WAA939

Automatic ADAS Calibration System with Alignment

AC519+

A/C Service Station

SmartSafe

WA613

Magnetic Wireless 3D Wheel Aligner

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PRODUCT SERIES

01
TE Tire Equipments

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ME Maintenance Equipments

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CE Calibration Equipments

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EV EV Equipments

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LE Lifting Equipments

WA613
Magnetic Wireless 3D Wheel Aligner

WA613 is a wireless 3D wheel aligner with a brand-new industrial design. It is used to detect the relative position and angle between vehicle wheels to determine the vehicle's wheel alignment parameters, thereby guiding vehicle maintenance technicians to adjust the wheel alignment parameters to meet vehicle design requirements, achieve smooth and safe driving, and reduce vehicle fuel consumption and tire wear.

Instant experience, ready to use out of the box, no assembly or calibration required

Providing more services and value in a smaller space

Lightweight design, smaller packaging and lower shipping costs

Proprietary patented product solution for more accurate measurements

*Lift is shown only, lift is not included

Features

1. Industry's first magnetic measuring unit: no assembly or wiring required, no calibration required, ready to use right out of the box;
2. Original wheel clamp design: light weight, easier to operate, easy to carry and use;
3. Lower site requirements: Abandoning beams and cabinets reduces site space requirements and costs;
4. Small packaging for the whole machine: Lightweight product design greatly reduces packaging weight and size. The transportation weight and volume are only 20%-30% of traditional 3D wheel aligners, which is more convenient for sales and transportation;
5. Wireless transmission: Used with the ST13 intelligent connection terminal to display measurement results and processes, and also facilitates undercarriage adjustments.

Functions

1. Four-wheel alignment measurement: Supports standard measurement and quick measurement and can measure key parameters such as toe, camber, caster, kingpin inclination, and thrust angle. Supports additional measurements such as wheelbase, wheel track, axle offset, wheel offset, diagonal, center offset, etc.

2. Vehicle type database: Covers the four-wheel alignment data of more than 50,000 models worldwide and supports user customization.

3. Terminal wireless connection: Measurement data is transmitted wirelessly, and the four-wheel alignment process is displayed when paired with the ST13 intelligent connection terminal.

4. Test report: Generate professional test reports, support data comparison before and after adjustment, and support report sharing.

5. No need to modify the lift: The calibration unit is directly magnetically attached to the lift, eliminating the need for any processing on the lift. It is suitable for large scissor lifts and four-post lifts.

Parameters

Toe-in	$\pm20°$	Maximum steering angle	$\pm35°$
Inclination	$\pm10°$	Wheel Base	1940~4600mm
Caster	$\pm10°$	Wheel Track	1290~1900mm
Camber	$\pm20°$	Hub diameter (four-point hub clamp)	275~640mm
Tire diameter (three-point tire clamp)	470~1100mm		

Product composition

Measuring unit
(One for left / one for right)
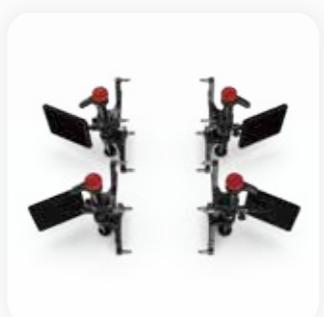
Four-point wheel hub clamp kit

ST13

Measuring Unit Bracket (2 pcs)
4 Points Clamp Bracket (2 pcs)
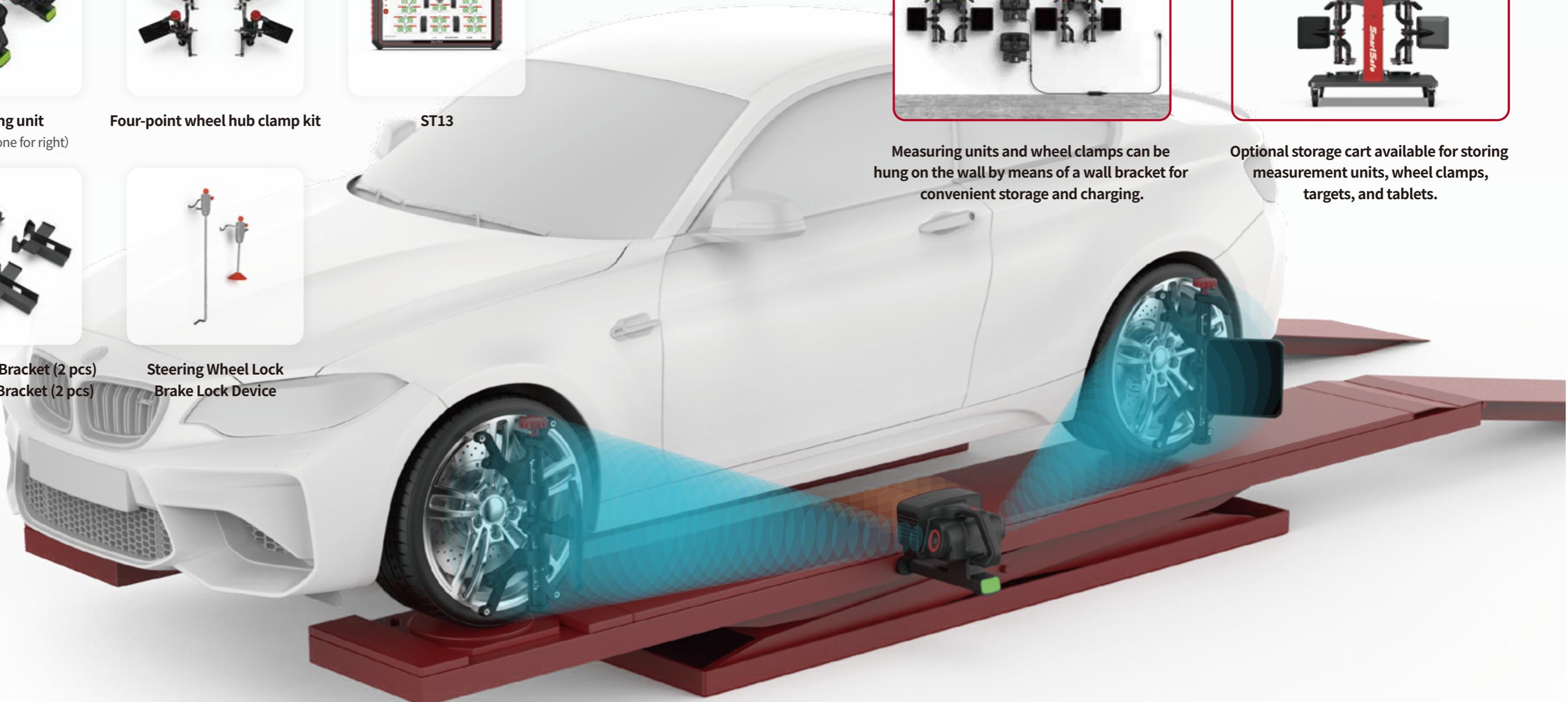
Steering Wheel Lock
Brake Lock Device

Measuring units and wheel clamps can be hung on the wall by means of a wall bracket for convenient storage and charging.

Optional storage cart available for storing measurement units, wheel clamps, targets, and tablets.

Fast output of high-precision four-wheel alignment report
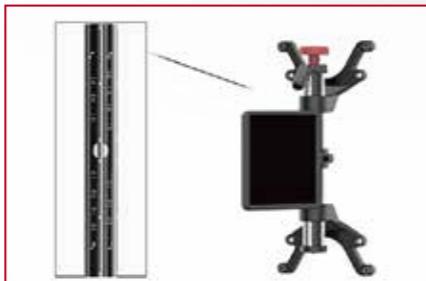
The wheel clamp axle comes with a scale, and the wheel clamp can be pre-adjusted according to the tire diameter.

Magnetic measuring unit, no installation required.

No installation, no debugging, ready to use, save service and time.

Compatible with large scissor lifts and four-post lifts.

Wireless networking, connected to ST13 to display measurement process and results.

WA613 Measureing unit casing

No.	Accessories	Quantity
1	Measuring unit	2
2	Power adapter	1

WA613 Accessory box

No.	Accessories	Quantity
1	Clamp Target	4
2	4 Points Clamp Bracket	2
3	ST13 Intelligent Link Terminal	1
4	Password Envelope	1
	Soft cloth	1
	Quick Reference Guide	1
	User Manual	1
	Packing List	1
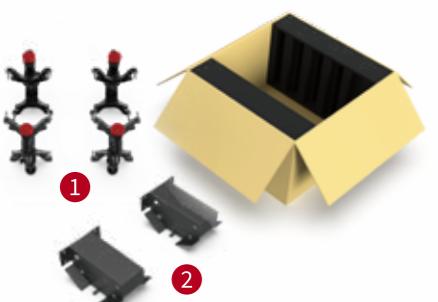
WA613 four-point wheel clamp package

No.	Accessories	Quantity
1	Four-point Wheel Hub Clamp	4
2	Four-point Clamp Bracket	2
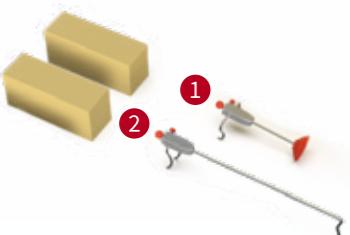
WA613 Auxiliary toolbox

No.	Accessories	Quantity
1	Steering wheel lock	1
2	Brake Lock Device	1

WA613 Auxiliary toolbox (optional)

No.	Accessories	Quantity
1	Tire angle plate	2
2	Tire wedge	2
3	Tire transition block	2

WA613F

Ground-based Wireless 3D Wheel Aligner

WA613F is a ground-based wireless 3D wheel aligner for car repair gutter, consisting of two ground-based measurement units, four wheel clamp targets, and a tablet terminal.

- **Instant experience, ready to use out of the box**
- **Measuring unit can be placed on the ground for measurement without installation**
- **No beams and cabinets required, small footprint**
- **Patented four-point hub wheel clamp, wheel clamp axle with scale**

Features

1. Instant experience: no installation, no wiring, no calibration required, ready to use right out of the box.
2. Space-saving: No need to install beams and cabinets, requiring less space.
3. Quick measurement: Outputs high-precision four-wheel alignment results within 30 seconds.
4. Patented magnesium alloy single axle wheel clamp, lightweight and labor-saving, strong anddurable. The wheel clamp axle comes with a scale, and the wheel clamp can be pre-adjusted according to the tire diameter.
5. Magnetic measurement units: no assembly or wiring required, free to go, no calibration required, ready to use out of the box.
6. Wireless transmission: With ST13 intelligent connection terminal to display measurement results and process, and facilitate vehicle bottom adjustment
7. Compact packaging: Lightweight design and materials significantly reduce packaging weight and size, with transport weight and volume only 20%-30% of traditional 3D four-wheel alignment machines.
8. Perfect for car repair gutter: Two measuring units can be placed on the ground for four-wheel alignment measurements, perfect for car repair gutter.
9. Wall-mounted storage: wheel clamps can be hung on the wall by means of a wall bracket for convenient storage .

Functions

1. **Four-wheel alignment measurement:** It supports standard measurement and quick measurement and can measure key parameters such as toe, camber, caster, kingpin inclination, and thrust angle. Supports additional measurements such as wheelbase, wheel track, axle offset, wheel offset, diagonal, center offset, etc.

2. **Database:** Supports positioning data of 50,000+ global vehicle models, and supports user-defined database.

3. **Terminal wireless connection:** Measurement data is transmitted wirelessly, and the four-wheel alignment process is displayed with the ST13 intelligent connection terminal.

4. **Test report:** Generate professional test reports, support data comparison before and after adjustment, and support report sharing.

5. **Perfect for car repair gutter:** Two measuring units can be placed on the ground for four-wheel alignment measurements, perfect for car repair gutter.

Parameters

Toe-in	±20°	Maximum steering angle	±35°
Camber	±10°	Wheel Base	1940~4600mm
Caster	±20°	Wheel Track	1290~1900mm
SAI	±20°	Wheel Diameter (4-point wheel hub clamp)	275~640mm

Product composition
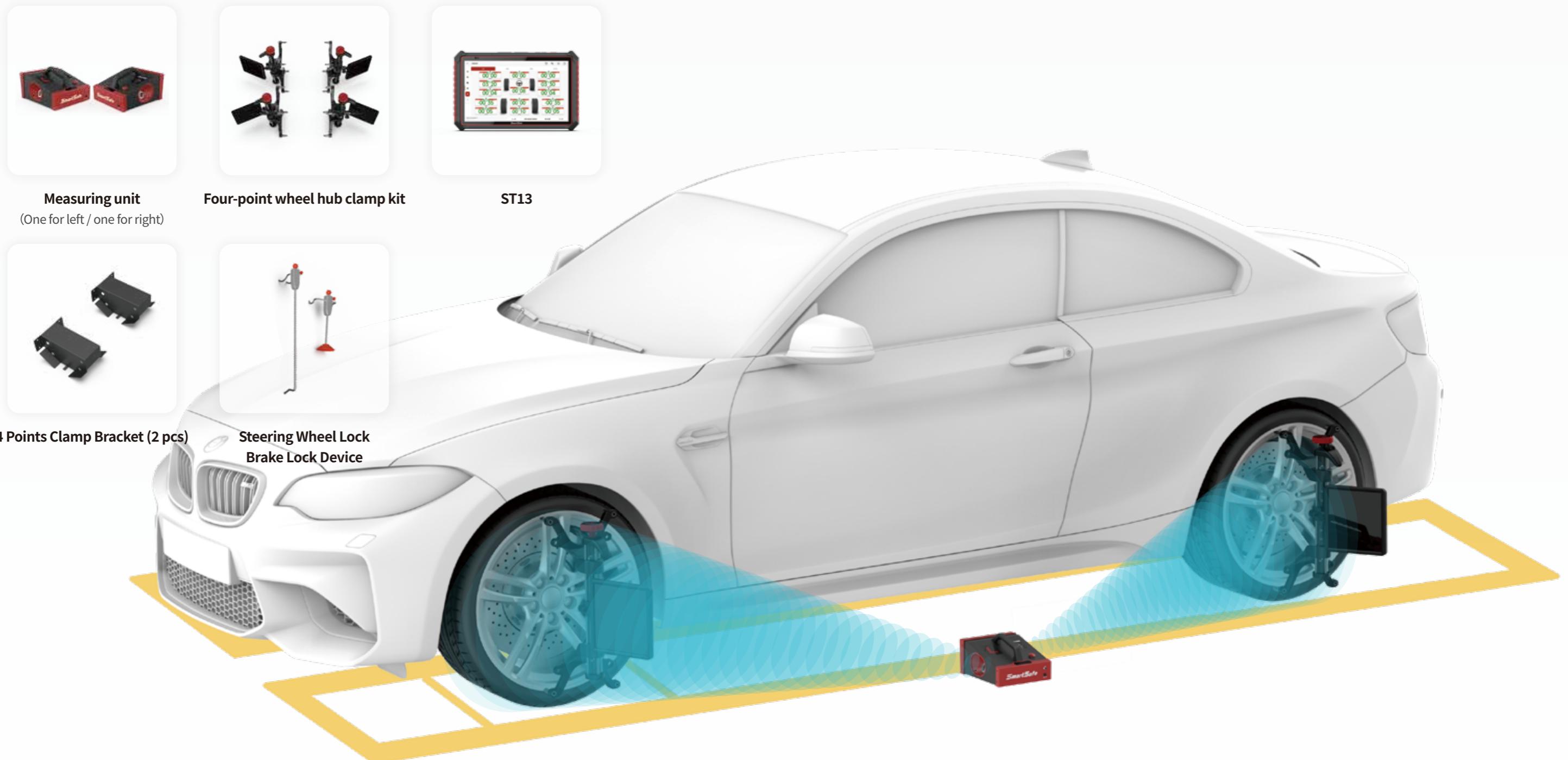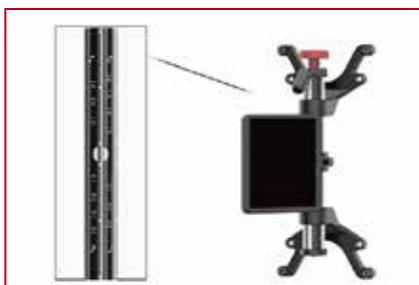
Measuring unit
(One for left / one for right)

**Four-point wheel hub clamp kit**

ST13

4 Points Clamp Bracket (2 pcs)

**Steering Wheel Lock
Brake Lock Device**

Fast output of high-precision four-wheel alignment report

The wheel clamp axle comes with a scale, and the wheel clamp can be pre-adjusted according to the tire diameter.

Measuring unit can be placed on the ground for measurement without installation

No installation, no debugging, ready to use, save service and time.

Perfect for car repair gutter, Two measuring units can be placed on the ground for four-wheel alignment measurements

Wireless networking, connected to ST13 to display measurement process and results.

WA613F Measureing unit casing

No.	Accessories	Quantity
1	Measuring unit	2
2	Power adapter	2

WA613F Accessory box

No.	Accessories	Quantity
1	Target	4
2	ST13 Tablet	1
3	Password seal	1
	Screen cleaning cloth	1
	Quick start guide	1
	Manual	1
	Packing list	1
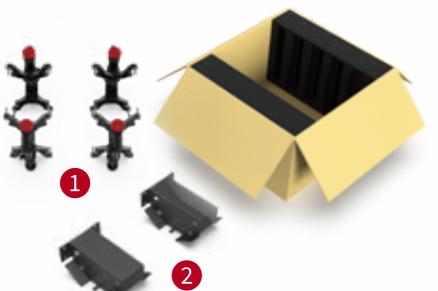
WA613F four-point wheel clamp package

No.	Accessories	Quantity
1	Four-point Wheel Hub Clamp	4
2	Four-point Clamp Bracket	2
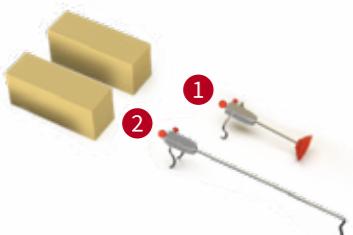
WA613F Auxiliary toolbox

No.	Accessories	Quantity
1	Steering wheel lock	1
2	Brake Lock Device	1

WA613F Auxiliary toolbox (optional)

No.	Accessories	Quantity
1	Tire angle plate	2
2	Tire wedge	2
3	Tire transition block	2

TTM619F

Earth-Hiding Tire Tread Depth Detection Equipment

Scan for more information

TTM619F is an underground intelligent tire tread detection device for four-wheel passenger vehicles. It can quickly and accurately determine tire wear and provide maintenance recommendations such as uneven tire wear, replacement, and four-wheel alignment.

- Entry inspection and license plate recognition
- 0.1mm measurement accuracy
- Report sharing
- Provide data interface to support uploading of detection data to customer server
- Underground installation
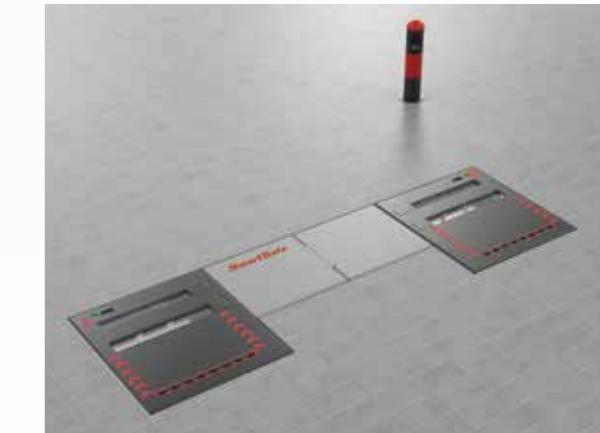
Features

1. Fully automatic detection, no manual operation required, greatly improves detection efficiency, and is suitable for tire tread detection of all types of four-wheel passenger vehicles;

2. High measurement accuracy: Using own patented optical measurement and image recognition technology, the measurement accuracy is as high as 0.1mm;

3. Intelligent License Plate Recognition: With an accuracy rate exceeding 95% and support for autonomous learning, license plate information is automatically associated with detection reports; it supports the United States, Germany, Italy, Russia, Brazil and other countries, with more to come;

4. Professional inspection report: Generates a tread inspection report, providing tread data, braking distance, uneven tire wear, replacement suggestions, repair suggestions and other information;

5. Report sharing: The inspection report can be shared with the car owner via QR code or email;

6. Detection data interface: Detection data can be uploaded to the customer server through the standard API interface;

7. Underground installation: Abandoning the "bump" or "step" formed by traditional equipment protruding from the ground, the underground design is adopted, which takes up less operating space and provides more services.

Functions

1. Tread depth measurement: After the vehicle passes, the system automatically identifies the number of tire grooves and measures the groove depth.

2. Intelligent License Plate Recognition: With an accuracy rate exceeding 95% and support for autonomous learning, license plate information is automatically associated with detection reports; it supports the United States, Germany, Italy, Russia, Brazil and other countries, with more to come.

3. Inspection report: Quickly generate a tread inspection report that displays tread data, wear analysis, braking distance estimation, repair suggestions, and more, and supports report sharing.

4. Report sharing: The inspection report can be shared with the car owner via QR code or email.

5. Parameter settings: Support setting vehicle information, tread depth standard, store information, and backup data storage location.

6. Air knife cleaning: It can clean dust and impurities on the surface of the equipment window, obtain clearer and interference-free laser and image data, and improve detection accuracy.

7. Multi-terminal interconnection: Can be used with a computer or with multiple devices such as ST13/P13/P01 to display measurement results and save reports simultaneously.

Parameters

Measurement accuracy	0.1mm	Operating voltage	DC 12V
Measuring width	450mm (max)	Communication method	Bluetooth, USB, Wi-Fi
By vehicle speed	4~15km/h	Waterproof grade	IPX5
Maximum load	4T	Operating temperature	-10~45℃
Vehicle wheelbase range	1360~1720mm	Operating humidity	20%~85%
Working power supply	AC 100~220V 50/60Hz	Overall size	2136mm×681mm×84mm

Supports Multi-Terminal Display
Connects to tablet devices or computer terminals via Bluetooth, allowing viewing of historical inspection records and detailed reports.

Professional Inspection Report
Generate tire tread inspection reports in 4 seconds, determine tire wear, braking distance, and other conditions based on inspection data, and provide tire maintenance, replacement, and four-wheel alignment recommendations.

Cases

Auto Dealership

Vehicle Inspection Station

Auto Repair Shop

Auto Fleet

TTM313
Tire Tread Depth Examiner

TTM313 is a handheld tire tread detector that supports full tread and single groove measurements. With a measurement accuracy of 0.1mm, it can quickly and accurately obtain tire wear information and provide maintenance recommendations such as tire uneven wear, replacement, and four-wheel alignment.

- **0.1mm measurement accuracy**
- **Entry detection, license plate recognition**
- **Full tread & single groove measurement, suitable for all kinds of tires**
- **Report sharing: test results are shared with the car owner**
- **Provide data interface to support uploading of detection data to customer server**

Features

1. Full tread detection: Scan the entire tread at one time and obtain tire groove quantity and depth data within 3 seconds;
2. High Measurement Accuracy: Utilizing patented optical measurement and image recognition technology, the measurement accuracy reaches up to 0.1 mm;
3. Intelligent License Plate Recognition: Achieves a recognition accuracy rate of over 95% and supports self-learning, with license plate information automatically linked to the inspection report; supports countries such as the United States, Germany, Italy, Russia, and Brazil, with more to be added continuously;
4. Intelligent DOT recognition: supports tire DOT scanning, analyzes production date, manufacturer information, production batch and other information, and provides tire expiration reminders;
5. Single groove detection: measures each groove of the tire one by one, suitable for tires with irregular and complex patterns;
6. Professional inspection report: Generates a tire tread inspection report, providing tread depth data, braking distance, uneven tire wear, replacement suggestions, repair suggestions and other information;
7. Report sharing: The inspection report can be shared with the car owner via QR code or email;
8. Detection data interface: Detection data can be uploaded to the customer server through the standard API interface;
9. Tablet interconnection: can be used with multiple devices such as ST13/P13/P03 to display measurement results and save reports simultaneously.

Functions

1. Entry inspection, license plate recognition: Intelligent license plate recognition at entry, followed by tire inspection, and output of a professional inspection report with the license plate information.

2. Supports full groove detection: Scans the entire tread at one time, obtains the number of grooves and the depth of each groove, and outputs a test report. It is suitable for conventional tires.

