Honda
CB1000R/RA

OWNER'S MANUAL

MANUAL DEL PROPIETARIO

MANUAL DO PROPRIETÁRIO

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IMPORTANT INFORMATION

- **OPERATOR AND PASSENGER**
  This motorcycle is designed to carry the operator and one passenger, never exceed the maximum weight capacity as shown on the accessories and loading label.

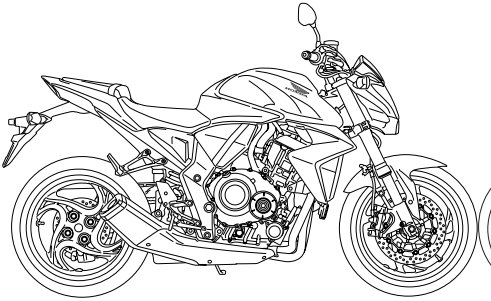
- **ON-ROAD USE**
  This motorcycle is designed to be used only on the road.

- **READ THIS OWNER'S MANUAL CAREFULLY**
  Pay special attention to the safety messages that appear throughout the manual. These messages are fully explained in the “A Few Words About Safety” section which appears before the Contents page.

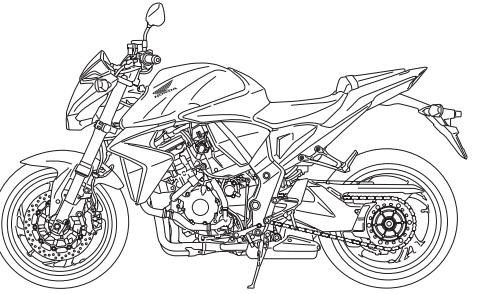
  This manual should be considered a permanent part of the motorcycle and should remain with the motorcycle when resold.

Honda CB1000R/RA
OWNER'S MANUAL

CB1000R



CB1000RA



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WELCOME

The motorcycle presents you a challenge to master the machine, a challenge to adventure. You ride through the wind, linked to the road by a vehicle that responds to your commands as no other does. Unlike an automobile, there is no metal cage around you. Like an airplane, a pre-ride inspection and regular maintenance are essential to your safety. Your reward is freedom.

To meet the challenges safely, and to enjoy the adventure fully, you should become thoroughly familiar with this owner's manual BEFORE YOU RIDE THE MOTORCYCLE.

As you read this manual, you will find information that is preceded by a NOTICE symbol. This information is intended to help you avoid damage to your motorcycle, other property, or the environment.

When service is required, remember that your Honda dealer knows your motorcycle best. If you have the required mechanical “know-how” and tools, your dealer can supply you with an official Honda Service Manual to help you perform many maintenance and repair tasks.

Pleasant riding, and thank you for choosing a Honda!

- The illustrations here in are based on the CB1000R/RA.
- Following codes in this manual indicate each country.

	CB1000R/RA
E	UK
F	France
ED	European direct sales
U	Australia, New Zealand

- The specifications may vary with each locale.

A FEW WORDS ABOUT SAFETY

Your safety, and the safety of others, is very important, and operating this motorcycle safely is an important responsibility.

To help you make informed decisions about safety, we have provided operating procedures and other information on labels and in this manual. This information alerts you to potential hazards that could hurt you or others.

Of course, it is not practical or possible to warn you about all hazards associated with operating or maintaining a motorcycle. You must use your own good judgment.

You will find important safety information in a variety of forms, including:

- **Safety Labels** - on the motorcycle.
- **Safety Messages** - preceded by a safety alert symbol ⚠ and one of three signal words: **DANGER**, **WARNING** or **CAUTION**.

These signal words mean:

⚠ DANGER **You WILL be KILLED or SERIOUSLY HURT if you don't follow instructions.**

⚠ WARNING **You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.**

⚠ CAUTION **You CAN be HURT if you don't follow instructions.**

- **Safety Headings** - such as Important Safety Reminders or Important Safety Precautions.
- **Safety Section** - such as Motorcycle Safety.
- **Instructions** - how to use this motorcycle correctly and safely.

This entire manual is filled with important safety information - please read it carefully.

OPERATION

MAINTENANCE

MOTORCYCLE SAFETY

IMPORTANT SAFETY INFORMATION

Your motorcycle can provide many years of service and pleasure - if you take responsibility for your own safety and understand the challenges that you can meet on the road.

There is much that you can do to protect yourself when you ride. You'll find many helpful recommendations throughout this manual. Following are a few that we consider most important.

Always Wear a Helmet

It's a proven fact: Helmets significantly reduce the number and severity of head injuries. So always wear an approved motorcycle helmet and make sure your passenger does the same. We also recommend that you wear eye protection, sturdy boots, gloves and other protective gear (page 2).

Make Yourself Easy to See

Some drivers do not see motorcycles because they are not looking for them. To make yourself more visible, wear bright reflective clothing, position yourself so other drivers can see you, signal before turning or changing lanes, and use your horn when it will help others notice you.

Ride Within Your Limits

Pushing the limits is another major cause of motorcycle accidents. Never ride beyond your personal abilities or faster than conditions warrant. Remember that alcohol, drugs, fatigue and inattention can significantly reduce your ability to make good judgements and ride safety.

Keep Your Bike in Safe Condition
For safe riding, it's important to inspect your motorcycle before every ride and perform all recommended maintenance. Never exceed load limits, and only use accessories that have been approved by Honda for this motorcycle. See page 4 for more details.

Don't drink and ride
Alcohol and riding don't mix. Even one drink can reduce your ability to respond to changing conditions, and your reaction time gets worse with every additional drink. So don't drink and ride, and don't let your friends drink and ride either.

PROTECTIVE APPAREL
For your safety, we strongly recommend that you always wear an approved motorcycle helmet, eye protection, boots, gloves, long trousers and a long-sleeved shirt or jacket whenever you ride. Although complete protection is not possible, wearing proper gear can reduce the chance of injury when you ride.
Following are suggestions to help you choose proper gear.

⚠ WARNING

Not wearing a helmet increases the chance of serious injury or death in a crash.

Be sure you and your passenger always wear a helmet, eye protection and other protective apparel when you ride.

Helmets and Eye Protection

Your helmet is your most important piece of riding gear because it offers the best protection against head injuries. A helmet should fit your head comfortably and securely. A bright-coloured helmet can make you more noticeable in traffic, as can reflective strips.

An open-face helmet offers some protection but a full-face helmet offers more. Always wear a face shield or goggles to protect your eyes and help your vision.

Additional Riding Gear

In addition to a helmet and eye protection, we also recommend:

- Sturdy boots with non-slip soles to help protect your feet and ankles.
- Leather gloves to keep your hands warm and help prevent blisters, cuts, burns and bruises.
- A motorcycle riding suit or jacket for comfort as well as protection.
  Bright-coloured and reflective clothing can help make you more noticeable in traffic. Be sure to avoid loose clothes that could get caught on any part of your motorcycle.

LOAD LIMITS AND GUIDELINES

Your motorcycle has been designed to carry you and one passenger. When you carry a passenger, you may feel some difference during acceleration and braking. But so long as you keep your motorcycle well maintained, with good tyres and brakes, you can safely carry loads within the given limits and guidelines.

However, exceeding the weight limit or carrying an unbalanced load can seriously affect your motorcycle's handling, braking and stability. Non-Honda accessories, improper modifications, and poor maintenance can also reduce your safety margin.

The following pages give more specific information on loading, accessories and modifications.

Loading

How much weight you put on your motorcycle, and how you load it, are important to your safety. Anytime you ride with a passenger or cargo you should be aware of the following information.

⚠ WARNING

Overloading or improper loading can cause a crash and you can be seriously hurt or killed.

Follow all load limits and other loading guidelines in this manual.

Load Limits
Following are the load limits for your motorcycle:
Maximum weight capacity:
188 kg (415 lbs)

Includes the weight of the rider, passenger, all cargo and all accessories.
Maximum cargo weight:
27 kg (60 lbs)
The weight of added accessories will reduce the maximum cargo weight you can carry.

Loading Guidelines
Your motorcycle is primarily intended for transporting you and a passenger. You may wish to secure a jacket or other small items to the seat when you are not riding with a passenger.
If you wish to carry more cargo, check with your Honda dealer for advice, and be sure to read the information regarding accessories on page 6.

Improperly loading your motorcycle can affect its stability and handling. Even if your motorcycle is properly loaded, you should ride at reduced speeds and never exceed 130 km/h (80 mph) when carrying cargo.

Follow these guidelines whenever you carry a passenger or cargo:
- Check that both tyres are properly inflated.
- If you change your normal load, you may need to adjust the front and rear suspension (pages 34-37).
- To prevent loose items from creating a hazard, make sure that all cargo is securely tied down before you ride away.
- Place cargo weight as close to the center of the motorcycle as possible.
- Balance cargo weight evenly on both sides.
- To avoid possible heat damage to your motorcycle or personal belongings, do not block or restrict air flow around the exhaust muffler with baggage or clothing.

Accessories and Modifications

Modifying your motorcycle or using non-Honda accessories can make your motorcycle unsafe. Before you consider making any modifications or adding an accessory, be sure to read the following information.

⚠ WARNING

Improper accessories or modifications can cause a crash in which you can be seriously hurt or killed.

Follow all instructions in this owner's manual regarding accessories and modifications.

Accessories

We strongly recommend that you use only genuine Honda accessories that have been specifically designed and tested for your motorcycle. Because Honda cannot test all other accessories, you must be personally responsible for proper selection, installation and use of non-Honda accessories. Check with your dealer for assistance and always follow these guidelines:

- Make sure the accessory does not obscure any lights, reduce ground clearance and banking angle, limit suspension travel or steering travel, alter your riding position or interfere with operating any controls.
- Be sure electrical equipment does not exceed the motorcycle's electrical system capacity (page 149). A blown fuse can cause a loss of lights or engine power.

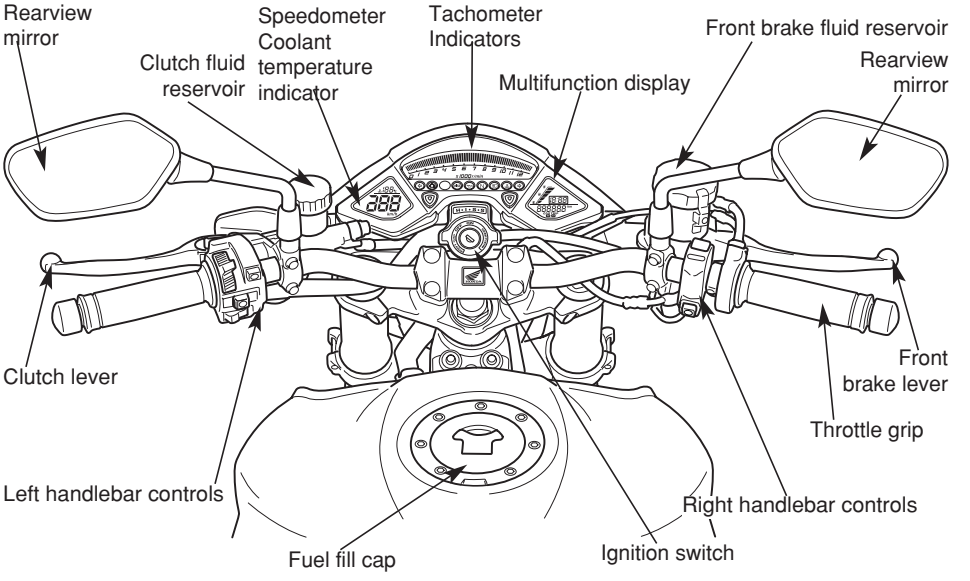
- Do not pull a trailer or sidecar with your motorcycle. This motorcycle was not designed for these attachments and their use can seriously impair your motorcycle's handling.
- We remind you that Honda produces a wide range of genuine accessories in order to improve your comfort and use of the motorcycle.
  Consult your Honda dealer for more details and informations. (Only type E, F, ED)

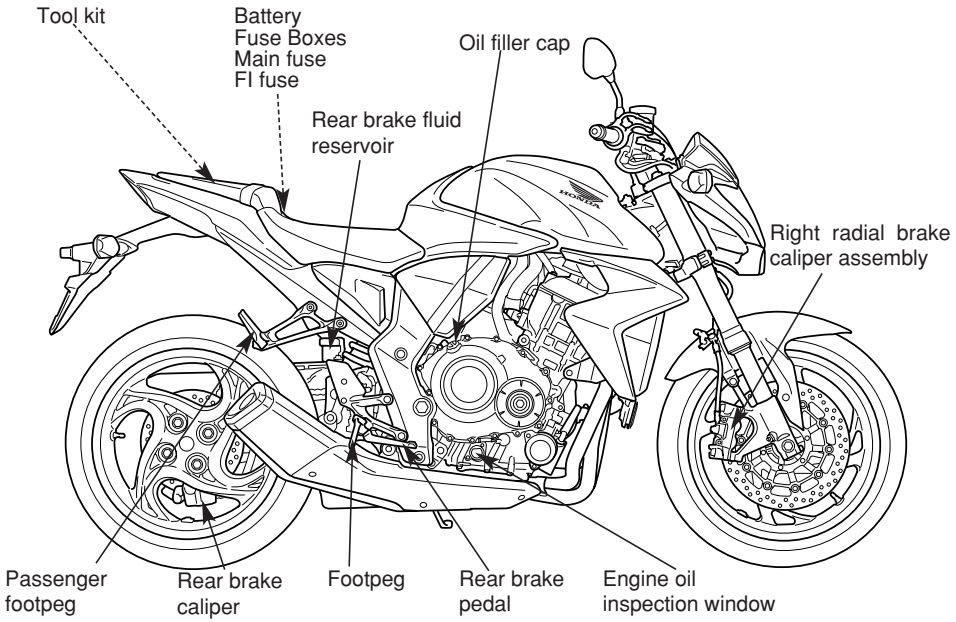
Modifications

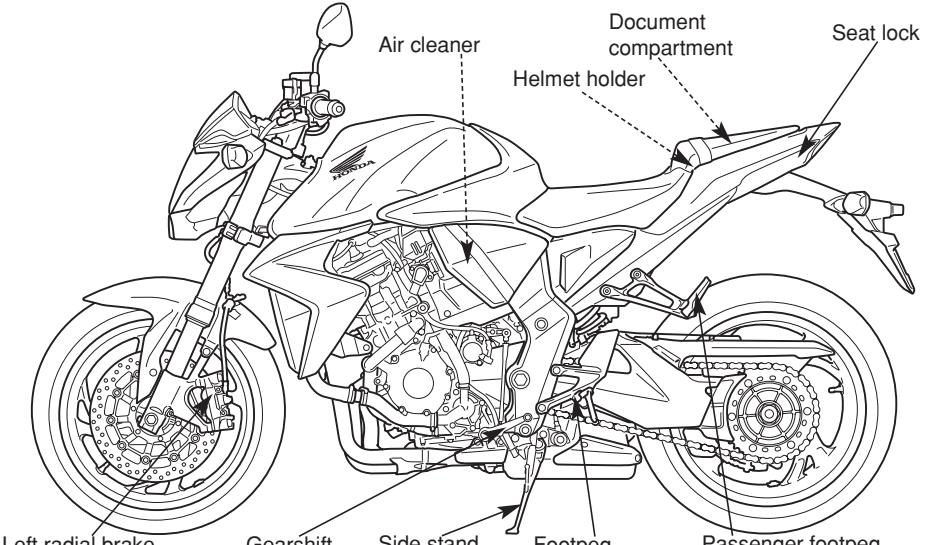
We strongly advise you not to remove any original equipment or modify your motorcycle in any way that would change its design or operation. Such changes could seriously impair your motorcycle's handling, stability and braking, making it unsafe to ride.

Removing or modifying your lights, mufflers, emission control system or other equipment can also make your motorcycle illegal.

PARTS LOCATION TYPE CB1000R




Tool kit
Battery
Fuse Boxes
Main fuse
FI fuse
Oil filler cap
Rear brake fluid reservoir
Right radial brake caliper assembly
Passenger footpeg
Rear brake caliper
Footpeg
Rear brake pedal
Engine oil inspection window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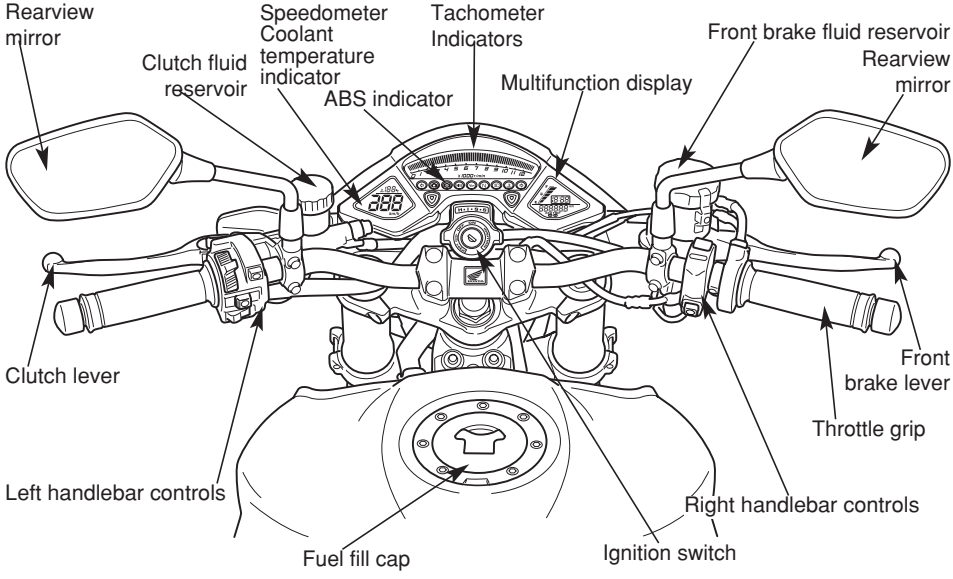
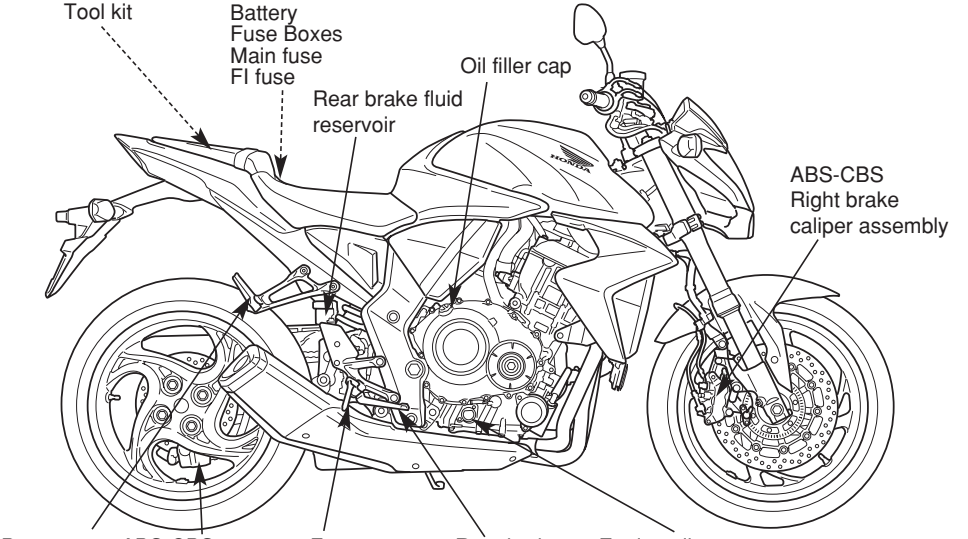
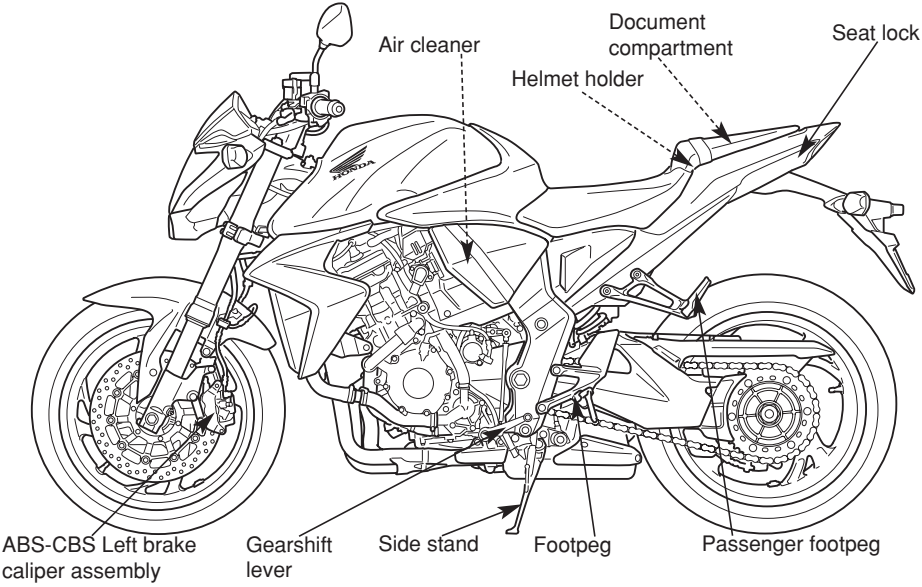
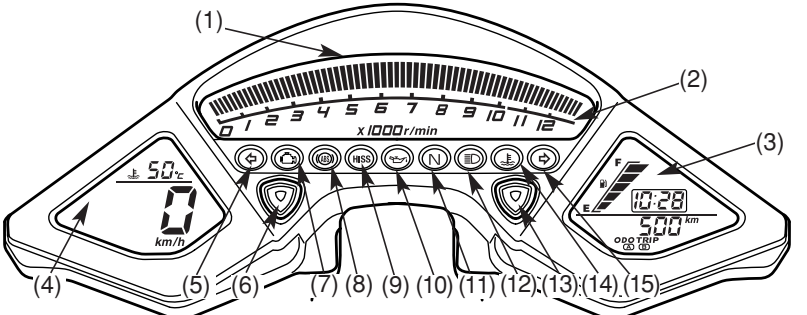
Document compartment
Seat lock
Helmet holder
Left radial brake caliper assembly
Gearshift lever
Side stand
Footpeg
Passenger footpeg

