



TIRE WARRANTY GUIDE

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Passenger and Light Truck Tire Limited Warranty

About This Warranty

As the original purchaser of a BFGOODRICH® 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 contained in this booklet.

Limited Mileage Warranty

BFGOODRICH original equipment passenger and light truck tires are covered by a limited mileage warranty (hereafter referred to as limited warranty for treadwear). For the mileage warranty associated with each tire line, please see your BFGoodrich tire retailer – or visit us at tireregistration.com.

Certain conditions and limitations apply. Mileage warranties vary by tire line and certain exclusions may apply.

What Is Covered and for How Long?

BFGOODRICH passenger and light truck tires that are used in normal service on the vehicle on which they were originally fitted are covered as follows:

Workmanship and Materials

If there is a defect in workmanship and materials during the life of the original usable tread, or six (6) years from date of purchase (whichever comes first), your tire may be replaced on a pro rata basis under this warranty. After six (6) years or the wear of the original usable tread, whichever occurs first, all warranties, expressed or implied, expire.

The “date of purchase” refers to the date on your sales invoice. If you cannot find your sales invoice, the date will be calculated based on the date of manufacture which is molded on the sidewall of your tire.

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The “life of the usable tread” refers to the original tread worn down evenly across the face of the tread to the level of the treadwear indicators, which is 2/32nds of an inch (1.6 mm) of tread remaining. Uneven wear is defined as a tread groove difference of 2/32nds of an inch or more across the face of the tread on the same tire.

Treadwear

If the tire treadwear does not reach its mileage warranty a pro rata replacement of the tire may be available under this warranty. For the mileage warranty associated with a specific tire, please see your BFGoodrich tire retailer or visit tireregistration.com.

In order to maintain the treadwear warranty on your tires, the tires must be rotated every 6,000 to 8,000 miles (10,000 -12,000 km), or as recommended by the vehicle manufacturer, whichever rotation period is less. Failure to rotate the tires as provided herein voids the treadwear warranty.

Note that if you use different size tires on the front and rear axles, your tires cannot be rotated as recommended by BFGoodrich. As a result, the mileage warranty on each rear tire will be half that specified.

What Is Not Covered

This warranty does not cover tires damaged due to misuse, abuse or accident such as:

- Road hazards (e.g., cuts, snags, bruises, impact damage or punctures);
- Incorrect mounting of the tire, tire/wheel imbalance or improper repair;
- Misapplication, improper maintenance, racing, underinflation, overinflation or other abuse;
- Uneven or rapid wear which is caused by mechanical irregularity in the vehicle such as wheel misalignment (a measured tread difference of 2/32nds of an inch or more across the face of the tread on the same tire);
- Accident, fire, chemical corrosion, tire alteration or vandalism;

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- Flat spotting caused by improper storage or brakelock;
- The addition of liquid, solid or gaseous materials other than air, nitrogen or carbon dioxide (for example, waterbase sealers or balancing substances);
- Minor cosmetic ozone or weather cracking;
- Use of BFGOODRICH tires that is inconsistent with the safety and/or maintenance information provided in your owner's manual.

Other limitations include but are not limited to the following:

- Failure to rotate your tires as recommended by BFGoodrich voids the treadwear warranty.
- The mileage warranty on each rear tire will be half that specified for tires that cannot be rotated as recommended by BFGoodrich because the tire size on the front axle of the vehicle is different from that on the rear axle.
- No treadwear warranty for tires used in commercial applications (such as mail carrier, taxi cab or ride sharing vehicles).
- DOT-approved competition tires are excluded from any mileage warranty.
- Winter tires must be used during winter months only. These include the months of September through April, defined as a period beginning on or after September 1st of a given year and ending no later than April 30th of the following year. BFGOODRICH® winter tires require documentation of the timing of the installation and removal of the tires each winter to maintain coverage under the limited warranty for treadwear.

What Will BFGOODRICH Do?

Workmanship/Materials

If a tire is covered, and 2/32nds of an inch (1.6mm) or less of the original tread is worn (or 25% or less, whichever is more beneficial to you), and it is within 12 months of the date of purchase, BFGoodrich will, free of charge, replace your tire with a comparable new BFGOODRICH® replacement tire, mount the tire, and balance the tire. You must pay the cost of any other service charges and applicable taxes.

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If a tire is covered, and more than 2/32nds of an inch of original tread has been worn (or more than 25%, whichever is more beneficial to you), or it has been more than 12 months from the date of purchase, BFGoodrich will replace the tire with a comparable new BFGOODRICH replacement tire on a pro rata basis. This means that you will be responsible for paying a portion of the cost. The BFGoodrich tire retailer will determine the portion for which you will be responsible by multiplying the percentage of the original usable tread worn, by the current selling price at the adjustment location or the price in the current BFGoodrich Base Price List, whichever is lower. You also will be responsible for paying in-full the cost of mounting and balancing the tire, and the cost of any other service charges and applicable taxes.

Treadwear

If a tire is covered and wears out evenly across the face of the tread before delivering the warranted mileage, BFGoodrich will replace the tire with a comparable new BFGOODRICH® replacement tire on a pro rata basis. This means that you will be responsible for paying a portion of the cost. The BFGoodrich tire retailer will determine the portion for which you will be responsible by multiplying the percent of mileage received by the current actual selling price at the adjustment location or the price of the tire in the current BFGoodrich Base Price List, whichever is lower. You will be responsible for paying in-full the cost of mounting and balancing the tire, and the cost of any other service charges and applicable taxes.

Tires which wear out evenly before delivering the warranted mileage will be replaced on a pro rata basis only if:

1. You are the original purchaser of the tires, you own the vehicle on which they were originally installed, and the tires have been used only on that vehicle;
2. The tires have been rotated and inspected every 6,000-8,000 miles (10,000-12,000 km), or as specified by your vehicle manufacturer, whichever rotation period is less, and the attached Mounting and Rotation Service Record has been fully completed and signed.
3. The completed Service Record form, Original Owner/Tire Installation Information form, and the original Invoice are

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presented to a participating BFGoodrich tire retailer at the time of adjustment claim, and

4. The tires have not become unserviceable due to a condition listed under WHAT IS NOT COVERED.

How Do I Get a Replacement?

Take your tire to any BFGOODRICH tire retailer. The retailer will require that you provide one or more the following:

1. The vehicle on which the tire was used,
2. Personal identification (e.g. Driver's License),
3. Your vehicle registration,
4. Payment if you owe a pro rata share for the replacement,
5. A completed Service Record form, and Original Owner/Tire Installation Information Form,
6. Your original invoice and copy of this Owner's Manual, and/or
7. For treadwear replacement claims, documents showing that your tires have been rotated and inspected every 6,000-8,000 miles (10,000-12,000 km) or as specified by your vehicle manufacturer, whichever rotation period is less, and the attached Mounting and Rotation Service Record has been fully completed and signed.

What Conditions and Exclusions Apply?

This warranty does not provide compensation for loss of time, loss of use of vehicle, inconvenience or consequential damage. Some states do not allow the exclusion or limitation of incidental or consequential damages, so these limitations or exclusions may not apply to you.

This warranty limits the length of all express and implied claims. Some states do not allow limitations on how long an implied warranty lasts, so this limitation may not apply to you.

Tires presented for claim remain the property of the consumer, and BFGoodrich is not responsible for loss of or damage to tires which are in the custody or control of a BFGoodrich tire retailer for the purpose of inspection for warranty claims. In the event of a disputed claim, the

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consumer must make the tire available for further inspection. Tires accepted for claim become the property of BFGoodrich.

No BFGoodrich representative, employee or retailer has the authority to make or imply any representation, promise or agreement, which in any way varies the terms of this warranty. These limited warranties apply only in the United States and Canada.

This warranty gives the user specific legal rights, and the user may also have other rights which vary from state to state.

How Do I Dispute Issues Concerning This Warranty?

ALL CLAIMS ARISING FROM THIS LIMITED WARRANTY OR THE MARKETING, SALE OR PERFORMANCE OF THE PURCHASED PRODUCT AGAINST BFGOODRICH NORTH AMERICA, INC. AND ITS AGENTS, EMPLOYEES, DEALERS, AFFILIATES, PARENT OR SISTER CORPORATIONS, RELATED CORPORATE ENTITIES, PREDECESSORS, SUCCESSORS OR ASSIGNS (HEREINAFTER COLLECTIVELY "BFGOODRICH") SHALL BE SUBJECT TO BINDING ARBITRATION. You and BFGoodrich acknowledge your and its right to litigate claims, disputes and controversies arising out of or in connection with this limited warranty or the marketing, sale or performance of the purchased product in court, but prefer to resolve any such claims, disputes and controversies through arbitration and hereby waive the right to litigate such claims, disputes and controversies in court upon election of arbitration by either party. Therefore, you and BFGoodrich agree that all claims, disputes, and controversies between you and BFGoodrich arising out of or in connection with this limited warranty, or any other warranties, express or implied, including a failure of warranty, or any claims arising out of or in connection with the marketing, sale or performance of the purchased product, including but not limited to claims for consumer fraud or brought under any consumer protection statute, but excluding claims for personal injury or property damage, shall be finally resolved solely by arbitration, upon election by either party, according to the formal dispute resolution procedures then in effect of the National Arbitration Forum, or if the National Arbitration Forum is no longer conducting such arbitrations, a successor organization thereto or such

other private arbitration service as you and BFGoodrich shall mutually agree (the actual authority involved, the “Arbitral Body”). The Arbitral Body shall decide the issues submitted in accordance herewith, provided that all substantive questions of law will be determined under the laws of the State in which you purchased the product at issue. You agree that no claim subject to arbitration shall be arbitrated as a class action, or on a class-wide or representative basis, or on behalf of the general public, or on behalf of other persons that may be similarly situated. You agree that you do not have the right to act as a private attorney general, a class representative, or to participate as a member of a class of claimants with any claim subject to arbitration. You further agree that no claim subject to arbitration shall be heard by a jury and that any judgment or award of the Arbitral Body will be final and not subject to judicial review. All arbitrations will be conducted as document hearings. Each party shall bear its own costs arising from and associated with the document hearing with the exception of the arbitrator’s fee which will be borne by all parties in equal shares. If either party requests any procedures beyond a document hearing, the requesting party will be responsible for all fees, including filing and administrative fees, above and beyond the fees required for document hearings. Any award of the arbitrator(s) may be entered as a judgment and shall be enforceable in any court of competent jurisdiction. The arbitrators will have no authority to award punitive or other damages not measured by the prevailing party’s actual damages, except as may be required by statute. Information about arbitration may be obtained and claims may be filed at any office of the National Arbitration Forum or at P.O. Box 50191, Minneapolis, MN 55405.

Tire Safety and Maintenance

The Importance of Maintaining Safe Tires

The tire is the only contact between your vehicle and the road surface. Following the inspection and maintenance instructions in this owner’s manual is critical to help ensure safe use and longer tire life. Visit the “Tires 101” page at bfgoodrichtires.com for more information about the important safety instructions and procedures in this owner’s manual.

Safety Maintenance Information

Read this Owner's Manual, the information on the sidewall of your tires, your vehicle owner's manual and the tire information placard that came on your vehicle, for essential safety and maintenance information.

While you should have complete confidence in your new BFGOODRICH® tires, it's important to register your tires so we can contact you about any new safety developments. For online tire registration, visit www.tireregistration.com.

Tire Failure – Safety Warning

Any tire may fail as a result of an improperly repaired puncture, impact damage, improper inflation, overloading, a crack, a bulge or other distortion, 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, death, or property damage. To reduce the risk of a tire failure, you should thoroughly read and follow the instructions in this manual, your vehicle owner's manual, the tire information placard on the vehicle (located in the vehicle's door jamb, inside the fuel hatch, or on the glove compartment door), and tire sidewall information regarding safety warnings, proper tire use, and proper tire maintenance.

Controlling a Vehicle When a Tire Failure Occurs

If a tire failure occurs, you may hear a loud noise, feel a vibration, or feel the vehicle pull toward the side of the failed tire. If that happens, **DO NOT BRAKE OR ABRUPTLY TURN THE STEERING WHEEL.** Instead, 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 in your control, apply the brakes gently, safely pull over to the shoulder, and come to a stop in the safest location possible. Inspect all tires. If any tire looks flat or low, or shows detachment or any other damage, replace the wheel and tire with a properly inflated spare after first inspecting the spare for

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visible damage. Bumps, bulges, or cracks in any tire may indicate detachment within the tire body and require inspection by a qualified tire professional. If any tire, including the spare, has bumps, bulges, cracks, or other visible damage, do not resume driving with that tire. If you have no other option, you should drive as slowly and cautiously as possible until you can obtain towing or mechanical assistance. If the spare tire is not properly inflated, do not resume driving with that tire unless you have no other option, in which case you should drive only as slowly as is safely possible in the traffic conditions until you can both get the spare tire properly inflated and have it checked by a tire professional to ensure that it is safe to use.

Proper Inflation



Driving on Any Tire That Does Not Have the Correct Inflation Pressure Is Dangerous

An underinflated tire builds up excessive heat that may result in sudden tire failure and an accident. If your tires are those that came as original equipment on your vehicle when it was new, refer to the tire information placard that came on your vehicle (located in the vehicle's door jamb, inside the fuel hatch, or on the glove compartment door), for the recommended operating pressures. For replacement tires, ask your BFGoodrich tire retailer for the correct inflation pressure; if you do not, refer to the tire information placard that came on your vehicle (located in the vehicle's door jamb, inside the fuel hatch, or on the glove compartment door), for the recommended operating pressures. These inflation pressures must be maintained as a minimum. Never exceed the Maximum Pressure rating stated on the tire sidewall. Note that proper inflation pressures for rear tires may differ from proper inflation pressures for front tires. The Maximum Pressure rating on the tire is normally not equal to the placard pressure.

Check the Cold Inflation Pressure in All Your Tires, Including the Spare, at Least Once Each Month

Failure to maintain correct inflation may result in improper vehicle handling and may cause rapid and irregular tire wear, sudden tire failure, loss of vehicle control, and an accident. Therefore, inflation pressures should be checked at least once each month and before every long-distance trip. This applies to all tires, including sealant types and self-supporting tires, which are as susceptible to losing inflation as any other type of tire if not properly maintained. Pressures should be checked before the tires have been driven on or after they have been allowed to cool down to the ambient air temperature. Driving for even a short distance causes tires to heat up and their inflation to increase, and recommended tire pressures are for tires that have not been heated by recent driving on them.

Underinflation and Overinflation Must Be Checked with a Tire Pressure Gauge

Tires must be checked monthly with a tire pressure gauge. 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 overinflated. Use an accurate tire pressure gauge to check tire pressure each month. Small and inexpensive tire pressure gauges are available. You should keep one in your vehicle's glove box or trunk and use it monthly and as otherwise needed.

Tire Pressure Monitoring Systems (TPMS)

Your vehicle is likely 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. You should 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 is on a placard located in the vehicle's

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door jamb, inside the fuel hatch, or on the glove compartment door. If you have plus-size tires that require a higher inflation pressure, your tire pressure monitoring system will require re-calibration to the new proper inflation pressure. Refer to your tire dealer/installer of plus-size tires for proper inflation pressure. You should check inflation in all your tires, including the spare, once each month and before every long trip. Regardless whether your spare is a full-size spare or a mini-spare, make sure that it is properly inflated. If the TPMS generates improper monitoring or signals, you should consult your vehicle owner's manual and follow up with your vehicle's manufacturer.

Tire Spinning

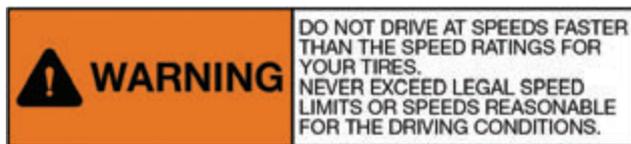


Do not spin wheels at more than 35 mph (55 km/h) as indicated on your vehicle's speedometer. Excessive speed in a free-running, unloaded tire can cause it to "explode" from centrifugal force. The energy released by such an explosion may cause serious physical injury or death. Never allow anyone to stand near or behind a spinning tire. When in mud, sand, snow, ice, or another slippery condition, do not engage in excessive wheel spin. Accelerating the motor excessively, particularly with automatic transmission vehicles, may cause a drive tire that has lost traction to spin beyond its speed-enduring capability. This is also true when balancing a drive tire/wheel assembly on the vehicle using the vehicle engine to spin the tire/wheel assembly.

High Speed Driving Is Dangerous

Correct inflation pressure is especially important. However, at high speeds, even with the correct inflation pressure, a road hazard is more difficult to avoid, and if tire contact is made with it, there is 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.

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Exceeding the maximum speeds shown on the following page for each type of BFGOODRICH® tire will cause the tire to build up excessive heat, which can cause tire damage that could result in sudden tire failure and rapid air loss. Failure to control a vehicle when one or more tires experience a rapid air loss can lead to an accident.

In any case, you should not exceed reasonable speeds as indicated by the legal limits and driving conditions.

Speed Rating System

The speed rating of a tire indicates the speed category (or range of speeds) at which the tire can carry a load under specified service conditions. The speed rating system used today was developed in Europe in response to the need to categorize tires into standardized speeds. A letter from A to Z symbolizes a tire's certified speed rating, ranging from 5 km/h (3 mph) to above 300 km/h (186 mph). This rating system (see chart on this page) describes the top speed for which a tire is certified.

Speed Symbol	Speed (km/h)	Speed (mph)
L	120	75
M	130	81
N	140	87
P	150	94
Q	160	100
R	170	106
S	180	112
T	190	118
U	200	124
H	210	130
V	240	149
W	270	168
Y	300	186
(Y)	Above 300	Above 186 (consult tire manufacturer)

When this speed rating system was originally developed, the Unlimited V category of over 210 km/h (130 mph) was the top speed rating a tire could achieve. As manufacturers made more tires that fit into this category, it was necessary to better regulate performance at standardized speeds to help ensure safety. The Limited V category of 240 km/h (149 mph) was then created, and the Z or (Y) speed rating was added as the top speed rating that a tire could achieve. W and Y limited speed symbols have been added as higher speed categories.

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Always consult the tire manufacturer for the maximum speed of Unlimited Z or (Y) tires. Speed rating is identified as a part of the tire's sizing or service description. Exceeding the lawful speed limit is neither recommended nor endorsed.

In the latest attempt to standardize tire designations, all ratings except Unlimited Z incorporate the speed symbol and load index as the tire's service description.

For Example:

205/60R15 91V		
205	=	Section Width in Millimeters
60	=	Aspect Ratio
R	=	Radical Construction
15	=	Rim Diameter in Inches
91V	=	Service Description (Load Index and Speed Rating)

“Z” Rated Tires

When “Z” appears in the size description with the service description, the maximum speed is indicated by the service description.

Examples:

Tire Designation	Maximum Speed
P275/40ZR17	Above 240 km/hr (149 mph)*
P275/40R17 93Y	300 km/hr (186 mph)
P275/40ZR17 93Y	300 km/hr (186 mph)
P275/40ZR17 (93Y)	Above 300 km/hr (186 mph)*

*Consult Tire Manufacturer

For tires having a maximum speed capability above 240 km/hr (149 mph), a “Z” may appear in the size designation.

For tires having a maximum speed capability above 300 km/hr (186 mph), a “Z” must appear in the size designation and the service description must include Y in parenthesis. Example: 275/40ZR18 (99Y). Consult the tire manufacturer for maximum speed when there is no service description.

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Consult your BFGoodrich tire retailer for maximum speed capabilities. Although a tire may be speed-rated, no vehicle should be operated in an unsafe or unlawful manner. Speed ratings are based on laboratory tests that 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 vehicles 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. BFGoodrich highway passenger tires that do not have a speed symbol on the sidewall have a maximum speed rating of 105 mph (170 kph). Light truck highway tires that do not have a speed symbol on the sidewall of the tire have a maximum speed rating of 87 mph (140 kph). BFGoodrich winter tires that do not have a speed symbol on the sidewall or tires with Q symbols have a speed rating of 100 mph (160 km/hr). Winter tires with a speed symbol have a maximum speed rating in accordance with the symbol. The speed and other ratings of retreaded tires are assigned by the retreader and replace the original manufacturer's ratings. **IMPORTANT:** The replacement tire speed rating should be equal to or higher than the OEM tire speed rating. If a lower speed rated tire is selected, then the vehicle top speed becomes limited to that of the lower speed rating selected. The customer must be informed of the new speed restriction and that the vehicle's handling may be adversely impacted. **REMEMBER...**High speed driving can be dangerous and may damage your tires. **AND...**When driving at highway speeds, correct inflation pressure is especially important.

Inspect Your Tires, and Do Not Drive on a Damaged Tire or Wheel



Road hazards and objects in the road, such as potholes, curbs, glass, metal, rocks, wood, and debris, can damage a tire and should be safely avoided. If your vehicle hits any such hazard or object, however,

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you should promptly inspect your tires. If you see any damage to any tire or wheel, replace it with a properly inflated spare at once and have your tires, including the spare, inspected by a tire professional.

A tire that hits a road hazard or object can be damaged but not have any visible sign of damage on its surface. A tire damaged by an impact can suddenly fail a day, a week, or even months later. You may not recall having hit an object or a road hazard and may not see any tire damage, but such an event may have damaged one or more of your tires. Air loss, unusual tire wear, localized wear, or vibrations can also be signs of internal tire damage and, accordingly, should be addressed as promptly as are instances of visible 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 object, or if you feel or hear any unusual vibration, replace the tire and wheel with a properly inflated spare at once and immediately visit a qualified tire professional.

Inspection



If you see any damage to a tire or wheel, replace it with a properly inflated spare at once and visit a BFGoodrich Tire Retailer.

Inspect your tires at least once per month, and immediately after contacting any road hazard or object, such as a curb, a pothole, or debris. When inspecting your tires, including the spare, check the inflation as instructed above. If the pressure check indicates that one of your tires has lost pressure of two pounds or more, look for signs of penetration, 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. Any of these may be caused by misalignment, contact with road hazards or objects, or improper inflation. If any such damage is found, the tire must be

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inspected by your BFGoodrich tire retailer at once. Use of a damaged tire could result in tire failure and an accident.

All tires will wear out faster when subjected to high speeds, hard cornering, rapid starts, sudden stops, frequent driving on roads that are in poor condition, or offroad use. Roads with holes, 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, bumps, bulges, penetrations, or unusual wear patterns.

Tread Wear Bars Indicate the Limit of Tread Life

BFGOODRICH® tires contain “Wear-Bars” in the tire tread grooves at 2/32nds of an inch (1.6mm). When the tread remaining matches the height of the Wear Bars, your tires must be replaced to ensure tire safety. Tires worn beyond this stage are extremely dangerous. For more information on checking tread depth, visit the “Tires 101” at bfgoodrichtires.com and read the illustrated how-to information on tire inspection.

Loading



The maximum load rating of your tires is molded on the tire sidewall. Do not exceed this rating. Follow the loading instructions of the manufacturer of your vehicle to ensure that your tires are not overloaded.

Tires loaded beyond their maximum allowable loads for the particular application will build up excessive heat that may result in sudden tire failure and an accident. Do not exceed the gross axle weight rating for any axle on your vehicle.

Trailer Towing

If you anticipate towing a trailer, you should visit your BFGoodrich tire retailer for advice about the correct tire size and pressures. Tire size and pressures will depend on the type and size of trailer and hitch utilized, but in no case must the maximum cold inflation pressure or tire load rating be exceeded. Check the tire information placard that came on your vehicle, (located in the vehicle's door jamb, inside the fuel hatch, or on the glove compartment door) 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 How Your Tires Are Wearing at Least Once Each 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 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 which have been run underinflated will show more wear on the shoulders than in the center of the tread. Read and follow the instructions on tire rotation and replacement below.

Tire Mixing



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BFGOODRICH® tires are radial tires. For best, safe performance, the same size and type of tire should be used on all four wheel positions, and the full size spare should be the same size and type. 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 when mixing, matching, or replacing tires on 4-wheel drive vehicles, as this may require special precautions.

Winter Driving

Tires that meet the U.S. Tire Manufacturers Association 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 in regions that experience winter conditions.

Although All-Season tires are designed to provide reliable performance in some winter conditions, the use of four winter tires is recommended for optimal performance. Tires designated for use in severe winter conditions are marked on at least one sidewall with the letters "M" and "S" plus a pictograph of a mountain with a snowflake on it. If such a tire needs to be temporarily replaced with a tire not so marked, you should immediately drive at a safe speed to a BFGoodrich dealer to have the spare returned to the trunk and replaced on your vehicle by another tire with the letters "M" and "S" and the related pictograph.



Tire Rotation and Replacement

To obtain maximum tread life, you must rotate your tires. You should rotate your tires every 6,000 to 8,000 miles (10,000 to 12,000 km) or as specified by your vehicle manufacturer, whichever occurs more frequently. Check your vehicle owner's manual for any recommendations by your vehicle manufacturer. Monthly inspection for tire wear is recommended. Your tires should be rotated at the first sign of irregular wear, even if it occurs before 6,000 miles (10,000 km). This is true for all vehicles. When rotating tires with a directional tread

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pattern, observe the arrows molded on the sidewall that show the direction in which the tire should rotate.

Care must be taken to maintain the proper rotation direction. Some Tire Pressure Monitoring Systems (TPMS) may not recognize that a tire has been moved to a different position on your vehicle. Make certain that your TPMS system is reset, if necessary, so as to correctly identify the location of each tire on your vehicle. Refer to your vehicle owner's manual or your vehicle dealer for this information. Determine whether rotated tires require tire inflation adjustment, because 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 tires of different size mounted on the front versus the rear axles, and these different 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 and should be inspected by a tire professional during routine tire inspection. Always have spare tires inspected before installation. Tires are composed of various types of rubber compounds and other materials having performance properties essential to the proper functioning of the tire. These component properties change over time. Always check the inflation pressure of the full-size spare and look for any indication of cracking or other damage immediately before incorporating the spare into rotation. If you see any damage, or if the tire is underinflated, do not resume driving with that tire unless you have no other option, in which case you should drive only as slowly as is safely possible in the traffic conditions until you can both get the spare tire properly inflated and have it checked by a tire professional to ensure that it is safe to use. Follow the vehicle manufacturer's recommended pattern for rotation. If such a recommendation is unavailable, see a qualified tire professional.

Replacement of Two Tires

All four tires should be replaced at the same time. However, if only two tires are replaced, the new ones should be put on the rear. Deeper tread tires on the rear axle provide better handling, wet grip and evacuate water, thereby helping to avoid oversteer and loss of vehicle stability on wet surfaces. Deeper tread tires on the front axle can improve wet straight line braking and stopping distance. If only two tires are being replaced, BFGoodrich generally recommends they be installed on the rear axle in the absence of a tire service professional's recommendation or consumer's preference to the contrary.

Customization of Tires, Wheels, or Suspension on SUVs and Light Trucks

Due to their size, weight and higher center of gravity, vehicles such as SUVs and light trucks do not have the same handling characteristics as automobiles. Because of these different characteristics, failure to operate your SUV or truck in a proper and safe manner can increase the likelihood of vehicle rollover. Modifications to your SUV or truck tire size, tire type, wheels or suspension can change your vehicle's handling characteristics and further increase the likelihood of vehicle rollover. Whether your SUV or 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 alterations on your tires. Alterations may prevent proper performance, leading to tire damage that can result in an accident. Tires that become unserviceable due to alterations such as truing, whitewall inlays, addition of balancing

BFGOODRICH TIRE

or sealant liquids, or the use of tire dressing containing petroleum distillates, are excluded from warranty coverage.

Tire Repairs



Whenever a Repair Is Needed, Immediately See Your BFGOODRICH® Tire Retailer or, If One Is Not Readily Available, Another Qualified Tire Professional

If any BFGOODRICH® tire sustains a puncture, have the tire demounted and thoroughly inspected by a qualified tire professional for possible damage that may have occurred. A tread area puncture in any BFGOODRICH® passenger or light truck tire can be repaired if the puncture hole is not more than 1/4" in diameter, not more than one radial cable per casing ply is damaged, and 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 the U.S. Tire Manufacturers Association's recommended repair procedures.

Repairs of all tires must be of the combined-plug-and-inside-patch type. Your BFGOODRICH tires must be removed from the wheel for inspection prior to repair. Plug-type repairs made on a tire that remains mounted on a wheel are improper and can result in an accident. 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 and can result in an accident. An improperly repaired tire may 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 and result in an accident. Never repair a tire with less than 2/32nds of an inch of tread remaining. At this tread depth, the tire is worn out and must be replaced.

Storage

Tires contain materials to protect their outer surfaces from ozone and weather checking. As the tire rolls and flexes, those materials 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 tires in accordance with these instructions could result in damage to your tires or 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.

One reason why your spare tire should be included in the tire rotation schedule is that temperatures in a vehicle's closed trunk, especially in sunny geographical areas, can become high enough so that, over a sustained period, they can cause small cracks or other changes to the properties of a tire stored in the trunk. An accumulation of such changes can weaken the tire and, especially if the tire is not kept properly inflated, make it unsafe to use when it is needed.

Proper Tire Mounting

Tire mounting can be dangerous and must be done by professionally trained persons using proper tools and procedures as specified by the U.S. Tire Manufacturers Association.

Your tires should be mounted on wheels that are the correct size and type and are in good, clean condition. Wheels that are bent, chipped, rusted (steel wheels) or corroded (alloy wheels) may cause tire damage. The inside of the tire must be free from foreign material.

BFGOODRICH TIRE

Have your tire retailer check the wheels before mounting new tires. Mismatched tires and rims can explode during mounting. Also, mismatched tires and rims can result in dangerous tire failure on the road. If a tire is mounted by error on the 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 and could fail on the highway, resulting in an accident.

Old valves may leak. When new tubeless tires are mounted, have new valves of the correct type installed. Tubeless tires must be mounted only on wheels designed for tubeless tires, i.e., wheels that have safety humps or ledges. Always utilize valve caps capable of containing the tire's inflation, should the valve core leak. The valve cap is the primary seal against air loss. Each tire and wheel assembly should be balanced to ensure proper tire and vehicle performance and to maintain tire warranty coverage. Tires and wheel assemblies that are not balanced may cause steering difficulties, a bumpy ride, and irregular tire wear.

Temporary Type Spare Tires

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

Reading the Dot

DOT XXXX XXXX XXX (prior to August 2000)

DOT XXXX XXXX XXXX (after July 2000)

The Dot

The "DOT" symbol certifies tire manufacturer's compliance with U.S. Department of Transportation 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: "O25" means second week of the

BFGOODRICH TIRE

year of decade, e.g.: 1995, 1985, etc.) For the 1990-1999 decade BFGOODRICH® 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 28th week of 2000; 0201 during the 2nd week of 2001. If the last digits of your DOT number contain three numeric characters and are not marked with a triangle, consult a qualified tire professional to determine the year of manufacture.

Service Life and Safety for Passenger Car and Light Truck Tires Including Spare 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 is why, in addition to regular inspections and inflation pressure maintenance by consumers, it is recommended that passenger car and light truck tires, including spare tires be inspected regularly by a qualified tire specialist, such as a BFGoodrich tire retailer, who will assess the tire's suitability for continued service. Tires which have been in use for 5 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 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. The code begins with "DOT" and ends with the week and year of manufacture. For example, a DOT code ending with "2214" indicates a tire made in the 22nd week of 2014.

Remember . . . to Avoid Damage to Your Tires and Possible Accident:

- *INSPECT TIRES AT LEAST MONTHLY, AND IMMEDIATELY AFTER STRIKING ANY ROAD HAZARD.*
- *CHECK TIRE PRESSURE AT LEAST ONCE EACH MONTH WHEN TIRES ARE COLD AND BEFORE EVERY LONG TRIP.*
- *NEVER UNDERINFLATE OR OVERINFLATE A TIRE.*
- *NEVER OVERLOAD YOUR VEHICLE AND TIRES.*
- *ALWAYS OBEY LEGAL SPEED LIMITS AND DRIVE AT A SPEED THAT IS REASONABLE UNDER THE ROAD AND WEATHER CONDITIONS.*
- *AVOID DRIVING OVER POTHOLES, OBSTACLES, CURBS OR EDGES OF PAVEMENT.*
- *AVOID EXCESSIVE WHEEL SPINNING.*
- *IF YOU SEE ANY DAMAGE TO A TIRE, REPLACE THE TIRE WITH A PROPERLY INFLATED SPARE AND VISIT A QUALIFIED TIRE PROFESSIONAL AT ONCE.*
- *KEEP TIRES AND WHEELS PROPERLY ALIGNED, BALANCED, AND ROTATED.*
- *HAVE MOUNTING AND REPAIRS DONE BY A TIRE PROFESSIONAL.*
- *IF YOU HAVE ANY QUESTIONS, CONTACT YOUR BFGOODRICH TIRE RETAILER.*

FAILURE TO FOLLOW ANY OF THE RECOMMENDED

BFGOODRICH TIRE

PRECAUTIONS CONTAINED IN THIS OWNER'S MANUAL CAN LEAD TO ERRATIC VEHICLE BEHAVIOR OR TIRE DAMAGE, POSSIBLY RESULTING IN AN ACCIDENT.

If you see or suspect any damage to your tires or wheels, contact your local BFGoodrich tire retailer, or visit our web site listed below for dealer locations. If further assistance is required, contact:

IN THE USA 1-800-847-3435

or write:

Michelin North America, Inc.
Attention: Consumer Care Department
Post Office Box 19001
Greenville, SC 29602-9001

or visit: bfgoodrichtires.com

IN CANADA 1-888-871-4444

or write:

Michelin North America (Canada) Inc.
2500 Daniel Johnson, Suite 500
Laval, Quebec
H7T 2P6

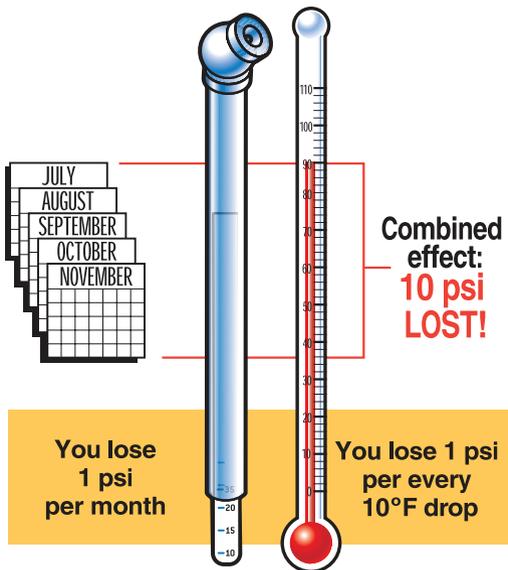
or visit: bfgoodrichtires.ca

Original Equipment Passenger and Light Truck Tires Including RFT Tires with Run-Flat Technology

Tire Care Basics

Tire Inflation Pressure

Tires can lose 1 psi (pound per square inch) per month under normal conditions. Additionally, tires can lose 1 psi for every 10° F temperature drop.



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Just a look won't do it. One of these tires is actually 10 psi under-inflated. Your eyes can deceive you, so rely on a good tire gauge for an accurate reading.



30 psi



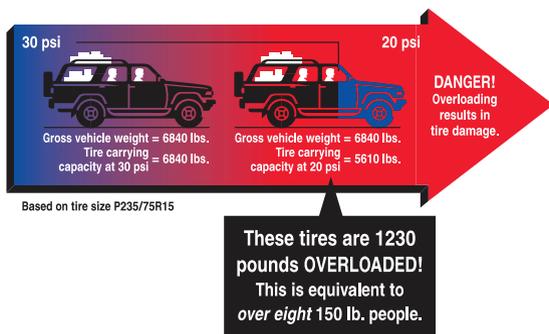
20 psi

Look for the manufacturer's recommended tire pressure listed on the sticker usually located on the driver's-side door edge or door jamb area. Example:

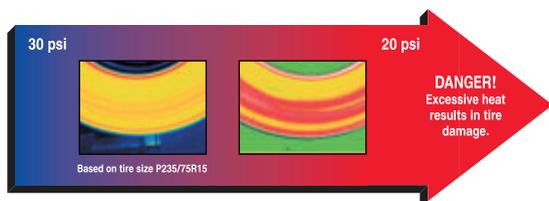
TIRE AND LOADING INFORMATION				
SEATING CAPACITY		TOTAL 6	FRONT 3	REAR 3
The combined weight of the occupants and cargo should never exceed 611 kg or 1348 lbs.				
TIRE	SIZE	COLD TIRE PRESSURE		SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION
FRONT	P245/70R17 108S	240 kPa, 35 PSI		
REAR	P245/70R17 108S	240 kPa, 35 PSI		
SPARE	P245/70R17 108S	240 kPa, 35 PSI		

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This chart shows you how underinflation can create an overload on tires. Check your tire pressure every month to make sure it's up to specification, especially before long trips or carrying extra weight.



Lower pressure increases heat. Infrared photography of tires tested at high speed. Damaging heat increases as inflation pressure drops.



Air Pressure—Monthly Check

For accuracy, check your inflation pressure with a tire gauge when tires are cold.

Driving heats up tires and makes the reading incorrect.

- a. Remove tire valve cap.



- b. Place the end of the tire gauge over valve.



- c. Press the tire gauge straight and firmly until the scale extends.



- d. If needed, increase pressure and recheck with the tire gauge.

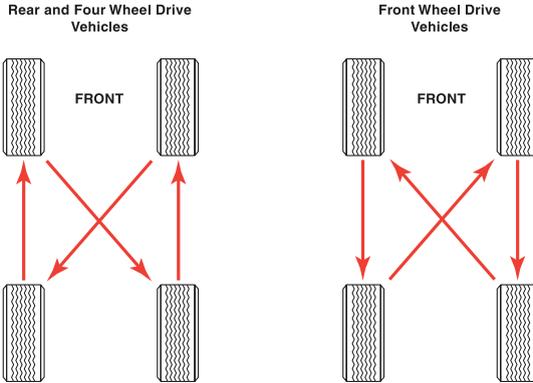


- e. Replace valve cap.



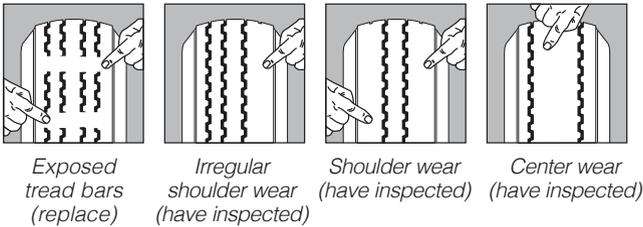
Tire Rotation

For maximum mileage, rotate your tires according to the vehicle manufacturer's recommendations (consult your vehicle owner's manual), or if not provided, rotate every 5,000 miles using a rotation pattern such as below (see "Radial Tire Rotation" in this manual).



Tire Wear—Visual Check

Check for obvious signs of wear.



Place a penny in the tire tread grooves as shown. If you can see the top of Lincoln's head, the tire is worn out and needs to be replaced.



Tire Maintenance and Safety Information

Any tire, no matter how well constructed, may fail in use as a result of punctures, impact damage, improper inflation, overloading, or other conditions resulting from use or misuse. Tire failure may create a risk of property damage, serious personal injury or death.



SAFETY WARNING

Serious personal injury or death may result from a tire failure. Many tire failures are preceded by vibration, bumps, bulges or irregular wear. If a vibration occurs while driving your vehicle or you notice a bump, bulge or irregular wear, have your tires and vehicle evaluated by a qualified tire service professional.

To reduce the risk of tire failure, Bridgestone Americas Tire Operations, LLC strongly recommends you read and follow all safety information contained in this manual. In addition, we recommend periodic inspection and maintenance, if necessary, by a qualified tire service professional.

Tire Failure While Driving



SAFETY WARNING

It is not often that a properly maintained tire will “blow out” while you are driving. More commonly, if inflation pressure is lost, it will be gradual. If you do experience a blowout or sudden tire failure, the following information should be helpful:

- When the failure occurs, you may hear a loud noise, feel a vibration, and/or the vehicle may pull toward the side of the failed tire.
- DO NOT abruptly brake or turn.
- Slowly remove your foot from the accelerator, hold the steering wheel firmly, and steer to maintain your lane position.
- Once the vehicle has slowed, apply the brakes gently.
- Gradually pull over to the shoulder and come to a stop, as far off the road as possible.

Tire Inflation Pressure

Tires need proper inflation pressure to operate effectively and perform as intended. Tires carry the vehicle, passenger, and cargo loads and transmit the braking, acceleration, and turning forces. The vehicle manufacturer recommends the inflation pressures for the tires mounted on your vehicle.



SAFETY WARNING

Driving on tires with improper inflation pressure is dangerous.

- Under-inflation causes excessive tire heat build-up and internal structural damage.
- Over-inflation makes it more likely for tires to be cut, punctured, or broken by sudden impact.

These situations can cause a tire failure, even at a later date, which could lead to serious personal injury or death. Consult the vehicle tire information placard and/or owner's manual for the recommended inflation pressures.

In addition to tire damage, improper inflation pressure may also:

- Adversely affect vehicle ride and handling.
- Reduce tire tread wear.
- Affect fuel economy.

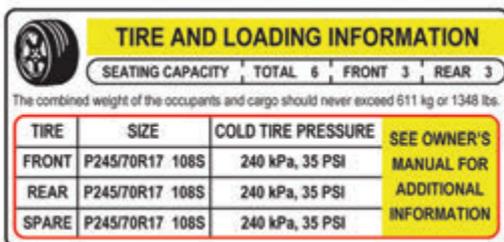
Therefore, follow these important recommendations for tire and vehicle safety, mileage, and economy:

- **Always keep the vehicle manufacturer's recommended inflation pressure in all your tires, including the spare.**
- **Check their pressure monthly and before long trips or carrying extra weight.**

Your vehicle's tire information placard and/or owner's manual will tell you the recommended cold inflation pressure for all your tires, including the spare. Examples of placards are shown in Figures 1 and 2. Your placard may look differently and have different tire and loading information than that shown in either of the figures. **You must**

check the driver's-side door edge or door jamb area for the actual placard that applies to your vehicle. For questions about locating or understanding the tire information placard, consult your vehicle owner's manual or ask a qualified tire service professional.

Figure 1: EXAMPLE—Tire and Loading Information Placard



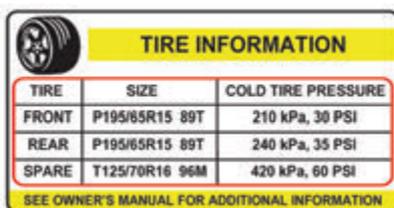
TIRE AND LOADING INFORMATION

SEATING CAPACITY TOTAL 6 FRONT 3 REAR 3

The combined weight of the occupants and cargo should never exceed 611 kg or 1348 lbs.

