

# BendPak Technical Service Bulletin

## Critical To Anchor Wheel Balancers

### BendPak TSB-195 032026

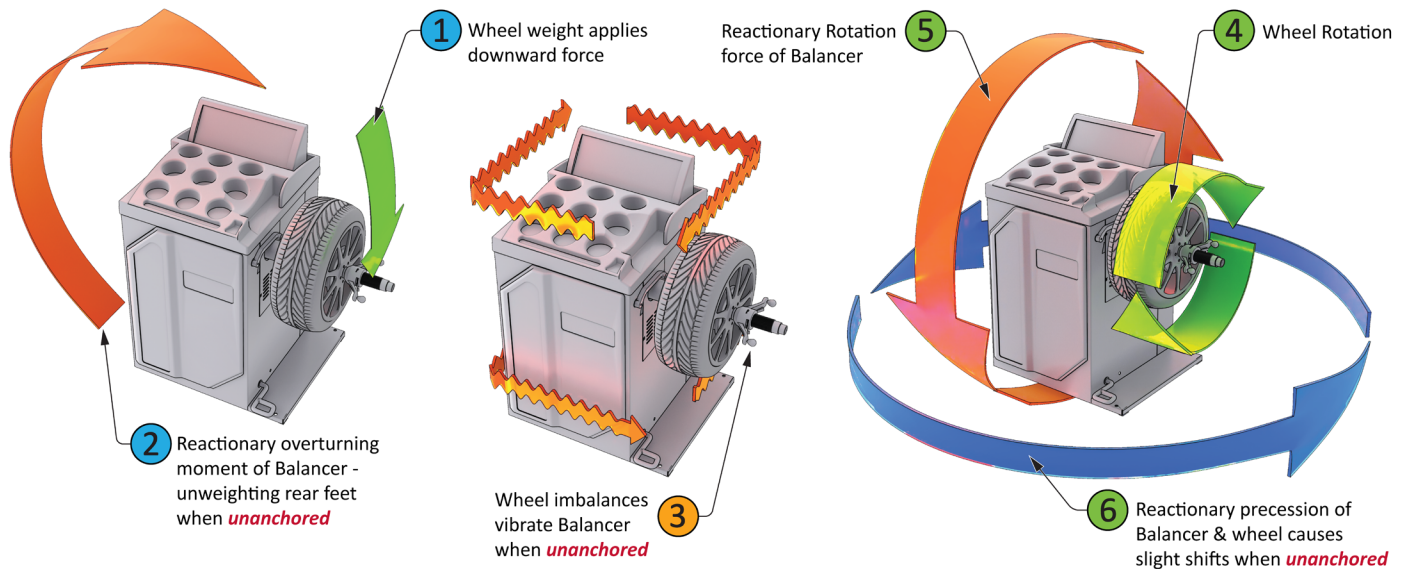
This Technical Service Bulletin describes why it is **critical** to anchor Wheel Balancers, regardless of make or model. This TSB applies to **all Wheel Balancers** shipped under the brands BendPak, Ranger and APEX.

#### **Rationale:**

When a wheel and tire assembly is mounted on the balancer spindle, the weight of the assembly extends outward from the machine's center of gravity. **This creates an overturning moment (a tipping force) that attempts to rotate the machine forward toward the spindle.**

The magnitude of this tipping force **increases** as the weight of the wheel and tire assembly increases. Heavier assemblies, such as those found on large passenger vehicles, trucks, and SUVs, create a **greater** leverage effect on the machine, increasing the likelihood of forward movement or **instability** if the balancer is **not** properly anchored to the floor.

In addition, the spinning of the wheel applies an opposite rotational force on the balancer, and these two opposing forces induce the balancer to precess, or rotate along the vertical axis.



As a result, if the balancer is **not** anchored to the floor:

- The heavy wheel assembly acts like a lever on the spindle.
- The cabinet's base may partially lift or *unweight the rear feet*.
- Even a **slight shift in weight distribution** can **reduce** machine stability.
- Reduced stability can lead to *inconsistent* or **inaccurate** balance readings.
- **Slight** balancer rotational shifts and unbalanced wheels cause vibration, which can lead to **inaccurate** readings.

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These effects *become **more pronounced*** with:

- Large diameter wheels
- Wide wheels
- Heavy truck/SUV wheel and tire assemblies
- Assemblies positioned far out on the threaded spindle shaft

### Why Anchoring Matters

Bolting the balancer to the floor:

- Helps prevent the machine from tipping, rocking, rotating or vibrating excessively under load
- Maintains proper weight distribution across all feet
- Ensures the internal sensors and shaft remain in a stable orientation
- Provides the most accurate and repeatable balancing measurements

### Recommendation

*All wheel balancers* should be installed according to manufacturer instructions, and *securely anchored to the floor* using the recommended anchoring hardware. This is *especially critical* in shops that regularly balance larger or heavier wheel and tire assemblies.

Failure to anchor the balancer may result in:

- **Reduced** balancing accuracy
- **Inconsistent** readings
- Increased **vibration** during spin cycles
- Potential **safety** concerns

### Best Practice

Always **verify** that:

1. The balancer **is installed** on a **level** concrete floor.
2. **All** mounting holes are **properly anchored**.
3. The machine sits **firmly without rocking**.
4. Anchors are periodically **checked for tightness**.

Proper installation ensures your wheel balancer performs to its full accuracy and reliability standards.

If you experience difficulties with your Wheel Balancer, technical support and service is available from your dealer, on the Web at [bendpak.com/support](https://www.bendpak.com/support), by email at [support@bendpak.com](mailto:support@bendpak.com), or by phone at **(800) 253-2363**, follow the prompts to reach service.

Online chat is also available at [www.bendpak.com](https://www.bendpak.com)



Properly set **anchors** help mitigate unwanted motion, rotation and vibration, and thus **decrease chances** of **inaccurate** balance results or “chasing weights” scenarios - saving time and effort for all.