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## 1 Overview

This Software Manual will show all information's and handling of the Ident-Ex and the "Ident-Ex Setup" software for Android and Windows.

## 2 Displaying firmware information

If the main trigger (trigger button on the underside), trigger (trigger button on the top) and SPP buttons are pressed during operation, firmware information will be sent to a device that has been connected to the Ident-Ex via Bluetooth (HID), where it is displayed. It must be ensured that the SPP button is pressed first, followed by the main trigger and the trigger button. When releasing, the SPP button must be released before the main trigger and trigger buttons.

The following information's are transmitted:

- Bootloader version
- Firmware version
- Version of the Bluetooth module used by the Ident-Ex
- Address of the Bluetooth module used by the Ident-Ex
- The 5 saved Bluetooth addresses of devices which have already been connected to the Ident-Ex via Bluetooth.
- Firmware information of the head module

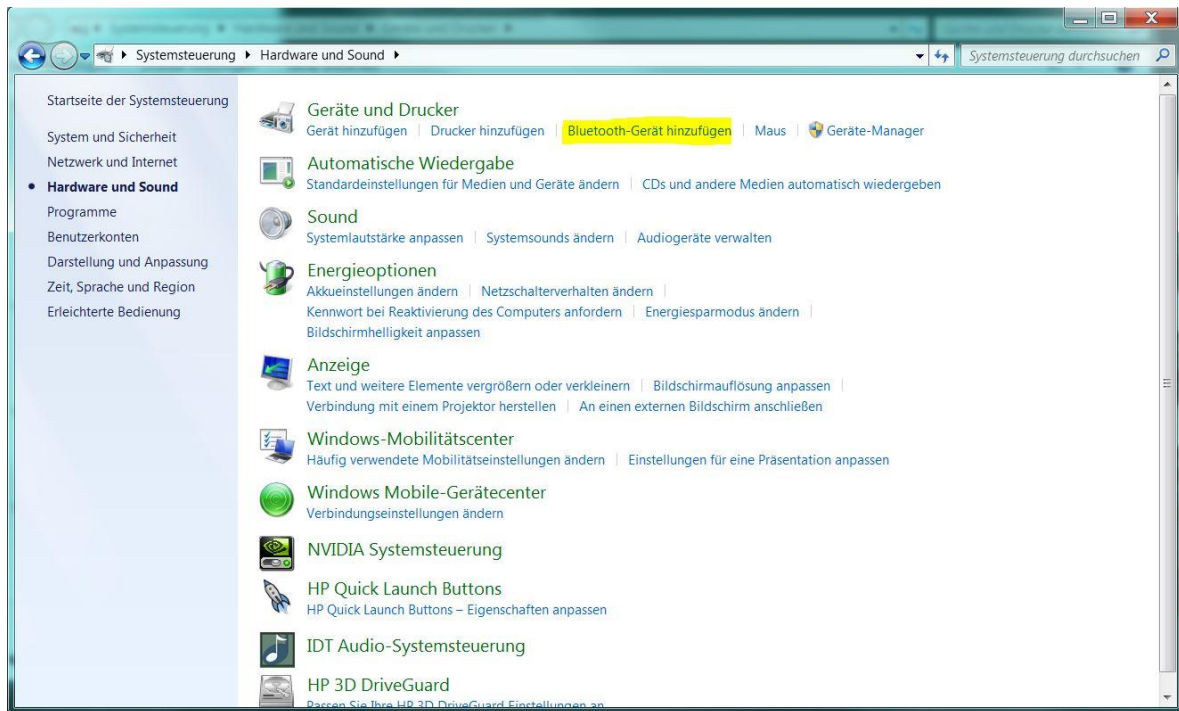
## 3 Resetting to default settings

The firmware of the Ident-Ex can be used to reset the device to its factory settings. To enable this function, the main trigger (trigger button on the underside), trigger (trigger button on the top) and SPP buttons must be pressed and held for approx. 2 seconds when the Ident-Ex is starting up. Previous settings, such as selection of the head module, main trigger and trigger button were not resetted and are retained.

## 4 Bluetooth Pairing of Ident-Ex and PC

If the Ident-Ex has not yet been paired with a PC, a pairing process must be performed before a Bluetooth connection can be established between the Ident-Ex and PC. The Ident-Ex is using the SSP-Mode (Secure Simple Pairing), in this case no pairing-password is required to pair with a device (Smartphone/Tablet or PC).

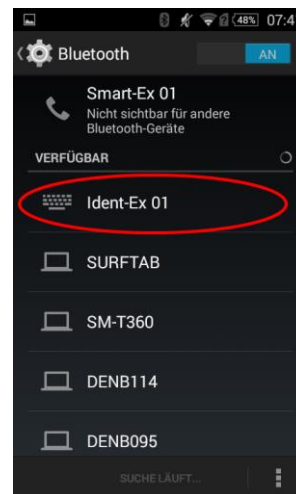
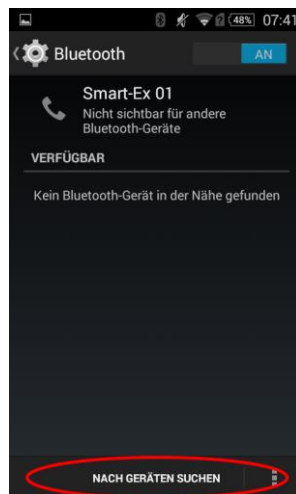
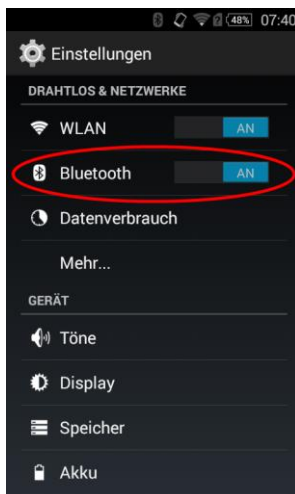
Select the Bluetooth name of the Ident-Ex via **Start -> Control Panel -> Hardware and Sound -> Add a Bluetooth device**. The PC is now paired with the Ident-Ex and a Bluetooth connection can be established. A Bluetooth connection (HID) may be established automatically after the pairing process. This is indicated by the illuminating Bluetooth LED on the Ident-Ex (the SPP LED is off). However, since we need to establish a Bluetooth connection in SPP to install firmware, an existing HID Bluetooth connection must be deleted. To do this, press and hold the SPP button on the Ident-Ex for approx. 2 seconds until the Bluetooth LED goes out. An SPP Bluetooth connection can now be established.

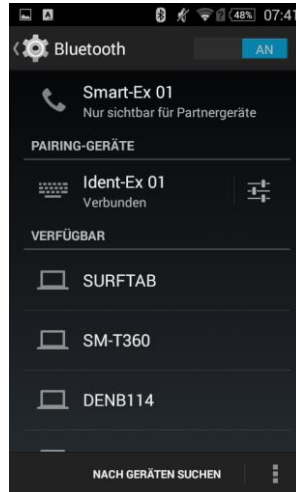


## 5 Bluetooth pairing of Ident-Ex and Android device

### Pairing without „Ident-Ex Setup“ App:

„Settings“ → „Bluetooth“ → select Ident-Ex01 → Ident-Ex01 and Smartphone/Tablet will be paired





### Pairing with the „Ident-Ex Setup“ App:

See 9.5 Bluetooth connection.

## 6 Deleting/establishing a connection

If you press and hold the SPP button for 2 seconds, an existing Bluetooth connection can be closed or a new Bluetooth connection can be established with one of the 5 saved Bluetooth addresses (if a Bluetooth connection is not available).

### The following 3 scenarios are possible:

#### Initial state – there is no Bluetooth connection

If you press and hold the SPP button for 2 seconds, the Ident-Ex will attempt to establish a connection with the device to which it was last connected. If you continue to hold the SPP button and a Bluetooth connection cannot be established to the device it was last connected to, it will attempt to connect to the next of the 5 saved Bluetooth address. This will continue to happen every 5 seconds for as long as the SPP button is depressed and a Bluetooth connection cannot be established.

#### Initial state – a Bluetooth connection (HID) has been established between the Ident-Ex and a terminal

If the SPP button is depressed for 2 seconds, the Bluetooth connection to the device will be closed.

#### Initial state – a Bluetooth connection (SPP) has been established between the Ident-Ex and a terminal

If the SPP button is depressed for 2 seconds, the Bluetooth connection (SPP) will be deleted and the device will attempt to establish a Bluetooth connection (HID) with the device to which it was last connected.

## 7 Firmware Update

### 7.1 Bootloader

New firmware can be installed for the Ident-Ex via the bootloader. New firmware can be transferred to the Ident-Ex from a PC or mobile device (e.g. smartphone or tablet) via Bluetooth.

## 7.2 Launching the bootloader on the Ident-Ex

In order to install new firmware on the Ident-Ex, the Ident-Ex must be set to a certain state, namely the bootloader. The bootloader can be launched by pressing and holding the triggers and SPP button when switching on the Ident-Ex. It must be ensured that the Ident-Ex was previous switched off before launching the bootloader.



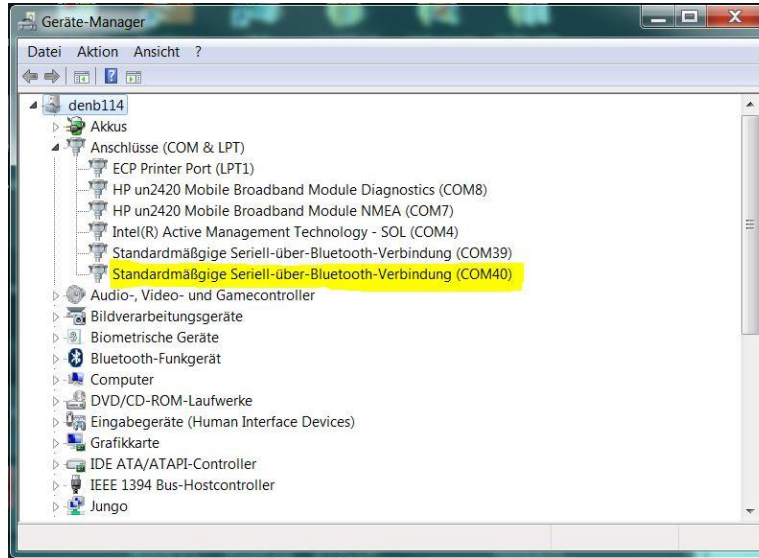
The bootloader starts to run on the Ident-Ex as soon as the buttons are released (a light on the battery display changes from red to yellow to green).



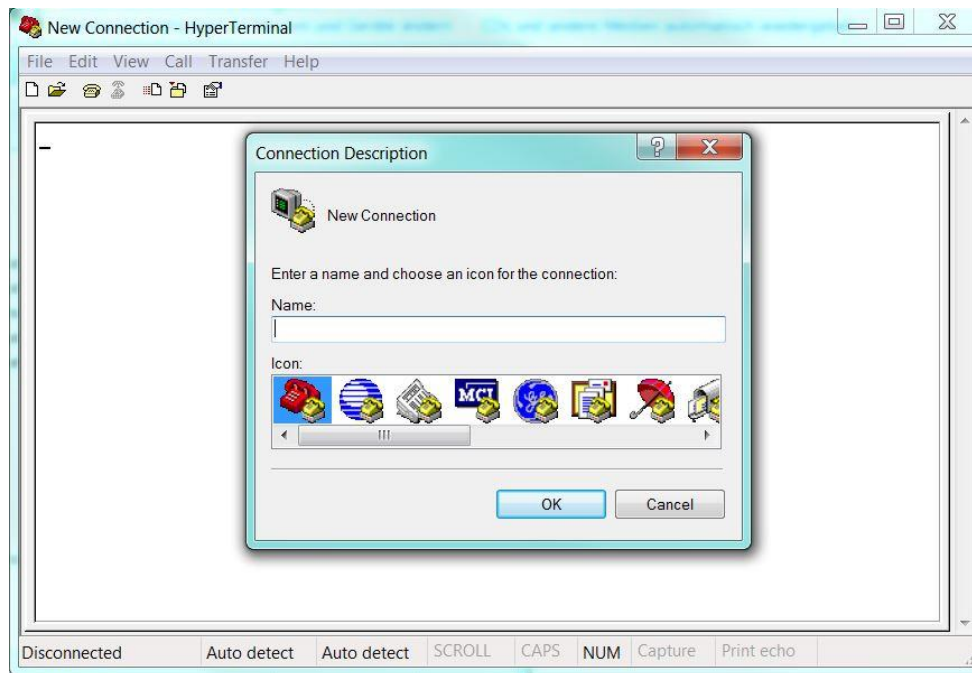
## 7.3 Installing new firmware for the Ident-Ex (by using a PC without Ident-Ex Setup)

### 7.3.1 Bluetooth connection between Ident-Ex and HyperTerminal

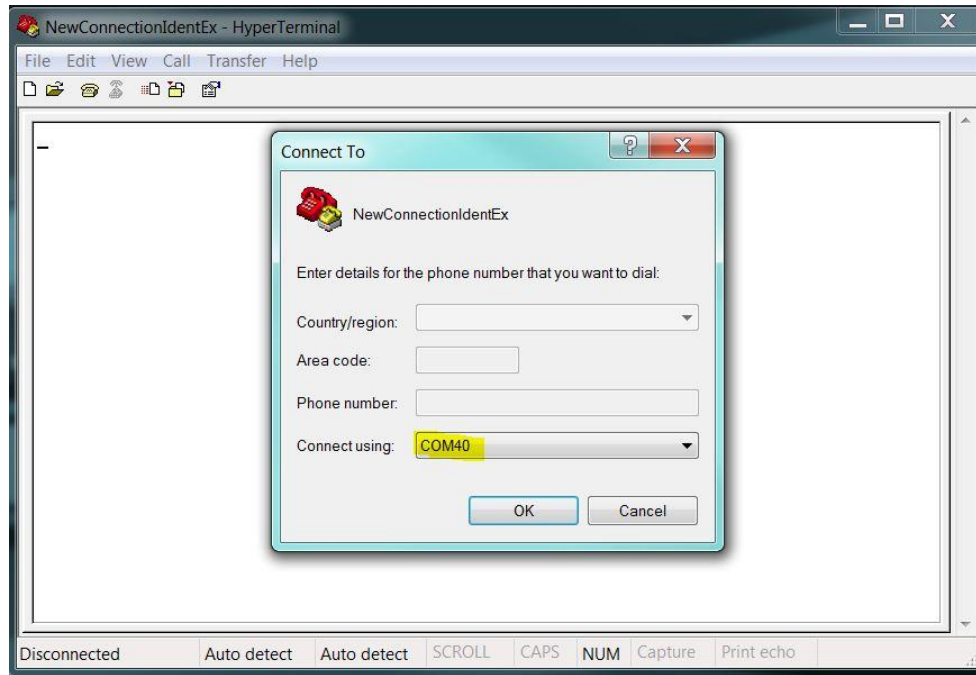
If the PC has been paired with the Ident-Ex, a Bluetooth connection (SPP) can be established via the HyperTerminal program. For this purpose, we need to know which COM port is being used for the Bluetooth connection. This information can be viewed by selecting **Start -> Control Panel -> Hardware and Sound -> Device Manager** and then the **Ports (COM & LPT)** section.



We can now use this information to establish a Bluetooth connection with the Ident-Ex via the HyperTerminal program. Open the HyperTerminal program on your PC. Start by assigning a name for the connection. This name can be freely selected (confirm by pressing OK).



In the next step, select the COM port that you want to use for the Bluetooth connection (confirm by pressing OK).



If everything was successful, the SPP and Bluetooth LEDs on the Ident-Ex will illuminate. These two LEDs must illuminate, otherwise firmware cannot be installed on the Ident-Ex.



All of the necessary steps are now complete and new firmware can be installed on the Ident-Ex.

### 7.3.2 Installing new firmware

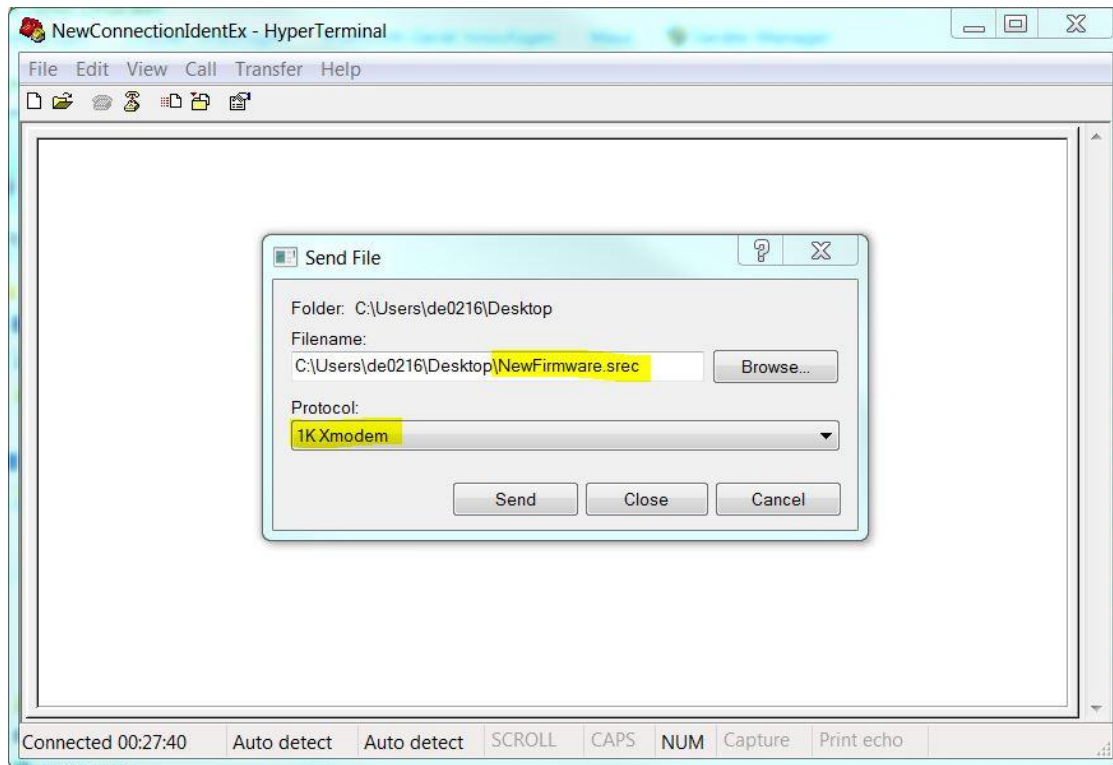
There are two methods of installing new firmware on the Ident-Ex. These two methods are described in the following two sections. The new firmware to be installed must be available as a file. A Bluetooth connection must have been established in the SPP mode before new firmware can be installed on the Ident-Ex (SPP and Bluetooth LEDs must illuminate).

