

BASIC

Basic Riding Skills

You've got your brand new bike. You hop on and catch a glimpse of yourself in your matching candy apple red jacket and shiny helmet. Admire yourself. You know you look good. Now take a second to imagine what you'd look like with some angry red road rash—Not so hot. Now is not the time to just climb on and twist the throttle. Nothing but lots of practice is going to make you a competent motorcyclist, but here's a refresher on the basic controls and procedures to make your motorcycle go and stop when you want it to.

Controls

Throttle – Located on the right handgrip, it controls engine speed. Use your right hand to roll the throttle on, with the top of the grip rolling toward you, and off, with the top of the grip rolling away from you. If released

completely while rolled on, the throttle will spring back to the idle position.

Clutch Lever – Located in front of the left handgrip, it connects power from the engine to the rear wheel. Use your left hand to squeeze the clutch lever toward the handgrip to disengage power. Release the lever slowly away from the handlebar to again engage power to the rear wheel.

Gear Shift Lever – Located in front of the left footrest, it shifts the transmission from one gear to the next. Lift the lever with your left foot to upshift one gear at a time; press the lever to downshift one gear at a time. The lever operates as a ratchet mechanism: after each shift, the lever returns to its “home” position. The typical gear shift pattern, from the bottom to top, is 1-Neutral-2-3-4-5-(6). Your bike may or may not have a sixth gear.

Front Brake Lever – Located in front of the right handgrip, it operates

the front wheel's brake. Use your right hand to squeeze the lever toward the handgrip to apply the brake.

Rear Brake Pedal – Located in front of the right footrest, it operates the rear wheel brake. Press down with your right foot to apply the brake.

Fuel Supply Valve – Usually located on the left side underneath the gas tank, it controls the flow of fuel to the engine. Fuel supply valves differ, but often include on, off, reserve, or prime positions. Not all modern bikes have manual fuel supply valves.

Ignition Switch – May be located in or near the instrument pod in front of the handlebars, or in some cases on the left side below the seat. Common key positions are on, off, park, and lock.

Choke – May be located near the left handgrip, below the instrument panel, or below the left side of the gas tank. Put the choke on for cold starts, then off once the engine has warmed up. Some fuel-injected bikes



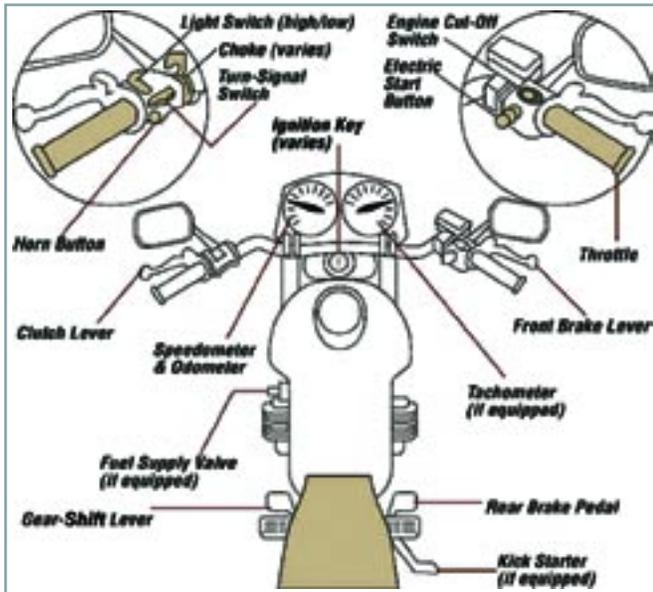
The four-fingered clutch technique.



Above: Twisting the grip adds throttle. The lever operates the front brake. Bottom: The right foot pedal operates the rear brake.



Make sure the engine cut-off switch is in the “on” position, turn the key, and press the “start” button, which is usually situated below the engine cut-off switch.



don't have a choke.

Engine Cut-Off Switch – Located near the right handgrip, it shuts off the engine immediately. Use your right thumb to move it to the run or off positions.

Electric Start Button – Located near the right handgrip. Use your right thumb to press the button to start the engine. (Be sure to hold in the clutch lever as you do so.)

Additional controls and equipment include the high/low beam headlight switch, turn signal switches, the horn button, speedometer and tachometer, and indicator lights for neutral, high beam, turn signals, and oil pressure. In some cases, the bike may also have a kick starter.

Mounting the Motorcycle

Mount the bike from the left side. This is especially important when the motorcycle is parked on its side stand and therefore leaning to the left. Mounting a bike from the right side could upset the balance of the bike on the side stand and bring it crashing down on top of you. When mounting the bike, hold the handlebars with both hands and squeeze the front brake to keep the motorcycle from rolling forward. Swing your right leg over the seat, and once you are straddling the bike and holding it upright, use your foot

to retract the side stand. Adjust the mirrors so that you have a good view of the roadway behind you.

Starting the Engine

FINE-C is a useful term to help you remember the pre-start checklist. Run through this checklist before every single ride.

