



HONDA

XR100R

95
OWNER'S MANUAL

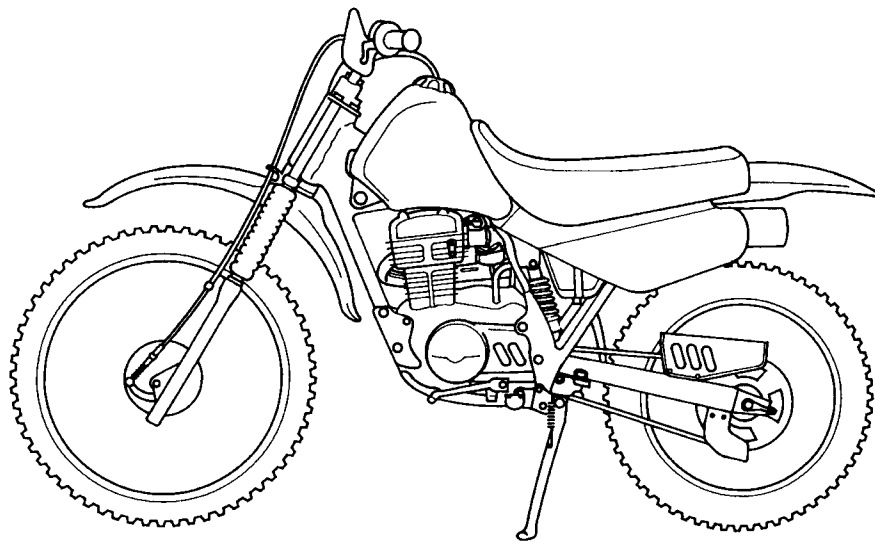
This manual should be considered a permanent part of the motorcycle and should remain with the motorcycle when it is resold.

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**1995
HONDA XR100R
OWNER'S MANUAL**



Safety Messages

Your safety, and the safety of others, is very important. We have provided important safety messages in this manual and on your motorcycle. Please read these messages carefully.

A safety message alerts you to potential hazards that can hurt you and others. Each safety message is preceded by a safety alert symbol  and one of three words: **DANGER**, **WARNING**, or **CAUTION**.

 **DANGER**

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

 **WARNING**

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

 **CAUTION**

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

Each message tells you what the hazard is, what can happen, and what you can do to avoid or reduce injury.

Safety Messages

Damage Prevention Messages

You will also see other important messages that are preceded by the word:
NOTICE.

NOTICE

*Your motorcycle or other property can be damaged if
you don't follow instructions.*

The purpose of these messages is to help prevent damage to your Honda, other property, or the environment.

Contents

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

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Important safety information, a special message for parents, precautions about loading, accessories, and modifications, and the location of safety labels.

Operating Controls 13

The location, function, and operation of the throttle, brakes, clutch, and other basic controls.

Before Riding 21

The importance of wearing a helmet and other protective gear, plus how to make sure you and your motorcycle are ready to ride.

Riding 27

How to start and stop the engine, shift gears, and brake. Also, break-in guidelines and riding precautions.

Maintenance 39

Why your motorcycle needs regular maintenance, what you need to know before servicing your Honda, a maintenance schedule, and instructions for specific maintenance items.

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Helpful Tips & Suggestions . 107

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Taking Care of Unexpected Problems 117

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Introduction

Congratulations on choosing an XR100R off-road motorcycle.

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

Your Honda was designed as a recreational motorcycle for off-road use by one rider only. It's an ideal bike for younger, beginning riders, but one that is also suitable for many adult riders.

To get the best performance and longest life from your Honda, give special attention to maintenance. That's why you need to inspect your motorcycle carefully before every ride

and perform all recommended maintenance. When you need special service, repairs, or assistance, your Honda dealer has the know-how and commitment to keep your motorcycle going strong. To protect your engine, follow the break-in procedures.

Whenever you ride, tread lightly. By staying on established trails and riding only in approved areas, you help protect the environment and keep off-road riding areas open for the future.

