

XLOG bee SMS/GPRS Beehive Scale

EN

- **Overview of the Elements**
- **Getting Started**
- **General guidelines**
- **User Instructions**

Owner's Manual

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MICRO EL



SMS/GPRS Beehive Scales XLOGbee

Battery life that lasts up to 10 years without charging and maintenance, easy getting started, robust and waterproof casing, industrial compact build made of stainless steel, hassle-free operation, connects up to 4 scales on a single device ... these are just few of the many benefits that differentiate the XLOG bee from other scales on the market!

- Ultra-compact, complete stainless steel construction of the highest quality
- Cable Protection against rodents - flexible stainless steel conduit and fittings
- Electronic board is embedded in a robust and waterproof casing - protection class IP67
- Built-in Battery – life up to 10 years without recharging – thanks to the revolutionary technology of low power consuming feature, once installed, the device can be active for years, with no need for maintenance or battery replacement
- Very accurate measurement under all conditions
- Wide measuring range - up to 200 kg, resolution 10g
- Operating temperature ranges from -40 ° C to + 50 ° C (the most commonly used lead-acid batteries can't operate on temperatures below zero)
- Possibility of connecting up to 4 scales on a single device (because of possible anomalies in a single beehive, e.g. Swarming, incidences of diseases...)
- Reliability as a result of 19 years of experience with SMS / GPRS remote monitoring technology
- Industrial Quality - 19 years of experience in the manufacture and sale of various devices in the EU market (CE)
- XLOG bee is completely prepared in the factory and ready to use on the site, without any further installation or cabling. The beehive is simply placed on the XLOG bee
- Easy getting started – all what user must do is to send an SMS with the text 'START' – and the first report from his apiary is already arriving!
- User-defined settings: the beekeeper can define several measuring and sending terms
- SMS alarm messages (e.g. increased amount of honey, removal of the the hive from the scale...)
- All settings can be changed via SMS – no need for going to the apiary
- Plentiful equipment available even in the standard model
- Wide range of additional accessories (additional scales, breeding chamber sensor, external GSM antenna, theft sensor , wind and rain sensor)
- Software improvements on-the-spot by the user - the scale need not be sent to the manufacturer for programming purposes
- Dimensions: 410x80x360mm; Weight: 5.4kg
- 2 years warranty

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1. Introduction

XLOG bee SMS / GPRS is a remote monitoring system that enables data collection from beehives in chosen intervals. Data readings are stored on the internal memory and sent via SMS/e-mail message directly to the beekeeper's mobile phone or via TCP/IP protocol over GPRS data transfer to the server (optionally). In addition to regular measuring reports, special alarm messages are sent immediately in case of alarm situations (beehive theft, sudden increase or decrease in hive weight, overload of the beehive, low battery etc.) to the beekeeper's mobile phone, e-mail address and to the server.

XLOG bee is the latest product in the XLOG data logger product family from MICRO EL. MICRO EL's experience in the apiculture industry spans over 18 years and they are renowned for their proven and innovative SMS / GPRS technology. The power-saving technology has proven to be a revolution in the remote monitoring of beehives. As a result, beekeepers can now use the XLOG bee system for more than 10 years without complicated maintenance or replacement of battery.

The SMS / GPRS remote monitoring system allows beekeepers access to the current parameters of their hives. As a result of these parameters, beekeepers can determine the exact time for intervention and harvesting honey, in an effective manner. The beekeeper can also perform activities such as moving the hives to a better bee pasture, feeding the bees or foresee a swarm. It is also possible to analyze the collected parameters of a given season, in order to plan for the future monitoring of beehives.

Beekeepers that are aware of the benefits of remote notification of honey yields are profiting immensely. At each apiary a SMS / GPRS device is installed with one or preferably two scales (due to possible anomalies in a beehive, e.g. swarming). By carefully monitoring the results of SMS messages, you can quickly determine where the best honey yield is and shift the hive to this place in a timely manner. The results are remarkable! The investment made is paid off within a few days of a good honey yield.

