

# **Weber**

**KLASSIKSERIE**

## **Original operating instructions**

Weber wheel balancer  
Model: Classic ECO



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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 Intended use**

The wheel balancers described in these operating instructions may only be used to measure the extent and position of the unbalance of vehicle wheels within the limits specified in the technical data. In addition, models equipped with motors must be fitted with a suitable protective device.

### **1.2 Introduction**

The purpose of these operating instructions is to provide the owner and operator of this machine with a set of safe and practical instructions for the use and maintenance of the wheel balancer.

If these instructions are followed carefully, the machine will offer you maximum efficiency and duration.

Read these instructions carefully before using the machine. Keep these instructions and the accompanying illustrations in a folder near the place of use so that the machine operator can consult the documentation at any time.

The instructions and information described in this manual must always be followed: The operator is held responsible for any operation that is not specifically described and authorised in this manual.

These instructions are aimed at people with basic mechanical knowledge. We have therefore shortened the descriptions of the individual operations and omitted detailed instructions, e.g. for loosening or tightening the clamping devices. Do not attempt to carry out this work if you are not suitably qualified or experienced. If necessary, contact an authorised service centre for assistance.

The following symbols and notes 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 responsible authorities for occupational safety and accident prevention must be observed. Each operator is responsible for compliance with these regulations.

Failure to follow these instructions may damage the machine and jeopardise the safety of the operator.

### 1.3 Explanation of symbols and notes

Installation and commissioning may only be carried out by qualified specialist personnel in accordance with the operating instructions.

Please note the following symbols and labelling explanations:

<h2>Attention</h2>	
	Deze marking duidt op mogelijk onmiddellijk gevaar. Le non-respect de ces informations peut entraîner des blessures graves ou la mort. This marking indicates a potential immediate hazard. Het niet naleven van deze informatie kan ernstig letsel of de dood tot gevolg hebben.
<h2>Warning</h2>	
	This marking indicates a possible immediate danger. Failure to follow this information may result in serious injury or death.
<h2>Attention to detail</h2>	
	This labelling indicates a possible immediate hazard. Failure to follow this information may result in serious injury or death.
<h2>Comment</h2>	
	This label provides general instructions and useful work recommendations. They do not affect the health and safety of personnel.
<h2>Comment</h2>	
	This label provides general instructions and useful work recommendations. They do not affect the health and safety of personnel.

## 1.4 General safety and prevention

- Before operating the appliance, please ensure that you have read all the warning signs and the operating instructions. Failure to observe the safety instructions may result in injury to the operator and bystanders.
- Keep your hands and other body parts away from the area where there is a potential hazard. Before operating the machine, you must check whether there is a damaged part. The machine must not be used if it is broken or damaged.
- The wheel protection arch made of impact-resistant plastic prevents stones, balancing weights or other materials from flying off the wheel/tyre. The wheel guard must always be folded down for your own safety
- Before balancing, the operator should check all tyres and wheels to detect possible faults. Do not balance any faulty tyres or wheels.
- Do not exceed the load capacity of the balancing machine and do not attempt to balance a wheel that is larger than the intended dimension.
- Wear suitable clothing such as gloves, goggles and overalls. Do not wear a tie, long hair or loose clothing. The operator should stand next to the machine when operating the machine. Keep unauthorised persons away.
- Before balancing, you must check the installation of the wheel. Before starting, make sure that the quick-release nut has rotated 4 turns on the threaded shaft and is firmly seated on the main shaft.
- Any use other than that described in this manual is to be considered improper and unreasonable.
- Do not start the machine without the wheel guard.
- The protective cover serves to prevent accidents and ensure safety.
- Do not clean or wash the wheels mounted on the machine with compressed air or water jets.
- **Get to know your machine.** The best way to avoid accidents and achieve optimum machine performance is to ensure that all operators know how the machine works.
- Familiarise yourself with the function and position of all controls.
- Carefully check that all machine controls are working properly.
- The machine must be properly installed, operated and regularly maintained to prevent accidents and injuries.

## 1.5 Safety instructions for commissioning

Take the utmost care when unpacking, assembling, lifting and setting up the machine.

Remove the packaging material after you have positioned the machine.

The Klassik ECO wheel balancer 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 ambient conditions must fulfil the following requirements:

- Relative humidity between 30% and 80% (without condensation);
- Temperature range from 0° to +50°C.

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

**IMPORTANT: Ensure that the cable cross-section of the earthing is at least as large as the cable cross-section of the conductor of the supply line.**

## 1.6 Safety regulations for operation

Failure to observe the warnings may result in serious injury to the operator or other persons.

Do not operate the machine until you have read and understood all the danger and warning notices in this manual.

Correct use of this machine requires a qualified and authorised operator. This operator must be able to understand the manufacturer's written instructions, be adequately trained and be familiar with the safety procedures and regulations. It is forbidden for the operator to use the machine under the influence of alcohol or drugs that could impair his physical and mental performance.

***The following conditions are essential:***



- read and understand the information and instructions described in this manual;
- have a thorough knowledge of the features and characteristics of the machine;
- Keep unauthorised persons away from the work area;
- Ensure that the machine has been installed in accordance with all applicable standards and regulations;
- Ensure that all machine operators are properly trained, that they are able to operate the machine correctly and safely, and that they are adequately supervised while working;
- Do not touch any power lines or the inside of electric motors or other electrical devices until you have made sure that they are switched off;
- Read this brochure carefully and learn how to use the appliance correctly and safely;
- Always keep this user manual in a place where it is easily accessible and always refer to it.

