound damping force
– Compression damping force

⚠ WARNING

Improper fork leg adjustment can cause poor handling and loss of stability, which could lead to an accident. Always adjust the fork legs on the left and right side to the same setting.

Front Fork Inspection

- Holding the brake lever, pump the front fork up and down several times to inspect smooth stroke.
- Visually inspect the front fork for oil leakage, scoring or scratches on the outer surface of the inner tube.
- If any doubt about the front fork, it should be checked by an authorized Kawasaki dealer.

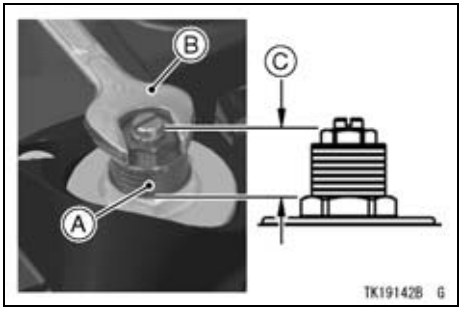


A. Inner Tube

Spring Preload Adjustment

The spring preload adjuster is located at the top end of each front fork leg and can be adjusted.

- To increase spring preload and stiffen the suspension, turn the preload adjuster clockwise with the wrench.
- To decrease preload and soften the suspension, turn the preload adjuster counterclockwise.



A. Spring Preload Adjuster
B. Wrench
C. Adjuster Position

Spring Preload Setting

Adjuster Position	19 mm (0.75 in.)	←	**14 mm (0.55 in.)***	→	4 mm (0.16 in.)*
Spring Action	Weak	←	**Standard**	→	Strong
Setting	Soft	←	**Standard**	→	Hard
Load	Light	←	**Standard**	→	Heavy
Road	Good	←	**Standard**	→	Bad
Speed	Low	←	**Standard**	→	High

*: From the top of the adjuster. This adjustment range may not exactly match the number shown in the table due to small tolerance of production.

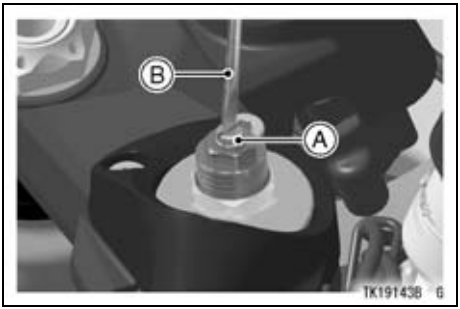
Rebound Damping Force Adjuster Adjustment

The rebound damping force adjuster are located on top of each front fork leg.

- Turn the adjuster clockwise with a screwdriver to increase damping force.
- Turn the adjuster counterclockwise to decrease damping force.

NOTICE

Do not force to turn the rebound and compression damping force adjuster from the fully seated position, or the adjusting mechanism may be damaged.



A. Rebound Damping Force Adjuster
B. Screwdriver

Rebound Damping Force Setting

Adjuster Position	Rebound Damping	0*	←	**8 clicks****	→	15 clicks**
Damping Force		Strong	←	**Standard**	→	Weak
Setting		Hard	←	**Standard**	→	Soft
Load		Heavy	←	**Standard**	→	Light
Road		Bad	←	**Standard**	→	Good
Speed		High	←	**Standard**	→	Low

*: This position is the fully seated position (turned fully clockwise).
**: Out from the fully seated position (turned fully clockwise). This adjustment range may not exactly match the number shown in the table due to small tolerance of production.

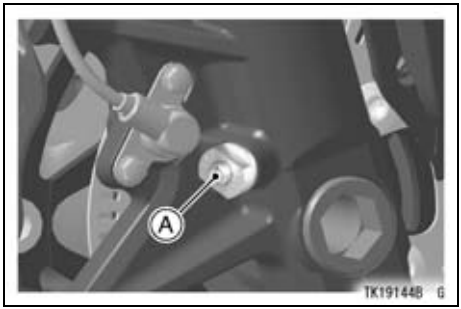
Compression Damping Force Adjuster

The compression damping force adjuster are located at the lower end of each front fork leg.

- Turn the adjuster clockwise with a screwdriver to increase damping force.
- Turn the adjuster counterclockwise to decrease damping force.

NOTICE

Do not force to turn the rebound and compression damping force adjuster from the fully seated position, or the adjusting mechanism may be damaged.



A. Compression Damping Force Adjuster

Compression Damping Force Setting

Adjuster Position	Compression Damping	0*	←	**10 clicks****	→	18 clicks**
Damping Force		Strong	←	**Standard**	→	Weak
Setting		Hard	←	**Standard**	→	Soft
Load		Heavy	←	**Standard**	→	Light
Road		Bad	←	**Standard**	→	Good
Speed		High	←	**Standard**	→	Low

*: This position is the fully seated position (turned fully clockwise).
**: Out from the fully seated position (turned fully clockwise). This adjustment range may not exactly match the number shown in the table due to small tolerance of production.

The standard front fork setting positions are as follows:

Standard Setting Position (Front Fork)

Spring Preload Adjuster	**14 mm (0.55 in.)***
Rebound Damping Adjuster	**8 clicks****
Compression Damping Adjuster	**10 clicks****

*: From the top of the adjuster
**: Out from the fully seated position (turned fully clockwise)

Rear Shock Absorber

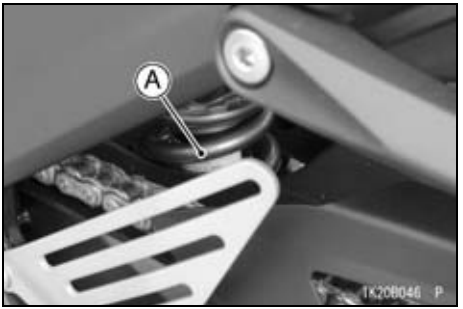
The rear shock absorber should be checked for operation and oil leakage in accordance with the Periodic Maintenance Chart.

For various riding or load conditions the rear shock absorber can be adjusted for:

– Spring preload
– Rebound damping force
– Compression damping force

Rear Shock Absorber Inspection

- Press down on the seat several times to inspect the stroke.
- Visually inspect the rear shock absorber for oil leaks.
- If there is any doubt about the rear shock absorber, it should be inspected by an authorized Kawasaki dealer.



A. Rear Shock Absorber

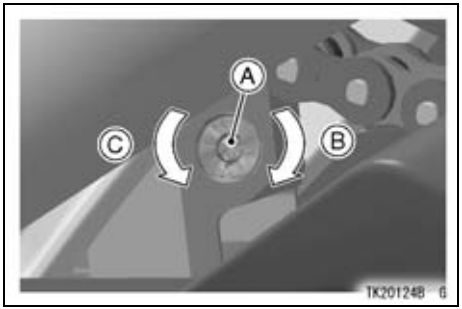
Spring Preload Adjustment

The spring adjusting nut on the rear shock absorber can be adjusted.

If the spring action feels too soft or too stiff, have it adjusted by an authorized Kawasaki dealer.

Rebound Damping Force Adjustment

The rebound damping force adjuster is located at the lower end of the rear shock absorber.



A. Rebound Damping Force Adjuster
B. To increase damping force
C. To decrease damping force

- Using a screwdriver turn the rebound damping force adjuster clockwise to increase rebound damping or counterclockwise to decrease it.

NOTICE

Do not turn the rebound damping force adjuster beyond the fully seated position or the adjusting mechanism may be damaged.

