# Allflex Link User Guide

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## Revision 1.0

## February 2025

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# 1 Introduction

The Allflex Links a high quality, portable RFID reader. It reads RFID tags complying with the ISO 11784 / 11785 standard, FDX-B and HDX technology, and NFC tags according to ISO 15693. In addition to the reading functions, the device can store up to 1.000.000 records in several groups. The data is transmitted using several available interfaces (USB, RS232, Bluetooth, and WI-FI) directly after reading.

ALLFLEX LINK also supports a *Task-Mode* and a ***D**ata**B**ase**F**unction*, DBF. This is usually done by 3rd-party Management Software.

The reader has a large color display that shows information clearly. Together with the seven keys, farmers can easily navigate through the menus and data. In addition, the device has status LEDs above the display that indicate the charging and interface statuses. Multicolor LEDs at the tip that indicates the current reading state. The integrated speaker provides acoustical feedback to the farmer and the vibrating handle that assists in noisy environments.

## 1.1 Conventions Used in this User Guide

This manual is written to help Farmers use Allflex Link. The following conventions are used throughout:

**NOTE**

**Note identifies information that is of interest or is important.**

**CAUTION**

**Caution identifies an item or items that may cause harm to equipment or data.**

**WARNING**

**Warning identifies an item or items that may cause personal injury or loss of data.**

## 1.2 Before Using for the First Time

The internal high-capacity lithium-ion battery must be fully charged before first use. Charge the battery using the provided Y-Cable and power adapter. Connect the Y-Cable to the bayonet connector at the bottom of the reader (1) and the power supply to the circular connector (2) of the Y-Cable. The plug-in power supply (3) should be fitted with the correct mains adapter. Then plug in the power supply into a mains outlet and the ALLFLEX LINK begins charging the battery.

**NOTE**

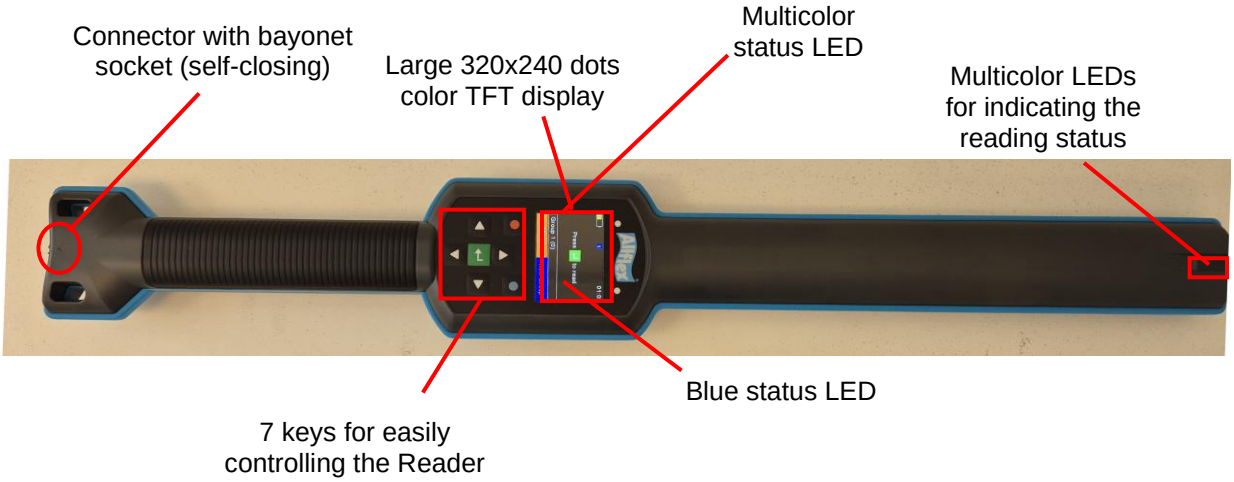
**The internal fast charging takes a maximum of 3.5 hours if the battery is completely drained. The battery can only be charged in the temperature range of 0 degrees Celsius and 45 degrees Celsius, 32 degrees Fahrenheit to 113 degrees Fahrenheit.**

# 2 Reader Hardware

This chapter describes the ALLFLEX LINK hardware including all accessories.

## 2.1 Parts of the Allflex Link

The Allflex Link reader is 65 centimeters long and has a weight of only 750 grams including the battery. It provides an excellent reading performance, a large 2.4-inch color display, a multicolor LED indicator at the tip, two status LEDs above the display, a speaker, and a vibrating handle. The reader is controlled using the seven ergonomic keys under the display.




ALLFLEX LINK uses a 7.4V Lithium-Ion battery with a capacity of 3.180mAh, located in the handle. The battery pack is not user/farmer serviceable.

## 2.2 Accessories

Y-Cable (USB / Charge)

Power adapter

The USB plug of the Y-cable can be connected to any USB port on any computer. The corresponding USB driver must first be installed. The maximum USB cable length allowed is five meters. Longer USB cables are not supported. The power supply has interchangeable plugs for most sockets used worldwide.

These optional accessories are available:

RS232 cable '*APC310*'

Transport box ‚*ATB300*'

The RS232 cable '*APC310*' allows an RS232 serial connection to other devices when wireless connections are not available. The robust transport box ATB300 allows easy transportation of ALLFLEX LINK. It accommodates the reader and accessories, and additional devices such as a mobile printer, not included, purchase thru local dealers.

## 2.3 Connecting a Serial Cable USB or RS232

The ALLFLEX LINK uses a bayonet connector that is water and dustproof. Attach the connector of the serial cable to the socket at the bottom of the reader. Note the orientation, see marking. Push the connector against the socket and turn it clockwise until locked.

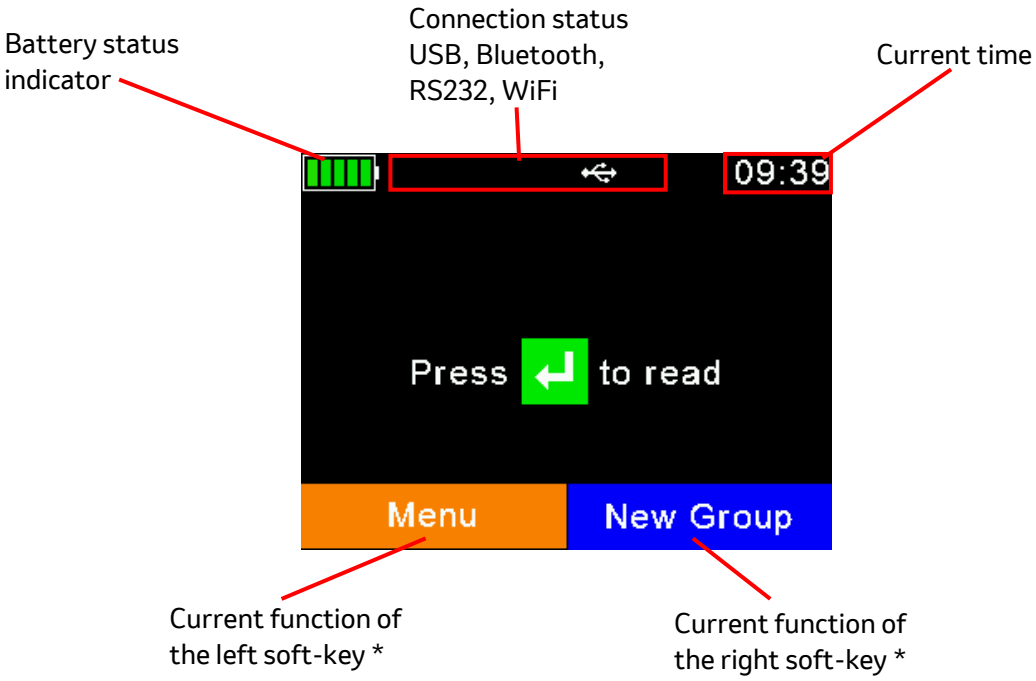
Turn the connector counterclockwise to unlock. The socket closes itself automatically after removing the plug.

# 3 Controlling Allflex Link

The ALLFLEX LINK has a color display and seven keys for controlling the device. The Reader is activated by pressing the ↵ key in the middle of the directional pad.

## 3.1 Display Home Screen

After the reader is switched on, the following home screen appears:




* A 'Softkey' is a key that performs different functions depending on the Menu being displayed.

The Soft Keys have different functions depending on the current Menu location. In the home screen, the left soft key is used for entering the menu and the right one for creating a new group separator.

The battery status indicator shows the approximate battery level. It would also indicate possible errors related to the battery, such as a high temperature.

In the example shown here the only active connection is USB, symbol on the right. The reader also displays an active RS232 connection, the Bluetooth status, or WI-FI status in this area.

### Status Symbols

The top display line displays status information about the wand and its different interfaces. The current time is also displayed.

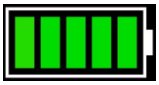
3.1.1

The blue symbol is for WiFi, and the orange is for Bluetooth. The color of these symbols depends on the current connection status. See 3.1.3 and 3.1.4 for more details.

### Battery status

The battery symbol on the left side indicates the approximate battery capacity.

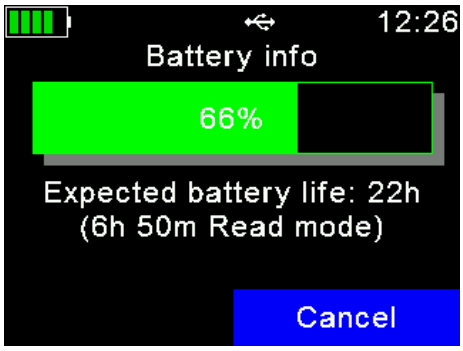
3.1.2

| Status | Meaning |
|---|---|
|  | Battery capacity is higher than 80 percent. |
| | Capacity is between 60 and 80 percent. |
| | Capacity is between 40 and 60 percent. |
| | Capacity is between 20 and 40 percent (no charger connected -> discharging) |
| | Capacity is between 10 and 20 percent (no charger connected -> discharging)<br>When flashing, capacity is lower than 11 percent. |
| | Capacity is between 20 and 40 percent (only green when charging). |
| | Capacity is between 10 and 20 percent (only green when charging). |
| | General charging error. Check the external power supply is properly connected to the reader. If this error is shown repeatedly, contact your local region representative for further support |
| | Charging not allowed because the battery temperature is outside the allowed range of 0°C to 45°C. |

During charging, the battery symbol fills from the point of the remaining capacity. The charging is complete when the flashing stops. The charger can now be disconnected.

The menu item '*Show Battery Info,*' '*Setup*' menu chapter 7.4.1, shows the estimates remaining battery capacity in percent, and the estimated remaining operating time in idle mode and in read mode.

:




Navigation from the home screen

### Wi-Fi status

3.1.3

| Status | Meaning |
|---|---|
| | Wi-Fi is active but not yet connected to an access point. |
| | Connected to an access point and waiting for a connection, to an application. |
| | Connection established |
| | Wi-Fi init: This symbol displays, when the WI-FI module is booting, being configured, or is updating its Firmware. |

3.1.4

### Bluetooth status

| Status | Meaning |
|---|---|
| | Slave Mode – ALLFLEX LINK connection is initiated from other device(s) |
| | Master Mode – ALLFLEX LINK connection is Intiated from Allfex Link |
| | Connected |
| | Bluetooth init: This symbol is displayed when the Bluetooth module is booting, being configured, or is updating its Firmware. |

### App Status

These icons display the status of apps connected to the reader.

3.1.5

| Status | Meaning |
|---|---|
| | The reader is connected to the SenseHub Mobile App. |
| | The reader is connected to the Allflex Connect Mobile App. |

### USB status

3.1.6

The USB symbol displays when ALLFLEX LINK is connected to the USB port of a computer.

### RS232 status

3.1.7

This symbol displays when the ALLFLEX LINK is connected to an RS232 interface.

## 3.2 LEDs above the Display

There are two status LEDs above the display. These LEDS are used only when the Display is off. When the Display is on see chapter 3.1.2.

The left LED is multicolor and the color changes depending on the charging status.

The LED on the right is blue and it is used for indicating the connection status.

The LED on the left side indicates the charging status of the battery pack as follows:

| Color | Interval | Meaning |
|---|---|---|
| | Flashing | Battery charging |
| | Solid | Battery is fully charged |

The Blue LED on the right side is used only when the display is off. It indicates the following operating modes:

| Color | Interval | Meaning |
|---|---|---|
| | Flashing every 3 seconds | ALLFLEX LINK is in *SD-Card-Mode* (MSC) |
| | Flashing once a second | ALLFLEX LINK is in *Suspend-Mode* (CDC) |

## 3.3 The Multicolor LEDs at the Tip of the Wand

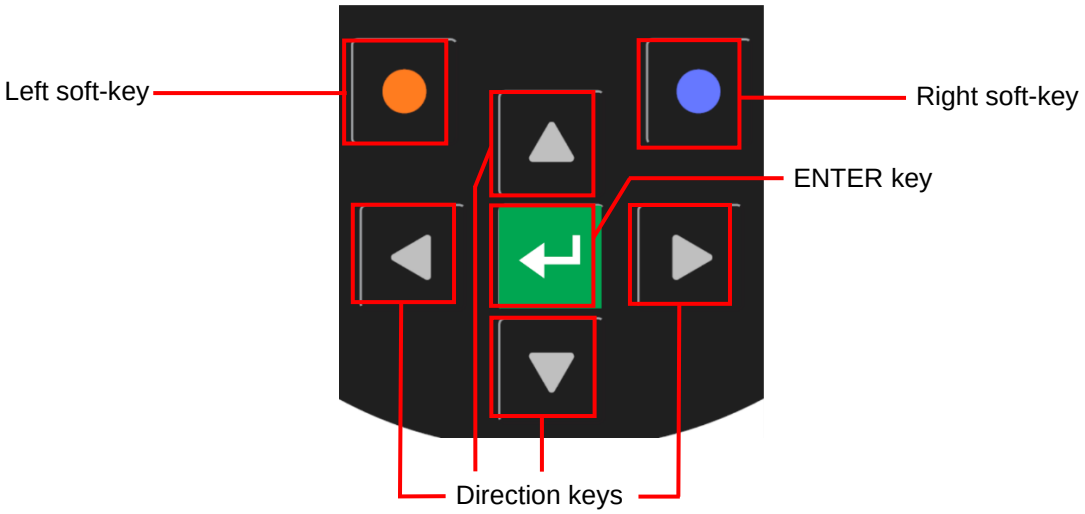
The ALLFLEX LINK has multicolor LEDs at the end of the Wand. These indicate the reading status when the device is reading tags, and it might not be possible to see the readers display.

| Color | Interval | Meaning |
|---|---|---|
| | Flashing slowly | RF is activated, ready to scan. |
| | Flashing fast | Tag has been read the first time, new tag. |
| | Flashing fast * | Same tag has been read repeatedly * |

* Only in continuous reading mode

## 3.4 Using the keyboard

The ALLFLEX LINK has 7 keys to allow easy operation of the reader. The directional pad has an ENTER key in the middle and two additional soft-keys below the display whose functionality is dependent on the current action.

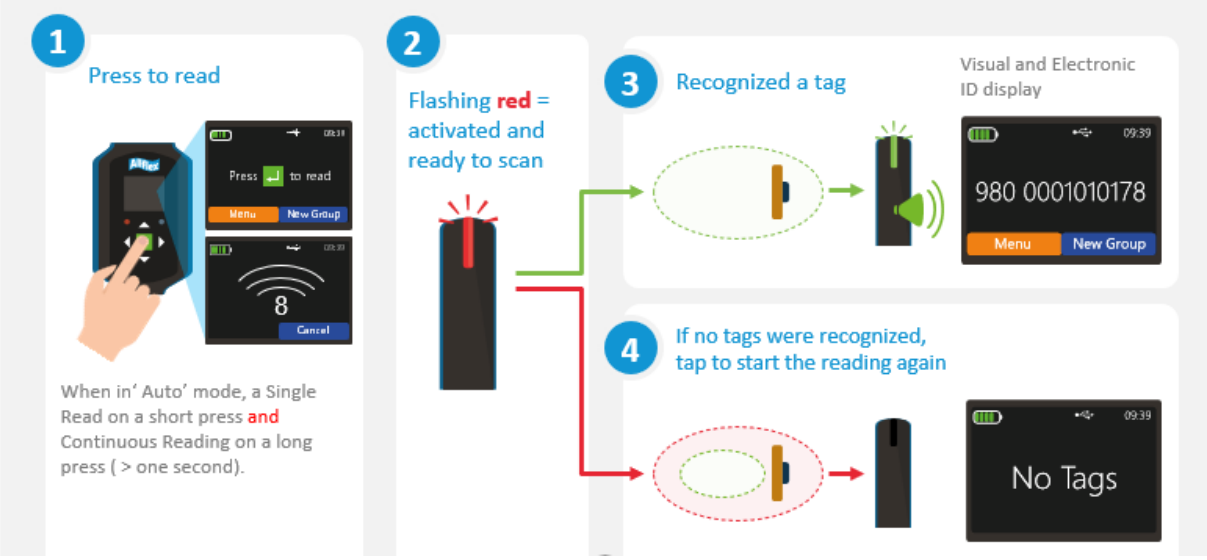


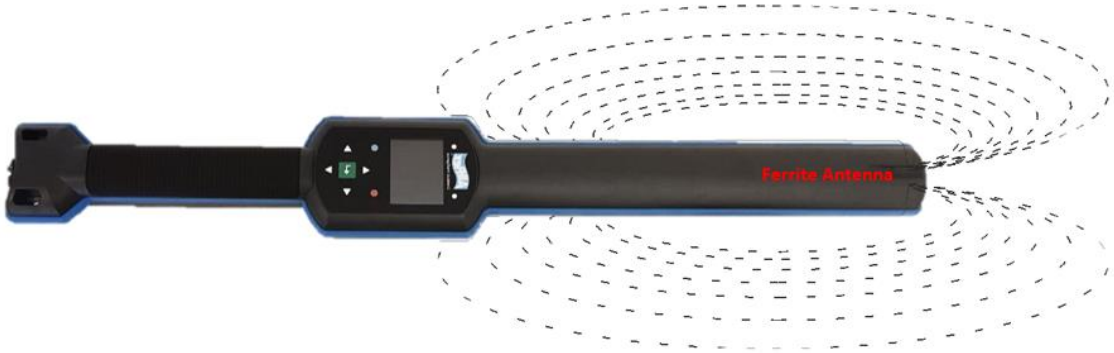

| Key | Operation |
|---|---|
| | Opens the menu in the home screen. Moves up one menu level, Back, other functions depend on current menu position – the current function is always displayed on the left side above the key. |
| | From the home screen, executes the configured 'quick action'. Exits the menu completely and moves back to the home screen. Depending on the menu position, other functions are shown in the display on the lower right side. |
| | Switches On the Allflex Link. Starts EID reading from the home screen. Enters menu items and confirms selections there. Moves to the next field when in *Task-Mode*. |
| | Starts NFC reading from the home screen. |
| | Switches off the Allflex Link while pressed longer than 2 seconds. |
| | No function in home screen * |
| | No function in home screen * |

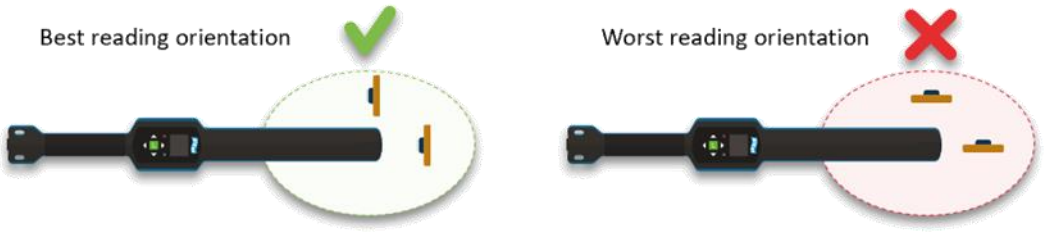
* The directional keys are also used to navigate within menus, up, down, left, and right, for scrolling through Database fields and selection lists and for selecting characters in numeric or text input fields.