Do not remove or deface the DANGER, CAUTION, WARNING or INSTRUCTION labels.

Replace all missing or illegible stickers. If stickers have come off or are damaged, you can obtain them from your nearest specialist dealer.

Observe the standardised accident prevention regulations for high voltage and rotating machinery when the machine is in operation or being serviced

Any unauthorised changes or modifications to the machine automatically release the manufacturer from any liability for damage or accidents caused by such changes or modifications.

## 1.7 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 qualified electricians.

**1.8 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.



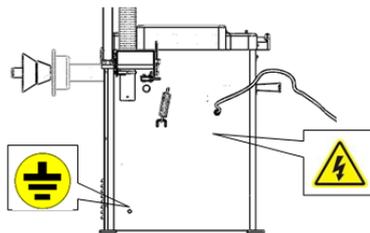
**Earthing symbol**

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.

## 1.9 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 protection arch prevents the balancing machine from starting without the wheel protection arch folded down.

### Attention:

All safety instructions must be strictly adhered to

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

## 1.10 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



**STW110001**

Balancing weight tongs Balancing machine



**STM100**

Balancing machines Starter package

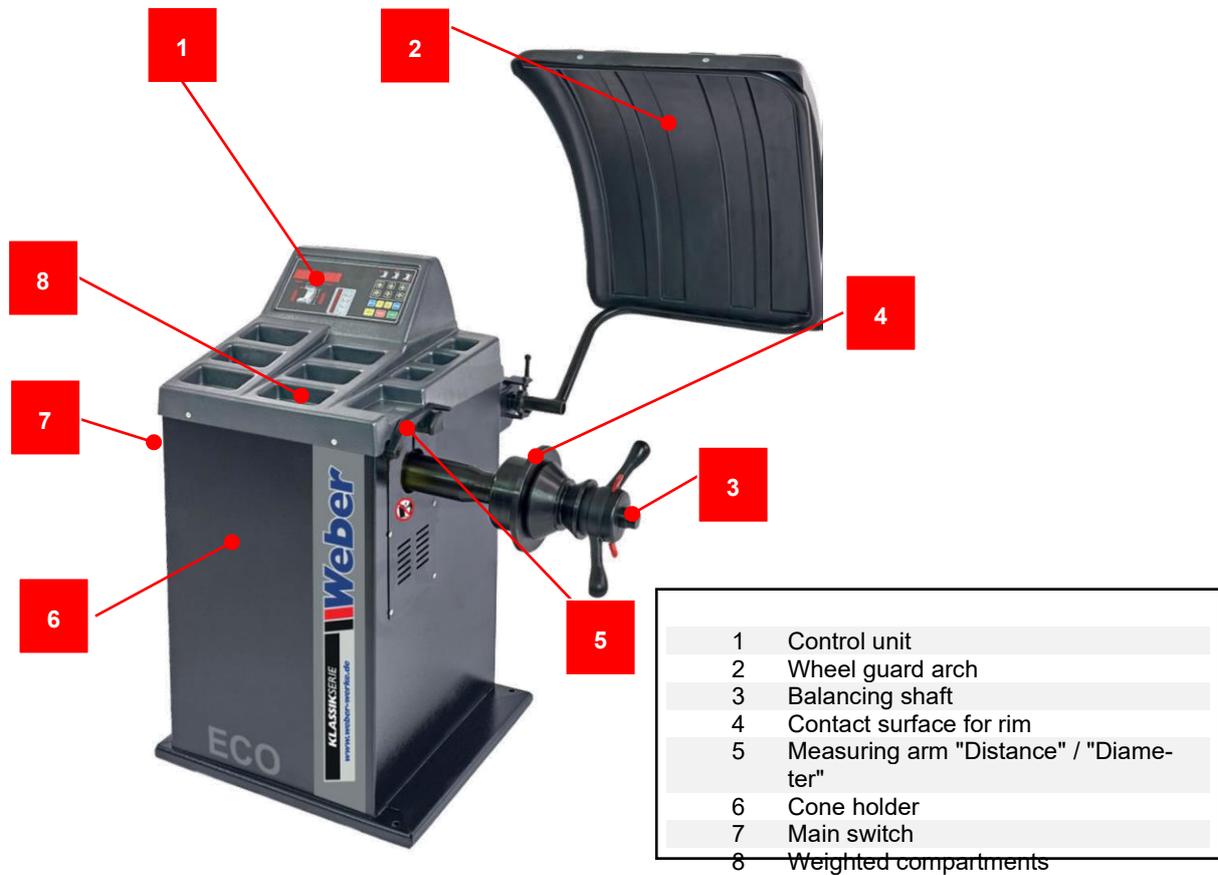
To simplify the operator's work, the wheel balancer can be equipped or used with accessories. Only original accessories from the manufacturer may be used.

### 2.2 Technical data

Rim width	1.5 - 20 inch
Rim diameter	10 - 24 inch
Wheel diameter	960 mm
Wheel weight max.	65 kg
Balancing speed	150 rpm.
Balancing time	approx. 8 sec.
Engine power	0.25 kW
Electrical connection	230 V / 1 Ph / 50 Hz
Accuracy	± 1 g
Noise level	≤ 70 dB
Working temperature	0 - 50 °C
Dead weight	approx. 85 kg
Dimension	1400 x 1100 x 1750 mm

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

### 2.3 Description of the wheel balancer



## 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:** Classic ECO  
**Manufacturer's designation:** (WB-95B)

**Serial number:**

**Relevant EC Directive:** 2006/42/EC Machinery Directive  
2014/35/EU Low Voltage Directive  
2014/30/EU EMC  
2011/65/EU ROHS Directive