Fuel – Turn the fuel supply valve to the on position. Note that many newer motorcycles use an electronic or automatic fuel supply valve, which does not need to be turned on and off manually.

Ignition – Insert the key and turn the ignition switch to the on position.

Neutral – Shift the transmission to neutral. Check the neutral light (green light indicates neutral) and roll the motorcycle forward or back a few inches with the clutch released to double-check that the motorcycle is not in gear.

Engine Cut-Off Switch – Make sure the engine cut-off switch is set to the run position.

Choke and Clutch – There are two “Cs” – choke and clutch. Set the choke, if necessary, according to the engine temperature (on for cold starts). Squeezing the clutch lever when you start the engine is a good idea as an added safety precaution. Some newer motorcycles incorporate a cut-off switch into the clutch mechanism that requires the clutch lever to be squeezed in before the motorcycle can be started.

The Friction Zone

The friction zone is your friend. It's the area of clutch lever travel that starts where the clutch just begins to transmit power from the engine to the rear wheel and ends just before the clutch is fully engaged. Find the fric-

tion zone, get to know it, and spend some quality time there. If you do, stalling your motorcycle will seldom be a problem. The friction zone is the result of partially engaging the clutch. While partially engaged, the clutch slips slightly, allowing you to precisely control the amount of power transmitted from the engine to the rear wheel.

Finding the friction zone and learning to use it well takes practice. With the engine running and transmission in neutral, squeeze the clutch lever and shift the motorcycle into first gear by pressing down on the gear shift lever. With both feet planted firmly on the ground, slowly ease out the clutch lever until you hear the engine begin to slow and feel the bike creep forward. You have now entered the friction zone. Squeeze the clutch lever in, roll back and practice again until you can consistently and predictably locate the friction zone every time you release the clutch.

Be aware that the engine may stall if you do not apply some throttle or if you release the clutch too far. If you feel the engine beginning to stall, just squeeze the clutch lever in again. Using too much throttle can cause the bike to jump forward. It may help to add some throttle as you get more adept at controlling the clutch lever. Proper use of the friction zone and properly modulating the throttle and the clutch to smoothly engage the engine without stalling or jumping forward are the skills necessary to ride a motorcycle smoothly away from a stop.

Riding Posture

Maintaining good posture is an important and often overlooked component of safe riding. It will help you stay comfortable over long distances and enhance your control of the motorcycle by helping your body stay relaxed.

Sit on the motorcycle in an upright position with your back straight, your head up, and your eyes focused on the road ahead. Ride with your knees and elbows turned inward.

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They should be comfortably bent—not locked—so you can quickly move or respond to changes in riding conditions. Keep both feet on the footrests at all times so you can quickly position them to operate the rear brake pedal or shift lever. Grip both handgrips firmly with your wrists pointed up. Make a conscious effort to keep your body limber and relaxed. Tensed muscles will cause you to tire quickly and will reduce your ability to respond promptly to any obstacles that might appear in your path. Remember, the better your skills, the more relaxed you'll be.

Shifting Gears

Most motorcycles are equipped with manual transmissions, which just like manual transmissions in cars, allow you to change gears to match engine speed with road speed. This keeps the engine operating where it's most responsive. Most motorcycles have either five or six gears: The lower gears are used at lower speeds and higher speeds call for higher gears.

As you go faster, you will need to shift your motorcycle into a higher gear. Shift up into a higher gear well before the engine rpm reaches redline, which is the maximum recommended engine speed, as shown on the tachometer. As a rule, shift up soon enough to avoid over-revving the engine, but not so soon as to cause the engine to lug.

Use a three-step process to smoothly upshift into a higher gear. First, simultaneously roll off the throttle and squeeze in the clutch lever. Once the throttle is closed and the clutch is completely disengaged, the second step is to lift the shift lever firmly until it stops, engaging the higher gear. Step three is to smoothly ease out the clutch lever to restore power to the rear wheel, simultaneously rolling on the throttle. Don't forget to drop your foot away from the shift lever, allowing the shift lever to reset to its "home" position.

Downshifting is done either in conjunction with slowing the motorcy-



Mount your motorcycle from the left side, holding the handlebars with both hands and squeezing the front brake. To dismount, select a firm, flat surface, squeeze the front brake lever and lower the side stand. Then lean the motorcycle onto the side stand and swing your right leg over the seat.

cle or when you want to quickly raise the rpm and make more power available for acceleration (when passing another vehicle, for example). Downshifting is slightly more involved than upshifting, because you have to work carefully to closely match engine speed to road speed. If you haven't slowed sufficiently, it is easy to over-rev the engine when you shift into the next lower gear. Also, selecting a lower gear and releasing the clutch too quickly (or not rolling on the throttle enough) can have an effect similar to stomping on the rear brake, and could lock the rear wheel and cause it to lose traction. Extra practice at low speeds will help you master downshifting smoothly and consistently.