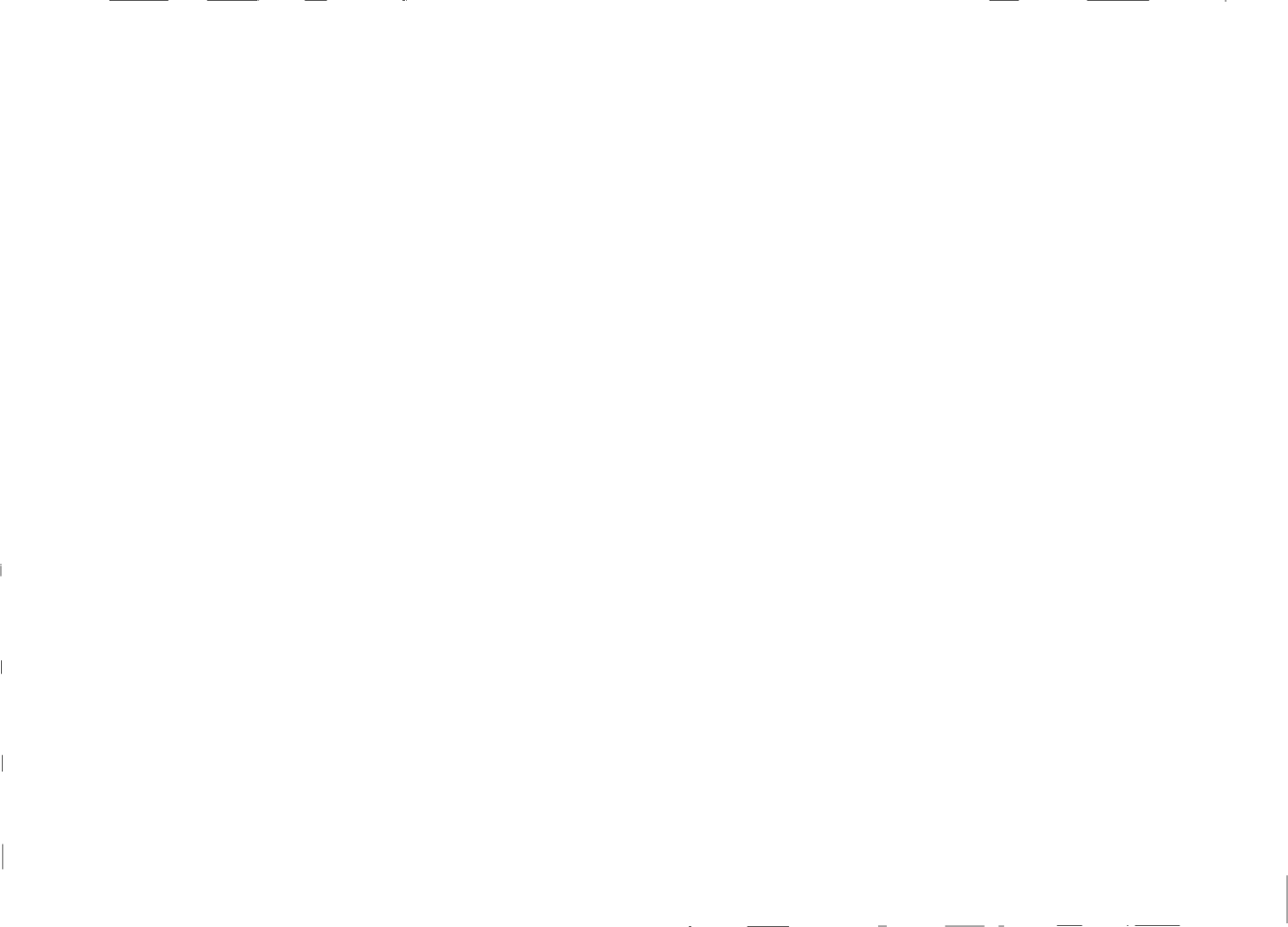
Introduction

Before riding, take time to get to know your motorcycle and how it works. Start by reading this manual. It's full of facts, instructions, safety information, and tips that will help you get the most enjoyment from your Honda.

Each section of this manual begins with a detailed list of topics in that section. You'll also find an Index at the back of the manual.

If you have any questions, you'll find your Honda dealer knows your motorcycle best and is dedicated to your complete satisfaction.

Happy riding!



