



tires

Choosing tires that provide the best safety and value for your driving conditions is a big decision. In choosing wisely, you should take into account your average annual kilometres driven, and how often you drive in rough conditions: rain, snow, dirt or gravel roads, busy highways, and crowded city streets.

The following should help you better understand some of the key points to consider when choosing tires. Speak to your Service Advisor regarding the tires that are best for you.

everything you need to know about tires

when to buy tires

Regularly inspecting your tires will help determine when they should be replaced. Here is a list of warning signs that your tires may need replacement. Speak to your Service Advisor if any irregularities are noticed.

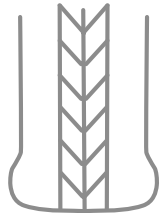

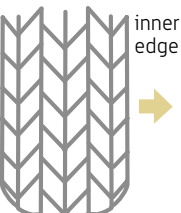
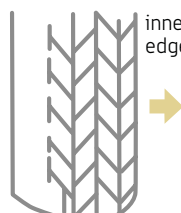
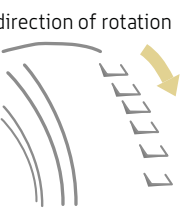
tread

- Tire is worn to “wear indicator” or to minimum allowable limit as per tire manufacturer, (1.6mm or 2/32” for all season and 4mm or 5/32” for winter tires)
- Measure it - and inspect it. Advanced and unusual wear can reduce the ability of tread to grip the road in adverse conditions. Visually check your tires for uneven wear, looking for high and low areas or unusually smooth areas. Also check for signs of damage



When inspecting your tires, look for built-in “wear bars” – small, raised strips of smooth rubber which appear when the tire is worn out.

types of tread wear patterns

tread condition	both edges wear	centre wear	feather edge wear	one side edge wear	toe and heel wear
					
	air pressure too low	air pressure too high	inner edge toe-in problem	inner edge camber problem	no rotation

- Tire has any abnormal wear patterns which can affect the safe handling of the vehicle
- Tire is cracked and is porous due to age or manufacturer defect
- Tire bead or sidewall is damaged
- Tire tread is damaged and the tire cord is exposed
- Tire tread is punctured and cannot be patched from the inside
- Tire belt is shifted and has created an “out-of-round” tire
- Tire has abnormal bulge on its sidewall

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what tire to choose



all season tires

- All-around good performance in a wide variety of conditions
- Softer construction, longer tread life and quieter ride than performance tires
- The more extreme conditions become, the more performance is reduced



performance tires

- Stiffer construction and usually a lower profile to better withstand higher speeds, especially when turning
- Provides the driver a strong "feel" for the road as the lower profile more readily transmits road unevenness



winter tires

- Specially designed tread patterns and rubber compounds to allow better grip and improved performance in both snow and cold



light truck tires

- Heavier gauge wires and thicker compounds designed to withstand heavier loads and add stability
- Off-road tires are designed to withstand very rough road conditions
- Both will usually have a higher profile allowing more of a cushion effect



run-flat tires

- Compared to conventional tires, the run-flat tires have reinforced sidewalls that enable the vehicle to be driven even if the pressure of the tires drops due to puncture
- The vehicle can be driven at low speeds (up to 90 km/h) for a maximum distance of 160km without replacing the tires

when to buy tires • what tire to choose

what size tire to choose

The following information is required when choosing the correct tire:

- Size
- Load Index
- Speed Rating

You can find this information for the vehicle's original tires in your Owner's Manual. When looking at an actual tire, you can find similar information moulded into the sidewall.



what do these numbers and letters represent?

Typical sidewall marking:

185/60R15 82H

185

width of tire:

Expressed in millimetres.

Note: Some size designations may be preceded by a "P" for P-Metric Passenger Tire or by "LT" for Light Truck

60

aspect ratio:

The ratio of the tire's height to its width expressed as a percentage.

R

Stands for "Radial" construction.

15

diameter of the wheel:

The diameter on which the tire will fit expressed in inches.