**In particular, the following Standards used:**

EN ISO 12100:2010 Safety of machinery - General principles for design  
EN 60204-1:2006/AC:2010 Safety of machinery - Electrical equipment of machines - Part 1  
EN IEC 61000-6-2:2019  
EN IEC 61000-6-4:2019  
EN 62321-1:2013

**Reference number of the technical data:** F-353-20-0605-22-01-A  
F-20-1207-20-01-A  
F-CE-20-1019-22-01-E

**Certificate:** C-353-20-0605-22-01-A1  
Valid from 02/09/2022

**Issuer of the certificate:** CTI CEM International Ltd  
Unit 200, Greenogue Business Park  
Grants Lane, Rathcoole  
Dublin Co. Ireland

Identification number: 2845

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

Herleshausen, September 2022



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 incorrect installation or handling. Please refer to the sheet "Initial commissioning by an expert" (chapter 9).

#### 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, ensure 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 arch. This can lead to damage to the bearings 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 surface

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 be 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 personal injury.

Use fixing 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 Mounting the wheel balancer

### 4.1 Mounting the balancing shaft

Screw the balancing shaft [Fig. 1] into the flange of the wheel holder. Now fasten the balancing shaft to the flange of the wheel holder using a 28 mm open-end spanner (Fig. 2). To fit the spring and the cover (Fig. 3), take a cone and the quick-release nut and then insert the safety ring (Fig. 4).



Fig. 1



Fig. 2



Fig. 3



Fig. 4

## 4.2 Fitting the wheel arch protector

First fit the bracket of the wheel arch protector and connect the two cable lugs to the contact switch on the bracket, it does not matter which shoe goes to which connection. Then place the retaining bracket in the holder and tighten it with the hexagon socket screw. Finally, the wheel protection arch is attached to the folded-up bracket and also fastened with a hexagon socket screw so that the arch covers the tyre.



***The wheel guard must always be folded down for your own safety.***

## 4.3 Electrical connection

The wheel balancer is designed as standard for connection to a 230 V / 50 Hz / 1 Ph socket. The machine is equipped as standard with a CE-certified connection plug. The circuit for the required socket outlet must be fused separately.

Each electrical connection must fulfil the following requirements:  
Observe the rating plate on the machine;

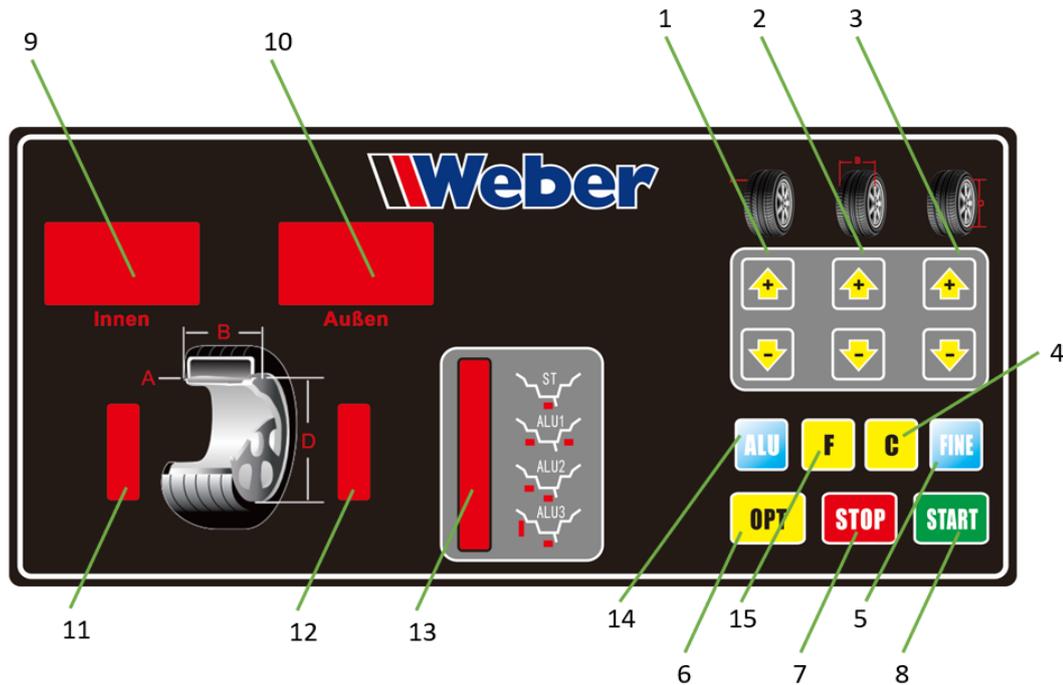


Proper earthing is required for correct operation. Do not connect the device to air, water, telephone lines or other unsuitable objects.

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

## 5 Operating the machine

### 5.1 Buttons and function



Number	Function
1	Enter the value for the distance from the machine
2	Enter the value for the rim width
3	Enter the value for the rim diameter
4	Menu button (Settings / Main menu)
5	“Fine” button for gram-precise display of imbalance values
6	Button for the optimization function and split program
7	Stop button
8	Start button, starts the balancing process
9	Digital display for displaying the inner imbalance value
10	Digital display for displaying the outer imbalance value
11	Indicator displays for determining the inner imbalance position
12	Position display for outer balancing weight in standard mode
13	Display of the balancing program
14	Button for switching between the ALU balancing programs
15	Button for selecting the dynamic balancing mode or another static balancing mode

Only operate the display with your fingers. Never use sharp objects such as screwdrivers, weight pliers, etc.