PARTS LOCATION TYPE CB1000RA




Tool kit
Battery
Fuse Boxes
Main fuse
FI fuse
Rear brake fluid reservoir
Oil filler cap
ABS-CBS
Right brake caliper assembly
Passenger footpeg
ABS-CBS
Rear brake caliper
Footpeg
Rear brake pedal
Engine oil inspection window


Air cleaner
Document compartment
Seat lock
Helmet holder
ABS-CBS Left brake caliper assembly
Gearshift lever
Side stand
Footpeg
Passenger footpeg



INSTRUMENTS AND INDICATORS

The indicators are contained in the instrument panel. Their functions are described in the tables on the following pages.

INSTRUMENT

(1) Tachometer
(2) Red zone tachometer
(3) Multifunction display
(4) Speedometer/temperature meter display
(5) Left turn signal indicator
(6) SET button
(7) PGM-FI indicator
(8) ABS indicator (CB1000RA)
(9) Immobilizer system (HISS) indicator
(10) Low oil pressure indicator
(11) Neutral indicator
(12) High beam indicator
(13) RESET button
(14) Coolant temperature indicator
(15) Right turn signal indicator

(Ref. Nr.) Description	Function
(1) Tachometer	Shows engine revolutions per minute. The tachometer graduated will swing to the maximum scale on the dial once when the ignition switch is turned ON.
(2) Red zone tachometer	Never allow the tachometer graduated to enter the red zone, even after the engine has been broken in. NOTICE Running the engine beyond recommended maximum engine speed (the beginning of the tachometer red zone) can damage the engine.

(Ref. Nr.) Description	Function
(3) Multi-function display	The display includes the following functions; This display shows the initial display (page 22).
- Fuel indicator	Shows approximate fuel supply available. Lights when tank fuel level is low (page 24).
- Digital clock	Shows hour and minute (page 31)
- Odometer	Indicates the total mileage (page 28).
- Tripmeter	Indicates partial mileage (page 29).
- Modifying speed unit and mileage covered (E type only)	Modifying speed unit and mileage covered from Kilometers to Mph and vice versa(E type only) (page 33).

(Ref. Nr.) Description	Function
(4) Speedometer/temperature meter display	The display includes the following functions; This display shows the initial display (page 22).
- Speedometer	Indicates riding speed (page 28). Shows speed in kilometres per hour (km/h) or miles per hour (mph) according to the model.
- Coolant temperature meter	Shows coolant temperature (page 26).
- Modifying speed unit and mileage covered (E type only)	Modifying speed unit and mileage covered from Kilometers to Mph and vice versa(E type only) (page 33).

(Ref. Nr.) Description	Function
(5) Left turn signal indicator(green)	Flashes when the left turn signal operates.
(6) SET button	Use this button for the following purposes. • To adjust time. • This button is used to select the following mode: ODOMETER - TRIP1- TRIP2. • To adjust light brightness display. • To change unit of speedometer, odometer and tripmeter (E type only)(page 33).
(7) PGM-FI malfunction indicator lamp (amber)	Lights when there is any abnormality in the PGM-FI (Programmed Fuel Injection) system. It should also light for a few seconds and then go off when the ignition switch is turned ON and engine stop switch is at ◯ (RUN). If it comes on at any other time, reduce speed and take the motorcycle to your Honda dealer as soon as possible.

(Ref. Nr.) Description	Function
(8) Anti-lock brake system (ABS) indicator light (amber) (CB1000RA)	This indicator light normally illuminates when the ignition switch is set to ON and is extinguished when the motorcycle is ridden at a speed of more than 10 km/h (6 mph). In the event of problems with the ABS system this indicator flashes and remains on (page 84).
(9) Immobilizer system (HISS) indicator (red)	This indicator lights for a few seconds when the ignition switch is turned ON and the engine stop switch is at (RUN). It will go off if the properly-coded key has been inserted. If an improperly-coded key has been inserted, the indicator will remain on and the engine will not start (page 60). When the blinking function of this indicator is valid and the ignition switch is off, it keeps blinking for 24 hours (page 60).

(Ref. Nr.) Description	Function
(10) Low oil pressure indicator (red)	Lights when the engine oil pressure is below normal operating range. Should light when ignition switch is ON and engine is not running. Should go out when the engine starts, except for occasional flickering at or near idling speed when engine is warm. NOTICE Running the engine with insufficient oil pressure may cause serious engine damage.
(11) Neutral indicator (green)	Lights when the transmission is in neutral.
(12) High beam indicator (blue)	Lights when the headlight is on high beam.
(13) RESET button	Use this button for the following purposes. • To adjust time. • To reset tripmeter • To adjust light brightness display. • To change unit of speedometer, odometer and tripmeter (E type only)(page 33).

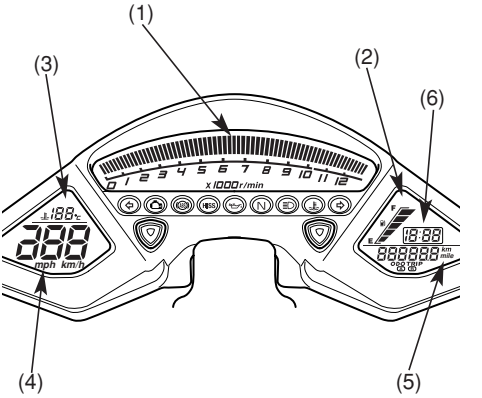
(Ref. Nr.) Description	Function
(14) Coolant temperature indicator (red)	It lights when the coolant is over the specified temperature. If the indicator goes on while riding, stop the engine and check the reserve tank coolant level. Read pages 44-45 and do not ride the motorcycle until the problem has been corrected. NOTICE Exceeding maximum running temperature may cause serious engine damage.
(15) Right turn signal indicator (green)	Flashes when the right turn signal operates.

Initial display

When the ignition switch is turned ON, the tachometer display (1), the multi-function display (2) and speedometer/temperature display (3) will temporarily show all the modes and digital segments so that you can make sure the liquid crystal display is functioning properly.

The unit “mph” (4) and “mile” (5) will be displayed only for E type.

Digital clock (6) will reset if the battery is disconnected.



(1) Tachometer display
(2) Multi-function display
(3) Speedometer/temperature display
(4) “mph”
(5) “mile”
(6) Clock

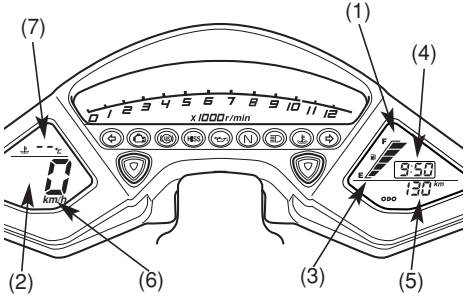
Multi-function display

Multi-function display (1) includes the following functions:

- Fuel level
- Clock
- Odometer (ODO)
- Tripmeter A and B (TRIP)
- Speed and Mileage Unit change (E type only)(page 33)

Speedometer/temperature display (2) includes the following functions:

- Speedometer
- Coolant temperature meter
- Speed and Mileage Unit change (E type only) (page 33)



(1) Multi-function display
(2) Speedometer/temperature meter display
(3) Fuel level
(4) Clock
(5) Odometer
(6) Speedometer
(7) Coolant temperature meter

Fuel level display

Fuel indicator (1)

The fuel gauge liquid crystal display shows the approximate fuel supply available in a graduate display.

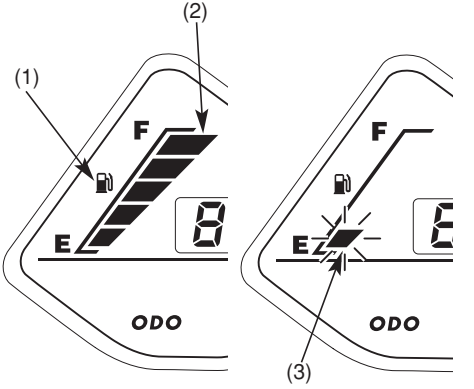
When the segment F (2) goes on, the fuel tank capacity including reserve is:

17.0 ℓ (4.50 US gal, 3.74 Imp gal)

When the segment E (3) flashes, fuel will be low and you should refill the tank as soon as possible. The amount of fuel left in the tank with the vehicle set upright is approximately:

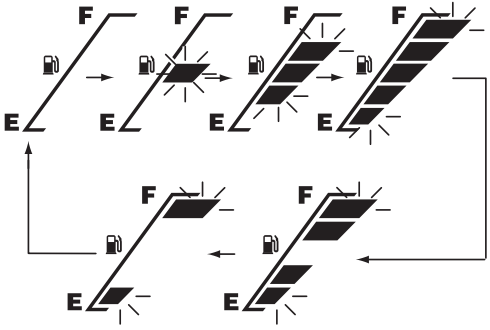
4.0 ℓ (1.05 US gal, 0.88 Imp gal)

The fuel indicator is reset if the battery is disconnected.



(1) Fuel indicator
(2) Fuel segment F
(3) Fuel segment E

Fuel Gauge Failure Indication:
If the fuel system has an error, the fuel gauge indicators will be displayed as shown in the illustration.
If this occurs, see your Honda dealer as soon as possible.

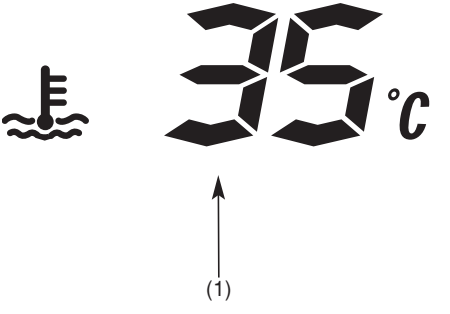


Coolant temperature meter

The coolant temperature meter (1) shows coolant temperature digitally.

Temperature display

Below 34 °C	"- -" is displayed.
Between 35 °C and 132 °C	Actual coolant temperature is indicated.
Above 132 °C	The display will remain "132 °C"



(1) Coolant temperature meter

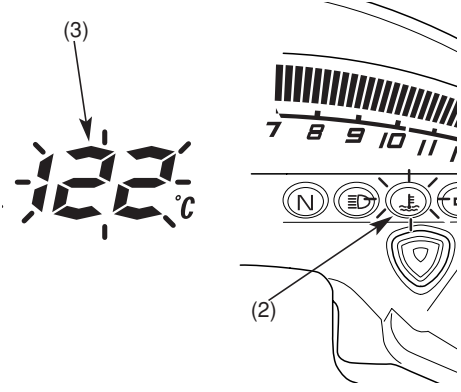
Overheating message

When the coolant temperature reaches 122 °C, the display begins to flash. At the same time, the red malfunction indicator (2) and the coolant temperature indicator (3) lights.

If this occurs, stop the engine and check the reserve tank coolant level. Read pages 44-45 and do not ride the motorcycle until the problem has been corrected.

NOTICE

Exceeding maximum running temperature may cause serious engine damage.

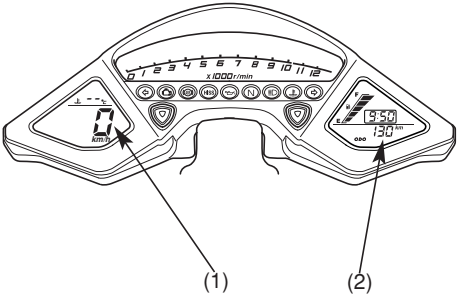


(2) Malfunction indicator
(3) Coolant temperature indicator

Speedometer/Odometer/Tripmeter

Speedometer (1)
Shows riding speed.
Shows speed in kilometers per hour (km/h) or miles per hour (mph) according to the model.
Only type E
To select km/h or mph go page 33.

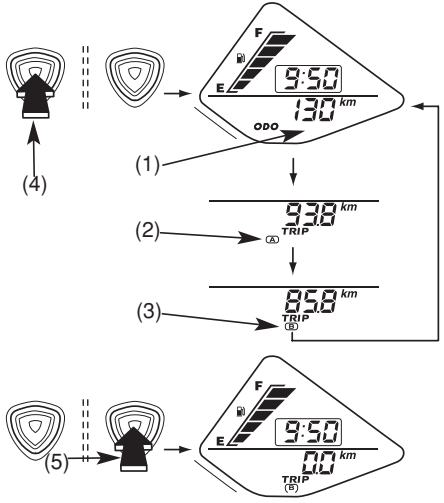
Odometer (2)
Shows accumulated mileage.
This meter can be displayed from 0 to 999,999 kilometers (miles).



(1) Speedometer
(2) Odometer

Tripmeter (1)
Indicates the partial mileage covered.
Two tripmeters are available: tripmeter A (2) (Trip A) and tripmeter B (3) (Trip B). To switch between tripmeters A and B, press the SET button (4).
When you press the SET button (4) repeatedly, the following functions appear alternately on the display: odometer, tripmeter A and tripmeter B.

To reset the tripmeter, press and hold down the RESET button (5) while tripmeter A or B is displayed



(1) Tripmeter
(2) Tripmeter A
(3) Tripmeter B
(4) SET button
(5) RESET button

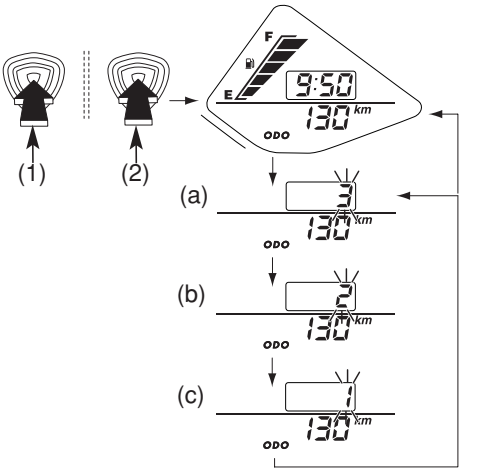
Light brightness selection

It is possible to select instrument light brightness from 3 patterns.

Light brightness regulation:

1. Turn the ignition switch ON.
2. Press and hold both the SET(1) and RESET(2) button more than two seconds. Press the RESET button repeatedly to select the light brightness as you like.
   a - Maximum light select value 3;
   b - Middle light select value 2;
   c - Minimum light select value 1.

To end the setting, press and hold the SET and RESET button more than two seconds; or press once SET(1) button to adjust the clock time (page 31).

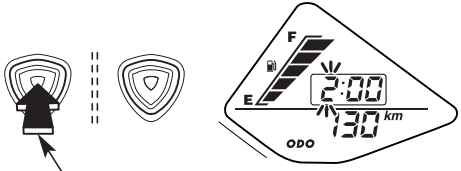


(1) SET button
(2) RESET button

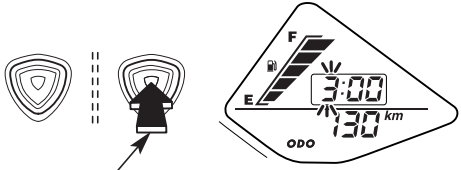
Digital clock

Indicates hours and minutes. To set the clock, proceed as follows:

1. Set the ignition switch to ON.
2. Select the light brightness (page 30).
3. Press the SET (1) button once to adjust the clock time.The clock will switch to setting mode, indicated by the flashing digits.
4. To set the hour, press the RESET button (2) until the desired time hour is displayed.
   - Quick setting - press and hold the RESET button until the desired time hour appears.

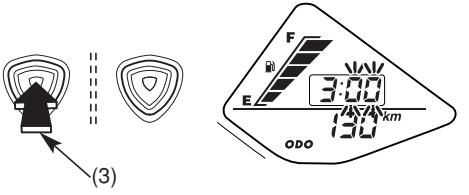


(1) SET button



(2) RESET button

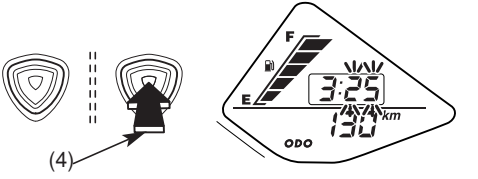
5. Press the SET(3) button when the display reaches the desired hours appears.
   The minute display will be flashing.



(3) SET button

6. To adjust minutes, press the RESET button (4) until the required setting is shown.
   - Fast setting - press and to hold pressed the RESET button until do not appear the desired minute.
   - The time advances by one minute, each time the button is pushed.
   - The time advances fast when the button is pushed and held.

Minutes will return to “00” when “60” is reached, without changing the hour.



(4) RESET button

7. To complete the setting operation, press SET button and RESET button for more than two seconds, or set the ignition switch to OFF.
   The display will stop flashing and the setting will be cancelled if no button is pressed for 30 seconds.
   If you removed the battery the clock display will return to “1:00”.

