

Operating Instructions

WeightWatcher AE12 WIFI



- AE12 WIFI Standard 455000-WIFI
- AE12 WIFI Analog 455002-WIFI

You can also obtain the link to a digital version of the operating instructions by scanning the QR code located above the serial number.

These operating instructions instruct technical personnel on the safe assembly, installation, commissioning and operation of the product.

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Change Log

Date (Y_M_D)	Author/Editor	Reviewer	Revision	Description
2025_06_05	MHO	TEB/MHA	766	initial release
2025_07_02	MHO/PMO	DMO	776	minor changes and EN translation
2025_02_20	MHO	TEB/DMO	962	added features of firmware V2.3.953; EN translation WIFI features

1 Safety information

The device may only be installed and put into operation by persons who meet the following qualifications and conditions:

- Technical qualification
- Compliance with generally applicable global and local regulations, directives and laws, e.g. EN and VDE regulations
- Instruction in the operation by the machine operator
- Permanent access to this documentation

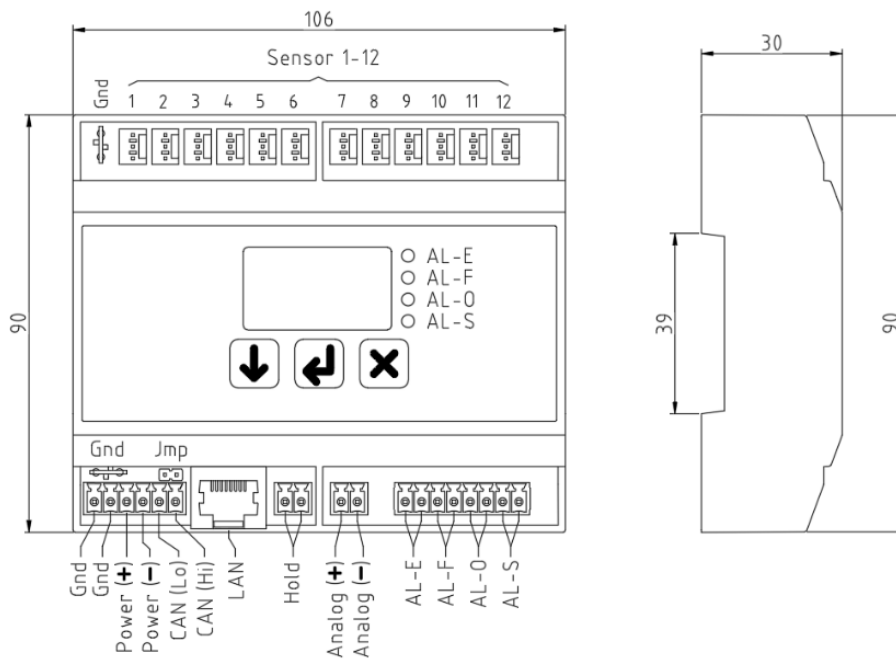
The device may only be used in environments that ensure the following properties:

- Sufficient protection against moisture, dirt and mechanical damage
- Exclusion of accessibility for unauthorized persons
- Operation of the device within the product specifications

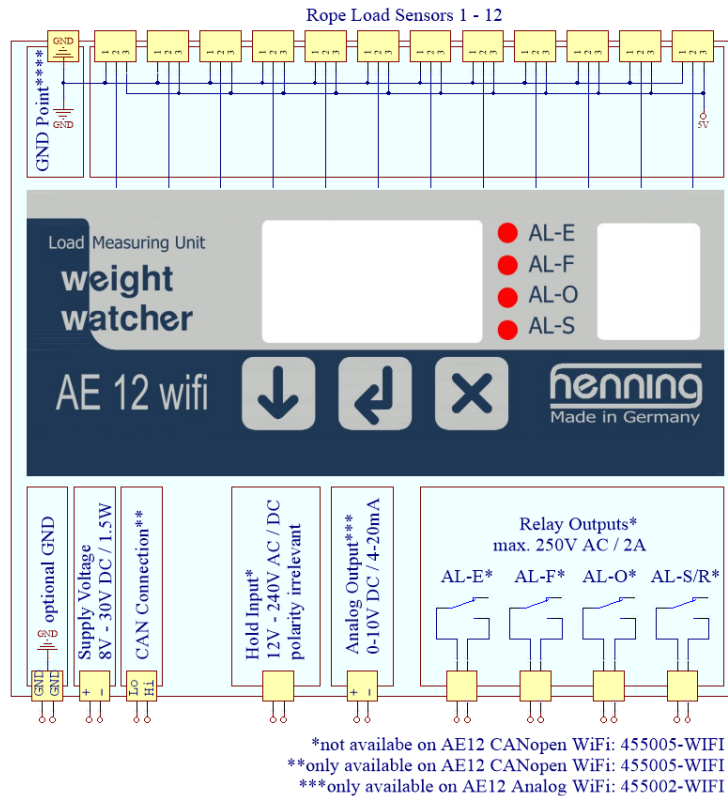
If necessary, measures must be taken by the operator or installer to ensure compliance with these conditions.

2 Technical specifications

2.1 Dimensions



2.2 Wiring diagram



****additional 1/4"-terminal ground point. Can be connected to an external earth point in case of required potential correction (e.g. in case of using nylon ropes/belts in combination with insufficient grounded rope/belt suspension).

2.3 Electrical characteristics

Feature	Value
Supply voltage	8 - 30 V DC
Power consumption	max. 1.5 W
HOLD input (optional)	12 V - 240 V AC/DC
Relay outputs (optional)	
max. switching voltage	250 V AC
max. switching current	2 A
max. rated carry current	2 A
Analog output (optional)	
electrically isolated	no
Output voltage	2 V - 10 V or 0 V - 10 V
Output current (resistive load < 500 Ω)	0 mA / 4 mA - 20mA

2.4 Operating conditions

Feature	Value
Ambient temperature	-10°C to 60°C
relative humidity	up to 90% (non-condensing)
IP protection class	IP20

3 Description of hardware

3.1 Description of the alarm relays

Note: Please be aware that the alarms will only be available after the device has booted up.