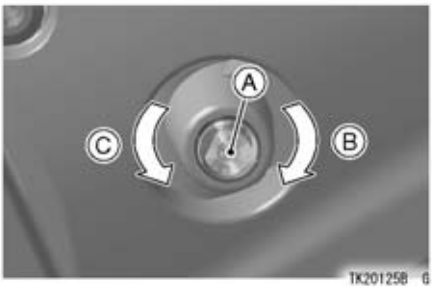
Rebound Damping Force Setting

Adjuster Position	Rebound Damping	0*	←	**2 turns out****	→	2 3/4 turns out**
Damping Force		Strong	←	**Standard**	→	Weak
Setting		Hard	←	**Standard**	→	Soft
Load		Heavy	←	**Standard**	→	Light
Road		Bad	←	**Standard**	→	Good
Speed		High	←	**Standard**	→	Low

*: This position is the fully seated position (turned fully clockwise).
**: Out from the fully seated position (turned fully clockwise). This adjustment range may not exactly match the number shown in the table due to small tolerance of production.

Compression Damping Force Adjustment

The compression damping force adjuster is located at the upper end of the rear shock absorber.



A. Compression Damping Force Adjuster
B. To increase damping force
C. To decrease damping force

- Using a screwdriver turn the compression damping force adjuster clockwise to increase rebound damping or counterclockwise to decrease it.

NOTICE

Do not turn the compression damping force adjuster beyond the fully seated position or the adjusting mechanism may be damaged.

Compression Damping Force Setting

Adjuster Position	0*	←	**2 3/4 turns out****	→	6 turns out**
Damping Force	Strong	←	**Standard**	→	Weak
Setting	Hard	←	**Standard**	→	Soft
Load	Heavy	←	**Standard**	→	Light
Road	Bad	←	**Standard**	→	Good
Speed	High	←	**Standard**	→	Low

*: This position is the fully seated position (turned fully clockwise).
**: Out from the fully seated position (turned fully clockwise). This adjustment range may not exactly match the number shown in the table due to small tolerance of production.

The standard suspension setting positions are as follows:

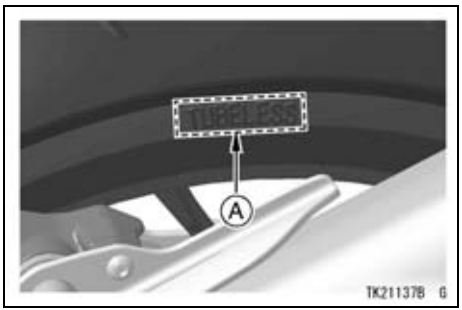
Standard Setting Position (Rear Shock Absorber)

Rebound Damping Adjuster	**2 turns out***
Compression Damping Adjuster	**2 3/4 turns out***

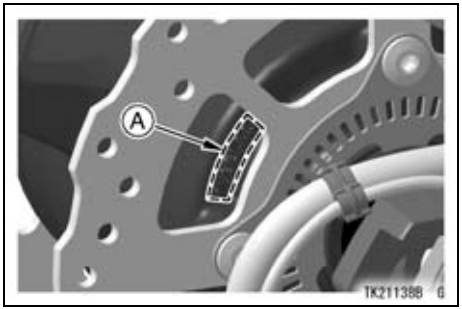
*: Out from the fully seated position (turned fully clockwise)

Wheels

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.



A. TUBELESS Mark



A. TUBELESS Mark

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.

⚠ WARNING

Installing a tube inside a tubeless-type tire can create excessive heat build up that can damage the tube and cause rapid deflation. 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. Do not install tube-type tires on tubeless rims. The beads may not seat properly on the rim causing tire deflation. Do not install a tube inside a tubeless tire. Excessive heat build-up may damage the tube causing tire deflation.

Tires -

Payload and Tire Pressure

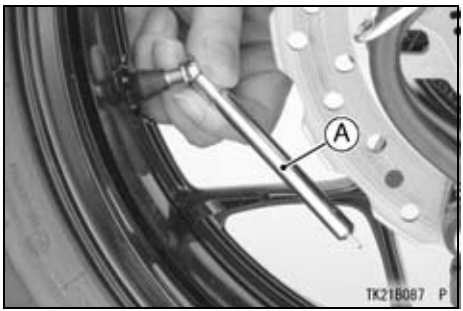
Failure to maintain proper inflation pressures or observe payload limits for your tires may adversely affect handling and performance of your motorcycle and can result in loss of control. The maximum recommended load in addition to vehicle weight is 175 kg (385 lb), including rider, passenger, baggage, and accessories.

- Remove the air valve cap.
- Check the tire pressure often, using an accurate gauge.
- Make sure to install the air valve cap securely.

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).*

○ *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.*



A. Tire Pressure Gauge

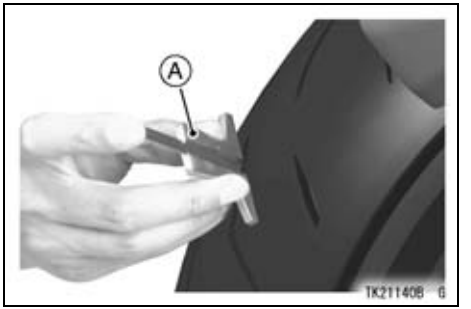
Tire Air Pressure (when cold)

Front	290 kPa (2.90 kgf/cm², 42 psi)
Rear	290 kPa (2.90 kgf/cm², 42 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	Under 130 km/h (80 mph)	2 mm (0.08 in.)
	Over 130 km/h (80 mph)	3 mm (0.12 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.

NOTE

○ *Have the wheel balance inspected whenever a new tire is installed.*

⚠ WARNING

Tires that have been punctured and repaired do not have the same capabilities as undamaged tires and can suddenly fail, causing an accident resulting in serious injury or death. Replace damaged tires as soon as possible. To ensure safe handling and stability, use only the recommended standard tires for replacement, inflated to the standard pressure. If it is necessary to ride on a repaired tire, do not exceed 100 km/h (60 mph) until the tire is replaced.

NOTE

- *Most countries may have their own regulations requiring a minimum tire tread depth; be sure to follow them.*
- *When operating on public roadways, keep maximum speed under traffic law limits.*

Standard Tire (Tubeless)

Front	Make, Type: BRIDGESTONE, BATTLAX HYPERSPORT S20F E Size: 120/70ZR17 M/C (58W)
	Make, Type: METZELER, TL SPORTEC M5 INTERACT E Size: 120/70ZR17 M/C (58W)
Rear	Make, Type: BRIDGESTONE, BATTLAX, HYPERSPORT S20R E Size: 190/50ZR17 M/C (73W)
	Make, Type: METZELER, TL SPORTEC M5 INTERACT E Size: 190/50ZR17 M/C (73W)

⚠ WARNING

Mixing tire brands and types can adversely affect handling and cause an accident resulting in injury or death. Always use the same manufacturer's tires on both front and rear wheels.

⚠ WARNING

New tires are slippery and may cause loss of control and injury. A break-in period of 160 km (100 miles) is necessary to establish normal tire traction. During break-in, avoid sudden and maximum braking and acceleration, and hard cornering.

Battery

The battery installed in this motorcycle is a sealed type, so it is not necessary to check the battery electrolyte level or add distilled water.

The sealing strip should not be pulled off once the specified electrolyte has been installed in the battery for initial service.

However, in order to maximize battery life and ensure that it will provide the power needed to start the motorcycle you must properly maintain the battery's charge. When used regularly, the charging system in the motorcycle helps keep the battery fully charged. If your motorcycle is only used occasionally or for short periods of time, the battery is more likely to discharge.

Due to their internal composition, batteries continually self discharge. The discharge rate depends on the type of battery and ambient temperature. As temperatures rise, so does the discharge rate. Every 15°C (59°F) doubles the rate.

Electrical accessories, such as digital clocks and computer memory, also draw current from the battery even when the key is switched off. Due to a combination of such "key-off" draws and hot temperature, a battery can go from fully charged to completely discharged in a matter of days.