Speed and Mileage Unit Change
(E type only)

This function can be operated after the time adjustment mode (page 31) if you push once the SET button (1).

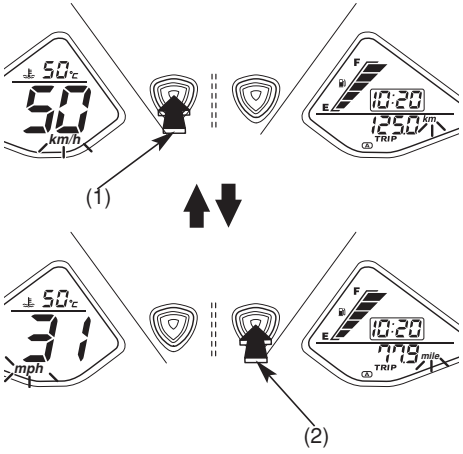
The speedometer displays either “km/h” or “mph”.

The odometer/tripmeter displays either “km” or “mile”.

Push the RESET button (2) to select “km”/”km/h” or “mile”/”mph”.

To end the selection, turn the ignition switch OFF.

The display will stop flashing automatically if the button is not pressed for about 30 seconds.



(1) SET button
(2) RESET button

MAJOR COMPONENTS (Information you need to operate this motorcycle)

SUSPENSION

Front Suspension

Spring Preload:

Adjust the spring preload by turning the preload adjuster (1) with the 19 mm wrench provided in the tool kit.

Make sure that both fork legs are adjusted to the same position.

To reduce (SOFT):

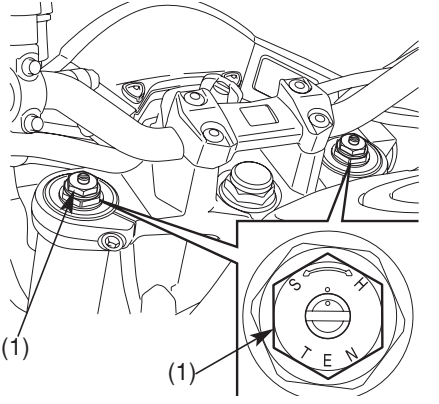
Turn the adjuster counterclockwise toward SOFT for a light load and smooth road condition.

To increase *(HARD):*

Turn the adjuster clockwise toward HARD for a firmer ride and rough road condition.

To adjust the adjuster to the standard position, proceed as follows:

1. Turn the preload adjuster (1) counterclockwise until it will no longer turn (lightly seats).This is the full soft setting.
2. The adjuster is set in the standard position when the adjuster is turned clockwise 8 turns.
3. Make sure that both fork legs are adjusted to the same position.



(1) Preload adjuster

Rebound Damping:

To reduce (SOFT):

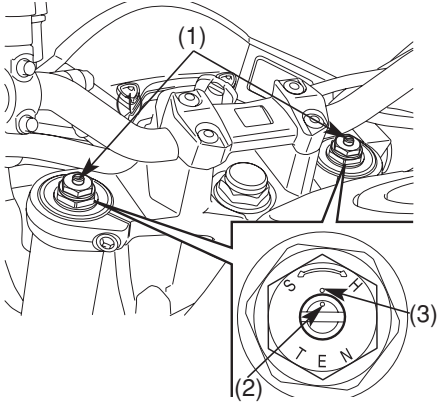
Turn the adjuster counterclockwise toward SOFT for a light load and smooth road condition.

To increase *(HARD):*

Turn the adjuster clockwise toward HARD for a firmer ride and rough road condition.

To adjust the adjuster to the standard position, proceed as follows:

1. Turn the damping adjuster (1) clockwise until it will no longer turn (lightly seats). This is the full hard setting.
2. The adjuster is set in the standard position when the adjuster is turned counterclockwise approximately 2 turns so that its punch mark (2) aligns with the reference punch mark (3).
3. Make sure that both fork legs are adjusted to the same position.



(1) Damping adjuster
(2) Punch mark
(3) Reference punch mark

Compression Damping:

To reduce (SOFT):

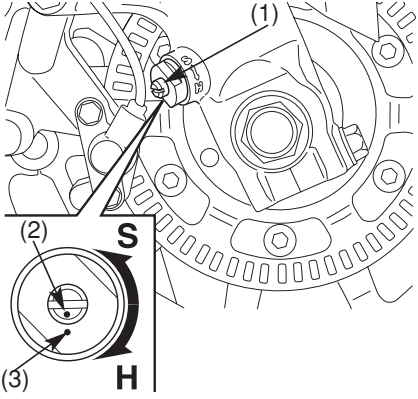
Turn the adjuster counterclockwise toward SOFT for a light load and smooth road condition.

To increase *(HARD):*

Turn the adjuster clockwise toward HARD for a firmer ride and rough road condition.

To adjust the adjuster to the standard position, proceed as follows:

1. Turn the damping adjuster (1) clockwise until it will no longer turn (lightly seats). This is the full hard setting.
2. The adjuster is set in the standard position when the adjuster is turned counterclockwise approximately 2 turns so that its punch mark (2) aligns with the reference punch mark (3).
3. Make sure that both fork legs are adjusted to the same position.



(1) Damping adjuster
(2) Punch mark
(3) Reference punch mark

Rear Suspension

Rebound Damping

To reduce (SOFT):

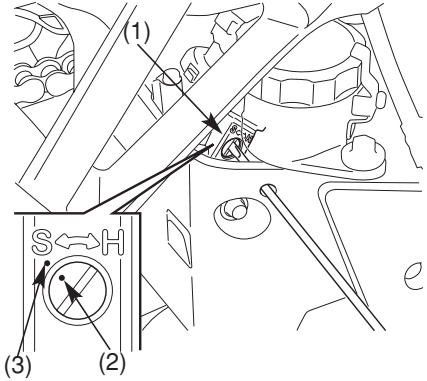
Turn the adjuster counterclockwise toward SOFT for a light load and smooth road condition.

To increase *(HARD):*

Turn the adjuster clockwise toward HARD for a firmer ride and rough road condition.

To adjust the adjuster to the standard position, proceed as follows:

1. Turn the damping adjuster (1) clockwise until it will no longer turn (lightly seats). This is the full hard setting.
2. The adjuster is set in the standard position when the adjuster is turned counterclockwise approximately 1,5 turns so that its punch mark (2) aligns with the reference punch mark (3).



(1) Damping adjuster
(2) Punch mark
(3) Reference punch mark

Spring Preload

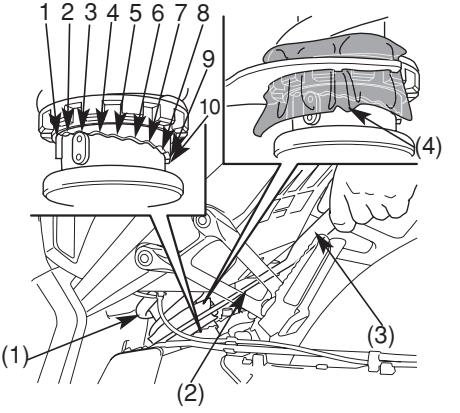
The spring preload adjuster (1) has 10 spring preload positions for different load or riding conditions.

Use a pin spanner (2) and extension bar (3) to adjust the rear shock. Insert a protection (4) in order to prevent damages to surface of rear shock assorber.

Position 1 to 2 are for light loads and smooth road conditions. Position 3 is standard position. Positions 4 to 10 increase spring preload for a stiffer rear suspension, and can be used when the motorcycle is heavily loaded.

The rear shock absorber assembly includes a damper unit that contains high pressure nitrogen gas. Do not attempt to disassemble or service the damper; it cannot be rebuilt and must be replaced when worn out. Disposal should only be done by your Honda dealer.

The instructions found in this owner's manual are limited to adjustment of the shock assembly only.



(1) Spring preload adjuster
(2) Pin spanner
(3) Extension bar
(4) Protection

BRAKES

Both the front and rear brakes are the hydraulic disc types.

As the brake pads wear, the brake fluid level drops.

There are no adjustments to perform, but fluid level and pad wear must be inspected periodically. The system must be inspected frequently to ensure there are no fluid leaks. If the control lever or pedal free travel becomes excessive and the brake pads are not worn beyond the recommended limit (pages 125-126), there is probably air in the brake system and it must be bled. See your Honda dealer for this service.

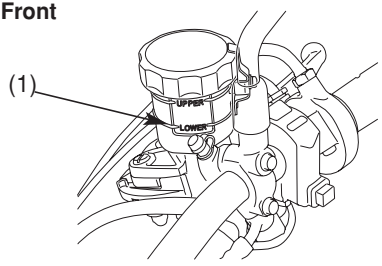
Front Brake Fluid Level:

With the motorcycle in an upright position check the fluid level. It should be above the LOWER level mark (1). If the level is at or below the LOWER level mark, check the brake pads for wear (page 125).

Worn pads should be replaced. If the pads are not worn, have your brake system inspected for leaks.

The recommended brake fluid is Honda DOT 4 brake fluid from a sealed container or an equivalent.

Front

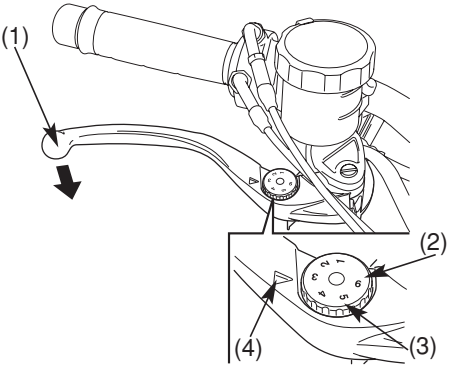


(1) LOWER level mark

Front Brake Lever:
The distance between the tip of the brake lever (1) and the grip can be adjusted by turning the adjuster dial (2) while pushing the lever forward.
Align the numbers (3) on the adjuster dial with the index mark (4).

Apply the brake several times and check for free wheel rotation after the brake lever is released.

Other Checks:
Make sure there are no fluid leaks. Check for deterioration or cracks in the hoses and fittings.



(1) Brake lever
(2) Adjuster dial
(3) Numbers
(4) Index mark

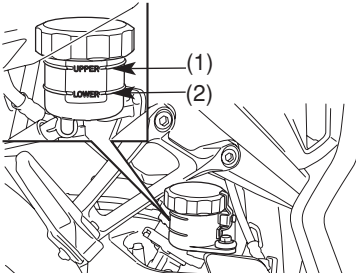
Rear Brake Fluid Level:
With the motorcycle in an upright position, check the fluid level. It should be between the UPPER (1) and LOWER (2) level marks. If the level is at or below the LOWER level mark (2), check the brake pads for wear (page 126).

Worn pads should be replaced. If the pads are not worn, have your brake system inspected for leaks.

The recommended brake fluid is Honda DOT 4 brake fluid from a sealed container, or an equivalent.

Other Checks:
Make sure there are no fluid leaks. Check for deterioration or cracks in the hoses and fittings.

Rear



(1) UPPER level mark
(2) LOWER level mark

CLUTCH

This motorcycle has a hydraulically actuated clutch. There are no adjustments to perform, but the clutch system must be inspected periodically for fluid level and leakage.

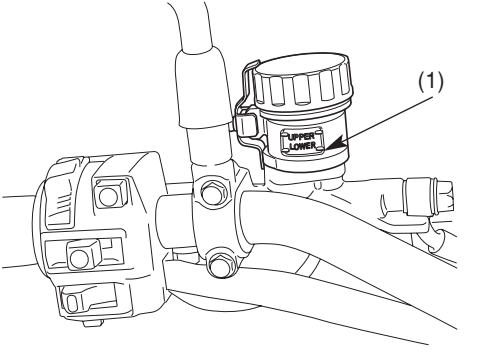
If the control lever freeplay becomes excessive and the motorcycle creeps or stalls when shifted into gear, or if the clutch slips, causing acceleration to lag behind engine speed, there is probably air in the engine system and it must be bled out. See your Honda dealer for this service.

Fluid level

Check that the fluid level is above the LOWER level mark (1) with the motorcycle in an upright position. If the fluid level is near the lower level line, it indicates fluid leakage. See your Honda dealer.

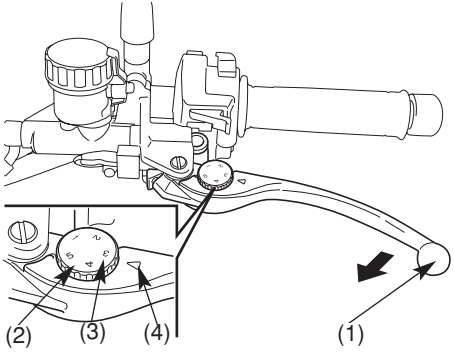
Other checks:

Make sure there are no fluid leaks. Check for deterioration or cracks in the hoses and fittings.



(1) LOWER level mark

Clutch lever:
The distance between the tip of the clutch lever (1) and the grip can be adjusted by turning the adjuster dial (2).
Turn the adjuster dial while pushing the clutch lever forward.
Align the numbers (3) on the adjuster dial with index mark (4).



(1) Clutch lever
(2) Adjuster dial
(3) Numbers
(4) Index mark

COOLANT

Coolant Recommendation

The owner must properly maintain the coolant to prevent freezing, overheating, and corrosion. Use only high quality ethylene glycol antifreeze containing corrosion protection inhibitors specifically recommended for use in aluminum engines. (SEE ANTIFREEZE CONTAINER LABEL).

Use only low-mineral drinking water or distilled water as a part of the antifreeze solution. Water that is high in mineral content or salt may be harmful to the aluminum engine.

Using coolant with silicate inhibitors may cause premature wear of water pump seals or blockage of radiator passages.
Using tap water may cause engine damage.

The factory provides a 50/50 solution of antifreeze and distilled water in this motorcycle. This coolant solution is recommended for most operating temperatures and provides good corrosion protection. A higher concentration of antifreeze decreases the cooling system performance and is recommended only when additional protection against freezing is needed. A concentration of less than 40/60 (40% antifreeze) will not provide proper corrosion protection. During freezing temperatures, check the cooling system frequently and add higher concentrations of antifreeze (up to a maximum of 60% antifreeze) if required.

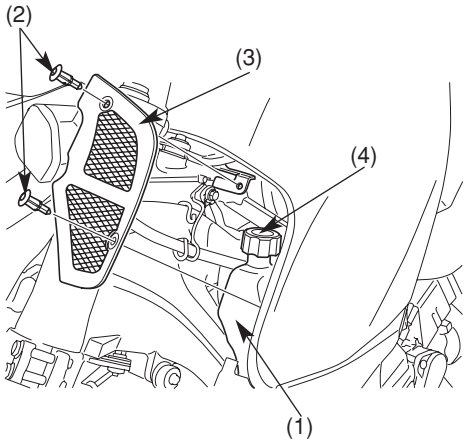
Inspection

The reserve tank is behind the left upper cowl near the cylinder head cover.

Check the coolant level in the reserve tank (1) while the engine is at the normal operating temperature with the motorcycle in an upright position (see page 46).

If the coolant level is below the LOWER level mark, proceed as follows:

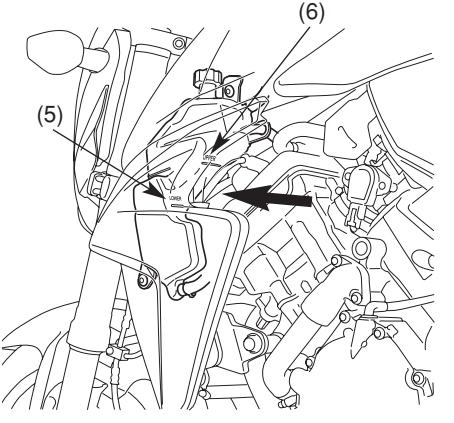
1. Remove two clips (2) of protection grill (3). Remove the reserve tank cap (4).



(1) Reserve tank
(2) Clips
(3) Protection grill
(4) Reserve tank cap

2. If the coolant level is below the LOWER level mark (5), add coolant mixture until it reaches the UPPER level mark (6). Always add coolant to the reserve tank. Do not attempt to add coolant by removing the radiator cap.
3. Close the reserve tank cap.
   Installation of remaining parts can be done in the reverse order of removal.

If the reserve tank is empty, or if coolant loss is excessive, check for leaks and see your Honda dealer for repair.



(5) LOWER level mark
(6) UPPER level mark

FUEL

Fuel tank

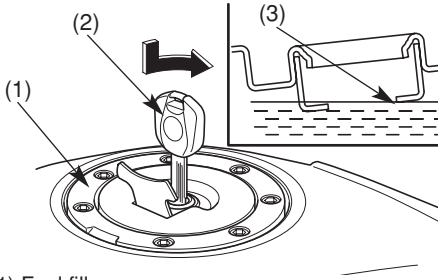
Fuel tank capacity inclusive of reserve capacity is:

17.0 ℓ (4.50 US gal, 3.74 Imp gal)

To open the fuel fill cap (1), insert the ignition key (2) and turn it clockwise. The fuel fill cap will pop up and can be lifted off.

Do not overfill the tank. There should be no fuel in the filler neck (3).

After refueling, to close the fuel fill cap, push the fuel fill cap into the filler neck until it snaps closed and locks. Remove the key.



(1) Fuel fill cap
(2) Ignition key
(3) Filler neck

⚠ WARNING

Petrol is highly flammable and explosive. You can be burned or seriously injured when handling fuel.

- Stop the engine and keep heat, sparks, and flame away.
- Refuel only outdoors.
- Wipe up spills immediately.

Use unleaded petrol with a research octane number of 91 or higher.
The use of leaded petrol will cause premature damage to the catalytic converter.

NOTICE

If “spark knock,” or “pinking” occurs at a steady engine speed under normal load, change brands of petrol. If spark knock or pinking persists, consult your Honda dealer. Failure to do so is considered misuse, and damage caused by misuse is not covered by Honda's Limited Warranty.

Petrol Containing Alcohol

If you decide to use a petrol containing alcohol (gasohol), be sure its octane rating is at least as high as that recommended by Honda. There are two types of “gasohol”: one containing ethanol, and the other containing methanol. Do not use petrol that contains more than 10% ethanol. Do not use petrol containing methanol (methyl or wood alcohol) that does not also contain cosolvents and corrosion inhibitors for methanol. Never use petrol containing more than 5% methanol, even if it has cosolvents and corrosion inhibitors.

Fuel system damage or engine performance problems resulting from the use of fuels that contain alcohol is not covered under the warranty. Honda cannot endorse the use of fuels containing methanol since evidence of their suitability is as yet incomplete.

Before buying fuel from an unfamiliar station, try to find out if the fuel contains alcohol. If it does, confirm the type and percentage of alcohol used. If you notice any undesirable operating symptoms while using a petrol that contains alcohol or one that you think contains alcohol switch to a petrol that you know does not contain alcohol.

ENGINE OIL

Engine Oil Level Check

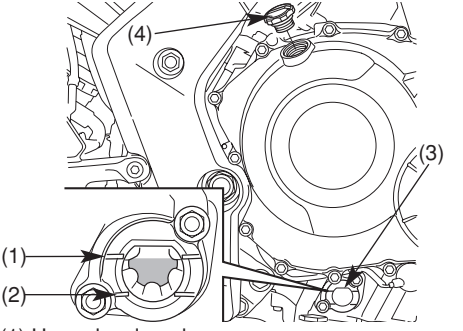
Check the engine oil level each day before riding the motorcycle.

The level must be maintained between the upper (1) and lower (2) level marks in the inspection window (3).

