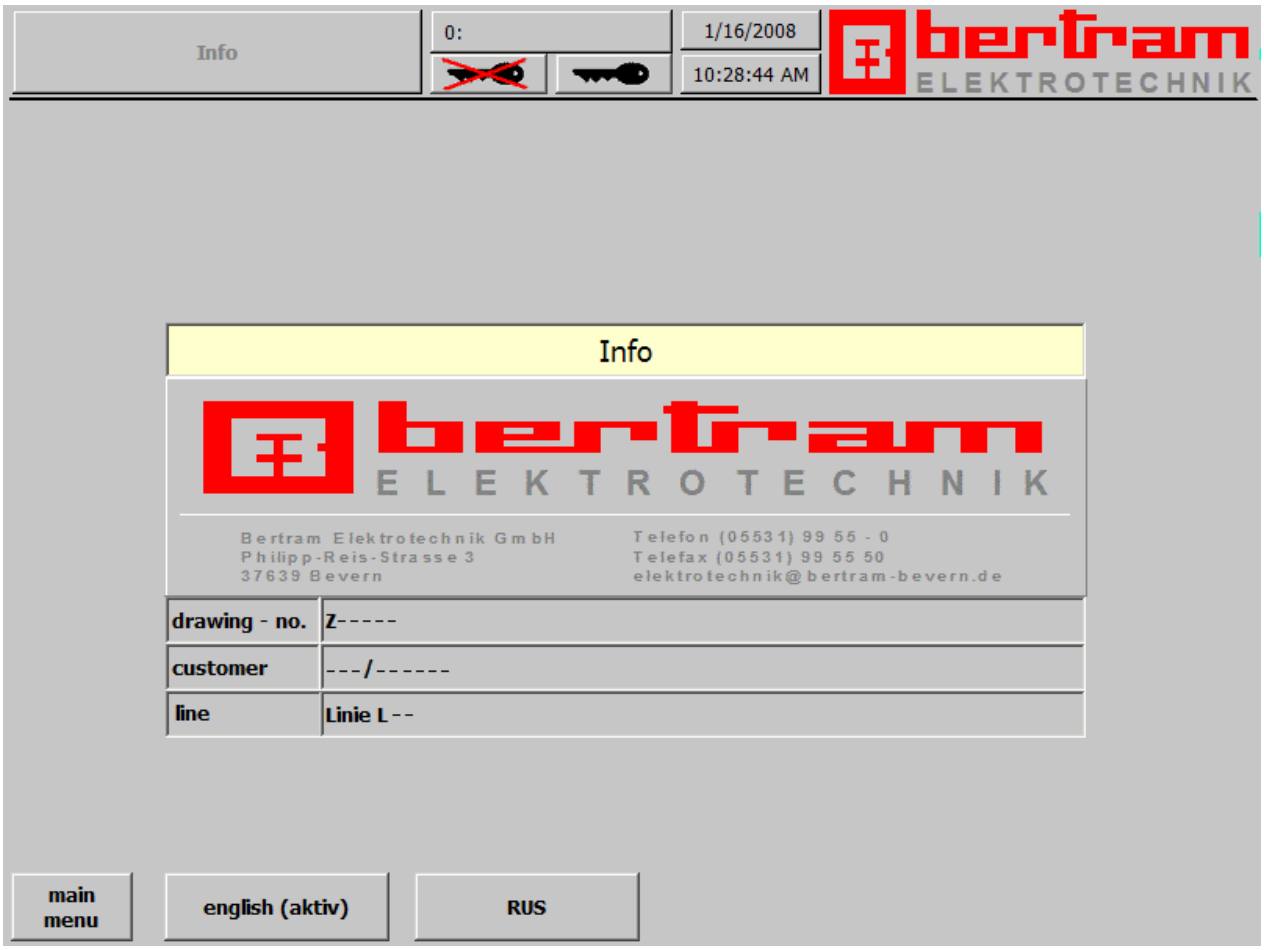
User manual

Conveyor system with MP370

(V1.0 – GB)



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1. Contents

2. Introduction

This document will be necessary or possible settings on the operator panel SIMATIC MP370 Touch with a Bertram standard projection controlled transport system explained. In the screenshots shown equipment come from a sample unit and are not always those of this transport system, but may be applied analogously. The same applies to the plant layout.

3. Function of the standard projection

The standard projection allows the necessary programming and parameterization procedures so far largely segregated, the fact that the programming on the PLC and the parameterization on the operating interface of the HMI device.

This makes it possible to shorten start-up times and changes of drive functionality at any time with relatively little effort.

Based on a product data set, witch contains the parameters of the production quantity, the addition of a possibly existing accumulation table, article diameter and height, one descriptive plant configuration and a drive configuration, the speed and revolution speed requirements respectively for the drives will be calculated and provided the PLC program to transfer to the drives.

Plant specific characteristics can take into account by typing correction values during the start-up, as well as product-adjustment during the plants adapt to a new product. This product adjustments are, in most cases for comparable products reusable, so that the necessary parameterization steps for optimum equipment functionality is reduced to a minimum.

Are optimal settings found for a product, the settings can be stored in a recipe file and, if necessary, called again.

4. General information about HMI-unit SIMATIC MP370 Touch

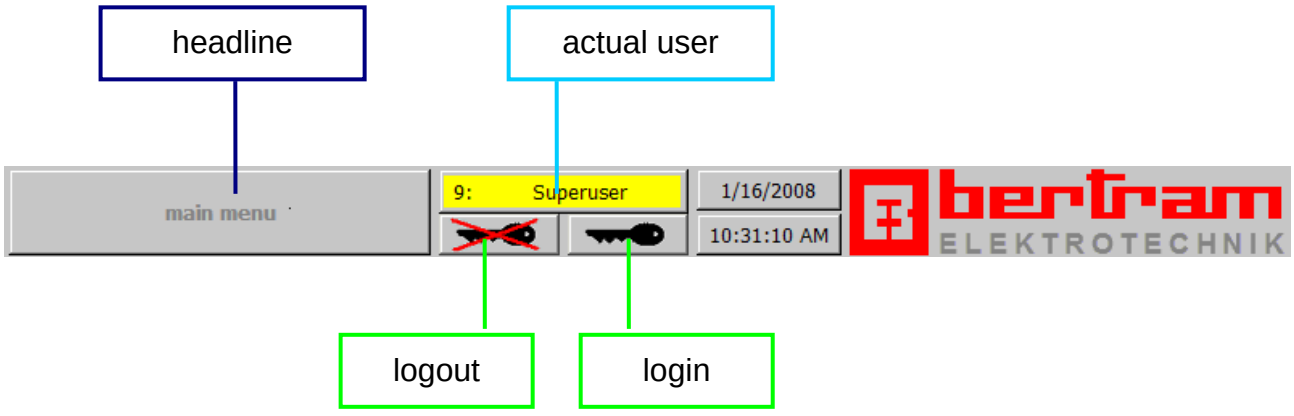
The HMI-unit SIMATIC MP370 (MP) allows the user to change and observe each important parameter of the control system. Machine states are displayed as well as fault-messages. Some screens and parameters are protected so that only authorized users are able to make changes in these areas.

You will find each of the realized screens of the MP with an explanation of the in- and output parameters in the following chapters.

The screen of the MP is divided into three areas:

- the top area
- the button area and
- the input and output area.

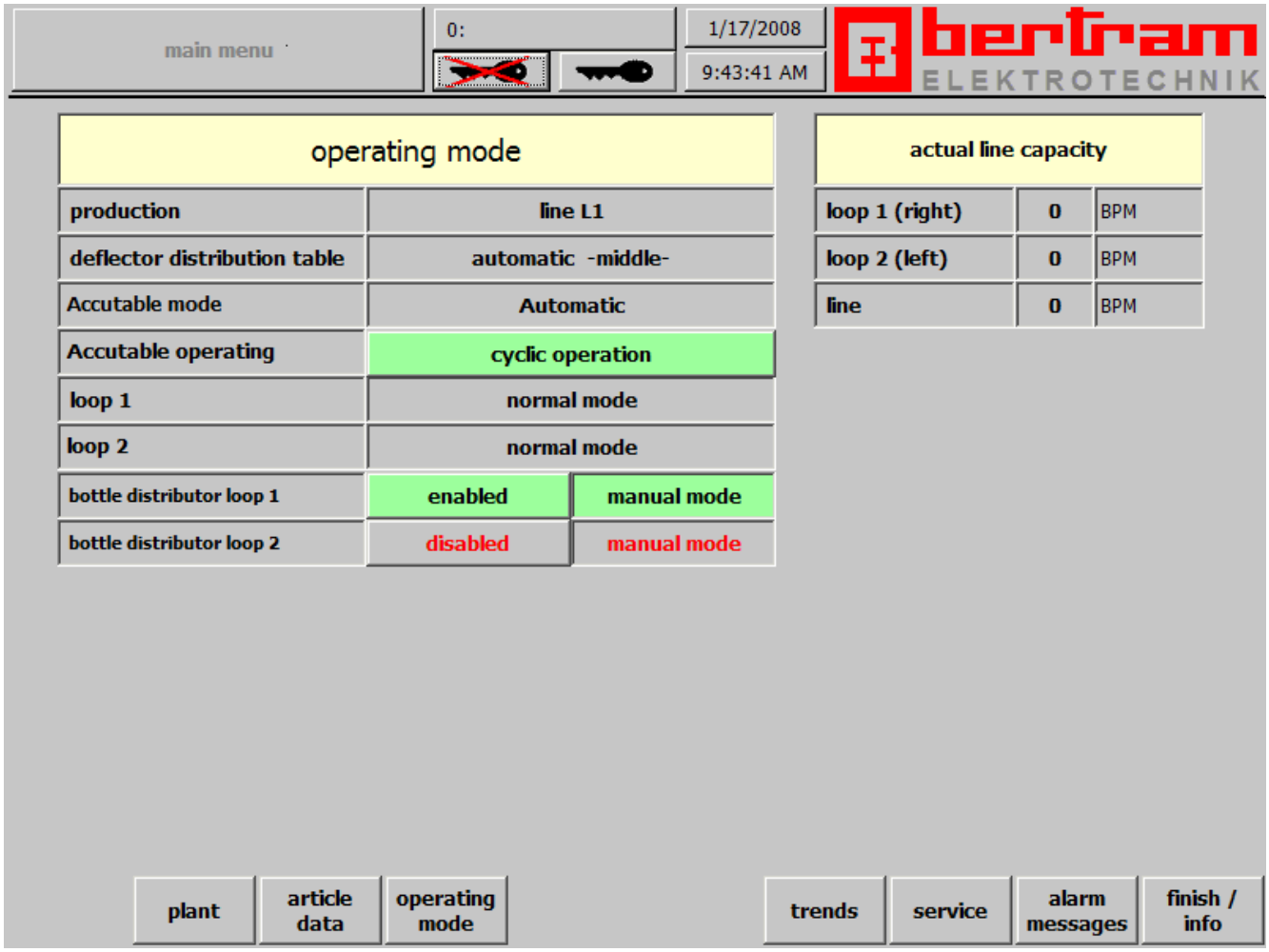
The top area includes output-fields for date an time, buttons for login and logout of a user, an output field to show the actual authorized user at the headline of the actual shown screen.



The button area contains buttons to navigate in the realized screens of the MP. Most of the buttons are only available dependently of the actual screen, but the button to select the main menu is always available.

The input and output area contains input and output fields for the various system functions, presented by short texts, in functional structuring relocate in different screens.

5. Main menu



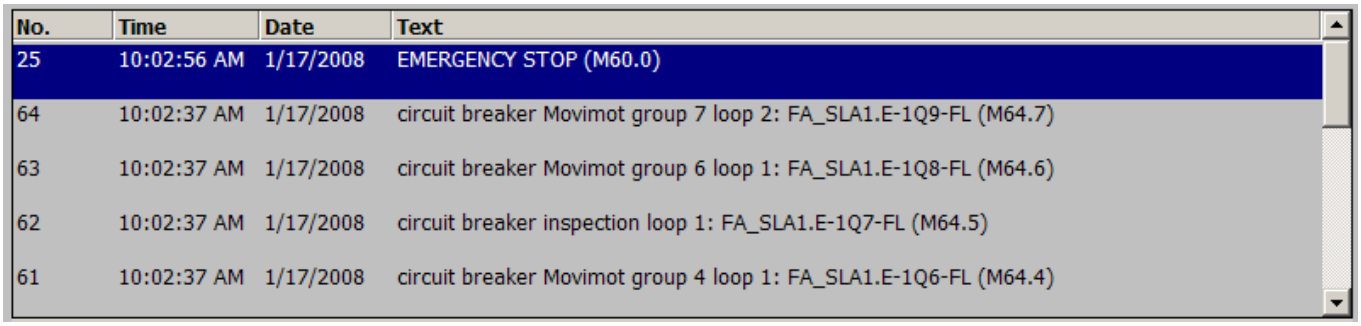
This screen is the start-up screen which will be displayed after starting the MP. From each screen the main menu can be selected. The main menu will be automatically selected by time control if there is no operating action at one of the other screens.

The main menu give a review for the sorting line like actual line capacity measured at the outlet of the distribution table, modes of deflector distribution table, accumulation table, servo deflector, inspection loop, etc.

