

Vision Based 3D Wheel Aligner



Model : **FOX 3D Auto Boom**



Unique "ALIGN+" Software

Automatic camera beam movement synchronized with movement of the vehicle on the lift. All measurements can be done at floor level and adjustments at any convenient level. Provision for manual height adjustment also.

Model : **FOX 3D VH**



VH (Variable Height) - Horizontal beam with camera can be fixed at any desired level.

Designed to perform alignment on Scissor lift, Four Post Lift and Pit.

Model : **FOX 3D PT**



PT (Pit Version) - Designed to perform on Alignment pit.



Quick Alignment



Data Manager



Hindi Software

10 Mega Pixel Camera



Unique "ALIGN+" Software

Data acquisition using high resolution scientific imaging cameras



No Electronics on wheels

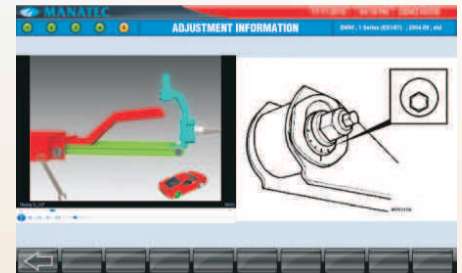
SIMPLE 4 STEP ALIGNMENT : SAVE TIME - INCREASE REVENUE



01 Pre-Alignment Inspection



02 Push - Pull Runout



Animation guidance
(optional features Available in Autodata)



03 Turn Left / Right



04 Alignment Results

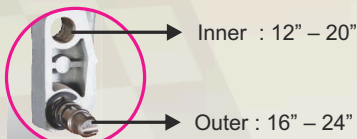


Live readings to adjust

Universal Wheel Bracket



Suitable for 12" – 24" rim diameter.



Inner : 12" – 20"

Outer : 16" – 24"

Alloy Rim & Run Flat Tyre

Steel Rim with Fancy disc

Targets



Jacked up Camber Adjustment



Quick Align Program

Features Menu

Unique OEM wizard program helps in customizing the screens by the technician himself by selecting and skipping routine inspection screens, attention screens, Caster swing etc.,

This saves considerable time and increases the productivity of the alignment centre.



Useful features like vehicle information modification, multi users function, vehicle data updates, unit conversion etc. are available.

Data Manager

Data Manager software to retrieve alignment history by month, year and registration number. Useful tool for workshop managers.



Lift level compensation



Salient Features









- Vision based 3D Imaging technology using 2 High Performance SI (Scientific Image) Camera
- Simultaneous Front and Rear wheel alignment (4x4)
- Push Pull Runout /Setback / Thrust angle compensation
- Lift level compensation at adjustment level
- Unlimited memory for vehicle specifications
- Option for selection of vehicle specification during alignment
- Power failure data protection
- Automatic tracking of Left & Right turns for Caster/Kingpin measurements
- Adjustment of Camber in wheel Jacked-up position & Toe curve measurement
- Rear Setback & Track width difference,
- Toe adjustment in single Tie rod vehicle, Vehicle geometry measurements
- Effortless Toe (Easy Toe) adjustment program
- Camber measurement at Zero Toe
- Drag link adjustment
- Toe out on Turns & Lock angle measurements
- Animated pictorial display of angles during alignment
- Zoom in option for live parameters
- Two Color Bar display for adjustment of all angles
- Quick Wheel Alignment program by user defined
- Data Manager Software for storing alignment results
- Customer Address in printout & customer data edit option
- 3-D Pictorial & Two color text printout
- Multi-lingual program & Voice prompt
- Two wheel Alignment program by fixing only front two target plates

When a scissor lift or a 4-post lift is used for wheel alignment, there may be level differences during the elevation of the platforms. These differences will affect castor/camber angles mostly. Compensation feature will overcome the error in readings due to level unevenness during elevation.