TIRE	SIZE	COLD TIRE PRESSURE	SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION
FRONT	P245/70R17 108S	240 kPa, 35 PSI	
REAR	P245/70R17 108S	240 kPa, 35 PSI	
SPARE	P245/70R17 108S	240 kPa, 35 PSI	

Figure 2: EXAMPLE—Tire Information Placard



TIRE INFORMATION

TIRE	SIZE	COLD TIRE PRESSURE
FRONT	P195/65R15 89T	210 kPa, 30 PSI
REAR	P195/65R15 89T	240 kPa, 35 PSI
SPARE	T125/70R16 96M	420 kPa, 60 PSI

SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION

Maximum Pressure Indicated on the Tire Sidewall: This is the maximum permissible inflation pressure for the tire only. The vehicle manufacturer's recommended tire pressures may be lower than, or the same as, the maximum pressure indicated on the tire sidewall. The vehicle manufacturer's specification of tire pressure is limited to your particular vehicle and takes into account your vehicle's load, ride, and handling characteristics, among other criteria. Since there may be several possible vehicle applications for a given tire size, a vehicle manufacturer may choose a different inflation pressure specification for that same size tire on a different vehicle. Therefore, always refer to the inflation pressure specifications on the vehicle tire information placard and/or in your vehicle owner's manual.

Different Tire Pressures for the Front and Rear Tires: For some vehicles, the recommended front and rear inflation pressures may be different (such as in the example shown in Figure 2). Make sure you take this into account during inflation pressure checks and when rotating tires.

Pressure Loss: Tires can lose 1 psi (7 kPa) per month under normal conditions and can lose 1 psi (7 kPa) for every 10°F (5.6°C temperature drop. A puncture, leaking valve, or other damage could also cause inflation pressure loss. If a tire loses more than 2 psi (14 kPa) per month, have it checked by a qualified tire service professional.

Tips For Safe Tire Inflation



SAFETY WARNING

Inflating an unsecured tire is dangerous. If it bursts, it could be hurled into the air with explosive force resulting in serious personal injury or death. Never inflate a tire unless it is secured to the vehicle or a tire mounting machine.

- Check your tire pressures, including your spare tire, monthly and before long trips or carrying extra weight. Be sure to use an accurate pressure gauge.
- Check inflation pressure when the tires are “cold.” Tires are considered “cold” when the vehicle has been parked for three hours or more, or if the vehicle has been driven less than a mile at moderate speed.
- Never release pressure from a hot tire in order to reach the recommended cold tire pressure. Normal driving causes tires to run hotter and inflation pressure to increase. If you reduce inflation pressure when your tires are hot, you may dangerously underinflate your tires.
- If it is necessary to adjust inflation pressure when your tires are “hot,” set their pressure to 4 psi (28 kPa) above the recommended cold inflation pressure. Recheck the inflation pressure when the tires are cold.
- If your tires lose more than 2 psi (14 kPa) per month, the tire, the valve, or wheel may be damaged. Consult a qualified tire service professional for an inspection.

- Use valve caps to keep the valves clear of debris and to help guard against inflation pressure loss.

Tips For Safe Loading



SAFETY WARNING

Driving your vehicle in an overloaded condition is dangerous. Overloading causes excessive tire heat build-up and internal structural damage. This can cause a tire failure, even at a later date, which could lead to serious personal injury or death. Consult the vehicle tire information placard, certification label, and owner's manual for the recommended vehicle load limits and loading recommendations.

- Always keep the vehicle manufacturer's recommended inflation pressure in all your tires, including the spare. Check their pressure monthly and before long trips or carrying extra weight.
- Never exceed the maximum load rating stamped on the sidewall of your tire.
- Never exceed the gross vehicle weight rating (GVWR) or front/rear gross axle weight ratings (GAWR) of your vehicle.
- Consult your vehicle owner's manual for load recommendations and special instructions (such as for trailer/towing and snow plow installations).

Tire Damage, Inspection and Service Life

Evaluation and maintenance of your tires is important to their performance and the service they provide to you. Over time and/or through use, the condition of a tire can change from exposure to everyday road conditions, the environment, damaging events such as punctures, and other external factors.



SAFETY WARNING

Driving on damaged tires is dangerous. A damaged tire can suddenly fail causing serious personal injury or death. Have your tires regularly inspected by a qualified tire service professional.

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You should visually inspect your tires on a regular basis throughout their life, and you should have your tires periodically evaluated by a qualified tire service professional when your vehicle is serviced such as routine maintenance intervals, oil changes, and tire rotations. In particular, note the following tips for spotting tire damage:

- After striking anything unusual in the roadway, have a qualified tire service professional demount the tire and inspect it for damage. A tire may not have visible signs of damage on the tire surface. Yet, the tire may suddenly fail without warning, a day, a week, or even months later.
- Inspect your tires for cuts, cracks, splits or bruises in the tread and sidewall areas. Bumps or bulges may indicate a separation within the tire body. Have your tire inspected by a qualified tire service professional. It may be necessary to have it removed from the wheel for a complete inspection.
- Inspect your tires for adequate tread depth. When the tire is worn to the built-in indicators at 2/32 inch (1.6 mm) or less tread groove depth, or the tire cord or fabric is exposed, the tire is dangerously worn and must be replaced immediately.
- Inspect your tires for uneven wear. Wear on one side of the tread or flat spots in the tread may indicate a problem with the tire or vehicle. Consult a qualified tire service professional.
- Inspect your wheels also. If you have a bent or cracked wheel, it must be replaced.
- Don't forget to check the spare tire.

Make sure your tires, including the spare tire, continue to be regularly inspected after 5 years of service to determine if they can continue in service. Even when your tires appear to be usable from their external appearance or the tread depth may have not reached the minimum wear out depth, it is recommended that all tires (including spare tires and “temporary use” spares) more than 10 years old be replaced with new tires.

The 10 year period after the date of production is not an indicator of actual service life for any individual tire. Some tires will need to be replaced before 10 years due to conditions such as punctures, impact damage, improper inflation, overloading, tread wear or other conditions

involving use or misuse of the tire. If a tire is worn out or otherwise unserviceable from damage or conditions of use, it should be replaced regardless of when it was produced or placed in service.

The vehicle manufacturer may consider vehicle performance characteristics when making tire replacement recommendations. Consult your vehicle owner's manual for any information regarding tire service life and replacement and follow the recommendations applicable to your vehicle.

Tire Manufacture Date

The tire manufacture date is determined by examining the DOT tire identification number, also known as the DOT serial number or code, which can be found on at least one sidewall near the wheel. It may be necessary to look on both sides of the tire to find the entire serial code. For more information on DOT serial codes, see "Tire Sidewall Labeling" in this manual.

Tires Produced Since 2000: The last four (4) digits of the serial code identify the week and year of production. In the example below, the tire was produced in the 18th week of 2000. Another example, a tire with a serial code ending in "2406" would have been produced in the 24th week of 2006.



Tires Produced Prior to 2000: The last three (3) digits of the serial code identify the week and year of production. For example, a tire with a code ending in "329" would likely have been produced in the 32nd week of 1999, but possibly produced in 1989. If in doubt, consult a qualified tire service professional.

Tire Repairs



SAFETY WARNING

Driving on an improperly repaired tire is dangerous. An improper repair can be unreliable or permit further damage to the tire. The tire may suddenly fail, causing serious personal injury or death. A complete inspection and repair of your tire in accordance with U.S. Tire Manufacturers Association procedures should be conducted by a qualified tire service professional.

While the comprehensive procedures and recommendations for tire repair are beyond the scope of this manual, a proper tire repair includes the following:

- **The tire is demounted from the wheel for a complete inspection, inside and out.** Some damage to the tire may only be evident on the interior of the tire.
- **The puncture injury is 1/4 inch (6 mm) or less and must be within the tread area as shown in the graphic.** This helps ensure long-term tire and repair durability.
- **A patch is applied to the interior of the tire and the puncture hole is filled with a suitable plug/stem filler.** This helps ensure that the interior of the tire is adequately sealed to prevent inflation pressure loss and prevents contamination of the steel belts and other plies from the elements (such as water) in the outside world.



PATCH + PLUG/STEM



~~PATCH ONLY~~



~~PLUG/STEM ONLY~~



Additional notes about tire repairs:

- Not all punctured or damaged tires can be properly repaired; consequently, they must be replaced. NEVER repair a tire with any of the following conditions:
 - Wear to the tire's built-in treadwear indicators or to 2/32 inch (1.6 mm) remaining tread depth in any area of the tread.

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- With a puncture larger than 1/4 inch (6 mm).
- With a puncture or other damage outside the repairable tread area (as shown in the graphic).
- With a pre-existing, improper repair.
- Any tire repair done without removing the tire from the wheel is improper. The tire must be demounted from the wheel and the interior inspected for damage that may not be evident on the exterior of the tire.
- Using only a plug/stem, or using only a patch, is not a safe or proper repair. A patch must be applied to the interior of the tire and the puncture hole must be filled with a suitable plug/stem filler to prevent inflation pressure loss and contamination of the steel belts and other plies.
- NEVER substitute a tube for a proper repair or to remedy an improper repair.
- Tubes, like tires, should only be repaired by a qualified tire service professional.
- Some vehicle manufacturers do not recommend using repaired tires. Consult your vehicle owner's manual or contact the vehicle manufacturer before operating a repaired tire on your vehicle.

ASK how your tire will be repaired.

ALWAYS insist on a proper tire repair.

Emergency/Temporary Sealant or Filler Repairs: An emergency/temporary sealant or filler injected into the tire, such as by aerosol can or injection/squeeze-tube, is not a proper repair and voids the tire Limited Warranty. A tire injected with such sealant/filler must be replaced by a qualified tire service professional as soon as possible.



SAFETY WARNING

Tell the tire service professional if you have used an aerosol fixer to inflate/seal the tire. Aerosol fixers could contain a highly volatile gas. Always remove the valve core outdoors, away from sources of excessive heat, flame, or sparks and completely deflate the tire before removing it from the wheel.

Speed Rating: The tire's speed rating is void if the tire is repaired, retreaded, damaged, abused, or otherwise altered from its original condition. Thereafter, it should be treated as a non-speed rated tire. See "Tire Speed Ratings" in this manual.

Improper repair voids the tire Limited Warranty. See "Limited Warranty" in this manual.

RFT (Run-Flat Technology) Tires: In addition to the above, there are recommendations specific to the repair of RFT tires; see "RFT Tires with Run-Flat Technology" in this manual.

Tire Mounting and Other Servicing



SAFETY WARNING

Removing and replacing tires on wheels can be dangerous. Attempting to mount tires with improper tools or procedures may result in a tire explosion causing serious personal injury or death. This is only a job for a qualified tire service professional. Never perform tire service procedures without proper training, tools, and equipment.

This manual is not intended to provide proper training or service procedures for tire mounting, demounting, balancing, rotation, or repair. Please leave these tasks to qualified tire service professionals. For your safety and that of others:

- Always stand well clear of any tire mounting operation. This is especially important when the service operator inflates the tire. If the tire has been improperly mounted, it may burst with explosive force causing serious personal injury or death.
- Tires must match the width and diameter requirements of the wheels. For example, 16 inch diameter tires must only be mounted to 16 inch diameter wheels. Radial tires must only be mounted to wheels approved for radial tires.
- Wheels must be free of cracks, dents, chips, and rust. Tires must be free of bead damage, cuts, and punctures.
- Never inflate a tire beyond 40 psi (275 kPa) to seat the beads. Be absolutely certain beads are fully seated before adjusting inflation pressure to the level recommended for vehicle operation.

- Never put flammable substances in tire/wheel assemblies at any time. Never put any flammable substance into a tire/wheel assembly and attempt to ignite to seat the beads.
- Always stand well away from the work area when tires are being spin balanced either on or off the vehicle.

High Performance, Low Aspect Ratio Tires

Many new vehicles come equipped from the factory with high performance and/or low aspect ratio tires. Generally, these tires provide increased vehicle handling capability, but may also have numerous engineering performance trade-offs associated with their designs.

- Low aspect ratio tires, with reduced sidewall height, may be more susceptible to damage from potholes, road hazards, and other objects such as curbs. This is true for the wheels as well. Therefore, as with all other tires, it is important to drive with care and maintain proper inflation pressure and load conditions. See “Tire Inflation Pressure” and “Tire Damage, Inspection and Service Life” in this manual.
- Some sports cars and other handling performance enhanced vehicles, including sedans and light trucks/SUVs, may be originally equipped with high performance tires that are more optimized for warmer weather use. Colder, winter weather traction may be reduced for these types of tires. Winter tires may be recommended by the vehicle manufacturer for colder weather application. See “Winter Tires,” the next section in this manual.
- High performance tires may also wear more quickly, ride more firmly, and produce more noise during operation.

Consult your vehicle owner’s manual and tire information placard, or a qualified tire service professional, for more information and specifics regarding these types of tires.

Winter Tires



SAFETY WARNING

Winter driving presents special challenges for vehicle mobility. The use of winter tires (including studs and chains)—while improving traction performance in snow and ice—requires special care with regard to acceleration, braking, cornering, and speed. It is important to drive with care, not only on snow and ice, but on dry and wet roads as well.

In winter driving conditions, vehicle control and safe operation under braking and cornering is especially dependent upon the rear tires. For this reason, winter tires are best applied to all wheel positions. Some vehicles have specific recommendations regarding winter tire use; consult your vehicle owner's manual and tire information placard.

- If winter tires are to be applied to the front axle of any vehicle, they must also be applied to the rear axle for safe operation. This applies to all passenger cars and light trucks, including front wheel drive, 4x4, and all-wheel-drive vehicles.
- If winter tires are to be applied to the rear axle of any vehicle, it is recommended that they also be installed on the front axle.
- It is generally acceptable to apply a tire with a lower speed rating than your original tires for use in winter weather conditions; however, speed should be reduced accordingly. All winter tires should be the same speed rating. See "Tire Speed Ratings" in this manual.
- Winter tires used in warmer, summer weather conditions may wear more rapidly.
- Studded winter tires follow the same recommendations as above; consult a qualified tire service professional for information regarding any seasonal restrictions.

Tire Mixing



SAFETY WARNING

Driving your vehicle with an improper mix of tires is dangerous. Your vehicle's handling characteristics can be seriously affected. You could

have an accident resulting in serious personal injury or death. Consult your vehicle owner's manual and a qualified tire service professional for proper tire replacement.

High Speed Driving



SAFETY WARNING

Driving at high speed is dangerous and can cause a vehicle accident, including serious personal injury or death.

- Regardless of the speed and handling capabilities of your car and its tires, a loss of vehicle control can result from exceeding the maximum speed allowed by law or warranted by traffic, weather, vehicle, or road conditions.
- High-speed driving should be left to trained professionals operating under controlled conditions.
- No tire, regardless of its design or speed rating, has unlimited capacity for speed, and a sudden tire failure can occur if its limits are exceeded. See "Tire Speed Ratings," the next section in this manual.

Refer to your vehicle owner's manual for any tire pressure recommendations for high speed driving.

Tire Speed Ratings

A tire bearing a letter "speed rating" designation indicates the tire's speed capability according to standardized laboratory tests. This speed rating system is intended to permit comparison of the speed capabilities of different tires. When replacing your tires, consult your vehicle owner's manual and tire information placard for recommendations, if any, concerning the use of speed rated tires.

- To avoid reducing the speed capability of the vehicle, replace a speed rated tire only with another tire having at least the same speed rating. It is the "top speed" of the "slowest" tire on the vehicle which limits the vehicle's top speed without tire failure.
- The tire's speed rating is void if the tire is repaired, retreaded, damaged, abused, or otherwise altered from its original condition.

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Thereafter, it should be treated as a non-speed rated tire.

- Non-speed rated tires are usually for ordinary passenger car or light truck service and not for high speed driving.
- For winter tires used in cold weather conditions, it is generally acceptable to apply a tire with a lower speed rating than your original tires; however, speed should be reduced accordingly. All winter tires should be the same speed rating. Some vehicles have specific recommendations regarding winter tire use; consult your vehicle owner's manual and tire information placard. See "Winter Tires" in this manual.

These speed ratings are based on standardized laboratory tests under specific, controlled conditions. While these tests may relate to performance on the road, real-world driving is rarely identical to any test conditions. Your tire's actual speed capability may be less than its rated speed since it is affected by factors such as inflation pressure, load, tire condition (including damage), wear, vehicle condition (including alignment), driving conditions, and duration at which the speed is sustained. Use the following chart to compare the speed ratings of tires.

Speed Symbol	Speed Category*	
	mph	km/h
M	81	130
Q	99	160
R	106	170
S	112	180
T	118	190
U	124	200
H	130	210
V	149	240
Z**	>149	>240
W	168	270
Y	186	300
(Y)***	>186	>300

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The tire's speed rating designation appears on the tire sidewall with the tire size. Examples:

P275/40ZR17		max > 149 mph (240 km/h)****
P275/40R17	93W	max = 168 mph (270 km/h)
P275/40ZR17	93W	max = 168 mph (270 km/h)
P275/40ZR17	93Y	max = 186 mph (300 km/h)
P275/40ZR17	93(Y)	max > 186 mph (300 km/h) ****

*In standardized laboratory tests that relate to highway speeds. Actual tire speed and performance capability depend on factors such as inflation pressure, load, tire condition, wear, and driving conditions.

** Any tire having a maximum speed capability above 149 mph (240 km/h) may, at the tire manufacturer's discretion, include a "Z" in the size designation (i.e. P275/40ZR17).

*** For tires having a maximum speed capability above 186 mph (300 km/h), a "Z" must appear in the size designation and a "Y" marked in brackets (as shown) in the service description.

**** Consult the tire manufacturer for maximum speed capability.

Tire Spinning



SAFETY WARNING

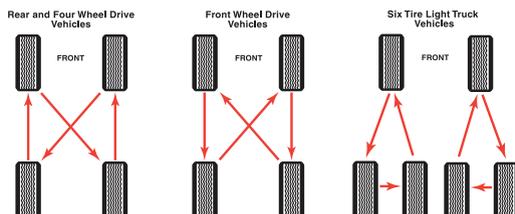
Spinning a tire to remove a vehicle stuck in mud, ice, snow, or wet grass can be dangerous. A tire spinning at a speedometer reading above 35 mph (55 km/h) can in a matter of seconds reach a speed capable of disintegrating a tire with explosive force. Under some conditions, a tire may be spinning at a speed twice that shown on the speedometer. This could cause serious personal injury or death to a bystander or passenger. Never spin a tire above a speedometer reading of 35 mph (55 km/h).

Radial Tire Rotation

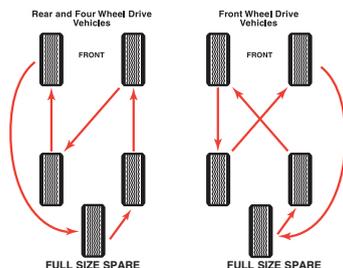
The purpose of tire rotation is to minimize irregular or uneven wear caused by maintaining a tire in one rotation direction and one position over an extended period. Rotate tires as recommended by the vehicle manufacturer or every 5,000 miles. Individual tire pressures must be checked after rotation and adjusted to the vehicle manufacturer's recommendation for the tire's new location on the vehicle. Vehicle alignment should be checked if irregular wear is evident.

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For vehicles with a “temporary use” spare tire, follow the vehicle manufacturer’s recommended pattern for rotation, or, if not provided, the following may be used:



If your spare is the same size, load rating, and type of tire as your road tires, it should be included in the tire rotation process. For vehicles with a “full-size” spare, the following rotation patterns may be used:



Note:

- Never include a “temporary use” spare tire in the rotation.
- Tires with directional tread patterns must be rotated so the direction of revolution does not change; this may require demounting/mounting the tires.
- Special attention should be given if your vehicle is equipped with a Tire Pressure Monitoring System (TPMS). Rotation of your tires may affect the system; consult your vehicle owner’s manual or a qualified tire service professional.
- Some vehicles may have different size tires/wheels on front and rear which would restrict rotation. Always check and follow the vehicle manufacturer’s rotation recommendation.

- To use a full-size spare in the rotation pattern on vehicles with dual rear wheels, consult your vehicle owner's manual for the recommended procedures or consult the vehicle manufacturer.

Your Spare Tire

Consult your vehicle owner's manual for proper application of your spare tire. Your car may be equipped with a "temporary use" spare tire; this spare may differ in size and construction from the other tires on your vehicle.



SAFETY WARNING

Check inflation pressure before use. Failure to have proper inflation pressure when using your spare tire can result in serious personal injury or death. See "Tire Inflation Pressure" in this manual.



SAFETY WARNING

Mounting a "temporary use" tire on a wheel which is not specifically designed for it, or placing another type tire on a wheel designated for temporary use can be dangerous. Your vehicle's handling characteristics can be seriously affected. You could have an accident resulting in serious personal injury or death. Consult your vehicle owner's manual for proper application of your "temporary use" spare tire.

The spare tire in your vehicle is intended to be used as a spare when needed. The spare tire carrier is not intended to be used for long term storage, except for "temporary use" tires. If your spare is the same size, load rating, and type of tire as your road tires, it should be included in the tire rotation process; see "Radial Tire Rotation" in this manual for more information.

The spare should be included in regular tire inspections and inflation pressure checks. In addition, it should be replaced 10 years after date of manufacture, regardless of condition or tread depth. For more information, see the "Tire Damage, Inspection and Service Life" in this manual.

Tire Storage

Tires should be stored indoors in a cool, dry place where water cannot collect inside them. Tires should be placed away from electric generators/motors and sources of heat such as hot pipes. Storage surfaces should be clean and free of grease, gasoline or other substances which can deteriorate the rubber.



SAFETY WARNING

Improper storage can damage your tires in ways that may not be visible and can lead to a failure resulting in serious personal injury or death.

The spare tire in your vehicle is intended to be used as a spare when needed. The spare tire carrier is not intended to be used for long term storage, except for “temporary use” tires. For more information, see “Your Spare Tire” and “Radial Tire Rotation” in this manual.

Tire Service Customer Satisfaction

Normal tire maintenance and Limited Warranty services are available at locations across the U.S.A. and Canada. For more information, visit us on the internet at www.bridgestonetire.com, or please call the Technical Service Department:

U.S.A.: (1-800-356-4644) or Canada: (1-800-267-1318).

Additional information on the care and service of automobile and light truck tires is available from the following organizations:

U.S. Tire Manufacturers Association
1400 K Street, N.W.
Washington, DC 20005-2403
www.ustires.org

Tires and Rubber Association of Canada
A19–260 Holiday Inn Drive
Cambridge, ON, N3C 4E8
www.rubberassociation.ca

Tire Registration

Registration of your tires is an important safety precaution since it enables the manufacturer to notify you in the event of a recall. When you purchase replacement tires, the retailer will provide a registration card on which the tire identification numbers have been recorded; fill in your name and address on the card and mail it promptly. Some retailers may submit the registration for you. You do not need to register tires which come as original equipment on new vehicles—the vehicle and tire manufacturers handle that for you.



RFT Tires with Run-Flat Technology

If your vehicle is equipped with Bridgestone or Firestone brand RFT tires, this chapter presents specific maintenance and safety issues associated with these tires that are in addition to those covered elsewhere in this manual.

What is RFT? Run-Flat Technology tires are extraordinary tires that utilize specially designed components to temporarily support your vehicle in the event of inflation pressure loss, such as from a puncture. This gives you the ability to drive to a convenient and safe location to change your tire (if equipped with a spare) or have it inspected for possible repair or replacement.

Naturally, certain run-flat and low pressure operating limitations apply, which varies according to the specific self-supporting tire design. Like all tires, during normal operation, they must be properly inflated and maintained. Regardless of the design or quality, no tire is indestructible.

RFT—How to Identify: Bridgestone and Firestone brand tires are marked on the sidewalls, near the wheel, with the RFT logo (shown above).

RFT Inflation Pressure

Like other tires, RFT tires need proper inflation pressure maintenance for safe operation and to achieve the maximum tire life and performance. Check inflation pressures monthly and before long trips or carrying extra weight. Use an accurate tire gauge and check pressures when the tires are cold. Follow the vehicle manufacturer's recommendation for inflation pressure settings as indicated on the vehicle tire information placard and/or in the vehicle owner's manual. Do not forget the spare, if applicable. See "Tire Inflation Pressure" in this manual.

Tire Pressure Monitoring System (TPMS)

A functioning tire pressure monitoring system (TPMS) must be used with your RFT tires. Because these tires ride so well even without inflation pressure, the TPMS may be necessary to alert you of an inflation pressure loss condition. When alerted, follow the instructions in your vehicle owner's manual and see "Run-Flat or Low Tire Pressure Operation," the following section in this manual.

The vehicle or TPMS manufacturer may advise checking the TPMS regularly to confirm it is in working order. In addition, a new pressure sensor, certain components, or reprogramming may be necessary when a tire is serviced. Consult your vehicle owner's manual, vehicle manufacturer, or a Bridgestone Firestone Run-Flat Certified Retailer for questions regarding TPMS operation and service.

Run-Flat or Low Tire Pressure Operation



SAFETY WARNING

Serious personal injury or death may result from a tire failure or accident due to improper run-flat or low tire pressure operation. Read and follow the instructions below, and the other maintenance and safety recommendations elsewhere in this manual.

General Instructions

The Tire Pressure Monitoring System (TPMS) required in your vehicle may have different methods of alerting you when your tire has lost inflation pressure. The international standard for the definition of run-

flat operation is pressure at or below 10 psi (70 kPa); however, some vehicle manufacturers may have established a different pressure limit. Consult your vehicle owner's manual for the details of your TPMS. Once the TPMS has indicated that a tire has reduced inflation pressure, the run-flat mode of operation has commenced. During this phase of operation, please follow these instructions:

- **Reduce speed as much as safely and reasonably possible; do not exceed 50 mph (80 km/h).** The greater the speed, the less distance the tire can travel.
- **Avoid abrupt or aggressive acceleration, braking, or cornering maneuvers as much as safely and reasonably possible.** Pot holes and other road hazards should be avoided. Careful driving limits potential damage to the tire, wheel, and vehicle.
- **Proceed to a safe and convenient location for tire service as soon as possible.** Take note of your mileage; your operation distance is limited. See "Distance—How Far You Can Drive," the next section in this manual.
- **If an unusual vibration or vehicle handling difficulty arises, stop driving as soon as safely and reasonably possible.** The tire may be about to suddenly fail. Release the accelerator and gradually reduce speed. The tire will need to be replaced before proceeding.
- **If towing a trailer, stop driving as soon as safely and reasonably possible.** In this condition, it is potentially dangerous to operate a vehicle/trailer combination. If possible, disconnect the trailer and proceed as noted above. Do not continue to tow any trailer until proper tire service or replacement has been performed.
- **Do not touch a tire recently run-low or run-flat (it may be very hot).** Allow the tire to cool before handling.

Distance—How Far You Can Drive

Factors affecting run-flat or low tire pressure operating distance include vehicle speed, load, and maneuvering; the amount of inflation pressure loss; the extent of any tire damage; and ambient temperature.

The tire may be marked on the sidewall with run-flat or low tire pressure operating speed and/or distance limitations, which vary by tire

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design and vehicle application (consult your vehicle owner's manual). By international standard, RFT tires have a baseline limitation in run-flat mode of the following:

Maximum Speed: 50 mph (80 km/h)

Maximum Distance: 50 miles (80 km)

Note:

- Maximum distance values are determined under controlled conditions, which may vary in actual use.
- Your mileage capability may be less, or more, depending on your specific operating conditions.
- If in doubt, do not exceed the 50 mile (80 km) limitation.
- Seek tire service as soon as possible to minimize tire damage.

Special Service and Repair Issues

Run-Flat Certified Retailers

Because of the advanced technology and design of RFT tires and the required tire pressure monitoring systems (TPMS), Bridgestone Firestone Run-Flat Certified Retailers are specially trained to sell and service RFT tires.

Run-Flat Certified Retailers have the necessary equipment and are specially trained to properly mount and demount RFT tires and to handle TPMS devices. **Conventional mounting equipment may irreparably damage RFT tires and an improper repair is unsafe and will void the Limited Warranty.** Accordingly, it is important to go to a Bridgestone Firestone Run-Flat Certified Retailer for tire maintenance and replacement.

Call toll-free 1-877-BFS-4RFT or visit www.bridgestonetire.com to locate the nearest Bridgestone Firestone Run-Flat Certified Retailer.

Inspection after Run-Flat or Low Pressure Operation

Following run-flat or low tire pressure operation, or in the event of any other tire damage or unusual condition, it is very important to obtain a proper and complete tire evaluation as soon as possible.

Rotation

Follow the vehicle manufacturer's recommendations, or rotate every 5,000 miles per the recommendations in this manual (see "Radial Tire Rotation"). In some cases, TPMS devices require reprogramming with each tire rotation.

RFT Tire Replacement

Do not replace or mix RFT tires with conventional tires, unless on an emergency/temporary basis. Conventional tires do not have run-flat capability and the handling characteristics of the vehicle with these tires may be different. If a conventional tire is used on an emergency/temporary basis, verify that its size, load capacity, inflation pressure, and speed rating specifications meet the requirements of the vehicle. Replace any conventional tire with the proper RFT tire as soon as possible.

RFT Tire Damage and Repair

No tire, regardless of its design or quality is indestructible. RFT tires can be ultimately rendered unusable due to a puncture or other road hazard as well as from improper run-flat or low tire pressure operation. Some punctures may be repaired under certain restrictions and prescribed procedures.

When driven flat or with low pressure, factors affecting reparability include vehicle speed, load, and maneuvering; the amount of inflation pressure loss; and ambient temperature. In any situation, the extent and location of direct damage from a puncturing object or other road hazard are also critical factors.

RFT tires are not repairable in any of the following situations:

- If the tire was operated with inflation pressure less than 15 psi (100 kPa).
- Abrasion or other damage is present on the exterior tread, sidewall or bead areas.
- Abrasion, wrinkling, or separation is present on the tire interior.
- Any condition or damage is present that disqualifies repair of a conventional tire.

Run-Flat Certified Retailers will fully inspect your tire, inside and out, to determine if the tire can be repaired. Tire damage is not always visible from the outside and the tire must be removed from the wheel for a complete inspection. For more information, see the section “Tire Repairs” in this manual.

Note: Some vehicle manufacturers do not recommend using repaired tires. Consult your vehicle owner’s manual or contact the vehicle manufacturer before operating a repaired tire on your vehicle.

Reference Information

Tire Sidewall Labeling

A lot can be learned by reading the tire’s sidewall. The following figures show typical information on the sidewall of passenger (Figure 3) and light truck tires (Figure 4):

Figure 3: Typical Passenger Tire Markings

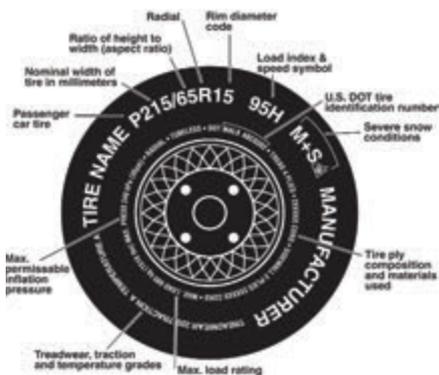


Figure 4: Typical Light Truck Tire Markings



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Tire Size, Load Range, Load Index, and Speed Symbol:

Example	Tire Size	Load Index	Speed Symbol	Load Range
Figure 3	P215/65R15	95	H	—
Figure 4	LT235/85R16	114/111	Q	D

DOT Symbol and Tire Identification Number: The “DOT” symbol constitutes a certification that the tire conforms to applicable U.S. Department of Transportation motor vehicle safety standards (for tires). Following the “DOT” symbol is the tire identification number, also known as the DOT serial number or code. For example:

DOT EL CB DKE 18 00
└─┘ └─┘ └─┘ └─┘ └─┘ └─┘
(a) (b) (c) (d) (e) (f)*

- (a) DOT Symbol
- (b) Plant of Manufacture Code
- (c) Tire Size Code
- (d) Tire Manufacturer’s Code
- (e) Week of Production (01-53)
- (f) Year of Production (last two digits of year)*

* For tires produced from 2000-on. In the example above, the tire was produced in the 18th week of 2000. For tires produced prior to 2000, there is one digit in group (f) which identifies the last digit of the year of production, i.e. “329” would likely signify the 32nd week of 1999, but could possibly signify the 32nd week of 1989. If in doubt, consult a qualified tire service professional.

The DOT symbol and tire identification number can be found on at least one sidewall near the wheel. The other sidewall may have a partial serial code that excludes (e) and (f) above.

Maximum Load and Inflation: The maximum load and maximum inflation pressure is marked on each sidewall in metric and English units. For example:

MAX LOAD 685 kg (1510 lbs) AT 240 kPa (35 psi) MAX PRESS

Note: The load and inflation values marked on the tire sidewall are maximum permissible values for the tire only. Never assume that these values are the actual maximum load capacity or recommended tire pressure values for your vehicle. See “Tire Inflation Pressure,” “Tips for Safe Tire Inflation,” and “Tips for Safe Loading” in this manual.

Ply Composition and Materials: The actual number of plies in the sidewall and tread area and the generic name(s) of their cord material(s) are marked on at least one sidewall. For example:

TREAD 2 PLY POLYESTER + 2 STEEL
SIDEWALL 2 PLY POLYESTER

Radial: Radial ply tires will have the word “radial” on at least one sidewall. An “R” in the tire size designation also indicates radial ply construction.

Tubeless or Tube Type: Tires are marked as either “tubeless” or “tube type,” whichever is applicable, on at least one sidewall.

Uniform Tire Quality Grading

The Uniform Tire Quality Grading (“UTQG”) standards are intended to assist you in making an informed choice in your purchase of passenger car tires by providing information indicating relative performance of these tires in the areas of tread wear, wet braking traction (straight-ahead), and temperature resistance. All passenger car tires must conform to federal safety requirements in addition to these grades.

Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one half (1 1/2) times as well on the government course as a

tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variation in driving habits, service practices and differences in road characteristics and climate.

Traction

The traction grades, from highest to lowest, are AA, A, B, and C. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. Warning: The traction grade assigned to a tire is based on straight-ahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.

Temperature

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No.109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law. Warning: The temperature grade is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and a possible tire failure.

Limited Warranty



Original Equipment Passenger and Light Truck Tires

Including  Tires with Run-Flat Technology

Eligibility

This Limited Warranty covers BRIDGESTONE and FIRESTONE brand passenger and light truck tires, including RFT and temporary spare tires, originally installed by the vehicle manufacturer on a new vehicle. You are covered under the terms of this Limited Warranty if the tire was produced after July 4, 2004 (DOT serial 2704 or later) and has been used only on the vehicle on which it was originally installed in non-commercial service. Warranty conditions may be subject to change. See <https://www.bridgestonetire.com/customer-care/tire-warranties/full-warranty> for the most current warranty information.

What Is Warranted and for How Long

Before wearing down to 2/32 inch (1.6 mm) remaining original tread depth (i.e. worn down to the top of the built-in indicators in the tread grooves) and within 6 years from the date of purchase (proof of purchase date required; without proof of purchase date, then within 6 years from the date of tire manufacture), for any reason other than those excluded in the section entitled “What This Limited Warranty Does Not Cover,” any eligible tire that becomes unusable for any reason within the manufacturer’s control will be replaced with an equivalent new tire on the basis set forth in this Limited Warranty.

What This Limited Warranty Does Not Cover

This Limited Warranty does not cover the following:

1. Tire damage or irregular wear due to:
 - a. **Road hazards**, including, without limitation: Puncture, cut, impact break, stone drill, bruise, bulge, snag, etc.

- b. Improper use or operation**, including, without limitation: Improper inflation pressure, overloading, tire/wheel spinning, use of an improper wheel, tire chain damage, misuse, misapplication, negligence, tire alteration, or for racing or competition purposes.
 - c. Insufficient or improper maintenance**, including, without limitation: Failure to rotate tires as recommended in this manual, wheel misalignment, worn suspension components, improper tire mounting or demounting, tire/wheel assembly imbalance, or other vehicle conditions, defects, or characteristics.
 - d. Contamination or degradation** by petroleum products or other chemicals, fire or other externally generated heat, or water or other material trapped inside the tire during mounting or inflation.
 - e. Improper repair**. Improper repair voids this Limited Warranty.
 - f. For RFT tires only, improper run-flat or low tire pressure operation**, including, without limitation: Exceeding speed, distance, or other run-flat/low-pressure operation limitations.
2. Rapid tread wear or wear-out. Original equipment tires have no mileage warranty.
 3. Weather/ozone cracking after 4 years from date of tire manufacture.
 4. Ride disturbance or vibration after 1/32 inch (0.8mm) of tread wear use.
 5. Tires with sealant, balance, or other filler material that was not originally applied or inserted by the tire manufacturer.
 6. Tires used in commercial service.
 7. Tires purchased and normally used outside the United States and Canada.
 8. The cost of applicable federal, state, and local taxes.
 9. Failure to follow any of the safety and maintenance recommendations or warnings contained in this manual.

This Limited Warranty is in addition to and/or may be limited by any other applicable written warranty you may have received concerning special tires or situations.

Replacement Price

Radial passenger and light truck tires adjusted under this Limited Warranty will be replaced free of charge during the first 25% of tread wear or within 12 months from the date of purchase (proof of purchase date required; without proof of purchase date, then within 12 months from the date of tire manufacture), whichever occurs first. During the free replacement period, mounting and balancing are included free of charge.

To determine the replacement price after the free tire replacement period, the percent of used tread wear is multiplied by the current selling price for the replacement tire(s). The appropriate taxes, mounting, balancing, disposal fee, and other service charges may be added to the adjustment replacement price.

In Canada, the tire will be adjusted at dealerships (subject to dealer discretion) at a predetermined "Adjustment Price."

Replacement Warranty

If you receive a replacement tire under this Limited Warranty, it will be covered by the manufacturer's warranty, if any, given on that tire at that time.

Where To Go

Tire adjustments under this Limited Warranty will only be made at an authorized Bridgestone Firestone retailer. Consult a phone directory (often listed in the Yellow Pages under "Tire Dealers") or the internet at www.bridgestonetire.com for the location nearest you.

Consumer Rights

This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state or in Canada from province to province.

Conditions and Exclusions

To the extent permitted by law, Bridgestone Americas Tire Operations, LLC disclaims all other warranties, including but not limited to the implied warranties of merchantability and fitness for a particular

purpose and any liability for incidental and consequential damages, loss of time, loss of vehicle use, or inconvenience. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This Limited Warranty applies only to consumers actually using the tire in the United States and Canada. For warranty conditions outside the United States and Canada, see your local Bridgestone Firestone distributor.

Obligations under this policy may not be enlarged or altered by anyone.

In accordance with Federal Law, this Limited Warranty has been designated as a "Limited Warranty." Nothing in this Limited Warranty is intended to be a representation that tire failures cannot occur. This Limited Warranty is given in the United States by Bridgestone Americas Tire Operations, LLC, 200 4th Avenue South, Nashville, TN 37201 and in Canada by Bridgestone Firestone Canada Inc., 5770 Hurontario St., Suite 400, Mississauga, Ontario, Canada L5R 3G5.

Owner's Obligations

In order to keep this Limited Warranty valid, we require you to have your tires regularly inspected and rotated per the recommendations outlined in the sections of this manual entitled "Tire Damage, Inspection and Service Life" and "Radial Tire Rotation" and to furnish proof of same in order to receive an adjustment. Such proof should show the date, mileage, and servicing location. A sales receipt containing this information will suffice. In addition, a "Maintenance Record" is included on the back cover of this manual. It is your obligation to maintain proper tire inflation pressures as specified by the vehicle manufacturer and to operate the vehicle within tire/vehicle load capacity and speed limitations. It is also your obligation to maintain proper wheel alignment and tire/wheel assembly balance. To request an adjustment, you must present the tire to an authorized Bridgestone Firestone retailer. Complete and sign the customer section of the Bridgestone Americas Tire Operations, LLC Limited Warranty adjustment form and pay appropriate replacement price, taxes, disposal fee, and service charges, if any.

Arbitration

You and Bridgestone Americas Tire Operations, LLC agree that all claims, disputes, and controversies between you and it, including any of its agents, employees, successors, or assigns, arising out of or in connection with this Limited Warranty, or any other warranties, express or implied, including a failure of warranty and the validity of this arbitration clause, but excluding claims for personal injury or property damage, shall be resolved by binding arbitration between you and it, according to the formal dispute resolution procedures of the National Arbitration Forum, under the Code of Procedure then in effect. This arbitration will be conducted as a document hearing. If you request any procedures beyond a document hearing, you will be responsible for all fees, including filing and administrative fees, above and beyond the fees required for document hearings. The arbitration between you and Bridgestone Americas Tire Operations, LLC shall not include any other customers, be combined or consolidated in any fashion with arbitrations involving other customers, or proceed in any form of class action in which the claims of numerous customers are considered together. Any award of the arbitrator(s) may be entered as a judgment in any court of competent jurisdiction. The arbitrators will have no authority to award punitive or other damages not measured by the prevailing party's actual damages, except as may be required by statute. Information may be obtained and claims may be filed at any office of the National Arbitration Forum or at P.O. Box 50191, Minneapolis, MN 55405.

CONTINENTAL TIRE

Limited Warranty and Adjustment Policy for Original Equipment Passenger Car & Light Truck Tires (Including Temporary Spare Tires)

Eligibility

This Limited Warranty and Adjustment Policy (“Warranty”) applies to the original owner of new Continental brand Passenger (PASS), Light Truck (LT) and Temporary Spare (TS) tires that are the new vehicle original equipment tires bearing the Continental brand name and D.O.T. Tire Identification Number, operated in normal service, and used on the same vehicle on which they were originally installed according to the vehicle manufacturer’s recommendations.

Tire(s) on any vehicle registered and normally operated outside the United States and Canada are excluded from eligibility under this Limited Warranty and Adjustment Policy.

What Is the Adjustment Policy and How Long Is It Applicable?

Basic Coverage

Eligible tires are covered by this Warranty for a maximum of 72 months from the date of purchase, determined by the new vehicle registration date or new vehicle sales invoice showing date of purchase.

Where to Go for Warranty Replacement

Contact the dealer where you purchased your vehicle or an alternate authorized Continental brand tire dealer (Authorized Dealer) to determine the eligible warranty coverage for your tires and how to proceed.