Self-discharge		
Temperature	Approx. Number of Days From 100% Charged to 100% discharged	
	Lead -Antimony	Lead -Calcium
	Battery	Battery
40°C (104°F)	100 Days	300 Days
25°C (77°F)	200 Days	600 Days
0°C (32°F)	550 Days	950 Days

Current Drain		
Discharging Ampere	Days from 100% charged to 50% discharged	Days from 100% charged to 100% discharged
7 mA	60 Days	119 Days
10 mA	42 Days	83 Days
15 mA	28 Days	56 Days
20 mA	21 Days	42 Days
30 mA	14 Days	28 Days

In extremely cold weather the fluid in an inadequately charged battery can easily freeze, which can crack the case and buckle the plates. A fully charged battery can withstand sub-freezing temperatures with no damage.

Battery Sulfation

A common cause of battery failure is sulfation.

Sulfation occurs when the battery is left in a discharged condition for an extended time. Sulfate is a normal by product of the chemical reactions within a battery. But when continuous discharge allows the sulfate to crystallize in the cells, the battery plates become permanently damaged and will not hold a charge. Battery failure due to sulfation is not warrantable.

Battery Maintenance

It is the owner's responsibility to keep the battery fully charged. Failure to do so can lead to battery failure and leave you stranded.

If you are riding your vehicle infrequently, inspect the battery voltage weekly using a voltmeter. If it drops below 12.8 volts, the battery should be charged using an appropriate charger (check with your Kawasaki dealer). If you will not be using the motorcycle for longer than two weeks, the battery should be charged using an appropriate charger. Do not use an automotive-type quick charger that may overcharge the battery and damage it.

NOTE

○ *Leaving the battery connected causes the electrical components (clock etc) to make the battery discharged, resulting the over discharge of the battery. In this case, the repair or replacement of the battery is not included in the warranty. If you do not drive for four weeks or more, disconnect the battery from the vehicle.*

Kawasaki-recommended chargers are:

Battery Mate 150-9
OptiMate 4
Yuasa MB-2040/2060

Christie C10122S

If the above chargers are not available, use equivalent one.

For more details, ask your Kawasaki dealer.

Battery Charging

- Remove the battery from the motorcycle (see Battery Removal).
- Attach the leads from the charger and charge the battery at a rate (amperage × hours) that is indicated on the battery. If it is not possible to read the rate, charge the battery at an amperage that is about 1/10th of the battery capacity.
- The charger will keep the battery fully charged until you are ready to reinstall the battery in the motorcycle (see Battery Installation).

NOTICE

Never remove the sealing strip, or the battery can be damaged. Do not install a conventional battery in this motorcycle, or the electrical system cannot work properly.

NOTE

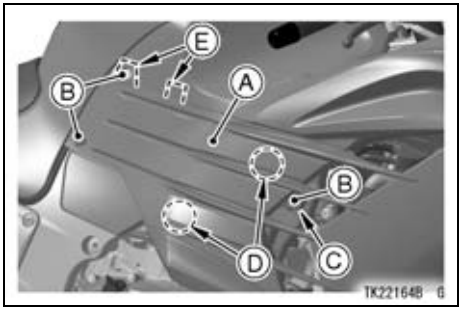
○ *If you charge the sealed battery, never fail to observe the instructions shown in the label on the battery.*

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

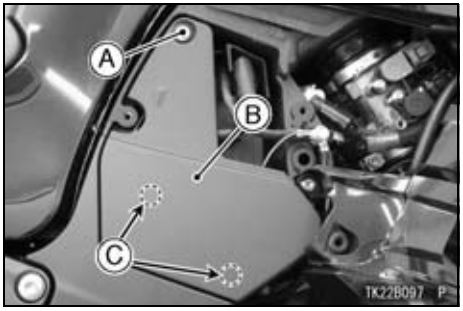
Battery Removal

- Remove the bolts.
- Pulling out the right fairing cover out slowly to clear the projections.
- Clear the right inner rubber cover from the right fairing cover, and remove the right fairing cover backward.



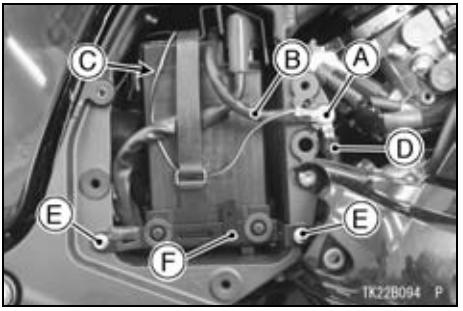
A. Right Fairing Cover
B. Bolts
C. Right Inner Rubber Cover
D. Projections
E. Tabs

- Remove the battery compartment cover by removing the bolt.



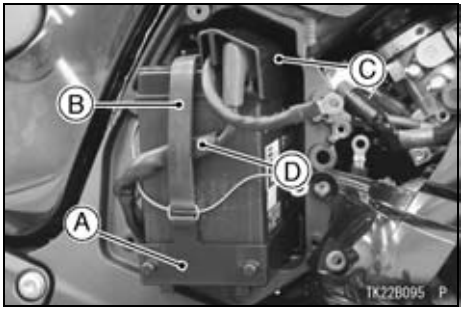
A. Bolt
B. Battery Compartment Cover
C. Projections

- Removet he battery (–) cable, (–) terminal lead and frame ground cable by removing the bolt.
- Remove the battery holder bracket by removing the bolts.



A. Bolt
B. Battery (–) Cable
C. (–) Terminal Lead
D. Frame Ground Cable
E. Bolts
F. Battery Holder Bracket

- Slightly pull out the battery tray.
- Unhook the band first, and then remove the battery cover.
- Disconnect the battery (+) cable.
- Remove the battery tray with battery.

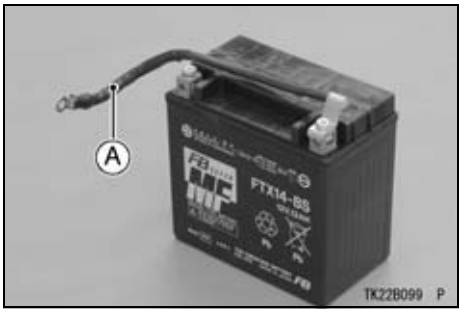


A. Battery Tray
B. Band
C. Battery Cover
D. Battery (+) Cable

NOTICE

Be careful not to drop the battery from the motorcycle when pulling out it.
Do not give the battery tray a strong pull, or the cables may be damaged.

- Disconnect the battery (–) cable.



A. Battery (–) Cable

- Clean the battery using a solution of baking soda and water. Be sure that the cable connections ate clean.

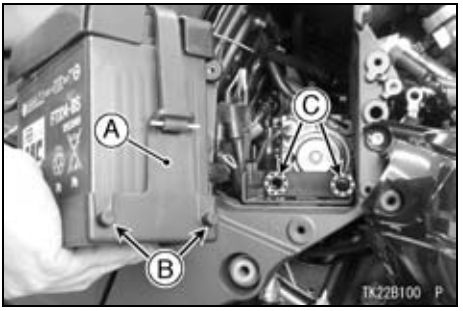
Battery Installation

Battery and the removed parts installation is performed in the reverse order of removal, and make sure that the lead or cable does not pinch with any parts.

NOTICE

Installing the (–) cable to the (+) terminal of the battery or the (+) cable to the (–) terminal of the battery can seriously damage the electrical system.

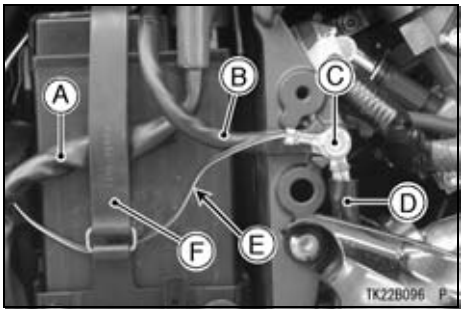
- Install the battery (–) cable to the battery.
- Install the battery (+) cable to the battery, and then install the battery cover on the battery, and hook the band.
- Insert the projections on the battery tray into the holes of the battery compartment.



