# BRIDGESTONE Firestone

**Associated Brands** 

# TIRE MAINTENANCE, SAFETY and WARRANTY MANUAL



REPLACEMENT
MARKET
PASSENGER and
LIGHT TRUCK TIRES



Titres with Run-Flat Technology

# Congratulations! You have just purchased quality tires from a BRIDGESTONE, FIRESTONE, or ASSOCIATED BRANDS dealer.

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

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# Inflate Check your tire pressure monthly.

# Rotate.

Rotate your tires as recommended by the vehicle manufacturer or every 5,000 miles.

# Evaluate.

Routinely look for signs of tread wear or damage.

# TIRE CARE BASICS

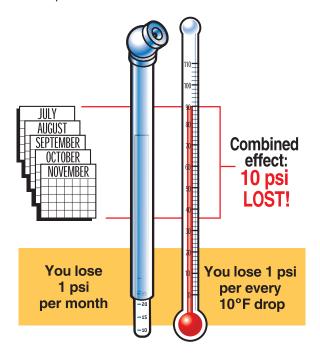
Quick Reference Guide to Maintenance for All Tires, Including the Spare.



#### 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.



**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.





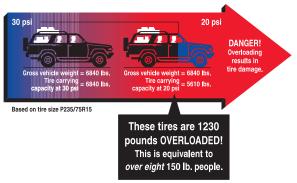
30psi 20psi

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	) L(	DADIN	G	INFO	RM <i>A</i>	TION	
	SEATING CAPAC	ITY	TOTAL	6	FRON	Г 3	REAR	3
The combine	The combined weight of the occupants and cargo should never exceed 611 kg or 1348 lbs.							
TIRE	SIZE	COLD TIRE PRESSURE		SEE OWNER'S				
FRONT	P245/70R17 108S		240 kPa,	35 P	SI	MAN	IUAL FO	R
REAR	P245/70R17 108S	- :	240 kPa, 3	35 P	SI		DITIONA	
SPARE	P245/70R17 108S		240 kPa,	35 P	SI	INFO	RMATIC	ON

### 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.



# TIRE 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.

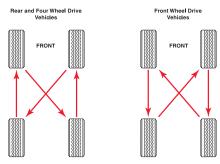


e) Replace valve cap.



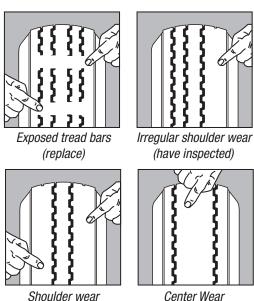
#### TIRE ROTATION

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.

(have inspected)



# 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.



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 if the tire is properly inflated later) - 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.

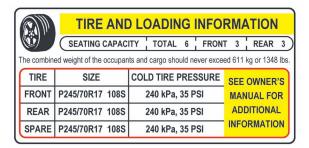


Figure 1: EXAMPLE—Tire and Loading Information Placard

	TIRE 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				

Figure 2: EXAMPLE—Tire Information Placard

#### **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 (1.6 km) 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 under-inflate 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 after the load is reduced) - 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.

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 damaged tire may not show any
  visible signs of harm. 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. If you see damage or unusual condition, 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.

#### Tire Service Life

Make sure your tires, including the spare, continue to be regularly inspected after 5 years of service to determine if they can continue in service. Regardless of the tire's condition or tread depth, it is recommended that tires more than 10 years old be taken out of service and replaced with new tires. REMEMBER TO CHECK YOUR FULL-SIZE OR TEMPORARY SPARE, ALSO. A spare tire over 10 years old may look like a new tire, but it should be replaced. See "Tire Manufacture Date," the next section in this manual.

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 Rubber Manufacturers Association (RMA) 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.



#### Additional notes about tire repairs:

- Not all punctured or damaged tires can be properly repaired; consequently, some tires 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.
  - 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 <u>and</u> 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 vehicles with enhanced handling performance, 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.

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- 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 warm 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.

#### **HIGH SPEED DRIVING**



#### SAFETY WARNING

Driving at high speed is dangerous and can cause an accident, resulting in 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. 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. Remember: regerdless of the tire's speed rating, drivers should obey speed limits and adjust their speed based on traffic, weather, vehicle and road conditions.

