



Owner's Manual



XR250

Tornado

Owner's Manual

INTRODUCTION

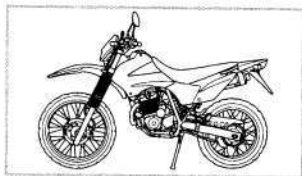
This manual is a practical guide on how to take care of the Honda motorcycle you have just acquired. It contains all basic instructions for your Honda to be well taken care of, daily inspection and maintenance procedures, and also explanations of how to drive it correctly in traffic.

Your Honda motorcycle is a true precision machine. And just like any other precision machine, it needs special attention to keep the same performance it presented when it left the factory.

Your Honda dealer will be pleased to help you maintain your motorcycle, being prepared to offer all necessary technical assistance, genuine parts and equipment, and specially trained technicians.

We take advantage of this opportunity to thank you for choosing a Honda and we hope that your motorcycle grants you maximum economy, performance, emotion and pleasure.

MOTO HONDA DA AMAZÔNIA LTDA.

HONDA XR250**Important Notice**

- This motorcycle is designed to carry the operator and one passenger. Always check the tire recommended pressure (page 37) and follow the motorcycle load limits.
- This motorcycle is designed for on and off-road.
- The illustrations presented in this manual aim at making the identification of the components easier. They may differ a little from your motorcycle's components.
- Read this manual carefully and pay special attention to the statements preceded by the following:

ATTENTION

Indicates a possibility of personal injury or equipment damage if instructions are not followed.

⚠ WARNING

Indicates a strong possibility of severe personal injury or death if instructions are not followed.

NOTE

Gives helpful information.

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

ALL THE INFORMATION IN THIS MANUAL IS BASED ON THE LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF APPROVAL FOR PRINTING.

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NO PART OF THIS PUBLICATION MAY BE REPRODUCED WITHOUT WRITTEN PERMISSION.

INDEX**OWNER'S ASSISTANCE**6**MOTORCYCLE SAFETY**

Safe Riding Rules	7
Protective Apparel	8
Modifications	8
Precaution with Floods	8
Optional Accessories	8
Accessories and Load	9
Off-road Safety	11

INSTRUMENTS AND CONTROLS

Component Location	13
Instruments and Indicators	16

MAIN COMPONENTS

(Information you need to operate the motorcycle)	29
Brakes	29
Clutch	32
Fuel Cock	34
Fuel Tank	35
Engine Oil	36
Tires	37

ESSENTIAL INDIVIDUAL COMPONENTS

Ignition Switch	40
Right Handlebar Controls	41
Left Handlebar Controls	41

FEATURES

Steering Lock	42
Helmet Holder	43
Document Compartment	43
Left Side Cover	44
Right Side Cover	45

OPERATION

Pre-ride Inspection	46
Starting the Engine	47
Running In	49
Riding	49
Braking	51
Parking	52
How to Prevent Theft	53

MAINTENANCE

MAINTENANCE SCHEDULE	54
MAINTENANCE PRECAUTIONS	56
Air Cleaner	58
Battery	76
Brake Pad Wear	74
Brake Shoe Wear	75
Brake Lining and Drum Cleaning	75
Bulbs	80
Crankcase Breather	58
Drive Chain	64
Drive Chain Slider	68
Engine Oil	59
Front and Rear Suspensions	68
Fuses	78
Headlight	83
Idle Speed	63
Motorcycle identification	57
Rearview Mirror	83
Side Stand	69
Seat Height Modification	77
Spark Plug	62
Stoplight Switch	80
Throttle	63
Tool Kit	56
Wheels	70

CLEANING AND MAINTENANCE	85
--------------------------	----

STORAGE GUIDE	88
---------------	----

ENVIRONMENT PROTECTION	91
------------------------	----

SPECIFICATIONS	92
----------------	----

MAINTENANCE RECORD	95
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OWNER'S ASSISTANCE

Honda is not only concerned about offering motorcycles with excellent quality, economy and performance, but also maintaining them in perfect riding conditions. For this, you can rely on our technical assistance network - Honda Dealers.

If your motorcycle presents any abnormality, proceed as follows:

1. See an authorized Honda dealer to have the motorcycle inspected and repaired.
2. If the problem is not solved, return to the dealer and tell the receptionist about the abnormality in order to have it completely repaired.
3. If the problem persists and the service is considered unsatisfactory, see the dealer service manager who will assist you.

MOTORCYCLE SAFETY

WARNING

Motorcycle riding requires special efforts on your part to ensure your safety. Know these requirements before you ride.

Safe Riding Rules

1. Always make a Pre-ride Inspection (page 46) before you start the engine. You may prevent an accident or equipment damage.
2. Many accidents involve inexperienced riders. Make sure you are qualified before you ride. NEVER lend your motorcycle to an inexperienced rider.
3. Many automobile/motorcycle accidents happen because the automobile driver says he/she did not "see" the motorcyclist. Make yourself conspicuous to help avoid accidents.
 - Always ride with the lights on.
 - Wear bright or reflective clothing and helmet.
 - Do not ride in another motorist's "blind spot".
4. Obey all national and local laws and regulations.
 - Excessive speed is a factor in many accidents. Obey the speed limits, and NEVER ride faster than conditions warrant.
 - Signal before you make a turn or lane change.
 - The size and maneuverability of your motorcycle can surprise other motorists.
5. Do not let other motorists surprise you. Use extra caution at intersections, parking lot entrances and exits, and driveways.
6. Keep both hands on the handlebars and both feet on the footpegs while riding. The passenger should hold on to the motorcycle or operator with both hands and keep both feet on the passenger footpegs.
7. Never leave your motorcycle unattended while the engine is running.
8. Always adjust the rearview mirrors (page 83).

Protective Apparel

1. Most motorcycle accident fatalities are due to head injuries. ALWAYS WEAR A HELMET. If it is an open face helmet, you should also wear a proper face shield or goggles. Boots, gloves and protective clothing are essential. A passenger needs the same protection.
2. The exhaust system becomes hot during operation, and it remains hot for a while after stopping the engine. Be careful not to touch the exhaust system while it is hot. Wear clothing that fully covers your legs.
3. Do not wear loose clothing, which could catch on the control levers, footpegs, drive chain or wheels.

Modifications



Modification to the motorcycle, or removal of original equipment, may render the motorcycle unsafe or illegal. Obey all national and local equipment and accessories regulations.

Precaution with Floods

When riding in flooded places and streams avoid, letting water enter the air cleaner. The inflow of water in the engine may cause the hydraulic shim effect, which will damage the engine.

The inflow of water in the oil pan will cause the contamination of the lubricating oil. If such situation occurs, turn the engine off immediately, replace the oil at a Honda dealer to make sure that the water in the engine is eliminated and that the proper maintenance is performed.

Optional Accessories

See a Honda dealer for more information on the available accessories and optional equipment for your motorcycle.

Accessories and Load



- **To prevent an accident, overload and structural damages, use extreme care when adding accessories and cargo and when riding with them. The installation of accessories and cargo can reduce motorcycle's stability, performance and safe riding speed. Remember that the motorcycle performance can be further reduced by installation of non-Honda accessories, improper loading, worn, overall motorcycle condition and poor road or weather conditions.**
- **These general guidelines may help you decide whether or how to equip your motorcycle and how to load it safely.**
- **Motorcycle stability and handling may be affected by improperly fixed load and accessories. Check the load and accessories attachments frequently.**

Accessories

Honda original accessories are designed specifically for use in this motorcycle. Remember that you are responsible for selecting, installing and properly using non-Honda accessories. Follow the load recommendations presented under "load" and the following:

1. Carefully inspect the accessory to make sure it does not:
 - obscure any lights (headlight, taillight, turn signal and license plate lights),

- reduce ground clearance (in case of protectors) and banking angle,
 - limit suspension and steering travel,
 - limit control operation,
 - exceed motorcycle load limit,
 - affect motorcycle structure (frame),
 - affect nut, bolt and fastener tightening torque.
2. Large fork-mounted fairings or windshields, or poorly designed or improperly mounted fairings can produce aerodynamic forces that cause unstable handling. Do not install fairings that decrease cooling airflow to the engine.
 3. Accessories that alter your riding position by moving your hands or feet away from controls may increase reaction time in an emergency.
 4. Do not add electrical equipment that will exceed the motorcycle's electrical system capacity. Any electrical circuit failure is dangerous. Besides affecting the lightning and signaling system, it decreases engine performance.
 5. This motorcycle is not designed to pull a sidecar or trailer. Handling may be seriously impaired if so equipped. The installation of such accessories will render chassis components to excessive stress, damaging the motorcycle and impairing handling.
 6. Any modification to the cooling system may cause overheating and serious damages to the engine.
 7. This motorcycle is not designed for use with an alarm system. The use of any kind of alarm may impair motorcycle electrical system. Honda shall cancel warranty once the use of any kind of alarm has been verified.

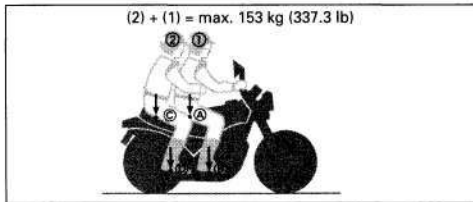
Load

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

1. Keep cargo and accessory weight low and close to the center of the motorcycle. Load weight equally on both sides to minimize imbalance. As weight is located further from the motorcycle's center of gravity, handling is proportionally affected.
2. Adjust tire pressure (page 37) to suit load weight and riding conditions.
3. Motorcycle handling and stability can be adversely affected by loose cargo and accessories. Recheck cargo security and accessory mounts frequently.
4. Do not attach large or heavy items to the handlebars, fork or fender. Unstable handling or slow steering response may result.

Load Limit

This motorcycle is designed to carry the rider (1) and one passenger (2). The sum of their weight should be distributed in four points (A, B, C, and D) and should never exceed the maximum load capacity of **153 kg (337.3 lb)**



Weight Distribution

(A) Front section of seat, (B) Front footpeg, (C) Rear section of seat (rear wheel center) and (D) Rear footpeg.

ATTENTION

- If the motorcycle is used for commercial purposes, service procedures (nut, bolt and fastener tightness) should be performed more frequently than specified in the Maintenance Schedule.
- Damages caused by excessive load WILL NOT BE COVERED by Honda Limited Warranty. If you are not sure about how to calculate the load weight that can be accommodated to your motorcycle without causing overload and structural damages, see your Honda dealer.

Off-road Safety

This motorcycle features allow you to enjoy all the excitement of riding it off-road. For this, it is necessary to follow some recommendations, which will tie off-road excitement with safety.

1. **Protective Apparel** – essential for your safety. Make a rule of always wearing them.
 - Helmet – essential equipment.
 - Goggles – the greater the visibility, the better. Choose goggles which do not break or splinter.
 - Long-sleeved shirts having fillings in the elbows and shoulders to protect against eventual injuries in the arms.
 - Gloves – models with padded hand backs are the most indicated for off-road riding. Choose gloves which fit your hands.
 - Abdominal band – it protects internal organs against off-road bumps.

- Nylon trousers with protection in the knees or reinforced jeans. They increase protection. Choose the right size for your proper freedom of motion.
- Boots – they should be made of reinforced leather with thick grooved soles and steel tips. They should also be flexible and fit you properly.
- Waist bag – it is important for off-road riding, so you may carry spare parts and those parts which were removed from the motorcycle.

2. Preparing the Motorcycle

For off-road practice, it is fundamental that your motorcycle is in perfect condition.

The front brake lever, clutch and turn signal lever supports should be loosened in order to rotate in case of falling down, preventing breakage. They should be loosened so that the handlebars turn under low forces. Under most adverse conditions, the rearview mirrors and turn signals should be removed.

WARNING

Traffic regulations do not authorize riding motorcycles on public roads without the following equipment and accessories: rearview mirrors, turn signals, headlight, taillight, horn and license plate.

3. Spare Parts

Spare parts are essential items for those riding off-road. You should always carry, whenever possible, clutch and brake levers and some bolts and nuts. For other parts, the rider experience helps a lot, but always take into account your sound judgment.

NOTE

Always carry with you all motorcycle tools and a first-aid kit.