#### 7.3.2.1 by pressing the trigger button (button on the top of the device)

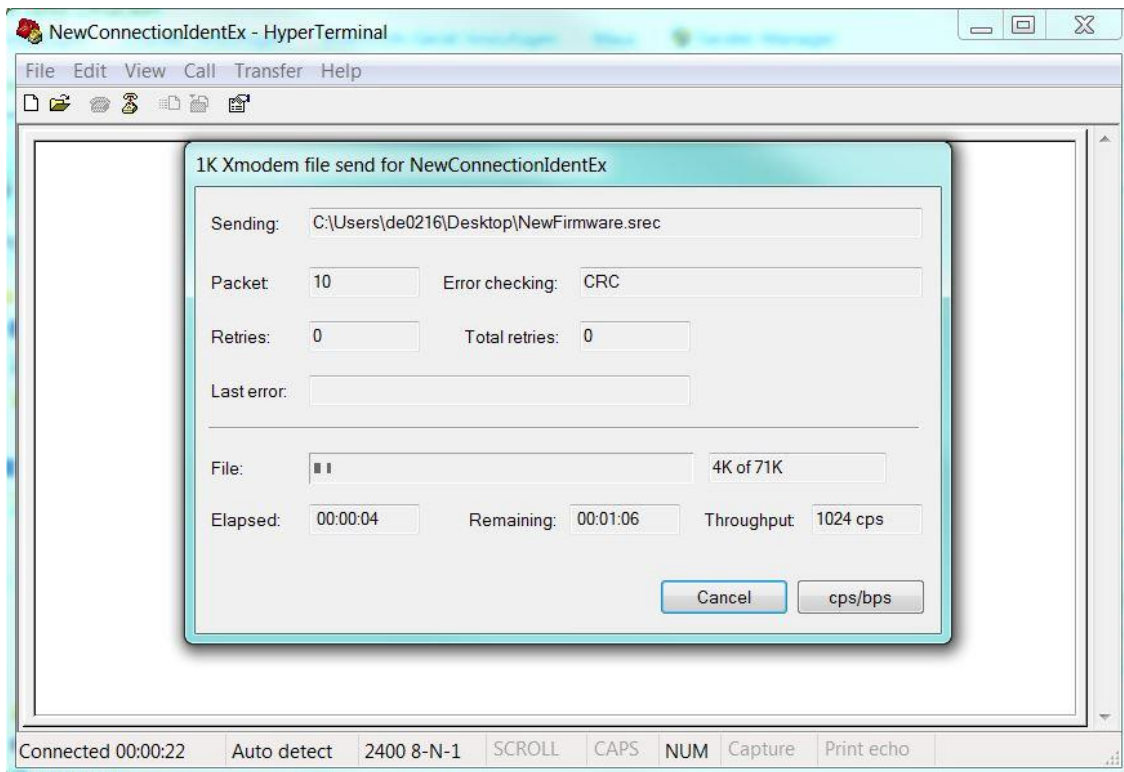
The trigger button (button on the top of the device) can be used to start the process of installing new firmware on the Ident-Ex. The file containing the new firmware must be selected first, however. The file with the firmware can be selected in the HyperTerminal program via **Transfer -> Send File....** A new window



opens, in which the file can be selected. Select the file by pressing **Browse....** After selecting the file, the protocol will need to be selected. Select the **1K XModem** protocol here.



The file can then be sent by pressing the **Send** button. Pressing the trigger button now (button on the top) will start the process of installing the firmware on the Ident-Ex.



The yellow LED on the Ident-Ex battery display flashes when data is being transferred. The LED flashes until the transfer is complete or until an error occurs.



If the transfer was successful, the green LED on the Ident-Ex battery display will illuminate briefly and then go out again.



The new firmware will start and we now exit the bootloader.

If something went wrong during the data transfer process, the new firmware will not be able to be started and we remain in the bootloader (the light on the battery display changes from red to yellow to green). If this occurs, the firmware will have to be reinstalled and a new data transfer process must be started. If the Bluetooth connection is lost when transferring firmware data (the SPP and Bluetooth LEDs are off), a new Bluetooth connection will need to be established before a new transfer process can be started.

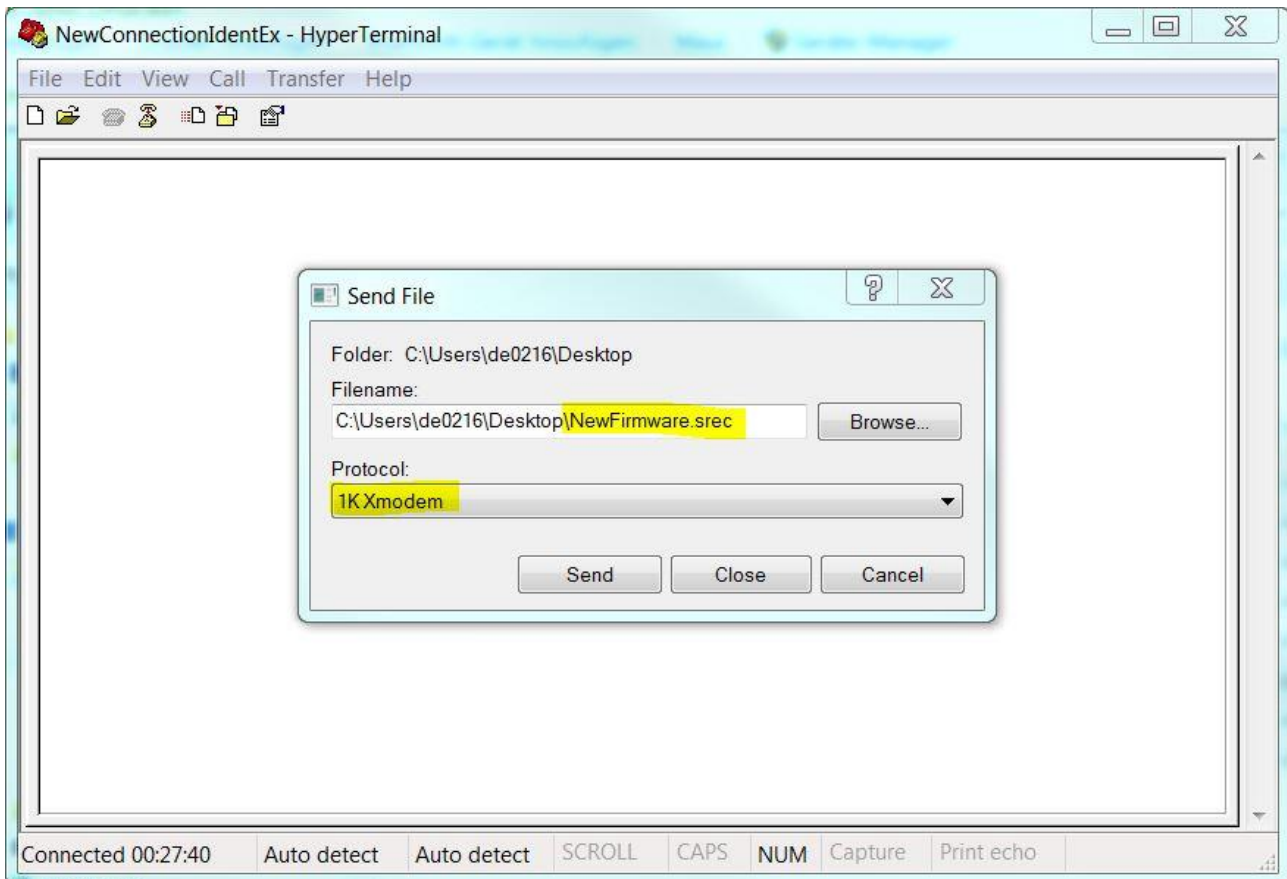
### 7.3.2.2 by sending the string "BOOT"

The second method of installing new firmware for the Ident-Ex is to send the string "BOOT" before firmware data is sent in the HyperTerminal program. To do this, just enter the string "BOOT" in the HyperTerminal

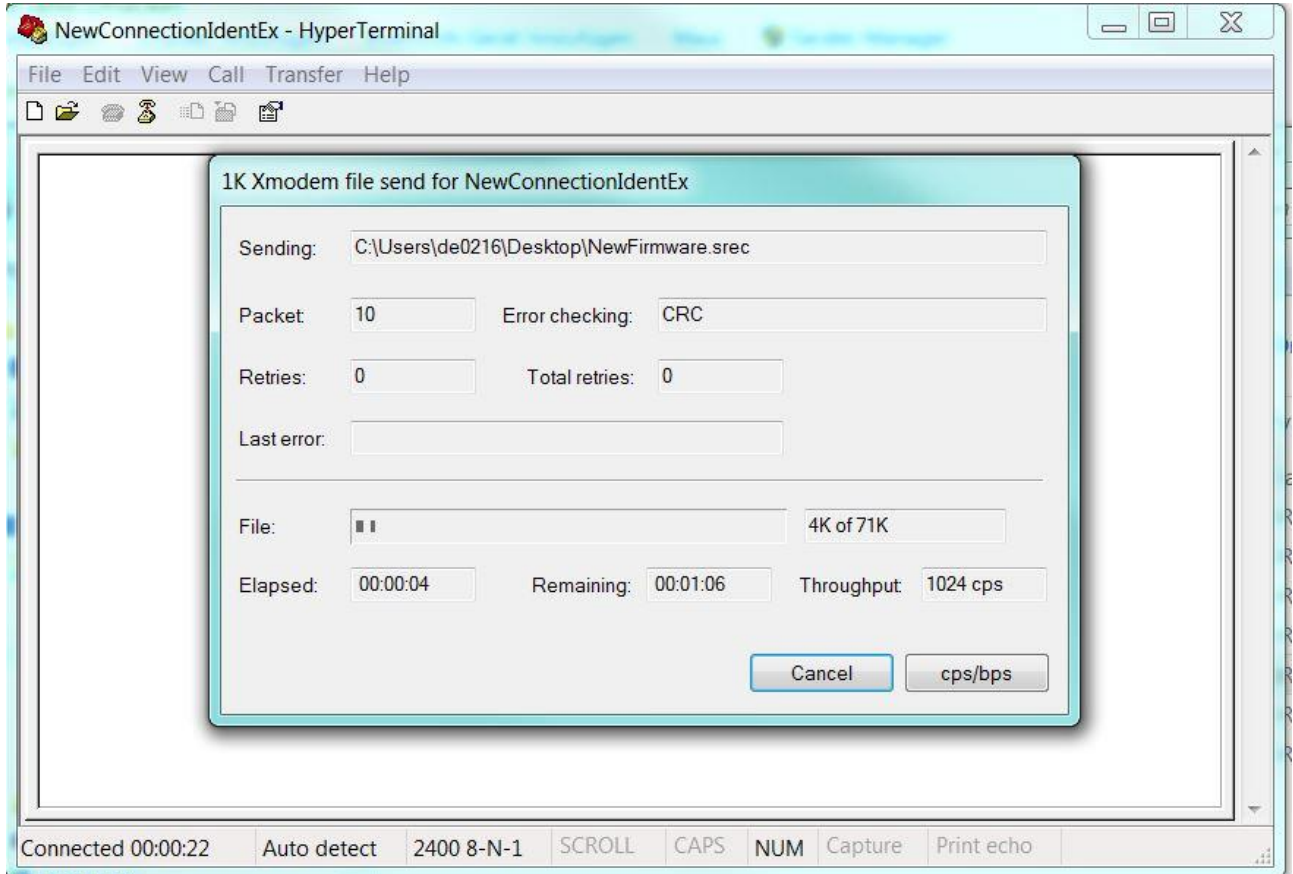
program by using the keyboard. The red LED on the Ident-Ex battery display starts flashing. This means the Ident-Ex is requesting data from the PC.



In the next step, we need to send the file that contains the new firmware. To do this, we will need to select the file in the HyperTerminal program window that opens when we select **Transfer -> Send File....** Select the file by clicking **Browse....** **1K XModem** must be selected as the transfer protocol.



The file is sent by pressing **Send**. The transfer process starts.



The yellow LED on the Ident-Ex battery display flashes when the transfer is in progress. The LED flashes until the transfer is complete or until an error occurs.



If the transfer was successful, the green LED on the Ident-Ex battery display will illuminate briefly and then go out again.



The new firmware starts and we now exit the bootloader.

If something went wrong during the data transfer process, the new firmware will not be able to be started and we remain in the bootloader (the light on the battery display changes from red to yellow to green). If this occurs, the firmware will have to be reinstalled and a new data transfer process must be started. If the Bluetooth connection is lost when transferring firmware data (the SPP and Bluetooth LEDs are off), a new Bluetooth connection will need to be established before a new transfer process can be started.

#### 7.4 Installing new Firmware on Ident-Ex (with PC and Ident-Ex Setup)

See **8.9 Installing new Firmware**.

#### 7.5 Installing new Firmware on Ident-Ex (with mobile device)

See **9.9 Installing new Firmware**.

## 8 „Ident-Ex Setup“ Windows

### 8.1 Generic

A XML file is used to transfer data to the Ident-Ex. This file will be created by the Ident-Ex Setup software and transferred to the Ident-Ex.

#### First start

After the first start of the software, an “Ident-Ex01” folder will be created in the “document” directory and several config files will be added to this folder. These XML files are default settings for each Ident-Ex head module.

### 8.2 Settings

The “**SETTINGS**” tab is used to read and write XML files, transfer data to the Ident-Ex and manage the Bluetooth connection.

## 8.3 Load file

### 8.3.1 Generic

The default settings will be loaded after the first start of the Ident-Ex Setup software. After loading another file through the button **“LOAD OTHER”** this file path will be stored and loaded automatically at the next start. The last saved or opened file will be loaded at the next start.

### 8.3.2 Load default settings

Press the button **“LOAD DEFAULT”** to load the default settings of the Ident-Ex. This setting file is stored in the installation folder **“data/IdentEx01Config.xml”**.

### 8.3.3 Load other settings

Press the button **“LOAD OTHER”** to load any settings XML file. After pressing the button you can select the file in the opened file dialog and after confirming with **“OPEN”** the file will be loaded into the Ident-Ex Setup software. The status bar will show the successful loading of the file.



If the reading of the file was interrupted, the syntax of the file was not complied.

It is possible to load one of the last 3 saved or loaded files. These files were stored in the drop down list. To open one of these files, just select one and press the button **“LOAD”**.

## 8.4 Save file

The settings can be saved with the button **“SAVE”** and **“SAVE AS”**. The status bar will show the progress and faults.

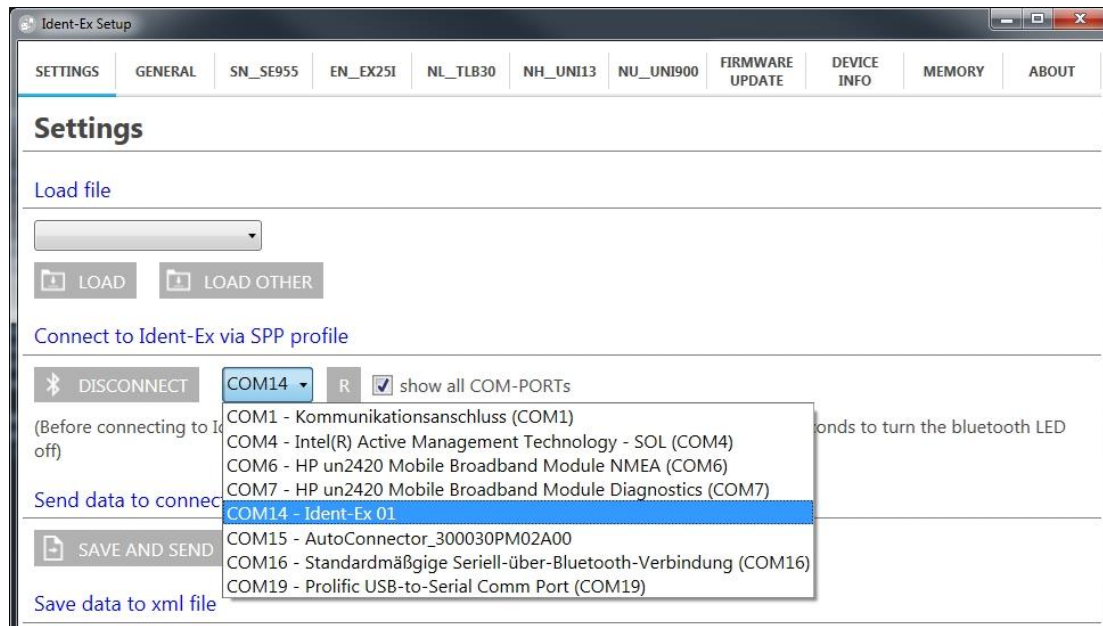


## 8.5 Bluetooth connection

The **“Connect to Ident-Ex via SPP profile”** part is managing the Bluetooth connection to the Ident-Ex. It is possible to use the integrated Bluetooth module or a USB to Bluetooth converter to connect your PC with your Ident-Ex.

### 8.5.1 Bluetooth connection of Ident-Ex and PC

If the PC is paired with the Ident-Ex, the connection will be available over COM-PORT (Bluetooth pairing see **4 Bluetooth Pairing of Ident-Ex and PC**). This COM-PORT can now be selected from the drop down list to connect in SPP profile.



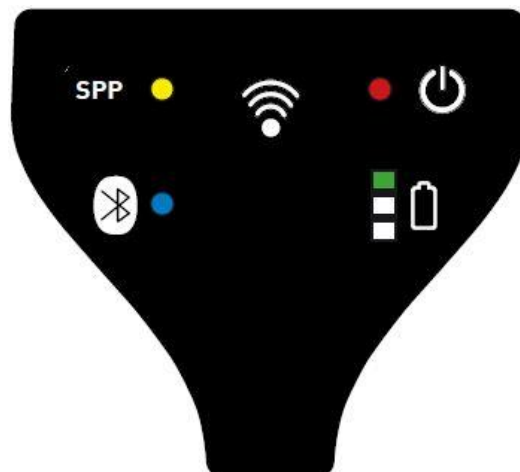
If the desired COM-Port is not shown in the drop down list, just refresh the list with the button “R”. If the desired COM-Port is still not available, check the “**show all COM-PORTs**” checkbox and all available COM-PORTs will be shown.

### 8.5.2 Connecting

After selecting the right COM-PORT for the Bluetooth connection press the button “**CONNECT**”. If everything was successful, the status bar will show “connected” and the visual indicator will switch from red to green.



Also the SPP and Bluetooth LED on the Ident-Ex will illuminate. These two LEDs must illuminate, otherwise the connection was not made correctly.



