Arago V3D

Imaging Alignment System

Higher Performance. Higher Profitability.

Alignment can be a great source of revenue for any automotive repair shop. The speed and accuracy of your equipment is a key factor in your ability to produce profits. John Bean, a brand favorite of repair centers and automobile manufacturers around the world, has long been known for speed and accuracy advancements in wheel alignment technology. And with our new Arago V3D system, we have raised the bar yet again. This product can potentially change your whole approach to wheel alignment.

In just under two minutes, the remarkable Arago V3D aligner provides highly accurate alignment measurement, complete with visual representation identifying current and optimal settings. This represents a 70% reduction in time versus conventional alignment methods. V3D technology helps every technician become an alignment expert with minimal training. A computerized interface features clear and simple graphics to guide the user through the required program steps, both for measurement and adjustment. It's actually so easy to perform alignments with the Arago, sometimes you forget it's one of the most highly advanced pieces of service equipment money can buy. But what will amaze you most is your higher revenues from faster, more accurate alignment services—no cumbersome set up steps, no waiting on your system to process readings, and no customer comebacks due to calibration issues. *Prepare for maximum profit.*

John Bean, a division of Snap-on Equipment, is a leading innovator in automotive wheel alignment, and pioneered imaging wheel alignment in the early 1990s. Since that time, imaging technology has become the industry standard for automotive wheel alignment.

For modern cars, wheel alignment has become more and more important for the maintenance of the vehicle as it provides ride comfort, prevents abnormal tire wear and improves fuel economy. Providing automotive repair shops with high quality wheel alignment requires alignment systems with higher profitability and greater throughput.

OEM Wizards

The system provides measurements, procedures and adjustments specified by OEMs world wide, ensuring your vehicle is maintained to exact original specifications.

EZ-Toe*

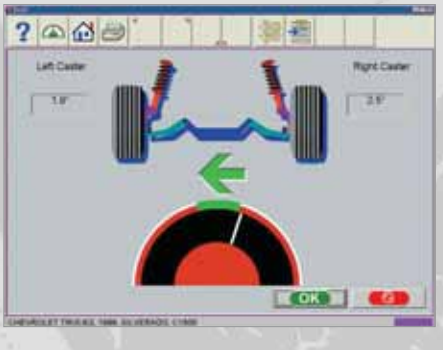
This feature provides a method of quickly adjusting the front toe. It allows the front wheels to be turned to access difficult adjustment points. This feature eliminates redundant steps when adjusting front toe.

A-Arm Adjust

Achieve precise setting of difficult A-Arm adjustments, without the use of manual calculations or approximation.

