

Ideen aus der Praxis!

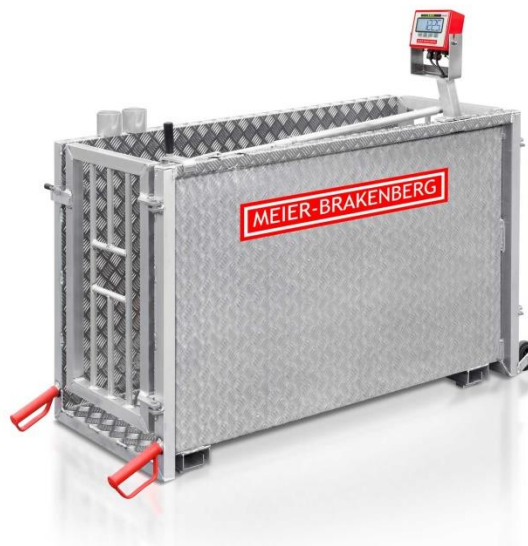
**MEIER-BRAKENBERG**

Einweichenanlagen  
Hochdruckreiniger  
Tierwaagen

# Mobile Scales

- Type:
- WA21
  - WAS
  - WAF
  - WA
  - WAK
  - WAKF
  - WASA
  - WAPM

# Instruction Manual



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*Pressure Cleaner • Animal Scales • Soaking - Disinfection - Cooling • Drinking - Dosing-Systems • Carcass Trolley • Animal welfare*

# Instruction for mobile and stationary weighing machines

The mobile and stationary animal weighing machines from MEIER-BRAKENBERG are exclusive suitable for weighing hog and sheep. The mobile weighing machines can be loaded with up to 300 kg. Calibratable weighing machines feature labels quoting the maximum range of weight load. Only skilled professionals are allowed to use the animal weighing machines.

For transportation of the mobile weighing machine, reach for crossbar at entrance gate and lift. After changing hand position over to both handles, weighing machine is ready to push. Use weighing machine on safe and level surface, only. To open the exit gate of mobile weighing machine, use handle on right side. This handle can be switched to use the repulse door. After that process, lift the repulse door up to lose it from the fixing.

To open front gates of stationary scale, use pedals.

Electronic assemblies are pre-adjusted for weighing fatteners. Settings do not require any adjustment. The weighing machine is ready-to-operate. Settings may be adjusted on the basis of instruction manual, reasonable for determining exact weight of static goods. Before initial use, fully charge storage battery. The power status of the accumulator is shown in the display. If accumulator power is undercharge, an arrow will sign to the imprint "Akku".

Frequently charging, e.g. after each use, decreases service life of storage battery caused by so-called „memory effect“ and shortens duration! Switch off display after use. Continuing operation in spite of unstable display and operation of display after weighing leads to total discharge and destruction of storage battery.

By using animal weighing mode, it's important that all base settings of operators manual will be retaining and not be switched. To reach zero, please press button



## Cleaning scale

Weighing box may be cleaned with water. For quality safety, display with connection cables and weighing bars should not be exposed to high-pressure cleaning. Clean display with damp cloth.

## Direction

No welding at the device or in immediate vicinity. Welding may lead to disturbances in electronic assembly. If not avoidable, dismount display and weighing bars before welding. Operation of electronic assembly permitted only in compliance with provided instruction manual.

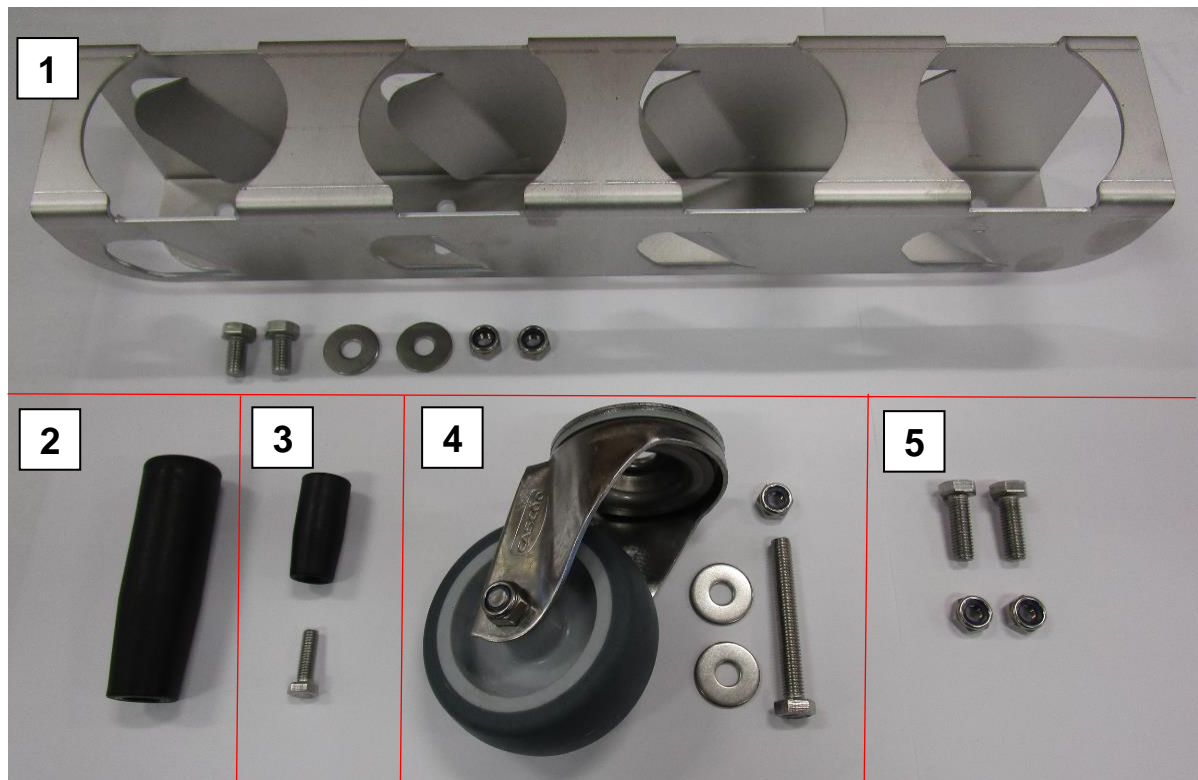
## Note

Upon request, we manufacture any other mobile or stationary weighing machine in various sizes or design. Just call us!

**Scope of delivery:**

mobile scales	- Adapter power-supply, integrated battery
Fixed scales	- Adapter power-supply

# MOUNTING INSTRUCTIONS FOR ACCESSORIES ON WA21



## Parts list:

1. 4-slot spray-can holder with fixing material for fastening the spray-can holder
  - I. 2x Machine screw 8x16,
  - II. 2x Disc,
  - III. 2x Stop nut M8

To do this, use the outer fixing holes and place/mount the washers on top of the slotted holes in the spray-can holder.

2. Mount the M12 tapered handle on top of the remote control handle
3. Mount the small tapered handle at the gate bolt - placed to the gate on the side of the push handles - by using a 6x20 machine screw.
4. Mount the castor wheel on the top of the exit gate by using machine screw 8x60, 2x washer and stop nut M8.
5. Use 2x machine screw 8x25 and 2x stop nut M8 to fix the weighing display WA300.

# ROUTE OUT FUNCTION ON WA21

## Route out function - Repulse door

By switching the telescope-handle from front door to repulse door, the mobile scale can be used to weigh fatteners also on the corridor in front of the inlet.

To lose the locking device, move the head of the ball joint towards to front door and put the head off the ball. In the next step, put off the splint from the telescope-handle and shuffle up to the next drilling, where the splint must plug in. Now put ball joint on the ball of the repulse door.

The repulse door can now lift up, to put it out of the fixing. The route out function to force the pigs backwards in the inlet after weighing is now ready for use.



☞ **If you have any further question concerning weighing, don't hesitate to contact us! Tel.: +49(0)52 62/993 99-0**

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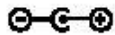
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## Nameplate

The following nameplate is attached to the display:

Typ: WA300MM  
S/N: 2018000109  
Rating: 12 V 1000 mA

**Meier-Brakenberg**  
**GmbH & Co. KG**  
Brakenberg 29 32699 Extertal  
[www.meier-brakenberg.de](http://www.meier-brakenberg.de)



The nameplate is a document and must not be removed from the display.

