



Wheel & Tire Installation

Thank you for choosing JEG'S for your wheel and tire purchase. Your new wheels and tires have been fitted using state-of-the-art equipment to ensure damage-free mounting and the most accurate balance possible. To take full advantage of your purchase, please take a few moments to review the installation guidelines below. **If at anytime you are unsure of the installation of your new wheels, please consult your owner's manual or seek professional assistance.** If you have any questions concerning the installation instructions or the order, feel free to call our knowledgeable sales staff at **1-800-345-4545**.

- 1. Before You Get Started:** Verify that all of the items received match the size and type that you ordered. If you are unsure, refer back to your invoice. Also, make sure that you have all of the hardware needed for installation (caps, lug nuts, bolts, etc.).
- 2. Choose a Flat and Clean Surface** to do your installation. At this time break loose the lug nuts and then raise the vehicle on jack stands according to the recommendations in your vehicle owner's manual. With the vehicle raised, take a moment to inspect for damage and/or wear on the vehicle's front and rear suspension. This can be done by attempting to move the tire back and forth by grasping at the 12 o'clock and 6 o'clock positions and then at the 9 o'clock and 3 o'clock positions. If you feel any play in the suspension or steering, have it checked by a qualified professional.

- 3. Remove the existing wheels and tires** being watchful of lug nuts that are unusually hard to remove or have damaged threads. If you find a damaged lug nut or wheel stud, it must be replaced or repaired before you proceed.

NOTE: the use of an impact tool is not recommended for removal or installation of lug nuts.

- 4. Prepare the Hub:** Clean excess rust, dirt, or grease off of the wheel studs and hub mounting surface. This can be accomplished by using a degreaser and a wire brush. If residue has reached any of the braking surfaces, clean thoroughly with an appropriate brake cleaner and clean rag. Allow for the hub and studs to dry before continuing. For drum brake vehicles, inspect for the factory drum retaining clips. These will appear as a very thin notched washers located against the face of the drum on the wheel studs. The retaining clips act only as a production aid and may interfere with wheel-to-brake hub fitment. If your vehicle still has these clips, they are easily removed with a pair of pliers. Apply a thin coat of anti-seize to the wheel mating surface around the axle hub to prevent rust which allows for easy removal at tire rotation intervals in the future.

- 5. Install Your New Wheels:** Take a moment to lay out each wheel near the corner of the vehicle where it is to be installed. This allows you to confirm correct tire rotation for directional tires and proper installation for different front and rear sizes. At this time install any center caps or other accessories that must be assembled before final installation. Proceed by fitting one wheel at a time and hand tightening each lug nut. Next, tighten each lug nut with a lug wrench using the appropriate pattern shown on the back of this page to approximately 80-85 ft. lbs.

- 6. Check for Fit and Clearance** by spinning the wheel on the vehicle with the transmission in neutral. The wheel should spin freely without any grinding or contact noises. Common clearance issues that may arise are with the brakes, suspension, or fender wells. Next, inspect the tire clearance throughout the full sweep of the steering all the way to the left and all the way to the right. Also check for obvious interference problems on the rear axle. A final check will be done later. Make sure to return your vehicle to Park so that it does not roll when you lower the car.

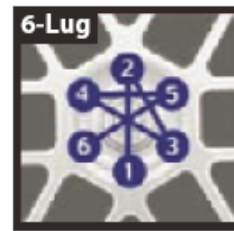
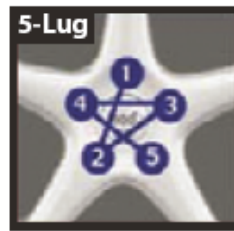
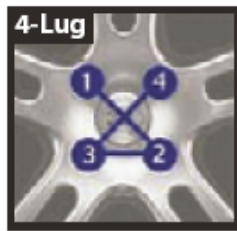
- 7. Check Tire Pressure:** Your tires and wheels have been shipped to you under inflated, and must be checked prior to lowering. Vehicle tire pressure can vary on each vehicle and can be found in your vehicle owner's manual or sometimes listed on a white label on the driver's side door jamb, glove box or in the trunk.

- 8. Lower the Vehicle Slowly** off of the jack stands until the tires are just contacting the ground. At this time do a final torque of the lug nuts using the pattern shown on the back of this page. Final torque specifications can be found in your vehicle owner's manual or by suggestion of the wheel manufacturer. Once all of the lug nuts are to their final torque, continue to slowly lower the vehicle back onto the ground while continuing to inspect for clearance issues. Once the vehicle is supporting its own weight, do another clearance check on the rear and another on the front, turning the wheels all the way to the right and left.

- 9. Test Drive the Vehicle:** Keep in mind any questionable situations inspected during installation and that the suspension may settle a bit from the time that you put the vehicle back onto the ground. Slowly at first, turn the wheel all the way to the right and left and move forward and backward listening for any clearance problems. If no clearance issues are found, progress slowly toward a reasonable speed. Once no clearance problems are found, recheck torque after 20 miles of driving and you're done!

Lug Nut Tightening Sequence:

Tighten lug nuts in a criss-cross pattern for the best equal torque distribution. Re-torque lugs after the first 20 miles and at 100 mile intervals until lug torque is maintained. See your owner's manual.



