CE

FOX 3D
VISION BASED WHEEL ALIGNMENT

« Unique "ALIGN+" Software »

Model : FOX 3D Auto Boom



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 Alignment on pit.

Model : FOX 3D - DT



Drive Through model camera fitted with individual posts. More suitable for space constraint workshops giving access for free movement in shop without any obstruction due to horizontal beam.

Quick Alignment | Data Manager | Hindi Software



10 Mega Pixel Camera

Unique "ALIGN+" Software

Data acquisition using high resolution scientific imaging cameras

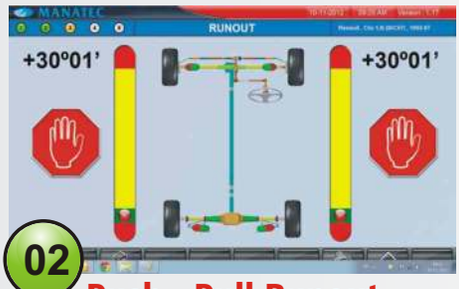


No Electronics on wheels

SIMPLE 4 STEP ALIGNMENT : SAVE TIME - INCREASE REVENUE



01 Pre-Alignment Inspection



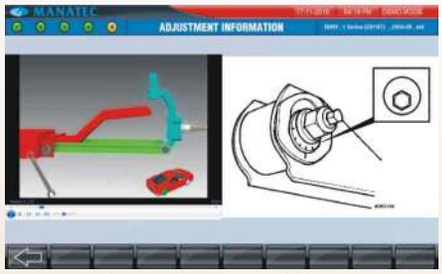
02 Push - Pull Runout



03 Turn Left / Right



04 Alignment Results



Animation guidance

(optional features Availabale in Autodata)

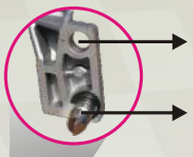


Live readings to adjust

Universal Wheel Bracket



Suitable for 12" – 24"rim diameter



Inner : 12" – 20"

Outer : 16" – 24"



Alloy rims & Run flat tyre

Steel rim with Fancy disc

SMART CONTROL - Optional

Tablet



Highly user-friendly Wi-Fi enabled tablet device to display alignment results and to operate the PC from the Alignment bay (Max 10 meters).

Remote Control



Portable 2.4 GHz Wireless control device to operate the PC from the alignment bay (Max 10meters).

Quick Align Program

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.



Features Menu



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



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.

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

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

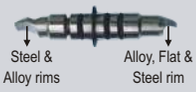

Align+ & Data Manager Software

Optional Accessories


Printer (Inkjet or Laser)–1 No.


Long Rear wheel sliders – 2 Nos.


Wheel Bracket adapters (10"-26") – 16 Nos.

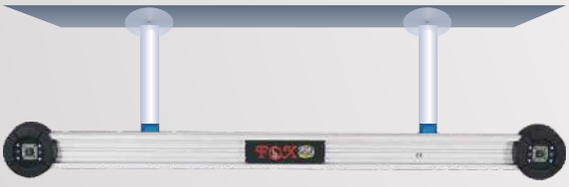


Rim locking pin – 16 Nos.

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



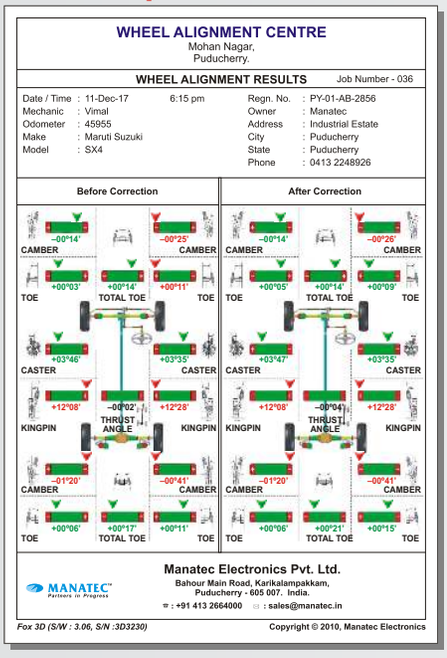


Horizontal beam with cameras is mounted on elevated position using our Double Side Wall Mount model - **Space clearance at ground level.**



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 - 036

Date / Time : 11-Dec-17 6:15 pm
Mechanic : Vimal
Odometer : 45955
Make : Maruti Suzuki
Model : SX4

Regn. No. : PY-01-AB-2856
Owner : Manatec
Address : Industrial Estate
City : Puducherry
State : Puducherry
Phone : 0413 2248926