1. Start the engine and let it idle for 3-5 minutes. Make sure the low oil pressure indicator goes off. If the indicator light remains on, stop the engine immediately.
2. Stop the engine and hold the motorcycle in an upright position on firm, level ground.
3. After 2-3 minutes, check that the oil level is between the upper and the lower level marks in the inspection window.
4. If required, remove the oil filler cap (4) and add the specified oil (page 96) up to the upper level mark. Do not overfill.
5. Reinstall the oil filler cap. Check for oil leaks.

NOTICE

Running the engine with insufficient oil pressure may cause serious engine damage.



(1) Upper level mark
(2) Lower level mark
(3) Inspection window
(4) Oil filler cap

TUBELESS TYRES

To safely operate your motorcycle, your tyres must be the proper type and size, in good condition with adequate tread, and correctly inflated for the load you are carrying. The following pages give more detailed information on how and when to check air pressure, how to inspect your tyres for damage, and what to do when your tyres need to be repaired or replaced.

⚠ WARNING

Using tyres that are excessively worn or improperly inflated can cause a crash in which you can be seriously hurt or killed.

Follow all instructions in this owner's manual regarding tyre inflation and maintenance.

Air Pressure

Keeping your tyres properly inflated provides the best combination of handling, tread life and riding comfort. Generally, underinflated tyres wear unevenly, adversely affect handling, and are more likely to fail from being overheated.

Overinflated tyres make your motorcycle ride more harshly, are more prone to damage from road hazards, and wear unevenly.

We recommend that you visually check your tyres before every ride and use a gauge to measure air pressure at least once a month or any time you think the tyres might be low.

Tubeless tyres have some self-sealing ability if they are punctured. However, because leakage is often very slow, you should look closely for punctures whenever a tyre is not fully inflated.

Always check air pressure when your tyres are “cold”— when the motorcycle has been parked for at least three hours. If you check air pressure when your tyres are “warm” — when the motorcycle has been ridden for even a few miles — the readings will be higher than if the tyres were “cold”. This is normal, so do not let air out of the tyres to match the recommended cold air pressures given below. If you do, the tyres will be underinflated.

The recommended “cold” tyre pressures are:

Front	250 kPa (2,50 kgf/cm^2) 36 psi
Rear	290 kPa (2,90 kgf/cm^2) 42 psi

Inspection

Whenever you check the tyre pressures, you should also examine the tyre treads and sidewalls for wear, damage, and foreign objects:

Look for:

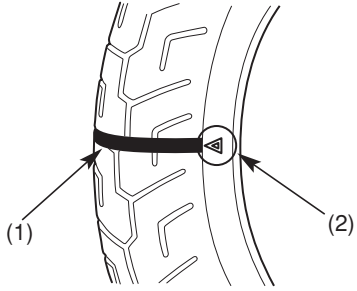
- Bumps or bulges in the side of the tyre or the tread. Replace the tyre if you find any bumps or bulges.
- Cuts, splits or cracks in the tyre. Replace the tyre if you can see fabric or cord.
- Excessive tread wear.

Also, if you hit a pothole or hard object, pull to the side of the road as soon as you safely can and carefully inspect the tyres for damage.

Tread Wear
Replace tyres before tread depth at the center of the tyre reaches the following limit:

Minimum tread depth	
Front	1.5 mm (0.06 in)
Rear	2.0 mm (0.08 in)

For GERMANY only:
German law prohibits use of tyres whose tread depth is less than 1.6 mm.



(1) Wear indicator
(2) Wear indicator location mark

Tyre Repair

If a tyre is punctured or damaged, you should replace it, not repair it. As discussed below, a tyre that is repaired, either temporarily or permanently, will have lower speed and performance limits than a new tyre.

A temporary repair, such as an external tubeless tyre plug, may not be safe for normal speeds and riding conditions. If a temporary or emergency repair is made to a tyre, you should ride slowly and cautiously to a dealer and have the tyre replaced. If possible, you should not carry a passenger or cargo until a new tyre is installed.

Even if a tyre is professionally repaired with a permanent internal patch plug, it will not be as good as a new tyre. You should not exceed 80 km/h (50 mph) for the first 24 hours, or 130 km/h (80 mph) at any time thereafter. In addition, you may not be able to safely carry as much weight as with a new tyre. Therefore, we strongly recommend that you replace a damaged tyre. If you choose to have a tyre repaired be sure the wheel is balanced before you ride.

Tyre Replacement

The tyres that came on your motorcycle were designed to match the performance capabilities of your motorcycle and provide the best combination of handling, braking, durability and comfort.

⚠ WARNING

Installing improper tyres on your motorcycle can affect handling and stability. This can cause a crash in which you can be seriously hurt or killed.

Always use the size and type of tyres recommended in this owner's manual.

The recommended tyres for your motorcycle are:

Front	120/70ZR17M/C(58W) BRIDGESTONE BT015F RADIAL L
Rear	180/55ZR17M/C(73W) BRIDGESTONE BT015R RADIAL L
Type	RADIAL - TUBELESS

Whenever you replace a tyre, use one that is equivalent to the original and be sure the wheel is balanced after the new tyre is installed.

Important Safety Reminders

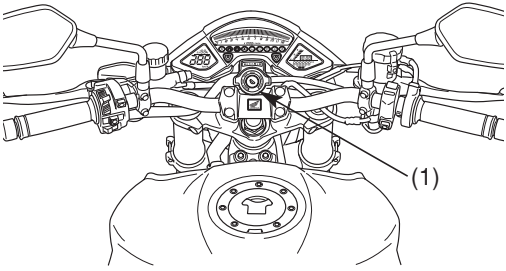
- Do not install a tube inside a tubeless tyre on this motorcycle. Excessive heat buildup can cause the tube to burst.
- Use only tubeless tyres on this motorcycle. The rims are designed for tubeless tyres, and during hard acceleration or braking, a tube-type tyre could slip on the rim and cause the tyre to rapidly deflate.
- When changing tyres, use only the type recommended (page 55) and check the labels on the new tyres. Using other types of tyres in conjunction with the ABS system can cause damage to the operation of the system. The ABS system microprocessor operates by comparing the speed of the two wheels. Tyres of an unapproved type can affect the relative speed of the wheels and therefore cause incorrect readings by the ABS system.

ESSENTIAL INDIVIDUAL COMPONENTS

IGNITION SWITCH

The ignition switch (1) is below the indicator panel.

The headlight, position light, taillights and license light will come on whenever you turn the ignition switch ON. If your motorcycle is stopped with the ignition switch ON and the engine is not running, the headlight, position light, taillights and license light will still be on, resulting in battery discharge.

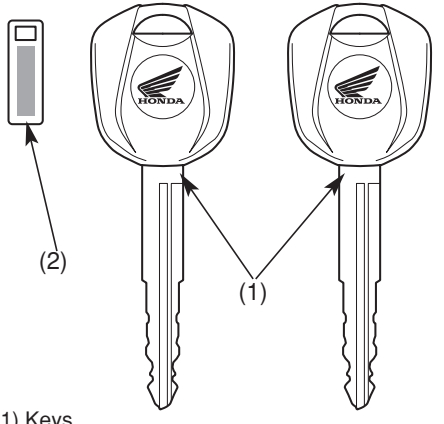


(1) Ignition switch

Key Position	Function	Key Removal
LOCK (steering lock)	Steering is locked. Engine and lights cannot be operated.	Key can be removed.
OFF	Engine and lights cannot be operated.	Key can be removed.
ON	Engine and lights can be operated.	Key cannot be removed.

KEYS

This motorcycle has two keys and a key number plate.



(1) Keys
(2) Key number plate

You will need the key number if you ever have to replace a key. Store the plate in a safe place.

To reproduce keys, bring all keys, key number plate and motorcycle to your Honda dealer.

Up to four keys can be registered with the immobilizer system (HISS), including the ones in hand.

If all keys are lost, the PGM-FI unit/ignition control module must be replaced. To avoid this possibility we recommend that if only one key is left, you immediately have it reproduced to ensure that a back up is available.

These keys contain electronic circuits that are activated by the immobilizer system (HISS). They will not work to start the engine if the circuits are damaged.

- Do not drop the keys or set heavy objects on them.
- Do not grind, drill or in any way alter the original shape of the keys.
- Keep the keys away from magnetic objects.

IMMOBILIZER SYSTEM (HISS)

HISS is the abbreviation of Honda Ignition Security System.

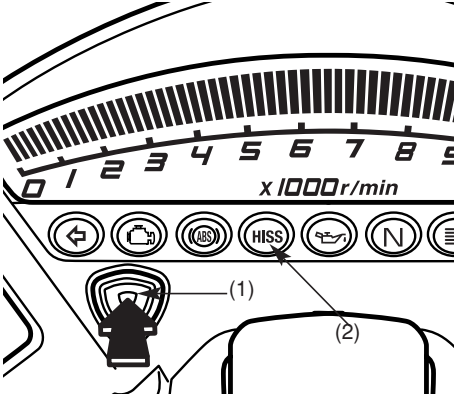
The immobilizer system (HISS) protects your motorcycle from theft. A properly-coded key must be used in the ignition switch for the engine to start. If an improperly-coded key (or other device) is used, the engine's starting circuit is disabled.

When the ignition switch is turned ON and the engine stop switch is at (RUN), the immobilizer system (HISS) indicator lights for a few seconds, then goes off. If the indicator remains on, it means the system does not recognize the coding of the key. Turn the ignition switch to OFF, remove the key, reinsert and turn the switch ON again.

The immobilizer system (HISS) indicator can continue to flash every 2 seconds during 24 hours when the ignition switch is OFF. Once the time has elapsed, the indicator lamp switches off automatically.
Indicator lamp flashing can be activated or deactivated.
To change the flashing setting, proceed as follows:

1. Set the ignition switch to ON.
2. Press and hold down SET button (1) for more than two seconds. The immobilizer system (HISS) indicator (2) will start flashing.
   The function is enabled.
3. Turn the ignition switch OFF and remove the key.

When the ignition switch is turned ON, the indicator light function is deactivated.
If you removed the battery, after you have refitted it, turn the ON/OFF switch to ON. The HISS mode is automatically reactivated and the indicator light flashes.



(1) SET Button
(2) Immobilizer system (HISS) indicator

If the system repeatedly does not recognize the coding of your key, contact your Honda dealer.

- The system may not recognize the key's coding if any other immobilizer key is near the ignition switch. To make sure the system recognizes the key code, keep each immobilizer key on a separate ring.
- Do not attempt to alter the immobilizer system (HISS) or add other devices to it. Electrical problems could result, making it impossible to start your motorcycle.
- If all keys are lost, the PGM-FI unit/ignition control module must be replaced.

EC Directives

This immobilizer system complies with the R & TTE (Radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity) Directive.

CE

The declaration of conformity to R & TTE Directive is provided to the owner at the time of purchase. The declaration of conformity should be kept at a safe place. When the declaration of conformity is lost or is not provided, contact your Honda dealer.

< South Africa only >

RIGHT HANDLEBAR CONTROLS

Engine Stop Switch

The engine stop switch (1) is next to the throttle grip. When the switch is in the ○ (RUN) position, the engine will operate. When the switch is in the ⊗ (OFF) position, the engine will not operate. This switch is intended primarily as a safety or emergency switch and should normally remain in the ○ (RUN) position.

If your motorcycle is stopped with the ignition switch ON and the engine stop switch ⊗ (OFF), the headlight and taillights will remain on, resulting in battery discharge.

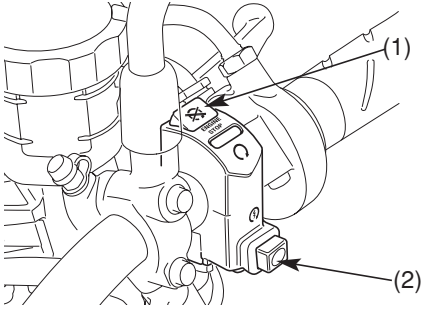
Start Button

The start button (2) is below the engine stop switch.

When the start button is pressed, the starter motor cranks the engine. If the engine stop switch is in the ⊗ (OFF) position, the starter motor will not operate.

When the start button is pressed,the headlight will automatically go out, but the taillight will stay on.

See page 76 for the starting procedure.



(1) Engine stop switch
(2) Start button

LEFT HANDLEBAR CONTROLS

Headlight Dimmer Switch (1)

The headlight dimmer switch is used to change between the high and low beams of the headlight.
Turn the dimmer switch to (HI) to select high beam or to (LO) to select low beam.

Passing Light Control Switch (2)

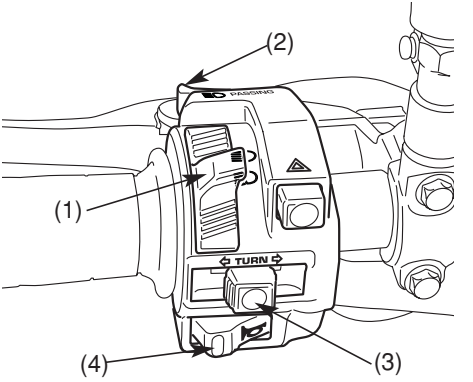
When this switch is pressed, the headlight flashes on to signal approaching cars or when passing.

Turn Signal Switch (3)

Move to (L) to signal a left turn, (R) to signal a right turn. Press to turn signal off.

Horn Button (4)

Press the button to sound the horn.



(1) Headlight dimmer switch
(2) Passing light control switch
(3) Turn signal switch
(4) Horn button

Hazard switch (5)

This system should be used only when your motorcycle is stopped under emergency or hazardous conditions. To turn it on, turn the ignition key to the ON position, and then press the switch marked △.The front and rear turn signals will blink simultaneously.

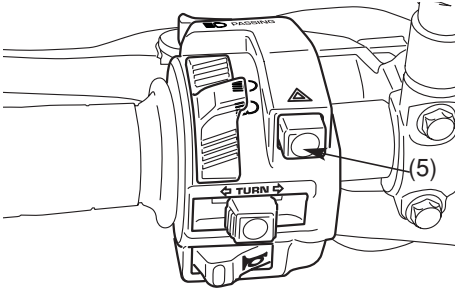
All of the turn signals can blink without the ignition key.

To operate this function, proceed as follows:

1. Turn the ignition key to ON position and then press the hazard switch (5) △ marked.
2. All of the turn signals will keep blinking even after you turn the ignition key to OFF position.
3. You can turn off the turn blinking signals by pressing the hazard switch back to the off position.
   If the switch is left in the off position for more than two seconds and then moved back to the △ position again, the turn signals will not be on.

Be sure to turn the switch off when the hazard warning is no longer required, or the turn signals will not work properly, and may confuse other drivers.

If all the turn signals are left blinking with the engine stopped, the battery will be discharged.



(5) Hazard switch

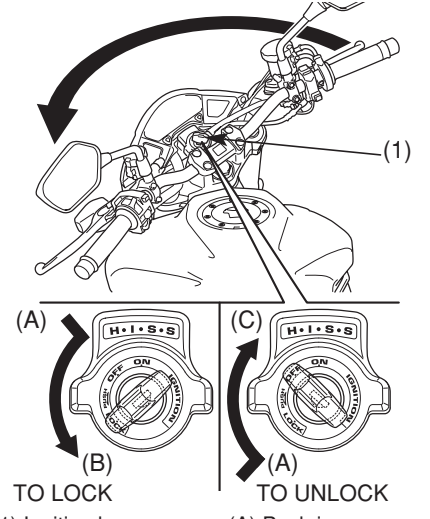
FEATURES

(Not required for operation)

STEERING LOCK

To lock the steering, turn the handlebars all the way to the left, turn the key (1) to LOCK while pushing in. Remove the key. To unlock the steering, turn the key to OFF while pushing in.

Do not turn the key to LOCK while riding the motorcycle; loss of vehicle control will result.



SEAT

Removing the seat

To remove pillion seat (1), insert the ignition key in the seat lock (2) and turn it clockwise. Pull the seat backwards and lift.

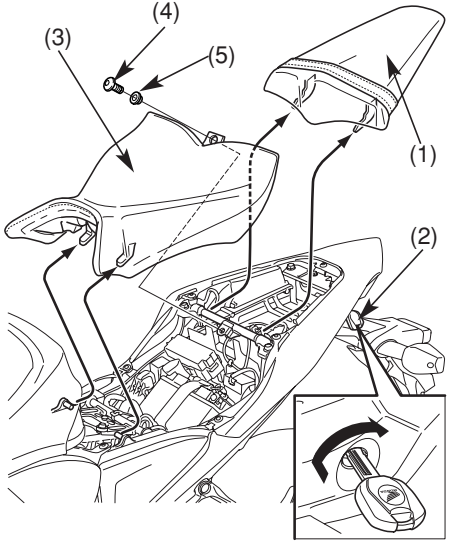
To remove the rider seat (3), unscrew the socket screw (4) with bushing (5) and pull the seat backwards and lift.

Fitting the seat

To install the rider seat, insert the lateral protrusions in the location as shown in the picture. Now fit the bushing and socket screw and tighten fully.

To install the pillion seat insert the two protrusions in the locations in the rear subframe and press the rear of the seat downwards.

After installing, check that the seat is securely locked in position.



(1) Pillion seat
(2) Seat lock
(3) Rider seat
(4) Socket screw
(5) Bushing

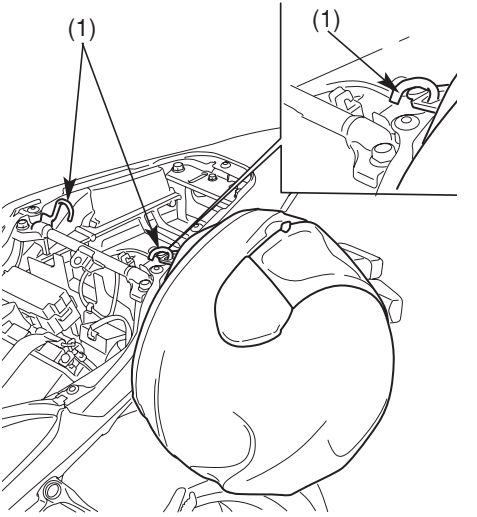
HELMET HOLDER

The helmet holder is located below the pillion seat. There are two helmet holders.
Remove the pillion seat (page 67).
Hang the helmet on the holder hook (1).
Install the pillion seat and make sure it is locked.

⚠ WARNING

Riding with a helmet attached to the holder can interfere with the rear wheel or suspension and could cause a crash in which you can be seriously hurt or killed.

Use the helmet holder only while parked. Do not ride with a helmet secure by the holder.

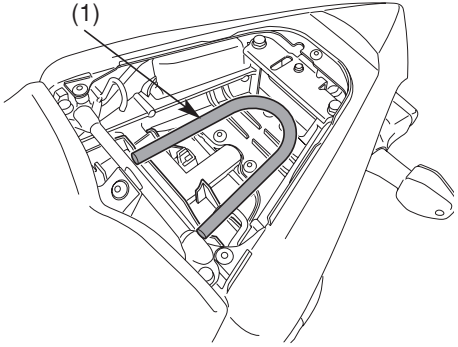


(1) Helmet holders

STORAGE COMPARTMENT FOR U-SHAPED ANTI-THEFT LOCK

The rear fender has a storage compartment to store a U-shaped anti-theft lock under the seat.

