

HONDA

OWNER'S MANUAL

CBR650RAC
CB650RAC



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

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The vehicle pictured in this owner's manual may not match your actual vehicle.

Welcome

Congratulations on your purchase of a new Honda vehicle. 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 vehicle.

- The following codes in this manual indicate each destination.
- The illustrations here in are based on the CB650RAC PH type.

Destination Codes

Code	Destination
------	-------------

CBR650RAC

TH, II TH	Thailand
II PH	Philippines

CB650RAC

TH	Thailand
PH	Philippines

*The specifications may vary with each locale.

A Few Words About Safety

Your safety, and the safety of others, is very important. Operating this vehicle 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 vehicle. You must use your own good judgement.

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

- Safety labels on the vehicle
- 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 vehicle, other property, or the environment.

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Vehicle Safety

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Operation Guide

P. 18

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P. 106

Troubleshooting

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Vehicle Safety

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

Safety Guidelines	P. 3
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Safety Precautions	P. 9
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Accessories & Modifications	P. 15
Loading	P. 16

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 flames 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 helmet and protective apparel.  P. 9

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 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 vehicle is stopped.

Take Time to Learn & Practice

Even if you have ridden other vehicles, practice riding in a safe area to become familiar with how this vehicle works and handles, and to become accustomed to the vehicle'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.

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 or Use Drugs and Ride

Alcohol or drugs 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. The same is true for drug use. Don't drink or use and ride, and don't let your friends do it either.

Keep Your Honda in Safe Condition

It's important to keep your vehicle properly maintained and in safe riding condition. Inspect your vehicle before every ride and perform all recommended maintenance. Never exceed load limits (➤ P. 16), and do not modify your vehicle or install accessories that would make your vehicle unsafe (➤ P. 15).

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 **O** (Off) position, and evaluate the condition of your vehicle. 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 vehicle may have suffered damage that is not immediately apparent. Have your vehicle 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 a confined or even partly enclosed area, the air you breathe could contain a dangerous amount of carbon monoxide.

Never run your vehicle inside a garage or other enclosure.

⚠ WARNING

Running the engine of your vehicle 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 vehicle's engine when it is located in a well ventilated area outdoors.

Image Labels

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 vehicle 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)

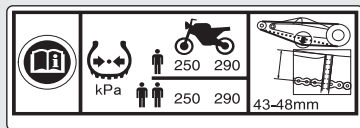
You **CAN** be **KILLED** or **SERIOUSLY HURT** if you don't follow instructions.

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 vehicle.
- Do not use a battery with the electrolyte at or below the lower level mark. It can explode causing serious injury.



TYRE INFORMATION & DRIVE CHAIN LABEL

PH, II PH type

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 **43 - 48 mm (1.7 - 1.9 in)**

Safety Precautions

- Ride cautiously and keep your hands on the handlebar and feet on the footpegs.
- Instruct your passenger to keep their hands on the seat strap or your waist and their 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 helmet, eye protection, and high-visibility protective clothing. Avoid wearing loose clothes that could get caught on any part of the vehicle. 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.

Riding Precautions

I Gloves

Full-finger leather gloves with high abrasion resistance

I Boots or Riding Shoes

Sturdy boots with non-slip soles and ankle protection

I 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 vehicle'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 vehicle'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.

Riding Precautions

Engine Braking

Engine braking helps slow your vehicle 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.

Parking

- Park on a firm, level surface.
- If you must park on a slight incline or loose surface, park so that the vehicle 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 vehicle unattended. Use of an anti-theft device is also recommended.

I Parking with the Side Stand

1. Stop the engine.
2. Push the side stand down.
3. Slowly lean the vehicle 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 vehicle to fall.
5. Turn the ignition switch to the  (Lock) position and remove the key. ➤ P. 83

Refuelling and Fuel Guidelines

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

- Use only unleaded petrol.
- Use the recommended octane number.
Using lower octane petrol will result in decreased engine performance.
- Do not use fuels containing a high concentration of alcohol. ➤ P. 171
- 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 vehicle 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 vehicle by Honda or make modifications to your vehicle from its original design. Doing so can make it unsafe. Modifying your vehicle may also void your warranty and make your vehicle illegal to operate on public roads. Before deciding to install accessories on your vehicle, 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 vehicle. Your vehicle was not designed for these attachments, and their use can seriously impair your vehicle's handling.

Loading

- Carrying extra weight affects your vehicle's handling, braking and stability.
Always ride at a safe speed and never exceed 130 km/h (80 mph) for the load you are carrying.
- Avoid carrying an excessive load and keep within specified load limits.
Maximum weight capacity ➤ P. 173
- Tie all luggage securely, evenly balanced, and close to the centre of the vehicle.
- Do not place objects near the lights or the muffler.

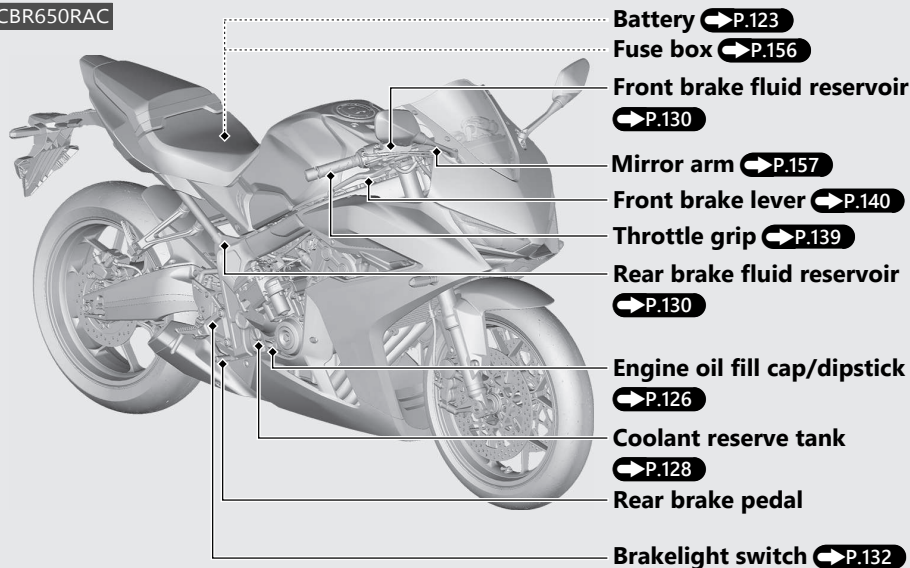
WARNING

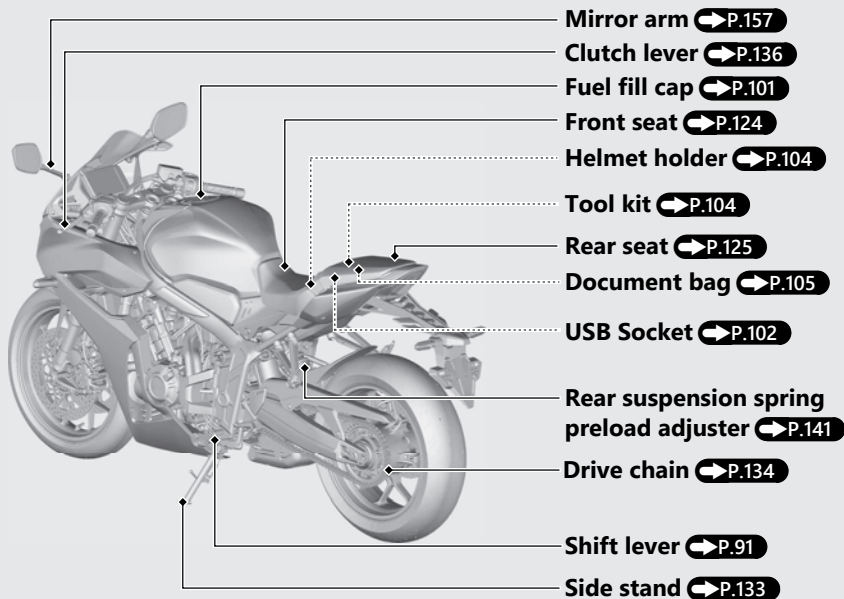
Overloading or improper loading can cause a crash and you can be seriously hurt or killed.

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

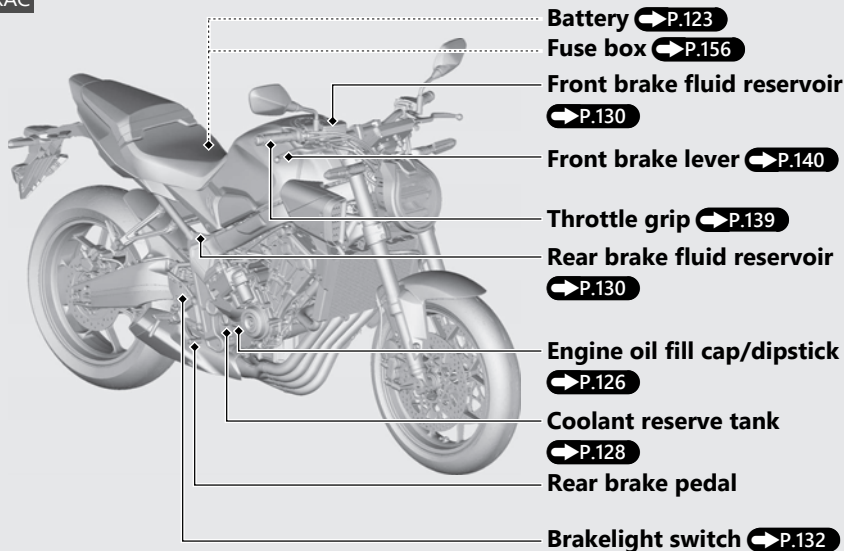
Parts Location

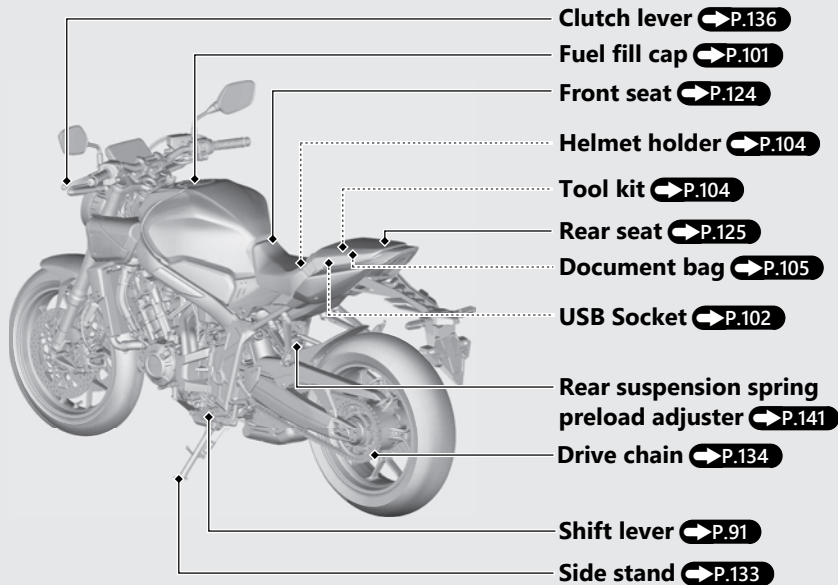
CBR650RAC





Parts Location *(Continued)*

CB650RAC

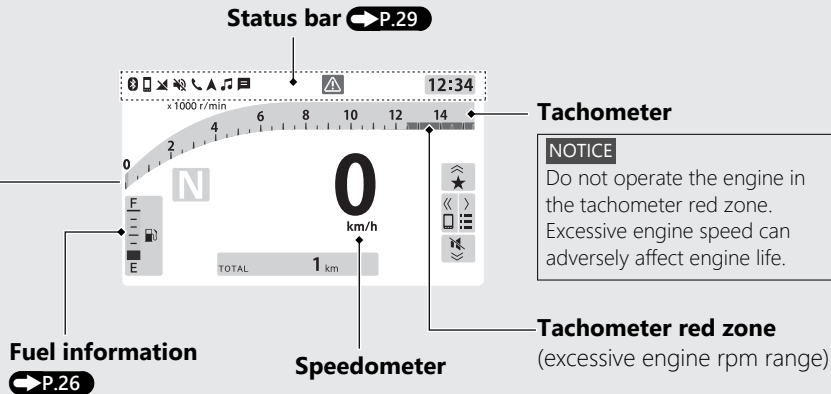


Instruments

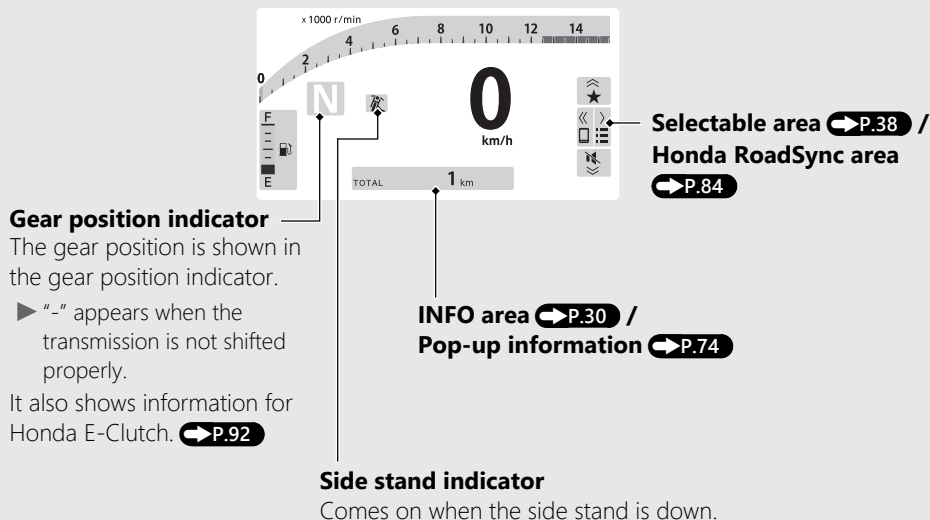


You can change the speed and mileage, and fuel mileage meter units. ➡ **P.43** ➡ **P.61**

Do not operate the display functions for a long time with the engine stopped. It may result in a low (or dead) battery.



Instruments (Continued)



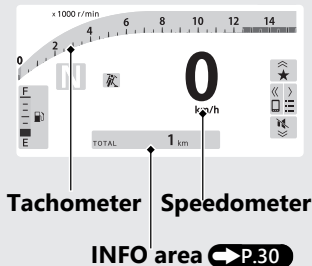
Display type

This meter has three display types.

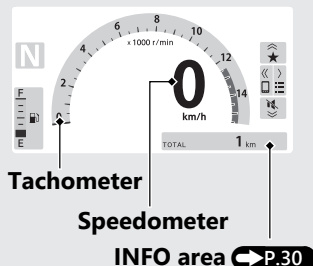
The display and arrangement of speedometer, tachometer, and INFO area change depending on each display type.

To change the display type: ➡P.43 ➡P.53

Display type: BAR

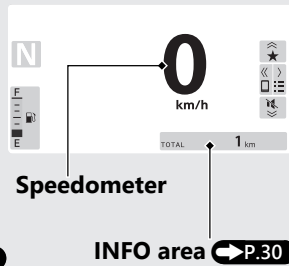


Display type: CIRCLE



Display type: SIMPLE

► The tachometer is not displayed when select the SIMPLE type display.



Instruments (Continued)

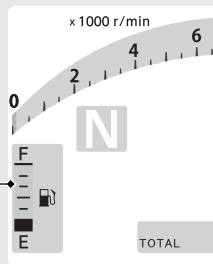
Fuel information

This fuel information has two types of information: Fuel gauge (FUEL) and Available driving distance (RANGE).

