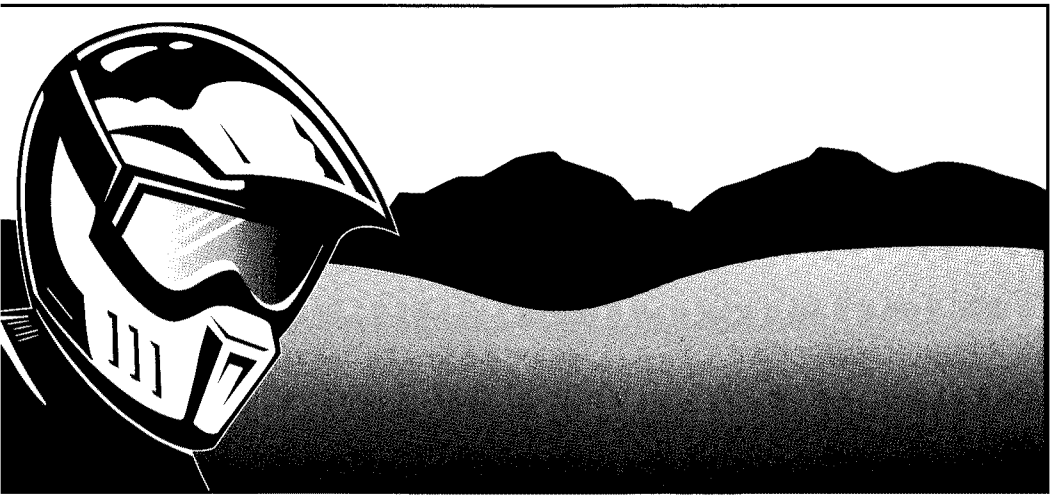
HONDA

OWNER'S MANUAL



CRF230L

Honda CRF230L

OWNER'S MANUAL

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IMPORTANT INFORMATION

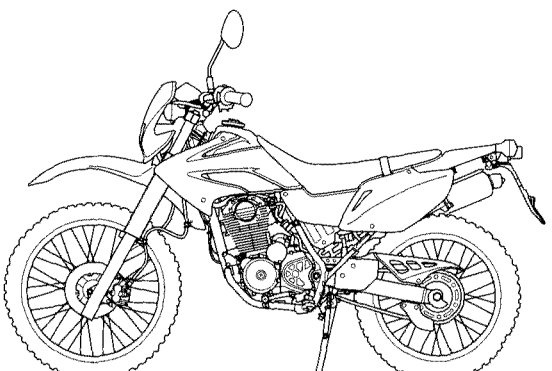
- **OPERATOR AND PASSENGER**
  This motorcycle is designed to carry the operator and one passenger. Never exceed the maximum weight capacity.

- **ON/OFF-ROAD USE**
  This motorcycle is designed for "dual purpose" use.

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

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

Honda CRF230L
OWNER'S MANUAL



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WELCOME

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

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

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

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

Pleasant riding, and thank you for choosing a Honda !

• The following code in this manual indicates the country.

U	Australia	New Zealand

• The specifications may vary with each locale.

A FEW WORDS ABOUT SAFETY

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

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

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

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

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

These signal words mean:

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

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

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

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

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

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MOTORCYCLE SAFETY

IMPORTANT SAFETY INFORMATION

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

There is much that you can do to protect yourself when you ride. You'll find many helpful recommendations throughout this manual. Following are a few that we consider 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 3).

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 the limits is another major cause of motorcycle accident both on-road and off. Never ride beyond your personal abilities or faster than conditions warrant. Remember that alcohol, drugs, fatigue and inattention can significantly reduce your ability to make good judgements and ride safely.

Keep Your Bike in Safe Condition
For safe riding, it's important to keep your motorcycle properly maintained. 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, and use only accessories that have been approved by Honda for this motorcycle. See page 7 for more details.

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

PROTECTIVE APPAREL

For your safety, we strongly recommend that you always wear an approved motorcycle helmet, eye protection, boots, gloves, long 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 proper gear.

⚠WARNING

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

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

Helmets and Eye Protection

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

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

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

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.

LOAD LIMITS AND GUIDELINES

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

In addition, exceeding the weight limits or carrying an unbalanced load can seriously affect your motorcycle's handling, braking, and stability. Adding accessories or making modifications that change this motorcycle's design and performance can also make it unsafe. Also, the weight of any accessories will reduce the maximum load the motorcycle can carry.

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

Loading

How much weight you put on your motorcycle, and how you load it, are important to your safety. If you decide to carry cargo, you should be aware of the following information.

⚠WARNING

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

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

Load Limits

Following are the load limits for your motorcycle:

Maximum weight capacity:
158 kg (348 lbs)
Includes the weight of the rider, passenger, all cargo and all accessories
Maximum cargo weight:
8 kg (18 lbs)

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

Loading Guidelines

Your motorcycle is primarily intended for transporting you and a passenger. You may wish to secure a jacket or other small items to the seat when you are not riding with a passenger.

If you wish to carry more cargo, check with your Honda dealer for advice, and be sure to read the information regarding accessories on page 7 .

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

Follow these guidelines whenever you carry a passenger or cargo:

- Keep cargo small and light. 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.
- Place weight as close to the center of the motorcycle as possible.
- Do not attach large or heavy items (such as a sleeping bag or tent) to the handlebar, fork, or front fender.
- Make sure that all cargo is tied down securely.
- Never exceed the maximum weight limit.
- Check that both tyres are properly inflated (page 25).

Accessories and Modifications

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

⚠ WARNING

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

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

Accessories

We strongly recommend that you use only 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 dealer for assistance and always follow these guidelines:

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

- Be sure electrical equipment does not exceed the motorcycle's electrical system capacity (page 109). A blown fuse can cause a loss of lights or engine power.

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

Modifications

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

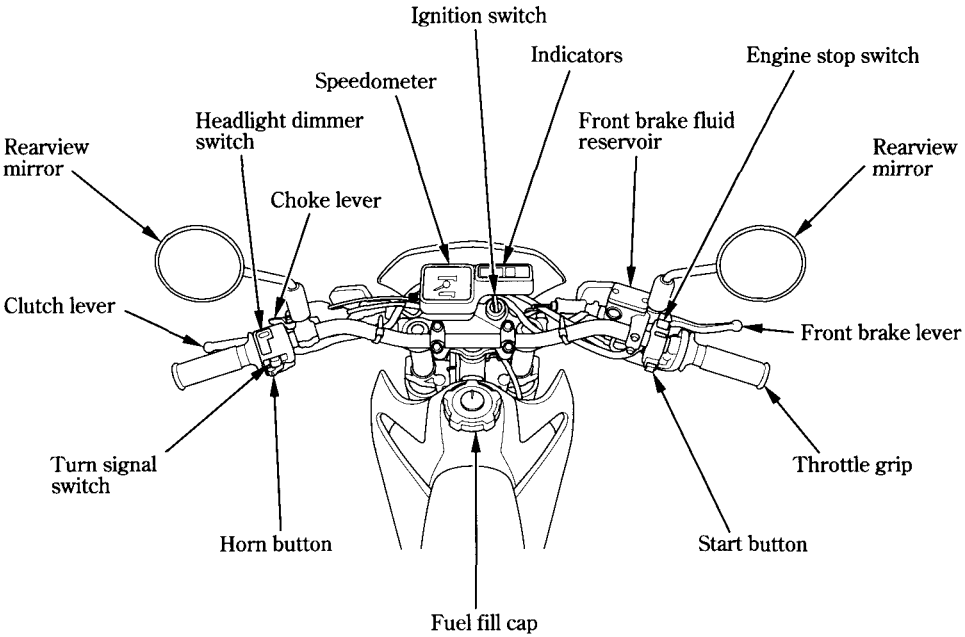
Removing or modifying your lights, mufflers, emission control system or other equipment can also make your motorcycle illegal.

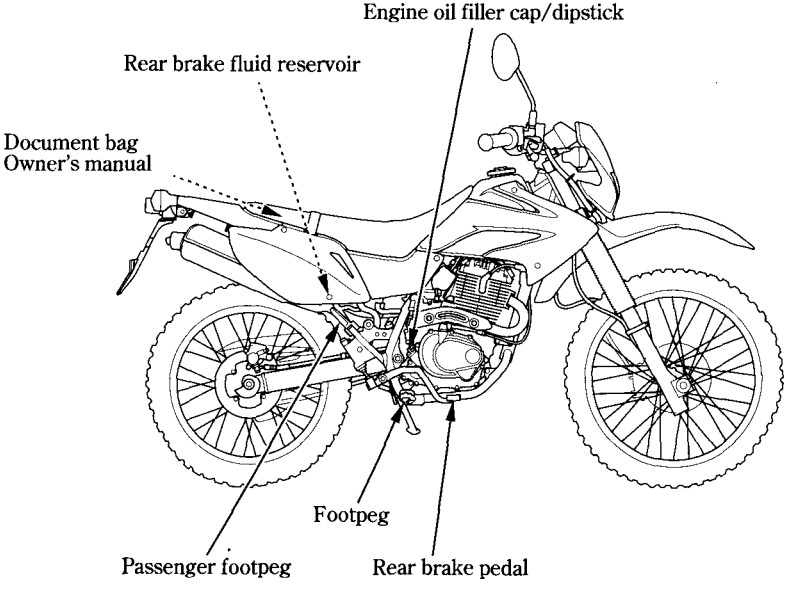
OFF-ROAD SAFETY

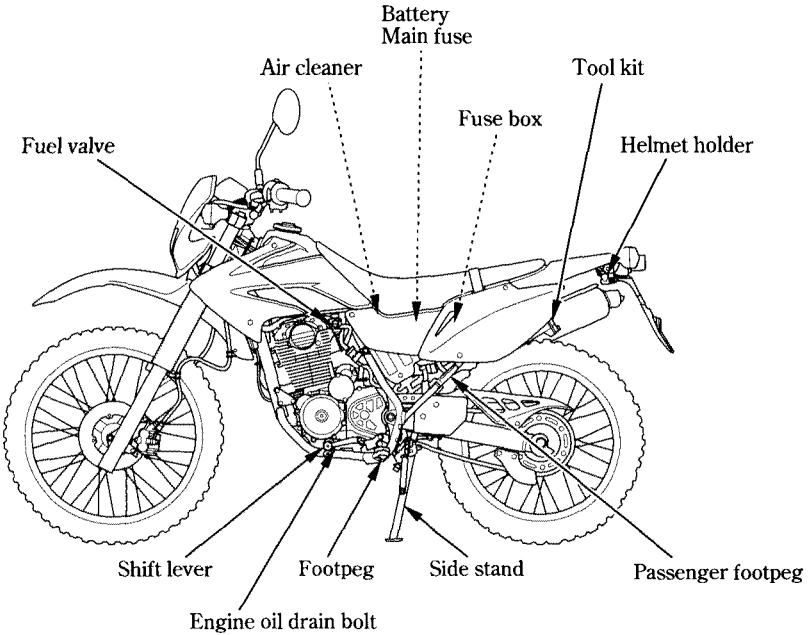
Learn to ride in an uncongested off-road area free of obstacles before venturing onto unfamiliar terrain.

