CB650RA

OWNER'S MANUAL



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

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Welcome

Congratulations on your purchase of a new Honda motorcycle. Your selection of a Honda makes you part of a worldwide family of satisfied customers who appreciate Honda's reputation for building quality into every product.

To ensure your safety and riding pleasure:

- Read this owner's manual carefully.
- Follow all recommendations and procedures contained in this manual.
- Pay close attention to safety messages contained in this manual and on the motorcycle.
- The following codes in this manual indicate each country.
- The illustrations here in are based on the CB650RA ED type.

Country Codes

Code CB650RA	Country
ED, III ED	European direct sales
KO	Korea
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. 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 safety 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 judgement.

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.

Other important information is provided under the following titles:

NOTICE Information to help you avoid damage to your motorcycle, other property, or the environment.

Contents

Motorcycle Safety P. 2

Operation Guide P. 18

Maintenance P. 63

Troubleshooting P. 105

Information P. 127

Specifications P. 140

Index P. 143

Motorcycle Safety

This section contains important information for safe riding of your motorcycle.
Please read this section carefully.

Safety Guidelines.....P. 3
Image Labels.....P. 6
Safety Precautions.....P. 11
Riding Precautions.....P. 12
Accessories & Modifications.....P. 16
Loading.....P. 17

Safety Guidelines

Follow these guidelines to enhance your safety:

- Perform all routine and regular inspections specified in this manual.
- Stop the engine and keep sparks and flame away before filling the fuel tank.
- Do not run the engine in enclosed or partly enclosed areas. Carbon monoxide in exhaust gases is toxic and can kill you.

Always Wear a Helmet

It's a proven fact: helmets and protective apparel significantly reduce the number and severity of head and other injuries. So always wear an approved motorcycle helmet and protective apparel. P. 11

Before Riding

Make sure that you are physically fit, mentally focused and free of alcohol and drugs. Check that you and your passenger are both wearing an approved motorcycle helmet and protective apparel. Instruct your passenger on holding onto the seat strap or your waist, leaning with you in turns, and keeping their feet on the footpegs, even when the motorcycle is stopped.

Take Time to Learn & Practice

Even if you have ridden other motorcycles, practice riding in a safe area to become familiar with how this motorcycle works and handles, and to become accustomed to the motorcycle's size and weight.

Ride Defensively

Always pay attention to other vehicles around you, and do not assume that other drivers see you. Be prepared to stop quickly or perform an evasive maneuver.

Continued

Make Yourself Easy to See

Make yourself more visible, especially at night, by wearing bright reflective clothing, positioning yourself so other drivers can see you, signaling before turning or changing lanes, and using your horn when necessary.

Ride within Your Limits

Never ride beyond your personal abilities or faster than conditions warrant. Fatigue and inattention can impair your ability to use good judgement and ride safely.

Don't Drink and Ride

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

Keep Your Honda in Safe Condition

It's important to keep your motorcycle properly maintained and in safe riding condition. Inspect your motorcycle before every ride and perform all recommended maintenance. Never exceed load limits (P. 17), and do not modify your motorcycle or install accessories that would make your motorcycle unsafe (P. 16).

If You are Involved in a Crash

Personal safety is your first priority. If you or anyone else has been injured, take time to assess the severity of the injuries and whether it is safe to continue riding. Call for emergency assistance if needed. Also follow applicable laws and regulations if another person or vehicle is involved in the crash.

If you decide to continue riding, first turn the ignition switch to the ○ (Off) position, and evaluate the condition of your motorcycle. Inspect for fluid leaks, check the tightness of critical nuts and bolts, and check the handlebar, control levers, brakes, and wheels. Ride slowly and cautiously.
Your motorcycle may have suffered damage that is not immediately apparent. Have your motorcycle thoroughly checked at a qualified service facility as soon as possible.

Carbon Monoxide Hazard

Exhaust contains poisonous carbon monoxide, a colourless, odorless gas. Breathing carbon monoxide can cause loss of consciousness and may lead to death.

If you run the engine in confined or even partly enclosed area, the air you breathe could contain a dangerous amount of carbon monoxide.

Never run your motorcycle inside a garage or other enclosure.

⚠WARNING

Running the engine of your motorcycle while in an enclosed or even partially enclosed area can cause a rapid build-up of toxic carbon monoxide gas.

Breathing this colourless, odorless gas can quickly cause unconsciousness and lead to death.

Only run your motorcycle's engine when it is located in a well ventilated area outdoors.

Image Labels

ED, III ED, U type

The following pages describe the label meanings. Some labels warn you of potential hazards that could cause serious injury. Others provide important safety information. Read this information carefully and don't remove the labels.

If a label comes off or becomes hard to read, contact your dealer for a replacement.

There is a specific symbol on each label. The meanings of each symbol and label are as follows.



Read instructions contained in Owner's Manual carefully.



Read instructions contained in Shop Manual carefully. In the interest of safety, take the motorcycle to be serviced only by your dealer.



DANGER (with RED background)
You WILL be KILLED or SERIOUSLY HURT if you don't follow instructions.
WARNING (with ORANGE background)
You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.
CAUTION (with YELLOW background)
You CAN be HURT if you don't follow instructions.



BATTERY LABEL
DANGER

- Keep flame and spark away from the battery. Battery produce explosive gas that can cause explosion.
- Wear the eye protection and rubber gloves when handling the battery, or you can get burned or lose your eyesight by the battery electrolyte.
- Do not allow children and other people to touch a battery unless they understand proper handling and hazards of the battery very well.
- Handle the battery electrolyte with extreme care as it contains dilute sulfuric acid. Contact with your skin or eyes can burn you or cause loss of your eyesight.
- Read this manual carefully and understand it before handling the battery. Neglect of the instructions can cause personal injury and damage to the motorcycle.
- Do not use a battery with the electrolyte at or below the lower level mark. It can explode causing serious injury.

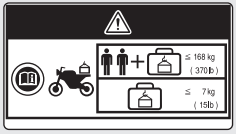
Continued



RADIATOR CAP LABEL
DANGER

ED, III ED type

NEVER OPEN WHEN HOT.
Hot coolant will scald you.
Relief pressure valve begins to open at **1.1 kgf/cm²**.



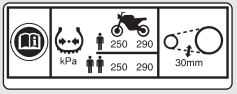
ACCESSORIES AND LOADING WARNING LABEL
WARNING

ED, III ED type

ACCESSORIES AND LOADING

- The safety stability and handling of this motorcycle may be affected by the addition of accessories and luggage.
- Read carefully the instructions contained in user's manual and installation guide before installing any accessory.
- The total weight of accessories and luggage added to rider's and passenger's weight should not exceed **168 kg (370 lb)**, which is the maximum weight capacity.
- The luggage weight must not exceed **7 kg (15 lb)** under any circumstances.
- The fitting of large fork-mounted or large handlebar mounted fairing is not recommended.

Continued



TYRE INFORMATION & DRIVE CHAIN LABEL

Cold tyre pressure:
[Driver only]

Front **250 kPa (2.50 kgf/cm², 36 psi)**

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

[Driver and passenger]

Front **250 kPa (2.50 kgf/cm², 36 psi)**

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

Keep chain adjusted and lubricated.
Freeplay **25 - 35 mm (1.0 - 1.4 in)**



or



SAFETY REMINDER LABEL

For your protection, always wear helmet, protective apparel.

FUEL LABEL

Unleaded petrol only
ETHANOL up to 10 % by volume

Safety Precautions

- Ride cautiously and keep your hands on the handlebar and feet on the footpegs.
- Keep passenger's hands onto the seat strap or your waist, passenger's feet on the footpegs while riding.
- Always consider the safety of your passenger, as well as other drivers and riders.

Protective Apparel

Make sure that you and any passenger are wearing an approved motorcycle helmet, eye protection, and high-visibility protective clothing. Ride defensively in response to weather and road conditions.

Helmet

Safety-standard certified, high-visibility, correct size for your head

- Must fit comfortably but securely, with the chin strap fastened.
- Face shield with unobstructed field of vision or other approved eye protection

⚠WARNING

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

Make sure that you and any passenger always wear an approved helmet and protective apparel.

Gloves

Full-finger leather gloves with high abrasion resistance

Boots or Riding Shoes

Sturdy boots with non-slip soles and ankle protection

Jacket and Trousers

Protective, highly visible, long-sleeved jacket and durable trousers for riding (or a protective suit)

Riding Precautions

Running-in Period

During the first 500 km (300 miles) of running, follow these guidelines to ensure your motorcycle's future reliability and performance.

- Avoid full-throttle starts and rapid acceleration.
- Avoid hard braking and rapid down-shifts.
- Ride conservatively.

Brakes

Observe the following guidelines:

- Avoid excessively hard braking and downshifting.
  - ▶ Sudden braking can reduce the motorcycle's stability.
  - ▶ Where possible, reduce speed before turning; otherwise you risk sliding out.
- Exercise caution on low traction surfaces.
  - ▶ The tyres slip more easily on such surfaces and braking distances are longer.
- Avoid continuous braking.
  - ▶ Repeated braking, such as when descending long, steep slopes can seriously overheat the brakes, reducing their effectiveness. Use engine braking with intermittent use of the brakes to reduce speed.
- For full braking effectiveness, operate both the front and rear brakes together.

Anti-lock Brake System (ABS)

This model is equipped with an Anti-lock Brake System (ABS) designed to help prevent the brakes from locking up during hard braking.

- ABS does not reduce braking distance. In certain circumstances, ABS may result in a longer stopping distance.
- ABS does not function at speeds below 10 km/h (6 mph).
- The brake lever and pedal may recoil slightly when applying the brakes. This is normal.
- Always use the recommended front/rear tyres and sprockets to ensure correct ABS operation.

Engine Braking

Engine braking helps slow your motorcycle down when you release the throttle. For further slowing action, downshift to a lower gear. Use engine braking with intermittent use of the brakes to reduce speed when descending long, steep slopes.

Wet or Rainy Conditions

Road surfaces are slippery when wet, and wet brakes further reduce braking efficiency. Exercise extra caution when braking in wet conditions.

If the brakes get wet, apply the brakes while riding at low speed to help them dry.

Continued

Parking

- Park on a firm, level surface.
- If you must park on a slight incline or loose surface, park so that the motorcycle cannot move or fall over.
- Make sure that high-temperature parts cannot come into contact with flammable materials.
- Do not touch the engine, muffler, brakes and other high-temperature parts until they cool down.
- To reduce the likelihood of theft, always lock the handlebar and remove the key when leaving the motorcycle unattended.
  Use of an anti-theft device is also recommended.

Parking with the Side Stand

1. Stop the engine.
2. Push the side stand down.
3. Slowly lean the motorcycle to the left until its weight rests on the side stand.
4. Turn the handlebar fully to the left.
   ▶ Turning the handlebar to the right reduces stability and may cause the motorcycle to fall.
5. Turn the ignition switch to the (Lock) position and remove the key. P. 54

Refuelling and Fuel Guidelines

Follow these guidelines to protect the engine, fuel system and catalytic converter:

- Use only unleaded petrol.
- Use recommended octane number. Using lower octane petrol will result in decreased engine performance.
- Do not use fuels containing a high concentration of alcohol. P. 138
- Do not use stale or contaminated petrol or an oil/petrol mixture.
- Avoid getting dirt or water in the fuel tank.

Honda selectable torque control

When the Honda selectable torque control (Torque Control) detects rear wheel spin during acceleration, the system will limit the amount of torque applied to the rear wheel.

Torque Control does not work during deceleration and will not prevent the rear wheel from skidding due to engine braking. Do not close the throttle suddenly, especially when riding on slippery surfaces.

Torque Control may not compensate for rough road conditions or rapid throttle operation. Always consider road and weather conditions, as well as your skills and condition, when applying throttle.
If your motorcycle gets stuck in mud, snow or sand, it may be easier to free it by turning off the Torque Control temporarily.
Temporarily turning off Torque Control also may help you maintain control and balance when riding on off-road terrain.

Always use the recommended tyres and sprockets to ensure correct Torque Control operation.

Accessories & Modifications

We strongly advise that you do not add any accessories that were not specifically designed for your motorcycle by Honda or make modifications to your motorcycle from its original design. Doing so can make it unsafe. Modifying your motorcycle may also void your warranty and make your motorcycle illegal to operate on public roads. Before deciding to install accessories on your motorcycle be certain the modification is safe and legal.

⚠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.

Do not pull a trailer with, or attach a sidecar to, your motorcycle. Your motorcycle was not designed for these attachments, and their use can seriously impair your motorcycle's handling.

Loading

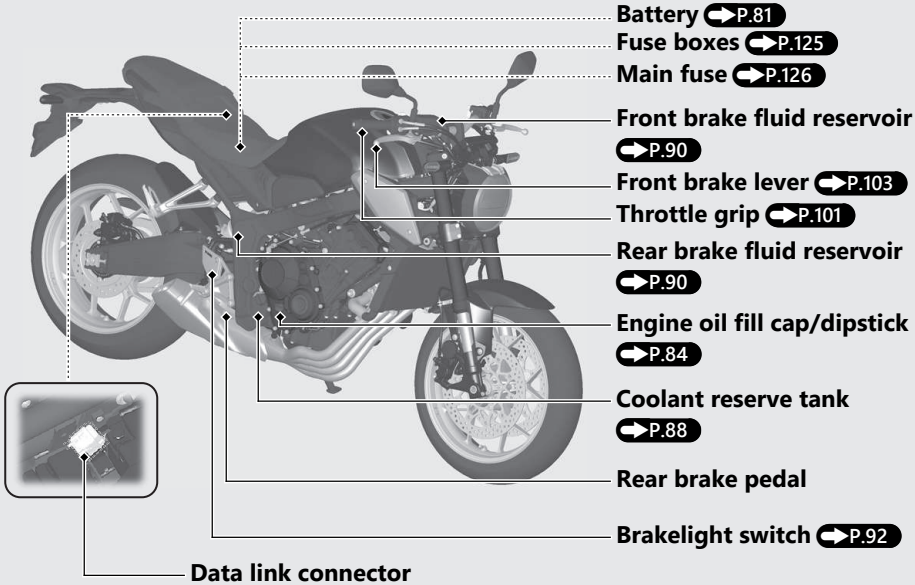
- Carrying extra weight affects your motorcycle's handling, braking and stability. Always ride at a safe speed for the load you are carrying.
- Avoid carrying an excessive load and keep within specified load limits.
  Maximum weight capacity/Maximum luggage weight P. 140
- Tie all luggage securely, evenly balanced and close to the centre of the motorcycle.
- Do not place objects near the lights or the muffler.

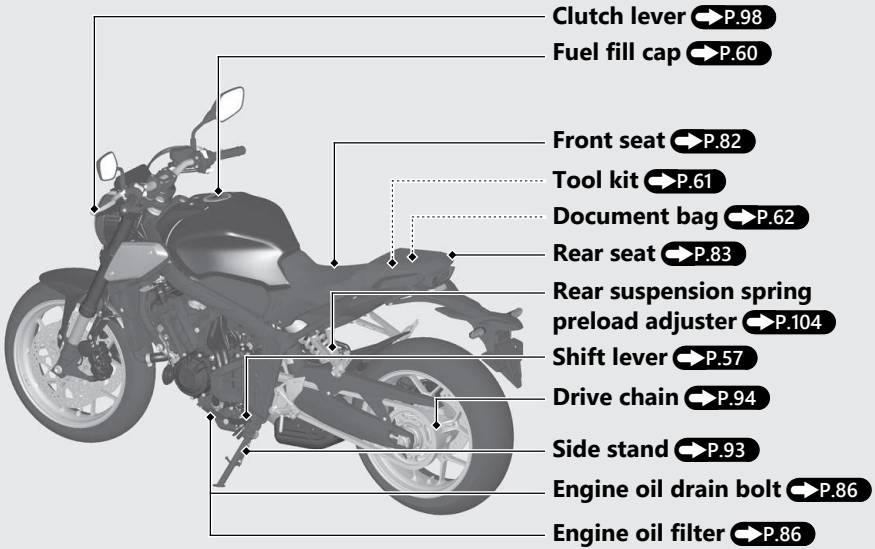
⚠WARNING

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

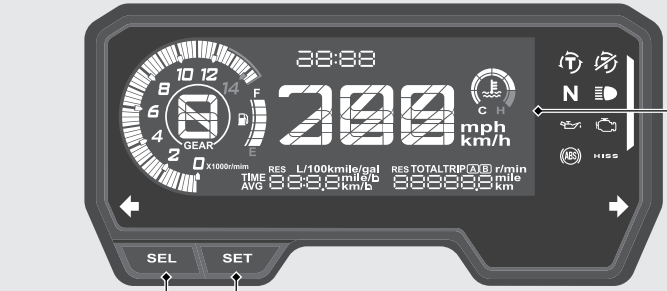
Follow all load limits and other loading guidelines in this manual.

Parts Location




Clutch lever P.98
Fuel fill cap P.60
Front seat P.82
Tool kit P.61
Document bag P.62
Rear seat P.83
Rear suspension spring preload adjuster P.104
Shift lever P.57
Drive chain P.94
Side stand P.93
Engine oil drain bolt P.86
Engine oil filter P.86

Instruments



Display Check

When the ignition switch is turned to the | (On) position, initial animation will show. If any part of these displays does not come on when it should, have your dealer check for problems.

