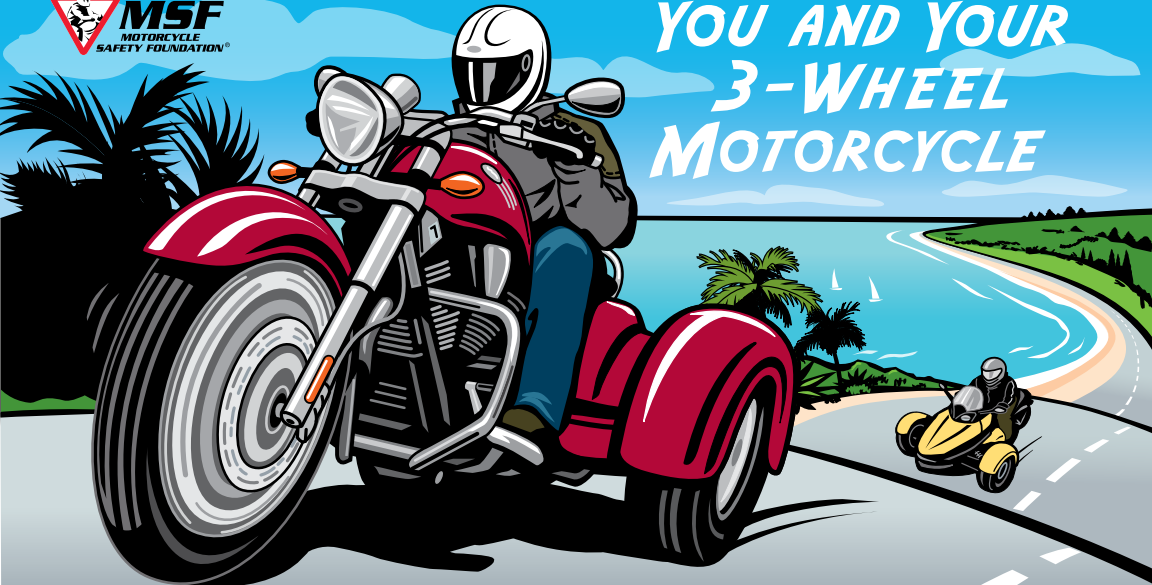




*YOU AND YOUR
3-WHEEL
MOTORCYCLE*

RIDING TIPS



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3-WHEEL
MOTORCYCLE***

RIDING TIPS

Illustrations by Glenn Reid



You and Your 3 Wheel Motorcycle (3WMC):

Riding Tips

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The information in this publication is offered for the benefit of those who have an interest in motorcycles. The information has been compiled from publications, interviews and observations of individuals and organizations familiar with the use of motorcycles and training. Because there are many differences in product design, riding styles, federal, state and local laws, there may be organizations and individuals who hold differing opinions. Consult your

local regulatory agencies concerning the operation of motorcycles in your area.

The Motorcycle Safety Foundation is a national, not-for-profit organization promoting the safety of motorcycles with programs in rider training, operator licensing and public information. The MSF is sponsored by BMW, BRP, Ducati, Harley-Davidson, Honda, Kawasaki, KTM, Piaggio, Suzuki, Triumph, Victory, and Yamaha.

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INTRODUCTION

You and Your 3-Wheel Motorcycle (3WMC)

A few tips for keeping
your relationship
a happy one

Congratulations!

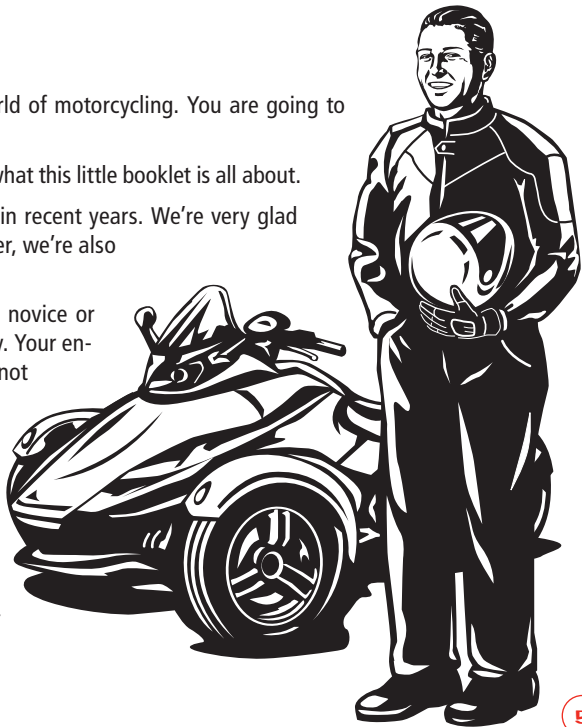
You have gained admission to the wonderful world of motorcycling. You are going to have a marvelous time.

You also have some new responsibilities, which is what this little booklet is all about.

Motorcycling has grown more and more popular in recent years. We're very glad to see the increase in people who enjoy it. However, we're also interested in keeping this a safe sport.

The way to do this is to tell the rider – whether novice or experienced – about operating a motorcycle safely. Your enjoyment, and your safety, depends on mastering not only the art of motorcycling but also the realities of the traffic around you.

The staff at the Motorcycle Safety Foundation (MSF) has prepared this booklet to provide you – the 3-wheel motorcycle rider – with important tips that can help you to ride safely. Read these pages carefully. Thirty minutes spent reading this information can be one of the most valuable half-hours of learning you have ever had.





THE RIDER

— That's you!

Riding a 3WMC properly is a skill you can learn. It's not something you are born with, like having red hair or blue eyes. It takes thinking and practice to ride one well. Unfortunately many riders never learn the critical skills to ride safely in order to enjoy the sport to its fullest.

The best first ride is with us.

The best thing you can do is take a *RiderCourse*SM. Beginning riders can take the 3-Wheel Basic *RiderCourse* developed by the Motorcycle Safety Foundation.

The courses cover topics such as:

- effective turning techniques
- protective gear
- traffic strategies
- special riding situations
- effective braking techniques
- evasive maneuvers

**INSTRUCTION MAY BE AVAILABLE NEAR YOU.
CALL THE NATIONAL TOLL-FREE NUMBER, (800) 446-9227,
TO GET THE PHONE NUMBER OF THE CLOSEST TRAINING SITE.
NOT ALL SITES OFFER THE 3-WHEEL BASIC RIDERCOURSE.**

What To Wear When You Ride

Proper gear is essential to safe riding. Wearing the right clothing always makes the sport more enjoyable. And more comfortable, too.

HELMET

Around the block or around the world, it makes sense to leave home with a fastened helmet on your head. IT'S ONE OF THE BEST ITEMS OF PROTECTION YOU CAN USE.

Helmets come in all sizes, from extra small (XS) to extra large (XL). There are also helmets for children. When you buy a helmet, make sure it fits properly. Try it on; it should be comfortable to wear, neither too tight nor too loose. Remember, it is going to spend a lot of time on your head.

Always fasten the helmet strap. If the helmet is not secured, it is doing about as much good as if it were on the shelf at home.

Did you know that all adult-sized motorcycle helmets now sold in the United States must have a sticker indicating DOT (Department of Transportation) compliance, which means that the helmet meets certain basic impact

standards? Don't buy a helmet without one; it may not meet standards. Helmets vary greatly in price and style. Buy one that suits you. Wear it. Fasten it every time you throw a leg over the motorcycle.

A good helmet makes motorcycling a lot more pleasurable because it cuts down on the wind noise and greatly reduces rider fatigue. The days of heavy or cumbersome helmets are gone; they're now made of new, light materials with terrific designs and colors to choose from.

Avoid dropping your helmet onto a hard surface. If it receives a heavy blow, it may need to be replaced. A motorcycle helmet is designed to absorb the impact of a blow, and a helmet should only do that once. If in doubt, get a new one.

EYE PROTECTION

Riding with bare eyeballs is a gamble. Your eyes are precious, and it does not take much to injure one.

A fairing on a motorcycle is not eye protection; a bit

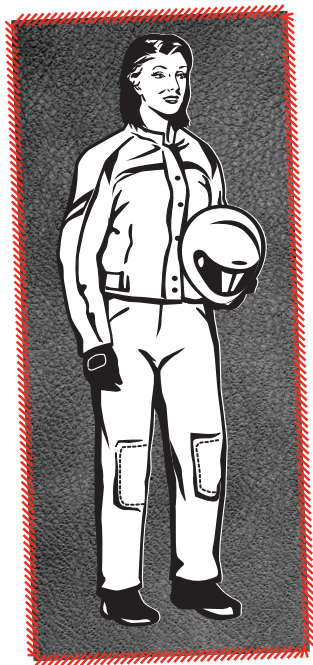
of sand or tiny piece of glass can whip in behind it and get in your eye.

Proper eye protection means an approved shield on your helmet, a pair of goggles, or shatterproof glasses. Settling for less just isn't worth the risk.

Make sure your eye protection is clean and unscratched. If you use a tinted lens or shield for riding in the bright sunlight, take a clear one along as well, in case you are riding after dark.

JACKET

Motorcycle jackets are made in many sturdy materials: leather, denim, and synthetic materials such as cordura. The hide of a cow, or any other commonly used leather, offers you the most protection when it comes to abrasion. You can buy leather jackets with zippered vents, which are comfortable to wear even in hot weather as they allow a breeze to flow through them.



PANTS

These should be made of a thick material, such as leather. They resist abrasion and provide protection from the elements. A pair of loose, light cotton pants that flap in the wind is not very good riding gear. A number of companies sell leather riding pants, and you can get pants and jacket combinations that zip together.

GLOVES

Always wear gloves. Even on a hot day. The car in front of you may throw up a stone that hits your fingers. Ouch! Also, bare hands are susceptible to abrasion or accidental contact with a hot motorcycle part.