Choices:

- plant
- article data
- operating mode
- trends
- service
- alarm messages
- info / finish
- operating mode accumulation table cyclic or continuous operation
  selected by touching the button right of the field **Accutable operating**

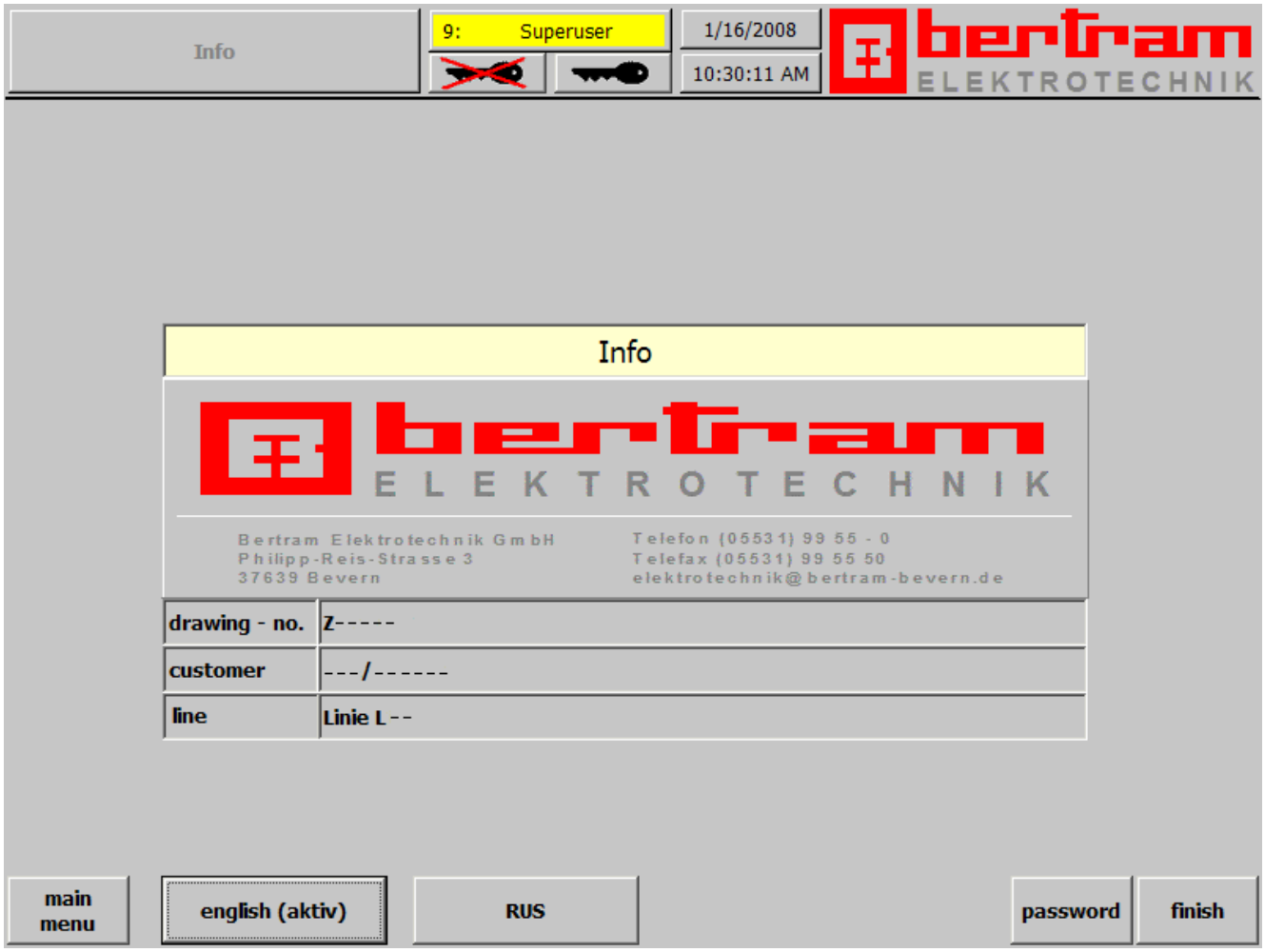
- bottle distributor (optional) enabled or disabled



No.	Time	Date	Text
25	10:02:56 AM	1/17/2008	EMERGENCY STOP (M60.0)
64	10:02:37 AM	1/17/2008	circuit breaker Movimot group 7 loop 2: FA_SLA1.E-1Q9-FL (M64.7)
63	10:02:37 AM	1/17/2008	circuit breaker Movimot group 6 loop 1: FA_SLA1.E-1Q8-FL (M64.6)
62	10:02:37 AM	1/17/2008	circuit breaker inspection loop 1: FA_SLA1.E-1Q7-FL (M64.5)
61	10:02:37 AM	1/17/2008	circuit breaker Movimot group 4 loop 1: FA_SLA1.E-1Q6-FL (M64.4)

Active alarm messages will be displayed in the popup-window shown above. Browse among the messages by using the scrollbar at the right side. If there is no message present the popup window is not visible.

5.1 Info / Finish



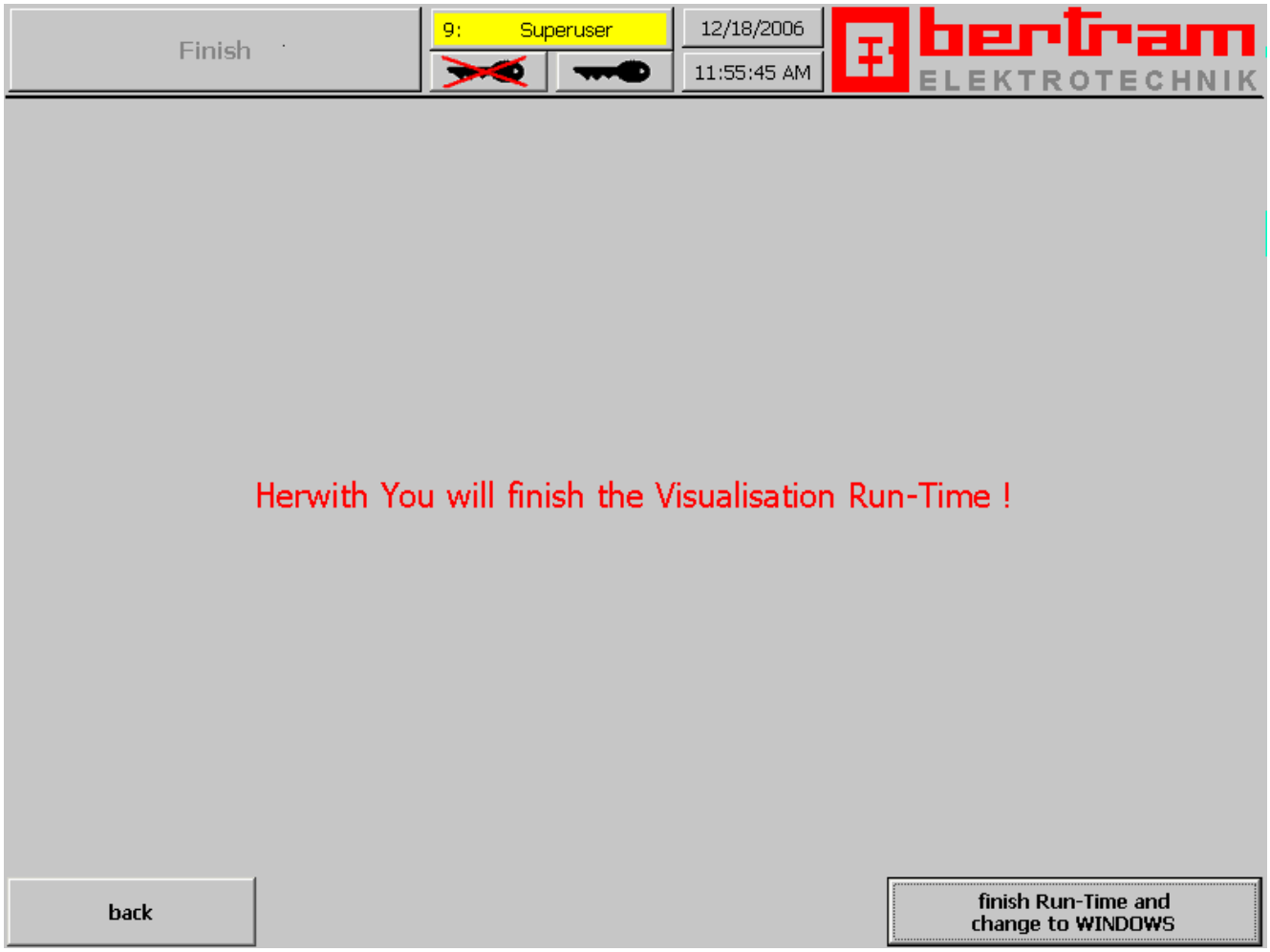
This screen comprised some information like Drawing-No. of the wiring diagram, customer and line.

Furthermore the language of the MP can be selected the language and it is identified by the annex **(active)** at the corresponding button.

Choices:

- back to main menu
- change language
- create / change / delete password
- finish

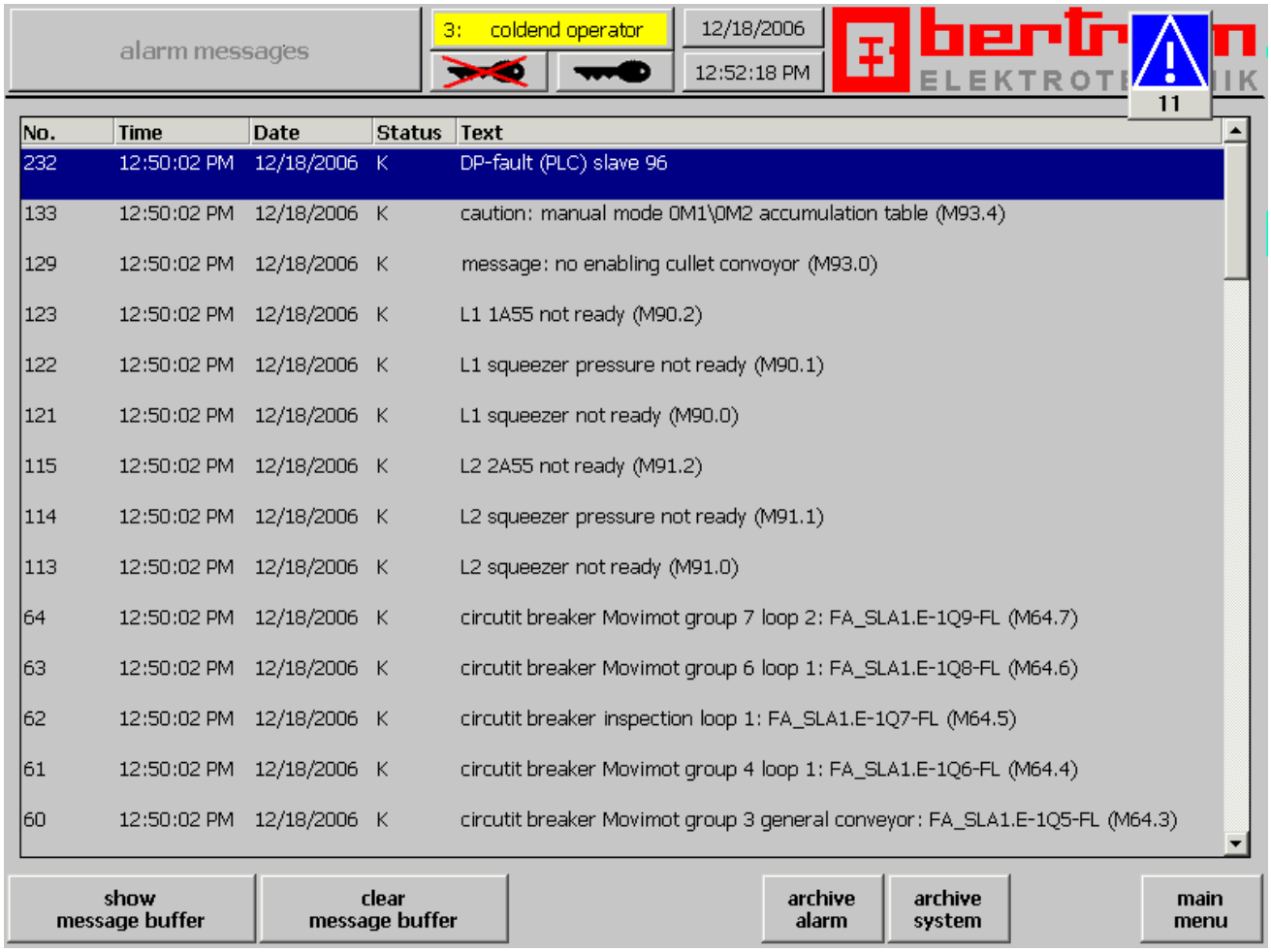
5.1.1 Finish Runtime



Choices:

