OWNER'S MANUAL

2022 CRF450RL

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

This publication includes the latest production information available before printing. Honda Motor Co., Ltd. reserves the right to make changes at any time without notice and without incurring any obligation.

No part of this publication may be reproduced without written permission.

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

© 2022 Honda Motor Co., Ltd.

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 and off-road handbook carefully.
- Follow all recommendations and procedures contained in this owner's manual and off-road handbook.
- Pay close attention to safety messages contained in this owner's manual, off-road handbook, and on the vehicle.

To protect your investment, we urge you to take responsibility for keeping your vehicle well-serviced and maintained. Also, observe the break-in guidelines and always perform the pre-ride inspection and other periodic checks in this manual.

When service is required, remember that your Honda dealer knows your vehicle best. If you have the required mechanical "know-how" and tools, you can purchase an official Honda Service Manual to help you perform many maintenance and repair tasks. ➡P. 105
Read the warranty information thoroughly so that you understand the warranty coverage and are aware of your rights and responsibilities. ➡P. 106

You may also want to visit our website at www.powersports.honda.com.
Canada www.honda.ca.
Happy riding!

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 in this owner's manual and off-road handbook. 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 judgment.

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.

Contents

Vehicle Safety P. 2

Operation Guide P. 18

Maintenance P. 43

Troubleshooting P. 77

Information P. 86

Specifications P. 113

Vehicle Safety

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

Safety Guidelines ..... P. 3
Safety Labels ..... P. 8
Safety Precautions ..... P. 10
Riding Precautions ..... P. 11
Accessories & Modifications ..... P. 15
Off-Road Safety ..... P. 16
Loading ..... P. 17

Safety Guidelines

Follow these guidelines to enhance your safety:

- Perform all routine and regular inspections specified in this owner's manual and off-road handbook.
- 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. 10

Before Riding

Make sure that you are physically fit, mentally focused and free of alcohol and drugs. Check that you are wearing an approved helmet and protective apparel.

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.

We recommend that all riders take a certified course approved by the Motorcycle Safety Foundation (MSF) or a state approved training course. New riders should start with the basic course, and even experienced riders will find the advanced course beneficial.

For information about the MSF training course nearest you, call the national toll-free number: (800) 446-9227.

USA Other riding tips can be found in the You and Your Motorcycle Riding Tips booklet that came with your vehicle.

Developing off-road riding skill is a gradual step-by step process. Start by practicing at low speeds in a safe area and slowly build your skills.

Ask your dealer if there are off-road riding groups in your area where you can learn from experienced riders. Also be sure to read Tips & Practice Guide for the Off-Highway Motorcyclist that came with your new vehicle.

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.

Be Alert for Off-road Hazards

The terrain can be present a variety of challenges when you ride off-road. Continually "read" the terrain for unexpected turns, drop-offs, rocks, ruts and other hazards. Always keep your speed low enough to allow time to see and react to hazards.

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 judgment and ride safely.

Never Carry a Passenger

There are no handholds, seat, or footrests to carry a passenger.

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. Having a breakdown can be difficult, especially if you are stranded off-road far from your base. Inspect your vehicle before every ride and perform all recommended maintenance. Never exceed load limits (P. 17), 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 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.

Continued

Lithium-Ion (Li-Ion) Battery

If you smell an unusual odor coming from the lithium-ion (li-ion) battery, park your vehicle in a safe place outside and away from flammable objects, then turn the ignition switch to the OFF position. Have your vehicle inspected by your dealer immediately.

Carbon Monoxide Hazard

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

If you run the engine in confined or even partly enclosed area, the air you breathe could contain a dangerous amount of carbon monoxide.
Never run your 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.

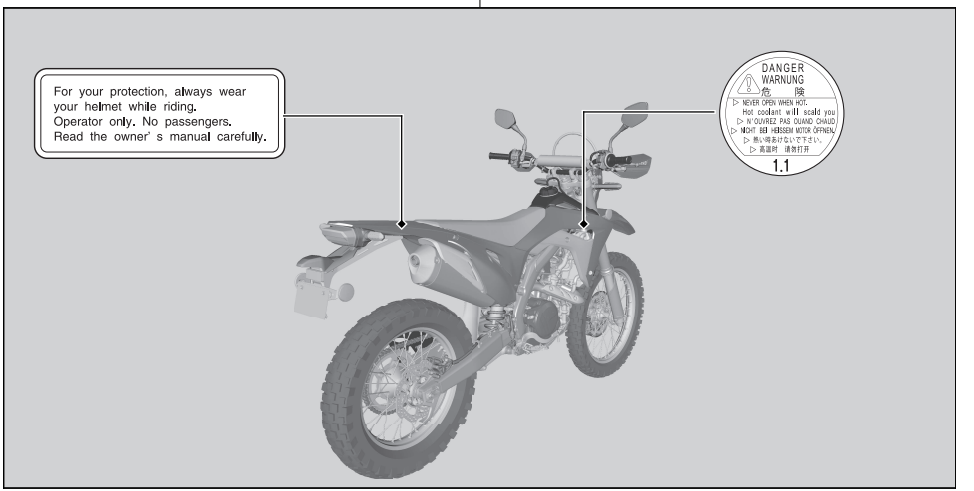
Breathing this colorless, odorless gas can quickly cause unconsciousness and lead to death.

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

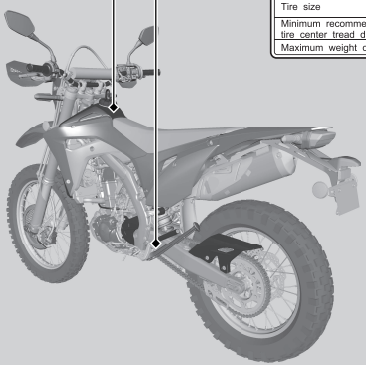
Safety Labels

Safety and information labels on your vehicle provide important safety information and may warn you of potential hazards that could cause serious injury. Read these labels carefully and don't remove them.

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



Use premium unleaded gasoline only
91 (R+M)/2 octane or higher

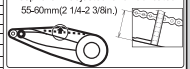


TIRE INFORMATION

Cold tire pressures		kPa	kgf/cm²	psi
Up to maximum weight capacity	Front	150	1.50	22
	Rear	150	1.50	22
Up to 90kg(200lbs) load	Front	150	1.50	22
	Rear	150	1.50	22
Tire size	Front	80/100-21M/C 51P		
	Rear	120/80-18M/C 62P		
Minimum recommend tire center tread depth.	Front	3.0mm (0.12in.)		
	Rear	3.0mm (0.12in.)		
Maximum weight capacity	100kg(220lbs)			

DRIVE CHAIN

Keep chain adjusted and lubricated.
55-60mm(2 1/4-2 3/8in.)



Read owner's manual.

Safety Precautions

- Ride cautiously and keep your hands on the handlebar and feet on the footpegs.
- Always consider the safety of other drivers and riders.

Protective Apparel

Make sure that you 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

Should be safety-standard certified, high-visibility, and the 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

USA Look for a DOT (Department of Transportation) certification label on any helmet you buy.

⚠WARNING

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

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

Gloves

Full-finger leather gloves with high abrasion resistance

Boots or Riding Shoes

Sturdy boots with non-slip soles and ankle protection

Jacket and Pants

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

Additional Off-road Gear

On-road apparel may also be suitable for casual off-road riding. But if you plan on any serious off-road riding you will need more serious off-road gear. In addition to your helmet and eye protection, we recommend off-road motorcycle boots and gloves, riding pants with knee and hip pads, a jersey with elbow pads, and a chest/shoulder protector.

Riding Precautions

Break-in Period

On-Road Use

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

Off-Road Use

During the first operating day or 15 miles (25 km) 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.

This same procedure should be followed each time when:

- Piston is replaced
- Piston rings are replaced
- Cylinder is replaced
- Crankshaft or crank bearings are replaced

Continued

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 tires 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.

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.

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. 36

Refueling and Fuel Guidelines

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

- Use only unleaded gasoline.
- Use recommended octane number. Using lower octane gasoline will result in decreased engine performance.
- Do not use fuels containing a high concentration of alcohol. P. 104
- Do not use stale or contaminated gasoline or an oil/gasoline mixture.
- Avoid getting dirt or water in the fuel tank.

Accessories & Modifications

We strongly advise that you do not add any accessories that were not specifically designed or approved 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.

Do not attempt modify the vehicle to carry a passenger. The subframe was not designed to carry the additional weight of a passenger.

Off-Road Safety

Learn to ride in an uncongested off-road area free of obstacles before venturing onto unfamiliar terrain.

- Always obey local off-road riding laws and regulations.
- Obtain permission to ride on private property. Avoid posted areas and obey "NO Trespassing" signs.
- Ride with a friend on another vehicle so that you can assist each other in case of trouble.
- Familiarity with your vehicle is critically important should a problem occur far from help.
- Never ride beyond your ability and experience or faster than conditions warrant.
- If you are not familiar with the terrain, ride cautiously. Hidden rocks, holes, or ravines could spell disaster.
- A muffler is required in most off-road areas. Don't modify your exhaust system. Remember that excessive noise bothers everyone and creates a bad image for motorcycling.

Loading

- Carrying extra weight affects your vehicle's handling, braking and stability.
  Always ride at a safe speed for the load you are carrying.
- Avoid carrying an excessive load and keep within specified load limits.
  Maximum weight capacity ➡ P. 113
- Tie all luggage securely, evenly balanced and close to the center of the vehicle.
- Do not place objects near the lights or the muffler.

Also follow these guidelines when you ride off-road on rough terrain:

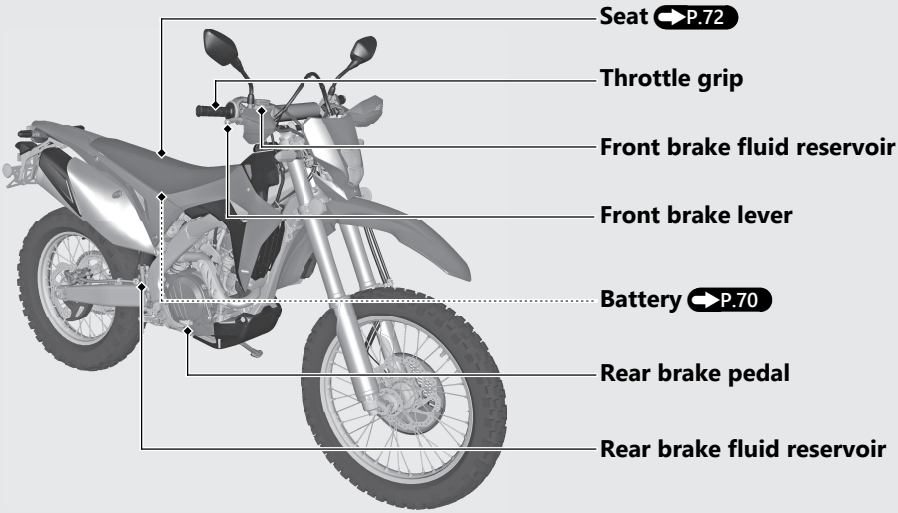
- Do not carry a passenger.
- Keep cargo small and lightweight. Make sure it cannot easily be caught on brush or other objects and that it does not interfere with your ability to shift position to maintain balance and stability.

