ATH-Heinl

USER MANUAL

ATH W82

www.ath-heinl.de

INDEX

INTRODUCTION

General Information

**THIS INSTRUCTION MUST BE READ AND UNDERSTANDED BY THE USER.
FOR ANY DAMAGES AS FOLLOW BY NON-OBSERVANCE OF THIS MANUAL OR VALID SAFETY INSTRUCTIONS, SHOULD NOT BE LIABLE.**

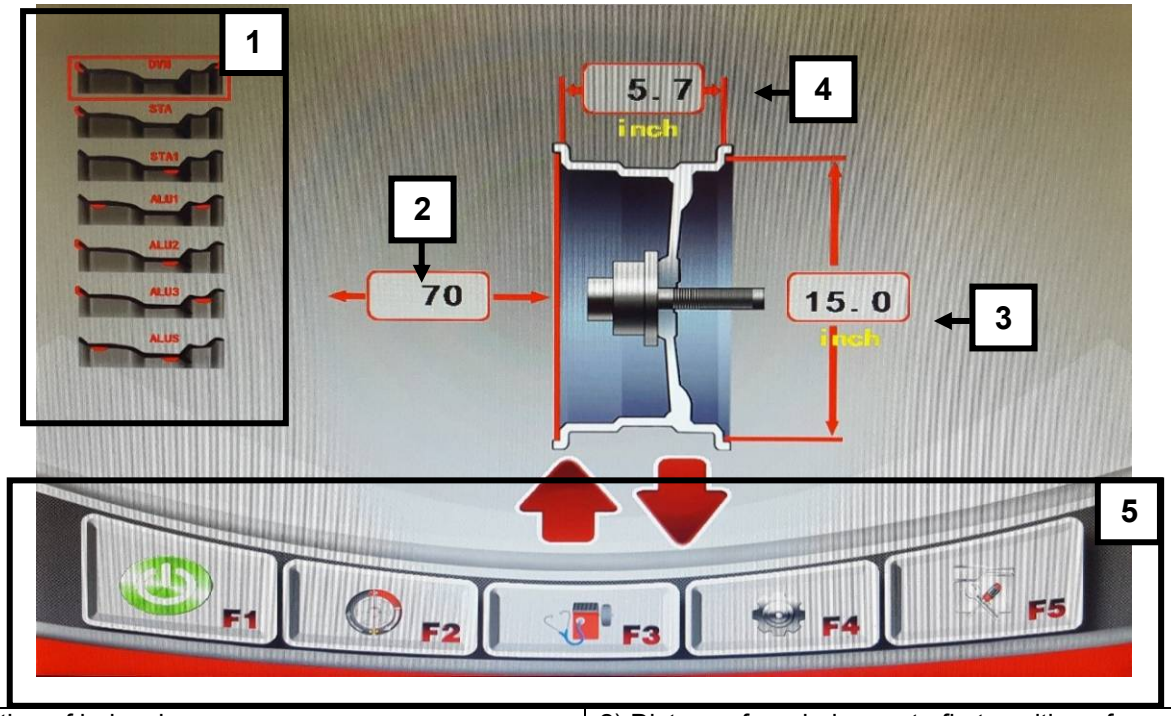
CAUTION: Follow the instructions to prevent injury or damage.

TIP: Provides more detailed information to rise the efficient of work.

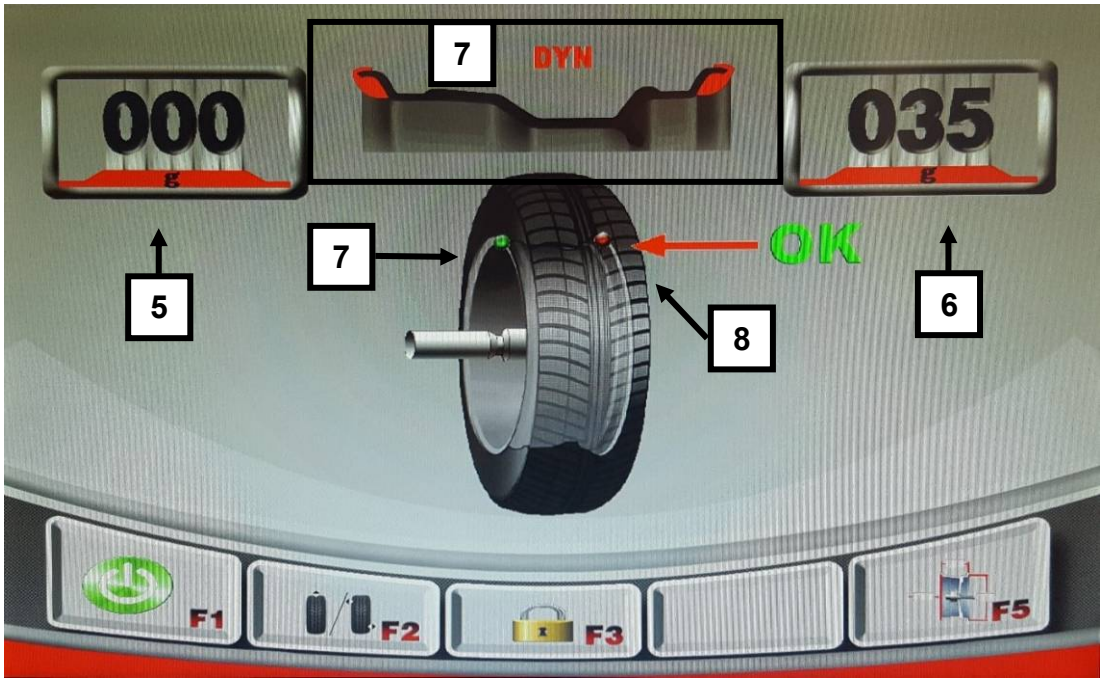
General specifications

1) Main switch	2) Cone support
3) Weights tray	4) Wheel cover
5) Measuring device	6) Balancing shaft
7) Display	8) Keyboard
9) Pedal for fixing / loosing of the wheel	10) Measuring device for wheel width

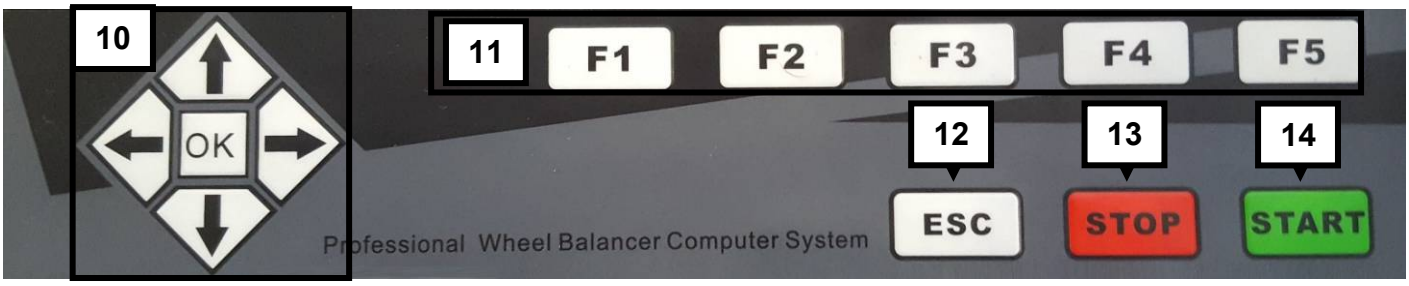
Display of unbalance:



1) Selection of balancing programs	2) Distance from balancer to first position of counter-weight
3) Diameter of wheel	4) Width of the wheel
5) Main menu	F1) Start
F2) Optimization program	F3) Diagnosis
F4) Settings	F5) Calibration program



5) Value of unbalance INSIDE	6) Value of unbalance OUTSIDE
7) Location of counter-weight INSIDE	8) Location of counter-weight OUTSIDE



10) Buttons for direction up-down-right-left [OK]-button	11) Function buttons
12) [ESC]-button to cancel	13) [STOP]-button to exit
14) [START]-button to start	

Operate the keys exclusively with your fingers. Never use sharp objects.

Technical specifications

Maximum wheel weight	< 65 kg
Wheel diameter	12 - 24 inch
Wheel width	1,5 - 20 inch
Maximum wheel diameter	800 mm
Balancing accuracy	+/- 1 g / 0,1 Oz
Measuring accuracy	>99%
Measuring time	7 - 12 s
Motor	0,25 kW
Electrical system	1/220V/50 Hz
Power consumption	<15W in Standby
Balancing speed	180 rpm
Protection class	IP 54
Noise level	<70 dB(A)
Shaft diameter	40 mm
Balancing programs	Dynamic mode (default) Static mode Standard „ALU-1“, „ALU-2“ mode „ALU-S“ mode
Additional functions	OPT (Optimization) mode HID (Behind spokes location) mode Unit set up in g / Oz, mm / inch
Anchoring	Anchor bolts: M8 x 100
Anchor quantity	4 pieces
Dimension of the machine (L x W x H)	approx. 1330 x 800 x 1700 mm
Weight net / gross	190 / 219 kg

Packing

Check the goods in the presence of the transporter.

Check the package for visible damage.
In the case of damage or defect, do not accept the goods.
Record the defect and amount of missing parts on the delivery note and report to the supplier.

Instructions for transport and storage:
- Carefully raise the load properly with suitable, in faultless condition tools.
- Avoid jerks. Beware of bumps, crossbows, etc.
- Keep the removed packing parts in an area which is inaccessible to children and animals until disposal.
- Storage temperature: -10°C～+60 °C
- Humidity: 20%-95%

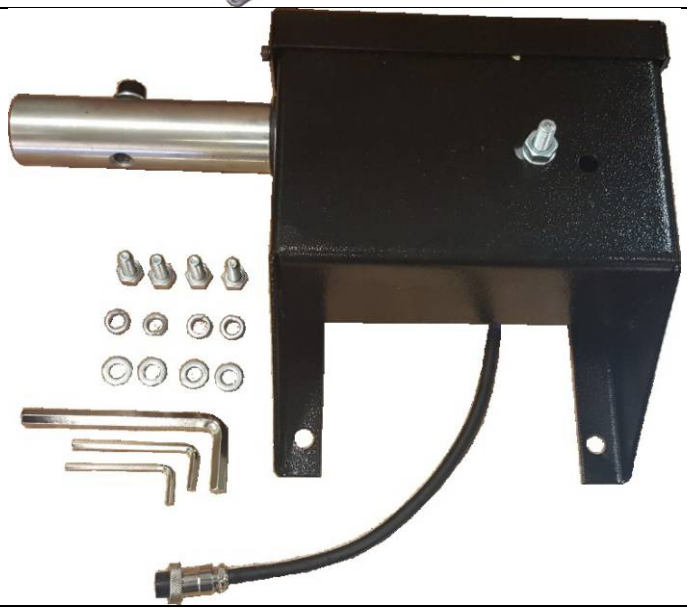
Dimension	
Length	850 mm
Width	950 mm
Height	1270 mm

In the picture you will find the current scope of delivery.

Additionally you will find an accessory package INSIDE the wheel balancer. To get it you have to tilt the machine slightly. If something is missing in the scope of the delivery (see packing list), please contact our sales department.	

Scope of delivery

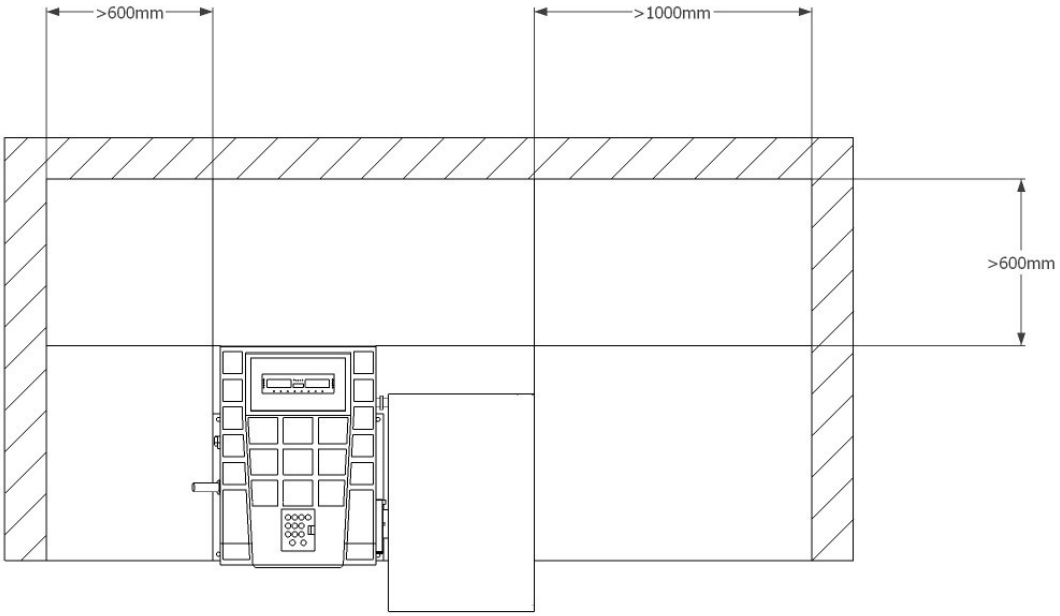
Two pair of keys for side cover	
Wheel guard Consisting of two plastic parts and one frame with handle	
19 inch LCD Monitor with bracket	

Wheel calliper Measuring range diameter: 10 – 23 inch Measuring range width: 3 – 14 inch Packing dimensions: 455 x 430 x 50 mm	
Mechanism for wheel cover Screw for fixing of wheel cover Fixing materials Packing dimensions: 350 x 230 x 160 mm	
Accessory box Packing dimensions: 385 x 240 x 280 mm Adhesive weight remover Counter-weight 5g Counter-weight 10g Counter-weight 35g Counter-weight 50g Counter-weight 100g Counter-weight plier Hex-keys Cup for quick-nut Rubber lip for cup Anchor bolts Shaft including tension spring	

Screws for shaft Fixing sleeve Cone 45 – 75 mm Cone 70 – 90 mm Cone 88 – 110 mm Cone 105 – 130 mm Spacer for Cone 105 – 130 mm	

INSTALLATION

Location



Operating temperature:	0-50 °C
Humidity:	≤85% by 30 °C
Sea level	≤1000m
Power connection & grounding cable (see technical data) is too made with plug or direct connection.	
Necessary cable	See technical data

The installation of the machine is **not allowed** in **humid**, **wet** and **hazardous** locations.

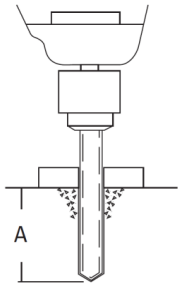
Assembly

This manual is **not** to be seen as a set-up guide, only technical and expert installers are given instructions and assistance. Suitable clothing and personal protective equipment must be worn for the following work. Incorrect installation and adjustments result in liability and guarantee exclusion.

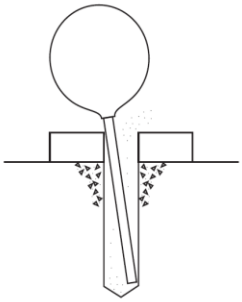
1. Set up the balancer
   a. Remove the balancer from the pallet, hereby use the recommended lifting points. Don´t lift up by the balancing shaft, display and accessory plate**.**
   b. The balancer must be firmly fixed on the floor at the designated support point, eventually shims have to be used.

2. Fixing with anchor bolts:

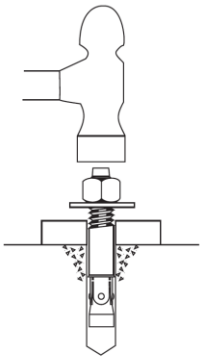
   a. Drill holes with necessary depth and diameter, which is recommended by producer of anchor bolts.



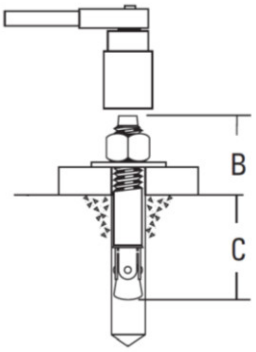
   b. Clean the inside of the hole.



   c. Place the anchor bolts inside the holes, until the necessary depth is reached.



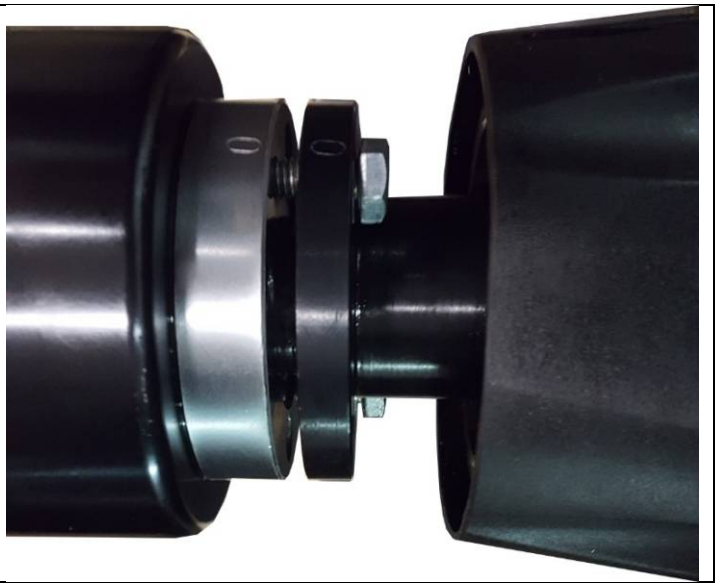
   d. Tighten the nut with the specified torque from manufacturer.
   Clamping thickness (B) depends on flooring.



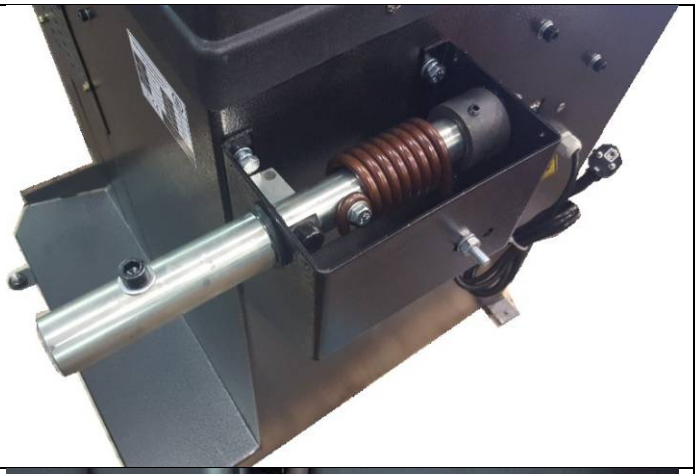
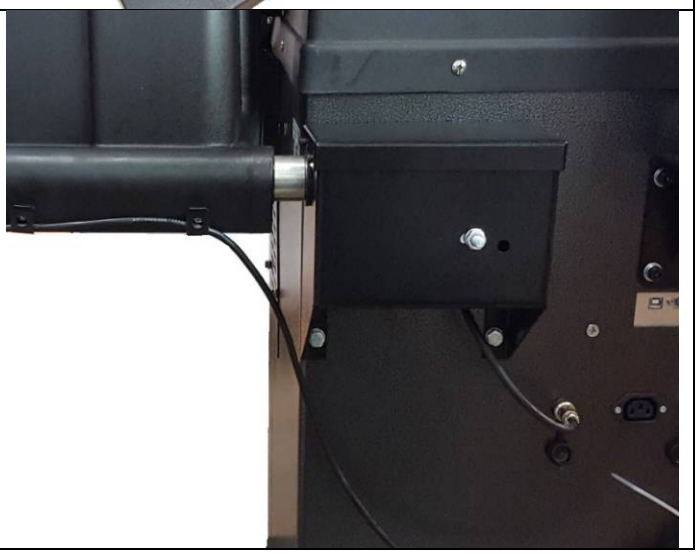
The balancing machine has to be anchored to the ground in order to achieve an accurate result.

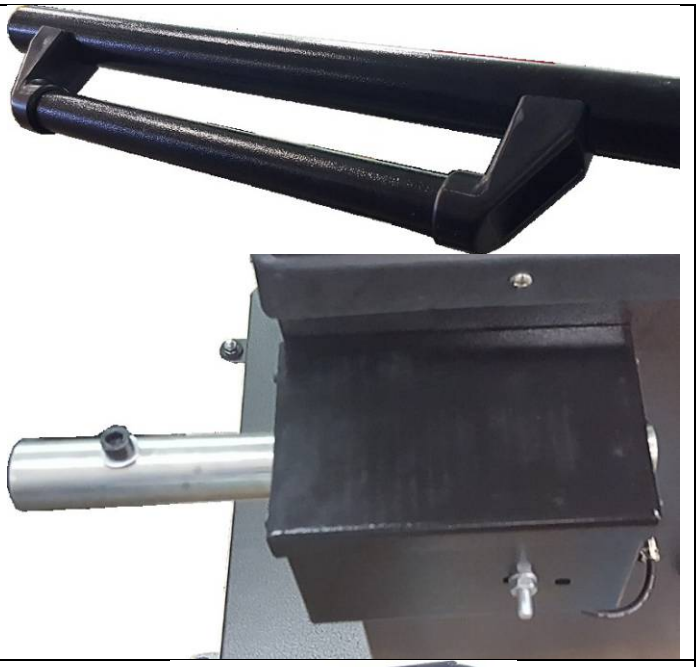
3. Installing of balancing shaft

Clean the support before installation of the shaft.	
Place broth marks on a line. By help of the finger the user can pressure the inner shaft in order to the machine and begin with the rotation for fixing the shaft.	
As soon as the shaft is completely screwed in, both marks are not in line anymore. Turn the shaft backwards until the marks are in line again.	

As soon as the position is correctly the shaft can be fixed by help of the screws.	

4. Installing of wheel cover

Remove the upper cover of the box. Fixing the mechanism on the balancer chassis by help of the screws, spring rings and washers.	
Connect the mechanism on the specified connection port. Add cover of the box again on top and fix it.	

Remove the handle of the frame for the wheel cover. Remove the fixing screw on the shaft of the mechanism.	
At first place the backside of wheel cover on the shaft. Than take the frame and slide it through the backside wheel cover onto the shaft.	

Now slide the front side of the wheel cover on the frame. Connect both parts together and fix them by using two screws on the side. Locate again the fixing screw on the shaft of the mechanism. Install the handle on the frame.	

5. Install the monitor

Attach the monitor support on the balancer by using the four screws. Remove the upper two screws of the cable channel to place the connection cables of the monitor inside of this channel.	

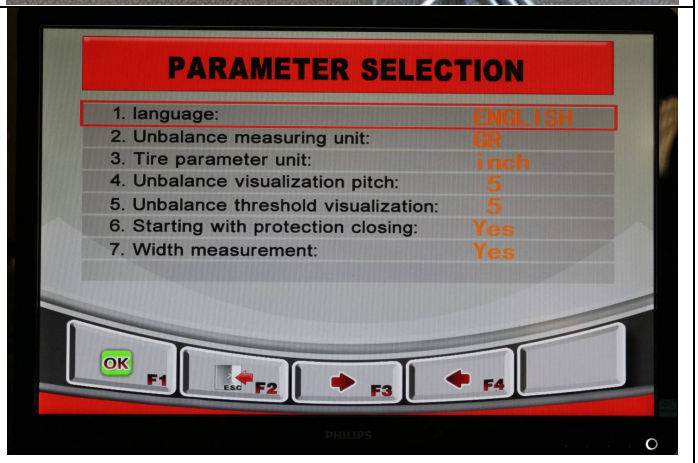
Now connect the cables to the balancer.	
Install the monitor on the holder by using the four screws, Connect the cables to the monitor. Add again the two top screws on the channel.	

6. Install of tire width gauge

Install the support on the frame of the wheel cover.	

Install the arm on the frame of the wheel guard by using two hex bolts with washer, spring ring and nut.

Fix the connection cable by using tie strips on the frame of the wheel cover.

Finally the arm can be connect on the specified connection port on the balancer.	
Now you can activate the measuring device inside the system. Hereby press the F4  button in the main menu. Switch in the setting to point 7 “wheel width device” by using the arrow keys  and change to “Yes” by using the arrow keys  .	

7. Electrical connection

Please observe the general as well as the local regulations. Therefore, this step may only be carried out by a trained specialist.
Pay attention to the necessary supply cable as well as the specified voltage (see technical data).