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what size tire to choose

82

load index:

An assigned number ranging from 70 to 111 which corresponds to the load carrying capacity of the tire; that is how much it is certified to carry at maximum tire pressure.

Note: "Maximum tire pressure" is generally not the same as "recommended tire pressure" for your specific vehicle.

H

speed rating:

A letter which indicates the maximum speed at which a tire is certified to carry a load.

Speed Rating		
Q ➡ 160 km/h	U ➡ 200 km/h	W ➡ 270 km/h
S ➡ 180 km/h	H ➡ 210 km/h	Y ➡ 300 km/h
T ➡ 190 km/h	V ➡ 240 km/h	Z ➡ over 240 km/h

HINT: Your replacement tires should have a speed and load rating equal to or greater than the Original Equipment specifications.



mud and snow:

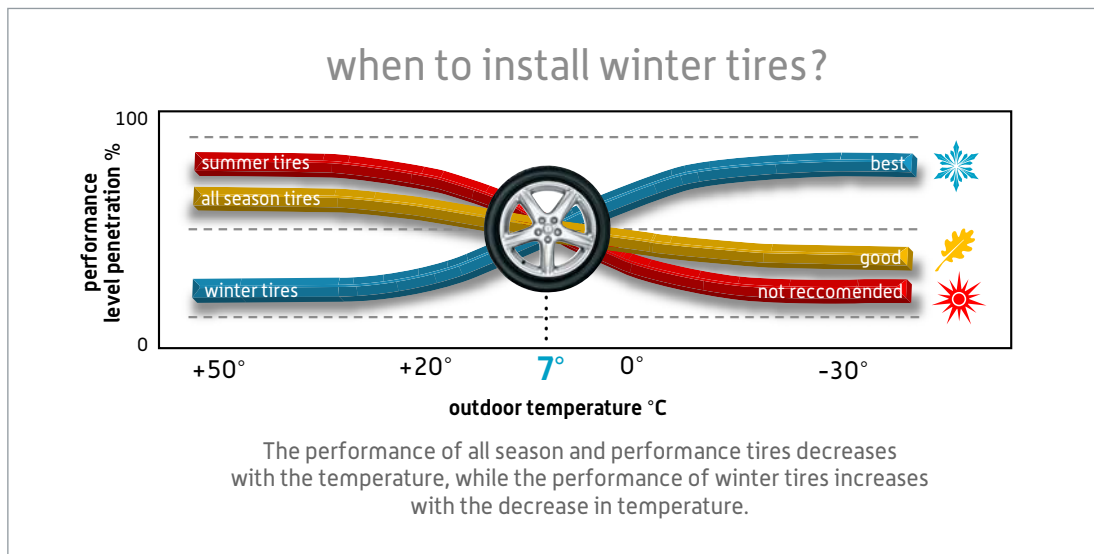
The letters M and S indicate that the tire meets the Rubber Manufacturers Association standard for mud and snow usage.

When looking for replacement tires, remember to keep it simple and match the size your vehicle already has. Changing to a tire with specifications other than those approved by the vehicle manufacturer can affect ride, handling, and fuel. Your Toyota Dealer has the expertise to recommend the right tires for you.

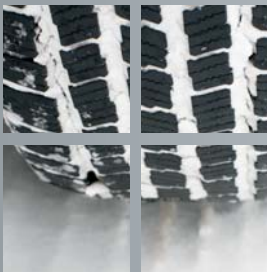
winter tires

why use winter tires?