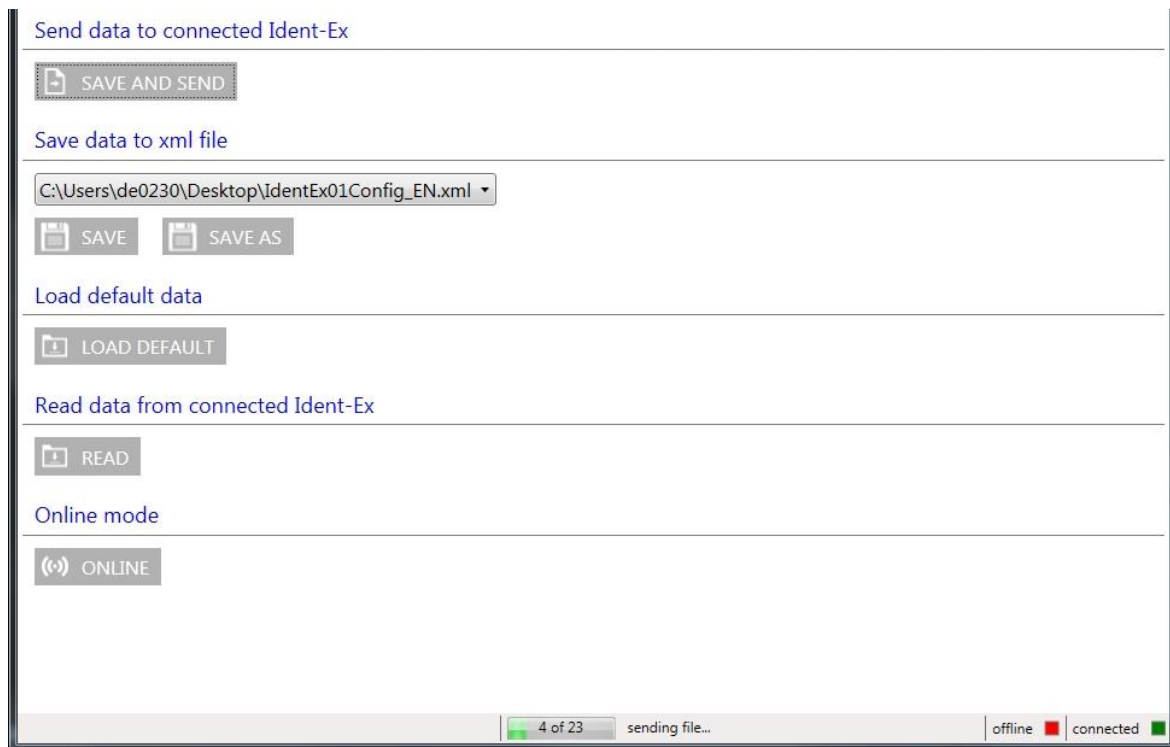
If only the Bluetooth LED was illuminating, disconnect the connection by pressing the button “**DISCONNECT**”, press the button “**SPP**” for approx. 2 seconds until the Bluetooth LED goes off and try to connect again.

## 8.6 Transfer data to Ident-Ex

Before sending data to the Ident-Ex, the Bluetooth connection must be compounded (SPP and Bluetooth LED illuminating). Now you can send the data to the Ident-Ex.

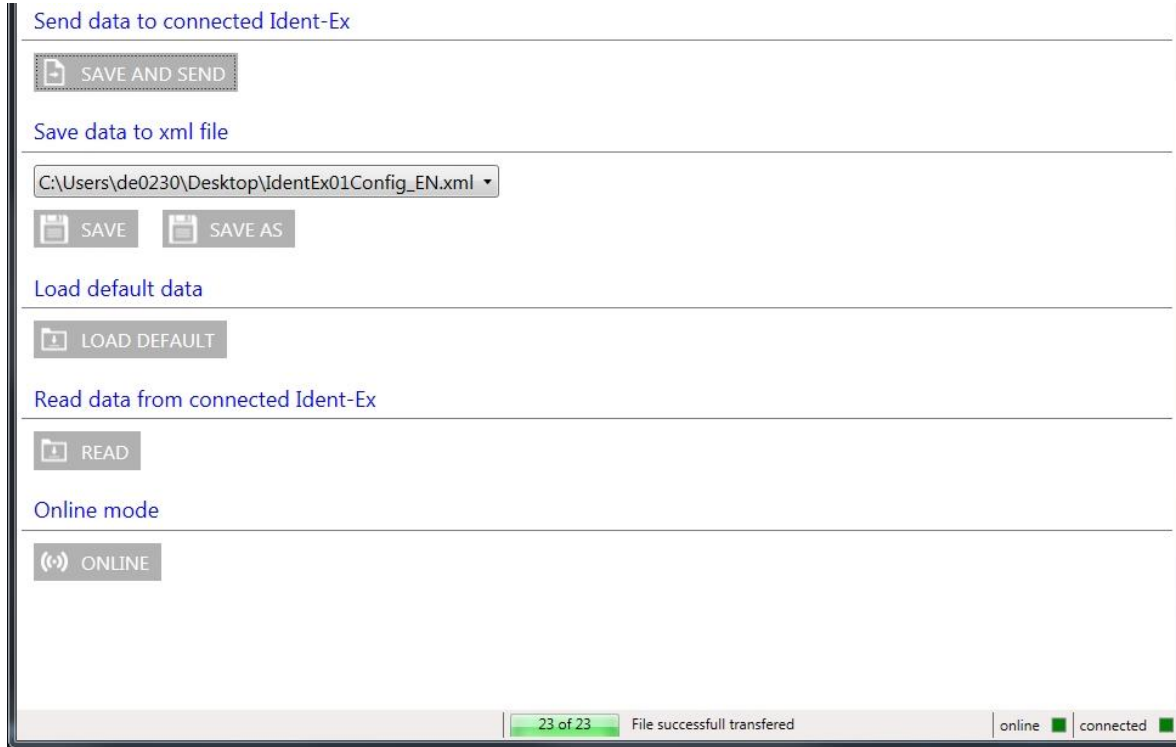
The Ident-Ex Setup software save all settings before sending the data to the Ident-Ex. Please select a file at “**Save data to xml file**” where the settings are saved. After choosing the right file, press the button “**SAFE AND SEND**”. The settings will be saved in the chosen file and send to the Ident-Ex.

If the transmission has started, a progress bar will show the progress in the status bar.



The successful or terminated transfer of the data will be shown in the status bar.





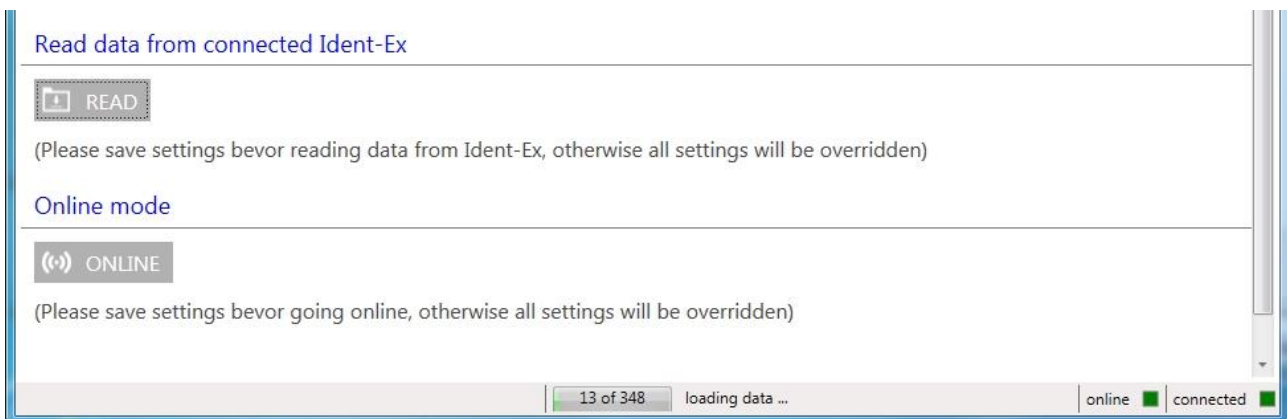
If the data transfer was interrupted, please check the Bluetooth connection (SPP and Bluetooth LED illuminating) and start a new download.

### 8.7 Read data from Ident-Ex

To read all settings from the Ident-Ex, press the button **“READ”**. All settings saved in the Ident-Ex will be transmitted to the Ident-Ex Setup software.

Please save all settings before reading data from the Ident-Ex, otherwise these setting will be overridden (**“SAVE”** or **“SAVE AS”** button).

After pressing the button **“READ”** the Ident-Ex is sending all settings to the Ident-Ex Setup software. The progress of the transmission will be shown in a progress bar in the status bar.



The status bar will show the successful or failed transfer of the data. If the data were received successfully, the settings will be shown in the associated tab.

## Read data from connected Ident-Ex

(Please save settings bevor reading data from Ident-Ex, otherwise all settings will be overridden)

## Online mode

(Please save settings bevor going online, otherwise all settings will be overridden)

348 of 348

Data successfull loaded

online

connected

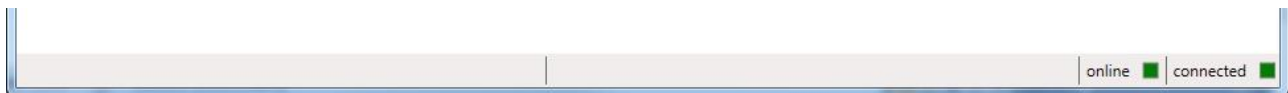
## 8.8 Online Mode

With the online mode it is possible to send data directly after modification to the Ident-Ex. There are three capabilities to activate the online mode. For each of these capabilities the Ident-Ex must be connected via Bluetooth (SPP and Bluetooth LED illuminating).

1. After successful transfer a file to the Ident-Ex ("**SAFE AND SEND**")
2. After reading the data from the Ident-Ex ("**READ**")
3. After pressing the button "**ONLINE**"

the online mode will be activated.

The actual state of the online mode will be shown in the status bar (green -> online, red -> offline).

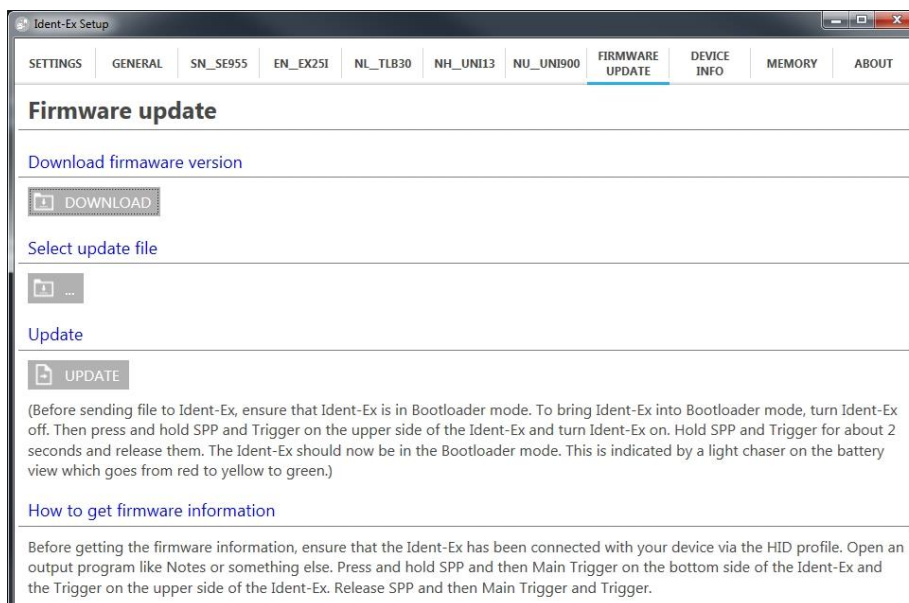


After activating the online mode, every changes made in the tab GENERAL, SN\_SE955, EN\_EX25I, NL\_TLB30, NH\_UNI13 or NU\_UNI900, will be send directly to the Ident-Ex.

The status bar will show the successful transfer of the data. If the data transfer was interrupted or terminated, the last set value will be set and the online mode will be deactivated.

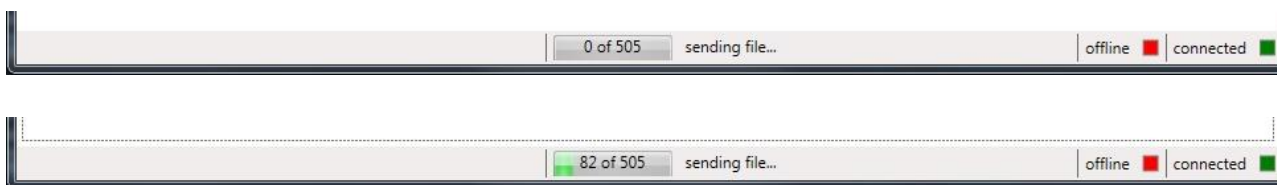
## 8.9 Installing new Firmware

All settings for the firmware update were made in the tab "**FIRMWARE UPDATE**". First of all the new firmware file must be selected by pressing the button "...". An open file dialog will pop up and the requested file can be selected. The newest firmware version can be downloaded by pressing the button "**DOWNLOAD**". The download of the new firmware will start automatically if the PC is connected to the internet.



Only “**srec**” files can be selected as firmware update files. Other files are not allowed. The Ident-Ex must be in bootloader mode (see **7.2 Launching the bootloader on the Ident-Ex**) and connected with SPP profile before updating the firmware. After choosing the right file and the Ident-Ex is in bootloader mode and connected, press the button “**UPDATE**” to send the file to the Ident-Ex.

If the transmission has started, a progress bar will show the progress in the status bar.



The yellow LED on the Ident-Ex battery display flashes when the transfer is in progress. The LED flashes until the transfer is complete or until an error occurs.



If the transfer was successful, the green LED on the Ident-Ex battery display will illuminate shortly and then switch off again.



After the file was transferred, the status bar will show the status of the transmission



After successful firmware update the Ident-Ex Setup software set the connection state to “**not connected**”, because the Ident-Ex restarts and the Bluetooth connection was terminated. After the restart, the Ident-Ex is connected in HID mode. To connect again in SPP mode, press the button “SPP” for approx. 2 seconds until the Bluetooth LED goes off and then press the button “**CONNECT**”.

If something goes wrong during the data transfer process, the new firmware will not be able to be started on the Ident-Ex and we remain in the bootloader (the light on the Ident-Ex battery display changes from red to yellow to green). If this occurs, the firmware needed to be reinstalled and a new data transfer process must be started. If the Bluetooth connection is lost when transferring firmware data (the SPP and Bluetooth LEDs on the Ident-Ex are off), a new Bluetooth connection will need to be established between the Ident-Ex and the PC before a new transfer process can be started.

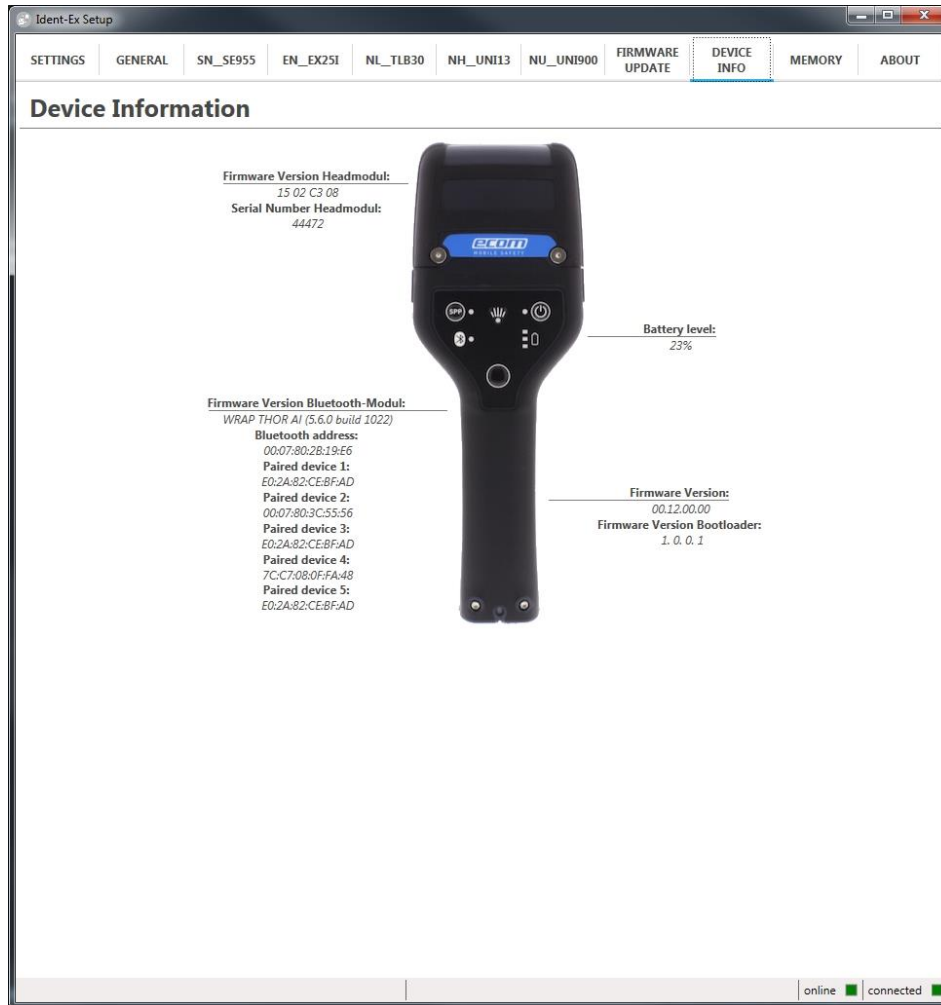
## 8.10 Device Info

The “**Device Info**” tab will show some information’s of the connected Ident-Ex. To receive information’s from the Ident-Ex it must be connected via Bluetooth (SPP and Bluetooth LED illuminating).

These data will be shown:

- **Firmware Version Headmodul**  
Firmware version of the head module
- **Serial Number Headmodul**  
Serial number of the head module (only at EX25, UNI13 und UNI900 head module)
- **Battery level**  
Batterie level of the Ident-Ex in %
- **Firmware Version**  
Firmware version of the Ident-Ex
- **Firmware Version Bootloader**  
Firmware version of the bootloaders
- **Firmware Version Bluetooth-Modul**  
Firmware version of the Bluetooth module
- **Bluetooth address**  
Bluetooth address of the Ident-Ex
- **Paired devices 1-5**

Bluetooth address of the last 5 connected devices



## 8.11 Memory

If the Ident-Ex is not connected via Bluetooth (HID or SPP mode) to a device, all scans were stored in the internal storage. It can store 511 scans. These stored scans can be readout from the Ident-Ex Setup software with the “Memory” tab. If the internal storage is full, no new scan can be made until the memory was readout and erased.

The Ident-Ex must be connected via Bluetooth (SPP and Bluetooth LED illuminating) with the PC. After the connection is done and the “Memory” tab is selected, the used memory size of the Ident-Ex will be automatically readout and shown in the “Memory usage” progress bar.

### 8.11.1 Memory size

The memory size can also readout by pressing the button “READ SIZE”.



### 8.11.2 Readout data

If the memory storage of the Ident-Ex is not empty, the memory can be readout by pressing the button **“READ ALL”**. Every storage place will be readout and displayed in the list next to the button **“READ ALL”**. During reading the storage a progress bar will show the actual process.