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

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) ****
```

<sup>\*</sup> 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



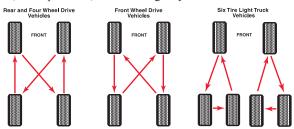
#### SAFETY WARNING

Spinning a tire to extract a vehicle stuck in mud, ice, snow, or wet grass can be dangerous. A tire spinning at a speed-ometer reading above 35 mph (55 km/h) can in a matter of seconds reach a rotation 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).

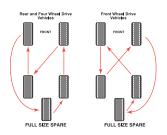
#### RADIAL TIRE ROTATION

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 (8,000 km). 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

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.

### TIRE REPLACEMENT AND TIRE MIXING



#### SAFETY WARNING

Driving your vehicle with an improper mix of tires is dangerous. Your vehicle's handling characteristics may be seriously affected. You could have an accident resulting in serious personal injury or death. Consult your vehicle owner's manual, tire information placard, and a qualified tire service professional for proper tire replacement.

Unless otherwise specified by the vehicle manufacturer, it is recommended that all road tires be the same size, type, and speed rating. Never mix different size tires on an axle, except for temporary use of a spare (see "Your Spare Tire," the next section in this manual).

When it is necessary to replace one or more tires, consider that applying new tires in pairs on an axle, or to all wheel positions, helps to optimize vehicle performance and avoid malfunction of mechanical or electronic vehicle systems (i.e. drive-train/transmission, anti-lock brakes, traction control).

**Replacing Fewer Than Four Tires:** Whether your vehicle is front-, rear-, or all-wheel drive, if your rear tires lose traction because of hydroplaning on a wet road, an

oversteer skidding condition may result and lead to loss of control, particularly in a turn. Generally, new tires provide increased resistance to hydroplaning due to their full tread depth. With the new tires on the rear, the oversteer skidding condition may be more easily avoided. Therefore, if replacing only one or two tires at a time:

- Two new tires should be placed on the rear axle.
- One new tire should be paired with another tire from the vehicle with the deepest tread depth, and then both should be placed on the rear axle.

Winter Tires: See "Winter Tires" in this manual.

**Speed Rating:** See "Tire Speed Ratings" in this manual.

Additional or alternate recommendations may apply for some vehicles. Always refer to and follow the vehicle manufacturer's tire replacement and tire application recommendations; consult your vehicle owner's manual and tire information placard.

#### 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.

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

#### TIRE STORAGE

Tires should be stored indoors in a cool, dry place. Water should not be allowed to 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 <a href="www.bridgestonetire.com">www.bridgestonetire.com</a>, 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:

Rubber Manufacturers Association 1400 K Street, N.W. Washington, DC 20005-2403 www.rma.org

Rubber Association of Canada 2000 Argentia Road, Plaza 4, Suite 250 Mississauga, Ontario L5N 1W1 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.



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 vary 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 next 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 Certified Bridgestone or Firestone Run-Flat 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. 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 odometer; 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 must 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**

RFT tires are capable of operating up to the distance of 50 miles (80km) at a maximum speed of 50 mph (80 km/h) in run-flat or low pressure operation. However, the distance capability may be less (or more) depending upon the actual vehicle application and specific operating conditions.

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. To maximize the distance capability in a run-flat or low pressure condition:

- Reduce vehicle speed as much as safely and reasonably possible. Do not exceed 50 mph (80 km/h).
- Avoid abrupt or aggressive acceleration, braking, or cornering maneuvers as much as safely and reasonably possible. Avoid pot holes and other road hazards.

Higher vehicle loads (such as with more passengers or cargo) and higher ambient temperatures decrease the distance capability of an RFT tire in run-flat or low pressure operation.