## 5.2 Device calibration

Self-calibration must be carried out before commissioning and at regular intervals, depending on the frequency of use. A monthly self-calibration cycle is recommended for normal workshop operation. This will ensure the correctness of the measurement results.

To calibrate the machine, please proceed as follows:

**A fully assembled 15 inch steel wheel WITHOUT balancing weights is required. The steel wheel must be calibrated before self-calibration!**

1. Switch on the machine, select the appropriate cone and clamp the 15" steel wheel with the clamping cone and quick-release nut.
2. The wheel data must now be measured and entered.
3. Press the "F" + "C" buttons simultaneously and wait until "CAL + CAL" appears on the display.



Only release the buttons when both unbalance indicators are permanently lit and have stopped flashing.

4. The wheel guard is now closed to start the calibration process.
5. The wheel is braked automatically
6. The display now shows "Add + 100". The calibration weight 100g must be attached to the outside of the rim.



No specific position for the 100g calibration weight needs to be maintained.

7. A new calibration process is started by closing the wheel protection arch.
8. The display now shows "100 + Add". The 100g calibration weight is removed from the outside and attached to the 12 o'clock position on the inside.



The 12 o'clock position is reached when all indicators on the display light up.

9. Carry out another calibration process by closing the wheel arch protector.
10. The wheel brakes again automatically.
11. The display now shows "CAL + END", the calibration of the machine is complete.
12. The wheel balancer is now ready for use.

### 5.3 Existing balancing programmes

Symbol	Equalisation mode	Operation	Add weights
	Standard Mode (Dynamic mode)	<ol style="list-style-type: none"> <li>1. Switch on the machine</li> <li>2. Input a,b,d value</li> <li>3. Start balancing process, after balancing process</li> </ol>	Attach weights on both sides of the rim edge
	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 balancing process, after balancing stop</li> </ol>	Apply adhesive weights to both sides of the rim shoulder
	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 balancing process, after balancing process</li> </ol>	Apply adhesive weights to both sides of the rim shoulder
	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</li> <li>4. Start balancing process, after balancing process</li> </ol>	Attach weight to the inner rim edge, attach adhesive weight to the outer rim shoulder
	ALUS	<ol style="list-style-type: none"> <li>1. Switch on the machine</li> <li>2. Enter ai, ae, d value</li> <li>3. Press the ALU button, the display lights up</li> <li>4. Start the balancing process, after the balancing process</li> </ol>	Apply adhesive weights to both sides of the rim shoulder

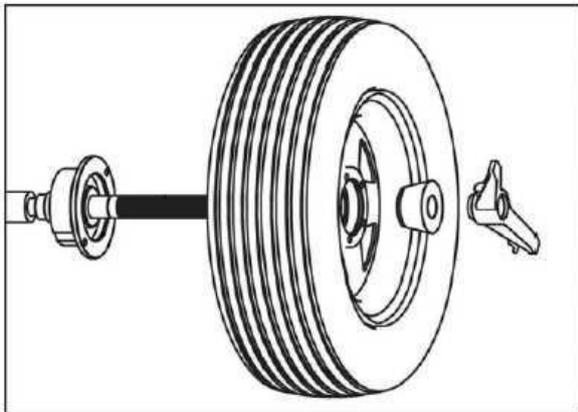
## 5.4 Wheel assembly

There are two different clamping methods for wheel mounting.

### 5.4.1 Mounting method 1 - Cone mounting on the front of the rim

A wheel should only be centred in this way if the inner surface does not allow the cone to be positioned correctly. The wheel is centred on the cone from the outside of the hub.

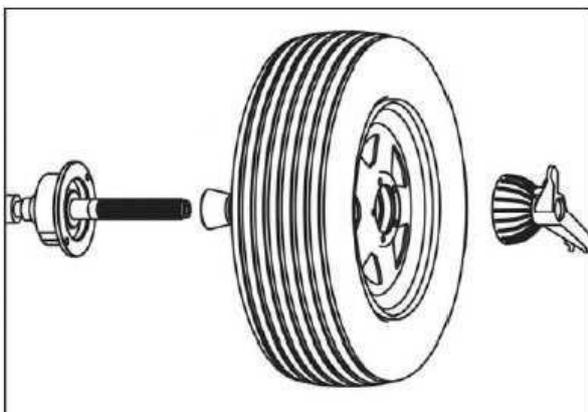
- Select the most suitable cone for the centre hole of the rim.
- Lift the wheel towards the flange so that it rests on the balancing shaft on the flange.
- Slide the cone with the large surface towards the outside onto the balancing shaft.
- Centre the centre hole of the rim by pushing on the cone.
- Attach the wheel to the balancing shaft using the quick-release nut (without plastic cap).



### 5.4.2 Mounting method 2 - Cone mounting on the back of the rim

Most steel wheels can be fitted correctly using this method. The wheel is centred on the cone from the inside of the hub.

- Clean the surface of the rim before using this method
- Select the most suitable cone for the centre hole of the rim.
- Push the cone with the large surface towards the flange onto the shaft so that it rests against the flange.
- Take a suitable plastic cap (optional) and place it on the clamping nut.
- Lift the wheel onto the shaft and centre the centre hole of the rim with the cone on top.
- Fasten the wheel to the balancing shaft using the quick-release nut. Ensure that it is correctly centred.



## 5.5 Correct handling of the quick-release nut and the balancing shaft



**CAUTION:** Improper use of the quick-release nut or incorrect clamping and unclamping of the wheel can damage the quick-release nut and balancing shaft. The manufacturer / importer / seller accepts no liability for damage caused by improper use. This damage is not covered by the guarantee / warranty.