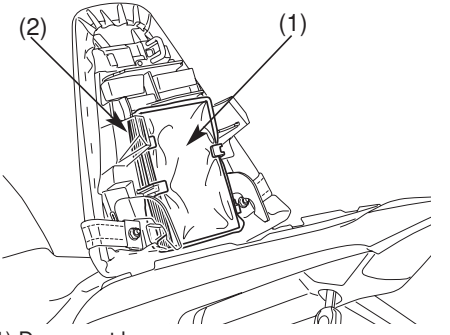
Some U-shaped locks may not be stored in the compartment due to their size or design.



(1) U-shaped anti-theft lock

DOCUMENT COMPARTMENT

The document bag (1) is in the document compartment (2), located under the pillion seat. This owner's manual and other documents should be stored in this compartment. When washing your motorcycle, be careful not to flood this area with water.

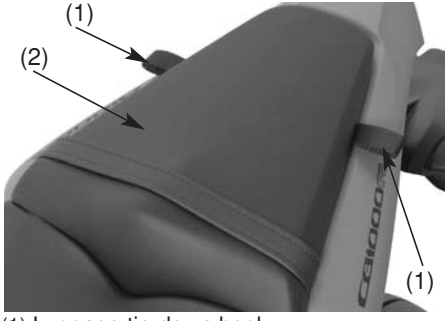


(1) Document bag
(2) Document compartment

LUGGAGE TIE-DOWN HOOKS

This motorcycle is equipped with the retractable luggage tie-down hook (1) on the back side of the pillion seat (2). Use this hook to secure the luggage.

Never use the tie-down hooks to tow or lift the motorcycle.



(1) Luggage tie-down hook
(2) Pillion seat

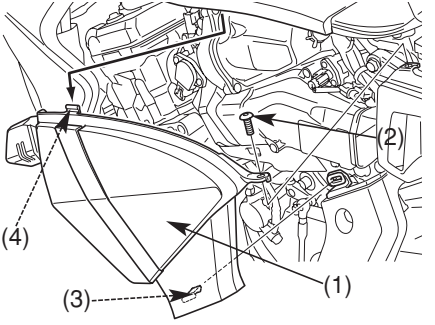
SIDE COVERS

Side covers (1) must be removed in order to service the air cleaner element, and the rear shock absorber.

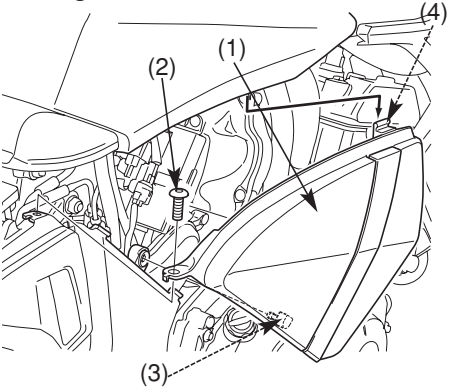
To remove the left and right side covers:

1. Remove the seat (page 67).
2. Remove the screw (2).
3. Disengage pin (3).
4. Disengage pin (4).

Side left



Side right

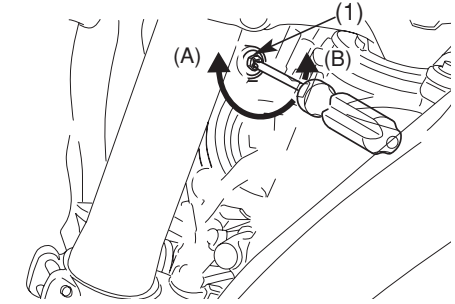


(1) Side covers
(2) Socket
(3) Pin
(4) Pin

HEADLIGHT AIM VERTICAL ADJUSTMENT

Vertical adjustment is possible by turning the screw (1) to move it up or down in accordance with requirements.

Obey local laws and regulations.



(1) Screw

(A) Up
(B) Down

OPERATION

PRE-RIDE INSPECTION

For your safety, it is very important to take a few moments before each ride to walk around your motorcycle and check its condition. If you detect any problem, be sure you take care of it, or have it corrected by your Honda dealer.

⚠ WARNING

Improperly maintaining this motorcycle or failing to correct a problem before riding can cause a crash in which you can be seriously hurt or killed.

Always perform a pre-ride inspection before every ride and correct any problems.

1. Engine oil level - add engine oil if required (page 50). Check for leaks.
2. Fuel level - fill fuel tank when necessary (page 47). Check for leaks.
3. Coolant level - add coolant if required. Check for leaks (page 44).
4. Front and rear brakes check operation; make sure there is no brake fluid leakage (page 39).
5. Tyres - check condition and pressure (page 51).
6. Drive chain - check condition and slack (page 107).
   Adjust and lubricate if necessary.
7. Throttle - check for smooth opening and full closing in all steering positions.

8. Lights and horn - check that the headlight, brake/taillights, position light, license light, turn signals, indicators and horn function properly.

9. Engine stop switch - check for proper function (page 63).

10. Side stand ignition cut-off system-check for proper function (page 114).

STARTING THE ENGINE

Always follow the proper starting procedure described below.

This motorcycle is equipped with a side stand ignition cut-off system. The engine cannot be started if the side stand is down, unless the transmission is in neutral. If the side stand is up, the engine can be started in neutral or in gear with the clutch lever pulled in. After starting with the side stand down, the engine will shut off if the transmission is put in gear before raising the side stand.

To protect the catalytic converter in your motorcycle's exhaust system, avoid extending idling and the use of leaded petrol.

Your motorcycle's exhaust contains poisonous carbon monoxide gas. High levels of carbon monoxide can collect rapidly in enclosed areas such as a garage. Do not run the engine with the garage door closed. Even with the door open, run the engine only long enough to move your motorcycle out of the garage.

Do not use the electric starter for more than 5 seconds at a time. Release the starter button for approximately 10 seconds before pressing it again.

Preparation

Before starting, insert the key, turn the ignition switch ON and confirm the following:

- The transmission is in NEUTRAL. (neutral indicator light ON).
- The engine stop switch is at ⟲ (RUN).
- The low oil pressure indicator is ON.
- The PGM-FI indicator is OFF.
- The immobilizer system (HISS) indicator is OFF.
- The ABS indicator is ON (page 19) (CB1000RA)

The low oil pressure indicator should go off a 2-3 seconds after the engine starts. If the light keeps flashing, stop the engine immediately and check the engine oil level.

NOTICE

Operating the engine with insufficient oil pressure can cause serious engine damage.

Starting procedure

This motorcycle has a fuel-injection engine with an automatic choke.
Follow the procedure indicated below.

Any air temperature

- With the throttle completely closed, press the starter button

The engine will not start if the throttle is fully open (because the electronic control module cuts off the fuel supply).

Even if the engine coolant stays below the specified temperature, the cooling fan sometimes starts up running when you rev up the engine, but this is normal.

Snapping the throttle or fast idling for more than about 5 minutes at normal air temperature may cause exhaust pipe discolouration.

Flooded engine

If the engine fails to start after repeated attempts, it may be flooded.

1. Leave the engine stop switch set to (RUN).
2. Open throttle fully.
3. Press the start button for 5 seconds.
4. Follow the normal starting procedure.
5. If the engine starts with unstable idle, open the throttle slightly.
   If the engine does not start, wait for 10 seconds, then follow steps 1-4 again.

Ignition cut-off

Your motorcycle is designed to automatically stop the engine and fuel pump if the motorcycle is over-turned (a banking sensor cuts off the ignition system). Before restarting the engine, you must turn the ignition switch to the OFF position and then back to ON.

RUNNING-IN

Help assure your motorcycle's future reliability and performance by paying extra attention to how you ride during the first 500 km (300 miles).

During this period, avoid full-throttle starts and rapid acceleration.

RIDING

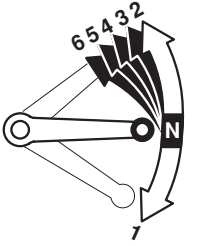
Review Motorcycle Safety (pages 1- 7) before you ride.

Make sure you understand the function of the side stand mechanism.

(See MAINTENANCE SCHEDULE on page 90 and explanation for SIDE STAND on page 114).

Make sure flammable materials such as dry grass or leaves do not come in contact with the exhaust system when riding, idling or parking your motorcycle.

1. After the engine has been warmed up, the motorcycle is ready for riding.
2. While the engine is idling, pull in the clutch lever and depress the gearshift pedal to shift into 1st (low) gear.
3. Slowly release the clutch lever and at the same time gradually increase engine speed by opening the throttle. Coordination of the throttle and clutch lever will assure a smooth positive start.
4. When the motorcycle attains a moderate speed, close the throttle, pull in the clutch lever and shift to 2nd gear by raising the gearshift pedal.
   This sequence is repeated to progressively shift to 3rd, 4th, 5th and 6th (top) gear.
5. Coordinate the throttle and brakes for smooth deceleration.
6. Both front and rear brakes should be used at the same time and should not be applied strongly enough to lock the wheel, or braking effectiveness will be reduced and control of the motorcycle will become difficult.



BRAKING

The motorcycle CB1000RA is fitted with the Combined Brake System. When the front brake lever is pulled, the front brakes are applied. When the rear brake pedal is pressed, the front and rear brakes are both applied though with less pressure to the front. For effective braking, use both the brake lever and pedal at the same time as you would do on any other conventional braking system.

For normal braking, gradually apply both the front and rear brakes while downshifting to suit your road speed.

For maximum deceleration, close the throttle and apply the front and rear brakes firmly. Pull in the clutch lever before coming to a complete slop to prevent stalling the engine.

Important Safety Reminders:

- Independent use of only the front or rear brake reduces stopping performance.
- Extreme braking may cause either wheel to lock, reducing control of the motorcycle.
- When possible, reduce speed or brake before entering a turn; closing the throttle or braking in mid-turn may cause wheel slip. Wheel slip will reduce control of the motorcycle.
- When riding in wet or rainy conditions, or on loose surfaces, the ability to maneuver and stop will be reduced. All of your actions should be smooth under these conditions. Rapid acceleration, braking or turning may cause loss of control. For your safety, exercise extreme caution when braking, accelerating or turning.

- When descending a long, steep grade, use engine compression braking by downshifting, with intermittent use of both brakes. Continuous brake application can overheat the brakes and reduce their effectiveness.
- Riding with your foot resting on the brake pedal or your hands on the brake lever may actuate the brakelight, giving a false indication to other drivers. It may also overheat the brake, reducing effectiveness.

Anti-lock braking system (ABS) (CB1000RA)

This model is also equipped with an Anti-lock Braking System (ABS) designed to help prevent wheel lock-up following sudden braking on irregular or loose terrain while following a straight-line direction. Even though the wheels may not lock, braking suddenly on a bend may cause the motorcycle to skid resulting in loss of control.

In certain conditions, on uneven surfaces or loose terrain a motorcycle with ABS may have a longer stopping distance than a motorcycle without ABS.

The ABS system cannot compensate for road conditions, errors of judgement, or improper use of the brakes. It is always the responsibility of the rider to adopt a suitable road speed in relation to weather conditions, the road surface, and the traffic levels, while leaving an ample margin of safety.

The ABS system is self-regulating and always active.

- The ABS system may be engaged by sudden upward or downward level differences in the road surface.
  Make sure you observe the prescriptions concerning tyres (page 55). The ABS computer acts on the basis of the comparative speeds of the front and rear wheel. The use of non-approved tyres can affect the speed of the wheels and supply confusing information to the ABS computer.
- The ABS system is not active at low speed (around 10 km/h (6 mph) or slower).
- The ABS system will not work if the battery is discharged.

Indicator (ABS) (CB1000RA)

This indicator normally illuminates when the ignition switch is set to ON and is extinguished when the motorcycle is ridden at a speed of more than 10 km/h (6 mph).If there is a problem with the ABS system, this light flashes and remains on. When the indicator light is illuminated the ABS system is not operative.

If the ABS indicator illuminates while travelling, stop the motorcycle in a safe place and switch off the engine.

Return the ignition switch to ON. The indicator should illuminate and then switch off after the motorcycle has been ridden at a speed of more than 10 km/h (6 mph). If the indicator fails to switch off, this means the ABS system is not working, although the normal braking system will continue to work and supply the normal stopping power. In these conditions however the system should be checked over by an authorized Honda dealer as soon as possible.

The ABS indicator may illuminate if the rear wheel is driven at high speed for more than 30 seconds when the motorcycle is upright on the suitable support. This reaction is perfectly normal. Set the ignition switch to OFF and then return it to ON. The indicator light should illuminate and then switch off after the motorcycle has been ridden at a speed of more than 30 km/h (19 mph).

PARKING

1. After stopping the motorcycle, shift the transmission into neutral, turn the handlebar fully to the left, turn the ignition switch OFF and remove the key.

2. When parking, support the motorcycle on the side stand.

Park the motorcycle on firm, level ground to prevent it from falling over.
If you must park on a slight incline, aim the front of the motorcycle uphill to reduce the possibility of rolling off the side stand or overturning.

3. Lock the steering to help prevent theft (page 66).

Make sure flammable materials such as dry grass or leaves do not come in contact with the exhaust system when parking your motorcycle.

To avoid possible heat damage to your motorcycle or personal belongings, do not cover the exhaust muffler with a protective cover or any clothing within 20 minutes after shutting off the engine.

ANTI-THEFT TIPS

1. Always lock the steering and never leave the key in the ignition switch. This sounds simple but people do forget.
2. Be sure the registration information for your motorcycle is accurate and current.
3. Park your motorcycle in a locked garage whenever possible.
4. Use an additional anti-theft device of good quality.
5. Put your name, address, and phone number in this Owner's Manual and keep it on your motorcycle at all times.
   Many times stolen motorcycles are identified by information in the Owner's Manuals that are still with them.

NAME: _____

ADDRESS: _____

PHONE NO: _____

MAINTENANCE

THE IMPORTANCE OF MAINTENANCE

A well-maintained motorcycle is essential for safe, economical and trouble-free riding. It will also help reduce air pollution.

To help you properly care for your motorcycle, the following pages include a Maintenance Schedule and a Maintenance Record for regularly scheduled maintenance.

These instructions are based on the assumption that the motorcycle will be used exclusively for its designed purpose. Sustained high speed operation or operation in unusually wet or dusty conditions will require more frequent service than specified in the Maintenance Schedule. Consult your Honda dealer for recommendations applicable to your individual needs and use.

If your motorcycle overturns or becomes involved in a crash, be sure your Honda dealer inspects all major parts, even if you are able to make some repairs.

⚠ WARNING

Improperly maintaining this motorcycle or failing to correct a problem before you ride can cause a crash in which you can be seriously hurt or killed.

Always follow the inspection and maintenance recommendations and schedules in this owner's manual.

MAINTENANCE SAFETY

This section includes instructions on some important maintenance tasks. You can perform some of these tasks with the tools provided - if you have basic mechanical skills.

Other tasks that are more difficult and require special tools are best performed by professionals. Wheel removal should normally be handled only by a Honda technician or other qualified mechanic; instructions are included in this manual only to assist in emergency services.

Some of the most important safety precautions follow. However, we cannot warn you of every conceivable hazard that can arise when performing maintenance. Only you can decide whether or not you should perform a given task.

⚠ WARNING

Failure to properly follow maintenance instructions and precautions can cause you to be seriously hurt or killed.

Always follow the procedures and precautions in this owner's manual.

SAFETY PRECAUTIONS

- Make sure the engine is off before you begin any maintenance or repairs. This will help eliminate several potential hazards:
  - * **Carbon monoxide poisoning from engine exhaust.**
    Be sure there is adequate ventilation whenever you operate the engine.
  - * **Burns from hot parts.**
    Let the engine and exhaust system cool before touching.
  - * **Injury from moving parts.**
    Do not run the engine unless instructed to do so.
- Read the instructions before you begin and make sure you have the tools and skills required.
- To help prevent the motorcycle from falling over, park it on a firm, level surface, using the center stand or a maintenance stand to provide support.
- To reduce the possibility of a fire or explosion, be careful when working around petrol or batteries. Use only non-flammable solvent, not petrol, to clean parts. Keep cigarettes, sparks and flames away from the battery and all fuel-related parts.

Remember that your Honda dealer knows your motorcycle best and is fully equipped to maintain and repair it.

To ensure the best quality and reliability use only new genuine Honda parts or their equivalents for repair and replacement.

MAINTENANCE SCHEDULE

Perform the Pre-ride Inspection (page 74) at each scheduled maintenance period.

The following items require some mechanical knowledge. Certain items (particulary those marked * and **) may require more technical information and tools. Consult your Honda dealer.

* Should be serviced by your Honda dealer, unless the owner has the proper tools and service data and is mechanically qualified. Refer to the Official Honda Shop Manual.

** In the interest of safety, we recommend these items be serviced only by your Honda dealer.

Honda recommends that your Honda dealer should road test your motorcycle after each periodic maintenance is carried out.

NOTICE

(1) At higher odometer readings, repeat at the frequency interval established here.
(2) Service more frequently when riding in unusually wet or dusty areas.
(3) Service more frequently when riding in rain or at full throttle.
(4) Replace every 2 years, or at the indicated odometer interval, whichever comes first. Replacement requires mechanical skill.

ITEM / FREQUENCY		WHICHEVER COMES FIRST ⬇ NOTE	➡ x 1000 km / x 1000 mi / MONTHS	ODOMETER READING [NOTE (1)] 1 / 0,6	6 / 4 / 6	12 / 8 / 12	18 / 12 / 18	24 / 16 / 24	30 / 20 / 30	36 / 24 / 36	Refer to page
*	FUEL LINE					I		I		I	-
*	THROTTLE OPERATION					I		I		I	103
	AIR CLEANER	NOTE (2)					I			I	104
	CRANKCASE BREATHER TUBE	NOTE (3)			C	C	C	C	C	C	101
*	SPARK PLUGS			Every 24000 km (16000 mi)I Every 48000 km (32000 mi)R							102
*	VALVE CLEARANCE							I			-
	ENGINE OIL			**R**		**R**		**R**		**R**	96
	ENGINE OIL FILTER			**R**		**R**		**R**		**R**	98
	RADIATOR COOLANT	NOTE (4)				I		I		**R**	44,106
*	COOLING SYSTEM					I		I		I	-
*	SECONDARY AIR SUPPLY SYSTEM					I		I		I	-
	DRIVE CHAIN			Every 1000 km (600 mi) I, L							107

I: Inspect and clean, adjust, Lubricate or replace if necessary
C: Clean
R: Replace
A: Adjust
L: Lubricate

ITEM / FREQUENCY		WHICHEVER COMES FIRST ➡		ODOMETER READING [NOTE (1)]							
			x 1000 km	1	6	12	18	24	30	36	Refer to page
		⬇	x 1000 mi	0,6	4	8	12	16	20	24	
		NOTE	MONTHS		6	12	18	24	30	36	
	DRIVE CHAIN SLIDER					I		I		I	112
	BRAKE FLUID	NOTE (4)			I	I	**R**	I	I	**R**	39
	BRAKE PADS WEAR				I	I	I	I	I	I	125
	BRAKE SYSTEM			I		I		I		I	39
*	BRAKE LIGHT SWITCH					I		I		I	132
*	HEADLIGHT AIM					I		I		I	-
	CLUTCH SYSTEM					I		I		I	42
	CLUTCH FLUID	NOTE (4)			I	I	**R**	I	I	**R**	42
	SIDE STAND					I		I		I	114
*	SUSPENSION					I		I		I	-
*	NUTS, BOLTS, FASTENERS			I		I		I		I	-
* *	WHEEL/TYRES					I		I		I	-
* *	STEERING HEAD BEARINGS			I		I		I		I	-

I: Inspect and clean, adjust, Lubricate or replace if necessary
C: Clean
R: Replace
A: Adjust
L: Lubricate

TOOL KIT

The tool kit (1) is in the tool box under the pillion seat.

