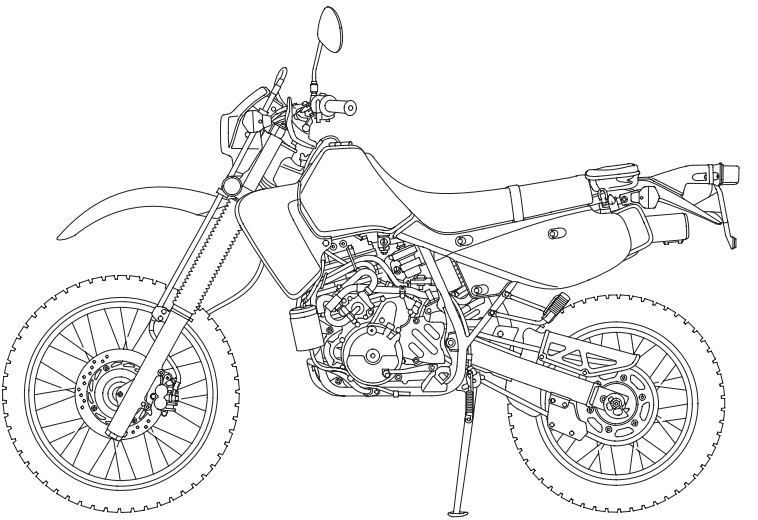
This manual should be considered a permanent part of the motorcycle and should remain with the motorcycle when it is resold.

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.

The vehicle pictured on the front cover may not match your vehicle.

2009
Honda XR650L
OWNER'S MANUAL



Introduction

Congratulations on choosing your Honda motorcycle.

When you own a Honda, you're part of a worldwide family of satisfied customers — people who appreciate Honda's reputation for building quality into every product.

Before riding, take time to get acquainted with your motorcycle and how it works. To protect your investment, we urge you to take responsibility for keeping your motorcycle well maintained. Scheduled service is a must, of course. But it's just as important to observe the break-in guidelines, and perform all pre-ride and other periodic checks detailed in this manual.

We also recommend that you read this owner's manual before you ride. It's full of facts, instructions, safety information, and helpful tips. To make it easy to use, the manual contains a detailed list of topics at the beginning of each section, and both an in-depth table of contents and an index at the back of the book.

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

Read the Warranties Booklet (page 201) thoroughly so you understand the coverages that protect your new Honda and are aware of your rights and responsibilities.

If you have any questions, or if you ever need special service or repairs, remember that your Honda dealer knows your motorcycle best and is dedicated to your complete satisfaction.

Please report any change of address or ownership to your Honda dealer so we will be able to contact you concerning important product information.

You may also want to visit our website at www.honda.com.

Happy riding!

California Proposition 65 Warning

WARNING: This product contains or emits chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

A Few Words About Safety

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

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

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

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

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

These signal words mean:

Safety Messages

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

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

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

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

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

Contents

These pages give an overview of the contents of your owner's manual. The first page of each section lists the topics covered in that section.

Contents

Motorcycle Safety

This section presents some of the most important information and recommendations to help you ride your motorcycle safely. Please take a few moments to read these pages. This section also includes information about the location of safety labels on your motorcycle.

Important Safety Information

Your motorcycle can provide many years of service and pleasure—if you take responsibility for your own safety and understand the challenges you can meet while riding.

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

Always Wear a Helmet

It's a proven fact: helmets significantly reduce the number and severity of head injuries. So always wear an approved motorcycle helmet and make sure your passenger does the same. We also recommend that you wear eye protection, sturdy boots, gloves, and other protective gear (page 26).

Take Time to Learn & Practice
Even if you have ridden other motorcycles, take time to become familiar with how this motorcycle works and handles. Practice in a safe area until you build your skills and get accustomed to the motorcycle's size and weight.

Because many accidents involve inexperienced or untrained riders, we urge all riders to take a certified course approved by the Motorcycle Safety Foundation (MSF). See page 29.

Developing off-road riding skills is a gradual step-by-step process. Start by practicing at low speeds in a safe area and slowly build your skills. See page 29.

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 motorcycle (USA only).

Ride Defensively On-road
The most frequent motorcycle collision happens when a car turns left in front of a motorcycle. Another common situation is a car moving suddenly into your lane.

Always pay attention to other vehicles around you, and do not assume that other drivers see you. Be prepared to stop quickly or make an evasive maneuver. For other riding tips, see the booklet, *You and Your Motorcycle Riding Tips*, which came with your new motorcycle (USA only).

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

Be Alert for Off-road Hazards
The terrain can 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

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

Don't Drink and Ride

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

Keep Your Honda in Safe Condition

It's important to keep your motorcycle properly maintained and in safe riding condition. Having a breakdown can be difficult, especially if you are stranded off-road far from your base. To help avoid problems, inspect your motorcycle before every ride and perform all recommended maintenance. Never exceed load limits (page 36), and do not modify your motorcycle (page 8) or install accessories that would make your motorcycle unsafe (page 7).

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

⚠ WARNING

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

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

Accessories

We strongly recommend that you use only Honda Genuine Accessories that have been specifically designed and tested for your motorcycle. Because Honda cannot test all other accessories, you must be personally responsible for proper selection, installation, and use of non-Honda accessories.

Check with your Honda dealer for assistance and always follow these guidelines:

- Make sure the accessory does not obscure any lights, reduce ground clearance and lean angle, limit suspension travel or steering travel, alter your riding position, or interfere with operating any controls. (cont'd)

- Do not install any fairing or windscreen unless it was designed and tested by Honda for your motorcycle. Some fairings or windscreens, even smaller ones, can cause unstable handling of your motorcycle. This is especially true if the fairing or windscreen is poorly designed or improperly mounted.
- Do not add any electrical equipment that will exceed the motorcycle's electrical system capacity (page 183). A blown fuse can cause a loss of lights or engine power (page 169).
- Do not pull a trailer or sidecar with your motorcycle. This motorcycle was not designed for these attachments, and their use can seriously impair your motorcycle's handling.

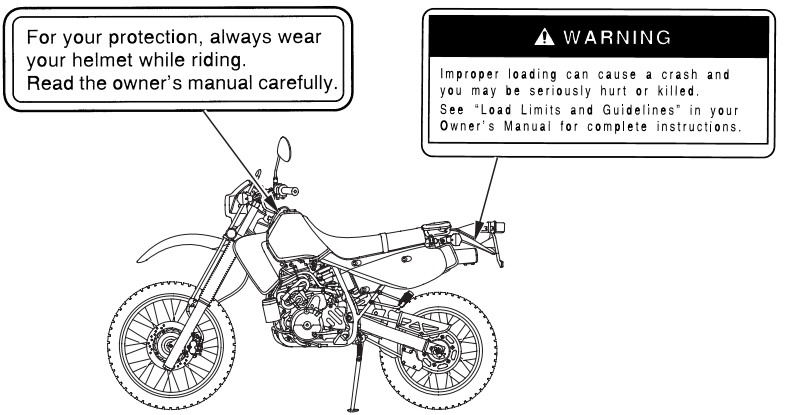
Modifications

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

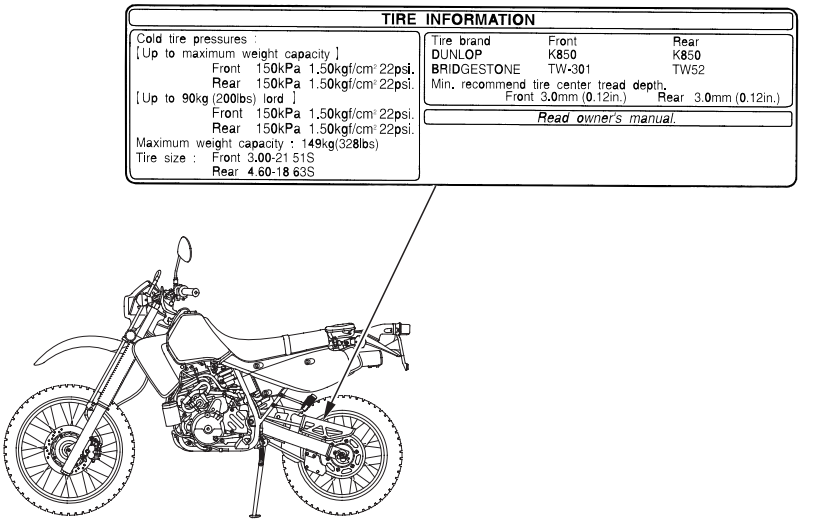
We also advise you not to make any modifications or remove any equipment (such as the USDA qualified spark arrester or emission control system components) that would make your motorcycle illegal in your area.

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

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



Safety Labels

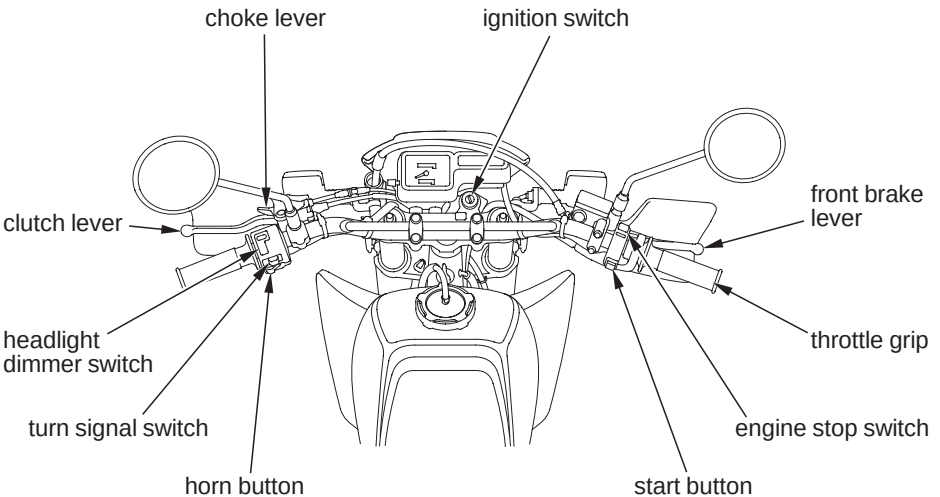


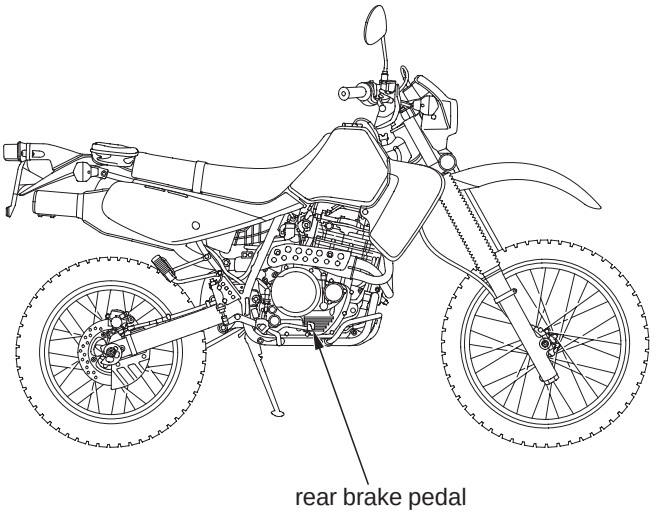
Instruments & Controls

This section shows the location of all gauges, indicators, and controls you would normally use before or while riding your motorcycle.

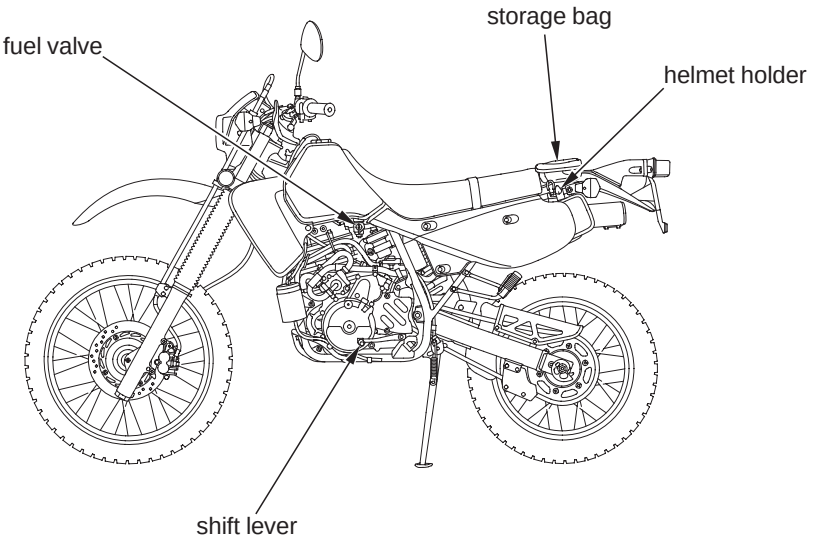
The items listed on this page are described in this section. Instructions for other components are presented in other sections of this manual where they will be most useful.

Operation Component Locations

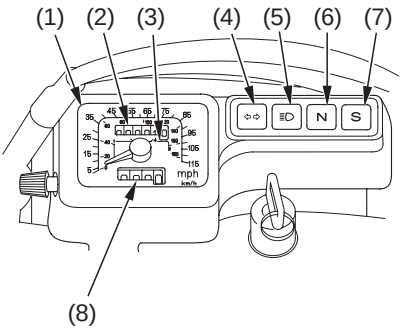



rear brake pedal

Operation Component Locations



The indicators on your motorcycle keep you informed, alert you to possible problems, and make your riding safer and more enjoyable. Refer to the indicators frequently. Their functions are described on the following pages.



(1) speedometer
(2) odometer
(3) gear range indicator
(4) turn signal indicator
(5) high beam indicator
(6) neutral indicator
(7) side stand indicator
(8) tripmeter

USA: Odometer & tripmeter read in miles.

Canada: Odometer & tripmeter read in kilometers.

Lamp Check

When applicable, the high beam, neutral, and side stand indicators come on when you turn the ignition switch ON and remain on until you select the low beam, shift out of neutral, or raise the side stand.

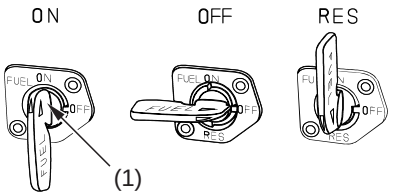
If one of these indicators does not come on when it should, have your Honda dealer check for burned-out bulbs or other problems.

1	speedometer	Shows riding speed in miles (USA) or kilometers (Canada) per hour.
2	odometer	Shows the total miles (USA) or kilometers (Canada) ridden.
3	gear range indicator	Shows proper speed range for each gear.
4	turn signal indicator (green)	Flashes when either turn signal operates.

Indicators

5	high beam indicator (blue)	Lights when the headlight is on high beam.
6	neutral indicator (green)	Lights when the transmission is in neutral.
7	side stand indicator (orange)	Lights when the side stand is put down—to indicate that the side stand ignition cut-off system (page 41) is activated.
8	tripmeter	Shows the number of miles (USA) or kilometers (Canada) ridden since you last reset the meter. To zero (0) the tripmeter, turn the tripmeter reset knob (page 24).

Fuel Valve



(1) fuel valve

The manual fuel valve (1) is located on the left side under the fuel tank.

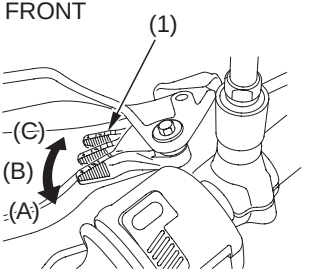
The three-way fuel valve is used to control the flow of fuel from the fuel tank to the carburetors.

ON－normal position for riding.
OFF－for parking, storing, or transportation.
RES－for extra fuel to get to a gas station for refueling.

For complete information about fueling your motorcycle, see page 79 .

Choke Lever

LEFT FRONT



(1) choke lever

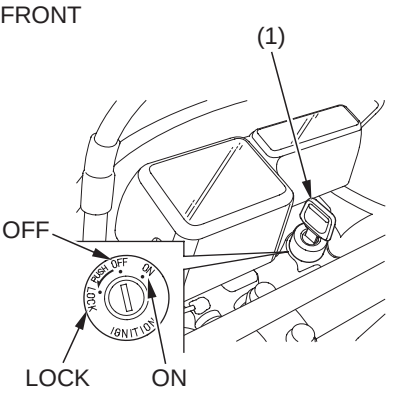
(A) fully on
(B) halfway position
(C) fully off

The choke lever (1) may be used when starting the engine. See page 42 .

Ignition Switch

The ignition switch (1) is used for starting and stopping the engine (page 41) and to lock the steering for theft prevention (page 50). Insert the key and turn it to the right for the ON position. Push down on the key and turn it to the left to the LOCK (steering lock) position.

Key Position	Function
ON	Electrical circuits on.
OFF	No electrical circuits function.
LOCK (steering lock)	No electrical circuits function. Locks the steering head.



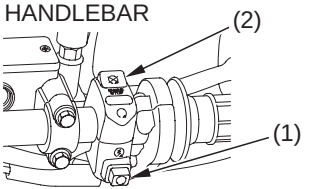
(1) ignition switch

Start Button

The start button (1) is used for starting the engine. Pushing the button in starts the engine. See *Starting Procedure*, page 42.

When the start button is pushed, the starter motor will crank the engine; the headlight will automatically go out, but the taillight will stay on.

Engine Stop Switch



(1) start button
(2) engine stop switch — OFF / ON

The engine stop switch (2) is used to stop the engine in an emergency. To operate, push the switch to the OFF ( ) position. The switch must be in the RUN ( ) position to start the engine, and it should normally remain in the RUN ( ) position even when the engine is OFF.