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

PARTS LOCATION



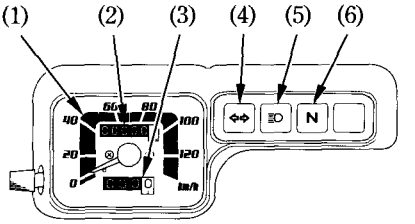

Engine oil filler cap/dipstick
Rear brake fluid reservoir
Document bag
Owner's manual
Footpeg
Passenger footpeg
Rear brake pedal

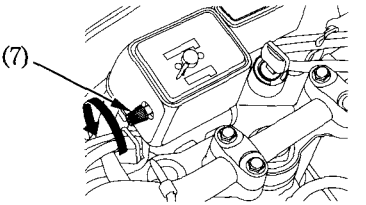

Battery
Main fuse
Air cleaner
Tool kit
Fuse box
Fuel valve
Helmet holder
Shift lever
Footpeg
Side stand
Passenger footpeg
Engine oil drain bolt

INSTRUMENTS AND INDICATORS

The indicators are in the speedometer, above the headlight. Their functions are described in the table on the following page.

(1) Speedometer
(2) Odometer
(3) Tripmeter
(4) Turn signal indicator
(5) High beam indicator
(6) Neutral indicator
(7) Tripmeter reset knob





(Ref.No.) Description	Function
(1) Speedometer	Shows riding speed.
(2) Odometer	Shows accumulated mileage.
(3) Tripmeter	Shows mileage per trip.
(4) Turn signal indicator (green)	Flashes when either turn signal operates.
(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) Tripmeter reset knob	Resets tripmeter to zero (0). Turn knob in direction shown.

MAJOR COMPONENTS
(Information you need to operate this motorcycle)

BRAKES

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

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

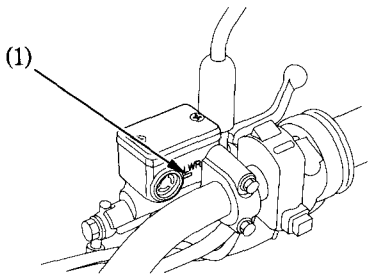
There are no adjustments to perform, but fluid level and pad wear must be inspected periodically. The system must be inspected frequently to ensure there are no fluid leaks.

If the control lever or pedal free travel becomes excessive and the brake pads are not worn beyond the recommended limit (page 88), there is probably air in the brake system and it must be bled. See your Honda dealer for this service.

Front Brake Fluid Level:
With the motorcycle in an upright position, check the fluid level. It should be above the LWR mark (1). If the level is at or below the LWR mark, check the brake pads for wear (page 88).

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

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



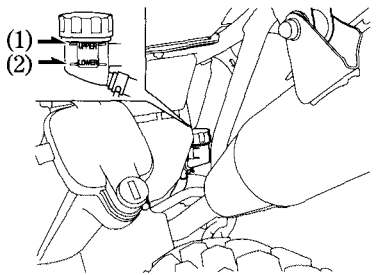
(1) LWR mark

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

Rear Brake Fluid Level:
With the motorcycle in an upright position, check the fluid level. It should be between the UPPER (1) and LOWER (2) level marks. If the level is at or below the LOWER level mark (2), check the brake pads for wear (page 88).

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

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



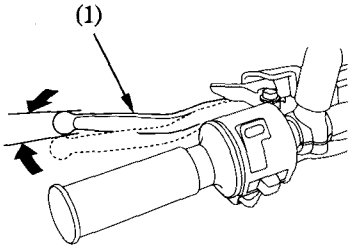
(1) UPPER level mark
(2) LOWER level mark

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

CLUTCH

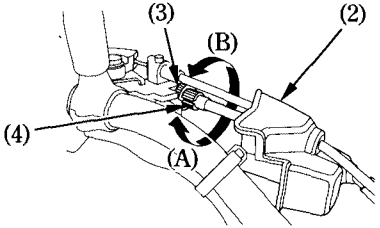
Clutch adjustment may be required if the motorcycle stalls when shifting into gear or tends to creep; or if the clutch slips, causing acceleration to lag behind engine speed. Minor adjustments can be made with the clutch cable adjuster (4) at the clutch lever (1).

Normal clutch lever freeplay is:
10 – 20 mm (0.4 – 0.8 in)



(1) Clutch lever

1. Pull back the rubber dust cover (2).
2. Loosen the lock nut (3) and turn the clutch cable adjuster. Tighten the lock nut and check the adjustment.
3. If the adjuster is threaded out near its limit or if the correct freeplay cannot be obtained, loosen the lock nut and turn in the clutch cable adjuster completely. Tighten the lock nut and install the dust cover.

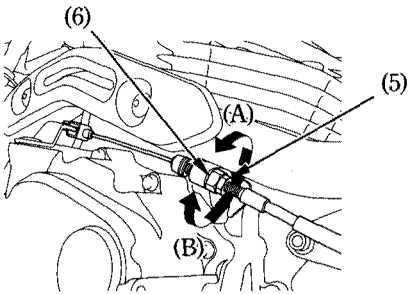


(2) Rubber dust cover
(3) Lock nut
(4) Clutch cable adjuster
(A) Increase freeplay
(B) Decrease freeplay

4. Loosen the lock nut (5) at the lower end of the cable. Turn the adjusting nut (6) to obtain the specified freeplay. Tighten the lock nut and check the adjustment.
5. Start the engine, pull in the clutch lever 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. The motorcycle should begin to move smoothly and accelerate gradually.

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

Other Checks:
Check the clutch cable for kinks or signs of wear that could cause sticking or failure. Lubricate the clutch cable with a commercially available cable lubricant to prevent premature wear and corrosion.



(5) Lock nut
(6) Adjusting nut
(A) Increase freeplay
(B) Decrease freeplay

FUEL

Fuel Valve

The three way fuel valve (1) is on the left side near the carburetor.

ON

With the fuel valve in the ON position, fuel will flow from the main fuel supply to the carburetor.

OFF

With the fuel valve in the OFF position, fuel cannot flow from the tank to the carburetor. Turn the valve OFF whenever the motorcycle is not in use.

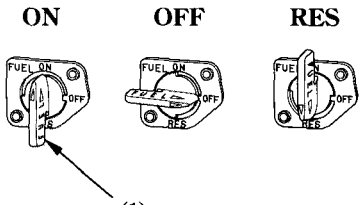
RES

With the fuel valve in the RES position, fuel will flow from the reserve fuel supply to the carburetor. Use the reserve fuel only when the main supply is gone. Refill the tank as soon as possible after switching to RES.

The reserve fuel supply is:

2.7 ℓ (0.71 US gal, 0.59 Imp gal)

Remember to check that the fuel valve is in the ON position each time you refuel. If the valve is left in the RES position, you may run out of fuel with no reserve.



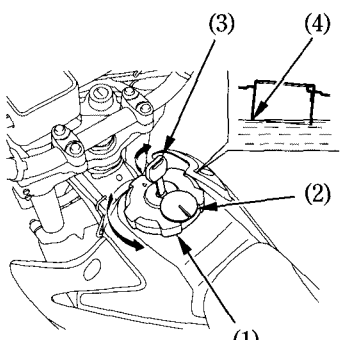
(1) Fuel valve

Fuel Tank

The fuel tank capacity including the reserve supply is:

8.7 ℓ (2.30 US gal , 1.91 Imp gal)

To open the fuel fill cap (1), open the fuel fill cap cover (2), insert the ignition key (3) and turn it clockwise and then turn the fuel fill cap counterclockwise.



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

Do not overfill the tank. There should be no fuel in the filler neck (4).

After refueling, install the fuel fill cap by turning it clockwise. Turn the ignition key counterclockwise and remove it. Close the fuel fill cap cover.

⚠ WARNING

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

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

Use unleaded petrol with a research octane number of 91 or higher.

NOTICE

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

Occasionally you may experience light spark knock while operating under heavy loads. This is no cause for concern, it simply means your engine is operating efficiently.

Petrol Containing Alcohol

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

The use of petrol containing more than 10 % ethanol (or more than 5 % methanol) may:

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

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

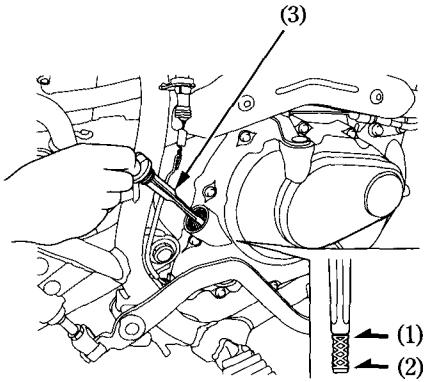
ENGINE OIL

Engine Oil Level Check

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

The level must be maintained between the upper (1) and lower (2) level marks on the oil filler cap/dipstick (3).