Note: The operation of the relays as normally closed, or normally open contacts can be changed for each alarm output using the parameter **Conf**

AL-E (empty load relay)

Change of state if the load falls below the value programmed in **AL-E**.

AL-F (full load relay)

Change of state if the load programmed in **AL-F** is exceeded.

AL-O (overload relay)

Change of state if the load programmed in **AL-O** is exceeded.

AL-S (slack rope and rope difference relay)

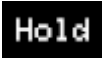
Change of state as soon as the current weight falls below the load threshold programmed in **AL-S**.

furthermore

Change of state as soon as one of the ropes deviates from the average of all ropes by at least the percentage load programmed in **AL-R**.

3.2 HOLD function (optional)

The HOLD input responds to AC and DC voltages between 12V and 240V. During elevator travel, the measured loads can fluctuate considerably (friction in the rails, etc.). As long as a voltage (e.g. the travel signal) between 12V-240V is applied to the HOLD input, any alarm will not be transferred to the relays. If a signal is applied to the HOLD input during elevator travel and no signal is applied when the elevator is at a standstill, the device automatically compensates for the rope weight in the case of elevators with multiple suspensions and compensates for the weight of any balancing chain present.

If the function is activated by a signal at the HOLD input, the display alternates between  and the weight.

4 Operating instructions

4.1 Access to the parameters

The device is equipped with a menu via which the individual setting parameters can be accessed.



Pressing this button cycles through the individual menu items. If a menu item has already been selected, the button is used to navigate through the submenus. The value can be changed within the individual parameters using this button.



This button is used to select the menu item currently displayed or to accept the set value in the parameters.









This button is used to exit the menu items and parameter settings that have just been selected without accepting the newly set values. Press this button repeatedly to return to the total weight display.

Note:


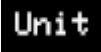




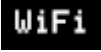

After one minute without pressing a button, the device automatically switches back to the total weight display, regardless of which menu item was previously selected. After 10 minutes without pressing a button, the display switches to a screen saver, which can be deactivated again by pressing a button. In order to be able to work with the rope tension assistant, this time is extended to 3 hours when using it.

4.2 Changing a parameter

1. Use the button  to display the parameter to be changed.
2. Use the button  to select the parameter.
3. Use the  button to change the value of the currently flashing digit.
Use the  button to move to the next digit.
4. After entering the last digit, use the  button again. The entire value now flashes.
5. Press the  button again to accept the value.

Note: An incorrect entry, for example if the parameter entered is outside the permitted value range, is indicated by the value flashing rapidly.

4.3 Menu scheme

	Weight in the unit set at 
	Setting the connected sensor type (chapter 5.2.1) (sensor model)
	Display of the individual rope loads (chapter 5.2.2) (rope)
	Setting the rope count/rope sensor count (chapter 5.2.3) (rope count)
	Setting the suspension ratio (chapter 5.2.4) (rope factor)
	Menu for activating the WiFi access point (WiFi) (chapter 5.1)
	Rope tensioning assistant (chapter 5.2.5) (rope tensioning)

Zero	Zero-point setting (tare) (chapter 5.2.6) (zero)
AL-E	Empty load alarm level (chapter 5.2.7) (alarm empty)
AL-F	Full load alarm (chapter 5.2.7) (alarm full)
AL-O	Alarm level overload (chapter 5.2.7) (alarm overload)
AL-S	Slack rope alarm (chapter 5.2.7) (alarm slack rope)
AL-R	Rope load difference alarm level (chapter 5.2.7) (alarm rope load)
DCOu	Setting the analog output (chapter 5.2.8) (only relevant for the AE12 device with analog output) (DC-out)
Unit	Setting the weight unit (chapter 5.2.9) (unit)
info	Device status (chapter 5.2.10) (info)

5 Operating concept

The device can be configured in two ways:

- Traditionally via the buttons directly on the device (**see chapter 5.2**).
- Alternatively, the unit can be accessed via WiFi using any WLAN- and HTML5-capable device (e.g., laptop, Android or Apple smartphone), which allows for intuitive configuration and operation (**see chapter 5.1**).

5.1 Operation via the WiFi user interface

The device has a WiFi access point. This allows the device to be configured intuitively and special functions, such as the generation of reports on the device configuration and rope adjustment, to be called up. Furthermore, the WiFi connection allows functions to be used without direct access to the device. In practice, this makes it easier for you to adjust the rope tension and set the zero point (tare), for example.

5.1.1 Technical requirements

To establish a connection to the WiFi user interface, the end device must meet the following minimum requirements:

- WLAN/WIFI equipment (2.4 GHz; 802.11b/g/n)
- HTML5-compatible browser (e.g., Firefox, Chrome, Safari)

These requirements are generally met by all commercially available laptops, tablets, and smartphones (Android/Apple). If in doubt, please contact your system administrator.

No special software or app is required on your device to use the system.

5.1.2 Cybersecurity information



To ensure cybersecurity, various functions are provided in the device, of which the following are important for the user:

- The WIFI access point can only be activated manually by pressing a button on the device.
- The WIFI access point is only available as long as you are in this menu item. Switching to another menu disconnects the connection and restarts the device.
- The connection to the access point must be established within 1 minute, otherwise the device will restart.
- It is **not** possible to connect the AE12WIFI to more than one terminal device at the same time.
- It is **not** possible to connect the AE12WIFI to another device after successfully connecting to one device. To establish a connection to another device, it must be manually activated again via the menu.
- Terminating the connection restarts the device. To re-establish the connection, it must be manually reactivated via the menu.
- The WIFI connection times out after 8 hours at the latest.
- It is not possible to install third-party software (Secure Boot).

