

PW-8B(-i)

POULTRY WEIGHING COMPUTER



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1 General introduction

The manual is intended for the user of this device. It contains all the information necessary for operating and cleaning this product. Please read all information and instructions carefully before using the product.

Symbols mark warnings, important notes, tips, etc. in this manual.

Stienen has compiled this manual with all due care. If you find any errors, please let us know.

1.1 Symbols and definitions



Risk of injury by dangerous electric shock. Danger to people and animals.



Warning indicating danger to product, people and animals if procedures are not strictly complied with.



Warning indicating damage to products if procedures are not strictly complied with.



Pressure cleaning is not allowed.



Collect as separate flows



Important note



Additional information



Example of a concrete application of the functionality described.



Example calculation



Manual control



Tips and advice



Screenshot



Application note

1.2 Customer service

If you have any questions, please contact your installer. Be sure to have all the necessary data handy. You should also always write down the cause of a fault and the circumstances that occurred during the fault. This will enable you to avoid any ambiguities and it will enable your installer to deal with any faults quickly and effectively.

2 Safety instructions and warnings

Read the general safety instructions in this chapter carefully before using the device. A certified installer must install the device and resolve any faults, in accordance with the applicable guidelines. If this product is installed and used in any other way, the warranty will not apply.

2.1 Sound, independent alarm system

Although we have designed and built our control equipment with the greatest care possible, technical faults can never be ruled out. Insurance requirements in many countries are becoming increasingly stringent. This requires the alarm contacts of the various control computers to be connected a central alarm unit.



We recommend also installing a sound independent alarm system, for example a min/max thermostat.



We advise you to manually test the alarm at least once a week.

2.2 During use

The people who operate the device have read the manual carefully. They are aware of potential hazards that may arise from improper use and maintenance of the product.



The device must only be opened by authorised personnel.



Do not switch off the control computer while the house is empty, but switch it to *Off* mode. This will prevent condensation caused by the equipment cooling down.



Check the device for any damage at regular intervals. A damaged device is unsafe. Always report any damage to your installer.



Electronic equipment is splash-proof and must not be cleaned using a pressure cleaner.



If any emergency has occurred, write down: the circumstances under which the emergency occurred, installation settings, software date, software version number and possible causes.

2.3 Disposal

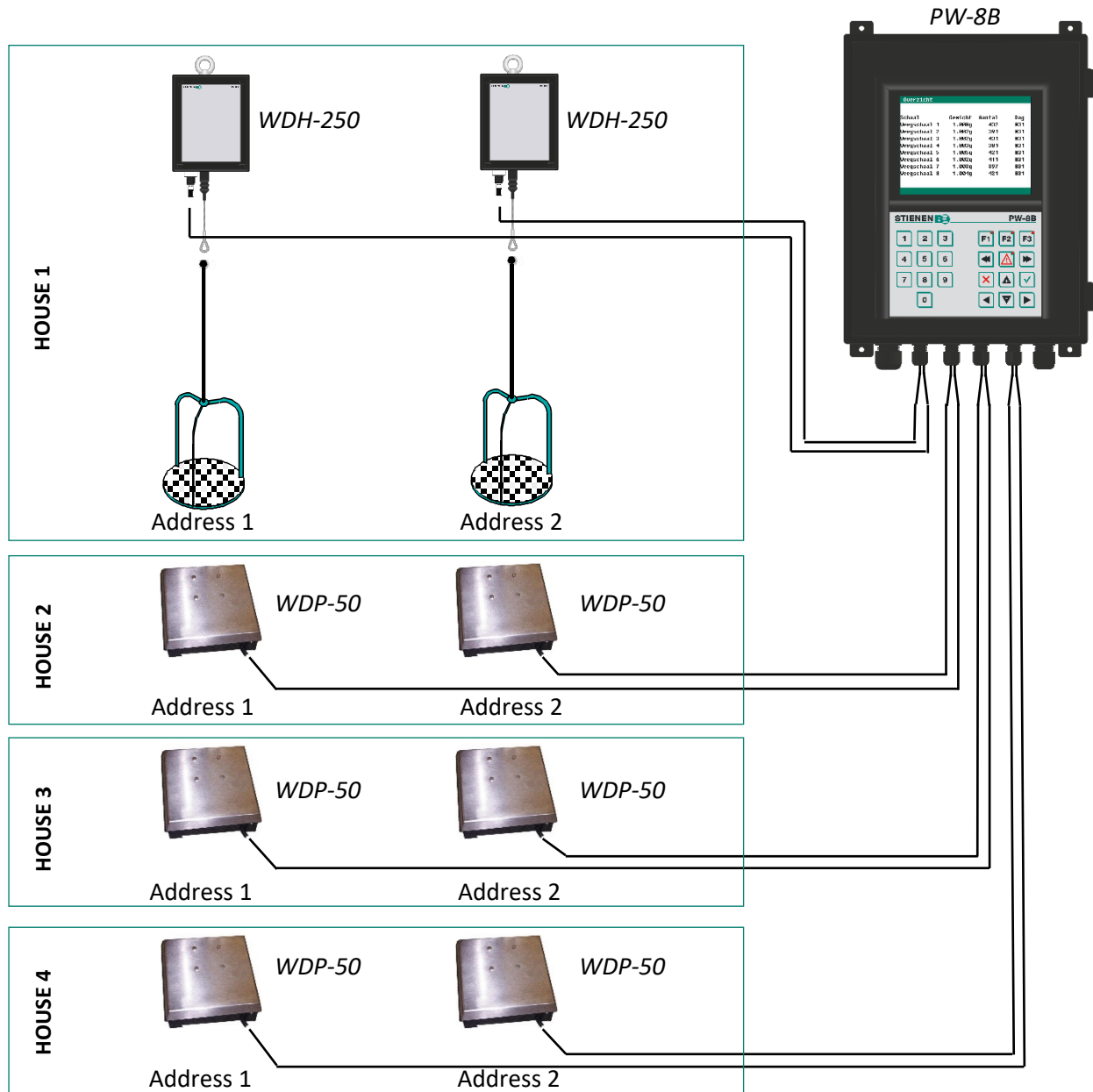
The EU has set up systems for the separate collection of waste electrical and electronic equipment and batteries (Directive 2012/19/EU). If you do not dispose of the device properly, you risk a fine.