#### Note:

- If the sidewall of the RFT tire specifies a run-flat or low pressure distance limitation, do not exceed the specified distance.
- The distance capability of the vehicle is limited to the distance capability of the specific RFT tire that is operating in a run-flat or low pressure condition.
- For original equipment specification RTF tires applied to vehicles originally equipped with these tires, see the vehicle owner's manual for distance limitations during run-flat or low pressure operation.

If in doubt about the distance capability of an RFT tire, do not exceed 50 miles (80 km) in run-low or low pressure operation. Seek tire service as soon as possible to minimize tire damage.

#### SPECIAL SERVICE and REPAIR ISSUES

#### **Authorized RFT Service Centers**

Because of the advanced technology and design of RFT tires and the required tire pressure monitoring systems (TPMS), only qualified tire service professionals with the proper equipment and training should service RFT tires. For instance, the use of tire mounting equipment that is unsuitable for an RFT tire may damage the tire beyond repair. Therefore, it is recommended to go to an authorized Bridgestone or Firestone brand tire retailer for service and replacement.

Call toll-free 1-877-BFS-4RFT or visit <u>Bridgestonetire.com</u> to locate the nearest Bridgestone or Firestone brand 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 evalua—tion as soon as possible.

#### Rotation

Follow the vehicle manufacturer's recommendations, or rotate every 5,000 miles (8,000 km) 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 char—acteristics 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 low tire pressure operation. Some punctures may be repaired under certain restrictions and prescribed procedures. An improper repair is unsafe and will void the Limited Warranty.

When driven flat or with low pressure, factors affecting repara—bility 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.

A qualified tire service professional should 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 "Tire Repairs" in this manual.

**Note:** Some vehicle manufacturers do not recommend using repaired tires. Such recommendations apply to RFT tires. Use of RFT tires deemed non-reparable may result in damage to vehicle, injury, or death. 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):

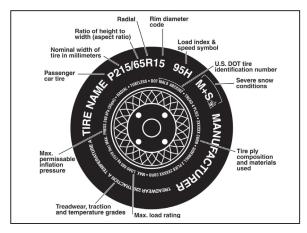


Figure 3: Typical Passenger Tire Markings

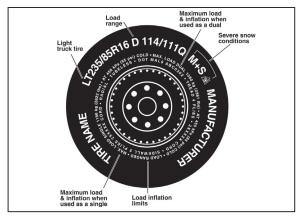
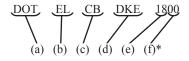


Figure 4: Typical Light Truck Tire Markings

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

E	xamples:	Tire Size	Load Index	Speed Symbol	
Fi	igure 3	P215/65R15	95	Н	
Fi	igure 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:



- (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 recommended load capacity or 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 (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 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

# BRIDGESTONE Firestone

# REPLACEMENT MARKET PASSENGER and LIGHT TRUCK TIRES



#### **ELIGIBILITY**

Congratulations! You have just purchased quality tires from a BRIDGESTONE, FIRESTONE, or ASSOCIATED BRANDS dealer (referred to in this section of the manual as DEALER). This Limited Warranty covers new BRIDGESTONE, FIRESTONE, FUZION, and PRIMEWELL brand passenger and light truck tires.

This Limited Warranty only applies to the original purchaser, and is valid if all of the following apply:

- The tire was purchased after October 1, 2015 (not applicable to Fuzion Brand Limited Warranty).
- The tire is a size and speed rating equivalent to or greater than that specified by the vehicle manufacturer.
- The tire has been used only on the vehicle on which it was originally installed.
- The tire has not been used in commercial service (exception: certain coverage applies to Bridgestone Duravis and Firestone Transforce tires if used in commercial service).

## WHAT IS WARRANTED and FOR HOW LONG

An 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. Each tire brand has specific warranty coverage and certain conditions that apply; for details, see "Each Brand's Warranty Coverage."

# 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.
- Rapid tread wear or wear-out is not covered under the Bridgestone Platinum Pact, Firestone Gold Pledge, or Basic Limited Warranty. See the Supplemental Mileage Limited Warranty section of this manual.
- Weather/ozone cracking after 4 years from date of tire manufacture.
- 4. Ride disturbance or vibration after 1/32 inch (0.8 mm) of tread wear use.
