TIRE MOUNTING AND DEMOUNTING

Tire mounting and demounting can be dangerous and should only be performed by a trained tire specialist using proper tools and procedures. Be sure to review your training manual and refer to the RMA wall charts.

TIRE REPAIR WARNINGS

A consumer should never attempt to repair a damaged tire. Only a trained tire technician, using proper tools and thorough procedures, is qualified to repair a tire – and only under specific conditions. Never re-inflate a tire that has been run flat or exhibits damage. Mis-mounted or damaged tires can burst suddenly, resulting in serious injury.

For your safety – and for protection against serious injury – please review and adhere to the following safety warnings.

WARNING: Improperly repaired tires can fail while in service, such as by tread-belt separation and/or detachment, which may result in an accident causing serious injury and/or death.
TIRE MOUNTING AND DEMOUNTING

TIRE MIXING

Driving a vehicle with an improper mix of unmatched tire sizes, varied constructions or different speed ratings can be very dangerous. Unless specified by the vehicle manufacturer, replacement tires should always have the same construction.

If only two radials are mounted with two non-radials, the radial tires should always be mounted on the rear axle of the vehicle. If tires of different types are mixed on a vehicle in any configuration, they should not be used for long periods and speeds should be kept to a minimum.

If a vehicle has dual rear wheels, two radials may be mounted on the front axle and four non-radials on the rear axle. Or you may install two non-radials on the front axle and four radials on the rear. **DO NOT** mix radials and non-radials on an axle.

Mixing or matching of tires on 4-wheel drive vehicles, and vehicles equipped with electronic ABS or traction control systems require special precautions. Always check vehicle manufacturers’ manual for recommendations.

**DO NOT** replace one tire at a time. At minimum, replace all tires on a given axle.

**DO NOT** operate a vehicle with more than one mini spare in use.

**DO NOT** mix non-radial snow tires on the rear axle with radial tires on the front axle.
WHEEL BASICS

**Wheel width** is the distance between the inside of flanges rounded to the nearest 1/2-inch. Be sure that the wheel width is a proper fit for the tire size you intend to mount on it. All tire sizes have minimum and maximum wheel width limits. Correct wheel width is about 75% of the tire cross-section width.

**Wheel diameter** is the distance from bead seat to bead seat across the diameter of the wheel. It must be exactly the same as the tire rim diameter. Always verify the diameter stamped on the wheel and match the tire exactly.

⚠️ **WARNING:** Mounting a tire of one diameter on a wheel of another diameter can result in violent explosion, causing serious injury or even death.

Wheel offset is the distance between the wheel mounting surface where it is bolted to the hub of the drum and the centerline of the rim. You’ll want to keep wheel offsets as close to original as possible to avoid steering difficulties or wheel bearing fatigue. Wheel offset determines a vehicle “track”, or the distance between tires on each axle. Wheels with more negative offset than original wheels move outboard on the car. Negative offset on rear increases “track” and may improve stability and handling.

The **Wheel Load Carrying Capacity** of your customers’ replacement tires must always equal or exceed the load carrying capacity of the original equipment tires.

Always refer to the tire placard on the vehicle for the recommended inflation pressures of the original equipment size tires. These pressures must always be maintained as a minimum.

If a customer requests passenger tires to replace light truck original equipment, the replacement passenger tires must have a “maximum load” rating of at least 10% greater than the original equipment light truck tire.

**DO NOT** exceed the maximum pressure indicated on the tire sidewall. Tires that are loaded beyond their maximum allowable loads will build up excessive heat that can result in sudden tire failure.

**DO NOT** exceed the gross axle weight ratings for any axle on your vehicle. Always refer to the vehicle placard and owner’s manual to determine the vehicle’s gross axle weight rating.
TIRE MOUNTING AND DEMOUNTING

PLUS SIZING

Plus sizing is one of the easiest ways to achieve enhanced performance and improve the appearance of a vehicle. Plus sizing refers to installing tires that are wider than specified with a shorter sidewall, resulting in a larger contact patch and a sportier look.

Drivers choose Plus Sizing to improve:

- Steering response.
- Handling.
- Cornering ability.
- Creating a customized, upgraded look.

Take a few minutes to read this important information on tire Plus-Sizing for Passenger and Light Truck Vehicles.
SEASONAL DRIVING TIPS

Every change of season brings its own unique driving challenges – especially in North America. The Rubber Manufacturers Association has some helpful driving tips for each one.

REPLACING SSR TIRES

Many automobile manufacturers are fitting Self Supporting Run Flat – or SSR --tires as standard equipment on vehicles. That means you will have customers looking for replacements. Even a trained tire specialist may be unable to recognize internal structural damage to a SSR tire that has been run at an under-inflated or zero inflation pressure condition.

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