#### Memory info

Read all scans from the Ident-Ex 01 storage

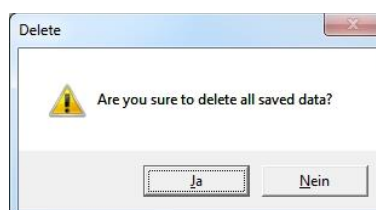
2 of 19 loading data...

offline  connected

Address	Value
0	489F5502000104E00000000000000000
1	E73B5502000104E00000000000000000
2	489F5502000104E00000000000000000
3	E73B5502000104E00000000000000000
4	489F5502000104E00000000000000000
5	E73B5502000104E00000000000000000
6	489F5502000104E00000000000000000
7	E73B5502000104E00000000000000000
8	489F5502000104E00000000000000000
9	E73B5502000104E00000000000000000
10	489F5502000104E00000000000000000
11	E73B5502000104E00000000000000000
12	489F5502000104E00000000000000000
13	E73B5502000104E00000000000000000
14	489F5502000104E00000000000000000
15	E73B5502000104E00000000000000000
16	489F5502000104E00000000000000000
17	E73B5502000104E00000000000000000
18	489F5502000104E00000000000000000

### 8.11.3 Delete data

To delete the complete storage of the Ident-Ex, press the button **“DELETE ALL”**. A security query will pop up and after confirming with **“YES”**, the complete storage of the Ident-Ex will be deleted.



The status bar will show the successful or failed delete process.

### Memory info

Read all scans from the Ident-Ex 01 storage

Erase Memory successful

offline connected

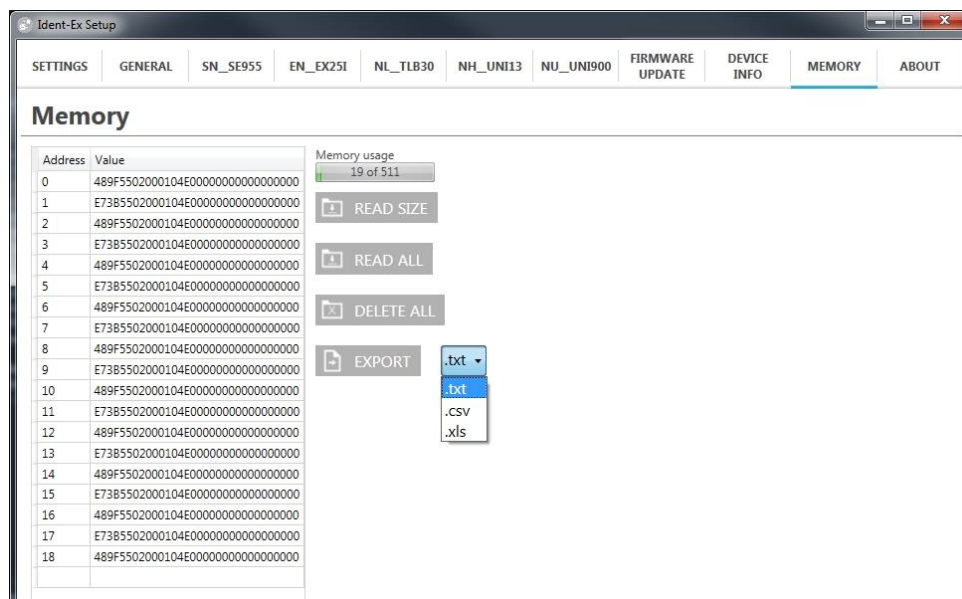
After deleting the storage of the Ident-Ex, the list of read scans shown in the “Memory” tab will also be deleted.

### 8.11.4 Data export

To export the read data from the Ident-Ex, press the button “EXPORT”. Before export the data, please select an output file format from the drop down list next to the button.

These three file format’s can be selected:

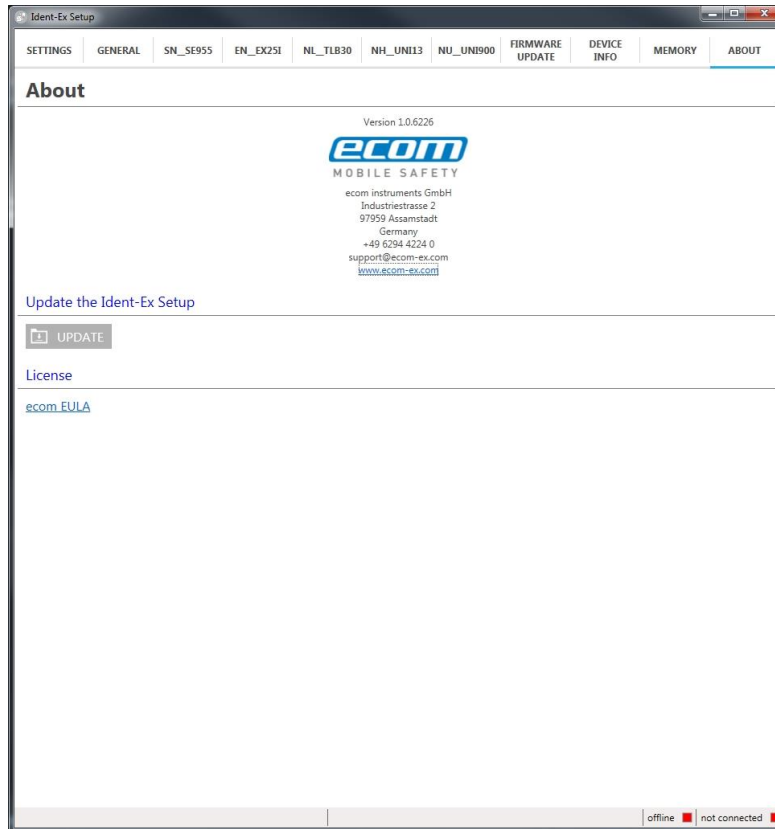
- .txt, export to text file
- .csv, export to comma-separated values file
- .xls, export to EXCEL list (only if MS OFFICE is installed)



After selecting an output file format and pressing the button “EXPORT”, a save file dialog will open to select the storage place and name of the export file. After confirmation with “Save”, the file will be created and saved.

### 8.12 About

Information’s about manufacturer and download link to the newest Ident-Ex Setup software version.



## 9 „Ident-Ex Setup“ Android

The “Ident-Ex Setup” App can be downloaded under <https://www.ecom-ex.com/apps/> from the ecom instruments GmbH homepage and in the Google Play Store.

### 9.1 Generic

A XML file is used to transfer data to the Ident-Ex. This file will be created by the Ident-Ex Setup software and transferred to the Ident-Ex.

#### First start

After the first start of the software, an “Ident-Ex01” folder will be created in the “device storage” directory and several config files will be added to this folder. These XML files are default settings for each Ident-Ex head module.

### 9.2 Settings

The “**SETTINGS**” tab is used to read and write XML files, transfer data to the Ident-Ex and manage the Bluetooth connection.



## 9.3 Load file

### 9.3.1 Generic

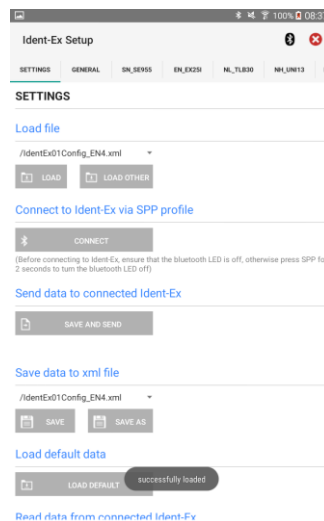
The default settings will be loaded after the first start of the Ident-Ex Setup software. After loading another file through the button “**LOAD OTHER**” this file path will be stored and loaded automatically at the next start. The last saved or opened file will be loaded at the next start.

### 9.3.2 Load default settings

Press the button “**LOAD DEFAULT**” to load the default settings of the Ident-Ex.

### 9.3.3 Load other settings

Press the button “**LOAD OTHER**” to load any settings XML file. After pressing the button you can select the file in the opened file dialog and after confirming with “open” the file will be loaded into the Ident-Ex Setup APP. A pop-up message will show the successful loading of the file.

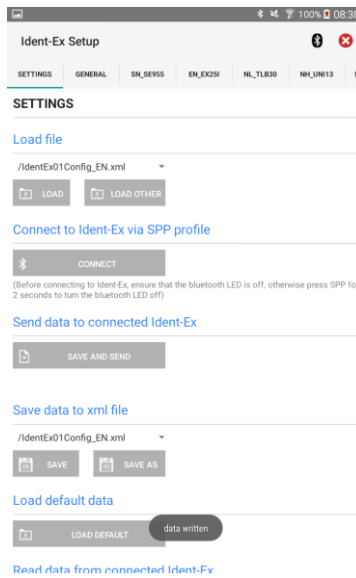
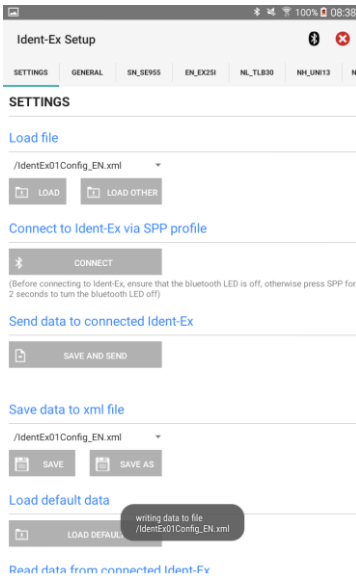


If the reading of the file was interrupted, the syntax of the file was not complied.

It is possible to load one of the last 3 saved or loaded files. These files were stored in the drop down list. To open one of these files, just select one and press the button “**LOAD**”.

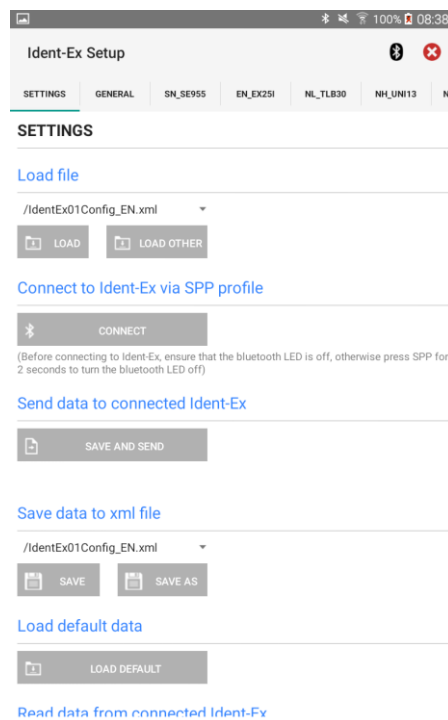
## 9.4 Save file

The settings can be saved with the button “**SAVE**” and “**SAVE AS**”. A pop-up message will show the successful or faulty saving progress.

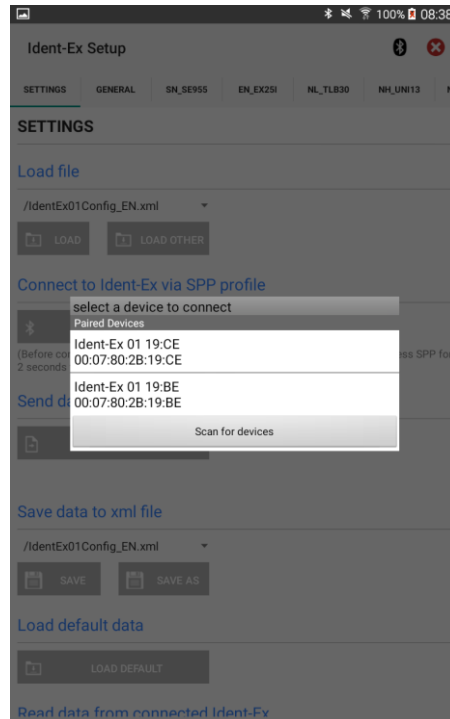


## 9.5 Bluetooth connection

A Bluetooth connection can be established under the "**SETTINGS**" tab by pressing "**connect**".



A window opens which contains the name(s) of the Bluetooth device(s) that can be connected. The default Bluetooth name of the Ident-Ex is "**Ident-Ex 01**". If a different Bluetooth name has been set for the Ident-Ex (see **BT name**), this name will need to be selected.



If the mobile device has not yet been paired with the Ident-Ex, a window will appear after selecting the Bluetooth name of the Ident-Ex to query whether a connection should be established with the Ident-Ex. After confirming the query, a Bluetooth connection is established between the Ident-Ex and the mobile device. If the corresponding Bluetooth name of the Ident-Ex does not appear in the list of Bluetooth devices, you can perform a search for the Ident-Ex by selecting "**Scan for devices**".

If a Bluetooth connection has been established successfully between the Ident-Ex and the mobile device, the SPP and Bluetooth LEDs on the Ident-Ex will illuminate. These two LEDs must illuminate, otherwise firmware cannot be installed on the Ident-Ex.

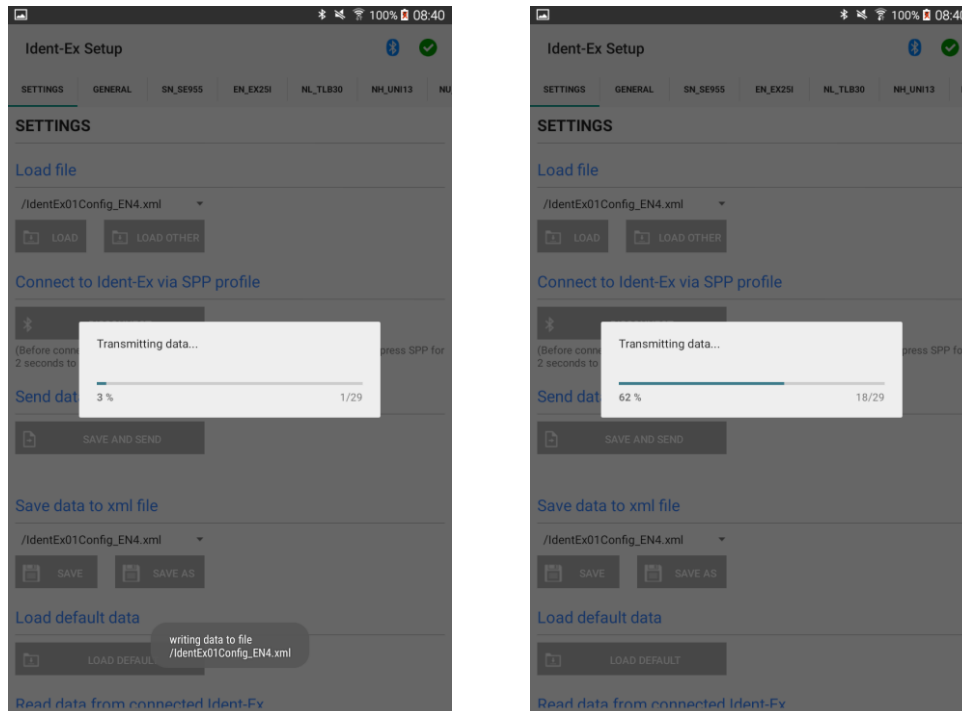


## 9.6 Transfer data to Ident-Ex

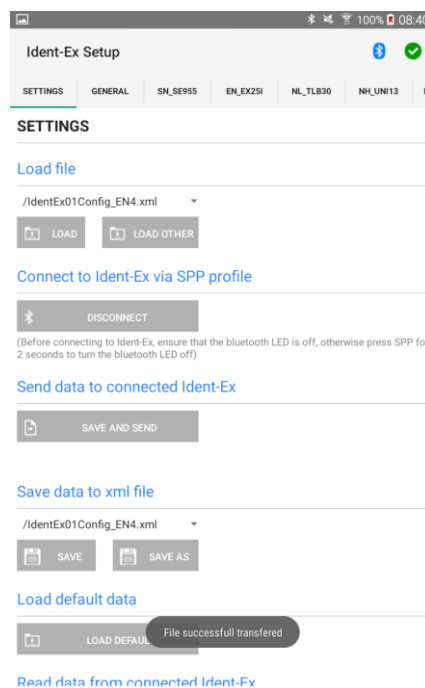
Before sending data to the Ident-Ex the Bluetooth connection must be compounded (SPP and Bluetooth LED illuminating). Is the connection made, you can send the data to the Ident-Ex.

The Ident-Ex Setup APP will save all settings before sending the data to the Ident-Ex. Please select a file under **“Save data to xml file”** where the settings will be saved. After choosing the right file, press the button **“SAFE AND SEND”**. The settings will be saved in the chosen file and send to the Ident-Ex.

If the transmission has started, a progress bar will show the progress.



The successful or terminated transfer of the data will be shown in a pop-up message.

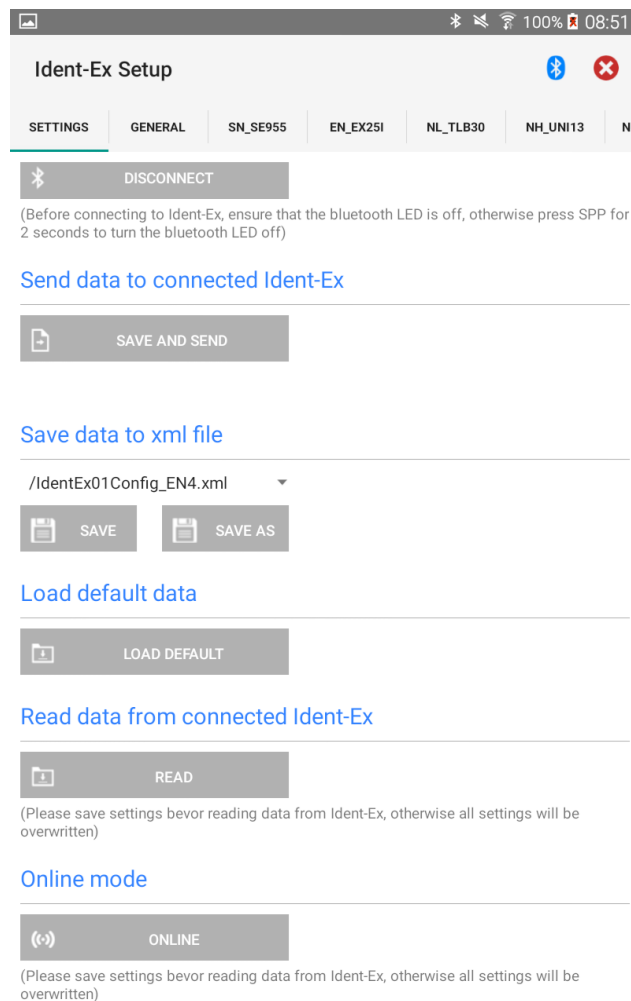


If the data transfer was interrupted, please check the Bluetooth connection (SPP and Bluetooth LED illuminating) and start a new download.