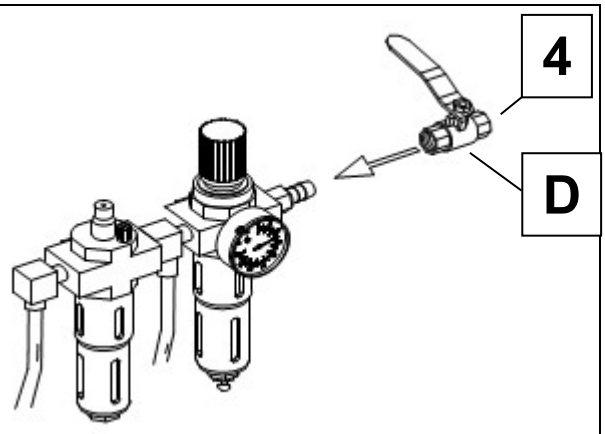
The main connection cable of the machine must be provided with a plug which corresponds to the relevant standards. If the machine is connected directly (without a plug), it is recommended to secure the circuit breaker for the balancer with a padlock so that only the appropriate personnel has access. Connect the machine via its own connection and its own suitable circuit breaker.

8. Pneumatic connection

The air pressure should correspond to the technical data. The maximum or minimum pressure guarantees a perfect function without any damage. It is recommended to use a shut-off valve (D - NOT included).	

Connect the compressed air supply to the maintenance unit (4).

For correct setting, all instructions in the article "Maintenance and Service Instructions" must now be observed.



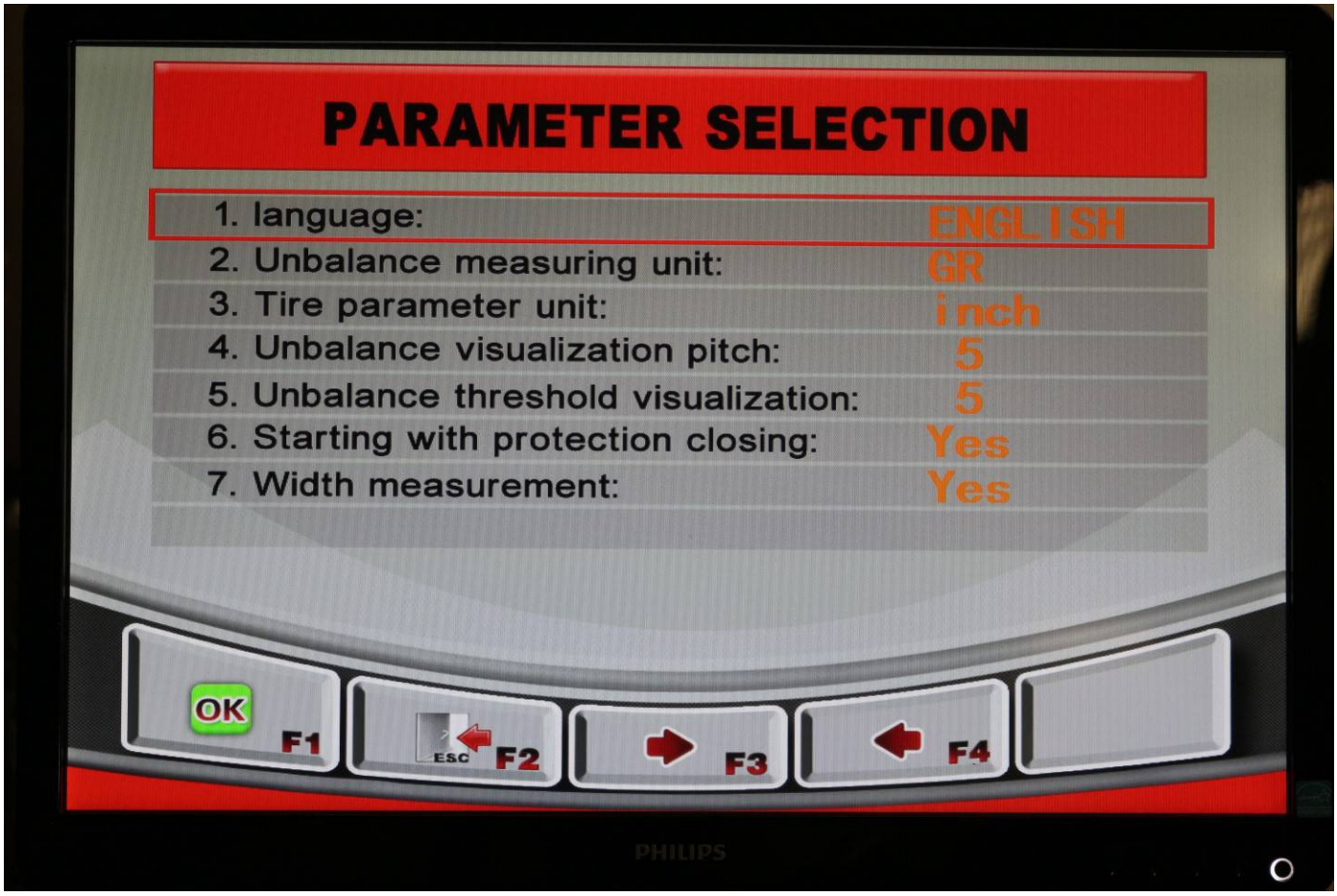
SETTINGS

System settings

Basic settings can be set with the system settings.

To access the setup menu, press F4 button 

in the main menu.

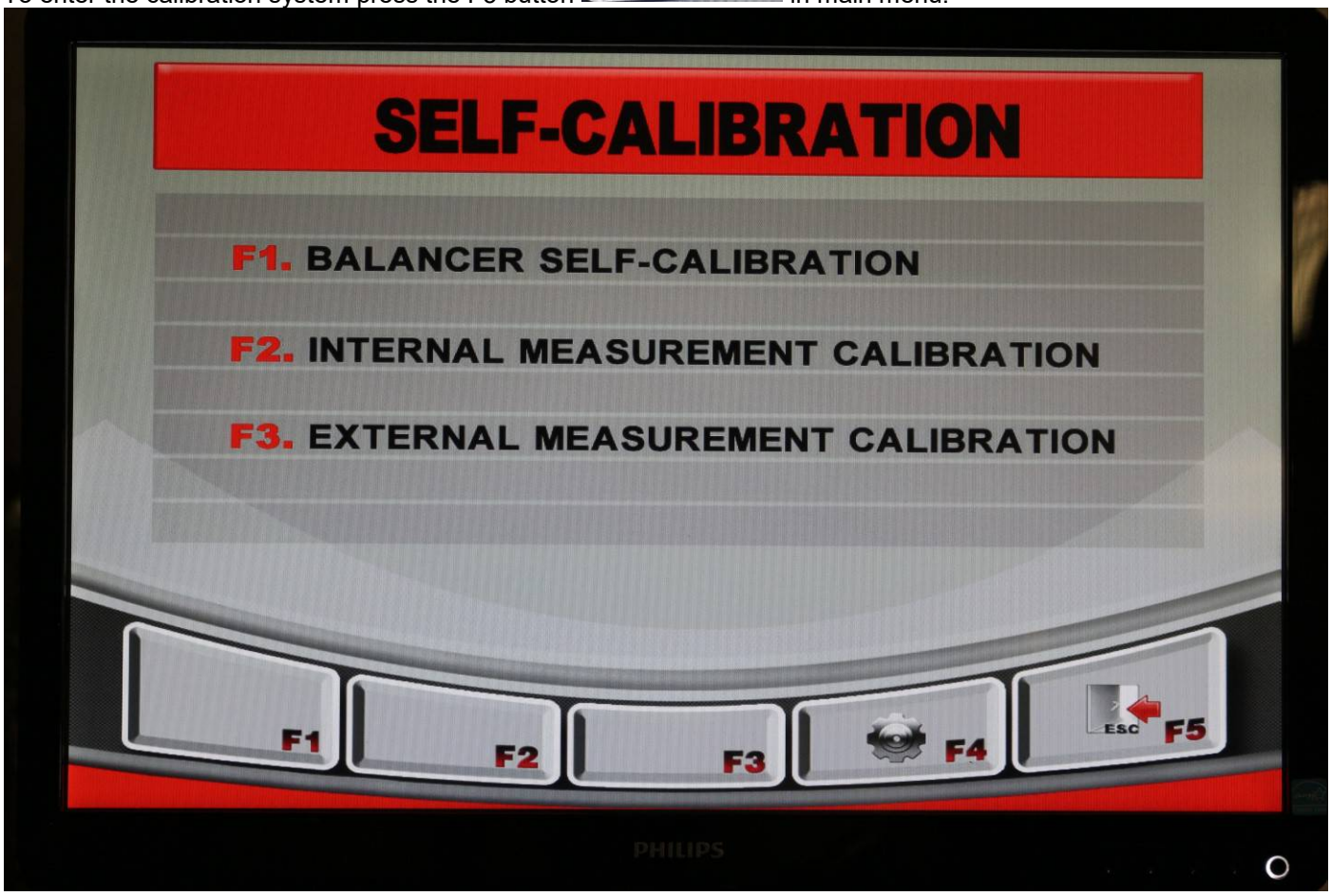


CALIBRATION

The balancer **HAVE TO** calibrate after installing the balancer, before each main season or longer rest without use.

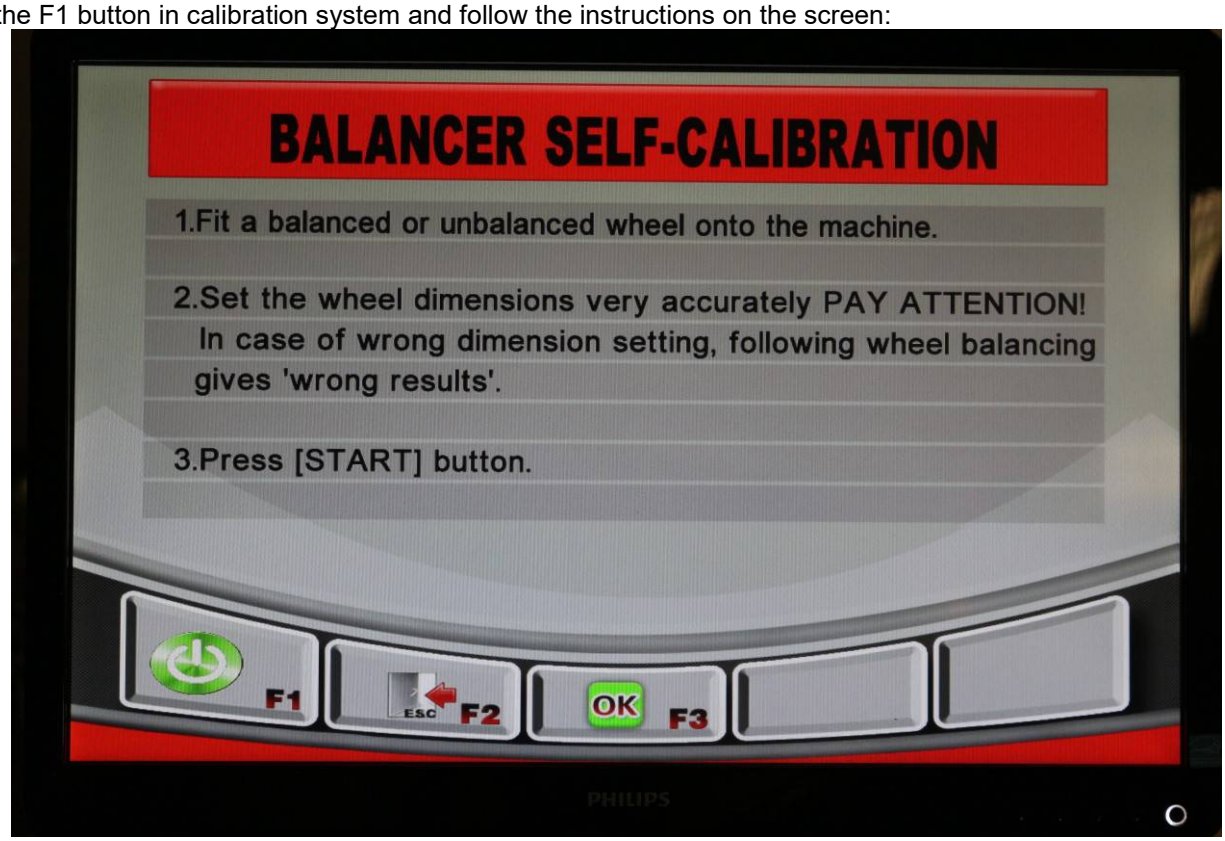
To enter the calibration system press the F5 button 

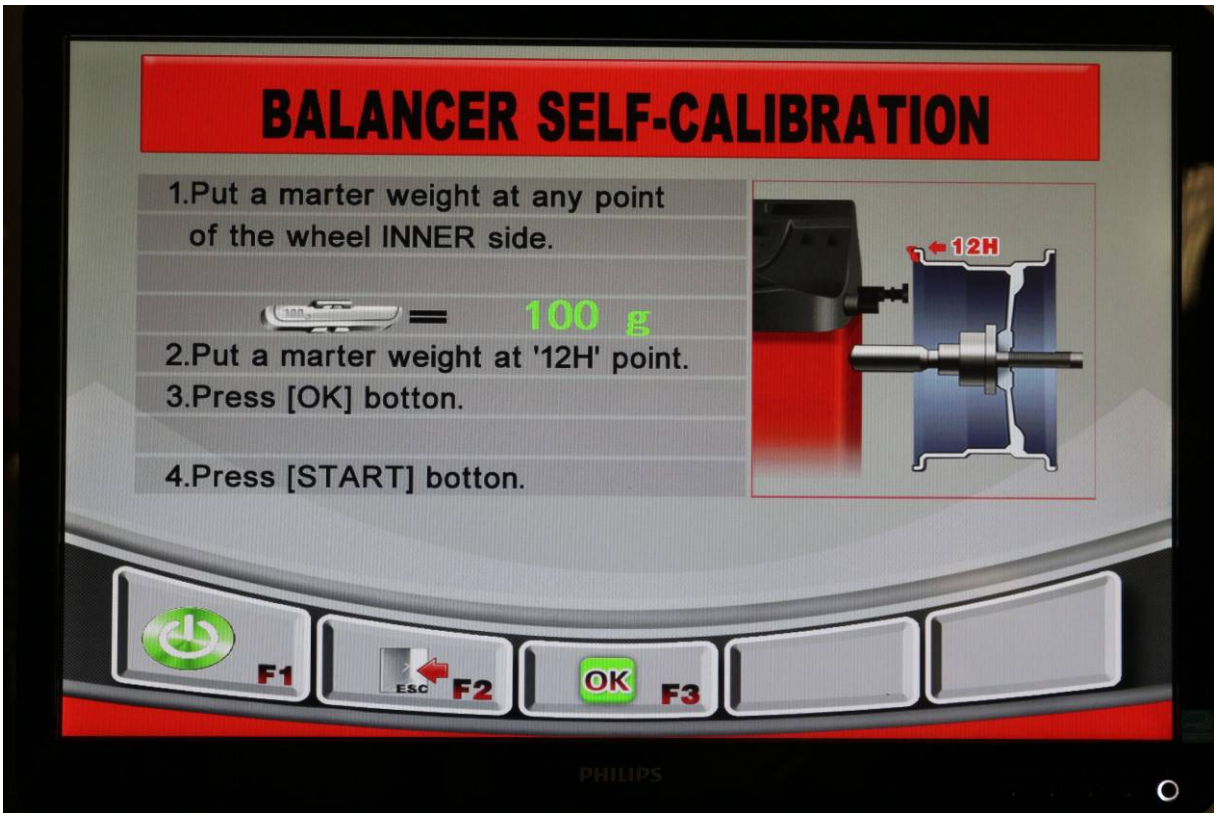
in main menu.

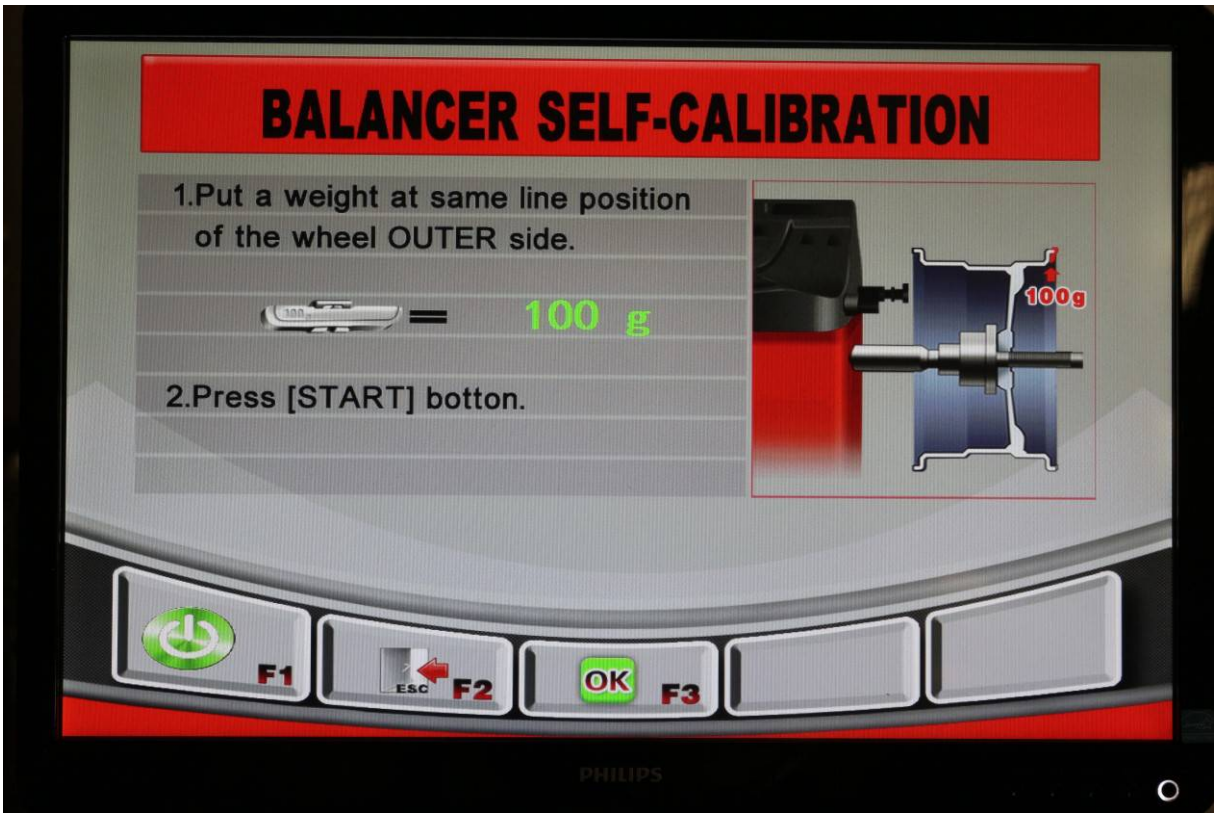


Calibration of balancer

Press the F1 button in calibration system and follow the instructions on the screen:

