



User manual for StrawApp 3.1.0

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Description

StrawApp is a user-interface for the Haymatic BLE handheld moisture-meter. The Haymatic BLE is a iPhone / iPod / iPad enabled handheld instrument with which moisture content in bales of straw & hay can be measured. The App for iPhone / iPod is StrawApp which this manual covers. The App for the iPad is HayApp which has it's own manual.

Reading of the moisture-content is possible on both the Haymatic BLE and the iPhone / iPod. Transfer of data to the iPhone / iPod is done by a simple push-button on the Haymatic BLE. StrawApp calculates and displays both bale average and load average & total. Additional information like Client name (buyer / supplier) and which kind of material it is (kind of straw or kind of hay) can be added to the measurements. All data can be stored in iCloud for further processing. This enables easy processing at the office for invoicing at a later stage.

As an extra option a interface to a scale is available. This only requires an interfacebox for transferring the weight to the App. Then a coupling of moisture and the delivered quantity (weight) can be made.

The StrawApp is an entry-level application for automated storage of data. A complete automated equipment is available under the name Hayway which consist of a frame with 6 spears- measuring moisture & temperature and a scale for weighing the bales and an App for iPad (HayApp) which intergrates all the data.



Bale / Load :

In this manual two terms are used :

1) Bales-measurement og 2) Load-measurement.

1) **Bales** : Measurement made with Haymatic BLE on individual bales.

Haymatic BLE transfers a measurement to the StrawApp each time the push-button on the instrument is pressed. It's good praxis to make a number of measurements in each bale. When averaged, these measurements will give good information about the bale.

On the iPhone / iPad these informations are shown around the Hamatic BLE symbol in the top part of the screen.

In short : **Individual readings for a Bale**

2) **Load** : Reading for the whole load, i.e average calculation on a series of measurement on individual bales and a total calculation of the weight of all the individual bales.

In short : **Total load average & total weight** (requires external scale).

Below is shown an example with 5 measurements in each bale (made with Haymatic BLE). These measurements are send to the StrawApp which calculates the results.

Bales:

Measurements:
bales



10.8	1	11.8	1	12.8	1	11.2	1	14.0	1
12.5	2	14.7	2	14.3	2	13.7	2	12.5	2
11.5	3	13.5	3	13.7	3	12.1	3	13.7	3
10.0	4	12.5	4	14.2	4	15.2	4	14.1	4
<u>12.1</u>	<u>5</u>	<u>12.9</u>	<u>5</u>	<u>13.9</u>	<u>5</u>	<u>13.0</u>	<u>5</u>	<u>14.4</u>	<u>5</u>
$56.9/5 = 11.4$		$65.4/5 = 13.1$		$68.9/5 = 13.8$		$65.2/5 = 13.0$		$68.7/5 = 13.7$	

Measurements:
load

11.4	1
13.1	2
13.8	3
13.0	4
<u>13.7</u>	<u>5</u>
$65.0/5 = 13.0$	

Hardware

iPod / iPhone:



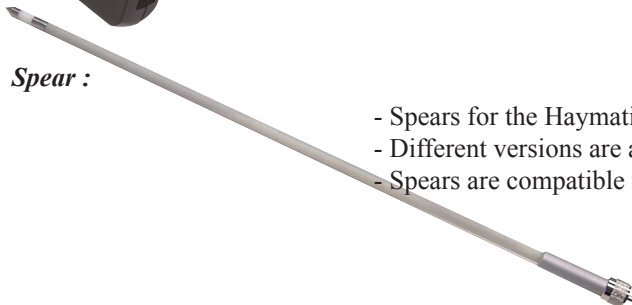
- The App is intended for the iPhone 6 or higher.
- The App is intended for the iPod Touch
- The iPhone must be running iOS 10.1 or higher
- The App only works in upright orientation.
- The App uses the Bluetooth LE version 4.0 / 4.1.
- If Wifi not accessible a SIM-card must be installed
- An Apple ID account must be associated to the device
- Data storage is done in iCloud Drive.