# Table of contents - Weighing display WA300

<b>1. Safety</b> .....	<b>8</b>
1.1 For your safety .....	8
1.1.1 General information.....	8
1.1.2 Safety symbols in this manual.....	8
1.2 Intended Use .....	9
1.3 Obligations of the operator .....	9
1.4 Obligations of a user.....	10
1.5 Hazard description.....	10
1.6 Liability and Warranty .....	10
<b>2. Description</b> .....	<b>12</b>
2.1 Construction .....	12
<b>3. Transport, commissioning and operation</b> .....	<b>14</b>
3.1 Inspection.....	14
3.2 Packaging and disposal.....	14
3.3 Regular checks:.....	14
3.4 Test equipment monitoring .....	14
3.5 Extraordinary inspections: .....	14
3.6 Repair.....	15
3.7 Inappropriate use.....	15
<b>4. Display</b> .....	<b>16</b>
4.1 Display overview .....	16
4.2 Keyboard overview .....	17
<b>5. Installation</b> .....	<b>18</b>
5.1 System configuration .....	18
5.2 Instructions for Starting Up the Balance.....	18
5.3 Backlight.....	18
5.4 Battery operation .....	18
<b>6. Weighing</b> .....	<b>19</b>
6.1 Dynamic weighing / animal weighing .....	19
6.2 Switch on/off and set to zero .....	19
6.3 Automatic reset .....	19
6.4 Weighing procedure .....	20
6.5 Check weighing .....	20
6.5.1 Switching the sorting light on and off.....	20
6.5.2 Setting the limits.....	20
6.6 Various memories.....	22
6.7 Short-term totals memory .....	23

6.8 Recall short-term total memory .....	23
6.9 Clear short-term total memory .....	23
6.10 Long-term memory .....	23
6.11 Transfer long-term memory .....	23
6.12 Delete long-term memory .....	24
<b>7. Calibration with weights .....</b>	<b>25</b>
7.1 Theoretical calibration .....	27
7.2 Correction of the theoretical calibration.....	30
7.3 Selection of the calibration.....	30
7.4. Setting the date and time.....	32
7.4.1 Time.....	32
7.4.2 Date .....	33
7.4.3 Backlight .....	34
7.5 Error search.....	35
7.6 Balance error messages.....	35
7.7 Setting of parameters .....	35
7.8 Resetting to factory settings .....	36
7.9 Parameter .....	37
7.10 Charging the battery .....	39
<b>8. Technical data .....</b>	<b>41</b>
<b>9. Wiring diagram WA300MM/WA300MS (mobile/stationary.).....</b>	<b>42</b>
<b>10. Declaration of conformity .....</b>	<b>43</b>

**Preamble display** These operating instructions provide detailed information on the WA 300 display. It instructs you in commissioning and operation.

This manual contains safety instructions to ensure safe operation.

The manufacturer always endeavors to improve its products. He reserves the right to make any changes and improvements he deems necessary. However, this does not imply an obligation to retrofit already delivered displays.



***Danger***

**Before using the display, you must have read and understood the operating instructions and the safety regulations contained therein.**



***Notice***

Errors or omissions in the documentation reserved. Please inform Meier-Brakenberg GmbH & Co. KG of any errors in the documentation. We are also grateful for suggestions for improvements to the documentation. The manufacturer's contact details are shown on the back of the title page. If you have any questions or problems, please contact the manufacturer immediately.



***Notice***

*Please have the serial number ready if you have any queries with Meier-Brakenberg GmbH & Co. KG.*

# 1. Safety

This chapter warns you of possible hazards when handling your display. The hazard identification information contained here is intended to enable safe and proper operation.



It is essential that you read and observe these operating instructions and especially this chapter before operating the display.

## 1.1 For your safety

### 1.1.1 General information

In addition to the safety instructions, the operating manual also includes:

- a general product description
- Notes on Transporting and Installing the Display
- the operating instructions
- Maintenance and care instructions
- Troubleshooting and Troubleshooting Guide
- Technical data

Always keep these operating instructions and other documents handy for your personnel in the immediate vicinity of the display.

Always observe all information, notes, instructions and manuals contained therein! Avoid accidents caused by operating errors! In addition to the safety regulations stated in the instructions, the respective statutory regulations must be strictly observed! It is imperative that you read the safety instructions before commissioning and familiarize yourself with the danger zones.

The display has been manufactured in accordance with the state of the art and recognized safety regulations. Nevertheless, there is a risk of danger if the display is operated incorrectly or the safety regulations are disregarded:

- for the life and limb of operators, third persons and animals in the vicinity,
- for the display itself and other material assets of the operator,
- for efficient operation of the display.

### 1.1.2 Safety symbols in this manual

The following symbols can be found in all important places in this manual.

Pay close attention to these instructions and be particularly careful in these cases.



## Danger



This symbol indicates a risk of injury and/or death if certain rules of conduct are disregarded. If you see this symbol in the installation and operating instructions, please take all necessary safety precautions.

## Attention



This notice warns you of material damage and of financial and criminal disadvantages.  
(E.g. loss of warranty rights, liability cases, etc.).



## Notice

Here you will find important tips and information on effective, economical and environmentally friendly handling.

## 1.2 Intended Use

The WA 300 display is a control unit which is used to operate animal scales.

Any use beyond this is considered improper use. The manufacturer is not liable for any resulting damage.

Intended use also includes:

- observing all instructions from the documentation and the manufacturer's manuals supplied,
- compliance with legal requirements,
- compliance with the maintenance and servicing conditions and intervals prescribed by the manufacturer, and
- observing the technical data.

Observe the relevant accident prevention regulations and other generally recognized safety rules.



## Notice

If you have questions, orders or orders, always refer to the serial number of your ad. This will facilitate communication with the manufacturer and avoid errors in processing your enquiry.

## 1.3 Obligations of the operator

The operator undertakes to only allow persons to work with the

advertisement who:

- are familiar with the basic safety and accident prevention regulations and have been instructed in the operation of the display; and
- have read and understood the operating instructions, the safety chapter and the warning notices.

The operator is responsible for the selection of operating personnel. The operator must pay special attention to the suitability of the personnel for the use of the advertisement.



### **Danger**

**The operator bears the ultimate responsibility for safety. This responsibility cannot be delegated.**

## **1.4 Obligations of a user**

All persons entrusted with the operation of the advertisement are obligated:

- to ensure the safety of yourself and other persons at all times,
- to read the operating instructions, the safety chapter and the warning notices, and
- only operate the display if you are familiar with its function.

The operating personnel must devote their attention to working with the display.



### **Danger**

**It's about the safety of you, colleagues, and others near the display.**

## **1.5 Hazard description**

- Do not operate the terminal with sharp objects.
- Do not modify the electronics.
- Do not continue to operate the terminal if the display is damaged or shows a malfunction.
- Do not use aggressive cleaning agents.
- Shut down the display after you have finished work.
- The power cord may only be used to charge the battery. It must be disconnected after charging.

## **1.6 Liability and Warranty**

Meier-Brakenberg offers a limited warranty for components that have become defective due to stress or material defects. The warranty begins on the day of delivery. Meier-Brakenberg reserves the right to repair or replace components. Repairs carried out under warranty do not extend the warranty period.

The warranty becomes void:

- Incorrect application or installation

- Non-observance of our specifications in the operating manual
- Use outside the described applications
- Change to or in the display
- accidental damage or mechanical damage and damage by liquids, natural wear and tear and wear
- improper use