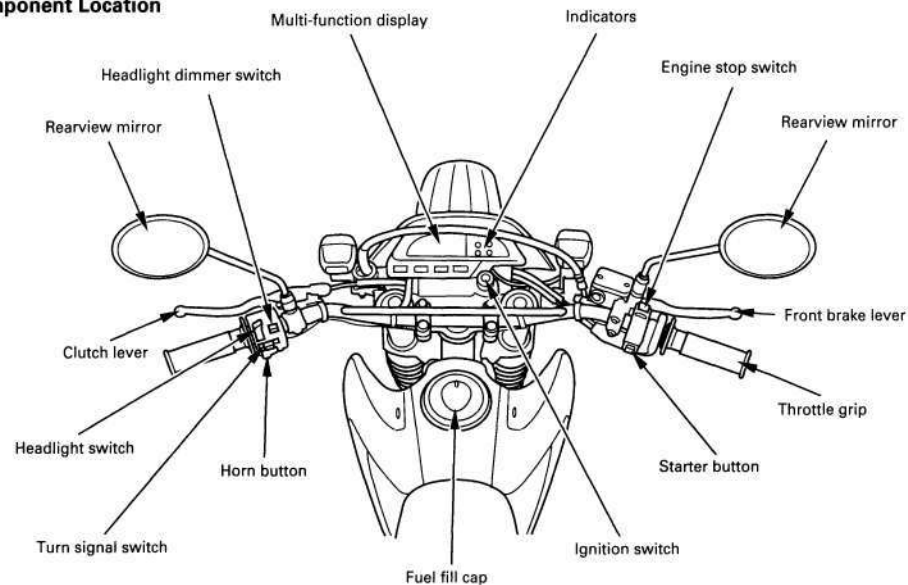
4. Riding the Motorcycle

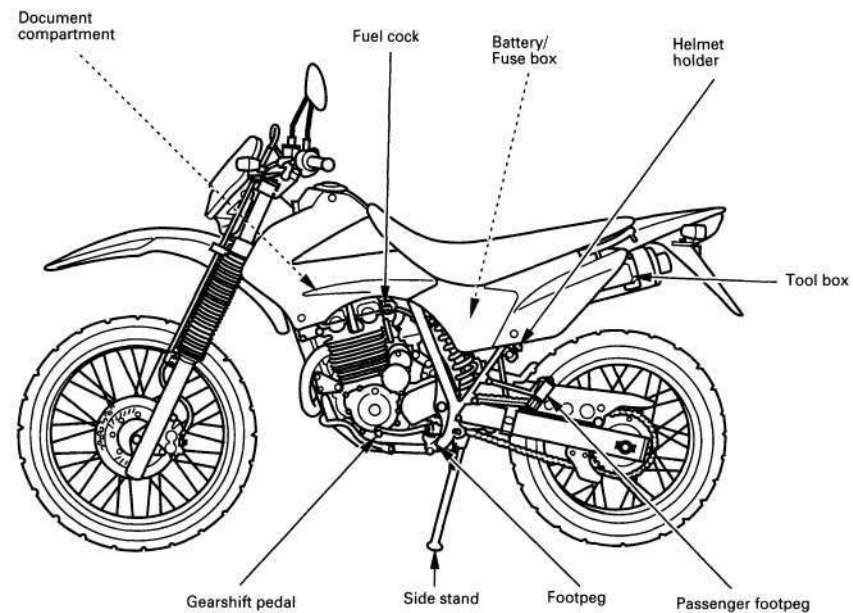
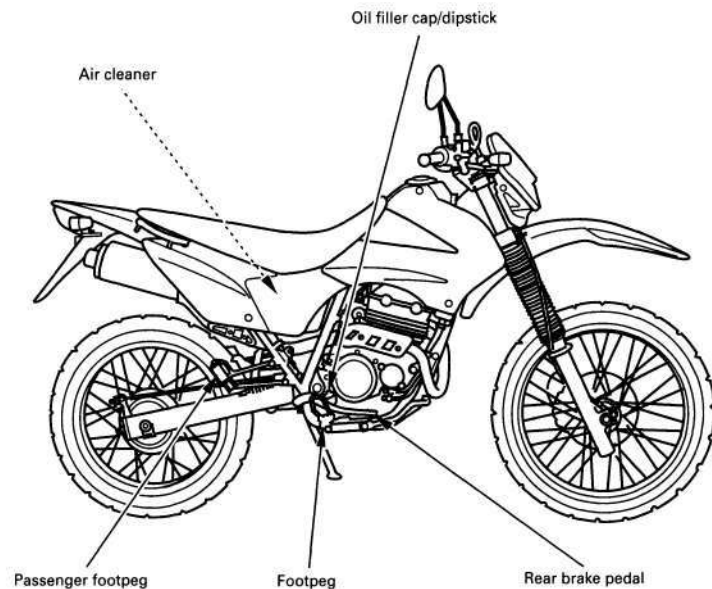
Before riding on unfamiliar terrain, follow these recommendations:

- Always obey local off-road riding laws and regulations;
- Obtain a permission to ride on private property. Avoid restricted areas and do not go beyond the limits of the place where the motorcycle can be ridden.
- Always have someone with you so that in case of damages she/he may be of assistance.
- Familiarity with your motorcycle is critically important should a problem occur far from help.
- Never ride the motorcycle beyond your experience and skills nor faster than conditions warrant.
- If you are not familiar with the terrain, ride cautiously. Hidden rocks, holes or ravines could cause accidents.

INSTRUMENTS AND CONTROLS

Component Location

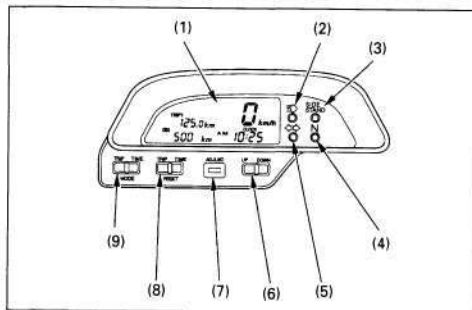




Instruments and Indicators

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

- (1) Multi-function display
- (2) High beam indicator
- (3) Side stand indicator
- (4) Neutral indicator
- (5) Turn signal indicator
- (6) UP/DOWN button
- (7) ADJUST button
- (8) RESET-TRIP/TIME button
- (9) MODE-TRIP/TIME button



Ref.	Description	Function
(1)	Multi-function display	The display includes the following functions: (See page 19 for the initial display.)
	Speedometer	Shows riding speed (km/h) (page 20).
	Odometer	Shows accumulated mileage (page 20).
	Tripmeter 1, 2 and "–"	Shows mileage per trip (page 20).
	Digital clock/Elapsed time meter	Shows hour and minute and elapsed time (page 25).
(2)	High beam indicator (blue)	Lights when the headlight is on high beam.
(3)	Side stand indicator (amber)	Lights when the side stand is down. Before parking, check that the side stand is fully down; the light only indicates that the side stand ignition cut-off system (page 69) is activated.
(4)	Neutral indicator (green)	Lights when the transmission is in neutral.
(5)	Turn signal indicator (amber)	Flashes when the turn signal operates.

Ref.	Description	Function
(6)	UP/DOWN button	These buttons are used to control the multi-function display.
(7)	ADJUST button	
(8)	RESET-TRIP/TIME button	
(9)	MODE-TRIP/TIME button	

Initial Display

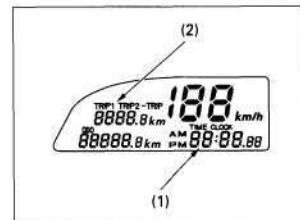
When the ignition switch is turned ON, the display will temporarily show all the modes and digital segments so you can make sure the liquid crystal display is functioning properly.

Both digital clock (1) and tripmeter (2) will reset if the battery is disconnected.

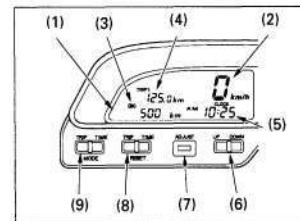
Multi-function Display

This display (1) includes the following functions:

- Speedometer
- Odometer
- Tripmeter
- Digital clock/Elapsed time meter



- (1) Digital clock/
Elapsed time meter
- (2) Tripmeter



- (1) Multi-function
display
- (2) Speedometer
- (3) Odometer
- (4) Tripmeter
- (5) Digital clock/
Elapsed time meter
- (6) UP/DOWN button
- (7) ADJUST button
- (8) RESET-TRIP/TIME
button
- (9) MODE-TRIP/TIME
button

Speedometer

Shows riding speed (km/h).

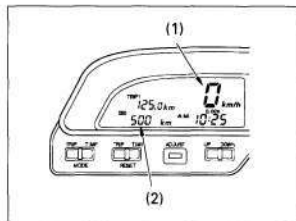
Odometer

Shows accumulated mileage.

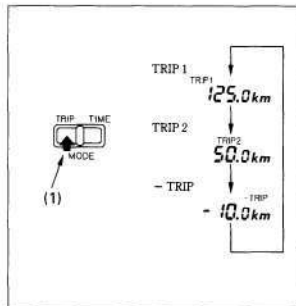
Tripmeter

The tripmeter will show mileage in three submodes, "TRIP 1", "TRIP 2" and "- TRIP".

This button changes the mode from TRIP 1, TRIP 2 to - TRIP, and vice versa. Each time the MODE-TRIP button (1) is pressed, the indication changes as illustrated.



- (1) Speedometer
(2) Odometer



- (1) MODE-TRIP button

Trip 1 and Trip 2

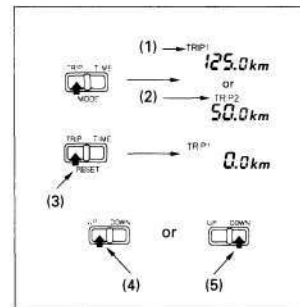
The tripmeter shows mileage in kilometers per trip. (Pressing the ADJUST button allows to subtract mileage from the instant the button is pressed (page 22).

To reset

Press and hold the RESET-TRIP button for more than 1 second. The display will show "0.0".

To change indication

The display can be changed by pressing the UP/DOWN button.



- (1) TRIP 1
(2) TRIP 2
(3) RESET button
(4) UP button
(5) DOWN button

Subtracting of mileage per trip

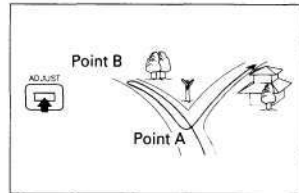
Pressing the ADJUST button starts to subtract mileage from the instant the button is pressed. During subtraction, the mode display will blink.

Example:

The mileage traveled by mistake as shown in the illustration can be corrected. If the rider chose a wrong route at point A and realized the mistake at point B, the tripmeter indication can be corrected by the following procedure.

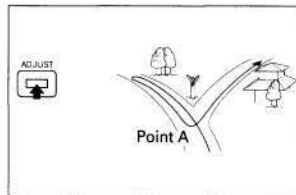
To start subtraction

Press the ADJUST button at point B, and come back to point A. In this operation, the mileage from point B to point A will be subtracted.

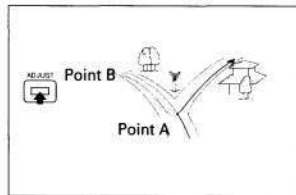


To stop subtraction

Press the ADJUST button again upon arrival at point A. The function will switch from subtraction to mileage accumulation.



As you come back on the correct route, the mileage traveled on the wrong route is not counted, displaying only the mileage traveled on the correct route.

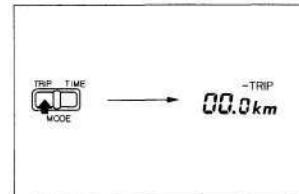


- TRIP

In this mode, the mileage will be subtracted from the preset figure. When the mileage exceeds the preset figure, the excessive mileage will be indicated with a "-" in front of the number.

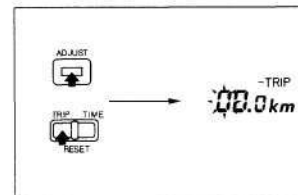
Mode selection

Press the MODE-TRIP button and choose "- TRIP".

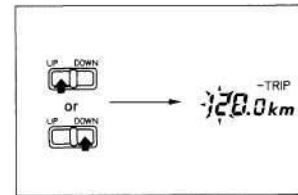


How to set the distance

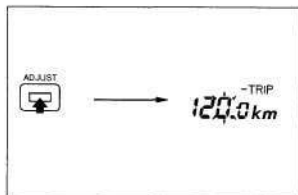
1. Press and hold the ADJUST button. Then immediately press and hold the RESET-TRIP button for more than 1 second simultaneously. The first digit will begin to blink.



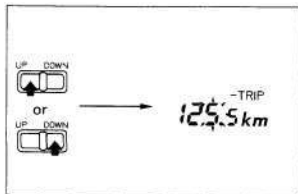
2. Press the UP/DOWN button. The first digit will be preset. Pressing and holding the UP/DOWN button will change the meter reading continuously.



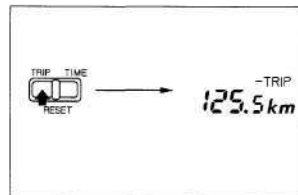
3. Press the ADJUST button. The second and the one-tenth digits will begin to blink. Each time the ADJUST button is pressed, the blinking digit will alternate from the first digit to the second and one-tenth digits, and vice versa.