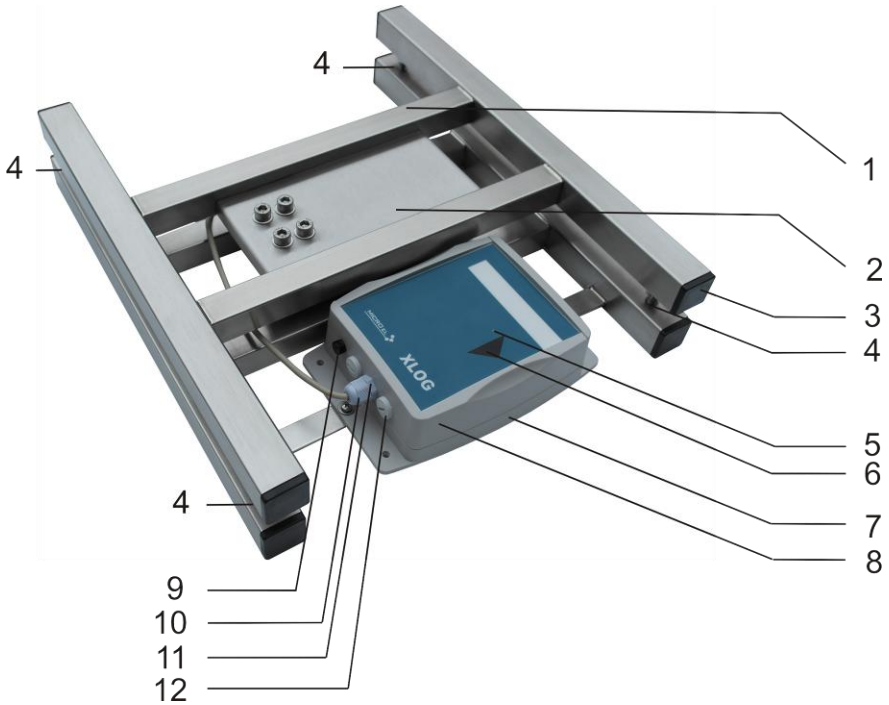
Thank You, for choosing the XLOG bee SMS / GPRS hive scale!

Your Micro El Team

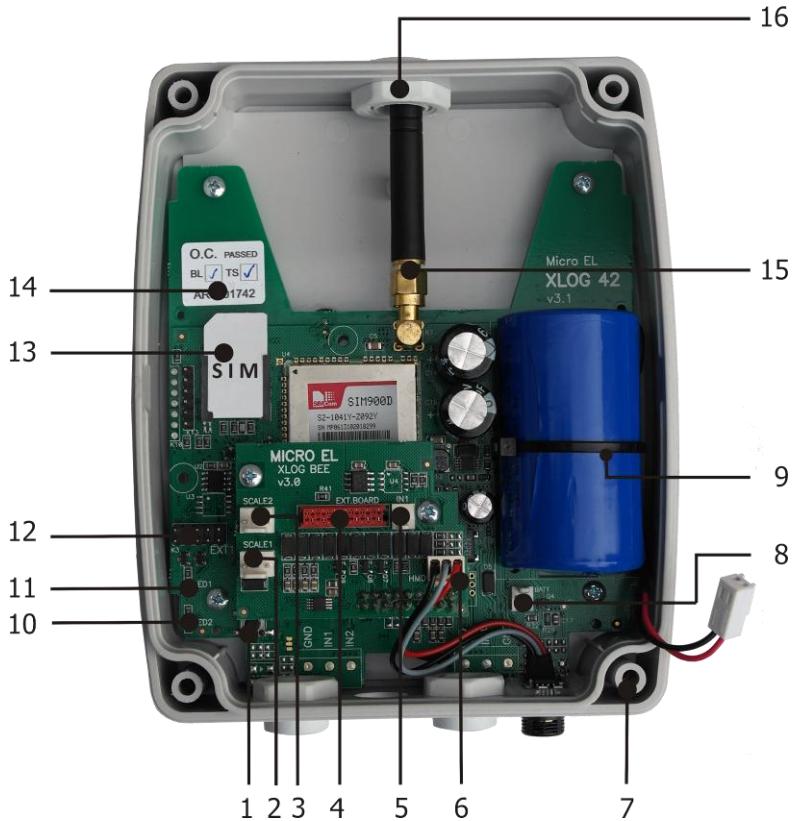
2. XLOG BEE SMS/GPRS Beehive Scale – Overview of the System Elements

The standard version of the **XLOG bee** SMS/GPRS Beehive Scale contains:

- 1) XHS200 Electronic Beehive Scale
- 2) Electronic device XLOG GPRS/SMS Data Logger



- | | | | |
|---|---|----|--|
| 1 | XHS200 Electronic Beehive Scale | 7 | Base of XLOG Enclosure |
| 2 | Load Cell | 8 | XLOG Electronic Devices |
| 3 | Plastic End Caps for square tubes | 9 | Humidity Sensor |
| 4 | Safety Screws on stainless steel construction | 10 | Cable Gland Casing |
| 5 | LED-Light | 11 | Cable Gland Nut |
| 6 | Activation Button on the XLOG Device | 12 | Blind Plugs for connecting accessories |



- | | | | |
|---|--|----|--|
| 1 | Activation button inside the device | 8 | Battery connector |
| 2 | Scale 1 connector | 9 | Cable Binder for strengthening the Battery |
| 3 | Scale 2 connector | 10 | LED2-Light |
| 4 | Extension Box connector
(Scale 3 und 4, Breeding Room sensor) | 11 | LED1-Light |
| 5 | Digital Input connector (Alarm contact,
Rain or Wind Sensor) | 12 | Update-Stick connector |
| 6 | Humidity sensor connector | 13 | SIM Card Holder |
| 7 | Screws for closing the XLOG enclosure | 14 | Lable with Serial Number |
| | | 15 | GSM Antenna |
| | | 16 | Blind Plug for External GSM Antenna |