Tachometer red zone
(excessive engine rpm range)

Clock (12-hour or 24-hour display)
To set the clock: P.33

Speedometer



Section B display
P.27

Section A display P.23

Tachometer

NOTICE
Do not operate the engine in the tachometer red zone. Excessive engine speed can adversely affect engine life.

Continued

Instruments *(Continued)*

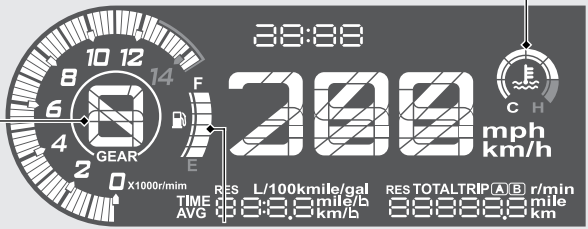
Coolant temperature gauge

When the coolant is over specified temperature, the segment H flashes.

If the segment H flashes while riding: P.107

If the coolant temperature gauge indicator flashes: P.112





Gear position indicator

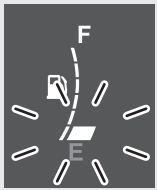
The gear position is shown in the gear position indicator.

► "-" appears when the transmission is not shifted properly.

Fuel gauge

Remaining fuel when only 1st (E) segment starts flashing: approximately 3.2 L (0.85 US gal, 0.70 Imp gal)

If the fuel gauge indicator flashes in a repeat pattern or turns off: P.111



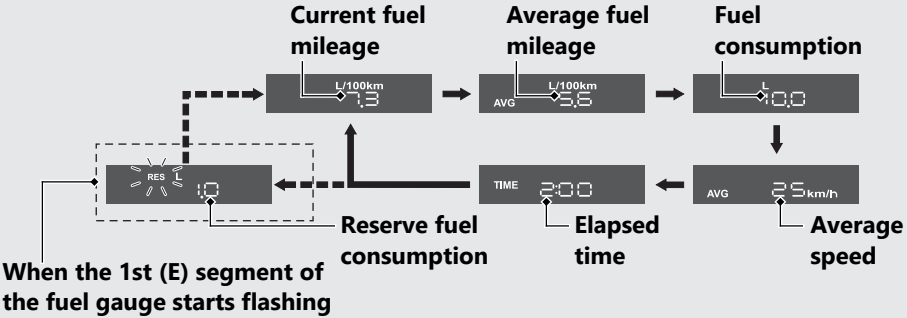
Section A display

You can select the following:

- Current fuel mileage
- Average fuel mileage [AVG]
- Fuel consumption
- Average speed [AVG]
- Elapsed time [TIME]
- Reserve fuel consumption [RES]

Changing the section A display

With the **SEL** button, you can switch the section A display between the current fuel mileage, average fuel mileage, fuel consumption, average speed, elapsed time, and reserve fuel consumption.



When the 1st (E) segment of the fuel gauge starts flashing, the current fuel mileage, average fuel mileage, fuel consumption, average speed and elapsed time to the reserve fuel consumption.

Continued

Instruments *(Continued)*

Current fuel mileage

Displays the current instant fuel mileage.

Display range: 0.0 to 300.0 L/100km (km/L, mile/gal or mile/L)

- More than 300.0 L/100km (km/L, mile/gal or mile/L): "300.0" is displayed.
- When your speed is less than 6 km/h (4 mph): "---.-" is displayed.

When "---.-" is displayed except for the above-mentioned cases, go to your dealer for service.

Average fuel mileage [AVG]

Displays the average fuel mileage since the selected tripmeter was reset.
The average fuel mileage will be calculated based on value displayed on the tripmeter (A or B) selected.
Also, the average fuel mileage for tripmeter A will be displayed when the odometer, tripmeter A, numerical tachometer and reserve tripmeter are selected.
Display range: 0.0 to 300.0 L/100km (km/L, mile/gal or mile/L)

- More than 300.0 L/100km (km/L, mile/gal or mile/L): "300.0" is displayed.
- When the tripmeter A or B is reset: "---.-" is displayed.

When "---.-" is displayed except for the above-mentioned cases, go to your dealer for service.

To reset the average fuel mileage:
P.29

Fuel consumption

Displays the fuel consumption since the selected tripmeter was reset.
The fuel consumption will be calculated based on value displayed on the tripmeter (A or B) selected.
Also, the fuel consumption for tripmeter A will be displayed when the odometer, tripmeter A, numerical tachometer and reserve tripmeter are selected.
Display range: 0.0 to 300.0 L (litres) or 0.0 to 300.0 gal (gallon)

- More than 300.0 L (litres) or 300.0 gal (gallon): "300.0" is displayed.

When "---.-" is displayed, go to your dealer for service.

To reset the fuel consumption: P.29

Average speed [AVG]

Displays the average speed since the selected tripmeter was reset.
The average speed will be calculated based on value displayed on the tripmeter (A or B) selected.
Also, the average speed for tripmeter A will be displayed when the odometer, tripmeter A, numerical tachometer and reserve tripmeter are selected.
Display range: 0 to 299 km/h (0 to 185 mile/h)

- Initial display: "---" is displayed.
- When your motorcycle has traveled less than 0.2 km (0.12 mile) since the engine was started: "---" is displayed.
- When your motorcycle operating time is less than 30 seconds since the engine was started: "---" is displayed.

When "---" is displayed except for the above-mentioned cases, go to your dealer for service.

To reset the average speed: P.29

Elapsed time [TIME]

Displays the operating time since the selected tripmeter was reset.

The elapsed time will be calculated based on value displayed on the tripmeter (A or B) selected.

Also, the elapsed time for tripmeter A will be displayed when the odometer, tripmeter A, numerical tachometer and reserve tripmeter are selected.

Display range: 0:00 to 99:59 (hours:minutes)

- The elapsed time return to 0:00 when the readout exceeds 99:59.

To reset the elapsed time: P.29

Reserve fuel consumption [RES]

Displays the fuel consumption since the 1st (E) segment of the fuel gauge starts flashing. When the 1st (E) segment of the fuel gauge starts flashing, the current fuel mileage, average fuel mileage, fuel consumption, average speed or elapsed time switch to the reserve fuel consumption. You should refill the tank as soon as possible.

- Flashes from "0.0" L or gal.
  - ▶ When the amount of consumed fuel is more than 1.6 L (0.42 US gal, 0.35 Imp gal), the "RES" mark on the display blinks faster.

After refuelling more than the reserve amount, the display returns to normal.

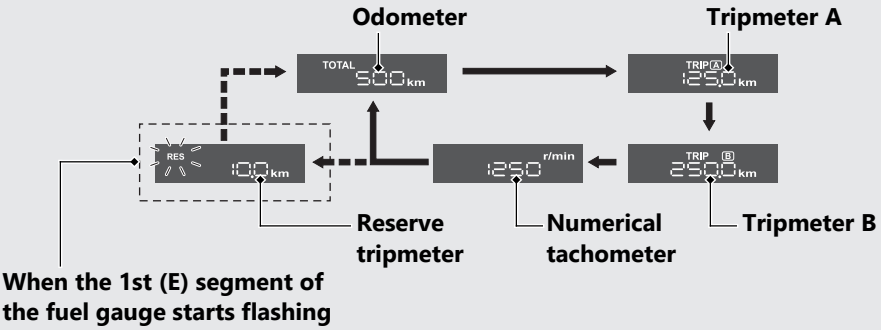
Section B display

You can select the following:

- Odometer [TOTAL]
- Tripmeter [TRIP A/B]
- Numerical tachometer
- Reserve tripmeter [RES]

Changing the section B display

With the **SET** button, you can switch the section B display between the odometer, tripmeter A, tripmeter B, numerical tachometer, and reserve tripmeter.



When the 1st (E) segment of the fuel gauge starts flashing, the odometer, tripmeters and numerical tachometer switches to the reserve tripmeter.

Continued

Instruments *(Continued)*

Odometer [TOTAL]

Total distance ridden.
When "------" is displayed, go to your dealer for service.

Tripmeter [TRIP A/B]

Distance ridden since tripmeter was reset.

When "-----.-" is displayed, go to your dealer for service.
To reset the tripmeter: P.29

Numerical tachometer

Displays the engine revolutions per minutes digit.
Display range: 0 to 15,000 r/min

- More than 15,000 r/min: "15,000" is displayed.

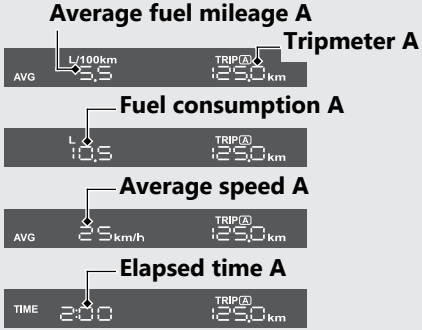
Reserve tripmeter [RES]

Distance ridden since the 1st (E) segment of the fuel gauge starts flashing.
When the 1st (E) segment of the fuel gauge starts flashing, the odometer, tripmeters or numerical tachometer switch to the reserve tripmeter. You should refill the tank as soon as possible.

When "----.-" is displayed, go to your dealer for service.
After refuelling more than the reserve amount, the display returns to normal.

To reset the tripmeter [TRIP A/B], average fuel mileage [AVG], fuel consumption, average speed [AVG] and elapsed time

To reset the tripmeter A, average fuel mileage A, fuel consumption A, average speed A and and elapsed time A (these are based on tripmeter A) together, press and hold the **SET** button while tripmeter A is displayed.



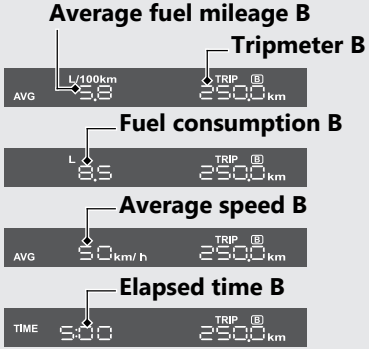
When they are reset, reset display appears at each indication. Then, the display returns to the last selected indication.

Also, the tripmeter A, average fuel mileage, fuel consumption, average speed and elapsed time will be automatically reset by refuelling more than the reserve amount and riding your motorcycle for 0.1 km (0.06 mile). You can activate or deactivate the automatic reset mode by refuelling. P.35

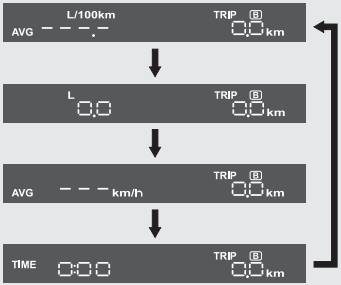


Instruments *(Continued)*

To reset the tripmeter B, average fuel mileage B, fuel consumption B, average speed B and and elapsed time B (these are based on tripmeter B) together, press and hold the **SET** button while tripmeter B is displayed.



When they are reset, reset display appears at each indication. Then, the display returns to the last selected indication.



Display Setting

Setting Mode A

Following items can be changed sequentially.

P.32

- Time format setting
- Clock setting
- Backlight brightness adjustment
- Activating/deactivating of tripmeter A, average fuel mileage, fuel consumption, average speed and elapsed time automatic reset mode
- HISS indicator setting
- Changing the speed and mileage unit
- Changing the fuel mileage meter unit

Setting Mode B

Following items can be changed sequentially.

P.37

- Setting of REV indicator
  - RPM setting
  - Interval RPM setting
  - Brightness adjustment
- Changing of tachometer display mode

Instruments *(Continued)*

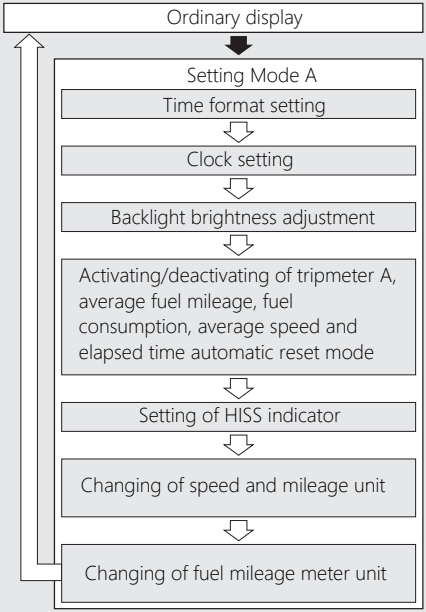
Setting Mode A

If the buttons are not pressed for about 30 seconds, the control is automatically switched from the setting mode to the ordinary display.

If the buttons are not pressed for about 30 seconds, items in the process of being set will be discarded and only items that were set and finalized will be applied. Only if the ignition switch is turned to the ○ (Off) position, items in the process of being set and those that are finalized will be applied.

➡ Press and hold **SEL** and **SET** buttons

⇨ Press the **SET** button



1 Time format setting:

You can switch the time format between 12 hour format or 24 hour format.

1. Turn the ignition switch to the ❙ (On) position.
2. Press and hold **SEL** and **SET** buttons until the current time format start flashing.



3. Press **SEL** button to select "12hr" or "24hr".



4. Press **SET** button. The time format is set, and then the display moves to the clock setting.

2 Clock setting:

1. Press **SEL** button until the desired hour is displayed.
   - ▶ Press and hold **SEL** button to advance the hour quickly.



2. Press **SET** button. The minute digits start flashing.



Instruments *(Continued)*

3. Press **SEL** button until the desired minute is displayed.
   ▶ Press and hold **SEL** button to advance the minute quickly.



4. Press **SET** button. The clock is set, and then the display moves to the backlight brightness adjustment.

3 Backlight brightness adjustment:

You can adjust the brightness to one of five levels.

1. Press **SEL** button. The brightness level is switched.
   ▶ You can adjust the brightness level from five levels.



2. Press **SET** button. The backlight is set, and then the display moves to the activating/deactivating of tripmeter A, average fuel mileage, fuel consumption, average speed and elapsed time automatic reset mode

4 Activating/deactivating of tripmeter A, average fuel mileage, fuel consumption, average speed and elapsed time automatic reset mode:

You can activate or deactivate the automatic reset mode by refuelling after the 1st (E) segment of the fuel gauge starts flashing. Initial setting is activation.

1. Press **SEL** button to select "On" (activate) or "OFF" (deactivate) in the automatic reset mode.



2. Press **SET** button. The activation/deactivation of automatic reset mode is set, and then the display moves to the setting of HISS indicator (HISS indicator comes on).

5 Setting of HISS indicator:

1. Press **SEL** button to select "On" (blinks) or "OFF" (off) in the automatic reset mode.



2. Press **SET** button. The HISS indicator setting is set, and then the display moves to the changing of speed and mileage unit.

Continued

Instruments *(Continued)*

6 Changing of speed and mileage unit:

1. Press the **SEL** button to select either "km/h" and "km" or "mph" and "mile".



2. Press the **SET** button. The speed and mileage unit is set, and then the display moves to the changing of fuel mileage meter unit.

7 Changing the fuel mileage meter unit:

1. When the "km/h" for speed and "km" for mileage are selected

Press **SEL** button to select "L/100km" or "km/L".



When the "mph" for speed and "mile" for mileage are selected

Press **SEL** button to select "mile/L" or "mile/gal".

► When "mile/gal" is selected, the unit of the fuel consumption is changed to "gal".



2. Press **SET** button. The fuel mileage meter unit is set, and then the display moves to the ordinary display.

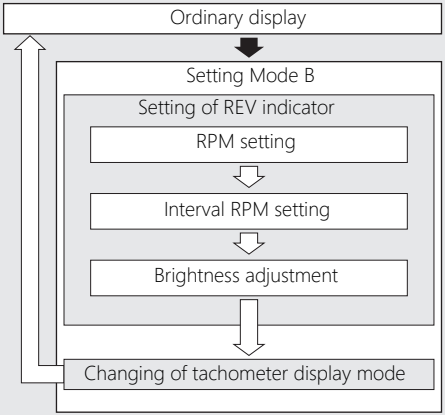
Setting Mode B

If the buttons are not pressed for about 30 seconds, the control is automatically switched from the setting mode to the ordinary display.

If the buttons are not pressed for about 30 seconds, items in the process of being set will be discarded and only items that were set and finalized will be applied. Only if the ignition switch is turned to the ○ (Off) position, items in the process of being set and those that are finalized will be applied.

➡ Press and hold the **SEL** button and ignition switch to the | (On) position until the initial animation ends

⇨ Press the **SET** button

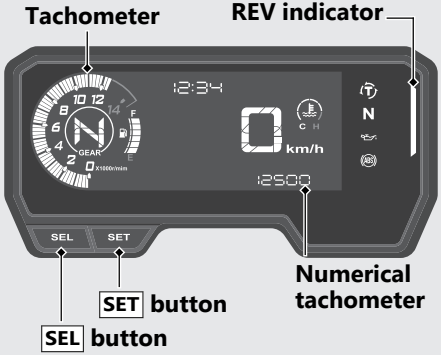


Instruments *(Continued)*

1 Setting of REV indicator:

You can change the setting of the REV indicator.

REV indicator blinks during setting.

