

TIRE SAFETY, CARE, AND MAINTENANCE GUIDE

IMPORTANT SAFETY INFORMATION

TIRE INFLATION OVERLOADING AND TIRE LOAD CAPACITY

Serious injury or death may result from tire underinflation or overloading. Follow owner's manual and your car's tire information placard for proper inflation pressures and load carrying capacities.

MAINTAIN PROPER INFLATION PRESSURE IN YOUR TIRES

Proper inflation pressure is necessary for tire safety, performance, and best fuel economy. To maintain proper inflation pressure, at least monthly check your tires with an accurate pressure gauge while cool (driven less than a mile). If you check hot tires while traveling, expect the pressure to be 5–10 PSI above the recommendation. That is normal, due to temperature rise during flexing. Do not bleed off pressure to reduce pressure down to the recommendation. If a hot tire reads at or below recommended pressure, add 5 PSI more than recommended, and then later check when cool. It is very difficult to tell an underinflated tire just by looking at it—you must use a gauge. Set the pressure to the level recommended by the vehicle manufacturer for the original equipment size tire, or use Ohtsu's pressure recommendation if the size has been changed from the original equipment size.

Underinflation is the most common cause of tire failures in any kind of tire and may result in severe cracking, component separation and tire failure ("blow-out"), with unexpected loss of vehicle control, and accident, with possible death or injury.

Furthermore, when driving a vehicle with radial tires, especially low profile tires, it is very difficult to notice that a tire has started to deflate or gone flat, since the "feel" of the vehicle does not change appreciably. Therefore, frequent visual and pressure inspections are very necessary.

DO NOT OVERLOAD YOUR TIRES

Check your vehicle tire placard to determine the tire load limits. Overloading your vehicle places stress on your tires and other vehicle components. Overloading can cause tire failure, due to the same overflexing resulting from underinflation.

TIRE LOAD CARRYING CAPACITY

Replacement tires must have a load carrying capacity equal to or greater than the capacity of the original tires, at their recommended pressures. **Using the wrong size tire can lead to tire failure.**

The door mounted tire information placard shows the size, load index, and recommended pressures for each axle. While it is generally recommended that any replacement tires have the same load index as the original tires, circumstances may allow a lower load index, but only if the replacement tires can carry the same actual loads as the original tires, although at different air pressures. **Such a determination requires a sophisticated analysis of the load and inflation charts for the original and prospective replacement tires, which should be done only by a trained tire professional.** We recommend you consult with Ohtsu or an authorized dealer for guidance in this area.

Additionally, Load Indexes may be "Standard" or "Reinforced." Some Reinforced ratings will require additional air pressure to carry the same loads as Standard ratings. **Consult Ohtsu or an authorized dealer for specific guidance about air pressure requirements for Reinforced Load index tires.**

LOAD INDEX

IMPORTANT REMINDER: If you require different air pressures for your new tires to carry the tire loads, you have the responsibility to ensure those pressures are ALWAYS used.

We recommend you place an additional new tire information sticker (available from retailer, or make your own) near your placard, with the new tire sizes and required air pressures noted, so that any maintenance persons will know there has been a change. If that is not done or you do not personally check your pressures, there is a high risk that your pressures will be set at the original requirements, and your tires will be underinflated, which can result in tire failure and accident.

TIRE UP-SIZING ("PLUS-SIZING") GUIDELINES AND SAFETY WARNINGS

Every new vehicle sold in the USA is required to have a vehicle tire placard attached to the door edge, door jamb, or glove box, which shows the original tire size, load capacity, and recommended air pressure for the design dynamic loads on each axle.

When making a replacement tire choice, always first check your placard to get the original tire information—it is always possible that what you currently have mounted on the vehicle is not original equipment. Then, using the following Ohtsu guidelines for tire replacement, choose a new tire size and load capacity that will meet or exceed the original requirements.