# 4 Reading EID tags

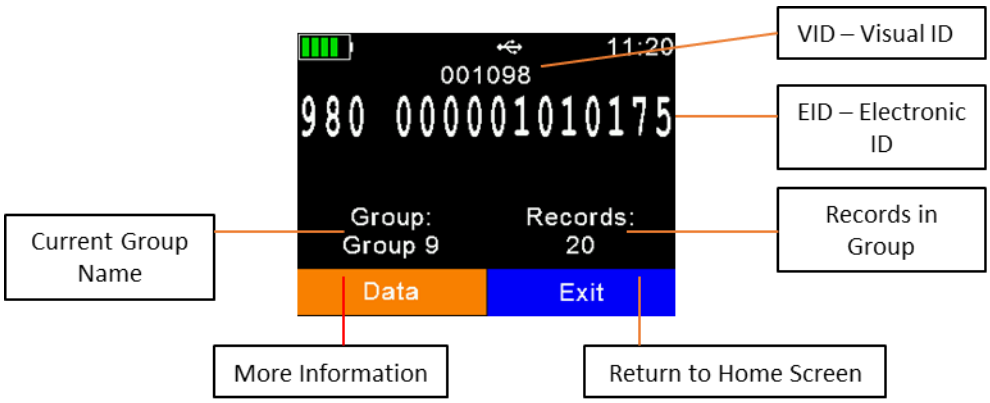
These diagrams describe how to best position the reader when reading tags.



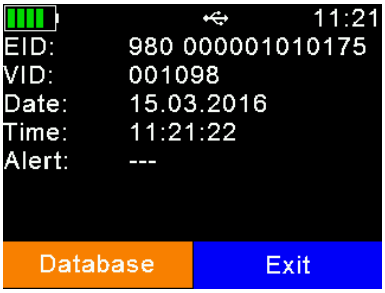



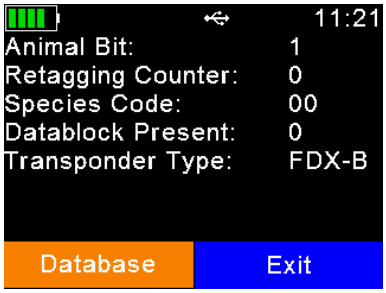



When an EID tag is read, the following information displays:



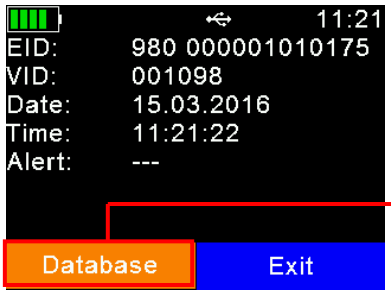

This screen displays when the ● button is pressed. It provides information about the EID, VID (if available), Date and Time of reading and the Alert text (if there is one for this tag).

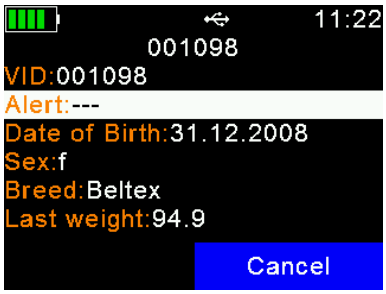


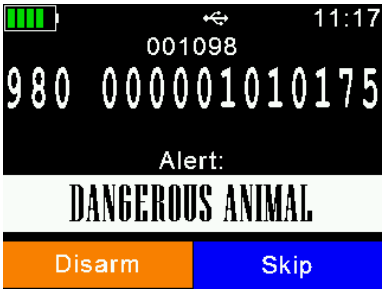

If ▼ or ▲ is pressed, the device switches to a second screen. It displays the tag type (FDX or HDX) and the advanced ISO information. You can move from one screen to the other by pressing any of both keys.

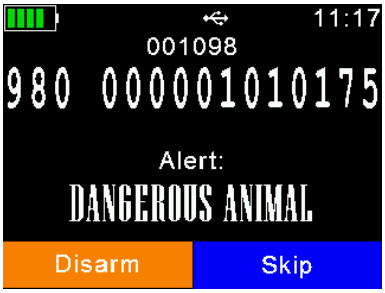
If a Database-Record is available for this tag, you can view the Database information by pressing the left soft key.




The picture on the right shows the Database entries. The fields depend on the definition of the Database. You can also edit fields by selecting them and pressing ↵ if they have been set as editable in the Database definition. All other fields cannot be selected.






If an alert is present for the tag just read, the alert text is displayed continuously, with the color inverting and an alert sounding. The alert can be disarmed (not displayed again after next reading of this tag) or it can be skipped.

When selecting '*Skip*', the Alert remains activated.

# 5 Reading Monitoring Neck and Ear Tags with NFC

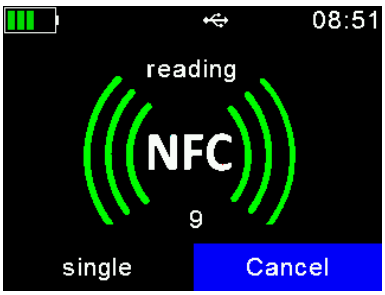
Compared to the reading ranges for low frequency RFID tags, the ranges for NFC tags are relatively small. The NFC antenna of the device is designed so that reading works at the front tip forwards and downwards, as shown below.

| Item | Legend | Comments |
|---|---|---|
| 1 | Reading zone | Area in which the EID Tags and the implants can be read (above the tube) |
| 2 | Monitoring Tag | Best orientation of the Monitoring Tag toward the reader antenna |
| 3 | Reader | - |
| 4 | Antenna | - |

## 5.1 MSD Monitoring Neck and Ear Tags

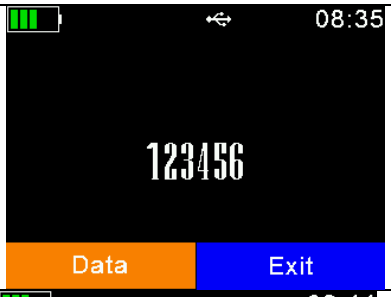
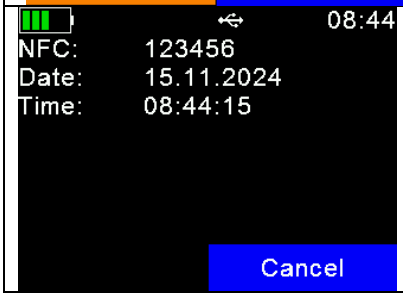
The MSD Monitoring Neck and Ear Flex Tags are RF tags worn by cows. They combine rumination, heat detection and cow identification functionality to give dairy farmers a revolutionary tool to monitor their cows in real-time, 24 hours a day. Each Flex Tag collects information and transmits it to the MSD systems a few times per hour, so the information in the system is always up-to-date. To combine each tag with the EID tag carried on each animal, an NFC tag is included inside the Flex Tags and can be read by the device.

If you only want to read an NFC tag, press ◭ from the home screen to start the NFC reader.




You will see an animation that shows the NFC reading in progress along with the remaining reading time.In this example there is the information ‘single’ at the bottom left. You can also change the read mode to ‘continuous’ or ‘auto‘.

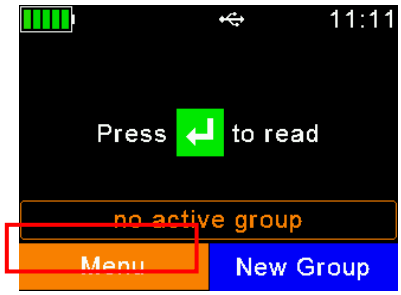
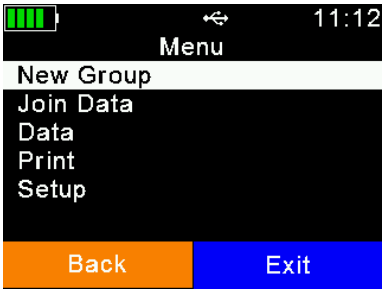
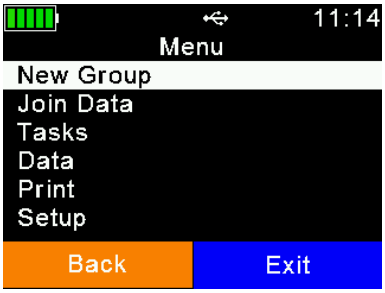
When an NFC tag is read, the following information appears:

| | |
|---|---|
|  | NFC ID<br>Hit Exit to return to the Home screen<br>Hit Data to show more information |
|  | This screen displays when the ● button is pressed after the NFC tag was read. It shows the NFC ID with date and time of reading. |

You can also link the NFC ID to the EID using the Join Data – EID + NFC function. For information on how to access this feature, see Chapter 6.2.

# 6 Menu items

This section describes the Menu Items found in Allflex Link.

| | |
|---|---|
|  | Press to enter the menu. |
|  | This screenshot shows the top menu level. It contains the items '*New Group*', '*Join Data*', '*Data*', '*Print*' and '*Setup*'. If another language other than the default one is selected, the menu items are different. |
|  | The entry '*Tasks*' only appears, if Task definitions have been uploaded to the device – otherwise this item is hidden. The *Task-Mode* is another operating mode of the ALLFLEX LINK that allows the collection of comprehensive data. For more information about this operating mode, contact your local dealer. |

Use these keys to navigate through the different menus:

| Key | Operation |
|---|---|
| | Enters the next submenu or performs certain actions in the lowest menu level |
| | Moves up one menu item |
| | Moves down one item |
| | Jumps to first entry in the current menu |
| | Jumps to last item in the actual list |

With exception of the lowest menu levels, the left (orange) soft key forces the device to move one menu level upwards and the right one (blue) returns the reader to the home screen. In the lowest submenu, the right soft key cancels the action.

## 6.1 New Group

Records in ALLFLEX LINK memory are organized in groups. One group can contain up to 10,000 records. A new record is created for every tag that is read. Enable the '*Animal Counter*' so that duplicate records for duplicate tag numbers are not saved in the same group.

| | |
|---|---|
| | After selecting 'New Group', you are prompted to enter a group name. You can accept the suggested name by pressing ↵ or it can be deleted by pressing the left soft key character by character. A long press removes all digits in one step. Press ▲ or ▼ to open a soft keyboard. |
| | You can navigate to letters, numbers or symbols and paste the desired character into the group name by using the ↵ key . Press the left soft key to switch keyboard content (capitals & special characters). |
| | When you entered the group name, press the right soft key to exit the soft keyboard. Check and confirm the name by pressing ↵. All EID tags read from now are saved in this group (max. 10.000). |

**NOTE**

**When no group is created before scanning the first tag, Allflex Link inserts a group with the default name of Group 1. If a different group name is desired, create the group name before scanning any tags.**

**CAUTION**

**When any group reaches 10,000 records the device forces the creation of a new group, even when groups are not required for the application.**

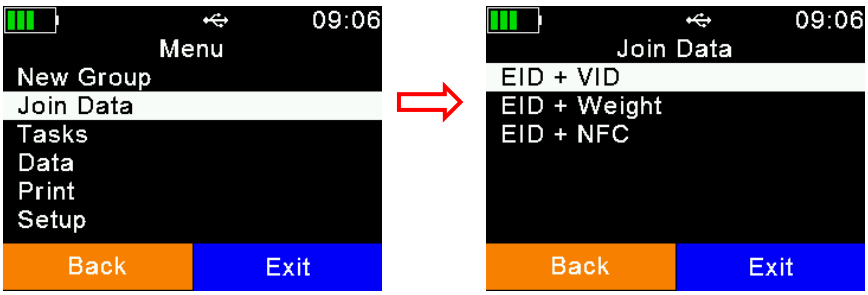
## 6.2 Join Data

*Join Data* extends the functionality of Classic-Mode by adding the ability to link additional data to the EID on the device.

Three different *Join Data* functions are available for the ALLFLEX LINK:

- EID + VID for linking a Visual ID to an EID tag
- EID + Weight for joining the Weight from an electronic scale with the EID
- EID + NFC to combine Low Frequency RFID with the NFC ID

You can access the Join Data menu via the second entry in the main menu:




Full information regarding Join Data can be found at Join Data on page 51.

### 6.2.1 EID + VID

*EID + VID* allows you to assign the read tag to a Visual ID on the device. There are two different ways for selecting the *VID* to assign:

- Entering the *VID* with the keyboard
- Selecting a 'free *VID*' from the Link-List

The *EID-VID* pairs are written to the readers Link-List and the records are saved in the currently selected group.

### 6.2.2 EID + Weight

This function is used to link the weight of an animal (received from an electronic weighing indicator) to the *EID*. The list of supported scales can be found in list of the menu structure (chapter 9.1). Ensure that the scale settings are made correctly before using this feature. The weight is saved as a record in the active group together with the *EID*.

### 6.2.3 EID + NFC

You can use this function to create a link between the EID of a Low Frequency RFID tag and an NFC monitoring tag. This is saved as a record in the active group.

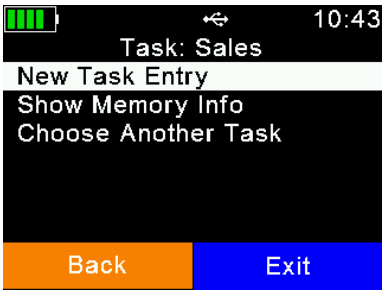
**NOTE**

**Details on the Join Data functions can be found in Join Data on page 51.**

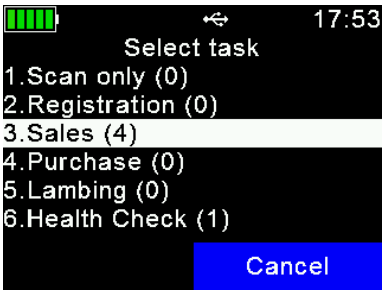
## 6.3 Tasks

This submenu is only visible if Task definitions have been uploaded. They are normally provided by distributors alongside management software that supports Allflex mobile readers. If no Task-Definitions have been uploaded, this menu item is not displayed. Contact your local dealer for more information about *Task-Mode*.

When Task definitions are present on the Allflex Link, this menu item is visible automatically. When entering the submenu '*Tasks*', the following entries are displayed:



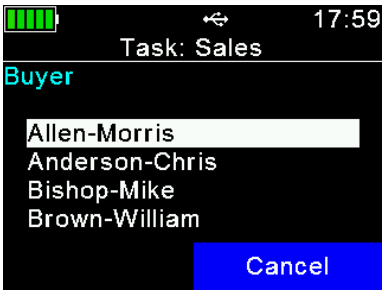

***New Task Entry:*** Create a new record for the currently selected Task
***Show Memory Info:*** Shows the number of records for the currently selected Task and the number of possible remaining records (maximum 10.000 per Task)
***Choose another Task:*** Select a different Task definition




If '*Choose Another Task*' is selected, the reader displays all available Tasks and the number of records in brackets for each Task.

Navigate to the desired Task using the ▲ / ▼ keys and select the Task to use by pressing ↵.

A new Task is started via '*New Task Entry*'. Switch from one data field to the next one by pressing ↵ after the correct data was entered. The method for inserting data depends on the field types used in the Task definition. This manual shows only some examples. For more details contact the local dealer that provided the Task definitions.




List field.

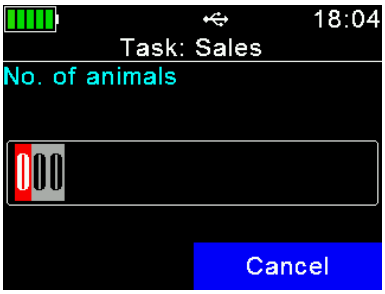
▼ … One item down

▲ … One item up

▶ … Next page

◀ … Previous page

↵ … Select item




Numeric-Input field.

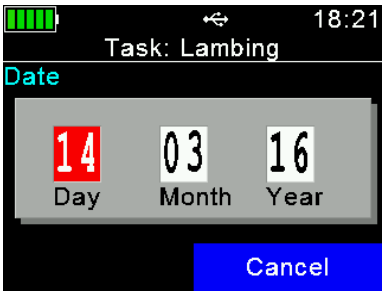
▲ … Increase number

▼ … Decrease number

▶ … Next digit

◀ … Previous Digit

↵ … Confirm input




That is a Date field. The device suggests the current date but this can be changed.

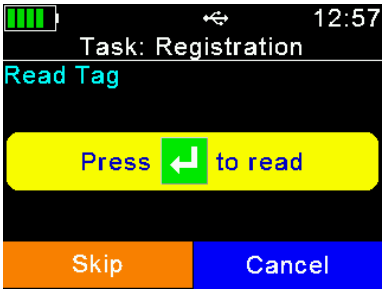
▲ … Increase number

▼ … Decrease number

▶ … Next field

◀ … Previous field

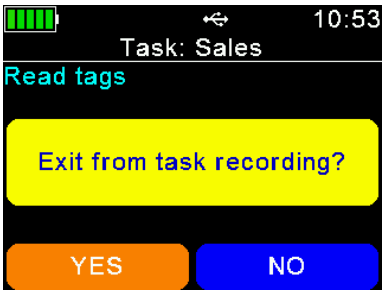
↵ … Confirm input




When this field is displayed, the Allflex Link starts scanning for an EID tag after pressing ↵.

After a tag was read, the reader displays the EID and asks for a confirmation. By pressing 'OK' (left soft key) or ↵ the EID is stored, and the Task is continued. If the EID was the wrong one, it can be deleted by pressing the right key ('DELETE') and the reading process can be started again.

This example shows a 'Speed-Loop'. In this case there is nothing to enter but the RFID reader is activated an tags are read continuously until the right key, *Cancel,* is pressed twice.

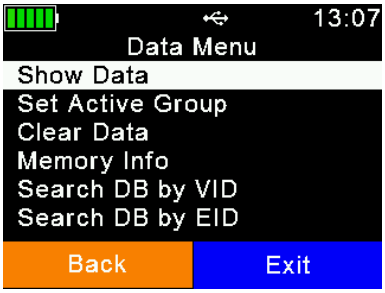



Then the device asks for another confirmation. If the left key, here: '*YES,* is pressed, the records made until then are saved and the process is finished. By pressing the right key '*Cancel*' the Allflex Link returns to the reading loop and more EID tags are then read.

**NOTE**

**The sequence of any task depends on how the task was defined. If logical issues are identified contact the local dealer that provided the task/s. Allflex is not responsible for Task Definitions.**

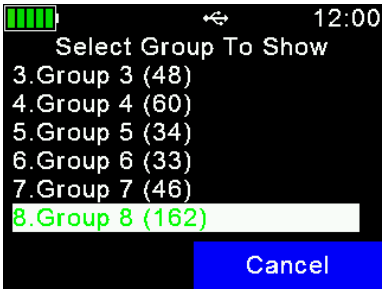
## 6.4 Data




The 'Data' menu contains items for showing and deleting data and for selecting the active group. You can also search an uploaded Database for a specific entry based on either the input of the VID or an EID (read tag), but only if a Database is uploaded. With no Database being present on the reader, these menu items are not displayed.

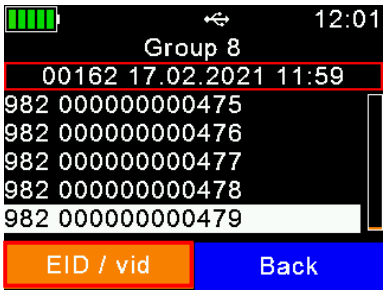
### 6.4.1 Show Data

The device displays a list of all current groups. Each entry shows the group name and the number of records within the group in brackets. The active group is displayed in green.




- … One group down
- … One group up
- … Scroll down 6 groups
- … Scroll up 6 groups
- … Select group

When a group is selected, it opens and all records in that group display. The first display line shows the group name, here: '*Group 8*'. The second line shows the record number (within the current group) and date and time of reading for the selected record. A scroll bar on the right shows the approximate position of the selected record in that group (here it is the last record).