Some roadside repairs, minor adjustments and parts replacement can be performed with the tools contained in the kit.

- 10 x 14 mm Open end wrench
- 12 x 14 mm Open end wrench
- Extension bar
- 17 x 19 mm Box end wrench
- 5 mm hex wrench
- Standard/Phillips screwdriver
- Screwdriver handle
- Pin spanner
- 8 mm wrench
- Fuse puller
- Tool bag

(1) Tool kit

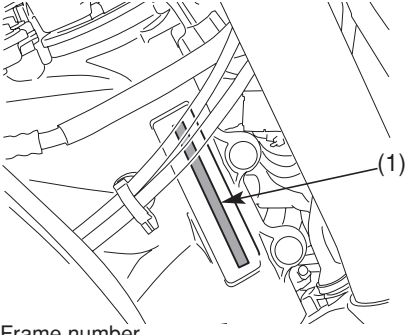
SERIAL NUMBERS

The frame and engine serial numbers are required when registering your motorcycle. They may also be required by your dealer when ordering replacement parts.
Record the numbers here for your reference.

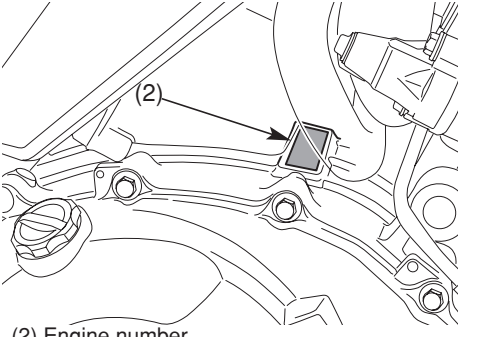
The frame number (1) is stamped on the right side of the steering head.
The engine number (2) is stamped on right side of the crankcase.

FRAME NO. _____

ENGINE NO. _____



(1) Frame number



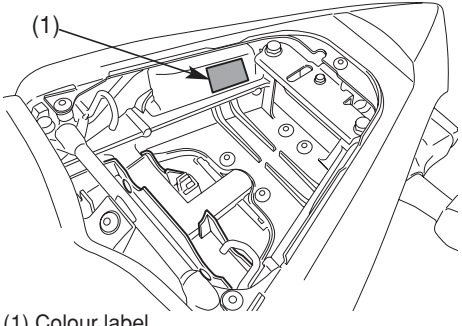
(2) Engine number

COLOUR LABEL

The colour label (1) is attached to the frame under the seat (page 67). It is helpful when ordering replacement parts. Record the colour and code here for your reference.

COLOUR _____

CODE _____



(1) Colour label

ENGINE OIL

Refer to the Safety Precautions on page 89.

Oil Recommendation

API Classification	SG or higher except oils labeled as energy conserving on the circular API service label
Viscosity	SAE 10W-30
JASO T 903 Standard	MA

Suggested Oil
Honda “4-STROKE MOTORCYCLE OIL” or equivalent.

Your motorcycle does not need oil additives. Use the recommended oil.

Do not use oils with graphite or molybdenum additives. They may adversely affect clutch operation.

Do not use API SH or higher oils displaying a circular API “energy conserving” service label on the container. They may affect lubrication and clutch performance.

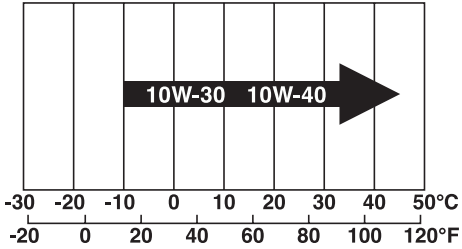
NOT RECOMMENDED **OK**

Do not use non-detergent, vegetable or castor based racing oils.

96

Viscosity

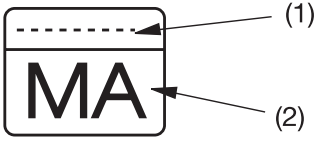
Viscosity grade of engine oil should be based on average atmospheric temperature in your riding area. The following provides a guide to the selection of the proper grade or viscosity of oil to be used at various atmospheric temperatures.



JASO T 903 standard

The JASO T 903 standard is an index for engine oils for 4-stroke motorcycle engines. There are two classes: MA and MB.

Oil conforming to the standard is labeled on the oil container.For example, the following label shows the MA classification.



PRODUCT MEETING JASO T 903
COMPANY GUARANTEEING THIS MA PERFORMANCE:

(1) Code number of the sales company of the oil
(2) Oil classification

Engine Oil and Filter

Engine oil quality is the chief factor affecting engine service life. Change the engine oil as specified in the maintenance schedule (page 91).

When running in very dusty conditions, oil changes should be performed more frequently than specified in the maintenance schedule.

Please dispose of used engine oil in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local recycling center or service station for reclamation. Do not throw in the trash or pour it on the ground or down a drain.

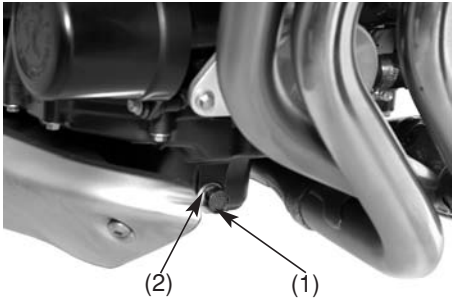
Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis,it is still advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil.

Changing the oil filter requires a special oil filter tool and a torque wrench. If you do not have these tools and the necessary skill, we recommend that you have your Honda dealer perform this service.

If a torque wrench is not used for this installation, see your Honda dealer as soon as possible to verify proper assembly.

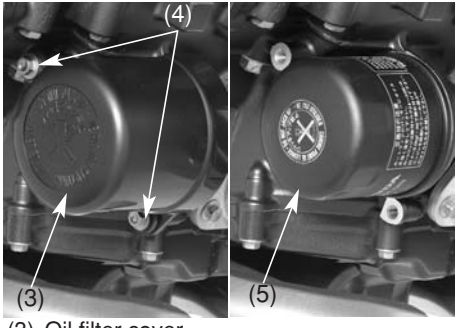
Change the engine oil with the engine at normal operating temperature and the motorcycle on its side stand to assure complete and rapid draining.

1. To drain the oil, remove the oil filler cap (page 50) and crankcase oil drain plug (1) and sealing washer (2).



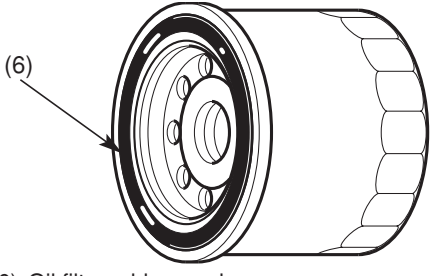
(1) Oil drain plug
(2) Sealing washer

2. Remove the oil filter cover (3) by undoing the two retaining bolts (4).
Remove the oil filter (5) using a filter tool and dispose of any oil residue. Dispose of the old filter correctly.



(3) Oil filter cover
(4) Bolts
(5) Oil filter

3. Apply a thin coat of engine oil to the new oil filter rubber seal (6).
4. Using a special tool and a torque wrench, install the new oil filter and tighten to a torque of:
   26 N•m (2.7 kgf•m, 19 lbf•ft)
   Use only the Honda genuine oil filter or a filter of equivalent quality specified for your model. Using the wrong Honda filter or a non-Honda filter which is not of equivalent quality may cause engine damage.
   Install the oil filter cover.



(6) Oil filter rubber seal

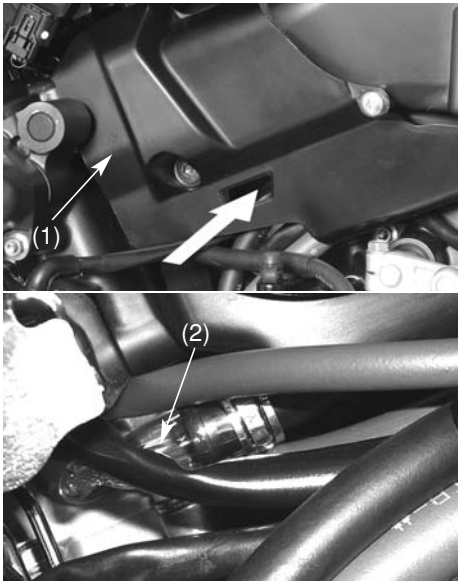
5. Check that the sealing washer on the drain plug is in good condition and install the plug. Replace the sealing washer every time the oil is changed, or each time if necessary. Oil drain Plug Torque:
   30 N•m (3.1 kgf•m, 22 lbf•ft)
6. Fill the crankcase with the recommended grade oil; approximately:
   3.0 ℓ (3.2 US qt, 2.6 Imp qt)
7. Install the oil filler cap.
8. Start the engine and let it idle for 3-5 minutes.
9. 2-3 minutes after stopping the engine, check that the oil level is at the upper level mark in the inspection window (page 50) with the motorcycle upright on firm, level ground. Make sure there are no oil leaks.

CRANKCASE BREATHER

Refer to the Safety Precautions on page 89.
Check crankcase breather from the slit on the left side engine.
Clean it as follows.

1. Remove cover drain tube (1) (page 104).
2. Remove the drain tube (2), drain deposits into a suitable container.
3. Reinstall the drain tube.

Service more frequently when riding in rain, at full throttle, or after the motorcycle is washed or overturned. Service if the deposit level can be seen in the transparent section of the drain tube.



(1) Cover drain tube (2) Drain tube

SPARK PLUGS

This motorcycle uses the spark plugs that have an iridium coated center electrode.
Use only the recommended plugs:
Standard:

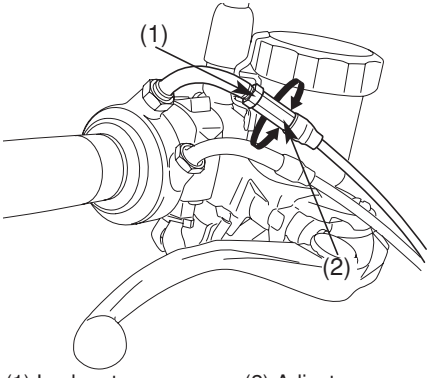
IMR9E-9HES (NGK) or
VUH27ES (DENSO)

This maintenance procedure must be carried out by an authorized Honda dealer only.

THROTTLE OPERATION

Refer to the Safety Precautions on page 89.

1. Check for smooth rotation of the throttle grip from the fully open to the fully closed position at both full steering positions.
2. Measure the throttle grip freeplay at the throttle grip flange.
   The standard freeplay should be approximately:
   2.0 – 6.0 mm (0.1 – 0.2 in)
   To adjust the free play, loosen the lock nut (1) and turn the adjuster (2).



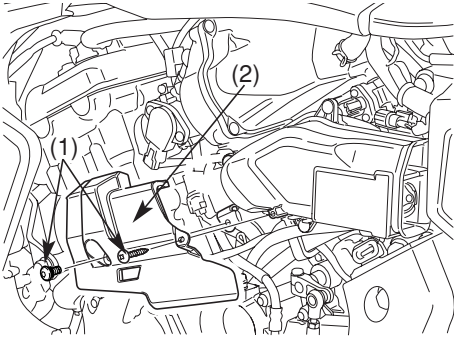
(1) Lock nut (2) Adjuster

AIR CLEANER

Refer to the Safety Precautions on page 89.

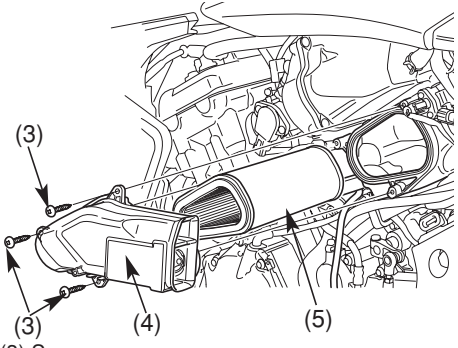
The air cleaner should be serviced at regular intervals (page 91). Service more frequently when riding in ununsually wet or dusty areas.

1. Remove the left side cover (page 72).
2. Remove the screw (1) and the bolt (1); remove the protection of air cleaner cover (2).



(1) Screw and bolt
(2) Air cleaner cover protection

3. Remove the screws (3) and the air cleaner cover (4).
4. Pull out the air cleaner (5) and clean the air cleaner using compressed air from the inside, or replace it if necessary.
5. Install a new air cleaner.
   Use the Honda genuine air cleaner or an equivalent air cleaner specified for your model.
   Using the wrong Honda air cleaner or a non-Honda air cleaner which is not of equivalent quality may cause premature engine wear or performance problems.
6. Install the removed parts in reverse order of removal.



(3) Screws
(4) Air cleaner cover
(5) Air cleaner

COOLANT
Refer to the Safety Precautions on page 89.

Coolant Replacement
Coolant should be replaced by a Honda dealer, unless the owner has proper tools and service data and is mechanically qualified. Refer to an official Honda Shop Manual.

Always add coolant to the reserve tank. Do not attempt to add coolant by removing the radiator cap.

⚠ WARNING

Removing the radiator cap while the engine is hot can cause the coolant to spray out, seriously scalding you.

Always let the engine and radiator cool down before removing the radiator cap.

DRIVE CHAIN

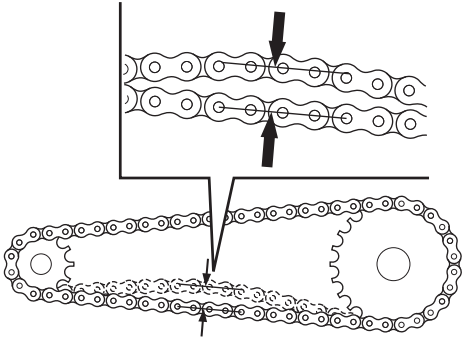
Refer to the Safety Precautions on page 89.

The service life of the drive chain is dependent upon proper lubrication and adjustment. Poor maintenance can cause premature wear or damage to the drive chain and sprockets.

The drive chain should be checked and lubricated as part of the Pre-ride Inspection (page 74). Under severe usage, or when the motorcycle is ridden in unusually dusty or muddy areas, more frequent maintenance will be necessary.

Inspection:

1. Turn the engine off, place the motorcycle on its side stand and shift the transmission into neutral.
2. Check slack in the lower drive chain run midway between the sprockets.
   Drive chain slack should be adjusted to allow the following vertical movement by hand: 25-35 mm (1.0 -1.4 in)
3. Rotate the rear wheel and check the drive chain slack. Repeat this procedure several times. Drive chain slack should remain constant. If the chain is slack only in certain sections, some links are kinked and binding. Binding and kinking can frequently be eliminated by lubrication.

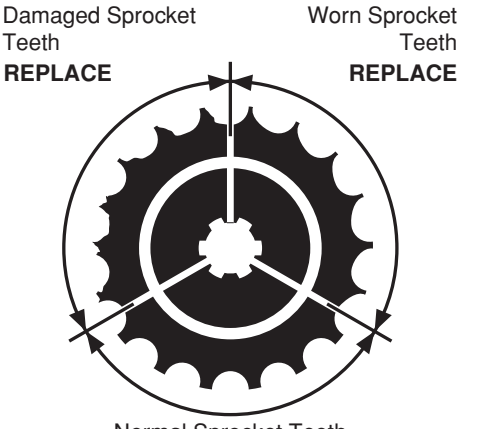


(1) Drive chain

4. Rotate the rear wheel slowly and inspect the drive chain and sprockets for any of the following conditions:
   DRIVE CHAIN
   - Damaged Rollers
   - Loose Pins
   - Dry or Rusted Links
   - Kinked or Binding Links
   - Excessive Wear
   - Improper Adjustment
   - Damaged or Missing O-rings

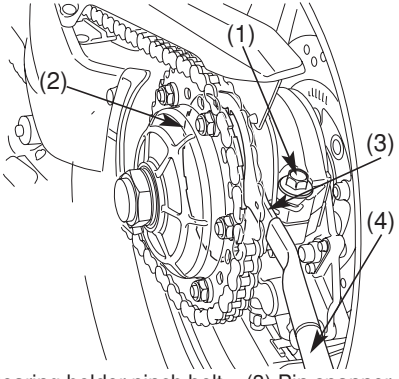
   SPROCKETS
   - Excessively Worn Teeth
   - Broken or Damaged Teeth

A drive chain with damaged rollers, loose pins, or missing O-rings must be replaced. A chain which appears dry, or shows signs of rust, requires supplementary lubrication. Kinked or binding links should be thoroughly lubricated and worked free. If links cannot be freed, the chain must be replaced.



Adjustment:

Drive chain slack should be checked and adjusted, if necessary, every 1000 km (600 miles). When operated at sustained high speeds or under conditions of frequent rapid acceleration, the chain may require more frequent adjustment.



(1) Bearing holder pinch bolt
(2) Bearing holder
(3) Pin spanner
(4) Extension bar

If the drive chain requires adjustment, the procedure is as follows:

1. Place the motorcycle on its side stand with the transmission in neutral and the ignition switch “OFF”.
2. Loosen the bearing holder pinch bolt (1).
3. Turn the bearing holder (2) clockwise or counterclockwise to obtain the proper chain slack with the pin spanner (3) and extension bar(4).
4. Tighten the bearing holder pinch bolt (1) to specified torque.
   Bearing holder pinch bolt torque:
   74 N•m (7.5 kgf•m, 54 lbf•ft)

If a torque wrench is not used for this installation, see your Honda dealer as soon as possible to verify proper assembly.

5. Recheck drive chain slack.
   25-35 mm (1.0 -1.4 in)

Wear inspection:

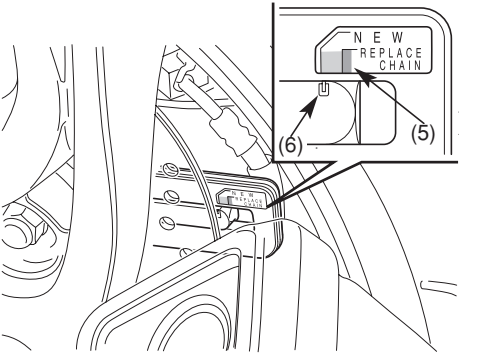
Check the chain wear label when adjusting the chain. If the red zone (5) on the label aligns with the index mark (6) on the swingarm after the chain has been adjusted to the proper slack, the chain is excessively worn and must be replaced. The proper slack is:

25-35 mm (1.0 -1.4 in)

Damage to the bottom part of the frame may be caused by excessive drive chain slack of more than:

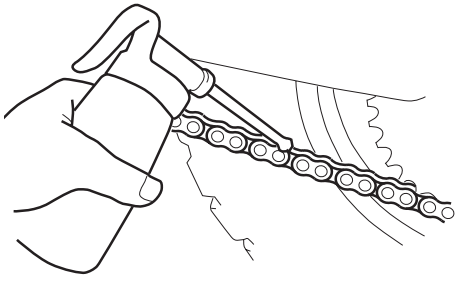
50 mm (2.0 in)

This motorcycle has a staked master link drive chain witch requires a special tool for cutting and staking. Do not use an ordinary master link with this chain. See your Honda dealer.