BOOTS

Over-the-ankle boots, please. Preferably made of strong leather. Your ankles are very delicate; protect them.

A boot with a slippery sole could cause you to injure yourself when mounting or dismounting. Rubber soles, with a good tread design, offer better gripping possibilities.

RAINGEAR

It rains everywhere in this country, some places more than others. Inevitably you will be caught out in the rain. Why not have a good motorcycle rain suit along with rain-covers for boots and gloves as well? It's a lot more fun riding in the rain when you're dry.

HEARING PROTECTION

Long-term exposure to engine and wind noise can cause permanent hearing damage, even if you wear a full-face helmet. Whether you choose disposable foam plugs or reusable custom-molded devices, proper protection reduces noise, while allowing you to hear important sounds like car horns. Make sure you follow your state's laws when using hearing protection.

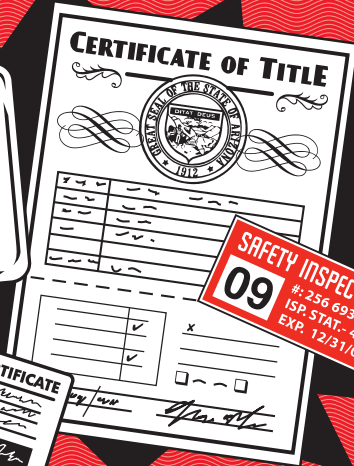
HIGH-VISIBILITY GEAR

The better people see you, the less likely they are to run into you. Brightly colored clothing is preferable to drab, dark clothing.

You can buy special vests that are designed to make it easier for others to see you.



LEGAL RESPONSIBILITIES



You and Your Legal Responsibilities

Don't forget, driving is a privilege, not a right. You have to prove your competence before your license is issued. If you ignore the laws of your state, your license may be taken from you.

Laws are intended to protect you, not to harass you. You may be the best and safest rider in the country, but these laws are to keep incompetent, dangerous drivers off the streets.

Just think of the chaos if we didn't have these laws. Respect them.

LICENSING REQUIREMENTS

These vary from state to state. Most states require a motorcycle license in order to operate a 3WMC. Go and get one. Drop by your local department of motor vehicles and ask for licensing information. You put yourself, your wallet, and your insurance at risk if you

choose to violate the law.

If your state requests it, take the written test. And the riding test. Get your 3WMC operator's license. Become a full-fledged member of the motorcycling community.

INSURANCE

The registration is simple; pay your money, and you get a license plate to secure on the back of the 3WMC.

Insurance is needed as most states require liability insurance. (Check your state's laws.) Shop around for it. Some companies give a discount if you've taken an *MSF RiderCourse*.

You can also get other coverage on you and your 3WMC: comprehensive, collision, medical payments, uninsured driver (the other guy), et cetera. Ask your insurance agent what each type of coverage can do for you, and how much it will cost.

The better your driving record, the less costly the insurance. It pays to be safe.

KNOW YOUR 3-WHEEL MOTORCYCLE

To be a safe rider, get to know your 3WMC extremely well. It's very different from a car and makes more demands on the operator. The 3WMC goes and turns and stops smoothly according to your degree of skill and knowledge.

Get to know your owner's manual; not all 3WMCs are exactly alike. **The most important difference is the arrangement of the wheels:** some have two wheels up front, and some have two wheels in the rear. A great many 3WMCs are built by installing rear axle kits on a two-wheel motorcycle. There are even 3WMCs that have enclosed riding compartments. The manual gives you many specifics you will find helpful in understanding and maintaining the 3WMC you've chosen.

It takes a long time to become properly familiar with a 3TMC, so it is best not to lend it or borrow one. Think of your 3WMC as being as personal as a toothbrush.

THE CONTROLS

Over the years, the basic motorcycle style controls have been standardized.

Set the parking brake, if equipped. From a seated position become familiar with the controls and how to use them. Work the levers and pedals. If something isn't within easy reach of your fingers or toes, maybe it can be adjusted to suit you. Check your owner's manual.



Practice with the turn signals. Find the horn button so you won't have to look for it when somebody starts backing out in front of you. Figure out how the dimmer switch works before it gets dark.

Do become familiar with the RESERVE fuel valve, if there is one on your machine. When you are running along the highway and your engine burbles, indicating it is running out of fuel, you want to be able to turn that reserve on without a second thought. It is not fun or safe to be fumbling around when you are in gear and moving.

SHIFTING GEARS

Starting off and changing gears requires coordination of the clutch lever, throttle and gearshift lever. If you don't do things right, the amount of control you have over the 3WMC is lessened.

To start off, squeeze the clutch lever, shift into first gear, roll on the throttle a little, and ease out the clutch lever. Once you become familiar with the friction zone (that's where the clutch begins to take hold and move the bike), and you can add a bit more

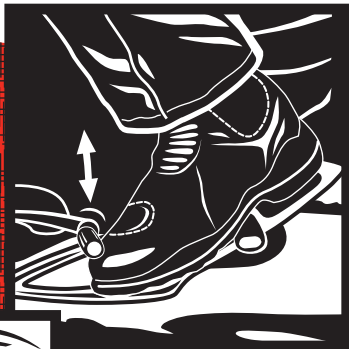
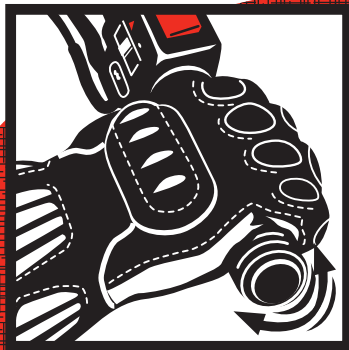
throttle. You don't want to stall the engine, nor do you want to overrev it. There's a sweet spot in there; find it.

As much as possible, shift gears while traveling in a straight line, because it help to make control operation smoother.

Become familiar with the sound of the engine, so you can tell when you should shift (change gears) without looking at the instruments.

When you downshift to a lower gear, you should (in one swift, smooth movement) be able to squeeze the clutch lever, rev the engine a little to let its speed match the road speed, and catch the lower gear smoothly as you ease out the clutch lever.

When you come to a stop in traffic, leave the 3WMC in first gear with the clutch squeezed (just in case you want to get out of the way of something behind you).



BRAKING

Always apply both the front and the rear brakes at the same time. If necessary, apply them hard, but not so hard that you lock up any wheels. A locked wheel, as well as causing the bike to skid, results in downright inefficient braking.

When you have the opportunity, practice your braking. You can always get better at it.

TURNING

Unlike a two-wheel motorcycle, turning a 3WMC is similar to the way you turn a tricycle: steer in the direction you want to go.

A most important thing to remember when making a turn is to slow down as necessary before the turn. This is accomplished by rolling off the throttle and/or using the brakes. Downshifting to a lower gear may also be necessary. Always set a good entry speed, which is a speed that won't require you to slow further while in the turn.

Look through the entire turn and keep your eyes moving. Evaluate the turn for its characteristics, surface condition, and traffic. It helps to turn your head to face the direction you want to go.

To initiate the actual turn use push/pull steering to point the front tire or tires in the direction of the turn. Pulling on the left handgrip while pushing on the right will cause the 3WMC to turn left. Pulling on the right handgrip while pushing on the left will cause the 3WMC to go right. Try to slightly twist your body in the direction of the turn when using push/pull steering. This should make it easier on your arms. And you may find that it's more comfortable to lean slightly forward and in (towards the turn) when turning at higher speeds.

A slight roll on the throttle will help you to keep from losing speed as well as setting you up for an upcoming straightaway.

CHECKING THE 3WMC BEFORE THE RIDE

Who knows when Murphy's Law (what can go wrong, will) may strike or what nail your tire might have picked up just before you pulled in the other evening. It's not fun to have things go wrong on a 3WMC, but if you spend a minute before you go off on a ride, you can increase the chances that nothing will.

Any information you'll need, such as correct tire pressures or chain adjustment, you'll find in your owner's manual. If you haven't already done so, as soon as you finish this booklet read the manual thoroughly. You will be much more acquainted with all the specifics of your 3WMC, since it might be slightly different from some other make or model.

#1

Check the tires. They are important parts of your 3WMC. If your engine quits, you roll to a stop. If a tire quits - trouble! Make the effort to check the surface of the tires, looking for cuts in the rubber or foreign objects - like a nail. Check the tire pressures with a

good gauge. If a tire is low every time you check it, even though you have added the proper amount of air each time, you have a slow leak. Fix it before it becomes a fast leak.

#2

Check the controls. Cables are quite strong and rarely break, but look for kinking or stiffness or anything unusual in their operation.

#3

Check your lights, including brake light, headlights, and turn signals to make sure everything works. Also check your horn and adjust the mirrors.

#4

Check the oil and fuel and, if the bike is liquid-cooled, the coolant levels.

#5

If your 3WMC has chain-drive, make sure that the chain is properly tensioned and in good shape. A chain needs an occasional cleaning and dose of lubrication.

#6

As you start out, check your brakes. Just to make sure they haven't gone away.



MAINTENANCE

There's not much to maintain on a day-to-day basis on most modern 3WMCs, but do what you can do, including your pre-ride checks.

Your bike has a regular service schedule listed in the owner's manual. Unless you are an accomplished mechanic, we recommend that these services be done by an authorized dealer.