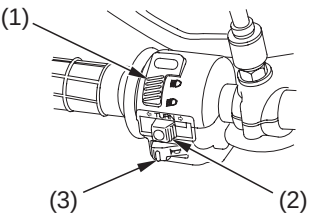
If your motorcycle is stopped with the ignition switch ON and the engine stop switch OFF ( ), the headlight and taillight will remain on, resulting in battery discharge.

Headlight Dimmer Switch

The headlight dimmer switch (1) is used to change between the high and low beams of the headlight. To operate, turn the switch to HI for high beam, LO for low beam.

Turn Signal Switch

The turn signal switch (2) is used to signal a turn or a lane change. To operate, move the switch all the way in the proper direction and release it. The appropriate turn signal lights will start blinking. To cancel the light, push the switch in.



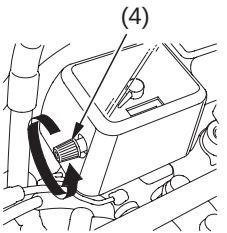
(1) headlight dimmer switch
(2) turn signal switch
(3) horn button

Horn Button

The horn is used to alert other motorists. To operate, push the horn button (3).

Tripmeter Reset Knob

The reset knob (4) is used to reset the tripmeter to zero (0) by turning the knob in the direction shown.



(4) tripmeter reset knob

Before each ride, you need to make sure you and your Honda are both ready to ride. To help get you prepared, this section discusses how to evaluate your riding readiness, what items you should check on your motorcycle, and adjustments to make for your comfort, convenience, or safety. This section also includes important information about loading.

For information about adjusting the suspension on your Honda, see page 106 .

Are You Ready to Ride?

Before you ride your motorcycle for the first time, we urge you to:

- Read this owner's manual.
- Make sure you understand all the safety messages.
- Know how to operate all the controls.

Before each ride, be sure:

- You feel well and are in good physical and mental condition.
- You are wearing an approved motorcycle helmet (with chin strap tightened securely), eye protection, and other protective clothing.
- You don't have any alcohol or drugs in your system.

Make sure your passenger is ready to ride, too, and is wearing proper gear including a helmet.

If you are not riding with a passenger and want to carry an extra helmet, use a commercially available elastic cord, strap, or net to secure the helmet to the seat.

Protective Apparel

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

Helmets and Eye Protection

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

An open-face helmet offers some protection, but a full-face helmet offers more. Regardless of the style, look for a DOT (Department of Transportation) sticker on any helmet you buy (USA only). Always wear a face shield or goggles to protect your eyes and help your vision.

⚠ WARNING

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

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

Additional On-road Gear

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

- Sturdy boots with non-slip soles to help protect your feet and ankles.
- Leather gloves to help protect your hands.
- A motorcycle riding suit or jacket for comfort as well as protection. Bright-colored and reflective clothing can help make you more noticeable in traffic. Avoid loose clothes that could get caught on any part of your motorcycle.

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.

Rider Training

Developing your riding skills is an on-going process. Even if you have ridden other motorcycles, take time to become familiar with how this motorcycle works and handles. Practice riding the motorcycle in a safe area to build your skills. Do not ride in traffic until you get accustomed to the motorcycle's controls, and feel comfortable with its size and weight.

We urge all riders to take a certified course approved by the Motorcycle Safety Foundation (MSF). 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.

Other riding tips can be found in the *Riding Tips* booklet that came with your motorcycle (USA only).

Is Your Motorcycle Ready to Ride?

For your safety, it is very important to inspect your motorcycle before each ride and make sure any problem you find is corrected.

If you plan to ride off-road, a pre-ride inspection is a must, because off-road riding can be tough on a motorcycle and you don't want to have a breakdown far from help.

⚠ WARNING

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

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

Pre-ride Inspection

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

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 (page 120) or damage to the tires, rims and spokes.

Leaks — Look for signs of leaking fluids under the motorcycle.

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 — Make sure the brake light, taillight, indicators and other lights 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 (page 87).

(cont'd)

Is Your Motorcycle Ready to Ride?

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 (page 87).
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 (page 127).
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 motorcycle in over a week, you should also check other items, such as the oil level and other fluids. See *Periodic Maintenance* (page 62). 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.

Load Limits & Guidelines

When you ride on pavement or hard smooth dirt roads, your motorcycle can carry you and one passenger. When you carry a passenger, you may feel some difference during acceleration and braking. But so long as you keep your motorcycle well-maintained, with good tires and brakes, you can safely carry loads within the given limits and guidelines.

When you ride off-road on rough terrain, we strongly recommend that you do not ride with a passenger or carry cargo. A passenger or cargo could interfere with your ability to move around to maintain your balance and control of the motorcycle.

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

Loading

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

⚠ WARNING

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

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

Load Limits & Guidelines

Load Limits

Following are the load limits for your motorcycle:

maximum weight capacity:
328 lbs (149 kg)
includes the weight of the rider, passenger, all cargo, and all accessories.

maximum cargo weight:
6 lbs (3 kg)

The weight of added accessories will reduce the maximum cargo weight you can carry.

Loading Guidelines

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

Follow these guidelines whenever you carry a passenger or cargo:

- Check that both tires are properly inflated (page 118).
- If you change your normal load, you may need to adjust the front suspension (page 107) and the rear suspension (page 110).
- To prevent loose items from creating a hazard, make sure that all cargo is tied down securely before you ride.
- Place cargo weight as low and close to the center of your motorcycle as possible.
- Balance cargo weight evenly on both sides.
- Do not attach large or heavy items (such as a sleeping bag or tent) to the handlebar, forks, or fender.

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

- Do not carry a passenger.
- Keep cargo small and light weight (6 lbs; 3kg or less). 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.

This section gives basic riding instructions, including how to start and stop your engine, and how to use the throttle, clutch, and brakes. It also provides important information on riding with a passenger or cargo.

To protect your new engine and enjoy optimum performance and service life, refer to Break-in Guidelines (page 186).

For information about carburetor adjustment for riding at high altitude, see page 187 .

Safe Riding Precautions

Before riding your motorcycle for the first time, please review the *Motorcycle Safety* section beginning on page 1, and the *Before Riding* section beginning on page 25 .

Even if you have ridden other motorcycles, take time to become familiar with how this motorcycle works and handles. Practice in a safe area until you build your skills and get accustomed to the motorcycle's size and weight.

Always follow the proper starting procedure described below.

For your safety, avoid starting or operating the engine in an enclosed area such as a garage. Your motorcycle's exhaust contains poisonous carbon monoxide gas which can collect rapidly in an enclosed area and cause illness or death.

Your motorcycle can be started with the transmission in gear by pulling in the clutch lever before operating the starter.

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

Preparation

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

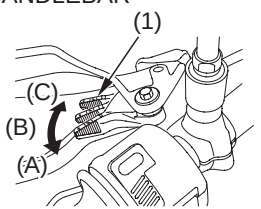
- The transmission is in neutral (neutral indicator is ON).
- The engine stop switch is set to RUN.
- The fuel valve is ON.

Starting Procedure

To restart a warm engine, follow the procedure for *High Air Temperature*.

Normal Air Temperature
10°－35°C (50°－95°F)

LEFT HANDLEBAR



(1) choke lever
(A) fully ON
(B) halfway position
(C) fully OFF

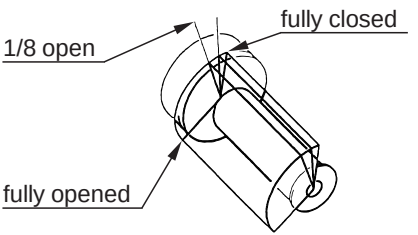
1. Pull the choke lever back all the way to fully ON (A), if the engine is cold.
2. With the throttle fully closed, operate the electric starter.

   Do not open the throttle when starting the engine with the choke on. This will lean the mixture, resulting in hard starting.

3. Immediately after the engine starts, push the choke lever forward to the halfway position (B).
4. About a half minute after the engine starts, push the choke lever (1) forward all the way to fully OFF (C).
5. If idling is unstable, open the throttle slightly.

High Air Temperature
35°C (95°F) or above

1. Do not use the choke.
2. With the throttle slightly open (less than 1/8), operate the electric starter.



Low Air Temperature
10°C (50°F) or below

1. Follow steps 1-2 under *Normal Air Temperature.*
2. Warm up the engine by opening and closing the throttle slightly.
3. Continue warming up the engine until it runs smoothly and responds to the throttle when the choke lever is at fully OFF (C).

NOTICE

Extended use of the choke may impair piston and cylinder wall lubrication and damage the engine.

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

Flooded Engine

If the engine fails to start after repeated attempts, it may be flooded with excess fuel. To clear a flooded engine:

1. Press the engine stop switch to OFF.
2. Push the choke lever forward all the way to fully OFF.
3. Open the throttle fully.
4. Press the start button for 5 seconds.
5. Wait 10 seconds, then press the engine stop switch to RUN.

Follow the *High Air Temperature* starting procedure:

6. Do not use the choke.
7. With the throttle slightly open (less than 1/8), operate the electric starter.

If the engine still won't start, refer to *If Your Engine Quits or Won't Start*, page 155 .

How to Stop the Engine

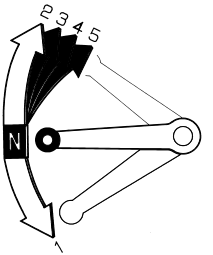
Normal Engine Stop
To stop the engine, shift into neutral and turn the ignition switch OFF.

The engine stop switch should normally remain in the RUN position even when the engine is OFF.

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

Emergency Engine Stop
To stop the engine in an emergency, use the engine stop switch. To operate, press the switch to the OFF position.

Shifting Gears



shifting pattern

Your motorcycle has five forward gears in a one-down, four-up shift pattern which is coordinated with a cable-operated clutch system.

Learning when to shift gears comes with experience. Keep the following tips in mind:

- As a general rule, shift while moving in a straight line.
- Close the throttle and pull the clutch lever in completely before shifting. Improper shifting may damage the engine, transmission, and drive train.
- Learn to recognize the engagement point as you release the clutch lever. It is at this point the transmission of power to the rear wheel resumes.
- Upshift to a higher gear or reduce throttle before engine rpm (speed) gets too high. Learn the relationship between engine sound and the normal shifting points.
- Downshift to a lower gear before you feel the engine laboring (lugging) at low rpm.

- Avoid downshifting to help slow your motorcycle when engine rpm is high. Downshifting when engine speed is near its allowable maximum may over-rev the engine and cause possible damage.
- To prevent transmission damage, do not coast or tow the motorcycle for long distances with the engine off.

Recommended Shift Points

Ride in the highest gear that lets the engine run and accelerate smoothly. This will give you good fuel economy and effective emissions control. When changing gears under normal conditions, use these recommended shift points:

Shifting Up:

From 1st to 2nd:	12 mph (20 km/h)
From 2nd to 3rd:	19 mph (30 km/h)
From 3rd to 4th:	25 mph (40 km/h)
From 4th to 5th:	31 mph (50 km/h)

Shifting Down:

From 5th to 4th:	22 mph (35 km/h)
From 4th to 3rd:	16 mph (25 km/h)

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.

Braking

Your motorcycle is equipped with disc braking systems which are hydraulically activated. Operating the brake lever applies the front disc brake. Depressing the brake pedal applies the rear disc brake.

As a general rule, the front braking system provides about 70 percent of total stopping power.

For full braking effectiveness, use both the pedal and lever simultaneously. Using both braking systems will stop your motorcycle faster with greater stability.

To slow or stop, apply the brake lever and brake pedal smoothly, while downshifting to match your speed.

Gradually increase braking as you feel the brakes slowing your speed. The increase in engine compression from downshifting will help slow your motorcycle.

To prevent stalling the engine, pull the clutch lever in before coming to a complete stop. For support, put your left foot down first, then your right foot when you have finished braking.

Applying the brakes too hard may cause the wheels to lock and slide, reducing control of your motorcycle. If this happens, release the brake controls, steer straight ahead until you regain control, then reapply the brakes more gently.

When possible, reduce your speed or complete braking before entering a turn. Avoid braking or closing the throttle quickly while turning. Either action may cause one or both wheels to slip and reduce your control of your motorcycle.

Your ability to brake in a turn and to brake hard in an emergency situation are important riding skills. We suggest attending a Motorcycle Safety Foundation experienced rider training course (page 29) to retain these skills.

When riding in wet or rainy conditions, or on loose surfaces, the ability to maneuver and stop will be reduced. All of your actions should be smooth under these conditions. Rapid acceleration, braking or turning may cause loss of control.

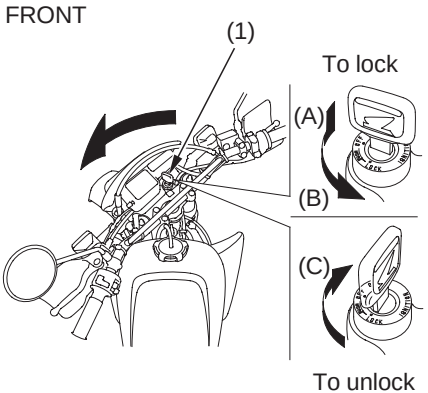
For your safety, exercise extreme caution when braking, accelerating or turning.

When descending a long, steep grade, use engine compression braking by downshifting, with intermittent use of both brakes. Continuous brake application can overheat the brakes and reduce their effectiveness.

Riding with your foot resting on the brake pedal or your hand on the brake lever may actuate the brakelight, giving a false indication to other drivers. It may also overheat the brakes, reducing effectiveness.

Parking

1. Look for a level parking area. If you can't park on a paved surface, make sure the ground surface is firm, especially under the side stand.
   If you must park on a hill, leave the transmission in gear and position the rear tire against the curb at a 45 degree angle.
2. Use the side stand to support the motorcycle while parked.
   - To lower the side stand, use your foot to guide it down. Remember that lowering the side stand with the transmission in gear will stop the engine, even if the clutch lever is pulled in. That is a function of the side stand ignition cut-off system.
   - Check that the side stand is down all the way. The side stand indicator only indicates that the side stand ignition cut-off system (page 41) is activated.
   - If you have to park on a soft surface, insert something solid under the side stand for support.



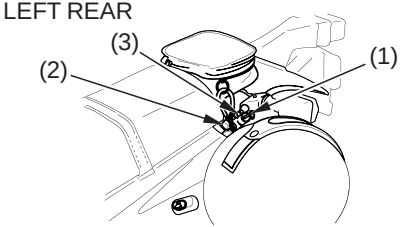
(1) ignition key

(A) push in
(B) turn to LOCK
(C) turn to OFF

3. Use the steering lock, which locks the handlebar in place. Turn the handlebar all the way to the left or right. Push in on the ignition key (1) and turn it to LOCK. Remove the key.
(To unlock the steering lock, insert the key and turn it to the right to the OFF position.)

(cont'd)

4. Use the helmet holder (2) to secure your helmet with your motorcycle:
   - Insert the ignition key (1) and turn it counterclockwise to unlock the holder.
   - Hang your helmet on the holder pin (3).
   - Push in on the holder pin. Remove the key.



(1) ignition key
(2) helmet holder
(3) holder pin

(3) holder pin

⚠ WARNING

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

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

5. Turn the fuel valve OFF.

Theft-prevention Tips

- Park your motorcycle in a locked garage whenever possible. If a garage isn't available, park in a concealed area or in a well-lit area with enough pedestrian traffic to discourage a thief.
- Always take the ignition key with you.
- Always use the steering lock (page 50), even if you're parking for just a minute or two. A thief can easily push an unlocked motorcycle to a waiting truck.
- In addition to the steering lock, use a good quality anti-theft device made specifically to lock a motorcycle to a secure object.
- If you decide to use an anti-theft device, select one of good quality and be sure to follow the manufacturer's instructions.
- Keep your owner's manual, current registration, and insurance information with your motorcycle. This will make it easier for the authorities to find you if your motorcycle is stolen and recovered.

Riding with a Passenger or Cargo

When you ride on pavement or hard smooth dirt roads, your motorcycle can carry you and one passenger. When you carry a passenger, you may feel some difference during acceleration and braking. But so long as you keep your motorcycle well-maintained, with good tires and brakes, you can safely carry loads within the given limits and guidelines (page 36).

However, when you ride off-road on rough terrain, we strongly recommend that you do not ride with a passenger or carry cargo. A passenger or cargo could interfere with your ability to move around to maintain your balance and control of the motorcycle.

Also consider adjusting the suspension (page 106) for the extra load.

Be aware that carrying a passenger or heavy cargo can affect acceleration, braking, and handling.

Before riding with a passenger, make sure your passenger is wearing the proper protective apparel (page 26).

Tell your passenger to hold the seat strap or your waist, lean with you in the turns, and keep their feet on the passenger footpegs at all times, even when the motorcycle is stopped at a traffic light.

To help keep your motorcycle in good shape, this section includes a Maintenance Schedule for required service, a list of periodic checks you should perform at least once a month, and step-by-step instructions for specific maintenance tasks. You'll also find important safety precautions, information on fuels and oils, and tips for keeping your Honda looking great.

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 Environment Canada (EC), see page 188 .

For information about replacing fuses, see page 169 .

An optional tool kit may be available. Check with your Honda dealer's parts department.

USA only

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

Before You Service Your Honda

(cont'd)

Servicing Your Honda

The following table summarizes the three types of inspections and servicing recommendations for your motorcycle. Both the pre-ride inspection and the scheduled maintenance at the recommended intervals are necessary to assure safe and dependable performance. The periodic checks provide additional confidence in your motorcycle's performance.

