LAUNCH

Product Guide
X – 531, X – 231

20071128 X-531 X-231 Product Guide AI01 English
Launch Tech Co Ltd.

Content:

1 GENERAL PRODUCT INFORMATION

Manufacturer
Launch Tech Co Ltd.

Address
Launch Industrial Park
Shenzhen
P.R. China

Attn.
Testing Department

Internet:
www.cnlaunch.com

Available Target Data

- Passenger and Van Data set

Available languages:

- Chinese
- English

Other languages on request

Please check Internet for latest version.

2 PROPOSAL

X - 531

Fast, simple, profitable, the CCD Wheel Aligner from Launch Tech.

Fast: 6 steps for a complete alignment

Permanent data transfer

Live precise measurement readings

Time saving features:

Fast Test

Lower car function

Customer defined car data base

Adjustment in lifted position for toe, camber, caster

Level gauge online control

Simple: Self centring clamps

Cable free measurement, removes hassle for broken cables

Ease of use programme

Overview of measurement data in 2 views

Profitable: Probe rod with robust aluminium casting frame for long time use

High quality Lenovo (IBM) Computer

Fast and simple reduce work time for the alignment

Unbeatable price / performance ratio

Target customer:

Independent Workshop or tire service shop with a high amount of wheel alignments. Precision and speed is asked for.

Fast wireless measurement is needed.

X - 531, the wheel alignment system for passenger cars and light trucks.

Wheel Alignment measurement is done with 8 CCD Cameras, 4 camber inclinometer, 4 KPI inclinometer and Bluetooth or 433 MHz radio data transfer between sensor heads and cabinet. The CCD camera technology allows precise wireless measurement.

The robust aluminium casting frame guarantees the precise measurement for long time. The batteries are capable for one day working without recharging.

The software, a complete bundle of programme and target data, is easy to use and contain nearly all kind of cars worldwide.

All this together makes this wheel aligner X-531, to one of the best.

X - 231

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3 MARKETING

Operation Manual

Chinese, English ERP Nr: 10 70 10 698

Service book

Chinese,English ERP Nr:

Maintenance book

Chinese, English ERP Nr:

Installation and Spare part list

Chinese, English ERP Nr: 10 70 10 699

Product Information CD

Chinese, English ERP Nr:

Warranty manual

Chinese, English ERP Nr: 10 70 10 086

(With all documentation and pictures)

4 ADVANTAGES OF X - 531, X - 231 WHEEL ALIGNER

Sensor head

a. Solid Aluminium Frame with rugged plastic cover

Measurement accuracy and repeatability for long time use.

b. Weight saving construction of probe rod

As lighter as better, reduce lifting power for the technician

Measurement readings are better, because less gravity influence

c. 2 High resolution CCD Cameras (Charge-Coupled Device)

Measure wireless precise toe, track width, wheel base and toe out on turns without electronic turn tables

d. 1 Camber, 1 KPI inclinometer

Save cost for after sales, just change the damaged parts

e. LCD display on the probe rod

Indication of toe and camber readings

f. Function keys on the probe rod

Control the programme, forward and backward, run out, power off command possible

g. Recharging of the batteries via cables (only radio version)

Save cost for after sales, easy to exchange

h. Radio antennas inside the plastic covers (only radio version)

Protects antenna

Programme

a. Ease of use program with function keys

Simple structure with direct access to the programme steps

b. Several choices of measurement:

i. step by step program guided

ii. fast measurement

iii. direct selection

Speeds up process

c. Only 7,5 degrees wheel turning for caster measurement necessary

Save time during measurement, most competitor do the castor sweep at 10 or 20 degr, we can do it faster

