

Honda CT110

OWNER'S MANUAL

IMPORTANT INFORMATION

- **OPERATOR ONLY. NO PASSENGER**

This motorcycle is designed and constructed as an operator-only model. The seating configuration does not safely permit the carrying of a passenger. Do not exceed the maximum weight capacity.

- **ON/OFF-ROAD USE**

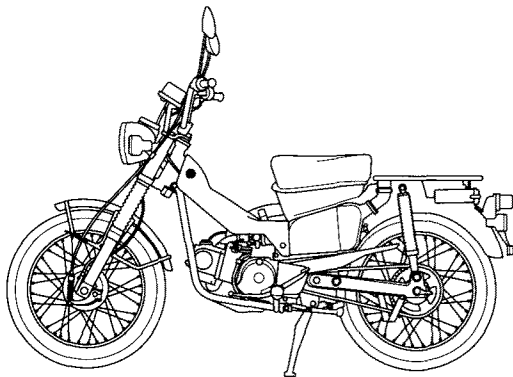
This motorcycle is designed for “dual purpose” use.

- **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 CT110 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 Service Manual to help you perform many maintenance and repair tasks.

Pleasant riding, and thank you for choosing a Honda !

- The following codes in this manual indicate each country.

UY	Australian Postal Ministry
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- 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 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 5 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 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

This motorcycle has been designed as a rider-only motorcycle. It is not designed to carry a passenger. A passenger could interfere with your ability to move around to maintain your balance and control of the motorcycle.

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:

109 kg (240 lbs)

Includes the weight of the rider, passenger, all cargo and all accessories

Loading Guidelines

As discussed on page 5 , we recommend that you do not carry any cargo on this motorcycle. However, if you decide to carry cargo, ride at reduced speeds and follow these common-sense guidelines:

- 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.

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 genuine Honda 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 97). 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.

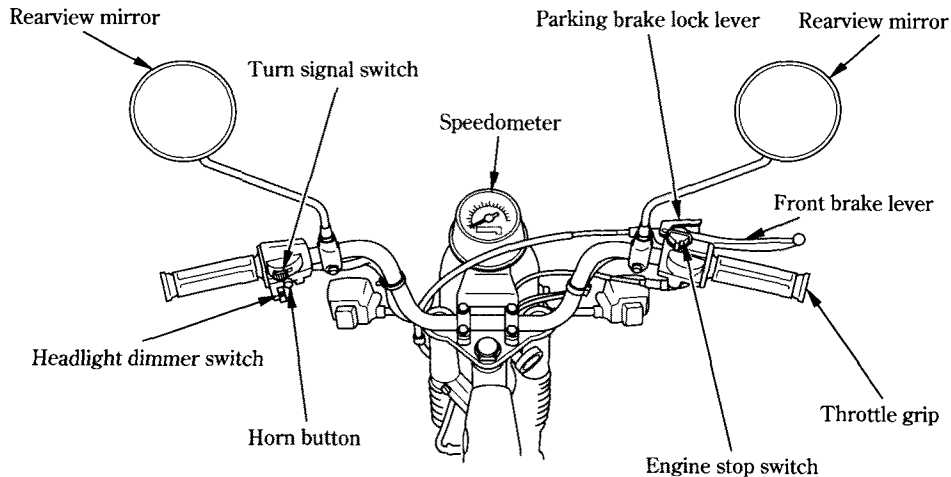
OFF-ROAD SAFETY

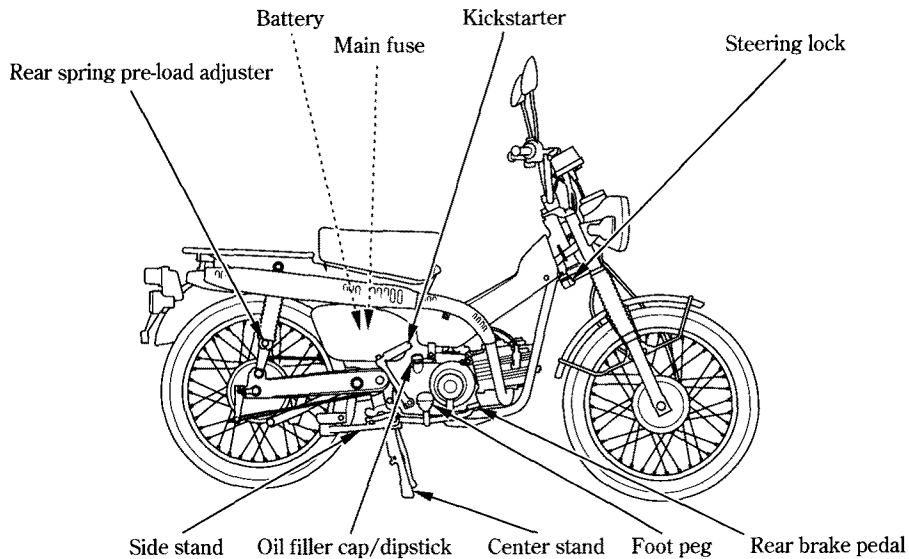
Learn to ride in an uncongested off-road area free of obstacles before venturing onto unfamiliar terrain.

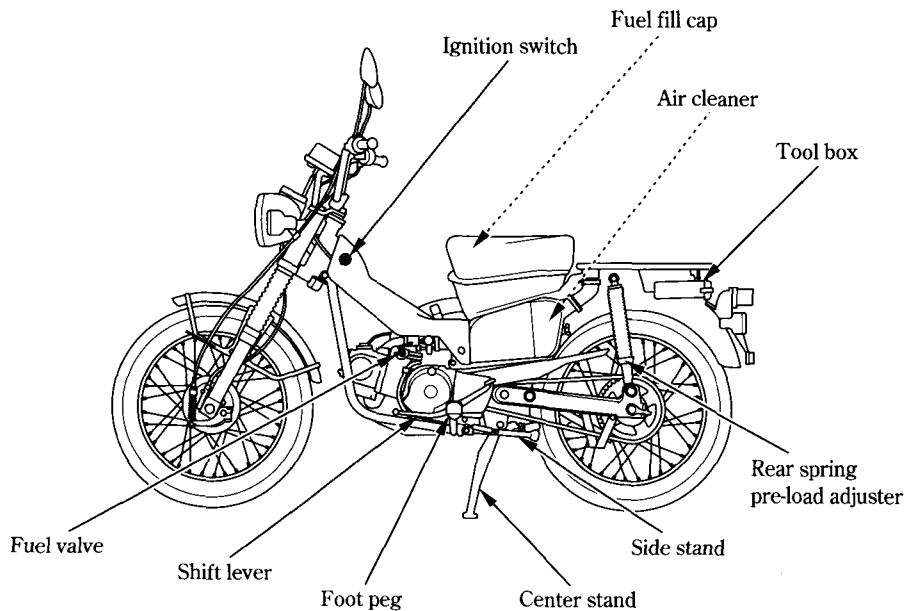
- Always obey local off-road riding laws and regulations.
- Obtain permission to ride on private property. Avoid posted areas and obey "NO Trespassing" signs.
- Ride with a friend on another motorcycle so that you can assist each other in case of trouble.
- Familiarity with your motorcycle is critically 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.

- Mufflers are 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



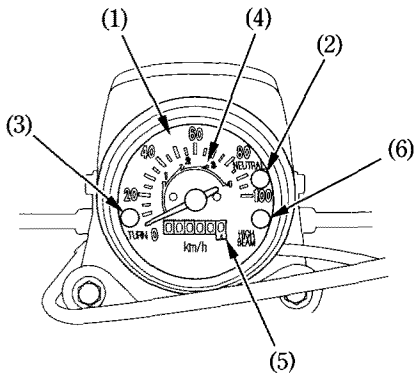




INSTRUMENTS AND INDICATORS

The indicators are contained in the instrument panel. Their functions are described in the tables on the following pages.

- (1) Speedometer
- (2) Neutral indicator
- (3) Turn signal indicator
- (4) Gear range
- (5) Odometer
- (6) High beam indicator



(Ref.No.) Description	Function
(1) Speedometer	Shows riding speed.
(2) Neutral indicator (green)	Lights when the transmission is in neutral.
(3) Turn signal indicator (amber)	Flashes when the either turn signal operates.
(4) Gear range	Shows proper speed range for each gear.
(5) Odometer	Shows accumulated mileage.
(6) High beam indicator (blue)	Lights when the headlight is on high beam.

MAJOR COMPONENTS

(Information you need to operate this motorcycle)

SUSPENSION

Each shock absorber (1) has 5 adjustment positions for different load or riding conditions.

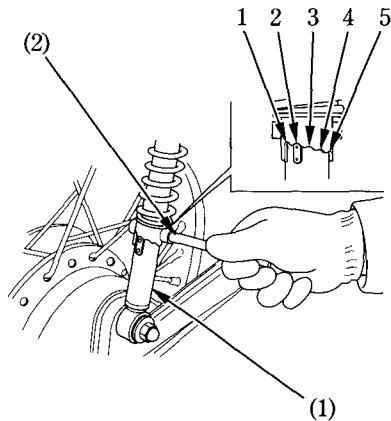
Use a handle lever (2) to adjust the rear shocks.