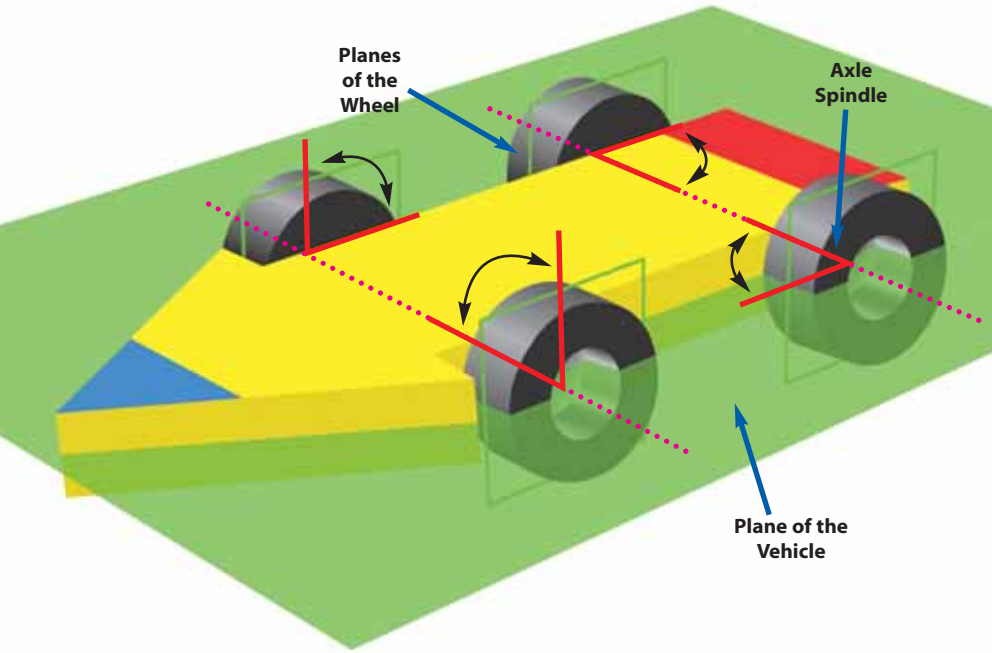
Cradle Adjust

This feature automatically guides the Technician through steps to center the sub-frame, greatly simplifying adjustments to these vehicles.



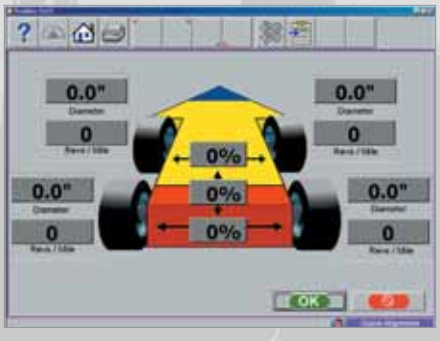
* *Patented and/or Patent Pending Features*

V3D Imaging Technology



Here is the heart of the Arago system. Rather than electronic gravity sensors or heads used by conventional systems (which have to be leveled each time), the Arago uses live, computerized 3D modeling and high-resolution cameras. Repeated manual calibrations and other adjustments related to lift height and plane, are eliminated. The result is easier, faster and more accurate alignments under a much wider array of working conditions.

Our proprietary system models the spindle axis of the vehicle's wheels, as well as the plane of the vehicle itself. The geometric relationships of the individual wheel planes to the other wheels and to the common vehicle plane are measured. This forms the basis for the vehicle's wheel alignment in three dimensional space. The computer compares the results to the stored manufacturer's specifications and precisely directs you through the adjustment.



Rolling Radius®

Same-size tires from different manufacturers may not always be the same size or diameter. Our tire-measuring feature can diagnose this hidden cause of steering pull.

TIP (Target Imaging Pointer)

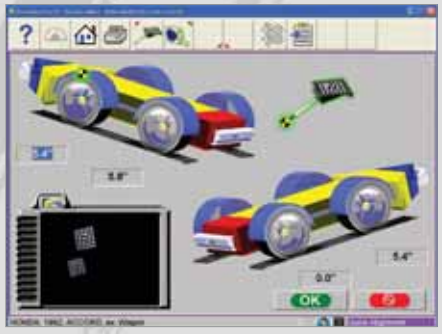
This optional feature offers quick and simple optical ride height measurement via a guided procedure. It can easily be overridden for non-optical ride height measurement through conventional means.

Wheel Dimensioning *Plus*

The V3D's live measurements use precise calculations to indicate possible frame or unibody damage, especially that which requires correction before alignment.

Ride Height Measurement

Some OEMs require ride height measurement in order to calculate proper alignment specs for that specific vehicle.