A. Battery Tray
B. Projections
C. Holes

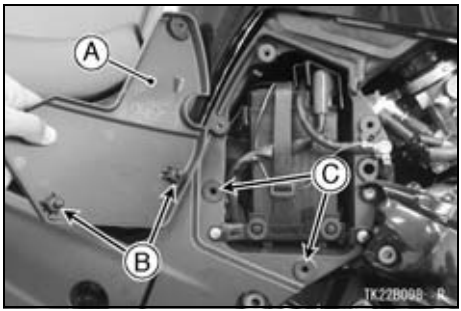
- Install the battery holder bracket.
- Install the bolts.
- Install the cables and lead so that they are positioned over the frame, in order of the frame ground cable, battery (–) cable and (–) terminal lead from the bottom.
- Install the bolt.

- Run the battery (+) cable and (–) terminal lead under the band.



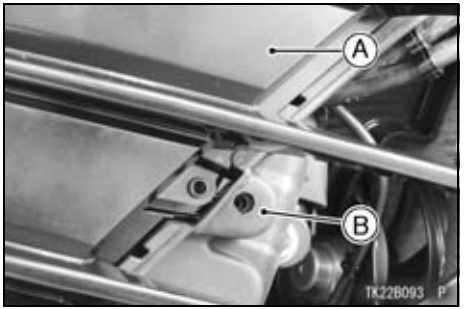
A. Battery (+) Cable
B. Battery (–) Cable
C. Bolt
D. Frame Ground Cable
E. (–) Terminal Lead
F. Band

- Insert the projections on the battery compartment cover into the holes of the frame.
- Install the bolt.



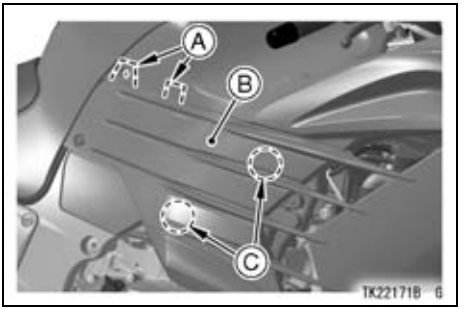
A. Battery Compartment Cover
B. Projections
C. Holes

- Insert the right fairing cover halfway, and fit the right inner rubber cover to the right fairing cover.



A. Right Fairing Cover
B. Right Inner Rubber Cover

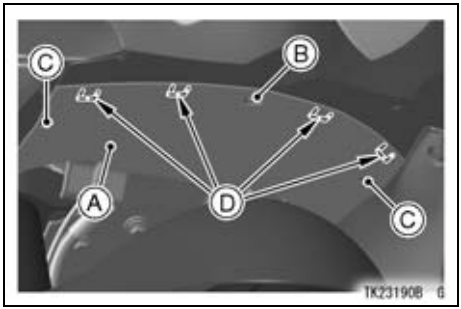
- Insert the front part of the right fairing cover securely.
- Insert the tabs on the right fairing cover under the fuel tank cover first, and then fit the projections to the holes.
- Install the bolts and washers.



A. Tabs
B. Right Fairing Cover
C. Projections

Headlight Beam

- When adjusting headlight beam horizontally or vertically, remove the front right and left inner covers (refer to the Air Cleaner section in this chapter).
- Remove the bolt, washer and quick rivets.
- Remove the upper inner fairing backward.

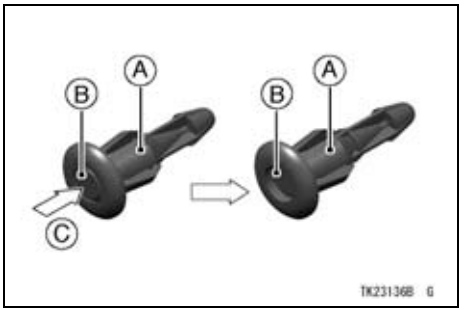


A. Upper Inner Fairing
B. Bolt and Washer
C. Quick Rivets
D. Tabs

NOTE

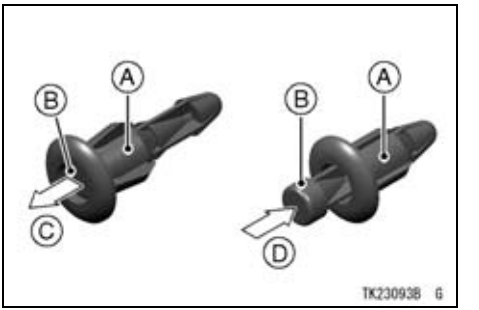
○ *The upper inner fairing uses the quick rivets. The quick rivets can be removed by pushing the central pin into the quick rivets, and when installing them, pull the central pin fully up first, and then push into the central pin after inserting them.*

Quick Rivet Removal



A. Quick Rivet
B. Central Pin
C. Push in.

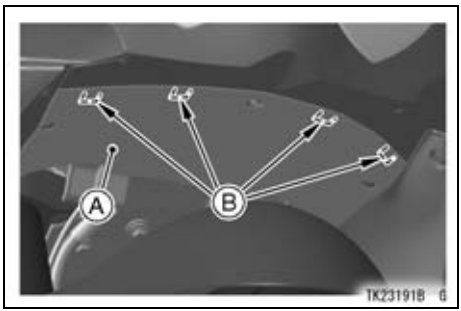
Quick Rivet Installation



A. Quick Rivet
B. Central Pin
C. Pull up fully.
D. Push in.

- After adjusting the headlight beam, install the upper inner fairing.
- Upper inner fairing and the removed parts installation is performed in the reverse order of removal.
- Insert the slots of the upper inner fairing into the tabs of the upper fairing.

● Install the bolt, washer and quick rivet.

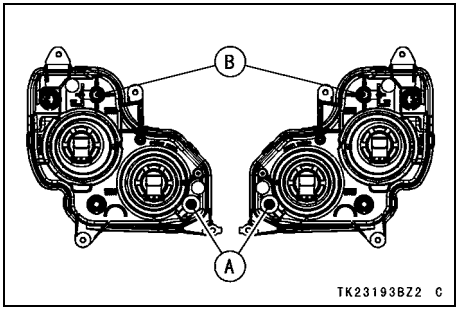


A. Upper Inner Fairing
B. Tabs

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 horizontal adjuster in or out until the beam points straight ahead.



A. Horizontal Adjuster
B. Vertical Adjuster

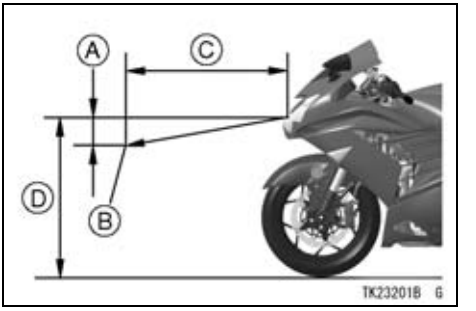
Vertical Adjustment

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 vertical adjuster in or out to adjust the headlight vertically.