Motorcycle Safety

This section discusses some of the most important safety information. It also includes a special message for parents, advice about accessories and modifications, and location information for the safety labels on your motorcycle.

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Important Safety Information

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

This motorcycle has been designed for younger riders, as well as for smaller adults. However, not all youngsters are physically or emotionally ready to ride. Therefore, before parents allow any youngster to ride this motorcycle, we urge them to carefully read the *Important Message to Parents* beginning on page 5 and the *Parents, Youngsters and Off-Highway Motorcycles* booklet that came with the motorcycle (USA only).

There is much that you can do to protect yourself when you ride. You'll

find many helpful recommendations throughout this manual. The following are a few that we consider most important.

Always Wear a Helmet

It's a proven fact: helmets significantly reduce the number and severity of head injuries, so don't ride without one. We also recommend that you wear eye protection, sturdy boots, gloves and other protective gear (page 22)

Never Carry a Passenger

Your motorcycle is designed for one person only. There are no handholds, footrests, or seat for a second person — so never carry a passenger. A passenger could interfere with your ability to move around to maintain

Important Safety Information

your balance and control of the motorcycle.

Ride Off-Road Only

Your motorcycle is designed and manufactured for off-road use only. The tires are not made for pavement, and the motorcycle does not have turn signals and other features required for use on public roads. If you need to cross a paved or public road, get off and walk your motorcycle across.

Take Time to Learn and Practice

Developing off-road riding skills is a gradual, step-by-step process. Start by practicing at low speeds in a safe area and slowly build your skills. Personal instruction from an experienced rider can also be valuable.

If you need assistance, call the Motorcycle Safety Foundation (800 447-4700) or ask your dealer about riding groups in your area (USA only).

Also be sure to read the *Tips & Practice Guide for the Off-Highway Motorcyclist* booklet that came with your motorcycle (USA only).

Be Alert for Off-Road Hazards

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

Important Safety Information

Ride Within Your Limits

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

Keep Your Honda in Safe Condition

For safety, it's important to keep your motorcycle properly maintained. Having a breakdown can be difficult, especially if you are stranded off-road far from your base. To help avoid problems, inspect your motorcycle before every ride and perform all recommended maintenance.

Important Message To Parents

Your child's safety is very important to Honda. That's why we urge you to read this message before you let any young person ride this motorcycle. Off-road riding can be fun. But, as with riding a bicycle, bad judgement can result in injury, and we don't want that to happen! As a parent, you can help prevent accidents by making good decisions about if, when, and how your youngster rides this motorcycle.

Riding Readiness

The first decision you'll need to make is whether your youngster is ready to ride. Riding readiness varies widely from one person to another, and age and size are not the only factors.

PHYSICAL ABILITY is an important consideration. For example, riders must be big enough to hold the motorcycle up, get on, and comfortably sit on the seat with both feet touching the ground. They should also be able to easily reach and work the brakes, throttle, and all other controls.

ATHLETIC ABILITY is necessary for riding a motorcycle. Generally speaking, your youngster should be good at riding a bicycle before getting on a motorcycle. Can your youngster judge speeds and distances while riding a bicycle and react with proper hand and foot actions? Anyone who does not have good coordination, balance, and agility is not ready to ride this motorcycle.

Important Message To Parents

MENTAL AND EMOTIONAL MATURITY are requirements for safe riding. Does your youngster think through problems and come to logical solutions? On a bicycle, does your youngster obey safe riding rules? Be honest! Young people who take unnecessary risks, make bad judgements, and don't obey rules are not ready to ride this motorcycle.

Instruction and Supervision

If you decide that your youngster is ready to safely operate this motorcycle, make sure both of you carefully read and understand the owner's manual before riding. Also be sure that your youngster has a helmet and other appropriate riding equipment and

always wears it when operating the vehicle or sitting on it.

GOOD INSTRUCTION is an important part of hands-on training. The teacher can either be you or another responsible adult who has experience with off-road motorcycle riding. (For help in finding a qualified instructor, talk with your Honda dealer.) Even if you're not the main teacher, it's up to you to ensure your youngster's safety. Remember, learning to ride a motorcycle is a gradual, step-by-step process. It takes time, patience, and practice — many hours over a period of weeks or months.

