
HOW TO MEASURE FOR PROPER WHEEL AND TIRE FITMENT

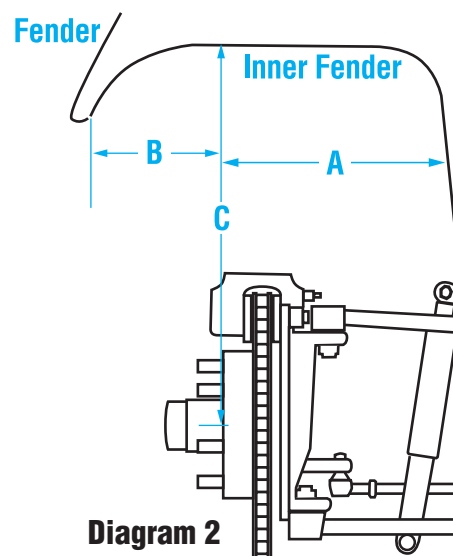
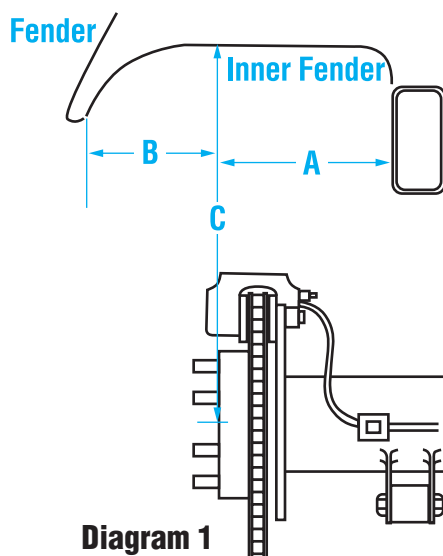
Wheels and tires are a big investment. Careful measurements are critical to fitting a larger wheel and tire combination on your vehicle, especially if you have bigger brakes, an aftermarket suspension, or other modifications that could affect the amount of space available.

This guide will show you how to determine what size wheel will fit on your vehicle. Make sure your measurements are as accurate as possible—measuring twice is highly recommended. Please refer to the diagrams for reference.

Vehicle Clearance—Diagrams 1 and 2

You will need to determine how much physical space is available in the wheelwells to accommodate your desired wheel and tire combination. You will need a straightedge, measuring tape, and a C-clamp.

1. Starting at the rear of the vehicle, remove the wheel.
2. Clamp the straightedge to the face of the wheel mounting hub so it sits vertically.
3. Measure from the straightedge to the first suspension component or sheetmetal you hit (A).
4. Measure from the straightedge to the inner part of the fender lip (B).
5. Measure from the center of the mounting hub to the top of the inner wheelwell (C). It is a good idea to take measurements at horizontal, 45 degrees, and 90 degrees from the center of the mounting hub.
6. Since vehicles often vary dimensionally from side to side, repeat the process on the other rear wheelwell. You will use the smallest dimensions to determine how large a wheel/tire combination will fit.
7. Move to the front of the vehicle and repeat steps 1-4. Refer to Diagram 2.



Disc Brake Clearance—Diagram 3

Clearance for disc brakes is critical, especially if you have large diameter aftermarket brakes. Take these measurements as shown in the diagram:

- A—depth from front of caliper to wheel mounting surface face
- B—depth from wheel mounting face to front of center hub
- C—height from wheel hub center to the top of the caliper
- D—center hub height
- E—wheel mounting surface/pad height
- F—rotor diameter

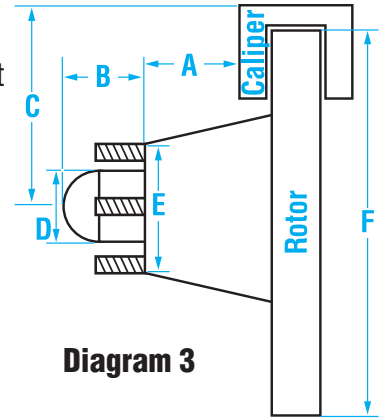


Diagram 3

Drum Brake Clearance—Diagram 4

If you have rear drum brakes, take these measurements as shown in the diagram:

- A—diameter of drum at back edge
- B—height of wheel mounting hub
- C—mounting hub depth
- D—center hub height
- E—center hub depth