Free Replacement Period

PASS & LT

If an eligible Continental brand PASS or LT tire becomes unserviceable from a warrantable condition, other than those listed under Section 3, during the first 12 months or first 2/32nd of an inch (1.6 mm) of treadwear (whichever comes first), it will be replaced with a

CONTINENTAL TIRE

****comparable new Continental brand tire FREE OF CHARGE, including mounting and balancing (excluding on line orders). Owner pays all applicable taxes.**

Temporary Spare

If a TS Tire becomes unserviceable from a condition other than those listed in Section 3, during the first 1/32nd (0.8 mm) of treadwear, then it will be replaced with a ****comparable new Continental brand TS tire FREE OF CHARGE, including mounting and balancing.** The owner pays all applicable taxes. After this "Free Replacement Period" for your TS tire expires, no warranty claim will be accepted.

After the Free Replacement Period

The tire (except TS tire) may still be eligible for a pro rata replacement up to 72 months from date of original purchase until the tread is worn down to the tread wear indicators (2/32nd of an inch or 1.6 mm of tread remaining). If an eligible tire becomes unserviceable under the stipulations of this Limited Warranty and Adjustment policy it will be replaced with a ****comparable new Continental brand tire, charging the owner a pro-rated amount.** Owner pays all applicable taxes (including F.E.T.), mounting and balancing charges.

The replacement tire price will be determined by multiplying the percentage of the useable tread worn by the Dealers Selling Price (excluding all applicable taxes) at the time of the adjustment. The useable tread is the original tread down to the tread wear indicators (2/32nd of an inch or 1.6 mm of tread remaining.)

****A "comparable" new Continental brand tire may be of either the same tire line or the same basic construction but with a different sidewall or tread configuration. If a higher priced tire is selected, the consumer will pay the difference in price.**

What Is Not Covered by This Warranty the Following Are Not Covered

- **Road Hazard:** Any tire with road hazard damage, that includes, but is not limited to: cuts, snags, punctures, bruises, and impact breaks.

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- **Ride/Vibration:** Any ride/vibration complaint after the first 2/32nd (1.6 mm) of an inch of treadwear or 12 months of service, whichever comes first.
- **Repairs:** If a tire is returned under complaint and the reason for the tire's disablement is in any way associated with a repair, or with the situation that led to the repair, the manufacturer's warranty is invalidated.
- **Mileage:** Mileage is not covered under this policy.
- **Improper operation or maintenance:** This includes, but is not limited to, effects caused by:
 - i. **Improper tire inflation and/or improper load/speed practices:** These practices can cause excessive operational temperatures and stresses that exceed the tire's capabilities.
 - ii. **Improper or insufficient tire rotation**
 - iii. **Improper vehicle alignment**
 - iv. **Damage due to:**
 - Rim irregularities or rim damage
 - Snow chains
 - Vehicle mechanical problems, including brake problems, and vehicle wheel alignment
 - Extreme temperature exposure
 - Negligent and abusive driving such as tire spinning or racing
 - Improper tire storage
 - Automotive accident
 - Chemical corrosion or fire
 - Use contrary to the vehicle manufacturer's tire recommendations.
 - Misuse or misapplication
- **Improper Mounting or Demounting**
- **Alteration:** such as, but not limited to, adding a white inlay on blackwall, tread regrooving, tire truing or siping, or adding sealant materials to the tire.
- **Weather checking/cracking:** Not covered after 48 months from the date of purchase.

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- Failure to observe safety and maintenance precautions set forth in Section 6.

ATTENTION AUTHORIZED DEALERS:

CONTINENTAL TIRE THE AMERICA'S, LLC (CTA) RESERVES THE RIGHT TO THE FINAL INSPECTION DECISION ON CONDITIONS FOR ALL RETURNED TIRES UNDER SECTION 3.

THIS WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND CTA EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SOME U.S. STATES AND/OR CANADIAN PROVINCES DO NOT ALLOW LIMITATIONS ON THE DURATION OF AN IMPLIED WARRANTY, SO THE ABOVE MAY NOT APPLY TO YOU.

TO THE EXTENT PERMITTED BY LAW, CTA DISCLAIMS LIABILITY FOR ALL CONSEQUENTIAL AND INCIDENTAL DAMAGES. THE REMEDIES SET FORTH IN THIS LIMITED WARRANTY ARE THE SOLE AND EXCLUSIVE REMEDIES FOR BREACH OF WARRANTY. SOME U.S. STATES AND/ OR CANADIAN PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM U.S. STATE TO STATE AND/ OR CANADIAN PROVINCE TO PROVINCE.

THIS IS THE ONLY EXPRESS WARRANTY MADE BY CTA. NO CTA EMPLOYEE, RETAILER, OR DEALER HAS THE AUTHORITY TO MAKE ANY WARRANTY, REPRESENTATION, PROMISE OR AGREEMENT ON BEHALF OF CTA EXCEPT AS EXPRESSLY WRITTEN IN THIS LIMITED WARRANTY AND ADJUSTMENT POLICY, IN OBSERVANCE OF U.S. FEDERAL LAW, THIS LIMITED WARRANTY AND ADJUSTMENT POLICY HAS BEEN DESIGNATED A "LIMITED WARRANTY". CTA DOES NOT INTEND

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TO REPRESENT THROUGH THIS LIMITED WARRANTY AND ADJUSTMENT POLICY THAT TIRE FAILURES CAN OR CANNOT HAPPEN.

CTA'S Obligations

Replacement of eligible tires will be made by the dealer where you purchased your vehicle or by an alternate Authorized Dealer. CTA will replace the tire pursuant to the terms of this Warranty. Tires that are replaced under this Warranty become the property of CTA.

Owner's Obligations

To make an eligible claim under this Warranty, the owner must present a claim, with the tire to an Authorized Dealer. For the nearest Authorized Dealer, consult the Continental brand internet address(es), or the 800 telephone number(s) shown on the back of this Warranty.

Owner must present new vehicle registration form or new vehicle sales invoice indicating the date of purchase. Owner will be required to sign the CTA Limited Warranty Claim Form or dealer replacement sales receipt.

Owner is responsible for paying all applicable taxes charged by the servicing dealer and is also responsible for paying shipping, local tire-disposal fees and parts or service regardless of mileage or months of service. This includes payment for tire rotation, alignment, towing, road service, valve stems and tire repairs.

Owner is responsible for maintaining proper tire air pressure and for proper maintenance of the tire.

Safety Warning

Ignoring any of the safety and information contained in this Warranty may result in tire failure, causing serious injury or death.

- **Tire failure due to under inflation /overloading.** Follow vehicle owner's manual or tire placard in vehicle for proper inflation and loading.

CONTINENTAL TIRE

- **Explosion of tire/rim assembly due to improper tire mounting.** Tire mounting / demounting can be dangerous. It should be performed only by a trained tire specialist using proper tools and procedures. Prior to tire mounting/demounting, the U.S. Tire Manufacturers Association wall charts and manuals should be read to obtain the proper procedures. The failure to follow these procedures may result in faulty positioning of the tire and/or rim, that may cause the assembly to burst with force sufficient to cause injury or death.
- **Tire failure due to damage.** Inspect your tires frequently for scrapes, bulges, separations, cuts, snags and other damage from road hazards. Damage from impact can occur to the inner portions of your tire without being visible to the outside. If you suspect a tire has been damaged from striking anything unusual in the road, you must have the tire removed from the rim and inspected both inside and out by a trained tire specialist. Air loss or unusual tire wear can also be warning signs that a tire may have internal damage. If you notice these conditions, have your tire inspected by a trained individual.
- **Tire failure due to excessive tire spinning.** Avoid tire spinning. The centrifugal force generated by a free-spinning tire/rim assembly may cause a sudden tire explosion resulting in vehicle damage and/or serious injury or death. Never exceed 35 mph (55 km/h) as indicated on your speedometer when your vehicle is stuck in snow, mud or sand and your tire(s) is/ are spinning. Use a gentle backward and forward rocking motion to free your vehicle for continued driving. Never stand or permit anyone else to stand near or behind a tire spinning while attempting to push a vehicle that is stuck.

Self Supporting Runflat (SSR) Tire Owners

CTA does not recommend any repair to or reuse of punctured Continental SSR tires.

Even a trained tire specialist may be unable to recognize internal structural damage to a Self Supporting Runflat (SSR) tire resulting from having been driven in an under inflated or zero inflation pressure condition. Such damage may not be visible on the surface of the inner

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liner or sidewall making it impossible to determine the tire suitability for repair or reuse. CTA does not recommend any repair to or reuse of Continental SSR tires. You may visit www.continentaltire.com and select Customer Care FAQ's to obtain additional SSR information.

Temporary Spare Tire Owners

CTA does not recommend any repair to or reuse of punctured Temporary Spare Tires.

ContiSeal™ Tire Owners



A ContiSeal™ tire differs from a non-ContiSeal™ tire in that it has a sticky, viscous layer from shoulder to shoulder along the inner liner. This layer is an integral part of the ContiSeal™ tires. It is not designed or intended to act as a permanent puncture repair (See information below). If an object up to 3/16ths (5 mm) diameter penetrates the tread of the ContiSeal™ tire, this sticky, viscous layer is designed to surround and adhere to the puncturing object and prevent air loss from the tire by providing a near instantaneous seal. If the puncturing object becomes dislodged from the tire, the material is designed to seal most holes made by objects up to 3/16" (5 mm) diameter. While ContiSeal™ tires significantly reduce the incidence of flats, they are not designed to be driven under inflated or in a flat condition. In all other aspects, ContiSeal™ tires perform exactly like non-ContiSeal™ tires. As with any tire, regularly inspect ContiSeal™ tires for evidence of cuts, punctures, and loss of inflation pressure. At a minimum, ContiSeal™ tires should be inspected once or twice a month and always before a long trip. Punctures or damage not attended to promptly can result in loss of inflation pressure and/or damage to the tire. ContiSeal™ as soon as possible. The trained specialist, must inspect the tire carefully and, according to industry standards, to determine whether a permanent repair can be made or whether the tire must be removed from service and scrapped. A permanent repair will require removal of the tire from the rim and application of a repair method specifically approved for the ContiSeal™ tires. ContiSeal™ tires are identified by a symbol on the tire sidewall.

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ContiSilent™ Tire Owners



ContiSilent™ tires are designed to reduce noise generated while driving. A ContiSilent™ tire is lined with a noise reducing foam insert. It is not designed or intended to act as a puncture repair.

USING ContiSilent™ Tires

In aspects such as mounting, demounting, inflating, and balancing, ContiSilent™ tires do not differ from non-ContiSilent™ tires. As with any tire, regularly inspect ContiSilent™ tires for evidence of cuts, punctures, and loss of inflation pressure. At a minimum, ContiSilent™ tires should be inspected once or twice a month and always before a long trip. Punctures or damage not attended to promptly can result in loss of inflation pressure and/or damage to the tire. ContiSilent™ tires with cuts and punctures must be inspected by a trained tire specialist as soon as possible. The trained tire specialist must inspect the tire carefully and, according to industry standards, determine whether a permanent repair can be made or whether the tire must be removed from service and scrapped. A permanent repair will require removal of the tire from the rim and application of a repair method specifically approved for ContiSilent™ Tires. ContiSilent™ tires are identified by a symbol on the tire sidewall. ContiSilent™ tires and non-ContiSilent™ tires may be mixed on the same vehicle.

In addition to the valuable warranty, safety and maintenance information you will find in this Warranty we encourage you to visit CTA websites at: www.continentaltire.com or www.continentaltire.ca for up-to-date changes and a Self-Help knowledge base with downloadable brochures (customer care link). Please also visit the U.S. Tire Manufacturers Association website at www.ustires.org.

THIS LIMITED WARRANTY AND ADJUSTMENT POLICY IS NOT A WARRANTY THAT YOUR TIRE WILL NOT FAIL OR BECOME UNSERVICEABLE IF NEGLECTED OR MISTREATED.

CONTINENTAL TIRE

For Service Assistance or Information

Contact any Authorized Dealer where you purchased the vehicle or the nearest Continental brand tire dealer. For the nearest Continental brand tire dealer, consult either the websites or the toll free Customer Relations number(s).

In the United States call 1-800-847-3349

In Canada, call 1-855-453-1962

Continental Tire the Americas, LLC
1830 McMillan Park Dr.
Fort Mill, SC 29707

Continental Tire Canada Inc.
6110 Cantay Rd.
Mississauga, ON
L5R 3W5

Original Equipment Limited Warranty and Tire Care Guide

Tire Care and Recommendations

Proper Inflation and Fuel Economy

Ensure maximum performance and a long life from your tires by checking the air pressures at least once a month and set them to the vehicle manufacturer's recommended pressure(s) listed on the vehicle's tire placard or in your owner's manual. Always check and adjust your air pressure when your tires are cold, preferably first thing in the morning before driving. Never release air pressure from tires when they are hot. Wait until the tires cool down and recheck, adding air or releasing as required. Falken endorses the use of nitrogen in your tires because it helps your tires maintain optimal pressure for longer periods of time and reduces the amount of moisture inside of the tire and wheel assembly.

*Some plus size applications may require different air pressure(s) than what is listed on your vehicle's placard or owner's manual. In this case, please consult your tire dealer or Falken Tires for proper inflation pressure(s).

Tire Inflation Pressure

Tires need to be properly inflated to effectively operate and perform as intended. Tires carry the weight of the vehicle, passengers, and cargo as well as bear the forces of braking, accelerating, and turning. The vehicle manufacturer sets the inflation pressures for the original equipment tires that are on your vehicle.

Driving with improperly inflated tires is dangerous. An under inflated tire will generate excessive heat build-up that will cause damage to the internal structure and inner liner of the tire. Besides tire damage, improper tire inflation pressures can also affect your vehicle's ride and handling, tire tread wear, and fuel economy. It is recommended to always keep all of your tires, including the spare, at the vehicle manufacturer's recommended inflation pressures and be sure to check the air pressure monthly and before going on long road trips or carrying extra weight in your vehicle.

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Your vehicle's tire placard and/or owner's manual will list the cold inflation pressure(s) for your vehicle's original equipment tires, including the spare. The placard can be found on the driver's side door or door jamb area. If you have questions about understanding your vehicle's tire placard, please refer to your owner's manual or ask a qualified tire service professional.

Example of what your vehicle placard looks like:

TIRE AND LOADING INFORMATION		
SEATING CAPACITY : TOTAL 5 ; FRONT 2 ; REAR 3		
The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs.		
ORIGINAL TIRE SIZE	COLD TIRE INFLATION PRESSURE	
P195/70R14	FRONT	200kPa, 29PSI
	REAR	200kPa, 29PSI
COMPACT SPARE TIRE	COLD TIRE INFLATION PRESSURE	
T125/70D15	420kPa, 60PSI	

Checking Your Tire's Air Pressure

Checking your air pressure at least once a month is vital to help your tires perform properly and help you get the best gas mileage possible. Tires can lose up to 7 kPa (1 PSI) per month under normal conditions and lose up to 7 kPa (1 PSI) per every 9°C (16°F) drop in temperature. Here are some simple steps on how to check the air pressures in your tires:

1. Remove the valve stem cap.
2. Place the end of the tire gauge firmly against the tire's valve stem.
3. Read the current pressure displayed on the gauge that is currently in the tire.
4. Increase pressure at this time (if needed) and recheck with your tire gauge.
5. Replace the valve stem cap.
6. Repeat until all of your tires have been checked and adjusted accordingly.

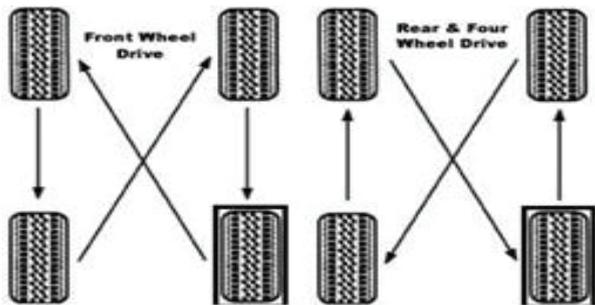
Tire Pressure Monitoring System (TPMS)

A tire pressure monitoring system (TPMS) is a safety system found in most vehicles manufactured after 2005. There are pressure sensing transmitters mounted inside of each tire that sends readings to the central computer (ECU) in your vehicle. The TPMS system will alert you when one or more of your tires are underinflated by 25% or more by turning on a warning light on your vehicle's dashboard or heads up display (HUD) screen. This means that one or more of your tires may have a low-pressure condition. Follow the instructions in your owner's manual.

Rotation and Wear

Falken recommends rotating your tires at least every 8,000km (5,000 miles) and periodically inspecting your tires to make sure they are free of road hazards (such as nails, screws, large wood splinters, etc.) that might penetrate your tires causing them to lose air pressure and to ensure they are wearing evenly. Common irregular wear patterns are: misalignment wear, where the tire shows excessive outer or inner tread wear. Tire sidewalls should also be inspected for cuts, snags, bruises, and weather cracking. If any of these noted conditions are present during inspection, we recommend returning to your servicing tire dealer to be corrected to ensure long tire life. *****Never include a temporary spare tire in your rotation pattern*****

Rotation patterns based on what type of drive your vehicle is:



Tire Replacement

Falken recommends replacing your tires when the tread wears down to the wear bars at 1.6mm (2/32 of an inch), which are located across the tread in several locations around the tire. If only two tires are being replaced, the two new tires should always be installed on the rear of the vehicle to aid in preventing your vehicle from hydroplaning, even if your car is front wheel drive. It's always recommended to have your new tires balanced during installation, and alignment checked if the previous tires show and irregular wear. Tires that have been in use for 6 (six) years or more should continue to be inspected by a qualified tire specialist, at least annually. It is recommended that any tires 10 (ten) years old or older from the date of manufacture, including spare tires, be replaced with new tires as a precaution even if such tires appear serviceable and even if they have not reached the legal worn out limit at 1.6mm (2/32 of an inch).

Tire Repairs

In the event that you get a flat tire while driving, it is best to find a nearby, safe place to stop and install your spare tire or call a tow truck. The less distance that you drive on your low or flat tire, the better chances your tire has of being repairable. Once you are able to get to your local servicing tire dealer, have them dismount the tire from the rim and thoroughly inspect the inside of the tire. It is important to know the difference between a proper tire repair and an improper one because it can be critical to you and your vehicle's safety. An improper repair could pose a safety threat to you and your family and could also affect your tire's manufacturer warranty. Here are some tips in determining if your damaged tire can be properly repaired or not:

- Always have the tire removed from the wheel and inspected before any repair is performed.
- Tires with less than 1.6mm (2/32 of an inch) of tread should NOT be repaired.
- Never repair a tire with a puncture larger than 6mm (1/4 of an inch).
- Repairs should be limited to the tread area only.
- Repairs cannot overlap one another.

- A plug and patch or plug/patch combo should be used to effectively repair a tire puncture.
- If anything seems questionable at any time during the repair process, ask your service advisor for more details and/or call the tire manufacturer to make sure the tire's warranty isn't being voided.

Tire Mix Usage



SAFETY WARNING

Never mix tires of different size or construction and/or type on any axle. (Except for temporary use as a spare tire.) Always refer to the vehicle's owner manual for proper tire fitments.

Tire Speed Ratings

Falken recommends replacing your tire(s) with the same speed rating as the original tires equipped on your vehicle.

It is okay to use a lower speed rated tire when using winter tires. However, speeds should be reduced to match the tires new "maximum" speed capability.

Any tire that is repaired, damaged, abused, altered from its original state or retreaded voids the speed rating on that particular tire and should be considered a non-speed rated tire.



SAFETY WARNING

Falken does not recommend the use of mixing different speed ratings on a vehicle. This can cause poor handling and unpredictable steering.

High Performance, Low Aspect Ratio Tires

Various new vehicles come equipped with high performance and/or low aspect ratio tires from the factory. These tires generally provide increased vehicle handling characteristics, but may also have engineering performance trade-offs related with their designs. Low aspect ratio tires have reduced sidewall heights and may be more vulnerable to damage from road hazards, potholes, and other objects,

like curbs. Your vehicle's wheels are susceptible to these same dangers as well. Some vehicles may be originally equipped with high performance tires that are designed for warmer weather use reducing traction in colder, winter weather conditions. High performance tires also pose the possibility of wearing more quickly, giving a stiffer ride, and producing louder noise than standard all-season tires during operation. Refer to your vehicle owner's manual, tire information placard, or qualified tire service professional for more information about these kinds of tires.

Winter Tires

Falken recommends all four tires be replaced when replacing your original equipment tires and installing winter tires for the winter months.



SAFETY WARNING

Never use just two winter tires. It could lead to adverse handling, loss of control, which could cause serious injury or death.

Storing Your Tires

When storing your tires for any extended period of time, be sure to thoroughly clean your tires with a tire brush, soap, and water to remove any dirt, salt, and brake dust from the tires. If you are storing your tires still mounted on the wheels, use a wheel brush and approved wheel cleaner to clean your wheels. Then dry the wheels and tires with a towel and allow them to fully dry. **DO NOT** apply any tire dressings while storing your tires. Tire compounds are made to resist weather cracking and ozone damage. Place each clean and dry tire in an airtight plastic bag and seal the bag with tape to help reduce oil evaporation. Store your tires out of direct sunlight and somewhere that is well shielded from the elements, like a climate-controlled room or dry basement. Storing the tires in a garage or shed usually exposes the tires to a wide range of temperatures as well as precipitation and humidity. Keep the tires away from sources that emit ozone like electric motors that use contact brushes, furnaces, sump pumps, etc. Although tires will still age regardless of how they are stored, these precautions will help slow the aging process and reduce the damage to your tires.

Speed Limits



SAFETY WARNING

Operating your vehicle in excess of the posted speed limit or the maximum speed allotted by driving conditions has the potential to be dangerous. Higher driving speeds create excessive heat buildup in a tire, leading to a possible tire failure.

Tire Spinning



SAFETY WARNING

Spinning a tire to get a stuck vehicle out of mud, ice, snow, sand, or wet grass can be potentially dangerous. A spinning tire at a speedometer reading above 55 km/h (35 mph) can be capable of disintegrating a tire with explosive force. In some circumstances, a tire may be spinning at twice the speed displayed on the speedometer. This can cause serious injury or death to you, a passenger, or bystander. Never spin a tire above 55 km/h (35 mph).

Limited Warranty

This limited warranty applies to Falken brand Original Equipment Passenger Car, Temporary Spare, and Light Truck steel belted radial tires bearing the complete description and serial number required by the Department of Transportation (DOT). This warranty is effective only to tires for which claims are made within 6 (six) years of the date of production, based on the tire DOT serial number.

What Is Covered and for How Long

Falken tires that are originally equipped on this vehicle are warranted against any defects in the materials and workmanship for the usable life of the original tread. The limited warranty terminates at the flush appearance of the tread wear indicators at 1.6mm (2/32 of an inch) remaining tread depth.

a. Free Replacement

If a tire becomes unserviceable due to such defect within the first 1.6mm (2/32 of an inch) of tread wear, the tire will be replaced

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free of charge with the same or comparable Falken tire (mounting and balancing labor covered).

b. Prorated Replacement

After the first 1.6mm (2/32 of an inch) of wear, a prorated adjustment credit will be given based on the percentage of remaining usable tread depth, down to the remaining 1.6mm (2/32 of an inch) tread wear bar indicator (mounting and balancing labor covered). No credit is given if the tire is worn beyond the flush appearance of the tread wear bar indicator (less than 1.6mm (2/32 of an inch) tread depth remaining).

c. Out-of-Round / Out-of-Balance Replacement

Tires that are deemed to be out-of-round or out-of-balance will be accepted for adjustment during the first 0.8mm (1/32 of an inch) of the original tread depth and will be replaced free of charge with the same or similar Falken tires (mounting and balancing labor covered). A set of four (4) tires from the same vehicle will not be accepted for out-of-round or out-of-balance claims.

What Is Not Covered by the Warranty

1.

- a. Tires that become unserviceable due to road hazard damages (cuts, snags, punctures, bruises, impact breaks, etc.) improper repair technique or materials, improper inflation, overload, irregular wear, wheel imbalance, defective mechanical vehicle components (brakes, suspension, wheels, etc.) improper suspension alignment, accident, fire, chemical damage, damage from chain use, racing, off-road use, run flat, improper installation, vandalism, or abuse.
- b. Tires branded "NA" or a tire in which the DOT numbering has been removed.
- c. Tires that were transferred to another vehicle from the vehicle in which the tires were originally installed.
- d. Tires having a failure or failures caused by a previous damages or repairs.
- e. The cost of tire repair or retreading is not covered by this warranty and will be the sole responsibility of the tire owner.

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2. Possible NON Covered Reasons/Conditions due to:

Chipping/Chunking/Tearing	Puncture
Corrosion/Wreck	Racing or any Competition
Fire	Repair Failure
Impact Break or Concussions	Road Hazards
Improper Inflation Pressure	Sidewall Cut or Damage
Improper Mounting/Dismount	Theft or Vandalism
Mechanical Defects of the Vehicle	Tread Cuts
Misalignment	Wheel Imbalance
Misapplication	Willful Abuse
Overloading	

Owner's Obligations

At least monthly, the vehicle owner(s) should check the tires' air pressure with a gauge and inflate to the recommended cold air pressure level listed on the driver's door placard. Do not rely on car servicers to perform the checks. The tires should be rotated at least every 8,000km (5,000 miles) or earlier if uneven wear is occurring, and proof of maintenance records should be kept. The owner(s) should have the tires rebalanced if vibration is experienced, and the vehicle's alignment should be checked if uneven or rapid wear is occurring, or when suggested by the vehicle's manufacturer.

All warranty claims must be presented to an authorized Falken dealer or participating car dealership. The owner(s) must present any supporting maintenance records and documentation necessary to help determine if the tire(s) in question are deemed covered by the limited warranty or not.

Legal Rights

All implied warranties, including warranties of merchantability and fitness for a particular purpose shall be limited in duration to the above period. To the extent permitted by law, Falken Tires shall not be responsible for incidental or consequential damages, such as loss of use of the tire or the vehicle on which it is used, inconvenience, or

commercial loss, some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state. This is the only express warranty applicable to Falken brand tires and supersedes the terms of any previous warranty. Falken neither assumes nor authorizes anyone to make or assume for it any other warranty.

Understanding Your Tires

Tire Speed Symbols

Tires that are speed-rated are identified by the following letter symbols: Q, S, T, U, H, V, W, Y, (Y), or (ZR). The Speed Rating's Symbol can be found as a part of the tire size designation (ex: 215/65HR16) or after the load index immediately following the tire size designation (ex: 215/65R16 97H). The Speed Rating's Symbol indicates the maximum speed that a tire can handle when properly inflated and loaded.

Speed Symbol	Maximum Speed (KMH)	Maximum Speed (MPH)
Q	160	99
S	180	112
T	190	118
U	200	124
H	210	130
V	240	149
W	270	168
Y	300	186
(Y)	Above 300	Above 186
ZR **	Above 240	Above 149

**For tires with speed symbols W and Y, ZR may or may not also appear within the size designation. For tires with a maximum speed above 186 MPH a ZR must appear in the size designation.

Date of Tire Manufacture

The date that a tire was manufactured can be determined by examining the last 4 digits of the 12 digit DOT serial code, which is found on at least one sidewall of a tire. For tires that were produced after the year 2000, the last 4 digits of the serial code will identify the week and the year that the tire was manufactured. If the last 4 digits in the DOT serial code were to read “0517” it would mean that the tire was manufactured the 5th week of 2017. If you are uncertain, check with a qualified tire service professional to be sure.



DOT Symbol and DOT Serial Code

The “DOT” symbol claims that the tire conforms to all applicable US Department of Transportation motor vehicle safety standards for tires. The identification/serial number follows the “DOT” symbol. Here is an example of a DOT serial code:

<u>DOT</u>	<u>R8</u>	<u>20</u>	<u>4M4R</u>	<u>05</u>	<u>17</u>
/					\
(A)	(B)	(C)	(D)	(E)	(F)

- A) DOT Symbol
- B) Manufacturer Plant Code
- C) Tire Size Code
- D) Tire Manufacturer’s Code
- E) Week of Production (01-52)
- F) Year of Production (the last two digits of the year)

Uniform Tire Quality Grading System (UTQG)

The Uniform Tire Quality Grading Standards (UTQG) were created to help you make an informed decision when purchasing passenger car tires by providing relative information about a tire's tread wear, traction, and temperature characteristics. Here is a breakdown of the different categories that the UTQG grades:

Tread Wear

The tread wear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and a half (1½) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices, and differences in road characteristics and climate.

Traction

The traction grades, from highest to lowest, are **AA**, **A**, **B** and **C**. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specific government test surfaces of asphalt and concrete. A tire marked **C** may have poor traction performance. **WARNING:** The traction grades assigned to this tire is based on straight ahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.

Temperature

The temperature grades are **A** (the highest), **B**, and **C**, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions or on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce in tire life, and excessive temperature can lead to sudden tire failure. The grade **C** corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No.109. Grades **B** and **A** represent higher levels of performance on the laboratory test wheel than minimum required by law. **WARNING:** The temperature

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grade for each tire is established for a tire that is properly inflated and not overloaded. Excessive speed, under-inflation, or excessive loading either separately or in combination, can cause heat buildup and possible tire failure.

Tire Manufacturer Contact Information

CANADA & USA

Sumitomo Rubber North America, Inc.
8656 Haven Avenue
Rancho Cucamonga, CA 91730, USA
1-800-723-2553

MEXICO

Eje 114 No.150 Zona Industrial San Luis Potosi
S.L.P. C.P. 78395, MEXICO
1-800-288-5526

Limited Warranty

United States & Canada

Unisteel® Radial Light Truck Tires Unisteel Radial Medium Truck Tires

Who Is Eligible for Warranty Coverage?

You are eligible for the benefits of this limited warranty if you meet all the following criteria:

- You are the owner or authorized agent of the owner of new Goodyear® Unisteel radial light truck or medium radial truck tires, including mud and snow and on-/ off-road tires.
- Your tires bear Department of Transportation (DOT) prescribed tire identification numbers and are not branded “NA” (Not Adjustable).
- Your Goodyear truck tires have been used only on the vehicle on which they were originally installed according to the vehicle manufacturer’s or Goodyear’s recommendations.
- Your tires were purchased on or after June 1, 2018.

What Is Covered and for How Long?

- 1. Free Tire Replacement** – Goodyear truck tires covered by this warranty that become unserviceable due to a covered warranty condition during the first 2/32” (inch) treadwear or 12 months from date of purchase, whichever comes first, will be replaced with a comparable new Goodyear tire without charge. You pay only for the mounting and balancing. (Without proof of purchase, date of manufacture will be used to determine eligibility.)
- 2. Prorated Tire Replacement** – Tires worn beyond the first 2/32” (inch) treadwear that become unserviceable due to a covered warranty condition will be replaced on a prorated basis. You are responsible for mounting, balancing and any additional services you order at the time of adjustment, as well as any taxes and government-mandated charges.
- 3. Tires With Duraseal Technology® – Sealant Credit During Original Tread*** – Failure of the DuraSeal Technology to seal a

maximum 1/4" (inch) puncture in the repairable area of the original tread will qualify for a one-time credit during the life of the original tread within four (4) years from the date of the casing DOT serial number or proof of purchase, if available. Sealant credit is based on local currencies in the country where the adjustment takes place, \$50.00 for both the U.S. and Canada.

- 4. TIRES WITH DURASEAL TECHNOLOGY – SEALANT CREDIT DURING FIRST RETREAD*** – Failure of the DuraSeal Technology to seal a maximum 1/4" (inch) puncture in the repairable area of the tread will qualify for a one-time credit through 100% of the first retread up to four (4) years from the date of the casing DOT serial number or proof of purchase, if available. Sealant credit is based on local currencies in the country where the adjustment takes place, \$25.00 for both the U.S. and Canada. All punctures must be repaired at time of retreading for this Limited Warranty to be honored. If a sealant credit was issued during the original tread life, no other requests for credit will be honored.

*All claim forms submitted for sealant credit must be verified by an authorized Goodyear representative.

How Will The Prorated Charges Be Calculated?

The replacement price will be calculated by multiplying the current Goodyear advertised selling price, at the adjustment location, by the percentage of usable original tread that has been worn off at the time of adjustment. You pay for mounting, balancing, an amount equal to the full current Federal Excise Tax (FET – U.S. only) and any other applicable taxes for the comparable new Goodyear replacement tire as well as any government-mandated charges.

Example:

If your disabled tire had an original 16/32" (inch) of usable tread depth and is worn to 8/32" (inch) of usable tread remaining, you have used 50% and therefore must pay 50% of the advertised selling price of a comparable tire, plus an amount equal to the full current Federal Excise Tax (U.S. only) applicable to the comparable new replacement

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tire at the time of adjustment. If the price of the comparable tire is \$400.00, the cost to you would be \$200.00 plus Federal Excise Tax (U.S. only), mounting, balancing, any other applicable taxes and government- mandated charges.

$$\frac{\text{Amount Of Tread Used}}{\text{Original Tread}} \times \text{Value Of Comparable Tire} = \text{Prorated Price Of New Tire}$$

(Plus FET [U.S. only], other applicable taxes, government- mandated charges and mounting and balancing.)

What Is a Comparable Tire?

A “comparable” new Goodyear tire may be either the same line of tire or, in the event that the same tire is not available, a tire of the same basic construction and quality with a different sidewall or tread configuration. If a higher priced tire is accepted as replacement, the difference in price will be at an additional charge to you.

Any replacement tire provided pursuant to this warranty will be covered by the Goodyear warranty in effect at the time of replacement.

What Is Not Covered Under This Limited Warranty?

- Wear conditions or tire damage due to road hazards (including punctures, cuts, snags, impact breaks, etc.). Wreck, collision, or fire. Fast wear, irregular wear, heel and toe wear or other wear conditions.
- Improper inflation, overloading, high-speed spinup, misapplication, misuse, negligence, racing, chain damage, or improper mounting or demounting.
- Mechanical condition of the vehicle.
- Chip/chunk conditions on tires intended for highway service.
- Ride disturbance after the first 2/32” (inch) treadwear or due to damaged wheels or any vehicle condition.
- Any tire intentionally altered after leaving a factory producing

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Goodyear tires to change its appearance (example: white inlay on a black tire).

- Tires with weather cracking which were purchased more than four (4) years prior to presentation for adjustment. If you have no proof of purchase date, tires manufactured four (4) or more years prior to presentation are not covered.
- Material added to a tire after leaving a factory producing Goodyear tires (examples: tire fillers, sealants or balancing substances). If the added material is the cause of the tire being removed from service, the tire will not be adjusted.
- Any Goodyear Commercial Truck tire with the word "Mileage" on the sidewall.
- Tires removed from service due to improper repairs.
- Loss of time, inconvenience, loss of use of vehicle, incidental or consequential damage.

Note: Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This limited warranty is applicable only in the U.S. and Canada.

What Is the Premium Radial Medium Truck Tire Casing Provision?

Goodyear® Premium Casings	
Endurance LHS, LHD, RSA	G505D™ Fuel Max™
G316® LHT™ DuraSeal + Fuel Max™	G572 1AD Fuel Max
G316® LHT™ Fuel Max®	G572 ⁴ LHD Fuel Max
G399 ⁴ LHS Fuel Max	G662™ RSA™ Fuel Max®
Fuel Max™ LHS™	Fuel Max™ LHD G505D™
Fuel Max™ LHT™	Fuel Max™ RSA

Goodyear premium casings in sizes 11R22.5, 11R24.5, 285/75R24.5 or 295/75R22.5 will be warranted for covered conditions through the first retread for a period of seven (7) years from the date of the casing DOT serial number or proof of purchase, if available.

If retreaded by a Goodyear Authorized Retreader, these premium casings will be warranted for covered conditions for an unlimited number of retreads for a period of seven (7) years from the date of the casing DOT serial number or proof of purchase, if available.

Casing credit is based on local currencies in the country where the adjustment takes place. Casing allowances are \$130.00 for tires with original tread and \$100.00 after retreading in both the U.S. and Canada.

What Is the Marathon® Long Haul Radial & Marathon Regional Service Radial Medium Truck Tire Casing Provision?

Any Goodyear Marathon LHS®, Marathon LHD®, Marathon LHT™, Marathon RSA®, Marathon RSS® & Marathon RSD® will be warranted for covered conditions through the first retread for a period of six (6) years from the date of the casing DOT serial number or proof of purchase, if available.

If retreaded by a Goodyear Authorized Retreader, these mid-tier casings will be warranted for covered conditions for an unlimited number of retreads for a period of six (6) years from the date of the casing DOT serial number or proof of purchase, if available.

Casing credit is based on local currencies in the country where the adjustment takes place. Casing allowances are \$100.00 in both the U.S. and Canada.

What Is The Radial Medium Truck Tire Casing Provision?

All other Goodyear Unisteel® radial light truck or radial medium truck tires will be warranted for covered conditions through the first retread for a period of four (4) years from the date of the casing DOT serial number or proof of purchase, if available.

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If retreaded by a Goodyear Authorized Retreader, except G392 SSD™ DuraSeal + Fuel Max™, G392A SSD DuraSeal + Fuel Max, G394 SST® DuraSeal + Fuel Max™, Fuel Max SSD DuraSeal and Fuel Max SST DuraSeal (see paragraph below), casings will be warranted for covered conditions for an unlimited number of retreads for a period of four (4) years from the date of the casing DOT serial number or proof of purchase, if available.

If retreaded, all G392 SSD DuraSeal + Fuel Max, G392A SSD DuraSeal + Fuel Max, G394 SST DuraSeal + Fuel Max, Fuel Max SSD DuraSeal and Fuel Max SST DuraSeal will be warranted for covered conditions for one retread for a period of four (4) years from the date of the casing DOT serial number or proof of purchase, if available.

Casing values are based on the predetermined casing value at the time of adjustment. See your servicing Dealer for these values.

How Do You Know When Your Tires Were Manufactured?

Tires with a DOT number ending with 0909 or greater were manufactured after 03/01/2009 (0909 refers to the 1st week of March 2009). These tires are covered under the provisions of this warranty coverage.

When Does the Warranty End?

Premium Radial Medium Truck tires have delivered the full original tread life and the new tire coverage of this warranty ends when the treadwear indicators become visible or seven (7) years from the date of original tire manufacture or new tire purchase date (whichever occurs first). Without proof of purchase, date of manufacture will be used to determine eligibility. Casings may continue to be warranted beyond the new tire coverage. Please refer to the "WHAT IS THE PREMIUM RADIAL MEDIUM TRUCK TIRE CASING PROVISION?" section for warranty details on casings.

Marathon LHS, Marathon LHD & Marathon LHT Radial Medium Truck tires have delivered their full original tread life and the new tire coverage of this warranty ends when the treadwear indicators become

visible, or six (6) years from the date of original tire manufacture or new tire purchase date (whichever occurs first). Without proof of purchase, date of manufacture will be used to determine eligibility. Casings may continue to be warranted beyond the new tire coverage. Please refer to the “WHAT IS THE MARATHON LONG HAUL RADIAL MEDIUM TRUCK TIRE CASING PROVISION?” section for warranty details on casings.

All other Goodyear Unisteel radial light truck or radial medium truck tires have delivered the full original tread life and the new tire coverage of this warranty ends when the treadwear indicators become visible or four (4) years from the date of original tire manufacture or new tire purchase date (whichever occurs first). Without proof of purchase, date of manufacture will be used to determine eligibility. Casings may continue to be warranted beyond the new tire coverage. Please refer to the “WHAT IS THE RADIAL MEDIUM TRUCK TIRE CASING PROVISION?” section for warranty details on casings.

How Do You Obtain an Adjustment?

- a. You must present the tire to be adjusted to an authorized Goodyear Commercial Tire Retailer. Please consult your telephone directory or visit www.goodyeartrucktires.com for locations. Tires replaced on an adjustment basis become the property of The Goodyear Tire & Rubber Company or Goodyear Canada Inc.
- b. You must pay for taxes or any additional services you order at the time of adjustment.
- c. No claim will be recognized unless submitted on a Goodyear claim form (supplied by a Goodyear Commercial Tire Retailer) that is completely filled out and signed by you, the owner of the tire presented for adjustment, or your authorized agent.

What Are Your Legal Rights?

DISCLAIMER: THIS WARRANTY IS IN LIEU OF, AND GOODYEAR HEREBY DISCLAIMS, ANY AND ALL OTHER WARRANTIES AND REPRESENTATIONS, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY

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OR FITNESS FOR A PARTICULAR PURPOSE, AND NO OTHER WARRANTY OR REPRESENTATION OF ANY KIND IS MADE BY GOODYEAR OR SHALL BE IMPLIED BY LAW.

LIMITATION OF DAMAGES: IN NO EVENT AND UNDER NO CIRCUMSTANCE SHALL GOODYEAR BE LIABLE TO THE BUYER FOR CONSEQUENTIAL, LOST PROFIT, LOSS OF BUSINESS, LOSS OF GOODWILL OR REPUTATION, PUNITIVE OR OTHER DAMAGE, COST (INCLUDING FOR REPLACEMENT TRANSPORTATION), EXPENSE OR LOSS OF ANY KIND. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

Note: No Representative or Dealer has authority to make any representation, promise or agreement on behalf of Goodyear except as stated herein. Any tire, no matter how well constructed, may fail in service or otherwise become unserviceable due to conditions beyond the control of the manufacturer. Under no circumstances is this warranty a representation that a tire failure cannot occur.

Serious Injury, Death or Property Damage May Result From

- TIRE FAILURE DUE TO UNDERINFLATION/OVERLOADING/MISAPPLICATION. Follow the vehicle owner's manual or tire placard in the vehicle.
- TIRE FAILURE DUE TO IMPACT DAMAGE/IMPROPER MAINTENANCE. Tires should be inspected regularly by a qualified technician for signs of damage, such as punctures or impacts.
- TIRE FAILURE DUE TO IMPROPER REPAIRS. See U.S. Tire Manufacturers Association established repair procedures at www.ustires.org, and/or go to www.goodyear.com for information on proper repair procedures.
- EXPLOSION OF TIRE/RIM ASSEMBLY DUE TO IMPROPER MOUNTING. Only specially trained persons should mount tires. When mounting tires, use a safety cage and a clip-on extension air hose to inflate.

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- FAILURE TO MOUNT RADIAL TIRES ON APPROVED RIMS.
- FAILURE TO DEFLATE SINGLE OR DUAL ASSEMBLIES COMPLETELY BEFORE DEMOUNTING.
- TIRE SPINNING. On slippery surfaces such as snow, mud, ice, etc., do not spin tires in excess of 35 mph (56 kph), as indicated on the speedometer.
- EXCESSIVE WHEEL SPINNING. This can also result in tire disintegration or axle failure.