4. Press the UP/DOWN button. The second and the one-tenth digits will be preset.



5. Press the RESET-TRIP button. The whole mileage will be preset.



- Press and hold the RESET-TRIP button for more than 1 second. The preset mileage will be displayed.

"-" indication

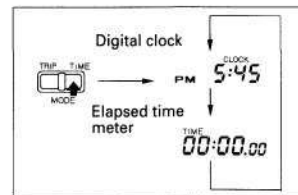
If the actual mileage exceeds the preset figure, the excess mileage will be indicated with a "-" mark.



Digital Clock and Elapsed Time Meter

This button changes the mode from the clock to the elapsed time meter, and vice versa.

Each time the MODE-TIME button is pressed, the indication changes as illustrated.



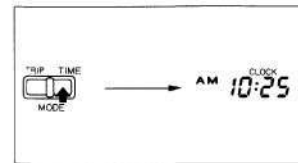
Digital Clock

Shows hour and minute.

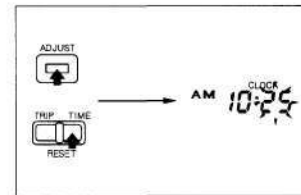
To adjust the time, proceed as follows:

To adjust hour and minute

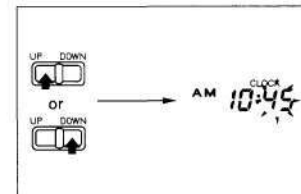
1. Press the MODE-TIME button. The mode indicator will display "CLOCK".



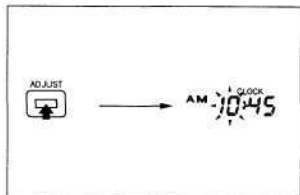
2. Press the ADJUST button, then immediately press and hold the RESET-TIME button for more than 1 second simultaneously. The minute indication will begin to blink.



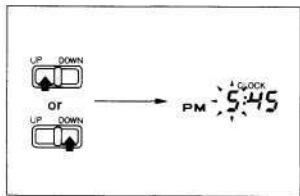
3. Press the UP/DOWN button to reset minutes. Pressing and holding the UP/DOWN button will change the meter reading continuously.



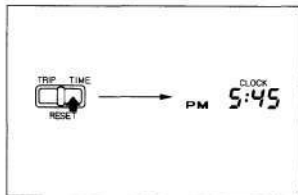
4. Press the ADJUST button. The hour indication will begin to blink. Pressing the ADJUST button will switch the display from hours to minutes, and vice versa.



5. Press the UP/ DOWN button to reset hours and AM/ PM.



6. Press the RESET-TIME button. The clock will start counting time the instant the button is pressed.

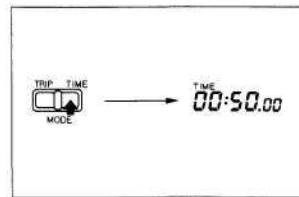


Elapsed Time Meter

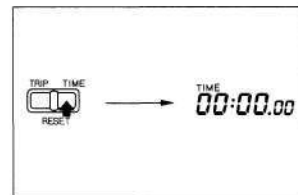
The elapsed time meter will show hours, minutes and seconds up to 23:59:59.

To reset

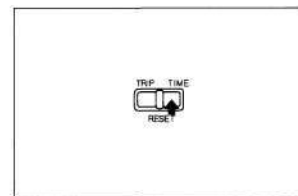
1. Press the MODE-TIME button. The mode indicator will display "TIME".



2. Press and hold the RESET-TIME button for more than 2 seconds. The display will indicate "00:00:00".



3. Lightly press the RESET-TIME button for less than 1 second. The elapsed time meter will start counting time the instant the button is pressed.

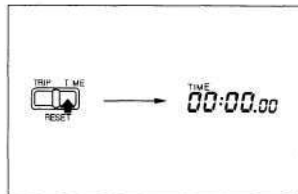


You can start the elapsed time meter before you start off the line in the enduro.

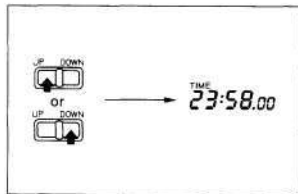
Example:

To start the meter before 2 minutes

1. Press and hold the RESET-TIME button for more than 2 seconds. The display will indicate "00:00:00".



2. Set the indication to "23:58:00" with the UP/DOWN button. Pressing and holding the UP/DOWN button will change the meter reading continuously.

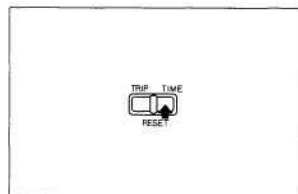


3. Two minutes before starting, lightly press the RESET-TIME button for less than 1 second. The elapsed time meter will start to count time the instant the button is pressed.



To stop/restart counting

The elapsed time meter will be started or stopped each time the RESET-TIME button is pressed for less than 1 second.



Elapsed time meter function will continue even when the multi-function display is switched to "CLOCK" mode or when the ignition switch is turned OFF.

MAIN COMPONENTS

(Information you need to operate the motorcycle)



WARNING
If the Pre-ride Inspection (page 46) is not performed, severe personal injury or vehicle damage may result.

Brakes

Front Brake

This motorcycle has a hydraulic front disc brake. As the brake pads wear, 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 brake lever free play becomes excessive and the brake pads are not worn beyond the recommended limit (page 74), there is probably air in the brake system and it must be bled. See your Honda dealer for this service.

Front Brake Fluid Level



- Brake fluid may cause irritation. Avoid contact with skin or eyes. In case of contact, flush thoroughly with water and call a doctor if your eyes were exposed.
- KEEP OUT OF REACH OF CHILDREN.

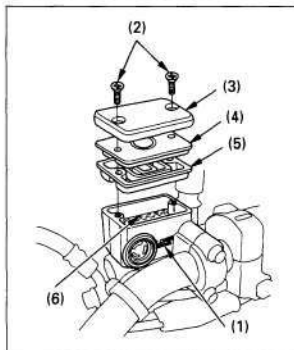
ATTENTION

- Handle brake fluid with care because it can damage plastic and painted surfaces, instrument lenses and wiring.
- When adding brake fluid, be sure the reservoir is horizontal before the cap is removed or brake fluid may spill out.
- Use only DOT 4 brake fluid from a sealed container.
- Never allow contaminants such as dirt or water to enter the brake fluid reservoir. Clean the reservoir externally before removing the cap.

Brake fluid must be added to the reservoir whenever the fluid level begins to reach the LOWER level mark (1), with the motorcycle in the upright position. Remove the screws (2), reservoir cover (3), diaphragm plate (4) and diaphragm (5). Fill the reservoir with DOT 4 brake fluid from a sealed container up to the UPPER level mark (6). Reinstall the diaphragm and cover. Tighten the screws securely.

Other checks

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



- (1) LOWER level mark
- (2) Screws
- (3) Reservoir cover
- (4) Diaphragm plate
- (5) Diaphragm
- (6) UPPER level mark

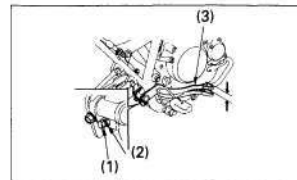
Rear Brake

Pedal height adjustment

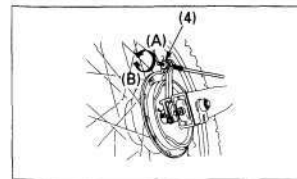
To adjust the pedal height, loosen the lock nut (2) and turn the detent bolt (1). Retighten the lock nut.

Free Play Adjustment

1. Place the motorcycle on its side stand.
2. Measure the distance the rear brake pedal (3) moves before the brake starts to take hold.
Free play should be: **20 – 30 mm (0.8 – 1.2 in)**
3. If adjustment is necessary, turn the rear brake adjusting nut (2).



- (1) Detent bolt
- (2) Lock nut
- (3) Rear brake pedal



- (4) Adjusting nut
- (A) Increase free play
- (B) Decrease free play

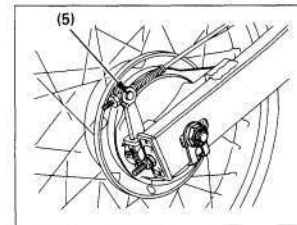
4. Apply the brake several times and check for free wheel rotation after the brake pedal is released.

NOTE

- Make sure the cutout on the adjusting nut is seated on the brake arm pin (5) after making final free play adjustment.
- If proper adjustment cannot be obtained by this method, see your Honda dealer.

Other checks

- (5) Brake arm pin



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

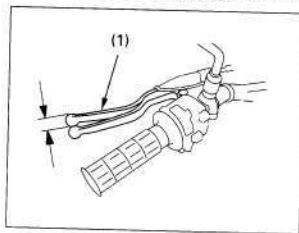
Clutch

Clutch adjustment may be required if:

- The motorcycle stalls when shifting into gear or tends to creep;
- The clutch slips, causing acceleration to lag behind engine speed.

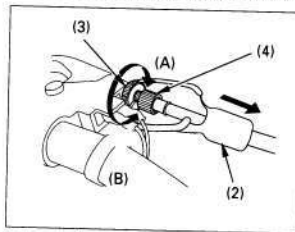
Minor adjustments can be made with the clutch cable adjuster (4) at the clutch lever (1).

Normal clutch lever free play is **10 – 20 mm (0.4 – 0.8 in.)**.



(1) Clutch lever

1. Pull back the rubber dust cover (2), loosen the lock nut (3) and turn the adjuster. 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 and install the dust cover.



(2) Dust cover
(3) Lock nut
(4) Clutch cable adjuster
(A) Increase free play
(B) Decrease free play

Other checks:

Check the clutch cable for kinks or signs of wear that could cause sticking or failure. Lubricate the clutch cable with a high quality cable lubricant to prevent premature wear and corrosion.

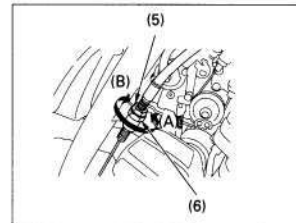
3. Loosen the lock nut (5) and turn the adjusting nut (6) to obtain the specified free play. Tighten the lock nut and check the adjustment.
4. Start the engine, pull in the clutch lever and shift into gear. Make sure the engine does not stall and the motorcycle does not creep. Gradually release the clutch lever and open the throttle. The motorcycle should begin to move smoothly and accelerate gradually.

NOTE

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 high quality, cable lubricant to prevent premature wear and corrosion.



(5) Lock nut
(6) Adjusting nut
(A) Increase free play
(B) Decrease free play

Fuel Cock

The three-way fuel cock (1) is on the lower left side near the carburetor.

OFF

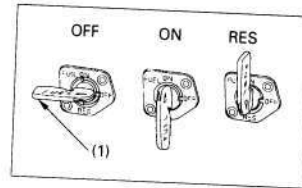
With the fuel cock in the OFF position, fuel cannot flow from the tank to the carburetor. Turn the cock OFF whenever the motorcycle is not in use.

ON

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

RES

With the fuel cock 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 approximately **3.7 L (1.0 US gal; 0.8 Imp.gal)** (reference value)



(1) Fuel Cock

WARNING

- To avoid running out of fuel that may result in a sudden stop, learn how to operate the fuel cock when riding the motorcycle.
- Be careful not to touch any hot engine parts while operating the fuel cock.

NOTE

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

Fuel Tank

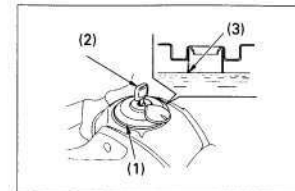
The fuel tank capacity including the reserve supply is **11.5 L (3.0 US gal; 2.5 Imp. gal)**. To open the fuel fill cap (1), insert the ignition key (2) and turn it clockwise. The fuel fill cap pops up and can be lifted off.

Recommended fuel: Premium gasoline

After refueling, align the latch in the cap with the slot in the filler neck. Push the fuel fill cap into the filler neck until it snaps closed and locks. Remove the key.

ATTENTION

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



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

WARNING

- Gasoline is extremely flammable and is explosive under certain conditions. Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where gasoline is stored or where the fuel tank is refueled.
- Do not overfill the tank. There should be no fuel in the filler neck (3). After refueling, make sure the fuel fill cap is closed securely.
- Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.
- Avoid repeated or prolonged contact with skin or breathing of vapor.
- KEEP OUT OF REACH OF CHILDREN.

Engine Oil

Engine Oil Level Check

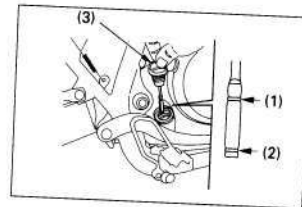
Check the engine oil level each day before riding the motorcycle.