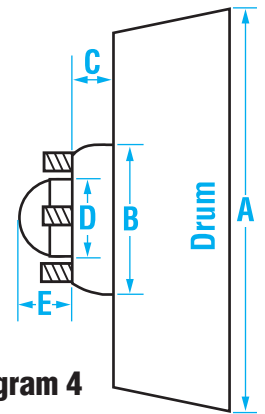
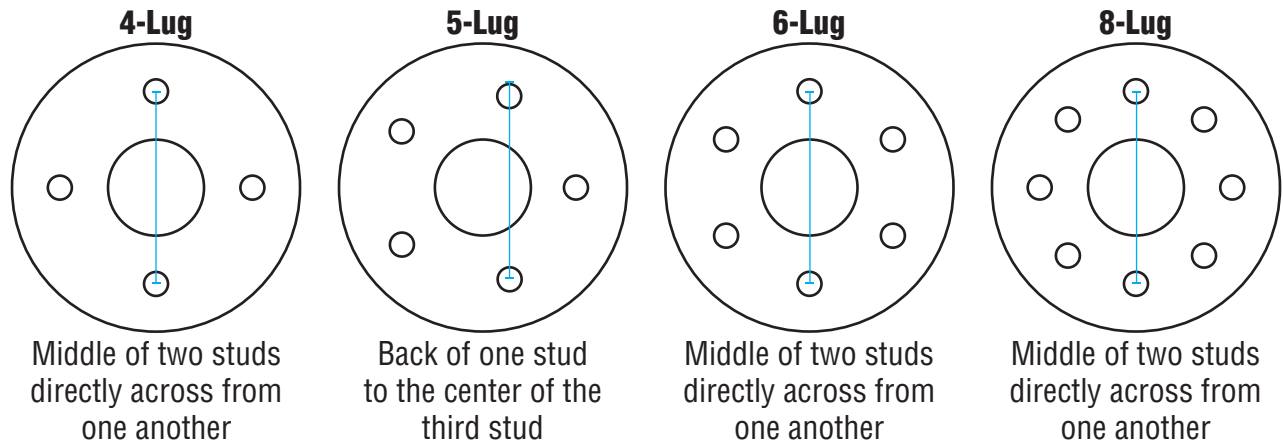


Diagram 4

Wheel Bolt Pattern

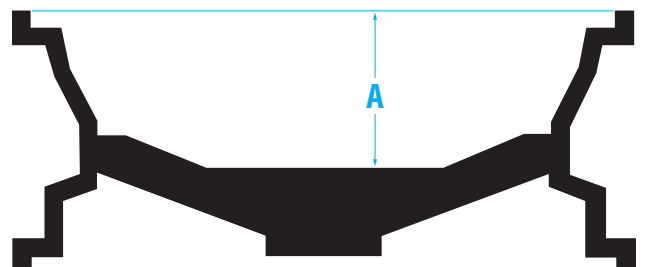
Also called bolt circle, bolt pattern is an expression of the number of wheel studs and the distance between them. To find your wheel bolt pattern, pick the illustration that represents your wheel stud pattern and measure as described.



Backspacing

Backspacing, or offset, is the distance between the back of the rim flange and the mounting pad (where the hub attaches). Using the illustration below as a guide, measuring backspacing is a simple two-step process.

1. Take a wheel off your car and lay it on a flat surface with the back (the side that faces the brakes) facing up.
2. Lay a straightedge across the wheel and measure down to the mounting pad (you may have to deflate the tire to do this). This distance is your backspacing.



Wheel Spacers

There are situations where a desired wheel is not available in the proper backsourcing for your application, or there are clearance issues with brakes and suspension components. Wheel spacers can be used to correct backsourcing issues and provide adequate clearance.

Wheel spacers are measured in thickness (width). That measurement will tell you how much a spacer will adjust a wheel's offset. Determining proper spacer size requires two measurements:

Height – Measured from the ground to the top of the tire

Gap – Measured from the outer tire edge to the inner fender lip. Subtract 1/4 inch to determine maximum spacer size

Depending on how thick of a spacer you use, you may need longer wheel studs. Most quality wheel spacers come with the correct length studs and lug nuts.

When installing spacers, never use anti-seize or grease between the spacer and the wheel mounting surface. Scrub this area clean with a Scotch-Brite pad or a wire wheel attachment. A thin amount of anti-seize can be placed on the lip of the hub for the spacer to sit on and on the spacer lip for the wheel to rest on.

Please note that increasing wheel offset with spacers can put more stress on axle studs and ball joints. They can also increase the tire scrub radius, changing the way the vehicle handles and increasing the difficulty of slow-speed turning.

A Note on Tire Size

When choosing a wheel and tire combination, remember that a given tire size can vary from one manufacturer to another. For example, the width of a P245/55-18 tire can differ significantly between brands and even tire styles from the same manufacturer. Even if you have the properly sized wheel, a tire that is an inch or fractions of an inch too large means your wheel/tire combination won't fit.

Summit Racing publishes specifications for the tires we carry. While that information is provided by the manufacturer, it's wise to visit the manufacturer's website to find the latest specifications.