

DSP500 Series Sensors

For Hunter Wheel Alignment Systems

***Perform Wheel Alignments
Quickly and Accurately
With DSP500 Sensors***



HUNTER
Engineering Company

DSP500 Alignment Sensors

Hunter DSP500 Sensors Provide:

Greater Speed

- Instantaneous data transfer between sensors and Hunter alignment system.
- Quick, precise measurement readings.
- Fast, simple sensor calibration.

Enhanced Reliability

- On-screen displays alert alignment technician of possible sensor adjustments required for accurate readings.
- Sturdy construction reduces potential damage to sensor.
- “Foolproof” locking mechanism prevents movement after mounting and compensation.

Ease of Use

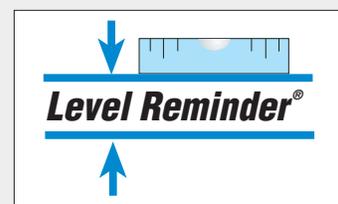
- Compatible with vehicles requiring special adaptors.
- Self-Centering Wheel Adaptors cover an extended range of vehicles.
- Optional DSP500 cordless sensors remove hassle of connecting cables.
- Cordless sensor† batteries provide a full day of continuous operation – “hot-swappable” operation ensures compensation measurements are not lost.



Using DSP500XF Cordless Sensors, technicians make only one trip around the car to compensate each sensor as it is mounted.



Time-Saving



† Optional feature.



DSP508XF Cordless Sensors
 shown with the Hunter WA245
 Alignment System and RX12L-PS Lift.††

Features:

■ Cal-Check® Toe Calibration

DSP508 Sensors feature rear toe arms for total around-the-car toe calibration checking. Continuous checking ensures accurate toe measurements. An on-screen display alerts the technician if calibration is required.

■ Level Reminder® Alert

An on-screen display indicates if sensor leveling is required. The Level Reminder® feature is standard on front DSP506 Sensors and all four DSP508 Sensors.

■ RangeFinder® Calculator

Patented RangeFinder® feature calculates track width and wheelbases up to 210 inches (5334 mm).



■ Continuous Runout Compensation

Each sensor allows for an easy, precise 3-point runout compensation procedure, which ensures that the sensor will continue to read accurate alignment angles, even if any wheels rotate.

†† Additional Hunter alignment equipment shown must be purchased separately. Contact your Hunter Representative for more information regarding part numbers and availability.

DSP500 Feature Overview

1. High-Resolution CCD (Charge-Coupled Device) Measuring System*

CCD provides precise measurements for toe, wheelbase and track width and measures toe-out-on-turns without the use of electronic turnplates.

2. High-Speed Processor

Highly integrated, 32-bit microprocessor acquires real-time measurements to provide immediate response between changes in actual measurement and displayed values.

3. Rugged, Lightweight Design

Integrated electronic components enhance reliability. Outer sensor cover is made of the same "bulletproof" material used in fighter jet canopies. Impact-prone areas are further protected by integrated rubber bumpers.

4. Enhanced Adaptor Compatibility

Sensor shafts are engineered to provide a proper fitting with special wheel adaptors.

5. Optional Cordless XF Feature Provides Extended Range, High-Speed Communications

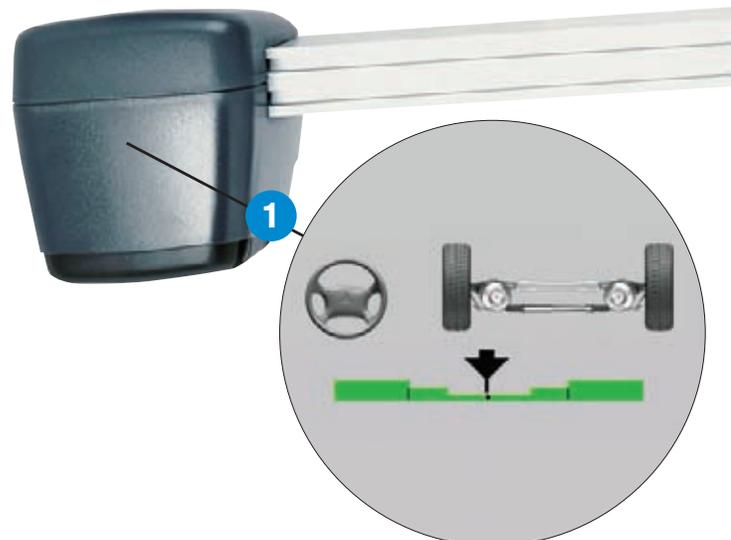
Powerful XF-Radio technology provides the same high-speed communication as DSP Sensors with cables. Alignment data is displayed instantly!