(5) Red zone (6) Index mark

Lubrication and cleaning:
Lubricate every 1000 km (600 miles) or sooner if chain appears dry.
The drive chain on this motorcycle is equipped with small O-rings between the link plates. These O-rings retain grease inside the chain to improve its service life.
The O-rings in this chain can be damaged by steam cleaning, high pressure washers, and certain solvents. Clean the side surfaces of the chain with a dry cloth. Do not brush the rubber O-rings. Brushing will damage them. Wipe dry and lubricate only with SAE 80 or 90 gear oil. Commercial chain lubricants may contain solvents which could damage the rubber O-rings.

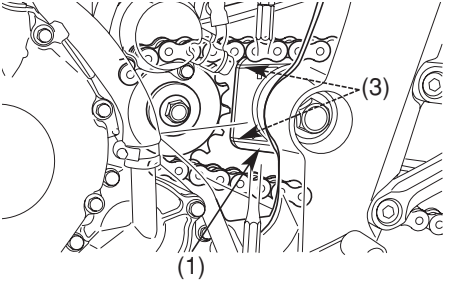


DRIVE CHAIN SLIDER

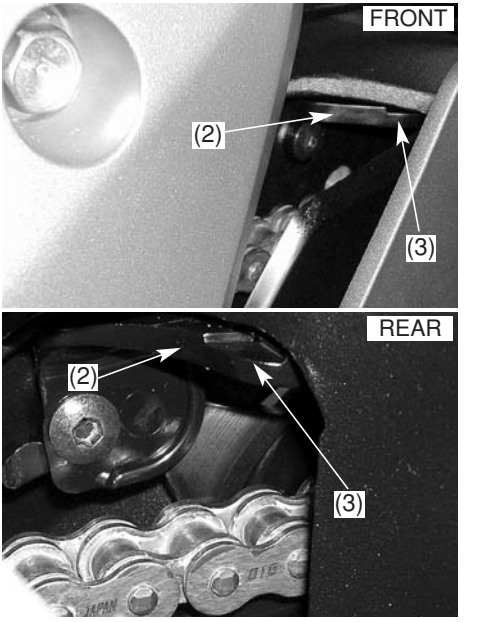
Refer to the Safety Precautions on page 89.

Check the chain slider (1) and protection (2) of swingarm for wear. The chain slider and protection must be replaced if they are worn to the wear limit line (3).

For replacement, see your Honda dealer.



(1) Chain slider
(2) Protection
(3) Wear limit line



FRONT AND REAR SUSPENSION INSPECTION
Refer to the Safety Precautions on page 89.

1. Check the fork assembly by locking the front brake and pumping the fork up and down vigorously. Suspension action should be smooth and there must be no oil leakage.
2. Swingarm bearings should be checked by pushing hard against the side of the rear wheel while the motorcycle is on a support block. Free play indicates worn bearings.
3. Carefully inspect all front and rear suspension fasteners for tightness.

SIDE STAND

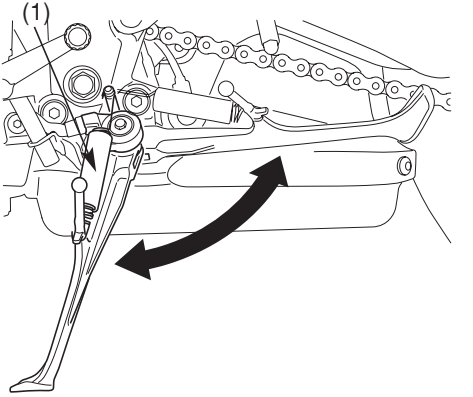
Refer to the Safety Precautions on page 89.

Perform the following maintenance in accordance with the maintenance schedule.

Functional Check:

- Check the spring (1) for damage or loss of tension and the side stand assembly for freedom of movement.
- Check the side stand ignition cut-off system:
  1. Sit astride the motorcycle, put the side stand up and the transmission in neutral.
  2. Start the engine and with the clutch lever pulled in, shift the transmission into gear.
  3. Lower the side stand. The engine should stop as you put the side stand down.

If the side stand system does not operate as described, see your Honda dealer for service.



(1) Side stand spring

WHEELS REMOVAL

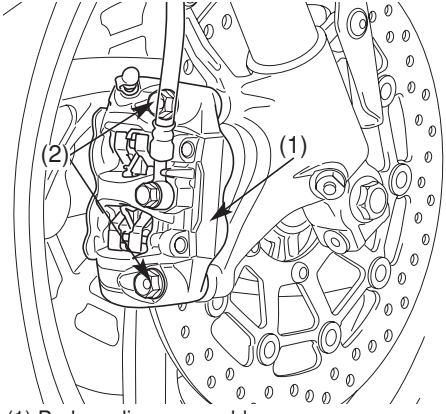
Refer to the Safety Precautions on page 89.

We recommend wheels removal be done only by your Honda dealer or another qualified mechanic. Do not attempt to remove the wheels on your own. Wheels removal requires mechanical skill and professional tools.

Front Wheel Removal (CB1000R)

1. Park your motorcycle on a firm, level surface.
2. Support the motorcycle securely and raise the front wheel off the ground using a safety stand or a hoist.
3. Remove the right and left caliper assemblies (1) from the fork leg by removing the fixing bolts (2).

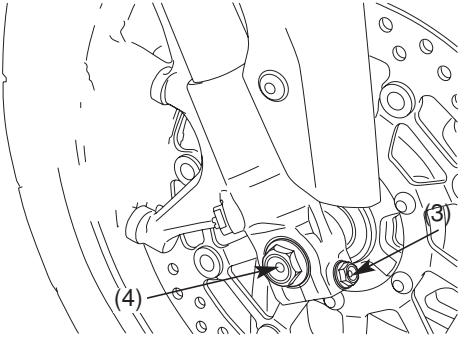
To avoid damage to the brake hose, support the caliper assembly so that it doesn't hang from the hose. Do not twist the brake hose.



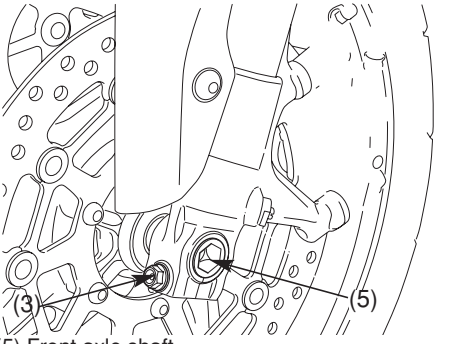
(1) Brake caliper assembly
(2) Fixing bolts

Do not depress the brake lever when the caliper assembly is removed. The caliper pistons will be forced out of the cylinder with subsequent loss of brake fluid. If this occurs, servicing of the brake system will be necessary. See your Honda dealer for this service.

4. Loosen the right and left axle pinch bolts (3), and remove the front axle bolt (4).
5. Withdraw the front axle shaft (5) and remove the front wheel and side collars.



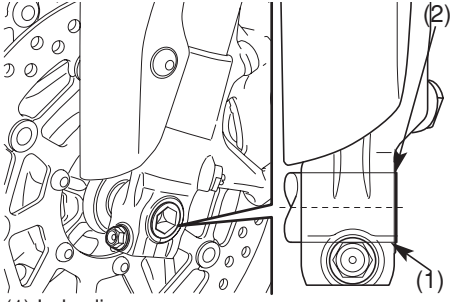
(3) Axle pinch bolt
(4) Front axle bolt



(5) Front axle shaft

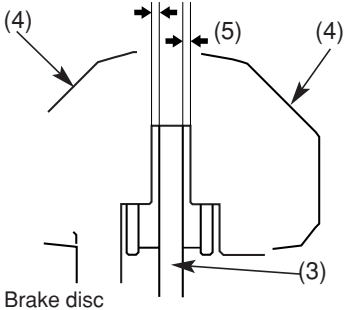
Installation:

1. Install the side collars into the left and right side wheel hub.
2. Position the front wheel between the fork legs and insert the front axle shaft from the left side through the left fork leg and wheel hub.
3. Align the index line (1) of the front axle shaft with the surface (2) of fork leg.
4. Tighten the axle pinch bolt on the left fork leg to the specified torque:
   22 N•m (2,25 kgf•m,16 lbf•ft)
5. Tighten the axle bolt (5) to the specified torque:
   59 N•m (6,0 kgf•m, 43 lbf•ft)
6. Install the right and left caliper assemblies to the fork legs and tighten the new fixing bolts to the specified torque:
   45 N•m (4,6 kgf•m, 33 lbf•ft)
   To avoid damaging the brake pads, carefully fit the brake disks between the pads.
7. Operate the front brake and pump the fork several times.
   Check for free wheel rotation after the brake is released. Recheck the wheel if the brake drags or the wheel does not rotate freely.



(1) Index line
(2) Surface

8. If the clearances (5) between each surface of the brake disc (3) and the brake caliper body (4) (not the brake pads) are symmetrical, follow next step.
   If the clearances are not symmetrical, loosen the left axle pinch bolts and pull the left fork outward or push inward to adjust the clearance. Then follow the next step.



(3) Brake disc
(4) Brake caliper body
(5) Clearances

Tighten the axle pinch bolts on the right fork leg to specified torque:

22 N•m (2,25 kgf•m,16 lbf•ft)

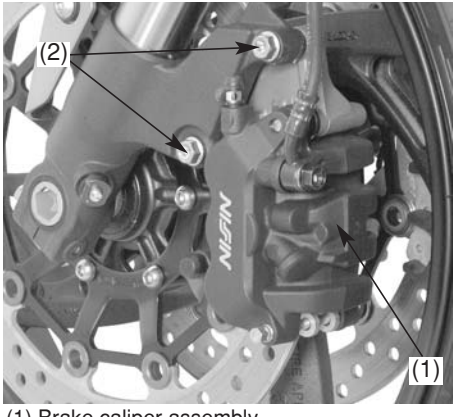
- Visually check that the clearances between each surface of the brake disc and the brake bracket (not the brake pads) are symmetrical.
- Check for free wheel rotation after the brake lever is released. Recheck the wheel if the brake drags or if the wheel does not rotate freely.
- Verify proper brake operation before riding.

If a torque wrench was not used for installation, see your Honda dealer as soon as possible to verify proper assembly. Improper assembly may lead to loss of braking capacity.

Front Wheel Removal (CB1000RA)

1. Park your motorcycle on a firm, level surface.
2. Support the motorcycle securely and raise the front wheel off the ground using a safety stand or a hoist.
3. Remove the left caliper assembly (1) from the fork leg by removing the fixing bolts (2).
4. Remove the right caliper assembly proceeding as described for the left caliper and taking care not to damage the ABS sensor.

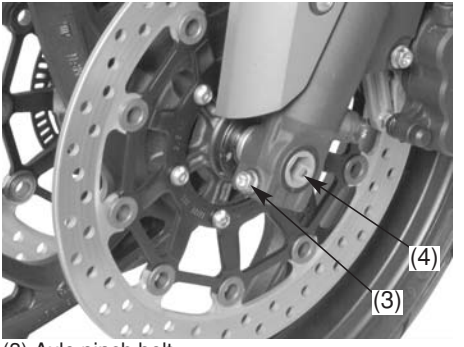
To avoid damage to the brake hose, support the caliper assembly so that it doesn't hang from the hose. Do not twist the brake hose.



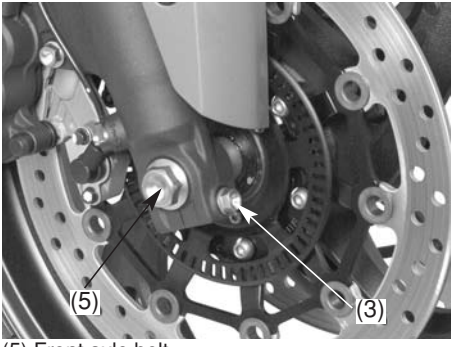
(1) Brake caliper assembly
(2) Fixing bolts

Do not depress the brake lever when the wheel is off the motorcycle. The caliper piston will be forced out of the cylinder with subsequent loss of brake fluid. If this occurs, servicing of the brake system will be necessary. See your Honda dealer for this service.

5. Loosen the right and left axle pinch bolt (3), and remove the front axle bolt (5).
6. Withdraw the front axle shaft (4) and remove the front wheel.



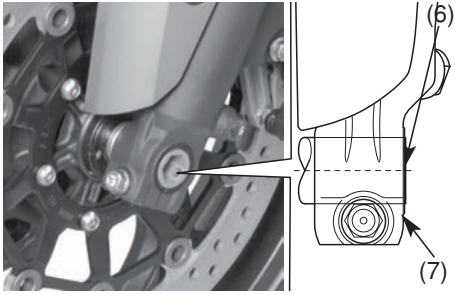
(3) Axle pinch bolt
(4) Front axle shaft



(5) Front axle bolt

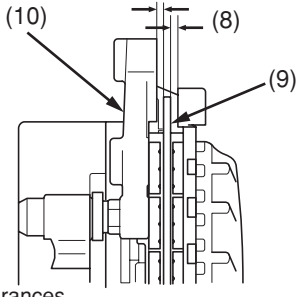
Installation:

1. Install the side collars into the left and right side wheel hub.
   Position the front wheel between the fork legs and insert the front axle shaft (4) from the left side through the left fork leg and wheel hub.
2. Align the index line (6) of the front axle shaft with the surface (7) of fork leg.
3. Tighten the axle pinch bolt (3) on the left fork leg to the specified torque:
   22 N•m (2,25 kgf•m,16 lbf•ft)
4. Tighten the axle bolt (5) to the specified torque:
   59 N•m (6,0 kgf•m, 43 lbf•ft)
5. Install the right and left brake calipers onto the fork legs.
   To avoid damaging the brake pads, carefully fit the brake disks between the pads.
   Take care not to damage the ABS sensor on the right caliper.
6. Install the caliper fixing bolts and tighten to the specified torque:
   30 N•m (3,1 kgf•m, 22 lbf•ft)
7. Operate the front brake and pump the fork several times.
   Check for free wheel rotation after the brake is released. Recheck the wheel if the brake drags or the wheel does not rotate freely.



(6) Index line
(7) Surface

8. If the clearances (8) between each surface of the brake disc (9) and the brake bracket (10) (not the brake pads) are symmetrical, follow next step.
   If the clearances are not symmetrical, loosen the left axle pinch bolts and pull the left fork outward or push inward to adjust the clearance. Then follow the next step.



(8) Clearances
(9) Brake disc
(10) Brake bracket

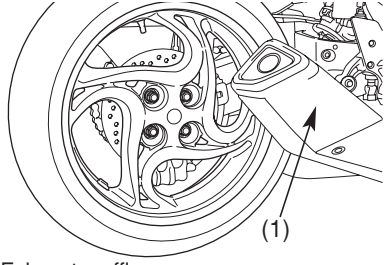
9. Tighten the axle pinch bolts on the right fork leg to specified torque:
   22 N•m (2,25 kgf•m,16 lbf•ft)

- Visually check that the clearances between each surface of the brake disc and the brake bracket (not the brake pads) are symmetrical.
- Check for free wheel rotation after the brake lever is released. Recheck the wheel if the brake drags or if the wheel does not rotate freely.
- Verify proper brake operation before riding.

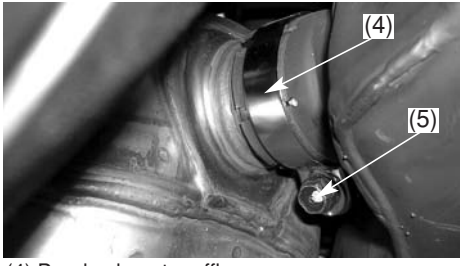
If a torque wrench was not used for installation, see your Honda dealer as soon as possible to verify proper assembly. Improper assembly may lead to loss of braking capacity.

Rear Wheel Removal

1. Raise the rear wheel off the ground by using a maintenance stand or a hoist.
   It is necessary to use a suitable maintenance stand or a hoist otherwise you must address your Honda dealer.
2. Remove the exhaust muffler (1) removing bolts (2) (3).
   Unscrew the exhaust band muffler (4) unscrewing the bolt (5).



(1) Exhaust muffler
(2) (3) Bolts



(4) Band exhaust muffler
(5) Band bolt

3. Remove the four rear wheels nuts(6).
4. Remove the rear wheel (7) slowly.

Installation Notes:

- To install the rear wheel, reverse the removal procedure.

Tighten the rear wheel nuts to the specified torque:

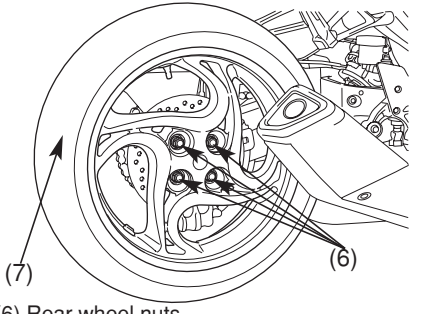
Torque rear wheel nuts:
108 N•m (11,0 kgf•m, 80 lbf•ft)

Tighten the bolts (2)(3)(5) of exhaust muffler to the specified torque:

Torque bolts exhaust muffler:
22 N•m (2,25 kgf•m, 16 lbf•ft)

After installing the wheel, apply the brake several times and then check if the wheel rotates freely. Recheck the wheel if the brake drags or if the wheel does not rotate freely.

If a torque wrench was not used for installation, see your Honda dealer as soon as possible to verify proper assembly. Improper assembly may lead to loss of braking capacity.



(6) Rear wheel nuts
(7) Rear wheel

BRAKE PAD WEAR

Refer to the Safety Precautions on page 89.

Brake pad wear depends upon the severity of usage, the type of riding, and road conditions. (Generally, the pads will wear faster on wet and dirty roads)

Inspect the pads at each regular maintenance interval (page 92).

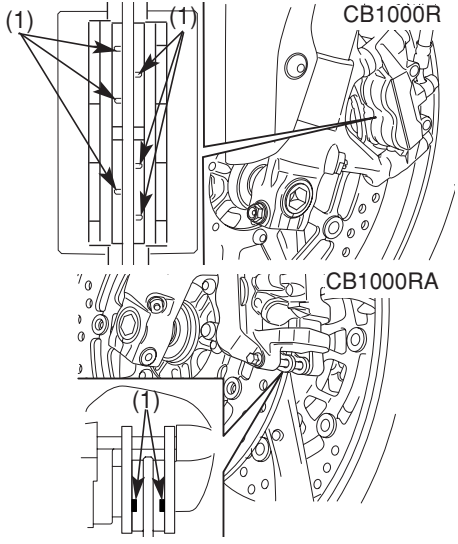
Front Brake

Always inspect each pad in both right and left brake calipers.

Check the cutouts (1) on each pad.

If either pad is worn to the cutouts, replace both pads as a set. See your Honda dealer for this service.

<FRONT BRAKE>

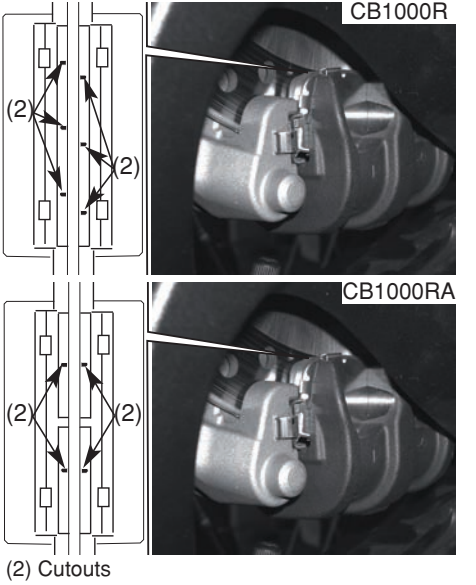


(1) Cutouts

Rear Brake

Check the cutouts (2) in each pad. If either pad is worn to the cutouts, replace both pads as a set. See your Honda dealer for this service.