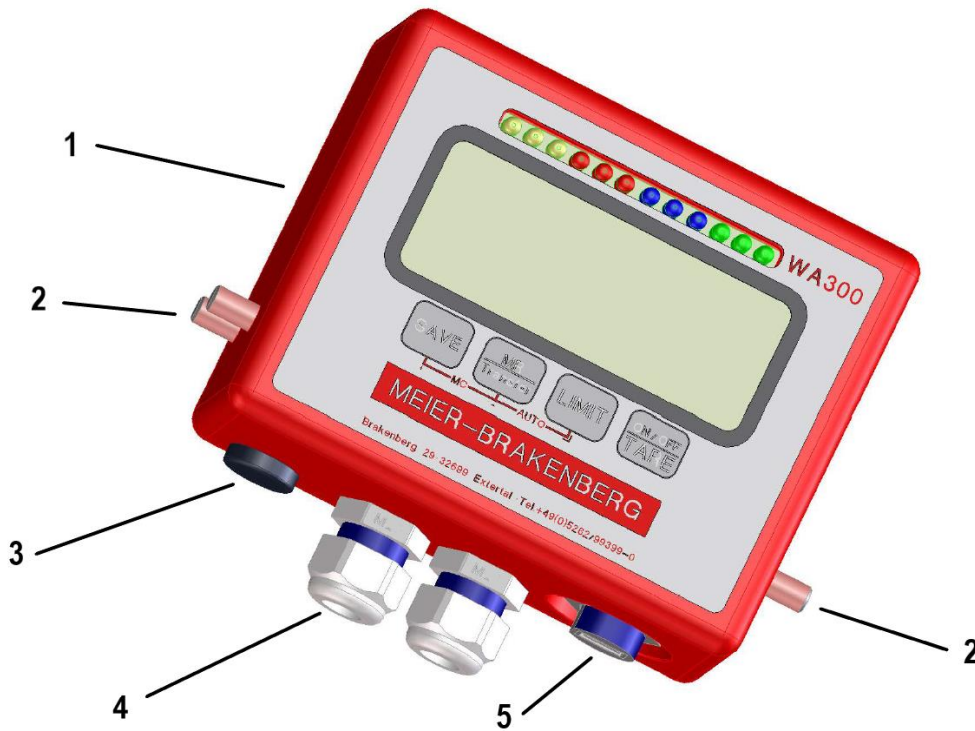


**Never clean the display with a high-pressure cleaner. The display may be irreparably damaged.**

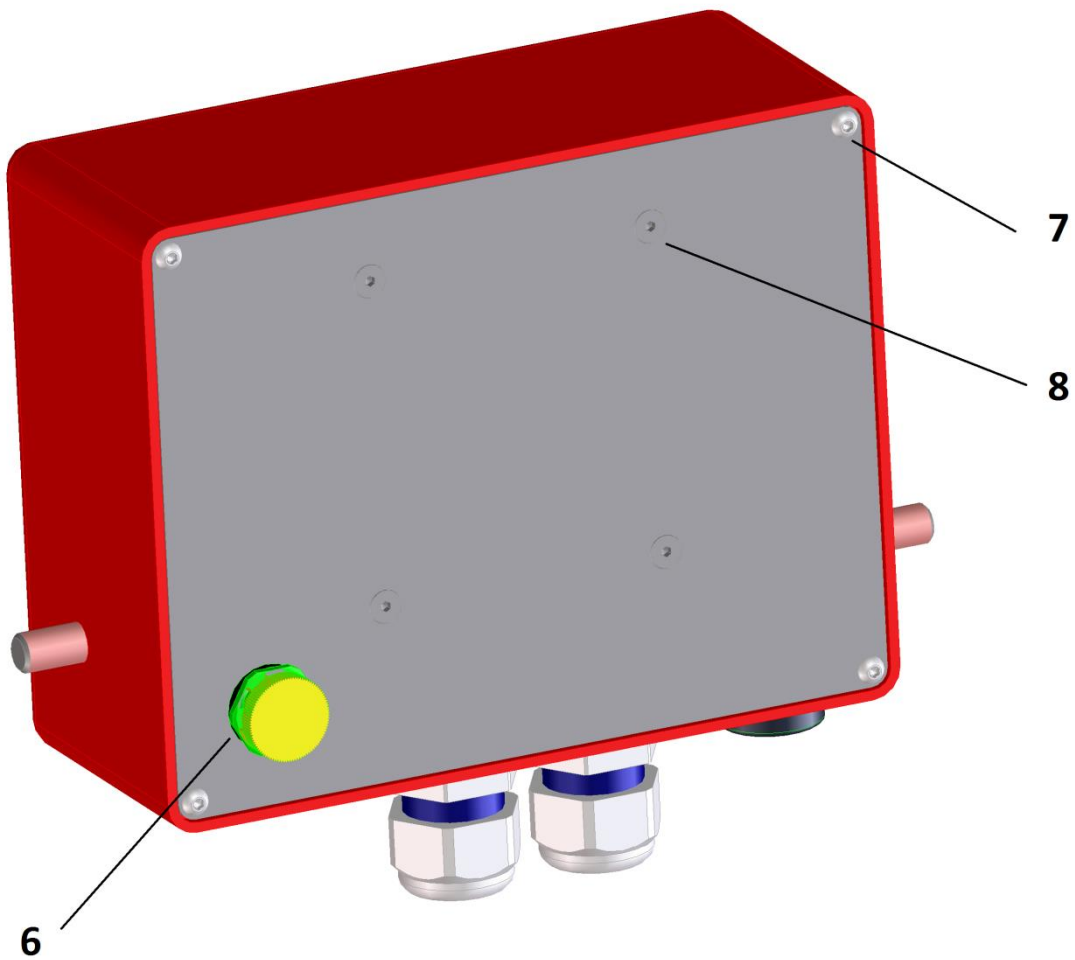
## 2. Description

The WA 300 display is a control unit and display used to operate a scale and to determine the weight of animals or other, as well as to store and then pass on the weighing results.

### 2.1 Construction



- 1 Housing
- 2 Fixing Screws
- 3 Cover for charging cable connection
- 4 Cable gland
- 5 USB-port



**6 Diaphragm for pressure compensation**

**7 screw plug for housing**

**8 Fixing screw**

## 3. Transport, commissioning and operation

### 3.1 Inspection

When you receive the display, check the packaging, the system itself, and any accessories for visible damage.

### 3.2 Packaging and disposal

Keep all parts of the original packaging for any necessary return transport.



#### Notice

Please use only the original packaging for the return transport. Separate/fix all loose/moving parts from the display before transport. Secure parts against movement / damage.

It is imperative that you observe the instructions and instructions (if any) attached to the packaging.

The disposal of packaging and display must be carried out by the operator in accordance with the valid national or regional law of the place of use. A defective battery must be disposed of separately in accordance with national and local regulations for environmental protection and recovery of raw materials.



This product should not be treated as normal waste. Please dispose of it via your waste disposal company (B2B).

### 3.3 Regular checks:

The display must be checked for obvious defects by the user before each use. Power cables must also be checked for damage before each use. If any defects are found, stop working with the display or the live cables immediately and contact your authorized dealer.

### 3.4 Test equipment monitoring

As part of quality assurance, the metrological characteristics of the display must be checked at regular intervals in conjunction with the balance and any test weight that may be present.

The user can define a suitable interval and the scope of this check.

### 3.5 Extraordinary inspections:

After unusual occurrences, the display shall also be presented to a competent person for a visual inspection outside the defined inspection intervals.

**Test criteria:**

- Proper function of the display
- Damage to the housing
- Damage to live cables and plugs

If any defects are found, stop working with the display and/or the live cables immediately and contact your authorized dealer.

### 3.6 Repair

Repairs to the display may only be carried out by the manufacturer or by the bodies commissioned by the manufacturer. The electronics are not completely waterproof and must not come into contact with splash water or be submerged.

If the electronics become wet or show visible damage, the balance must no longer be operated. If you need spare parts or accessories, please contact your dealer.

### 3.7 Inappropriate use

- The WA 300 electronic display unit must be protected from moisture. Particular attention must be paid to this during cleaning work.
- If small quantities are removed or added, the "stability compensation" in the balance may cause incorrect weighing results to be displayed!
- The design of the display must not be changed. This can lead to incorrect weighing results, safety defects and destruction of the display.
- The display may only be used in accordance with the specifications described.

**Danger!**

**Never operate the display in explosion hazardous areas.  
The display is not Ex-protected.**

Only original spare parts are to be used.

**Important note**

Both the design of the product and all regulations (standards etc.) quoted in the operating instructions refer to directives valid in Germany.

The product may only be used in other countries in accordance with the guidelines, regulations and laws applicable in the respective country of use.

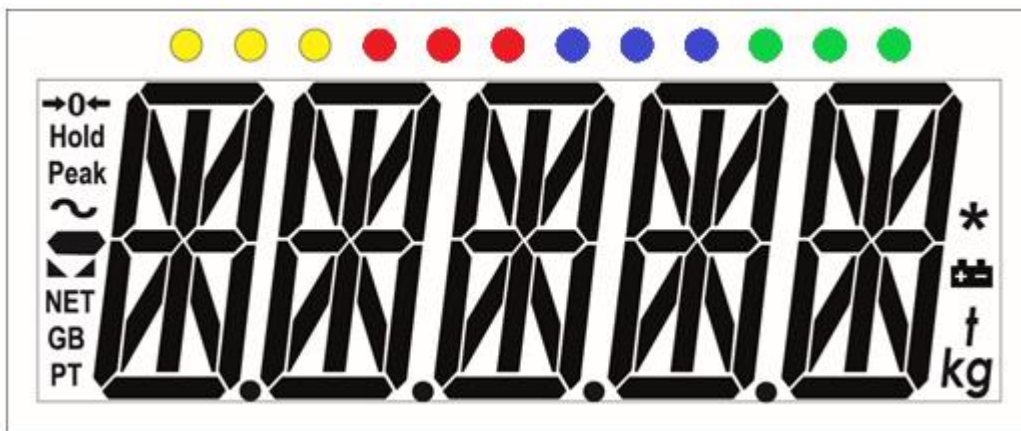
Only original spare parts are to be used.