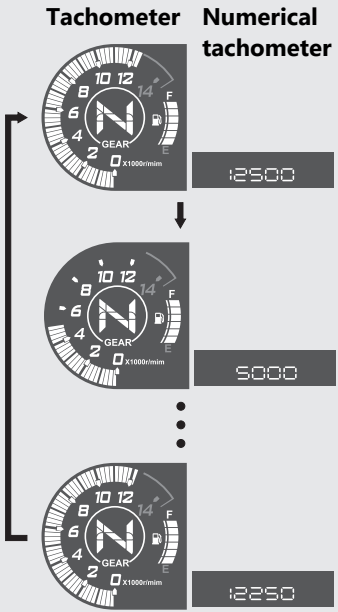


1. To change the setting mode B, turn the ignition switch to the ❙ (On) position while pressing **SEL** button until the initial animation ends. The display moves to the setting of "REV indicator blinking fastest RPM". At the same time, the numerical tachometer and the blinking bar segments show the current settings of the "REV indicator blinking fastest RPM".
   - ► Tachometer bar blinks only while setting of REV indicator.

❷ Each time **SEL** button is pressed, the "REV indicator blinking fastest RPM" setting value will be increased by one segment (250 r/min (rpm)). When the "REV indicator blinking fastest RPM" setting value exceeds 12,500 r/min (rpm), the "REV indicator blinking fastest RPM" setting value automatically returns to 5,000 r/min (rpm).

► Press and hold **SEL** button to advance the "REV indicator blinking fastest RPM" setting value quickly.

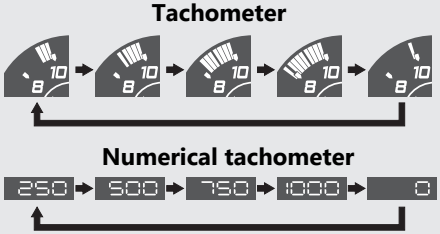
Available Setting Range
5,000 r/min (rpm) to 12,500 r/min (rpm)



Instruments *(Continued)*

3. Press **SET** button. The "REV indicator blinking fastest RPM" is set, and then the display moves to the setting of "REV indicator blinking interval RPM". At the same time, the numerical tachometer shows the current "REV indicator blinking interval RPM" and the blinking bar segment show the current settings of the "REV indicator blinking fastest RPM".

4. Each time **SEL** button is pressed, the numbers of the "REV indicator blinking interval RPM" advances as following: 250 r/min (rpm), 500 r/min (rpm), 750 r/min (rpm), 1,000 r/min (rpm) and 0 r/min (rpm).



Example: REV indicator blinking fastest
RPM: 12,500 r/min (rpm)
REV indicator blinking interval
RPM: 250 r/min (rpm)

REV indicator	r/min (rpm)
Blinking	12,000 r/min (rpm)
Blinking fast	12,250 r/min (rpm)
Blinking fastest	12,500 r/min (rpm)

If the "REV indicator blinking interval RPM" is 0, the REV indicator blinks when reaching the "REV indicator blinking fastest RPM" setting value.

5 Press **SET** button. The "REV indicator blinking interval RPM" is set, and then the display moves to the brightness adjustment of the REV indicator.
The REV indicator switches from blinking to lighting.

Instruments *(Continued)*

6 Press **SEL** button. The brightness level is switched.

▶ You can adjust the brightness level from five levels.



7 Press **SET** button. The brightness of the REV indicator is set, and then the display moves to the display setting of the tachometer.

2 Changing of tachometer display mode:

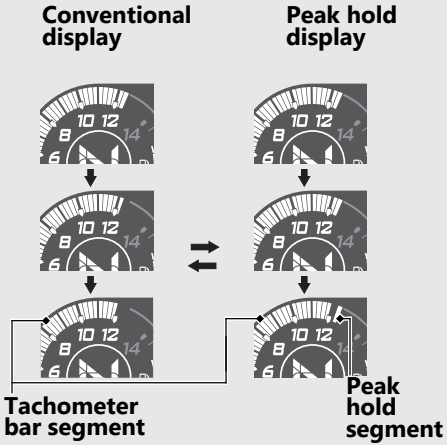
You can change the display mode of the tachometer.

1 Press **SEL** button to switch the display mode of tachometer.

2 Press **SET** button. The currently selected display mode is set, and then the display moves to the ordinary display.

Conventional display
Shows the engine RPM on the tachometer bar segment.

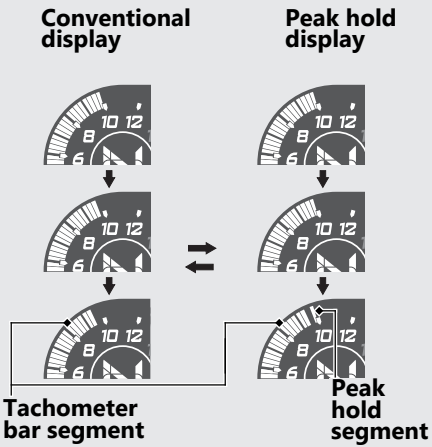
Peak hold display
Shows the engine RPM on the tachometer bar segment and peak hold segment.



Instruments *(Continued)*

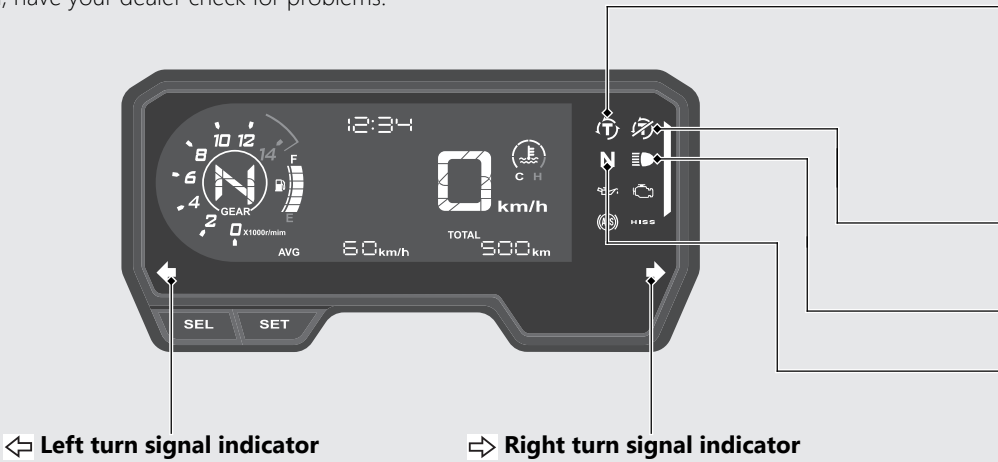
The peak hold segment keeps to show the maximum engine RPM temporarily.

Example: Engine revolutions per minutes
10,000 r/min (rpm)



Indicators

If one of these indicators does not come on when it should, have your dealer check for problems.



⇦ **Left turn signal indicator**

⇨ **Right turn signal indicator**

Torque Control indicator

- Comes on when the ignition switch is turned to the ❙ (On) position. Goes off when your speed reaches approximately 5 km/h (3 mph) to indicate Torque Control is ready to work.
- Blinks when Torque Control is operating.

If it comes on while riding: P.110

Torque Control OFF Indicator

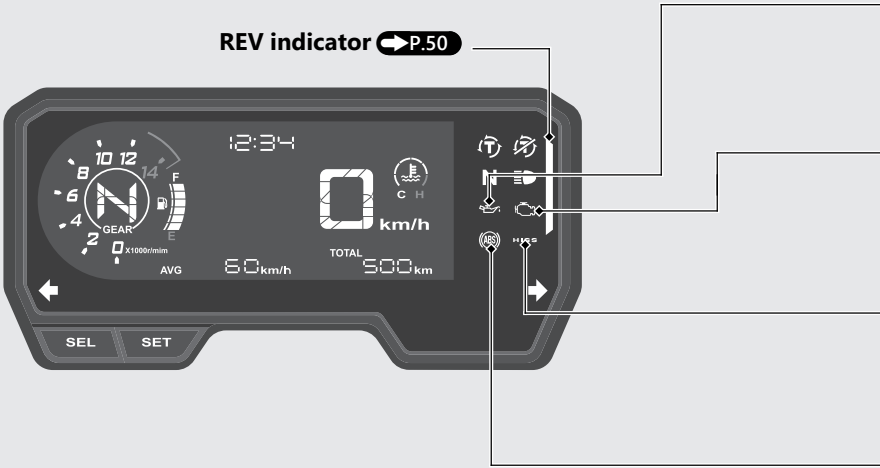
- Comes on when the Torque Control is turned Off.

High beam indicator

Neutral indicator

Comes on when the transmission is in Neutral.

Indicators *(Continued)*



Low oil pressure indicator

- Comes on when the ignition switch is turned to the | (On) position.
- Goes off when the engine starts.

If it comes on while engine is running: P.108

PGM-FI (Programmed Fuel Injection) malfunction indicator lamp (MIL)

Comes on briefly when the ignition switch is turned to the | (On) position with the engine stop switch in the ◯ (Run) position.

If it comes on while engine is running: P.108

HISS indicator P.106

- Comes on briefly when the ignition switch is turned to the | (On) position.
- Flashes every 2 seconds for 24 hours when the ignition switch is turned to the ○ (Off) position.

ABS (Anti-lock Brake System) indicator

- Comes on briefly when the ignition switch is turned to the | (On) position.
- Goes off when your speed reaches approximately 10 km/h (6 mph).

If it comes on while riding: P.109

Indicators *(Continued)*

REV Indicator

- Comes on briefly when the ignition switch is turned to the ▌(On) position.

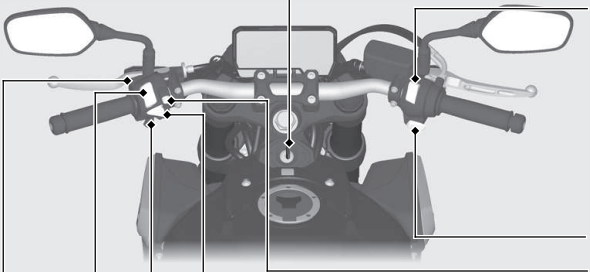
Initial setting

REV indicator blinking fastest RPM: 12,500 r/min (rpm)
REV indicator blinking interval RPM: 250 r/min (rpm)

REV indicator	r/min (rpm)
Blinking	12,000 r/min (rpm)
Blinking fast	12,250 r/min (rpm)
Blinking fastest	12,500 r/min (rpm)

To set the shift up rev setting: ➔P.38
To set the shift width setting: ➔P.40

Switches



Engine stop switch
Should normally remain in the ◯ (Run) position.
▶ In an emergency, switch to the ⊠ (Stop) position (the starter motor will not operate) to stop the engine.

Start button

Hazard switch
Switchable when the ignition switch is in the | (On) position.

Horn button

Turn signal switch
▶ Pressing the switch turns the turn signal off.

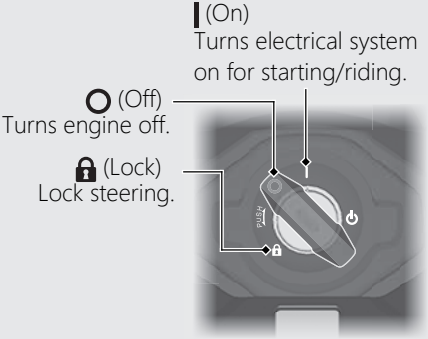
Headlight dimmer/Passing light control switch
- ≡D : High beam
- ≡D : Low beam
- ≡D **PASS** : Flashes the high beam headlight.

Torque Control switch
Torque Control on/off. P.55

⏻ Ignition switch

Switches the electrical system on/off, locks the steering.

► Key can be removed when in the ○ (Off) or 🔒 (Lock) position.



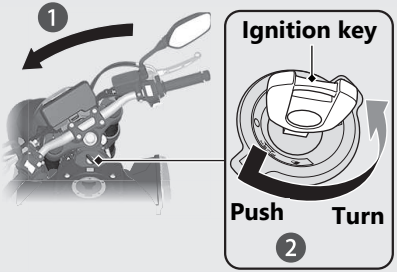
Switches *(Continued)*

Steering Lock

Lock the steering when parking to help prevent theft.
A U-shaped wheel lock or similar device is also recommended.

Locking

1. Turn the handlebar all the way to the left.
2. Push the key down, and turn the ignition switch to the (Lock) position.
   - ► Jiggle the handlebar if the lock is difficult to engage.
3. Remove the key.



Unlocking

Insert the key, push it in, and turn the ignition switch to the (Off) position.

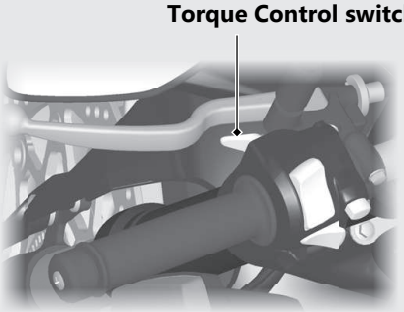
Honda selectable torque control

Torque Control (engine power control) can be turned on/off.

- ▶ Do not operate the Torque Control switch while riding.
  Stop the motorcycle first and the turn off or on.
- ▶ The Torque Control cannot be turned off when the system is activated (Torque Control indicator flashing).
- ▶ Each time the ignition switch is turned to the ❙ (On) position, the Torque Control will automatically be set to on.

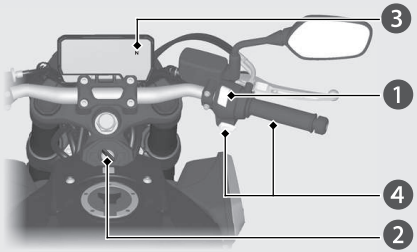
Torque Control on and off

Torque Control can be turned on and off by pressing and holding the Torque Control switch.



Starting the Engine

Start your engine using the following procedure, regardless of whether the engine is cold or warm.



NOTICE

- If the engine does not start within 5 seconds, turn the ignition switch to the ○ (Off) position and wait 10 seconds before trying to start the engine again to recover battery voltage.
- Extended fast idling and revving the engine can damage the engine, and the exhaust system.
- Snapping the throttle or fast idling for more than about 5 minutes may cause exhaust pipe discolouration.
- The engine will not start if the throttle is fully open.

1. Make sure the engine stop switch is in the ◯ (Run) position.
2. Turn the ignition switch to the | (On) position.
3. Shift the transmission to Neutral (N indicator comes on). Alternatively, pull in the clutch lever to start your motorcycle with the transmission in gear so long as the side stand is raised.
4. Press the start button with the throttle completely closed.

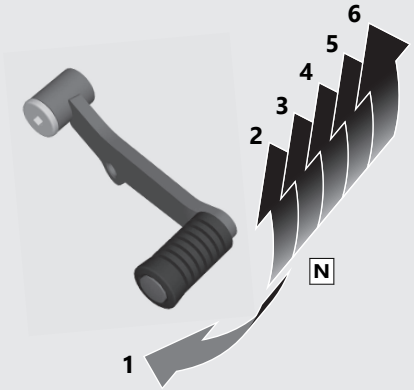
If the engine does not start:

① Open the throttle fully and press the start button for 5 seconds.
② Repeat the normal starting procedure.
③ If the engine starts, open the throttle slightly if idling is unstable.
④ If the engine does not start, wait 10 seconds before trying steps ① & ② again.

If Engine Will Not Start P.106

Shifting Gears

Your motorcycle transmission has 6 forward gears in a one-down, five-up shift pattern.



If you put the motorcycle in gear with the side stand down, the engine will shut off.

Emergency Stop Signal

ED, III ED, U types

Emergency stop signal activates when you brake hard while driving at 50 km/h (31 mph) or above to alert drivers behind you about sudden braking by rapidly flashing both turn signal lights. This may help to alert drivers behind you to take appropriate means to avoid a possible collision with your motorcycle.

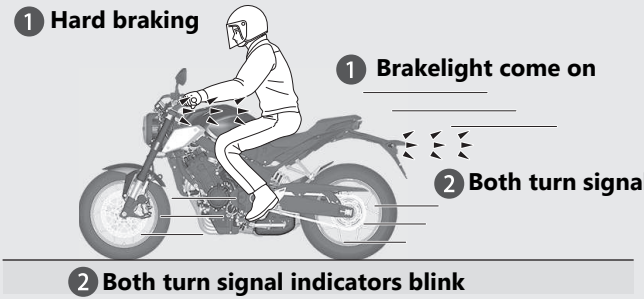
The emergency stop signal stops operating when:

- You release the brake lever and pedal.
- The ABS is deactivated.
- Your motorcycle's decelerating speed becomes moderate.
- You press the hazard switch.

When the system activates:

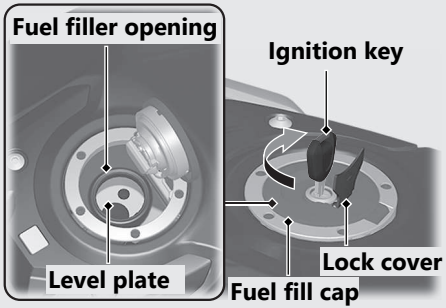






- The emergency stop signal is not a system that can prevent a possible rear-end collision caused by your hard braking. It is always recommended to avoid hard braking unless it is absolutely necessary.
- The emergency stop signal does not activate with the hazard switch pressed in.
- If the ABS stops working for a certain period during braking, the emergency stop signal may not activate at all.

Refuelling



Do not fill with fuel above the level plate.
Fuel type: Unleaded petrol only
Fuel octane number: Your motorcycle is designed to use Research Octane Number (RON) 91 or higher.
Tank capacity: 15.4 L (4.07 US gal, 3.39 Imp gal)

Refuelling and Fuel Guidelines P.14

Opening the Fuel Fill Cap
Open the lock cover, insert the ignition key, and turn it clockwise to open the fuel fill cap.