Type of Inspection/Service	Refer to page:	When Performed	Who Performs
Pre-ride Inspection	31	before every ride	you
Periodic Maintenance	62	monthly*	you
Maintenance Schedule	64	interval on schedule	your Honda dealer**

* more often if you ride frequently or long distances; or anytime you clean your motorcycle
**unless you have the proper tools and service data and are mechanically qualified

The Importance of Maintenance

Keeping your motorcycle well-maintained is absolutely essential to your safety. It's also a good way to protect your investment, get maximum performance, avoid breakdowns, and have more fun. A properly maintained motorcycle will also help to reduce air pollution.

Since this motorcycle is capable of being ridden over rough off-road terrain as well as on pavement, careful pre-ride inspections and good maintenance are especially important.

Remember, proper maintenance is the owner's responsibility. Be sure to inspect your motorcycle before each ride, perform the periodic checks, and follow the Maintenance Schedule in this section.

⚠ WARNING

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

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

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

This section includes instructions on how to perform some important maintenance tasks. If you have basic mechanical skills, you can perform many of these tasks with the appropriate tools.

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

Some of the most important safety precautions follow. However, 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.

⚠ WARNING

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

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

Important Safety Precautions

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

Remember that your Honda dealer knows your motorcycle best and is fully equipped to maintain and repair it. To ensure the best quality and reliability, use only new Honda Genuine Parts or their equivalents for repair and replacement. If you have the tools and skills required for additional maintenance jobs, you can purchase an official Honda Service Manual (page 198).

Periodic Maintenance

In addition to the regularly scheduled maintenance (page 64) and daily pre-ride inspection (page 31), consider performing the periodic checks on the following page at least once a month, even if you haven't ridden your motorcycle, or as often as once a week if you ride frequently or for long distances. It's a good idea to perform this maintenance any time you clean your motorcycle.

Check the odometer reading and perform any scheduled maintenance checks that are needed (page 64). Remember, more frequent checks may be needed for riding in severe conditions.

Tires & Wheels	Check the air pressure with a gauge and add air if needed (page 118). Examine the tread for wear (page 120). Look closely for nails, embedded objects, cuts, and other types of damage (page 120). Roll your motorcycle so you can inspect the entire surface. Check the condition of the rims and spokes.
Fluids	Check the levels of the engine oil (page 87), and brake fluid (page 114). Add the correct fluid as necessary, and investigate the cause of any low fluid level.
Lights	Make sure the headlight, brakelight, taillight, and turn signals are working properly.
Freeplay	Check the freeplay of the clutch lever (page 96) and throttle grip.
Drive Chain	Check condition, adjust slack, and lubricate as needed (page 127).
Fuses	Make sure you have a full supply of spare fuses.
Nuts & Bolts	Check the major fasteners and tighten as needed.

Maintenance Schedule

The required Maintenance Schedule that follows specifies how often you should have your motorcycle serviced, and what things need attention. It is essential to have your motorcycle serviced as scheduled to maintain safe, dependable performance and proper emission control.

The service intervals in this Maintenance Schedule are based on average riding conditions. Some items will need more frequent service if you ride in unusually wet or dusty areas or at full throttle. Consult your Honda dealer for recommendations applicable to your individual needs and use.

Some items in the Maintenance Schedule can be performed with basic mechanical skills and hand tools. Procedures for these items are provided in this manual. Other items involve more extensive procedures and may require special training, tools, and equipment. We recommend that you have your Honda dealer perform these tasks unless you have advanced mechanical skills and the required tools and equipment. Procedures for such items in this schedule are provided in an official Honda Service Manual available for purchase (page 198).

If you do not feel capable of performing a given task or need assistance, remember that your Honda dealer knows your motorcycle 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.

Perform the Pre-ride Inspection (page 31) at each scheduled maintenance period.

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

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

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

Maintenance Schedule

Summary of Maintenance Schedule Notes & Procedures:

NOTES:

1. At higher odometer readings, repeat at the frequency interval established here.
2. Service more frequently if the motorcycle is ridden in unusually wet or dusty areas.
3. California type only.
4. Service more frequently when riding OFF-ROAD.
5. Replace every 2 years, or at indicated odometer interval, whichever comes first. Replacement requires mechanical skill. Refer to the official Honda Service Manual.

Maintenance Procedures:

I: inspect and clean, adjust, lubricate, or replace, if necessary
C: clean
A: adjust
L: lubricate
R: replace

		FREQUENCY		ODOMETER READING (Note 1)							
			× 1,000 mi	0.6	4	8	12	16	20	24	Refer to
ITEM		NOTE	× 1,000 km	1.0	6.4	12.8	19.2	25.6	32.0	38.4	page
EMISSIONS-RELATED ITEMS	*	FUEL LINE				I		I		I	—
	*	FUEL STRAINER SCREEN			C	C	C	C	C	C	—
	*	THROTTLE OPERATION				I		I		I	—
	*	CARBURETOR CHOKE				I		I		I	—
		AIR CLEANER	2				R			R	94
		SPARK PLUG			I	R	I	R	I	R	102
	*	VALVE CLEARANCE		I	I	I	I	I	I	I	—
		ENGINE OIL		R	INITIAL = 600mi (1000km) or 1 month :R REGULAR = Every 2000mi(3200km) or 6 months :R						83
		ENGINE OIL FILTER		R		R		R		R	89
	*	ENGINE IDLE SPEED		I	I	I	I	I	I	I	100
	*	SECONDARY AIR SUPPLY SYSTEM				I		I		I	—
	*	EVAPORATIVE EMISSION CONTROL SYSTEM	3				I			I	—

* Should be serviced by your Honda dealer, unless you have the proper tools and service data and are mechanically qualified. Refer to the official Honda Service Manual (page 198).

Maintenance Schedule

			FREQUENCY	ODOMETER READING (Note 1)								
				× 1,000 mi	0.6	4	8	12	16	20	24	Refer to
ITEM			NOTE	× 1,000 km	1.0	6.4	12.8	19.2	25.6	32.0	38.4	page
NON-EMISSION-RELATED ITEMS		DRIVE CHAIN	4		I, L EVERY 500 mi (800 km)							126
		DRIVE CHAIN SLIDER				I	I	I	I	I	I	133
		BRAKE FLUID	5			I	I	R	I	I	R	114
		BRAKE PAD WEAR				I	I	I	I	I	I	116
		BRAKE SYSTEM			I		I		I		I	113
	*	BRAKELIGHT SWITCH					I		I		I	—
	*	HEADLIGHT AIM					I		I		I	—
		CLUTCH SYSTEM			I	I	I	I	I	I	I	96
		SIDE STAND			I		I		I		I	125
	*	SUSPENSION					I		I		I	—
	*	SPARK ARRESTER/MUFFLER				C	C	C	C	C	C	105
	*	NUTS, BOLTS, FASTENERS			I		I		I		I	—
	**	WHEELS/TIRES	4		I	I	I	I	I	I	I	117
	**	STEERING HEAD BEARINGS	4		I		I		I		I	—

* Should be serviced by your Honda dealer, unless you have the proper tools and service data and are mechanically qualified. Refer to the official Honda Service Manual (page 198).

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

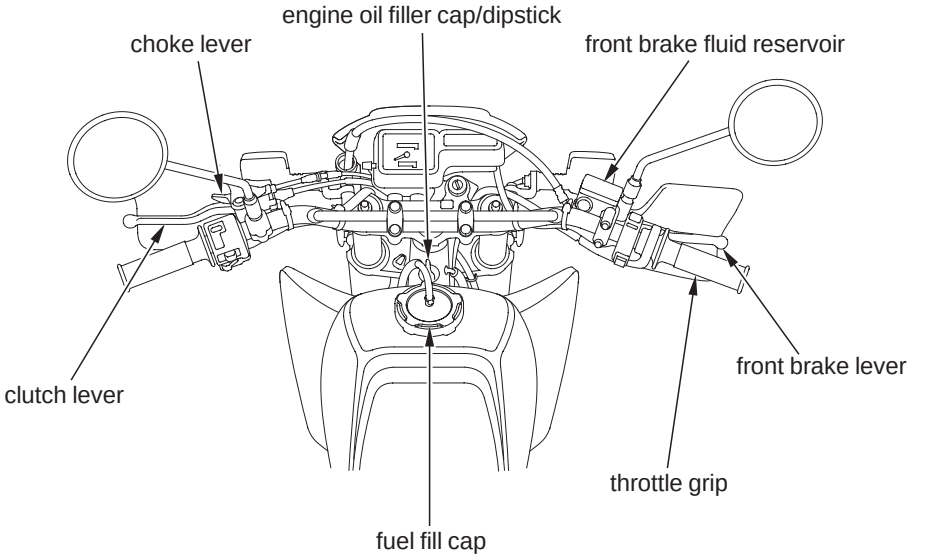
Maintenance Record

Keeping an accurate maintenance record will help ensure that your motorcycle is properly maintained. Retain detailed receipts to verify the maintenance was performed. If the motorcycle is sold, these receipts should be transferred with the motorcycle to the new owner. Make sure whoever performs the maintenance completes this record. All scheduled maintenance, including the 600 mile (1,000 km) 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.

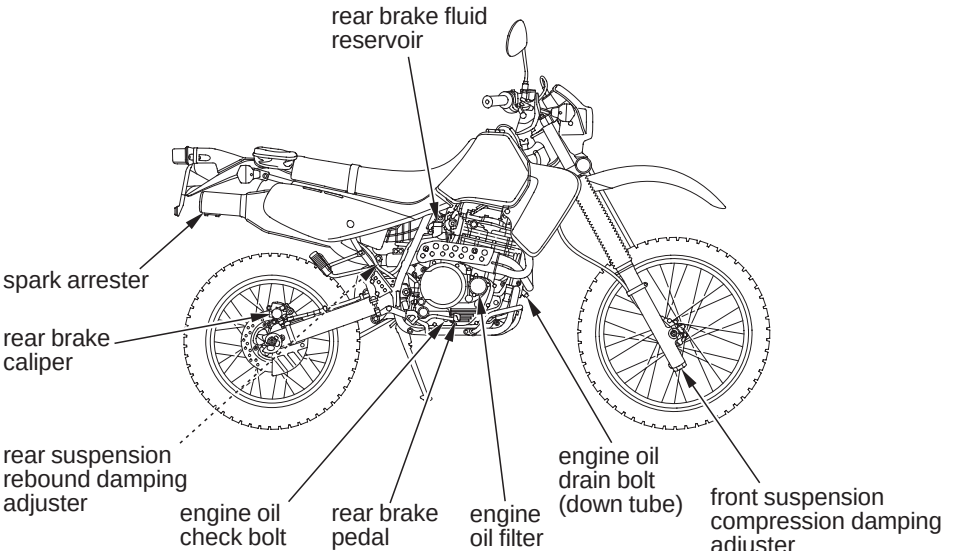
Miles (km)	Odometer	Date	Performed By:	Notes
600 (1,000)				
4,000 (6,400)				
8,000 (12,800)				
12,000 (19,200)				
16,000 (25,600)				
20,000 (32,000)				

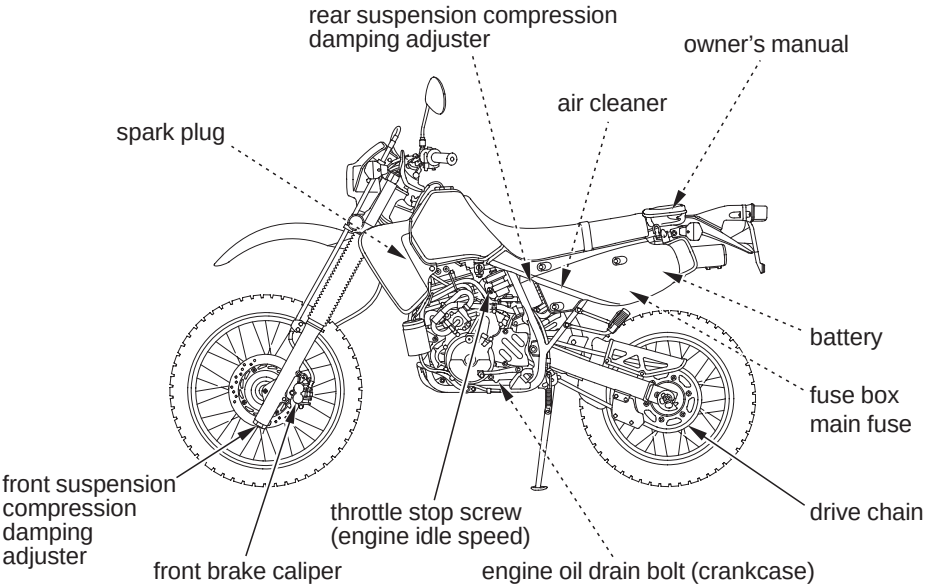
Maintenance Record

Miles (km)	Odometer	Date	Performed By:	Notes
24,000 (38,400)				
28,000 (44,800)				
32,000 (51,200)				
36,000 (57,600)				
40,000 (64,000)				
44,000 (70,400)				
48,000 (76,800)				
52,000 (83,200)				
56,000 (89,600)				
60,000 (96,000)				
64,000 (102,400)				
68,000 (108,800)				


engine oil filler cap/dipstick
choke lever
front brake fluid reservoir
clutch lever
front brake lever
throttle grip
fuel fill cap

Maintenance Component Locations

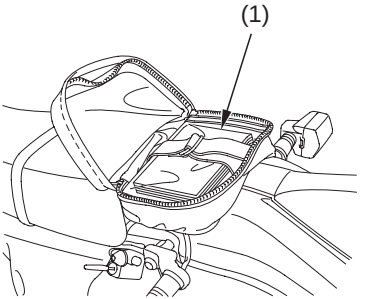



rear suspension compression damping adjuster
owner's manual
air cleaner
spark plug
battery
fuse box
main fuse
front suspension compression damping adjuster
throttle stop screw (engine idle speed)
drive chain
front brake caliper
engine oil drain bolt (crankcase)

Owner's Manual Storage

Your motorcycle provides storage for the owner's manual so you'll have it with you for easy reference. Store your owner's manual (and other documents) in the plastic storage bag (1) in the storage bag behind the seat.

Be careful not to flood this area when washing your motorcycle.

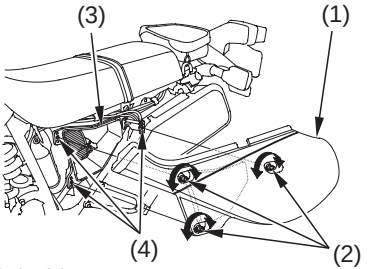


(1) plastic storage bag

Refer to *Safety Precautions* on page 60 .

The left side cover (1) must be removed for seat removal, or to service the air cleaner, fuse or battery maintenance.

LEFT SIDE



(1) left side cover
(2) quick-release fasteners
(3) air cleaner housing
(4) slots

Left Side Cover Removal

1. Lift the D-ring on each quick-release fastener (2) and turn it counterclockwise until it releases.
2. Remove the left side cover.

Left Side Cover Installation

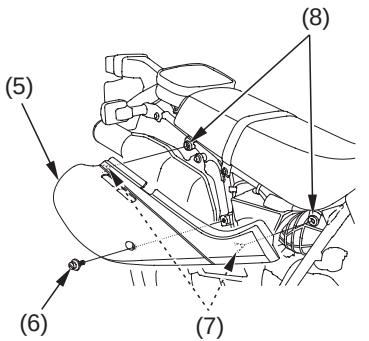
1. Align the left side cover with the air cleaner housing (3).
2. Push each quick-release fastener into its slot (4), lift its D-ring, and turn it clockwise until it is secure.

Side Cover Removal

Refer to *Safety Precautions* on page 60 .

The right side cover (5) must be removed for seat removal.

RIGHT SIDE



(5) right side cover
(6) attaching bolt
(7) prongs
(8) grommets

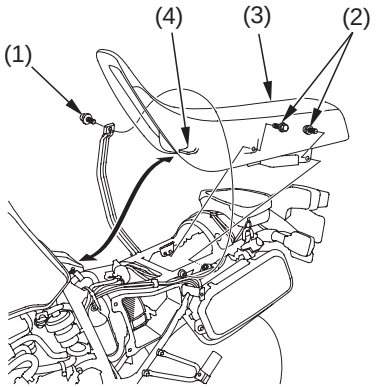
Right Side Cover Removal

1. Remove the attaching bolt (6).
2. Pull the right side cover out.

Right Side Cover Installation

1. Position the right side cover so the prongs (7) are aligned with the frame grommets (8).
2. Push both prongs in.
3. Install the attaching bolt and tighten it.

Refer to *Safety Precautions* on page 60 .



(1) belt attaching bolt
(2) seat mounting bolts
(3) seat
(4) tab

Removal

1. Remove both side covers (page 76).
2. Remove the belt attaching bolt (1).
3. Remove the seat mounting bolts (2).
4. Pull the seat (3) backward.

Installation

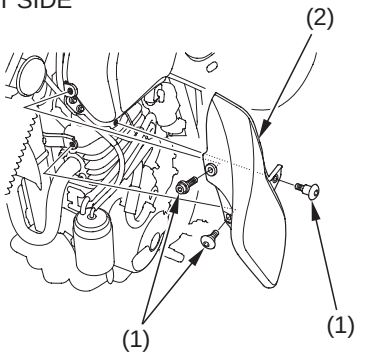
1. Insert the tab (4) into the recess under the frame.
2. Tighten the seat mounting bolts securely.
3. Fasten the belt over the seat and tighten the bolt securely.
4. Install both side covers.

Shroud Removal

Refer to *Safety Precautions* on page 60 .

The shroud must be removed for access to the spark plug.

