



## Tire Maintenance Information

Record important tire care information in the space below. Keep in a safe place.

Vehicle year/Make/Model	<input type="text"/>
Tire installation date	<input type="text"/>
Odometer reading	<input type="text"/>
Tire name	<input type="text"/>
Tire size	<input type="text"/>

## Recommended Inflation

Front	<input type="text"/>
Rear	<input type="text"/>

## Rotation Schedule

If mileage is not specified by vehicle manufacturer, rotate tires every 10,000 kilometers.

Date	<input type="text"/>	Odometer	<input type="text"/>
Date	<input type="text"/>	Odometer	<input type="text"/>
Date	<input type="text"/>	Odometer	<input type="text"/>
Date	<input type="text"/>	Odometer	<input type="text"/>
Date	<input type="text"/>	Odometer	<input type="text"/>
Date	<input type="text"/>	Odometer	<input type="text"/>
Date	<input type="text"/>	Odometer	<input type="text"/>

**Consumer Care**  
1-888-871-4444  
www.michelinman.ca

# Owner's Manual

Effective September 1<sup>st</sup>, 2010



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**PLEASE RETURN TO:**

**MICHELIN NORTH AMERICA (CANADA) INC.**  
3020 Jacques-Bureau Avenue  
Laval, Quebec H7P 6G2

**LIMITED TREADWEAR WARRANTY**

To validate the mileage portion of the warranty, your tires must be inspected, rotated if necessary and inflation pressure set as recommended on the vehicle placard.

**MICHELIN® Tires Service Record**

Please ensure that your MICHELIN® tires retailer fills in the information below at each service interval.

Date of rotation	Odometer reading	Retailer name/Address	Retailer signature	Pressure

Owner certification — I hereby certify that these services were performed as indicated and that I am the owner of the tires and vehicle on which they were originally installed.

Customer signature \_\_\_\_\_ Date \_\_\_\_\_

Rotating your tires maximizes tire life

# The Right Tire Changes Everything™

No matter what you drive, there's a MICHELIN® tire that delivers everything you want.

Whether you drive a passenger car, SUV, minivan or light truck, you'll enjoy the ride more on a set of MICHELIN® tires.

Michelin demonstrates time and again that tire selection goes a long way toward enhancing the driving experience.

MICHELIN® tires can provide drivers with unsurpassed comfort, fuel savings and safety. Year after year. Mile after mile. Look to MICHELIN® tires for outstanding fuel economy, excellent stopping distances and exceptional tread life. Next time you need tires, ask for MICHELIN®. Because the right tire changes everything.

Safety. Performance. Fuel efficiency.  
Today's driver demands MICHELIN® tires.



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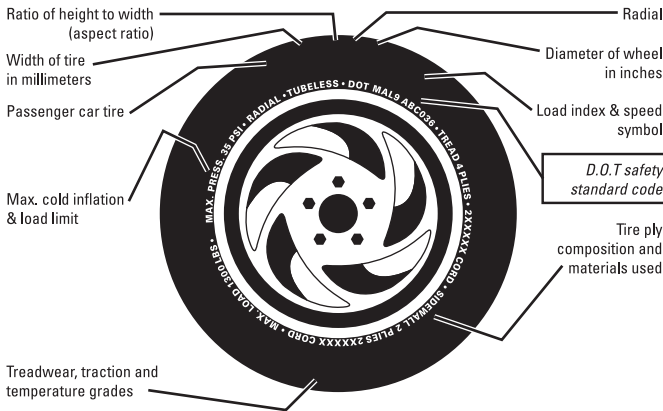
**WARRANTY REGISTRATION**  
 (to be completed at the time of purchase)

Please keep in your files for futur reference.

Retailer name	
Address	
City	
Province	Postal code

*Tire 1 - Serial # (D.O.T.)					
*Tire 2 - Serial # (D.O.T.)					
*Tire 3 - Serial # (D.O.T.)					
*Tire 4 - Serial # (D.O.T.)					
*Tire 5 - Serial # (D.O.T.)					

Tire size and name	
Vehicle make	Vehicle model
Model year	Approximate odometer reading (in kilometers) <input type="checkbox"/> 0 - 19,999 <input type="checkbox"/> 20,000 - 39,999 <input type="checkbox"/> 40,000 - 59,000 <input type="checkbox"/> 60,000 - 79,999 <input type="checkbox"/> 80,000 - 99,000 <input type="checkbox"/> Over 100,000
Date of purchase	



**REGISTER YOUR TIRES ON THE INTERNET AT**  
**[michelinman.ca](http://michelinman.ca) OR SEND US YOUR**  
**TIRE REGISTRATION CARD BY MAIL**

Fields marked with an asterisk (\*) are required.

*Purchaser name (Please print) <input type="checkbox"/> Mr. <input type="checkbox"/> Ms.	
*Address	
*City	
*Province	*Postal code
Email	

Retailer name	
Address	
City	
Province	Postal code

*Tire 1 - Serial # (D.O.T.)					
*Tire 2 - Serial # (D.O.T.)					
*Tire 3 - Serial # (D.O.T.)					
*Tire 4 - Serial # (D.O.T.)					
*Tire 5 - Serial # (D.O.T.)					

Privacy protection is important to Michelin. We refer you to our privacy policy posted on our web site at [www.michelinman.ca](http://www.michelinman.ca) for more information or contact our Consumer Care department at 1-888-871-4444.

**Federal Law and Regulations require your tire identification numbers to be registered. Please complete and return to Michelin.**



## **THANK YOU FOR BUYING MICHELIN® TIRES!**

With proper maintenance and care, we are sure you will enjoy driving on your new MICHELIN® tires safely for a long, long time.

As a valued customer, you are entitled to MICHELIN®'s Quality Warranty.

Some tires may also be covered by a Limited Treadwear Warranty (see page 3).