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

1. Start the engine and let it idle for a few minutes.
2. Stop the engine and hold the motorcycle in the upright position on a firm, level ground.
3. After a few minutes, remove the oil filler cap/dipstick, wipe it clean and reinsert the dipstick **without screwing** it in. Remove the dipstick. The oil level should be between the upper and lower level marks on the dipstick.
4. If required, add the specified oil (page 59) up to the upper level mark. Do not overfill.
5. Reinstall the oil filler cap/dipstick. Turn the engine ON and check for oil leaks.

ATTENTION

- **Running the engine with insufficient oil can cause serious engine damage.**
- **Check the oil level daily and add oil if necessary.**



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

Owner's Manual

Tires

Proper air pressure will provide better riding, stability, riding comfort, and longer tire life. Check tire pressure frequently and adjust if necessary.

		Front	Rear
Tire size		90/90 21 54 S	120/80 18 62 S
Cold tire pressure kPa (kg/cm ² ; psi)	Rider Only	150 (1.50; 22)	150 (1.50; 22)
	Rider and one passenger	150 (1.50; 22)	200 (2.0; 29)
Brand/Model		METZELER ENDURO 3	METZELER ENDURO 3

NOTE

Check the tire pressure with the tires "cold", before riding the motorcycle.

Tires for mixed use (on/off-road) are standard for this motorcycle. Use tires of the same brand and type as showed in the chart. The use of different tires could affect riding and reduce motorcycle safety. Check the tires for cuts, embedded nails or other sharp objects. Check the rims for dents or deformation. If there is any damage, see your Honda dealer for repair, replacement, and balancing.

⚠ WARNING

- Do not attempt to patch a damaged tire or inner tube. Wheel balance and tire reliability may be impaired.
- Improper tire inflation will cause abnormal tread wear and create a safety hazard. Under inflation may result in the tire slipping on, or coming off the rim causing tire deflation. This may result in loss of motorcycle control.
- Riding with excessively worn tires is dangerous as tire-to-ground traction decreases, adversely affecting tire grip and motorcycle handling.
- Stones, nails and other sharp objects can pierce the tire causing loss of motorcycle control.

⚠ WARNING

Spoke tightness and wheel centering and alignment are essential for motorcycle safety. During the first 1,000 km, the spokes become loose due to initial seating. Excessively loose spokes will cause instability at high speeds and possible loss of control.

Replace tires before tread depth at the center of the tire reaches the following limit:

Minimum tire tread depth

Front	3 mm (0.1 in)
Rear	3 mm (0.1 in)

Tire Repair and Replacement

To repair or replace your tires, see your Honda dealer, which is equipped with the correct materials and methods for the repair.

⚠ WARNING

- The use of tires other than those listed on the tire information label may adversely affect handling.
- Do not install tube-type tires on tubeless rims. The beads may not seat and the tires could slip on the rims, causing tire deflation that may result in loss of motorcycle control.
- Do not install a tube inside a tubeless tire. Excessive heat build-up may cause the tube to burst resulting in rapid tire deflation that may result in loss of motorcycle control.
- Replace the tire if the sidewall is punctured or damaged. Sidewall flexing may cause repair failure and tire deflation that may result in loss of motorcycle control.

⚠ WARNING

- Do not exceed 80 km/h for the first 24 hours, or 130 km/h at any time, after tire repair.
- Proper wheel balance is necessary for safe, stable handling of the motorcycle. Do not remove or change any wheel balance weights. When wheel balancing is required, see your Honda dealer. Wheel balancing is required after tire repair or replacement.

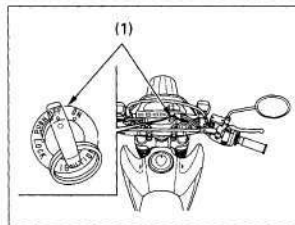
ATTENTION

Do not try to remove the tires without special tools and rim protectors. You may damage the rim sealing surface or deform the rim.

ESSENTIAL INDIVIDUAL COMPONENTS

Ignition Switch

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



(1) Ignition switch

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

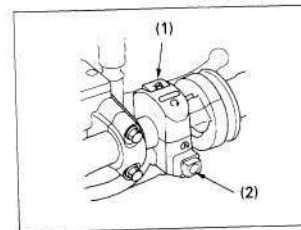
Right Handlebar Controls

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.

Starter Button

The starter button (2) is below the engine stop switch (1). When the starter button is pressed, the starter motor cranks the engine. See page 47 for the starting procedure.



(1) Engine stop switch
(2) Starter button

Left Handlebar Controls

Headlight Switch

The headlight switch (1) has two positions: ☀ and OFF marked by a dot on the right of ☀.

☀: Headlight, taillight and meter lights on.
OFF (dot): Headlight, taillight and meter lights off.

Headlight Dimmer Switch

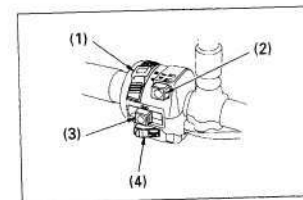
Push the headlight dimmer switch (2) to ≡D (HI) to select high beam or to ≡D (LO) to select low beam.

Turn Signal Switch

Move the turn signal switch (3) to (L) ⇐ to signal a left turn, and to (R) ⇒ to signal a right turn. Press to turn signal off.

Horn Button

Press the horn button (4) to sound the horn.



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

FEATURES

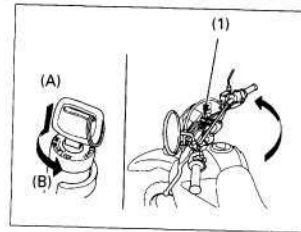
Steering Lock

To lock the steering, turn the handlebars all the way to the left or right and turn the ignition key (1) to LOCK while pushing in. Remove the key.



WARNING

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



- (1) Ignition key
- (A) Push in
- (B) Turn to LOCK

Helmet Holder

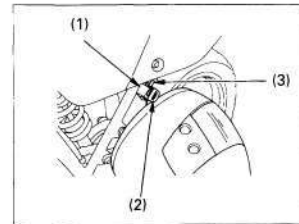
The helmet holder (1) is on the left side below left side cover.

Insert the ignition key (2) and turn it counterclockwise to unlock. Hang your helmet on the holder hook (3). Turn the key clockwise to lock the holder and then remove the key.



WARNING

The helmet holder is designed for helmet security while parked. Do not ride with a helmet attached to the holder. The helmet may interfere with safe operation and result in loss of control.



- (1) Helmet holder
- (2) Ignition key
- (3) Holder hook

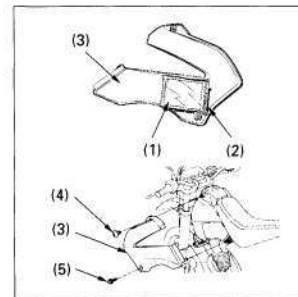
Document Compartment

The document bag (1) is in the document compartment (2) on the back side of the left shroud (3).

The 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.

To remove the left shroud, remove the upper screw (4) and the lower bolt (5).



- (1) Document bag
- (2) Document compartment
- (3) Left shroud
- (4) Upper screw
- (5) Lower bolt

Left Side Cover

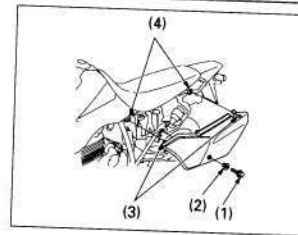
The left side cover must be removed for battery and fuse maintenance.

Removal

1. Remove the bolt (1) and collar (2).
2. Pull out the hooks (3) from the grommets (4).

Installation

Installation can be done in the reverse order of removal.



- (1) Bolt
- (2) Collar
- (3) Hooks
- (4) Grommets

Right Side Cover

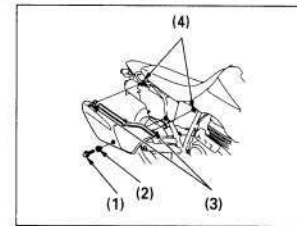
The right side cover must be removed for air cleaner maintenance.

Removal

1. Remove the bolt (1) and collar (2).
2. Pull out the hooks (3) from the grommets (4).

Installation

Installation can be done in the reverse order of removal.



- (1) Bolt
- (2) Collar
- (3) Hooks
- (4) Grommets

OPERATION

Pre-ride Inspection

⚠ WARNING

If the pre-ride inspection is not performed, severe personal injury or motorcycle damage may result.

Inspect your motorcycle every day before you ride it. The items listed here will only take a few minutes to inspect, and in the long run they can save time, expense and possibly your life.

1. ENGINE OIL LEVEL – Add engine oil if required (page 36). Check for leaks.
2. FUEL LEVEL – Fill fuel tank when necessary (page 35). Check for leaks.
3. FRONT AND REAR BRAKES – Check operation; make sure there is no brake fluid leakage. Adjust free play if necessary (pages 29 – 31).

4. TIRES – Check condition and pressure (pages 37 – 39).
5. DRIVE CHAIN – Check condition and slack (page 64). Adjust and lubricate if necessary.
6. THROTTLE – Check for smooth opening and full closing in all steering positions.
7. LIGHTS AND HORN – Check that headlight, tail/brake stoplight, turn signals, indicators and horn function properly.
8. ENGINE STOP SWITCH – check for proper operation (page 41).
9. SIDE STAND IGNITION CUT-OFF SYSTEM – check for proper operation (page 69).

Correct any discrepancy before you ride. Contact your Honda dealer for assistance if you cannot correct the problem.

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 shift into gear before raising the side stand.

⚠ WARNING

Never run the engine in an enclosed area. The exhaust contains poisonous carbon monoxide gas that can cause loss of consciousness and lead to death.

NOTE

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

Preliminary Operations

Insert the key in the ignition switch and turn it to the ON position.

Before starting, check the following items:

- The transmission is in neutral (neutral indicator light is on).
- The engine stop switch is set on "RUN".
- The fuel cock is on.

Starting Procedure

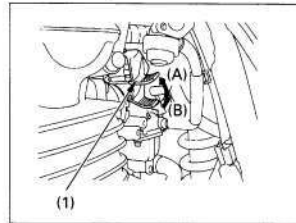
To restart a warm engine, follow the procedure for high temperature.

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

1. Pull the choke lever (1) back all the way to the ON position (A) (fully open).
2. Start the engine, leaving the throttle closed.

NOTE

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



- (1) Choke lever
(A) Fully open (ON)
(B) Fully closed (OFF)

3. Immediately after the engine starts, operate the choke lever to keep it at fast idle.
4. About a half minute after the engine starts, push the choke lever forward all the way to fully closed (B).
5. If idling is unstable, open the throttle slightly.

High Temperature 35°C (95°F) or above

1. Do not use the choke.
2. Open the throttle slightly.
3. Start the engine.

Low Temperature 0°C (32°F) or below

1. Follow steps 1 – 2 under "Normal Temperature".
2. When the engine speed begins to pick up, operate the choke lever to keep at fast idle.
3. Continue warming up the engine until it runs smoothly and responds to the throttle when the choke lever is fully closed OFF (B).

ATTENTION

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

Flooded Engine

If the engine fails to start after repeated attempts, it may be flooded with excess fuel. To clear the engine, leave the engine stop switch in RUN, and push the choke lever forward to fully closed (B).

Open the throttle fully and crank the engine for 5 seconds. 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 starting procedures under "High Temperature".

Running In

The proper care of your motorcycle during the first kilometers of usage will considerably prolong its service life and performance.

- During the first 1,000 km, ride your motorcycle in such a way that the engine is not excessively demanded, keeping the engine speed under 5,000 min⁻¹ (rpm). Between 1,000 and 1,600 km, increase the engine speed to 7,000 min⁻¹ (rpm), but do not exceed this limit. Avoid sudden accelerations and use the proper gears to avoid unnecessary loads on the engine.

1. Never force the engine at full throttle in low speed. This recommendation is not only for the running in period, but also for the entire engine service life.
2. Do not ride the motorcycle for long periods with a constant speed.
3. Keep the engine from running at too low or too high speed.
4. After 1,600 km of usage, the engine can be used with at full throttle.

ATTENTION

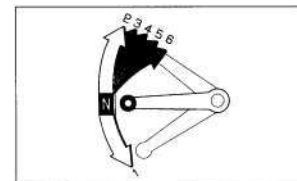
Running the engine at excessive speeds may cause serious damage.