Safe operation requires the exclusion of physical access by unauthorized persons (see chapter 1). If necessary, measures must be taken by the operator or installer.

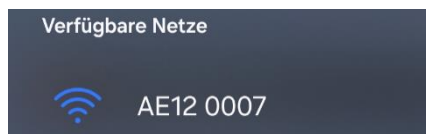
5.1.3 Connecting to the WiFi access point

Important: Please observe the cybersecurity safety instructions from the previous chapter.

- On the device, select the menu item **WiFi** by pressing  and then press the  button.
- A QR code will now be displayed on the screen, which you can scan with your device to connect to the WiFi.

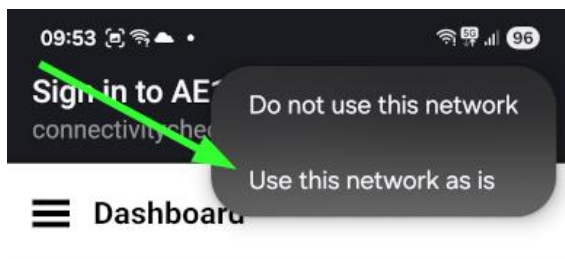


Alternatively, you can also connect to the network manually. The network name (SSID) is also shown on the display and consists of the device name AE12 and the last 4 digits of the serial number.

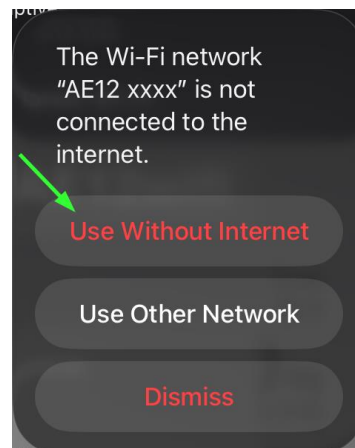


- Once the connection is established successfully, the WiFi home page usually opens automatically in the captive portal on mobile devices. However, to be able to use the interface to its full extent, especially for report generation, open the interface in your system browser (e.g., Chrome, Firefox, Safari). To do this, select that you want to use the network even without an Internet connection:

Android (Samsung, Google, etc.)



iOS (Apple iPhone)




- d) The display will now show **WiFi <OK>** to indicate that the connection has been successfully established. A new QR code will be displayed:



- e) Scan the QR code with your device and open the user interface via the link.

Alternatively, you can also access the interface by manually entering the address <http://LSx>. Depending on your operating system, particularly Windows, you may need to access the IP address directly. To do this, enter <http://1.2.3.4> in the address bar of your browser.

- f) You can exit the menu at any time by pressing . **Exiting the menu item will restart the device and reset the network connection.**

Note: If you use the user interface in the captive portal of your end device, there may be functional restrictions, especially when generating reports. We therefore recommend that you always open the interface via your system browser.

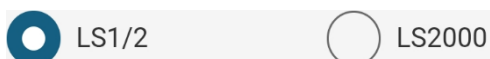
5.1.4 Operating the WIFI user interface

The WIFI user interface is very intuitive for users who are familiar with smartphones and laptops. The symbols and operating modes correspond to common standards. The most important operating points are explained below:

The menu selection can be opened at any time by pressing/clicking on the menu button.



Settings can be selected individually using radio buttons. This ensures that the user can only select one of several options.



Multiple selections or activation of settings are made using checkboxes.



Text and configuration values are entered in input fields. Numerical values can also be manipulated using the or buttons.

<input type="button" value="-"/>	<input type="text" value="100"/>	kg	<input type="button" value="+"/>
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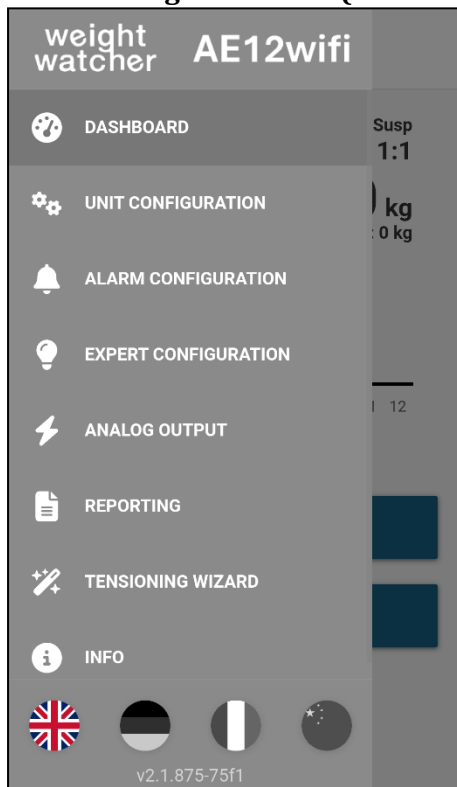
Entries are saved using the Save button.




The Refresh button updates the display of the parameters by re-reading the values from the device.