Much too often, winter tires are portrayed as “snow tires”. The truth is, winter tires are not only designed to perform in snowy conditions, but they are intended to provide optimal performance in cold weather temperatures as well. Therefore, even in the absence of snow on the road surface, your winter tires will continue to provide you with the performance and safety you expect, thanks to the soft compound mix capable of withstanding extreme temperatures.



benefits of winter tires

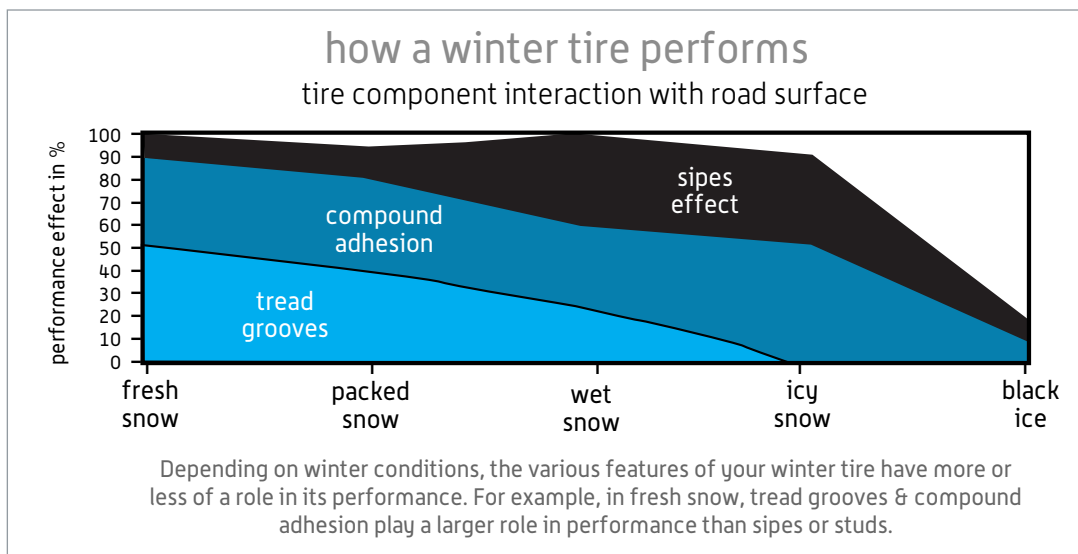


- Excellent ride comfort and safety
- Exceptional grip in cold conditions
- Superior braking capabilities on ice and snow
- Outstanding resistance against aquaplaning
- Superb wet and dry handling
- Enhance vehicle stability control (VSC) operation
- Smoother take-off when equipped with traction control (TRAC)

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winter tires

Winter tires are particularly effective under difficult environmental conditions (snow, ice and mud) and at low temperatures, below $+7^{\circ}\text{C}$ (44.6°F). During the winter season, tires play a crucial role in the vehicles overall safety and performance. As temperatures drop, standard (non-winter) compound characteristics show decreased elasticity. This results in a reduced contact area and therefore overall grip. The need for greater mobility and improved safety in winter conditions has led to high demand for winter tires. To better understand the benefits of a winter tire, we must understand that its properties are geared towards "cold temperature" performance.



did you
know?

In the province of Quebec, since December 2008, the Highway Safety Code provides that:

"Between 15 December to 15 March, the owner of a taxi or passenger vehicle registered in Quebec may not put the vehicle into operation unless it is equipped with tires specifically designed for winter driving, in compliance with the standards prescribed by government regulation. The prohibition also applies to any person renting out passenger vehicles not equipped with that type of tires. [...]" It is important to remember that tires specifically designed for winter driving constitute a safe solution for driving in winter. They are designed to provide maximum grip on snow and ice covered surfaces, and cold temperatures.

increasing the life of your tires

air pressure

Your tires carry the entire weight of your vehicle so keeping your tires properly inflated is essential for the performance and longevity of the tire as well as maintaining the ride quality and safety of your vehicle.

Tires lose air due to time (about 1 psi per month) and temperature (1 psi for every 10°C drop). Rolling resistance increases as tires lose air, resulting in increased fuel consumption. Handling will lose responsiveness and uneven tire pressure may lead to uneven tire wear.



- **how often?** - Check pressure of all tires at least once a month and before taking a long trip.
- **the best time to inflate** - Tires must be tested cold for an accurate reading (at least 3 hours after the vehicle has been stopped and before it has been driven 1.6 km).
- **recommended pressure** - Always inflate your tires to the recommended pressure listed by your vehicle's manufacturer. This information can be found in the Owner's Manual and often on a placard located in the vehicle's door jamb, inside the fuel hatch, or in the glove compartment.