▽ … One record down

△ … One record up

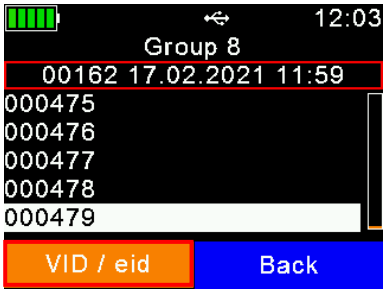
▷ … Scroll down 50 records

◁ … Scroll up 50 records

↵ … Select record

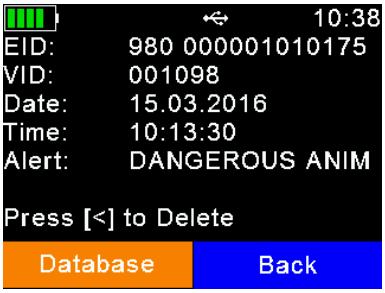
● … Switch between EID and VID view

When a group is opened, the device automatically shows the last (newest) record within this group. If you press ◁ + ▷ simultaneously, the reader switches to the first record in the group and when ◁ + ▷ are pressed again, you switch back to the last record.




This example shows the same list but instead of the EID, the VID is displayed. This is applicable only if VIDs are available on the device, i.e. a Linklist or Database must be uploaded. If there is no VID available for specific records, the EIDs display instead.

To show detailed information for a specific record, select an entry from the list and confirm with ↵. The details of the record are displayed on two pages.



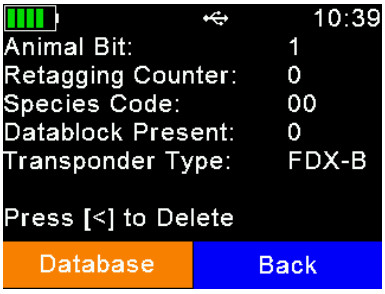

The first page shows the EID, the VID, date and time of reading and the alert string, if there is one assigned.

▽ / △ / ▷ … Switch to next page

◁ … Delete record (only last record in last group)

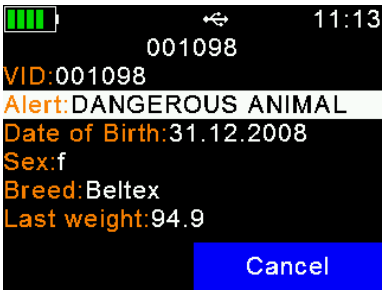
● … Check Database (only if DB entry available)

↵ / ● … Return to list of records




Page two shows the advanced ISO information such as Animal Bit, Retagging Counter or Species Code and the tag type (FDX-B or HDX).

Press ● to open the appropriate Database record. If there is no Database entry available for this record, then Database does not display.




You can also edit fields by selecting them and pressing ↵, if they are set to be editable in the Database definition. Non-editable fields are not selectable.

◀ / ▶ … Switch to next page

▼ / ▲ … Select next / previous (editable) Database field

↵ … open Database field (if defined to be editable)

Example for a 2nd Database page

◀ / ▶ … Switch to next page

▼ / ▲ … Select next / previous (editable) Database field

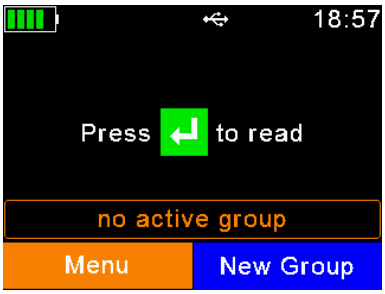
↵ … open Database field (if defined to be editable)

**NOTE**

**How to edit Database fields depends on the field type, List, Numeric, Alphanumeric, etc. Like the field types in Task Mode.**

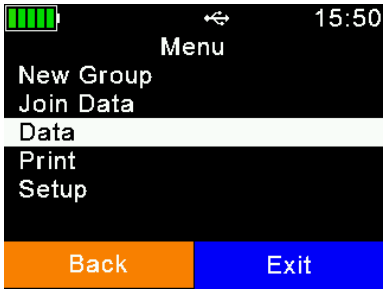
### 6.4.2 Set Active Group

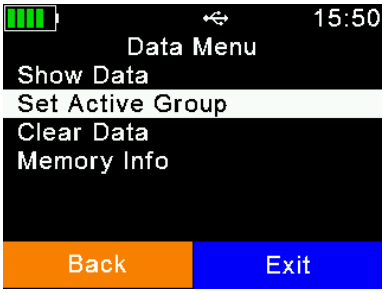
This function allows you to select the group in which new animals (tags) are saved. If you want to add new animals to an existing group, set this group as the active group.




If no tags have been read yet, the home screen displays the message '*no active group*'. When a tag is read, the device automatically creates a new group with the name '*Group 1*'. If you want the group name to be different, you must first manually create a new group before reading a tag - in this case, the name can be modified.

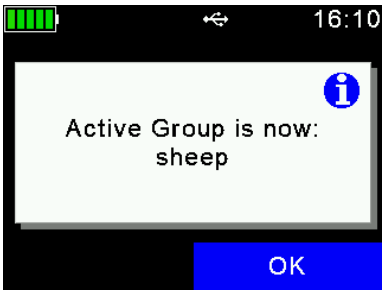
If you want to add new animals to an existing group, set this group as the active group. You can do this via the menu item *Set Active Group* in the *Data* Menu:



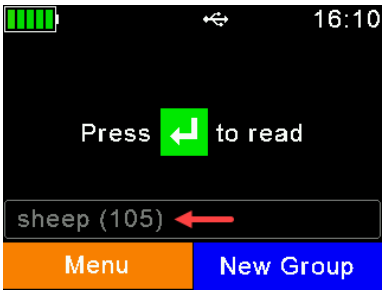



The currently selected group is displayed in green. Use the ▼ / ▲ keys to select the desired group and the ◀ / ▶ keys for moving to the previous or next page.

In the example on the left, the currently active group is '*cows*' and the cursor is on '*sheep*'. Press ↵ to make '*sheep*' the active group.

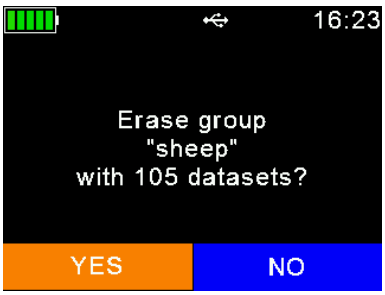


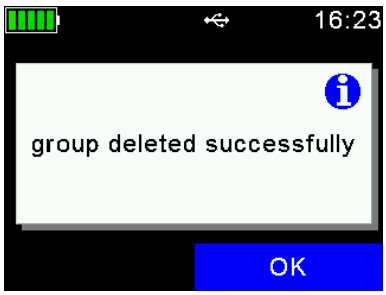

The reader shows a confirmation message with the information that the new active group is '*sheep*'. All tags which are read from now are saved in this group until a different group is set as the active group.



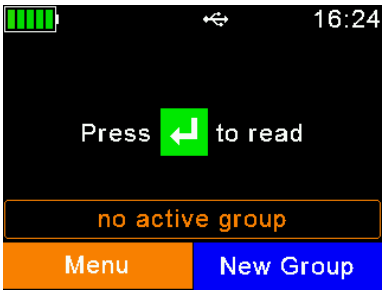

The name of the active group is displayed on the home screen with the number of records in that group in brackets. A maximum of 10,000 records can be stored in a group.

If the active group is deleted:




The message “No Active Group” appears in the info line on the home screen.

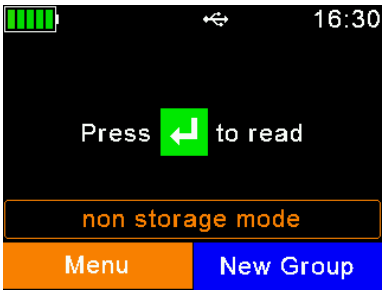



If a reading attempt is started in this case, the device displays the menu for selecting the active group from the list of existing groups:

Since records are always saved in groups, it is mandatory to define an active group. Select a group as the active group.

Alternatively, you can create a new group here by pressing the ● key.

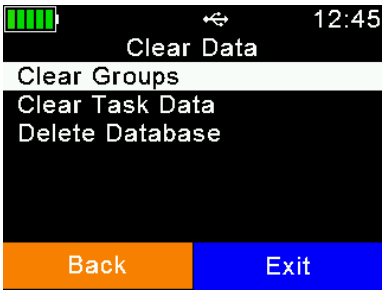
If the reader is configured to '*non storage mode*', this is displayed on the home screen:




In this mode, no data records are stored in the internal memory. Groups are therefore not used.

### 6.4.3 Clear data

You can delete data from the Allflex Link also directly on the device. There are various ways to delete data, depending on how that data was collected. The standard records are saved in groups. These are the records that have been saved after the tag reading starts from the home screen. If *Task-Mode* is used on the device, you can also delete collected Task-Data from the '*Clear-Data*' menu – if not, this menu is hidden. If a Database is present on the reader, it can also be deleted here.




After selecting '*Clear Data*', three submenus appear.

***Clear Groups:*** refers to records made in groups

***Clear Task Data***: only applies for data collected in *Task-Mode*

***Delete Database:*** deletes an uploaded Database from the device

**NOTE**

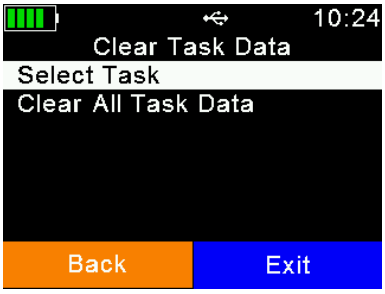
**Data that is deleted is removed permanently, and the action cannot be reversed. Back up data before deleting.**

### *6.4.3.1 Clear Groups*

***Select Group***: opens the list of groups to select a group to delete

***Clear All Groups***: Erases ALL groups from the device memory (no Task-Data and no Database)

### *6.4.3.2 Clear Task Data*




***Select Task***: only the data of one specific Task are erased

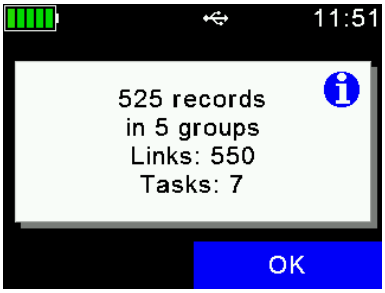
***Clear All Task Data***: deletes the Task data of ALL Tasks on the device

### *6.4.3.3 Delete Database*

When selecting the menu to delete the Database, the device asks for a confirmation. If you continue and select 'YES', the Database is deleted. If a Link-List is present on the reader, it is used again from now on.

### Memory Info

6.4.4



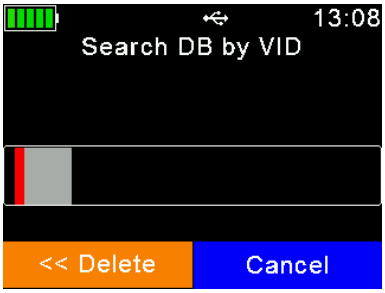

This menu item displays information about the amount of collected data (how many records in how many groups), the number of entries in the currently uploaded Link-List or Database and how many Task definitions are uploaded.

It does not show how many records are present for each Task definition. To do this, go to the Task menu, select a Task and use '*Show Memory Info*' (6.3)

### Search DB by VID

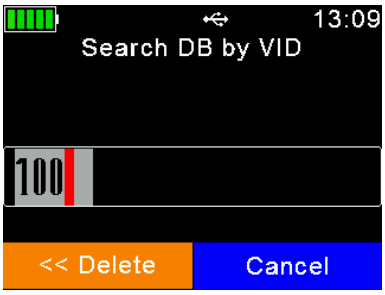
6.4.5

You can search entries in the uploaded Database by entering the VID. This can make sense if the EID tag is lost or defective. But usually scanning the tag is the faster way and more convenient. Note that this menu item is only displayed if a Database is uploaded to the device.



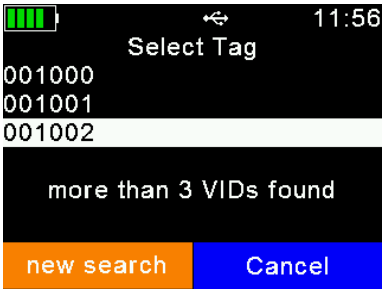

Use the ▼ / ▲ keys to change the character and the ◀ / ▶ keys to move to the previous / next digit. When browsing through the list of characters, you can hold the ▼ or ▲ key to increase the scrolling speed.

Press ● to leave the VID search.




Press the ↵ key when enough digits were entered.

The ● key deletes the last digit, if you hold it for one second, all digits are erased.




In this example the device found more than three matching Database entries. Press ● to narrow the search by entering more digits.

Now there is only one matching item left. Press the ↵ key to access the Database for this entry.

The Database entry for the selected VID is displayed as usually.

You can move to the previous / next (editable) field by using the ▼ / ▲keys and switch between the different pages via ◀or ▶.

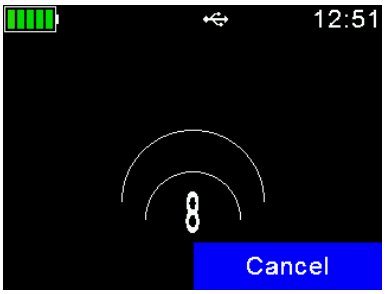
The ↵ key allows to modify data, if the field is configured to be editable.

**NOTE**

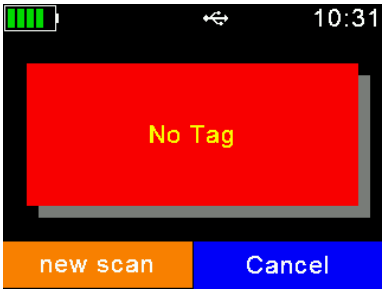
**Non-editable fields are displayed only and cannot be selected or modified.**

### 6.4.6 Search DB by EID

This menu item searches the Database for a matching entry based on the electronic ID. As soon as the transponder is read, the ALLFLEX LINK starts looking up this number in the Database. Note that this menu item is only visible if a Database is uploaded.

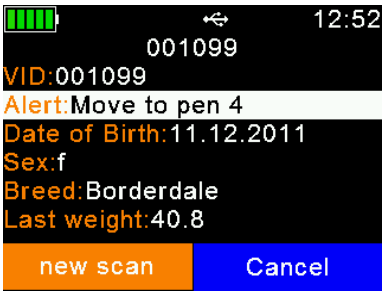



The ALLFLEX LINK starts scanning for an EID tag for a maximum of 10 seconds. The remaining scanning time in seconds is displayed.




If the timeout has elapsed without a successful detection of a tag, the message '*No Tag*' is displayed. The ● key starts a new scan and ● aborts the EID search.

If the tag was read but there is no match in the Database, '*Not in database*' is displayed.




As soon as a tag was read AND there is a match in the Database, the entry displays.

You may move to the previous / next (editable) field by using the ▼ / ▲ keys and switch between the different pages via ◀ or ▶.

The ↵ key enables modifying the data if the field is configured to allow editing.

**NOTE**

**Non-editable fields are displayed only and cannot be selected or modified.**

**NOTE**

**When scanning for tags from the Home Screen no new records are created as this is just a search of the Database.**

## 6.5 Print

You can send the collected records from the reader to a mobile Bluetooth printer. Printing options include printing the active group, printing a specific group or printing all groups. It is also possible to change basic printer settings here.

**NOTE**

**The printer must be set up correctly before trying to print records. See Print on page 31 to set up the printer.**

The Allflex Link stores the printer's Bluetooth address as a secondary address only. When there are no print jobs, the Allflex Link always attempts to connect to its primary Bluetooth partner, such as a computer, smartphone, PDA or weighing indicator in Master Mode. When a print job begins, the reader disconnects from the primary device and tries to connect to the configured Bluetooth printer.

After exiting the '*Print*' menu, the connection to the printer is terminated and the Allflex Link attempts to reconnect to the configured primary Bluetooth partner (if in Master Mode). The big advantage is that the user does not need to select a different Bluetooth device just for printing.

### 6.5.1 Printer Setup

Before you can use the printer, it must be set up correctly. This includes printer type, the interface, and the baud rate. If any of these settings is incorrect, the printer function does not work. All other settings are software configurable only. For example, *AgriLink* can be used for configuring the advanced printer options.

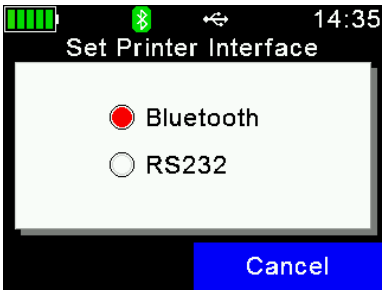
#### *6.5.1.1 Set Printer Type*

The ALLFLEX LINK Firmware supports various printer types, such as the Able Systems '*AP1300*', the Datamax-O'Neil '*Apex*' series, the Zebra QL-series and QLn-series, the Martel '*MCP 1880/7880*' and the '*MTP-3*'. The type '*Generic Line Printer*' might work for specific printers as well, but there are no special control codes send for this printer type, so it only works with simple ASCII printers.

Use the directional keys to select the correct printer type from the list and confirm by pressing the ↵ key.

#### *6.5.1.2Set Printer Interface*

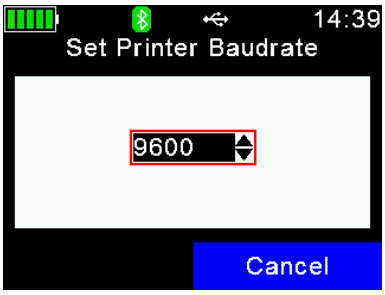
Although the Allflex Link always has a Bluetooth interface, it is also possible to use an RS232 cable to connect the printer. However, this cable is not an off-the-shelf one as each printer has a different RS232 connector and the Allflex Links connector is also a special type. If this option is required anyway, contact your local distributor for details.




Select the interface using the ▼ / ▲ / ◀ / ▶ keys and confirm with ↵.

*6.5.1.3Set Printer Baud rate*

If the baud rate of the printer differs from the configured printer baud rate on the ALLFLEX LINK, there may be communication issues when using Bluetooth as the printer interface. For an RS232 connection, the communication does not work if the baud rates are not the same on both devices.

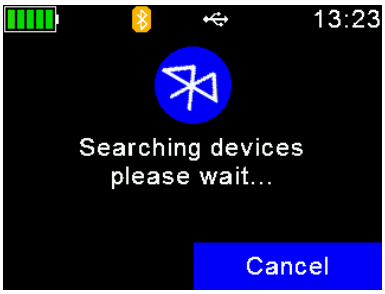



Select the correct baud rate using the ▼ / ▲ keys and confirm with ↵.

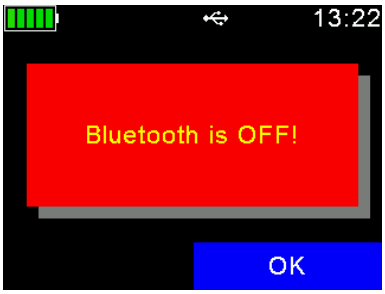
Baud rates from 300bps to 115200bps are possible in particular steps.

*6.5.1.4 Search Bluetooth Printer*

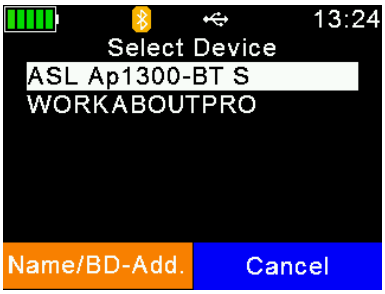
Before you can start printing via Bluetooth, the Allflex Link must be paired with a printer. The reader scans for available Bluetooth devices first. The scan starts when this menu item is selected.



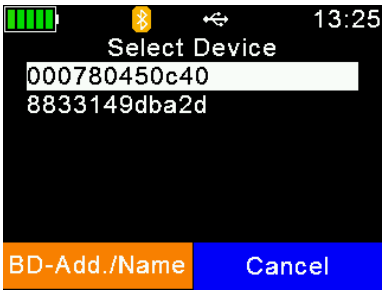

Depending on how many devices are present, the scan can take a while, but at least 10 seconds.




If Bluetooth is switched off, the Allflex Link shows the corresponding error message. In this case, activate Bluetooth first (see chapter 7.2.3)




After the scan has completed, the available devices are listed. Note that not only printers are listed here, but also other Bluetooth devices. Ideally, you should know the device name of your Bluetooth printer.Sometimes it can be useful to see the BD-address of the discovered devices instead of the names. You can switch between both views by using the ● key.