6. Docking Station*

Optional DSP500 cordless sensors can be recharged between jobs while stored on the aligner cabinet.

7. Optional Cordless Sensors Capable of Extended Operation

Batteries provide a full day of continuous operation and are "hot-swappable", ensuring compensation measurements are not lost in the event of a power outage or during battery replacement.





Optional DSP500XF Cordless Sensors

Faster Setup Time

- No cables to connect.

Provides Extended Range, High-Speed Communication

- XF Sensors feature a 2.4 GHz frequency-hopping spread spectrum transmitter that supports up to 64 channels, virtually eliminating the potential for cross-talk problems.
- XF-Radio signals are not dependent on line-of-sight communication between sensors and the console.

Capable of Extended Operation

- Batteries provide a full day of continuous operation. Power levels are displayed on screen.
- Batteries are user-replaceable and hot-swappable. Compensation measurements are not lost when batteries are replaced or if battery power is low.
- Additional or replacement batteries can be purchased at electronic retailers.
- Hunter's patented Docking Station recharges sensors while they are mounted on the aligner cabinet.

Additional Battery Charging Options

- Additional batteries can be charged by using an optional charger that is available for use as an internally installed[†] recharger or an external, table-top model.



DSP500XF Cordless Sensors offer the same high-speed data communication as standard DSP500 Sensors without the inconvenience of cables.



Each DSP500XF Sensor utilizes a "hot-swappable" +12 VDC sealed lead acid battery that can be easily replaced by the alignment technician.



Batteries not included.

Optional Battery Recharger Kit (20-1832-1) can be installed at the rear of your console to help conserve valuable work space...



AC Adaptor Kit includes a wall-pluggable power supply for 100-240 VAC input.

... or combined with an optional AC Adaptor Kit (20-1864-1) for use as a convenient, centralized table-top recharger.

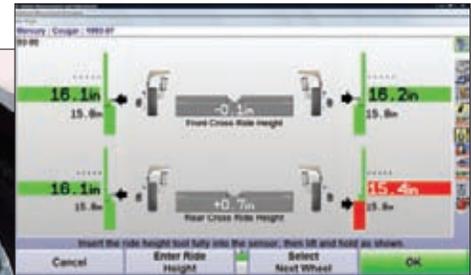
[†] Compatible with new Hunter alignment systems and all recent "R811" and "S811" Series consoles.

DSP500 Sensor Options

Electronic Ride Height Measurement Option

Patented Ride Height Measurement System[†] provides ride height measurement and Suspension Body Dimension Audit (SBDA) measurements, which include:

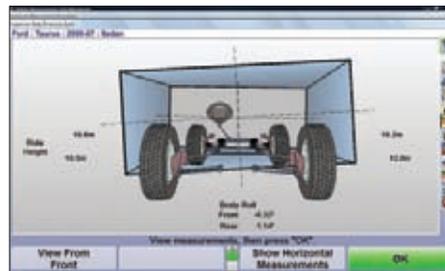
- Ride Height
- Body Angle
- Body Wheel Offset
- Body Wheel Setback
- Body Roll



Optional Ride Height reduces measurement time to seconds per wheel. Instantly compares measurements. Provides quick diagnosis of sagging springs.