1. Start the engine and let it idle for 3−5 minutes.
2. Stop the engine and hold the motorcycle in an upright position on firm, level ground.
3. After 2−3 minutes, remove the oil filler cap/dipstick, wipe it clean, and reinsert the oil filler cap/dipstick without screwing it in. Remove the oil filler cap/dipstick. The oil level should be between the upper and lower level marks on the oil filler cap/dipstick.
4. If required, add the specified oil (see page 65) up to the upper level mark. Do not overfill.
5. Reinstall the oil filler cap/dipstick. Check for oil leaks.



(1) Upper level mark
(2) Lower level mark
(3) Oil filler cap/dipstick

TYRES

To safely operate your motorcycle, the tyres must be the proper type (off-road) and size, in good condition with adequate tread, and correctly inflated.

⚠ WARNING

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

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

Air Pressure

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

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

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

The recommended "cold" tyre pressures are:

Front	125 kPa (1.25 kgf/cm², 18 psi)
Rear	150 kPa (1.50 kgf/cm², 22 psi)

Inspection

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

Look for:

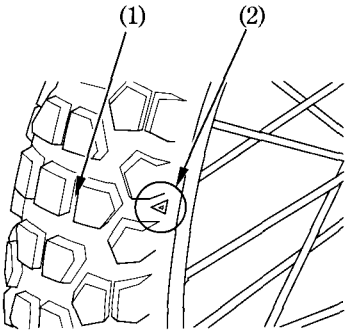
- Bumps or bulges in the side of the tyre or the tread. Replace the tyre if you find any bumps or bulges.
- Cuts, splits or cracks in the tyre. Replace the tyre if you can see fabric or cord.
- Excessive tread wear.

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

Tread Wear

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

Minimum tread depth	
Front:	3.0 mm (0.12 in)
Rear:	3.0 mm (0.12 in)



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

Tube Repair and Replacement

If a tube is punctured or damaged, you should replace it as soon as possible. A tube that is repaired may not have the same reliability as a new one, and it may fail while you are riding.

If you need to make a temporary repair by patching a tube or using an aerosol sealant, ride cautiously at reduced speed and have the tube replaced before you ride again. Any time a tube is replaced, the tyre should be carefully inspected as described on page 26 .

Tyre Replacement

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

⚠ WARNING

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

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

The recommended tyres for your motorcycle are:

Front: 2.75−21 45P
BRIDGESTONE
TW27

Rear: 120/80−18M/C 62P
BRIDGESTONE
TW30

Type: bias-ply, tube

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

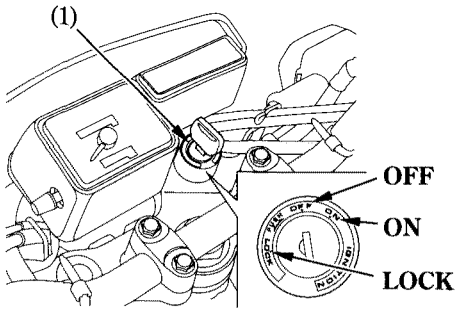
Also remember to replace the inner tube whenever you replace a tyre. The old tube will probably be stretched, and if installed in a new tyre, it could fail.

ESSENTIAL INDIVIDUAL COMPONENTS

IGNITION SWITCH

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

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



(1) Ignition switch

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

RIGHT HANDLEBAR CONTROLS

Engine Stop Switch

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

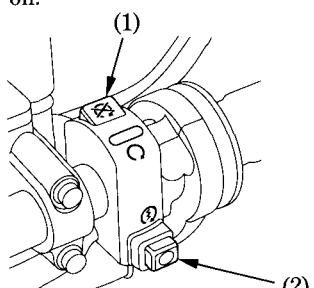
If your motorcycle is stopped with the ignition switch ON and the engine stop switch ⊠ (OFF), the headlight and taillight will still be on, resulting in battery discharge.

Start Button

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

The start button is used for starting the engine. Pushing the button in starts the engine. See Starting Procedure, page 44 .

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.



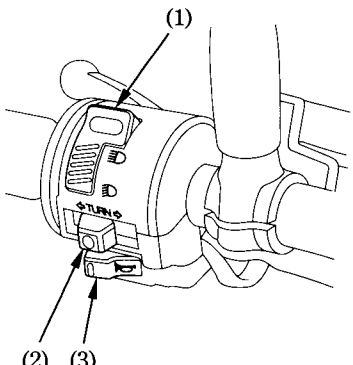
(1) Engine stop switch
(2) Start button

LEFT HANDLEBAR CONTROLS

Headlight Dimmer Switch (1)
Push the dimmer switch to ≡D (HI) to select high beam or to ≡D (LO) to select low beam.

Turn Signal Switch (2)
Move to ⇦ to signal a left turn, ⇨ to signal a right turn. Press to turn signal off.

Horn Button (3)
Press the button to sound the horn.



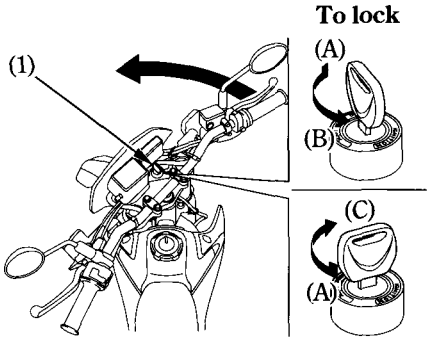
(1) Headlight dimmer switch
(2) Turn signal switch
(3) Horn button

FEATURES
(Not required for operation)

STEERING LOCK

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

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



(1) Ignition key

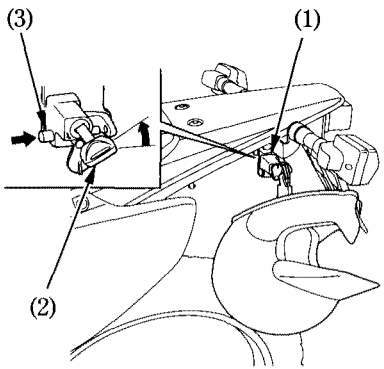
(A) Push in
(B) Turn to LOCK
(C) Turn to OFF

HELMET HOLDER

The helmet holder (1) is on the left side below the rear fender.

Insert the ignition key (2) and turn it counterclockwise to unlock.

Hang your helmet on the holder pin (3) and push it in to lock. Remove the key.



(1) Helmet holder
(2) Ignition key
(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.

RIGHT SIDE COVER

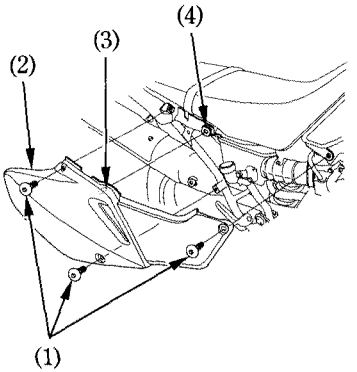
The right side cover must be removed for seat removal.

Removal:

1. Remove the bolts (1).
2. Pull out the right side cover (2).

Installation:

1. Position the right side cover so the prong (3) is aligned with the frame grommet (4).
2. Push the right side cover in place.
3. Install the securing bolts and tighten them.



(1) Bolts
(2) Right side cover
(3) Prong
(4) Grommet

LEFT SIDE COVER

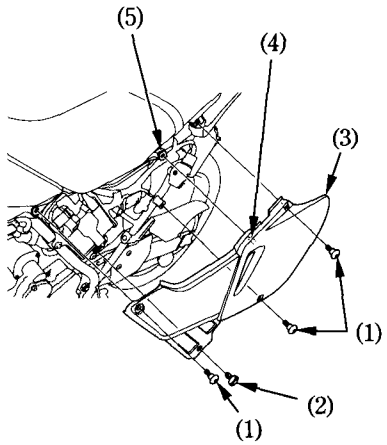
The left side cover must be removed for seat removal, or to service the fuse or battery maintenance.

Removal:

1. Remove the bolts (1) and clip (2).
2. Pull out the left side cover (3).

Installation:

1. Position the left side cover so the prong (4) is aligned with the frame grommet (5).
2. Push the left side cover in place.
3. Install the securing bolts and tighten them.
4. Install the clip.



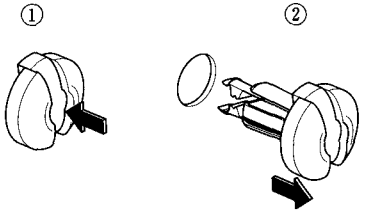
(1) Bolts
(2) Clip
(3) Left side cover
(4) Prong
(5) Grommet

CLIP

Removal:

①Press down on the center pin to release the lock.

②Pull out the clip from the hole.

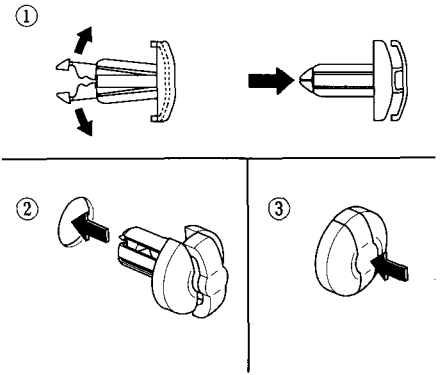


Installation:

①Slightly open the retaining pawls and then push them out.

②Insert the clip into the hole.

③Lightly press down on the center pin to lock the clip.



SEAT

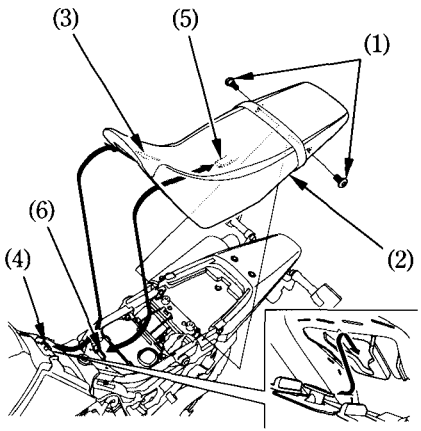
The seat must be removed for air cleaner maintenance and to access the owner's manual.

Removal:

1. Remove the right and left side covers (page 35, 36).
2. Remove the seat mounting bolts (1).
3. Remove the seat (2) by pulling up and backward.