LEFT SIDE



(1) socket bolts
(2) shroud

Removal

1. Remove the socket bolts (1).
2. Remove the shroud (2).

Installation

- Installation can be done in the reverse order of removal.

Refer to *Safety Precautions* on page 60.

Fuel Recommendation

type	unleaded
pump octane number	86 (or higher)

We recommend that you use unleaded fuel because it produces fewer engine deposits and extends the life of exhaust system components.

Your engine is designed to use any gasoline that has a pump octane number of 86 or higher. Gasoline pumps at service stations normally display the pump octane number. For information on the use of oxygenated fuels, see page 194.

Use of lower octane gasoline can cause persistent ''pinging'' or ''spark knock'' (a loud rapping noise) which, if severe, can lead to engine damage. Light pinging experienced while operating under a heavy load, such as climbing a hill, is no cause for concern.

If pinging or spark knock occurs at a steady engine speed under normal load, change brands of gasoline. If pinging or spark knock persists, consult your Honda dealer.

Never use stale or contaminated gasoline or an oil/gasoline mixture. Avoid getting dirt, dust, or water in the fuel tank.

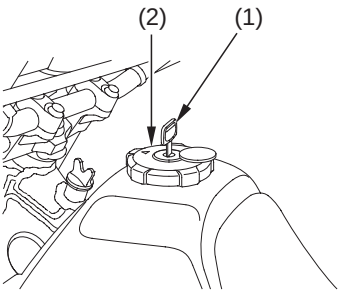
Fuel Capacity

Fuel tank capacity, including reserve:
2.77 US gal (10.5 ℓ)
Reserve capacity:
0.61 US gal (2.3 ℓ)

The tank should be refilled as soon as possible after switching to reserve, and the fuel valve should be returned to the ON position after refueling to avoid running out of fuel with no reserve.

Refueling Procedure

Refer to *Safety Precautions* on page 60 .



(1) ignition key (2) fuel fill cap

1. Insert the ignition key (1) in the fuel fill cap (2) and turn it clockwise.

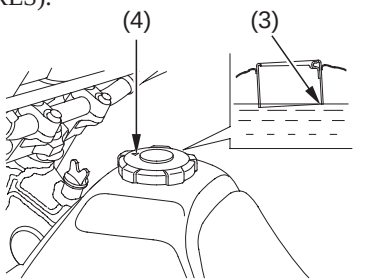
2. Turn the fuel fill cap counterclockwise and remove it.
   (For California model, see next page)
3. Add fuel until the level reaches the bottom of the filler neck (3). Avoid overfilling the tank. There should be no fuel in the filler neck.

⚠ 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.

4. After refueling, be sure to tighten the fuel fill cap firmly by turning it clockwise until the arrow mark (4) on the cap faces forward.
5. Turn the ignition key counterclockwise.
6. Remove the ignition key from the cap.
7. Turn the fuel valve ON (if it was set on RES).



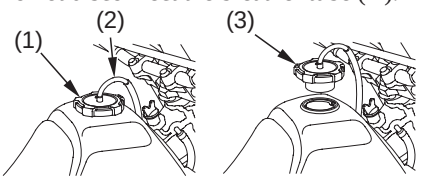
(3) filler neck (4) arrow mark

Fuel fill cap removal and installation for California version (USA only):

As sold in California, this motorcycle is equipped with an evaporative emission control system (page 188). For the system to function properly, observe the following when removing and installing the fuel fill cap.

1. To open the fuel fill cap (1), turn the cap counterclockwise.

Do not disconnect the breather tube (2).



(1) fuel fill cap
(2) breather tube
(3) arrow mark

2. To close the cap, align the tabs of the fuel fill cap to the slots of the filler neck with the arrow mark (3) on the cap towards the rear of the motorcycle.
3. Turn the cap clockwise until the arrow mark points towards the front.

Make sure that the breather tube is not twisted or blocked when the cap is secure in place.

NOTICE

If you replace the fuel fill cap, use only a Honda Genuine replacement part or its equivalent. Failure to use the proper part could cause serious fuel system problem.

Engine oil quality is a major factor that affects both the performance and the service life of the engine.

Using the proper oil (page 84) and filter, and regularly checking, adding, and changing oil will help extend your engine's life. Even the best oil wears out. Changing oil helps get rid of dirt and deposits in the engine. Operating the engine with old or dirty oil can damage your engine. Running the engine with insufficient oil can cause serious damage to the engine and transmission.

Change the engine oil as specified in the maintenance schedule on page 67 .

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

When riding at high or continuous speed on the highway, check the oil level frequently.

Oil Recommendation

API classification	SG or higher except oils labeled as energy conserving on the circular API service label
viscosity (weight)	SAE 10W-30
JASO T 903 standard	MA

suggested oil*
Pro Honda GN4 4-stroke oil (USA & Canada), or Honda 4-stroke oil (Canada only), or an equivalent motorcycle oil.

* Suggested oils are equal in performance to SJ oils that are not labeled as energy conserving on the circular API service label.

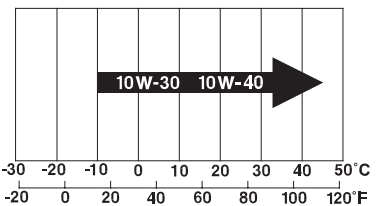
- Your motorcycle does not need oil additives. Use the recommended oil.
- Do not use oils with graphite or molybdenum additives. They may adversely affect clutch operation.
- Do not use API SH or higher oils displaying a circular API ‘‘energy conserving’’ service label on the container. They may affect lubrication and clutch performance.

NOT RECOMMENDED

OK

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

Other viscosities shown in the following chart may be used when the average temperature in your riding area is within the indicated range.

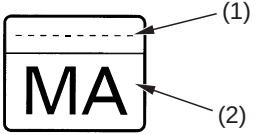


JASO T 903 standard

The JASO T 903 standard is an index for engine oils for 4-stroke motorcycle engines.

There are two classes: MA and MB.

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

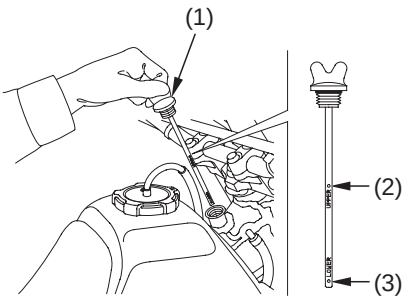


(1) code number of the sales company of the oil

(2) oil classification

Checking & Adding Oil

Refer to *Safety Precautions* on page 60 .



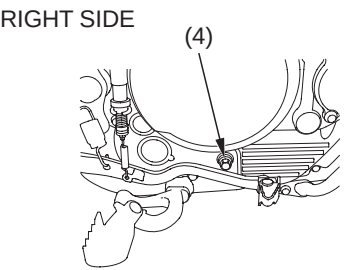
(1) oil filler cap/dipstick
(2) UPPER level mark
(3) LOWER level mark

1. Park your motorcycle on its side stand on a firm, level surface.
2. Start the engine and let it idle for 3－5 minutes.
3. Stop the engine and hold the motorcycle in an upright position.
4. After 2－3 minutes, remove the oil filler cap/dipstick (1) and wipe it clean.
5. Insert the oil filler cap/dipstick until it seats, but don't screw it in.

(cont'd)

6. Remove the oil filler cap/dipstick and check the oil level.
   - If the oil is at or near the UPPER level mark (2) — you do not have to add oil.
   - If the oil is below or near the LOWER level mark (3) — add the recommended oil until it reaches the UPPER level mark. (Do not overfill.)
7. Reinstall the oil filler cap/dipstick.
8. Check for oil leaks.

The engine contains a crankcase oil level check bolt (4). Remove the bolt and check that the level is flush with the lower edge of the hole. If it is, install and tighten the bolt, start the engine and check the engine oil level. If the crankcase oil level is low, add the recommended engine oil before starting the engine to check the engine oil level.



(4) crankcase oil level check bolt

Changing Engine Oil & Filter

Refer to *Safety Precautions* on page 60 .

Your motorcycle's oil filter has very specific performance requirements. Use a new Honda Genuine oil filter or a filter of equal quality specified for your model.

NOTICE

Using the wrong oil filter may result in leaks or engine damage.

This procedure requires mechanical skill and professional tools such as a torque wrench, as well as a means for disposing of the drained fluid (page 151). If you do not have the skills or the tools, see your Honda dealer.

Drain the Engine Oil:

1. Park the motorcycle on its side stand on a firm, level surface.
2. If the engine is cold, start it and let it idle for 3－5 minutes. Turn the engine off. Wait 2－3 minutes for the oil to settle.

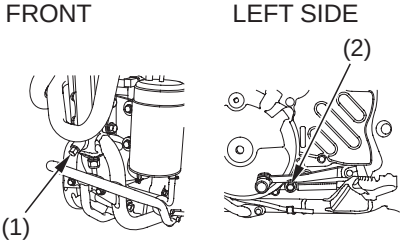
(cont'd)

3. Remove the oil filler cap/dipstick from the top of the frame.
4. Place a drain pan under the crankcase.
5. Remove the oil drain bolt (1) on the down tube, and the drain bolt (2) on the left crankcase.
6. After the oil has drained, check the condition of the sealing washer on the drain bolt. Replace the washer every other time the oil is changed.
7. Pour the drained oil into a suitable container and dispose of it in an approved manner (page 151).

NOTICE

Improper disposal of drained fluids is harmful to the environment.

8. Install the drain bolt and tighten it to the specified torque:
   crankcase drain bolt:
   18 lbf·ft (25 N·m , 2.5 kgf·m)
   frame drain bolt:
   29 lbf·ft (39 N·m , 4.0 kgf·m)
9. If you don't install a new oil filter, see step 16 (page 93).



(1) drain bolt (down tube)
(2) drain bolt (crankcase)

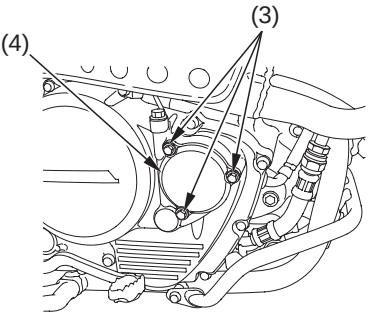
If You Are Installing a New Oil Filter:

10. Remove the oil filter bolts (3) and oil filter cover (4).
11. Remove the oil filter (5) from the cover. Discard the oil filter in an approved manner (page 151).
12. Pour the drained oil into a suitable container and dispose of it in an approved manner (page 151).

NOTICE

Improper disposal of drained fluids is harmful to the environment.

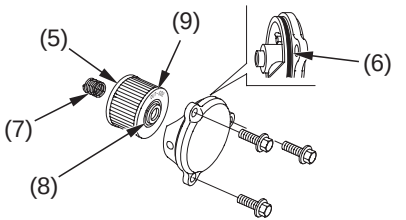
RIGHT SIDE



(3) oil filter bolts (4) oil filter cover

(cont'd)

13. Check that the oil filter cover O-ring (6) is in good condition.
14. Position the spring (7) against the engine crankcase and install a new oil filter with the rubber seal (8) facing out, away from the engine. You should see the ''OUT-SIDE'' mark (9) on the filter body, near the seal.



(5) oil filter
(6) O-ring
(7) spring
(8) rubber seal
(9) ''OUT-SIDE'' mark

NOTICE

Improper installation of the oil filter can cause serious engine damage.

15. Reinstall the oil filter cover, making sure the bolts are tightened securely to the specified torque.
    Oil filter bolt:
    9 lbf·ft (12 N·m , 1.2 kgf·m)

Add Engine Oil:

16. Fill the oil tank with the recommended oil (page 84).
    If the oil filter was replaced:
    2.06 US qt (1.95 ℓ)
    If the oil filter was not replaced, use approximately:
    2.0 US qt (1.9 ℓ)

To fill the oil tank to the upper level, oil should be added in two steps.

17. Pour the recommended oil into the oil tank, up to the UPPER level mark.
18. Install the oil filler cap/dipstick securely.
19. Start the engine. Let it idle 5 minutes. During idling, support your motorcycle in an upright position on a firm, level surface to assure an accurate oil level reading.
20. Stop the engine. Remove the oil filler cap/dipstick.
21. Add the recommended oil up to the upper level mark. (Do not overfill.)
22. Reinstall the oil filler cap/dipstick.
23. Check that there are no oil leaks.

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

Air Cleaner

Refer to *Safety Precautions* on page 60 .

Service the air cleaner more frequently if you ride in unusually wet or dusty areas. Your Honda dealer can help you determine the correct service interval for your riding conditions.

Your motorcycle's air cleaner has very specific performance requirements. Use a new Honda Genuine air cleaner specified for your model or an air cleaner of equivalent quality.

NOTICE

Using the wrong air cleaner may result in premature engine wear.

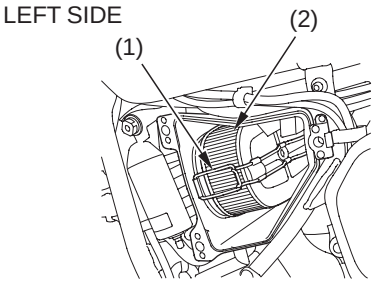
Proper air cleaner maintenance can prevent premature engine wear or damage, expensive repairs, low engine power, poor gas mileage, and spark plug fouling.

NOTICE

Improper or lack of proper air cleaner maintenance can cause poor performance and premature engine wear.

Replacement

1. Remove the left side cover (page 75).
2. Release the set spring (1).
3. Remove the air cleaner (2).



(1) set spring
(2) air cleaner

4. Discard the air cleaner.
5. Install a new air cleaner.
6. Install the removed parts in reverse order of removal.

Clutch System

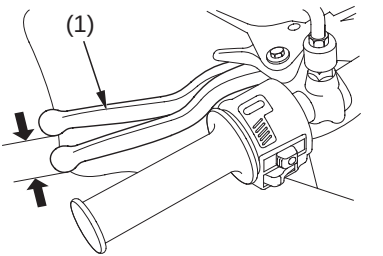
Your motorcycle's manually activated, wet, multiplate clutch is part of the primary drive system. Proper freeplay adjustment allows a smooth, gradual engagement when shifting gears.

Improper freeplay adjustment can cause premature clutch wear.

Clutch Freeplay

Refer to *Safety Precautions* on page 60 .

LEFT HANDLEBAR



(1) clutch lever

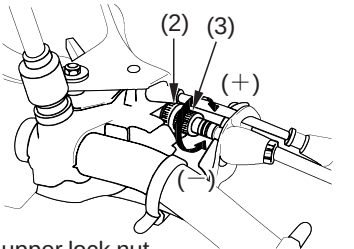
Inspection

1. Check freeplay:
   3/8－13/16 in (10－20 mm)
   If necessary, adjust to the specified range.

Upper Adjustment

Attempt adjustment with the upper clutch cable adjuster first.

LEFT HANDLEBAR



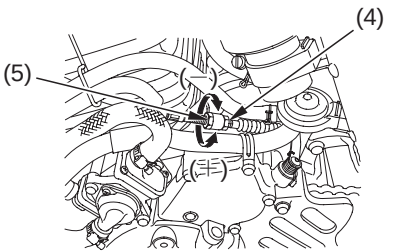
(2) upper lock nut
(3) upper clutch cable adjuster
(+) increase freeplay
(−) decrease freeplay

1. Loosen the upper lock nut (2).
2. Turn the upper clutch cable adjuster (3) to obtain the specified freeplay.
3. Tighten the upper lock nut and check the freeplay again.

Lower Adjustment

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

LEFT SIDE



(4) lock nut (+) increase freeplay
(5) adjusting nut (−) decrease freeplay

1. Loosen the upper lock nut (2) and turn the upper clutch cable adjuster (3) all the way in (to provide maximum freeplay). Tighten the upper lock nut.
2. Loosen the lower lock nut (4).
3. Turn the lower adjusting nut (5) to obtain the specified freeplay.
4. Tighten the lower lock nut and check the adjustment.

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

If you cannot get proper adjustment, or the clutch does not work properly, the cable or clutch friction discs may be worn. See your Honda dealer or refer to the official Honda Service Manual (page 198).

Other Inspections & Lubrication

- Check that the clutch lever assembly is positioned properly and the securing bolts are tight.
- Check the clutch cable for kinks or signs of wear. If necessary, have it replaced.
- Lubricate the clutch cable with a commercially available cable lubricant to prevent premature wear and corrosion.

Engine Idle Speed

The best way to assure proper carburetion is to see your Honda dealer for regularly scheduled servicing, including carburetor adjustment.

Remember, idle speed adjustment is not a ‘‘cure-all’’ for other problems in your engine’s fuel-delivery system. Adjusting the idle will not compensate for a fault elsewhere.

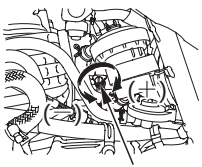
The engine must be at normal operating temperature for accurate idle speed adjustment.

For information about high altitude carburetor adjustment, see page 187 .

Idle Speed Adjustment

Refer to *Safety Precautions* on page 60 .

LEFT SIDE



(1) throttle stop screw

(+) increase
(−) decrease

1. If the engine is cold, start it and warm it up with 10 minutes of stop-and-go riding. Stop the engine.
2. Place your motorcycle on its side stand on a firm, level surface.

3. Connect a tachometer to the engine.
4. Shift into neutral. Start the engine.
5. Adjust idle speed with the throttle stop screw (1).
   Idle speed (in neutral):
   1,300 ± 100 rpm

Spark Plug

Spark Plug Recommendation

standard spark plug	DPR8EA-9 (NGK) or X24EPR-U9 (DENSO)
for cold climate (below 5°C, 41°F)	DPR7EA-9 (NGK) or X22EPR-U9 (DENSO)
for extended high speed riding	DPR9EA-9 (NGK) or X27EPR-U9 (DENSO)

Use only the recommended type of spark plug in the recommended heat range.