Suspension Body Dimension Audit Option

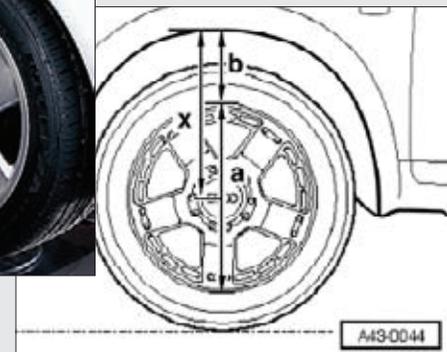
The patented Suspension Body Dimension Audit[†] (SBDA) option provides a quick audit to determine if the vehicle is alignable and identifies the potential need for body shop procedures. (Requires Ride Height option and WinAlign[®] 7.1 software or greater.)



Using SBDA, excessive body angle, body wheel offset and wheel setback can easily be identified.

Without Electronic Ride Height Measurement System, getting measurements is time consuming and prone to error!

If your aligner is not equipped with Electronic Ride Height Measurement, all ride height measurements must be taken manually and entered manually. Multiple measurements are taken at each wheel. Manual calculations must then be made and results entered into the aligner using a keyboard.

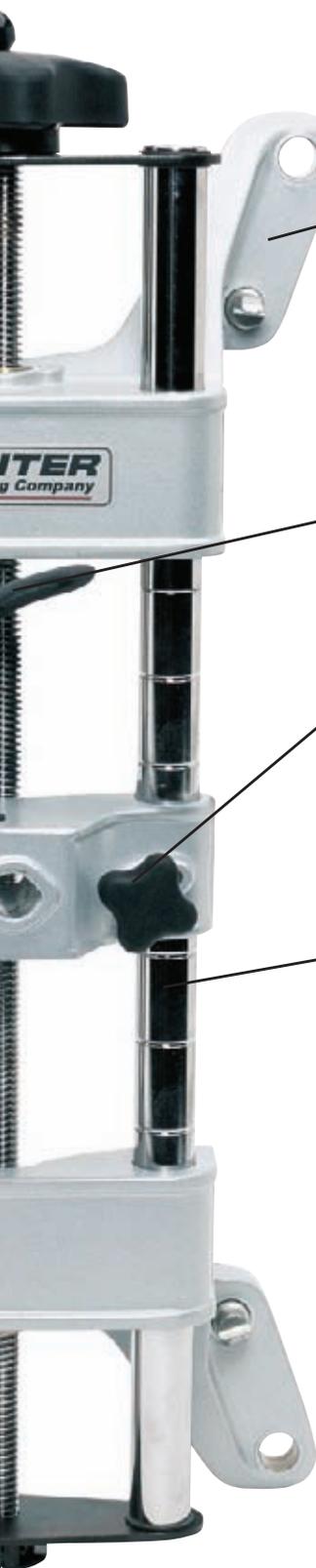


Hunter Self-Centering Wheel Adaptors

Exclusive Features Provide Greater Versatility, Extra Durability and Enhanced Ease of Use

1. Extended range fits 10- to 24.5-inch (254 mm to 622 mm) rims.
2. Reversible adaptor rim studs provide adaptability for steel rims or specialty rims with runflat and flange-guard tires.
3. Quick-Knob provides fast adjustment of the adaptor's range, allowing it to fit various rim sizes.
4. Adaptor's unique design is able to accommodate a wide variety of wheel configurations and sizes. Simply insert the rim studs into the appropriate slot according to the rim-size range needed.
5. Durable lock-knob is easy to access and securely locks DSP500 Sensor to the wheel adaptor.
6. Center castings may be adjusted for a clear line of sight between the front toe sensors.
7. Lightweight, non-flexing adaptors are designed to provide rigidity and stability, yet are easy to handle.
8. Reinforced machined aluminum castings and hard-chromed support rods resist damage and corrosion.