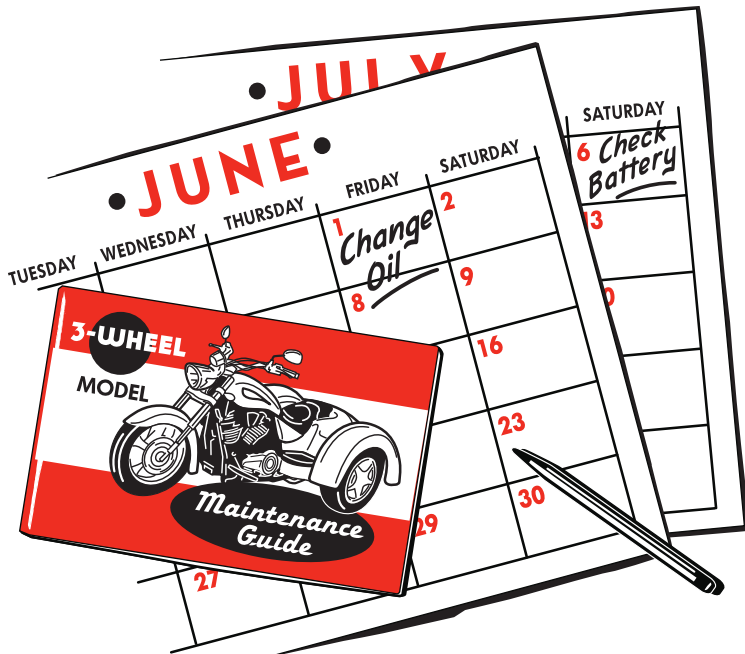
Keeping your 3WMC clean is a good idea. It's astounding how dirt can cover up something that is about to go wrong.

Check your battery every month. Make sure the fluid level is where it should be. If it is low, top it up with distilled water.

Always take your tool kit along when you go for a ride. You never can tell when it will come in handy. Use the tools to go over the bike occasionally and make sure no screws or bolts are loose.

You should always have your owner's manual with the bike. It tells you where the fuse box is, in the unlikely chance a fuse blows. It tells you how to remove a wheel, should you have the misfortune of a flat tire.

Flat tires are pretty rare occurrences on 3WMCs, but they can happen. In this case, you can either get on the phone to the dealer, or fix it yourself. If you want to know how to do it, we recommend you practice at home, rather than have your first shot at fixing a flat alongside a deserted road in the middle of the night.



TROUBLESHOOTING

Little things may happen to the 3WMC that are cause for concern.

#1

If the engine doesn't start:

- Is the key on?
- Is there gas?
- Is the battery too weak?
- Or a battery connection loose?
- Have spark plug wires fallen off?
- Is the ignition cut-off switch in the OFF position?
- Do you have the choke in the appropriate position?

#2

If the engine stops when you don't want it to:

- Did you hit the cut-off switch by mistake?
- Did you run out of gas?
- Did a fuse burn out?

#3

Odd Steering

If the bike begins to feel funny as you go down the road, especially in a curve, stop as soon as it is safe to pull over and check your tires. You may have a flat. Check your suspension. You may have it adjusted incorrectly. Your owner's manual is the best reference for proper settings and adjustments.

#4

Poor Response

If you detect any problems with the 3WMC – doesn't feel right, doesn't handle right, doesn't sound right – that you can't figure out yourself, take it to your dealer. Think about the problem a little so you can describe it to the service manager. Remember, an ounce of prevention is worth about a ton of cure.

WON'T START



GAS??

DOESN'T FEEL RIGHT



DOESN'T SOUND RIGHT



Remember

AN OUNCE OF PREVENTION IS WORTH ABOUT A TON OF CURE.

HIGHWAY, BYWAY, STREET AND ALLEY

This is what it all comes down to: you and the road. There are millions and millions of miles of roads in this country, from one-lane dirt to 12-lane highway.

When you ride, the surface conditions, traffic, and the weather can be changing. You have to be constantly aware of a lot of things. Daydreaming when you're riding a motorcycle isn't a good idea. Things happen fast out there on the road, and you have to be prepared for them.



BE AWARE OF YOUR SURROUNDINGS!

THE SEE SYSTEM

Here is a good reminder for riding safely in traffic.

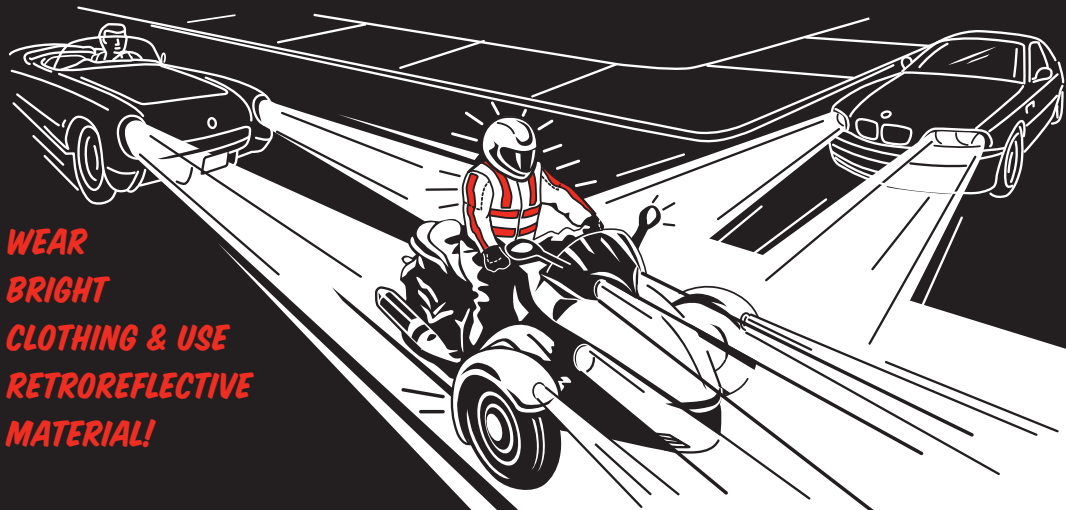


This SEE is a mental system for safe motorcycling. Use it effectively and you'll cover many safer, happy miles on your motorcycle.

INCREASING YOUR VISIBILITY TO OTHERS

What's the most common explanation from the automobile driver who just turned in front of a motorcyclist?
"Gee, officer, I didn't see him."

It's a sad truth. We're not as big as a Mack truck, but we are visible. However, too often motorists don't see us



***WEAR
BRIGHT
CLOTHING & USE
RETROREFLECTIVE
MATERIAL!***

because they aren't looking for motorcycles.

You have to attract their attention.

All motorcycle headlamps in recent years are hard-wired, which means that the headlight goes on whenever the engine goes on. If you have an earlier model, turn that headlight on every time you go out. It helps - even on a bright, sunny day!

We've said it before, we'll say it again: wear bright clothing and utilize retroreflective material (it shines when a beam of light hits it) whenever appropriate. The biggest thing that a following driver usually sees is your back. Make it stand out.

Always signal your intentions. Change lanes or make a turn using your turn signals. You want to be sure that the people around you know what you are about to do.

And it helps to assist your turn signals with hand signals at times. Remember to cancel your signals when you've completed your maneuver, otherwise drivers are getting false information from you...and you could cause yourself trouble.

Don't be shy about using your horn in some situations. If drivers are dozing, or about to pull an unthinking maneuver, give them a BEEP. You want to make them aware of what they are doing. And of your presence.

Position your motorcycle where it can be seen. Don't put yourself behind a large truck or ride in the blind spot of a vehicle near you. Get out there, take up a whole lane, make yourself seen.

HELPING YOU TO SEE OTHERS

The other half of the visibility battle is being alert and seeing everything around you. Use your eyes effectively. Keep them moving. Don't get fascinated by that '53 Corvette off to your right. Or go rubbernecking at an crash scene. If your eyes are locked on one thing, you may be ignoring some situation that could affect your ride.

Look ahead. Look to the side. Look in your mirrors. Look over your shoulders. Keep looking! Anticipate the oncoming, left-turning driver, the reckless fool coming up behind you, the car poking its nose out of the driveway, the guy beside and a little behind you who's moving across the lane divider.

Never let your eyes fix on an object. Keep looking around.

It's one thing to see, another to have the time to respond. No tailgating.

When you're riding, keep at least a two-second gap between you and the vehicle in front. For example,

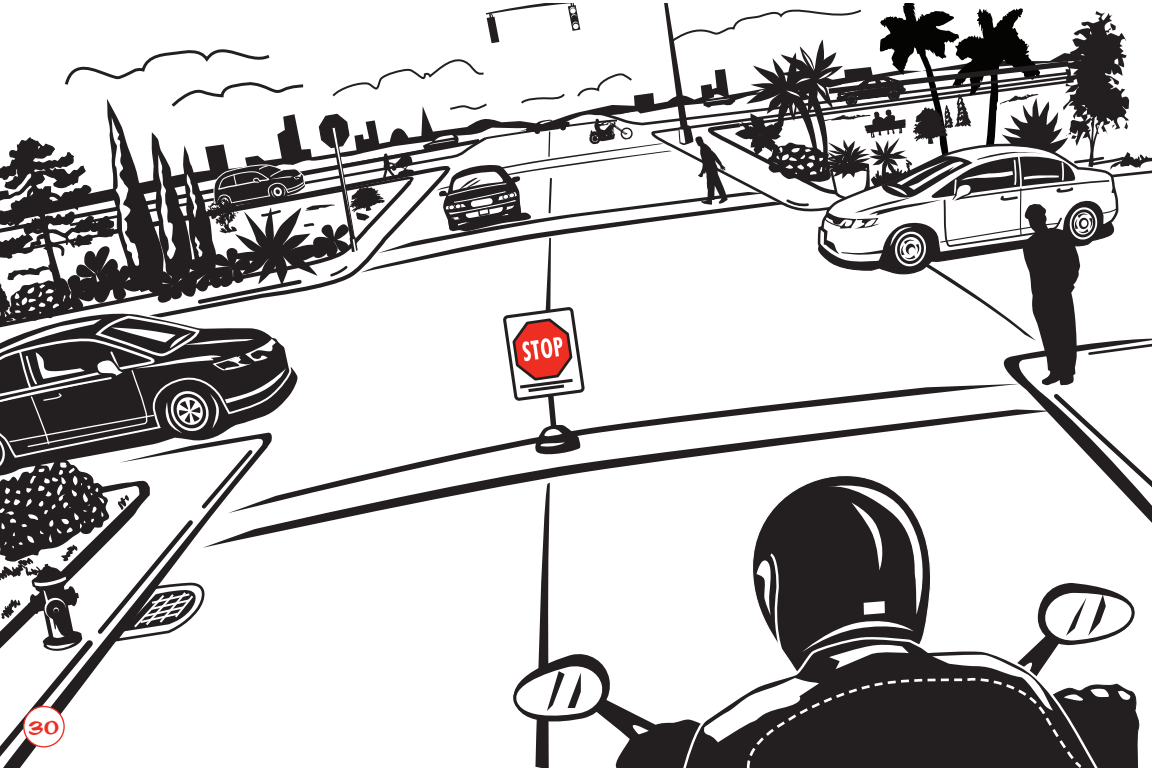
when the vehicle you are following goes by a phone pole, count "one-thousand-one, one-thousand-two" and if you pass the pole before finishing the count, you are too close! And don't count too fast!

