



Hand Held Unit Software

User's Guide

Version 1.3

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1. Hardware Overview

1.1 Hand Held Unit Platform

Hand Held Unit (HHU):	Motorola MC 30xx
Keypad:	28/38/48-keys according to customer's specification
Display:	TFT-LCD, 65000 colors, 324x324 pixels
Barcode Scanner:	Laser



1.2 Parts

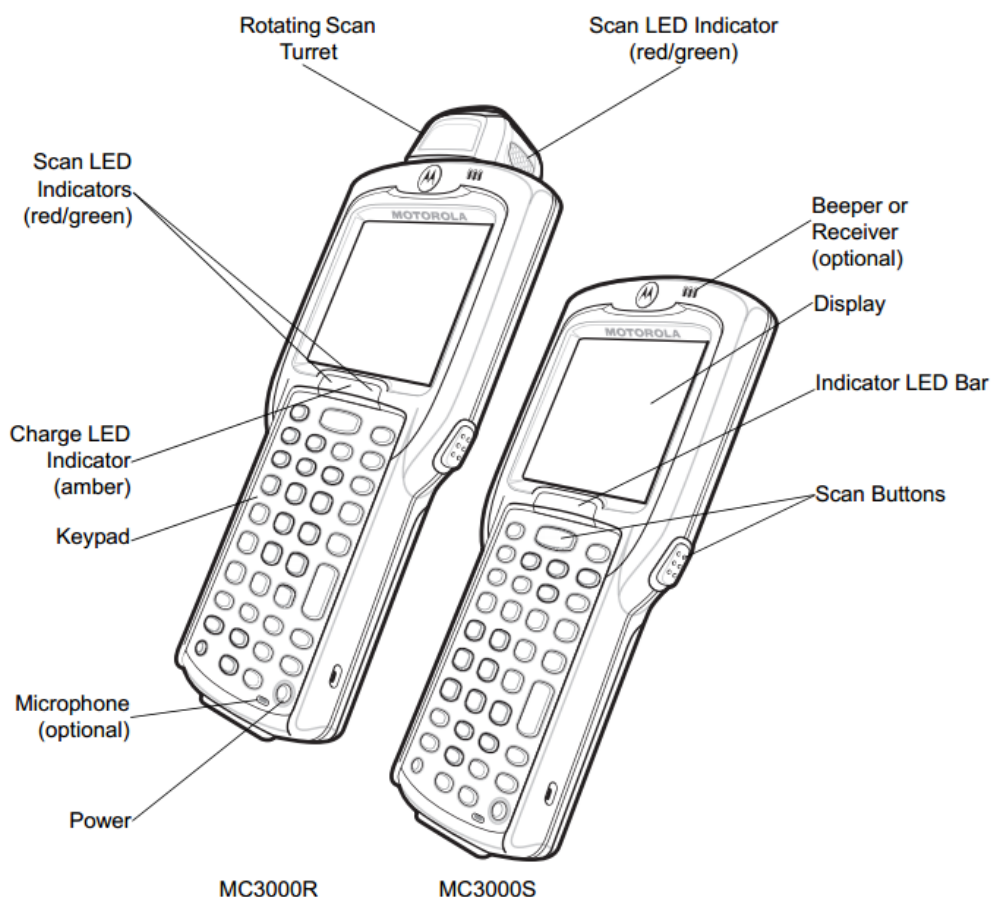


Figure: Side-front view

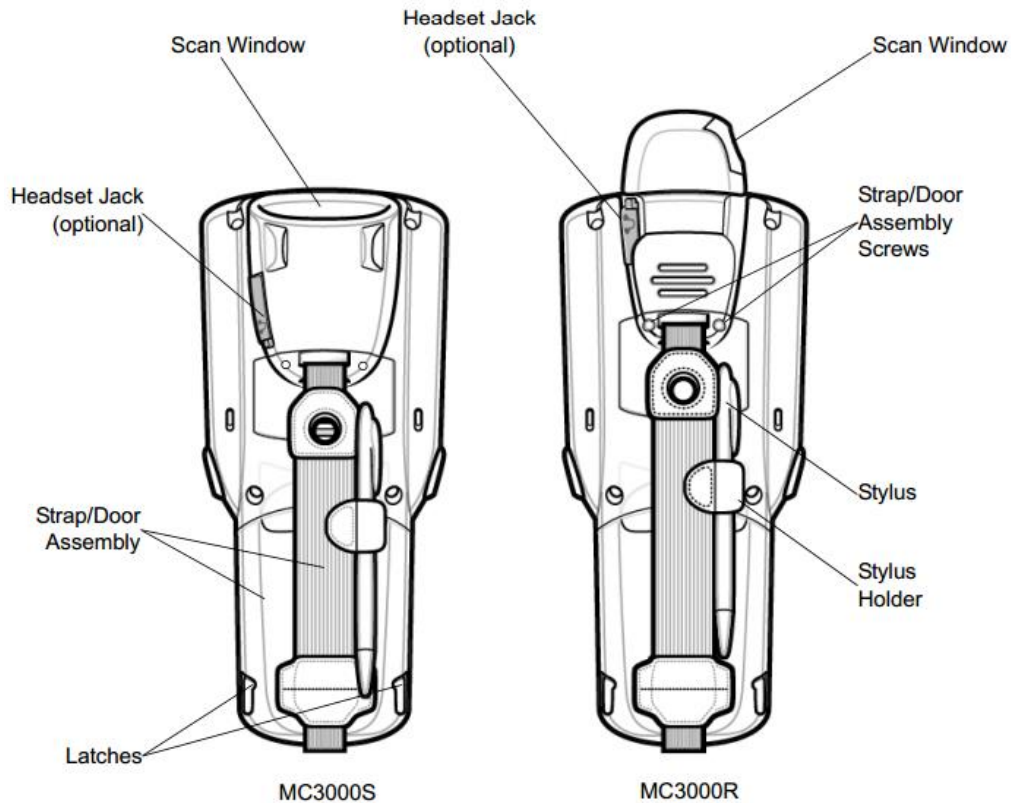


Figure: Rear view

1.3 Rotating Scan Turret

The unit features a Rotating Scan Turret with three position stops. This feature offers greater scanning flexibility.

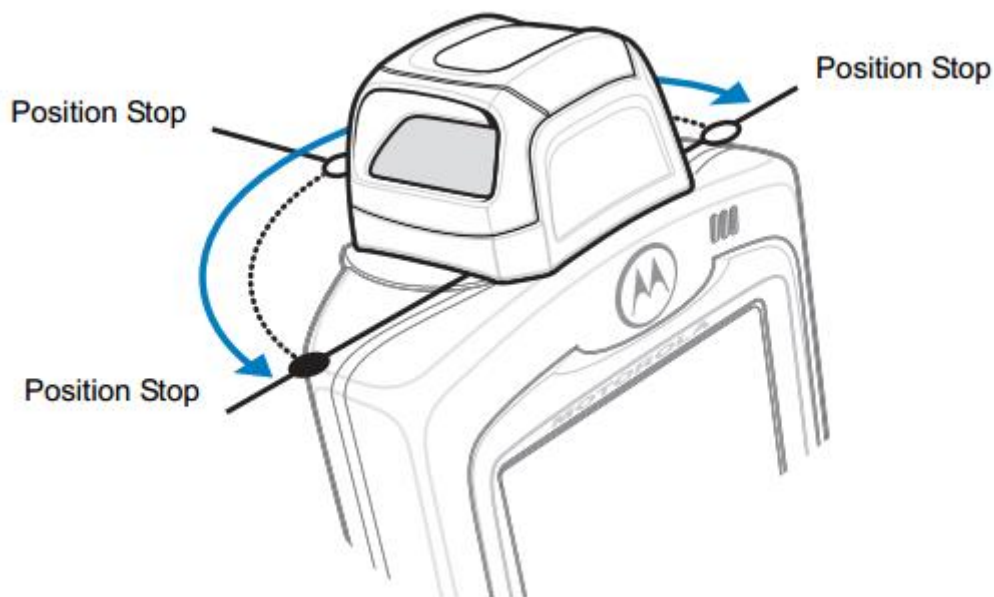


Figure: Detail view on Scan Turret

1.4 Device Reset

In case of necessity the unit can be restarted. User can start with soft reset and if this does not solve the reset purpose then proceed with hard reset.

