



Techno Vector 7

computer-based 3D wheel aligners

*Precision
in Motion*





Techno Vector 7 – 3D computer-based wheel alignment systems

Wheel aligners include a **machine vision system** which consists of 4 or 2 video camera units located in a special housing which is installed in front of the car, and high-precision image targets

4 HD digital video cameras (one for each wheel) recognize the position of the high-precision image targets in space



The ultimate innovation in wheel alignment



The operation of the wheel aligners is based on measurements of wheel axis angle parameters by video cameras and high-precision image targets

Integrated storage for targets and clamps on the computer cabinet

Moving clamp along with target easily at the same time

Mounting clamp and target easily at the same time

Rolling compensation

Techno Vector 7 is designed to check and perform wheel aligner for vehicles with 12 to 24" disks

32" monitor is an additional option and is designed to duplicate the desktop of the main monitor (to make the adjustment screen more visible) and to expand the desktop (to place more advertising materials of your car shop)



WideScope®

The **WideScope** technology makes it possible to increase the range of working heights of the lift up to twice as much as similar wheel aligners of other companies

(See pages 6-7 for details)



Machine Vision System

HD cameras allow a quick and reliable target "capture" and a high-speed image transfer to the PC over TCP/IP

Special software promotes high-precision recognition of targets in space on the basis of received images



Video cameras

The use of **3D technologies** allows high-precision measurements

Special camera firmware promotes a high speed screen refresh

Targets

Compact and easy targets

One target for each wheel

Easy to handle

The front panel is protected with a rubberized border

No electronic components

No need to calibrate targets



Targets (set) №1

Targets (set) №2

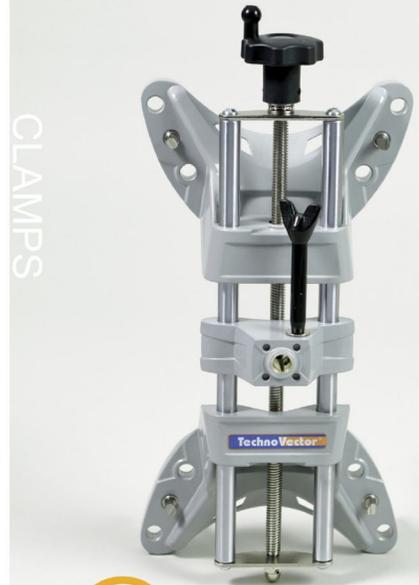


Clamps

Self-centering clamps with the mobile central part fit 12" - 24" wheel disks and are compatible with motorcars and trucks



CLAMPS



Double "claws" allow operating steel and light-alloy disks

Option



Magnetic clamps



3-point clamps

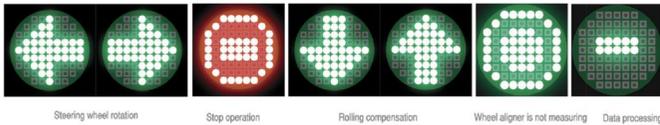




2-camera wheel aligners



2 RGB electronic modules



Wide-angle machine vision system

WideScope®

2-camera
wheel alignment system
with capabilities of a
4-camera
wheel alignment system

Key features of the *Wide Scope* technology:

Thanks to WideScope, the operational range of the heights of the lift is twice as big as that of similar wheel aligners produced by other manufacturers.

2-camera wheel aligners allows taking measurements and making adjustments on the lift in the range of heights from the first lock of the lift up to 1700mm* from the floor level.

Minimum requirements for the size of the workshop – from 6550 mm.