Haymatic BLE:



- **Haymatic BLE**, handheld moisturemeter
- Compatibel with StrawApp V3.1.0
- Precise, secure and quick measurements
- Digital readings in range : 10 - 80%
- Different spears as accessories.
- Accuracy ~1 % (< 40 %)

Spear :



- Spears for the Haymatic BLE.
- Different versions are available.
- Spears are compatible with the Haymatic Digital

Symbols & terminology

Battery level for Haymatic BLE

State for Haymatic BLE

Actual temperature

Average temperature

Number of measurements in bale

Average moisture

Actual moisture

Time for update

Average moisture in load

Total weight of load

Client ID

Type of product

Number of measurements in load

Manual Sum - button

Tare - button

Zero - button

State for scale

Actual weight of bale

Future option

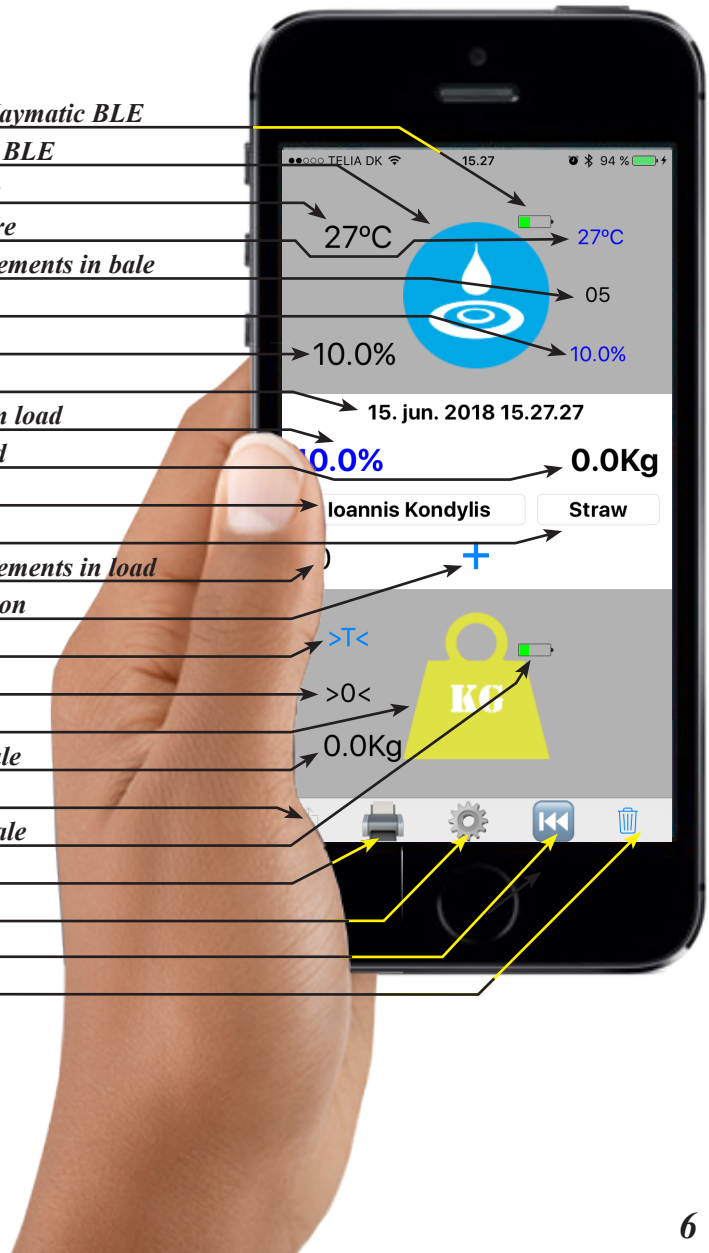
Battery level for scale

Print

Go to settings

Delete last

Delete total



Battery level for HD BLE :



The charge level for the battery in the Haymatic BLE is shown as 0 - 100 %



If the charge becomes less than 10 %, the colour of the level changes to red. Immediate replacement of the battery is recommended.

State for HD BLE :



Instrument is not active.

- Either Haymatic BLE:

- isn't switched on
- not enabled in settings
- BT connection not established

Note if the Haymatic BLE hasn't been used for for 5 minutes, it will automatically turn off.



Instrument is active.

Actual readings are updated every 5th. second / immediately when the push-button is activated on the Haymatic BLE instrument.



Instrument reports an ERROR.

The error reported is that the moisture/temperature-level exceeds the levels setup in the settings.

This is a quick way of determine whether a bale is ok or not. No need to look at the moisture level during loading, as long as the status is blue. By enabling and setting an alarm-level in the settings, the level is automatically monitored.

<i>Actual temperature:</i>	27 °C	The temperature is read in the range -20 til 100 °C. Please note, depending on version of instrument the reading is either ambient- or bale-temperature
	70 °C	The colour changes to red if a alarm level has been set and it's exceeded.
<i>Average temperature:</i>	27 °C	The value is a bale-average of a number of measurements made by the Haymatic BLE
<i>Number of measurement in bale:</i>	05	The number of measurements made with the Haymatic BLE for the individual bale, i.e. before bale-values are transfered to the load-values.
<i>Average moisture:</i>	10.0%	The value is a bale-average of a number of measurements made by the Haymatic BLE
<i>Actual moisture:</i>	10.0%	The moisture level of the bale is given in the range 10.0 - 80.0%
		Values below 10.0% are reported as 10.0%
		Values above 80.0% are reported as 80.0%
	24.0%	The colour changes to red if a alarm level has been set and it's exceeded.