- When the available driving distance (RANGE) becomes amber (Remaining fuel: below 3.0 L (0.79 US gal, 0.66 Imp gal)), the fuel gauge (FUEL) is no longer available.

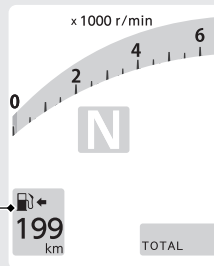
To change the fuel type: ➡P.38 ➡P.39 ➡P.41

Fuel type: FUEL



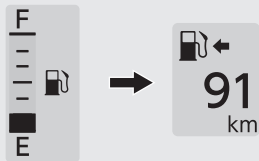
Fuel gauge (FUEL) ➡P.27

Fuel type: RANGE



Available driving distance (RANGE) ➡P.27

Fuel gauge (FUEL)



Remaining fuel when the display changes the 1st segment of the fuel gauge (FUEL) to the available driving distance (RANGE) (amber): approximately 3.0 L (0.79 US gal, 0.66 Imp gal)

► **If the fuel gauge indicator flashes in a repeat pattern or turns off:** ➡ **P.150**

NOTICE

You should refuel when the available driving distance (RANGE) (amber) appears. Running out of fuel can cause the engine to misfire, damaging the catalytic converter.

Available driving distance (RANGE)



Displays the estimated distance you can travel on the remaining fuel. The indicated available driving distance is calculated based on the driving conditions, and the indicated figure may not always be the actual available distance.

Display range: 999 to 5 km.

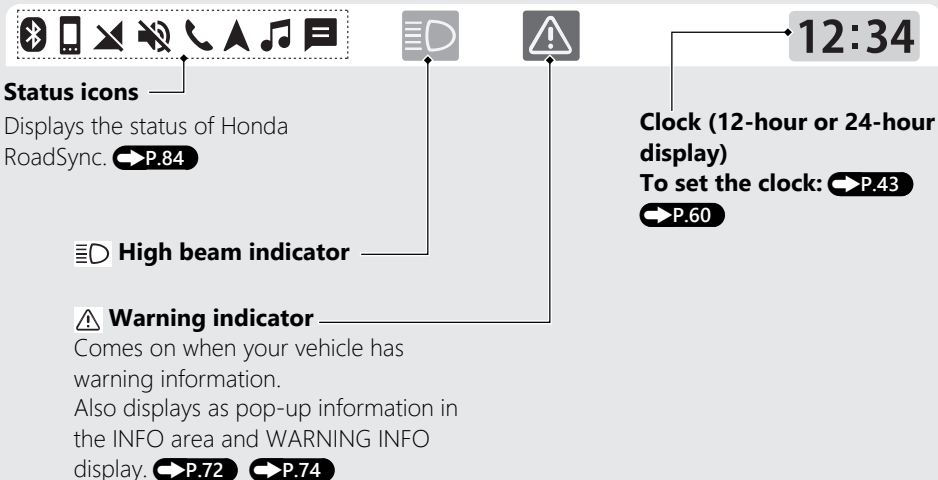
- Initial display: “---” is displayed.
- If the calculated distance is 999 km or more: “999 km” is displayed.

Instruments *(Continued)*

- When the calculated distance is below 5 km or the amount of remaining fuel is below 1.0 L (0.26 US gal, 0.22 Imp gal):
"---" is displayed.

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

Status bar



Instruments *(Continued)*

INFO area

The INFO area displays various vehicle information.

The following items are displayed by default.

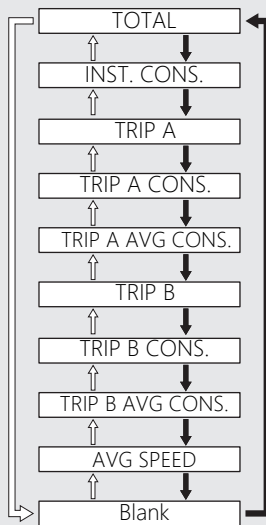
- Odometer [TOTAL]
- Current fuel mileage [INST. CONS.]
- Tripmeter A [TRIP A]
- Tripmeter B [TRIP B]

The information item displayed in the INFO area can be changed arbitrarily.

Up to 10 items are available. (Including Blank)
If no item is selected or only Blank is selected, the INFO area has no items.

To change the information: ➡ P.43

➡ P.56



➡ Press ▼ on the sel switch.

➡ Press ▲ on the sel switch.

The types of information item that can be displayed in the INFO area are as follows:

TOTAL ➡ P.32

INST. CONS. ➡ P.32

TRIP A ➡ P.33

TRIP A CONS. ➡ P.33

TRIP A AVG CONS. ➡ P.34

TRIP B ➡ P.35

TRIP B CONS. ➡ P.35

TRIP B AVG CONS. ➡ P.36

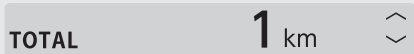
AVG SPEED ➡ P.37

Blank ➡ P.37

Instruments *(Continued)*

| Odometer [TOTAL]

Total distance ridden.



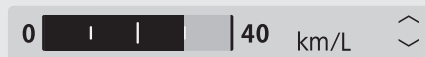
When "-----" is displayed, go to your dealer for service.

| Current fuel mileage [INST. CONS.]

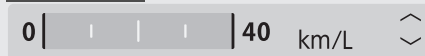
Displays the instantaneous fuel mileage as a bar graph.

Display range: 0 to 40 km/L (4 L/100 km)

- When your speed is less than 5 km/h (3 mph): "zero segment " is displayed.



Zero segment



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

■ Tripmeter A [TRIP A]

Distance ridden since the tripmeter A was reset.

TRIPA **125.0** km 

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

To reset the tripmeter A: ➡ P.39

➡ P.42

■ Tripmeter A fuel consumption [CONSA]

Displays the tripmeter A fuel consumption since the tripmeter A was reset.

Display range: 0.0 to 299.9 L

CONSA **4.8** L 

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

Tripmeter A fuel consumption is reset when you reset tripmeter A.

To reset the tripmeter A: ➡ P.39

➡ P.42

Instruments *(Continued)*

■ **Tripmeter A average fuel mileage** **[AVG CONS. A]**

Displays the average fuel mileage since the tripmeter A was reset.

The average fuel mileage will be calculated based on the value on tripmeter A.

Display range: 0.0 to 299.9 km/L (L/100 km)

- Above 299.9 km/L : "299.9" is displayed.
- Above 299.9 L/100km : "--.-" is displayed.
- When the average fuel mileage is reset: "--.-" is displayed.

AVG CONS. A **3 0** km/L  

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

Tripmeter A average fuel mileage is reset when you reset tripmeter A.

To reset the tripmeter A: ➡ **P.39**

➡ **P.42**

| Tripmeter B [TRIP B]

Distance ridden since the tripmeter B was reset.

TRIP B **250.0** km 

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

To reset the tripmeter B: ➡ P.39

➡ P.42

| Tripmeter B fuel consumption [CONS.B]

Displays the tripmeter B fuel consumption since the tripmeter B was reset.

Display range: 0.0 to 299.9 L

CONS.B **11.4** L 

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

Tripmeter B fuel consumption is reset when you reset tripmeter B.

To reset the tripmeter B: ➡ P.39

➡ P.42

Instruments *(Continued)*

■ Tripmeter B average fuel mileage [AVG CONS. B]

Displays the average fuel mileage since the tripmeter B was reset.

The average fuel mileage will be calculated based on the value on tripmeter B.

Display range: 0.0 to 299.9 km/L (L/100 km)

- Above 299.9 km/L : "299.9" is displayed.
- Above 299.9 L/100km : "---.-" is displayed.
- When the average fuel mileage is reset: "---.-" is displayed.

AVG CONS. B **25** km/L 

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

Tripmeter B average fuel mileage is reset when you reset tripmeter B.

To reset the tripmeter B: ➡ **P.39**

➡ **P.42**

Average speed [AVG SPEED]

Displays average speed since the engine was started.

Display range: 0 to 299 km/h

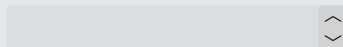
- Initial display: "---" is displayed.
- When your vehicle has travelled less than 0.2 km since the engine was started: "---" is displayed.
- When your vehicle operating time is less than 16 seconds since the engine was started: "---" is displayed.



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

Blank display

Display the blank.



Instruments (Continued)

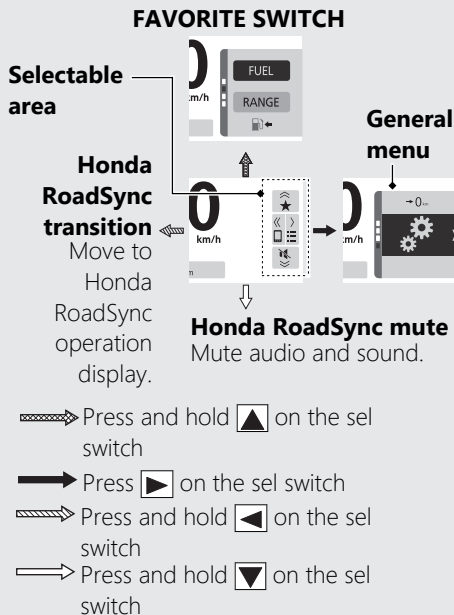
Selectable area

You can select the following:

- General menu ➡ **P.39**
- Honda RoadSync transition ➡ **P.84**
- Honda RoadSync mute
- FAVORITE SWITCH (Fuel mode) ➡ **P.41**

Honda RoadSync transition and Honda RoadSync mute can be selected only when your smartphone is connected to the vehicle.

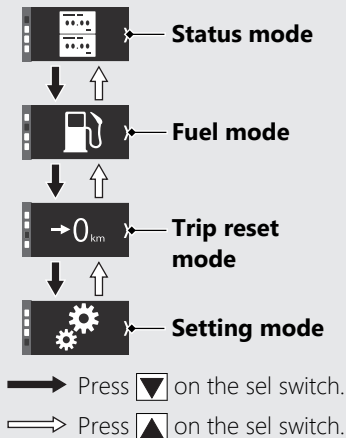
To connect the device ➡ **P.87**



General Menu

You can select the following:

- Status mode
- Fuel mode
- Trip reset mode
- Setting mode

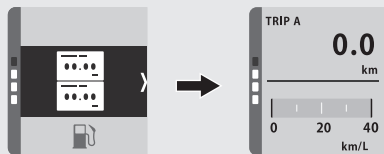


Status mode

The Status mode displays various vehicle information.

The Status mode has four pages and displays two pieces of information on each page.

Press  on the sel switch while select the status mode, display moves to vehicle information page.



The information item displayed in the status mode can be changed arbitrarily.

To change the information:  **P.43**

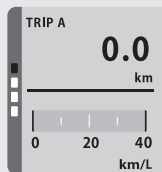
 **P.56**

Instruments *(Continued)*

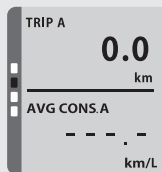
To switch the information page

To change the information page, press  or  on the sel switch.

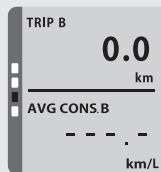
Page 1



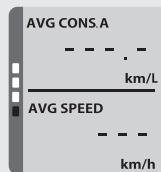
Page 2



Page 3



Page 4



➡ Press  on the sel switch.

➡ Press  on the sel switch.

To change the information:  P.43  P.56

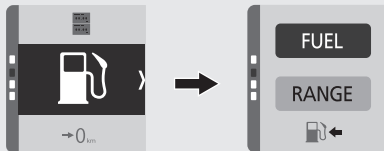
Fuel mode

You can select the following:

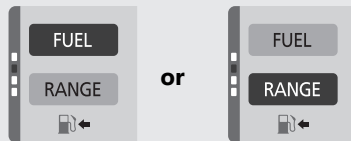
- FUEL ➡ **P.27**
- RANGE ➡ **P.27**

► When the available driving distance (RANGE) becomes amber (Remaining fuel: below 3.0 L (0.79 US gal, 0.66 Imp gal)), the fuel gauge (FUEL) is no longer available.

1. Select the fuel mode. ➡ **P.39**
2. Press  on the sel switch.



3. Select the FUEL or RANGE by pressing  or  on the sel switch.

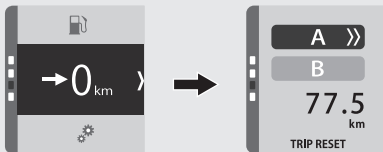


Instruments (Continued)

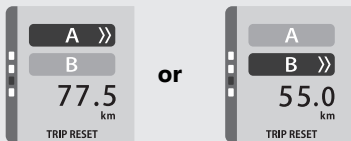
Trip reset mode

You can reset the tripmeter A or tripmeter B.

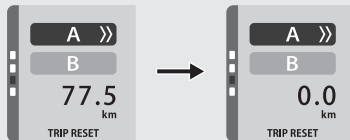
1. Select the trip reset mode. ➡ P.39
2. Press  on the sel switch.



3. Select the A or B by pressing  or  on the sel switch.



4. Press and hold  on the sel switch.
The tripmeter A or B is reset.



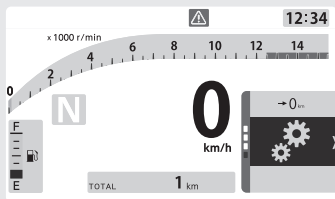
Also, the tripmeter A, tripmeter A fuel consumption and tripmeter A average fuel mileage are automatically reset when the fuel gauge segment increases by 2 or more after refuelling and riding your vehicle for 0.1 km (0.06 mile). You can activate or deactivate the automatic reset mode. ➡ P.43 ➡ P.51

Setting mode

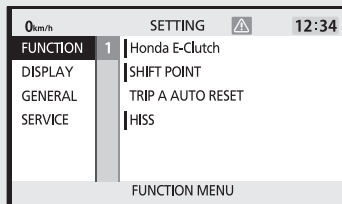
To shift to the setting mode

1. Select the general menu. ➡ P.38
2. Select the setting mode. ➡ P.39
3. Press  on the sel switch, and then display moves to the setting mode.
▶ Operation while driving is prohibited.

Ordinary display



Setting mode

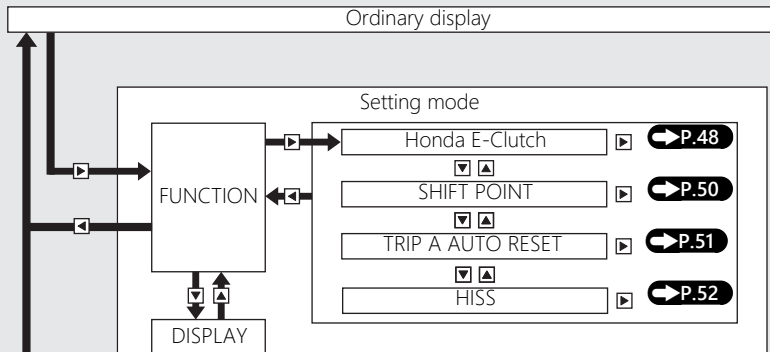


To return to the ordinary display

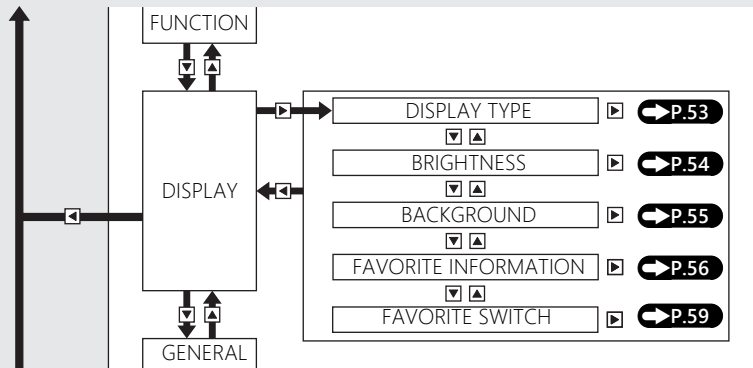
- Press  on the sel switch until return to the ordinary display.
- Turn the ignition switch to the  (Off) position, and then to the  (On) position again.