d. Clear catchy measurement pictures

Easy to see at a distance

e. Green, red colour for in or out of tolerance indication by arrows

Traffic light indication

f. Live view of measurements

Adjust and see the movement direct

g. Choice of 2 data views direct after caster sweep

i. In tabular form

For the technician

ii. In graphic form

For the customer as explanation

h. Choice of 3 print protocols

i. In tabular form with data specs

For the technician

ii. In tabular form without data specs

For the customer, if you do not want to explain

iii. In graphic form

For the customer as explanation

i. Lower car programme

Possible to measure vehicles with front or rear spoiler without spoiler adapter

j. New learner programme with animations or demo version for training at school

Explain program steps and terminology for the beginners

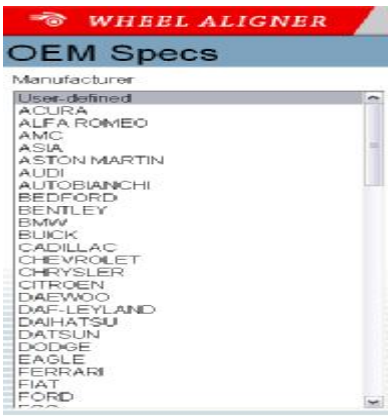
k. Zoom function for measurement values

Allows adjustment not only in straight ahead position

l. Adjustment in lifted position for toe, camber, caster

Good access for toe rod, nesseccary for some cars

Target data



a. more than 20.000 specifications for more than 48 car manufacturers

Quality and quantity unbeatable

b. every time, everywhere upgrade via Internet

Updates only on click away, 24 h service

c. with adjustment pictures

Helpful, saves time and money

d. in different languages available

Mother language explains it better

a. Compact, functional design

Makes it attractive for technician and customer

b. Mobile, can be used on different lifts

Problems with the lift, no problem for the aligner

c. 17'' Monitor

Standard Monitor, save costs

d. Lenovo (IBM) OEM computer

Worldwide service by Lenovo

e. Windows printer in drawer, protected from dust.

Programme compatible, save costs when printer should be replaced

f. Big wheels

Easy to move

Extra storage inside the cabinet

For manuals or needed tools

g. Extra protection (X – 531)

Protects all inside from dust

Accessory

a. Steering wheel holder

Spring loaded

b. Brake lock

Easy handling

c. Solid mechanical turn table

Up to 1 to load per wheel

Optional

a. Long sliding plates

Covers nearly all wheel bases, up to 1,5 to load per wheel

D. Ramps for turn table

Soft drive on

C. Calibration device

Test and calibration of the system can be done without any help

5 COMPETITOR OVERVIEW

	Launch	Hunter	Snap On	Beissbarth	Corghi	Wonder
Manufacturer						
Variation	KWA 300 3 D X-531 X-231	Hawk Eye DSP 600 DSP 600 CM DSP 500 With Software 811 511 PA 100 With different Cabinets	V3D 3 D (1/2) V 901 V 501 V301	Touchless Tech Easy 1800	Exact Black Tech Exact 7000 Exact 700 Exact 680 Exact 68 Exact 58 Exact 28	PD-3300 W-828-B W-939-BL TB-4s (Truck)
Technology	No 3 D 8 CCD Cam No	No 3 D 8 CCD Cam 6 CCD Cam	No 3 D 8 CCD Cam 6 CCD Cam	Touchless No 8 CCD Cam 6 CCD Cam	No 3D 8 CCD Cam No	NO NO 8 PSD Cam Laser + LCD
Data transfer	2,4 GHz Blue-tooth Cable	2,4 GHz Cable	2,4 Ghz Cable	2,4 GHz 433 MHz Cable	2,4 GHz Cable	2,4 GHz Infrared
Power supply of the sensor heads	Build in batter-ies Cable	Changeable bat. Cable	Changeable bat. Cable	Changeable bat. Build in bat. Cable	Changeable bat. Build in bat. Cable	
PC System	Lenovo	No Name	Dell	No Name	No Name	No Name
Operation system	Windows Home	Windows Prof Windows Home Linux	Windows Prof Windows Home	Windows Prof Windows Home	Windows Prof Windows Home	Windows
Programme	X – Line (Stan-dard)	811 511 PA 100	OEM routines	Tech (OEM routines) Easy (Standard)	OEM routines	
Target data	X - Line	OEM Alldata	OEM Autodata?	OEM Beissbarth	OEM Autodata?	

Accessories	Steering wheel holder	Steering wheel holder	Steering wheel holder	Steering wheel holder	Steering wheel holder
	Brake lock	Brake lock	Brake lock	Brake lock	Brake lock
	Mech. Turn table				
		Remote display	Remote control	Remote control	Remote display
Optional					
	Quick clamps	Alloy Clamp device		Quick clamps	Femas Clamps
	OEM Clamps	OEM Clamps	OEM Clamps	Multi Quick Calmps	OEM Clamps
		Ride height measurement		OEM Clamps	
		Different Measurement Programmes		ADR, LDW	ADR
				Mobile solution with Tablet Pc	
				Micro weight system	