<REAR BRAKE>



(2) Cutouts

BATTERY

Refer to the Safety Precautions on page 89.

It is not necessary to check the battery electrolyte level or add distilled water as the battery is a maintenance-free (sealed) type. If your battery seems weak and/or is leaking electrolyte (causing hard starting or other electrical troubles), contact your Honda dealer.

NOTICE

Your battery is a maintenance-free type and can be permanently damaged if the cap strip is removed.

⚠ WARNING

The battery gives off explosive hydrogen gas during normal operation.

A spark or flame can cause the battery to explode with enough force to kill or seriously hurt you.

Wear protective clothing and a face shield, or have a skilled mechanic do the battery maintenance.

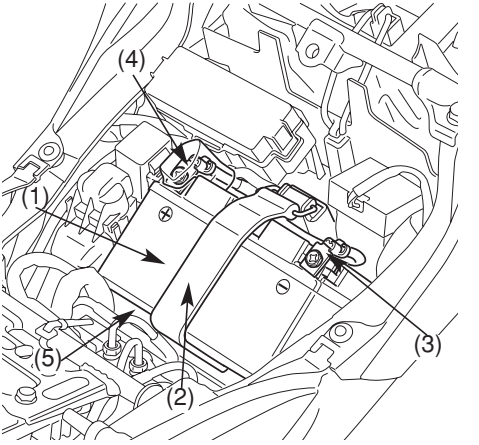
Battery removal:

The battery (1) is in the battery box under the seat.

1. Make sure the ignition switch is OFF.
2. Remove the seat (page 67).
3. Unhook the strap (2).
4. Disconnect the negative (-) terminal lead (3) from the battery first, then disconnect the positive (+) terminal lead (4).
5. Pull out the battery from the battery box (5).

Installation:

1. Reinstall in the reverse order of removal. Be sure to connect the positive (+) terminal first, then the negative (-) terminal.
2. Check all bolts and other fasteners are secure.



(1) Battery
(2) Strap
(3) Negative (-) terminal lead
(4) Positive (+) terminal lead
(5) Battery box

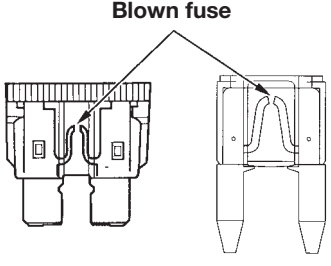
FUSE REPLACEMENT

Refer to the Safety Precautions on page 89.

When frequent fuse failure occurs, it usually indicates a short circuit or an overload in the electrical system. See your Honda dealer for repair.

NOTICE

Never use a fuse with a different rating from that specified. Serious damage to the electrical system or a fire may result, causing a dangerous loss of lights or engine power.

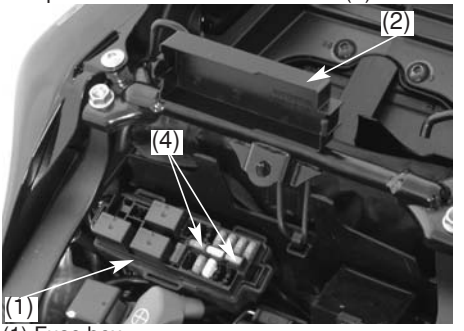


Fuse box:

The fuse box (1) is located under the pillion seat. The fuses specified are as follows:

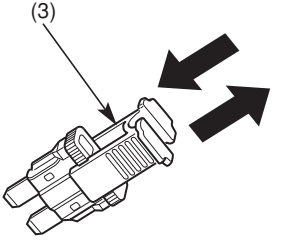
10A - 20A CB1000R
10A - 20A - 30A CB1000RA

1. Remove the pillion seat (page 67).
2. Open the cover of the fuse box (2).



(1) Fuse box
(2) Fuse box cover
(3) Fuse puller
(4) Spare fuses

3. Extract the fuse using the specific fuse puller (3) supplied in the toolkit. If the fuse is burnt out, fit a replacement.
   The spare fuses (4) is located in the fuse box.
4. Close the fuse box cover and refit the pillion seat.



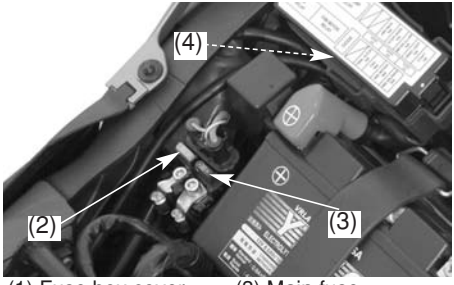
Main fuse , FI fuse

The main fuse and FI fuse are located under the seat near the battery.

The fuses specified are as follows:

20A FI fuse
30A Main fuse

1. Remove the seat (page 67).
2. Open the fuse box cover (1) of FI fuse (2) and main fuse (3).
3. Extract the fuse using the specific extractor tool supplied in the toolkit.
   If the fuse is burnt out, fit a replacement.
   The spare fuses (4) are located in the fuse boxes.
4. Close the fuses box cover.
   Refit the pillion seat.

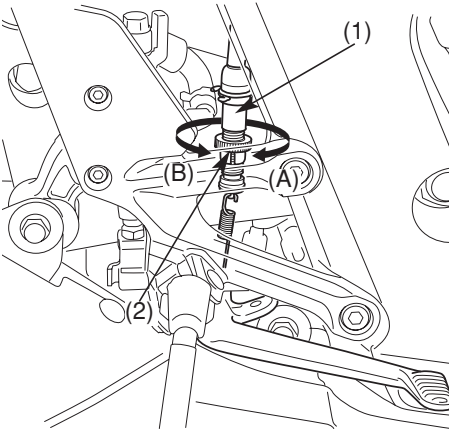


(1) Fuse box cover
(2) FI fuse
(3) Main fuse
(4) Spare fuses

BRAKE LIGHTS SWITCH ADJUSTMENT

Refer to the Safety Precautions on page 89.

Check the operation of the brakelight switch (1) on the right side of the engine.
The switch can be adjusted by turning the adjusting nut (2). Turn the nut in direction (A) if operation of the brakelight switch is delayed, or in direction (B) if it is anticipated (too sensitive).



(1) Brakelight switch
(2) Adjusting nut

BULB REPLACEMENT

Refer to the Safety Precautions on page 89.

The light bulb becomes very hot while the light is ON, and remains hot for a while after it is turned OFF. Be sure to let it cool down before servicing.

Do not put fingerprints on the headlight bulb, as they may create hot spots on the bulb and cause it to break.
Wear clean gloves while replacing the bulb.
If you touch the bulb with your bare hands, clean it with a cloth moistened with alcohol to prevent its early failure.

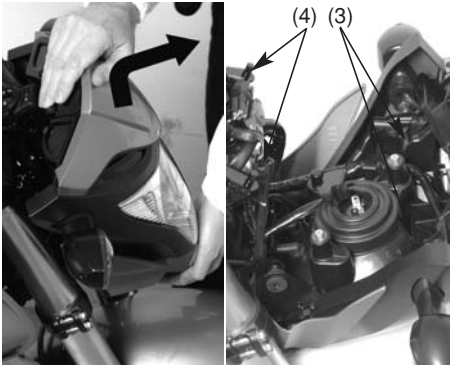
- Be sure to turn the ignition switch OFF when replacing the bulb.
- Do not use bulbs other than those specified.
- After installing a new bulb, check that the light operates properly.

Headlight bulb

1. Remove the headlight (1) unscrewing the two left and right bolt sockets (2).

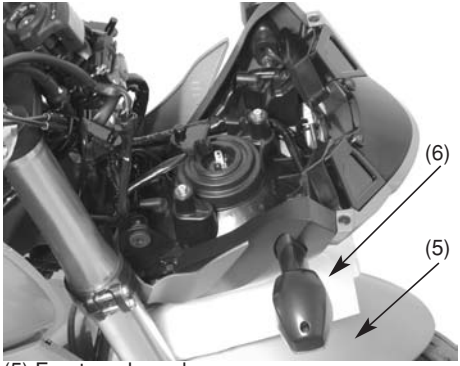
(1) Headlight
(2) Bolt sockets

2. Raise lightly the headlight and pull forward carefully to extract the rubber bushings (3) from two pins (4) of headlight frame.



(3) Headlight bushings
(4) Pins

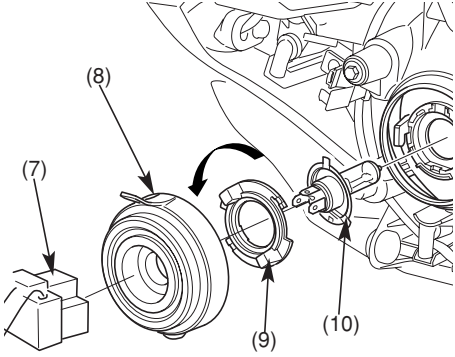
3. Put carefully headlight on front mudguard (5).
   Put a suitable protection between the headlight and the mudguard.
4. Extract the connector (7).
5. Remove dust seal cover (8).



(5) Front mudguard
(6) Protection
(7) Connector

6. Turn bulb holder (9) counterclockwise and remove bulb (10).

   To refit, perform the removal operations in reverse sequence ensuring you align the bulb locating tabs with the slots on the bulb socket.



(8) Dust seal cover
(9) Bulb holder
(10) Bulb

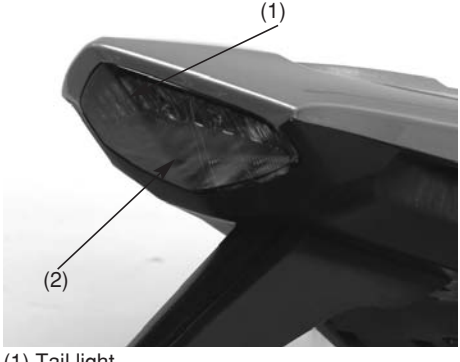
Position Light Bulb

Position light use some LED.
If there is a LED witch is not turned on, see your Honda dealer for this service.

(1) Position light

Brake/Tail Light

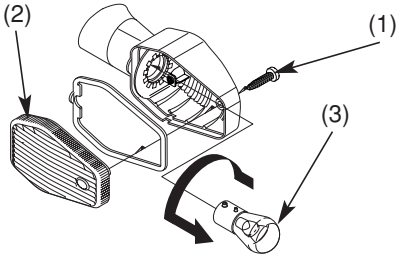
Brake and taillight uses LEDS.
If there is a LED which is not turned on, see your Honda dealer for this service.



(1) Tail light
(2) Brake light

Front and Rear turn signal bulb

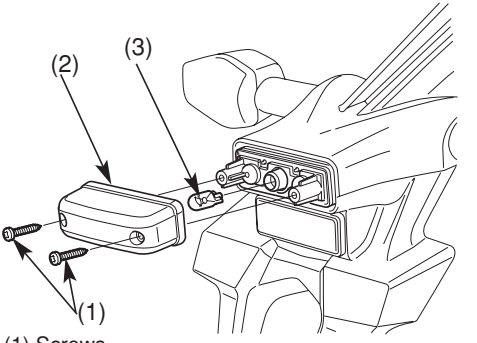
1. Remove the screw (1).
2. Remove the turn signal lens (2).
3. Remove the bulb (3) by pressing in and turning counterclockwise.
4. Install a new bulb and check that the light operates properly.
   - Use only the amber bulb.



(1) Screw
(2) Turn signal lens
(3) Bulb

License Light Bulb

1. Remove the two screws (1).
2. Remove the license light bulb (2).
3. Remove the bulb (3) without turning it.
4. Install a new bulb in the reverse order of removal.



(1) Screws
(2) License light bulb
(3) Bulb

CLEANING

Clean your motorcycle regularly to protect the surface finishes and inspect for damage wear, and oil or brake fluid leakage.
Avoid cleaning products that are not specifically designed for motorcycle or automobile surfaces.
They may contain harsh detergents or chemical solvents that could damage the metal, paint, and plastic on your motorcycle.
If your motorcycle is still warm from recent operation, give the engine and exhaust system time to cool off.
We recommend avoiding the use of high pressure water spray (typical in coinoperated car washes).

NOTICE

High pressure water (or air) can damage certain parts of the motorcycle.

Washing the motorcycle

1. Rinse the motorcycle thoroughly with cool water to remove loose dirt.
2. Clean the motorcycle with a sponge or soft cloth using cool water.
   Avoid directing water at muffler outlets and electrical parts.
3. Clean the plastic parts using a cloth or sponge dampened with a solution of mild detergent and water. Rub the soiled area, gently rinsing it frequently with fresh water. Take care to keep brake fluid or chemical solvents off the motorcycle.
   They will damage the plastic and painted surfaces.

The inside of the headlight lens may be clouded immediately after washing the motorcycle. Moisture condensation inside the headlight lens will disappear gradually by lighting the headlight in high beam. Run the engine while keeping the headlight on.

4. After cleaning rinse the motorcycle thoroughly with plenty of clean water. Strong detergent residue can corrode alloy parts.
5. Dry the motorcycle, start the engine, and let it run for several minutes.
6. Test the brakes before riding the motorcycle. Several applications may be necessary to restore normal braking performance.
7. Lubricate the drive chain immediately after washing and drying the motorcycle.

Braking efficiency may be temporarily impaired immediately after washing the motorcycle.
Anticipate longer stopping distance to avoid a possible accident.

Finishing Touches

After washing your motorcycle, consider using a commercially-available spray cleaner/polish or quality liquid or paste wax to finish the job. Use only a non-abrasive polish or wax made specifically for motorcycles or automobiles. Apply the polish or wax according to the instructions on the container.

Removing Road Salt

The salt contained in the road surface freezing prevention medicine which a road was sprayed with in winter and the seawater becomes the cause which rust occurs in.
Wash your motorcycle by the following point after it runs through such a place.

1. Clean the motorcycle using cool water (page 140).

Do not use warm water.
This worsens the effect of the salt.

2. Dry the motorcycle and the metal surfaces protected with wax.

Painted Aluminum Wheel Maintenance
Aluminum may corrode from contact with dirt, mud, or road salt. Clean the wheels after riding through any of these substances. Use a wet sponge and mild detergent. Avoid stiff brushes, steel wool, or cleaners containing abrasives or chemical compounds.

After washing, rinse with plenty of water and dry with a clean cloth.

Apply touch-up paint to the wheels where damage has resulted.

Exhaust Pipe Maintenance
The exhaust pipe is steel but may become stained by oil or mud. If necessary, remove heat stains with a suitable liquid abrasive.

STORAGE GUIDE

Extended storage, such as for winter requires that you take certain steps to reduce the effects of deterioration from non-use of the motorcycle. In addition, necessary repairs should be made BEFORE storing the motorcycle - otherwise, these repairs may be forgotten by the time the motorcycle is removed from storage.

STORAGE

1. Change the engine oil and filter.
2. Make sure the cooling system is filled with a 50/50% antifreeze solution.
3. Empty the fuel tank into an approved petrol container using a commercially available hand siphon or an equivalent method. Spray the inside of the tank with an aerosol rust-inhibiting oil.
   Reinstall the fuel fill cap on the tank.

⚠ WARNING

Petrol is highly flammable and explosive. You can be burned or seriously injured when handling fuel.

- Stop the engine and keep heat, sparks, and flame away.
- Refuel only outdoors.
- Wipe up spills immediately.

4. To prevent rusting in the cylinders,contact your Honda dealer.
5. Remove the battery. Store in an area protected from freezing temperatures and direct sunlight. Slow charge the battery once a month.
6. Wash and dry the motorcycle. Wax all painted surfaces. Coat chrome with rust inhibiting oil.
7. Lubricate the drive chain (page 111).
8. Inflate the tyres to their recommended pressures. Place the motorcycle on blocks to raise both tyres off the ground.
9. Cover the motorcycle (don't use plastic or other coated materials) and store in an unheated area, free of dampness with a minimum of daily temperature variation. Do not store the motorcycle in direct sunlight.

REMOVAL FROM STORAGE

1. Uncover and clean the motorcycle.
2. Change the engine oil if more than 4 months have passed since the start of storage.
3. Charge the battery as required. Install the battery.
4. Drain any excess aerosol rust-inhibiting oil from the fuel tank. Fill the fuel tank with fresh petrol.
5. Perform all Pre-ride Inspection checks (page 74).
   Test ride the motorcycle at low speeds in a safe riding area away from traffic.

SPECIFICATIONS

DIMENSIONS

Overall length	2105 mm (82.87 in)
Overall width	785 mm (30.91 in)
Overall height	1095 mm (42.95 in)
Wheelbase	1445 mm (56.89 in)

CAPACITIES

Engine oil	
After draining	2.7 ℓ
After draining and oil filter change	3.0 ℓ
After disassembly	3.6 ℓ
Fuel tank	17.0 ℓ (4.50 US gal, 3.74 Imp gal)
Fuel reserve	4 ℓ (1.05 US gal, 0.88 Imp gal)
Cooling system capacity	3.06 ℓ
Passenger capacity	Operator and one passenger
Maximum weight capacity	188 kg (415 lbs)

ENGINE

Bore and stroke	75,0 x 56,5 mm (2.95 x 2.22 in)
Compression ratio	11,2: 1
Displacement	998,4 cm^3 (60.92 cu-in)
Spark plugs Standard	IMR9E – 9HES (NGK) or VUH27ES (DENSO)
Spark plug gap	0,80 – 0,90 mm (0.03-0.04 in)

CHASSIS AND SUSPENSION

Caster		25° 00’
Trail		99 mm
Tyre size, front		120/70ZR17M/C(58W)
Tyre size, rear		180/55ZR17M/C(73W)
Type (front/rear)		Radial - Tubeless

POWER TRANSMISSION

Primary reduction		1.604
Gear ratio	1st:	2.538
	2nd:	1.941
	3nd:	1.578
	4th:	1.363
	5th:	1.217
	6th:	1.115
Final reduction		2.750

ELECTRICAL

Battery		12V – 10Ah
Generator		0.350kW/5.000 min^{-1} (rpm)

LIGHTS

Headlight		12V – 60/55W
Brake/Tail light		LED
Turn signal light	Front:	12V – 21W x 2
	Rear:	12V – 21W x 2
Instrument lights		LED
Neutral indicator light		LED
Turn signal indicator light		LED
High beam indicator light		LED
Low oil pressure indicator light		LED
Position light		LED
License light		12V – 5W

FUSE

Main fuse	30A
ABS fuse	10A-30A (CB1000RA)
FI fuse	20A
Other fuses	10A-20A

CATALYTIC CONVERTER

This motorcycle is equipped with catalytic converter.

The catalytic converter contains precious metals that serve as catalysts, promoting chemical reactions to convert the exhaust gasses without affecting the metals.

The catalytic converter act on HC, CO, and NOx. Replacement parts must be original Honda parts or equivalents.

The catalytic converter must operate at a high temperature for the chemical reactions to take place. It can set on fire any combustible materials that come near them. Park your motorcycle away from high grass, dry leaves,or other flammables.

Defective catalytic converter contribute to air pollution, and can impair your engine's performance. Follow these guidelines to protect your motorcycle's catalytic converter.

- Always use unleaded petrol. Even a small amount of leaded petrol can contaminate the catalyst metals, making the catalytic converter ineffective.
- Keep the engine tuned-up.
- Have your motorcycle diagnosed and repaired if it is misfiring, backfiring, stalling or otherwise not running properly.