And it's wise to adjust your gap in adverse conditions to three or four seconds. Use a reference-point technique to determine how many seconds you're following.



**LOOK AHEAD.
LOOK TO THE SIDE.
LOOK IN YOUR
MIRRORS.
LOOK OVER YOUR
SHOULDERS.**

KEEP LOOKING!



INTERSECTIONS

It probably surprises no one to know that **the majority of crashes involving collisions between a motorcycle and a car happen at intersections** – the most frequent situation being that of a vehicle turning left in front of a motorcyclist. And even though you may be slightly larger than a two-wheel motorcycle, it's still something to be aware of while riding your 3WMC.

Any intersection is potentially hazardous, whether it has stoplights, or stop signs, or is unmarked. And watch for vehicles backing out of alleys and driveways.

Always check for traffic coming from the side, left and/or right.

Check for traffic behind you, to make sure no one is about to run up your tailpipe!

PASSING OTHER VEHICLES

The technique for passing another vehicle is similar whether you are riding a motorcycle or driving a car.

First, before passing, you should be two (or more) seconds behind the vehicle you want to pass, and have positioned yourself in the left-hand portion of your lane.

From this position, you have to check oncoming traffic and the road to make sure you have enough distance to pass safely. Don't even think about overtaking if a corner or intersection is ahead.

If you have room ahead to make the pass, look in your mirrors, turn the signal on, and look over your shoulder. That head check is essential; somebody in a hot rod might have just pulled into your blind spot, intent on overtaking you. Always remember the head check.

Everything clear? Move into the left lane and pass the car/truck/buggy/ ... whatever. Do not crowd

close to the vehicle you are passing; you should be more or less in the center of the lane you are passing in. Get by this vehicle as quickly as possible without exceeding the speed limit. You might want to shift down a gear so you can accelerate more rapidly.

Before returning to your original lane, signal your intention and do a head check to make sure that there

CHECK YOURSELF: WHEN A CAR AHEAD PASSES A FIXED OBJECT—START COUNTING. YOU SHOULD PASS THE OBJECT IN NO LESS THAN —2 SECONDS!—



is enough room between you and the vehicle you just passed. Ever have someone speed up just after you've overtaken them? Hmmmmm!

Return to your lane, cancel your signal, and proceed merrily along ... with care. Continue to aggressively SEE.

NIGHT RIDING

Quite often you'll have to ride at night. After all, it is dark 50 percent of the time.

Dusk is a really bad time, when people's eyes are adjusting from daylight to headlights. Be especially careful with the sun low on the horizon and just after sunset.

Usually it is advisable to slow down a little when riding at night, especially on any sort of winding road.

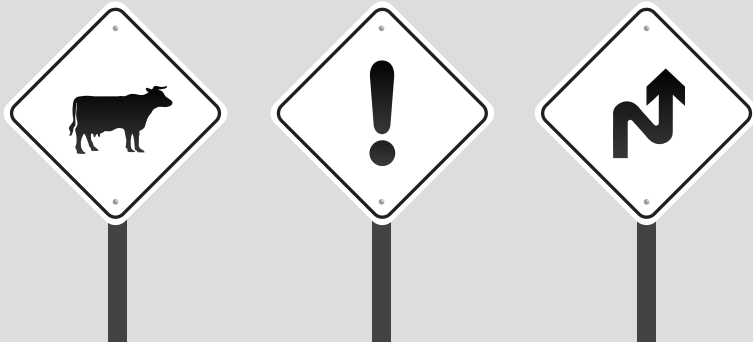
Use your own headlight and those of other traffic to keep an eye on the road surface. It is more difficult at night to see the patch of sand or something that fell out of a pickup.

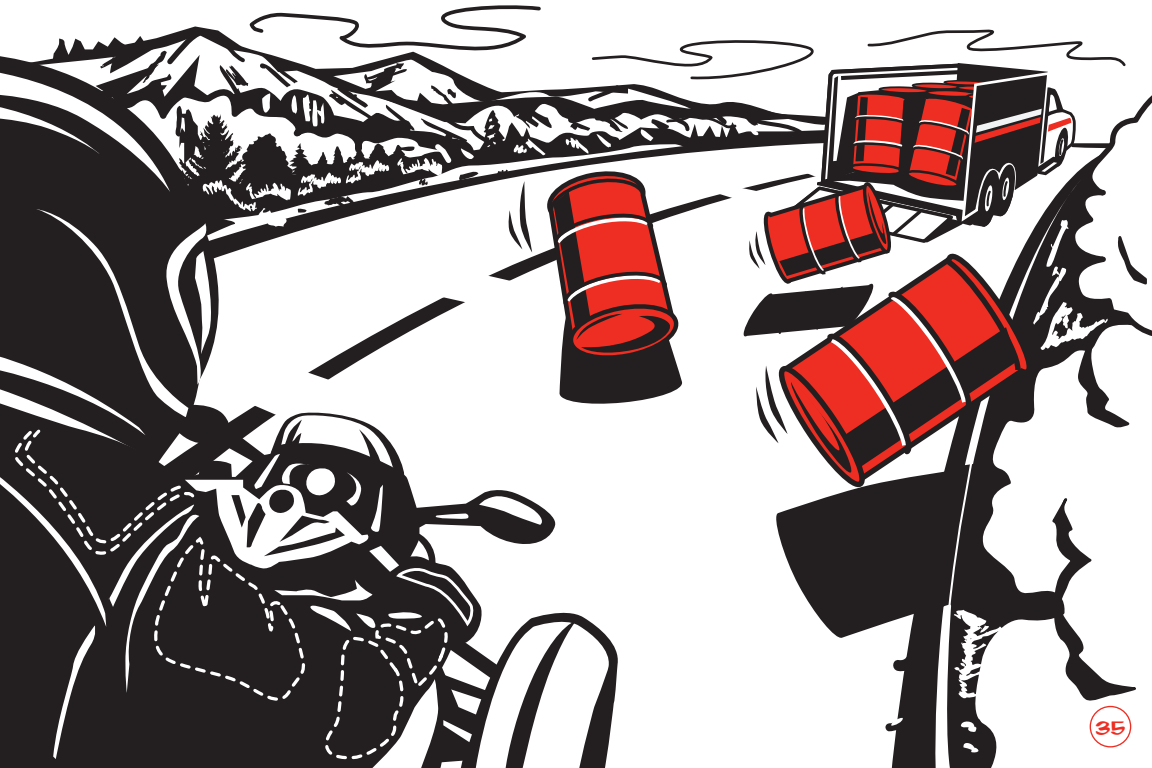
The distance between you and the vehicle in front becomes even more important at night. Give yourself more room to respond.

Wear a clear face shield without scratches. A scratched shield can create light refraction that might confuse you; two headlights can look like four, and you don't know who is coming from where. One of your biggest hazards at night may be someone who just finished a few hours of drinking. Be especially alert for drivers and vehicles doing odd things, like weaving in and out of traffic, and give them lots of room.

HANDLING SPECIAL SITUATIONS

In the best of all worlds the temperature would always be 78 degrees, the wind would be at our backs, and no emergencies would arise. Since it is a slightly imperfect world we live in, we should be prepared for whatever happens.





EMERGENCY BRAKING

Sometimes you have to stop as quickly as possible. Here are some tips on how to get you and your motorcycle halted pronto:

Apply both brakes to their maximum, just short of locking them up. Practice in an open, good-surfaced place, such as a clean parking lot.

Keep the 3TMC traveling in a straight line and look ahead, not down.

You don't want to lock the front brake because you'll skid and steering will be lost. If the wheel or wheels chirp, release the brake for a split second, then immediately reapply without locking it up.

If your rear wheel or wheels locks up, do not release the brake. If your handlebars are straight, you will skid in a straight line, which is usually all right. You have a more important priority and that is to get stopped! Read on and we will talk more about "skids."

BRAKING WHILE IN A CURVE

You should try to avoid this, but sometimes it might be necessary.

You can brake (with both brakes) while turning, but you must do it gradually and with less force than if the 3WMC is going straight.

For maximum braking efficiency in an emergency (when traffic and roadway conditions permit), get the 3WMC going straight; then brake hard.

COPING WITH A SKID

A skid – that's when your heart leaps up to your throat because your wheels have lost traction! You might hit a patch of sand on a mountain curve, or a puddle of oil or antifreeze as you're slowing for a stoplight.

In a highway-speed, sand-in-the-corner skid, steer slightly in the direction of the skid. Chances are you will clear the patch of sand, the tires will grip the pavement again, the bike will straighten, and you'll continue on your way.