1.4.1 Soft Reset

Close all applications in the unit otherwise all open documents and files and their data will be lost. Use button combination 7, 9 and Power – press and hold for a short while. The unit will reboot.

1.4.2 Hard Reset

This process will erase all applications, data from RAM and set all settings into factory default values. Every application which is not included by manufacturer has to be installed after device reboot. To proceed use button combination 1, 9 and Power – press and hold for a short while. The unit will reboot.

2. Program Overview

2.1 Program Modes

Program is supplied in two modes:

2.1.1 Mode ELMA

- Data acquisition for defined number of positions – each position represents one measuring position on the testing equipment.
- Data acquisition during meter testing – collection of meter identification data, register state for each tested meter.
- Meter identification data are: meter serial number, meter type, year of manufacture,...
- Collected data can be transferred to testing equipment control software for further processing.

2.1.2 Mode STOCK

- Meter data acquisition used at stock processing (income, expenditure).
- Acquisition of meter identification data for logistics purposes.
- Number of meter records (collected meters) is limited only by HHU memory capacity.
- Collected data can be transferred into PC for further processing.
- Added function: „Checking a collection of electricity meters“ – uploading the list of meters into the terminal and checking the items using features like search, sort and mark with flags ...

Hand Held Unit (HHU) barcode laser scanner is available in both modes. It is possible to use HHU keyboard also.

2.2 Program features

Reviewing collected data

- Navigation through collected data using HHU keyboard.

Editing collected data

- Using laser scanner.
- Using HHU keyboard.

Entering (collecting) new data

- Using laser scanner.
- Using HHU keyboard.
- Uploading data from PC.

Data deleting

- Using HHU keyboard.
- User can delete all collected data.
- User can delete selected record (meter).

Data transfer to program in PC

- Data transfer is available after plug-in into communication cradle.
- Proprietary program differing with operating system is used for synchronizing data of HHU with PC.
- Mode ELMA is compatible with Control Software ELMA.
- Mode STOCK is compatible with supplied DLL and it's possible to be used with any of customer's stock systems.

Program Databanks

- Databank – file with collected data.
- It is possible to use more databanks.
- Data collection/reviewing/transfer is always performed on Actual Databank.
- User can select actual databank from the list of available (existing) databanks.
- Databank management (Add/Delete/Select) is available via program settings.
- Number of databanks is limited only by HHU memory capacity.

Program Profiles

- Profile contains definition of:
 - Barcode processing – crop, mask.
 - Counter lists for selected columns – easier data collection and barcode parsing.
 - Barcode parsing – barcode decomposition into sections as serial number, meter type, year of manufacture.
 - Footer – to define max. 4 items for footer in the main table
 - Insert Form – to define items for special input of multiple entries of electricity meter in one insert form
- Profile management (Add/Delete/Rename/Select) is available via program settings.
- Number of profiles is limited only by HHU memory capacity.

2.3 Program Settings

Two levels of access:

Service

- Protected by password.
- Configuration of:
 - Program Mode (ELMA / STOCK).
 - Number of positions (only for mode ELMA).
 - Language (SVK / ENG)

User

- No password required.
- Databank and Profile management.
- Other parameters.

Program setting can be also performed remotely by Control Software ELMA.

2.4 Program Localization

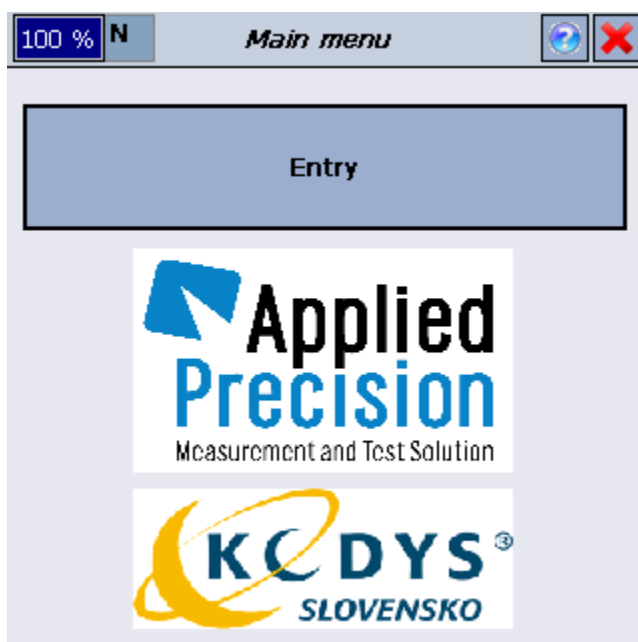
- Enables to localize all program texts (menus, captions, windows) according to customer's language.
- Language file is XML type file.

2.5 Available types of data to be collected

Data type	Column name
SNUM	Serial Number
TYPE	Meter Type
MAXIM	Maximum Demand Value
REGISTER1	Register State (tarif 1)
REGISTER2	Register State (tarif 2)
REGISTER3	Register State (tarif 3)
REGISTER4	Register State (tarif 4)
INITIAL1	Register State Initial (tarif 1)
INITIAL2	Register State Initial (tarif 2)
INITIAL3	Register State Initial (tarif 3)
INITIAL4	Register State Initial (tarif 4)
FINAL1	Register State Final (tarif 1)
FINAL2	Register State Final (tarif 2)
FINAL3	Register State Final (tarif 3)
FINAL4	Register State Final (tarif 4)
TEXT1	Uset Text 1
TEXT2	Uset Text 2
TEXT3	Uset Text 3
TEXT4	Uset Text 4
TEXT5	Uset Text 5
TEXT6	Uset Text 6
BARCODE	Barcode
FLAG	Flag (mark) for search function

3. Start Up Screen

Start Up Screen is activated after running the program HHS.exe.



Start Up Screen must be activated always before inserting HHU into cradle.

Start Up Screen is accessible from Main Screen by pressing key **ESC**.

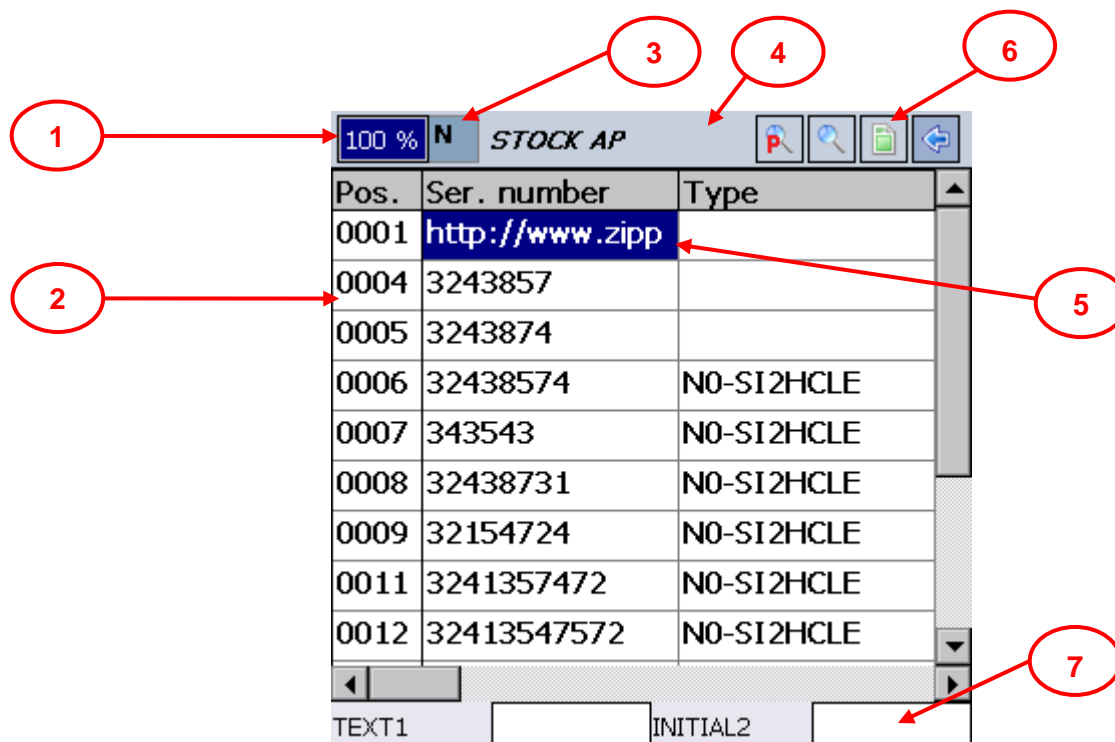
Press button Enter on HHU touch screen to enter the program Main Screen.