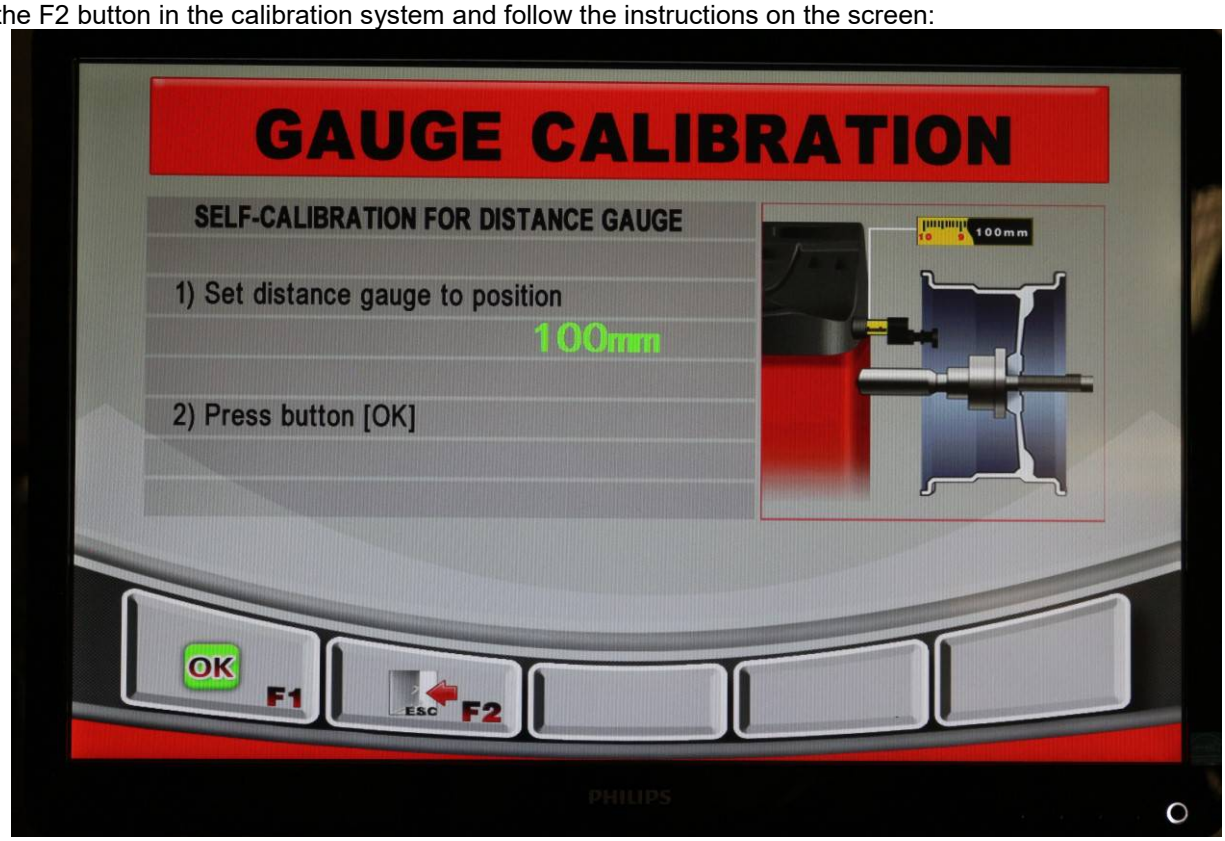


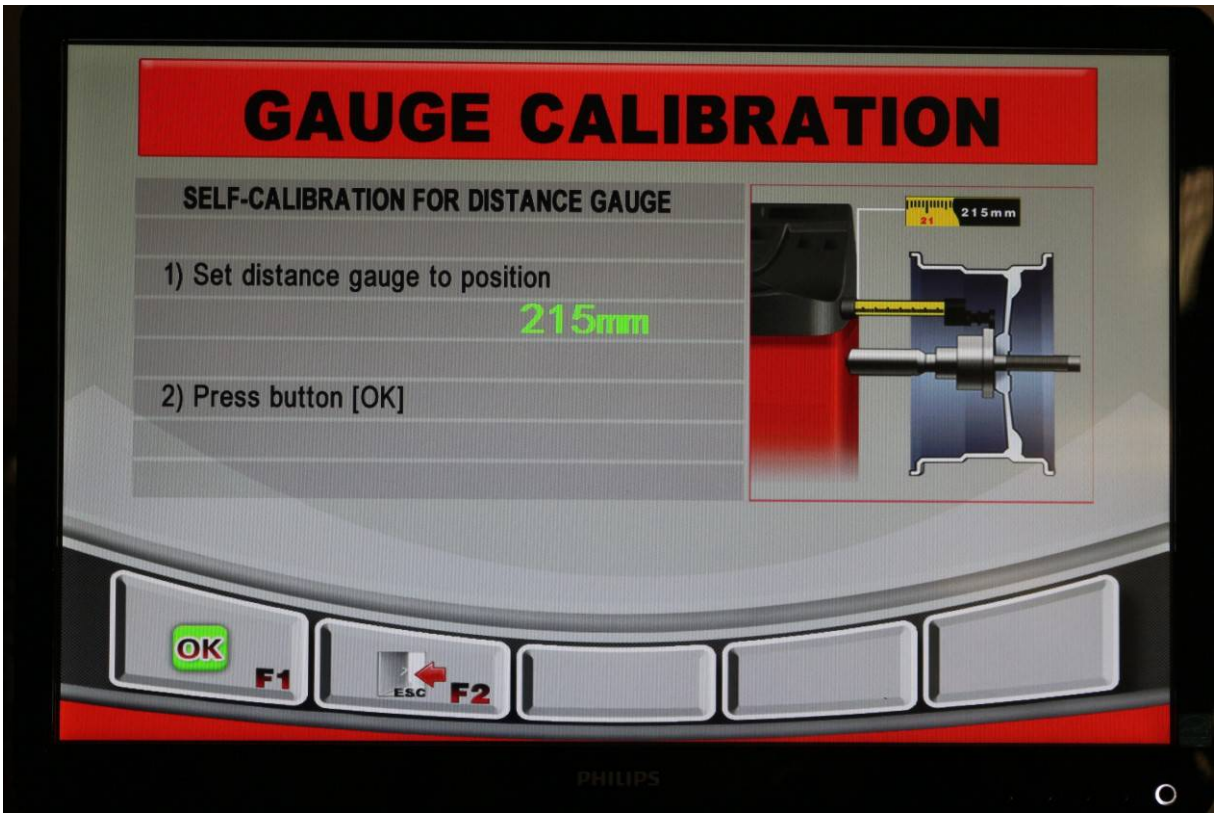


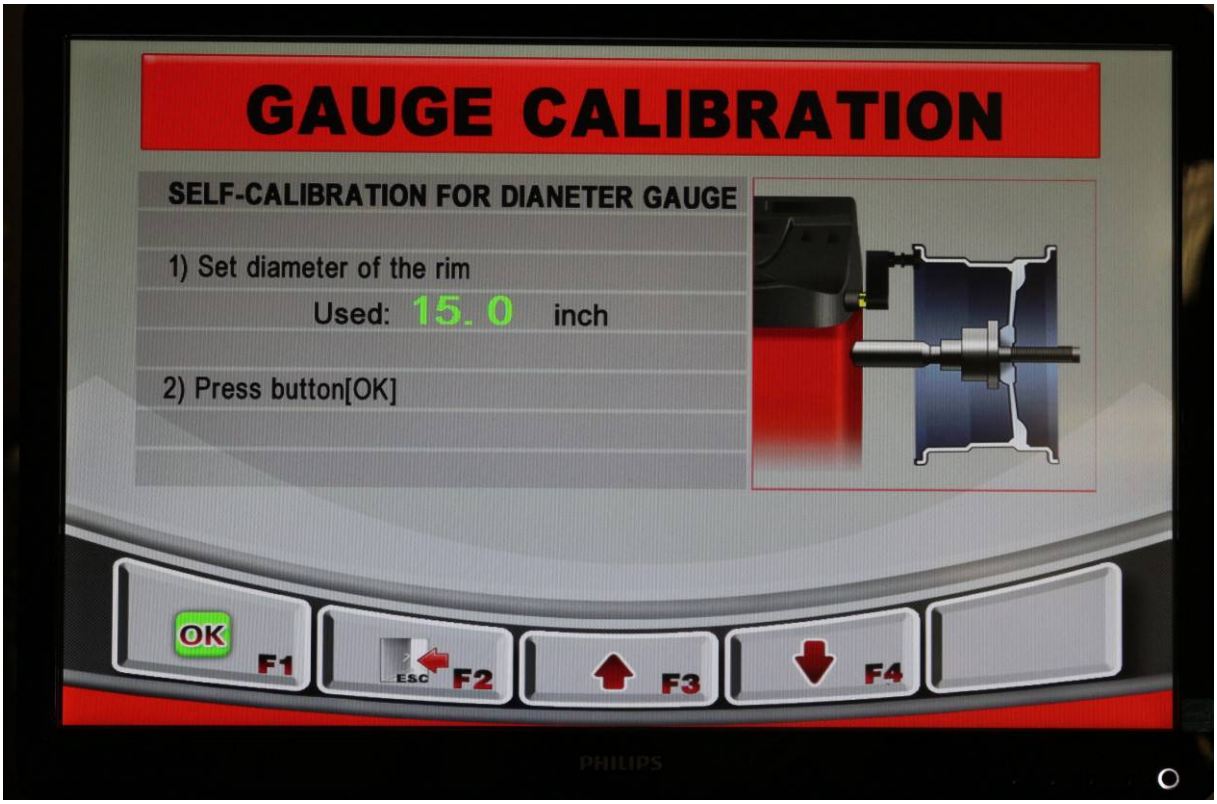


Calibration of the measuring device:

Press the F2 button in the calibration system and follow the instructions on the screen:

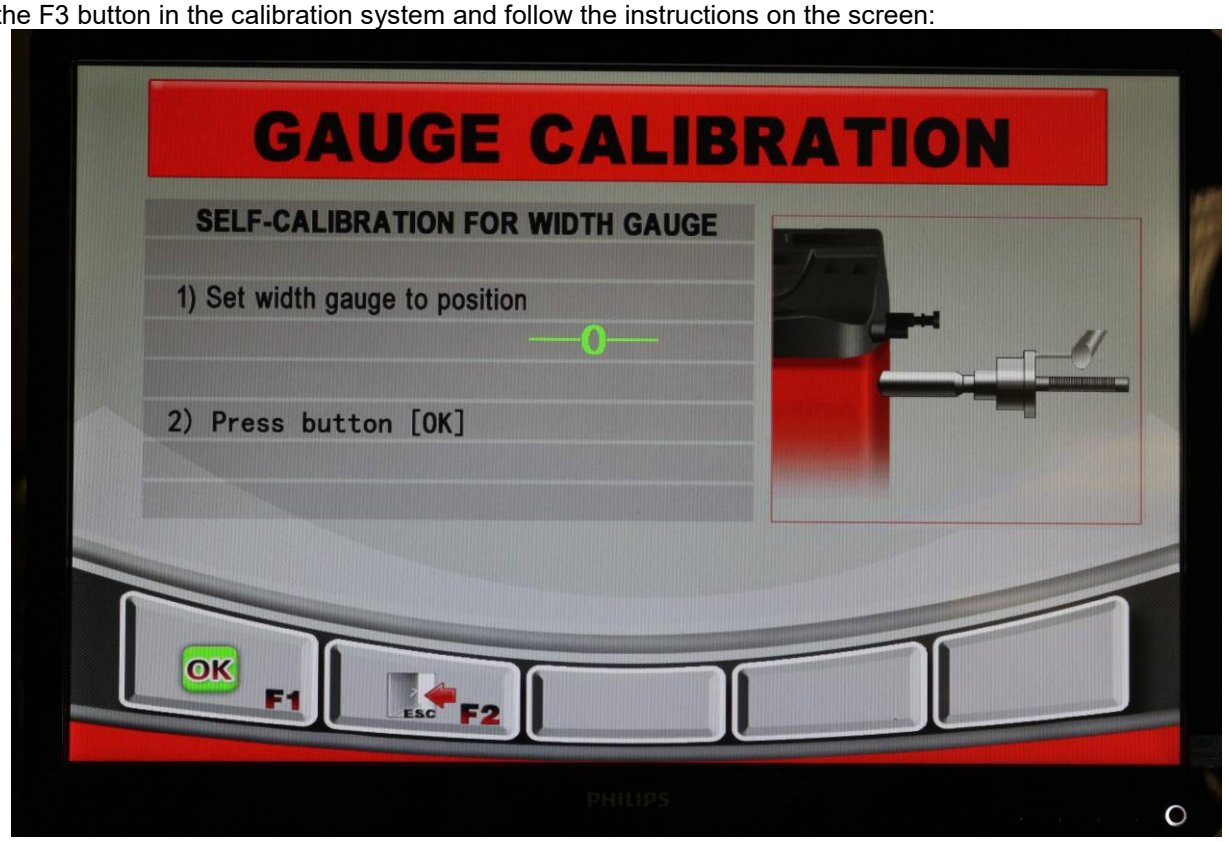


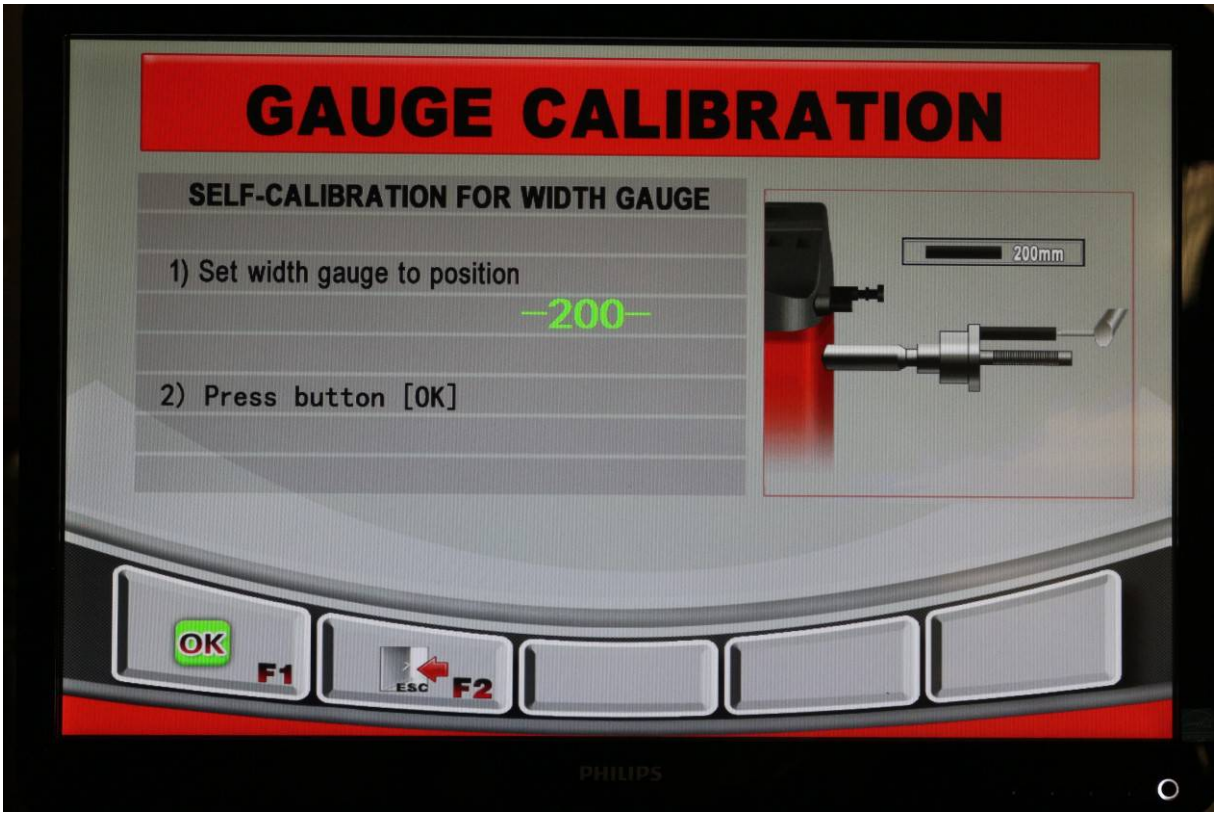




Calibration of the wheel width measuring device:

Press the F3 button in the calibration system and follow the instructions on the screen:





OPERATION

Safety instructions

- Only qualified personnel may operate the machine.
- The CE test is overridden in case of modifications and / or modifications to the machine.
  Safety devices must not be removed or deactivated.
- The machine must only be used according to the intended use and the given handling.
- Since an unpredictable residual risk always remains when working with technical work equipment, different self-explanatory warnings are attached to the balancing machine.
  These warnings warn the user of a possible residual hazard and should lead him to special attention in order to avoid accidents and / or damage to the product to be processed.
- In general, the operator should eliminate possible residual hazards beforehand by means of proper and prudent behaviour.
- Always use proper and appropriate work and work equipment.
- Wear suitable protective clothing (e.g. goggles, safety shoes, etc.).
- Observe the specified data, instructions and technical data of the machine manufacturer or the manufacturer of the product to be processed.
- Power-operated wheel balancing machines may only be operated in Germany with wheel guards.
- Do not use compressed air during cleaning.
- Clean plastic surfaces with alcohol (do not use solvents containing solvents).
- Make sure that the wheel is firmly seated on the adapter before starting the balancing work.
- The operator has to take care that no persons are in danger during the balancing process
- Do not place large objects on the machine, as this could affect the accuracy of the balancing.

Further specific safety instructions are given in the individual chapters.

BTR-No. 0030 18.12.2012	**Operating instructions** **Scope and activities**	Status: December 2010 Signed on: 10.12.2012

SCOPE OF APPLICATION

Wheel balancer

DANGER FOR HUMANS AND THE ENVIROMENT

- Danger of tipping or slipping of the device
- Danger due to releasing tires
- Danger of flying dirt and dust particles
- Risk of loose hanging clothes or long hair
- Stumbling and falling
- Deafness due to deaf hearing
- Disease of the spine by lifting and carrying heavy loads

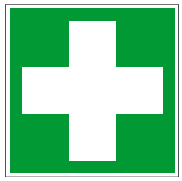
SAFETY INSTRUCTIONS AND RULES OF CONDUCT

- Ensure proper stability
- Wear personal protective equipment:
  Safety shoes,
  Protective goggles and gloves,
  ear protection
- Correct use of protective device
- Use proper adaptors
- Remove dirt from the wheel beforehand (wet cleaning, do not use compressed air!)
- Wear tight-fitting work clothes, possibly with Velcro closure on the sleeve and the leg
- Protective cap for long hair
- If possible, use transport aids and lifting devices and transport goods with two persons
- Pay attention to ergonomic workplace design
- Spine-balanced lifting and carrying

CONDITIONS OF INJURY AND DANGER

- In case of obvious hazards, adjust the operation immediately, secure or block the wheel balancer against misuse
- Report any faults found to the responsible person / supervisor
- Do not carry out any unauthorized provisional work on the machine!

BEHAVIORAL CONDITIONS – FIRST AID



- Secure the place of accident
- First aid
- Inform responsible persons for first aid and supervisors
- Look after the injured person
- Storage location of the box and the first air documentation: _____
- EMERGENCY CALL: _____

MAINTENANCE, DISPOSAL

- Maintenance work, carried out by: _____
- Responsible people for disposal (e.g. waste oil): _____

Usage

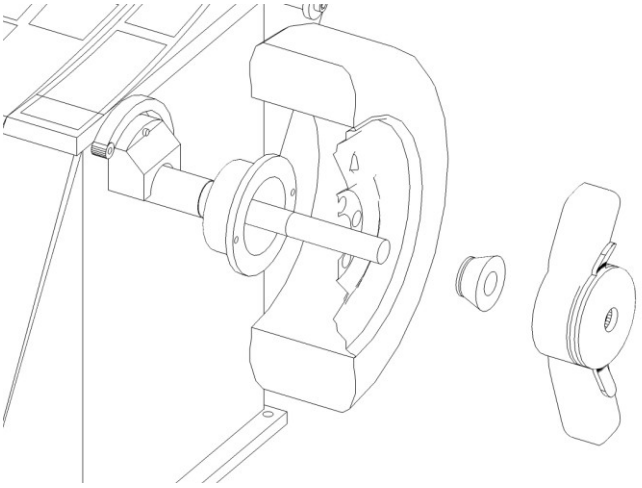
1. Self-test

   After switching on, the device make a self-test and then automatically switches to "Dynamic" mode

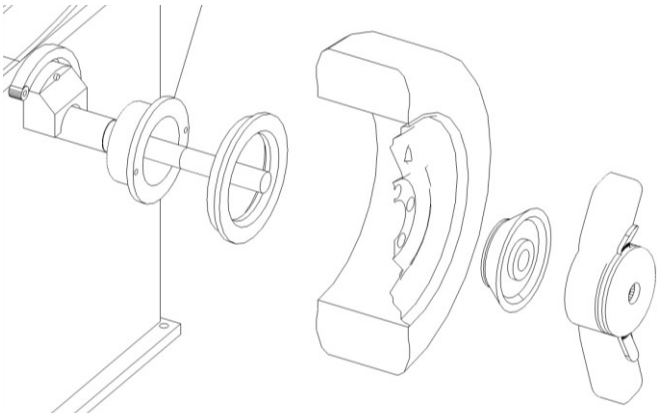
2. Mounting of a wheel

   Select a suitable cone to centre the wheel on the balancing shaft.
   As shown below, there are 2 easy ways to fix the wheel.

a. The first way to mount a wheel is shown in the picture.
   The rim is fixed by using a cone from the outside of the rim.

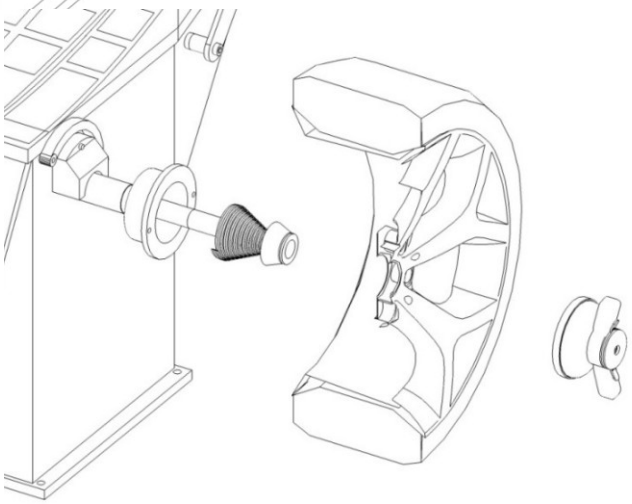


When using the largest cone, the spacer ring must be used additionally.



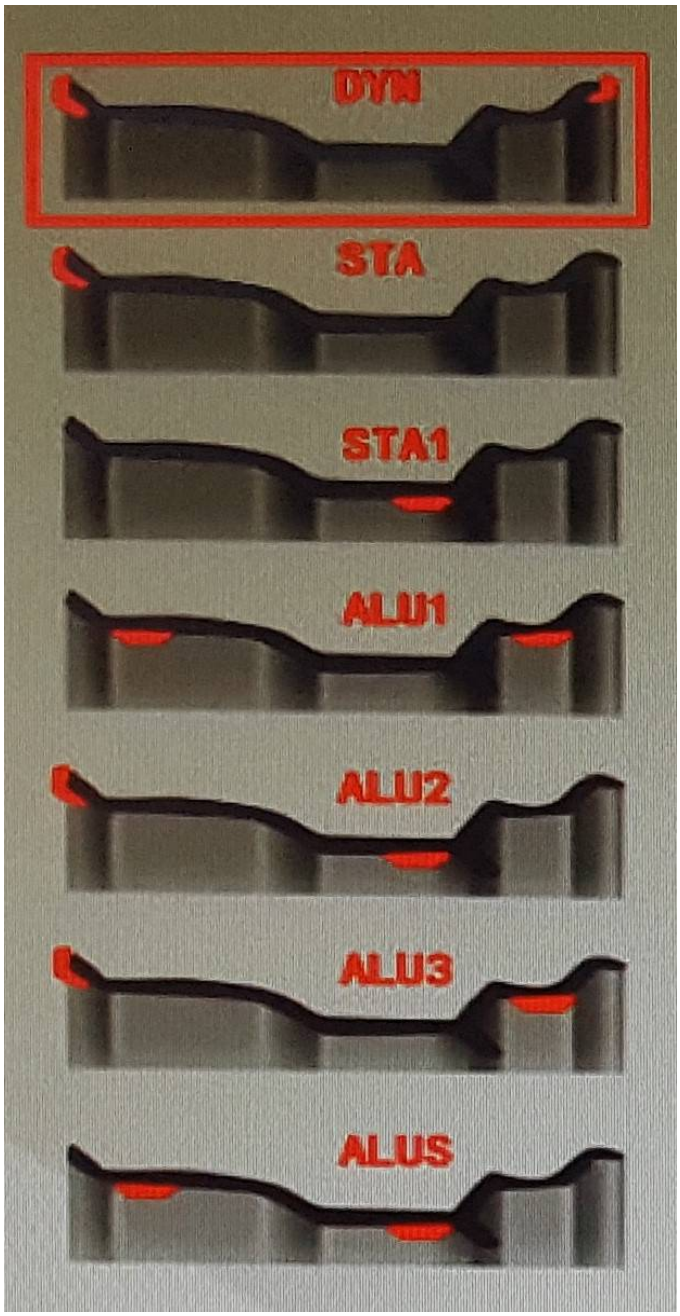
This possibility increases the risk of clamping errors and is therefore only recommended for steel rims.

b. By the second possibility, at first you place the spring on the shaft. Than you can use a suitable cone. After positioned the wheel on this cone you can fix it by help of a pressure cap on the shaft.



3. Chose the balancing mode

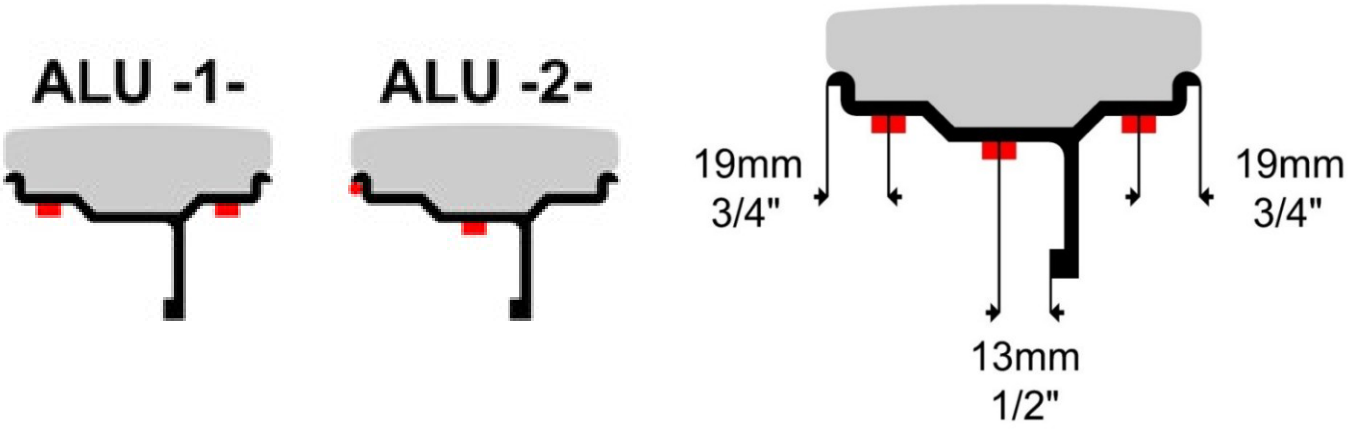
The adjustment can be made in the main menu:

	**DYN** **Dynamic mode (default):** This function determines the height and side balance of a steel rim. The counter weights are attached to the outside and inside of the wheel.
	STA **Static mode:** This function determines the height balance of a steel rim. The counter weights are attached to an inner position of the rim.
	STA1 **Static mode:** This function determines the height balance of a steel rim. The counter weights are attached to a middle position of the rim.
	ALU -1- This function determines the height and side balance of an alloy rim. The counter weights are attached to defined position on the wheel.
	ALU -2- This function determines the height and side balance of an alloy rim. The counter weights are attached to defined position on the wheel.
	ALU -3- This function determines the height and side balance of an alloy rim. The counter weights are attached to defined position on the wheel.
	ALUS This function determines the height and side balance of an alloy rim. The counter weights are attached to user-defined position on the wheel.

For balancing alloy rims, we recommend selecting the ALU S mode. This not only takes into account the exact

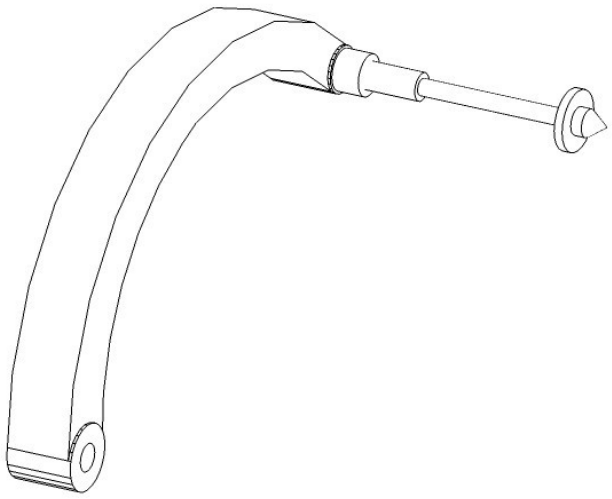
cross-section of your rim, but also helps you to accurately position the adhesive weight.