Electrical and electronic equipment must be collected separately at the end of its life.

3 Poultry weighing system

Together with the scale types *WDP-50* en/of *WDH-250*, the *PW-8B* forms a complete stand-alone animal weighing system. The system converts the daily weighing results into key figures such as: average weight, growth, standard weight, CV-value and uniformity. A maximum of eight scales can be connected to the *PW-8B*.



4 Screen and keyboard

4.1 Screen



Symbol	Description
	If some text lines extend beyond the screen, you will see in the title bar. You can then use to display these settings and/or measurements.
	If some text lines extend beyond the screen, you will see in the title bar. You can then use to display these settings and/or measurements.
	If is shown in the title bar and you press function key F3, the settings will be displayed graphically. The dot (•) in the graph indicates the calculated value. Pressing F3 again turns off the graphical display. The display lights up for a few minutes every time a key is pressed. This enables you to see the settings and measurements in a dark animal house.
	= select previous screen = select next screen

4.2 Changing language



Selecting next language



Selecting previous language

Press and hold and press / to select the previous/next language.

4.3 Navigation keys



In control mode, press and hold to move the cursor to the right or left.
Move cursor left or right in edit mode.













Move cursor up or down in control mode.
Increase or decrease value in edit mode.







Select next or previous screen in control mode.




4.4 Numeric keys (0..9)

Use the numeric keys to enter a screen number, value or text. Select menu item 10 with .

Button	Character
	_0
	.,1'-.:+
	abcäåâäç2ABCÄÅÂÂÇ
	defëëëê3DEFËËËÊ
	ghïîîî4GHIÎÎÎ
	jkl5JKL
	mnoöóòô6MNOÖÓÔÔ
	pqr7PQRS
	tuvüüüû8TUVÜÜÛÛÛ
	wxyz9WXYZ

Text input

Use  ...  to change the name (max. 15 characters including spaces) of a recipe, timer, external alarm, etc. The character is shown in a little box. Press the numeric key repeatedly until the character to be selected is shown. To enter a punctuation mark, press  repeatedly. Use  to insert spaces.

 : Press once for a, twice for b, etc.
Use  and  to move the text cursor.

For example, in menu choices, the text automatically starts with a capital letter.

4.5 Control keys



Confirm the selected menu option, start edit mode and confirm the change.








Abort menu option or change. Press and hold this key to return to the main menu.



Shortcut to fault message screen.

