

Aircraft Refuelling 3003

Configuration



Software Version 1.6.4

SAK 090322

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1 Safety precautions

The operator of the facility is responsible for observing all the regulations in force for the storage, transportation and loading/unloading of combustible liquids.

Regulations and provisions lose none of their validity when the facility is operated with PETRODAT units.

PETRODAT units are built with due consideration to the regulations currently in force and left the factory in perfect condition. Their installation and maintenance are to be entrusted to properly trained specialists only.

- Make sure that the data and operating conditions specified by BARTEC are observed.
- Follow the instructions for operating and servicing the units.
- If you discover any signs of damage or breakage on any parts of the system or if the system's safe operation cannot be guaranteed for any other reason, do not start the system or, if already in operation, shut down the system immediately.
Notify your maintenance department.
- Get in touch with our service specialists if you discover any faults or defects during operation or if you have cause to doubt that the units are working properly.
- PETRODAT units are not a replacement for a tanker vehicle's safety equipment or for a user's own safety measures (e.g. overfill cut-out).

Disclaimer of liability

BARTEC GmbH and its vicarious agents only assume liability in the case of deliberate acts or gross negligence. The extent of liability in such a case is limited to the value of the order placed with BARTEC GmbH.

BARTEC accepts no liability for any damage resulting from non-observance of the safety regulations or from non-compliance with the operating instructions or operating conditions. Secondary damage is excluded from the liability.

2 Basics

The PETRODAT 3003 system can be used to monitor, register and control all operations and operating processes for loading and unloading petroleum vehicles in hazard classes A1 and A3.

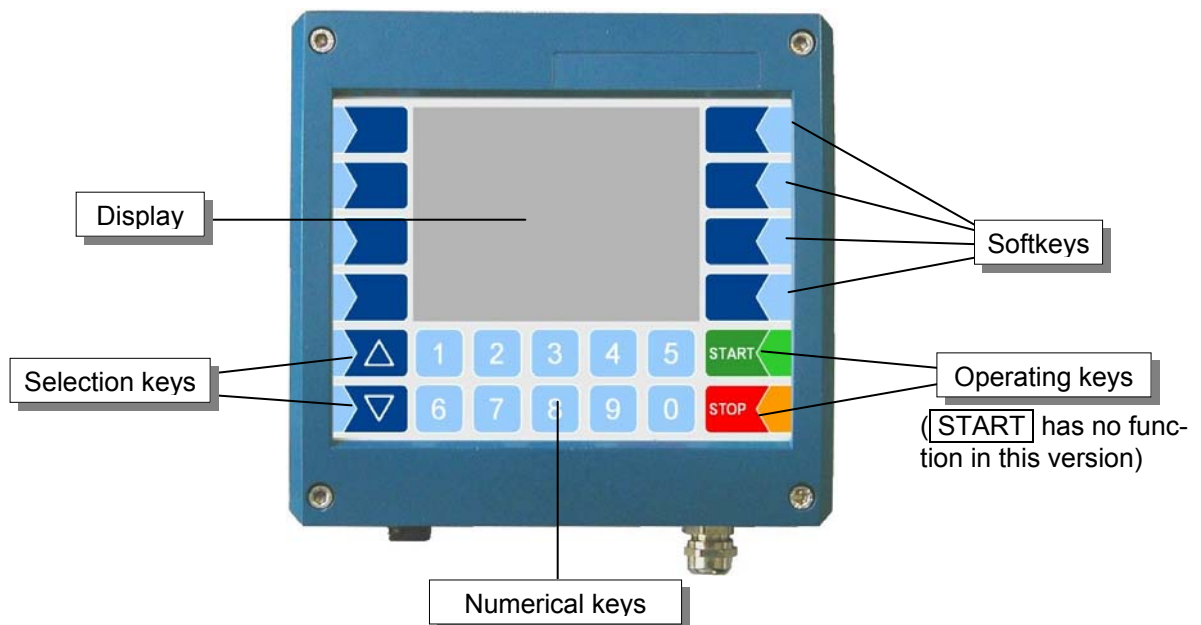
Aircraft Refuelling Version 3003 is used to control aircraft fuelling and defuelling operations as well as to enter and transmit the required and registered data.

It is operated using the operating unit (HMI).

How to start up the system and to operate the vehicle equipment depends on the vehicle type and the therefore valid operating instructions.

2.1 Operating unit (HMI)

The operating unit (HMI) acts as the central control and information unit for the entire system. Communication between the operating unit and other components within the system takes place via USB or, in the case of P-NET devices, via P-NET.



2.1.1 Keypad

The system can be operated using the touch-sensitive keys on the operating unit (touch screen with numerical keys, selection keys, softkeys and operating keys) as well as key functions that are shown on the display depending on the situation. The functions of the softkeys are controlled by the software according to the current operating status.

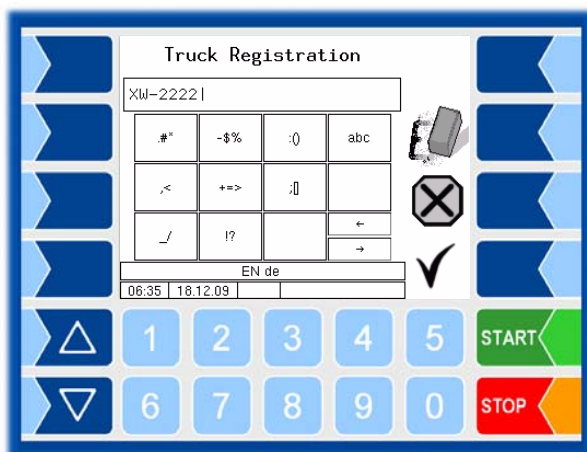
2.1.2 Display

A graphical screen designed as a touch screen is used to display all information. In addition to the touch-sensitive keyboard, various functions can also be operated directly using controls on the display surface.

2.2 Operating concept

The softkeys can be assigned various functions, the current meaning of which is indicated by symbols.

All keys are touch-sensitive, meaning that you don't need to press them but simply have to touch them.

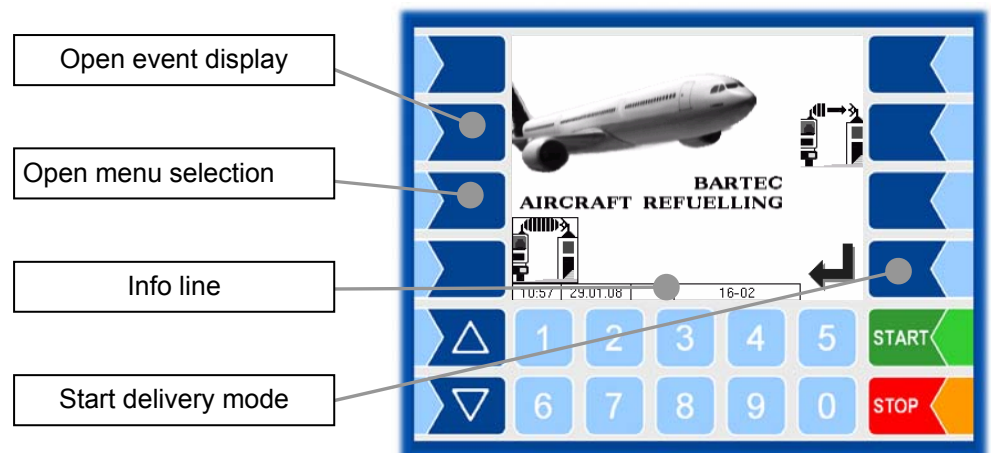


3 The software user interface

Due to differences between software releases and/or configurations, the displays illustrated in this document may differ slightly from the displays on your system.

An overview of the structure of the configuration menu together with instructions on how to access the appropriate password level in each particular case can be found in Section 4.3.

When the system is started up, the main menu appears on the display. You can access the various displays or operating modes using the softkeys to the left and right of the display.

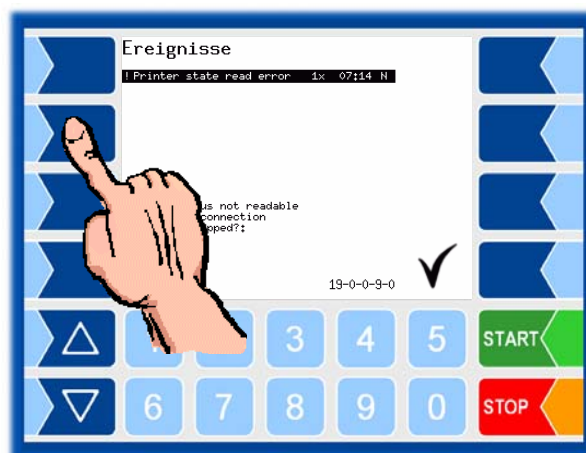


3.1 Event display

The second softkey down, to the left of the display, is used to open the event display, which shows all operating statuses and faults.

To exit the event display, touch the same softkey again.

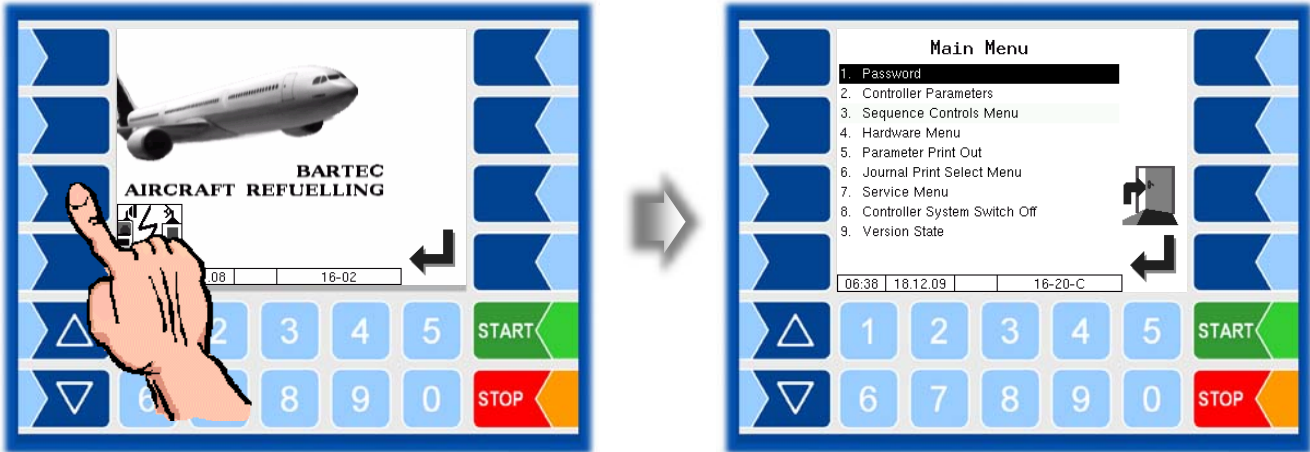
You use the softkey to acknowledge messages that are displayed. Error messages are not deleted until the cause of the error has been removed.



3.2 Menu selection

The third softkey down, to the left of the display, is used to open the menu selection.

The main menu contains submenus which can be used to configure the system and to call various functions.

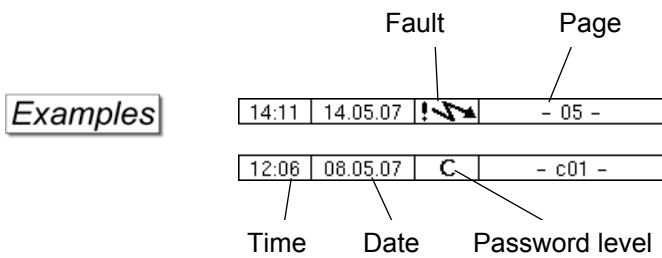


The basic operation of the menus is described in Chapter 4.




















The meanings of the parameters in the various menu can be found in Chapter 5.

3.3 Info line

The info line shows the date and time, information about the operating status and the software page number.



3.4 Softkeys

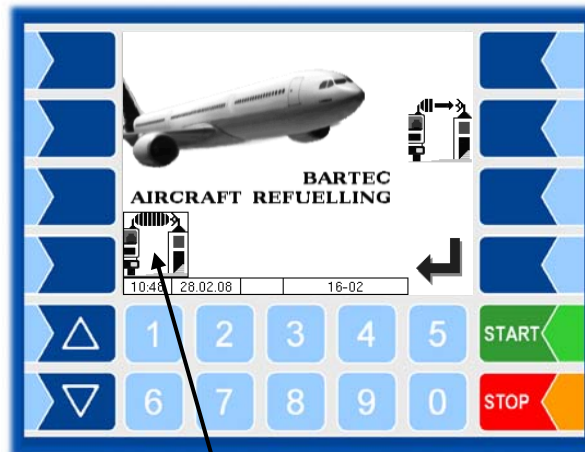
Symbol	Meaning	Effect
	Confirm	A selected menu is opened. A selected parameter setting is confirmed.
	Close menu	The menu that is currently open is closed and the system switches to the next menu up in the hierarchy.
	Cancel	The menu that is currently open is closed and the system switches to the next menu up in the hierarchy. Any settings or entries that have been made are discarded.
	Edit	An entry or selection dialog is opened for the selected parameter.
	Correct	The character to the left of the cursor in an entry dialog is deleted.
	Accept, save	The menu that is currently open is closed. All settings/entries that have been made (including those in lower level menus) are accepted and saved. All changes are only saved if you exit the menu or entry dialog using this softkey!
	Save, end order, print	The data for a delivery is saved. The current delivery order is ended and the delivery note is printed.
	Disable/enable	The selected meter is disabled or enabled.
	Reject refuelling	If, contrary to the order data, no refuelling is required, you can end the order using this softkey.
	Start delivery	The pump at the selected meter is enabled.
	Switch temperature	The delivery display switches from the average temperature (AVG) to the actual temperature (ACT) or vice versa.
	Special functions	The menu for selecting special functions is opened.
	Change user password	The user password (configuration level 2) can be changed.
	Enter password	The password for configuration level 1, 2 or 3 is entered.
	Test connection	A test message is sent to the office.
	Start download	The software download from the BARTEC server (Service menu) is started.
	Cancel download	The software download from the BARTEC server (Service menu) is cancelled.
	Print copy	Prints a copy of the delivery note.
	Order complete	Finishes the current order and sends the message „Order complete“ to the office.

3.5 Monitoring the connection

The connection between the vehicle, Internet and office is constantly monitored and its status is shown on the display.

Vehicle-Internet connection

The status of the vehicle's connection to the Internet is reported on the display in two pictograms.



Vehicle-Internet status display



Connection to the Internet established

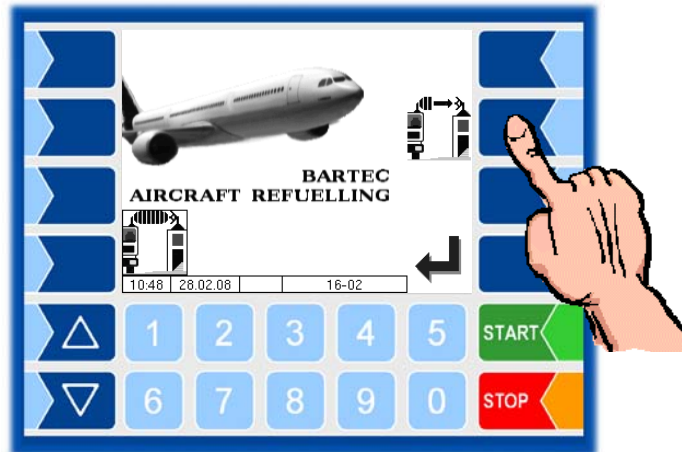


Connection to the Internet interrupted

Vehicle-office connection

If a connection is established from the vehicle to the Internet, you can test the connection to the office.

- To do this, touch the “Test connection” softkey. A test message is then sent to the office.



As soon as the answer is received, the symbol opposite appears for the softkey for 5 seconds in place of the previous symbol:

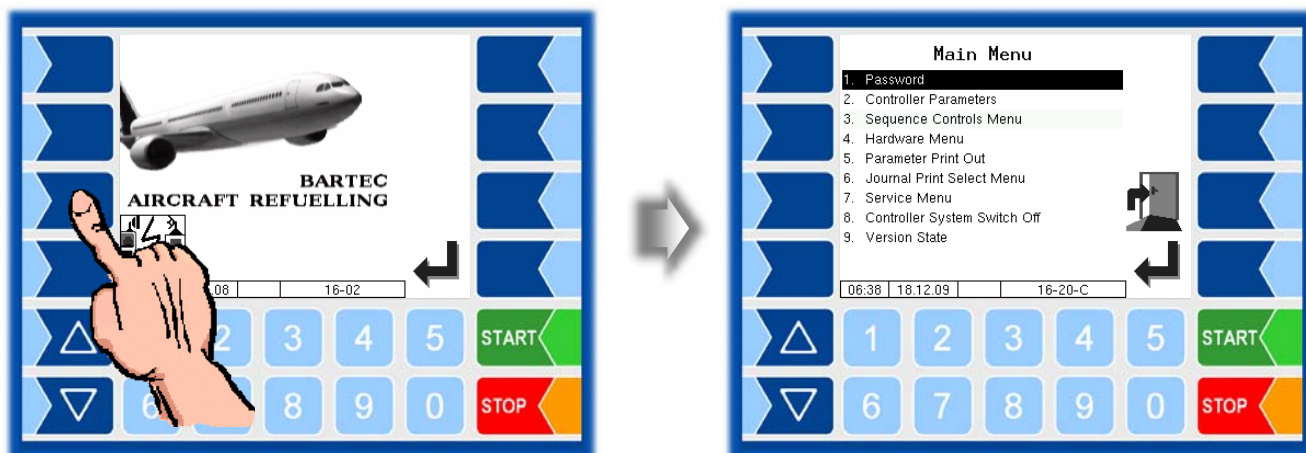


If no answer has been received after the time configured for the radio timeout, the symbol opposite appears for the softkey for 5 seconds in place of the previous symbol:





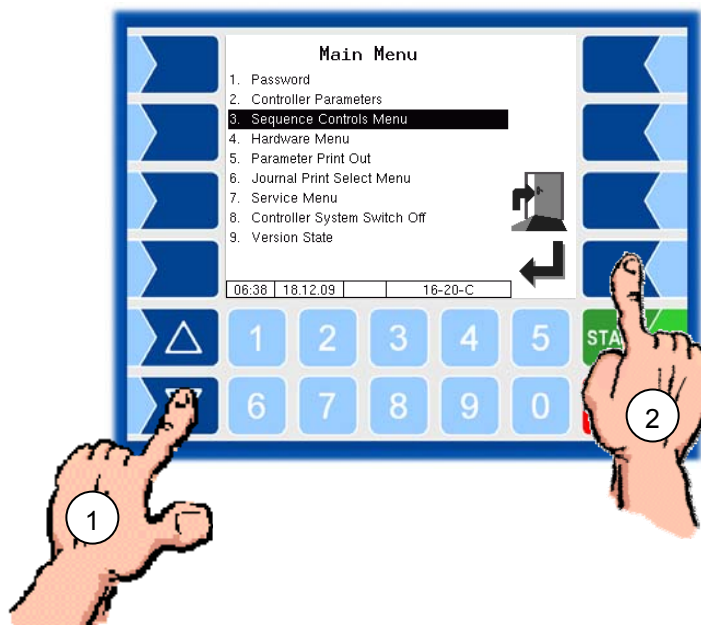
4 Operating the menus

Touch the third softkey from top left of the display to open the main menu. The submenus are used to configure the system and to call up some functions.