3. GETTING G STARTED WITH XLOG bee Beehive Scale

You have just bought the XLOG bee SMS/GPRS Beehive Scale and you cannot wait to get first data from your apiary. Before going to the apiary, we recommend to get started with XLOGbee device at home or in workshop and to take a few days to play around with it to get familiar with its features. There are two ways you can receive data from XLOG bee beehive scale: the first is that the scale sends messages to your cell phone, and other is that the scale sends data to the XLOG bee NET web application. Whatever mode you choose, at any time you can change your mind and switch back.

3.1. START – for SMS mode

1. Prepare the SIM card – make sure SIM card has been activated, and PIN code has been removed from the SIM card
2. Unscrew the 4 transport screw on the stainless steel construction until they no longer touch the upper part of the construction
3. Unscrew the 4 screws on the back of XLOG device and set device aside
4. Insert the SIM card into the SIM card holder
5. Connect the Battery
6. Make RESET – Press the inner button on the XLOG PCB and hold it down until the red LED light turns on. After that both red and green LED will turn on at the same time. Wait until both LEDs turn off.
7. Close the XLOG device, but do not tighten the screws yet
8. Press the activation button on the XLOG device (black triangle)
9. Wait for 30 seconds until the device has been registered on the mobile network (the LED should light continuously)
10. Send an SMS message with the content «WEBMODE 0» to the number of the SIM card in the device
11. Send an SMS message with the content 'START' to the number of the SIM card in the device
12. Wait for the confirmation SMS and check whether all parameters are set correctly
13. Tighten the screws on the bottom of the XLOG unit

If you have received a confirmation from the scale, you have done everything correctly and can now bring the scale to your apiary and simply place it under the hive! In the evening at 21:15, you will receive the first SMS message from your apiary!

The '**START**' instruction sets all the important parameters of the device. If you want to set other measuring and sending terms, change user code or wish to add additional phone numbers, scroll to the chapter "**User Instructions**".

Please read the chapter "**General guidelines and information on the SMS communication systems**" as well, where you can find answers on some of your questions that you might have when working with the scale.

START

Vrijeme=16:04
12.11.2014

Tel1=[+385922565481](tel:+385922565481)

Termini mjerenja i slanja
[05:00 M](#)
[21:15 M](#)
[21:15 S](#)

Periodicno mjerenje isklj.

Delta [21:15](#)

3.2. START – for WEB mode (XLOG bee NET web application)

3.2.1. Preparations on the device

1. Prepare the SIM card – make sure SIM card has been activated, and PIN code has been removed from the SIM card
2. Unscrew the 4 transport screw on the stainless steel construction until they no longer touch the upper part of the construction
3. Unscrew the 4 screws on the back of XLOG device and set device aside
4. Insert the SIM card into the SIM card holder
5. Connect the Battery
6. Make RESET – Press the inner button on the XLOG PCB and hold it down until the red LED light turns on. After that both red and green LED will turn on at the same time. Wait until both LEDs turn off.
7. Close the XLOG device, but do not tighten the screws yet
8. Press the activation button on the XLOG device (black triangle)
9. Wait for 30 seconds until the device has been registered on the mobile network (the LED should light continuously)
10. Send an SMS message with the content «WEBMODE 1» to the number of the SIM card in the device
11. Send an SMS message with the content «SYNC» to the number of the SIM card in the device
12. Wait for the confirmation SMS and check whether all parameters are set correctly
13. Tighten the screws on the bottom of the XLOG unit

3.2.2. Preparations on XLOG bee NET web application

1. Type the address "app.xlognet.com" in your browser
2. Start registration
3. Enter the control number that came with the device
4. Enter the data required for registration (Note - the cell phone number must be you must written in the format "38591xxxxxxxx")
5. Log in to the application with your username and password
6. In the "Locations" tab, select "Add a new location"
7. In the "Devices" tab, edit the device (pencil icon), so that the selected device is connected to the one of the available locations.

In the evening at 21:00, you will receive the first data from your apiary!

Please read the chapter **"General guidelines and information on the SMS communication systems "** as well, where you can find answers on some of your questions that you might have when working with the scale.

4. General guidelines and information on the SMS Communication Systems

4.1. Preparation of the SIM Card

For getting started with the XLOG bee Scale, it is required to have a SIM card and prepare it for the use. The SIM card can be of any provider. It can be a prepaid card or a subscription card, for which you have to pay monthly fee. One should take into account when choosing a SIM card that prepaid cards often have a limited validity period (usually 3-6 months) and need to be recharged regularly. The SIM card must be activated, the PIN code request must be disabled and there should be credit available for sending SMS messages.