4. Main Screen

Collected data are displayed in a form of table.

Meters are in rows, columns represent data types for collected meters.

4.1 Main Screen Description



1	Battery Status Indicator - battery capacity in percentage	3	Keypad function indicator N – numerical mode of keypad A – letters mode of keypad ^ – key SHIFT is activated C – key CTRL is activated F – key FUNC is activated
2	Collected Data - column Pos. is displayed always on the left - display of other columns depends on HHS settings	4	Screen description - for main screen displays program mode - when accessing program menu it shows menu name
5	Selected cell	6	Icons for access to various functions - Filtration using flags  - Search  - Insert Form  - Escape
7	Footer - includes from one to four items, which are automatically written to each newly created row (in respective columns) in table		

4.2 Data Reviewing

Main Screen is dedicated to data reviewing.

There are 2 types of Main Screen:

- Small characters – displayed 3 columns
- Big characters – displayed 2 columns

100 %	N	STOCK AP			
Pos.	Ser. number	Type			
0001	http://www.zipp				
0004	3243857				
0005	3243874				
0006	32438574	N0-SI2HCLE			
0007	343543	N0-SI2HCLE			
0008	32438731	N0-SI2HCLE			
0009	32154724	N0-SI2HCLE			
0011	3241357472	N0-SI2HCLE			
0012	32413547572	N0-SI2HCLE			
TEXT1		INITIAL2			

3 columns screen type

100 %	N	STOCK AP			
Pos.	Ser. number				
0001	http://www.zippo.c				
0002	http://www.zippo.c				
0003	354843524				
0004	3243857				
0005	3243874				
0006	32438574				
0007	343543				
0008	32438731				
TEXT1		INITIAL2			

2 columns screen type

Rows show data collected for each meter. Columns show individual data for meter.

Column 'Pos.' is locked to stay on the most left part of the screen. This column represents row (position) identification.

Similarly, row with column names is locked to stay always at the top of the screen. Column names are defined in localization file (mls.xml).

Selected cell is highlighted with blue color and inverse text.

Moving across cells:

- Arrows ←/→ moving (scrolling) across columns
- Arrows ↑/↓ moving (scrolling) across rows

Jumping across rows:

- Key combination: CTRL+↑ - jumps 10 rows up
- Key combination: CTRL+↓ - jumps 10 rows down

Red button function is in Main Screen dedicated to function of toggle between Main Screen types.

Green button function is in Main Screen dedicated to Main Menu activation.

Another screens or menus use green button to Context Menu activation.

Values can be browsed also in Insert Form, see chapter 4.4 Insert Form.

4.3 Data collecting/entering

Arrows can be used for moving across cells in the Main Screen. It is possible to enter or edit only value in selected cell.

Pressing and holding the **SCAN (yellow key)** key activates HHU barcode laser scanner. When barcode scan is successful, acoustic signal is made (depends on setting), scanned data is entered in the cell where the cursor was placed during scanning (ELMA mode) or new row is added with scanned data to the end of the Main Screen (STOCK mode).

Pressing key **ENT** (Enter) opens Edit Window for selected cell.

Pos.	Ser. number
0001	http://www.zippo.c
0002	http://www.zippo.c
0003	3243874
0005	3243874
0008	32438731

0005 > Ser. number

3243874

TEXT1 INITIAL2

Edit Window contains:

- Row (position) identification (ELMA mode) or row number (STOCK mode)
- Column identification
- Selected cell data

Whole text is selected after entering Edit Window. Typing new text deletes previous text, it shows gradually new writing.

4.3.1 Footer in the Main Screen

Footer has to be enabled in order to use it. This setting is made in Profile settings (see chapter **Error! Reference source not found.** page **Error! Bookmark not defined.**). There you can set also the columns which are associated with it. **Footer** can have from 1 to 4 items. These items are actually columns (use same captions) from main screen. User can enter values manually or by scanner into these fields. Each newly created row in Main screen (only for STOCK) will automatically acquire current values from **Footer**. It helps the user to automatically fill the repeated values like batch number, meter type, manufacturer, etc. while adding new meters into the table. This applies until the **Footer** is enabled and active. **Footer** can be also temporarily deactivated by **F9**. **F9** also reactivates this function (if enabled in Profile settings).

Temporarily deactivated **Footer** is displayed by red highlighting in that area.

0006	32438574	N0-SI2HCLE
0007	343543	N0-SI2HCLE
0008	32438731	N0-SI2HCLE
0009	32154724	N0-SI2HCLE
TEXT1		


Location of the **Footer** is always in the bottom of Main screen. It has the height of one regular row if it contains one or two fields, and the height of two regular rows if it has three or four fields.

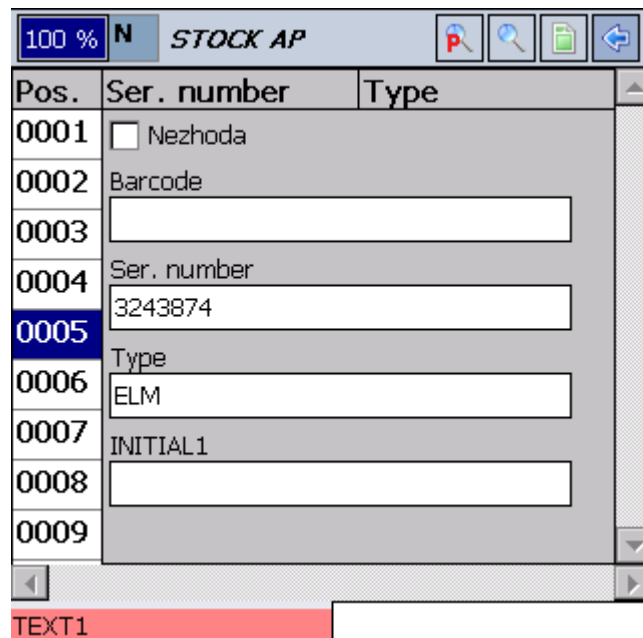
All cells filled by **Footer** become locked until the Footer is active. When disabled by F9, user can modify associated columns' values. Deactivation or disabling the **Footer** will not erase the filled fields of respective columns (will not erase them).

4.4 Insert Form

Insert Form serves to ease entering new meters into Main screen in STOCK mode. Main table can sometimes involve too much data and often it is sufficient to enter only several essential values per meter. With **Insert Form** the user will be asked only for those essential ones.

Insert Form is defined in Profile Setting and conforms the same rules as the Main table in terms of barcode crop, barcode parsing, etc. It is possible to define from one to ten columns and their sequence within **Insert Form**.

Form is opened by **F2** or by second from right icon in top right corner . Same closes the Form. If the Form is opened while the cursor was located in the last row, all its items are empty. If it is opened elsewhere, it will contain values from corresponding row. Form shows values in rows. The cursor for entering new values can move among fields by **arrows up** and **down** or by **ENT** key (only down). **ENT** also confirms new value in particular field.