Important Message To Parents

SUPERVISION is another important obligation of parents. Even after youngsters have become skilled off-road riders, they should always ride with adult supervision. It helps to regularly remind young riders of basic safety rules and precautions. And remember, it's your responsibility to see that the motorcycle is properly maintained and kept in safe operating condition.

SAFE AND RESPONSIBLE RIDING must be an on-going commitment — by you and your youngster. When you both put safety first, you can enjoy more peace of mind, and your youngster can enjoy more hours of safe off-road riding.

Loading, Accessories & Modifications

Your Honda was designed as a rider-only motorcycle. It was **not** designed to carry a passenger or cargo. A passenger or cargo could interfere with your ability to move around to maintain your balance and control of the motorcycle.

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

More specific information on load limits, accessories, and modifications follows.

Loading

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

WARNING

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

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

Loading, Accessories & Modifications

Load Limits

Following are the load limits for your motorcycle:

Maximum weight capacity = 100 kg (220 lb). Includes the weight of the rider and any accessories.

Loading Guidelines

As discussed on page 8, we recommend that you **do not** carry any cargo on this motorcycle. However, if you decide to carry cargo, ride at reduced speeds and follow these common-sense guidelines:

- Keep cargo small and light. Make sure it cannot easily be caught on brush or other objects, and that it does not interfere with your ability to

shift position to maintain balance and stability.

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

Loading, Accessories & Modifications

Accessories & Modifications

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

⚠ WARNING

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

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

Accessories

We strongly recommend that you use only genuine Honda accessories that have been specifically designed and tested for your motorcycle. Because Honda cannot test all other accessories, you must be personally responsible for proper selection, installation, and use of non-Honda accessories. Check with your dealer for assistance and always follow this guideline:

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

Loading, Accessories & Modifications

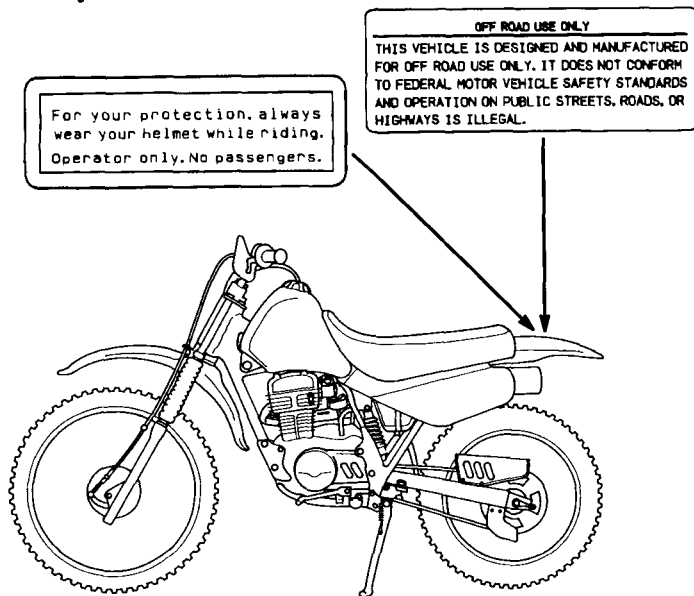
Modifications

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

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

Safety Labels

Read these **SAFETY LABELS**
before you ride!