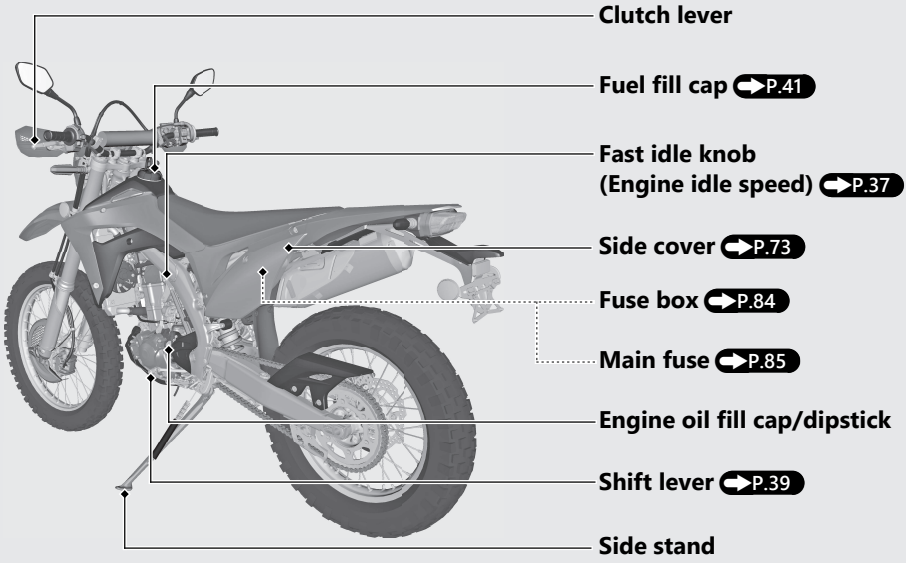
⚠WARNING

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

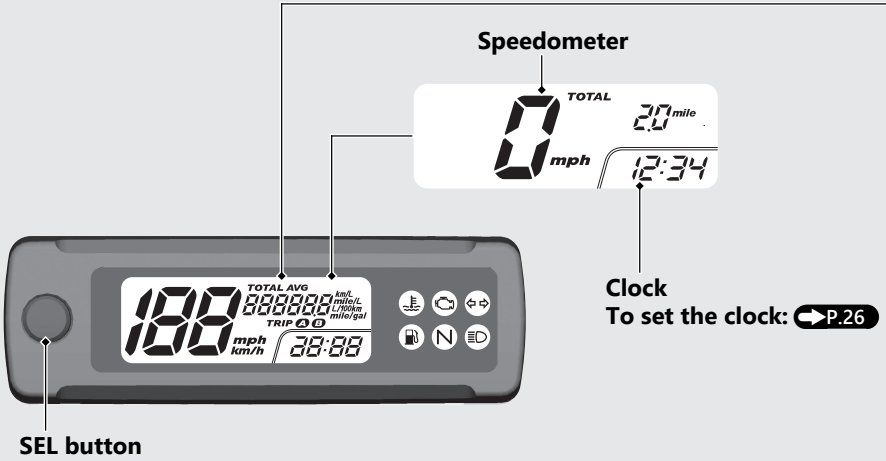
Follow all load limits and other loading guidelines in this manual.

Parts Location




Clutch lever
Fuel fill cap P.41
Fast idle knob
(Engine idle speed) P.37
Side cover P.73
Fuse box P.84
Main fuse P.85
Engine oil fill cap/dipstick
Shift lever P.39
Side stand

Instruments



Display Check

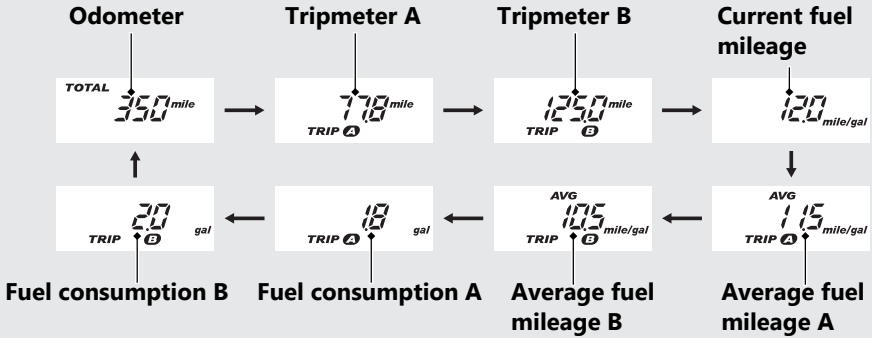
When the ignition switch is turned to the ON position, all the mode and digital segments will show. If any part of these displays does not come on when it should, have your dealer check for problems.

Odometer [TOTAL], tripmeter [TRIP A/B], current fuel mileage, average fuel mileage A [TRIP A AVG], average fuel mileage B [TRIP B AVG], fuel consumption A and fuel consumption B

To select the odometer, tripmeter A/B, current fuel mileage, average fuel mileage A/B or fuel consumption A/B, press the SEL button.

To reset the tripmeter, average fuel mileage and fuel consumption P.24

To set the display P.26



Instruments *(Continued)*

Odometer [TOTAL]

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

Tripmeter [TRIP A/B]

Distance ridden since tripmeter A or tripmeter B respectively were reset.
When "- - - - -.-" is displayed, go to your dealer for service.
To reset the tripmeter: P.24

Current fuel mileage

Displays the current or instant fuel mileage.
Display range:
0.0 to 199.9 mile/gal.
0.0 to 99.9 L/100km (km/L).

- When your speed is less than 4 mph (6 km/h): "---.-" or "--.-" is displayed.

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

Average fuel mileage [AVG]

Displays the average fuel mileage since the selected tripmeter was reset.
The average fuel mileage will be calculated based on value displayed on the tripmeter (A or B) selected.
Display range:
0.0 to 199.9 mile/gal.
0.0 to 99.9 L/100km (km/L).

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

To reset the average fuel mileage
P.24

Fuel Consumption

Displays the tripmeter fuel consumption since the tripmeter was reset.
The fuel consumption will be calculated based on value displayed on the tripmeter (A or B) selected.
Display range: 0.0 to 299.9 gal (L)

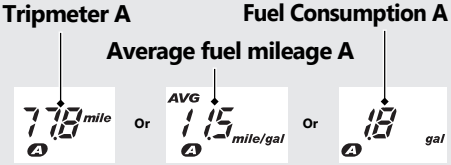
When "----" is displayed, go to your dealer for service.

To reset the fuel consumption: P.24

Instruments *(Continued)*

To Reset the Tripmeter [TRIP A/B], Average Fuel Mileage [AVG] and Fuel Consumption

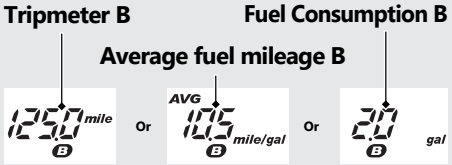
To reset tripmeter A, fuel consumption (based on tripmeter A) and average fuel mileage (based on tripmeter A) together, press and hold the SEL button with the tripmeter A, fuel consumption (based on tripmeter A) or average fuel mileage (based on tripmeter A) displayed.



When they are reset, reset display appears at each indication.



To reset tripmeter B, fuel consumption (based on tripmeter B) and average fuel mileage (based on tripmeter B) together, press and hold the SEL button with the tripmeter B, fuel consumption (based on tripmeter B) or average fuel mileage (based on tripmeter B) displayed.



When they are reset, reset display appears at each indication.



Instruments *(Continued)*

Display Setting

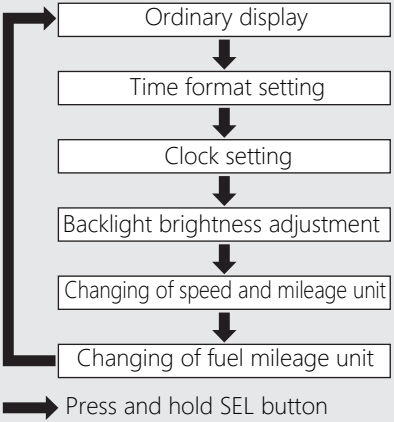
Press and hold the SEL button while the odometer or current fuel mileage is displayed. The display will change to the setting mode.

The following items can be changed sequentially:

- Time format setting
- Clock setting
- Backlight brightness adjustment
- Changing of speed and mileage unit
- Changing of fuel mileage unit

To return to the ordinary display:

- Turn the ignition switch to the OFF position, and then to the ON position again.
  ▶ The established setting is maintained.
- Wait 30 seconds.
  ▶ The established setting is maintained.



1. Time format setting:

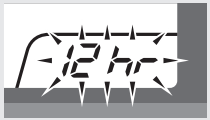
You can switch the time format between 12 hour format or 24 hour format.

1. Turn the ignition switch to the ON position.
2. Press the SEL button to select the odometer or current fuel mileage. P.21

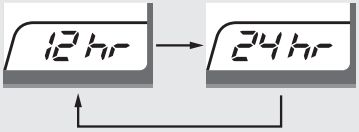
Odometer: **Current fuel mileage:**



3. Press and hold the SEL button until the current time format start flashing



4. Press the SEL button to select "12 hr" or "24 hr".

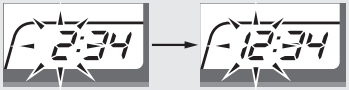


5. Press and hold the SEL button. The time format is set, and then the display moves to the clock setting

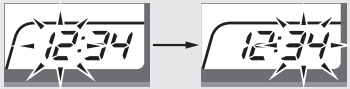
Instruments *(Continued)*

2. Clock setting:

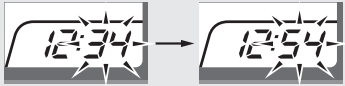
1. Press the SEL button until the desired hour is displayed.



2. Press and hold the SEL button. The minute digits start flashing.



3. Press the SEL button until the desired minute is displayed.

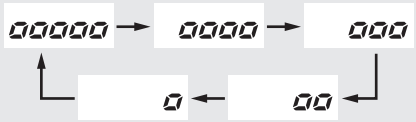


4. Press and hold the SEL button. The clock is set, and then the display moves to the backlight brightness adjustment.

3. Backlight brightness adjustment

You can adjust the brightness to one of five levels.

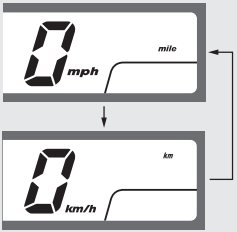
1. Press the SEL button. The brightness is switched.



2. Press and hold the SEL button. The backlight is set, and then the display moves to change the speed and mileage unit.

4. Changing of speed and mileage unit

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



2. When selecting the “mph” and “mile”

   Press and hold the SEL button. The speed and mileage unit is set, and then the display will return to the ordinary display.

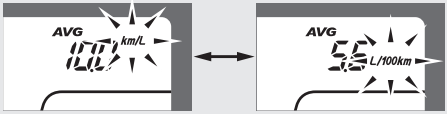
   When selecting the “km/h” and “km”

   Press and hold the SEL button. The speed and mileage unit is set, and then the display moves to change the fuel mileage unit.