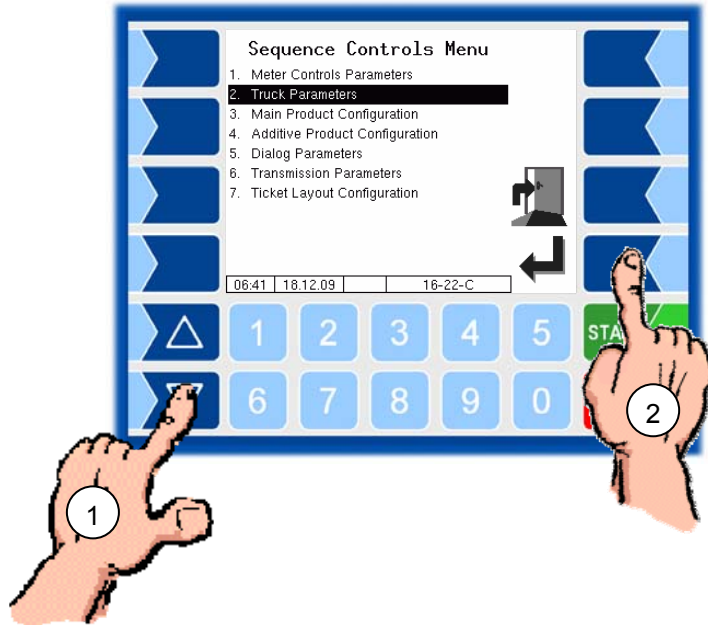


4.1 Opening a menu



1. Use the selection keys  and  to select the menu you wish to open. The selected menu is highlighted with a black bar.
2. Touch the “Confirm” softkey to open the menu.



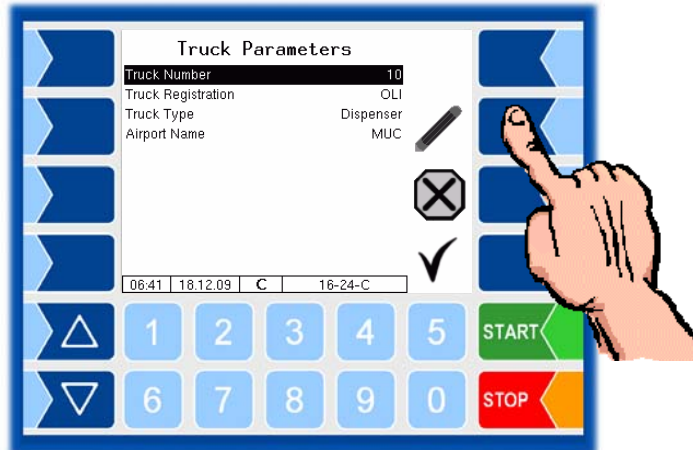
If the menu contains further submenus, you can open the required submenu in the same way.



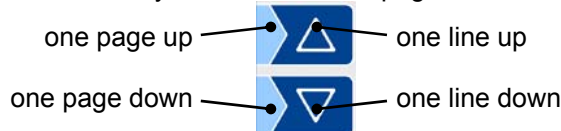
4.2 Editing parameters

1. Use the selection keys  and  to select the parameters you wish to edit. The selected parameter is highlighted with a black bar.
2. Touch the “Edit” softkey to open the edit window (entry or selection dialog).

The “Edit” softkey is only available if you are authorised to edit the selected parameter in the current password-protected configuration level (see Section 5.1).



If not all entries in menus or lists can be displayed in the screen, you can use the selection keys to scroll lines or pages.



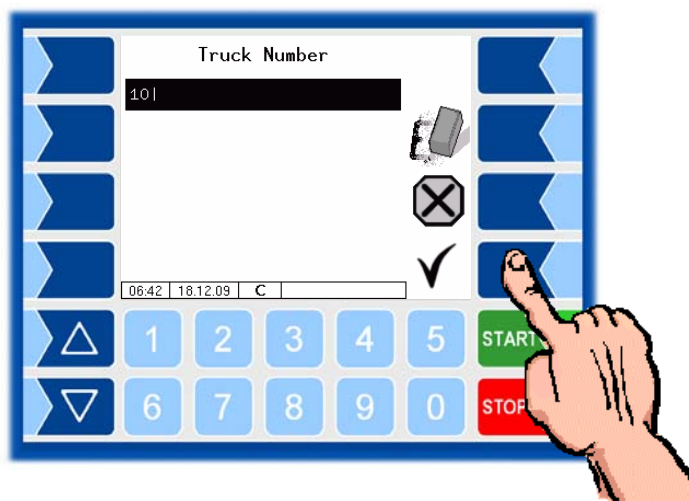
4.2.1 Numerical entries

Numerical entries are entered using the keys below the display.

If you need to make any corrections, you can use the softkey with the rubber symbol. When you touch this softkey, the character to the left of the cursor is deleted.

If a parameter must be entered with a positive or negative value, you can use the two sign softkeys $\boxed{+}$ and $\boxed{-}$.

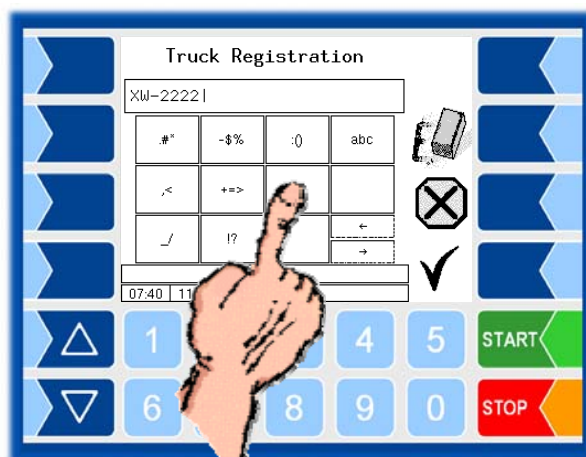
Confirm your entry using the "Confirm" softkey".



4.2.2 Alphanumerical entries

Letters are entered using the keys that are shown on the display. To enter a letter, simply touch the corresponding key. The keys are assigned up to four characters. You determine which character appears in the input line by pressing the key the appropriate number of times in quick succession.

You can enter a blank with the $\boxed{\square}$ key.



Shift key

You can use the $\boxed{A|a\uparrow}$ key to switch from upper case to lower case letters and vice versa.

Special characters

If special characters need to be entered, you can use the **#;<** key to switch the key assignment to the special character level. You can switch back to letters using the same key, which is now labelled **abcä**.

Once you have finished making your entry, touch the “Confirm” softkey.

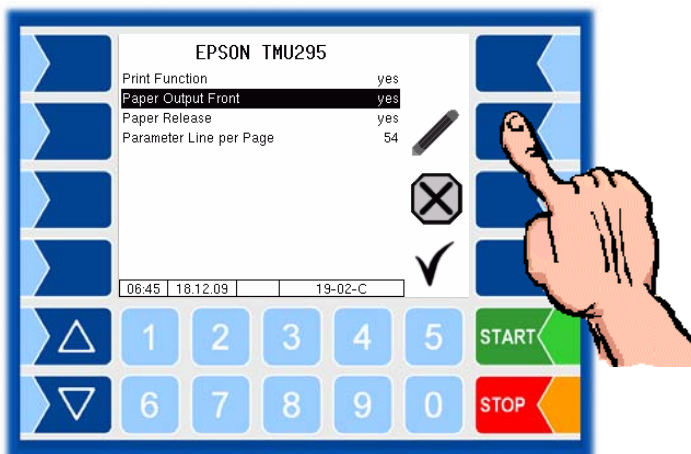
4.2.3 Selection lists

Selection lists are available for certain parameter settings. Select the required setting using the selection keys **▽** and **△**. The selected setting is highlighted with a black bar. Confirm your selection using the “Confirm” softkey.



4.2.4 Alternatives

In the case of parameters for which only two alternative settings are possible, e.g. yes/no or on/off, the settings are switched when you touch the “Edit” softkey or a numerical key.



4.3 Menu overview

The following overview should help you to locate individual parameters within the configuration system.

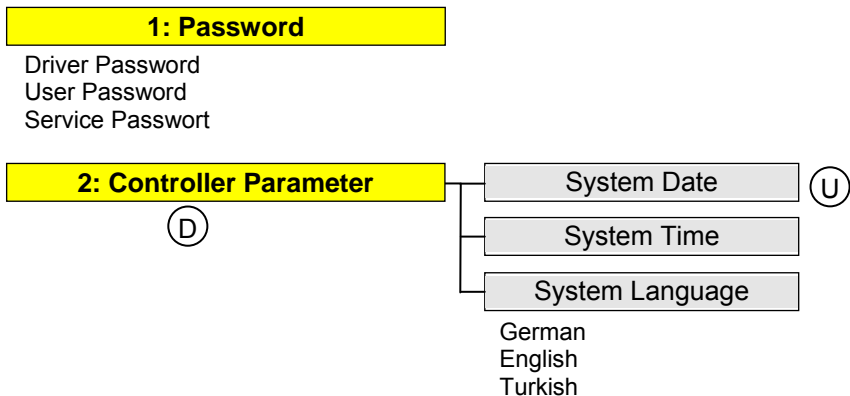
The different passwords and the seal switch permit access to different configuration levels.

The configuration levels are marked in this table to the right of the menu titles. As a rule, the configuration level applies to all the menu items listed below it.

Exceptions are marked after the respective items.

A configuration level always includes access to the next lowest configuration levels.

Driver Password	(D)
User Password	(U)
Service Password	(S)
Seal switch	(C)



3: Sequence Controls Menu

Meter Controls Parameter (U)

- Double Delivery
- Multi MIF
- Preset Enter at Order
- Red. Flow Before Preset
- Red. Flow less than
- Stop Flow Before Preset
- Stop x% of Flow
- Temp. Treshold

Truck Parameter (U)

- Truck Number
- Truck Registration
- Truck Type
- Airport Name

Main Product Configuration (C)

- Designation
- Number
- Shortcut
- Scale unit
- Calibration factor
- Density
- Reference temperature
- Compensation
- Compensation mode
- Compensation factor
- ADR text
- Product group

Additive Product Configuration (C)

- Designation
- Number
- Shortcut
- Scale unit
- Metrol. product
- Add. Mischungsv. 1/x
- Price
- Tax identif.
- Additional product

Dialog Parameter (U)

- Emergency functions
- No Fuel-Function
- Order Complete Dialog
- Shortened Dialog
- Set Default Product

Transmission Parameter (U)

- Remote Communication
- Vehicle-ID
- comm.-Protocol
- Send Repeat Timer
- Send Repeat Counter
- Send Error Message
- Fuel-Break-Timer
- Max. Backup Messages
- Remove Old Message
- Send Queue Erase
- Scheduled Data Erase

Ticket Layout Configuration (U)

- Directory → Ticket name
- Priority Ticket → Directory
- Horizontal Offset
- LF before ticket
- LF before position
- LF between position
- LF beyond position
- Max. count of pos./p.

4: Hardware Menu

Metering System Interface (C)

Messanlagen-IF-Auswahl

Measurement Interface 1/2

Counter 1 (2, 3, 4)

logical number
 number of meter 1 (2)
 calibration 1
 calibration 2
 calibration 3
 min. volume
 roll. direction
 channel
 Type
 dynamic calibration
 1. (... 5.) flow
 1. (... 5.) correction

Temperature sensor 1 (2,3,4)

logical number
 calibration 0/-195°C
 calibration 50/-80°C
 circulation delay
 firmware version
 driver version

In-/Output (U)

Output

logical allocation
 invert

Input

logical allocation
 invert
 resting state
 firmware version
 driver version

Printer Select (U)

Epson TMU 295

Print Function
 Paper Output Front
 Paper Release
 Parameter Lines per Page

Tally Genicom MIP 480

Print Function
 Single sheet Lines per Page

GPRS Configuration (U)

Device
 Baudrate
 Modem available
Provider data
 APN-Server
 APN user
 APN password
SIM data
 Dial string
 PIN number
security
 Report IP to BARTEC
 Report IP now

TCP/IP-Parameter (U)

Server IP Address
 Server Port

Touch-Calibration (S)

Contrast
 x/y calibration
 Candle power
 Set blink on/off
 Calibrate HMI 1/2
 Set HMI number

5: Hardware Menu

Large Display Schauf (S)

- Large Display on/off
- Interface
- Baud
- Data
- Parity
- Stopbit
- Flow Control
- Brightness
- Update Wait-Timer

Analyzer Velcon (S)

- Analyzer on/off
- Interface
- Baud
- Data
- Parity
- Stopbit
- Flow Control
- Update Wait-Timer
- Error Counts
- Max. Water Content
- Max. Solids Content
- Hysteresis
- Measure Value Dialog

Additive Pump Viper (S)

- Additive pump on/off
- Test Double Lifts
- Lifts/Liter Additive
- Additive Totalizer
- Pulse Duration
- Pulse Separation
- Flow Indicator
- Max. Err. Flow. Indic
- Totalizer Erase

Power Supply (S)

- System Fan*
- Switching Off Below
- Switching On Above
- Firmware Version

5: Parameter Print Out

6: Journal Print Select Menu

7: Service Menu

(S)

- Database-browser
- Logfile-browser
- Clear Configuration
- Restore conf. from Flash
- Restore conf. from CF
- Store conf. into Flash
- Store conf. into CF
- Clear RAM data
- Clear save RAM data
- Clear database
- Download
- P-Net Monitor

8: Controller System Switch Off

9: Version State

5 Description of the menus

5.1 Password

The software configuration is protected by passwords which allow access to various configuration options.

The password level currently accessible is indicated by a flashing letter in the info line of the display. Each password level includes all lower password levels.

Password level	Indicator	Access
0 :No password		Read only
1 :Driver password	D	Driver no., time, date, language
2 :User password	U	Operating parameters
3 :Service password	S	Software parameters subject to statutory calibration
4 :Open seal switch	C	All parameters

5.1.1 Password levels

No password

If you don't enter a password, you can only open the configuration menus without making any changes.

Driver password

The driver password is the sum of the day, month and hour (as shown on the display).

Driver password = day + month + hour

Example

Date: 21. 03. 2010, 07:28 h

Driver password = 21 + 3 + 7 = 31

User password

The user password is the vehicle fleet manager's password. You can define the user password yourself (see page 5-4). Once you have entered the user password, you can change configuration data that is not subject to statutory calibration, such as activating or deactivating various options and hardware modules.

Upon delivery, the user password is "bartec".

Service password

The service password allows you to access software parameter settings that are not subject to statutory calibration.

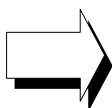
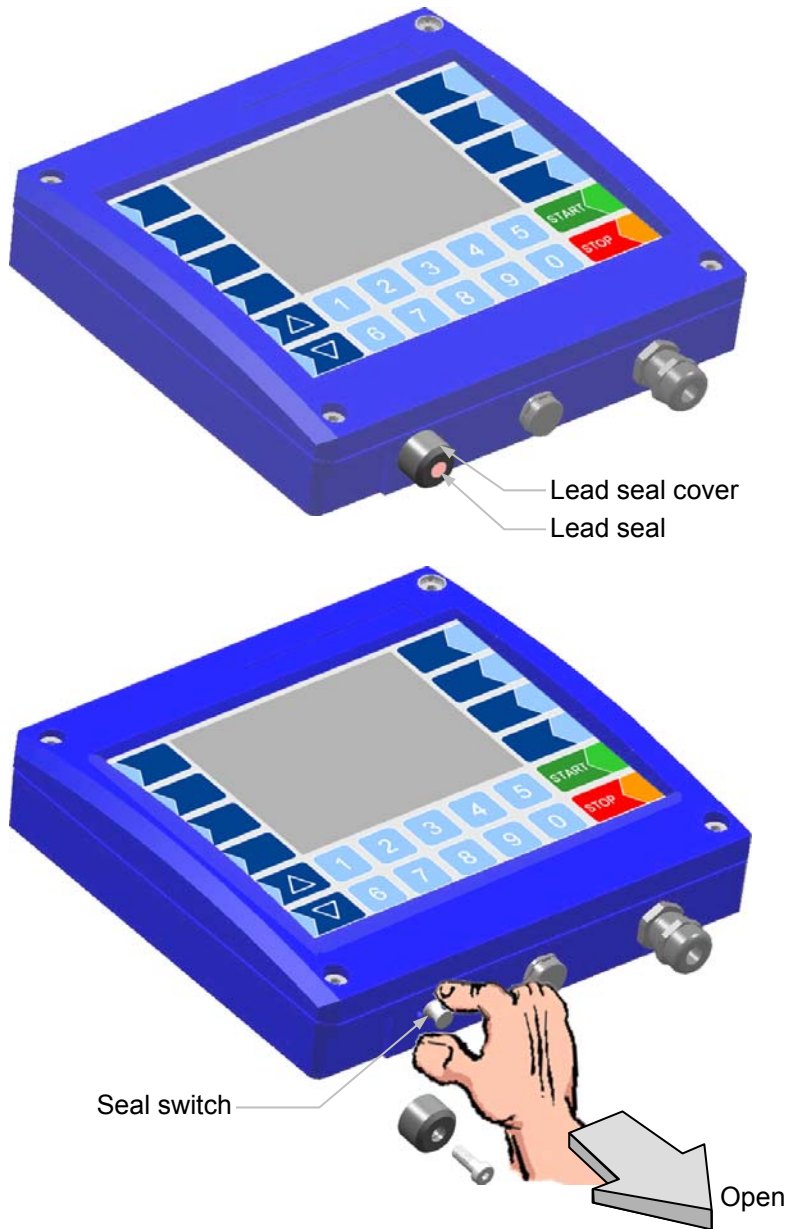
The service password is created and changed periodically in accordance with a special mode. The service password is only revealed to authorised service personnel.

Seal switch

Opening the seal switch allows you to access all parameters, including those subject to statutory calibration.

The seal switch is located at the bottom of the operating unit, below the lead seal cover. The screw for the lead seal cover is sealed with lead.

To open the seal switch, you must remove the lead, unscrew the screw and remove the lead seal cover. You can then open the seal switch by pulling it downwards.