3. Support single groove detection: Detect the depth of a single tire groove or the depth of the tire's small pattern, and output a single tire test report. It is suitable for tires with complex patterns.

4. High measurement accuracy: Using laser sensing technology, the tire tread depth measurement accuracy is ±0.1mm.

5. Intelligent license plate recognition: Uses the SmartSafe license plate recognition algorithm to intelligently identify license plates. Supports license plates from the United States, Germany, Russia, Brazil, and Italy.

6. Professional inspection report: Detection data is intelligently analyzed to generate a multi-dimensional professional inspection report, with support for sharing via QR code and email.

7. Innovative structural design: Allows measurements without being limited by chassis height; the handheld form is ergonomically designed for one-handed operation, making it convenient to carry and use.

8. High durability: Industrial-grade protective casing and wear-resistant buttons ensure a "one-time investment for long-lasting use."

Parameters

Measurement accuracy	0.1mm	Memory		2GB
Maximum measured width	180mm	Storage		32GB
Measuring camera	200W Pixels	Screen	3.97 inches, LCD touch screen resolution 480×800	
Camera	800W Pixels	Battery		5000mAh/3.7V
CPU	Quad-core A35/1.3GHz	Communication methods	Wi-Fi (2.4GHz/5GHz dual-band),Bluetooth	
Charging input	DC 5V/2A	Operating temperature		0~45℃
Storage temperature	-20~60℃			

Display real-time measurement data and quickly generate inspection reports.

can be used with multiple devices such as ST13/P13/P03 to display measurement results and save reports simultaneously.


Report

License Plate Number

238487AV

Tire Tread Data (mm)

4.8	4.6	4.6	4.4
Outer		FL	Inner

4.4	4.5	4.7	4.6
Outer		RL	Inner

3.0	3.1	4.3	4.4
Inner		RR	Outer

4.6	4.6	4.8	4.8
Inner		FR	Outer

Normal < 4.5mm
Warning 4.5mm > Depth ≥ 3.2mm
Danger < 3.2mm

Braking Distance (80km/h)

Ideal Vehicle

Your Vehicle

Tread Depth & Distance

1.8mm   2.6mm   1.5mm
40m   60m   80m

Tire Uneven Wear

Inner Edge Wear   Inner Edge Wear
FL   RR

Repair Recommendations

Four-wheel Alignment Inspection

Tire Replacement Suggestion

- FL: Schedule replacement after driving approximately 3 months or 3,000 km
- RL: Schedule replacement after driving approximately 3 months or 3,000 km
- RR: Replace immediately
- FR: Schedule replacement after driving approximately 3 months or 3,000 km

(This recommendation is based on calculations for normal driving conditions. The actual replacement cycle should be determined by comprehensive evaluation of driving habits, road conditions, and tire condition. For any questions, please consult professional automotive repair personnel.)

WA861 PRO
3D Wheel Aligner

WA861 PRO is a mobile device that uses 3D imaging technology and intelligent adaptive tracking system to accurately collect four-wheel positioning data of vehicles.

- **Beam automatic tracking system**
- **5 Million pixel industrial camera**
- **50,000+ Vehicle model database**
- **8-12cm rolling compensation**
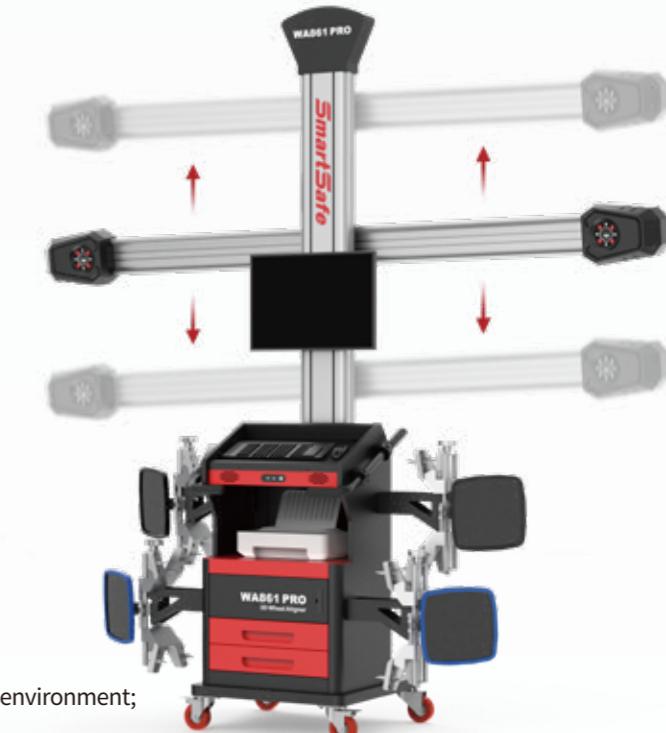
Features

1. 50000+ global vehicle model database, lifetime free upgrade;
2. 5 million pixel industrial camera, easily adapt to a variety of lighting environment;
3. 8-12cm rolling compensation, saving time and effort;
4. Adaptive tracking system, freely adjust the operating space under the chassis, can be expanded to adapt to small scissors and two post lift;
5. The whole machine is movable and can be shared by multiple stations, which improves the space utilization rate of the repair shop;
6. When the beam is raised or lowered, it will automatically stop when encountering obstacles to protect the safety of personnel and equipment.

Functions

1. Four-wheel alignment measurement: It supports standard measurement and quick measurement and can measure key parameters such as toe, camber, caster, kingpin inclination, and thrust angle. Supports additional measurements such as whee base, wheel track, axle offset, wheel offset, diagonal, center offset, etc.

2. Intelligent self-adaptive tracking system: Automatically track the target, and adjust the height of the beam adaptively according to the height of the target.

3. Database: Supports positioning data of 50,000+ global vehicle models, and supports user-defined database.

4. Test report: Support measurement report saving and printing.

5. Compatible with multiple platforms: Suitable for four-post lifts, large scissors lifts, small scissors lifts, two-post lifts and trenches;

6. Multi-station sharing: The whole machine is moveable, which is convenient for multi-station sharing.

7. Dual-screen display: Support dual-screen display at the same time, an optional secondary screen is required.

Parameters

Display Accuracy	1'/0.01/0.1mm	Kingpin Inclination	±6'
Toe	±2'	Trust Angle	±2'
Camber	±2'	Wheel Track	±2mm
Caster	±4'	Wheel Base	±2mm

WA861

3D Wheel Aligner

WA861 is a classic mobile device that uses 3D imaging technology to accurately collect four-wheel positioning data of vehicles.

- **Multi-Station sharing**
- **High-Definition industrial camera**
- **50,000+ Vehicle model database**
- **10-15cm Rolling compensation**

Features

1. 50000+ global vehicle model database, lifetime free upgrade;
2. 10-15cm rolling compensation, saving time and effort;
3. The height of the beam can be adjusted manually, adapting to various maintenance environments, and does not need to be re-calibrated;
4. The whole machine is movable and can be shared by multiple stations, which improves the space utilization rate of the repair shop.

Functions

1. **Four-wheel alignment measurement:** It supports standard measurement and quick measurement and can measure key parameters such as toe, camber, caster, kingpin inclination, and thrust angle. Supports additional measurements such as whee base, wheel track, axle offset, wheel offset, diagonal, center offset, etc.

2. **Database:** Supports positioning data of 50,000+ global vehicle models, and supports user-defined database.

3. **Test report:** Support measurement report saving and printing.

4. **Compatible with multiple platforms:** Suitable for four-post lifts, large scissors lifts and trenches.

5. **Multi-station sharing:** The whole machine is moveable, which is convenient for multi-station sharing.

6. **Dual-screen display:** Support dual-screen display at the same time, an optional secondary screen is required.

Parameters

Display Accuracy	1'/0.01/0.1mm	Kingpin Inclination	±6'
Toe	±2'	Trust Angle	±2'
Camber	±2'	Wheel Track	±2mm
Caster	±4'	Wheel Base	±2mm

WA861 LITE

3D Wheel Aligner

WA861 LITE is a classic stationary device that uses 3D imaging technology to accurately collect four-wheel positioning data of vehicles.

- **Beam manual height adjustment**
- **High-Definition industrial camera**
- **50,000+ Vehicle model database**
- **10-15cm Rolling compensation**

Features

1. 50000+ global vehicle model database, lifetime free upgrade;
2. 10-15cm rolling compensation, saving time and effort;
3. The height of the beam can be adjusted manually, adapting to various maintenance environments, and does not need to be re-calibrated;
4. Classic stationary design, cost-effective choice.

Functions

1. **Four-wheel alignment measurement:** It supports standard measurement and quick measurement and can measure key parameters such as toe, camber, caster, kingpin inclination, and thrust angle. Supports additional measurements such as whee base, wheel track, axle offset, wheel offset, diagonal, center offset, etc.

2. **Database:** Supports positioning data of 50,000+ global vehicle models, and supports user-defined database.

3. **Test report:** Support measurement report saving and printing.

4. **Compatible with multiple platforms:** Suitable for four-post lifts, large scissors lifts and trenches.

5. **Dual-screen display:** Support dual-screen display at the same time, an optional secondary screen is required.

Parameters

Display Accuracy	1'/0.01/0.1mm	Kingpin Inclination	±6'
Toe	±2'	Trust Angle	±2'
Camber	±2'	Wheel Track	±2mm
Caster	±4'	Wheel Base	±2mm

AC519+

A/C Service Station

The first two-in-one refrigerant device for automotive air conditioning diagnosis and maintenance, providing comprehensive maintenance of the air conditioning system in one device.

Scan for more information

- **Suitable for R134a/R1234y**
- **Supports air conditioning diagnosis for fuel vehicles and electric vehicles**
- **Supports offline driving of electric vehicle air conditioners (Tesla)**
- **Supports separation of PAG/POE (insulated) refrigeration oil bottles and filling them separately**
- **Supports detection of tablet interconnection operations**
- **Supports more than 50,000 air conditioning database selections, VIN code recognition, and automatic acquisition of vehicle refrigerant specifications (filling amount, refrigerant type)**

Features

1. Equipped with automobile refrigerant database;
2. Supports full diagnostic functions of vehicle air conditioning systems: code reading, code clearing, data stream viewing, and action testing;
3. Supports two refrigerants: R134a or R1234yf;
4. Supports filling of PAG refrigeration oil, POE refrigeration oil, and UV detection fluid;
5. The vehicle air conditioning pipeline can be leak tested and the leak point can be located by adding UV detection fluid;
6. 128L/min two-stage vacuuming capacity greatly improves work efficiency;
7. The automatic mode can complete operations such as cleaning, recycling, vacuuming, adding refrigeration oil, and adding refrigerant with one click, and each function can also be executed separately;
8. Supports mobile APP binding: The device can be bound to the mobile phone APP to achieve real-time interconnection. Users can remotely view the device's working status and operating data, improving ease of use and remote monitoring capabilities.

Functions

1. **Air conditioning system diagnosis:** Read and clear codes, check data flow, and perform action tests on the air conditioning system.
2. **Air conditioning pipe cleaning:** Clean the air conditioning pipes and remove impurities such as sludge and powder inside the pipes.
3. **Refrigerant recycling:** The refrigerant in the automobile air-conditioning system is purified and regenerated and then recycled into the working tank to meet the standards for reuse.
4. **Vacuum:** Achieve vacuuming of air conditioning pipelines and equipment pipelines.
5. **Leak detection:** The vehicle air conditioning pipeline can be leak tested and the leak point can be located by adding UV detection fluid.
6. **Refrigeration oil filling:** Supports manual/automatic filling, and achieves intelligent and accurate filling through the built-in electronic scale.
7. **Refrigerant filling:** Add refrigerant to the vehicle according to the set filling amount.
8. **Automatic mode:** According to the set parameters, it automatically performs operations such as cleaning, recycling, vacuuming, filling refrigeration oil, and filling refrigerant.
9. **Database:** Equipped with a car refrigerant model database, it supports database calls without manual settings.
10. **Print:** Supports printing of device execution results.

Parameters

Compressor power	1/2HP	Vacuum pump evacuation capacity	128L/min 50Hz 142L/min 60Hz
PAG oil bottle capacity	250ml	POE oil bottle capacity	250ml
Electronic scale accuracy	±10g	Used oil bottle capacity	500ml
Main tank capacity	22kg	LCD display	10.1 inches, resolution, 1280*800
Filter processing capacity	120kg	Ambient temperature	10~50°C
UV oil bottle capacity	250ml	Relative humidity	<85%
Voltage input	□AC220V ~50/60Hz □AC110V ~50/60Hz (As indicated on the equipment nameplate)		

The new patented pipeline logic design and scientifically integrated oil and gas separation module bring more efficient and stable working conditions.

High pressure gauge

Printer

10.1-inch touch display

Driver board

Oil and gas separation module

Compressor

Observation window

Low pressure gauge

Vacuum pump

Refrigerant main tank

Condenser
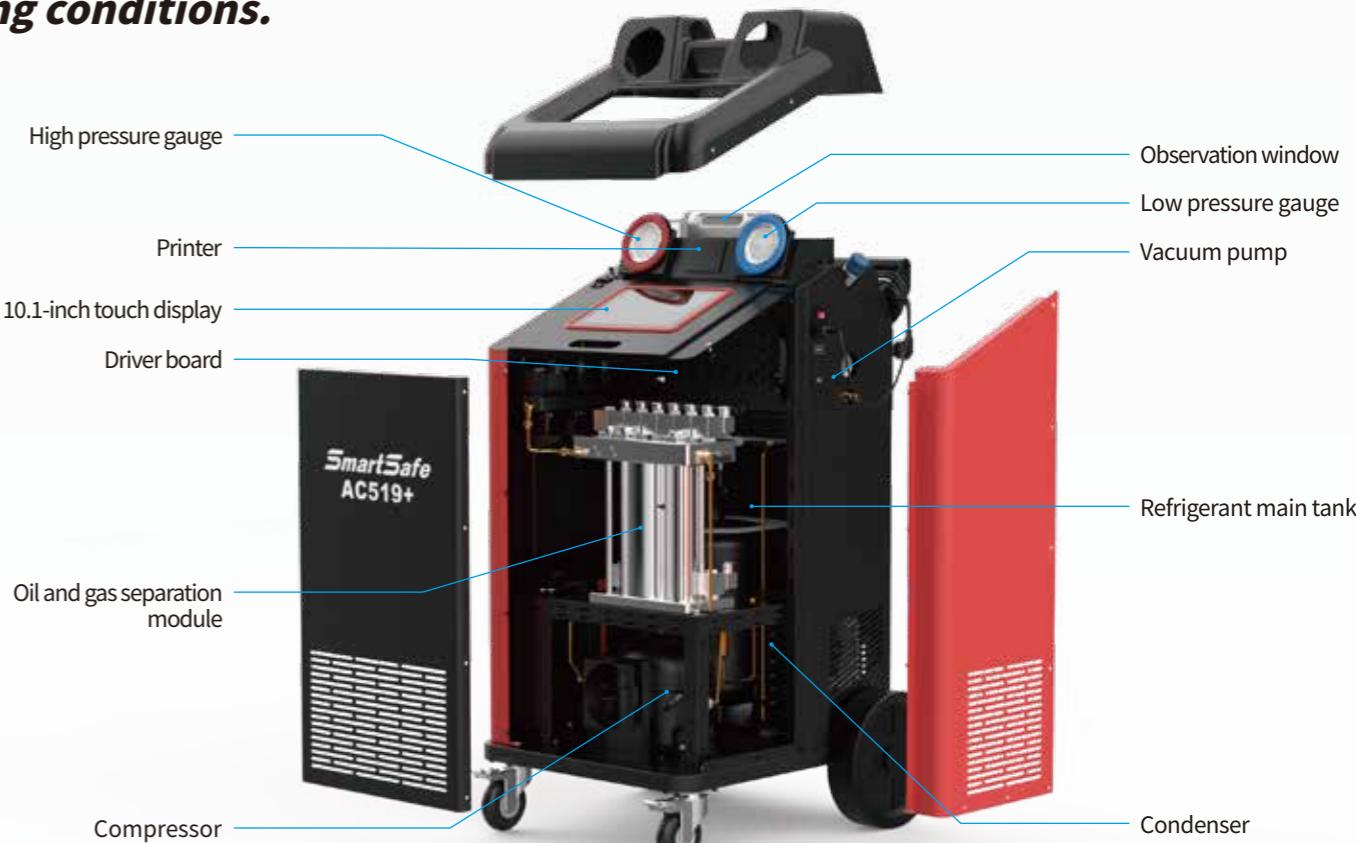
AC519+
Combine automotive air conditioner diagnosis and maintenance
Suitable for gasoline vehicles and electric vehicles
Support 2 Refrigerants: R134a or R1234yf

Air Conditioner Diagnosis & Maintenance

Gasoline Vehicles & Electric Vehicles

R134A or R1234YF

OBD
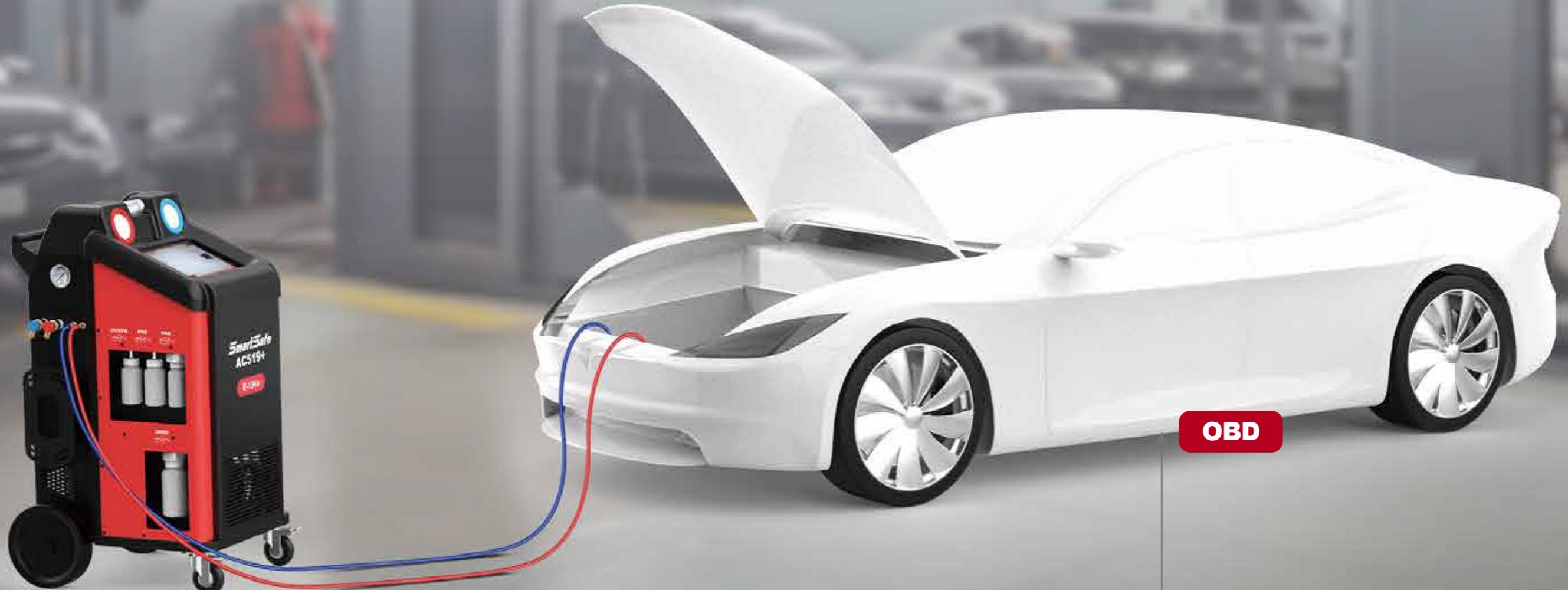
Automotive Air Conditioner Maintenance

Automotive Air Conditioner Diagnosis

AC519

A/C Service Station

Fully automatic intelligent automobile air-conditioning maintenance equipment integrates disassembly-free cleaning, refrigerant recovery and filling, and vacuuming functions. It can quickly collect used refrigerant, efficiently clean pipes, and accurately add new refrigerant, completing the process in one go.

- Applicable to R134a/R1234yf
- Supports more than 50,000 database selections and automatically obtains vehicle refrigerant specifications (filling amount, refrigerant type)
- No need for disassembly and maintenance, saving time and effort, and reducing parts loss
- Fully automatic control, precise filling

Features

1. Equipped with a car refrigerant model database, no manual setting is required;
2. Supports two refrigerants: R134a or R1234yf;
3. It has forward cleaning, reverse cleaning and pulse cleaning functions, and has obvious cleaning effects;
4. The automatic mode can complete operations such as cleaning, recycling, vacuuming, adding refrigeration oil, and adding refrigerant with one button, and each function can also be executed separately;
5. Built-in printer supports printing of materials, working hours and other information.

Functions

1. Air conditioning pipe cleaning: Clean the air conditioning pipes, remove the sludge, powder and other impurities inside the pipes, replace the refrigeration oil more thoroughly, improve the lubrication of the compressor, and improve the refrigeration performance of the air conditioning system.

2. Refrigerant recycling: The refrigerant in the automobile air-conditioning system is purified and regenerated and then recycled into the working tank to meet the standards for reuse.

3. Vacuum: Achieve vacuuming of air conditioning pipelines and equipment pipelines.

4. Refrigeration oil filling: Supports manual/automatic filling, and achieves intelligent and accurate filling through the built-in electronic scale.

5. Refrigerant filling: Add refrigerant to the vehicle according to the set filling amount.

6. Automatic mode: According to the set parameters, it automatically performs operations such as cleaning, recycling, vacuuming, adding refrigeration oil, and adding refrigerant.

7. Database: Equipped with a database of automobile refrigerant models, it supports database calls without manual settings.

8. Print: Supports printing of device execution results.

Parameters

Compressor power	3/8HP	Vacuum pump evacuation capacity	42L/Min,5Pa(for 220V) 50L/Min,5Pa(for 110V)
Cylinder electronic scale accuracy	±10g	Used oil bottle capacity	500ml
Oil bottle electronic scale accuracy	±5g	LCD display	800*480
Main tank capacity	12L (maximum safe storage capacity 10kg)	High pressure gauge range	-1bar~38bar
Filter processing capacity	60kg	Low pressure gauge range	-1bar~18bar
New oil bottle capacity	300ml	Ambient temperature	0-50°C
Voltage input	□AC220V ~50/60H □AC110V ~50/60Hz (As indicated on the equipment nameplate)	Relative humidity	<85%

The new patented pipeline logic design and scientifically integrated oil and gas separation module bring more efficient and stable working conditions.

Refrigerant Window: Visualize the refrigerant flow.

Printer
Control panel
Driver board
Oil and gas separation module
Pressure gauge
Refrigerant tank
Dry filter
power supply
Condenser
Compressor
Vacuum pump
New and used oil bottles

CNC605+

GDI/PIEZO Injector Cleaner & Tester

It integrates precise resistance testing, efficient ultrasonic cleaning, and fuel injection detection functions simulating engine operating conditions. It is equipped with an enlarged visual glass observation window and real-time monitoring of atomization status, allowing one machine to handle the entire process.

- Visualized fuel injector inspection process
- Supports simultaneous detection of 6 fuel injector resistances
- Ultrasonic strong cleaning
- Tested under simulated working conditions at safety oil pressure
- Built-in multiple operating condition models for fuel injectors

Features

1.Supports cleaning and testing of GDI, PIEZO, EFI, and SFI fuel injectors；
2.The use of ultrasonic powerful cleaning technology can completely remove carbon deposits on the fuel injector and filter deposits；
3.Utilizes microcomputer automatic control technology for automatic control of the cleaning and testing process, and real-time monitoring of the key performance of the fuel injectors；
4.Equipped with various non-dismantle cleaning adapters, allowing non-dismantle cleaning and maintenance for multiple vehicle models；
5.Through simulating engine operating conditions, comprehensively tests various aspects of the fuel injectors performance.

Functions

1. **Working mode selection:** GDI, PIEZO or EFI working mode can be selected according to the type of injector.

2. **Ultrasonic cleaning:** Multiple fuel injectors can be cleaned ultrasonically at the same time, which can completely remove the carbon deposits on the fuel injectors.

3. **Uniformity/Spray Testing Function:** Detects the uniformity of fuel injection quantity for each injector and the spray atomization of the injector can be comprehensively and carefully observed using the background light.

4. **Sealing test function:** Tests the sealing and leakage of injectors under system pressure.