Always adjust the shock absorber position in sequence (1-2-3-4-5 or 5-4-3-2-1).

Attempting to adjust directly from 1 to 5 or 5 to 1 may damage the shock absorber.

Position 1 is for light loads and smooth road conditions. Positions 3 to 5 increase spring preload for a stiffer rear suspension, and can be used when the motorcycle is heavily loaded. Be certain to adjust both shock absorbers to the same position.

Standard position: 2



- (1) Shock absorber
- (2) Handle lever

BRAKES

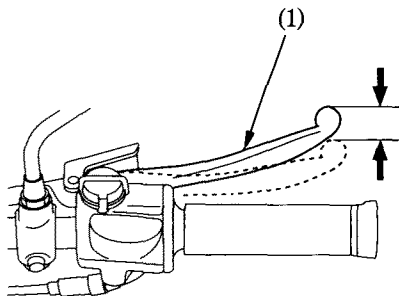
Front Brake

Brakes are items of personal safety and should always be maintained in proper adjustment.

The distance the front brake lever (1) moves before the brake starts to engage is called freeplay.

Measured at the tip of the front brake lever (1), freeplay should be maintained at:

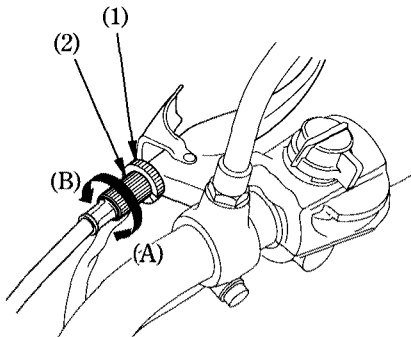
10 – 20 mm (0.4 – 0.8 in)



(1) Front brake lever

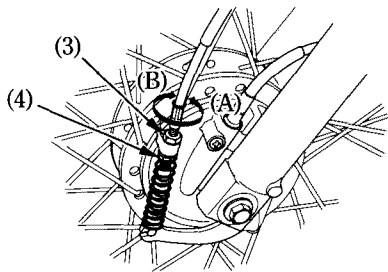
Adjustment:

1. Loosen the lock nut (1) and turn the adjuster (2). Tighten the lock nut and check the adjustment.
2. If the adjuster is threaded out near its limit or if the correct free play cannot be obtained, loosen the lock nut and turn in the cable adjuster completely. Tighten the lock nut.



- (1) Lock nut
- (2) Brake cable adjuster
- (A) Increase free play
- (B) Decrease free play

3. At the lower end of the cable, loosen the lock nut (4). Turn the front brake adjusting nut (3) to obtain the specified free play. Tighten the lock nut (4) and check the adjustment.
4. Apply the brake several times and check for free wheel rotation after the brake lever is released.



- (3) Front brake adjusting nut
(4) Lock nut
(A) Increase free play
(B) Decrease free play

If proper adjustment cannot be obtained by this method, see your Honda dealer.

Other Checks:

Check the brake cable for kinks or signs of wear that could cause sticking or failure. Lubricate the brake cable with a commercially available cable lubricant to prevent premature wear and corrosion. Make sure the brake arm, spring and fasteners are in good condition.

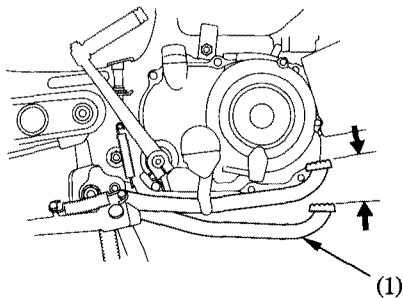
Rear Brake

Adjustment:

1. Place the motorcycle on its center stand.
2. Measure the distance the rear brake pedal (1) moves before the brake starts to take hold.

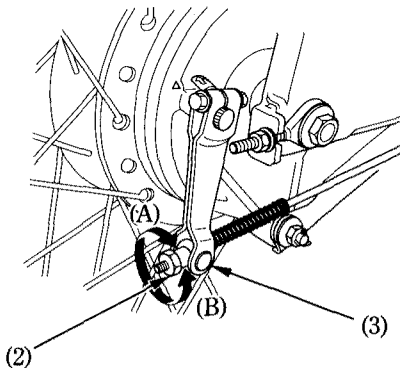
Freeplay should be:

20–30 mm (0.8–1.2 in)



(1) Rear brake pedal

3. If adjustment is necessary, turn the rear brake adjusting nut (2).



- (2) Rear brake adjusting nut
(3) Brake arm pin
(A) Decrease free play
(B) Increase free play

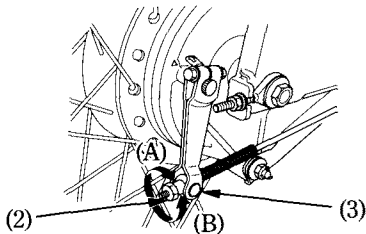
4. Apply the brake several times and check for free wheel rotation after the brake pedal is released.

Make sure the cut-out on the adjusting nut is seated on the brake arm pin (3) after making final freeplay adjustment.

If proper adjustment cannot be obtained by this method, see your Honda dealer.

Other Checks:

Make sure the brake rod, brake arm, spring and fasteners are in good condition.

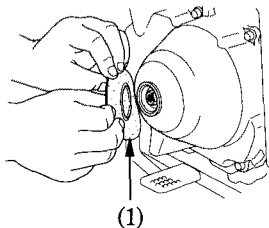


- (2) Rear brake adjusting nut
(3) Brake arm pin
(A) Decrease freeplay
(B) Increase freeplay

CLUTCH

Adjustment:

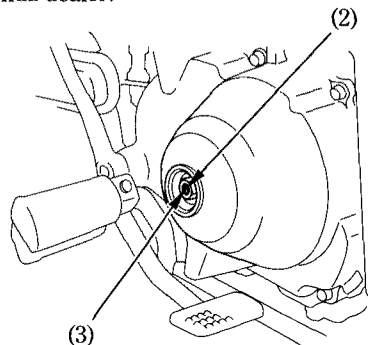
1. The clutch is adjusted with the engine off. Remove the cover protector (1) and loosen the adjuster lock nut (2).
2. Turn the clutch adjuster (3) clockwise one turn; do not turn excessively.
3. Slowly turn the adjuster counterclockwise until a slight resistance is felt.
4. From this position, turn the adjuster clockwise $1/8$ turn, and tighten the lock nut.
5. After adjustment, test ride the motorcycle to be certain the clutch operates properly.



(1) Cover protector

The engine should start easily with the kickstarter without the clutch slipping. When shifting gears, the clutch operation should be smooth and light, especially when shifting into neutral.

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



(2) Lock nut

(3) Clutch adjuster

FUEL

Fuel Valve

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

ON

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

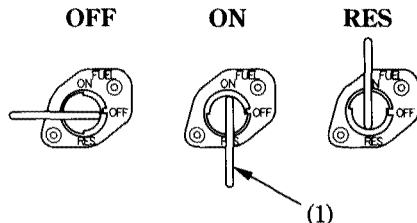
RES

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:

0.9 l (0.24 US gal , 0.20 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 is located under the seat. Fuel tank capacity is:

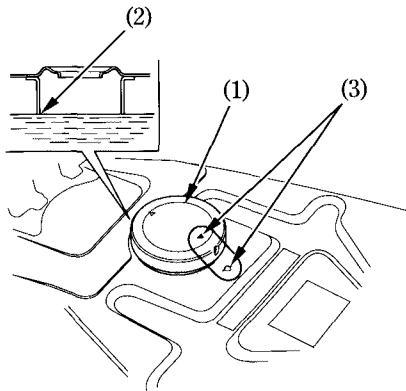
4.8 ℓ (1.27 US gal , 1.06 Imp gal)

Open the seat. Remove the fuel fill cap (1) by turning it counterclockwise.

Do not overfill the tank. There should be no fuel in the filler neck (2).

After refueling, be sure to tighten the fuel fill cap firmly by turning it clockwise.

Make sure that the arrow marks (3) on the fuel fill cap and fuel tank are aligned.



⚠ 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.

- (1) Fuel fill cap
(2) Filler neck
(3) Arrow marks

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.

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.

Fuel system damage or engine performance problems resulting from the use of fuels that contain alcohol is not covered under the warranty. Honda cannot endorse the use of fuels containing methanol since evidence of their suitability is as yet incomplete.

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.

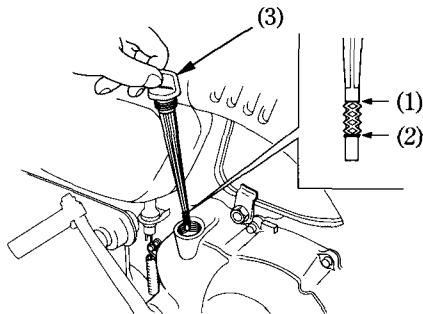
The level must be maintained between the upper (1) and lower (2) level marks on the oil filler cap/dipstick (3).