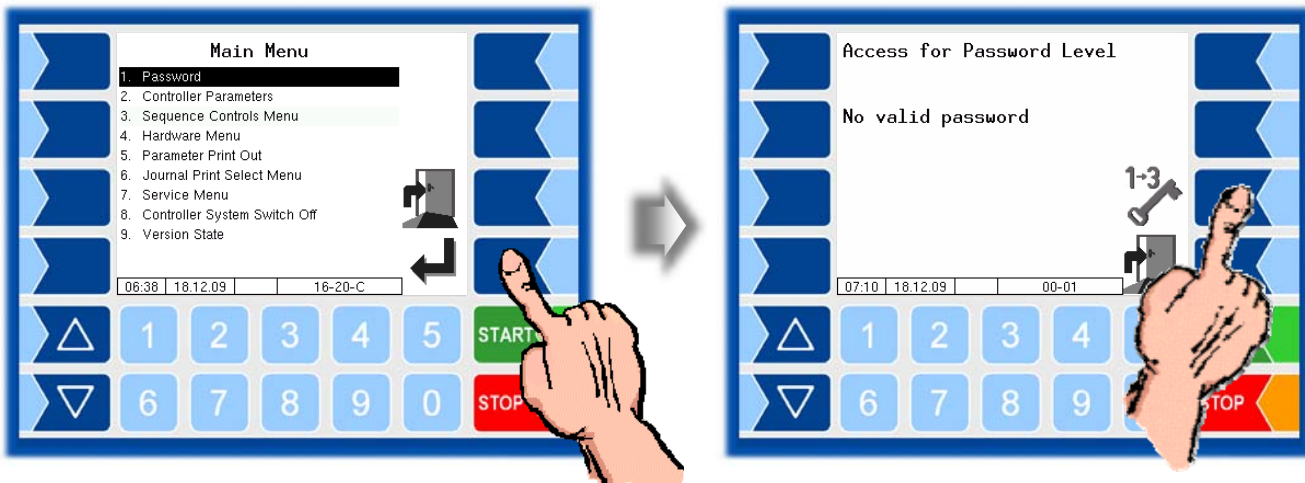


If you want to change data subject to statutory calibration, the seal switch must be opened before you start the system. Whenever the seal switch is opened, re-calibration by an official office, for which a charge will be made, is compulsory!

5.1.2 Entering the password

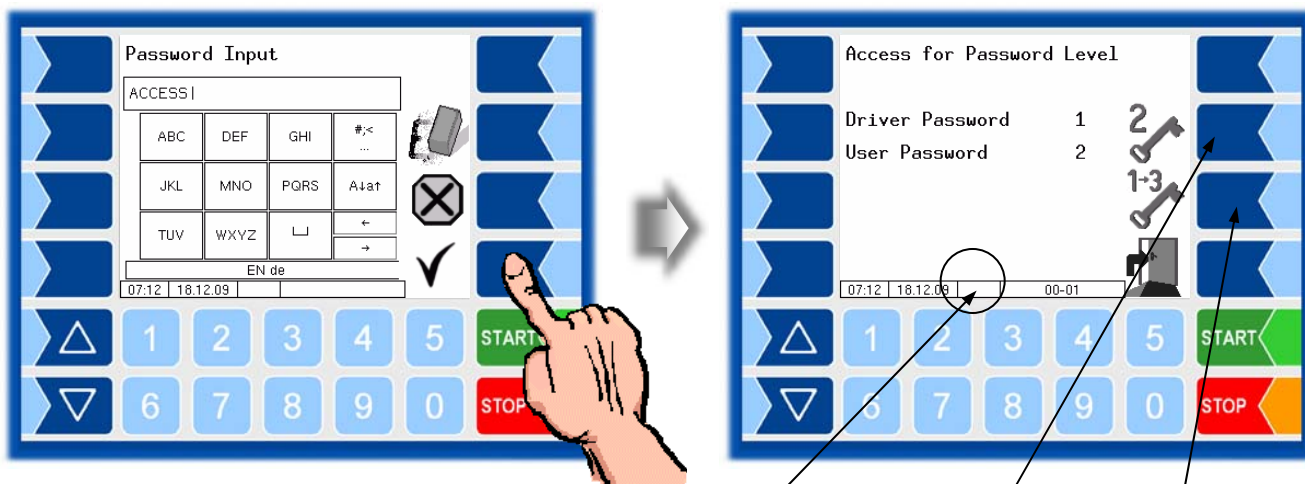
- Select the “Password” menu from the main menu.
- Then touch the softkey for entering the password for password levels 1 to 3.

You can enter the password in the following window (Alphanumerical entries – see page 4-3).



- Once you have entered the full password, touch the “Confirm” softkey. The system then shows the password levels that you can access. All higher password levels include access to the password levels below them. The highest password level at any time is shown in the info line:

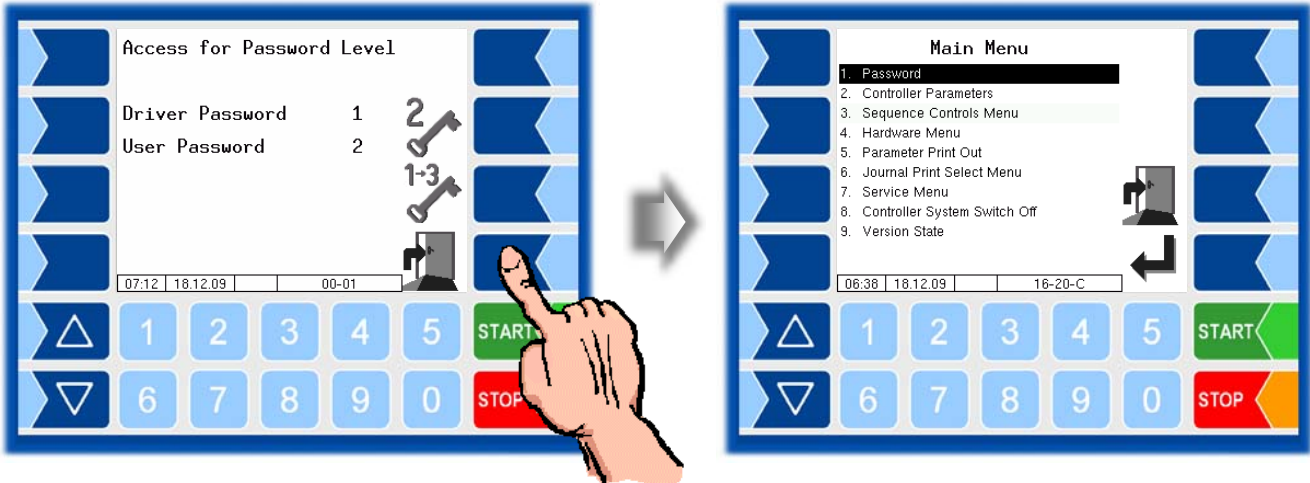
D : Driver password level 1
 U : User password level 2 (D)
 S : Service password level 3 (U, D)
 C :Open seal switch 4 (S, U, D)



Highest password level
 Change the user password
 Enter the password for level 1, 2 or 3

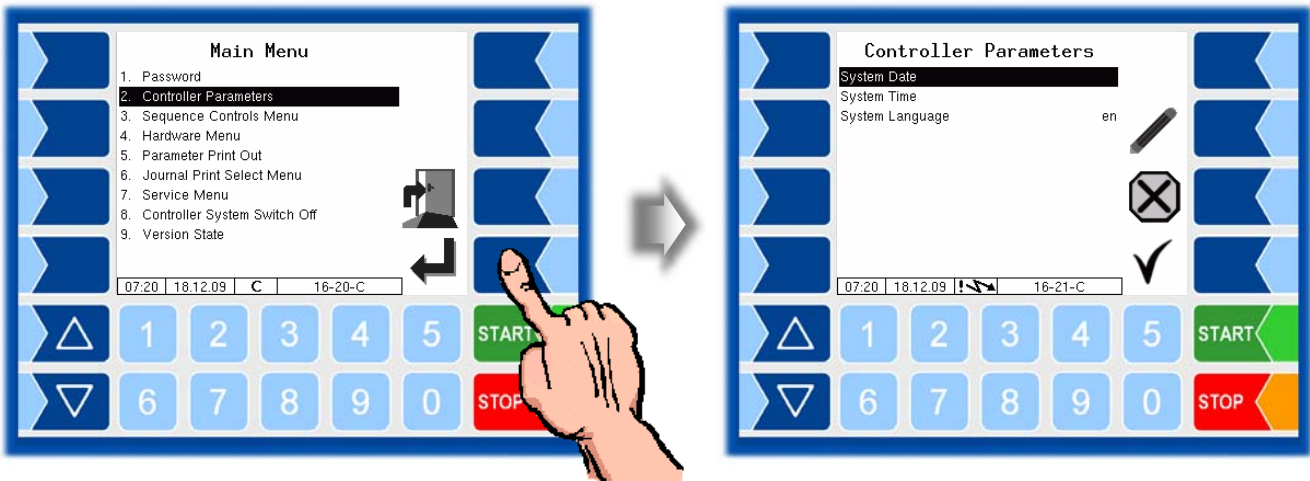
After you have entered the password for level 2 or a higher level, the softkey for changing the user password is activated. You can enter a new user password after touching this softkey.

- Touch the ✓ softkey to return to the menu selection.



5.2 Controller parameters

- Select the “Controller Parameter” menu from the main menu. The menu for selecting the controller parameters is displayed.

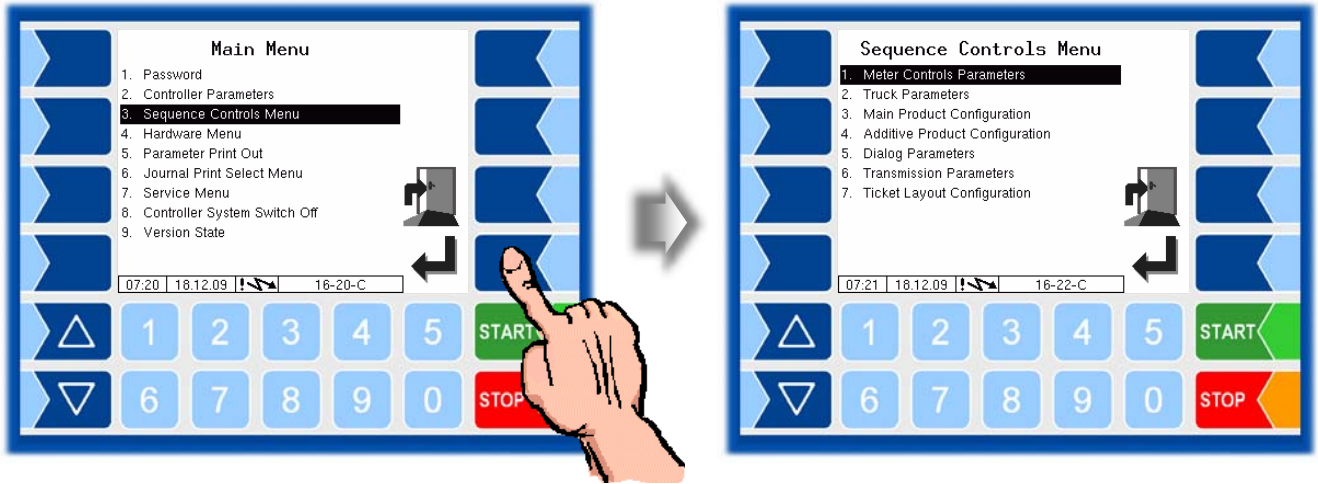


Select the menu entry in which you wish to make changes and touch the “Edit” key. The window for editing the menu entry appears. Edit the selected parameter (see Section 4.2).

Controller Parameter		
U	System Date	Change the date setting
	System Time	Change the time setting
	System Language	Select the display language
D		de (German)
		en (English)
		tr (Turkish)

5.3 Sequence Controls Menu

- Select the “Sequence Controls Menu” menu from the main menu. The submenus are displayed.



Open the submenu in which you wish to make changes. In this submenu, select the menu entry that you wish to edit and touch the “Edit” key. The window for editing the menu entry appears. Edit the selected parameter (see Section 4.2).

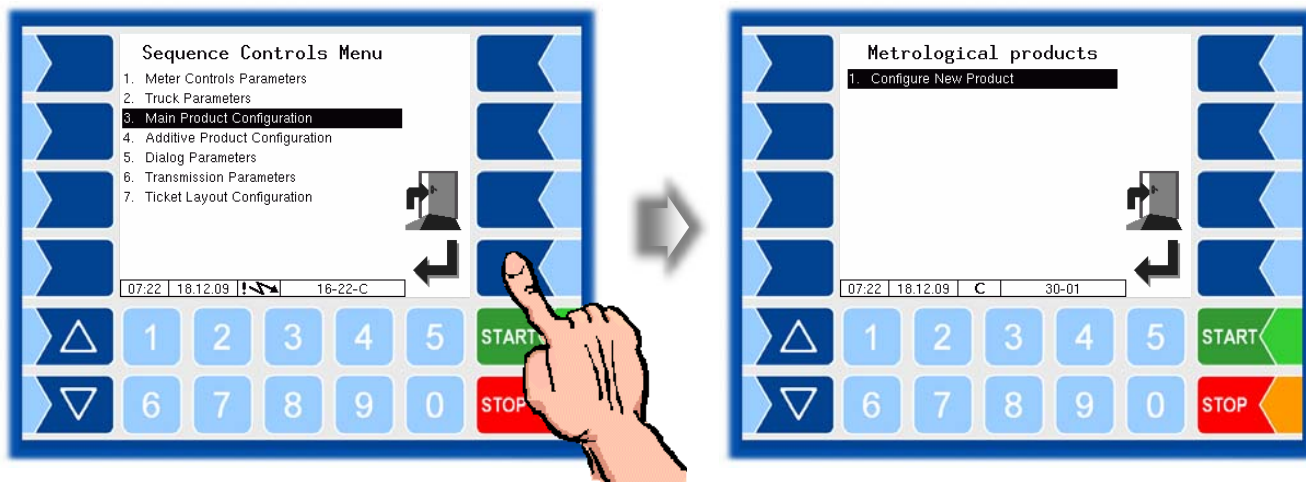
5.3.1 Meter Controls Parameters

Meter Controls		
U	Double Delivery	Yes: When the pulse counter (logical 1 or 2) starts will the second counter (logical 2 or 1) also automatically be started.
	Multi MIF	2 MIF: A second plug in card for the measurement interface is activated (up to 4 counters can be operated with this).
	Preset Enter at Order	None: No preset quantity can be entered. If needed: In the order window <u>can</u> be set a preset quantity. Obligation: In the order window <u>must</u> be set a preset quantity..
	Red. Flow Before Preset	The output for flow slow down (logical output 5 to 8) will be activated before reaching the preset quantity corresponding to this input in litres. Therefore are the current delivered quantities of all enabled counters added.
	Red. Flow less than	The output for flow slow down (logical output 5 to 8) will be activated, when the flow falls less this value in litres per minute. It will be deactivated again when the flow rises higher than this value. This happens separately for each enabled counter.
	Stop Flow Before Preset	The counters will be disabled when the current sum of the delivered quantity of all enabled counters is higher than the preset quantity minus the value of this parameter.
	Stop x% of Flow	All counters will be disabled if at any counter the flow is less than this lower limit.
	Temp. Treshold	The logical output 22 will be activated if the measured temperature exceeds this upper limit at one of the enabled counters. The output will be deactivated either when all measured temperatures are lower than this limit or if the order is finished.

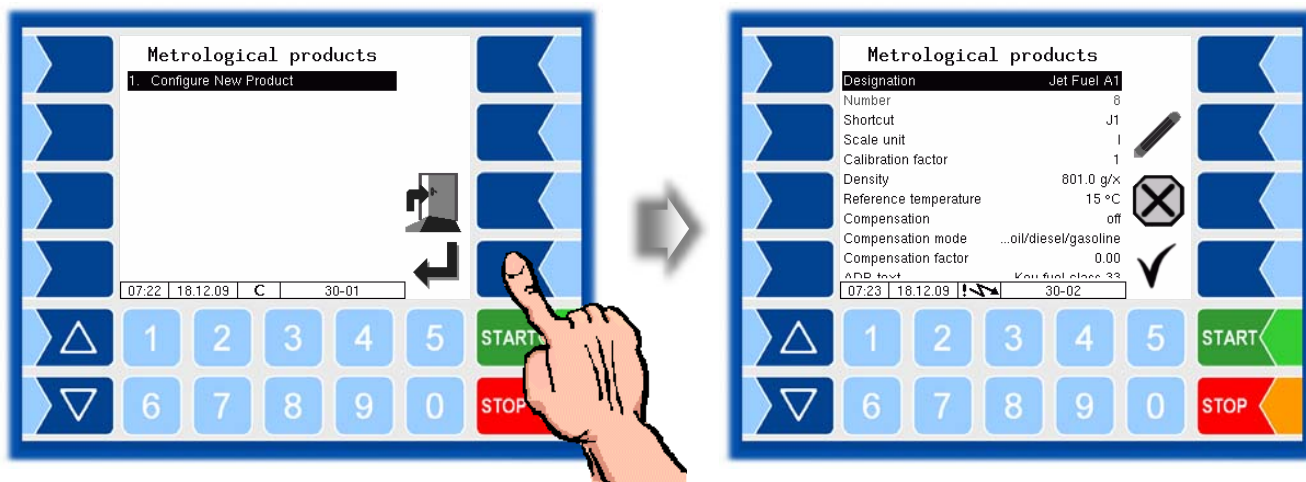
5.3.2 Truck Parameter

Truck Parameter		
U	Truck Number	Vehicle number
	Truck Registration	Vehicle registration
	Truck Type	Dispenser Refueller
	Airport Name	Name of the airport

5.3.3 Main Product Configuration



Select this menu option to configure a new product.