5. **Fuel injection quantity detection function:** Measures the fuel injection quantity of injectors under a constant 15-second injection condition.

6. **Automatic cleaning and testing function:** Under specific working parameters, realistically simulates injector testing under various conditions.

7. **Reverse flush function:** For the uniformity/spray testing item, performs a reverse flush using a reverse flush adapter to remove internal injector contaminants and residues attached to the filter screen.

8. **Non-dismantle cleaning function:** Equipped with various non-dismantle cleaning adapters, allowing non-dismantle cleaning and maintenance for multiple vehicle models.

Parameters

Machine power	500W		Simulation speed range	100~9900rpm Step length 10rpm
Fuel tank capacity	2500 ml		Time range	1~9999s
Ultrasonic cleaning machine power	100W		Resistance test range	0~250KΩ
Working pressure	0~9bar		Ambient temperature	0°C~45°C
Pulse width	0.1~25ms(step length: 0.1ms)		Relative humidity	<85%
Voltage input	AC110V/AC220V 50Hz/60Hz			

CNC605

GDI Injector Cleaner & Tester

CNC605 is a fuel injector cleaning and testing equipment suitable for GDI, EFI, and SFI systems. It can simulate engine operating conditions to simultaneously clean and test up to 6 fuel injectors.

- Compatible with various fuel injectors (GDI, EFI, SFI...)
- Deep ultrasonic cleaning
- Automatic oil drain control
- Simulated operating condition testing

Features

1. Supports cleaning and testing of GDI, EFI, and SFI fuel injectors;
2. Utilizes ultrasonic intensive cleaning technology to thoroughly remove carbon deposits and filter screen residues from the fuel injectors;
3. Utilizes microcomputer automatic control technology for automatic control of the cleaning and testing process, and real-time monitoring of the key performance of the fuel injectors;
4. Equipped with various non-dismantle cleaning connectors, capable of non-dismantle cleaning and maintenance for multiple vehicle models;
5. Through simulating engine operating conditions, comprehensively tests various aspects of the fuel injector's performance.

Functions

1. **Working Mode Selection:** Can select GDI or EFI working mode based on the injector type.

2. **Ultrasonic Cleaning:** Capable of simultaneously ultrasonic cleaning multiple injectors, effectively removing carbon buildup.

3. **Uniformity/Spray Testing Function:** Detects the uniformity of fuel injection quantity for each injector and allows comprehensive observation of the injector spray pattern using background lighting.

4. **Sealing Test Function:** Tests the sealing and leakage of injectors under system pressure.

5. **Fuel Injection Quantity Detection Function:** Measures the fuel injection quantity of injectors under a constant 15-second injection condition.

6. **Automatic Cleaning and Testing Function:** Under specific working parameters, realistically simulates injector testing under various conditions.

7. **Reverse Flush Function:** For the uniformity/spray testing item, performs a reverse flush using a reverse flush adapter to remove internal injector contaminants and residues attached to the filter screen.

8. **Non-Dismantle Cleaning Function:** Equipped with various non-dismantle cleaning adapters, allowing non-dismantle cleaning and maintenance for multiple vehicle models.

Parameters

Power Supply	AC110V/AC220V 50Hz/60Hz		Revolutions Per Minute	100~9900rpm Step length 100rpm
Main Engine Power	350W		Pulse Width	0.5~25ms Step length 0.1ms
Ultrasonic Cleaning Power	100W		Timer Range	1~30min
Fuel Pressure	0.1~10 bar		Tank Capacity	3L
Air Inlet Pressure	5~8 bar		Size	442×490×533mm

CNC603

Injector Cleaner & Tester

CNC603 is a fully automatic automotive fuel injector cleaning and testing equipment that can simulate engine operating conditions to simultaneously clean and test up to 6 fuel injectors.

- Automatic oil drain control
- Suitable for multiple injectors
- Deep ultrasonic cleaning
- Simulated operating condition testing

Features

1. Utilizing ultrasonic intensive cleaning technology, it can thoroughly eliminate carbon buildup and filter screen deposits from the fuel injectors;
2. Utilizing microcomputer automatic control technology, it can enable automatic control of the cleaning and testing process, and real-time monitoring of the key performance of the fuel injectors;
3. Equipped with various non-dismantle cleaning connectors, it can perform non-dismantle cleaning and maintenance for multiple vehicle models;
4. By simulating engine operating conditions, it comprehensively assesses various aspects of the fuel injector's performance.

Functions

1. Ultrasonic Cleaning: Capable of simultaneously ultrasonic cleaning multiple injectors, effectively removing carbon buildup.

2. Uniformity/Spray Testing Function: Detects the uniformity of fuel injection quantity for each injector and allows comprehensive observation of the injector spray pattern using background lighting.

3. Sealing Test Function: Tests the sealing and leakage of injectors under system pressure.

4. Fuel Injection Quantity Detection Function: Measures the fuel injection quantity of injectors under a constant 15-second injection condition.

5. Automatic Cleaning and Testing Function: Under specific working parameters, realistically simulates injector testing under various conditions.

6. Reverse Flush Function: For the uniformity/spray testing item, performs a reverse flush using a reverse flush adapter to remove internal injector contaminants and residues attached to the filter screen.

7. Non-Dismantle Cleaning Function: Equipped with various non-dismantle cleaning adapters, allowing non-dismantle cleaning and maintenance for multiple vehicle models.

Parameters

Power Supply	AC110V/AC220V 50Hz/60Hz	Pulse Width	0.5~25ms Step length 0.1ms
Main Engine Power	300W	Timer Range	1~10min
Ultrasonic Cleaning Power	50W	Tank Capacity	3L
Revolutions Per Minute	10~9990rpm Step length 10rpm	Size	396×380×446mm

CNC603 LITE

Injector Cleaner & Tester

CNC603 LITE is a semi-automatic automotive fuel injector cleaning and testing equipment that can simulate engine operating conditions to simultaneously clean and test up to 6 fuel injectors.

- One-key manual oil discharge
- Suitable for multiple injectors
- Deep ultrasonic cleaning
- Simulated operating condition testing

Features

1. Utilizing ultrasonic intensive cleaning technology, it thoroughly removes carbon deposits and filter screen residues from the fuel injectors;
2. Employing microcomputer automatic control technology, it allows for automated control of the cleaning and testing process, and real-time monitoring of the key performance of the fuel injectors;
3. Equipped with various non-dismantle cleaning adapters, it can perform non-dismantle cleaning maintenance for multiple vehicle models;
4. Through simulating engine operating conditions, it comprehensively assesses various aspects of the fuel injector's performance.

Functions

1. Ultrasonic Cleaning: Capable of simultaneously ultrasonic cleaning multiple injectors, effectively removing carbon buildup.

2. Uniformity/Spray Testing Function: Detects the uniformity of fuel injection quantity for each injector and allows comprehensive observation of the injector spray pattern using background lighting.

3. Sealing Test Function: Tests the sealing and leakage of injectors under system pressure.

4. Fuel Injection Quantity Detection Function: Measures the fuel injection quantity of injectors under a constant 15-second injection condition.

5. Automatic Cleaning and Testing Function: Under specific working parameters, realistically simulates injector testing under various conditions.

6. Reverse Flush Function: For the uniformity/spray testing item, performs a reverse flush using a reverse flush adapter to remove internal injector contaminants and residues attached to the filter screen.

7. Non-Dismantle Cleaning Function: Equipped with various non-dismantle cleaning adapters, allowing non-dismantle cleaning and maintenance for multiple vehicle models.

Parameters

Power Supply	AC110V/AC220V 50Hz/60Hz	Pulse Width	0.5~25ms Step length 0.1ms
Main Engine Power	240W	Timer Range	1~10min
Ultrasonic Cleaning Power	50W	Tank Capacity	2L
Revolutions Per Minute	10~9990rpm Step length 10rpm	Size	352×305×345mm

CNC605+ Accessories

|	
Ultrasonic cleaner	Fuel distributor
	Stopper · Coarse thread adaptor for fuel top-supply Injector · swiss thread adaptor-for fuel top-supply inlector · Adaptor 1 for fuel top-supply injector · Flush-back Adaptor for fuel top-supply injector
Ultrasonic stent	Straight drain connector 3 · Straight oil drain connector 4 · Combinatron connoctor M12x1.5 · Benz piezo adaptor · Plug for BUICK Injector
Ultrasonic cleaner lid	Long screw · test tube · CNC-Pulse connecting wire 1 · CNC-Pulse connecting wire 2 · O-ring

CNC603 Accessories

Ultrasonic cleaner	Fuel distributor · Compression screw · Knurled nut
	Stopper · Coarse thread adaptor for fuel top-supply Injector · swiss thread adaptor-for fuel top-supply inlector · Adaptor 1 for fuel top-supply injector · Flush-back Adaptor for fuel top-supply injector
Ultrasonic stent	CNC-Pulse connecting wire 1 · CNC-Pulse connecting wire 2 · O-ring

CNC603 LITE Accessories

Ultrasonic cleaner	Fuel distributor · Compression screw · Knurled nut
	Stopper · Coarse thread adaptor for fuel top-supply Injector · swiss thread adaptor-for fuel top-supply inlector · Adaptor 1 for fuel top-supply injector · Flush-back Adaptor for fuel top-supply injector
Ultrasonic stent	CNC-Pulse connecting wire 1 · CNC-Pulse connecting wire 2 · O-ring · Funnel
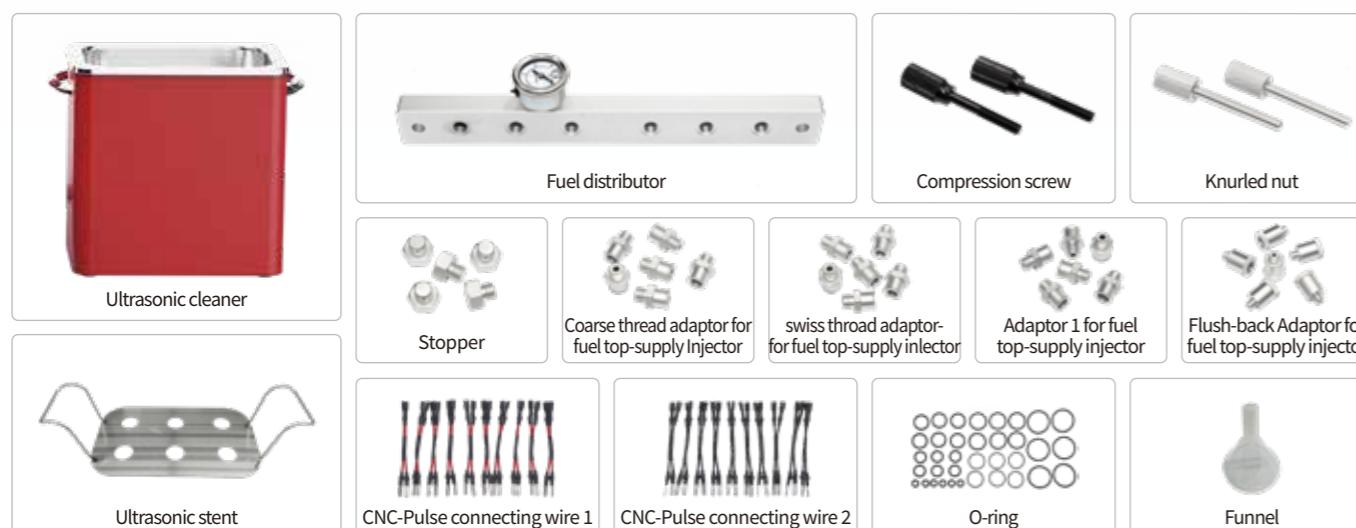
ATF601+

Auto Transmission Cleaner and Fluid Exchanger

Professional transmission cleaning and oil change machine, integrated with new oil preheating function, which can completely extract used oil and accurately add new oil. A single machine can handle the entire process, professional and reliable.

Automatic Circulation Cleaning

Preheating of New Oil

Convenient Used Oil Sampling

Precise Equal-Volume Oil Change

Oil Suction with Adjustable Volume

Features

1. Equipped with a convenient used oil sampling function;
2. Can be used with smart terminals for remote control;
3. Automatically identify the oil inlet and outlet direction of the transmission;
4. Equipped with a variety of special adapters, suitable for models in various countries;
5. Supports adding cleaning agents to perform cyclic cleaning of automatic transmissions;
6. Intelligent electronic control automatically replaces new and used oil in equal amounts;
7. Provides a rich database of vehicle models, eliminating the need to manually set the oil volume;
8. Equipped with oil temperature display and oil filter replacement reminder function.

Functions

1. **Used oil sampling:** Automatically collects used oil from the transmission.
2. **Transmission oil level adjustment:** Customizes oil level adjustments, refilling or draining the set transmission oil amount.
3. **Transmission oil replacement:** Automatically identifies transmission inlet and outlet ports, enabling equal-volume replacement of automatic transmission oil.
4. **Transmission oil circulation cleaning:** Cleaning agent can be added to perform cyclic cleaning of the automatic transmission.
5. **Draining used and new oil from equipment:** It can automatically drain the transmission oil in the new and used oil barrels of the equipment.
6. **Vehicle model data customization:** Supports custom addition of common automatic transmission maintenance vehicle model data.
7. **Print:** Supports printing of equipment execution results and customizable repair shop information.
8. **Remote control:** Supports connection with Android tablets to remotely control device operation.

Parameters

Power Supply	AC110V/AC220V 50Hz/60Hz	Filter accuracy	5μm
Maximum power	3500W	Oil change rate	2L/Min
Pressure gauge	0~200psi	Oil tank	20L×2
Oil outlet pipe	2.5m	Equal replacement error	±100ml
Oil return pipe	2.5m	Ambient temperature	-10°C~+50°C
Oil drain pipe	1.2m	Filter element service life	About 1 year (once used per day on average)
Relative humidity	<90%		

ATF601

Auto Transmission Cleaner and Fluid Exchanger

ATF601 is an intelligent equipment that utilizes the pressure difference between the internal pressure of an automatic transmission gearbox and the pressure of the equipment pump during the operation of a car engine to perform cleaning and oil changing for the automatic transmission.

- **Automatic circulation cleaning**
- **Precision equal Amount oil change**
- **Quantitative oil adjustment**
- **Convenient sampling of used oil**

Features

1. Equipped with a convenient used oil sampling function;
2. Can be paired with a smart terminal for remote control;
3. Automatically identifies the transmission's inlet and outlet oil directions;
4. Equipped with various specialized adapters suitable for vehicles from different countries;
5. Supports the addition of cleaning agents for performing circulation cleaning of the automatic transmission;
6. Intelligent electronic control ensures automatic equal-volume replacement of new and used oil;
7. Provides an extensive vehicle model database, eliminating the need for manual oil quantity setting;
8. Features oil temperature display and oil filter replacement reminder function.

Functions

1. **Used Oil Sampling Function:** Automatically collects used oil from the transmission.

2. **Transmission Oil Level Adjustment:** Customizes oil level adjustments, refilling or draining the set transmission oil amount.

3. **Transmission Oil Replacement:** Automatically identifies transmission inlet and outlet ports, enabling equal-volume replacement of transmission oil.

4. **Transmission Oil Circulation Cleaning:** Allows the addition of cleaning agents for circulating cleaning of the automatic transmission.

5. **New and Used Oil Drain:** Automatically drains transmission oil from new and used oil barrels in the equipment.

6. **Custom Vehicle Data:** Supports the custom addition of maintenance data for commonly used automatic transmission models.

7. **Printing:** Supports printing of equipment execution results, with customizable repair shop information.

8. **Remote Control:** Supports connection to an Android tablet for remote control of equipment operation.

Parameters

Power Supply	AC110V/AC220V 50Hz/60Hz	Working Air Pressure	86~106kpa
Pump Power	150W	Filter Accuracy	5μm
Working Temperature	-10~50℃	Rate of Flow	≥2.2L/60s
Relative Humidity	<90%	Oil Tank	20L×2
Working Noise	<70db	Equal Exchange Accuracy	±100mL

ATF501

Auto Transmission Cleaner and Fluid Exchanger

ATF501 is an equipment that utilizes the pressure difference between the internal pressure of an automatic transmission gearbox during the operation of a car engine and the pressure of the equipment pump to perform cleaning and oil changing for the automatic transmission.

- **Automatic recirculation cleaning**
- **Precise equal volume oil change**
- **Quantitative oil quantity adjustment**
- **Automatic recognition of oil inlet and outlet direction**

Features

1. Automatic identification of transmission inlet and outlet oil directions;
2. Equipped with a variety of specialized adapters suitable for vehicles from various countries;
3. Supports the addition of cleaning agents for performing circulation cleaning of the automatic transmission;
4. Intelligent electronic control ensures automatic equal-volume replacement of new and used oil;
5. Provides an extensive vehicle model database, eliminating the need for manual oil quantity setting;
6. Features oil temperature display and oil filter replacement reminder function.

Functions

1. **Transmission Oil Level Adjustment:** Customizes oil level adjustments, refilling or draining the set amount of transmission oil.

2. **Transmission Oil Replacement:** Automatically identifies transmission inlet and outlet ports, enabling equal-volume replacement of automatic transmission oil.

3. **Transmission Oil Circulation Cleaning:** Allows the addition of cleaning agents for circulating cleaning of the automatic transmission.

4. **New and Used Oil Drain:** Automatically drains automatic transmission oil from new and used oil barrels in the equipment.

5. **Custom Vehicle Data:** Supports the custom addition of maintenance data for commonly used automatic transmission models.

6. **Printing:** Supports printing of equipment execution results, with customizable repair shop information.

Parameters

Power Supply	AC110V/AC220V 50Hz/60Hz	Working Air Pressure	86~106kpa
Pump Power	150W	Filter Accuracy	5μm
Working Temperature	-10~50℃	Rate of Flow	≥2.2L/60s
Relative Humidity	<90%	Oil Tank	20L×2
Working Noise	<70db	Equal Exchange Accuracy	±100mL

EOC70
Engine Oil Extractor

Pneumatic pumping oil machine is a special equipment for the extraction and unified collection of engine waste oil in the process of vehicle maintenance. The tank body is made of cold-rolled steel plate and integrated tensile molding. The structure is stable and firm, and the appearance of high temperature spray plastic is durable.

- **Vacuum negative pressure oil pumping, faster and more thorough**
- **The enlarged oil catch pan can adjust the height**
- **Integrated cold-rolled steel tank body**

Features

1. The equipment can be moved to meet different working scenarios, with brake anti-wear silent casters, pushing and pulling light silky smooth;

2. Increase the adjustable height of the oil tray to solve the problem of oil splashing when receiving oil at different heights; The oil rod contains a check valve to avoid possible oil return;

3. The new vacuum negative pressure design makes the suction strong and quiet, high working efficiency, no waiting; To achieve 15-20s to complete the measuring cup vacuum;

4. Toughened glass measuring cup, strong and durable, avoid the possibility of being polluted by oil for a long time, not easy to yellow, durable brightness, high temperature resistance [120° temperature];

5. The body of the tank is made of cold-rolled steel plate, one body is stretched and formed, inlaid touch, robot assembly line welding, stable and firm welding;

6. Suction pipe model diversification [Φ5-1Pcs,Φ6-2Pcs,Φ8-2Pcs];

7. The measuring cup and tank body are equipped with two safety valves, which can protect the use of equipment and personal safety under the set pressure.

Functions

1. Large oil pan oil: Move the equipment under the vehicle engine, align the oil pan with the engine oil drain hole, and unscrew the oil drain plug of the vehicle engine for oil discharge.

2. Pump the measuring cup: Press the top valve of the measuring cup to the middle slot (the measuring cup is closed), insert the pump gun on the measuring cup, open the pump valve, and pump oil.

3. Collection and discharge of oil storage tank: After receiving oil, when the oil level in the measuring cup reaches the warning line at the same time, waste oil should be discharged to the oil tank, and then emptied by observing the position specified by the oil mirror of the tank body.

4. Safety valve control setting value: 1.2mpa, mainly to protect equipment and personal safety.

5. Measuring cup pressure gauge: Standard rating [0.06mpa-0.08mpa], to ensure that oil pumping and oil discharge can work normally.

Parameters

Supply gas pressure	6〜8bar	Oil temperature	40〜80℃	
Discharge pressure	0. 6〜0.8bar	Gasoline pipeline	5pcs	
Gas consumption	150L/Min	Φ5*L700mm (Pvc , 1Pcs)	rate of pumping：1.9 L/Min	
Vacuum degree	0〜65cmHg	Φ6*L700mm (Pvc , 2Pcs)	rate of pumping：3.7 L/Min	
Tank volume	70L	Φ8*L700mm (Pvc, 2Pcs)	rate of pumping：6.5 L/Min	
Measuring cup capacity	10L	carton size	530×530×990mm	
Oil catch pan capacity	10L	Gross weight/Net weight	34kg/30.6kg	
Machine height	1380mm	Container loading quantity	20GP-88pcs 40GP-220pcs	

WAA939
Automatic ADAS Calibration System with Alignment

WAA939 Intelligent Driving Calibration System is an automated device that integrates four-wheel alignment and ADAS calibration functions.

- **ADAS automatic parallel and centering**
- **Target automatically finding and tracking**
- **Dual-screen operation, two-way control**
- **Compatible with ADAS series targets**

Features

1. Automatic ADAS calibration: 4 high-resolution cameras and 4 high-precision motors can be used to complete ADAS alignment and parallelization;

2. Target tracking and finding: Supports automatic tracking and finding of targets by the camera;

3. Real-time self-calibration: Real-time self-calibration between camera modules to adapt to automated movements

4. Dual-screen streaming synchronization, two-way control: supports 24-inch high-definition display and 13.3-inch diagnostic tablet streaming synchronization, and two-way control, making operation more convenient;

5. High-precision motion control: Equipped with 4 axial high-precision stepper motors to meet the automation of forward, backward, left, right, rotation and lifting movements;

6. Accurate measurement of beam angle: equipped with two high-precision sensors to determine the pitch angle and roll angle of the beam, making calibration more accurate;

7. Ground level compensation: Calculate the vehicle's level performance through four camera modules, and adjust the pitch and roll knobs to meet ADAS calibration requirements;

8. Target distance measurement recognition: No need for manual measurement, just place the distance measurement target to quickly complete the distance measurement；

9. More friendly ADAS calibration guidance: process-based calibration guidance, more friendly to novices, with guided interactive experience.

Functions

1. ADAS automatic centering and paralleling: Simply push the main frame to the approximate position to activate the automatic centering and paralleling function, meeting the automatic centering and paralleling standards of different vehicles.

2. Automatic target lift: Based on the target's centering and parallel height requirements, the target is automatically raised to the desired calibration position.

3. Target finding and tracking: The beam will automatically rise and fall according to the changes in vehicle height to track the target and ensure that the target is within the camera's field of view.

4. Four-wheel alignment measurement: Supports standard measurement and quick measurement and can measure key parameters such as toe, camber, caster, kingpin inclination, and thrust angle. Supports additional measurements such as wheelbase, wheel track, axle offset, wheel offset, diagonal, center offset, etc.

5. Vehicle type database: Covers the four-wheel alignment data of more than 50,000 models worldwide and supports user customization.

6. Terminal wireless connection: Measurement data is transmitted wirelessly, and the four-wheel alignment process is displayed when paired with the ST13 intelligent connection terminal.

7. Test report: Generate ADAS calibration and four-wheel alignment reports, support pre-calibration and post-calibration data comparison, and support report sharing.

Parameters

Rated power	260W	Main frame left and right motion range	±90mm
Power supply	100~264V, 50/60Hz	Main frame rotation range	±3°
Recommended working distance(wheel alignment)	1.8~2.2m	Hub diameter (four-point hub clamp)	275~640mm
Main frame folded dimensions (length×width×height)	1500×900×1920mm	Tire diameter (three-point tire clamp)	470~1100mm
Beam expanded/folded dimensions	2780 / 1500mm	Operating temperature	-10~50℃
Main frame height range	335~2175mm	Storage temperature	-20~60℃
Main frame front and rear motion range	±120mm		

WAA939: ADAS Calibration & Wheel Alignment Measurement, Two Functions in One Equipment.