Riding

⚠ WARNING

- **Review "Motorcycle Safety" (pages 7 – 12) before you ride.**
- **Make sure that the side stand is completely up before operating your motorcycle. (See "Maintenance Schedule" on page 54 and "Side Stand" on page 69).**

1. After the engine has been warmed up, the motorcycle is ready for riding.
2. While the engine is idling, pull the clutch lever and depress the gearshift pedal 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 into 2nd gear by raising the gearshift pedal. Repeat this sequence to progressively shift into the other gears.



ATTENTION

Do not shift gears without disengaging the clutch and closing the throttle. The engine and drive train could be damaged transmission.

5. Raise the gearshift pedal to shift into a higher gear and depress the gearshift pedal to shift into a lower gear. Each touch on the gearshift changes to the next gear, in sequence. The gearshift returns automatically to the horizontal position when it is released.
6. To decelerate smoothly and progressively, apply the brakes and close the throttle in coordination with the gear shifting.
7. Apply front and rear brakes simultaneously. Extreme application of brake controls may cause wheel lock, reducing brake efficiency and impairing motorcycle control.

⚠ WARNING

Do not downshift while running at high engine speed. Besides subjecting the engine to excessive strain, the sudden deceleration may cause momentary wheel lock and loss of motorcycle control.

ATTENTION

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.

NOTE

The battery is not charged when the engine is at idle. Do not allow the engine to idle for prolonged periods.

Braking

1. For normal braking, gradually apply both the front and rear brakes while downshifting to suit your road speed.
2. 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.

⚠ WARNING

- Independent use of only the front or rear brake reduces stopping performance. Extreme braking may cause either wheel to 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.

⚠ WARNING

- 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 stoplight, giving a false indication to other drivers. It may also overheat the brakes, reducing effectiveness and brake shoe and pad service life.

Parking

1. After stopping the motorcycle, shift the transmission into neutral, turn the fuel cock off, turn the handlebars fully to the left, turn the ignition OFF and remove the key.
2. Use the side stand to support the motorcycle while parked.
3. Lock the steering to help prevent theft (page 42).



WARNING

- 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 avoid overturning.
- The place should be well ventilated and sheltered.
- Do not smoke, light matches or lighters close to the motorcycle.
- Do not park near or over inflammable material or fuel.
- Do not cover the motorcycle with a cover or any other type of protection while the engine is hot.
- Do not touch objects to the exhaust or engine.
- Do not apply inflammable liquid or products to the engine.

- Before starting the engine, remove the cover or protection from the motorcycle.
- Only someone who knows and has had experience with the product should operate the engine. Keep children off and away from the motorcycle when it is parked or when the engine is hot.
- When parking the motorcycle, do not park it under trees or locations where there might be precipitations of fruit, leaves, and bird and animal residues to avoid damages to the paint or to any other component of the motorcycle.
- Whenever possible protect your motorcycle from rain, in metropolitan areas or close to industries. The rain has some peculiar characteristics such as high acidity due to pollution, which may cause oxidation when in contact with the metal components of the motorcycle.
- Do not place objects such as raincoats, backpacks, boxes and helmets on the fuel tank to avoid damage and scratches to the paint, mainly on the reserve tank cap where the fuel tank breather is located.
- The side stand is designed to support only the weight of the motorcycle; it is not advisable to have people or cargo on the motorcycle while the side stand is in use.

How to Prevent Theft

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. Moto Honda da Amazônia Ltda. does not authorize the utilization of electronic anti-theft devices. If you choose to have electronic alarms/cut-off devices, be sure of the technical characteristics:
 - Make sure the equipment does not alter the original circuit of the motorcycle by cutting, peeling or welding the main harness or other branches of the electric circuit.
 - Ask the installer/supplier responsible for the installation about the ignition cut-off principle. The CDI is usually short circuited and such resource can cause permanent damage to it.
5. Fill out your name, address, phone number, purchase date in this Owner's Manual and keep it on your motorcycle at all times. Many times stolen motorcycles are identified by information in the Owner's Manuals that are still with them.

DATA OF THE 1st OWNER

Name: _____
 Address: _____
 ZIP code: _____ City: _____
 State: _____ Phone # : _____
 Purchase date: ____/____/____

DATA OF THE 2nd OWNER

Name: _____
 Address: _____
 ZIP code: _____ City: _____
 State: _____ Phone # : _____
 Purchase date: ____/____/____

DATA OF THE 3rd OWNER

Name: _____
 Address: _____
 ZIP code: _____ City: _____
 State: _____ Phone # : _____
 Purchase date: ____/____/____

MAINTENANCE

Maintenance Schedule

- When maintenance is necessary, remember that your authorized Honda dealer knows your motorcycle better than anyone do and is fully equipped and properly trained to provide high quality maintenance and repair services. See your authorized Honda dealer whenever maintenance is required.
- The Maintenance Schedule specifies how often you should have your motorcycle serviced, and what items need your attention. It is essential that your motorcycle be served as scheduled to retain its high level of safety, dependability, and emission control performance.
- 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 authorized Honda dealer for recommendations applicable to your individual need and use conditions.

Item	Procedure	Mileage				Ref. page
		1,000 km	3,000 km	6,000 km	at every ...km	
Fuel lines	Inspect		■	■	3,000	—
Fuel filter	Clean	■	■	■	3,000	—
Throttle	Inspect and adjust	■	■	■	3,000	63
Choke	Inspect and adjust	■	■	■	3,000	—
Air cleaner	Clean (note 1)		■	■	3,000	58
	Replace				18,000	—
Crankcase breather	Clean (note 2)	■	■	■	3,000	—
Spark plug	Clean and adjust		■	■	3,000	62
	Replace				12,000	62
Valve clearance	Inspect and adjust	■	■	■	3,000	—
Engine oil	Change	■	■	■	3,000	59
Oil filter	Change	■	■	■	6,000	—
Carburetor	Adjust idle speed	■	■	■	3,000	63
	Clean			■	6,000	—
Brake hose	Inspect	■	■	■	3,000	—

Item	Procedure	Mileage				Ref. page
		1,000 km	3,000 km	6,000 km	at every ...km	
Drive chain	Inspect, adjust, lubricate	every 1,000 km				64
Lighting/signaling system	Inspect	■	■	■	3,000	—
Brake fluid	Check level and add	■	■	■	3,000	29
	Change (note 3)				18,000	—
Brake pad wear	Inspect		■	■	3,000	74
Rear brake drum/shoes	Clean		■	■	3,000	—
Brake system	Inspect operation	■	■	■	3,000	29
Stoplight switch	Inspect operation	■	■	■	3,000	80
Headlight	Adjust		■	■	3,000	83
Clutch system	Inspect operation	■	■	■	3,000	32
Side stand	Inspect		■	■	3,000	69
Front and rear suspensions	Inspect			■	6,000	68
Bolts, nuts and fasteners	Inspect and retighten	■	■	■	3,000	—
Wheels and rims	Inspect	■	■	■	3,000	—
Tires	Adjust pressure	every 1,000 km				37
Steering stem bearings	Inspect, adjust and lubricate		■	■	3,000	—
Meters/switches	Inspect operation	■	■	■	3,000	—
Front suspension oil	Change				12,000	—
Drive chain slider	Inspect	■	■	■	3,000	—

Note: 1. Service more frequently if the motorcycle is ridden in unusually wet or dusty areas.

2. Service more frequently when riding in rain or off-road.

3. Replace every 2 years or at the indicated odometer interval, whichever comes first.

For safety reasons, we recommend that all items be serviced only by your Honda dealer.

Maintenance Precautions

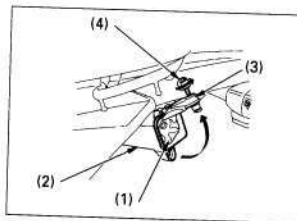
⚠ WARNING

- If your motorcycle is overturned or involved in a collision, inspect control levers, cables, accessories, and other vital parts for damage. Do not ride the motorcycle if damage impairs safe operation. Have your Honda dealer inspect the major components, including frame, suspension and steering parts, for misalignment and damage that you may not be able to detect.
- Stop the engine and support the motorcycle securely on a firm, level surface before performing any maintenance.
- Use new, genuine Honda parts. Parts that are not of equivalent quality may impair the safety of your motorcycle and reduce the effectiveness of the emission control systems.

Tool Kit

The tool kit (1) is in the tool box (2) behind the left side cover. To open the tool box lid (3) insert the ignition key (4) into the tool box lid. Turn it counterclockwise, then open the tool box lid.

- 10 x 12 mm open end wrench
- 14 x 17 mm open end wrench
- No. 1 screwdriver
- No. 3 screwdriver
- 24 mm box end wrench
- Extension bar
- Spark plug wrench
- 8 mm box end wrench
- Tool bag

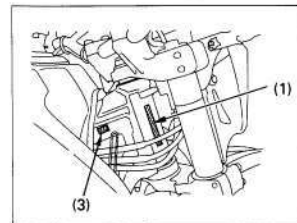


- (1) Tool kit
- (2) Tool box
- (3) Tool box lid
- (4) Ignition key

Motorcycle Identification

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.

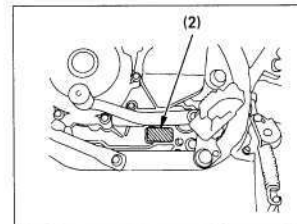
Frame serial number: _____



- (1) Frame serial number
- (3) Manufacturing year identification plate

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

Engine serial number: _____



- (2) Engine serial number

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

Manufacturing Year Identification Plate

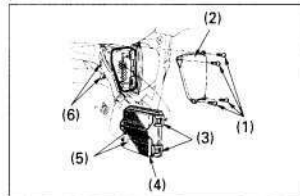
This plate identifies the manufacturing year of your motorcycle. It is attached to the right side of the frame, close to the steering head, under the fuel tank. Be careful not to damage the identification plate (3). Never try to remove it. This plate is self-destructive.

Air Cleaner

(Refer to "Maintenance Precautions" on page 56.)

The air cleaner should be serviced at regular intervals (page 54). Service more frequently when riding in unusually wet or dusty areas.

1. Remove the right side cover (page 45).
2. Remove the air cleaner housing cover (2) by removing four screws (1).
3. Unhook the retainers (3) from the air cleaner housing, then remove the air cleaner element (4).
4. Clean the air cleaner element applying compressed air from the carburetor side, or replace if necessary.
5. Install the air cleaner element, by aligning its tabs (5) with the housing slits (6) and hook the retainers.
6. Install the removed parts in the reverse order of removal.



- (1) Screws
- (2) Air cleaner housing cover
- (3) Retainers
- (4) Air cleaner element
- (5) Tabs
- (6) Slits

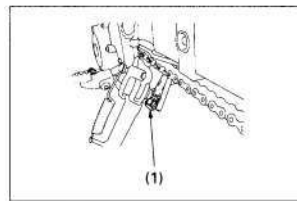
Crankcase Breather

(Refer to "Maintenance Precautions" on page 56.)

1. Remove the crankcase breather tube plug (1) from the tube and drain the deposits into a suitable container.
2. Reinstall the crankcase breather tube plug.

NOTE

- Service more frequently when riding in rain, at full throttle, or after the motorcycle is washed or overturned.
- Service if the deposit level can be seen in the transparent section of the drain tube.



(1) Crankcase breather tube plug

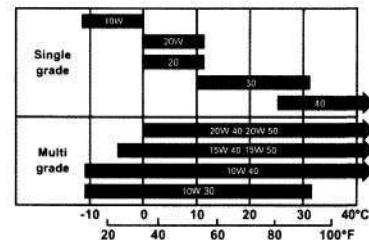
Engine Oil

(Refer to "Maintenance Precautions" on page 56.)

Recommended Oil

Use only high detergent, high quality engine oil certified on the container to meet the requirements for API Service Classification SE, SF or SG.

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



ATTENTION

- The engine oil is the element that most affects engine performance and service life.
- Non-detergent, vegetable oils or racing lubricants are not recommended.
- The use of a different oil from that specified may damage the engine due to carbonization. Under this circumstance, Honda Limited Warranty will be voided.
- For proper engine lubrication, it is essential to use a high quality oil.

Engine Oil and Filter

Change the engine oil as specified in the Maintenance Schedule on page 54.

NOTE

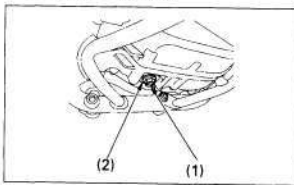
Change the engine oil with the engine at normal operating temperature and the motorcycle on its side stand to assure a complete and rapid draining.

1. To drain the oil, remove the oil filler cap, oil drain plug (1) and sealing washer (2).

WARNING

The engine and oil become hot during operation, and they remain hot for a while after stopping the engine. Be careful not to burn yourself.

2. After the engine oil has been drained out, hold the motorcycle upright for 10 – 15 seconds to assure a complete draining.