### 5.5.1 Clamping and unclamping 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. A.
- Guide the quick-release nut up to the rim by actuating the mechanism. Do not operate the mechanism to tighten the quick-release nut.

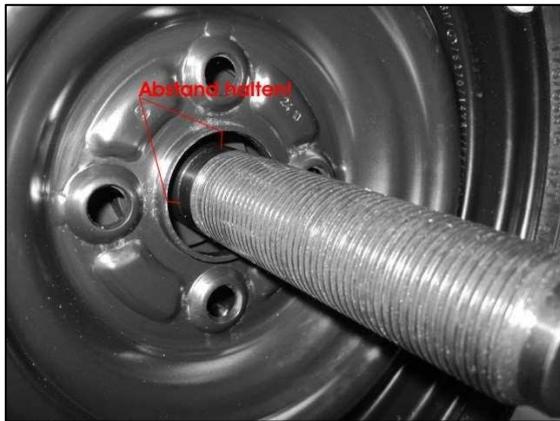


Fig. A

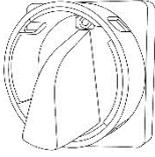
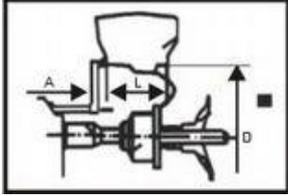
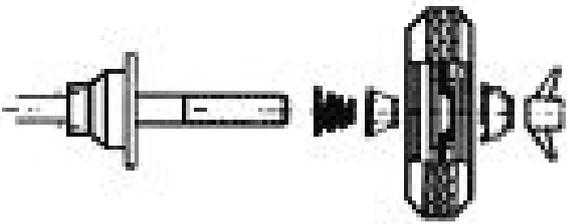
### 5.5.2 Unclamping the wheel

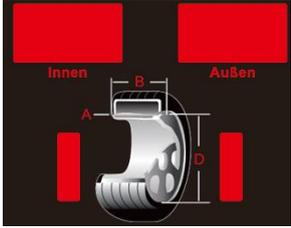
- Unscrew the quick-release nut until the rim is completely loosened, as shown in Fig. B, only then may the quick-release nut mechanism be actuated. Failure to observe this can result in damage to the quick-release nut and balancing shaft.
- When removing the wheel, ensure that you do not damage the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



Fig. B

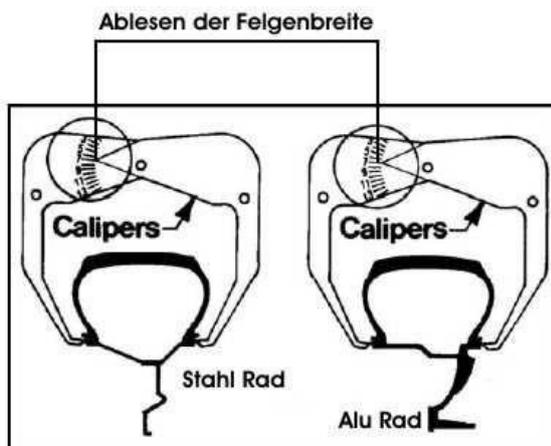
5.6 Working with the wheel balancer

	<p>The main switch is located on the left-hand side of the machine housing. A self-test is carried out when the switch is pressed. A sequence of numbers appears on the display and after a few seconds the displays appear.</p>
	<p>Clamp the clean wheel with the appropriate centring cone onto the balancer shaft. <b>CAUTION: Even slight contamination on the contact surfaces of the rim or on the balancing machine flange can lead to considerable inaccuracies during the measuring process.</b> The quick-release nut is used to clamp the wheel evenly.</p>
	<p>The counter-positioning method is a widely used clamping method. It can be used for steel and light alloy rims.</p> <ul style="list-style-type: none"> <li>- Push the selected cone onto the balancing flange.</li> <li>- Place the rim on the cone. <b>CAUTION: The balancing shaft must not be damaged in the process!</b></li> <li>- Tighten the wheel with the pressure ring and quick-release nut.</li> </ul>
	<p>Guide the tip of the distance gauge to the rim flange and read the value directly from the ruler. Press the buttons at "A→" and enter the read value at <b>+</b> <b>-</b>. "Dis" appears on the left-hand display and the value entered appears on the right-hand display.</p>
	<p>The rim width can be determined using the rim width gauge. Press the buttons at "B" and enter the value at <b>+</b> <b>-</b>. "Br" appears on the left-hand display and the value entered appears on the right-hand display.</p>
	<p>Press the buttons at "D" and enter the diameter specified on the rim and tyre at <b>+</b> <b>-</b>. "D" appears on the left-hand display and the value entered appears on the right-hand display.</p>

	<p>Close the wheel arch protector. When the "START" button is pressed with the wheel guard open, "ERR-OPN" appears immediately. For balancing machines with low speed (slow speed), press the START button to start.</p>
	<p>The displays show the unbalance value on the inside and outside. Turn the wheel in any direction until all LEDs of the left positioning display light up constantly. At the 12 o'clock position, please attach the balancing weight to the inside of the rims. Continue turning the wheel until all the LEDs on the right-hand positioning indicator light up constantly and attach the balance weight to the outside of the rim at the 12 o'clock position.</p>
	<p>It may be necessary to repeat the described work sequences until the value for the unbalance in the two displays is "00" is displayed. After opening the wheel guard arch, the quick-release nut can be loosened and the balancing process is complete.</p>
	<p>When mounting and removing the wheel, the balancing shaft must not be damaged by the rim. Measurement inaccuracies and deformation of the shaft may result. The balancing shaft must never be subjected to loads other than those intended!</p>

**5.7 Acceptance points with the rim width gauge**

The rim width gauge is used when the rim width is no longer recognisable or for control purposes. See the diagram below for how to use it.