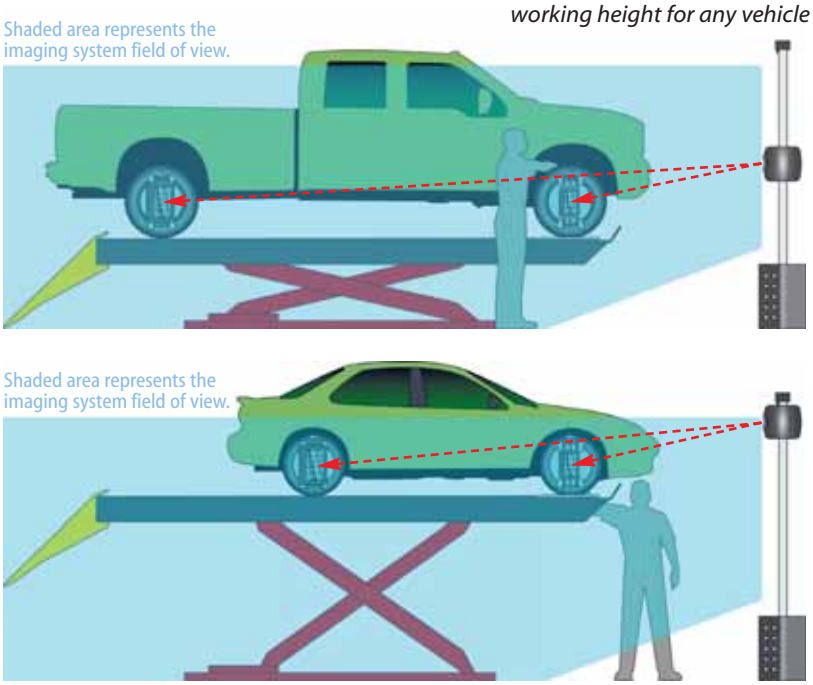


DigiSmart™ -- A John Bean Exclusive

Arago™ utilizes three synchronized DigiSmart™ cameras. Two remain aimed and focused on the targets attached to each vehicle wheel, while the third, located in the left camera pod, is aimed and focused on the right camera pod. The cameras track all four vehicle targets automatically and at any height. The system continually and automatically calibrates, eliminating a need for manual calibration required by other systems.

Arago's DigiSmart™ camera system allows you to perform vehicle measurements and adjustments at the safest and most convenient height—from the floor to maximum height. With the Arago system, every vehicle which enters a shop can easily have the wheel alignment checked in a matter of minutes without ever lifting the vehicle. If adjustments are needed, the vehicle can be lifted to a comfortable height for adjustment and the camera system will automatically track the vehicle movement with no operator interaction, a true timesaver. This safety and comfort factor has the added benefit of creating favorable working conditions to attract and keep experienced and qualified technicians.

Arago V3D self-adjusts to optimum working height for any vehicle



EZ-Access Software*

For vehicles on which tire size or body style makes adjustments difficult, our software allows a "wheels off" alignment. It's perfect for quick and easy installment of aftermarket suspension kits as well as OEM adjustments.

Intuitive Measurement

Measurement of caster, toe-out on turns and maximum steering angle can be done by simply turning the steering wheel ONCE to the left and right. The system recognizes your steering input and anticipates the next measurement.

Animated Adjustment Aid

Technicians benefit from on-screen visual aids for vehicle-specific adjustments, including instructions, comments and necessary tools.

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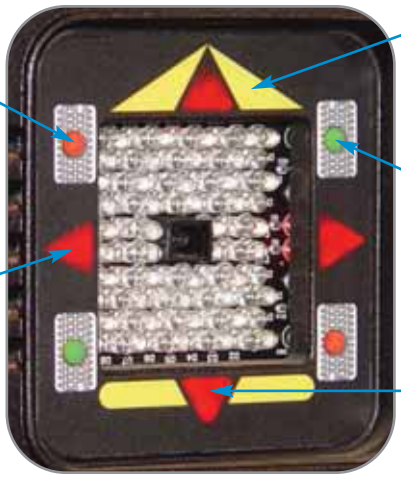
VODI: Precision Alignment Starts Here

VODI Camera Display



Red LED indicates target missing

Yellow Arrow indicates front of vehicle.

Green LED indicates target found.

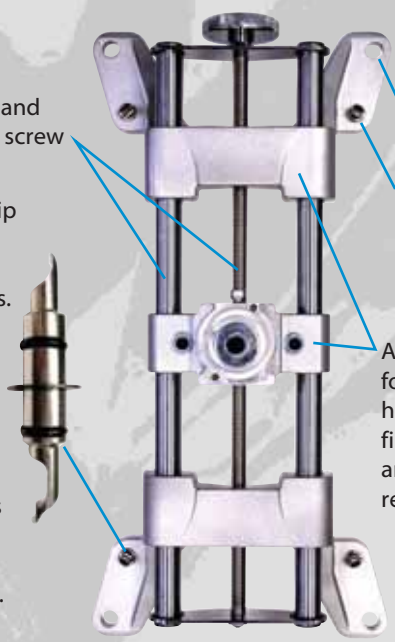
Left and Right arrows illuminate to indicate direction wheels are turning during caster toe-out on turns and maximum turn measurements.