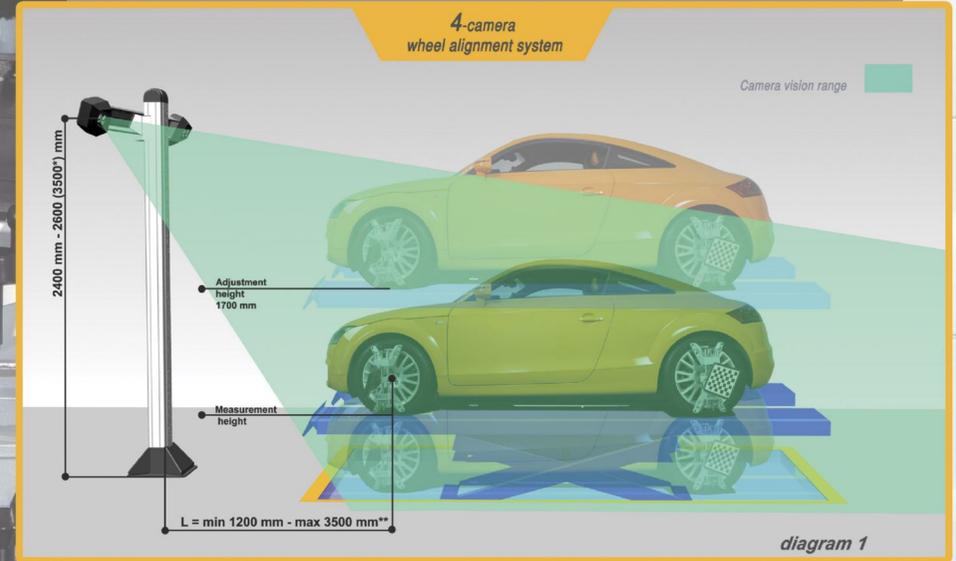
Operation can be carried out even when the target image is partially closed or damaged!

* Depends on the installation distance of camera housings

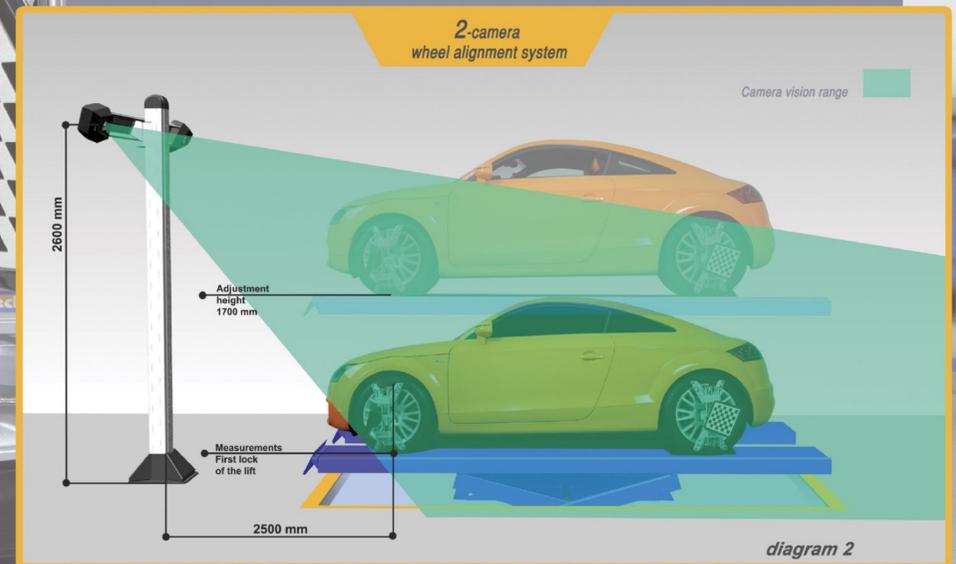
AUTOMATIC LIFT SKEW CORRECTION

is a new function in wheel alignment software that helps when your lift does not remain horizontal when you move it up. The software automatically detects the start and end of the lift movement and corrects the values on the screen as though there is no skew of the lift.

Camera vision range diagrams for Techno Vector 7 wheel aligners with Wide Scope technology



* - for wall-mount configuration (type K).
** - camera characteristics differ for 1200-2550mm range and 2550-3500 mm range, if the distance is more than 2550, the measurement height increases.