Should you hit a slippery bit while you're braking for a stop sign, and one or more wheels lock up, you want to get those wheels rolling right away. Release the brakes for an instant, then reapply a little more gently. You want those tires to have traction.

At higher speeds, when traction is good and the rear wheel skids when braking hard, do not release the rear brake.



RIDING ACROSS POOR ROAD SURFACES

Here are a few simple rules you should follow when you anticipate coping with sand, mud, water or any loose surface or obstruction in the road:

- Downshift and slow before you reach the problem area.
- If there is traffic in the area, make sure that the drivers are aware you are slowing. Tap your brakes so the brake light flashes.
- Try to cross the bad surface in a straight line, or at least do not change direction or speed abruptly.
- If you have to cross over an obstacle in the road, like a 2x4 piece of wood, rise up off the seat a little if all of the tires will impact the obstacle. Remain seated if only one tire will impact the obstacle. In either case, hold the handgrips firmly, without locking your arms. Just before the front tire, or tires, will be crossing the obstacle, slightly roll on the throttle just before making contact. This will lighten the front end of the 3WMC. Remember to roll off the throttle just before the back tire(s) cross.
- If only one tire crosses the obstacle you may feel lots of side-to-side handlebar movement, especially on a dual-rear wheel 3WMC. This is normal and it should quickly stop after crossing the obstacle.



STEEL BRIDGE GRATINGS AND RAIN GROOVES

Steel-mesh bridges can be extremely unnerving. Keep an even throttle and the 3WMC straight. Don't grip the handlebars too hard. If there is a vibration in the handlebars, do not fight it. This is a natural feedback from your tires going over these thousands of little squares.

Some parts of the country have rain grooves in the highways. This is when the road surface, usually concrete, has several dozen grooves running lengthwise down each lane. The purpose of the grooves is to prevent cars and trucks from losing traction when it rains.

The reaction of the 3WMC to these grooves often has to do with the tread pattern on the tires. Sometimes it feels as though you're getting a flat tire, with a squishy back-and-forth sideways motion. Don't worry, just keep going straight. Don't fight the handlebars. There is nothing dangerous about these rain grooves – it just feels funny to ride on them.

RAIN

Haul out the raingear you've stowed in a handy spot. Make sure your rain gloves and rain boots fit properly. Poorly fitted ones can lessen your ability to brake and shift.

Be most cautious when it first starts to rain. That is when the water goes into all the dimples in the road, and the oil residue from passing vehicles floats to the top. That gets slippery! A wise motorcyclist will stop for a cup of coffee when it starts to rain; who knows, it could all be over in 15 minutes, and you won't even have to put on the rainsuit.

After a while the oil will be washed off to the side of the road. However, traction on a wet surface may not be as good as on a dry road. Be careful.



WIND

Strong winds can create problems for a rider. A constant 25-mph wind from the side can make for less-than-happy riding. Gusty wind is the worst. Keep the motorcycle on the side of the lane that the wind is coming from. This is in case a big blast moves you over a bit. Expect it and be ready to react.

***A WISE MOTORCYCLIST
WILL STOP FOR A CUP OF
COFFEE WHEN IT STARTS
TO RAIN; WHO KNOWS, IT
COULD ALL BE OVER IN
15 MINUTES***

ANIMALS

Dogs can create a problem. Most seem to have an urge to chase motorcycles. Those that don't chase often are known to blunder into the path of moving vehicles. Don't let one distract you and cause a spill.

Here are three rules:

#1

Slow down well before you reach the animal.

#2

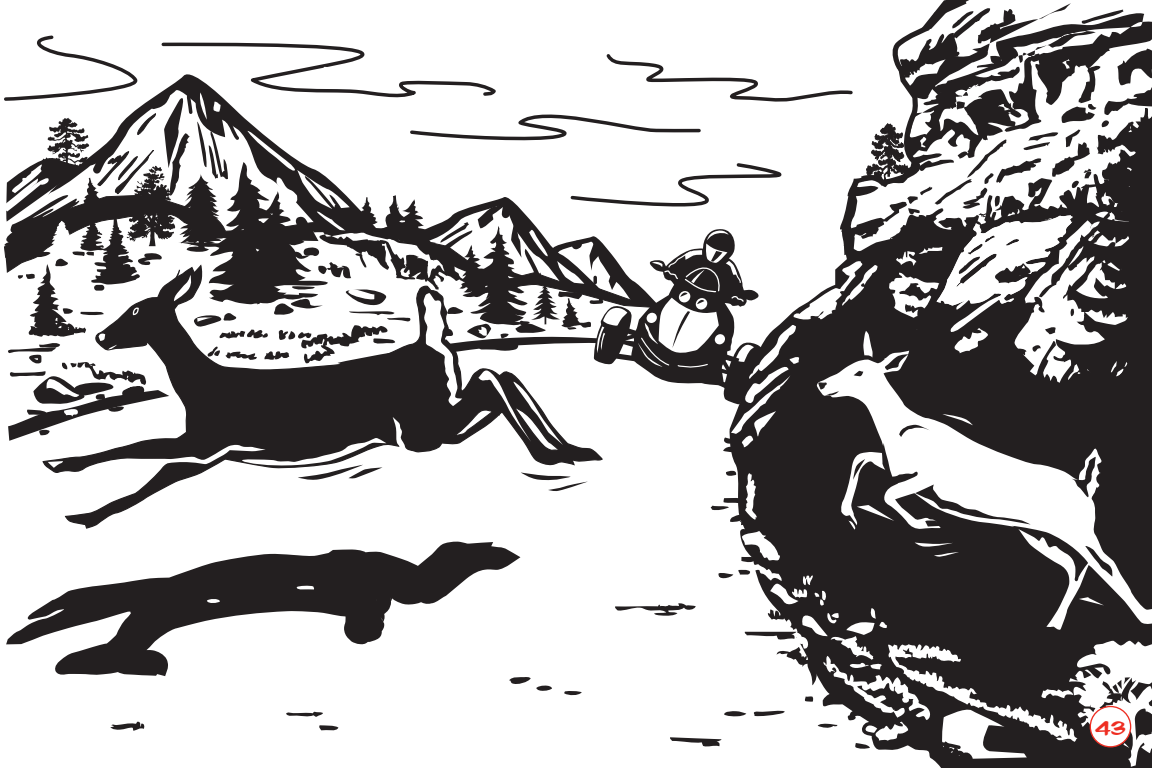
Do not – repeat – do not kick at the animal.

#3

If the animal looks like he's going to intercept you, speed up just as you are about to reach him. It will throw his timing off.

If a deer jumps out in front of you on a country road, but is far enough ahead not to be worried about – watch out for its mate. They tend to travel in pairs. Hitting a deer with a motorcycle is a tough way to put venison on the table.





EQUIPMENT FAILURES

If your motorcycle is properly maintained, you greatly reduce the possibility of any equipment failure. However, just in case ...

BLOWOUTS

If you run tires of good quality, keep them at the proper pressure, and change them when the tread is worn, the chances of having a blowout are small.

However, you must act quickly if it happens to you.

#1

Do not use the brakes; braking hard will only make things worse. If you must use some brake, apply gradual pressure to the brake on the good tire(s) and ease over to a safe spot to stop.

#2

Ease off on the throttle and slow down gradually; rapid deceleration could throw the bike out of control.

#3

Hold those handlebars firmly; a great shuddering may take place as the out-of-round tire flops against the pavement, but you are concerned only with keeping the front wheel(s) pointed where you want to go until you stop.

STUCK THROTTLE

Most riders have had bad dreams about this, but few have experienced the problem.

That is why all contemporary motorcycles have a cut-off switch by the right thumb. Just in case. Practice using the cut-off switch. Chances are you will never have a throttle stick, but if you do, you'll know how to deal with it.

As you hit the cut-off switch, squeeze the clutch (you will probably be in gear); then look for a safe place to coast to a stop.

BROKEN CLUTCH CABLE

Imagine you are cruising along in fifth gear; you want to shift down; you squeeze the clutch lever - and there is no return action. It just lies up against the handgrip.

No fun, but not dangerous. You can shift the bike without using the clutch lever. This is not advisable unless necessary, but it can be done. Back off on the throttle and shift down a gear.

If you have a sensitive foot, you can probably find neutral before coming to a complete stop. If not, get set for a jerky halt.

GROUP RIDING & PASSENGERS

As we said earlier, motorcycling is a sociable sport, so chances are very good you'll soon be riding with friends on their two and three wheel motorcycles, and have others who want to be passengers.

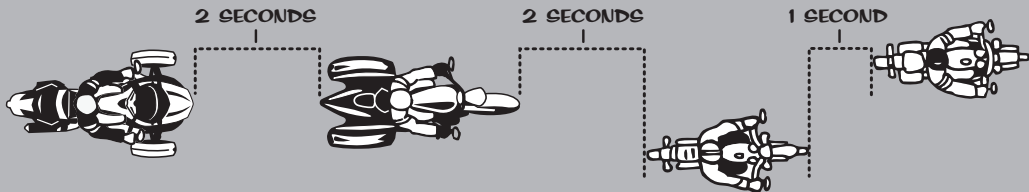
As with any sport, it's nice if the participants all have a safety minded attitude and general idea of what to do.

RIDING IN A GROUP

It is useful if, before taking off on a group ride, you get two or three hand signals organized among the participants: "let's stop; need gas; I'm hungry."

A few rules for the group:

- Riding in a group of more than five motorcycles, whether two or three wheel, can become confusing both for the group and other traffic around you. If there are too many people, break it up into smaller groups.
- Don't ride in a staggered formation like two wheel motorcycles use.
- Always keep at least a two-second following distance from the motorcycle directly in front of you.
- Pass other vehicles individually, when safe – not in pairs or groups.