Instruments *(Continued)*

4. Changing of fuel mileage unit

1. Press the SEL button to switch between "km/L" or "L/100km".

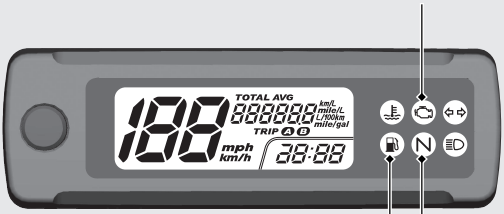


2. Press and hold the SEL button. The fuel mileage unit is set, and then the display will return to the ordinary display.

Indicators

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

PGM-FI malfunction indicator lamp (MIL)
Comes on briefly when the ignition switch is turned to the ON position with the engine stop switch in the (Run) position.
If it comes on while engine is running: P.80



Fuel reserve indicator
Comes on when there is only reserve fuel left in the fuel tank. Remaining fuel when low fuel indicator comes on: 0.58 US gal (2.2 L)

Neutral indicator
Comes on when the transmission is in Neutral.

High coolant temperature indicator

Comes on briefly when the ignition switch is turned to the ON position.

If it comes on while running: P.79



Turn signal indicator

High beam indicator

This page intentionally left blank.

Switches

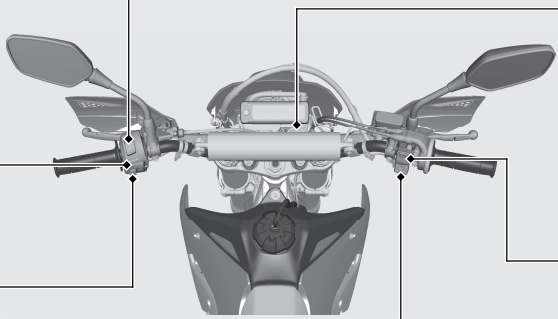
Headlight dimmer switch

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

Horn button

Turn signal switch

▶ Pressing the switch turns the turn signal off.



Ignition switch

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

▶ Key can be removed when in the OFF or LOCK position.

Steering Lock: P.36

ON

Turns electrical system on for starting/riding.

OFF

Turns engine off.

LOCK

Locks steering.



Engine stop switch

Should normally remain in the ⟳ (Run) position.

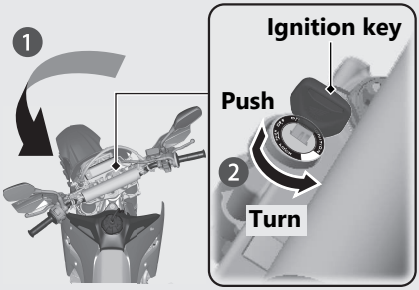
▶ In an emergency, switch to the ⊗ (Stop) position (the starter motor will not operate) to stop the engine.

Start button

Switches *(Continued)*

Steering Lock

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



Locking

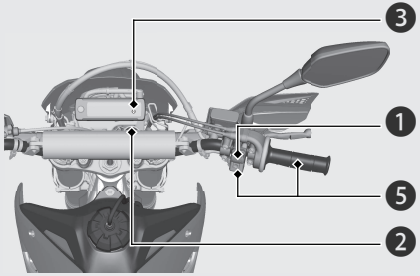
1. Turn the handlebar all the way to the left.
2. Push the key down, and turn the ignition switch to the LOCK position.
   ► Jiggle the handlebar if the lock is difficult to engage.
3. Remove the key.

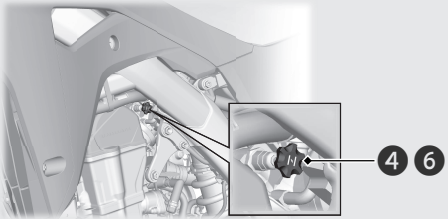
Unlocking

Insert the key, push it in, and turn the ignition switch to the OFF position.

Starting the Engine

Start your engine using the following procedure.





To restart a warm engine, follow the procedure for "Warm Engine Starting".

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.

Continued

Starting the Engine *(Continued)*

Cold Engine Starting

1. Make sure the engine stop switch is in the ◯ (Run) position.
2. Turn the ignition switch to the ON position.
3. Shift the transmission to Neutral (N indicator to come 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. If the temperature is 50 °F (10 °C) or below, pull the fast idle knob fully up.
5. Press the start button with the throttle completely closed.
6. About a minute after the engine starts, push the fast idle knob back all the way to fully OFF. If idling is unstable, open the throttle slightly.

Warm Engine Starting

① Shift the transmission into neutral.
② Pull the clutch lever and depress the start button. (Do not open the throttle.)

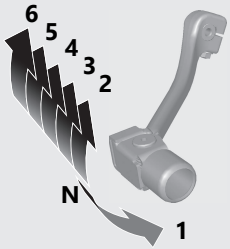
Starting the engine excessively charged with fuel by throttle blipping or other reasons

① Shift the transmission into neutral.
② With the throttle fully opened, pull the clutch and depress the start button for 5 seconds to discharge excessive fuel from the engine.
③ Pull the clutch lever and depress the start button. Do not open the throttle.

If Engine Will Not Start P.78

Shifting Gears

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



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

Recommended Shift Points

Shifting Up	
From 1st to 2nd	25 mph (40 km/h)
From 2nd to 3rd	34 mph (55 km/h)
From 3rd to 4th	50 mph (80 km/h)
From 4th to 5th	62 mph (100 km/h)
From 5th to 6th	75 mph (120 km/h)

Shifting Down	
From 6th to 5th	75 mph (120 km/h)
From 5th to 4th	62 mph (100 km/h)
From 4th to 3rd	50 mph (80 km/h)

Continued

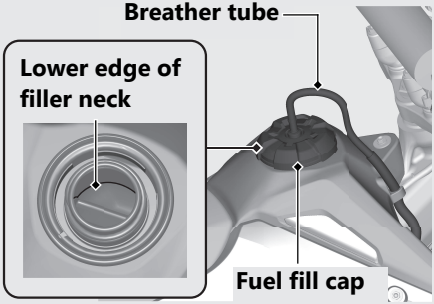
Shifting Gears *(Continued)*

Pull the clutch lever in when speed drops below 9 mph (15 km/h), when engine roughness is evident, or when engine stalling is imminent; and shift down to 1st gear for acceleration.

NOTICE

Improper shifting can damage the engine, transmission, and drive train. Also, coasting or towing the vehicle for long distances with the engine off can damage the transmission.

Refueling



Be careful not to damage the fuel pump while filling the fuel tank.
Avoid overfilling the tank. There should be no fuel in the filler neck.

Fuel type: Unleaded gasoline only
Recommended fuel octane number: Pump Octane Number (PON) 91 or higher.
Tank capacity: 2.01 US gal (7.6 L)

Refueling and Fuel Guidelines P.14

Refueling *(Continued)*

Opening the Fuel Fill Cap

If mud is on the fuel fill cap and fuel tank top shelter at time of refueling, remove the mud before refueling.

Turn the fuel fill cap counterclockwise and remove it.

NOTICE

Equivalent or modified parts must comply with applicable Air Resource Board (ARB) evaporative emission control regulations. Non-compliance may result in civil litigation or criminal prosecution.

The fuel cap may not be disassembled. When replacing, consult with a dealer and replace with a Honda genuine fuel cap or one that complies with Air Resource Board (ARB) evaporative emission control regulations.

Closing the Fuel Fill Cap

After refueling, turn the fuel fill cap clockwise until it clicks.

- If the breather tube is twisted, turn the rotary joint to correct.
- If you replace the fuel fill cap, use a Honda Genuine replacement part or equivalent.

⚠WARNING

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

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

Maintenance

Please read “Importance of Maintenance”, “Maintenance Fundamentals” and Off-road Handbook carefully before attempting any maintenance. Refer to Off-road Handbook for service data.

Importance of Maintenance ..... P. 44
Maintenance Schedule ..... P. 46
Maintenance Record ..... P. 53
Maintenance Fundamentals ..... P. 54
Removing & Installing Body Components .. P. 70
Battery ..... P. 70
Seat ..... P. 72
Left Side Cover ..... P. 73
Spark Arrester ..... P. 74

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. 46

⚠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 and off-road handbook.

For information about the exhaust emission and noise emission requirements of the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and the Environment and Climate Change Canada (ECCC). ➡P. 99

USA

Maintenance, replacement or repair of the emission control devices and systems may be performed by any vehicle repair establishment or individual using parts that are "certified" to EPA standards.

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, an optional workstand 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

To maintain the safety and reliability of your vehicle, regular inspection and service is required as shown in the Maintenance Schedules – On-Road Use and Off-Road Use – that follow.

The Maintenance Schedule lists items that can be performed with basic mechanical skills and hand tools. Procedures for these items are provided in Off-road Handbook. The Maintenance Schedule also includes items that involve more extensive procedures and may require special training, tools, and equipment. Therefore, we recommend that you have your dealer perform these tasks unless you have advanced mechanical skills and the required tools. Procedures for items in this schedule are provided in an official Honda Service Manual available for purchase from your dealer.
➔P. 105

Service intervals in the maintenance schedule are expressed in terms of races and riding hours. To avoid overlooking required service, we urge you to develop a convenient way to record the number of races and/or hours you ride (Off-Road Use only).

If you do not feel capable of performing a given task or need assistance, remember that your Honda dealer knows your vehicle best and is fully equipped to maintain and repair it. If you decide to do your own maintenance, use only Honda Genuine Parts or their equivalents for repair or replacement to ensure the best quality and reliability.

Make sure whoever performs the scheduled maintenance completes the maintenance record. Retain all service documents. If you sell your vehicle, these service documents should be transferred with the vehicle to the new owner.

MAINTENANCE SCHEDULE

Perform the Pre-ride Inspection (P. 54) at each scheduled maintenance period.

Items	Frequency	Whichever Comes First		Initial Maintenance	Regular Maintenance Interval (NOTE 1)							Regular Replace
		⇨	mi	100	600	1200	1800	2400	3000	3600	19000	
			km	150	1000	2000	3000	4000	5000	6000	30000	
		Note	Month	1	4	8	12	16	20	24		
	Fuel Line						I			I		
	Fuel Filter						R			R		
	Throttle Operation						I			I		
	Air Cleaner	(NOTE 2)			C	C	C	C	C	C		3 years
	Crankcase Breather	(NOTE 3)			I	I	I	I	I	I		
	Spark Plug						I			I		
	Valve Clearance						I			I		
	Engine Oil				R	R	R	R	R	R		
	Engine Oil Filter				R	R	R	R	R	R		
	Decompressor System						I			I		
	Engine Idle Speed			I	I	I	I	I	I	I		

Maintenance Level

: Intermediate. We recommend service by your dealer, unless you have the necessary tools and are mechanically skilled.
Procedures are provided in an official Honda Service Manual (P. 105).