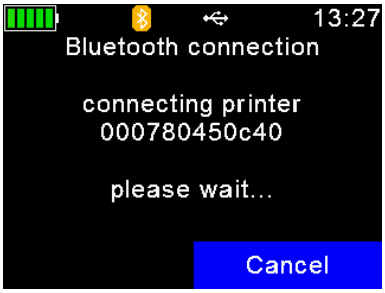

A list of discovered devices with their BD-addresses instead of the device names displays. Very often, the BD-address can be found somewhere on a label of a Bluetooth device. Since this address is unique, it can quickly help to identify the correct device.

Choose a device from the list and select it by pressing ↵. The Allflex Link stores this device as the Bluetooth printer and attempts to connect to it for all future print jobs until a different device is selected.

### Print Active Group

Once selected, the ALLFLEX LINK tries to connect to the configured printer. If connected, this connection remains active until the '*Print*' menu is closed.

6.5.2



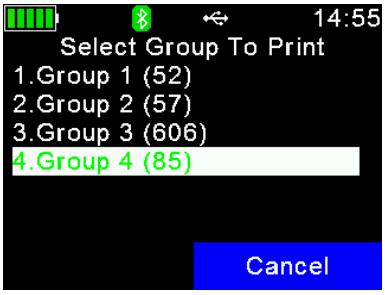

The reader is trying to connect to the Bluetooth printer. When the connection was established, printing starts immediately. If there is a lot of data to be printed, a progress bar is visible.

The ALLFLEX LINK returns to the printer menu afterwards.

### Select Group

You can select a specific group to print instead of the active one or all groups.

6.5.3




Select the group to be sent to the printer using the ▼ / ▲ keys and confirm with ↵. The active group is displayed in green.

If the Bluetooth connection has not been established yet, the ALLFLEX LINK tries to connect to the printer. If the connection to the printer is established, printing starts right away.

6.5.4 After printing is finished, the reader returns to the screen shown above.

### Print All Groups

This option should be used if the complete memory content, resp. all groups, should be printed. The procedure is like '*Print Active Group*', no further selections are required.

6.5.5

### Print Barcode

It is also possible to print a barcode of a specific EID. This is useful if you want to label blood samples, for example. To be able to print the EID as a barcode, the ALLFLEX LINK must read the tag first. When you select '*Print Barcode*', the device activates the RFID engine. After the tag has been read, the ALLFLEX LINK is sending a corresponding command to the mobile printer.

The barcode type is '2of5 interleaved'. Other barcode types are currently not supported.

# 7 Reader Setup and Operation

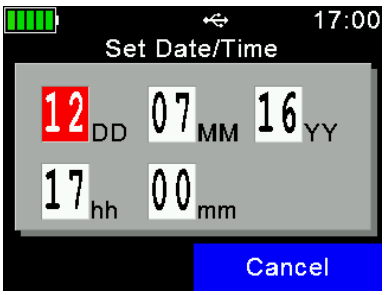
The ALLFLEX LINK is very flexible concerning its configuration options. Several settings can be adjusted directly in the device menu while others are software-adjustable only, e.g. via AgriLink. A setup of this software is located on the internal memory card.

The setup menu is divided into several other menus and submenus, which are explained in this chapter. The overview of the complete menu structure can be found in chapter9.1

## 7.1 Display

The Display menu contains the items displayed on the left side. Use the ▼ / ▲ / ◀ / ▶ keys to select a setting and enter the item via ↵.

### 7.1.1 Set Date/Time



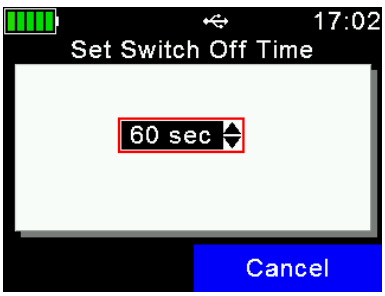

DD … Date – Day
MM … Date – Month
YY … Date – Year
hh … Time – Hour
mm … Time - Minute

▼ / ▲ … Modify value in the current field

◀ / ▶ … Switch to previous / next field

↵ … Apply the new settings

### 7.1.2 Set Switch Off Time

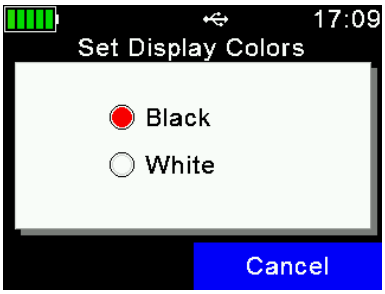



The '*Switch Off Time*' determines after which period (of no action) the ALLFLEX LINK enters *Suspend-Mode*. Any action, like a key press, resets this timer. The maximum possible time is 60 minutes, but keep in mind that this reduces the operating time.

▼ / ▲ … Modify the *Switch Off Time*

↵ … Apply the new setting

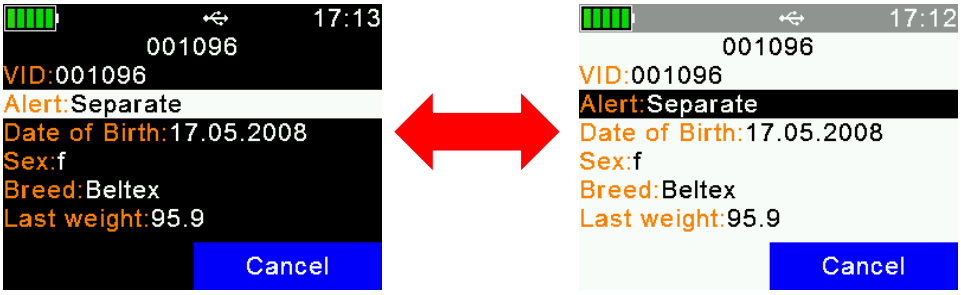
### 7.1.3 Set Display Colors




Depending on the light conditions it can make sense to invert the background color. It can also be a question of your personal preference. That can be done within this menu item.

▼ / ▲ / ◀ / ▶ … Change the setting

↵ … Apply the setting




## Set Language

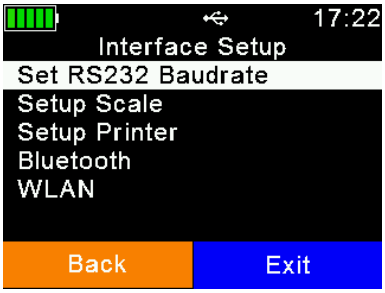
7.1.4

English is the default language. It is possible to upload up to 29 custom languages. If your preferred language is not available, contact your local dealer for assistance.

▼ / ▲ … Select the desired language

↵ … Set the selected language

# 7.2 Interface Setup




The Interface Setup contains settings for configuring the ALLFLEX LINKs several interfaces like RS232, Bluetooth or WI-FI. The scale and printer settings can be configured here as well.

### Set RS232 Baud rate

7.2.1

To allow devices to communicate via RS232, the connection speed (→ baud rate ) must be the same on both devices. The default value of '*9600*' is common, but quite slow. Values of up to '*115200*' are possible.

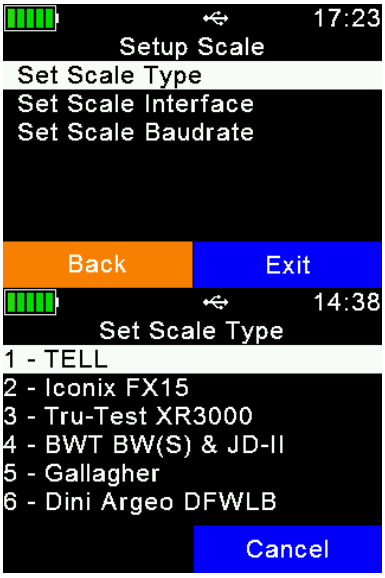
▼ / ▲ … Change the baud rate

… Set the new value

### Setup Scale

7.2.2

The ALLFLEX LINK can receive the weight from weigh scales that can send it using either Bluetooth or RS232. There are different scale types supported, also from the major brands on the market. This function can be used with '*Join Data*' (*EID + Weight*) or for *Task-Mode* and the ***D**ata-**B**ase-**F**unction*, where the so called '*Weight-from-Scale*' field is available.



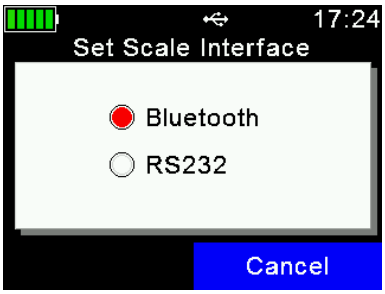

The scale type, the interface and the scale baud rate must be configured correctly to allow this feature to work.

Choose the correct type depending on the model you have.

▼ / ▲ / ◀ / ▶ … Select the scale type

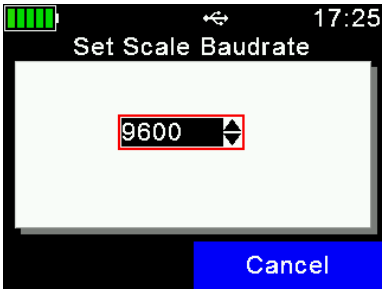
↵ … Apply the setting

The ALLFLEX LINK always includes a Bluetooth module and if the scale has Bluetooth built in as well, it makes no sense to use a wired connection as RS232. Scales without integrated Bluetooth can be upgraded using an external adapter. Contact your local dealer for further details. However, RS232 is also supported by the ALLFLEX LINK. To use RS 232 the optional RS232 cable 'APC310' (p/n 4061). An adapter is necessary additionally, depending on your weighing scale.




Select the interface using the ▼ / ▲ / ◀ / ▶ keys and confirm with ↵.

If the baud rate of the scale differs from the configured scale baud rate on the ALLFLEX LINK, this can cause communication issues in case of using Bluetooth as the scale interface. For an RS232 connection, the communication does not work if the baud rates do not match. They must always be configured to the same values on both devices.



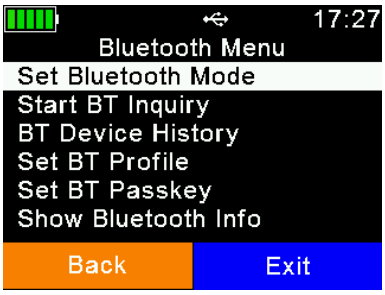

Select the correct baud rate using the ▼ / ▲ keys and confirm with ↵.

Baud rates from 300bps to 115200bps are possible in particular steps.

### 7.2.3 Bluetooth

The Allflex Link always incorporates a Class1 Bluetooth module. The range is up to 80 meters in 'line of sight'. Inside buildings or when any other obstacles are present, the range is lower. Note that the range also depends on the Bluetooth partner. If the other device is only Class2, the range is significantly shorter. This is especially true for devices such as smartphones.

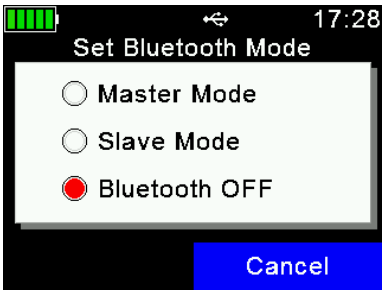
There are several menu items for Bluetooth, which are explained in this chapter.




The Bluetooth menu contains the items displayed on the left.

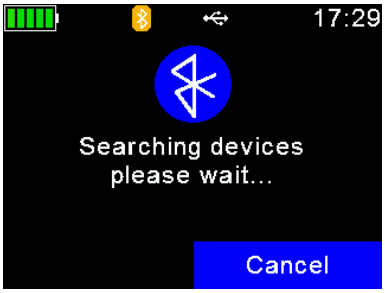
▼ / ▲ … One item down / up
◀ / ▶ … Switch to first / last item
↵ … Enter submenu resp. start action (*BT Inquiry*)

The Bluetooth mode determines if the Allflex Link should initiate the connection to another device (Master Mode) or if other devices should be able to connect to the Allflex Link. Per default, Bluetooth is not activated (OFF), so it must be switched on first. Then you need to decide whether the Allflex Link should be the device initiating the connection (Master) or the other device (Slave).

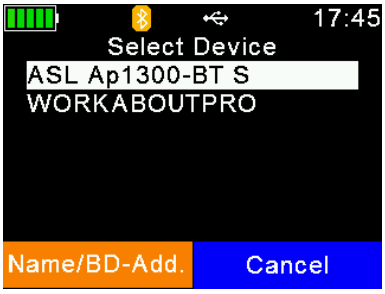



Select the desired Bluetooth mode using the ▼ / ▲ / ◀ / ▶keys and confirm with ↵.

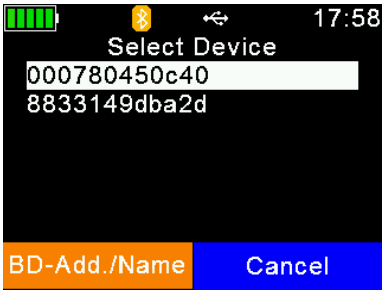
When the Allflex Link is in Master mode, it needs to 'know' the address of the intended Bluetooth partner, also called 'remote device'. An easy way to find out this address is to scan for Bluetooth devices in range. Make sure the other device has Bluetooth activated, that it is 'discoverable' and 'connectable' and that it is in range. For smartphones, for example, it is normally required to make them discoverable first, usually for a certain amount of time. This can be done in the phones Bluetooth settings. Then select '*Start BT Inquiry*' and press ↵.




The Allflex Link starts scanning for other Bluetooth devices in range. This can take quite a long time, also depending on how many devices are found, but at least 10 seconds.



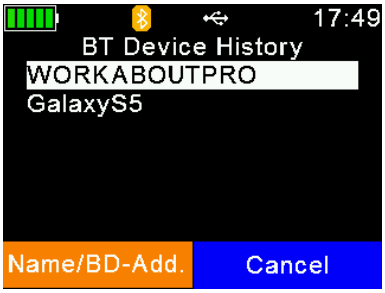

The discovered devices are listed after the scan, sorted according to their names. Sometimes it can be useful to see the BD-address of the found devices instead of the names. You can switch between both views by using the ● key.




Here you can see the list of discovered devices with their BD-addresses instead of device names. Very often the BD-address is located somewhere on a label of a Bluetooth device. Since this address is unique, it can help to quickly identify the right device.

Choose a device from the list and select it by pressing ↵. The Allflex Link stores this device as the Bluetooth partner and attempts to connect to it automatically and permanently if the reader is configured to Master mode. In most applications, there probably won't be many different Bluetooth devices used with the reader. To prevent unnecessary scans when switching from one Bluetooth partner to another one, the reader stores a '*Bluetooth Device History*'. This list includes the devices,

which were selected as Bluetooth partner in the past. So, scanning for already known devices is not required.



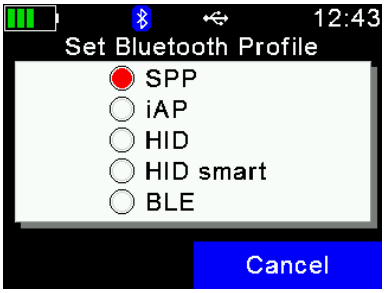

Choose a device from the history to change the Bluetooth partner. The Allflex Link uses this device as remote device until further changes.

▼ / ▲ … Select a device from the history

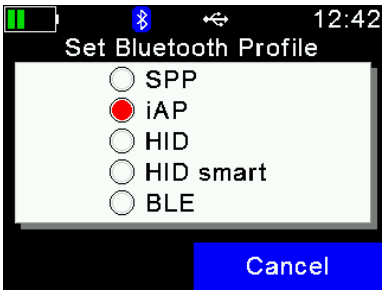
↵ … Set the device as the new remote device

The ALLFLEX LINK supports five different Bluetooth profiles which are explained below, where BLE is rather another technology than a profile.

- ***SPP*** emulates a serial cable to provide a simple replacement for RS232 connections. Commands can be sent into both directions – it uses virtual serial ports.
- ***iAP:*** The reader's Bluetooth module is compliant with Apple's iPod® Accessory Protocol. This profile offers a serial-port-like communication over Bluetooth in combination with iOS devices.
- ***HID*** is used for 'typing in' the EID sent via Bluetooth into text fields of applications running on the host device. This removes the need to develop a serial interface for the reader. The ALLFLEX LINK connects to the host as a virtual keyboard. When the cursor is in a text field of the app running on the host, the EID is entered into that field after a tag was read. Note that it is not possible to send commands to the ALLFLEX LINK in HID mode – communication only works into one direction here.
- ***HID smart***: Like HID but the connection to the other device is only established after a tag was read. This is required for the use with Apple devices because if a Bluetooth device is connected as HID keyboard, the on-screen keyboard is not available.
- ***BLE***: **B**luetooth **L**ow **E**nergy is reserved for special applications.

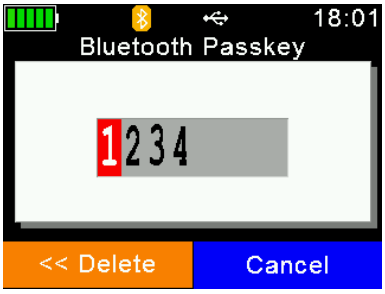



Choose the desired Profile confirm with ↵.




If you want to connect the reader to an iOS device for a 2-way communication, you must select '*iAP*' instead of '*SPP*' because the Allflex Link cannot connect to an Apple device when using '*SPP*'.

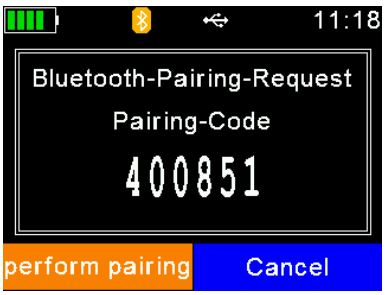
Successful authentication is a prerequisite for establishing a connection. Bluetooth authentication and pairing ensures that two devices can establish a secure connection to each other without another device eavesdropping on the communication. The Allflex Link uses two different methods for this, depending on the selected Bluetooth profile and the security requirements of the other device: passkey entry or numeric comparison.




Use the ▼ / ▲ keys to change the character and the ◀ / ▶ keys to move to the previous / next digit. When browsing through the list of characters you can hold down the ▼ or ▲ key to increase the scrolling speed.

The ● key deletes the last digit. If you hold it for at least one second, all digits are erased.

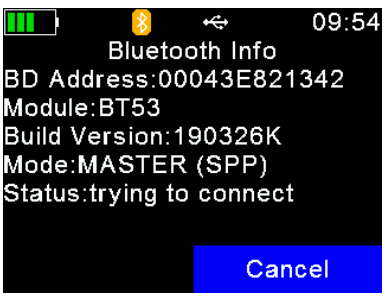
Press the ↵ key to set the passkey.



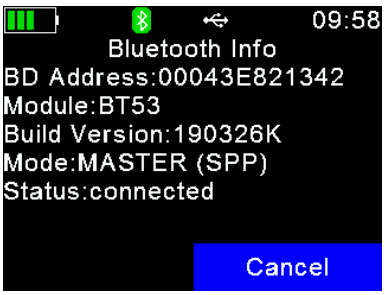

A numerical comparison is only possible if the device with which the reader is to be paired also has a display.

Check whether the pairing code displayed on both devices is identical and then confirm using the ● key. You must also confirm the code on the other device.

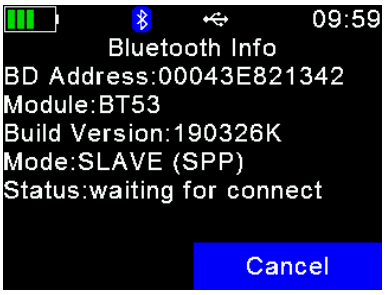
The menu item '*Bluetooth Info*' shows some Bluetooth hardware and firmware related information, the configured Bluetooth mode & profile and the connection status. Details about the color of the Bluetooth symbol depending on the connection status are explained in chapter 3.1.4.




