



ISO 9001 : 2008



MANATEC™
Partners in Progress

FOX 3D

VISION BASED WHEEL ALIGNMENT

Powered by
Align+ Software



- ▶ FOX 3D uses high resolution scientific imaging cameras with Digital Imaging Technology for data acquisition.
- ▶ Uses unique *Align+* software with Windows OS.
- ▶ Optimized design makes it most preferred Aligner considering its easy serviceability and affordability.



Quick Alignment



Data Manager



Hindi Language



Data acquisition using high resolution scientific imaging cameras



No Electronics on wheels

Available Fox 3D Configurations . . .



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.



Wall Mount

Flexibility of mounting camera beam on the wall. Advantage for space constrained workshops. Ideal for drive through service bays handling vehicles with minimum ground clearance. Suitable for PIT as well as LIFT applications.



Lift version

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



Pit version

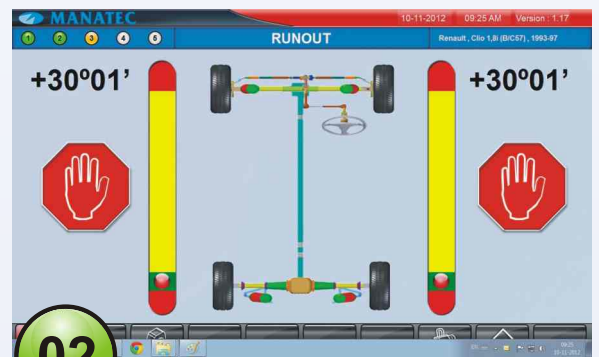
Designed to perform alignment on Alignment bay / pit.

[SIMPLE 4 STEP ALIGNMENT : SAVE TIME - INCREASE REVENUE]



01

Pre-Alignment Inspection



02

Push - Pull Runout



03

Turn Left / Right



04

Alignment Results

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.,

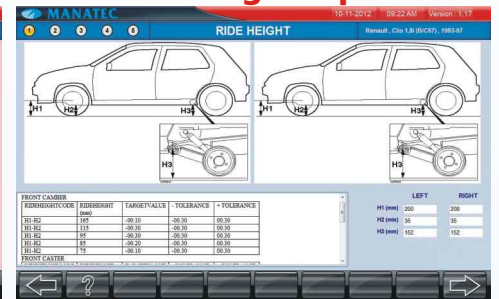
This saves considerable time and increases the productivity of the alignment centre.

Data Manager



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

Ride Height Input *



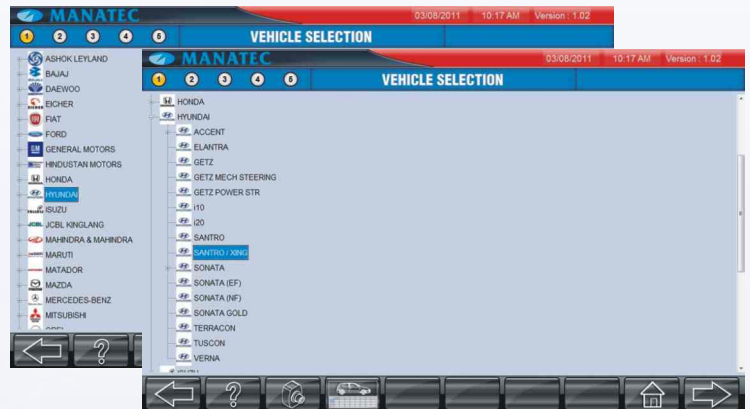
Ride Height table with manufacturer's specification will be displayed along with provision to enter the measured readings. This information helps technician to reconfirm the ride height readings. In case of skipping the ride height or entering incorrect value, a warning sign appears thus preventing the technician from making wrong adjustments to the angles.