5.1.5 Navigation menu (with language selection)

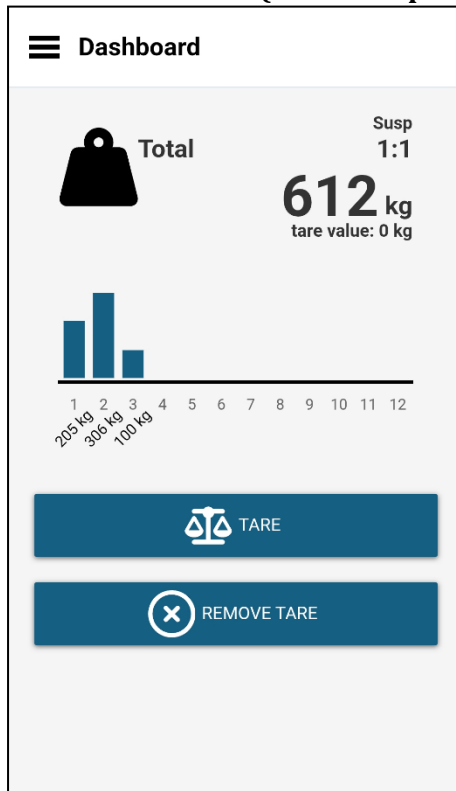


You can access the navigation menu at any time by pressing/clicking the  button. It allows you to access the individual submenus of the user interface:

- Dashboard
- Unit Configuration
- Alarm Configuration
- Expert Configuration
- Analog Output
- Reporting
- Tensioning Wizard
- Info/Update

In addition, the language of the user interface can be changed by selecting the option at the end of the menu.

5.1.6 Dashboard (with zero-point setting tare)



The dashboard opens as soon as you have successfully connected to the device. It displays the most important live data and configurations of the device at a glance. The following information are visible:

- The current total weight
- The configured suspension type
- The current tare weight
- The current individual rope loads of the connected channels

Furthermore, the tare button can be used to configure the **zero-point setting** for load measurement. This function reduces the weight displayed by the device by the currently measured total weight.

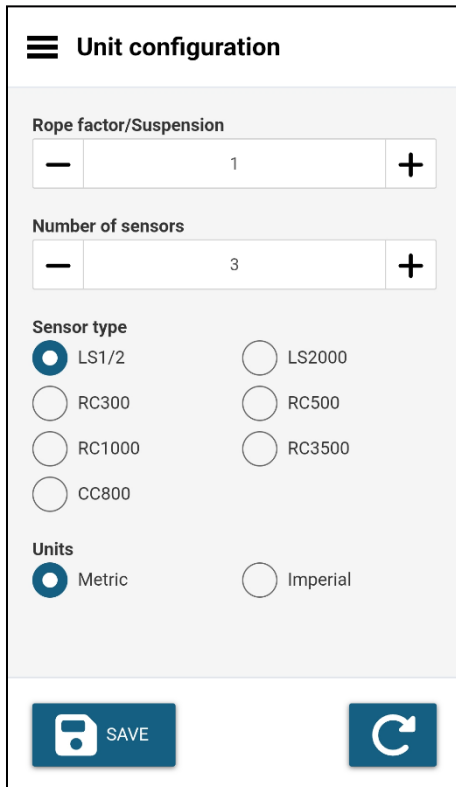
- Connect to the device and go to this menu item
- If necessary, leave the cabin roof and remove any unwanted loads (e.g., tools)
- Ensure that the cabin is empty
- Perform the zero-point setting by pressing the tare button

The zero point is now calibrated. If the above steps are performed correctly, the device will only display the load in the cabin. The corresponding deducted value (cabin + load) can be read at the top as **the tare weight**.

The zero-point calibration can be deactivated at any time by pressing the tare removal button.

5.1.7 Unit configuration

In order for the AE12WIFI evaluation unit to correctly interpret the measurement data from the connected sensors, it must first be configured accordingly. To do this, proceed as follows:



- a) Enter the rope factor corresponding to the existing suspension in the upper input field.
For multiple suspensions, you must set the factor by which the rope loads are multiplied.
The factory default factor is 1 for directly suspended elevator systems. For a 2:1 suspension, you must enter 2 as the factor.
- b) Enter the number of sensors used in the next field.
- c) Select the type of rope load sensors installed.
- d) Select the desired unit in which the loads are to be displayed. All weights and alarm thresholds displayed are shown in the selected unit. All internal calculations are performed in kilograms, so rounding errors are possible.
- e) Save the configuration by pressing/clicking Save.

5.1.8 Alarm configuration

This menu item allows you to configure the corresponding alarms for the device:

Alarm configuration

Empty load alarm threshold (AL-E)

— 0 kg +

Empty load alarm mode
 Open Close

Full load alarm threshold (AL-F)

— 580 kg +

Full load alarm mode
 Open Close

Overload alarm threshold (AL-O)

— 630 kg +

Overload alarm mode
 Open Close

Slack rope alarm threshold (AL-S)

— 100 kg +

Slack rope alarm mode
 Open Close

Rope tension alarm threshold (AL-S)

— 0 % +

- No load (AL-E)
- Full load (AL-F)
- Overload (AL-O)
- Slack rope (AL-S)
- Rope load difference (AL-R)*

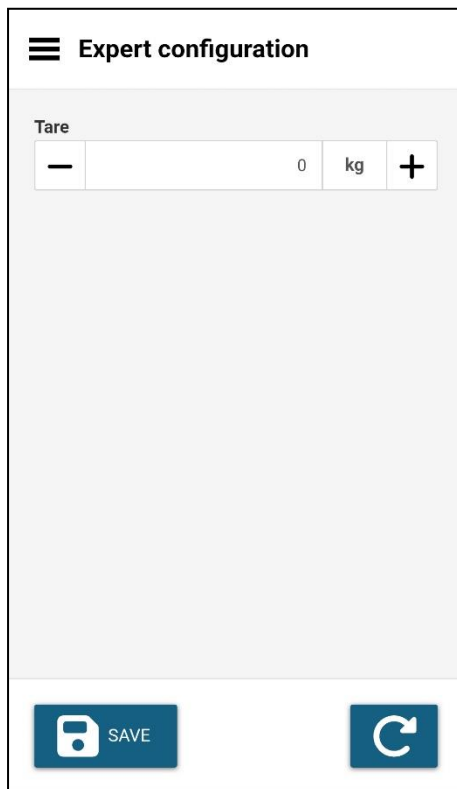
***Note: Change of status for AL-R as soon as one of the ropes deviates from the average of all ropes by at least the percentage load programmed in the parameter.**

To activate and configure an alarm, proceed as follows:

- a) Check the box for the alarm(s) you want to activate.
- b) Enter the trigger threshold value for the corresponding alarm.
- c) For each alarm, select the state that the associated alarm relay should assume after the threshold value is exceeded or not reached. (Normally Open, Close) or (Normally Closed, Open)
- d) Save the configuration by pressing/clicking Save.

