

OPERATING MANUAL

ADE

Electronic compact scales



Compact scale – GW400 series

GW400-210408-Rev004-UM-en



1. Table of Contents

1.	Table of Contents	2
2.	About this operating manual	3
	General information	3
	Storage	3
	Target group	3
3.	Safety instructions	3
4.	Intended use	4
5.	Scope of delivery	5
6.	Getting started with the scale	5
7.	Operating and display elements	6
	Overview	6
	Key names and functions	6
	Display symbols	7
	Battery status indicator	7
8.	Using the scale	7
	Preliminary note	7
	Switching the scale on and off	7
	Zeroing	8
	Taring	8
9.	Backlight and parameter settings	8
	Backlight setting	8
	Changing automatic switch-off time	9
10.	Care and maintenance	9
	Cleaning	9
	Replacing/inserting the battery	10
	Faults and error messages	10
	Storage and transport conditions	11
	Disposal	11
	Warranty	11
	Recalibration	12
11.	Technical data	13
12.	Declaration of conformity	14

2. About this operating manual



This symbol means: "Consult operating instructions". To achieve accurate results, read the instructions for use carefully before use and follow all instructions provided therein. Keep the instructions for use for future reference.

General information

- This operating manual describes the safe operation as well as the operation, care, and maintenance of the scale.
- Only compliance with the operating manual is considered intended use.
- Please read this operating manual carefully before connecting and using the scale. Failure to observe this operating manual may result in injuries or damage to your product.
- Our products are constantly being developed and improved. For this reason, design and technical modifications are possible at any time. However, this does not influence the content of this manual.

This operating manual provides you with the information you need to start up the scale quickly.

To obtain accurate results, please read the installation and operating manual carefully and comply with the instructions contained therein. The scale may only be operated and maintained by trained personnel.

Storage

The operating manual is part of the scale. It must be kept near the scale and must be easily accessible for everyone.

When reselling the scale, the operating manual must also be supplied.

Target group

This operating manual is intended for personnel who are responsible for setting up, operating, care and maintenance of the scale. Personnel who operate the scale must have read and understood this operating manual before using it for the first time.

3. Safety instructions

It is essential that you read, understand and follow all instructions in these instructions for use as well as the country-specific installation standards, the applicable safety regulations and accident prevention regulations.

- Handle the scale with care and always keep in mind that it is a precision measuring instrument.
- Protect the weighing platform from impacts and vibrations and do not overload the scale.
- The scale may only be operated and maintained by trained and authorised skilled personnel. Handling errors can lead to injuries or damage the scale.
- Before first use, make sure that the mains voltage and current type stated on the nameplate match the mains voltage and current type at the place of use.
- Lay the cables so that they cannot lead to a trip hazard.
- Lay the cables so that they cannot pose a risk of strangulation.
- Operate the device only under permissible ambient conditions.
- Do not expose the scale to high temperatures, whether from neighbouring devices or direct sunlight.
- Use the scale at constant ambient temperatures and avoid using in draughts; otherwise, the measurement results could be falsified.

- Place the scale as far as possible from other devices or sources that generate electromagnetic fields or other interferences (e.g., powerful motors and portable and mobile HF communication devices), as these can falsify the measurement results.
- Use only approved accessories and peripherals.
- Before cleaning the device, pull the mains adapter/plug out of the socket.
- Never clean the scale with abrasive or aggressive cleaning agents.
- Do not immerse the device in water or other liquids.
- If you have problems with this device, e.g., when setting up, maintaining or using, please contact the authorised customer service. Do not open or repair the device yourself.
- Please notify the authorised customer service if unexpected operations or events occur.
- If the weighing system is not used for a longer period of time, it should be cleaned and stored in a protective film. The addition of a drying agent is desirable.

DO NOT use the scale:

- if the mains adapter is damaged;
- if the mains adapter is not working;
- if the battery compartment has an unnatural bulge;
- after long storage in a humid environment.

In such cases, please contact authorised customer support.

4. Intended use

Your ADE scale is a quality product and was manufactured for use as a non-automatic scale. The scale is intended for determining the weight of goods and for a variety of other weighing procedures and applications in the commercial sphere.

To determine the weight properly, place the item to be weighed as close to the centre of the scale as possible. The scale may be loaded with the maximum load (Max) specified on the device and the nameplate. After a stable measurement result has been determined, it can be read off.

The scale must not be used for dynamic weighing. If small quantities are slowly added or removed (e.g., filling liquids), this can lead to incorrect measurement results.