Pos.	Ser. number	Type
0001	<input type="checkbox"/> Nezhoda	
0002	Barcode	
0003		
0004	Ser. number	
0005	3243874	
0006	Type	ELM
0007	INITIAL1	
0008		
0009		

Arrows left and **right** move between rows, but (! **attention**) of the main table! It means that the Form will show values in its fields of different row. When **left** or **right arrow** is pressed, recently edited values in the Form will be saved. If we want to discard changes we press **ESC**.

While barcode parsing is enabled, after scanning such code into Barcode field (this field has to be enabled for Insert Form), it will also fill other respective fields (based on parsing setting).

Scanner can be used for any field of **Insert Form**. To edit any text string user has to press **2x CTRL**, then it is possible to move through text inside cell by arrows. This mode will block moving to another row of main table. This mode of editing is indicated by green four-arrows. To disable this mode press again **2x CTRL** and arrows **←/→** again perform jumps between rows of main table.

Blue highlighting, in the background, indicates which row is selected in the form.

The very first item of Form is Difference (Nezhoda). This flag and its meaning is described in chapter **Error! Reference source not found. Error! Reference source not found.**

Remark

It is recommended to avoid using same column for Footer and Insert Form. Cell in Footer has higher priority and even if the same column would be in the Form, entering any value into corresponding field would be overwritten by Footer. Even the empty value in the active Footer will cause deletion of entered value in Form in given field of Main table.

Moreover we recommend to set only those fields into the Form, which are essential for each piece of new electricity meter. Usually it means that those values differ piece to piece.

Insert Form is active also in ELMA mode, however it is not possible here to add new rows. But even though it helps to browse the parameters of meters. Barcode parsing works also in ELMA mode, so scanning into "Barcode" within Insert Form will help to collect meters' parameters very efficiently from the test bench.

4.5 Keys functions

Key	Function
ALPHA	Toggle between typing letters and numbers.
BKSP	Erase text on the left from cursor.
CTRL	Double press – toggle between Normal and Alternative mode of Edit Window.
ENT	Store entered text for selected cell, move to cell in the next row (only when parameter 'Move to the next' in 'Settings/Other' is enabled). (Function of Text Crop or Mask Check is activated when enabled in active Profile. When entering data for column Barcode also Barcode Parsing can be activated when enabled in active Profile.)
ESC	Close Edit Window without storing entered text for selected cell.
SCAN	Activate barcode laser scanner. When scan succeed store scanned text for selected cell, move to cell in the next row (only when parameter: 'Move to the next' in 'Settings/Other' is enabled). (Function of Text Crop or Mask Check is activated when enabled in active Profile. When entering data for column Barcode also Barcode Parsing can be activated when enabled in active Profile.)
SHIFT	Toggle between typing capital and small letters.
GREEN	Activate context menu.
RED	Activate history of column values or column list (when available in active Profile).
F1	Open / Close Help window, where all functional keys are described
F2	Open / Close of Insert Form
F3	Open / Close of Search dialog (only in STOCK mode)
F4	Open / Close filter by flags (only in STOCK mode)
F5	Cancel all filters and deactivate search – again show all items (only in STOCK mode)
F8	Setting of flag no. 4 – Difference
F9	Temporary deactivation / activation of Footer – only if Footer enabled in Profile settings, STOCK mode

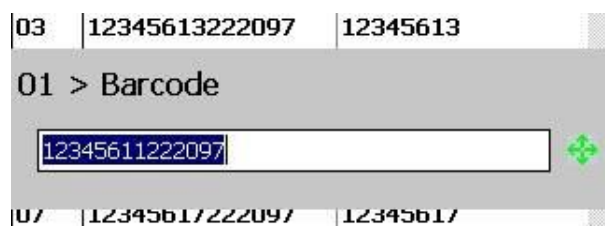
4.5.1 Edit View – Normal mode

Arrows are used for navigating cursor across entered text:

- **Arrows** ←/→ move cursor to left/right across entered text.
- **Arrow** ↑ moves cursor to text beginning.
- **Arrow** ↓ moves cursor to text end.

4.5.2 Edit View – Alternative mode

Alternative mode is marked with green crossed arrows on the right from entered text.

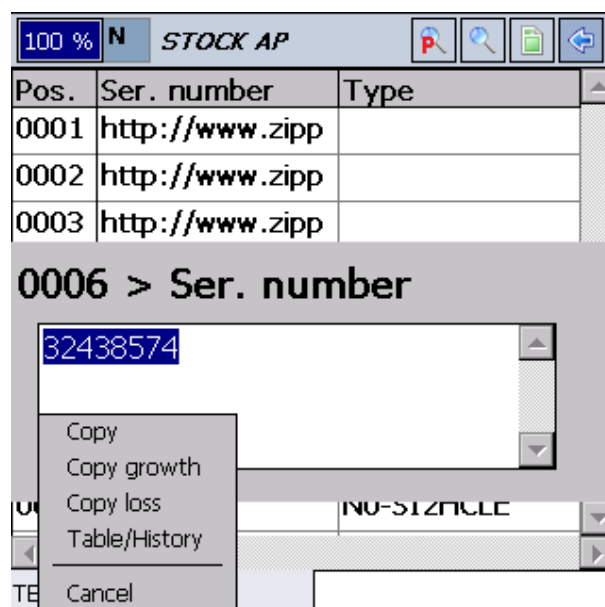


Arrows are used for navigating across cells in the Main Screen:

- **Arrows** ←/→ move across columns.
- **Arrows** ↑/↓ move across rows.

4.6 Context Menu

Green button can be used for activating context menu.



4.6.1 Context menu description

Menu Item	Function
Copy	Copy text from selected cell to next cells within selected column.
Copy growth	Copy text from selected cell to next cells within selected column. Each new entry is incremented by 1.
Copy loss	Copy text from selected cell to next cells within selected column. Each new entry is decremented by 1.
Counter/History	Same as function of Red key.
Cancel	Close context menu (same as pressing key ESC).

4.7 Column history / Column list

Red button can be used for activating column history or column list (when available in active Profile). When column list is available in actual Profile, column list will be displayed instead of column history.



Arrows ↑/↓ can be used for selecting the item from list.

Column history contains all texts existing within selected column.

Column list can be uploaded to HHU from program on the PC.

ENT can be used for confirming selected item.

ESC can be used for closing column history/list.

4.8 Search

Search is available only in STOCK mode. This function serves for example to compare existing meters on the trolley against "paper". Essential is to import the list of meters ("paper") into the terminal via HHUadmin. HHUadmin uses **Import**, to load the list of meters and then send (**Copy to device**) to terminal. Then in terminal using Search we sequentially look for individual meters (e.g. from the trolley) and mark them if the record agrees or make appropriate changes. Based on that various flags are used to denote particular meter:


- **0 – not found** (nenájdenny) – this is a default flag for each meter after importing the list into the terminal
- **1 – new** (nový) – this flag is set for each newly defined meter into the table (existing list), e.g. if there is a meter on the trolley which is missing in the list
- **2 – found** (nájdenny) – this flag is set by operator if item with all its parameters corresponds with real meter on the trolley. Flag is set by double **ENT** (open and close any cell of particular row). Flag is automatically set to 2. This flag can be also set in Insert Form, then Search is not used. Same principle applies and so cell confirming sets flag 2, but in Form confirming is carried out by arrows ←/→. Therefore a row of main table, which has not been yet modified from which operator jumps by arrows ←/→, acquires flag 2.
- **3 – modified** (upravený) – this flag is automatically set to each meter which is modified by operator
- **4 – difference** (nezhoda) – this flag is set by operator. Flag is set by **F8** on any cell of given row (searched meter). This flag determines that the meter is the one we were looking for, but the differences are major and there is no necessity to anyhow edit it. *Remark:* Difference can be also set in Insert Form by check box, see chapter 4.4 Insert Form.

