

# Weber

**EXPERTSERIE**

## Original operating instructions

Weber wheel balancer model:  
Precision 3D Sonar III



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The information contained in these operating instructions has been carefully checked, but errors cannot be completely ruled out. These instructions are intended for users with technical knowledge in the field of vehicle inspection and repair. We reserve the right to make technical and content-related changes.

**All images shown may be examples. Colour deviations possible!**

## 1 Security

### 1.1 Introduction

The installation and operating instructions are an integral part of a wheel balancer.

An expert is someone who has sufficient knowledge in the field of tyre technology based on their professional training and experience and is familiar with the relevant national regulations, accident prevention regulations and generally recognised rules of technology:

z. e.g. BG regulations, DIN standards, VDE regulations, technical regulations of other member states of the European Union.

No liability is accepted for personal injury, damage to the wheel and to the wheel balancer caused by failure to observe these operating instructions.

The following safety instructions warn of dangers and are intended to help prevent personal injury and damage to property. For your own safety, compliance with the safety instructions in this operating manual is absolutely essential. In addition, the applicable national and international safety regulations of the competent authorities for occupational safety and accident prevention must be observed. Each operator is responsible for compliance with these regulations.

### 1.2 Safety instructions for commissioning

The wheel balancer Präzision-3D-Sonar III is approved for installation and use in dry rooms. Installation in damp, wet or potentially explosive atmospheres is not permitted.

The operator is responsible for selecting the installation site, the ground conditions, the load-bearing capacity of suspended ceilings, etc. It must be ensured by testing or architect's specifications that the ground conditions meet the requirements or that foundations are laid that fulfil the requirements.

The mains connection on site may only be carried out by authorised electrical contractors. National must be observed.

### 1.3 Safety regulations for operation

The operating instructions must be accessible and must be observed by every user. The statutory accident prevention regulations must be observed. Statutory provisions and regulations take precedence over the operating instructions.

The wheel balancer may only be operated by authorised and instructed persons who have reached the age of 18. To prevent unauthorised use, the wheel balancer has a lockable main switch.

Please read all safety regulations and technical instructions for this machine before setting up, connecting and operating the machine.

The machine was manufactured in compliance with ISO 9000 regulations. The design takes into account the requirements for outstanding quality and user-friendly utilisation.

The operating instructions contain all relevant data on the machine. Keep the operating instructions in a safe place for future reference.

The wheel balancer must not be set up in extremely hot or cold environments. Avoid setting up the machine too close to radiators, gas and water taps, humidifiers, air conditioning systems or other risky devices.

The wheel balancer should not be permanently exposed to direct sunlight.

Prevent liquids from entering the display. Do not place any liquid containers on the weight compartments or in the immediate vicinity of the display.

The machine should not come into contact with corrosive liquids or other substances that could damage the surface.

The appliance must be installed on a level, load-bearing surface. Ensure that vibrations of the floor caused by other devices or influences are excluded. The machine must be secured to the floor.

Only properly instructed and qualified personnel may be authorised to use this machine.

All modification and conversion work on the machine not authorised by the manufacturer can lead to considerable damage to property and personal injury. The manufacturer / supplier accepts no liability for this.

#### **Notes**

This machine may only be used for the purpose for which it was designed by the manufacturer. Any other use is not permitted.

Unauthorised interventions or modifications to the machine are not permitted.

The correct function of the safety devices must be checked regularly. Safety devices must not be put out of operation or their function manipulated in any other way. The wheel balancer must not be used if there are any irregularities in the safety devices.

Weber GmbH accepts no liability for damage caused by improper operation and improper use.

The main switch is also an emergency stop switch and must be switched off in dangerous situations.

### **1.4 Safety instructions for service work**

Maintenance and repair work may only be carried out by authorised service technicians of the contractual partners of Weber GmbH.

Before carrying out maintenance and repair work, the wheel balancer must be disconnected from the power supply (main switch off, fuse off). Suitable measures must be taken to prevent it from being switched on again.

Work on the electrical part of the wheel balancer or on the supply cable may only be carried out by authorised experts or electricians.

### **1.5 Safety devices on the wheel balancer**

**Emergency stop:** The main switch also fulfils the function "EMERGENCY STOP". Furthermore, pressing the "STOP" button immediately interrupts the balancing process in an EMERGENCY and the wheel is braked. The "STOP" button may only be pressed during the balancing process in an EMERGENCY.

**Wheel guard arch:** The wheel protection arch made of impact-resistant plastic prevents stones, balancing weights or other materials from flying off the wheel/tyre. The wheel protection arch must always be folded down for your own safety.

**Wheel arch guard switch:** A microswitch on the wheel arch guard prevents the balancing machine from starting without the wheel arch guard folded down.

#### **Attention:**

**All safety instructions must be strictly adhered to before and during commissioning of the machine. Technicians or other authorised persons must be thoroughly trained before using the machine. The safety instructions must be signed by every authorised person**

### 1.6 Meaning of the stickers



Wear protective gloves



Read operating instructions



Wear safety goggles



Switch off the machine's power source during maintenance work



#### **WARNING of rotating machine parts**

This sticker, which is located next to the balancing shaft, reminds the user that it is a rotating part and therefore represents a hazard.



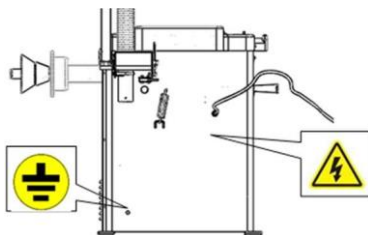
#### **Earthing symbol**

This sticker is located on the rear left-hand side of the machine and indicates where the earthing cable should be connected.



#### **Lightning symbol**

This sticker on the back of the machine indicates where the power supply cable should be connected.



Positioning the stickers on the back of the machine.



This symbol indicates that this machine model has received the CE certificate.



## 1.7 Safety devices on the wheel balancer

- Main switch:** The main switch de-energises the machine and stops the balancing process.
- Wheel guard arch:** The wheel protection arch made of impact-resistant plastic prevents stones, balancing weights or other materials from flying off the wheel/tyre. The wheel protection arch must always be folded down for your own safety.
- Wheel arch guard switch:** A microswitch on the wheel arch guard prevents the balancing machine from starting without the wheel arch guard folded down.

### Attention:

All safety instructions must be strictly adhered to before and during commissioning of the machine. Technicians or other authorised persons must be thoroughly trained before using the machine. The safety instructions must be signed by every authorised person.

## 1.8 Operating instructions

<b>1st area of application</b>	
These operating instructions apply to working with wheel balancers.	
<b>2. hazards for humans and the environment</b>	
	<ul style="list-style-type: none"> <li>- Risk of injury due to rotating wheel</li> <li>- Risk of crushing due to the protective arch or clamping mechanism</li> <li>- Risk of tearing due to sharp edges on rims or protruding wires on tyres</li> </ul>
<b>3. protective measures and rules of behaviour</b>	
	<ul style="list-style-type: none"> <li>- Independent operation only if the person is at least 18 years old, has been instructed, has proven their qualification and has been authorised by the contractor.</li> <li>- If more than one person is working, a supervisor must be appointed.</li> <li>- Always use proper and appropriate work equipment and tools.</li> <li>- Wear suitable protective clothing or protective equipment (e.g. safety goggles, hearing protection, safety shoes, etc.).</li> <li>- Only use as intended in accordance with the operating instructions.</li> <li>- Always use the protective arch provided and only work on the wheel when it is completely stationary.</li> <li>- Take precautions against traffic hazards (e.g. barriers, safety posts)</li> <li>- Pay attention to all moving parts when operating the tyre balancer.</li> <li>- Do not endanger other persons during any movements of the balancing machine.</li> <li>- Do not stand within the movement range of the balancing machine</li> <li>- Make sure you are far enough away so that you cannot be detected.</li> <li>- Always ensure that the wheel to be balanced is firmly clamped to the machine.</li> </ul>
<b>4. behaviour in the event of malfunctions</b>	
	<ul style="list-style-type: none"> <li>- Stop operation immediately in the event of recognisable hazards. Secure the balancing machine against further use.</li> <li>- Report any defects found to the supervisor.</li> <li>- Only rectify faults when the appliance is at a standstill (de-energised) or call in qualified personnel.</li> </ul>
<b>5. behaviour in the event of accidents / first aid</b>	
	<ul style="list-style-type: none"> <li>- Keep calm</li> <li>- Call in first aiders</li> <li>- Emergency call: _____</li> <li>- Report an accident</li> </ul>
<b>6. maintenance</b>	
	<ul style="list-style-type: none"> <li>- Repairs may only be carried out by authorised specialists or specialist companies</li> </ul>

## 2 Technical Manual

### 2.1 Scope of delivery

The wheel balancer is supplied as standard:

1	Wheel balancer
1	Wheel guard arch
4	Balancing cones
1	Quick-release nut
1	Aluminium rim attachment for quick-release nut
1	Weight tongs
1	Calibration weight 100 g
1	Rim width gauge
1	Balancing shaft Ø 40 mm
1	Small parts set
1	Operating instructions

#### Optionally available



**STM100**  
Balancing  
machine starter  
pack



Motorbike balancer shaft

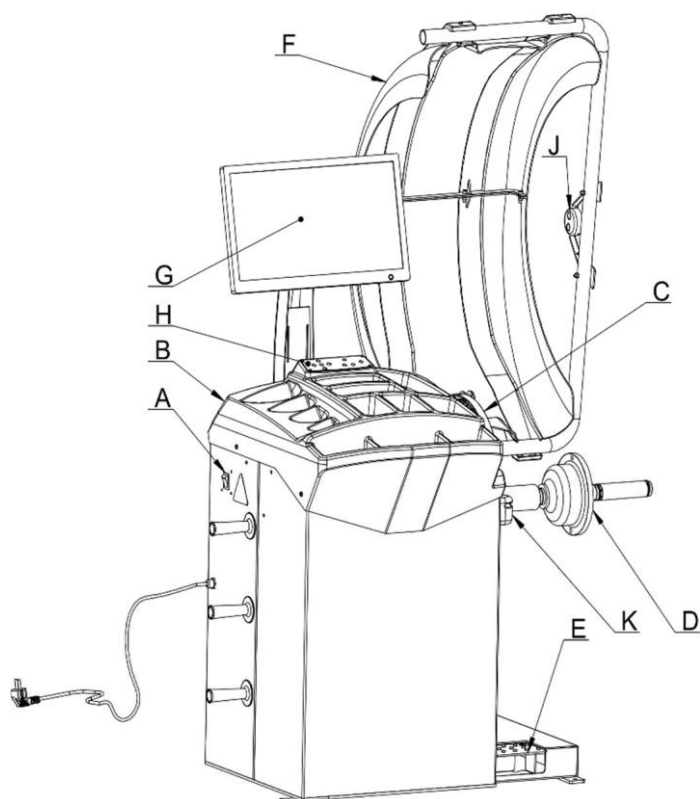
To simplify the operator's work, the wheel balancer can be equipped or used with accessories. Only original accessories from the manufacturer should be used.

