Hunter DSP Balancers
Computerized Wheel Balancers with Digital Signal Processor

The Next Generation of DSP Balancing® Technology

Featuring Patented ServoDrive™ Programmable DC Drive System
Hunter DSP Wheel Balancers

Move Up to the Next Level of DSP Balancing® Technology

Hunter’s second generation of DSP Wheel Balancers combines the unique, patented ServoDrive® programmable DC (Direct Current) drive system, a new enhanced Digital Signal Processor and a wide range of accuracy and speed features that work together to take wheel balancing to a whole new level.

DSP Balancer Benefits

■ Simplicity of Use
The new generation of DSP Balancers operate with the same ease and simplicity as preceding models but now includes additional features to save time, increase accuracy and generate more profits.

■ Unbeatable Speed
From wheel clamping to data entry, from spin cycle to weight placement, Hunter DSP Balancers offer the fastest floor-to-floor cycle time.

■ Unmatched Accuracy
While quick service is important, speed means little without a quality balance. DSP Balancers use features such as direct measure wheel data input and automatic weight positioning to decrease cycle time while increasing accuracy.

■ Proven Durability – Best Value
DSP Balancers utilize a heavy-duty architecture similar to the Hunter GSP9700 Road Force Measurement® System. Compare the structure and internal components of a DSP Balancer to any other competitive balancer and you’ll see the difference.

■ Expanded Versatility
DSP Balancers offer the versatility to adapt to the ever-changing wheel and tire market with new features to aid technicians and protect both wheels and tires.

■ On-Site Factory Service & Support
Hunter products are backed by a team of over 550 domestic Sales and Service Representatives and a worldwide network of International Distributors in over 70 countries. Training, in-field upgrades and parts replacement are available right in your shop.

DSP96402 model shown
Speed and Accuracy for Every Shop

**DSP9600**
The DSP9600 is a premium high-capacity DSP wheel balancer for the shop that demands the ultimate in accuracy and speed-enhancing features. The DSP9600 includes features for precision balancing on today’s exotic and high-performance wheels. *DSP9600 shown with optional Wheel Lift.*

**DSP9200**
The medium-duty DSP9200 wheel balancer features an easy-to-use display panel and wheel graphic interface that provides fast floor-to-floor cycle time and will increase the productivity and profitability of any shop. *DSP9200 shown with optional Double Dataset® Arms.*

**DSP7700**
Engineered for the quality conscious, yet economically oriented shop with a lower volume of service, the DSP7700’s unique design incorporates superior accuracy in a compact balancer that features rugged, heavy-duty components.
1. ServoDrive™ is a patented programmable DC drive system that offers the operator complete control and the fastest possible balancing service. The wheel can be rotated in either direction with variable speed and torque. Clip-on and tape weight locations are automatically positioned for application, while the ServoPush feature allows the operator to quickly change to the next weight position.

2. Rugged heavy-duty belt drive protects the motor by absorbing shock.

3. Heavy-duty 40 mm hardened alloy shaft is standard on all Hunter balancers. Quick take-up threads allow 1 in. (25.4 mm) travel in three revolutions. Permanently centered hub spring speeds wheel mounting and increases accuracy.
Control Panel Provide Fastest “Floor-to-Floor” Cycle Time

Easy-to-Use Display Panel Speeds Balance Service

1. **Wheel Graphic Interface**
   Auto-prompting “road map” display of the tire/wheel assembly shows the wheel weight mode selected by the operator and helps guide the technician through balancing procedures.

2. **Digital Rotary Encoders**
   Hunter’s unique rotary encoders combine easy-to-use dials with precise digital data entry. Variable speed encoder knobs let the user dial fast to get in range and then slower to find the exact number. Durable knobs can’t be damaged by over-rotation.

3. **Expanded Soft Key Controls**
   Keys are labeled with simple, easy-to-read icons. Operators can easily get to where they want to go fast!

4. **Mode Indicator Lights**
   The display panel helps the operator visually monitor the balance mode and the status of the two-position Inside Dataset® Arm.

5. **360-Degree Weight Angle Display**
   Display shows weight position and weight “shadow” when a position is located on the bottom half of the wheel. Aids clip-on weight placement at Top Dead Center (TDC) and tape weight placement at Bottom Dead Center (BDC).

6. **Operation Placard**
   New employees can update themselves on advanced DSP features using step-by-step operation placards mounted on the back of the display panel.
**Timesaving Features Help Balance Wheels Faster**

**Digital Signal Processor**

- Unprecedented processing speed and precision are results of the new Digital Signal Processor – a powerful microprocessor found in all Hunter wheel balancers.