- **valves and valve caps**
The tire valve is a very important maintenance item in terms of keeping the air in your tires. These valves which are ordinarily rubber, can deteriorate over time, and should be replaced when you buy new tires. At high speeds, a cracked, deteriorated rubber valve stem can bend from centrifugal force and allow air loss.

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increasing the life of your tires

- **inflation tips** - Purchase a good pressure gauge and check it for accuracy with your Toyota Dealer. Beware of public gauges at the gas station. They are often abused and unreliable.

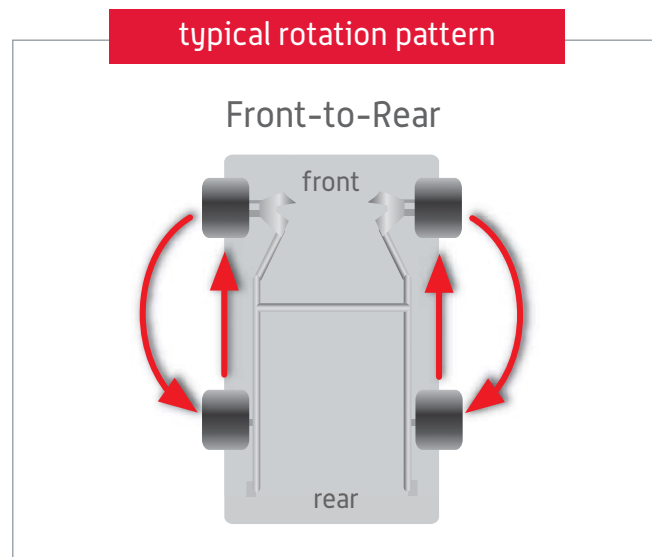


alignment

Is your vehicle pulling to one side, or shaking? A bad jolt from hitting a curb or pothole can throw your front end out of alignment and damage your tires. Correct alignment allows for improved steering response and better handling performance. It also promotes even tire wear, which in turn means longer lasting tires. Proper alignment also reduces wear on the rest of the suspension. **Have your Toyota Dealer inspect periodically to ensure that your vehicle is properly aligned.**

rotation

Regularly rotating your vehicle's tires will help you achieve more uniform wear and increases the useful life of the tire. Check your Toyota Owner's Manual Supplement for recommended tire rotation intervals. Depending on the condition and type of your vehicle, your Toyota Dealer may use an alternate rotation pattern.



tires and your safety

wet weather

Many accidents occur in wet weather conditions as motorists fail to appreciate the difference between driving in dry and wet conditions. Follow these wet weather driving tips to ensure a safe ride.



slow down

As your speed decreases, the tire footprint (the amount of the tire's tread contacting the road surface) increases, providing better traction. You also reduce the risk of hydro-planing should you run into deeper water puddled on the road.



maintain a safe distance

Even with a good wet weather tire, be prepared for longer stopping distances on wet pavement. Since other cars may not have proper tires for wet weather driving, be extra alert at stop signs and red lights.



choose tires carefully

Too many drivers buy a tire based on initial price or appearance. For optimum performance in the rain, select a tire with tread design and rubber compounds that provide enhanced wet weather driving capabilities.



properly maintain your tires

No tire can provide good wet traction once the tread is worn below 2/32" (1.66mm) tread depth. Check your tires regularly and replace them at the proper time. Also, maintain the proper air pressure in your tires; check your vehicle's Owner's Manual or the door jamb for the proper air pressure for your particular vehicle and tires.



go smoothly

When braking, accelerating or turning, avoid jerky, abrupt movements.



avoid hydro-planing

If you feel your vehicle starting to hydro-plane (riding on the surface of the water), take your foot off the accelerator - don't hit your brakes. If you have a manual transmission, push in the clutch and let the vehicle slow down until control is regained.