For ALU 1, the following dimensions must be observed when applying adhesive weights:



4. Input of tire dimension
   a) Basics:

   In motorcycle mode an optional measuring finger (+100mm) have to be used.



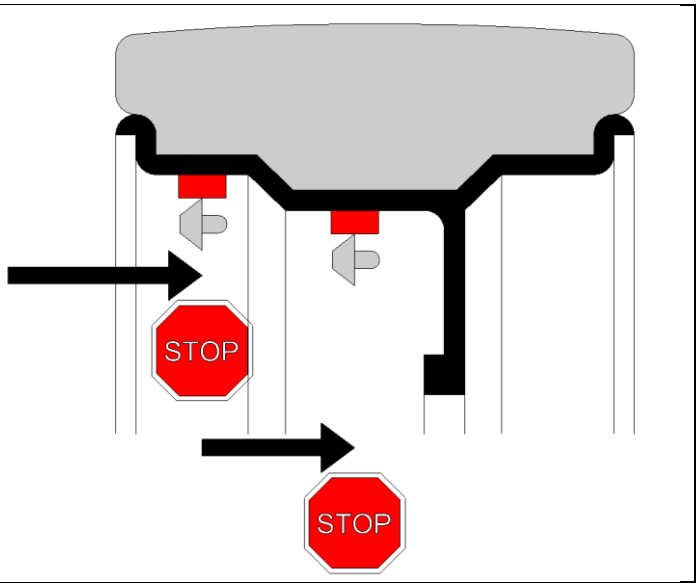
b) Input of tire dimensions for calculating:

In Modes DYN, STA and ALU1 following dimensions have to be recoded: [A] Distance between balancer and wheel [B] Tire width [D] Rim diameter	
The input will be done automatically by locate the measuring device on the edge of the rim. Hereby the Values [A] and [D] will be input automatically.	
Now the tire width [B] can be measured by the second measuring device.	

In Modes ALU2 and ALUS following dimensions have to be recoded: [A] Distance between balancer and first point for adhesive weight [B] Distance between balancer and second point for adhesive weight [D] Rim diameter by first point for adhesive weight [dE] Rim diameter by second point for adhesive weight	

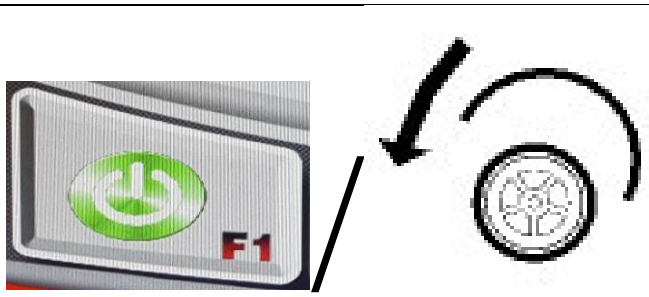
During the measuring process, the measuring finger should be moved to the first point. After a short wait, the measuring finger can be directly moved to second point.
The [A]; [B]; [D] and [De] data are automatically input.

DANGER:
To balance in ALUS mode, the program does not need to be selected before.
To balance in ALU2 mode, the program must be selected beforehand.

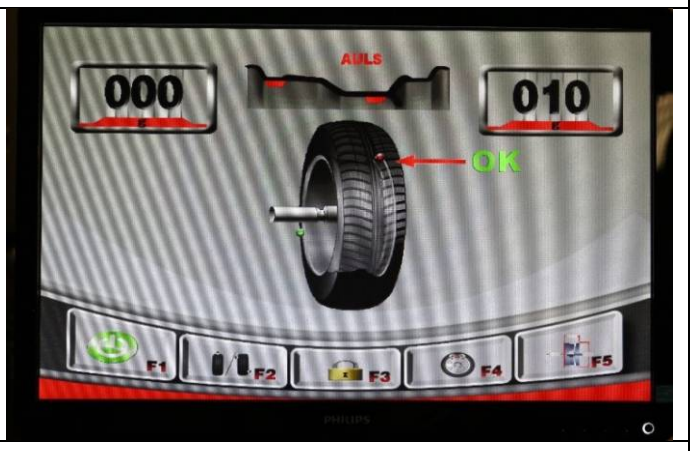


Starting balancing

Start the balancing by pressing F1-button or close the wheel cover.

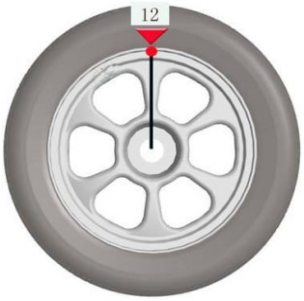


Turn the wheel until the mark is positioned on the 12 o´clock position. In this position the brake is activated automatically.
This can be released by pressing the F3 button.



Now the counter weight have to be attached to the wheel.
The balancer support the customer by positioned the counter weight precise position:

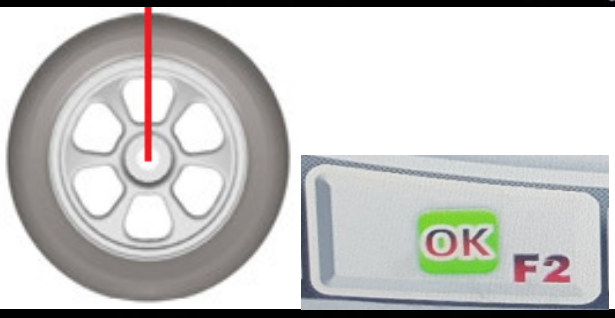
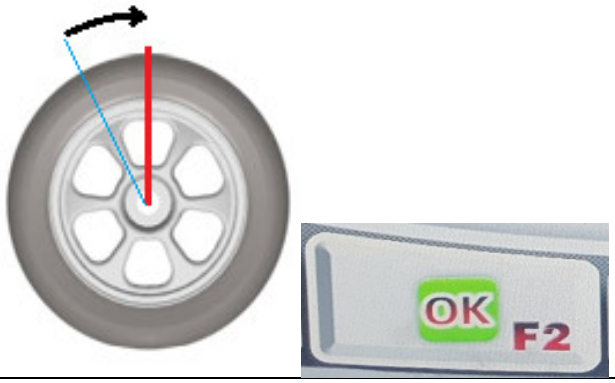
Program	INNER	OUTER
DYN	12 o'clock position (laser)	12 o'clock position
STA	12 o'clock position (laser)	
ALU1	12 o'clock position (laser)	12 o'clock position
ALU2	12 o'clock position (laser)	Weight location on the arm
ALUS	Weight location on the arm	Weight location on the arm



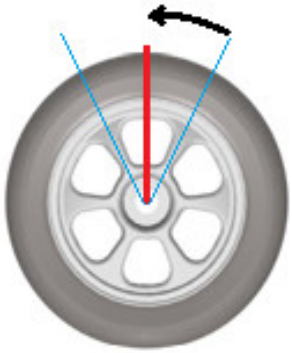
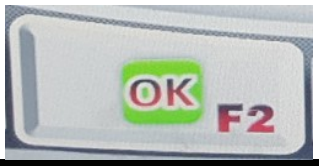
a) HID-Mode

With the HID function, it is possible to place the outer balancing counter-weight behind the spokes.
This function is available in ALU2 and ALUS mode.

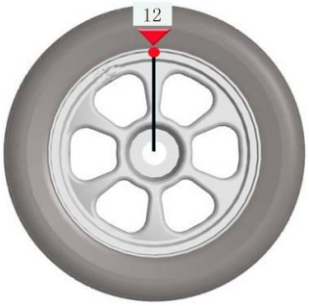
After the balancing the HID-Mode can be started by pressing the F4 button.

Rotate the wheel until the counter weight position is on the 12 o´clock position. Confirm with F2 button.	 
After this the display show P1: 12h Rotate the wheel until the left spoke is on the 12 o´clock position. Confirm this position with F2 button.	 

<table>
<tr>
<td>After this the display show P2: 12h
Rotate the wheel until the right spoke is on the 12 o´clock position.
Confirm this position with F2 button.</td>
<td> 

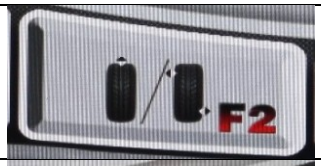


</td>
</tr>
<tr>
<td>After this, the display shows again the UNBALANCE INSIDE.
The OUTER display, the weight is dimmed until one of the two positions is at 12 o'clock.

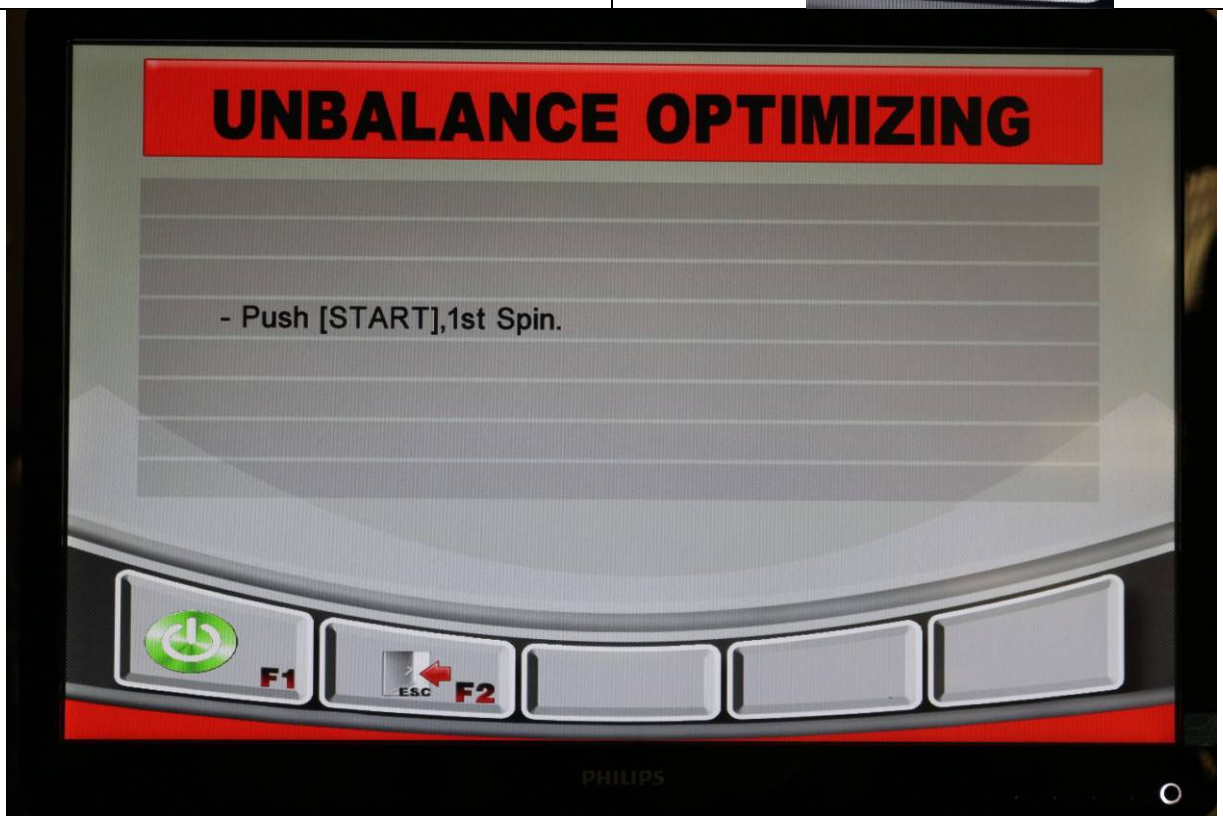
Now position the counter weight on the gauge and add the weight at the rim by using this.</td>
<td> 

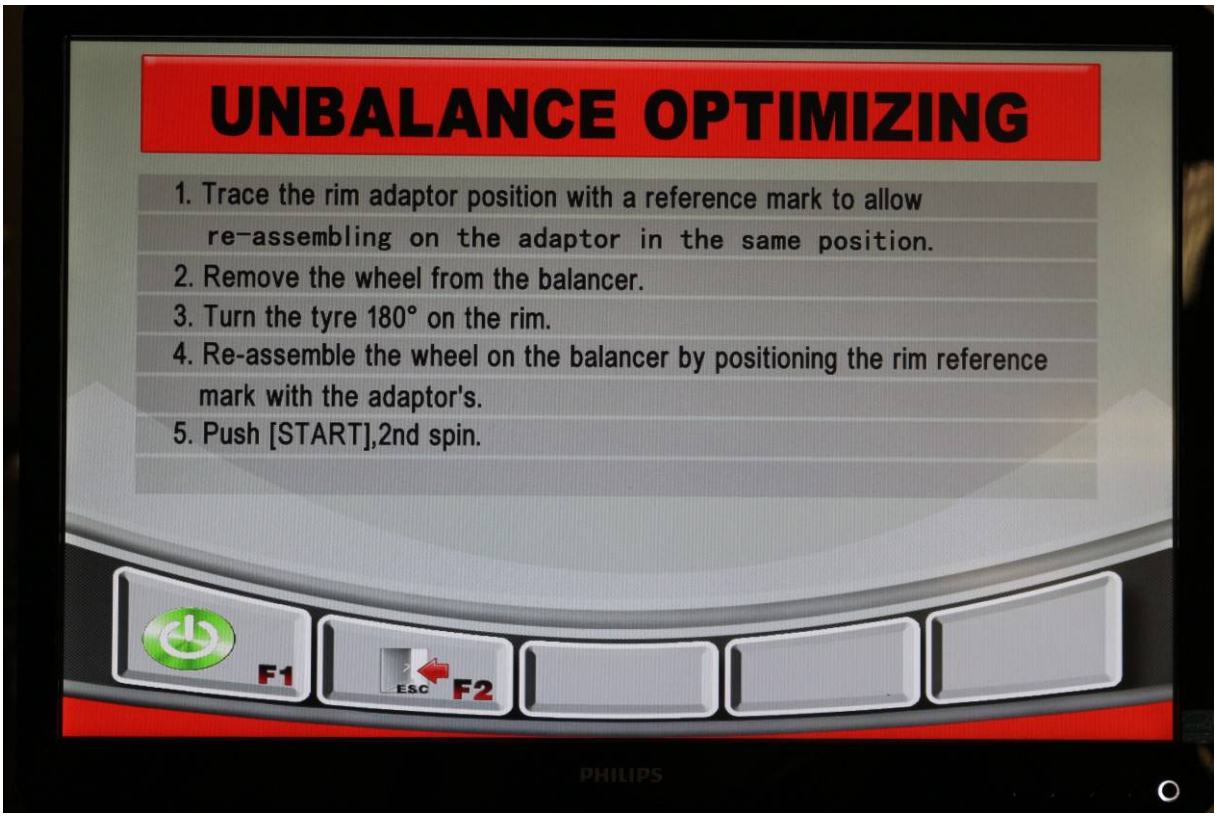

</td>
</tr>
</table>

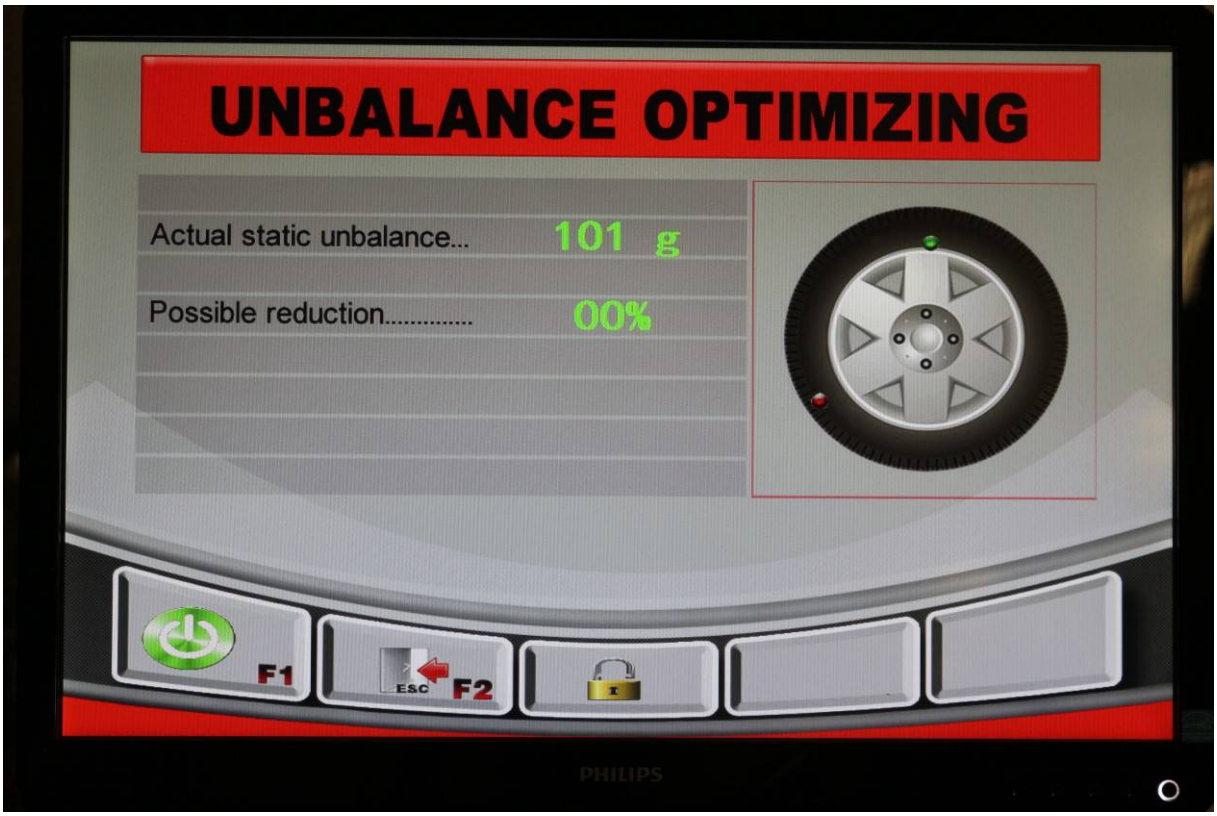
b) Optimization

By help of the OPT function it is possible to minimize the static imbalance of the wheel. The unbalance of the rim is matched with the unbalance of the tire.

After a balancing run, you can check the static imbalance by pressing the F2 button. If the unbalance is more than 30g, it is recommended to perform an optimization.	
Hereby you can exit the unbalance site by pressing the F5 button. After this you can go to Optimization programm by pressing F2 button	



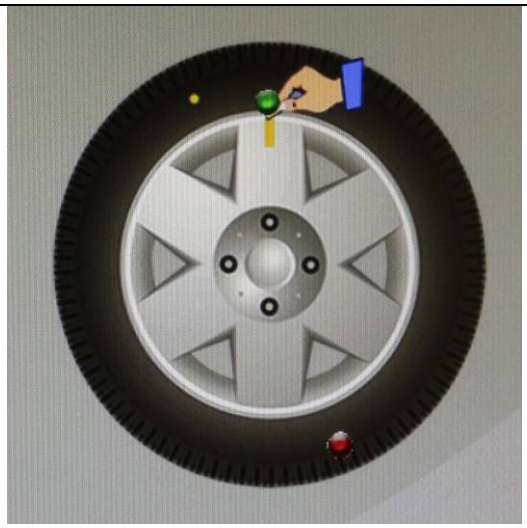
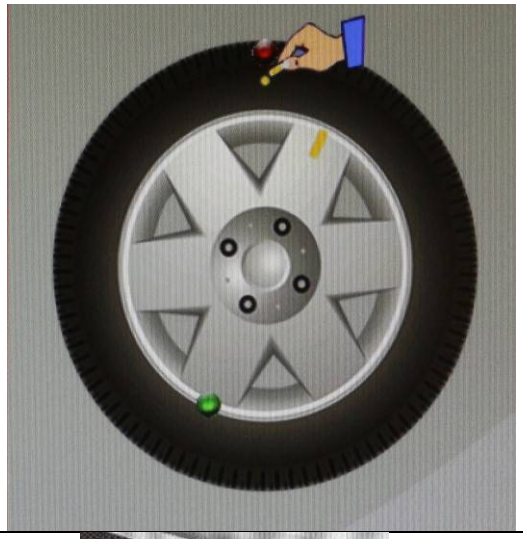
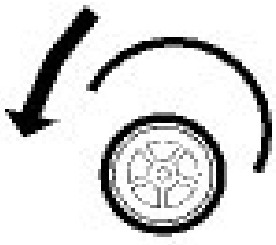




Add a mark on tire, cones position of shaft to the rim in line with valve.	

<table>
<tr>
<td>In the site the balancer shows the maximum unbalance optimization.

Mark the shown positions on rim and tire.

After this you can use a tire changer to match both point in one line.</td>
<td> 
  </td>
</tr>
<tr>
<td>After this you can re-start the balancing by pressing F1 button of close the wheel cover.</td>
<td> 
  </td>
</tr>
</table>

MAINTENANCE

Repair work may only be carried out by authorized service partners or, in consultation with ATH, by the Customers.

The machine must be disconnected from the electrical supply before servicing and repair (main switch off, pulling mains plug). Secure against turning the machine on again.

Work on the electrical parts or on the supply cable may only be carried out by experts or electricians.

Error codes and rectification

The balancer can display the following error codes:

Error code	Reason
Err -1-	See service instruction
Err -2-	1. To less weight on the shaft 2. Balancing shaft is not fixed 3. Loosen wheel on the balancer 4. Loosen belt
Err -3-	To big unbalance of the wheel
Err -4-	Pressure sensor defect
Err -5-	Wheel cover not closed
Err -7-	Saved data's are lost
Err -8-	100g counterweight missing Pressure sensor defect Power or main board is broken

Troubleshooting

To access the diagnosis menu press the F3 button 

on the main menu.

Symptoms	Cause	Solution
Different weight result[1]	Balancer is not fixed on the floor	Check the anchor bolts
	Incorrect calibration	Re-Calibrate the machine
	Shaft not fixed	Check the fixing of the shaft
	Shaft bent	Check the shaft
	Piezo-Sensor not fixed of broken	Check the tightness of the nuts or replace them
	Rim not clean or bent	Check the rim
Buttons not react	Keyboard not connected or loosen connection	Check the connection
Motor / Electronic		
Doesn´t brake	Brake resistor defect or not connected	Check brake resistor or connection
Noises from the motor	Brake resistor defect or not connected	Check brake resistor or connection
	Main board broken	Contact ATH-Service team
	The capacitor is defect or not connected.	Check capacitor or connection
Circuit breaker activated	Main switch is not connected correctly or there is a contact error.	Check the connection
	Main board broken	Contact ATH-Service team

[1]More causes of "bad" results:

- Use of different adapters and resulting clamping errors.
  When using adapters, please pay attention to the installation instructions.
- Clamping by means of cones via a worn centre hole of the rim, differences of up to 10g may be possible.
- Unbalance of the tire on the vehicle can cause an imbalance on the brake drum or disc or worn mounting holes in the rim or brake. In such a case, readjustment is advisable without first removing the wheel.

Maintenance and service instructions

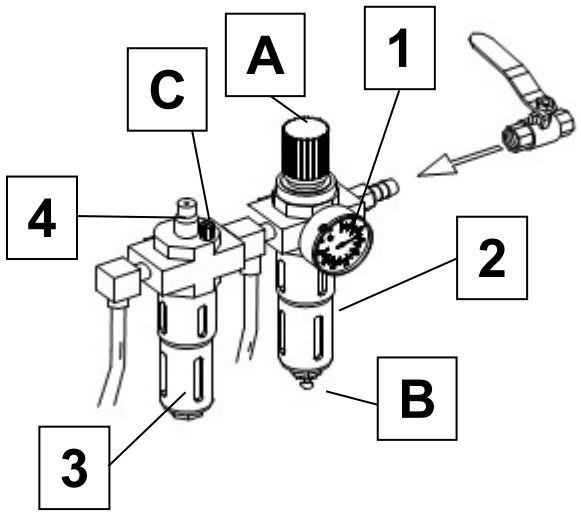
AIR MAINTENANCE UNIT

PRESSURE REGULATION:
- Check the working pressure, which is indicated in the manometer (1). This must correspond to the technical data.
- The working pressure can be set by means of pressure regulator (A).
- Pull up the pressure regulator to make adjustments.
- To increase the pressure in the machine, turn the knob clockwise, to reduce it, turn it counter clockwise.