- Tires with sealant, balance, or other filler material that was not originally applied or inserted by the tire manufacturer.
- Tires used in commercial service, except Bridgestone Duravis and Firestone Transforce tires.
- 7. Tires purchased as used.
- 8. Tires inflated with anything other than air or nitrogen.
- Tires purchased and normally used outside the United States.
- 10. The cost of applicable federal, state, and local taxes.
- 11. Original equipment tires on new vehicles. (See separate warranty, if applicable, in your vehicle's glove box.)
- 12. 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.

## EACH BRAND'S WARRANTY COVERAGE

#### **BRIDGESTONE**

#### Platinum Pact Limited Warranty

The Platinum Pact Limited Warranty covers all Bridgestone brand passenger and light truck tires—except winter, and "temporary use" spare tires. A tire covered by the Platinum Pact Limited Warranty will be replaced with an equivalent new tire either free of charge or for a pro-rated amount if the tire becomes unusable for any reason within the manufacturer's control under the following conditions:

- The free tire replacement period extends up to (a) 3 years from the date of purchase—proof of purchase date required, or (b) 4 years from the date of tire manufacture without proof of purchase date. During this period, the tire will be replaced free of charge (including mounting and balancing). You may be charged applicable taxes, the cost of valve stems, and disposal fees.
- After the free tire replacement period, coverage extends up to (a) 5 years from the date of purchase—proof of purchase date required, ,or (b) 6 years from the date of tire manufacture without proof of purchase date. During this period, the tire will be replaced but there will be a pro-rated charge. To determine the replacement price, the percent of tread wear is multiplied by DEALER'S then current selling price for the replacement tire(s). The appropriate taxes, mounting, balancing, disposal fees, and other service charges may be added to the replacement price.
- The tire must not be worn to 2/32 inch (1.6 mm) or less remaining original tread depth (i.e. worn down to the top of the built-in indicators in the tread grooves).
- Exclusions apply—as identified in the section "What This Limited Warranty Does Not Cover."

#### Winter, and "Temporary Use" Spare Tires

A Bridgestone brand, winter, or "temporary use" spare tire will be replaced with an equivalent new tire for a pro-rated purchase price if the tire becomes unusable for any reason within the manufacturer's control under the following conditions:

- There is no free replacement period.
- Coverage extends up to 5 years from the date of purchase—proof of purchase date required. Without proof of purchase date, then 6 years from the date of tire manufacture. During this period, the tire will be replaced for a pro-rated amount. To determine the replacement price, the percent of used treadwear is multiplied by DEALER'S then current selling price for the replacement tire(s). The appropriate taxes, mounting, balancing, disposal fees, and other service charges may be added to the replacement price.

- The tire must not be worn to 2/32 inch (1.6 mm) or less remaining original tread depth (i.e. worn down to the top of the built-in indicators in the tread grooves).
- Exclusions apply—as identified in the section "What This Limited Warranty Does Not Cover."

#### **Buy & Try 30 Day Guarantee**

All Bridgestone brand passenger and light truck tires except RFT/Run-Flat, Potenza RE-11, Potenza RE-11A, Potenza RE71R, winter, and "temporary use" spare tiressold in sets of 4 or more tires through an authorized retailer are covered by the Buy & Try 30 Day Guarantee. The DriveGuard, Potenza RE960AS RFT and Turanza EL400 RFT patterns are covered by Buy & Try 30 Day Guarantee. If a retail customer is not completely satisfied with their eligible Bridgestone-brand tires, the tires can be returned to the location where they were originally purchased within 30 days of purchase for a full refund or exchange. Original proof of purchase is required. The Buy & Try 30 Day Guarantee applies only to full sets of tires (4 or more tires purchased together); return of less than a full set of tires will not be accepted. Bridgestone brand tires applied as original equipment on new vehicles are not covered by the Buy & Try 30 Day Guarantee. Additional exclusions apply, as identified in the section "What This Limited Warranty Does Not Cover"