Instruments (Continued)

Setting flow

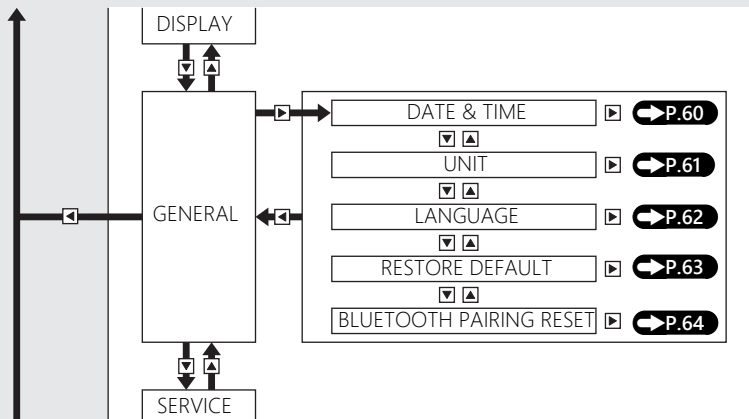


- ▲ : Press ▲ on the sel switch
- ▶ : Press ▶ on the sel switch
- ◀ : Press ◀ on the sel switch
- ▼ : Press ▼ on the sel switch

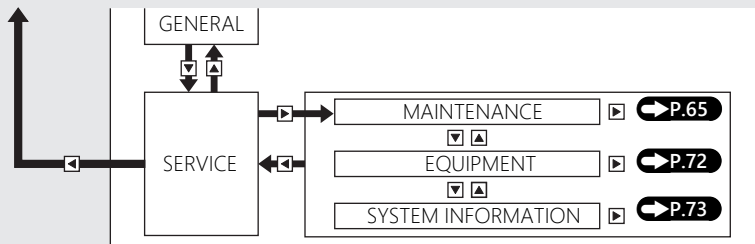


- ▲ : Press ▲ on the sel switch
 ► : Press ► on the sel switch
 ◄ : Press ◄ on the sel switch
 ▼ : Press ▼ on the sel switch

Instruments (Continued)



- : Press on the sel switch
 : Press on the sel switch
 : Press on the sel switch
 : Press on the sel switch



- ▲ : Press ▲ on the sel switch
 ► : Press ► on the sel switch
 ◄ : Press ◄ on the sel switch
 ▼ : Press ▼ on the sel switch

Instruments (Continued)

Honda E-Clutch

You can change the following items about Honda E-Clutch.

I (On) / **O** (Off) : Turns Honda E-Clutch On or Off.

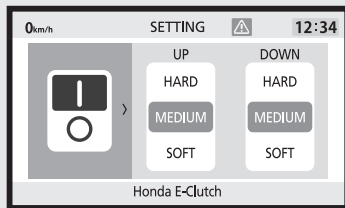
UP : Load level of the shift pedal for upshifting when Honda E-Clutch is on

DOWN : Load level of the shift pedal for downshifting when Honda E-Clutch is on

1 Shift the transmission to Neutral (**N** indicator comes on).

- You cannot choose the Honda E-Clutch unless the transmission is in Neutral.

2 Select the **I** (On) or **O** (Off) using  or  on the sel switch.

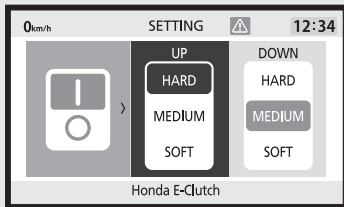


3 To select **I** (On)

Press  on the sel switch to select the UP or DOWN.

Select the desired setting (SOFT, MEDIUM or HARD) using  or  on the sel switch.

Press  on the sel switch to complete the setting.



To select **O** (Off)

Press  on the sel switch to complete the setting.

4 Return to the ordinary display to complete the setting. P.43

To continue setting, press  on the sel switch to return to the upper hierarchy.

Instruments (Continued)

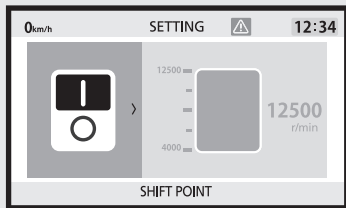
SHIFT POINT

| (On) / ○ (Off) : You can activate or deactivate the shift up mode.

SHIFT POINT : You can change the engine revolutions at which the tachometer start blinking in the shift up mode.

Shift up mode: ➡ P.76

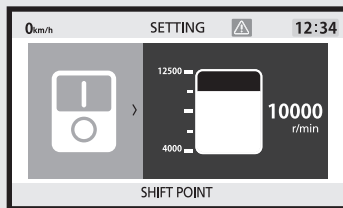
- 1 Select the | (On) or ○ (Off) using ▲ or ▼ on the sel switch.



- 2 To select | (On)

Press ► on the sel switch to select the desired setting using ▲ or ▼ on the sel switch.

Press ◀ on the sel switch to complete the setting.



- To select ○ (Off)

Press ◀ on the sel switch to complete the setting.

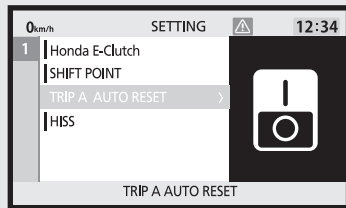
- 3 Return to the ordinary display to complete the setting. ➡ P.43

To continue setting, press ◀ on the sel switch to return to the upper hierarchy.

TRIP A AUTO RESET

You can enable or disable the tripmeter A automatic reset mode.

- 1 Select the **I** (On) or **O** (Off) using  or  on the sel switch.
- 2 Press  on the sel switch to complete the setting.
- 3 Return to the ordinary display to complete the setting. ➔ **P.43**
To continue setting, press  on the sel switch to return to the upper hierarchy.



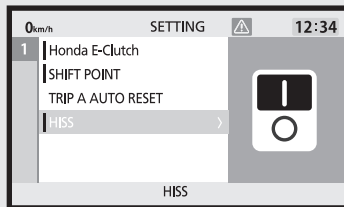
Instruments (Continued)

HISS

You can select the blink or off the HISS indicator.

- 1 Select the **I** (On) or **O** (Off) using  or  on the sel switch.
- 2 Press  on the sel switch to complete the setting.
- 3 Return to the ordinary display to complete the setting. ➡ **P.43**

To continue setting, press  on the sel switch to return to the upper hierarchy.



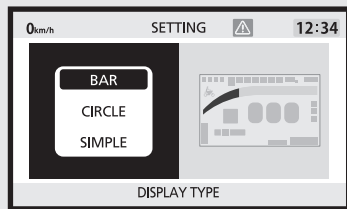
DISPLAY TYPE

You can change the display type.

("BAR", "CIRCLE" or "SIMPLE": ➡P.25)

- 1 Select the display type ("BAR", "CIRCLE" or "SIMPLE") using ▲ or ▼ on the sel switch.
- 2 Press ◀ on the sel switch to complete the setting.
- 3 Return to the ordinary display to complete the setting. ➡P.43

To continue setting, press ◀ on the sel switch to return to the upper hierarchy.



Instruments (Continued)

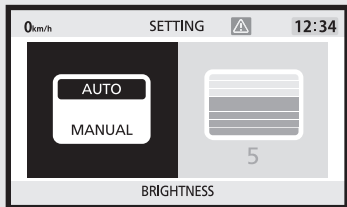
BRIGHTNESS

You can adjust the backlight brightness to one of the eight levels or select the auto adjustment.

Automatic brightness control: ➡ P.162

The display can become dark when the display is very hot. If it does not restore the original brightness, contact your dealer.

- 1 Select the "AUTO" or "MANUAL" using ▲ or ▼ on the sel switch.



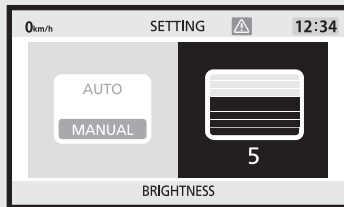
- 2 When select the "AUTO"

Press ◀ on the sel switch to complete the setting.

When select the "MANUAL"

Press ▶ on the sel switch to select the backlight brightness using ▲ or ▼ on the sel switch.

Press ◀ on the sel switch to complete the setting.



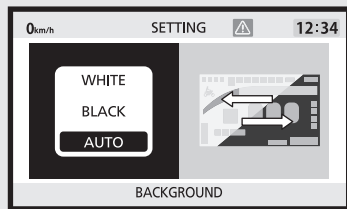
- 3 Return to the ordinary display to complete the setting. ➡ P.43
To continue setting, press ◀ on the sel switch to return to the upper hierarchy.

BACKGROUND

You can change the setting of the background to one of the two colours or select the auto adjustment.

- 1 Select the background colour using  or  on the sel switch.
- 2 Press  on the sel switch to complete the setting.
- 3 Return to the ordinary display to complete the setting. ➔ **P.43**

To continue setting, press  on the sel switch to return to the upper hierarchy.



Instruments *(Continued)*

FAVORITE INFORMATION

You can change the information items displayed in the INFO area and STATUS mode.

1 line information

You can change the information items displayed in the INFO area. (INFO area:

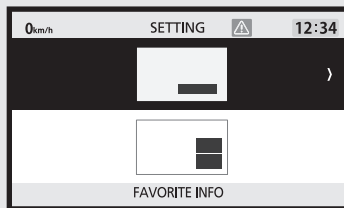
➡P.30)

1 line information setting: ➡P.57

2 line information

You can change the information items displayed in the information page of status mode. (Information page: ➡P.40)

2 line information setting: ➡P.58



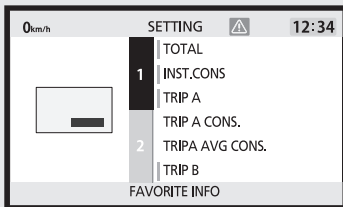
Select the 1 line or 2 line information using

▲ or ▼ on the sel switch.

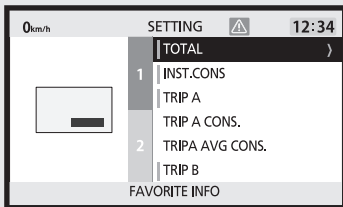
Press ► on the sel switch, display moves to the 1 line or 2 line information setting.

1 line information setting

- 1 Select the 1 or 2 using  or  on the sel switch.



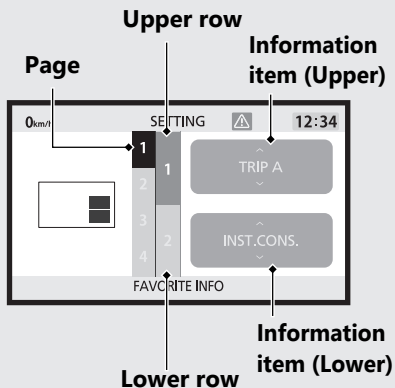
- 2 Press  on the sel switch to select the information items.



- 3 Select the desired information item using  or  on the sel switch.
- 4 Press  on the sel switch, set the information item.
 - ▶ Items that have already been set are displayed with a green cursor.
 - ▶ Up to 10 items are available. (Including Blank)
- 5 Press  on the sel switch to complete the setting.
- 6 Return to the ordinary display to complete the setting. ➡ **P.43**
To continue setting, press  on the sel switch to return to the upper hierarchy.

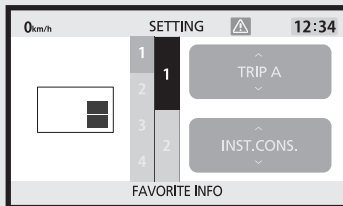
Instruments (Continued)

2 line information setting

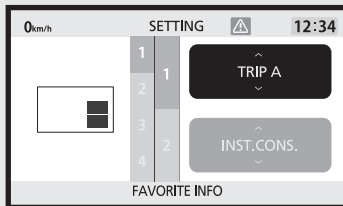


- 1 Select the desired page using ▲ or ▼ on the sel switch.
- 2 Press ► on the sel switch to select the upper or lower row.

- 3 Select the upper or lower row using ▲ or ▼ on the sel switch.



- 4 Press ► on the sel switch to select the information items.
- 5 Select the desired information item using ▲ or ▼ on the sel switch.



6 Press  on the sel switch to complete the setting.

7 Return to the ordinary display to complete the setting.  **P.43**

To continue setting, press  on the sel switch to return to the upper hierarchy.

FAVORITE SWITCH

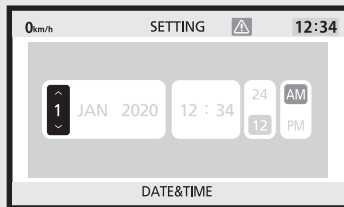
"FUEL" is displayed but not selectable.



Instruments (Continued)

DATE & TIME

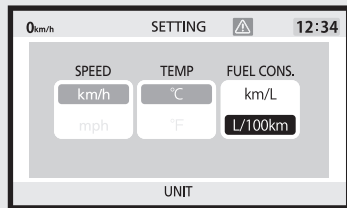
- 1 Select the "Day", "Month", "Year", "Hour", "Minute", "24h or 12h" or "AM / PM" using  or  on the sel switch.
- 2 Select the desired setting using  or  on the sel switch.
 - ▶ When "24 / 12" is set to 24-hour indication, "AM / PM" cannot be usable.
- 3 Press  on the sel switch to complete the setting.
- 4 Return to the ordinary display to complete the setting. ➡ **P.43**
 To continue setting, press  on the sel switch to return to the upper hierarchy.
 - ▶ The set value is retained.



UNIT

You can change the speed and mileage, and fuel mileage meter units.

- 1 Select the desired setting using  or  on the sel switch.
 ► "SPEED" and "TEMP" are displayed but not selectable.
- 2 Press  on the sel switch to complete the setting.
- 3 Return to the ordinary display to complete the setting. **➡ P.43**
 To continue setting, press  on the sel switch to return to the upper hierarchy.
 ► The set value is retained.

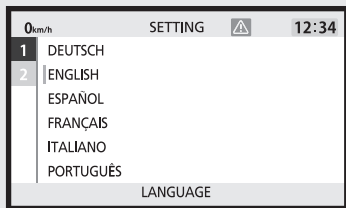


Instruments (Continued)

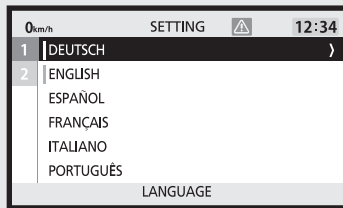
LANGUAGE

Changes the system language.

- 1 Select the 1 or 2 using  or  on the sel switch.



- 2 Press  on the sel switch.



- 3 Select the language using  or  on the sel switch.
- 4 Press  on the sel switch to select the language.
 - Items that have already been set are displayed with a green cursor.
- 5 Press  on the sel switch to complete the setting.
- 6 Return to the ordinary display to complete the setting. ➡ **P.43**
To continue setting, press  on the sel switch to return to the upper hierarchy.

RESTORE DEFAULT

The set values can be returned to the default settings.

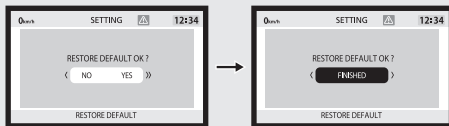
1 Select the "NO" (not restore) or "YES" (restore) using  or  on the sel switch.

2 **When the "NO" is selected**

Press  on the sel switch. The set value is maintained, and then the display returns to the upper level hierarchy.

When the "YES" is selected

Press and hold  on the sel switch. The set value return to default setting.