***BD Address:*** Bluetooth Device address of the readers Bluetooth module, unique worldwide
***Module:*** Bluetooth model, built into the reader; here: '*BT53*'
***Build Version:*** Bluetooth module Firmware version
***Mode:*** Bluetooth mode and Bluetooth profile in brackets
***Status:*** Connection Status, here: tries to connect to remote device



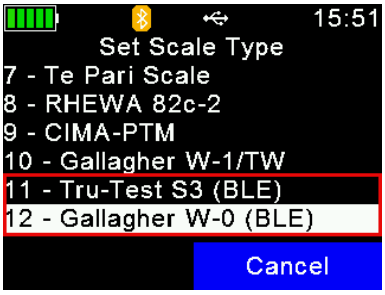

In this case the Allflex Link is connected to the remote device. If the connection is lost, the reader attempts to reconnect to the configured Bluetooth partner until it succeeds. This is done automatically in Master mode.



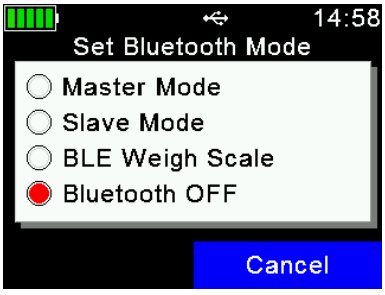

Here the Allflex Link is configured to be the Bluetooth Slave. It is discoverable by other devices and it is connectable. The reader does not try to connect to a remote device in this configuration but waits for incoming connections.

*7.2.3.1Using BLE weigh scales over Bluetooth*

When selecting one of the available Bluetooth Low Energy scale models as scale type in the ‘Set Scale Type’ menu, the content of some Bluetooth menus is changing as well as the Bluetooth behavior. This is because of the different requirements for connecting to BLE weigh scales.

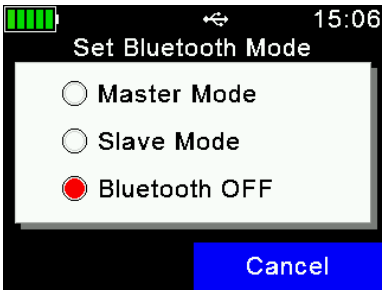



The prerequisite for the availability of the ‘BLE Weigh Scale’ setting in the Bluetooth mode menu is that one of the two currently available BLE scales is configured as the scale type.

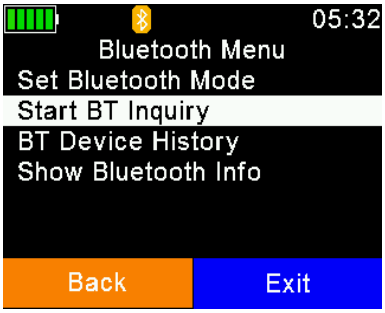



In this case the ‘Bluetooth Mode’ menu changes as displayed on the left. There is an additional menu item called ‘BLE Weigh Scale‘.

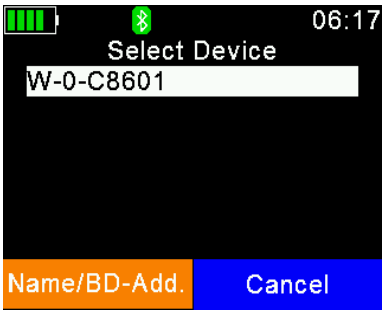
When ‘BLE Weigh Scale‘ is selected as Bluetooth mode, the settings ‘Master Mode’ and ‘Slave Mode’ disappear because they are not used in this special Bluetooth scenario. Instead there is a new menu item ‘BLE Weigh Scale OFF’. When this is selected, the items in the ‘Bluetooth Mode’ menu switch back to the ones shown above and the previously active setting is configured again.



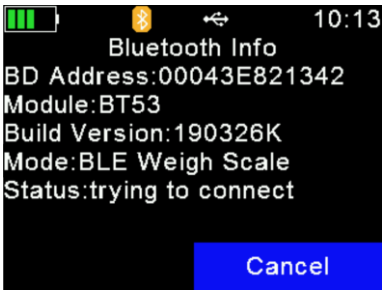

As soon as a non-BLE scale model is selected as 'Scale Type', the 'Bluetooth Mode' menu returns to 'normal' state.



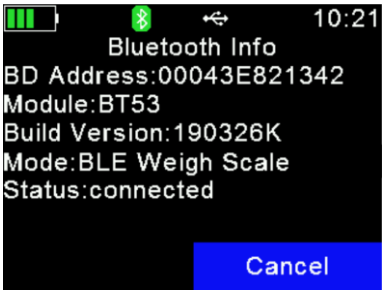

If a BLE scale is configured as scale type and the Bluetooth mode is 'BLE Weigh Scale' you must first start a new BT inquiry to search for available BLE scales. The reader starts scanning and shows all discovered BLE scales depending on the selected scale type.




If a TruTest S3 is set as scale model, only S3 devices are displayed to be selected paired BLE scale. The same applies to Gallagher W-0 devices, like shown in the example on the left.




After selecting one of the discovered BLE scales (probably just one in most cases), the reader tries to connect to this weigh scale until it succeeds. In this scenario the reader is always initiating the connection (called 'Central' role in BLE) because the scales cannot (they always have the 'Peripheral' role).



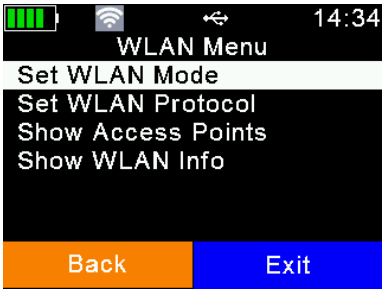

Once connected, you can receive weights from the BLE scale, e.g. via 'Join Data' – 'EID + Weight'.

Note that the device history is not the same as for Bluetooth Classic devices. The reader has separate device history lists: one for Classic devices, one for TruTest S3- and another one for Gallagher W-0 BLE weigh scales.

## Wi-Fi

The WI-FI function of Allflex Link requires a basic knowledge of networks and WI-FI Networking. An IT specialist may be required to change the settings.

### 7.2.4




The WI-FI settings available on the device itself are only basic ones. Showing all possible settings would make the menu too complex, so the advanced settings are only software configurable – e.g. via *AgriLink*.

However, it is usually not necessary to change these settings again and again – an initial configuration is usually sufficient if the IT infrastructure remains the same.

WI-FI is not activated per factory default settings – it must be switched on first. There are two operating modes available, '*Station*' and '*Access Point*'.

***Station:***

This is probably the most common scenario. There is an existing WI-FI infrastructure containing an Access Point and the reader connects to it.

The Access Point has an **SSID** that makes it discoverable and connectable – this is the network name. The SSID must be configured correctly via software (such as *AgriLink*), it must match the SSID used by the Access Point.

Usually WI-FI connections use security mechanisms such as '**authentication**'. The ALLFLEX LINKs WI-FI module supports '*no authentication*' or '*WPA2*'. Other authentication methods, such as WEP or WPA, are not supported.

If *WPA2* is selected as authentication method, the '*passphrase*' configured for the Access Point must match with the one set for the ALLFLEX LINK. Note that the passphrase is also case-sensitive.

The easiest way for the ALLFLEX LINK to join the Access Point is to let the Access Point work as a DHCP server. This means that IP addresses are assigned automatically.

If all these settings are configured correctly, the ALLFLEX LINK should be able to join the Access Point.

***Access Point:***

When the ALLFLEX LINK is configured to '*Access Point*' it does not try to join another Access Point but it creates its own. This is comparable with the 'mobile hotspot' function

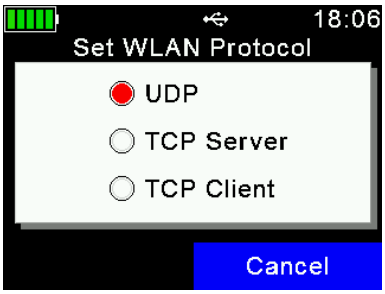
on smartphones even though the ALLFLEX LINK has no internet access.

Select the desired WI-FI mode confirm with ↵.

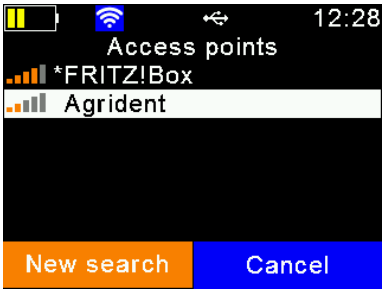
## NOTE

**When Allflex Link connects to an Access Point or other network connection, this does not mean network communication is possible. A TCP or UDP connection must be opened before network communication is possible.**

Depending on the application, a UDP or TCP connection must be established, and an appropriate port be opened.

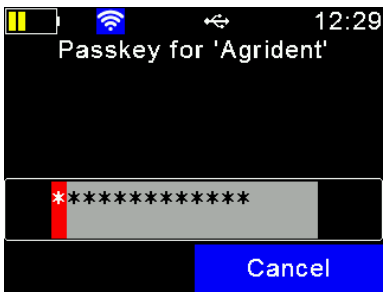


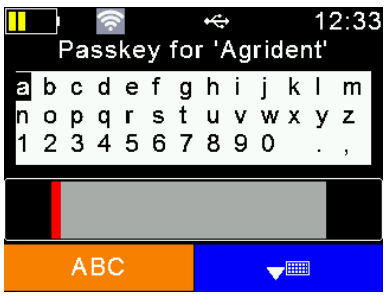

Choose the correct WI-FI Protocol confirm with ↵.



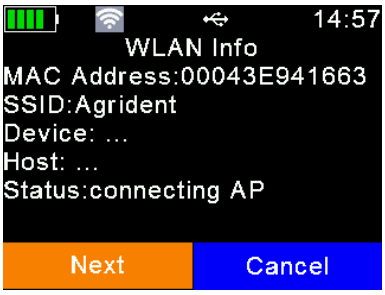

The menu item '*Show Access Point*s' is only visible if WI-FI is enabled and set to Station mode. It lists the currently available Access Points with a signal strength indication. You can also connect to an Access Point from here by pressing ↵.

If the Access Point uses WPA2 security, you are prompted to enter the passphrase. To change it, press any of the ▼ / ▲ / ◀ / ▶ keys. A virtual keyboard opens.

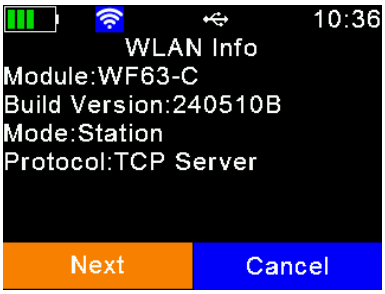


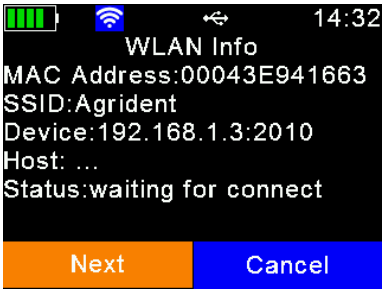
The menu item '*Show WI-FI Info*' displays hardware and firmware information of the WI-FI module, a summary of the currently configured basic network settings and the connection status. Information about the color of the WI-FI symbol depending on the connection status is explained in chapter 3.1.3.




The ***MAC Address*** is a unique 12-digit number which clearly identifies each network adapter worldwide. The ***SSID*** is the network name. ***Device*** and ***Host*** do not show anything yet in this example because there is no connection. The ***Status*** '*connecting AP*' means that the ALLFLEX LINK is trying to connect to the configured Access Point. By pressing ●, the display switches to the next screen.




In the first line, the WI-FI module type is displayed, in this case '*WF63-C*'.
The ***Build Version*** shows the firmware version of the WI-FI module.
The configured WI-FI ***Mode*** is '*Station*' which means that the ALLFLEX LINK tries to join the configured Access Point.
The WI-FI ***Protocol*** is '*TCP Server*', so the Host is the TCP Client and must open the correct port using the correct IP address.




In this screen the ALLFLEX LINK has joined the configured Access Point (WI-FI symbol turned into blue) and the ***Status*** has changed to '*waiting for connect*'.
**Device** shows the IP address (*192.168.1.3*) of the ALLFLEX LINK and the configured port (*2010*).
Now the host can open a connection using this IP address and this port.

Here the host has opened the connection (WI-FI symbol turned into green) and the devices can communicate.

The ***Host*** has the IP address '192.168.1.2' and it has connected to the ALLFLEX LINK using IP address '192.168.1.3' and port '2010'.

## 7.3 Configuration

After selecting '*Configuration*', this menu displays. Here you can reset the reader back to factory defaults or apply any of the available presets.

### Set Factory Configuration

7.3.1

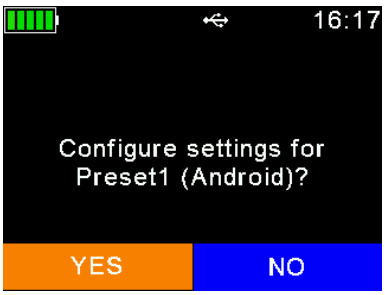
'*Set Factory Configuration*' resets all settings to the factory defaults. This can be useful if certain settings have been changed and the ALLFLEX LINK is no longer working as intended. Note that this action cannot be undone and settings that differ from the factory defaults must be made again.

- …Confirm Reset
- …Abort Reset

7.3.2

### Presets

Presets are used to apply several settings in one go. Currently there are two different presets - one is 'Preset1 (Android)' and the other 'Preset2 (iOS)'. The settings that are affected and their modified values are shown below.

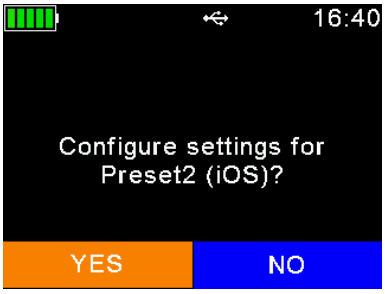



Bluetooth-Mode: Slave Mode

Bluetooth-Profile: SPP

Non-Storage-Mode: Enabled

- Apply preset
- Abort




Bluetooth-Mode: Master Mode

Bluetooth-Profile: iAP

Non-Storage-Mode: Enabled

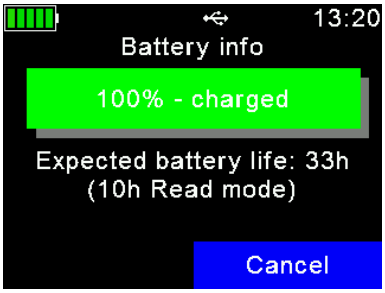
- …Apply preset
- …Abort

## 7.4 Device Info

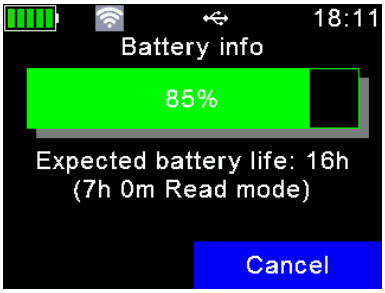
The menu '*Device Info*' contains items that provide information about the battery status and the reader firmware and hardware. It also contains two service functions.

### Show Battery Info

7.4.1

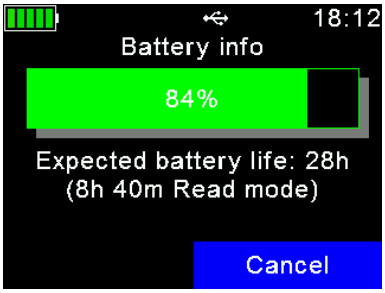



When fully charged, the battery info shows '*100%*'.
Below the charging indication, the display shows rough estimates of the remaining operating time in standby mode (ALLFLEX LINK running but RFID engine is off), here 33hours, and in continuous read mode, here 10 hours.




In this example the battery capacity is still 85 percent, but the expected battery life is 'only' 16 hours. This is related to the activated WI-FI (see gray WI-FI symbol → WI-FI is activated).

So, the displayed expected battery life takes into account all electric consumers that are currently active.

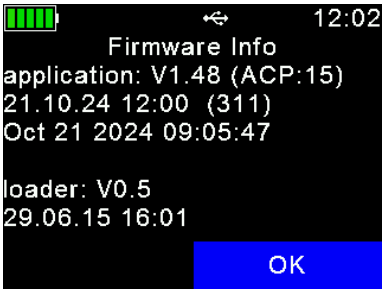



The main difference to the previous screen is that WI-FI is switched off here. As you can see, the expected battery life has increased to 28 hours.

Details about the battery symbol in status bar are explained in Chapter 3.1.2.

### Show Firmware Info

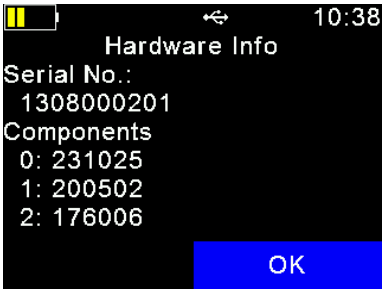
7.4.2




This screen displays the readers firmware version plus some additional information like build date and bootloader version. You should have this information available when making a support request.

### Show Hardware Info

7.4.3




The 'Hardware Info' shows the readers serial number and revisions of printed circuit boards that are built into the device. You should have this information available when making a support request.

### 7.4.4 Noise Monitor & Timing Monitor

These menu items are for support only.

# 8 Troubleshooting

Contact your dealer to resolve any issue that arises.

# 9 Appendix

This area contains addition technical information about the Allflex Link.

## 9.1 Join Data

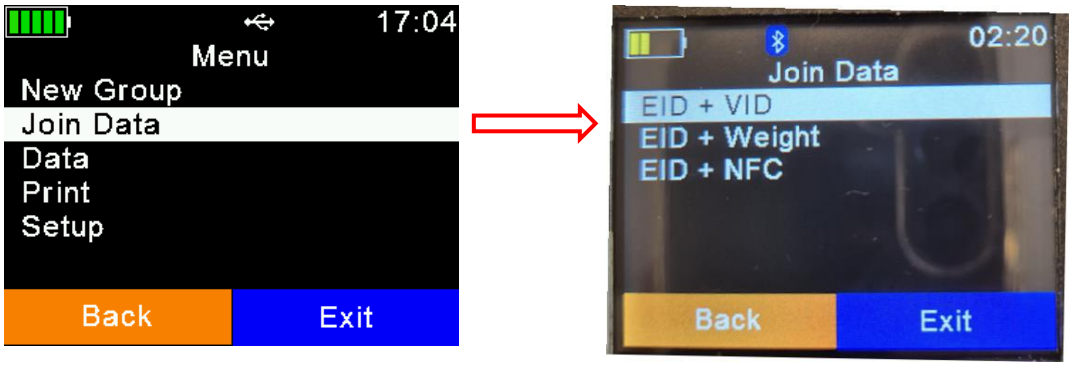
*Join Data* expands the functionality of the Classic Mode to include the ability to link additional data with the *EID* on the device. There are three different *Join Data* functions available:

- *EID + VID* for linking a Visual ID to an *EID* tag
- *EID + Weight* for joining the weight from an electronic scale with the *EID*
- *EID + NFC for linking an EID with the NFC*

### Join Data Menu

The *Join Data* menu is available from the main menu:

9.1.1

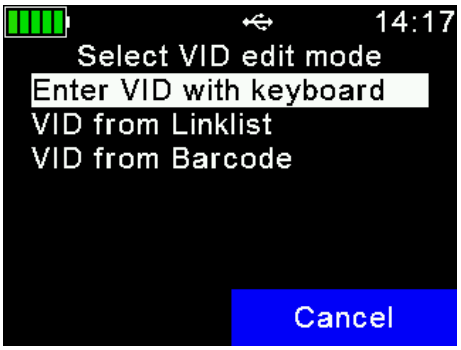



9.1.2

### EID + VID

*EID + VID* is used to allow the operator to assign the read *EID* tag to a *Visual ID* on the device. Basically, there are three different ways for selecting the *VID* to assign:

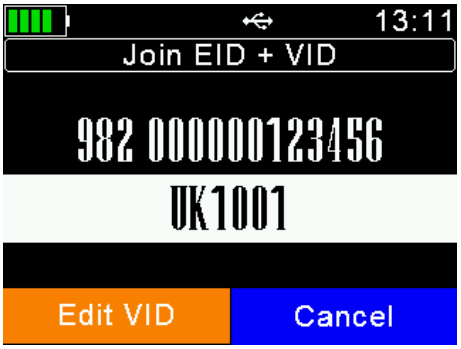
- Entering the *VID* with the keyboard
- Selecting a '*free VID*' from the *Link-List* (if there is at least one *free VID* in the *Link-List*)




- Select a method from the list and confirm with ↵.
- The option *VID from Barcode* is only shown on the APR650.