Installation:

1. Insert the front recess (3) into the front prong (4) and the rear prong (5) into the rear recess (6).
2. Tighten the seat mounting bolts securely.
3. Install the both side covers.



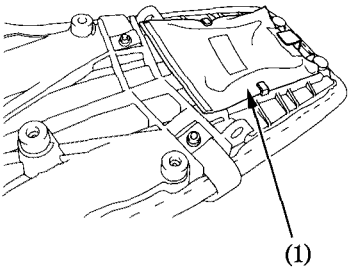
(1) Seat mounting bolts
(2) Seat
(3) Front recess
(4) Front prong
(5) Rear prong
(6) Rear recess

DOCUMENT BAG

The document bag (1) is stored on the under side of the seat (page 38).

This owner's manual and other documents should be stored in the document bag.

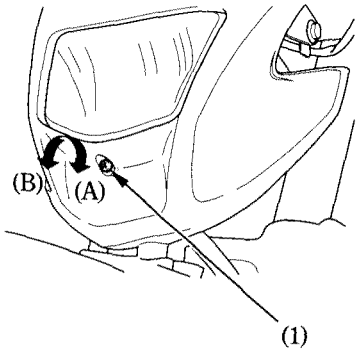
When washing your motorcycle, be careful not to flood this area with water.



(1) Document bag

HEADLIGHT AIM VERTICAL ADJUSTMENT

Vertical adjustment can be made by turning the screw (1) in or out as necessary.
Obey local laws and regulations.



(1) Screw

(A) Up
(B) Down

OPERATION

PRE-RIDE INSPECTION

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

⚠ WARNING

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

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

1. Engine oil level—add engine oil if required (page 24). Check for leaks.
2. Fuel level—fill fuel tank when necessary (page 21). Check for leaks.
3. Front and rear brakes—check operation; make sure there is no brake fluid leakage (pages 15 – 17).
4. Tyres—check condition and pressure (pages 25 – 29).
5. Drive chain—check condition and slack (page 75). Adjust and lubricate if necessary.
6. Chain slider—check slider wear (page 81).
7. Throttle—check for smooth opening and full closing in all steering positions.

8. Clutch—check operation, and adjust if necessary (pages 18 — 19).
9. Lights and horn—check that headlight, brake/tail light, turn signals, indicators and horn function properly.
10. Spark plug and high tension terminal — check for looseness.
11. Engine stop switch—check for proper function (page 31).
12. Side stand ignition cut-off system—check for proper function (page 83).
13. Nuts, bolts, fasteners — check the front wheel to see that the axle shaft and axle holder nuts are tightened securely. Check security of all other nuts, bolts, and fasteners.

STARTING THE ENGINE

Always follow the proper starting procedure described below.

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

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

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

Preparation

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

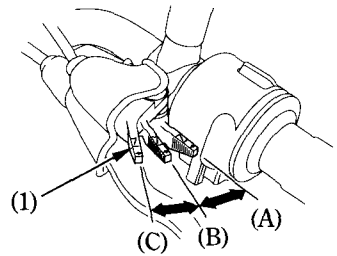
- The transmission is in neutral (neutral indicator is ON).
- The engine stop switch is at ○ (RUN).
- The fuel valve is ON.

Starting Procedure

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

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

1. Pull the choke lever (1) back all the way to Fully ON (A), if the engine is cold.
2. With the throttle closed, press the start button.



(1) Choke lever

(A) Fully ON
(B) Halfway position
(C) Fully OFF

3. Immediately after the engine starts, operate the choke lever to keep fast idle.
4. About a half minute after the engine starts, push the choke lever 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 1/8−1/4 open, press the start button.

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

1. Follow steps 1 − 2 under "Normal Air Temperature."
2. When engine speed begins to pick up, operate the choke lever to keep fast idle.
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.

Flooded Engine

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

1. Leave the engine stop switch set to ○ (RUN).
2. Push the choke lever in all the way to fully OFF.
3. Open the throttle fully.
4. Press the start button for 5 seconds.
5. If the engine starts, quickly close the throttle, then open it slightly if idling is unstable.
   If the engine does not start, wait 10 seconds, then follow the High Air Temperature procedure (page 45).

RUNNING-IN

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

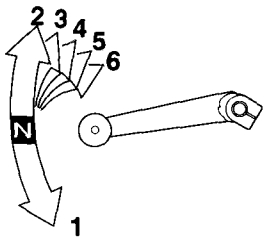
During this period, avoid full-throttle starts and rapid acceleration.

RIDING

Review Motorcycle Safety (pages 1 – 9) before you ride.

Make sure you understand the function of the side stand mechanism. (See MAINTENANCE SCHEDULE on page 58 and explanation for SIDE STAND on page 83).

1. After the engine has been warmed up, the motorcycle is ready for riding.
2. While the engine is idling, pull in the clutch lever and depress the shift lever to shift into 1st (low) gear.
3. Slowly release the clutch lever and at the same time gradually increase engine speed by opening the throttle. Coordination of the throttle and clutch lever will assure a smooth positive start.
4. When the motorcycle attains a moderate speed, close the throttle, pull in the clutch lever and shift to 2nd gear by raising the shift lever.
   This sequence is repeated to progressively shift to 3rd, 4th, 5th and 6th (top) gear.



5. Raise the shift lever to shift to a higher gear and depress the shift lever to shift to a lower gear. Each stroke of the shift lever engages the next gear in sequence. The shift lever automatically returns to the horizontal position when released.

- Do not downshift when traveling at a speed that would force the engine to overrev in the next lower gear; the rear wheel may lose traction, resulting in a possible loss of vehicle control.
- Do not shift gears without disengaging the clutch and closing the throttle. The engine and drive train could be damaged by overspeed and shock.
- Do not tow the motorcycle or coast for long distances while the engine is off. The transmission will not be properly lubricated and damage may result.
- Do not run the engine at high rpm with the transmission in neutral or the clutch lever pulled in. Serious engine damage may result.

BRAKING

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

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

Important Safety Reminders:

- Independent operation of only the brake lever or brake pedal reduces stopping performance.
- Extreme application of the brake controls may cause wheel lock, reducing control of the motorcycle.
- When possible, reduce speed or brake before entering a turn; closing the throttle or braking in mid-turn may cause wheel slip. Wheel slip will reduce control of the motorcycle.
- When riding in wet or rainy conditions, or on loose surfaces, the ability to maneuver and stop will be reduced. All of your actions should be smooth under these conditions. Rapid acceleration, braking or turning may cause loss of control. For your safety, exercise extreme caution when braking, accelerating or turning.
- When descending a long, steep grade, use engine compression braking by downshifting, with intermittent use of both brakes.

  Continuous brake application can overheat the brakes and reduce their effectiveness.
- Riding with your foot resting on the brake pedal or your 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. After stopping the motorcycle, shift the transmission into neutral, turn the fuel valve OFF, turn the handlebar fully to the left, turn the ignition switch OFF and remove the key.
2. Use the side stand to support the motorcycle while parked.

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

3. Lock the steering to help prevent theft (page 33).

ANTI-THEFT TIPS

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

NAME:_____

ADDRESS:_____

_____

_____

PHONE NO:_____

MAINTENANCE

THE IMPORTANCE OF MAINTENANCE

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

Because 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.

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

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

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

⚠ WARNING

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

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

MAINTENANCE SAFETY

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

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

SAFETY PRECAUTIONS

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

MAINTENANCE SCHEDULE

Perform the Pre-ride Inspection (page 41) at each scheduled maintenance period.
I: INSPECT AND CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY
C: CLEAN R: REPLACE A: ADJUST L: LUBRICATE
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 Honda dealer, unless the owner has proper tools and service data and is mechanically qualified. Refer to the Official Honda Shop Manual.
** In the interest of safety, we recommend these items be serviced only by your Honda dealer.

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

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

ITEM	FREQUENCY / WHICHEVER COMES FIRST ↓	NOTE	× 1,000 km	× 1,000 mi	MONTH	ODOMETER READING [NOTE (1)] 1	0.6	6	4	12	8	18	12	24	16	30	20	36	24	36	Refer to Page
*	FUEL LINE									I				I				I			—
*	FUEL STRAINER SCREEN							C		C		C		C		C		C			—
*	THROTTLE OPERATION									I				I				I			73
*	CHOKE OPERATION									I				I				I			—
	AIR CLEANER	NOTE (2)										R						R			62
*	SUB AIR CLEANER											R						R			—
	CRANKCASE BREATHER	NOTE (3)						C		C		C		C		C		C			64
	SPARK PLUG							I		R		I		R		I		R			71
*	VALVE CLEARANCE					I		I		I		I		I		I		I			—
	ENGINE OIL	NOTE (5)				R	EVERY 3,200 km (2,000 mi)											R			68
*	ENGINE OIL STRAINER SCREEN									C				C				C			68
**	ENGINE OIL CENTRIFUGAL FILTER									C				C				C			—
*	ENGINE IDLE SPEED					I		I		I		I		I		I		I			74
*	SECONDARY AIR SUPPLY SYSTEM									I				I				I			—

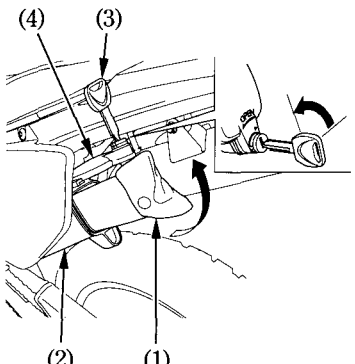
	ITEM	FREQUENCY / WHICHEVER COMES FIRST ↓ NOTE	× 1,000 km / × 1,000 mi MONTH	ODOMETER READING [NOTE (1)] 1 / 0.6	6 / 4	12 / 8	18 / 12	24 / 16	30 / 20	36 / 24	Refer to Page
	DRIVE CHAIN	NOTE (4)		EVERY 1,000 km (600 mi) I, L							75
	DRIVE CHAIN SLIDER				I	I	I	I	I	I	81
	BRAKE FLUID	NOTE (5)			I	I	R	I	I	R	16–17
	BRAKE PADS WEAR				I	I	I	I	I	I	88
	BRAKE SYSTEM			I		I		I		I	15–17, 88
*	BRAKELIGHT SWITCH					I		I		I	94
*	HEADLIGHT AIM					I		I		I	40
	CLUTCH SYSTEM			I	I	I	I	I	I	I	18
	SIDE STAND					I		I		I	83
*	SUSPENSION					I		I		I	82
*	NUTS, BOLTS, FASTENERS	NOTE (4)		I		I		I		I	—
**	WHEELS/TYRES	NOTE (4)		I	I	I	I	I	I	I	—
**	STEERING HEAD BEARINGS			I		I		I		I	—

TOOL KIT

The tool kit (1) is in the tool kit compartment (2) behind the left side cover. To open the tool kit compartment, insert the ignition key (3) and turn it counterclockwise to unlock. To close the tool kit compartment, close the compartment cover (4) and turn the ignition key clockwise to lock.