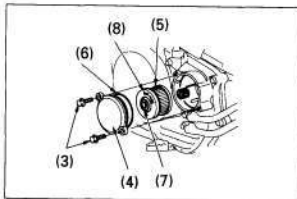


(1) Oil drain plug
(2) Sealing washer

3. Remove the oil filter bolts (3), oil filter cover (4) and oil filter (5).
4. Check that the oil filter O-ring (6) is in good condition and then install the new oil filter. Use only a genuine Honda oil filter. The use of an incorrect filter or a filter of low quality may damage the engine.
5. Install the filter with the rubber seal (7) facing out, away from the engine. The "OUTSIDE" mark (8) on the filter body should face outward.

WARNING

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



(3) Bolts
(4) Oil filter cover
(5) Oil filter
(6) O-ring
(7) Rubber seal
(8) "OUTSIDE" mark

6. Reinstall the oil filter cover, making sure the bolts are tightened securely.
Torque: 12 N.m (1.2 kgf.m; 9 lbf.ft)
7. Check that the sealing washer on the drain plug is in good condition and install the plug. Replace the sealing washer in the next oil change or at each oil change, if necessary.
Torque: 30 N.m (3.0 kgf.m; 22 lbf.ft)
8. Fill the crankcase with the recommended oil:
Capacity: 1.5 L (1.6 US qt; 1.2 Imp qt)
9. Install the oil filler cap.
10. Start the engine and let it idle for 2 – 3 minutes.
11. Stop the engine and check that the oil level is at the upper level mark on the dipstick with the motorcycle upright on a firm, level ground. Make sure there are no oil leaks.

NOTE

- 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. Do not throw it in the rubbish or pour it on the ground or down a drain.

WARNING

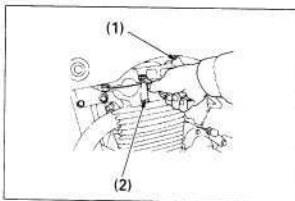
Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is still advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil.

Spark Plug

(Refer to "Maintenance Precautions" on page 56.)

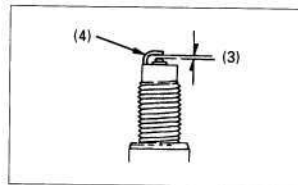
Recommended spark plug: (NGK) CR8EH-9

1. Disconnect the spark plug wire (1) from the spark plug.
2. Clean any dirt from around the spark plug base. Remove the spark plug using the plug wrench (2) furnished in the tool kit.
3. Inspect the electrodes and insulator for deposits, erosion or carbon fouling. If erosion or deposit is heavy, replace the plug. Clean a carbon or wet fouled plug with a plug cleaner or use a wire brush.



(1) Spark plug wire
(2) Plug wrench

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



(3) Spark plug gap
(4) Side electrode

Correct gap: 0.8 — 0.9 mm (0.032 — 0.035 in)

5. With the plug washer attached, thread the spark plug in by hand to prevent cross-threading.
6. Tighten a new spark plug 1/2 turn and 1/8 — 1/4 f turn for a used spark plug with a spark plug wrench to compress the washer. Do not tighten the spark plug excessively.
7. Reinstall the spark plug wire.

ATTENTION

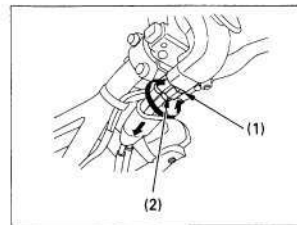
- The spark plug must be securely tightened. An improperly tightened plug can become very hot and possibly damage the engine.
- Never use a spark plug with an improper heat range. Severe engine damage could result.

Throttle

(Refer to "Maintenance Precautions" on page 56.)

1. Check for smooth rotation of the throttle grip from the fully open to the fully closed position at all steering positions.
2. Measure the throttle grip free play at the throttle grip flange. The standard free play should be approximately 2 — 6 mm (0.078 — 0.236 in).

To adjust the free play, loosen the lock nut (1) and turn the adjuster (2) to the desired direction to increase or decrease the free play. Retighten the lock nut and check the grip free play.



(1) Lock nut
(2) Adjuster

Idle Speed

(Refer to "Maintenance Precautions" on page 56.)

NOTE

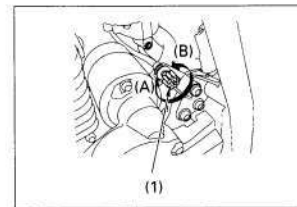
The engine must be at normal operating temperature for accurate idle speed adjustment. Ten minutes of stop-and-go riding is sufficient.

ATTENTION

- Do not attempt to compensate for faults in other systems by adjusting the idle speed.
- See your Honda dealer for regularly scheduled carburetor adjustments, including cleaning, inspection and adjustment.

1. Warm up the engine, shift into neutral and place the motorcycle on its side stand.
2. Adjust idle speed with the throttle stop screw (1).

Idle speed: 1,400 ± 100 min⁻¹ (rpm)



(1) Throttle stop screw
(A) Increase idle speed
(B) Decrease idle speed

Drive Chain

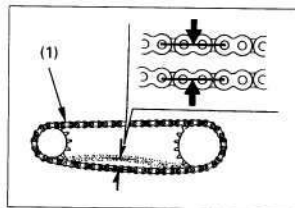
(Refer to "Maintenance Precautions" on page 56).

The service life of the drive chain depends 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 46). 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 side 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: **20 – 30 mm (0.8 – 1.2 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. Move the motorcycle forward. Stop. Inspect the drive chain and sprockets for any of the following conditions:

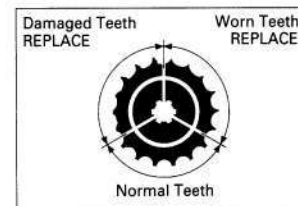
Drive Chain

- Damaged rollers
- Loose pins
- Dry or rusted links
- Kinked or binding links
- Excessive wear
- Improper adjustments
- Damaged or missing O-rings

Sprockets

- Excessively worn teeth
- Broken or damaged teeth

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. If the chain is dry or rusted, it should be lubricated. Lubricate the chain if the links are kinked or binding. If the problem is not solved after lubrication, replace the chain.



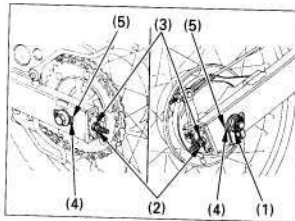
Adjustment

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

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).
3. Loosen the lock nuts (2) on both adjusting nuts (3).
4. Turn both adjusting nuts (3) an equal number of turns until the correct drive chain slack is obtained. Turn the adjusting nuts clockwise to tighten the chain, or counterclockwise to provide more slack.

Chain slack should be **20 – 30 mm (0.8 – 1.2 in)** at a point midway between the drive sprocket and the rear wheel sprocket. Rotate the rear wheel and recheck slack at other sections of the chain.



- (1) axle nut
- (2) Lock nut
- (3) Drive chain adjusting nut
- (4) Index mark
- (5) Rear edge

5. Check rear axle alignment by confirming the chain adjuster index marks (4) against the rear edge (5) of the adjusting slots. Both left and right marks should correspond. If the axle is misaligned, turn the left or right adjusting nut until the marks correspond on the rear edge of the adjusting slots and recheck chain slack.
6. Tighten the rear axle nut.
Torque 88 N.m (8.8 kgf.m; 65 lbf.ft)
7. Tighten the adjusting nuts lightly, and then tighten the lock nuts by holding the adjusting nuts with a spanner.
8. Recheck drive chain slack. Rear brake pedal free play is affected when repositioning the rear wheel to adjust drive chain slack. Check rear brake pedal free play and adjust as necessary (page 31).

⚠ WARNING

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

ATTENTION

Excessive drive chain slack (60 mm (2.4 in) or above) may damage the bottom of the frame or the chain could come off the sprockets.

Wear Inspection

Check the chain wear label after adjusting the chain. If the red zone (6) on the label aligns with the adjuster plate arrow (7) after the chain has been adjusted to the proper slack, the chain is excessively worn and must be replaced.

Proper slack: 20 — 30 mm (0.8 — 1.2 in)

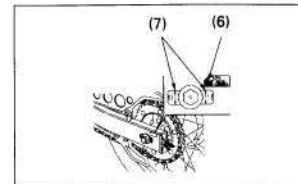
Replacement chain: D.I.D. 520 VD

NOTE

Do not apply lubricant in excess. Besides aiding in the accumulation of dust, sand and dirt on the chain, increasing its wear, the lubricant will be sprayed on the motorcycle due to the chain movement.

ATTENTION

Clean and lubricate the chain whenever possible after riding the motorcycle under rain or in terrains with excessive dust, mud or sand.



- (6) Red zone
- (7) Arrow

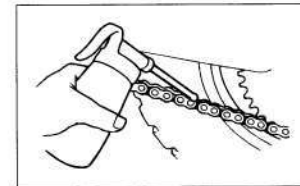
Lubrication and Cleaning

Lubricate every 1,000 km or sooner if the chain appears dry. Steam cleaning, high-pressure washers, and certain solvents can damage the O-rings in this chain. Clean the side surfaces of the chain with kerosene. Wipe dry and lubricate only with SAE 80 or 90 transmission oil.

Commercial chain lubricants may contain solvents which could damage the rubber O-rings and should not be used.

ATTENTION

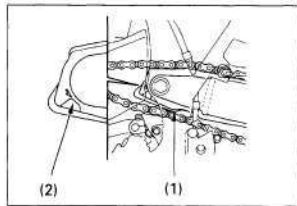
The drive chain on this motorcycle is equipped with O-rings between the link plates. These O-rings retain grease inside the chain to improve its service life. However, special precautions must be taken when adjusting, lubricating, washing and replacing the chain.



Drive Chain Slider

(Refer to "Maintenance Precautions" on page 56.)

Check the chain slider (1) for wear. The chain slider should be replaced if it is worn to the bottom of wear limit cutout (2). For replacement, see your Honda dealer.



(1) Chain slider
(2) Cut out

Front and Rear Suspensions

(Refer to "Maintenance Precautions" on page 56.)

1. Check the fork assembly by applying the front brake and pumping the fork up and down vigorously. Suspension action should be progressive and smooth.
2. Check for oil leakage. Make sure all front suspension, handlebar and instrument panel fasteners are correctly tightened.
3. Check the rear suspension and swingarm bearings periodically, with the motorcycle supported on a stand. Push hard against the side of the rear wheel to check the bearings and bushing for play, or if the shock link is loose. Make sure the rear shock absorber has no oil leakage. Push the rear suspension down to check if the system linkages have excessive play or wear.
4. Check all suspension fasteners. Make sure they are in perfect condition and correctly tightened.

WARNING

Suspension components directly affect motorcycle safety. If any component shows wear, excessive play, or if it is damaged, see your Honda dealer that is qualified to perform all maintenance and repair services. Otherwise motorcycle stability and driveability will be seriously affected.

Side Stand

(Refer to "Maintenance Precautions" on page 56.)

Perform the following inspection in accordance with the intervals specified Maintenance Schedule (page 54).

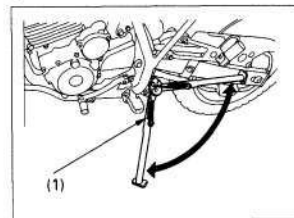
Check the spring (1) for damage or loss of tension and the side stand assembly for freedom of movement.

Check the side stand ignition cut-off system:

1. Sit on the motorcycle. Put the side stand up and shift the transmission into 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.



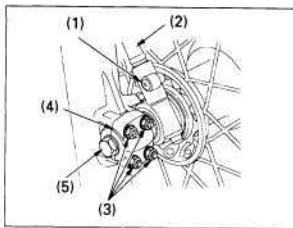
(1) Side stand spring

Wheels

(Refer to the "Maintenance Precautions" of page 56).

NOTE

This motorcycle is equipped only with a side stand. 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.



- (1) Screw
- (2) Speedometer cable
- (3) Axle bracket nuts
- (4) Axle bracket
- (5) Axle

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. Remove the front axle bracket nuts (3) and the front axle bracket (4).
4. Unscrew the axle (5). Remove the front wheel.

NOTE

Do not apply the brake lever when the wheel is off the motorcycle. The caliper pistons will be force 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.

Front Wheel Installation

Reverse the removal procedure. Insert the axle through the wheel hub and left fork leg. Make sure that the lug (6) on the speedometer gearbox is located behind the lug (7) on the right fork leg (8). Tighten the axle to the specified torque.