NOTE

○ *On high beam, the brightest points should be slightly below horizontal. The proper angle is 0.4 degrees below horizontal. This is a 50 mm (2.0 in.) drop at 7.6 m (25 ft) measured from the center of the headlight, with the motorcycle on its wheels and the rider seated.*

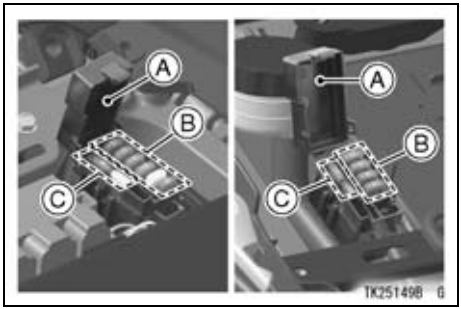


A. 50 mm (2.0 in.)
B. Center of Brightest Spot
C. 7.6 m (25 ft)
D. Height of Headlight Center

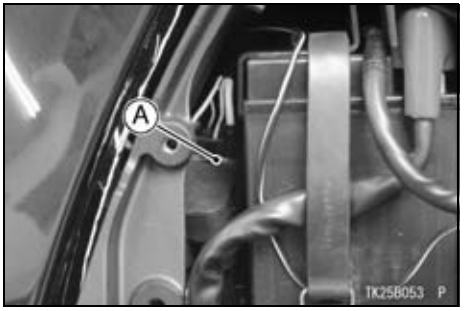
Fuses

Fuses are arranged in the fuse boxes located under the seat. The main fuse is located at the battery compartment. 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.

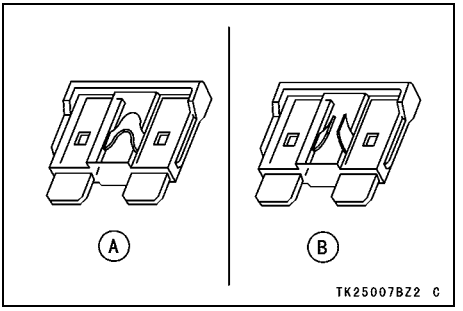
The main fuse removal should be done by an authorized Kawasaki dealer.



A. Fuse Box
B. Fuses
C. Spare Fuses



A. Main Fuse



A. Normal
B. Failed

⚠ WARNING

Substituting fuses can cause wiring to overheat, catch fire and/or fail. Do not use any substitute for the standard fuse. Replace the blown fuse with a new one of the correct capacity, as specified on the fuse boxes and main fuse.

General Lubrication

Lubricate the points shown below, with either motor oil or regular grease, in accordance with the Periodic Maintenance Chart or whenever the vehicle has been operated under wet or rainy conditions.

Before lubricating each part, clean off any rusty spots with rust remover and wipe off any grease, oil, dirt, or grime.

NOTE

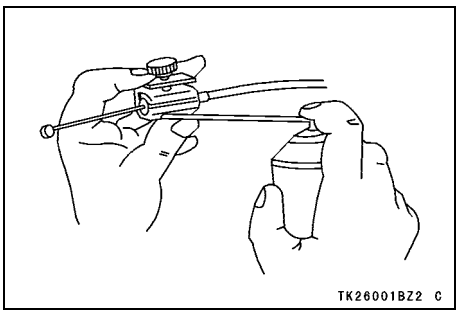
○ *A few drops of oil are effective to keep bolts and nuts from rusting and sticking. This makes removal easier. Badly rusted nuts, bolts, etc., should be replaced with new ones.*

Apply motor oil to the following pivots -

- Side Stand
- Clutch Lever
- Front Brake Lever
- Rear Brake Pedal

Lubricate the following cables with a pressure cable luber -

- **(K)** Throttle Inner Cables



Apply grease to the following points -

- **(K)** Throttle Inner Cable Upper Ends

(K): Should be serviced by an authorized Kawasaki dealer.

NOTE

○ *After connecting the cables, adjust them.*

Cleaning Your Motorcycle

General Precautions

Frequent and proper care of your Kawasaki motorcycle will enhance its appearance, optimize overall performance, and extend its useful life. Covering your motorcycle with a high quality, breathable motorcycle cover will help protect its finish from harmful UV rays, pollutants, and reduce the amount of dust reaching its surfaces.

⚠ WARNING

Build-up of debris or flammable material in and around the vehicle chassis, engine, and exhaust can cause mechanical problems and increase the risk of fire.
When operating the vehicle in conditions that allow debris or flammable material to collect in and around the vehicle, inspect the engine, electrical component and exhaust areas frequently. If debris or flammable materials have collected, park the vehicle outside and stop the engine. Allow the engine to cool, then remove any collected debris. Do not park or store the vehicle in an enclosed space prior to inspecting for build-up of debris or flammable materials.

- Be sure the engine and exhaust are cool before washing.
- Avoid applying degreaser to seals, brake pads, and tires.
- Avoid all harsh chemicals, solvents, detergents, and household cleaning products such as ammonia-based window cleaners.
- Gasoline, brake fluid, and coolant will damage the finish of painted and plastic surfaces: wash them off immediately.
- Avoid wire brushes, steel wool, and all other abrasive pads or brushes.
- Use care when washing the windshield, headlight lens, and other plastic parts as they can easily be scratched.
- Avoid using pressure washers; water can penetrate seals and electrical components and damage your motorcycle.

- Avoid spraying water in delicate areas such as in air intakes, fuel system, brake components, electrical components, muffler outlets, and fuel tank openings.

Washing Your Motorcycle

- Rinse your bike with cold water from a garden hose to remove any loose dirt.
- Mix a mild neutral detergent (designed for motorcycles or automobiles) and water in a bucket. Use a soft cloth or sponge to wash your motorcycle. If needed, use a mild degreaser to remove any oil or grease build up.
- After washing, rinse your motorcycle thoroughly with clean water to remove any residue (residue from the detergent can damage parts of your motorcycle).
- Use a soft cloth to dry your motorcycle. As you dry, inspect your motorcycle for chips and scratches. Do not let the water air dry as this can damage the painted surfaces.
- Start the engine and let it idle for several minutes. The heat from the engine will help dry moist areas.
- Carefully ride your motorcycle at a slow speed and apply the brakes several times. This helps dry the brakes and restores them to normal operating performance.
- Lubricate the drive chain to prevent rusting.

NOTE

- *After riding in an area where the roads are salted or near the ocean, immediately wash your motorcycle with cold water. Do not use warm water as it accelerates the chemical reaction of the salt. After drying,*

apply a corrosion protection spray on all metal and chrome surfaces to prevent corrosion.

○ *Condensation may form on the inside of the headlight lens after riding in the rain, washing the motorcycle or humid weather. To remove the moisture, start the engine and turn on the headlight. Gradually the condensation on the inside of the lens will clear off.*

Semi-gloss Finish

To clean the semi-gloss finish;

- When washing the motorcycle, always use a mild neutral detergent and water.
- The semi-gloss finish effect may be lost when the finish is excessively rubbed.
- If any doubt, consult an authorized Kawasaki dealer.

Windshield and Other Plastic Parts

After washing use a soft cloth to gently dry plastic parts. When dry, treat the windshield, headlight lens, and other nonpainted plastic parts with an approved plastic cleaner/polisher product.

NOTICE

Plastic parts may deteriorate and break if they come in contact with chemical substances or household cleaning products such as gasoline, brake fluid, window cleaners, thread-locking agents, or other harsh chemicals. If a plastic part comes in contact with any harsh chemical substance, wash it off immediately with water and a mild neutral detergent, and then inspect for damage. Avoid using abrasive pads or brushes to clean plastic parts, as they will damage the part's finish.

Chrome and Aluminum

Chrome and uncoated aluminum parts can be treated with a chrome/aluminum polish. Coated aluminum should be washed with a mild neutral detergent and finished with a spray polish. Aluminum wheels, both painted and unpainted can be cleaned with special non-acid based wheel spray cleaners.

Leather, Vinyl, and Rubber

If your motorcycle has leather accessories, special care must be taken. Use a leather cleaner/treatment to clean and care for leather accessories. Washing leather parts with detergent and water will damage them, shortening their life.

Vinyl parts should be washed with the rest of the motorcycle, then treated with a vinyl treatment.

The sidewalls of tires and other rubber components should be treated with a rubber protectant to help prolong their useful life.