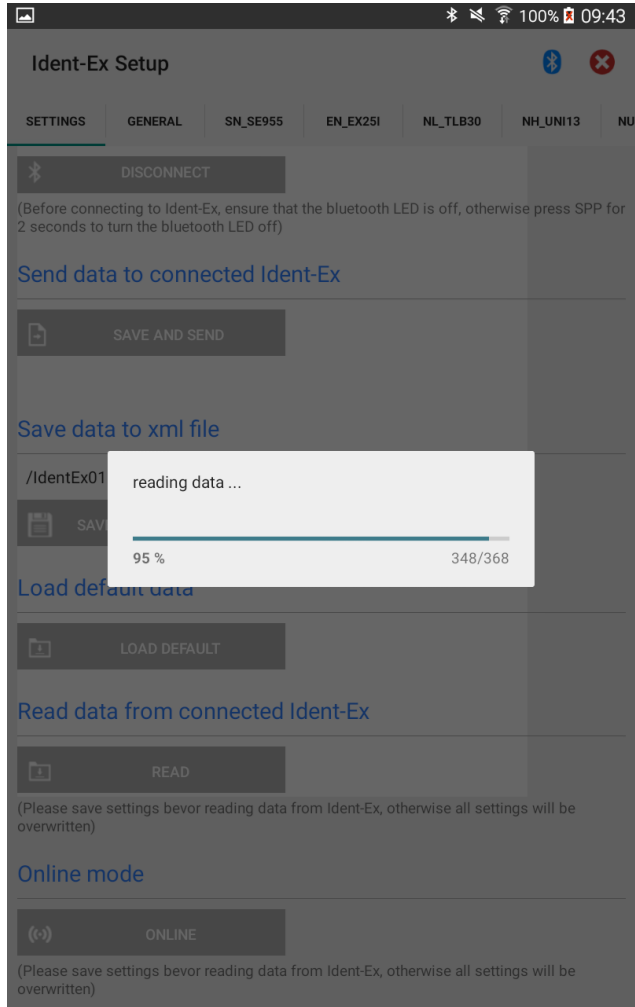
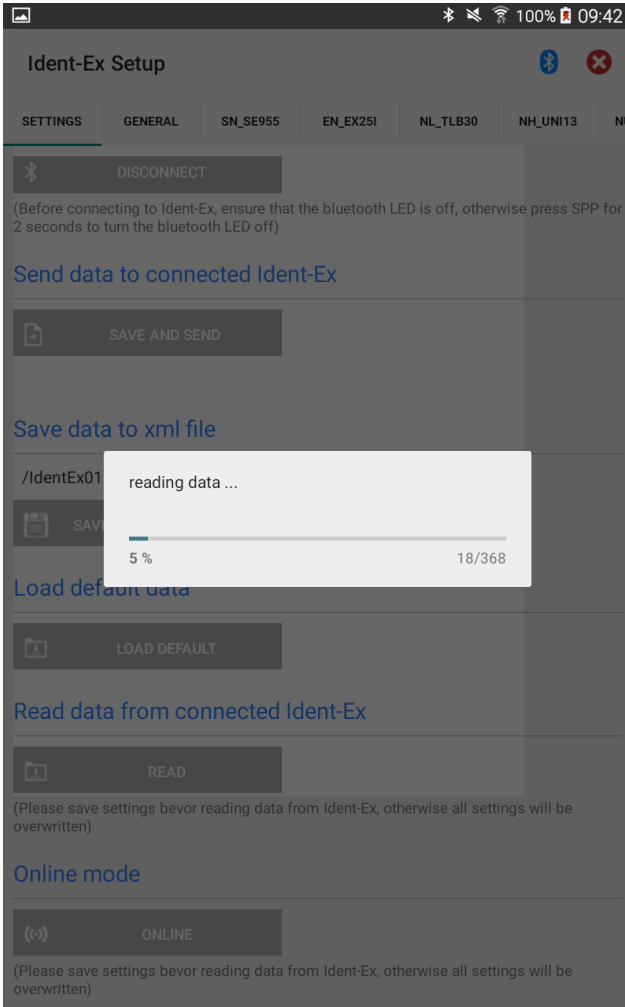
## 9.7 Read data from Ident-Ex

To read all settings from the Ident-Ex, press the button **“READ”**. All settings saved in the Ident-Ex will be transmitted to the Ident-Ex Setup software.

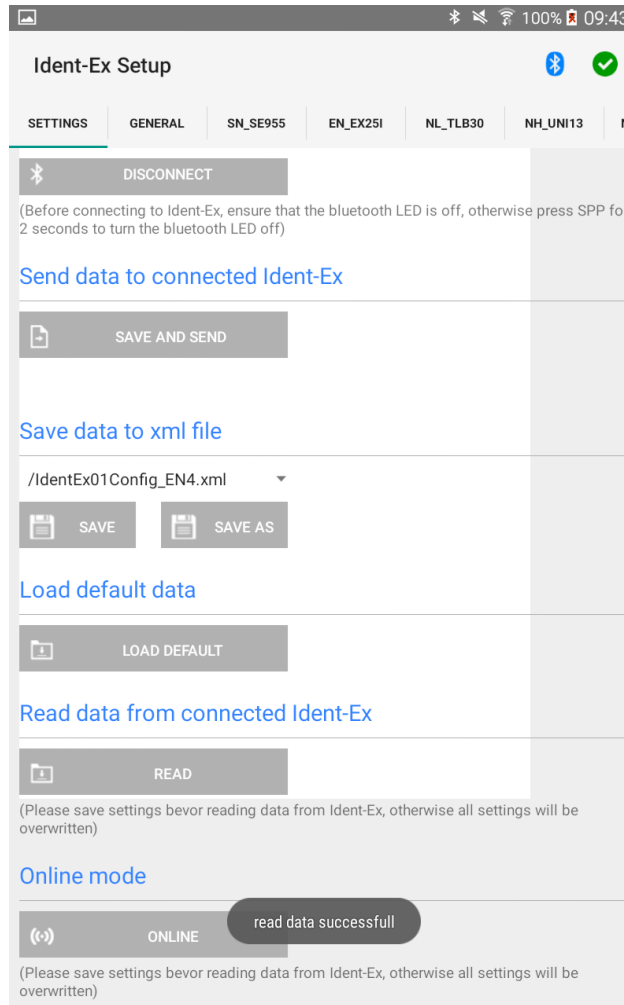
Please save all settings before reading data from the Ident-Ex, otherwise these setting will be overridden (**“SAVE”** or **“SAVE AS”** button).



After pressing the button **“READ”** the Ident-Ex is sending all settings to the Ident-Ex Setup software. This opens a window which displays the progress of the transfer.



A message is displayed on the mobile device to indicate the successful or failed transfer of the data. If the data were received successfully, the settings will be shown in the associated tab.



## 9.8 Online Mode

With the online mode it is possible to send data directly after modification to the Ident-Ex. There are three capabilities to activate the online mode. For each of these capabilities the Ident-Ex must be connected via Bluetooth (SPP and Bluetooth LED illuminating).

4. After successful transfer a file to the Ident-Ex (“**SAFE AND SEND**”)
5. After reading the data from the Ident-Ex (“**READ**”)
6. After pressing the button “**ONLINE**”

the online mode will be activated.

The actual state of the online mode will be shown in the status bar (green -> online, red -> offline).

After activating the online mode, every changes made in the tab GENERAL, SN\_SE955, EN\_EX25I, NL\_TLB30, NH\_UNI13 or NU\_UNI900, will be send directly to the Ident-Ex.

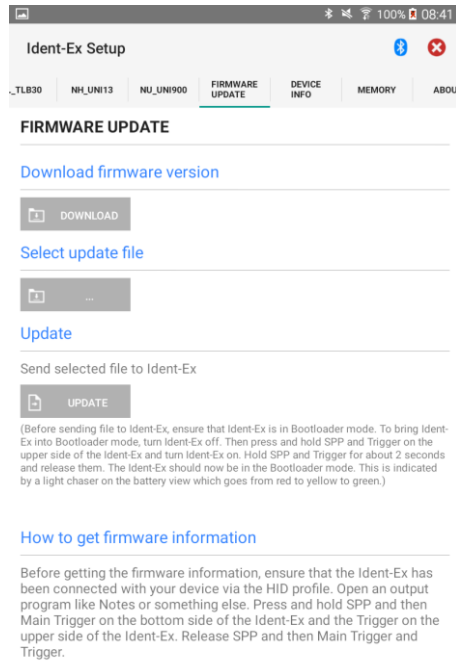
The status bar will show the successful transfer of the data. If the data transfer was interrupted or terminated, the last set value will be set and the online mode will be deactivated.

## 9.9 Installing new Firmware

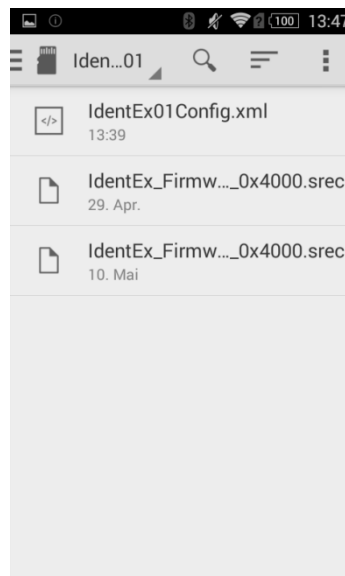
Navigate to the "**FIRMWARE UPDATE**" tab and press "... " to select the file that contains the new firmware for the Ident-Ex.

Press the "**DOWNLOAD**" Button to download the newest firmware from the ecom instruments GmbH server.



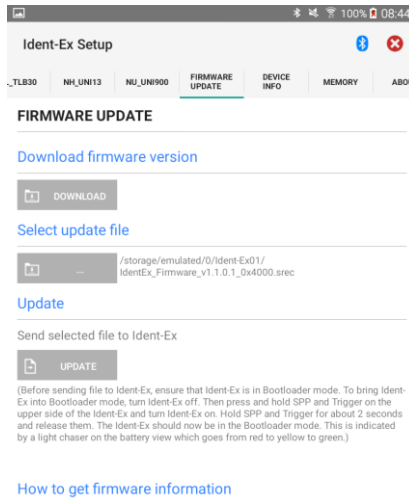


Pressing "... " will open a window in which the file with the new firmware can be selected.

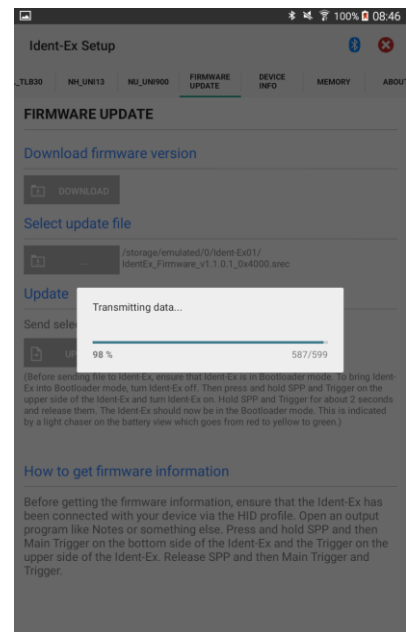
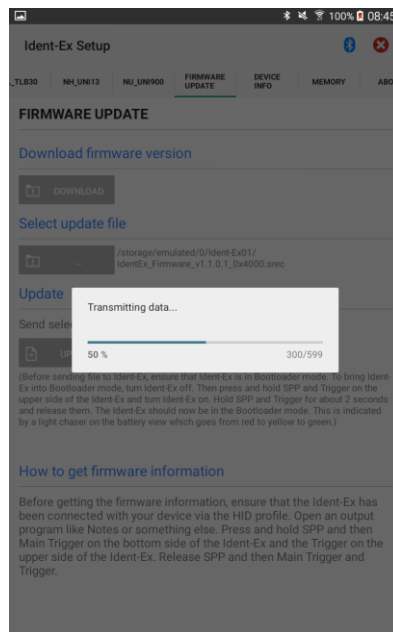
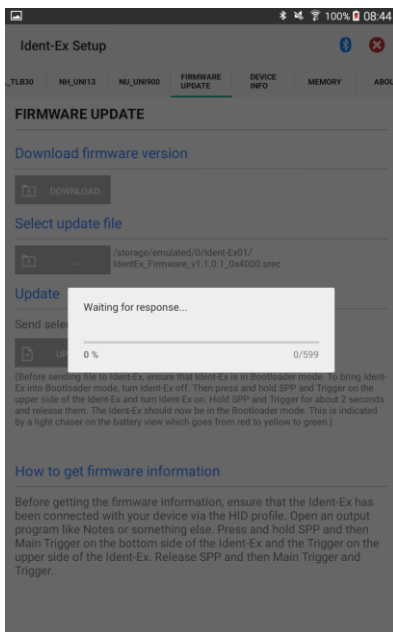


After selecting the corresponding file that contains the new firmware, we are transferred back to the software update menu. The Ident-Ex must be in bootloader mode (see **7.2 Launching the bootloader on the Ident-Ex**) and connected with SPP profile before updating the firmware.

The new firmware for the Ident-Ex can now be installed by pressing " **UPDATE** ".



This opens a window which displays the progress of the transfer.



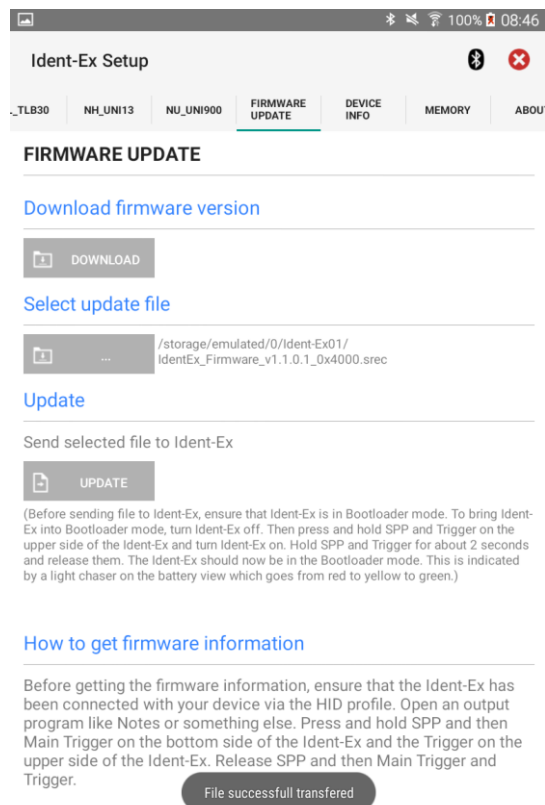
The yellow LED on the Ident-Ex battery display flashes when the firmware data is being transferred. The LED flashes until the transfer is complete or until an error occurs.



If the transfer was successful, the green LED on the Ident-Ex battery display will illuminate shortly.



A message is displayed on the mobile device to indicate that the transfer was successful.



The new firmware is launched on the Ident-Ex and the bootloader is closed.

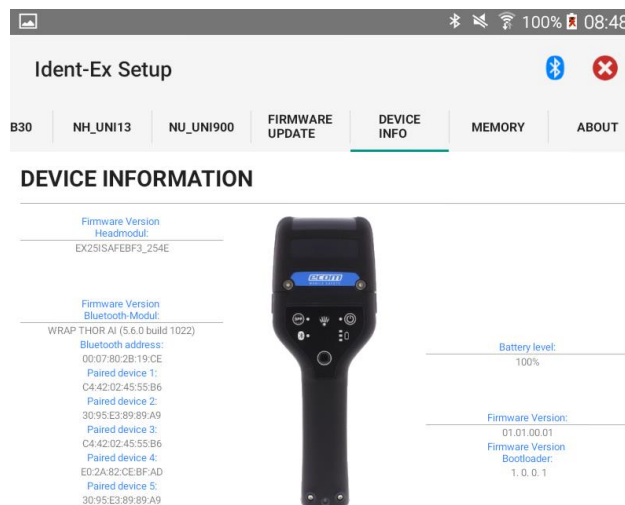
If something went wrong during the data transfer process, the new firmware will not be able to be started on the Ident-Ex and we remain in the bootloader (the light on the Ident-Ex battery display changes from red to yellow to green). If this occurs, the firmware will have to be reinstalled and a new data transfer process must be started. If the Bluetooth connection is lost when transferring firmware data (the SPP and Bluetooth LEDs on the Ident-Ex are off), a new Bluetooth connection will need to be established between the Ident-Ex and the mobile device before a new transfer process can be started.

## 9.10 Device Info

The “**Device Info**” tab will show some information’s of the connected Ident-Ex. To receive information’s from the Ident-Ex it must be connected via Bluetooth (SPP and Bluetooth LED illuminating).

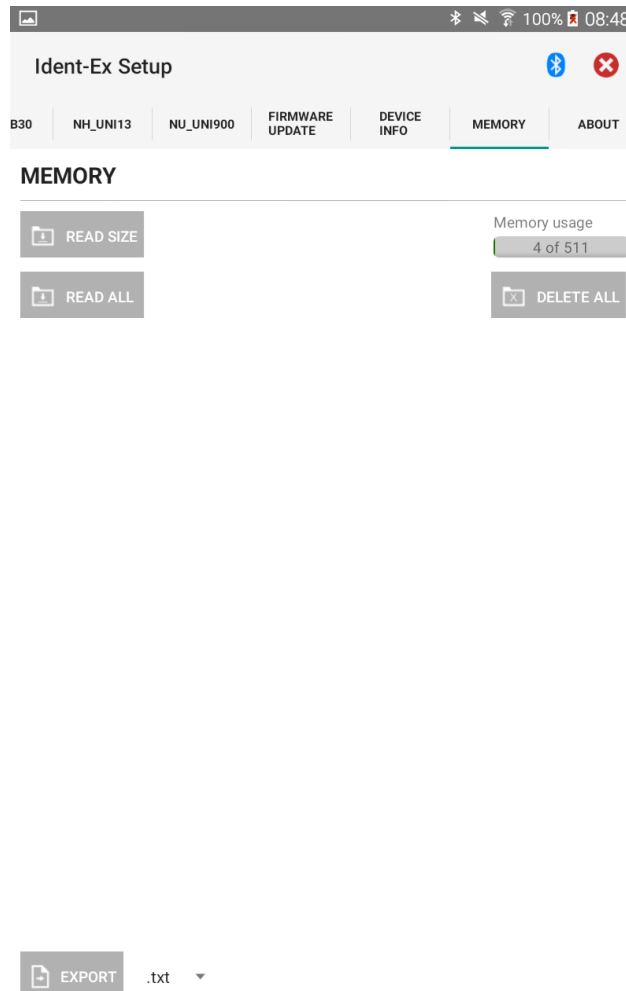
These data will be shown:

- **Firmware Version Headmodul**  
Firmware version of the head module
- **Serial Number Headmodul**  
Serial number of the head module (only at EX25, UNI13 und UNI900 head module)
- **Battery level**  
Batterie level of the Ident-Ex in %
- **Firmware Version**  
Firmware version of the Ident-Ex
- **Firmware Version Bootloader**  
Firmware version of the bootloaders
- **Firmware Version Bluetooth-Modul**  
Firmware version of the Bluetooth module
- **Bluetooth address**  
Bluetooth address of the Ident-Ex
- **Paired devices 1-5**  
Bluetooth address of the last 5 connected devices



## 9.11 Memory

If the Ident-Ex is not connected via Bluetooth (HID or SPP mode) to a device, all scans were stored in the internal storage. It can store 511 scans. These stored scans can be readout from the Ident-Ex Setup software with the “Memory” tab. If the internal storage is full, no new scan can be made until the memory was readout and erased.