3 Color Bar Code



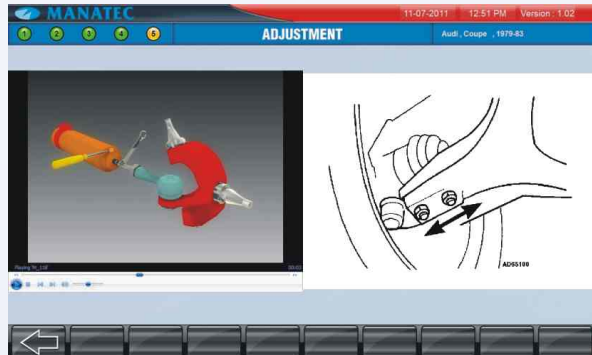
On-line correction mode helps operator to correct the alignment with easy 3 color bar code identification.

Vehicle Data



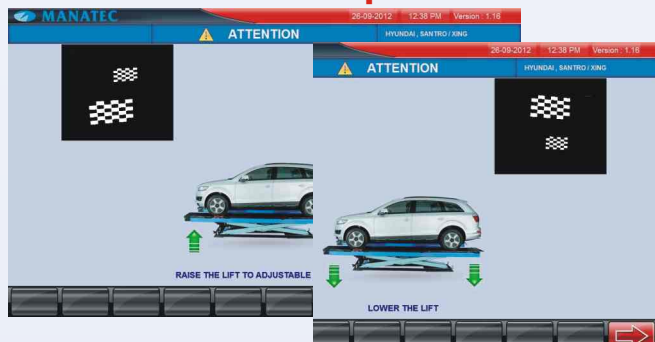
International vehicle data base with more than 20000 vehicle data including American & European data. User can also add, modify & delete data.

3D Animated Illustration *



3D animated illustrations provides vehicle specific adjustment information.

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.

Pre-loading condition



Exclusive screen for entering data on pre-alignment set up and pre-loading position, for specific vehicles like BMW.

Features Menu



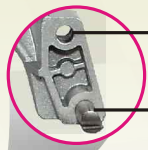
Useful features like vehicle information modification, multi users function, vehicle data updates, unit conversion etc. are available.

* Optional feature available in Autodata.

Universal Wheel Bracket



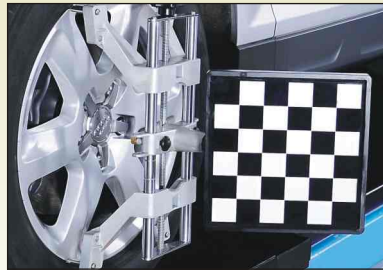
Suitable for 12" – 24" rim diameter.



Inner : 12" – 20"

Outer : 16" – 24"

Targets











Unique checker board targets. Rugged, No glass, No Electronics & Corrosion resistant.

Jacked up Camber Adjustment



Live Camber adjustment can be done in jacked-up condition eliminating trial & error method. Valuable alignment time is saved.



Standard Accessories

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

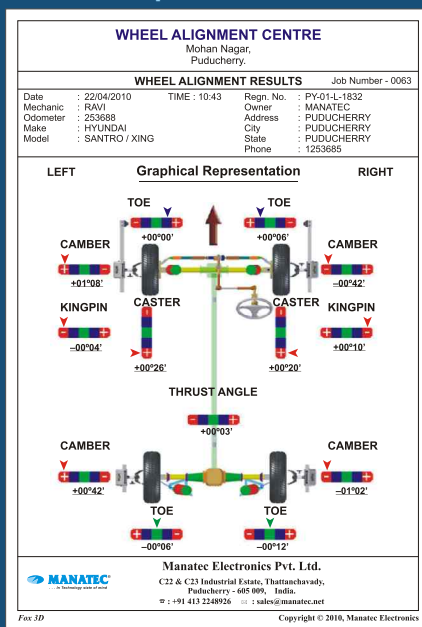
Technical Specifications

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	± 25° 00'	± 00° 05'
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	
Power consumption	300W (without Printer)	
Power consumption for Autoboom	600W (without Printer)	
Operating temperature	0° - 50°C	

Optional Accessories

	Printer (Inkjet or Laser) – 1 No.		Multimedia Speakers – 2 Nos.		Long Rear wheel sliders – 2 Nos.		Wheel Bracket adapters (10"-26") – 16 Nos.
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Graphical Printout



Text Printout

WHEEL ALIGNMENT CENTRE
Mohan Nagar, Puducherry.