Computer Cabinets

V series



T series



Y series



L series



S series



- Computer cabinet includes:
- electronic unit based on PC with Intel Core I3 processor and up-to-date video card that supports Direct X11
 - 22" and above widescreen LCD monitor
 - special bracket
 - printer
 - wireless remote control
 - brackets for integrated storage of clamps and targets

Available colours

- RAL 7040
- RAL 5010
- RAL 3002



Allows adjusting the LCD monitor position (height and inclination angle) to provide maximum visibility and operability

Universal telescopic monitor bracket



Specifications

Parameter	Techno Vector 7		
	Measurement Range	Maximum Error in Measurement	Average Error in Measurement
Front Wheel Alignment			
Camber	±8°	±3'	±2'
Front Total Toe	±5°	±3'	±2'
Caster	±19°	±8'	±5'
SAI / KPI	±19°	±8'	±5'
Lock Angle	±45°	±10'	±5'
Rear Wheel Alignment			
Camber	±8°	±3'	±2'
Rear Total Toe	±5°	±3'	±2'
Rear Individual Toe	±2,5°	±3'	±2'
Symmetry Angles			
Front Set Back	±2,5°	±3'	±2'
Rear Set Back	±2,5°	±3'	±2'
Thrust Angle	±2,5°	±3'	±2'
Geometrical Driving Axis	±2,5°	±3'	±2'

Parameter	Value
Voltage, W	220 ± 10%
Frequency, Hz	50/60
Wheel Adapter (Clamp) Mounting Range, in.	12 ÷ 24
Operating Temperature, C	+10 ÷ +35
Power Consumption	350
Net Weight, kg	280
Gross Weight, kg	390
Volume	1,7
Number of Packages	7
Climatic Category of the Device according to GOST (All-Union State Standard)	GOST 15150-69



Delivery Set

Techno Vector 7 (Standard accessories)	Quantity, pos.
1. Machine Vision System	1
2. Computer Cabinet	1
3. Electronic Unit	1
4. Set of targets	4
5. Set of self-centering clamps	4
6. Steering Wheel Holder	1
7. Brake Lock	1
8. Set of turn tables	2
9. Remote Control Receiver	1
10. Remote Control	1
11. Manual	1



Set of targets & clamps



Set of turn tables



Electronic unit



Brake lock



Steering wheel holder



Remote control



Techno Vector Software

The Techno Vector 7 software is a powerful and modern means for checking and controlling wheel alignment



The Techno Vector 7 software based on PC and works with **Windows 10**



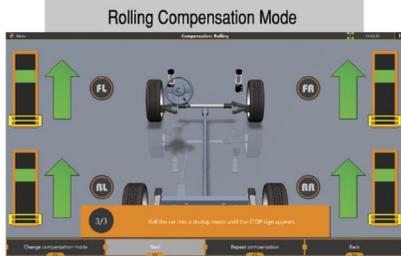
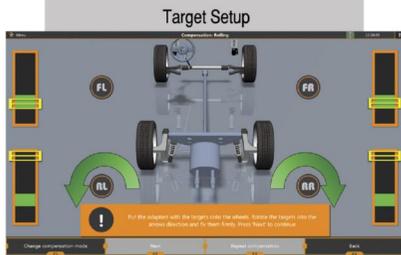
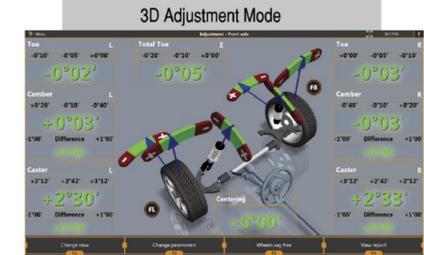
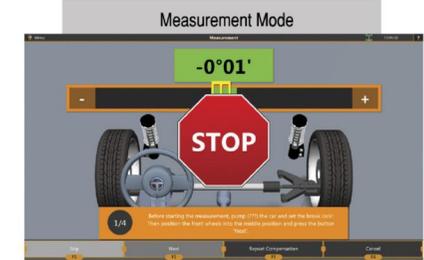
Continuous data processing and measurement displaying