## 5.8 Attaching balancing weights

### 5.8.1 Overview of the weight positions of the balancing programmes

The balancing programmes can be selected using the respective button on the control element.

- |  |  |
|--|--|
|  | <p><b>Standard programme</b><br/> <b>- Active without display in switch-on mode -</b><br/>         Balancing of steel or light alloy rims using impact weights on the rim edges.</p> |
|  | <p><b>Static programme</b><br/>         The STATIC correction is used for wheels of two-wheelers and for wheels on which weights cannot be attached to both sides of the rim.</p>    |
|  | <p><b>ALU1</b><br/>         Balancing of light alloy rims with adhesive weights on the shoulder of the rim.</p>  |
|  | <p><b>ALU2</b><br/>         Balancing of light alloy rims with attachment of 2 adhesive weights on the inside.</p>   |
|  | <p><b>ALU3</b><br/>         Balancing of light alloy rims with an impact weight and an adhesive weight on the inside.</p>  |

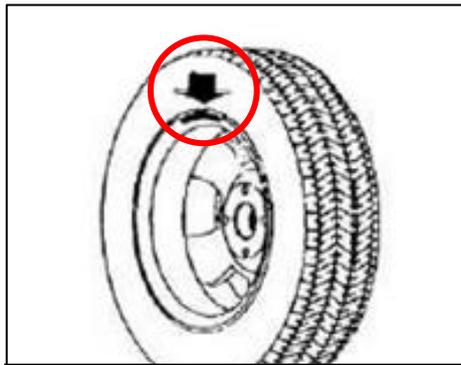
### 5.8.2 Positions of the weights

The 12 o'clock position on the wheel balancing machine is crucial for attaching the balancing weights, both on the inside and outside..

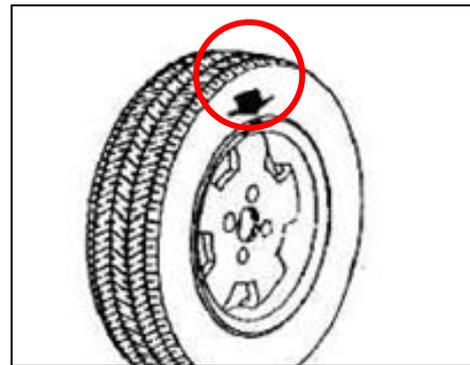


### 5.8.3 Attaching impact balancing weights

Turn the wheel until the display shows the position of the unbalance on the inside. Once the position is reached, apply the foot brake and the impact weight can be attached at the 12 o'clock position. Repeat these steps for the outside of the wheel. After you have attached the weights on the inside and outside, balance the rim to check it.



Position the balancing weight at the 12 o'clock position of the wheel on the inside.



Position the balancing weight at the 12 o'clock position of the wheel on the outside.

## 6 Balancing programmes

### 6.1 General operating information

	<p>Do not use the appliance until you have read and understood the entire manual and the warnings.</p> <p>The emergency stop is triggered by the stop button on the control panel or by opening the wheel protection arch. When triggered, the electric motor brake is activated, which immediately stops the rotational movement</p> <p>In addition, the wheel balancer control system automatically recognises if a wheel or the wheel balancer shaft is not correctly secured and in these cases automatically interrupts the balancing process by means of an emergency stop and setting an error code.</p> <p>Under no circumstances should the power supply be interrupted during the balancing process, as this would disable the electric motor brake. If the motor brake is not activated electrically, the rotational energy of the wheel must be dissipated by rolling out, which increases the danger to the operator</p> <p>The wheel guard must not be opened before the wheel stops. The STOP button is used to stop the machine immediately in an emergency.</p> <p>Do not allow the control panel to get wet!</p> <p>Chains, bracelets, loose clothing or foreign objects in the vicinity of moving parts can pose a danger to the operator.</p>
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**IMPORTANT!** The initial screen when switching on the wheel balancer is always in "STA/DYN" mode!

**The wheel to be balanced must be absolutely clean. This is the only way to achieve good results.**

-After the machine has been switched on, you are in the standard "Dynamic" mode (general programme for steel rims). This function is selected under normal conditions.

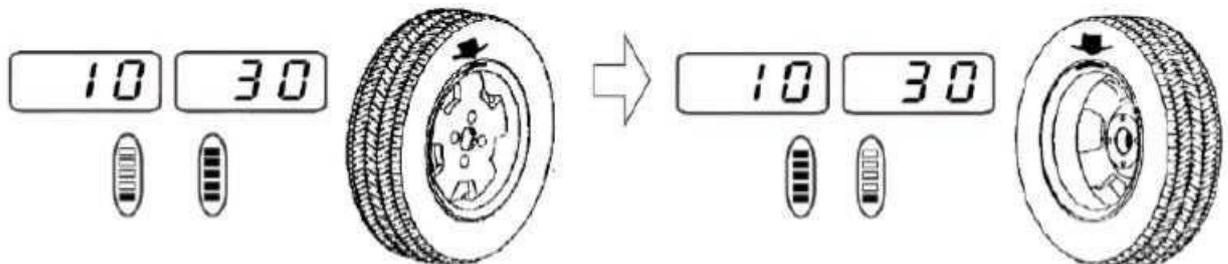
-During static balancing, the rim is treated as if it had only one side face.

-Dynamic balancing checks the unbalance on both sides of the rim.