#### **FIRESTONE**

#### **Gold Pledge Limited Warranty**

The Gold Pledge Limited Warranty covers all Firestone brand passenger and light truck tires—except winter, and "temporary use" spare tires. A tire covered by the Gold Pledge Limited Warranty will be replaced with an equivalent new tire either free of charge or for a pro-rated amount if the tire becomes unusable for any reason within the manufacturer's control under the following conditions:

- The free tire replacement period extends up to (a) 3 years from the date of purchase—proof of purchase date required, or (b) 4 years from the date of tire manufacture without proof of purchase date. During this period, the tire will be replaced free of charge (including mounting and balancing). You may be charged applicable taxes, the cost of valve stems, and disposal fees.
- After the free tire replacement period, coverage extends up to (a) 5 years from the date of purchase—proof of purchase date required, ,or (b) 6 years from the date of tire manufacture without proof of purchase date. During this period, the tire will be replaced but there will be a pro-rated charge. To determine the replacement price, the percent of tread wear is multiplied by DEALER'S then current selling price for the replacement tire(s). The appropriate taxes, mounting, balancing, disposal fees, and other service charges may be added to the replacement price.

- The tire must not be worn to 2/32 inch (1.6 mm) or less remaining original tread depth (i.e. worn down to the top of the built-in indicators in the tread grooves).
- Exclusions apply—as identified in the section "What This Limited Warranty Does Not Cover."

#### Winter, and "Temporary Use" Spare Tires

A Firestone brand, winter, or "temporary use" spare tire will be replaced with an equivalent new tire for a prorated purchase price if the tire becomes unusable for any reason within the manufacturer's control under the following conditions:

- · There is no free replacement period.
- Coverage extends up to 5 years from the date of purchase—proof of purchase date required. Without proof of purchase date, then 6 years from the date of tire manufacture. During this period, the tire will be replaced for a pro-rated amount. To determine the replacement price, the percent of used treadwear is multiplied by DEALER'S then current selling price for the replacement tire(s). The appropriate taxes, mounting, balancing, disposal fees, and other service charges may be added to the replacement price.
- The tire must not be worn to 2/32 inch (1.6 mm) or less remaining original tread depth (i.e. worn down to the top of the built-in indicators in the tread grooves).
- Exclusions apply—as identified in the section "What This Limited Warranty Does Not Cover."

#### **Buy & Try 30 Day Guarantee**

All Firestone brand passenger and light truck tires—except RFT/Run-Flat, winter and "temporary use" spare tires sold in sets of 4 or more tires through an authorized retailer are covered by the Buy & Try 30 Day Guarantee. If a retail customer is not completely satisfied with their eligible Firestone brand tires, the tires can be returned to the location where they were originally purchased within 30 days of purchase for a full refund or exchange. Original proof of purchase is required. The Buy & Try 30 Day Guarantee applies only to full sets of tires (4 or more tires purchased together); return of less than a full set of tires will not be accepted. Firestone brand tires applied as original equipment on new vehicles are not covered by the Buy & Try 30 Day Guarantee. Additional exclusions apply, as identified in the section "What This Limited Warranty Does Not Cover."

#### **FUZION BRAND LIMITED WARRANTY**

The Fuzion Brand Limited Warranty will apply if (i) all applicable "ELIGIBILITY" requirements listed in the Limited Warranty are met and (ii) an eligible Fuzion Brand pattern, size and load range tire becomes unusable for any reason within the manufacturer's control within 5 years from the date of tire purchase (proof of purchase date

required) or 6 years from the date of manufacture (without proof of purchase date), subject to certain exclusions set forth in the "What This Limited Warranty Does Not Cover" section of the Limited Warranty.

The Fuzion Brand Limited Warranty will be as follows:

- Free replacement during the first 50% of the tread life of the tire if it becomes unusable for any reason within the manufacturer's control up to 3 years from date of purchase (proof of purchase date required). The appropriate taxes, mounting, balancing, disposal fees, and other service charges may still apply.