- back Info / Finish
- finish Run-Time

5.2 Alarm messages



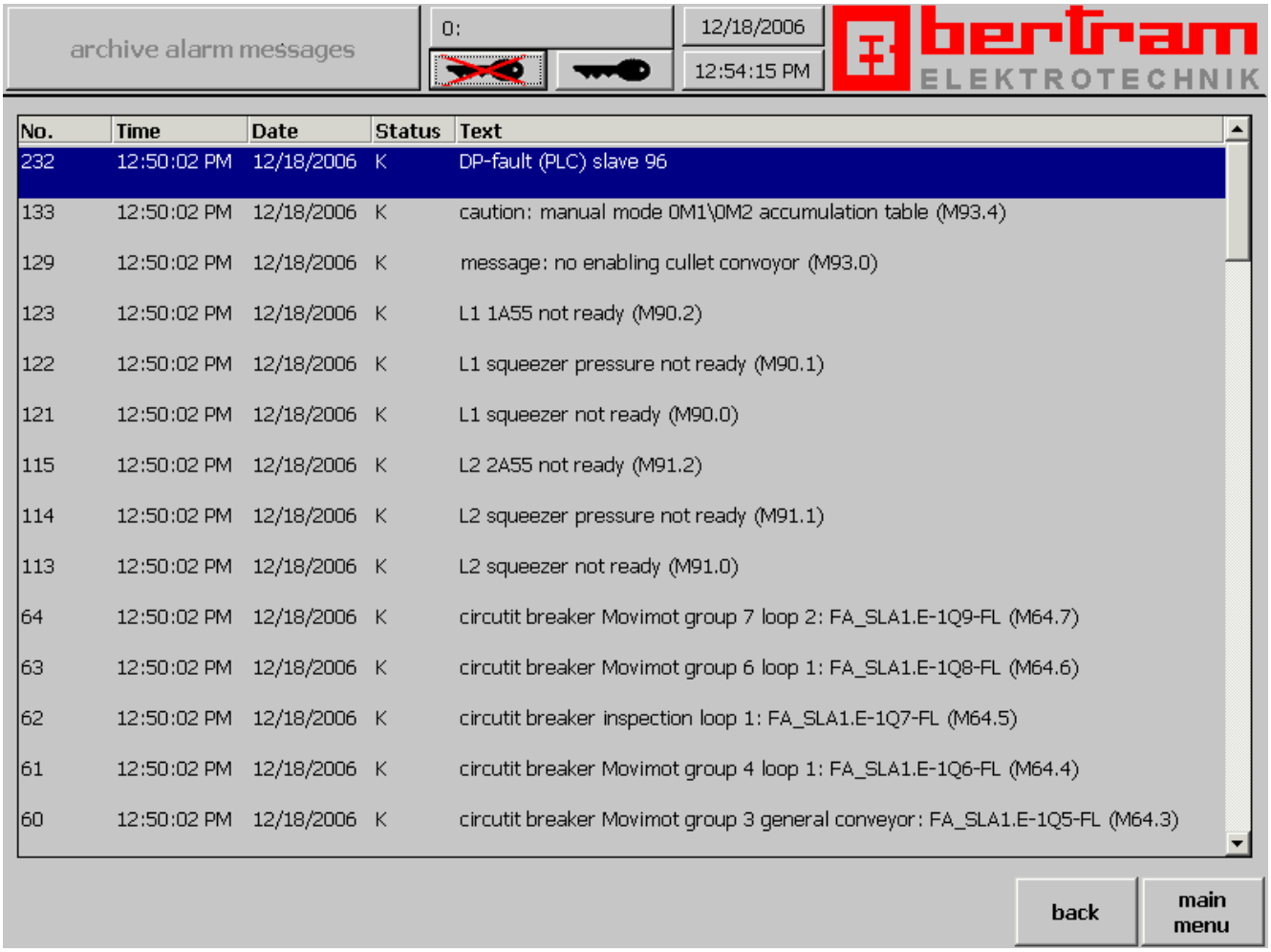
This screen gives an overview about the active alarm messages. Browse among the messages by using the scrollbar at the right side. If there is no message present the alarm box is empty.

Choices:

- show message buffer
- clear message buffer
- archive alarm messages
- archive system messages
- back to main menu

The button **“show message buffer”** selects a system screen, which gives an overview about the date back messages. This buffer can be cleared with the button **“clear message buffer”**. It is automatically cleared by start-up the visualisation system.

5.2.1 Archive alarm messages

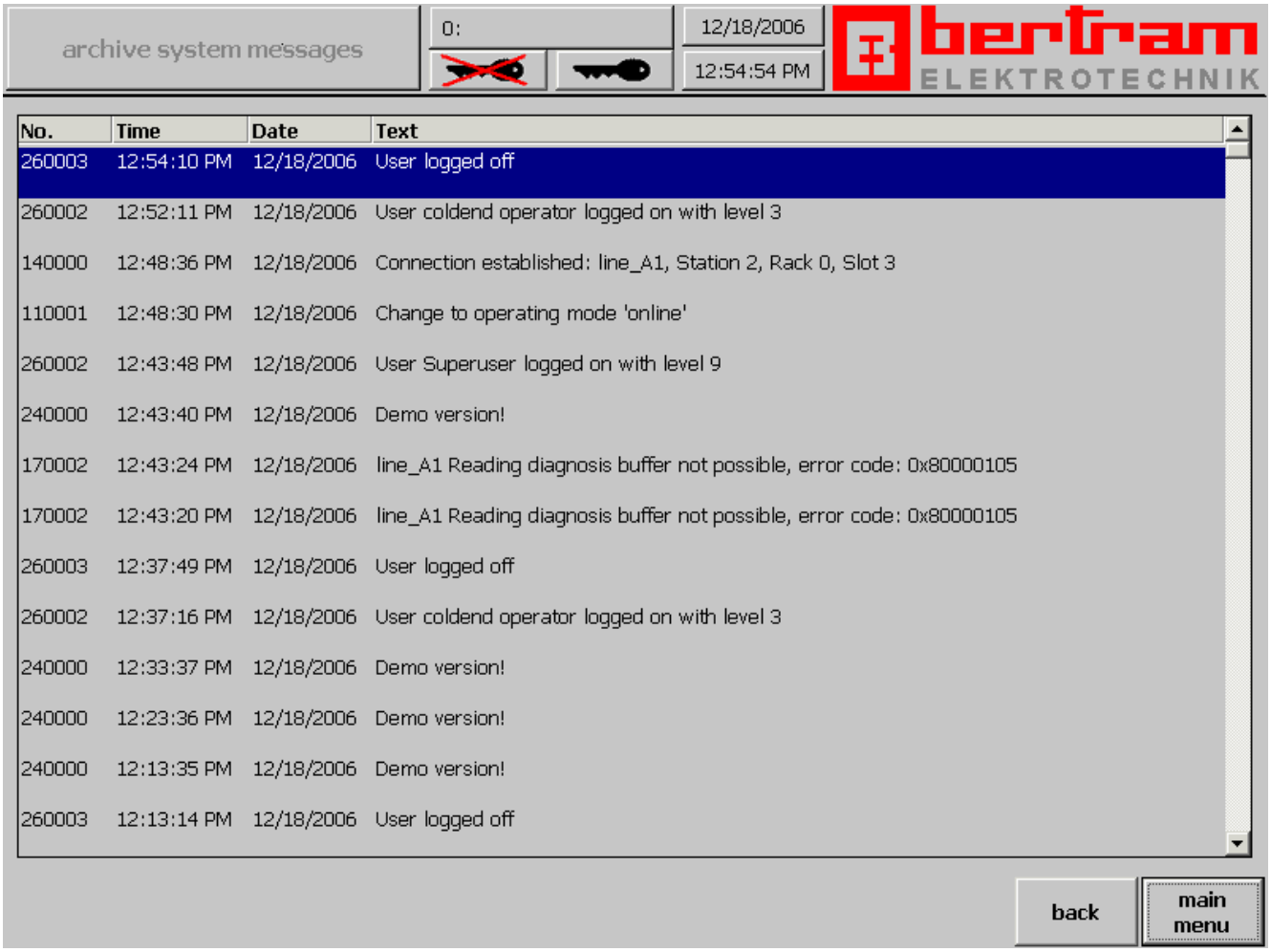


This screen shows an overview about the last 2048 date back alarm messages. The buffer is a FIFO-buffer and cannot be cleared and is stored at the internal CF-Card of the MP.

Choices:

- back to alarm messages
- back to main menu

5.2.2 Archive system messages

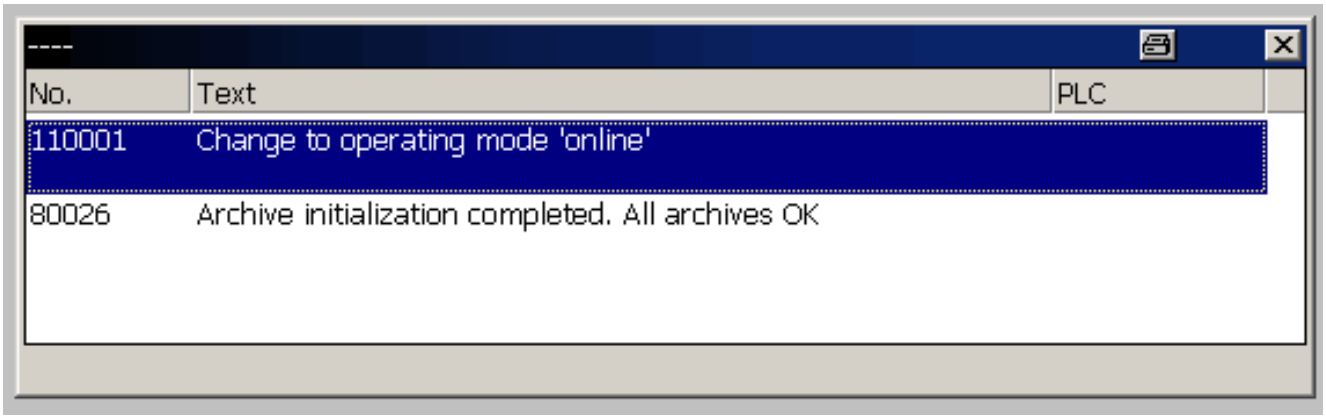


This screen shows an overview about the last 2048 date back system messages. The buffer is a FIFO-buffer and cannot be cleared and is stored at the internal CF-Card of the MP.

Choices:

- back to alarm messages
- back to main menu

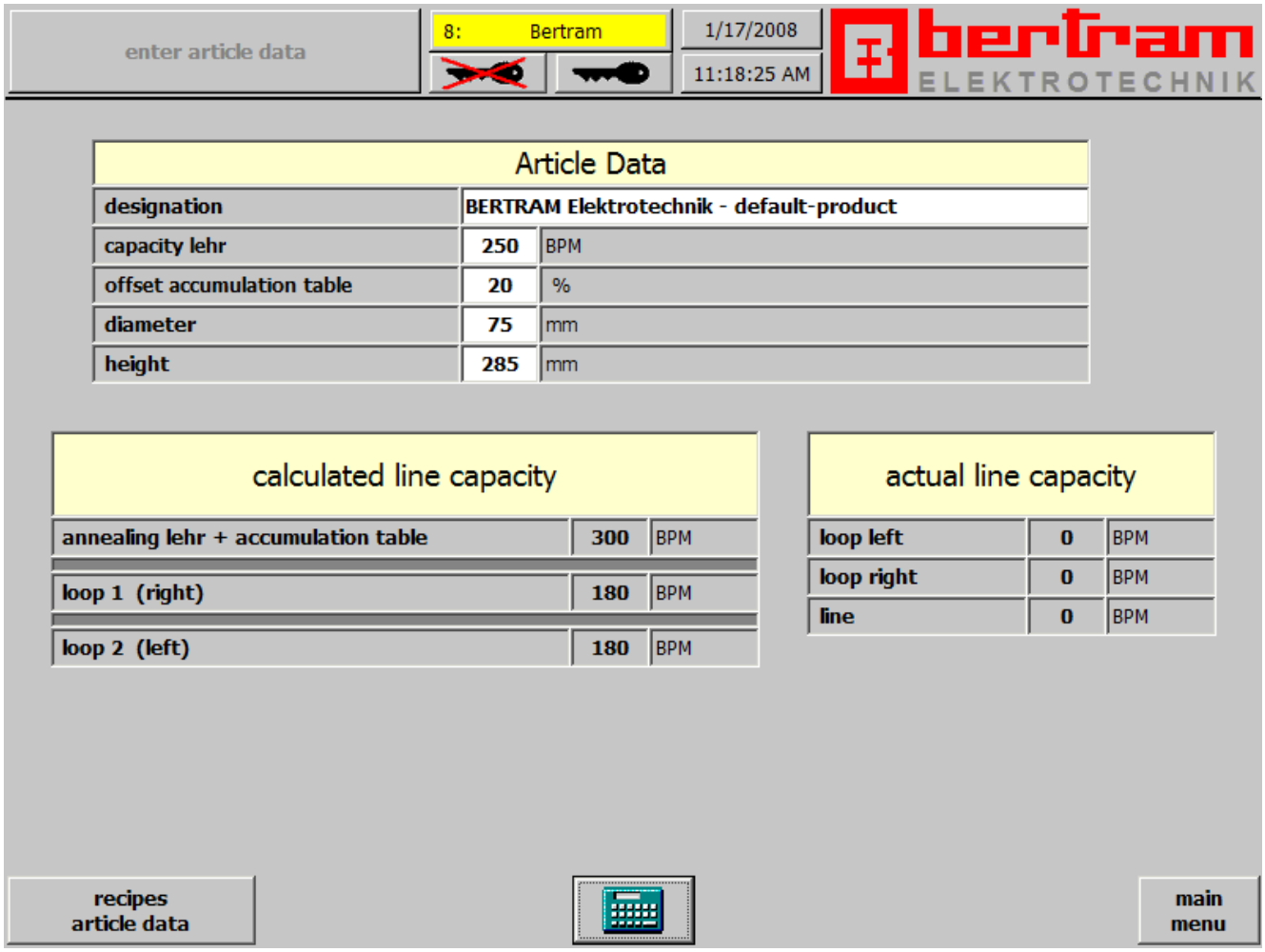
5.2.3 System messages



System messages are triggered by the MP370. They are not configured. System messages indicate, for example, incorrect operation or communication faults. A selection of important system messages is provided in **Multi Panel MP370 Equipment Manual, Appendix C**.