Up and Down arrows illuminate to indicate vehicle movement direction during positioning/rollback.

All 4 arrows illuminate to indicate STOP.

Helping you make precise alignments are the Arago system's multi-processor cameras with Vehicle Orientation Directional Indicators (VODI). A graphic overlay around each camera provides convenient visual directional assistance to you during the alignment measurements. This eliminates having to leave your work position or reposition the main monitor/cabinet assembly in order to receive system cues. The VODI display on each camera depicts the vehicle layout. The unique horizontal camera adjustment provides a full range of vehicle coverage within the smallest shop space of any camera-based wheel aligner in the industry The infra-red camera system "invisibly" illuminates wheel targets, which eliminates the flashing red lights used by other systems.

Universal Wheel Clamps



Heavy duty chrome rods and nickel-plated screw

Outside for 15" to 25 " wheels

Inside for 11" to 20" wheels

Thin profile tip fits most wheel/tire combinations.

Aluminum alloy for light weight handling. Silver finish for durability and corrosion resistance.

Extended tip with thin profile allows clamping over plastic wheel covers.

Tire Clamp Adapter

(EAK0268J63A) allows accurate clamping without risk of scratching the wheel finish. Tire clamps provide secure attachment to wheel while plastic sleeves placed over standard claws ensure proper placement and wheel protection.

Optional Clamp Extensions

(EAK0268J62A) increase maximum clamping diameter to 30 inches.

Pro 32 Software: The Speed of Alignment

Windows-based *Pro 32* software was designed with the user in mind. This versatile and user-friendly application, enhanced by a graphics-driven interface, offers many unique advanced features that help to make this system the right choice for your shop.

The most apparent of these features is speed. This can easily be seen in the Arago's instant processing of information. The Arago also directs you through the most efficient series of steps for any alignment procedure, further enhancing system speed.

To ensure your ability to align any car that enters your shop, John Bean releases revised specification updates for new vehicles 3 times per year. No other company keeps you more current than John Bean. These updates add to a complete historical automobile database that goes back 30 years.

You can print an easy-to-understand full color report of an automobile's alignment readings both before and after service, enhancing customer confidence and loyalty.

Training is built into *Pro 32* software in the form of easy-to-follow help system. The system provides color-illustrated step-by-step instructions which allow new users to learn the system at their own pace. This self-guided process frees time for more experienced technicians who would under other circumstances be required to train new employees.

Pro 32 features system networking capability, allowing you to enhance shop management with the help of i-SHOP™ and Shop Key™ in North America, and ASANet™ in Europe. You can maintain consistent access to all current automotive specifications and resource libraries provided by these sources. As well, you can access and update customer records for the life of an automobile allowing review of its ride quality statistics upon each service visit.

Pro 32 software gives the Arago unmatched speed, accuracy and resource capability, resulting in the most complete alignment system on the market.

Pro 32 Windows Software®

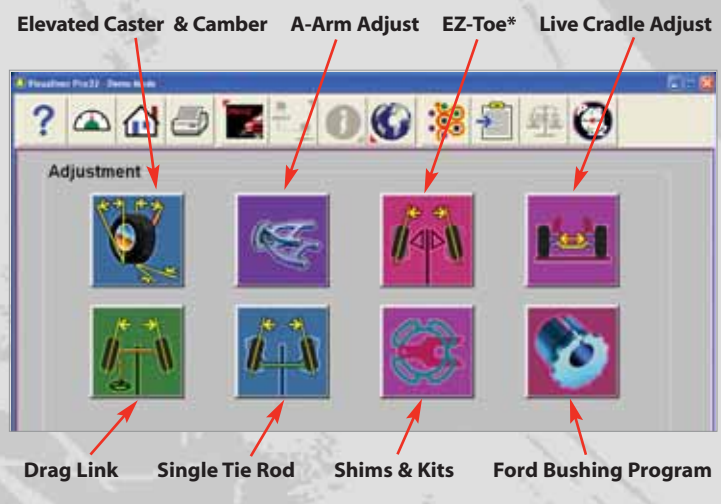
Clear and simple icons guide you quickly to the desired program step, for both measurement and adjustment as illustrated by the main menu.