Before Correction / After Correction

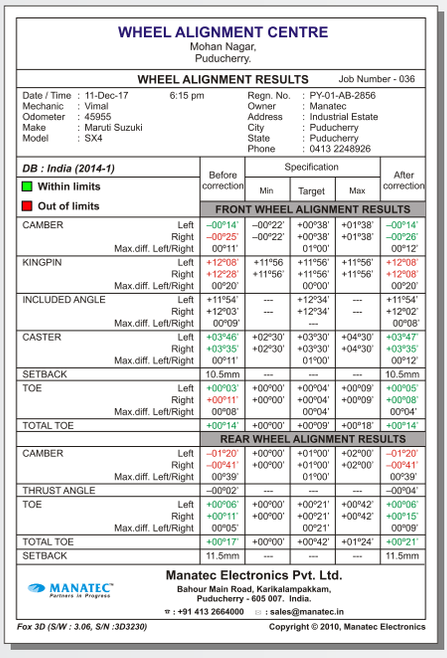
CAMBER −00°14' −00°25' | TOE +00°03' +00°14' +00°11' | CASTER +03°46' +03°35' | KINGPIN +12°08' +12°28' | THRUST ANGLE −00°02' | CAMBER −01°20' −00°41' | TOE +00°06' +00°17' +00°11' | TOTAL TOE

CAMBER −00°14' −00°26' | TOE +00°05' +00°14' +00°09' | CASTER +03°47' +03°35' | KINGPIN +12°08' +12°28' | THRUST ANGLE −00°04' | CAMBER −01°20' −00°41' | TOE +00°06' +00°21' +00°15' | TOTAL TOE

Manatec Electronics Pvt. Ltd.
Bahour Main Road, Karikalampakkam,
Puducherry - 605 007. India.
☎ : +91 413 2664000 ✉ : sales@manatec.in

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Text Printout



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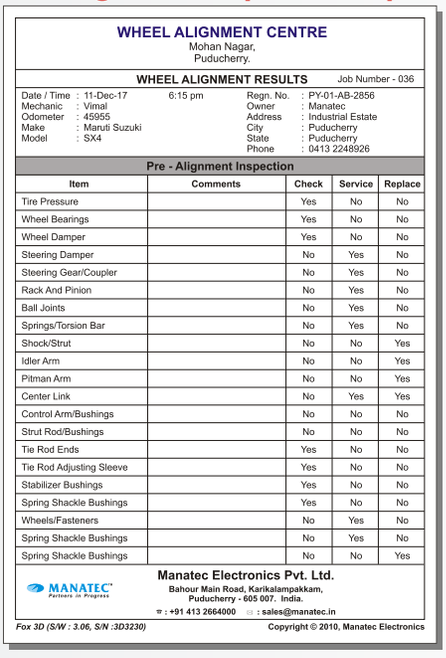
DB : India (2014-1)
Within limits
Out of limits

		Before correction	Specification Min	Target	Max	After correction
FRONT WHEEL ALIGNMENT RESULTS						
CAMBER	Left	−00°14'	−00°22'	+00°38'	+01°38'	−00°14'
	Right	−00°25'	−00°22'	+00°38'	+01°38'	−00°26'
	Max.diff. Left/Right	00°11'		01°00'		00°12'
KINGPIN	Left	+12°08'	+11°56	+11°56'	+11°56'	+12°08'
	Right	+12°28'	+11°56'	+11°56'	+11°56'	+12°08'
	Max.diff. Left/Right	00°20'		00°00'		00°20'
INCLUDED ANGLE	Left	+11°54'	---	+12°34'	---	+11°54'
	Right	+12°03'	---	+12°34'	---	+12°02'
	Max.diff. Left/Right	00°09'		---		00°08'
CASTER	Left	+03°46'	+02°30'	+03°30'	+04°30'	+03°47'
	Right	+03°35'	+02°30'	+03°30'	+04°30'	+03°35'
	Max.diff. Left/Right	00°11'		01°00'		00°12'
SETBACK		10.5mm	---	---	---	10.5mm
TOE	Left	+00°03'	+00°00'	+00°04'	+00°09'	+00°05'
	Right	+00°11'	+00°00'	+00°04'	+00°09'	+00°08'
	Max.diff. Left/Right	00°08'		00°04'		00°04'
TOTAL TOE		+00°14'	+00°00'	+00°09'	+00°18'	+00°14'
REAR WHEEL ALIGNMENT RESULTS						
CAMBER	Left	−01°20'	+00°00'	+01°00'	+02°00'	−01°20'
	Right	−00°41'	+00°00'	+01°00'	+02°00'	−00°41'
	Max.diff. Left/Right	00°39'		01°00'		00°39'
THRUST ANGLE		−00°02'	---	---	---	−00°04'
TOE	Left	+00°06'	+00°00'	+00°21'	+00°42'	+00°06'
	Right	+00°11'	+00°00'	+00°21'	+00°42'	+00°15'
	Max.diff. Left/Right	00°05'		00°21'		00°09'
TOTAL TOE		+00°17'	+00°00'	+00°42'	+01°24'	+00°21'
SETBACK		11.5mm	---	---	---	11.5mm

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Pre-Alignment Inspection Report



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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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