5.1.9 Expert configuration

In the expert configuration, you have the option of entering a tare weight of your choice, which is permanently subtracted from the measured value. For example, you can manually enter the empty weight of the cabin.



- a) Tap/click in the input field.
- b) Now enter the desired weight using the keyboard of your device.
Alternatively, you can also use the + or – fields to change the entry.
- c) Confirm the entry by pressing/clicking the Save button.

Note: To deactivate the function again, repeat the steps and enter a weight of 0 kg or 0 lbs.

5.1.10 Analog output (optional)

Note: This function is only available on devices that have an analog output (AE12 WIFI Analog 455002-WIFI).

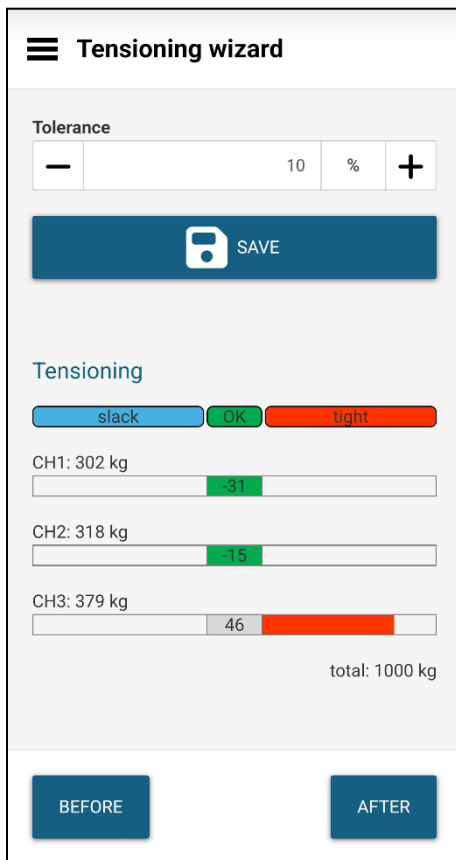
In this menu item, you can configure the analog output of the device. Three parameters are required for this.

- a) In the upper parameter, set the weight at which the output should deliver the maximum output value of 10 V or 20 mA.
- b) In the middle field, set a live offset (dead man's threshold). To do this, activate the checkbox in this field. The offset is now entered as a voltage between 0.0 and 9.9 Volts. An offset of 0.0 V means that the live offset is switched off. This voltage value corresponds linearly to the output as current, where 0 V = 0 mA and 10 V = 20 mA. An industry standard is an offset of 4 mA (4 mA – 20 mA signal).
- c) Using the checkbox in the last field, you can configure whether only the payload is to be output via the analog output (this requires that you have used the tare function zero-point setting).

If you activate this option, only the load will be output. If the option is deactivated, the analog output signal corresponds to the sum of the load and the empty weight of the cabin.

5.1.11 Tensioning wizard

The rope tension wizard can only be used effectively with two or more ropes. Before the adjustment process, the wizard automatically selects a reference rope, which does not need to be set by the user. The aim is to adjust the rope tensions so that all bars are in the green area, which represents the previously selected adjustment tolerance. Red bars to the right of the tolerance range indicate ropes that are too tight. Blue bars to the left of the tolerance range indicate ropes that are not tight enough.



- a) Set the desired adjustment tolerance in the upper input field and confirm the entry with Save.
- b) Press/click the Before button to save the state of the rope tensions before the adjustment process for later report output.
- c) Adjust the rope tension using the wizard as described above.
- d) Press/click the After button to save the state of the rope tensions after the adjustment process. The change (improvement/deterioration) in the setting can then be displayed and evaluated in the Rope Tensioning Report.

In the example above, three sensors are connected. The device automatically selects the cable with sensor 2 as the basis for the tensioning wizard. The rope with sensor 1 is slightly under-tensioned at **-31 kg**, but is within the previously selected adjustment tolerance of **-10%** and is therefore OK. The rope with sensor 3 is over-tensioned at **+46 kg**. It significantly exceeds the adjustment tolerance of **+10%** and is therefore displayed with a red bar.

5.1.12 Reporting

This menu item can be used to generate reports on the configuration of the evaluation unit and the rope tension settings of the elevator system. These can be used, for example, for technical documentation or as proof of work for clients. The reports can be printed directly from the terminal device or saved as **PDF files**. Please note the printer or PDF software settings on your terminal device.

The screenshot shows a mobile application interface for the 'Reporting' menu. At the top, there is a hamburger menu icon and the title 'Reporting'. Below this, there are several input fields for project information: 'Project name' (Skyscraper 123), 'Lift serial' (98765321), 'Street' (Main Road), 'ZIP code' (38159), 'City' (Brunswick), and 'Province/Country'. At the bottom of the form, there are three blue buttons with white icons and text: 'UNIT CONFIG REPORT' (with a gear icon), 'TENSIONING REPORT' (with a wrench and screwdriver icon), and 'SAVE' (with a floppy disk icon).

- a) Enter the system data to be displayed in the reports in the input fields.
- b) Select whether you want to generate the configuration report or the rope tension report.
- c) After making your selection, the report will open in the display software on your device. From here, the report can be printed in paper form or saved as a PDF file.

The report generation function may vary depending on the device used. This depends heavily on the configuration (operating system version, installed PDF printer software, etc.) of the device. An example for Android and iOS is described below:

Android (Samsung, Google, etc.)