CARRYING A PASSENGER

Company is always nice. Some company weighs 100 pounds, other company weighs 200 pounds.

Putting extra weight on the motorcycle will affect the handling. Adjust the suspension and tire pressures to compensate for the amount of company you've brought along. (Check your owner's manual.)

Also realize that your braking capabilities have changed; take that into account. You'll need to use additional pressure when using the brake controls.

Passengers should be instructed on the proper way to mount the 3WMC, and they should warn you before they climb on.

Passengers need the same protection that you do – proper clothing and helmet. Ten-foot scarves flapping in the wind may look dashing, but not on a motorcycle. You don't want shoe laces or loose pants legs catching on anything. Passengers should always straddle the bike with their feet securely planted on the footrests.

Show them where the hot things are – like header pipes



and mufflers. Caution passengers against making contact with the hot parts. Also, rubber soles can melt and leave a mess.

Instruct passengers to hold onto you at your waist or hips, or the 3WMC's hand-holds. Ask them to lean forward slightly when you leave from a stop or accelerate along the highway.

Also, when you brake, passengers should be firmly braced against your waist and should lean back slightly. You don't want their weight to shift forward.

LOADING YOUR 3-WHEEL MOTORCYCLE

Whether it is a carton of milk from the convenience store, or camping gear for a three-week trip, you will end up carrying more than people on your motorcycle.

All loads should be either inside storage compartments or tied to the machine. Do not balance a bag of groceries between your legs for a short ride home. Put it in a storage compartment or strap it to the back seat with an elasticized cargo net.

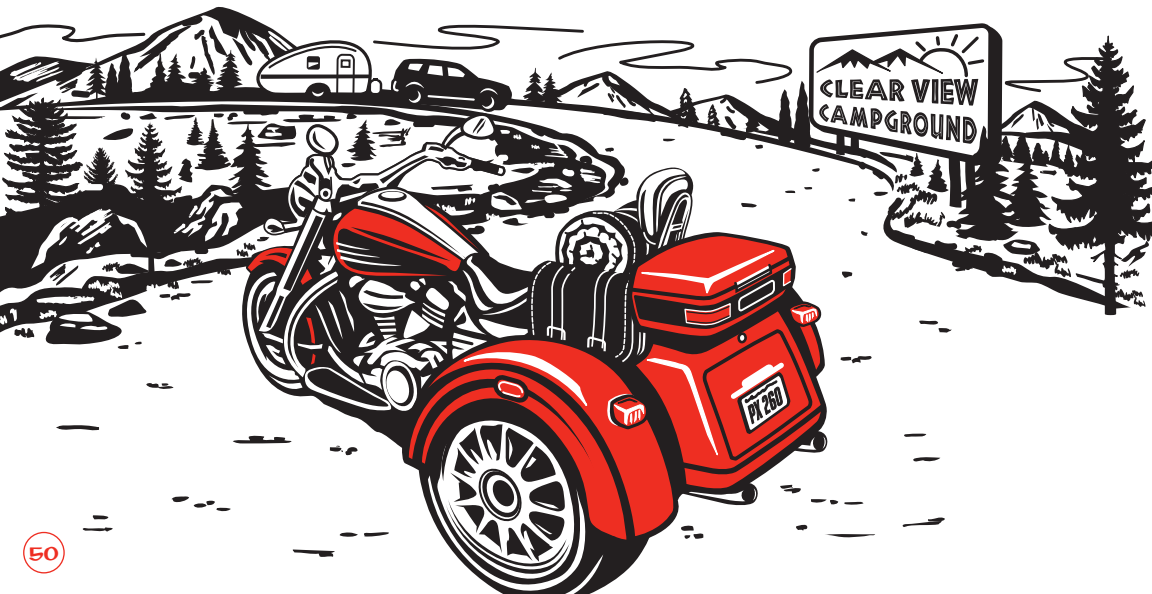
A great carrying device is the tank bag. It puts the weight where it should be – near the bike's center of gravity. Make sure it is properly secured and remember never to carry anything on the gas tank or inside the fairing that might interfere with the steering of the bike. Just imagine what happens if the bars won't turn far enough – big trouble.

There are appropriate places to carry loads on a 3WMC – use them accordingly per owner's manual recommendations.

When you load your 3WMC, keep equal weight on both sides.

Check the security of the load frequently, and make sure nothing is dangling. It is one thing to lose part of your luggage, quite another to get it tangled up in a wheel.

Above all, DO NOT EXCEED THE GVWR (Gross Vehicle Weight Rating) of your motorcycle! You might find that figure on the plate attached to the steering head; sometimes it is found on the frame; but the best place to look is in the owner's manual. It is written in pounds, and it includes the weight of the motorcycle, all gasoline, oil and coolant, the rider(s), and the luggage.



DRUGS, DRINKING & RIDING

We kid you not. Mixing alcohol and drugs and motorcycles is like putting nitro with glycerine: there's a dangerous reaction.

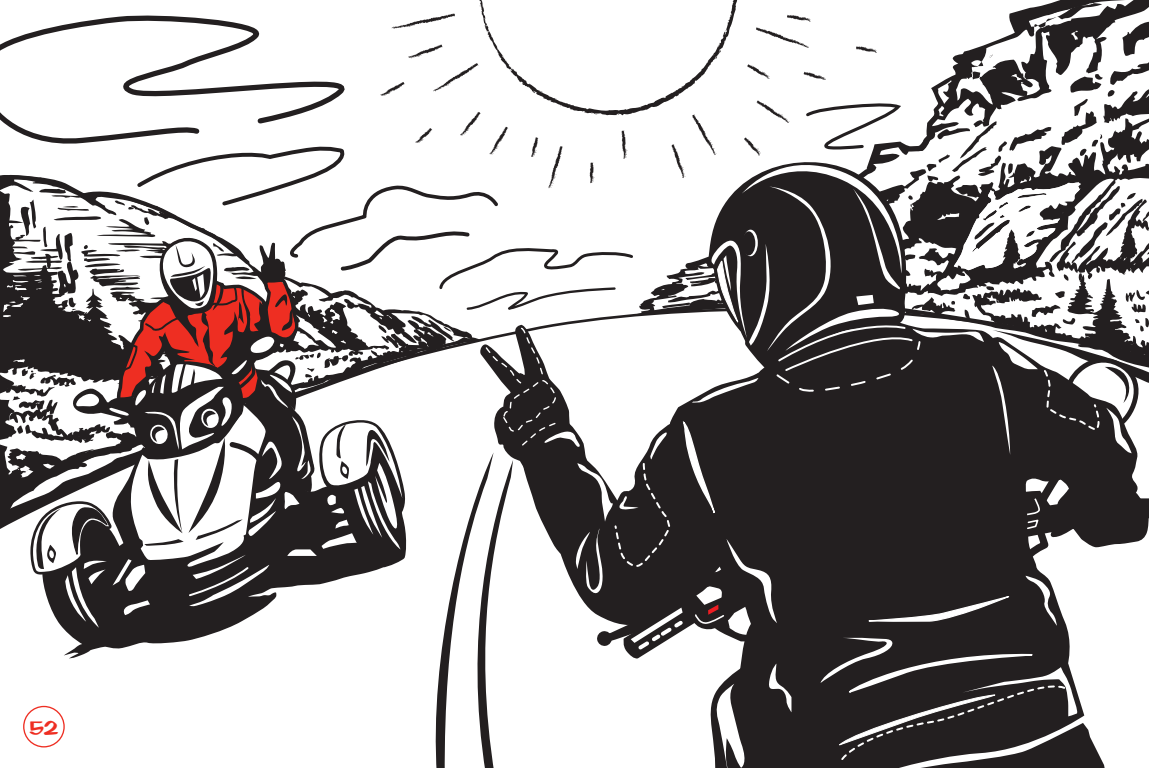
Alcohol is a depressant. The first thing to go is your judgment – and good judgment is essential. Bad judgment gets you into trouble. Drinking riders tend to run off the road more often, have a high percentage of rider error, and use excessive speed for conditions around them. Those are the statistics – and that spells trouble.

It takes a long time for the effects of alcohol to be cleared from your body, roughly one hour for each bottle of beer, glass of wine, or shot of liquor. Nothing but time will shed that alcohol – not showers, coffee, or other so-called remedies.



Have a couple of beers if you wish, but have them at home. Then you don't have to go anywhere afterward. If you are going to drink, don't even think about riding.

Alcohol is not the only drug that affects your ability to ride safely. Whether it is an over-the-counter, prescription, or illegal drug, it may have side effects that increase the risks of riding. Even common cold medicines could make you drowsy – too drowsy to ride – and mixing alcohol and drugs is even more dangerous than using either alone.



CONCLUSION

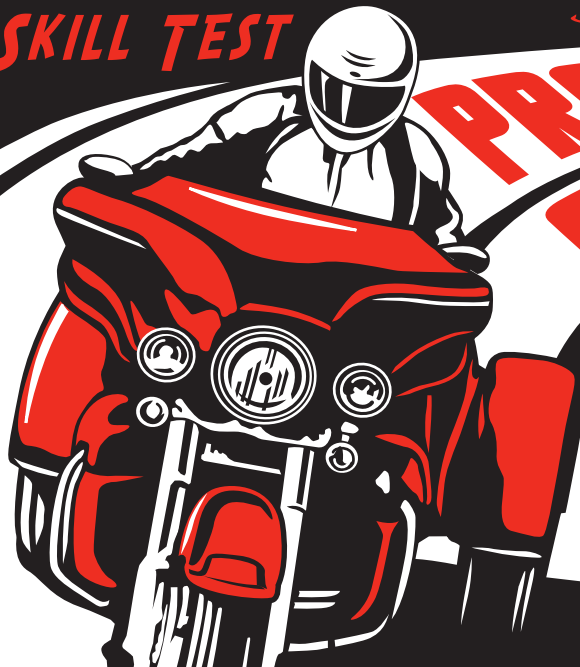
There is no conclusion.
Motorcycling is a constant
learning experience.

