

# MORE

PRECISION • SPEED • PROFIT

## LS45DS Wheel Balancer

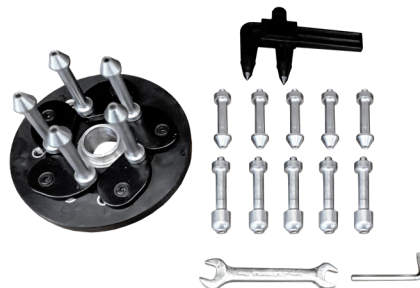
SKU# 5140177 - 220V



3D SONAR  
DATA ENTRY



LUG-CENTRIC  
MOUNTING PRESSURE  
PLATE ADAPTER KIT  
INCLUDED



Includes **FREE** Wheel Weights

SONAR 3D BALANCER  
with Plate Adapter kit

### Sonar & Laser Technology - No Guesswork, Just Precision

The Ranger LS45DS Sonar Wheel Balancer brings advanced sonar measurement and precision laser guidance together to streamline wheel balancing. Designed for high-volume shops and specialty applications, it handles 12"- 24" wheels with speed, accuracy, and repeatable results.

The intuitive laser system pinpoints the 6 o'clock position for stick-on weights, then automatically shifts to 12 o'clock for clip-on placement. This seamless transition reduces errors, improves efficiency, and delivers cleaner, more consistent balances with minimal technician effort.

### 3D Automatic Wheel Data Entry

With Ranger's advanced 3D Auto Data Entry system, say goodbye to manual wheel measuring and data input. The LS45DS instantly detects wheel diameter, width, and offset in seconds using a sliding index arm and precision sonar sensor array.

Simply mount the wheel and position the precision index arm exactly where you want the weights placed. Close the hood and let the balancer handle the rest. Fast, effortless, and highly accurate, this system delivers pinpoint precision without the hassle, virtually eliminating human error and keeping technicians productive without slowing their workflow.

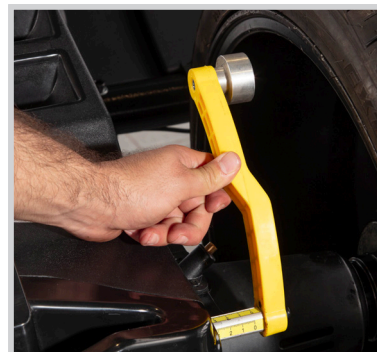
### Versatility to Suit the Job

The LS45DS is equipped with Dynamic, Static, HID (Hidden), and Aluminum Alloy (ALU) Balancing Modes, giving technicians the power to select the best option for the task at hand.

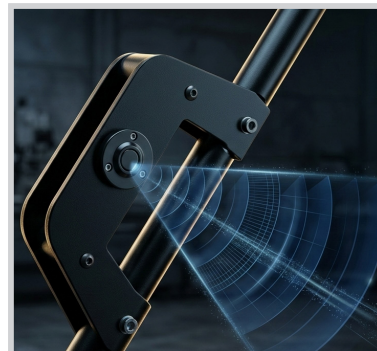
- **Dynamic Balancing:** This advanced method analyzes each plane of the wheel separately, to achieve a more refined balance. Dynamic balancing is ideal for steel wheels and modern setups, where you can't afford inaccurate readings. By balancing both planes independently, the LS45DS ensures a superior result, providing a smooth ride and longer-lasting balance for the customer.
- **Static Balancing:** Sometimes, traditional methods are required—often when dealing with motorcycle wheels or older models where adhesive weights can only be applied to the center plane. The LS45DS has static balancing covered, offering reliability for these specific applications. This older method may not offer the precision of dynamic balancing, but it's still preferred when working with vintage wheels, especially those with limited placement options.