Automatic lifting and lowering of the beam
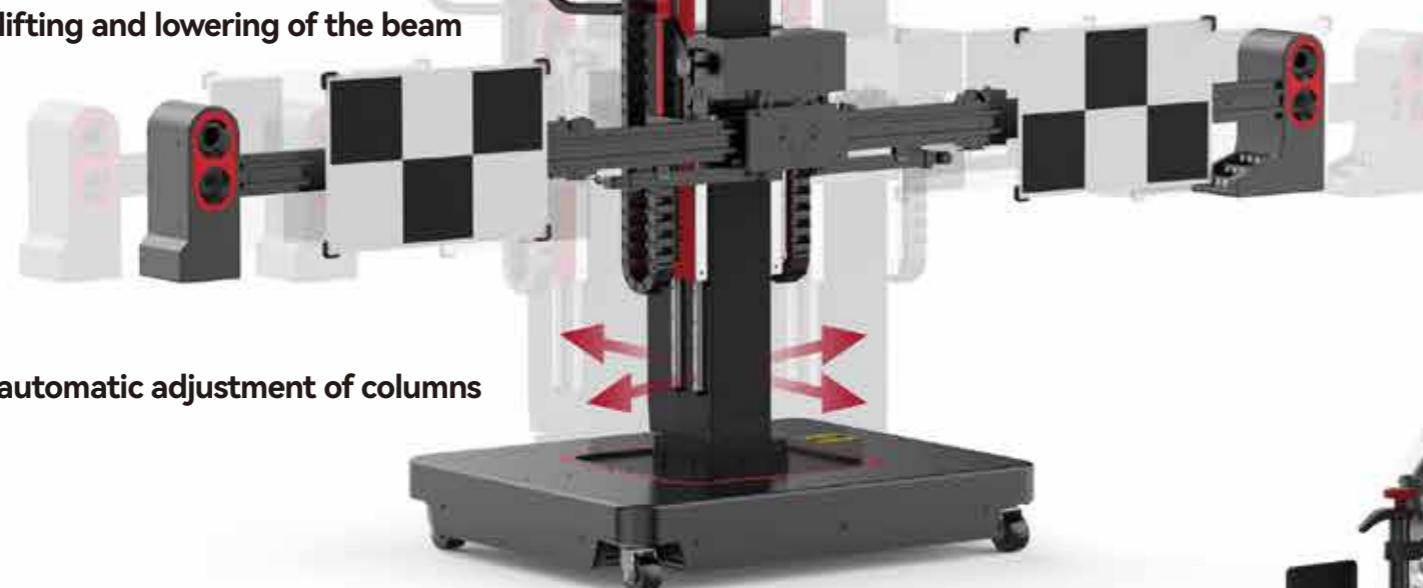
Full-range automatic adjustment of columns
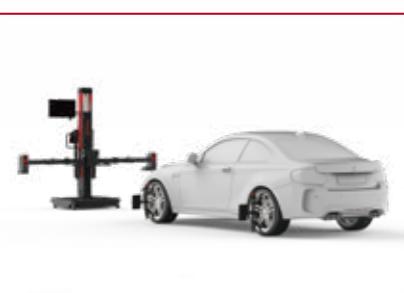
Integrated wheel alignment measurement and ADAS calibration functions

Full-range multi-axis movement, fully automatic centering and parallel alignment

Automatic crossbeam lifting and lowering to adjust target position

Fully intelligent automatic operation with minimal manual intervention
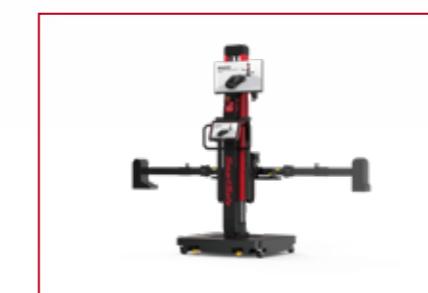
Dual LED screen + tablet display for convenient operation
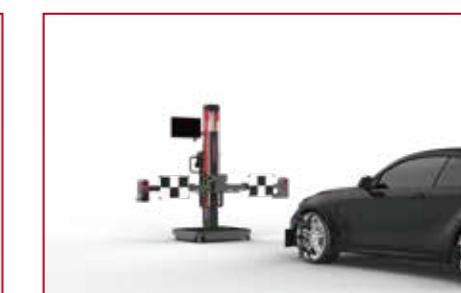
Compatible with ADAS series targets and WA613 series wheel clamps

ADAS PRO+ V2

Passenger Vehicle ADAS Calibration Equipment

Scan for more information

PRO+ V2 is a professional-grade passenger vehicle ADAS calibration device that displays the front camera target through an electronic screen.

- Equipped with high-definition LCD screen and digital front camera targets
- Centering and parallel can be completed in one minute
- Laser ranging positioning, millimeter-level calibration accuracy
- Compatible with ADAS series targets

75-inch LCD screen

Features

1. Realize digital display of front camera targets, eliminate the installation steps of front camera target head, greatly improve ADAS calibration efficiency, save target storage space, and reduce target maintenance and transportation costs；
2. Equipped with a 75-inch high-definition LCD screen, 4K resolution, the digital target restores the physical target in 1:1 ratio；
3. Supports horizontal angle, front and back, left and right fine-tuning, electric lifting and manual fine-tuning of the beam, and can complete centring and parallelism in 1 minute；
4. Equipped with a millimeter-level laser rangefinder to ensure precise calibration；
5. The software provides graphic tutorials and step-by-step guidance；
6. Support output of comparison reports before and after calibration.

Functions

1. **Target digitalization:** Supports more than 30 front camera targets.
2. **Equipment fine-tuning:** Supports fine-tuning of front-to-back and left-to-right angles.
3. **Equipment lifting:** Supports manual and electric lifting modes, and the laser rangefinder located height.
4. **Centring and parallelism:** The laser rangefinder is used to achieve parallel positioning of the equipment and the vehicle, and the line laser is used to achieve center positioning of the equipment and the vehicle.
5. **Level adjustment:** Observe the level bubble and adjust the base knob to achieve level adjustment of the equipment.

Accessories

Wheel Clamp Assembly | Distance Measurement Target | Center-mounted Laser

ADAS PRO+ V2 Front Camera Electronic Targets

LAM01-01 Mercedes	LAM01-02 VW	LAM01-06-1 Toyota	LAM01-06-2 Toyota	LAM01-06-3 Toyota	LAM01-06-4 Toyota
LAM01-07-L/R Nissan	LAM01-09 Hyundai/Kia	LAM01-10 Mazda	LAM01-11 Romeo/Geely	LAM01-12-L/R Nissan/Renault	LAM01-15 Subaru
LAM01-16-L/R Mazda	LAM01-17 Honda	LAM01-18-L/R Suzuki	LAM01-19-L/R Mitsubishi	LAM01-21 Subaru	LAM01-23-L/R Sprinter
LAM01-25 Suzuki	LAM01-30-L/R Daihatsu	LAM01-32-L/R Maserati	LAM01-35 Leapmotor	LAM01-36 Tesla	

Electronic targets Switch on demand

ADAS PRO+

Passenger Vehicle ADAS Calibration Equipment

ADAS PRO+ is an industry-leading professional ADAS system calibration equipment for passenger vehicles, which can provide professional ADAS calibration solutions for auto manufacturers, large auto repair shops and auto glass shops.

- **Align parallel in one minute**
- **Distance measurement and positioning by laser**
- **Millimeter-level calibration accuracy**
- **Compatible with ADAS series targets**

Features

1. Support horizontal angle, front and rear, left and right fine-tuning, electric lifting and lowering of the beam, the beam can also be manually raised and lowered, and the centering and paralleling can be completed in 1 minute;
2. Equipped with a millimeter-level laser rangefinder to ensure accurate calibration;
3. It can support the calibration of more than 95% of the models equipped with ADAS systems in the world, and keep updating;
4. Support LDW/ACC/AVM/NVS/BSD/RCW ADAS system calibration;
5. The software provides graphic tutorials and step-by-step guidance;
6. Support the output of comparison reports before and after calibration.

Functions

1. **Multi-System Calibration:** Supports calibration for six major systems including LDW/ACC/AVM/NVS/BSD/RCW.

2. **Multi-Vehicle Model Calibration:** Supports ADAS system calibration for over 90 vehicle brands in Europe, Americas, Asia, and China, with over 90 target models.

3. **Device Fine-Tuning:** Supports fine-tuning in terms of front-back, left-right, and angles.

4. **Device Elevation:** Supports both manual and electric elevation methods, using a laser rangefinder for height positioning.

5. **Parallel Alignment:** Achieves parallel positioning between the device and the vehicle using a laser rangefinder, and center alignment using a line laser.

6. **Level Adjustment:** Observe the bubble level, adjust the base knob, and achieve device leveling.

Accessories

Wheel Clamp Assembly   Distance Measurement Target   Center-mounted Laser

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ADAS LITE

Passenger Vehicle ADAS Calibration Equipment

ADAS LITE is an economical ADAS system calibration equipment for passenger vehicles, which can provide professional ADAS calibration solutions for auto glass shops, auto repair shops, mobile dealers and on-site auto repair service providers.

- **Innovative alignment solution**
- **Lightweight and simple structure**
- **High Cost-effectiveness**
- **Compatible with ADAS series targets**

Features

1. Minimalist and detachable design, the whole equipment is light and can be operated by a single person, cost-effective choice;
2. It can support the calibration of more than 95% of the models equipped with ADAS systems in the world, and keep updating;
3. Support LDW/ACC/AVM/NVS/BSD/RCW ADAS system calibration;
4. The software provides graphic tutorials and step-by-step guidance;
5. Support the output of comparison reports before and after calibration.

Functions

1. **Multi-System Calibration:** Supports calibration for six major systems including LDW/ACC/AVM/NVS/BSD/RCW.

2. **Multi-Vehicle Model Calibration:** Supports ADAS system calibration for over 90 vehicle brands in Europe, Americas, Asia, and China, with over 90 target models.

3. **Device Folding:** Supports beam folding.

4. **Device Elevation:** Supports manual elevation adjustment, using a laser rangefinder for height positioning.

5. **Parallel Alignment:** Achieves device parallel alignment using auxiliary accessories like alignment assist lines.

6. **Level Adjustment:** Observe the bubble level, adjust the base knob, and achieve device leveling.

Accessories

LAM09-02   LAM09-05
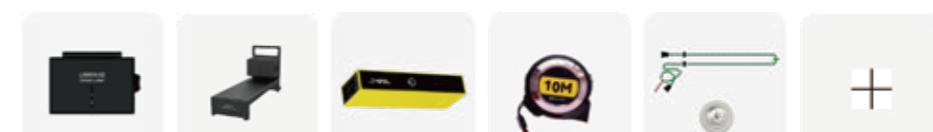
Cross-line Laser Level   Positioning Bracket   Rangefinder   Tape Measure   Centring Parallel Auxiliary Line Kit   Crosshair Alignment Sticker

ADAS ECO

Passenger Vehicle ADAS Calibration Equipment

Scan for more information

ADAS ECO is an economical ADAS system calibration device for passenger cars, which can provide professional ADAS calibration solutions for auto glass shops, repair shops, and mobile repair service providers.

- **Cost–effectiveness**
- **Minimalist design, easy installation**
- **Detailed graphic guide for calibration**
- **Compatible with ADAS series targets**
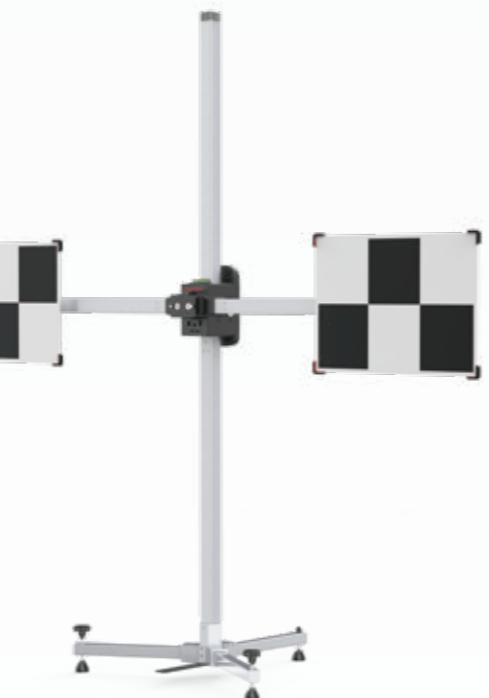
Features

1. Minimalist detachable design, lightweight, single-person operation, cost-effective choice;
2. It can support the calibration of more than 95% of the models equipped with ADAS systems in the world, and keep updating;
3. Support LDW/ACC/AVM/NVS/BSD/RCW ADAS system calibration;
4. The software provides graphic tutorials and step-by-step guidance;
5. Support output of comparison reports before and after calibration;
6. The main frame is compactly packaged, and its ultra-small size greatly reduces transportation costs.

Functions

1. Multi-system calibration: Supports calibration for six major systems including LDW/ACC/AVM/NVS/BSD/RCW.

2. Multi-vehicle model calibration: Supports ADAS system calibration for over 90 vehicle brands in Europe, America, Asia, and China, and over 90 targets.

3. Equipment lifting: Supports manual lifting, and the main frame scale can accurately locate the height of the target.

4. Centring and parallelism: The centering and parallel positioning of the equipment is completed through auxiliary accessories such as five-line laser instruments.

5. Quick positioning and horizontal adjustment: The base positioning mark and horizontal adjustment knob make it easy to quickly find the equipment positioning point and level the equipment.

Accessories

LAM09-01	LAM09-03	LAM09-04	LAM09-05	LAM09-06		
Five-line Laser Level	Laser Reflective Plate	Auxiliary Mirror	Positioning Bracket	Plumb Bob	Tape Measure	Crosshair Alignment Sticker

ADAS Calibration Targets & Accessories
（Compatible with PRO+ / MOBILE / LITE/ ECO)

LDW Targets

LAM01-01	LAM01-02	LAM01-04-L	LAM01-04-R	LAM01-17	LAM01-20	LAM01-06-1	LAM01-06-2
Mercedes	VW/Audi	Honda I	Honda I	Honda Ⅱ	Honda Ⅲ	Toyota I	Toyota Ⅱ
LAM01-06-3	LAM01-06-04	LAM01-07-L	LAM01-07-R	LAM01-12-L	LAM01-12-R	LAM01-09	LAC01-13
Toyota Ⅲ	Toyota Ⅳ	Nissan I	Nissan I	Renault/Nissan Ⅱ	Renault/Nissan Ⅱ	Hyundai/Kia	Hyundai/Kia
LAM01-10	LAM01-16-L	LAM01-16-R	LAM01-11	LAM01-15	LAM01-21	LAM01-18-L	LAM01-18-R
Mazda I	Mazda Ⅱ	Mazda Ⅱ	Romeo	Subaru I	Subaru Ⅱ	Suzuki I	Suzuki I
LAM01-25	LAM01-19-L	LAM01-19-R	LAM01-23-L	LAM01-23-R	LAM01-29	LAM01-30-L	LAM01-30-R
Suzuki Ⅱ	Mitsubishi	Mitsubishi	Sprinter	Sprinter	Daihatsu I	Daihatsu Ⅱ	Daihatsu Ⅱ
LAM01-31	LAM01-32-L	LAM01-32-R	LAM01-36				
Subaru Ⅲ	Maserati	Maserati	Tesla				

RCW&AVM Targets

LAC02-02	LAC04-08-01	LAC04-08-02	LAC02-03	LAC04-04	LAC04-14	LAC04-05-1	LAC04-05-2
Mercedes-RCW	Mercedes-RFK	Mercedes-RFK	VW-RCW	VW-AVM	VW-AVM	Porsche-AVM	Porsche-AVM
LAC04-10-01	LAC04-10-02	LAC04-06	LAC04-07	LAC04-01	LAC04-02	LAC04-17	LAC04-11
Renault-AVM	Renault-AVM	Cadillac-AVM	Ford-AVM	Honda-AVM	Honda-AVM	Honda Lane Watch	Nissan-RCW
LAC04-15	LAC04-24	LAC04-31-1	LAC04-31-2	LAC04-31-3	LAC04-13	LAC04-16-1	LAC04-16-2
Nissan-RCW	Nissan-RCW	Hyundai/Kia-AVM	Hyundai/Kia-AVM	Hyundai/Kia-AVM	Mitsubishi-AVM	Toyota-AVM	Toyota-AVM

LAC04-16-3	LAC04-16-4	LAC04-2B	LAC04-29-1	LAC04-29-2	LAC04-25
Toyota-AVM	Toyota-AVM	Toyota-AVM	Toyota-AVM	Toyota-AVM	Toyota-RCM

Radar Targets

LAM05-02	LAC05-03	LAC05-04	LAC05-05	LAC05-06	LAC05-07
ACC Reflector	Corner Reflector	Doppler Simulator	NISSAN ICC Radar Target	Audi-Lidar Target	Toyota Lidar Reflector

Radar Level Alignment Tool

LAC07-01	LAC07-02	LAC07-03	
Used for BOSCH LRR3/4 Radar	Used for BOSCH MRR Radar	Used for TOYOTA SONAR Radar	Digital Angle Protractor

NV Targets

LAC06-01	LAC06-02	LAC06-03
VW/Audi/GM	Mercedes	Lexus

Parts

LAC03-01	LAC07-04-1/2	LAC09-04
Chrysler SmartBeam Camera Calibration Tool	Volvo Camera&Radar Adjustment Tool	Angle Protractor
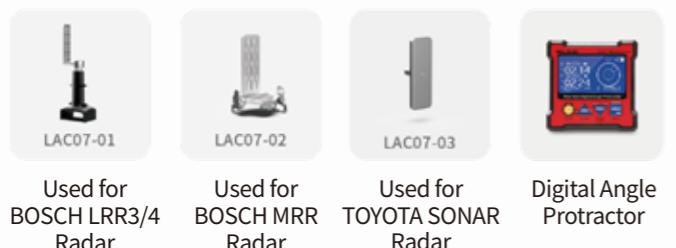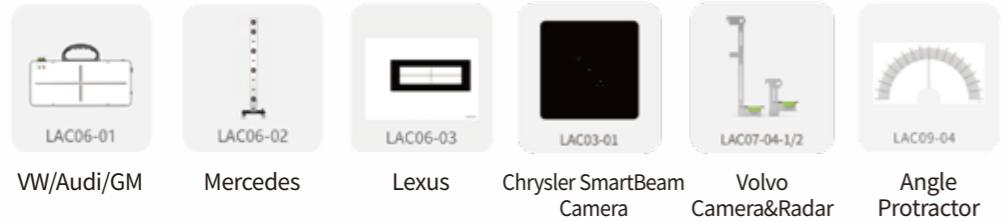
Scan QR code to check supported models

ADAS RADAR 3IN1
Passenger Vehicle ADAS Radar Calibration Toolkit
Scan for more information

ADAS RADAR 3IN1 is a ADAS radar system calibration kit for passenger vehicles, which can meet the calibration requirements of adaptive cruise system, blind spot monitoring system, lane change assist system and front corner radar system.

- Supports calibration for multiple radar systems
- No need for ADAS equipment main frame
- Provides detailed visual tutorials
- Pre-and-post calibration reports

LAM05-02 ACC Radar Target
LAC05-03 Corner Reflector
LAC05-04 Doppler Simulator
Main Unit

Functions

ACC — Adaptive Cruise Control
BSM — Blind Spot Monitoring
LCA — Lane Change Assist
FCR — Front Corner Radar

Target	Calibration System	Vehicle Coverage
LAM05-02 ACC Radar Target	ACC(Adaptive Cruise Control)	Mercedes-Benz, BMW, Audi, Volkswagen, Porsche, SKODA, Seat, Romeo, MINI, Bentley, Rolls-Royce, Maserati, FIAT, Jeep, Nissan, Mitsubishi, Suzuki, Infiniti, Hyundai, Kia, BYD, GEELY, CHERY, etc.
LAC05-03 Corner Reflector	ACC(Adaptive Cruise Control) BSM (Blind Spot Monitoring)	Toyota, Lexus, Honda, Acura Mazda, Subaru, Mitsubishi, Hyundai, etc.
LAC05-04 Doppler Simulator	LCA(Lane Change Assist) ECR(Eront Corner Radar)	Volkswagen.Audi.SKODA, Seat,Mazda,etc.

Cases

LAR09-01
LAM05-02

Y2: Location Mark

LAC05-03

Y1: Location Mark

LAC05-04
LAR09-01

Y3: Location Mark

Accessories
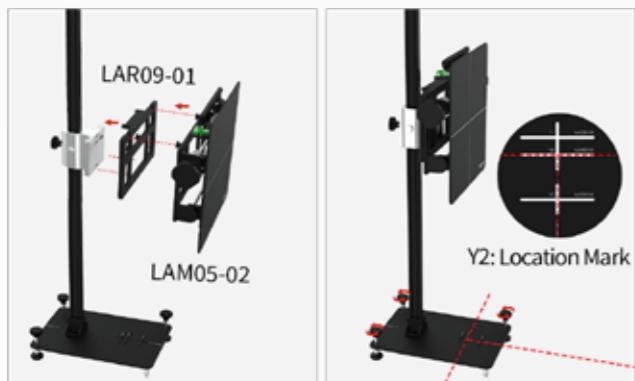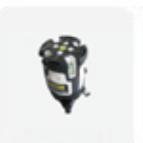
LAR09-01		LAM09-03	LAM09-04	LAM09-06	LAM09-05	
Mounting adaptor	Five-line Laser Device	Laser Reflector	Auxiliary Mirror	Plumb Line	Positioning Bracket	Tape-10m
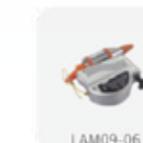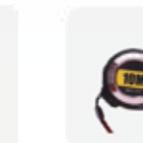
IMMO G5
Immobilizer Programmer

IMMO G5 is a car anti-theft matching tool that integrates key matching and ECU cloning functions, providing a one-stop solution for smart key generation, anti-theft system matching and ECU data reading and writing.

- **Highly integrated**
- **High-speed reading and writing**
- **Wide brand coverage**
- **Lightweight Design**

SmartSafe

Features

1. Supports cloning of engine and transmission ECUs from brands such as Bosch, Continental/Siemens, DELCO, DENSO, Magneti Marelli, ZF, GETRAG, Temic, etc., covering more than 10,000 vehicle models;

2. Supports data verification for engine ECUs of various brands;

3. Supports more chip reading and writing functions, supports encryption chip reading and writing functions, and BMS chip reading and writing functions;

4. Provides comprehensive anti-theft system support for Volkswagen/Audi, including 3rd, 4th, 5th generation, MQB, MLB, etc., supporting key addition, key loss scenarios and anti-theft component replacement;

5. Comprehensive support for BMW immobilizer systems, including CAS1/2/3/3+ and CAS4/4+ cloning, CAS4/4+ and FEM/BDC replacement, BMW G chassis key matching, FRM module repair, transmission purging, and engine replacement;

6. Supports Mercedes-Benz FBS3, allowing for clearing, replacing and programming of various lock groups, engines, transmissions and gear selector modules；

7. Supports DSM, FDCT, VGS4NAG2, VGSNAG3, etc;

8. Support ID48/96, ID46 key chip cloning function;

9. Support PC software ECU cloning and support data validation functions for more ECUs.

Functions

1. Highly integrated: Innovative hardware design integrates multiple PCB boards into one and eliminates cumbersome external MCU accessories, making the device more compact and more stable.

2. High speed and high efficiency: The newly added USB port and IO chip significantly improve the data transmission speed and port driving capability, resulting in faster operation response and higher processing efficiency.

3. Comprehensive functions: Deeply integrates the two core functions of key matching and ECU cloning, supports a wide range of brands and models, and covers in-depth scenarios.

4. Lightweight design: The side edges of the shell are integrated with injection-molded soft pads, which are comfortable to hold, non-slip and shock-absorbing, and the plug-in and unplug interfaces are more convenient, taking into account both aesthetics and practicality.

IMMO G3

Immobilizer Programmer

IMMO G3 is a special device for auto anti-theft programming used to read and write car key chip data.

- **Anti-Theft Type recognition**
- **Anti-Theft password reading**
- **Key matching**
- **Remote control matching**
- **Key chip reading and writing**
- **Anti-Theft component replacement**
- **Chip reading**
- **Car computer reading and writing**

Features

1. Powerful function, integrated key matching/copy, car anti-theft chip read-write, car computer read-write and other functions;
2. It can be used with a variety of SmartSafe detection tools, no binding, flexible use and wide adaptation range;
3. It can be used with IMMO PCBOX to operate on the computer terminal.

Functions

1. Car anti-theft: Add Mercedes-Benz, BMW, Volkswagen Audi and other car series, Porsche anti-theft function and engine computer and gearbox cloning function of other car series.
2. Key matching: Add functions such as Mercedes-Benz infrared key, key imitation duplicator, key reading and writing, etc.