The message window for system messages opens automatically as soon as a system message arrives. The window is closed automatically after the configured duration (3s) has expired or by touching the x-button right on top of the window.

5.3 Article data



This screen shows an overview about the actual article that is running at the sorting line, the calculated line capacity and the actual measured line capacity. In case of user-login the input fields will be enabled and changes or entering of a new article are possible.

Required article data:

designation: article designation max. 40 characters

capacity lehr: container per minute from the annealing lehr

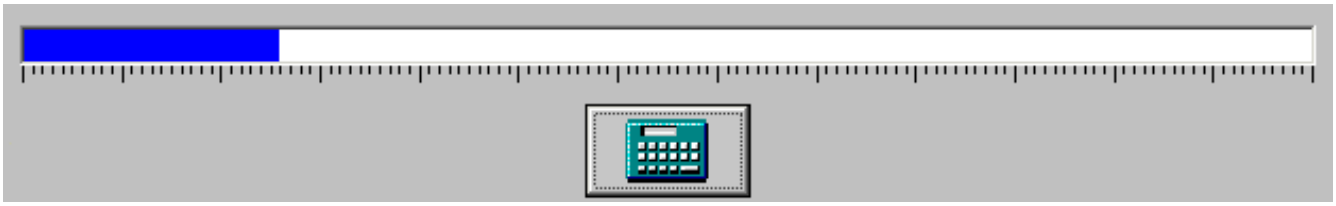
offset accumulation table: addition in % from the accumulation table

diameter: container diameter

height: container height

This data are required for calculation of the conveyor speed set points and to calculate the switch-on delay of the jam light barrier.

After entering new data the complete sorting line will be new calculated by touching the button with the calculator on itself.



A moving blue bar shows that the calculation is executed.

Choices:

- recipes
- calculate
- back to main menu

5.3.1 Recipes – general information –

It distinguishes between two different types of recipes.

Conveyor:

In the recipe **conveyor setup** parameter values are stored to be used for the start-up, and then usually not changed. Because here are parameter changes not useful or necessary, there is only one data record.

Article:

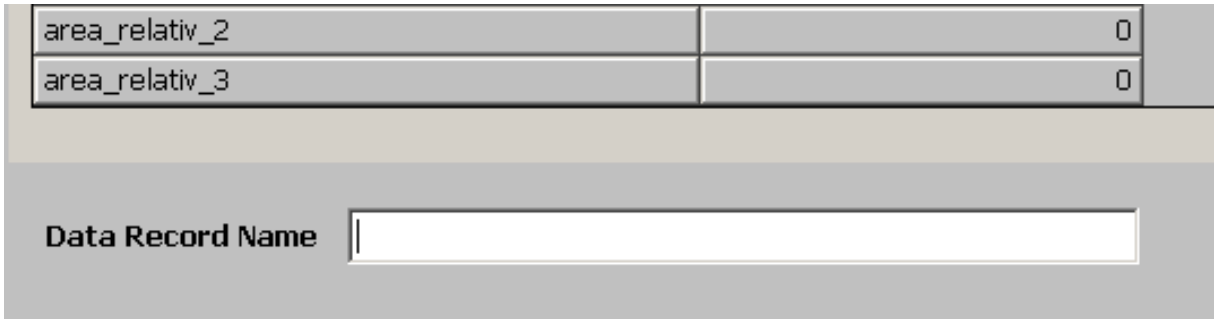
The data records of the recipe **article** contain all relevant input values, depending on the product to be transported, if necessary, to modify, to the best possible product flow. Thereby it is possible, that for several different – in their relevant dimensions, but comparable – products identical data records can be used.

Basically, it is advisable for each product to use its own data record and those store with a striking designation, to use it in again easily recover. They have the product number or the product name of the article proved to be particularly suitable

5.3.2 Recipes – create –

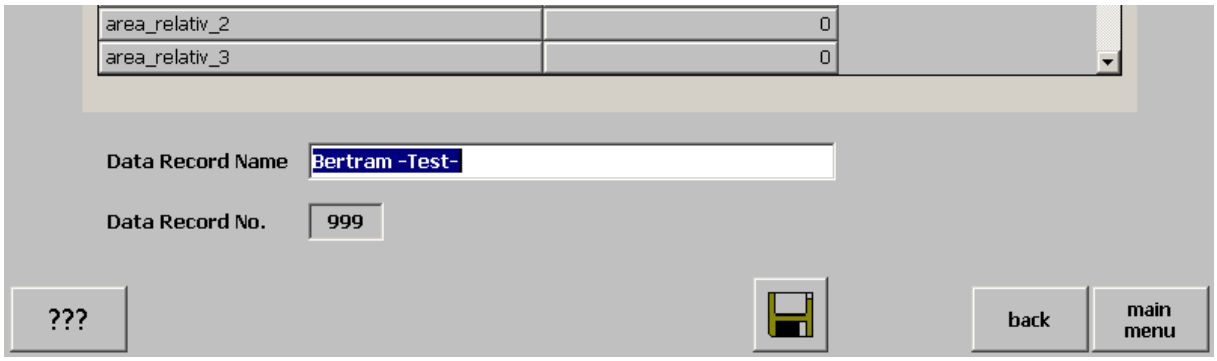
1. Select the screen ”recipes article”

2. Press the button  **”create a new data record”**



3. Click in the input field ”Data Record Name”, now the keyboard appears at the screen.

4. Prompt the data record name and press ”Enter”.

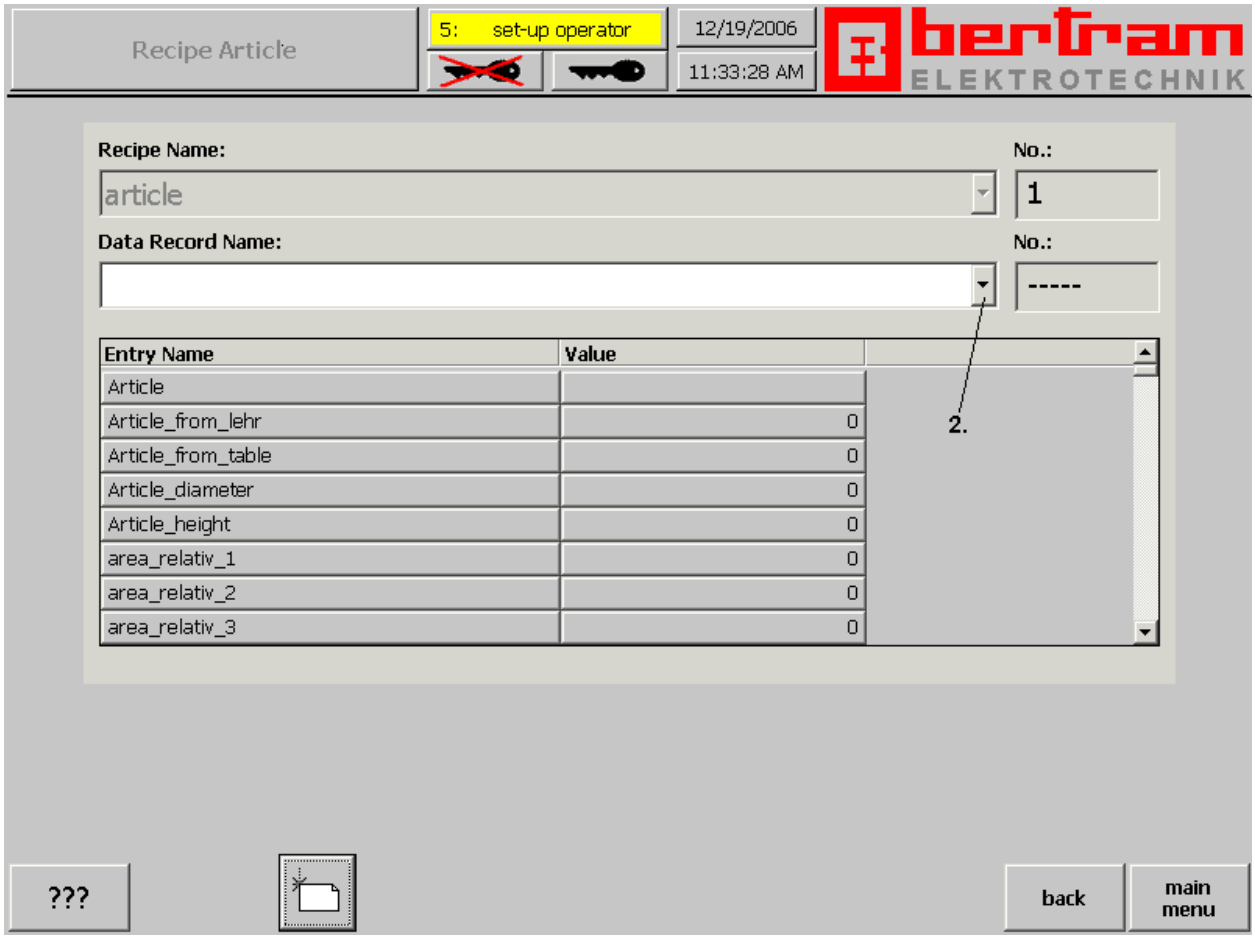


At the screen appears the field ”Data Record No.“ with the entry 999, this is the identifier for a new data record.

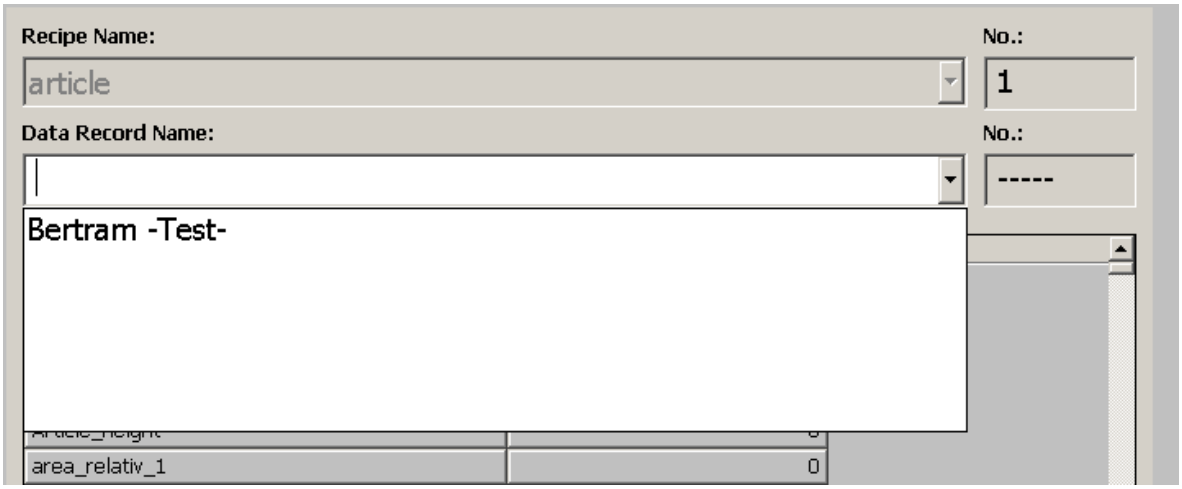
5. Press the button  **”save data record”**
The data will be read now from the PLC and then stored at the MP.

5.3.3 Recipes – load, save, delete –

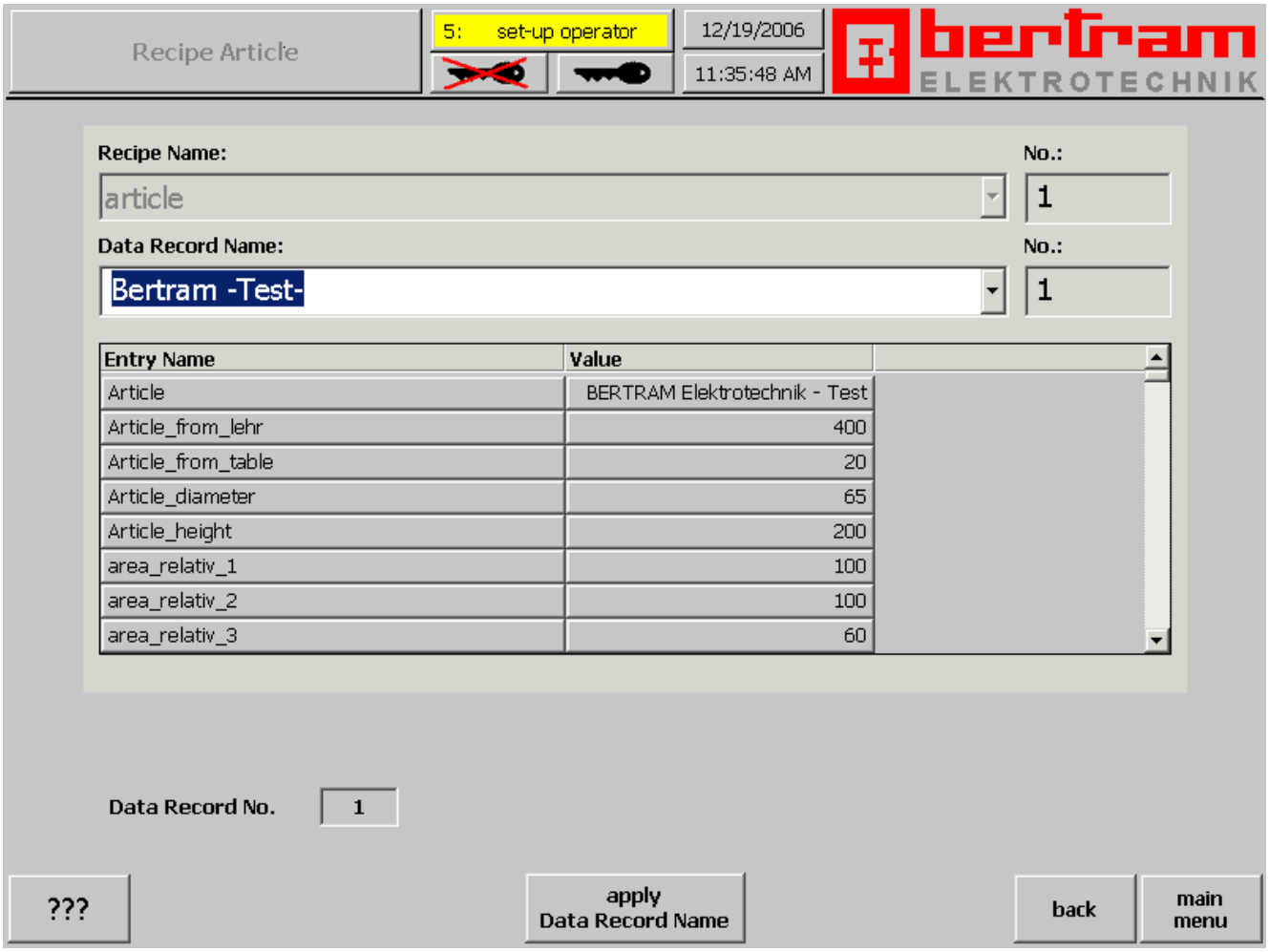
1. Select the screen ”recipes article”