NOTICE

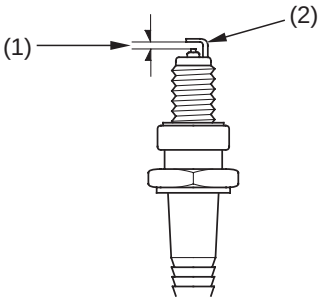
Using spark plugs with an improper heat range can cause engine damage.

Spark Plug Inspection & Replacement

Refer to *Safety Precautions* on page 60 .

1. Remove the left shroud (page 78).
2. Clean any dirt from around the spark plug base.
3. Disconnect the spark plug cap. Take care to avoid damaging the spark plug wire when disconnecting the cap.
4. Using a spark plug wrench, remove the spark plug.

5. Inspect the electrode and center porcelain for deposits, corrosion, or carbon fouling. If the corrosion or deposits are heavy, replace the plug. Clean a carbon or wet-fouled plug with a plug cleaner, if available, or a wire brush.
6. Check the spark plug gap (1) of new plug, using a wire-type feeler gauge. If adjustment is necessary, bend the side electrode (2) carefully.
   The gap should be:
   0.031–0.035 in (0.80–0.90 mm)



(1) spark plug gap (2) side electrode

7. With the plug washer attached, thread the spark plug in by hand to prevent cross-threading.

(cont'd)

8. Tighten the spark plug:
   - If the old plug is good:
     1/8 turn after it seats.
   - If installing a new plug, tighten it twice to prevent loosening:
     a) First, tighten the plug:
        NGK: 3/4 turn after it seats.
        DENSO: 1/2 turn after it seats.
     b) Then loosen the plug.
     c) Next, tighten the plug again:
        1/8 turn after it seats.

NOTICE

An improperly tightened spark plug can damage the engine. If a plug is too loose, a piston may be damaged. If a plug is too tight, the threads may be damaged.

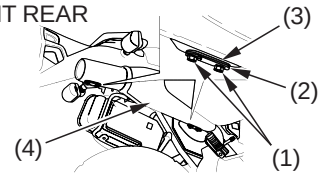
9. Reinstall the spark plug cap. Take care to avoid pinching any cables or wires.

Refer to *Safety Precautions* on page 60 .

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.

The use of safety glasses is recommended for this procedure.

Because of the possible fire hazard, check that there are no combustible materials in the area before purging the spark arrester.



(1) bolts
(2) spark arrester lid
(3) gasket
(4) muffler

1. Remove the bolts (1), spark arrester lid (2), and gasket (3) from the spark arrester and muffler (4).
2. Start the engine.
3. Block the end of the muffler with a shop towel to create exhaust system back pressure and rev up the engine about 20 times.
4. After cleaning the spark arrester and muffler carbon, stop the engine, allow the exhaust system to cool off, and reinstall the removed parts.

Suspension

Your front and rear suspension systems use springs, hydraulic damping devices, and linkages (rear only) that suspend your weight and most of the weight of your motorcycle.

The oil damper systems hydraulically control the natural compression and rebound of the suspension springs so that traction and comfort are maintained as the wheels ride over road surfaces.

Consider adjusting your suspension whenever you change your normal load, by adding or subtracting a passenger, cargo, or accessories, or when the road or riding conditions change.

The way you ride your motorcycle and the type of ride you want to experience can also influence your suspension needs.

You may adjust the compression damping of both suspension systems. You may also adjust the air pressure of the front suspension and rebound damping of the rear suspension system.

Softer damping provides a softer ride and is usually preferred for light loads and smooth roads. Firmer damping provides a firmer ride and is recommended for heavy loads, rough road conditions, and faster, more challenging riding.

Front Suspension Adjustment

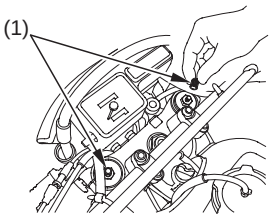
The front suspension can be adjusted for rider (and passenger) weight and riding conditions by changing the air pressure and compression damping.

Front Suspension Air Pressure

Low air pressure settings provide a soft ride for light loads and smooth terrain conditions.

Higher air pressure settings provide a firmer ride for heavy loads and rough terrain conditions.

For accurate pressure readings, check and adjust air pressure before riding (when the fork tubes are cold), with the front wheel off the ground.



(1) air valve caps

1. Raise the front wheel off the ground by placing a support block under the engine.
2. Remove the air valve caps (1).
   Check the air pressure using a pressure gauge.
   Standard air pressure:
   0 psi (0 kPa , 0 kgf/cm²)
   Maximum air pressure:
   6 psi (40 kPa , 0.4 kgf/cm²)
3. If air pressure is insufficient, add air with a bicycle air pump. Do not exceed the maximum recommended air pressure. To decrease air pressure, depress the valve core.
   Some pressure will be lost when using the gauge. Determine the amount of loss and compensate accordingly. Also, be sure that the air pressure in both fork tubes is equal.

   Do not add a lot of air pressure at one time.
   Fork action becomes very stiff if more than the recommended pressure is used.
   Maximum recommended pressure:
   6 psi (40 kPa , 0.4 kgf/cm²)
4. Install the air valve caps.

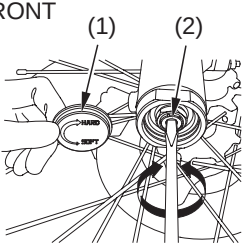
Front Suspension Damping

Refer to *Safety Precautions* on page 60.

Compression Damping

The compression damping adjuster has at least 14 positions (clicks). Turning the adjuster screw one full turn advances the adjuster 4 positions.

LEFT FRONT



(1) cap (2) damping adjuster

To adjust to the standard position:

1. Remove the cap (1).
2. Turn the damping adjuster (2) clockwise until it will no longer turn (lightly seats). This is the full hard setting.
3. Turn the adjuster counterclockwise approximately 3 clicks. This is the standard position.
4. Make sure that both fork legs are adjusted to the same position.
5. Install the cap.

To Reduce Rebound Damping (SOFT):
For a light load and smooth road conditions, turn the adjuster counterclockwise toward SOFT (S).
To Increase Rebound Damping (HARD):
For a firmer ride and rough road conditions, turn the adjuster clockwise toward HARD (H).

Rear Suspension Adjustment

The rear suspension can be adjusted for rider (and passenger) weight and riding conditions by changing the rebound and compression damping.

The rear shock absorber includes a damper unit that contains high pressure nitrogen gas. Do not attempt to disassemble, service, or dispose of the damper; see your Honda dealer. The instructions found in this owner's manual are limited to adjustments of the shock assembly only.

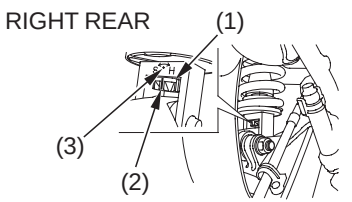
Rear Suspension Damping

Refer to *Safety Precautions* on page 60.

Rebound Damping

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

It has at least 19 positions. Turning the adjuster one full turn advances the adjuster 8 positions.



(1) damping adjuster
(2) slit
(3) reference punch mark

To adjust to the standard position:

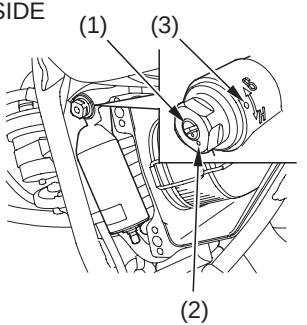
1. Turn the damping adjuster (1) clockwise until it will no longer turn. This is the full hard setting.
2. Turn the adjuster counterclockwise approximately 13 – 17 clicks so that the slit (2) on the adjuster aligns with the reference punch mark (3). This is the standard position.

To Reduce Rebound Damping (SOFT):
For a light load and smooth road conditions, turn the adjuster counterclockwise toward SOFT (S).
To Increase Rebound Damping (HARD):
For a firmer ride and rough road conditions, turn the adjuster clockwise toward HARD (H).

Compression Damping

The compression damping adjuster has at least 20 positions. Turning the adjuster one full turn advances the adjuster 8 positions.

LEFT SIDE



(1) damping adjuster
(2) punch mark
(3) reference punch mark

To adjust to the standard position:

1. Turn the damping adjuster (1) clockwise until it will no longer turn (lightly seats). This is the full hard setting.
2. Turn the adjuster counterclockwise approximately 7 — 11 positions so that the punch mark (2) on the adjuster aligns with the reference punch mark (3). This is the standard position.

To Reduce Compression Damping (SOFT):

For a light load and smooth road conditions, turn the adjuster counterclockwise toward SOFT.

To Increase Compression Damping (HARD):

For a firmer ride and rough road conditions, turn the adjuster clockwise toward HARD.

The hydraulic braking systems on your motorcycle dissipate the heat generated by the friction of the brake pads on the brake discs as the wheels are slowed.

As the brake pads wear, the brake fluid level will drop. A leak in the system will also cause the level to drop.

Frequently inspect the system to ensure there are no fluid leaks. Periodically inspect the brake fluid level and the brake pads for wear.

If the brake lever or brake pedal freeplay does not feel within the normal range while riding, check the brake pads for wear (page 116). Worn pads should be replaced. If the pads are not worn beyond the recommended limit, there is probably air in the brake system. See your Honda dealer to have the air bled from the system.

Brake Fluid Recommendation

brake fluid	Honda DOT 4 Brake Fluid

The recommended brake fluid is Honda DOT 4 Brake Fluid, or any brake fluid of equal quality and performance. Use fresh brake fluid from a sealed container. Be sure to read the label before opening the sealed container. An opened container may be contaminated or may have absorbed moisture from the air.

Fluid Level Inspection

Refer to *Safety Precautions* on page 60 .

If your inspection indicates a low fluid level, have your Honda dealer add the recommended brake fluid.

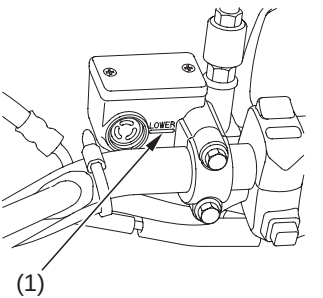
Do not add or replace brake fluid, except in an emergency. If you do add fluid, have your Honda dealer check the system as soon as possible.

NOTICE

Brake fluid can damage plastic and painted surfaces. Handle with care.

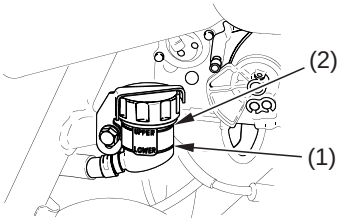
Wipe up spills immediately. Avoid brake fluid contact with skin or eyes. If it comes in contact with your eyes, wash them out with clean water and immediately call a doctor. If it comes in contact with your skin, wash with clean water and, if necessary, call a doctor.

RIGHT HANDLEBAR
(Front Brake)



(1) LOWER level mark

RIGHT SIDE
(Rear Brake)



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

1. Place your motorcycle in an upright position on a firm, level surface.
2. Check the fluid level.
   Front : It should be above the LOWER level mark (1).
   Rear : It should be between the UPPER (2) and LOWER level marks.
   If the level is at or below the LOWER level mark, check the brake pads for wear (page 116).

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

Other Inspections

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

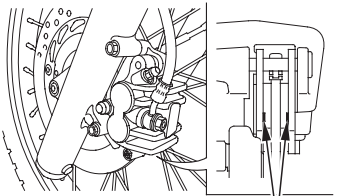
Brake Pad Wear

Refer to *Safety Precautions* on page 60 .

Brake pad wear depends upon the severity of usage, the type of riding, and road conditions. Generally, the pads will wear faster on wet and dirty roads. Inspect the pads at each regular maintenance interval (page 68).

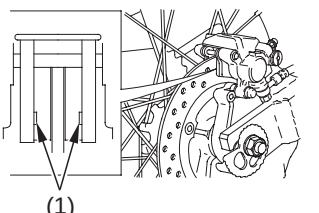
Check the cutouts (1) in each pad. If either pad is worn to the cutout, replace both pads as a set. See your Honda dealer for this service.

LEFT FRONT



(1) cutouts

RIGHT REAR



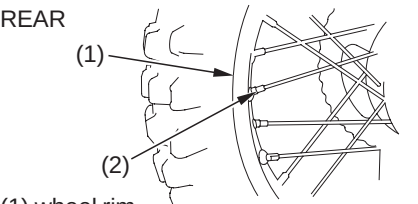
(1) cutouts

Refer to *Safety Precautions* on page 60 .

Keeping the wheels true (round) and maintaining correct spoke tension is critical to safe motorcycle operation. During the first 600 miles (1,000 km), spokes will loosen more rapidly due to the initial seating of the parts. Excessively loose spokes may result in instability at high speeds and the possible loss of control.

It is not necessary to remove the wheels to perform the recommended service in the Maintenance Schedule. However, information for wheel removal is provided for emergency situations (page 160).

Wheel Rims & Spokes



(1) wheel rim
(2) spoke

1. Inspect the wheel rims (1) and spokes (2) for damage.
2. Tighten any loose spokes.
3. Rotate the wheel slowly to see if it appears to ‘‘wobble.’’ If it does, the rim is out of round or not ‘‘true.’’ If the wobble is noticeable, see your Honda dealer for inspection.

Tires

To safely operate your motorcycle, your tires must be the proper type and size, in good condition with adequate tread, and correctly inflated for the load you are carrying.

⚠ WARNING

Using 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.

The following pages give detailed information on how and when to check your air pressure, how to inspect your tires for wear and damage, and our recommendations for tire repair and replacement.

Air Pressure

Refer to *Safety Precautions* on page 60 .

Properly inflated tires provide the best combination of handling, tread life, and riding comfort. Generally, underinflated tires wear unevenly, adversely affect handling, and are more likely to fail from being overheated. Underinflated tires can also cause wheel damage in rocky terrain. Overinflated tires make your motorcycle ride harshly, are more prone to damage from road hazards, and wear unevenly.

Make sure the valve stem caps are secure. If necessary, install new caps.

Use an accurate gauge to measure the air pressure in your tires 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 and at any other time you think the tires might be low.

Always check air pressure when your tires are ‘‘cold’’, after the motorcycle has been parked for at least three hours. If you check air pressure when your tires are ‘‘warm’’ — even if your motorcycle has only been ridden for a few miles — the readings will be higher. If you let air out of warm tires to match the recommended cold pressures, the tires will be underinflated.

The recommended ‘‘cold’’ tire pressures are:

front	22 psi (150 kPa , 1.50 kgf/cm²)
rear	22 psi (150 kPa , 1.50 kgf/cm²)

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

Inspection

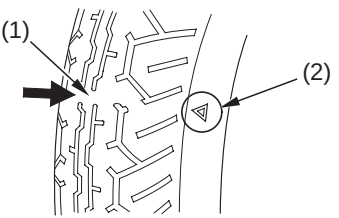
Refer to *Safety Precautions* on page 60 .

Whenever you check the tire pressures, you should also look for:

- Bumps or bulges in the side of the tire or the tread. Replace any tire that has a bump or bulge.
- Cuts, slits, or cracks in the tires. Replace the tire if you can see fabric or cord.
- Nails or other foreign objects embedded in the side of the tire or tread.
- Excessive tread wear.
- Any damage to the tire rims.
- Loose spokes.
- Valve stem position. A tilted valve stem indicates the tube is slipping inside the tire or the tire is slipping on the rim. See your Honda dealer.

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

Tread Wear



(1) wear indicator
(2) wear indicator location mark

For the best performance, you should replace a tire before the tread depth at the center reaches the following limits:

front	0.12 in (3.0 mm)
rear	0.12 in (3.0 mm)

If the wear indicators are visible, replace the tire immediately as it is no longer safe.

Tire & Tube Repair

Refer to *Safety Precautions* on page 60 .

We strongly recommend that you replace, not repair, any tire that is punctured or damaged. A repaired tube will not have the same reliability as a new one, and it may fail while you are riding. And the tire will have lower speed and performance limits than a new one.

A temporary repair can sometimes be made in an emergency situation. However, since a temporary repair may not hold, you must ride very slowly, preferably without any cargo or passenger, and have the tire and tube replaced as soon as possible.
(For more information on temporary repairs, see *If You Have a Flat Tire*, page 160 .)

If you decide to only replace the tube but not the tire, you should not exceed 50 mph (80 km/h) for the first 24 hours, or 80 mph (130 km/h) at any time thereafter. In addition, you may not be able to safely carry as much weight. Repair work should be done by a professional and the wheel should be balanced before you ride.

If you have a tire and tube professionally repaired at a non-Honda facility, we recommend that you have the work checked by your Honda dealer.

Tire Replacement

Refer to *Safety Precautions* on page 60 .

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

When replacing, use the original equipment tires or equivalent tires of the same size, construction, speed rating, and load range as the originals.

⚠ WARNING

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

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

The recommended tires for your motorcycle are:

front	3.00－21 51S DUNLOP K850 or BRIDGESTONE TW-301
rear	4.60－18 63S DUNLOP K850 or BRIDGESTONE TW52
type	bias-ply, tube

Whenever you replace a tire, remember:

- Have the wheel balanced after the tire is installed.
- Have the tire replaced by your Honda dealer if possible.

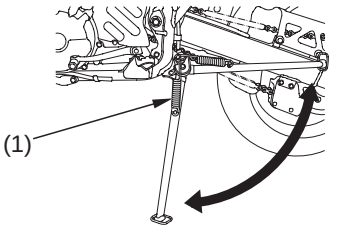
(cont'd)

- Have a new tube installed whenever a tire is replaced. The old tube will probably be stretched. If installed in a new tire, it could fail.