OIL TANK
- Check the oil level in the oil tank (3)
- Remove the oil tank
- Now fill the container with a pneumatic oil with the viscosity SAE20

- Check the injection quantity of the oil through the inspection glass (4). The oiler functions correctly when a drop of oil is automatically injected into the compressed air system when the trigger is pressed twice.
- If this is not the case, the oil quantity to be injected must be adjusted via the regulating screw (C).
  As a rule, the screw must be closed completely clockwise and then reopened approximately ¼ to ½ turn by turning counter clockwise.

WATER SEPERATOR
- Check the water level in the separator (2).
- The water is drained by opening the valve (B).



Adjustment of drive belt tension
1. Carefully remove the cover (weight tray).
2. Unscrew the engine mounting bolts.
3. Move the motor by means of a tensioning screw, paying attention to the correct belt tension.
4. Re-tighten the engine mounting bolts.
5. Make sure that the belt does not run sideways.
6. Replace the cover.

Change fuses
1. Carefully remove the cover (weight tray).
2. Remove the fuse from the power supply panel.
3. Replace the new fuse with the old one using only fuses with the same values.

If the error persists, the ATH service should be contacted.

DECLARATION OF CONFORMITY

Serial number:

Declaration of conformity

For	Type
Car wheel balancer	**ATH W22** **ATH W42** **ATH W62** **ATH W82**
The following EG-directives are considered	**2006/42/EC (Machine-Directive)**
The following harmonized standards are applied	**EN ISO 12100:2010** **EN 60204-1:2006/AC:2010**
Manufacturer	**ATH-Heinl GmbH &Co. KG** **Kauerhofer Straße 2** **D-92237 Sulzbach-Rosenberg** **Germany**
Institute of Quality	**SGS Supervice Gözetme Etüd Kontrol Servisleri A.S.** **Baglar Max. Osmanpasa Cad. No. 95** **Is Istanbul Plaza, A Girisi** **Günesli 34209 Istanbul** **TURKEY**
Reference number for the technical data:	**TCF-MD-140526-048**
Number of the certificate:	**0263/IN-IST-14** **502756/AOO/AKC** **(OUCE 141003)**

Herewith we confirm that the above named machines are according to the named EC-directives.

ATH-Heinl GmbH &Co. KG
Kauerhofer Straße 2
D-92237 Sulzbach-Rosenberg
Germany
in June 2014

ATH-Heinl GmbH & Co. KG/ Hans Heinl (General manager)

BY MODIFICATION AND / OR CHANGES TO THE MACHINE, THE CE EXAMINATION IS EXCLUDED AND EXCLUDES ANY LIABILITY.

GUARANTEE CARD

Dealer address:

Company (or Customer Number)

Contact person

Street:

ZIP code & Town:

Tel. & Fax:

e-Mail:

Customer address:

Company (or Customer Number)

Contact person

Street:

ZIP code & Town:

Tel. & Fax:

e-Mail:

Manufacturer & model	**Serial number**	**Year of manufacture**	**Reference number**

Description of the message:

Description of required spare parts:

Spare part	**Article number**	**Quantity**

IMPORTANT NOTES:

Damage caused by improper handling, lack of maintenance or mechanical damage, does not fall into the warranty. For machines that are not installed by a licensed technician from the company ATH, the warranty is limited to the provision of necessary spare parts.

Damages in transit:

☐ Obvious defect (note on carrier's delivery note, a copy of delivery note, Photos of the delivery have to be sent immediately to ATH-Heinl)

☐ Latent defect (Shipping damage is discovered upon unpacking the goods, send damage report with pictures within 24 hours to ATH-Heinl)

Place & date **Signature & stamp**

Scope of product warranty
- five years on the device structure
- power supply units, hydraulic cylinders and all other wear components such as turntable, rubber plates, Ropes, chains, valves, switches, etc., are limited to one year under normal circumstances / use under the guarantee
- ATH-Heinl repairs or replaces the returned parts during the warranty period after their own investigation

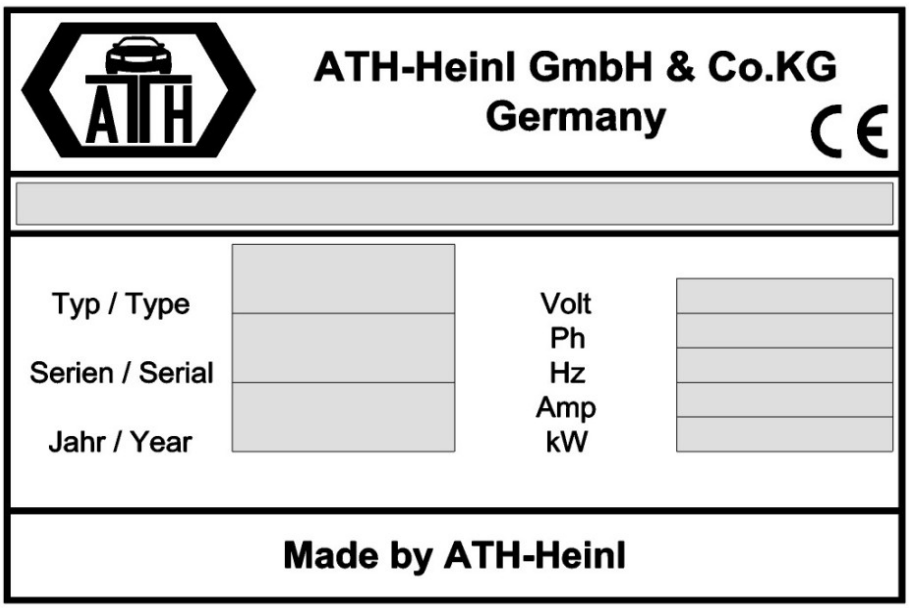
The warranty does not cover ...
- Defects caused by normal wear and tear, misuse, transport damage, improper installation, voltage or lack of necessary maintenance.
- Damage caused by negligence or non-compliance with the instructions given in this manual and / or other accompanying instructions.
- The normal wear and tear on parts requiring a service to keep the product in a safe operating condition.
- Any component that has been damaged during transport.
- Other components which have not been explicitly listed but are handled as general wear parts.
Water damage, e.g. Rain, excessive moisture, corrosive environments, or other contaminants.
- Beauty errors; Do not interfere with the function

WARRANTY DOES NOT APPLY IF WARRANTY CARD IS NOT ATH-HEINL.

It should be noted that damage and malfunctions caused by failure to observe maintenance and adjustment procedures (as described in the operating instructions and / or instruction), incorrect electrical connections (rotating field, rated voltage, fuse) or improper use (overload, outdoor installation,), Do not rule out the warranty!

For help, please write down all the data below

- Manufacturer & type of anchoring bolts used: _____



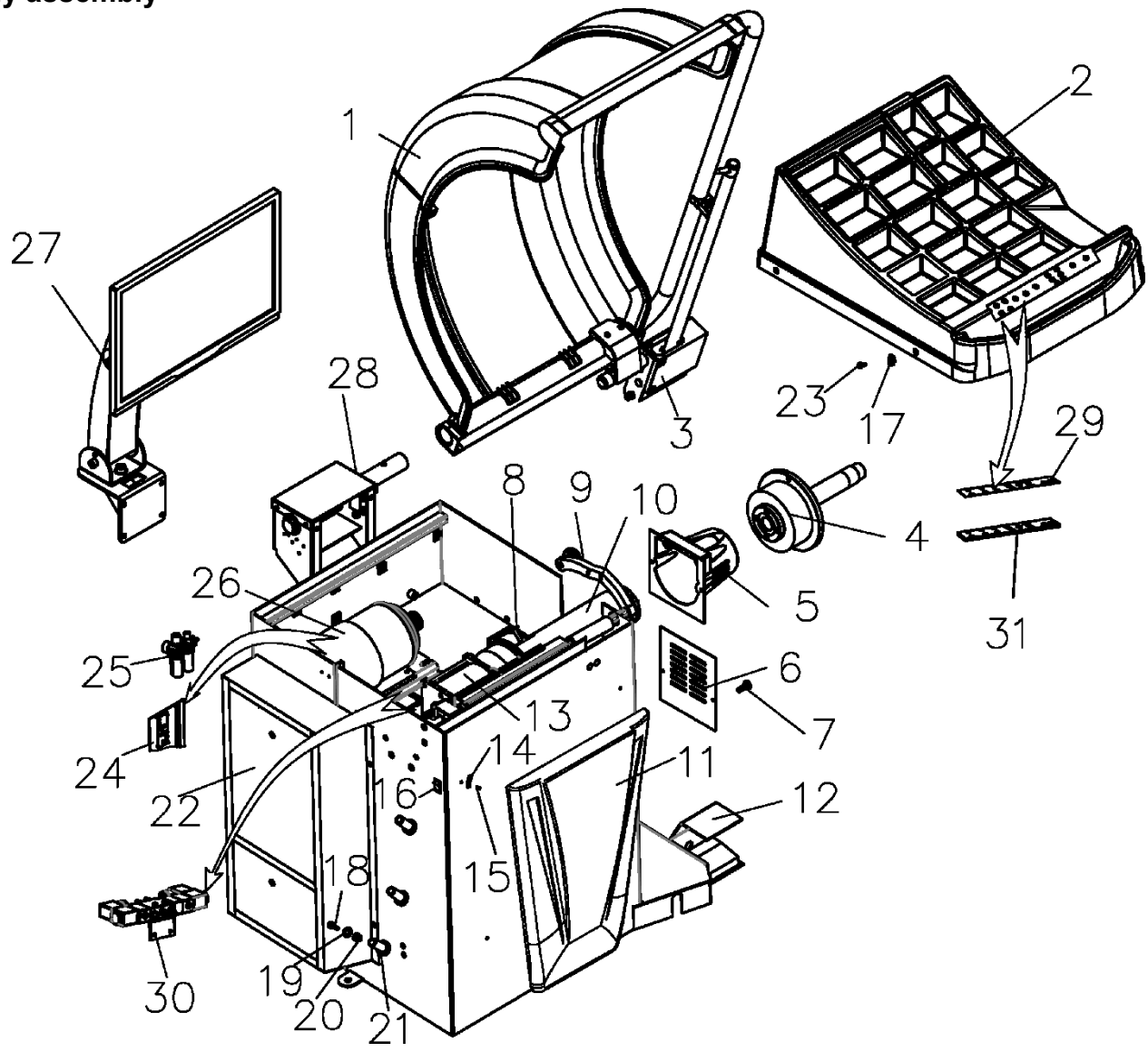
ATH-Heinl

SPARE PART LIST
ATH W82



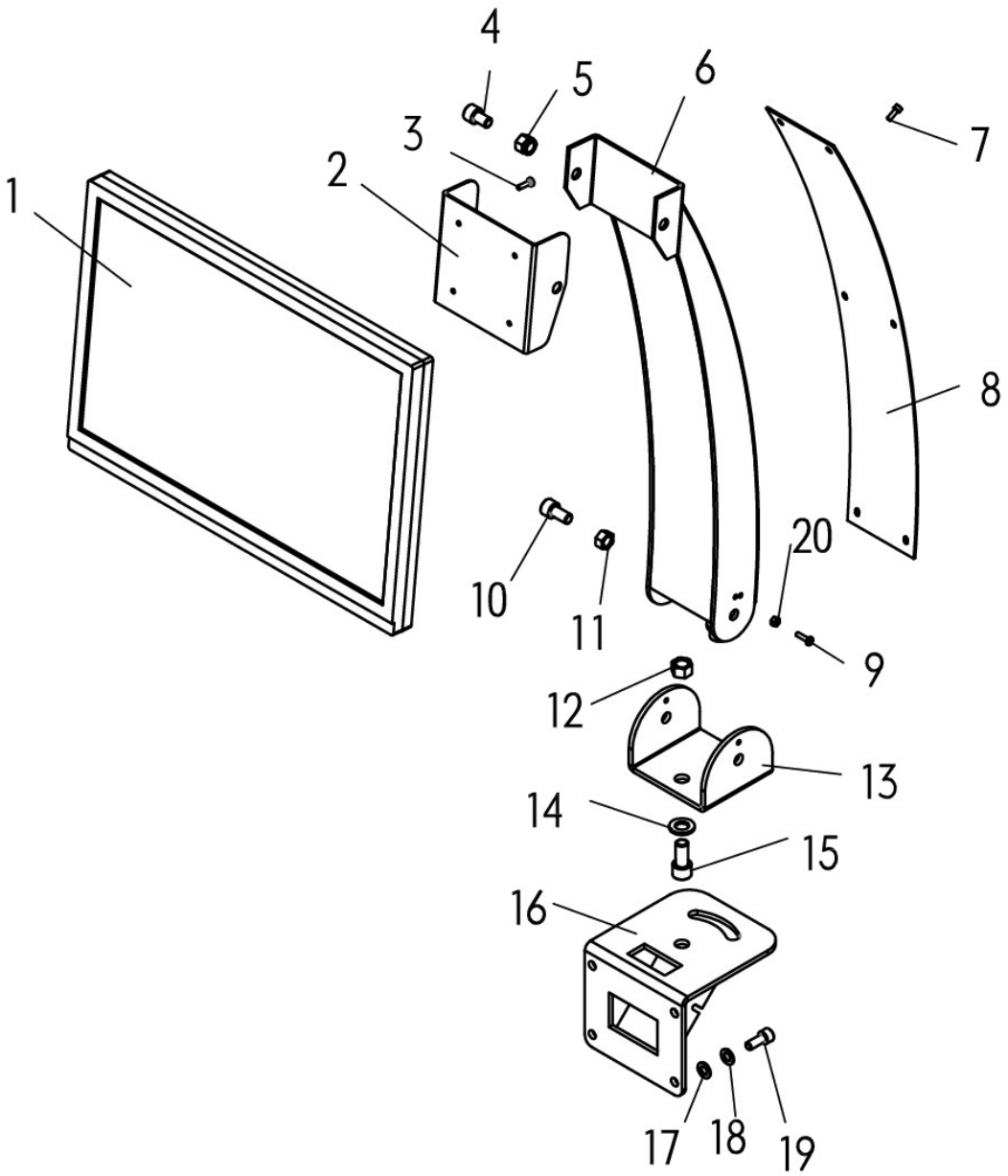
www.ath-heinl.de

ERSATZTEILLISTE
Body assembly



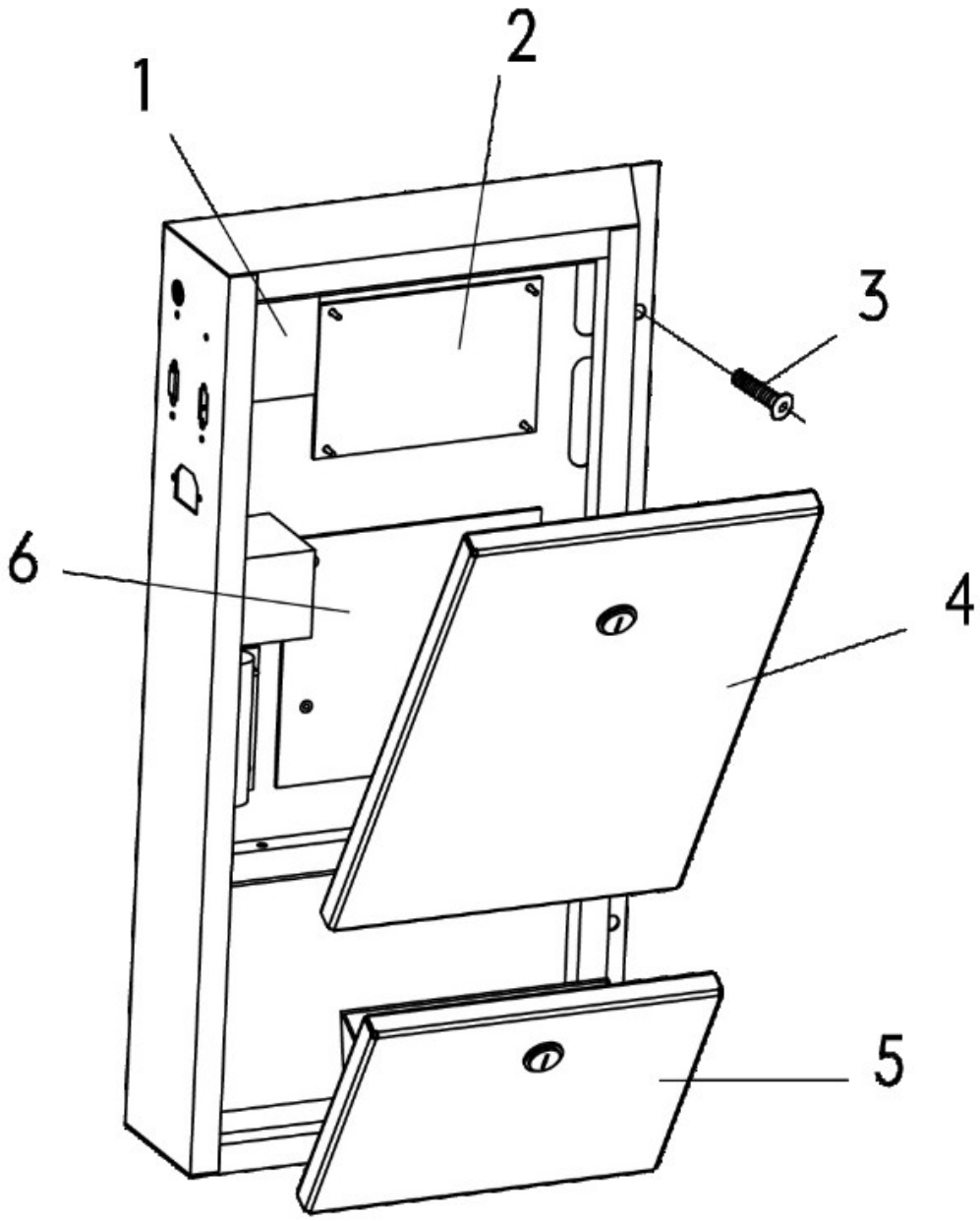
	16.08.20	body assembly		1-1
No.	Part No.	Name	Specification	QTY
1	060230004	protection cover	ATH1530	1
2	020602080	weight cover	ATH	1
3	060205001	external gauge		1
4	060207004	adaptor	DLCB977A	1
5	060229005	laser probe		1
6	05020030214	plate	DLL718—02	1
7	030206004	pin	ST5.5x16	2
8	060215004	photocell		1
9	060204016	internal gauge		1
10	060201003	main shaft	DLCB977A—02—00	1
11	020602075	front cover		1
12	060229007	pedal switch		1
13	060221001	cylinder		1
14	05020030054	decorative sheet	DLCB70-08-01	4
15	030201003	screw	GB/T 70.1-2000; M4x10	1
16	060216001	switch		4
17	030303120	nut		3
18	030201046	screw	GB/T 70.1-2000; M6x30	3
19	030502004	washer	GB/T 93-1987; 6	3
20	030301105	nut	GB/T 6170-2000; M6	3
21	020601182	tooling hand		3
22	060219004	assistant body		1
23	030201780	screw		4
24	060229006	pneumatic control board		1
25	060223002	air regulator		1
26	060212009	motor	DLCB977	1
27	060211011	display	LCD Monitor	1
28	060202004	support assembly of the wheel cover		1
29	021101026	keyboard mask		1
30	060229008	solenoid valve		1
31	021101013	keyboard	DLL718	1

Display



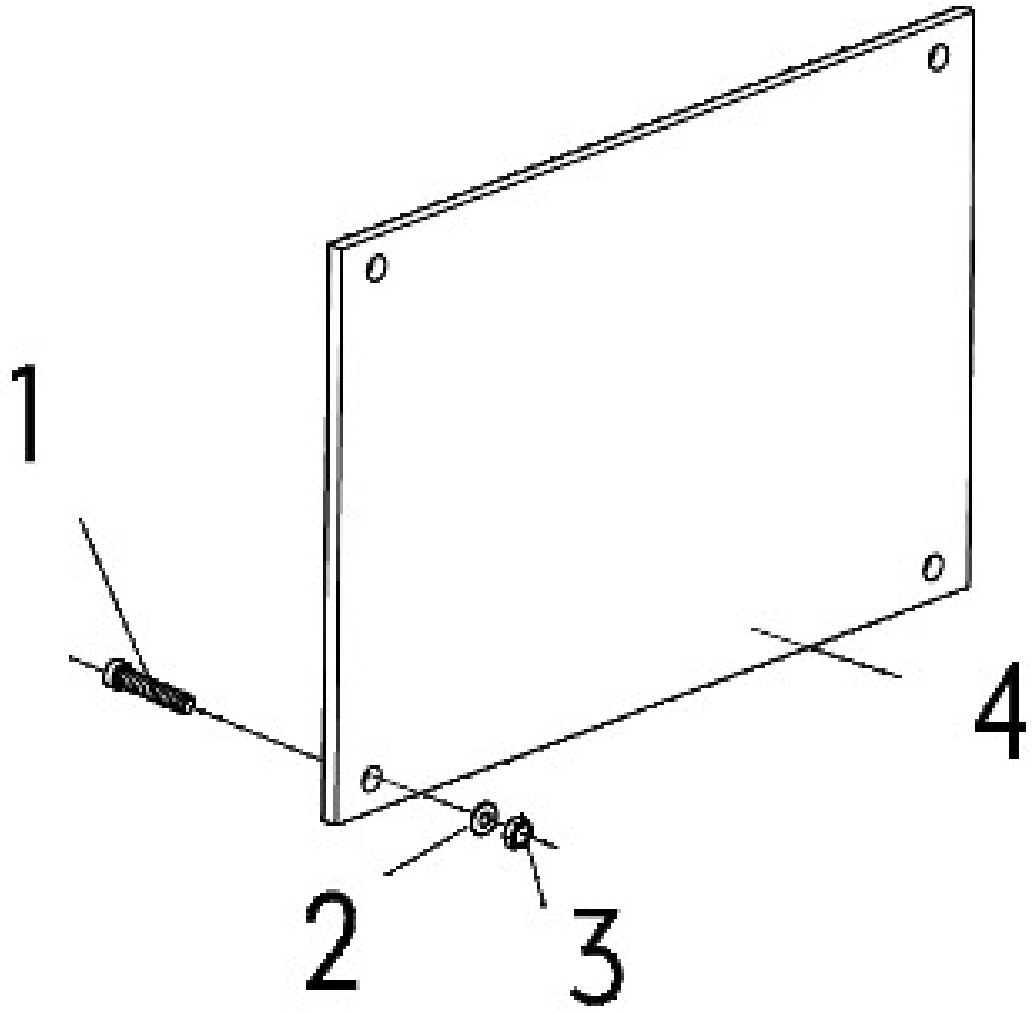
	16.08.20	Display		1-1
No.	Part No.	Name	Specification	QTY
1	020405005	LED display (touch screen)	17"	1
2	030201337	screw	GB/T 818-2000; M4x16	1
3	030201082	screw	GB/T 70.1-2000; M10x20	2
4	030301055	self-lock nut	GB/T 889.1-2000; M10	2
5	05020110200	holder	1530—09—01	1
6	030201004	screw	GB/T 70.1-2000; M4x12	6
7	05020110209	back shroud	1530—09—04	1
8	030201006	screw	GB/T 70.1-2000; M4x20	2
9	030201082	screw	GB/T 70.1-2000; M10x20	2
10	030301055	lock nut	GB/T 889.1-2000; M10	2
11	030301056	lock nut	GB/T 889.1-2000; M12	2
12	05020110264	Nut	DLCB977—09—05	1
13	030501007	washer	GB/T 96.1-2002; 12	2
14	030201112	screw	GB/T 70.1-2000; M12x30	2
15	05020110205	junction plate	1530—09—02	1
16	030204004	self-tapping screw	GB 845-1985; ST2.9x12	2
17	030501005	washer	GB/T 96.1-2002; 8	4
18	030502005	washer	GB/T 93-2002; 8	4
19	030201063	screw	GB/T 70.1-2000; M8x20	4
20	030301103	nut	GB/T 6170-2000; M4	2