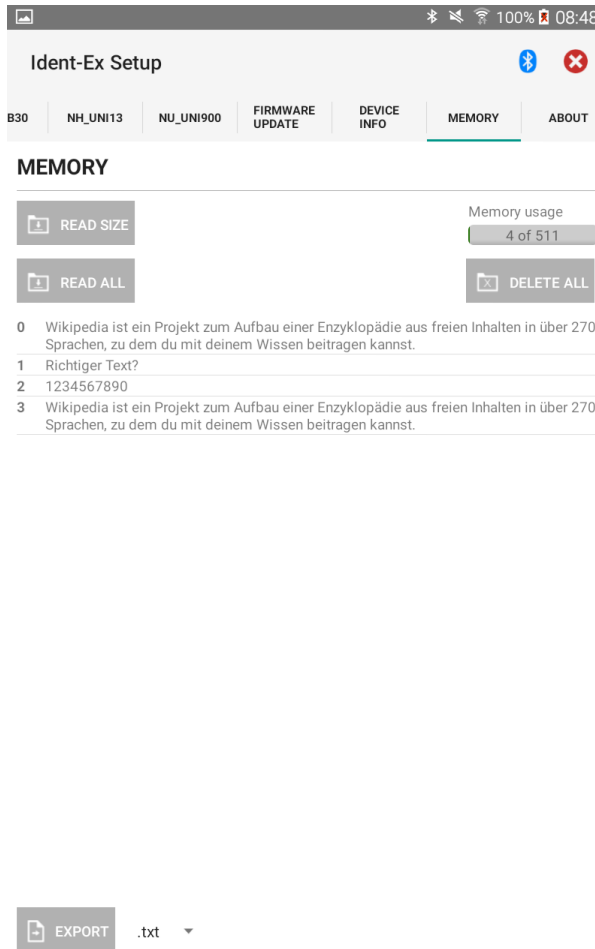
The Ident-Ex must be connected via Bluetooth (SPP and Bluetooth LED illuminating) with the PC. After the connection is done and the “Memory” tab is selected, the used memory size of the Ident-Ex will be automatically readout and shown in the “Memory usage” progress bar.

### 9.11.1 Memory size

The memory size can also readout by pressing the button “**READ SIZE**”.

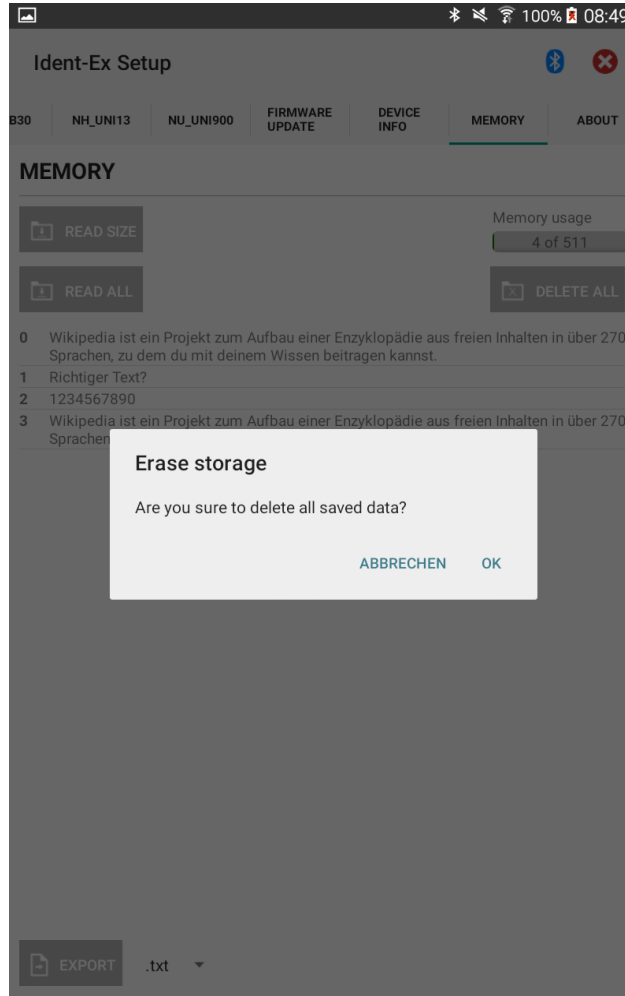
### 9.11.2 Readout data

If the memory storage of the Ident-Ex is not empty, the memory can be readout by pressing the button “**READ ALL**”. Every storage place will be readout and displayed in the list next to the button “**READ ALL**”..

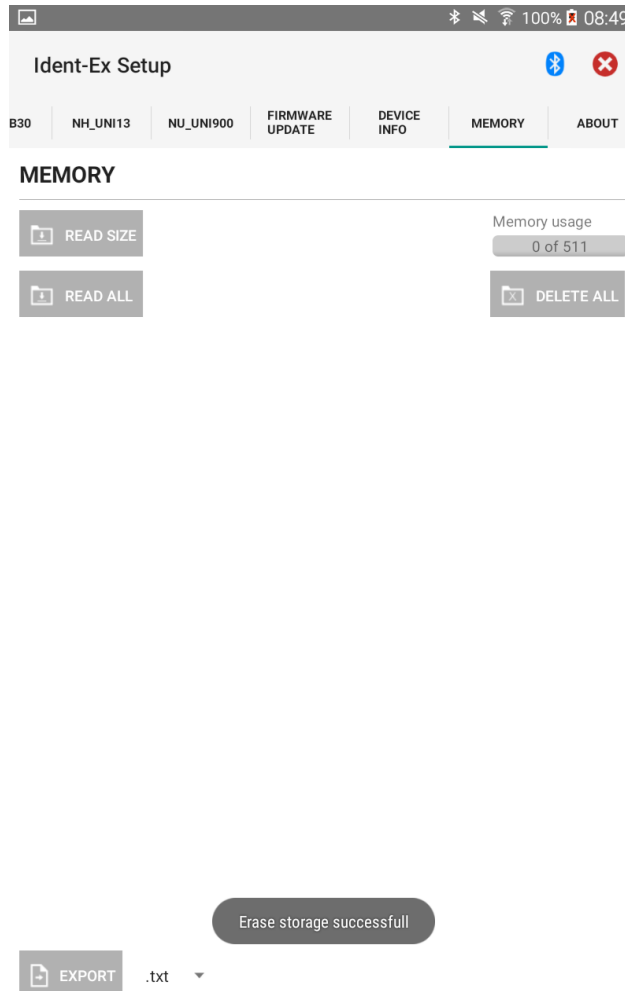


### 9.11.3 Delete data

To delete the complete storage of the Ident-Ex, press the button “**DELETE ALL**”. A security query will pop up and after confirming with “**YES**”, the complete storage of the Ident-Ex will be deleted.



A message is displayed on the mobile device to indicate the successful or failed delete process.



After deleting the storage of the Ident-Ex, the list of read scans shown in the “**Memory**” tab will also be deleted.

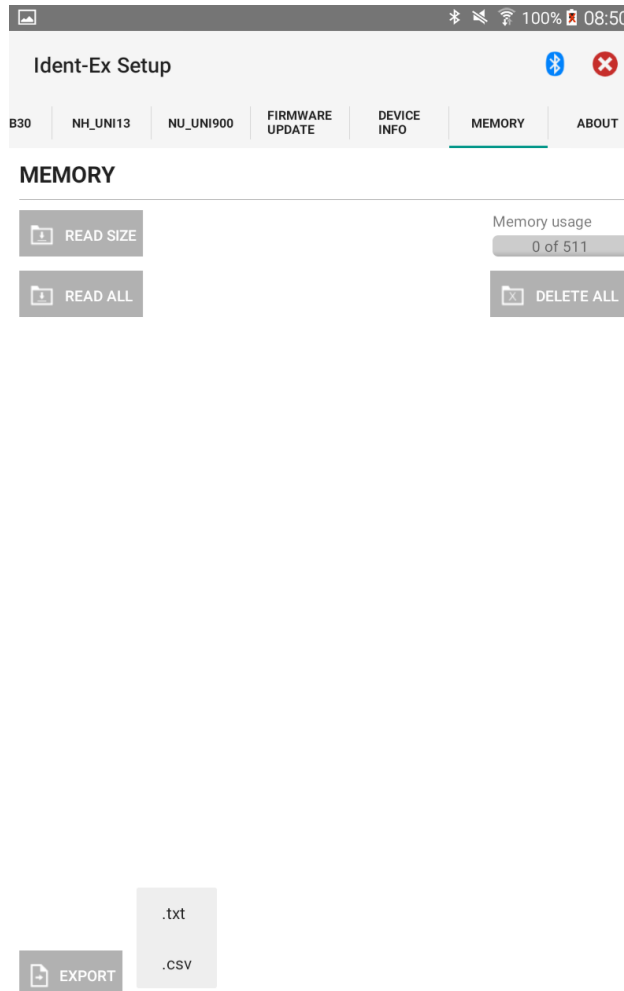
#### 9.11.4 Data export

To export the read data from the Ident-Ex, press the button “**EXPORT**”. Before export the data, please select an output file format from the drop down list next to the button.

These two file format’s can be selected:

- .txt, export to text file
- .csv, export to comma-separated values file

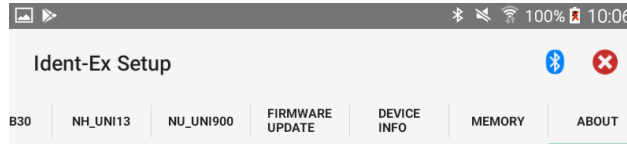




After selecting an output file format and pressing the button “**EXPORT**”, a save file dialog will open to select the storage place and name of the export file. After confirmation with “**Save**”, the file will be created and saved.

## 9.12 About

Information’s about manufacturer and download link to the newest Ident-Ex Setup APP.



Version 1.6.10



A PEPPERL+FUCHS BRAND

ecom instruments GmbH  
Industriestrasse 2  
97959 Assamstadt  
Germany  
+49 6294 4224 0  
support@ecom-ex.com

### [Update the Ident-Ex Setup](#)



### [License](#)

[ecom EULA](#)

## 10 Annex A

### 10.1 General Ident-Ex settings

Setting	Options	Default value	Description
Head module	<ul style="list-style-type: none"> <li>10 SN SE955 Barcode Scanner</li> <li>20 EN Ex25 Barcode Imager</li> <li>01 NL/NF TLB30 LF RFID Reader</li> <li>02 NH UNI13 HF RFID Reader</li> <li>03 NE/NU UNI900 UHF RFID Reader</li> <li>11 SL/SF SE955 TLB30 Dual</li> <li>12 SH SE955 UNI13 Dual</li> </ul>	SN SE955 Barcode Scanner	<p>Selection of a head module to be used for reading.</p> <p>In order to be able to read with the selected head module, a selection must be implemented for the <b>Trigger Buttons</b>.</p>
Enable Beep	<ul style="list-style-type: none"> <li>off</li> <li>soft</li> <li>middle</li> <li>loud</li> <li>resounding</li> </ul>	middle	Setting for the beep sound that is emitted when a reading is successful. If this is set to <b>off</b> , a beep sound will not be emitted when a reading is successful.
Signal duration (in milliseconds)	100-2000	500	<p>Setting for how long the Scan LED is illuminated and how long the beep sound is emitted when a reading is successful.</p> <p>Specified in milliseconds.</p>
Not-Read-Event	Enable/disable	Disabled	If this setting is enabled, a message will be send after a bad read
<b>Trigger Buttons</b>			
Main Trigger	<ul style="list-style-type: none"> <li>No Device</li> <li>Barcode</li> <li>RFID</li> <li>Erase last batch scan</li> </ul>	Barcode	<p>Setting for the type of head module that is to be used for a read operation when pressing the main trigger button (trigger button on the underside).</p> <p>The process for reading with a head module can be disabled for this button by selecting <b>No Device</b>.</p>
Trigger	<ul style="list-style-type: none"> <li>No Device</li> <li>Barcode</li> </ul>	RFID	Setting for the type of head module that is to

	<ul style="list-style-type: none"> <li>RFID</li> <li>Erase last batch scan</li> </ul>		<p>be used for a read operation when pressing the trigger button (trigger button on the top).</p> <p>The process for reading with a head module can be disabled for this button by selecting <b>No Device</b>.</p>
Batch Scan	Enable/disable	Disabled	Setting, if scanning without Bluetooth connection is possible
Trigger-Event	Enable/disable	Disabled	If this setting is enabled, the trigger event is always running
<b>BT</b>			
BT name	0-140 characters	Ident-Ex 01	Setting for the Bluetooth name of the Ident-Ex.
HID Autoconnect	Enable/disable	Enabled	If this setting is enabled, the Ident-Ex will try to start automatically a HID connection after start
direct mode	Enable/disable	Disabled	
HID last search	<ul style="list-style-type: none"> <li>1</li> <li>2</li> <li>3</li> <li>4</li> <li>5</li> </ul>	1	How many of the last connected Bluetooth devices should be considered to start a HID connection.
add BT ID to name	<ul style="list-style-type: none"> <li>0</li> <li>1</li> <li>2</li> <li>3</li> <li>4</li> <li>5</li> <li>6</li> </ul>	0	<p>How many words of the Bluetooth ID should be written at the end of the BT Name.</p> <p>e.g.</p> <p>Value = 2</p> <p>ID = 00:11:22:33:44:55</p> <p>BT Name = Ident-Ex 01</p> <ul style="list-style-type: none"> <li>Ident-Ex 01 44:55</li> </ul>
BT Mode	<ul style="list-style-type: none"> <li>Slave</li> <li>Master</li> </ul>	Master	Setting, if the Ident-Ex handles the BT connection as Master or Slave
<b>Additional Keys</b>			
Additional Keys as	<ul style="list-style-type: none"> <li>Preamble</li> <li>Postamble</li> </ul>	1 => Postamble	Append the Additional Key at the beginning or at the end of the data
Modifier1	<ul style="list-style-type: none"> <li>None</li> <li>LEFT CTRL</li> <li>LEFT SHIFT</li> <li>LEFT ALT</li> <li>LEFT GUI</li> <li>RIGHT CTRL</li> </ul>	None	These 3 settings only work in conjunction with one or more of the settings for <b>Key 1, Key 2, Key 3, Key 4, Key 5</b>

	<ul style="list-style-type: none"> <li>• RIGHT SHIFT</li> <li>• RIGHT ALT</li> <li>• RIGHT GUI</li> </ul>		or <b>Key 6</b> and the HID-Mode.
Modifier2	<ul style="list-style-type: none"> <li>• None</li> <li>• LEFT CTRL</li> <li>• LEFT SHIFT</li> <li>• LEFT ALT</li> <li>• LEFT GUI</li> <li>• RIGHT CTRL</li> <li>• RIGHT SHIFT</li> <li>• RIGHT ALT</li> <li>• RIGHT GUI</li> </ul>	None	The process of actuating 6 different keys can be simulated with the Key Codes. These Key Codes are transferred to the Bluetooth module and appended to the data that is read with a head module (after possible output of <b>Postamble</b> data).
Modifier3	<ul style="list-style-type: none"> <li>• None</li> <li>• LEFT CTRL</li> <li>• LEFT SHIFT</li> <li>• LEFT ALT</li> <li>• LEFT GUI</li> <li>• RIGHT CTRL</li> <li>• RIGHT SHIFT</li> <li>• RIGHT ALT</li> <li>• RIGHT GUI</li> </ul>	None	The modifiers 1, 2 and 3 are used to modify the result of the keystroke that is simulated by a Key Code. If, for example, LEFT SHIFT is selected for Modifier1 and Left Arrow is selected for Key Code1, this would result in highlighting the character that is located at the current cursor position.
Key 1	<ul style="list-style-type: none"> <li>• None</li> <li>• Return</li> <li>• Escape</li> <li>• Delete</li> <li>• Tab</li> <li>• Spacebar</li> <li>• Caps Lock</li> <li>• F1</li> <li>• F2</li> <li>• F3</li> <li>• F4</li> <li>• F5</li> <li>• F6</li> <li>• F7</li> <li>• F8</li> <li>• F9</li> <li>• F10</li> <li>• F11</li> <li>• F12</li> <li>• Print Screen</li> <li>• Scroll Lock</li> <li>• Pause</li> <li>• Insert</li> <li>• Home</li> <li>• PageUp</li> </ul>	None	Setting of a Key Code for simulating a keystroke.

	<ul style="list-style-type: none"> <li>• Delete Forward</li> <li>• End</li> <li>• Page Down</li> <li>• Right Arrow</li> <li>• Left Arrow</li> <li>• Down Arrow</li> <li>• Up Arrow</li> </ul>		
Key 2	<ul style="list-style-type: none"> <li>• None</li> <li>• Return</li> <li>• Escape</li> <li>• Delete</li> <li>• Tab</li> <li>• Spacebar</li> <li>• Caps Lock</li> <li>• F1</li> <li>• F2</li> <li>• F3</li> <li>• F4</li> <li>• F5</li> <li>• F6</li> <li>• F7</li> <li>• F8</li> <li>• F9</li> <li>• F10</li> <li>• F11</li> <li>• F12</li> <li>• Print Screen</li> <li>• Scroll Lock</li> <li>• Pause</li> <li>• Insert</li> <li>• Home</li> <li>• PageUp</li> <li>• Delete Forward</li> <li>• End</li> <li>• Page Down</li> <li>• Right Arrow</li> <li>• Left Arrow</li> <li>• Down Arrow</li> <li>• Up Arrow</li> </ul>	None	Setting of a Key Code for simulating a keystroke.
Key 3	<ul style="list-style-type: none"> <li>• None</li> <li>• Return</li> <li>• Escape</li> <li>• Delete</li> <li>• Tab</li> <li>• Spacebar</li> <li>• Caps Lock</li> <li>• F1</li> <li>• F2</li> <li>• F3</li> <li>• F4</li> <li>• F5</li> <li>• F6</li> <li>• F7</li> <li>• F8</li> <li>• F9</li> <li>• F10</li> <li>• F11</li> <li>• F12</li> </ul>	None	Setting of a Key Code for simulating a keystroke.