Plus Sizing

is a quick and easy way to improve the handling and appearance of your vehicle. Example: Your vehicle comes stock with 195/60R15. This is 24.2" in diameter and has a sidewall that is 4.6" tall. The correct plus 1 size would be 205/50R16. This tire is 24.1" in diameter and has a 4.0" sidewall. The correct plus 2 size would be 205/45R17. This tire would be 24.3" in diameter with a 3.6" sidewall. The tire remained within .1", but the wheel has increased in diameter by 2". The new tire also has a tread footprint that is approximately .75" wider. This increases the footprint of the tire for better cornering and also provides a shorter sidewall to allow your vehicle to respond more quickly to steering with a more aggressive and sporty appearance.

Speed Rating is a government regulated measurement that is given to a tire for meeting minimum standards while reaching and sustaining certain speeds. Generally a higher speed-rated tire will have better handling. JEG'S does not recommend downgrading speed rating on your tires. This may result in undesired handling qualities. Installing a higher speed-rated tire will help the handling of your vehicle, especially in cornering. Make sure not to mix speed ratings, this may cause handling problems. Listed below are speed rating letters with which the tire was tested and recommended.

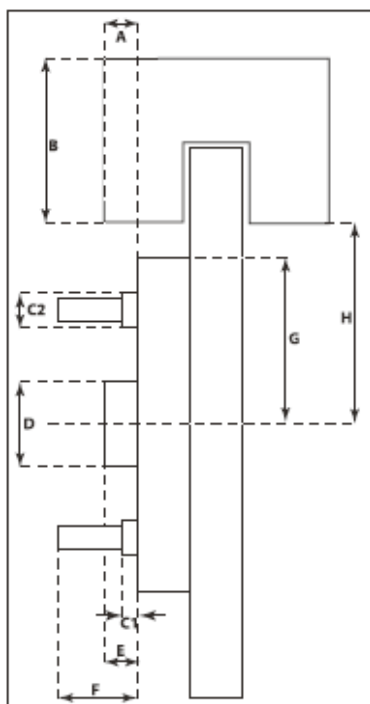
Q: up to 100 mph, **S:** up to 112 mph, **T:** up to 118 mph, **U:** up to 124 mph, **H:** up to 130 mph, **V:** up to 149 mph, **W:** up to 168 mph, **Y:** up to 186 mph, **Z:** 149 mph and up

Determining Vehicle Fitment:

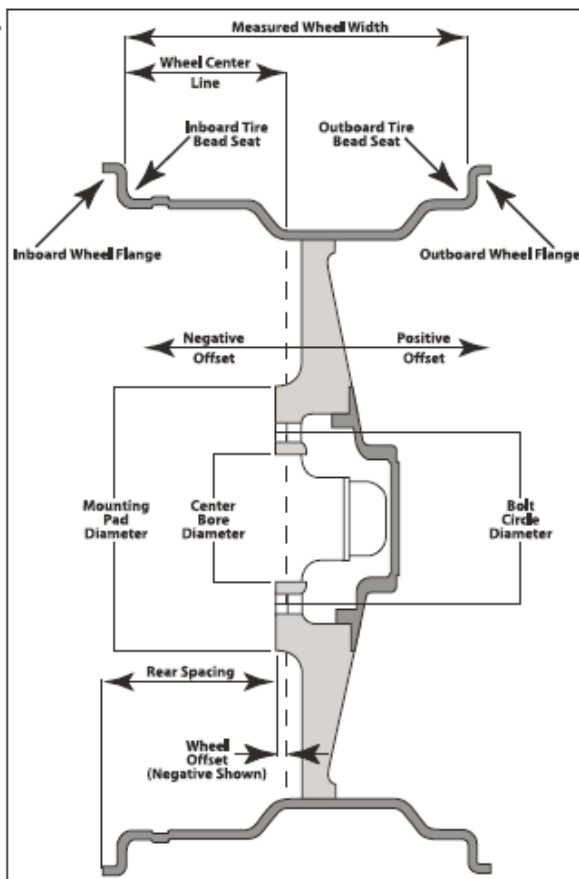
Fitting a wheel and tire package is different for each vehicle. The following guidelines will make this process much easier. In most cases you will have to use the physical dimensions of the current wheel/tire package to determine the dimensions of the new wheel/tire package. Items that could cause a potential problem are: Tie rod ends, A-arms, brake calipers, shocks and shock mounts, and inner & outer fenders (especially front tires turned). Offset is the measurement of the distance from the centerline of the wheel to the mounting surface. As offset gets higher, the wheel will move further back under the fender of the vehicle.

Determining Wheel Caliper Clearance:

Ensuring proper caliper clearance inside the wheel is important. The chart below should provide you with the dimensions required for proper fitment.



A: Caliper Overhang Distance
B: Width of Caliper
C1: Wheel Stud Shoulder Height
C2: Wheel Stud Diameter
D: Hub Center Diameter
E: Hub Center Height
F: Length of Lug and Thread
G: Radius of Hub Mounting Face
H: Distance from CL of Hub to Caliper



Tire Size in Millimeters	Tire Size in Inches
175	6.825
180	7.02
185	7.215
190	7.41
195	7.61
200	7.80
205	7.995
210	8.19
215	8.385
220	8.58
225	8.775
230	8.97
235	9.165
240	9.36
245	9.555
250	9.75
255	9.945
260	10.14
265	10.335
270	10.53
275	10.725
280	10.92
285	11.115
290	11.31
295	11.505
300	11.7
305	11.895
310	12.09
315	12.285
320	12.48
325	12.714
330	12.87
335	13.065
340	13.26
345	13.455
350	13.65
355	13.845
360	14.04
365	14.235
370	14.43
375	14.625
380	14.82
385	15.015
390	15.21
395	15.405