<i>Time for update :</i>	Date & time	<p><u>E</u>ither the last time a value has been received from either the Haymatic BLE or the scale.</p> <p><u>O</u>r the last time a value has been stored on the disc or in the Cloud.</p> <p>Whichever is the last to have happened updates this “value”</p> <p>The value is stored along with the readings on the disc / in the Cloud.</p>
<i>Average moisture for load:</i>	10.0 %	When black : The actual reading from Haymatic BLE.
	10.0 %	When Blue : The value is the average of the load, i.e. the average of all the bales
	10.0 %	When red : The average reading of the bale exceeds the set limit. Consequently the bale should be rejected.
<i>Total weight for load:</i>	500.0 Kg	When black : The current weight on the scale. While black no summing of the load has begun (when begun the colour turns blue)

Total weight for load - cont.: 500.0 Kg

When Blue : The value is the total weight, i.e. sum of multiple bales or a truck. The number of bales which has been weighed is the number of times the value has been stored to disc / cloud since last reset (delete button activated)

500.0 Kg

When Red : The weight exceeds the level set in Max weight-setting (see settings) The bale should not be lifted as it overloads the system.

Client ID - text field :

Type Client ID

Client reference. Tap the field and the iPod / iPhone keyboard is activated. Any text-string can be entered as client reference to the current session.

If set in “Client / Product settings” the text-field is obligatory and then only if both a Client ID & a Product type has been entered can the sum-function be operated (either manual or automatically). Both fields will then be flushed when a session is finished (delete button activated.)

Note : Do remember to end the typing by means of the return-key.

NOTE :

The “Contact-book” can be used for Client selection by a left-swipe in the textfield.

Product type - text-field :

Type

Product reference. Tap the field and the iPod / iPhone keyboard is activated. Any text-string can be entered as product reference to the current session.

If set in “Client / Product settings” the text-field is obligatory and then only if both a Client ID & a Product type has been entered can the sum-function be operated (either manual or automatically). Both fields will then be flushed when a session is finished (delete button activated.)

Note : Do remember to end the typing by means of the return-key.

Number of measurements in load: 00

Counter for the number of registrations made to disc / cloud since last reset (delete button activated.), i.e. the number of “bales” in the average.

Manual Sum - button :

+

When Blue (only present when manual sum mode is selected - see settings)

Every time the Sum - button is tapped following happens:

- the (bale) averaged values of the Haymaric BLE measurements are stored on the disc / iCloud.

- new (load) averages are calculated and these values are displayed and stored on the disc / iCloud

- the actual weight of the bale is stored on the disc / iCloud.

- a new total weight since last reset is calculated and shown as “Total Weight”. The value is stored on the disc / iCloud.

- the current date & time is read from the internal clock. The value is displayed in “Time for update” and stored on the disc / iCloud.

- a marker in the file is set to <+>

Tare button :

> T < (not aktive)

> T < (aktive)

Tarering of the scale can be used as a *temporary* “Zeroing” of the scale. The tare can be lifted again by reactivating the Tare-button.

Using “Tare” to “Zero” the scale will affect the way the scale is released after a sum-function has been performed.

If scale is “Zero” by >0<

The scale must return to 0 Kg to release the scale.

If scale is “Zero” by >T<

The scale must return to 0 kg or less to release the scale.

>T< : Scale has been Tared

>T< : Scale has not been Tared

Zero button :

> 0 < (not aktive)

> 0 < (aktive)

Zeroing the scale is important if the scale isn't displaying a 0 when the scale is unloaded. To be able to calculate the precise weight of the bale it's starting point has to be zero.

If the scale isn't displaying 0 when supposed to a "**long tap**" on this button will zero the scale.

Very important when using "Auto Sum" as the scales isn't unlocked before a clean zero is registered (alternatively use tare - see below)

If scale is "Zero" by >0<

The scale must return to 0 Kg to release the scale.

If scale is "Zero" by >T<

The scale must return to 0 kg or less to release the scale.

Note: If the zero is fluctuating and a clean / stable zero is unobtainable the scale must be serviced / calibrated by a service-technician.

>0< : Scale has been zeroed

>0< : Scale has not been zeroed

State for scale :



Scale is not active.

- Either the scale isn't mounted / enabled in the settings.
- Or the scale hasn't yet connected via Bluetooth.

Note if the iPhone is moved more than 100 m (depends on building / free air) away from the interface-box the signal becomes too week, and this will render the scale - inactive, i.e. gray



The scale is active.