## 4. Display

The WA 300 Series displays give you all the benefits of fast and accurate weighing. The keypad is waterproof and the LCD displays are equipped with backlighting as standard. All displays have a zero function, a sorting light and a total memory, which makes it possible to store the individual weighing and recall them as a total.

### 4.1 Display overview

The LCD display shows a value and a weighing unit on the right side of the digits. Other labels are G for gross and stable  $\blacktriangleleft\blacktriangleright$  or  $\sim$  for unstable.



Stability indicator, lights up when a weight is stable.  
 Unstable indicator, lights when a weight is moving.  
 Zero report

G

gross weighing



Detection of the setpoints








Kg


Active weight unit



## 4.2 Keyboard overview



	Operator level		Function level
 <b>ON/OFF TARE</b>	For switching the display on and off. Press and hold for 2 seconds to turn off the unit. After the display shows OFF, you can release the button.	<b>Esc</b>	Exit the function level.
 <b>LIMIT</b>	If LIMIT is pressed simultaneously with ON/OFF, the saving process is aborted.	 <b>Enter</b>	Accept input when setting parameters or other functions.
 <b>MR TRANSFER</b>	When the USB stick is connected, the data is transferred to the stick. Press for 2 seconds. The sum of the stored individual weighing and the resulting total weight are displayed.		To increase the activated digit when setting parameter values or other functions.
 <b>Save</b>	The current weight on the scale is stored.		To move the activated digit to the left when setting parameter values or other functions.

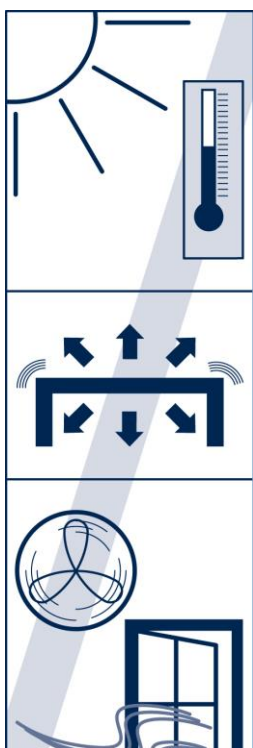
Press  and  together for MC. (The short-term memory for individual weighing operations is deleted).

## 5. Installation

### 5.1 System configuration

Press the ON/OFF button to activate the weighing system. After three to five minutes, the electronics and the load cells have reached operating temperature. Before this, deviations of up to approx. 0.3% are possible. Only after zeroing should loads be weighed. The system is designed to achieve reliable weighing results under normal operating conditions. If you choose the right location for your scale, you will work precisely and quickly.

### 5.2 Instructions for Starting Up the Balance



- The display and connected scale should not be used in any environment that could affect their accuracy.
- Avoid extreme temperatures and temperature fluctuations. Do not expose to direct sunlight; do not place next to fans or air conditioning.
- Do not use unsuitable documents. The floor must be solid and must not vibrate.
- Avoid unstable energy sources. Do not use the display and the scale connected to it next to machines with high power consumption such as welding equipment or large motors.
- Do not place next to vibrating machines.
- Avoid high humidity that could cause condensation.
- Avoid direct draught through fans or open doors and windows. Do not stand on open windows or next to fans.
- If the balance is not used for a long time, the internal battery must be recharged every 3 months.
- Keep the balance clean. Remove any objects from the scale when it is not in use.

#### Attention

- A short warm-up time of approx. 5 minutes for stabilization is advisable.
- Take animals or material after weighing from the platform
- The weight on the scale must not exceed the maximum load.




### 5.3 Backlight




The backlight starts automatically as soon as the balance registers an increase or decrease in weight. The backlight switches off automatically after approx. 15 seconds if the weight is stable.

### 5.4 Battery operation

Power is supplied by a 6 V DC battery. With a fully charged battery module, you can weigh for approx. 12 hours without interruption. If the battery symbol appears on the right side of the display, you still have power for approx. one hour, depending on the power consumption (e.g. backlight on or off) and battery status.

## 6. Weighing


Switch on the balance with . The software version is displayed. A self-test then follows - the scale counts down.

0.0" is displayed at the end of the self-test. The symbols   and  are displayed. A short warm-up time of 5 minutes after switching on stabilizes the measured values. The scale is ready to weigh. Position the animals or the sample on the scale. The gross weight appears in the display.

### 6.1 Dynamic weighing / animal weighing


The scale is optimized for dynamic loads and weighs 20 times per second; a calculated mean value is displayed.


### 6.2 Switch on/off and set to zero

The display has an automatic function to reset the scale to zero to compensate for minimal environmental variations or contamination on the scale. However, the display may show small amounts even though the platform is empty. You can reset the display of your balance to zero at any time with the  button to ensure that the weighing really starts from zero.

Turn on the scale.



When a small amount is displayed, press , to reset the balance to zero.

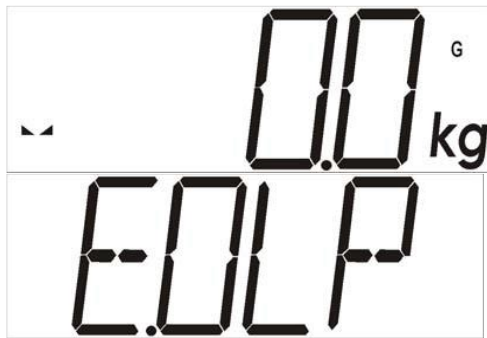
Zeroing with the weight applied is only possible within a certain range that depends on the type. If the balance cannot be reset to zero with the weight on, this range has been exceeded. To turn off the scale, press and hold the  button for 2 seconds. When the display shows off, you can release the button. If the battery voltage is too low, the balance switches off automatically. If no movement has taken place for 15 minutes, the display switches off automatically.


### 6.3 Automatic reset

The balance automatically sets itself to 0.0 after switching on.

## 6.4 Weighing procedure

Place the sample on the weighing plate. In the case of animals, please drive them into the scale.




If the weight values are stable, the stability display  appears.

If the sample is heavier than the set weighing range, „E.O.L.P.“ (=overload) appears in the display.

## 6.5 Check weighing

You can use the checkweighing function to check the weights of individual animals. In addition, the sorting light indicates whether the weighed animals are too light or too heavy.


### 6.5.1 Switching the sorting light on and off

To activate the traffic light, press and hold the  button for 2 seconds. The display briefly shows the status of the traffic light.

Status ON. The traffic light is active.

Status OFF. The traffic light is inactive.

### 6.5.2 Setting the limits

Press  briefly.  
The display briefly shows






The display then switches automatically to the value input.




Activate the setting for the limits of the yellow LEDs.

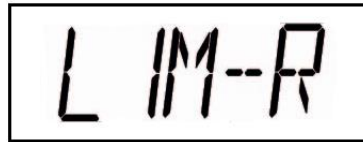
The right display flashes.

For the group animal  displayed:

Use the  keys to move up one value and  to move one digit to the left.

Press the  key to confirm the value of the limit for the yellow LED'S and switch to the next limit setting

The display briefly shows





Activate the setting for the limits of the red LEDs.


The display then switches automatically to the value input.



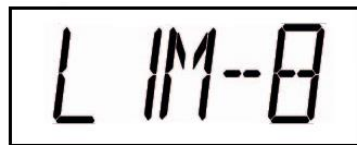
The right display flashes. For the group animal scale,

0013 is displayed.

Use the  key to move up one value and  to move one digit to the left.

Press the  key to confirm the value of the limit for the red LED'S and switch to the next limit setting

The display briefly shows





Activate the setting for the limits of the blue LEDs.


The display then switches automatically to the value input.



The right display flashes. For the group animal scale,

0019 is displayed.

Use the  key to move up one value and  to move one digit to the left.

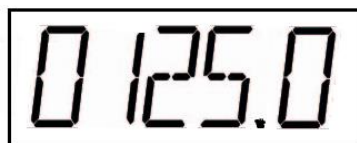
Press the  key to confirm the value of the limit for the blue LED'S and switch to the next limit setting

The display briefly shows





Activate the setting for the limits of the green LEDs.


The display then switches automatically to the value input.



The right display flashes. For the group animal scale,

00125 is displayed.