You'll never know all there is to know about riding. But a year from now, you'll know a lot more than you know now — and 10 years from now; 50 years from now. Go forth, have a good time, don't do anything foolish, and we'll see you on the road. It's going to be a great ride!

3 WHEELER

SKILL TEST

**PRACTICE
GUIDE**



MSF
MOTORCYCLE
SAFETY FOUNDATION®

INTRODUCTION

This booklet describes several exercises that you can practice by yourself or with a friend. The exercises will help you develop the skills you need to pass your state's licensing skill test.* The proper execution of these exercises will also help prepare you for various traffic situations.

Do not attempt these exercises unless you can already perform basic skills such as using the clutch and throttle correctly, shifting, and braking. If you do not have these basic skills, be sure to seek instruction before practicing the skills in this guide. Of course, the best place to learn to ride is in a quality rider education program.

- Read the entire guide before you practice.
- Take the guide with you for reference when you practice.
- Keep practicing until you can do each exercise without a problem. Do not practice for more than one or two hours at a time. When you get tired, you cannot practice effectively.

*Contact your local licensing agency for exact layout of the skill test in your jurisdiction.

***INSTRUCTION MAY BE AVAILABLE
NEAR YOU. CALL THE NATIONAL
TOLL-FREE NUMBER,***

(800) 446-9227

***TO GET THE PHONE NUMBER OF THE
CLOSEST TRAINING SITE.
NOT ALL SITES OFFER
THE 3-WHEEL BASIC RIDERCOURSE.***



CHOOSING A PRACTICE AREA

A well-marked parking lot is the best practice area. Be aware, however, of oil left by parked cars. Look for parking lots that are not used all the time at shopping centers, schools, churches or community centers. For instance, you might use a school lot in the evening hours, or a shopping center early in the morning.

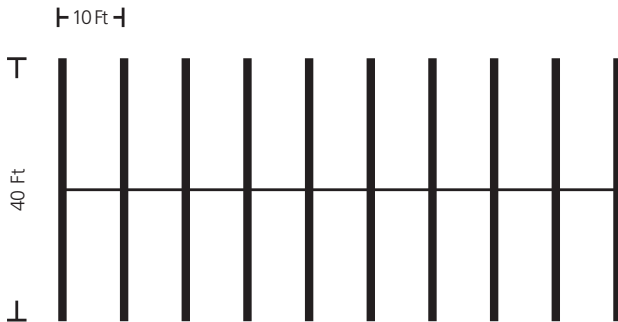
Once you've selected a suitable location, it's important to gain permission from the owner.

Keep this basic parking lot diagram in mind when setting up the exercises.

If the parking lot you choose doesn't have lines, use the dimensions diagrammed here. Mark them using a tape measure and chalk.

Traffic is your greatest concern.

Make sure you check to the front, sides and rear before doing an exercise. Also, make sure you watch out for children and animals and be considerate of others in the area.



SAFETY PRECAUTIONS

The practice exercises are not dangerous. However, a few safety precautions should be followed:

- Wear proper protective clothing that includes: helmet, eye protection, gloves, boots or shoes that cover the ankles, long pants, and long-sleeved shirt or jacket.
- Inspect the 3WMC for defects before you start. If you are not familiar with the inspection procedures for your 3WMC, check the owner's manual.
- Check the practice area for loose gravel, glass, oil left by parked cars, or other things that could be a problem.
- If possible, take a friend along to:
 - A. Watch out for traffic.
 - B. Help you if anything goes wrong.

The procedures in this section are generally based on 3WMCs with manual transmissions and separate front and rear brakes. You may need to modify your techniques depending on the characteristics of your 3WMC (automatic transmission, linked brakes, anti-lock brakes, etc.).

WHAT TO BRING

Bring 6 small objects that you can use as markers. Milk cartons or plastic bottles with a little water or sand in the bottom work well. Do not leave them at the practice area when you leave. If you cannot find any small objects, bring some chalk to draw markers on the pavement.

EXERCISE 1

NORMAL STOP IN A STRAIGHT LINE

Practicing this exercise will help you stop smoothly, such as for stoplights and stop signs.

DIRECTIONS

Accelerate straight ahead across the parking lot between 15-20 mph (shift to second gear). Begin to slow down and downshift at the first marker.

Try to come to a smooth non-skidding stop with your front tire next to the last marker.

COACHING TIPS

- Keep head and eyes up.
- Keep the motorcycle on a straight course.
- Gradually apply both brakes and squeeze the clutch lever, downshifting to first gear at the same time. Keep the clutch squeezed in.
- Do not release the front and rear brakes until you come to a complete stop.



COMMON PROBLEMS

1. Rear tire skids.
2. Overshooting marker.

BASIC CORRECTIONS

1. Apply less pressure on the rear brake.
2. Begin slowing and braking sooner, or try slightly more pressure on the brakes. Keep head and eyes up during stop.

EXERCISE 2

QUICK STOP IN A STRAIGHT LINE

Practicing this exercise will help you stop quickly when something suddenly appears in your path.

DIRECTIONS

Approach marker 1, upshifting to second gear. As your front tire passes marker 1, downshift and begin braking. Try to stop before marker 2. Practice this at 10 mph, then 15 mph, then 20 mph. Do not exceed 20 mph.

COACHING TIPS

- Keep head and eyes up.
- When stopping, apply both brakes and squeeze the clutch, downshifting to first gear. Keep the clutch squeezed in.
- Keep handlebars straight. Squeeze front brake – don't grab.
- Do not release brakes until fully stopped.



COMMON PROBLEMS

1. Overshooting the final marker.
2. Front tire(s) skid.
3. Rear tire(s) skid.
4. Engine overrevs when using the front brake.

BASIC CORRECTIONS

1. Apply more pressure to brakes; however, avoid locking front brake by squeezing, not grabbing, the lever.
2. Use less pressure on front brake lever.
3. Use less pressure on rear brake pedal.
4. Close the throttle before braking. Squeeze the front brake with all four fingers. Avoid pulling back on the throttle when applying pressure to the front brake.

EXERCISE 3

WEAVES

Practicing this exercise will help you in making lane changes in traffic or changes in direction.

DIRECTIONS

Drill 1: 40-foot Weave – Begin at one end of the parking lot lines or markers. Go to the right of the first marker, left of the second, right of the third, and so on. Practice this at 15 mph.

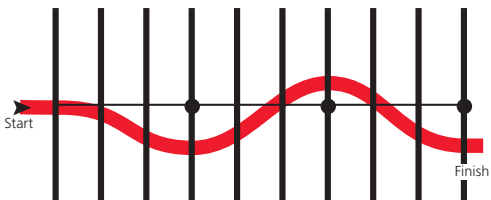
Drill 2: 30-foot Weave – Proceed the same as you did in the 40-foot weave. Practice this at 15 mph.

COACHING TIPS

- Keep head and eyes up and knees in.
- Weave or change direction by pushing and pulling the handgrips. To change direction to the right, pull on the right handgrip and push on the left handgrip; to go left, pull on the left handgrip and push on the right handgrip.
- Slightly twist your upper body to help you turn the handlebar.
- Maintain a steady speed.
- Do not brake while performing weave.



Drill 1: 40-foot Weave



Drill 2: 30-foot Weave

COMMON PROBLEMS

1. Swinging too wide away from markers.
2. Hitting markers.

BASIC CORRECTIONS

1. Slow down. Keep eyes up, looking in the direction you want to go. Turn handlebar more sharply.
2. Slow down and make wider turns.

EXERCISE 4

BASIC TURNS

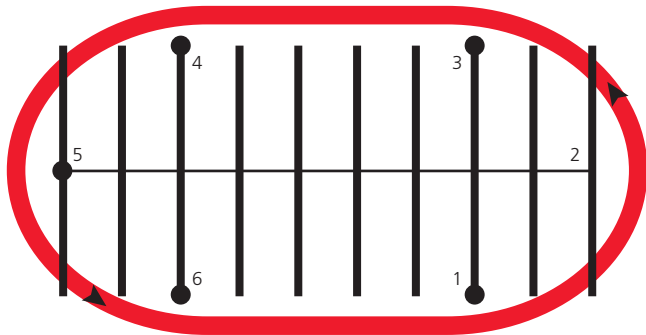
Practicing this exercise will help you with turning such as in curves on highways and winding roads.

DIRECTIONS

Ride around the oval indicated by markers 1, 2, 3, 4, 5 and 6. Set your speed for the corners by braking as necessary before the turn. Hold a smooth throttle around the markers at the ends of the oval. Repeat the exercise in the other direction.

COACHING TIPS

- Beginning speed of 10-15 mph.
- Slow down before the turn. Brake if necessary.
- Look through the turn to where you want to go. Leaning your upper body slightly towards the turn may make turning more comfortable.
- Hold a steady speed or roll on the throttle gently through the turn.



COMMON PROBLEMS

1. Swinging wide of the turn.
2. Cutting corner too close or turning too sharply.
3. Exiting wide out of the turn, making the oval into a circle.

BASIC CORRECTIONS

1. Look to the exit point. Turn the handlebar more sharply.
2. Look to the exit point. Do not look down. Keep a smooth throttle.
3. Slow more before the turn. Look where you want to go.