Flag is usually the last column in main table. After comparison of each item we need to upload this modified table back to the computer. Operator shall ESCape from main table and places the terminal into the holster. Using HHUadmin it is possible to download the table from terminal (button **Copy to PC**). Using **Export** this application will generate output documents.

Check box **Multiple Import/Export** ensures proper function with multiple terminals. When checked user is obliged to choose import file which serves as reference for export.

Remark: Export of files is custom defined directly in HHUadmin according to particular customer.

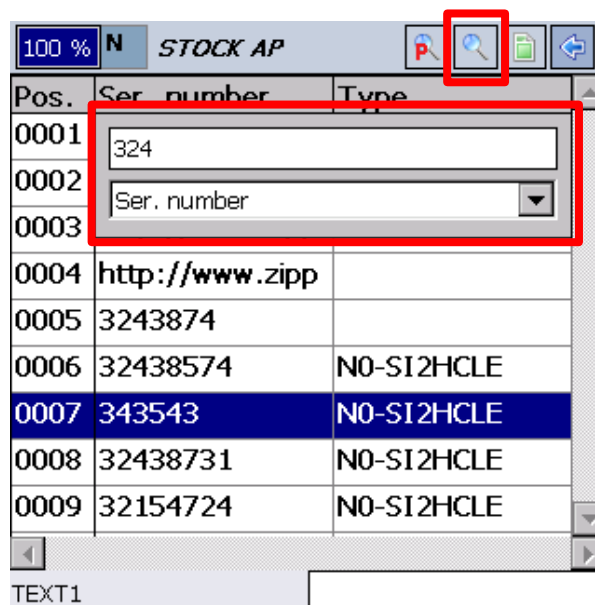
4.8.1 Search for Text String

Search dialog opens with **F3** (or tapping on ). This dialog can be closed by **F3** or tapping on the same icon.

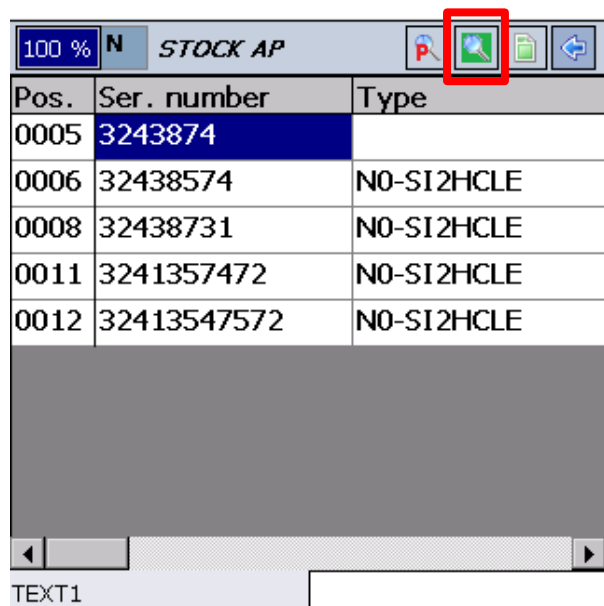
In first row type searched text string (at least a few characters). In the second row select column as searching range. After pressing **ENT** only valid results will appear in the table. User then assign appropriate flags accordingly:

- Confirms the row if convenient (flag 2 is set)
- Modifies some of the cells in specific row (flag 3 is set)
- Marks difference (flag 4 is set)
- Creates new row and add meter's parameters. (This usually happens if the meters is missing in the table but it is available on the trolley and search function helps to find this out) (sets flag 1 to new row)

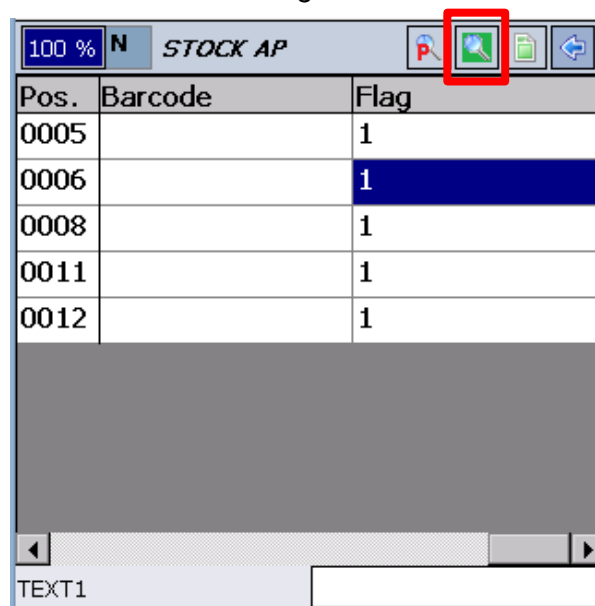
Active filter is indicated by green background in specified icon and tapping on that or **F3** we will see the filter conditions, which can be edited.



Search icon and dialog window with two rows



Active filter indication and searched results

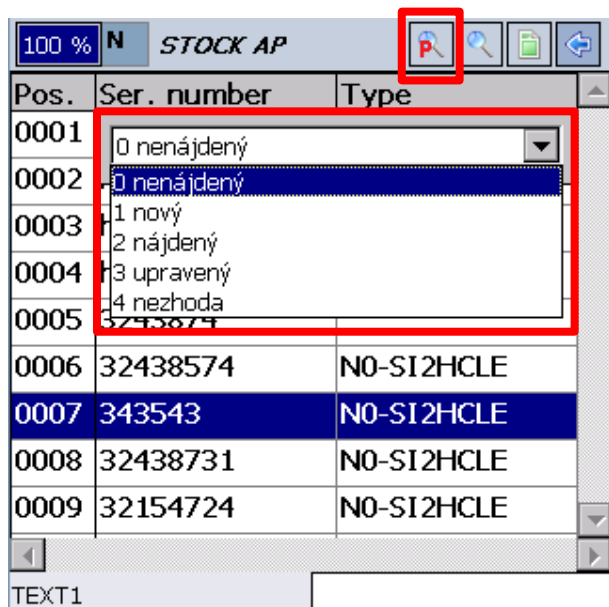



Column with flags

Flags description is in previous chapter. **F5** cancel search and show the entire table.

4.8.2 Filter Based on Flags

Searching system is complemented also by Flag Filter. This filter is useful when the list is too long and user get lost in items already verified. Very advantageous is filtering only unchecked items with flag 0.



Operator uses **F4** or icon  and specific dialog appears to select from flags. Flags are presented even with their description. Selection is made by stylus or arrows and confirmed by **ENT**. Dialog is canceled by same icon or **F4**.

Active flag filter is indicated by green background of given icon.

Filter is canceled by **F5**.

5. Program Settings

5.1 Main Menu

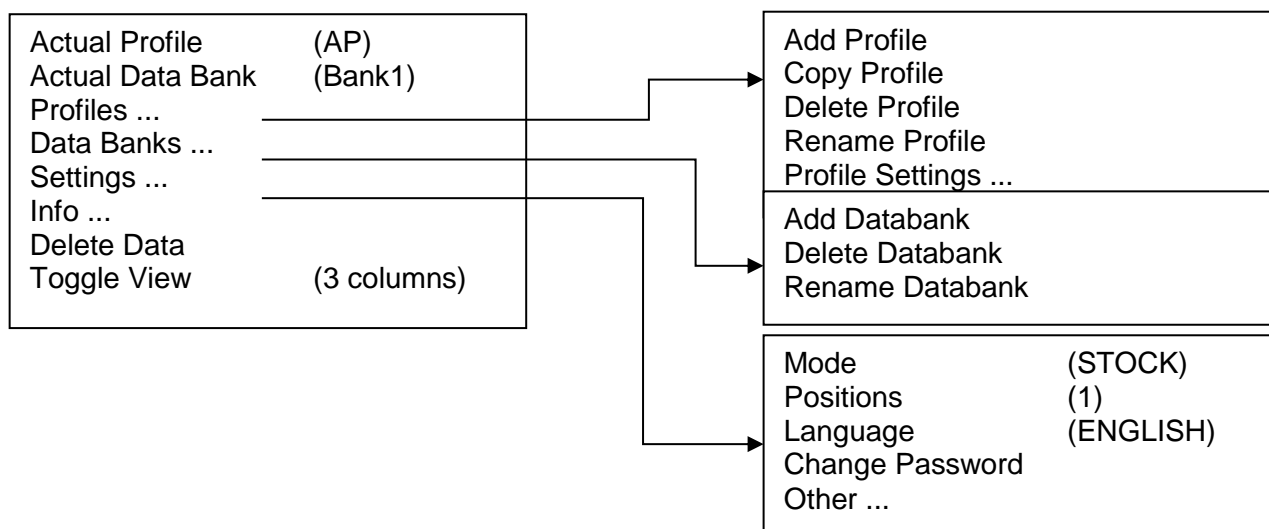
Main Menu is accessible by pressing Green key on the program Main Screen.