The following items are restored to their default values:

- Honda E-Clutch
- DISPLAY TYPE
- SHIFT POINT
- HISS
- BRIGHTNESS
- BACKGROUND
- FAVORITE INFORMATION
 - ▶ The page of the currently selected INFO area and status mode are also initialized.
- FAVORITE SWITCH
- UNIT
- LANGUAGE
- TRIP A AUTO RESET

Instruments (Continued)

BLUETOOTH PAIRING RESET

You can reset the pairing record of *Bluetooth®*.

To connect the device ➡ **P.87**

1 Select the "NO" (not reset) or "YES" (reset) using  or  on the sel switch.

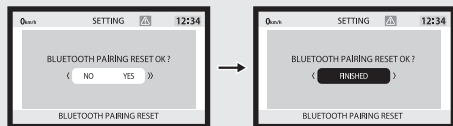
2 **When the "NO" is selected**

Press  on the sel switch. The pairing record is maintained, and then the display returns to the upper level hierarchy.

When the "YES" is selected

Press and hold  on the sel switch. The pairing record is reset.

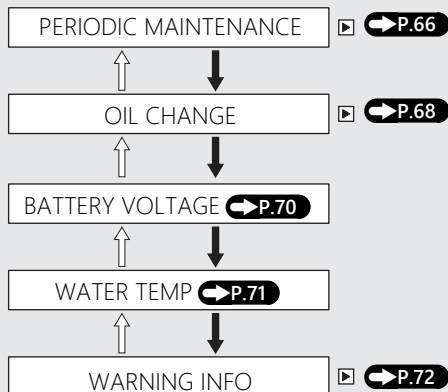
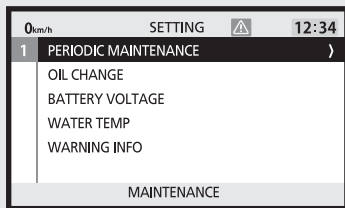
► If the pairing information remains in your smartphone even if the pairing information is deleted from the vehicle, the smartphone may be connected to the vehicle again.



MAINTENANCE

You can select the following:

- PERIODIC MAINTENANCE ➡ P.66
- OIL CHANGE ➡ P.68
- BATTERY VOLTAGE ➡ P.70
- WATER TEMP ➡ P.71
- WARNING INFO ➡ P.72



➡ : Press ▼ on the sel switch.

⬅ : Press ▲ on the sel switch.

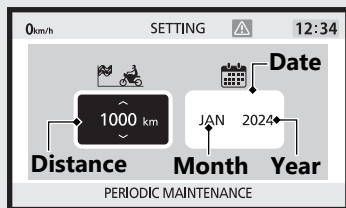
▶ : Press ▶ on the sel switch.

Instruments (Continued)

PERIODIC MAINTENANCE

You can check the next periodic inspection time.

You can change the setting of the next periodic inspection.



Display range:

Distance: -----, 6,000 to -99,999 km

► Pass 0 km: "-" mark is displayed.

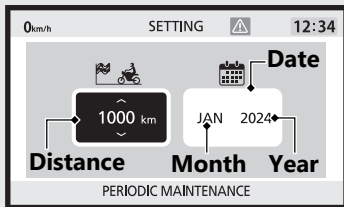
Date:

Month: ---, JAN to DEC

Year: ----, 2020 to 2099

Next inspection setting

- 1 Select the distance, month or year using  or  on the sel switch.



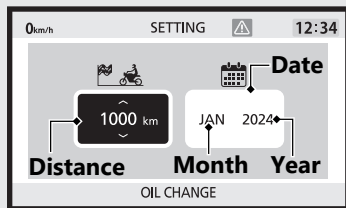
- 2 Select the desired setting using  or  on the sel switch.
 - ▶ If you press and hold  on the sel switch while setting the distance, it will move every 1000.
 - ▶ Available setting range of the distance: -----, 100 to 6,000 km
- 3 Press  on the sel switch to complete the setting.
- 4 Return to the ordinary display to complete the setting. ➡ **P.43**
To continue setting, press  on the sel switch to return to the upper hierarchy.

Instruments (Continued)

OIL CHANGE

You can check the next engine oil change.

You can change the setting of the next engine oil change.



Display range:

Distance: -----, 12,000 to -99,999 km

► Pass 0 km: "-" mark is displayed.

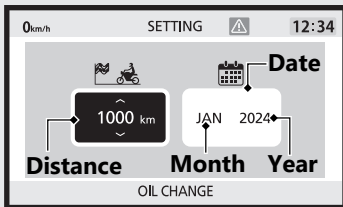
Date:

Month: ---, JAN to DEC

Year: ----, 2020 to 2099

Next oil change setting

- 1 Select the distance, month or year using  or  on the sel switch.



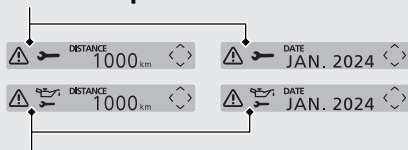
- 2 Select the desired setting using  or  on the sel switch.
 - ▶ If you press and hold  on the sel switch while setting the distance, it will move every 1000.
 - ▶ Available setting range of the distance: -----, 100 to 12,000 km
- 3 Press  on the sel switch to complete the setting.
- 4 Return to the ordinary display to complete the setting. ➡ **P.43**
To continue setting, press  on the sel switch to return to the upper hierarchy.

Instruments (Continued)

When reaching any of the following, the pop-up information appears in the ordinary display. ➡P.74

- "500 km" ("300 mile") from the next periodic inspection.
- "100 km" ("60 mile") from the next engine oil change.
- One month before the set month.

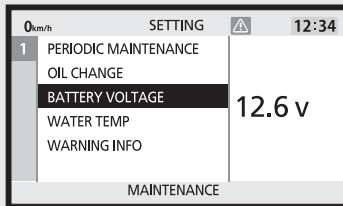
Periodic inspection



Oil change information

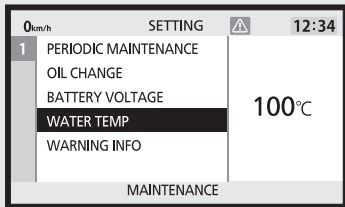
BATTERY VOLTAGE

Displays the current voltage.



WATER TEMP

Displays the current coolant temperature.



Display range: 35°C to 132°C

- 34°C or less: "---" is displayed.
- Between 122°C and 131°C:
 - High coolant temperature indicator and warning indicator come on. The high coolant temperature indicator is displayed in the warning information. ➡P.72 ➡P.75
 - Coolant temperature digits flash.

- Above 132°C:
 - High coolant temperature indicator and warning indicator come on. The high coolant temperature indicator is displayed in the warning information. ➡P.72 ➡P.75
 - "132°C" flashes.
- Even if the engine coolant temperature is low, the cooling fan may start running when you rev up the engine. This is normal.

If the coolant temperature "--- °C" flashes: ➡P.151

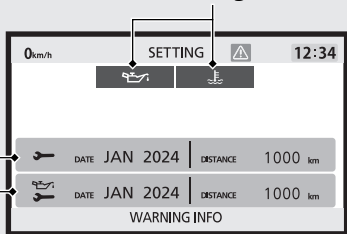
Instruments (Continued)

WARNING INFO

Displays a current maintenance information and (or) warning information. ➡ P.74

If your vehicle has warning information, have your vehicle inspected by your dealer as soon as possible.

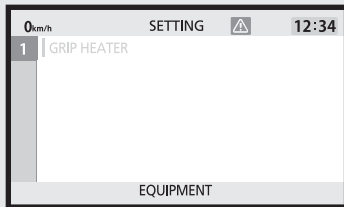
Warning information



Maintenance information

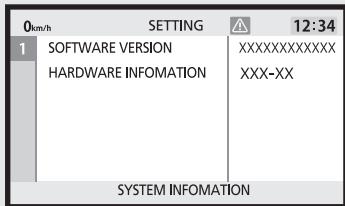
EQUIPMENT

"EQUIPMENT" is displayed but not selectable.



SYSTEM INFORMATION

Displays the software version and hardware information.



Instruments *(Continued)*

Pop-up information

In the following cases, pop-up information is displayed at the INFO area.

- Maintenance information:
When the inspection time of your vehicle is approaching.
- Warning information:
When your vehicle has warning information.

When your vehicle has multiple pieces of information, pop-up information display appears alternately.

Maintenance Information

Indication	Explanation	Remedy
  DISTANCE 1000 _{km} 	When the periodic inspection time of your vehicle is approaching.	Have your vehicle inspected by your dealer.
  DATE JAN 2024 		
  DISTANCE 1000 _{km} 	When the oil change time of your vehicle is approaching.	Change the engine oil.
  DATE JAN 2024 		

Warning Information

Indication	Explanation	Remedy
 Warning indicator Low oil pressure indicator	When the oil pressure in the engine is too low.	Refer to "Low Oil Pressure Indicator" ➡ P.145
 Warning indicator High coolant temperature indicator	When the coolant temperature becomes too high.	Refer to "Overheating" ➡ P.144
 Warning indicator Honda E-Clutch warning indicator	When the Honda E-Clutch is not working correctly.	Refer to "If Honda E-Clutch warning indicator appears in the INFO area" ➡ P.149

You can hide the pop-up information by pushing either the     sel switch while the pop-up information is displayed.

Instruments *(Continued)*

Tachometer colour function

Shift Up Mode

When shift up mode is **I** (On), the tachometer colour changes according to the shift point setting.

To set the shift up mode ➡ P.43

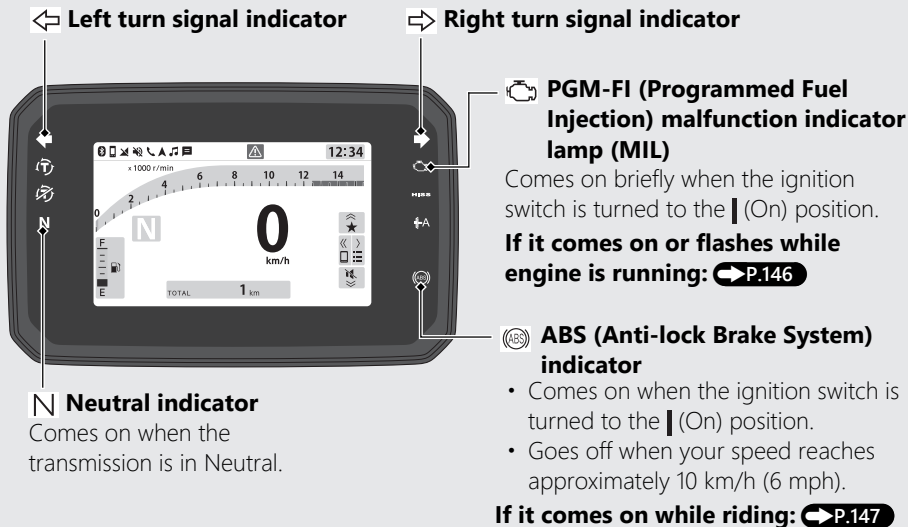
➡ P.50

The tachometer blinks when the engine revolutions exceeds the set value of SHIFT POINT.

Indicators

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

Refer to the "Instruments" about indicators appeared on the display: ➡P.29 ➡P.75



Indicators (Continued)

Torque Control indicator

- Comes on when the ignition switch is turned to the **I** (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.148**



Torque Control OFF Indicator

Comes on when the Torque Control is turned Off.

HISS indicator ➡ **P.143**

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

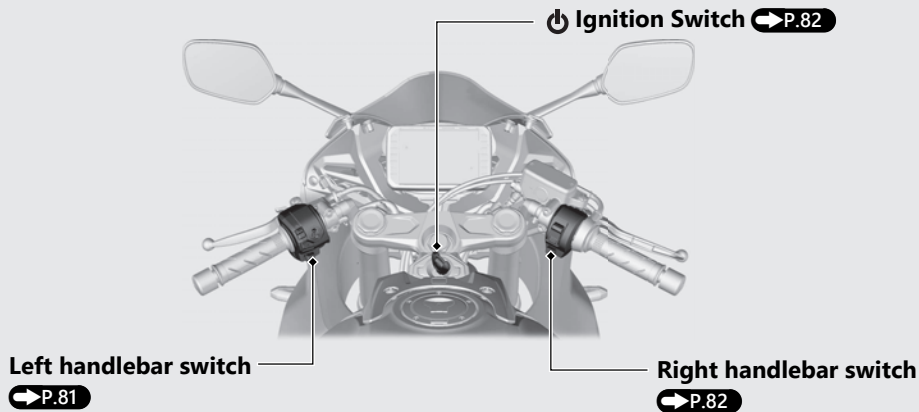
Auto clutch control indicator

➡ **P.93**

Comes on when the Honda E-Clutch function is on.

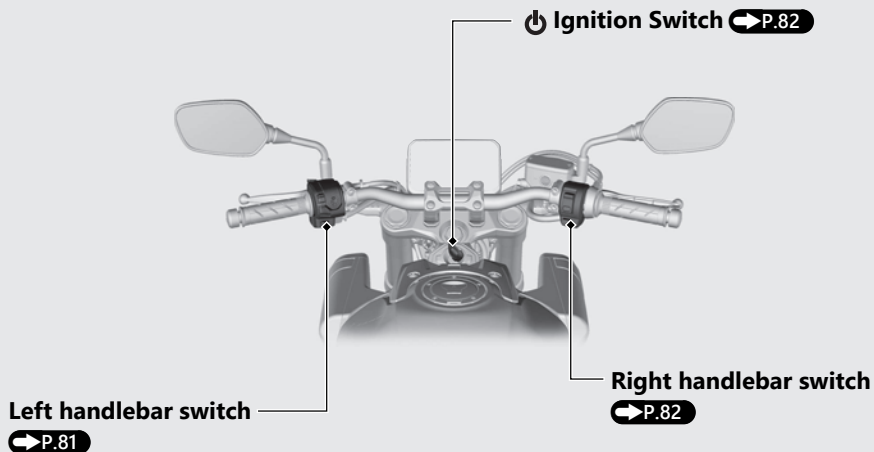
Switches

CBR650RAC

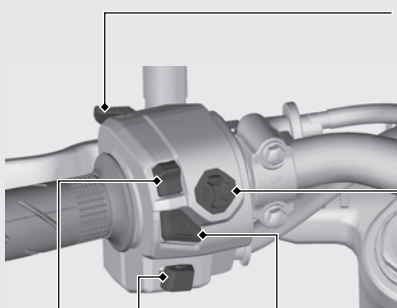


Switches *(Continued)*

CB650RAC



Left handlebar switches



Headlight dimmer/Passing light control switch

-  : High beam
-  : Low beam
-  : Flashes the high beam headlight.

Sel switch

Used to operate and set the display. ➞ P.38

Also used to operate Honda RoadSync. ➞ P.84



Horn button



Turn signal switch

▶ Pressing the switch turns the turn signal off.



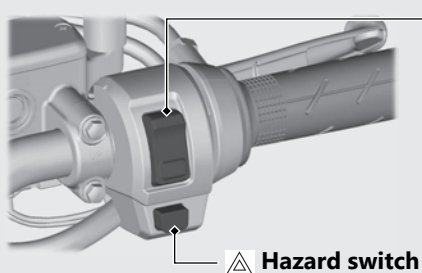
Torque Control switch

Torque Control on/off.

➞ P.88

Switches *(Continued)*

Right handlebar switches



Engine stop switch/Start button

Should normally remain in the  (Run) position.

- In an emergency, switch to the  (Stop) position to stop the engine.

Hazard switch

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

Ignition Switch

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

- Key can be removed when in the  (Off) or  (Lock) position.

(On)

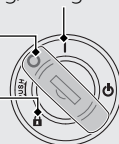
Turns electrical system on for starting/riding.

(Off)

Turns engine off.