## **ABOUT THIS WARRANTY**

As the original purchaser of a MICHELIN® brand passenger or light truck tire, you are covered by all the benefits and conditions (subject to the maintenance recommendations and safety warnings) contained in this booklet. To ensure your understanding of and compliance with the terms and conditions of this warranty, please read it carefully. It is essential that you also read and understand the safety and maintenance recommendations for tires beginning on page 5.

## **WHO IS COVERED**

The owner of a MICHELIN®\* passenger or light truck tire bearing the MICHELIN® name and complete identification number (DOT).

## **HOW TO MAKE A CLAIM**

If you ever have to make a claim under one of these warranties, you must present the tire to an authorized MICHELIN® retailer along with this booklet and the original invoice. The vehicle on which the tire was used should be available for inspection. It is essential that you read and understand the safety and maintenance recommendations contained herein.

\*Original equipment tires do not have a Limited Treadwear Warranty. Moreover, non-conforming road hazard repairs, as per RMA (Rubber Manufacturers Association) guidelines may void the quality warranty.

## EXCLUSIONS

### All tires that become unusable due to:

- Road hazard injury (e.g., a cut, snag, bruise, impact damage or puncture, repairable or not).
- Incorrect mounting of the tire, tire/wheel imbalance, damaged rim or other abuse.
- Underinflation/overinflation, improper maintenance or other abuse.
- Vehicle mechanical problems such as wheel misalignment resulting in uneven or rapid wear.
- Accident, fire, chemical corrosion, vandalism, tire alteration.
- Commercial use of tires mileage warranties.
- Ride disturbance adjustments after the first 12 months from date of purchase or more than 25% of treadwear.
- Ozone or weather checking.

## CONDITIONS AND LIMITATIONS

To the extent permitted by law, these warranties do not provide compensation for loss of time, loss of use of vehicle, inconvenience or consequential damages. It limits the total indemnity with respect to each tire to the cost thereof.

Tires presented for commercial adjustments remain the property of the consumer and Michelin accepts no responsibility for loss or damage to tires which are in the custody or control of an authorized MICHELIN® retailer for the purpose of inspection for warranty adjustment. In the event of a disputed claim, the consumer must make the tire available for further inspection.

No Michelin representative, employee or retailer has the authority to make or imply any representation, promise or agreement which in any way varies from the terms of these warranties. Quality & workmanship warranty is applicable in Canada and the United States.

## CONSUMER RIGHTS

These warranties give you specific legal rights, and you may also have other rights which vary from province to province.

All warranties offered in the present manual are for the exclusive benefit of the original owner and are not transferable.

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## 6-YEAR QUALITY WARRANTY

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MICHELIN® passenger and light truck tires used in normal service on the vehicle on which they were originally fitted are covered against defects in workmanship and materials for the life of the original usable tread or six years from the date of purchase, whichever comes first. The usable tread is the original tread down to the level of the treadwear indicators — 1.6 mm (2/32") of tread remaining. Date of purchase is documented by the tire sales invoice. In the absence of proof of purchase, coverage will be based on the manufactured date.

## WHAT MICHELIN WILL DO

A tire which becomes unserviceable due to a condition covered by this warranty will be replaced with a comparable new MICHELIN® tire, free of charge (including mounting and balancing), when 1.6 mm (2/32") or less of the original tread is worn (or 25% or less, whichever is most beneficial to the user) and within 12 months of the date of purchase. However, the cost of any other service charges or applicable taxes are payable by the user.

If the above conditions are not met, the user must pay the cost of a comparable new MICHELIN® passenger or light truck tire on a pro rata basis. The retailer shall determine the charge by multiplying the percentage of the original usable tread worn by the price in the current MICHELIN® base price book. The cost of mounting, balancing and any other service charges or applicable taxes are payable by the user.

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## MICHELIN® LIMITED TREADWEAR WARRANTY (in Canada only)

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If you are the owner of a MICHELIN® branded tire which is covered by the MICHELIN® Limited Treadwear Warranty; and if one of these MICHELIN® tires, purchased at an authorized MICHELIN® retailer, wears evenly across the tread, down to the treadwear indicators (1.6 mm (2/32") tread remaining) before providing the warranted kilometers of service as indicated by the vehicle's odometer, and within six years from the date of purchase, it will be replaced with a comparable new MICHELIN® tire at a pro rata charge based on mileage obtained.

The retailer will establish the amount to be paid by multiplying the current MICHELIN® tires base price by the percentage of travelled kilometers in relation to the warranty.

Mounting, balancing and all relevant costs, as well as all applicable taxes, will be at the user's expense. To obtain maximum tire life and even wear, tires should be rotated. Refer to your vehicle's owner manual for instructions.

**For further details, please contact our Consumer Care department at 1-888-871-4444.**

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## MICHELIN® X-Ice® Xi2™ & Latitude® X-Ice® Xi2™ 60,000 km Limited Treadwear Warranty

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### WHO IS COVERED

The original purchaser of a MICHELIN® X-Ice® Xi2™ & Latitude® X-Ice® Xi2™ (MICHELIN® X-Ice® Xi2™) winter tires bearing a complete tire identification (DOT) number, purchased in Canada on or after September 1<sup>st</sup>, 2010.

### WHAT IS COVERED AND FOR HOW LONG

In addition to its Material and Workmanship Limited Warranty, the MICHELIN® X-Ice® Xi2™ winter tire is covered under a 60,000 km Limited Treadwear Warranty for five years<sup>1</sup> from the date of purchase.

### TERMS AND CONDITIONS

- Tires must be purchased in Canada.
- Tires must be used during winter months only<sup>2</sup>. MICHELIN® X-Ice® Xi2™ winter tires used all-year round are excluded from this Treadwear Warranty<sup>3</sup>.
- Treadwear Warranty is valid in Canada only.
- Treadwear Warranty is for 60,000 km or five years<sup>1</sup>, whichever ever comes first.