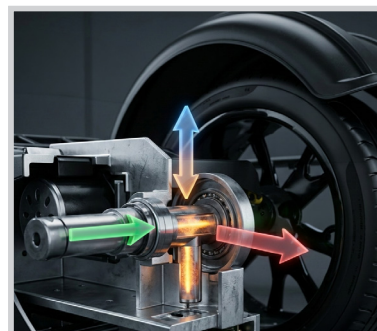
**Weight-Placement  
Aide Lasers**



**Auto Wheel Data Entry**



**3D Sonar Data Entry**



**Piezoelectric Load  
Sensors**

- **ALU Balancing:** For aluminum alloy wheels, weight placement requires a different approach. The LS45DS features dedicated ALU modes, designed to make weight application effortless. These modes typically use adhesive weights, which are less visible and more aesthetically pleasing on high-end wheels. Whether working with standard aluminum rims or intricate custom designs, the LS45DS ensures every wheel is balanced perfectly, without compromising on appearance.
- **HID (Hidden) Balancing:** The outer plane weights are placed behind selected spokes, so they are hidden, as much as possible. This feature is designed specifically for wheels where aesthetic appeal is a priority – especially for high-end or custom vehicles, where visible weights can disrupt the clean, polished look of a wheel. HID balancing allows technicians to balance the wheel in such a way that the outer weights are hidden behind the spokes.

## Perfecting the Balance

Even the best wheel balancers can encounter wheels with significant imbalances. When a wheel shows an imbalance of 30 grams (1 ounce) or more, the LS45DS's Optimize Function comes into play. This feature allows technicians to reduce the imbalance before proceeding with a full balance. The result? A smoother, faster balancing process that improves accuracy while reducing the number of weights required to get the job done. Not only does it streamline operations by reducing the need for repeated balance attempts, but it also contributes to a cleaner final result.

## Automatic Electromagnetic Braking System

The LS45DS features a dual-plane automatic electromagnetic braking system that further simplifies the balancing process. Technicians no longer need to rely on foot-activated brakes or pedals. The system automatically slows, stops, and holds the wheel in place, allowing for easy and secure weight placement on both the inner and outer faces of the wheel. This hands-free approach not only enhances safety but also improves workflow efficiency.

## Quick and Precise Setup

In the fast-paced environment of an automotive shop, time is money. That's why the LS45DS has been designed for quick and precise setup. The machine's self-centering, non-marring Quick-Nut and bell adapter ensure that wheels are centered properly every time, minimizing the chance of experiencing setup errors. This feature not only saves time but also reduces the risk of costly mistakes, such as improper balancing or wheel damage, which can lead to comebacks.