Actual load is updated every second

The readings will contribute to the calculation of the "Total Weight"



The scale reports an ERROR.

The error reported is that the load exceeds the level setup in the settings.

DAMAGE:

Overload can damage the weighing system .

DANGER:

Overloading the system can be dangerous, as stability of the loader is affected.

State for scale, cont. :



The scale locked.

This symbol is displayed when a sum-function (either manual or automatic) has been performed. The scale remains “locked” until it’s unloaded again.

In Auto sum mode the scale is used to determine when to store the readings and update the average moisture and total weight.

Starting from zero load lifting a load will display the weight and the load-symbol will be green. When *the weighing system* determines that the load is stable a signal is sent to the App. The App uses the signal just as the + in manual sum mode. The weight is locked and the “Average Moisture” and “Total Weight” is updated and stored on disc / iCloud in same format, sequence as in “Manual Sum”

To unlock the scale again the weighing system has to be unloaded, i.e. the actual load of the scale must equal 0 (or less if tared).

Actual weight for scale :

500.0 Kg

The actual load, i.e. the weight of the bale.

Note the value “freezes” when the Symbol for the scale is **black**. This indicates that this value is the stored value for this bale.

Future option :



Possible future option.

Ex. data can be send by:
sms / email / iMessage

Battery level for scale :



The charge level for the battery in the supply is shown as 0 - 100 %



If the charge becomes less than 10 %, the colour of the level changes to red. Immediate recharge is recommended. Very limited time before the scale is turned off automatically.

Printing :



Option: Only visible if a printer is connected and it's active.

Pressing this button will result in a local copy of the current session.

More copies can be made by repeating pressing the button.

Printing cont. :



First a header is printed
(more about this below).

Then following is printed:

Client
ID
Material
Moisture
Temperature
Weight
Sum-counter



The header is either a standard header (factory set) or a custom-header which is based on an entry in the contact-book.

To make a custom-header following labels & entry must be made in the contact book :

Contact
+45 76 92 02 00

ID
10000

FaceTime

E-mail
scales@farmertronic.com

Web
http://www.farmertronic.com

Address
**Nyskovvej 13
6580 Vamdrup
Danmark**

Noter

Name : Name & Surname
Company: Company name
Contact : Contact number (phone)
ID : 10000
E-mail : email to contact-person
Web : web-address
Address : company address

NOTE **These** label are custom-labels and they **MUST** be used to ensure that the App can retrieve the information correctly from the contact-book.

The ID must be 10000 to select the entry to print among all the entries with data stored in the above format. All other entries must have a ID different from 10000.

Go to settings :



Pressing this button will bring you to the “settings”, which is placed in a flip-screen on the back of the normal user-screen.

All local settings relevant to the App, are placed here. Global settings, like BlueTooth-/, iCloud-/ and language-/ settings etc. are in the general setup menu (standard iPod / iPhone settings).

Delete last :



When a sum has been calculated, either automatically (when the setting “Auto Sum” is set and a sum has been made) or manually (when “Auto Sum” is disabled and manual sum “+” has been pressed) pressing the “Delete last” will remove the last entry in both “Average Moisture” and “Total Weight”. These values will then reflect the value they had prior to last “sum”.

The state of the scale will also change as it will be “unlocked” i.e. set to active.

The last entry of the file on the disc / iCloud is NOT deleted. Instead the values of the last entry are added to the file in negated state, i.e. preceded with a “-” and a marker in the file is set to <->

Note, this button is only visible if there are a values to delete. I.e. if no sum has been done, this button isn’t visible.

Delete total



The “Average Moisture” is reset and it will now reflect the current moisture (reading from Haymatic BLE).

The “Total Weight” is reset and it will now reflect the current load of the scale.

The file on disc / iCloud is NOT erased. Instead the values are send as 0 and a marker in the file is set to <0>. In this fashion every reset can be found in the file.