6 TECHNICAL DATA X – LINE

X – 531 Dimension: Cabinet with 17"color-monitor: w x d x h: 132X72X160 cm,
Weight: Cabinet with monitor 100kg, accessory 91kg

X – 231 Dimension: Cabinet with 17"color-monitor: w x d x h: 132X72X155 cm,
Weight: Cabinet without monitor 80kg, accessory with monitor 116 kg

Colour: RAL (grey) / RAL (red)

Power supply: 100-115V AC / 220-240V AC
Frequency: 50/60Hz

Radio system: frequency range 2,4 GHz (MHz 433) Multi channel-system

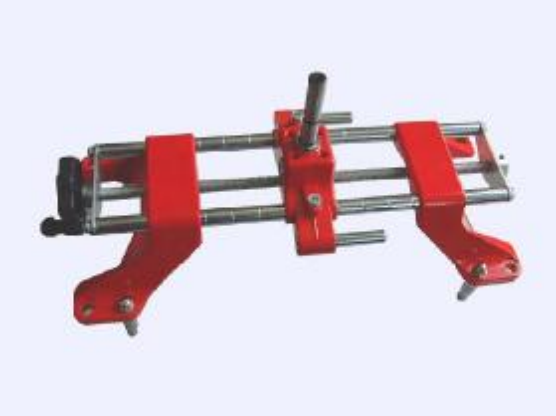
Operation temperature: -10°C -- + 50°C

Storage temperature: -10°c -- + 50°C

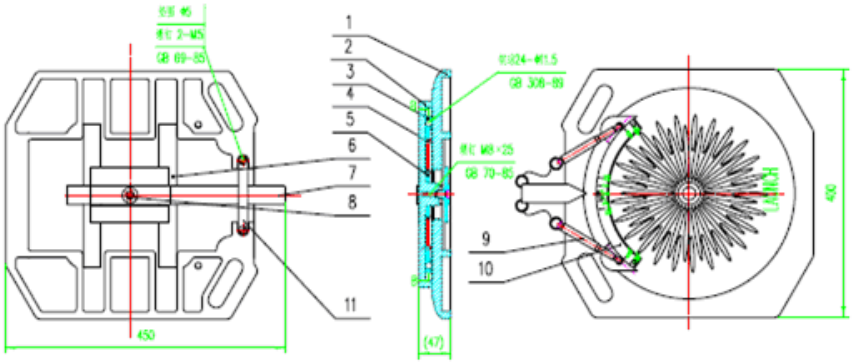
Possible measurements:	**Measuring accuracy**	**within measurement range**
Total wheel toe angle (VA+HA)	± 2’	±16.0º
Individual wheel toe (VA+HA)	±1’	±8.0º
Camber angle	±1’	±8.0º
Wheel setback (VA)	±2’	±10º
Angle to axis	±2’	±10º
Castor	±4’	±20º
Kingpin inclination	±4’	±20º
Toe out on turns		
Castor correction range		

Text on screen appears in the relevant language as programmed

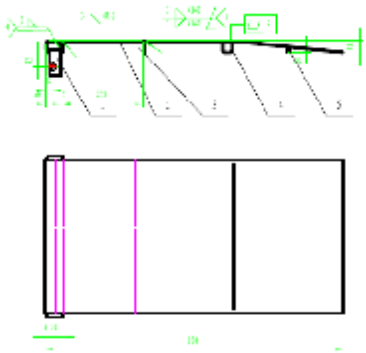
Clamping system: Passenger cars 10" to 21"
(Finger inside: 10’’ to 17’’, Finger outside: 14" to 21”)



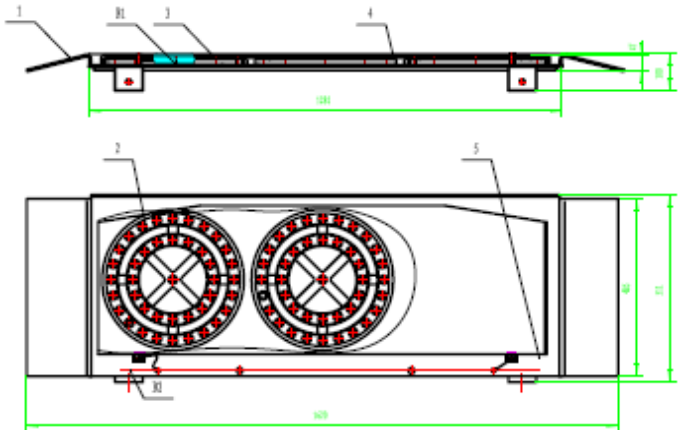
Turn tables: Load capacity: 1500 kg
Dimension: (w x d x h) 400 x 450 x 47 mm, weight 26 kg,
Initial break away at 500 kg, 9 N, 1000 kg, 20N
Possible movement: 40 mm in all directions