For Service Assistance or Information:

1. First contact the nearest Authorized Goodyear Commercial Tire Retailer.
2. If additional assistance is required:
 - In the U.S., write to:
Goodyear Customer Assistance Center
Department 728
200 Innovation Way
Akron, OH 44316
 - In Canada, write to:
Goodyear Customer Assistance Center
450 Kipling Avenue
Toronto, Ont. M8Z 5E1

Limited Warranty

For Original Equipment Passenger Car & Light Truck Tires Including Temporary Tires

What Is Covered and for How Long

Hankook warrants that a tire manufactured by Hankook and equipped originally on the vehicle is free from defects in materials or workmanship in normal use for the life of the original usable tread. The life of the original usable tread ends when the tire tread has been worn down with only 1.6mm (2/32nds inch) remaining, at which point the tire is considered to be fully worn out.

Passenger Car and Light Truck Tires

a. ***Free replacement***

If Hankook Radial Passenger & Light Truck Tires fail as a result of defect in material and/or workmanship within the first 25% of tread wear, the tire will be replaced with a new, comparable Hankook Tire at no charge including mounting and balancing charges.

b. ***Pro rata replacement***

Tires not qualifying for free replacement will be allowed a credit toward purchase of a new, comparable Hankook Tire based upon the amount of tread actually worn. The cost of mounting, balancing and any other service charges or applicable taxes shall be paid by the user. Otherwise adjustment for compensation will be made on a prorata basis calculated by multiplying the actual current dealer selling price by the percentage of remaining usable tread depth.

Hankook Temporary Tire

- a. A Temporary tire weighs less and provides more trunk storage space than a conventional tire. To conserve tire tread life, temporary tire should be returned to the trunk as soon as it is convenient to have your standard tire repaired or replaced.
- b. If Hankook Temporary Tire fails as a result of defect in materials and/or workmanship during the first 50% of usable tread wear, the tire will be replaced with a new, comparable tire at no charge

HANKOOK TIRE

including mounting charge. No adjustment will be made for tires that are worn more than 50%.

What Is Not Covered by the Warranty

Non Adjustable Conditions

- a. Irregular wear or tire damage due to: Road hazards such as punctures, cuts, snags, scuffs, carcass bruises or impact breaks.
 - Fire, wreck or collision
 - Improper inflation, overloading, high speed spinning, improper mounting or demounting, running flat, off-road use, racing, vandalism, willful damage or abuse.
 - Misalignment, wheel imbalance, defective brakes or shock absorber, use of tire chains.
 - Any tire which has failed as a result of adding materials (e.g. tire fillers, sealant, or balancing substances).
 - Mechanical failure or design of vehicle.
- b. Tires fitted to anything other than the original vehicles.
- c. Tire worn beyond tread wear indicator (2/32nds inch or 1.6mm tread remaining).
- d. Tire presented by other than the actual owner-user.
- e. Tire branded “NA” (meaning no adjustment) or “blem” (meaning blemished).
- f. Loss of time inconvenience, loss of use of the vehicle or consequential damage.
- g. Ride disturbance caused by damaged wheels or after free-replacement conditions.
- h. Tire with weather cracking which was purchased more than four years prior to presentation for adjustment.

General Exclusions

- a. No Hankook Tire employee, retailer or dealer has the authority to make any warranty, representation, promise or agreement on behalf of Hankook Tire except as stated in this policy.
- b. Tires used in racing related activities or competitive events are not covered by this warranty.

HANKOOK TIRE

- c. Limitation of remedy: to the extent permitted by law, HANKOOK disclaims liability for all consequential and incidental damages. Some provinces and states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have the rights which vary from province to province in Canada, and from state to state in the U.S.A.

Hankook's Obligations

Replacement qualifying under this warranty will be made by a participating Hankook Dealer or a participating Car Dealer.

Owner's Obligations

- a. You must present the tire to a participating Hankook Dealer or a participating Car Dealer.
- b. For free replacement, a proof of purchase date such as car dealer invoice should be presented.
- c. No claim will be recognized unless submitted on a Hankook claim form completely filled out and signed by the owner or a participating Hankook Dealer or Car Dealer.

Passenger and Light Truck Radial Tire Warranty

THIS LIMITED WARRANTY APPLIES TO THE ORIGINAL PURCHASER OF ANY NEW KENDA PASSENGER RADIAL TIRE OR KENDA TIRES LIGHT TRUCK RADIAL TIRES BEARING THE DEPARTMENT OF TRANSPORTATION PRESCRIBED TIRE IDENTIFICATION NUMBERS AND MANUFACTURED AFTER 04/01/09. TIRES MANUFACTURED PRIOR TO THAT DATE MUST BE SUBMITTED TO COOPER TIRE FOR WARRANTY CONSIDERATION.

What Is Covered and For How Long?

Kenda warrants to the original purchaser that, if a Kenda first quality tire becomes unserviceable due to an eligible adjustable condition during the tread life (defined below), the tire will be replaced with an equivalent new Kenda Tire. A replacement charge (defined below) will be required to obtain a replacement tire.

Other Than First Quality Tires

Kenda passenger car and light truck tires branded “BLEMISH” have the same warranty as first quality tires except for ride complaints and the appearance or other conditions which caused the tires to be classified as other than first quality.

Tread Life

When the tread becomes worn to 2/32” (1.6mm) anywhere on the tire (shown by tread wear indicators molded into the tread grooves), the tire is worn out and no replacement tire or other adjustment shall be available.

Replacement Charge

The replacement charge will be determined by multiplying your original purchase price by the percentage of original tread worn from the tire. You must pay for mounting, balancing, and any other additional charges, such as State and Federal taxes and fees or the acceptance of a higher priced replacement tire.

What Isn't Covered

Adjustments will not be made for:

- A. Tires that become unserviceable due to:
 - 1. Conditions resulting from road hazard such as (A) impact damage, (B) cuts, (C) snags, or (D) punctures.
 - 2. Conditions resulting from (A) improper installation, (B) wheel misalignment, (C) tire/wheel assembly imbalance, (D) use on an improper rim (E) improper mounting or dismounting or (F) misapplication.
 - 3. Conditions resulting from consumer damage, such as (A) improper tire and vehicle maintenance, (D) misuse, abuse, (D) accident, (E) under inflation, (F) overloading, (G) failure to follow recommended rotation practices
 - 4. Ride complaints after the first 25% tread wear.
 - 5. Ride complaints on tires branded "Blemish".
 - 6. Use in any commercial, racing, or off-road applications.
 - 7. Ozone or weather checking on tires over (4) four years from date of manufacture.
 - 8. Continued use while being run flat or acute under-inflation.
 - 9. Tires stored improperly. or
- B. Tires that are:
 - 1. Worn unevenly and/or show a difference of 2/32" (1.6mm) between the grooves.
 - 2. Installed on any vehicle other than the vehicle on which they were first installed.
 - 3. Sold or adjusted outside the United States of America, the District of Columbia and Canada
 - 4. Acquired as "used" tires.
 - 5. Altered in any manner (additional siping, buffing, stud pin holes etc.)
 - 6. Worn to 2/32" (1.6mm) or more than 72 months old (based on date of purchase) whichever occurs first.
 - 7. Improperly repaired or with repairs not conforming to the Rubber Manufacturer's Association standards.

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Tires branded “MALWEAR” or “NON-UNIF (Non-Uniform) or with any other branding are not covered under the Tread Wear Protection provided herein.

REPLACEMENT WARRANTY

If you receive a replacement tire under the terms of this Warranty, the replacement tire will be covered by the Warranty then currently given by Kenda Tires for the replacement tire.

WHERE TO GO FOR WARRANTY REPLACEMENT

See your Kenda Tires dealer-which can be found on the dealer locator on KendaTire.com. In the event you are unable to locate a Kenda Tires dealer, you can obtain assistance by contacting the Kenda Consumer Relations Department, telephone number 1-800-225-4714.

CONDITIONS AND EXCLUSIONS

Any tire, no matter how well constructed, may fail in service or otherwise become unserviceable due to conditions beyond the control of the manufacturer. No Part of this Warranty is intended to be a representation by Kenda that tire failure may not occur.

USED TIRES

Never purchase used tires! Previous usage may have damaged internal components. This damage may lead to sudden tire failure.

KENDA TIRES DISCLAIMS ANY LIABILITY FOR LOSS OF TIME, OR USE, INCONVENIENCE, OR ANY INCIDENTAL, INDIRECT, SPECIAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES TO THE EXTENT PERMITTED BY LAW. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREON.

Some states do not allow exclusion of incidental or consequential damages. As a result, this limitation or exclusion may not apply to you.

CONSUMER RIGHTS

This Warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

OWNER'S OBLIGATION

When making a claim, you must return the tire to be replaced to your Kenda Tires dealer.

Proper vehicle and tire care is necessary to obtain the expected wear from a tire. It is your obligation to properly maintain your tires and the vehicle upon which they are mounted, including: (A) operating your tires at the inflation pressures recommended by the vehicle manufacturer, (B) keeping your tire/wheel assemblies in balance. (C) proper wheel alignment, and (D) rotation. You must check your tire's air pressure at least monthly and before long trips.

We recommend that you have your Kenda Tires dealer inspect your tires any time you notice irregular or uneven tread wear and rotate them, if necessary. Also, they should be inspected by your dealer any time your vehicle is brought in for service.

TREADWEAR LIMITED WARRANTY

For those qualifying brand tires listed in the product chart (see below), Kenda Tires will provide prorated credit towards the purchase of a comparable brand tire.

You will be responsible for the prorated cost of a replacement tire, and also mounting and balancing costs, taxes and any other charges.

The prorated cost of a replacement tire is determined as follows:
(Actual miles driven) ÷ (Amount of warranted miles) X (Actual current dealer selling price)

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To qualify for this Treadwear Limited Warranty, the tire must meet all of the following conditions:

- Qualifies as an Eligible Tire.
- Is a model tire included in the product chart.
- Is driven no more than the warranted miles specified in the product chart.
- Is properly serviced and maintained, including periodic rotation.
- Tread is evenly worn down to the top of the treadwear indicator bars.
- Was installed no more than 60 months from the date of purchase.
- Has been used on road surfaces for which the tire is designed.
- Has not been used for commercial service.

A comparable Kenda brand tire is the same tire, or a tire of the same basic construction and quality, as the original tire, as determined by Kenda Tires.

Mileage Warranties based on tire.

Ve zda UHP A/S.....	KR400.....	50,000
Ve zda Touring A/S.....	KR205.....	65,000
Ve zda Eco.....	KR30.....	60,000
Kenetica.....	KR17.....	50,000
Klever S/T.....	KR52.....	60,000
Klever H/T ²	KR600.....	60,000 (p-mertric) 50,000 (LTR)



SAFETY WARNING

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. Refer to the tire placard on the vehicle (check vehicle and/or vehicle owner's manual for placard location) for the recommended operating pressures. Do not exceed maximum pressure indicated on the tire sidewall.

Check Tire Inflation Pressures (Including The Spare, At Least' Once a Month When Tires Are Cold and Before Long Trips. All Tires Lose Air Over Time.

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 or death. Therefore, inflation pressures should be checked at least once a month and always prior to long distance trips. Any tire is susceptible to losing air pressure 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.

High Speed Driving Can Be Dangerous

Correct inflation pressure is especially important. However, at high speeds, even with the correct inflation pressures, 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. Never exceed the legal speed limit.

Inspect Your Tires Do Not Drive on a Damaged Tire or Wheel

Any time you see any damage to your tires or wheels replace with spare at once and immediately see your tire dealer. When inspecting your tires, including the spare, check your air pressures. If your pressure check indicates that one of your tires has lost pressure of two pounds 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 tire dealer at once. Use of a damaged tire could result in sudden 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 you drive on such roads, drive on them carefully and slowly, and before driving at normal or highway speeds, examine your tires for any damage, such as cuts or penetrations.

Worn Out Tires Are Dangerous

Tires contain "Wear-Bars" in the grooves of the tire tread which show up when only 2/32nds of an inch (1.6mm) tread is remaining. At this stage, your 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 these ratings. Follow the loading instructions of the manufacturer of your vehicle and this will insure 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 ratings for any axle on your vehicle. TRAILER TOWING

If you anticipate towing a trailer, you should see any tire dealer for advice concerning the correct size of tire and pressures. Tire size and pressures will depend upon the type and size of trailer and hitch utilized, but in no case must the maximum cold inflation pressure of tire load rating be exceeded. Check the tire 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

Inspect Your Tires Regularly

At least once a month inspect your tires closely for signs of uneven wear. Uneven wear patterns may be caused by improper inflation pressures, misalignment, improper balance or suspension neglect. If not corrected, further tire damage will occur. These conditions not only shorten the life of your tires, they adversely affect the handling characteristics of your vehicle which could be dangerous.

If any of these conditions exist, the cause may often be corrected at your tire dealer's or other service facility. Your tires will then last longer.

Tire Rotation

If irregular wear becomes apparent or if the rate of wear on the tires is uneven, the tires should be rotated to alleviate the problem. Check your vehicle for any mechanical problems and correct if necessary. The rotation pattern or procedure indicated in your limited warranty and the vehicle manufacturers' owner's manual should be followed. For tires on front wheel drive vehicles and/or all season tires on any vehicle, it is recommended that these tires be rotated every 8,000 miles to equalize the rate of wear.

Tire Mixing Can Be Dangerous

Most passenger tires today are radial tires and for best performance it is recommended that the same size and type of tire be used on all four wheel positions unless different sizes, front and rear, were specified as original equipment. Check the vehicle placard. If only two radials are mounted with two non-radials, the radials should be mounted on the rear. If tires of different types are mixed on a vehicle in any configuration, they should not be used for long periods and speeds should be kept to a minimum.

Mixing or matching of tires on 4-wheel drive vehicles may require special precautions. Always check vehicle manufacturers' Owner's Manual for their recommendations.

Tire Alterations Are Dangerous

Do not perform any alteration on your tires. Alterations may prevent proper performance, leading to tire damage, which can result in sudden tire destruction. Tires which have been altered are excluded from warranty coverage.

Repairs. See Any Tire Dealer At Once

If any tire has sustained a puncture, have the tire dismounted and inspected internally by any tire dealer for possible damage that may have occurred.

Punctures in the tread of passenger tires which do not exceed 1/4-inch (6mm) in diameter can be repaired by following Rubber Manufacturers' Association (RMA) recommended repair procedures. Do not use externally applied plug repairs. Punctures outside the tread area should not be repaired.

If the tire has a puncture in the tread which exceeds 1/4-inch (6mm) or if more than one radial cable per casing ply is damaged, the tire must be replaced.

Storage

Tires should be stored in a cool dry place indoors so that there is no danger of water collecting inside them. Serious problems occur with tube type tires when they are mounted with water trapped between the tire and the tube. Due to pressurization, the liquid can pass through the inner liner and into the casing plies. This can result in sudden tire failure. Most of the problems of this nature, encountered with tube type tires, have been due to improper storage which permitted water to enter the casing between the tire and tube prior to mounting.

When tires are stored they should be stored in a cool place away from sources of heat and ozone such as hot pipes and electric motors. Be sure that surfaces of which tires are stored are clean and free from grease, gasoline or other substances which could deteriorate the rubber. Tires exposed to these materials and/or excessive heat for a

prolonged period of time during storage or driving may be weakened and subject to sudden failure.

Driving on Studded Passenger Tires (In States Where Legally Permitted)

Only new passenger tires should be fitted with studs. For maximum effectiveness all four M+S 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 vehicles with front wheel drive, adverse handling characteristics can be introduced by mounting studded snow tires on front wheels only.

Tire Spinning Is Dangerous

Excessive spinning can cause a tire to “explode”.

Avoid tire spinning. The centrifugal forces created by a rapidly spinning tire can cause an explosion by tearing the tire apart. These forces act on the complete tire structure and can be of such magnitude as to break beads as well as rupturing the entire carcass.

When stuck on ice, snow, mud, or wet grass, etc., the vehicle should be rocked gently (alternately using forward and reverse gears) with the least amount of wheel spinning. DO NOT exceed 35 m.p.h. as indicated on the speedometer. Never allow anyone to stand near or directly ahead of or behind the spinning tire.

Do not spin if a drive wheel is off the ground. **SERIOUS PERSONAL INJURY OR DEATH** can result from the explosion of a spinning tire.

Speed Rated Tires

When replacement of tires is desired, consult the placard (normally located on a door frame, door edge, or glove box door) or the owner’s manual for correct size. If the tires shown on the vehicle placard do not have speed ratings, the appropriate size tire with any speed rating may be applied. When the placard tire size nomenclature contains a speed symbol, for example P205/60HR15 or P205/60R15 90H,

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the replacement tire must have the same or higher speed rating symbol if the speed capability of the vehicle is to be maintained. IF THE REPLACEMENT TIRE IS NOT SPEED RATED, THE SPEED CAPABILITY OF THE VEHICLE IS LIMITED BY THE SPEED CAPABILITY OF THE REPLACEMENT TIRE. A Kenda-produced non-speed rated tire's maximum speed is 85 m.p.h. (137 kmph).

Tire Mounting Can Be Dangerous

Tire mounting can be dangerous and should be done by trained persons using proper tools and procedures. Your tires should be mounted on wheels which are in good, clean condition. Bent, chipped or rusted wheels may cause tire damage. Have your dealer check the size and condition of your wheels before mounting new tires. Be sure rim/Wheel manufacturer's recommendations are followed. The inside of the tire must be free of foreign material.

Old valves may leak. When new tubeless tires are mounted, have new valves of the correct type installed. Be sure that all of your valves have suitable valve caps.

The sidewalls of radial tires flex more than non-radial tires. Because of this, tube-type radial tires require special tubes. Radial tubes should be used with radial tube-type tires. The use of other tubes, not designed for radial tires, will result in tube failure causing sudden tire destruction. Always use a new tube when mounting a new tube type tire.

Kenda

Designed for Your Journey

7095 Americana Parkway
Reynoldsburg, OH 43068

KendaTire.com

Limited Warranty

This Limited Warranty applies only to Maxxis brand radial tires installed as original equipment on new passenger cars and light trucks, and to Maxxis brand temporary spare tires included with new passenger cars and light trucks.

The Maxxis brand tires to which this Limited Warranty applies are referred to in this Limited Warranty as Tire or Tires. New passenger cars and light trucks are referred to as a Vehicle. Maxxis-authorized dealers that accept warranty claims are referred to as Maxxis Dealers. Vehicle Manufacturer authorized dealers that accept warranty claims are referred to as Vehicle Manufacturer Dealers.

Notice: Any implied warranty or condition, whether statutory or otherwise, including that of merchantability or fitness for a particular purpose, is limited to the duration of this written Limited Warranty. Maxxis is not responsible for loss of time, inconvenience, loss of use of vehicle, and/or costs of towing or transportation, or any other consequential, incidental or indirect damages. Some States (or Provinces) do not allow limitations on how long an implied warranty or condition lasts, so the above limitation may not apply to you. Some States (or Provinces) do not allow the exclusion or limitation of incidental or consequential damages, so these limitations or exclusions may not apply to you.

Eligibility for Limited Warranty

In order for the Tire or Tires to be covered by this Limited Warranty, all of the following conditions must be met:

- The Tire was installed or supplied as original equipment on a new Vehicle.
- The Tire bears the prescribed tire identification number, as applicable.
- The Tire has been used only on the Vehicle on which it was originally installed or supplied, and the installation was in accordance with Vehicle manufacturer's and/or Maxxis' recommendations.

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- The Tire has been properly cared for, and reasonable and necessary maintenance has been performed, in accordance with the Vehicle Owner's Manual and/or this Limited Warranty.
- The Tire has been operated only under normal service conditions.
- The Tire's owner resides in the United States or Canada.

What Is Warranted and for How Long

- Failures, defects, and malfunctions due to defective materials and/or defective workmanship.
- Ride problems, vibration problems, and/or out-of-round
- Tires, if the Tire is within the first 1/32nd inch of tread depth (0.8 mm).
- Within 60 months from the date of your purchase of the new Vehicle, or at least 2/32nd inch (1.6 mm) of tread depth remaining on the Tire, whichever comes first, except if the Tire is a temporary spare tire, in which case the tire must be within the first 1/32nds inch (0.8 mm) of tread depth.

What Is Not Covered by this Limited Warranty Policy

- Tire failure, defect, malfunction or damage resulting from improper operation or maintenance such as, but not limited to, overloading, excessive speed and inflation practices causing excessive operational temperatures that exceed specifications, misapplication, tire/wheel imbalance, vandalism, use of puncture sealants and/or chemical corrosion.
- Road hazards, including but not limited to cuts, snags, punctures, bruises, impact brakes, tire plugs, and/or any other damage caused by tire repair.
- Ride problems, vibration problems, and/or out-of-round Tires, if Maxxis determines the problem is not the result of a defect covered under this Limited Warranty, regardless of the tread depth of the Tire.
- Irregular treadwear resulting from improper wheel alignment, under or over inflation, tire abuse (such as spinning), improper mounting or dismounting, vehicle mechanical problems (such as faulty, worn

or malfunctioning brakes and/or suspension), damaged wheels, tire truing, snow/ice chain usage, flat spots caused by braking, or Tires involved in accidents.

- Tire alterations such as, but not limited to, bead or sidewall decorative material and/or adding a white inlay (whitewall) to the tire.
- Failure, defect, malfunction or damage to Tires used on vehicles engaged in racing or special applications, such as police pursuit.
- Claims made by persons other than the original consumer purchaser.

Limitation of Warranty

- **Any implied warranty or condition, whether statutory or otherwise, including that of merchantability or fitness for a particular purpose, is limited to the duration of this written Limited Warranty.**
- **Maxxis is not responsible for loss of time, inconvenience, loss of use of vehicle, and/or costs of towing or transportation, or any other consequential, incidental or indirect damages.**
- Some States (or Provinces) do not allow limitations on how long an implied warranty or condition lasts, so the above limitation may not apply to you. Some States (or Provinces) do not allow the exclusion or limitation of incidental or consequential damages, so these limitations or exclusions may not apply to you.
- This Limited Warranty is only applicable in the United States and Canada.
- This Limited Warranty is not intended as a representation that a tire failure cannot occur.
- This Limited Warranty is the entire warranty given by Maxxis, and Maxxis' complete obligation with respect to the Tires is stated in this Limited Warranty. No one has the authority to imply, suggest, agree, represent, warrant, or promise contrary to the terms of this Limited Warranty.
- This Limited Warranty gives you specific legal rights and you may also have other rights which vary from State to State or Province to Province.

Replacement of Tires

- If you make a warranty claim in accordance with this Limited Warranty, and the Tire* is within the first 25% of original, usable tread, or the warranty claim is made 12 months from the date of your purchase of the new Vehicle (whichever comes first), the Tire will be promptly replaced with a comparable tire, without charge to you (Free Replacement).
 - * If your warranty claim is with respect to a temporary spare tire, the tire must be within the first 1/32nd inch (0.8 mm) of tread depth, and the warranty claim does not have to be made within 12 months from the date of purchase.
- During the Free Replacement period, mounting and balancing are free of charge.
- After the Free Replacement period and Vehicle Manufacturer's warranty period, the credit of the Tire will be calculated on a pro-rated basis.
- Remaining usable tread is computed as a percentage of the original, usable tread. The credit amount will be calculated by multiplying the Tire's market retail price at the time of the warranty claim by the remaining usable tread.
- Original, usable tread does not include the last 2/32nds inch (1.6 mm) of tread depth.
- You are responsible for payment of labor costs of mounting and balancing and applicable taxes, charges for services that you request but that are not covered by this Limited Warranty, and any shipping expenses after the Free Replacement period.
- A "comparable tire" may either be a new Maxxis brand tire of the same line as the Tire, or if the Tire is out of production or unavailable, a new Maxxis brand tire of the same basic construction and quality, with different sidewall or treadwear configuration. If the same tire or a comparable new Maxxis tire is available, and you request a higher-priced tire as a replacement, the difference in price will be paid by you.

Warranty Claim Procedure

- You must present the Tire to a Vehicle Manufacturer Dealer or a Maxxis Dealer.
- You must present proof of the date of your purchase of the Vehicle (car dealer invoice). If you do not present this proof, the warranty claim will be considered only if the Tire is within five years of its date of manufacture.
- You must present the Tire that is the subject of the warranty claim and all service and maintenance records required by this Limited Warranty.
- If there is no Maxxis Dealer or Vehicle Manufacturer Dealer near you, call the Maxxis Technology Center at 1-866-509-7067.

Safety Maintenance Information

Improper tire mounting and inflation and overloading may cause serious injury or property damage. Maxxis recommends that you read and follow all safety information contained in the tire safety information section of this booklet, vehicle placard in the Vehicle and/or the Vehicle Owner's Manual. Information regarding safety and maintenance also can be found on the sidewall of the Tire.

Please also comply with the following:

- Check air pressure every month when tires are "cold." Use an accurate tire air pressure gauge. Do not reduce pressure when tires are hot. Proper inflation is essential. Under inflation produces flexing of the sidewalls and builds up heat to the point that premature tire failure may occur. Over inflation can cause the tire to be more susceptible to impact damage.
- Never overload your tires. The maximum load capacity and maximum inflation pressure are molded into the sidewall of your tire. Overloading builds up excessive heat and can lead to early tire failure.
- Avoid damaging objects (such as chuckholes, glass, rocks and curbs) which may cause internal tire damage. Continued use of a tire that has suffered internal damage, which may not be visible externally, can lead to dangerous tire failure. Determination

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of internal damage will require dismounting of the tire and examination by trained tire personnel.

- Improper tire mounting and inflation procedures may cause the tire beads to break with explosive force during installation of the tire on the rim. Tire and rim must match in size. Rim parts must match by manufacturer's design. Clean rim. Lubricate rim and beads. Do not exceed the maximum recommended pressure to seat the beads. Only trained tire personnel should mount tires.
- Use of worn-out tires (less than 2/32nd inch (1.6 mm) of tread depth) increases the probability of tire failure.
- Excessive speeds create heat buildup in a tire, leading to possible tire failure.
- Maxxis strongly recommends tire rotation every 5,000 to 7,500 miles (8,000 to 12,000 kilometers).
- The Maxxis brand temporary spare tire weighs less than a conventional radial tire. The temporary tire should be used only in emergencies and returned to the trunk as soon as it is convenient to have your standard tire repaired or replaced.

Contact Information

Any time you see damage to your Tires or wheels, immediately contact a Vehicle Manufacturer Dealer or Maxxis Dealer. If further assistance is required, please contact:

Maxxis International - U.S.A.
1-866-509-7067

Or write:

Maxxis Technology Center
480 Old Peachtree Road
Suwanee, GA 30024
USA

Passenger and Light Truck Tire Limited Warranty

About This Warranty

As the original purchaser of a vehicle equipped with MICHELIN® 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 contained in this booklet.

What Is Covered and for How Long?

MICHELIN passenger and light truck tires that are used in normal service on the vehicle on which they were originally fitted are covered as follows:

Workmanship and Materials

If there is a defect in workmanship and materials during the life of the original usable tread, or six (6) years from date of purchase (whichever comes first), your tire may be replaced on a pro rata basis under this warranty. After six (6) years or the wear of the original usable tread, whichever occurs first, all warranties, expressed or implied, expire.

The “date of purchase” refers to the date on your sales invoice. If you cannot find your sales invoice, the date will be calculated based on the date of manufacture which is molded on the sidewall of your tire.

The “life of the usable tread” refers to the original tread worn down evenly across the face of the tread to the level of the treadwear indicators, which is 2/32nds of an inch (1.6 mm) of tread remaining. Uneven wear is defined as a tread groove difference of 2/32nds of an inch or more across the face of the tread on the same tire.

What Is Not Covered

This warranty does not cover tires damaged due to misuse, abuse or accident such as:

- Road hazards (e.g., cuts, snags, bruises, impact damage or punctures);
- Incorrect mounting of the tire, tire/wheel imbalance or improper repair;
- Misapplication, improper maintenance, racing, underinflation, overinflation or other abuse;
- Uneven or rapid wear which is caused by mechanical irregularity in the vehicle such as wheel misalignment (a measured tread difference of 2/32nds of an inch or more across the face of the tread on the same tire);
- Accident, fire, chemical corrosion, tire alteration or vandalism;
- Flat spotting caused by improper storage or brakelock;
- The addition of liquid, solid or gaseous materials other than air, nitrogen or carbon dioxide (for example, waterbase sealers or balancing substances);
- Minor cosmetic ozone or weather cracking;
- Use of MICHELIN® Self-Supporting Zero Pressure (ZP) tires without a properly operating low air pressure warning system.
- Use of MICHELIN tires that is inconsistent with the safety and/or maintenance information provided in your owner's manual.

Other limitations include but are not limited to the following:

- Michelin does not cover Original Equipment tires for mileage.

What Will Michelin Do?

If a tire is covered, and 2/32nds of an inch (1.6mm) or less of the original tread is worn (or 25% or less, whichever is more beneficial to you), and it is within 12 months of the date of purchase, Michelin will, free of charge, replace your tire with a comparable new MICHELIN® replacement tire, mount the tire, and balance the tire. You must pay the cost of any other service charges and applicable taxes.

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If a tire is covered, and more than 2/32nds of an inch of original tread has been worn (or more than 25%, whichever is more beneficial to you), or it has been more than 12 months from the date of purchase, Michelin will replace the tire with a comparable new MICHELIN replacement tire on a pro rata basis. This means that you will be responsible for paying a portion of the cost. The Michelin tire retailer will determine the portion for which you will be responsible by multiplying the percentage of the original usable tread worn, by the current selling price at the adjustment location or the price in the current Michelin Base Price List, whichever is lower. You also will be responsible for paying in-full the cost of mounting and balancing the tire, and the cost of any other service charges and applicable taxes.

How Do I Get A Replacement?

Take your tire to any MICHELIN tire retailer. The retailer will require that you provide one or more the following:

1. The vehicle on which the tire was used,
2. Personal identification (e.g. Driver's License),
3. Your vehicle registration,
4. Payment if you owe a pro rata share for the replacement,
5. A completed Service Record form, and Original Owner/Tire Installation Information Form,
6. Your original invoice and copy of this Owner's Manual.

Self-Supporting Tires Zero Pressure (ZP)

As the purchaser of a MICHELIN® Self-Supporting Zero Pressure (ZP) passenger tire, mounted on a vehicle approved for ZP tires, equipped with a properly operating low tire pressure warning system, you are covered by this warranty. Please pay close attention to the Owner's Manual part of this booklet since it provides specific safety and maintenance information for your ZP tires.

MICHELIN® Self-Supporting Zero Pressure (ZP) tires are part of a very sophisticated system which is designed to provide a very simple benefit: Peace of Mind. With these tires, you can maneuver the vehicle up to 50 miles (80 kilometers) at 55 mph (90 kph), unless otherwise specified in your vehicle owner's manual, even though the tire has lost

all air! That means time to exit from the highway and get to a place where the tire can be inspected, replaced, or possibly returned to service. The distance that can safely be travelled following an air loss incident will depend upon the conditions under which the vehicle is operating, the degree of air loss, the extent of the damage causing the air loss, the ambient temperature, the load, and the operating speed of the vehicle. The fewer miles you travel after an air loss incident, the greater the likelihood that the tire can be re-inflated (or, if punctured, repaired) and returned to service.

Michelin Tires with the Acoustic Logo



Michelin tires with the Acoustic logo are covered under this warranty. These tires are treated with acoustic foam, and have specific instructions for repair by tire professionals at Michelin authorized dealers.

Michelin Tires with the Self-Seal Logo



Michelin tires with the Self-Seal logo are covered under this warranty. These tires are designed to seal in the event of a puncture, and have specific instructions for repair by tire professionals at Michelin authorized dealers.

What Conditions And Exclusions Apply?

This warranty does not provide compensation for loss of time, loss of use of vehicle, inconvenience or consequential damage. Some states do not allow the exclusion or limitation of incidental or consequential damages, so these limitations or exclusions may not apply to you.

This warranty limits the length of all express and implied claims. Some states do not allow limitations on how long an implied warranty lasts, so this limitation may not apply to you.

Tires presented for claim remain the property of the consumer, and Michelin is not responsible for loss of or damage to tires which are in the custody or control of a Michelin tire retailer for the purpose of inspection for warranty claims. In the event of a disputed claim, the

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consumer must make the tire available for further inspection. Tires accepted for claim become the property of Michelin.

No Michelin representative, employee or retailer has the authority to make or imply any representation, promise or agreement, which in any way varies the terms of this warranty. These limited warranties apply only in the United States and Canada.

This warranty gives the user specific legal rights, and the user may also have other rights which vary from state to state.

How Do I Dispute Issues Concerning This Warranty?

ALL CLAIMS ARISING FROM THIS LIMITED WARRANTY OR THE MARKETING, SALE OR PERFORMANCE OF THE PURCHASED PRODUCT AGAINST MICHELIN NORTH AMERICA, INC. AND ITS AGENTS, EMPLOYEES, DEALERS, AFFILIATES, PARENT OR SISTER CORPORATIONS, RELATED CORPORATE ENTITIES, PREDECESSORS, SUCCESSORS OR ASSIGNS (HEREINAFTER COLLECTIVELY "MICHELIN") SHALL BE SUBJECT TO BINDING ARBITRATION. You and Michelin acknowledge your and its right to litigate claims, disputes and controversies arising out of or in connection with this limited warranty or the marketing, sale or performance of the purchased product in court, but prefer to resolve any such claims, disputes and controversies through arbitration and hereby waive the right to litigate such claims, disputes and controversies in court upon election of arbitration by either party. Therefore, you and Michelin agree that all claims, disputes, and controversies between you and Michelin arising out of or in connection with this limited warranty, or any other warranties, express or implied, including a failure of warranty, or any claims arising out of or in connection with the marketing, sale or performance of the purchased product, including but not limited to claims for consumer fraud or brought under any consumer protection statute, but excluding claims for personal injury or property damage, shall be finally resolved solely by arbitration, upon election by either party, according to the formal dispute resolution procedures then in effect of the National Arbitration Forum, or if the National Arbitration Forum is no longer conducting such arbitrations, a successor organization thereto or such other

private arbitration service as you and Michelin shall mutually agree (the actual authority involved, the “Arbitral Body”). The Arbitral Body shall decide the issues submitted in accordance herewith, provided that all substantive questions of law will be determined under the laws of the State in which you purchased the product at issue. You agree that no claim subject to arbitration shall be arbitrated as a class action, or on a class-wide or representative basis, or on behalf of the general public, or on behalf of other persons that may be similarly situated. You agree that you do not have the right to act as a private attorney general, a class representative, or to participate as a member of a class of claimants with any claim subject to arbitration. You further agree that no claim subject to arbitration shall be heard by a jury and that any judgment or award of the Arbitral Body will be final and not subject to judicial review. All arbitrations will be conducted as document hearings. Each party shall bear its own costs arising from and associated with the document hearing with the exception of the arbitrator’s fee which will be borne by all parties in equal shares. If either party requests any procedures beyond a document hearing, the requesting party will be responsible for all fees, including filing and administrative fees, above and beyond the fees required for document hearings. Any award of the arbitrator(s) may be entered as a judgment and shall be enforceable in any court of competent jurisdiction. The arbitrators will have no authority to award punitive or other damages not measured by the prevailing party’s actual damages, except as may be required by statute. Information about arbitration may be obtained and claims may be filed at any office of the National Arbitration Forum or at P.O. Box 50191, Minneapolis, MN 55405.

Tire Safety And Maintenance

The Importance of Maintaining Safe Tires

The tire is the only contact between your vehicle and the road surface. Following the inspection and maintenance instructions in this owner’s manual is critical to help ensure safe use and longer tire life. Visit the Safe Driving page at michelinman.com for more information about the important safety instructions and procedures in this owner’s manual.

Safety Maintenance Information

Read this Owner's Manual, the information on the sidewall of your tires, your vehicle owner's manual and the tire information placard that came on your vehicle, for essential safety and maintenance information.

While you should have complete confidence in your new MICHELIN® tires, it's important to register your tires so we can contact you about any new safety developments. For online tire registration, visit tireregistration.com.

Tire Failure – Safety Warning

Any tire may fail as a result of an improperly repaired puncture, impact damage, improper inflation, overloading, a crack, a bulge or other distortion, 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, death, or property damage. To reduce the risk of a tire failure, you should thoroughly read and follow the instructions in this manual, your vehicle owner's manual, the tire information placard on the vehicle (located in the vehicle's door jamb, inside the fuel hatch, or on the glove compartment door), and tire sidewall information regarding safety warnings, proper tire use, and proper tire maintenance.

Controlling a Vehicle When a Tire Failure Occurs

If a tire failure occurs, you may hear a loud noise, feel a vibration, or feel the vehicle pull toward the side of the failed tire. If that happens, **DO NOT BRAKE OR ABRUPTLY TURN THE STEERING WHEEL.** Instead, 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 in your control, apply the brakes gently, safely pull over to the shoulder, and come to a stop in the safest location possible. Inspect all tires. If any tire looks flat or low, or shows detachment or any other damage, replace the wheel and tire with a properly inflated spare after first inspecting the spare for

visible damage. Bumps, bulges, or cracks in any tire may indicate detachment within the tire body and require inspection by a qualified tire professional. If any tire, including the spare, has bumps, bulges, cracks, or other visible damage, do not resume driving with that tire. If you have no other option, you should drive as slowly and cautiously as possible until you can obtain towing or mechanical assistance. If the spare tire is not properly inflated, do not resume driving with that tire unless you have no other option, in which case you should drive only as slowly as is safely possible in the traffic conditions until you can both get the spare tire properly inflated and have it checked by a tire professional to ensure that it is safe to use.

Proper Inflation



Driving On Any Tire That Does Not Have The Correct Inflation Pressure Is Dangerous

An underinflated tire builds up excessive heat that may result in sudden tire failure and an accident. If your tires are those that came as original equipment on your vehicle when it was new, refer to the tire information placard that came on your vehicle (located in the vehicle's door jamb, inside the fuel hatch, or on the glove compartment door), for the recommended operating pressures. For replacement tires, ask your Michelin tire retailer for the correct inflation pressure; if you do not, refer to the tire information placard that came on your vehicle (located in the vehicle's door jamb, inside the fuel hatch, or on the glove compartment door), for the recommended operating pressures. These inflation pressures must be maintained as a minimum. Never exceed the Maximum Pressure rating stated on the tire sidewall. Note that proper inflation pressures for rear tires may differ from proper inflation pressures for front tires. The Maximum Pressure rating on the tire is normally not equal to the placard pressure.

Check the Cold Inflation Pressure in All Your Tires, Including the Spare, at Least Once Each Month

Failure to maintain correct inflation may result in improper vehicle handling and may cause rapid and irregular tire wear, sudden tire failure, loss of vehicle control, and an accident. Therefore, inflation pressures should be checked at least once each month and before every long-distance trip. 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 before the tires have been driven on or after they have been allowed to cool down to the ambient air temperature. Driving for even a short distance causes tires to heat up and their air pressure to increase, and recommended tire pressures are for tires that have not been heated by recent driving on them.

Underinflation and Overinflation Must Be Checked with a Tire Pressure Gauge

Tires must be checked monthly with a tire pressure gauge. 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 overinflated. Use an accurate tire pressure gauge to check tire pressure each month. Small and inexpensive tire pressure gauges are available. You should keep one in your vehicle's glove box or trunk and use it monthly and as otherwise needed.

Self-Supporting Zero Pressure™ (ZP) Tires at Low or Zero Air Pressure

The handling characteristics of a vehicle with a deflated Self-Supporting Zero Pressure (ZP) tire (whether front or rear) are not the same as those of a vehicle with normally inflated tires. Avoid high speeds and hard cornering whenever a low-pressure warning is activated. Even a Self-Supporting Zero Pressure (ZP) tire can build up excessive heat when run underinflated for an extended period of time. The length of time and distance a Self-Supporting Zero Pressure (ZP) tire will perform at low or zero inflation will depend on the severity

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of the event causing air loss, the ambient temperature, the speed at which the tire is operated, and the conditions under which the tire is operated. In particular, hard braking, cornering, and other sharp maneuvers will greatly reduce the length of time the tire can perform at low or zero inflation. Continuous use of an underinflated tire may lead to sudden tire failure and an accident. If a tire at low or zero pressure begins to vibrate or cause difficulty in vehicle handling, replace it immediately with the temporary spare. If Self-Supporting Zero Pressure (ZP) tires are supplied as original equipment, refer to the vehicle owner's manual for complete details on the low tire pressure warning system designed to alert you in the event of a low pressure condition.

MICHELIN® SELF-SUPPORTING ZERO PRESSURE™ (ZP) TIRES MUST BE USED ONLY WITH AN OPERATIONAL, MICHELIN APPROVED, LOW TIRE PRESSURE WARNING SYSTEM. Otherwise, all provisions of the limited warranty are void. For a list of approved systems, see your Michelin tire retailer or call 1-800-847- 3435. NOTE: Some MICHELIN Self-Supporting Zero Pressure (ZP) tires can only be mounted on special SH-M (Symmetric Hump - Modified) wheels. These tires bear the special SH-M designation, molded into the sidewall of the tire, next to the ZP designation. DO NOT MOUNT A TIRE WITH THE SH-M DESIGNATION ON THE SIDEWALL ON A STANDARD WHEEL. DOING SO VOIDS THIS LIMITED WARRANTY AND COULD CAUSE THE TIRE TO BECOME UNSERVICEABLE AT LOW OR ZERO PRESSURE, RESULTING IN SERIOUS PERSONAL INJURY OR DEATH. For a list of approved systems, see your participating Michelin® tire retailer, or call 1-800-847-3435. For all types of tires, consult your vehicle owner's manual or the tire information placard that came on your vehicle (located in the vehicle's door jamb, inside the fuel hatch, or on the glove compartment door) for recommended operating pressures. Recommended operating pressures will be provided by a Michelin tire retailer for self-supporting ZP tires. These inflation pressures must be maintained as a minimum. Never exceed the Maximum Pressure rating shown on the tire sidewall.

For Self-Supporting Zero Pressure (ZP) Tires, Check Inflation Pressures as Soon as Possible Following a Low Pressure Warning

Be certain to ensure that your vehicle's Tire Pressure Monitoring System (TPMS) is functioning and is correctly calibrated. Refer to your vehicle owner's manual or your vehicle dealer. Low pressure warning systems are designed to alert the driver to a low inflation situation in at least one tire on the vehicle. While your ZP tires are designed to provide continued mobility in the event of an air loss, the sooner you respond to a warning and take corrective action, the greater the likelihood that the tire can be returned to service. Always visually inspect your Self-Supporting tires and use a pressure gauge to check the inflation in all 4 tires following any low pressure warning (unless advised to do otherwise by the manufacturer of your low pressure warning system). If the tire pressure is at or below 18 PSI, proceed to the Michelin tire retailer for ZP tires (or a representative of your vehicle manufacturer if advised to do so in your vehicle owner's manual) and have the tire demounted and thoroughly inspected for possible internal damage. If you are unable to see any damage to the tire, and the tire pressure is more than 18 PSI, reinflate your tire to the proper inflation. When tires have cooled, check inflation again. If any tire has lost more than 5 PSI from the previous pressure check, have the tire inspected at once by a Michelin tire retailer (or representative of your vehicle manufacturer if your vehicle owner's manual so advises.) Failure to do so may cause irreparable damage to the tire and result in sudden tire failure and an accident.