Parameters

Working Temperature	0~50℃	working current	500 mA
Interface	DB26, DB15, DCIN, DIY slot	Size	228x110x45.5mm
input voltage	12V DC		

Anti-Theft Matching Wiring Diagram
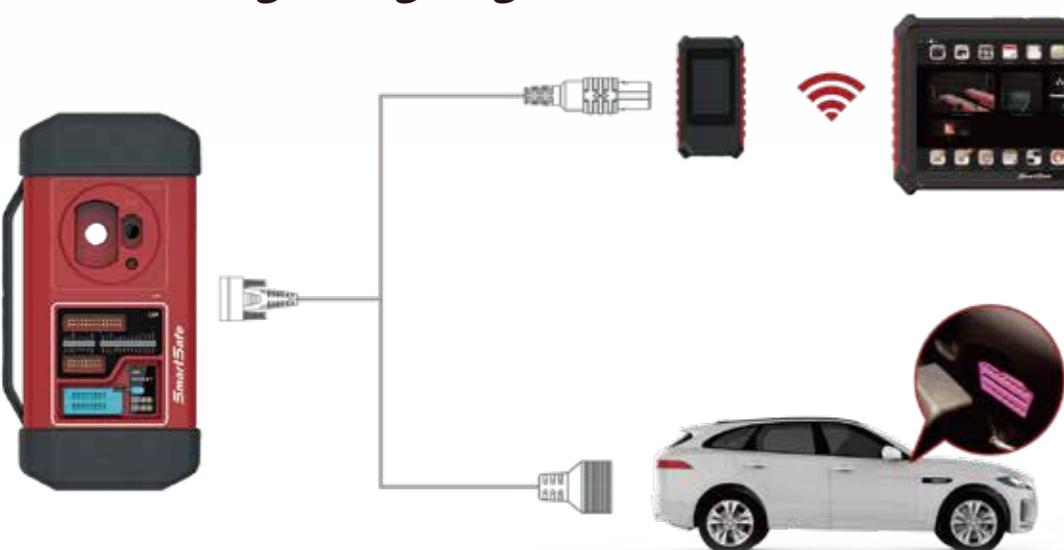
IMMO G3BOX

IMMO PC Adaptor for G3

IMMO G3BOX is an anti-theft PC adapter designed to be used in conjunction with IMMO G3. It is used for backing up, storing, and cloning flash data and EEPROM data of the original vehicle's ECU and external ECUs.

- **Used in conjunction with G3, operated through computer software**
- **Read and write EEPROM and flash data**
- **Support anti-theft deactivation and file verification**
- **Volkswagen, Audi, Porsche engine ECU data cloning**

Functions

Used with IMMO G3 immobilizer programmer, use PC software to realize ECU cloning.

1. Reading and writing ECU data: Support reading and writing ECU data through PC software.

2. Anti-theft data processing: Support the operation of anti-theft off and file verification in the software.

IMMO G3

USB Cable

G3BOX

Power adapter

USB Type-A Port for PC

Computer
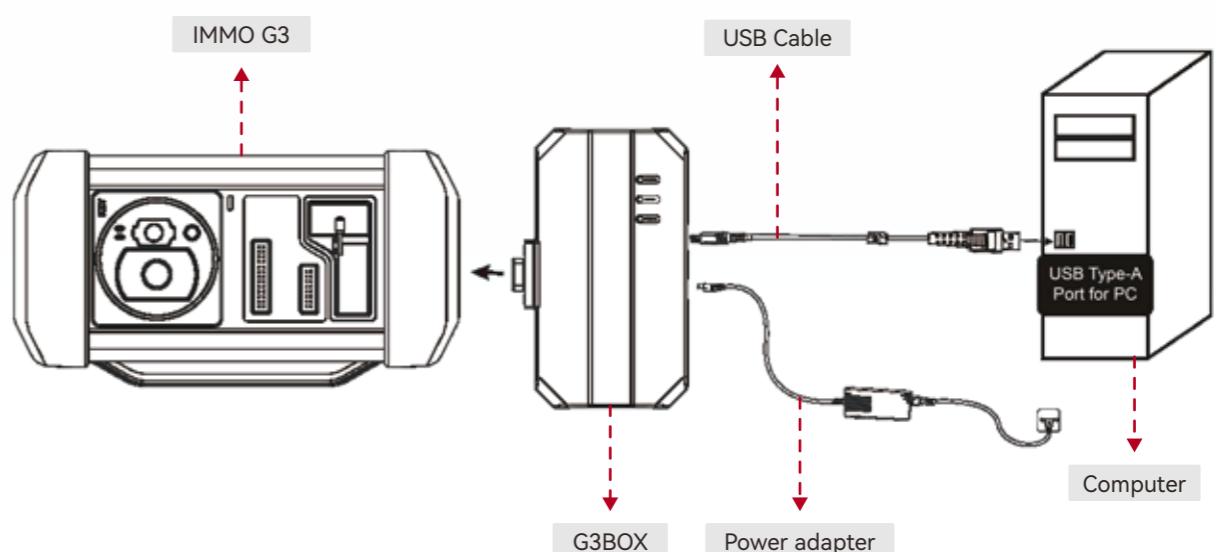
IMMO F3

IMMO PC Based ECU&TCU Programmer

IMMO F3 integrates the functions of IMMO G3 and PC BOX. It does not need to rely on Android-side detection equipment. It can be used independently to operate the engine and gearbox cloning functions.

- **Integrated IMMO G3 and G3BOX functions**
- **Read and write EEPROM and flash data**
- **Support Anti-Theft deactivation and file verification**
- **Volkswagen, audi, porsche engine ECU data cloning**

Functions

Use PC software to realize ECU cloning.

1. ECU module cloning: Support ECU cloning of engine and gearbox.

2. Anti-theft data processing: Operate anti-theft off and file verification.

ECU & TCUProgrammer

USB cable

Computer

USB Type-A Port for PC

Power adapter

Cable

ECU
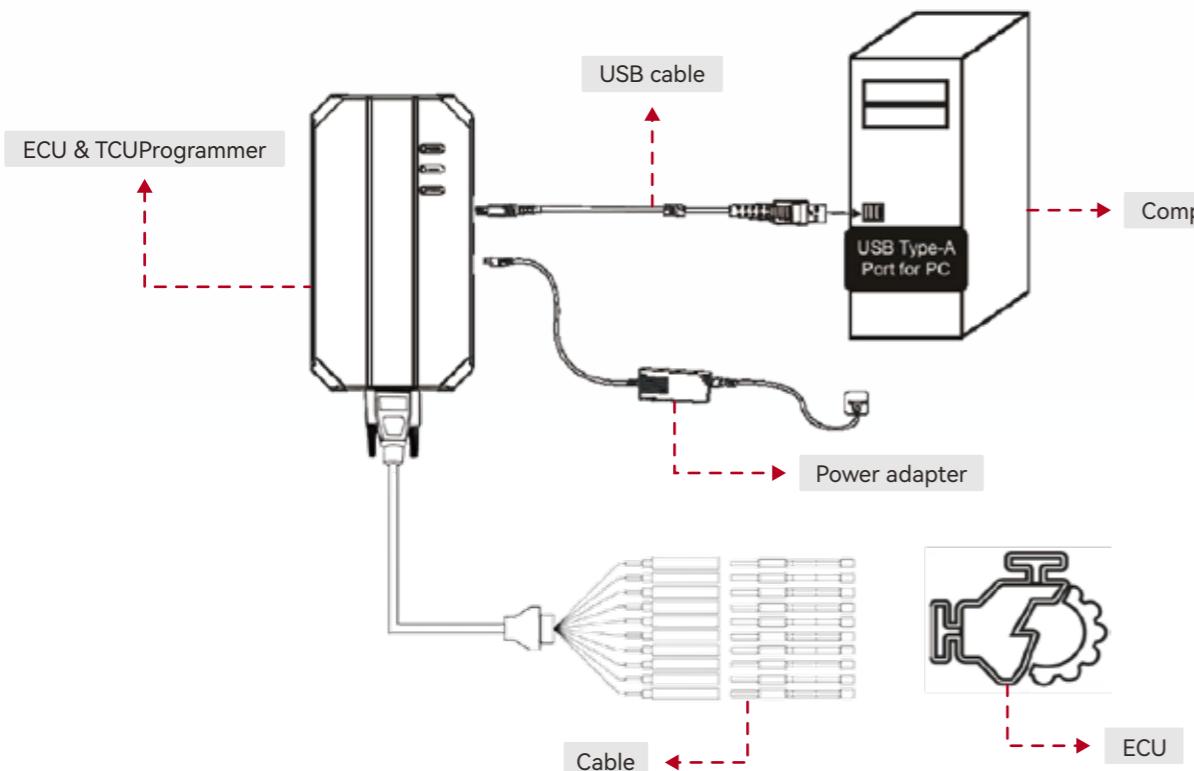
EP865

EV Battery Pack Charge & Discharge Equipment

The EP865 is a device designed for power battery pack maintenance. It supports fast charging and discharging of the entire vehicle or battery pack, has comprehensive safety protection, and is suitable for whole-pack maintenance operations.

- **Supports 2000+ BMS protocols, covering mainstream models such as Tesla, Toyota, and Volkswagen**
- **Support B2B/B2V multi-working modes**
- **Supports constant current charging and discharging, capacity detection and SOC/SOH evaluation**
- **Supports national standard GB/T 27930 and European standard ISO 15118 fast charging protocols**

Features

1. Energy-saving charging and discharging: Supports B2B (battery to battery) and B2V (battery to vehicle) working modes, and energy is recovered without waste；

2. Supports a wide range of BMS protocols: Built-in battery pack diagnostic software and a library of over 2,000 BMS protocols, covering mainstream models such as Tesla, Toyota, and Volkswagen;

3. Battery health visualization: Supports constant current charging and discharging, capacity detection, and SOC/SOH evaluation. It can also read core parameters such as SOC, voltage, current, temperature, and cell battery status to achieve an intuitive presentation of battery health status;

4. Fast charging protocol interoperability: Supports the national standard GB/T 27930 and the European standard ISO 15118 fast charging protocol, is compatible with different standard systems, and meets global market needs；

5. Flexible fast charging gun direct connection: supports direct charging of the entire vehicle through a fast charging gun, facilitating flexible application in maintenance, testing and emergency scenarios;

6. Comprehensive safety protection: Built-in multiple software and hardware protection mechanisms, with protection against reverse polarity, high temperature warning, short circuit, leakage, phase loss, overvoltage, undervoltage, overcurrent, overtemperature, tilt, etc., effectively ensuring the safety of the human-machine system.

Functions

1. Wide voltage and current range: Supports a voltage range of 150V~1000V and a maximum current output of 100A, covering mainstream power battery test scenarios.

2. Whole pack charge and discharge test: Integrates charging, discharging, and capacity testing to cover a variety of battery pack application scenarios.

3. Energy-saving charging and discharging: Supports B2B (battery to battery) and B2V (battery to vehicle) working modes, and energy is recovered without waste.

4. Direct connection with a fast charging gun: Supports charging the entire vehicle through a national standard fast charging gun, suitable for maintenance, inspection and emergency scenarios.

5. BMS data acquisition: Supports reading parameters such as SOC, voltage, current, temperature, and cell status for cell protection and battery health assessment.

6. Supports a wide range of BMS protocols: Built-in battery pack diagnostic software and a library of over 2,000 BMS protocols, covering mainstream models such as Tesla, Toyota, and Volkswagen.

7. Multiple safety protection mechanisms: With comprehensive software and hardware protection design, it supports reverse polarity protection, high temperature warning protection, short circuit protection, leakage protection, phase loss protection, overvoltage protection, undervoltage protection, overcurrent protection, overtemperature protection, and tilt protection, effectively ensuring the safety of the human-machine system during operation.

8. Graphical data display: Real-time display of voltage, current, curves and cell status for intuitive analysis.

9. Full-process data recording and upgrade support: Supports full-process recording, data export and OTA remote upgrades to facilitate data traceability and continuous system optimization.

Parameters

|			
Charging voltage	150V ~ 1000V	Charge and discharge power	30kW MAX
Discharge voltage	200V ~ 865V	Input	AC 220V/380V 50/60 Hz
Voltage measurement accuracy	±0.5% F.S	Display mode	10-inch touch screen
Current measurement accuracy	±1% F.S	Storage	32G
Charge and discharge current	100A MAX	Data communications	CAN / RS485 / Wi-Fi / Bluetooth
Security protection	Reverse polarity protection, high temperature warning protection, short circuit protection, leakage protection, phase loss protection, overvoltage protection, undervoltage protection, overcurrent protection, overtemperature protection, tilt protection		

Direct-Connect Fast Charge Gun

Compatible with BCI communication boxes, enabling real-time collection of BMS data to enhance cell protection and status assessment

Supports GB/T 27930 and ISO 15118 protocols, compatible with mainstreamvehicle models for fast and safe charging

B2B Energy Transfer Charge and Discharge

EP865
One Device, Multiple Functions, Full-Scene Coverage Supports vehicle charging, B2V, B2B, and battery pack testing—one device for multiple tasks, energy-efficient and highly effective

Transferring power from one battery pack to anotherprevents energy waste and supports secondary utilization

B2V Energy-Saving Charge and Discharge

The battery pack directly supplies power to the entire vehicle, enabling flexible energy replenishment while reusing discharged energy

Full-Pack Charge/Discharge

Efficiently performs full-pack charge/discharge cycles,suitable for various scenarios including pack factory testing and repair shops

EP865 Accessories

High-voltage output cable	Battery Communication Connector	Fast Charging Gun (Customizable/Optional)
Voltage Acquisition Cable	jump5 jumper	
Power cord (380V/220V)	Adaptor	

BCI Battery Communication Toolkit

Adapter Cables (8 types)	

BCI Battery Communication Toolkit

BCI Communication Box	BYD HAN EV TL-102R	NETA V TL-109Y	BYD QIN PRO EV TL-126R
HFT Diagnostic Connector Test Main Line	WM EX5 400 TL-104Y	DongFeng Aeolus E70 TL-110B	GAC GE3 TL-130R
Power Adapter (12V5A)	Wuling Hongguang Mini TL-105R	DongFeng Venucia D60 TL-112B	Tesla Model 3 26+26 TL-152B
Power cord	XPeng P7 TL-106R	ROEWE EI6 TL-113Y	Tesla Model S & X TL-153B
BYD E5 TL-100R	XPeng G3 TL-107R	ROEWE EI5 TL-114Y	Jumper Cable (Jump-8)
BYD TANG DM TL-101R	Geely Emgrand EV450 TL-108Y	Tesla Model 3 & Model Y TL-124B	

EP401

EV Battery Charge & Discharge Equipment

Scan for more information

The EP401 V3.0 is a device that supports charge and discharge maintenance and state of health (SOH) testing of battery modules and entire packs.

V3.0

- Support battery module and whole pack SOH health detection
- Supports up to 4,500 battery pack BMS protocols
- Supports nickel-metal hydride batteries and common lithium batteries, and supports a maximum of 72 channels of battery cell acquisition
- During maintenance of the entire battery pack, the battery status is monitored through the BMS protocol to ensure operational safety

Large 10-inch screen

Module Charge and Discharge
(with up to 72-channel cell data monitoring)

Battery Pack Full-Pack Charge and Discharge

Battery Pack Health Monitoring (SOC/SOH)

BMS Data Acquisition, Comprehensive Protection for the Battery Pack

Features

1. Support SOH health assessment: built-in battery health algorithm, automatically generates battery health report;

2. Module/whole pack one-machine operation: no need to change equipment, adapt to different battery forms of modules and whole packs;

3. Multi-channel fine data acquisition: Supports 72 battery cells and 12 temperature channels, providing detailed insight into cell status distribution;

4. BMS communication expansion: Expands the battery pack diagnostic module, supporting BMS communication, allowing full-pack testing and parameter reading without disassembly, improving efficiency and safety.

Functions

1. Module charge and discharge test: Adopts a 400V wide voltage design, suitable for charge and discharge tests of common battery modules. It supports multi-channel voltage and temperature acquisition to assist in evaluating module performance and battery cell consistency.

2. Whole-pack charge and discharge testing: Supports connection to the battery pack BMS to read key parameters such as cell voltage and temperature, enabling comprehensive monitoring and data recording of the entire pack charge and discharge process, ensuring operational safety and assessment accuracy.

3. SOH health test: Calculate the actual battery capacity through the complete charge and discharge process and automatically generate an SOH report.

4. Expert/general dual-mode operation: Provides expert mode and general mode, taking into account both ease of use for novices and debugging depth for engineers.

5. BMS communication expansion: During whole battery pack maintenance, the BMS protocol is used to monitor the status of the battery cells to ensure safe operation.

6. Multi-channel monitoring capability: Supports up to 72 battery cells + 12 channels temperature acquisition.

7. Compatible with multiple battery types: supports nickel-metal hydride batteries, ternary lithium, lithium iron phosphate, and lithium titanate batteries.

8. Graphical data and remote upgrade: Real-time graphical data display with full test process recording; supports data export and OTA upgrades, enabling traceability analysis and continuous optimization.

Parameters

|	
Terminal voltage accuracy	±0.5%FS±0.3V (maximum range 400V)
Single cell voltage accuracy	±0.1%FS±5mV (maximum range 5V)
Single cell current accuracy	±0.5%FS±0.2A (maximum range 100A)
Number of channels	72 channels Max
Balanced interface	26Pin×2
Battery module voltage range	DC 2~400V
Charging current range	Maximum power 4.4kW

Charging control	constant voltage charging, constant current charging
Discharge control	Constant current discharge
Display	10.1-inch touch screen, resolution 1280×800
Power input	AC 100~240V 50/60Hz
Discharge current range	Maximum power 7.2kW
Abnormal protection	Overcharge, overdischarge, overheating, Overcurrent, reverse connection, Disconnection protection
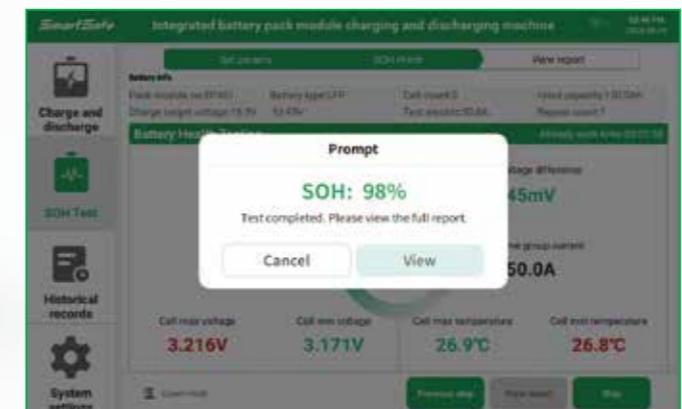
EP401 Accessories

Accessory	
DC Test Cable	(Red)
DC Test Cable	(Black)
24CH Sampling Box	
485 Comm Wire	
Cell Voltage Acquisition Wire	
Temperature Measuring Cable	
Power Cord	
BCI Communication Box	
WiFi / BT USB Adaptor	
Jumper Cable	

Adapter Cables (8 types)

Battery Pack Communication Connector

BYD E5 TL-100R		XPeng G3 TL-107R	
BYD TANG DM TL-101R		Geely Emgrand EV450 TL-108Y	
BYD HAN EV TL-102R		NETA V TL-109Y	
BAIC EU TL-103B		DongFeng Aeolus E70 TL-110B	
WM EX5 400 TL-104Y		DongFeng Venucia D60 TL-112B	
Wuling Hongguang Mini EV TL-105R		ROEWE EI6 TL-113Y	
XPeng P7 TL-106R		ROEWE EI5 TL-114Y	
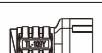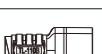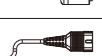
EB480

EV Battery Cell Equalizer

EB480 v2.0 is a multi-channel module equalization device designed for electric vehicle battery module maintenance. It supports independent equalization of up to 48 battery cells and is suitable for large-capacity and complex structure modules. It is widely used in after-sales maintenance, cascade utilization assessment, and consistency repair.

V2.0

Large 10-inch screen

- Support 48 channels equalization
- High precision, balance accuracy up to ±2mV
- Highly efficient and precise equalization of battery cells
- Compatible with all lithium battery types

Features

1. High-precision equalization control: supports voltage difference control accuracy of ±2mV, effectively ensuring consistency between battery cells;

2. Supports large module equalization: can equalize up to 48 battery cells simultaneously, meeting the voltage difference control needs of large modules;

3. Graphical battery cells monitoring: Real-time display of cell voltage fluctuation curve, status at a glance;

4. Supports mobile APP binding: The device can be bound to the mobile phone APP to achieve real-time interconnection. Users can remotely view the device's working status and operating data, improving ease of use and remote monitoring capabilities.

Functions

1. Multi-channel intelligent equalization: Can equalize up to 48 battery cells simultaneously, meeting the voltage difference control needs of large modules.

2. Manual/automatic equalization selection: Users can flexibly choose to automatically trigger or manually specify the battery cell for equalization.

3. Single battery cell repair: It has a single battery cell equalization intelligent control function to accurately repair the voltage difference of the cell.

4. High-precision equalization control: supports voltage difference control accuracy up to ±2mV.

5. Wide battery compatibility: Compatible with all mainstream lithium battery types.

6. All-round security protection: Built-in multiple protection mechanisms.

7. Data visualization and recording: Real-time graphical data display, support for full-process recording, data export and OTA upgrade.

8. Supports mobile APP binding: The device can be bound to the mobile phone APP to achieve real-time interconnection. Users can remotely view the device's working status and operating data, improving ease of use and remote monitoring capabilities.

Parameters

Single cell voltage detection accuracy	±0.1%FS±2mV (maximum range 5V)	Single cell current detection accuracy	±1%FS±0.05A (maximum range 5A)
Number of equalization channels	4×12	Balanced interface	26Pin×2
Battery module voltage range	DC 0~112V	Charge and discharge voltage range	1.8~4.5V
Charge and discharge current range	0.1~5A	Charge and discharge power	Maximum power 1200W
Charging control	constant voltage charging, constant current charging	Discharge control	constant current discharge, constant voltage discharge
Display	10.1-inch touch screen, resolution 1280×800	Power input	AC 100~240V 50/60Hz
Abnormal protection	overcharge protection, over-discharge protection, over-temperature protection, over-current protection, reverse connection protection, and disconnection protection		

EB240

EV Battery Cell Equalizer

EB240 is a high-precision equalization maintenance equipment designed based on the charging and discharging of EV lithium batteries, which can effectively repair battery module performance problems caused by inconsistent battery cell voltages.

V2.0

Large 10-inch screen

- Supports 24-Channel balancing
- Efficient and precise cell balancing
- Compatible with all Types of lithium batteries
- High-Precision Voltage/Current measurement

Features

1. Capable of simultaneously balancing up to 24 battery cells;

2. Compatible with all common types of lithium-ion batteries available in the market;

3. Intelligent balancing function allows individual balancing of battery cells within a battery module, preventing overcharging or over-discharging of individual cells.

Functions

1. Balancing Maintenance: Supports charging, discharging, and balancing modes for lithium-ion batteries like ternary lithium, lithium iron phosphate, lithium titanate, and lithium manganese.

2. Parameter Configuration: Pre-settable work modes, battery types, voltage thresholds, operating currents, cell series numbers, and other parameters.

3. Multiple Protections: Supports overvoltage, undervoltage, overcurrent, output short circuit, reverse polarity protection, and overheat protection.

4. Data Visualization: Real-time monitoring of voltage, current, charge-discharge status, and capacity of individual cells during the balancing process.

5. Data Analysis: Automatically stores historical balancing records, supports data presentation in both graph and bar chart formats.

6. Data Export: Historical data can be exported to a USB drive as Excel files.

Parameters

Power input	AC90~264V/40~60Hz	Wireless communication	WiFi and BT(external WiFi antenna)
Power	600W Max	Equalize number of channels	2×12Pin
Charge and discharge voltage range	1.8~4.2V	Equalize interface	16Pin
Voltage detection accuracy	±0.1% FS±2mV (maximum range 5V)	Battery interface	24Pin
Charge and discharge current range	0.1~5A Max	Display	10-inch LCD screen, resolution 1280×800
Current detection accuracy	±1% FS±0.05A (maximum range 5A)	Communication Interface	SMA,USB-Device
Battery temperature detection accuracy	±2°C (-25°C~ 85°C)	Charge control	Constant current charging+constant voltage charging
Discharge mode	Constant current discharging + constant voltage discharging		
Protection function	Input over-current protection, over-voltage protection, output over-current protection, over-temperature protection		

CE39

EV Diagnose, Equalize & Charge/Discharge Equipment

CE39 is the industry's first four-in-one intelligent integrated device that integrates electric vehicle diagnosis, large/small electrical maintenance and inspection, and battery module charging, discharging, and equalization.