TIRE SPEED RATINGS

Replacement tires must have a speed rating equal to or greater than the rating of the original tires to maintain vehicle speed capability. If the replacement tires are a lower speed rating than shown on the vehicle tire placard, the vehicle speed capability is restricted to that of the replacement tires. You must choose a speed rating that meets your operating needs and ensure you do not exceed the rated speed of your tires.

Also, while speed ratings are not a direct indicator of tire handling capabilities, it is generally true that a higher rating may translate to different handling characteristics. If you decrease the speed rating, you must ensure that you are familiar with the handling characteristics of your vehicle and adjust your driving to the lower rating.

DO NOT SPIN YOUR TIRES EXCESSIVELY

Avoid excessive spinning of the powered wheels when your vehicle is stuck in snow, ice, mud, or sand. Depending on your vehicle's drive train design, it is possible for the tire to be spinning twice as fast as your speedometer indicates. **SAFETY WARNING: Never stand near or behind a tire that is spinning at high speed, such as pushing a vehicle from behind or when an on-the-car spin balancer is used.** The centrifugal forces on a free spinning tire and wheel assembly may result in tire explosion, vehicle damage, and personal injury or death. Never exceed 35 MPH (56 KPH) indicated on your speedometer. Use a gentle back and forth rocking motion to free your vehicle for continued driving.

WHEN REPLACING TIRES, ALWAYS CONSULT VEHICLE, TIRE, AND RIM MANUFACTURERS' REQUIREMENTS FOR SAFETY

New Tires: Fit newest tires on the rear axle. If radials and nonradials must be fitted to the same vehicle, fit radials on the rear. If different tire profiles are fitted on the same vehicle, use the widest tires on the rear axle.

Snow Tires: When fitting snow tires to vehicles, always fit in sets of four, to avoid handling problems in both snow and dry road conditions. It could lead to adverse handling and loss of control, which could cause serious injury or death.

It is acceptable to use winter tires with a lower speed rating than the OE tires, but the vehicle maximum speed must be reduced to correspond with the new tires' speed rating.

TIRE MIX USAGE

Never mix tires of different size or construction and/or type on an axle (except for temporary use spare tire). Always refer to vehicle owner's manual for proper tire fitment.

TIRE OVERALL DIAMETER

As noted previously, vehicle manufacturers choose tires with a certain overall diameter for the particular design vehicle. Vehicle systems such as ABS, odometer speedometer, and onboard sensors and computers may be affected by a change in overall diameter. **Ohtsu does not recommend use of tires that change your vehicle design criteria. If you choose a replacement tire size that exceeds your vehicle design criteria range for tire diameter, you may have to alter vehicle systems, suspension, and alignment to safely use it.**

On Sport Utility Vehicles (SUV) and light trucks, any increase in tire overall diameter, and the lifting of vehicle suspension to accommodate the larger size, may result in changes of vehicle ride height, with resultant changes in rollover characteristics, braking distances, and handling. **You must ensure any tire size and suspension changes allow you to maintain safe operating control under all driving conditions.**

NEVER MOUNT A "xx" SIZE DIAMETER TIRE ON A "xx . 5" RIM. (Example: A 16" tire on a 16.5" rim.)

Mounting a "xx" tire on a "xx . 5" rim will most likely result in a tire explosion, which can cause serious injury or death. While it is possible to initially pass a "xx" tire over the lip or flange of a "xx.5" diameter rim, it cannot possibly position itself properly against the rim flange, which has a larger diameter. If an attempt is made to seat the bead by inflating the tire, the tire will break with explosive force.

DO NOT ATTEMPT TO MOUNT YOUR OWN TIRES.

SAFETY WARNING: Serious injury or death may result from explosion of the tire/rim assembly due to improper mounting procedures. Tires should be mounted only by properly trained persons using adequate mounting equipment. Follow manufacturer's instructions and match bead diameter to rim diameter. Lubricate bead and rim mounting surfaces with standard tire lubricants. Do not use petroleum-based lubricants, which may deteriorate the tires.