Closing the Fuel Fill Cap
1. After refuelling, push the fuel fill cap closed until it locks.
2. Remove the ignition key and close the lock cover.
   ▶ The ignition key cannot be removed if the cap is not locked.

⚠WARNING

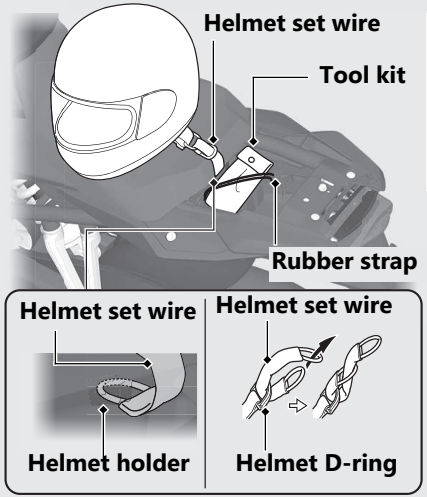
Petrol is highly flammable and explosive. You can be burned or seriously injured when handling fuel.

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

Storage Equipment

Helmet Holders and Tool Kit

The helmet holder, the tool kit and helmet set wire (in the tool kit) are located under the rear seat.



▶ Use the helmet holder only when parked.

Removing the Rear Seat P.83

⚠WARNING

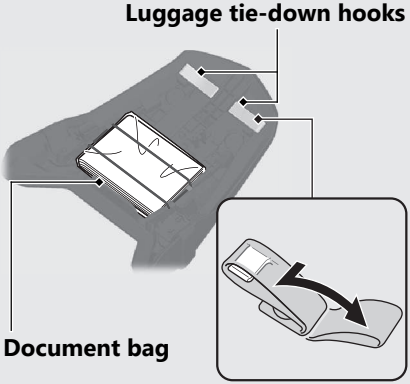
Riding with a helmet attached to the holder can interfere with your ability to safely operate the motorcycle and could lead to a crash in which you can be seriously hurt or killed.

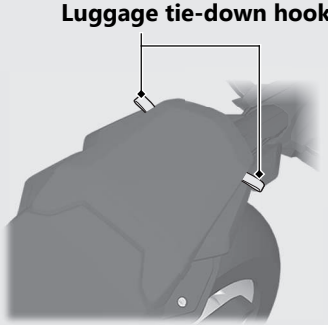
Use the helmet holder only while parked. Do not ride with a helmet secured by the holder.

Storage Equipment *(Continued)*

Document Bag and Luggage Tie-down Hooks

The document bag and luggage tie-down hooks are located on the underside of the rear seat.





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

Removing the Rear Seat P.83

Maintenance

Please read “Importance of Maintenance” and “Maintenance Fundamentals” carefully before attempting any maintenance. Refer to “Specifications” for service data.

Importance of Maintenance ..... P. 64
Maintenance Schedule ..... P. 65
Maintenance Fundamentals ..... P. 68
Tool ..... P. 80
Removing & Installing Body Components .. P. 81
- Battery ..... P. 81
- Front Seat ..... P. 82
- Rear Seat ..... P. 83

Engine Oil ..... P. 84
Coolant ..... P. 88
Brakes ..... P. 90
Side Stand ..... P. 93
Drive Chain ..... P. 94
Clutch ..... P. 98
Throttle ..... P. 101
Other Adjustments ..... P. 102
- Adjusting the Headlight Aim ..... P. 102
- Adjusting the Brake Lever ..... P. 103
- Adjusting the Rear Suspension ..... P. 104

Importance of Maintenance

Keeping your motorcycle well-maintained is absolutely essential to your safety and to protect your investment, obtain maximum performance, avoid breakdowns, and reduce air pollution. Maintenance is the owner's responsibility. Be sure to inspect your motorcycle before each ride, and perform the periodic checks specified in the Maintenance Schedule. P. 65

⚠WARNING

Improperly maintaining your 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

Always read the maintenance instructions before you begin each task, and make sure that you have the tools, parts, and skills required. We cannot warn you of every conceivable hazard that can arise in performing maintenance. Only you can decide whether or not you should perform a given task.

Follow these guidelines when performing maintenance.

- Stop the engine and remove the key.
- Place your motorcycle on a firm, level surface using the side stand or a maintenance stand to provide support.
- Allow the engine, muffler, brakes, and other high-temperature parts to cool before servicing as you can get burned.
- Run the engine only when instructed, and do so in a well-ventilated area.

Maintenance Schedule

The maintenance schedule specifies the maintenance requirements necessary to ensure safe, dependable performance, and proper emission control.

Maintenance work should be performed in accordance with Honda's standards and specifications by properly trained and equipped technicians. Your dealer meets all of these requirements. Keep an accurate record of maintenance to help ensure that your motorcycle is properly maintained.
Make sure that whomever performs the maintenance completes this record.

All scheduled maintenance is considered a normal owner operating cost and will be charged to you by your dealer. Retain all receipts. If you sell the motorcycle, these receipts should be transferred with the motorcycle to the new owner.

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

Items		Pre-ride Check ➡ P. 68	Frequency *1						Annual Check	Regular Replace	Refer to page
			× 1,000 km	1	12	24	36	48			
			× 1,000 mi	0.6	8	16	24	32			
Fuel Line	🔧				I	I	I	I	I		–
Fuel Level		I									–
Throttle Operation	🔧	I			I	I	I	I	I		101
Air Cleaner *2	🔧					R		R			79
Spark Plug	🔧					I		R			–
Valve Clearance	🔧						I				–
Engine Oil		I		R	R	R	R	R	R		86
Engine Oil Filter				R		R		R			86
Engine Idle Speed	🔧				I	I	I	I	I		–
Radiator Coolant *3		I			I	I	I	I	I	3 Years	88
Cooling System	🔧				I	I	I	I	I		–
Secondary Air Supply System	🔧					I		I			–
Evaporative Emission Control System *4	🔧					I		I			–

Maintenance Level

🔧 : Intermediate. We recommend service by your dealer, unless you have the necessary tools and are mechanically skilled. Procedures are provided in an official Honda Shop Manual.

✕ : Technical. In the interest of safety, have your motorcycle serviced by your dealer.

Maintenance Legend

I : Inspect (clean, adjust, lubricate, or replace, if necessary)

L : Lubricate

R : Replace

Items		Pre-ride Check ➔ P. 68	Frequency *1					Annual Check	Regular Replace	Refer to page
			× 1,000 km	1	12	24	36	48			
			× 1,000 mi	0.6	8	16	24	32			
Drive Chain		I	Every 1,000 km (600 mi): I L								94
Drive Chain Slider					I	I	I	I			97
Brake Fluid *3		I			I	I	I	I	I	2 Years	90
Brake Pads Wear		I			I	I	I	I	I		91
Brake System					I	I	I	I	I		68
Brakelight Switch					I	I	I	I	I		92
Headlight Aim					I	I	I	I	I		102
Lights/Horn		I									–
Engine Stop Switch		I									–
Clutch System		I			I	I	I	I	I		98
Side Stand		I			I	I	I	I	I		93
Suspension					I	I	I	I	I		104
Nuts, Bolts, Fasteners					I	I	I	I	I		–
Wheels/Tyres		I			I	I	I	I	I		76
Steering Head Bearings					I	I	I	I	I		–

Notes:

*1 : At higher odometer reading, repeat at the frequency interval established here.

*2 : Service more frequently when riding in unusually wet or dusty areas.

*3 : Replacement requires mechanical skill.

*4 : ED, III ED, KO type only.

Pre-ride Inspection

To ensure safety, it is your responsibility to perform a pre-ride inspection and make sure that any problem you find is corrected. A pre-ride inspection is a must, not only for safety, but because having a breakdown, or even a flat tyre, can be a major inconvenience.

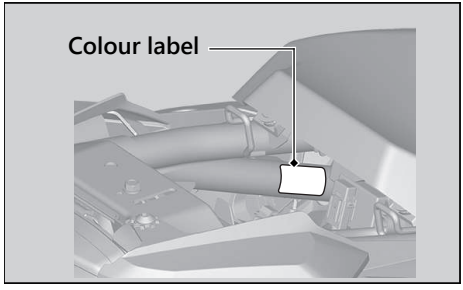
Check the following items before you get on your motorcycle:

- Fuel level - Fill fuel tank when necessary. ➡ P. 60
- Throttle - Check for smooth opening and full closing in all steering positions. ➡ P. 101
- Engine oil level - Add engine oil if necessary. Check for leaks. ➡ P. 84
- Coolant level - Add coolant if required. Check for leaks. ➡ P. 88
- Drive chain - Check condition and slack, adjust and lubricate if necessary. ➡ P. 94
- Brakes - Check operation; Front and Rear: check brake fluid level and pads wear. ➡ P. 90, ➡ P. 91
- Lights and horn - Check that lights, indicators and horn function properly.
- Engine stop switch - Check for proper function. ➡ P. 52
- Clutch - Check operation; Adjust freeplay if necessary. ➡ P. 98
- Side stand ignition cut-off system - Check for proper function. ➡ P. 93
- Wheels and tyres - Check condition, air pressure and adjust if necessary. ➡ P. 76

Replacing Parts

Always use Honda Genuine Parts or their equivalents to ensure reliability and safety.

When ordering coloured components, specify the model name, colour, and code mentioned on the colour label.
The colour label is attached to the right side of the frame. To check the colour label, remove the rear seat. P. 83



⚠WARNING

Installing non-Honda parts may make your motorcycle unsafe and cause a crash in which you can be seriously hurt or killed.

Always use Honda Genuine Parts or equivalents that have been designed and approved for your motorcycle.

Battery

Your motorcycle has a maintenance-free type battery. You do not have to check the battery electrolyte level or add distilled water. Clean the battery terminals if they become dirty or corroded.

Do not remove the battery cap seals. There is no need to remove the cap when charging.

NOTICE

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



This symbol on the battery means that this product must not be treated as household waste.

NOTICE

An improperly disposed of battery can be harmful to the environment and human health. Always confirm local regulations for proper battery disposal instruction.

What to do in an emergency

If any of the following occur, immediately see your doctor.

- Electrolyte splashes into your eyes:
  - ▶ Wash your eyes repeatedly with cool water for at least 15 minutes. Using water under pressure can damage your eyes.
- Electrolyte splashes onto your skin:
  - ▶ Remove affected clothing and wash your skin thoroughly using water.
- Electrolyte splashes into your mouth:
  - ▶ Rinse mouth thoroughly with water, and do not swallow.

⚠WARNING

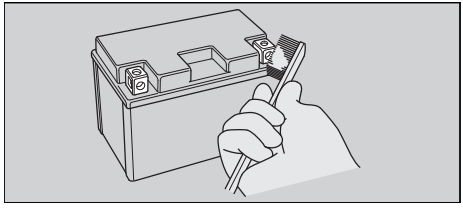
The battery gives off explosive hydrogen gas during normal operation.

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 servicing.

Cleaning the Battery Terminals

1. Remove the battery. ➡P. 81
2. If the terminals are starting to corrode and are coated with a white substance, wash with warm water and wipe clean.
3. If the terminals are heavily corroded, clean and polish the terminals with a wire brush or sandpaper. Wear safety glasses.



4. After cleaning, reinstall the battery.

The battery has a limited life span. Consult your dealer about when you should replace the battery. Always replace the battery with another maintenance-free battery of the same type.

NOTICE

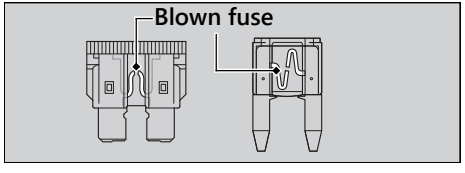
Installing non-Honda electrical accessories can overload the electrical system, discharging the battery and possibly damaging the system.

Fuses

Fuses protect the electrical circuits on your motorcycle. If something electrical on your motorcycle stops working, check for and replace any blown fuses. P. 125

Inspecting and Replacing Fuses

Turn the ignition switch to the ○ (Off) position to remove and inspect fuses. If a fuse is blown, replace with a fuse of the same rating. For fuse ratings, see "Specifications." P. 142



NOTICE

Replacing a fuse with one that has a higher rating greatly increases the chance of damage to the electrical system.

If a fuse fails repeatedly, you likely have an electrical fault. Have your motorcycle inspected by your dealer.

Engine Oil

Engine oil consumption varies and oil quality deteriorates according to riding conditions and time elapsed.

Check the engine oil level regularly, and add the recommended engine oil if necessary. Dirty oil or old oil should be changed as soon as possible.

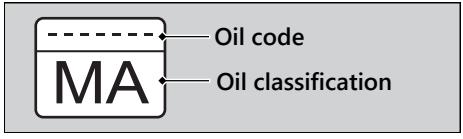
Selecting the Engine Oil

For recommended engine oil, see "Specifications." P. 141

If you use non-Honda engine oil, check the label to make sure that the oil satisfies all of the following standards:

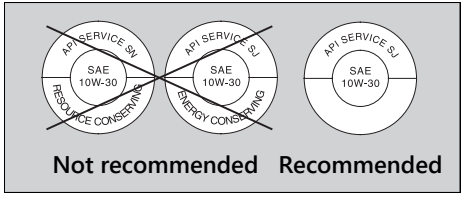
- JASO T 903 standard*1: MA
- SAE standard*2: 10W-30
- API classification*3: SG or higher

*1. The JASO T 903 standard is an index for engine oils for 4-stroke motorcycle engines. There are two classes: MA and MB. For example, the following label shows the MA classification.



*2. The SAE standard grades oils by their viscosity.

*3. The API classification specifies the quality and performance rating of engine oils. Use SG or higher oils, excluding oils marked as "Energy Conserving" or "Resource Conserving" on the circular API service symbol.



Brake Fluid

Do not add or replace brake fluid, except in an emergency. Use only fresh brake fluid from a sealed container. If you do add fluid, have the brake system serviced by your dealer as soon as possible.

NOTICE

Brake fluid can damage plastic and painted surfaces.
Wipe up spills immediately and wash thoroughly.

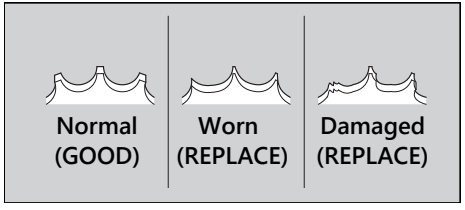
Recommended brake fluid:
Honda DOT 4 Brake Fluid or equivalent

Drive Chain

The drive chain must be inspected and lubricated regularly. Inspect the chain more frequently if you often ride on bad roads, ride at high speed, or ride with repeated fast acceleration. ➡ P. 94

If the chain does not move smoothly, makes strange noises, has damaged rollers, has loose pins, has missing O-rings, or kinks, have the chain inspected by your dealer.

Also inspect the drive sprocket and driven sprocket. If either has worn or damaged teeth, have the sprocket replaced by your dealer.

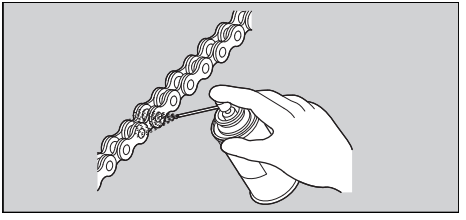


NOTICE
Use of a new chain with worn sprockets will cause rapid chain wear.

Cleaning and Lubricating

After inspecting the slack, clean the chain and sprockets while rotating the rear wheel. Use a dry cloth with chain cleaner designed specifically for O-ring chains, or neutral detergent. Use a soft brush if the chain is dirty.
After cleaning, wipe dry and lubricate with the recommended lubricant.

Recommended lubricant:
Drive chain lubricant designed specifically for O-ring chains
If not available, use SAE 80 or 90 gear oil.



Do not use a steam cleaner, a high pressure cleaner, a wire brush, volatile solvent such as petrol and benzene, abrasive cleaner, chain cleaner or lubricant NOT designed specifically for O-ring chains as these can damage the rubber O-ring seals.
Avoid getting lubricant on the brakes or tyres.
Avoid applying excess chain lubricant to prevent spray onto your clothes and the motorcycle.

Recommended Coolant

Pro Honda HP Coolant is a pre-mixed solution of antifreeze and distilled water.

Concentration:
50% antifreeze and 50% distilled water

A concentration of antifreeze below 40% will not provide proper corrosion and cold temperature protection.
A concentration of up to 60% will provide better protection in colder climates.

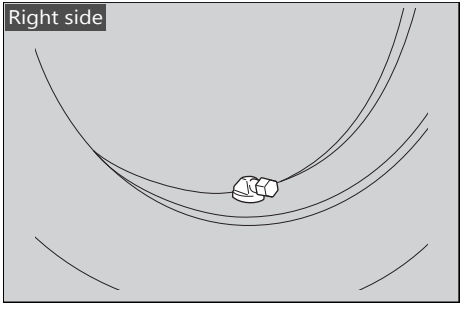
NOTICE
Using coolant not specified for aluminium engines or tap/mineral water can cause corrosion.

Tyres (Inspecting/Replacing)

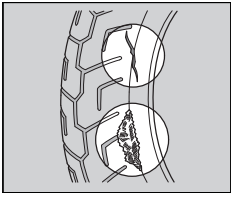
Checking the Air Pressure

Visually inspect your tyres and use an air pressure gauge to measure the air pressure at least once a month or any time you think the tyres look low. Always check air pressure when your tyres are cold.