### HOW TO MAKE A CLAIM

If your MICHELIN® X-Ice® Xi2™ winter tires wear evenly across the tread, down to the treadwear indicators (1.6 mm (2/32") remaining tread) before providing 60,000 km of service, and within five years<sup>1</sup> from the date of purchase, the tires will be replaced with comparable new MICHELIN® winter tires at a pro rata charge, based on mileage obtained.

You must present the tires to an authorized MICHELIN® retailer along with:

- The proof of purchase of your MICHELIN® X-Ice® Xi2™ winter tires.
- An odometer reading of your vehicle at time of initial install.
- An odometer reading of your vehicle at each subsequent seasonal change.
- The tires' rotation records.

### EXCLUSION

Any MICHELIN® X-Ice® Xi2™ winter tire that becomes unusable due to:

- Road hazard injury.
- Incorrect mounting, tire/wheel imbalance, damaged rim or other abuse.
- Underinflation/overinflation, improper maintenance, improper storage.
- Vehicle mechanical problems (such as, but not limited to, wheel misalignment) resulting in irregular wear.
- Accident, fire, chemical corrosion, vandalism, tire alteration.
- Commercial and/or off-road use of tires.

**Moreover, MICHELIN® X-Ice® Xi2™ & Latitude® X-Ice® Xi2™ winter tires used all-year round are excluded from this 60,000 km Limited Treadwear Warranty<sup>3</sup>.**

<sup>1</sup> "Five years" mean five consecutive years of usage in winter time period only.

<sup>2</sup> "Winter months" is defined as a period beginning on or after September 1<sup>st</sup> of a given year and ending no later than April 30<sup>th</sup> of the following year.

<sup>3</sup> Michelin recommends the use of summer or all-season tires when ambient temperature is consistently above 7° Celsius.

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## SAFETY AND MAINTENANCE RECOMMENDATIONS

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### WARNING

**DISREGARDING ANY OF THE SAFETY PRECAUTIONS AND INSTRUCTIONS  
CONTAINED IN THIS MANUAL MAY RESULT IN TIRE FAILURE  
OR EXPLOSION CAUSING SERIOUS PERSONAL INJURY OR DEATH.**

Michelin has specific recommended conditions for the storage, selection, mounting, inflation, pressure, use, monitoring and maintenance of its tires. The conditions stated by Michelin shall be adhered to by the end-user.

Retailers should inform the end-user about Michelin's tire recommendations. Moreover, Michelin strongly recommends to never repair a tire without first demounting it from its rim. If in doubt, we invite you to consult our technical documentation or one of our technicians, or ultimately, our website at: [www.michelinman.ca](http://www.michelinman.ca)

## SAFETY AND MAINTENANCE RECOMMENDATIONS

### THE IMPORTANCE OF TIRES

The tire is the only contact between your vehicle and the ground. In order to ensure greater safety and to achieve longer tire life, it is essential to adhere to certain principles. Tires are of the utmost importance and the cost of regular maintenance is more than justified.

Consequently, we recommend that you read and understand the following information.

### TIRE DISABLEMENT — SAFETY WARNING

Any tire may fail as a result of an improperly repaired puncture, impact damage, improper inflation, overloading or other conditions resulting from use or misuse. Tire failures, such as a rapid air loss or a tread and belt detachment, may increase risk of injury or death and/or property damage. To reduce the risk of a tire failure, Michelin recommends you thoroughly read and follow the recommendations in this MICHELIN® Limited Warranty/ Owner's Manual, vehicle owner's manual, tire placard information, and tire sidewall information regarding safety warnings, proper tire use and maintenance.

### CONTROLLABILITY — CONTROLLING A VEHICLE WHEN A TIRE FAILURE OCCURS

If a tire failure occurs, you may hear a loud noise, feel a vibration, and/or the vehicle may pull toward the side of the failed tire. If possible, step on the accelerator momentarily to maintain forward momentum and ensure vehicle control. **It is important that you DO NOT BRAKE OR ABRUPTLY TURN THE STEERING WHEEL.** Slowly remove your foot from the accelerator and hold the steering wheel firmly while steering to remain in your lane. Once the vehicle has slowed and is fully under control, apply the brakes gently; safely pull over to the shoulder and come to a stop. Inspect the tires. If one or more tires look flat or low, show detachment or other damage, remove tire assembly and replace it with a properly inflated spare. Bumps or bulges may indicate detachment within the tire body and require inspection by a qualified tire technician.

### DRIVING ON ANY TIRE THAT DOES NOT HAVE THE CORRECT INFLATION PRESSURE IS DANGEROUS

Any underinflated tire builds up excessive heat that may result in sudden tire destruction. If tires are supplied as original equipment, refer to the tire decal on the vehicle (check vehicle and/or vehicle owner's manual for placard location) for the recommended operating pressures. For replacement tires, the correct inflation pressure will be provided by your tire retailer; if not, refer to the vehicle placard.

These inflation pressures must be maintained as a minimum. However, do not exceed the maximum pressure rating indicated on the sidewall.

### CHECK THE COLD INFLATION PRESSURE IN ALL YOUR TIRES, INCLUDING THE SPARE, AT LEAST ONCE A MONTH

Failure to maintain correct inflation may result in improper vehicle handling and may cause rapid and irregular tire wear, sudden tire destruction, loss of vehicle control, and serious personal injury. Therefore, inflation pressures should be checked at least once a month and always before long distance trips. This applies to all tires, including sealant types, and self-supporting tires which are as susceptible to losing air pressure as any other type of tire if not properly maintained.

Pressures should be checked when tires are cold; in other words, before they have been driven on. Driving, even for a short distance, causes tires to heat up and air pressure to increase.

### UNDERINFLATION

It is impossible to determine whether tires are properly inflated by simply looking at them. It is almost impossible to "feel or hear" when a tire is being run underinflated or nearly flat. Tires must be checked monthly with a tire pressure gauge.

