



ISO 9001 : 2008



**MANATEC™**  
Partners in Progress

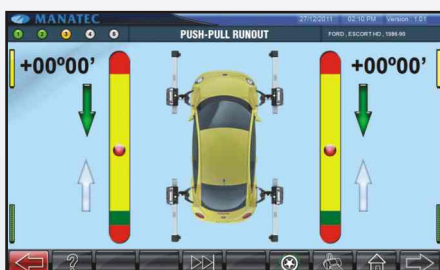
# CCD Wheel Aligner



CCD-Infra Red wireless technology for data acquisition.

RF Zigbee technology for data communication to main console.

Measures all wheel alignment parameters with excellent range and accuracy.



Push - Pull Runout compensation



12" - 24" Wheel bracket



Compact sensor arm



# RF TECHNOLOGY

Manatec RF wheel aligners are known for its measurement accuracy, user friendly software and its ability to perform quick wheel alignment thereby generating higher returns to customer. Its affordability and easy serviceability due to optimized design makes these aligners to be the most preferred.



**R pac Premium Plus (8x6) PPR**

Fully loaded Premium Aligner with 8 CCD cameras & 6 Inclinometers, LED Monitor, mobile cabinet with PC & printer and space for accommodating tools.



**R pac Premium (6x6)**

Economy Aligner with 6 CCD cameras & 6 Inclinometers, LED Monitor, mobile cabinet with PC & printer.



**DATA COMMUNICATION TO MAIN UNIT THROUGH RF @ 2.4 GHZ. WITH 100 METER RADIUS**

**WIRELESS TECHNOLOGY**



**DATA ACQUISITION THROUGH CCD INFRARED TECHNOLOGY**

Zigbee is a highly reliable RF transmission technology, which ensures 100% data transmission upto 100 meter radius and is superior to Bluetooth.

## SAVE ALIGNMENT TIME - INCREASE REVENUE



**Push - Pull Runout**

Runout of all four wheels are measured in a single Push-Pull without jacking up the vehicle. Results in 5 minutes saving of alignment time.



**Quick alignment program**

Unique quick alignment procedure to reduce alignment time by skipping through some screens. Significant savings in valuable alignment time.



2 minutes savings



### Adjustment of Camber in Jacked up condition

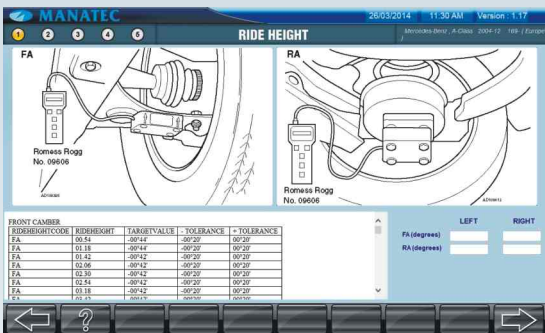
Special software for adjusting the camber in jacked up condition. Operator can easily access the adjustment points and tighten or loosen the bolts. Significant savings in valuable alignment time.



### Spoiler Program

Unique spoiler program to perform alignment on low body vehicles upto 3° 30' (31mm) tilt. Sensor heads can further be lowered by the center block of wheel bracket low chassis vehicles.

### Ride height condition



Special input screen for feeding Ride height specifications, which is critical for specific vehicles like Mercedes Benz.

### Pre-loading condition



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

### Vehicle Data

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



### Technical Specifications

Measurement parameters	Range	Accuracy
Camber (Front / Rear)	± 10° 00'	± 00° 02'
Caster	± 20° 00'	± 00° 05'
Kingpin Inclination	± 20° 00'	± 00° 05'
Toe (Front / Rear)	± 05° 00'	± 00° 02'
Total Toe	± 10° 00'	± 00° 04'
Setback (Front)	± 05° 00'	± 00° 02'
Thrust angle	± 05° 00'	± 00° 02'
Runout (Front / Rear)	± 10° 00'	± 00° 02'
Included angle	± 30° 00'	± 00° 05'
Setback (Rear) #	± 05° 00'	± 00° 02'
Track width difference #	± 02° 00'	± 00° 04'
Lock angle (Optional)	± 60° 00'	± 00° 20'
Toe Out on Turns (Optional)	± 60° 00'	± 00° 20'
Power supply	230V AC, 50Hz.	
Power	200W	
Sensor arm Battery	6V, 7AH	
Operating temperature	0° - 50°C	
Battery backup time	> 12 hours	

# Feature not available in (6x6) models.



### 2 Color Bar Code

Live correction mode helps the operator to correct the alignment with easy 2 color bar code identification. (ie. within limits or out of limits).



### Animated Graphics

User friendly step by step alignment instructions are given by animated 3D graphics.