### 2.2 Technical Data

Rim width	1.5 - 17 inch
Rim diameter	10 - 24 inch
Wheel diameter	1000 mm
Wheel weight max.	65 kg
Balancing speed	200 rpm.
Balancing time	approx. 7 sec.
Engine power	0.2 kW
Electrical connection	230 V / 1 Ph / 50 Hz
Accuracy	± 1 g
Noise level	≤ 70 dB
Working temperature	5 - 50 °C
Dead weight	approx. 100 kg
Dimension	1400 x 1000 x 1650 mm

**Note:** Specifications are subject to change without notice.

### 2.3 Description of the wheel balancer



No.	Article	Standard/Optional
A	Main switch	S
B	Weighted compartments	S
C	Measuring rod A/D	S
D	Balancing shaft	S
E	Brake pedal	O
F	Wheel guard arch	S
G	Monitor	S
H	Keyboard	S
J	Ultrasonic sensor	S
K	Laser	S

## 2.4 EU Declaration of Conformity

We

Weber GmbH  
Sülzbach 1  
37293 Herleshausen

hereby declare that the machine designated below, by virtue of its design and construction and in the version placed on the market by us, complies with the relevant essential health and safety requirements of the following EC Directive(s) as amended.

**This declaration loses its validity in the event of improper use, as well as in the event of assembly, conversion or modifications not agreed with us.**

**Designation:**

Wheel balancer

**Model:**

PRÄZISION-3D-Sonar III

**Serial number:****Relevant EC Directive:**2006/42/EC Machinery Directive  
2014/35/EU Low Voltage Directive  
2011/65/EU RoHS Directive**Applied harmonised standards  
In particular:**EN ISO 12100:2012P - EN 61000-6-3:2008P -  
EN 61000-6-4:2008P - EN ISO 13857:2010P -  
EN 349+A1:2010P - EN 60204-1:2010P -  
EN IEC 60825-12:2019-07 - EN 61293:2000P -  
EN ISO 11201:2012P - EN ISO 11202:2012P -  
EN ISO 4871:2012P - EN 50581:2013-03 -  
EN 50419:2008P - EN 61190-3:2008E - EN 61760-1:2006E

This EC Declaration of Conformity shall be kept by the manufacturer of the product for 10 years from the date of manufacture of the last appliance and shall be available for inspection by the market surveillance authorities.

**Authorised person to compile the technical documents: Andreas Weber (address as above)**

Herleshausen, April 2024

Place/Date



Andreas Weber / Managing Director

### 3 Preparation of the wheel balancer

#### 3.1 Foreword



The operating instructions must be read and followed exactly before removing from the packaging. Failure to do so will result in exclusion of liability and warranty. Please note that incorrect installation can result in danger to life and limb. Weber GmbH accepts no liability, guarantee or warranty for products and parts thereof destroyed by improper installation or handling. Please refer to the sheet "Initial commissioning by an expert" (chapter 9 - page 31).

#### 3.2 Unpacking

Unpack the appliance using the appropriate tools. Pay particular attention to the sensitive machine parts such as the display, cover and balancing shaft.



**Lifting the machine by the balancing shaft can cause damage to the sensors. The supplier / manufacturer accepts no liability for any resulting defects.**

Carefully unpack the machine and check that it is in perfect condition and that no parts are damaged or missing.

#### Notes on the disposal of packaging material!

Packaging materials must be reused or disposed of properly in accordance with the country-specific regulations.

#### 3.3 Set up

When setting up the machine, that the applicable safety regulations are observed. A clearance of 60 cm should be maintained between the machine and neighbouring walls / surfaces. The space required must be adapted to the local conditions after fitting the wheel guard arch and screwing in the balancing shaft.

**Avoid moving the machine on the wheel guard. This can lead to damage to the bearing of the protective device or the switching mechanism.**

#### 3.4 Choice of location

The wheel balancer is approved for installation in closed, dry workshop areas. Use in damp, wet or potentially explosive atmospheres is not permitted.

#### 3.5 Floor condition / Installation area

The wheel balancer must be set up on a sufficiently firm floor that can withstand the force exerted on the floor support surface. The support surface must level. The operator is responsible for selecting the correct installation location and ensuring the load-bearing capacity of the floor. The concrete quality must be C20/25.



**CAUTION:** Floors that do not fulfil the requirements can cause serious damage to property and persons.

**Use anchors that fit into the fixing holes provided on the machine to ensure proper anchoring to the floor. Use one of the following heavy-duty anchors for fastening: Fischer Bolt anchor FBN II 10/30 Fischer**

If the unevenness of the floor is more than 0.25%, shims of sufficient size can be used as levelling material.

**For proper operation, it is essential to anchor the wheel balancer in the foundation.**

## 4 Assembly of the wheel balancer

### 4.1 Mounting the balancing shaft

Screw the balancing shaft [1] into the flange [3] of the wheel holder using the hexagon socket screw [2]. Now use a hexagon socket spanner to tighten the screw of the balancing shaft to the flange of the wheel holder (Fig. 2). Check all screws for tightness and retighten the screws if necessary.

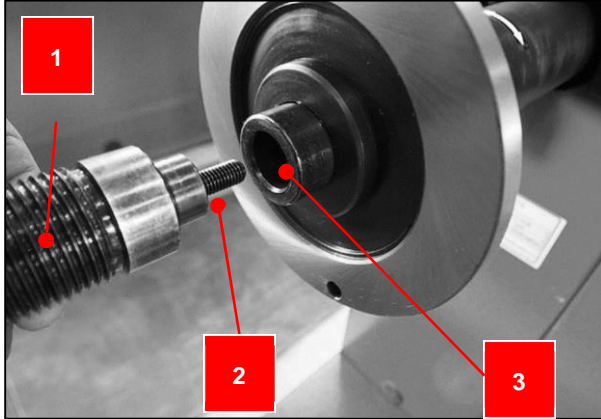


Fig. 1



Fig. 2

### 4.2 Fitting the wheel arch protector

Pull the cable for the contact switch through the connecting flange for the wheel guard (Fig. 1) and connect it to the switch. Now screw the connecting flange to the machine using the 3 screws from the small parts set.

Screw the wheel arch together in the centre (Fig. 2) and slide it onto the corresponding frame. Fasten the wheel arch guard to the frame with the 2 screws.

Slide the wheel arch with the frame onto the connecting flange and mount it using the screw supplied.

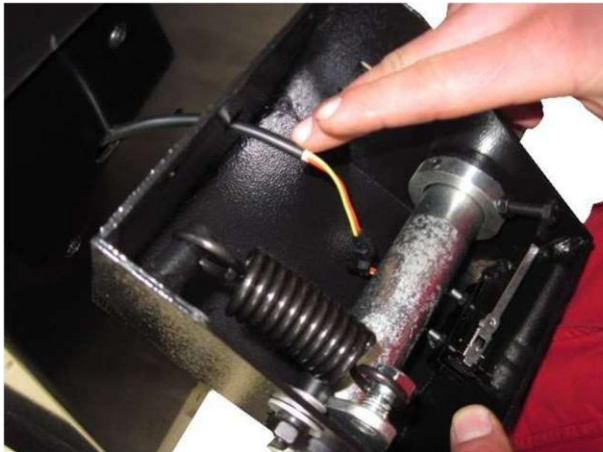


Fig. 1



Fig. 2



***For your own safety, the wheel guard must always be folded down during the balancing process.***

### 4.3 Mounting the display

1. Remove the display and accessories from the packaging.
2. Carefully mount the display on the holder of the machine as shown in the figure below (Fig. M1).
3. Connect the VGA cable to the display and the machine (Fig. M2).
4. the power cable to the monitor and the power socket.



Fig. M1



Fig. M2

### 4.4 Electrical connection

The balancing machine is designed as standard for connection to a 230 V/50 Hz socket.

The machine is equipped as standard with a CE-certified connection plug. The circuit for the required socket outlet must be fused separately.

Any further electrical connection and reconnection work may only be carried out by a qualified electrician in accordance with the regulations of the VDE and/or the responsible energy supply company. All applicable CE or DIN regulations must be complied with.

## 5 Mounting and dismounting the wheel

### 5.1 Mounting the wheel

- When clamping and unclamping the wheel, the rim must be guided to the centring cone at an even distance without touching the balancing shaft, as shown in Fig. 8.
- Guide the quick-release nut up to the rim by actuating the mechanism. Do not operate the mechanism to tighten the quick-release nut.



Fig. 8 Mounting a car wheel in the bracket

### 5.2 Loosening the wheel

- Unscrew the quick-release nut until the rim is completely loosened, as shown the illustration, only then may the quick-release nut mechanism be actuated. Failure to observe this can result in damage to the quick-release nut and balancing shaft.
- When removing the wheel, make sure that you do not damage the thread of the balancing shaft. Proceed as shown in Fig. 8.