Customer Data Base

Search by customer name, telephone number, vehicle registration number or VIN for previous customer and vehicle information.

Diagnostic Selection Menu

With a simple keystroke, open the advanced diagnostic menu, where each procedure walks you through the diagnosis and adjustment step by step.



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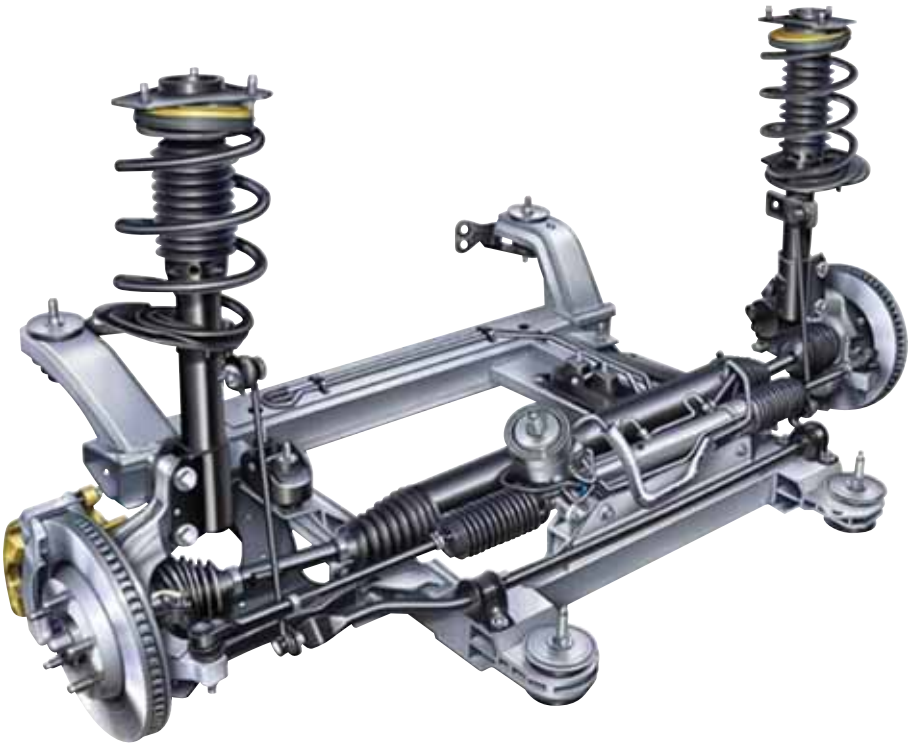
Advanced Ride Quality Features



Today's automotive suspensions are becoming ever more complex. Many of the advanced features incorporated into the Arago are designed to make the Technicians job easier and to increase efficiency. This advanced measurement capability is valuable when servicing vehicles having modified suspension systems or over/under-sized tires and wheels. Factory alignment specifications are intended for use on vehicles having factory wheels and suspensions. Modification of the wheels or suspension may require additional considerations during wheel alignment. This information is provided to assist the Technician in proper setting of the alignment angles.

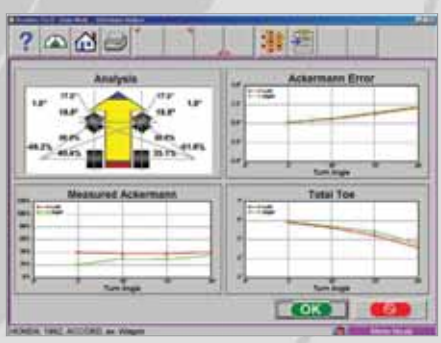
Advanced Suspension Analysis

John Bean's exclusive Scrub Radius* feature measures the distance from the intersection of the Steering Axis Inclination (SAI) with the ground to the center of the tire contact point. This measurement becomes increasingly important as suspension modifications and custom tire and wheel packages grow in popularity.

The system provides a simple graphic representation of the vehicle's Caster Trail*, SAI and Included Angle measurements—all important factors in a complete suspension analysis.