## 64-tooth Encoder Improves Automatic Weight Optimization

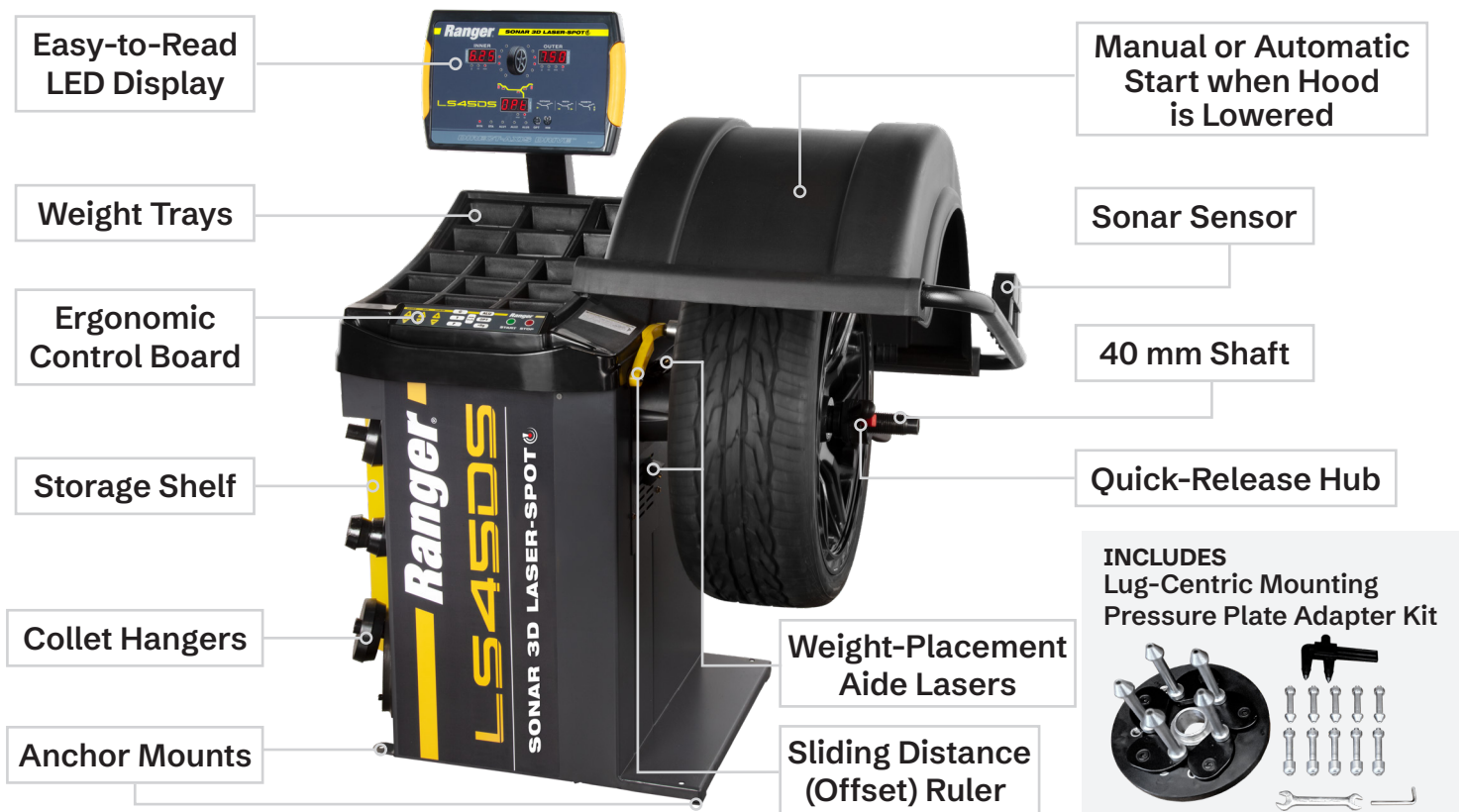
LS45DS weight calculations are up to twice as accurate as other units, delivering precise balance across most wheel setups. A 64-tooth magnetic transducer encoder improves placement readouts for optimal positioning, reducing weight use, saving time, and boosting profitability.