If you have a tire professionally replaced at a non-Honda facility, we recommend that you have the work checked by your Honda dealer.

Refer to *Safety Precautions* on page 60 .

LEFT SIDE



(1) side stand spring

- Check that the side stand assembly is working properly. If the side stand is stiff or squeaky, clean the pivot area and lubricate the pivot bolt with clean grease.
- Check the spring for damage or loss of tension.
- Check the side stand ignition cut-off system:
  1. Sit on the motorcycle and put the transmission in neutral.
  2. Raise the side stand.
  3. Start the engine.
  4. Pull the clutch lever in.
  5. Shift the transmission into gear.
  6. Lower the side stand all the way.

  The engine should stop as you lower the side stand. If the engine doesn't stop, see your Honda dealer for service.

Drive Chain

An endless (riveted master link) chain connects the countershaft and rear wheel sprockets. The O-ring chain uses rubber rings between the side plates of the pin and roller links to seal in the manufacturer-installed lubricating grease and keep out moisture and dirt.

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

The drive chain should be checked, adjusted, and lubricated as part of the pre-ride inspection (page 31).

Under severe usage, or when the motorcycle is ridden in unusually dusty or muddy areas, more frequent maintenance will be necessary.

Before servicing your drive chain, turn the engine OFF, lower the side stand, and check that your transmission is in neutral.

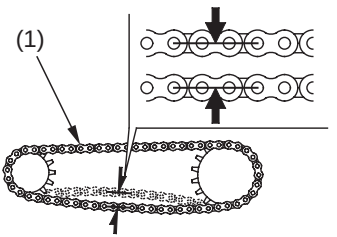
It is not necessary to remove or replace the drive chain to perform the recommended service in the Maintenance Schedule.

Inspection

Refer to *Safety Precautions* on page 60 .

1. Check slack in the lower drive chain (1) run midway between the sprockets. Drive chain slack should allow the following vertical movement by hand:
   1 3/8 – 1 3/4 in (35 – 45 mm)
2. Check drive chain slack at several points along the chain. The slack should remain constant. If it isn't, some links may be kinked and binding. Lubricating the chain will often eliminate binding and kinking.

LEFT SIDE



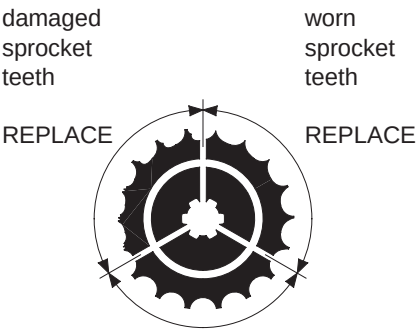
(1) drive chain

3. Inspect the drive chain for:
   - damaged rollers
   - dry or rusted links
   - kinked or binding links
   - excessive wear
   - improper adjustment
   - damaged or missing O-rings

(cont'd)

Replace the drive chain (page 132) if it has damaged rollers, loose pins, or kinks that cannot be freed. Lubricate the drive chain (page 131) if it appears dry or shows signs of rust. Lubricate any kinked or binding links and work them free. Adjust chain slack if needed.

4. Inspect the front and rear wheel sprocket teeth for excessive wear or damage. If necessary, have your Honda dealer replace a worn sprocket.

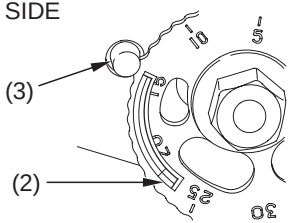


NOTICE

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

Wear Inspection

LEFT SIDE



(2) red zone (3) stopper pin

Check the chain wear label when adjusting the chain. If the red zone (2) on the label aligns with the stopper pin (3) on the swingarm after the chain has been adjusted to the proper slack, the chain is excessively worn and must be replaced. The proper slack is:

1 3/8－1 3/4 in (35－45 mm)

The bottom part of the frame may be damaged by excessive drive chain slack of more than:

2 3/8 in (60 mm)

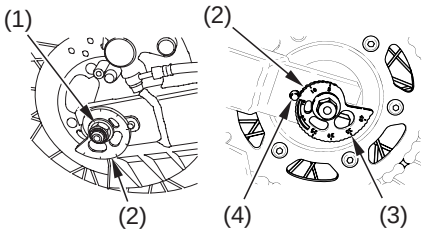
Adjustment

Refer to *Safety Precautions* on page 60 .

Drive chain slack should be checked and adjusted, if necessary, every 500 miles (800 km). When operated at sustained high speeds or under conditions of frequent rapid acceleration, the chain may require more frequent adjustments.

Drive Chain

RIGHT REAR LEFT REAR



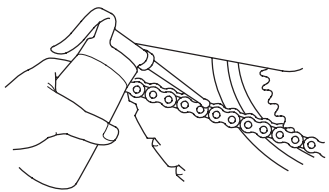
(1) axle nut
(2) adjuster
(3) index mark
(4) stopper pin

1. Place the motorcycle on its side stand with the transmission in neutral and the ignition switch OFF.
2. Loosen the axle nut (1).
3. Turn both the right and left adjusters (2) equally to increase or decrease chain slack. Adjust the chain slack at a point midway between the drive sprocket and the rear wheel sprocket. Roll the motorcycle forward. Stop and place it on its side stand. Recheck chain slack. Chain slack should allow the following vertical movement by hand: 1 3/8－1 3/4 in (35－45 mm)

4. After adjusting, be sure the same adjuster index marks (3) align with the stopper pins (4) on both sides of the swingarm.
5. Torque the rear axle nut to:
   65 lbf·ft (88 N·m , 9.0 kgf·m)
   If a torque wrench is not used for this installation, see your Honda dealer as soon as possible to verify proper assembly. Improper assembly may lead to a loss of braking capacity.
6. Recheck drive chain slack (page 127).

Lubrication

Refer to *Safety Precautions* on page 60 .



Lubricate every 500 miles (800 km) or sooner if chain appears dry. Lubricant:
Pro Honda HP Chain Lube or an equivalent chain lubricant designed specifically for use on O-ring chains

Commercial chain lubricants not designed for motorcycle drive chains may contain solvents which could damage the O-rings.

Removal, Cleaning & Replacement

Refer to *Safety Precautions* on page 60.

Your motorcycle has an endless (riveted master link) type chain. It should only be removed or replaced by your Honda dealer.

The O-rings can be damaged by steam cleaning, high pressure washers, and certain solvents.

1. Clean the side surfaces of the chain with a dry cloth. Use a high flashpoint solvent such as kerosene — not gasoline.
   Do not brush the rubber O-rings. Brushing will damage them. Use of a solvent may also damage the O-rings.
2. Inspect the drive chain for possible wear or damage.

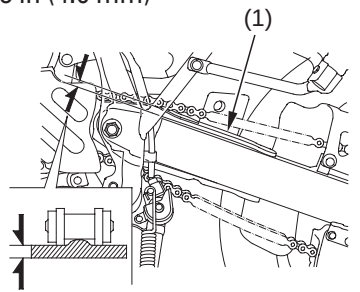
Replace the drive chain if it has damaged rollers, loose fitting links, damaged O-rings, or otherwise appears unserviceable.

Replacement Chain:
DID520V8
or
RK520MOZ6

Refer to *Safety Precautions* on page 60 .

Check the chain slider (1) for wear.
When the thickness of the chain slider reaches the limit, the chain slider must be replaced. See your Honda dealer.

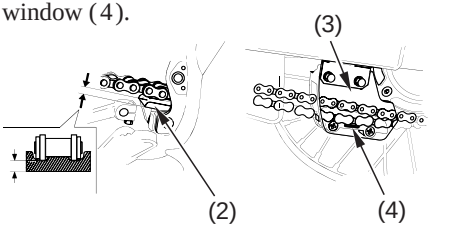
Chain slider thickness limit:
0.16 in (4.0 mm)



(1) chain slider

Check the chain slipper (2) and chain guide slider (3) for wear.
When the thickness of the chain slipper reaches the limit, the chain slipper must be replaced.

Chain slipper thickness limit:
0.08 in (2.0 mm)
Replace the chain guide slider if the chain is visible through the wear inspection window (4).



(2) chain slipper
(3) chain guide slider
(4) wear inspection window

Battery

Your motorcycle has a maintenance-free type battery. You do not have to check the battery electrolyte level or add distilled water as you would with a conventional-type battery.

NOTICE

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

Electrical accessories use current from the battery, even when the ignition is OFF. Limited operation also allows the battery to discharge. If you have electrical accessories on your motorcycle or do not ride frequently, we recommend that you charge the battery frequently (see *Battery Charging*, page 137).

If you do not expect to ride your motorcycle for at least two weeks, we recommend you remove the battery, or at least disconnect the battery cables (negative cable first).

If you plan to store your motorcycle, see *Battery Storage*, page 135 .

If your battery seems weak and/or is leaking electrolyte (causing slow starting or other electrical problems), see your Honda dealer.

WARNING: Battery posts, terminals and related accessories contain lead and lead compounds. **Wash your hands after handling.**

Battery Storage

Refer to *Safety Precautions* on page 60 .

If you plan to store your motorcycle, we recommend you remove the battery and store it where it can be charged at least every 30 days to maintain its service life.

If you do not remove the battery, we recommend disconnecting the battery cables (negative cable first).

You will get the best storage results from removing the battery and slow (trickle) charging it every 30 days (see *Battery Charging*, page 137).

Before you remove the battery, be sure to read all the information that follows, as well as the information on the battery label.

⚠ WARNING

The battery gives off explosive hydrogen gas during normal operation.

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

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

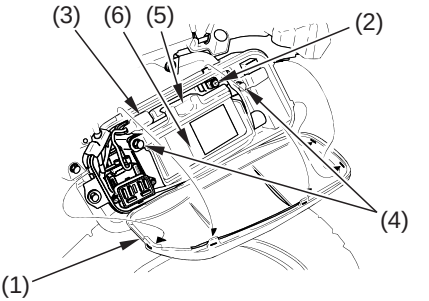
Battery

The battery is located in the battery compartment behind the left side cover.

Removal

1. Make sure the ignition switch is OFF.
2. Remove the left side cover (page 75).
3. Open the battery compartment cover (1).
4. Disconnect the negative (−) terminal lead (2) from the battery first, then disconnect the positive (+) terminal lead (3).
5. Remove the bolts (4) and remove the battery holder (5).
6. Pull the battery (6) out of the battery compartment.
7. Charge the battery (see following section), unless you have been riding regularly.

LEFT SIDE



(1) compartment cover
(2) negative (−) terminal lead
(3) positive (+) terminal lead
(4) bolts
(5) battery holder
(6) battery

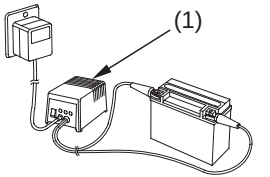
8. Store your battery in an easy-to-reach location off the floor, in an area protected from freezing temperatures and direct sunlight.
9. Clean the battery box after removing the battery for storage. Dry the battery box and, if paint is missing, re-paint the area.
10. Slow charge the battery (see following section) once every 30 days.

Installation

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

Battery Charging

Refer to *Safety Precautions* on page 60 .



(1) "trickle" charger

Be sure to read the information that came with your battery charger and follow the instructions on the battery. Improper charging may damage the battery.

Battery

We recommend using a ‘‘trickle’’ charger (1) for home charging. These units can be left connected for long periods without risking damage to the battery. However, do not intentionally leave the charger connected longer than the time period recommended in the charger’s instructions.

Avoid using an automotive-type battery charger. An automotive charger can overheat a motorcycle battery and cause permanent damage.

Frequent cleaning and polishing will keep your Honda looking newer longer. Frequent cleaning also identifies you as an owner who values your motorcycle. A clean motorcycle is also easier to inspect and service.

General Recommendations

Refer to *Safety Precautions* on page 60 .

- To clean your motorcycle, you may use:
  - water
  - a mild, neutral detergent and water
  - a mild spray and wipe cleaner/ polisher
  - a mild spray and rinse cleaner/ degreaser and water
- Avoid products that contain harsh detergents or chemical solvents that could damage the metal, paint, and plastic on your motorcycle.
- If your motorcycle is still warm from recent operation, give the engine and exhaust system time to cool off.
- Park in a shady area. Washing your motorcycle in bright sunlight may cause the finish to fade because water droplets intensify the sun's brightness. Spotting is also more likely because surface water can dry before you have time to wipe it off.
- Clean your motorcycle regularly to protect surface finishes.

(cont'd)

- We recommend the use of a garden hose to wash your motorcycle. High pressure washers (like those at coin-operated car washes) can damage certain parts of your motorcycle.

NOTICE

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

- After cleaning, inspect for damage, wear, and leaks (fuel, oil, and brake fluid).

Washing Your Motorcycle with a Mild Detergent

Refer to *Safety Precautions* on page 60 .

1. Rinse your motorcycle thoroughly with cool water to remove loose dirt.
2. Fill a bucket with cool water. Mix in a mild, neutral detergent, such as dish washing liquid or a product made especially for washing motorcycles or automobiles.
3. Wash your motorcycle with a sponge or a soft towel. As you wash, check for heavy grime. If necessary, use a mild cleaner/degreaser to remove the grime.
4. After washing, rinse your motorcycle thoroughly with plenty of clean water to remove any residue. Detergent residue can corrode alloy parts.
5. Dry your motorcycle with a chamois or a soft towel. Leaving water on the surface to air dry can cause dulling and water spots. As you dry, inspect for chips and scratches.
6. Start the engine and let it idle for several minutes. The engine heat will help dry moist areas.

(cont'd)

7. As a precaution, ride your motorcycle at a slow speed and apply the brakes several times. This will help dry the brakes and restore normal braking performance.
   If the inside of the headlight lens appears clouded immediately after washing, it should clear after a few minutes of riding.

Spray Cleaning Your Motorcycle

Refer to *Safety Precautions* on page 60 .

Avoid using spray cleaner products on the tires or suspension components.

Suggestions for using spray cleaner(s) follow:

Motorcycle Condition	Recommended Cleaning
Dust and fingerprint smudges.	Apply a spray cleaner/polish and wipe the paint, chrome, glass, and clear plastic.
Light road grime.	Spray any difficult-to-reach or very dirty areas with a spray cleaner/degreaser. Rinse and dry. Apply a spray cleaner/polish and wipe with a non-abrasive cloth.
Heavy grime. Oil leaks. Brake dust.	Use a spray cleaner/degreaser. If necessary, rub with a sponge. Rinse and dry. Apply a spray cleaner/polish and wipe with a non-abrasive cloth.
Dull, corroded chrome or aluminum.	Apply a high quality chrome/aluminum polish and wipe with a non-abrasive cloth.

Finishing Touches

Refer to *Safety Precautions* on page 60 .

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

If a surface on your motorcycle is chipped or scratched, your Honda dealer has touch-up paint to match your motorcycle's color. Be sure to use your motorcycle's color code (page 178) when you buy touch-up paint.

If the frame has a chip that exposes the metal, first apply primer (to prevent corrosion) and then apply the touch-up paint. Several thin layers of touch-up paint are better than one thick coat.

Tips

Here's a few helpful tips on how to store and transport your Honda, and how to be an environmentally responsible motorcycle owner.

Storing Your Honda

If you won't be riding for an extended period, such as during the winter, thoroughly inspect your motorcycle and correct any problem before storing it. That way, needed repairs won't be forgotten and it will be easier to get your motorcycle running again.

For more information about storage, refer to the *Honda Motorcycle Winter Storage Guide*, available from your Honda dealer (USA only).

We suggest you perform the following procedures to keep your motorcycle in top condition. These storage procedures will reduce the deterioration that can occur during storage.

Preparation for Storage

Refer to *Safety Precautions* on page 60 .

This procedure requires a means for draining and disposing of drained fuel (page 151).

1. Change the engine oil (page 89).
2. Fill the fuel tank. Make sure the fuel fill cap is properly installed.

3. Drain the carburetor into an approved gasoline container and dispose of it in an approved manner (page 151).
   If storage will last longer than one month, carburetor draining is important, to assure proper performance after storage.

⚠ 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.

4. To prevent rusting in the cylinder, perform the following:
   - Remove the spark plug cap from the spark plug. Using tape or string, secure the cap to any convenient plastic body part so that it is positioned away from the spark plug.
   - Remove the spark plug from the engine and store it in a safe place. Do not connect the spark plug to the spark plug cap.
   - Pour a tablespoon (15－20 cc) of clean engine oil into the cylinder and cover the spark plug hole with a piece of cloth.

(cont'd)

- With the engine stop switch in the RUN position, press the start button several times to crank the engine and distribute the oil.
- Reinstall the spark plug and spark plug cap.

5. Remove the battery and charge it fully. Store it in an area protected from freezing temperatures and direct sunlight. Slow charge the battery (page 137) once a month.
6. Wash and dry your motorcycle. Wax all painted surfaces. Apply rust-inhibiting oil to the chrome pieces.
7. Lubricate the drive chain (page 131).
8. Inflate the tires to their recommended pressures (page 118).
9. Store your motorcycle in an unheated area, free of dampness, away from sunlight, with a minimum of daily temperature variation.
10. Place your motorcycle on blocks to lift both tires off the floor.
11. Cover your motorcycle with a porous material. Avoid using plastic or similar non-breathing, coated materials that restrict air flow and allow heat and moisture to accumulate.

Removal from Storage

Refer to *Safety Precautions* on page 60 .