- After the free replacement period noted above (or if the tire is past the first 50% of tread life), if the tire becomes unusable for any reason within the manufacturer's control within 5 years from the date of tire purchase (proof of purchase date required) or 6 years from the date of manufacture (without proof of purchase date). the tire will be replaced with an equivalent new tire for a pro-rated purchase price. To determine the replacement price, the percent of used treadwear is multiplied by DEALER'S then current selling price for the replacement tire(s). The appropriate taxes, mounting, balancing, disposal fees, and other service charges may be added to the replacement price. Note that the tire must not be worn to 2/32 inch (1.6mm) or less of the remaining original tread depth (i.e. worn down to the top of the built-in indicators in the tread grooves) for this Fuzion Brand Limited Warranty to apply.
- Exclusions apply—as identified in the section "What This Limited Warranty Does Not Cover."

# PRIMEWELL BRAND LIMITED WARRANTY

A tire covered by the Primewell Brand Limited Warranty will be replaced with an equivalent new tire for a pro-rated purchase price if it becomes unusable for any reason within the manufacturer's control under the following conditions:

- There is no free replacement period.
- Coverage extends up to 4 years from the date of purchase (proof of purchase date required). Without proof of purchase date, then 5 years from the date of tire manufacture. During this period, the tire will be replaced charging a pro-rated amount. To determine the replacement price, the percent of used treadwear is multiplied by DEALER'S then current selling price for the replacement tire(s). The appropriate taxes, mounting, balancing, disposal fees, and other service charges may be added to the replacement price.

- The tire must not be worn to 2/32 inch (1.6 mm) or less remaining original tread depth (i.e. worn down to the top of the built-in indicators in the tread grooves).
- Exclusions apply—as identified in the section "What This Limited Warranty Does Not Cover."

# SUPPLEMENTAL MILEAGE LIMITED WARRANTY

If a tire covered by the Supplemental Mileage Limited Warranty wears evenly across the tread down to the treadwear indicators—2/32 inch (1.6 mm)—during its stated warranted mileage (as evidenced by the vehicle's odometer), the tire will be replaced with an equivalent new tire under the following conditions for a pro-rated purchase price:

- There is no free replacement period.
- Only the passenger and light truck tires listed in this section are covered by the Supplemental Mileage Limited Warranty for the mileage shown.
- Coverage applies only to the original purchaser, and only as long as the tires remain mounted on the vehicle described in the Customer Identification Section of this manual.
- Coverage extends up to 5 years from the date of purchase—proof of purchase date required. During this period, the tire will be replaced for a pro-rated amount.
- To determine the replacement price, the percent of warranted mileage obtained is multiplied by DEALER'S then current selling price for the replacement tire(s). The appropriate taxes, mounting, balancing, disposal fees, and other service charges may be added to the replacement price.
- Tires used in commercial service and original equipment tires on new vehicles have no mileage warranty.
- Exclusions apply—as identified in the section "What This Limited Warranty Does Not Cover."

## **Covered Tires and Warranted Mileage:**

## **Bridgestone**

DriveGuard (H /V speed rating)	60,000 Miles				
DriveGuard (W speed rating)	50,000 Miles				
Dueler A/T Revo 2 (D696) <sup>1</sup>	50,000 Miles				
Dueler H/L 422 Ecopia	65,000 Miles				
Dueler H/L Alenza	65,000 Miles				
Dueler H/L Alenza (W speed rating)	40,000 Miles				
Dueler H/L Alenza Plus (H speed rating)	80,000 Miles				
Dueler H/L Alenza Plus (W speed rating)	55,000 Miles				
Dueler H/P Sport AS	40,000 Miles				
Dueler H/T (D684II)	60,000 Miles				
Dueler H/T (D689)	60,000 Miles				
Ecopia EP422	65,000 Miles				
Ecopia EP422 Plus	70,000 Miles				
Potenza RE960AS Pole Position RFT	40,000 Miles				
Potenza RE970AS Pole Position	40,000 Miles				
Potenza RE97AS (V speed rating)	55,000 Miles				
Potenza RE97AS (W speed rating)	45,000 Miles				
Turanza EL400 RFT <sup>2</sup>	40,000 Miles				
Turanza Serenity Plus (EL64) (H speed rating)	80,000 Miles				
Turanza Serenity Plus (EL64) (V speed rating)	75,000 Miles				
Turanza Serenity Plus (EL64) (W speed rating)	50,000 Miles				
<sup>1</sup> P-Metric sizes only					
<sup>2</sup> P225/60RF17 only					

## **Firestone**

Affinity Touring S4	50,000 Miles				
Affinity Touring T4	50,000 Miles				
Champion HR	40,000 Miles				
Destination LE <sup>1</sup>	60,000 Miles				
Destination AT <sup>1</sup>	50,000 Miles				
Destination AT Special Edition <sup>1</sup>	50,000 Miles				
Destination LE2 <sup>1</sup>	60,000 Miles				
Destination ST	40,000 Miles				