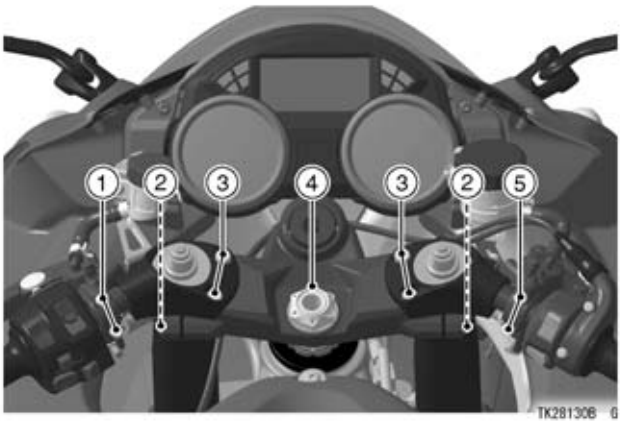
⚠ WARNING

Rubber protectants can be slippery and, if used on the tread area, cause loss of traction resulting in accident causing injury or death. Do not apply rubber protectant to any tread area.

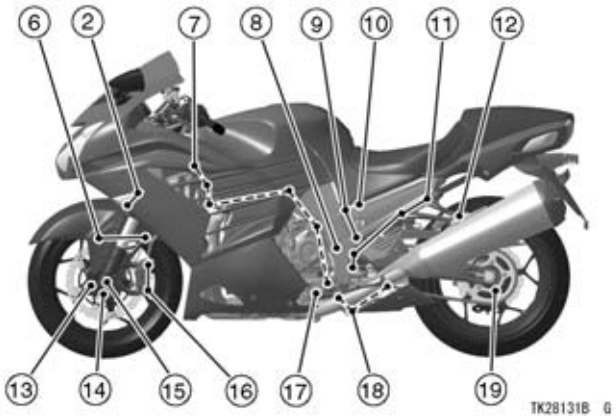
Bolt and Nut Tightening

In accordance with the Periodic Maintenance Chart, 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 ask your authorized Kawasaki dealer for torque values.

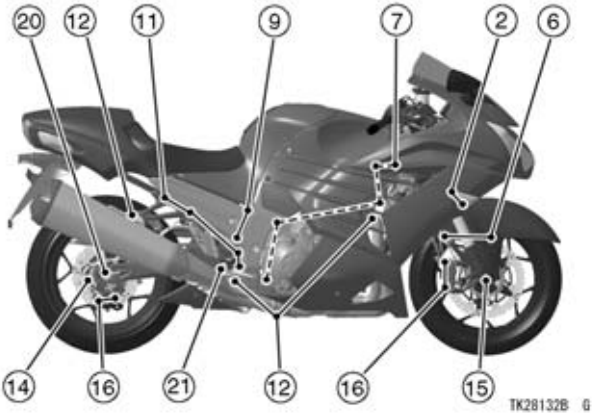
1. **Clutch Lever Holder Bolts**
2. **Front Fork Clamp Bolts**
3. **Handlebar Mounting Bolts**
4. **Steering Stem Head Nut**
5. **Brake Lever Holder Clamp Bolts**



6. Front Fender Mounting Bolts
7. Engine Mounting Bolts and Nuts
8. Swingarm Pivot Shaft Nut
9. Rear Frame Mounting Bolts
10. Rear Shock Absorber Mounting Bolt
11. Footpeg Mounting Bolts
12. Muffler Mounting Bolts
13. Brake Disc Mounting Bolts
14. Front Axle Clamp Bolt
15. Front Axle Nut
16. Caliper Mounting Bolts
17. Side Stand Bolt
18. Suspension Linkage Tie-Rod Nuts
19. Rear Sprocket Nuts



20. Rear Axle Nut
21. Brake Pedal Bolt



STORAGE

Preparation for Storage -

- Clean the entire vehicle thoroughly.
- Run the engine for about five minutes to warm the oil, shut it off, and drain the engine oil.

⚠ WARNING

Engine oil is a toxic substance. Dispose of used oil properly. Contact your local authorities for approved disposal methods or possible recycling.

- Put in fresh engine oil.
- Empty the fuel from the fuel tank by the pump or siphon.

⚠ WARNING

Gasoline is extremely flammable and can be explosive under certain conditions, creating the potential for serious burns. Turn the ignition key to "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. Gasoline is a toxic substance. Dispose of gasoline properly. Contact your local authorities for approved disposal methods.

- Empty the fuel system by running the engine at idle speed until the engine stalls (If left in for a long time, the fuel will break down and could clog the fuel system).

⚠ WARNING

An air/oil mist may be forcibly ejected from the spark plug holes and could get into your eyes. Do not lean over the engine when performing this procedure. If you do get oil in your eyes, wash them immediately with liberal amounts of clean, fresh water and consult a physician as soon as possible.

- 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 especially during cold weather.
- Tie plastic bags over the mufflers to prevent moisture from entering.
- Put a cover over the motorcycle to keep dust and dirt from collecting on it.

Preparation after Storage -

- Remove the plastic bags from the mufflers.
- Install the battery in the motorcycle and charge the battery if necessary.
- Fill the fuel tank with fuel.
- Check all the points listed in the Daily Checks section.
- Lubricate the pivots, bolts, and nuts.

TROUBLESHOOTING GUIDE

Engine Does Not Start -

Starter Motor Won't Turn

- Engine stop switch off
- Transmission not in neutral
- Fuse blown
- Battery leads do not make good electrical contact with battery terminals
- Battery discharged

Engine Cranks, But Won't Start

- No fuel in tank
- Fuel line clogged
- Fuel broken down
- Engine flooded
- Spark plugs not in good contact
- Spark plugs fouled or wet
- Incorrect spark plug gap
- Incorrect valve clearance
- No first turning the ignition switch to "OFF" when the motorcycle falls down.

Engine Stalls -

Just When Shifting Into 1st Gear

- Side stand has been left down
- Clutch does not properly disengage

While Riding

- No fuel in tank
- Fuel tank air vent is obstructed
- Overheating
- Battery discharged

YOUR WARRANTY/OWNER SATISFACTION

Welcome to the Kawasaki family!

Congratulations on buying your Kawasaki vehicle. You've chosen a great, high-quality product with state-of-the-art features and built to Kawasaki's high standards. Your satisfaction is important to your authorized Kawasaki dealer and to Kawasaki Motors Corp., U.S.A. Here is some important information regarding your vehicle's limited warranty.

Frequently Asked Questions

What is a Limited Warranty?

The most important thing to know about your warranty is that it protects you from manufacturing defects in material or workmanship during the warranty period. You can find the warranty period in the Kawasaki Limited Warranty Certificate your Kawasaki dealer provided to you at the time of sale. The warranty does not cover the cost of regularly-scheduled maintenance. The warranty also does not apply to the normal wear of items such as tires, brake pads, transmission drive belts, chains, sprockets, etc.

What is the Good Times Protection Plan?

Much of the warranty coverage offered by the limited warranty can be extended by purchasing Kawasaki's Good Time™ Protection Plan (GTPP). See your Kawasaki dealer or go to Kawasaki.com for more information if you don't already have the GTPP.

What Am I Responsible For?

You are responsible for maintaining your vehicle according to the maintenance schedule shown in this owner's manual.

You are responsible for notifying your dealer immediately if there is a problem, and you, as the owner, will need to authorize the dealer to inspect the unit.

You will be responsible for paying for routine maintenance, including the first scheduled service. You can have the required servicing done by your Kawasaki dealer (recommended) or an equally-qualified service facility. You can also do your own maintenance work if you have the proper tools, service references, and mechanical skills. However, if a failure is found to be caused by improper servicing, it would not be covered by the limited warranty.

You may purchase a Kawasaki Service Manual and any necessary special tools directly from your Kawasaki dealer.