Use the  key to move up one value and  to move one digit to the left.

Press the  key to confirm  
All values are saved.

The display briefly shows




The display then automatically switches to the weighing mode.

To activate the function with the settings made (or preset): Press and hold the  key (approx. 2-3 seconds). To deactivate the traffic light function, press and hold the same key (2-3 seconds). The setting (On/Off) is saved simultaneously.

## Attention



- Press key  to exit the menu without saving
- In the menu for entering the values, the weight display is shown (kg).
- If no key is pressed for a longer period of time, the normal weighing cycle is automatically returned.

## Factory setting of the limits for the mobile scale

0 kg – 106,4kg:	no LEDs on (the weight is less than LIMIT-Y)
106,5kg – 112,4kg:	yellow LEDs on (LIMIT-Y $\leq$ weight value < LIMIT-RED)
112,5kg – 118,4kg:	red LEDs on (LIMIT-RED $\leq$ weight value < LIMIT-BLUE) 118,5kg –
124,4kg:	blue LEDs on (LIMIT-BLUE $\leq$ weight value < LIMIT-GREEN)
$\geq$ 125,5kg:	green LEDs on (LIMIT-GREEN $\leq$ weight value)



## Factory setting of the limits for the group animal scale

< 107kg:	no LEDs on (the weight is less than LIMIT-Y)
107 kg – 112 kg:	yellow LEDs on (LIMIT-Y $\leq$ weight value < LIMIT-RED)
113 kg – 118 kg:	red LEDs on (LIMIT-RED $\leq$ weight value < LIMIT-BLUE)
119 kg – 124 kg:	blue LEDs on (LIMIT-BLUE $\leq$ weight value < LIMIT-GREEN)
$\geq$ 125,5kg:	green LEDs on (LIMIT-GREEN $\leq$ weight value)

## 6.6 Various memories

The balance has two different types of memory.



### 1. Short-term memory

The data is only stored for a short time in the short-term total memory. To get a quick overview of the weighed animals without much effort, you can display the short time memory directly on the scale. The values in the short-term total memory are deleted automatically when the balance is switched on and off. You can also clear the short-term total memory by pressing  and  together.


### 2. Long-term memory

All weighing operations are stored in the long-term memory. These are also available after the balance has been turned on and off. The long-term memory can be transferred to a USB stick. It is then available as a .csv file for analyzing on a computer.



## 6.7 Short-term totals memory

To save the current weight, press the  button. MEM then appears in the display, followed by the consecutive number 0001 of the weighing. The current weight value is stored. Up to 9999 weighings can be stored. After you have put a new animal on the scale, press  again. The display shows MEM and 0002.

## 6.8 Recall short-term total memory

To view the stored total, press and hold the  button for 2 seconds. M.CNT appears in the display after 2 seconds. You can release the button. Immediately afterwards, the number of stored weighings is displayed. After another 2 seconds, M.SUM appears and then the total of all stored weighings is displayed. The balance then automatically returns to the weighing overview screen.

## 6.9 Clear short-term total memory


To clear the memory, press  and  together. The display shows M:CLR. The current total memory is now deleted.

## 6.10 Long-term memory

The long-term memory stores all weighings that have also been saved in the short-term memory. All weighing operations of one day are automatically combined into one file. The long-term memory can be transferred to a USB stick. The long-term memory can only be deleted via the main balance menu. Once the long-term memory has been deleted, it cannot be restored.

## 6.11 Transfer long-term memory

Attention: Please use only the USB 2.0 stick supplied by Meier. Please do not use USB 3.0 sticks or sticks with a storage capacity of less than 1.0 GB or more than 128 GB. The formatting of the USB 2.0 stick must be FAT 32. Other formats are not supported.

After you have connected a USB stick, briefly press the  button. "WAIT" appears in the display. Do not remove the USB stick while the display shows "Wait". After a short wait, "Done" appears. You can then remove the stick.


The files contain the weighings of the individual days. All the weighings of a day are always automatically grouped in one file. The file is saved under the corresponding weighing date in the Meier-Brakenberg folder. The file can be opened and edited using Microsoft Excel. If you do not have Microsoft Excel, you can open the file with the text editor.










The following data is transferred


1. Consecutive weighing number (Alibi Nr.)
2. Date
3. Time
4. Gross [kg]
5. Net
6. Tare

Alibi Nr.	Date	Time	Gross ( Kg)	NET ( Kg)	TARE (Hg)
1	18.10.2018	13:48:26	107	0	0

## 6.12 Delete long-term memory

Switch off the display by holding down the  button for 2 seconds and releasing it as soon as the display shows "OFF".

- Switch the display on by shortly pressing the  button.
- While the scale is counting down, press the  button. „\*\*\*\*“ appears in the display
- Now use the arrow keys to enter the code 0000. Confirm the entry with .
- “ SCAL” appears in the display. Press .
- “ COM1” appears in the display. Press  four times.
- “ MEM” appears in the display. Press .
- „M.CLR“ appears in the display. Press  again and "NO" appears.
- Please change the parameters to "YES" by pressing .
- Now confirm with . Wait" appears in the display for approx. 45 seconds.


The long-term memory is then completely erased. To return to the weighing menu, press  twice. The balance restarts. You can then weigh as usual.

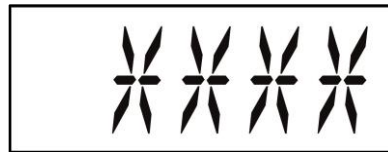


## 7. Calibration with weights

Since the value of the acceleration due to gravity is not the same at every location on earth, each balance must be adjusted - according to the physical weighing principle on which it is based - to the prevailing acceleration due to gravity at the place of installation. (Only if the balance has not already been adjusted to the place of installation in the factory).

Make sure that the balance is not loaded.

Switch on the balance. While the scale is counting down after switching on, press the  button.



“SCAL” appears.  
Press 



„CHN.A.” appears.  
Press 



„SET“ appears.  
Press 






“CAL” appears.  
Press 

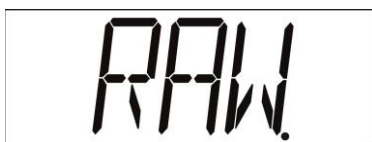


„LN.Cal“ appears.  
Press 




A code is required. Enter the code 0000.. Use the  and  buttons to navigate through the menu. Confirm the code with .

„RAW“ appears.  
Press .



“ST.ZRP” appears.  
Press .



It appears for a short moment “Wait” and then “Done”. “ZRP” is then displayed again. Press .



„ST.LOA“ appears.  
Press .



The raw measured value appears.




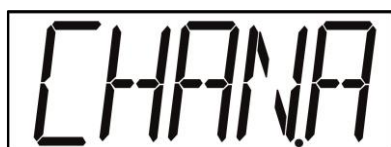
It appears for a short moment “Wait” and then “Done”. Then “St-LOA” is displayed again.









Press  twice.  
„A.STO“ appears..  
Confirm with .








After you have confirmed “A.STO” with , “CHN.A “ appears again.




Please remove all items from the scale.  
After you have pressed , the raw measured value of the cells appears. Please wait until   appears on the left side of the display. Then press .

After you have pressed , you must now enter the value of the reference weight. The default value is 100.0 kg. Please confirm the value with .

After you have pressed , the raw measured value of the cells appears. Place the selected weight on the balance. Please wait until   appears on the left side of the display. Then press .


A.STO saves all changed settings. If you do not confirm A.STO with , all changes including calibration will be lost.

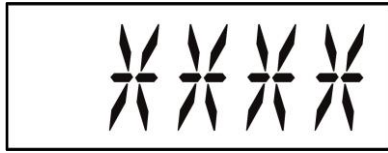
Now exit the menu by pressing  again. The scale restarts and starts the normal weighing mode.

If the calibration was not successful, the error message "ERR" is displayed. Repeat the entire procedure as a fault may have prevented successful calibration.

After calibration, the balance should be checked for correct calibration and linearity. If necessary, repeat the procedure and ensure that the balance is stable before placing a weight on it.

## 7.1 Theoretical calibration

Switch on the balance. While the scale is counting down after switching on, press the  button.



„SCAL“ appears.  
Press 



„CHN.A.“ appears.  
Press 



„SET“ appears.  
Press 






“ CAL” appears.  
Press 

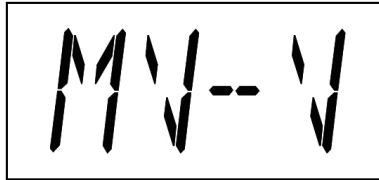


„LN.CAL“ appears.  
Press 



A code is required. Enter the code 0000. Use the  and  buttons to navigate through the menu. Confirm the code with .