Firehawk Wide Oval AS (speed rating H/V)	50,000 Miles				
Firehawk Wide Oval AS (speed rating (W)	40,000 Miles				
FR710	65,000 Miles				
Precision Sport	40,000 Miles				
Precision Touring	70,000 Miles				
<sup>1</sup> P-Metric sizes only					

### **Fuzion**

Fuzion Touring (speed rating T)	55,000 Miles
Fuzion Touring (speed rating H)	40,000 Miles
Fuzion SUV	50,000 Miles

### **Primewell**

Valera Touring	50,000 Miles
PZ900	40,000 Miles
PS830	40,000 Miles
PS850	40,000 Miles
PS860	40,000 Miles
Valera AT	50,000 Miles
Valera HT	50,000 Miles

# **BRIDGESTONE DRIVEGUARD**

**NEXT GENERATION RUN-FLAT TIRE** 

# SUPPLEMENTAL ROADHAZARD LIMITED WARRANTY

Not applicable to tires purchased in the state of New York.

Bridgestone DriveGuard tires provide innovative tire performance benefits, including run-flat capability in the event of inflation pressure loss due to road hazard damage.

For additional peace of mind, the DriveGuard Supplemental RoadHazard Limited Warranty covers eligible tires that become damaged or unusable for any reason resulting from a road hazard (e.g. cut, snag, bruise, impact, or puncture). This warranty, given to promote goodwill, is a supplement to the Limited Warranty applicable to your tires.

#### **ELIGIBILITY**

The DriveGuard Supplemental RoadHazard Limited Warranty covers only the original purchaser. Proof of purchase is required in the form of an original invoice or receipt that must indicate the name of the purchaser, the purchase date, the vehicle mileage (odometer reading) at installation, and the retailer's name and address. Only Bridgestone DriveGuard tires are covered, and each must meet all of the following criteria:

- It was purchased new through an authorized retailer.
- It was used only on the vehicle on which it was originally installed.
- It meets or exceeds the vehicle manufacturer recommendations for size, load capacity, and speed rating.
- It was mounted to a properly-sized wheel and used with a functioning tire pressure monitoring system (TPMS).
- · It was not used in commercial service.

The coverage period starts the date the tires are purchased and extends for a duration up to one of the following, whichever occurs first:

- (a) the first 2/32-inch (1.6 mm) of tread wear,
- (b) 12,000 miles of use,

or

(c) 12 months from the date of purchase.

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

#### WHAT IS WARRANTED

An eligible DriveGuard tire that becomes damaged or unusable for any reason resulting from a road hazard (e.g. cut, snag, bruise, impact, or puncture) will be repaired or replaced in the following manner:

- Tires that can be repaired within Bridgestone and Rubber Manufacturers Association guidelines will be accordingly repaired free of charge.
- Tires that cannot be repaired within Bridgestone and Rubber Manufacturers Association guidelines will be replaced with an equivalent new tire free of charge. This includes tires damaged from operation below 15 psi (100 kPa) due to a road hazard.

Whether an eligible tire is repaired or replaced, there is no charge for tire mounting, tire balancing, or performing an electronic reset of the TPMS. However, you are responsible for payment of applicable taxes and disposal fees, if any. Also excluded is coverage for any other parts or services, including but not limited to charges for road service, towing, alignment, rotation, and valve stem/TPMS components.

#### WHERE TO GO

Tire service under the DriveGuard Supplemental RoadHazard Limited Warranty will only be performed at an authorized retailer, including where DriveGuard and other Bridgestone brand tires are sold. To find the retailer nearest you, please call 1-844-GoFifty or visit www.DriveGuard.com or www.BridgestoneTire.com.

#### **CONSUMER RIGHTS**

The DriveGuard Supplemental RoadHazard Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### CONDITIONS AND EXCLUSIONS

To the extent permitted by law, Bridgestone Americas Tire Operations, LLC disclaims liability for any incidental or consequential damages, loss of time, loss of vehicle use, or inconvenience, and any implied warranty, including implied warranties of merchantability and fitness for a particular purpose. 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.

The DriveGuard Supplemental RoadHazard Limited Warranty applies only to tires purchased, used, and presented for coverage (under the terms of this warranty) in the United States. Bridgestone Americas Tire Operations, LLC's obligations under this warranty may not be enlarged or altered by anyone.

In accordance with Federal Law, this warranty has been designated as a "Limited Warranty." Nothing in the DriveGuard Supplemental RoadHazard Limited Warranty is intended to be a representation by Bridgestone Americas Tire Operations, LLC that tire failures cannot occur.