Measurements are automatically compared with standard specifications

Easy operating away from the monitor with color indicators

Quick access to other program modes



Database

The database integrated in the program includes:
- wheel alignment specifications
- tire pressure specifications
- 3D animation
- adjustment diagrams and images
- **data for more than 40 000 vehicles.**

Help System

The electronic Help system contains thorough information on working with the wheel alignment machine and software:
- video for working with the equipment
- video lectures on working with the program
- information on adjustments - diagrams, images, video, 3D animation

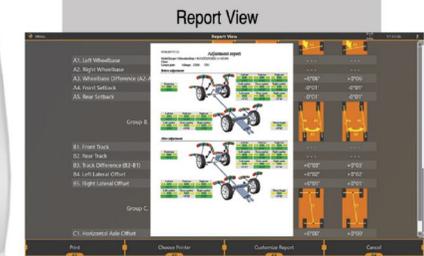


asanetwork

The wheel alignment system software supports ASA Network (communication standard for service centers and dealer centers). It allows to take orders centrally and send measurements to vehicle receiving centers.



Free annual software updates



3D Animation





Techno Vector 7

computer-based **3D** wheel aligners

Configurations

Different types of housing configurations are designed for the optimum arrangement of machine vision cameras in different shops

*Up-to-date
wheel aligners
for modern car shops*

**2-camera
wheel aligners**

**4-camera
wheel aligners**



Optima

- 2 cameras
- 1.3 MPix machine vision industrial cameras, RAW
- Steel



T-type



K-type



M-type

PRO

- 2 or 4 cameras
- 5 MPix machine vision industrial cameras, RAW
- Aluminum



T-type



K-type



M-type



H-type

Premium

- Premium machine vision, Intel Core i7 computer
- Steel & aluminum



T-type



Available colours



Initial installation of the device

The initial installation of the equipment is performed by the manufacturer's service technicians. The device works with a 4 post wheel alignment lift or a repair pit, compliance with the horizontality requirements is strongly recommended.



Certificates



Pattern Approval
Certificate of Measuring Instruments
RU.C.28.001.A № 51081



Pattern Approval
Certificate of Measuring Instruments
RU.C.27.001.A № 38858



Certificate of Conformance
№ 6651



Certificate of Conformance
№ C-RU.AГ83.B.09992



Certificate of Conformance
ISO 9001-2015



Certificate of Conformance
№ C-RU.AГ83.B.09993

The awarding ceremony of the contest 100 Best Commodities of Russia 2016 took place in 2016 as a part of activities devoted to European Quality Week and World Quality Day



As a result of the contest the Techno Vector 7 wheel alignment gauge got the Gold Award and the Novelty of 2016 Certificate



The Gold Award is given to the winner of the contest for manufacturing high-quality Russian products



The Golden Key Award 2017 is the international, independent professional award in the market of supplies and brands of auto service equipment in the Russian Federation



Marking

V 7 2 0 4 T 5 A D

1 2 3 4 5 6 7 8 9

- 1 Letter symbol of a computer cabinet series: T, V.
- 2 Numeric symbol of a device series according to the type of measuring: 7-measuring by video cameras and high-precision image targets (3D).
- 3 Numeric symbol of axis number measured simultaneously.
- 4 Numeric symbol of a video camera type: 0 - stationary, 1 - movable
- 5 Numeric symbol of the total number of video camera units in the modification.
- 6 Letter symbol of a video camera housing type T, H, M, K.
- 7 Symbol of maximum resolution for video cameras: 1 (1.3Mp), 5 (5Mp)
- 8 Letter symbol of video camera housing: Premium, Aluminum, Steel
- 9 D is a symbol for beam inclination drive



Techno Vector

Precision in Motion