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

- Spark plug wrench
- 17 mm Box end wrench
- 24 mm Box end wrench
- 8 × 12 mm Open end wrench
- 10 × 14 mm Open end wrench
- Pliers
- No. 2 Phillips screwdriver
- Screwdriver handle
- No. 2 screwdriver
- Extension bar
- 5 mm Hex wrench
- 6 mm Hex wrench
- Tool bag



(1) Tool kit
(2) Tool kit compartment
(3) Ignition key
(4) Compartment cover

SERIAL NUMBERS

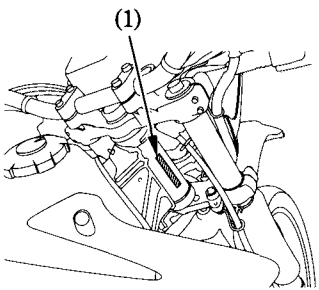
The frame and engine serial numbers are required when registering your motorcycle. They may also be required by your dealer when ordering replacement parts.
Record the numbers here for your reference.

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

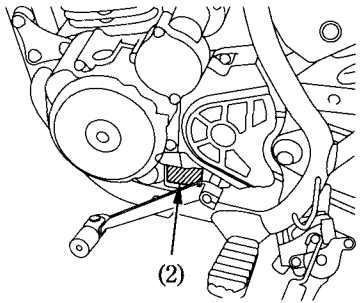
The engine number (2) is stamped on the left side of the crankcase.

FRAME NO._____

ENGINE NO._____



(1) Frame number



(2) Engine number

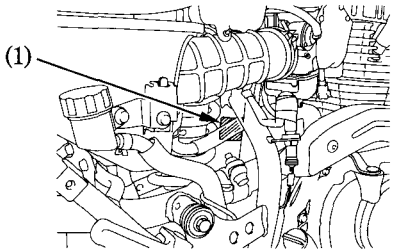
COLOUR LABEL

The colour label (1) is attached to the frame behind the right side cover (page 35).

It is helpful when ordering replacement parts. Record the colour and code here for your reference.

COLOUR_____

CODE_____



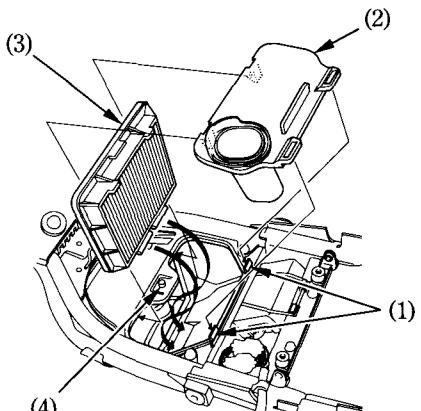
(1) Colour label

AIR CLEANER

Refer to the Safety Precautions on page 55 .

The air cleaner should be serviced at regular intervals (page 57). Service more frequently when riding in unusually wet or dusty areas.

1. Remove both side covers and the seat (page 35 , 36).
2. Release the tabs (1) and remove the air cleaner cover (2).
3. Remove the air cleaner element (3) while pulling up the hook (4).
4. Discard the air cleaner element.



(1) Tabs
(2) Air cleaner cover
(3) Air cleaner element
(4) Hook

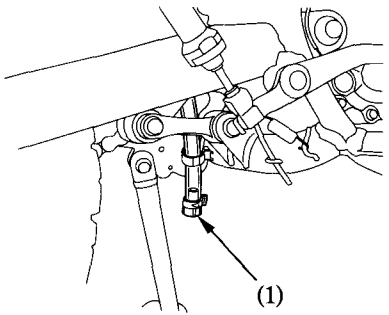
5. Install the new air cleaner element.
   Use the Honda genuine air cleaner or an equivalent air cleaner specified for your model. Using the wrong Honda air cleaner or a non-Honda air cleaner which is not of equivalent quality may cause premature engine wear or performance problems.
6. Install the removed parts in the reverse order of removal.

CRANKCASE BREATHER

Refer to the Safety Precautions on page 55 .

1. Remove the crankcase breather tube plug (1).
2. Drain deposits into a suitable container.
3. Reinstall the crankcase breather tube plug.

Service more frequently if your motorcycle is ridden in the rain or often at full throttle. Service the breather if you can see deposits in the transparent section of the drain tube.



(1) Crankcase breather tube plug

ENGINE OIL

Refer to the Safety Precautions on page 55 .

Oil Recommendation

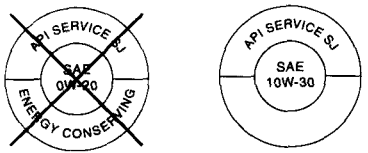
API classification	SG or higher except oils labeled as energy conserving on the circular API service label
Viscosity	SAE 10W-30
JASO T 903 standard	MA

Suggested Oil
Honda "4-STROKE MOTORCYCLE OIL" or equivalent.

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

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

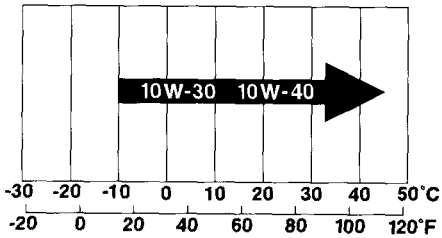
Do not use API SH or higher oils displaying a circular API "energy conserving" service label on the container. They may affect lubrication and clutch performance.



NOT RECOMMENDED **OK**

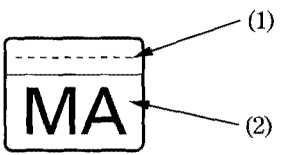
Do not use non-detergent, vegetable, or castor based racing oils.

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



JASO T 903 standard

The JASO T 903 standard is an index for engine oils for 4-stroke motorcycle engines. There are two classes: MA and MB.
Oil conforming to the standard is labeled on the oil container. For example, the following label shows the MA classification.



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

Engine Oil

Engine oil quality is the chief factor affecting engine service life. Change the engine oil as specified in the maintenance schedule (page 57).

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

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

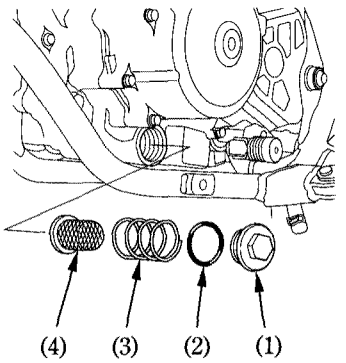
Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is still advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil.

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

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

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

1. Remove the oil filler cap/dipstick from the right crankcase cover.
2. Place a drain pan under the crankcase.
3. Remove the oil drain bolt (1), O-ring (2), spring (3) and oil strainer screen (4).
4. Clean the oil strainer screen.
5. Check that the oil strainer screen, sealing rubber and drain bolt O-ring are in good condition.
6. Install the O-ring to the oil drain bolt.
7. Install the oil strainer screen, spring and drain bolt.
   Oil drain bolt torque:
   15 N·m (1.5 kgf·m, 11 lbf·ft)
8. Fill the crankcase with the recommended grade oil; approximately:
   1.0 ℓ (1.1 US qt, 0.9 Imp qt)



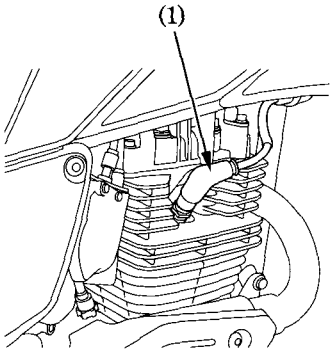
(1) Oil drain bolt
(2) O-ring
(3) Spring
(4) Oil strainer screen

9. Install the oil filler cap/dipstick.
10. Start the engine and let it idle for 3−5 minutes.
11. 2−3 minutes after stopping the engine, check that the oil level is at the upper level mark on the oil filler cap/dipstick with the motorcycle upright on firm, level ground. Make sure there are no oil leaks.

SPARK PLUG

Refer to the Safety Precautions on page 55 .

Recommended plugs:
DPR8EA–9 (NGK) or
X24EPR–U9 (DENSO)



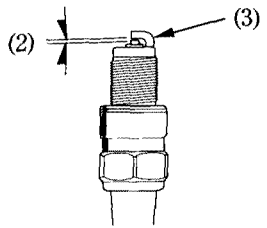
(1) Spark plug cap

NOTICE

Never use a spark plug with an improper heat range. Severe engine damage could result.

1. Clean any dirt from around the spark plug base.
   Disconnect the spark plug cap (1) from the spark plug.
2. Remove the spark plug using a spark plug wrench furnished in the tool kit.

3. Inspect the electrodes and center porcelain for deposits, erosion or carbon fouling. If the erosion or deposit is heavy, replace the plug. Clean a carbon or wet-fouled plug with a plug cleaner, otherwise use a wire brush.
4. Check the spark plug gap (2) using a wire-type feeler gauge. If adjustment is necessary, bend the side electrode (3) carefully.
   The gap should be:
   0.80 – 0.90 mm (0.031 – 0.035 in)



(2) Spark plug gap
(3) Side electrode

5. Make sure the plug washer is in good condition.
6. With the plug washer attached, thread the spark plug in by hand to prevent cross-threading.
7. 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.