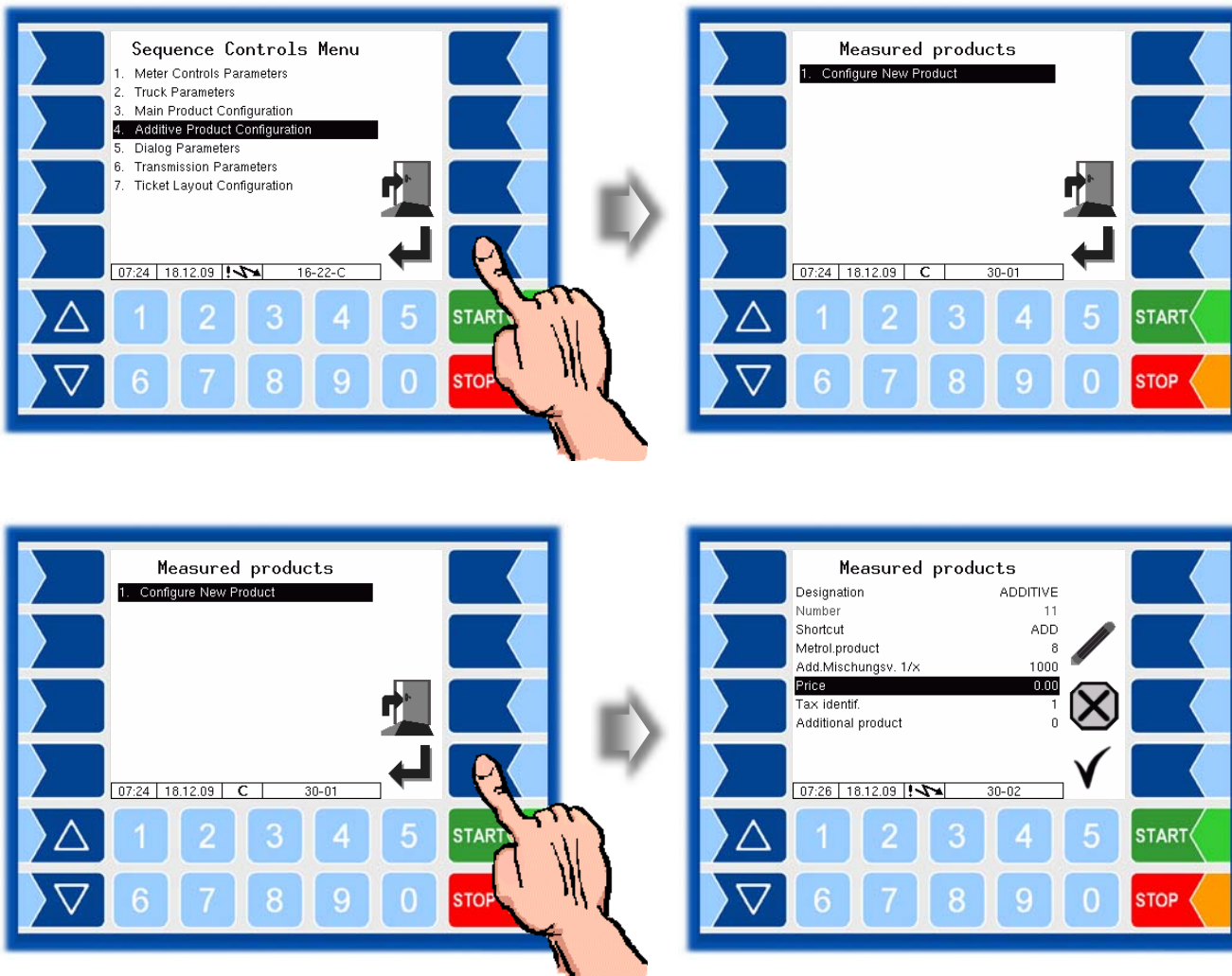


You must first enter the product number. Values have already been defined in accordance with the TDL standard for product numbers 1 to 10. If one of these numbers is typed in, a data record consisting of the product name and short product name is entered automatically. This data can be replaced with other data if required.

Product configuration		
	Designation	Product name
	Number	Product number (1 to 10 preset acc. to TDL)
	Shortcut	Short product name (1 to 10 automatic)
	Scale unit	Unit for the measured quantity
	Calibration factor	Pulses per litre (or configured unit)
	Density	Average product density at 15 °C
	Reference temperature	Temperature to which the quantity refers
	Compensation	Activates/deactivates temperature compensation
	Compensation mode	Specification of the computational mode used for the conversion heating oil/diesel/gasoline conversion according to DIN 51 757, procedure B lub oil conversion according to DIN 51 757, procedure D liquid gas conversion according to DIN 51 757, procedure X linear conversion procedure with constant compensation factor
C	Compensation factor	Compensation factor for product that is not compensated based on density (compensation mode linear)
	ADR text	You use this parameter to define the text that is to be printed on the delivery receipt when delivering this product, according to the regulations for hazardous products.
	Product group	Not used in software version 1.6.4.

5.3.4 Additive Product Configuration

You can use measured products that have already been configured as a basis for configuring further products. In this way, for instance, products to which different additives are added can be configured under different product names.



Measured products		
C	Designation	Product name
	Number	Product number
	Shortcut	Short product name
	Scale unit	Unit for the measured quantity
	Metrol. product	Base product
	Add. Mischungsv. 1/x	Mixing ratio, X=quantity of the main product to which 1 litre of additive is added. <i>An additive is only added if a mixing ratio is configured here!</i>
	Price	} Not used in software version 1.6.4.
	Tax identif.	
Additional product		

5.3.5 Dialog Parameter

Dialog-Parameter		
U	Emergency Functions	Not supported in software Version 1.6.4
	No Fuel-Function	If this function is activated, the driver can delete an order before it is started.
	Order Complete Dialog	If this function is active, the driver must confirm the end of delivery in the Order Complete Dialog. The message "OC" (order complete) is sent.
	Shortened Dialog	Not supported in software Version 1.6.4
	Set Default Product	When starting an order is the product to be delivered always the product with this product number. Selecting another product within an order is possible.

5.3.6 Transmission Parameter

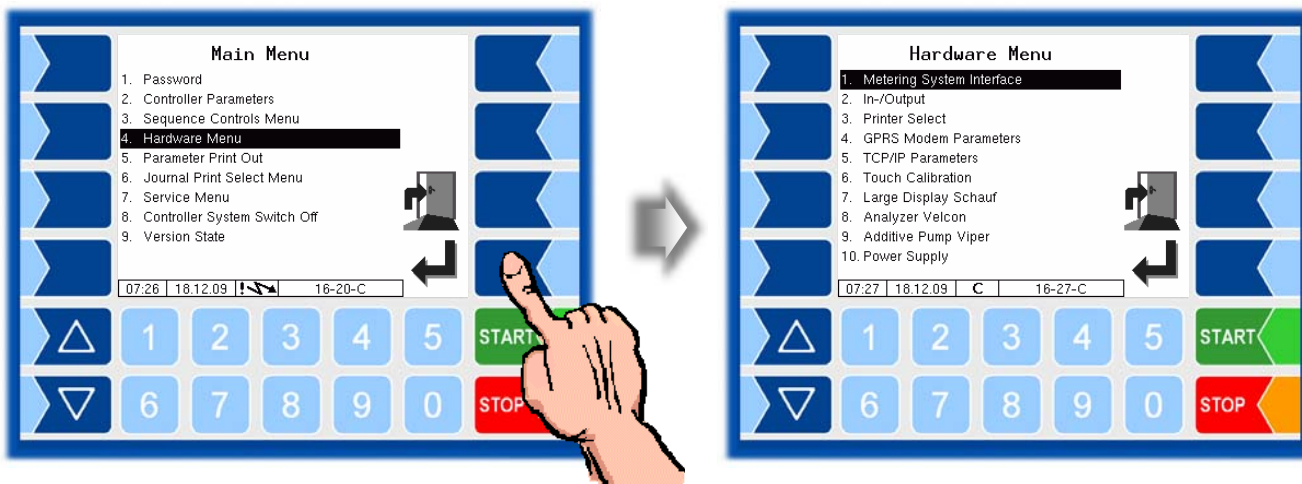
Transmission Parameter		
U	Remote Communication	On: Communication functions activated Off: Communication functions deactivated
	Vehicle-ID	ID no. of the vehicle for office communication
	Comm.-Protocol	BARTEC: Standard protocol OSYS: Not implemented
	Send Repeat Timer	If no answer is received when a message is sent, this message is repeated after the time entered here.
	Send Repeat Counter	If the specified number of repeat transmission attempts are unsuccessful, an error message is sent.
	Send Error Message	Errors reported by the controller are sent to the office.
	Fuel-Break-Timer	If delivery was interrupted, a message (delivery interrupted) is sent after the time specified here.
	Max. Backup Messages	Number of messages that are stored.
	Remove Old Message	If the system is switched off and not switched on after the time specified here (1 to 23 h) has elapsed, all stored messages are deleted
	Send Queue Erase	The return data is deleted from the send queue.
	Scheduled Data Erase	The scheduled data is deleted from the memory.

5.3.7 Ticket Layout Configuration

Ticket Layout Configuration		
U	Directory that is selected by the parameter „Priority Ticket“	Name of the selected ticket
	Priority Ticket	Selection of the directory that contains the ticket to be print.
	Horizontal Offset	Number of blanks calculated from the left-hand margin
	LF before ticket	Number of blank lines at the beginning of the ticket
	LF before position	Number of lines before the items, calculated from the beginning of the page
	LF between position	Number of blank lines between the items
	LF beyond position	Number of lines after the items
	Max. count of pos./p.	Number of items after which a page break is inserted

5.4 Hardware Menu

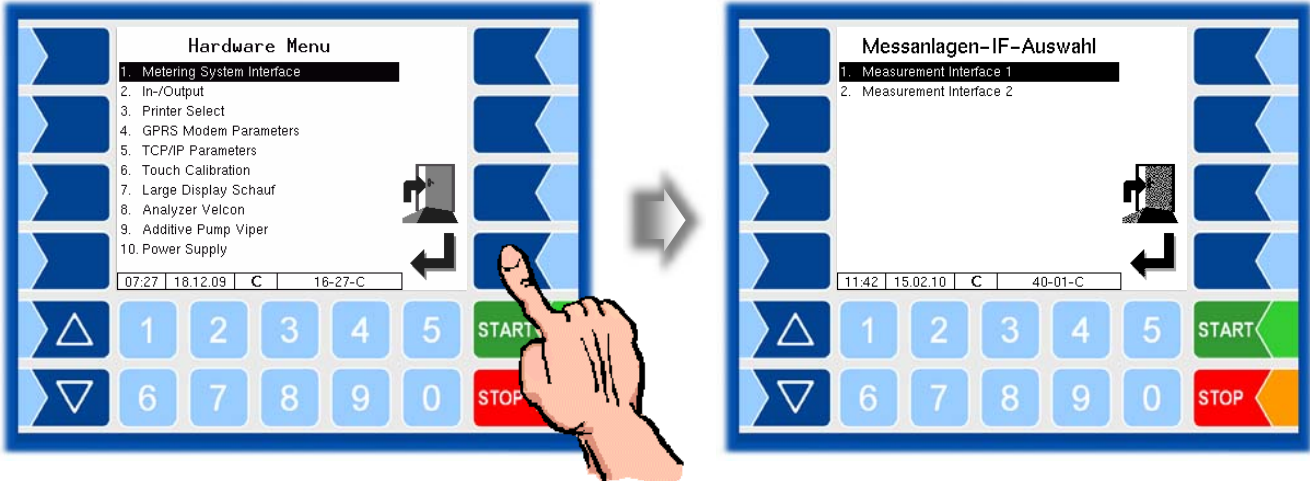
- Select the “Hardware Menu” from the main menu. The submenus are displayed.



Open the submenu in which you wish to make changes. In this submenu, select the menu entry that you wish to edit and touch the “Edit” key. The window for editing the menu entry appears. Edit the selected parameter (see Section 4.2).

5.4.1 Metering System Interface

If the meter control parameters are configured for a multi meter interface (see section 5.3.1) you can configure two measurement interfaces for 4 pulse counters in all.



It is recommended to number the counters and the temperature sensor modules consecutive from 1 to 4.

Measurement Interface 1

C	Counter 1 (2)		Two pulse counters per measurement interface are supported in software Version 1.6.4 .	
	logical number	Logical assignment of the meter within the system		
	number of meter 1 (2)	Manufacturer no. of the measuring chamber		
	calibration 1	The calibration factor specifies the number of pulses for one litre (or the configured unit) of the product. The calibration factor is specified when the system is calibrated.		
	calibration 2	Three calibration factors can be configured for different product groups.		
	calibration 3			
	min. volume	Minimum delivery volume; the delivery is not calibrated below this volume.		
	roll. direction	forward If no changes have been made to the pulse generator, forward corresponds to the ex-works setting for the direction of rotation, i.e. clockwise rotation = positive counting. backward: The rotation direction is counted in the opposite direction		
	channel	2-channel 3-channel	Channel type	
	Type	open-collector faure-hermann current namur Promass/Hoffer	Type of meter	
	dyn. calibration	no yes	The calibration factor is used. 5 correction factors for are used for 5 flow rates.	
	1. (... 5.) flow	In the case of dynamic calibration, the correction factors can be entered for 5 flow rates.		
	1. (... 5.) correction			

Temperature sensor 1 (2)	
logical number	Assignment for the temperature sensor
calibration 0/-195°C	Resistance at 0°C or -195 °C
calibration 50/-80°C	Resistance at 50°C or -80 °C
⁽²⁾ Depending on the sensor used (0 to 50°C or -195 to -80°C)	
circulation delay	Interval for sensor query (default: 5)
firmware version	Displays the firmware version
driver version	Displays the driver version

The **diag** softkey can be used to access a service function for reading the measuring system interface data.

Configure the counters 3 and 4 (Measurement interface 2) in the same way.

5.4.2 Inputs/outputs

IO 16 Configuration		
U	1. (...16.) Output	
	logical allocation	Assignment of outputs within the software e.g.: the software, for example, output 2 is the output for enabling meter 2. It is connected to the physical input 5. The logical assignment in the configuration of input 5 is therefore 2.
	invert	yes (The switching behaviour is inverted) no (The switching behaviour is not inverted)
	1. (...16.) Input	
	logical allocation	Assignment of inputs within the software
	invert	yes (The switching behaviour is inverted) no (The switching behaviour is not inverted)
	resting state	low: PNP high NPN
	firmware version	Displays the firmware version
	driver version	Displays the driver version

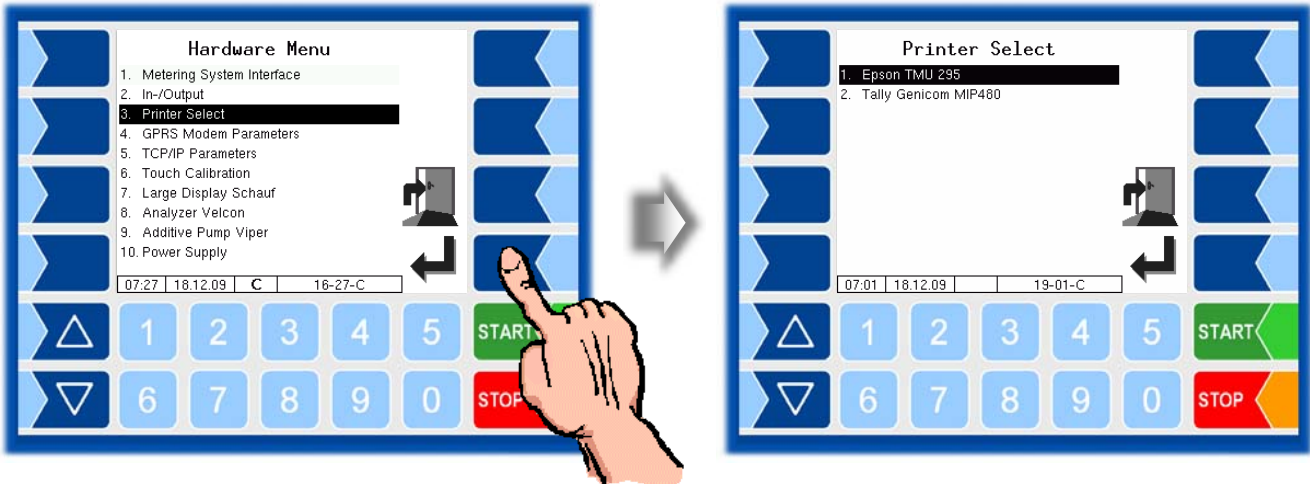
The **diag** softkey can be used to access a service function for testing the functionality of the I/O box inputs/outputs.

Configurable inputs and outputs

Logical output no.	Function
1	Enable meter 1
2	Enable meter 2
3	Enable meter 3
4	Enable meter 4
5	Flow slow down meter 1
6	Flow slow down meter 2
7	Flow slow down meter 3
8	Flow slow down meter 4
20	“Message received from head office” signal“
21	Additive addition pulse
22	Exceeding of a temperature limit at one of the configured meters (see section 5.3.1)
Logical input no.	Function
21	Additive flow indicator

5.4.3 Printer Select

First select the type of printer that shall be used as the standard printer.




Following you can configure the parameters for the selected printer.

EPSON TMU295			
U	Print Function	yes	Printing functions activated
		no	Printing functions deactivated
	Paper Output Front	yes	Paper is output forwards.
		no	Paper is output backwards.
	Paper Release	yes	Paper is not retained after printing.
		no	Paper is retained after printing.
	Parameter Line per Page	When doing parameter print out, number of lines till form feed is initiated (including footer). Entry 0 means that no form feed will be initiated.	

Tally Genicom MIP 480			
U	Print Function	yes	Printing functions activated
		no	Printing functions deactivated
	Single Sheet Line per Page	When doing parameter print out or journal print, number of lines till form feed is initiated (including footer) with single sheet feed.	

5.4.4 GPRS Configuration

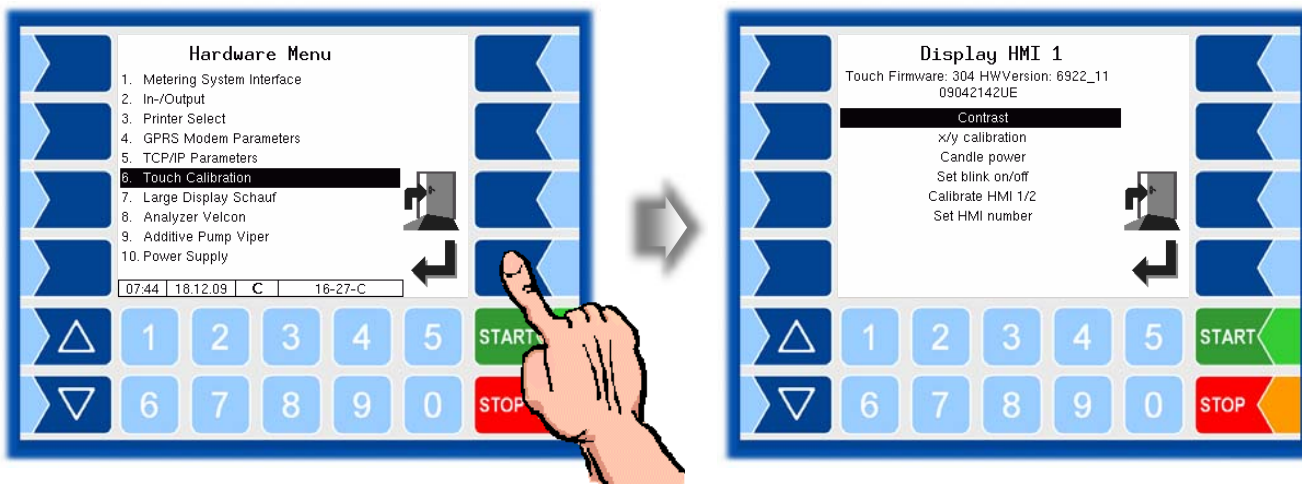
GPRS Configuration		
U	Device	Interface
	Baud rate	Baud rate
	Modem available	yes Modem detected no Modem not detected
	Provider data	
	APN-Server	Provider's dial-in server
	APN user	Provider
	APN password	Password for accessing the selected server
	SIM data	
	Dial string	Entry of the dial string When the system starts dialling, the configured number is dialled.
	PIN code	PIN for SIM card  The PIN must be entered here before the SIM card is used.
	Security	
	Report IP to BARTEC	yes IP address is sent to BARTEC with each dial up connection. no IP address will not be sent.
	Report IP now	When confirming this prompt the IP address is sent once.