Ramp for turn table Dimension: (w x d x h) 950 x 505x 43 mm



Sliding plates: Load capacity: 1500 kg
Dimension: (w x d x h) 1620 x 511x 47 mm, weight 70 kg,
Possible movement: in driving direction 40 mm, sideward 60mm



The manufacturer reserves the right to modify designs as required.

7 SCREENSHOTS X – LINE

Starting screen

Measurement: Guided wheel alignment routine, function keys F2 up to F 7, 6 steps for a complete alignment

Fast test: toe, camber readings with one click

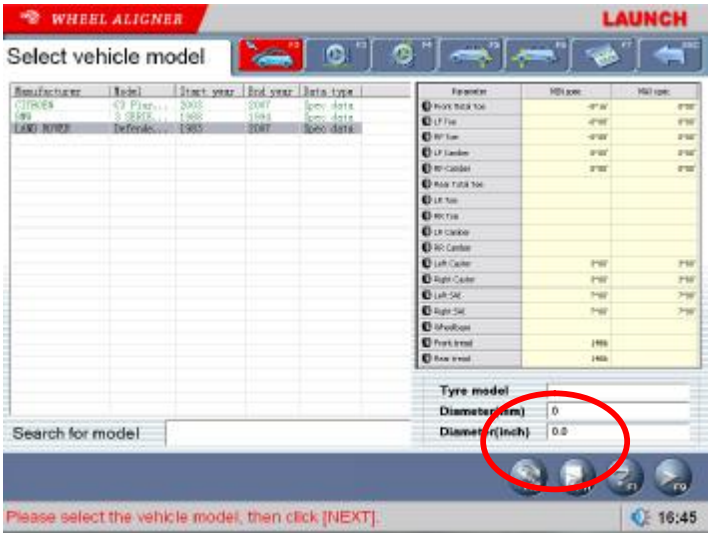
Configuration: set the aligner as you wished

Measurement:

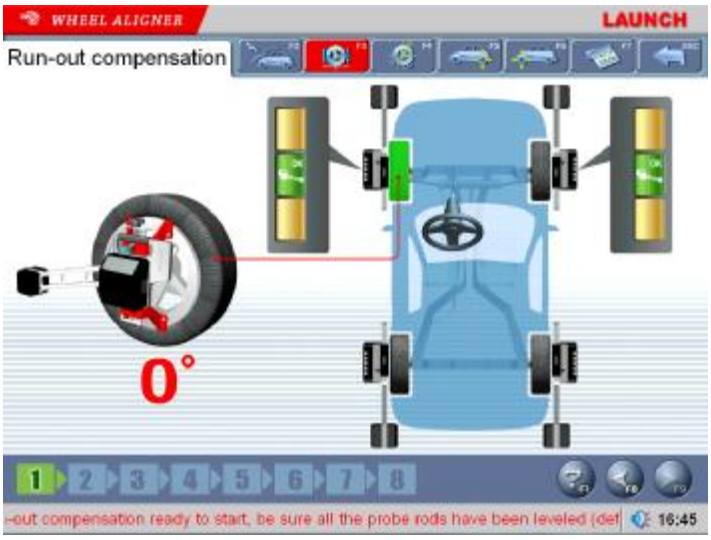
Step F2 car data base selection

a. On this view you can add from the car data base the needed cars into the customer data base by pressing key F11

b. With the function key F 11 you can enter the lower car routine, which helps you if a spoiler is blocking the IR LED at front or rear. The routine has different lowering selections, from 10 to 30 mm.