Fig. 9 Removing the wheel from the bracket.

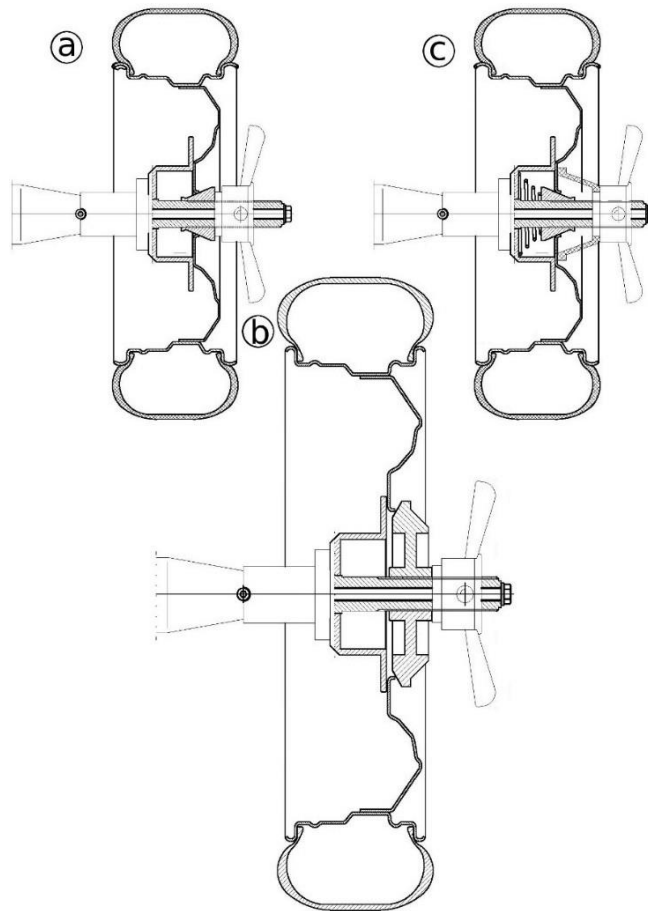


Fig. 11 Different ways mounting wheels for different cones and their configurations.

## 6 Operating the machine

### 6.1 Control panel



Icon	Function	Icon	Function
	Entering the rim data		Selection of "ALU" modes
	Add button to value		Stop/cancel/brake
	Button to value reduction		Start
	Accurate unbalance display in grams		Setting

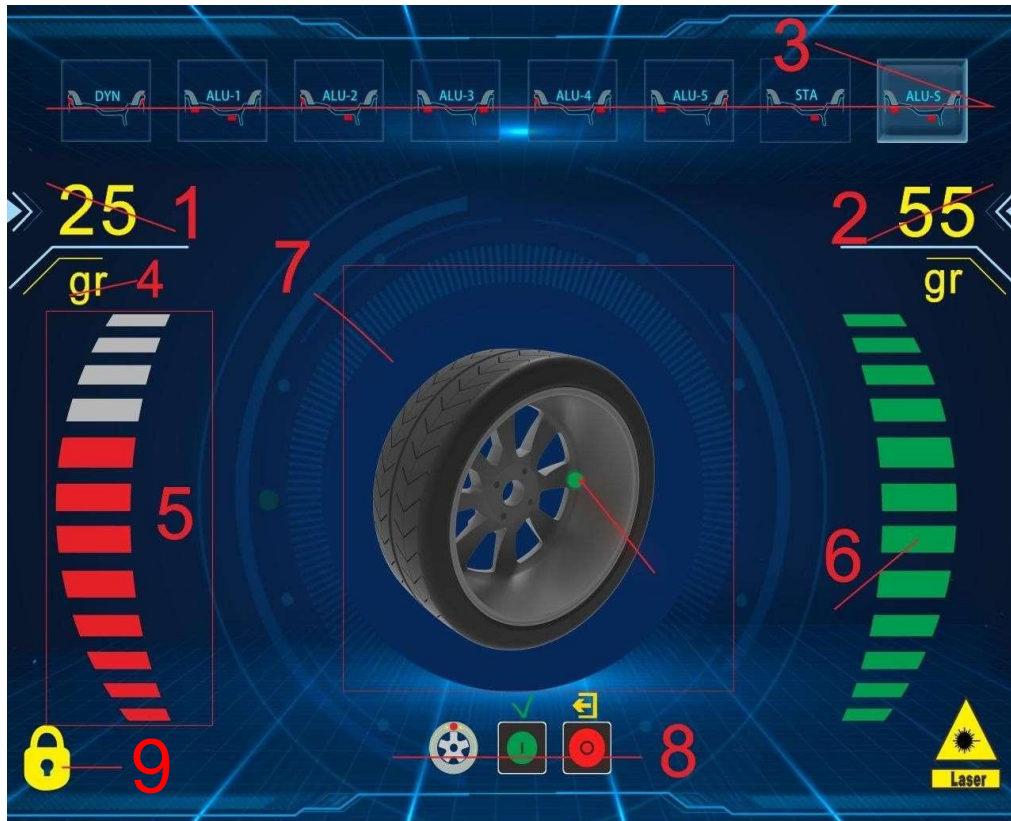
#### Function of the key combination

Icon	Function	Icon	Function
	Inch / mm conversion		Weight Self-calibration

#### Special functions (e.g. assembly)










Icon	Function	Icon	Function
	Automatic brake switch for loading and unloading tyres		Search for unbalance values

6.2 Screen




1. Internal amount of unbalance
2. External amount of unbalance
3. Equalisation mode
4. Unit of weight
5. Internal unbalance position indicator
6. Display of the external unbalance position
7. Unbalance position
8. Function keys for selection
9. Automatic lock





**6.3 Balancing programmes:**

Inside position	Symbol	Outside position	Equalisation mode	Operation	Add weights
12 Clock		12 Clock	Standard	<ol style="list-style-type: none"> <li>1. Switch on the machine</li> <li>2. Input a,b,d Value</li> <li>3. Start spin cycle, stop spin cycle</li> </ol>	Attachable weights on both sides of the wheel rim
9 Clock		9 Clock	ALU1	<ol style="list-style-type: none"> <li>1. Switch on the machine</li> <li>2. Input a,b,d Value</li> <li>3. Press ALU button, display lights up</li> <li>4. Start the spin cycle, after the Stop skidding</li> </ol>	Attach adhesive weights to the rim shoulder on both sides
12 Clock		9 Clock	ALU2	<ol style="list-style-type: none"> <li>1. Switch on the machine</li> <li>2. Input a,b,d Value</li> <li>3. Press ALU button, display lights up</li> <li>4. Start the spin cycle, after the Stop skidding</li> </ol>	Clip the weight onto the inner rim edge, attach the adhesive weight to the outer rim shoulder
9 Clock		12 Clock	ALU3	<ol style="list-style-type: none"> <li>1. Switch on the machine</li> <li>2. Input a,b,d Value</li> <li>3. Press ALU button, display lights up on</li> <li>4. Start spin cycle, stop spin cycle</li> </ol>	Attach adhesive weights to the rim shoulder on both sides
12 Clock		12 Clock	ALU4	<ol style="list-style-type: none"> <li>1. Switch on the machine</li> <li>2. Input a,b,d Value</li> <li>3. Press ALU button, display lights up</li> <li>4. Start spin cycle, stop spin cycle</li> </ol>	Clip the weight onto the inner rim edge, attach the adhesive weight to the outer rim shoulder
9 Clock		12 Clock	ALU5	<ol style="list-style-type: none"> <li>1. Switch on the machine</li> <li>2. Input a,b,d Value</li> <li>3. Press ALU button, display lights up</li> <li>4. Start the spin cycle, after the Stop skidding</li> </ol>	Attach adhesive weight to the inner rim shoulder, adhesive weight to the outer rim edge
12 Clock		12 Clock	Static mode	<ol style="list-style-type: none"> <li>1. Switch on the machine</li> <li>2. Input a,b,d Value</li> <li>3. Press the F button</li> <li>3) Spin start, stop after spinning</li> </ol>	Add adhesive weight
9 Clock		9 Clock	ALUS-1	<ol style="list-style-type: none"> <li>1. Switch on the machine</li> <li>2. Input aI,aE,d Value</li> <li>3. Start the spin cycle, after the Stop skidding</li> </ol>	Attach adhesive weights to the various positions on the measuring head
12 Clock		9 Clock	ALUS-2	<ol style="list-style-type: none"> <li>1. Switch on the machine</li> <li>2. Input aI,aE,d Value</li> <li>3. Start the spin cycle, after the Stop skidding</li> </ol>	Attach adhesive weights to the various positions on the measuring head

### 6.4 Change menu language

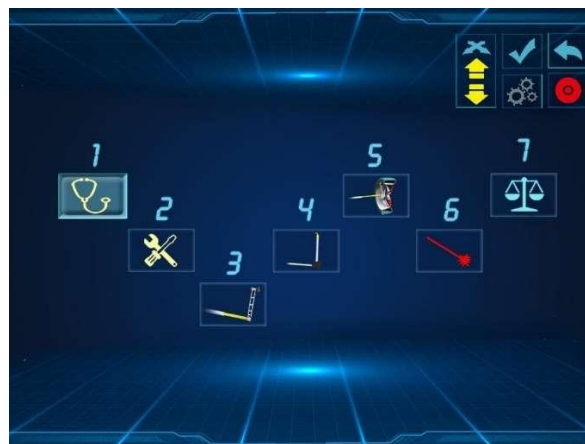
First press and hold the  button and then switch on the device to start it. until the device calls up the set-up page,

and then release the button after the red number 5 appears in the top left-hand corner of the screen.