Settings

Return to user-screen

Haymatic BLE ID

Scale ID

Printer ID

Sound

Max Moisture

Max Temperature

Max Weight

Detailed Sum

Client / Product

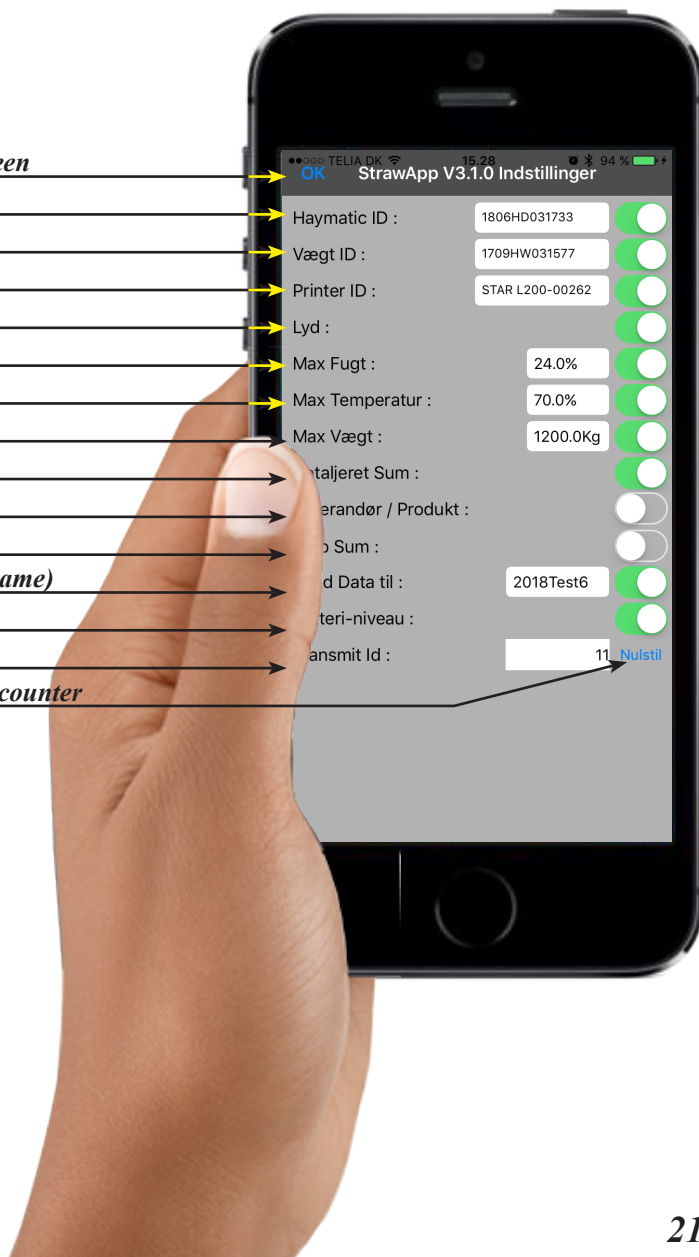
Auto Sum

Send data to (file name)

Show Battery level

Transmit ID

Reset for transmit-counter



Return to user-screen :

By tapping this “button” the screen is flipped back to the user-screen. All settings done while in settings are preserved.

Haymatic BLE ID :
Scale ID :

Haymatic ID : Each of the Haymatic BLE’s and
Scale ID : weighing system’s is equipped with
a serial number in the form:

Haymatic BLE : xxxxHDyyzzzz
Weighing system : xxxxHWyyzzzz

xxxx = Year Month
yy = Hardware revision
zzzz = number

Example:
1508HD031366 (Haymatic BLE)
1507HW031411 (Scale)

This number uniquely identifies the device. To enable the App to identify the device, each device has to be entered into the settings by it’s serial no.

The serial no of a device can be found on a label attached to the device

Type serial no.

Entering the serial no is done in the text-field next to the ID label by means of the iPhone Keyboard which is shown when the text-field is tapped.



Enable the device.



Disable the device.

Printer ID :

ID Printer : Every printer is equipped with a serial no.

This number uniquely identifies the device. To enable the App to identify the device, each device has to be entered into the settings by its serial no.

Example:
STAR L200-00504

Type serial no. Entering the serial no is done in the text-field next to the ID label by means of the iPad Keyboard which is shown when the text-field is tapped.



Enable the device.



Disable the device.

Sound :

Sound: A “beep” can be enabled to sound when a sum is performed. In manual mode when the “+” is pressed and in auto-mode when the scale performs the sum-function.

The sound-level can be adjusted by means of the “sound”-buttons on the side of the iPod / iPhone - provided that this function is set in the general settings of the iPad.



Enable the sound-function



Disable the sound-function.

Max Moisture :

Max Moisture : With this setting it is possible to activate a automatic warning & blocking for the “Auto Sum”.

14.0 %

The level at which the warning / block must be active can be entered in the text-field next to the Max Moisture label by means of the iPod / iPhone Keyboard which is shown when the text-field is tapped.



Enable the limit



Disable the limit

Max Temperature :

Max Temp : With this setting it is possible to activate an automatic warning.

75°C

The level at which the warning must be active can be entered in the text-field next to the Max Temperature label by means of the iPod / iPhone Keyboard which is shown when the text-field is tapped.



Enable the limit



Disable the limit

Max weight :

Max weight : With this setting it is possible to activate a automatic warning & blocking for the “Auto Sum”.

