

2022 CHEVROLET CORVETTE SERVICE MANUAL

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Tire and Wheel Assembly Balancing - On-Vehicle

Special Tools

EL-38792-A Æ Electronic Vibration Analyzer (EVA) 2

If after following the tire and wheel vibration diagnostic process, some amount of tire and wheel vibration is still evident, an on-vehicle high-speed spin balancer may be used to perform an on-vehicle balance in an attempt to finish balance the tire and wheel assemblies, wheel hubs, brake rotors, brake drums, if equipped, and wheel trim, if equipped, simultaneously. On-vehicle balancing can also compensate for minor amounts of residual runout encountered as a result of mounting the tire and wheel assembly on the vehicle, as opposed to the balance which was achieved on the off-vehicle balancer.

In order to perform an on-vehicle balancing procedure, carefully follow the on-vehicle balancer manufacturer's specific operating instructions and carefully consider the following information before proceeding:

- Vehicles equipped with low profile, wide tread path, high performance tires and wheels are susceptible to small amounts of dynamic imbalance.
- When performing an on-vehicle balance, great care must be taken when placing the wheel balance weights on the wheels. If the wheel balance weights are not placed accurately, they can actually induce dynamic imbalance and thus increase the severity of the vibration.
- Inspect the vehicle wheel bearings to ensure that they are in good condition.
- Thoroughly inspect all on-vehicle balancing equipment and ensure that it is fully within the manufacturer's recommended specifications.
- Do not remove the off-vehicle balance weights. The purpose of on-vehicle balance is to fine tune the assembly balance already achieved off-vehicle, not to start over.
- Leave all wheel trim installed whenever possible.
- If the on-vehicle balancer calls for more than 56 g (2 oz) of additional weight, split the weight between the inboard and outboard flanges of the wheel, so as not to upset the dynamic balance of the assembly achieved in the off-vehicle balance. For wheel balance weight information, refer to Tire and Wheel Assembly Balancing - Off Vehicle.
- If available, tape-off an area on top of the fenders and the quarter panels, then place the vibration sensor of the *EL-38792-A* Æ Electronic Vibration Analyzer (EVA) 2 on the fender or quarter panel above the specific tire and wheel assembly while it is being on-vehicle balanced.
- The *EL-38792-A* Æ Electronic Vibration Analyzer (EVA) 2 will provide a visual indication of the amplitude of the vibration, and the effect that the on-vehicle balance has on it.