



To: All Dealers, Distributors, and Customers
From: Mark Farkhan, President
Subject: Troubleshooting Vibration and Balancing Issues

In order to avoid ride and handling disturbances, the MOST important thing that has to be done correctly is installing the recommended dosages into the tires. If you install too little, or too much, you can have balancing issues. Furthermore, if you install too little product in a tire, you will have sealing efficiency problems. Therefore, it is imperative that you use our published dosages when treating vehicles. Our latest dosage table is Version 14.1 – July 2008. Please check our website www.ride-on.com frequently to verify that you are using the most current version of our dosage table.

To balance or not to balance ... that's the question!

Inovex Industries recommends that if you are installing Ride-On TPS into new tires, you first dynamically balance them on a balancer BEFORE you install the Ride-On sealant into the tires. While the tire is on the balancer and spinning take a close look at the tire. Look for tires that have excessive run-out, or that are out of round (elliptical). Inovex does NOT recommend installing our sealants in tires that have structural problems or defects. Using a sealant might accentuate the ride and handling problems inherent with defective tires. In order to make sure that the balancing machine is operating correctly, it would be a good idea to calibrate the machine weekly, or at the very least monthly. Please refer to the owner's manual of your equipment on how to calibrate your machine.

It is important to recognize that not all vehicle vibrations are related to tire balance. The following are some of the reasons that a tire may be vibrating in an up-and-down direction: 1) out-of-round tires or wheels; 2) flat spots on tires; 3) worn shock absorbers, struts, ball joints, kingpins; 4) shifted tire belts; 5) mismounted tire/wheel assembly; 6) excessive tire/wheel assembly run-out. If the tire is vibrating from side-to-side (wobbling), look for the following potential causes: 1) bent wheels; 2) bent axles; 3) improper wheel installation; 4) loose or damaged wheel bearings; 5) loose front end components.

Ride-On TPS Commercial High Speed (CHS), Auto and Motorcycle formula tire sealants will help dynamically balance a tire and reduce vibrations. These formulas also help dampen road noise, harmonics and bounce for the life of the tire. After installing the correct dosage in a tire and driving the vehicle at high speeds for at least 20 miles, 90-95% of vehicles will have a smooth ride. In the few cases that there are still vibration issues and mechanical or out of spec tires have been ruled out, we recommend the following steps:

1. Make sure that the vehicle has driven at least 20 miles at high speed (55 mph) to completely spread the sealant inside your tires.
2. Try removing the wheel weight from both of the tires on the axle that you are feeling the vibrations in (i.e. if the vibration is felt in the steering wheel, remove the wheel weights from the both of the front wheels).

iNOVEX INDUSTRIES, INC.



3. Drive the vehicle again at highway speeds to see if the vibration has dissipated. Over ninety percent of the time this takes care of any vibration issues.

As Ride-On TPS sealant spreads around the tire it does a dynamic balance on the wheel/tire assembly. Sometimes this balancing will eliminate the need for the wheel weights (lead wheel weights are extra and are causing the vibration). By removing the wheel weights you allow Ride-On to balance the tires and provide for the desired smooth ride.

If you still have vibrations after you have removed the wheel weights, follow the procedure below to balance the tires.

1. Add a few ounces more of Ride-On to the tire. The recommended dosage is installing the amount halfway between Regular and Severe dosage. For example if a tire called for Regular 16 ounces, Severe 20 ounces, then you would install 18 ounces. This normally resolves 90% of the vibration issues. In some cases you may have to actually increase the dosage to the Severe Dosage. This normally happens if the inside of a tire is very rough and has numerous ridges. These ridges not only interfere with the spreading of the Ride-On, but also increase the surface area of the tire's inner liner. You will need the additional Ride-On to flow over the ridges and cover the entire surface area of the tire.

Please note that there can always be one or two cars out of a hundred that will continue to have ride disturbances. Unfortunately, there is no simple solution for those cases and they may need to be addressed on a case by case incident.

iNOVEX INDUSTRIES, INC.

45681 Oakbrook Court • Unit 102 • Sterling • Virginia 20166 • USA

Phone: 703-421-9778 • Fax: 703-421-1967 • e-mail: info@ride-on.com • <http://www.ride-on.com>

Member: Tire Industry Association • Tire Retread Information Bureau • American Trucking Association