: 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
C: Clean

Continued

Items \ Frequency		Whichever Comes First ⇨		Initial Maintenance	Regular Maintenance Interval (NOTE 1)							Regular Replace
			mi	100	600	1200	1800	2400	3000	3600	19000	
			km	150	1000	2000	3000	4000	5000	6000	30000	
		Note	Month	1	4	8	12	16	20	24		
	Intake/Exhaust Valve										R	
	Piston and Piston Rings										R	
	Piston Pin										R	
	Crankshaft										R	
	Crankshaft Bearing										R	
	Transmission										I	
	Cam Chain Tensioner Lifter										R	
	Radiator Coolant	(NOTE 6)					I			I		3 years
	Cooling System			I	I	I	I	I	I	I		
	Secondary Air Supply System						I			I		
	Evaporative Emission Control System	(NOTE 3)								I		
	Drive Chain	(NOTE 4)		I L	Every 300 mi (500 km) or 3 months : I L							
	Drive Chain Slider				I	I	I	I	I	I		

Items \ Frequency		Whichever Comes First ⇨		Initial Maintenance	Regular Maintenance Interval (NOTE 1)							Regular Replace
			mi	100	600	1200	1800	2400	3000	3600	19000	
			km	150	1000	2000	3000	4000	5000	6000	30000	
		Note	Month	1	4	8	12	16	20	24		
	Brake Fluid	(NOTE 6)			I	I	I	I	I	R		2 years
	Brake Pads Wear				I	I	I	I	I	I		
	Brake System			I	I	I	I	I	I	I		
	Brake light Switch				I	I	I	I	I	I		
✓	Headlight Aim						I			I		
	Clutch System			I			I			I		
	Side Stand						I			I		
✓	Suspension						I			I		
✓	Spark Arrester	(NOTE 5)		Every 1,000 mi (1,600 km) or every 100 operating hours : C								
✓	Nuts, Bolts, Fasteners	(NOTE 4)		I			I			I		
✓	Wheels/Tires	(NOTE 4)		I	I	I	I	I	I	I		
✓	Steering Head Bearings			I			I			I		

Notes: 1 : At higher odometer reading. Repeat at the frequency interval established here.
2 : Service more frequently when riding in unusually wet or dusty areas.
3 : Service more frequently when riding in rain or at full throttle.
4 : Service more frequently when riding OFF-ROAD.
5 : USA only.
6 : Replacement requires mechanical skill.

Continued

MAINTENANCE SCHEDULE – OFF-ROAD USE

All items should be checked before each off-road event. See your dealer unless you are mechanically qualified and have the proper tools.

Damage from Off-Road use is not covered by the Distributor's Limited Warranty on your Honda.

Perform the Pre-ride Inspection (P. 54) at each scheduled maintenance period.

Items \ Frequency	NOTE	Each race or about 3.5 hours	Every 4 races or about 15.0 hours	Every 8 races or about 30.0 hours
Fuel Line	(NOTE 6)	I		R
Fuel Pump Filter	(NOTE 6)			R
Throttle Operation		I		
Air Filter	(NOTE 1)	C		
Crankcase Breather		I		
Spark Plug		I		
Valve Clearance/Decompressor System	(NOTE 4)			I
Engine Oil	(NOTE 3) (NOTE 5)	I		R
Engine Oil Filter	(NOTE 3)			R

WE RECOMMEND THESE ITEMS BE SERVICED BY REFERRING TO THE OFFICIAL HONDA SERVICE MANUAL.

This maintenance schedule is based upon average riding condition. Machines subjected to severe use require more frequent servicing.

Maintenance Legend

I : Inspect (clean, adjust, lubricate, or replace, if necessary)
L : Lubricate
R : Replace
C : Clean

Items \ Frequency	NOTE	Each race or about 3.5 hours	Every 4 races or about 15.0 hours	Every 8 races or about 30.0 hours
Engine Idle Speed		I		
Piston and Piston Rings				R
Piston Pin				R
Radiator Coolant	(NOTE 2)	I		
Cooling System		I		
Drive Chain		I L	R	
Drive Chain Slider		I		
Drive Chain Roller		I		
Drive Sprocket		I		
Driven Sprocket		I		
Brake Fluid	(NOTE 2)	I		
Brake Pads Wear		I		
Brake System		I		

Continued

Items \ Frequency	NOTE	Each race or about 3.5 hours	Every 4 races or about 15.0 hours	Every 8 races or about 30.0 hours
Clutch System	(NOTE 5)	I		
Control Cables		I L		
Exhaust Pipe/Muffler		I		
Suspension		I		
Swingarm/Shock Linkage			L	
Fork Oil	(NOTE 3)			R
Nuts, Bolts, Fasteners		I		
Wheels/Tires		I		
Steering Head Bearings				I
Side Stand		I		

Notes: 1 : Clean after every moto for dusty riding condition.
2 : Replace every 2 years. Replacement requires mechanical skill.
3 : Replace after the first break-in ride.
4 : Inspect after the first break-in ride.
5 : Replace the engine oil, if the clutch discs and plates are replaced.
6 : Replace every year.

Maintenance Record

On-road use only

Keeping an accurate maintenance record will help ensure that your vehicle is properly maintained. Retain detailed receipts to verify the maintenance was performed. If the vehicle is sold, these receipts should be transferred with the vehicle to the new owner. Make sure whoever performs the maintenance completes this record. All scheduled maintenance, including the 100 mile (150 km) or 1 month initial maintenance, is considered a normal owner operating cost and will be charged for by your dealer. Use the space under Notes to record anything you want to remind yourself about or mention to your dealer.

Miles (km) or Month	Odometer	Date	Performed By:	Notes
100 (150) or 1				
600 (1,000) or 4				
1,200 (2,000) or 8				
1,800 (3,000) or 12				
2,400 (4,000) or 16				
3,000 (5,000) or 20				
3,600 (6,000) or 24				
4,200 (7,000) or 28				
4,800 (8,000) or 32				
5,400 (9,000) or 36				
6,000 (10,000) or 40				
6,600 (11,000) or 44				
7,200 (12,000) or 48				
7,800 (13,000) or 52				

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 tire, can be a major inconvenience.

Before riding on-road, or returning to pavement after riding off-road, take a few moments to walk around your vehicle and look for any loose parts or anything that appears unusual.
Also check the following.

Refer to the Off-road Handbook for procedures.

On-Road Use

- Fuel Line
  Check the fuel line for leakage while warming up the engine.
- Tires & Wheels
  Look at the tires. If a tire appears low, use an air pressure gauge to check its pressure. Also look for signs of excessive wear or damage to the tires, rims and spokes.
- Chain
  Check the condition of the chain. Adjust slack and lubricate as needed.
- Leaks
  Walk around your vehicle and look for leaking fluids under the vehicle.
- Throttle
  Rotate the throttle to check it moves smoothly without binding.
- Brakes
  Pull the brake lever and press on the brake pedal to check that they operate normally.
- Lights and horn
  Make sure the headlight, position light, brake light, taillight, turn signals, and horn are working properly.

When riding at high or continuous speed on the highway, check the following frequently:

- Engine Oil
  Check the level and add oil if needed.

Before riding off-road check all of the preceding plus the following:

- Spokes & Rims
  Make sure the spokes are tight. Check the rims for any damage.
- Engine Oil
  Check the level and add oil if needed.
- Fuel
  Check the fuel level and add as much fuel as needed. Be sure the fuel fill cap is securely fastened.
- Drive Chain
  Check the condition of the chain. Adjust slack and lubricate as needed.
- Clutch Lever
  Check for smooth operation and adjust if needed.
- Cables
  Check for loose cables and other parts, and anything that appears abnormal.
- Nuts & Bolts
  Use a wrench to check the tightness of all accessible nuts, bolts and fasteners.

If you haven't ridden the vehicle in over a week, you should also check other items, such as the oil level and other fluids. See Periodic Maintenance. ➔ P. 61

Periodic maintenance should also be done at least once a month, no matter how often you ride.

Remember, be sure to take care of any problem you find, or have your Honda dealer correct it before you ride.

Off-Road Use

Competitive riding can be tough on a motorcycle, so it's important to inspect your vehicle and correct any problems you find before each ride.

Check the following before each ride:

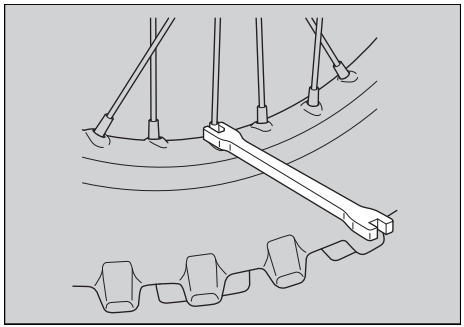
- Engine oil level
- Fuel line for condition
- Coolant for proper level
- Cooling system and hoses for condition
- Spark plug for proper heat range, carbon fouling and spark plug wire terminal for looseness
- Air cleaner for condition and contamination
- Clutch lever freeplay
- Breather drain for cleaning
- Steering head bearing and related parts for condition
- Throttle operation
- Tires for damage or improper inflation pressure
- Spokes for looseness
- Front and rear suspension for proper operation
- Front and rear brakes, check operation
- Drive chain for correct slack and adequate lubrication
- Drive chain sliders and drive chain rollers for damage or wear
- Exhaust pipe/Muffler for looseness
- Every possible part for looseness (such as cylinder head bolts, engine mounting bolts/nuts, axle nuts, handlebar holder bolts, fork bridge pinch bolts, drive chain adjuster, lock nuts, drive chain roller bolt/nut)
- PGM-FI malfunction indicator lamp (MIL) operation

Between Races & Practice Maintenance

Off-road use only

After practice or between races you have a chance to make additional checks and adjustments.

- Clean accumulated dirt from under the fenders and off the wheels, suspension components, handgrips, controls, and footpegs. A stiff, nylon parts cleaning brush works well.
- Check tire air pressure.
- Check spoke tension, and make sure the rim locks are secure.

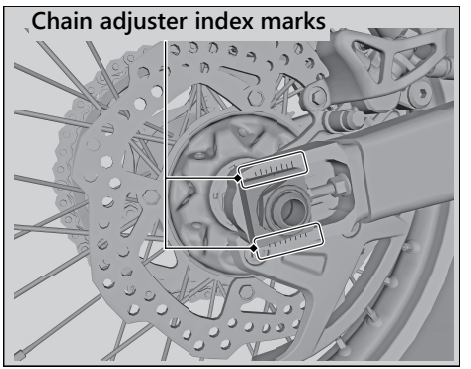


- Check to make sure the sprocket bolts and nuts are secure.
- Clean the sides of the drive chain with a stiff, nylon parts-cleaning brush. Lubricate and adjust the chain as necessary.

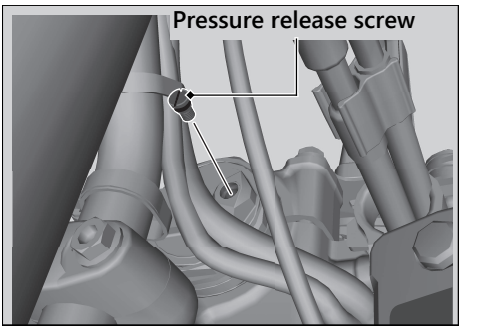
Do not perform maintenance while engine is running. Injury to your fingers or hands may result.

- After adjustment, check that the chain adjuster index marks are in the same position on each side. This will ensure that the rear wheel is in proper alignment and allow maximum performance from the rear disc brake.

Maintaining proper wheel alignment will also extend brake pad lifespan.



- Suspend the front wheel above the ground and use the pressure release screws to release the built-up pressure in the forks. This pressure is caused by normal fork action while riding.