(Lock)

Locks steering.



Steering Lock

Lock the steering when parking to help prevent theft.

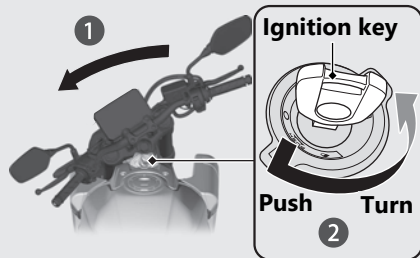
A U-shaped wheel lock or similar device is also recommended.

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 RoadSync

Connecting your smartphone with the vehicle and a *Bluetooth*® headset via *Bluetooth*® allows you to operate the smartphone by voice input from the headset. You can also use the system by operating switches on the handlebar.

- ▶ To use the system, you need to install the dedicated application on your smartphone beforehand and pair your smartphone with the vehicle and the headset.

For terms of service and information on how to install/operate the dedicated application, see the following URL:

<https://global.honda/voice-control-system/>



- ▶ The dedicated application is not available in some regions/countries.
For available countries, see the above URL.

Communication range:

Within 1 meters radius from vehicle

Supported *Bluetooth*® version/profiles

<i>Bluetooth</i> ® version	Bluetooth 4.2 or higher
<i>Bluetooth</i> ® profiles	GATT (Generic Attribute Profile)
	HOGP (HID over GATT Profile)

Bluetooth® Wireless Technology

The *Bluetooth*® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc., and any use of such marks by Honda Motors Co., Ltd., is under license. Other trademarks and trade names are those of their respective owners.

- Costs of network communication and communication equipment necessary for the use of this feature shall be borne by the user.
- You cannot pair two or more smartphones at once.
- Some smartphones may not be compatible with the feature.
- We shall not be liable for any damages or trouble in the use of smartphone.
- When unable to connect your smartphone to the vehicle, change the storage location of the smartphone.

Honda RoadSync *(Continued)*

The system itself has certain limitations. Therefore, you must verify the voice guidance and information in the meter provided by the system by carefully observing the roadway, signs, and signals, etc. If you are unsure, proceed with caution. Always use your own good judgement, and obey traffic laws while riding.

⚠ WARNING

Using the Honda RoadSync while riding can take your attention away from the road, causing a crash in which you could be seriously injured or killed.

- Be especially cautious when crossing intersections, in heavy traffic. etc.
- Observe the roadway, signs, and signals, carefully.
- Obey traffic laws while riding.

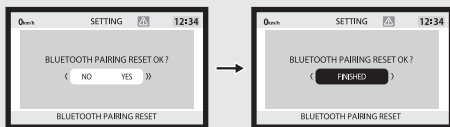
Honda RoadSync Limitations

Changes in operating systems, hardware, software, and other technology integral to providing Honda RoadSync functionality, as well as new or revised governmental regulations, may result in a decrease or cessation of Honda RoadSync functionality and services.

Honda cannot and does not provide any warranty or guarantee of future Honda RoadSync performance or functionality.

Pairing your smartphone via Bluetooth®

- ① Select the BLUETOOTH PAIRING RESET menu. ➡ P.43 ➡ P.64



- ② When the "NO" is selected

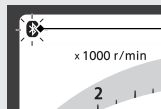
Press on the sel switch. The pairing record is maintained, and then the display returns to the upper level hierarchy.

When the "YES" is selected

Press and hold on the sel switch. The pairing record is reset.

- ③ After resetting, complete pairing while the Bluetooth® indicator flashing by operated the application on your smartphone.

- ▶ When the display returns to the ordinary display, the Bluetooth® indicator is flashing.



**Bluetooth®
indicator**

- ▶ For operation of the application, follow the instruction of the application.
- ▶ Make a Bluetooth® pairing after stopping at a safe place.

Honda Selectable Torque Control

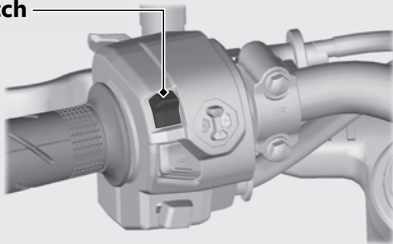
Torque Control (engine power control) can be turned on/off.

- ▶ Do not operate the Torque Control switch while riding.
Stop the vehicle first, turn the Torque Control off or on.
- ▶ The Torque Control setting cannot be turned off when the system is activated (Torque Control indicator flashing).
- ▶ Each time the ignition switch is turned to the **I** (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.

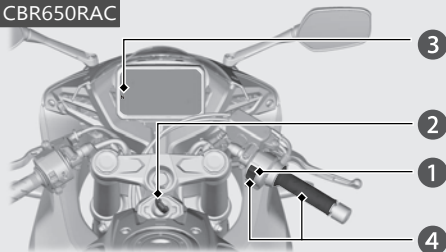
Torque Control switch



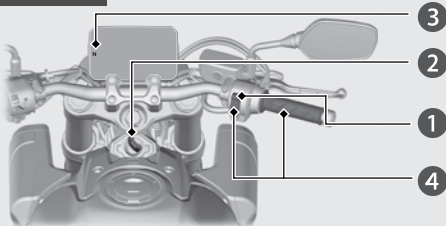
Starting the Engine

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

CBR650RAC



CB650RAC



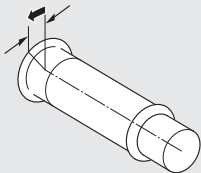
NOTICE

- 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 discoloration.

Starting the Engine *(Continued)*

- ① Make sure the engine stop switch is in the  (Run) position.
- ② Turn the ignition switch to the **I** (On) position.
- ③ Shift the transmission to Neutral (**N**) indicator comes on). Alternatively, pull in the clutch lever to start your vehicle with the transmission in gear so long as the side stand is raised.
- ④ Press the start button with the throttle completely closed.
 - ▶ If you cannot start the engine, open the throttle slightly (about 3 mm (0.1 in), without freeplay) and press the start button.

About 3 mm (0.1 in), without freeplay



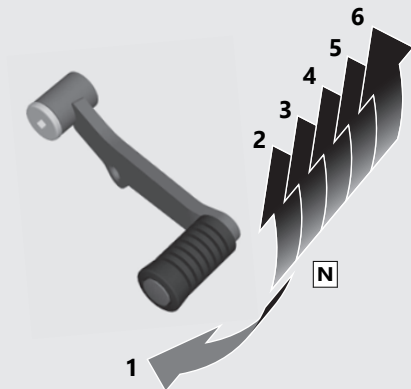
If the engine does not start:

- ① Open the throttle fully and press the start button for 5 seconds.
 - ▶ The engine will not start at this time. (When the throttle is fully open, the engine will not start when the start button is pressed.) Release the throttle and start button after 5 seconds and proceed to step ②.
- 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.143

Shifting Gears

Your vehicle transmission has 6 forward gears in a one-down, five-up shift pattern. Your vehicle also has Honda E-Clutch; you can start, stop, and change gears without clutch lever operation. ➡ P.92



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

Honda E-Clutch

Honda E-Clutch allows you to start, stop, and change gears without clutch lever operation.

- ▶ When the vehicle is in gear (gear position number is displayed) without clutch lever operation, be careful not to open the throttle when pushing or pulling the vehicle back and forth or when turning the handlebar while stationary or at low speeds. If you do so, you may cause the vehicle to unexpectedly and strongly surge forward and lose control.
- ▶ Honda E-Clutch function can be turned off from meter setting. ➡ **P.48**
- ▶ If you operate the clutch lever while Honda E-Clutch function is on, Honda E-Clutch function will deactivate temporarily with auto clutch control indicator turning off. When vehicle is stopped, shift to Neutral (or you can start with clutch lever operation). When vehicle is running, wait a few seconds for Honda E-Clutch to reactivate.
- ▶ Each time the ignition switch is turned to the **I** (On) position, the Honda E-Clutch function will be turned on automatically.

- ▶ Clutch lever freeplay will increase after ignition switch is turned **I** (On) with gear position in Neutral, or when the engine is running. This is normal.
 - ▶ If the PGM-FI (Programmed Fuel Injection) malfunction indicator lamp (MIL) comes on, the Honda E-Clutch function may be turned off.
 - ▶ Always use the recommended tyres and sprockets to ensure correct Honda E-Clutch operation.
 - ▶ If clutch lever freeplay is improperly adjusted, the Honda E-Clutch may not work.
-
- Auto clutch control indicator ➡ **P.93**
 - Starting ➡ **P.94**
 - Upshifting ➡ **P.96**
 - Downshifting ➡ **P.96**
 - Stopping ➡ **P.97**
 - Information from the gear position indicator ➡ **P.98**

Auto clutch control indicator

Comes on when the Honda E-Clutch function is ready to use and in use.

When the auto clutch control indicator does not come on, Honda E-Clutch cannot be used.

- ▶ You must use the manual clutch lever to operate the vehicle.



**Auto clutch control
indicator**

Honda E-Clutch (Continued)

Starting

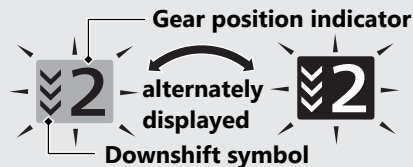
1. Start the engine. ➡ **P.89**
 ▶ If you start the engine in gear, push the start button with the clutch lever pulled. After engine starts, Honda E-Clutch function is deactivated temporarily. Accelerate from a stopped position with clutch lever operation, or shift to Neutral to activate the Honda E-Clutch.
2. Check that the transmission is in Neutral (N indicator comes on).
3. Make sure the auto clutch control indicator comes on.
4. Shift the transmission to 1st gear without clutch lever operation.



5. Open the throttle gradually and the vehicle will start moving forward.

If you start the vehicle with transmission in 2nd or higher gear, the gear position indicator will inform you the transmission is in high gear position by displaying the downshift symbol and a blinking indicator.

- ▶ You can shift down by simply pushing down the shift pedal.

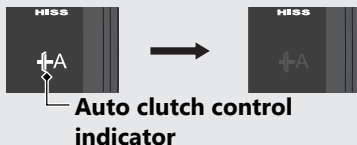


NOTICE

To prevent rapid clutch wear, always accelerate from a stopped position with the transmission in 1st gear.
 If wear progresses, the Honda E-Clutch function may turn off.

When the clutch lever is operated

If you shift the transmission to 1st gear with clutch lever operation, Honda E- Clutch is deactivated temporarily, auto clutch control indicator is turned off.



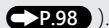
You can accelerate from a stopped position using throttle grip and clutch lever operation as with a manual transmission in this situation.

To activate the Honda E-Clutch system again, shift the transmission to Neutral and make sure that auto clutch control indicator comes on. Then shift the transmission to 1st gear without clutch lever operation.

When the Honda E-Clutch function is on, if you operate the throttle grip and use the clutch lever to start riding the vehicle, the function will be temporarily deactivated. However, the function will automatically reactivate a few seconds after you start riding the vehicle.

When the Honda E-Clutch function is turned off

You need to operate the clutch lever to accelerate from a stopped position if the Honda E-Clutch function is off (auto clutch control indicator turns off and "M" symbol is displayed in the gear position indicator



Honda E-Clutch *(Continued)*

Upshifting

Pull up the shift pedal without closing the throttle and operating the clutch lever.

When the clutch lever is operated

If you operate the clutch lever to shift up while the Honda E-Clutch function is on, the function will temporarily deactivate, but it will automatically reactivate in a few seconds.

When the Honda E-Clutch function is turned off

You need to close the throttle and operate the clutch lever while upshifting if the Honda E-Clutch function is off (auto clutch control indicator turns off and "M" symbol is displayed in the gear position indicator

➡ **P.98**).

Downshifting

Push down the shift pedal without clutch lever operation.

When the clutch lever is operated

If you operate the clutch lever to shift down while the Honda E-Clutch function is on, the function will temporarily deactivate, but it will automatically reactivate in a few seconds.

When the Honda E-Clutch function is turned off

You need to operate the clutch lever while downshifting if the Honda E-Clutch function is off (auto clutch control indicator turns off and "M" symbol is displayed in the gear position indicator ➡ **P.98**).

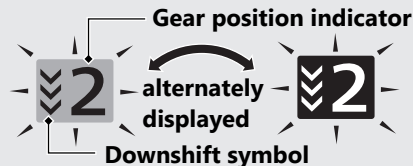
Stopping

Close the throttle and apply the brake without clutch lever operation to stop the vehicle.

If the gear position is not in Neutral when the ignition switch is turned to the  (Off) position, grip the clutch lever or put the gear in Neutral to move the vehicle. If the gear position is not in Neutral when the ignition switch is turned to the  (Off) position, the Honda E-Clutch function will not turn on and the clutch is engaged.

If you stop the vehicle with transmission in 2nd or higher gear, the gear position indicator will inform you the transmission is in high gear position by displaying the downshift symbol and a blinking indicator.

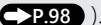
- You can shift down by simply pushing down the shift pedal.



NOTICE

To prevent clutch damage, do not use the throttle to keep the vehicle stopped uphill.

When the Honda E-Clutch function is turned off

You need to operate the clutch lever to stop the vehicle if the Honda E-Clutch function is off (auto clutch control indicator turns off and "M" is displayed in the gear position indicator ).

Honda E-Clutch *(Continued)*

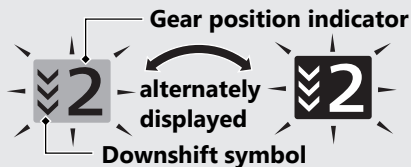
Information from the gear position indicator

Gear position indicator will inform you the information on following situations.

Downshift symbol is displayed and gear position indicator blinks.

If the downshift symbol is displayed and the gear position indicator blinks, the gear position is too high. Shift the transmission to a lower gear.

- You can shift down by simply pushing down the shift pedal.



"M" symbol is displayed

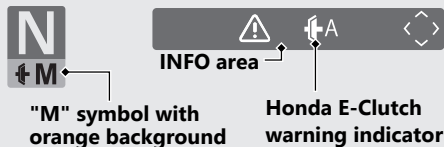
If the "M" symbol is displayed, the Honda E-Clutch function is off.



"M" symbol is turned on with orange background

If the M symbol is displayed with an orange background and the Honda E-Clutch warning indicator are displayed, the Honda E-Clutch function is not working properly. Stop the vehicle at a safe place and turn the ignition switch to the **O** (Off) position, and then to the **I** (On) position again, then you can temporarily ride the vehicle using the manual transmission.

Have your vehicle inspected by your dealer.



Emergency Stop Signal

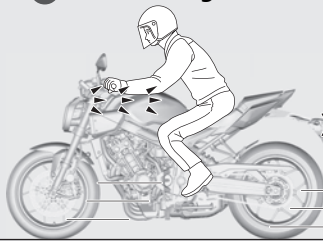
Emergency stop signal activates when the system detects hard braking about 50 km/h (31 mph) or above to alert drivers behind you about sudden braking by rapidly flashing both turn signal lights. This may help to alert drivers behind you to take appropriate means to avoid a possible collision with your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

The emergency stop signal stops operating when:

- You release the brakes.
- The ABS is deactivated.
- Your vehicle's decelerating speed becomes moderate.
- You press the hazard switch.

When the system activates:

1 Hard braking



1 Brakelight comes on

2 Both turn signals flash

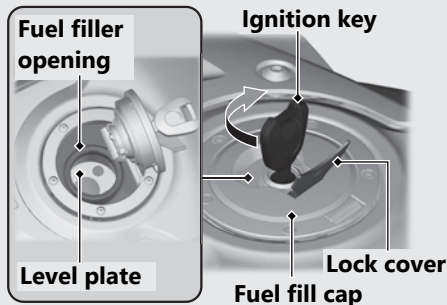


2 Both turn signal indicators blink

Emergency Stop Signal *(Continued)*

- ▶ 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 vehicle 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.13

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 flames away.
- Only handle fuel outdoors.
- Wipe up spills immediately.