- The Digital Signal Processor does not drift or deteriorate with age. Analog filters and other troublesome components are eliminated, increasing reliability and accuracy.

**Weight Optimizing Procedures**

Displays the exact mounting position of tire to the rim to minimize required balance weight. Also identifies problem tires and wheels that require excessive weight.

**Wheel Store/Recall**

Allows entry, storage and instant recall of up to four wheel configurations and/or corresponding user setups. Unit can be turned off without losing stored data, eliminating the need for continual re-entry of frequently used wheel configurations.

**SETUP**

**Programmable Setup**

Choose the operation and setup that meets your shop’s specific requirements.

**START**

**Quick Cal-Check® Calibration Feature**

In just a few seconds this patented feature confirms at power-up if calibration of the unit is required. Just attach calibration weight and press “Start” to begin.

**Spindle-Lok® Brake Feature**

This multifunctional feature activates entry and storage of wheel data, locks and keeps the spindle stationary while attaching weights, and makes it easier for tightening and loosening the wingnut. Available on DSP9200 and DSP9600 models.

**Patch Balance® Procedure**

Solve large imbalances by using weighted pads inside the tire, which reduce or eliminate the use of large rim-mounted weights. Helps increase profitability by enabling your shop to service oversized off-road tires and large custom wheels that others turn away.

**Increased microprocessor accuracy makes the technician’s job much easier and faster.**

**The Spindle-Lok® Brake feature and optional Double Dataset® Arms aid in minimizing floor-to-floor time – up to 40% faster than major competitor’s wheel balancers.**
**ServoStop and ServoPush Drive Control**

- ServoStop automatically positions wheel to each desired weight location (TDC or BDC) with the touch of a button or by simply pushing the wheel.
- ServoPush allows pushing the wheel (approximately 1/8 of a revolution) to cause the programmable DC motor drive to automatically rotate the wheel to the next weight position.

**CenteringCheck® Wheel Mounting Feature**

Exclusive Hunter feature ensures that the wheel is properly center-mounted on the balancer. Eliminates the guesswork when choosing mounting accessories and set-up errors on problematic wheels. Guarantees the most accurate balance.

**Quick-Thread® Clamping Feature**

Motor assisted feature automatically helps speed clamping and removal of wingnut, eliminating the need for hand cranking the wingnut.

**QuickNut Clamping Feature**

QuickNut clamping feature eliminates handcranking of the wingnut and quickly slides into a secured position.

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*Patented  † Option dependent on selected model.
Balance Wheels With Speed and Accuracy

Automatic Inner Dataset® Arm

Inside and Outside Dataset® Arms speed entry of wheel data and placement of clip-on or adhesive weights while increasing accuracy and allowing single-spin balances.

Direct Measure Tape Weight Placement

- Ensures quick, accurate weight placement, eliminating trial-and-error “guesswork” and repeated spins.
- For any shape wheel, directly measure and automatically enter diameter and location for both weight planes.

Automatic Double Dataset® Arms†

Split Weight® and Split Spoke® Weight Location Features*

- Split Spoke® weight location feature automatically locates the best “out-of-sight” position for adhesive weight placement on custom wheels. (Shown above.)
- Split Weight® Mode offers multiple weight choices, reduces large weight inventories and avoids trim ring obstructions.

*Patented † Option dependent on selected model.
Hunter’s optional integrated Wheel Lift System helps technicians safely service today’s oversized, custom rims and tires and makes quick work of light-truck and medium-duty commercial wheels.

Benefits:

- Helps center heavy wheels (up to 175 lbs.) more accurately for better balancing results.
- Helps reduce operator fatigue and potential injuries.
- Saves valuable workspace on the shop floor and avoids the excessive costs associated with bulky, stand-alone wheel lift units.
- “Drop away” feature automatically lowers the wheel lift when the hood is closed – eliminates additional procedural steps associated with stand-alone units.

Wheel Lift operation is fast and simple. Roll the wheel on the lift, raise the wheel to the correct height ...

... and slide the wheel on the hub and shaft assembly. IT’S THAT EASY!
High-Quality Balancer in a Compact Package

DSP7700 Wheel Balancer

The most rugged of all compact balancers, the DSP7700 is perfect for the quality conscious, yet economically oriented shop with a lower volume of service. This compact balancer features heavy-duty components that enable even 150 lb. (68 kg) wheels to be spun repeatedly without overheating.

Features:

- **Wheel Graphic Display**
  Unique “Wheel” graphic display makes data input simple. 360° Weight Position Display shows location at top dead center (TDC) for clip weight placement or bottom dead center (BDC) for tape weight placement.