After Competition Maintenance

Off-road use only

It is important to the long term performance of your vehicle to practice a consistent maintenance program. Right after the event is a good time to begin your next maintenance cycle.

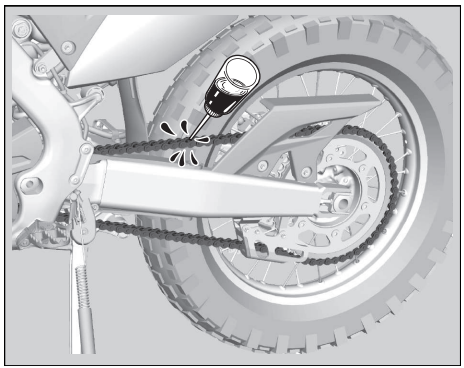
After Race Lubrication

Apply a light coating of rust-inhibiting oil to the drive sprocket and any steel portions of the chassis or engine where the paint has worn away.

This will prevent rusting of the exposed metal. Apply rust-inhibiting oil more heavily if the event was particularly wet or muddy. Take care to avoid spraying any oil near the brake pads or the brake discs.

Take care to prevent catching your fingers between the chain and sprocket.

Remove the drive chain, clean and lubricate it. Be sure the chain is wiped clean and is dry before lubricating the chain.



Routine Cleaning

If your vehicle is only slightly dirty, it is best to clean it by hand with the aid of a stiff bristled nylon brush and some clean rags.

A variety of reasonably priced cleaning brushes are available from variety, drug, food, and hardware stores. Some of these brushes are extremely useful in removing dirt from the many tight contours of the metal pieces of your vehicle.

Avoid using stiff, abrasive brushes on the plastic or rubber parts.

If your vehicle was exposed to sea air or salt water, rinse it as soon as possible after the event, dry it, and apply a spray lubricant to all metal parts.

If you decide to wash your vehicle or use cleaners, refer to "Caring for Your Vehicle".

➔P. 89

Periodic Checks

You should also perform other periodic maintenance checks at least once a month regardless of how often you ride, or more often if you ride frequently.

Also, check the odometer reading against the Maintenance Schedule and perform all maintenance that is due. P. 46

Refer to the Off-road Handbook for procedures.

Tires and wheels	Check the air pressure (P. 66), examine tread for wear and damage (P. 66), and check the wheels for damage.
Fluid levels	Check the engine oil level, engine coolant level, and brake fluid level.
Lights	Check that the headlight, brake light, taillight, turn signals and license plate light are working properly.
Controls	Check the freeplay of the clutch lever and throttle grip.
Drive chain	Check the slack, adjust the slack, and lubricate as needed.
Fuses	Check that you have a full supply of spare fuses.
Nuts & bolts	Check the major nuts and bolts, and tighten as needed.

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.

Lithium-Ion (Li-Ion) Battery

Your vehicle has a lithium-ion (li-ion) battery. Clean the battery terminals if they become dirty or corroded.

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 occurs, immediately see your doctor.

- Electrolyte splashes into your eyes:
  - ▶ Wash your eyes repeatedly with cool water for at 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

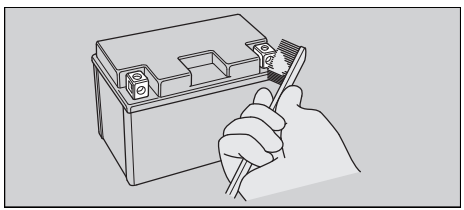
The battery contains flammable organic solvent as electrolyte.

You can be burned or seriously injured if the battery is handled improperly.

- Keep the battery away from heat, sparks, and flame.
- Keep the battery out of the reach of children.
- Do not disassemble or modify the battery or battery terminals.
- Do not short-circuit the battery with metal tools or other metal objects.
- Do not subject the battery to impacts.

Cleaning the Battery Terminals

1. Remove the battery. P. 70
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 lithium-ion (li-ion) battery of the same type.

Charging

If you use electrical accessories that drain the battery or you do not ride frequently, we recommend that you charge the battery every 30 days using a charger recommended by your lithium-ion (li-ion) battery manufacturer. Contact your dealer before charging the battery.

Make sure the ignition switch is in the OFF position before charging the battery.

NOTICE

Only use a charger recommended by your lithium-ion (li-ion) battery manufacturer. Using a battery charger that is not recommended can cause permanent damage to your battery.

NOTICE

Improper charging can damage the battery. If you can't charge the battery or it appears unable to hold a charge, contact your dealer.

NOTICE

Do not jump-start, as this can damage your vehicle's electrical system and battery. Bump starting is not recommended.

NOTICE

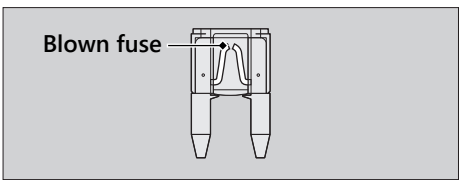
Installing non-Honda electrical accessories can overload the electrical system, discharging the battery and possibly damaging the system.

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. 84

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. 115



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.

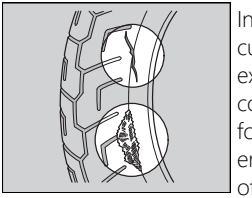
Tires (Inspecting/Replacing)

Checking the Air Pressure

Visually inspect your tires and use an air pressure gauge to measure the air pressure before each off-road ride and whenever you return to pavement after riding off-road. If you only ride on pavement, check the pressure at least once a month or any time you think the tires look low. Always check air pressure when your tires are cold.

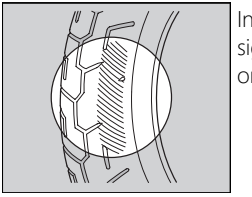
If you decide to adjust the tire pressure for a particular off-road riding condition, make changes a little at a time.

Inspecting for Damage



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

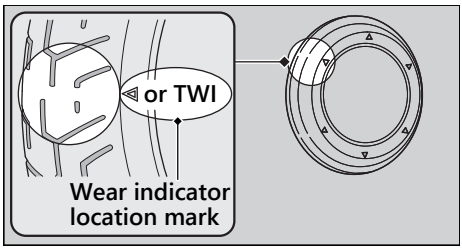
Inspecting for Abnormal Wear



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

Inspecting Tread Depth

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



Inspecting Rims and Valve Stems

Inspect the rims for damage and loose spokes. Also inspect the valve stems for their positions. A tilted valve stem indicates the tube is slipping inside the tire or the tire is slipping on the rim. See your dealer.

⚠WARNING

Riding on tires 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 tire inflation and maintenance.

Have your tires replaced by your dealer.
For recommended tires, air pressure and minimum tread depth, see "Specifications."
➔P. 113
Follow these guidelines whenever you replace tires.

- Use the recommended tires or equivalents of the same size, construction, speed rating, and load range.
- Remember to replace the inner tube whenever you replace a tire. The old tube will probably be stretched, and it could fail if installed in a new tire.

⚠WARNING

Installing improper tires 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 tires recommended in this owner's manual.

Tire Service Life

The service life of your tires is dependent on many factors, including, but not limited to, riding habits, road conditions, vehicle loading, tire air pressure, maintenance history, speed, and environmental conditions (even when the tires are not in use).

In addition to your regular inspections and maintenance, it is recommended that you have annual inspections performed once the tires reach 5 years old. It is also recommended that all tires be removed from service after 10 years from the date of manufacture, regardless of their condition or state of wear.

The last four digits of the TIN (tire identification number) indicate the date of manufacture.

Tire Identification Number (TIN)

The tire identification number (TIN) is a group of numbers and letters located on the sidewall of the tire.

① ② ③

DOT XXXX XXXX 22 09

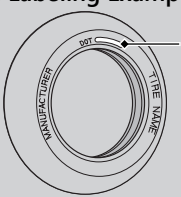
DOT: This indicates that the tire meets all requirements of the U.S. Department of Transportation.

① XXXX: Factory code

② XXXX: Tire type code

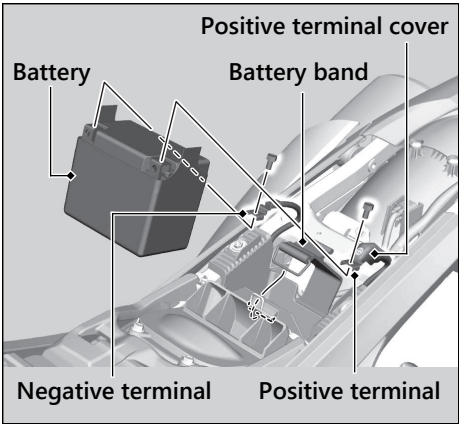
③ 22 09: Date of manufacture (week & year). Example: week 22 in year 09.

Tire Labeling Example



Tire identification number (TIN)

Battery



Removal

Make sure the ignition switch is in the OFF position.

1. Remove the seat. P. 72
2. Remove the battery band.
3. Disconnect the negative ⊖ terminal from the battery.
4. Remove the positive terminal cover.
5. Disconnect the positive ⊕ terminal from the battery.
6. Remove the battery, taking care not to drop the terminal nuts.

Installation

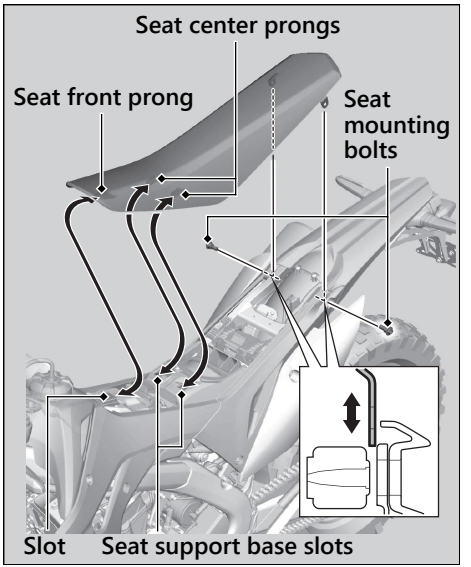
1. Install the parts in the reverse order of removal. Always connect the positive ⊕ terminal first. Make sure that bolts and nuts are tight.
2. Tighten the positive ⊕ terminal bolt and negative ⊖ terminal bolt to the specified torque:

Torque: 1.5 lbf·ft (2 N·m, 0.2 kgf·m)

3. Install the battery band and seat.

Make sure the clock information is correct after the battery is reconnected. ➔P. 26
For proper handling of the battery, see "Maintenance Fundamentals." ➔P. 62
"Battery Goes Dead." ➔P. 82

Seat



Removal

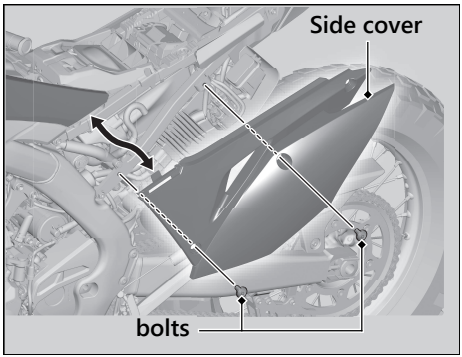
1. Remove the seat mounting bolts.
2. Remove the seat by pulling it backward.