Front axle torque: 59 N.m (5.9 kgf.m, 44 lbf.ft)

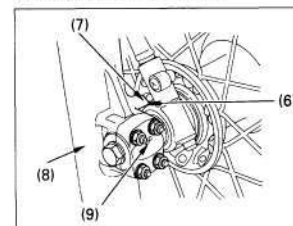
Install the axle bracket with the UP mark (9) upward and tighten the upper bracket nuts to the specified torque first, then tighten the lower bracket nuts to the same torque.

Axle bracket nut torque: 12 N.m (1.2 kgf.m, 9 lbf.ft)

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 the wheel does not rotate freely.



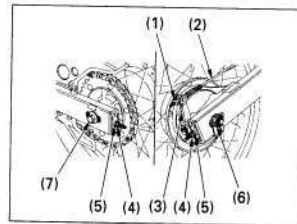
If a torque wrench was not used for installation, see your Honda dealer as soon as possible to check for proper assembly. Improper assembly may lead to loss of braking effectiveness.



- (6) Speedometer gearbox lug
- (7) Right fork leg lug
- (8) Right fork leg
- (9) UP mark

Rear Wheel Removal

1. Raise the rear wheel off the ground by placing a support block under the engine.
2. Remove the rear brake adjusting nut (1), disconnect the brake rod (2) from the brake arm (3) by pushing down on the rear brake pedal.
3. Loosen the drive chain lock nuts (4) and adjusting nuts (5).
4. Remove the axle nut (6) while holding the other end of the axle with a wrench.
5. Pull out the rear axle (7).
6. Remove the drive chain from the drive sprocket by pushing the rear wheel forward.
7. Remove the rear wheel.



- (1) Adjusting nut
- (2) Brake rod
- (3) Brake arm
- (4) Lock nut
- (5) Adjusting nut
- (6) Axle nut
- (7) Rear axle

Rear Wheel Installation

Reverse the removal procedure.

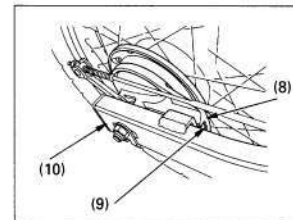
- Make sure that the slot (8) on the brake panel is located in the lug (9) in the swingarm (10).
- Tighten the axle nut to the specified torque.

Axle nut torque: 88 N.m (8.8 kgf.m; 65 lb.ft).

- Adjust the brake (page 31) and drive chain (page 64).
- Apply the brake several times and check for free wheel rotation after the brake pedal is released.

⚠ WARNING

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



- (8) Slot
- (9) Lug
- (10) Swingarm

Brake Pad Wear

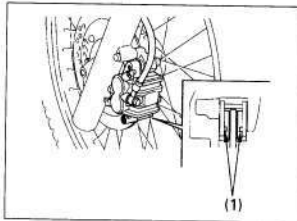
(Refer to "Maintenance Precautions" on page 56.)

Brake pad wear depends upon the severity of usage, the type of riding, and road conditions. Generally the pads will wear faster on wet, dusty and dirt roads. Inspect the pads at each regular maintenance interval (page 54).

Front Brake

Check the wear indicator mark (1) on each pad. If either pad is worn to the wear indicator mark, replace both pads as a set. See your Honda dealer for this service.

FRONT BRAKE



(1) Wear indicator mark

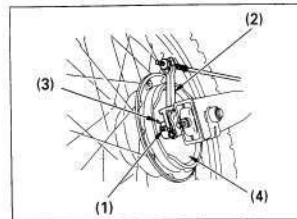
Brake Shoe Wear

(Refer to "Maintenance Precautions" on page 56.)

Wear Indicator

The rear brake is equipped with a brake wear indicator. When the brake is applied, the arrow (1) on 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.

REAR BRAKE



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

NOTE

See your Honda dealer for this service. Use only genuine Honda parts or their equivalents.

Brake Lining and drum Cleaning

The rear brake linings and drum must be cleaned every 3,000 km. For safety reasons, this service should be performed only by a Honda dealer.

⚠ WARNING

- If brake lining and drum cleaning is not performed within specified interval, the rear brake may lose its efficiency.
- Whenever there is a need to perform adjustments and repairs in the braking system, see your Honda dealer for genuine Honda parts, which are essential for motorcycle safety.

Battery

(Refer to the "Maintenance Precautions" on page 56).

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.

ATTENTION

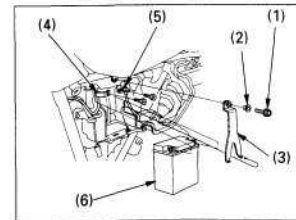
- Removal of battery caps may damage them resulting in leaks and eventual battery damage.
- When the motorcycle is to be stored for an extended period of time, remove the battery from the motorcycle and charge it fully. Then store it in a cool, dry place. If the battery is left in the motorcycle, disconnect the negative cable from the battery terminal.

⚠ WARNING

- Although the battery is sealed, it gives off explosive gases. Keep sparks, flames and cigarettes away. Provide adequate ventilation when charging or using the battery in an enclosed area.
- The battery contains sulfuric acid (electrolyte). Contact with skin or eyes may cause severe burns. Wear protective clothing and a face shield. If electrolyte gets on your skin, flush with water. If electrolyte gets in your eyes, flush with water for at least 15 minutes and call a physician immediately. Electrolyte is poisonous. If swallowed, drink large quantities of water or milk and follow with milk of magnesia or vegetable oil. Call a physician immediately.
- KEEP OUT OF REACH OF CHILDREN.

Battery Removal

1. Remove the left side cover (page 44).
2. Remove the bolt (1), collar (2) and battery holder (3).
3. Disconnect the negative (-) terminal lead (4) from the battery first, then disconnect the positive (+) terminal lead (5).
4. Pull out the battery (6) from the battery housing.



- (1) Bolt
- (2) Collar
- (3) Battery holder
- (4) Negative (-) terminal lead
- (5) Positive (+) terminal lead
- (6) Battery

Seat Height Modification (High and low seat type)

The seat height of this motorcycle can be modified. By replacing some parts, the seat height can be changed from high to low, and vice versa. This modification should only be done by a Honda dealer.

Fuses

(Refer to "Maintenance Precautions" on page 56.)

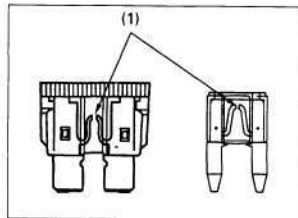
When frequent fuse failure occurs, it usually indicates a short circuit or an overload in the electrical system. See your Honda dealer for repair.

ATTENTION

Turn the ignition switch off before checking or replacing the fuses to prevent accidental short-circuiting.



Never use a fuse with a different rating from the specified or any other conductive material. Serious damage to the electrical system, with subsequent loss of lights or engine power, or a fire may result.

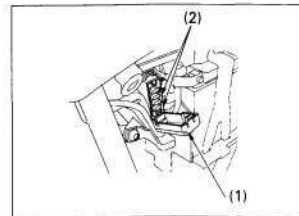


(1) Blown fuse

Fuse Box

The fuse box is located behind the left side cover. The specified fuses are: **10 A and 15 A**

1. Remove the left side cover (page 44).
2. Open the fuse box cover (1).
3. Pull out the old fuse and install a new fuse. The spare fuses (2) are located in the fuse box.
4. Close the fuse box cover and install the left side cover.

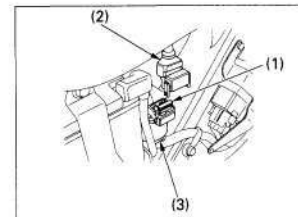


(1) Fuse box cover
(2) Spare fuses

Main Fuse

The main fuse (1) is located behind the left side cover. The specified fuse is **20 A**.

1. Remove the left side cover (page 44).
2. Disconnect the wire connector (2) of the starter magnetic switch.
3. Pull out the old fuse and install a new fuse. The spare fuse (3) is located under the starter magnetic switch holder.
4. Reconnect the connector and install the left side cover.



(1) Main fuse
(2) Wire connector
(3) Spare fuse

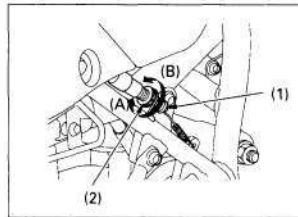
Stoplight Switch

(Refer to "Maintenance Precautions" on page 56.)

Check the operation of the stoplight switch (1) at the right side behind the engine from time to time.

Adjustment

Turn the adjusting nut (2) in direction (A) if the switch operates too late and in direction (B) if the switch operates too soon.



(1) Stoplight switch
(2) Adjusting nut

Bulbs

(Refer to "Maintenance Precautions" on page 56.)

⚠ WARNING

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.

ATTENTION

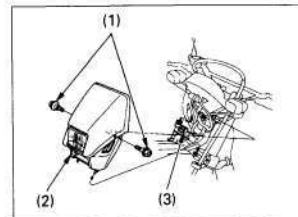
- Do not put fingerprints on the bulb, as they may create hot spots on the bulb causing it to burn out prematurely.
- Wear clean gloves while replacing the bulb.
- If you touch the bulb with your bare hands, clean it with a cloth moistened with alcohol to prevent premature failure.

NOTE

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

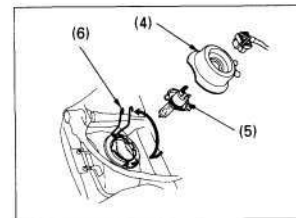
Headlight Bulb

1. Remove the two bolts (1) and the headlight case (2).
2. Disconnect the connector (3).
3. Remove the seal rubber (4).
4. Remove the headlight bulb (5) while pressing down on the retainer (6).



(1) Bolts
(2) Headlight case
(3) Connector

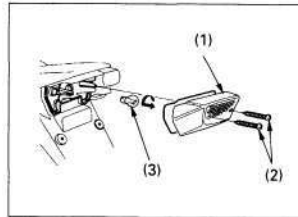
5. Install a new bulb in the reverse order of removal.



(4) Seal rubber
(5) Headlight bulb
(6) Retainer

Stop/Taillight Bulb

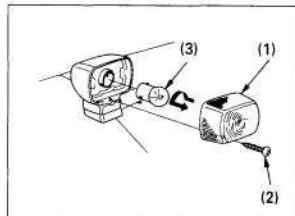
1. Remove the taillight lens (1) by removing the two screws (2).
2. Slightly press the bulb (3) and turn it counterclockwise.
3. Install a new bulb in the reverse order of removal.



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

Front/Rear Turn Signal Bulb

1. Remove the turn signal lens (1) removing the screw (2).
2. Slightly press the bulb (3) and turn it 90° counterclockwise. Remove the bulb.
3. Install a new bulb in the reverse order of removal.



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

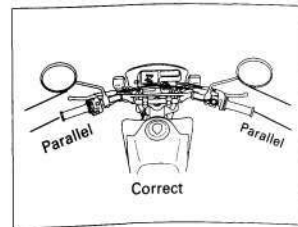
Rearview Mirror

(Refer to "Maintenance Precautions" on page 56.)

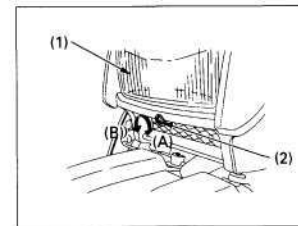
The rearview mirror allows the adjustment of the vision angle. Park the motorcycle on a flat surface and sit on it. To adjust the vision angle, turn the rearview mirror until you get the best vision position, according to your height, weight and riding position.

ATTENTION

Never force the rearview mirror against the support stem during the adjustment. If necessary, loosen the attaching nut and move the support stem to the opposite side to enable the adjustment of the rearview mirror.

**Headlight****Vertical Adjustment**

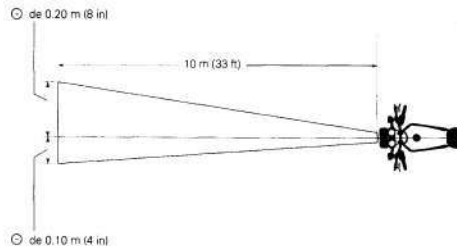
Headlight (1) vertical adjustment can be made by turning the screw (2) in or out as necessary. Obey local laws and regulations.



(1) Headlight
(2) Screw
(A) Up
(B) Down

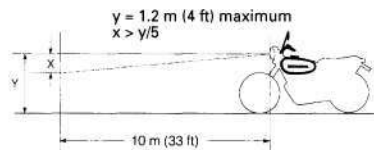
Headlight Aim Adjustment

The headlight is of utmost importance for your safety. If badly adjusted, it reduces the visibility and blinds the vehicles coming from the opposite direction. Although the headlight illuminates intensively with a deep downward inclination, it reduces the visibility field bringing it too close to the motorcycle. With a null inclination, the vicinity of the motorcycle will not be illuminated and, even in the distance, headlight effectiveness will be poor. When riding at night, you will soon notice if headlight adjustment is necessary. Make sure you check the adjustment before leaving.