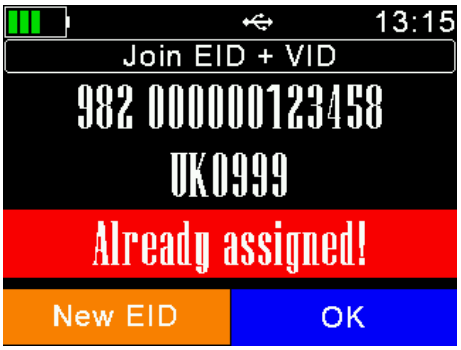
### *9.1.2.1 Enter VID with keyboard*

After this function has been selected, a tag must be read first by pressing . After the tag has been read, the *EID* will be shown.

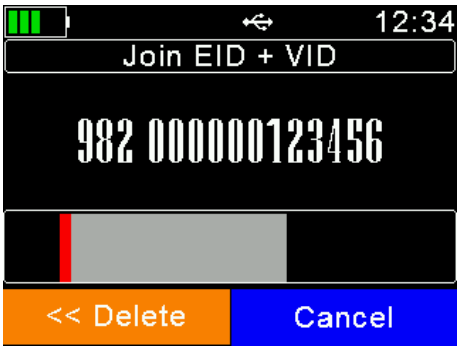



If the tag has a valid *VID* assigned already, it will be shown.

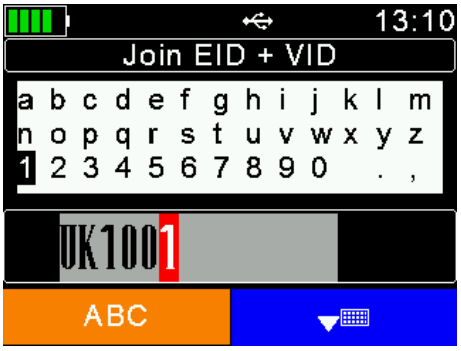
By pressing the left softkey it is also possible to change the *VID* here, but only if it has been linked on the device itself…




Assignments that have been uploaded to the reader from a *Link-List*, cannot be modified on the reader.

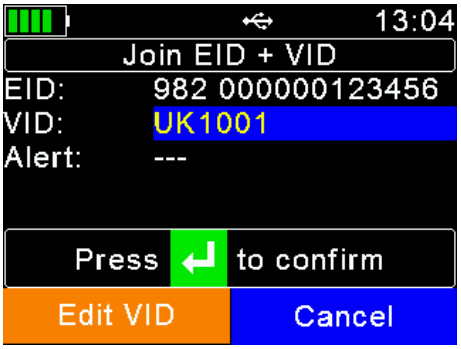



When there is no *VID* linked to this *EID* yet, a blank input field is shown.




Open the virtual keyboard by pressing either ▲ or ▼. The ● key switches between lower case letters, capitals and numbers (plus special characters). The virtual keyboard can be closed by pressing ●.

Once the *VID* is entered, confirm it by pressing ↵.




Then there is an overview page shown which summarizes the data. It shows the *EID*, the *VID* and the *Alert*, if present.

Press ↵ for the final assignment or edit the *VID* once again via ●.

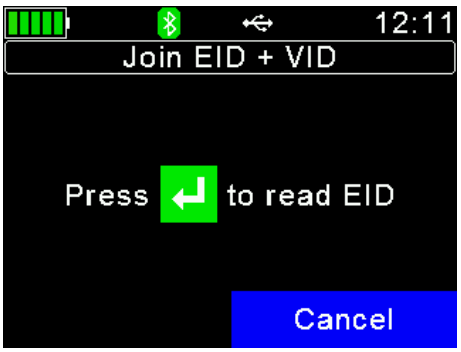
The assignment can be aborted completely by pressing ●.

If the *VID* is numerical only or the last part is numerical, the device automatically increments the number for the next assignment.

The ● key deletes the last digit, if you hold it for one second, all digits will be erased.

## NOTE

**An empty VID field is not allowed. When this field is empty pressing the ↵ causes an error sound.**

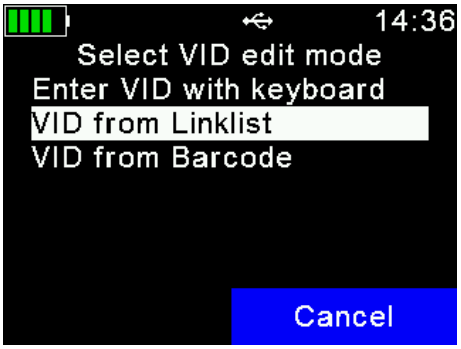



After the assignment has been completed, the reader returns to the screen where the next tag should be read, i.e. the next assignment could be started.

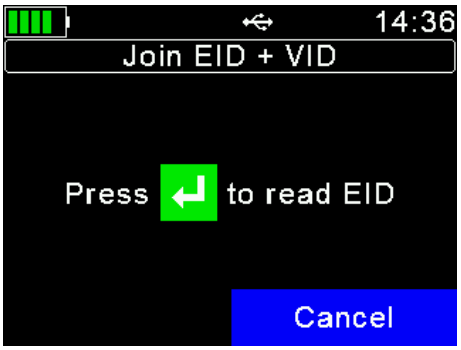
You can leave this function by pressing ● if there is nothing else to join.

*9.1.2.2Select the VID from the Link-List*

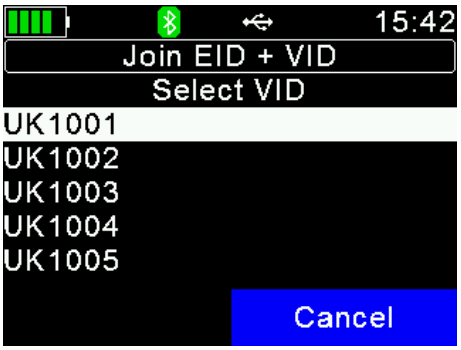
If there are *free VIDs* within the uploaded *Link-List* (entries with just a *VID* – not linked to an *EID* yet), they can be selected by using the input method *VID from Linklist*.




Select VID from Linklist.

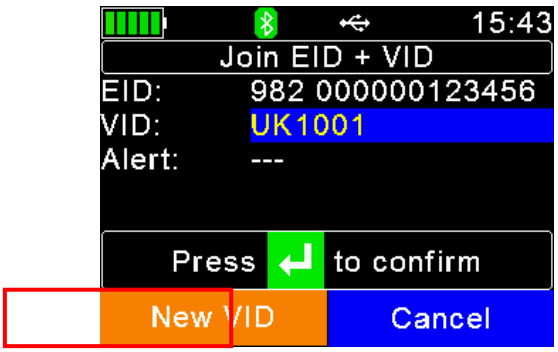



As for the method of entering the *VID* manually, a tag must be read first.




Now the list with *free VIDs* is shown.

Select the correct entry from the list and confirm your choice by pressing ↵.




Then there is an overview page shown which summarizes the data. It shows the *EID*, the *VID* and the *Alert*, if present.

Press ↵ once again for the final assignment or select a different *free VID* from the list via ●.

The assignment can be aborted by pressing ●.

1. After selecting the desired entry from the list of *free VIDs*, the *EID* of the read tag will be written into the *Link-Lists EID* column for the selected *VID*.
2. Thus the selected *VID* is assigned to the read tag number.
3. The selected *VID* is linked to this *EID* from then on and hence is not available for another assignment in the list of *free VIDs*.
4. *VIDs* do not have to be unique; every *free VID* can have any value; all *VIDs* could even have the same content.
5. *Free VIDs* cannot have *Alerts*.
6. Only the *VID* is assigned to the *EID*, not an *Alert*.

#### *9.1.2.3 EID + VID Data Storage*

The *EID* of the read tag is saved in the *Link-List* together with the selected *VID*. A '*Classic Mode'* standard dataset will be created within the currently selected group. This dataset does not differ from a 'normal' dataset created for 'simple tag reading'. The *VID* saved in this record is the new assigned one – an older one, which the tag might have had assigned before, is not saved.

#### *9.1.2.4 EID + VID and DataBase*

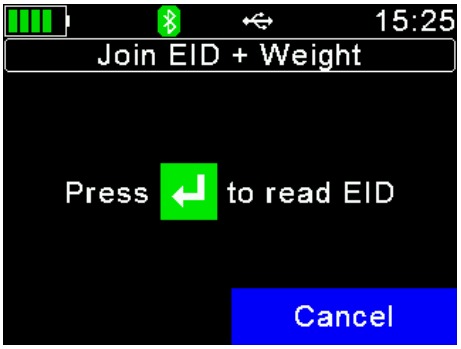
If there is a *DataBase* uploaded to the reader (AWR300, APR600 and APR650 only), the function *EID + VID* is not available. For this reason, the appropriate menu item is not shown then.

### EID + Weight

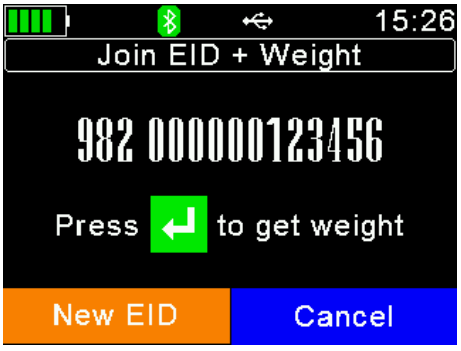
This function allows to link the weight of an animal (received from an electronic weighing indicator) to the *EID*. This was only possible using Task-Mode before. The list of supported scales can be found in the reader manuals. Ensure that the scale settings are made correctly before trying to use this feature.

9.1.3

Select EID + Weight.




Before the weight can be requested, read the *EID* tag.




After the tag has been read, the *EID* is shown.

If the wrong tag has been read, this can be corrected by pressing ●.

Press ↵ for starting the request for the weight.

The display shows an animation during the process of requesting the weight.

It also shows the selected scale type (1) and the configured interface (2). In most cases Bluetooth will be the interface to be used.

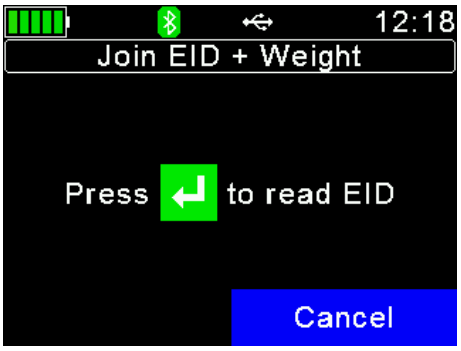
If the request for the weight is not answered by the scale, abort the process via ● and check your settings again.

If the weight was received from the scale, the device shows an overview page with *EID* and weight. If a *VID* or an *Alert* are assigned, these will be shown as well. When the weight is thought to be not correct, request the weight again by pressing .

In this example a different weight was returned for the new request.

Press to complete the assignment.

The process can be aborted by pressing .




After the assignment has been completed, the reader returns to the screen where the next tag should be read, i.e. the next assignment could be started.

You can leave this function by pressing if there are no more weights to be recorded.

Under *Data* -> *Show Data* the device shows the weight linked to the *EID* (a *VID* or an *Alert* have not been assigned in this example).

## 9.2 Join Data and the Reader Settings

Depending on reader settings, the *Join Data* functions are not available or have limitations.

### Non-Storage Mode

If the *Non-Storage-Mode* is activated, the *Join Data* functions are not available. The menu item *Join Data* will not be shown. When the *Non-Storage-Mode* is not activated (default), the functions are available.

9.2.1

### Animal Counter

When the Animal Counter is activated, there can only be one record in the *Classic Mode* memory for this *EID* in the current group. This also applies to *Join Data* functions. If a tag has been read, for which a record has already been saved in the current group, this is a DOUBLE READ.

9.2.2

For this *EID*, any *Join Data* function cannot be performed within the current group anymore.

9.2.3

### Online Mode

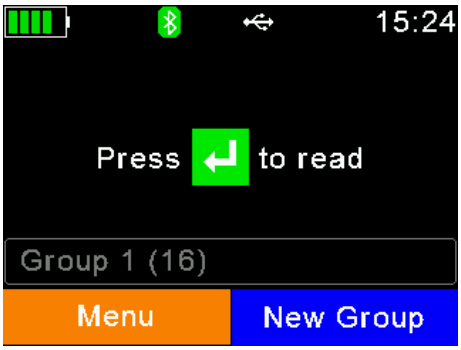
When the *Online Mode* is activated, all *EID*s read in a *Join Data* function are sent on all interfaces immediately.

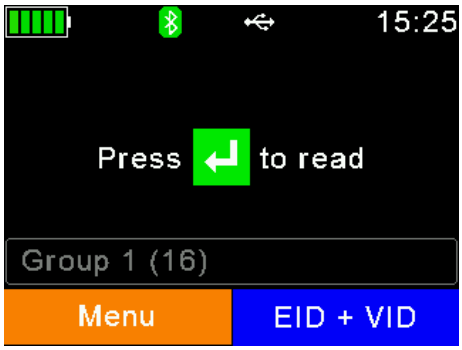
- Tag numbers are not buffered.
- The setting for the *Send Condition* is ignored here.

## 9.3 Quick Menus

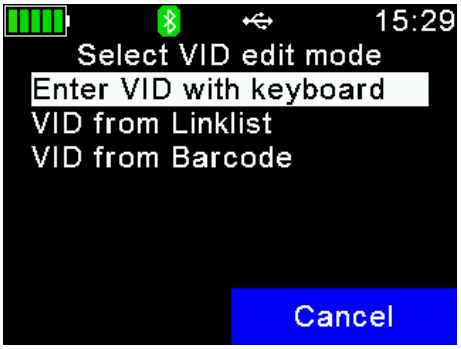
Even though the '*Quick Menus*' are not directly related to the new *Join Data* functions, this possibility should be mentioned here because they allow to access the appropriate menu items directly from the home screen. This is very useful in case any functions are used very often.

The standard (and per factory defaults only) function for the right softkey is *New Group*. But this function can be changed to any menu item available on the device.



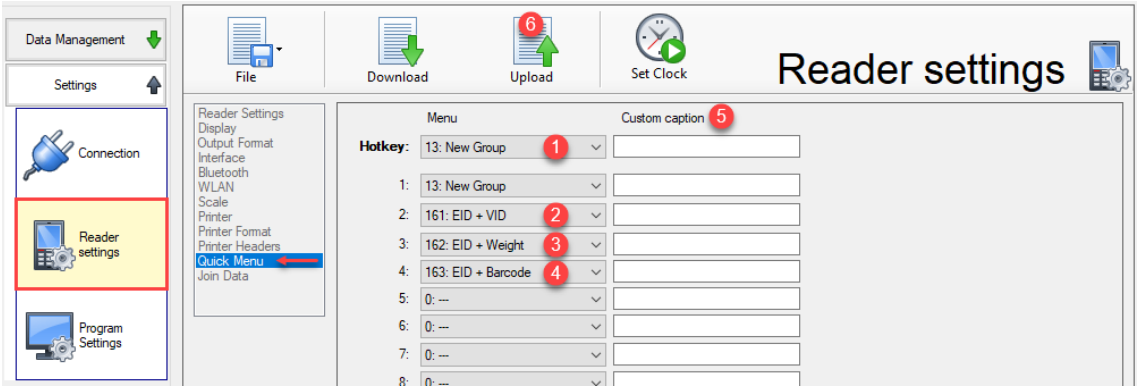

In this example it has been changed to *EID + VID*.




When the right softkey is pressed, the reader will directly show the options for the *EID + VID* menu.

In that case this is one button press compared to four when manually navigating to this menu.

Before additional options for the *Quick Menu* are available on the device, select them in *AgriLink* and upload them to the reader.



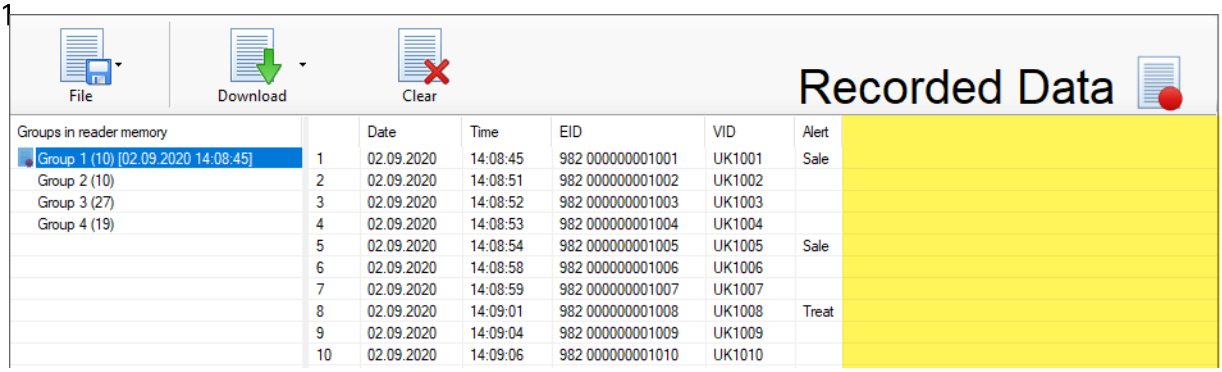

Go to the *Quick Menu* settings. The currently active option is shown behind '*Hotkey*' (1). You may define up to 10 different *Quick Menus*. Here, *EID + VID* (2), *EID + Weight* (3) and *EID + Barcode* (4) have been added. You may also add a custom caption in case the text for a menu item is too long or you want to use a customized text to be displayed (5). Finally, upload the new settings to the reader (6). By long-pressing the right softkey on the device, a different option can either be executed once or permanently assigned.

## 9.4 Join Data and AgriLink

The collected data can be downloaded with *AgriLink*. The additional data which are collected with the functions *EID + Weight* and *EID + Barcode* cannot be saved in the same way as the 'standard records' internally for backwards compatibility reasons. Therefore, *AgriLink* uses different commands for downloading these 'extended data'. Even though this is not really relevant for the user, it is mentioned here because per default *AgriLink* does not show columns for *Weight* or *Barcode*. This chapter explains how the 'extended data' can be displayed and exported.