1. Start the engine and let it idle for 3–5 minutes.
2. Stop the engine and put the motorcycle on its center stand on 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 57) up to the upper level mark. Do not overfill.

5. Reinstall the oil filler cap/dipstick. Check for oil leaks.

NOTICE

Running the engine with insufficient oil pressure may cause serious engine damage.



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

TYRES

To safely operate your motorcycle, your tyres must be the proper type and size, in good condition with adequate tread, and correctly inflated for the load you are carrying. The following pages give more detailed information on how and when to check your air pressure, how to inspect your tyres for damage, and what to do when your tyres need to be repaired or replaced.

⚠ 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

Keeping your tyres properly inflated provides 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.

Overinflated tyres make your motorcycle ride harshly, are more prone to damage from road hazards, and wear unevenly.

We recommend that you visually check your tyres before every ride and use a gauge to measure air pressure at least once a month or any time you think the tyres might be low.

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:

kPa (kgf/cm ² , psi)	
Front	175 (1.75 , 25)
Rear	225 (2.25 , 33)

This motorcycle is fitted with TUFFUP tube in both the front and rear wheels. Compared with ordinary tyre tubes, the TUFFUP tube releases little air when punctured by a nail or other similar object. For this reason, even though they remain fully inflated, it is important to regularly check the tyres for embedded objects.

The TUFFUP tube is not intended to prevent tyre puncture completely. It is not effective damage, L-shaped cut in the tread surface, or damage or cut in the tyre other than the tread surface.

Inspection

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

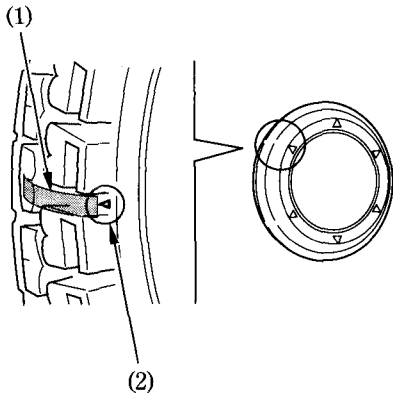
Look for:

- 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 safely can and carefully inspect the tyres for damage.

Tread Wear

Replace tyres immediately when the wear indicator appears at on the tyre.



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

TUFFUP tube Repair and Replacement

If you need to make a temporary repair a TUFFUP tube by patching a tube, 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 29 .

When replacing a TUFFUP tube, be sure to select the size appropriate for the tyre. Because of the special construction of the TUFFUP tube, it should always be repaired or replaced by your Honda dealer.

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.

On/off-road tyres are standard on this model. Select the right replacement tyres in accordance with the following specifications. Check the tyres for cuts, embedded nails, or other sharp objects. See your Honda dealer for replacement of damaged tyres or punctured inner tubes.

The recommended tyres for your motorcycle are:

Front: 2.75–17 41P

IRC

3R

Rear: 2.75–17 41P

IRC

3R

Tyre: bias-ply, tube

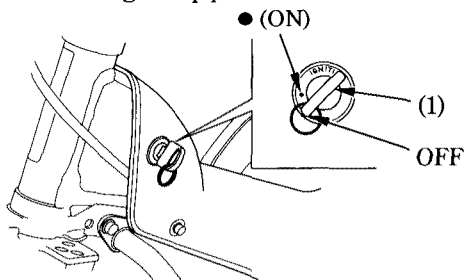
Whenever you replace a tyre, use one that is equivalent to the original and be sure the wheel is balanced after the new tyre is installed.

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 on the left side of the steeringhead pipe.



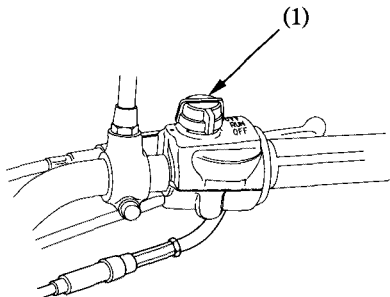
(1) Ignition switch

Key Position	Function	Key Removal
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.



(1) Engine stop switch

LEFT HANDLEBAR CONTROLS

Headlight Dimmer Switch (1)

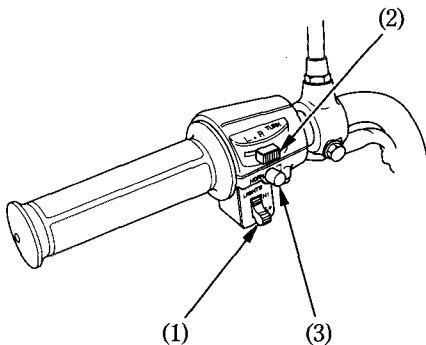
Move the dimmer switch to HI to select high beam or to LO to select low beam.

Turn Signal Switch (2)

Move to L to signal a left turn, R to signal a right turn. Remember to return the switch to the center (off) after completing your turn or lane change.

Horn Button (3)

Press the button to sound the horn.



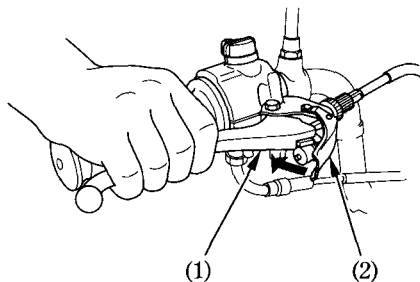
- (1) Headlight dimmer switch
- (2) Turn signal switch
- (3) Horn button

PARKING BRAKE

The front brake lever has a lock which allows it to be used as a parking brake.

Always set the parking brake when parking and before starting the engine.

Using the parking brake in freezing weather may cause the brakes to freeze in the locked position.



(1) Front brake lever

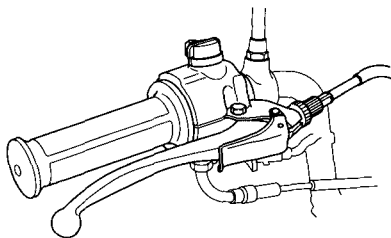
(2) Lock lever

To set the parking brake:

Squeeze the front brake lever (1) and lock it with the lock lever (2).

To unlock the parking brake:

Squeeze the front brake lever until the lock lever releases.



FEATURES

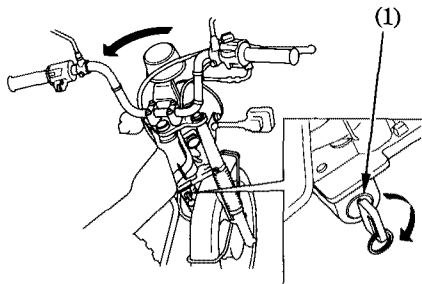
(Not required for operation)

STEERING LOCK

The steering lock (1) is on the steering stem.

To lock the steering, turn the handlebar all the way to *left*, insert the key into the lock, turn the key 180° clockwise and remove it!

To unlock the steering, perform the locking sequence in the reverse order.



(1) Steering lock

RIGHT SIDE COVER

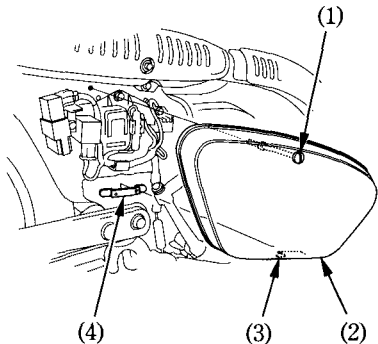
The right side cover must be removed for battery and fuse maintenance.

Removal:

1. Remove the screw (1).
2. Open the side cover (2).
3. Release the tab (3) from the guide (4).

Installation:

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



(1) Screw

(2) Side cover

(3) Tab

(4) Guide

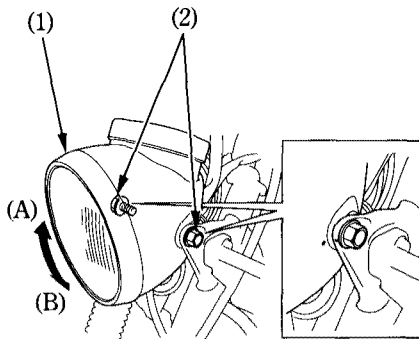
HEADLIGHT AIM VERTICAL ADJUSTMENT

Vertical adjustment can be made by moving the headlight case (1) as necessary.

To move the headlight case, loosen the bolts (2).

Tighten the bolts after adjustment.

Obey local laws and regulations.



(1) Headlight case

(2) Bolts

(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 26). Check for leaks.
2. Fuel level—fill fuel tank when necessary (page 23). Check for leaks.
3. Front and rear brakes—check operation and if necessary, adjust freeplay (pages 16 – 20).
4. Tyres—check condition and pressure (pages 27 – 31).
5. Drive chain—check condition and slack (pages 67 – 71). Adjust and lubricate if necessary.
6. Throttle—check for smooth opening and full closing in all steering positions (page 64).
7. Lights and horn—check that headlight, brake/tail light, turn signals, indicators and horn function properly.
8. Engine stop switch—check for proper function (page 33).

STARTING THE ENGINE

Always follow the proper starting procedure described below.

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 operate the kickstarter while the engine is running as engine damage could result. Do not apply excessive force on the kickstarter.