5.4.5 TCP/IP Parameters

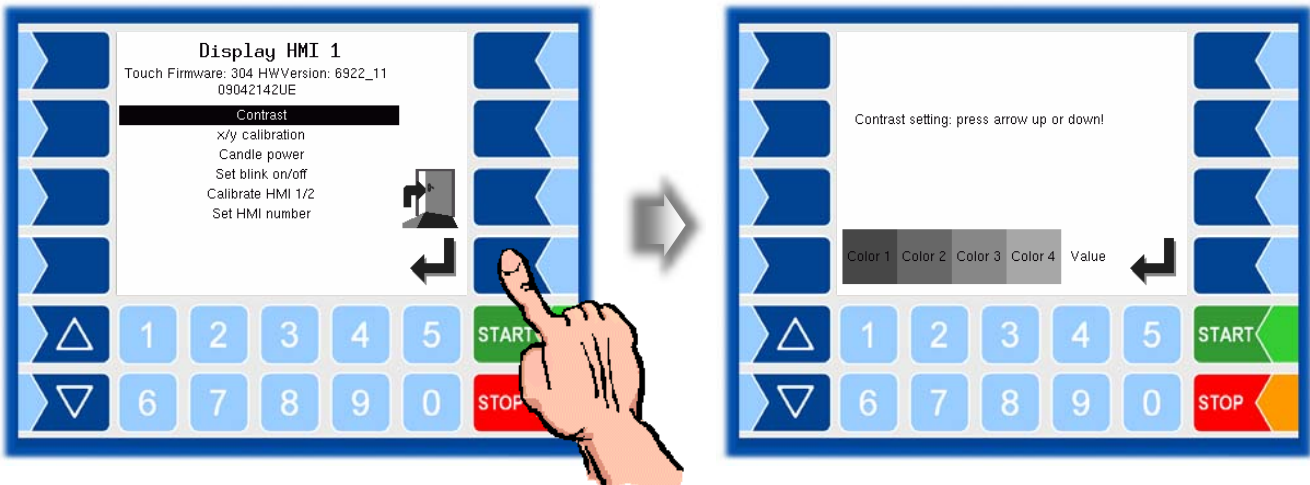
TCP/IP-Configuration		
U	Server IP Address	Address for registering the controller on the server
	Server Port	Port no. on the dial-in server



5.4.6 Touch Calibration

The touch screen is already calibrated when the system is delivered. It is only necessary to calibrate the touch screen if the display is difficult to read or if the system does not respond correctly to touch.



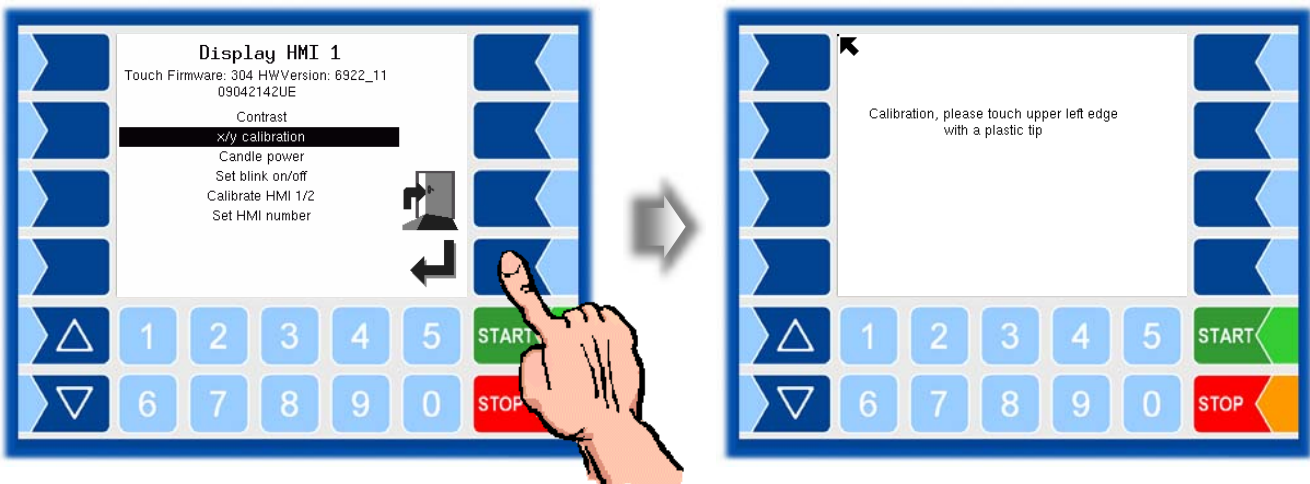
5.4.6.1 Contrast



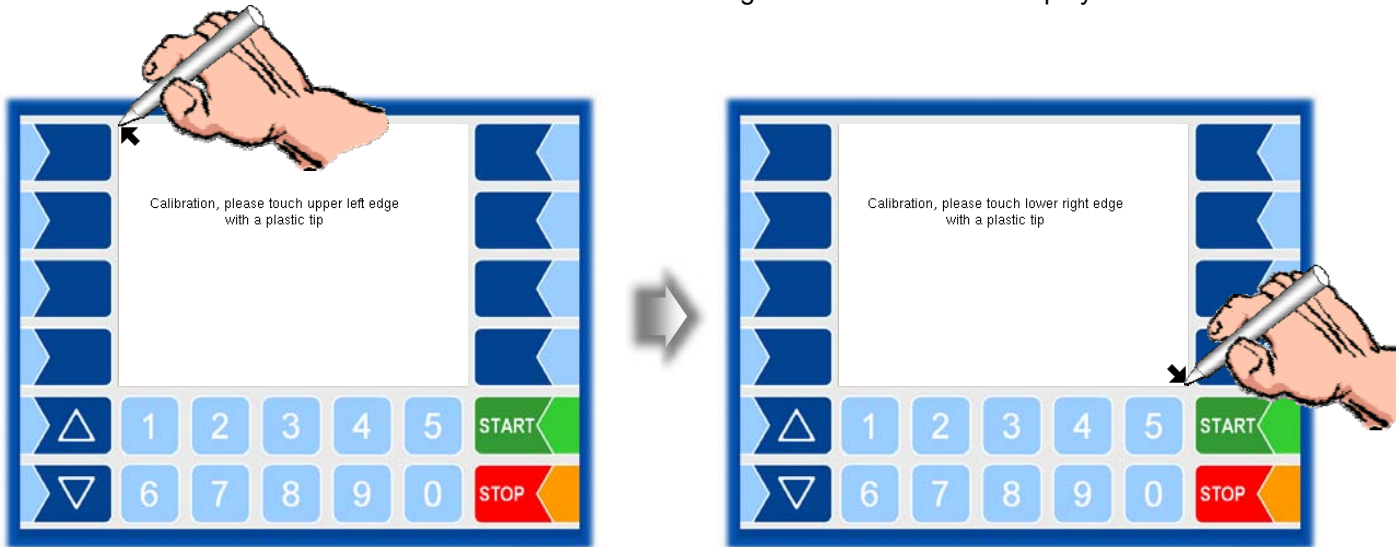
- Use the selection keys  and  to set the contrast to the required value and touch the “Confirm” softkey.

5.4.6.2 x/y calibration

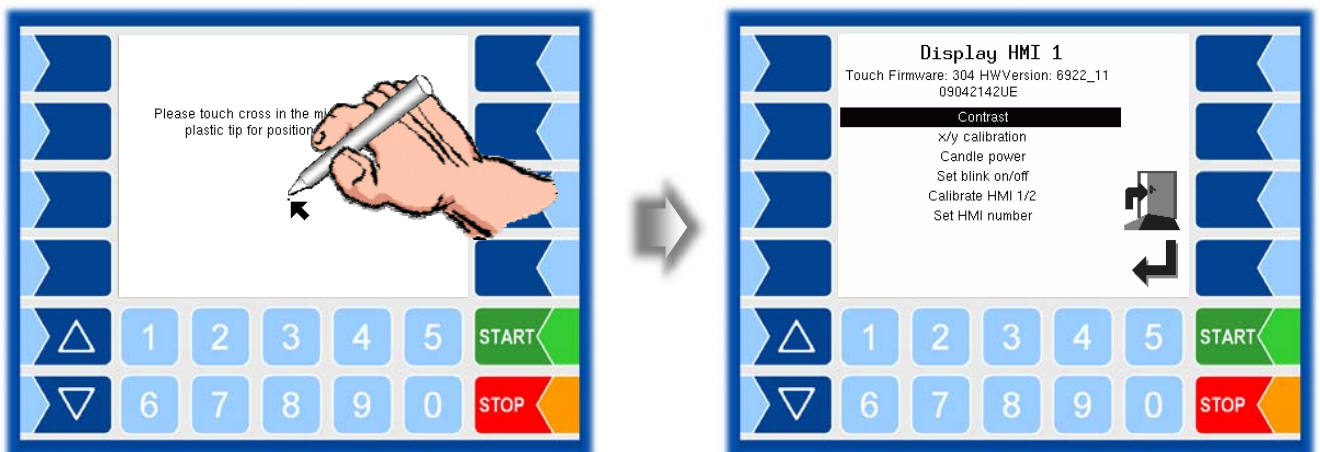
The x/y calibration function is used to redefine the display coordinates. These determine the position of the keys on the touch screen. Follow the instructions on the display.



- Touch the top left-hand corner of the display. You should preferably do this using a pointed plastic object that cannot scratch the display.
- Then touch the bottom right-hand corner of the display.

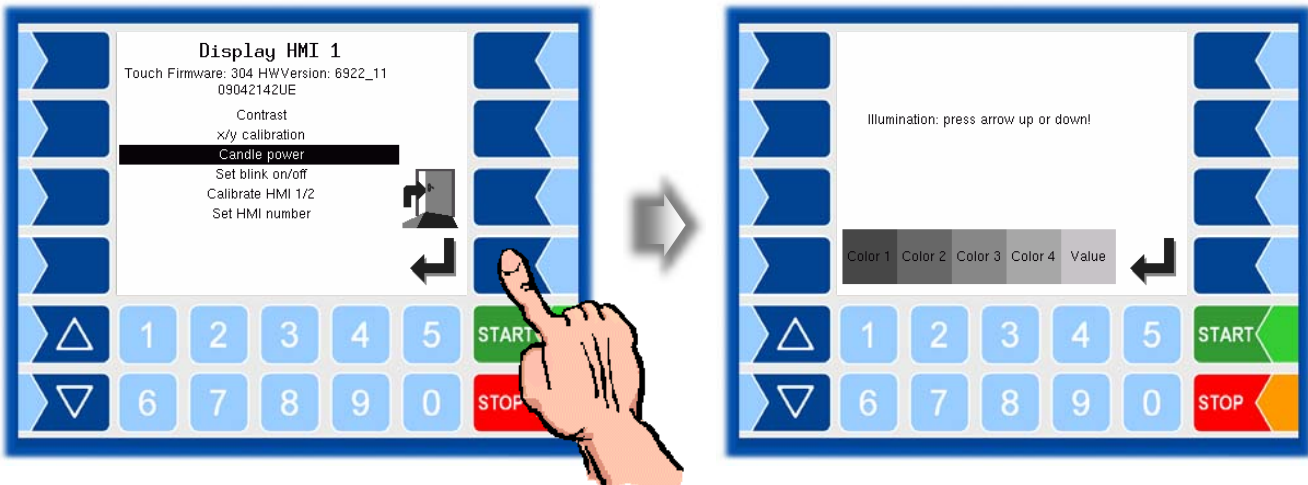




- Next, touch the point that appears on the display.



The coordinates of the touch screen have now been defined.

5.4.6.3 Setting the brightness

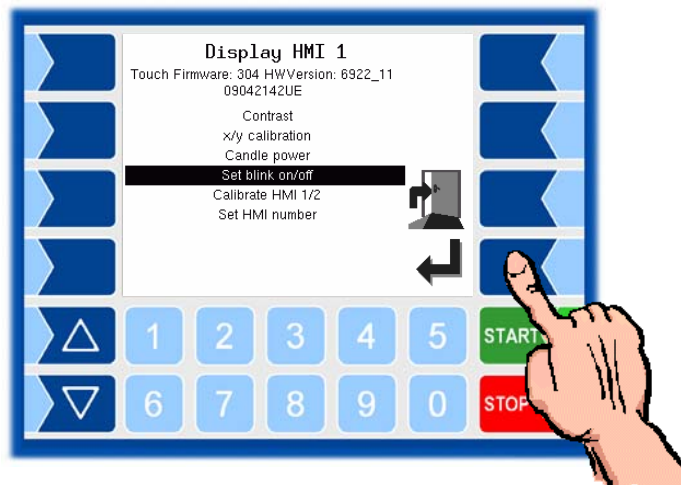


- Use the selection keys  and  to set the brightness of the display to the required value and touch the “Confirm” softkey.

5.4.6.4 Blink on/off

This is where you define whether the display should blink once each time you touch it or change without blinking.

The setting takes effect as soon as you confirm the menu option!



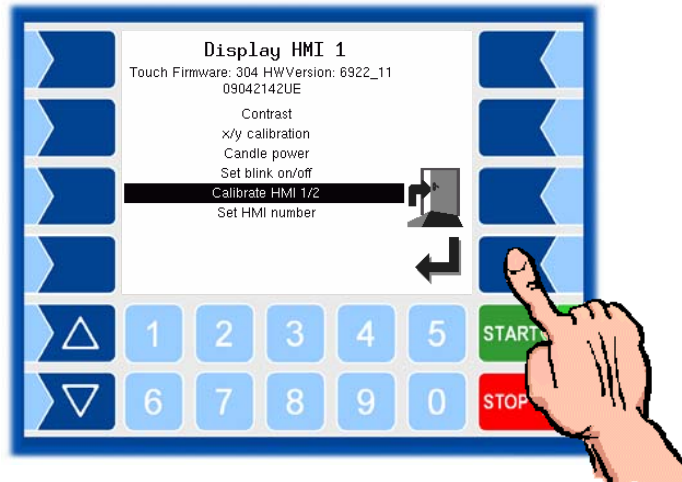
5.4.6.5 Switching to display 1/2

Two HMI display units can be installed for displaying information. When you select this menu option, you switch from display 1 to display 2 or vice versa.

The following then appears in the title:

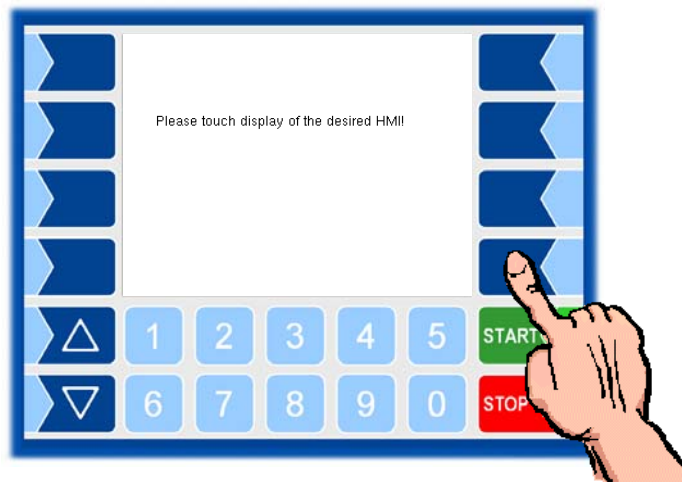
Display HMI 1 or

Display HMI 2.



5.4.6.6 Setting the display number

If two HMI display units are installed, you can set the display number here. After selecting the "Set HMI number" menu option you are asked to touch the display screen. When you do this, the display number is set to the number that is shown in the title.



The display unit containing the seal switch, is always HMI 1.

5.4.7 Large Display Schauf

Large Display Schauf		
Configuration of the large display for the quantity		
U	Large Display	Activates/deactivates the large display
	Interface	Interface name (/dev/ttySM1)
	Baud	Transmission rate (default: 1200)
	Data	Number of data bits (7 or 8)
	Parity	ON (even), OFF (odd)
	Stopbit	Number of stop bits (1 or 2)
	Flow Control	Data flow control (none, Xon/Xoff, hardware)
	Brightness	Display brightness (100%, 60%, 7%)
	Update Wait-Timer	Delay for triggering the display unit. to protect from data overflow (0...9999 ms) (Default: 5000 ms).

5.4.8 Analyzer Velcon

Analyzer Velcon		
Configuration of the analyzer unit		
U	Analyzer	Activates/deactivates the analyzer
	Interface	Interface name
	Baud	Transmission rate (default: 1200)
	Data	Number of data bits (7 or 8)
	Parity	ON (even), OFF (odd)
	Stopbit	Number of stop bits (1 or 2)
	Flow Control	Data flow control (none, Xon/Xoff, hardware)
	Update Wait-Timer	Delay for triggering the analyzer unit. to protect from data overflow (0...9999 ms) (Default: 5000 ms).
	Error Counts	Number of repeat errors until a message is output.
	Max. Water Content	Maximum permissible water content (a message is output if this content is exceeded)
	Max. Solids Content	Maximum permissible solids content (a message is output if this content is exceeded)
	Hysteresis	Hysteresis for deactivating the message as a percentage of the threshold value
	Measure Value Dialog	Activates/deactivates the display of measured values for water and solids content

5.4.9 Additive Pump Viper

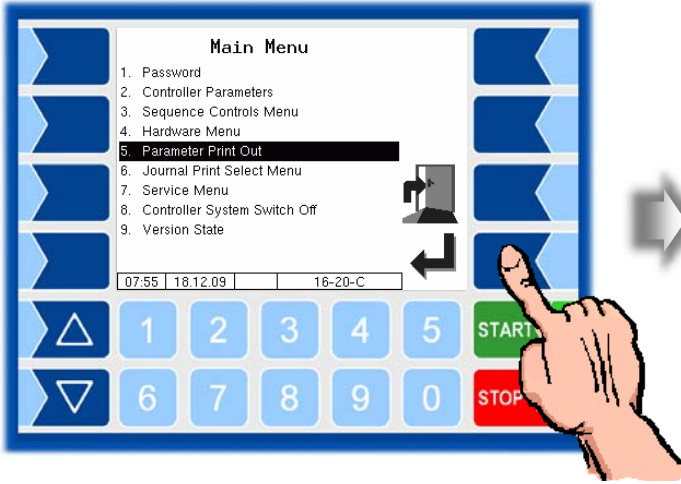
Additive Pump Viper		
Configuration of the additive pump		
U	Additive pump	Activates/deactivates the additive pump
	Test Double Lifts	Test parameter for startup Number of strokes required for ventilation.
	Lifts/Liter Additive	Number of pump strokes per litre of additive
	Additive Totalizer	Displays the additive totalizer
	Pulse Duration	Pulse duration for which output 21 is active.
	Pulse Separation	Idle time until next pulse
	Flow Indicator	Activates/deactivates the flow indicator for additive addition (input 21)
	Max. Err. Flow Indic.	Number of repeat errors reported by the flow indicator until delivery is stopped.
	Totalizer Erase	The additive totalizer is cleared.