No	Language	Process
000	Switch off language	
001	Mandarin	
002	English	
003	Russian	Press  and  to select,
004	Polish	
005	German	Press  to save, press  to exit.
006	Lithuanian	
007	Czech	
008	Portogisian	

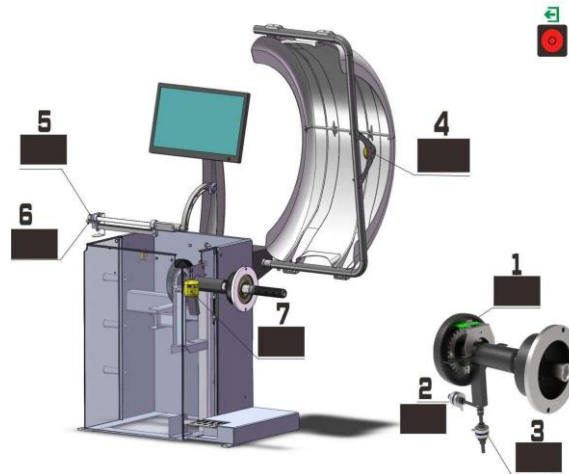
### 6.5 Machine setting and Self-calibration

Press  to set the machine, press  and  to change.  Confirming the input








## 6.6 Self-diagnosis

Press  for input <sup>2</sup> and <sup>3</sup> for selection.		Press <sup>8</sup> to enter.
---	--	------------------------------



















No	Function	Function normal
1	Rotation angle sensor for position recording	POS changes in 0-127
2	Pressure sensor	Press on the balancing shaft by hand the values change 4X-4X 6X-6X
3	Pressure sensor	Press on the balancing shaft by hand the values change 4X-4X 6X-6X
4	Ultrasonic sensor	
5	Diameter potentiometer	The values in the left display are between 327-340, if you turn the measuring arm in a different direction, the values change
6	Distance potentiometer	The values in the left display are between 327-340, if you pull out the measuring arm the values should change
7	Laser indicator	There is a digital angle change. Can you see if the display is rotating?






### 6.7 Settings menu (SETUP)






Press  for input.  and  for selection.  Press  to enter.



No.	Display	Function	Function normal
1	 	Unit of weight	 and  to the change,  to the Confirmation.
2	  	Threshold value displaying the unbalance	 and  to the change,  to the confirmation.
3	 	Wheel type operation	 and  to the change,  to the confirmation.






**6.8 Calibration of the measuring arm for the distance**



Press  for input.  <sup>2</sup> and  <sup>3</sup> for selection.		Press  to enter.
---	--	---

<p>1</p>		<p>Operation &gt;</p>	<p>Pull the measuring arm to position "0" and hold, confirm with .</p> 
<p>2</p>		<p>Operation &gt;</p>	<p>Pull and hold the measuring arm to position <b>15"</b>, confirm with .</p> 
		<p>Operation &gt;</p>	<p>Calibration completed.</p>

**6.9 Radar calibration of the ultrasonic sensor**

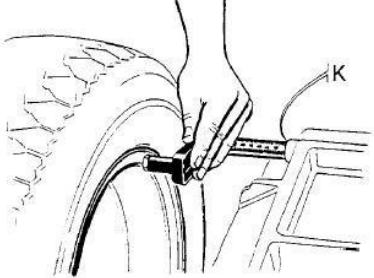
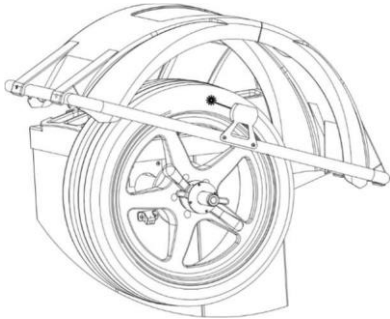




(no tyres need to be fitted)

<p>Press  for input.  and  for selection.</p>		<p>Press  to enter.</p>
--	--	--

<p>1</p>	 <p>Hold the sign in position</p>	<p>comes &gt;</p>	
<p>Calibration of the ultrasonic sensor completed</p>			






### 6.10 Radar calibration of the latitude measuring device








(one tyre must be tensioned, tyre width must be known)

1		<p>Explanation &gt;</p>	<p>The value must be read off.</p>
2		<p>Explanation &gt;</p>	<p>The laser must be aimed at the tyre.</p>
3		<p>Operation &gt;</p>	<p>Press simultaneously    ,  to change the known tyre width</p>

**6.11 Calibration of the diameter gauge**














(Tyres must be tensioned)

<p>Press  for input. <sup>2</sup> and <sup>3</sup> for selection.</p>		<p>Press  to enter</p>
--	--	---

<p>1</p>		<p>Explanation &gt;</p>	<p>Enter the diameters using <sup>2</sup> and <sup>3</sup> and then press the <sup>5</sup> button to confirm.</p>
<p>2</p>		<p>Explanation &gt;</p>	<p>Move the measuring arm so that it touches the edge of the rim and hold it still.</p> <p>Press the <sup>5</sup> button to confirm</p>
<p>3</p>		<p>Explanation &gt;</p>	<p>Calibration completed.</p>

## 6.12 Calibration of the laser

(if available)






	Press  to enter.  and  to select.		Press  to enter
1		Explanation >	Press the button to confirm. 
2		Explanation >	The laser is aligned using  and  .
3		Explanation >	Press the button to confirm. 
4		Operation >	Calibration completed.




### 6.13 Self-calibration




Switch on the balancing machine and fit a steel wheel (15 inch) on which impact weights can be mounted. Remove any impact weights already fitted from the wheel.

Now set the wheel parameters "a b d".

The 100g weight must be accurate and must not be damaged. Do not dispose of or use it for balancing. It is only required for calibration.

Press  for input.  and  for selection.		Press  to enter
---	--	--

1		Explanation >	Close the wheel guard arch
2		Explanation >	After the balancing process, open the wheel guard arch and attach a 100g weight to the rim at the outer 12 o'clock position. Shoot the wheel arch protector and press  .

<p>3</p>		<p>Explanation &gt;</p>	<p>After the balancing process, attach a 100g weight to the inner 12 o'clock position of the rim. Shoot the wheel arch protector and press .</p>
<p>4</p>		<p>Explanation &gt;</p>	<p>Calibration completed.</p>

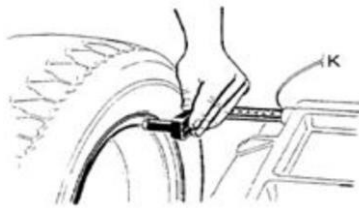
## 7 Balancing programmes

### 7.1 Standard (DYN)

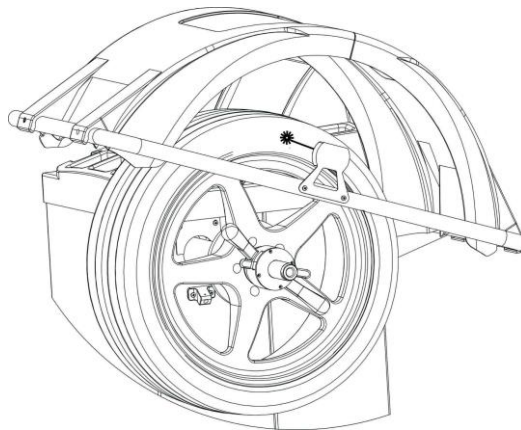
Switch on the machine and select the correct type of mounting depending on the wheel type.

- Set the "a" value: Move the measuring device to the measuring position as shown in the illustration and hold the measuring device in this for approx. 4 seconds. The value is saved and you can retract the measuring rod again.

Or press  and  and  to change the value.

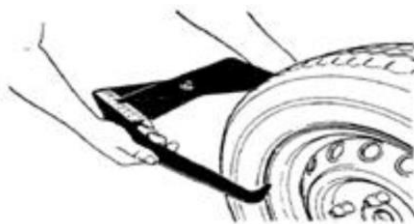


- Set the "b" value: The machine automatically measures the width of the wheel with the ultrasonic sensor while the cover is closed.






- set the nominal diameter "b" marked on the wheel or use the width gauge as shown in the illustration.

Or press  and  and  to change the value.




- Set the "d" value: The "d" value is measured at the same time as the "a" value in automatic mode.

Or press  and  and  to change the value.



- Close the wheel guard arch to start the balancing process.



Once the balancing process is complete, the unbalance value is shown on the display. Press  to display the exact value below the reference value.

Now slowly turn the wheel anti-clockwise until the right-hand LED lights up. Now place the displayed weight at the 12 o'clock position.

Now slowly turn the wheel anti-clockwise until the left-hand LED lights up. Now place the displayed weight at the 12 o'clock position.



After the weights have been attached, close the wheel arch again and carry out another measurement.


When the result displays 00 00, the balancing process is complete.

## 7.2 ALU-1 mode


(ALU-1, ALU2, ALU 3, ALU 4, ALU5, same procedure, only the position for adding the weights is different)

Set values "a" "d" "b"



- Press  until the ALU1 display lights up.
- Close the wheel guard arch to carry out a measurement.



- The unbalance values are on the display, press  to check the actual unbalance value below the threshold value.
- Slowly move the wheel anti-clockwise, the indicators with the right-hand LEDs light up fully and show the correct angular position in which the counterweights should be fitted, 9 o'clock position outside, add the counterweight.



- Move the wheel slowly anti-clockwise, the indicators with the left-hand LEDs light up fully and show the correct angle position where the counterweights must be fitted, 9 o'clock position inside, add the counterweight.



- Once the adhesive weight has been fitted, close the wheel guard arch and carry out a measurement. If the result is 00 00, the balancing process was successful.



### 7.3 ALU-S mode

This mode is used for special rims. If you cannot use ALU1/ALU2, you should select ALUS mode




Input ai, aE, d value

- Set "ai": Pull out the measuring head and leave in position FI for 4 sec.

Or press  and  and  to change the value.


- Set "ae": Pull out the measuring head and leave in position FI for 4 sec.

Or press  and  and  to change the value.

- Set "di": Read off the wheel and set using  and  and .