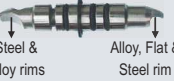
Technical Specifications

| Measurement parameters | Range | Accuracy |
|--------------------------------|-------------------------------|-----------|
| Camber (Front / Rear) | ± 15° 00' | ± 00° 02' |
| Caster | ± 28° 00' | ± 00° 05' |
| Kingpin Inclination | ± 25° 00' | ± 00° 05' |
| Toe (Front / Rear) | ± 20° 00' | ± 00° 02' |
| Total Toe | ± 40° 00' | ± 00° 04' |
| Toe Out on Turns | ± 20° 00' | ± 00° 02' |
| Setback (Front / Rear) | ± 25 mm | ± 2 mm |
| Thrust angle | ± 05° 00' | ± 00° 02' |
| Runout | ± 10° 00' | ± 00° 02' |
| Included angle | ± 40° 00' | ± 00° 05' |
| Track width difference | ± 300 mm | ± 5 mm |
| Power supply | 230V AC, 50Hz / 110V AC, 60Hz | |
| Power consumption | 200W (without Printer) | |
| Power consumption for Autoboom | 400W (without Printer) | |
| Operating temperature | 0° - 50°C | |

Standard Accessories

| | | | |
|---|--|--|--|
|  Target Plates - 4 Nos. |  Wheel brackets (12" - 24") - 4 Nos. |  Rotary Plates - (2 ton) - 2 Nos. |  Steering Lock - 1 No. |
|  Brake Pedal Lock - - 1 No. |  Wheel stoppers - 2 Nos. |  PC with LED Monitor, Keyboard & Mouse |  Align+ & Data Manager Software |

Optional Accessories

| | | | |
|---|---|--|--|
|  Printer (Inkjet or Laser)-1 No. |  Long Rear wheel sliders - 2 Nos. |  Wheel Bracket adapters (10"-26") - 16 Nos. |  Rim locking pin - 16 Nos. |
|---|---|--|--|

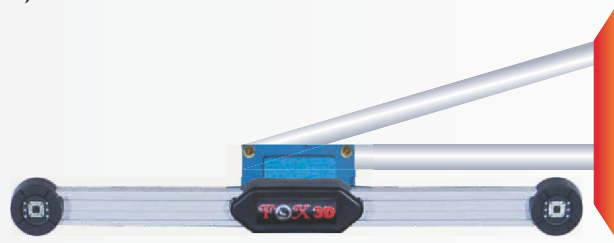
Fox 3D Customized Installation Configurations

Installation of Fox 3D Wheel Aligner can be customized depending on the availability of space in the customer premises.

The Horizontal beam fitted with camera sensors can be installed using various configurations without any change in Technical features and Specifications, as indicated below.



Roof Hanging



Wall Mount Sidewise



Double Side Wall Mount



Wall Mount



Horizontal beam with cameras is mounted on elevated position using our Double Side Wall Mount model - **Space clearance at ground level.**

Installed close to the wall at a minimum width and length of the Alignment bay - **Space saving.**

Graphical Printout

WHEEL ALIGNMENT CENTRE
Mohan Nagar, Puducherry.

WHEEL ALIGNMENT RESULTS Job Number - 0163

Date : 10/07/2012 TIME : 10:43 Regn. No. : PY-01-L-1832
 Mechanic : RAM Owner : MANATEC
 Odometer : 253688 Address : INDUSTRIAL ESTATE
 Make : HYUNDAI City : PUDUCHERRY
 Model : SANTRO / XING State : PUDUCHERRY
 Phone : 1253685

LEFT

TOE: +0°00'

CAMBER: +0°13'08"

KINGPIN: -0°01'04"

CASTER: +0°02'26"

RIGHT

TOE: +0°00'00"

CAMBER: -0°00'42"

KINGPIN: +0°01'10"

CASTER: +0°02'20"

THRUST ANGLE: +0°00'03"

LEFT

TOE: +0°00'06"

CAMBER: +0°04'42"

RIGHT

TOE: -0°00'12"

CAMBER: -0°11'02"

Manatec Electronics Pvt. Ltd.
Babour Main Road, Karikalampakkam, Puducherry - 605 007, India. | sales@manatec.net

Text Printout

WHEEL ALIGNMENT CENTRE
Mohan Nagar, Puducherry.