Step F3 run out compensation



a. On this view the run out compensation is done, which means the run out of the clamps and the rim is measured and taken out for the calculation for the wheel alignment values. The procedure what we are using is a 2 point measurement routine. The first value is measured at the starting 12 o' clock position, or 0 degr., of the wheel, the second at 6 o' clock, or 180 degr.. At these 2 points the run out is measured with the toe CCD camera and the inclination sensor, that means we will have 4measured values. The advantage is that the calculated run out is precise, if 4 measurement points are taken. For that reason the sensor heads must be levelled at the measurement points.

b. The procedure for one man operation is:

- Ø Lift up the car
- Ø Level the sensor heads
- Ø Press the next key on the sensor head, the first value is taken
- Ø Turn the tire 180 degree, check if the opposite tire is moving, if yes, open the screw on the clamp that the probe can swing and re level it after the turn
- Ø Press the key on the probe rod and the compensation is done for this wheel

Step F4 Caster swing

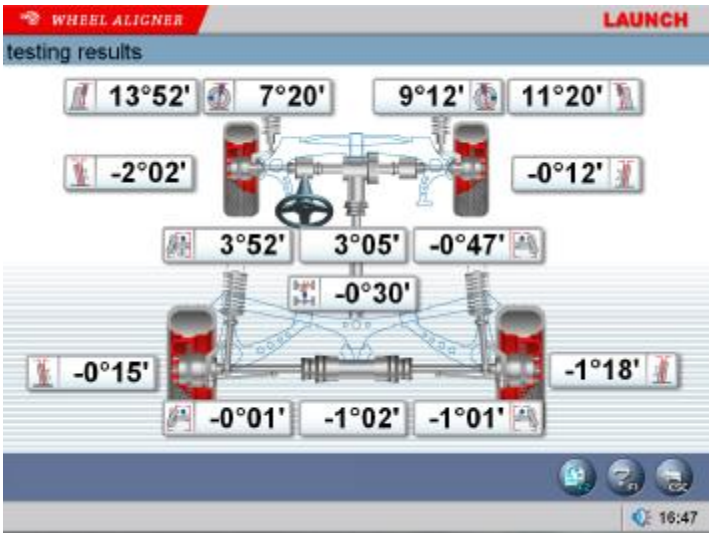
The swing is done up to 7,1 degree only, that saves time without loosing accuracy