Installation

1. Install the seat while aligning the seat front prong with the slot of the fuel tank and seat center prongs with the seat support base slots.
2. Install and tighten the seat mounting bolts to the specified torque:

Torque: 19 lbf·ft (26 N·m, 2.7 kgf·m)

Left Side Cover



Removal

1. Remove the seat. P. 72
2. Remove the side cover by removing the bolts.

Installation

1. Install the left side cover, and then tighten the bolts to the specified torque:

Torque: 7 lbf·ft (10 N·m, 1.0 kgf·m)

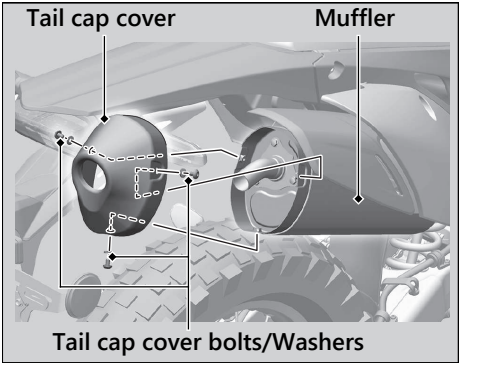
2. Install the seat. P. 72

Cleaning the Spark Arrester

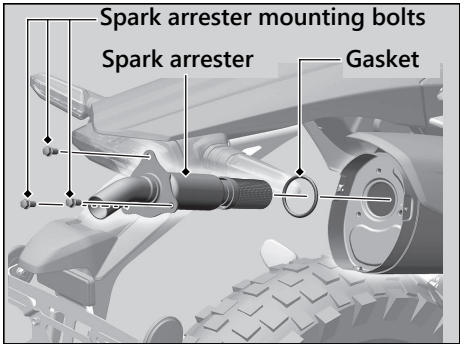
The spark arrester must be serviced every 1,000 mi (1,600 km) of running or 100 operating hours to maintain its efficiency.

Regular servicing prevents carbon buildup (which can diminish engine performance) and also complies with USDA regulations for regular maintenance to assure proper function. The spark arrester prevents random sparks from the combustion process in your engine from reaching the environment.

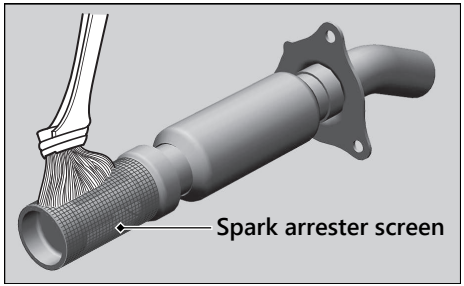
► Because of possible fire hazard, do not ride with the spark arrester removed. Riding with the spark arrester removed will also damage the surrounding parts.



1. Allow the engine and muffler to cool.
2. Remove the tail cap cover bolts, washers and tail cap cover from the muffler.



3. Remove the spark arrester mounting bolts, spark arrester and gasket from the muffler.



4. Use a brush to remove carbon deposits from the spark arrester screen. Be careful to avoid damaging the spark arrester screen. The spark arrester must be free of breaks and holes. Replace, if necessary. Check the gasket. Replace, if necessary.

5. Install a new gasket and the spark arrester in the muffler and tighten the spark arrester mounting bolts to the specified torque:

Torque: 6.6 lbf·ft (9.0 N·m, 0.9 kgf·m)

6. Install the tail cap cover, washers and tighten the tail cap cover bolts to the specified torque:

Torque: 3.9 lbf·ft (5.25 N·m, 0.5 kgf·m)

Troubleshooting

Engine Will Not Start ..... P. 78
Overheating (High coolant temperature indicator is on) ..... P. 79
Warning Indicators On or Flashing ..... P. 80
PGM-FI (Programmed Fuel Injection) Malfunction Indicator Lamp (MIL) ..... P. 80
Tire Puncture ..... P. 81
Electrical Trouble ..... P. 82
Battery Goes Dead ..... P. 82
Burned-out Light Bulb ..... P. 83
Blown Fuse ..... P. 84

Starter Motor Operates But Engine Does Not Start

Check the following items:

- Check the correct engine starting sequence. ➡P. 37
- Check that there is gasoline 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.

Starter Motor Does Not Operate

Check the following items:

- Check the correct engine starting sequence. ➡P. 37
- Make sure engine stop switch is in the ⟳ (Run) position. ➡P. 35
- Check for a blown fuse. ➡P. 84
- Check for a loose battery connection (➡P. 70) or battery terminal corrosion (➡P. 63).
- Check the condition of the battery. ➡P. 82

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

Overheating (High coolant temperature indicator is on)

The engine is overheating when the following occurs:

- High coolant temperature indicator comes on.
- 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 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 ON position.
2. Check that the radiator fan is operating, and then turn the ignition switch to the OFF position.

If the fan is not operating:
Suspect a fault. Do not start the engine. Transport your vehicle to your dealer.

If the fan is operating:
Allow the engine to cool with the ignition switch in the OFF position.

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

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.
   ► Add coolant as necessary.
5. If 1-4 check normal, you may continue riding, but closely monitor the high coolant temperature indicator.

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.

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 tire inspected/replaced by your dealer.

Tube Repair and Replacement

If a tube is punctured or damaged, you should replace it as soon as possible. A tube that is repaired may not have the same reliability as a new one, and it may fail while you are riding.
If you need to make a temporary repair by patching a tube or using an aerosol sealant, ride cautiously at reduced speed and have the tube replaced before you ride again.
Anytime a tube is replaced, the tire should be carefully inspected as described.

⚠WARNING

Riding your vehicle with a temporary tire or tube 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 tire or tube repair, ride slowly and carefully and do not exceed 30 mph (50 km/h) until the tire or tube is replaced.

Battery Goes Dead

Battery charging is needed.
A battery charger recommended by your lithium-ion (li-ion) battery manufacturer is needed for battery charging.

Contact your dealer before charging the battery.

Remove the battery from the vehicle before charging.

NOTICE
Only use a charger recommended by your lithium-ion (li-ion) battery manufacturer. Using a battery charger that is not recommended can cause permanent damage to your battery.

If the battery does not recover after recharging, contact your dealer.

NOTICE
Do not jump-start, as this can damage your vehicle's electrical system and battery.
Bump starting is not recommended.

Check the battery voltage using a digital multimeter with the cable connected.
Below 1V: The battery has failed; replace the battery.
Between 1V and 8V: The battery may have failed; charge the battery and then recheck.
If you can't charge the battery or it appears unable to hold a charge, see your dealer.

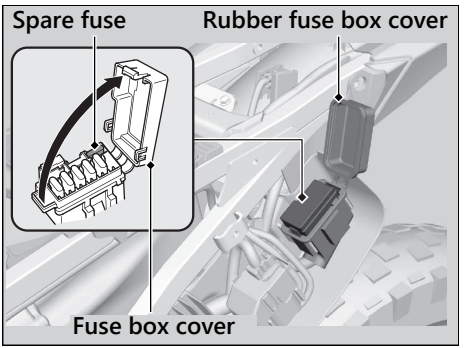
Burned-out Light Bulb

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

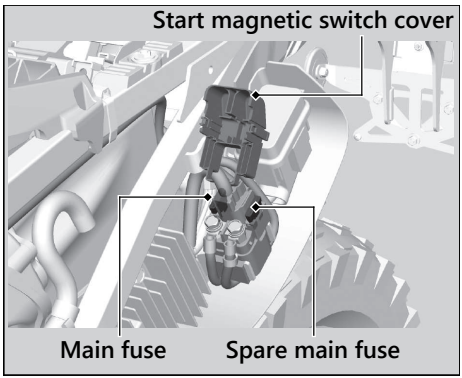
Before handling fuses, see "Inspecting and Replacing Fuses." ➡ P. 65

Fuse Box Fuses



1. To prevent an accidental short circuit, turn the ignition switch OFF before checking or replacing the fuses.
2. Remove the seat. ➡ P. 72
3. Remove the left side cover. ➡ P. 73
4. Open the rubber fuse box cover and fuse box cover.
5. Pull out the fuses one by one to check for a blown fuse. Always replace a blown fuse with a spare fuse of the same rating.
6. Close the fuse box cover and rubber fuse box cover.
7. Reinstall parts in the reverse order of removal.

Main Fuse



1. To prevent an accidental short circuit, turn the ignition switch OFF before checking or replacing the fuse.
2. Remove the seat. P. 72
3. Remove the left side cover. P. 73
4. Remove the start magnetic switch cover.
5. Pull out the main fuse to check for a blown fuse. Always replace a blown fuse with a spare of the same rating.
6. Install the start magnetic switch cover.
7. Reinstall 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.

Information

Keys ..... P. 87
Instruments, Controls, & Other Features ..... P. 88
Caring for Your Vehicle ..... P. 89
Storing Your Vehicle ..... P. 94
Transporting Your Vehicle ..... P. 95
You & the Environment ..... P. 97
Vehicle Identification Number ..... P. 98
Emission Control Systems ..... P. 99
Catalytic Converter ..... P. 103
Oxygenated Fuels ..... P. 104
Authorized Manuals ..... P. 105
Warranty Coverage and Service ..... P. 106
Honda Contacts ..... P. 109
Reporting Safety Defects ..... P. 111

Keys

Ignition Key

Be sure to record the key number provided with the key number plate. Store the spare key and key number in a safe location.
To make a duplicate, take the spare key or the key number to your dealer.
If you lose all ignition keys and the key number, the ignition switch assembly will probably have to be removed by your dealer to determine the key number.

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

Instruments, Controls, & Other Features

Ignition Switch

Leaving the ignition switch in the ON position with the engine stopped will drain the battery. Do not turn the key while riding.

Engine Stop Switch

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

If you stop the engine using the engine stop switch, turn the ignition switch to the OFF position. Failing to do so will drain the battery.

Odometer

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

Tripmeter

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

Always carry this manual and tool kit

This owner's manual and tool kit cannot be stored on this vehicle. Be sure to carry the owner's manual and tool kit with you when riding.

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 OFF position and back to the ON position before the engine can be restarted.

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. Always wash your vehicle thoroughly after riding on coastal or treated roads.
While you're cleaning, be sure to look for damage, wear, and gasoline or oil leaks.

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 plastic components with extra care to avoid scratching them.
   Avoid directing water into the air cleaner, muffler, and electrical parts.
   ▶ Do not use steel wool to clean the frame as it could damage or discolor the frame surface. Muffler stain remover (Scotch Brite Hand Pad #7447-maroon) is for removing stains on the non-coated aluminum frame only.
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 tires. 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.

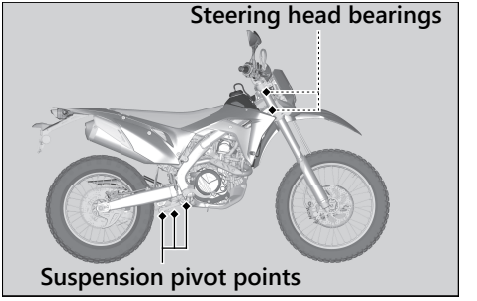
Continued

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 tires and brakes.
- ▶ If your vehicle has any matte painted parts, do not apply a coat of wax to the matte painted surface.