- **Digital Signal Processor**
  The powerful DSP Processor produces unprecedented calculation speed and precision and provides computing power for advanced features.

- **Inside Dataset® Option Provides Automatic “Direct Measure” for Alloy Wheel Modes**
  Touch Inside Dataset Arm to any weight location and automatically store wheel data. Saves time and eliminates manual data entry errors. Manual entry is possible at any time.

- **Quick Cal-Check® Calibration Mode**
  Verify calibration anytime “on the fly.” If calibration is needed, the simple user procedure is graphically prompted.

- **Efficient Direct Current Drive System**
  Enclosed non-ventilated DC drive generates less heat during heavy use.

- **Removable Hub and Extended Shaft**
  40 mm extended length shaft fits today’s extra-wide specialty wheels. Quick removal for motorcycle, airplane and no-center hole wheel adaptors.

- **Two Weight Optimizing Procedures**
  Displays the exact mounting position of tire to the rim to minimize required weight. Also identifies problem tires and wheels that require excessive weight.

- **Programmable Setup**
  Choose the operation and setup that meets your shop’s specific requirements.

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## DSP Balancer Feature Comparison

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<th>FEATURE</th>
<th>HEAVY DUTY</th>
<th>MEDIUM DUTY</th>
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<tbody>
<tr>
<td>Automatic Inside Dataset® Arm</td>
<td>Standard</td>
<td>Standard</td>
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<tr>
<td>Automatic Double Dataset® Arm</td>
<td>Optional</td>
<td>Standard</td>
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<tr>
<td>CenteringCheck® Wheel Mounting*</td>
<td>Standard</td>
<td>Optional</td>
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<tr>
<td>Direct Measure ALU &amp; Clip Weight Data Entry</td>
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<td>Standard</td>
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<tr>
<td>Hood-Actuated Autostart</td>
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<td>Hub Spring, Captured</td>
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<td>Optimizing/Weight Minimization Program</td>
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<td>Patch Balance Program</td>
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<td>Programmable Setup</td>
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<tr>
<td>Quick Cal-Check® Calibration Feature</td>
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<td>Quick Take-Up Shaft, 40 mm</td>
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<td>Quick-Thread® Auto Clamping*</td>
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<td>“Road Map” LED Display</td>
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<td>ServoDrive™ Programmable DC Drive System*</td>
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<td>Split Spoke® Weight Locator</td>
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<td>Split Weight® Mode*</td>
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<td>Two-Plane Self-Calibration</td>
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<td>Wheel Lift</td>
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</table>

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Specifications & Accessories

Specifications††
Rim Width: 1.50 in. (38 mm) to 20 in. (508 mm)
Rim Diameter:
DSP9600:
10 in. (254 mm) to 30 in. (762 mm)
ALU: 7.5 in. (191 mm) to 44 in. (999 mm)
DSP9200:
10 in. (254 mm) to 30 in. (762 mm)
ALU: 7.5 in. (191 mm) to 38 in. (965 mm)
DSP7700:
10 in. (254 mm) to 24.5 in. (622 mm)
ALU: 7.5 in. (191 mm) to 24.5 in. (622 mm)
Automatic Inner Dataset® Range:
DSP9600/DSP9200: 10 in. (254 mm) to 28 in. (711 mm)
DSP7700: 10 in. (254 mm) to 24.5 in. (622 mm)

Maximum Tire Diameter:
DSP9600: 44 in. (999 mm)
DSP9200: 38 in. (965 mm)

Maximum Tire Width: 20 in. (508 mm)
Maximum Tire/Wheel Assembly Weight:
DSP9600: 175 lbs. (79 kg)
DSP9200, DSP7700: 150 lbs. (68 kg)

Imbalance Resolution
± 0.05 ounce (± 1 gram)
Placement Accuracy
512 positions (+/- 0.7 degrees)
Balancing Speed
DSP9600: 300 rpm
DSP9200/DSP7700: 150 rpm
Motor
DSP9600/DSP9200: DC Drive System, 230V (+10%/-15%),
3 amp usage, 50/60 Hz, 1-ph,
NEMA Plug # L6-20P
DSP7700: DC Enclosed Non Ventilated, 3 amp usage,
110V, 50/60 Hz, NEMA 5-15P connector.

Average Cycle Time
DSP9600: From 5 seconds
DSP9200: From 8 seconds
DSP7700: From 8 seconds

Shipping Weight (approximate)
DSP9600 w/Lift: 670 lbs. (304 kg)
DSP9600: 620 lbs. (281 kg)
DSP9200: 400 lbs. (181 kg)
DSP7700: 300 lbs. (136 kg)

†† Dimensions may vary depending on tire and wheel configuration.