5.4.10 Power Supply Configuration

Power Supply Config		
	System Fan (no function when using a power supply without fan)	
	Switching Off Below	Temperature at which the fan is switched off
	Switching On Above	Temperature at which the fan is switched on
	Firmware Version	Displays the firmware version

5.5 Parameter Print Out

- Select the “Parameter Print Out” menu from the main menu. The current parameter settings are output on the printer.



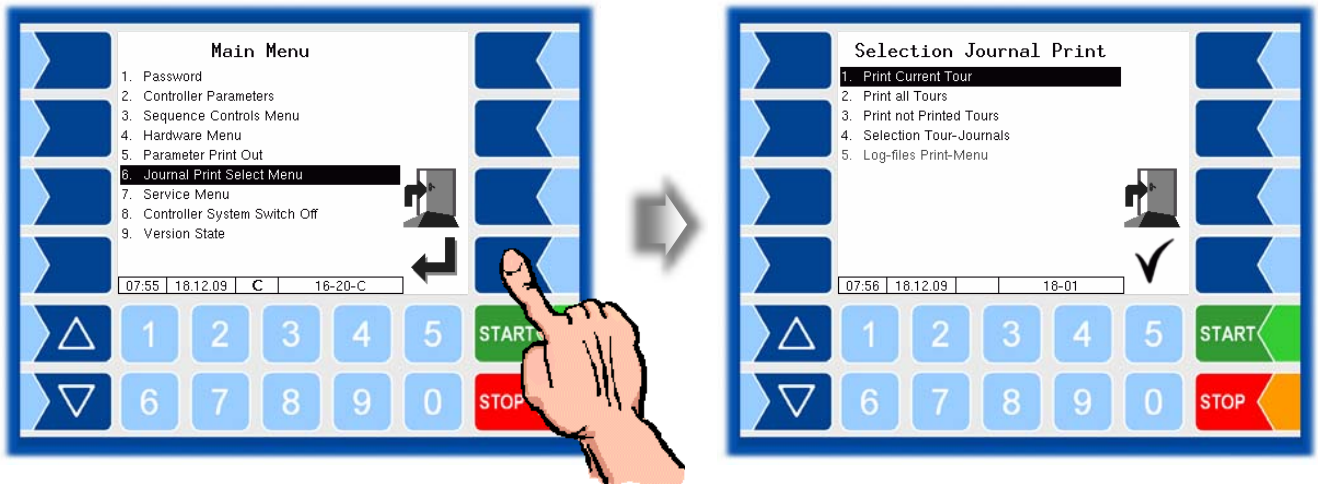
```

PARAMETER PRINT 3003
=====
Module Signatures
=====
ffb 1.6.4 2009-10-21 11:54
AN:05221234 APP:1 KERNEL:2.4.25-1.11
m-wif      1.0.5  412f20 1.0.5  =
m-tmur    1.0.7  0de79b 1.0.7  =
lib3003db 1.0.4  a49be5 1.0.4  =
m-hmi     1.0.23 e7cf6b 1.0.23 =
emfx      1.0.14 37d2c2 1.0.14 =
ums       1.1.2  b0a3d0 1.1.2  =
m-print   1.0.8  749906 1.0.8  =
=====
Controller Parameters
=====
System Date      :
System Time      :
System Language  :          en
=====
Meter Controls
=====
Double Delivery  :          No
Multi MIF        :          2 MIF
Preset Enter at Order:      None
Red. Flow Before Pres:      0
Red. Flow Less than :      0
Stop Flow Before Pres:      0
Stop %Z of Flow   :          0.0
Temp. Threshold  :          30.0
=====
Truck Parameters
=====
Truck Number     :          10
Truck Registration :      OLI
Truck Type       :          Dispenser
Airport Name     :          MUC
=====
Metrological products
=====
* Designation    :          Jet Fuel A1
* Number         :          8
* Shortcut       :          J1
* Scale unit     :          ml
* Calibration factor :      1
* Density        :          801.0
* Reference temperature :      15
* Compensation   :          off
* Compensation mode :
=====
19.12.2009 08:59
Veh. No.: 10; Veh. Reg.:
Page 1 of 7 Pages
    
```

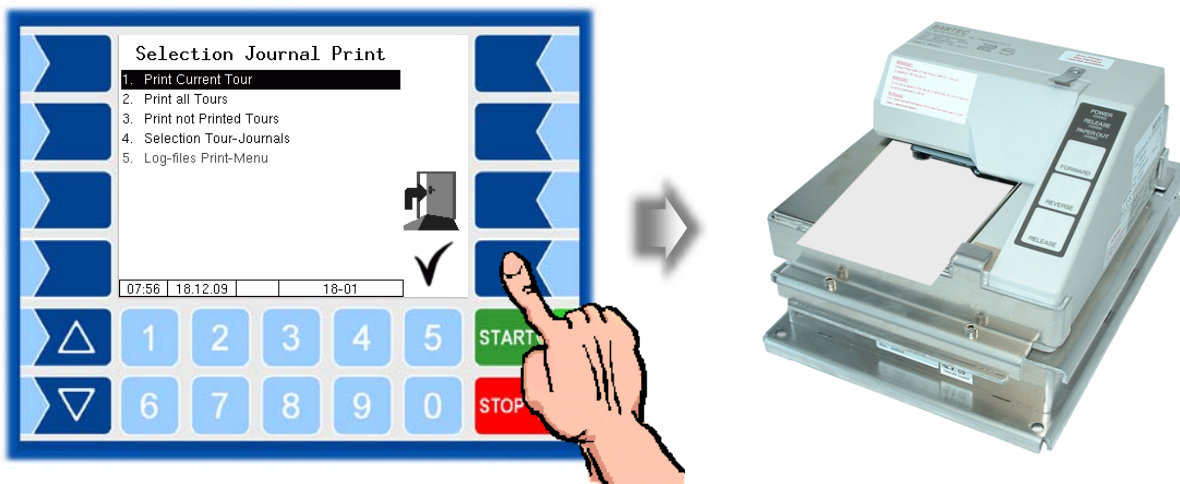
Example parameter printout

5.6 Journal Print Select Menu

The journal print function allows you to print out the stored tour data. Further selections are possible in the journal print submenu.

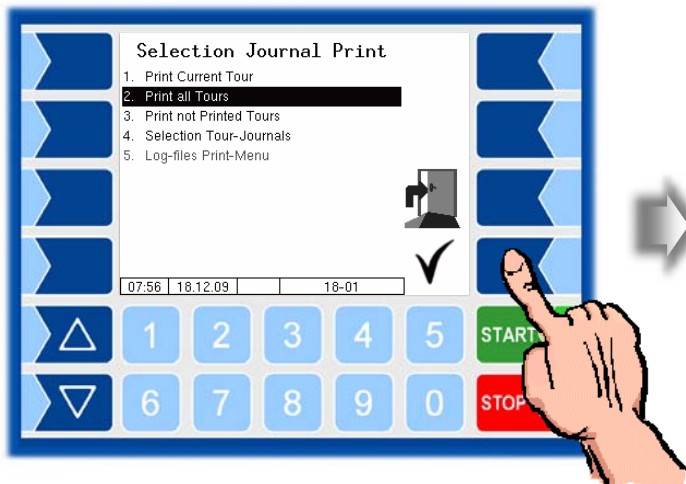


5.6.1 Print Current Tour



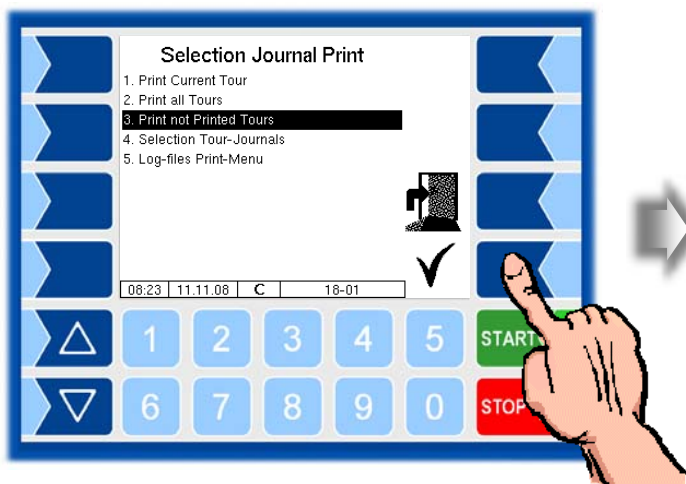
The data for the current (last) tour is printed.

5.6.2 Print all Tours



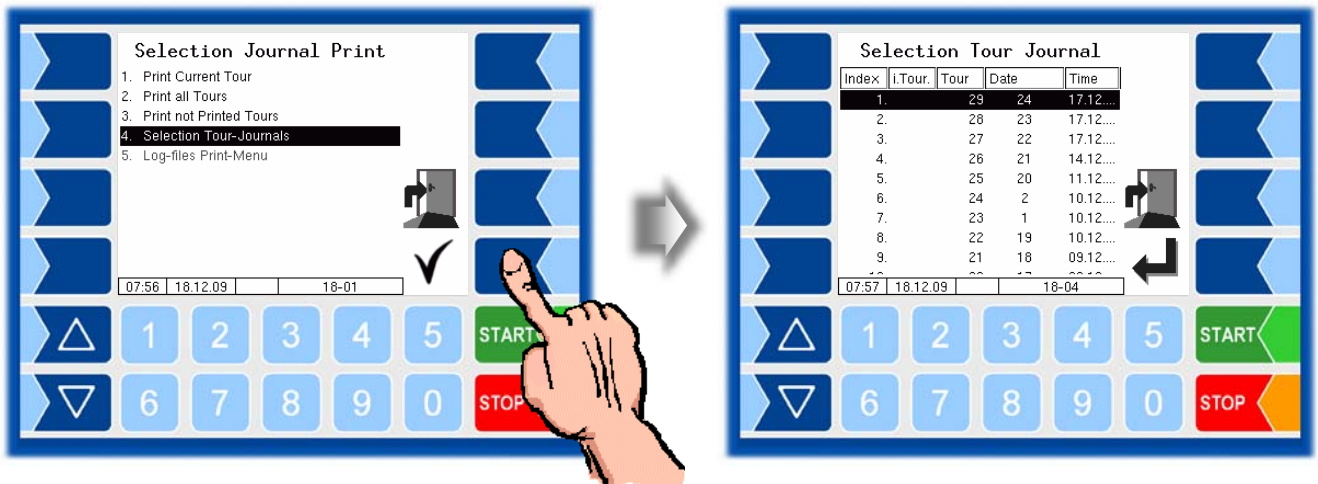
The data for all stored tours is printed.

5.6.3 Print not printed tours

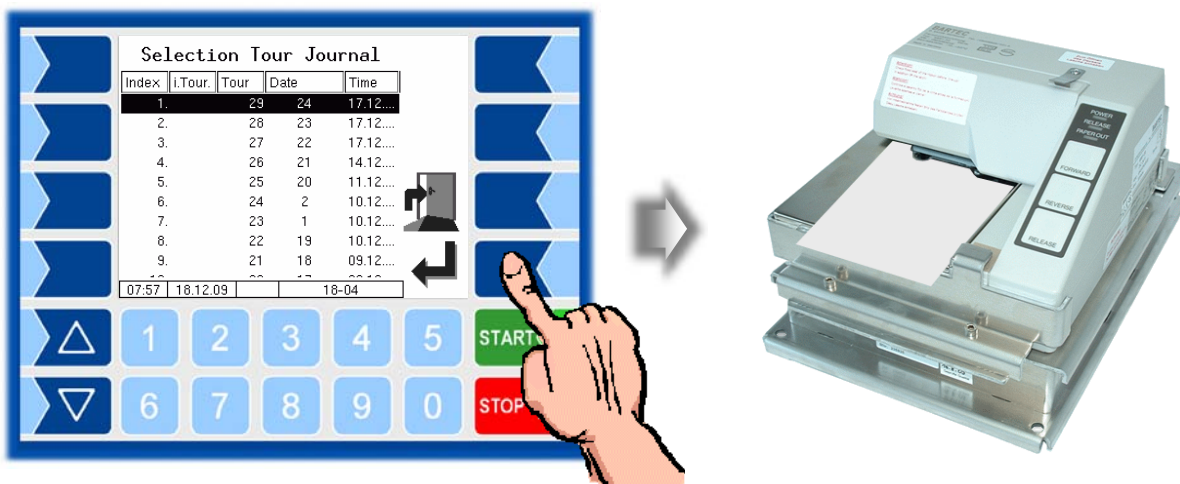


The data for all stored tours that have not yet been printed is printed.

5.6.4 Selection Tour Journals



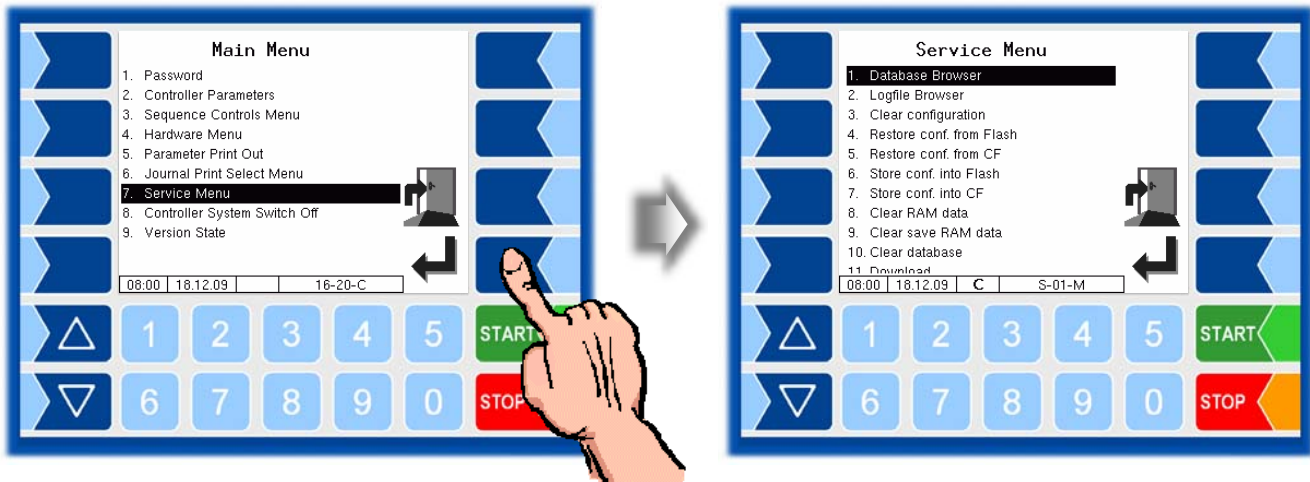
If you opt for manual selection, you can use the date and the tour start time to select the tour for which you want to print data.



5.6.5 Logfiles Print Menu



This menu is not available in software Version 1.6.4.

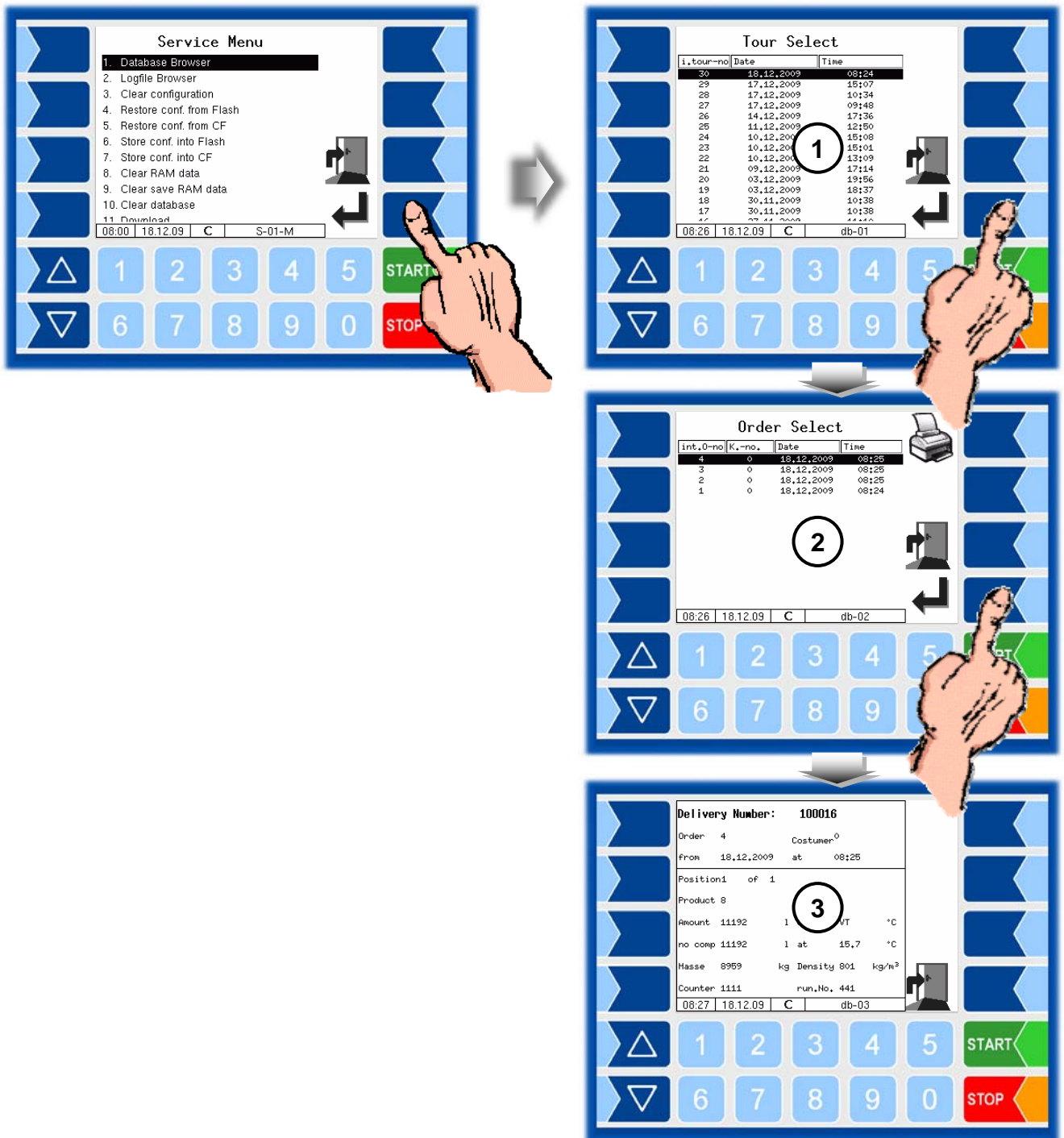
5.7 Service Menu



5.7.1 Database browser

The database browser allows you to view stored tour data.