1200.0 Kg The level at which the warning / block must be active can be entered in the text-field next to the Max Weight label by means of the iPod / iPhone Keyboard which is shown when the text-field is tapped.



Enable the limit



Disable the limit

Detailed Sum :

Detailed Sum : The “Detailed Sum” can be activated by the slider next to the Detailed Sum label.

If the “Detailed sum” **isn't** active then only the average value of the moisture is written to the file. This is done either when the “+” is activated or when “Auto Sum” is enabled (and the weighing system activates the sum-function)

If the “Detailed sum” **is** active then every value of the moisture is written to the file (along with the average value). This is done every time a value is transferred to the iPhone, i.e. every time the Push-button is activated on the Haymatic BLE instrument.



Enable the “Auto Sum”



Disable the “Auto Sum”

Client / Product :

Client /
Product :

When this function is enabled it is obligatory to use the “Client” and “Product” fields. No sum-function, whether manual or auto will be performed unless both “Client” and “Product” is entered.

In fact in manual sum-mode the “+”-button will be deactivated and invisible until both “Client” and “Product” has been entered.

With this function enabled both “Client” and “Product” fields will be flushed, i.e. cleared, when a session is finished by pressing the “Delete total”-button. This ensures that a consions choise of “Client” and “Product” is done for each session.



Enable the functionen



Disable the function

Auto Sum :

Auto Sum :

The “Auto Sum” can be activated by the slider next to the Auto Sum label.



Enable the “Auto Sum”



Disable the “Auto Sum”

Send Data to :

Send Data to : This is the file-name to which the data are send.

StrawApp

The file-name is the one which will be accessible in the iCloud Drive. The file-name entered here will automatically be appended with a .csv as to indicate that the data are stored in a CSV formatted file.

Data are also stored - by the same file-name - on a local drive on the ipod / iPhone for the situations where iCloud isn't accessible. The file i iCloud will autoatically re-synchronize when connection is reestablished.

The file-name entered in the text-field remains active until a new name is entered.

When file-name is changed the old is deleted on the local drive. The one in iCloud is NOT deleted.

In order to make safe save & open of files the action (old file deleted and new file opened) first takes place when the App is stopped (by means on the exit button on the iPhone and then restarted by tapping the StrawApp App symbol again.



Enable the storage of data



Disable the storage of data

Show Battery level :

Show battery level :

The supply level of each of the attached devices can be shown on the user-screen. This enables the user to monitor the level of the supply and take appropriate action should it become low.



Enable the supply level to be shown



Disable the supply level.

Transmit counter :

Transmit ID :

Each time a value is stored on the local disc or the iCloud Drive the Transmit ID is incremented.

0

The Transmit ID is written along with the data in the file and shown in the Transmit ID field in the Settings for reference.

Reset of transmit counter :

[Reset](#)

The value can not be altered by the user, only resetting it to 0 is possible, which is done by the “[Reset](#)” button.

Note, the Transmit ID is the same as the “line”-number in the file (provided it hasn’t been reset)

Note, the Transmit ID is automatically reset to 0 when a new file-name is entered.

File-format

File-format :

Format : **CSV - format:** The file is formatted as a comma- separated file

Unicode : The Character-set is Uni-code, i.e. 2 bytes for each character.

End of line : Every line ends with CR and LF.

Append : Every line is appended to the file. This means that the file is opened, a line is written and the file is then closed again. Data is newer removed from the file.

File-content :

Header : The file is a comma-separated file, hence it's possible to read it with ex. Excel / Numbers.

To ease the use in Excel a row of headers (for the columns) is written when the file is first opened (example later on)

Flag : 1st. column is a flag
<0> : sum & average has been reset
<+> : new sum & average
<-> : last entry "erased"
<E>: Scale is being overloaded

Line no : 2nd. column is line no.
Line no. which follows transmitno.

Date & time: 3th. column is date & time.
The time of writing to line to the file.
Note format follows the format set in general settings of the iPod / iPhone

File-content cont. :

Actual moisture : 4th. column is actual moisture.
This value is the actual moisture from the Haymatic BLE. This value is used in the average-calculation

Unit : 5th. column is unit.
The unit for the previous column. In this case % as moisture is calculated in %

Average : 6th. column is average moisture.
This value is the average moisture over all measurements made since last reset (tap on the bin-button). This values is equal to “Average moisture” on the iPod / iPhone

Unit : 7th. column is unit.
The unit for the previous column. In this case % as moisture is calculated in %

Actual weight : 8th. column is actual weight.
This value is weight read at the time where the weight is “locked”. I.e. the actual weight at the time where the sum is calculated. The value is the weight that is entered into the sum

Unit : 9th. column is unit.
The unit for the previous column. In this case kg as SI-unit for weight is kg.

