OPERATING MANUAL

ADE

Electronic stand scale

Stand scale – ESW10 series

(ESW10-210421-Rev008-UM-en)

1. Table of Contents

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 has no influence on 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 in the immediate vicinity of 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 name plate 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 within the 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 field or other interferences (e.g. strong 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 ESW10 floor scale is a high-quality product and was manufactured for use as a non-automatic scale. The scale is ideal as a precise, fast and versatile multi-purpose scale with various counting and control functions.

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.

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.

Included in the delivery are:

- Scale with weighing platform
- Stand
- Indicator
- Plug-in power supply
- Serial interface connector
- User manual incl. declaration of conformity

6. START-UP

1. Carefully remove the delivery contents from the packaging.

2. Remove the marked transport lock on the underside of the scale by unscrewing the screw. Keep the transport lock carefully for later transport.

3. The stand bracket is first attached to the base using the four supplied bolts before the stand is connected to the base with the bracket.

4. The stand must be secured to the bracket with the two locking screws.

5. The cable connecting the base and the display device is fed through the stand tube. Excess cable can be stowed inside the tube.

6. Connect the display device to the stand by moving the display device over the bracket and attaching it to the stand using the locking screws and flanges.

7. Connect the cable coming from the base to the back of the display device.

8. The supplied stainless steel platform, packaged separately from the stand and base, is slipped over the base.

9. Place the scale on a stable, horizontal surface. To align the scale, adjust the four feet of the scale so that the air bubble is exactly in the centre of the spirit level.

10. First connect the power supply to the corresponding plug on the rear of the display device and only then connect to the mains.

    Make sure that the supply voltage matches the voltage on the name plate.

11. The scale is ready for operation after connection to the mains or with a charged battery.

12. Turn on the scale by pressing the key.

    After the self-test, the scale switches to weighing mode.

7. Battery operation

The scale indicator can optionally also be operated in battery mode. The battery lasts approximately 100 hours.
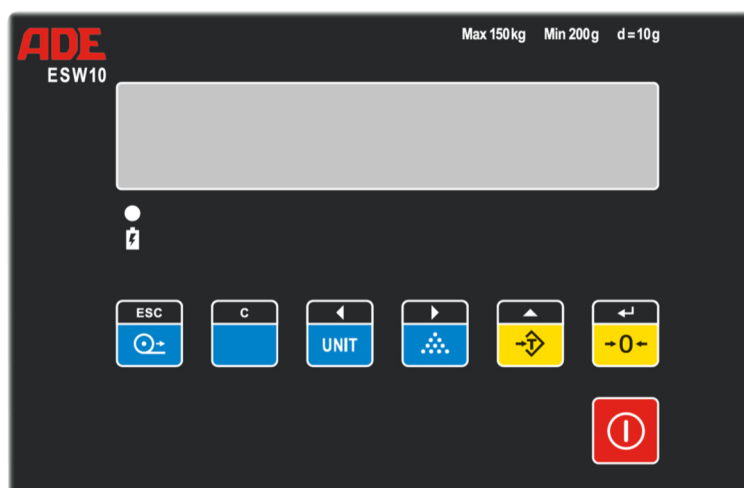
If the battery symbol appears on the display, the battery should be charged as soon as possible. At this point, the remaining life of the scale is approximately 10 hours before the display switches off automatically to preserve the battery.

The scale must be connected to the mains to charge the battery. The scale does not have to be switched on for this process. As soon as the scale is connected to the mains, the internal battery begins charging. Full charging takes about 12 hours.

Under the weight indicator on the display, there is an LED control indicator for the status of the battery charging process.

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

8.   Operating and display elements

<u>Operating elements</u>

Except for the on and off key, all keys have two different functions: One in weighing mode and one in menu setting mode.

Symbol	Description	Function
ON/OFF	On and off key The scale is switched on by pressing this key. The scale is switched off again by pressing this key again.
ZERO	Zeroing key If this key is pressed, the scale is returned to the zero position. In the menu functions, it serves to confirm selected functions.
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 "TARE" symbol on the display. In counting mode, it is used to select the reference piece count.
SAMPLE	Piece count key Switches from weighing mode to counting mode. In counting mode, you can switch between piece count, piece weight and total weight
UNIT	Unit key Used to select the weight display unit – kg, lb. In menu mode, the functions are changed at the set menu level.
CLEAR	Clear key To return from the counting mode to the weighing mode. As a second function, the key is used as a clear key when values are made for settings.
PRINT / ESC	Print / memory / ESC key This key is used for output to a connected PC or printer when using the RS232 interface. In weighing mode, pressing this key adds the weighed value to the stored total value. In menu mode, this key is used to cancel without saving.

Display symbols

Symbol	Meaning
○	Display for stable weight measurement.
"GROSS"	Display for gross weight.
"TARE"	Display for activated tare function.
"ZERO"	Display for zeroing.
▬	Low battery indicator.

Battery status indicator "Charging"

green	Battery fully charged.
yellow	Battery is charging.
red	Battery almost discharged.

9.	Operation during weighing processes

Zeroing the scale

The scale is equipped with an automatic zero compensation for minimal deviations or residues on the platform.