The device may only be used as intended. All applications of the device that are not mentioned in the chapter "Intended use", as well as non-observance of the safety instructions, are considered improper use. It is the user of the device, but not the manufacturer, who assumes liability for any resulting damage to property or personal injury resulting from misuse.

The use of accessories other than the original accessories supplied by the manufacturer may void this warranty.



The weighing system may only be used for legal-for-trade weighing if it is calibrated. The calibration is invalid without a seal.

This device may not be modified without the manufacturer's permission.

5. Scope of delivery

Check the delivery for completeness as soon as you receive the scale. Carefully unpack the scale and accessories and remove all packaging materials.

The following items are included in the delivery:

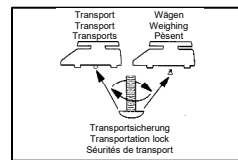
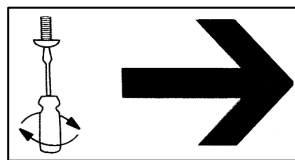
- Compact scale
- Power supply
- Operating manual
- Declaration of conformity
- Optional: 6 V 4 Ah rechargeable battery (inserted in the scale)



For calibrated scales: Check the identity of the scale serial numbers and the declaration of conformity. This is a mandatory requirement to use the scale in legal metrology!

6. Getting started with the scale

1. Carefully unpack the scale and accessories and remove all packaging materials.
2. Remove the transportation lock, if any, at the bottom of the scale. The transportation lock is provided with the label shown below:



If you do not remove the transportation lock, your scale can show incorrect weighing results!

3. Place the scale on a level, stable surface. Do not place the scale on a shaky or vibrating table as this will cause distortion of measurement results.
4. Connect one end of the power supply to the power connector on the bottom of the scale and the other end to the local power supply.



In this case, before connecting the supplied mains adapter to the scale, make sure that the voltage on the nameplate matches the local power supply.



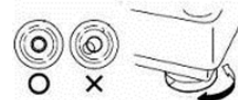
After the warm-up time (15 minutes), the scale is ready for use.

The warm-up time applies to every disconnection from the mains (except battery mode).

5. Align the scale using the support feet. Make sure that the air bubble of the spirit level is centred in the black frame.



Check the horizontal position of the scale after every change of location!



6. Switch on the scale. When switching on the scale, the weighing platform must be unloaded. The scale runs through a test programme and acknowledges the end of the switch-on routine with a sound signal.



If the weighing platform is loaded during the switch-on process, the scale is not properly ready for operation. Switch off the scale and repeat the switch-on process.

7. For precise measurement results, the goods to be weighed must be placed in the centre of the weighing platform. The goods to be weighed should not protrude beyond the weighing platform.

7. Operating and display elements

Overview



1	Weighing platform	6	Support feet
2	Main display	7	Power supply connector
3	Spirit level	8	On/Off switch
4	Keypad	9	Battery compartment cover
5	Battery indicator		

Key names and functions

Symbol	Description	Function
	ZERO	Zeroing key If this key is pressed, the scale is returned to the zero position. Menu navigation: For changing setup parameters.
	TARE	Tare key The object (e.g., a container) is tared by pressing it once, and the scale switches from gross to net mode. Taring is indicated by the "NET" symbol on the display. Menu navigation: For saving setup parameters.


Display symbols

Symbol	Meaning
~	Display for stable weight measurement.
>0<	Display for zeroing.
NET	Display for activated tare function.

Use arrows (▼) to toggle through the various function displays.

Battery status indicator

LED display

	Green	Mains operation Battery is charged. To ensure that the battery is fully charged, do not disconnect the scale from the mains for at least one hour.
	Yellow	Battery is charging.
	Red	Battery is almost empty and must be recharged immediately. The charging process can take up to twelve hours.

Caution: Please charge the battery fully before using it for the first time.

8. Using the scale

Preliminary note

Do not load the scale with weights that exceed the maximum capacity. If the “OL” icon appears on the display, it means that the scale is overloaded and must be unloaded immediately in order to prevent irreparable damage to the load cell.

Switching the scale on and off

Switching on the scale

Remove all weights from the weighing surface.

Switch on the scale. The On/Off switch is located below the housing on the right side. The scale runs through a test programme with all icons and characters briefly shown on the display, confirms the end of the procedure with a beep and “0.000” is shown on the display.

The scale is now ready for use.

When changing location, especially in the case of temperature fluctuations, wait for a warm-up period of 15 minutes to stabilise the measurement results after switching-on.


Switching off the scale

Switch off the scale using the On/Off switch on the right below the housing.

Automatic switch-off of the scale

The scale has a power saving function which helps to save the battery charge. The scale switches off automatically after a long period of inactivity. The automatic switch-off time can be set manually by the user, as described in section 9. By default, the automatic switch-off function is disabled.