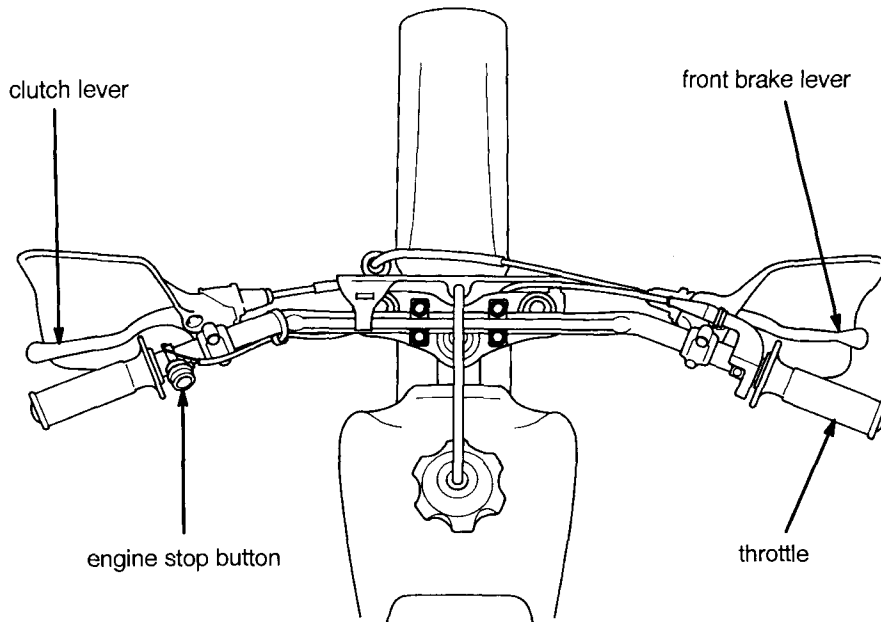


Operating Controls

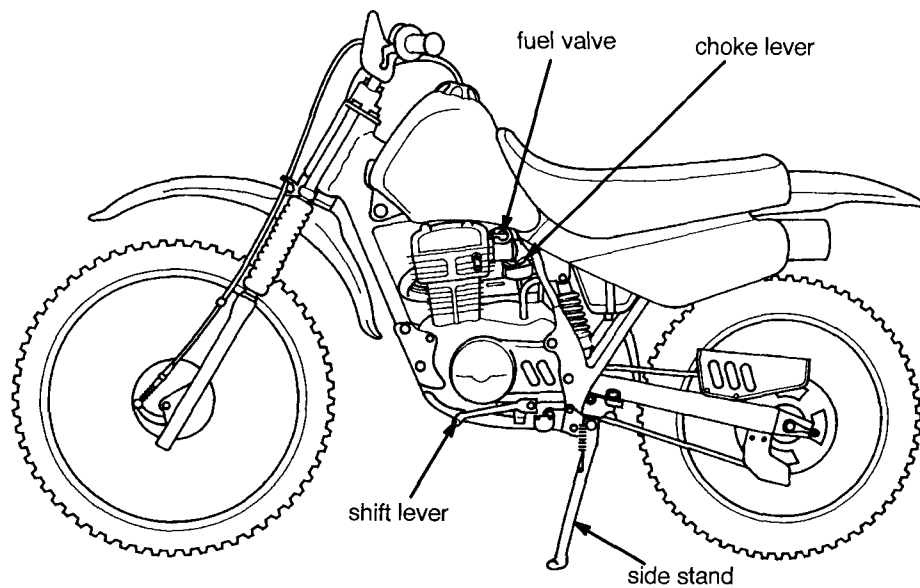
When you ride off-road, you need to operate the throttle, clutch, brakes, and other controls without stopping to look at them. Read this section carefully before you ride. It describes the location, function, and operation of all the basic controls on your motorcycle.

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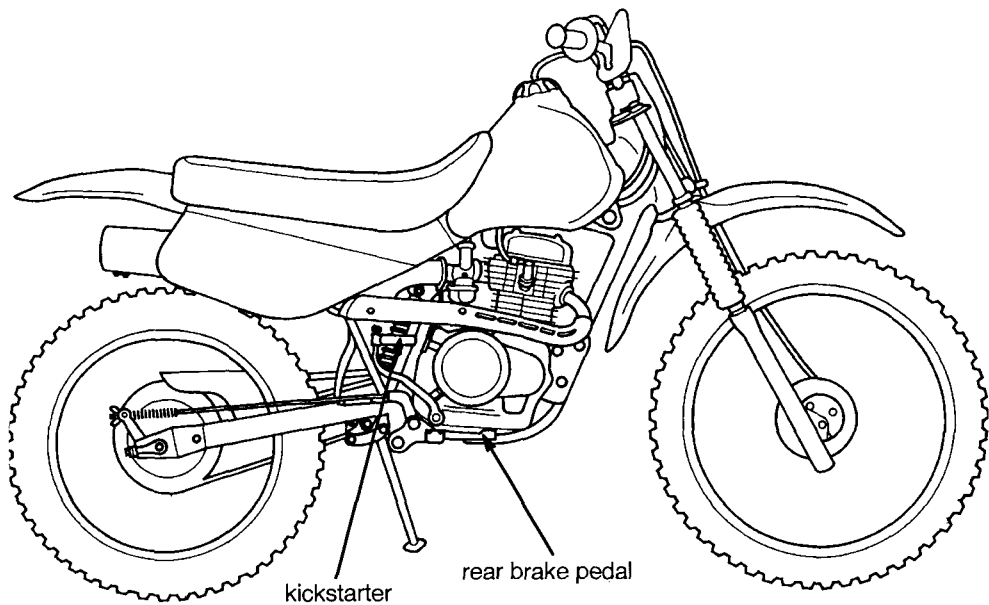
Operating Controls