Arrows \uparrow/\downarrow can be used for navigating across menu items.

ENT key can be used for entering item. Same meaning has also double tap by stylus.

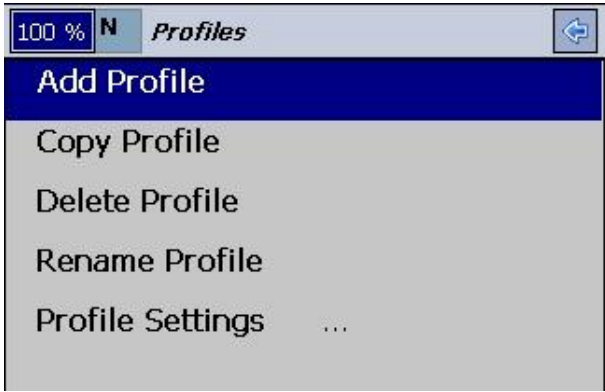
5.1.1 Main Menu Structure



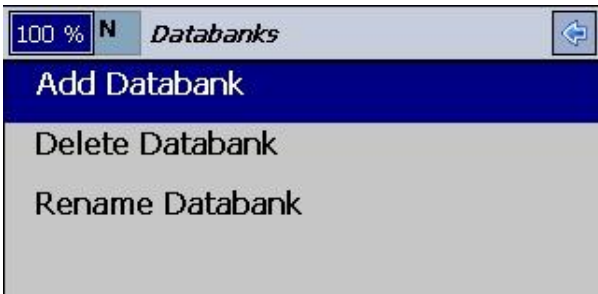
5.1.2 Main Menu Description

Menu Item	Function
Actual Profile	Actual Profile selection – shows list of available profiles. 
Actual Databank	Actual Databank selection – show list of available databanks. 
Profiles ...	Shows submenu Profiles
Databanks ...	Shows submenu Databanks
Settings ...	Shows submenu Settings
Info ...	Shows window Info. 
Delete Data	Deletes all data for actual databank. Confirmation of delete action must be performed.
Toggle View	Toggle Main Screen View Type (same as pressing Red button) - 3 columns/2columns.

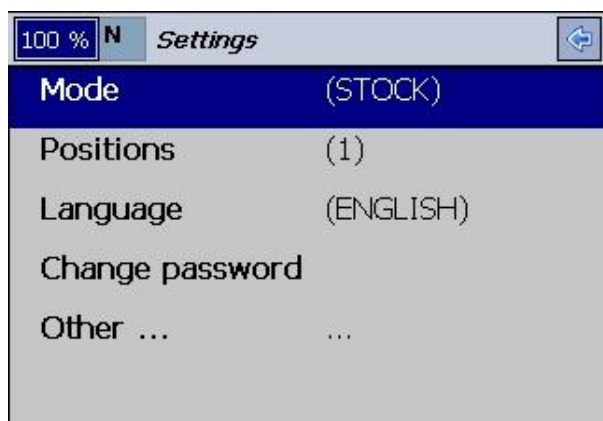
5.2 Submenu Profiles

Menu Item	Function		
Add Profile	Add new profile with entered name.		
Copy Profile	Copy existing profile into new profile. It is required to select existing profile from the list and enter name for newly created profile.		
Delete Profile	Delete profile. It is required to select profile name from the list of available profiles. It is not possible to delete Actual Profile.		
Rename Profile	Rename profile. It is required to select profile to be renamed and enter new name for profile.	Profile Settings	Shows menu for setting profile parameters. It is required to select profile name.

5.3 Submenu Databanks

Menu Item	Function		
Add Databank	Add new databank with entered name.		
Delete Databank	Delete databank. It is required to select databank name from the list of available databanks. It is not possible to delete Actual Databank.		
Rename Databank	Rename databank. It is required to select databank to be renamed and enter new name for databank.		

5.4 Submenu Settings



Menu Item	Function
Mode	Setting the mode of program (ELMA/STOCK). Password protected.
Positions	Setting the positions number (only for mode ELMA). Password protected.
Language	Program language selection. Password protected.
Change Password	Password change.
Other ...	Other parameters to be set.

5.4.1 Profile Settings

Profile contains settings which defines barcode processing as crop, mask and parsing. Number if defined profiles is not limited. Barcode processing is based on settings for Actual Profile.

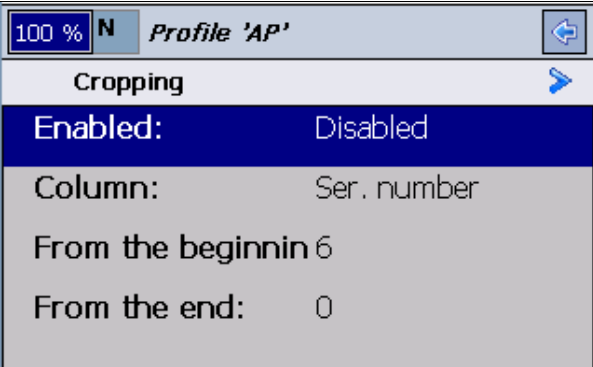
Profile setting contains these submenus:

- Barcode Crop
- Barcode Mask
- Barcode Parsing
- Barcode Dividing
- Column Lists
- Fields for Footer
- Insert Form

Arrows ←/→ must be used to move across submenus.

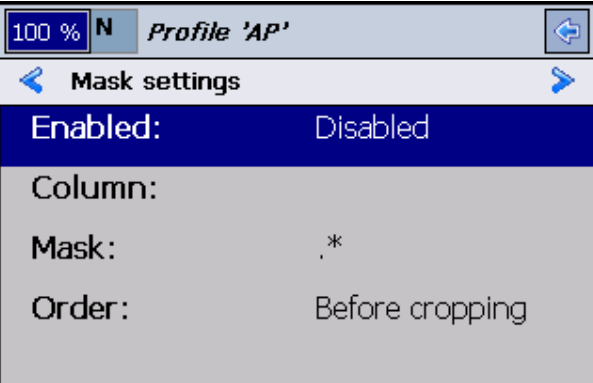
Barcode Crop

It is possible to crop scanned data before further processing.

Enabled	Enabled <ul style="list-style-type: none"> - After successful scan crop defined number of characters from code beginning and end - Cropped data will be used for further processing Disabled <ul style="list-style-type: none"> - Scanned data will not be modified 	
Column	Barcode crop will be applied only for selected column.	
From the beginning	Number of characters to cut from beginning of barcode.	
From the end	Number of characters to cut from end of barcode.	

Barcode Mask Settings

It is possible to compare scanned data with mask. Mask mismatch is signaled by negative sound.