„MV-V“ appears.  
Press 



„Field“ appears.  
Press 







„Sens“ appears.  
Press 



**It appears 2,000 at V5.n or  
1.720 at V1.n.  
n = software version**


Please enter the sensitivity value of the cell or cells here. If you are using more than one cell, please add up the individual values and divide them by the number of cells. Example of a system with 4 cells with sensitivity: 2.00100, 2.00150, 2.00200, 2.00250. The value to be set is 2.00175 and the result of the following calculation  $(2.00100 + 2.00150 + 2.00200 + 2.00250) / 4$ .

To change the value, press the  button; to change between numbers, press the  button.

After input, confirm the value with . „Sens“ appears again. Press 



„T.Cap“ appears.


Press 




Please enter the total capacity of the cells here. Example for 4 cells with a capacity of 1000kg each. The value to be set is 4000kg.


The capacity appears.



After entering, confirm the value with .

„T.Cap“ appears again..

Press 

„G.ACC“ appears. After input, confirm the value with .


„G.ACC“ appears again.

Press 




Please enter here the value of the acceleration due to gravity of the respective installation site. If you manually correct the value of the theoretical calibration with real weights at the installation site, you do not need to change this value.

„ST.ZRP“ appears.

Press 



Please confirm the displayed value with .

**The RAW measured value appears.**


„ST.ZRP“ appears again.

Press 





Then press  four times.

„A.STO“ appears.


Confirm with 



„A.STO“ saves all changed settings. If you do not confirm „A.STO“ with , all changes including calibration will be lost.

After you have confirmed „A.STO“ with , „CHN.A“ appears again.



Now exit the menu by pressing  a second time. The balance restarts and starts the normal weighing mode.






We recommend checking each theoretical calibration by applying real weights (at least 50% of the maximum load).

If the value shown on the display deviates from the value of the real weights, it must be corrected.

## 7.2 Correction of the theoretical calibration


If the displayed value of the theoretical calibration deviates from the value of the real weights, this value can be corrected.

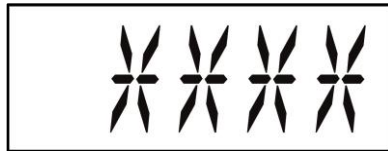
Press and hold the  button for more than 5 seconds.




The currently displayed value appears on the display and starts flashing. Now correct this value using the  and  buttons. Use the  key to change the values. Use the  key to switch between the individual digits. After entering the value for the real weights, please confirm with . You can make this correction as often as you like.

## 7.3 Selection of the calibration

To switch between theoretical calibration and calibration with weights, proceed as follows.

Switch on the balance. While the scale is counting down after switching on, press the  button.

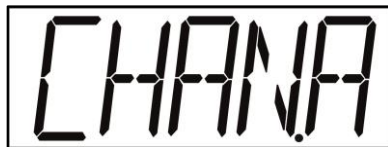


A code is required. Enter the code 0000. Use the  and  buttons to navigate the menu. Confirm the code with .

„SCAL“ appears.  
Press 



“CHN.A” appears.  
Press 



„SET“ appears.  
Press 



„CAL“ appears.

Press 




„LN.CAL“ appears.

Press  twice



„CAL.SL“ appears.



Press 



„Fild“ appears.

Press 



Now press the  button to select between the “Field” theoretical adjustment and the adjustment with weights “LN.CAL” Confirm your selection with 



„Done“ appears.




CAL.SL is then displayed again.




Then press three times 

„A.STO“ appears.

Confirm with 




After you have confirmed A.STO with , CHN.A appears again.




“A.STO” saves all changed settings.

If you do not confirm “A.STO”

with , all changes including calibration will be lost.

Now exit the menu by pressing

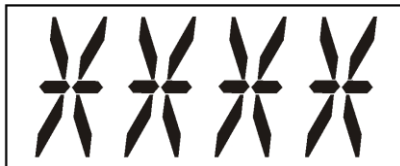
 a second time. The balance restarts and starts the normal weighing mode.

## 7.4. Setting the date and time

The balance has an internal timer. To set the date and time, proceed as follows.

### 7.4.1 Time

Turn on the balance. While the balance is counting down after it is turned on, press the **LIMIT** button.



SCAL appears.  
Press **LIMIT**.



COM 1 appears.  
Press **MR TRANSFER** three times.



Date appears.  
Press **LIMIT**.



Time appears.  
Press **LIMIT**.



.hh appears for 2 sec.

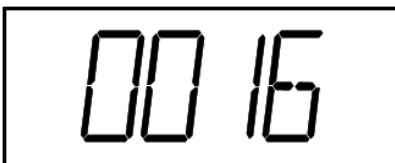
Now enter the hours. Confirm with **LIMIT**.



MM appears for 2 sec

Now enter the minutes.

Confirm with **LIMIT**.



Time appears. The entry of the time is now completed. Exit the menu by pressing **ON / OFF TARE** three times.



A code is required. Enter the code 0000. Use the **MR TRANSFER** and **SAVE** buttons to navigate the menu. Confirm the code with **LIMIT**.

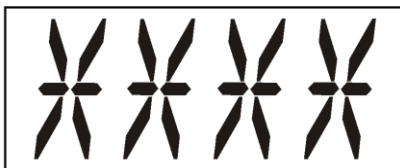
Use the **MR TRANSFER** and **SAVE** buttons to navigate the menu. Confirm the hours with **LIMIT**.



The balance carries out the self-test again and restarts.

### 7.4.2 Date

Turn on the balance. While the balance is counting down after it is turned on, press the **LIMIT** button.



SCAL appears.  
Press **LIMIT**.



COM 1 appears.  
Press **MR TRANSFER** three times.



Date appears.  
Press **LIMIT**.



Time appears.  
Press **LIMIT**.



Date appears.  
Press **LIMIT**.



.dd appears for 2 seconds.

Now enter the day  
Confirm with **LIMIT**.



MM appears for 2 seconds.

Now enter the month.  
Confirm with **LIMIT**.




A code is required. Enter the code 0000. Use the **MR TRANSFER** and **SAVE** buttons to navigate the menu. Confirm the code with **LIMIT**.

Use the **MR TRANSFER** and **SAVE** buttons to navigate the menu. Confirm the day with **LIMIT**.

Confirm the month with **LIMIT**.

YYYY appears for 2 seconds.  
Please enter the year.


Confirm with .



Use the  and  buttons to navigate the menu. Confirm the year with .


DATE appears. The entry of the date is now completed.

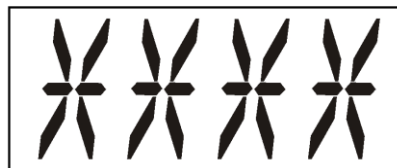





Exit the menu by pressing  3 times.

The balance carries out the self-test again and restarts.


### 7.4.3 Backlight

Turn on the balance. While the scale is counting down after you turn it on, press .



A code is required. Enter the code 0000. Use the  and  keys to navigate in the menu. Confirm the code with .

SCAL appears.


Confirm with .



COM 1 appears.


Press  seven times.



Use the  key to navigate in the menu. You can make your selection:

BCK.AU (backlight switches on and off automatically), BCK.ON (backlight is always on) and BCK.OF (backlight is always off)

BCK.LI appears.

Confirm with .

Confirm the setting with .

Exit the menu by pressing

 3 times.

The balance carries out the self-test again and restarts.

## 7.5 Error search

If there is a malfunction in the program sequence, the balance should be switched off briefly. The weighing procedure must then be restarted.