The →0← key can be pressed to reset if a low weight is displayed even though the platform is empty.

You can press the →0← key to reset at any time in weighing or counting mode. However, this is normally only necessary if the weighing platform is empty.

When the zero point is reached, the display shows "ZERO".

Taring

Place the container to be tared on the scale pan and press the →Ŧ key. The previously displayed weight of the container is saved and the display shows "ZERO". The display also shows "TARE".

After removing the container, its weight is displayed as a minus value.

If an item to be weighed is added to the container, the scale automatically subtracts the tare value of the container from the total weight and displays the result as a net value.

The scale can be tared several times by pressing the →Ŧ key if additional items to be weighed are added. Again only the value of the added items to be weighed is displayed.

If the container is removed from the platform, the weight of the container (and possibly the already tared weighed goods) is displayed as a negative number.

Pressing the →Ŧ key again returns the scale to the actual zero position and the "ZERO" symbol appears on the display.

Counting programme

If containers are used, they must be tared beforehand in weighing mode.

Place the reference piece count of the pieces to be counted on the scale.

While the scale is displaying the weight, pressing the key activates the counting programme, at which point the scale displays "P 10" for a sample piece count of 10. In addition, the display shows "pcs".

You can change this piece count by pressing the key. The display shows 10, 20, 50, 100, 200 and then returns to 10 again each time it is pressed.

Press the key to save when the number of pieces on the scale matches the number displayed.

If you now add more pieces, the display shows the number in pieces (pcs).

Press the key to switch between the piece count, piece weight and total weight.

Press the key to return to normal weighing mode.

Weight control

A control target weight or a control target weight range can be set on the scale. A beep sounds when it is reached or exceeded.

The memory can be preset for a maximum and a minimum value.

Preliminary remarks

Enter the control target weight range

Set the control target weight range by saving both a maximum and a minimum value.

Take into account that there must be two different values where the maximum value must be higher than the minimum value.

Enter the control target weight

Set the control target weight by saving the same value for the maximum and minimum values.

Control mode 2

The scale checks whether the placed weight is within the limit values entered in the control target weight range or corresponds to the control target weight.

If this is the case, the display shows "OK" and a beep sounds as long as the resulting weight is within these limits or corresponds to the control target weight.

The scale checks whether the placed weight is outside the entered limit values of the control target weight range or does **not** match the control target weight.

If this is the case, the display shows "OK" and a beep sounds as long as the resulting weight is outside these limit values or does not match the control target weight.

Settings

Setting and saving the limit values

After pressing the [C] key, the display shows "F0 H-L". Confirm this by pressing the [→0←] key.

Press the [↑] key to select "SET HI" (for the maximum value) or "SET LO" (for the minimum value) and confirm this with the [→0←] key.

Then press the [▶] key to change the preset values.

Use the [↑] key to change the value range, and use the [C] key to delete the value.

After entering the value, save it by pressing the [→0←] key.

Press the [ESC ⊙→] key to exit the setting mode.

⚠️ For checkweighing, the resulting weight must be 20 times the scale interval for checkweighing to work.

To switch off the checkweighing function, enter "0" for both limit values by pressing the [C] key while the currently set limit values are displayed.

Press the [→0←] key to save the value "zero".

Additional weighings

The scale can be set so that additional weighings can be done manually by pressing the [ESC ⊙→] key.

The additional weighing function is only possible during the weighing process.

This function is not available in the counting programme.

The weight shown on the display is saved in the scale memory by pressing the [ESC ⊙→] key and the weight remains stable.

The display first shows "ACC 1", then the current total weight from the memory is shown for 2 seconds before the scale returns to normal mode.

The data can be transferred directly to a printer or computer via the RS232 interface.

If you remove the weight from the weighing platform, the scale returns to the zero position.

Now put on the second weight.

When you press the [ESC ⊙→] key, the display first shows "ACC 2" and then the new total weight.

You can repeat this process until all the desired weights have been added. To call up the total weight from the memory, select the "F1 TOL" function.

Chapter 7 "PARAMETERS" contains more information on the "F5 P RT" function.

10. Parameters

The scale has six parameters that can be set by the user:

- Setting limit values for weight control
- Functions for memory content of the additional weighings
- Presetting weight units
- Setting the date function
- Setting the time function
- Printer settings when connected via RS232 interface
- Programming mode – function only for authorised specialists

Press the ▮ key to set the parameters. The display shows the first function: "F0 H-L".

Pressing the ▮ key changes to the other function options.

Pressing the ▮ key allows the settings to be made for the selected functions.

It may be necessary to use the ▮ key or to set the values using the ▮ key to change the set digits.

Pressing the ▮ key increases the digits.

Confirm the set value by pressing the ▮ key.

Pressing the ▮ key cancels the process and exits the menu without saving.

Example:

When the display shows "F0 H-L", press the ▮ key to start the setting. The display shows "SET LO".

Press the ▮ key to set the minimum value or the ▮ key to move to the next parameter. The display now shows "SET HI" to set the maximum value.