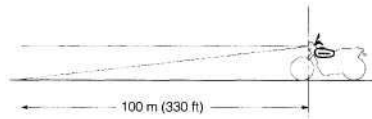


1. Park the motorcycle in the upright position (without supporting it on its stand), with the center of the front wheel 10 m (11 yd) from and perpendicular to a flat wall, preferably not reflective.
2. Adjust the tire pressure according to the specifications.
3. Loosen the headlight fasteners and move the headlight up or down until its projection is within specifications.
4. Tighten the headlight fasteners.

Note: Passenger and cargo weight may considerably affect headlight adjustment. Vary the adjustment considering the weight of the passenger and cargo.



Note: Headlight beam should not exceed 100 m (110 yd).



CLEANING AND MAINTENANCE

Clean your motorcycle regularly to protect its painting, plastic and rubber components, and also to increase its service life. When ridden near the ocean, dedicate extra care to the regular maintenance if the motorcycle was parked for a long period in places with high humidity and salt, or if it has not been serviced for a long time. Improper procedures for the immediate removal of environment aggressive elements contribute to oxidation and sulfation processes.

- In case of rain or contact with pluvial water on city streets or near the ocean, or when crossing streams and floods, make a habit of washing the motorcycle, drying it and immediately applying good quality products that offer proper protection.
- Eliminate accumulated dust, dirt, mud, sand and gravel. Remove any incrustation from friction components such as brake pads and disc to prevent reducing its efficiency and service life.
- Gravel and sand from the streets may affect painted surfaces.
- For motorcycle extended storage, refer to the instructions on page 88 under "Storage Guide".

Washing Equipment

When using high-pressure water equipment to wash the motorcycle, follow the correct procedures for handling it. Direct water jets and high temperatures may damage motorcycle components. High pressure causes the loosening of strips and adhesives, and removal of steering stem bearing and rear suspension linkage grease. Paint could also be removed by high pressure. Do not apply alkaline or acid detergents. They are highly harmful to zinc-plated and aluminum parts.

ATTENTION

- **Solvents and abrasive cleaning products may damage metal and rubber components, and also the paint.**
- **Chemicals, solvents, detergents and sprays should never be used to clean the motorcycle.**

How to Wash Your Motorcycle

ATTENTION

Never wash the motorcycle under direct sun exposure or with a hot engine.

1. Spray kerosene on the engine, carburetor, exhaust, wheels and side stand. Use a brush to remove oil and grease residues. Asphalt is removed with pure kerosene.
2. Then rinse with water in abundance.
3. Wash the tank, seat, side covers and fenders with water and neutral shampoo. Use a smooth cloth or sponge. Rinse and dry the motorcycle completely with a clean and soft cloth.

ATTENTION

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

Avoid spraying high-pressure water (typical in coin-operated car washes) at the following areas:

- Wheel hubs
- Ignition switch
- Instruments
- Steering stem bearings

- Handlebar switches
- Muffler outlet
- Under fuel tank
- Drive chain
- Under seat
- Brake master cylinder
- Steering stem lock
- Carburetor
- Headlight
- Clean the plastic parts with a soft cloth or sponge with a neutral detergent and water solution. Completely rinse the motorcycle with plenty of clean water and dry it with a soft cloth. Remove the small scratches with a polishing wax for plastic.
- Do not remove the dust with a dry cloth because it may scratch the paint.

4. If necessary, apply protective wax to the painted or chromed surfaces. The protective wax must be applied with a special cotton or flannel cloth, in circular and uniform strokes.

ATTENTION

The application of polishing compounds or other polishing products may damage the paint.

5. Immediately after washing the motorcycle, lubricate the drive chain and the throttle and clutch cables.
6. Turn the engine on and let it run for a few minutes.

⚠ WARNING

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

Aluminum Wheel Maintenance

Aluminum may corrode from extended contact with dirt, mud or road salt. Clean the wheels after riding through any of these substances. Use a wet sponge and mild detergent. Then, rinse and dry the wheels with a clean cloth.

ATTENTION

- **Avoid stiff brushes, steel wool, or cleaners containing abrasives or chemical compounds to clean the wheels because they may affect their finish.**
- **Avoid going up sidewalks or striking the wheels against other obstacles to prevent damage.**

STORAGE GUIDE

Extended storage 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.

1. Change the engine oil and filter.
2. Lubricate the drive chain (page 67).
3. Empty the fuel tank into an approved 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 cap on the tank.

NOTE

If the motorcycle is to be stored for more than a month, be sure to drain the carburetor to assure engine proper performance after storage.



WARNING

Gasoline is extremely flammable and is explosive under certain conditions. Perform this operation in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where gasoline is drained or stored, and where the fuel tank is refueled.

4. To prevent rusting in the cylinder, perform the following:
 - Remove the spark plug wire from the spark plug. Using tape or string, secure the wire to any convenient plastic body part so 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 wire.
 - Pour a tablespoon (15 – 20 cc, 0.5 – 0.7 oz) 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 wire.

5. Remove the battery. Store it in an area protected from freezing temperatures and direct sunlight. Slow charge the battery once a month.
6. Wash and dry the motorcycle. Protect all painted surfaces by applying silicon-based wax. Coat chromed components with rust inhibiting oil.
7. Lubricate the control cables.
8. Inflate the tires to the recommended pressure. Place the motorcycle on blocks to raise both tires off the ground.
9. Cover the motorcycle with an appropriate cover. Do not use plastic covers. Store it in a cool area, free of dampness and with a minimum daily temperature variation. Do not store the motorcycle in direct sunlight.

Removal from Storage

When the motorcycle is to be used again, follow the procedures below:

1. Uncover and clean the motorcycle. Change the 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 gasoline.
4. Perform all Pre-ride Inspection checks (page 46). Test ride the motorcycle at low speeds in a safe riding area away from traffic.

PROTECTION ENVIRONMENT

Moto Honda da Amazônia Ltda., always engaged in preserving the future of our planet, would like to extend this concern to their clients.

Aiming for a better relationship between your motorcycle and the environment, we would like to ask you to observe the following issues:

The regular maintenance, in addition to preserving and valuing the product, brings enormous benefits to the environment.

The engine oil must be changed according to the intervals determined in this manual. Used oil should be taken in a sealed container to a local recycling center or to the closest authorized Honda dealer.

Harmful products should not be disposed of in regular rubbish or poured on the ground or down a drain.

Used tires, when replaced by new ones, should be sent to an authorized Honda dealer to be recycled. Tires should never be burned, stored in uncovered areas or buried.



Used wires, electrical cables and steel cables, when replaced by new ones, should not be reutilized as they represent a potential danger to the rider. These items should be sent to the recycling center at authorized Honda dealers.

Brake and clutch fluids and battery solution should be handled with care. Their acid characteristics may damage the motorcycle, besides representing a serious risk of contamination to the soil and water, if spilled.

When replacing the battery, follow the appropriate precautions regarding its acid solution. The battery should be sent to an authorized Honda dealer for proper destination. All replaced metal and plastic components should also be handed to an authorized Honda dealer for recycling to avoid garbage accumulation in large cities. Modifications such as replacement of exhaust and carburetor adjustments that differ from the specified for this model, or any other modification that aims at altering engine performance, must be avoided as they could contribute to the increase of noise and air pollution. We hope that these pieces of advice are useful and followed for everyone's benefit.

SPECIFICATIONS

Item	High seat type	Low seat type (optional)
Dimensions		
Overall length	2,147 mm (84.5 in)	2,130 mm (83.9 in)
Overall width	845 mm (33.3 in)	845 mm (33.3 in)
Overall height	1,198 mm (47.2 in)	1,161 mm (45.7 in)
Wheelbase	1,427 mm (56.2 in)	1,416 mm (55.7 in)
Seat height	880 mm (34.7 in)	840 mm (33.1 in)
Ground clearance	281 mm (11.1 in)	242 mm (9.5 in)
Weight		
Dry weight	134 kg (295.4 lbs)	134 kg (295.4 lbs)
Capacities		
Engine oil	1.5 liter (1.6 US qt; 1.2 Imp qt) (for oil change)	
	1.5 liter (1.6 US qt; 1.2 Imp qt) (for oil filter change)	
	1.8 liter (1.9 US qt; 1.6 Imp qt) (after disassembly)	
Fuel tank	11.5 liters (3.0 US gal; 2.5 Imp. gal)	
Fuel tank reserve supply	3.7 liters (1.0 US gal; 0.8 Imp. gal) (reference value)	
Maximum capacity	153 kg (337.3 lb) (operator and one passenger)	

ENGINE

Item		
Bore and stroke		73.0 x 59.5 mm (2.87 x 2.34 in)
Compression ratio		9.3:1
Maximum power output		22.7 hp at 7,500 min ⁻¹ (rpm)
Maximum torque		2.42 kgf.m at 6,000 min ⁻¹ (rpm)
Displacement		249 cc (15.19 cu-in)
Standard spark plug		CR8EH-9 (NGK)
Spark plug gap		0.8 – 0.9 mm (0.031 – 0.035 in)
Idle speed		1,400 ± 100 min ⁻¹ (rpm)
Valve clearance (cold)	Intake	0.12 mm (0.005 in)
	Exhaust	0.15 mm (0.006 in)

TRANSMISSION

Item		
Primary reduction		3.100
Gear ratio	1 st	2.769
	2 nd	1.777
	3 rd	1.333
	4 th	1.083
	5 th	0.923
	6 th	0.814
Final reduction		2.923

CHASSIS AND SUSPENSION

Item	High seat type	Low seat type (optional)
Caster	25.58°	26.9°
Trail	98 mm (3.85 in)	100 mm (3.93 in)
Tire size, front	90/90 – 21 54 S	90/90 – 21 54 S
Tire size, rear	120/80 – 18 62 S	120/80 – 18 62 S

ELECTRICAL SYSTEM

Item		
Battery		12 V – 6 Ah
Generator		0.204 kW/5.000 min ⁻¹ (rpm)
Lights		
Headlight		12 V – 35/35 W
Tail/stoplight		12 V – 5/21 W
Turn signal light	Front	12 V – 10 W x 2
	Rear	12 V – 10 W x 2
Fuse		
Main fuse		20 A
Other fuses		10 A, 15 A

MAINTENANCE RECORD

Frame No.: _____

Periodic maintenance must be performed to keep your motorcycle always in optimum operating conditions, providing a safe and problem-free riding.

The two first inspections are free of charge if performed by Honda dealers or authorized service centers. However lubricants, cleaning material and normal maintenance parts are at the owner expense.

The free inspections (1,000 km and 3,000 km) shall be performed according to the mileage, within a tolerance of 10% (900 km to 1,100 km and 2,700 km to 3,300 km), once not exceeding the 6 and 12-month term, respectively after the purchase date

0 km DELIVERY INSPECTION RO No.: _____ DATE: / / km: _____	1,000 km FREE INSPECTION RO No.: _____ DATE: / / km: _____	3,000 km FREE INSPECTION RO No.: _____ DATE: / / km: _____	6,000 km INSPECTION RO No.: _____ DATE: / / km: _____	9,000 km INSPECTION RO No.: _____ DATE: / / km: _____
12,000 km INSPECTION RO No.: _____ DATE: / / km: _____	15,000 km INSPECTION RO No.: _____ DATE: / / km: _____	18,000 km INSPECTION RO No.: _____ DATE: / / km: _____	21,000 km INSPECTION RO No.: _____ DATE: / / km: _____	24,000 km INSPECTION RO No.: _____ DATE: / / km: _____

27,000 km INSPECTION RO No.: _____ DATE: / / km: _____	30,000 km INSPECTION RO No.: _____ DATE: / / km: _____	33,000 km INSPECTION RO No.: _____ DATE: / / km: _____	36,000 km INSPECTION RO No.: _____ DATE: / / km: _____	39,000 km INSPECTION RO No.: _____ DATE: / / km: _____
42,000 km INSPECTION RO No.: _____ DATE: / / km: _____	45,000 km INSPECTION RO No.: _____ DATE: / / km: _____	48,000 km INSPECTION RO No.: _____ DATE: / / km: _____	51,000 km INSPECTION RO No.: _____ DATE: / / km: _____	54,000 km INSPECTION RO No.: _____ DATE: / / km: _____
57,000 km INSPECTION RO No.: _____ DATE: / / km: _____	60,000 km INSPECTION RO No.: _____ DATE: / / km: _____	63,000 km INSPECTION RO No.: _____ DATE: / / km: _____	66,000 km INSPECTION RO No.: _____ DATE: / / km: _____	69,000 km INSPECTION RO No.: _____ DATE: / / km: _____

HONDA

The Power of Dreams



XR250

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