Operating Controls

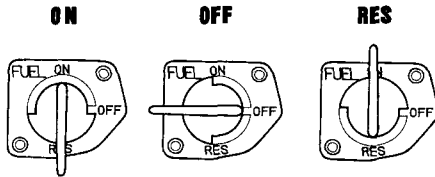


Operating Controls



Operating Controls

Fuel Valve



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

ON

Turning the fuel valve ON before attempting to start the engine allows fuel to flow from the fuel tank to the carburetor.

OFF

Turning the fuel valve OFF after stopping the engine prevents the flow of fuel from the fuel tank to the carburetor.

RES

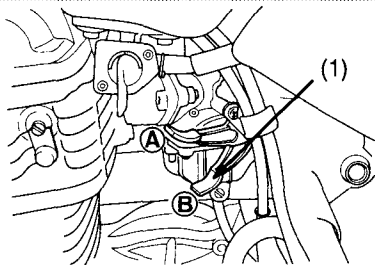
Turning the fuel valve to RES allows fuel to flow from the reserve fuel supply to the carburetor.

Operating Controls

The reserve fuel supply is:
0.9 ℓ (0.24 US gal, 0.20 Imp gal)

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

Choke Lever



(1) choke lever

(A) Fully ON
(B) Fully OFF

The choke lever, used for starting the engine (page 30), increases the amount of fuel in the fuel/air mixture delivered to the engine.

ON

Used to start a cold engine with air temperature below 35°C (95°F).

OFF

Used for normal operation, for restarting a warm engine, or starting a cold engine with air temperature above 35°C (95°F).

Operating Controls

Engine Stop Button

The engine stop button is used to turn the engine off during normal riding situations. To operate, push the button in and hold it in until the engine stops completely.

Front Brake Lever

The front brake lever is used to slow or stop your motorcycle. To operate, pull the lever. For information on braking techniques, see page 35.

Throttle

The throttle controls engine rpm (speed). To increase engine rpm, rotate the grip toward you. To reduce engine

rpm, rotate the grip away from you. The throttle will automatically return to the closed position (engine idle) when you remove your hand.

Clutch Lever

The clutch lever is used to disengage the clutch whenever you shift gears. To operate, pull the clutch lever in all the way before shifting, then slowly release it after shifting.

Operating Controls

Shift Lever

The shift lever is used to select the next higher or lower gear in the transmission. To operate, raise the shift lever (after pulling in the clutch lever) to engage the next higher gear or depress the shift lever to engage the next lower gear. See *Shifting Gears*, page 34.

Rear Brake Pedal

The rear brake pedal is used to slow or stop your motorcycle. To operate, depress the pedal. For information on braking techniques, see page 35.

Kickstarter

The kickstarter is used to start the engine. To operate, swing the kickstarter out from its stored position and depress it through its entire stroke. See *Starting the Engine* on page 30.

Side Stand

The side stand is used to support your motorcycle while parked (page 36). To operate, use your foot to lower the stand. Before riding, raise the stand.

Before Riding

Before each ride, you need to make sure you and your Honda are both **ready** to ride. To help get you prepared, this section discusses how to evaluate your riding readiness, and how to perform the recommended pre-ride inspection of your Honda. If you're a parent, be sure you also read the *Important Message To Parents* on page 5.

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Are You Ready to Ride?

Before every ride, always take a few moments to evaluate your riding readiness. Following are a few of the most important questions you should ask. While this list is not complete, it can help you decide whether you are really fit and ready to ride.