The procedure for **activation of the SIM card** differs from provider to provider. Please do inform yourself of these procedures while buying the SIM card.

Disabling the PIN Code Request: Place the SIM Card in a mobile or smart phone and under the security settings, find the option to disabling the PIN code request and select it.

4.2. Working principle of the XLOG bee Beehive Scale

The XLOG beehive scale has a built-in lithium battery. Due to the application of advanced microprocessor technology XLOG bee has an incredibly low power consumption and can run for years without the need for maintenance, battery recharge or exchange. Working principle of the XLOG device is that it is in the "active" mode only when it needs to measure parameters or send SMS reports, during the remainder of the time, the device is in a "sleep" mode and consumes incredible low power.

The XLOG bee scale automatically ensures that the measurements are carried out and the SMS reports are being sent at set terms. The measurements are always carried out at the same time and thus can be easily compared with the values from the previous day, month or season. The user cannot query the device at any time to get the measured values because the device is not active, as the device is in "sleep mode". Users who want to check the weight frequently, can set several measuring and sending terms, in order to get up-to-date information.

The device is "active" in the following situations:

1. **Manual Activation:** XLOG bee can be activated by pressing the activation button on the device. You have to wait 30 seconds until the unit has been registered on the network, after which the LED lights continuously. This state lasts 180 seconds and during this time the device can send and receive SMS messages. SMS response from the device extends the active state for another 180 seconds.

2. **Automatic Activation:** The device becomes active automatically to send regular reports at fixed terms and registers itself on the mobile network. During automatic activation, the LED light is off and only flashes shortly (on manual activation with pressing activation button LED lights continuously). After sending the regular report, the device is active for the next 90 seconds. SMS response from the device also in this case extends the active state of the device.

Important:

SMS messages can be sent to the XLOG beehive scale at any time, regardless of whether the device is "active" or not. If the device is active for one of the reasons stated above, it will instantly response to SMS instruction. If the device is not active at this time, the SMS message will not be immediately received by the device. The message/s are then stored on the server of the mobile operator and forwarded to the XLOG bee device only when it becomes active again and registered on the mobile network for sending regular SMS report. The device sends a confirmation SMS once it receives user's SMS instruction.

Important:

It may happen, that while activating the device with the activation button, user sends the SMS message to the device before it has registered on the mobile network or after it has become again deactivated. In this case, the sent SMS message will be stored on the server of the mobile operator and will be transferred to the device only when it is active again. However, such SMS messages can "get stuck" on the server and it will be forwarded to the device only when user sends another SMS message to the device in order to "push" the existing SMS. The device will then receive both text messages and send a confirmation SMS for both. That is why it is recommended that during the activation of the device with the activation button, always observe the LED light and make sure you send the SMS message only when it is lights continuously.

4.3. Syntax of Instructions for the SMS messages

The XLOG bee scale sends the user regular text messages with reports about the weight, humidity and temperature of the apiary. In addition to regular reports, the user can also send text messages to the device with different instructions such as adding telephone numbers for reporting, changing measuring and sending terms, name of location etc.

Here are the general rules for all instructions:

1. All instructions sent to the XLOG unit have an exact syntax and **all of them** are described in this manual.
2. **If the sent instruction was not of the correct syntax** , it is automatically ignored by the XLOG bee scale (eg. if one sends "STATR" instead of "START")
3. **Some instructions consist of only one word**, for example, the instruction START or ADDME.
4. **Some instructions have numeric or character argument**, in addition to the keyword , for eg.

LOC Wiese

TEL 1, 0173 123456

MTERM 12:30, 14:30,
16:30

5. Arguments are written after the instruction. **A space is set between keyword and numeric or character argument. If there are more arguments, they must be separated with a comma.** If the argument was entered incorrectly, **the SMS with the error notification will be returned** and you have to send a new text message with the correct argument.
6. After sending an instruction **to the XLOG device, it always responds with a confirmation SMS.**
7. The user can send more instructions in one SMS to the XLOG bee scale. Each new instruction must be written on a new line or separated by a pound sign (#):

TEST
CONF

TEST # CONF

8. The instructions can be written in small letters or capital and even a combination of both.

START

Start

start

9. For certain instructions, the user needs to enter an authorisation code to prevent any unauthorised usage of the scale (addme, TEL, FACTORY, NEWCD).

5. General User Instructions

5.1 LNG – Language Selection

With the LNG instruction one can choose the language in which the reports of the device are to be displayed.

In order to choose the language the SMS with the instruction LNG and the abbreviation for the language should be sent to the number of the SIM card in the XLOG beehive scale. Abbreviations for supported languages are ENG, GER, HRV, SLO.