Washing Precautions

Follow these guidelines when washing:

- Do not use high-pressure washers:
  - ▶ High-pressure water cleaners can damage moving parts and electrical parts, rendering them inoperable.
  - ▶ Water in the air intake can be drawn into the throttle body and/or enter the air cleaner.
  - ▶ If you use a high pressure washer, avoid spraying the following areas:
    brake master cylinders
    drive chain
    electrical circuit
    engine stop switch
    muffler outlet
    steering head bearings
    suspension pivot points
    throttle body
    under fuel tank
    under seat



- 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 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 matte painted surfaces:
  - ▶ Use a soft cloth or sponge, plenty of water, and a mild detergent to clean matte painted surfaces. Dry with a soft clean cloth.

Aluminum Frame Maintenance

Aluminum corrodes when it comes in contact with dust, mud and road salt.
To remove stains, use Scotch Brite Hand Pad #7447 (maroon) or an equivalent. Wet the pad and polish the surface using strokes parallel to the length of the frame.
Clean the frame using a wet sponge and a mild detergent, then rinse well with clean water. Dry the frame with a soft clean cloth, using strokes parallel to the length of the frame.

NOTICE

Do not use steel wool to clean the frame as it could damage or discolor the frame surface. Scotch Brite Hand Pad #7447-maroon is for removing stains on the non-coated aluminum frame only.

Titanium Fuel Tank Maintenance

The fuel tank is made of titanium material.
To remove mud or dust, use a sponge or soft cloth and a stainless steel kitchen detergent, then rinse well with clean water.
After washing, rinse with plenty of water and dry with a clean cloth.

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 gasoline, brake fluid, or detergents on the instruments, panels, or headlight.

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.

NOTICE

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

Storing Your Vehicle

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

- Wash your vehicle.
- Drain the coolant.
- Lubricate the drive chain.
- Place your vehicle on an optional workstand or equivalent to raise both tires off the ground.
- Relieve the fuel pressure and drain the fuel from the fuel tank into an approved gasoline container.
- Remove the battery (P. 70) 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.
- Stuff a rag into the muffler outlet. Then, tie a plastic bag over the end of the muffler to prevent moisture from entering.
- Store your vehicle in an unheated area, free of dampness, away from sunlight, with a minimum of daily temperature variation.
- Cover your vehicle with a porous material. Avoid using plastic or similar non-breathing, coated materials that restrict air flow and allow heat and moisture to accumulate.

To remove your vehicle from storage, follow these guidelines:

- Uncover and clean your vehicle.
- Change the engine oil if more than 4 months have passed since the start of storage.
- Uncover the end of the muffler and remove the rag from the muffler outlet.
- Fill the fuel tank with the recommended fuel. ➡P. 41
- Charge the battery as required. ➡P. 62 Install the battery.
- Pour a fresh recommended coolant mixture slowly into the radiator fill hole up to the filler neck.
- Increase the fuel pressure.
- Perform all maintenance checks. ➡P. 54

Transporting Your Vehicle

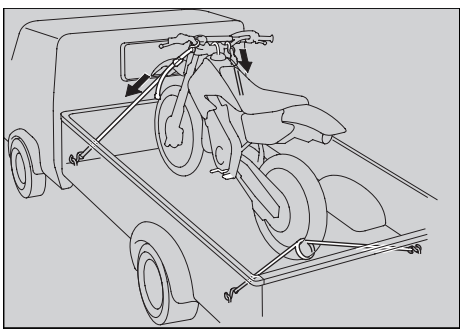
If your vehicle needs to be transported, it should be carried on a motorcycle trailer or a flatbed truck or trailer that has a loading ramp or lifting platform, and motorcycle tie-down straps. Never try to tow your vehicle with a wheel or wheels on the ground.

NOTICE

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

If you use a truck or motorcycle trailer to transport your vehicle, we recommend that you follow these guidelines:

- Use a loading ramp.
- Relieve the fuel pressure and drain the fuel from the fuel tank into an approved gasoline container.
- Secure the vehicle in an upright position, using motorcycle tie-down straps. Avoid using rope, which can loosen and allow the vehicle to fall over.



To secure your vehicle, brace the front wheel against the front of the truck bed or trailer rail. Attach the lower ends of two straps to the tiedown hooks on truck bed or trailer rail. Attach the upper ends of the straps to the handlebar (one on the right side, the other on the left), close to the fork.

Check that the tie-down straps do not contact any control cables or electrical wiring.

Tighten both straps until the front suspension is compressed about half-way. Too much pressure is unnecessary and could damage the fork seals.

Use another tie-down strap to keep the rear of the vehicle from moving.

We recommend that you do not transport your vehicle on its side. This can damage the vehicle, and leaking gasoline could be a hazard.

You & the Environment

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

Choose Sensible Cleaners

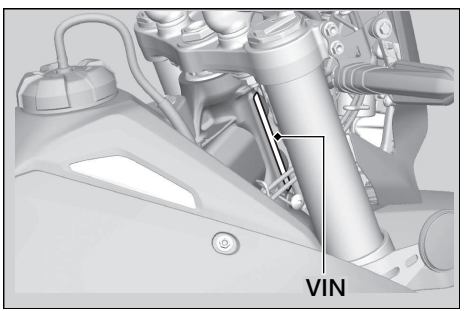
Use a biodegradable detergent when you wash your vehicle. Avoid aerosol spray cleaners that contain chlorofluorocarbons (CFCs) which damage the atmosphere's protective ozone layer.

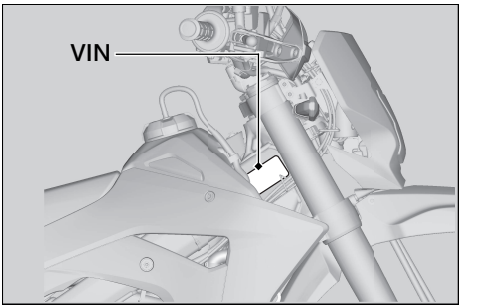
Recycle Wastes

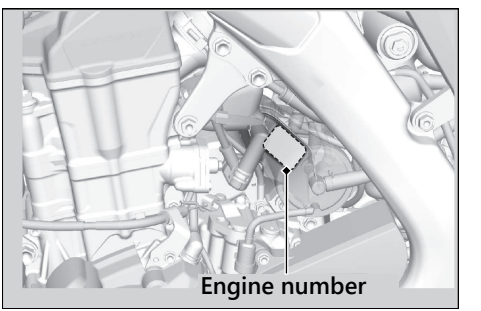
Put oil and other toxic wastes in approved containers and take them to a recycling center. Call your local or state office of public works or environmental services to find a recycling center in your area and to get instructions on how to dispose of non-recyclable wastes. Do not place used engine oil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

Vehicle Identification Number

The VIN and engine serial number 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.







Emission Control Systems

Your vehicle engine emits combustion byproducts, including carbon monoxide (CO), oxides of nitrogen (NOx), and hydrocarbons (HC). Gasoline evaporation also emits hydrocarbons. Controlling the production of NOx, CO, and HC is important for the environment.

Exhaust Emission Requirements

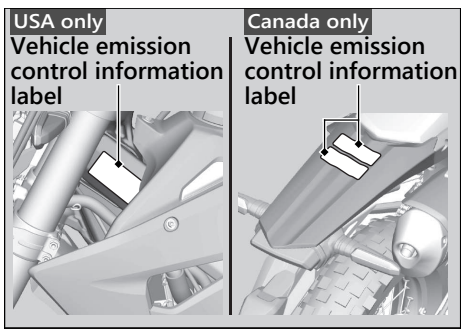
The U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and Environment and Climate Change Canada (ECCC) require that your vehicle comply with applicable exhaust, crankcase, and fuel permeation emission standards during its useful life, when operated and maintained according to the instructions provided.

CARB also requires that your vehicle comply with applicable evaporative emission requirements during its useful life, when operated and maintained according to the instructions provided.

USA Compliance with the terms of the Distributor's Warranties for Honda Motorcycle Emission Control Systems is necessary in order to maintain a valid emissions system warranty.

USA The Vehicle Emission Control Information label is attached to the left side of the frame.

Canada The Vehicle Emission Control Information labels are attached on the rear fender.



Continued

Noise Emission Requirements

The EPA requires that vehicles built after January 1, 1983 comply with applicable noise emission standards for one year or 3,730 miles (6,000 km) after the time of purchase when operated and maintained according to the instructions provided.

Exhaust Emission Control System

The exhaust emission control system includes the following components that should not need adjustment, although periodic inspection by your dealer is recommended.

PGM-FI System

The PGM-FI (programmed fuel injection) system uses sequential multiport fuel injection, and is comprised of air intake, engine control, fuel control, and exhaust control subsystems. The engine control module (ECM) uses sensors to determine how much air enters the engine, and then controls how much fuel to inject.

Ignition Timing Control System

The ignition timing control system adjusts the ignition timing to reduce the amount of HC, CO, and NOx produced.

Secondary Air Injection System

The secondary air injection system adds filtered air into the exhaust gas to help improve emission control performance.

Catalytic Converters

The exhaust system contains one or more catalytic converters. Catalytic converters use a catalyst to convert most of the harmful exhaust gas compounds into harmless compounds.

Evaporative Emission Control System

50 STATE (meets California)

An evaporative emissions control system uses a canister filled with charcoal to adsorb fuel vapor from the fuel tank while the engine is off. The vapor is drawn into the engine and burned while riding.

Crankcase Emissions Control System

The engine is equipped with a closed crankcase system to prevent discharging crankcase emissions into the atmosphere. Blow-by gas is returned to the combustion chamber through the crankcase breather catch tank, air cleaner, and throttle body.

Fuel Permeation Emission Control

The fuel tank, fuel hoses, and fuel vapor charge hoses use fuel permeation control technologies to prevent fuel vapor emissions. Tampering with these components to reduce or defeat the effectiveness of the fuel permeation technologies is prohibited.

Noise Emission Control System

TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED:

U. S. federal law prohibits, and Canadian provincial laws may prohibit, the following acts or the causing thereof: (1) The removal or rendering inoperative by any person, other than for purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Continued

AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE FOLLOWING ACTS:

- Removal of, or puncturing the muffler, baffles, header pipes or any other component which conducts exhaust gases.
- Removal of, or puncturing of any part of the intake system.
- Lack of proper maintenance.
- Removing or disabling any emissions compliance component, or replacing any compliance component with a noncompliant component.

Problems Affecting Vehicle Exhaust Emissions

Have your vehicle inspected and repaired by your dealer if you experience any of the following symptoms:

- Hard starting or stalling after starting
- Rough idling
- Misfiring or backfiring during acceleration
- Poor engine performance and poor fuel economy

Catalytic Converter

This vehicle is equipped with an oxidation catalytic converter. The catalytic converter contains precious metals that serve as catalysts in high temperature chemical reactions that convert hydrocarbons (HC) and carbon monoxide (CO) in the exhaust gasses into safe compounds.

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

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

- Always use unleaded gasoline. Leaded gasoline will damage the catalytic converter.
- Keep the engine in good running condition. A poorly running engine can cause the catalytic converter to overheat causing damage to the converter or the vehicle.
- If your engine is misfiring, backfiring, stalling, or otherwise not running properly, stop riding and turn off the engine. Have your vehicle serviced as soon as possible.