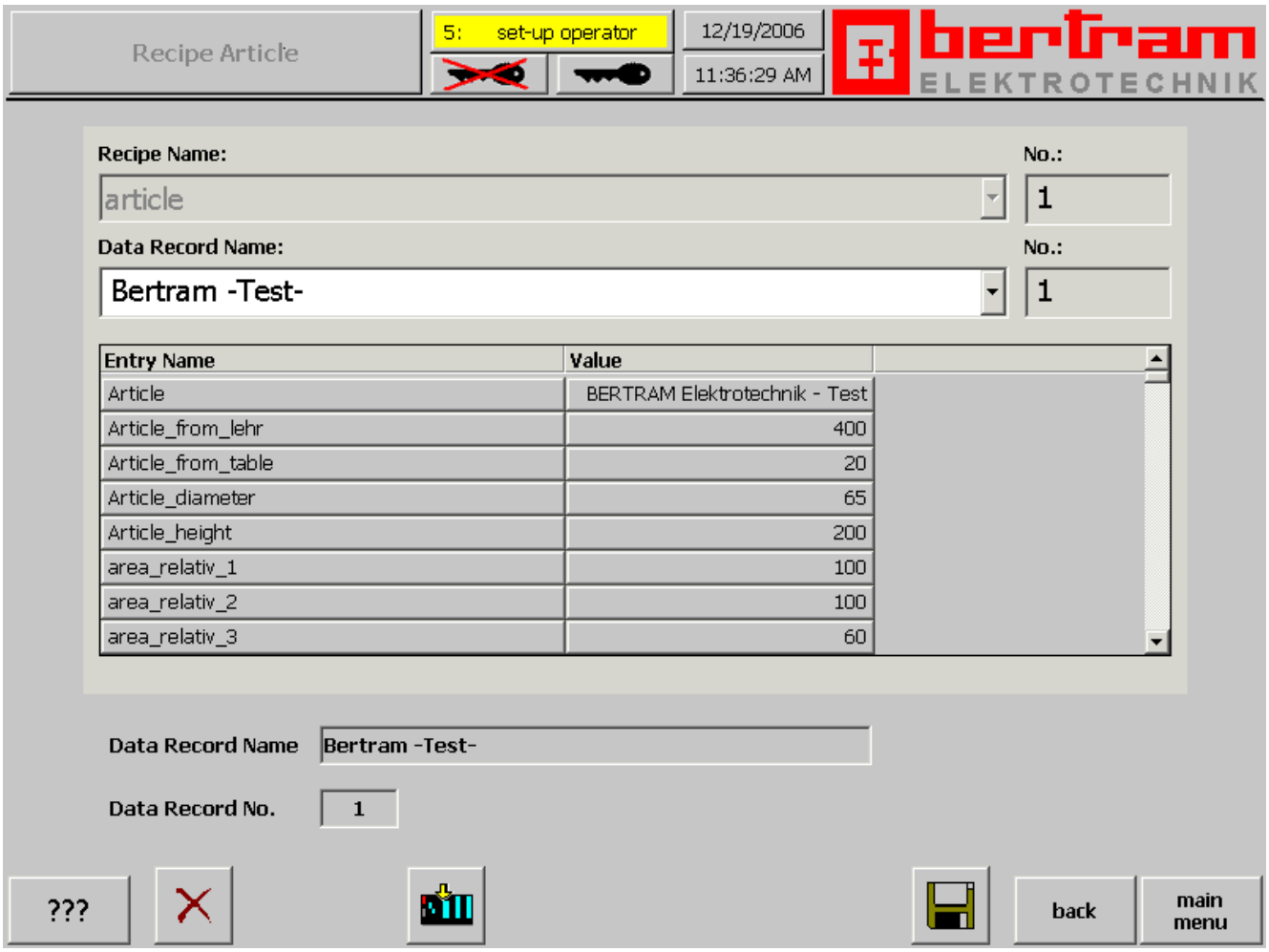
2. Press the arrow right beneath the field ”Data Record Name:”, all existing data record will be displayed now at the screen.



3. Select a data record, the name of the selected record will be taken the field ”Data Record Name:”.



4. Press the button 



Now following facilities will be available:

Save a data record:

Press the button  **”save data record”**

The data will be read now from the PLC and then stored at the MP370.

A popup windows appears at the screen „Overwrite YES or NO ?”

Confirm with „YES“.

Load a data record:

Press the button  **”load data record to PLC”**

The selected data record will be transferred now to the PLC.

After this press the calculation button at the screen “enter article data“.

Delete a data record:

Press the button  **”delete data record”**

The selected data record will be deleted.

A popup windows appears at the screen „Delete YES or NO ?” Confirm with „YES“.

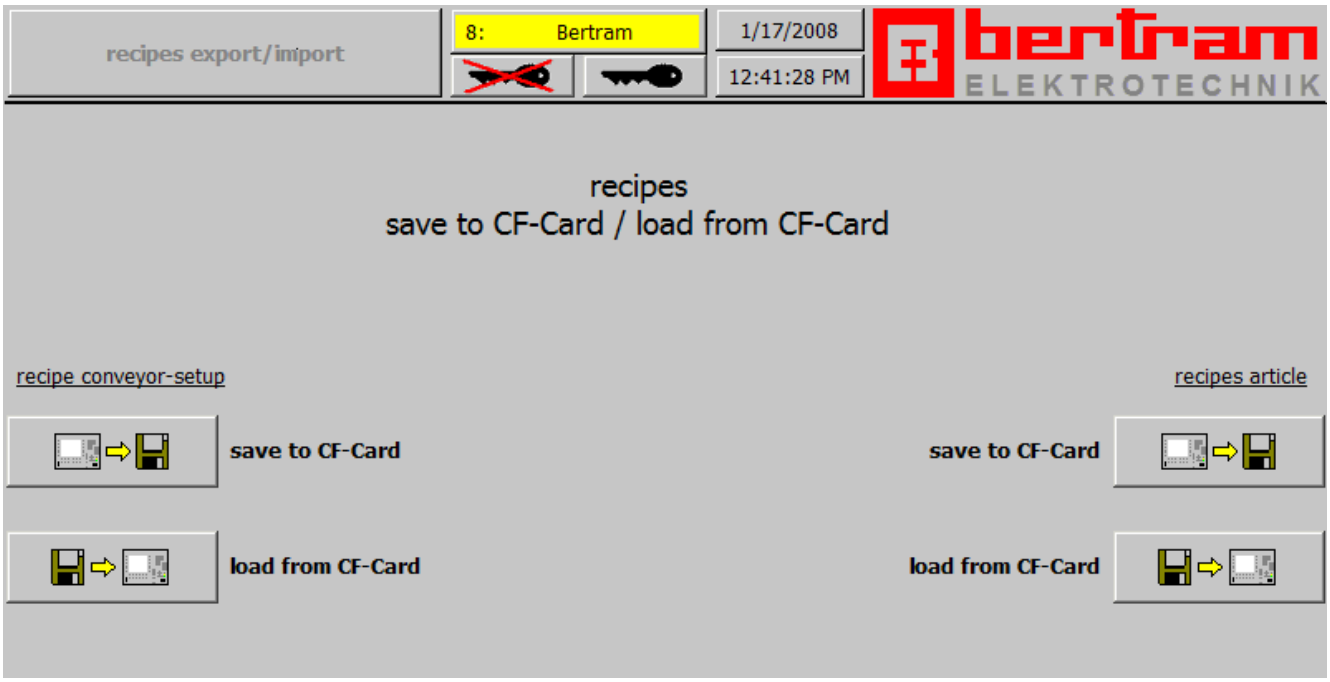
The procedure to load and store the conveyor data is the same as the article data. Different is a higher password level of 7 and only one data record is available.

5.3.4 Recipes – export / import –

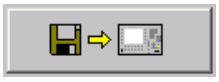
There is the possibility to export all data records to a CF-Card and import from this card which is mounted at the MP370. For this the following screen can be selected from the screens ”recipes article” and ”recipe conveyor setup”.

The button 

is visible only at a password level of 8.

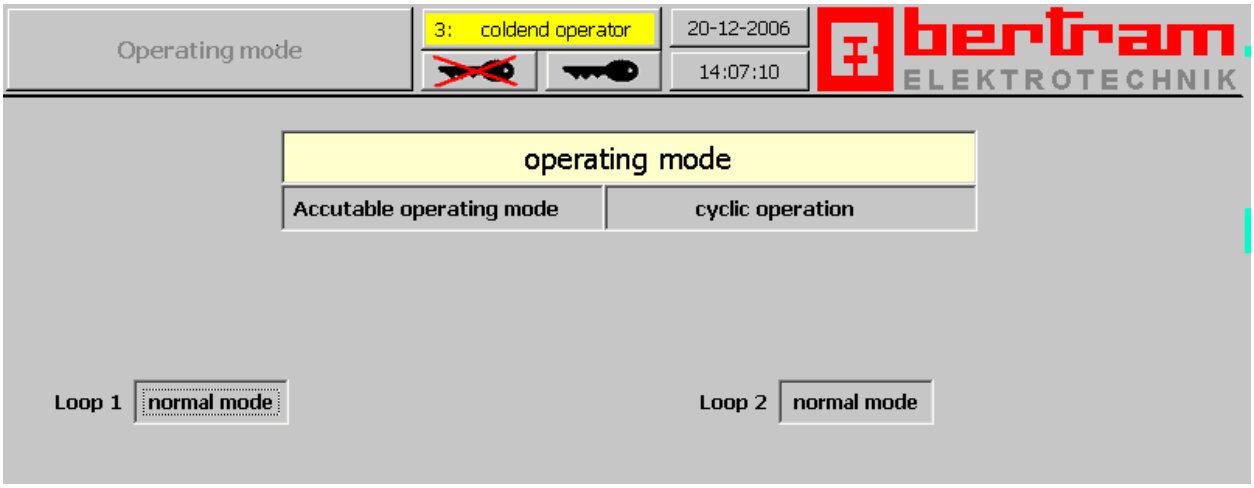


 exports all data record, **article** or **conveyor setup**, to the CF-Card

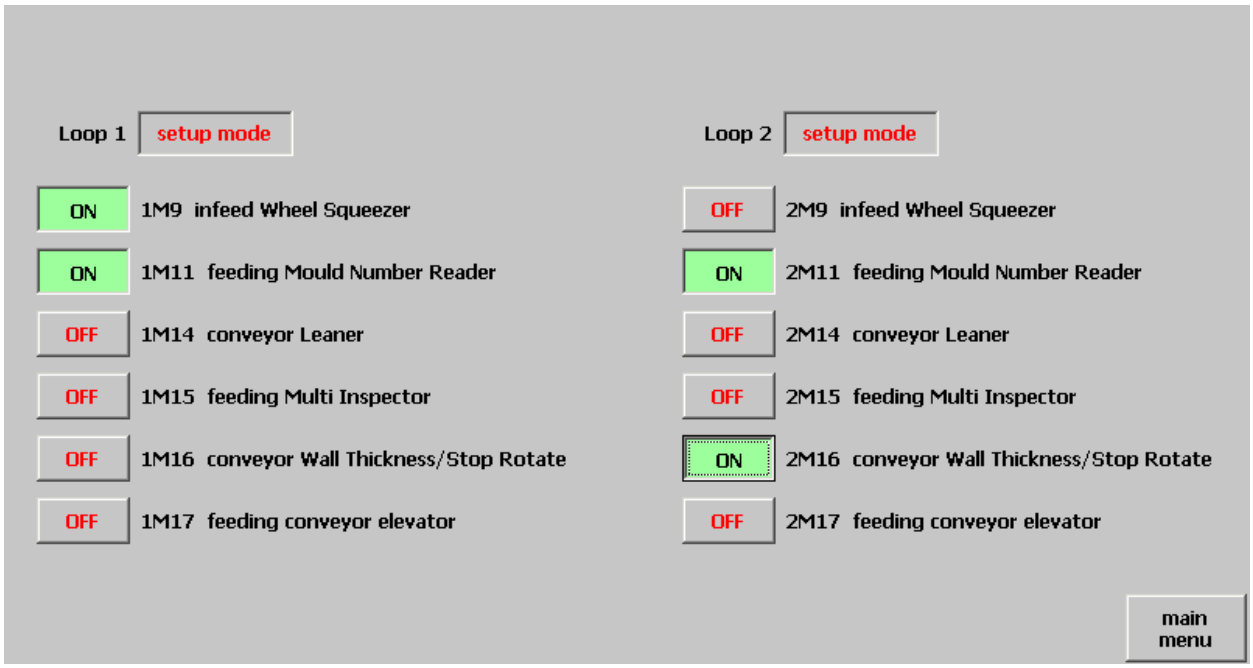
 imports all data record, **article** or **conveyor setup**, from the CF-Card

Attention: The saving of the recipes to the CF-Card should be done in regular intervals (e.g. once a month) to make sure, that the data at the CF-Card are so up-to-date as possible. In case of too old data at the CF-Card, the actual recipes will be over-written with older data.