4.6 Adding or removing breakpoint or period

1. Press  (Enter key) to enter edit mode.
2. Press and hold  and press  to add a breakpoint/period (provided that the maximum value for periods/breakpoints has not been reached)..
3. Press and hold  and press  to remove a breakpoint/period (provided there is a period/breakpoint).
4. The number of breakpoints/periods is adjusted automatically.

5 Weighing scales

5.1 Measurements

Main menu 1 Scales 2 Error 3 System Access code ****	1 Scales 1 Scale 1 2 Scale 2 3 Scale 3 4 Scale 4 5 Scale 5 6 Scale 6 7 Scale 7 8 Scale 8	11 Animal weighing Scale 1 1 Measurements 2 Settings 3 Weighing period 4 Overview 5 Multiple day average 6 Norm curve 7 Entry data 8 Status
111 Measurements Scale 1 Average weight 3,161g Norm weight 3,152g Multiple day average 3,157g Growth 9g Latest weighing 3,177g Number 217 Uniformity 81% CV 5.19%	111 Measurements Scale 1 Average weight 3.163g Norm curve 3.152g Multiple day average 3.158g Growth 11g Latest weighing 3.194g Number 235 Uniformity 82% CV 5,33%	

Average weight

The average weight of the animals weighed today.

Norm weight

The average weight is calculated from the set norm weight or from the curve and the set relative lower and upper limits. Animals that are too light or too heavy are not included in this calculation.

Norm curve

The *norm weight* is calculated based on the *norm curve* settings and the age (day number).

Multi-day average

The average animal weight calculated over several days.

Growth

The increase in average weight compared to yesterday's average weight.

Last weighing

The weight of the animal last weighed.

Number

The number of animals weighed within the limits of the standard weight.

Uniformity

The indication of the distribution of the animal weights. The uniformity is defined as the percentage of animals with a weight between 90% and 110% of the norm weight.

CV

The coefficient of variation, also known as relative dispersion or variability, represents the ratio of the standard deviation to the average weight, expressed as a percentage. It provides insight into the degree of variation in the measurement values of the chicks in the poultry house relative to their average weight.

5.2 Settings

11 Animal weighing Scale 1	112 Settings Scale 1	112 Settings Scale 1
1 Measurements	Defining norm Automatic	Defining norm Norm curve
2 Settings	Norm weight 01,000g	Norm curve 81g
3 Weighing period	Average weight	Average weight
4 Overview	Lower limit 80%	Lower limit 80%
5 Multiple day average	Upper limit 145%	Upper limit 145%
6 Norm curve	Uniformity	Uniformity
7 Entry data	Lower limit 90%	Lower limit 90%
8 Status	Upper limit 110%	Upper limit 110%

Defining norm

To calculate an animal weight, the computer needs a guide value (norm weight). This reference weight can be determined in five ways:

1. *Automatic* At the beginning of the day the computer takes the average animal weight of the previous day.
Normal weight = Yesterday's average weight
2. *Automatic + growth* Automatic with growth adjustment. *Norm weight* = Yesterday's average weight + average growth
3. *Norm curve* At the beginning of the day, the computer calculates the norm weight from the norm curve.
4. *Manual* Manual setting of the norm weight.
5. *Multiple day average* At the start of the day the computer calculates the multi-day average weight for the days up to and including yesterday (depending on the *Multiple day average* setting, see Measurements, page 6). *Normal weight* = calculated multi-day average weight.

Norm weight

Without norm curve

In order to calculate an animal weight, the computer requires a guide value (standard weight). When setting up a new flock of animals, you manually enter the current setup weight of the animals.

With norm curve

The norm weight is calculated at midnight based on the set curve and the current day number.



With a new setup (new round) you have to reset the day number to the correct value yourself.

5.3 Average weight, uniformity and CV curve

You can set separate lower and upper limits for the average weight and uniformity. The limits are entered as a percentage of the standard weight. Measured values within the set limits are stored in the memory.

$$\text{Average weight} = \frac{\text{Sum of all measurements stored in memory}}{\text{Total number of stored measurements}}$$

The *uniformity* is calculated in the same way, taking into account the limits set. These must therefore be within the limits of the average weight.

02:00

Average weight
Lower limit
Upper limit

Measurements below the lower limit or above the upper limit are not included in the calculation.

Uniformity
Lower limit
Upper limit

Measurements below the lower limit or above the upper limit are not included in the calculation. The lower and upper limits are adjustable.

! The table with measurement values (Table 1/2) is cleared.