### CHECKING PRESSURE WHEN TIRES ARE HOT

If pressures are checked after tires have been driven for more than three minutes or more than 2 km, the tires become hot and the pressures will increase by approximately 4 psi (30 kPa). Therefore, when tire pressure is adjusted under these conditions, it should be increased to a gauge reading of 4 psi (30 kPa) greater than the recommended cold inflation pressure.

#### For example only:

Gauge reading of hot tire:	32 psi	(220 kPa)
If recommended cold inflation is:	30 psi	(205 kPa)
Desired gauge reading of hot tire is:	$30 + 4 = 34$ psi	$(205 + 30 = 235$ kPa)
Therefore add:	2 psi	(15 kPa)

**Check cold pressure as soon as possible, preferably within 24 hours. "Bleeding" air from hot tires could result in underinflation. Use an accurate tire gauge to check pressures. Never allow children to inflate or deflate tires.**

## TIRE PRESSURE MONITORING SYSTEMS (TPMS)

Your vehicle may be equipped with a Tire Pressure Monitoring System (TPMS) that is designed to monitor the pressure of tires mounted on your vehicle and sends a signal to the driver if a tire pressure falls below a predetermined level. A TPMS should not replace monthly manual pressure checks for all four tires and the spare. We recommend that you manually monitor and check tire pressure inflation with a pressure gauge. Your tires should have the recommended pressure listed by your vehicle's manufacturer. This information can be found in the vehicle owner's manual and often on a placard located in the vehicle's door jamb, inside the fuel hatch, or on the glove compartment door. If you have a plus size fitment that requires a higher inflation pressure, your tire pressure monitoring system will require re-calibration to the new inflation pressure. Refer to your tire dealer/installer of plus size tires for proper inflation pressure.

## TIRE SPINNING

Do not spin wheels in excess of 55 km/h as indicated on the speedometer. Excessive speed in a free-running, unloaded tire can cause it to "explode" from centrifugal force. The energy released by such an explosion is sufficient to cause serious physical injury or death. Never allow anyone to stand near or behind the spinning tire.

When in mud, sand, snow, ice, or other slippery conditions, do not engage in excessive wheel spinning. Accelerating the motor excessively, particularly with automatic transmission vehicles, may cause a drive tire that has lost traction to spin beyond its speed capability. This is also true when balancing a drive tire/wheel on the vehicle using the vehicle engine to spin the tire/wheel assembly.

## HIGH SPEED DRIVING CAN BE DANGEROUS

**Correct inflation pressure is especially important.** However, at high speeds, even with the correct inflation pressure, a road hazard, for example, is more difficult to avoid and, if contact is made, has a greater chance of causing tire damage than at a lower speed. Moreover, driving at high speed reduces the reaction time available to avoid accidents and bring your vehicle to a safe stop.

**If you see any damage to a tire or wheel, replace with the spare at once and visit any participating authorized MICHELIN® retailer.**

Exceeding the maximum speeds shown in the following table for each type of MICHELIN® tire will cause the tire to build up excessive heat, which can cause tire damage that could result in sudden tire destruction and rapid air loss. Failure to control a vehicle if a tire experiences sudden air loss can lead to an accident.

**In all cases, you should not exceed reasonable speeds as indicated by the legal limits and driving conditions.**

## SPEED RATINGS†

**Speed symbols are shown on the sidewall of some MICHELIN® tires. The following table shows the maximum speed corresponding to the symbol.**

\*Some V- (or VR-) rated tires may have a speed capacity greater than 240 km/h. Consult your participating MICHELIN® retailer for maximum speed rating if your vehicle capability exceeds this speed.

\*\*Z- (or ZR-) rated tires are designed for use on cars with maximum speed capabilities in excess of 270 km/h. (W, Y and (Y) speed ratings are sub-categories of Z). Consult your MICHELIN® retailer for maximum speed capabilities.

† Exceeding the safe, legal speed limit is neither recommended nor endorsed.

Speed Ratings	Maximum Speed	
	km/h	m/h
Q	160	100
R	170	106
S	180	112
T	190	118
H	210	130
V	240	149
V*	240+	149+
W	270	168
Y	300	186
(Y)	300+	186+

ZR  
\*\*  
↓

Although a tire may be speed-rated, we do not endorse the operation of any vehicle in an unsafe or unlawful manner. Speed ratings are based on laboratory tests which relate to performance on the road, but are not applicable if tires are underinflated, overloaded, worn out, damaged, altered, improperly repaired or retreaded. Furthermore, a tire's speed rating does not imply that a vehicle can be safely driven at the maximum speed for which the tire is rated, particularly under adverse road and weather conditions or if the vehicle has unusual characteristics.

MICHELIN® passenger tires that do not have a speed symbol on the sidewall have a maximum speed rating of 170 km/h.

Light truck highway tires that do not have a speed symbol on the sidewall of the tire have a maximum speed rating of 140 km/h. Some light truck tires may have higher maximum speed ratings; consult any authorized MICHELIN® retailer.

The speed and other ratings of retreaded tires are assigned by the retreader and supersede the original manufacturer's ratings.

**IMPORTANT: In order to maintain the speed capability of the vehicle, replacement tires must have speed ratings equal to or higher than those fitted as original equipment (as indicated on the vehicle tire placard or in the owner's manual). If tires with lower speed ratings are fitted, the speed capability of the vehicle will be lowered to the maximum speed capability of the replacement tires as indicated in the speed ratings table above.**

**REMEMBER...** High-speed driving can be dangerous and may damage your tires.

**AND...** When driving at highway speeds, correct inflation pressure is especially important.

**WINTER TIRES** — MICHELIN® brand winter tires that do not have a speed symbol on the sidewall or tires with the Q symbol have a speed rating of 160 km/h. Winter tires with a speed symbol have a maximum speed rating in accordance with the symbol.

Studded tires have a maximum speed rating of 150 km/h.