You will be responsible for paying for repairs needed because of an accident, to replace worn parts such as tires, chains, brakes, and for repairs needed because of a lack of maintenance, misuse or racing.

Whether you do it yourself or take your vehicle to a Kawasaki dealer, be sure to record your service in the Maintenance Record section of this Owner's Manual. Keep all receipts for the service and/or items necessary to perform the maintenance so that in the event of a failure you can document the service history.

What Are The Dealership's Responsibilities?

Your Kawasaki dealer offers a wide range of services, parts, accessories, and information on your product and on Kawasaki.

Each dealer is independently owned and operated and is responsible for the dealership's operations, its repair, warranty, and service work, and its personnel.

Your dealer is responsible for completing the set up and pre-delivery service of your new Kawasaki vehicle. The dealership should also explain its operation, maintenance, and warranty provisions so you understand them at the time of purchase or at any other time you have questions.

The dealership is responsible for inspecting your Kawasaki vehicle if there is a failure, investigating the cause of the problem, and getting any needed authorization from Kawasaki if the repair is one that will be covered by the limited warranty. The dealership will also file all necessary paperwork. The dealership is responsible for correctly completing any necessary repairs, whether they are covered by the limited warranty or not.

How Do I Get Warranty Service?

If there is a problem with your vehicle within the limited warranty period, you will need to schedule a service appointment and provide any maintenance records to an authorized Kawasaki dealer for inspection and diagnosis. You can go to any Kawasaki dealer for warranty repairs. Your Kawasaki dealer will inspect your vehicle and give you the results of the inspection. The dealer will perform the repairs at no cost to you if it is determined that the problem is covered by the warranty.

Kawasaki will work with your dealer to resolve any warranty issues. No authorization for warranty work can be given until your vehicle has been inspected by a Kawasaki dealer.

What if I am not Satisfied With My Warranty Service?

If you aren't satisfied with your dealership's repair work or operations, it is best to discuss the situation with the appropriate dealership manager. If you have already done this, then contact the dealership's owner or general manager to request a review of the issue.

If you are unable to resolve a problem after consulting with the dealership management and need further assistance, contact Kawasaki Motors Corp., U.S.A. at the address below. Please be certain to provide the model, vehicle identification number (VIN), mileage or hours of use, accessories, dates that events occurred and what action has been taken by both you and your dealer. Include the name and address of the dealership. To assist us in resolving your inquiry, please include copies of related receipts and any other pertinent information including the name of the dealership personnel with whom you have been working. Upon receipt of your correspondence, Kawasaki Motors Corp., U.S.A. will contact the dealership and work with it in resolving your problem.

Want to Contact Kawasaki?

This owner's manual should answer most of your questions about your Kawasaki. Your Kawasaki dealer should either be able to answer any other questions you might have immediately or be able to find the answer for you.

Please send your correspondence to:

Consumer Services
Kawasaki Motors Corp., U.S.A.
P.O. Box 25252
Santa Ana, CA 92799-5252
(949) 460-5688

REPORTING SAFETY DEFECTS

(For Products Sold in the United States of America, District of Columbia, and U.S. Territories Only)

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

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Kawasaki Motors Corporation, U.S.A.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800 -424-9393 (or 366-0123 in Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

ENVIRONMENTAL PROTECTION

To help preserve the environment, properly discard used batteries, tires, oils and fluids, or other vehicle components that you might dispose of in the future. Consult your authorized Kawasaki dealer or local environmental waste agency for their proper disposal procedure. This also applies to disposal of the entire vehicle at the end of its life.

MAINTENANCE RECORD

Owner Name.....

Address .....

Phone Number .....

Engine Number .....

Vehicle Number.....

Key Code .....

Selling Dealer Name .....

Phone Number .....

Warranty Start Date .....

Note: Keep this information and a spare key in a secure location.

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

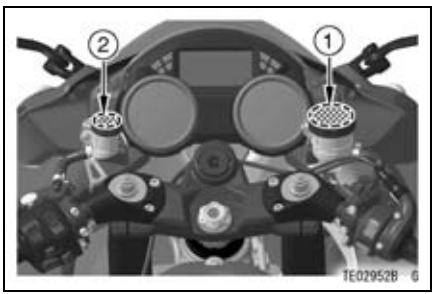
LOCATION OF LABELS

All warning labels which are on your vehicle are repeated here. Read labels on your vehicle and understand them thoroughly. They contain information which is important for your safety and the safety of anyone else who may operate your vehicle. Therefore, it is very important that all warning labels be on your vehicle in the locations shown. If any label is missing, damaged, or worn, get a replacement from your Kawasaki dealer and install it in the correct position.

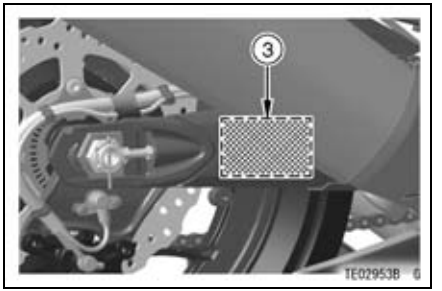
NOTE

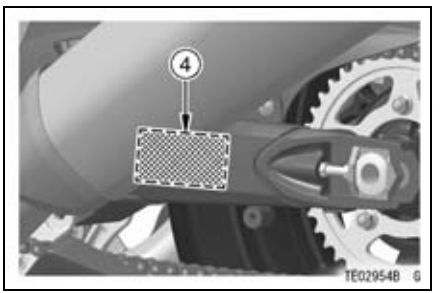
○ *The sample warning labels in this section have part numbers to help you and your dealer obtain the correct replacement.*

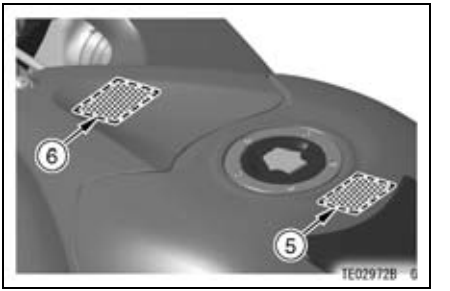
○ *Refer to the actual vehicle label for model specific data grayed out in the illustration.*