- Set "de": Read off the rim and set using  and  and .



- Close the wheel guard arch and start the balancing process at .

- Slowly turn the wheel anti-clockwise until the right-hand LED lights up fully. Now attach the weight to the outer 9 o'clock position.



- Slowly turn the wheel anti-clockwise until the left-hand LED lights up fully, then attach the weight to the inner 9 o'clock position.















- Once the counterweights have been fitted, close the wheel guard arch and carry out a measurement. If the result is 00 00, the balancing process was successful.








**7.4 ALUS split function**

**Note: This function can only be used in ALU-S mode. And the operator must be experienced.**

<p>1</p>		<p>In the case of ALU-S mode, press the </p>
<p>2</p>		<p>Enter the number of spokes via <sup>2</sup> and <sup>3</sup>, then press  e</p>
<p>3</p>		<p>Hold the next measuring point (in both directions) at the 12 o'clock position and press the </p>

<p>4</p>		<p>Slowly turn the wheel anti-clockwise by hand until the outer LED is fully illuminated, add adhesive weight</p>
<p>5</p>		<p>Turn the wheel slowly by hand anti-clockwise until the outer LED is fully illuminated, add adhesive weight</p>
<p>6</p>		<p>If you move the wheel slowly anti-clockwise, the left-hand side of the display shows the correct angular position in which the counterweights are to be fitted, the 9 o'clock position on the inside</p>
<p>7</p>		<p>Remove the protective device after the spin stop.</p>

**8 Troubleshooting:**








No.	Error	Reasons	Solution
1		<ol style="list-style-type: none"> <li>1. No turning</li> <li>2. Rotation is executed</li> </ol>	<ol style="list-style-type: none"> <li>1. Check or replace the power board</li> <li>2. Check or replace the position taker or the control board.</li> <li>3. Setting the position taker</li> </ol>
2		<ol style="list-style-type: none"> <li>1. Rim not tensioned or too loose.</li> <li>2. Position sensor</li> </ol>	<ol style="list-style-type: none"> <li>1. Clamping the rim</li> <li>2. Check or replace the position sensor.</li> </ol>
3		<ol style="list-style-type: none"> <li>1. Tyre pressure too low</li> <li>2. Severe deformation of the wheel</li> </ol>	<ol style="list-style-type: none"> <li>1. Correct tyre pressure to default values</li> <li>2. Checking the wheel</li> </ol>
4		<ol style="list-style-type: none"> <li>1. Failure of the position sensor</li> <li>2. Failure of the control board</li> </ol>	<ol style="list-style-type: none"> <li>1. Check or replace the position taker</li> <li>2. Check or replace the control board</li> </ol>
5		<ol style="list-style-type: none"> <li>1. Contact switch error</li> <li>2. Failure of the control board</li> </ol>	<ol style="list-style-type: none"> <li>1. Check or replace contact switch</li> <li>2. Check or replace the control board</li> </ol>





6		<ol style="list-style-type: none"> <li>1. Fault Main supply board</li> <li>2. Control board error</li> </ol>	<ol style="list-style-type: none"> <li>1. Check or replace the power board</li> <li>2. Check or replace the control board</li> </ol>
7		<ol style="list-style-type: none"> <li>1. Programme lost</li> <li>2. Failure of the control board</li> </ol>	<ol style="list-style-type: none"> <li>1. Recalibration of the machine</li> <li>2. Check or replace the control board</li> </ol>
8		<ol style="list-style-type: none"> <li>1. Did not add 100g during self-calibration</li> <li>2. Control board error</li> <li>3. Calibration of measuring arm</li> </ol>	<ol style="list-style-type: none"> <li>1. Recalibration of the machine</li> <li>2. Check or replace the control board</li> <li>3. Check or replace the power board</li> <li>4. Calibrate the measuring arm with the value 15.</li> </ol>
9		Emergency stop switch	Restart.
10		Data protection	<ol style="list-style-type: none"> <li>1. Activate contact seller</li> <li>2. Update data</li> </ol>

## 9 OPT function

**Note: If the unbalance value is too high, select OPT and the operator must be experienced.**

Install wheel, enter value a b d

1	Press + 	Explanation >	
2	Close the wheel arch protector and press 	Explanation >	
3	Using a tyre changer, turn the rim and tyre 180 degrees.	Hint >	
4	Close the wheel arch protector and press 	Explanation >	

<p>5</p>	<p>Turn the wheel until four indicators light up (two on both sides, the dark spot on the right-hand image), mark position C on the rubber with chalk</p>	<p>Hint &gt;</p>	
<p>6</p>	<p>Press  and . Turn the wheel until two indicators light up (one on both sides, the dark spot on right-hand image), mark position D on the rim with chalk.</p>	<p>Hint &gt;</p>	

## 10 Initial commissioning

### Attention

The fully completed proof of initial commissioning must be returned to the manufacturer in order to maintain the warranty claims

- Wheel balancer professionally unpacked and transported to the installation site.
- Operating instructions read and understood
- Wheel balancer set up and secured on a level floor
- Electrical connection properly established
- Wheel arch guard fitted
- Basic settings checked or changed
- Wheel balancer calibrated

No defects were found, so there are no objections to commissioning.

**ATTENTION: Please use the proof of initial commissioning prepared below. the manufacturer so that the WARRANTY CLAIMS are valid.**

Detach and send or fax to Weber GmbH, Sülzbach 1, 37293 Herleshausen, Germany, Fax +49 (0) 5654-794

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### PROOF OF INITIAL COMMISSIONING

Wheel balancer TYPE WEBER EXPERT Precision-3D-Sonar III, year of \_\_\_\_\_

Serial no. \_\_\_\_\_

Date of purchase: \_\_\_\_\_ Dealer address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Date: \_\_\_\_\_