-The wheel weight is only applied to the outside of the rim in the static programme and to the inside and outside of the rim in the dynamic programme.

## 6.2 Balancing procedure

1. Mount the wheel on the machine shaft. Use the most suitable mounting method. Always remove the weight attached to the wheel.
2. Switch on the machine.
3. Measure and enter the wheel data.
4. Select the most suitable balancing mode. The start screen when switching on is in the setting: **DYNAMIC mode (DYN)**
5. Start the machine by closing the wheel guard.
6. The wheel begins to turn and the imbalance value is determined.
7. Do not open the wheel guard until the wheel has come to a complete stop.
8. The imbalance values for the inside (left) and outside (right) of the wheel are now shown on the display.
9. Now turn the wheel until all indicators on either the inside or outside are lit under the weight display. When all indicators on the inside or outside are lit, stop and hold the wheel and attach the corresponding balancing weight to the 12 o'clock position.
10. After attaching the weights, close the wheel guard again and press the "START" button.



11. The wheel begins to turn and the imbalance value is determined..
12. Only open the wheel arch when the wheel has been completely braked and has come to a standstill.
13. The residual imbalance value for the inside (left) and outside (right) of the wheel is now shown on the display.
14. If the device is calibrated correctly, these values should now be 00 on both the left and right sides.  
**The balancing process is now complete.**

## **7 Maintenance**

### **7.1 General maintenance**

This wheel balancer requires only minor maintenance to ensure the machine's functionality

- Keep the area around the machine clear and clean.
- Keep the display clean and clear.
- Only use an evaporating cleaner.
- Do not use solvents that leave oil or solid residues.
- Keep the adapter, cone, threaded spindle, pressure container and quick-release nut clean.
- Accumulations of grease and dirt lead to inaccurate balancing and premature wear.
- Clean these objects once a day with a vaporising solvent.
- After cleaning, store these items on the storage handles provided.

### **7.2 Daily maintenance**

Clean the following components and parts and carry out a visual inspection.

- Balancing flange
- Cones
- Balancing shaft
- Quick-release nut
- Distance gauge
- Width gauge

### **7.3 Monthly maintenance**

- Thorough cleaning of the wheel balancer
- Checking the electrical connection
- Calibration of the measuring arms
- Self-calibration
- Checking the machine parts for any damage or wear

## 8 Self-diagnosis, error messages and troubleshooting

### 8.1 Self-diagnosis

**ERR 1:** No rotation signal, motor does not rotate, incorrect position of the position sensor, sensor damaged or poor connection, computer board damaged.

**ERR 2:** Low rotational speed or no wheel on the machine (with tyres).

**ERR 3:** The imbalance value is too high. Change the wheel for testing.

**ERR 4:** Error in the power supply or in the position sensor.

**ERR 5:** Check wiring to the circuit board or Wheel guard switch defective (loose contact)

**ERR 6:** Memory damaged or signal lost, recalibrate.

**ERR 7:** Calibration error, pressure sensor cable severed or pressure sensor damaged, check cable connection.

**ERR 8:** Contamination on the speed sensor of the balancing spindle. Wheel rotates more slowly. Sensor must be cleaned.

**If you cannot find a solution using the above methods, contact an authorised service centre for assistance.**

### 8.2 Self-diagnosis and settings

Recognition of position holders:

Press (F) and (FINE) for 5 seconds, or press (C) to exit.

- Press (F) and (C) and the display shows (CALCAL),
- Press the (A-) button to see the current spindle tooth position.
- Turn the spindle forwards and backwards to check the function of the position sensor. After turning the spindle from ( 0 ) to (127), turn the spindle from (127) to (127) to (0). You can also use the red light to check whether the light barrier is working. By slowly turning the spindle, the red light flashes alternately.

Recognition of the pressure sensor:

Press (F) and (FINE) for 5 seconds, or press (C) to exit.

- Press (F) and (C) and (CALCAL) appears in the display, now press (A+).
- The display shows a value of approximately 60 on both sides,
- Press the spindle by hand and change the values on both sides (the number change in the left window is slightly larger than that in the right window). This will show you that the two sensors are working normally.

Press the (STOP) button to exit the menu.

Advanced parameter setting:

Press the b+ and b- buttons to change the parameters. Press the (C) button to exit. To access the respective menu item, turn the wheel/balance shaft to the desired number.

(5), Hld, threshold value for unbalanced display

(17), inch/mm conversion; On/ Off

(22), Err (2): On/Off

(29), grams/ounce; On/Off

(62), Buzzer; On/Off

(74), Ld; On/Off

Press the button (C) to exit.

### 8.3 Troubleshooting

Symptom	Cause	Solution
No display after switching on.	<ol style="list-style-type: none"> <li>1. Failure of the power supply.</li> <li>2. Machine power supply unit defective.</li> <li>3. Faulty connection between circuit board and power supply unit.</li> <li>4. Defect in the main circuit board.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the external power supply.</li> <li>2. Changing the power supply unit.</li> <li>3. Check the connection cables and plug connections.</li> <li>4. Replacing the motherboard.</li> </ol>
The "START", "Dis" buttons, "Br" and "Dia" do not accept any input.	<ol style="list-style-type: none"> <li>1. Plug connections released.</li> <li>2. Main board defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove the machine cover and check the plug connection.</li> <li>2. Replace the main board.</li> </ol>
Display is OK, but braking run is not slowed down.	<ol style="list-style-type: none"> <li>1. loose connection between main board and power supply unit.</li> <li>2. Fault in the power supply unit.</li> <li>3. Defective motherboard.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fastening the cable/plug connection between the main board and the power supply unit.</li> <li>2. Changing the power supply unit.</li> <li>3. Replace the main board.</li> </ol>
Insufficient number of revolutions, malfunction during braking, inaccuracy during balancing.	Drive belt too loose.	Open the machine, tension the drive belt. Adjust the motor and drive belt exactly to each other.
Inaccurate balance values.	<ol style="list-style-type: none"> <li>1. Machine was set up unstable.</li> <li>2. Wheel not properly tensioned.</li> <li>3. Faulty power supply inside the machine.</li> <li>4. Excessive voltage fluctuation in the power supply.</li> <li>5. The calibration has changed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Set up and fasten according to the operating instructions.</li> <li>2. Loosen the wheel and tension it again, but precisely.</li> <li>3. Check all electrical connections within the machine.</li> <li>4. Ensuring standardised energy supply.</li> <li>5. Recalibrate the machine in accordance with the operating instructions.</li> </ol>