Caster values direct after the swing

Data overview

Tabulated view

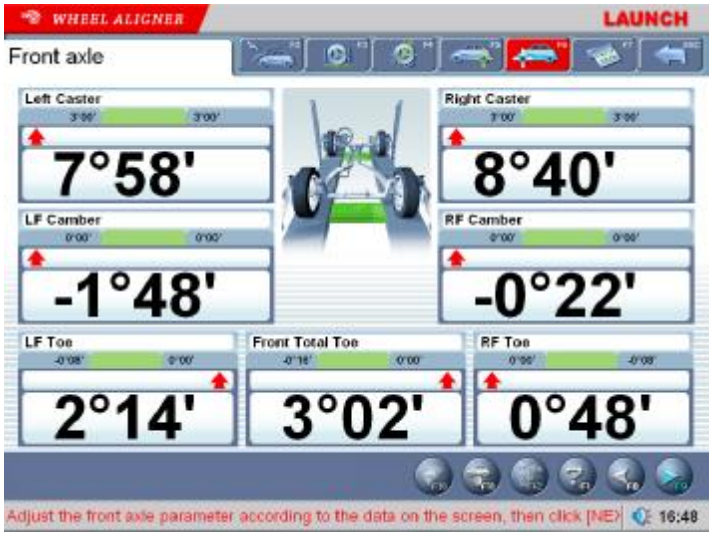
Graphic view



Step F5 Adjustment picture rear axle

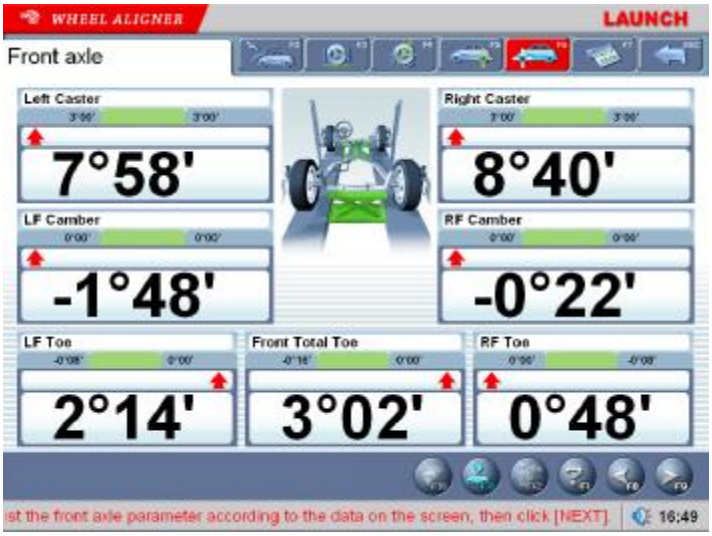
With pop up windows for better view

Step F6 Adjustment picture front axle



Adjustment Lifted position

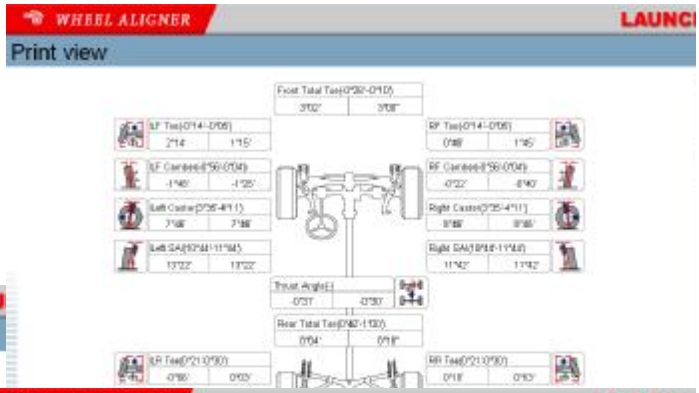
Possible for all the values, caster, camber, toe

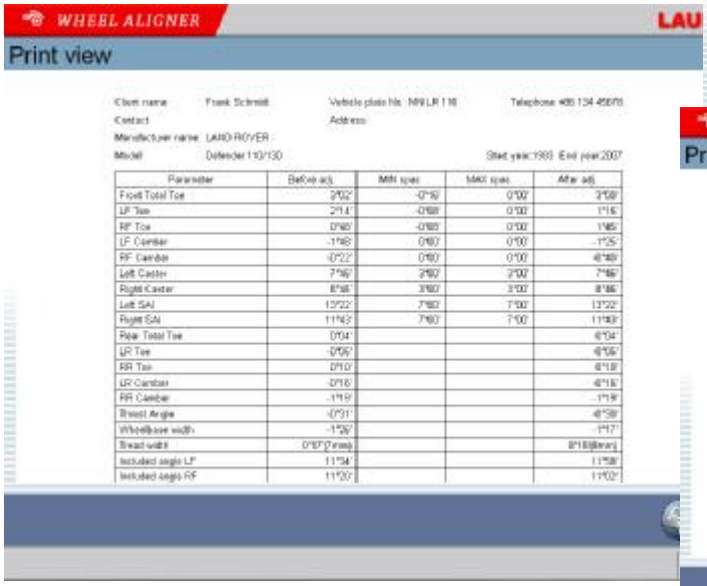


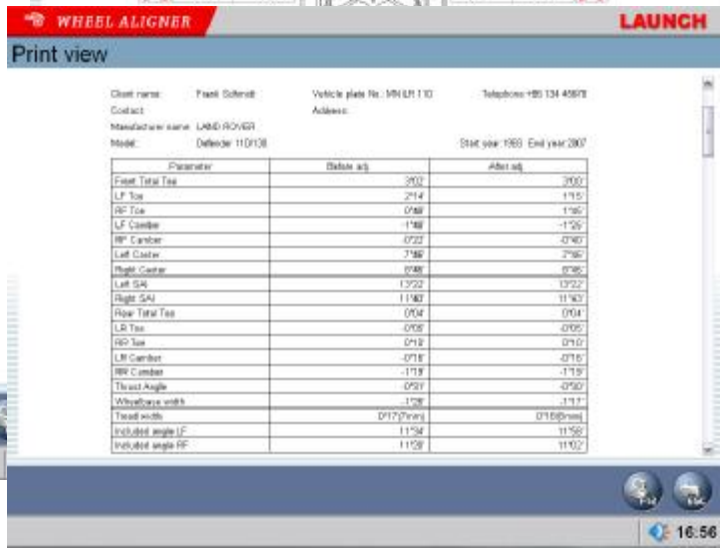
Step F7 Print report

Choice of 3 print protocols

- Ø In tabular form with data specs
- Ø In tabular form without data specs
- Ø In graphic form