#### **OWNER'S OBLIGATIONS**

Tire inflation pressures must be set to the specifications established by the vehicle manufacturer. Check tire pressure with a gauge every month and before long trips or when carrying extra load. Determine the cause and extent of an inflation pressure loss as soon as possible, especially after an alert from the tire pressure monitoring system (TPMS).

# REPLACEMENT WARRANTY FOR ALL BRANDS

If you receive a replacement tire under this Limited Warranty, it will be covered by the manufacturer's warranty or warranties, 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 retailer. Bridgestone and Firestone RFT tire adjustments will only be made at a Certified Bridgestone or Firestone Run-Flat 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.

### **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 using the tire in the United States. For warranty conditions outside the United States, see your local Bridgestone or 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 by Bridgestone Americas Tire Operations, LLC, 535 Marriott Dr., Nashville, TN 37214.

#### 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 in this manual.

Tires must be operated at the proper tire inflation pressures as specified by the vehicle manufacturer and 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 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**

For purposes of this arbitration section: (a) the terms "we," "us" and "our" refer to Bridgestone Americas Tire Operations, LLC, its parents, subsidiaries, affiliates, predecessors, successors, assigns, employees, officers, agents and directors; and (b) a "Claim" is any pre-existing, present, or future claim, dispute, or controversy between you and us 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 damage to property other than the warranted tire(s). You and we acknowledge that either you or we can choose to have any Claim resolved by binding arbitration. If either you or we choose arbitration with respect to any Claim, neither you nor we will have, and each of us waives, the right to litigate that claim in court or to have a jury trial on that claim, or to engage in pre-arbitration discovery, except as provided for in the arbitration rules of the American Arbitration Association ("AAA"). In addition, you will not have the right to participate as a representative or member of any class of claimants related to any claim subject to arbitration. An arbitration can only decide our or your Claim and may not consolidate or join the claims of other persons who may have similar claims. There shall be no authority for any Claims to be arbitrated on a class action basis. The arbitrator's decision will be final and binding.

Any arbitration will be conducted in accordance with the AAA's rules applicable to consumer disputes. For additional information go to: http://www.adr.org/. Any arbitration hearing that you attend will take place in the federal judicial district where you reside. At your request, we will advance the first \$250 of the filing and hearing fees for any Claim you may file against us; the arbitrator will decide whether we or you will ultimately pay those fees. This arbitration agreement is made pursuant to a transaction involving interstate commerce and shall be governed by the Federal Arbitration Act, 9 U.S.C. Sections 1-16. The arbitrator shall apply applicable substantive law consistent with the Federal Arbitration Act and applicable statutes of limitations, and shall honor claims of privilege recognized at law. Judgment upon the award may be entered in any court of law of competent jurisdiction.

If this arbitration section (or any part of it) is determined invalid or illegal under any applicable statute or rule of law, it will be deemed omitted without affecting any other provisions of this Agreement, which shall remain in full force and effect.

# Customer, Vehicle, and Tire Identification

Customer Name			
Address			
City, State, Zip			
Invoice #			
Date of Purchase			
Year of Vehicle	Make of Vehicle	Model of Vehicle	Beginning Mileage
Tire Brand			
□	TONE [	Fires	
	Ļ	PRÍMEI	<i>NELL</i>
<b>5</b>	<b>5</b>		
Product In	formati	on	
Tire Size:		Speed F	Rating:
Tire Type:		Mileage	e Warranty:
Serial Numbers			
1		2	
3		4	
5		6	
Mileage W	arranty	Certific	ate
	<b>GIIGIT</b>		

# VEHICLE MANUFACTURER'S RECOMMENDED INFLATION PRESSURE

BRIDGESTONE Firestone											
		CK Y			Fro				_	PSI PSI	
J	F	M	A	M	J	J	A	S	0	N	D

#### **MAINTENANCE RECORD**

Mileage	Date	Retailer	Inspection	Rotation	Balance	Alignment