Total weight : 10th. column is the total weight.
This value is the total weight, i.e the sum of all weighings since last reset (tap on the bin-button). This values is equal to “Total weight” on the iPod / iPhone

File-content cont. :

- Unit :** 11th. column is unit.
The unit for the previous column. In this case kg as SI-unit for weight is kg.
- Temperature :** 12th. column is average temperature.
This value is the average temperature over all measurements made since last reset (tap on the bin-button). This values is equal to “Average temperature” on the iPod / iPhone
- Unit :** 13th. column is unit.
The unit for the previous column. In this case °C as the SI-unit for temperature is °C .
- ID :** 14th. column is a textfield
This field is a client reference for the measurements made. Normally a numeric value. The content of this field is read from the contact-book on the iPad. So only if the contact-book is used to select clients a value is filled in here.
- Client :** 15th. column is a textfield.
This field is a client reference for the measurements made. The text-field corresponds to the “Client-ID” field on the iPod / iPhone.
- Product type :** 16th. column is a textfield.
This field is a product reference for the measurements made. The text-field corresponds to the “Product type” field on the iPod / iPhone.

Example :

Linie nr.	15. jun. 2018 14.12.43	Aktuel fuglighed	Enhed	Gennemsnitlig fuglighed	Enhed	Aktuel vægt	Enhed	Samlet vægt	Enhed	Temperatur	Enhed	ID	Leverandørnavn	Materiale type	
<>	1	15. jun. 2018 14.12.51	19,9	%	20,2	%	0,0	Kg	0,0	Kg	198,0	°C	10001	Lars Bjerregaard	Straw
<>	2	15. jun. 2018 14.12.54	20,3	%	20,2	%	0,0	Kg	0,0	Kg	141,7	°C	10001	Lars Bjerregaard	Straw
<>	3	15. jun. 2018 14.12.55	20,4	%	20,3	%	0,0	Kg	0,0	Kg	113,5	°C	10001	Lars Bjerregaard	Straw
<>	4	15. jun. 2018 14.12.56	20,5	%	20,3	%	0,0	Kg	0,0	Kg	96,6	°C	10001	Lars Bjerregaard	Straw
<>	5	15. jun. 2018 14.12.58	20,6	%	20,4	%	0,0	Kg	0,0	Kg	85,3	°C	10001	Lars Bjerregaard	Straw
<>	6	15. jun. 2018 14.13.18	0,0	%	0,0	%	0,0	Kg	0,0	Kg	0,0	°C			
<>	7	15. jun. 2018 14.13.31	20,7	%	20,7	%	0,0	Kg	0,0	Kg	541,0	°C	10001	Lars Bjerregaard	Straw
<>	8	15. jun. 2018 14.21.40	18,4	%	18,4	%	0,0	Kg	0,0	Kg	28,0	°C	10001	Lars Bjerregaard	Straw
<>	9	15. jun. 2018 14.21.42	18,6	%	18,5	%	0,0	Kg	0,0	Kg	28,0	°C	10001	Lars Bjerregaard	Straw
<>	10	15. jun. 2018 14.21.43	18,6	%	18,5	%	0,0	Kg	0,0	Kg	28,0	°C	10001	Lars Bjerregaard	Straw
<>	11	15. jun. 2018 14.21.45	18,4	%	18,5	%	0,0	Kg	0,0	Kg	28,0	°C	10001	Lars Bjerregaard	Straw
<>	12	15. jun. 2018 14.21.47	18,3	%	18,4	%	0,0	Kg	0,0	Kg	28,0	°C	10001	Lars Bjerregaard	Straw
<>	13	15. jun. 2018 14.21.48	18,6	%	18,5	%	0,0	Kg	0,0	Kg	28,2	°C	10001	Lars Bjerregaard	Straw
<>	14	15. jun. 2018 14.21.48	0,0	%	0,0	%	0,0	Kg	0,0	Kg	0,0	°C			
<>	15	15. jun. 2018 14.22.25	21,8	%	21,8	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	16	15. jun. 2018 14.22.28	21,6	%	21,7	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	17	15. jun. 2018 14.22.29	21,4	%	21,6	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	18	15. jun. 2018 14.22.30	21,3	%	21,5	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	19	15. jun. 2018 14.22.32	21,2	%	21,5	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	20	15. jun. 2018 14.22.33	21,1	%	21,4	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	21	15. jun. 2018 14.22.34	21,1	%	21,4	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	22	15. jun. 2018 14.22.35	20,9	%	21,3	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	23	15. jun. 2018 14.22.36	20,7	%	21,2	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	24	15. jun. 2018 14.22.38	13,6	%	20,5	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	25	15. jun. 2018 14.22.38	20,5	%	20,5	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	26	15. jun. 2018 14.22.45	20,2	%	20,2	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	27	15. jun. 2018 14.22.46	20,4	%	20,3	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	28	15. jun. 2018 14.22.47	20,5	%	20,3	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	29	15. jun. 2018 14.24.02	23,0	%	21,0	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	30	15. jun. 2018 14.24.06	21,9	%	21,2	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	31	15. jun. 2018 14.24.11	21,5	%	21,2	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	32	15. jun. 2018 14.24.34	21,6	%	21,3	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	33	15. jun. 2018 14.24.53	21,4	%	21,3	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	34	15. jun. 2018 14.24.55	21,8	%	21,4	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	35	15. jun. 2018 14.24.57	21,8	%	21,4	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	36	15. jun. 2018 14.24.59	21,8	%	21,4	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw
<>	37	15. jun. 2018 14.25.00	21,9	%	21,5	%	0,0	Kg	0,0	Kg	29,0	°C	10001	Lars Bjerregaard	Straw