Enabled	Enabled <ul style="list-style-type: none"> - Compare scanned data with defined mask. - When mismatch is detected acoustic signal is generated. Disabled <ul style="list-style-type: none"> - No mask comparison. 	
Column	Barcode mask will be applied only for selected column.	
Mask	Mask <ul style="list-style-type: none"> - In the form of Regular Expression 	
Order	Before cropping – apply Barcode Mask before barcode crop After cropping – apply Barcode Mask after barcode crop	

Barcode Decomposition (Parsing)

Barcode Parsing enables to decompose barcode into several parts. Each part can belong to one of defined column. This function is used when several data type, as serial number, meter type ID, year of manufacture of meter, are coded into one barcode. This function can separate all barcode parts into separate columns in Main Screen.

Barcode Parsing:

- is available only when scanning data for column BARCODE
- definition depends on its setting and can be different for each profile
- uses barcode data after Barcode Crop and Barcode Mask processing.

Enable	<p>Enabled</p> <ul style="list-style-type: none">- After scanning or entering data for column BARCODE will be applied Barcode Parsing- It is possible to define 6 columns for barcode decomposition (items: Column #1 - #6) <p>Disabled</p> <ul style="list-style-type: none">- Function is deactivated																
Column #1 - #6	<p>Column name selection. Definition of the first and last character for each part (column) within whole barcode. <u>From char.</u> and <u>To char.</u> must be confirmed by ENT to be stored.</p> <p>Example:</p> <table><tr><td>Column #1</td><td>SN</td><td>2</td><td>9</td></tr><tr><td>Column #2</td><td>Type</td><td>10</td><td>12</td></tr><tr><td>Column #3</td><td>Text1</td><td>13</td><td>14</td></tr><tr><td>Column #4</td><td>Text 6</td><td>1</td><td>1</td></tr></table> <p>Barcode Parsing of: A1234567890107, according to definition above:</p> <ul style="list-style-type: none">- Decomposition into 4 defined columns- Column: SN: 12345678- Column: Type: 901- Column: Text1: 07- Column: Text2: A	Column #1	SN	2	9	Column #2	Type	10	12	Column #3	Text1	13	14	Column #4	Text 6	1	1
Column #1	SN	2	9														
Column #2	Type	10	12														
Column #3	Text1	13	14														
Column #4	Text 6	1	1														

100 % N Profile 'AP'

Barcode decomposition

Enabled: Enabled

Col Parse BC

Col Column: TEXT1

Col From char.: 10

Col To char.: 14

Column #5:

Column #6:

Remark: Only one of two options can be active in each profile – *Barcode Parsing* or *Barcode Dividing*.

Barcode or QR Code Dividing

Barcode Dividing enables to decompose barcode into several parts where delimiter can be any given character or a group of characters. Dividing is same like in Barcode Parsing into defined columns for one given row. Parts of code can involve information as manufacturing year, manufacturer, ID, type, serial number, etc.

Barcode Dividing:

- is available only when scanning data into column BARCODE
- definition depends on its setting and can be different for each profile
- uses barcode data after Barcode Crop and Barcode Mask processing.

Remark: Only one of two options can be active in each profile – *Barcode Parsing* or *Barcode Dividing*.

Column Lists

Show the names of columns where columns list are uploaded from PC.

Fields for Footer

These fields determines maximum of 4 associated columns of main table with the Footer. It is not recommended to use following columns: Pos., Serial Number, Barcode and Flag. Footer has the highest priority in Main table, more information about the Footer in chapter 4.3.1 on page 12.

Enabled:	Enabled
Footer 1:	TEXT1
Footer 2:	
Footer 3:	
Footer 4:	

Insert Form

Preview of definition of all fields of Insert Form. There is a maximum of 10 available fields, where one filed is one column from Main table.

Column #1:	Barcode
Column #2:	Ser. number
Column #3:	
Column #4:	Type
Column #5:	INITIAL1
Column #6:	
Column #7:	
Column #8:	

5.4.2 Identification of position by a barcode

Function provides possibility to identify position by scanning its identification barcode. It means that user at first scans position identification and then scans or enters data for identified position.

When this function is enabled each scanned barcode is compared with list of position identifiers stored in HHU memory (it can be uploaded from PC). If scanned barcode matches item in the list, matched position is selected. If scanned barcode doesn't match it will be used as data for currently selected position.

Function is active when:

- Parameter: Menu – Other – Ident. Pos. by BC is set to Enabled.
- List of position identifiers is uploaded into HHU.

6. Data Exchange with PC

Data with PC performed via Microsoft ActiveSync (Windows XP) or Windows Mobile Device Center (Windows 7). Windows program must be installed on the computer and the partnership with HHU must be established.

Warning:

HHS must be switched to **Start Up Screen** always before plug-in into docking cradle, otherwise data synchronization will not proceed correctly.

When HHU is plugged-in into docking cradle, wait until Windows program performs synchronization then continue with action in user program or Control Software ELMA.

7. Troubleshoot

For applications from 2012 with version (1.0.2.x):

Assumption 1: Battery is depleted and the device has not been turned on for very long time or at all.

1. Insert the battery, or check the battery position inside of HHU body.
2. Place the HHU into the cradle in order to start charging the battery.
3. After a while, when the battery is charged at least a bit, turn on the device using a small red button in bottom right corner. It has a standard On/Off icon (HHU remains in the cradle).
4. When the device powers up it will automatically install all necessary components. When it stops in the window "Unsupported System Version" tap on Yes and wait for completion.
5. This procedure ends with HHS program start into Slovak localization and no databank inside.
6. Now connect the cradle's USB cable into the PC.
7. If the computer includes previously installed Active Sync (or other SW for Windows 7) with particular registry modification, you can directly open HHUadmin.exe software and proceed with step 8. But, if you do not have Active Sync (or other SW for Windows 7) pre-installed in a computer you intend to use, follow the steps a, b, c, d, e and afterwards the step 8.
 - a. If your computer runs on Windows 7, all required drivers and SW will be installed automatically after device connection provided PC with internet connection. For Windows XP install **Active Sync** manually from delivery CD.
 - b. For Windows 7 you will be prompted once for Yes. For Windows XP follow the Active Sync installation Wizard.
 - c. Install **SQL Server support** from delivery CD (file SQLServerCE31-EN.msi). Click on Next, Accept, Next, Install and Finish.
 - d. If this installation is involved in automatic installation procedure together with other SW packages (mostly when you install whole ELMA package) your computer will be also modified by particular registry. If not, proceed with step e) otherwise check the registry item existence based on step e).
 - e. Go to registry (Click on Start, type "regedit" without quotes and press Enter) in order to modify specific registry record. Locate the item HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows CE Services\ and create item GuestOnly (type DWORD) with a value of 1.
8. Open HHUadmin.exe software; mostly it is located in C:\ELMA\HHU. When this SW opens you should see the databank that was lastly created. This should be the one you probably need to upload into the device. If so, upload the databank from SW into the device with button "Copy to device", which is located in bottom right corner of HHU Admin main screen.
9. If you need another databank, you can create the desired one by your own or look for backed-up one or send us a request for creation of new one based on your requirements.
10. Close HHUadmin SW.
11. In order to change the language from Slovak to English first check the settings of HHS SW inside of HHU. Tap on Enter (or Vstup in Slovak) in the middle of the screen and then press the button with green circle around it. It is located in upper part of HHU keypad.
12. In Main Menu tap on "Settings..." and confirm with Enter on HHU keypad. Check the language whether it is set to ENGLISH. If so, you need to close the HHS SW. If not, change the language to ENGLISH and then close the HHS SW.
13. From Settings submenu press three times ESC button on HHU keypad. It will bring you on the main screen of HHS SW.
14. Using stylus tap once on the red cross located in the very top right corner of the screen and then F7 on the keypad. On some versions for pressing F7 you might need to first press the Fn button and then the button which has alternate function of F7.