USB Socket

Your vehicle is equipped with the USB socket (for USB Type-C only).

The USB socket is located under the front seat. ➡ **P.124**

This socket is for battery charging only.
Use USB devices at your own risk. In no event shall Honda be liable for any damage to your USB device when in use.

Only USB devices the following specifications can be connected.

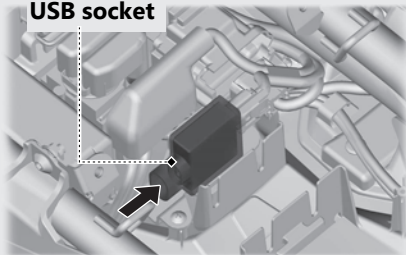
Rated capacity :

15 W (5 V, 3.0 A)

To connect your USB device

- 1 Remove the front seat. ➡ **P.124**
- 2 Connect a certified USB cable to the socket.

USB socket



- ▶ To prevent the battery from becoming weak (or dead), keep the engine running while drawing current from the socket.
- ▶ Do not enter the foreign matter and water into the socket.
- ▶ Carefully secure all connected devices, as vibration may cause damage to them or they could shift unexpectedly.

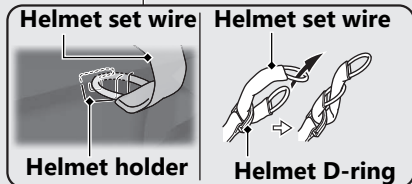
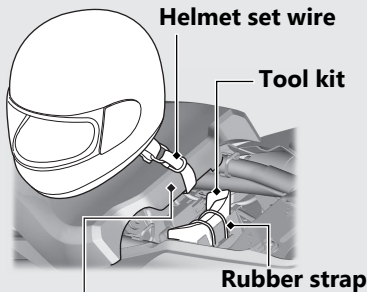
NOTICE

- Using any heat-generating USB devices or improperly rated USB devices can damage the socket.
- Do not use the USB socket in wet conditions, when or while washing or any other wet conditions as these will damage the USB socket.
- Do not allow the USB cable to become pinched or trapped.
- Do not allow the USB cable to interfere with the steering or controls.

Storage Equipment

Helmet Holder and Tool Kit

The helmet holder is located underside of the front seat. 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.125

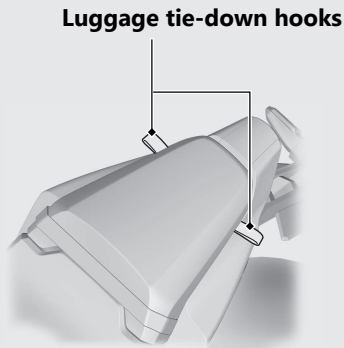
⚠ WARNING

Riding with a helmet attached to the holder can interfere with your ability to safely operate the vehicle 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.

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 vehicle.

Removing the Rear Seat ➔ P.125

Maintenance

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

Importance of Maintenance	P. 107
Maintenance Schedule	P. 108
Maintenance Fundamentals	P. 111
Tools	P. 122
Removing & Installing Body Components	P. 123
Battery	P. 123
Front Seat	P. 124
Rear Seat	P. 125
Engine Oil	P. 126
Coolant	P. 128
Brakes	P. 130
Side Stand	P. 133
Drive Chain	P. 134

Clutch	P. 136
Throttle	P. 139
Other Adjustments	P. 140
Adjusting the Brake Lever	P. 140
Adjusting the Rear Suspension	P. 141

Importance of Maintenance

Importance of Maintenance

Keeping your vehicle 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 vehicle before each ride and perform the periodic checks specified in the Maintenance Schedule.

➡ P. 108

⚠ WARNING

Improperly maintaining your vehicle 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 vehicle 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 vehicle 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 vehicle, these receipts should be transferred with the vehicle to the new owner.

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

Items		Pre-ride Check P. 111	Frequency*1								Annual Check	Regular Replace	Refer to page
			× 1,000 km	1	6	12	18	24	30	36			
			× 1,000 mi	0.6	4	8	12	16	20	24			
Honda Diagnostic System				I	I	I	I	I	I	I			–
Fuel Line						I		I		I	I		–
Fuel Level		I											101
Throttle Operation		I				I		I		I	I		139
Air Cleaner *2							R			R			–
Spark Plug			Every 24,000 km (16,000 mi): I, Every 48,000 km (32,000 mi): R										–
Valve Clearance										I			–
Engine Oil		I		R		R		R		R	R		–
Engine Oil Filter				R				R					–
Engine Idle Speed						I		I		I	I		–
Radiator Coolant *3		I				I		I		I	I	3 Years	128
Cooling System						I		I		I	I		–
Secondary Air Supply System								I					–
Evaporative Emission Control System								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 vehicle serviced by your dealer.

Maintenance Legend

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

L : Lubricate

R : Replace

Maintenance Schedule

Items	Pre-ride Check P. 111	Frequency*1								Annual Check	Regular Replace	Refer to page
		× 1,000 km	1	6	12	18	24	30	36			
		× 1,000 mi	0.6	4	8	12	16	20	24			
Drive Chain		Every 1,000 km (600 mi):										134
Drive Chain Slider												135
Brake Fluid *3											2 Years	130
Brake Pads Wear												131
Brake System												111
Brakelight Switch												132
Headlight Aim												–
Lights/Horn												–
Engine Stop Switch												–
Clutch System												136
Side Stand												133
Suspension												141
Nuts, Bolts, Fasteners												–
Wheels/Tyres												119
Steering Head Bearings												–

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.

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 vehicle:

- Fuel level - Fill fuel tank when necessary ➤ P. 101
- Throttle - Check for smooth opening and full closing in all steering positions ➤ P. 139
- Engine oil level - Add engine oil if necessary. Check for leaks ➤ P. 126
- Coolant level - Add coolant if required. Check for leaks ➤ P. 128
- Drive chain - Check condition and slack, adjust and lubricate if necessary ➤ P. 134
- Brakes - Check operation;
Front and Rear: check brake fluid level and pads wear ➤ P. 130, ➤ P. 131
- Lights and horn - Check that lights, indicators and horn function properly
- Engine stop switch - Check for proper function ➤ P. 82
- Clutch - Check operation;
Adjust freeplay if necessary ➤ P. 136
- Side stand ignition cut-off system - Check for proper function ➤ P. 133
- Wheels and tyres - Check condition, air pressure and adjust if necessary ➤ P. 119

Replacing Parts

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

⚠ WARNING

Installing non-Honda parts may make your vehicle 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 vehicle.

Battery

Your vehicle 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

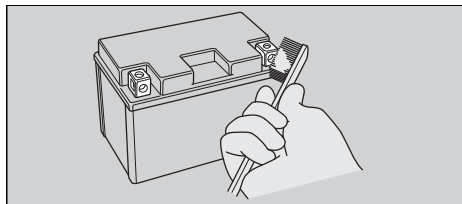
The battery gives off explosive hydrogen gas during normal operation.

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. 123
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 vehicle. If something electrical on your vehicle stops working, check for and replace any blown fuses. ➤ P. 156

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. 175

Blown fuse



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 vehicle 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.

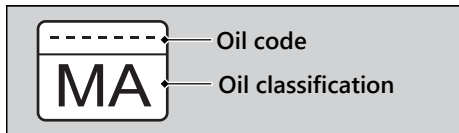
Selecting the Engine Oil

For recommended engine oil, see "Specifications." ➤ P. 174

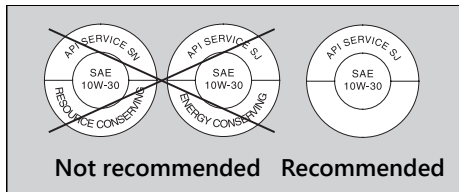
If you use non-Honda engine oil, check the label to make sure that the oil satisfies all of the following standards:

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

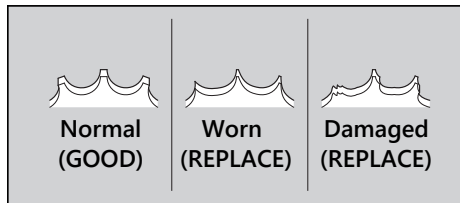
Honda DOT 4 Brake Fluid or equivalent

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. 134

If the chain does not move smoothly, makes strange noises, has damaged rollers, has loose pins, has missing O-rings, or has 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.

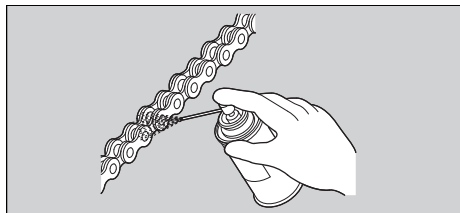
Cleaning and Lubricating

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.



Maintenance Fundamentals

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 vehicle.

Recommended Coolant

Use only genuine HONDA PRE-MIX COOLANT without diluting with water. Genuine HONDA PRE-MIX COOLANT is excellent at preventing corrosion and overheating.

The coolant should be inspected and replaced properly by following the maintenance schedule. ➤ P. 108

NOTICE

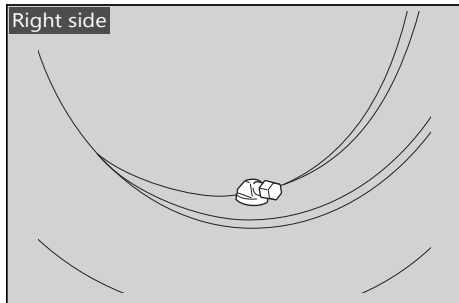
Using coolant not specified for aluminium engines or tap/mineral water can cause corrosion.

Tyres (Inspecting/Replacing)

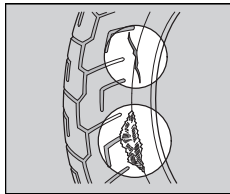
Checking the Air Pressure

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 vehicle inspected by your dealer.



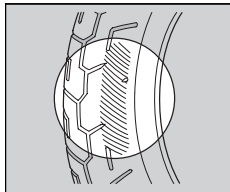
Inspecting for Damage



Inspect the tyres for cuts, slits, or cracks that expose 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.

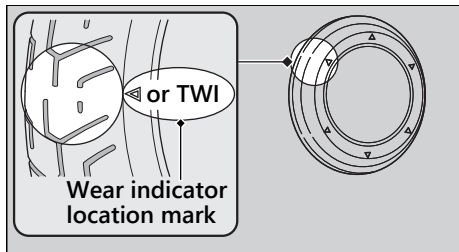
Inspecting for Abnormal Wear



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.

Have your tyres replaced by your dealer. For recommended tyres, air pressure, and minimum tread depth, see "Specifications."

➤ P. 174

Follow these guidelines whenever you replace tyres:

- Use the recommended tyres or their 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 vehicle. Excessive heat build-up can cause the tube to burst.
- Use only tubeless tyres on this vehicle. 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 vehicle 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.

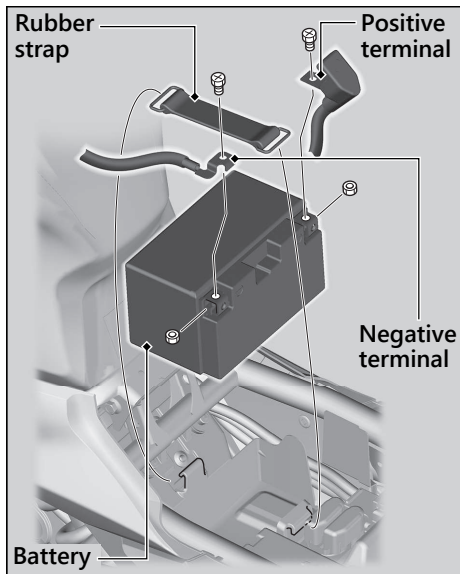
The tool kit is stored under the rear seat.

➔ P. 125

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

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

Battery



Removal

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

1. Remove the front seat. ➤ P. 124
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.

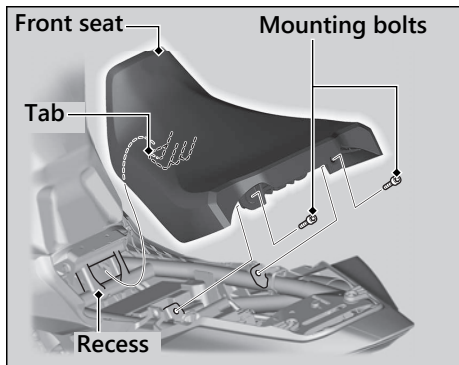
Make sure bolts and nuts are tight.

Make sure the clock information is correct after the battery is reconnected. ➤ P. 60

For proper handling of the battery, see "Maintenance Fundamentals." ➤ P. 112

"Battery Goes Dead." ➤ P. 155

Front Seat



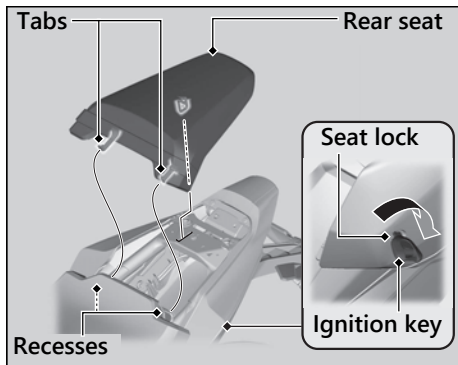
Installation

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.

Removal

1. Remove the rear seat. ► P. 125
2. Remove the mounting bolts and then, pull the front seat back and up.

Rear Seat



Removal

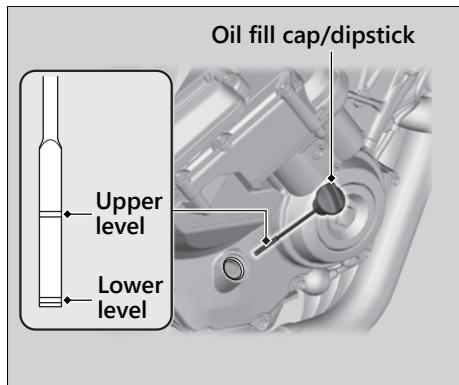
1. Insert the ignition key into the seat lock.
2. Turn the ignition key clockwise, then pull the rear seat up and back.

Installation

1. Insert the tabs into the recesses.
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 vehicle 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. 115, ► P. 174

1. Remove the oil fill cap/dipstick. Add the recommended oil until it reaches the upper level mark.
 - Place your vehicle 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."

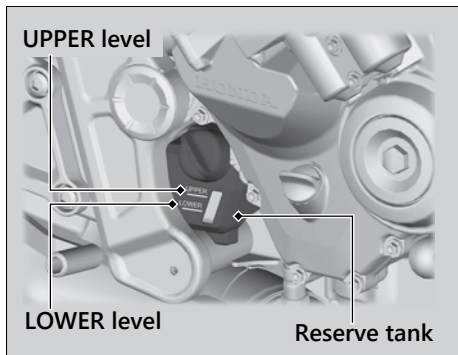
► P. 115

Checking the Coolant

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

1. Place your vehicle on a firm, level surface.
2. Hold your vehicle 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 vehicle inspected by your dealer.



Adding Coolant

If the coolant level is below the LOWER level mark, add the recommended coolant (P. 118) until the level reaches the UPPER level mark.

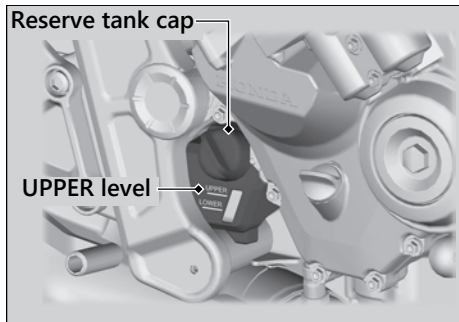
Add fluid only from the reserve tank cap and do not remove the radiator cap.