EXERCISE 5

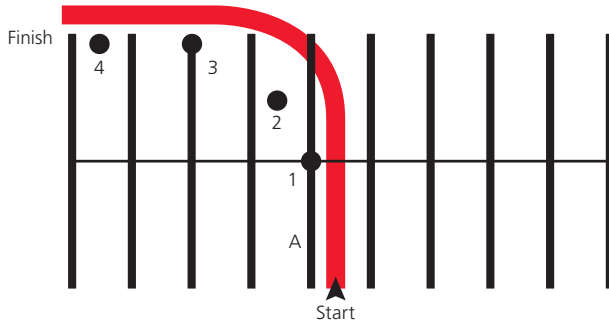
NORMAL TURNS

DIRECTIONS

Start, facing marker 1 at a distance sufficient enough to increase speed to 15-20 mph. At point "A," reduce speed, using both brakes. As you start your turn at marker 1, look to the exit point and smoothly use the throttle throughout the turn. Roll on past marker 3 and stop beyond marker 4. Practice turning in both directions

COACHING TIPS

- Slow down before the turn using both brakes. (Before marker 1.)
- Look through the turn to the exit.



COMMON PROBLEMS

1. Swinging wide of the turn.
2. Cutting corner too close or turning too sharply.

BASIC CORRECTIONS

1. Slow down more before entering the turn, look to the exit point.
2. Keep head and eyes up. Do not look down. Look to the exit point. Turn the handlebars less.

EXERCISE 6A

SHARP TURNS WITHOUT STOPPING

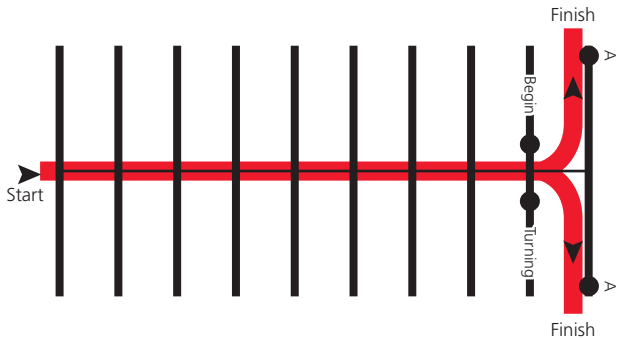
Practicing this exercise will help you to make sharp turns such as pulling out of parking spaces or driveways, and turning into a driveway or onto a narrow street.

DIRECTIONS

Begin riding straight across the parking lot, increasing speed to approximately 10 mph. Just before reaching the "Begin Turning" markers, slow down and use both brakes to adjust your speed. Then release the brakes, turn the handlebars, turn your head and look through the intended path of travel. Use controlled clutch lever release and a steady throttle as you make the sharp turn. Practice finishing your turn inside line "A," without touching it.

COACHING TIPS

- Use both brakes to reduce speed before the turn.
- Keep head and eyes up; look through the turn.
- Turn the handlebars in the direction of the turn.
- Use smooth clutch release and throttle as you exit.



COMMON PROBLEMS

1. Turning too short or too long.
2. 3WMC stalls.
3. Traveling too fast to make turn.

BASIC CORRECTIONS

1. Keep head and eyes up and look through the turn.
2. Use clutch lever and throttle smoothly to maintain necessary power to rear wheel.
3. Slow adequately with both brakes before turning.

EXERCISE 6B

SHARP TURNS FROM A STOP

Practicing this exercise properly will help you make sharp turns from a stop such as exiting a parking lot or turning into a narrow street.

DIRECTIONS

Start at “Begin Turning” markers with the 3WMC straight. Turn the handlebars, lean your upper body slightly in the direction you are turning, and turn your head to look through the intended path of travel. Use controlled clutch lever release and throttle as you make the sharp turn.

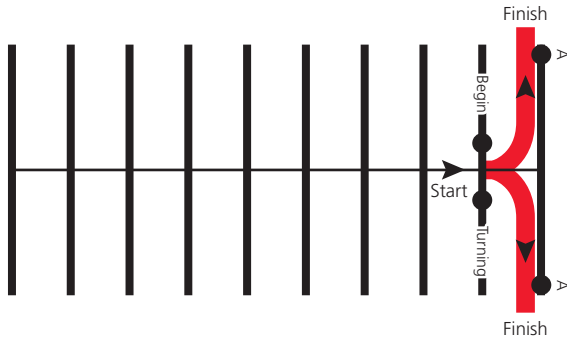
Finish your turn as close to line “A” as you can without touching it.

COACHING TIPS

Keep head and eyes up; look through the turn.

Turn the handlebars and your upper body in the direction of the turn.

Use smooth clutch lever release and throttle as you exit.



COMMON PROBLEMS

1. Turning too short or too long.
2. 3WMC stalls.

BASIC CORRECTIONS

1. Keep head and eyes up and look through the turn.
2. Use clutch lever and throttle smoothly to maintain necessary power to rear wheel.

EXERCISE 7

OBSTACLE SWERVE

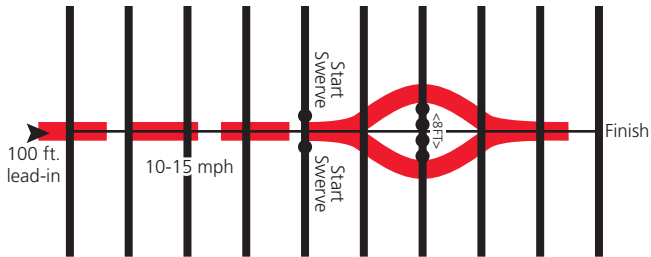
Practicing this exercise will help you swerve to avoid a potential hazard.

DIRECTIONS

With about 100' lead-in, approach the first pair of markers. As you reach the markers you should be going 10-15 mph. As your front tire(s) passes the first pair of markers, make a swerve (right or left) avoiding the imaginary barrier or obstacle. Make sure you've decided on which direction you intend to go before starting the exercise. Do not stop or apply brakes while performing the swerve.

COACHING TIPS

- To swerve right, steer right until you have cleared the markers, then steer left to resume straight ahead.
- Keep head and eyes up and knees in against the tank.
- Use your upper body to assist in turning the handlebar.
- Do not brake and swerve at the same time.



COMMON PROBLEM

1. Unable to properly complete the swerve.

BASIC CORRECTION

1. Keep a steady speed. Maintain turning pressure on the handlebar until you have cleared the marker, then steer in the opposite direction to straighten into the new path.

EXERCISE 8

NORMAL STOP ON A CURVE

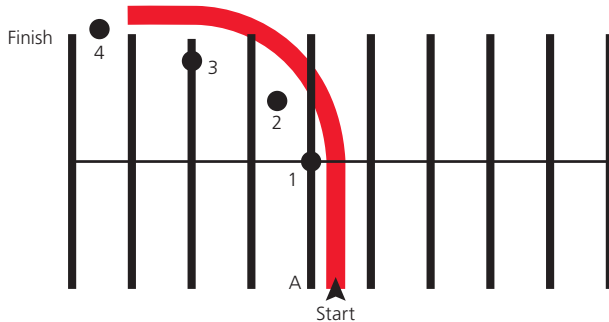
Practicing this exercise will help you stop smoothly in a curve.

DIRECTIONS

Ride to the outside of line "A," upshifting to second gear. As you reach marker 1, turn in the curved path indicated by markers 2, 3, and 4. Once you enter the curved path, gradually apply both brakes and downshift. Do not release the clutch. Try to come to a smooth stop with your front tire next to marker 3. Practice this at 10 mph, then at 15 mph.

COACHING TIPS

- Keep head and eyes up; focus on where you want to go.
- Square the handlebars before you stop completely.
- Use both brakes smoothly to stop.
- When stopped you should be in first gear.
- Do not grab the front brakes or skid either tire.



COMMON PROBLEM

1. Overshooting the final marker.
2. Rear wheel skids.

BASIC CORRECTION

1. Gradually apply more pressure to the brakes as motorcycle straightens more
2. Apply less pressure on the rear brake pedal and make sure the front tire(s) is straight as you stop.

EXERCISE 9

QUICK STOP ON A CURVE

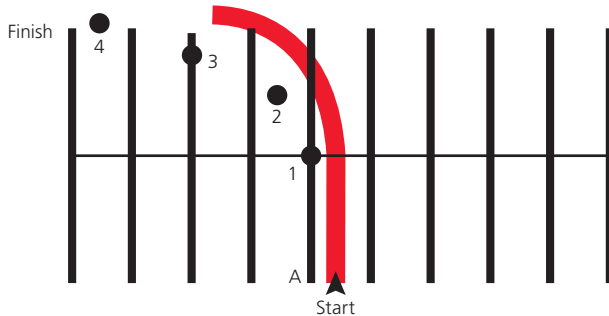
Practicing this exercise will help you stop quickly when something suddenly appears in your path on a curve.

DIRECTIONS

Ride to the outside of line "A." Start, facing marker 1 at a distance sufficient enough to increase speed to 10-15 mph in first gear. As you reach marker 1, turn in the curved path indicated by markers, 2, 3, and 4. When your front tire passes marker 2, first straighten the motorcycle, then begin braking. You should be stopped before marker 3. Practice this at 10 mph, then 15 mph. Do not exceed 15 mph.

COACHING TIPS

- Keep head and eyes up; focus on where you want to go.
- Straighten motorcycle, then apply both brakes, stopping as quickly as possible.
- Do not grab the front brakes or skid either tire.



COMMON PROBLEM

1. Overshooting the final marker.
2. Rear wheel skids.

BASIC CORRECTION

1. Apply maximum pressure to the brakes once motorcycle is straightened.
2. Apply less pressure on the rear brake pedal and make sure the motorcycle is straight as you stop.

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For more information contact:

Motorcycle Safety Foundation

2 Jenner, Suite 150 • Irvine, California 92618-3806

(949) 727-3227 • www.msf-usa.org

For the rider training location nearest you call: (800) 446-9227

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