LNG GER

Sprache-Deutsch

Example: Sending SMS instruction LNG and SMS confirmation from the XLOG beehive scale

5.2. LOC – Naming the location

With the instruction LOC one can name the apiary, or the location where the XLOG beehive scale has been placed. All reports will then be displayed with the name of the location in its title. If you have multiple devices in different locations this is particularly useful for easier following the reports.

In order to set the name of the location the SMS with the instructions LOC and the name of the location should be sent to the number of the SIM card in the XLOG beehive scale. With the LOC instruction a numeric or character argument also must be entered.

LOC Wiese

Standort Wiese

Example: Sending SMS instruction LNG and SMS confirmation from the XLOG beehive scale

5.3. TARE – Taring of the Scale

In order to measure only the content of the hive, the XLOG beehive scale must be tared with empty beehive (like a cook must set the scale to zero with an empty pot before weighting some ingredients for a cake). By setting the scale to zero even small deviations from the zero point, which can occur due to the slope of the ground can be solved.

In order to tare the scale, the SMS with the instruction TARE should be sent to the number of the SIM card in the XLOG beehive scale.

TARE ALL

m1=0.00kg
m2=0.00kg
m3=0.00kg
m4=0.00kg
Te=25.3C
RH=51%

TARE

Example: Sending SMS instruction TARE and the SMS confirmation from the XLOG bee beehive scale - if several scales are connected to the device all the scales will be tared with this instruction.

TARE 1

m1=0.00kg
Te=25.3C
RH=34%

TARE 1

Example: In order to TARE only a particular scale, the SMS with the instruction "TARE n" should be sent, "n" denotes the order number of the scale to be tared.

5.4. TEST – measurement of the actual weight on the apiary

The instruction TEST enables test measurement of the weight on the XLOGbee beehive scale. This instruction is mostly used to test an installation on site after placing beehive on the scale.

In order to perform test measurement, the SMS with the instruction TEST should be sent to the number of the SIM card in the XLOG bee beehive scale. Answer from the XLOG bee beehive scale will come in about 30 seconds.

TEST

16:11h

m1=0.38kg
Te=25.3C
RH=34%

Example: Sending SMS instruction TEST and the SMS response from the XLOG bee beehive scale

5.5. AUTOTEST – measurement of the actual weight by pressing the activation button

In order to get test measurement every time when coming to the apiary, AUTOTEST function must be turned on. Each time the activation button is pressed, XLOG bee

beehive scale will automatically perform test measurement and send SMS message to the beekeeper with all measured parameters.

In order to turn on the AUTOTEST function, the SMS with the instruction **AUTOTEST** and argument **1** should be sent to the number of the SIM card in the XLOG bee beehive scale.

In order to turn off the AUTOTEST function, the SMS with the instruction **AUTOTEST** and argument **0** should be sent to the number of the SIM card in the XLOG bee beehive scale

AUTOTEST 1

Test auf Tastendruck: Ein

Example: Sending SMS instruction AUTOTEST 1 and SMS confirmation from the XLOG bee beehive scale

5.6. TEL – Storing numbers in the telephone directory for receiving SMS reports

The instruction TEL allows you to enter multiple phone numbers in the telephone directory for receiving SMS reports. You can store a total of 5 phone numbers in the phone list. To prevent possible unauthorised usage of the scale, for performing the TEL instruction, the authorisation code must be pre-entered (Default User code is CD 1234).

In order to store new mobile phone number in the telephone directory for receiving SMS reports, the SMS with the following instructions should be sent to the number of the SIM card in the XLOG bee beehive scale:

In the first line: The instruction CD along with the existing user code

In the second line: The instruction TEL with the order number in the list (1-5), and the mobile phone number.

CD 1234
TEL 3, 0173 123567

Tel3=[0173 123567](tel:0173123567)

Example: Entry of the instruction TEL and the confirmation SMS of the XLOG bee scale –the entered phone number is stored in the third place on the phone list.

Note: If you add a new phone number in the list where a phone number had been registered previously, the number is replaced with the new one.

Note: In addition to numbers, the telephone number can also have spaces and characters like "/" and "-". (A better overview can be found in the reports). Thus, the number mentioned in the example can be entered as follows: 0173/123-4567.

Note: A text message can contain one or more instructions simultaneously. Each statement must be written on a new line or separated by the pound sign (#).

Note: To delete a telephone number, the SMS must contain TEL instruction along with the serial number (1-5) is sent to the number of the SIM card in the XLOG bee hive scale. There is no need to enter the phone number.



CD 1234
TEL 3,

Example: Procedure to delete a phone number from the list- The phone number entered in the third place is deleted.



Tel3=

5.7. ADDME – Storing your own number in the Telephone Directory

With the **ADDME** statement, the telephone number from which the SMS message is sent, is saved automatically in the phone list. In order to prevent possible abuse, along with the instruction ADDME, the user code must also be entered along with the instruction CD. (Default Setting- user code 1234).