CV curve
Lower limit
Upper limit

The lower and upper limits are calculated based on the CV curve settings and the age (day number).

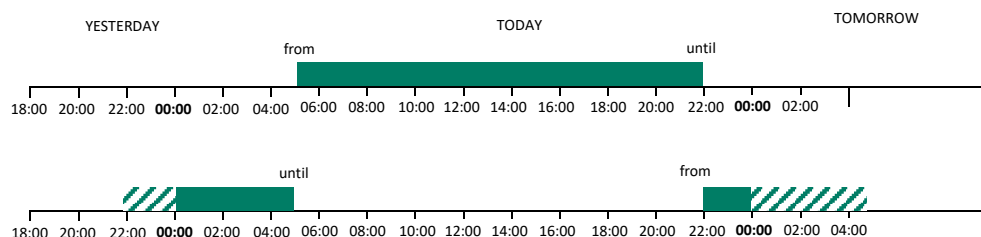
! The table with measurement values (Table 1/2) is cleared when the day number or the curve setting is changed.

5.4 Weighing period

11 Animal weighing Scale 1	113 Weighing period Scale 1	1131 Week program Scale 1
1 Measurements	Weighing period from 00:00 till 10:00	Week program <input checked="" type="checkbox"/> yes
2 Settings	Multiple day average yes	Days in cycle 2 days
3 Weighing period	Average of 7 days	Weighing active on
4 Overview		Thu yes
5 Multiple day average		Fri no
6 Norm curve		
7 Entry data		
8 Status	1 Week program	

Weighing period

Period during which the animals are weighed. If the same time is filled in at *from* and *to*, the measurement is done during the whole day.



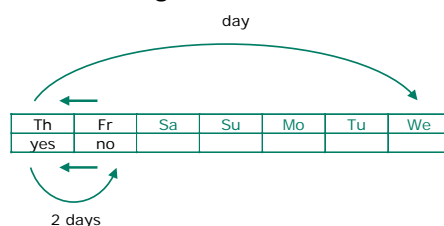
Multiple day average

Display of the average of the last days. Using the *multiple day average*, sudden drops in average weight can be detected and corrected at an early stage. This allows you to minimize production loss.

Week program



Do not use the *Week program* if *Defining norm* is set to *Automatic + growth* or *Multiple day average*. The growth on the day skipped is then 0 or negative.



Weighing active on

Diurnal rhythm of the sequence. In the above example, the control is active every other day. Day 1 (*Thu*) → *yes*, day 2 (*Fri*) → *no*, day 3 (*Sat*) → *yes*, day 4 (*Sun*) → *no*, day 5 (*Mon*) → *yes* etc.

5.5 Overview

114 Overview Scale 1	
1 Overview	
2 Table 1	
3 -----	

114 Overview Scale 1	
1 Overview	
2 -----	
3 Table 2	

Table 1

Animal species is set to:

- *Rearers*
- *Laying hens* or
- *Parent stock*

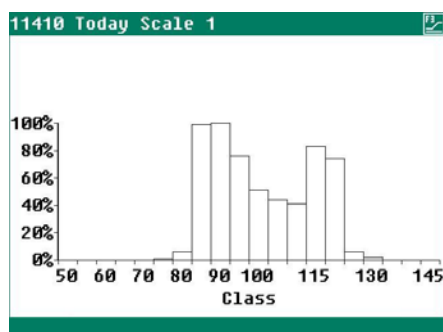
Table 2

Animal species is set to:

- *Broilers*

1141 Overzicht Weegschaal 1					
Dag	Gewicht [g]	Norm [g]	Groei [g]	Aant. [%]	Uni. [%]
vandaag	2.903	2.806	97	542	39
ma	2.806	2.719	87	522	47
zo	2.719	2.647	72	504	59
za	2.647	2.605	42	475	66
vr	2.605	2.557	48	470	72
do	2.557	2.536	21	475	71
wo	2.536	2.528	8	473	74
di	2.528	2.522	6	456	74

11410 Today Scale 1			
Class	Number	Class	Number
50%	0	100%	47
55%	0	105%	41
60%	0	110%	38
65%	0	115%	77
70%	0	120%	69
75%	1	125%	6
80%	6	130%	2
85%	92	135%	0
90%	93	140%	0
95%	71	145%	0



Select the desired day using the navigation keys and confirm with the Enter key. The display shows an overview with the number of measurements per class.