- Have you read this manual?
- Do you understand all the safety messages?
- Do you know how to operate all the controls?
- Are you free of alcohol and drugs?
- Do you feel well and in good physical and mental condition?
- Are you wearing a proper helmet, eye protection, and other protective clothes?

Protective Apparel

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

Are You Ready to Ride?

WARNING

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

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

Helmets and Eye Protection

Your helmet is your most important piece of riding gear because it offers the best protection against head injuries. A helmet should fit your head comfortably and have a chin strap that can be tightened securely.

An open-face helmet offers some protection, but a full-face helmet offers

more. Regardless of the style, look for a DOT (Department of Transportation) sticker in any helmet you buy (USA only). Always wear a face shield or goggles to protect your eyes and help your vision.

Additional Riding Gear

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

- Sturdy off-road motorcycle boots to help protect your feet, ankles, and lower legs.
- Off-road motorcycle gloves to help protect your hands.
- Riding pants with knee and hip pads, a riding jersey with padded elbows, and a chest/shoulder protector.

Is Your Motorcycle Ready to Ride?

For your safety, it's important to inspect your motorcycle before each ride and make sure any problem you find is corrected. A pre-ride inspection is a must, because off-road riding can be tough on a motorcycle and you don't want to have a breakdown far from help.

WARNING

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

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

Note to Parents:

If a youngster will be performing any of the following pre-ride inspection procedures, it's your responsibility to provide careful supervision and make sure they are performed safely.

Pre-ride Inspection

Check the following items **before** you get on the motorcycle:

- Tires* Use a gauge to check the air pressure. Adjust if needed. Also look for signs of damage or excessive wear (page 91).
- Spokes & Rims* Make sure the spokes and rim locks are tight. Also check the rims for damage (page 86).
- Leaks* Look under the motorcycle for signs of leaking fluids.
- Engine Oil* Check the level and add oil if needed (page 58).

- Fuel* Check the level and add fuel if needed. Also make sure the fuel fill cap is securely fastened.
- Drive Chain* Check the condition and slack. Adjust and lubricate if needed. Also check the chain slider for wear and replace if needed (page 96).
- Cables* Check the cable housings for wear. Check the fittings for looseness. Replace or tighten as needed.
- Nuts & Bolts* Use a wrench to make sure all accessible nuts, bolts, and fasteners are tight.

Pre-ride Inspection

Check these items **after** you get on the motorcycle:

- | | |
|-----------------|--|
| Throttle | Check the freeplay and adjust if needed. Rotate the throttle to make sure it moves smoothly without sticking, and snaps shut automatically when it is released, in all steering positions (page 65). |
| Brakes | Squeeze the front brake lever and step on the rear brake pedal to check that the controls operate normally (page 80). |
| Clutch
Lever | Check for smooth operation and adjust if needed (page 67). |

This section gives basic information on how to begin riding your motorcycle. It includes how to start and stop your engine, how to use the throttle, clutch, and brakes, and what to do when you're through riding.

For more advanced information — how to make turns, ride on hills, etc., see the *Tips & Practice Guide for the Off-Highway Motorcyclist* booklet that came with your Honda (USA only).

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Riding

Riding Precautions

Before riding your motorcycle for the first time, please review the *Important Safety Information* beginning on page 2 and the previous section, titled *Before Riding*.

Even if you have ridden other off-road motorcycles, take time to become familiar with how this motorcycle works and practice in a safe area until you build up your skills.

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

Your motorcycle is not equipped with lights. Do not ride at night.

Break-in Guidelines

To protect your new engine and enjoy optimum performance and service life:

- During the first 20 hours or 200 miles (350 km) of riding, avoid full-throttle operation, do not operate at any one speed for a prolonged period, and never lug the engine.
- Perform all maintenance required at the end of the break-in period (pages 47-48).

High Altitude Riding

If your riding area is above 4,000 feet (1,200 m), you should have your carburetor adjusted before riding (page 136). See your Honda dealer.

Starting The Engine

Preparation

Make sure the transmission is in neutral. Turn the fuel valve ON.