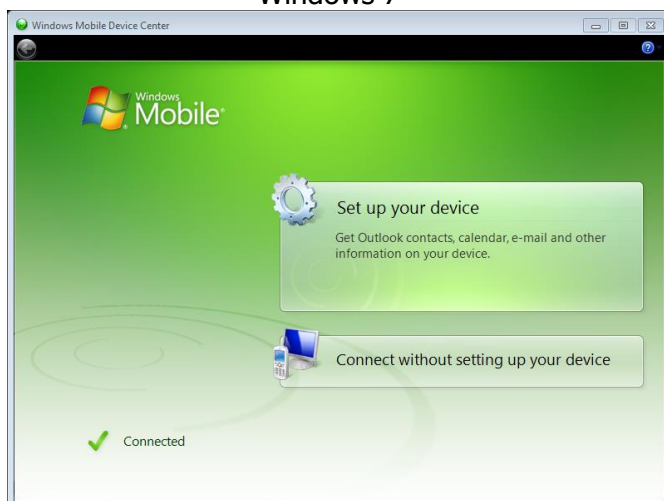
15. You will be prompted for program closing. Confirm with Yes. Open up the SW again by double tap on the HHS icon on the desktop of HHU OS.
16. Now you should see the main screen of the SW with Enter button in the middle. You can check if the language has properly changed into English.
17. If the language was not correctly switched into ENGLISH, proceed with following steps.
 - a. When the PC runs on Windows 7 open "Windows Mobile Device Center" which was installed when the HHU was firstly connected into this PC. In that SW on Home screen click on "Connect without setting up your device" and then click on "Browse the contents of your device" under "File Management". For Windows XP, open Active Sync and locate the Explore button.
 - b. You will see now the file structure inside of HHU. Find Application folder and look for mls.xml file. This file contains the language definition. You need to replace this (possibly wrong) file with new one. Use Drag & drop method. Correct file should be located in C:\ELMA\HHU of your computer.
 - c. Close the file structure window of HHU contents. Restart the HHS SW inside of HHU by following the steps 14 and 15.

During transfer and communication between PC and HHU the HHU has to be placed in a cradle and HHS software must show the main screen with a button Enter (or Vstup in Slovak)

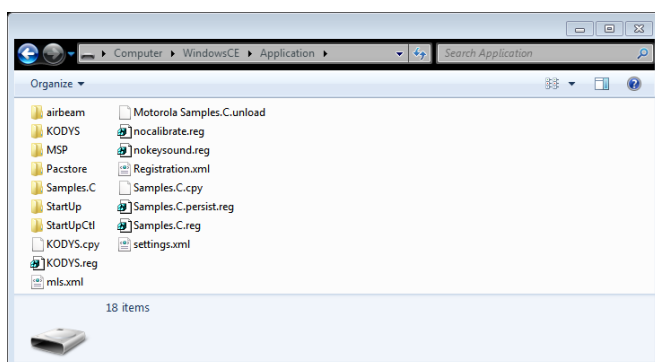
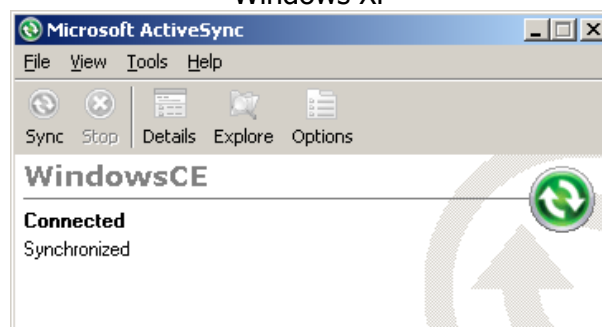
Assumption 2: Installation files of HHS have been damaged which leads to failure during initial installation after power up.

1. When the device powers up it should automatically install all necessary components. Nevertheless, it will warn the user with a message "No .CAB Files To Install".
2. Tap on OK to skip out of this message. You will probably need to tap on OK several times since the automatic installation sequence looks for several .CAB files.
3. Now connect the cradle's USB cable into the PC.
4. If the computer includes previously installed Active Sync (or other SW for Windows 7) with particular registry modification, you can directly open HHUadmin.exe software and proceed with step 5. But, if you do not have Active Sync (or other SW for Windows 7) pre-installed in a computer you intend to use, follow the steps a,b,c,d,e and afterwards the step 5.
 - a. If your computer runs on Windows 7, all required drivers and SW will be installed automatically after device connection provided PC with internet connection. For Windows XP install **Active Sync** manually from delivery CD.
 - b. For Windows 7 you will be prompted once for "Yes". For Windows XP follow the Active Sync installation Wizard.
 - c. Install **SQL Server support** from delivery CD (file SQLServerCE31-EN.msi). Click on "Next", "Accept", "Next", "Install" and "Finish".
 - d. If this installation is involved in automatic installation procedure together with other SW packages (mostly when you install whole ELMA package) your computer will be also modified by particular registry. If not, proceed with step e) otherwise check the registry item existence based on step e).
 - e. Go to registry (Click on Start, type "regedit" without quotes and press Enter) in order to modify specific registry record. Locate the item "HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows CE Services\" and create item GuestOnly (type DWORD) with a value of 1.
5. When the PC runs on Windows 7 open "Windows Mobile Device Center" which was installed when the HHU was firstly connected into this PC. In that SW on Home screen click on "Connect without setting up your device" and then click on "Browse the contents of your device" under "File Management". For Windows XP, open Active Sync and locate the Explore button.

Windows 7



Windows XP



6. You will see now the file structure inside of HHU. Find "Application" folder. You need to copy (and overwrite if necessary) all installation files and folder(s). Use Drag&drop method for files from your computer.
7. When you are done with copying, you need to perform a hard reset of the device in order to get install all necessary components within initial automatic installation sequence. Use button combination 7, 9 and Power. The unit will reboot.
8. Now, when the device powers up it should automatically install all necessary components. When it stops in the window "Unsupported System Version" tap on "Yes" and wait for completion.
9. This procedure ends with HHS program start into Slovak localization and no databank inside.

10. Open HHUadmin.exe software; mostly it is located in "C:\ELMA\HHU". When this SW opens you should see the databank that was lastly created. This should be the one you probably need to upload into the device. If so, upload the databank from SW into the device with button "Copy to device", which is located in bottom right corner of HHU Admin main screen.
11. If you need another databank, you can create the desired one by your own or look for backed-up one or send us a request for creation of new one based on your requirements.
12. Close HHUadmin SW.
13. In order to change the language from Slovak to English first check the settings of HHS SW inside of HHU. Tap on Enter (or Vstup in Slovak) in the middle of the screen and then press the button with green circle around it. It is located in upper part of HHU keypad.
14. In Main Menu tap on "Settings..." and confirm with Enter on HHU keypad. Check the language whether it is set to ENGLISH. If so, you need to close the HHS SW. If not, change the language to ENGLISH and then close the HHS SW.
15. From Settings submenu press three times ESC button on HHU keypad. It will bring you on the main screen of HHS SW.
16. Using stylus tap once on the red cross located in the very top right corner of the screen and then F7 on the keypad. On some versions for pressing F7 you might need to first press the Fn button and then the button which has alternate function of F7.
17. You will be prompted for program closing. Confirm with Yes. Open up the SW again by double tap on the HHS icon on the desktop of HHU OS.
18. Now you should see the main screen of the SW with Enter button in the middle. You can check if the language has properly changed into English.
19. If the language was not correctly switched into ENGLISH, proceed with following steps:
 - a. Browse the file structure inside of HHU using method from step 5.
 - b. Find Application folder and look for mls.xml file. This file contains the language definition. You need to replace this (possibly wrong) file with new one. Use Drag&drop method. Correct file should be located in C:\ELMA\HHU of your computer.
 - c. Close the file structure window of HHU contents. Restart the HHS SW inside of HHU by following the steps 16 and 17.

During transfer and communication between PC and HHU the HHU has to be placed in a cradle while the cradle is connected to a PC. Once the HHS software has been installed correctly it has to be switched into its main screen with a button Enter (or Vstup in Slovak).