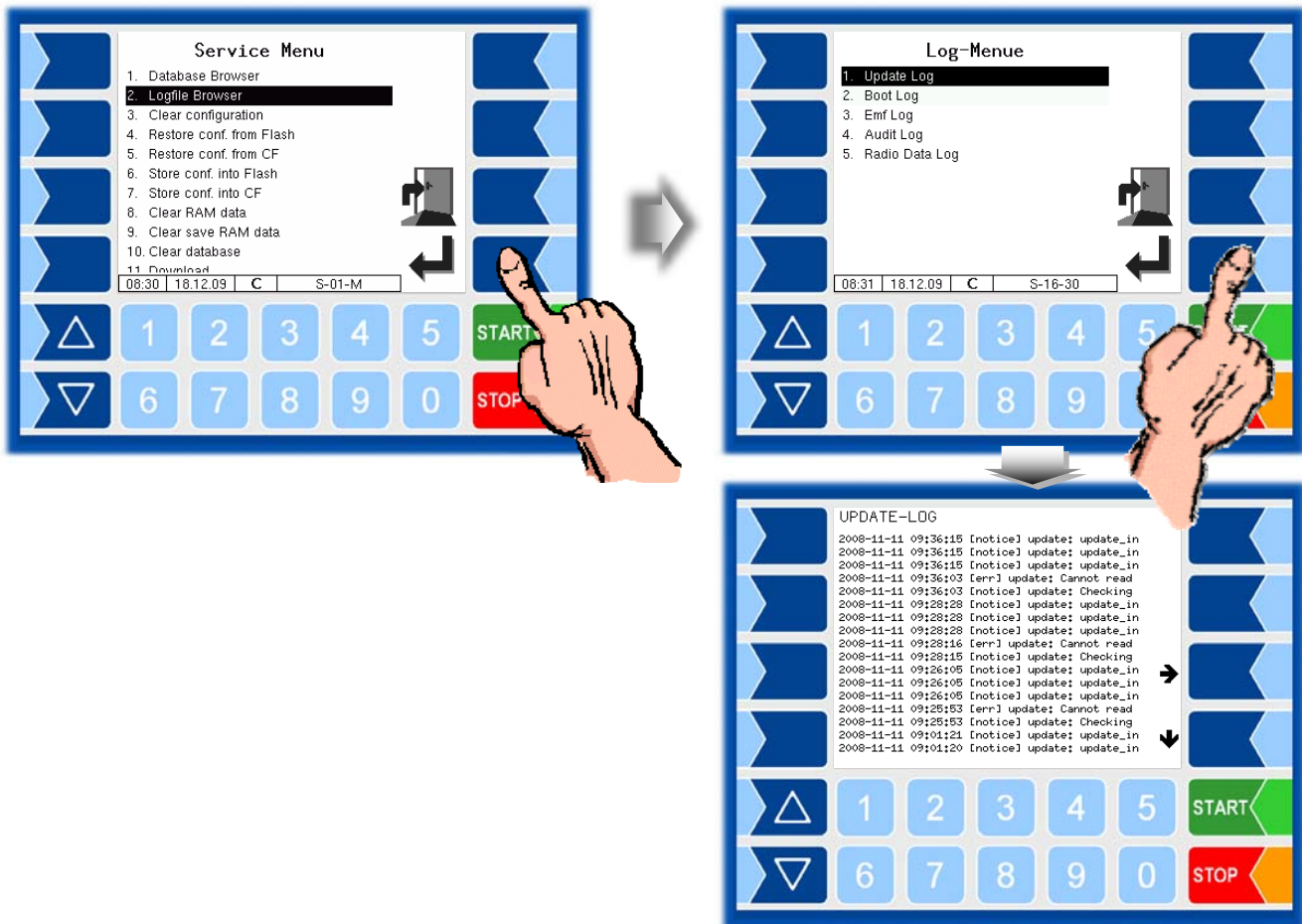
- When you open the database browser, the “Tour Select” window is displayed.
- ① All tours that have already been stored are listed here. The “i tour-no.” is the internal tour number within the software. It is not identical to the tour number that is displayed for the driver.
- In the „Tour Select“ window, use the selection keys  and  to select a tour.
- ② The “Order Select” window is displayed. This window contains a list of orders belonging to the selected tour. The softkey with the printer symbol prints a copy of the delivery note for the selected order.
- Select an order belonging to this tour in the “Order Select” window.
- ③ The system displays an overview of the items of the selected order and the associated content.



5.7.2 Logfile browser

The logfile browser allows you to view all saved log entries. The information about the various operations is displayed in text format and can be read directly on the screen.

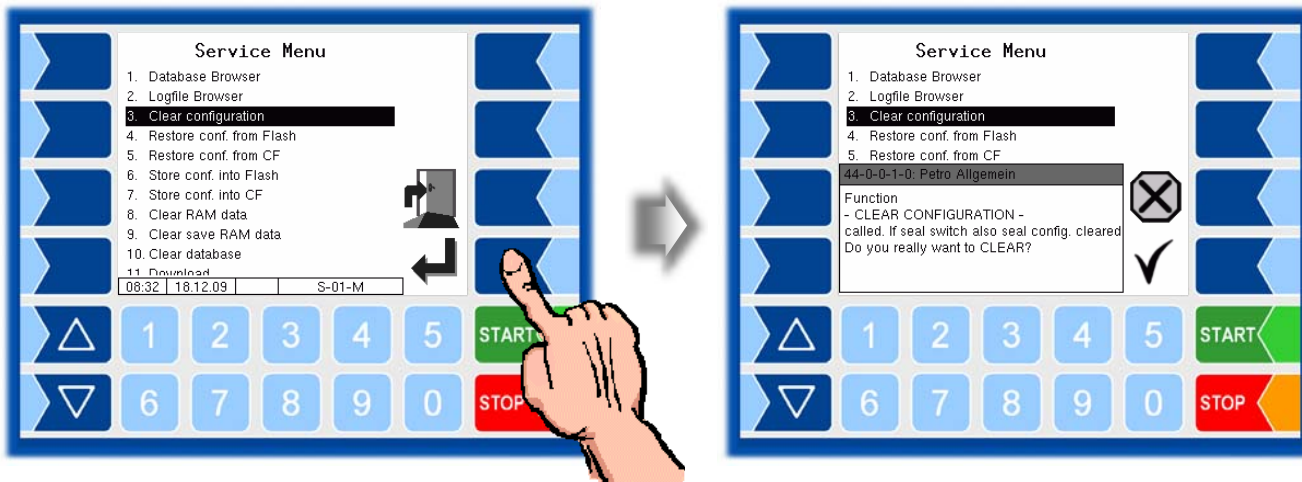
Update Log: Log entries about updates and update attempts
 Boot Log: Boot messages, boot scripts
 Emf Log: Log output from the various applications
 Audit Log: Log entries about all parameter changes
 Radio Data Log: Log-entries about radio data



Within the log window, you can move the displayed content to the left, right, up or down using the arrow softkeys.

You close the log window with the **STOP** key.

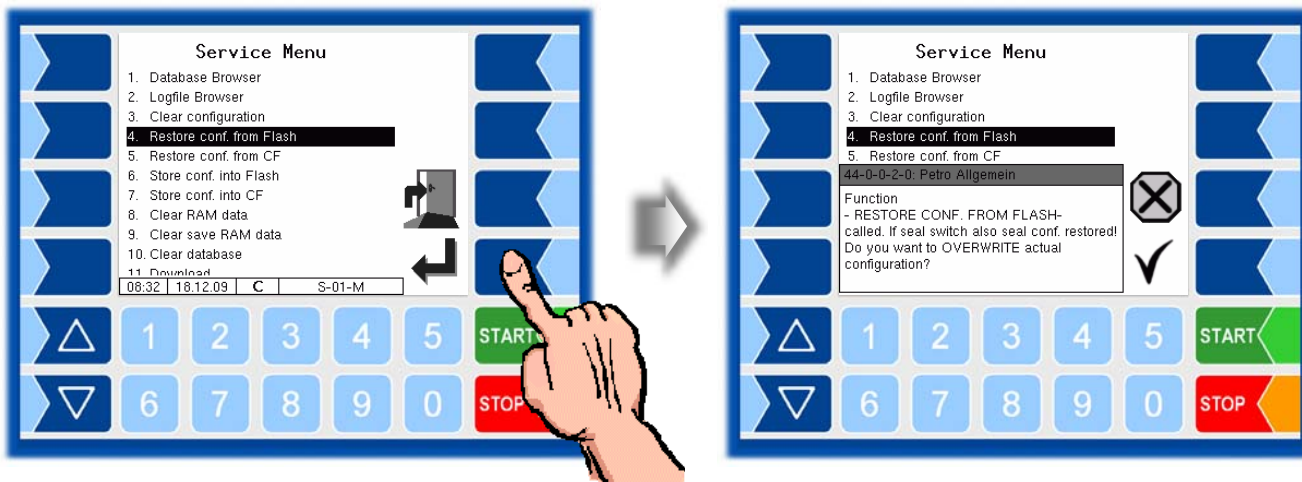
5.7.3 Clear configuration



When you confirm the prompt, all parameter settings not subject to statutory calibration are cleared.

When the seal switch is opened will also the parameter settings subject to statutory be cleared!

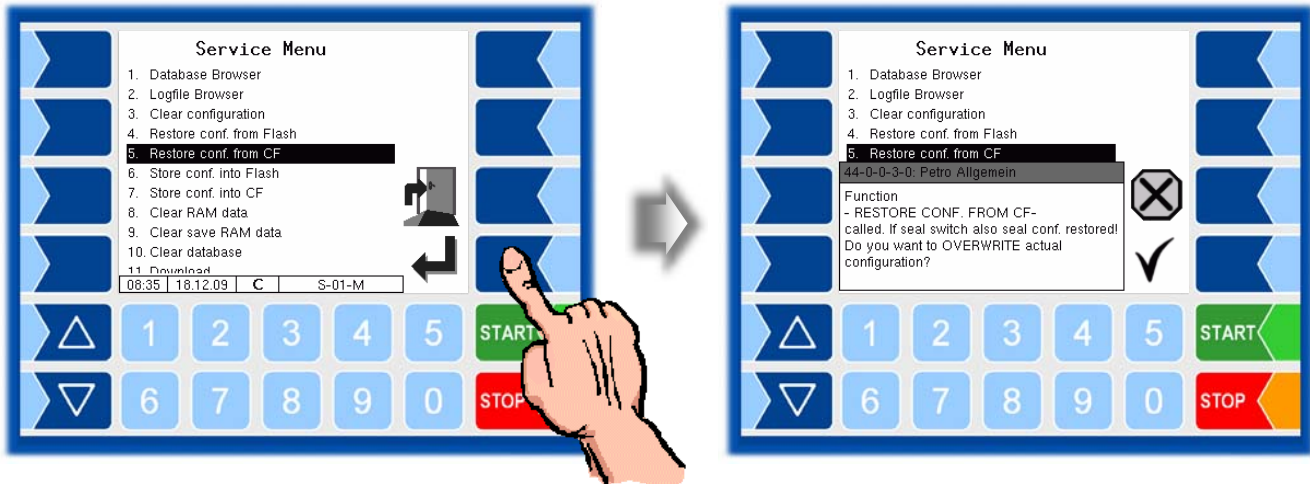
5.7.4 Restore configuration from Flash



When you confirm the prompt, the previously in the internal flash memory saved configuration of parameters (see section 5.7.6) is loaded. The existing parameter settings are overwritten.

When the seal switch is opened will also the parameter settings subject to statutory be overwritten!

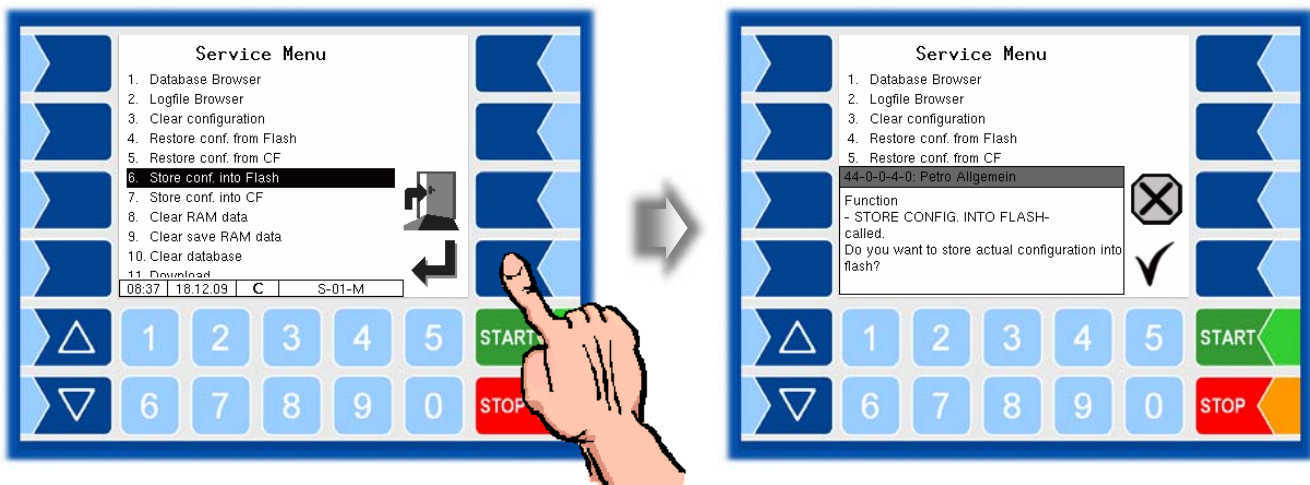
5.7.5 Restore configuration from CF-card



When you confirm the prompt, the configuration of parameters saved at the CF-card (see section 5.7.7) is loaded. The existing parameter settings are overwritten.

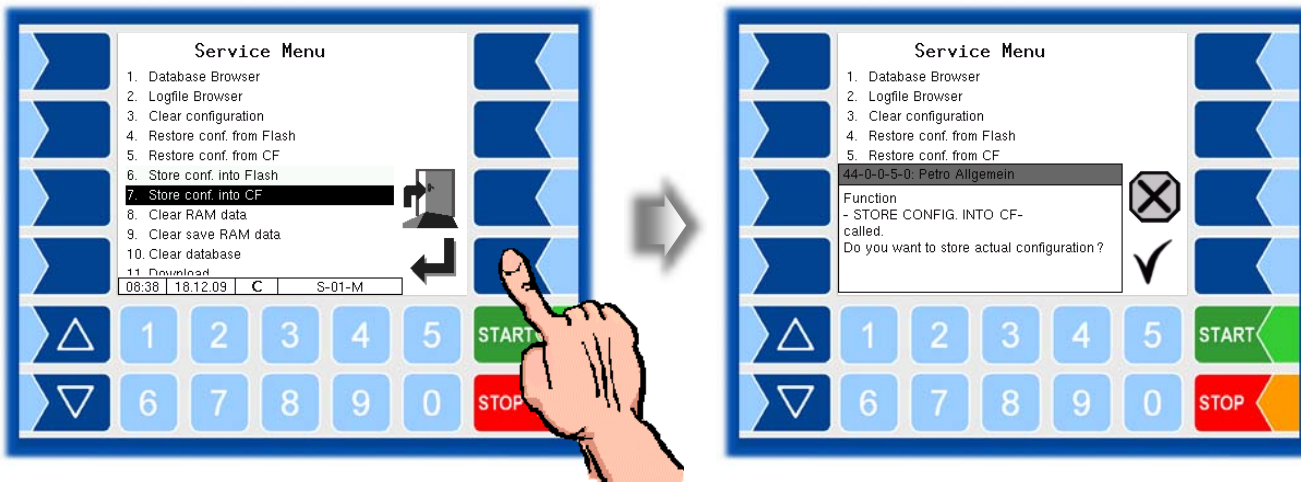
When the seal switch is opened will also the parameter settings subject to statutory be overwritten!

5.7.6 Store configuration into Flash



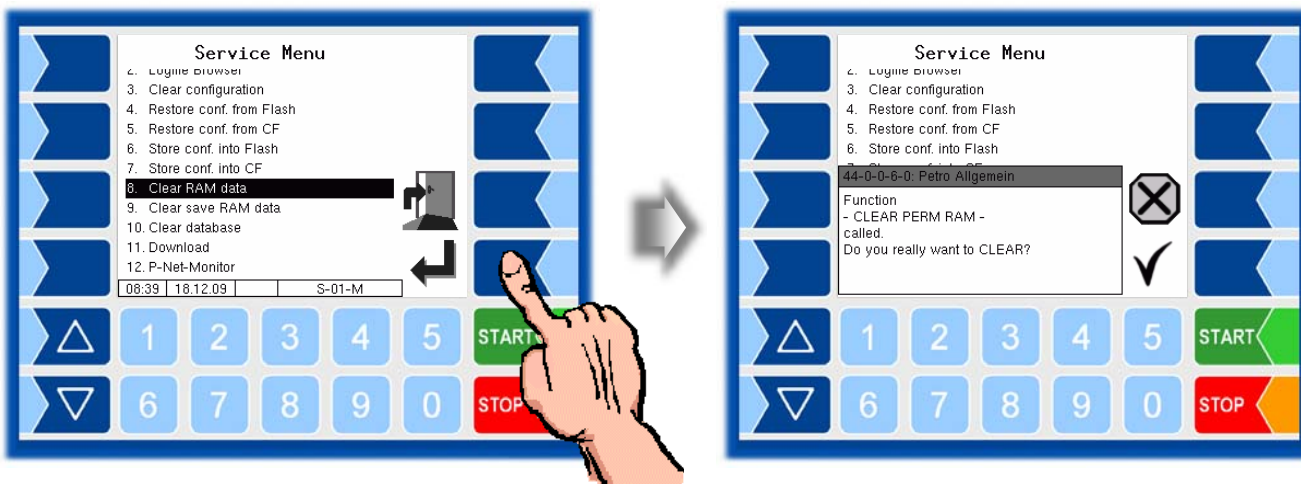
When you confirm the prompt, the existing configuration of parameters will be saved in the internal flash memory. The saved configuration can be re-loaded later (see section 5.7.4).