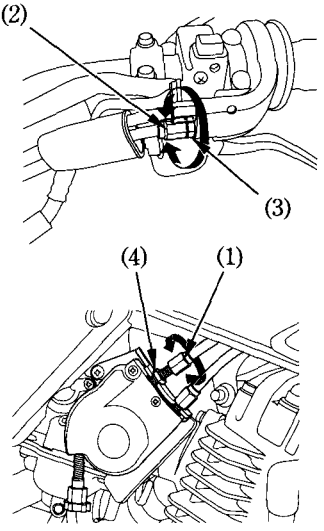
8. Reinstall the spark plug cap. Take care to avoid pinching any cables or wires.

THROTTLE OPERATION

Refer to the Safety Precautions on page 55 .

1. Check for smooth rotation of the throttle grip from the fully open to the fully closed position at both full steering positions.
2. Measure the throttle grip freeplay at the throttle grip flange.
   The standard freeplay should be approximately:
   2.0 – 6.0 mm (0.08 – 0.24 in)

Major freeplay adjustments, such as after replacing the throttle cables or removing the carburetor, are made with the lower adjuster (1). Minor freeplay adjustments are made with the upper adjuster (2). To adjust freeplay, loosen the lock nut (3) or (4), and turn the adjuster (1) or (2). Tighten the lock nut after adjustment.
After adjustment, check again for smooth rotation of the throttle grip from the fully closed to the fully open position with the steering to the full right and left as well as straight ahead.



(1) Lower adjuster
(2) Upper adjuster
(3) Upper lock nut
(4) Lower lock nut

IDLE SPEED

Refer to the Safety Precautions on page 55 .

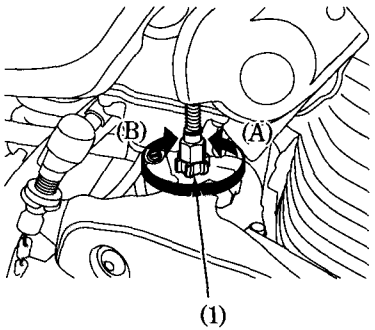
The engine must be at normal operating temperature for accurate idle speed adjustment. 10 minutes of stop-and-go riding is sufficient.

Do not attempt to compensate for faults in other systems by adjusting idle speed. See your Honda dealer for regularly scheduled carburetor adjustments.

1. Warm up the engine and hold the motorcycle upright. Shift to neutral.
2. Connect a tachometer to the engine.
3. Adjust idle speed with the throttle stop screw (1).

   Idle speed (In neutral):

   1,400 ± 100 min^{-1} (rpm)



(1) Throttle stop screw (A) Increase rpm (B) Decrease rpm

DRIVE CHAIN

Refer to the Safety Precautions on page 55 .

The service life of the drive chain (1) is dependent upon proper lubrication and adjustment. Poor maintenance can cause premature wear or damage to the drive chain and sprockets.

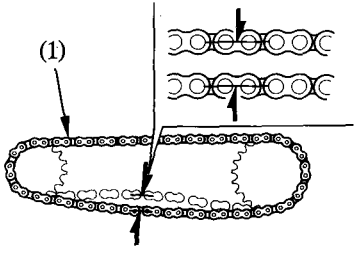
The drive chain should be checked, adjusted and lubricated as part of the Pre-ride Inspection (page 41). Under severe usage, or when the motorcycle is ridden in unusually dusty or muddy areas, more frequent maintenance will be necessary.

Inspection:

1. Turn the engine off, raise the rear wheel off the ground by placing a support under the engine, and shift the transmission into neutral.
2. Check slack in the lower drive chain run midway between the sprockets.
   Drive chain slack should be adjusted to allow the following vertical movement by hand:
   25 – 35 mm (1.0 – 1.4 in)
3. Roll the motorcycle forward. Stop. Check the drive chain slack. Repeat this procedure several times. Drive chain slack should remain constant. If the chain is slack only in certain sections, some links are kinked and binding. Binding and kinking can frequently be eliminated by lubrication.

NOTICE

Excessive chain slack may allow the drive chain to damage the engine cases.



(1) Drive chain

4. Roll the motorcycle forward. Stop and place it on its side stand. Inspect the drive chain and sprockets for any of the following conditions:

DRIVE CHAIN

*Damaged Rollers
*Loose Pins
*Dry or Rusted Links
*Kinked or Binding Links
*Excessive Wear
*Improper Adjustment
*Damaged or Missing O-rings

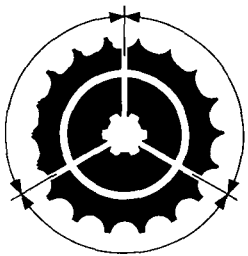
SPROCKETS

*Excessively Worn Teeth
*Broken or Damaged Teeth

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

Damaged sprocket Teeth — **Replace**

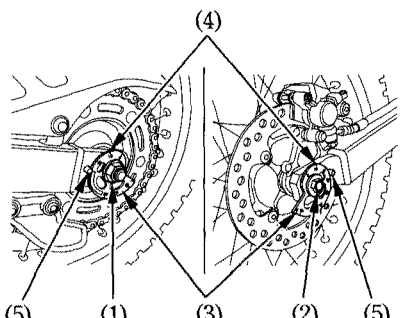
Worn sprocket Teeth — **Replace**



Normal sprocket Teeth

GOOD

Adjustment:
Drive chain slack should be checked and adjusted, if necessary, every 1,000 km (600 miles). When operated at sustained high speeds or under conditions of frequent rapid acceleration, the chain may require more frequent adjustment.



(1) Rear axle nut
(2) Rear axle shaft
(3) Adjusters
(4) Index marks
(5) Stopper pins

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

1. Place the motorcycle on its side stand with the transmission in neutral and the ignition switch off.
2. Loosen the rear axle nut (1) while holding the rear axle shaft (2).
3. Turn both the right and left adjusters (3) equally to increase or decrease chain slack.
   Adjust the chain slack at a point midway between the drive sprocket and the driven sprocket.
   After adjusting, be sure the same adjuster index marks (4) align with the stopper pins (5) on both sides of the swingarm.
   Roll the motorcycle forward. Stop and place it on its side stand.
   Recheck chain slack.
   Chain slack should be:
   25—35 mm (1.0—1.4 in)

If the drive chain slack is excessive when the rear axle is moved to the furthest limit of adjustment, the drive chain is worn and must be replaced.

4. Tighten the rear axle nut to the specified torque. Rear axle nut torque:
   93 N·m (9.5 kgf·m , 69 lbf·ft)

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

5. Recheck drive chain slack.

Wear Inspection:

Check the chain wear label when adjusting the chain. If the red zone (1) on the label aligns with the stopper pin (2) on the swingarm after the chain has been adjusted to the proper slack, the chain is excessively worn and must be replaced. The proper slack is:

25 – 35 mm (1.0 – 1.4 in)

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

50 mm (2.0 in)

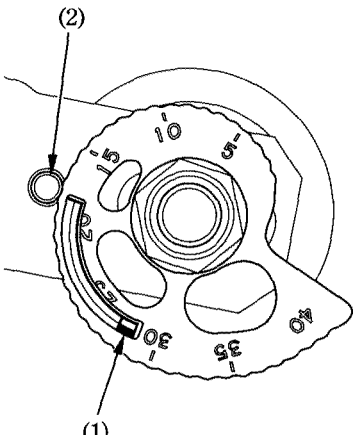
Replacement Chain:

DID520V

or

RK520MOZ9

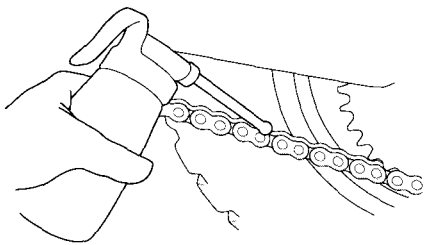
This motorcycle has a staked master link drive chain which requires a special tool for cutting and staking. Do not use an ordinary master link with this chain. See your Honda dealer.



(1) Red zone
(2) Stopper pin

Lubrication and Cleaning:
Lubricate every 1,000 km (600 miles) or sooner if chain appears dry.

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

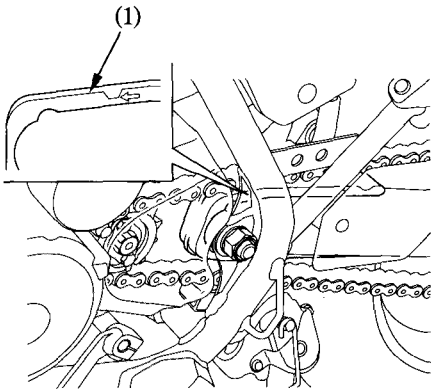


DRIVE CHAIN SLIDER

Refer to the Safety Precautions on page 55 .

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:
3.5 mm (0.14 in)



(1) Chain slider

FRONT AND REAR SUSPENSION INSPECTION

Refer to the Safety Precautions on page 55 .

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

SIDE STAND

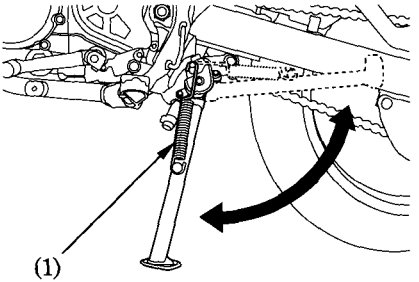
Refer to the Safety Precautions on page 55 .

Perform the following maintenance in accordance with the maintenance schedule.

Functional Check:

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

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



(1) Side stand spring

WHEEL REMOVAL

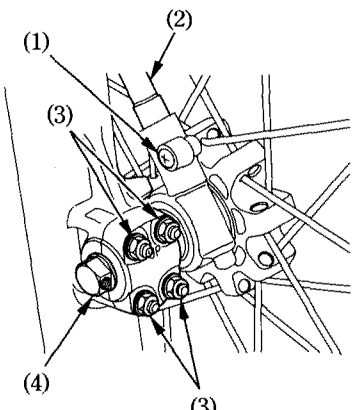
Refer to the Safety Precautions on page 55 .