Even if the direction of the valve stem is changed, do not return it to the original position. Have your motorcycle inspected by your dealer.

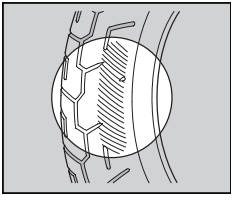


Inspecting for Damage



Inspect the tyres for cuts, slits, or cracks that exposes fabric or cords, or nails or other foreign objects embedded in the side of the tyre or the tread. Also inspect for any unusual bumps or bulges in the side walls of the tyres.

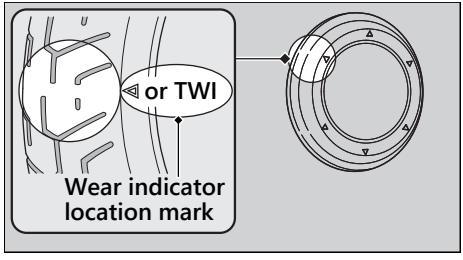
Inspecting for Abnormal Wear



Inspect the tyres for signs of abnormal wear on the contact surface.

Inspecting Tread Depth

Inspect the tread wear indicators. If they become visible, replace the tyres immediately. For safe riding, you should replace the tyres when the minimum tread depth is reached.



⚠WARNING

Riding on 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.

Germany

German law prohibits use of tyres whose tread depth is less than 1.6 mm.

Have your tyres replaced by your dealer.
For recommended tyres, air pressure and minimum tread depth, see “Specifications.”
P. 141
Follow these guidelines whenever you replace tyres.

- Use the recommended tyres or equivalents of the same size, construction, speed rating, and load range.
- Have the wheel balanced with Honda Genuine balance weights or equivalent after the tyre is installed.
- Do not install a tube inside a tubeless tyre on this motorcycle. Excessive heat build-up 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.

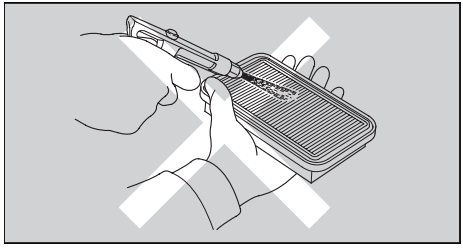
⚠WARNING

Installing improper tyres on your motorcycle can adversely affect handling and stability, and 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.

Air Cleaner

This motorcycle is equipped with a viscous type air cleaner element.
Air blow cleaning or any other cleaning can degrade the viscous element performance and cause the intake of dust.
Do not perform the maintenance. Should be serviced by your dealer.



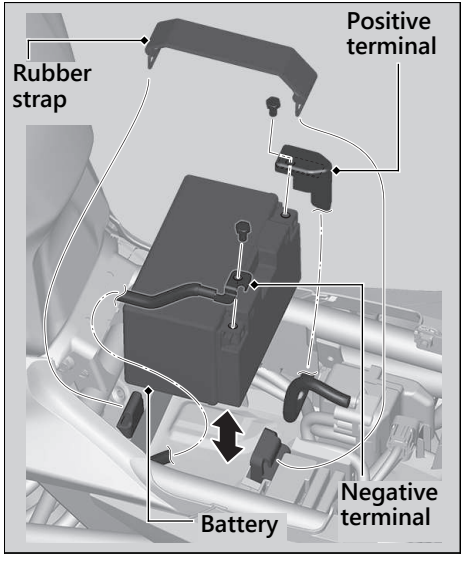
Tool

The tool kit is stored under the rear seat.
P. 83

You can perform some roadside repairs, minor adjustments and parts replacement with the provided tools.

- Pin spanner
- 10 × 14 mm Open end wrench
- 12 × 14 mm Open end wrench
- Standard/Phillips screwdriver
- Screwdriver handle
- Extension bar
- 5 mm Hex wrench
- Helmet set wire
- Fuse puller

Battery



Removal

Make sure the ignition switch is in the ○ (Off) position.

1. Remove the front seat. P. 82
2. Remove the rubber strap.
3. Disconnect the negative ⊖ terminal from the battery.
4. Disconnect the positive ⊕ terminal from the battery.
5. Remove the battery taking care not to drop the terminal nuts.

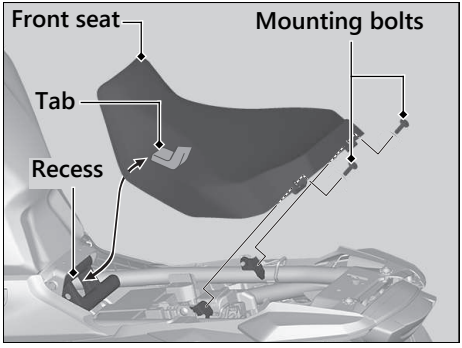
Installation

Install the parts in the reverse order of removal.

Always connect the positive ⊕ terminal first.
Make sure that bolts and nuts are tight.
Make sure the clock information is correct after the battery is reconnected. P. 33
For proper handling of the battery, see
"Maintenance Fundamentals." P. 70
"Battery Goes Dead." P. 121

Front Seat

Removal

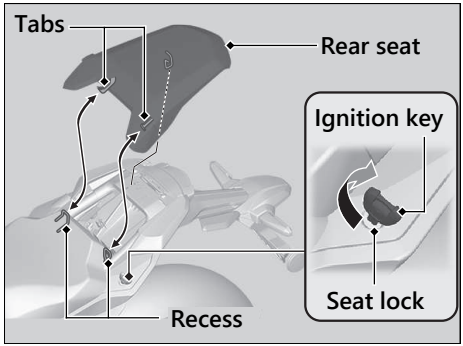


1. Remove the rear seat. P. 83
2. Remove the mounting bolts, and then pull the front seat back and up.

Installation

1. Install the front seat while inserting the tab into the recess.
2. Install the mounting bolts.
3. Tighten the mounting bolts securely. Make sure that the seat is locked securely in position by pulling it up lightly.

Rear Seat



Removal

1. Insert the ignition key into the seat lock.
2. Turn the ignition key clockwise, then pull the rear seat up and back.

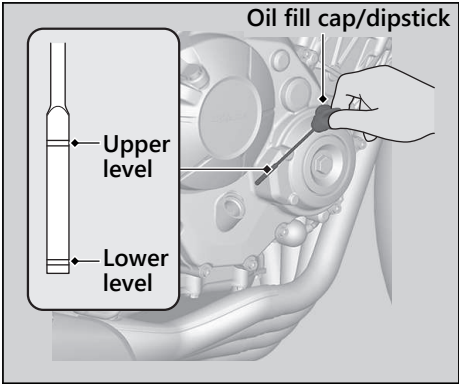
Installation

1. Insert the tabs into the recess.
2. Push down on the rear of the rear seat. Make sure that the seat is locked securely in position by pulling it up lightly.

The seat locks automatically when closed. Take care not to lock your key in the compartment under the rear seat.

Checking the Engine Oil

1. If the engine is cold, idle the engine for 3 to 5 minutes.
2. Turn the ignition switch to the ○ (Off) position and wait for 2 to 3 minutes.
3. Place your motorcycle in an upright position on a firm, level surface.
4. Remove the oil fill cap/dipstick and wipe it clean.
5. Insert the oil fill cap/dipstick until it seats, but don't screw it in.
6. Check that the oil level is between the upper level and lower level marks on the oil fill cap/dipstick.
7. Securely install the oil fill cap/dipstick.



Adding Engine Oil

If the engine oil is below or near the lower level mark, add the recommended engine oil. ➔P. 72, ➔P. 141

1. Remove the oil fill cap/dipstick. Add the recommended oil until it reaches the upper level mark.
- ▶ Place your motorcycle in an upright position on a firm, level surface when checking the oil level.
- ▶ Do not overfill above the upper level mark.
- ▶ Make sure no foreign objects enter the oil filler opening.
- ▶ Wipe up any spills immediately.

2. Securely reinstall the oil fill cap/dipstick.

NOTICE

Overfilling with oil or operating with insufficient oil can cause damage to your engine. Do not mix different brands and grades of oil. They may affect lubrication and clutch operation.

For the recommended oil and oil selection guidelines, see "Maintenance Fundamentals." ➔P. 72

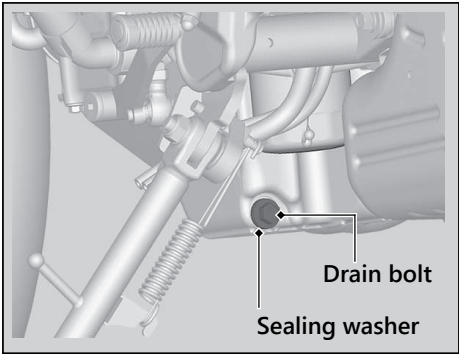
Changing Engine Oil & Filter

Changing the oil and filter requires special tools. We recommend that you have your motorcycle serviced by your dealer.

Use a new Honda Genuine oil filter or equivalent specified for your model.

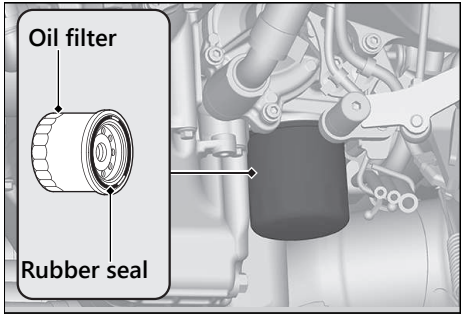
NOTICE
Using the wrong oil filter can result in serious damage to the engine.

1. If the engine is cold, idle the engine for 3 to 5 minutes.
2. Turn the ignition switch to the ○ (Off) position and wait for 2 to 3 minutes.
3. Place your motorcycle on a firm, level surface.
4. Place a drain pan under the drain bolt.



5. Remove the oil fill cap/dipstick, drain bolt, and sealing washer to drain the oil.

6. Remove the oil filter with a filter wrench and let the remaining oil drain out. Make sure the prior seal is not stuck to the engine.
▶ Discard the oil and oil filter at an approved recycling centre.



7. Apply a thin coat of engine oil to the rubber seal of a new oil filter.

8. Install the new oil filter and tighten.

Torque: 26 N·m (2.7 kgf·m, 19 lbf·ft)

9. Install a new sealing washer onto the drain bolt. Tighten the drain bolt.

Torque: 30 N·m (3.1 kgf·m, 22 lbf·ft)

10. Fill the crankcase with the recommended oil (P. 72, P. 141) and install the oil fill cap/dipstick.

Required oil
When changing oil & engine oil filter:
2.6 L (2.7 US qt, 2.3 Imp qt)
When changing oil only:
2.3 L (2.4 US qt, 2.0 Imp qt)

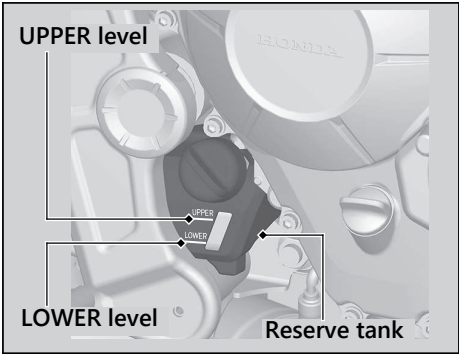
11. Check the oil level. P. 84
12. Check that there are no oil leaks.

Checking the Coolant

Check the coolant level in the reserve tank while the engine is cold.

1. Place your motorcycle on a firm, level surface.
2. Hold your motorcycle in an upright position.
3. Check that the coolant level is between the UPPER level and LOWER level marks on the reserve tank.

If the coolant level is dropping noticeably or the reserve tank is empty, you likely have a serious leak. Have your motorcycle inspected by your dealer.



Adding Coolant

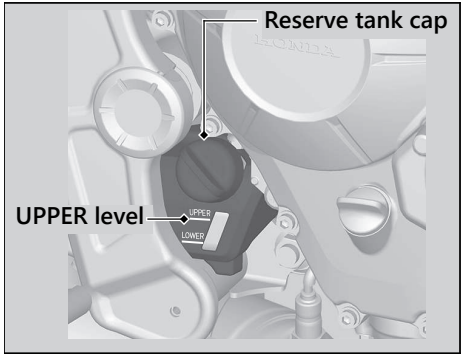
If the coolant level is below the LOWER level mark, add the recommended coolant (P. 75) until the level reaches the UPPER level mark.
Add fluid only from the reserve tank cap and do not remove the radiator cap.

1. Remove the reserve tank cap and add fluid while monitoring the coolant level.
   ▶ Do not overfill above the UPPER level mark.
   ▶ Make sure no foreign objects enter the reserve tank opening.
2. Securely reinstall the reserve tank cap.

⚠WARNING

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

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



Changing Coolant

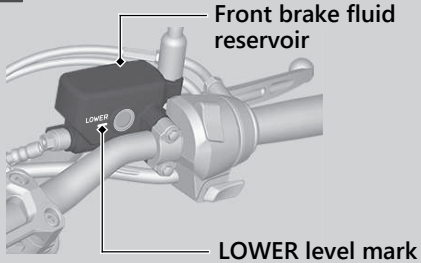
Have your dealer change the coolant unless you have the proper tools and are mechanically qualified.

Checking Brake Fluid

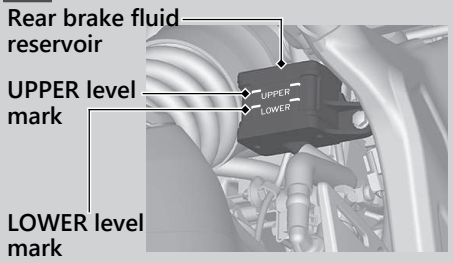
1. Place your motorcycle in an upright position on a firm, level surface.
2. Front Check that the brake fluid reservoir cap is horizontal and that the fluid level is above the LOWER level mark.
   Rear Check that the brake fluid reservoir is horizontal and that the fluid level is between the LOWER level and UPPER level marks.

If the brake fluid level in either reservoir is below the LOWER level mark or the brake lever and pedal freeplay becomes excessive, inspect the brake pads for wear.
If the brake pads are not worn, you most likely have a leak. Have your motorcycle inspected by your dealer.

Front



Rear



Inspecting the Brake Pads

Check the condition of the brake pad wear indicators.

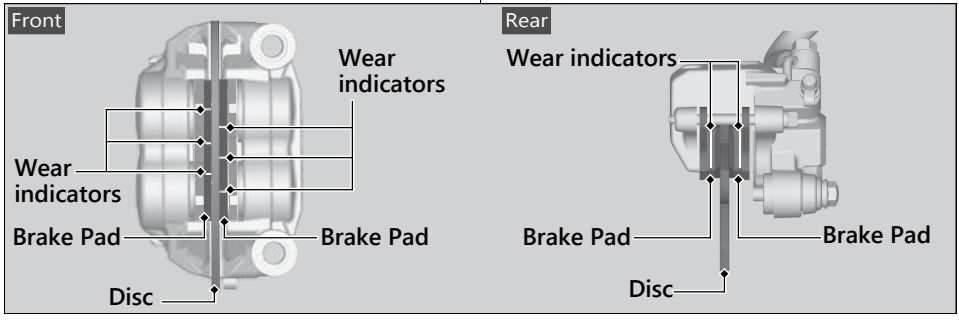
Front The pads need to be replaced if a brake pad is worn to the bottom of the indicator.

Rear The pads need to be replaced if a brake pad is worn to the indicator.

1. Front Inspect the brake pads from in front of the brake caliper.
   ▶ Always inspect both left and right brake calipers.
2. Rear Inspect the brake pads from the rear right of the motorcycle.

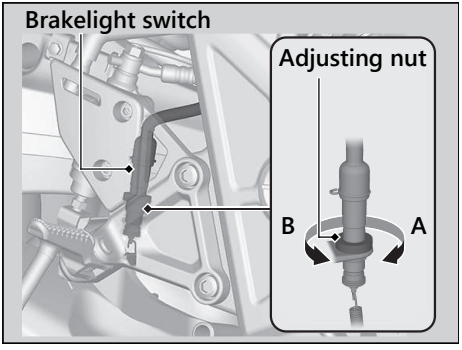
If necessary have the pads replaced by your dealer.

Always replace both left and right brake pads at the same time.

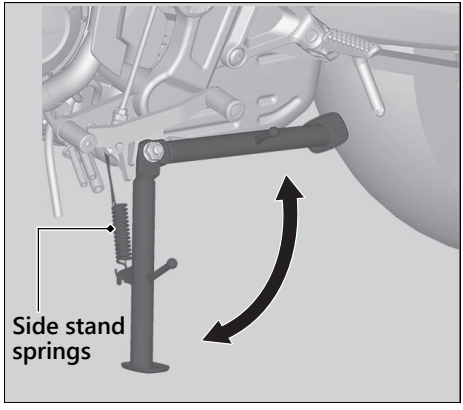


Adjusting the Brakelight Switch

Check the operation of the brakelight switch. Hold the brakelight switch and turn the adjusting nut in the direction A if the switch operates too late, or turn the nut in the direction B if the switch operates too soon.



Checking the Side Stand



1. Check that the side stand operates smoothly. If the side stand is stiff or squeaky, clean the pivot area and lubricate the pivot bolt with clean grease.
2. Check the springs for damage or loss of tension.
3. Sit on the motorcycle, shift the transmission to Neutral, and raise the side stand.
4. Start the engine, pull the clutch lever in, and shift the transmission into gear.
5. Lower the side stand all the way. The engine should stop as you lower the side stand. If the engine doesn't stop, have your motorcycle inspected by your dealer.