## 9 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 return the proof of initial commissioning prepared below to 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 Classic ECO, year of manufacture \_\_\_\_\_, Serien-Nr. \_\_\_\_\_

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

\_\_\_\_\_  
\_\_\_\_\_

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

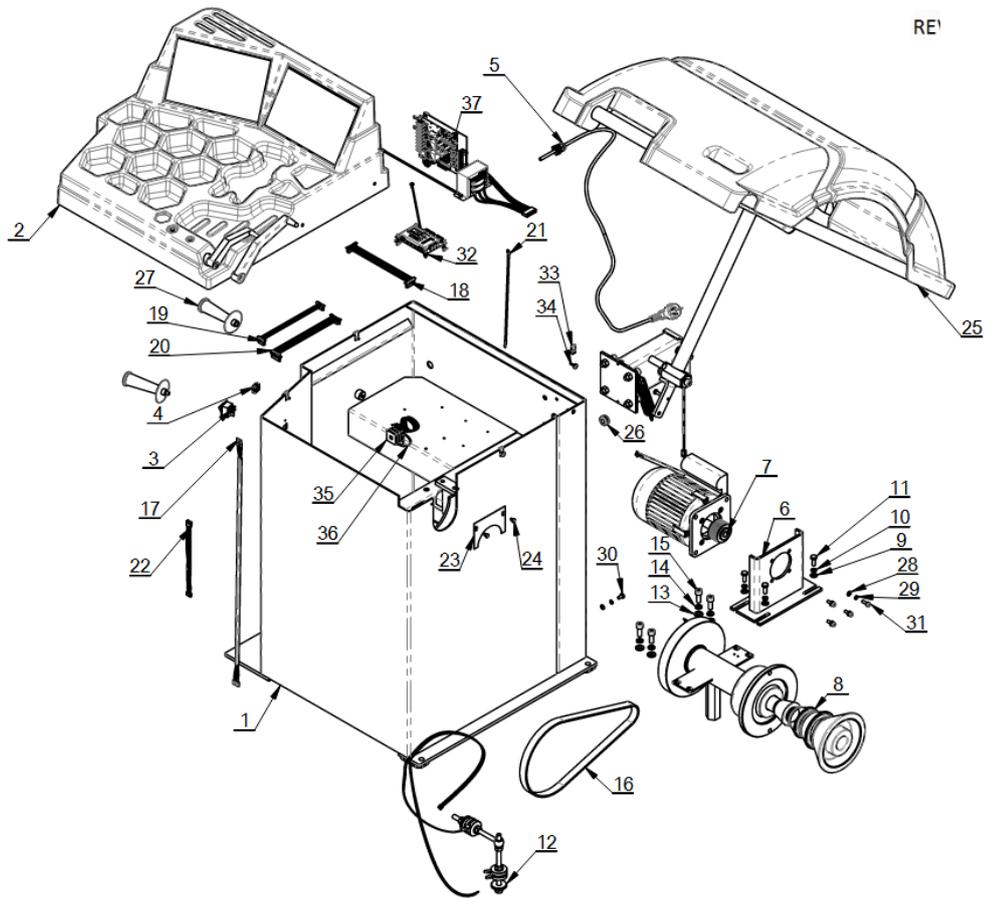
Signature: \_\_\_\_\_

**Address of the operator**

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

Weber GmbH  
Sülzbach 1  
D-37293 Herleshausenmn



**11 Exploded view / spare parts list**


NR.	DESCRIPTION	PIECE	NR:	DESCRIPTION	PIECE
1	Welding assembly	1	20	Cable display panel	1
2	Weight compartments / cover	1	21	Earthing cable	1
3	Mains switch	1	22	Control panel cable	1
4	Start-Stop button	1	23	Cover	1
5	Power cable	1	24	Phillips screw M5x8	2
6	Motor bracket	1	25	Bonnet	1
7	Motor assembly	1	26	Rubber seal	1
8	Balancing spindle	1	27	Cone holder	2
9	U-disc	4	28	U-disc	5
10	Spring washer	4	29	Spring washer	5
11	M8x20 screw	4	30	Phillips screw M6x12	1
12	Pressure sensor assembly	1	31	Cheese head screw M6x16	4
13	U-disc	4	32	Computer	1
14	Spring washer	4	33	Nut M4	4
15	Cheese head screw M10x25	4	34	M4 screw	4
16	V-belt(940mm)	1	35	Mounting plate	4
17	Switch connection cable	1	36	Nylon strap	4
18	Power board connections	1	37	Power supply module	1
19	Cable display panel	1			



Installation video Weber  
Classic "ECO" series



Homepage Weber-Werke



Youtube channel Weber-Werke