Assistant body



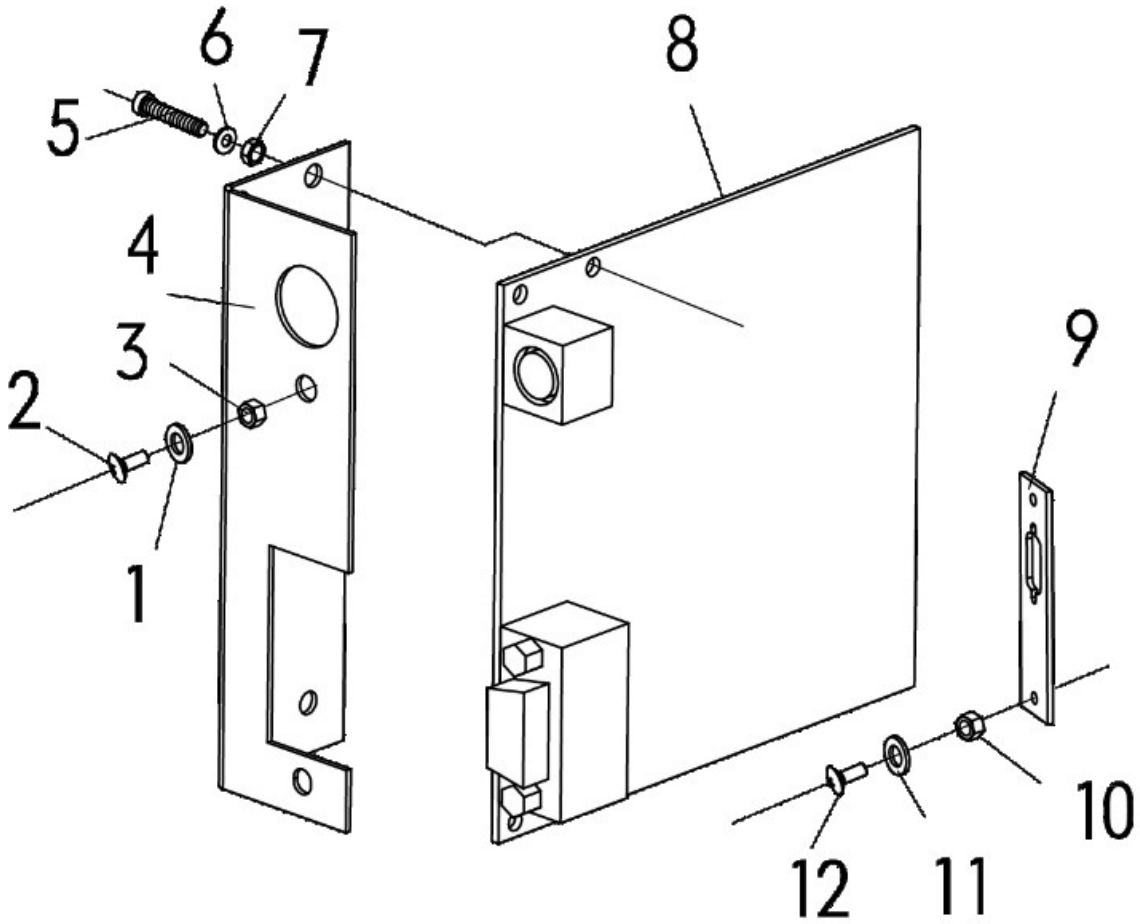
	16.08.20	ATH W82 Assistant body		1-1
No.	Part No.	Name	Specification	QTY
1	060213002	Display	W82	1
2	060209020	CPU	W82	1
3	030201862	Screw	GB/T 70.3-2000; M8x20	4
4	05020160223	upper cover	W82—09—04	1
5	05020160224	lower cover	W82—09—05	1
6	060210009	power board	W82	1
7	05020160215	assistant body	W82—09—01	1

CPU



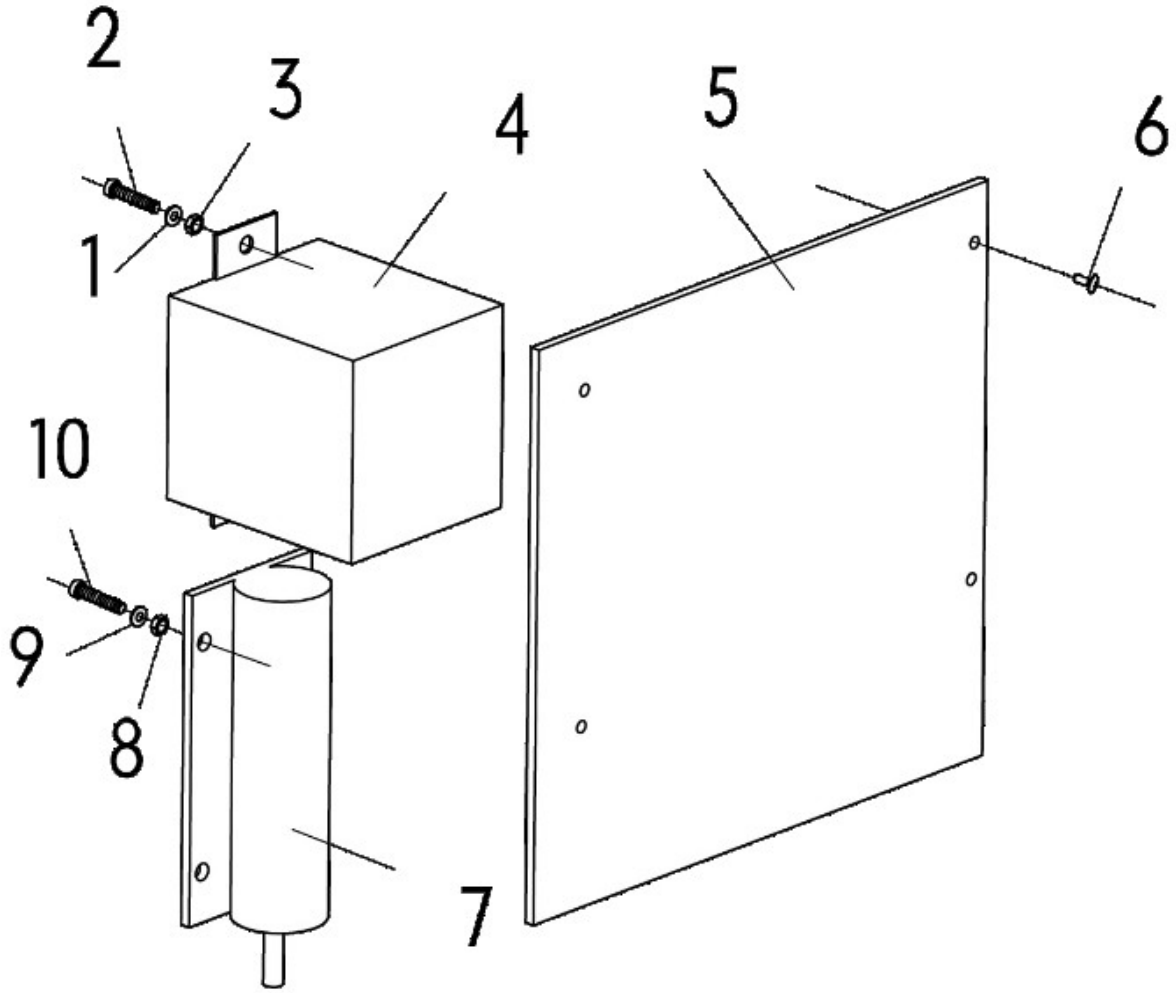
	16.08.20	CPU		1-2
No.	Part No.	Name	Specification	QTY
1	030201614	Screw	GB/T 819.1-2000; M3x25	4
2	030502001	washer	GB/T 93-1987; 3	4
3	030301101	nut	GB/T 6170-2000; M3	12
4	021003016	CPU (ATH)		1

Display board



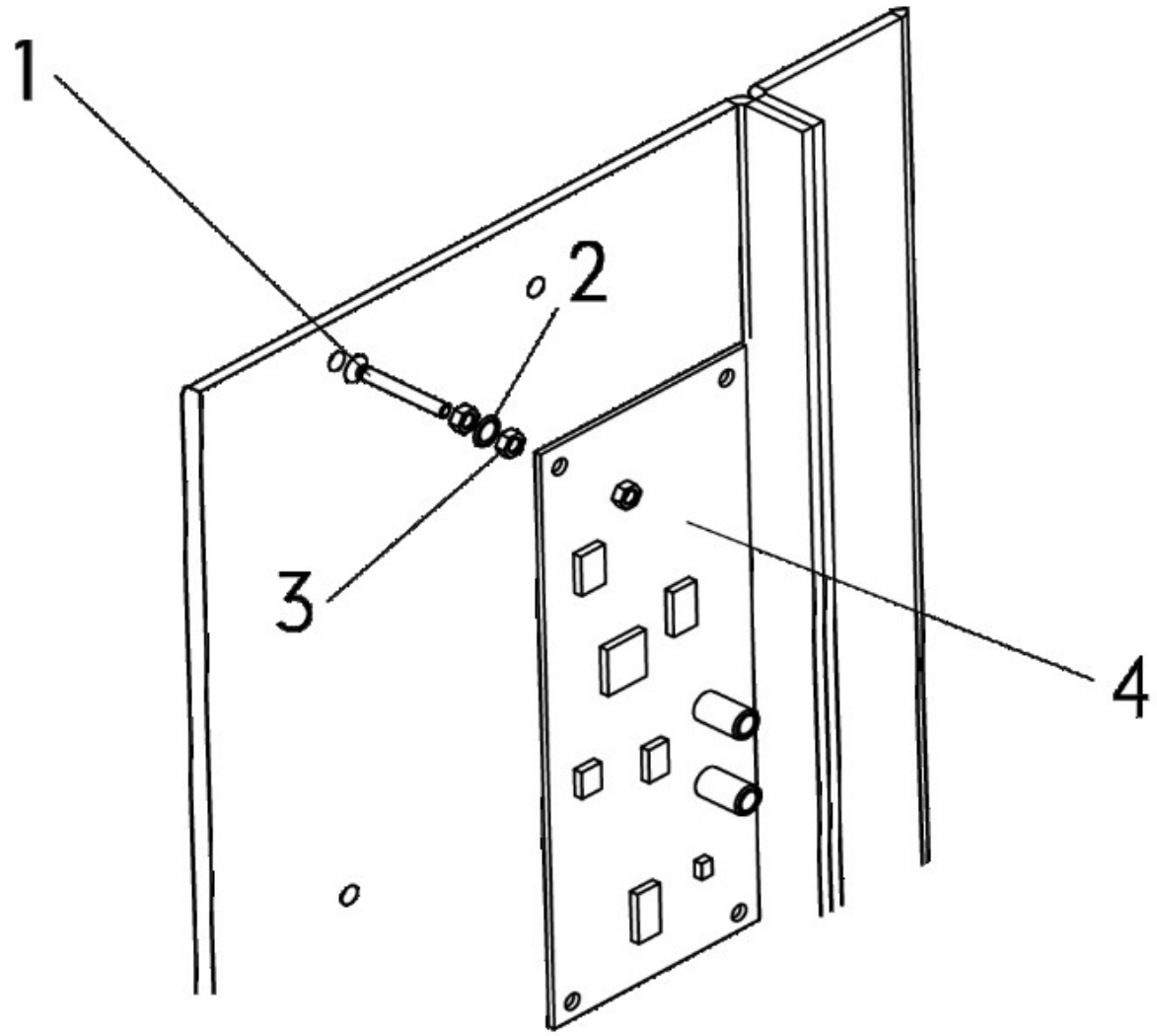
	16.08.20	Display board		1-3
No.	Part No.	Name	Specification	QTY
1	030502002	washer	GB/T 93-1987; 4	2
2	030201470	screw	GB/T 819.1-2000; M4x16	2
3	030301102	nut	GB/T 6170-2000; M4	2
4	05020160222	display support	W82—09—03	1
5	030201614	screw	GB/T 819.1-2000; M3x25	4
6	030502001	washer	GB/T 93-1987; 3	4
7	030301101	nut	GB/T 6170-2000; M3	12
8	021003025	display board		1
9	05020160221	COM connection board	W82—09—02	1
10	030301102	nut	GB/T 6170-2000; M4	2
11	030502002	washer	GB/T 93-1987; 4	2
12	030201470	screw	GB/T 819.1-2000; M4x16	2

Power board



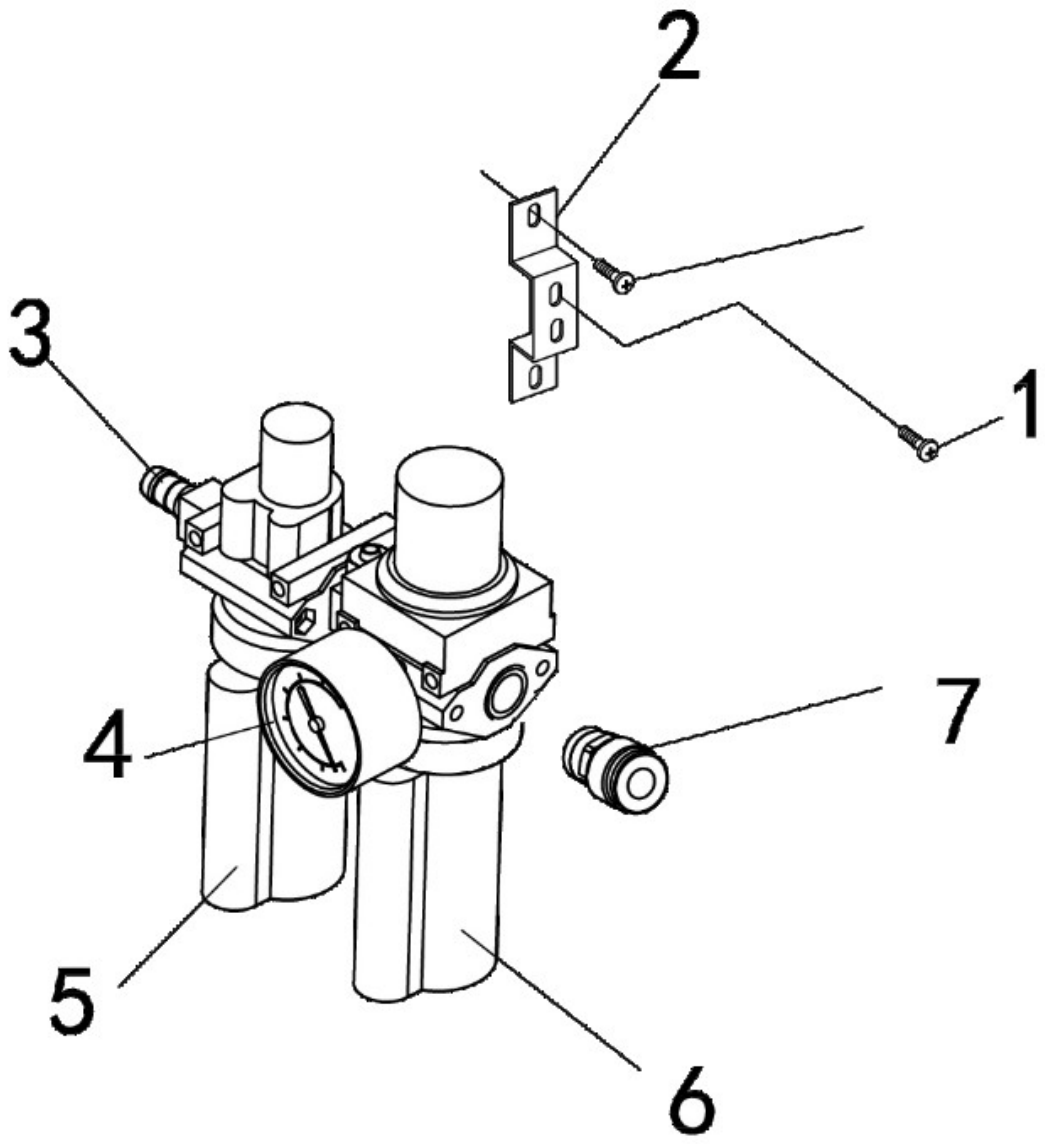
	16.08.20	power board		1-4
No.	Part No.	Name	Specification	QTY
1	030502002	washer	GB/T 93-1987; 4	2
2	030201337	screw	GB/T 818-2000; M4x16	2
3	030301103	nut	GB/T 6170-2000; M4	2
4	020404005	transformer		1
5	021003020	power board		1
6	030201335	screw	GB/T 818-2000; M4x12	4
7	021002001	brake resistance	RXG-100-15RJ; 100W/15Ω	1
8	030301103	nut	GB/T 6170-2000; M4	2
9	030502002	washer	GB/T 93-1987; 4	2
10	030201337	screw	GB/T 818-2000; M4x16	2

Pneumatic control board



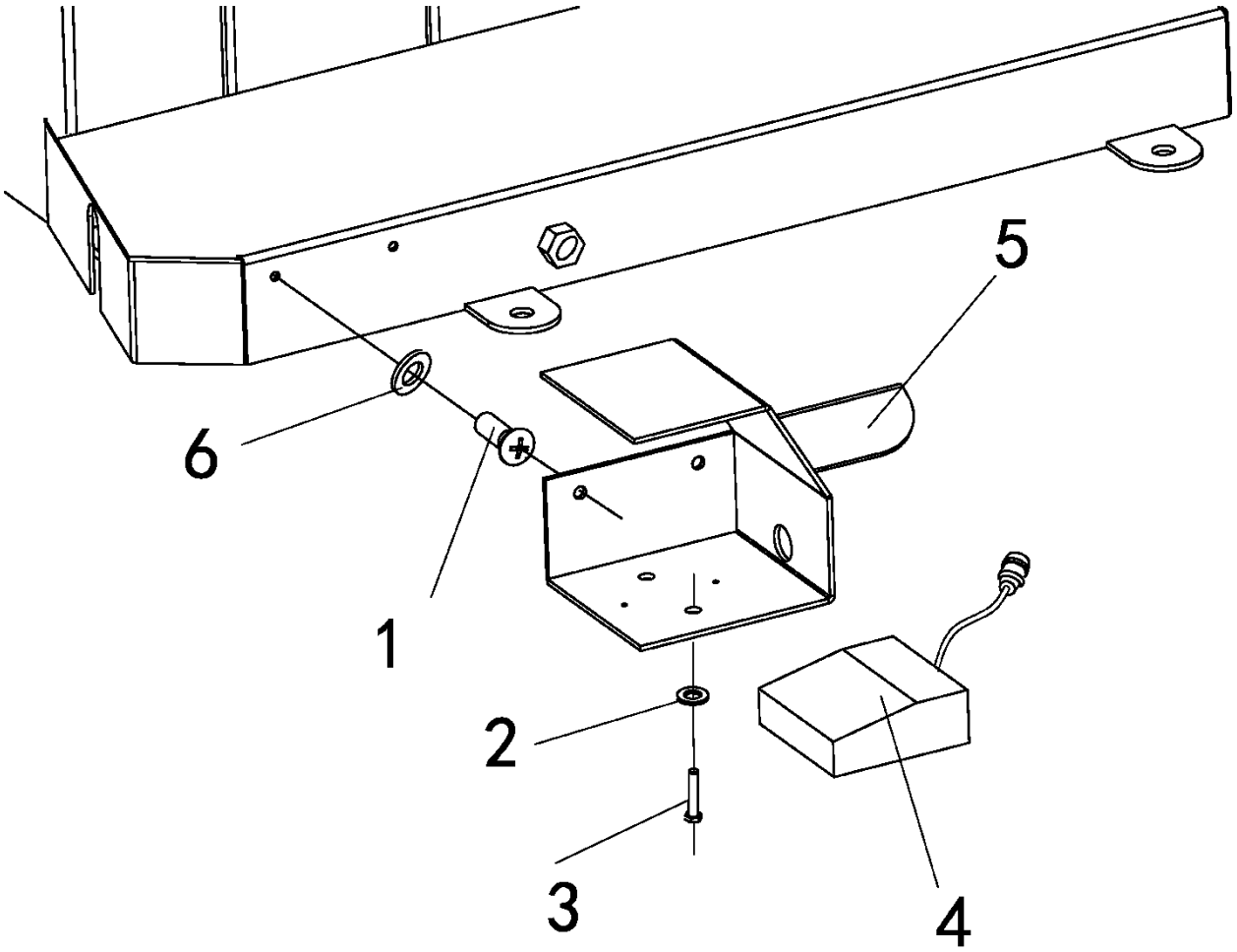
	16.08.20	pneumatic control board		1-2
No.	Part No.	Name	Specification	QTY
1	030201614	screw	GB/T 819.1-2000; M3x25	4
2	030502001	washer	GB/T 93-1987; 3	8
3	030301101	nut	GB/T 6170-2000; M3	12
4	021003024	pneumatic control board（ATH）		1

Air maintenance unit



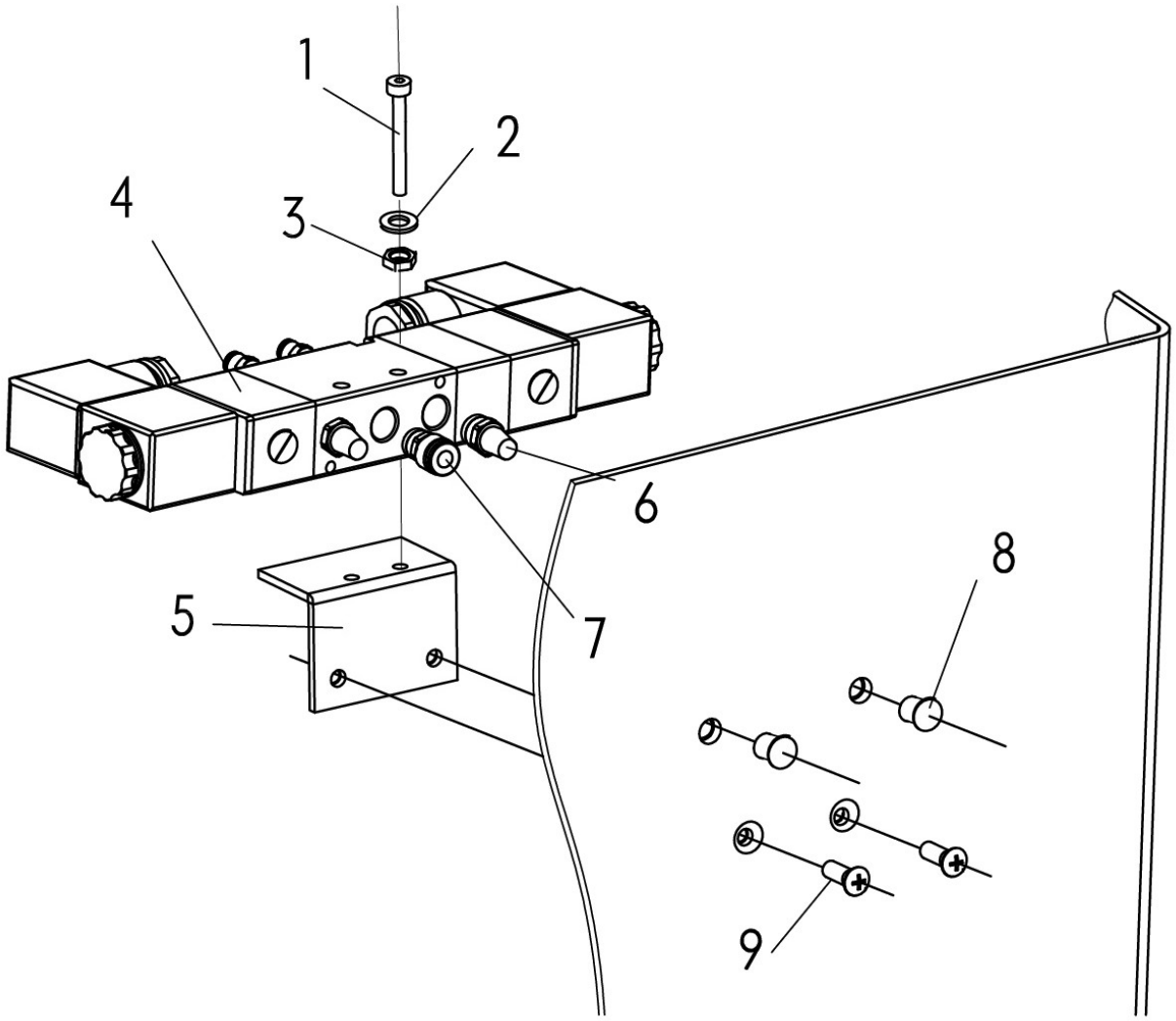
	16.08.20	Air regulator		1-1
No.	Part No.	Name	Specification	QTY
1	030201002	screw	GB/T 70.1-2000; M4x8	2
2	0530108001	support	R745-08-01	2
3	020203025	direct connection	Ø10-G1/4″	1
4	020201012	pressure gauge		1
5	020201005	air filter cup		1
6	020201004	oil cup		1
7	020203035	direct connection	Ø6-G1/4″	1
8	030201002	screw	GB/T 70.1-2000; M4x8	4