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tires and your safety storage tips



plan your braking

If you are entering a curve slow down and brake gently before you start to turn.



check your wipers

Install new wiper blades or inserts at least once a year to ensure good vision.



turn on your lights

It may not help you see, but it will help other drivers see you.



wear your seatbelt

Always ensure you and your passengers are buckled up before you get on the road.

storage tips

Exposure to the elements and heat are the main factors that affect the speed at which a tire ages. Tires will age naturally, but by taking a few steps to properly care for your tires, you may be able to prolong their life.

Ultraviolet rays and heat are not good for the rubber in your tires. You should keep your off season tires out of direct sunlight. Toyota Tire Totes are designed for this purpose and are available at your Toyota Dealership. Ask your Service Advisor for more information. When storing your tires, place them flat in a dry, cool location that is not close to electrical motors or machines. They can give off ozone, which can damage your tires.

Your Toyota Dealer may also have a tire storage service, which could make things much easier for you. No need to take tires home. Ask your Service Advisor if this service is available at your Toyota Dealer.



DOT markings tread patterns

DOT markings

The U.S. Department of Transportation markings signify that the tire meets DOT tire-safety standards. The DOT markings help track the tire in the same way a lot number tracks a food product.



- The first two characters designate the tire manufacturer and plant code. This could be important if the tire receives a safety recall.
- Characters three and four denote tire size.
- The fifth, sixth, seventh, and eighth (optional) characters identify the brand as well as other characteristics important to the manufacturer.
- The final four numbers denote the date the tire was produced. The first two indicate the week, and the last numbers specify the year

understanding the tread pattern

The tread on a tire can tell you a lot about what kind of tire it is and how it is likely to perform in various conditions.

1 sipes

- More sipes – higher wet traction on highway
- Solid blocks – better tear resistance in gravel, etc/

2 lateral grooves

- Open - improved mud, sand and snow traction
- Closed - quiet and higher cornering power on highway

3 shoulder blocks

- Open – higher traction
- Closed – quiet and higher cornering on a highway

4 centre rib

- Solid – responsive highway handling
- No rib (lugs) – higher traction

5 circumferential grooves

- Wide and clear – improved water dispersion at highway speeds
- Zigzag and lugs – improved off road and snow traction

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Toyota's tire pressure monitoring system

Your Toyota may be equipped with a technically-advanced Tire Pressure Monitoring System. This is for safety reasons. While this tool keeps you informed about your tire pressure, it is no substitute for regular tire maintenance. Toyota recommends regular, first-hand visual inspection of your tires, as well as bi-weekly tire pressure checks.

how the tire pressure monitoring system works

Most 2008 and newer model year vehicles may be equipped with the direct system which utilizes a sensor that accurately measures both tire pressure and tire air temperature. This sensor is fitted to the inner side of each wheel and transmits data via electronic waves to the receiver. Some 2007 and older model year vehicles are equipped with the indirect system which uses the Resonance Frequency Method & Relative Wheel Speed Difference Method to determine irregularities. If an inconsistency is detected in either of these systems, the warning light symbol illuminates on your dashboard.



warning symbol for low tire pressure

If this symbol lights up, it is alerting you that one or more of your tires may be under-inflated.

If this warning light keeps blinking on and off (for 60 to 90 seconds), it is indicating a malfunction in the system. After blinking for this time, the warning light may remain on. If the light remains on, contact your Toyota Dealer immediately for a system inspection.

does the warning light always indicate that tire pressure is low?

The warning light may indicate a system malfunction requiring a Toyota Dealer's attention. If it flashes before staying on continuously, the tire pressure could be within the appropriate range, but you should contact your Toyota Dealer for a system inspection.

If a tire consistently needs to be filled with air, have it checked by your Toyota Dealer. For vehicles equipped with the Tire Pressure Monitoring system, Toyota recommends the installation of a Tire Pressure Monitoring System (TPMS) on winter wheels.

tire brands

For your convenience Toyota offers 14 of Canada's top brands.



everything you need to know about tires

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