Inspecting the Drive Chain Slack

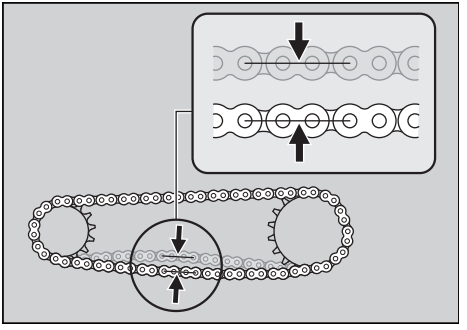
Check the drive chain slack at several points along the chain. If the slack is not constant at all points, some links may be kinked and binding.

Have the chain inspected by your dealer.

1. Shift the transmission to Neutral. Stop the engine.
2. Place your motorcycle on its side stand on a firm, level surface.
3. Check the slack in the lower half of the drive chain midway between the sprockets.

Drive chain slack:
25 - 35 mm (1.0 - 1.4 in)

▶ Do not ride your motorcycle if the slack exceeds 50 mm (2.0 in).



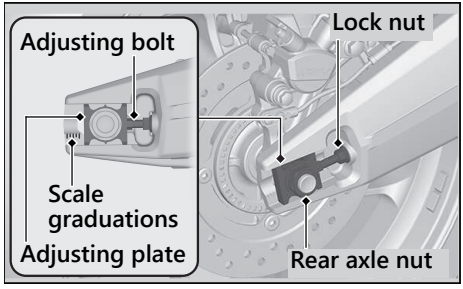
4. Roll the motorcycle forward and check that the chain moves smoothly.
5. Inspect the sprockets. ➡P. 73
6. Clean and lubricate the drive chain. ➡P. 74

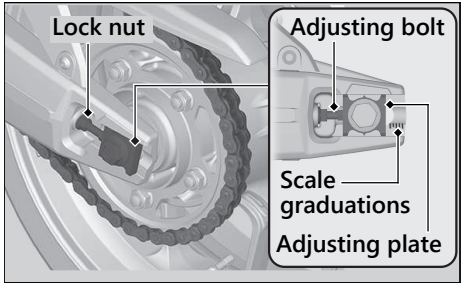
Adjusting the Drive Chain Slack

Adjusting the chain requires special tools. Have the drive chain slack adjusted by your dealer.

When adjusting the drive chain slack, be careful not to damage the wheel speed sensor and pulser ring.

1. Shift the transmission to Neutral. Stop the engine.
2. Place your motorcycle on its side stand on a firm, level surface.
3. Loosen the rear axle nut.
4. Loosen the lock nuts on both adjusting bolts.





5. Turn both adjusting bolts an equal number of turns until the correct drive chain slack is obtained. Turn the adjusting bolts counterclockwise to tighten the chain. Turn the adjusting bolts clockwise and push the rear wheel toward the front to provide more slack.
   Adjust the slack at a point midway between the drive sprocket and the driven sprocket.
   Check the drive chain slack. ➡ P. 94
6. Check rear axle alignment by making sure the end of the chain adjusting plate aligns with the scale graduations on both sides of the swingarm.
   Both marks should correspond. If the axle is misaligned, turn the right or left adjusting bolt until the marks are aligned and recheck chain slack.
7. Tighten the rear axle nut.

Torque: 98 N·m (10.0 kgf·m, 72 lbf·ft)

8. Hold the adjusting bolts and tighten the lock nuts.

Torque: 27 N·m (2.8 kgf·m, 20 lbf·ft)

9. Recheck drive chain slack.

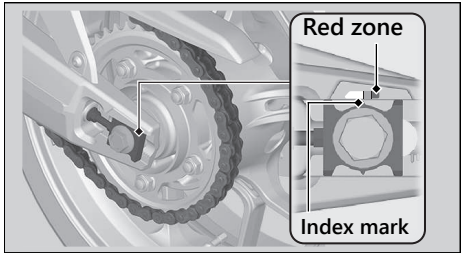
If a torque wrench was not used for installation, see your dealer as soon as possible to verify proper assembly. Improper assembly may lead to loss of braking capacity.

Checking the Drive Chain Wear

Check the chain wear label when adjusting the drive chain. If the index mark on the adjusting plate enters the red zone on the label after the chain has been adjusted to the proper slack, the chain is excessively worn and must be replaced.

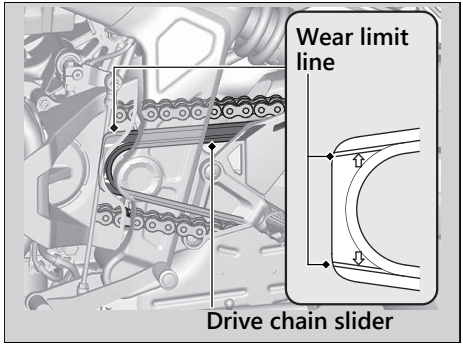
Chain:
DID 525V11 or RK 525KRW

If necessary have the drive chain replaced by your dealer.



Checking the Drive Chain Slider

Check the condition of the drive chain slider. The drive chain slider will need to be replaced if the chain slider is worn to the wear limit line.
If necessary have the drive chain slider replaced by your dealer.

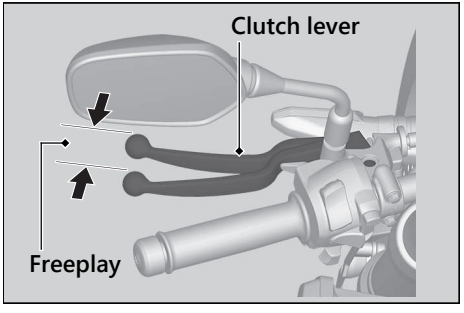


Checking the Clutch

Checking the Clutch Lever Freeplay

Check the clutch lever freeplay.

Freeplay at the clutch lever:
10 - 20 mm (0.4 - 0.8 in)



Check the clutch cable for kinks or signs of wear. If necessary have it replaced by your dealer.

Lubricate the clutch cable with a commercially available cable lubricant to prevent premature wear and corrosion.

NOTICE

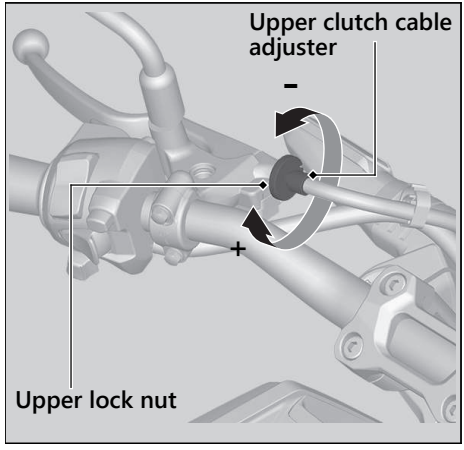
Improper freeplay adjustment can cause premature clutch wear.

Adjusting the Clutch Lever Freeplay

Upper Adjustment

Attempt adjustment with the upper clutch cable adjuster first.

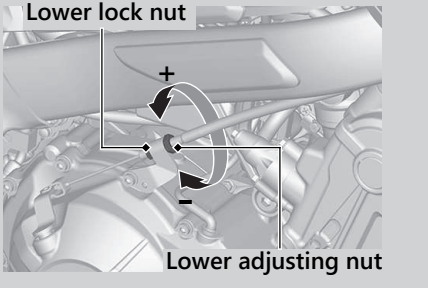
1. Loosen the upper lock nut.
2. Turn the upper clutch cable adjuster until the freeplay is 10 - 20 mm (0.4 - 0.8 in).
3. Tighten the upper lock nut and check the freeplay again.



Lower Adjustment

If the upper clutch cable adjuster is threaded out near its limit, or the correct freeplay cannot be obtained, attempt adjustment with the lower clutch cable adjusting nut.

1. Loosen the upper lock nut and turn the upper clutch cable adjuster all the way in (to provide maximum freeplay). Tighten the upper lock nut.
2. Loosen the lower lock nut.
3. Turn the lower adjusting nut until the clutch lever freeplay is 10 - 20 mm (0.4 - 0.8 in).
4. Tighten the lower lock nut and check the clutch lever freeplay.
5. Start the engine, pull the clutch lever in, and shift into gear. Make sure the engine does not stall and the motorcycle does not creep. Gradually release the clutch lever and open the throttle. Your motorcycle should move smoothly and accelerate gradually.

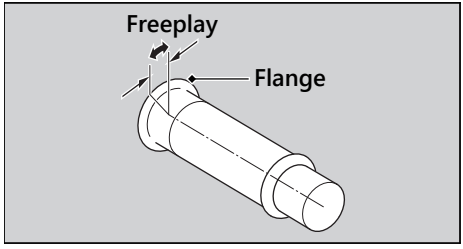


If proper adjustment cannot be obtained or the clutch does not work correctly, see your dealer.

Checking the Throttle

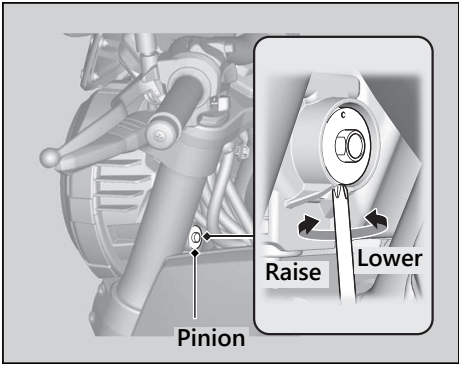
With the engine off, check that the throttle rotates smoothly from fully closed to fully open in all steering positions and throttle freeplay is correct. If the throttle does not move smoothly, close automatically, or if the cable is damaged, have the motorcycle inspected by your dealer.

Freeplay at the throttle grip flange:
2 - 6 mm (0.1 - 0.2 in)



Adjusting the Headlight Aim

You can adjust vertical aim of the headlight for proper alignment. Turn the pinion in or out as necessary using provided Phillips screwdriver (P. 80).
Obey local laws and regulations.



Adjusting the Brake Lever

You can adjust the distance between the tip of the brake lever and handle grip.

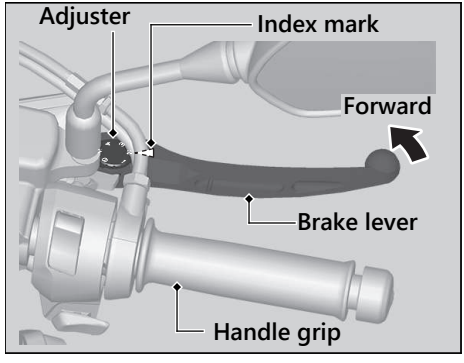
Adjustment method

Turn the adjuster until the numbers align with the index mark while pushing the lever forward in the desired position.

After adjustment, check that the lever operates correctly before riding.

NOTICE

Do not turn the adjuster beyond its natural limit.



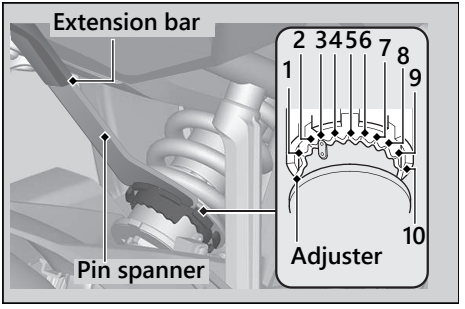
Adjusting the Rear Suspension

Spring Preload

You can adjust the spring preload by the adjuster to suit the load or the road surface. Turn the adjuster using the pin spanner and extension bar provided in the tool kit (P. 80).

Use the pin spanner and extension bar to turn the adjuster. Positions 1 to 2 are for a decrease spring preload (soft), or turn the position 4 to 10 increase spring preload (hard).

The standard position is 3.



NOTICE

Attempting to adjust directly from 1 to 10 or 10 to 1 may damage the shock absorber.

Do not turn the adjuster beyond its limits.

NOTICE

The rear shock absorber damper unit contains high pressure nitrogen gas. Do not attempt to disassemble, service, or improperly dispose of the damper. See your dealer.

Troubleshooting

Engine Will Not Start (HISS indicator stays on) ..... P. 106
Overheating (Segment H flashes in coolant temperature gauge) ..... P. 107
Warning Indicators On or Flashing ..... P. 108
Low Oil Pressure Indicator ..... P. 108
PGM-FI (Programmed Fuel Injection) Malfunction Indicator Lamp (MIL) ..... P. 108
ABS (Anti-lock Brake System) Indicator ..... P. 109
Torque Control Indicator ..... P. 110
Other Warning Indications ..... P. 111
Fuel Gauge Failure Indication ..... P. 111
Coolant Temperature Gauge Failure Indication ..... P. 112
Tyre Puncture ..... P. 113
Electrical Trouble ..... P. 121
Battery Goes Dead ..... P. 121
Burned-out Light Bulb ..... P. 121
Blown Fuse ..... P. 125

Starter Motor Operates But Engine Does Not Start

Check the following items:

- Check the correct engine starting sequence. ➡ P. 56
- Check that there is petrol in the fuel tank.
- Check if the PGM-FI malfunction indicator lamp (MIL) is on.
  - ▶ If the indicator lamp is on, contact your dealer as soon as possible.
- Check if the HISS indicator stays on.
  - ▶ Turn the ignition switch to the ○ (Off) position and remove the key. Reinsert the key and turn the ignition switch to the | (On) position. If the indicator still stays on, check the following:
    Check if there is no another HISS key (including spare key) close to the ignition switch.
    Check if there are no any metallic seals or stickers on the key.
    If the HISS indicator still stays on, have your motorcycle inspected by your dealer.

Starter Motor Does Not Operate

Check the following items:

- Check the correct engine starting sequence. ➡ P. 56
- Make sure engine stop switch is in the ⟲ (Run) position. ➡ P. 52
- Check for a blown fuse. ➡ P. 125
- Check for a loose battery connection (➡ P. 81) or battery terminal corrosion (➡ P. 70).
- Check the condition of the battery. ➡ P. 121

If the problem continues, have your motorcycle inspected by your dealer.

Overheating (Segment H flashes in coolant temperature gauge)

The engine is overheating when the following occurs:

- The segment H flashes in the coolant temperature gauge.
- Acceleration becomes sluggish.
  If this occurs, pull safely to the side of the road and perform the following procedure.

Extended fast idling may cause the segment H to flash.

NOTICE
Continuing to ride with an overheated engine can cause serious damage to the engine.

1. Stop the engine using the ignition switch, and then turn the ignition switch to the | (On) position.
2. Check that the radiator fan is operating, and then turn the ignition switch to the ○ (Off) position.
   If the fan is not operating:
   Suspect a fault. Do not start the engine. Transport your motorcycle to your dealer.
   If the fan is operating:
   Allow the engine to cool with the ignition switch in the ○ (Off) position.
3. After the engine has cooled, inspect the radiator hose and check if there is a leak. ➡P. 88
   If there is a leak:
   Do not start the engine. Transport your motorcycle to your dealer.
4. Check the coolant level in the reserve tank. ➡P. 88
   ► Add coolant as necessary.
5. If 1-4 check normal, you may continue riding, but closely monitor the temperature gauge.

Low Oil Pressure Indicator

If the low oil pressure indicator comes on, pull safely to the side of the road and stop the engine.

NOTICE
Continuing to ride with low oil pressure can cause serious damage to the engine.

1. Check the engine oil level, and add oil as necessary. P. 84, P. 85
2. Start the engine.
   ▶ Only continue riding if the low oil pressure indicator goes off.

Rapid acceleration may momentarily cause the low oil pressure indicator to come on, especially if the oil is at or near the low level. If the low oil pressure indicator stays on when the oil level is at the proper level, stop the engine and contact your dealer.

If the engine oil level goes down rapidly, your motorcycle may have a leak or another serious problem. Have your motorcycle inspected by your dealer.

PGM-FI (Programmed Fuel Injection) Malfunction Indicator Lamp (MIL)

If the indicator comes on while riding, you may have a serious problem with the PGM-FI system. Reduce speed and have your motorcycle inspected by your dealer as soon as possible.

ABS (Anti-lock Brake System) Indicator

If the indicator operates in one of the following ways, you may have a serious problem with the ABS. Reduce your speed and have your motorcycle inspected by your dealer as soon as possible.

- Indicator comes on or starts flashing while riding.
- Indicator does not come on when the ignition switch is in the ▌(On) position.
- Indicator does not go off at speeds above 10 km/h (6 mph).

If the ABS indicator stays on, your brakes will continue to work as a conventional system, but without the anti-locking function.

The ABS indicator may flash if you turn the rear wheel while the rear wheel is lifted off the ground. In this case, turn the ignition switch to the ○ (Off) position, and then to the ▌(On) position again. The ABS indicator will go off after your speed reaches 30 km/h (19 mph).

Torque Control Indicator

If the indicator operates in one of the following ways, you may have a serious problem with the Torque Control. Reduce your speed and have your motorcycle inspected by your dealer as soon as possible.

- Indicator comes and stays on (solid) while riding.
- Indicator does not come on when the ignition switch is turned to the ❙ (On) position.
- Indicator does not go off at speeds above 5 km/h (3 mph).