The class with highest number of measurement is set equal to 100%. All other classes are related to this. In our example, 47 measurements equals *Class 100%*.

Tables

1142 Table 1 Scale 2			
Date	20/01/2025		
Limits	80%	145%	
Number	523		
Average weight	2,807g	CU	12.18%
Weight	Number	Weight	Number
2,660g	12	2,780g	10
2,680g	17	2,800g	3
2,700g	15	2,820g	7
2,720g	2	2,840g	15
2,740g	9	2,860g	5
2,760g	7	2,880g	6

1143 Table 2 Scale 1			
Date	20/01/2025		
Limits	90%	110%	
Number	300		
Average weight	2,661g	CU	5.66%
Weight	Number	Weight	Number
2,520g	9	2,640g	12
2,540g	8	2,660g	12
2,560g	20	2,680g	17
2,580g	14	2,700g	15
2,600g	12	2,720g	2
2,620g	12	2,740g	9

Table 1

Table 2

The values in the tables range from 40 grams to 5980 grams, increasing in increments of 20 grams. The table is cleared if:

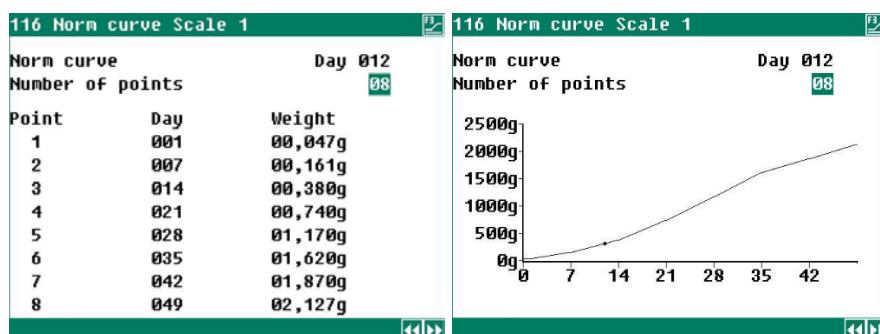
- the *Defining norm* setting changes or
- the *day number* changes or
- the limits change.

5.6 Multiple day average

115 Multiple day avg. Scale 1		
Day	Weight	Average days 7
Today	1,233g	1,202g
Thursday	1,170g	1,139g
Wednesday	1,107g	1,076g
Tuesday	1,045g	1,014g
Monday	0,983g	0,953g
Sunday	0,922g	0,892g
Saturday	0,861g	0,831g
Friday	0,800g	0,770g

The *Weight* column shows the average weight per day.
The *Average* column shows the multiple day average.

5.7 Norm curve



Here you set the norm curve. If *Defining norm* is set to *Norm curve*, the weighing computer determines the norm weight from the curve. Here you enter, for example, the data from the *Herd chart* (available from your feed supplier).

5.8 Setup data

117 Entry data Scale 1	
Entry date	--/--/----
New entry	<input type="checkbox"/> no

The *Entry date* is automatically filled in as soon as you set *New entry* to yes.

The *Entry date* is used to determine the age of the animals. In addition, this setting is used for, among other things:

- calculating the average values;
- determining the norm weight from the norm curve;
- determining the multiple day average.

5.9 Scale status (F2)

118 Status Scale 1	
Norm curve	1,170g
Norm curve	Day 028
Entry date	--/--/----
New entry	no

In this screen you see the actual norm weight and the actual day number. Here you can also set up a new herd.



The current day number is not automatically updated.
You need to adjust it manually.

When you press function key F2 (shortcut key), the status screen appears on the display.

6 Malfunctions

2 Error	
Scale 1	No error
Scale 2	No error
Scale 3	No error
Scale 4	No error
Scale 5	No error
Scale 6	No error
Scale 7	No error
Scale 8	No error
1 Latest error	
2 Communication	

6.1 Latest malfunctions

21 Latest error	
Error 0 :..
Code
Control
Error 1 :..
Code
Control
Error 2 :..
Code
Control

You see the last 5 error messages with cause, date and time.

Error 0 Here you can see the cause of the last malfunction with the time until which the malfunction is/was active.

Press  to display previous error messages.

6.2 Communication

22 Communication	
Error	<input checked="" type="checkbox"/> on
Device address	-
Date	--/--/----
Time	--:--h
Status	No error

In this screen you can turn the communication error on and off.



This screen appears only at a main station.

Device address shows the address from which the main station did not receive any data. You will also see the date and time when the communication error occurred.

