

# SERVICE BULLETIN

No. 109

## USING THE HUNTER GSP9700 TO IMPROVE RIDE QUALITY

With the raised awareness of today's consumers along with the sensitivity of today's vehicles ride disturbances are more apparent. The tire and wheel assembly play a critical role in the smooth and quiet ride that consumer's want from their vehicles. It is essential that tire/wheel assemblies are properly installed, balanced, and match mounted to give the best possible ride to the consumer. This is especially important when removing original equipment and installing replacement tires.

One tool that is currently in the market to help with ride/vibration complaints is the Hunter GSP9700/9712. The Hunter GSP9700 is an excellent tool for performing tire/wheel match mounting. The Hunter GSP9700/9712 road force measurement tool is **NOT** to be used for determining if a tire or wheel meets a specification. It should not be used to predict or determine tire uniformity. The Hunter GSP9700 can be used as a service diagnostic tool to minimize road force variation of the tire/wheel assembly. This tool can approximate the low point to the wheel and the high point of the tire. This allows the tire to be matched mounted to the wheel for the lowest tire/wheel assembly road force variation. This will minimize the contribution to the vibration from the tire/wheel assembly.

The Hunter GSP9700 should only be operated with specifically trained technicians. Like any good piece of equipment the Hunter GSP9700 should be properly maintained and calibrated regularly per the manufacturer's specifications. Training and certifications are available from Hunter Engineering. The wheel needs to be correctly mounted on the spindle. The actual bead seat measurement may need to be used on some wheels that cannot be measured externally. The air pressure specification needs to be based on the vehicle specifications. The beads need to be seated properly using a liberal amount of tire mounting lubricant. The rim safety hump and bead seat also need lubrication. Check the bead aligning ring on the tire, and make sure that it is showing an even spacing to the rim all the way around on both sides of the wheel after it is mounted. If not, break it down and lubricate the surfaces again and try to seat it again. Always verify a proper bead seat before trying to balance a tire.

The Hunter GSP9700 should not be used on tire/wheel assemblies that have not been on the road. The tire needs to be exercised on the road to take out the flat spotting that occurs in both shipping and storage on racks. Without eliminating those flat spots, the road force readings will not be accurate. Measurements of force and balance will change as tire is driven for a few miles. **Tires without visible signs of road testing should not be adjusted for being out of round.**