## **INSPECT YOUR TIRES. DO NOT DRIVE ON A DAMAGED TIRE OR WHEEL.**

### **Road hazards**

Driving over potholes, glass, metal, rocks, wood debris and the like can damage a tire and should be avoided. Unavoidable contact with such hazards should prompt a thorough tire inspection. Any time you see any damage to your tires or wheels, replace with a spare at once and immediately visit any participating authorized MICHELIN® retailer for advice.

### **Impact damage**

A tire impacted by a road hazard (curb, pothole, debris) may be damaged but not have visible signs of damage on its surface. A tire damaged by an impact may sustain a sudden failure a day, week, or even months later. You may not recall hitting an object that damaged or injured your tires. Air loss, unusual tire wear, localized wear or vibrations can also be signs of internal tire damage.

**If you suspect any damage to your tire or wheel from an impact with a curb, pothole, debris on the road or any other road hazard, or if you feel or hear any unusual vibration, replace with a properly inflated spare at once and immediately visit any qualified tire technician.**

### **Inspection**

When inspecting your tires, including the spare, check air pressures. If the pressure check indicates that one of your tires has lost 2 psi (15 kPa) of pressure or more, look for signs of penetrations, valve leakage or wheel damage that may account for the air loss.

**Always look for bulges, cracks, cuts, penetrations, and abnormal tire wear, particularly on the edges of the tire tread, which may be caused by misalignment or underinflation. If any such damage is found, the tire must be inspected by any participating authorized MICHELIN® retailer at once. The use of a damaged tire could result in tire destruction.**

All tires will wear out faster when subjected to high speeds as well as hard cornering, rapid starts, sudden stops, frequent driving on roads which are in poor condition, and off-road use. Roads with holes and rocks or other objects can damage tires and cause misalignment of your vehicle. When driving on such roads, drive carefully and slowly, and before driving again at normal or highway speeds, examine your tires for any damage, such as cuts, bulges, penetrations, unusual wear patterns, etc.

## **WEAR BARS**

MICHELIN® tires contain “wear bars” in the grooves of the tire tread which show up when only 1.6 mm (2/32<sup>nds</sup> of an inch) of tread is remaining. At this stage, tires must be replaced. Tires worn beyond this stage are dangerous.

## **DO NOT OVERLOAD; DRIVING ON ANY OVERLOADED TIRE IS DANGEROUS**

The maximum load rating of your tires is marked on the tire sidewall. Do not exceed this rating. Follow the loading instructions of the manufacturer of your vehicle and this will ensure that your tires are not overloaded. Tires which are loaded beyond their maximum allowable loads for the particular application will build up excessive heat that may result in sudden tire destruction.

Do not exceed the gross axle weight rating for any axle on your vehicle.

## **TRAILER TOWING**

If you anticipate towing a trailer, you should see any participating authorized MICHELIN® retailer for advice concerning the correct size of tire and pressures. The size and pressures will depend upon the type and size of trailer and hitch utilized, but in no case may the maximum cold inflation pressure or tire load rating be exceeded. Check the vehicle placard and the owner’s manual supplied by the manufacturer of your vehicle for further recommendations on trailer towing.

## **WHEEL ALIGNMENT AND BALANCING ARE IMPORTANT FOR SAFETY AND MAXIMUM MILEAGE FROM YOUR TIRES**

### **CHECK TIRE WEAR AT LEAST ONCE A MONTH**

If your tires are wearing unevenly, such as the inside shoulder of the tire wearing faster than the rest of the tread, or if you detect excessive vibration, your vehicle may be out of alignment or balance. These conditions not only shorten the life of your tires but also adversely affect the handling characteristics of your vehicle, which could be dangerous.

If you detect irregular wear or vibration, have your alignment and balance checked immediately. Tires that have been run underinflated will show more wear on the shoulders than in the center of the tread.

## **TIRE MIXING**

For best performance, it is recommended that the same size and type of tire be used on all four wheel positions. Before mixing tires of different types in any configuration on any vehicle, be sure to check the vehicle manufacturer’s owner’s manual for its recommendations.

It is especially important to check the vehicle manufacturer’s owner’s manual before mixing, matching or replacing tires on 4-wheel drive vehicles, as this may require special precautions.

## WINTER DRIVING

Tires which meet the Rubber Manufacturers Association (RMA) definition of snow tires are marked M/S, M+S, or M&S. On such tires, this designation is molded into the sidewall. Tires without this notation are not recommended for winter driving.

**NOTE: While all-season tires are designed to provide reliable performance in moderate winter conditions, the use of four winter tires is recommended for optimal performance.**

Tires designated for use in severe winter conditions are marked with at least one sidewall with the letter "M" and "S" plus a pictograph of a mountain with a snowflake on it.



## TIRE ROTATION AND REPLACEMENT

To obtain maximum tire life, it may be necessary to rotate your tires. Refer to your vehicle owner's manual for instructions on tire rotation. If you do not have an owner's manual for your vehicle, MICHELIN® brand recommends rotating your tires every 10,000 to 12,000 km.

Monthly inspection for tire wear is recommended. Your tires should be rotated at the first sign of irregular wear, even if it occurs before 10,000 km. This is true for all vehicles.

When rotating tires with a directional tread pattern, observe the arrows molded on the sidewall which show the direction in which the tire should turn. Care must be taken to maintain the proper turning direction.

Determine whether rotated tires require tire inflation adjustment as front and rear position tire pressure may vary according to the vehicle manufacturer's specification due to the actual load on that wheel position. Some vehicles may have different sized tires mounted on the front and rear axles, and these different sized tires have rotation restrictions. Always check the vehicle owner's manual for the proper rotation recommendations.

## FULL-SIZE SPARE

Full-size spare tires (not temporary spares) of the same size and construction should be used in a five tire rotation. Always check the inflation pressure of the full-size spare immediately before incorporating it into rotation. Follow the vehicle manufacturer's recommended pattern for rotation, or if not available, see a qualified tire technician.

## REPLACEMENT OF TWO TIRES

It is recommended that all four tires be replaced at the same time. However, whenever only two tires are replaced, the new ones should be put on the rear. The new tires, with deeper tread, may provide better grip and water evacuation in wet driving conditions.