Fold up the kickstarter after the kickstarter is returned to the pedal stop.

Preparation

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

- Lock the parking brake.
- The transmission is in NEUTRAL (neutral indicator light ON).
- The engine stop switch is at RUN.
- The fuel valve is ON.

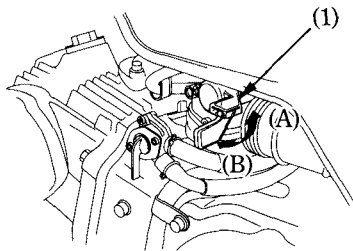
Starting Procedure

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) up all the way to Fully ON (A).



(1) Choke lever

(A) Fully ON

(B) Fully OFF

2. Lightly depress the kickstarter until resistance is felt.

Then let the kickstarter return to the top of its stroke.

With the throttle slightly open, operate the kickstarter. Kick from the top of the stroke through to the bottom with a rapid, continuous motion.

3. Warm up the engine by opening and closing the throttle slightly.

About a half minute after the engine starts, move the choke lever (1) right all the way to Fully OFF (B).

4. If idling is unstable, open the throttle slightly.

High Air Temperature

35°C (95°F) or above

1. Do not use the choke.
2. Start the engine following step 2 under "Normal Air Temperature."

Low Air Temperature

10°C (50°F) or below

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

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, turn the engine stop switch to OFF and push the choke lever down to Fully OFF (B). Open the throttle fully and crank the engine several times with the kickstarter. Turn the engine stop switch to RUN and open the throttle slightly; start the engine using the kickstarter.

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.

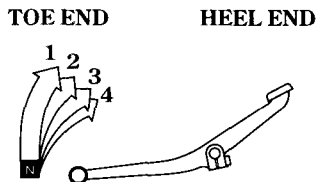
RIDING

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 53 and explanation for SIDE STAND on page 73).

1. Warm up the engine.
2. With the engine idling, shift into low (1st) by depressing the heel end of the shift lever.
3. Slowly open the throttle to start the motorcycle rolling smoothly, and when the motorcycle attains a moderate speed, close the throttle and depress the shift lever with the heel to shift into 2nd gear.
4. This sequence is repeated to progressively shift into the next higher gear.

5. Shifting down is accomplished by depressing the toe end of the shift lever.
6. Coordinate the throttle and brakes for smooth deceleration.
7. Both front and rear brakes should be used at the same time and should not be applied strongly enough to lock the wheel, or braking effectiveness will be reduced and control of the motorcycle be difficult.



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.

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 handlebar fully to the left, turn the ignition switch OFF and remove the key.
2. Use the side or center 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 36).

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 or batteries. Use only nonflammable solvent, not petrol, to clean parts. Keep cigarettes, sparks and flames away from the battery and 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 genuine Honda parts or their equivalents for repair and replacement.

MAINTENANCE SCHEDULE

Perform the Pre-ride Inspection (page 39) 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.

- NOTE:
- (1) At higher odometer readings, repeat at the frequency interval established here.
 - (2) Service more frequently if the motorcycle is ridden in unusually wet or dusty areas.
 - (3) Service more frequently when riding OFF-ROAD.
 - (4) NZ type
 - (5) UB, NZ type

ITEM	FREQUENCY	WHICHEVER → COMES FIRST ↓ NOTE	ODOMETER READING [NOTE (1)]					Refer to pages
			× 1,000 km	1	4	8	12	
			× 1,000 mi	0.6	2.5	5	7.5	
			MONTHS		6	12	18	
* FUEL LINE					I	I	I	—
* FUEL STRAINER SCREEN					C	C	C	—
* THROTTLE OPERATION					I	I	I	64
AIR CLEANER		NOTE (2)			C	C	C	56
CRANKCASE BREATHER		NOTE (3) (4)			C	C	C	—
SPARK PLUG					I	R	I	60–61
* VALVE CLEARANCE				I	I	I	I	62–63
ENGINE OIL				R	R	R	R	57–59
** ENGINE OIL STRAINER SCREEN							C	—
* CAM CHAIN TENSION				A	A	A	A	66
* ENGINE IDLE SPEED				I	I	I	I	65

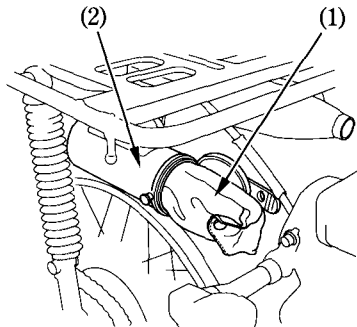
ITEM		FREQUENCY	WHICHEVER → COMES FIRST ↓ NOTE	ODOMETER READING [NOTE (1)]					
				× 1,000 km × 1,000 mi MONTHS	1	4	8	12	Refer to pages
					0.6	2.5	5	7.5	
						6	12	18	
	DRIVE CHAIN	NOTE (3)		EVERY 1,000km (600mi) I, L				67 – 71	
	BATTERY	NOTE (5)			I	I	I	79 – 80	
	BRAKE SHOES WEAR				I	I	I	78	
	BRAKE SYSTEM			I	I	I	I	16 – 20	
*	BRAKE LIGHT SWITCH				I	I	I	84	
*	HEADLIGHT AIM				I	I	I	38	
	CLUTCH SYSTEM			I	I	I	I	21	
	SIDE STAND				I	I	I	73	
*	SUSPENSION				I	I	I	72	
*	NUTS, BOLTS, FASTENERS	NOTE (3)		I		I		—	
**	WHEELS/TYRES	NOTE (3)		I	I	I	I	—	
**	STEERING HEAD BEARINGS			I			I	—	

TOOL KIT

The tool kit (1) is in the tool box (2) under the rear carrier.

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

- 10 × 12 mm Open end wrench
- 14 × 17 mm Open end wrench
- Pliers
- Standard/Phillips screwdriver
- Spark plug wrench
- Screwdriver grip
- Handle lever
- Tool bag

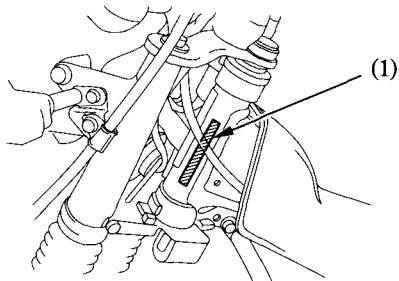


- (1) Tool kit
(2) Tool box

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.

FRAME NO. _____

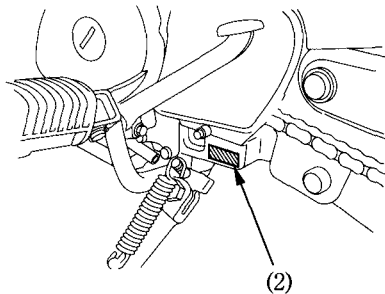


(1) Frame number

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

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

ENGINE NO. _____



(2) Engine number

AIR CLEANER

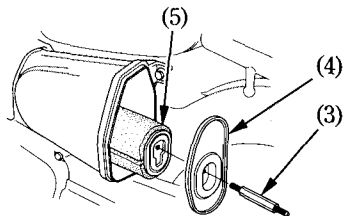
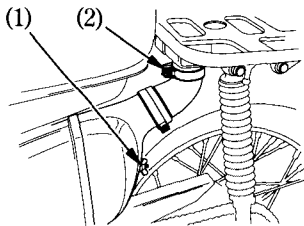
Refer to the Safety Precautions on page 50 .

The air cleaner should be serviced at regular intervals (page 52). Service more frequently when riding in unusually wet or dusty areas.

1. Remove the wing nut (1), washer and air cleaner tube clamp screw (2), then remove the air cleaner tube and air cleaner housing cover.
2. Unscrew the mounting plate bolt (3) and remove the mounting plate (4).
3. Pull out the air cleaner (5).
4. Wash the air cleaner in clean, nonflammable or high flash point solvent and let it dry thoroughly.

Never use petrol or low flash point solvents for cleaning the air cleaner. A fire or explosion could result.

5. Soak the air cleaner in gear oil (SAE 80—90) until saturated, then squeeze out the excess oil.
6. Install the removed parts in the reverse order of removal.



- (1) Wing nut
- (2) Screw
- (3) Bolt
- (4) Mounting plate
- (5) Air cleaner

ENGINE OIL

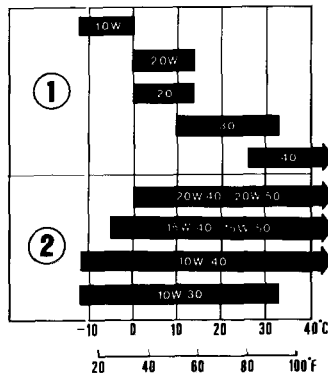
Refer to the Safety Precautions on page 50 .

Engine Oil

Good engine oil has many desirable qualities. Use only high detergent, quality motor oil certified on the container to meet or exceed requirements for API Service Classification SE, SF or SG.

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.



(1) Single grade

(2) Multi grade

Engine Oil

Engine oil quality is the chief factor affecting engine service life. Change the engine oil as specified in the maintenance schedule (page 52).