Pedal



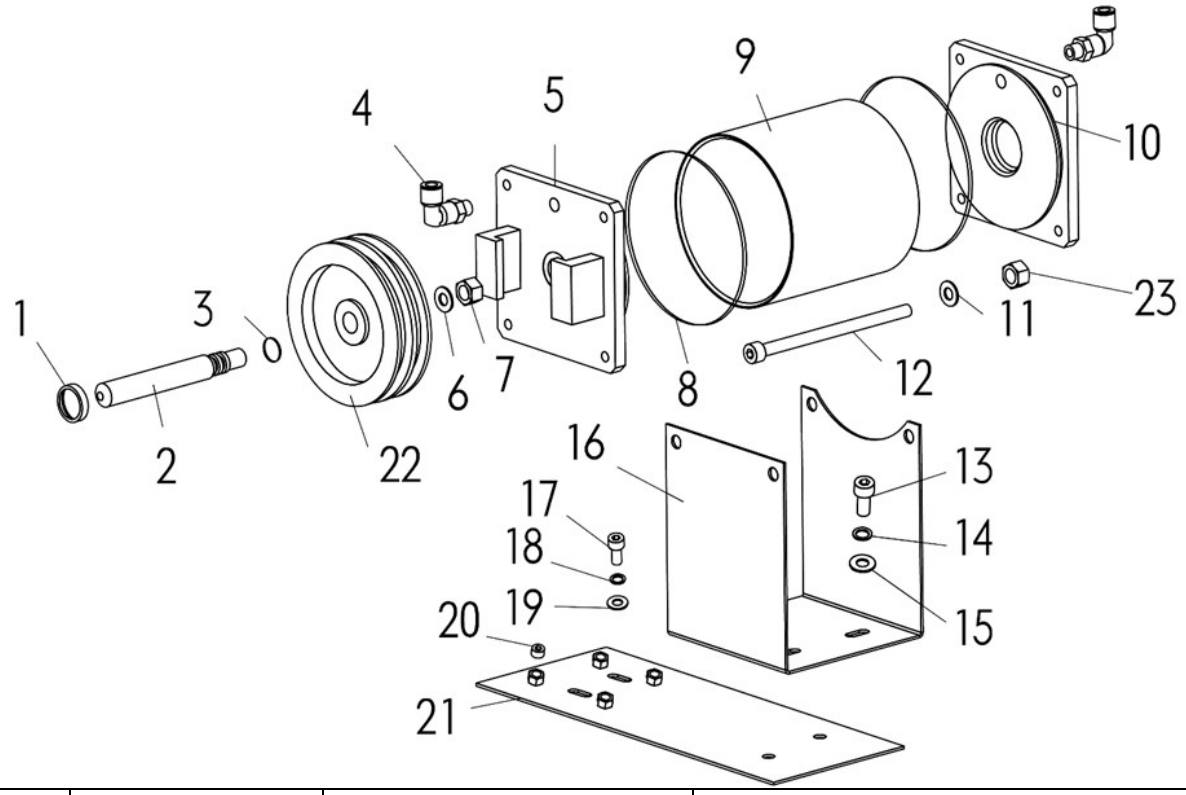
	16.08.20	Pedal		1-1
No.	Part No.	Name	Specification	QTY
1	030201405	screw	GB/T 818-2000; M6x16	2
2	30501002	washer	GB/T 97.1-2002; 4	1
3	030201337	screw	GB/T 818-2000; M4x16	1
4	020401021	pedal switch	220V	1
5	05020160225	pedal	W82—09—06	1
6	030501004	washer	GB/T 97.1-2002; 6	2

Solenoid valve



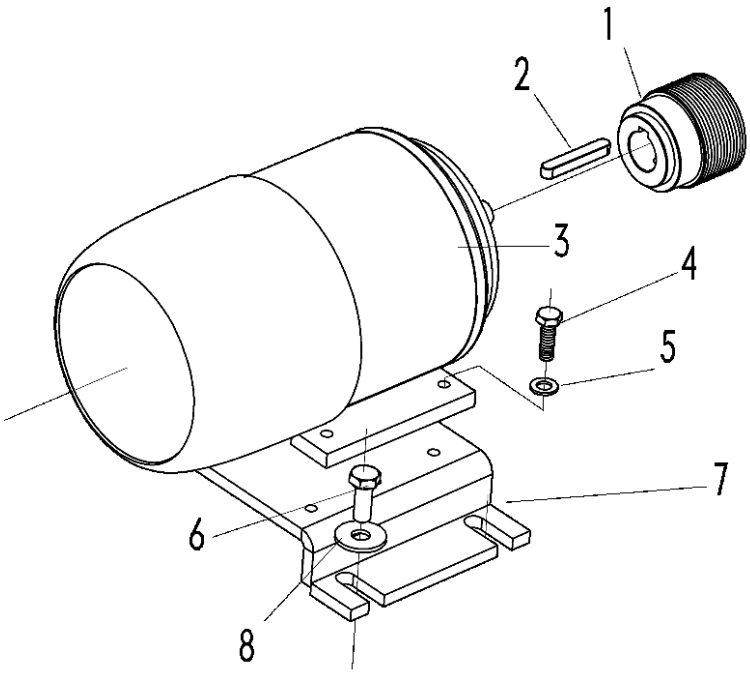
	16.08.20	solenoid valve		1-1
No.	Part No.	Name	Specification	QTY
1	030201009	screw	GB/T 70.1—2000; M4x45	2
2	030501002	washer	GB/T 95-2002; 4	2
3	030301012	nut	GB/T 41-2000; 4	2
4	020206009	solenoid valve	GTV220—06	1
5	05020060043	valve holder	W82—09—10	1
6	020203032	elbow	1/8"-Ø6	4
7	020203011	direct connection	1/8"-Ø8	1
8	020601252	hole block	HP—10 (Ø9.5)	2
9	030201752	screw	GB/T 819.1-2000; M6x20	2

Lock cylinder



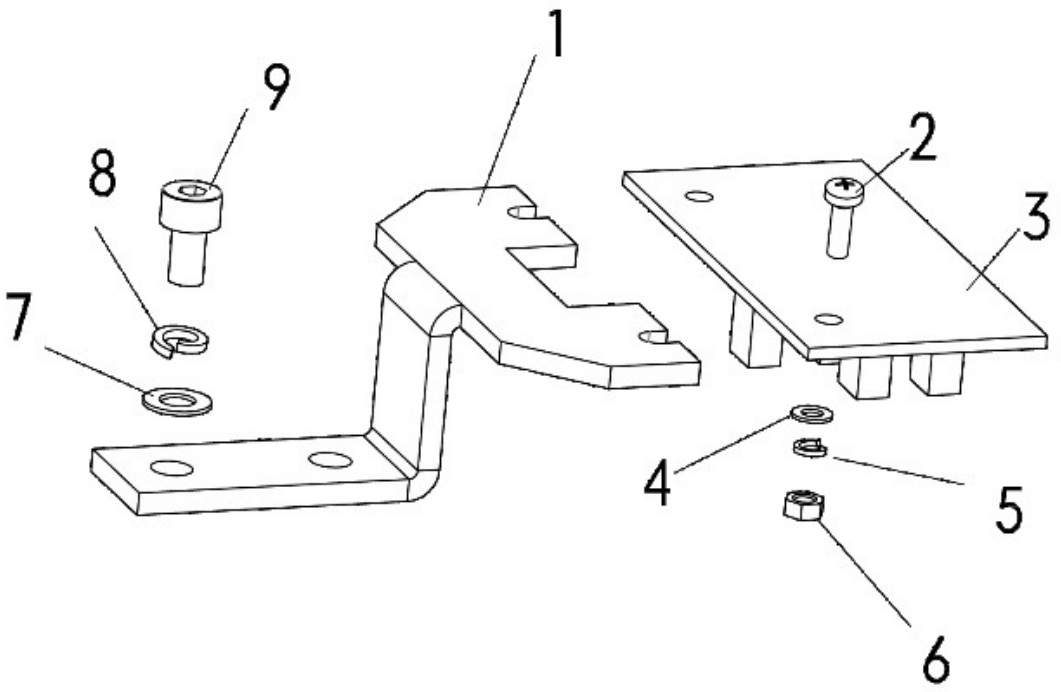
	16.08.20	Lock cylinder		1-1
No.	Part No.	Name	Specification	QTY
1	020502019	Y-ring for piston rod	JB/T6657-1993; Y16x24x5	1
2	05020170012	piston rod	W82-05-05	1
3	020501027	O-ring for piston rod	GB/T 3452.1-2005; 14x2.4	2
4	020203046	elbow	G1/8"-Ø6	2
5	05020170013	front cylinder cover	W82-05-04	1
6	030501007	washer	GB/T 95-2002; 12	1
7	030301004	nut	GB/T 41-2000; M12	1
8	020501041	O-ring	GB/T 3452.1-2005; 100x3.5	2
9	05020170010	cylinder body	DLCB977A-05-02	1
10	05020170014	rear cylinder cover	W82-05-01	1
11	030501005	washer	GB/T 95-2002; 8	8
12	030201076	screw	GB/T 70.1—2000; M8x130	4
13	030201042	screw	GB/T 70.1—2000; M6x12	2
14	030502004	washer	GB/T 93-1987; 6	2
15	030501004	washer	GB/T 95-2002; 6	2
16	05020170015	cylinder holder	W82—05—06	1
17	030201042	screw	GB/T 70.1—2000; M6x12	2
18	030502004	washer	GB/T 93-1987; 6	2
19	030501004	washer	GB/T 95-2002; 6	2
20	030202005	screw	GB/T 77-2000; M6x20	4
21	05020170016	foundation	W82-05-10	1
22	05010270144	piston	DLDL828-03-23-02	1
23	030301002	nut	GB/T 41-2000; M8	4

Motor



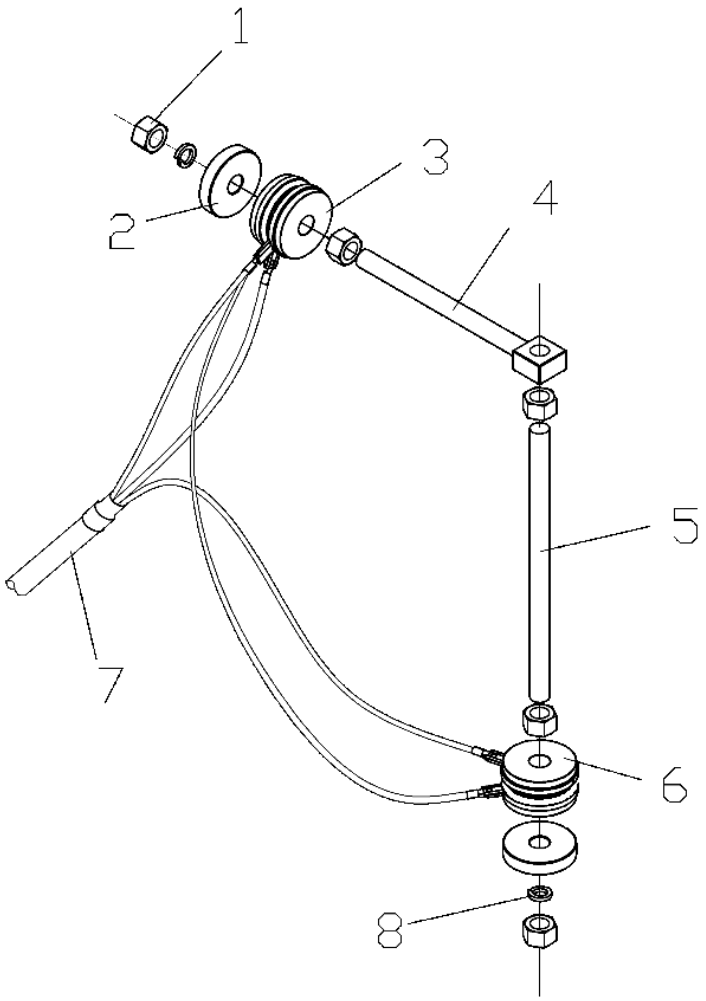
	14.03.15	Motor	MY7126	1-1
No.	Part No.	Name	Specification	QTY
1	05020070153	belt pulley	W82-02-05	1
2	030701200	key	GB/T 1096-1979; 8x7x32	1
3	020401093	motor	MY7126	1
4	030101363	bolt	GB/T 5781-2000; M8x20	4
5	030501005	washer	GB/T 95-2002; Ø8	4
6	030101157	bolt	GB/T 5781-2000; M8x30	4
7	05020060020	motor support	DLCB966—02	1
8	030501106	washer	GB/T 96.2-2002; Ø8	4
9	020403011	belt	4PJ864	1

Photocell



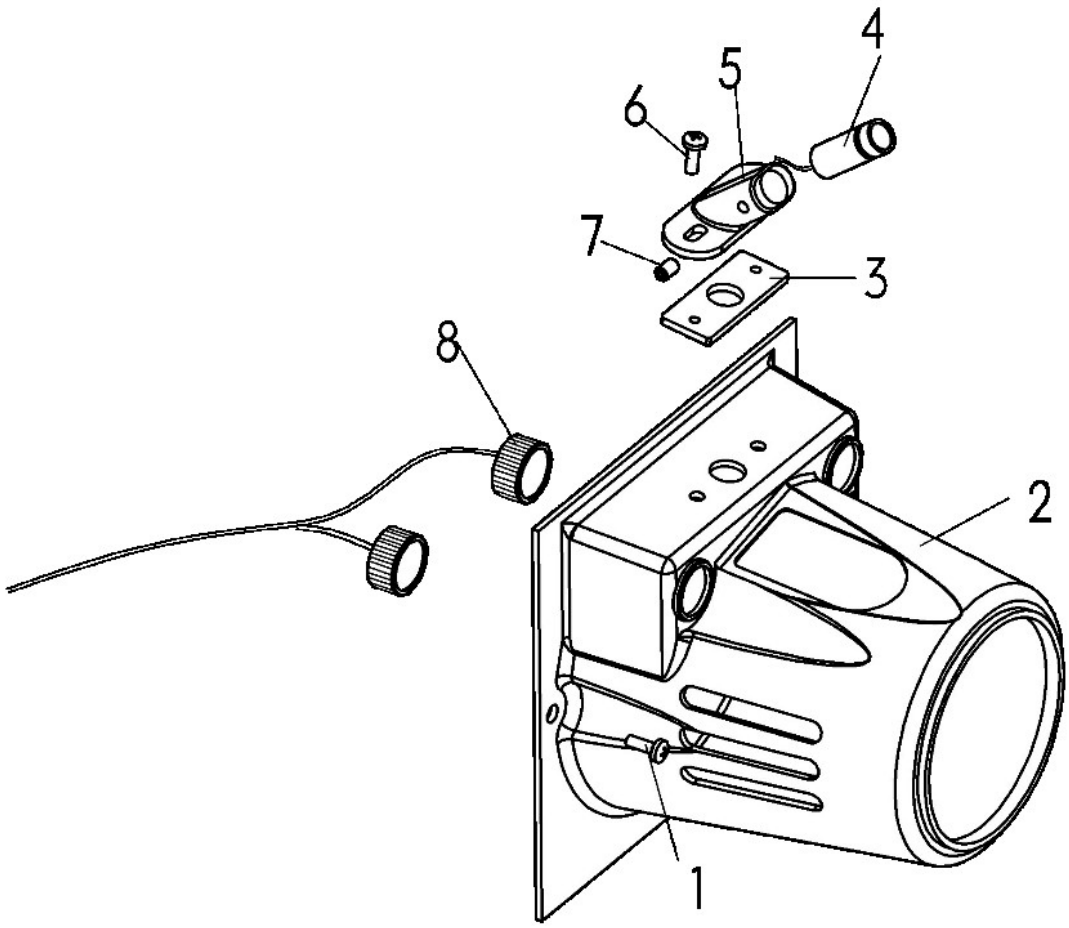
	16.08.20	Photocell	32T	1-1
No.	Part No.	Name	Specification	QTY
1	05020060058	support for photocell	W82—06—02	1
2	030201265	screw	GB/T 818-2000; M3x10	2
3	021003004	Photocell (64T)		1
4	030501001	washer	GB/T 95-2002; 3	2
5	030502001	washer	GB/T 93-1987; 3	2
6	030301101	nut	GB/T 6170-2000; M3	2
7	030501002	washer	GB/T 95-2002; 4	2
8	030502002	washer	GB/T 93-1987; 4	2
9	030201002	screw	GB/T 70.1-2000; M4x8	2

Sensor



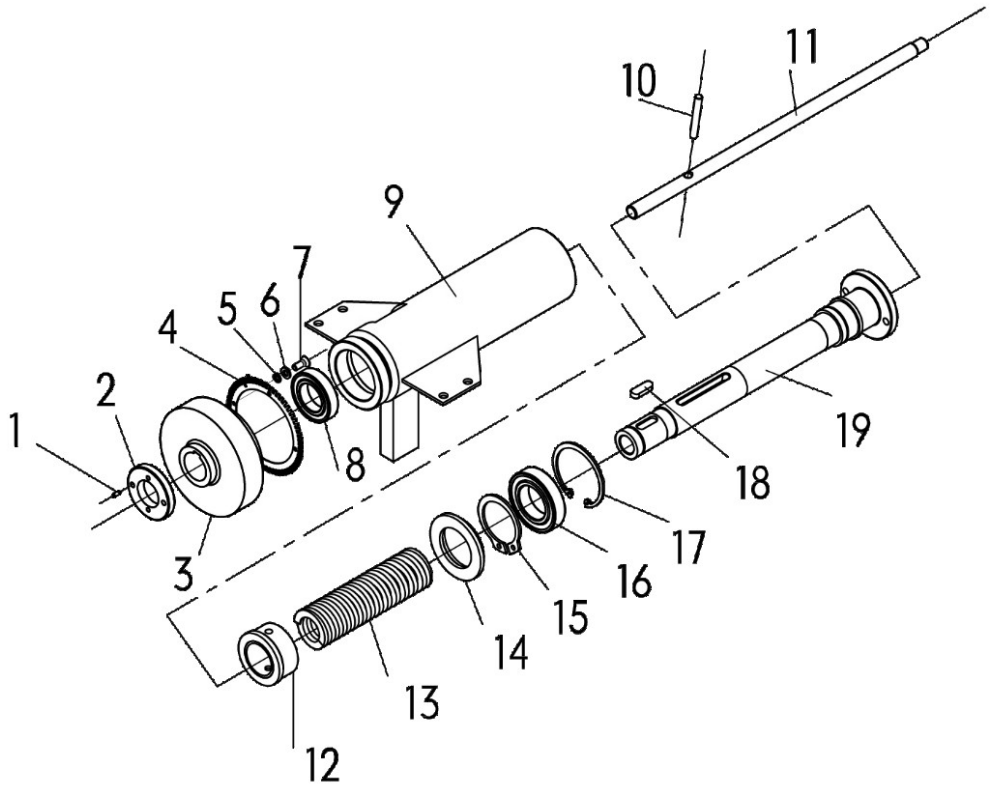
	14.04.01	sensor		1-1
No.	Part No.	Name	Specification	QTY
1	030301003	nut	GB/T 41-2000; M10	5
2	05020070043	sensor washer	DLCB1200-02-10	2
3	021006032	sensor(horizontal)	Ø10	1
4	021301007	horizontal rod	DLCB70-02-06	1
5	021301008	vertical rod	DLCB70-02-08	1
6	021006033	sensor(vertical)	Ø10	1
7	020402015	sensor wire	53(RVV); 3x0.75mm²x1.5m	1
8	030502006	washer	GB/T 93-1987; 10	2

Laser probe



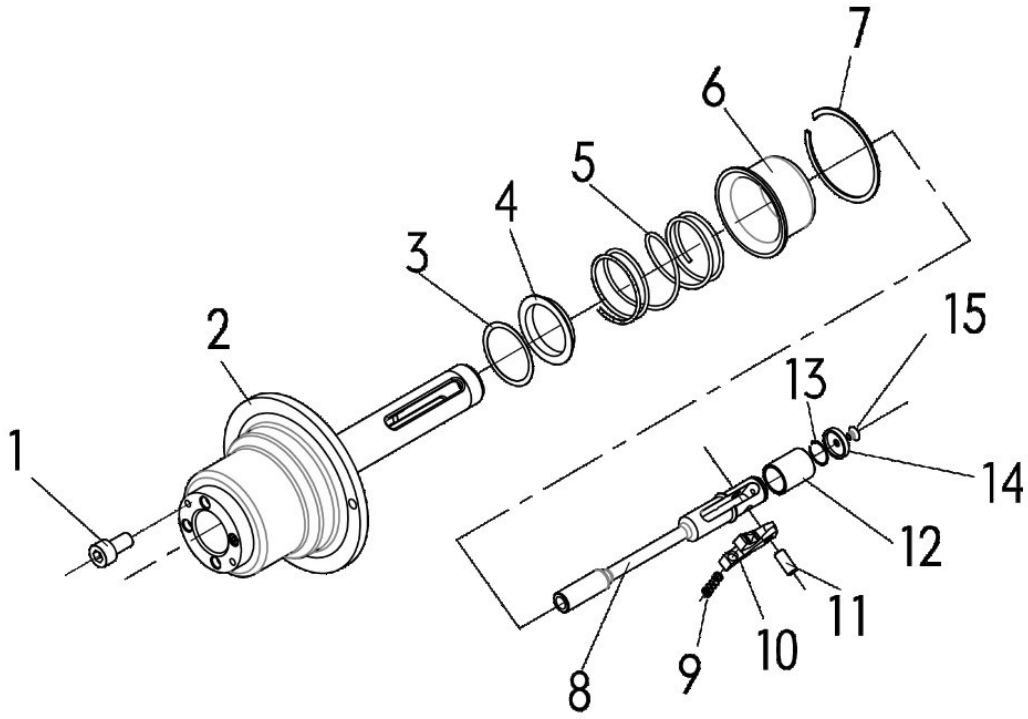
	16.08.20	laser probe		1-1
No.	Part No.	Name	Specification	QTY
1	030201335	screw	GB/T 818-2000; M4x12	2
2	05020060034	main shaft cover	1530-06-03A	1
3	05020060042	fixing plate for laser support	1530-06-02	1
4	021006039	laser light source	Ø12X35—5V	1
5	05020060032	laser support	1530-06-01	1
6	030201335	screw	GB/T 818-2000; M4x12	2
7	030202301	screw	GB/T 78-2000; M5x5	1
8	020402010	indicator light	DLL718	1