WHEEL ALIGNMENT RESULTS Job Number - 0063

Date / Time : 22/04/2010 10:43 Regn. No. : PY-01-L-1832
Mechanic : RAVI Owner : MANATEC
Odometer : 253688 Address : PUDUCHERRY
Make : HYUNDAI City : PUDUCHERRY
Model : SANTRO / XING State : PUDUCHERRY
Phone : 1253685

		Before correction	Specification			After correction
			Min	Target	Max	
FRONT WHEEL ALIGNMENT RESULTS						
CAMBER	Left	+0°02'	+0°02'	+0°02'	+0°02'	+0°04'
	Right	+0°02'	+0°02'	+0°02'	+0°02'	+0°05'
	Max.diff. Left/Right	+0°00'	+0°00'	+0°02'	+0°00'	+0°01'
KINGPIN	Left	+0°00'	+12°15'	+13°15'	+10°40'	+10°40'
	Right	+0°00'	+12°45'	+13°15'	+10°30'	+10°30'
	Max.diff. Left/Right	+0°00'	+0°30'	+0°30'	+0°00'	+0°00'
INCLUDED ANGLE	Left	+0°00'	---	+13°17'	---	+10°44'
	Right	+0°00'	---	+13°17'	---	+10°35'
	Max.diff. Left/Right	+0°00'	---	---	---	+0°09'
CASTER	Left	+0°00'	+0°15'	+0°22'	+0°25'	+0°05'
	Right	+0°00'	+0°15'	+0°22'	+0°25'	+0°02'
	Max.diff. Left/Right	+0°00'	---	+0°30'	---	+0°03'
SETBACK	0mm	---	---	---	0mm	---
TOE	Left	+0°00'	-0°20'	+0°04'	+0°14'	+0°01'
	Right	+0°00'	-0°20'	+0°04'	+0°14'	+0°08'
	Max.diff. Left/Right	+0°00'	+0°00'	+0°10'	+0°10'	+0°07'
TOTAL TOE	+0°00'	-0°20'	+0°12'	+0°28'	+0°09'	---
REAR WHEEL ALIGNMENT RESULTS						
CAMBER	Left	-0°30'	-0°30'	-0°30'	-0°30'	+0°09'
	Right	-0°30'	-0°30'	-0°30'	-0°30'	+0°05'
	Max.diff. Left/Right	-0°00'	-0°00'	-0°00'	-0°00'	+0°04'
THRUST ANGLE	---	---	---	---	+0°06'	---
TOE	Left	-0°30'	-0°10'	+0°00'	+0°10'	+0°01'
	Right	-0°30'	-0°10'	+0°00'	+0°10'	+0°07'
	Max.diff. Left/Right	-0°00'	-0°00'	+0°10'	+0°10'	+0°06'
TOTAL TOE	+0°00'	-0°20'	+0°00'	+0°20'	+0°08'	---
SETBACK	0mm	---	---	---	0mm	---

Manatec Electronics Pvt. Ltd.
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Pre-Alignment Inspection Report

WHEEL ALIGNMENT CENTRE
Mohan Nagar, Puducherry.

WHEEL ALIGNMENT RESULTS Job Number - 0063

Date : 22/04/2010 TIME : 10:43 Regn. No. : PY-01-L-1832
Mechanic : RAVI Owner : MANATEC
Odometer : 253688 Address : PUDUCHERRY
Make : HYUNDAI City : PUDUCHERRY
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
Fitman 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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