## 7.6 Balance error messages

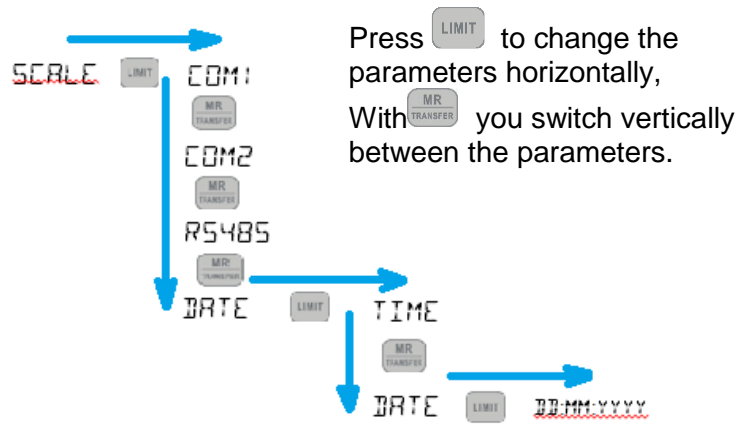
Error message	Description	Possible cause
E.016	No USB stick connected	No USB stick available
E.040	No data available for transfer	<i>There are no values in the long-term or short-term memory.</i>
E.OPL	Overload	<i>The maximum set weighing range is exceeded.</i>
E.HLG	HI and LOW values incorrectly defined	<i>The set HI value is smaller than the set LOW value.</i>

## 7.7 Setting of parameters

**Example:** To set the date, turn on the display and enter the password as described above. Press the buttons in the order shown:



Anzeige	Anzeige	Anzeige	Format	Beschreibung
SCALE	COM1	MODE 1	PC (Sends the data on request)	Default
			CONT (Sends the data continuously)	
		BAUD 1	2400, 4800, 9600, 14400, 19200, 28800, 38400, 56000, 57600, 115200, 128000, 256000 (Default: 9600)	Setting <u>BaudRate</u>
		PART 1	8N1, 7E1, 7D1 (Default: 8N1)	8N1 -> (Data bits, 1 Stopbit, No parity)
		NR:RST	YES / NO (Default: NO)	<u>Reset of certain devices</u>
	COM2	Like Com1	Like com 1	Like Com1
	RS485	No function	No function	No function for displays 1-2-3 Animal weighing series
DATE	TIME	TIME	HH:MM	Setting the time. Use  and  to navigate in the menu. Confirm with .
		DATE	DD:MM:YYYY	Setting the time. Use  and  to navigate in the menu. Confirm with .
MEM		ME CLR	YES / NO (Default: NO)	Delete the long-term memory. Navigate with  and .



You reach the input field for the date. All other parameters can be adjusted in the same way.

To save the parameters, first press **LIMIT**, then press **MR TRANSFER** until A.STO appears. Confirm A.STO with **LIMIT** to save the adjusted parameter.

















**An adjusted parameter can only be stored if A.STO has been confirmed with **LIMIT**.**

## 7.8 Resetting to factory settings


The menu can be reset to factory settings. In the menu under **CHN.A** you will find the display **Reset**. If you confirm **Reset** with **Yes**, the display returns to the factory settings.

## 7.9 Parameter

Please note: For not every software version all parameters are available.

Anzeige	Anzeige		Anzeige	Format	Beschreibung	
SCALE	Com1		Mode 1	PC (Sends the data on request)	Default	
				Cont (Sends the data continuously)		
			Baud 1	2400, 4800, 9600,14400, 19200, 28800,38400, 56000, 57600,115200, 128000, 256000 (Default: 9600)	Setting BaudRate	
			Part 1	8n1, 7E1, 7O1 (Default: 8N1)	8N1-> ( Data bits, 1 Stopbit, No parity)	
			NW:RST	YES / NO (Default: NO)	Reset of certain devices	
		Com2		Like Com1	Like com 1	Like Com1
		RS485		No function	No function	No function for displays 1-2-3 Animal weighing series
		Date		Time	hh:mm	Setting the time. Use  and  to navigate in the menu. Confirm with 
			date	Dd:mm:yyyy	Setting the time. Use  and  to navigate in the menu. Confirm with 	
		Mem		mE.CLR	Yes /NO (Default: NO)	Delete the long-term memory. Navigate with  and  in the menu.
		Au.SWO		SW.TME	Off, 1-10, 15,20,25,30 (Default: 15)	Setting the automatic switch-off time. Navigate with  and  in the menu. Confirm with 
				SW.WeI	0000 (Default: 0005.0)	Setting the automatic switch-off weight. Use  and  to navigate in the menu. Confirm with 
				SW.BAT	2.5-5.0 (Default: 5.0)	Automatic voltage switch-off
		UNIT			SEL.0( ) SEL.1(g) SEL.2(kg) (Default) SEL.3(t)	Visualized weight unit (No conversion takes place when switching over)
		BCK.li			BCK.AU BCK.ON BCK.OF (Default: BCK.AU )	BCK.AU: Backlight automatically switches ON and OFF BCK.ON: Backlight is always ON BCK.OF: Backlight is always OFF
	EXT.IO			TIME.0	OFF, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0 (Default: 3.0)	Pulse duration output 0
				TIME.1	OFF, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0 (Default: 3.0)	Pulse duration output 1
			OUT.0	OFF, LOW, OK, HIGH (Default: OFF)	Switching condition for output 0	
			OUT.1	OFF, LOW, OK, HIGH (Default: OFF)	Switching condition for output 1	
			FLOW.0	OUT, IN (Default: OUT)	Selection between output or input (function not available)	

	EXT.IO		FLOW.1	OUT, IN (Default: OUT)	Selection between output or input (function not available)
			WEI.ST	STABL, UNSTA (Default: STABL)	Gearshift play with stable or unstable weight
	TARE			OFF / ON (Default: OFF)	OFF: Tare the display without storing the gross value. ON: Tare the display with storage of the gross value.

CHn.A	Set		DCP	00000, 0000.0, 000.00, 00.000, 0.0000 (Default: 0000.0 for V1.n; 00000 for V5.n)	Selection of the decimal point.		
			cap	00001-99999 (Default: 1000.0 for V1.n; 03000 for V5.n)	Setting the capacity.		
			inc	1, 2, 5, 10, 20, 50, 100, 200 (Default: 5 for V1.n; 1 for V5.n)	Selection of the digit increment.		
			Olp	On / OFF (Default: ON)	It can be selected whether overload in the display is displayed or not.		
	Cal	LN.Cal		Raw	0-99999	Raw measured value of the cells.	
				ST.zrp	0-99999	Raw measured value from zero point	
				ST.LoA	0-99999 (Default: 0100.0 for V1.n; 01000 for V5.n)	Reference weight.	
		MV-V	Field		Sens		2.0000 MVV value of cells (Default: 1.7200 für V1.n; 2.0000 für V5.n)
					T.Cap		Capacity of cells (Default: 1496.0 für V1.n; 04535 für V5.n)
					G.aCC		acceleration of gravity (Default: 9.8130)
					ST.zrp		Raw measured value from zero point
					Activ		Done
		CaL.SL	Field		Done		Theoretical calibration active
					Lncal	Done	Real calibration active
	ZR.SET		AU.zrP	OFF, 0.25D, 0.5D, 1D, 2D, 3D, 4D (Default: 4D)		Functional area for Auto Zero. Set the automatic zero tracking range	
			ra.zrP	0, 2, 4, 10, 20, 50, 100 (Default: 100)		Zero point when pressing  . The total capacity of the balance is not if the new zero is within the range of of 10 % of it.	
			on.zrP	0, 2, 4, 10, 20, 50, 100 (Default: 100)		Start zero at power-up. Zero adjustment on power-up. The total capacity of the balance is not affected if the new zero point is within 10 % of it.	
	FILOTR			DYN.FL, STD.FL (Default: DYN.FL)		Dynamic filter for animal weighing	
						Standard filter for static weighing	
	Reset			Yes No		Factory settings	

## 7.10 Charging the battery

Connect the mains cable to the display ( Pos.1 ) and connect the plug to the socket. Charging starts automatically. The battery symbol starts to glow permanently when the display is switched on.



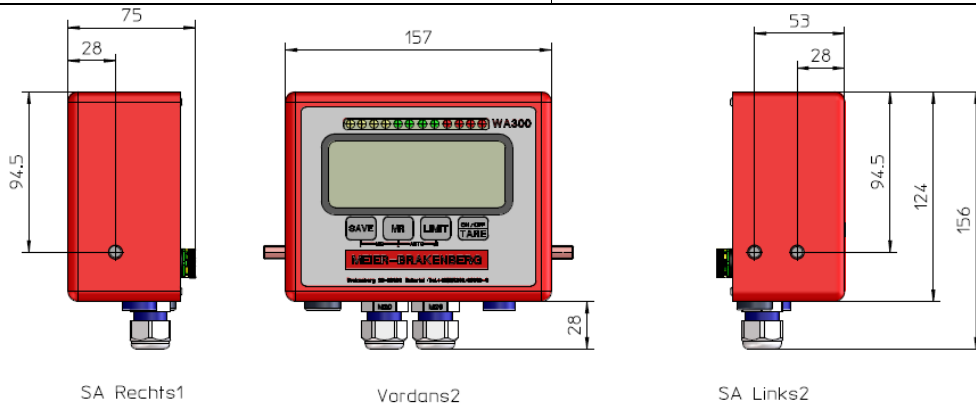
- Complete charging of a empty battery at 23 °C takes approx. 24 hours. The charging time of the battery depends on the surrounding temperature and the state of charge of the battery.
- Charging time may be longer at low temperatures
- Charge the battery the day or day before use. Batteries will discharge even if not used or stored over time.
- The power supply unit can also be used abroad. It can be connected to voltage sources with 100 to 240 V AC and 50/60 Hz. If necessary, connect a commercially available socket adapter for the corresponding country or region. Do not connect any portable voltage transformers. This could damage the power supply unit and the display.
- If the voltage drops rapidly even after complete charging, the battery is worn out. In this case, please contact your local dealer.
- Use only batteries, power sources, or accessories intended for use by the manufacturer.
- Do not use batteries manufactured or modified by yourself.
- Do not short-circuit, disassemble, or make any other changes to rechargeable batteries or storage batteries.
- Do not expose the battery or storage battery to heat, solder, fire, or water.
- Do not insert the battery or memory battery in the opposite polarity direction (+/-). Do not use new and old batteries or different battery types at the same time.
- Charge the battery only within the permissible ambient temperature range. Do not exceed the charging time.
- Do not insert any metal foreign objects into the electrical contacts of the display, accessories, connecting cables, etc.
- Do not store rechargeable batteries near children.