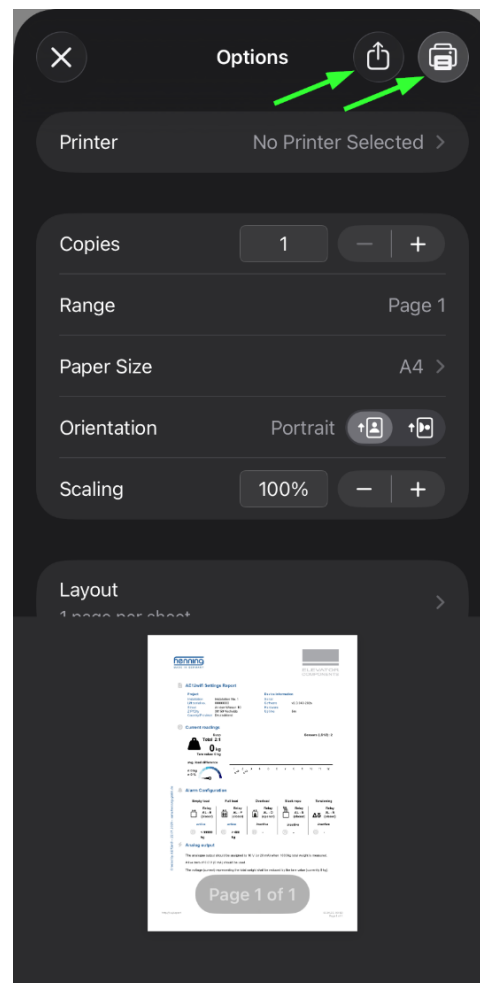
In the document preview, use the menu at the top to select whether you want to print the document directly or save it as a PDF. For PDF output, press the marked button and specify the path where you want to save the document on your device.



iOS (Apple iPhone)

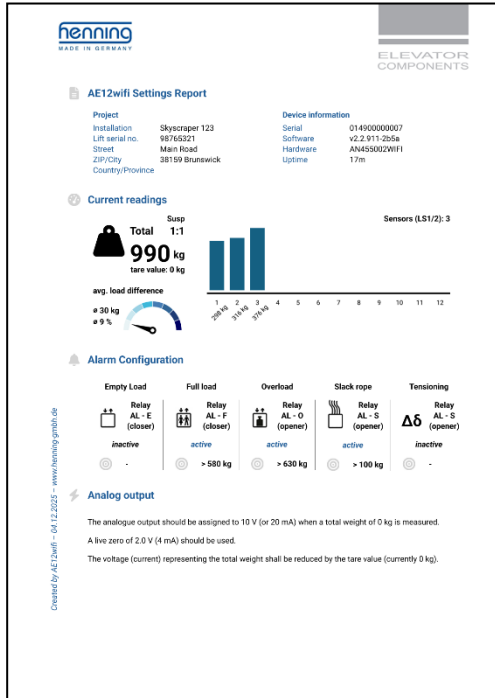
In the document preview, use the two buttons at the top to choose whether you want to print the document directly or save it as a PDF.

For PDF output, press the highlighted button and specify the path where you want to save the document on your device.



Leave the format settings for the output at the default settings (ISO A4, portrait format, 100% scaling).

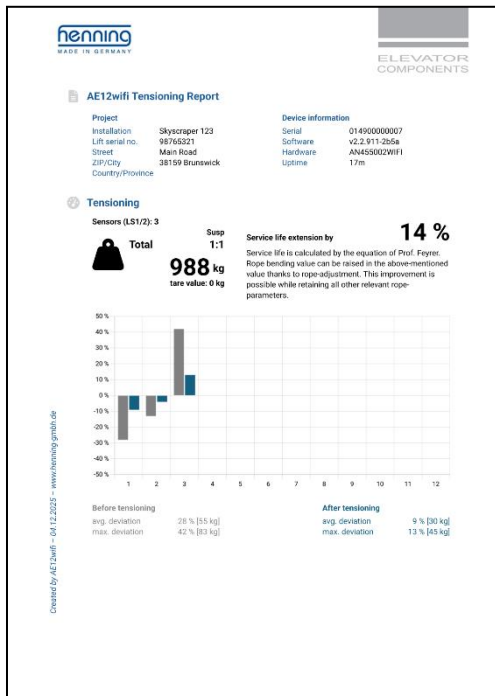
5.1.13 Unit Settings Report



The generated report is suitable for documenting the configuration and status of the evaluation unit and the connected rope load sensors. It displays the following parameters:

- The previously specified project data
- Device information and software and hardware versions
- The current measured values and device configuration
- The configuration and status of the alarms
- The configuration and status of the analog output

5.1.14 Rope Tensioning Report

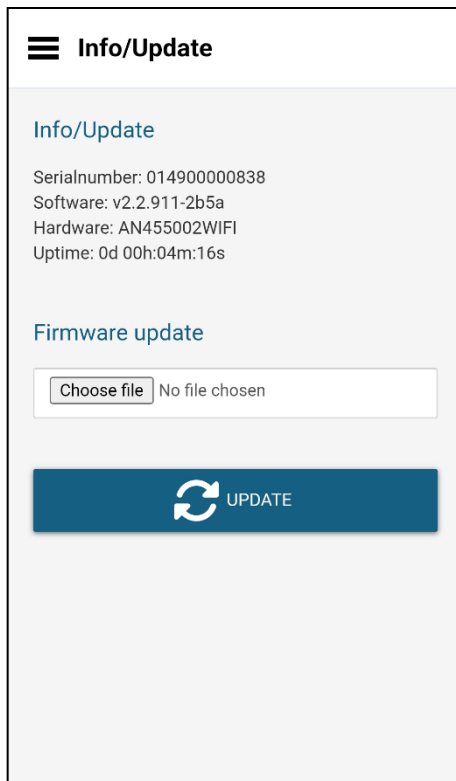


When the Tensioning Wizard is used correctly, the report documents the status and any improvement or deterioration in the rope load setting. It is therefore also suitable as proof of work.