6.3 Error codes

<i>Communication: Scale</i>	<ul style="list-style-type: none">▪ No communication with weighing scale (TxD/RxD LEDs are not flashing)▪ Wrong communication address▪ Poor connection to weighing scale
<i>Main station</i>	<ul style="list-style-type: none">▪ No communication with devices (TxD/RxD LEDs of RS-485 are not flashing)▪ Wrong number of communication addresses▪ Poor connection to devices (RS-485)
<i>Communication WEB-485</i>	<ul style="list-style-type: none">▪ No communication with WEB-485/WEB-MSG (TxD/RxD LEDs of RS-485 are not flashing)▪ Bad connection to WEB-485/WEB-MSG (RS-485)▪ WEB-485/WEB-MSG switched off/no voltage.
<i>No communication address</i>	Device address of animal weighing computer is missing.
<i>Multiple day average</i>	<i>Defining norm</i> is set to <i>Multiple day average</i> . However, in the <i>Weighing period</i> , the setting <i>Multiple day average</i> is set to <i>no</i> . Change the setting.
<i>Not calibrated</i>	If behind a scale the text <i>Not calibrated</i> is shown, please contact the supplier of the weighing scale. By default the scales are calibrated in the factory. In this case the scale should be returned to the factory for calibration.
<i>Scale not found</i>	<ul style="list-style-type: none">▪ No communication with scale (TxD/RxD LEDs are not flashing)▪ Poor connection to weighing scale




Do not forget to switch the error message back on if, for example, it has been switched off for troubleshooting purposes.



Installation errors such as *Scale not found*, *Not calibrated*, *Multiple day average* etc. must be resolved before setting the installation into operation.

7 System

7.1 General



```
3 System
Device          PW-8B
Type            262
Software version -----
Software date   --/--/----
ENG, NLD, DEU, FRA  English

1 Date/Time      3 Display
2 Remote control
```

Device Device name: *PW-8B*.

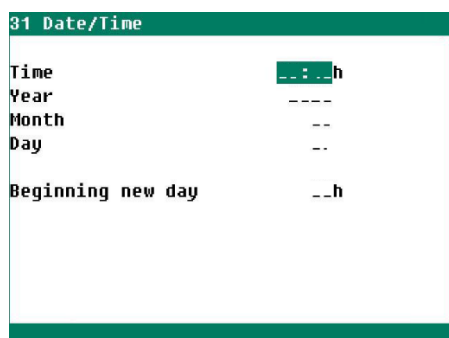
Type Type number of the device. *PW-8B* = 262.

Program version Version number of the software.

Program date Creation date of the software.

ENG, NLD, DEU, FRA The language in which the texts appear on the screen. To change the language, see 4.2 *Changing language*, page 4.

7.2 Date and Time



```
31 Date/Time
Time          --:--h
Year          ----
Month         --
Day           --
Beginning new day  --h
```

In addition to the date and time, you can also set the start of a new day. To do so, enter the time at which the new day should start under *Beginning new day*.

Beginning new day Time at which a new day begins. At this time:

- all day-dependent data is moved up one day. Today's data will be deleted;
- the day number is incremented;
- all the data from the curve is recalculated.

7.3 Remote control

32 Remote control

Disclaimer
Manufacturer accepts no responsibility
for damage when using Remote Control.
You need to provide a secure
LAN environment shielded from the
internet through a firewall.

Remote control ☒ yes

User -----

Access code -----

IP address -----



For more info, see *ANote-Remote-N-ENxxxxx*.

7.4 Display

33 Display

Brightness

on ☒ 100%

off ☐ 015%

On-time 300s

Cursor left ☒ yes

Brightness

- | | |
|----------------|--|
| <i>on</i> | Indicates the relationship between the colours white and black. |
| <i>off</i> | Here you can set the brightness of the backlight. |
| <i>On-time</i> | Number of seconds the backlight stays on after the last key press. |

Cursor links

- | | |
|------------|---|
| <i>yes</i> | When editing, position the cursor all the way to the left. |
| <i>no</i> | When editing, position the cursor all the way to the right. |

Main menu 1 Scales 2 Error 3 System Access code ***	Main menu 1 Scales 2 Error 3 System	118 Status Scale 1 Norm curve 1,170g Norm curve Day 028 Entry date --/--/---- New entry no
---	---	---

F2 → Status screen

!

When returning to the overview screen, the access code will be deleted.