5.4 Operating modes



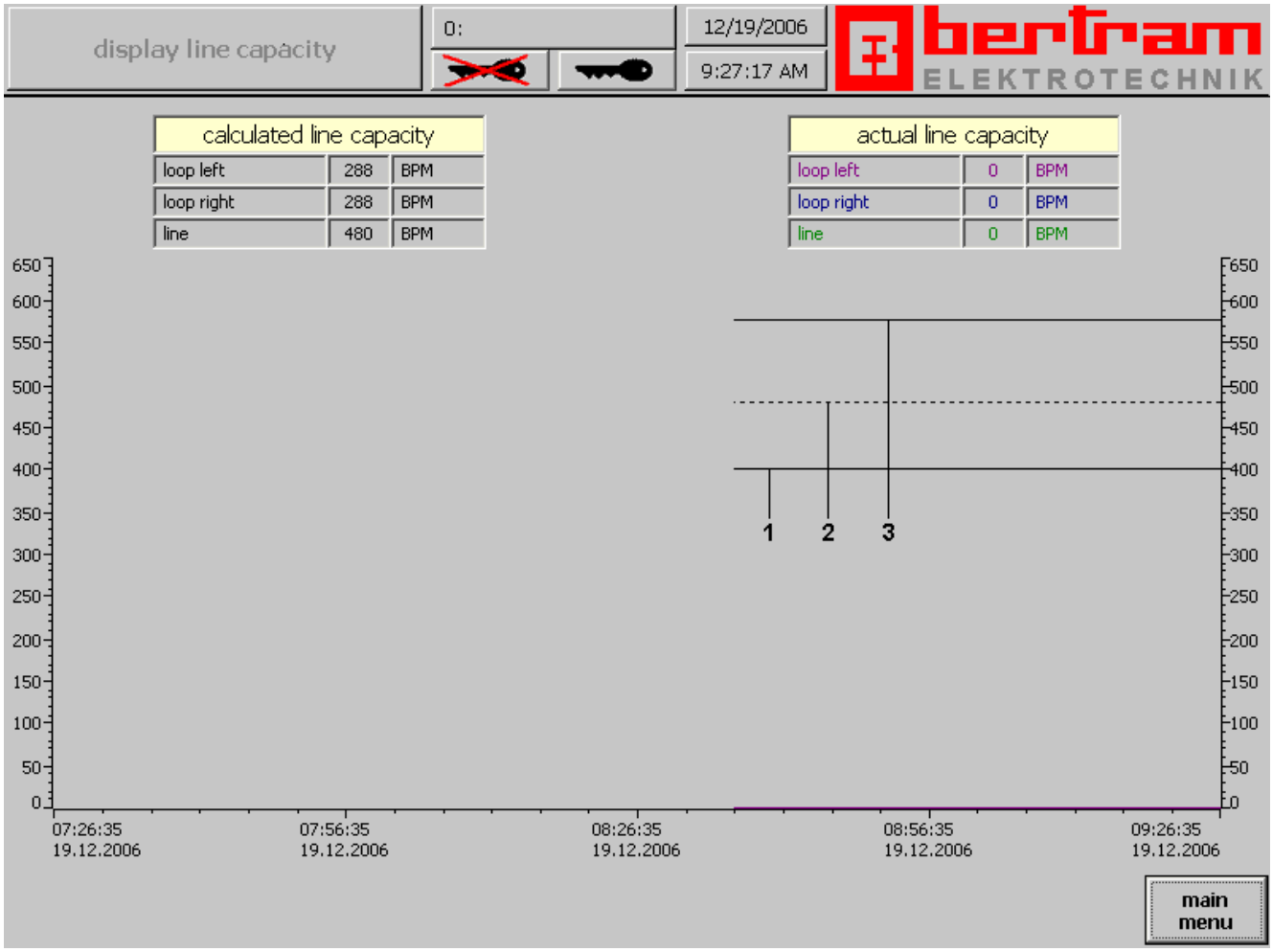
After entering the password the screen looks like the picture above. By touching the field **"normal mode"** the screen changed onto the picture below.



Here the operator can start and stop each of the above listed conveyors without interlock by touching the OFF/ON button. This operating mode is for set up the inspection machines.

Touching the field **"setup mode"** the conveyors of the accordant loop change to normal mode.

5.4.1 Trend view line capacity



This screen is intended for an overview of the calculated and actual capacity for the last two hours.

At this screen there are three static lines (1-3) dependant of the calculated line capacity.

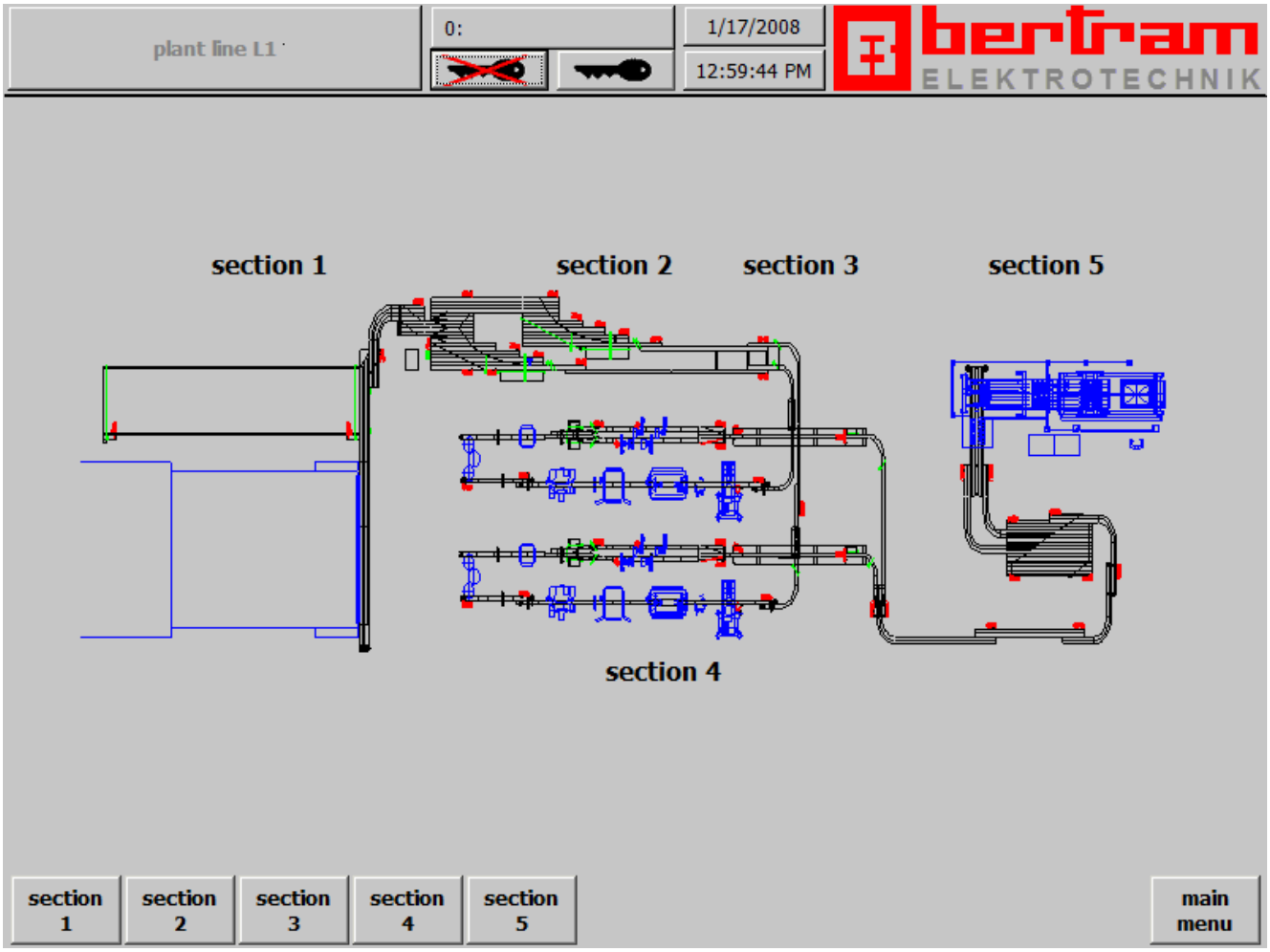
1 container per minute from the annealing lehr

2 container per minute feed distribution table

3 container per minute total amount distribution table loop 1+2

Also there are three coloured lines that indicate the measured container per minute for feed distribution table, distribution table outlet loop 1 and distribution table outlet loop 2.

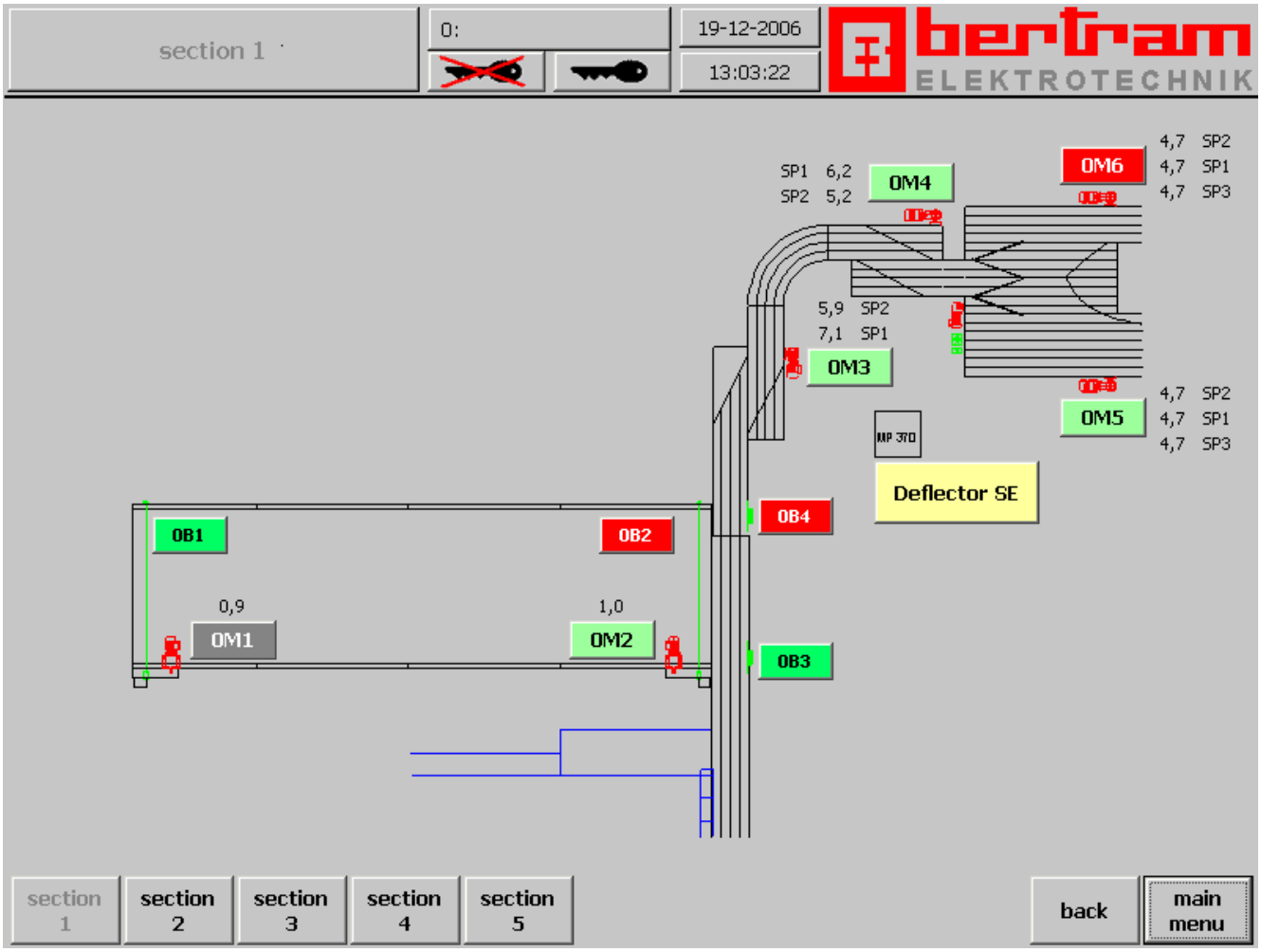
5.5 Plant



This screen is the menu for operating the line like set points for conveyor speed, switch-on/switch-off delay for light barrier, tumbled bottle, etc.