After pressing the ▮ key, you can set the limit value. Use the ▮ key to enter change mode. The digits start to flash.

Now you can press the ▮ key to incrementally increase the flashing digits. Continue with the other digits until you have made the desired settings.

When all the digits have been set as desired, press the ▮ key to save. The display returns to the starting position; in this example it returns to the "SET LO" mode.

You can then set another parameter or return to the weighing mode by pressing the ▮ key.

11. Menu settings

Function	Sub-function	Descriptions	Display
F0 H-L	SEt Lo	Sets the lower limit value.	000.000
	SEt HI	Sets the upper limit value.	000.000
F1 toL	to CLr	Deletes the memory content of additional weighings without printing the result.	
	to P-C	Prints the memory content of weighings and then deletes them.	
	to Prt	Prints the memory content of additional weighings without deleting them afterwards.	
F2 u nt		Sets the weight units. Toggles between kg and lb.	
F3 tl	SEt dA	Sets the date function. The display shows the last date or 00.01.01. Enter the new date.	
F4 off	C loC K	Starts the clock function: **CLK off:** Turns the clock function off: **CLK on:** After 5 minutes the scale display returns to the clock mode and shows the time.	CLK off
	bL	Sets the backlight: **EL on:** Backlight activated **EL Au:** Backlight automatic **EL off:** Backlight disabled	EL Au
	bEEP	Sets the beep function: Control mode 2 Control mode 3 No beep	
F5 Prt		Setting the RS232 interface for printing: **P Prt:** Only by pressing the "PRINT" key **P Cont:** If you want to print continuously **Sei re:** RS232 connection when removing the display After setting the print mode, the display shows **"b xxx"** to set the transmission rate. To change the rate (600/1200/2400/4800/9600 bps), press the "TARE" key. The display shows **"PR X"** for setting the time and data format. Then the display shows **"LAB X"**, the gross and the print format. Then the display shows the printer type: **TY-TP:** mini ticket printer **TY711:** A711 label printer **LP-50:** LP-50 label printer After you have made your selection, press the "Zero" key to save. For the printer format, see table one/two in section 12.	P Prt

If kilogrammes set on the scale differ from the unit specification, the weight in counting mode is nevertheless specified in kilogrammes.

12. RS232 data interface

The ESW10 scale is equipped with an RS232 interface.

Specifications:	RS232 output
	ASCII code
	8 data bits
	No parity
Connector:	25-pin D-subminiature socket
	Pin2: Output
	Pin3: Entry, not used here
	Pin5: Signal base

The data formats for normal weighing operations, counting programme and retrieval of stored values differ from each other, such as

Normal output:

GS	12.340 kg	GS for gross weight,
		NT for net weight and unit of weight.
No.	1	This number indicates that a new value is saved in the memory at any time.
TOTAL	12.340 kg	The total value stored.
<lf>		two blank lines.
<lf>		

The total weight, piece weight and piece count are printed in the counting programme:

GS	12.340 kg	GS for gross weight,
		NT for net weight and unit of weight.
U.W.	123.4 g/pcs	The average weight determined by the scale.
PCS	100 pcs	The number of units determined.
<lf>		two blank lines.
<lf>		

Data output format for retrieving stored values from additional weighings memory:

************************	Display of a series of asterisks
<lf>	one empty line
TOTAL The total value stored	
No.	5
Wgt.	21.455 kg	total weight
************************	Display of a series of asterisks

13. 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.

Faults and error messages

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	Description	Remedy
- - - - -	Overload	Remove the weight from the scale. If the problem persists, contact your dealer.
Err 1	Incorrect date entry	Enter the date with correct and logical values in the format yy:mm:dd.
Err 2	Incorrect time entry	Enter the time with correct and logical values in the format hh:mm:ss.
Err 4	Incorrect zeroing	The scale was out of the normal zero range when the scale was switched on or when the "Zero" key was pressed. Take the weight off the scale and repeat the process. If necessary, press the "TARE" key to reset the display. If the problem persists, contact your dealer.
Err 6	A/D outside the display range	The measured values of the A/D converter are outside the normal display range. Remove the overloading weight from the scale and make sure that the weighing platform is correctly positioned. If the values remain unchanged, this indicates that the measuring cell or the electronics could be damaged. If the problem persists, contact your dealer.

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.

Screw in the transport lock for transport.

Disposal

Waste electrical equipment do 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.

14. Technical data

Model	ESW10
Maximum load	150 kg
Division	10 g
Scale dimensions (WxDxH)	420 x 670 x 950 mm
Dimensions of the weighing platform	420 x 520 mm
Weighing platform material	Stainless steel
Interface	RS-232 output
Stabilisation time	Typically 1 second
Ambient temperature	0°C – +40°C
Display	6-digit LCD display with 24 mm high digits
Supply / power supply	External AC adapter, 9 V, 800 mA
Battery	6 V/DC / 4 Ah internal rechargeable battery

15.   Declaration of Conformity

C E

Declaration of conformity by the manufacturer

This product has been manufactured in accordance with the harmonised European standards.
They conform to the regulations of the EC-directives listed below:

- 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

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