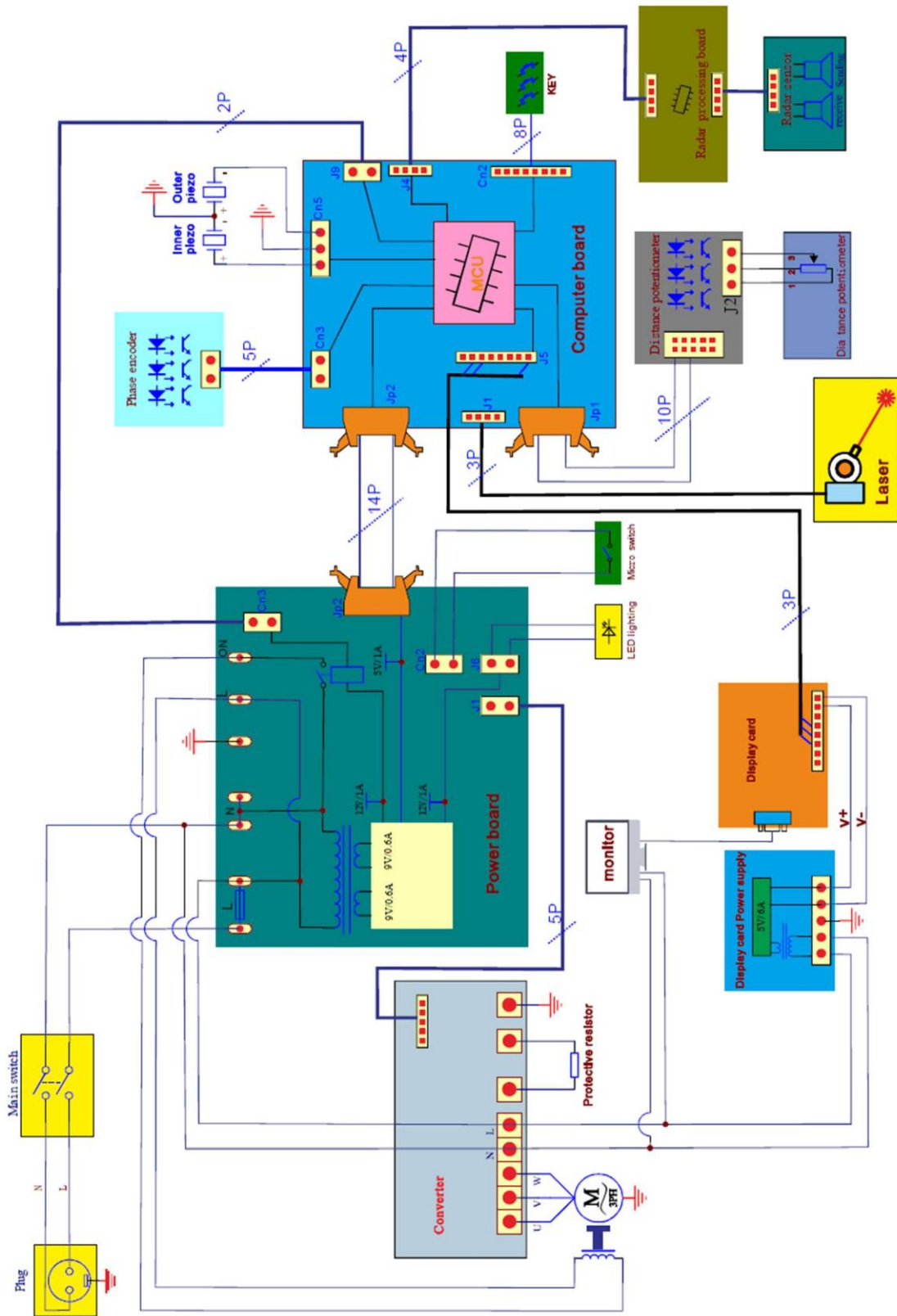
Signature: \_\_\_\_\_

Address of the operator

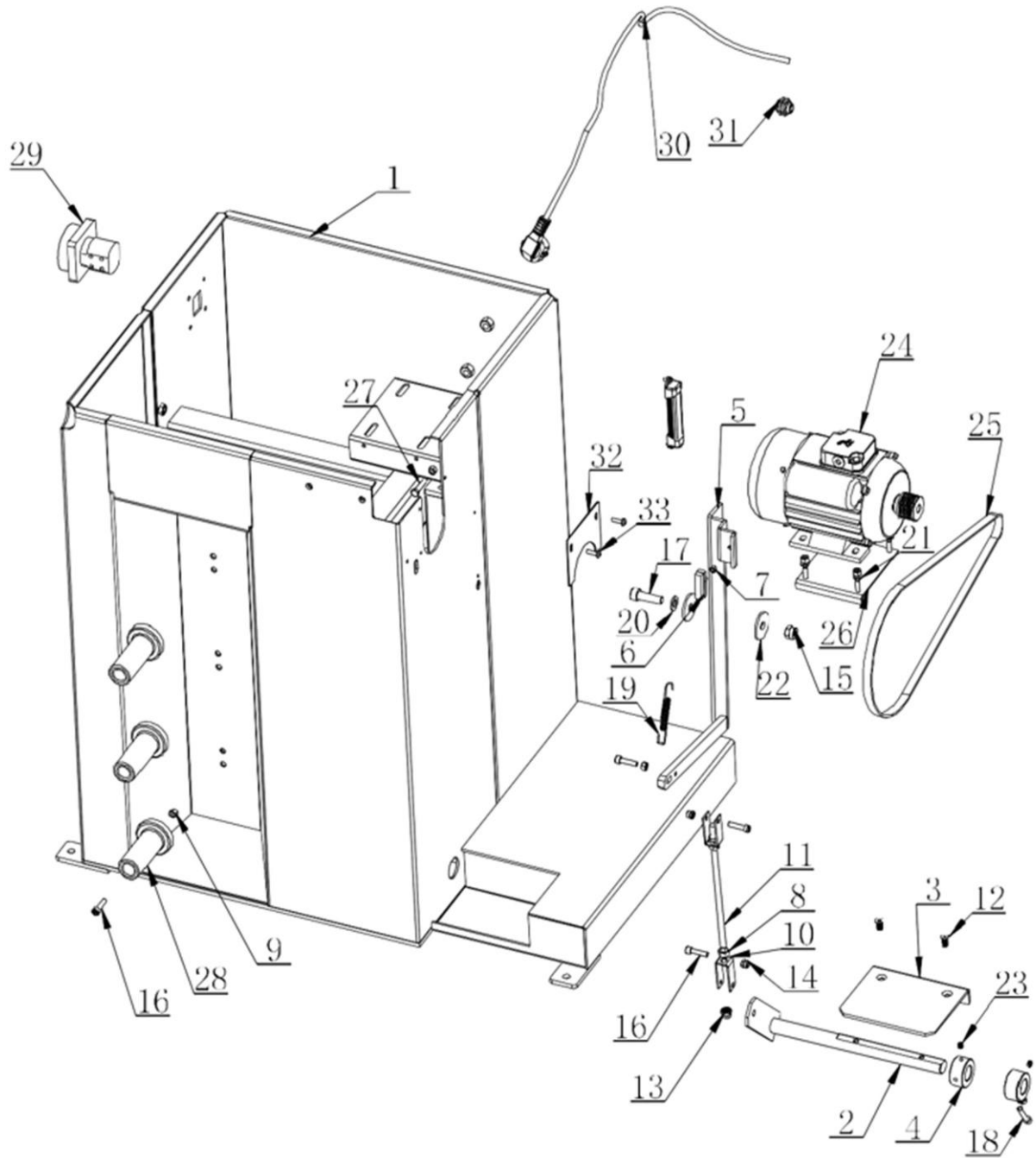
**By fax to: +49 (0) 5654-794**

Weber GmbH  
Sülzbach 1  
D-37293 Herleshausen

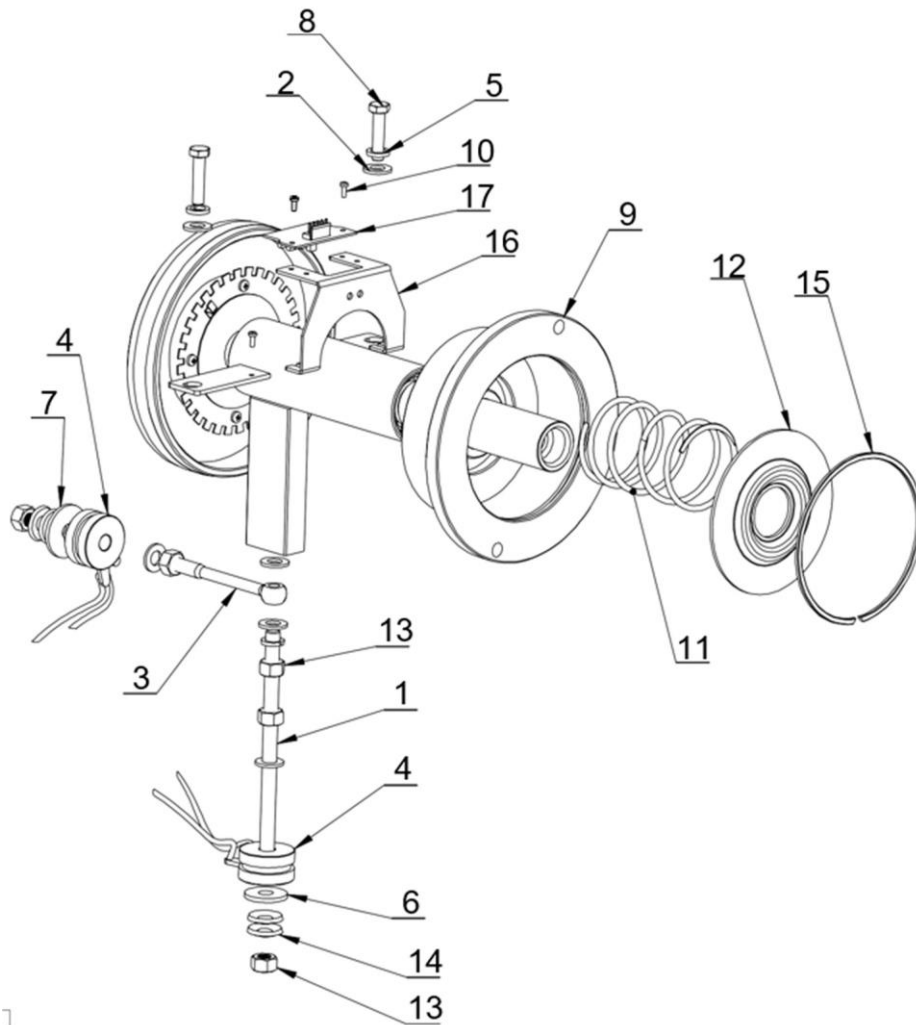
11 Electrical circuit diagram



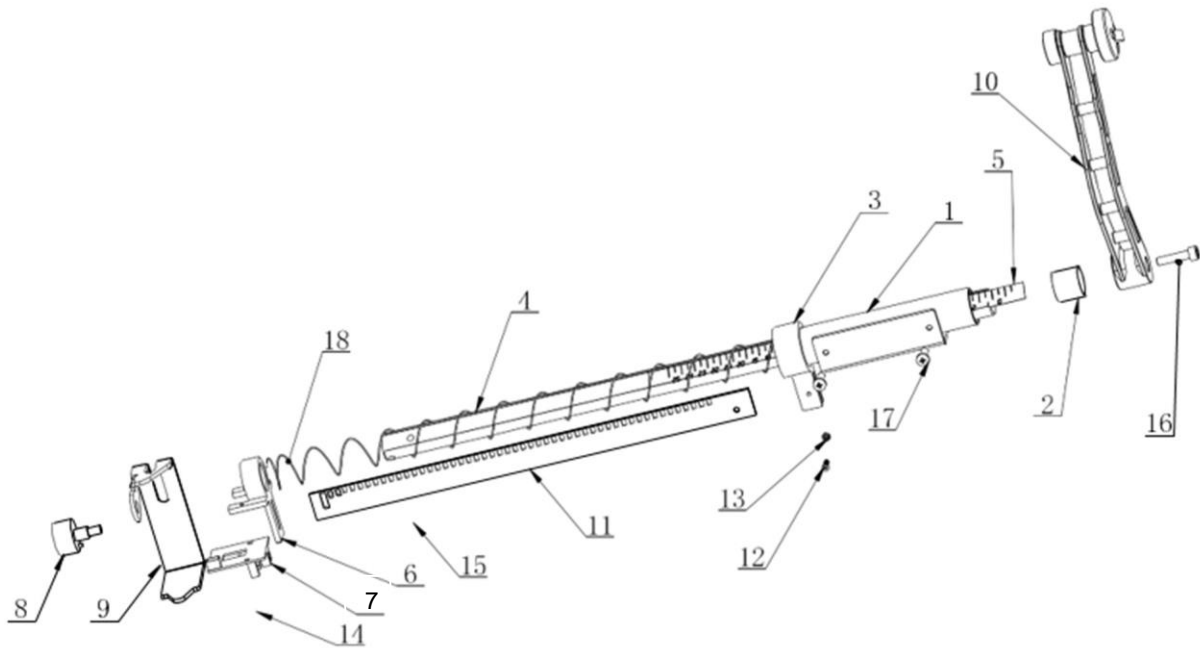
12 Spare parts list



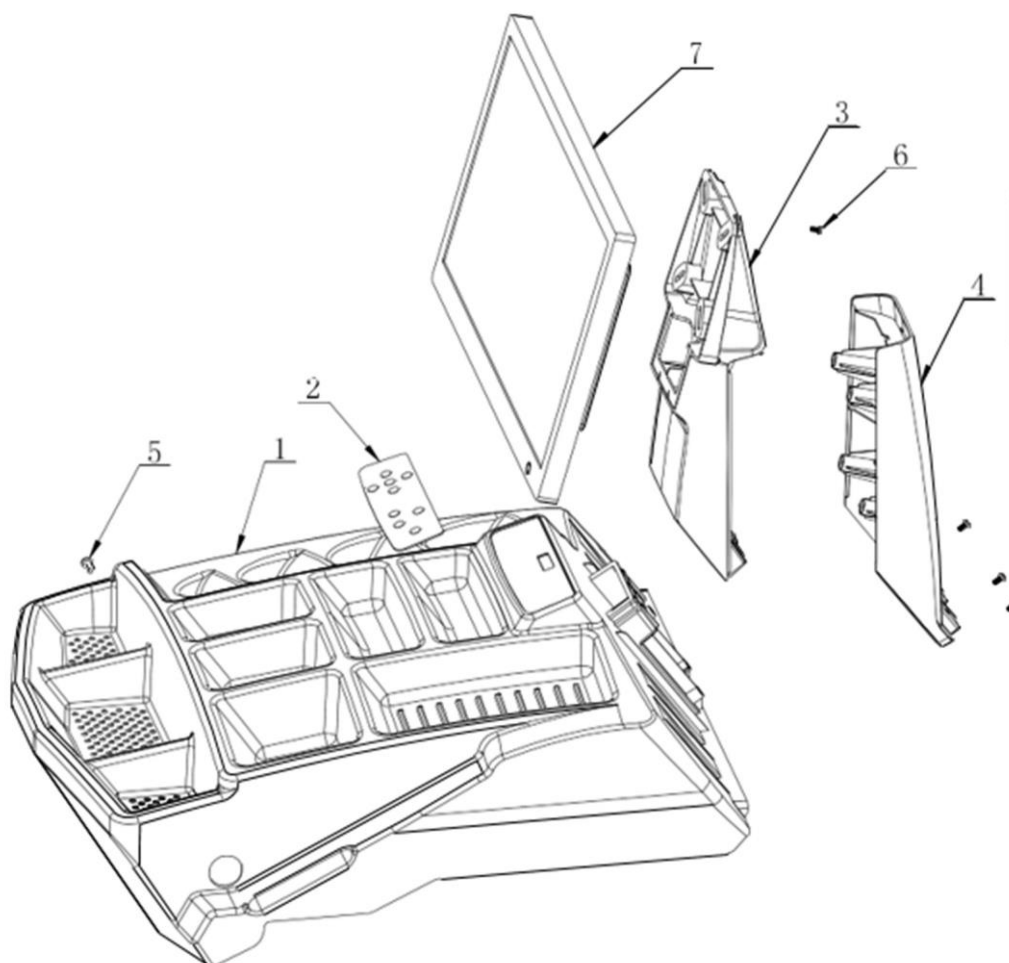
ARTICLE NO.	DESCRIPTION	ARTICLE NO.	Piece
1	Housing	2064814	1
2	Foot lever	2064939	1
3	Brake pedal	2064962	1
4	Brake ring	2064941	2
5	Brake lever	2064944	1
6	Brake pads	3005142	1
7	Hexagon nut /M4	6000341	1
8	Hexagon nut /M8	6000127	2
9	Hexagon nut /M6	6000309	11
10	Connection	2064942	2
11	Connecting rod	2065534	1
12	Screw GB2673 M6X12	6000417	2
13	Hexagon nut GB889 /M8	6000148	2
14	Hexagon nut GB41 /M6	6000233	2
15	Hexagon nut GB889 M10	6000143	1
16	M6X25 screw	6000294	6
17	Screw M10X60	6000289	1
18	M6X35 screw	6000207	1
19	Tension spring	2010701	1
20	Washer GB95/Φ10	6000134	1
21	WasherΦ6	6000138	4
22	Washer GB95/Φ38x10x3	2037401	2
23	Screw GB80 M6X12	6000230	2
24	Motor MY6324	4003004	1
25	Belt 370J5	6000493	1
26	Base plate	2034501	1
27	Screw GB70/M6X30	6000120	2
28	Bracket	2034301	3
29	Mains switch	4004394	1
30	Plug	4001901	1
31	Cable glands	4002201	1