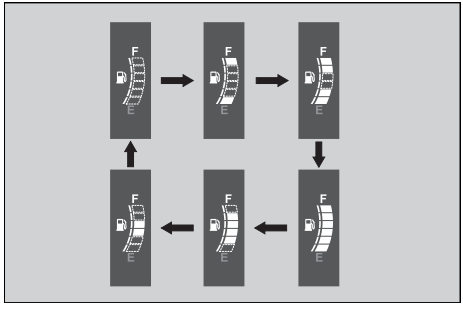
Even when the Torque Control indicator is on, your motorcycle will have normal riding ability without Torque Control function.

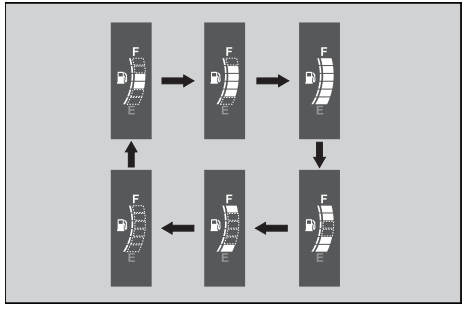
▶ When the indicator comes on while the Torque Control is in operation, you will have to completely close the throttle to regain normal riding ability.

The Torque Control indicator may come on if you rotate the rear wheel while your motorcycle is lifted off the ground. In this case, turn the ignition switch to the ○ (Off) position, and then to the ❙ (On) position again. The Torque Control indicator will go off after your speed reaches 5 km/h (3 mph).

Fuel Gauge Failure Indication

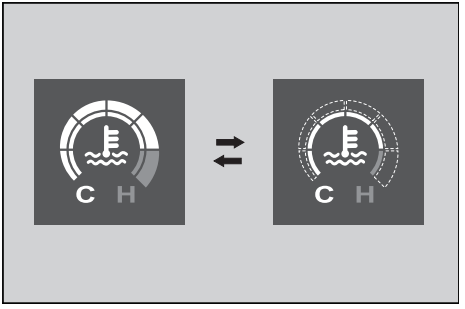
If the fuel system has an error, the fuel gauge indicators will be displayed as shown in the illustrations.
If these occur, see your dealer as soon as possible.





Coolant Temperature Gauge Failure Indication

If the cooling system has an error, all segments will blink as shown in the illustration.
If this occurs, see your dealer as soon as possible.



Repairing a puncture or removing a wheel requires special tools and technical expertise. We recommend you have this type of service performed by your dealer.
After an emergency repair, always have the tyre inspected/replaced by your dealer.

Emergency Repair Using a Tyre Repair Kit

If your tyre has a minor puncture, you can make an emergency repair using a tubeless tyre repair kit.
Follow the instructions provided with the emergency tyre repair kit.
Riding your motorcycle with a temporary tyre repair is very risky. Do not exceed 50 km/h (30 mph). Have the tyre replaced by your dealer as soon as possible.

⚠WARNING

Riding your motorcycle with a temporary tyre repair can be risky. If the temporary repair fails, you can crash and be seriously injured or killed.

If you must ride with a temporary tyre repair, ride slowly and carefully and do not exceed 50 km/h (30 mph) until the tyre is replaced.

Removing Wheels

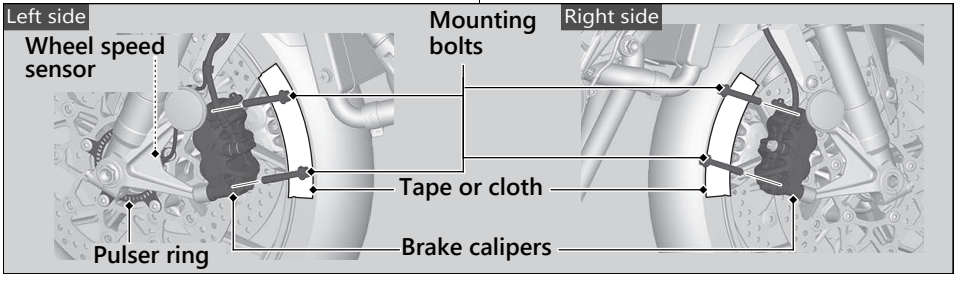
Follow these procedures if you need to remove a wheel in order to repair a puncture.

When removing and installing the wheel, be careful not to damage the wheel speed sensor and pulser ring.

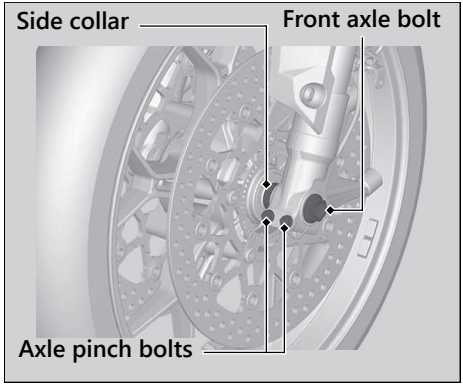
Front Wheel

Removal

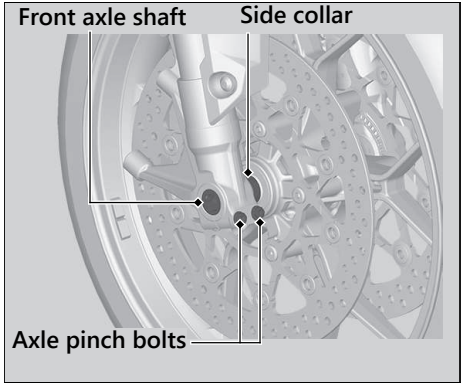
1. Place your motorcycle on a firm, level surface.
2. Cover both sides of the front wheel and brake calipers with protective tape or cloth.
3. On the right side, remove the mounting bolts and remove the brake caliper.
4. On the left side, remove the mounting bolts and remove the brake caliper.
   - ▶ Support the brake calipers so that it doesn't hang from the brake hose. Do not twist the brake hose.
   - ▶ Avoid getting grease, oil, or dirt on the disc or pad surfaces.
   - ▶ Do not pull the brake lever while the brake caliper is removed.
   - ▶ Take care to prevent the brake caliper from scratching the wheel during removal.



5. Loosen the left axle pinch bolts.
6. Remove the front axle bolt.
7. Support your motorcycle securely and raise the front wheel off the ground using a maintenance stand or a hoist.

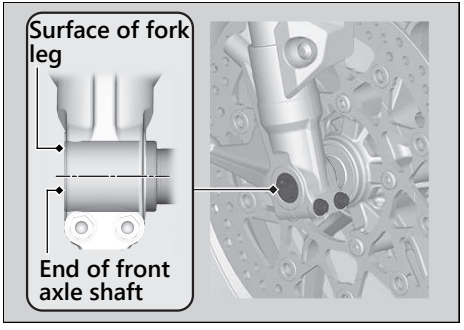


8. Loosen the right axle pinch bolts.
9. On the right side, withdraw the front axle shaft, and remove the side collars and wheel.



Installation

1. Attach the side collars to the wheel.
2. On the right side, place the wheel between the fork legs and insert the lightly greased front axle shaft to the end, through the right fork leg and wheel hub.
3. Align the end of the front axle shaft with the surface of the fork leg.



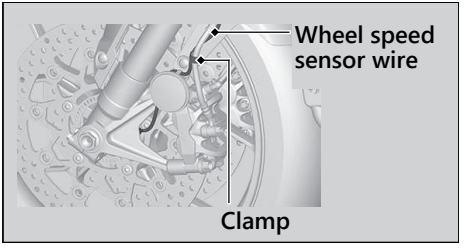
4. Tighten the right axle pinch bolts to hold the axle.
5. Tighten the axle bolt.

Torque: 59 N·m (6.0 kgf·m, 44 lbf·ft).

6. Loosen the right axle pinch bolts.
7. Tighten the left axle pinch bolts.

Torque: 22 N·m (2.2 kgf·m, 16 lbf·ft).

8. Secure the wheel speed sensor wire with the clamp.



9. Install the right brake caliper and tighten new mounting bolts.

Torque: 45 N·m (4.6 kgf·m, 33 lbf·ft).

10. Install the left brake caliper and tighten new mounting bolts.

Torque: 45 N·m (4.6 kgf·m, 33 lbf·ft).

▶ Take care to prevent the brake caliper from scratching the wheel during installation.

▶ Use new mounting bolts when installing the brake caliper.

NOTICE

When installing a wheel or caliper into original position, carefully fit the brake disc between the pads to avoid scratching them.

11. Lower the front wheel on the ground.

12. Apply the brake lever several times. Then, pump the fork several times.

13. Retighten the right axle pinch bolts.

Torque: 22 N·m (2.2 kgf·m, 16 lbf·ft).

14. Raise the front wheel off the ground again, and check that the wheel rotates freely after you release the brake.

15. Remove the protective tape or cloth.

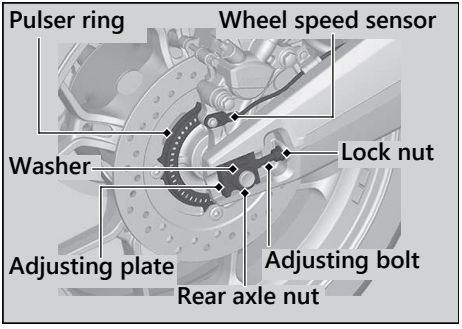
If a torque wrench was not used for installation, see your dealer as soon as possible to verify proper assembly.

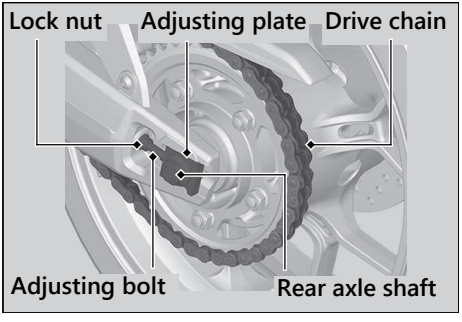
Improper assembly may lead to loss of braking capacity.

Rear Wheel

Removal

1. Support your motorcycle securely and raise the rear wheel off the ground using a maintenance stand or a hoist.
2. Loosen the rear axle nut, lock nuts and turn the adjusting bolts so the rear wheel can be moved all the way forward for maximum drive chain slack.
3. Remove the drive chain from the driven sprocket by pushing the rear wheel forward.
4. Remove the rear axle nut and washer.
5. Remove the rear axle shaft and adjusting plates.





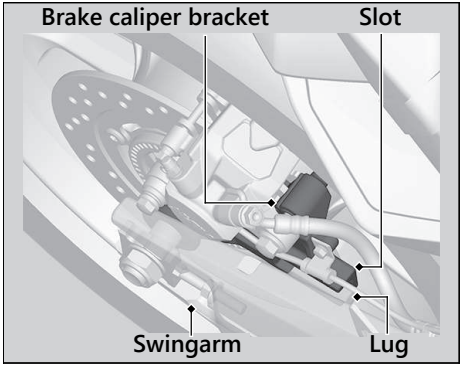
6. Remove the brake caliper bracket, rear wheel and side collars.
- ▶ Support the brake caliper so that it doesn't hang from the brake hose. Do not twist the brake hose.
- ▶ Avoid getting grease, oil, or dirt on the disc or pad surfaces.
- ▶ Do not push the brake pedal while the brake caliper is removed.

Installation

1. To install the rear wheel, reverse the removal procedure.
- ▶ Take care to prevent the brake caliper from scratching the wheel during installation.

NOTICE
When installing a wheel or caliper into original position, carefully fit the brake disc between the pads to avoid scratching them.

2. Make sure that the slot on the brake caliper bracket is positioned in the lug on the swingarm.



3. Adjust the drive chain. P. 95

4. Install and tighten the rear axle nut.

Torque: 98 N·m (10.0 kgf·m, 72 lbf·ft).

5. Hold the adjusting bolts and tighten the lock nuts.

Torque: 27 N·m (2.8 kgf·m, 20 lbf·ft).

6. After installing the wheel, apply the brake pedal several times, 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 dealer as soon as possible to verify proper assembly. Improper assembly may lead to loss of braking capacity.

Battery Goes Dead

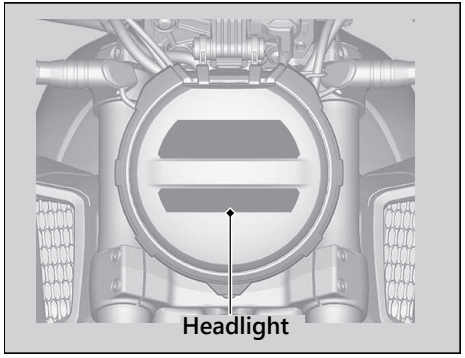
Charge the battery using a motorcycle battery charger.
Remove the battery from the motorcycle before charging.
Do not use an automobile-type battery charger, as these can overheat a motorcycle battery and cause permanent damage. If the battery does not recover after recharging, contact your dealer.

NOTICE
Jump starting using an automobile battery can damage your motorcycle's electrical system and is not recommended.

Burned-out Light Bulb

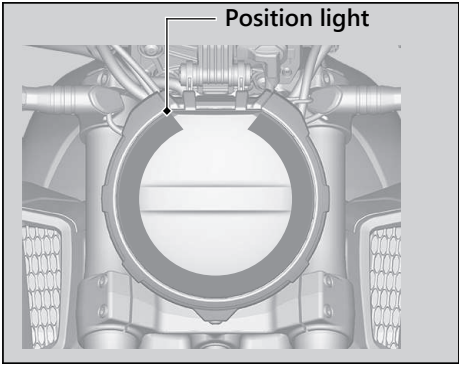
All light bulbs on the motorcycle are LEDs. If there is an LED which is not turned on, see your dealer for servicing.

Headlight



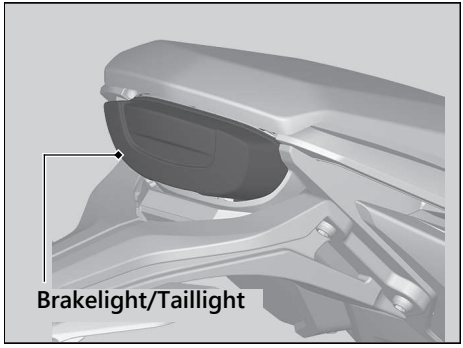
The headlight uses several LEDs.
If there is an LED which is not turned on, see your dealer for servicing.

Position Light



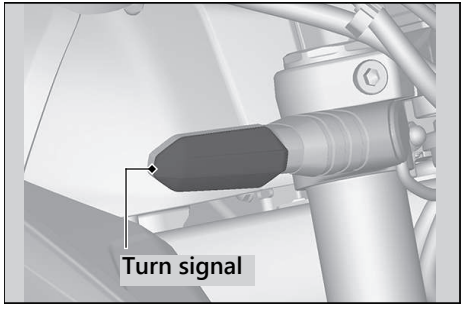
The position light use several LEDs.
If there is an LED which is not turned on, see your dealer for servicing.

Brakelight/Taillight



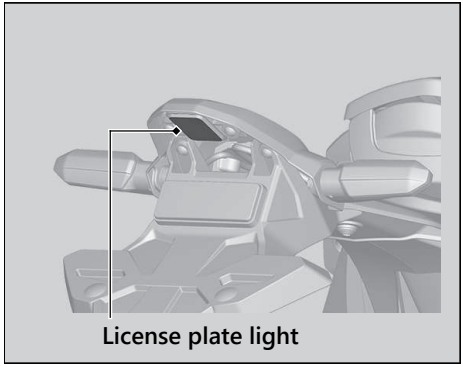
The brakelight and taillight uses several LEDs. If there is an LED which is not turned on, see your dealer for servicing.

Front/Rear Turn Signal



The front and rear turn signals uses an LED. If there is an LED which is not turned on, see your dealer for this service.

License Plate Light



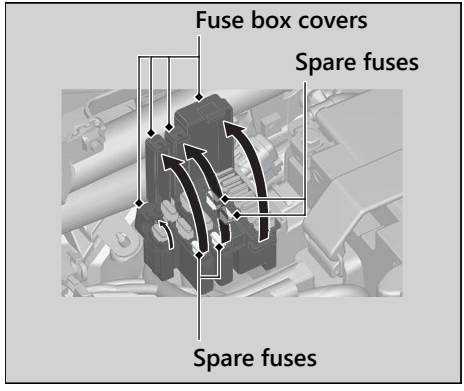
The license plate light uses an LED.
If there is an LED which is not turned on, see your dealer for servicing.

Blown Fuse

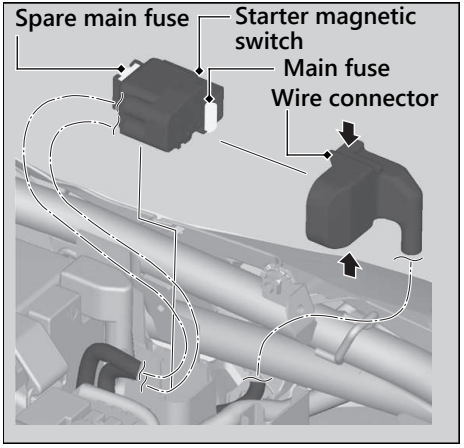
Before handling fuses, see "Inspecting and Replacing Fuses." ➡P. 72

Fuse Box Fuses

1. Remove the front seat. ➡P. 82
2. Open the fuse box covers.
3. Pull the fuses out one by one with the fuse puller in the tool kit and check for a blown fuse.
   Always replace a blown fuse with a spare fuse of the same rating.
4. Close the fuse box covers.
5. Reinstall the front seat.