1. Uncover and clean your motorcycle.
2. If your motorcycle has been stored for more than four months — change the engine oil (page 89).
3. If your motorcycle has been stored for more than two months — ask your Honda dealer to drain and replace the fuel.
4. Charge the battery (page 137) as required. Install the battery.
5. Lubricate the drive chain (page 131).
6. Perform a pre-ride inspection (page 31), then test-ride your motorcycle at low speeds.

Transporting Your Motorcycle

If your motorcycle needs to be transported, it should be carried on a motorcycle trailer, or a truck or trailer with a flatbed area. Do not tow your motorcycle, as towing can seriously damage the transmission.

When contacting a towing or transporting service, be sure to ask if they have a flatbed area, a loading ramp or power ramp to safely lift the motorcycle, and motorcycle tie-down straps.

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

Following are tips on how you can be an environmentally responsible motorcycle owner.

- **Choose Sensible Cleaners.** Use a biodegradable detergent when you wash your motorcycle. Avoid aerosol spray cleaners that contain chlorofluorocarbons (CFCs) which damage the atmosphere's protective ozone layer. Don't throw cleaning solvents away; see the following guidelines for proper disposal.
- **Recycle Wastes.** It's illegal and thoughtless to put used engine oil in the trash, down a drain, or on the ground. Used oil, gasoline, coolant, and cleaning solvents contain poisons that can hurt refuse workers and contaminate our drinking water, lakes, rivers, and oceans. Before changing your oil, make sure you have the proper containers. Put oil and other toxic wastes in separate sealed 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.

Taking Care of the Unexpected

This section discusses the more common problems that can occur with your motorcycle while you're riding. It tells you how to evaluate each problem and what actions you can take to try to resume riding. If the problem cannot be safely solved, this section also gives instructions on the proper way to have your motorcycle transported.

For information about transporting your motorcycle, see page 150 .

General Guidelines

Keeping your motorcycle well-maintained is the best way to reduce the possibility of having a problem on the road.

Remember to take along your owner's manual, the tool kit that came with your motorcycle, and any other items (such as tire repair supplies and additional tools) that might help you solve a problem on your own.

Should you ever have a problem while riding, please follow these guidelines:

- Always put personal safety first.
- Take time to assess the situation and your options before deciding what to do.
- If the problem is relatively minor and you have the tools, supplies, and skills to make a temporary repair, be sure to have permanent repairs made as soon as possible.
- Do not continue riding if you are hurt or your motorcycle is not in safe riding condition.

Additional recommendations for specific problems follow.

If Your Engine Quits or Won't Start

Proper operation and maintenance can prevent starting and engine performance problems. In many cases, the cause of the problem may be a simple operational oversight.

If you have a problem starting the engine—or experience poor engine performance—the following information may help you. If you can't correct the problem, see your Honda dealer.

If your motorcycle won't start, listen as you press the start button. If you don't hear the starter motor turning, refer to the *Starter motor doesn't operate* symptom. If you can hear the starter motor working normally, refer to the *Starter motor works, but the engine won't start* symptom.

If Your Engine Quits or Won't Start

SYMPTOM: **Starter motor doesn't operate.**	
POSSIBLE CAUSE	WHAT TO DO
ignition switch OFF	Turn the ignition switch ON.
transmission not in neutral	Shift into neutral.
side stand down (when transmission not in neutral)	Put the transmission in neutral or raise the side stand and pull the clutch lever in.
blown fuse	Replace with a new fuse of the same rating (page 169).
battery lead loose	Tighten the battery lead.
low (or dead) battery	Charge the battery (page 137). If charging doesn't help, see your Honda dealer.
faulty starter motor	If all possible causes are negative, the starter motor may be faulty. See your Honda dealer.

SYMPTOM: **Starter motor works, but the engine won't start.**	
POSSIBLE CAUSE	WHAT TO DO
engine stop switch OFF	Turn the engine stop switch to RUN.
out of fuel	Fill the fuel tank.
flooded engine	See *Flooded Engine* (page 44).
loose or unconnected spark plug caps	Install the spark plug caps securely. If the engine still won't start, see your Honda dealer.
loose battery cables	Tighten the battery terminal bolts.
weak battery	Charge the battery (page 137). If charging doesn't help, see your Honda dealer.

If Your Engine Quits or Won't Start

SYMPTOM: **Engine starts, but stalls as you shift into gear.**	
POSSIBLE CAUSE	WHAT TO DO
side stand down	Raise the side stand. Start again.

SYMPTOM: **Engine starts, but runs poorly.**	
POSSIBLE CAUSE	WHAT TO DO
idles roughly, too fast, stalls	Check engine idle adjustment (page 100). If the problem persists, see your Honda dealer.
runs erratically, misfires	See your Honda dealer.
blubbers (rich fuel mixture)	See your Honda dealer.

SYMPTOM: **Engine starts, but runs poorly (cont'd).**	
POSSIBLE CAUSE	WHAT TO DO
sooty exhaust (rich fuel mixture)	See your Honda dealer.
detonates or pings under load	If applicable, switch to the recommended octane gasoline (page 79) or change your brand of gasoline. If the problem persists, see your Honda dealer.
afterfires (backfires)	See your Honda dealer.
pre-ignition (runs on after ignition switched OFF)	See your Honda dealer.

If You Have a Flat Tire

A flat tire is always unwelcome, especially if you are far from help. If you think you are losing air, or you hit a pothole or hard object, pull safely to the side of the road so you can inspect the tires and assess the situation. (Be sure to park on a firm, level surface and use the side stand for support.) You should examine the tire treads and sidewalls for foreign objects or damage.

If a tire has major damage or the bead has come loose from the rim, there is probably not much you can do except have your motorcycle transported to a Honda dealer or other qualified service facility. Even with a simple puncture, this may be the safest and least troublesome solution. For transporting instructions, see page 150 .

Honda does not recommend that you make a temporary repair to a tube-type tire. However, if you decide to make a temporary repair so you can get to a service facility, ride cautiously at reduced speed and have the tube and tire replaced before you ride again.

⚠ WARNING

Riding your motorcycle 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 repair, ride slowly and carefully and do not exceed 30 mph (50 km/h) until the tire and tube are replaced.

Due to the uncertainty of any temporary repair, you should ride slowly (not over 30 mph, 50 km/h) and carefully (preferably without a passenger or cargo) until the tire and tube are replaced. Stop frequently and check the air pressure. If the tire is losing pressure, it may be unsafe to continue riding. As the tire gets low, it will affect the handling of your motorcycle (especially with a passenger and cargo) and it may overheat and blow out.

Should You Repair or Replace a Tire or Tube?

We strongly recommend that you replace, not repair, any tire or tube that is punctured or damaged, even if the tire has only a minor puncture. For a full discussion of repairs and replacement, see the text beginning on page 122.

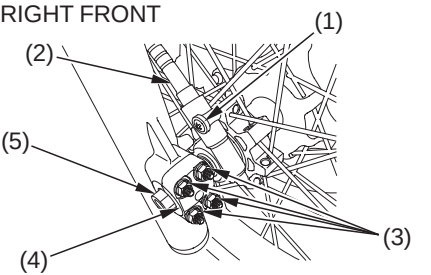
Emergency Front Wheel Removal/Installation

Refer to *Safety Precautions* on page 60 .

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

Removal

1. Park your motorcycle on a firm, level surface.
2. Raise the front wheel off the ground by placing a support block under the engine.
3. Remove the speedometer cable set screw (1) and disconnect the speedometer cable (2).
4. Remove the front axle holder nuts (3) and the front axle holder (4).



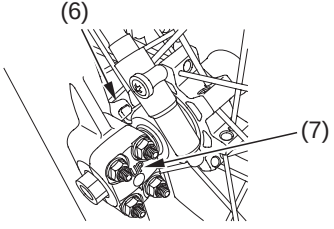
(1) speedometer cable set screw
(2) speedometer cable
(3) front axle holder nuts
(4) front axle holder
(5) front axle shaft

5. Remove the front axle shaft (5) and the wheel.

   Avoid pressing the brake lever when the wheel is off the motorcycle. This will force the caliper pistons out of the cylinders. The result will be loss of brake fluid. If this occurs, the brake system will require service. See your Honda dealer for this service.

Installation

1. Position the wheel between the fork legs and insert the front axle shaft from the right side, through the right fork leg and wheel hub.
   - To avoid damaging the brake pads while installing the wheel, carefully fit the brake disc between the pads.
2. Position the lug (6) on the speedometer gearbox against the lug on the right fork leg.



(6) lug
(7) UP mark

(cont'd)

3. Tighten the front axle shaft to the specified torque:
   63 lbf·ft (85 N·m , 8.7 kgf·m)
4. Install the axle holder with the UP mark (7) upward and first tighten the front axle upper holder nuts to the specified torque, then tighten the lower holder nuts to the same torque:
   9 lbf·ft (12 N·m , 1.2 kgf·m)
5. Operate the front brake and pump the fork several times. Check for free wheel rotation after the brake is released. Recheck the wheel if the brake drags or the wheel does not rotate freely.
6. Install the speedometer cable and tighten the screw securely.

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

Emergency Rear Wheel Removal/Installation

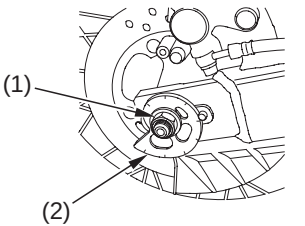
Refer to *Safety Precautions* on page 60 .

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

Removal

1. Park your motorcycle on a firm, level surface.
2. Raise the rear wheel off the ground by placing a support block under the engine.
3. Loosen the rear axle nut (1).
4. Turn both adjusters (2) so the rear wheel can be moved all the way forward for maximum drive chain slack.

RIGHT REAR



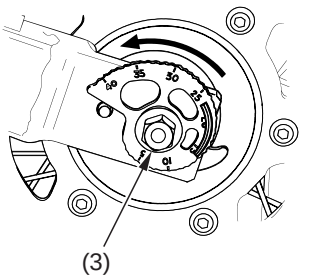
(1) rear axle nut (2) adjuster

5. Remove the rear axle nut (1).

(cont'd)

6. Remove the drive chain from the rear sprocket by pushing the rear wheel forward.

LEFT REAR



(3) rear axle shaft

7. Remove the rear axle shaft (3), side collars and rear wheel from the swingarm.

- Avoid depressing the brake pedal when the wheel is off the motorcycle. This will force the caliper pistons out of the cylinders. The result will be a loss of brake fluid. If this occurs, the brake system will require service. See your Honda dealer for this service.

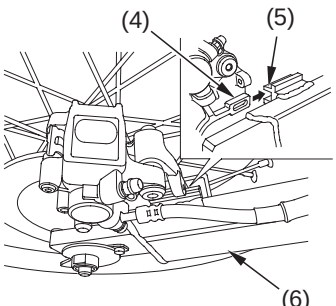
Installation

1. Apply multi-purpose grease inside the side collars and install them into the rear wheel.
   - While installing the wheel, carefully fit the brake disc between the brake pads to avoid damaging the pads.

- Avoid getting grease, oil, or dirt on the disc or pad surfaces. Any contamination can cause poor brake performance or rapid pad wear after reassembly.

2. Install the brake caliper onto the swingarm.
   - Make sure the lug (4) on the brake caliper holder is located in the slot (5) in the swingarm (6).
3. Place the wheel into the swingarm and install the drive chain over the rear sprocket.
   - While installing the wheel, carefully fit the brake disc between the brake pads to avoid damaging the pads.
4. Install the rear axle shaft and chain adjusters. Check that the chain adjusters are installed properly.

RIGHT REAR



(4) lug
(5) slot
(6) swingarm

(cont'd)

5. Tighten the rear axle nut to the specified torque:
   65 lbf·ft (88 N·m , 9.0 kgf·m)
   Failure to provide adequate disc-to-caliper holder clearance may damage the brake discs and impair braking efficiency.
6. After installing the wheel, adjust the drive chain (page 129).
7. After installing the wheel, apply the brakes several times, then recheck both discs for caliper holder to disc clearance. Do not operate the motorcycle without adequate clearance.

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

All of the electrical circuits on your motorcycle have fuses to protect them from damage caused by excess current flow (short circuit or overload).

If something electrical on your motorcycle stops working, the first thing you should check for is a blown fuse.
Determine from the chart on the circuit fuse box cover which fuse or fuses control that component. Check those fuses first, but check all the fuses before looking elsewhere for another possible cause of the problem. Replace any blown fuses and check component operation.

- The circuit fuse box (including spare fuses) is located behind the left side cover.

Recommended Fuses

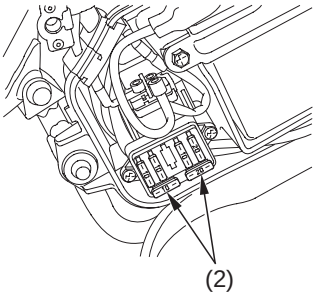
main fuse	20A
other fuses	10A

1. To prevent an accidental short circuit, turn the ignition switch OFF before checking or replacing the fuses.

(cont'd)

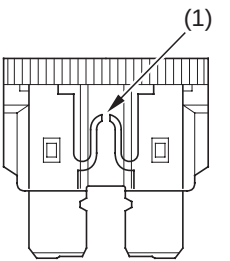
If a Fuse Blows

LEFT SIDE



(2) spare fuses

2. For access to the circuit fuses, remove the left side cover (page 75).
3. Open the battery compartment cover.
4. To check or replace a circuit fuse, pull the old fuse out of its retaining clips. Look for a burned wire inside the fuse. If the fuse is blown (1), replace it with a spare fuse (2) of the same rating.



(1) blown fuse

If you do not have a replacement fuse with the proper rating for the circuit, install one with a lower rating.

NOTICE

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

5. Close the battery compartment cover and install the left side cover.

If you do not have a spare fuse and you cannot ride the motorcycle without fixing the problem, take a fuse of the same rating or a lower rating from one of the other circuits that you can do without temporarily.

If you replace a blown fuse with a spare fuse that has a lower rating, replace the fuse with the correct rating as soon as you can. Also remember to replace any spare fuses that were installed.

If the replacement fuse of the same rating burns out in a short time, there is probably a serious electrical problem on your motorcycle. Leave the blown fuse in that circuit and have your motorcycle checked by your Honda dealer.

If You Crash

Personal safety is your first priority after a crash. 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 that you are capable of riding safely, first evaluate the condition of your motorcycle. If the engine is still running, turn it off and look it over carefully; inspect it for fluid leaks, check the tightness of critical nuts and bolts, and secure such parts as the handlebar, control levers, brakes, and wheels.

If there is minor damage, or you are unsure about possible damage, ride slowly and cautiously. Sometimes, crash damage is hidden or not immediately apparent, so you should have your motorcycle thoroughly checked at a qualified service facility as soon as possible. Also, be sure to have your Honda dealer check the frame and suspension after any serious crash.

If your motorcycle cannot be ridden, see *Transporting Your Motorcycle*, page 150.

Be sure to record your key number in the Quick Reference section at the rear of the manual. You'll need this number to have a duplicate key made.

A lost key won't be a problem if you take preventative action. Store one duplicate key in a safe place at home and carry a second duplicate in your wallet.

If you lose your key and aren't carrying a duplicate, either get your spare or have one made. If you don't know your key number, call the dealer where you purchased your Honda. They may have it listed in their records. If they don't, transport your motorcycle to them or the nearest Honda dealer. The dealer will probably have to remove the ignition switch assembly to find the key number so they can make a key for you.

If Your Battery Is Low (or Dead)

Jump starting is not recommended, especially if you use an automobile battery. The greater amperage of an automobile battery when the car engine is running can damage your motorcycle's electrical system.

Bump starting is also not recommended.

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

Technical Information

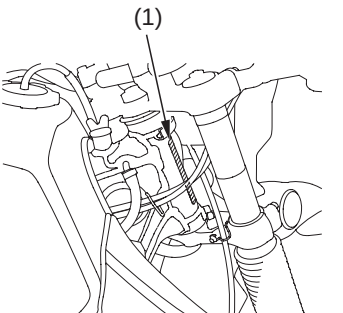
This section contains dimensions, capacities, and other technical data, plus information on government requirements and how to break-in your motorcycle.

Serial Numbers

The VIN and engine serial number are required when you register your motorcycle. They may also be required when ordering replacement parts. You may record these numbers in the Quick Reference section at the rear of this manual.

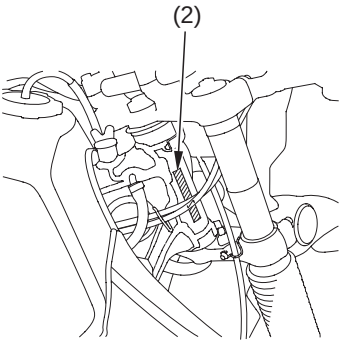
The VIN (vehicle identification number) is stamped on the right side of the steering head and also appears on the Safety Certification Label attached to the right side of the steering head.

RIGHT SIDE



(1) VIN

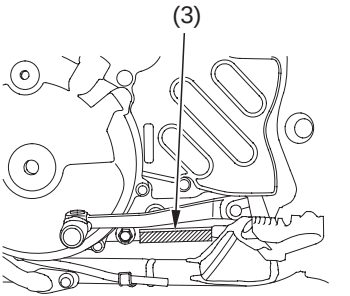
RIGHT SIDE



(2) VIN

The engine number (3) is stamped on the left side of the crankcase.

LEFT SIDE



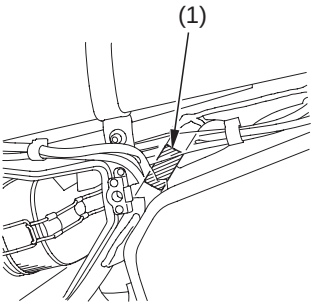
(3) engine number

Color Label & Code

The color label (1) is attached to the frame behind the left side cover. Remove the left side cover (page 75) to check the label.