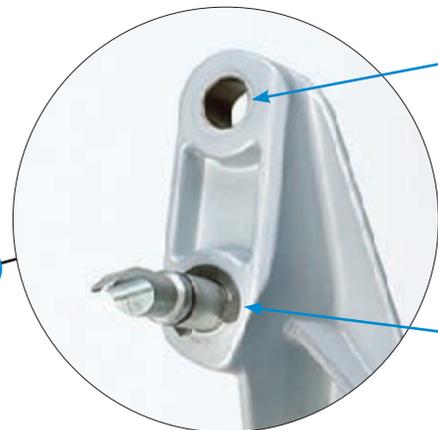


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5

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Outside:
14" - 24.5" wheel
(356 mm - 610 mm)

Inside:
10" - 19" wheel
(254 mm - 483 mm)



DSP500 Sensors can be stored with or without wheel adaptors attached.

DSP500 Wheel Adaptor Options

Optional Features Extend Range of Vehicle Serviceability



Kit 20-1792-1 contains 16 extensions, 4 for each adaptor.

28-Inch Wheel Adaptor Extensions

20-1792-1

Extensions increase the Self-Centering Wheel Adaptor's maximum wheel size range from 24.5 to 28 inches (622 mm to 711 mm).



Self-Centering Wheel Adaptor with optional 28-inch adaptor extensions. Shown mounted on a 26-inch rim.



Kit 20-1789-1 contains a set of four Tire Clamps. (Shown mounted on standard Self-Centering Wheel Adaptor.)

Tire Clamp Adaptor

20-1789-1

Clamps effectively fasten wheel adaptors on tires with an outside dimension of 21 to 40 inches (533 mm to 1,016 mm). Ideal for rims without rim lips or when space between tire and rim is limited. Grips onto tire treads and protects alloy wheels from damage.



Ask your authorized Hunter Representative about our optional wheel adaptors designed for specific OEM applications.

DSP500 Series Feature Comparison

Feature	 DSP506	 DSP508
Full Four-Wheel Alignment Capability	✓	✓
High-Speed Processor	✓	✓
Band Brake Locking Mechanism	✓	✓
Measurements Memorized During Power Interruptions	✓	✓
Two-Point Compensation	✓	✓
Continuous (Three-Point) Compensation	✓	✓
Rolling Compensation	✓	✓
Compatible with Special Adaptors	✓	✓
RangeFinder® Calculator	✓	✓
Suspension Body Dimension Audit (SBDA)**	✓	✓
Toe-Out-On-Turns Measurement	✓	✓
Cal-Check® Toe Calibration		✓
Level Reminder® Alert	FRONT ONLY	✓
Electronic Ride Height Measurement*	OPTION	OPTION
XF Cordless Version Availability	OPTION	OPTION

* Patented † Requires Electronic Ride Height



DSP500 Sensor Compatibility

WinAlign® Alignment Systems

DSP506	DSP506-RH	DSP506XF	DSP506XF-RH	DSP508	DSP508-RH	DSP508XF	DSP508XF-RH
✓	✓	✓	✓	✓	✓	✓	✓

WA244 shown with 26-inch widescreen LCD monitor.



Pro-Align® Alignment Systems

DSP506	DSP508	DSP506XF	DSP508XF
✓	✓	✓	✓

PA131 shown with 17-inch LCD monitor.



For detailed information about models, cabinets and accessories, contact your Hunter Engineering Representative today!

DSP500 Sensor Models

All DSP500 Sensor configurations include Self-Centering Wheel Adaptors and Sensor Docking Stations*.

DSP506

(4) DSP506 Sensors

DSP506-RH

(4) DSP506 Sensors with Ride Height

DSP506XF

(4) DSP506XF-Radio Cordless Sensors

DSP506XF-RH

(4) DSP506XF-Radio Cordless Sensors with Ride Height

DSP508

(4) DSP508 Sensors with Cal-Check

DSP508-RH

(4) DSP508 Sensors with Cal-Check and Ride Height

DSP508XF

(4) DSP508XF-Radio Cordless Sensors with Cal-Check

DSP508XF-RH

(4) DSP508XF-Radio Cordless Sensors with Cal-Check and Ride Height

WinAlign® software upgrades may require additional and/or upgraded hardware. Because of continuing technological advancements, specifications, models and options are subject to change without notice.

* Patented

Visit Our Website at www.Hunter.com

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