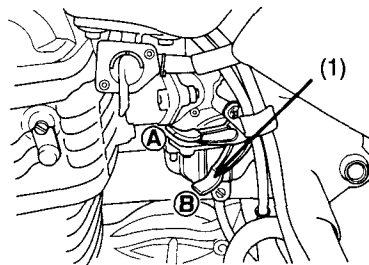
Your motorcycle may be kickstarted with the transmission in gear by pulling in the clutch lever before operating the kickstarter.

Starting Procedure

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

Normal Air Temperature

10°– 35°C (50°– 95°F)



(1) choke lever

(A) Fully ON

(B) Fully OFF

1. Pull the choke lever (1) up all the way to fully ON (A).

Starting The Engine

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

NOTICE

Allowing the kickstarter to snap back freely against the pedal stop can damage the engine case.

3. Warm up the engine by opening and closing the throttle slightly.
4. About a quarter-minute after the engine starts, push the choke lever down all the way to fully OFF (B).
5. If idling is unstable, open the throttle slightly.

High Air Temperature

35° C (95° F) or above

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

Low Air Temperature

10° C (50° F) or below

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

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

Starting The Engine

Flooded Engine

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

1. Push the choke lever down all the way to OFF.
2. Open the throttle fully.
3. While pushing the engine stop button, crank the engine several times with the kickstarter.
4. Release the engine stop button.
5. Follow the *High Air Temperature* starting procedure (page 31).

Starting from a Stop

After the engine has been warmed and the side stand raised, your motorcycle is ready to ride. With the throttle closed and the front brake on:

1. Pull the clutch lever all the way in.
2. Depress the shift lever from neutral to first gear.
3. Release the front brake, then gradually open the throttle while you slowly release the clutch lever.

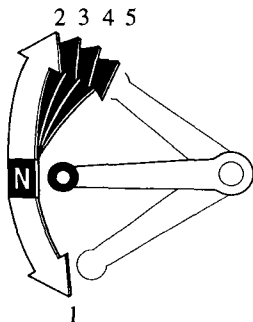
If engine speed is too low when you release the clutch lever, the engine will stall. If engine speed is too high or you release the clutch lever too quickly, the motorcycle may lurch forward.

4. When you attain a moderate speed, close the throttle, pull the clutch

lever in, and raise the shift lever from first to second gear. After shifting, open the throttle and release the clutch lever altogether.

5. Repeat step 4 to continue shifting up to higher gears.

Shifting Gears



Your motorcycle has five forward gears. To upshift, raise the shift lever. To downshift, depress the shift lever. The shift lever automatically returns to the horizontal position when released.

Remember to close the throttle and pull the clutch lever in completely before

shifting. Failure to do so can damage the transmission.

Learning when to shift gears comes with experience. Upshift to a higher gear or reduce throttle before engine speed (rpm) gets too high. Downshift to a lower gear before you feel the engine laboring (lugging) at low rpm.

Downshifting also allows you to use engine braking (compression) to help slow the motorcycle. However, be careful not to downshift when engine speed is near maximum or you can over-rev (exceed maximum rpm) and damage the engine.

To prevent transmission damage, do not coast or tow the motorcycle for long distances with the engine off.

Braking

For normal braking, apply the front and rear brakes together. Gradually increase braking pressure as you feel the brakes slowing your speed.

Applying the brakes too hard may cause the wheels to lock, and you can start sliding out. If this happens, release the brakes, steer straight ahead until you regain control, then reapply the brakes more gently.

When possible, reduce your speed or complete braking before entering a turn. A quick closing of the throttle or any braking during a turn may cause one or both wheels to slip.

When you brake to a stop, pull the clutch lever in before stopping completely to prevent stalling the

engine. For support, put your left foot on the ground first, then your right foot when you're through braking.

Stopping the Engine & Parking

To stop the engine, shift into neutral, push the engine stop button in, and hold it in until the engine stops.

Lower the side stand to support your motorcycle. If you're through riding for the day, also turn the fuel valve OFF. Always choose a level place to park.

Post-ride Inspection

When you return home after riding, thoroughly clean your motorcycle and remove any dirt, mud, brush, rocks or other objects you may have picked up along the way.

After cleaning, carefully inspect your motorcycle for leaks or damage.

Be sure to lubricate the drive chain (page 100) to prevent rusting.