Main shaft



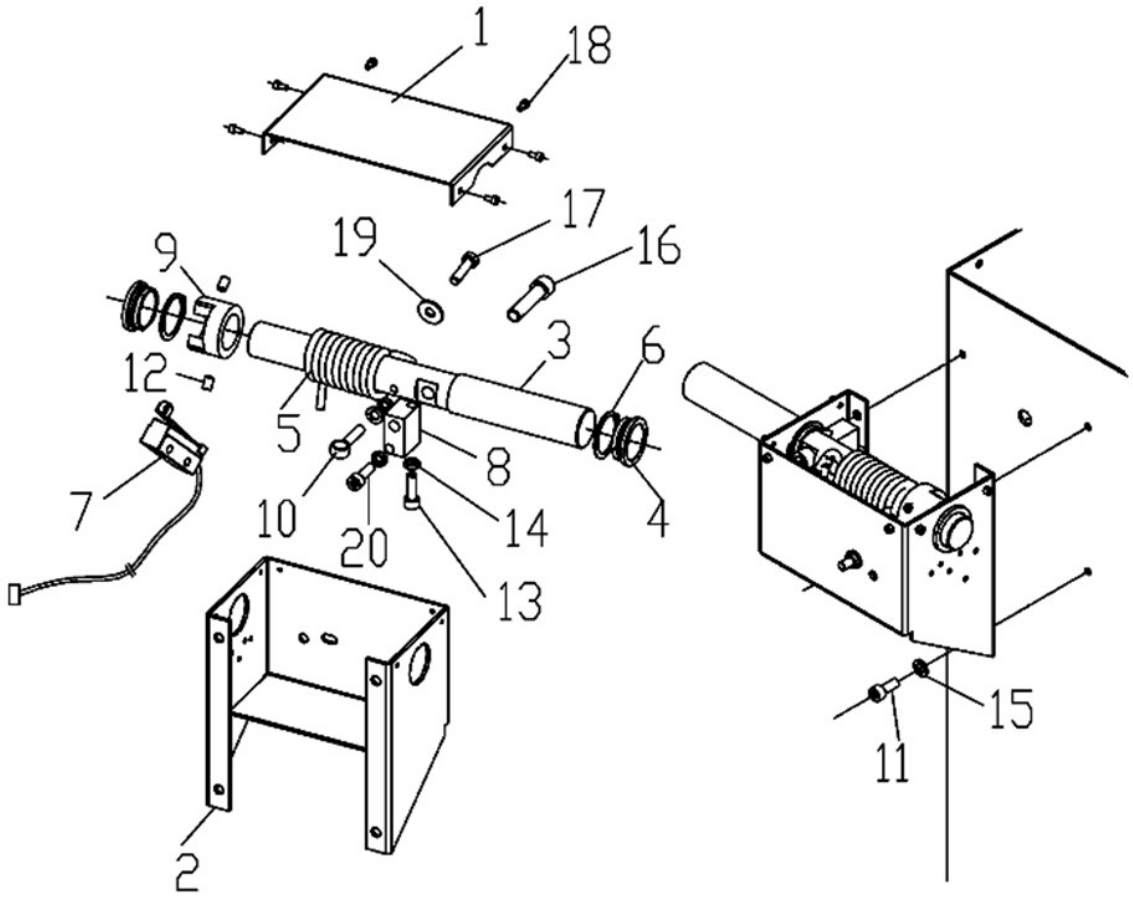
	16.08.20	main shaft		2-1
No.	Part No.	Name	Specification	QTY
1	030202293	screw	GB/T 78-2000; M4x10	2
2	05020070128	nut	DLCB977A—02—07	1
3	05020070136	pulley belt	W82—02—10	1
4	05020070152	photocell	W82—06—04	1
5	030502002	washer	GB/T 93-1987; 4	4
6	030501002	washer	GB/T 97.1-2002; 4	4
7	030201004	screw	GB/T 70.1-2000; M4x12	4
8	030802003	bearing	GB/T 276-94; 6007	1
9	05020070129	collar bush	W82—02—08	1
10	05020070135	pin	DLCB977A—02—09	1
11	05020070123	center shaft	DLCB977A—02—03	1
12	05020070125	spring sleeve	DLCB977A—02—06	1
13	05020070124	spring	DLCB977A—02—05	1
14	05020070122	washer	DLCB977A—02—02	1
15	030604109	circlip	GB 894.2-86; 45	1
16	030802005	bearing	GB/T 276-94 6009	1
17	030603017	circlip	GB 893.2-86; 75	1
18	030701220	key	GB/T 1576-1979; 10X6	1
19	05020070120	main shaft	DLCB977A—02—01A	1

Adaptor



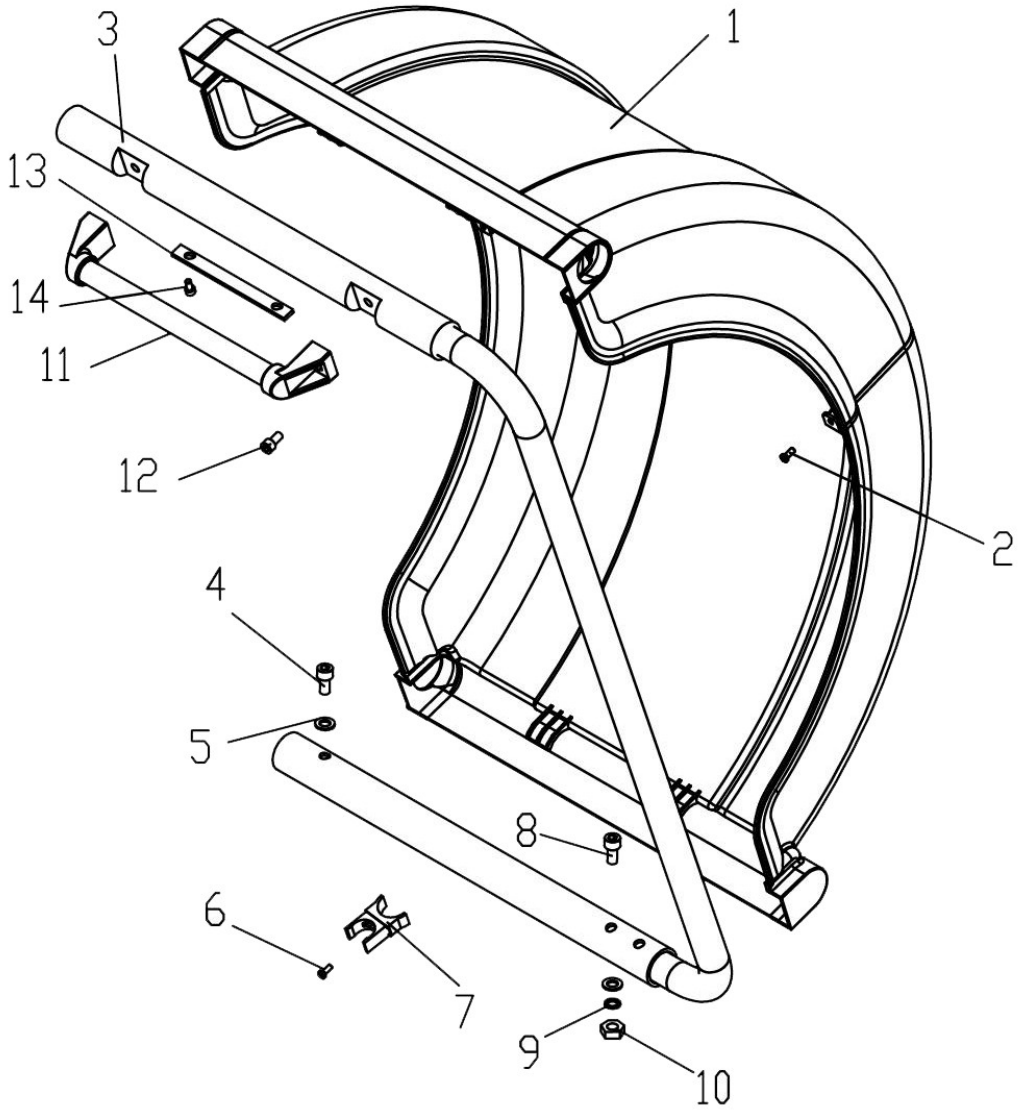
	16.08.20	adaptor		2-2
No.	Part No.	Name	Specification	QTY
1	030101364	bolt	GB/T 5781-2000; M8x25	2
2	05020070137	adaptor	DLCB977A—03—01	1
3	05020070140	washer	DLCB977A—03—02	1
4	05020070144	nylon sleeve	DLCB977A—03—06	1
5	05020070142	spring for adaptor	DLCB977A—03—04	1
6	05020070141	pressing sleeve	DLCB977A—03—03	1
7	05020070143	circlip	DLCB977A—03—05	1
8	05020070145	lock body	DLCB977A—04—01	1
9	05020070147	spring	DLCB977A—04—03	1
10	05020070146	washer	DLCB977A—04—02	2
11	05020070148	small shaft	DLCB977A—04—04	1
12	05020070149	outer cover for lock body	DLCB977A—04—05	1
13	05020070150	circlip	DLCB977A—04—06	1
14	05020070151	washer	DLCB977A—04—07	1
15	030201799	screw	GB/T 70.3-2000; M6x10	1

Support assembly of wheel cover



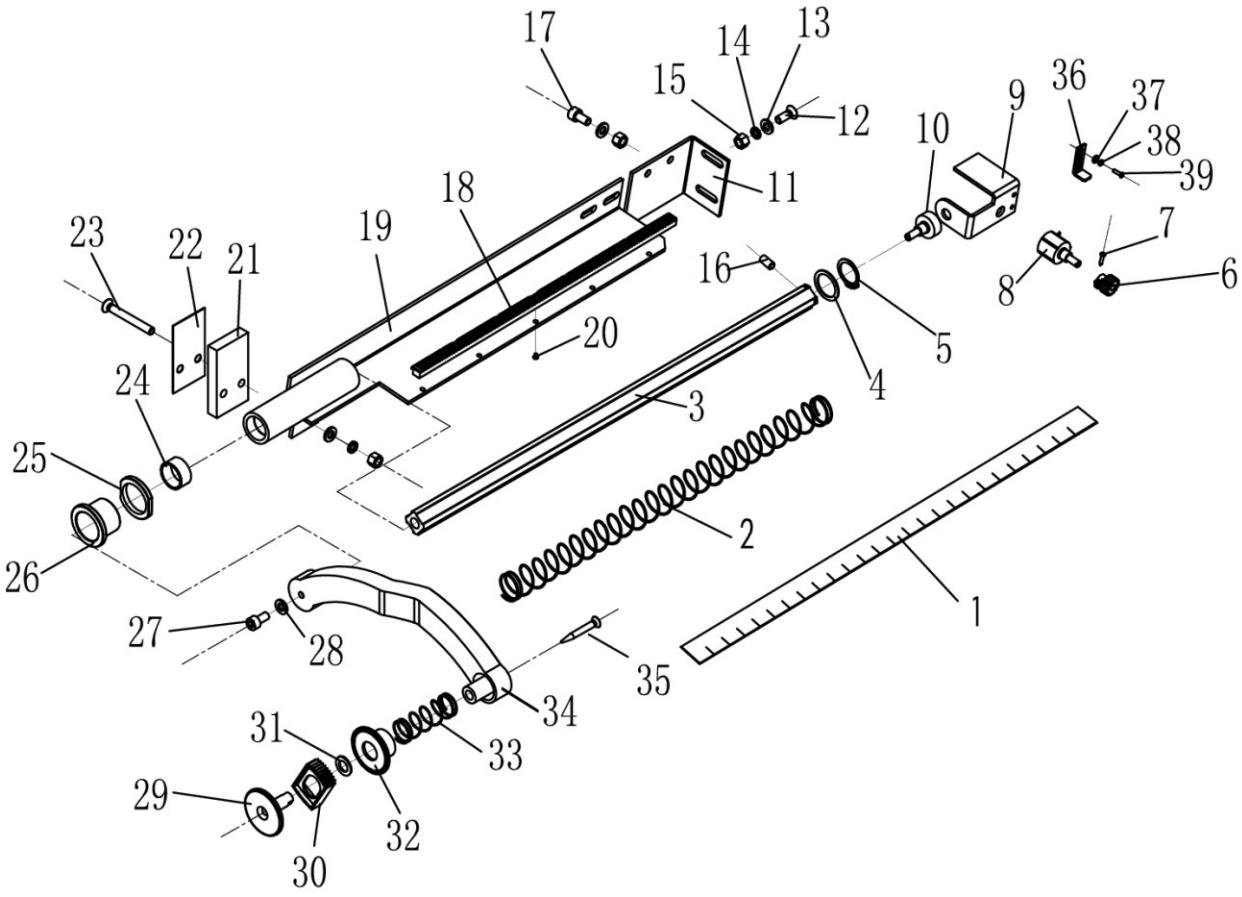
	12.07.01	support assembly of the wheel cover		4-2
No.	Part No.	Name	Specification	QTY
1	05020080004	upper cover	USA70-BB-01	1
2	05020080001	support	USA70-BB-07	1
3	05020080003	shaft	DLCB986A-BB-02	1
4	020601035	collar bush	USA70-BB-03	2
5	020703001	torsional spring	USA70-BB-08	1
6	030604115	circlip 38	GB 894.2-86; 38	2
7	021006031	micro switch	YBLXW-5/11G1	1
8	05020080002	fixing block	USA70-BB-05	1
9	020601034	shaft sleeve	USA70-BB-06	1
10	021301004	screw	USA70-BB-04	1
11	030201063	bolt	GB/T 5783-2000; M8x20	4
12	030202025	screw	GB/T 77-2000; M8x12	2
13	030201064	screw	GB/T 70.1-2000; M8x25	1
14	030301002	nut M8	GB/T 41-2000; M8	2
15	030501005	washer 8	GB/T 95-2002; 8	4
16	030201114	screw	GB/T 70.1-2000; M12x40	1
17	030101560	bolt	GB/T 5789-1986; M8x25	1
18	030201002	screw	GB/T 70.1-2000; M4x8	6
19	030201067	screw	GB/T 70.1-2000; M8x40	1

Radschutzbogen



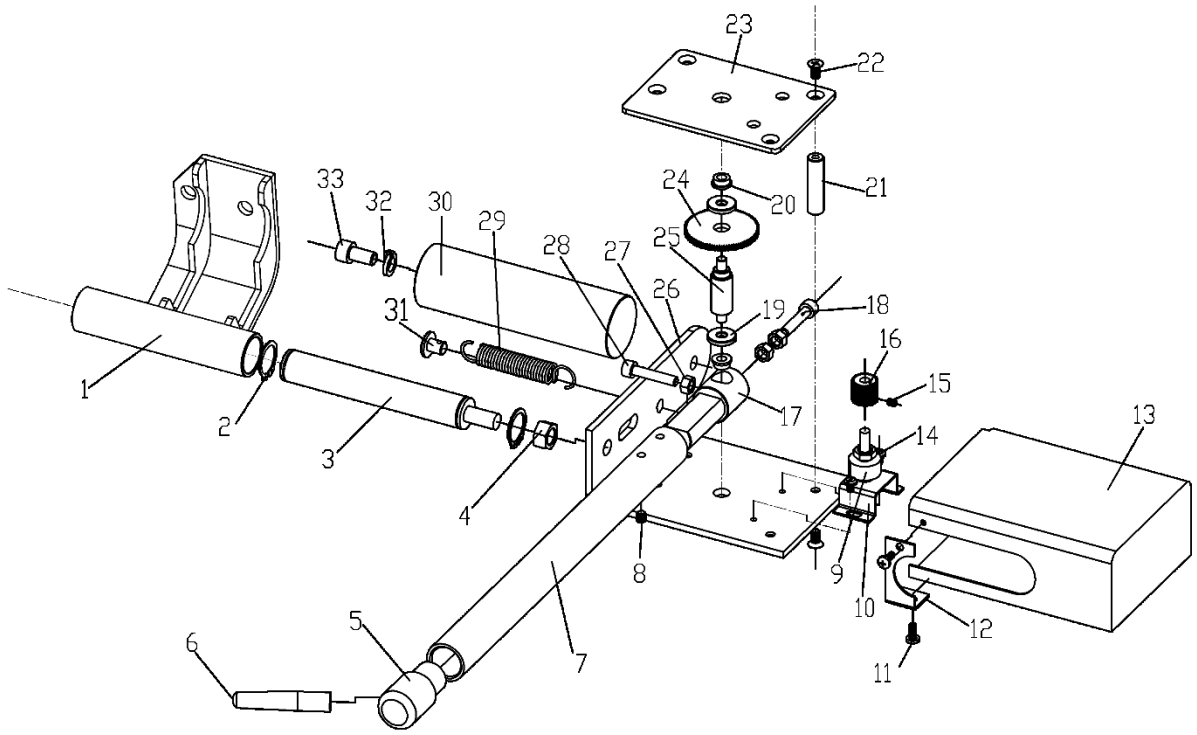
	16.05.17	wheel cover		1-1
No.	Part No.	Name	Specification	QTY
1	020602029	wheel cover	2-teilig	2
2	030201364	screw	GB/T 818-2000; M5x12	2
3	05020050035	cover support	FHZ-D-01	1
4	030201082	screw	GB/T 70.1-2000; M10x20	1
5	030501006	washer	GB/T 95-2002; 10	3
6	030201336	screw	GB/T 818-2000; M4x12	1
7	020601049	clips		1
8	030201092	screw	GB/T 70.1-2000; M10x70	2
9	030502006	washer	GB/T 93-1987; 10	2
10	030301003	nut	GB/T 41-2000; M10	2
11	020601196	handle		1
12	030201063	screw	GB/T 70.1-2000; M8x20	2
13	05020050031	cover plate	FHZ-D-08	1
14	030201335	screw	GB/T 818-2000; M4x12	2

Internal gauge



	16.08.20	internal gauge		1-1
No.	Part No.	Name	Specification	QTY
1	020801005	gauge paste		2
2	020701005	gauge spring		1
3	05020040010	rod	977A-06-03	1
4	05020040008	washer	CLC-03-04	1
5	030604101	circlip for shaft	CLC—01	1
6	020602083	small gear	GB/T 894.2-86; 20	1
7	030204002	screw	CLC—06	1
8	021006025	Potentiometer (multi-circle)	GB/T845-1985; ST2.9x9.5	1
9	05020040036	sliding block	728R10KL.25	1
10	021006024	Potentiometer (single-circle)	CLC—22	1
11	05020040038	gauge plate	CPP22A1S20B103	1
12	030201443	screw	CLC—24	2
13	030501004	washer	GB/T819.1-2000; M6x20	6
14	030502004	washer	GB/T 95-2002; 6	6
15	030301011	nut	GB/T 93-1987; 6	6
16	030202011	screw	GB/T 41-2000; M6	1
17	030201043	screw	GB/T 77-2000; M4x4	2
18	020601140	gauge bar	GB/T70.1-2000; M6x16	1
19	05020040032	gauge support	CLC—02	1
20	030204001	screw	CLC—20	5
21	05020040018	block	GB/T845-1985; ST2.9x6.5	1
22	05020040024	washer	CLC—11	1
23	030201444	screw	CLC—12	2
24	030818001	bushing	GB/T819.1-2000; M6x40	2
25	05020140002	nut	JH1-B2010	2
26	05020140001	nut cover	CBY—NLC—22	1
27	030201043	screw	CBY—NLC—21	1
28	030501004	washer	GB/T70.1-2000; M6x16	1
29	020601076	fixed shaft for gauge head	GB/T 95-2002; 6	1
30	020602040	cover for putting weight		1
31	030501007	washer		1
32	020601069	fixed shaft cover for gauge head	GB/T 95-2002; 12	1
33	020701005	gauge head spring		1
34	020601104	gauge head rod		1
35	030204100	screw		1
36	05020040037	plate	GB/T845-1985; ST4.9x32	1
37	030501002	washer	CLC—23	1
38	030502002	washer	GB/T 95-2002; 4	1
39	030201334	screw	GB/T 93-1987; 4	1

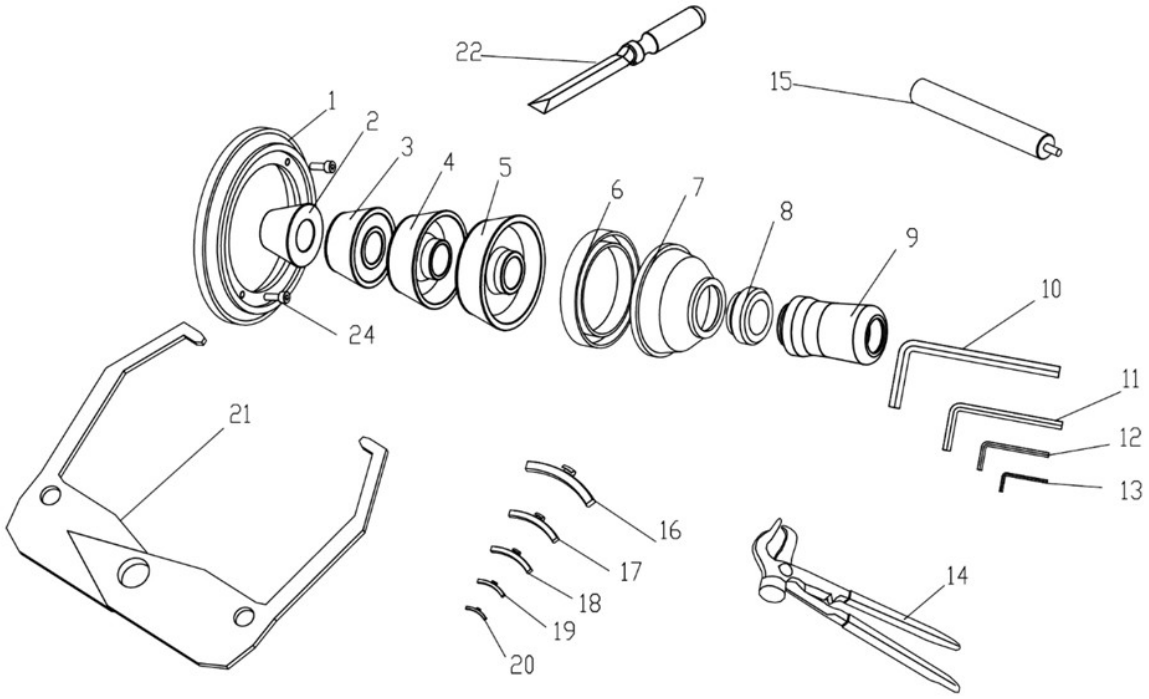
External gauge



	14.03.18	external gauge		1-1
No.	Part No.	Name	Specification	QTY
1	05020100017	support	CBY-WLC-05	1
2	030604013	circlip	GB 894.1-86; 20	2
3	05020100028	shaft	CBY-WLC-16	1
4	030301107	nut	GB/T 6170-2000; M10	1
5	05020140009	searching unit support	CBY-WLC-07	1
6	05020140008	searching unit	CBY-WLC-06	1
7	05020140011	searching unit rod	CBY-WLC-09	1
8	030202001	screw	GB/T 77-2000; M6x6	4
9	020404005	potentiometer	CPP22A1S20B103	1
10	05020140006	potentiometer support	CBY-WLC-04	1
11	030201334	screw M4X10	GB/T 818-2000	3
12	05020140005	outer cover plate	CBY-WLC-03	1
13	05020140012	outer cover	CBY-WLC-10	1
14	030201332	screw M4X6	GB/T 818-2000	2
15	030202012	screwM4X5	GB/T 77-2000	1
16	05020100032	small cylinder gear 90	WLC-00-02-03	1
17	05020140010	connection	CBY-WLC-08	1
18	030201046	screw	GB/T 70.1-2000; M6x30	1
19	05020140014	spindle washer	CBY-WLC-12	2
20	05020140013	bearing	CBY-WLC-11	2
21	05020140020	support	CBY-WLC-18	4
22	030201363	screw M5X10	GB/T 818-2000	8
23	05020140004	upper cover plate	CBY-WLC-02	1
24	05020140017	big pulley	CBY-WLC-14-02	1

25	05020140016	center shaft	CBY-WLC-14-01	1
26	05020140003	lower cover plate	CBY-WLC-01	1
27	030301105	nut M6	GB/T 6170-2000	3
28	030201046	screw M6X30	GB/T 70.1-2000	1
29	05020140021	tension spring	CBY-NLC-22	1
30	05020140019	balancing weight	CBY-WLC-17	1
31	05020140015	spring hang	CBY-WLC-13	1
32	030502006	washer10	GB/T 93-1987	1
33	030201062	screw M8X16	GB/T 70.1-2000	1

Accessories



16.08.20		Accessories		1-1
No.	Part No.	Name	Specification	QTY
1	05020010001	grail	DLCB70-07-04	1
2	05020010016	cone	DLCB1288-07-02	1
3	05020010037	cone2	1530-07-02	1
4	05020010038	cone3	1530-07-03	1
5	05020010039	cone4	1530-07-04	1
6	020101001	bowl rubber		1
7	020601001	bowl		1
8	020601002	small bowl		1
9	05020010041	lock sleeve	DLCB977A—08—05	1
10	022102001	wrench	12mm	1
11	022102002	wrench	6mm	1
12	022102003	Wrench	4mm	1
13	022102004	Wrench	3mm	1
14	022102005	hammer		1
15	05020100003	tool for outer gauge calibration	CBY-WLC-21	1
16	022102006	weight	100g	1
17	022102010	weight	50g	1
18	022102011	weight	35g	1
19	022102013	weight	10g	1
20	022102027	weight	5g	1
21	020601004	calliper		1
22	020601105	weight shovel		1
24	030201063	screw	GB/T 70.1-2000; M8x20	2

NOTES

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