- **Four-in-one diagnosis, equalization, charging and discharging functions**
- **High cost-effectiveness, meeting electric vehicle testing and maintenance scenarios**
- **Supports equalization and diagnosis working simultaneously**
- **Support tablet operation, wireless connection is more convenient**

| Diagnose | Equalize | Charge | Discharge |

Four functions in one, Super cost-effective

Features

1. One device for multiple uses: A single device simultaneously supports vehicle diagnosis, charging test, discharge test, and cell equalization, meeting the needs of the entire maintenance process;

2. Covering 95% of vehicle models: Supports full-function testing including code reading, code clearing, data stream reading, action testing and special functions, monitors data streams in real time, and intuitively displays the communication network and fault points through the vehicle topology map, achieving accurate diagnosis and positioning;

3. High current and high power output: Supports up to 40A charging/20A discharging, improving maintenance efficiency;

4. Supports equalization + diagnosis collaboration: The vehicle diagnosis APP can be launched simultaneously during the equalization process to meet the needs of efficient operation;

5. Wireless control and portable operation: The diagnostic tablet serves as the operation terminal, with Bluetooth/Wi-Fi dual communication, making remote control more flexible;

6. Supports mobile APP binding: The device can be bound to the mobile phone APP to achieve real-time interconnection. Users can remotely view the device's working status and operating data, improving ease of use and remote monitoring capabilities.

Functions

1. **Multifunctional integration:** Supports vehicle diagnosis, module equalization, charging test, and discharge test.

2. **Intelligent cell equalization:** Supports simultaneous equalization of 24 cells to improve battery module consistency and health.

3. **High-power charge and discharge capability:** Supports up to 40A charging and 20A discharging, with fast response to voltage and capacity regulation, shortening testing and maintenance time.

4. **Covering 95% of vehicle models:** Supports full-function testing including code reading, code clearing, data stream reading, action testing and special functions, monitors data streams in real time, and intuitively displays the communication network and fault points through the vehicle topology diagram.

5. **Comprehensive inspection of the three-electric system:** Supports maintenance and inspection of the powertrain (motor, electronic control, battery) and the small three-electric system.

6. **Support mobile APP binding:** The device can be bound to the mobile phone APP to achieve real-time interconnection, and users can remotely view the device's working status and operating data.

Tablet parameters

Display	10.1 inches, resolution 800×1280	Communication	Wi-Fi, Bluetooth, USB
System	Android	Charging method	Type-C, contact charging
Memory	4GB	Battery	Lithium battery 9360mAH/3.8V
Storage	128GB		

VCI parameters

ED BOX size	112mmx72.5mmx32.5mm	ED BOX operating voltage	DC 9~18V
ED BOX communication method	Bluetooth, USB		

Host parameters

Single cell voltage accuracy	±0.1%FS±5mV (maximum range 5V)	Discharge control	Constant current discharge / Constant voltage discharge
Single cell current accuracy	±0.5%FS±0.05A (maximum range 20A)	Communication	WIFI, Bluetooth
Equalization interface	12PIN×1、13PIN×1	Power input	AC 90~264V 50/60Hz
Number of equalization channels	2×12	Battery module voltage range	DC 0~112V
Charging current range	0.5~40A (maximum power 3.2kW)	Battery cell voltage range	1.6~5V
Discharge current range	0.1~20A (maximum power 2.4kW)	Abnormal protection	Overcharge protection, over-discharge protection, reverse connection protection, disconnection protection, over-temperature protection, over-current protection
Charging control	Constant voltage charging, constant current charging		

Whole-vehicle diagnosis, topology diagram for quick fault location.

Battery pack in-depth detection and offline testing for DCDC, OBC and PDU.
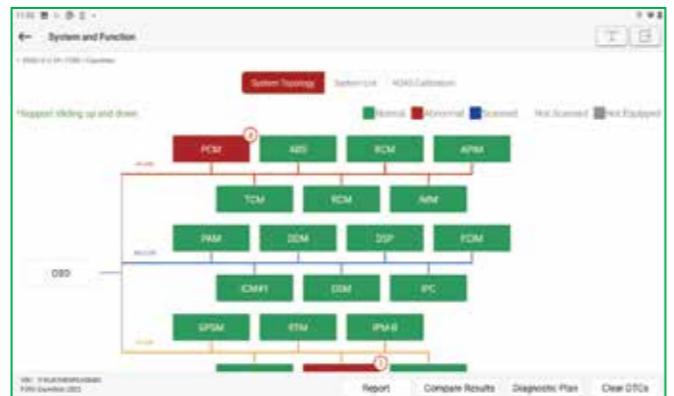
Intelligent balancing maintenance, 24 battery cells synchronous balancing.

High current and efficient charging and discharging, fast adjustment to target voltage.

ECB240

Charge, Discharge, and Equalize All-in-One Machine

ECB240 is a high-power, high-current, charging, discharging and equalization integrated maintenance equipment designed specifically for large-capacity battery packs. It supports efficient charging and discharging and multi-channel cell equalization to improve battery pack maintenance efficiency.

- Charging/discharging/equalization function three in one
- 40A charging/20A discharging for fast charging and discharging
- 24 channels of efficient and precise equalization
- Multiple safety protections such as overtemperature

Features

1. Supports a maximum charging current of 40A and a maximum discharging current of 20A, greatly improving the efficiency of charging, discharging and cell equalization;
2. The maximum charging power is 3.2KW, and the maximum discharging power is 2.4KW, with strong power output capability;
3. Supports three working modes: charging, discharging and equalization;
4. Supports 24-channel cell synchronization equalization;
5. Support overvoltage, overcurrent, reverse polarity and other protection mechanisms.

Functions

1. **Precise cell equalization:** Supports three working modes: charging, discharging and equalization, 24-channel battery cell synchronous equalization, and is compatible with mainstream battery types such as ternary lithium, lithium iron phosphate, and lithium titanate.

2. **High-current efficient charging and discharging:** Supports 40A charging and 20A discharging currents, quickly adjusts the battery cells to the target voltage, and meets the fast charging and discharging requirements of the battery pack.

3. **Multiple security protections:** Built-in overvoltage, undervoltage, overcurrent, short circuit, reverse connection and over-temperature protection mechanisms ensure the safe operation of the device and battery.

4. **Data visualization:** Real-time monitoring of cell voltage, current, and pressure differential during operation, automatically saving data and supporting comparison analysis with line charts/bar charts. One-click generation of exportable test reports.

5. **Custom parameter settings:** Preset target voltage, operating current, and other key parameters to flexibly adapt to different maintenance needs.

6. **OTA remote upgrade:** Supports online firmware upgrades, eliminating the need for local USB flash drive operations, and continuously iteratively optimizes functions.

Parameters

Power input	AC 100~240V/50-60Hz	Equalization channels	2×12
Battery module voltage range	DC 0-112V	Equalization interface	12PIN×1, 13PIN×1
Cell voltage range	1.6~5V	Charging control	Constant voltage charging, Constant current charging
Charging current range	0.5~40A, maximum power 3.2kW	Discharge control	Constant current discharge, Constant voltage discharge
Discharge current range	0.1-20A, maximum power 2.4kW	Battery module charge and discharge protection	Battery module overcharge and over-discharge protection, over-temperature protection
Single cell voltage accuracy	±0.1%FS±5mV(maximum range 5V)	Reverse polarity protection	Support
Single cell current accuracy	±0.5%FS ±0.05A (maximum range 20A)	Over-temperature protection	Cooling box over-temperature 85℃ protection
Communication interface	WIFI, Bluetooth, USB, RJ45 network port	Host protection	Over-temperature, over-current, and current out-of-control trigger shutdown protection
Display	10.1 inches, resolution 1280×800	Abnormal protection	Power line power failure, main cable power failure

ET500

EV Battery Airtightness Detector (High pressure)

ET500 is a high/low-voltage airtightness testing device for electric vehicle battery pack boxes and liquid cooling systems, suitable for scenarios such as battery pack end-of-line production, power system assembly, and maintenance re-encapsulation testing.

V2.0

- 0-500KPA high and low pressure compatible
- High pressure/low pressure outlet separation design
- 10-inch touch screen

Features

1. High and low pressure dual compatibility: Maximum 500kPa detection capability, covering the needs of liquid cooling system and box testing;
2. Physical separation of high and low pressure interfaces: The high and low pressure separation design of the detection equipment outlet reduces the risk of misoperation and damage;
3. Built-in air filtration system: Filters moisture and impurities in the compressed air, protects the internal sensor system, and improves detection stability and equipment life;
4. One-button standard process: The entire process is automatically executed, covering pressurization, pressure stabilization, and judgment steps. After the pressure is reached, the pressure is automatically stabilized and the exhaust is exhausted, making the operation process more intelligent;
5. 10-inch touch screen: intuitive operation and clear information display make it easy for workshop staff to quickly get started;
6. Process chart visualization: View the pressure change curve in real time and the test progress is clear at a glance;
7. Test results are traceable: historical records are automatically saved to facilitate quality control and report output.

Functions

1. **High and low pressure dual compatibility:** Maximum 500kPa detection capability, covering the needs of liquid cooling system and box testing.

2. **One-button standard process:** The entire process is automatically executed, covering pressurization, pressure stabilization, and judgment steps. After the pressure is reached, the pressure is automatically stabilized and the exhaust is exhausted, making the operation process more intelligent.

3. **Process chart visualization:** View the pressure change curve in real time and the test progress is clear at a glance.

4. **Test results are traceable:** Historical records are automatically saved to facilitate quality control and report output.

5. **Built-in air filtration system:** Filters moisture and impurities in the compressed air, protects the internal sensor system, and improves detection stability and equipment life.

6. **OTA remote upgrade:** Supports online updates of detection algorithms and system firmware to continuously optimize the experience.

Parameters

Test pressure range	0~500kPa	Operating temperature	-5~45℃
Sensor resolution	1Pa	Operating humidity	5%~93%
Test accuracy	±5Pa	Power input	AC 90~264V 50~60Hz
Air inlet interface/outlet interface	Φ6mm trachea	Air Requirements	0.1~1.0MPa dry compressed air

ET30

EV Battery Airtightness Detector (Low pressure)

ET30 is an air-tightness detection equipment designed for EV battery packs.

V2.0

- High reliability
- Ultra high accuracy
- Stability pressure regulation
- Intelligent operation

Features

1. Allows direct presetting of battery pack parameters such as volume, pressure, testing time for each stage, and leakage limits;
2. High sensitivity pressure sensing, with high testing accuracy and stability;
3. Equipped with a pressure gauge to display the pressure curve in real-time, making the testing process clear at a glance;
4. Alert notifications for testing anomalies or failures.

Functions

1. Low-Pressure Airtightness Testing: Using compressed air as the medium, a certain pressure is applied to the battery pack cavity, and a highly sensitive sensor detects pressure changes to determine its sealing;

2. Parameter Setting: Pre-settable parameters include workpiece number, volume, pressure, duration for each stage, leakage limit, and other settings;

3. Process Visualization: Real-time display of the working status during stages such as inflating, pressure stabilization, leakage testing, and exhaust;

4. Dual Pressure Value Display: Real-time display of the current pressure and leakage fluctuation amount;

5. Historical Records: Automatically save historical airtight records, support curve chart data display, support historical data export to USB flash drive in Excel file or share data overview in PDF file via email or QR code.

6. Online Upgrade: Supports online upgrade of devices, no need to use USB flash drive for local upgrade.

Parameters

Power input	AC90~264V/40~60Hz		Power	20W Max
Test pressure range	0~30Kpa		Air source requirements	0.1~1.0MPa dry compressed air
Sensor resolution	1pa		Inlet interface/test interface	Φ6mm air pipe/Φ6mm air pipe
Test accuracy	±5pa		Working temperature	-10~ 55℃
Interface	RJ45×1/USB×2		Working humidity	10%~ 90%

DP901

Adjustable High Voltage Power Supply

DP901 is a dedicated intelligent digital power supply suitable for both EVs and fuel vehicle maintenance. The voltage range of the high-voltage output is 50V-900V, which can be used for offline driving and maintenance test scenarios of more high-voltage electrical appliances.

- Suitable for electrical and fuel vehicles
- Dual-Mode output for high and low voltage
- High voltage Self-Check protection
- Bluetooth wireless control

Features

1. The high-voltage and low-voltage modules are isolated from each other, allowing individual protection for each module during power output without mutual interference;
2. Independent protection mechanisms are implemented in the input circuit, high-voltage output circuit, and low-voltage output circuit. These mechanisms can detect faults such as undervoltage, overvoltage, overcurrent, and short circuits, and initiate appropriate protective measures;
3. Compatible with various models of Smartsafe intelligent terminals for remote control capabilities.

Functions

1. Low Voltage Output: Supports 0V50V, 0A15A DC output, adjustable voltage/current through knobs.

2. High Voltage Output: Supports 50V900V, 0A5A DC output, adjustable voltage/current through knobs.

3. Multiple Protections: Supports high voltage input overvoltage, undervoltage protection, high voltage output overtemperature, short circuit, reverse polarity protection, low voltage output current limiting, short circuit protection.

4. Remote Control: Can be used with ST13/P01/P03 devices, remote operation via Bluetooth connection.

Parameters

Power Supply	AC100-240V@20A		Communication	BT
Maximum Power	4000W Max		Display	LED Digital Tube
High Voltage Output	Voltage: 50~900V		Protection	Short-Circuit, Current-Limiting, OverVoltage, UnderVoltage, Over Temp
	Current: 0~5A		Working Temp	-10~65℃
Low Voltage Output	Voltage: 0~50V		Size	395x315x265mm
	Current: 0~15A		Weight	11kg
Front Panel	High Voltage: Current knob, Voltage knob, High voltage switch button			
	Low Voltage: Current knob, Voltage knob, Low voltage switch button			

Usage Scenarios

ECU

Air Conditioning Compressor

Electric Steering Pump

Air Compressor (Air pump)

Electric Steering Pump (Hydraulic)

Water Heating PTC

Electronic Fan

* Suitable for but not limited to maintenance scenarios involving DP901 electrical devices

Operating Modes

P13

P03

① BT control

② BT control

DP901

② **Switching Button**

P13
EV Diagnostic Tool

The P13 is a "special inspection-level" electric vehicle detector that integrates battery pack testing, vehicle testing, anti-theft, ADAS, and common maintenance functions.

⚡ **Powerful diagnostics for the three-electric system**

🚗 **Full coverage of mainstream models**

📋 **Process-based operation instructions**

📦 **More than 10 expansion modules**

🖥 **Smart split-screen collaboration**

Features

1. The coverage of vehicle models is wide, covering more than 95% of electric vehicle models, full vehicle series and full system diagnosis, and is continuously updated;

2. Supports offline testing of multiple components and multiple maintenance functions；

3. Supports 4 battery pack connection methods, patented battery pack dedicated connector, and high detection efficiency;

4. Topology display: Provides a complete vehicle topology diagram, clearly visualizing vehicle communication and enabling quick fault point localization;

5. Standard remote diagnosis box, supports super long-range, independent WIFI communication;

6. The deeply customized AAOS system supports split-screen display. When conducting vehicle inspections, users can use the browser split-screen to search for information or consult via WeChat;

7. Intelligent connection of multiple devices, supporting four-wheel alignment, tire tread detection, ADAS, anti-theft, electric vehicle detection and maintenance equipment;

8. Supports merging of reports from multiple devices. Different inspection reports for the same vehicle can be combined into a comprehensive report;

9. 13.3-inch high-definition display, brand-new industrial design, using new materials and technology, ultra-light and ultra-thin body.

Parameters

Host

CPU	Octa-core 2.0GHz
Memory	8GB
Storage	256GB
System	Andriod
Wi-Fi	2.4GHz/5GHz dual-band
Bluetooth	EDR2.1 + BLE5.0
Screen size (inches)	13.3
Screen resolution (px)	1920×1080
Battery	13600mAh / 3.8V
Interface	TypeA、Type C、DC-IN、Mini HDMI
Input	5V 3A
Camera	Front 8MP, Rear 13MP

SLC

|	
Processor	Cortex-A7 + Cortex-M7
Memory	256MB
Storage	8GB
System	Linux
Wi-Fi	2.4GHz/5GHz dual-band
Communication methods	Wi-Fi, Bluetooth, USB
Screen	3.97 inches, resolution 320x480
Interface	Type B、RJ45、0BD-II 16、DC-IN
Operating voltage	DC 9~36V

Functions

1. Vehicle inspection: Supports full-system and full-function testing of electric vehicle models, including code reading, code clearing, data stream reading, action testing, special functions, etc., and supports remote collaboration, super remote, and trial feedback functions.

2. Battery pack detection: Supports battery pack detection for passenger vehicles, commercial vehicles, and battery brands. It can read SOC/SOH, cell/module voltage, temperature, battery pack status and fault information, and automatically calculate total voltage, voltage difference, maximum/minimum Voltage and other key indicator data are automatically labeled with abnormal data.

3. Maintenance functions: Supports offline testing of DC-DC converters, OBC onboard chargers, air conditioning compressors, 48V mild hybrid components, etc., and supports maintenance light reset, throttle matching, brake pad replacement, steering angle reset, anti-theft matching, ABS exhaust, injector coding, DPF regeneration, sunroof initialization, gearbox matching, etc.

4. Anti-theft matching: Supports vehicle anti-theft matching, anti-theft chip reading and writing, anti-theft ECU reading and writing, key matching and other functions.

5. ADAS calibration: Supports ADAS system calibration for many models in Europe, America, Asia, and China, and is compatible with ADAS PRO+, ADAS MOBILE, ADAS LITE, ADAS RADAR 3IN1 and other devices.

6. User center: Supports account registration, viewing connected devices, and activating diagnostic connectors.

7. Upgrade center: Supports online upgrades of application software, vehicle model software, and firmware software, and can manage APP and vehicle model software.

8. Report center: Supports viewing reports generated by all applications, and can filter and merge reports to generate comprehensive reports.

9. Tire equipment applications: Supports four-wheel alignment, and tire tread detection functions, and can be connected to WA913 and TTM113.

10. Electric vehicle detection tool applications: Supports equalization test, wireless equalization, charge and discharge, equalized charge and discharge, air tightness test, oscilloscope, multimeter, voltmeter, fast charge test gun, digital power supply, insulation test, current clamp, and endoscope.

11. System application: Supports camera, gallery, calculator, calendar, email, file management, browser, and system settings.

Battery Pack Detection Special Adapter List

	TL-101R	BYD TANG DM
	TL-102R	BYD HAN EV
	TL-127R	BYD D1
	TL-124B	Tesla Model 3
	TL-152B	Tesla Model 3
	TL-153B	Tesla Model S & X

Multi-device smart connectivity

WA613 TTM313 ADAS PRO+ V2 AC519+

equipments

ET500 EB865 EP401
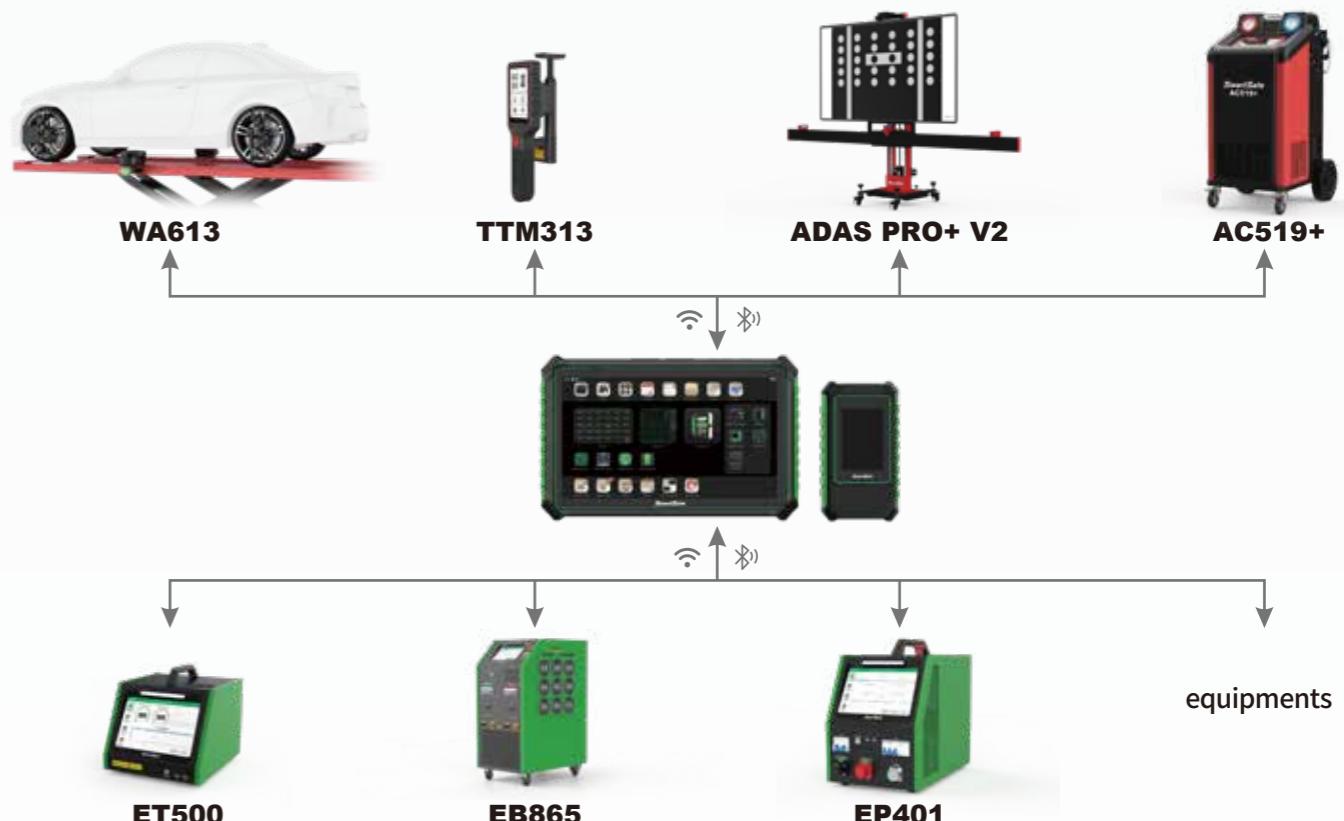
Supports offline testing capability
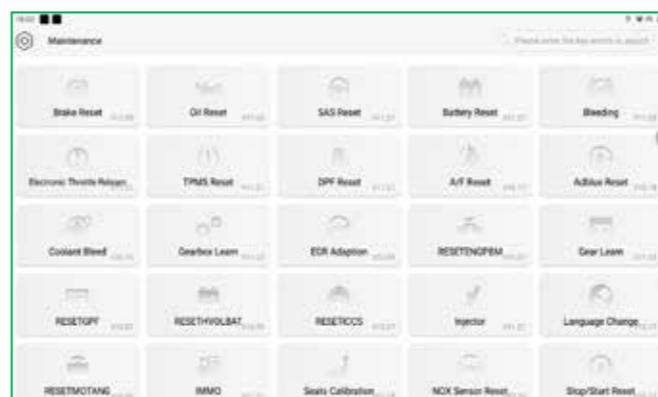
Supports offline testing for components like air conditioning compressors, onboard chargers (OBC), DC-DC converters, and 48V mild hybrid components
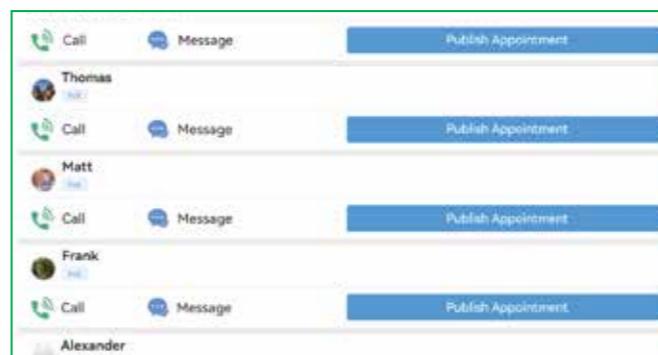
Topological graph for quick fault localization

Provide the whole vehicle topological graph, clearly display the vehicle communication network, and quickly locate the fault point

Support LAUNCH remote detection ecology

The device initiates a remote diagnosis application, and technical support personnel remotely control the equipment to solve complicated problems. It also supports the release of requirements through super remote diagnosis and pays to find online technicians to quickly solve the problem.