The color code is helpful when ordering replacement parts. You may record the color and code in the Quick Reference section at the rear of this manual.

LEFT SIDE



(1) color label

Dimensions	
overall length	86.2 in (2,190 mm)
overall width	33.7 in (855 mm)
overall height	49.0 in (1,245 mm)
wheelbase	57.3 in (1,455 mm)
ground clearance	13.0 in (330 mm)

Specifications

Fuel & Lubricants	
fuel recommendation	unleaded gasoline, pump octane number of 86 or higher
fuel tank capacity	2.77 US gal (10.5 ℓ) including reserve
fuel tank reserve	0.61 US gal (2.3 ℓ)
engine oil capacity	after disassembly: 2.4 US qt (2.3 ℓ) after draining: 2.0 US qt (1.9 ℓ) after draining & oil filter change: 2.06 US qt (1.95 ℓ)
engine oil recommendation	API Service Classification SG or higher except oils labeled as energy 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 (Canada only), or an equivalent motorcycle oil
drive chain lubricant	Pro Honda HP Chain Lube or an equivalent chain lubricant designed specifically for use on O-ring chains

Capacities	
passenger capacity	Operator and one passenger
maximum weight capacity	328 lbs (149 kg) rider, passenger, all cargo and accessories

Engine Specifications	
displacement	39.3 cu-in (644 cm^3)
bore & stroke	3.94 × 3.23 in (100 × 82 mm)
compression ratio	8.3 : 1
spark plug (standard)	DPR8EA-9 (NGK) or X24EPR-U9 (DENSO)
spark plug (cold climate)	DPR7EA-9 (NGK) or X22EPR-U9 (DENSO)
spark plug (high speed riding)	DPR9EA-9 (NGK) or X27EPR-U9 (DENSO)
spark plug gap	0.031−0.035 in (0.80−0.90 mm)
valve clearance (cold)	intake: 0.004 in (0.10 mm) exhaust: 0.005 in (0.12 mm)
idle speed	1,300 ± 100 rpm

Specifications

Power Transmission	
primary reduction	2.029
gear ratio, 1st	2.666
2nd	1.647
3rd	1.250
4th	1.000
5th	0.840
final reduction	3.000
standard sprocket sizes	drive (engine) sprocket: 15 teeth driven (rear wheel) sprocket: 45 teeth
final drive	chain DID520V8 or RK520MOZ6

Chassis & Suspension	
caster	27°
trail	4.0 in (102 mm)
tire size, front	3.00－21 51S DUNLOP K850 or BRIDGESTONE TW-301
tire size, rear	4.60－18 63S DUNLOP K850 or BRIDGESTONE TW52
tire type	bias-ply, tube
tire pressure, front (cold)	22 psi (150 kPa , 1.50 kgf/cm²)
tire pressure, rear (cold)	22 psi (150 kPa , 1.50 kgf/cm²)

Electrical	
battery	12V－8Ah
generator	0.188 kW/5,000 rpm

Specifications

Lights	
headlight	12V-60/55W
brake/tail light	12V-32/3CP
turn signal lights	12V-32CP (front) 12V-32CP (rear)
instrument lights	12V-2CP
neutral indicator	12V-2CP
turn signal indicator	12V-2CP
high beam indicator	12V-1CP
side stand indicator	12V-1CP

Fuses	
main	20A
other fuses	10A

Torque Specifications	
crankcase drain bolt	18 lbf·ft (25 N·m , 2.5 kgf·m)
frame drain bolt	29 lbf·ft (39 N·m , 4.0 kgf·m)
oil filter bolt	9 lbf·ft (12 N·m , 1.2 kgf·m)
front wheel axle	63 lbf·ft (85 N·m , 8.7 kgf·m)
front wheel axle holder nut	9 lbf·ft (12 N·m , 1.2 kgf·m)
rear wheel axle nut	65 lbf·ft (88 N·m , 9.0 kgf·m)

Break-in Guidelines

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

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

High Altitude Carburetor Adjustment

Your engine's air-fuel mixture becomes overly rich when operated at high altitudes. Above 6,500 feet (2,000 m), a rich mixture can cause driveability problems, reduce engine performance, and increase fuel consumption. To compensate, you can have the carburetor adjusted for high altitude riding. See your Honda dealer.

However, the carburetor must be returned to standard factory specifications before riding again at lower altitudes (below 5,000 feet, 1,500 m). See your Honda dealer.

Sustained riding at lower altitudes with the lean high-altitude setting may cause rough idling, stalling, or engine damage from overheating.

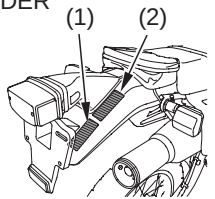
Emission Control Systems

Exhaust Emission Requirements
The U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and Environment Canada (EC) require that your motorcycle comply with applicable exhaust emissions standards during its useful life, when operated and maintained according to the instructions provided.

Noise Emission Requirements
The EPA also requires that motorcycles 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 sale to the ultimate purchaser, when operated and maintained according to the instructions provided.

Warranty Compliance
Compliance with the terms of the Distributor's Warranties for Honda Motorcycle Emission Control Systems is necessary in order to keep the emissions system warranty in effect. (USA only)

RIGHT SIDE
REAR FENDER



(1) vehicle emission control information label
(2) vehicle emission control information label (Canada only)

The Vehicle Emission Control Information label (1) (2) is attached to the rear fender.

Source of Exhaust Emissions

The combustion process produces carbon monoxide (CO), oxides of nitrogen (NOx) and hydrocarbons (HC). Control of hydrocarbons and oxides of nitrogen is very important because, under certain conditions, they react to form photochemical smog when subjected to sunlight. Carbon monoxide does not react in the same way, but it is toxic.

Honda Motor Co., Ltd. utilizes various systems to reduce carbon monoxide, oxides of nitrogen and hydrocarbons.

Emission Control Systems

Exhaust Emission Control System
The exhaust emission control system consists of a secondary air injection system.

No adjustments to this system should be made although periodic inspection of the components is recommended.

Secondary Air Injection System
The secondary air injection system introduces filtered air into the exhaust gases in the exhaust port. The secondary air injection system helps improve emission control performance.

Evaporative Emission Control System (California only)
This motorcycle complies with the requirements of the California Air Resources Board (CARB) evaporative emission regulations. Fuel vapor from the fuel tank and carburetor is directed into the charcoal canister and air cleaner where it is absorbed and stored while the engine is stopped. When the engine is running and the purge control diaphragm valve is open, fuel vapor in the charcoal canister and air cleaner is drawn into the engine through the carburetor.

Crankcase Emission 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 air cleaner and the carburetor.

Problems That May Affect Motorcycle Exhaust Emissions

If you are aware of any of the following symptoms, have the vehicle inspected and repaired by your authorized Honda motorcycle dealer.

Symptoms:

1. Hard starting or stalling after starting
2. Rough idle
3. Misfiring or backfiring during acceleration
4. After-burning (backfiring)
5. Poor performance (driveability) and poor fuel economy

Noise Emission Control System

TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED: U. S. federal law prohibits, or 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.

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

1. Removal of, or puncturing the muffler, baffles, header pipes or any other component which conducts exhaust gases.
2. Removal of, or puncturing of any part of the intake system.
3. Lack of proper maintenance.
4. Replacing any moving parts of the vehicle, or parts of the exhaust or intake system, with parts other than those specified by the manufacturer.

Fuel Permeation Emission Control System

This vehicle complies with the Fuel Permeation Emission Control regulations of the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and Environment Canada (EC). The fuel tank, fuel hoses, and fuel vapor charge hoses used on this vehicle incorporate fuel permeation control technologies. Tampering with the fuel tank, fuel hoses, or fuel vapor charge hoses to reduce or defeat the effectiveness of the fuel permeation technologies is prohibited by federal regulations.

Oxygenated Fuels

Some conventional gasolines are being blended with alcohol or an ether compound. These gasolines are collectively referred to as oxygenated fuels. To meet clean air standards, some areas of the United States and Canada use oxygenated fuels to help reduce emissions. If you use an oxygenated fuel, be sure it is unleaded and meets the minimum octane rating requirement.

Before using an oxygenated fuel, try to confirm the fuel's contents. Some states/provinces require this information to be posted on the pump.

The following are the EPA-approved percentages of oxygenates:

ETHANOL (ethyl or grain alcohol) 10% by Volume

You may use gasoline containing up to 10% ethanol by volume. Gasoline containing ethanol may be marketed under the name ''Gasohol''.

MTBE (Methyl Tertiary Butyl Ether) 15% by Volume

You may use gasoline containing up to 15% MTBE by volume.

METHANOL (methyl or wood alcohol) 5% by Volume

You may use gasoline containing methanol containing up to 5% methanol by volume as long as it also contains cosolvents and corrosion inhibitors to protect the fuel system. Gasoline containing more than 5% methanol by volume may cause starting and/or performance problems. It may also damage metal, rubber, and plastic parts of your fuel system.

If you notice any undesirable operating symptoms, try another service station or switch to another brand of gasoline.

Fuel system damage or performance problems resulting from the use of an oxygenated fuel containing more than the percentages of oxygenates mentioned above are not covered under warranty.

Oxygenated fuels can damage paint and plastic. Be careful not to spill fuel when filling the fuel tank. Wipe up any spills immediately.

NOTICE

Oxygenated fuels can damage paint and plastic. Damage caused by spilled fuel is not covered by warranty.

Consumer Information

This section contains information on your warranty and how to get an official Honda Service Manual.

Authorized Manuals

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

Also available but not necessary to service your model is the Honda Common Service Manual which explains theory of operation and basic service information for various systems common to all Honda motorcycles, motor scooters and ATVs.

These Honda manuals are written for the professional technician, but most mechanically capable owners should find them easy to use if they have the proper tools and observe proper safety standards. Special Honda tools are necessary for some procedures.

Publication Item No.	Description	Price Each*
61MY651	2009 XR650L Service Manual	$45.00
61CM002	Common Service Manual	$48.00
31MY6760	2009 XR650L Owner's Manual	$16.00
**Prices are subject to change without notice and without incurring obligation.*		

Order On-Line: 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

OR

By completing this form you can order the materials desired. You can pay by check or money order, or charge to your credit card. Mail to Helm, Inc. at the address shown on the back of this order form (USA only).

Canada: See your Honda dealer to order authorized manuals.

Publication Item No.	Item Description	Qty.	Price Each*	Total Price
*Prices are subject to change without notice and without incurring obligation.		**Sub Total**		
		Purchaser's Sales Tax **Mich. add 6 %** **Calif. add 7.25 %**		
Orders are mailed within 10 days. Please allow adequate time for delivery.		**Handling Charge**		**$3.75**
		Grand Total		

SHIP TO

NOTE: Dealers and Companies please provide dealer or company name, and also the name of the person to whose attention the shipment should be sent.

Customer Name _____ Attention _____

Street address/P. O. BOX _____ Apartment Number _____

City _____ State _____ Zip Code _____

Daytime Telephone Number ( ) _____

PAYMENT

☐ Check or money order enclosed payable to Helm Inc.
U.S. funds only. Do not send cash.

☐ Check here if your billing address is different from the shipping address shown above.

☐ MasterCard
☐ VISA
☐ Discover

Account Number ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

Expiration: Mo. Yr. ☐☐ – ☐☐

Security Code ☐☐☐

Customer Signature _____ Date _____

These Publications cannot be returned for credit without receiving advance authorization within 14 days of delivery. For returns, a restocking fee may be applied against the original order.

HELM P.O. BOX 07280, DETROIT, MICHIGAN 48207

Warranty Coverage

Your new Honda is covered by these warranties:

- Motorcycle Limited Warranty
- Emission Control System Warranty
- Noise Control Warranty

There are responsibilities, restrictions, and exclusions which apply to these warranties. Please read the Warranties Booklet given to you by your Honda dealer at the time of purchase. Be sure to keep your Honda owner's card with your Warranties Booklet (USA only).

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

Your warranty coverage will not be voided if you choose to perform your own maintenance. However, you should have the proper tools and service information and be mechanically qualified. Failures that occur due directly to improper maintenance are not covered.

Almost all of your warranty coverage can be extended through the Honda Protection Plan (USA only). For more information, see your Honda dealer.

Warranty Service

Please remember that recommended maintenance interval servicing is not included in your warranty coverage. Additionally, your warranty does not apply to the normal wear of items (such as brakes, tires, etc.).

If you believe you have a problem with your motorcycle, call the service department of your Honda dealer. Make an appointment for an inspection and diagnosis. Remember, as the owner of the motorcycle, you will be asked to authorize that inspection. Your dealer will give you the results of the inspection. If the problem is covered under warranty, your dealer will perform the warranty repairs for you.

If you have questions about warranty coverage or the nature of the repair, it is best to talk to the Service Manager of your Honda dealer.

Sometimes, in spite of the best intentions of all concerned, a misunderstanding may occur. If 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 the problem has already been reviewed with the Service Manager, Parts Manager, Sales Manager, etc., contact the Owner of the dealership or their designated representative.

Your owner's manual was written to cover most of the questions you might ask about your Honda. Any questions not answered in the owner's manual can be answered by your Honda dealer. If your dealer doesn't have the answer right away, they will get it for you.

If you have a difference of opinion with your dealer, please remember that each dealership is independently owned and operated. That's why it's important to work to resolve any differences at the dealership level.

If you wish to comment on your experiences with your Honda or with your dealer, please send your comments to the following address (USA only):

Motorcycle Division, American Honda Motor Co., Inc., P.O. Box 2200, Torrance, CA 90509-2200, mailstop: 100-4C-7B, telephone: (866) 784-1870.

Canada: Refer to the Warranties Booklet that was supplied with your vehicle.

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

Once you purchase your new Honda, get familiar with the organization of your Honda dealer so you can utilize the full range of services available.

The service department is there to perform regular maintenance and unexpected repairs. It has the latest available service information from Honda. The service department will also handle warranty inspections and repairs.

The parts department offers Honda Genuine Parts, Pro Honda products, Honda Genuine Accessories (USA only), and Honda accessories and products (Canada only). The same quality that went into your Honda can be found in Honda Genuine replacement parts. You'll also find comparable quality in the accessories and products available from the parts department.

The sales department offers the Honda Protection Plan to extend almost all of your warranty coverage (USA only). Your Honda dealer can inform you about competition and other riding events in your area. You'll also find that your dealer is a source of information about safety training available in your local area and the Honda Rider's Club of America (USA only).

We're sure you'll be as pleased with the service your Honda dealer continues to provide after the sale as you are with the quality and dependability of your Honda.

The Honda Rider's Club (USA only)

You may be eligible for a Honda Rider's Club of America (HRCA) membership with the purchase of your new Honda. You can log on to the HRCA Clubhouse website for details at *www.hrca.honda.com.*

Reporting Safety Defects (USA only)

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

Table of Contents

The following presents the contents of each section of your owner's manual.

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The following is a brief, but important collection of information you need to know about your Honda. You'll also find space to record important notes.

How to Avoid Costly Repairs

The engine of your Honda can be the most expensive component to repair. Proper maintenance, especially the use of the recommended fluids and filters, prevents premature wear and damage.

Frequent causes of costly repairs are:

- Engine oil — insufficient quantity, improper oil.
- Air cleaner — dirty, leaking because of improper installation (poor seal).

Record important information on the following page:

Quick Reference

VIN	
Engine No.	
Ignition Key No.	
Color Label	
Owner's Name	
Address	
City/State	
Phone	
Dealer's Name	
Address	
City/State	
Phone	
Service Mgr.	

Scheduled Maintenance	Initial: 600 miles (1,000 km) Regular: every 4,000 miles (6,400 km)
Pre-ride Inspection	Check the following items each time before you ride (page 31): tires & wheels, chain, leaks, loose parts, lights, throttle, brakes, indicators.
Periodic Checks	Check the following items monthly (page 63): tires & wheels, fluids, lights, freeplay, drive chain, fuses, nuts & bolts.
Fuel/Capacity	unleaded gasoline, pump octane number 86 or higher 2.77 US gal (10.5 ℓ) reserve: 0.61 US gal (2.3 ℓ)
Engine Oil	API Service Classification SG or higher except oils labeled as energy conserving on the circular API service label, SAE 10W-30, JASO T 903 standard MA, Pro Honda GN4 4-stroke oil or equivalent
Maximum Weight Capacity	328 lbs (149 kg) rider, passenger, all cargo and accessories

Quick Reference

Tires	Front: 3.00－21 51S DUNLOP K850 or BRIDGESTONE TW-301 Rear: 4.60－18 63S DUNLOP K850 or BRIDGESTONE TW52 Type: bias-ply, tube
Tire Pressure (cold)	Front: 22 psi (150 kPa , 1.50 kgf/cm²) Rear: 22 psi (150 kPa , 1.50 kgf/cm²)
Spark Plug	standard: DPR8EA-9 (NGK) or X24EPR-U9 (DENSO) cold climate: DPR7EA-9 (NGK) or X22EPR-U9 (DENSO) high speed riding: DPR9EA-9 (NGK) or X27EPR-U9 (DENSO)
Fuses	main: 20A other: 10A

These symbols are used in Controls & Features section:

SYMBOL	COMPONENT	SEE PAGE
	choke lever	20
	START button	22
	RUN − engine stop switch	22
	OFF − engine stop switch	22
	HI − headlight dimmer switch	23
	LO − headlight dimmer switch	23
	turn signal switch	23
	horn button	24