	<ul style="list-style-type: none"> <li>• Print Screen</li> <li>• Scroll Lock</li> <li>• Pause</li> <li>• Insert</li> <li>• Home</li> <li>• PageUp</li> <li>• Delete Forward</li> <li>• End</li> <li>• Page Down</li> <li>• Right Arrow</li> <li>• Left Arrow</li> <li>• Down Arrow</li> <li>• Up Arrow</li> </ul>		
Key 4	<ul style="list-style-type: none"> <li>• None</li> <li>• Return</li> <li>• Escape</li> <li>• Delete</li> <li>• Tab</li> <li>• Spacebar</li> <li>• Caps Lock</li> <li>• F1</li> <li>• F2</li> <li>• F3</li> <li>• F4</li> <li>• F5</li> <li>• F6</li> <li>• F7</li> <li>• F8</li> <li>• F9</li> <li>• F10</li> <li>• F11</li> <li>• F12</li> <li>• Print Screen</li> <li>• Scroll Lock</li> <li>• Pause</li> <li>• Insert</li> <li>• Home</li> <li>• PageUp</li> <li>• Delete Forward</li> <li>• End</li> <li>• Page Down</li> <li>• Right Arrow</li> <li>• Left Arrow</li> <li>• Down Arrow</li> <li>• Up Arrow</li> </ul>	None	Setting of a Key Code for simulating a keystroke.
Key 5	<ul style="list-style-type: none"> <li>• None</li> <li>• Return</li> <li>• Escape</li> <li>• Delete</li> <li>• Tab</li> <li>• Spacebar</li> <li>• Caps Lock</li> <li>• F1</li> <li>• F2</li> <li>• F3</li> <li>• F4</li> <li>• F5</li> <li>• F6</li> </ul>	None	Setting of a Key Code for simulating a keystroke.

	<ul style="list-style-type: none"> <li>• F7</li> <li>• F8</li> <li>• F9</li> <li>• F10</li> <li>• F11</li> <li>• F12</li> <li>• Print Screen</li> <li>• Scroll Lock</li> <li>• Pause</li> <li>• Insert</li> <li>• Home</li> <li>• PageUp</li> <li>• Delete Forward</li> <li>• End</li> <li>• Page Down</li> <li>• Right Arrow</li> <li>• Left Arrow</li> <li>• Down Arrow</li> <li>• Up Arrow</li> </ul>		
Key 6	<ul style="list-style-type: none"> <li>• None</li> <li>• Return</li> <li>• Escape</li> <li>• Delete</li> <li>• Tab</li> <li>• Spacebar</li> <li>• Caps Lock</li> <li>• F1</li> <li>• F2</li> <li>• F3</li> <li>• F4</li> <li>• F5</li> <li>• F6</li> <li>• F7</li> <li>• F8</li> <li>• F9</li> <li>• F10</li> <li>• F11</li> <li>• F12</li> <li>• Print Screen</li> <li>• Scroll Lock</li> <li>• Pause</li> <li>• Insert</li> <li>• Home</li> <li>• PageUp</li> <li>• Delete Forward</li> <li>• End</li> <li>• Page Down</li> <li>• Right Arrow</li> <li>• Left Arrow</li> <li>• Down Arrow</li> <li>• Up Arrow</li> </ul>	None	Setting of a Key Code for simulating a keystroke.
Preamble	0-20 characters		Specification of characters that are appended to the front of data read with a head module.



			<p>HEX values can also be specified here through the introduction of "\x". If, for example, "\x0D" is specified as preamble, a Carriage Return is appended to the front of data read with a head module.</p>
Postamble	0-20 characters		<p>Specification of characters that are appended to the end of data read with a head module.</p> <p>HEX values can also be specified here through the introduction of "\x". If, for example, "\x0D" is specified as postamble, a Carriage Return is appended to the end of data read with a head module.</p>
Language	<ul style="list-style-type: none"> <li>• german</li> <li>• english</li> <li>• french</li> </ul>	english	Setting for the keyboard language. Only in HID-Mode
Switch off time (in minutes)	0-10	5	<p>Specification of a time after which the Ident-Ex will switch off automatically if a Bluetooth connection is not available and the Ident-Ex is not located in the docking station/being charged.</p> <p>Specification in minutes. Interval in 1 minute increments.</p>

## 10.2 Settings for the UNI900 head module

Setting	Options	Default value	Description
set EPC in front	Enable/disable	Enabled	If this setting is enabled, the EPC of a read RFID TAG will be appended to the front of the read data and transmitted with it.

			<p>If this setting is disabled, the setting for <b>Data length</b> must be greater than 0, otherwise no data will be read or transmitted for an RFID TAG.</p> <p>If this setting is enabled and the setting for <b>Data length</b> is 0, only the EPC of a read RFID TAG will be transmitted.</p>
add CR after each EPC	Enable/disable	Disabled	This setting can be used to specify whether or not a Carriage Return is to be appended and output after each EPC if a UNI900 head module identifies several RFID TAGs during a reading process.
From block	0-9999	2	<p>Specification of the block from which the data of an RFID TAG is to be read.</p> <p>This setting does not have an effect if several RFID TAGs are identified when reading with a UNI900 head module. In this case, only the EPC data is transmitted, without any block data from the TAG (<b>set EPC in front</b> must be enabled).</p>
Data length (in bytes)	0-9999	8	<p>Specification of the length (in bytes) of data that is to be read from an RFID TAG.</p> <p>This setting should only be set to 0 if the <b>set EPC in front</b> setting is enabled. Otherwise, no data from an RFID TAG will be read or transmitted.</p>

			This setting does not have an effect if several RFID TAGs are identified when reading with a UNI900 head module. In this case, only the EPC data is transmitted, without any block data from the TAG ( <b>set EPC in front</b> must be enabled).
Timeout for reading (in seconds)	1-25	3	Timeout setting for reading with a UNI900 head module. If an RFID TAG cannot be read during this time, the reading process is aborted and must be restarted.  Specification in seconds. Interval in 1 second increments.
Output Data	<ul style="list-style-type: none"> <li>• HEX</li> <li>• ASCII</li> </ul>	HEX	This setting can be used to specify the format of the read data.
High <-> Low Byte	Enable/disable	Disabled	This setting can be used to specify whether or not the higher bytes are to be exchanged with the low bytes of a read data block.
Power adjustment	<ul style="list-style-type: none"> <li>• 06 dB</li> <li>• 07 dB</li> <li>• 08 dB</li> <li>• 09 dB</li> <li>• 10 dB</li> <li>• 11 dB</li> <li>• 12 dB</li> <li>• 13 dB</li> <li>• 14 dB</li> <li>• 15 dB</li> <li>• 16 dB</li> <li>• 17 dB</li> <li>• 18 dB</li> <li>• 19 dB</li> <li>• 20 dB</li> <li>• 21 dB</li> <li>• 22 dB</li> <li>• 23 dB</li> <li>• 24 dB</li> <li>• 25 dB</li> <li>• 26 dB</li> <li>• 27 dB</li> </ul>	25 dB	The output of the UNI900 head module can be adjusted here.

Preamble	0-48 characters		<p>Specification of characters that are appended to the front of data read with a head module.</p> <p>HEX values can also be specified here through the introduction of "\x". If, for example, "\x0D" is specified as preamble, a Carriage Return is appended to the front of data read with a head module.</p>
Postamble	0-48 characters		<p>Specification of characters that are appended to the end of data read with a head module.</p> <p>HEX values can also be specified here through the introduction of "\x". If, for example, "\x0D" is specified as postamble, a Carriage Return is appended to the end of data read with a head module.</p>

### 10.3 Settings for the EX25i head module

For further information about the settings for the EX25i, please refer to the ISCP Command Protocol from Intermecc.

### 10.4 Settings for the TLB30 head module

Setting	Options	Default value	Description
From block	0-9999	2	<p>Specification of the block from which the data of an RFID TAG is to be read.</p> <p>Does not have an effect on Unique, Zodiac, Tiris (read-only) or Tiris (read/write) TAGs.</p>
Data length (in bytes)	0-9999	8	Specification of the length (in bytes) of data

			that is to be read from an RFID TAG.  Does not have an effect on Unique, Zodiac or Tiris (read-only) TAGs.
Unique	Enable/disable	Enabled	This setting can be used to specify whether or not a Unique TAG is to be read. If activated, add 0x01 to value of MASK
Hitag S	Enable/disable	Enabled	This setting can be used to specify whether or not a Hitag S TAG is to be read. If activated, add 0x08 to value of MASK
Zodiac	Enable/disable	Disabled	This setting can be used to specify whether or not a Zodiac TAG is to be read. If activated, add 0x40 to value of MASK
Tiris	Enable/disable	Disabled	This setting can be used to specify whether or not a Tiris TAG is to be read. If activated, add 0x100 to value of MASK
Timeout for reading (in seconds)	1-25	3	Timeout setting for reading with a TLB30 head module. If an RFID TAG cannot be read during this time, the reading process is aborted and must be restarted.  Specification in seconds. Interval in 1 second increments.
Output Data	<ul style="list-style-type: none"> <li>• HEX</li> <li>• ASCII</li> </ul>	HEX	This setting can be used to specify the format of the read data.
Preamble	0-48 characters		Specification of characters that are appended to the front of data read with a head module.

			<p>HEX values can also be specified here through the introduction of "\x". If, for example, "\x0D" is specified as preamble, a Carriage Return is appended to the front of data read with a head module.</p>
Postamble	0-48 characters		<p>Specification of characters that are appended to the end of data read with a head module.</p> <p>HEX values can also be specified here through the introduction of "\x". If, for example, "\x0D" is specified as postamble, a Carriage Return is appended to the end of data read with a head module.</p>

### 10.5 Settings for the UNI13 head module

Setting	Options	Default value	Description
set UID in front	Enable/disable	Disabled	<p>If this setting is enabled, the UID of a read RFID TAG will be appended to the front of the read data and transmitted with it.</p> <p>If this setting is disabled, the setting for <b>Data length</b> must be greater than 0, otherwise no data will be read or transmitted for an RFID TAG.</p> <p>If this setting is enabled and the setting for Data length is 0, only the UID of a read RFID TAG will be transmitted.</p>
From block	0-9999	2	Specification of the block from which the data of an RFID TAG is to be read.

Data length (in bytes)	0-9999	8	<p>Specification of the length (in bytes) of data that is to be read from an RFID TAG.</p> <p>This setting should only be set to 0 if the <b>set UID in front</b> setting is enabled. Otherwise, no data from an RFID TAG will be read or transmitted.</p>
ISO15693	Enable/disable	Enabled	<p>This setting can be used to specify whether or not an ISO15693 TAG is to be read.</p> <p>If activated, add 0x01 to value of MASK</p>
ARIO 64bit	Enable/disable	Disabled	<p>This setting can be used to specify whether or not an ARIO 64bit TAG is to be read.</p> <p>If activated, add 0x10 to value of MASK</p>
ICODE 1	Enable/disable	Enabled	<p>This setting can be used to specify whether or not an ICODE 1 TAG is to be read.</p> <p>If activated, add 0x80 to value of MASK</p>
Mifare	Enable/disable	Disabled	<p>This setting can be used to specify whether or not a Mifare TAG is to be read.</p> <p>If activated, add 0x100 to value of MASK</p>
Timeout for reading (in seconds)	1-25	3	<p>Timeout setting for reading with a UNI13 head module. If an RFID TAG cannot be read during this time, the reading process is aborted and must be restarted.</p> <p>Specification in seconds. Interval in 1 second increments.</p>
Output Data	<ul style="list-style-type: none"> <li>• HEX</li> <li>• ASCII</li> </ul>	HEX	<p>This setting can be used to specify the format of the read data.</p>

High <-> Low Byte	Enable/disable	Disabled	This setting can be used to specify whether or not the higher bytes are to be exchanged with the low bytes of a read data block.
Preamble	0-48 characters		Specification of characters that are appended to the front of data read with a head module.  HEX values can also be specified here through the introduction of "\x". If, for example, "\x0D" is specified as preamble, a Carriage Return is appended to the front of data read with a head module.
Postamble	0-48 characters		Specification of characters that are appended to the end of data read with a head module.  HEX values can also be specified here through the introduction of "\x". If, for example, "\x0D" is specified as postamble, a Carriage Return is appended to the end of data read with a head module.

## 10.6 Settings for the LID head module

Setting	Options	Default value	Description
Timeout for reading (in seconds)	1-25	3	Timeout setting for reading with a LID head module. If an RFID TAG cannot be read during this time, the reading process is aborted and must be restarted.



			Specification in seconds. Interval in 1 second increments.
Output Data	<ul style="list-style-type: none"> <li>• HEX</li> <li>• ASCII</li> </ul>	HEX	This setting can be used to specify the format of the read data.
Preamble	0-48 characters		<p>Specification of characters that are appended to the front of data read with a head module.</p> <p>HEX values can also be specified here through the introduction of "\x". If, for example, "\x0D" is specified as preamble, a Carriage Return is appended to the front of data read with a head module.</p>
Postamble	0-48 characters		<p>Specification of characters that are appended to the end of data read with a head module.</p> <p>HEX values can also be specified here through the introduction of "\x". If, for example, "\x0D" is specified as postamble, a Carriage Return is appended to the end of data read with a head module.</p>

### 10.7 Settings for the SE955 head module

Setting	Options	Default value	Description
Symbologies			
UPC/EAN			
Enable UPC-A	Enable/disable	Enabled	This setting can be used to specify whether or not UPC-A barcodes are to be read.
Enable UPC-E	Enable/disable	Enabled	This setting can be used to specify whether or not UPC-E barcodes are to be read.

Enable UPC-E1	Enable/disable	Disabled	This setting can be used to specify whether or not UPC-E1 barcodes are to be read.
Enable EAN-8	Enable/disable	Enabled	This setting can be used to specify whether or not EAN-8 barcodes are to be read.
Enable EAN-13	Enable/disable	Enabled	This setting can be used to specify whether or not EAN-13 barcodes are to be read.
Enable Bookland EAN	Enable/disable	Disabled	This setting can be used to specify whether or not Bookland EAN barcodes are to be read.
Decode UPC/EAN Supplementals	<ul style="list-style-type: none"> <li>• Ignore</li> <li>• Decode</li> <li>• Autodiscriminate</li> <li>• Smart Supplemental Mode</li> <li>• 378/379 Supplemental Mode</li> <li>• 978 Supplemental Mode</li> </ul>	Ignore	<ul style="list-style-type: none"> <li>• Ignore = UPC/EAN barcodes are decoded and the additional characters are ignored.</li> <li>• Decode = Only UPC/EAN barcodes with additional characters are decoded.</li> <li>• Autodiscriminate = see <b>Decode UPC/EAN Supplemental Redundancy</b></li> <li>• Smart Supplemental Mode = EAN-13 barcodes with additional characters and the prefix "378", "379" or "978" are decoded and the additional characters are not ignored. All other UPC/EAN barcodes are decoded, but the additional characters are ignored.</li> <li>• 378/379 Supplemental Mode = EAN-13 barcodes with additional characters and the prefix "378" or "379"</li> </ul>

			<p>are decoded and the additional characters are not ignored. All other UPC/EAN barcodes are decoded, but the additional characters are ignored.</p> <ul style="list-style-type: none"> <li>978 Supplemental Mode = EAN-13 barcodes with additional characters and the prefix "978" are decoded and the additional characters are not ignored. All other UPC/EAN barcodes are decoded, but the additional characters are ignored.</li> </ul>
Decode UPC/EAN Supplemental Redundancy	2-30	7	<p>This is only effective if the <b>Decode UPC/EAN Supplementals</b> setting is set to "Autodiscriminate".</p> <p>This setting can be used to specify how often a barcode with additional characters is decoded before it is transferred.</p>
Transmit UPC-A check digit	Enable/disable	Enabled	This setting can be used to specify whether or not the check digits of a UPC-A barcode are to be transmitted.
Transmit UPC-E check digit	Enable/disable	Enabled	This setting can be used to specify whether or not the check digits of a UPC-E barcode are to be transmitted.
Transmit UPC-E1 check digit	Enable/disable	Enabled	This setting can be used to specify whether or not the check digits of a UPC-E1 barcode are to be transmitted.
UPC-A Preamble	<ul style="list-style-type: none"> <li>No Preamble</li> <li>System Character</li> <li>System Character and Country Code</li> </ul>	System Character	Preamble setting for transmitting UPC-A barcode data.

UPC-E Preamble	<ul style="list-style-type: none"> <li>No Preamble</li> <li>System Character</li> <li>System Character and Country Code</li> </ul>	System Character	Preamble setting for transmitting UPC-E barcode data.
UPC-E1 Preamble	<ul style="list-style-type: none"> <li>No Preamble</li> <li>System Character</li> <li>System Character and Country Code</li> </ul>	System Character	Preamble setting for transmitting UPC-E1 barcode data.
Convert UPC-E to A	Enable/disable	Disabled	This setting can be used to specify whether or not the data of a UPC-E barcode is to be converted into the format of a UPC-A barcode. When the conversion process is complete, the settings for the UPC-A barcode have an effect on the data to be transmitted.
Convert UPC-E1 to A	Enable/disable	Disabled	This setting can be used to specify whether or not the data of a UPC-E1 barcode is to be converted into the format of a UPC-A barcode. When the conversion process is complete, the settings for the UPC-A barcode have an effect on the data to be transmitted.
Security Level	<ul style="list-style-type: none"> <li>Level 0</li> <li>Level 1</li> <li>Level 2</li> <li>Level 3</li> </ul>		There are 4 levels of security for decoding UPC/EAN barcodes. The higher the level the lower the quality of the barcode.
UCC Coupon Extended Code	Enable/disable	Disabled	This setting can be used to specify whether or not a USS Coupon Extended Code is to be read.
<b>Code 128</b>			
Enable Code 128	Enable/disable	Enabled	This setting can be used to specify whether or not Code 128 barcodes are to be read.
UCC/EAN 128	Enable/disable	Enabled	This setting can be used to specify whether or not

			UCC/EAN 128 barcodes are to be read.
ISBT 128	Enable/disable	Enabled	This setting can be used to specify whether or not ISBT 128 barcodes are to be read.
<b>Code 39</b>			
Enable Code 39	Enable/disable	Enabled	This setting can be used to specify whether or not Code 39 barcodes are to be read.
Trioptic Code 39	Enable/disable	Disabled	This setting can be used to specify whether or not Trioptic Code 39 barcodes are to be read.
Convert Code 39 to Code 32	Enable/disable	Disabled	This setting can be used to specify whether or not a Code 39 is to be converted to a Code 32.
Code 32 Prefix	Enable/disable	Disabled	This setting can be used to specify whether or not an "A" is to be set as a preamble before a Code 32 barcode.
Length options	<ul style="list-style-type: none"> <li>One discrete length</li> <li>Two discrete lengths</li> <li>Lengths within a range</li> <li>Any length</li> </ul>	Lengths within a range  If Any length: LENGTH1 = 0 LENGTH2 = 0	Setting lengths for Code 39 barcodes.  If Code 39 barcodes of any length are to be read, this setting must be set to "Any length".
One discrete length	1-255	1 Value => LENGTH1 LENGTH2 = 0	This setting can be used to specify that only Code 39 barcodes which correspond to the length set here will be read.  This setting is only effective when <b>Length options</b> is set to "One discrete length".
Two discrete lengths (lower)	1-255	1 Value => LENGTH2	This setting can be used to specify that only Code 39 barcodes will be read whose length corresponds to one of the two settings.  This setting is only effective when <b>Length</b>
Two discrete lengths (larger)	1-255	255 Value => LENGTH1	