Lock the wheel on a mounting machine or place in a safety cage for inflation. Do not exceed 40 PSI (275kPa) to seat the beads. Stand away from the tire in case of explosion. Never use a volatile substance to assist in seating the bead, as risk of tire explosion is great.

TIRE CARE AND MAINTENANCE

IMPORTANCE OF PROPER TIRE PRESSURE

Always practice proper tire inflation for OE and Plus sizes tire fitments. Tires have been known to lose up to 1 PSI (pounds per square inch) every month, so check all tires, including your spare, once a month (and before a long trip). DO NOT just compare to the PSI on your tire's sidewall. Incorrect tire pressure can lead to tire damage and cause irregular tread wear. Please refer back to our safety section under both the Tire Load Carrying Capacity and the Proper Inflation sections for detailed information.

CHECK YOUR TIRES FOR WEAR AND DAMAGE

Always remove your tires from service when they reach 2/32" (1.6mm) remaining tread depth. Ohtsu tires have a tread depth indicator bar at the base of tread grooves that becomes apparent at 2/32" depth. If those bars are exposed, the area will look smooth across the tread face. Excessively worn tires have decreased wet weather traction, and continued use may result in skidding and loss of control, and accident and personal injury or death. Also, they may be more susceptible to tread penetrations and possible deflation.

Frequent inspection of your tires for signs of damage and their general condition is important for safety. If you have questions about tire condition, have your dealer inspect them. Impact abrasions, penetrations, cracks, knots, bulges or unexplained air loss always require tire removal and close expert inspection.

Never perform a temporary or plug-type repair or use an inner tube as a substitute for a proper repair. Only qualified persons should repair tires.

Repairs may only be made between the tread shoulders, and be for penetrations ¼" or less in diameter. Repair only straight-through punctures, and ensure no tires are repaired that show evidence of run-low wrinkling or heat deterioration, cutting, cracking, separation, or other damage. Injuries to the sidewalls must not be repaired.

Repairs must fully seal the interior and fill the damage wound. You must use either a patch-plug combination, or separately fill the wound with rubber and put a patch in the interior, to ensure that neither air leaks out nor water enters the tire structure.

Repairs must be done from inside the tire, to ensure the tire is thoroughly inspected for secondary damage and the tire is properly sealed.

DO NOT USE PLUG REPAIRS APPLIED FROM OUTSIDE THE TIRE WITHOUT DEMOUNTING

Ohtsu does not endorse or warrant any particular type of repair process. The repair is entirely the responsibility of the repairer.

DO NOT APPLY SIDEWALL DRESSING OR HARSH CHEMICAL CLEANERS

Ohtsu tire sidewalls are specially compounded to resist ozone and weather cracking. Use of some dressings or cleaners may degrade rubber and remove inherent ozone resistance, resulting in premature cracking or discoloration. Use a mild soap solution to clean sidewalls and white lettering, and rinse with plain water.

VEHICLE SUSPENSION, WHEEL ALIGNMENT, BALANCE, TIRE ROTATION, AND TIRE CONDITION

Lack of rotation, worn suspension parts, underinflation/overinflation, wheel imbalance, and misalignment may cause vibration and irregular tire wear. **Rotate your tires every 5,000 miles.** Directional tires should be rotated front-to-rear only, not crossed.

Speed ratings for Ohtsu tires are determined for new tires using ECE 30 European Indoor Testing procedures, and may not be valid for damaged, altered, repaired, underinflated, overloaded, excessively worn, or retreaded tires.

Ohtsu does not recommend the use of any of its products in excess of legal speed limits. Adverse driving conditions, such as rain, snow, or ice always require special handling care and greatly reduced speeds.

TIRE AGING

Ohtsu recommends tires which have been in use for 6 years or more should be inspected regularly by a qualified tire specialist. Plus any tire that is 10 years or older from the date of manufacture, including spare tires, be replaced with new tires regardless of appearance, even if the tires have not reached the legal wear out limit.

LIMITED WARRANTY

Effective May 1, 2020