8 AVAILABLE DELIVERY SETS

Name Delivery set

302010033	KWA-300	3D Wheel Aligner
302010050	X-231	Cable Version Wheel Aligner (110V,60Hz)
302010042	X-231	Cable Version Wheel Aligner (220V,50Hz)
302010052	X-231	Special Version Wheel Aligner without computer and printer
302010048	X-231	Upgrade Version without computer printer and cabinet
302010051	X-531	Wireless Version Wheel Aligner (110V,60Hz)
302010035	X-531	Wireless Version Wheel Aligner (220V,50Hz)
302010039	X-531	Special Version Wheel Aligner without Computer and printer
302010049	X-531	Upgrade Version without computer printer and cabinet

9 OVERVIEW DELIVERY SETS

Remark : 1. X-531 Standard, 2.X-231 Standard, 3. X-531 Customize, 4.X-231 Customize, 5.X-531 Upgrade, 6.X-231 Upgrade									
Picture	Parts name	ERP - No	Qty.	1	2	3	4	5	6
	X-531 Cabinet	Y103260157	1	X					
	X-231 Cabinet	103201804	1		X				
	Pc	108030020	1	X	X				
	Monitor	108020002	1	X	X				
	Key board	X108020008	1	X	X				
	Mouse	X108020009	1	X	X				

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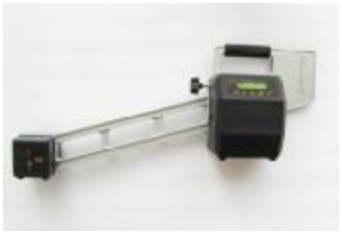
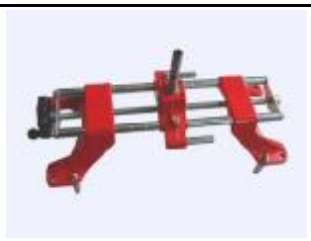
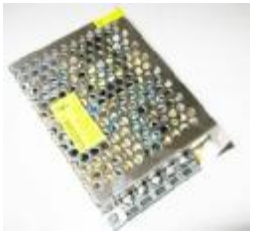
Picture	Parts name	ERP - No	Qty.	1	2	3	4	5	6
	**Printer**	**108010003**	**1**	**X**	**x**				
	X-531 Probe rod	206010311	4	**X**		**X**		**X**	
	X-231 Probe rod	206010315	4		**X**		**X**		**X**
	Universal Clamp	103250001	4	**X**	**X**	**X**	**X**	**X**	**X**
	Brake pedal holder	103260019	1	**X**	**X**	**X**	**X**	**X**	**x**
	Steering wheel holder	103260020	1	**X**	**X**	**X**	**X**	**X**	**X**

Remark : 1. X-531 Standard, 2.X-231 Standard, 3. X-531 Customize, 4.X-231 Customize, 5.X-531 Upgrade, 6.X-231 Upgrade

Picture	Parts name	ERP - No	Qty.	1	2	3	4	5	6
	Turn table	103201518	2	X	X				
	Microsoft Windows XP	108040033	1	X	X				
	Wheel clamp tie belt	104130135	1	X	X	X	X	X	X
	Wheel clamp suspender	103260152	4	X	X	X	X		
	X-231 Communication Cable 7,5 m	105020622	2		X		X		X
	x-531 Charging cable 4 m	105010463	2	X		X		X	

Remark : 1. X-531 Standard, 2.X-231 Standard, 3. X-531 Customize, 4.X-231 Customize, 5.X-531 Upgrade, 6.X-231 Upgrade

Picture	Parts name	ERP - No	Qty.	1	2	3	4	5	6
	x-531 Charging cable 6,5m	105010464	2	X		X		X	
	X-531 emitter and receiver box	206010312	1					X	
	Switch power supply	102210054						X	X
	Probe rod placed base							X	X
	User's manual	107010698	1	X	X	X	X	X	X
	Installation and spare parts manual	107010699	1	X	X	X	X	X	X

Remark : 1. X-531 Standard, 2.X-231 Standard, 3. X-531 Customize, 4.X-231 Customize, 5.X-531 Upgrade, 6.X-231 Upgrade

Picture	Parts name	ERP - No	Qty.	1	2	3	4	5	6
	Warranty manual	107010086	1	X	X	X	X	X	X

10 OPTIONS

Picture	Product name	ERP - No	Qty.
	Long sliding plates		
	Ramps for turn tables		
	Calibration device		
	Extra storage holder for clamps		
	X-531/X-231 Luxury cabinet	302010044	
	X-531/X-231 Calibration bracket	302010043	