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

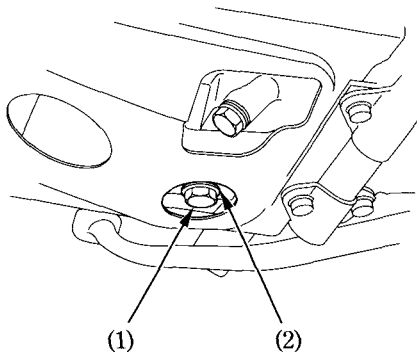
Please dispose of used engine oil in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local recycling center or service station for reclamation. Do not throw it in the trash or pour it on the ground or down a drain.

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.

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 center stand to assure complete and rapid draining.

1. To drain the oil, remove the oil filler cap/dipstick and oil drain plug (1) and sealing washer (2).
2. With the engine stop switch OFF, operate the kickstarter several times to drain any oil which may be left in the engine.



- (1) Oil drain plug
(2) Sealing washer

3. Check that the sealing washer on the drain plug is in good condition and install the plug. Replace the sealing washer every other time the oil is changed, or each time if necessary.

Engine oil drain plug torque:

24 N·m (2.4 kgf·m , 18 lbf·ft)

4. Fill the crankcase with the recommended grade oil; approximately:
0.9 l (1.0 US qt , 0.8 Imp qt)
5. Install the oil filler cap/dipstick.
6. Start the engine and let it idle for 3–5 minutes.
7. 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 on its center stand, level ground. Make sure there are no oil leaks.

SPARK PLUG

Refer to the Safety Precautions on page 50.

Recommended plugs:

Standard:

DR8ES-L (NGK) or
X24ESR-U (DENSO)

For cold climate: (Below 5°C, 41°F)

DR7ES (NGK) or
X22ESR-U (DENSO)

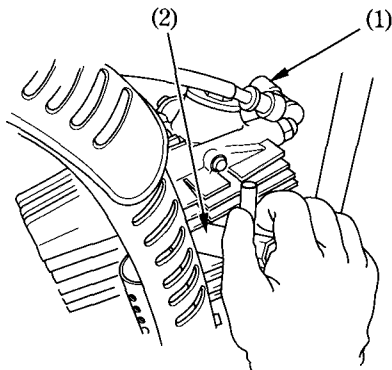
For extended high speed riding:

DR8ES (NGK) or
X27ESR-U (DENSO)

NOTICE

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

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



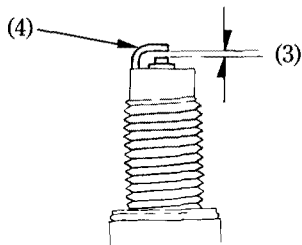
(1) Spark plug cap

(2) Plug wrench

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 (3) using a wire-type feeler gauge. If adjustment is necessary, bend the side electrode (4) carefully.

The gap should be:

0.60–0.70 mm (0.024–0.028 in)



(3) Spark plug gap

(4) 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

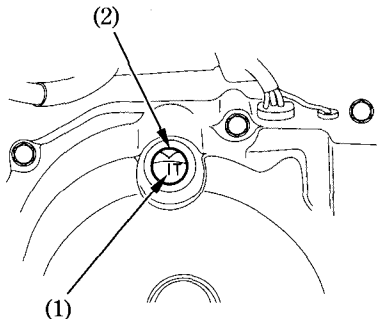
An improperly tightened spark plug can damage the engine. If a plug is too loose, a piston may be damaged. If a plug is too tight, the threads may be damaged.

8. Reinstall the spark plug cap.

VALVE CLEARANCE

Refer to the Safety Precautions on page 50 .

Excessive valve clearance will cause noise and eventual engine damage. Little or no clearance will prevent the valve from closing and cause valve damage and power loss. Check valve clearance when the engine is cold at the specified intervals.



(1) T mark

(2) Index mark

The checking or adjusting of the clearance should be performed while the engine is cold. The clearance will change as the engine temperature rises.

1. Remove the crankshaft hole cap and timing mark hole cap.
2. Remove the tappet adjusting hole cap.
3. Rotate the generator flywheel counterclockwise until the T mark (1) on the flywheel lines up with the index mark (2) on the timing hole. In this position, the piston may either be on the compression or exhaust stroke.

The adjustment must be made when the piston is at the top of the compression stroke when both the intake and exhaust valves are closed.

This condition can be determined by moving the rocker arms. If they are free, it is an indication that the valves are closed and that the piston is on the compression stroke. If they are tight and the valves are open, rotate the flywheel 360° and realign the T mark to the index mark.

4. Check the clearance of both valves by inserting a feeler gauge (3) between the adjusting screw (4) and the valve stem. Clearance should be:

Clearance should be:

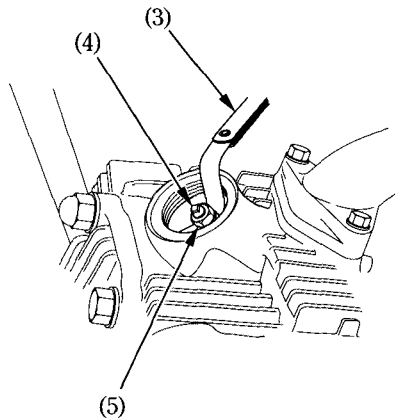
Intake: 0.05 mm (0.002 in)

Exhaust: 0.05 mm (0.002 in)

If it is necessary to make an adjustment, loosen the adjusting screw lock nut (5) and turn the adjusting screw so there is a slight resistance when the feeler gauge is inserted.

After completing the adjustment, tighten the adjusting screw lock nut while holding the adjusting screw to prevent it from turning.

Finally, recheck the clearance to make sure that the adjustment has not been disturbed. Reinstall the tappet adjusting hole cap, the timing mark hole cap and crankshaft hole cap.



(3) Feeler gauge
(4) Adjusting screw

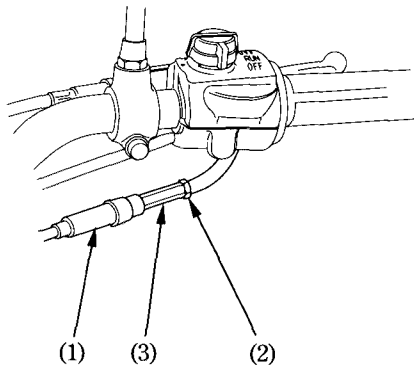
(5) Adjusting screw
lock nut

THROTTLE OPERATION

Refer to the Safety Precautions on page 50 .

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:
3—5 mm (0.1—0.2 in)

To adjust the freeplay, slide the throttle cable boot (1), then loosen the lock nut (2) and turn the adjuster (3).



(1) Throttle cable boot
(2) Lock nut

(3) Adjuster

IDLE SPEED

Refer to the Safety Precautions on page 50 .

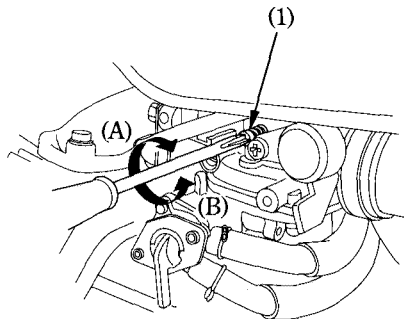
The engine must be at normal operating temperature for accurate idle speed adjustment. 10 minutes of stop-and-go riding is sufficient.

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, shift to neutral and place the motorcycle on its center stand.
2. Connect a tachometer to the engine.
3. Adjust idle speed with the throttle stop screw (1).

Idle speed (In neutral):

$1,500 \pm 100 \text{ min}^{-1} (\text{rpm})$



(1) Throttle stop screw

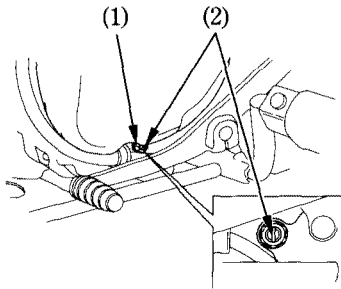
(A) Increase

(B) Decrease

CAM CHAIN ADJUSTMENT

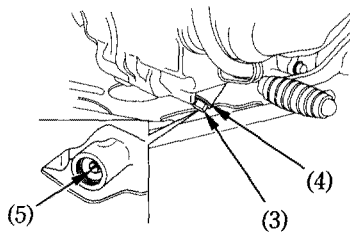
Refer to the Safety Precautions on page 50 .
When the cam chain is noisy, adjust the tension in the following manner:

1. Start the engine and maintain it at idle speed (1,500 min⁻¹).
2. Loosen the lock nut (1), and loosen the tensioner adjusting bolt (2) approximately one half turn. Tighten the lock nut.



- (1) Tensioner adjusting bolt lock nut
(2) Tensioner adjusting bolt

3. If the chain is still noisy even after the above adjustment, loosen the lock nut (1) and adjusting bolt (2). Remove the 14 mm sealing bolt (3) and washer (4) located at the bottom of the crankcase, and screw in the tensioner bolt (5) gradually with the engine running, until the cam chain becomes quiet. After completing the adjustment, tighten the tensioner adjusting bolt, lock nut, and 14 mm sealing bolt securely.