## ENHANCED FEATURES

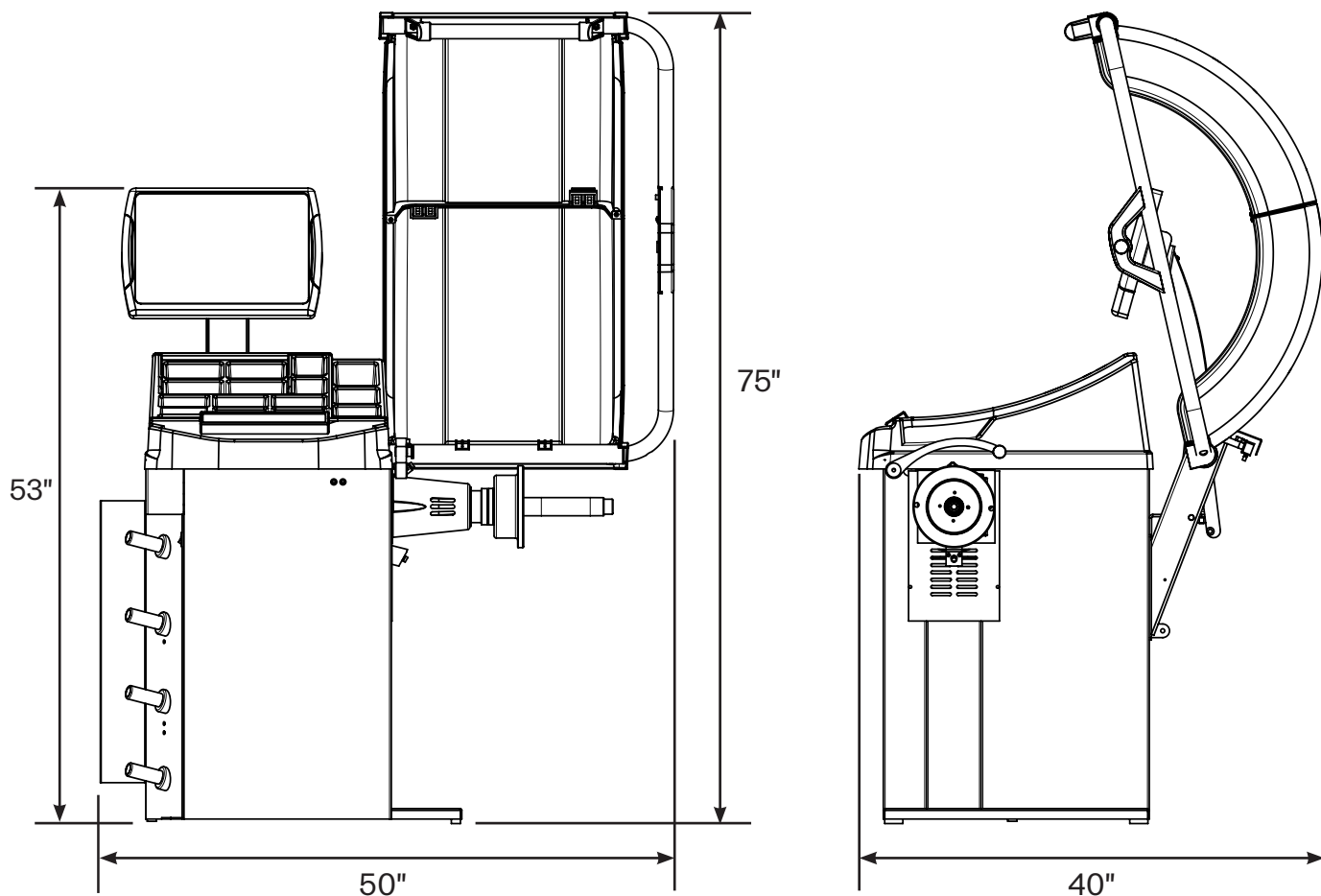
- **Dynamic, Static, and Performance Alloy** settings
- **A multi-user save function** holds presets to increase productivity
- **An ergonomic control board** and easy-to-read LED display have vibrant visual cues and a keypad to improve efficiency and proper balancing techniques for faster floor-to-floor times
- **Sonar-Spot™** eliminates manual width measurement for most wheels and reduces operator error
- **3D Auto Data Entry** instantly inputs wheel diameter, width, and offset in seconds
- **Automatic wheel locking** ensures weights are applied at the exact correction angle
- **Hidden (HID) and ALUS modes** allow cosmetic balancing without sacrificing accuracy
- **Laser-Spot™** replaces visual guesswork with precise, illuminated weight placement
- **Low RPM balancing speed** and rapid six-second cycle time
- **Automatic braking & Self-calibration** function
- **Gram/ounce selection and millimeter/inch selection**
- **Finer accuracy resolution** ( $\pm 1$  gram) for precise balancing of large tires
- **Automatic round-off** with top-dead-center weight position indicator
- **Manual or automatic start** when the hood is lowered
- **High-volume top weight tray and side shelf storage** give you room to inventory a wide variety of wheel weights and tools
- **Newly designed side shelf** features an open-top design that accommodates Ranger Quick-Peel™ adhesive tape weights
- **Rugged 40 mm shaft** increases stiffness and accuracy for heavier wheels while supporting industry-standard cones and accessories
- **Quick-release hub nut** for dramatically reduced set-up times
- **Side-position restraint pedal** holds wheels securely and accurately during weight installation procedures
- **Side collet storage pegs** keep accessories readily available
- **New “open-side” hood design** allows for a broader coverage of tire shapes and sizes
- **Reinforced chassis and hood assembly** for large-diameter tires
- **Improved vibration control** when balancing
- **Larger hood** accommodates oversized off-road and fleet tires without repositioning



# SPECIFICATIONS

| Model                  | LS45DS Wheel Balancer                 |
|------------------------|---------------------------------------|
| Voltage                | 208 - 240V 50/60 Hz, 1 Ph*            |
| FLA                    | 6A                                    |
| Working Temp.          | 27°F to 82°F (-5°C to 50°C)           |
| Max. Tire Diameter     | 43" (1,092 mm)                        |
| Max. Wheel Weight      | 145 lbs. (65 kg)                      |
| Max. Wheel Diameter    | 12" - 24" (305 mm - 610 mm)           |
| Wheel Width Capacity   | 4" - 20" (102mm - 508mm)              |
| Balancing Increments   | .01 ounce (0.25 grams)                |
| Height, Guard Up       | 75" (1,910 mm)                        |
| Height, Guard Down     | 53" (1,346 mm)                        |
| Overall Width          | 50" (1,270 mm)                        |
| Depth, Cover Up        | 39" (990 mm)                          |
| Depth, Cover Down      | 40" (1,016 mm)                        |
| Unit / Shipping Weight | 389 lbs. (177 kg) / 454 lbs. (207 kg) |