32	Small side plate	2043601	1
33	Screw GB818 M5X16	6000271	2
34	LED	5001450	1



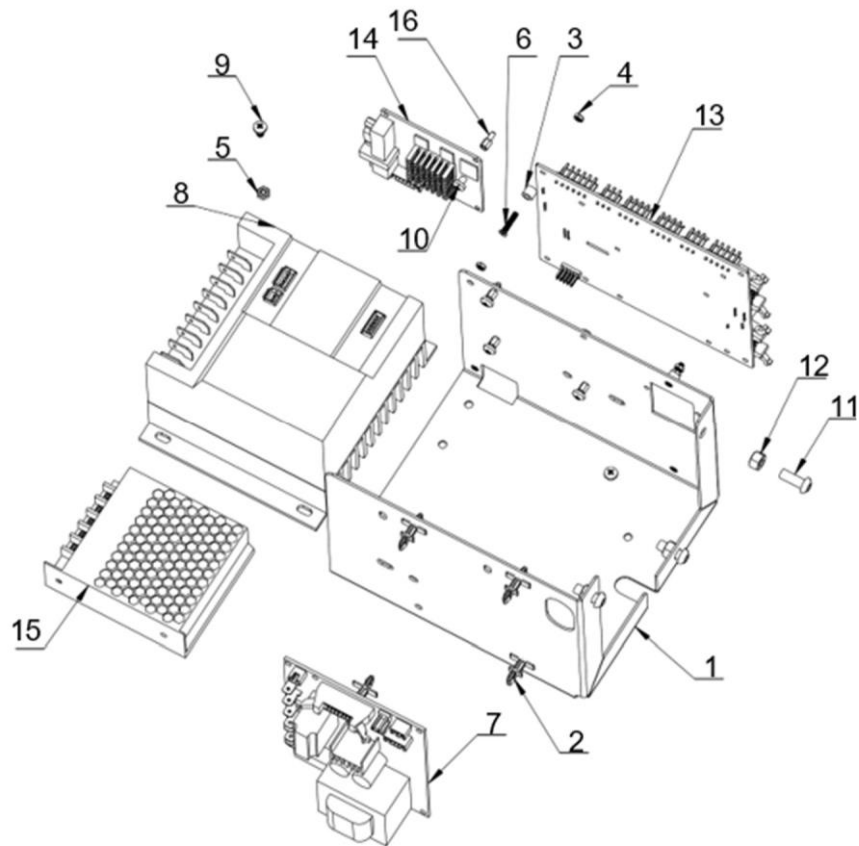
Article no.	Description of the	Article	Piece
1	Screw M10X160	6000201	1
2	WasherGB95/Φ10	6000134	6
3	Horizontal screw M10X160	6000176	1
4	Pressure sensor	4001701	2
5	Spring washer GB93/Φ10	6000197	3
6	Spring washer GB93Φ30x10x3	2052501	1
7	Spring washer GB93Φ38x10x3	2037401	1
8	Screw GB5783 M10X25	6000184	2
9	Complete axle	2032901	1
10	Screw GB818/M4X10	6000267	4
11	Tower spring	2042801	1
12	Plastic lid	3005013	1
13	Hexagon nut GB41 M10	6000336	5
14	Copper disc	6000159	4
15	Circlip	2067389	1
16	Holder	2034001	1
17	Position holder Recording panel	5000401	1



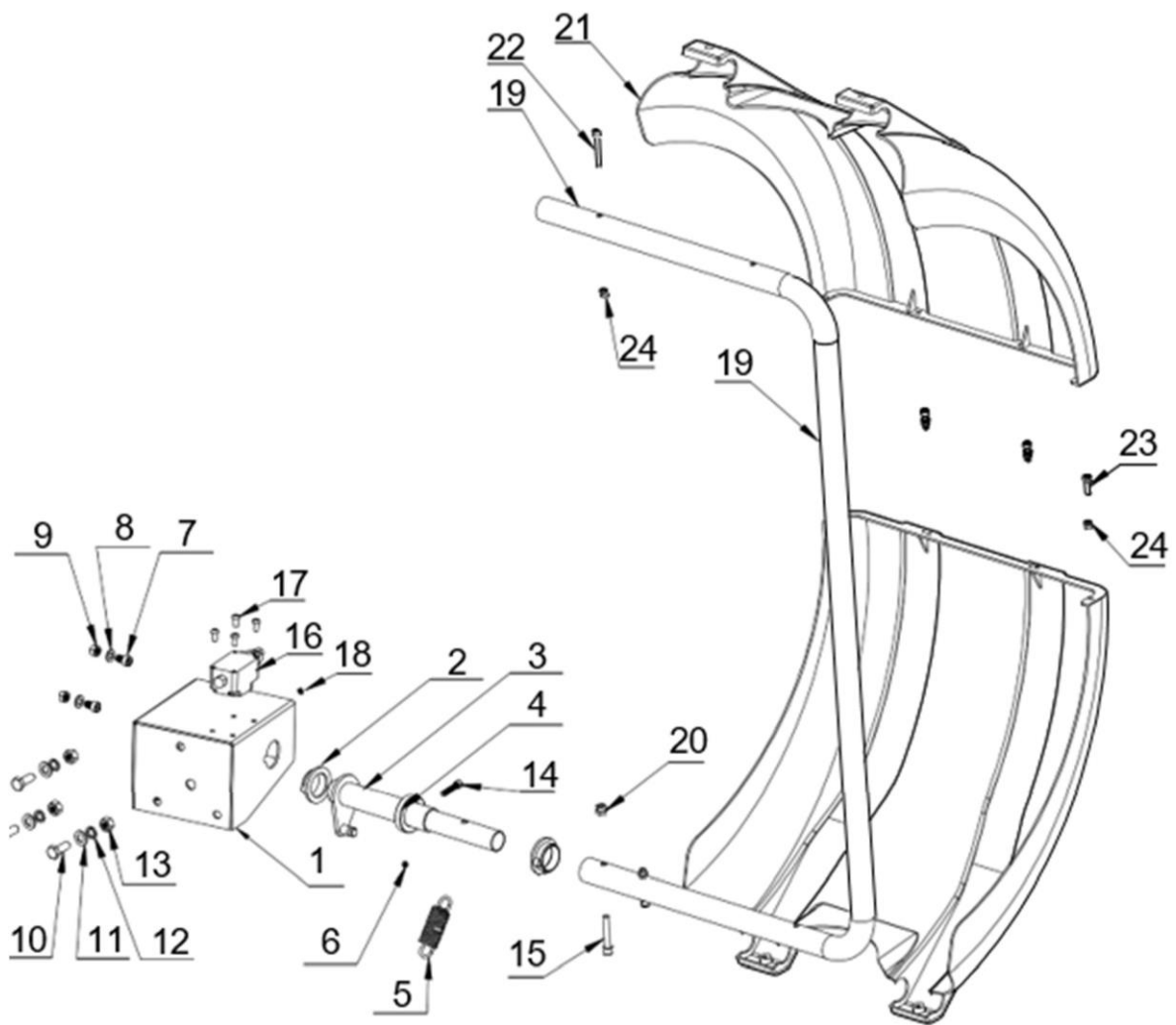
Article no.	DESCRIPTION	Article	Piece
1	Shaft	2064812	1
2	Plastic sleeve	2064398	1
3	Distance sensor board	2067562	1
4	Aluminium ruler	2046301	1
5	Ruler number	5001388	1
6	Rangefinder	2067563	1
7	Rangefinder	2067439	1
8	Potentiometer RV24/202	4004471	1
9	Ruler head	2066172	1
10	Support with the return	2065780	1
11	Distance sensor board	2067437	1
12	M3X12 screw	6000375	1
13	Hexagon nut GB41 M3	6000124	1
14	Screw GB845 ST4.2X16	6000160	2
15	Screw GB80 M6X12	6000230	2
16	Screw GB70 M6X20	6000114	1
17	Screw GB 818 M5*16	6000271	2