To enter your own number in the phone list, send a text message with the following content to the number of the SIM card in the XLOG bee hive scale: in the first line the instruction CD and the user code, in the second line the instruction ADDME.



CD 1234
ADDME

Example: Entry of the instruction ADDME und and the confirmation SMS of the XLOG bee scale.



Tel1=[+385922565481](tel:+385922565481)

Note:

A text message can contain one or more instructions simultaneously. Every instruction must be written on a new line or separated by the pound sign (#).

With this instruction, the phone number is stored in the list only if there is a free place. TEL: If the number is already on the list, the device replies with the following text message: In the List.

5.8. SYNC – Setting the Time

With the instruction **SYNC** one can set the right time. When the scale has been in use for a long time, it is possible that the internal clock of the XLOG scales might begin to deviate. Hence it is necessary to reset it.

To set the correct time you can send a text message with the SYNC instruction to the SIM card of the XLOG bee hive scale.

Zeit=16:16
05.11.2014

SYNC

Example: Entry of the instruction and the confirmation SMS of the XLOG bee scale.

Note: This instruction can only be sent when the device is active, in order to allow the synchronization of the internal clock with the current time.

5.9. NEWCD –Changing the Username

The user code protects against unauthorized use of the scale.

To prevent possible abuse, along with the NEWCD instruction, the old user code must also be entered with the instruction CD (CD Default Setting- user code 1234).

To enter the new user code, send an SMS with the following content to the number of the SIM card in the XLOG bee hive scale:

In the first line: The instruction CD and the existing user code

In the second line: The instruction NEWCD with the new user code (up 7 digits).

CD 1234
NEWCD 56789

Neuer CODE=[56789](#)

Example: Entry of the new user code and the confirmation SMS of the XLOG bee scale.

Please note the new code, there is no possibility to recover a forgotten code.

Note:

A text message can contain one or more instructions simultaneously. Each statement must be written on a new line or separated by the pound sign (#).

5.10. SLEEP – Sleep Mode

In case you do not use the XLOG bee scale and do not require daily reports, the device can be turned off for a period of time or it can be placed in a sleep mode. During this period, no measurement and broadcast dates can be set. After the end of the period that you have entered the XLOG bee scale will automatically switch back on and continue to work with the settings that were previously entered.

Along with the SLEEP instruction, a number statement is entered (Period of Sleep/Rest). To turn on the idle mode, send an SMS with the instruction SLEEP and the duration of sleep (number of days) to the number of the SIM card in the XLOG bee hive scale.

Example: Entry of the instruction SLEEP and the confirmation SMS of the XLOG bee scale.

SLEEP 90

Hibernation(Tage)=90

Note:

Sleep mode can be interrupted by pressing the power button.

5.11. CONF – Display of Reporting Parameters

With the instruction **CONF**, configuration settings of the device are displayed that are important to you as a user.

In order to display the configuration settings you can send a text message with the CONF instruction to the number of the SIM card in the XLOG bee hive scale.

CONF

Zeit=14:42
06.11.2014

Tel1=[+385922565481](tel:+385922565481)

Mess- und Sendetermine
[05:00](#) M
[21:15](#) M
[21:15](#) S

Periodische Messung Aus

Delta [21:15](#)

Example: Entry of the instruction and the confirmation SMS of the XLOG bee scale.

5.12. SYS – Display of System Parameters

SYS

Firmware: v2.5
Bootload: v2.1

Lng: ENG,GER,HRV,SLO

Modul:
1137B10SIM900D64_ST
IMEI: [867622010324591](tel:867622010324591)

Waagen: 1
RF Signal: 21

With the SYS instruction all important system parameters displayed in the SMS report that may be helpful customer support in case of problems with the device.

To display the system parameters you can send a text message with the SYS instruction to the number of the SIM card in the XLOG bee hive scale.

Example: Entry of the instruction SYS and the confirmation SMS of the XLOG bee scale.

5.13. CRD – Credit Query - Prepaid Cards

Many beekeepers use prepaid cards, which need to be charged depending on use. Your provider can furnish the code you need to enter for balance inquiry. Enter this code into your XLOGbee hive scale. The code must be entered only once and then the balance can be queried with the instruction: CRD

In order to enter the code for balance inquiry send an SMS with the instruction **SETCRD** and the code (that you received from your provider) to the number of the SIM card in the XLOGbee bee Stock scales.

CRD\$= *100

SETCRD *100#

*Example: Entry of the instruction SETCRD and the confirmation SMS of the XLOG the bee scale: (e.g. for Xtra Card from Telekom code * 100 #)*

For balance inquiry send an SMS with the instruction **CRD** to the number of the SIM card in the XLOGbee scale.