- (3) 14mm sealing bolt
(4) Washer
(5) Tensioner bolt

DRIVE CHAIN

Refer to the Safety Precautions on page 50 .

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

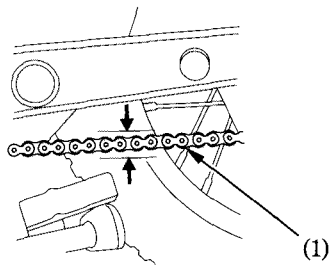
The drive chain should be checked and lubricated as part of the Pre-ride Inspection (page 39). Under severe usage, or when the motorcycle is ridden in unusually dusty or muddy areas, more frequent maintenance will be necessary.

Inspection:

1. Turn the engine off, place the motorcycle on its center stand, 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:

15—25 mm (0.6—1.0 in)

3. Rotate the rear wheel. 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.



(1) Drive chain

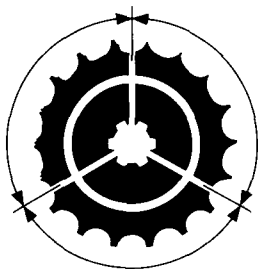
4. Inspect the sprocket teeth for possible wear or damage. Replace if necessary.

Damaged sprocket
Teeth

Worn sprocket
Teeth

Replace

Replace



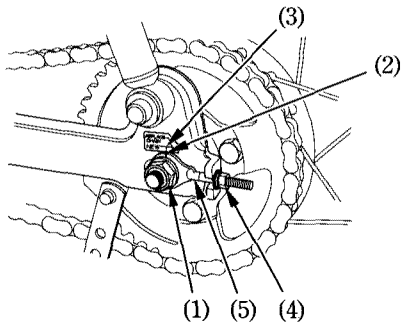
Normal sprocket Teeth

GOOD

If the drive chain or sprockets are excessively worn or damaged, they should be replaced. Never use a new chain with worn sprockets; rapid chain wear will result.

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 | (4) Drive chain adjusting nut |
| (2) Adjusting index mark | (5) Chain adjuster |
| (3) Graduated scale | |

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

1. Place the motorcycle on its center stand with the transmission in neutral and the ignition switch off.
2. Loosen the rear axle nut (1).
3. Turn the drive chain adjusting nuts (4) on both the right and left chain adjusters (5) an equal number of turns to increase or decrease chain slack. Turn the drive chain adjusting nuts clockwise to tighten the chain, or counterclockwise to provide more slack.

Align the chain adjuster index marks (2) with the corresponding scale graduations (3) on both sides of the swingarm.

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.

Replacement chain:

DID428VC2

5. Tighten the rear axle nut to the specified torque:

88 N·m (9.0 kgf·m , 65 lbf·ft)

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

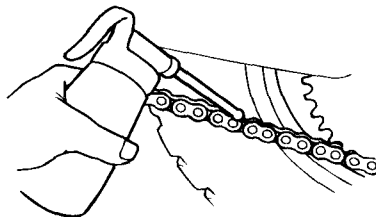
6. Tighten the drive chain adjusting nuts.
7. Recheck drive chain slack.
8. Rear brake pedal freeplay is affected when repositioning the rear wheel to adjust drive chain slack. Check rear brake pedal freeplay and adjust as necessary (page 19).

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.



FRONT AND REAR SUSPENSION INSPECTION

Refer to the Safety Precautions on page 50 .

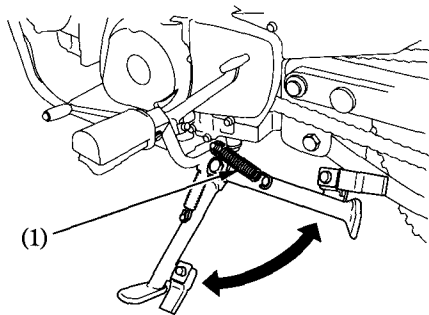
1. Check the front fork assembly by locking the front brake and pumping the fork up and down vigorously. Suspension action should be smooth.
2. Rear fork bushing—this can be checked by pushing hard against the side of the rear wheel while the motorcycle is on the center stand and feeling for looseness of the fork bushings.
3. Carefully inspect all front and rear suspension fasteners for tightness.

SIDE STAND

Refer to the Safety Precautions on page 50.

Check the side stand spring (1) for damage and loss of tension, and the side stand assembly for freedom of movement.

If the side stand is squeaky or stiff, clean the pivot area and lubricate the pivot bolt with clean engine oil.

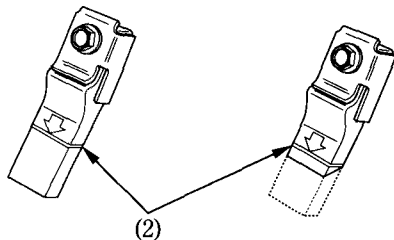


(1) Side stand spring

Check the rubber pad for deterioration and wear. Replace if wear extends to the wear line (See (2) in the picture). Check the side stand assembly for freedom of movement. If parts must be replaced, please contact your Honda dealer.

GOOD

REPLACE



Replace if wear extends to any point of the wear line.

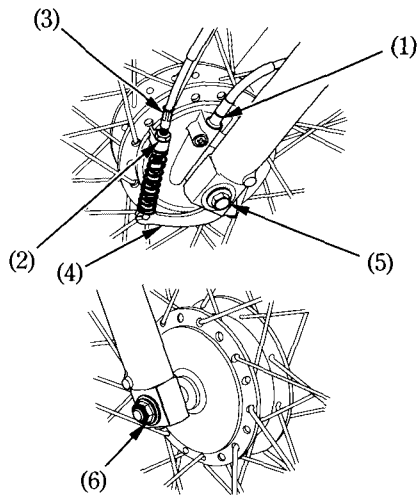
(2) Wear line

WHEEL REMOVAL

Refer to the Safety Precautions on page 50.

Front Wheel Removal

1. Raise the front wheel off the ground by placing a support block under the engine.
2. Remove the speedometer cable (1).
3. Remove the front brake adjusting nut (2) and remove the front brake cable (3) from the brake arm (4).
4. Remove the front axle nut (6).
5. Remove the front axle shaft (5) and the wheel.



- | | |
|-------------------------|----------------------|
| (1) Speedometer cable | (4) Brake arm |
| (2) Brake adjusting nut | (5) Front axle shaft |
| (3) Front brake cable | (6) Front axle nut |

Installation Notes:

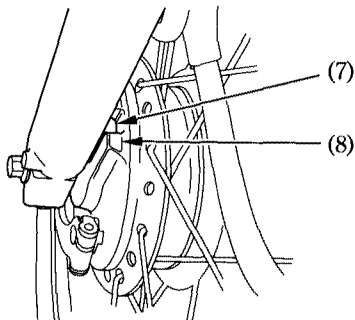
- Reverse the removal procedure.
- Position the front wheel between the fork legs and insert the front axle shaft from the left side, through the left fork leg and wheel hub.
- Make sure that the tang (7) on the left front fork leg is located in the slot (8) in the brake panel.
- Tighten the front axle nut to specified torque.

Front axle nut torque:

59 N·m (6.0 kgf·m , 44 lbf·ft)

- Adjust the brake (page 17 – 18).
- 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.

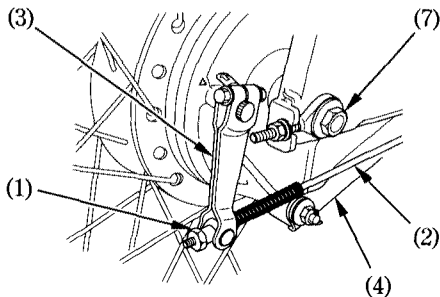


(7) Tang

(8) Slot

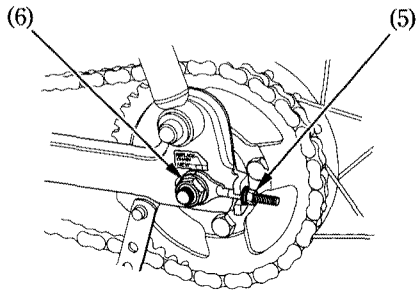
Rear Wheel Removal

1. Place the motorcycle on its center stand.
2. Remove the rear brake adjusting nut (1).
Disconnect the brake rod (2) from the brake arm (3).
3. Disconnect the brake stopper arm (4) from the brake panel by removing the cotter pin, stopper arm nut, washer and rubber grommet.



- | | |
|-------------------------|-----------------------|
| (1) Brake adjusting nut | (3) Brake arm |
| (2) Brake rod | (4) Brake stopper arm |
| | (7) Rear axle shaft |

3. Loosen the drive chain adjusting nuts (5).
4. Remove the rear axle nut (6) and pull out the rear axle shaft (7).
Push the wheel forward and remove the drive chain from the rear sprocket.
5. Pull out the wheel from the swingarm.