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.

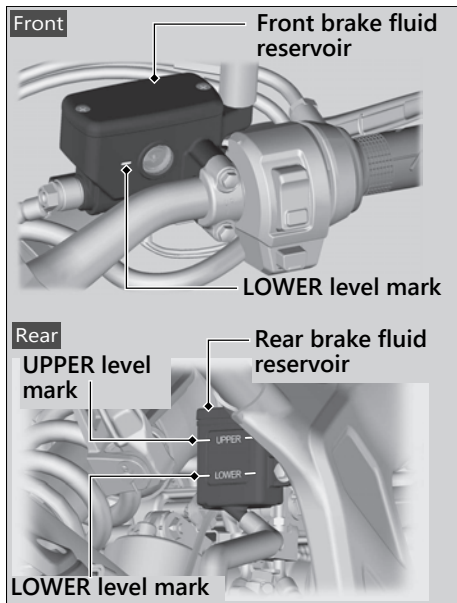


Checking Brake Fluid

1. Place your vehicle 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 vehicle inspected by your dealer.



Inspecting the Brake Pads

Check the condition of the brake pad wear indicators.

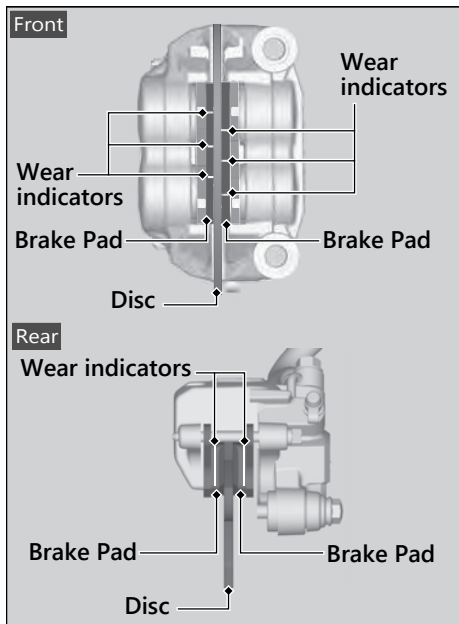
Front The pads need to be replaced if a brake pad is worn to the bottom of the indicator.

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 vehicle.

If necessary, have the pads replaced by your dealer.

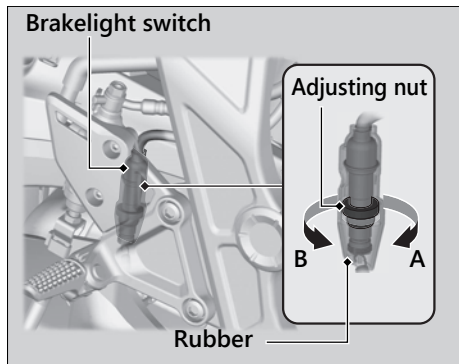
Always replace both left and right brake pads at the same time.



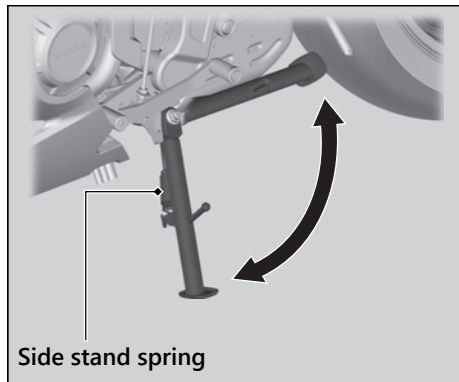
Adjusting the Brakelight Switch

Check the operation of the brakelight switch.

1. Pull up the lower part of rubber.
2. 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.
3. Move the rubber to its original position.



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 spring for damage or loss of tension.
3. Sit on the vehicle, 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 vehicle 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.

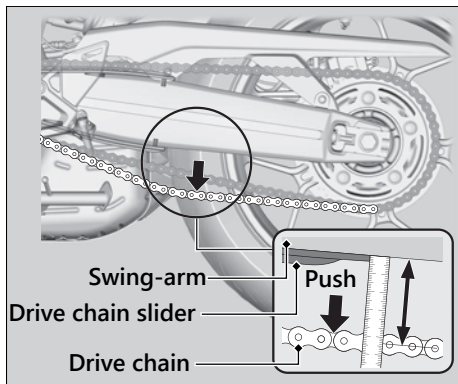
Have the chain inspected by your dealer.

1. Shift the transmission to Neutral. Stop the engine.
2. Place your vehicle on its side stand on a firm, level surface.
3. Push the lower part of the drive chain down and check the chain slack between the drive chain and swing-arm at the end of the drive chain slider.

Drive chain slack:

43 - 48 mm (1.7 - 1.9 in)

- Do not ride your vehicle if the slack exceeds 53 mm (2.1 in).



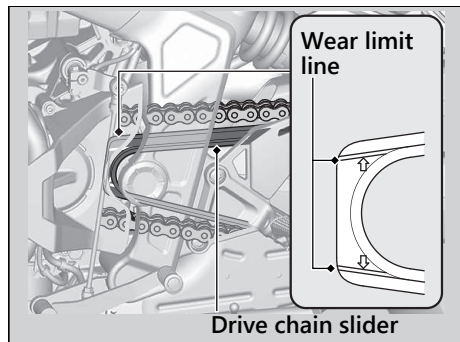
4. Roll the vehicle forward and check that the chain moves smoothly.
5. Inspect the sprockets. ➤ P. 116
6. Clean and lubricate the drive chain. ➤ P. 117

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

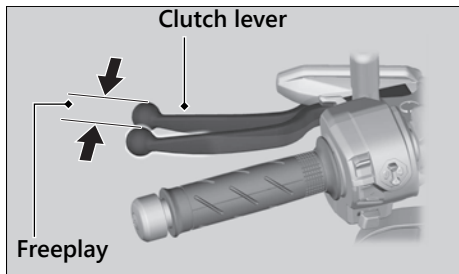
Make sure that the ignition switch is  (Off) position.

- ▶ Clutch lever freeplay will increase after ignition switch is turned  (On) with gear position in Neutral.

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. Improper freeplay adjustment may cause Honda E-Clutch to work incorrectly.

NOTICE

Improper freeplay adjustment can cause premature clutch wear.

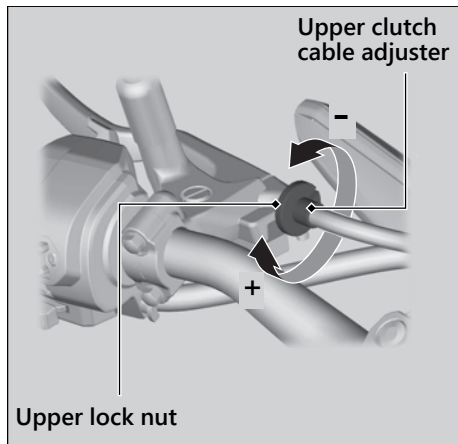
Adjusting the Clutch Lever Freeplay

Upper Adjustment

Attempt adjustment with the upper clutch cable adjuster first.

1. Make sure that the ignition switch is **○** (Off) position.
► Clutch lever freeplay will increase after ignition switch is turned **■** (On) with gear position in Neutral.
2. Loosen the upper lock nut.
3. Turn the upper clutch cable adjuster until the freeplay is 10 - 20 mm (0.4 - 0.8 in).

4. Tighten the upper lock nut and check the freeplay again.



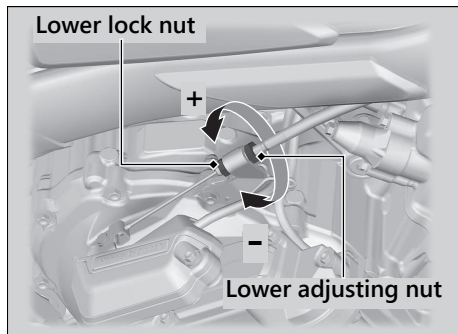
Clutch ► Adjusting the Clutch Lever Freeplay

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. Make sure that the ignition switch is  (Off) position.
 - Clutch lever freeplay will increase after ignition switch is turned  (On) with gear position in Neutral.
2. 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.
3. Loosen the lower lock nut.
4. Turn the lower adjusting nut until the clutch lever freeplay is 10 - 20 mm (0.4 - 0.8 in).
5. Tighten the lower lock nut and check the clutch lever freeplay.

6. Start the engine, pull the clutch lever in, and shift into gear. Make sure the engine does not stall and the vehicle does not creep. Gradually release the clutch lever and open the throttle. Your vehicle should move smoothly and accelerate gradually.



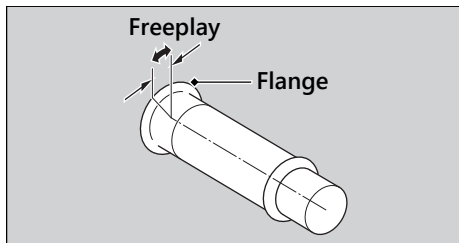
If proper adjustment cannot be obtained or the clutch does not work correctly, see your dealer.

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 or close automatically, or if the cable is damaged, have the vehicle inspected by your dealer.

Freeplay at the throttle grip flange:

2 - 6 mm (0.1 - 0.2 in)



Adjusting the Brake Lever

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

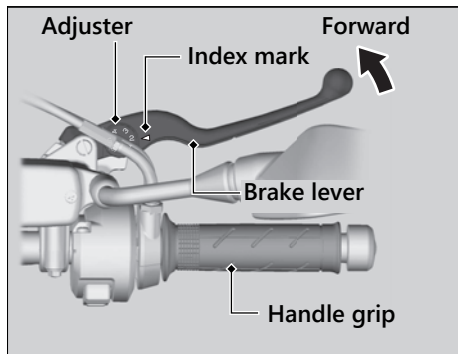
Adjustment method

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.



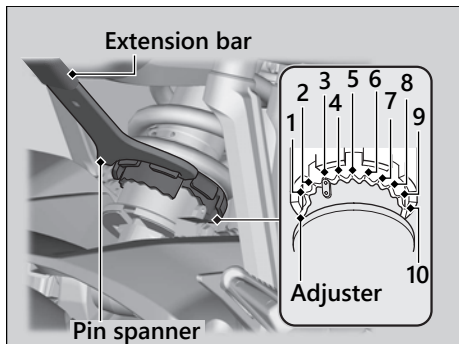
Adjusting the Rear Suspension

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. 122).

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.

Troubleshooting

Engine Will Not Start (HISS indicator stays on)..... P. 143

Overheating (High coolant temperature/warning indicators are on)..... P. 144

Warning Indicators On or Flashing..... P. 145

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PGM-FI (Programmed Fuel Injection)

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Tyre Puncture P. 152

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Engine Will Not Start (HISS indicator stays on)

Starter Motor Operates But Engine Does Not Start

Check the following items:

- Check the correct engine starting sequence. ➡ P. 89
- 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 vehicle inspected by your dealer.

Starter Motor Does Not Operate

Check the following items:

- Check the correct engine starting sequence. ➡ P. 89
- Make sure engine stop switch is in the ○ (Run) position. ➡ P. 82
- Check for a blown fuse. ➡ P. 156
- Check for a loose battery connection (➡ P. 123) or battery terminal corrosion (➡ P. 114).
- Check the condition of the battery.
➡ P. 155

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

Overheating (High coolant temperature/warning indicators are on)

The engine is overheating when the following occurs:

- High coolant temperature indicator and warning indicator come on.

The high coolant temperature indicator is displayed in the warning information.

➡ P. 72, ➡ P. 75

- 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 high coolant temperature indicator and warning indicator to come on.

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 **I** (On) position.

2. Check that the radiator fan is operating, and then turn the ignition switch to the **O** (Off) position.

If the fan is not operating:

Suspect a fault. Do not start the engine. Transport your vehicle to your dealer.

If the fan is operating:

Allow the engine to cool with the ignition switch in the **O** (Off) position.

3. After the engine has cooled, inspect the radiator hose and check if there is a leak.
➡ P. 128

If there is a leak:

Do not start the engine. Transport your vehicle to your dealer.

4. Check the coolant level in the reserve tank. ➡ P. 128
▶ Add coolant as necessary.
5. If 1-4 check normal, you may continue riding, but closely monitor the high coolant temperature indicator.

Low Oil Pressure Indicator

If the low oil pressure indicator and the warning indicator come on, pull safely to the side of the road and stop the engine. The low oil pressure indicator is displayed in the warning information. 📄 P. 72, 📄 P. 75

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. 126, 📄 P. 127
2. Start the engine.
 - ▶ Only continue riding if the low oil pressure indicator and the warning indicator go off.

Rapid acceleration may momentarily cause the low oil pressure indicator and the warning indicator to come on, especially if the oil is at or near the low level.

If the low oil pressure indicator and the warning indicator stay 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 vehicle may have a leak or another serious problem. Have your vehicle 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 vehicle 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 vehicle 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 **I** (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 **O** (Off) position, and then to the **I** (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 vehicle 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 **I** (On) position.
- Indicator does not go off at speeds above 5 km/h (3 mph).

Even when the Torque Control indicator is on, your vehicle 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.

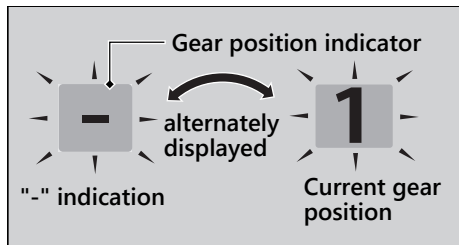
The Torque Control indicator may come on if you rotate the rear wheel while your vehicle is lifted off the ground. In this case, turn the ignition switch to the **O** (Off) position, and then to the **I** (On) position again. The Torque Control indicator will go off after your speed reaches 5 km/h (3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

If the "-" and the current gear position are blinking in the gear position indicator

If the "-" and the current gear position are blinking in the gear position indicator, some function of Honda E-Clutch does not work.

Have your vehicle inspected by your dealer.

You can temporarily ride the vehicle as a manual transmission vehicle in this situation.

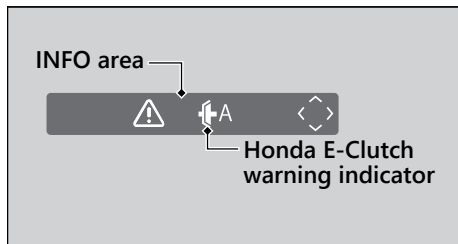


If Honda E-Clutch warning indicator appears in the INFO area

If the Honda E-Clutch warning indicator appears in the INFO area, Honda E-Clutch is not working correctly.

Stop the vehicle at a safe place and turn the ignition switch to the **O** (Off) position, and then to the **I** (On) position again, then you can temporarily ride the vehicle using the manual transmission.

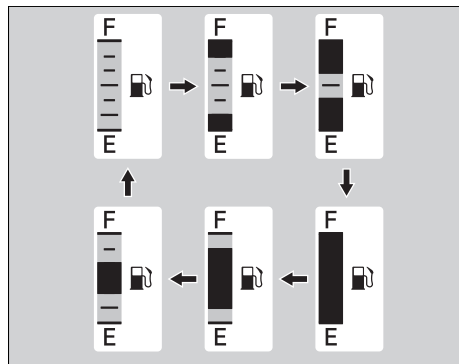
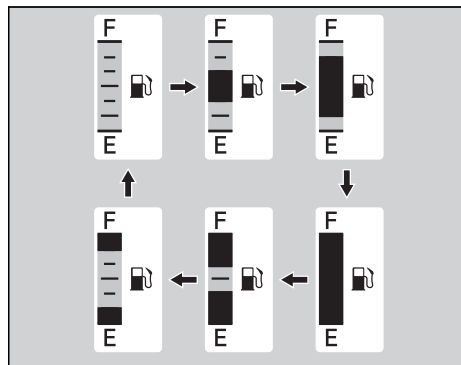
Have your vehicle inspected by your dealer.