The line is divided into detailed screens, which can be separately selected from this screen. Touching the accordant button at the lower area or touching the zone at the displayed layout at this screen selects a detailed layout.

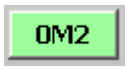
5.5.1 Detailed overview plant section



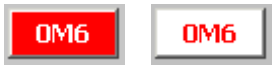
The screens detailed overview section 1 – xy show information about the line conditions like conveyor speed, conveyor state, light barrier state, etc. and the screens for settings of elevator lubrication, tumbled bottle, reject control etc. can be selected from this screens.

The operator gets information about the conditions of the conveyors with displaying the velocity the conveyors, in meter per minute, and if the motor is ON, OFF or disturbed and the output frequency of the frequency converter.

motor OFF

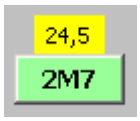


motor ON



motor disturbed (flashing)

output frequency between min. and max. frequency



output frequency less than min. or greater than max. frequency

Touching a motor button the screen **“settings drives”** will be selected.

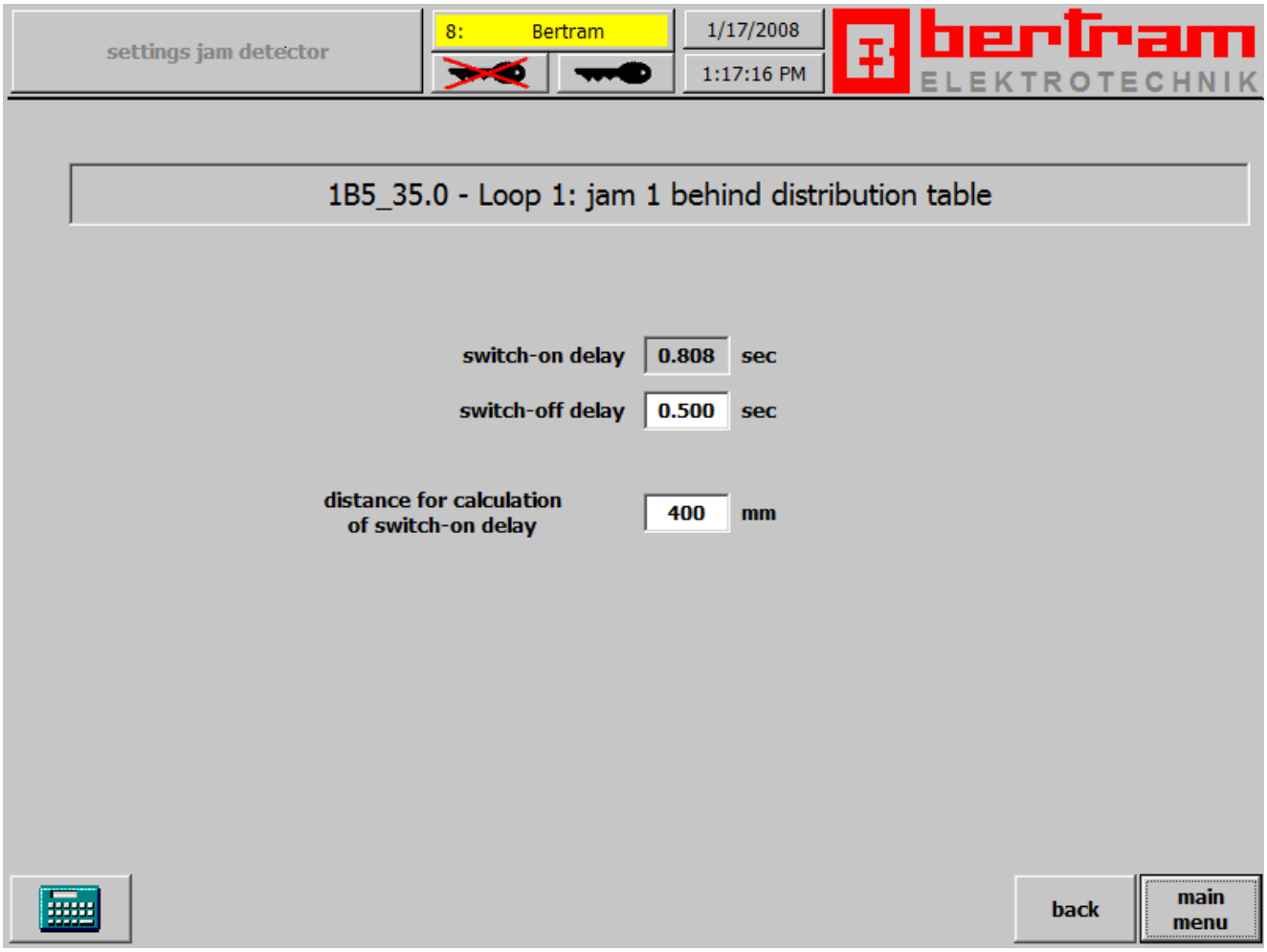
Also the operator gets information about the condition of the jam detectors.

no jam

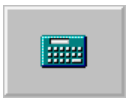
jam

Touching a jam detector button the screen **“settings jam detector”** will be selected.

5.5.2 Settings jam detector

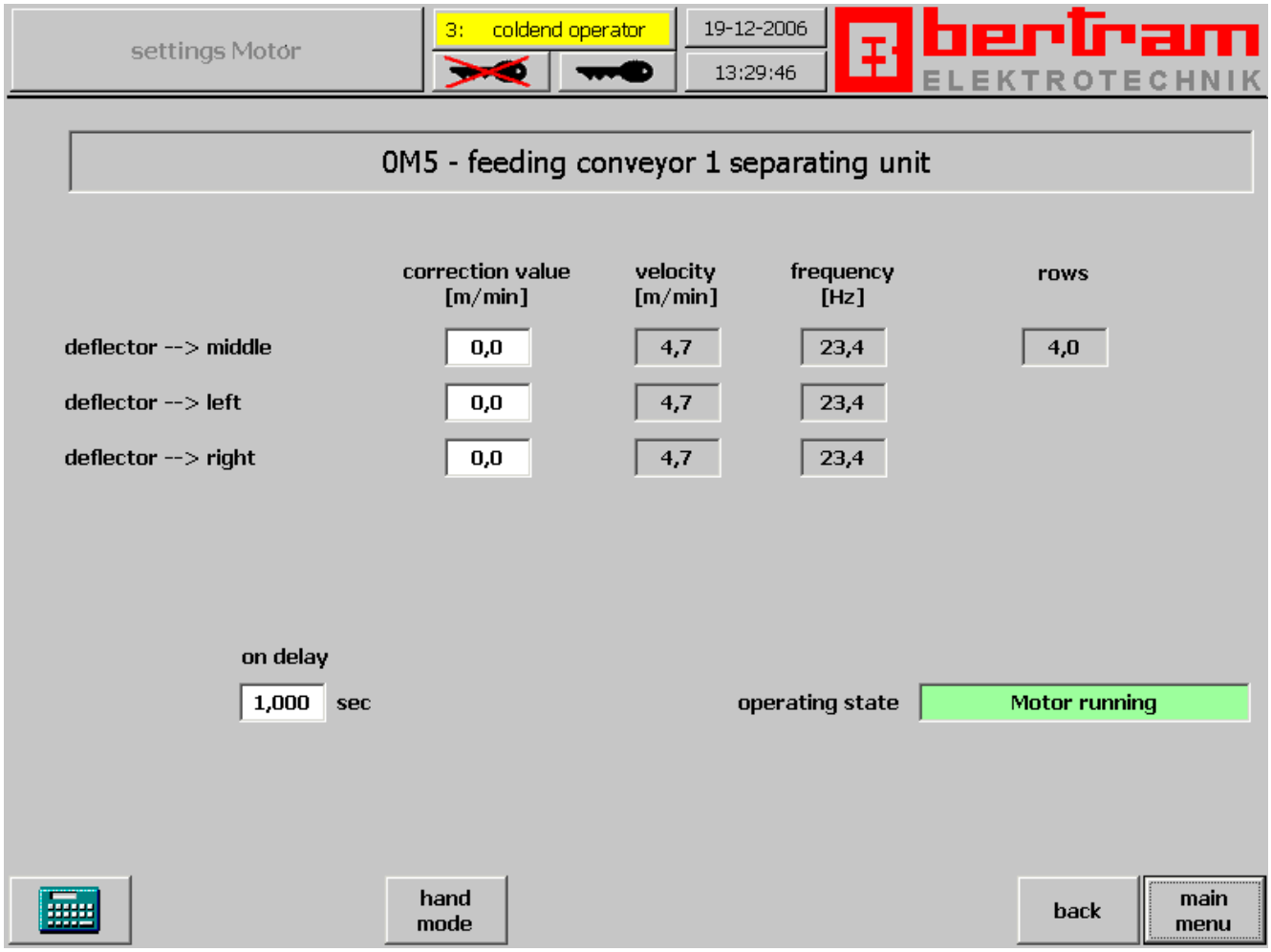


There are two different settings for jam detectors possible. Jam detectors mounted at conveyors or places where the container flow is **not** single, both delays are changeable. Jam detectors mounted at conveyors or places where the container flow **is** single only the switch-off delay is changeable, the switch-on delay is calculated. The switch-on delay is calculated in consideration of the conveyor speed where the jam detector is mounted and a ***distance for calculation***. If the distance is 400 mm, the switch-on delay of 0,808 sec is the time what the container need to pass this distance dependent of the conveyor speed where the light barrier is mounted.



After changes of ***distance for calculation*** the calculator button has to be pressed so that the complete sorting line will be new calculated.

5.5.3 Settings drives



Pressing a motor button, explained in the previous chapter, will display the speed and frequency setpoints of the selected drive. The drive identification is shown at the top of the screen consisting of Motor-No and designation. There are depending on the parameterization up to four speed setpoints available. Also is displayed the operating state of the motor in plaintext.

Depending on the band-type are additional different values displayed, like gap, rows, offset gap, start-up separating unit, finger, on-delay and off-delay.

Explanation input options:

correction value [m/min]	additional offset of the calculated velocity for each setpoint
gap [mm]	distance between the container for single-tracked conveyor
offset gap [mm]	offset container distance for elevator well as whose discharging conveyor. This is needed to protect against container collision inside the elevator.
rows	amount of container side by side for multi-tracked conveyor, changeable only at conveyor without calculated rows.
finger	number of fingers of a spacer wheel (used to calculate the wheel velocity)
factor start-up separating unit	multiplication factor of the normal velocity, used at start-up of the separating unit
on-delay [msec]	switch-on delay for conveyor start
off-delay [msec]	switch-off delay for conveyor stop

After entering new data, except on-delay and off-delay, the calculator button has to be pressed so that the complete sorting line will be new calculated.

5.5.3.1 Drives manual mode

For each drive, excluded the deflector, there is the possibility to select a hand mode for switching the motor manual ON and OFF.

If the hand mode is active, a flashing message will be displayed at most of the screens. The information what motor is in hand mode is displayed in the message box which is shown at the screen main menu and the screen alarm messages.

The last automatic condition will take over to the hand mode to ensure that a running motor won't switch OFF only by activating the hand mode.

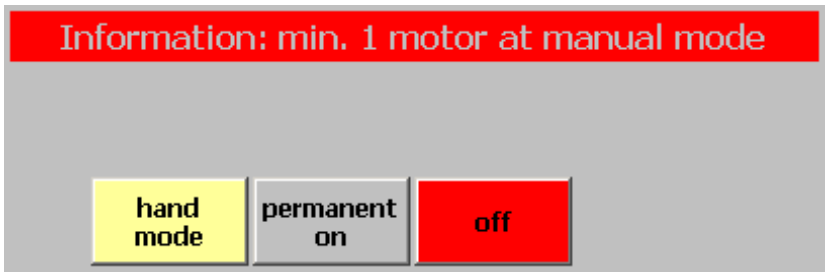
!!! In case of manual ON the enabling of the drive is unaccounted !!!

activate the hand mode

switch motor manual ON

switch motor manual OFF

Display detail: motor manual switched ON



Display detail: motor manual switched OFF

5.5.3.2 Drives 50Hz mode (user service)

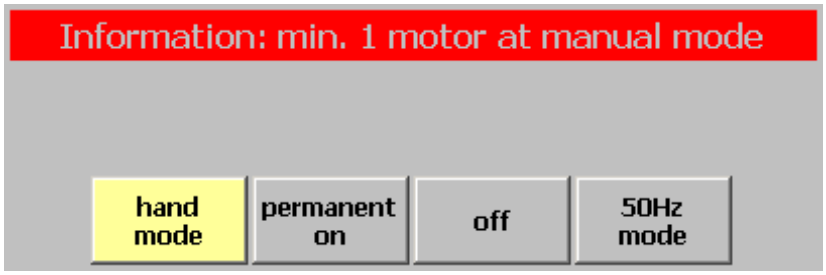
For each drive, excluded the deflector, there is the possibility to switch the 50Hz mode ON and OFF. Precondition is the manual mode for the motor is active.

If the 50Hz mode for a motor is active, a flashing message will be displayed at most of the screens. The information what motor is in 50Hz mode is displayed in the message box which is shown at the screen main menu and the screen alarm messages.