- | |
|--------------------------------|
| (5) Drive chain adjusting nuts |
| (6) Rear axle nut |

Installation Notes:

- Reverse the removal procedure.
- Tighten the rear axle nut and brake stopper arm nut to specified torque.
Rear axle nut torque:
88 N·m (9.0 kgf·m , 65 lbf·ft)
Brake stopper arm nut torque:
14 N·m (1.4 kgf·m , 10 lbf·ft)
- Adjust the brake (page 19 — 20) and drive chain (page 69).
- After installing the wheel, apply the brake several times and check for free wheel rotation when released.

Used cotter pin may not effectively secure fastener. Always replace used cotter pin with new one.

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.

BRAKE SHOE WEAR

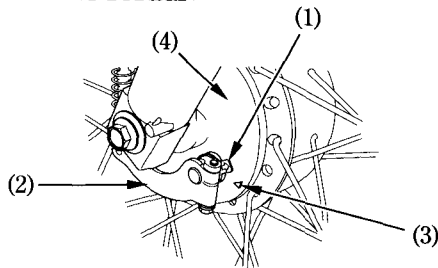
Refer to the Safety Precautions on page 50 .

The front and rear brakes are equipped with brake wear indicators.

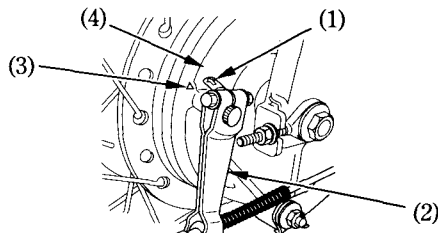
When the brake is applied, an arrow (1) attached to the brake arm (2) moves toward a reference mark (3) on the brake panel (4). If the arrow aligns with the reference mark on full application of the brake, the brake shoes must be replaced. See your Honda dealer for this service.

When the brake service is necessary, see your Honda dealer. Use only genuine Honda parts or its equivalent.

< FRONT BRAKE >



< REAR BRAKE >



- | | |
|---------------|--------------------|
| (1) Arrow | (3) Reference mark |
| (2) Brake arm | (4) Brake panel |

BATTERY

Refer to the Safety Precautions on page 50.

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.

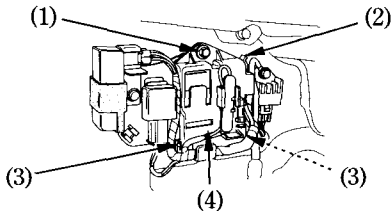
A spark or flame can cause the battery to explode with enough force to kill or seriously hurt you.

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

The battery (5) is in the battery box behind the left side cover.

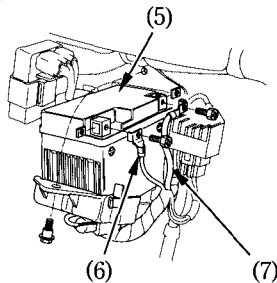
Removal:

1. Make sure the ignition switch is OFF.
2. Remove the right side cover (page 37).
3. Remove the battery case cover bolt (1).
4. Unhook the positive(+) terminal lead from the hook (2).
5. Press on the locking tabs (3) and open the battery case cover (4).
6. Disconnect the negative (-) terminal lead (6) from the battery first, then disconnect the positive (+) terminal lead (7).
7. Pull out the battery from the battery box.
8. Remove the battery (5).



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 case cover bolt
- (2) Hook
- (3) Locking tabs
- (4) Battery case cover
- (5) Battery
- (6) Negative (-) terminal lead
- (7) Positive (+) terminal lead

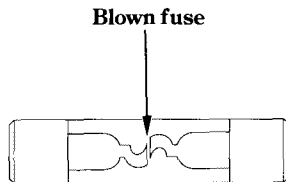
FUSE REPLACEMENT

Refer to the Safety Precautions on page 50 .

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 holder:

The fuse holder (1) is located on the battery case cover.

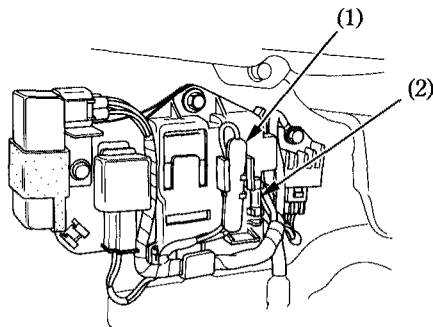
The specified fuse is:

7A

1. Remove the right side cover (page 37).
2. Open the fuse holder (1) and lift out the old fuse (3) with the clips (4).
3. Slide the old fuse out of the clips and discard it.
4. Slide the clips onto the ends of the spare fuse (2), push them back into the fuse holder, and close the fuse holder.

The spare fuse is located on the battery cover.

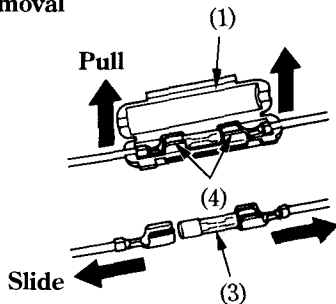
5. Install the right side cover.



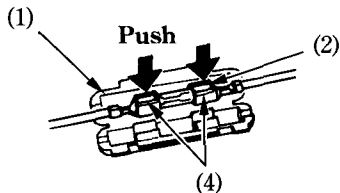
(1) Fuse holder

(2) Spare fuse

Removal



Installation



- (1) Fuse holder
- (2) Spare fuse

- (3) Old fuse
- (4) Clips

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

NOTICE

Replacing a fuse with one that has a higher rating greatly increases the chances of damaging the electrical system.

If the replacement fuse of the same rating burns out in a short time, there is probably a serious electrical problem on your motorcycle.

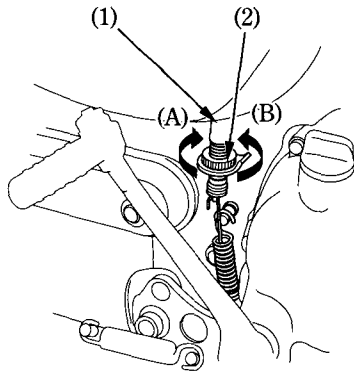
Leave the blown fuse in that circuit and have your motorcycle checked by your Honda dealer.

BRAKELIGHT SWITCH ADJUSTMENT

Refer to the Safety Precautions on page 50 .

Check the operation of the brakelight switch (1) is below the right side cover, near 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

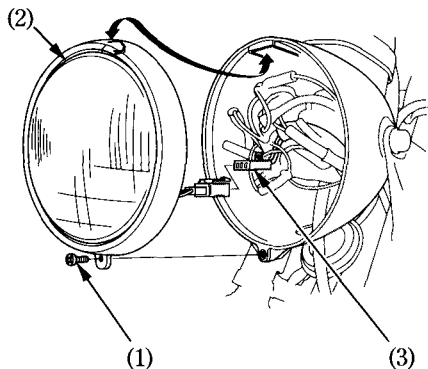
Refer to the Safety Precautions on page 50 .

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.

- 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.

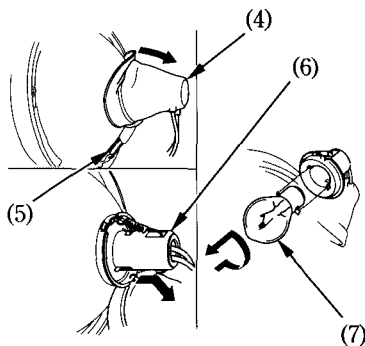
Headlight Bulb

1. Remove the screw (1) from the headlight case.
2. Gently pull the lower end of the headlight (2) forward and remove the headlight.
3. Disconnect the connector (3).



- (1) Screw
(2) Headlight
(3) Connector

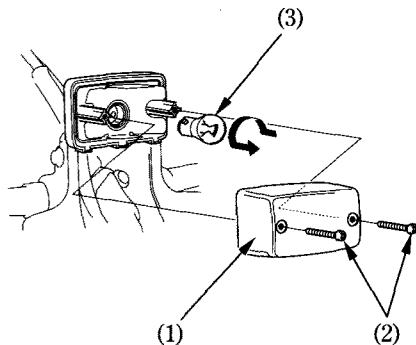
4. Remove the seat rubber (4).
5. Remove the spring (5) and pull up the headlight bulb socket (6).
6. Slightly press the headlight bulb (7) and turn it counterclockwise.
7. Install a new bulb in the reverse order of removal.



- (4) Seat rubber
(5) Spring
(6) Headlight bulb socket
(7) Headlight bulb

Brake/Tail Light Bulb

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

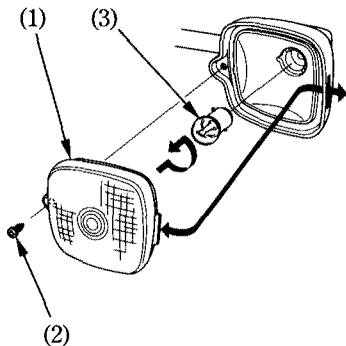


(1) Taillight lens
(2) Screws

(3) Bulb

Front/Rear Turn Signal Bulb

1. Remove the turn signal lens (1) by removing the screw (2).
2. Remove the bulb (3) by pressing in and turning counterclockwise.
3. Install a new bulb in the reverse order of removal.