- Contact a physician immediately if a child has swallowed the battery
- Before disposing of the battery or storage battery, insulate its contacts with an adhesive strip to prevent direct contact with other metal objects. This will prevent fire.
  - If the display, battery or AC adapter heats up heavily during charging, stop charging immediately by unplugging the battery charger from the socket.
  - Remove the battery or storage battery immediately, if liquid or gel is leaking. If the battery changes color or shape, disconnect the battery from the balance or AC adapter. Be careful not to get burned.
  - Contact with battery fluid may cause skin problems or blindness. If leaking fluid comes into contact with eyes, skin or clothing, rinse the affected area thoroughly with water immediately. Then seek medical attention immediately.
  - Do not store cables near heat sources. This may deform the cable and damage its insulation, resulting in a risk of electric shock or fire.
  - Do not use the display or charger near flammable gas.
  - Do not disassemble the display and don't make any changes to it
  - Do not store the display in a humid or dusty environment.
  - If the display falls into water or water penetrates the housing, immediately remove the battery or storage batteries.
  - Do not cover power supply units or chargers with cloths or wrap them up. This can lead to heat accumulation.
  - Insert the plug completely into the socket.
  
  - Do not handle the charging and power cables with wet hands.
  - If you remove the plug from the socket, hold the cable by the plug. ( not on the cable ! )
  - Power cables must not be damaged, cut, bent or loaded with heavy objects. Do not twist or knot any cables. Unroll cables completely before using cable drums. Do not connect too many plugs to the same socket. Do not use cables with damaged insulation.
  - Disconnect the plug from the socket regularly. and remove dirt and dust from the plug and the area around the socket.

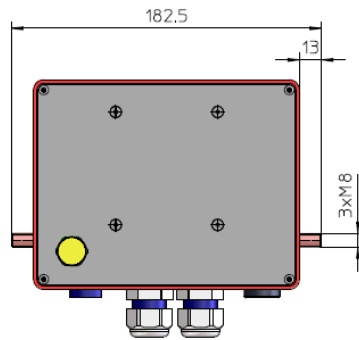


## 8. Technical data

Attribute	Value / Unit
Length	183 mm
Width	75 mm
Height	156 mm
Dead weight	ca. 1,9 kg
Fixing screws	M8
Control voltage	6 V DC
Battery Operating time	up to 12 hours in continuous operation
Temperature	+10 °C to +40 °C



Drfsicht2



Rckans2

## 9. Wiring diagram WA300MM/WA300MS (mobile/stationary.)

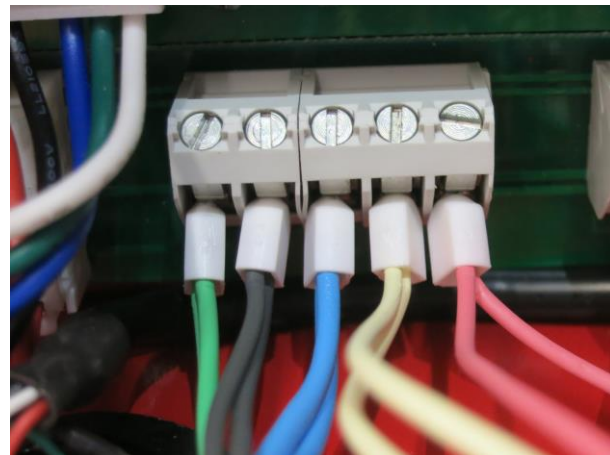
	<b>E+</b>	<b>E-</b>	<b>⊥</b>	<b>S+</b>	<b>S-</b>
<b>Mobile Scales: (WA300MM)</b> WA18, WA08, WAS, WAF, WASA, WAF, WAKF, etc.	red	black	Shield (blue)	white	green
<b>Stationary Scales: (WA300MS)</b> WASTN	green	black	Shield (blue)	white	red



Connecting terminal




Mobile Scales



Stationary Scales

# 10. Declaration of conformity

	<b>KONFORMITÄTSERKLÄRUNG</b> <i>Declaration of conformity</i> <i>Déclaration de conformité</i> <i>Conformiteitsverklaring</i> <i>Declaración de conformidad</i>	
<b>Typ/Modell:</b> <i>Type/Model – Modèle – Model -Tipo/ Modelo :</i> WA300 / WA300MS	<b>1-2-3 Tierwaage</b> <b>Seriennummern:</b> 1-2-3 Tierwaage2016A001-1-2-3 Tierwaage2016999 <i>Serial numbers - Les numéros de série – Seriennummers -</i> <i>Números seriales: WASTN</i>	
<b>Hersteller:</b> <i>Manufacturer – Fabricant – Fabrikant - Fabrikante:</i>	Meier-Brakenberg GmbH & Co. KG Brakenberg 29 DE-32699 Extertal	

**Die alleinige Verantwortung für die Ausstellung trägt der Hersteller.**

*The sole responsibility for the issue carries the manufacturer - La seule responsabilité de l'exposition porte le fabricant – De verantwoordelijkheid voor de uitgifte draagt de fabrikant. - El único responsable de la publicación lleva el fabricante.*

**Die nicht selbsttätige Waage 1-2-3 Tierwaage**

*The non-automatic weighing instrument – L'instrument de pesage à fonctionnement non automatique – De niet-automatische weeg – El pesaje de funcionamiento no automático*



**Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union:**

**2014/30/EG**  
**2014/35/EU**

*The object of the declaration described above complies with the relevant Union harmonization legislation:*

*L'objet de la déclaration décrit ci-dessus est conforme à la législation d'harmonisation de l'Union:*

*Het doel van de verklaring bovenbeschreven voldoet aan de relevante harmonisatiewetgeving van de Unie:*

*El objeto de la declaración descrito anteriormente cumple con la legislación de armonización pertinente de la Unión:*

**entsprechend den folgenden Normen:**

*in conformity with following standards:*

*conforme aux norms suivantes:*

*volgens de volgende normen:*

*de acuerdo con las siguientes normas:*

EN 55022 :2011-12  
 DIN EN 61000-3-3 VDE 0838-3 :2009-06  
 DIN EN 55024 VDE 0878-24 :2011-09  
 DIN EN 61000-4-2 VDE 0847-4 2 :2009-12  
 DIN EN 61000-4-3 VDE 0847-4-3 :2011-04  
 DIN EN 61000-4-4 VDE 0847-4-4 :2010-11  
 DIN EN 61000-4-5 VDE 0847-4-5 :2007-06  
 DIN EN 61000-4-6 VDE 0847-4-6 :2009-12  
 DIN EN 61000-4-11 VDE 0847-4-11 :2005-02  
 DIN EN 61000-6-3 VDE 0839-6-3 :2011-09  
 DIN EN 61000-6-4 VDE 0839-6-4 :2011-09

**Unterzeichnet für und im Namen von:**

*Signed for and on behalf of: - Signé pour et au nom de: - Ondertekend voor en namens: - Firmado por y en nombre de:*

**Meier-Brakenberg GmbH & Co.KG**

**Extertal, 20. April 2016**

*Extertal, 20 April 2016 - Extertal 20 Avril 2016 - Extertal, 20 April 2016 - Extertal, 20 de Abril el año 2016*

*Wolfgang Meier*      *Marc Piechnik*

**Meier, Wolfgang, Piechnik, Marc, Geschäftsführer - managing director – manager – gerente**