			<b>options</b> is set to "Two discrete lengths".
Lengths within a range (from)	0-255	2 Value => LENGTH1	This setting can be used to specify that only Code 39 barcodes will be read whose length is located within the set range.  This setting is only effective when <b>Length options</b> is set to "Length within a range".
Lengths within a range (until)	0-255	55 Value => LENGTH2	
Check digit verification	Enable/disable	Disabled	This setting can be used to specify whether or not the data of a Code 39 barcode is to be checked with regard to its validity.
Transmit check digit	Enable/disable	Disabled	This setting can be used to specify whether or not the check digits of a Code 39 barcode are to be transmitted.
Full ASCII Conversion	Enable/disable	Disabled	This setting can be used to specify whether or not Code 39 Full ASCII barcodes are to be read.
<b>Code 93</b>			
Enable Code 93	Enable/disable	Disabled	This setting can be used to specify whether or not Code 93 barcodes are to be read.
Length options	<ul style="list-style-type: none"> <li>One discrete length</li> <li>Two discrete lengths</li> <li>Lengths within a range</li> <li>Any length</li> </ul>	Lengths within a range  If Any length: LENGTH1 = 0 LENGTH2 = 0	Setting lengths for Code 93 barcodes.  If Code 93 barcodes of any length are to be read, this setting must be set to "Any length".
One discrete length	1-255	1 Value => LENGTH1 LENGTH2 = 0	This setting can be used to specify that only Code 93 barcodes which correspond to the length set here will be read.  This setting is only effective when <b>Length options</b> is set to "One discrete length".
Two discrete lengths (lower)	1-255	1 Value => LENGTH2	This setting can be used to specify that only Code

Two discrete lengths (larger)	1-255	255 Value => LENGTH1	93 barcodes will be read whose length corresponds to one of the two settings.  This setting is only effective when <b>Length options</b> is set to "Two discrete lengths".
Lengths within a range (from)	0-255	4 Value => LENGTH1	This setting can be used to specify that only Code 93 barcodes will be read whose length is located within the set range.  This setting is only effective when <b>Length options</b> is set to "Length within a range".
Lengths within a range (until)	0-255	55 Value => LENGTH2	
<b>Code 11</b>			
Enable Code 11	Enable/disable	Disabled	This setting can be used to specify whether or not Code 11 barcodes are to be read.
Length options	<ul style="list-style-type: none"> <li>One discrete length</li> <li>Two discrete lengths</li> <li>Lengths within a range</li> <li>Any length</li> </ul>	Lengths within a range  If Any length: LENGTH1 = 0 LENGTH2 = 0	Setting lengths for Code 11 barcodes.  If Code 11 barcodes of any length are to be read, this setting must be set to "Any length".
One discrete length	1-255	1 Value => LENGTH1 LENGTH2 = 0	This setting can be used to specify that only Code 11 barcodes which correspond to the length set here will be read.  This setting is only effective when <b>Length options</b> is set to "One discrete length".
Two discrete lengths (lower)	1-255	1 Value => LENGTH2	This setting can be used to specify that only Code 11 barcodes will be read whose length corresponds to one of the two settings.  This setting is only effective when <b>Length</b>
Two discrete lengths (until)	1-255	255 Value => LENGTH1	

			<b>options</b> is set to "Two discrete lengths".
Lengths within a range (from)	0-255	4 Value => LENGTH1	This setting can be used to specify that only Code 11 barcodes will be read whose length is located within the set range.  This setting is only effective when <b>Length options</b> is set to "Length within a range".
Lengths within a range (until)	0-255	55 Value => LENGTH2	
Check digit verification	<ul style="list-style-type: none"> <li>• Disable</li> <li>• One check digit</li> <li>• Two check digits</li> </ul>	Disable	<p>This setting can be used to allow the data of a Code 11 barcode to be checked with regard to its validity.</p> <p>The check digit mechanism for the data of a Code 11 barcode can be selected.</p>
Transmit check digit(s)	Enable/disable	Disabled	This setting can be used to specify whether or not the check digits of Code 11 barcodes are to be transmitted.
<b>Interleaved 2of5</b>			
Enable Interleaved 2of5	Enable/disable	Enabled	This setting can be used to specify whether or not Interleaved 2of5 barcodes are to be read.
Length options	<ul style="list-style-type: none"> <li>• One discrete length</li> <li>• Two discrete lengths</li> <li>• Lengths within a range</li> <li>• Any length</li> </ul>	One discrete length  If Any length: LENGTH1 = 0 LENGTH2 = 0	<p>Setting lengths for Interleaved 2of5 barcodes.</p> <p>If Interleaved 2of5 barcodes of any length are to be read, this setting must be set to "Any length".</p>
One discrete length	1-255	14 Value => LENGTH1 LENGTH2 = 0	<p>This setting can be used to specify that only Interleaved 2of5 barcodes which correspond to the length set here will be read.</p> <p>This setting is only effective when <b>Length</b></p>



			<b>options</b> is set to "One discrete length".
Two discrete lengths (lower)	1-255	1 Value => LENGTH2	This setting can be used to specify that only Interleaved 2of5 barcodes will be read whose length corresponds to one of the two settings.  This setting is only effective when <b>Length options</b> is set to "Two discrete lengths".
Two discrete lengths (larger)	1-255	255 Value => LENGTH1	
Lengths within a range (from)	0-255	0 Value => LENGTH1	This setting can be used to specify that only Interleaved 2of5 barcodes will be read whose length is located within the set range.  This setting is only effective when <b>Length options</b> is set to "Length within a range".
Lengths within a range (until)	0-255	255 Value => LENGTH2	
Check digit verification	<ul style="list-style-type: none"> <li>• Disable</li> <li>• USS check digit</li> <li>• OPCC check digit</li> </ul>	Disable	This setting can be used to specify whether the validity of the data of an Interleaved 2of5 barcode is to be checked and which algorithm is to be used.
Transmit check digit	Enable/disable	Disabled	This setting can be used to specify whether or not the check digits of Interleaved 2of5 barcodes are to be transmitted.
Convert Interleaved 2of5 to EAN13	Enable/disable	Disabled	This setting can be used to specify whether or not a 14-character Interleaved 2of5 barcode is to be converted to an EAN-13. The barcode must have a length of 14 characters, a leading 0 and a valid EAN-13 check digit.
<b>Discrete 2of5</b>			

Enable Discrete 2of5	Enable/disable	Disabled	This setting can be used to specify whether or not Discrete 2of5 barcodes are to be read.
Length options	<ul style="list-style-type: none"> <li>One discrete length</li> <li>Two discrete lengths</li> <li>Lengths within a range</li> <li>Any length</li> </ul>	<p>One discrete length</p> <p>If Any length: LENGTH1 = 0 LENGTH2 = 0</p>	<p>Setting lengths for Discrete 2of5 barcodes.</p> <p>If Discrete 2of5 barcodes of any length are to be read, this setting must be set to "Any length".</p>
One discrete length	1-255	<p>12</p> <p>Value =&gt; LENGTH1 LENGTH2 = 0</p>	<p>This setting can be used to specify that only Discrete 2of5 barcodes which correspond to the length set here will be read.</p> <p>This setting is only effective when <b>Length options</b> is set to "One discrete length".</p>
Two discrete lengths (lower)	1-255	<p>1</p> <p>Value =&gt; LENGTH2</p>	<p>This setting can be used to specify that only Discrete 2of5 barcodes will be read whose length corresponds to one of the two settings.</p> <p>This setting is only effective when <b>Length options</b> is set to "Two discrete lengths".</p>
Two discrete lengths (larger)	1-255	<p>255</p> <p>Value =&gt; LENGTH1</p>	
Lengths within a range (from)	0-255	<p>0</p> <p>Value =&gt; LENGTH1</p>	<p>This setting can be used to specify that only Discrete 2of5 barcodes will be read whose length is located within the set range.</p> <p>This setting is only effective when <b>Length options</b> is set to "Length within a range".</p>
Lengths within a range (until)	0-255	<p>255</p> <p>Value =&gt; LENGTH2</p>	
<b>Chinese 2of5</b>			
Enable Chinese 2of5	Enable/disable	Disabled	This setting can be used to specify whether or not Chinese 2of5 barcodes are to be read.
<b>Codabar</b>			

Enable Codabar	Enable/disable	Disabled	This setting can be used to specify whether or not Codabar barcodes are to be read.
Length options	<ul style="list-style-type: none"> <li>One discrete length</li> <li>Two discrete lengths</li> <li>Lengths within a range</li> <li>Any length</li> </ul>	Lengths within a range  If Any length: LENGTH1 = 0 LENGTH2 = 0	Setting lengths for Codabar barcodes.  If Codabar barcodes of any length are to be read, this setting must be set to "Any length".
One discrete length	1-255	1 Value => LENGTH1 LENGTH2 = 0	This setting can be used to specify that only Codabar barcodes which correspond to the length set here will be read.  This setting is only effective when <b>Length options</b> is set to "One discrete length".
Two discrete lengths (lower)	1-255	1 Value => LENGTH2	This setting can be used to specify that only Codabar barcodes will be read whose length corresponds to one of the two settings.  This setting is only effective when <b>Length options</b> is set to "Two discrete lengths".
Two discrete lengths (larger)	1-255	255 Value => LENGTH1	
Lengths within a range (from)	0-255	5 Value => LENGTH1	This setting can be used to specify that only Codabar barcodes will be read whose length is located within the set range.  This setting is only effective when <b>Length options</b> is set to "Length within a range".
Lengths within a range (until)	0-255	55 Value => LENGTH2	
CLSI Editing	Enable/disable	Disabled	This setting can be used to specify whether or not start and stop characters are to be removed and whether a space is to be inserted after the 1st, 5th and 10th characters

			for Codabar barcodes that are 14 characters long.  Note: The length of a Codabar barcode does not include the start and stop characters.
NOTIS Editing	Enable/disable	Disabled	This setting can be used to specify whether or not start and stop characters of Codabar barcodes should be removed.
<b>MSI</b>			
Enable MSI	Enable/disable	Disabled	This setting can be used to specify whether or not MSI barcodes are to be read.
Length options	<ul style="list-style-type: none"> <li>One discrete length</li> <li>Two discrete lengths</li> <li>Lengths within a range</li> <li>Any length</li> </ul>	Lengths within a range  If Any length: LENGTH1 = 0 LENGTH2 = 0	Setting lengths for MSI barcodes.  If MSI barcodes of any length are to be read, this setting must be set to "Any length".
One discrete lengths	1-255	1 Value => LENGTH1 LENGTH2 = 0	This setting can be used to specify that only MSI barcodes which correspond to the length set here will be read.  This setting is only effective when <b>Length options</b> is set to "One discrete length".
Two discrete lengths (lower)	1-255	1 Value => LENGTH2	This setting can be used to specify that only MSI barcodes will be read whose length corresponds to one of the two settings.  This setting is only effective when <b>Length options</b> is set to "Two discrete lengths".
Two discrete lengths (larger)	1-255	255 Value => LENGTH1	
Lengths within a range (from)	0-255	6 Value => LENGTH1	This setting can be used to specify that only MSI barcodes will be read whose length is located within the set range.
Lengths within a range (until)	0-255	55 Value => LENGTH2	

			This setting is only effective when <b>Length options</b> is set to "Length within a range".
Check digits	<ul style="list-style-type: none"> <li>One check digit</li> <li>Two check digits</li> </ul>	One check digit	<p>Selection of how many check digits the MSI barcode contains to check the validity of the data.</p> <p>If "Two check digits" is selected, an algorithm must be set via the setting <b>Check digit algorithm</b>.</p>
Transmit check digit	Enable/disable	Disabled	This setting can be used to specify whether the check digits are to be transmitted.
Check digit algorithm	<ul style="list-style-type: none"> <li>Mod10/Mod11</li> <li>Mod10/Mod10</li> </ul>	Mod10/Mod10	If the <b>Check digits</b> setting is set to "Two check digits", an algorithm must be set here to ensure the validity via the additional check.
<b>GS1 DataBar</b>			
GS1 DataBar 14	Enable/disable	Disabled	This setting can be used to specify whether or not GS1 DataBar 14 barcodes are to be read.
GS1 DataBar Limited	Enable/disable	Disabled	This setting can be used to specify whether or not GS1 DataBar Limited barcodes are to be read.
GS1 DataBar Expanded	Enable/disable	Disabled	This setting can be used to specify whether or not GS1 DataBar Expanded barcodes are to be read.
Convert GS1 DataBar to UPC/EAN	Enable/disable	Disabled	<p>If this is enabled and a barcode features a leading "0", the characters "010" are cut off and the barcode is displayed as an EAN-13 barcode.</p> <p>Barcodes with 2 or more leading 0s but less than 6 have the character</p>

			<p>"0100" cut off and the barcode is displayed as a UPC-A barcode.</p> <p>This setting is only effective for GS1 DataBar 14 and GS1 DataBar Limited barcodes.</p>
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Symbology options

Symbology identifier	<ul style="list-style-type: none"> <li>• Disable</li> <li>• Aim Code ID Character</li> <li>• Symbol Code ID Character</li> </ul>	Disable	<p>By using this setting, additional information relating to the read barcode can be returned along with the data of the barcode in the form of additional characters. The additional characters are inserted before the read data.</p> <p>If "Symbol Code ID Character" is selected, the following characters can be issued:</p> <ul style="list-style-type: none"> <li>• A = UPC-A, UPC-E, UPC-E1, EAN-8, EAN-13</li> <li>• B = Code 39, Code 32</li> <li>• C = Codabar</li> <li>• D = Code 128, ISBT 128</li> <li>• E = Code 93</li> <li>• F = Interleaved 2of5</li> <li>• G = Discrete 2of5</li> <li>• J = MSI</li> <li>• K = UCC/EAN-128</li> <li>• L = Bookland EAN</li> <li>• M = Trioptic Code 39</li> <li>• N = Coupon Code</li> <li>• R = GS1 DataBar-14, GS1 DataBar Limited, GS1 DataBar Expanded</li> </ul> <p>If "AIM Code ID Character" is selected,</p> <ul style="list-style-type: none"> <li>• refer to <b>Annex</b> for</li> </ul>
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			further information
Preamble	0-48 characters		<p>Specification of characters that are appended to the front of data read with a head module.</p> <p>HEX values can also be specified here through the introduction of "\x". If, for example, "\x0D" is specified as preamble, a Carriage Return is appended to the front of data read with a head module.</p>
Postamble	0-48 characters		<p>Specification of characters that are appended to the end of data read with a head module.</p> <p>HEX values can also be specified here through the introduction of "\x". If, for example, "\x0D" is specified as postamble, a Carriage Return is appended to the end of data read with a head module.</p>
<b>Trigger settings</b>			
Laser on time	1-25	3	<p>Timeout setting for reading with an SE955 head module. If a barcode cannot be read during this time, the reading process is aborted and must be restarted.</p> <p>Specification in seconds. Interval in 1 second increments.</p>
Scan angle	<ul style="list-style-type: none"> <li>• Narrow Angle (35°)</li> <li>• Wide Angle (47°)</li> </ul>	Wide Angle (47°)	Settings for the scan angle

## 11 Annex B

### AIM Code Identifiers

Each AIM Code Identifier contains the three-character string ]cm where:

- ] = Flag Character (ASCII 93)
- c = Code Character (see Table B-2)
- m = Modifier Character (see Table B-3).

**Table B-2. Code Characters**

Code Character	Code Type
A	Code 39
C	Code 128
E	UPC/EAN
F	Codabar
G	Code 93
H	Code 11
I	Interleaved 2 of 5
M	MSI
S	D2 of 5, IATA 2 of 5
X	Code 39 Trioptic, Bookland EAN
e	GS1 DataBar

The modifier character is the sum of the applicable option values based on the following table.

**Table B-3. Modifier Characters**

Code Type	Option Value	Option
<b>Code 39</b>		
	0	No Check character or Full ASCII processing.
	1	Reader has checked one check character.
	3	Reader has checked and stripped check character.
	4	Reader has performed Full ASCII character conversion.
	5	Reader has performed Full ASCII character conversion and checked one check character.
	7	Reader has performed Full ASCII character conversion and checked and stripped check character.
	Example: A Full ASCII bar code with check character W, <b>A+I+MI+DW</b> , is transmitted as <b>JA7</b> Aimld where 7 = (3+4).	



**Table B-3. Modifier Characters (Continued)**

Code Type	Option Value	Option
<b>Trioptic Code 39</b>		
	0	No option specified at this time. Always transmit 0.
		Example: A trioptic bar code 412356 is transmitted as <b>JX0</b> 412356
<b>Code 128</b>		
	0	Standard data packet, No Function code 1 in first symbol position.
	1	Function code 1 in first symbol character position.
	2	Function code 1 in second symbol character position.
		Example: A Code (EAN) 128 bar code with Function 1 character in the first position, <sup>FNC1</sup> Aim Id is transmitted as <b>JC1</b> AimId
<b>I 2 of 5</b>		
	0	No check digit processing.
	1	Reader has validated check digit.
	3	Reader has validated and stripped check digit.
		Example: An I 2 of 5 bar code without check digit, 4123, is transmitted as <b>JJ0</b> 4123
<b>Codabar</b>		
	0	No check digit processing.
	1	Reader has checked check digit.
		Example: A Codabar bar code without check digit, 4123, is transmitted as <b>JF0</b> 4123
<b>Code 93</b>		
	0	No options specified at this time. Always transmit 0.
		Example: A Code 93 bar code 012345678905 is transmitted as <b>JG00</b> 12345678905
<b>MSI</b>		
	0	Mod 10 check digit checked and transmitted.
	1	Mod 10 check digit checked but not transmitted.
		Example: An MSI bar code 4123, with a single check digit checked, is transmitted as <b>JM0</b> 4123
<b>D 2 of 5</b>		
	0	No options specified at this time. Always transmit 0.
		Example: A D 2 of 5 bar code 4123, is transmitted as <b>JS0</b> 4123

Table B-3. Modifier Characters (Continued)

Code Type	Option Value	Option
<b>UPC/EAN</b>		
	0	Standard packet in full EAN country code format, which is 13 digits for UPC-A, UPC-E, and EAN-13 (not including supplemental data).
	1	Two digit supplement data only.
	2	Five digit supplement data only.
	3	Combined data packet comprising 13 digits from a UPC-A, UPC-E, or EAN-13 symbol and 2 or 5 digits from a supplemental symbol.
	4	EAN-8 data packet.
Example: A UPC-A bar code 012345678905 is transmitted as <b>JE00012345678905</b>		
<b>Bookland EAN</b>		
	0	No options specified at this time. Always transmit 0.
Example: A Bookland EAN bar code 123456789X is transmitted as <b>JX0123456789X</b>		

According to AIM standards, a UPC with supplemental bar code is transmitted in the following format:

**JE0** (UPC chars) (terminator) **JE2** (supplemental) (terminator)

In the SE955, however, the format is changed to:

**JE0** (UPC chars) **JE2** (supplemental)

Therefore, a UPC with two supplemental characters, 01234567890510, is transmitted to the host as a 21-character string, **JE00012345678905JE110**.