Oxygenated Fuels

Some conventional fuels blended with alcohol or an ether compound are available in some locales to help reduce emissions to meet clean air standards. These gasolines are collectively referred to as oxygenated fuels. If you plan to use oxygenated fuel, check that it is unleaded and meets the minimum octane rating and blend requirement.

The following fuel blends have been approved for use in your vehicle:

- Ethanol (ethyl alcohol) up to 10% by volume.
  ▶ Gasoline containing ethanol may be marketed under the name Gasohol.
- Do not use gasoline containing methanol (methyl alcohol).

If you accidentally fill your fuel tank with an oxygenated fuel containing higher percentages, you may experience performance problems. To resolve the problem, have your dealer drain the fuel tank and replace with the correct fuel. Fuel system or performance problems resulting from the use of an oxygenated fuel containing higher percentages are not covered by your warranty.

NOTICE

Improper use of oxygenated fuels can damage metal, rubber, and plastic parts of your fuel system.
Oxygenated fuel can also damage paint.
Damage caused by spilled fuel is not covered by warranty.

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

Authorized Manuals

USA The Service Manual used by your authorized dealer is available from your Honda dealer or Helm, Inc.
Canada See your dealer to order authorized manuals.

Also available, but not necessary to service your model, is the Honda Common Service Manual, which explains basic service information for various systems on Honda motorcycles, scooters, ATV, and SxS.
USA The Winter Storage Guide in conjunction with the Owner's Manual and Service Manual can help you prepare your Honda motorcycle, scooter, ATV, and SxS for winter storage.
These Honda manuals are written for the professional technician. However, if you possess the proper tools, observe the safety standards, and are mechanically capable, you should find them easy to use.
Special Honda tools are necessary for some procedures.
USA
Order online: www.helminc.com

Order Toll Free: 1-888-CYCLE93
(1-888-292-5393)
(NOTE: For Credit Card Orders Only)
Monday - Friday 8:00 AM - 6:00 PM EST

Description
2022 CRF450RL Service Manual
Common Service Manual (61CSM00)
USA Winter Storage Guide (S9507)
2022 CRF450RL Owner's Manual
2022 CRF450RL Off-road Handbook

Warranty Coverage and Service

Coverage

Your new Honda is covered by the following warranties:

- Vehicle Limited Warranty
- Emission Control System Warranty
- USA Noise Control Warranty

The responsibilities, restrictions, and exclusions that apply to these warranties are explained in the Warranties Booklet given to you by your Honda dealer at the time of purchase. Always keep your Honda owner's card with your Warranties Booklet.
Canada Please refer to the Warranty Booklet posted on our website at www.honda.ca.

It is important to realize that your warranty applies only to defects in material or workmanship of your Honda. Your warranty coverage does not apply to the normal wear and deterioration associated with use of the vehicle.

Your warranty coverage is not voided if you perform your own maintenance. However, failures that occur due directly to improper maintenance are not covered by these warranties.

USA You can extend almost all of your warranty coverage through the HondaCare® Protection Plan. For more information, see your Honda dealer.

Statement on Warranty Coverage for Aftermarket and Recycled Parts

New Jersey

The Magnuson-Moss Warranty Act, 15 U.S.C. s. 2301 et seq., makes it illegal for motor vehicle manufacturers to void a motor vehicle warranty or deny warranty coverage solely because an aftermarket or recycled part has been used to repair the vehicle or someone other than the authorized service provider performed service on the vehicle. This provision does not apply to a new motor vehicle purchased solely for commercial or industrial use.

Under federal law, a manufacturer may deny warranty coverage and charge for repairs to a vehicle if it is discovered that an aftermarket or recycled part installed on the vehicle is defective or was installed incorrectly and caused damage to another part of the vehicle otherwise covered under warranty. The Federal Trade Commission requires that a manufacturer demonstrate that an aftermarket or recycled part or service performed by a person other than an authorized service provider caused damage to another part of the vehicle otherwise covered under warranty before denying warranty coverage. Additionally, federal law allows a manufacturer to void a motor vehicle warranty or deny warranty coverage if the manufacturer provides the article or service to consumers free of charge under the warranty or the manufacturer has secured a waiver from the Federal Trade Commission.

Continued

Service

Please remember that maintenance recommended in the Maintenance Schedule is not included in your warranty coverage.

If you believe you have a problem with your vehicle, call the service department of your Honda dealer. Make an appointment for an inspection and diagnosis. You will be asked to authorize that inspection, and your dealer will return the results of the inspection. If a problem exists and is covered under warranty, your dealer will perform the warranty repairs. If you have any questions about your warranty coverage or the nature of the repair, talk to the Service Manager of your Honda dealer.

If a misunderstanding occurs and you aren't satisfied with your dealer's handling of the situation, we suggest you discuss your problem with the appropriate member of the dealership's management team. If you are still not satisfied, contact the owner of the dealership or their designated representative.

Honda Contacts

American Honda Motor Co., Inc.

If you wish to contact Honda directly to comment on your experiences with your vehicle or with your dealer, please send your comments using one of the following methods:

POST MAIL

Powersports Customer Relations
American Honda Motor Co., Inc.
P.O. Box 2200, Torrance, CA 90509-2200
Mailstop: 100-4W-5F

PHONE

Telephone: (866) 784-1870

ONLINE CUSTOMER SERVICE

Website: *https://powersports.honda.com/contact-us*

Canada

Honda Canada Inc.
Customer Relations Department,
180 Honda Boulevard
Markham, Ontario
L6C 0H9
Telephone: (888) 946-6329
Fax: (877) 939-0909
E-mail: honda_cr@ch.honda.com

Please include the following information in your letter:

- Name, address, and telephone number
- Product model, year, and VIN
- Date of purchase
- Dealer name and address

We will likely ask your Honda dealer to respond, or possibly acknowledge your comments directly.

Your Honda Dealer

The service department of your Honda dealer offers trained personnel to perform regular maintenance and unexpected repairs. It has the latest available service information from Honda and also handles warranty inspections and repairs.

The parts department offers Honda Genuine Parts, Pro Honda products, Honda Accessories (USA only), and Honda accessories and products (Canada only) that provide the same quality that went into your vehicle.

USA The sales department offers the HondaCare® Protection Plan to extend almost all of your warranty coverage.

Your Honda dealer can also supply information about, riding events, and information about safety training available in your local area.

Reporting Safety Defects

USA

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying American Honda Motor Co., Inc.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or American Honda Motor Co., Inc.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at:
1-888-327-4236
(TTY: 1-800-424-9153); go to *http://www.safercar.gov;*
or write to:
Administrator, NHTSA,
1200 New Jersey Avenue, SE.,
Washington, DC 20590.
You can also obtain other information about motor vehicle safety from: *http://www.safercar.gov*.

Canada

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform Honda Canada Inc. and you may also inform Transport Canada.

If Transport Canada receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may lead to a recall and remedy campaign. However, Transport Canada cannot become involved in individual problems between you, your dealer, or Honda Canada Inc.

To contact Transport Canada's Defect Investigations and Recalls Division, you may call:1-800-333-0510

For more information on reporting safety defects or about motor vehicle safety, go to *http://www.tc.gc.ca/roadsafety*.

Specifications

■ Dimension

Overall length	89.8 in (2,280 mm)
Overall width	33.3 in (845 mm)
Overall height	49.6 in (1,260 mm)
Wheelbase	59.1 in (1,500 mm)
Seat height	37.0 in (940 mm)
Footpeg height	15.7 in (400 mm)
Minimum ground clearance	12.4 in (315 mm)
Caster angle	28°30'
Trail length	4.8 in (122 mm)

■ Frame

Tire size	Front	80/100-21 M/C 51P
	Rear	120/80-18 M/C 62P
Tire type	Bias-ply, tube	
Recommended tire	Front	IRC GP-21F
	Rear	IRC GP-22R
Tire pressure (cold)	Front	22 psi (150 kPa, 1.50 kgf/cm^2)
	Rear	22 psi (150 kPa, 1.50 kgf/cm^2)
Minimum tread depth	Front	0.12 in (3.0 mm)
	Rear	0.12 in (3.0 mm)
Fuel	Unleaded gasoline, pump octane number of 91 or higher	
Fuel tank capacity		2.01 US gal (7.6 L)

■ Capacities

Passenger capacity	Operator only
Maximum weight capacity	220 lb (100 kg)

Engine

Bore x stroke	3.78 x 2.44 in (96.0 x 62.1 mm)	
Displacement	27.4 cu-in (449 cm^3)	
Compression ratio	12.0 : 1	
Valve clearance (cold)	Intake	0.004 ± 0.001 in (0.11 ± 0.03 mm)
	Exhaust	0.011 ± 0.001 in (0.28 ± 0.03 mm)
Recommended engine oil	API Service Classification SG or higher except oils labeled as energy conserving or resource conserving on the circular API service label, SAE 10W-30, JASO T 903 standard MA, Pro Honda GN4 4-stroke oil (USA & Canada) or Honda 4-stroke oil, or an equivalent motorcycle oil	
Engine oil capacity	After draining	1.16 US qt (1.10 L)
	After draining and oil filter change	1.22 US qt (1.15 L)
	After disassembly	1.53 US qt (1.45 L)
Idle speed	1,800 ± 100 rpm	

Cooling system

Recommended coolant	Pro Honda HP Coolant	
Cooling capacity	After draining	1.20 US qt (1.14 L)
	After disassembly	1.31 US qt (1.24 L)

Drive train

Primary reduction	2.357	
Gear ratio	1st	2.357
	2nd	1.705
	3rd	1.300
	4th	1.090
	5th	0.916
	6th	0.793
Final reduction	3.923	
Gear shift pattern	Left foot-operated return system 1-N-2-3-4-5-6	

■ Electrical

Battery	HY93-C lithium-ion (li-ion) 12 V-4.5 Ah (20HR)	
Spark plug	(standard)	SILMAR9A-9S (NGK)
	(for extended high speed riding)	SILMAR10A-9S (NGK)
Spark plug gap	(non-adjustable)	0.031 - 0.035 in (0.8 - 0.9 mm)

■ Lights

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

■ Fuses

Main fuse	20 A
Other fuse	10 A

■ Torque specifications

Battery terminal bolt	1.5 lbf·ft (2 N·m, 0.2 kgf·m)
Seat mounting bolt	19 lbf·ft (26 N·m, 2.7 kgf·m)
Side cover bolt	7 lbf·ft (10 N·m, 1.0 kgf·m)
Spark arrester mounting bolt	6.6 lbf·ft (9.0 N·m, 0.9 kgf·m)
Tail cap cover bolt	3.9 lbf·ft (5.25 N·m, 0.5 kgf·m)

Information Record

VIN	
Engine No.	
Color Label & Code	
Owner's Name	
Address	
City/State	
Phone	
Dealer's Name	
Address	
City/State	
Phone	
Service Manager	

California Proposition 65 Warning

⚠**WARNING:** Operating, servicing and maintaining a passenger vehicle or off-highway motor vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle. For more information go to www.P65Warnings.ca.gov/passenger-vehicle.



31MKE930
00X31-MKE-9303

© 2022 Honda Motor Co., Ltd.
All Rights Reserved

Printed in the U.S.A.