Tire Pressure Monitoring Systems (TPMS)

Your vehicle is likely 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. You should 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 is on a placard located in the vehicle's door jamb, inside the fuel hatch, or on the glove compartment door. If you have plus-size tires that require a higher inflation pressure, your tire pressure monitoring system will require re-calibration to the new proper inflation pressure. Refer to your tire dealer/installer of plus-size tires for proper inflation pressure. You should check air pressure in all your tires, including the spare, once each month and before every long trip. Regardless whether your spare is a full-size spare or a mini-spare, make sure that it is properly inflated. If the TPMS generates improper monitoring or signals, you should consult your vehicle owner's manual and follow up with your vehicle's manufacturer.

TIRE SPINNING



Do not spin wheels at more than 35 mph (55 km/hr) as indicated on your vehicle's speedometer. Excessive speed in a free-running, unloaded tire can cause it to "explode" from centrifugal force. The energy released by such an explosion may cause serious physical injury or death. Never allow anyone to stand near or behind a spinning tire. When in mud, sand, snow, ice, or another slippery condition, do not engage in excessive wheel spin. Accelerating the motor excessively, particularly with automatic transmission vehicles, may cause a drive tire that has lost traction to spin beyond its speed-enduring capability. This is also true when balancing a drive tire/wheel assembly on the vehicle using the vehicle engine to spin the tire/wheel assembly.

High Speed Driving Is Dangerous

Correct inflation pressure is especially important. However, at high speeds, even with the correct inflation pressure, a road hazard is more difficult to avoid, and if tire contact is made with it, there is 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.

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Exceeding the maximum speeds shown on the following page 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 failure and rapid air loss. Failure to control a vehicle when one or more tires experience a rapid air loss can lead to an accident.

In any case, you should not exceed reasonable speeds as indicated by the legal limits and driving conditions.

Speed Rating System

The speed rating of a tire indicates the speed category (or range of speeds) at which the tire can carry a load under specified service conditions. The speed rating system used today was developed in Europe in response to the need to categorize tires into standardized speeds. A letter from A to Z symbolizes a tire's certified speed rating, ranging from 5 km/hr (3 mph) to above 300 km/hr (186 mph). This rating system (see chart on this page) describes the top speed for which a tire is certified.

Speed Symbol	Speed (km/hr)	Speed (mph)
L	120	75
M	130	81
N	140	87
P	150	94
Q	160	100
R	170	106
S	180	112
T	190	118
U	200	124
H	210	130
V	240	149
W	270	168
Y	300	186
(Y)	Above 300	Above 186 (consult tire manufacturer)

When this speed rating system was originally developed, the Unlimited V category of over 210 km/hr (130 mph) was the top speed rating a tire could achieve. As manufacturers made more tires that fit into this category, it was necessary to better regulate performance at standardized speeds to help ensure safety. The Limited V category of 240 km/hr (149 mph) was then created, and the Z or (Y) speed rating was added as the top speed rating that a tire could achieve. W and Y limited speed symbols have been added as higher speed categories. Always consult the tire manufacturer for the maximum speed of

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Unlimited Z or (Y) tires. Speed rating is identified as a part of the tire's sizing or service description. Exceeding the lawful speed limit is neither recommended nor endorsed.

In the latest attempt to standardize tire designations, all ratings except Unlimited Z incorporate the speed symbol and load index as the tire's service description.

For Example:

205/60R15 91V		
205	=	Section Width in Millimeters
60	=	Aspect Ratio
R	=	Radical Construction
15	=	Rim Diameter in Inches
91V	=	Service Description (Load Index and Speed Rating)

“Z” Rated Tires

When “Z” appears in the size description with the service description, the maximum speed is indicated by the service description.

Examples:

Tire Designation	Maximum Speed
P275/40ZR17	Above 240 km/hr (149 mph)*
P275/40R17 93Y	300 km/hr (186 mph)
P275/40ZR17 93Y	300 km/hr (186 mph)
P275/40ZR17 (93Y)	Above 300 km/hr (186 mph)*

*Consult Tire Manufacturer

For tires having a maximum speed capability above 240 km/hr (149 mph), a “Z” may appear in the size designation.

For tires having a maximum speed capability above 300 km/hr (186 mph), a “Z” must appear in the size designation and the service description must include Y in parenthesis. Example: 275/40ZR18 (99Y). Consult the tire manufacturer for maximum speed when there is no service description.

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Consult your Michelin tire retailer for maximum speed capabilities. Although a tire may be speed-rated, no vehicle should be operated in an unsafe or unlawful manner. Speed ratings are based on laboratory tests that 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 vehicles 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 highway passenger tires that do not have a speed symbol on the sidewall have a maximum speed rating of 105 mph (170 kph). Light truck highway tires that do not have a speed symbol on the sidewall of the tire have a maximum speed rating of 87 mph (140 kph). Michelin winter tires that do not have a speed symbol on the sidewall or tires with Q symbols have a speed rating of 100 mph (160 km/hr). Winter tires with a speed symbol have a maximum speed rating in accordance with the symbol. The speed and other ratings of retreaded tires are assigned by the retreader and replace the original manufacturer's ratings. **IMPORTANT:** The replacement tire speed rating should be equal to or higher than the OEM tire speed rating. If a lower speed rated tire is selected, then the vehicle top speed becomes limited to that of the lower speed rating selected. The customer must be informed of the new speed restriction and that the vehicle's handling may be adversely impacted. **REMEMBER...**High speed driving can be dangerous and may damage your tires. **AND...**When driving at highway speeds, correct inflation pressure is especially important.

Inspect Your Tires, And Do Not Drive On A Damaged Tire Or Wheel



Road hazards and objects in the road, such as potholes, curbs, glass, metal, rocks, wood, and debris, can damage a tire and should be safely avoided. If your vehicle hits any such hazard or object, however, you should promptly inspect your tires. If you see any damage to any

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tire or wheel, replace it with a properly inflated spare at once and have your tires, including the spare, inspected by a tire professional.

A tire that hits a road hazard or object can be damaged but not have any visible sign of damage on its surface. A tire damaged by an impact can suddenly fail a day, a week, or even months later. You may not recall having hit an object or a road hazard and may not see any tire damage, but such an event may have damaged one or more of your tires. Air loss, unusual tire wear, localized wear, or vibrations can also be signs of internal tire damage and, accordingly, should be addressed as promptly as are instances of visible 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 object, or if you feel or hear any unusual vibration, replace the tire and wheel with a properly inflated spare at once and immediately visit a qualified tire professional.

Inspection



If you see any damage to a tire or wheel, replace it with a properly inflated spare at once and visit a Michelin tire retailer.

Inspect your tires at least once per month, and immediately after contacting any road hazard or object, such as a curb, a pothole, or debris. When inspecting your tires, including the spare, check the inflation as instructed above. If the pressure check indicates that one of your tires has lost pressure of two pounds or more, look for signs of penetration, valve leakage, or wheel damage that may account for the air loss.

If you have Michelin SelfSeal tires and observe an object penetrating the tread surface, have the object removed by a trained tire technician at an authorized Michelin dealer who can then inspect the tire for potential damage.

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Always look for bulges, cracks, cuts, penetrations, and abnormal tire wear, particularly on the edges of the tire tread. Any of these may be caused by misalignment, contact with road hazards or objects, or improper inflation. If any such damage is found, the tire must be inspected by your Michelin tire retailer at once. Use of a damaged tire could result in tire failure and an accident.

All tires will wear out faster when subjected to high speeds, hard cornering, rapid starts, sudden stops, frequent driving on roads that are in poor condition, or off-road use. Roads with holes, 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, bumps, bulges, penetrations, or unusual wear patterns.

Tire Wear Bars Indicate the Limit of Tread Life

MICHELIN® tires contain “Wear-Bars” in the tire tread grooves at 2/32nds of an inch (1.6mm). When the tread remaining matches the height of the Wear Bars, your tires must be replaced to ensure tire safety. Tires worn beyond this stage are extremely dangerous. For more information on checking tread depth, visit Safe Driving at michelinman.com and read the illustrated how-to information on tire inspection.

Loading



The maximum load rating of your tires is molded on the tire sidewall. Do not exceed this rating. Follow the loading instructions of the manufacturer of your vehicle to ensure that your tires are not overloaded.

Tires loaded beyond their maximum allowable loads for the particular application will build up excessive heat that may result in sudden tire failure and an accident. Do not exceed the gross axle weight rating for any axle on your vehicle.

Trailer Towing

If you anticipate towing a trailer, you should visit your Michelin tire retailer for advice about the correct tire size and pressures. Tire size and pressures will depend on the type and size of trailer and hitch utilized, but in no case must the maximum cold inflation pressure or tire load rating be exceeded. Check the tire information placard that came on your vehicle, (located in the vehicle's door jamb, inside the fuel hatch, or on the glove compartment door) and the owner's manual supplied by the manufacturer of your vehicle for further recommendations on trailer towing.

Self-Supporting Zero Pressure (ZP) Tires and Trailer Towing

Operation of ZP tires at low or zero air pressure with a trailer in tow is dangerous and should be avoided. If the low pressure warning indicator is activated when a trailer is in tow, stop, disconnect the trailer, and do not continue to tow the trailer until the tire has been properly repaired and re-inflated to the proper inflation. If the tire cannot be properly repaired, it must be replaced with a new full-size, matching ZP tire, and inflated to the proper inflation, before the trailer can be safely towed again.

Wheel Alignment and Balancing Are Important for Safety and Maximum Mileage from Your Tires.



Check How Your Tires Are Wearing at Least Once Each 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 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 which have been run underinflated will show more wear on the shoulders than in the center of the tread. Read and follow the instructions on tire rotation and replacement below.

Tire Mixing



MICHELIN® tires are radial tires. For best, safe performance, the same size and type of tire should be used on all four wheel positions, and the full size spare should be the same size and type. 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 when mixing, matching, or replacing tires on 4-wheel drive vehicles, as this may require special precautions.

SELF-SUPPORTING ZERO PRESSURE™ (ZP) TIRES SHOULD NOT BE MIXED WITH NON-ZP TIRES OTHER THAN THE TEMPORARY USE OF THE PROPERLY INFLATED SPARE IF THE VEHICLE IS SO EQUIPPED.

Winter Driving

Tires that meet the US Tire Manufacturers Association (USTMA) definition of snow tires are marked M/S, M+S, or M&S. On such tires, normally referred to as "All-Season" tires, the "M+S" designation

is molded into the sidewall. Tires without this notation are not recommended for winter driving in regions that experience winter conditions.

Although All-Season tires are designed to provide reliable performance in some winter conditions, the use of four winter tires is recommended for optimal performance. Tires designated for use in severe winter conditions are marked on at least one sidewall with the letters “M” and “S” plus a pictograph of a mountain with a snowflake on it. If such a tire needs to be temporarily replaced with a tire not so marked, you should immediately drive at a safe speed to a Michelin dealer to have the spare returned to the trunk and replaced on your vehicle by another tire with the letters “M” and “S” and the related pictograph.



Tire Rotation and Replacement

To obtain maximum tread life, you must rotate your tires. You should rotate your tires every 6,000 to 8,000 miles (10,000 to 12,000 km) or as specified by your vehicle manufacturer, whichever occurs more frequently. Check your vehicle owner’s manual for any recommendations by your vehicle manufacturer. Monthly inspection for tire wear is recommended. Your tires should be rotated at the first sign of irregular wear, even if it occurs before 6,000 miles (10,000 km). This is true for all vehicles. When rotating tires with a directional tread pattern, observe the arrows molded on the sidewall that show the direction in which the tire should rotate.

Care must be taken to maintain the proper rotation direction. Some Tire Pressure Monitoring Systems (TPMS) may not recognize that a tire has been moved to a different position on your vehicle. Make certain that your TPMS system is reset, if necessary, so as to correctly identify the location of each tire on your vehicle.

Refer to your vehicle owner’s manual or your vehicle dealer for this information. Determine whether rotated tires require tire inflation adjustment, because 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 tires of different

size mounted on the front versus the rear axles, and these different 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 and should be inspected by a tire professional during routine tire inspection. Always have spare tires inspected before installation. Tires are composed of various types of rubber compounds and other materials having performance properties essential to the proper functioning of the tire. These component properties change over time. Always check the inflation pressure of the full-size spare and look for any indication of cracking or other damage immediately before incorporating the spare into rotation. If you see any damage, or if the tire is underinflated, do not resume driving with that tire unless you have no other option, in which case you should drive only as slowly as is safely possible in the traffic conditions until you can both get the spare tire properly inflated and have it checked by a tire professional to ensure that it is safe to use. Follow the vehicle manufacturer's recommended pattern for rotation. If such a recommendation is unavailable, see a qualified tire professional.

Replacement of Two Tires

All four tires should be replaced at the same time. However, if only two tires are replaced, the new ones should be put on the rear. Deeper tread tires on the rear axle provide better handling, wet grip and evacuate water, thereby helping to avoid oversteer and loss of vehicle stability on wet surfaces. Deeper tread tires on the front axle can improve wet straight line braking and stopping distance. If only two tires are being replaced, Michelin generally recommends they be installed on the rear axle in the absence of a tire service professional's recommendation or consumer's preference to the contrary.

Customization of Tires, Wheels, or Suspension on SUVs and Light Trucks

Due to their size, weight and higher center of gravity, vehicles such as SUVs and light trucks do not have the same handling characteristics as automobiles. Because of these different characteristics, failure to operate your SUV or truck in a proper and safe manner can increase the likelihood of vehicle rollover. Modifications to your SUV or truck tire size, tire type, wheels or suspension can change your vehicle's handling characteristics and further increase the likelihood of vehicle rollover. Whether your SUV or 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 alterations on your tires. Alterations may prevent proper performance, leading to tire damage that can result in an accident. Tires that become unserviceable due to alterations such as truing, whitewall inlays, addition of balancing or sealant liquids, or the use of tire dressing containing petroleum distillates, are excluded from warranty coverage.

Tire Repairs



Whenever a Repair Is Needed, Immediately See Your Michelin® Tire Retailer or, If One Is Not Readily Available, Another Qualified Tire Professional

If any MICHELIN® tire sustains a puncture, have the tire demounted and thoroughly inspected by a qualified tire professional for possible damage that may have occurred. A tread area puncture in any MICHELIN® passenger or light truck tire can be repaired if the puncture hole is not more than 1/4" in diameter, not more than one radial cable per casing ply is damaged, and 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 the US Tire Manufacturers Association (USTMA) recommended repair procedures.

Repairs of all tires must be of the combined-plug-and-inside-patch type. Your MICHELIN tires must be removed from the wheel for inspection prior to repair. Plug-type repairs made on a tire that remains mounted on a wheel are improper and can result in an accident. 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 and can result in an accident. An improperly repaired tire may 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 and result in an accident. Never repair a tire with less than 2/32nds of an inch of tread remaining. At this tread depth, the tire is worn out and must be replaced.

Storage

Tires contain materials to protect their outer surfaces from ozone and weather checking. As the tire rolls and flexes, those materials 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 tires in accordance with these instructions could result in damage to your tires or 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.

One reason why your spare tire should be included in the tire rotation schedule is that temperatures in a vehicle's closed trunk, especially in sunny geographical areas, can become high enough so that, over a sustained period, they can cause small cracks or other changes to the properties of a tire stored in the trunk. An accumulation of such changes can weaken the tire and, especially if the tire is not kept properly inflated, make it unsafe to use when it is needed.

Proper Tire Mounting

Tire mounting can be dangerous and must be done by professionally trained persons using proper tools and procedures as specified by the US Tire Manufacturers Association (USTMA).

Your tires should be mounted on wheels that are the correct size and type and are in good, clean condition. Wheels that are bent, chipped, rusted (steel wheels) or corroded (alloy 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. Mismatched tires and rims can explode during mounting. Also, mismatched tires and rims can result in dangerous tire failure on the road. If a tire is mounted by error on the 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 and could fail on the highway, resulting in an accident.

Old valves may leak. When new tubeless tires are mounted, have new valves of the correct type installed. Tubeless tires must be mounted only on wheels designed for tubeless tires, i.e., wheels that

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have safety humps or ledges. Always utilize valve caps capable of containing the tire's inflation, should the valve core leak. The valve cap is the primary seal against air loss. Each tire and wheel assembly should be balanced to ensure proper tire and vehicle performance and to maintain tire warranty coverage. Tires and wheel assemblies that are not balanced may cause steering difficulties, a bumpy ride, and irregular tire wear.

Special Mounting Instructions For Self-Supporting Zero Pressure™ (ZP) Tires

ZP tires can be more difficult to mount than conventional tires. They should be mounted and demounted only by a properly trained tire professional. ZP tires can generate a tremendous amount of heat when run at low or zero pressure. ALWAYS ALLOW A ZP TIRE TO COOL BEFORE ATTEMPTING TO HANDLE IT. FAILURE TO DO SO COULD RESULT IN INJURY OR DEATH. Michelin® ZP tires are tubeless tires designed to operate in emergency conditions at low or zero air inflation.

MICHELIN® Self Supporting Zero Pressure™ (Zp) Tires and Special Sh-M (Symmetric Hump-Modified) Wheels

Some MICHELIN® ZP tires can perform with zero pressure capability only when mounted on special SH-M wheels. These tires bear the SH-M designation immediately following the ZP designation on the sidewall of the tire.



Temporary Type Spare Tires

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

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 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: “O25” 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 28th week of 2000; 0201 during the 2nd week of 2001. If the last digits of your DOT number contain three numeric characters and are not marked with a triangle, consult a qualified tire professional to determine the year of manufacture.

Service Life for Passenger Car and Light Truck Tires Including Spare 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 is why, in addition to regular inspections and inflation pressure maintenance by consumers, it is recommended

that passenger car and light truck tires, including spare tires be inspected regularly by a qualified tire specialist, such as a Michelin tire retailer, who will assess the tire's suitability for continued service. Tires which have been in use for 5 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 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. The code begins with "DOT" and ends with the week and year of manufacture. For example, a DOT code ending with "2214" indicates a tire made in the 22nd week of 2014.

Remember . . . to Avoid Damage to Your Tires and a Possible Accident

- *INSPECT TIRES AT LEAST MONTHLY, AND IMMEDIATELY AFTER STRIKING ANY ROAD HAZARD.*
- *CHECK TIRE PRESSURE AT LEAST ONCE EACH MONTH WHEN TIRES ARE COLD AND BEFORE EVERY LONG TRIP.*
- *NEVER UNDERINFLATE OR OVERINFLATE A TIRE.*
- *NEVER OVERLOAD YOUR VEHICLE AND TIRES.*
- *ALWAYS OBEY LEGAL SPEED LIMITS AND DRIVE AT A*

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SPEED THAT IS REASONABLE UNDER THE ROAD AND WEATHER CONDITIONS.

- AVOID DRIVING OVER POTHOLES, OBSTACLES, CURBS OR EDGES OF PAVEMENT.*
- AVOID EXCESSIVE WHEEL SPINNING.*
- IF YOU SEE ANY DAMAGE TO A TIRE, REPLACE THE TIRE WITH A PROPERLY INFLATED SPARE AND VISIT A QUALIFIED TIRE PROFESSIONAL AT ONCE.*
- KEEP TIRES AND WHEELS PROPERLY ALIGNED, BALANCED, AND ROTATED.*
- HAVE MOUNTING AND REPAIRS DONE BY A TIRE PROFESSIONAL.*
- IF YOU HAVE ANY QUESTIONS, CONTACT YOUR MICHELIN TIRE RETAILER.*

FAILURE TO FOLLOW ANY OF THE RECOMMENDED PRECAUTIONS CONTAINED IN THIS OWNER'S MANUAL CAN LEAD TO ERRATIC VEHICLE BEHAVIOR OR TIRE DAMAGE, POSSIBLY RESULTING IN AN ACCIDENT.

If you see or suspect any damage to your tires or wheels, contact your local Michelin tire retailer, or visit our web site listed below for dealer locations. If further assistance is required, contact:

IN THE USA 1-800-847-3435

or write:

Michelin North America, Inc.
Attention: Consumer Care Department
Post Office Box 19001
Greenville, SC 29602-9001

or visit: michelinman.com

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IN CANADA 1-888-871-4444

or write:

Michelin North America (Canada) Inc.
2500 Daniel Johnson, Suite 500
Laval, Quebec
H7T 2P6

or visit: michelin.ca

Tire Warranty, Safety and Care Information for Original Equipment Passenger & Light Truck Tires

Limited Warranty for Original Equipment Nitto Tires (Effective July 2017)

WHAT IS COVERED AND FOR HOW LONG?

This Limited Warranty covers all Nitto brand passenger car and light truck tires installed as original equipment on vehicles that are sold and used within the United States.

Eligible Tires

Your tires are covered under this Limited Warranty if all of the following criteria are met:

- The tire was installed on your vehicle at the factory as an original equipment part.
- You are the original purchaser of the vehicle.
- You purchased the vehicle after June 2017*.
- You have always used the tires with this vehicle.
- The tires have been used for normal street driving.
- The vehicle has not been used for commercial service.
- You properly maintained and used the tire (See “Tire Safety and Maintenance Information” section below).
- The tires are not subject to an exclusion (See “What is Not Covered?” section below).
- You fulfill the warranty claim procedure (See “How to Make a Claim” section below).

Eligible Tires are covered under this Limited Warranty for a period of up to 5 years from the date you purchased your new vehicle. Nitto will replace it with a comparable new Nitto brand tire in the manner explained in the “What Nitto Will Do” section below.

* Vehicles purchased before July 2017 may be covered by an earlier warranty. See your Nitto retailer or contact Nitto for more information.

NITTO TIRE

WHAT IS NOT COVERED?

This Limited Warranty does not cover the following categories of claims:

Rapid Treadwear: Original equipment tires are not guaranteed to last a specified number of miles.

Damage from road hazards (not limited to cuts, snags, bruises, impact breaks, bulges, punctures, stone drills, chips, and scales), fire, theft, or collision.

Conditions arising from improper tire/vehicle maintenance or use, not limited to:

- Irregular or excessive treadwear due to: Incorrect inflation; overloading; vehicle misalignment; failure to rotate tires; and poor or defective mechanical condition of brakes, shocks, and wheels; or other factors attributable to the vehicle or wheel.
- Any tire which has been run with low air pressure or while flat.
- Damage due to abuse; vandalism; tire alteration; tire spinning; racing; or other competitive activities.
- Damage, corrosion, or deterioration from using oil-based chemicals, water-based sealers, balancing substances, or flammable gases.
- Damage from improper use of tire chains.

Tires with the DOT identification number removed or rendered illegible.

Improper mounting, balancing or repair, not limited to:

- Improper tire mounting, or tire/wheel assembly imbalance.
- Damage from incorrect mounting or dismounting of the tire, incorrect wheel size, water or other material trapped inside the tire during mounting, or failure to keep the tires balanced.
- Damage resulting from improper repair materials or procedures.

NITTO TIRE

Failure to meet conditions of this Limited Warranty, not limited to:

- Any tire that is not an Eligible Tire.
- Any tire for which mileage and tire rotation records are not available or verifiable.
- Any tire not presented and available for Nitto's inspection.
- Any tire worn beyond the treadwear indicators (less than 2/32" of remaining tread).
- Uniformity issues after the first 25% of treadwear.

Nothing in this Limited Warranty is intended to be a representation that tire failures cannot occur.

WHAT NITTO WILL DO

For every Eligible Tire, Nitto will do the following:

Regular OE Tires

1. If less than 25% Worn: Nitto will replace, free of charge, any Eligible Tire when the original usable tread is worn by 25% or less, and within 5 years from the date you purchased the vehicle new. If you cannot provide a copy of the new vehicle registration or vehicle purchase receipt, the manufacture date of the tire, as indicated by the tire DOT code, will be used instead to determine if a tire is within the warranty period. Tire mounting and balancing costs are covered by Nitto. **You are responsible for taxes and all other costs, fees and expenses.**
2. If more than 25% Worn: Nitto will replace any Eligible Tire when the original usable tread is worn by more than 25%, and within 5 years from the date you purchased the vehicle new. If you cannot provide a copy of the new vehicle registration or vehicle purchase receipt, the manufacture date of the tire, as indicated by the tire DOT code, will be used instead to determine if a tire is within the warranty period. **You are responsible for the pro-rated cost of a replacement tire, mounting and balancing costs, taxes and all other costs, fees and expenses.**

NITTO TIRE

The **original usable tread** is determined by measuring the depth on the tread of an identical model of a new Nitto brand tire to the top of the treadwear indicator bars (note: the original usable tread depth will vary by tire model).

The **prorated cost of a replacement tire** is determined as follows:

$$\frac{[(\text{Original usable tread worn}) \div (\text{Original usable tread})]}{\times (\text{Actual current dealer selling price})}$$

A **comparable Nitto brand tire** is the same tire, or a tire of the same basic construction and quality, as the original tire, as determined by Nitto.

HOW TO MAKE A CLAIM

To make a claim under this Limited Warranty, you must:

1. Present your vehicle with the subject tire(s), to an authorized Nitto dealer.
2. Complete and sign the Nitto Limited Warranty Claim form provided by the dealer.
3. Keep a copy of the Claim form for your records, and leave the subject tire with the dealer.

Your claim will be administered in accordance with the limited warranty that was in effect when you purchased the vehicle new.

YOUR LEGAL RIGHTS

This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

LIMITATIONS AND EXCLUSIONS

NITTO DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES (e.g., loss of time, loss of use of vehicle, towing charges, road services, cost of rental car, inconveniences, etc.).

NITTO TIRE

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions may not apply to you.

The terms of this Limited Warranty may not be changed by anyone, including any Nitto employee, representative, or dealer.

Nitto does not warrant any work performed by the dealer, including, but not limited to, their selection, fitment, mounting and balancing, inspection or repair of any tire.

CONTACT INFORMATION

If you need assistance, please contact your authorized Nitto retailer. To locate an authorized Nitto dealer, use our dealer locator at www.nittotire.com, or contact Nitto Technical Services at:

NITTO TIRE U.S.A INC.
PO BOX 6064
Cypress, California 90630-6064
(888) 529-8200 (8:00am to 5:00pm Pacific Time)

Tire Safety and Maintenance Information

IMPORTANT SAFETY AND TIRE USAGE INFORMATION FOR NITTO NT05R TIRES ON THE DODGE CHALLENGER SRT DEMON

Your drag radial tires are designed for racing conditions and are not like ordinary passenger car tires. Follow the instructions on this page to promote tire safety and to better understand your drag radial tires' characteristics. To the extent any information on this page differs from the general tire care information elsewhere in this manual, follow the instructions on this page for your tires.

CHARACTERISTICS OF COMPETITION TIRES

The drag radial tires installed on this vehicle are designed for competition use, and feature a race compound, limited tread grooves, and shallow tread depth, to provide maximum dry traction. Therefore, these tires are not recommended for use in wet weather conditions where there is risk of hydroplaning and loss of vehicle control.

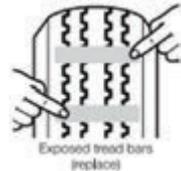
NITTO TIRE

If you encounter wet conditions, do not continue to drive. Carefully reduce your speed and pull over to a safe area until road conditions improve. Please see the “Adverse Weather Driving” section for additional safety information when operating your vehicle in these conditions.



TIRE WEAR, INSPECTION AND REPLACEMENT

The shallow grooves and race compound used in this drag tire are designed to optimize dry traction. You should expect these tires to have a much shorter tread life, and to operate for considerably fewer miles, than ordinary passenger tires. You should check the condition, including tread depth, of your tires regularly and promptly replace them before the tread reaches the wear bars. These tires should be inspected after each use at a track or for competition purposes. Regular inspection becomes particularly important the longer a tire has been in service. Please see the “Identifying Damaged Tires” and “Worn Out Tire” sections for additional information regarding tire inspection and identifying damaged tires.



NO MILEAGE WARRANTY

These tires are not guaranteed to last a specified number of miles.

TIRE HANDLING AND STORAGE IN COLDER CLIMATES

The rubber compounds used in the drag tires have unique properties that, when compared to other tires, can cause them to lose some of their flexibility when used or handled in conditions below 15°F (-9°C). This loss in flexibility can lead to potential cracking and other damage to the tire. To minimize the chances of this happening, you are advised to follow these instructions:

NITTO TIRE

1. Do not move or operate the car with these tires in conditions below 15°F (-9°C).
2. Avoid moving these tires in conditions below 15°F (-9°C).
3. Before mounting and dismounting, store these tires for at least 24 hours in a temperature-controlled environment of 68°F (20°C) or warmer.
4. Remove these tires from the vehicle and deflate to half the normal air-pressure during prolonged periods of non-use or storage.

Always inspect tires for signs of cracking and never use tires that have cracked.



TIRE STORAGE

When dismounted from the wheel for storage, the drag tires should be stored indoors in a cool, dry location. The tires should be placed away from direct sunlight, harmful ozone-producing electric generators and motors and sources of heat, such as hot pipes. Storage surfaces should be clean and free of grease, gasoline, or other substances, which can deteriorate the rubber.



NITTO TIRE

IMPORTANT SAFETY INFORMATION

This manual is not intended to provide proper training or service procedures for tire mounting, dismounting, balancing, rotation, or repair. Please leave these tasks to qualified tire service professionals.

⚠ NOTICE

Nitto brand tires are designed and built with great care. Any tire, no matter how well constructed, can fail as a result of punctures, impact damage, underinflation/overloading or other conditions resulting from use. Tire failures may create a risk of property damage or personal injury. To obtain the highest possible performance, tires must be maintained properly.

Remember, you are ultimately responsible for the tires installed on your vehicle.

Tires can lose 1 psi per month under normal conditions



Inflation pressure can decrease by 1 psi for every 10°F temperature drop

Important factors in tire care are:

- Proper inflation pressure
- Proper vehicle loading
- Proper vehicle maintenance
- Regular inspection
- Good driving habits

Refer to your vehicle Owner's Manual for additional tire safety and service advice.

NITTO TIRE

TIRE PRESSURE BASICS

The combined effect of losing 1 psi per month over several months along with a 1 psi decrease for every 10°F temperature drop could add up to a severe “run low” condition; consequently, it is important to check your tires’ inflation pressure at least once per month. Inflation pressure enables a tire to support its load; therefore, proper inflation is critical.

HOW TO DETERMINE PROPER TIRE INFLATION PRESSURE

It is impossible to determine whether tires are properly inflated just by looking at them.

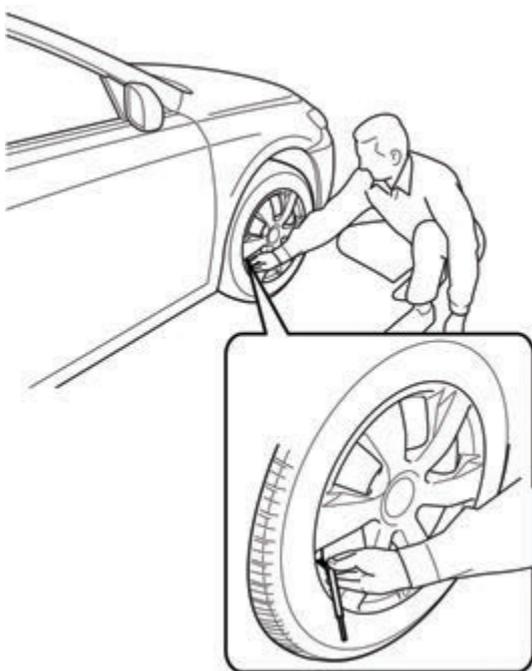


25 PSI

NITTO TIRE



35 PSI



NITTO TIRE

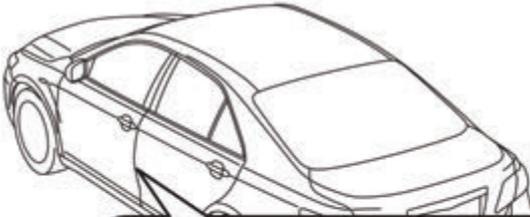
It is important to check your tires using an accurate tire pressure gauge, which can be purchased at your tire dealer or auto supply store.

Underinflation can overload tires. Check the inflation pressure every month, including for the spare tire, to make sure it's up to specification. Check it again before long trips or when carrying extra weight.

Look for the manufacturer's recommended inflation pressure listed on the Tire Information Placard usually located on your vehicle's door edge, door post, glove box, or inside the trunk lid.

▲ NOTICE

The inflation pressure shown on the sidewall of the tire is not the intended inflation pressure for the vehicle! Always refer to the vehicle's Tire Information Placard.



TIRES AND LOADING INFORMATION			INFORMATION SUR LES PNEUS ET LE CHARGEMENT			
SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION	SEATING CAPACITY: TOTAL 5 FRONT 3 / REAR 2 The combined weight of occupants and cargo should never exceed 350 kg or 800 lb.		NOMBRE DE PLACES ADMES: TOTAL 5 AVANT 3 / ARRIERE 2 Le poids total des occupants et du chargement ne doit jamais être supérieur à 350 kg ou 800 lb.			
	TYPE	SIZE	COLD-TIRE PRESSURE	PNEUS	DIMENSION	PRESSION DE GONFLAGE À FROID
	FRONT	225/45R17	340kPa, 30PSI	AVANT	225/45R17	340kPa, 30PSI
	REAR	225/45R17	320kPa, 29PSI	ARRIERE	225/45R17	320kPa, 29PSI
	SPARE	T125/70D17	420kPa, 60PSI	SECOURS	T125/70D17	420kPa, 60PSI

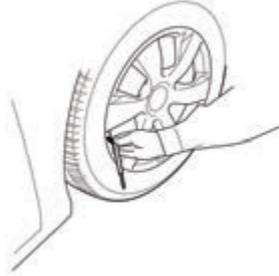
▲ WARNING

Driving on tires with insufficient inflation pressure is dangerous because it will cause your tires to overheat. This can cause sudden tire failure, which may result in loss of vehicle control and lead to serious personal injury or death.

NITTO TIRE

USING A TIRE PRESSURE GAUGE

For accuracy, check your inflation pressure with a tire pressure gauge when tires are cold (for example, after being parked overnight). Driving heats up tires and causes an inaccurate pressure reading.



To check inflation pressure with a tire pressure gauge:

1. Remove the tire valve cap.
2. Place the end of the tire pressure gauge over the valve.
3. Press the tire pressure gauge straight and firmly and take a reading.
4. If needed, inflate and recheck the pressure with the tire pressure gauge.
5. Replace the valve cap.

RECOMMENDATIONS FOR SAFE TIRE INFLATION

- If you must inflate your tires when they are hot, add 4 pounds per square inch (4 psi) (28 kPa) above the recommended inflation pressure specification. Recheck the inflation pressure when the tires are cold and adjust to the recommended inflation pressure shown on the vehicle's Tire Information Placard.
- Never release air or nitrogen from a hot tire in order to reach the recommended cold tire pressure. Normal driving causes tires to run hotter and inflation pressure to increase. If you release pressure when your tires are hot, you may dangerously underinflate your tires. If your tires lose more than 1 pound per square inch (1 psi) per month, the tire, the valve, or the wheel may be damaged. Consult your authorized Nitto dealer for an inspection.

NITTO TIRE

- Over-inflation can cause the tire to be more susceptible to impact damage.
- Over-inflation or underinflation may adversely affect vehicle handling.
- Remember to check your spare tire. Consult your vehicle Owner's Manual for the correct inflation pressure and use of a "temporary use" spare tire. The inflation pressure specified for a spare tire is typically different from that specified for your regular tires.
- Use valve caps to keep valve cores clean and clear of debris and to help guard against air leakage.

WARNING

Never inflate a tire unless it is secured to the vehicle or a tire mounting machine. Inflating an unsecured tire is dangerous. If the tire bursts, it could be propelled into the air with explosive force and cause serious personal injury or death.

VEHICLES EQUIPPED WITH TIRE PRESSURE MONITORING SYSTEMS (TPMS)



Even if your vehicle is equipped with a tire pressure monitoring system, you should check your tire pressure at least once per month when the tires are cold (for example, after being parked overnight). Tire pressure warning systems are not a substitute for regular tire pressure maintenance.

WARNING

If your vehicle is equipped with TPMS, read the vehicle Owner's Manual regarding its operation. Some TPMS systems do not alert you until the tires are significantly underinflated, which could result in permanent tire damage and possible sudden tire failure. In the event that your TPMS malfunction indicator lamp is displayed, you should immediately pull over to a safe parking area and check your tires.

NITTO TIRE

IDENTIFYING DAMAGED TIRES

- If your tire strikes a road hazard at any speed, internal tire damage could result, which may lead to sudden tire failure and loss of vehicle control. Tire failure may even occur miles after the initial impact. Impact damage from such hazards may not be visible on the outside of the tire. Have your Nitto dealer dismount the tire and inspect it for damage. A tire may not have visible signs of damage on the tire surface or the interior.
- If the impact was sufficient to bend the wheel flange, internal tire damage may have occurred, compromising the safety and integrity of the tire. Such impact damage may result in a sudden tire failure many weeks or months later. Tire replacement is highly recommended as a safety precaution.
- Indications of impact damage include, but are not limited to, a bubble or a blister on the outside of the tire.
- Have your dealer inspect your tires if you see anything unusual or if cuts, cracks, splitting, or bruises in the tread and sidewall areas are visible. Bumps or bulges may indicate a serious and dangerous separation within the tire body. Have your tire inspected by a qualified tire service person. It may be necessary to have the tire removed from the wheel for a complete inspection.
- Inspect your tires for adequate tread depth. When the tire is worn to the built-in indicators at 2/32" (1.6 mm) or less tread groove depth, the tire is worn out and must be replaced. Never drive on tires to the point that the tire cord or the fabric is exposed.
- Inspect your tires for uneven wear. Wear on one side of the tread or flat spots in the tread may indicate alignment or other problems with the tires or the vehicle. Consult your authorized Nitto dealer.

WARNING

Never drive on a tire if there is any evidence of damage. Driving on a damaged tire is dangerous. A damaged tire could suddenly fail, which may result in loss of vehicle control and lead to serious personal injury or death. Do not attempt to dismount, mount, or repair a tire yourself. See your Nitto dealer immediately if you detect damage.

NITTO TIRE

IDENTIFYING DAMAGED WHEELS

Periodically check to see if any of the following symptoms exist, in which case the wheel must be replaced:

- If the flange is bent.
- If welds or rivets are leaking.
- If the stud holes are elongated and not round. (Improper lug nut tightening could cause this.)
- If there are cracks in the wheel.

WORN OUT TIRES

Tires must be replaced when tread is worn to $2/32$ " (1.6 mm). Treadwear indicators on Nitto tire treads show the $2/32$ " depth (1.6 mm). Most states require that tires be replaced when the tread depth is worn to $2/32$ " (1.6 mm). Tires may lose sufficient wet and snow traction before reaching $2/32$ " (1.6 mm) of wear. Many wet weather accidents result from skidding on worn out tires.

Excessively worn tires are more susceptible to penetrations. Consider replacing your tires earlier if you drive in snow or wet conditions.



Any retail tire dealer will be glad to measure your tire's tread depth for you. Nitto recommends that tires be replaced in matched sets of four.

TIRE REPAIRS

If any tire has sustained a puncture, have the tire dismantled and inspected internally by an authorized Nitto dealer for possible damage that may have occurred. Only specially trained personnel using the proper tools and procedures should repair tires.

NITTO TIRE

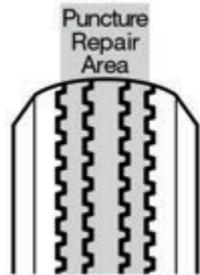
WARNING

Before having your tire repaired, tell your authorized Nitto dealer if you have used an aerosol puncture sealant to inflate/seal the tire. Aerosol puncture sealants could contain a highly flammable, explosive gas.

Driving on an improperly repaired tire is dangerous. An improper repair can cause further damage to the tire. It could fail suddenly, which can result in loss of vehicle control and lead to serious personal injury or death. To insure safety, go to your authorized Nitto dealer for professional inspection and proper tire repairs.

Cosmetic Tire Alterations Can Be Dangerous! Remember — Do not perform or allow anyone to perform any alterations to your tires. Alterations may prevent proper performance, leading to tire damage, which could result in sudden tire failure and loss of vehicle control and lead to serious personal injury or death.

- Never repair a tire with $2/32''$ (1.6 mm) or less tread remaining. At this tread depth, the tire is worn out and must be replaced.
- Never repair a tire with a puncture larger than $1/4''$ (6.4 mm) in diameter. Such tires cannot be properly repaired and must be replaced.
- Repairs of all tires (radial and non-radial) must be of the plug and inside patch type. Using plugs alone on any type of tire is not a safe repair.
- Do not use a rope type plug for repair. A tire must be removed from the wheel and inspected for interior damage. Any tire repair done without removing the tire from the wheel is improper and unsafe.
- Never repair a tire with a puncture or other damage outside the tread area. Do not repair sidewall damage. Such tires cannot be properly repaired and must be replaced.



NITTO TIRE

Nitto speed-rated passenger car tires may be repaired and returned to service under the following conditions:

- Proper repair materials and procedures have been used.
- The damage or puncture is not larger than 1/4" (6.4 mm) in diameter.
- The repair will be the first repair performed on that tire. (Only one repair per tire is permitted in order to maintain a limited speed rating.)
- The tire must have more than 2/32" (1.6 mm) of tread remaining.

Nitto speed-rated passenger tires that have been properly repaired qualify for reduced speed ratings as follows:

ORIGINAL SPEED RATING	AFTER PUNCTURE REPAIR
(V), Y, W, Z, V, VR, H	H (maximum speed 130 mph)
T	T
S	S

The maximum speed of a vehicle is limited by the lowest-speed-rated tire on the car.