This motorcycle is equipped with a side stand only. Therefore, if front or rear wheel removal is required, it will be necessary to raise the center of the motorcycle with a jack or other firm support. If none is available, see your Honda dealer for this service.

Front Wheel Removal

1. Raise the front wheel off the ground by placing a support block under the engine.
2. Remove the speedometer cable set screw (1) and disconnect the speedometer cable (2).
3. Loosen the axle holder nuts (3).
4. Unscrew the front axle shaft (4). Remove the wheel and side collar.

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

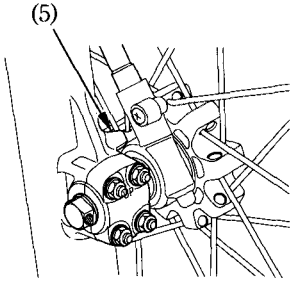


(1) Speedometer cable set screw
(2) Speedometer cable
(3) Axle holder nuts
(4) Front axle shaft

Front Wheel Installation

1. Install the side collar into the left side wheel hub.
2. 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.

• Make sure that the lug (5) on the left fork leg is contacting the lug on the speedometer gear box.



(5) Lug (speedometer gearbox)

• When installing the wheel, carefully fit the brake disc between the brake pads to avoid damaging the pads.

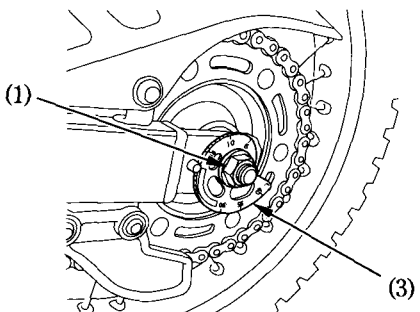
3. Tighten the front axle shaft to the specified torque.
   Front axle shaft torque:
   74 N·m (7.5 kgf·m , 54 lbf·ft)
4. First tighten the upper axle holder nuts to the specified torque, then tighten the lower axle holder nuts to the same torque:
   12 N·m (1.2 kgf·m , 9 lbf·ft)
5. After installing the wheel, apply the brake several times and then check if the wheel rotates freely. Recheck the wheel if the brake drags or if the wheel does not rotate freely.

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

6. Install the speedometer cable and tighten the screw securely.

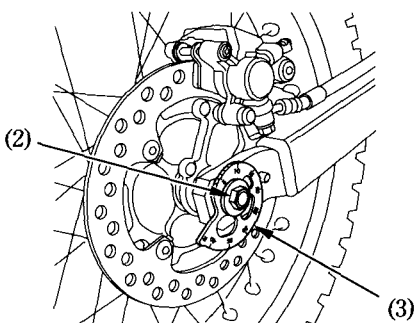
Rear Wheel Removal

1. Raise the rear wheel off the ground by placing a support block under the engine.
2. Loosen the rear axle nut (1) while holding the rear axle shaft (2).



(1) Rear axle nut
(2) Rear axle shaft
(3) Adjusters

3. Turn both chain adjusters (3) for providing maximum drive chain slack.
4. Move the rear wheel forward. Derail the drive chain from the driven sprocket.
5. Move the rear axle shaft back all the way to the swingarm end.
6. Remove the rear axle nut, axle washer, chain adjusters, stopper plate and pull out the rear axle shaft.



7. Remove the rear wheel and side collars.

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

Installation:

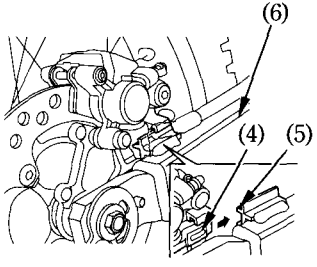
• To install the rear wheel, reverse the removal procedure.

1. Install the side collars into the left and right side wheel hub.
2. Make sure that the lug (4) on the brake stopper plate is located in the slot (5) in the swingarm (6).
3. Tighten the rear axle nut to the specified torque. Rear axle nut torque:
   93 N·m (9.5 kgf·m , 69 lbf·ft)
4. Adjust the drive chain (page 77).

When installing the wheel, carefully fit the brake disc between the brake pads to avoid damaging the pads.

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

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



(4) Lug
(5) Slot
(6) Swingarm

BRAKE PAD WEAR

Refer to the Safety Precautions on page 55 .

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.)

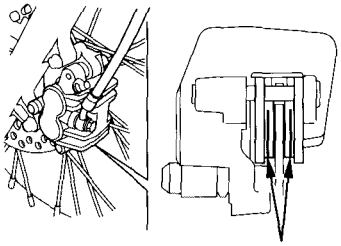
Inspect the pads at each regular maintenance interval (page 58).

Front/Rear Brake

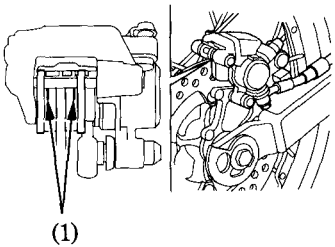
Check the cutout (1) in each pad.

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

〈FRONT BRAKE〉



〈REAR BRAKE〉



(1) Cutout

BATTERY

Refer to the Safety Precautions on page 55 .

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

NOTICE

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

⚠ WARNING

The battery gives off explosive hydrogen gas during normal operation.

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

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

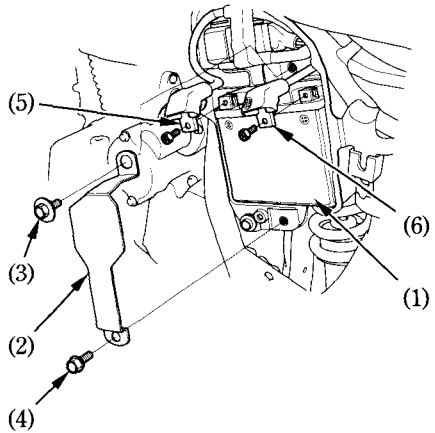
Removal:

The battery (1) is in the battery box behind the left side cover.

1. Make sure the ignition switch is OFF.
2. Remove the left side cover (page 36).
3. Remove the battery holder (2) by removing the bolt A (3) and bolt B (4).
4. Disconnect the negative (−) terminal lead (5) from the battery first, then disconnect the positive (+) terminal lead (6).
5. Pull out the battery from the battery box.

Installation:

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



(1) Battery
(2) Battery holder
(3) Bolt A
(4) Bolt B
(5) Negative (−) terminal lead
(6) Positive (+) terminal lead

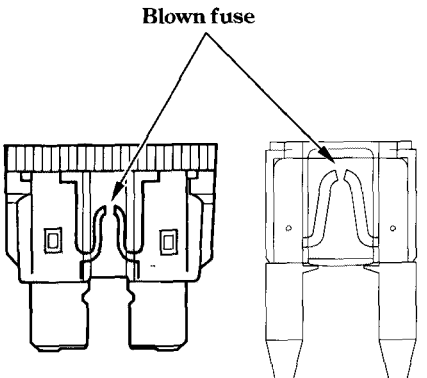
FUSE REPLACEMENT

Refer to the Safety Precautions on page 55 .

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

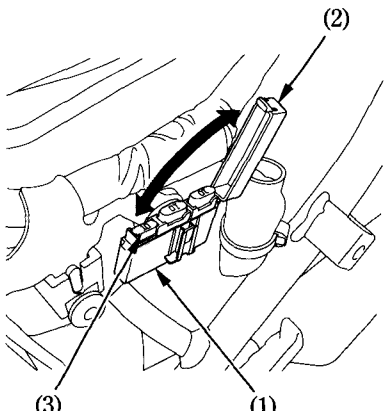
NOTICE

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



Fuse Box:
The fuse box (1) is located behind the left side cover.
The specified fuse is:
10A

1. Remove the left side cover (page 36).
2. Open the fuse box cover (2).
3. Pull out the old fuse and install a new fuse. The spare fuse (3) is located in the fuse box.
4. Install the fuse box cover and the left side cover.



(1) Fuse box
(2) Fuse box cover
(3) Spare fuse

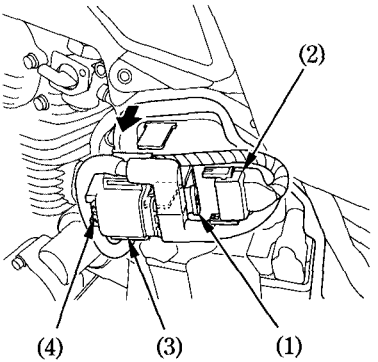
Main Fuse:

The main fuse (1) is located behind the left side cover.

The specified fuse is:

20A

1. Remove the left side cover (page 36).
2. Disconnect the wire connector (2) of the starter magnetic switch (3).
3. Pull out the fuse. If the main fuse is blown, install a new fuse.
   The spare main fuse (4) is located under the starter magnetic switch.
4. Reconnect the wire connector and install the left side cover.

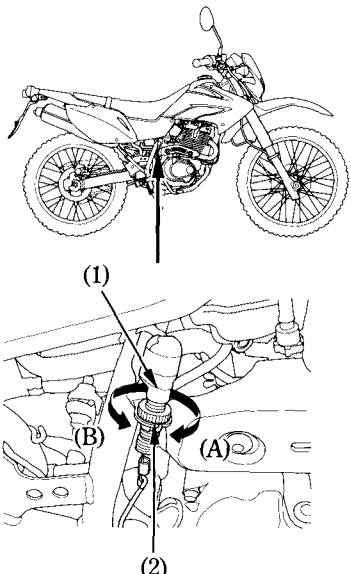


(1) Main fuse
(2) Wire connector
(3) Starter magnetic switch
(4) Spare main fuse

BRAKELIGHT SWITCH ADJUSTMENT

Refer to the Safety Precautions on page 55 .

Check the operation of the brakelight switch (1) at the right side behind the engine from time to time.
Adjustment is done by turning the adjusting nut (2). Turn the nut in the direction (A) if the switch operates too late and in direction (B) if the switch operates too soon.