Note: If the code has not been entered before, you can also enter the code along with the CRD instruction for balance inquiry e.g. CRD *100#

5.14. FACTORY –reset to default factory settings

The FACTORY instruction resets all device settings to the factory settings. To prevent possible abuse, the user code must be entered with the instruction CD, (Default Settings- User Code CD 1234) along with the TEL instruction.

To reset the device to factory settings, send a text message with the following content to the number of the SIM card in the XLOG bee scale:

In the first line: The instruction CD and the user code

In the second line: The instruction FACTORY

CD 1234
FACTORY

Example: Entry of the instruction and the confirmation SMS of the XLOG the bee scale

Werks RESET

Note: A text message can contain one or more instructions simultaneously. Each statement must be written on a new line or separated by the pound sign (#).

6. Configuring the MEASUREMENT AND TRANSMISSION DATES

The term "measurement" refers to the detection of the measured values of the connected sensors (weight sensor, temperature sensor, humidity sensor ...)

The term "report" refers to the transmission of the measured values in the form of SMS text reports to the mobile phone or smartphones of users.

The term "measurement date" means the set time of measurement of the connected sensors.

The term "transmission date" means the set time of transmission of the SMS report with the recorded measurement values to the mobile phones or smartphones of users.

The user can independently adjust several measurement and transmission dates (please keep in mind that frequent sending of reports could result in high costs for the SMS messages as well as high consumption of power).

There are certain ways to adjust the measurement and transmission dates according to user requirements:

1. Setting the measurement and transmission dates according to default settings (START)
2. Setting the measurement and transmission dates according to a set time (MTERM, ADDMTERM and RTERM)
3. Setting of periodic measuring routines with set start times, end times, and the required intervals between them (PERIODIC)
4. Setting the measurement date for the delta value (Calculates the difference in weight between the measurements taken in the last 24 hours)

6.1. Configuring the measurement and transmission dates by default (START)

In order to set the most used measurement and transmission dates send an SMS with the instruction START to the number of the SIM card in the XLOG bee scale.

START

Zeit=16:09
05.11.2014

Tel1=[+385922565481](tel:+385922565481)

Mess- und Sendetermine
[05:00](#) M
[21:15](#) M
[21:15](#) S

Periodische Messung Aus

Delta [21:15](#)

*Example: Entry of the instruction and the confirmation SMS of the XLOG the bee scale
With the instruction START the following default settings are set automatically: the user's phone number is stored in the list, the correct time is set automatically, and the measurement dates are set at 5:00 clock and 21:15 clock and transmitted at 21:15 clock.*

The instruction START can be sent by the owner unlimited number of times, provided the messages is sent from the telephone of the owner. If you want to send this instruction again from another number, then the user code should also be entered.

CD 1234
START

Zeit=13:54
07.11.2014

Tel1=[+385922565481](tel:+385922565481)

Mess- und Sendetermine
[05:00](#) M
[21:15](#) M
[21:15](#) S

Periodische Messung Aus

Delta [21:15](#)

Example: Entry of the instruction START with user code.

6.2. Configuring the measurement and transmission dates for an exact time (MTERM, ADDMTERM und RTERM)

Users who want to set other measurement and transmission dates can easily do so with the instructions MTERM, ADDMTERM and RTERM.

6.2.1. MTERM und ADDMTERM –Configuring the measurement dates

With the MTERM instruction accurate measurement dates are set. With the MTERM instruction various other statements are also entered, like measurement times in the four-digit time format (MM: HH). A comma is used to separate multiple instructions. To enter the measurement dates, send an SMS with instructions MTERM and the desired measurement dates to the number of the SIM card in the XLOG bee scale.

MTERM 06:30, 12:15,
17:00, 20:30

Mess- und Sendetermine

[06:30](#) M

[12:15](#) M

[17:00](#) M

[20:30](#) M

[20:30](#) S

Periodische Messung Aus

Delta [21:15](#)

Example: Input of the instruction MTERM with the dates of measurement and the confirmation SMS of the XLOG the bee scale, where the letter "M" stands for the measurement date and the letter "S" denotes the SMS notification. If the measurement dates were not entered in chronological order, they are automatically sorted.

Note: The statement MTERM deletes all previously set measurement dates.

If multiple measurement dates are already entered and you still want to add some more, without deleting the previously entered dates, you can do so with the **ADDMTERM** instruction. With the **ADDMTERM** instruction numerical statements can also be entered like measurement times in the four-digit time format (MM: HH). A comma is set between multiple instructions (measuring times).

In order to enter the additional measurement dated you can send a text message with the instruction ADDMTERM and the required measurement dates to the number of the SIM card in the XLOG bee scale.