Zeroing


Press the  key when the scale shows a weight, even though the weighing surface is completely empty. The display of the scale shows 0.00 again.

The zero position is indicated by the symbol >0< ▼ on the display.

Taring


With this function, the user can weigh objects together with other items (such as containers, film or paper towels), without the weight of those items affecting the weighing result.

Switch on the scale.

Place an empty container on the scale and press the  key. The display shows "0" and the arrow ▼ indicates the net weight mode with NET icon. As soon as you place the item to be weighed in the container, only the net weight of the item to be weighed is displayed.

Now carry out any number of weighing operations. When the tared container is on the weighing surface, the display shows only the net weighing results.

If you remove the tared container with the items to be weighted from the weighing surface, the tare weight will be displayed as a negative value.

Pressing the  key after unloading the weighing surface clears the tare weight.

If the display is not stable, the arrow ▼ will not light up on the stability indicator ~.

9. Backlight and parameter settings




Backlight setting

Scale display backlight can be enabled and disabled manually by the user. With the backlight activated, the weighing results are more clearly visible on the display, but the battery is discharged faster.

The scale has three different backlight setting options:

OFF (bk oF):	The backlight is switched off permanently.
ON (bk on):	The backlight is switched on permanently.
AUTO (bk AU):	The backlight switches on automatically when the weighing surface is loaded or after pressing a key; or switches off again after a short period without moving weight or pressing a key.

To set the backlight, please proceed as described below:

When in weighing mode, press and hold down the  key for approx. 2 seconds until the current setting is displayed. Press the  key again to change the setting. Confirm your selection with the  key.


When the scale is switched off, the last settings done are saved.





Changing automatic switch-off time

In order to change the automatic switch-off time, it is necessary to open a secure menu.






Open the menu only when you really have to. Accidental or intentional changes to the parameters can have a significant impact on the functionality of the scale.

To enter the secure menu, press and hold down the  key until “CAL” is displayed as you switch on the scale and after it has switched on.

The parameter menu has 12 functions. The display shows the names of functions (“CAL”, “rES”, “CAP”, “Cnt”, “GrA”, “CoM”, “bAUd”, “oFF”, “SPEEd”, “MtArE”, “rEST” and “bACK”). You can navigate through these functions by repeatedly pressing the  key. To select a function, press the  key. You can navigate through the values of this function by repeatedly pressing the  key. To save your selection, press the  key.

The menu can be exited by selecting the “bACK” parameter and pressing the  key.

Caution: On calibrated scales, various functions such as “CAL” and “GrA” are locked. A change leads to the loss of the calibration and is only reserved for qualified personnel authorised by the manufacturer.

Indicator	Description
oFF	Setting the automatic switch-off time. The automatic switch-off time can be set to 3, 5, 15 or 30 minutes (“oF 3”, etc.) or the automatic switch-off function can be disabled (“oF 0”). Press the  key to retrieve the currently set value. Press the  key to set the desired value. Press the  key to confirm the displayed value.

10. Care and maintenance

Cleaning

Disconnect the mains plug before cleaning the scale. Use only a damp cloth or an ordinary disinfectant for cleaning. Do not use aggressive liquid cleaning agents, abrasive or acidic detergents or white spirit.

Make sure that no liquid cleaning agent or water penetrates the scale and always follow the manufacturer's instructions for use.

Replacing/inserting the battery

If the usage time is drastically reduced when the battery is fully charged, it must be replaced. In this case, please contact your local dealer or service partner.



Make sure you remove the battery when the scale is permanently operated from the mains supply.

If the scale will not be used for a long time, unplug the charger from the mains supply to protect the battery.

To change or remove the battery, switch off the scale and disconnect it from the power supply. After about a minute, open the battery compartment on the underside of the scale.

Remove the battery from the battery compartment, disconnect the connectors from the cable lugs and replace the battery.

Installation proceeds in the reverse order.

Faults and error messages

Below you will find a list of possible errors and faults. If necessary, these can be eliminated with simple means. If the fault or error cannot be eliminated or other error messages occur, please contact your service partner.

Faults

Fault	Cause	Measure
The display shows nothing.	The scale has switched off automatically.	Switch on the scale.
	The scale is not connected to the mains.	Use the optional mains adapter to connect the scale to the mains.
Weight display is unstable.	Draughts or air movements	Close the window. Choose a different location.
	Vibrations	Avoid vibrations. Choose a different location.
	Electromagnetic fields / static charging	Choose a different location. If possible, switch off the interfering device.
The weighing result is obviously wrong.	The scale is not levelled properly.	Adjust the support feet. Use the spirit level to check the horizontal position.
	The scale is not operating in the specified temperature range.	Operate the scale only in the permissible temperature ranges.
	Electromagnetic fields / static charging	Choose a different location. If possible, switch off the interfering device.
Zeroing is not possible.	Zeroing is not possible if the displayed weight exceeds +/- 2% of the capacity of the scale.	In this case, switch the scale off and on again.