WHEEL ALIGNMENT RESULTS Job Number - 0468

Date : 05/04/2014 TIME : 12:08 Regn. No. : PY-01-AB-2856
 Mechanic : Pandian Owner : MANATEC
 Odometer : 25952 Address : INDUSTRIAL ESTATE
 Make : HYUNDAI City : PUDUCHERRY
 Model : SANTRO / XING State : PUDUCHERRY
 Phone : 0413 2248926

| DB : India (2014-1) | Before correction | Specification | | | After correction |
|--------------------------------------|---------------------------------|---------------|-----------|-----------|------------------|
| | | Min | Target | Max | |
| FRONT WHEEL ALIGNMENT RESULTS | | | | | |
| CAMBER | Left: +0°15'00" | +0°00'02" | +0°00'32" | +0°10'02" | +0°00'04" |
| | Right: -0°00'30" | +0°00'02" | +0°00'32" | +0°10'02" | +0°00'05" |
| | Max.diff. Left/Right: +0°22'20" | | +0°00'30" | | -0°00'01" |
| KINGPIN | Left: +12°30' | +12°15' | +12°45' | +13°15' | +12°45' |
| | Right: +11°00' | +12°15' | +12°45' | +13°15' | +13°00' |
| | Max.diff. Left/Right: +0°13'30" | | +0°00'30" | | +0°00'15" |
| INCLUDED ANGLE | Left: +0°00'00" | --- | +13°17' | --- | +10°44' |
| | Right: +0°00'00" | --- | +13°17' | --- | +10°35' |
| | Max.diff. Left/Right: +0°00'00" | | --- | | +0°00'09" |
| CASTER | Left: +0°33'30" | +0°15'59" | +0°22'39" | +0°25'59" | +0°23'30" |
| | Right: +0°12'20" | +0°15'59" | +0°22'39" | +0°25'59" | +0°20'00" |
| | Max.diff. Left/Right: +0°21'10" | | +0°00'30" | | +0°00'30" |
| SETBACK | 0mm | --- | --- | --- | 0mm |
| TOE | Left: +0°00'30" | -0°02'20" | +0°04'42" | +0°14'44" | +0°00'01" |
| | Right: +0°00'00" | -0°02'20" | +0°04'42" | +0°14'44" | +0°00'08" |
| | Max.diff. Left/Right: +0°00'30" | | +0°10'02" | | +0°00'07" |
| TOTAL TOE | +0°00'30" | -0°04'40" | +0°12'44" | +0°32'28" | +0°00'09" |
| REAR WHEEL ALIGNMENT RESULTS | | | | | |
| CAMBER | Left: +0°00'00" | -0°00'30" | +0°00'00" | +0°00'30" | +0°00'20" |
| | Right: +0°00'00" | -0°00'30" | +0°00'00" | +0°00'30" | +0°00'20" |
| | Max.diff. Left/Right: +0°00'00" | | +0°00'00" | | +0°00'00" |
| THRUST ANGLE | --- | --- | --- | --- | +0°00'08" |
| TOE | Left: -0°00'30" | -0°10'02" | +0°00'00" | +0°10'02" | +0°00'01" |
| | Right: -0°00'30" | -0°10'02" | +0°00'00" | +0°10'02" | +0°00'07" |
| | Max.diff. Left/Right: -0°00'00" | | +0°00'00" | | +0°00'06" |
| TOTAL TOE | +0°15'00" | -0°20'04" | +0°00'00" | +0°20'04" | +0°00'08" |
| SETBACK | 0mm | --- | --- | --- | 0mm |

Pre-Alignment Inspection Report

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Mohan Nagar, Puducherry.

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 Model : SANTRO / XING State : PUDUCHERRY
 Phone : 1253685

| Pre - Alignment Inspection | | | | |
|----------------------------|----------|-------|---------|---------|
| Item | Comments | Check | Service | Replace |
| Tire Pressure | | Yes | No | No |
| Wheel Bearings | | Yes | No | No |
| Wheel Damper | | Yes | No | No |
| Steering Damper | | No | Yes | No |
| Steering Gear/Coupler | | No | Yes | No |
| Rack And Pinion | | No | Yes | No |
| Ball Joints | | No | Yes | No |
| Springs/Torsion Bar | | No | Yes | No |
| Shock/Strut | | No | No | Yes |
| Idler Arm | | No | No | Yes |
| Pitman Arm | | No | No | Yes |
| Center Link | | No | Yes | Yes |
| Control Arm/Bushings | | No | No | No |
| Strut Rod/Bushings | | No | No | No |
| Tie Rod Ends | | Yes | No | No |
| Tie Rod Adjusting Sleeve | | Yes | No | No |
| Stabilizer Bushings | | Yes | No | No |
| Spring Shackle Bushings | | Yes | No | No |
| Wheels/Fasteners | | No | Yes | No |
| Spring Shackle Bushings | | No | Yes | No |
| Spring Shackle Bushings | | No | No | Yes |

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