As with upshifting, downshifting is a three-step process that involves modulating the clutch and throttle to precisely match engine speed with road speed. Begin the downshifting process by rolling off the throttle and squeezing the clutch lever simultaneously. Once the clutch is disengaged and the throttle is closed, shift the

motorcycle into a lower gear by pressing down on the gear shift lever. Once the shift is completed, ease out the clutch lever slowly and roll on the throttle. Again, remember to release your foot and allow the shift lever to reset for the next shift. Shifting to a lower gear can cause an effect similar to applying the brakes. This is called engine braking. To use engine braking to your benefit when decelerating, shift down one gear at a time and ease the clutch lever through the friction zone. Keep the clutch in the friction zone until engine speed stabilizes, then ease the lever out all the way until ready for the next shift.

Shutting Down

Shifting and stopping a motorcycle can be somewhat complicated tasks, requiring several steps and the careful coordination of multiple controls. This isn't the case with shutting off the motorcycle. It's easy!

After coming to a complete stop, and with your legs firmly supporting the bike, reach up with your thumb

and move the engine cut-off switch to the off position. Make this your habit, so you can easily and instantly find the engine cut-off in an emergency. Turn off the ignition switch, and, if your motorcycle is so equipped, turn the fuel valve to the off position.

Dismounting

Select a firm, flat surface on which to park. Be sure the motorcycle is in first gear because this lessens the chance of it rolling while parked. Squeeze the front brake lever and lower the side stand. Lean the motorcycle onto the side stand and swing your right leg over the seat—all while squeezing the front brake lever. Turn the handlebars toward the side stand to enhance stability and engage the fork lock.

Stopping

Your motorcycle is equipped with both front and rear brakes. To achieve optimum braking performance, both the front and rear brakes must be used in unison. However, because of the way that a motorcycle's weight distribution changes under deceleration, the front brake provides 70 percent or more of the motorcycle's stopping power. It is essential to familiarize yourself with the operation of your

motorcycle's front brake, to learn to trust the front brake, and to use the front brake (in conjunction with the rear) every single time you stop.

To bring a motorcycle to a complete stop, you'll need to use both hands and both feet together. Squeeze the front brake lever and press down on the rear brake pedal at the same time, varying the amount of force depending on how quickly you need to stop. At the same time you apply the brakes, squeeze in the clutch lever and downshift toward first gear. If you wish to use engine braking to further slow down, gently ease out the clutch between downshifts.

Even though the full braking force of each wheel may not be required for normal, planned stops, it is important to get into the habit of using both brakes at all times so you will respond reflexively should a panic situation arise. Remember to pay attention to what your hands are doing in a braking situation: Roll off the throttle when slowing to prevent over-revving the engine; to prevent lugging or stalling when slowing, remember to squeeze the clutch lever.

Changing Direction

Once you're familiar with the friction zone and have mastered the mechanics of forward motion, the next

skill to learn is turning the motorcycle. To understand the art of changing direction on a single-track vehicle, break down the turn into four basic steps: Slow, look, press, and roll.

Slow – Take care of slowing and braking before you enter a turn. Reduce speed before the turn as needed by rolling off the throttle and applying both brakes smoothly and evenly; downshift the motorcycle if necessary.

Look – Turn your head and look through the turn. Use your eyes to help with directional control – the motorcycle tends to follow your eyes and go where you're looking. Turn your head, not just your eyes, nor just your shoulders. Keep your eyes up and moving, level with the horizon. Doing all of this together will help you move smoothly through the turn.

Press – To turn, the motorcycle must lean. To initiate a lean, press forward on the handgrip corresponding to the direction of the turn. In other words, press left, lean left, go left; press right, lean right, go right. This is called counter-steering and it's how all single-track vehicles, like motorcycles, change direction.

Of course, higher speeds and tighter turns require a greater degree of lean. In normal turns, the rider (and passenger) should lean with the motorcycle into the direction of the turn. In slow, tight turns, lean the motorcycle only and keep your body straight and upright. In very tight turns (a U-turn in a parking lot, for instance), you might actually need to lean your upper body slightly toward the outside of the turn. This technique is called counter-weighting.

Roll – Roll on the throttle gently through the turn, maintaining a steady speed or slightly accelerating. Gently rolling on the throttle through the corner will settle the suspension and help to stabilize the bike through the corner. Avoid rapid deceleration in the corner, because it can overwhelm front tire traction. Also avoid rapid acceleration, which can cause the rear tire to lose traction or cause you to run wide in the turn. ■



The top image shows the upshifting technique, using your boot to nudge the shifter upwards. The bottom image depicts a downshift, where the shifter is pushed toward the pavement.



Don't forget to flip up the kickstand! Most modern bikes will automatically shut off if the kickstand is still down when the bike is in gear. If your bike doesn't have this feature, make sure you retract the kickstand by literally kicking it up with your left boot and allowing it to tuck underneath the underbody of the bike.