Pro Ackermann™*/Steering Symmetry

This process provides graphic displays with information that can be used to uncover issues related to unequal length tie rods, out of parallel steering rack, bent steering arms or mis-matched parts.



Toe Curve

This feature measures changes in front toe as suspension height changes, which can effect vehicle handling.

* *Patented and/or Patent Pending Features*

Arago V3D Model EEWA550A

FEATURES

Alignment Display
- Front Readings
- Rear Readings
- All Readings
- Zoom Readings
- Individual Camber
- Individual Toe
- Individual Caster
- SAI & Thrust Angle
- Included Angle
- Front & Rear Setback
- Toe Out On Turns
- Front Caster (-28° to +28°)
- Front & Rear Camber (-15° to +15°)
- Front & Rear Toe

Meter And All Reading Screens
- Advanced Alignment Measurements with reading/specifications and cross values
- Meter Screens
- Live 3-D Modeling*

Four-way System Controls
- Voice Align™ (optional)*
- Remote control

(Four-way System Controls continued)
- Console keyboard
- Optical Mouse

Other Software Features
- 3-D Animation
- Live Video Helps (Multimedia)
- Multiple A-Arm Adjust
- Adjust Camber Only
- Elevated Adjustments
- Active Cradle Adjustments
- Drag Link Adjust
- 4-Wheel Steer Adjust
- Rear Shim Programs
- EZ-Access (wheels off)
- Driver Complaint Diagnostics
- A/I Alignment Diagnostics
- Adjustment Help Files
- EZ-Track Data Base
- Align Specs -30 years
- EZ-Toe
- Suspension Plus
- Ride Height Charting
- Wheel Dimensioning *Plus*

(Other Software Features continued)
- User Login
- 2-Wheel Alignment Wizard

Advanced Measurements
- Scrub Radius*
- Caster Trail*
- Pro-Ackermann™*
- Rolling Radius*
- Cross Diagonal*
- Steering Asymmetry with Diagnostics*

Additional Setups
- Programmable Alignment Wizards
- OEM Wizards
- Set-back in Align Path
- Thrust Align Only
- Selectable Cross Values
- 28 Languages
- Custom Inspections
- Multiple Print Formats
- Inspections and Reports
- Shop Management Interface

SPECIFICATIONS

Available Configurations
- EEWA550A - Standard Configuration - 19″ Color CRT
- EEWA550AL - Standard Configuration - 19″ Color LCD

Computer Alignment Systems
- 19" color monitor
- Mobile deluxe cabinet
- State-of-the-art Dell® PC
  - 256MB RAM
  - 40GB Hard Drive (minimum)
  - High Speed USB.2
  - Keyboard & Optical Mouse
  - Windows XP
  - Network Interface
  - iShop™, ShopKey™, ASANet™ compatible
- Color Ink Jet Printer
- Wheel Clamps
- 3-D Animated graphics
- DigiSmart™ Camera System

Standard Accessories
- Universal Wheel Clamp 11″-25″
- Steering wheel holder
- Brake pedal depressor
- Remote controller

Optional Equipment
- Stainless steel turntables *JBC054*
- Rollback Kit for stainless turntables *JBC055*
- Roll Forward Kit for 4-post *JBC056*
- Stainless Turntables (Hunter/Rotary) (Set: 2) *89261*
- JBC V3D Roll Back Kit (Rotary) *89327*
- JBC V3D Roll Back Kit (Hunter) *89328*

Optional Accessories
- 29″ Universal Wheel Clamp Extension Kit - *EAK0268J62A*
- Voice Align™* Kit *EAK0222J17A*
- Alloy Quick Clamp Kit - *EAK0268J63A*
- Ride Height Target Kit - *EAK0246J71A*
- Remote Display Readout w/ 30′ cable - *EAK0268J08A*
- Hub Adapter Kit (wheels-off alignment) - *EAK0222J83A*

Equipment Specifications
- Wheel size: 11″ - 25″
- Tire diameter: unlimited
- Track width: 48″ - 96″
- Wheel base: 79″ - 200″

Power Requirements
- 115V/230V, 1Ph, 50/60 Hz, 6amp/3amp

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Snap-on Equipment

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