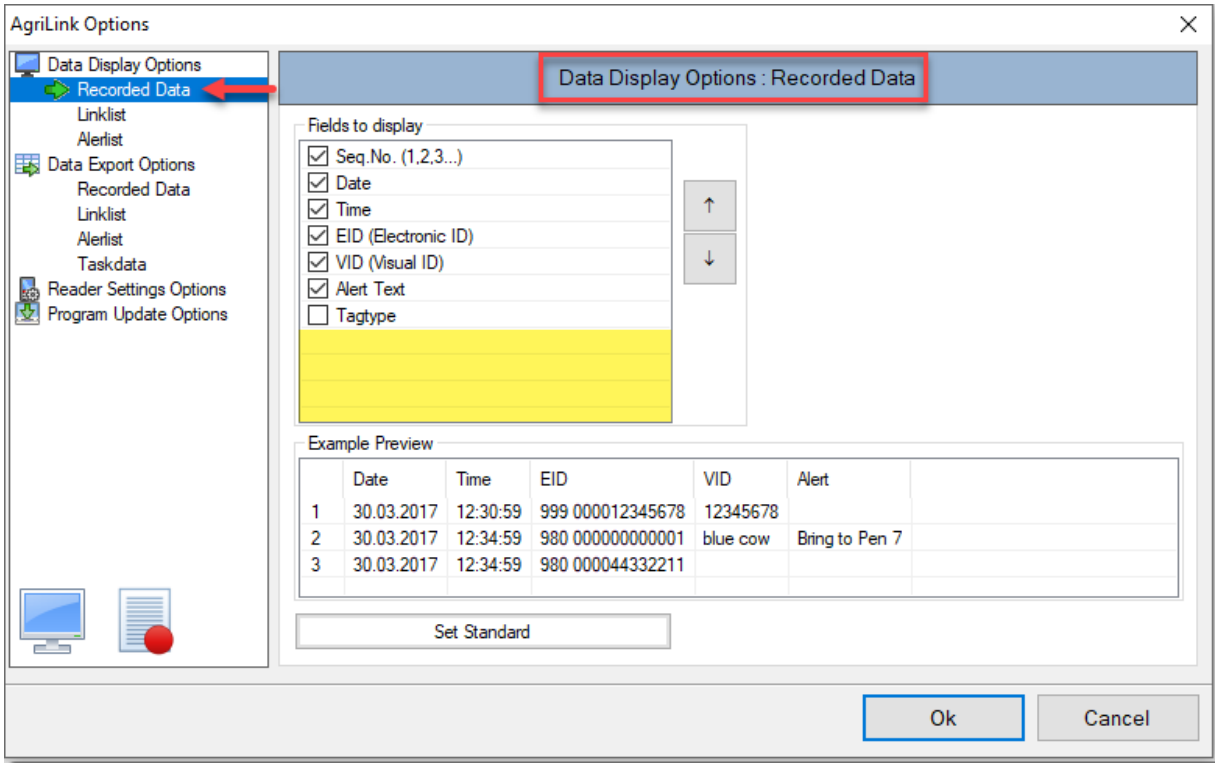
### 9.4.1 Display without Joined Data

If *AgriLink* did not download 'extended data' from the reader, no additional columns for *Weight* or *Barcode* will be shown:




| | Date | Time | EID | VID | Alert |
|---|---|---|---|---|---|
| 1 | 02.09.2020 | 14:08:45 | 982 000000001001 | UK1001 | Sale |
| 2 | 02.09.2020 | 14:08:51 | 982 000000001002 | UK1002 | |
| 3 | 02.09.2020 | 14:08:52 | 982 000000001003 | UK1003 | |
| 4 | 02.09.2020 | 14:08:53 | 982 000000001004 | UK1004 | |
| 5 | 02.09.2020 | 14:08:54 | 982 000000001005 | UK1005 | Sale |
| 6 | 02.09.2020 | 14:08:58 | 982 000000001006 | UK1006 | |
| 7 | 02.09.2020 | 14:08:59 | 982 000000001007 | UK1007 | |
| 8 | 02.09.2020 | 14:09:01 | 982 000000001008 | UK1008 | Treat |
| 9 | 02.09.2020 | 14:09:04 | 982 000000001009 | UK1009 | |
| 10 | 02.09.2020 | 14:09:06 | 982 000000001010 | UK1010 | |

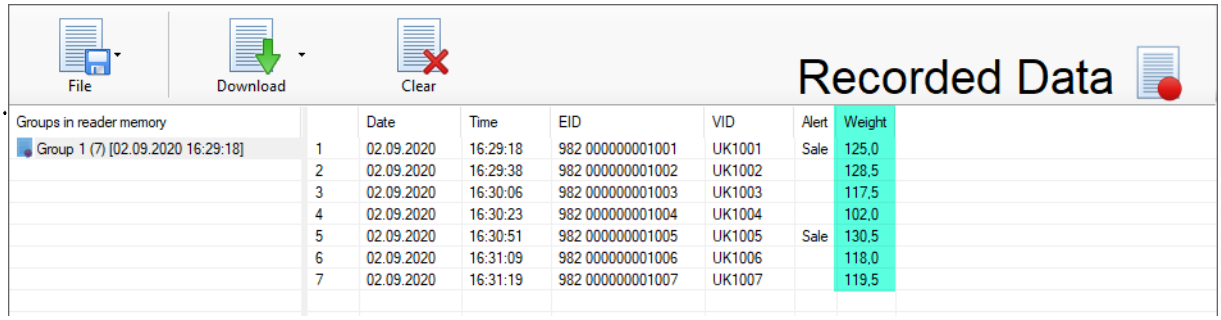
The user also cannot activate them in the *Data Display Options* (*Program Settings*):




| | Date | Time | EID | VID | Alert |
|---|---|---|---|---|---|
| 1 | 30.03.2017 | 12:30:59 | 999 000012345678 | 12345678 | |
| 2 | 30.03.2017 | 12:34:59 | 980 000000000001 | blue cow | Bring to Pen 7 |
| 3 | 30.03.2017 | 12:34:59 | 980 000044332211 | | |

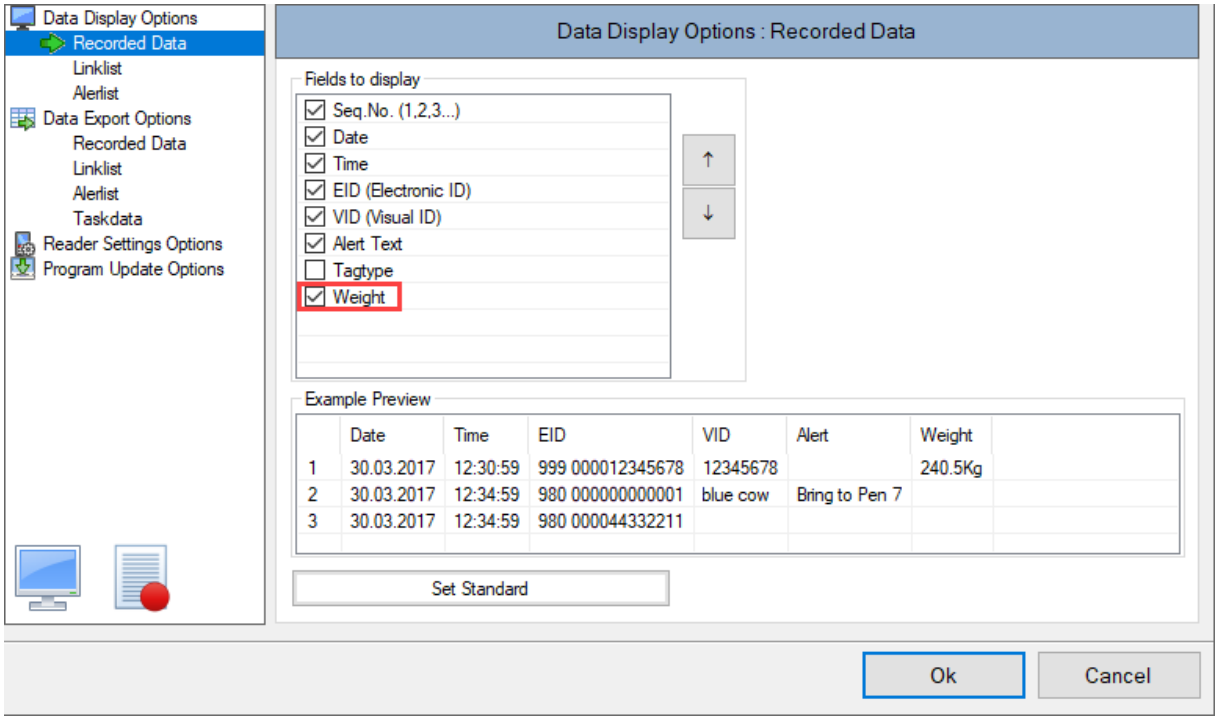
### 9.4. Display after initial download of additional data

When a record with attached weight is received for the first time, *AgriLink* automatically displays the '*Weight*' column:



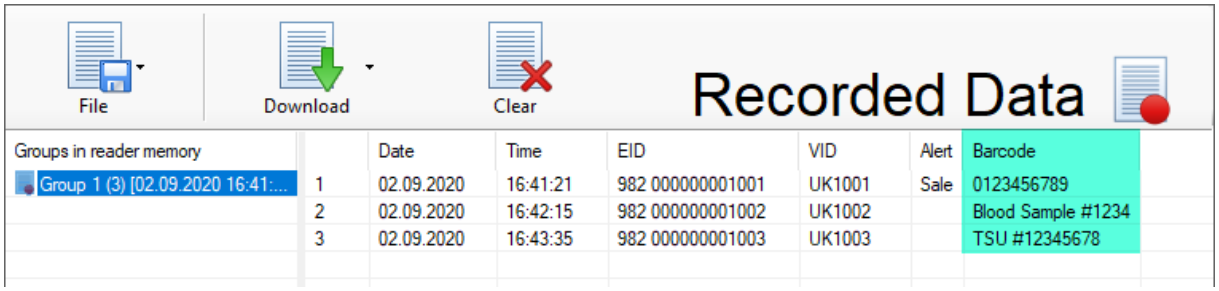

| | Date | Time | EID | VID | Alert | Weight |
|---|---|---|---|---|---|---|
| 1 | 02.09.2020 | 16:29:18 | 982 000000001001 | UK1001 | Sale | 125,0 |
| 2 | 02.09.2020 | 16:29:38 | 982 000000001002 | UK1002 | | 128,5 |
| 3 | 02.09.2020 | 16:30:06 | 982 000000001003 | UK1003 | | 117,5 |
| 4 | 02.09.2020 | 16:30:23 | 982 000000001004 | UK1004 | | 102,0 |
| 5 | 02.09.2020 | 16:30:51 | 982 000000001005 | UK1005 | Sale | 130,5 |
| 6 | 02.09.2020 | 16:31:09 | 982 000000001006 | UK1006 | | 118,0 |
| 7 | 02.09.2020 | 16:31:19 | 982 000000001007 | UK1007 | | 119,5 |

From now on, the column *Weight* can also be enabled or disabled in the *Data Display Options* (*Program Settings*):

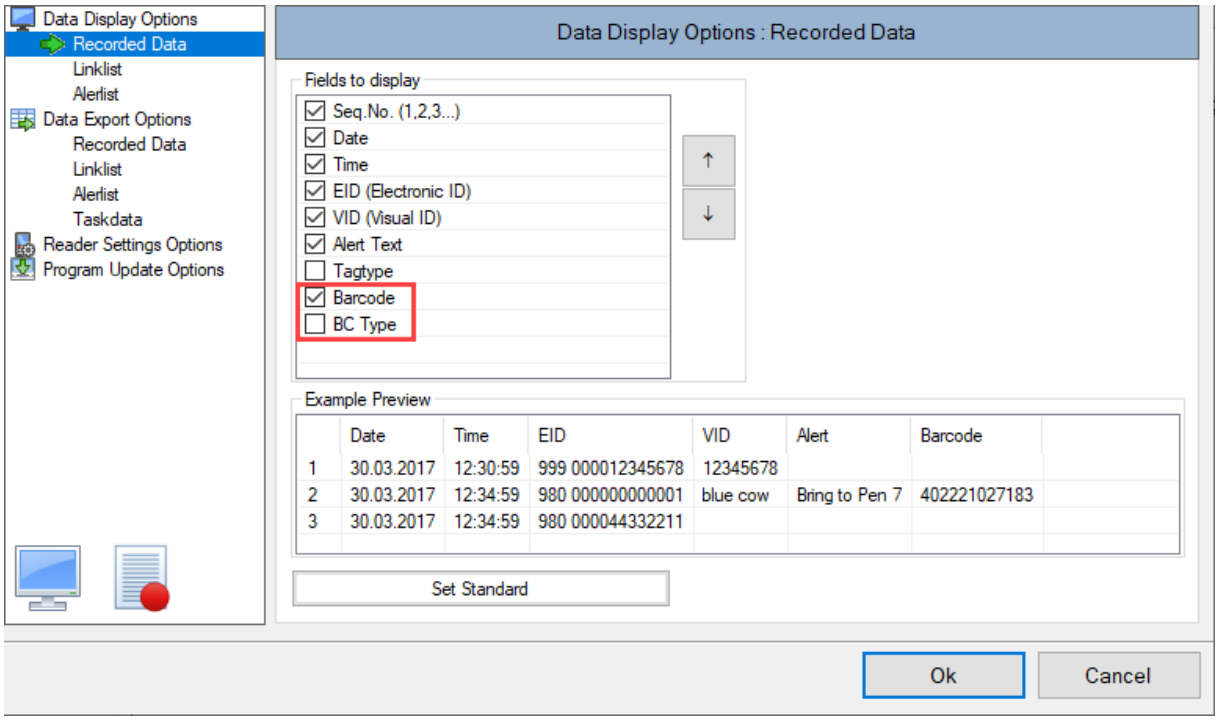



| | Date | Time | EID | VID | Alert | Weight |
|---|---|---|---|---|---|---|
| 1 | 30.03.2017 | 12:30:59 | 999 000012345678 | 12345678 | | 240.5Kg |
| 2 | 30.03.2017 | 12:34:59 | 980 000000000001 | blue cow | Bring to Pen 7 | |
| 3 | 30.03.2017 | 12:34:59 | 980 000044332211 | | | |

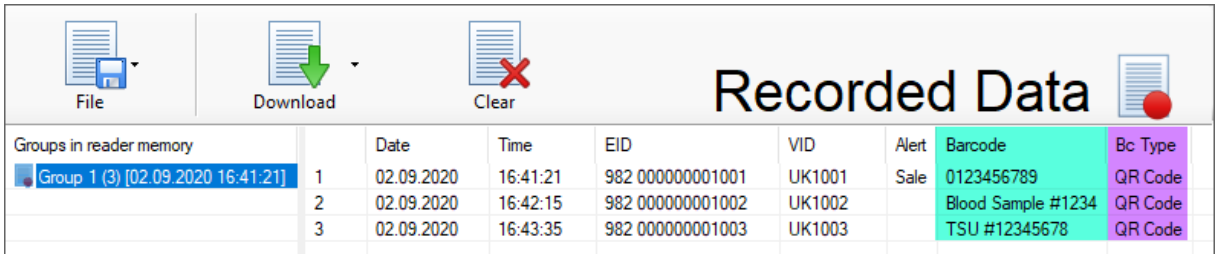
As soon as a record with an attached Barcode is received for the first time, the *Barcode* column is automatically displayed:



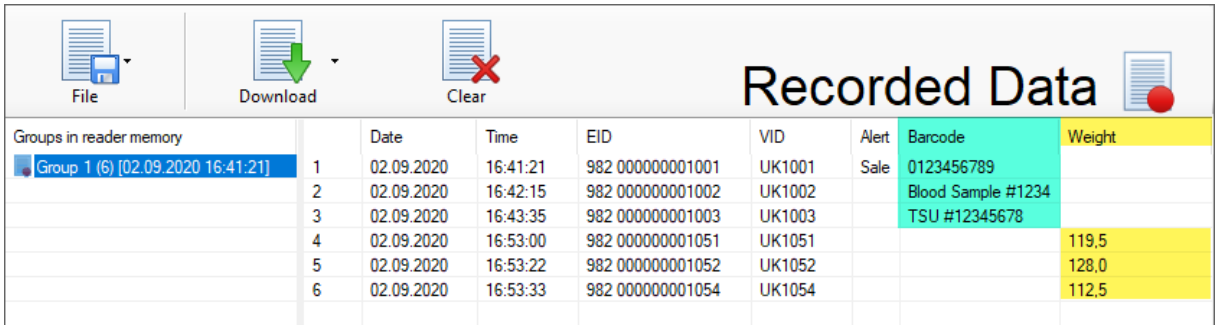

From now on, the columns *Barcode* and *BC Type* can also be enabled or disabled in the *Data Display Options* (*Program Settings*):




The Barcode Type (*BC Type*) is disabled per default because it is probably not relevant for most users. If activated, this information will be shown as well after data have been downloaded:

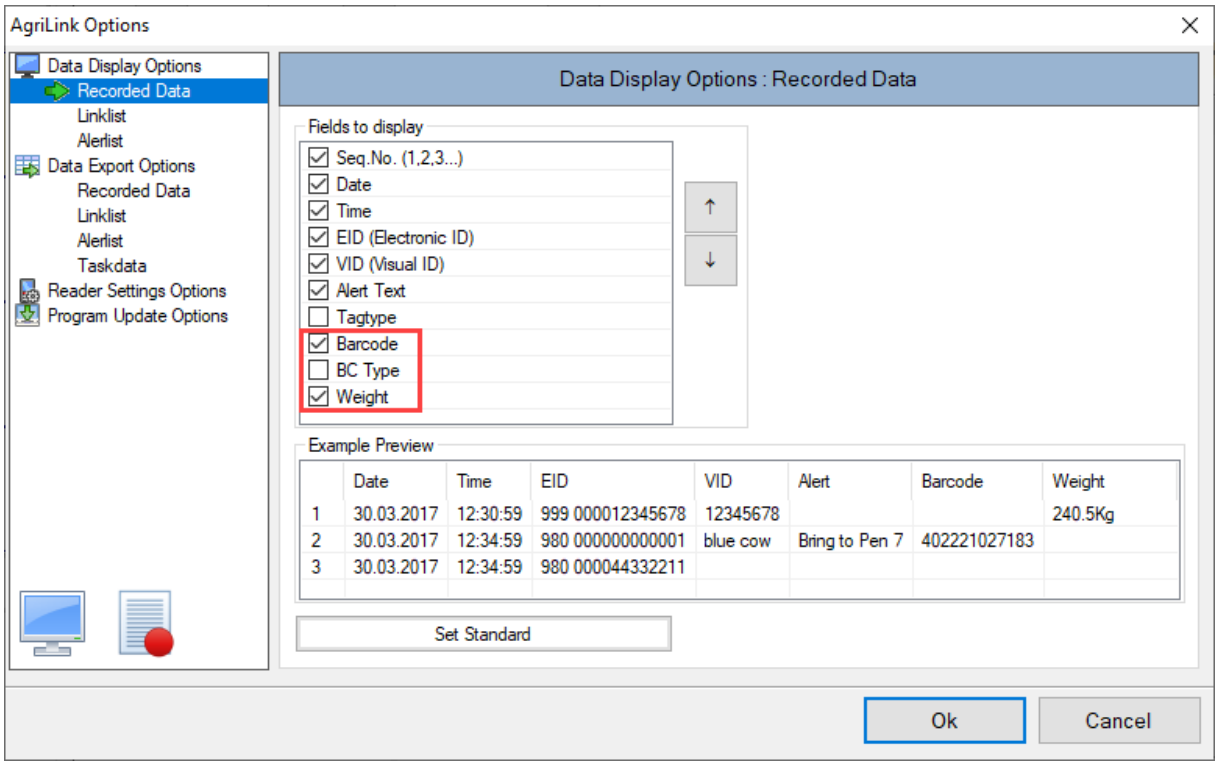


If *AgriLink* downloads datasets, some with weights **and** some with Barcodes, for the first time, the *Weight* **and** *Barcode* columns are automatically displayed:




| | Date | Time | EID | VID | Alert | Barcode | Weight |
|---|---|---|---|---|---|---|---|
| 1 | 02.09.2020 | 16:41:21 | 982 000000001001 | UK1001 | Sale | 0123456789 | |
| 2 | 02.09.2020 | 16:42:15 | 982 000000001002 | UK1002 | | Blood Sample #1234 | |
| 3 | 02.09.2020 | 16:43:35 | 982 000000001003 | UK1003 | | TSU #12345678 | |
| 4 | 02.09.2020 | 16:53:00 | 982 000000001051 | UK1051 | | | 119,5 |
| 5 | 02.09.2020 | 16:53:22 | 982 000000001052 | UK1052 | | | 128,0 |
| 6 | 02.09.2020 | 16:53:33 | 982 000000001054 | UK1054 | | | 112,5 |

The columns *Barcode, BC Type* and *Weight* can now be enabled or disabled in the *Data Display Options* (*Program Settings*):




| | Date | Time | EID | VID | Alert | Barcode | Weight |
|---|---|---|---|---|---|---|---|
| 1 | 30.03.2017 | 12:30:59 | 999 000012345678 | 12345678 | | | 240.5Kg |
| 2 | 30.03.2017 | 12:34:59 | 980 000000000001 | blue cow | Bring to Pen 7 | 402221027183 | |
| 3 | 30.03.2017 | 12:34:59 | 980 000044332211 | | | | |

The display of the columns is not 'dynamic', i.e.:

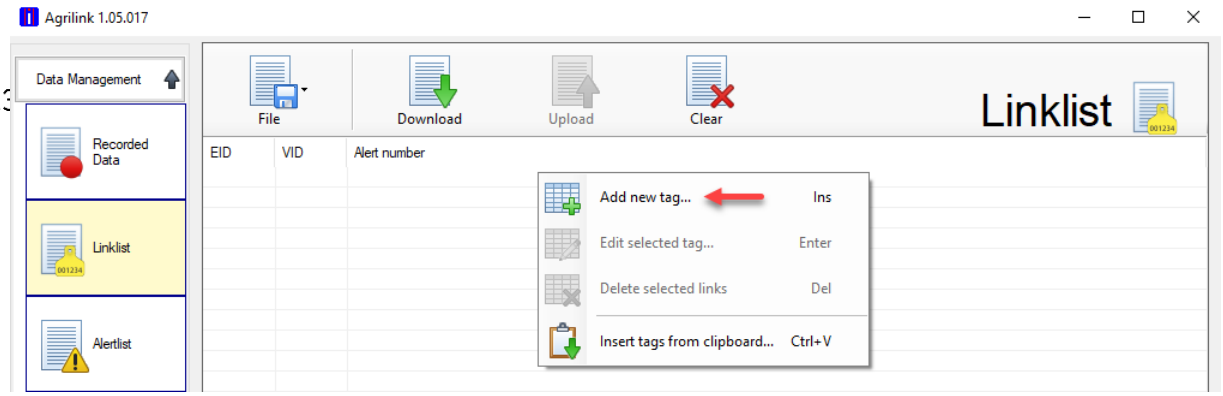
- If the user selects to show the column *Weight* (or *Barcode*), it is **always** displayed, regardless of whether records with weight (or Barcode) have been downloaded or not.
- When the user deactivates the *Weight* (or *Barcode*) column, the additional data will not be displayed – even if records with weights (or Barcodes) are downloaded.