- The previously specified project data
- Device information and software and hardware versions
- Information about the sensors and the selected suspension type
- The graphical representation of the individual rope loads, the condition specified by the user in the Tensioning Wizard, before the rope adjustment in gray (Before button)
- The graphical representation of the individual rope loads, the status specified by the user in the Tensioning Wizard, after the rope adjustment in blue (After button)
- The average and maximum deviation of the rope loads from the mean before and after the rope load adjustment.

5.1.15 Info/Update

This menu displays technical device information. If you contact support due to technical difficulties, please provide them with this information. It may be important for troubleshooting.



The following information is displayed:

- Serial number
- The software version installed on the device
- The hardware properties of the device
- The time since the last reset

This menu also allows you to **install software updates**, which you can obtain from our customer service department if necessary. We recommend using a laptop as the end device for this process, as the file browser functions are more convenient than on smartphones.








- Press/click on Select File and search for the firmware file in the file browser of your terminal device and select it.
- Press/click on the Update button. The display should then show that the device is in update mode.
- After the update process is complete, the device will restart. Then check the version number of the software that is now installed.

Note: Installing third-party software is technically impossible.





5.2 Operation using the buttons on the device

5.2.1 Setting the sensor type




To ensure that the AE12 evaluation unit can interpret the measurement data from the connected sensors correctly, the sensor type used must be set beforehand. In the menu item **Sens**, the sensor type used can be selected from the following list:

LS12	Load sensor LS1 and load sensor LS2	
DNUT	Return for submenu	
300	RC 300 sensor	
500	RC 500 sensor	
1000	RC 1000 sensor	
3500	RC 3500 sensor	
2000	Load sensor LS 2000	
C800	CC800 cabin sensor	

5.2.2 Display of the individual rope loads



- Use  to display the menu item **Rope** and select with .
- The display shows the weight (e.g. **00691**) and the display is constantly switching between the current load and the corresponding rope number **R001** (rope 1).
- Use  to switch between the individual ropes (up to the maximum number of ropes set in **RCnt**). The load of the 12th channel is always displayed as the last channel, see chapter 6.
- The menu item can be exited at any time with .


5.2.3 Setting the number of wire sensors


- Use  to select the menu item **RCnt** (rope count) and then press the button .
- Follow the instructions in chapter 4.2 "Changing a parameter" to set the correct number of cable sensors.
- The menu item can be exited at any time with .

5.2.4 Setting the suspension type






For multiple suspension, you must set the factor by which the rope loads are multiplied. The factory-set factor is 1 for directly suspended elevator systems.

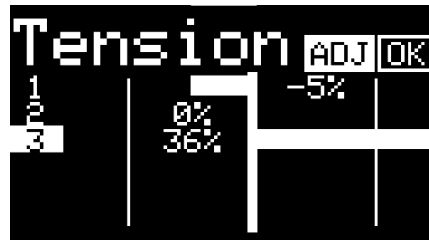
- a) Use  to select the menu item (rope factor) and then press the  button.
- b) Follow the instructions in chapter 4.24 "Changing a parameter" to set the correct factor.

Example: For a 2:1 suspension, you must enter  as the factor

- c) The menu item can be exited at any time with .

5.2.5 Rope tension assistant





- a) Use  to select the menu item  (rope tensioning) and then press the  button. The display shows an overview of the rope load difference in %.
- b) Press the  button and follow the instructions in chapter 4 to set the desired rope tension tolerance in %, for example .
- c) The rope tension assistant only becomes active with two or more ropes. The assistant automatically selects a reference rope before the adjustment process, which does not need to be adjusted by the user. The aim is to set the rope tensions so that all bars are within the two thin horizontal lines that represent the previously selected setting tolerance. Bars to the right of the center line represent ropes that are too tight. Bars to the left of the center line represent ropes with too little tension. If ropes exceed or fall below the setting tolerance, the numbers of the corresponding ropes are also highlighted in white. From a set number of sensors of 7, the display automatically switches to a vertical representation of the diagram.




In the example above, three sensors are connected. The device automatically selects the rope with sensor 2 as the basis for the rope tension assistant and therefore does not display a bar for this rope. Rope 1 is slightly under-tensioned at -5%, but is within the previously selected setting tolerance of -10% and is therefore OK. Rope 3 is too tight at +36%. It clearly exceeds the setting tolerance of +10%. The excess is also indicated by the white highlighting of the "3".

5.2.6 Zero-point setting (tare)

This function is used to reduce the weight displayed on the AE12 by the currently measured total weight. If the points listed below are carried out correctly, the device will only display the payload of the cabin.

- a) Use  to select the menu item  and then press the  button. Now  starts to flash on the display.

- b) Check that the cabin is really unloaded. After pressing  again, a countdown of 10 seconds begins.
The cabin weight must not be changed during this time.
- c) The zero point is then calibrated.

5.2.7 Alarm levels

The alarm levels correspond to the loads at which the relays change state. You can also select whether the individual relays should operate as normally closed or normally open contacts.

AL-E (empty load)

Change of state if the load falls below the value programmed in **AL-E**.

AL-F (full load)

Change of state if the load programmed in **AL-F** is exceeded.

AL-O (overload)





Change of state if the load programmed in **AL-O** is exceeded.

AL-S (slack rope)

Change of state if the load falls below the value programmed in **AL-S**.

AL-R (rope difference)

Change of state as soon as one of the ropes deviates from the average of all ropes by at least the percentage load programmed in **AL-R**.