## CUSTOMIZATION OF TIRES, WHEELS OR SUSPENSION ON SUVs AND LIGHT TRUCKS

Due to their size, weight and higher centre of gravity, vehicles such as SUVs and light trucks do not have the same handling characteristics as automobiles. Because of these differing characteristics, failure to operate your SUV or light truck in a proper and safe manner can increase the likelihood of vehicle rollover. Modifications to your SUV or light truck tire size, tire type, wheels or suspension can change its handling characteristics and further increase the likelihood of vehicle rollover. Whether your SUV or light truck has the original equipment configuration for tires, wheels and suspension, or whether any of these items have been modified, always drive safely, avoid sudden, sharp turns or lane changes and obey all traffic laws. Failure to do so may result in loss of vehicle control leading to an accident and serious injury or death.

## TIRE ALTERATIONS

Do not make or allow to be made any alteration on your tires. Alterations may prevent proper performance, leading to tire damage which can result in an accident. Tires which become unserviceable due to alterations such as truing, whitewall inlays, addition of balancing or sealant liquids, or the use of tire dressings containing petroleum distillates are excluded from warranty coverage.

## TIRE REPAIRS

### WHEREVER POSSIBLE, SEE AN AUTHORIZED MICHELIN® RETAILER

If any MICHELIN® tire sustains a puncture, have the tire demounted and thoroughly inspected by any participating authorized MICHELIN® retailer for possible damage that may have occurred.

A tread area puncture in any MICHELIN® passenger or light truck tire can be repaired provided that the hole is not more than 6 mm (1/4") in diameter, and that the tire has not been damaged further by the puncturing object or by running underinflated. Tire punctures consistent with these guidelines can be repaired by following Rubber Manufacturers Association (RMA) recommended repair procedures. If damage exceeds these guidelines, the tire must be replaced.

Repairs of all tires must be of the combined plug and inside patch type. **Plug only repairs are improper.** A tire should be removed from the rim and inspected prior to repair. Any tire repair done without removing the tire from the rim is improper. An improperly repaired tire will cause further damage to the tire by either leaking air or allowing air, moisture and contaminants to enter the structure of the tire. An improperly repaired tire can fail suddenly at a later date. Never repair a tire with less than 1.6 mm (2/32<sup>nds</sup> of an inch) tread remaining. At this tread depth, the tire is worn out and must be replaced.

## STORAGE

Tires contain waxes and emollients to protect their outer surfaces from ozone and weather checking. As the tire rolls and flexes, the waxes and emollients continually migrate to the surface, replenishing this protection throughout the normal use of the tire. Consequently, when tires sit outdoors, unused for long periods of time (a month or more) their surfaces become dry and more susceptible to ozone and weather checking, and the casing becomes susceptible to flat spotting. **For this reason, tires should always be stored in a cool, dry, clean, indoor environment. If storage is for one month or more, eliminate the weight from the tires by raising the vehicle or by removing the tires from the vehicle. Failure to store the tires in accordance with these instructions could result in premature aging of the tires and sudden tire failure.**

When tires are stored, be sure they are placed away from sources of heat and ozone such as hot pipes and electric generators. Be sure that surfaces on which tires are stored are clean and free from grease, gasoline or other substances which could deteriorate the rubber. **(Tires exposed to these materials during storage or driving could be subject to sudden failure.)**

## FOLLOW THESE MOUNTING RECOMMENDATIONS

**Tire changing can be dangerous and must be done by professionally trained persons using proper tools and procedures as specified by the Rubber Manufacturers Association (RMA).**

Your tires should be mounted on wheels of the correct size and type and which are in good, clean condition. Bent, chipped or rusted wheels may cause tire damage. The inside of the tire must be free from foreign material. Have your tire retailer check the wheels before mounting new tires. A tire mounted on a mismatched rim can explode during mounting. Also, mismatched tires and rims can result in dangerous tire failure on the road. If a tire is mounted by mistake on a wrong-sized rim, do not remount it on the proper rim — scrap it. It may have been damaged internally (which is not externally visible) by having been dangerously stretched, which could result in tire destruction.

**Old valves may leak. When new tubeless tires are mounted, have new valves of the correct type installed. Be sure that all your valves have suitable valve caps. The valve cap is the primary seal against air loss. Tubeless tires must be mounted only on wheels designed for tubeless tires, i.e., wheels which have safety humps or ledges.**

It is recommended that you have your tires and wheels balanced. Tires and wheels which are not balanced may cause steering difficulties, a bumpy ride, and irregular tire wear.

## WARNING

1. **NEVER** inflate beyond 40 psi to seat beads.
2. **NEVER** mount tires on rims which are damaged or not smooth and clean.
3. **ALWAYS** lubricate both beads and rim flanges with approved rubber lubricant.
4. **NEVER** inflate a tire that is lying on the floor or other flat surface. Always use a tire mounting machine with a hold-down device or safety cage, or bolt to vehicle axle.
5. **NEVER** inflate to seat beads without using an extension hose with gauge and clip-on chuck.
6. **NEVER** stand, lean or reach over the assembly during inflation.
7. After beads are seated, inflate to or adjust to recommended cold operating pressure.
8. **Never**, under any circumstances, put a flammable substance into a tire to seat the beads.

**NEVER MOUNT ANY TIRE ON A RIM OF A DIFFERENT DIAMETER**

**WARNING! NEVER MOUNT A 14" DIAMETER SIZE TIRE ON A 14.5" RIM OR THE FOLLOWING:**

- 15" ON A 15.5" RIM
- 16" ON A 16.5" RIM
- 17" ON A 17.5" RIM
- 19" ON A 19.5" RIM
- 22" ON A 22.5" RIM
- 24" ON A 24.5" RIM



**Failure to comply with these safety precautions can cause the bead to break and the assembly to burst with sufficient force to cause serious injury or death.**

## TEMPORARY SPARE TIRE

When using any temporary spare tire, be sure to follow the vehicle manufacturer's instructions.