5.7.7 Store configuration to the CF-card



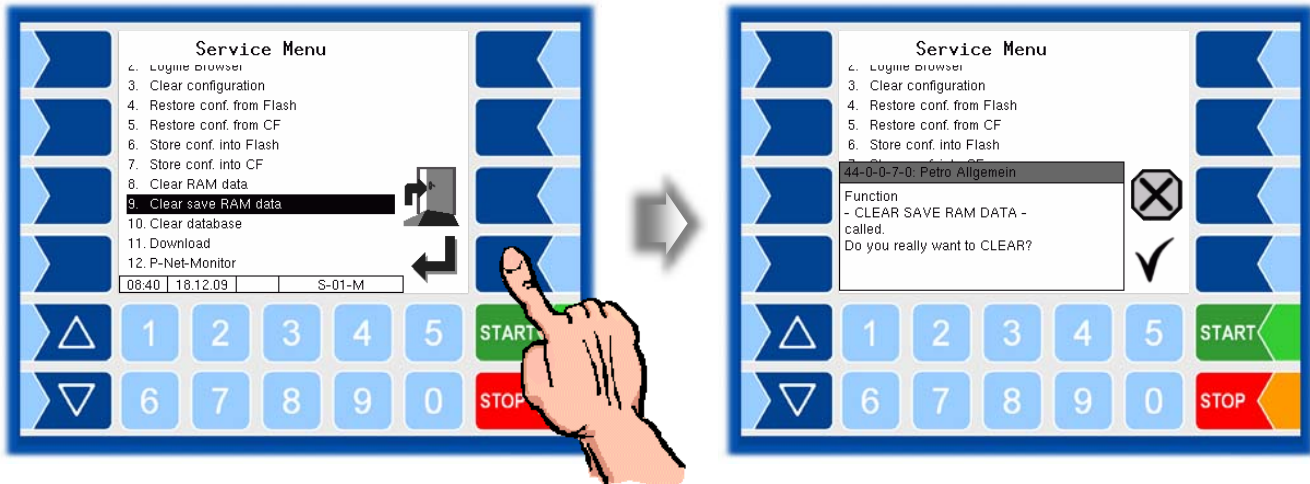
When you confirm the prompt, the existing configuration of parameters will be saved to the CF-card. The saved configuration can be reloaded later (see section 5.7.5). This way you can e.g. easily set an identically configuration to several vehicles.

5.7.8 Clear RAM data



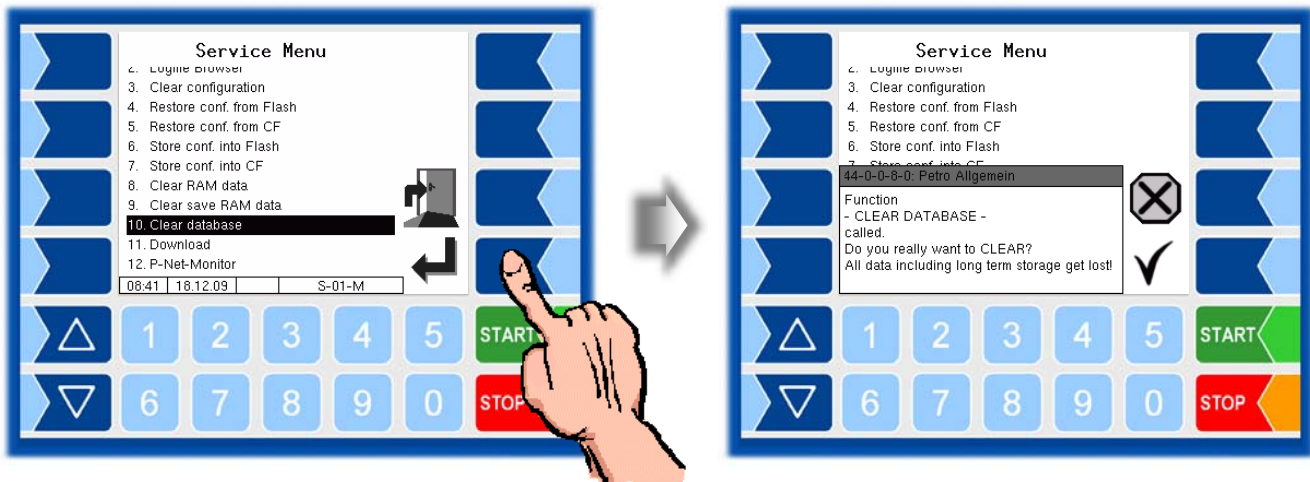
When you confirm the prompt, the contents of the RAM are cleared (data for the last delivery).

5.7.9 Clear save RAM data



When you confirm the prompt, the contents of the RAM that are not subject to statutory calibration (e.g. totalizer counts) are cleared.

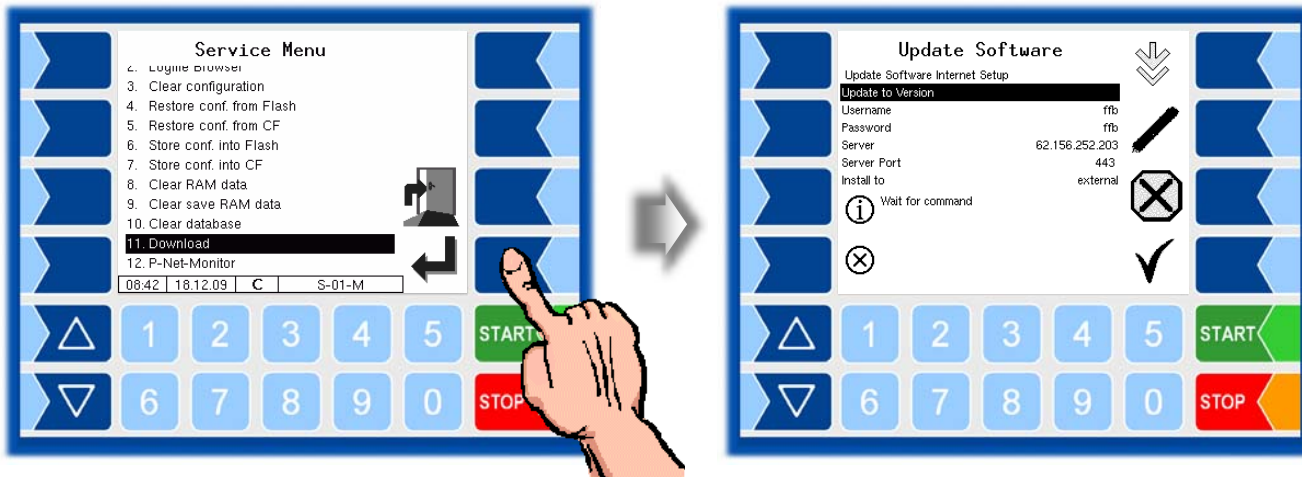
5.7.10 Clear database



When you confirm the prompt, all data (order data, scheduled data) is cleared from the database.

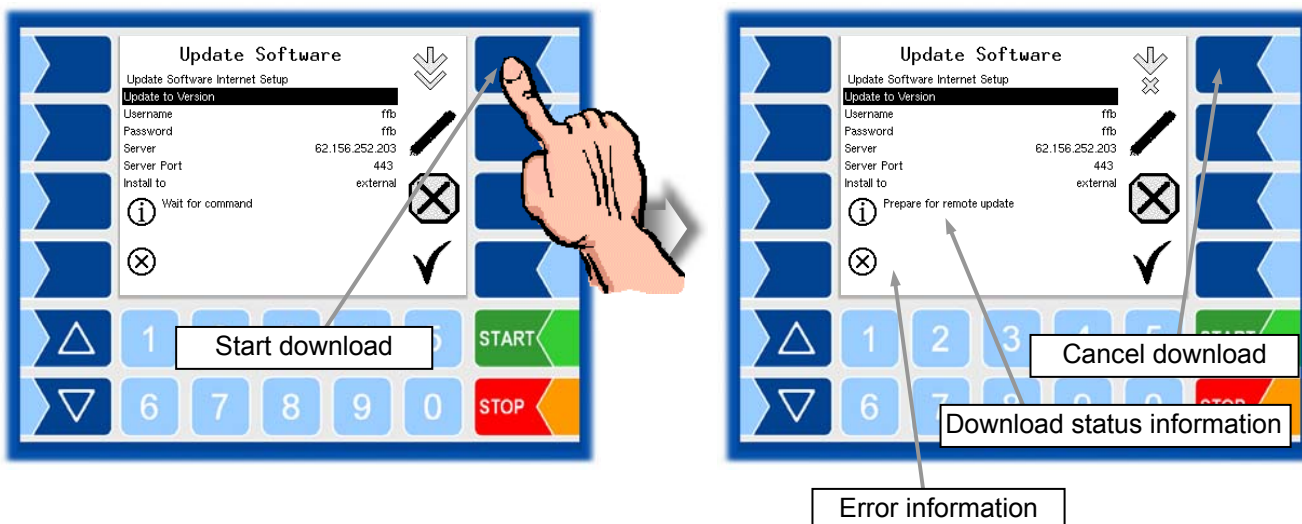
5.7.11 Download

This menu option allows you to download a new program version of the controller software from the BARTEC server via a GPRS connection.



Update to Version Here you can enter the number of the software version to be downloaded. Without an entry the latest version that is found at the server will be downloaded.

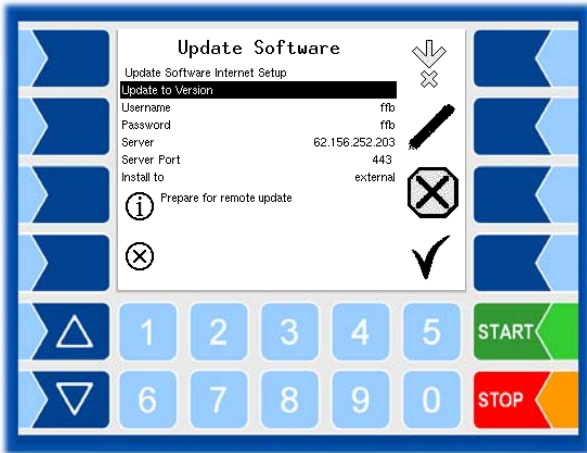
The user name and password for the download are assigned by BARTEC and must be entered manually.



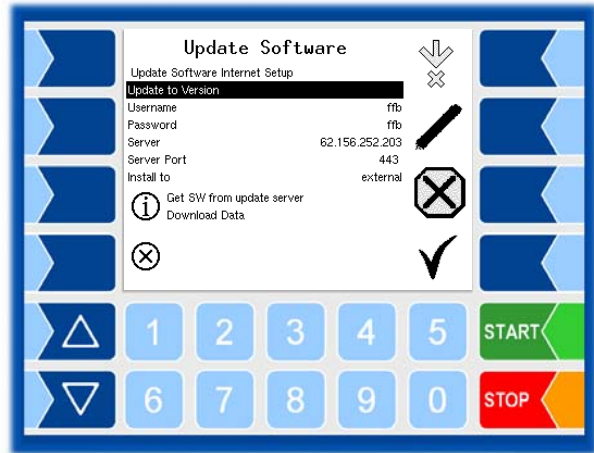
If the download is interrupted, for instance because the connection to the server is interrupted, it is automatically restarted after 5 minutes and resumed at the point at which it was interrupted.



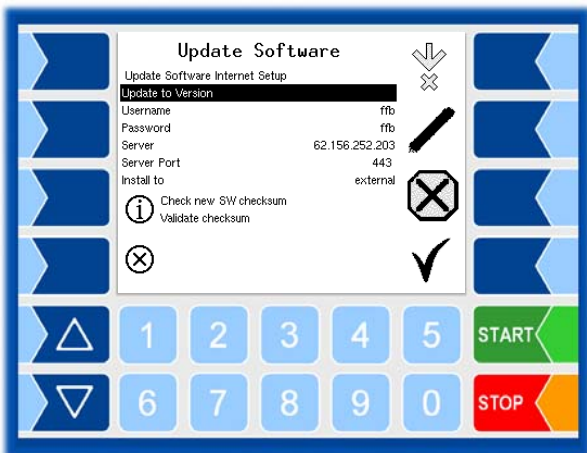
If the download is interrupted manually, the data that was already downloaded is deleted. The download must be restarted if necessary.



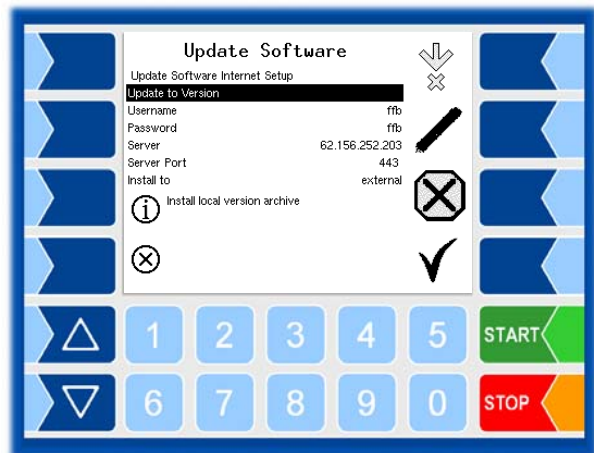
Connection to Server is established



Data is downloaded



Compressed data downloaded successfully.
Checksums Server-Client compared.



Unzipping files.



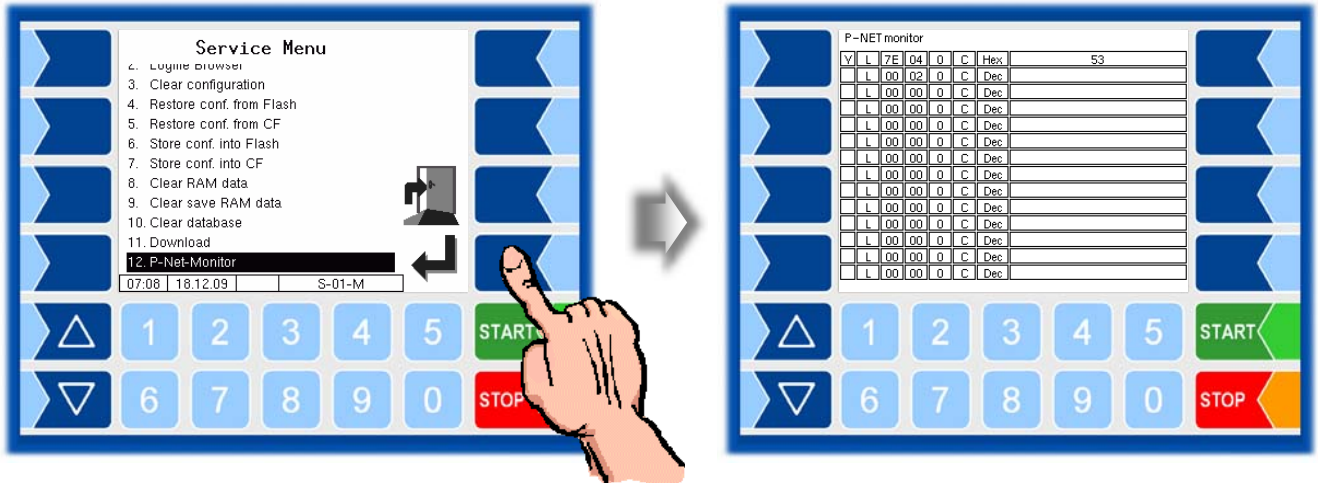
Files unzipped successfully and download complete.

To install the new program version, you must reboot the system. A selection dialog appears allowing you to choose which software version you wish to use. Once you have selected the new version, it is installed and started.(1)

(1) If this function is not yet implemented, the program is changed over to the new version by BARTEC via GPRS.

5.7.12 P-Net-Monitor

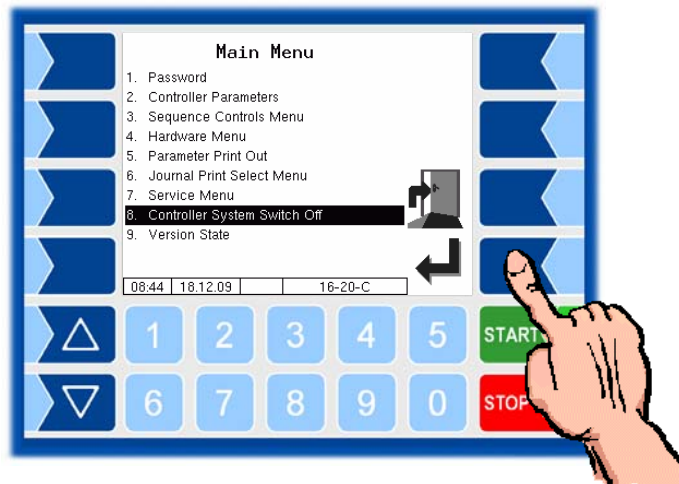
The P-Net-Monitor is a service function for diagnostic of P-Net devices.
For more details contact BARTEC service please.



Touch the **STOP** key to close the P-Net-Monitor.

5.8 Switching off the controller system

- Select the “Controller System Switch Off” menu from the main menu. The system is switched off properly, shutting down all modules.



5.9 Version state

- Select the “Version State” menu from the main menu. All calibration-relevant data is displayed:
 - Software version
 - Calibration date
 - Version comparison of all software modules subject to calibration.

The diagram illustrates the transition from the Main Menu to the Version State screen. On the left, the Main Menu is shown with 'Version State' (item 9) selected. An arrow points to the right, where the Version State screen is displayed. The Version State screen shows the date and time '1.6.4, 2009-10-21 11:54' and a table of module version information. A hand is shown pointing to the 'Version State' option in the Main Menu. Below the Version State screen, a legend explains the columns of the table.

Module name	Version no. read.	Module signature	Version no. saved.	Comparison result
m-mif	1.05	412f20	1.05	=
m-tmup	1.07	0de79b	1.07	=
lib3003db	1.04	a49be5	1.04	=
m-hmi	1.023	e7cf6b	1.023	=
emfx	1.014	37d2c2	1.014	=
umg	1.12	b0a3d0	1.12	=
print	0.8	746906	1.8	

The version that is read for all modules must be identical to the calibration version. If not, no product will be delivered.