- a) Use  to select the appropriate alarm level and then press the  button.
- b) You can now use  to choose between **Load** (load) and **Conf** (configuration).
- c) In **Load**, set the load switching threshold in the selected weight unit (default: kilogram [kg]).
- In **Conf** you can choose between **clos** (close) for the normally open operating mode and **open** (open) for the normally closed operating mode. The setting is only applied after pressing the  button twice (selection flashes after the first time).

Note: When using the zero-point function (see Chapter 16), the threshold values of the respective alarms always refer to the load value that is also shown in the display after the zero-point function has been executed. Please note this when setting the threshold values.

5.2.8 Setting the analog output (optional)

In the parameter **DCOu** you set the weight at which the analog output should supply the maximum output value of 10V or 20 mA. This menu item has three parameters to be set:

Load

Set the load at which the analog output should supply its maximum value (10V or 20mA).

offs

Set a live offset (dead man's threshold). This is entered as a voltage in volts between 0.0 and 9.9. An offset of 0.0 V means that the live offset is switched off. This volt specification corresponds linearly to the output as a current, whereby 0 V = 0 mA and 10 V = 20 mA. An industry standard is an offset of 4mA. (4 mA – 20mA signal).

Tara

You can select whether only the payload should be output via the analog output (the prerequisite for this is that you have used the zero-point setting function **Zero**). If you set this option to **on**, only the payload is output. If the option is switched off with **off**, the analog output signal corresponds to the sum of payload and empty cabin weight.

5.2.9 Setting the display unit

In the menu item **Unit** you can choose between two different weight units. All displayed weights and alarm thresholds are shown in the selected unit. All internal calculations are carried out in kilograms, so rounding errors are possible.

You can choose between the following units:

Metr

(metric)

All weights are displayed in kg.

Impe

(imperial)

All weights are displayed in pounds "lbs"!!!

5.2.10 Device status - Info

The Info menu item provides information about the serial number, the installed version of the firmware and the operating time (d/hrs/min/sec) since the device was last reset.

```
WEIGHT WAT  
Serial 08914116  
Version 2.0.747-71cd  
Uptime 0 02:02:55
```

6 Use of a sensor for tie-down compensation or chains

The device supports the use of a sensor for tie down compensation or chains under the car. Contrary to the rule in chapter 8d), the corresponding sensor must always be connected to channel 12. The number of sensors (chapter 5.2.3) must be set to the number of sensors for the suspension ropes, without the sensor for the under-tensioning rope.

Example: An elevator has 6 ropes and additional tie-down compensation. The number of sensors to be set is 6 (see chapter 5.2.3). The normal rope sensors are connected to channels 1 to 6. The sensor for tie-down compensation is connected to channel 12.

7 Error messages

All 4 alarm LEDs light up

At least one load sensor has failed, or the wrong number of sensors has been set under the menu item **RCnt** (see chapter 5.2.3).

Procedure:

Go to the menu item **RCnt** and check the set number of cable sensors. If this is set correctly and the error is still present, go to the menu item **Rope** and check the individual cables.

If **Err1** is displayed for one of the channels, the relevant sensor has failed.

If **Err2** is displayed for one of the channels, the sensor in question is supplying an excessive signal and is probably overloaded.

8 Installing the LS1, LS2 & LS 2000 sensors

A load sensor must be provided for each suspension cable.

a) Selecting a suitable installation location

The location in the rope where the load sensor LS is installed must meet the following conditions:

- The sensor must not come into mechanical contact with any other components during travel over the entire delivery head.
- The cable must run in a straight line and be undamaged at the selected installation location.
- There must not have been any previous mechanical influences such as other cable sensors, multiple installations etc. at the selected location.
- There must be at least 10 cm of free cable between the cable lock and the load sensor.

b) Inserting the load sensor LS into the cable

Open the cable clamp on the M5 screw until the cable can rest in the groove of the load sensor over the entire length of the sensor.

c) Closing the rope clamp

Tighten the M5 screw to 4 Nm (check: both lock washers are pressed flat, see image).



d) Connecting the sensor to the AE12 evaluation unit

The LS load sensors must be connected to the AE12 in sequence, starting with sensor socket 1 at the top left of the housing.

An exception to this rule is the use of a sensor for tensioning cables or chains (see chapter 6)

Repeat steps 1 to 4 for all sensors to be connected.

Note: For an exact measurement result, the sensor may only be inserted once into the selected rope position.





9 Quick start guide

a) Installing the AE 12 evaluation unit at a suitable location

b) Installing the sensors (see chapter 8)





c) Setting the number of sensors (see chapter 5.2.3)

d) Set the sensor type (see chapter 5.2.1):






Use  to switch to the menu item **RCnt** and use  and  to set the number. Press  twice to confirm the setting.

e) Setting the suspension factor:

Only necessary if it is not a 1:1 suspension (see chapter 5.2.4).

Use  to switch to the menu item **RFct**. And set the number with  and . Press  twice to confirm the setting. (e.g. enter 2:1 suspension factor 02)

f) Set the alarm thresholds (see chapter 5.2.7):

Use  and  to select the corresponding alarm level. Set the load switching threshold in **Load** with  and . In **Conf**, set the operating mode **clos** for NO contact and **open** for NC contact. Press  twice to confirm the setting.

(If you use the zero-point function, please remember the note in **chapter 5.2.7** to set your thresholds correctly.)

g) Zero the device with an empty elevator (see chapter 5.2.6):

Use  to switch to the menu item **Zero**. Press  twice and the countdown begins.

10 Software update

The device can be updated in the field if necessary. If an update is required, please contact customer service.

11 Decommissioning the device

The device can be switched off simply by disconnecting the power supply plug.

12 Waste disposal

After use, please dispose of this product as electronic waste in accordance with the country-specific regulations and applicable waste disposal regulations.

13 Contact us



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