## DRIVING ON STUDDED PASSENGER OR LIGHT TRUCK TIRES

(In States or Provinces where legally permitted)

Only new studdable passenger and light truck tires should be fitted with studs. For maximum effectiveness on tires which are drilled for studs, all four tires on a vehicle should be fitted with studs. If only the two rear tires are studded, maximum efficiency in handling and braking will not be realized. On wet or dry pavement, the rear tires will have a larger slip angle than the front tires, possibly producing an oversteer condition. On ice and packed snow, the rear tires will have a small slip angle and relatively good traction compared to a very large slip angle and poor traction on the front tires. These factors may cause a severe understeer condition thereby reducing the steering and braking ability of the vehicle. On vehicles with front wheel drive, adverse handling characteristics can be introduced by mounting studded snow tires on front wheels only.

## READING THE DOT

DOT XXXX XXXX XXX (prior to August 2000)

DOT XXXX XXXX XXX ◀ (1990-1999)

DOT XXXX XXXX XXXX (after July 2000)

## THE DOT

The "DOT" symbol certifies tire manufacturer's compliance with U.S. Department of Transportation and Transport Canada tire safety standards. Next to the symbol is the tire identification or "serial number." The first two characters identify the plant where the tire was manufactured. The next two characters reflect the tire size. The following one to four digits may be used at the tire manufacturer's option as a descriptive code. The last three characters are numbers identifying the week and year of manufacture. (Example: "025" means second week of the year of decade, e.g., 1995, 1985, etc.) For the 1990-1999 decade MICHELIN® brand tires are marked with a triangle pointing to the last three numeric characters. Tires produced after July 2000 have an additional digit to identify a given decade. For example, 2800 means the tire was produced during the 28<sup>th</sup> week of 2000; 0201 during the 2<sup>nd</sup> week of 2001. If the last digits of your DOT number contain three numeric characters that are not marked with a triangle, consult a qualified tire technician to determine the year of manufacture.

## SERVICE LIFE FOR PASSENGER CAR AND LIGHT TRUCK TIRES INCLUDING SPARE TIRES

The following recommendation applies to passenger car and light truck tires. Tires are composed of various types of material and rubber compounds, having performance properties essential to the proper functioning of the tire itself. These component properties evolve over time. For each tire, this evolution depends upon many factors such as weather, storage conditions, and conditions of use (load, speed, inflation pressure, maintenance, etc.) to which the tire is subjected throughout its life. This service-related evolution varies widely so that accurately predicting the serviceable life of any specific tire in advance is not possible.

That it is why, in addition to regular inspections and inflation pressure maintenance by consumers, it is recommended to have passenger car and light truck tires, including spare tires, inspected regularly by a qualified tire specialist, such as a tire dealer, who will assess the tire's suitability for continued service. Tires which have been in use for five years or more should continue to be inspected by a specialist at least annually.

Consumers are strongly encouraged to be aware not only of their tires' visual condition and inflation pressure but also of any change in dynamic performance such as increased air loss, noise or vibration, which could be an indication that the tires need to be removed from service to prevent tire failure.

It is impossible to predict when tires should be replaced based on their calendar age alone. However the older a tire the greater the chance that it will need to be replaced due to the service-related evolution or other conditions found upon inspection or detected during use.

While most tires will need replacement before they achieve 10 years, it is recommended that any tires in service 10 years or more from the date of manufacture, including spare tires, be replaced with new tires as a simple precaution even if such tires appear serviceable and even if they have not reached the legal wear limit.

For tires that were on an original equipment vehicle (i.e., acquired by the consumer on a new vehicle), follow the vehicle manufacturer's tire replacement recommendations, when specified (but not to exceed 10 years).

*The date when a tire was manufactured is located on the sidewall of each tire. Consumers should locate the Department of Transportation or DOT code on the tire which begins with DOT and ends with the week and year of manufacture. For example, a DOT code ending with "2204" indicates a tire made in the 22<sup>nd</sup> week (May) of 2004.*

## REMEMBER... TO AVOID DAMAGE TO YOUR TIRES AND POSSIBLE ACCIDENTS:

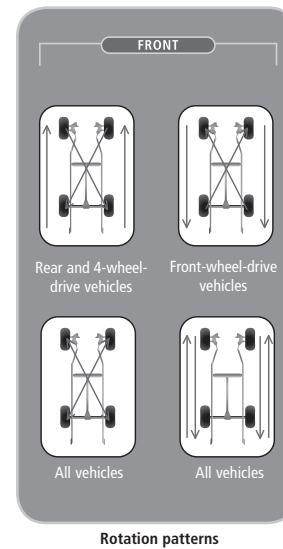
- Check tire pressure at least once a month when the tires are cold and before long trips.
- Do not underinflate/overinflate.
- Do not overload.
- Drive at moderate speeds, observe legal limits.
- Avoid driving over potholes, obstacles, curbs or pavement edges.
- Avoid excessive wheel spinning.
- If you see any damage to a tire, replace it with the spare and visit any MICHELIN® retailer at once.
- If you have any questions, contact your MICHELIN® retailer.

Failure to observe any of the recommended precautions contained in this owner's manual can lead to erratic vehicle behaviour and/or tire damage possibly resulting in an accident.

## TIRE SAFETY AND MAINTENANCE

- You should check each tire's **air pressure** (including your spare) at least once a month and always before a long trip. Always check when they're "cold" (that is, at least three hours after the vehicle has been stopped, or before it has been driven 2 kilometers).
- **Load carrying limits** molded into the tire's sidewall should never be exceeded. Consult a trained tire professional to verify limits for the tire that you've chosen.
- If for some reason you cannot safely avoid a **road hazard** and you run over glass, rocks, curbs, or other foreign material, check the tire for external damage. If you suspect damage but can't see it, have the tire demounted and checked for internal damage by a trained professional.
- Having your tires **regularly rotated** achieves more uniform wear on each tire. If no time period is specified in your owner's manual, then the tires should be rotated every 10,000 kilometers.
- If you get stuck in mud or snow, **don't spin your tires** to get out. Spinning, even for a few seconds, can build up heat and damage your tires.