1. Brake Fluid (Front)
2. Clutch Fluid

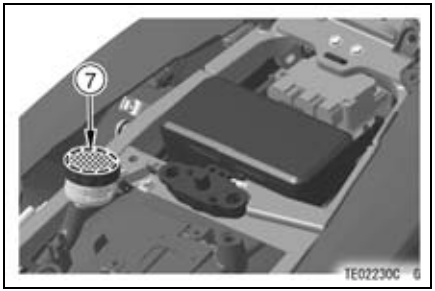


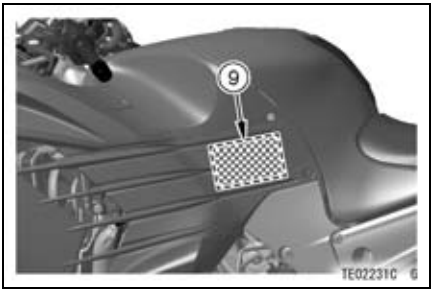


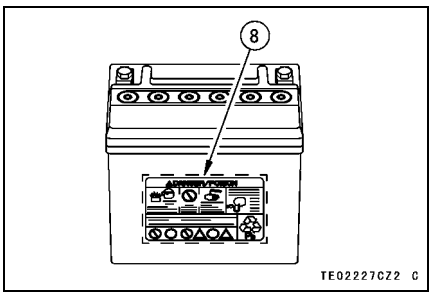


3. Tire and Load Data
4. Important Drive Chain Information
5. Fuel Notice
*6. Fuel Level

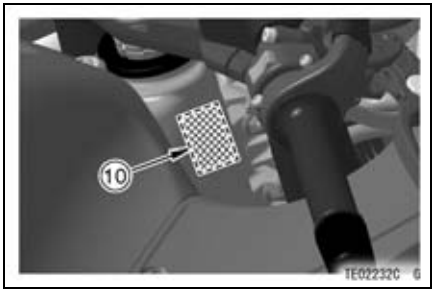
*: only on California model

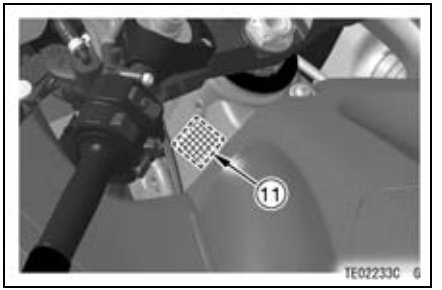


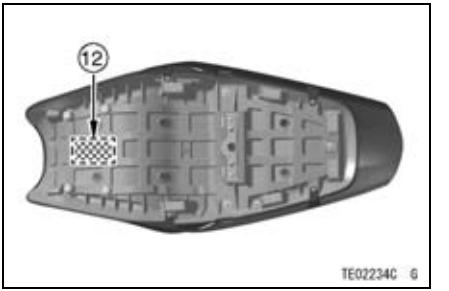




7. Brake Fluid (Rear)
8. Battery Poison/Danger
9. Vehicle Emission Control Information (Under Front Left Side Cover)

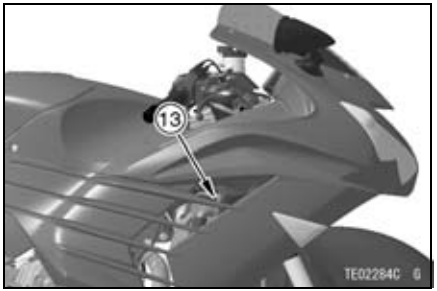






10. Noise Emission Control Information
11. Weight and Manufacture
*12. Vacuum Hose Routing Diagram

*: only on California model



13. Radiator Cap Danger

1/7)

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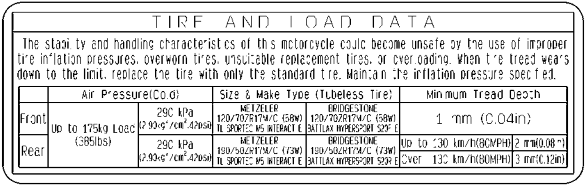
2)

TE03528D S

3)



TIRE AND LOAD DATA

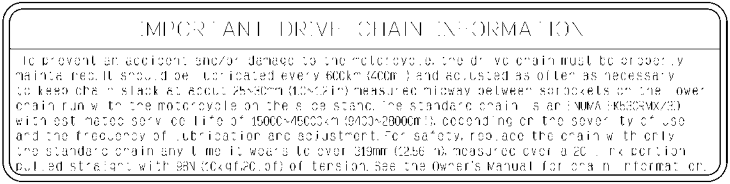
The stability and handling characteristics of this motorcycle could become unsafe by the use of improper tire inflation pressures, overworn tires, unsuitable replacement tires, or overloading. When the tread wears down to the limit, replace the tire with only the standard tire. Maintain the inflation pressure specified.

	Air Pressure(Cold)		Size & Make Type (Tubeless Tire)		Minimum Tread Depth	
Front	Up to 175kg Load (385lbs)	290 kPa (2.90kgf/cm², 42psi)	METZELER 120/70ZR17M/C (58W) TL SPORTEC M5 INTERACT E	BRIDGESTONE 120/70ZR17M/C (58W) BATTLAX HYPERSPORT S20F E	1 mm (0.04in)	
Rear		290 kPa (2.90kgf/cm², 42psi)	METZELER 190/50ZR17M/C (73W) TL SPORTEC M5 INTERACT E	BRIDGESTONE 190/50ZR17M/C (73W) BATTLAX HYPERSPORT S20R E	Up to 130 km/h(80MPH)	2 mm(0.08in)
					Over 130 km/h(80MPH)	3 mm(0.12in)

56053-0660

TE03512D S

4)

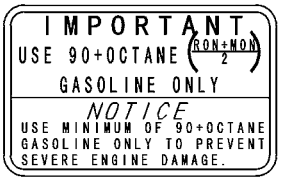


IMPORTANT DRIVE CHAIN INFORMATION

To prevent an accident and/or damage to the motorcycle, the drive chain must be properly maintained. It should be lubricated every 600km (400mi) and adjusted as often as necessary to keep chain slack at about 25~30mm (1.0~1.2in) measured midway between sprockets on the lower chain run with the motorcycle on the side stand. The standard chain is an ENUMA EK520RMX/3D with estimated service life of 15000~45000km (9400~28000mi), depending on the severity of use and the frequency of lubrication and adjustment. For safety, replace the chain with only the standard chain any time it wears to over 319mm (12.56in), measured over a 20-link portion pulled straight with 98N (10kgf, 20lbf) of tension. See the Owner's Manual for chain information.

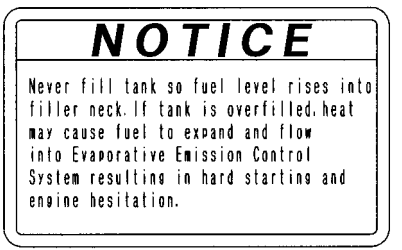
56033-0735 TE03200D S

5)



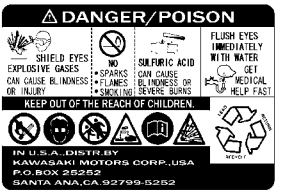
TE03172CN9 C

6) only on California model



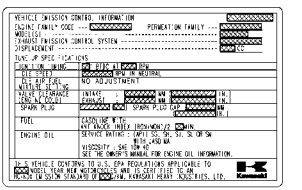
TE03792D S

8)



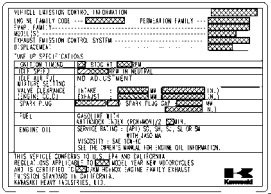
TE03317D S

9)



TE03300D S

9) only on California model



TE03301D S

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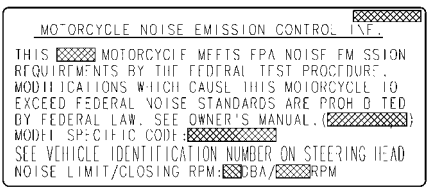

TE03304D S

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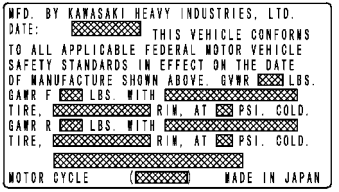
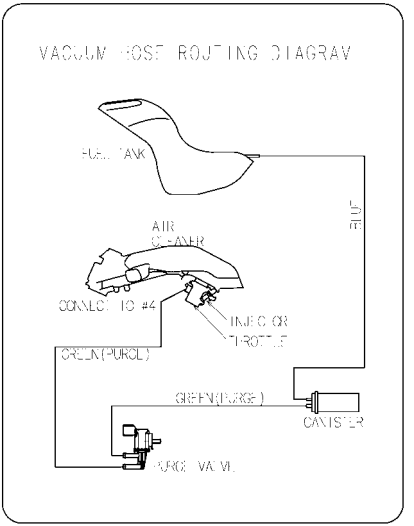


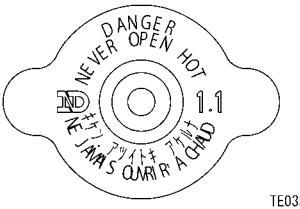
TE03303D S

12) only on California model



59465-0855
TE03203D S

13)



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ZX1400EE
ZX1400FE

Kawasaki

KAWASAKI HEAVY INDUSTRIES, LTD.
Motorcycle & Engine Company
Part No. 99987-1800

Printed in Japan

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