\*Note: Standard electrical configurations shown. Additional voltage options available upon request.



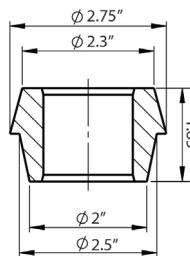
## STANDARD ACCESSORIES



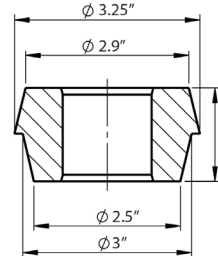
### Precision Collet Mounting for Increased Accuracy

Collets center wheels more precisely by engaging the hub bore, reducing imbalances caused by improper positioning. Traditional cones cover a wide range of sizes with fewer pieces but use steep angles that can compromise centering accuracy. Collets use flatter angles for a more exact fit. They also apply more even pressure across the hub, helping prevent damage while improving mounting consistency, balance accuracy, and reducing manual adjustments and human error.

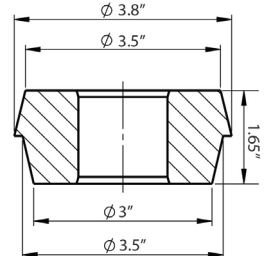
**2" - 2.75" Collet**



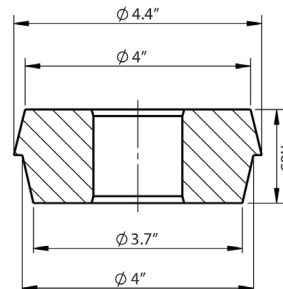
**2.5" - 3.25" Collet**



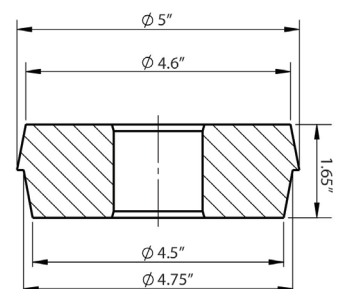
**3" - 3.8" Collet**



**3.7" - 4.4" Collet**



**4.5" - 5" Collet**



## OPTIONAL ACCESSORIES



**RWL175**  
175 lb Capacity  
Pneumatic Wheel Lift



**Adhesive Steel Wheel Weight COMBO Set**  
SKU 5150230

**SILVER Adhesive Steel Wheel Weights**  
SKU 5150220

**BLACK Adhesive Steel Wheel Weights**  
SKU 5150225

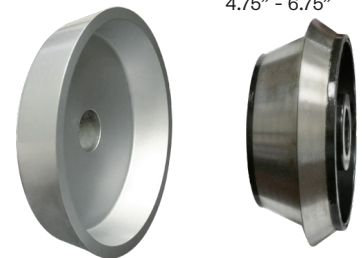


**Wheel Weight Dispenser Stand**  
**Stand Only** - SKU 5328502  
**Stand Kit** - SKU 5150028  
• Stand and Weights



**Truck Cone Kit**  
**36mm** - SKU 5150555  
**40mm** - SKU 5150032

• Double-sided centering cone fits hub sizes 4.75" - 6.75"



**Disclaimer:** Specifications, features, and options are subject to change without notice. Illustrations may show optional equipment or accessories sold separately. Maximum wheel sizes, weights, and capacities are approximate and may vary depending on wheel type, condition, and application. Always follow manufacturer guidelines and local safety regulations when operating equipment.



# Ranger®

## LS45DS

**ADVANCED 3D AUTO DATA ENTRY**  
FOR WHEEL PARAMETER SETTINGS

**LASER-SPOT™ TECHNOLOGY**  
FOR PRECISE WHEEL WEIGHT PLACEMENT



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