(1) Brakelight switch (2) Adjusting nut

BULB REPLACEMENT

Refer to the Safety Precautions on page 55 .

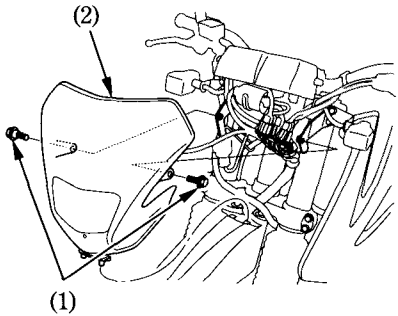
The light bulb becomes very hot while the light is ON, and remains hot for a while after it is turned OFF. Be sure to let it cool down before servicing.

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

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

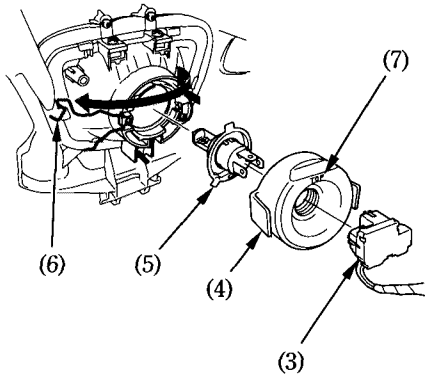
Headlight Bulb

1. Remove the mounting bolts (1) and the headlight case (2).
2. Disconnect the connector (3).
3. Remove the seat rubber (4).
4. Remove the headlight bulb (5) while pressing down on the pin (6).



(1) Mounting bolts
(2) Headlight case

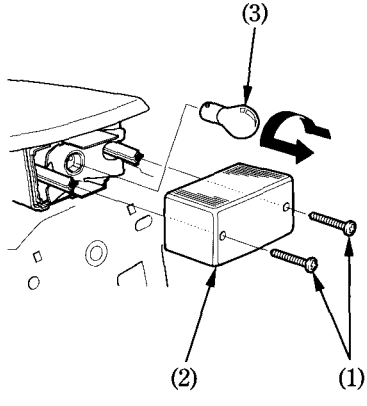
5. Install a new bulb in the reverse order of removal.
   - Install the seat rubber with its "TOP" mark (7) facing up.



(3) Connector
(4) Seat rubber
(5) Headlight bulb
(6) Pin
(7) "TOP" mark

Brake/Tail Light Bulb

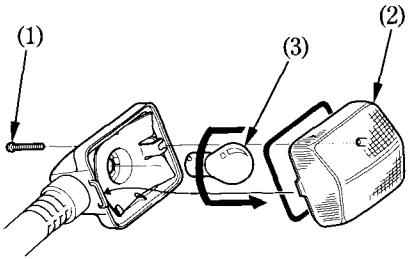
1. Remove the screws (1).
2. Remove the taillight lens (2).
3. Slightly press the bulb (3) and turn it counterclockwise.
4. Install a new bulb in the reverse order of removal.



(1) Screws
(2) Taillight lens
(3) Bulb

Front/Rear Turn Signal Bulb

1. Remove the screw (1) and remove the turn signal lens (2).
2. Slightly press the bulb (3) and turn it counterclockwise.
3. Install a new bulb in the reverse order of removal.



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

CLEANING

Clean your motorcycle regularly to protect the surface finishes and inspect for damage, wear, and oil or brake fluid leakage.

Avoid cleaning products that are not specifically designed for motorcycle or automobile surfaces.
They may contain harsh detergents or chemical solvents that could damage the metal, paint, and plastic on your motorcycle.

If your motorcycle is still warm from recent operation, give the engine and exhaust system time to cool off.

We recommend avoiding the use of high pressure water spray (typical in coin-operated car washes).

NOTICE

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

Washing the Motorcycle

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

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

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

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

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

Removing Road Salt
Road Salt used on roads during winter and salt from seawater causes rust.
Wash your motorcycle as follows after it has run through salty water or on roads treated with Road Salt.

1. Clean the motorcycle using cool water (page 100).

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

2. Dry the motorcycle and make sure the metal is protected with the wax.

STORAGE GUIDE

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

STORAGE

1. Change the engine oil.
2. Empty the fuel tank into an approved petrol container using a commercially available hand siphon or an equivalent method. Spray the inside of the tank with an aerosol rust-inhibiting oil.
   Reinstall the fuel fill cap on the tank.

To assure proper performance after storage lasting more than one month, it is important to drain the carburetor.

⚠ WARNING

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

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

3. 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 cm^3) of clean engine oil into the cylinder and cover the spark plug hole with a piece of cloth.
   - Crank the engine several times to distribute the oil.
   - Reinstall the spark plug and spark plug cap.
4. Remove the battery. Store in an area protected from freezing temperatures and direct sunlight.
   Slow charge the battery once a month.
5. Wash and dry the motorcycle. Wax all painted surfaces. Coat chrome with rustinhibiting oil.
6. Lubricate the drive chain (page 80).
7. Inflate the tyres to their recommended pressures. Place the motorcycle on blocks to raise both tyres off the ground.
8. Cover the motorcycle (don't use plastic or other coated materials) and store in an unheated area, free of dampness with a minimum of daily temperature variation. Do not store the motorcycle in direct sunlight.

REMOVAL FROM STORAGE

1. Uncover and clean the motorcycle.
2. Change the engine oil if more than 4 months have passed since the start of storage.
3. Charge the battery as required. Install the battery.
4. Drain any excess aerosol rust-inhibiting oil from the fuel tank. Fill the fuel tank with fresh petrol.
5. Perform all Pre-ride Inspection checks (page 41).
   Test ride the motorcycle at low speeds in a safe riding area away from traffic.

TAKING CARE OF THE UNEXPECTED

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.

SPECIFICATIONS

DIMENSIONS

Overall length	2,080 mm (81.9 in)
Overall width	825 mm (32.5 in)
Overall height	1,110 mm (43.7 in)
Wheelbase	1,340 mm (52.8 in)

CAPACITIES

Engine oil	
After draining:	1.0 ℓ (1.1 US qt , 0.9 Imp qt)
After disassembly:	1.2 ℓ (1.3 US qt , 1.1 Imp qt)
Fuel tank	8.7 ℓ (2.30 US gal , 1.91 Imp gal)
Fuel reserve tank	2.7 ℓ (0.71 US gal , 0.59 Imp gal)
Passenger capacity	Operator and one passenger
Maximum weight capacity	158 kg (348 lbs)

ENGINE

Bore and stroke		65.5 × 66.2 mm (2.58 × 2.61 in)
Compression ratio		9.0 : 1
Displacement		223 cm^3 (13.6 cu-in)
Spark plug		DPR8EA−9 (NGK) or X24EPR−U9 (DENSO)
Spark plug gap		0.80−0.90 mm (0.031−0.035 in)
Valve clearance	Intake:	0.10 mm (0.004 in)
	Exhaust:	0.10 mm (0.004 in)
Idle speed		1,400 ± 100 min^{-1} (rpm)

CHASSIS AND SUSPENSION

Caster	26°50′
Trail	103 mm (4.1 in)
Tyre size, front	2.75 – 21 45P BRIDGESTONE TW27
Tyre size, rear	120/80 – 18M/C 62P BRIDGESTONE TW30
Tyre type	bias-ply, tube

POWER TRANSMISSION

Primary reduction	3.090
Final reduction	3.000
Gear ratio, 1st	3.083
2nd	2.062
3rd	1.450
4th	1.130
5th	0.960
6th	0.814

ELECTRICAL

Battery		12V−6Ah
Generator		0.188 kW/5,000 min^{-1} (rpm)

LIGHTS

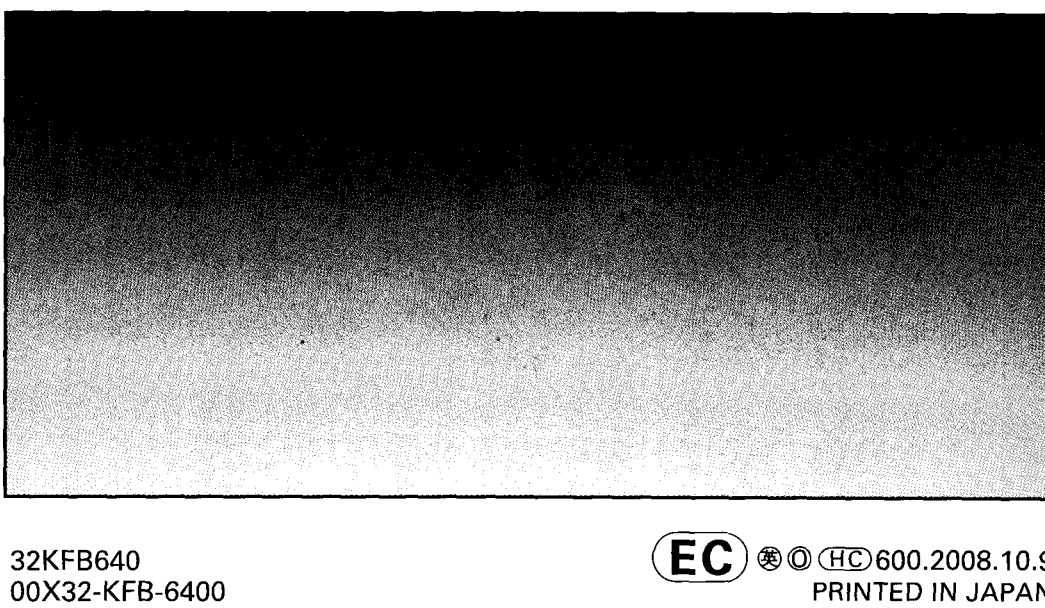
Headlight		12V−60/55W
Brake/Tail light		12V−21/5W
Turn signal light	Front	12V−21W
	Rear	12V−21W
Instrument light		12V−3.4W
High beam indicator		12V−1.7W
Turn signal indicator		12V−3.4W
Neutral indicator		12V−3.4W

FUSE

Main fuse	20A
Other fuses	10A

HONDA

The Power of Dreams



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