Other products / Spareparts

Haymatic BLE :

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HayWay :

HayWay Page - 35

FARMERTRONIC

INDUSTRIES A/S

HAYMATIC BLE

iPod / iPhone enabled moisture meter

The moisture content in straw & hay has a major influence on the economy when - pressing, storing and trading it. Hence it's vital to know the correct moisture content.

Haymatic BLE provides you with accurate, fast and reliable readings.

- Digital reading of moisture in the range 10 -80%
- Different spears / probes available as accessories.
- Accuracy, approx 1 %
- Wireless interface to the iPod / iPhone App - StrawApp

The iPhone App - StrawApp provides you with

- Average calculation
- Documentation, e.g. time & date, moisture, client and type of product
- Storage of data in iCloud (for office- processing / invoicing)
- Interface to scale for weighing bales / trucks.



	ART. NO.	DESCRIPTION
HAYMATIC	010315H02	Haymatic BLE, excl. spear
ACCESSORIES	010315T01	StrawApp for iPod / iPhone
	010514T50	Mount for iPod / iPhone
	010303T01	Extension handle with 1,5 m cable
	019903T01	Spear /std, 50 cm.
	019903T02	Spear /std, 25 cm.
	019903T03	Spear /super, 50 cm.
	019903T04	Windrow probe, short
	019903T05	Windrow probe, long
	019903T08	Battery 9V
SPAREPARTS	019903R06	Fastning-nut for spear

Version - UK 2018 -1.2



EXTENSION HANDLE



50 CM SUPER-SPEAR

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 TELE +45 76 92 02 00 • FAX +45 75 58 06 31

E-MAIL: SCALES@FARMERTRONIC.COM • WEB: WWW.FARMERTRONIC.COM

FARMERTRONIC INDUSTRIES A/S

HAYWAY

THE CHOICE FOR PROFESSIONALS

The moisture content in straw & hay has a major influence on the economy when - pressing, storing and trading it. Hence it's vital to know the correct moisture content. A further factor in the economy is the weight.

HayWay measures, moisture, temperature and the weight.

Operated via Ipad or Ipadmini.

HayWay transfers the readings from the sensors to the **HayApp**

With HayApp is it possible to administer the readings, store them, and make calculations (average and totals) as well as sending them to the office for further "processing".

- Digital reading of moisture 10 - 80%
- Digital reading of temperature 0 - 90 °C
- Digital reading of weight 0 - 1500 Kg.
- Wireless data-transfer to iPad & iPadmini
- The HayApp designed for iPad & iPadmini

The reference. Used by the CHP-industry
QUICK, EASY AND ACCURATE READINGS



	ART. NO.	DESCRIPTION
HAYWAY	010514H02	HayWay
ACCESSORIES	010514T01	App for iPad & iPadmini
	010515T40	Push Off System 2c
	010515T45	Push Off System 4c
	010514T51	Mount for iPadmini
	010514T52	Mount for iPad
	010515T60	iPadmini
	010515T70	iPad
	010517T90	Receiptprinter
010517T95	Anglesensor	
SPAREPARTS	010514R01	Spear with moisture-sensor
	010514R02	Wireless transmitter for sensor
	030803H01	Loadcell - 10Klb



HAYAPP



MOUNTS

Version : UK 2017_V1.5

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 TELF. +45 76 92 02 00 • FAX +45 75 58 06 31

E-MAIL: SCALES@FARMERTRONIC.COM • WEB : WWW.FARMERTRONIC.COM

Notes

Equipment information :

iPod/iPhone s/n:

Pin-code:

Apple-ID:

Password:

HD BLE - ID :

Scale - ID :

Printer - ID :