ADDMTERM 10:00, 14:00

Mess- und Sendetermine

[06:30](#) M

[10:00](#) M

[12:15](#) M

[14:00](#) M

[17:00](#) M

[20:30](#) M

[20:30](#) S

Periodische Messung Aus

Delta [21:15](#)

Example: Entry of the instruction ADDMTERM with additional measurement dates and the confirmation SMS of the XLOG the bee scale.

6.2.2. RTERM – Configuring the transmission dates

With the RTERM statement, the required transmission dates can be entered. With the RTERM instruction numerical statements i.e. transmission times in the four-digit time format can also be entered. A comma needs to be placed between multiple instructions. To enter transmission dates, send an SMS with the instruction RTERM and the transmission dates to the number of the SIM card in the XLOG bee scale.

RTERM 14:00, 21:00

Mess- und Sendetermine

06:30 M

10:00 M

12:15 M

14:00 M

14:00 S

17:00 M

20:30 M

21:00 S

Periodische Messung Aus

Delta 21:15

Example: Entry of the instruction RTERM with transmission deadlines and the confirmation SMS of the XLOG bee scale. The letter "S" in the SMS report refers to the transmission date.

Note: The device automatically collects and sends all set measurements on the set transmission date. If the transmission dates have not been entered in chronological order, they are automatically sorted.

Note: The last set measurement date is also the transmission date in which all the previous measurements are included. The instruction RTERM deletes all previously set transmission dates.

6.3. Configuring periodic measurement routines with start time, end time and the desired time intervals in between (PERIODIC)

The instruction PERIODIC is ideal for users who want to enter multiple measurement dates at the same time. Here you need to enter only the time interval in minutes between the measurements you want the device to take.

In order to activate periodic measurements you can send a text message with the PERIODIC instruction and the required time interval in minutes, between measurements, to the number of the SIM card in the XLOG bee scale.

PERIODIC 60

Mess- und Sendetermine
[23:00](#) S

Periodische Messung
[Von 00:00 bis 00:00](#) alle
60 min

Delta [21:15](#)

Example: Entry of the PERIODIC instruction, the required time interval and the confirmation SMS of the XLOG bee scale.

Periodic measurements may be carried out only in a particular time period. In addition to setting the required time interval between measurements, the start and end time of the measurements are also set. The required time interval is entered in minutes and the start and end time in the four-digit time format. Multiple instructions are separated by a comma.

To activate periodic measurements in a given time period, send an SMS with the instructions PERIODIC and the desired time interval, the start and end in the four-digit time format to the number of the SIM card in the XLOG bee scale.

PERIODIC 30, [16:00](#),
[23:00](#)

Mess- und Sendetermine
[23:00](#) S

Periodische Messung
[Von 16:00 bis 23:00](#) alle
30 min

Delta [21:15](#)

Example: Entry of the instruction PERIODIC in a given period and the confirmation SMS of the XLOG the bee scale. The letter "S" in the SMS report refers to the transmission date.

Note: The last set measurement date is also the transmission date.

Note: The instruction PERIODIC deletes all previously stored measurement and transmission dates.

If you have set a large number of measurements with the PERIODIC instruction, it is recommended to also use the instruction GROUP –as soon as several measurements have been accumulated, they are sent automatically in the SMS report without the need to set separate transmission dates.

In order to configure the automatic transmission of a group of test results, send an SMS with the GROUP instruction to the number of the SIM card in the XLOG bee scale. Along with the GROUP instruction, a number statement is also entered (number of grouped measurements).

PERIODIC 30, 16:00,
23:00
GROUP 2

Mess- und Sendetermine
23:00 S

Periodische Messung
Von 16:00 bis 23:00 alle
30 min

Automatisch senden nach
2 Messungen

Delta 21:15

Example: Entry of the instructions PERIODIC, GROUP and the confirmation SMS of the XLOG bee scale: the device will take measurements every 30 minutes from 16:00 to 23:00 and when 2 measurements have been accumulated, an SMS is sent with the measured results.

Note: With the GROUP instruction even those measurements can be grouped, that are set by the MTERM instruction.

Note: The instruction PERIODIC can also be used with the instruction RTERM.

6.4. DTERM – Configuring dates for the Delta Value

The scale automatically calculates the difference, between the current and previous day i.e. the delta of the measured values. This information is extremely important for the beekeeper, because it shows the user how high the honey yield was in the last 24 hours. The delta value is always calculated on the same time every day, according to default settings, it is 21:15.

With the DTERM instruction, the user can independently set this time. With the DTERM instruction numeric statements are also entered i.e. measurement times in the four-digit time format (MM: HH).

To enter a new date for calculating the delta value you can send a text message with the instruction DTERM and the transmission date to the number of the SIM card in the XLOG bee scale.

DTERM 19:00

Delta: 19:00

Example: Entry of the instruction DTERM and the confirmation SMS of the XLOG the bee scale.

Note: The delta value is always sent to the user in the next transmission date.



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