⚠ NOTICE

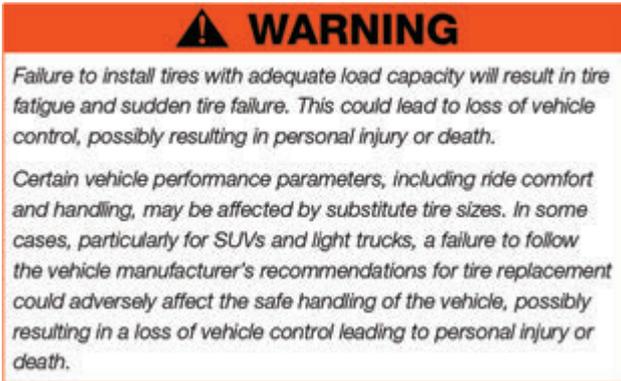
A tire's speed rating is void if the tire has been retreaded, damaged, abused, or otherwise altered from its original condition. Thereafter, it should be treated as a non-speed-rated tire. In addition, retreaded passenger and light truck tires are not warranted by Nitto for any reason. Nitto speed ratings are voided for retreaded tires.

PROPER SELECTION OF TIRES

When tires need to be replaced, don't guess what tire is right for your vehicle. First look at the vehicle Owner's Manual or the Tire Information Placard. They tell you the size of the tires that were on the vehicle as original equipment.

NITTO TIRE

Replacement tires for any vehicle must be of a size, load range, and load capacity (by inflation) that is capable of supporting the same load as the vehicle's originally installed (OE) tires. Avoid installing used tires on a vehicle. There is no way to determine what road hazards or abuse a previously owned tire may have incurred.



The following procedures concerning replacement tires must be followed:

- Confirm that the load-carrying capacity is greater than or equal to the load-carrying capacity of the OE tire size at the pressure indicated on the vehicle Tire Information Placard.
- Carefully note any differences between recommendations for front and rear axle positions regarding the tire size and/or inflation pressure.
- The speed rating must be equal to or greater than what is specified by the vehicle manufacturer if the speed capability of the vehicle is to be maintained.
- Tires should be mounted on approved wheel widths. If changing tire sizes, check to make sure the wheel has adequate load and inflation pressure capacity.
- Body and chassis clearance must be checked on the vehicle's front and rear axles.

In addition to the above, light truck tire replacements should take into consideration the following:

NITTO TIRE

- Proper spacing between dual tires is necessary for optimum tire performance. If chains are used, particular care must be taken to assure adequate clearance between loaded tires to avoid damage from the chains. The allowable outside diameter difference between a tire and its dual mate is ¼" (6.4 mm) for light truck tires.

Considerations in Plus Sizing

Always refer to and follow the vehicle manufacturer's replacement tire recommendations. In some cases, a vehicle manufacturer may specifically advise against the application of replacement tires that are not of the original size or type.

TIRE AND WHEEL MATCHING AND MOUNTING

WARNING

Any attempt to mount a tire on a wheel with a different diameter will result in an explosion of the tire/wheel assembly that could cause severe personal injury or death.

Prior to mounting any tire, always check the wheel identification stamp to verify the correct wheel diameter. Always check the tire size molded onto the sidewall.

Never exceed 40 psi when seating the tire beads onto the wheel.

Always stand well clear of any tire mounting operation. This is especially important when the service operator inflates the tire. If the tire has been improperly mounted, it could burst with explosive force causing serious personal injury or death.

A new valve stem must be installed on the wheel each time a worn out passenger or light truck tire is replaced.

Removing and replacing tires on wheels can be dangerous.

Attempting to mount tires with improper tools or procedures could result in a tire explosion, causing serious personal injury or death. This is a job for your authorized Nitto dealer or other qualified tire service location only.

Serious personal injury or death can result from:

- *Failure to select the proper tire and wheel. The tire must match the width and diameter requirements of the wheel.*

NITTO TIRE

WARNING (continued)

When mounting truck type radial tires use only wheels approved for radial tires.

- *Failure to inspect both the tire and wheel. The wheel must be free of cracks, dents, chips, and rust. The tire must be free of bead damage, cuts, and punctures.*
- *Failure to follow proper procedures. For proper mounting procedures, consult the U.S. Tire Manufacturers Association's publication "Care and Service of Automobile and Light Truck Tires" (ref.: www.ustires.org).*
- *Exceeding the maximum bead seating pressure of 40 psi. Be absolutely certain beads are fully seated before adjusting the inflation pressure to the level recommended for vehicle operation.*

Never put flammable substances in the tire/wheel assemblies at any time. Never put any flammable substance into a tire/wheel assembly and attempt to ignite it in order to seat the beads.

TIRE MIXING

WARNING

Driving your vehicle with an improper mix of tire sizes, constructions, and speed ratings can be dangerous. Your car's handling characteristics can be adversely affected. You could have an accident resulting in serious personal injury or death. Consult your vehicle Owner's Manual or an authorized Nitto dealer for proper tire replacement.

- Nitto recommends that all four tires be of the same size, speed rating, and construction (radial or non-radial). In some cases the vehicle manufacturer may require different sized tires for the front or rear axles. Never mix P-metric or European Metric passenger tires with LT-metric tires on the same vehicle.
- Match tire size designations in pairs on an axle, except during the temporary use of a spare tire.
- If two radial tires and two non-radial tires are used on a vehicle, put the radials on the rear axle. If radial and non-radial tires are used

NITTO TIRE

on a vehicle equipped with dual rear tires, the radial tires may be used on either axle.

SPEED-RATED TIRES

- If the vehicle Tire Information Placard and/or the vehicle Owner's Manual specifies speed-rated tires, the replacement tires must have the same or higher speed rating to maintain vehicle speed capability.
- If a replacement tire has a lower speed capability than that specified by the vehicle manufacturer, the vehicle's speed must be restricted to that of the replacement tire. Vehicle handling could also be affected. Consult the vehicle Owner's Manual or tire manufacturer for recommendations.
- If tires with different speed ratings are used, it is recommended that the lower-speed-rated tires always be placed on the front axle. This is to prevent a potential oversteer condition.

FOUR-WHEEL DRIVE (4WD) AND ALL-WHEEL DRIVE (AWD) VEHICLES

If no instructions for tire mixing appear in the vehicle Owner's Manual, follow these guidelines:

- Do not mix tire sizes. All four tires must be marked with the same tire size, unless otherwise specified by the vehicle manufacturer. This also applies to winter/snow tires.
- Do not mix tread pattern types such as all-terrain and all-season.

STUDLESS WINTER/SNOW TIRES

- It is always preferable to apply winter/snow tires to all wheel positions, including dual tires, to maintain vehicle mobility and control.
- If winter/snow tires are applied to the front axle of any vehicle, winter/snow tires must also be installed on the rear axle. **DO NOT** apply winter/snow tires only to the front axle. This applies to all passenger and light truck vehicles, including front-wheeldrive, 4WD, and AWD vehicles.
- If winter/snow tires are installed on the rear axle of any vehicle, it is recommended (but not required) that they also be installed on the front axle.

WARNING

Unless winter/snow tires on the rear axle have comparable traction qualities to the tires on the front axle, the vehicle may experience adverse handling characteristics. This may result in loss of vehicle control, which can lead to serious personal injury or death.

STUDED WINTER/SNOW TIRES

- Studded winter/snow tires have higher traction qualities under most winter weather conditions.
- If studded winter/snow tires are installed on the front axle of any vehicle, studded winter/snow tires must also be installed on the rear axle. DO NOT apply studded winter/snow tires only to the front axle.
- If studded winter/snow tires are installed on the rear axle of any vehicle, it is strongly recommended that they should also be installed on the front axle. Only if studded winter/snow tires are installed on all wheel positions of a vehicle will optimum handling characteristics be achieved.

WARNING

Installing only two studded winter/snow tires on the front axle of any vehicle (including front-wheel-drive vehicles) without studded winter/snow tires on the rear axle can cause adverse vehicle handling characteristics. This can result in a loss of vehicle control, which could cause serious personal injury or death.

NOTICE

In some cases, the vehicle manufacturer may specifically advise against replacing fewer than all four tires. Always check and follow the recommendations in the vehicle Owner's Manual. For 4WD and AWD vehicles, even small differences in outside diameter may cause drivetrain damage or mechanical malfunction.

REPLACING TWO TIRES

- When a pair of replacement tires is selected in the same size and construction as those on the vehicle, the two newer tires must be installed on the rear axle and must be of equal or higher speed rating than the front tires. Generally, new tires with deeper tread will provide better grip and evacuate water more effectively, which is important as a driver approaches hydroplaning situations. Placing greater traction on the rear axle on wet surfaces is necessary to prevent a possible oversteer condition and loss of vehicle stability.
- When two new tires have been installed onto the rear axle positions, they are to be kept on the rear but rotated from side to side. This is recommended after installing two new tires to the rear position, or if you discover significant tread depth differences between the front and rear positions during rotation intervals.

REPLACING ONE TIRE

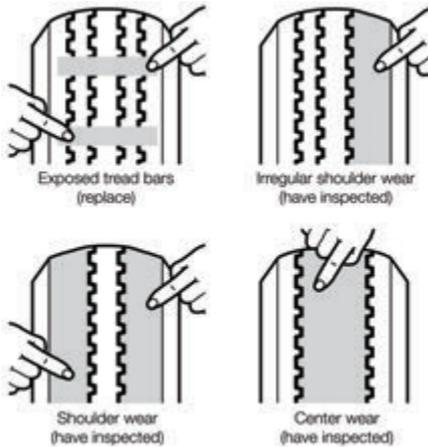
- Replacing a single tire on a vehicle can have an adverse effect on suspension systems, gear ratios, transmission, and tire treadwear.
- If single tire replacement is unavoidable, it is recommended that the single new tire be paired with the tire that has the deepest tread and both be placed on the rear axle. Placing greater traction on the rear axle on wet surfaces is necessary to prevent a possible oversteer condition and loss of vehicle stability.

WHEEL ALIGNMENT AND BALANCING

- Proper wheel alignment and balance are very important considerations for safety and getting the maximum mileage from your tires. You need to check how your tires are wearing at least once a month.
- Your vehicle may be out of alignment if your tires are wearing unevenly, such as when the inside shoulder of the tire is wearing faster than the rest of the tread. This condition not only shortens the life of your tires, it adversely affects the handling characteristics of your vehicle, which could be dangerous. If your tires show irregular wear, have your vehicle's alignment checked immediately.

NITTO TIRE

TIRE WEAR – VISUAL CHECK



⚠ WARNING

Beware of Sudden Tire Vibration. A tire failure may lead to loss of vehicle control, which could cause serious personal injury or death. Many tire failures are preceded by vibration, bumps, bulges, or irregular wear. If while driving your vehicle you experience any unusual vibration, pull, ride disturbance, or noise and/or you suspect possible vehicle or tire damage, do not continue to drive. Pull over to a safe area as soon as possible and inspect the tires for signs of bulges, blisters, or separations. Seek roadside assistance or change the damaged tire with your spare tire.

If you experience a blowout or a sudden tire failure, the following information should be helpful:

- When the tire failure occurs, you may hear a loud noise, or feel a vibration, and/or the vehicle may pull toward the side of the failed tire. Do not abruptly brake or turn.
- Maintain steady pressure on the accelerator pedal.
- Hold the steering wheel firmly and steer to maintain your lane position.

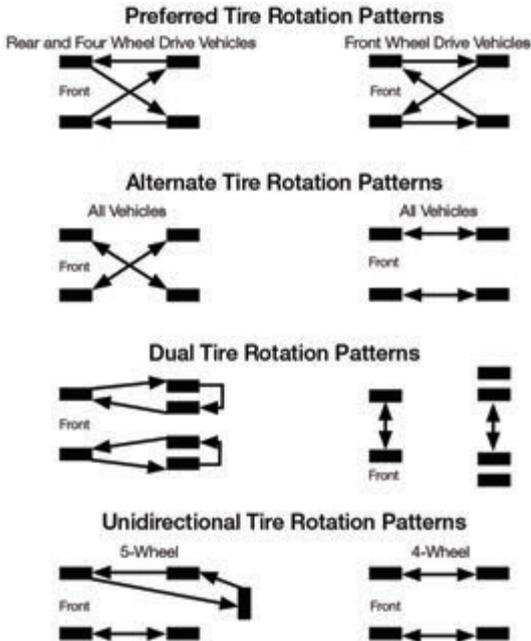
NITTO TIRE

- Find a safe place to pull off the road and allow the vehicle to gradually decelerate. Apply light braking as required to stop safely.
- Gradually pull over to the shoulder and come to a stop. Look for a damaged tire on your vehicle.
- Seek roadside assistance or change the damaged tire with your spare tire.
- Have all of your tires and the vehicle thoroughly inspected by a tire professional.

TIRE ROTATION

The purpose for rotating tires is to achieve more uniform wear for all tires on a vehicle. Your tires should be thoroughly examined on a lift by a tire dealer for any abnormalities. If tires show uneven treadwear, ask the service person to check and/or correct any vehicle wheel alignment or other mechanical problem before rotation.

The following rotation patterns are acceptable. Please refer to your vehicle Owner's Manual for rotation advice.



NITTO TIRE

Full-size spare tires (not temporary spares) of the same size, construction, and speed rating may be used in a five-tire rotation pattern.

After rotation, check the inflation pressure of all the tires. The front and rear tire pressures may vary according to the vehicle manufacturer's specifications.

Remember to follow your vehicle Owner's Manual for tire rotation intervals. Your Limited Warranty recommends Nitto brand tires to be rotated as follows:

- Every 3,500 miles or less for high performance (low profile) tires.
- Every 7,500 miles or less for standard passenger and light truck tires.

More frequent rotation or a thorough vehicle inspection may be necessary if, upon inspection, irregular or erratic treadwear is beginning to appear.

It is important to remember the following:

- These tire rotation recommendations do not take into account different tire and construction types mixed on the vehicle.
- Some tires cannot be rotated in the manner described. Such tires include unidirectional tires. Unidirectional tread patterns must be rotated front-to-rear only so that the direction of revolution does not change.
- Some vehicles are designed with different tire sizes on the front and rear axles. Normally, such combinations will not allow rotation. Prior to rotating, consult the vehicle Owner's Manual.
- For vehicles with dual rear wheels, see the vehicle Owner's Manual for the vehicle manufacturer's procedures. If your vehicle Owner's Manual is not available, please contact the vehicle manufacturer.
- Some vehicles are equipped with wheels that limit the choice of rotation pattern. Consult the vehicle Owner's Manual.
- Do not include temporary spare tires in the rotation pattern. However, if your spare tire is the same size and type as a road tire (for LT tires of the same size, type, and load rating), it should be

NITTO TIRE

included in the tire rotation process. The proper procedure is to use the vehicle manufacturer's recommended tire rotation procedures, or if not available, to use the appropriate rotation pattern shown, inserting the spare in the right rear position. Place the tire that would have gone to the right rear in the spare tire storage position as the new spare.

- Important! After rotation, adjust the pressure of the individual tires to the vehicle manufacturer's recommendation or the inflation pressure recommended by Nitto for an optional fitment according to the tire's new location on the vehicle.
- Do not mix speed-rated tires on the same axle. Higher speed-rated tires must remain on the rear axle. Consult your authorized Nitto dealer.

TIRE SPEED RATING

All Nitto passenger and light truck tires have a maximum speed rating based on size and type. Tires must never be operated in excess of their rated speed limit! Consult your tire dealer or contact Nitto Technical Services at (888) 529-8200 Pacific Time if you are not sure about the maximum speed rating of your tires.



Nitto does not endorse the operation of any vehicle in an unsafe or unlawful manner. Obey all local speed limits.

Tire speed ratings do not imply that a vehicle can be safely driven at the speed for which the tire is rated. Speed ratings are based on laboratory tests and relate to performance on the road, but are not applicable if tires are underinflated, overloaded, worn out, damaged, or altered.

NITTO TIRE

WARNING

High-speed driving with underinflated or overloaded tires may result in immediate tire failure, possibly leading to loss of vehicle control, which could cause an accident, including serious personal injury or death.

EXPLANATION OF TIRE SPEED SYMBOLS

215/55 ZR16 93W

Example: W=Speed Rating

A speed rating is designated by a letter that indicates the maximum speed capability of a tire. The speed rating of a tire is based on standards for reaching and sustaining a specified speed, and is determined via laboratory tests that simulate road performance at various speeds.

Tires may be marked with one of these speed symbols: M, N, P, Q, R, S, T, U, H, V, W, Y, or (Y) to identify the particular tire's speed rating. Additionally, the letter Z may appear in the size designation.

When purchasing or replacing speed-rated tires, make sure to:

- Use the ranking in the following chart to compare the speed symbols of all the tires.
- Follow the vehicle manufacturer's recommendations, if any, concerning the use of speed-rated tires.

To avoid reducing the speed capability of the vehicle, replace a speed-rated tire only with another tire having at least the same or higher speed rating. Remember, the "top speed" of the "lowest rated" tire on the car cannot be exceeded without risk of tire failure.

NITTO TIRE

The letter symbols and corresponding design speeds are:

Speed-Rated Symbol	Speed Category
M	Up to 81 mph (130 km/h)
N	Up to 87 mph (140 km/h)
P	Up to 93 mph (150 km/h)
Q	Up to 99 mph (160 km/h)
R	Up to 106 mph (170 km/h)
S	Up to 112 mph (180 km/h)
T	Up to 118 mph (190 km/h)
U	Up to 124 mph (200 km/h)
H	Up to 130 mph (210 km/h)
V	Up to 149 mph (240 km/h)
W	Up to 168 mph (270 km/h)*
Y	Up to 186 mph (300 km/h)*
Z R	Over 149 mph (240 km/h)**
(Y)	Over 186 mph (300 km/h)**

* Any tire with a speed capability above 149 mph (240 km/h) can, at the tire manufacturer's option, include a "Z" in the size designation (e.g., 245/40ZR18). If the load index and the speed symbol are not included, the tire manufacturer must be consulted for the maximum speed capability (P245/40ZR18 speed capability is greater than 149 mph [240 km/h]). If a service description is included with the size description, the speed capability is limited by the speed symbol in the service description (i.e., 235/45ZR17 97W = maximum speed 168 mph [270 km/h]).

** Although no upper limit speed is specified, the indicated tires nonetheless have limited rated speed capability. Call (888) 529-8200 Pacific Time for a referral for more technical information.

⚠ NOTICE

Tire speed symbols do not imply that vehicles 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. Never operate a vehicle in an unsafe or unlawful manner.

NITTO TIRE

TIRE SPINNING

WARNING

Spinning a tire to remove a vehicle stuck in mud, snow, or wet grass can be dangerous. This could cause serious personal injury or death to a bystander or passenger and extensive vehicle damage. A tire spinning at a speedometer reading above 35 miles per hour (55 km/h) can reach a speed capable of disintegrating a tire with explosive force within a matter of seconds. Under some conditions, a tire may be spinning at twice the speed shown on the speedometer. Never spin a tire above a speedometer reading of 35 mph (55 km/h). Never allow anyone to stand near or directly behind the spinning tire. Do not spin if a drive wheel is off the ground.

TOWING OR USE OF SLIDE-IN TRUCK CAMPERS

If you are towing a trailer or using a slide-in truck camper, refer to your vehicle Owner's Manual.

WINTER (SNOW) TIRES



Winter driving presents special challenges for vehicle handling. The use of winter tires, studs, and chains, while improving traction performance in snow and ice, requires additional caution and care with regard to braking, cornering, and speed. It is important to drive with care not only on snow and ice, but on dry and wet roads as well.

WARNING

Studded tires may require longer braking distances on dry or wet paved surfaces. Failure to allow for adequate braking distance could result in serious personal injury or death.

- Traction is considerably reduced as snow tires approach 50% tread wear, and replacement should be considered in order to maintain effectiveness in heavy snow conditions.

NITTO TIRE

- Tire speed rating – When lower-speed-rated winter tires replace higher-speed-rated touring and high performance all-season radial tires, do not exceed the lower-rated speed.
- Follow recommendations in the vehicle Owner’s Manual for winter tires, studs, and chains.
- Consult your tire dealer, the U.S. Tire Manufacturers Association website (www.ustires.org), or your state’s Department of Transportation (DOT) for information regarding regulatory and seasonal restrictions for stud usage.
- Also see the “Tire Mixing” section in this manual for more details.
- Nitto recommends that snow tires be installed in matched sets of four.

ADVERSE WEATHER DRIVING

Take special care when driving in adverse weather conditions.

- Rain and snow – Driving in rain or snow considerably reduces the traction between your tires and the road surface. You must always reduce your speed to allow additional stopping distance between you and the vehicles ahead of you.
- Hydroplaning and wet weather driving – Hydroplaning occurs on wet roads and refers to the loss of tire contact with the road due to the build-up of water between the tire contact patch and the road surface. Three main factors affect hydroplaning and, consequently, your tire traction on wet roads:
 1. Vehicle Speed – As speed increases, wet traction is considerably reduced.
 2. Water Depth – The deeper the water, the sooner your tires will lose traction. Even thin water layers can create sufficient lubrication to cause traction loss at low speeds, depending on road conditions.
 3. Tire Tread Depth – As your tires wear down, their decreased ability to resist hydroplaning can result in a complete loss of traction and vehicle control. You should always reduce your speed with consideration for the traffic around you.
- Driving on ice and snow – Your all-season tires were designed to provide higher levels of snow traction compared to non-all-season tires. You have all-season tires if you find the letters “M&S” are

NITTO TIRE

molded into the sidewall near the bead. These letters mean “Mud and Snow.” Tires designed for use in severe snow conditions generally have tread patterns, structure, and materials for giving superior performance. These tires are marked with the “M&S” designation plus a mountain/snowflake symbol . Even the best all-season tires will not provide acceptable levels of traction if you drive too fast in snow or ice conditions and if you do not allow more stopping distance on icy roads compared to dry road surfaces. Your ability to safely maneuver your vehicle in snow or ice conditions is considerably reduced if your tires are too worn to provide adequate road grip.

Safe Use of Temporary Spare Tires



- The temporary spare tire is designed for temporary use only. It must not be used continuously as a standard tire. The temporary spare tire should be returned to the trunk as soon as it is convenient to have your standard tire repaired or replaced.
- The temporary spare tire should not be used for speeds exceeding 50 mph.
- Never use chains on temporary spare tires, because it could cause damage to your vehicle.
- When you replace the temporary tire, replace it only with the same type of tire.
- A full-size spare tire in your vehicle is intended for use as a spare when needed. Please see the “Tire Rotation” section for the proper procedures for including the same size construction and speed-rated tire (for LT tires of the same size, type, and load rating) in the rotation pattern. (Do not rotate a temporary spare tire.)

WARNING

Check inflation pressure before using your spare tire. Failure to have proper inflation pressure when using your spare tire may cause loss of vehicle control, which could result in serious personal injury or death. Maintain spare tire inflation pressures based on the vehicle Owner's Manual or the Tire Information Placard.

"T" Type high-pressure temporary spare tires should not be used with any other wheel, nor should standard tires, snow tires, wheel covers, or trim rings be used on the high-pressure spare tire wheel. If you fail to follow this warning, your vehicle's handling characteristics can be seriously affected. You could have an accident resulting in serious personal injury or death. Consult your vehicle Owner's Manual for the proper use of your "temporary use" spare tire.

Do not operate your vehicle with more than one temporary spare in use (this does not apply to a full size spare), and only operate it at limited speeds and distances as indicated on the sidewall of the tire.

The "T" Type temporary spare tire may lower ground clearance when used. Avoid driving over large obstacles and other road hazards. Check your vehicle Owner's Manual for other special clearance precautions when using the "T" Type temporary spare tire provided in your vehicle.

TIRE STORAGE

Tires should be stored indoors in a cool dry place where water cannot collect inside the tires. The tires should be placed away from harmful ozone-producing electric generators and motors and sources of heat such as hot pipes. Storage surfaces should be clean and free of grease, gasoline, or other substances, which can deteriorate the rubber.

Competition Tire Storage

The rubber compounds used in these tires have unique properties that, when compared to other tires, can cause them to lose some of their flexibility when used or handled in conditions below 15°F (-9°C). This

NITTO TIRE

loss in flexibility can lead to potential cracking and other damage to the tire. To minimize the chances of this happening, you are advised to follow these instructions:

1. Do not move or operate the car with these tires in conditions below 15°F (-9°C).
2. Avoid moving these tires in conditions below 15°F (-9°C).
3. Before mounting and dismounting, store these tires for at least 24 hours in a temperature-controlled environment of 68°F (20°C) or warmer.
4. Remove these tires from the vehicle and deflate to half the normal air-pressure during prolonged periods of non-use or storage.

Always inspect tires for signs of cracking and never use tires that have cracked.



SPECIAL ADVICE FOR LIGHT TRUCKS

Never exceed the speed limit as indicated by the speed symbol on the tire's sidewall. See the chart and explanation of speed ratings in this manual.

If you do not know the speed rating of your Nitto brand tire, contact your Nitto dealer or Nitto Tire U.S.A. Inc. for current information.

Tires Designated As "LT" with No Speed Rating Indicated on the Sidewall



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It is not recommended that any light truck be operated at speeds in excess of legal limits. However, if it is anticipated that sustained driving at speeds in excess of 65 mph may be required, then the following adjustments or recommendations should be followed:

- At speeds from 66 mph through 75 mph, cold inflation pressure must be increased 10 psi above the recommended pressures for the load being carried.
- Do not exceed the maximum inflation pressure of the wheel (all wheels have maximum allowable inflation pressures).

Replacement Tires for Light Trucks – P-Metric vs LT-Truck

Tire installers should exercise extreme caution when replacing tires on light trucks.



The maximum load capacity stamped on the sidewall of a P-metric tire is reduced by a factor of 1.1 when used on a light truck, a sport utility vehicle, or a trailer.

⚠ WARNING

P-metric and LT-metric tires are not necessarily interchangeable. P-metric and LT-metric tires follow completely different Load/Inflation tables and are designed to carry different loads at different pressures.

LT-metric tires carry their load at higher inflation pressures and do not always have adequate load capacity to replace P-metric tires of the same size.

After reducing a P-metric tire's load rating by dividing by 1.1 for fitment on a Light Truck, the P-metric tire may not offer sufficient load capacity to replace an LT-metric tire of the same size.

NITTO TIRE

WARNING (continued)

Contact your Nitto dealer or Nitto Technical Service for help determining how to choose a proper replacement size.

Driving with underinflated or overloaded tires may result in immediate tire failure, which can cause an accident and could lead to serious personal injury or death.

When a P-metric or metric tire is installed on a light truck (SUV, pickup, minivan), the load rating is reduced by dividing by 1.1. (This load reduction factor is prescribed by Federal Motor Vehicle Safety Standards (FMVSS) and is based on the expectation that passenger-type tires may experience more severe loading and usage conditions when applied to light trucks.) For example, 305/50R20 has a maximum load capacity of 3086 lbs. If this tire is fitted to a light truck, the actual allowable load for the tire is 2805 lbs. (3086 lbs. divided by 1.1).

Consult the load and inflation charts that can be found at www.nittotire.com. Contact Nitto Technical Service with any tire replacement questions: **(888) 529-8200 Pacific Time**.

VEHICLES WITH MODIFIED SUSPENSION

WARNING



ROLLOVER HAZARD

Large-diameter tires and modified suspensions that increase ground clearance will alter vehicle handling.

- The vehicle may become more likely to roll over.
- Braking distances may increase.
- Slower speeds may be required to maintain control.

NITTO TIRE

WARNING (continued)

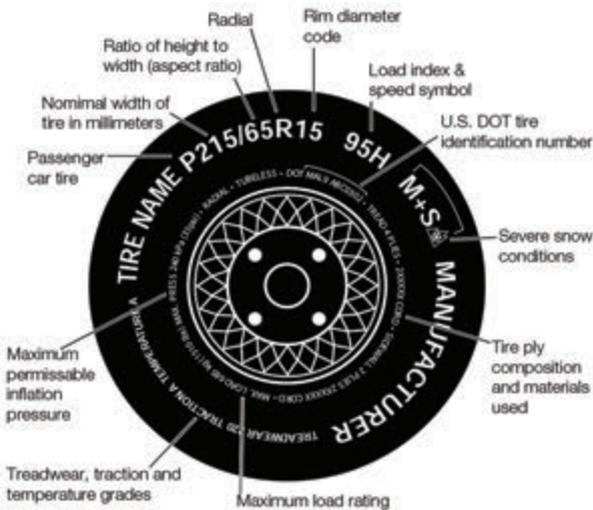
Drive with extreme caution until you become familiar with how your vehicle handles. Always wear your seat belt.

Some modifications may be illegal in your state. Consult your Owner's Manual, the instructions for this product, and state law before modifying your vehicle.

USEFUL TIRE INFORMATION

There is a lot of useful information molded into the sidewall of a tire. It shows the name of the tire, its size, if it is tubeless or tube type, the maximum load and maximum inflation, and important safety warnings. The sidewall markings on passenger and light truck tires are slightly different.

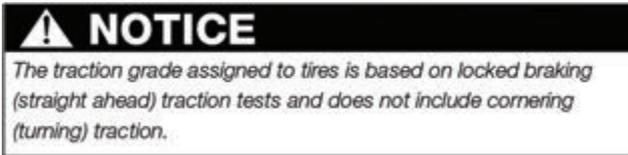
Typical Passenger Tire



The letters "DOT" certify compliance with all applicable safety standards established by the U.S. Department of Transportation (DOT). Adjacent to this is a tire identification or serial number. This serial number is a code with up to 12 digits that are a combination

NITTO TIRE

- Treadwear - The treadwear grade is a comparative rating based on the wear rate of the tire tested under controlled conditions on a specified government test track. For example, a tire graded 200 would wear twice as long on the government course as a tire graded 100. It is wrong to link treadwear grades with your projected tire mileage. The relative performance of the tires depends upon the actual conditions of their use and may vary due to driving habits, service practices, differences in road characteristics, and climate.
- Traction - The traction grades from highest to lowest are AA, A, B, and C, and they represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete.



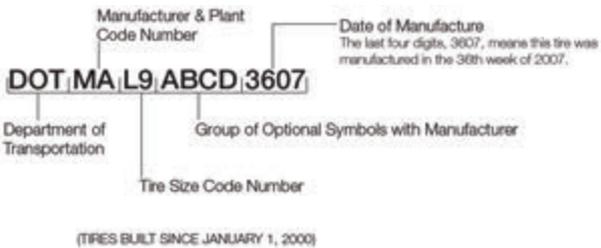
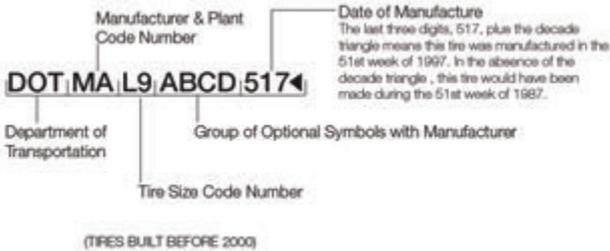
- Temperature - The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperatures can cause the materials of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance that all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 139. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.



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- DOT Quality Grades - All passenger car tires must conform to federal requirements in addition to these grades.

DOT SERIAL NUMBER SYSTEM



TIRE REGISTRATION

Your original equipment tires are registered through the vehicle manufacturer.

When you purchase replacement Nitto brand tires, the seller is required by the National Highway Traffic Safety Administration to present you with a tire registration form. Nitto Tire U.S.A. Inc. provides a registration card at no charge to all Nitto dealers. The dealer must fill in the dealer name, address, and serial numbers of the tires purchased. You, the buyer, should then fill in your name and address, place a stamp on the form, and mail it to the preaddressed location on the form. Be sure to have your dealer complete their portion of the registration card included in this Limited Warranty at the time of purchase. The information contained in the registration card is an important means to notify you in the event of a product recall.

NITTO TIRE

If you prefer, you may register your tires on our web page at www.nittotire.com and select “Tire Registration.” Be prepared to provide the name and address of the dealer, the quantity of tires, and the DOT serial numbers from the sidewall of the tires.

IMPORTANT! If self-registering tires, make sure to include all letters and numbers (up to 12 digits) following the letters “DOT” on the tire’s sidewall near the bead. If you see only four letters next to the letters “DOT”, look on the other side of the tire for the full DOT number.

FOR SERVICE ASSISTANCE OR INFORMATION

For service assistance or information, contact your nearest Nitto dealer.

If you need assistance, please contact your authorized Nitto retailer. To locate an authorized Nitto dealer, use our dealer locator at www.nittotire.com, or contact Nitto Technical Services at:

NITTO TIRE U.S.A. INC.
PO BOX 6064
Cypress, California 90630-6064
(888) 529-8200 Pacific Time

LIMITED WARRANTY (Effective 2/01/2019)

PIRELLI ORIGINAL EQUIPMENT & REPLACEMENT PASSENGER & LIGHT TRUCK TIRES

What Is Warranted and Who Is Eligible For Warranty Coverage?

Pirelli Tire LLC (Pirelli), 100 Pirelli Drive, Rome, GA 30161, warrants that all Pirelli Original Equipment and New Replacement Passenger and Light Truck tires with a complete D.O.T. identification number and branded "Pirelli" which are supplied by Pirelli, either directly or through an authorized Pirelli dealer, and which are mounted on passenger vehicles and light trucks for primary use within the U.S.A. and Canada will be free from defects in workmanship and materials. This Limited Warranty is extended to the first retail purchaser of the tire in the United States and Canada or to the original owner of the vehicle on which Pirelli tires come mounted as Original Equipment.

This Limited Warranty does not cover any associated service charges, including costs associated with mounting and balancing of the tire, tire rotation, studding, wheel alignment, etc., unless and to the extent otherwise expressly stated herein.

Original Equipment and Replacement Tires Definitions

"Original Equipment Tires" are Pirelli tires supplied as original equipment by the vehicle manufacturer or vehicle dealer on new vehicles.

"Replacement Tires" are Pirelli tires mounted to your vehicle after the Original Equipment Tires or any tires from other manufacturers have been removed from your vehicle.

Any references in this Limited Warranty to "Pirelli tires" without specification as to Original Equipment Tires or Replacement Tires should be read as reference to either one or both Original Equipment Tires or Replacement Tires.

Other Warranties

THIS LIMITED WARRANTY IS THE ONLY EXPRESS WARRANTY GIVEN BY PIRELLI. PIRELLI DOES NOT MAKE ANY OTHER EXPRESS WARRANTY, AND ANY IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE APPLICABLE DURATION OF THIS LIMITED WARRANTY. PIRELLI DOES NOT AUTHORIZE ANY OTHER PERSON, INCLUDING AUTHORIZED PIRELLI DEALERS OR VEHICLE MANUFACTURERS, OR VEHICLE DEALERS, TO CHANGE THIS LIMITED WARRANTY OR CREATE ANY OTHER OBLIGATION IN CONNECTION WITH PIRELLI TIRES.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

What Is the Standard Limited Warranty Coverage?

If an eligible Pirelli tire becomes unserviceable due to workmanship or material defects within **the first year from the date of purchase or within the first 2/32” of the original usable tread**, whichever occurs first, the tire will be replaced with an identical or comparable Pirelli tire at no charge to the owner, including mounting and balancing (subject to applicable limitations). Miscellaneous fees and taxes are not covered under this Limited Warranty.

If a Pirelli tire becomes unserviceable due to workmanship or material defects (other than ride-related complaints and Road Hazard) following the initial warranty period above, the owner must pay the pro-rata cost for a comparable Pirelli Replacement Tire. Owner is responsible for mounting and balancing charges. An authorized Pirelli dealer will determine the pro-rata cost by multiplying the percentage of the original usable tread that has been worn by the current dealer selling price.

When the treadwear indicators become visible (2/32” tread depth remaining), regardless of age or mileage, the tire is considered to be 100% worn and will not be covered by this Limited Warranty.

Pirelli Confidence *Plus* Plan™ for Select Replacement Tire Lines

This Limited Warranty includes a 30-day trial period for select Pirelli Replacement Tires installed as a set of four (4) (front and rear). Within 30 days of your original purchase date, you may return the set of eligible Pirelli Replacement Tires you wish to replace to the original place of purchase, along with the original purchase sales receipt, and exchange them for a different set of Pirelli Replacement Tires. As an alternative, if there is no other suitable Pirelli Replacement Tire line available in your size, the purchase price of the eligible tires you are seeking to return will be refunded, less taxes and fees.

Replacement Tire Lines Which Qualify for the Pirelli Confidence *Plus*™ Plan

Cinturato™ P1™ *Plus*
Cinturato P7™ All Season *Plus*
P4™ Four Seasons *Plus*
P Zero™ All Season *Plus*
Scorpion Verde™ All Season *Plus*
Scorpion Zero™ All Season *Plus*
Scorpion™ All Terrain *Plus*

Treadwear Coverage for Select Replacement Tire Lines Only

This Limited Warranty also warrants Treadwear Coverage to the original purchaser of select Replacement Tires purchased through an authorized Pirelli dealer. Treadwear Coverage will extend for the vehicle odometer miles described below, from the point of original retail purchase (the “Treadwear Coverage”). This Treadwear Coverage does not apply to Original Equipment Tires.

Driving habits, road conditions, vehicle platform and vehicle and tire maintenance are all factors that contribute to tire wear. If your

Replacement Tires do not reach the miles listed in the Treadwear Coverage table below but otherwise meet with all other Treadwear Coverage Conditions set forth in this Limited Warranty, your tires will be replaced as follows: the owner must pay the pro-rata cost for a comparable Pirelli Replacement Tire. An authorized Pirelli dealer will determine the pro-rata cost by multiplying the current dealer selling price by the percentage of the warranted mileage used by the owner.

Treadwear Coverage Conditions

- You must be the original purchaser of the Replacement Tires and have a copy of the original invoice showing the application mileage.
- You must be the owner of the vehicle on which the Replacement Tires were originally installed.
- The tires must be from one of the Replacement Tire lines listed in the table below titled "Treadwear Coverage".
- You must have had the Replacement Tires rotated at least every 5,000 to 7,000 miles.
- Your servicing tire dealer must be an authorized Pirelli dealer and must have completed the Tire Rotation Record.
- The tires must be worn evenly across the tread, down to the treadwear indicator (2/32" of tread depth) at which time they are considered to be 100% worn out. There cannot be more than a 2/32" tread depth difference across the tire.
- Passenger and P-Metric Light Truck tires are not covered for mileage when used on commercial vehicles or in commercial applications.
- For vehicles equipped with different Replacement Tire sizes front and rear, the Treadwear Coverage for the rear tires will be 50% of the mileage coverage stated below.

Treadwear Coverage

Tire Line	Mileage Rating
Cinturato P1 <i>Plus</i>	35,000
P4 Four Seasons T	85,000
P4 Four Seasons H	65,000
P4 Four Seasons T <i>Plus</i>	90,000
P4 Four Seasons H <i>Plus</i>	70,000
P4 Four Seasons V <i>Plus</i>	65,000
P6 Four Seasons <i>Plus</i>	45,000
Cinturato P7 All Season <i>Plus</i>	70,000
P Zero Nero All Season	45,000
P Zero All Season <i>Plus</i>	50,000
Scorpion ATR	50,000
Scorpion STR	65,000
Scorpion Verde All Season <i>Plus</i>	65,000
Scorpion Verde All Season (see below)	
Scorpion Zero All Season <i>Plus</i>	50,000
Scorpion All Terrain <i>Plus</i>	50,000

Scorpion Verde All Season Treadwear Coverage

- All Scorpion Verde All Season Replacement Tires produced prior to January 1, 2014 (DOT code prior to 2014) are covered for 50,000 miles of treadwear if rated H and V, and for 60,000 miles of treadwear if rated T.
- All Scorpion Verde All Season Replacement Tires produced on or after January 1, 2014 are not eligible for Treadwear Coverage.

Road Hazard Coverage for Run Flat and Pirelli Noise Cancelling System (PNCS) Tires

Pirelli Run Flat tires are manufactured with technology that allows limited low inflation operation in the event of sudden loss of pressure. As a result, in addition to the standard warranty coverage, Pirelli provides road hazard coverage on both Pirelli Original Equipment Tires

and Replacement Tires manufactured with Pirelli Run Flat or PNCS technology.

If a Run Flat or PNCS tire becomes unserviceable due to road hazard damage within the first year from the date of purchase, or within the first 2/32" of the original usable tread, whichever occurs first, the Pirelli tire will be replaced with an identical or comparable tire at no charge for the tire to the owner, including mounting and balancing (subject to applicable limitations).

What Is Not Covered by this Limited Warranty?

- Ride-related claims after the first year of purchase, or after the first 2/32" of useable tread, whichever comes first. These include, without limitation, uneven wear due to misalignment, worn suspension components, mechanical interference and/or improper inflation, flat spots due to improper transport, improper storage and/or braking, road irregularities, etc.
- Irregular wear.
- Excessive noise emissions.
- Tires with 2/32" or less tread remaining.
- Tire damage and surface cracks due to use in low ambient temperatures (except in winter and all-season Pirelli tires as defined in the applicable Pirelli Product Catalog).
- Tire damage due to abuse or misuse, including without limitation:
 - improper mounting/dismounting practices, application of aftermarket wheel protection hardware, abuse, misuse, or neglect;
 - misapplication, including improper fitment, insufficient Speed Rating, or Load Index, or undersized or oversized tires;
 - improper repair, repair not conforming to U.S. Tire Manufacturers Association standards, or repairs with a self-vulcanizing plug only or patch only;
 - modification by the addition or removal of material or alteration to change the appearance or performance of the tire;
 - recapping, retreading, regrooving or in the studding process;
 - tire operation in excess of tire/wheel manufacturers' specifications and recommendations, including spinning;

PIRELLI

- mechanical irregularities in the vehicle including, without limitation, misalignment, defective brakes, defective shock absorbers or struts, or improper rims;
- fire, chemical corrosion, vandalism, wrecks, theft, running while flat, underinflated or overinflated or abuse during servicing;
- road hazard injuries (including, without limitation, due to nails, glass, metal objects) or other penetrations or snags, bruises or impact damage (other than for Run Flat and PNCS tires specifically covered under the Road Hazard policy);
- running on a dynamometer.

Additional Exclusions:

- Tires on any vehicle registered or operated outside the United States of America or Canada;
- Tires transferred from the vehicle on which they were originally installed by a vehicle manufacturer or authorized Pirelli dealer;
- Additional tires that are not independently subject to a warranty claim;
- Tires which have been inflated with anything other than air or nitrogen;
- Tires which have been injected with liquid balancer or sealant, or any other balancing material;
- Passenger tires (Euro-metric/P-metric) used on commercial vehicles or used in commercial applications;
- Tires used in any form of racing or any high performance driving event including high performance driving schools/instruction and track day events.

Owner's Responsibilities

The owner is responsible for proper tire care and maintenance. Maintain the recommended tire pressure by checking the tire pressure monthly and before long trips with an accurate pressure gauge. Using vehicle manufacturer suggestions based on load will improve tire life and your satisfaction with the tires.