Main Fuse



1. Remove the front seat. P. 82
2. Disconnect the wire connector of the starter magnetic switch.
3. Pull the main fuse out and check for a blown fuse. Always replace a blown fuse with a spare fuse of the same rating.
   ▶ Spare main fuse is provided in the starter magnetic switch.
4. Reinstall parts in the reverse order of removal.

NOTICE

If a fuse fails repeatedly, you likely have an electrical problem. Have your motorcycle inspected by your dealer.

Information

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Instruments, Controls, & Other Features...P. 129
Caring for Your Motorcycle.....P. 131
Storing Your Motorcycle.....P. 135
Transporting Your Motorcycle.....P. 136
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Keys

Ignition Key

This motorcycle has two ignition keys and a key tag with a key number and a bar code.

The ignition key contains a special coded chip that is recognized by the immobilizer system (HISS) in order to start the engine. Handle the key carefully to prevent damaging the HISS components.

- Do not bend keys or subject them to undue stress.
- Avoid prolonged exposure to sunlight or high temperatures.
- Do not grind, drill or in any way alter their shape.
- Do not expose to strong magnetic objects.

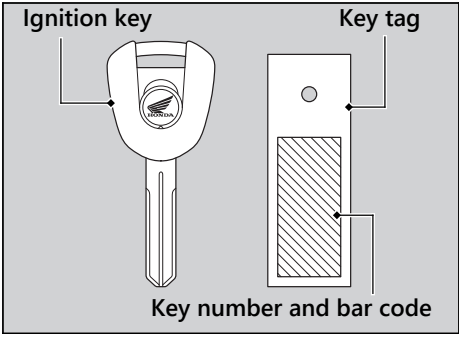
If you lose all ignition keys and the key tag, the PGM-FI unit/ignition control module must be replaced by your dealer. To avoid this, keep a duplicate key.

If you lose a key, make another duplicate key immediately.

To make a duplicate key and register it with your HISS system, take the spare key, the key tag, and the motorcycle to your dealer.

▶ Store the key tag in a safe location.

A metal key holder may cause damage to the area surrounding the ignition switch.



Instruments, Controls, & Other Features

Ignition Switch

Leaving the ignition switch in the ❙ (On) position with the engine stopped will drain the battery.

Do not turn the key while riding.

Engine Stop Switch

Do not use the engine stop switch except in an emergency. Doing so when riding will cause the engine to suddenly turn off, making riding unsafe.

If you stop the engine using the engine stop switch, turn the ignition switch to the ○ (Off) position. Failing to do so will drain the battery.

Odometer

The display locks at 999,999 when the read-out exceeds 999,999.

Tripmeter

The tripmeters return to 0.0 when each read-out exceeds 9,999.9.

HISS

The Honda Ignition Security System (HISS) immobilizes the engine's ignition system if an improperly-coded key is used to try and start the engine. When the ignition switch is turned to the ○ (Off) position, the HISS immobilizer system is always alert, even if the HISS indicator is not flashing.

If the ignition switch is turned to the ❙ (On) position with the engine stop switch in the ○ (Run) position, the HISS indicator turns on and goes off after a few seconds to indicate it is OK to start the engine. **HISS Indicator Does Not Turn off** ➡ P. 106

Continued

The HISS indicator starts flashing every 2 seconds for 24 hours after the ignition switch is turned to the ○ (Off) position. You can turn this feature on or off. P. 35

EU Directive

This immobilizer system complies with the RE (Radio Equipment) Directive (2014/53/EU).

CE

The declaration of conformity to RE 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 dealer.

South Africa only



Singapore only



Morocco only

AGREE PAR L'ANRT MAROC

Numéro d'agrément : MR 6164 ANRT 2011
Date d'agrément : 04/04/2011

Document Bag

The owner's manual, registration, and insurance information can be stored in the plastic document bag located underside of the rear seat. P. 83

Ignition Cut-off System

A banking (lean angle) sensor automatically stops the engine and fuel pump if the motorcycle falls over. To reset the sensor, you must turn the ignition switch to the ○ (Off) position and back to the | (On) position before the engine can be restarted.

Assist-slipper Clutch System

The assist-slipper clutch system helps to prevent the rear tyre from locking up when the deceleration of your motorcycle produces a strong engine braking effect. It also makes the clutch lever operation feel lighter.

Use only MA classification engine oil for your motorcycle. Using engine oil other than MA classification oil could result in damage to the assist-slipper clutch system.

Caring for Your Motorcycle

Frequent cleaning and polishing is important to ensure the life of your Honda. A clean motorcycle makes it easier to spot potential problems.
In particular, seawater and salts used to prevent ice on roads promote the formation of corrosion. Always wash your motorcycle thoroughly after riding on coastal or treated roads.

Washing

Allow the engine, muffler, brakes, and other high-temperature parts to cool before washing.

1. Rinse your motorcycle thoroughly using a low pressure garden hose to remove loose dirt.
2. If necessary, use a sponge or a soft towel with mild cleaner to remove road grime.
   ▶ Clean the headlight lens, panels, and other plastic components with extra care to avoid scratching them.

Continued

Avoid directing water into the air cleaner, muffler, and electrical parts.

3. Thoroughly rinse your motorcycle with plenty of clean water and dry with a soft, clean cloth.
4. After the motorcycle dries, lubricate any moving parts.
   ▶ Make sure that no lubricant spills onto the brakes or tyres. Brake discs, pads, drum or shoes contaminated with oil will suffer greatly reduced braking effectiveness and can lead to a crash.
5. Lubricate the drive chain immediately after washing and drying the motorcycle.
6. Apply a coat of wax to prevent corrosion.
   ▶ Avoid products that contain harsh detergents or chemical solvents. These can damage the metal, paint, and plastic on your motorcycle.
   Keep the wax clear of the tyres and brakes.
   ▶ If your motorcycle has any mat painted parts, do not apply a coat of wax to the mat painted surface.

Washing Precautions

Follow these guidelines when washing:

- Do not use high-pressure washers:
  ▶ High-pressure water cleaners can damage moving parts and electrical parts, rendering them inoperable.
  ▶ Water in the air intake can be drawn into the throttle body and/or enter the air cleaner.
- Do not direct water at the muffler:
  ▶ Water in the muffler can prevent starting and causes rust in the muffler.
- Dry the brakes:
  ▶ Water adversely affects braking effectiveness. After washing, apply the brakes intermittently at low speed to help dry them.

- Do not direct water under the seat:
  - ▶ Water in the under seat compartment can damage your documents and other belongings.
- Do not direct water at the air cleaner:
  - ▶ Water in the air cleaner can prevent the engine from starting.
- Do not direct water near the headlight:
  - ▶ The headlight's inside lens may fog temporarily after washing or while riding in the rain. This does not impact the headlight function.
    However, if you see a large amount of water or ice accumulated inside the lens(es), have your vehicle inspected by your dealer.
- Do not use wax or polishing compounds on mat painted surface:
  - ▶ Use a soft cloth or sponge, plenty of water, and a mild detergent to clean mat painted surfaces. Dry with a soft clean cloth.

Aluminium Components

Aluminium will corrode from contact with dirt, mud, or road salt. Clean aluminium parts regularly and follow these guidelines to avoid scratches:

- Do not use stiff brushes, steel wool, or cleaners containing abrasives.
- Avoid riding over or scraping against curbs.

Panels

Follow these guidelines to prevent scratches and blemishes:

- Wash gently using a soft sponge and plenty of water.
- To remove stubborn stains, use diluted detergent and rinse thoroughly with plenty of water.
- Avoid getting petrol, brake fluid, or detergents on the instruments, panels, or headlight.

Continued

Exhaust Pipe and Muffler

The exhaust pipe and muffler are stainless steel but may become stained by mud or dust.

To remove mud or dust, use a wet sponge and a liquid kitchen abrasive, then rinse well with clean water. Dry with chamois or a soft towel.

If necessary, remove heat stains by using a commercially available fine texture compound. Then rinse by the same manner as removing mud or dust.

When the exhaust pipe and muffler are painted, do not use a commercially available abrasive kitchen cleaning compound. Use a neutral detergent to clean the painted surface on the exhaust pipe and muffler. If you are not sure if your exhaust pipe and muffler are painted, contact your dealer.

NOTICE

Even though the exhaust is made of stainless steel, it can become stained. Remove all marks and blemishes as soon as they are noticed.

Storing Your Motorcycle

If you store your motorcycle outdoors, you should consider using a full-body motorcycle cover.

If you won't be riding for an extended period, follow these guidelines:

- Wash your motorcycle and wax all painted surfaces (except mat painted surfaces). Coat chrome pieces with rust-inhibiting oil.
- Lubricate the drive chain. P. 73
- Place your motorcycle on a maintenance stand and position a block so that both tyres are off the ground.
- After rain, remove the body cover and allow the motorcycle to dry.
- Remove the battery (P. 81) to prevent discharge. Fully charge the battery and then place it in a shaded, well-ventilated area.
  - ▶ If you leave the battery in place, disconnect the negative ⊖ terminal to prevent discharge.

After removing your motorcycle from storage, inspect all maintenance items required by the Maintenance Schedule.

Transporting Your Motorcycle

If your motorcycle needs to be transported, it should be carried on a motorcycle trailer or a flatbed truck or trailer that has a loading ramp or lifting platform, and motorcycle tie-down straps. Never try to tow your motorcycle with a wheel or wheels on the ground.

NOTICE
Towing your motorcycle can cause serious damage to the transmission.

You & the Environment

Owning and riding a motorcycle can be enjoyable, but you must do your part to protect the environment.

Choose Sensible Cleaners

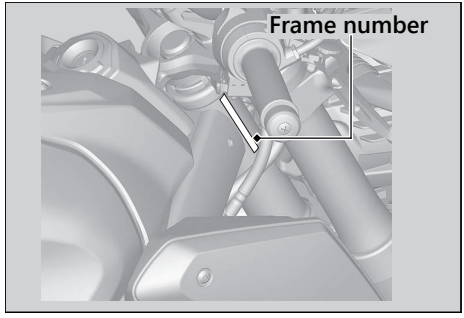
Use a biodegradable detergent when you wash your motorcycle. Avoid aerosol spray cleaners that contain chlorofluorocarbons (CFCs) which damage the atmosphere's protective ozone layer.

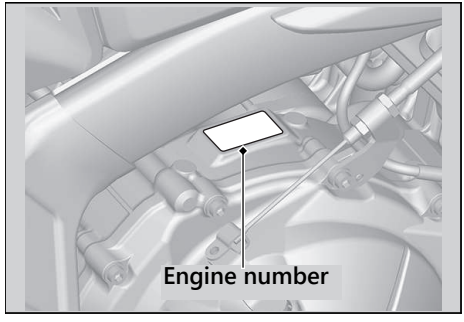
Recycle Wastes

Put oil and other toxic wastes in approved containers and take them to a recycling centre. Call your local or state office of public works or environmental services to find a recycling centre in your area, and to get instructions on how to dispose of non-recyclable wastes. Do not place used engine oil in the trash, or pour it down a drain or on the ground. Used oil, petrol, coolant, and cleaning solvents contain poisons that can hurt refuse workers and contaminate drinking water, lakes, rivers, and oceans.

Serial Numbers

The frame and engine serial numbers uniquely identify your motorcycle and are required in order to register your motorcycle. They may also be required when ordering replacement parts.
You should record these numbers and keep them in a safe place.





Fuels Containing Alcohol

Some conventional fuels blended with alcohol are available in some locales to help reduce emissions to meet clean air standards. If you plan to use blended fuel, check that it is unleaded and meets the minimum octane rating requirement.

The following fuel blends can be used in your motorcycle:

- Ethanol (ethyl alcohol) up to 10% by volume.
  - ▶ Petrol containing ethanol may be marketed under the name Gasohol.

The use of petrol containing more than 10% ethanol may:

- Damage the painting of the fuel tank.
- Damage the rubber tubes of the fuel line.
- Cause corrosion of the fuel tank.
- Cause poor drivability.

NOTICE

Use of blended fuels containing higher than approved percentages can damage metal, rubber, plastic parts of your fuel system.

If you notice any undesirable operating symptoms or performance problems, try a different brand of petrol.

Catalytic Converter

This motorcycle is equipped with a three-way catalytic converter. The catalytic converter contains precious metals that serve as catalysts in high temperature chemical reactions that convert hydrocarbons (HC), carbon monoxide (CO), and oxides of nitrogen (NOx) in the exhaust gasses into safe compounds.

A defective catalytic converter contributes to air pollution and can impair your engine's performance. A replacement unit must be an original Honda part or equivalent.

Follow these guidelines to protect your motorcycle's catalytic converter.

- Always use unleaded petrol. Leaded petrol will damage the catalytic converter.
- Keep the engine in good running condition.
- Have your motorcycle serviced if your engine is misfiring, backfiring, stalling, or otherwise not running properly, stop riding and turn off the engine.

■ Main Components

Overall length	2,130 mm (83.9 in)	
Overall width	ED, III ED, U type	780 mm (30.7 in)
	KO type	760 mm (29.9 in)
Overall height	1,075 mm (42.3 in)	
Wheelbase	1,450 mm (57.1 in)	
Minimum ground clearance	150 mm (5.9 in)	
Caster angle	25° 30′	
Trail	101 mm (4.0 in)	
Curb weight	ED, III ED, U type	202 kg (445 lb)
	KO type	205 kg (452 lb)
Maximum weight capacity *1	ED, III ED, U type	168 kg (370 lb)
	KO type	148 kg (326 lb)
Maximum luggage weight *2	ED, III ED type	7 kg (15 lb)
Passenger capacity	Rider and 1 passenger	
Minimum turning radius	2.90 m (9.5 ft)	

*1 : Including rider, passenger, all luggage, and accessories.
*2 : Includes the weight of the luggage and added accessories.

Displacement	649 cm³ (39.6 cu-in)	
Bore x stroke	67.0 x 46.0 mm (2.64 x 1.81 in)	
Compression ratio	11.6 : 1	
Fuel	Unleaded petrol Recommended: 91 RON or higher	
Fuels containing alcohol	ETHANOL up to 10 % by volume	
Tank capacity	15.4 L (4.07 US gal, 3.39 Imp gal)	
Battery	FTZ10S 12 V-8.6 Ah (10 HR) / 9.1 Ah (20 HR)	
	YTZ10 12 V-8.6 Ah (10 HR) / 9.1 Ah (20 HR)	
Gear ratios	1st	3.071
	2nd	2.352
	3rd	1.888
	4th	1.560
	5th	1.370
	6th	1.214
Reduction ratios (primary / final)	1.690 / 2.800	

■ Service Data

Tyre size	Front	120/70ZR17M/C(58W)
	Rear	180/55ZR17M/C(73W)
Tyre type		Radial, tubeless
Recommended Tyres	Front	METZELER ROADTEC 01
	Rear	METZELER ROADTEC 01 E
Tyre category of use *1	Normal	Permitted
	Special	Not Permitted
	Snow	Not Permitted
	Moped	Not Permitted
Tyre air pressure	Front	250 kPa (2.50 kgf/cm^2, 36 psi)
	Rear	290 kPa (2.90 kgf/cm^2, 42 psi)
Minimum tread depth	Front	1.5 mm (0.06 in)
	Rear	2.0 mm (0.08 in)
Spark plug	(standard)	IMR9E-9HES (NGK) or VUH27ES (DENSO)
Spark plug gap	(non-adjustable)	0.8 - 0.9 mm (0.03 - 0.04 in)
Idle speed		1,250 ± 100 rpm
Recommended engine oil		Honda 4-stroke motorcycle oil API Service Classification SG or higher, excluding oils marked as "Energy Conserving" or "Resource Conserving," SAE 10W-30, JASO T 903 standard MA

*1 : EU regulation

Engine oil capacity	After draining	2.3 L (2.4 US qt, 2.0 Imp qt)
	After draining & engine oil filter change	2.6 L (2.7 US qt, 2.3 Imp qt)
	After disassembly	3.0 L (3.2 US qt, 2.6 Imp qt)
Recommended brake fluid	Honda DOT 4 Brake Fluid	
Recommended coolant	Pro Honda HP Coolant	
Cooling system capacity	2.5 L (2.6 US qt, 2.2 Imp qt)	
Recommended drive chain lubricant	Drive chain lubricant designed specifically for O-ring chains. If not available, use SAE 80 or 90 gear oil.	
Drive chain slack	25 - 35 mm (1.0 - 1.4 in)	
Standard drive chain	DID 525V11 or RK 525KRW	
	No. of links 118	
Standard sprocket sizes	Drive sprocket	15T
	Driven sprocket	42T

■ Bulbs

Headlight	LED
Brakelight/Taillight	LED
Front turn signal	LED
Rear turn signal	LED
Position light	LED
License plate light	LED

■ Fuses

Main fuse	30A
Other fuse	30A, 20A, 10A, 7.5A

■ Torque Specifications

Oil filter	26 N·m (2.7 kgf·m, 19 lbf·ft)
Engine oil drain bolt	30 N·m (3.1 kgf·m, 22 lbf·ft)
Rear wheel axle nut	98 N·m (10.0 kgf·m, 72 lbf·ft)
Drive chain adjusting lock nut	27 N·m (2.8 kgf·m, 20 lbf·ft)
Front wheel axle bolt	59 N·m (6.0 kgf·m, 44 lbf·ft)
Front wheel axle pinch bolt	22 N·m (2.2 kgf·m, 16 lbf·ft)
Front wheel brake caliper mounting bolt	45 N·m (4.6 kgf·m, 33 lbf·ft)

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