Error messages

Failure	Cause	Measure
ERR 4	Current weight exceeds the zero range of the scale	Unload the weighing surface and try again. If necessary, restart the scale.
ERR 5	Keypad fault.	Please contact your service partner.
ERR 6	Load cell is defective or not connected.	Please contact your service partner.
Err 9	Weighing result unstable due to draughts, air movement or vibrations.	Avoid draughts, air movement and vibrations.
	Load cell is defective.	Please contact your service partner.
Err 19	Current weight exceeds the permissible range for automatic zeroing when switched on.	Unload the weighing surface and then restart the scale if necessary.
--oL--	Zero range or weighing capacity exceeded	Unload the scale.
-- UL --	Underload (-20d)	Switch the scale off and on again.

Storage and transport conditions

Keep all original packaging materials for a possible return of the scale to avoid damage in transit. Disconnect all cables before transport and switch off the scale to avoid damage.

Disposal



Waste electrical equipment does not belong in household waste. Devices with this marking may not be disposed of as residual waste but must be recycled.



Remove (if possible) all batteries and rechargeable batteries from the devices and send them to the battery disposal.



Make sure that only depleted batteries or batteries with insulated poles are disposed of so that there is no short circuit!

Warranty

ADE will repair or replace this product if evidence is provided that it has failed within 1 year from the date of sale (proof of purchase is required) due to lack of workmanship or defective material. All moving parts, such as batteries, cables, etc., are excluded.

The use of accessories other than those approved by ADE, especially batteries, will void the warranty.

This warranty does not cover external normal wear and tear or damage caused by accident or misuse. The warranty will not apply for devices that have been opened by unauthorised persons. The statutory rights of the customer are not affected by this agreement in any way.

The dealer from whom the scale was purchased is responsible for complaints, customer service and spare parts.

Recalibration

According to the national regulations of the legislature, only authorised companies or authorised personnel can perform recalibration. On the CE mark, you can find the year of initial calibration next to the notified body (0122).

Recalibration must be carried out:

- when one or more security marks were damaged,
- after the scale has been repaired,
- after expiry of the period set by the national regulations for recalibration.

11. Technical data

Model:	GW400-6	GW400-15	GW400-30
Maximum load:	6 kg	15 kg	30 kg
Digit display:	1 g<3 kg>2 g	2 g<6 kg>5 g	5 g<15 kg>10 g
Minimum load:	20 g	40 g	100 g
Weighing surface:	265 x 205 mm stainless steel		
Dimensions:	285 x 310 x 115 mm		
Net weight:	2.7 kg (without battery) / 3.0 kg (with battery)		
Temperature range:	-10°C to +40°C		
Display:	Easy-to-read LCD display with 20 mm digits white LED backlight, display backlight can be disabled		
Casing:	Stable plastic housing		
Keypad:	Easy-care membrane keypad		
Functions:	Weighing, taring Automatic zeroing Overload indicator Battery level indicator (at low supply voltage) Automatic switch-off after 3, 5, 15 or 30 minutes or disabled.		
Power supply:	Mains and battery operation Power supply: 100-240 VAC, 50/60 Hz 0.32 A max., Output: 12 VDC, 500 mA Battery: 6 V 4 Ah lead battery, up to 70 hours of battery operation		

Spare parts:

Battery	H2323-001
Battery compartment cover	H2323-015
Load plate	H2317-012
Dust cover	H2323-020
Power supply	H2323-014
Adjustable foot	H2323-011



Declaration of conformity by the manufacturer

This product has been manufactured in accordance with the harmonised European standards.
It conforms to the provisions of the EU directives listed below:

- NAWI directive 2014/31/EU
 - EMC Directive 2014/30/EU
 - Low voltage directive 2014/35/EU
 - RoHS Directive 2011/65/EC
- in their respectively applicable versions.

This declaration will lose its validity if any modification is made to the scale without our consent.

Hamburg, April 2021

ADE Germany GmbH

New Höltigbaum 15
22143 Hamburg

Manufacturer:

ADE Germany GmbH

New Höltigbaum 15

22143 Hamburg



+49 40 432 776 - 0



+49 40 432 776 - 10



info@ade-germany.de



www.ade-germany.de

Distributor: