

Rotating Your Tyres

Tyre rotation can be beneficial in several ways. When done at the recommended times, it can preserve balanced handling and traction of the tyres, and prolong the life of your tyres. It can even provide performance advantages.

When should tyres be rotated?

Your owner's manual will tell you how often to rotate tyres. As a rule of thumb, it should be done **every 10,000kms**.

Why should you rotate your tyres?

Tyre rotation simply means moving tyres around so that they trade places on your vehicle in a systematic way to achieve more uniform wear for all tyres on your vehicle.

Rotation is important because **each tyre on a vehicle carries a different amount of weight**, especially your rear tyres if you are carrying loads, making them wear at different rates. By rotating them, you basically even out those differences. Remember, tyre rotation cannot correct wear problems due to worn mechanical parts, or incorrect inflation pressures.

While no one likes their tyres to wear out, it is actually an advantage when all of the tyres on a vehicle wear at the same rate throughout their life. Since tyre rotation will help all of the vehicle's tyres wear at the same rate, it will keep the tyres **performing equally** on all four corners. When your tyres wear out together, you can get a new set of tyres, without being forced to buy pairs. If you replace tyres in sets, you will maintain the original handling balance.

Fitting a pair (2) of new tyres

If you do need to fit only 2 new tyres, most tyre manufacturers now advise you always fit the new tyres to the **rear axle**, whether your vehicle is a 4x4, front or rear wheel drive.

Although you may have been advised in the past to fit new tyres to the front wheels, accident research has shown that a vehicle is more controllable **if the rear tyres have more grip** - especially on wet, greasy roads and are less likely to spin out or fish-tale as a result of the better grip. Also, new tyres have deeper treads, and are less likely to suffer damage when driving on gravel and off-road.

However, if the tread depth between front and rear **varies by more than a 2-3mm** you should consider replacing all tyres to maintain balanced steering and braking.

Four (4) tyre rotation

If your vehicle is a front wheel drive with non-directional Cooper tyres, rotate your tyres as shown in **Diagram A**. If you drive a rear wheel drive or all wheel drive vehicle, rotate your tyres as shown in **Diagram C**. If your vehicle has a directional tread pattern such as Cooper's XST-A, rotate your tyres as shown in **Diagram E**. If your vehicle has different size tyres on front and back, rotate your tyres as shown in **Diagram F**.

Five (5) tyre rotation

Many vehicles are equipped with temporary spares that cannot be included in a tyre rotation program. The vehicle's four tyres, spare tyre and wheels can be included in the rotation process if:

- they are the same size and type
- they have the same Load Rating
- they are not labelled: for temporary use.

Five tyre rotation ensures that the spare tyre and wheel will be periodically inspected and properly inflated if required to be put into service. The vehicle can also be driven **20% more kilometres** before replacing the original set of five tyres becomes necessary. This ensures that all five tyres wear out before they should be replaced due to old age.

Additionally, five tyre rotation results in equally distributed use that will help maintain equivalent tread depths on all five tyres at all times. When applied to many 4WD and AWD vehicles, five tyre rotation is required to prevent drive line damage if a flat tyre forces a new spare to be put into service with partially worn tyres on the other three wheel positions.

If you have a front wheel drive, rotate your five tyres as shown in **Diagram B**, or if you have a rear wheel drive, or an all wheel drive, rotate your five tyres as shown in **Diagram D**.

SAFETY NOTICE: Your spare tyre must be the same diameter, construction, and load index as all four tyres on your vehicle.

Rotating Your Tyres

4 and 5 tyre rotation pattern

For front wheel drive vehicles.

Diagram A

Four (4) tyre rotation

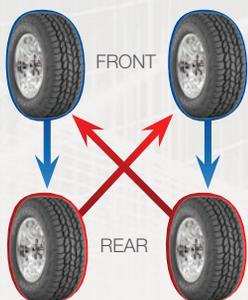
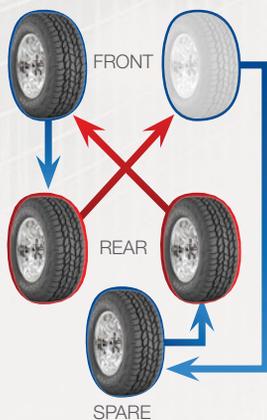


Diagram B

Five (5) tyre rotation



4 and 5 tyre rotation pattern

For rear wheel drive and all wheel drive vehicles.

Diagram C

Four (4) tyre rotation

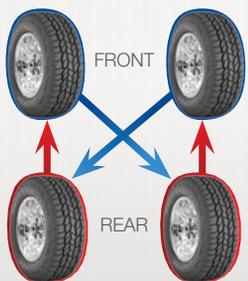


Diagram D

Five (5) tyre rotation



4 and 5 tyre rotation pattern

For vehicles with different sizes for front and rear and directional pattern tyres.

Diagram E

Directional pattern tyres



Diagram F

Different size tyres front and rear



The most important part of your tyre is the tread, which gives you the traction to stop and hold the road on curves. Tyre tread also squeezes water out from under the tyre, which helps to reduce hydroplaning, where a vehicle actually rides up on a layer of water and becomes difficult to steer or stop.

There are several things you can do to help to extend the tread life on your tyres. Firstly, make sure that your Cooper Tires Retailer balances your tyres during fitting. **Balancing** involves placing small weights on the rim to counteract heavy spots, or slight variations in weight, in the wheel and tyre assembly. If a tyre is not balanced, it will shimmy as you drive, and your tread will wear unevenly.

Secondly, you should also make sure that your vehicle's **suspension** is properly aligned. Otherwise, your tyres will ride at an angle and wear unevenly, and as a result you may experience handling problems. A vehicle can become misaligned gradually over time, or suddenly when you hit a bump or pothole.

Have your Authorised Cooper Tires Retailer check your **alignment** periodically. Also, have it checked, if you notice anything unusual, such as pulling to one side or vibrating.