Coverage for Over 95% of EV Models

Currently, it covers battery pack testing and full-system testing for over 95% of EV brands, with ongoing updates.

P03

EV Integrated Diagnostic Tool

A professional electric vehicle tester that integrates battery pack testing, vehicle diagnostics, and four major tools (oscilloscope/multimeter/insulation tester/current clamp).

- Powerful diagnosis of the three-electric system
- More than 10 expansion modules
- Four-in-one built-in tools
- Full coverage of mainstream models
- Process-based operation instructions

V4.0

Features

1. Covering full vehicle series and full system diagnosis for more than 95% of electric vehicle models, and continuously updated;

2. Supports testing of common maintenance functions such as DC/DC converters, on-board chargers, and high-voltage distribution boxes;

3. Provides control panel fault code repair guidance, including troubleshooting ideas, circuit schematics, and control panel topology diagrams, enabling guided repairs;

4. Built-in common detection tools, including an oscilloscope, multimeter, insulation tester, and current clamp, cover common measurement needs in electric vehicle battery pack maintenance scenarios;

5. Standard remote diagnosis box, supporting super long-range independent WIFI communication;

6. Provides four battery pack connection methods, including OBD interface, dedicated connector, jumper connection and fast charging port connection;

7. Standard battery pack professional connector and integrated aviation plug improve detection efficiency;

8. Supports expansion modules such as ADAS calibration, tire tread detection, insulation tester, oscilloscope, digital power supply, multimeter, current clamp, endoscope, etc;

9. Dual WIFI design, the host is connected to the VCI via independent WIFI, ensuring that the VCI does not affect the host's networking when working;

10. Provides a vehicle topology map, clearly displays the vehicle communication network, and quickly locates faults.

Parameters

Host

CPU	Octa-core 2.0GHz
Memory	8GB
Storage	256GB
System	Andriod
Wi-Fi	2.4G/5G dual-band dual WIFI
Bluetooth	EDR2.1 + BLE5.0
Screen size (inches)	10.1
Screen resolution (px)	1920×1200
Battery	18720mAH/3.7V
Interface	Type A、Type C
Input	5V 3A
Camera	Rear 13MP

SLC

Processor	Cortex-A7 + Cortex-M7
Memory	256MB
Storage	8GB
System	Linux
Wi-Fi	2.4GHz/5GHz dual-band
Communication methods	Wi-Fi, Bluetooth, USB
Screen	3.97 inches, resolution 320x480
Interface	Type B、RJ45、0BD-II 16、DC-IN
Operating voltage	DC 9~36V

Functions

1. Battery pack detection: Support battery pack detection of passenger car and commercial vehicle battery brands, read SOC/SOH, monomer/module voltage, temperature, battery pack status and fault information, and automatically calculate total voltage and differential pressure , key index data such as the highest/lowest voltage, and automatically mark abnormal data.

2. Vehicle detection: Supports full system and full function testing of electric vehicle models, including code reading, code clearing, data stream reading, action testing, special functions, etc.

3. Fast charging port detection: Connect the fast charging test gun via Bluetooth to read battery pack data through the vehicle's fast charging port to achieve rapid battery pack detection.

4. Maintenance functions: Supports offline testing of DC-DC converters, 0BC on-board chargers, air-conditioning compressors, 48V mild hybrid components, and more than 30 commonly used special functions.

5. ADAS calibration: Supports ADAS system calibration for many models in Europe, America, Asia and China, and is compatible with all calibration frames in the ADAS calibration series.

6. Test report: Supports classified display of battery pack test report, vehicle test report, ADAS calibration report, etc.

7. Software upgrade: Supports online upgrades of vehicle software, firmware software, and APP software.

8. Module extension: Supports tire tread detection, digital power supply, endoscope and other functional expansions.

## Battery Pack Detection Special Adapter List

	TL-101R	BYD TANG DM
	TL-102R	BYD HAN EV
	TL-127R	BYD D1
	TL-124B	Tesla Model 3
	TL-152B	Tesla Model 3
	TL-153B	Tesla Model S & X

one-machine detection of eight high-voltage accessories

Electric compressor, DCDC, On-board charger, PTC, Motor, Electronic control, Battery, High voltage distribution box

Integration of four detection tools
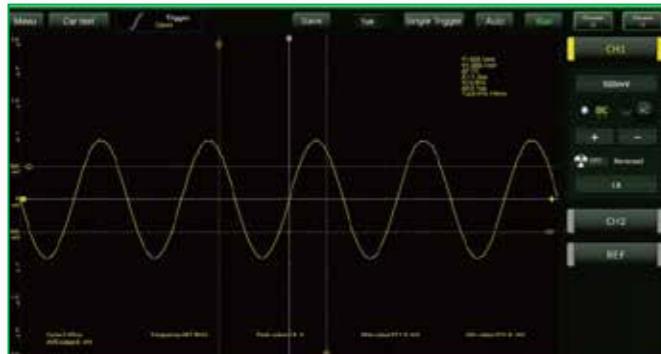
Oscilloscope

Multimeter

Insulation Tester

Current Clamp

Battery Pack Detection Specialized Adapters

Equipped with specialized adapters for various battery pack brands, no need for complex jumper operations, plug and play for instant testing.

Dedicated Battery Pack Testing Software

Built-in dedicated battery pack testing software, supports battery pack testing based on car brand or battery manufacturer, allowing users to access battery pack testing functions more quickly

Coverage for Over 95% of EV Models

Currently, it covers battery pack testing and full-system testing for over 95% of EV brands, with ongoing updates

Support LAUNCH remote detection ecology

The device initiates a remote diagnosis application, and technical support personnel remotely control the equipment to solve complicated problems. It also supports the release of requirements through super remote diagnosis and pays to find online technicians to quickly solve the problem.

P01
EV Diagnostic Tool

Scan for more information

P01 is a professional detection level EV diagnostic tool that integrates battery pack diagnostic, whole vehicle system diagnostic, and common maintenance functions.

- Battery pack "professional grade" testing
- Dedicated connector for battery pack testing
- Offline testing capability
- Comprehensive vehicle series and full system inspection

Features

1. Cover more than 95% of the whole system of EVs, and keep updating;
2. Supports testing of DC/DC converter, onboard charger, high-voltage distribution box，and other common maintenance functions
3. Provide four battery pack connection methods, including OBD, special connector, jumper connection and fast charging port connection;
4. Equipped with battery pack professional connector as standard and integrated aviation plug connector to improve detection efficiency;
5. Support ADAS calibration, tread detection, insulation tester, oscilloscope, digital power supply, multimeter, current clamp, video-scope and other expansion modules;
6. Dual WIFI design, the host is connected to the VCI with independent WIFI, and the VCI does not affect the host to access the Internet when it is working;
7. Provide the whole vehicle topological graph, clearly display the vehicle communication network, and quickly locate the fault point.

Parameters

Host

Display Size	10.1inches(1920x1200)
CPU	2.0GHz Octa-core
Memory	4GB
Storage	128GB
System	Android11
Wi-Fi	2.4GHz/5GHz
Camera	Front 8MP、Post 13MP
Battery	3.8V/9360mAH
Interface	Type A、Type C
Communication	Wi-Fi、BT、USB
Product size	318×40.5×246.5mm

VCI

Voltage	DC9~36V
CPU	Cortex-A7 + Cortex-M7
Memory	256MB
Storage	8GB
System	Linux
Wi-Fi	2.4GHz/5GHz
Communication	Wi-Fi、BT、USB
Interface	USB Type B、OBD II -16、DC-IN
Product size	197×40×83mm

Functions

1. Battery pack detection: Support battery pack detection of passenger car and commercial vehicle battery brands, read SOC/SOH, monomer/module voltage, temperature, battery pack status and fault information, and automatically calculate total voltage and differential pressure , key index data such as the highest/lowest voltage, and automatically mark abnormal data.

2. Vehicle detection: Support the whole system and full-function detection of EVs, such as code reading, code clearing, data flow reading, action testing, and special functions.

3. Fast charging port detection: Connect the fast charging detection gun with Bluetooth, and read the battery pack data through the fast charging port of the vehicle to realize fast detection of the battery pack.

4. Maintenance function: Support offline testing of DC-DC converters, OBC car chargers, air conditioner compressors, 48V light hybrid components, etc., and support 30+ common special functions.

5. ADAS calibration: Supports ADAS system calibration of many models in Europe, America, Asia, and China, compatible with ADAS PRO+, ADAS MOBILE, ADAS LITE, ADAS RADAR 3IN1 and other equipment.

6. Test report: Support the display of battery pack test report, vehicle test report, ADAS calibration report, etc.

7. Software upgrade: Support online upgrades, including model software, firmware software, and APP software.

8. Module expansion: Support tread detection, digital power supply, oscilloscope, multimeter, current clamp, insulation test, endoscope and other functional expansions.

Battery Pack Detection Special Adapter List

	TL-101R	BYD TANG DM
	TL-102R	BYD HAN EV
	TL-127R	BYD D1
	TL-124B	Tesla Model 3
	TL-152B	Tesla Model 3
	TL-153B	Tesla Model S & X

E10
EV Diagnostic Tool

E10 is an intelligent test device designed specifically for the "three-electric" systems (battery, motor, and electronic control system) of electric vehicles.

- Powerful diagnostics for the three-electric system
- Full coverage of mainstream models
- Process-based operation instructions
- More than 10 expansion modules
- CE39 remote charging and discharging

Features

1. Supports offline diagnosis of the vehicle's three-electric system (battery, motor, and electronic control system), and integrates the integrated detection function of eight high-voltage accessories, including electric compressors, DC-DC converters, on-board chargers (OBCs), PTC heaters, motors, electronic control units, battery packs, and high-voltage distribution boxes, comprehensively covering the three major maintenance scenarios of vehicle inspection, off-vehicle inspection, and control panel inspection;

2. Covers the entire system of more than 95% of electric vehicle models and is continuously updated and adapted；

3.Provides control panel fault code repair instructions, including troubleshooting logic, circuit schematics, and control panel topology diagrams, enabling guided repairs；

4. Provides a vehicle topology diagram that clearly displays the vehicle communication network and helps quickly locate faults；

5. The CE39 host integrates diagnosis, equalization, and charge and discharge functions, supporting simultaneous diagnosis, equalization, charge and discharge. The E10 can remotely control the CE39 host；

6. Four battery pack connection methods are provided: OBD interface, dedicated connector, jumper connection and fast charging port connection；

7. Standard professional battery pack connector and integrated aviation plug improve detection efficiency；

8. Supports more than 10 expansion modules, including ADAS calibration, tire tread detection, insulation tester, oscilloscope, digital power supply, multimeter, current clamp, endoscope, infrared thermal imager, etc；

9. Dual Wi-Fi design: the host and VCI use independent Wi-Fi connections, and the VCI operation does not affect the host's networking.

Tablet parameters

CPU	Octa-core 2.0GHz	Screen resolution (px)	1280×800
Memory	4GB	Battery	9360mAh / 3.8V
Storage	128GB	Interface	TypeA, TypeC, Pogo Pin
System	Andriod	Input	5V 3A
Wi-Fi	2.4GHz & 5GHz Dual-band, Dual Wi-Fi	Camera	Rear 13MP
Bluetooth	2.1+EDR/4.2 Mesh	Screen size (inches)	10.1

VCI Hardware Specifications

Communication methods	Bluetooth、USB	Operating voltage	DC 9~18V
Interface	HDB15F、TypeC		

Functions

1. Off-vehicle testing: Supports offline diagnosis and driving after replacement and repair of high-voltage components (such as DC-DC converters, on-board chargers, air conditioning compressors, PTCs, motor controllers, etc.), and provides connection instructions to support offline reading of data streams, reading fault codes, and clearing codes for each component.

2. Maintenance guide: Supports fault code detection and provides online viewing of fault maintenance guidance.

3. Battery pack detection: Supports in-depth battery pack diagnostics for passenger and commercial vehicle battery. It reads SOC/SOH, cell/module voltage, temperature, pack status, and fault information. The system automatically calculates key indicators such as total voltage, voltage difference, and maximum/minimum voltage, automatically flags abnormal data, and provides information security policies to protect all data.

4. Vehicle testing: Supports full-function testing of the vehicle's electronic control system, including electric vehicle code reading, code clearing, data stream reading, action testing, special functions, etc.

5. Special functions: Supports offline testing of DC-DC converters, on-board chargers, air conditioning compressors, and 48V mild hybrid components, as well as over 30 commonly used special functions.

6. ADAS calibration: Supports ADAS system calibration for many models in Europe, America, Asia and China, and is compatible with all calibration frameworks of the ADAS calibration series.

7.Test report: supports categorized display of battery pack test reports, vehicle test reports, ADAS calibration reports, etc.

8. Software upgrade: Support online upgrade of vehicle software, firmware software and APP software.

9. Module expansion: Supports tread detection, digital power supply, endoscope, infrared thermal imaging and other functional expansions.

one-machine detection of eight high-voltage accessories

Electric compressor, On-board charger, Motor, Electronic control, Battery, High voltage distribution box

Support control panel fault code maintenance guidance
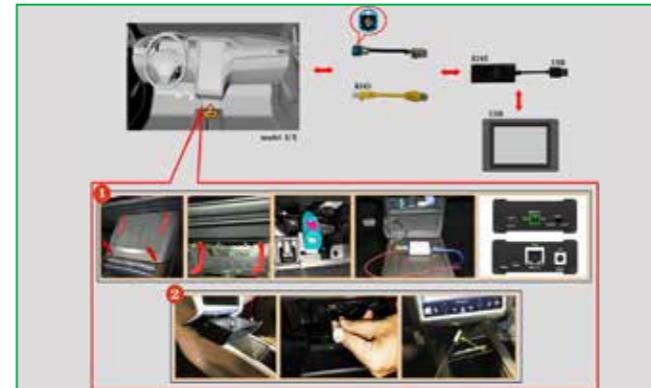
provide troubleshooting ideas, circuit schematics, control panel topology diagrams, and implement guided maintenance

Full coverage of three major automotive repair scenarios
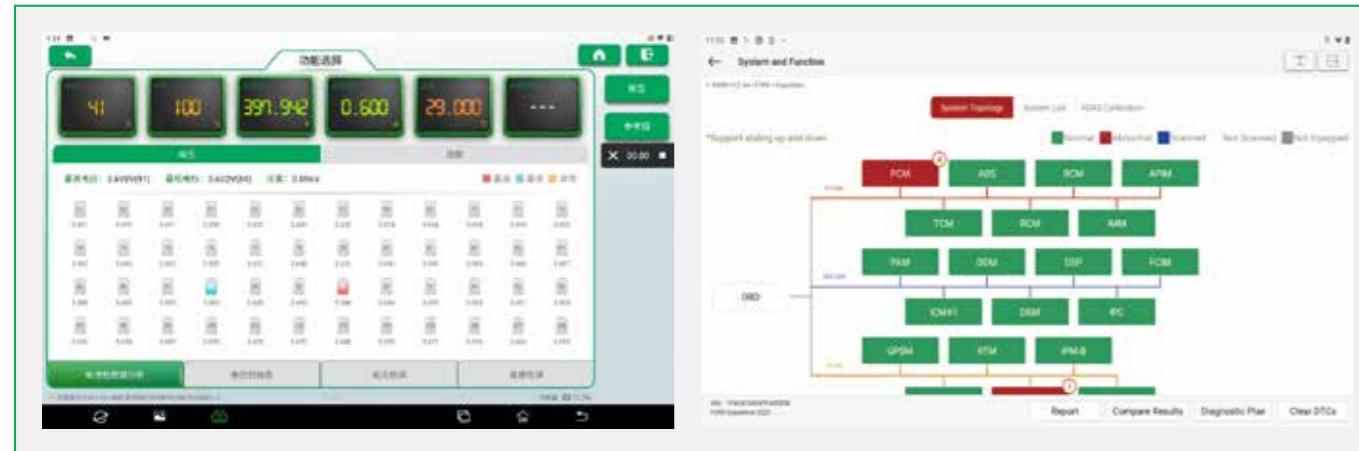
Vehicle detection, Off-vehicle detection, Control panel detection, Control panel fault code repair guide, Troubleshooting ideas, Circuit schematic, Control panel topology, Guided maintenance

EV Detection Tool Upgrade Package

This expansion package is designed to work with the SMARTSAFE series diagnostic tools. It features one of the industry's most comprehensive sets of EV battery pack connectors, ensuring exceptional convenience, speed, and efficiency—making it the top choice for boosting productivity.

Multi-brand compatibility

Quick installation

Enhanced efficiency

Activation Process
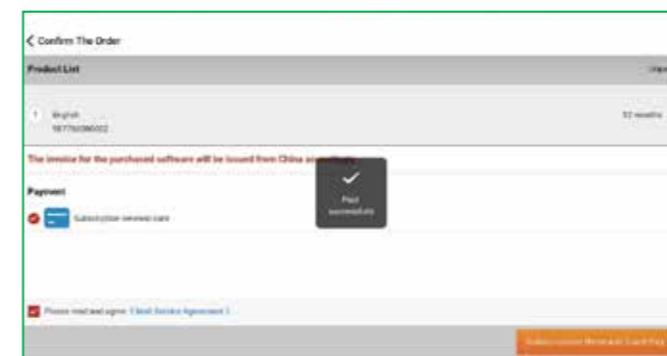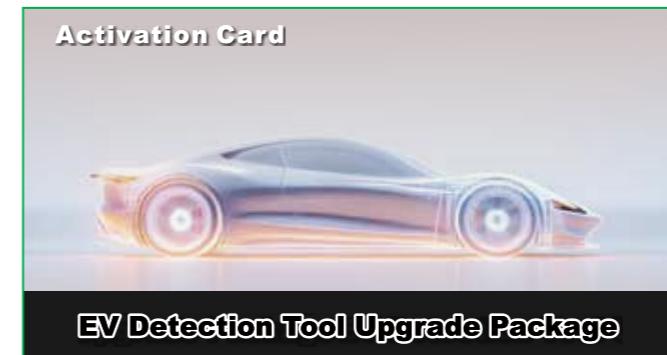
IRT01
Insulation Resistance Tester

IRT01 is a special insulation resistance tester for EVs. It is equipped with powerful measurement and data processing software, which can efficiently complete the measurement of parameters such as insulation resistance and voltage.

- **Flexible application**
- **Wide measurement range**
- **Smart alarm**
- **Auto shutdown**

Features

1. Flexible application, can measure insulation resistance and AC/DC voltage, support comparison measurement, continuous measurement, timing measurement 3 modes;
2. Wide range measurement, for different output voltages, the resistance measurement range can reach 10MΩ-1000GΩ;
3. Intelligent alarm, low resistance, timely alarm to protect personnel and equipment safety when the range is exceeded;
4. 5-inch LCD backlit display, convenient for measurement in poor light environments;
5. Automatically shut down without any operation in 15 minutes, saving energy and electricity.

Usage Scenarios of IRT01

Functions

1. Insulation resistance test: Support the selection of 500V/1000V/2500V/5000V output voltage range, support comparison measurement, continuous measurement, timing measurement three modes.

2. Voltage measurement: Support DC and AC voltage measurement.

3. Other functions: Support LCD backlight, automatic shutdown after 15 minutes without operation, over-range alarm, high-voltage warning indication.

Parameters

Output voltage		500 V/1000 V/2500 V/5000 V
Insulation resistance		500V:10MΩ~20GΩ
		1000V:10MΩ~40GΩ
		2500V:10MΩ~100GΩ
		5000V:10MΩ~1000GΩ
Short-circuit current		<3.0mA

DC measurement	±30 V~±600 V DC,resolution: 1 V, accuracy:±2%
AC measurement	±30 V~±600 V AC,resolution: 1 V, accuracy:±2%
Display mode	5-inch display
Battery	3150mAh/11.4V
temperature	0~50℃
Size	190×207×72mm

ECC03
Current Clamp

ECC03 is an AC/DC current clamp designed for non-contact measurement of AC/DC currents up to 400A. It is suitable for 50/60Hz circuits and can be used in conjunction with a multimeter to safely measure current without disconnecting the circuit.

- **High-precision measurement**
- **Safe and convenient**
- **DC Zero Adjustment**
- **Lightweight and portable**
- **Intuitive indication**

Features

1. Supports two ranges of 40A and 400A, with outputs of 10mV/A and 1mV/A respectively, to meet different current measurement needs;
2. No need to disconnect the circuit, avoid direct contact with high-voltage conductors, and comply with EN 61010 safety standards (CAT II - 600V);
3. Equipped with a zero adjustment button to eliminate hysteresis effect during DC measurement;
4. Weighing only 240g, with a maximum jaw opening of 20mm, it is suitable for operation in narrow spaces while supporting the detection of wires of different specifications;
5. LED lights show working status, easy to operate.

Functions

1. AC/DC current measurement: Supports AC (50/60Hz) and DC current detection, with a range of 0-400A.

2. Multi-speed switching: 40A (10mV/A) and 400A (1mV/A) are optional, suitable for different multimeter ranges.

3. Non-invasive measurement: Readings can be taken by simply clamping the wire without affecting circuit operation.

Parameters

DC : 40A		AC: 40A(50/60Hz)	
0~20.00A	± (3.5% + 6digits)	0~20.00A	± (4.0% + 10digits)
20.00~40.00A	± (4% + 10 digits)	20.00~40.00A	± (5% + 10digits)
DC :400A		AC: 400A(50/60Hz)	
0~300.0A	± (3.5% + 6digits)	0~300.0A	± (4.5% + 10digits)
300.0~400.0A	± (4.5% + 6digits)	300.0~400.0A	± (5% + 10digits)

TC191

Swing Arm Type Basic Left Auxiliary Arm Tire Changer

The TC191 swing-arm type simple left-side assist tire changer is widely used in small and medium-sized auto repair shops, quick service and maintenance centers, and tire retail stores due to its simple structure, low cost, and easy maintenance.

39" (1000mm)   **12-22" (Inner clamping size)**

13" (330mm)   **8-10bar**

7rpm

Features

1. High-quality white steel tire removal tool, made of high-strength white steel, more durable；

2. Thicker working palte, precision cast steel material claw, non-skid durable claw claw protection cover, high quality all-aluminum small cylinder；

3. All the air nozzle connectors are made of copper；

4. Metal hexagonal compression cover, with a beautiful design, sturdy and durable, without after-sales service；

5. Tire removal structure, thickened shovel arm body, universal large shovel, high-quality large shovel protective cover, anti-slip rubber plate；

6. Install the tire pressure regulator.

Parameters

Rim Diameter Range	10-20" (Outer clamping size) 12-22" (Inner clamping size)	Voltage	110V/220V/380V
Max Tire width	13" (330mm)	Power	0.75/1.1Kw
Max tire diameter	39" (1000mm)	Net weight / Gross weight	164/184kg
Working air pressure	8-10bar	Package size	985×770×885mm
Operating panel speed	7rpm	Container loading quantity	20GP-36pcs 40HQ-108pcs
Bead Breaker Pressure	2500kgf		

TC193

Reclining Type Deluxe Right Auxiliary Arm Tire Changer

TC193 Reclining Type Deluxe Right Auxiliary Arm Tire Changer significantly enhances efficiency, safety, and adaptability in tire servicing, particularly excelling in handling specialized tires such as run-flat and wide-base tires.

39" (1000mm)   **12-24" (Inner clamping size)**

13" (330mm)   **8-10bar**

7rpm

Features

1. Advanced mechanical arm , the pulley part of the form of a set, embedded wear-resistant sliding block, with fine grinding square tube, so that the mechanical arm can run smoothly and freely；

2. All joints of the auxiliary arm are mounted with vertebral bearings, smooth and smooth without lag；

3. Thicker working palte, precision cast steel material claw, non-skid durable claw claw protection cover, high quality all-aluminum small cylinder；

4. Tire removal structure, thickened shovel arm body, universal large shovel, high-quality large shovel protective cover, anti-slip rubber plate；

5. The all-aluminum air cylinder can reduce machine vibration and minimize friction, thereby extending the service life of the cylinder；

6. Special explosion-proof grade oil mist device,good pressure resistance effect and high safety factor；

7. Optional automatic flip of the bird head.

Parameters

Rim Diameter Range	10-22" (Outer clamping size) 12-24" (Inner clamping size)	voltage	110V/220V/380V
Max Tire width	13" (330mm)	Power	0.75/1.1Kw
Max tire diameter	39" (1000mm)	Net weight / Gross weight	300/346kg
Working air pressure	8-10bar	package size	1070×980×1200mm
Operating panel speed	7rpm	container loading quantity	20GP-15pcs 40HQ-48pcs
Bead Breaker Pressure	2500kgf		

TC195

Semi-Automatic Lever-less Tire Changer

TC195 Semi-Automatic Lever-Free Tire Changer: Solving traditional pain points of inefficiency, inaccuracy, and rim damage. Engineered for professional environments where superior performance, productivity, and equipment longevity are critical.