CAUTION :

Please be aware that it is important before fitting the suggested tires, to ensure that the fitting is allowed by the technical specifications of the vehicle, the vehicle manufacturer and relevant laws/regulations. Pirelli does not express any view as to the compatibility of the wheel/tire combination with the technical specifications for the chassis and vehicle.

TO MAINTAIN VEHICLE DYNAMICS AND LOAD CARRYING CAPACITY, REPLACEMENT TIRES MUST ALWAYS HAVE A LOAD INDEX AND SPEED RATING THAT EQUALS OR EXCEEDS THAT OF THE ORIGINAL EQUIPMENT TIRES OF THE VEHICLE. FOR ADDITIONAL TIRE CARE RECOMMENDATIONS, PLEASE REFER TO THE “TIRE CARE AND SERVICE” SECTION BELOW.

How to Initiate a Claim Under This Limited Warranty

To initiate a warranty claim, the Pirelli tire(s) must be returned to an authorized Pirelli dealer. If the tire(s) are covered by this Limited Warranty, the authorized Pirelli dealer will submit the tire to Pirelli. Pirelli's Tire Inspection Personnel will then provide the remedy if the tire is covered by this Limited Warranty.

In order to initiate a claim under the terms of this Limited Warranty, you must present the affected Pirelli tire(s) along with the proof of purchase to an authorized Pirelli dealer. Once tires are returned to Pirelli by an authorized Pirelli dealer and credit has been issued to such dealer, submitted tires become the property of Pirelli. To locate an authorized Pirelli dealer in your area, refer to the Dealer Locator at www.us.pirelli.com.

REMEDY LIMITATIONS (Effective 2/01/2019)

THE RIGHTS AND REMEDIES STATED IN THIS LIMITED WARRANTY ARE PIRELLI'S ONLY RESPONSIBILITY, AND YOUR ONLY REMEDIES. ALL OTHER REMEDIES ARE EXCLUDED. IN NO EVENT SHALL PIRELLI BE RESPONSIBLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGE(S) IN CONNECTION WITH A PIRELLI TIRE, WHETHER FOR BREACH

OF THIS LIMITED WARRANTY, OTHER CONTRACT BREACH, NEGLIGENCE OR OTHER TORT, OR ON ANY STRICT LIABILITY THEORY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you. This Limited Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Tire Registration

Please request that your authorized Pirelli dealer register your Replacement Tires, provide you with a registration card, or go to www.us.pirelli.com to register your Pirelli tires on line. In case of a Pirelli tire recall, we can reach you only if we have your name and address, and you must register your Pirelli tires to be on our list. However, you are not required to register to get the benefits of this Limited Warranty.

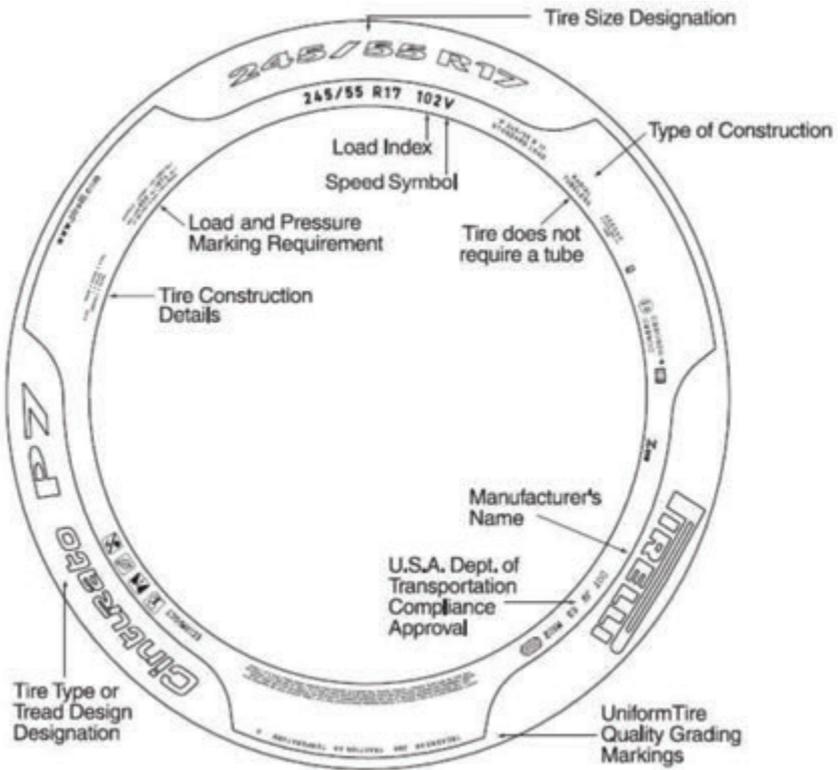
If further assistance or information is needed regarding Pirelli tires please contact:

Pirelli Tire LLC
Consumer Affairs Group
100 Pirelli Drive
Rome, GA 30161

Monday through Friday
8:00 AM to 6:00 PM Eastern Standard Time
1-800-747-3554 (option #2)
consumer.affairs@pirelli.com

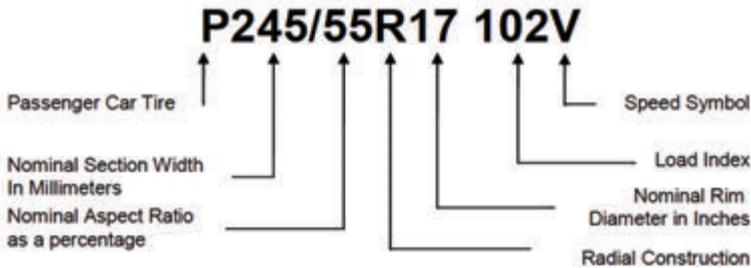
Tire Care and Service

Tire Sidewall Markings



Tire Size: A combination of alphabetic and numeric characters that indicate the nominal dimensions of a tire:

For Example:



Load Index Number: a numeric code which indicates the maximum load carrying capacity of a tire at the maximum cold inflation pressure.

Speed Symbol: an alphabetical code which indicates the maximum speed at which the tire can carry a load corresponding to its Load Index when properly inflated. These two items together are known as the “Service Description”.

Speed Symbol Chart

SPEED SYMBOLS	Q	R	S	T	U	H	V	W	Y	(Y)
MPH	99	106	112	118	124	130	149	168	186	>186

*For tires having a maximum speed capability above 149 mph, a “ZR” may appear in the size designation; above 186 mph, a “ZR” must appear in the size designation, and a Service Description, including the “Y” speed symbol, must be included in brackets.

Other Markings

- P - As part of the tire size designation (e.g., P205/65R15), is used to indicate tires intended for service on passenger cars.
- LT - As part of the tire size designation (e.g. LT235/75R15), is used to indicate the tires are intended for service on light truck vehicles.
- M&S, M+S, M/S - Letters used to indicate a tire suitable for Mud and Snow and/or All Season usage.
- XL - As part of the size designation (e.g. P235/75R16 XL), is used to indicate the tire can carry more load as the maximum inflation

pressure and load are greater than a standard load version. (Also could be called REINFORCED).

- : 3 peak mountain snowflake pictograph used to indicate a tire suitable for use in severe snow conditions.

Tire Categories

ALL SEASON TIRES (All Weather Tires): Tires that are designed to perform in a variety of road conditions in All Seasons of the year. An All Season tire will carry “M+S”, “M&S”, or “M/S” designation on the sidewall. All Season tires may carry a treadwear warranty depending on the product line.

SUMMER TIRES: Summer tires offer superior handling, grip and cornering ability compared to standard tires under certain conditions. Some lines may carry a treadwear warranty.

WINTER TIRES (Snow Tires): A winter tire is a tire with a tread design and compound made specifically for snow and ice conditions and is identified by M&S, M+S or M/S markings on the sidewalls. Tires designed for use in severe snow conditions are further identified with a pictograph of a mountain with a snowflake on the sidewalls and must meet specific snow performance test requirements. Pirelli Winter tires do not carry a treadwear warranty.

The information provided above is an overview of tire types. Tread patterns and rubber compounds vary among the seasonal tire types and provide varying performance characteristics and limitations. Summer performance tires are different than winter and All Season types. To determine which Pirelli lines carry a treadwear warranty, please refer to the “Treadwear Coverage” sections in this document.

Pressure Recommendations

Recommended tire inflation pressures for your vehicle can be found either on your vehicle’s tire placard or in your owner’s manual. Correct pressures are related to load, speed and vehicle handling and are vital for even braking, maximum traction and good tire life. Under no circumstances should your tires’ cold inflation pressure be less than

that indicated on your vehicle's tire placard or in your owner's manual or higher than the maximum cold inflation pressure molded on to the tire's sidewall. Under inflation causes excessive flexing, deterioration of the tire and rapid wear of the tread edges. Over inflation results in an uncomfortable ride, a reduced area of tire contact with the road surface (i.e., smaller tire footprint), higher susceptibility to impact damage and rapid wear on the tread center. Whether inflated by air or nitrogen, regular inflation pressure maintenance remains critical and necessary. Use of nitrogen alone is not a replacement for regular inflation pressure maintenance.

WARNING: Driving on tires with improper inflation pressure is dangerous. These situations can cause a tire failure, including tread/belt separation, even at a later date, which could lead to an accident and serious personal injury or death.

Inflation pressure must be checked at least once a month and before long trips, and should be checked only when the tire is cold or before it has been driven. Driving even a short distance causes tires to heat up and the air pressure to increase. Never reduce or "bleed" air from hot tires since your tires will then be underinflated when they cool down. Always use a reliable pressure gauge.

UHP Summer Tires

The special tread compounds formulated for Ultra High Performance (UHP) summer tires are optimized for maximum dry and wet performance in warm temperatures. The compounds in these tires will have decreased performance, such as lateral and braking traction, at temperatures below 45° F or when driving on snow or ice. In addition, they can lose flexibility and may develop random surface cracks at very cold temperatures; therefore extra care should be used in handling tires. All Season or winter tires should be installed for use at temperatures below 45° F, UHP summer tires are not recommended for lower temperature conditions.

DOT Street Legal Competition Tires

P Zero Trofeo, P Zero Trofeo R, P Zero Corsa and P Zero Corsa System tire lines use special tire construction and compounds to

achieve their distinctive performance in dry conditions. As a result of that, their performance in cold temperatures, heavy rain or standing water will be decreased. Use extreme caution and drive slowly on wet roads. Additionally, the minimum tread depth will be reached earlier than with standard road tires, resulting in reduced tread life.

Winter Tires

In low temperature conditions, Pirelli recommends the fitment of 4 winter tires of the same line. Please check your vehicle owner's manual concerning winter tire size recommendation. If the winter tires have a lower speed rating than the original equipment tires, vehicle handling may be affected, and the vehicle maximum speed must be reduced to the winter tire speed rating.

If using studded winter tires, Pirelli recommends that studded tires be installed on all four positions.

Please note that studded tires are not legal in all states. Please check the applicable legal requirements before installing studded tires.

Please note, for both winter tire and studded tire usage, if such tires are applied to the front axle, they **must** also be applied to the rear axle.

Run Flat Tires

Always refer to the vehicle owner's manual with respect to specific safety and operating information relating to the vehicle. Damaged Run Flat tires or Run Flat tires that have experienced a loss of pressure should immediately be replaced with another Run Flat tire of identical size and Service Description (Load Index and Speed Symbol).

Run Flat tires have been developed based on the specifications of the vehicles on which they are mounted. Accordingly, Run Flat tires should only be mounted on vehicles specifically manufactured to accommodate Run Flat tires.

Run Flat tires must be mounted in conjunction with a functional Tire Pressure Monitoring System (TPMS).

The mounting of tires and installation of the Tire Pressure Monitoring System (TPMS) should be carried out by an authorized Pirelli dealer.

Pirelli “Seal Inside” Technology

Select Pirelli tires incorporate “Seal Inside” technology, a construction designed to stop the loss of air from a tire in most circumstances when the tire is punctured by an object. The “Seal Inside” technology is not designed or intended to be a permanent repair. Should the “Seal Inside” technology be activated, immediately drive your vehicle to an authorized Pirelli dealer for an inspection to determine if repair or replacement is needed. Go to www.us.pirelli.com for more information.

Pirelli Noise Canceling System

Select Pirelli tires are constructed with Pirelli Noise Canceling System (PNCS). This is a technology that reduces the tire cavity noise caused by the vibration of the tire structure when rolling on the road surface, which is one of the major factors generating noise inside the vehicle.

Tire Replacement

The tires fitted to your vehicle as Original Equipment were tested and approved by the vehicle manufacturer and the tire manufacturer and take into account all aspects of the vehicle’s operation. Changes in the tire size, type or construction should not be made without seeking advice from the vehicle or tire manufacturer or an authorized Pirelli dealer since unapproved tires on your vehicle could adversely affect steering, handling, braking and traction. The tire information (tire size, load index and speed rating) as found on the vehicle placard or in the owner’s manual should always be followed when replacing tires. It is strongly recommended that Pirelli tires be mounted in sets of four with the same tread type. Pirelli tires should not be mixed with other tire brands. It is necessary to follow this procedure because different tire constructions have different handling characteristics. Tires on the same axle must be the same manufacturer, brand, tire size, load index, speed rating and Pirelli part number. When changing only two tires on a vehicle which is homogeneously fitted (four tires of the same tire size), fit the new tires on the rear axle. This applies to all vehicles regardless of their drive axle (Front or Rear Drive).

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On all wheel drive or four wheel drive vehicles the tires must always be replaced in sets of four. When replacing tires, you should always follow the vehicle manufacturer's recommendations. Passenger and light truck tires are not interchangeable, due to differences in their pressures and load carrying capacity.

P-Metric and Euro-Metric Interchangeability: Euro-Metric (Example: 225/45R17) tires have a load index which is equal to or greater than that of the same size P-Metric (Example: P225/45R17) tire. Therefore, they have the same or higher load carrying capacity at the maximum rated inflation pressure. Always check with your tire dealer or Pirelli Tire Consumer Affairs to check interchangeability to maintain proper vehicle dynamics.

Please be aware that it is important, before fitting the suggested tires, to confirm that the fitment is allowed by the technical specifications of the vehicle, the vehicle manufacturer and the relevant homologations. Pirelli does not express any view as to the compatibility of the wheel/ tire combination with the technical specifications for the chassis and vehicle.

TO MAINTAIN VEHICLE DYNAMICS AND LOAD CARRYING CAPACITY, REPLACEMENT TIRES MUST ALWAYS HAVE A LOAD INDEX AND SPEED SYMBOL EQUAL TO OR GREATER THAN THOSE FITTED AS ORIGINAL EQUIPMENT.

When installing plus size fitments, you should consult with the dealer regarding any suspension or braking system modifications which may be recommended for the vehicle.

Tire Inspection

As a minimum, tires should be examined and air pressure checked monthly and always prior to long trips. They should also be examined if you strike any unusual object on the road. Tires showing bulges, cracks, cuts, penetrations or uneven wear must be dismantled and examined by an authorized Pirelli dealer and replaced if necessary. Pirelli tires have treadwear indicators in the tread grooves, which clearly show when the tread has worn to 2/32" remaining. At this point, your tires must be replaced because they do not meet the federal

minimum tread depth and they may be dangerous if left in service.

Tires should be removed from service for numerous reasons, including tread worn down to minimum depth, damage or abuse (including, without limitation, punctures, cuts, impacts, cracks, bulges, under inflation, overloading, etc.). For these reasons, tires, including spares, should be inspected at least once a month and before long trips. Inspection should occur regardless of whether the vehicle is equipped with a tire pressure monitoring system. In addition to these visual conditions, consumers should take note of and address any change in performance such as increased air loss, noise or vibration or other factors.

The mere passage of time (age) does not cause tires to deteriorate, but rather exposure to outside forces. The service life of a tire is a function of service and storage conditions. For each individual tire, this service life is determined by many factors such as temperature/ weather, storage conditions, and service conditions (e.g., load, speed, inflation pressure, maintenance, and road hazard damage, etc.) to which a tire is subjected throughout its life. Since service and storage conditions vary widely, accurately predicting the service life of any specific tire based on chronological age is not possible. There is no scientific or technical data that establishes or identifies a minimum or maximum service life, but the longer a tire has been in service, the greater the chance that it will need to be replaced due to service-related conditions.

Only use a mild soap solution to clean tires and rinse the soap off with low pressure tap water, use of high-pressure sprayers may cause damage. Never apply cleaners or other products to enhance sidewall or tire appearance to avoid removal of substances which are intended to protect the tire and reduce rubber degradation associated with the impact of ozone and other environmental conditions.

The removal of these substances may degrade the rubber and can lead to sidewall cracking. To remove the protective film from a Pirelli tire with white letters, first flood the area with a stream of water from a hose. After a minute or two the film will soften and it can be removed with soft nylon brush if needed.

WARNING: Driving on a damaged tire is dangerous, as the tire can suddenly fail, which can lead to an accident and serious personal injury or death.

Tire Rotation

Pirelli recommends that you follow the tire rotation procedure as defined in your vehicle owner's manual. If there is no procedure specified, Pirelli recommends tire rotation every 5,000 to 7,000 miles to optimize your tire wear.

Tire Repair

Punctures, nail holes or cuts located in the tread area of Pirelli tires may be repaired if the diameter does not exceed 1/4". The repair material used must seal the inner liner and fill the injury to be considered a permanent repair. U.S. Tire Manufacturers Association and industry approved repair methods include a combination of a plug and a patch; chemical or hot vulcanizing patches, and head type plugs; all which are applied from inside the tire. A self-vulcanizing plug repair may be used only in conjunction with a patch repair, but not by itself. Plugs may cause further damage to the tire, are not always airtight and may fail. If a tire puncture exceeds 1/4" or is located in the shoulder or sidewall deflection areas, the tire must be replaced. Never resort to tubes in tubeless tires or sleeves or large thick patches, which can upset the balance and may result in a sudden failure at highway speeds and high operating temperatures.

WARNING: Driving on an improperly repaired tire is dangerous, as the tire can suddenly fail, which can lead to an accident and serious personal injury or death.

Pirelli Prohibits the Following for Safety Reasons:

1. The use of aftermarket tire sealants in Pirelli tires to repair, even temporarily, a puncture;
2. The repairing of V, W, Y or Z Speed Rated tires.

Storage

Should you need to store tires they should be stored indoors in a cool, dry place. Tire storage areas should be cool (45° F ~ 75° F), dry, non-dusty, and moderately well ventilated. To protect your tires from damage related to heat, water, ozone and direct sunlight, it is suggested you place them in opaque, waterproof containers (e.g., plastic trash bags). It is vital that the tires do not come in contact with sources of heat and/or ozone i.e. radiators, electric generators/motors, hot pipes, etc., and tires should never be allowed to stand or come into contact with water, grease, fuels, brake fluid or any other chemicals.

If you need to transport your tires, please follow the above guidelines.

WARNING: Driving on an improperly stored tire is dangerous, as the tire can suddenly fail, which can lead to an accident and serious personal injury or death.

Tubes in Tubeless Tires

Under no circumstances are tubes to be used in Pirelli tires marked “Tubeless”. This includes tires that have been repaired. If the tire’s pressure retention ability has been affected, so as to necessitate a tube being installed, the tire must be replaced instead.

Tire Valves

Whenever new tires are installed on your wheels, new tire valves of the correct type must be installed. During your routine tire inspection, verify that all your valves have proper valve caps. Replace as necessary, since the valve cap is also a seal against pressure loss.

Tire Dismounting and Mounting

Tire fitting should be left to professionals who have the equipment and training to perform the task properly and safely using U.S. Tire Manufacturers Association procedures or the vehicle manufacturer’s recommendations. To maximize the performance of your tires, they must be installed following the tire sidewall markings with respect to

direction of rotation (directional arrow) or the proper side facing outside (Outside/Inside). Your wheels should be in good, clean condition. Wheels should be inspected for distortion, dents, cracks, rust and foreign matter, and be replaced as necessary. NEVER EXCEED 40 PSI WHEN SEATING BEADS. Both beads and wheels must be clean, undamaged and well lubricated prior to bead seating.

Tire/Wheel Alignment and Balancing

Tire/Wheel alignment specifications are issued by your vehicle manufacturer and your vehicle must be kept within the vehicle manufacturer tolerances. You should have your alignment checked annually or whenever you notice any irregular wear or vibrations. Tire/Wheel alignment is important for safety, maximum performance and mileage from your tires.

Tire/Wheel assemblies should be balanced each time a tire is mounted to a wheel.

For more information or service regarding Pirelli tires, please contact your nearest authorized Pirelli dealer. To locate an authorized Pirelli dealer in your area, refer to the Dealer Locator section on the Pirelli web site at www.us.pirelli.com.

All trademarks are owned by Pirelli Tyre S.p.A., Pirelli & C. S.p.A or Pirelli Tire LLC.

If further assistance or information is needed regarding Pirelli tires please contact:

Pirelli Tire LLC
Consumer Affairs Group
100 Pirelli Drive
Rome, GA 30161

Monday through Friday
8:00 AM to 6:00 PM Eastern Standard Time
1-800-747-3554 (option #2)
consumer.affairs@pirelli.com

Limited Warranty for Original Equipment Passenger & Light Truck Tires

Limited Warranty for Original Equipment Toyo Tires (Effective November 2011)

WHAT IS COVERED AND FOR HOW LONG?

This Limited Warranty covers all Toyo brand passenger car, light truck and temporary spare tires installed as original equipment on vehicles that are sold and used within the United States.

Eligible Tires

Your tires are covered under this Limited Warranty if all of the following criteria are met:

- The tire was installed on your vehicle at the factory as an original equipment part.
- You are the original purchaser of the vehicle.
- You purchased the vehicle after November 2011*.
- You have always used the tires with this vehicle.
- The tires have been used for normal street driving.
- The vehicle has not been used for commercial service.
- You properly maintained and used the tire (See “Tire Safety and Maintenance Information” section below).
- The tires are not subject to an exclusion (See “What is Not Covered?” section below).
- You fulfill the warranty claim procedure (See “How to Make a Claim” section below).

Eligible Tires are covered under this Limited Warranty for a period of up to 5 years from the date you purchased your new vehicle. Toyo Tires will replace it with a comparable new Toyo brand tire in the manner explained in the “What Toyo Tires Will Do” section below.

* Vehicles purchased before November 2011 may be covered by an earlier warranty. See your Toyo Tires retailer or contact Toyo Tires for more information.

TOYO TIRE

WHAT IS NOT COVERED?

This Limited Warranty does not cover the following categories of claims:

Rapid Treadwear: Original equipment tires are not guaranteed to last a specified number of miles.

Damage from road hazards (not limited to cuts, snags, bruises, impact breaks, bulges, punctures, stone drills, chips, and scales), fire, theft, or collision.

Conditions arising from improper tire/vehicle maintenance or use, not limited to:

- Irregular or excessive treadwear due to: Incorrect inflation; overloading; vehicle misalignment; failure to rotate tires; and poor or defective mechanical condition of brakes, shocks, and wheels; or other factors attributable to the vehicle or wheel.
- Any tire which has been run with low air pressure or while flat.
- Damage due to abuse; vandalism; tire alteration; tire spinning; racing; or other competitive activities.
- Damage, corrosion, or deterioration from using oil-based chemicals, water-based sealers, balancing substances, or flammable gases.
- Damage from improper use of tire chains.

Tires with the DOT identification number removed or rendered illegible.

Improper mounting, balancing or repair, not limited to:

- Improper tire mounting, or tire/wheel assembly imbalance.
- Damage from incorrect mounting or dismounting of the tire, incorrect wheel size, water or other material trapped inside the tire during mounting, or failure to keep the tires balanced.
- Damage resulting from improper repair materials or procedures.

TOYO TIRE

Failure to meet conditions of this Limited Warranty, not limited to:

- Any tire that is not an Eligible Tire.
- Any tire for which mileage and tire rotation records are not available or verifiable.
- Any tire not presented and available for Toyo Tires' inspection.
- Any tire worn beyond the treadwear indicators (less than 2/32" of remaining tread).
- Uniformity issues after the first 25% of treadwear.

Temporary spare tires that are used at speeds over 50 miles per hour.

Nothing in this Limited Warranty is intended to be a representation that tire failures cannot occur.

WHAT TOYO TIRES WILL DO

For every Eligible Tire, Toyo Tires will do the following:

Regular OE Tires

1. If less than 25% Worn: Toyo Tires will replace, free of charge, any Eligible Tire when the original usable tread is worn by 25% or less, and within 5 years from the date you purchased the vehicle new. If you cannot provide a copy of the new vehicle registration or vehicle purchase receipt, the manufacture date of the tire, as indicated by the tire DOT code, will be used instead to determine if a tire is within the warranty period. Tire mounting and balancing costs are covered by Toyo Tires. **You are responsible for taxes and all other costs, fees and expenses.**
2. If more than 25% Worn: Toyo Tires will replace any Eligible Tire when the original usable tread is worn by more than 25%, and within 5 years from the date you purchased the vehicle new. If you cannot provide a copy of the new vehicle registration or vehicle purchase receipt, the manufacture date of the tire, as indicated by the tire DOT code, will be used instead to determine if a tire is within the warranty period. **You are responsible for the pro-rated cost of a replacement tire, mounting and balancing costs, taxes and all other costs, fees and expenses.**

TOYO TIRE

Temporary Spare Tire

1. If less than 50% Worn: Toyo Tires will replace, free of charge, any Eligible Tire when the original usable tread is worn by 50% or less, and within 5 years from the date you purchased the vehicle new. If you cannot provide a copy of the new vehicle registration or vehicle purchase receipt, the manufacture date of the tire, as indicated by the tire DOT code, will be used instead to determine if the tire is within the warranty period. Tire mounting and balancing costs are covered by Toyo Tires. **You are responsible for taxes and all other costs, fees and expenses.**
2. If more than 50% Worn: Toyo Tires will replace any Eligible Tire when the original usable tread is worn by more than 50%, and within 5 years from the date you purchased the vehicle new. If you cannot provide a copy of the new vehicle registration or vehicle purchase receipt, the manufacture date of the tire, as indicated by the tire DOT code, will be used instead to determine if the tire is within the warranty period. **You are responsible for the pro-rated cost of a replacement tire, mounting and balancing costs, taxes and all other costs, fees and expenses.**

The **original usable tread** is determined by measuring the depth on the tread of an identical model of a new Toyo brand tire to the top of the treadwear indicator bars (note: the original usable tread depth will vary by tire model).

The **prorated cost of a replacement tire** is determined as follows:

$$\frac{[(\text{Original usable tread worn}) \div (\text{Original usable tread})]}{\times (\text{Actual current dealer selling price})}$$

A **comparable Toyo brand tire** is the same tire, or a tire of the same basic construction and quality, as the original tire, as determined by Toyo Tires.

HOW TO MAKE A CLAIM

To make a claim under this Limited Warranty, you must:

1. Present your vehicle with the subject tire(s), to an authorized Toyo Tires dealer.

TOYO TIRE

2. Complete and sign the Toyo Tires Limited Warranty Claim form provided by the dealer.
3. Keep a copy of the Claim form for your records, and leave the subject tire with the dealer.

Your claim will be administered in accordance with the limited warranty that was in effect when you purchased the vehicle new.

YOUR LEGAL RIGHTS

This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

LIMITATIONS AND EXCLUSIONS

TOYO TIRES DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES (e.g., loss of time, loss of use of vehicle, towing charges, road services, cost of rental car, inconveniences, etc.).

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions may not apply to you.

The terms of this Limited Warranty may not be changed by anyone, including any Toyo Tires employee, representative, or dealer.

Toyo Tires does not warrant any work performed by the dealer, including, but not limited to, their selection, fitment, mounting and balancing, inspection or repair of any tire.

CONTACT INFORMATION

If you need assistance, please contact your authorized Toyo Tires retailer. To locate an authorized Toyo Tires dealer, use our dealer locator at www.toyotires.com, or contact Toyo Tires Technical Services at:

TOYO TIRE

TOYO TIRE U.S.A. CORP.
P.O. Box 6052
Cypress, California 90630-5249
(800) 442-8696
(6:30 am to 4:30 pm Pacific Time)

Tire Safety and Maintenance Information

IMPORTANT SAFETY INFORMATION

This manual is not intended to provide proper training or service procedures for tire mounting, dismounting, balancing, rotation, or repair. Please leave these tasks to qualified tire service professionals

NOTICE

Toyo brand tires are designed and built with great care. Any tire, no matter how well constructed, can fail as a result of punctures, impact damage, underinflation/overloading or other conditions resulting from use. Tire failures may create a risk of property damage or personal injury. To obtain the highest possible performance, tires must be maintained properly.

Remember, you are ultimately responsible for the tires installed on your vehicle.

**Tires can lose 1 psi
per month under
normal conditions**



**Inflation pressure
can decrease by
1 psi for every 10°F
temperature drop**

TOYO TIRE

Important factors in tire care are:

- Proper inflation pressure
- Proper vehicle loading
- Proper vehicle maintenance
- Regular inspection
- Good driving habits

Refer to your vehicle Owner's Manual for additional tire safety and service advice.

TIRE PRESSURE BASICS

The combined effect of losing 1 psi per month over several months along with a 1 psi decrease for every 10°F temperature drop could add up to a severe "run low" condition; consequently, it is important to check your tires' inflation pressure at least once per month. Inflation pressure enables a tire to support its load; therefore, proper inflation is critical.

HOW TO DETERMINE PROPER TIRE INFLATION PRESSURE

It is impossible to determine whether tires are properly inflated just by looking at them.

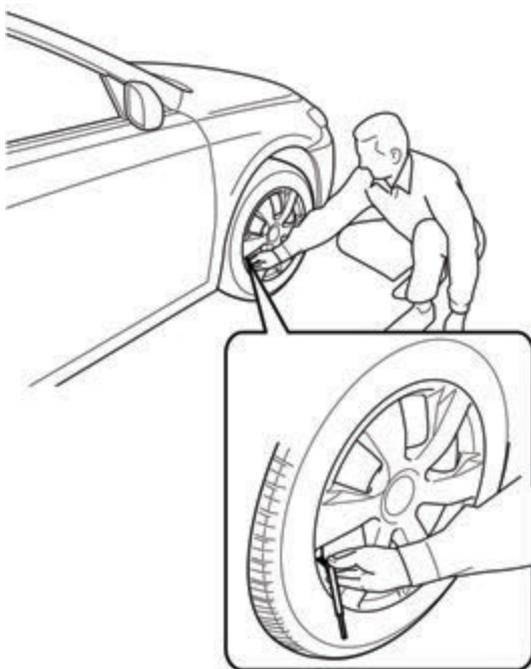


25 PSI

TOYO TIRE



35 PSI



TOYO TIRE

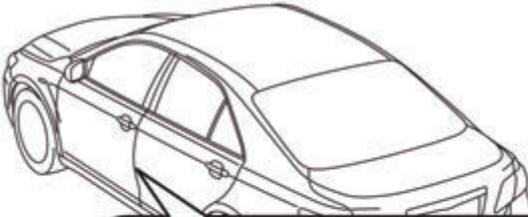
It is important to check your tires using an accurate tire pressure gauge, which can be purchased at your tire dealer or auto supply store.

Underinflation can overload tires. Check the inflation pressure every month, including for the spare tire, to make sure it's up to specification. Check it again before long trips or when carrying extra weight.

Look for the manufacturer's recommended inflation pressure listed on the Tire Information Placard usually located on your vehicle's door edge, door post, glove box, or inside the trunk lid.

▲ NOTICE

The inflation pressure shown on the sidewall of the tire is not the intended inflation pressure for the vehicle! Always refer to the vehicle's Tire Information Placard.



TIRE AND LOADING INFORMATION			INFORMATION SUR LES PNEUS ET LE CHARGEMENT		
SEATING CAPACITY: TOTAL 6 FRONT 2; REAR 3 The combined weight of occupants and cargo should never exceed 350 kg or 800 lb.			NOMBRE DE PLACES ADMS: TOTAL 6 AVANT 2; ARRIERE 3 Le poids total des occupants et du chargement ne doit jamais être supérieur à 350 kg ou 800 lb.		
TIRE	SIZE	COLD TIRE PRESSURE	PNEUS	DIMENSION	PRESSION DE PNEUS À FROID
FRONT	225/45R17	240kPa, 32PSI	AVANT	225/45R17	240kPa, 32PSI
REAR	225/45R17	220kPa, 32PSI	ARRIERE	225/45R17	220kPa, 32PSI
SPARE	T135/70D17	420kPa, 60PSI	SECOURS	T135/70D17	420kPa, 60PSI

C3
C3

148 2, 152
140CM, 151
2 MILLS
2 POINTES

▲ WARNING

Driving on tires with insufficient inflation pressure is dangerous because it will cause your tires to overheat. This can cause sudden tire failure, which may result in loss of vehicle control and lead to serious personal injury or death.

TOYO TIRE

USING A TIRE PRESSURE GAUGE

For accuracy, check your inflation pressure with a tire pressure gauge when tires are cold (for example, after being parked overnight). Driving heats up tires and causes an inaccurate pressure reading.



To check inflation pressure with a tire pressure gauge:

1. Remove the tire valve cap.
2. Place the end of the tire pressure gauge over the valve.
3. Press the tire pressure gauge straight and firmly and take a reading.
4. If needed, inflate and recheck the pressure with the tire pressure gauge.
5. Replace the valve cap.

RECOMMENDATIONS FOR SAFE TIRE INFLATION

- If you must inflate your tires when they are hot, add 4 pounds per square inch (4 psi) (28 kPa) above the recommended inflation pressure specification. Recheck the inflation pressure when the tires are cold and adjust to the recommended inflation pressure shown on the vehicle's Tire Information Placard.
- Never release air or nitrogen from a hot tire in order to reach the recommended cold tire pressure. Normal driving causes tires to run hotter and inflation pressure to increase. If you release pressure when your tires are hot, you may dangerously underinflate your tires. If your tires lose more than 1 pound per square inch (1 psi) per month, the tire, the valve, or the wheel may be damaged. Consult your authorized Toyo Tires dealer for an inspection.

TOYO TIRE

- Over-inflation can cause the tire to be more susceptible to impact damage.
- Over-inflation or underinflation may adversely affect vehicle handling.
- Remember to check your spare tire. Consult your vehicle Owner's Manual for the correct inflation pressure and use of a "temporary use" spare tire. The inflation pressure specified for a spare tire is typically different from that specified for your regular tires.
- Use valve caps to keep valve cores clean and clear of debris and to help guard against air leakage.

WARNING

Never inflate a tire unless it is secured to the vehicle or a tire mounting machine. Inflating an unsecured tire is dangerous. If the tire bursts, it could be propelled into the air with explosive force and cause serious personal injury or death.

VEHICLES EQUIPPED WITH TIRE PRESSURE MONITORING SYSTEMS (TPMS)



Even if your vehicle is equipped with a tire pressure monitoring system, you should check your tire pressure at least once per month when the tires are cold (for example, after being parked overnight). Tire pressure warning systems are not a substitute for regular tire pressure maintenance.

WARNING

If your vehicle is equipped with TPMS, read the vehicle Owner's Manual regarding its operation. Some TPMS systems do not alert you until the tires are significantly underinflated, which could result in permanent tire damage and possible sudden tire failure. In the event that your TPMS malfunction indicator lamp is displayed, you should immediately pull over to a safe parking area and check your tires.

IDENTIFYING DAMAGED TIRES

- If your tire strikes a road hazard at any speed, internal tire damage could result, which may lead to sudden tire failure and loss of vehicle control. Tire failure may even occur miles after the initial impact. Impact damage from such hazards may not be visible on the outside of the tire. Have your Toyo Tires dealer dismount the tire and inspect it for damage. A tire may not have visible signs of damage on the tire surface or the interior.
- If the impact was sufficient to bend the wheel flange, internal tire damage may have occurred, compromising the safety and integrity of the tire. Such impact damage may result in a sudden tire failure many weeks or months later. Tire replacement is highly recommended as a safety precaution.
- Indications of impact damage include, but are not limited to, a bubble or a blister on the outside of the tire.
- Have your dealer inspect your tires if you see anything unusual or if cuts, cracks, splitting, or bruises in the tread and sidewall areas are visible. Bumps or bulges may indicate a serious and dangerous separation within the tire body. Have your tire inspected by a qualified tire service person. It may be necessary to have the tire removed from the wheel for a complete inspection.
- Inspect your tires for adequate tread depth. When the tire is worn to the built-in indicators at 2/32" (1.6 mm) or less tread groove depth, the tire is worn out and must be replaced. Never drive on tires to the point that the tire cord or the fabric is exposed.
- Inspect your tires for uneven wear. Wear on one side of the tread or flat spots in the tread may indicate alignment or other problems with the tires or the vehicle. Consult your authorized Toyo Tires dealer.



WARNING

Never drive on a tire if there is any evidence of damage. Driving on a damaged tire is dangerous. A damaged tire could suddenly fail, which may result in loss of vehicle control and lead to serious personal injury or death. Do not attempt to dismount, mount, or repair a tire yourself. See your Toyo Tires dealer immediately if you detect damage.

TOYO TIRE

IDENTIFYING DAMAGED WHEELS

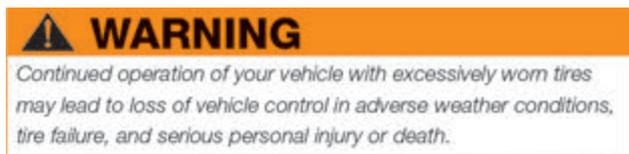
Periodically check to see if any of the following symptoms exist, in which case the wheel must be replaced:

- If the flange is bent.
- If welds or rivets are leaking.
- If the stud holes are elongated and not round. (Improper lug nut tightening could cause this.)
- If there are cracks in the wheel.

WORN OUT TIRES

Tires must be replaced when tread is worn to $2/32$ " (1.6 mm). Treadwear indicators on Toyo tire treads show the $2/32$ " depth (1.6 mm). Most states require that tires be replaced when the tread depth is worn to $2/32$ " (1.6 mm). Tires may lose sufficient wet and snow traction before reaching $2/32$ " (1.6 mm) of wear. Many wet weather accidents result from skidding on worn out tires.

Excessively worn tires are more susceptible to penetrations. Consider replacing your tires earlier if you drive in snow or wet conditions.



Any retail tire dealer will be glad to measure your tire's tread depth for you. Toyo Tires recommends that tires be replaced in matched sets of four.

TIRE REPAIRS

If any tire has sustained a puncture, have the tire dismantled and inspected internally by an authorized Toyo Tires dealer for possible damage that may have occurred. Only specially trained personnel using the proper tools and procedures should repair tires.

TOYO TIRE

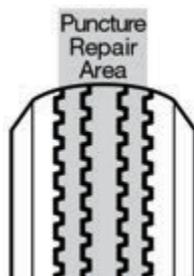
WARNING

Before having your tire repaired, tell your authorized Toyo Tires dealer if you have used an aerosol puncture sealant to inflate/seal the tire. Aerosol puncture sealants could contain a highly flammable, explosive gas.

Driving on an improperly repaired tire is dangerous. An improper repair can cause further damage to the tire. It could fail suddenly, which can result in loss of vehicle control and lead to serious personal injury or death. To insure safety, go to your authorized Toyo Tires dealer for professional inspection and proper tire repairs.

Cosmetic Tire Alterations Can Be Dangerous! Remember — Do not perform or allow anyone to perform any alterations to your tires. Alterations may prevent proper performance, leading to tire damage, which could result in sudden tire failure and loss of vehicle control and lead to serious personal injury or death.

- Never repair a tire with 2/32" (1.6 mm) or less tread remaining. At this tread depth, the tire is worn out and must be replaced.
- Never repair a tire with a puncture larger than 1/4" (6.4 mm) in diameter. Such tires cannot be properly repaired and must be replaced.
- Repairs of all tires (radial and non-radial) must be of the plug and inside patch type. Using plugs alone on any type of tire is not a safe repair.
- Do not use a rope type plug for repair. A tire must be removed from the wheel and inspected for interior damage. Any tire repair done without removing the tire from the wheel is improper and unsafe.
- Never repair a tire with a puncture or other damage outside the tread area. Do not repair sidewall damage. Such tires cannot be properly repaired and must be replaced.



TOYO TIRE

Toyo Tires speed-rated passenger car tires may be repaired and returned to service under the following conditions:

- Proper repair materials and procedures have been used.
- The damage or puncture is not larger than 1/4" (6.4 mm) in diameter.
- The repair will be the first repair performed on that tire. (Only one repair per tire is permitted in order to maintain a limited speed rating.)
- The tire must have more than 2/32" (1.6 mm) of tread remaining.

Toyo Tires speed-rated passenger tires that have been properly repaired qualify for reduced speed ratings as follows:

ORIGINAL SPEED RATING	AFTER PUNCTURE REPAIR
(V), Y, W, Z, V, VR, H	H (maximum speed 130 mph)
T	T
S	S

The maximum speed of a vehicle is limited by the lowest-speed-rated tire on the car.

NOTICE

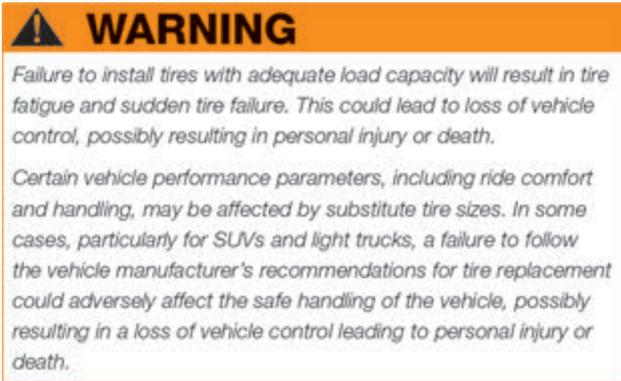
A tire's speed rating is void if the tire has been retreaded, damaged, abused, or otherwise altered from its original condition. Thereafter, it should be treated as a non-speed-rated tire. In addition, retreaded passenger and light truck tires are not warranted by Toyo Tires for any reason. Toyo Tires speed ratings are voided for retreaded tires.

PROPER SELECTION OF TIRES

When tires need to be replaced, don't guess what tire is right for your vehicle. First look at the vehicle Owner's Manual or the Tire Information Placard. They tell you the size of the tires that were on the vehicle as original equipment.

TOYO TIRE

Replacement tires for any vehicle must be of a size, load range, and load capacity (by inflation) that is capable of supporting the same load as the vehicle's originally installed (OE) tires. Avoid installing used tires on a vehicle. There is no way to determine what road hazards or abuse a previously owned tire may have incurred.