(1) Turn signal lens
(2) Screw

(3) Bulb

CLEANING

Clean your motorcycle regularly to protect the surface finishes and inspect for damage, wear and oil 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 chemical solvents off the motorcycle.

They will damage the plastic and painted surfaces.

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

The salt contained in the road surface freezing prevention medicine which a road was sprayed with in winter, and the seawater becomes the cause which rust occurs in.

Wash your motorcycle by the following point after it runs through such a place.

1. Clean the motorcycle using cool water (page 89).

Do not use warm water.

This worsens the effect of the salt.

2. Dry the motorcycle and the surface of 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. Drain the fuel tank and carburetor into an approved petrol container. Spray the inside of the tank with an aerosol rust-inhibiting oil.

Reinstall the fuel 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 cm³) 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 71).
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.
Change the engine oil if more than 4 months have passed since the start of storage.
2. Charge the battery as required. Install the battery.
3. Drain any excess aerosol rust-inhibiting oil from the fuel tank. Fill the fuel tank with fresh petrol.
4. Perform all Pre-ride Inspection checks (page 39).
Test ride the motorcycle at low speeds in a safe riding area away from traffic.

SPECIFICATIONS

DIMENSIONS

Overall length	1,865 mm (73.4 in)
Overall width	755 mm (29.7 in)
Overall height	1,070 mm (42.1 in)
Wheelbase	1,215 mm (47.8 in)

CAPACITIES

Engine oil	After draining	0.9 ℓ (1.0 US qt , 0.8 Imp qt)
	After disassembly	1.1 ℓ (1.2 US qt , 1.0 Imp qt)
Fuel tank		4.8 ℓ (1.27 US gal , 1.06 Imp gal)
Fuel reserve		0.9 ℓ (0.24 US gal , 0.20 Imp gal)
Passenger capacity		Operator Only no passengers
Maximum weight capacity		109 kg (240 lbs)

ENGINE

Bore and stroke	$52.0 \times 49.5 \text{ mm}$ ($2.05 \times 1.95 \text{ in}$)
Compression ratio	8.5 : 1
Displacement	105.1 cm^3 (6.41 cu-in)
Spark plug	
Standard	DR8ES—L (NGK) or X24ESR—U (DENSO)
For cold climate (Below 5°C , 41°F)	DR7ES (NGK) or X22ESR—U (DENSO)
For extended high speed riding	DR8ES (NGK) or X27ESR—U (DENSO)
Spark plug gap	$0.60 - 0.70 \text{ mm}$ ($0.024 - 0.028 \text{ in}$)
Idle speed	$1,500 \pm 100 \text{ min}^{-1}$ (rpm)
Valve clearance (Cold)	
Intake	0.05 mm (0.002 in)
Exhaust	0.05 mm (0.002 in)

CHASSIS AND SUSPENSION

Caster	27° 15'
Trail	88 mm (3.5 in)
Tyre size, front	2.75—17 41P IRC 3R
Tyre size, rear	2.75—17 41P IRC 3R
Tyre type	bias-ply, tube

POWER TRANSMISSION

Primary reduction	3.722
Gear ratio, 1st	2.538
2nd	1.611
3rd	1.190
4th	0.958
Final reduction	3.000

ELECTRICAL

Battery
Generator

12V—3AH
A.C.Generator

LIGHTS

Headlight
Brake/tail light
Turn signal light Front
 Rear
Instrument lights
Neutral indicator
Turn signal indicator
High beam indicator

12V—35/35W
12V—21/5W
12V—10W
12V—10W
12V—1.7W
12V—3.4W
12V—1.7W
12V—1.7W

FUSE

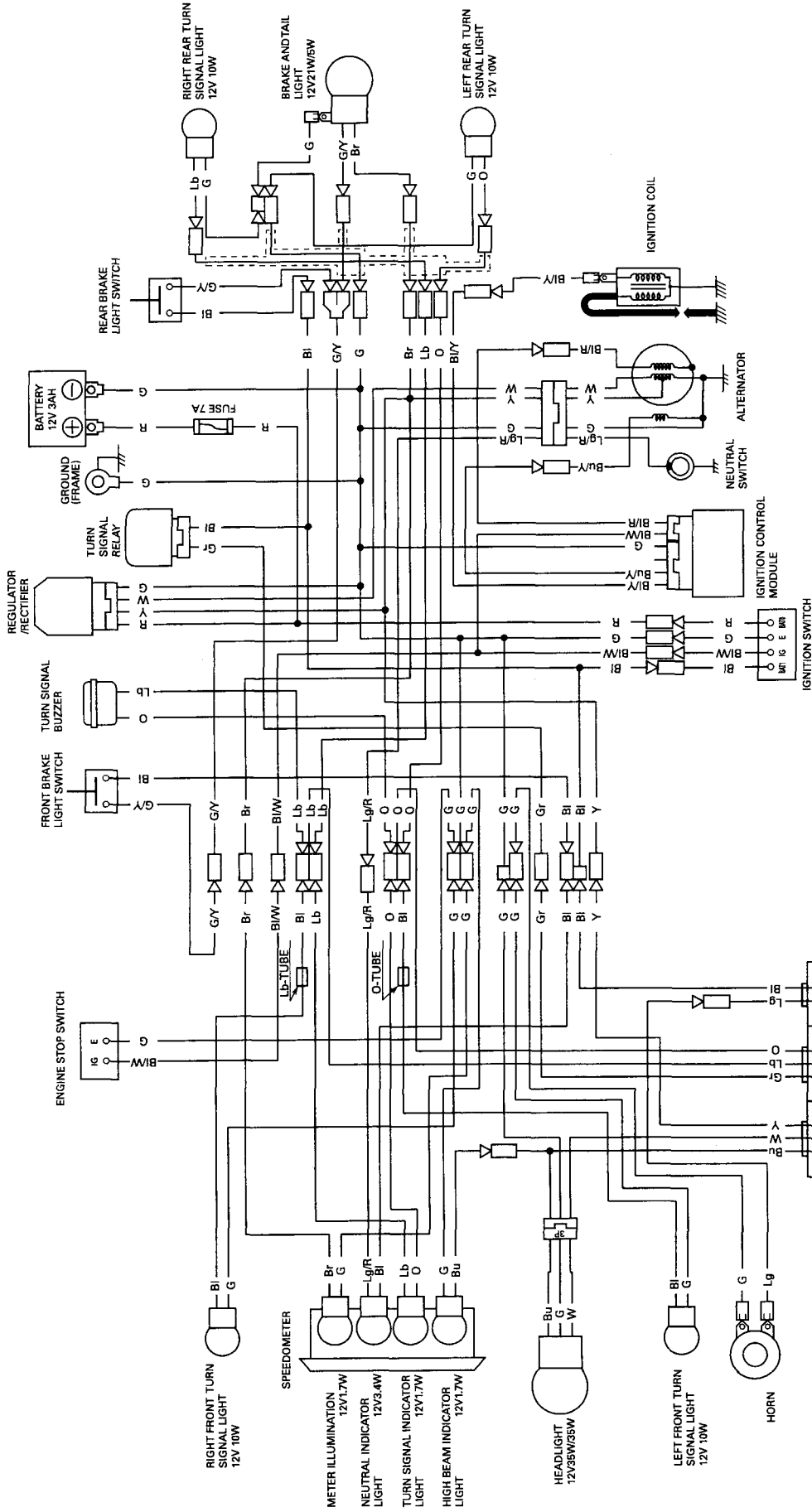
Main fuse

7A

NOISE CONTROL SYSTEM (AUSTRALIA ONLY)

TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED: Owners are warned that the law may prohibit : (a) The removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; and (b) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

CT110 UY



BI	BLACK	Br	BROWN
Y	YELLOW	O	ORANGE
Bu	BLUE	Lb	LIGHT BLUE
G	GREEN	Lg	LIGHT GREEN
R	RED	P	PINK
W	WHITE	Gr	GRAY

SWITCH CONTINUITY																																			
ENGINE STOP SWITCH	DIMMER SWITCH	TURN SIGNAL SWITCH	HORN SWITCH																																
<table> <tr> <td>IG</td><td>E</td><td>OFF</td><td>ON</td></tr> <tr> <td>OFF</td><td>ON</td><td>OFF</td><td>ON</td></tr> </table>	IG	E	OFF	ON	OFF	ON	OFF	ON	<table> <tr> <td>Hi</td><td>Lo</td><td>HL</td><td>HL</td></tr> <tr> <td>OFF</td><td>ON</td><td>OFF</td><td>ON</td></tr> </table>	Hi	Lo	HL	HL	OFF	ON	OFF	ON	<table> <tr> <td>W/R</td><td>R</td><td>L</td><td>L</td></tr> <tr> <td>OFF</td><td>ON</td><td>OFF</td><td>ON</td></tr> </table>	W/R	R	L	L	OFF	ON	OFF	ON	<table> <tr> <td>HO</td><td>SAF</td><td>SAF</td><td>SAF</td></tr> <tr> <td>OFF</td><td>ON</td><td>OFF</td><td>ON</td></tr> </table>	HO	SAF	SAF	SAF	OFF	ON	OFF	ON
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