Fuel Gauge Failure Indication

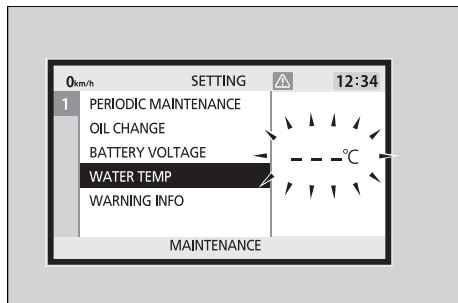
If the fuel system has an error, the fuel gauge indicators will be displayed as shown in the illustrations.

If these occur, see your dealer as soon as possible.



Coolant Temperature Failure Indication

If the cooling system has an error, the coolant temperature "--- °C" flashes. 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 vehicle 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 vehicle 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.

Smartphone Pairing Trouble

Symptom	Cause/remedy
Unable to pair a smartphone	Some smartphones you use may be incompatible with the vehicle and/or the operable functions may be limited.
	Check that the vehicle and smartphone are both in pairing mode. ➡ P. 87
	Check your surroundings to make sure no other device being paired is present before re-pairing. Presence of a <i>Bluetooth</i> ® device in the vicinity sometimes affects the pairing due to radio wave interference, etc.
	When connecting a smartphone, make sure no other <i>Bluetooth</i> ® device readied for pairing is present. Presence of a <i>Bluetooth</i> ® device in the vicinity sometimes affects the pairing due to radio wave interference, etc.
	Check that the vehicle pairing information is deleted from your smartphone <i>Bluetooth</i> ® setting. Depending on the smartphone used, connecting may not be possible unless the pairing information is deleted.

Symptom	Cause/remedy
Unable to connect a smartphone	Depending on the smartphone you use, it may take some time for the vehicle to connect to a smartphone and to start using a dedicated application.
	The connection may be temporarily disconnected when starting the engine, which is normal and not a malfunction. The smartphone will be reconnected after the engine is started.
	Check that <i>Bluetooth</i> ® status icon comes on. Refer to the instruction manual of your smartphone and check that your smartphone is in connectable state.
	Some smartphones you use may not connect automatically. For connecting, follow the instructions in the instruction manual of your smartphone.
	You cannot connect two or more smartphones at once.

If the problem continues after the above-described inspection, have your vehicle inspected by your dealer.

Battery Goes Dead

Charge the battery using a motorcycle battery charger.

Remove the battery from the vehicle 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 vehicle's electrical system and is not recommended.

Burned-out Light Bulb

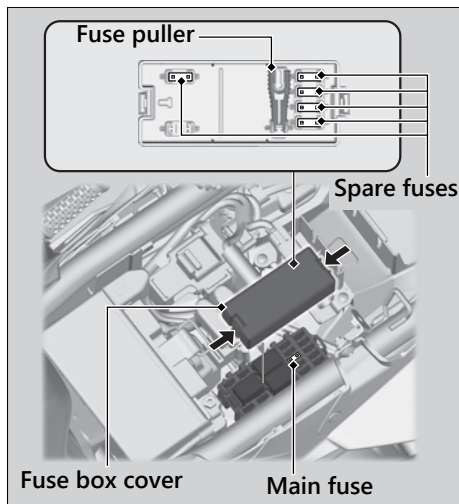
All light bulbs on the vehicle are LEDs. If there is an LED which is not turned on, see your dealer for servicing.

Blown Fuse

Before handling fuses, see "Inspecting and Replacing Fuses." ► P. 115

Fuse Box Fuses

1. Remove the front seat. ► P. 124
2. Remove the fuse box cover.
3. Pull the main fuse and other fuses out one by one with the fuse puller provided in underside of the fuse box cover and check for a blown fuse. Always replace a blown fuse with a spare fuse of the same rating.
► Spare fuses are provided in underside of the fuse box cover.
4. Reinstall the parts in the reverse order of removal.



NOTICE

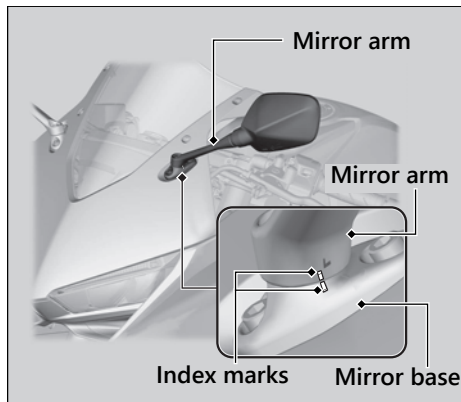
If a fuse fails repeatedly, you likely have an electrical problem. Have your vehicle inspected by your dealer.

When the mirror arm is moved

CBR650RAC

When the mirror arm is moved, return the mirror arm to its original position.

- Be sure to align the index mark of the mirror arm with the index mark of the mirror base.



Information

Keys.....	P. 159
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Transporting Your Vehicle	P. 168
You & the Environment	P. 169
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Keys

Ignition Key

This vehicle 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.

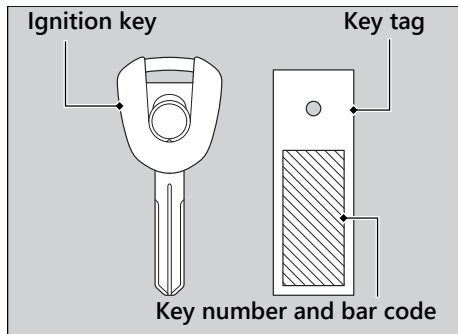
If you lose all ignition keys and the key tag, the PGM-FI unit/ignition control module must be replaced by your dealer. To avoid this, keep a duplicate key.

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 vehicle 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 **I** (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 **O** (Off) position. Failing to do so will drain the battery.

Odometer

The display remains at 999,999 when the odometer exceeds 999,999.

Tripmeter

Each tripmeter resets to 0.0 when the trip mileage 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. 143

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. 52

Thailand only


 กลทช.

เครื่องวิทยุคมนาคมนี้ ได้รับยกเว้น ไม่ต้องได้
 รับใบอนุญาตให้มี ใช้ซึ่งเครื่องวิทยุคมนาคม
 หรือตั้งสถานีวิทยุคมนาคมตามประกาศ กสทช.
 เรื่อง เครื่องวิทยุคมนาคม และสถานีวิทยุ
 คมนาคมที่ได้รับยกเว้นไม่ต้องได้รับใบอนุญาต
 วิทยุคมนาคมตามพระราชบัญญัติวิทยุคมนาคม
 พ.ศ. 2498



nanb. | โทรคมนาคม
 กำกับดูแลเพื่อประชาชน
 Call Center 1200 (โทรฟรี)

Document Bag

The owner's manual, registration, and insurance information can be stored in the plastic document bag located on the underside of the rear seat. ➤ P. 125

Ignition Cut-off System

A banking (lean angle) sensor automatically stops the engine and fuel pump if the vehicle falls over. To reset the sensor, you must turn the ignition switch to the **O** (Off) position and back to the **I** (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 vehicle produces a strong engine braking effect. It also makes the clutch lever operation feel lighter.

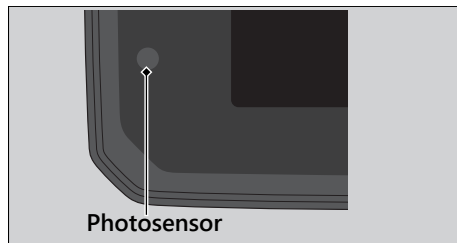
Use only MA classification engine oil for your vehicle. Using engine oil other than MA classification oil could result in damage to the assist-slipper clutch system.

Automatic Brightness Control

The backlight brightness of the meter will be controlled automatically when "AUTO" is selected on the brightness setting.

Ambient brightness is detected by the photosensor.

Do not damage or cover the photosensor. Otherwise, the automatic brightness control may not work properly.



Honda RoadSync

Thailand only

เครื่องโทรคมนาคมและอุปกรณ์นี้มีความสอดคล้องตามมาตรฐานหรือข้อกำหนดทางเทคนิคของ กสทช.**




 กสทช.

เครื่องวิทยุคมนาคมนี้ ได้รับยกเว้น ไม่ต้องได้รับ
 ใบอนุญาตให้มี ใช้ซึ่งเครื่องวิทยุคมนาคม
 หรือตั้งสถานีวิทยุคมนาคมตามประกาศ กสทช.
 เรื่อง เครื่องวิทยุคมนาคม และสถานีวิทยุ
 คมนาคมที่ได้รับยกเว้นไม่ต้องได้รับใบอนุญาต
 วิทยุคมนาคม ตามพระราชบัญญัติวิทยุ
 คมนาคม พ.ศ. 2498


กสทช. โทรคมนาคม
 กำกับดูแลเมื่อประชาชน
 Call Center 1200 (ฟรีค่าโทร)

Caring for Your Vehicle

Frequent cleaning and polishing is important to ensure the life of your Honda. A clean vehicle makes it easier to spot potential problems. In particular, seawater and salts used to prevent ice on roads promote the formation of corrosion. Also, mud and dust may accelerate front fork wear and cause oil leaks. Always wash your vehicle thoroughly after riding on coastal, treated roads, muddy or dusty roads.

Washing

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

1. Rinse your vehicle 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 windscreen (CBR650RAC only), headlight lens, panels, and other plastic components with extra care to avoid scratching them.

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

3. Thoroughly rinse your vehicle with plenty of clean water and dry with a soft, clean cloth.
4. After the vehicle 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 vehicle.
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 vehicle. Keep the wax clear of the tyres and brakes.
 - If your vehicle has any mat painted parts, do not apply a coat of wax to the mat painted surface.

I 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 surfaces:
 - ▶ 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.

Windscreen

CBR650RAC

Using plenty of water, clean the windscreen with a soft cloth or sponge. (Avoid using detergents or any kind of chemical cleaner on the windscreen.) Dry with a soft, clean cloth.

NOTICE

To avoid possible scratching or other damage, use only water and a soft cloth or sponge to clean the windscreen.

For a dirtier windscreen, use a diluted neutral detergent with a sponge and plenty of water. Make sure to wash off all the detergent. (Detergent residue may cause windscreen cracks.)

Replace the windscreen if scratches cannot be removed and they obstruct clear vision. Take care to keep battery electrolyte, brake fluid, or other chemical solvents off the windscreen and screen garnish. They will damage the plastic.

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.

If 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.

Front fork

Mud and dust may accelerate wear on the front forks and cause oil leaks.

To avoid scratching, please handle the forks with the following care.

- Wash gently using a soft sponge and plenty of water.
- To remove stubborn stains, use diluted detergent and rinse thoroughly with plenty of water.

Storing Your Vehicle

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

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

- Wash your vehicle and wax all painted surfaces (except mat painted surfaces). Coat chrome pieces with rust-inhibiting oil.
- Lubricate the drive chain. ➡ P. 117
- Place your vehicle 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 vehicle to dry.
- Remove the battery (➡ P. 123) 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 vehicle from storage, inspect all maintenance items required by the Maintenance Schedule.

Transporting Your Vehicle

If your vehicle 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 vehicle with a wheel or wheels on the ground.

NOTICE

Towing your vehicle with a wheel or wheels on the ground can cause serious damage to the transmission.

You & the Environment

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

Choose Sensible Cleaners

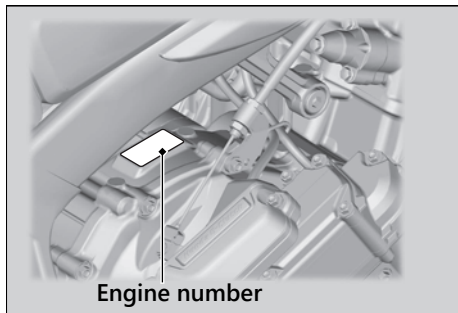
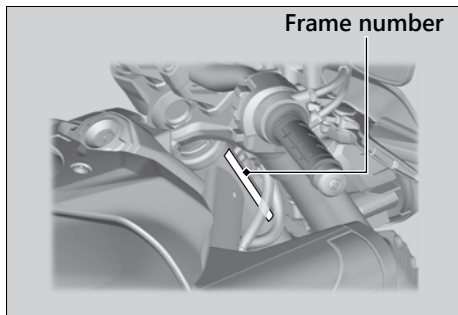
Use a biodegradable detergent when you wash your vehicle. Avoid aerosol spray cleaners that contain chlorofluorocarbons (CFCs) which damage the atmosphere's protective ozone layer.

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 vehicle and are required in order to register your vehicle. 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.

TH, II TH type

The following fuel blends can be used in your vehicle:

- Ethanol (ethyl alcohol) up to 20% by volume.
 - ▶ Petrol containing ethanol may be marketed under the name Gasohol.

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.

PH, II PH type

The following fuel blends can be used in your vehicle:

- 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 vehicle 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 gases 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 vehicle's catalytic converter:

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

Specifications

■ Main Components

Overall length	2,128 mm (83.8 in)
	CBR650RAC
Overall width	749 mm (29.5 in)
	CB650RAC
	784 mm (30.9 in)
Overall height	CBR650RAC
	1,146 mm (45.1 in)
	CB650RAC
	1,074 mm (42.3 in)
Wheelbase	1,449 mm (57.1 in)
Minimum ground clearance	CBR650RAC
	130 mm (5.1 in)
	CB650RAC
	148 mm (5.8 in)
Caster angle	25° 30'
Trail	101 mm (4.0 in)
	CBR650RAC
Curb weight	210.0 kg (463.0 lb)
	CB650RAC
	205.4 kg (452.8 lb)

Maximum weight capacity *1	TH, II TH type
	168 kg (370 lb)
	PH, II PH type
	128 kg (282 lb)
Passenger capacity	Rider and 1 passenger
Minimum turning radius	CBR650RAC
	3.0 m (9.8 ft)
	CB650RAC
	2.81 m (9.2 ft)

*1 : Including rider, passenger, all luggage, and accessories.

Specifications

Displacement	TH, II TH type
	648.72 cm ³ (39.572 cu-in)
	PH, II PH type
	648 cm ³ (39.5 cu-in)
Bore x stroke	67.000 x 46.000 mm (2.6378 x 1.8110 in)
Compression ratio	11.6 : 1
Fuel	Unleaded petrol Recommended: 91 RON or higher
Fuels containing alcohol	TH, II TH type
	ETHANOL up to 20 % by volume
	PH, II PH type
	ETHANOL up to 10 % by volume
Tank capacity	15.4 L (4.07 US gal, 3.39 Imp gal)
Battery	YTZ10 or FTZ10S
	12V-8.6Ah (10HR)
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	DUNLOP Roadsport2 N
	Rear	DUNLOP Roadsport2 N
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 SJ or higher, excluding oils marked as "Energy Conserving" or "Resource Conserving," SAE 10W-30, JASO T 903 standard MA	

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	HONDA PRE-MIX COOLANT	
Cooling system capacity	2.50 L (2.64 US qt, 2.20 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	43 - 48 mm (1.7 - 1.9 in)	
Standard drive chain	DID 525V11 or RK 525KRW2	
	No. of links	118
Standard sprocket sizes	Drive sprocket	15T
	Driven sprocket	42T

■ Bulbs

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

■ Fuses

Main fuse	30 A
Other fuse	30 A, 20 A, 15 A, 10 A, 7.5 A

Thailand only

HELMET CAUTION LABEL

⚠ คำเตือน

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ที่เท้ายังไม่ถึงที่วางเท้าโดยสาร



Online owner's manual

<https://www.hondamotopub.com/HPI>

HONDA

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