## NOTE

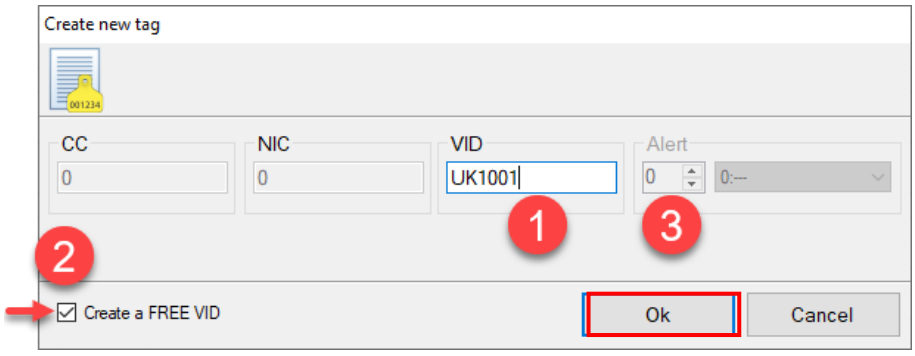
**The columns for Weight and Barcode are only available after Agrilink has downloaded the appropriate datasets for the first time.**

### 9.4.3 Adding free VIDs to a Link-List

To add entries to a *Link-List*, just right-click somewhere in the data area of the section *Link-List* and select '*Add new tag…*':

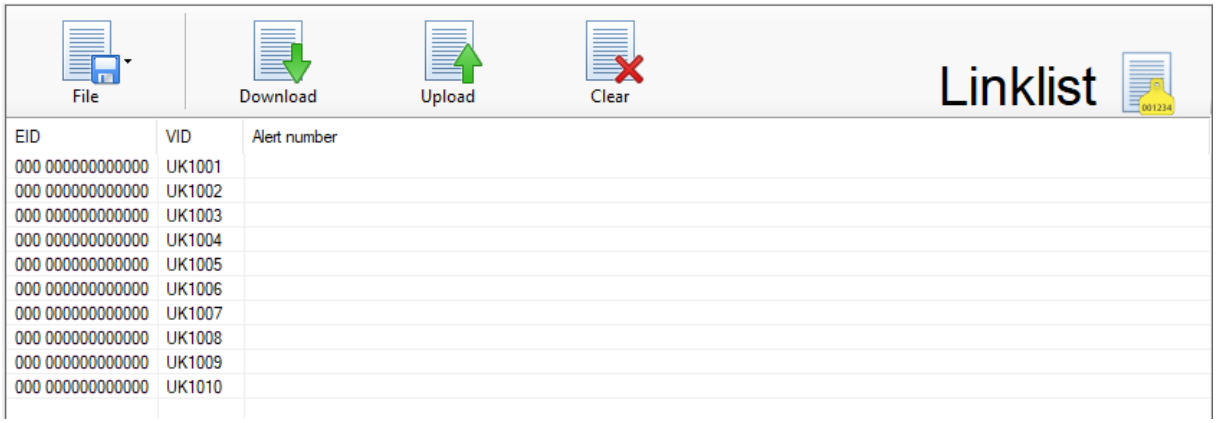



Another Window opens:




Enter the *VID* string in the appropriate field (1). Then tick the checkbox '*Create a FREE VID*' (2).This will result in a *free VID* in the *Link-List*. As already explained in this document: *free VIDs* cannot have *Alerts* – for this reason the *Alert* controls are greyed out (3). Finally confirm by clicking *OK*.

You can fill the list with *free VIDs* in this way.




For larger amounts of data it probably makes sense to use the import function for *Link-Lists* or paste the *VIDs* from clipboard. When only a list with *free VIDs* is required, the import file just must contain the *VIDs* (one column). After the *Link-List* has been completed, it can be uploaded to the reader.

## 9.5 Menu structure

The following table shows the menu structure of the ALLFLEX LINK including submenus and options. Options or actions are shown in *italic* and the default values for options are marked with ' * '.

| *Main Menu* | *1st sub menu* | *2nd submenu* | *3rd submenu* | *4th submenu* |
|---|---|---|---|---|
| **New Group** | *Start new group* | | | |
| **Join Data** | *EID + VID* | | | |
| | *EID + Weight* | | | |
| | *EID + NFC* | | | |
| **Tasks** | *New Task Entry* | | | |
| | *Show Memory Info* | | | |
| | *Choose Another Task* | | | |
| **Data** | Show Data | *Select Group To Show* | | |
| | *Set Active Group* | | | |
| | Clear Data | Clear Groups | *Select Group* | |
| | | | *Clear All Groups* | |
| | | Clear Task Data | *Select Task* | |
| | | | *Clear All Task Data* | |
| | | *Delete Database* | | |
| | *Memory Info* | | | |
| | *Search DB by VID* | | | |
| | *Search DB by EID* | | | |
| **Print** | *Print Active Group* | | | |
| | *Select Group* | | | |
| | *Print All Groups* | | | |
| | *Print Barcode* | | | |
| | Setup Printer | Set Printer Type | *1 - Generic Line Printer* | |
| | | | *2- Able Systems AP 1300 ** | |
| | | | *3 - Extech APEX 2* | |
| | | | *4 - Extech APEX 3* | |
| | | | *5 - Extech APEX 4* | |
| | | | *6 - Zebra QL220* | |
| | | | *7 - Zebra QL320* | |
| | | | *8 - Zebra QL420* | |
| | | | *9 - Zebra QLn220* | |
| | | | *10 - Zebra QLn320* | |
| | | | *11 - Zebra QLn420* | |
| | | | *12 - Martel MCP 1880/7880* | |
| | | | *13 - MTP-3* | |
| | | Set Printer Interface | *Bluetooth ** | |
| | | | *RS232* | |
| | | Set Printer Baudrate | *115200* | |
| | | | *57600* | |
| | | | *38400* | |
| | | | *28800* | |
| | | | *19200* | |
| | | | *9600 ** | |
| | | | *4800* | |
| | | | *2400* | |
| | | | *1200* | |
| | | | *600* | |
| | | | *300* | |
| | | *Search BT printer* | | |

| *Main Menu* | *1st sub menu* | *2nd submenu* | *3rd submenu* | *4th submenu* |
|---|---|---|---|---|
| **Setup** | Reader Settings | Animal Counter On/Off | *Animal Counter ON* | |
| | | | *Animal Counter OFF* * | |
| | | Set Read Mode | *Single Read* * | |
| | | | *Continuous Read* | |
| | | | *Auto* | |
| | | Set Online Mode | Online Mode On/off | *Online Mode ON* * |
| | | | | *Online Mode OFF* |
| | | | Set Output Format | *ASCII* |
| | | | | *Byte Structure* |
| | | | | *Compact Coding* |
| | | | | *Custom Format* |
| | | | | *ISO24631* |
| | | | | *NLIS* |
| | | | | *Raw data* |
| | | | | *Short ASCII 15* * |
| | | | | *Short ASCII 16* |
| | | | | *ASCII + SCP* |
| | | Set Online Mode | Read If Connected | *Read always* * |
| | | | | *If buffer not full* |
| | | Wireless Sync On/Off | *Wireless Sync. ON* | |
| | | | *No Sync.* * | |
| | | Volume & Vibrator | Set Volume | *0% (OFF)* |
| | | | | *20%* |
| | | | | *40%* |
| | | | | *60%* * |
| | | | | *80%* |
| | | | | *100%* |
| | | | Vibrator On/Off | *Vibrator ON* * |
| | | | | *Vibrator OFF* |
| | Display | Set Date/Time | [set values manually] | |
| | | Set Switch Off Time | *60 min* | |
| | | | *30 min* | |
| | | | *20 min* | |
| | | | *10 min* | |
| | | | *5 min* | |
| | | | *3 min* | |
| | | | *2 min* | |
| | | | *90 sec* | |
| | | | *60 sec* * | |
| | | | *30 sec* | |
| | | | *20 sec* | |
| | | | *10 sec* | |
| | | | *5 sec* | |
| | | Set Display Colors | *Black* * | |
| | | | *White* | |
| | | Set language | [depends on uploaded languages] | |

| *Main Menu* | *1st sub menu* | *2nd submenu* | *3rd submenu* | *4th submenu* |
|---|---|---|---|---|
| **Setup** | Interface Setup | Set RS232 Baudrate | *115200* | |
| | | | *57600* | |
| | | | *38400* | |
| | | | *19200* | |
| | | | *9600 ** | |
| | | Setup Scale | Set Scale Type | *1 - Tell ** |
| | | | | *2 - Iconix FX15* |
| | | | | *3 - Tru-Test* |
| | | | | *4 - BWT BW(S) & JD-II* |
| | | | | *5 - Gallagher* |
| | | | | *6 - Dini Argeo DFWLB* |
| | | | | *7 - Te Pari Scale* |
| | | | | *8 - RHEWA 82c-2* |
| | | | | *9 - CIMA-PTM* |
| | | | | *10 - Gallagher W-1/TW* |
| | | | | *11 - Tru-Test S3 (BLE)* |
| | | | | *12 - Gallagher W-0 (BLE)* |
| | | | Set Scale Interface | *Bluetooth ** |
| | | | | *RS232* |
| | | | Set Scale Baudrate | *115200* |
| | | | | *57600* |
| | | | | *38400* |
| | | | | *28800* |
| | | | | *19200* |
| | | | | *9600 ** |
| | | | | *4800* |
| | | | | *2400* |
| | | | | *1200* |
| | | | | *600* |
| | | | | *300* |
| | | Setup Printer | [same as printer setup on the previous page] | |
| | | Bluetooth | Set Bluetooth Mode | *Master Mode* [1] |
| | | | | *Slave Mode* [1] |
| | | | | *BLE Weigh Scale* [2] |
| | | | | *BLE Weigh Scale OFF* [3] |
| | | | | *Bluetooth OFF ** |
| | | | *Start BT Inquiry* | |
| | | | *BT Device History* | |
| | | | Set BT Profile | *SPP ** |
| | | | | *iAP* |
| | | | | *HID* |
| | | | | *HID Smart* |
| | | | | *BLE* |
| | | | Set BT Passkey | [default = '1234'] |
| | | | *Show Bluetooth Info* | |
| | | WI-FI | Set WI-FI Mode | *Station* |
| | | | | *Access Point* |
| | | | | *WI-FI OFF ** |
| | | | Set WI-FI Protocol | *UDP ** |
| | | | | *TCP Server* |
| | | | | *TCP Client* |
| | | | *Show Access Points* | |
| | | | *Show WI-FI Info* | |
| | Configuration | *Set Factory Configuration* | | |
| | | *Preset1 (Android)* | | |
| | | *Preset2 (iOS)* | | |
| | Device Info | *Show Battery Info* | | |
| | | *Show Firmware Info* | | |
| | | *Show Hardware Info* | | |
| | | *Noise Monitor* | | |
| | | *Timing Monitor* | | |

[1] … only visible if scale type is not a BLE type OR scale type is BLE but Bluetooth mode is not set to *BLE Weigh Scale*
[2] … only visible if scale type is a BLE model (Tru-Test S3 or Gallagher W-0)
[3] … only visible if scale type is a BLE device AND Bluetooth mode is *BLE Weigh Scale*

## 9.6 Battery precautions

There are some important things to consider concerning the rechargeable battery pack. The allowed charge temperature is between 0°C to +45°C (32°F to 113°F). Discharging is allowed within the range of -20°C to +60°C (-4°F to 140°F) – this is the allowed operating temperature for the battery.

**Storage instructions:**

- It shall be kept in shipping condition (70% discharge) or over than 70% discharge condition to storage for long period.
- It shall be kept in dry condition of low humidity, especially be free from high temperature (45°C / 113°F or more). (Recommended Temperature 23°C / 73°F, Humidity 65±20% or less.)
- Do not storage the battery near heat sources, nor in a place subject to direct sunlight to storage in warehouse.

**When using the battery:**

- Misusing the battery may cause the battery to get hot, explode, or ignite and cause serious injury. Be sure to follow the safety rules listed below:
- Do not place the battery in fire or heat the battery.
- Do not install the battery backwards so that the polarity is reversed.
- Do not connect the positive terminal and the negative terminal of the battery to each other with any metal object (such as wire).
- Do not carry or store the batteries together with necklaces, hairpins, or other metal objects.
- Do not penetrate the battery with nails, strike the battery with a hammer, step on the battery, or otherwise subject it to strong impacts or shocks.
- Do not solder directly onto the battery.
- Do not expose the battery to water or salt water or allow the battery to get wet.
- Do not disassemble or modify the battery. The battery contains safety and protection devices which, if damaged, may cause the battery to generate heat, explode or ignite.
- Do not place the battery on or near fires, stoves, or other high-temperature locations. Do not place the battery in direct sunshine or use or store the battery inside cars in hot weather. Doing so may cause the battery to generate heat, explode, or ignite. Using the battery in this manner may also result in a loss of performance and a shortened life expectancy.

- Do not insert the battery into equipment designed to be hermetically sealed. In some cases hydrogen or oxygen may be discharged from the cell which may result in rupture, fire or explosion.
- Immediately discontinue use of the battery if, while using, charging, or storing the battery, the battery emits an unusual smell, feels hot, changes color, changes shape, or appears abnormal in any other way. Contact your distributor if any of these problems are observed.
- Do not place the batteries in microwave ovens, high-pressure containers, or on induction cookware.
- If the battery leaks and the fluid gets into one's eye, do not rub the eye. Rinse well with water and immediately seek medical care. If left untreated the battery fluid could cause damage to the eye.
- When the battery is worn out, insulate the terminals with adhesive tape or similar materials before disposal.

**While charging**:

- Be sure to follow the rules listed below while charging the battery. Failure to do so may cause the battery to become hot, explode, or ignite and cause serious injury.
- When charging the battery, only use chargers supplied by Allflex.
- Do not attach the batteries to a power supply plug or directly to a car's cigarette lighter.
- Do not place the batteries in or near fire, or into direct sunlight. When the battery becomes hot, the built-in safety equipment is activated, preventing the battery from charging further, and heating the battery can destroy the safety equipment and can cause additional heating, breaking, or ignition of the battery.
- Do not continue charging the battery if it does not recharge within the specified charging time. Doing so may cause the battery to become hot, explode, or ignite.
- The temperature range over which the battery can be charged is 0°C to 45°C. Charging the battery at temperatures outside of this range may cause the battery to become hot or to break. Charging the battery outside of this temperature range may also harm the performance of the battery or reduce the battery's expectancy.

**When discharging the battery:**

- Do not discharge the battery using any device except for the specified device. When the battery is used in devices aside from the specified device it may damage the performance of the battery or reduce its life expectancy, and if the device causes an abnormal current to flow, it may cause the battery to become hot, explode, or ignite and cause serious injury.
- The temperature range over which the battery can be discharged is -20°C to 60°C. Use of the battery outside of this temperature range may damage the performance of the battery or may reduce its life expectancy.

**Disposal considerations:**

- Observe local, state, and federal laws and regulations concerning battery disposal.
- Do not disassemble the battery!

## 9.7 Safety and care

The manufacturer accepts no liability for damage resulting from improper use or use not consistent with that described in these operating instructions.

- The Allflex Link Reader contains no parts that can be repaired by the user. For this reason the Reader Electronic may only be repaired by authorized customer service personnel.
- In both operation and storage of the reader ensure to comply with the environment conditions specified in the technical data.
- Clean the Allflex Link Reader only with a damp cloth. Use only water and any commercially available cleaning agent.
- Any modification to the Allflex Link Electronic  Reader renders the warranty null and void.

# Regulatory Information

**USA-Federal Communications Commission (FCC)**

This device complies with part 15 of FCC rules. Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and the receiver.
- Connect the equipment to outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

This portable equipment with its antenna complies with FCC's radiation exposure limits set forth for an uncontrolled environment. To maintain compliance, follow the instructions below:

(1) This transmitter must not be co-located or operating with any other antenna or transmitter;

(2) Avoid direct contact to the antenna or keep contact to a minimum while using this equipment.

Notice to consumers:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### Canada - Industry Canada (IC)

This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:

This device may not cause interference, and

This device must accept any interference received, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

L'appareil ne doit pas produire de brouillage ;

L'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This portable equipment with its antenna complies with RSS102's radiation exposure limits set forth for an uncontrolled environment. To maintain compliance, follow the instructions below:

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Avoid direct contact to the antenna or keep contact to a minimum while using this equipment.

Cet équipement portable avec ses antennes est conforme aux limites d'expositions de la CNR102 applicables pour un environnement non contrôlé. Pour maintenir la conformité suivez les instructions ci-dessous :

Cet émetteur ne doit pas être co-localisé ou opérer en conjonction avec toute autre antenne ou émetteur.

Évitez tout contact direct avec l'antenne ou gardez le contact au minimum pendant l'utilisation de cet équipement.

#### Miscellaneous Information

Snapshots are according to the latest version at the moment this document was released. Changes may occur without notice.

#### Trademarks

Bluetooth® is a registered trademark of Bluetooth SIG, Inc.

Windows is a trademark or registered trademark of Microsoft Corporation in the United States and/or other countries.

All other trademarks are trademarks of their respective owners.

**Apple - Legal Notice**

iPod, iPhone, iPad are a trademark of Apple Inc., registered in the U.S. and other countries.

"Made for iPhone," and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards.

Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

Please note that the use of this accessory with iPhone or iPad may affect wireless performance.

# Warranty

The manufacturer of the Allflex Link Reader Electronic provides a warranty of 12 months from the day the device is shipped and subject to the following conditions:

1. Without submission of proof of purchase no warranty can be given.
2. In the event that defects are detected the manufacturer is entitled to choose between up to two attempts at repair or supplying a replacement device on one occasion. The warranty period for the repaired item or for a replacement item is 3 months but will always extend to the end of the original warranty period. No further claims can be entertained, especially claims for compensation for consequential losses. This exclusion of liability does not apply to claims made on the basis of the Product Liability Act.
3. Warranty claims cannot be entertained unless the Allflex system was installed properly and used properly and for the purpose intended.

No warranty obligations exist in particular when:

1. Damage is attributable to improper use of the device, to an incorrect connection or incorrect operator action.
2. The device was not cared for and maintained in accordance with the manufacturer's recommendations and this is the cause of the damage.
3. The damage is due to any modification to the device.
4. The damage is due to force majeure, for example lightning strike.
5. The damage is due to wear, resulting from overstressing mechanical parts.