### Alignment Results

Alignment Results in Single Screen

# MULTIPLE PRINT FORMATS

**WHEEL ALIGNMENT CENTRE**  
Mohan Nagar,  
Puducherry.

**WHEEL ALIGNMENT RESULTS** Job Number - 0163

Date : 10/11/2012 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** +00°00'

**CAMBER** +01°08'

**KINGPIN** -00°04'

**CASTER** +00°26'

**SETBACK** +00°11'

**THRUST ANGLE** +00°03'

**RIGHT**

**TOE** +00°06'

**CAMBER** -00°42'

**KINGPIN** -00°10'

**CASTER** +00°20'

**SETBACK** +00°11'

**THRUST ANGLE** +00°03'

**Manatec Electronics Pvt. Ltd.**  
Bhour Main Road, Karikalampakkam,  
Puducherry - 605 007, India.  
☎ : +91 413 2664000 ✉ : sales@manatec.net  
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Graphical Printout

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	Before correction	Specification			After correction	
		Min	Target	Max		
<b>FRONT WHEEL ALIGNMENT RESULTS</b>						
CAMBER	Left	-01°06'	+00°02'	+00°32'	+01°02'	-01°08'
	Right	-00°46'	+00°02'	+00°32'	+01°02'	-00°42'
	Max.diff. Left/Right	01°52'	---	00°30'	---	01°50'
KINGPIN	Left	-00°04'	+12°15'	+12°45'	+13°15'	-00°04'
	Right	-00°10'	+12°15'	+12°45'	+13°15'	-00°10'
	Max.diff. Left/Right	00°06'	---	00°30'	---	00°06'
INCLUDED ANGLE	Left	+01°02'	---	+13°17'	---	+01°04'
	Right	-00°26'	---	+13°17'	---	-00°22'
	Max.diff. Left/Right	01°58'	---	---	---	01°56'
CASTER	Left	+00°28'	+01°59'	+02°29'	+02°59'	+00°26'
	Right	+00°18'	+01°59'	+02°29'	+02°59'	+00°20'
	Max.diff. Left/Right	00°10'	---	00°30'	---	00°06'
SETBACK		+00°11'	---	---	---	+00°11'
TOE	Left	+00°00'	-00°20'	+00°42'	+01°44'	+00°00'
	Right	+00°06'	-00°20'	+00°42'	+01°44'	+00°06'
	Max.diff. Left/Right	00°06'	---	01°02'	---	00°06'
TOTAL TOE		+00°06'	-00°40'	+01°24'	+03°28'	+00°06'
<b>REAR WHEEL ALIGNMENT RESULTS</b>						
CAMBER	Left	+00°42'	-00°30'	+00°00'	+00°30'	+00°42'
	Right	-00°56'	+00°00'	+00°30'	+01°02'	-01°02'
	Max.diff. Left/Right	01°38'	---	00°30'	---	01°34'
THRUST ANGLE		+00°04'	---	---	---	+00°03'
TOE	Left	-00°04'	-01°02'	+00°00'	+01°02'	-00°06'
	Right	-00°14'	-01°02'	+00°00'	+01°02'	-00°12'
	Max.diff. Left/Right	00°10'	---	01°02'	---	00°06'
TOTAL TOE		-00°18'	-02°04'	+00°00'	+02°04'	-00°18'
SETBACK		-00°09'	---	---	---	-00°08'

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Text Printout

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 Mechanic : RAM Owner : MANATEC  
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 Make : HYUNDAI City : PUDUCHERRY  
 Model : SANTRO / XING State : PUDUCHERRY  
 Phone : 1253685

Pre - Alignment Inspection				
Item	Comments	Check	Service	Replace
Tire Pressure			Yes	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
Ifler 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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Pre-Alignment Inspection Report

## Compact Measuring Heads



Light & sleek measuring heads with remote control membrane key pad eliminates frequent movement of operator between vehicle and the machine. CMOS components used in the design to reduce power consumption.

## Standard Accessories

- 4 Nos. of Wheel bracket (12" - 24")
- 2 Nos. of Rotary Plate - LCV (2 ton)
- 1 No. Steering Lock
- 1 No. Brake Pedal Lock - LCV
- 1 No. PC with LED Monitor, Keyboard & Mouse
- 1 No. Wheel Alignment & Data Manager Software



## Optional Accessories

- 1 No. Printer (Inkjet / Laser)
- 2 Nos. of Multimedia Speaker
- 2 Nos. of Electronic Rotary Plate (2 Ton)
- 2 Nos. of Short Rear wheel slider
- 2 Nos. of Long Rear wheel slider
- 4 Nos. of Sensor arm cable
- 2 Nos. of Wheel stopper
- 16 Nos. Fancy disc Rim locking pin



# Wheel Alignment Scissor Lift

**Model : ME - WASL C45 4.5 Ton**



Center Jack Scissor Lift

- One number of wheel free jack as standard supply
- Large platform scissor lift

**Model : ME - WASL D45 4.5 Ton**



Double Scissor Lift

- Double-level platform scissor lift
- Adjustable second-lifting platform length



**Corporate Office :** C-22 & 23, Industrial Estate, Thattanchavady, Puducherry - 605 009. INDIA.  
Ph : 0413 - 2232900 ♦ Fax : 0413 - 2232938 ♦ Email : sales@manatec.in

**Factory :** Bahour Main Road, Karikalampakkam, Puducherry - 605 007, INDIA  
Ph : 0413 - 2664000 ♦ Fax : 0413 - 2664099

**Regd. Office :** 19A, Abinav kailash (Ground Floor), Velacherry Road, Little Mount, Saidapet, Chennai - 600 015, INDIA ♦ Ph : 044 - 30406434



**Zonal Offices :** NEW DELHI : 011 - 25144777 Email : ro\_del@manatec.in  
 KOLKATA : 033 - 32969202 Email : ro\_kol@manatec.in  
 MUMBAI : 022 - 32521673 Email : ro\_mum@manatec.in  
**Regional Office :** GUWAHATI : 094351 09351 Email : sarkar@manatec.in

**Toll Free Help Line**  
**1800-425-2080**