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## Taking Care of Your Tires

- Maintenance
- Tire Rotation
  - Cross Rotation
  - 4 Wheel Drive
  - Straight Rotation
  - 5 Tire Rotation
- Inflation Pressure
- Repair

### Valves

New valve stem, core and cap are recommended for all new tubeless tires.

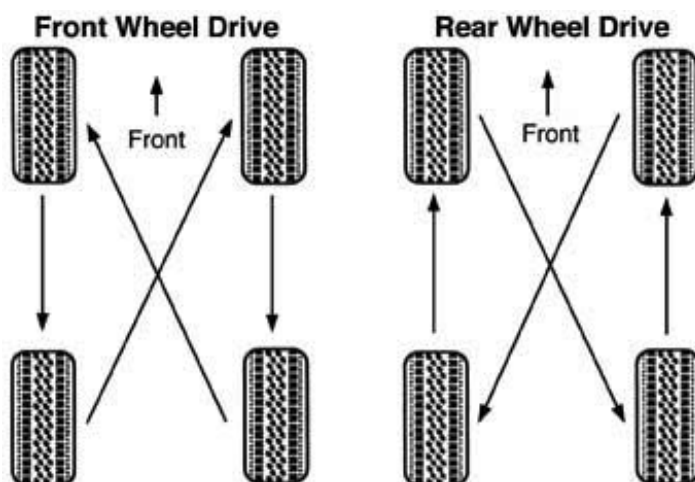
### Lubricant

Tire beads and rim flanges should be treated with a recommended lubricant inside and out. Beads should be lubricated both during mounting and dismounting (in case you wish to remount the tire and also to protect the wheel from damage).

**Do not, under any circumstances, use liquids such as oil, gasoline, spirits, or water.**

### Tire Rotation

Tire rotation is vital to achieving even tread wear and long tread life. Rotation is necessary because of the uneven wear characteristics of each wheel position on the vehicle. A good example is Front Wheel Drive vehicles which places braking, steering and driving forces on the front axle tires. Rear axle tires only receive braking forces resulting in a much faster wear rate for the front axle tires. Tire rotation for these vehicles therefore becomes very important for optimum tire life.



### Cross Rotation

The "Cross Pattern" provides the best results and can be performed on any Front or Rear Wheel Drive vehicle equipped with 4 non-unidirectional tires. (Unidirectional tires must be rotated front to rear only.)

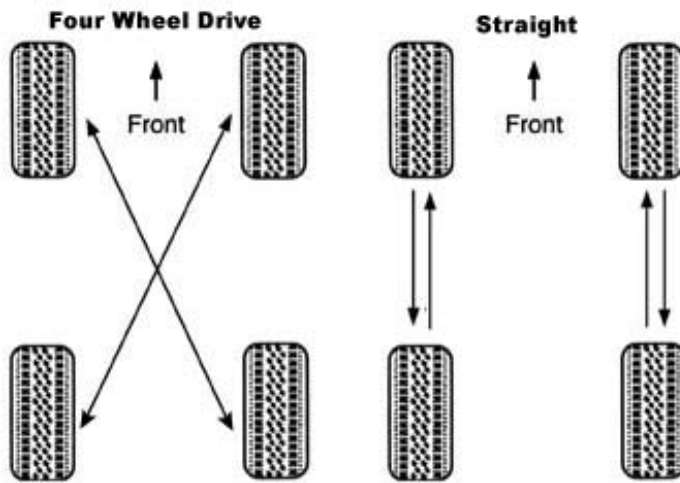
### 4-Wheel Drive

Vehicles equipped with permanent 4-Wheel Drive and those with "on Command" 4-Wheel Drive and driven mainly in 4-Wheel mode, are best suited to a four tire cross rotation. With this pattern, tires from both axles are crossed and installed on the opposing axle.



**NOTE:** Free rolling axle tires are crossed and installed to the drive axle, while the drive axle tires are brought straight to the free rolling axle (without crossing).  
**NOTE:** Make sure you maintain vehicle manufacturers inflation recommendations after rotating tires.



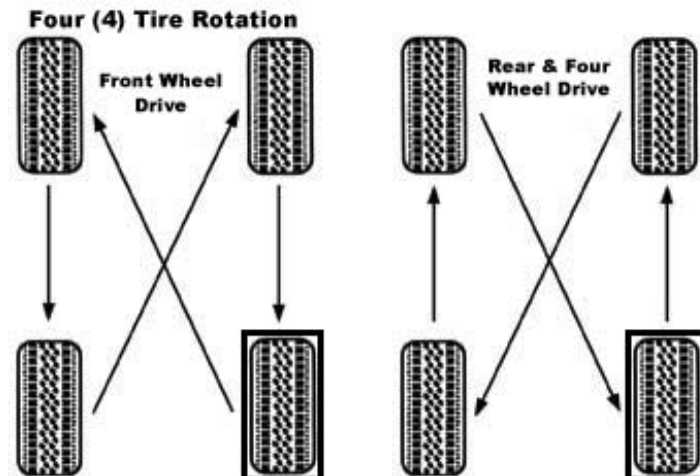


**Straight Rotation**

Straight Rotation was developed in the early years of radial tires. This rotation method simply replaces the front to rear and rear to front.

**5 Tire Rotation**

If the vehicle owner has a regular tire as a spare tire and wishes to include it in the tire rotation process, the proper procedure is to use the appropriate rotation pattern shown for 4 Tire Rotation, **BUT insert the spare in the right rear position.** Place the tire which would have gone to the right rear in the trunk as the new spare. **Note: Never include a temporary spare tire in the rotation. Note: Unidirectional tread patterns must be rotated front-to-rear only so the direction of the revolution does not change.**



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**NOTE:** Unidirectional treads are designed to perform in the direction denoted on the tire sidewall only. They must always be rotated front to rear - despite the type of vehicle they are installed on - so the direction of the revolution does not change.



**NOTE:** Rotate full size spare only.

**NOTE:** Never include a temporary spare tire in the rotation.

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