The following procedures concerning replacement tires must be followed:

- Confirm that the load-carrying capacity is greater than or equal to the load-carrying capacity of the OE tire size at the pressure indicated on the vehicle Tire Information Placard.
- Carefully note any differences between recommendations for front and rear axle positions regarding the tire size and/ or inflation pressure.
- The speed rating must be equal to or greater than what is specified by the vehicle manufacturer if the speed capability of the vehicle is to be maintained.
- Tires should be mounted on approved wheel widths. If changing tire sizes, check to make sure the wheel has adequate load and inflation pressure capacity.
- Body and chassis clearance must be checked on the vehicle's front and rear axles.

In addition to the above, light truck tire replacements should take into consideration the following:

TOYO TIRE

- Proper spacing between dual tires is necessary for optimum tire performance. If chains are used, particular care must be taken to assure adequate clearance between loaded tires to avoid damage from the chains. The allowable outside diameter difference between a tire and its dual mate is 1/4" (6.4 mm) for light truck tires.

Considerations in Plus Sizing

Always refer to and follow the vehicle manufacturer's replacement tire recommendations. In some cases, a vehicle manufacturer may specifically advise against the application of replacement tires that are not of the original size or type.

TIRE AND WHEEL MATCHING AND MOUNTING



WARNING

Any attempt to mount a tire on a wheel with a different diameter will result in an explosion of the tire/wheel assembly that could cause severe personal injury or death.

Prior to mounting any tire, always check the wheel identification stamp to verify the correct wheel diameter. Always check the tire size molded onto the sidewall.

Never exceed 40 psi when seating the tire beads onto the wheel.

Always stand well clear of any tire mounting operation. This is especially important when the service operator inflates the tire. If the tire has been improperly mounted, it could burst with explosive force causing serious personal injury or death.

A new valve stem must be installed on the wheel each time a worn out passenger or light truck tire is replaced.

Removing and replacing tires on wheels can be dangerous.

Attempting to mount tires with improper tools or procedures could result in a tire explosion, causing serious personal injury or death. This is a job for your authorized Toyo Tires dealer or other qualified tire service location only.

TOYO TIRE

WARNING (continued)

Serious personal injury or death can result from:

- *Failure to select the proper tire and wheel. The tire must match the width and diameter requirements of the wheel. When mounting truck type radial tires use only wheels approved for radial tires.*
- *Failure to inspect both the tire and wheel. The wheel must be free of cracks, dents, chips, and rust. The tire must be free of bead damage, cuts, and punctures.*
- *Failure to follow proper procedures. For proper mounting procedures, consult the U.S. Tire Manufacturers Association's publication "Care and Service of Automobile and Light Truck Tires" (ref.: www.ustires.org).*
- *Exceeding the maximum bead seating pressure of 40 psi. Be absolutely certain beads are fully seated before adjusting the inflation pressure to the level recommended for vehicle operation.*

Never put flammable substances in the tire/wheel assemblies at any time. Never put any flammable substance into a tire/wheel assembly and attempt to ignite it in order to seat the beads.

TIRE MIXING

WARNING

Driving your vehicle with an improper mix of tire sizes, constructions, and speed ratings can be dangerous. Your car's handling characteristics can be adversely affected. You could have an accident resulting in serious personal injury or death. Consult your vehicle Owner's Manual or an authorized Toyo Tires dealer for proper tire replacement.

- Toyo Tires recommends that all four tires be of the same size, speed rating, and construction (radial or non-radial). In some cases the vehicle manufacturer may require different sized tires for the front or rear axles. Never mix P-metric or European Metric passenger tires with LT-metric tires on the same vehicle.

TOYO TIRE

- Match tire size designations in pairs on an axle, except during the temporary use of a spare tire.
- If two radial tires and two non-radial tires are used on a vehicle, put the radials on the rear axle. If radial and non-radial tires are used on a vehicle equipped with dual rear tires, the radial tires may be used on either axle.

SPEED-RATED TIRES

- If the vehicle Tire Information Placard and/or the vehicle Owner's Manual specifies speed-rated tires, the replacement tires must have the same or higher speed rating to maintain vehicle speed capability.
- If a replacement tire has a lower speed capability than that specified by the vehicle manufacturer, the vehicle's speed must be restricted to that of the replacement tire. Vehicle handling could also be affected. Consult the vehicle Owner's Manual or tire manufacturer for recommendations.
- If tires with different speed ratings are used, it is recommended that the lower-speed-rated tires always be placed on the front axle. This is to prevent a potential oversteer condition.

FOUR-WHEEL DRIVE (4WD) AND ALL-WHEEL DRIVE (AWD) VEHICLES

If no instructions for tire mixing appear in the vehicle Owner's Manual, follow these guidelines:

- Do not mix tire sizes. All four tires must be marked with the same tire size, unless otherwise specified by the vehicle manufacturer. This also applies to winter/snow tires.
- Do not mix tread pattern types such as all-terrain and all-season.

STUDLESS WINTER/SNOW TIRES

- It is always preferable to apply winter/snow tires to all wheel positions, including dual tires, to maintain vehicle mobility and control.
- If winter/snow tires are applied to the front axle of any vehicle, winter/snow tires must also be installed on the rear axle. **DO NOT** apply winter/snow tires only to the front axle. This applies to all

TOYO TIRE

passenger and light truck vehicles, including front-wheel-drive, 4WD, and AWD vehicles.

- If winter/snow tires are installed on the rear axle of any vehicle, it is recommended (but not required) that they also be installed on the front axle.

WARNING

Unless winter/snow tires on the rear axle have comparable traction qualities to the tires on the front axle, the vehicle may experience adverse handling characteristics. This may result in loss of vehicle control, which can lead to serious personal injury or death.

STUDED WINTER/SNOW TIRES

- Studded winter/snow tires have higher traction qualities under most winter weather conditions.
- If studded winter/snow tires are installed on the front axle of any vehicle, studded winter/snow tires must also be installed on the rear axle. DO NOT apply studded winter/snow tires only to the front axle.
- If studded winter/snow tires are installed on the rear axle of any vehicle, it is strongly recommended that they should also be installed on the front axle. Only if studded winter/snow tires are installed on all wheel positions of a vehicle will optimum handling characteristics be achieved.

WARNING

Installing only two studded winter/snow tires on the front axle of any vehicle (including front-wheel-drive vehicles) without studded winter/snow tires on the rear axle can cause adverse vehicle handling characteristics. This can result in a loss of vehicle control, which could cause serious personal injury or death.

NOTICE

In some cases, the vehicle manufacturer may specifically advise against replacing fewer than all four tires. Always check and follow the recommendations in the vehicle Owner's Manual. For 4WD and AWD vehicles, even small differences in outside diameter may cause drivetrain damage or mechanical malfunction.

REPLACING TWO TIRES

- When a pair of replacement tires is selected in the same size and construction as those on the vehicle, the two newer tires must be installed on the rear axle and must be of equal or higher speed rating than the front tires. Generally, new tires with deeper tread will provide better grip and evacuate water more effectively, which is important as a driver approaches hydroplaning situations. Placing greater traction on the rear axle on wet surfaces is necessary to prevent a possible oversteer condition and loss of vehicle stability.
- When two new tires have been installed onto the rear axle positions, they are to be kept on the rear but rotated from side to side. This is recommended after installing two new tires to the rear position, or if you discover significant tread depth differences between the front and rear positions during rotation intervals.

REPLACING ONE TIRE

- Replacing a single tire on a vehicle can have an adverse effect on suspension systems, gear ratios, transmission, and tire treadwear.
- If single tire replacement is unavoidable, it is recommended that the single new tire be paired with the tire that has the deepest tread and both be placed on the rear axle. Placing greater traction on the rear axle on wet surfaces is necessary to prevent a possible oversteer condition and loss of vehicle stability.

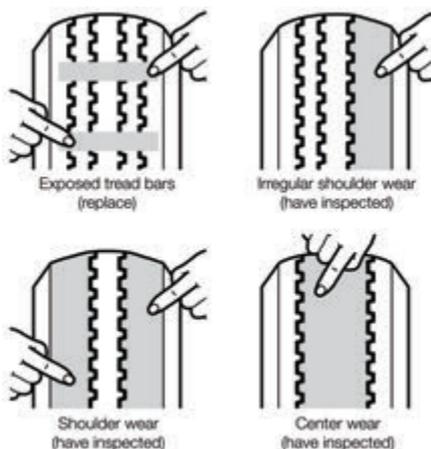
WHEEL ALIGNMENT AND BALANCING

- Proper wheel alignment and balance are very important considerations for safety and getting the maximum mileage from your tires. You need to check how your tires are wearing at least once a month.

TOYO TIRE

- Your vehicle may be out of alignment if your tires are wearing unevenly, such as when the inside shoulder of the tire is wearing faster than the rest of the tread. This condition not only shortens the life of your tires, it adversely affects the handling characteristics of your vehicle, which could be dangerous. If your tires show irregular wear, have your vehicle's alignment checked immediately.

TIRE WEAR – VISUAL CHECK



WARNING

Beware of Sudden Tire Vibration. A tire failure may lead to loss of vehicle control, which could cause serious personal injury or death. Many tire failures are preceded by vibration, bumps, bulges, or irregular wear. If while driving your vehicle you experience any unusual vibration, pull, ride disturbance, or noise and/or you suspect possible vehicle or tire damage, do not continue to drive. Pull over to a safe area as soon as possible and inspect the tires for signs of bulges, blisters, or separations. Seek roadside assistance or change the damaged tire with your spare tire.

TOYO TIRE

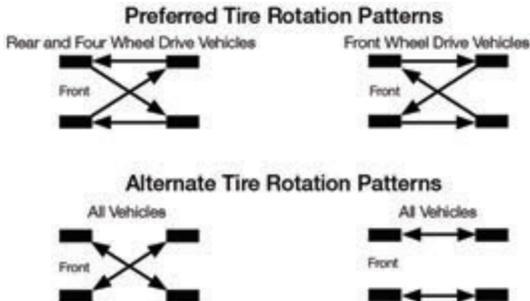
If you experience a blowout or a sudden tire failure, the following information should be helpful:

- When the tire failure occurs, you may hear a loud noise, or feel a vibration, and/or the vehicle may pull toward the side of the failed tire. Do not abruptly brake or turn.
- Maintain steady pressure on the accelerator pedal.
- Hold the steering wheel firmly and steer to maintain your lane position.
- Find a safe place to pull off the road and allow the vehicle to gradually decelerate. Apply light braking as required to stop safely.
- Gradually pull over to the shoulder and come to a stop. Look for a damaged tire on your vehicle.
- Seek roadside assistance or change the damaged tire with your spare tire.
- Have all of your tires and the vehicle thoroughly inspected by a tire professional.

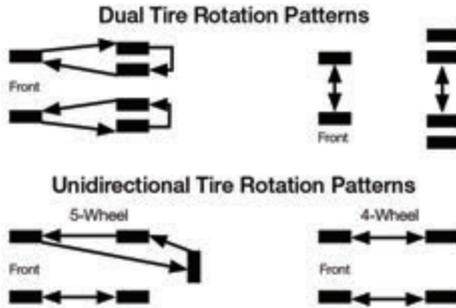
TIRE ROTATION

The purpose for rotating tires is to achieve more uniform wear for all tires on a vehicle. Your tires should be thoroughly examined on a lift by a tire dealer for any abnormalities. If tires show uneven treadwear, ask the service person to check and/or correct any vehicle wheel alignment or other mechanical problem before rotation.

The following rotation patterns are acceptable. Please refer to your vehicle Owner's Manual for rotation advice.



TOYO TIRE



Full-size spare tires (not temporary spares) of the same size, construction, and speed rating may be used in a five-tire rotation pattern.

After rotation, check the inflation pressure of all the tires. The front and rear tire pressures may vary according to the vehicle manufacturer's specifications.

Remember to follow your vehicle Owner's Manual for tire rotation intervals. Your Limited Warranty recommends Toyo brand tires to be rotated as follows:

- Every 3,500 miles or less for high performance (low profile) tires.
- Every 7,500 miles or less for standard passenger and light truck tires.

More frequent rotation or a thorough vehicle inspection may be necessary if, upon inspection, irregular or erratic treadwear is beginning to appear.

It is important to remember the following:

- These tire rotation recommendations do not take into account different tire and construction types mixed on the vehicle.
- Some tires cannot be rotated in the manner described. Such tires include unidirectional tires. Unidirectional tread patterns must be rotated front-to-rear only so that the direction of revolution does not change.

TOYO TIRE

- Some vehicles are designed with different tire sizes on the front and rear axles. Normally, such combinations will not allow rotation. Prior to rotating, consult the vehicle Owner's Manual.
- For vehicles with dual rear wheels, see the vehicle Owner's Manual for the vehicle manufacturer's procedures. If your vehicle Owner's Manual is not available, please contact the vehicle manufacturer.
- Some vehicles are equipped with wheels that limit the choice of rotation pattern. Consult the vehicle Owner's Manual.
- Do not include temporary spare tires in the rotation pattern. However, if your spare tire is the same size and type as a road tire (for LT tires of the same size, type, and load rating), it should be included in the tire rotation process. The proper procedure is to use the vehicle manufacturer's recommended tire rotation procedures, or if not available, to use the appropriate rotation pattern shown, inserting the spare in the right rear position. Place the tire that would have gone to the right rear in the spare tire storage position as the new spare.
- Important! After rotation, adjust the pressure of the individual tires to the vehicle manufacturer's recommendation or the inflation pressure recommended by Toyo Tires for an optional fitment according to the tire's new location on the vehicle.
- Do not mix speed-rated tires on the same axle. Higher speed-rated tires must remain on the rear axle. Consult your authorized Toyo Tires dealer.

TIRE SPEED RATING

All Toyo Tires passenger, light truck, and truck tires have a maximum speed rating based on size and type. Tires must never be operated in excess of their rated speed limit! Consult your tire dealer or contact Toyo Tires Technical Services at (800) 442-8696 (Pacific Time) or (888) 444-8696 (Eastern Time) if you are not sure about the maximum speed rating of your tires.



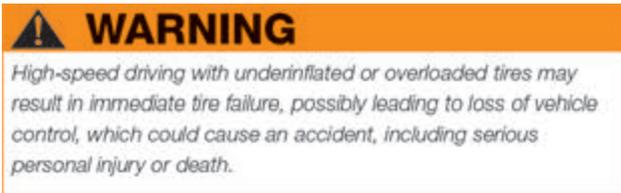
WARNING

No tire, regardless of its design or speed rating, has an unlimited capacity for speed. Exceeding the tire's speed capability could cause overheating and sudden tire failure, possibly leading to loss of vehicle control and serious personal injury or death.

TOYO TIRE

Toyo Tires does not endorse the operation of any vehicle in an unsafe or unlawful manner. Obey all local speed limits.

Tire speed ratings do not imply that a vehicle can be safely driven at the speed for which the tire is rated. Speed ratings are based on laboratory tests and relate to performance on the road, but are not applicable if tires are underinflated, overloaded, worn out, damaged, or altered.



EXPLANATION OF TIRE SPEED SYMBOLS

215/55 ZR16 93W

Example: W=Speed Rating

A speed rating is designated by a letter that indicates the maximum speed capability of a tire. The speed rating of a tire is based on standards for reaching and sustaining a specified speed, and is determined via laboratory tests that simulate road performance at various speeds.

Tires may be marked with one of these speed symbols: M, N, P, Q, R, S, T, U, H, V, W, Y, or (Y) to identify the particular tire's speed rating. Additionally, the letter Z may appear in the size designation.

When purchasing or replacing speed-rated tires, make sure to:

- Use the ranking in the following chart to compare the speed symbols of all the tires.
- Follow the vehicle manufacturer's recommendations, if any, concerning the use of speed-rated tires.

TOYO TIRE

To avoid reducing the speed capability of the vehicle, replace a speed-rated tire only with another tire having at least the same or higher speed rating. Remember, the “top speed” of the “lowest rated” tire on the car cannot be exceeded without risk of tire failure.

The letter symbols and corresponding design speeds are:

Speed-Rated Symbol	Speed Category
M	Up to 81 mph (130 km/h)
N	Up to 87 mph (140 km/h)
P	Up to 93 mph (150 km/h)
Q	Up to 99 mph (160 km/h)
R	Up to 106 mph (170 km/h)
S	Up to 112 mph (180 km/h)
T	Up to 118 mph (190 km/h)
U	Up to 124 mph (200 km/h)
H	Up to 130 mph (210 km/h)
V	Up to 149 mph (240 km/h)
W	Up to 168 mph (270 km/h)*
Y	Up to 186 mph (300 km/h)*
Z R	Over 149 mph (240 km/h)**
(Y)	Over 186 mph (300 km/h)**

* Any tire with a speed capability above 149 mph (240 km/h) can, at the tire manufacturer's option, include a “Z” in the size designation (e.g., 245/40ZR18). If the load index and the speed symbol are not included, the tire manufacturer must be consulted for the maximum speed capability (P245/40ZR18 speed capability is greater than 149 mph [240 km/h]). If a service description is included with the size description, the speed capability is limited by the speed symbol in the service description (i.e., 235/45ZR17 97W = maximum speed 168 mph [270 km/h]).

** Although no upper limit speed is specified, the indicated tires nonetheless have limited rated speed capability. Call Toyo Tires Technical Services (800) 442-8696 (Pacific Time) or (888) 444-8696 (Eastern Time) for a referral for more technical information.

▲ NOTICE

Tire speed symbols do not imply that vehicles 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. Never operate a vehicle in an unsafe or unlawful manner.

TIRE SPINNING

WARNING

Spinning a tire to remove a vehicle stuck in mud, snow, or wet grass can be dangerous. This could cause serious personal injury or death to a bystander or passenger and extensive vehicle damage. A tire spinning at a speedometer reading above 35 miles per hour (55 km/h) can reach a speed capable of disintegrating a tire with explosive force within a matter of seconds. Under some conditions, a tire may be spinning at twice the speed shown on the speedometer. Never spin a tire above a speedometer reading of 35 mph (55 km/h). Never allow anyone to stand near or directly behind the spinning tire. Do not spin if a drive wheel is off the ground.

TOWING OR USE OF SLIDE-IN TRUCK CAMPERS

If you are towing a trailer or using a slide-in truck camper, refer to your vehicle Owner's Manual.

WINTER (SNOW) TIRES



Winter driving presents special challenges for vehicle handling. The use of winter tires, studs, and chains, while improving traction performance in snow and ice, requires additional caution and care with regard to braking, cornering, and speed. It is important to drive with care not only on snow and ice, but on dry and wet roads as well.

WARNING

Studded tires may require longer braking distances on dry or wet paved surfaces. Failure to allow for adequate braking distance could result in serious personal injury or death.

- Traction is considerably reduced as snow tires approach 50% tread wear, and replacement should be considered in order to maintain effectiveness in heavy snow conditions.

TOYO TIRE

- Tire speed rating – When lower-speed-rated winter tires replace higher-speed-rated touring and high performance all-season radial tires, do not exceed the lower-rated speed.
- Follow recommendations in the vehicle Owner’s Manual for winter tires, studs, and chains.
- Consult your tire dealer, the U.S. Tire Manufacturers Association website (www.ustires.org), or your state’s Department of Transportation (DOT) for information regarding regulatory and seasonal restrictions for stud usage.
- Also see the “Tire Mixing” section in this manual for more details.
- Toyo Tires recommends that snow tires be installed in matched sets of four.

ADVERSE WEATHER DRIVING

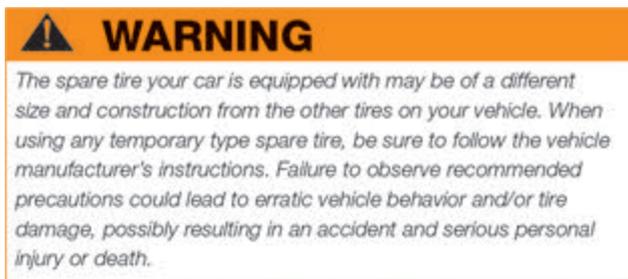
Take special care when driving in adverse weather conditions.

- Rain and snow – Driving in rain or snow considerably reduces the traction between your tires and the road surface. You must always reduce your speed to allow additional stopping distance between you and the vehicles ahead of you.
- Hydroplaning and wet weather driving – Hydroplaning occurs on wet roads and refers to the loss of tire contact with the road due to the build-up of water between the tire contact patch and the road surface. Three main factors affect hydroplaning and, consequently, your tire traction on wet roads:
 1. Vehicle Speed – As speed increases, wet traction is considerably reduced.
 2. Water Depth – The deeper the water, the sooner your tires will lose traction. Even thin water layers can create sufficient lubrication to cause traction loss at low speeds, depending on road conditions.
 3. Tire Tread Depth – As your tires wear down, their decreased ability to resist hydroplaning can result in a complete loss of traction and vehicle control. You should always reduce your speed with consideration for the traffic around you.
- Driving on ice and snow – Your all-season tires were designed to provide higher levels of snow traction compared to non-all- season tires. You have all-season tires if you find the letters “M&S” are

TOYO TIRE

molded into the sidewall near the bead. These letters mean “Mud and Snow.” Tires designed for use in severe snow conditions generally have tread patterns, structure, and materials for giving superior performance. These tires are marked with the “M&S” designation plus a mountain/snowflake  symbol. Even the best all-season tires will not provide acceptable levels of traction if you drive too fast in snow or ice conditions and if you do not allow more stopping distance on icy roads compared to dry road surfaces. Your ability to safely maneuver your vehicle in snow or ice conditions is considerably reduced if your tires are too worn to provide adequate road grip.

SAFE USE OF TEMPORARY SPARE TIRES



- The temporary spare tire is designed for temporary use only. It must not be used continuously as a standard tire. The temporary spare tire should be returned to the trunk as soon as it is convenient to have your standard tire repaired or replaced.
- The temporary spare tire should not be used for speeds exceeding 50 mph.
- Never use chains on temporary spare tires, because it could cause damage to your vehicle.
- When you replace the temporary tire, replace it only with the same type of tire.
- A full-size spare tire in your vehicle is intended for use as a spare when needed. Please see the “Tire Rotation” section for the proper procedures for including the same size construction and speed-rated tire (for LT tires of the same size, type, and load rating) in the rotation pattern. (Do not rotate a temporary spare tire.)

TOYO TIRE

WARNING

Check inflation pressure before using your spare tire. Failure to have proper inflation pressure when using your spare tire may cause loss of vehicle control, which could result in serious personal injury or death. Maintain spare tire inflation pressures based on the vehicle Owner's Manual or the Tire Information Placard.

"T" Type high-pressure temporary spare tires should not be used with any other wheel, nor should standard tires, snow tires, wheel covers, or trim rings be used on the high-pressure spare tire wheel. If you fail to follow this warning, your vehicle's

Do not operate your vehicle with more than one temporary spare in use (this does not apply to a full size spare), and only operate it at limited speeds and distances as indicated on the sidewall of the tire.

The "T" Type temporary spare tire may lower ground clearance when used. Avoid driving over large obstacles and other road hazards. Check your vehicle Owner's Manual for other special clearance precautions when using the "T" Type temporary spare tire provided in your vehicle.

TIRE STORAGE

Tires should be stored indoors in a cool dry place where water cannot collect inside the tires. The tires should be placed away from harmful ozone-producing electric generators and motors and sources of heat such as hot pipes. Storage surfaces should be clean and free of grease, gasoline, or other substances, which can deteriorate the rubber.

COMPETITION TIRE STORAGE

The rubber compounds used in these tires have unique properties that, when compared to other tires, can cause them to lose some of their flexibility when used or handled in conditions below 15°F (-9°C). This loss in flexibility can lead to potential cracking and other damage to the tire. To minimize the chances of this happening, you are advised to follow these instructions:

TOYO TIRE

1. Do not move or operate the car with these tires in conditions below 15°F (-9°C).
2. Avoid moving these tires in conditions below 15°F (-9°C).
3. Before mounting and dismounting, store these tires for at least 24 hours in a temperature-controlled environment of 68°F (20°C) or warmer.
4. Remove these tires from the vehicle and deflate to half the normal air-pressure during prolonged periods of non-use or storage.

Always inspect tires for signs of cracking and never use tires that have cracked.



SPECIAL ADVICE FOR LIGHT TRUCKS

Never exceed the speed limit as indicated by the speed symbol on the tire's sidewall. See the chart and explanation of speed ratings in this manual.

If you do not know the speed rating of your Toyo brand tire, contact your Toyo Tires dealer or Toyo Tire U.S.A. Corp. for current information.

Tires Designated As "LT" with No Speed Rating Indicated on the Sidewall



It is not recommended that any light truck be operated at speeds in excess of legal limits. However, if it is anticipated that sustained driving

TOYO TIRE

at speeds in excess of 65 mph may be required, then the following adjustments or recommendations should be followed:

- At speeds from 66 mph through 75 mph, cold inflation pressure must be increased 10 psi above the recommended pressures for the load being carried.
- Do not exceed the maximum inflation pressure of the wheel (all wheels have maximum allowable inflation pressures).

Replacement Tires for Light Trucks – P-Metric vs. LT-Truck

Tire installers should exercise extreme caution when replacing tires on light trucks.



The maximum load capacity stamped on the sidewall of a P-metric tire is reduced by a factor of 1.1 when used on a light truck, a sport utility vehicle, or a trailer.

⚠ WARNING

P-metric and LT-metric tires are not necessarily interchangeable. P-metric and LT-metric tires follow completely different Load/Inflation tables and are designed to carry different loads at different pressures.

LT-metric tires carry their load at higher inflation pressures and do not always have adequate load capacity to replace P-metric tires of the same size.

After reducing a P-metric tire's load rating by dividing by 1.1 for fitment on a Light Truck, the P-metric tire may not offer sufficient load capacity to replace an LT-metric tire of the same size.

TOYO TIRE

WARNING (continued)

Contact your Toyo Tires dealer or Toyo Tires Technical Service for help determining how to choose a proper replacement size.

Driving with underinflated or overloaded tires may result in immediate tire failure, which can cause an accident and could lead to serious personal injury or death.

When a P-metric or metric tire is installed on a light truck (SUV, pickup, minivan), the load rating is reduced by dividing by 1.1. (This load reduction factor is prescribed by Federal Motor Vehicle Safety Standards (FMVSS) and is based on the expectation that passenger-type tires may experience more severe loading and usage conditions when applied to light trucks.) For example, 305/50R20 has a maximum load capacity of 3086 lbs. If this tire is fitted to a light truck, the actual allowable load for the tire is 2805 lbs. (3086 lbs. divided by 1.1).

Consult the load and inflation charts that can be found at www.toyotires.com. Contact Toyo Tires Technical Service with any tire replacement questions: **(800) 442-8696 (Pacific Time)** or **(888) 444-8696 (Eastern Time)**.

VEHICLES WITH MODIFIED SUSPENSION

WARNING



ROLLOVER HAZARD

Large-diameter tires and modified suspensions that increase ground clearance will alter vehicle handling.

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WARNING (continued)

- *The vehicle may become more likely to roll over.*
- *Braking distances may increase.*
- *Slower speeds may be required to maintain control.*

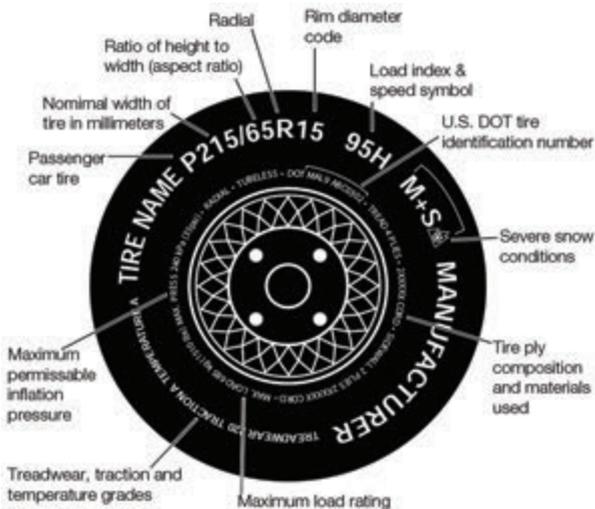
Drive with extreme caution until you become familiar with how your vehicle handles. Always wear your seat belt.

Some modifications may be illegal in your state. Consult your Owner's Manual, the instructions for this product, and state law before modifying your vehicle.

USEFUL TIRE INFORMATION

There is a lot of useful information molded into the sidewall of a tire. It shows the name of the tire, its size, if it is tubeless or tube type, the maximum load and maximum inflation, and important safety warnings. The sidewall markings on passenger and light truck tires are slightly different.

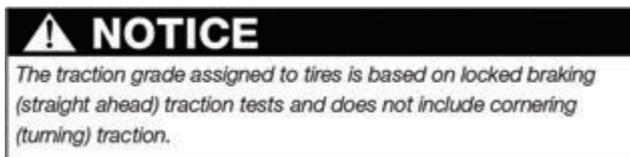
Typical Passenger Tire



UNIFORM TIRE QUALITY GRADING (UTQG)

The Uniform Tire Quality Grading (“UTQG”) standards are intended to assist you in making an informed choice in your purchase of passenger car tires by providing information indicating relative performance in the areas of treadwear, wet stopping traction, and temperature resistance. All passenger car tires must conform to federal safety requirements in addition to these grades.

- Treadwear - The treadwear grade is a comparative rating based on the wear rate of the tire tested under controlled conditions on a specified government test track. For example, a tire graded 200 would wear twice as long on the government course as a tire graded 100. It is wrong to link treadwear grades with your projected tire mileage. The relative performance of the tires depends upon the actual conditions of their use and may vary due to driving habits, service practices, differences in road characteristics, and climate.
- Traction - The traction grades from highest to lowest are AA, A, B, and C, and they represent the tire’s ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete.



- Temperature - The temperature grades are A (the highest), B, and C, representing the tire’s resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperatures can cause the materials of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance that all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 139. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

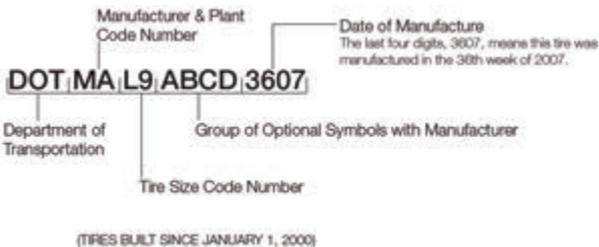
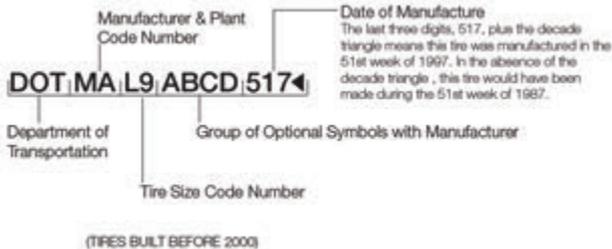
TOYO TIRE

WARNING

The temperature grade is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading either separately or in combination can cause heat buildup and possible tire failure. This can cause an accident, which could lead to serious personal injury or death.

- DOT Quality Grades - All passenger car tires must conform to federal requirements in addition to these grades.

DOT SERIAL NUMBER SYSTEM



TIRE REGISTRATION

Your original equipment tires are registered through the vehicle manufacturer.

When you purchase replacement Toyo brand tires, the seller is required by the National Highway Traffic Safety Administration to present you with a tire registration form. Toyo Tire U.S.A. Corp.

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provides a registration card at no charge to all Toyo Tires dealers. The dealer must fill in the dealer name, address, and serial numbers of the tires purchased. You, the buyer, should then fill in your name and address, place a stamp on the form, and mail it to the pre-addressed location on the form. Be sure to have your dealer complete their portion of the registration card included in this Limited Warranty at the time of purchase. The information contained in the registration card is an important means to notify you in the event of a product recall.

If you prefer, you may register your tires on our web page at www.toyotires.com and select "Tire Registration." Be prepared to provide the name and address of the dealer, the quantity of tires, and the DOT serial numbers from the sidewall of the tires.

IMPORTANT! If self-registering tires, make sure to include all letters and numbers (up to 12 digits) following the letters "DOT" on the tire's sidewall near the bead. If you see only four letters next to the letters "DOT", look on the other side of the tire for the full DOT number.

FOR SERVICE ASSISTANCE OR INFORMATION

For service assistance or information, contact your nearest Toyo Tires dealer.

If you need assistance, please contact your authorized Toyo Tires retailer. To locate an authorized Toyo Tires dealer, use our dealer locator at www.toyotires.com, or contact Toyo Tires Consumer Relations at:

TOYO TIRE U.S.A. CORP.
P.O. Box 6052
Cypress, California 90630-5249
(800) 442-8696
(6:30am to 5:00pm Pacific Time)

Original Equipment Tires For Passenger Car, Temporary Spare And Light Truck Tires

Limited Warranty

As you know, many safety, comfort and performance features went into the design of your new vehicle – and your tires. At Yokohama, every tire we engineer incorporates the highest safety and comfort features in conjunction with the most enhanced performance capabilities. And, to ensure your complete satisfaction, Yokohama has enclosed this Limited Warranty brochure for your tires. As the original equipment tire manufacturer for your vehicle, Yokohama wants to offer its support in helping you properly maintain and service your tires and ensure you have the correct contact information in the unlikely event of a tire issue. For customer assistance in the US please call 1-800-722-9888 and in Canada please call (888) YOKOTEL.

This limited warranty provides for tire replacement under certain specified conditions. This policy applies to original equipment tires used in normal highway service displaying warrantable conditions. Tires that become unserviceable or wear out because of neglect or mistreatment are excluded from Yokohama warranty coverage.

Warranty Eligibility

This warranty applies to every YOKOHAMA original equipment passenger car, light truck, and temporary spare tire bearing the YOKOHAMA brand name and complete DOT serial identification number. Eligible tires must be used on the vehicle on which they were originally equipped in conformance with the vehicle manufacturer's recommendations.

What Is Not Warranted

Tires that have become unserviceable for the following reasons:

- Road hazard injuries or damages, caused to the tire by obstacles and debris such as cuts, punctures (whether repairable or not), snags, bruises, tears, or impact breaks.

YOKOHAMA

- Improper repairs or repairs that have failed.
- Improper inflation or other maintenance abuses.
- Incorrect mounting of the tire, or tire/wheel imbalance.
- Mechanical irregularities in the vehicle such as wheel misalignment, worn, or faulty parts.
- Accident, corrosion, vandalism, fire, or damage caused by nature.
- Tires used on vehicles in racing or special applications.
- Non-speed-rated temporary spare tires used over 50 mph (80 km/h).
- Tires worn out [2/32 inch (1.6 mm) or less of tread remaining].
- Tires that have been retreaded.
- Tires transferred from the vehicle on which they were originally installed.
- Improper storage

What Is Warranted

Tires that have become unserviceable for reasons other than stated above will be replaced in accordance with this warranty.

If a warrantable condition is found, tires will be replaced as follows:

1. Passenger Car and Light Truck Tires (Other than Temporary Spare Tires)

- When a tire becomes unserviceable during the first 2/32 inch (1.6 mm) of original usable tread depth or 12 months from date of vehicle purchase, whichever comes first, it will be replaced with a comparable new YOKOHAMA tire free of charge. During this period, tires will be mounted and balanced without charge. Other service charges such as tire rotation, alignment or applicable taxes are payable by the customer.
- When a tire has worn past the above specified period for free replacement, the customer must pay for the cost of a new comparable YOKOHAMA passenger car or light truck tire on a pro-rated basis. The dealer shall determine this cost by multiplying the percentage of usable tread worn

by the current retail selling price of that tire at the time of warranty replacement. The costs of mounting, balancing and any other service charges or applicable taxes are payable by the customer.

- The tire is covered by this warranty for the life of the original usable tread (the original tread depth down to the level of tread wear indicator bars molded at 2/32 inch or 1.6 mm) or for 48 months from the date of vehicle purchase, whichever comes first. This time period does not represent the expected service life for tires covered by this warranty.

2. Temporary Spare Tires

- When the original tread of a YOKOHAMA Temporary Spare tire used in temporary highway service on the vehicle in which it was originally equipped, is worn not more than 1/32 inch or 0.8 mm, the tire will be replaced with a new YOKOHAMA Temporary Spare tire free of charge, without charge for mounting and balancing the new tire. Additional service charges are payable by the customer.
- Temporary Spare tires worn in excess of 1/32 inch or 0.8 mm but less than 2/32 inch or 1.6 mm, will be replaced and the customer charged 50% of the current retail selling price of the tire. The costs of mounting, balancing and any other service charges are payable by the customer.

Limitations and Exclusions

All implied warranties, including any warranty of merchantability or fitness for a particular purpose, are expressly limited to the duration of this written warranty.

All obligations or liabilities for loss of time, inconvenience, loss of vehicle use or any other incidental or consequential damages are hereby excluded. Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages so the above limitations or exclusions may not apply.

YOKOHAMA'S Obligations

Replacements qualifying under the warranty will be made by an authorized YOKOHAMA retail tire dealer and will be handled quickly. Participating dealers in the US may be found at www.yokohamatire.com/dealer-locator or by calling 1-800-722-9888 and choosing menu option 1. Participating dealers in Canada can be found at www.yokohamatire.ca.

Customer's Obligations

The customer must present the claim tire, together with the vehicle on which it was used, to an authorized YOKOHAMA retail tire dealer. Tires replaced on a warranty basis become the property of YOKOHAMA TIRE CORPORATION.

The customer is required to pay the adjusted price of the new tire (dealer's current retail selling price at the time of adjustment less credit allowance) and taxes. The customer is responsible for any payments arising out of dealer service such as mounting, balancing, tire rotation, and alignment UNLESS SPECIALLY INCLUDED IN THE APPLICABLE WARRANTY.

To obtain a free-replacement warranty, the customer must present proof of vehicle purchase date either by the new vehicle invoice or license registration.

Legal Rights

This warranty gives you specific legal rights. You may also have other rights which may vary from state to state.

YOKOHAMA Temporary Spare Tire

High Pressure Spare Operating Instructions

Any tire, no matter how well constructed, may fail due to improper maintenance or service factors. Tire failure may create a risk of property damage and serious or fatal injury. For your safety, please follow the instructions below.

1. The YOKOHAMA high pressure spare tire is designed for

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temporary use only and must not be used continually as a regular tire.

2. Avoid driving over obstacles that may damage the tire through impact or cutting, such as potholes, glass, metal, etc.
3. Speed must not exceed 50 mph (80 km/h) for non-speed-rated Temporary Spare tires.
4. A tread life of up to 3,000 miles (4,800 km) can be expected depending on road conditions and your driving habits. To conserve tire tread life, the spare should be returned to the trunk as soon as the standard tire can be repaired or replaced.
5. Because the YOKOHAMA high pressure spare tire was specifically designed for your car, it should not be used on any other vehicle.
6. Do not use snow chains on your YOKOHAMA high pressure spare. This could cause damage to your vehicle.
7. When the tread wear indicator appears on the tire, replace it only with the same type spare tire.
8. Check the tire's cold inflation pressure monthly and maintain at 60 psi (4.2 kg/cm²) even when not in use. Do not inflate over 60 psi.
9. The YOKOHAMA high pressure spare tire should not be used with any other rim nor should standard tires, wheel covers, or trim rings be used on the YOKOHAMA high pressure spare tire rim on which the YOKOHAMA high pressure spare tire was originally installed.

Important Safety Information

All tires require owner maintenance regardless of how well a tire is constructed. Operational damages such as punctures, impact damage, cuts, incorrect inflation, etc., may cause tire failure and subsequent personal injury and/or property damage. Simple operational and maintenance practices, as listed below, will reduce the chances of tire problems.

Tire Inspection

Visually inspect your tires frequently for any tire damage such as scrapes, bulges, cuts, nails, irregular wear, etc. resulting from

operation. This must be done immediately after any known or suspected contact with an object in the road, a pothole, road irregularity or after severe braking. Refer these conditions to a reputable tire service center for repair or replacement. Never drive on a tire if such conditions appear.

Tire Loading

Never exceed the maximum vehicle load limit listed on the vehicle placard, tire information label or in the owners manual. Be aware of the load carrying limits molded into the tire's sidewall and do not exceed those limits. Maximum load can only be carried at the maximum cold inflation pressure indicated on the tire's sidewall.

Speed Limits

Regardless of the speed capability of your tires, never exceed lawful speeds or speeds dictated by driving conditions.

Hazards

Objects in the road that could damage your tires should be safely avoided. These objects include: potholes, glass, metal, rocks, wood debris and the like. Unavoidable contact should prompt a thorough tire inspection.

Air Pressure

Air pressure maintenance is critical to tire service life. Tire pressures must be checked frequently when tires are cold (before operation, cool to the touch) and no less than once per month and before extended operation. Use a tire gauge to check pressure and maintain it per the vehicle manufacturer's recommendations (on vehicle placard or in owner's manual). Do not reduce pressure when tire is hot and do not inflate a cold tire higher than limits molded on the tire's sidewall. Do not overlook spare tire inflation pressure.

Tire Tread

Tires must be replaced when the depth of the tread reaches $\frac{2}{32}$ inch (1.6 mm). YOKOHAMA tires are manufactured with tread wear indicators molded into the tire grooves which indicate tread wearout. As tires wear down to $\frac{2}{32}$ inch (1.6mm), and tread depth is reduced, tire

traction is reduced during rainfall and winter road conditions. Visual tire inspection therefore becomes more crucial as the tires wear out.

Hard Braking

You must inspect your tires after any hard braking situations or after tires have slid on the pavement. This can cause a flat spot or other damage to the tread of the tire.

Spinning

- Do not allow tires to spin at speeds greater than 35 mph (56.3km/h) if vehicle becomes stuck.
- Do not stand behind a spinning tire while attempting to push a vehicle.

Speed and force can cause a tire to disintegrate and explode and may cause property damage and/or personal injury.

Recommended Tire Rotation

Front and rear tires perform differently and consequently YOKOHAMA recommends tire rotation to ensure even wear and lengthen tread life. In the absence of the vehicle manufacturer's instruction, YOKOHAMA recommends that its tires be rotated every 7,500 miles (12,000 km) for normal applications.

WARNING SERIOUS INJURY MAY RESULT FROM:

- Tire failure due to underinflation, overinflation, or overloading – follow owner's manual or tire placard in vehicle.
- Explosion of the tire/rim assembly due to improper mounting – only specially trained persons should mount tires.

THERE IS DANGER IN INSTALLING A TIRE OF ONE RIM DIAMETER ON A RIM OF A DIFFERENT RIM DIAMETER

- Always replace a tire on a rim with another tire of exactly the same rim diameter designation and suffix letters. For example, a 16 inch tire goes with a 16 inch rim. Never mount a 16 inch size diameter tire on a 16.5 inch rim.

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