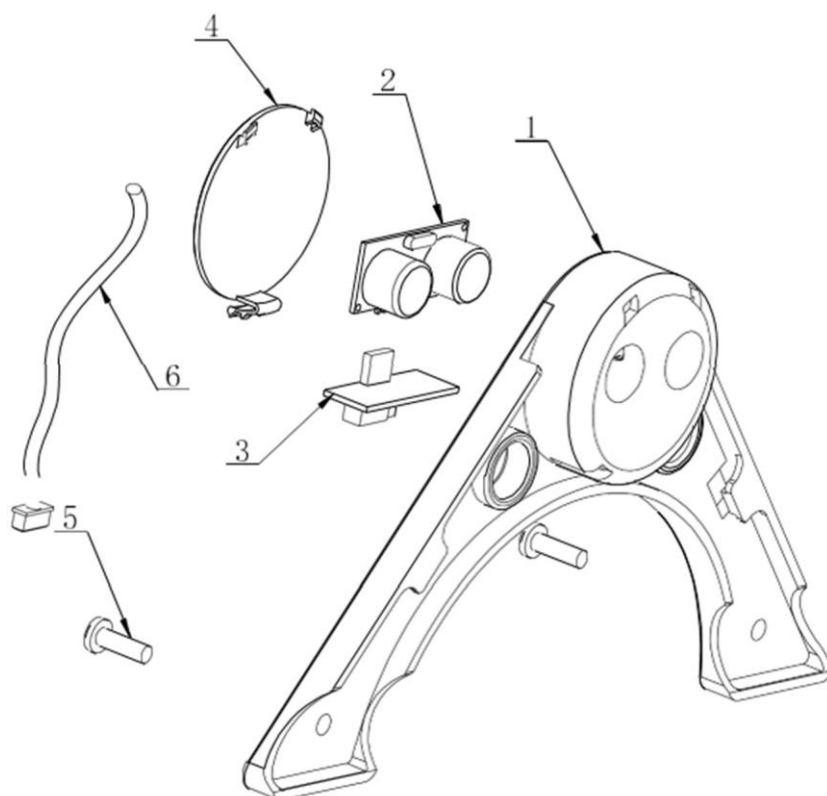
Article no.	Description of the	Article	Piece
1	Head with tool tray	2066425	1
2	Keyboard	5001462	1
3	Plastic cover for the front support	2066428	1
4	Rear plastic cover bracket	2066429	1
5	Screw GB818/ M5X16	6000271	4
6	Screw GB818/ M4X10	6000267	15
7	LCD complete display	5001445	1
7	LED complete display	5001343	1



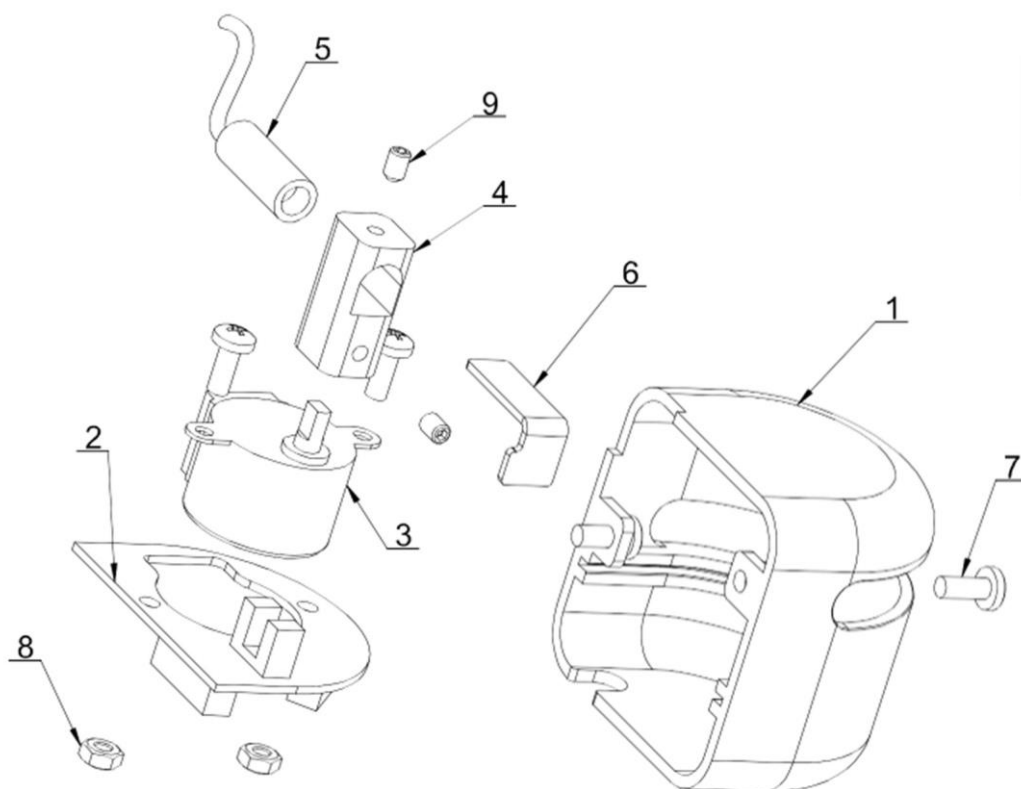
Article no.	Description of the	Article	Piece
1	Power box	2066379	1
2	Retaining clip	4004380	3
3	Retaining clip	4004389	5
4	Hexagon nut GB41 M3	6000124	14
5	Hexagon nut GB41 M4	6000341	4
6	Screw GB819 M3X15	6000375	5
7	Power supply/board	5001443	1
8	Drive module	5001444	1
9	Screw GB818 M4X12	6000267	4
10	Screw GB818 M3X5	6000513	4
11	Screw GB70 M6X16	6000407	3
12	Hexagon nut GB41 M6	6000309	3
13	Computer board	5001441	1
14	VGA display card	5001442-01	1
15	Power supply for the display card	4004507	1
16	Retaining clip	6000512	4



Article no.	Description of the	Article	Piece
1	Protective box	2043701	1
2	Plastic sleeve	3002301	2
3	Shaft	2036601	1
4	Ferrule	2034201	1
5	Tension spring	2053501	1
6	Screw GB80/M6X10	6000130	1
7	Screw GB70/M8X20	6000102	2
8	Washer GB95/Φ8	6000142	2
9	Hexagon nut GB41 M8	6000127	2
10	Screw GB5783 M10X25	6000184	3
11	Washer GB95/Φ10	6000134	3
12	Spring washer GB93/Φ10	6000197	3
13	Hexagon nut GB41 M10	6000123	3
14	Screw GB5783 M6X35	6000207	1
15	Screw GB70 M8X45	6000435	1
16	Microswitch	4004496	1
17	Screw GB818 M6X12	6000478	4
18	Hexagon nut GB41 M4	6000341	0
19	Tube wheel arch protector	2033301	1
20	Hexagon nut M8	6000127	1
21	Plastic cover (0716)	3002501	2
22	Screw GB70 M6X45	6000435	2
23	Screw GB70 M6X20	6000114	4
24	Hexagon nut M6	6000309	6



Article no.	Description of the	Article	Piece
1	Radar housing	3005423A	1
2	Radar rangefinder module	2067613	1
3	Radar control panel	2067614	1
4	Lid	3005423B	1
5	Screw GBT818 M5X16	6000271	2
6	Radar control line	4002209	1



Article no.	Description of the	Article	Piece
1	Housing	30005391	1
2	Laser base plate	5001431	1
3	(28BYJ-48) Motor	5001432	1
4	Laser holder	3005392	1
5	Laser	5001433	1
6	Zero position	3005393	1
7	M4x10 screw	6000267	4
8	Nuts M4	6000341	2
9	M4x8 screw	6000267	3
10	Complete unit	400482	1



Setup/calibration video



Homepage Weber-Werke



Youtube channel Weber-Werke