44" (1120mm)

12-28" (Turntable-Free)

14" (335mm)

8-10bar

7rpm

Features

1. No disc locking structure,patented design,matching alloy steel fast nuts,quick locking without injury rim;

2. Hand-controlled large shovel structure,patented design,vertical palm button structure and perfect press damping,combined with the universal large shovel structure,the shovel tire is easy to operate;

3. The new flip of the tire head,eliminating the crowbar,disassembly and assembly of hard wall flat tire is more time-saving,labor-saving;

4. Using the whole automatic tire turning frame structure,the sliding roller auxiliary tire is easily delivered;

5. Advanced mechanical arm,the pulley part of the form of a set,embedded wear-resistant sliding block, with fine grinding square tube,so that the mechanical arm can run smoothly and freely;

6. Metal six-bar handle,through the golden ratio to make the six-bar down process convenient,labor-saving;

7. Special explosion-proof grade oil mist device,good pressure resistance effect and high safety factor;

8. The reverse loading fixture is optional.

Parameters

Rim Diameter Range	12-28" (Turntable-Free)	voltage	110V/220V/380V	
Max Tire width	14" (355mm)	Power	0.75/1.1Kw	
Max tire diameter	44" (1120mm)	Net weight / Gross weight	356/412kg	
Working air pressure	8-10bar	package size	1170×1120×1850mm	
Operating panel speed	7rpm	container loading quantity	20GP-10pcs 40HQ -20pcs	
Bead Breaker Pressure	2500kgf			

TB291

Standard type LED wheel balancer

The TB291 Standard type LED wheel balancer, equipped with essential modes such as ALU1-3 and ALU-S, is user-friendly and serves as an excellent entry-level balancing machine.

10"-24" (256-610mm)

1.5"-20"(40-510mm)

65KG

Features

1. It utilizes a six-digit digital tube display and features flexible interface operation functions;

2. Multiple balancing operation modes enable functions such as unbalanced block clamping and pasting;

3. Machine self-calibration function;

4. Automatic fault diagnosis and protection function;

5. Various wheel rims suitable for steel structures and aluminum structures.

Parameters

Rim Diameter Range	10"-24" (256-610mm)	Ounce/Gram Conversion Option	Yes
Max Tire width	1.5"-20"(40-510mm)	Balance mode	6
Max tire weight	65KG	Noise	<70dB
Balance quality	±1g	Net weight / Gross weight	78KG/98KG
Balance speed	200r/min	Voltage	220V 50Hz
Balance cycle	8s	Power	200W
Display the operation interface	Six-digit digital tube	Package size	960×560×1080mm
Detection of location	64	Container loading quantity	20GP-48pcs 40HQ-104pcs

TB293

Intelligent type LCD wheel balancer

The TB293 intelligent type LCD wheel balancer revolutionizes workflow efficiency with its automated measuring scale, smart calibration, and auto-positioning technologies, ensuring fast, simple, and precisely accurate balancing results

10"-24" (256-610mm)

1.5"-20"(40-510mm)

65KG

Features

1. It employs a color high-definition LCD screen to monitor and display various operational statuses and parameters, featuring a flexible user interface;

2. Multiple balancing operation modes enable functions such as unbalanced block clamping and pasting;

3. The electronic measuring ruler automatically inputs the relevant parameters of the wheel rim;

4. Intelligent automatic calibration function and automatic calibration function of electronic measuring ruler;

5. Automatic fault diagnosis and protection function;

6. Various wheel rims suitable for steel structures and aluminum structures;

7. Standard protective cover, width ruler, electromagnetic brake;

8. Add the automatic positioning function.

Parameters

Rim Diameter Range	10"-24" (256-610mm)	Ounce/Gram Conversion Option	Yes
Max Tire width	1.5"-20"(40-510mm)	Balance mode	9
Max tire weight	65KG	Noise	<70dB
Balance quality	±1g	Net weight / Gross weight	101KG/121KG
Balance speed	200r/min	Voltage	220V 50HZ
Balance cycle	8s	Power	200W
Display the operation interface	LCD	Package size	960×560×1250mm
Detection of location	64	Container loading quantity	20GP-48pcs 40HQ-104pcs

LT840T

Ultra-thin Big Scissor Lift

LT840T is an ultra-thin wheel alignment lift that adopts whole-plate bending and high-strength bridge plates.

4.0T Lifting capacity

High-strength alloy assist arm for smooth descent under full load

Solid Steel x frame pneumatic mechanical safety lock

Features

1. Ultra-thin double-layer structure, the thickness is only 190mm;

2. Hydraulic synchronization, dual hydraulic systems, hydraulic locks and mechanical triple safety devices, automatically unlocking when lowered;

3. The bridge plate is made of whole plate bending and welding, which is more precise and stronger;

4. The oil cylinder parts are processed by high-speed fully automatic CNC lathes. It ensures excellent concentricity and smoothness, and the cylinder barrel is rolled and mirrored;

5. The X frame is made of high-quality alloy steel, laser-cut, solid steel plate, high strength, corrosion-resistant, and not easy to deform.

6. Shot blasting surface treatment, high-temperature spray treatment, and durability guaranteed;

7. All shaft positions are equipped with wear-resistant bearings and polymer wear-resistant sliders;

8. Independent control box, 24V safety control circuit, good safety performance.

Parameters

Power supply	220V/380V	Sub-lift Platform Length	1500~1800mm
Capacity of Main Lift	4000kg	Sub-lift Platform Width	600mm
Capacity of Sub-lift	4000kg	Net weight	2290kg
Initial height	220mm	Power	3kw
Main Lift Lifting Height	1850mm	Drive mode	Electro-hydraulic
Sub-lift Liting Height	450mm	Hydraulic oil	16L 46# Antl-wear hydraulic oll (self-purchase)
Main Lift Platform Length	4500mm	Air Pressure	6~8bar
Main Lift Platform Width	650mm	Working temperature	5~40℃

LT840

Big Scissor Lift

LT840 is an Big Scissor Lift. The significantly thickened bridge plate ensures the accuracy of the four-wheel alignment cart.

- **4.0T Lifting capacity**
- **The integrated secondary lifting support plate**
- **High-strength and high-precision one-piecenon-welded 3-tooth safety gear**

Features

1. Hydraulic synchronization, hydraulic lock and mechanical double safety device, automatically unlocking when lowered;
2. The oil cylinder parts are processed by high-speed fully automatic CNC lathes. It ensures excellent concentricity and smoothness, and the cylinder barrel is rolled and mirrored;
3. Imported seals, and imported ball valves, equipped with hydraulic explosion-proof devices;
4. Independent control box, 24V safety control circuit, good safety performance;
5. The X frame is made of high-quality alloy steel, laser-cut, solid steel plate, high strength, corrosion-resistant, and not easy to deform.
6. Shot blasting surface treatment, high-temperature spray treatment, and durability guaranteed;
7. Retractable secondary lifting panel;
8. All shaft positions are equipped with wear-resistant bearings and polymer wear-resistant sliders;
9. Hidden scissor structure takes up little space.

Parameters

Power supply	220V/380V	Sub-lift Platform Length	1500~1800mm
Capacity of Main Lift	4000kg	Sub-lift Platform Width	550mm
Capacity of Sub-lift	4000kg	Net Weight	1937kg
Initial Height	330mm	Power	3kw
Main Lift Lifting Height	1850mm	Drive Mode	Electro-hydraulic
Sub-lift Liting Height	450mm	Hydraulic Oil	16L 46# Antl-wear hydraulic oll (self-purchase)
Main Lift Platform Length	4500mm	Air Pressure	6~8bar
Main Lift Platform Width	605mm	Working Temperature	5~40°C

LT445

Four Post Lift

LT445 is a fully automatic control insurance wheel alignment four post lift, equipped with an electronically controlled pneumatic insurance device.

- **4.5T Lifting capacity**
- **Pneumatic unlocking with detection ensures thatthe bridge plate is level**
- **Equipped with secondary lifting mobile trolley**

Features

1. The oil cylinder parts are processed by high-speed fully automatic CNC lathes. It ensures excellent concentricity and smoothness, and the cylinder barrel is rolled and mirrored;
2. Electro-hydraulic system, wire rope transmission, enlarged oil cylinder for smooth lifting and lowering;
3. Shot blasting surface treatment, high-temperature spray treatment, and durability guaranteed;
4. Four-sided wire rope balance, very suitable for four-wheel alignment;
5. Fully automatic control of pneumatic unlocking belt detection.

Parameters

Power Supply	220V/380V	Inner Distance of Runway	904~1040mm
Main Unit Rated Lifting Weight	4500kg	Net Weight	1358kg
Trolley Rated Lifting Weight	2000kg	Power	2.2kw
Initial Height	210mm	Drive Mode	Electro-hydraulic
Main Lift Lifting Height	1800mm	Hydraulic Oil	10L 46# Antl-wear hydraulic oll (self-purchase)
Jacking Beam Rise	480mm	Air Pressure	6~8bar
Platform Length	4780mm	Working Temperature	5~40°C
Distance Between Columns	3000mm		

LT640T

Ultra-thin Small Scissor Lift

LT640T is an ultra-thin flatbed lift that can be installed on the ground. It has a lifting capacity of 4.0 tons and is suitable for rapid maintenance, tire replacement and other workstations.

- **4.0T Lifting capacity**
- **Hydraulic lock and mechanical lock double safety device**
- **Pipeline burst protection device**

Features

1. Ultra-thin structure, the thickness is only 110mm;
2. Hydraulic synchronization, dual hydraulic system, hydraulic lock and mechanical triple safety device, automatic unlocking when lowered;
3. 24V safety control circuit;
4. The oil cylinder parts are processed by high-speed fully automatic CNC lathes. It ensures excellent concentricity and smoothness, and the cylinder barrel is rolled and mirrored;
5. Cutting with CNC equipment such as lasers. Precise dimensions, flat incisions, high finish. The X frame is made of high-quality steel, laser-cut, solid steel plate, high strength, corrosion-resistant, and not easy to deform;
6. The supportable approach bridge can accommodate more long-wheelbase vehicles;
7. Shot blasting surface treatment, high-temperature spray treatment, and durability guaranteed.

Parameters

Rated lifting weight	4000kg	Power	3kw
Initial height	110mm	Power supply	220V/380V
Lifting height	1920mm	Drive mode	Electro-hydraulic
Platform length	1475mm	Hydraulic oil	46# Anti-wear hydraulic oil 10 L
Platform width	650mm	Air pressure	6~8bar
Net weight of the whole machine	989kg	Working temperature	5~40℃

LT640

Small Scissor Lift

LT640 is an in-ground flatbed lift with a lifting capacity of 4.0 tons. It is suitable for rapid maintenance, tire replacement and other work-stations.

- **4.0T Lifting capacity**
- **Concealed flat plate structure, in-ground style for installation, small space occupation**
- **Pipeline burst protection device**

Features

1. Hydraulic synchronization, hydraulic lock and mechanical double safety device, automatically unlocking when lowered;
2. 24V safety control circuit;
3. The oil cylinder parts are processed by high-speed fully automatic CNC lathes. It ensures excellent concentricity and smoothness, and the cylinder barrel is rolled and mirrored;
4. Adjustable platform length;
5. Shot blasting surface treatment, high-temperature spray treatment, and durability guaranteed;
6. All shaft positions are equipped with wear-resistant bearings.

Parameters

Rated lifting weight	4000kg	Power	3kw
Initial height	330mm	Power supply	220V/380V
Lifting height	2160mm	Drive mode	Electro-hydraulic
Platform length	1550-2055mm	Hydraulic oil	46# Anti-wear hydraulic oil 18 L
Platform width	550mm	Air pressure	6~8bar
Net weight of the whole machine	750kg	Working temperature	5~40℃

LT636T
Ultra-thin Small Scissor Lift

LT636T is an ultra-thin flatbed lift that can be installed on the ground. Solid structure, high-temperature spray-coated surface treatment and durability.

- **3.6T Lifting capacity**
- **Hydraulic lock and mechanical lock double safety device**
- **Pipeline burst protection device**

Features

1. Ultra-thin structure, the thickness is only 110mm;
2. Hydraulic synchronization, dual hydraulic system, hydraulic lock and mechanical triple safety device, automatic unlocking when lowered;
3. 24V safety control circuit;
4. The oil cylinder parts are processed by high-speed fully automatic CNC lathes. It ensures excellent concentricity and smoothness, and the cylinder barrel is rolled and mirrored;
5. Cutting with CNC equipment such as lasers. Precise dimensions, flat incisions, high finish. The X frame is made of high-quality steel, laser-cut, solid steel plate, high strength, corrosion-resistant, and not easy to deform;
6. The supportable approach bridge can accommodate more long-wheelbase vehicles;
7. Shot blasting surface treatment, high-temperature spray treatment, and durability guaranteed.

Parameters

Rated lifting weight	3600kg	Power	3kw
Initial height	110mm	Power supply	220V/380V
Lifting height	1900mm	Drive mode	Electro-hydraulic
Platform length	1475-2083mm	Hydraulic oil	46# Anti-wear hydraulic oil 16 L
Platform width	650mm	Air pressure	6~8bar
Net weight of the whole machine	929kg	Working temperature	5~40℃

LT630T
Ultra-thin Small Scissor Lift

LT630T is a mobile scissor lift with a lifting capacity of 3000kg without installation.

- **3000kg lifting capacity**
- **Mobile without installation**
- **Ultra-slim design to fit into tight spaces**

Features

1. Small size and light weight, no need to install and fix with the ground, easy to move, can be used in multiple positions;
2. Ultra-slim structure design, easy to operate in narrow or limited working area;
3. The mechanical lock device automatically locks when rising, and is unlocked by pneumatic when falling, safe and reliable;
4. Equipped with control system and operation panel, can realize precise height adjustment and lifting control, providing convenient and precise operation experience.

Parameters

power supply	220V/380V	Container loading quantity	20GP-24pcs/40HQ-48pcs
Rated lifting weight	3000kg	Motor power	3kw
Initial height	102mm	Driving method	Electro-hydraulic
Lifting height	1000mm	hydraulic oil	46#Anti-wear hydraulic oil 6 litres
Platform length	1420-2015mm	gas pressure	6-8bar
Platform width	520mm	operating temperature	5-40℃
Net weight	600kg		

LT245C
Clear Floor Two Post Lift

LT245C is a clear floor two post lift that adopts an electro-hydraulic power system, with a lifting capacity of 4.5T, suitable for sheet metal or machine repair and quick oil change stations.

- 4.5T Lifting capacity
- Dual safety design
- Suitable for sports cars / suvs / commercial vans

Features

1. Rated load 4.5T, suitable for vehicle inspection, repair, maintenance and other workstations;
2. Mechanical and hydraulic dual insurance that meets international standards ensures safe use;
3. Two steel wire ropes are connected synchronously to force the two sliding platforms to move synchronously, effectively preventing the vehicle from tilting;
4. The minimum lifting height is 95mm, suitable for repairing sports cars;
5. Equipped with a high-precision lifting arm return angle locking device to prevent detachment;
6. Heavy load carrying chain for safe lifting of vehicles.

Parameters

Power Supply	220V/380V	Lifting Time	≤ 45S
Max Lifting Weight	4.5T	Drive Mode	hydraulic drive
Max Lifting Height	1900mm	Machine Power	2.2kw
Min Lifting Height	95mm	Hydraulic Oil	10L 46#(for summer) or 32#(for winter) wear-resistant hydraulic oil, provided by users
Total Height	3835mm	Hydraulic Power Unit	2.7ml/r
Distance between Columns	2850mm	Work Environment	Temperature: 5~40℃ Humidity: 30~95%

LT240C
Clear Floor Two Post Lift

LT240C is a clear floor two post lift that adopts an electro-hydraulic power system, with a lifting capacity of 4.0T, suitable for sheet metal or machine repair and quick oil change stations.

- 4.0T Lifting capacity
- Manual dual-sided unlocking
- Dual hydraulic cylinders

Features

1. Lifting capacity of up to 4.0T, catering to common passenger car maintenance scenarios;
2. Adjustable tray with a minimum height of 95mm, suitable for low chassis and household vehicle models;
3. 120% dynamic and 150% static load testing compliant with CE standards;
4. Column width of 2850mm, suitable for large-width vehicles like commercial vans;
5. Full-travel mechanical safety locks, explosion-proof flow control valve, overload protection;
6. All movable points use automatic lubrication oil-free bearings, ensuring long-lasting durability;
7. Laser cutting and automated welding ensure reliable quality.

Parameters

Power Supply	220V/380V	Lifting Time	≤ 45S
Max Lifting Weight	4.0T	Drive Mode	hydraulic drive
Max Lifting Height	1900mm	Machine Power	2.2kw
Min Lifting Height	95mm	Hydraulic Oil	10Lwear-resistant hydraulic oil, provided by users
Total Height	3835mm	Hydraulic Power Unit	2.7ml/r
Distance between Columns	2850mm	Work Environment	Temperature: 5~40℃ Humidity: 30~95%

LT245

Floor Plate Two Post Lift

The LT245 is a floor plate two post lift equipped with an electric hydraulic power system. Its steel structural columns are formed by thickened steel plate stamping and bending, and the exterior is treated with full powder coating, ensuring durability and longevity.

- **4.5T Lifting capacity**
- **Dual safety design**
- **Suitable for sports cars / suvs / commercial vehicles**

Features

1. Rated load 4.5T, suitable for vehicle inspection, repair, maintenance and other workstations;
2. Mechanical and hydraulic dual insurance that meets international standards ensures safe use;
3. Two steel wire ropes are connected synchronously to force the two sliding platforms to move synchronously, effectively preventing the vehicle from tilting;
4. The minimum lifting height is 95mm, suitable for repairing sports cars;
5. Equipped with a high-precision lifting arm return angle locking device to prevent detachment;
6. Heavy load carrying chain for safe lifting of vehicles.

Parameters

Power Supply	220V/380V	Lifting Time	⩽ 50S
Max Lifting Weight	4.5T	Drive Mode	hydraulic drive
Max Lifting Height	1920mm	Machine Power	2.2kw
Min Lifting Height	95mm	Hydraulic Oil	10L 46#(for summer) or 32#(for winter) wear-resistant hydraulic oil, provided by users
Total Height	2824mm	Hydraulic Power Unit	2.7ml/r
Distance between Columns	2850mm	Work Environment	Temperature: 5~40℃ Humidity: 30~95%

LT240

Floor Plate Two Post Lift

The LT240 is a floor plate two post lift equipped with an electric hydraulic power system.

- **4.0T Lifting capacity**
- **Pre-set hydraulic overload protection**
- **Full mechanical safety device**

Features

1. Lifting capacity of up to 4.0T, catering to common passenger car maintenance scenarios;
2. Adjustable tray with a minimum height of 95mm, suitable for sports car lifting;
3. 120% dynamic and 150% static load testing compliant with CE standards;
4. Pre-set rated hydraulic pressure with overload protection when lifting vehicles;
5. Column width of 2850mm, suitable for wide vehicles like SUVs and commercial vans;
6. Full-travel mechanical safety locks for easy and secure operation;
7. Professional cloth protective design, rubber door guard pads, foot protection bars, explosion-proof flow control valves;
8. All movable points use automatic lubrication oil-free bearings to ensure long-lasting durability.

Parameters

Power Supply	220V/380V	Lifting Time	⩽ 50S
Max Lifting Weight	4.0T	Drive Mode	hydraulic drive
Max Lifting Height	1920mm	Machine Power	2.2kw
Min Lifting Height	95mm	Hydraulic Oil	10Lwear-resistant hydraulic oil, provided by users
Total Height	2824mm	Hydraulic Power Unit	2.7ml/r
Distance between Columns	2850mm	Work Environment	Temperature: 5~40℃ Humidity: 30~95%

LT150R

EV Battery Lift (Electric)

LT150R New Energy Vehicle Battery Disassembly Lifter is ideal for disassembling and assembling battery packs of new energy vehicles, which can be used flexibly in the workshop.

- Quick and safe battery pack installation and removal
- Heavy-duty 360° universal moving casters
- Equipped with high-voltage insulation protection pads

Features

1. With a rated lifting capacity of up to 1.5T, it meets the needs for most electrical vehicle battery disassembly and installation in the market;
2. Utilizing laser materials and robot welding to ensure high precision and quality;
3. Powered by an asynchronous AC motor, the hydraulic gear pump drives the cylinder with the assistance of balancing support bars, ensuring smooth lifting and lowering;
4. Equipped with heavy-duty 360°swivel casters for easy mobility;
5. The platform surface is fitted with rubber insulation pads to prevent maintenance personnel from coming into contact with electricity.
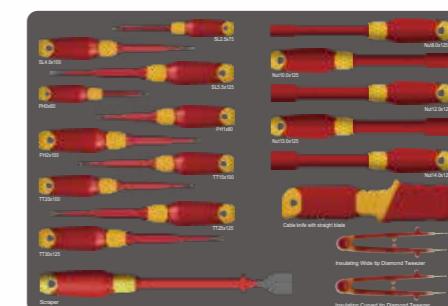
Parameters

Lifting weight	1500kg	Driving method	12V battery operated electro-hydraulic
Maximum height	1850mm	Rating	1.6kw
Minimum height	550mm	Lifting time	30s
Rated voltage	external 220v, internal 24V lowvaltage		

# TT116

EV Maintenance Tool Trolley

TT116 is a professional auto repair tool trolley developed for electric vehicle maintenance, containing 116 pieces of commonly used insulating tools, with comprehensive functions, reliable quality, both practicality and cost-effective.

- Complete range of insulation tools
- High-quality steel, sturdy and durable
- Dual-color handles, oil and scratch-resistant

Features

1. Tailor-made for electric vehicle maintenance, it is more suitable for safe maintenance work in the narrow space of electric vehicle three electric systems;
2. complete tools to meet the majority of electric vehicle three electric systems and other fasteners such as fasteners disassembly and installation work order needs;
3. Equipped with 1000V non-contact stylus, more effectively avoid the danger of accidental electrocution due to electrified work.

TT430

430pcs Mechanic Tools Cart Kit

TT430 is a solution for the vehicle machine maintenance. It not only has a full range of general-purpose tools, but also adds special tools for popular vehicle models. TT430 tool cart can both meet the demands of most vehicle models and used for special vehicles.

- **Full range of tool specifications to meet the needs of most car models**

- **Configuration of the best-selling models of special sockets and other tools, vehicle-specific**

- **Super practicality and cost-effective**

Features

1. Full range of tool specifications to meet the needs of most car models;
2. Targeted addition of special sockets and other tools for the best-selling car models on the market, realizing the specialization of tools for the car;
3. Ensure product quality, comprehensive functions, reduce the overall solution to improve cost-effective at the same time.

MPT-100

Multi-functional Tool Trolley

MPT-100 is a multi-functional tool trolley with 5 layer design can help you place the tool/equipment orderly. The lockable drawer can effectively prevent the important tools from missing.

- **High-quality craftsmanship and materials**

- **Reasonable layering layout**

- **360° universal wheels for flexible movement**

Features

1. 5 Layer design for tools/equipment orderly placement;
2. Top Layer Tilt Design for easy operating;
3. Lockable Drawer for safer storage;
4. Special Hock Rack design for wire arrangement;
5. Metal Radiating Plate for laptop/equipment effectively heat elimination;
6. Push/Pull handle and 360°freely rotate wheels, take MPT-100 to wherever you want;
7. Made of high-quality steel at least 2mm thickness.

Hook Rack for Wire

Tilt Design Make it Easy to Operate

Metal Radiating Plate

❶ Layer for Laptop

170mm

Push Pull Handle

❷ Layers for Scanners/ Tools/Equipment

186mm

1250mm

❸ Layers for Programming Flashing Power

133mm

500mm

❹ Layers for Tools/ Modules

Lockable Drawer for Safer Storage

❺ Layers for Anything

360° Rotate Freely

630mm

675mm