## TIRE ROTATION

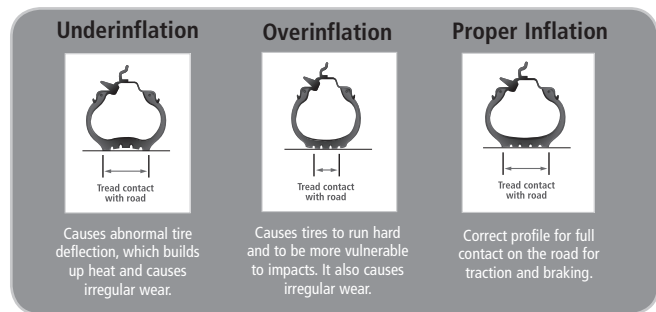


- **Properly balanced** tires and wheels turn with all their weight distributed equally. Unbalanced tires can result in a vehicle's "shimmying" (shaking from side to side) and "tramping" (hopping up and down).
- **Cleaning tires** removes foreign substances that can degrade the tires from the tire surface. We recommend soap and water.
- If a tire sustains a **puncture**, have the tire inspected internally by any MICHELIN® retailer for possible damage that may have occurred.
- **Check your tires** at least once a month for uneven wear and foreign objects wedged in the tread. A tire that continually needs more air should be taken off the vehicle and off the wheel and checked thoroughly.

## TIPS FOR PROPER INFLATION

Purchase an accurate pressure gauge, as it's impossible to tell how much air is in the tire by looking at it. The gauges attached to air hoses may not be accurate. It is normal for all tires to lose air over time.

In normal driving conditions, the pressure should never be **below the recommended** pressure listed on the vehicle placard nor **above the maximum** branded on the sidewall of a specific tire.



## WHAT TO LOOK FOR WHEN CHOOSING A TIRE

- Buy the right size tire. The appropriate tire size for your car can be found in the owner's manual or on a placard located somewhere in your vehicle. Also, consider the car's original equipment when purchasing a replacement tire.
- If the original tires were speed-rated, it is recommended to replace them with tires of the same or higher speed ratings.
- Consider factors such as load-carrying capacity of the tire, as well as traction, treadwear and temperature grades, also known as the **Uniform Tire Quality Grade System**.
- When tire shopping, keep in mind that the lowest price may not necessarily be the best value. As a consumer, finding the highest quality tire that will fulfill your specific needs at the most competitive price should be the ultimate goal.
- When purchasing a tire, be sure to fill out and mail the DOT tire registration card or register your tires on Internet at [www.michelinman.ca](http://www.michelinman.ca), so you can be notified in case of a recall.

## UTQG

Each tire manufacturer is responsible for designating the rating of each of its tires. However, winter tires and LT designated light truck tires do not have UTQG markings.

**The Uniform Tire Quality Grade (UTQG)** offers three more key pieces of information about a tire:

**Treadwear grades** — typically range from 60 to 700 + in 20 point increments. The higher the grade, the longer the tread life.

**Traction grades** — indicate a tire's braking performance. A grade from "AA" to "C" is assigned, with "AA" signifying the best traction.

**Temperature grades** — represent a tire's ability to withstand heat under test conditions. Temperature grades are assigned "A" to "C", with "A" indicating the highest heat resistance.

## SIDEWALL MARKINGS

Much of what you need to know about a tire can be found on its sidewall. Each letter and number of the alphanumeric code found on the sides of any tire conveys important information, like whether a particular tire will be compatible with your vehicle. Some size designations are preceded by a letter indicating the type of service for tire's intended use.

## HOW TO READ A SIDEWALL

Example: 185/60R14 82H

- A** The first number (185 in this example) is a three-digit number which refers to the **section width** of the tire, in millimeters.
- B** The second number (60) refers to the **aspect ratio**, which is the relationship between the tire's height and its width. In this example, the sidewall's height is about 60% of the tire's width.
- C** The letter following the aspect ratio is usually an "R", standing for "**radial**".
- D** The next number indicates the **diameter of the wheel rim** on which the tire will fit (14 inches, in this example).
- E** The final number and letter represent the **load index and speed rating**. The load index is an assigned number ranging from 0 to 279 corresponding to the load carrying capacity of the tire; that is, how much weight it is certified to carry at maximum inflation pressure. The rating can be matched against a load index chart to determine corresponding maximum weights.
- F** The speed rating is a letter which indicates the **range of speeds** at which a tire is certified to carry a load. Each tire is assigned a rating from Q (lowest) to Z (highest) with one notable exception: the "H" rating falls out of sequence between "U" and "V" and is used for tires certified for speeds up to 210 km/h. The "Q" rating is commonly used for passenger cars. A "V" rated tire is certified up to 240 km/h.

*It is important to note that markings do not always appear exactly as they do in this example, as tires can be certified under a variety of designations.*



If you see any damage to your tires or wheels, contact your local authorized MICHELIN® tire retailer. To find a retailer location you can refer to the Yellow Pages or visit our Web site listed below. If further assistance is required, please call the Consumer Care toll free number.

### IN CANADA

Call Toll Free: 1-888-871-4444 or write:

MICHELIN® Consumer Care  
3020 Jacques-Bureau Avenue  
Laval, Quebec  
H7P 6G2

Or contact us through our Web site: [michelinman.ca](http://michelinman.ca)

### IN THE UNITED STATES

Call Toll Free: 1-800-847-3435 or write:

MICHELIN® Consumer Care Department  
Post Office Box 19001  
Greenville, SC 29602-9001

Or contact us through our Web site: [michelinman.com](http://michelinman.com)