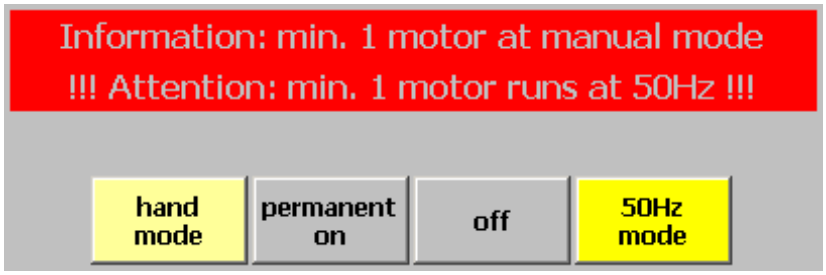
!!! In case of 50Hz mode ON the enabling of the drive is unaccounted !!!

activate the hand mode

switch 50Hz mode ON / OFF



Display detail: motor 50Hz mode switched OFF

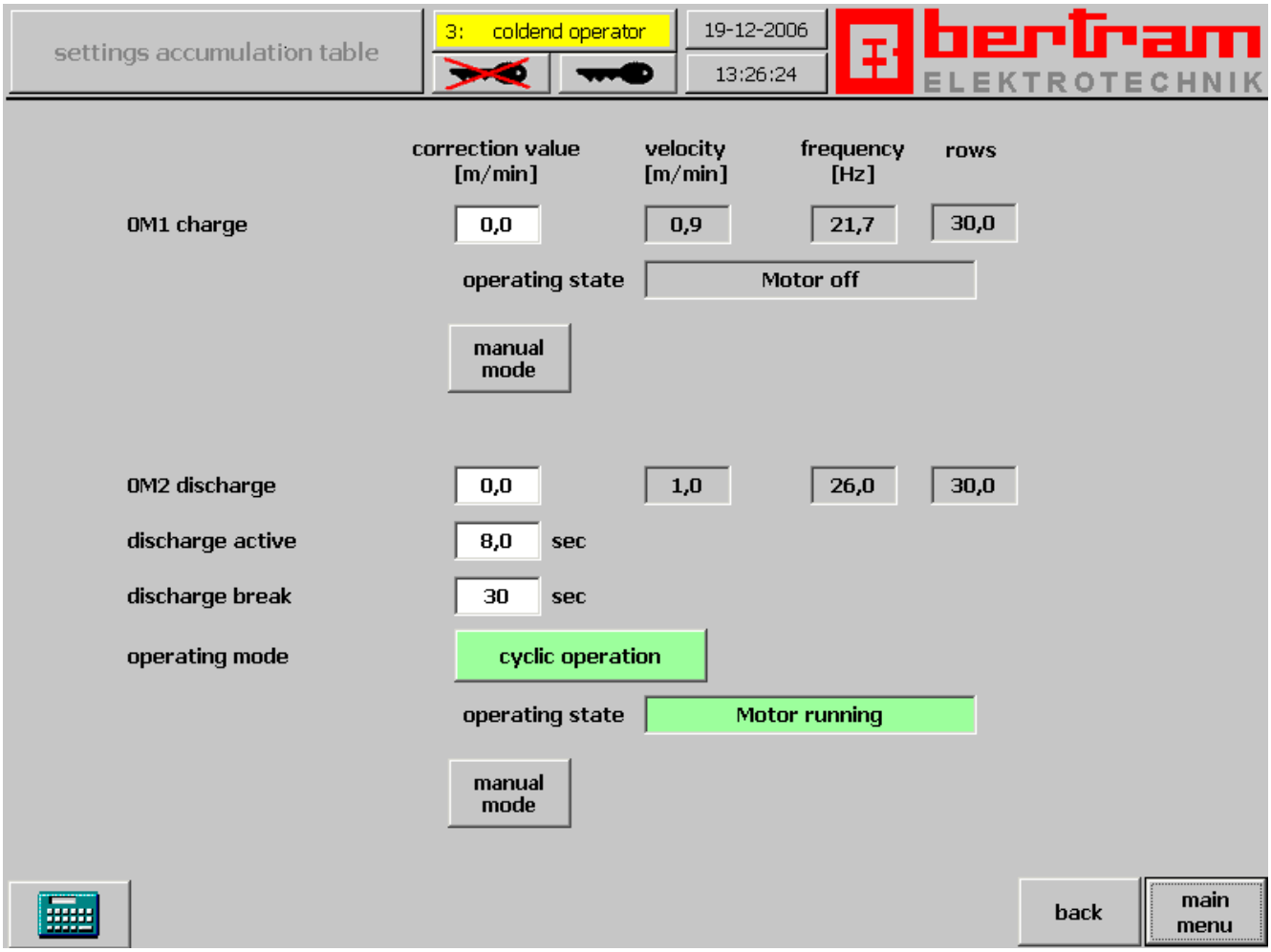


Display detail: motor 50Hz mode switched ON

How to use the measured value **velocity at 50Hz** see at chapter 5.6.1

!!! Never use this mode with container on the conveyor !!!

5.5.4 Accumulation table



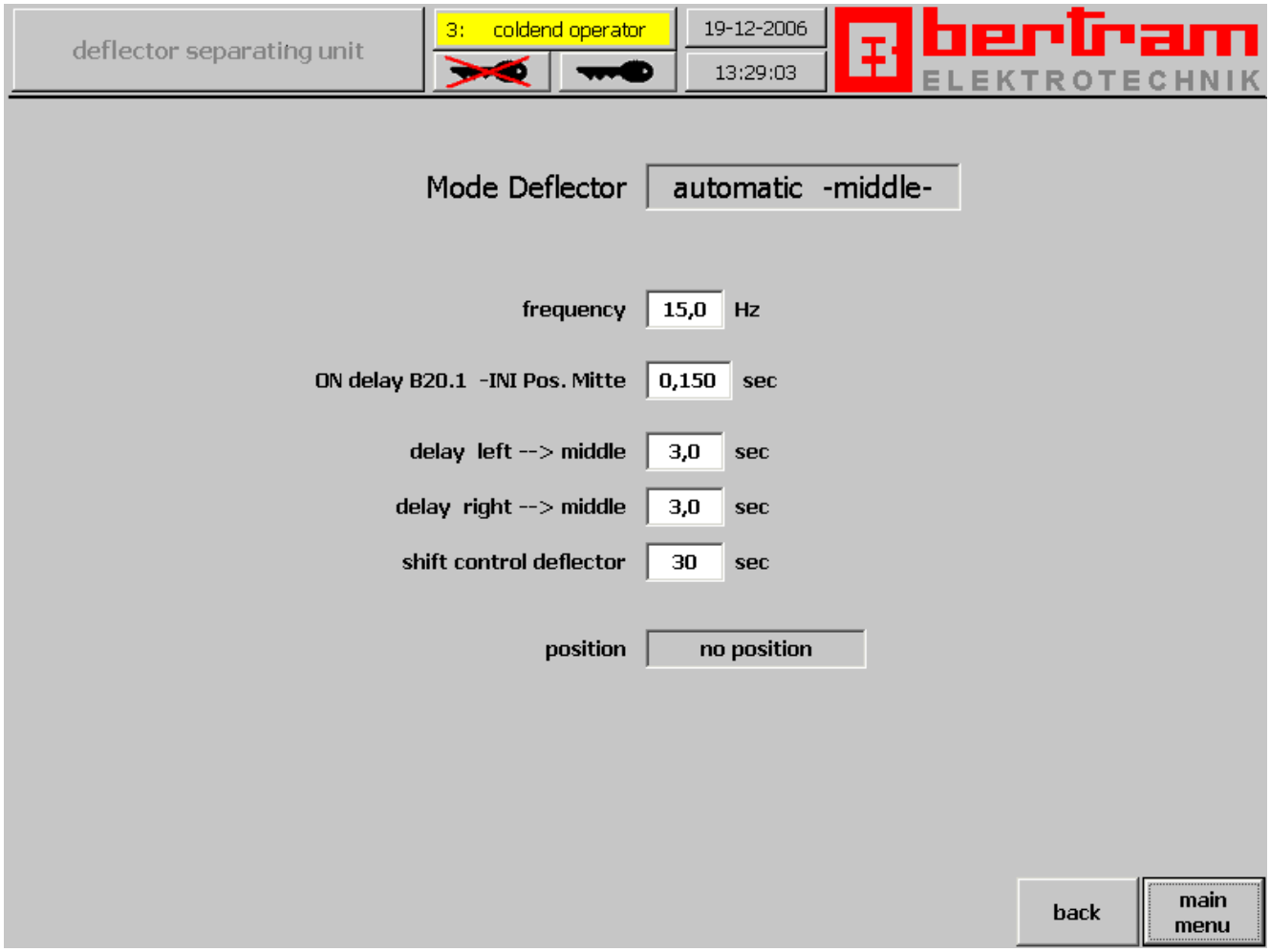
The accumulation table has two modes for clearing out (discharge), changeable by touching the button right of operating mode.

cyclic The table will be clocked against the times discharge active (motor ON) and discharge break (motor OFF)

continuous The table will be clearing out for the enabling duration

Touch this button after changes of correction values.

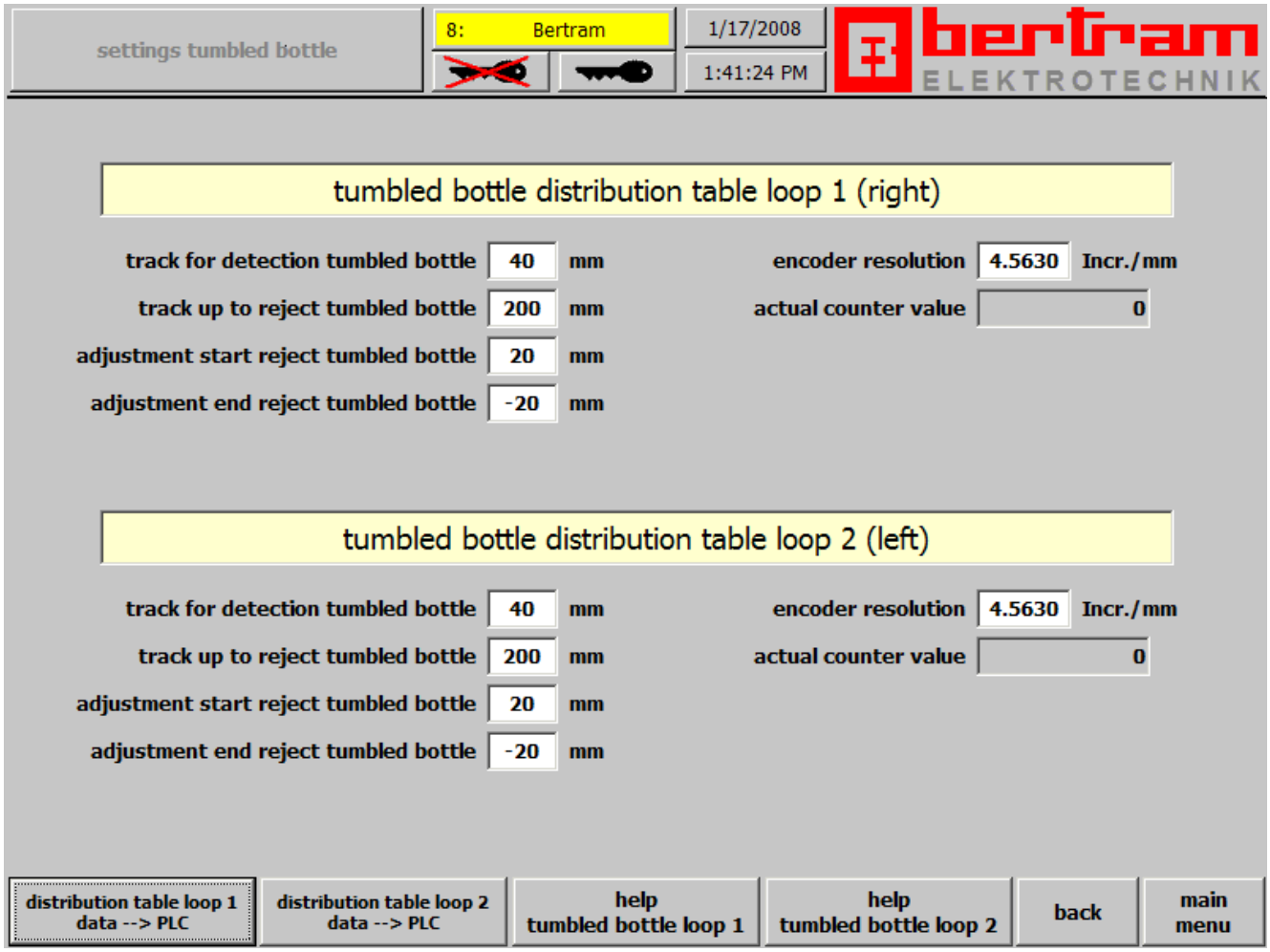
5.5.5 Deflector separating unit



The motor speed has to be entered in Hz because the motion of the deflector is a rotary motion.

For direct hitting the middle position from both directions the proximity switch middle has an adjustable on-delay. The delay left → to middle and delay right → middle are waiting times to avoid against unnecessary motor activity. The shift control is a monitoring time for the panning of the deflector.

5.5.6 Tumbled bottle



At the separating unit there is equipment to detect and reject laying bottles and fragments of bottles which consists of two light barriers, mounted one upon the other, air nozzle and an encoder mounted at the conveyor.

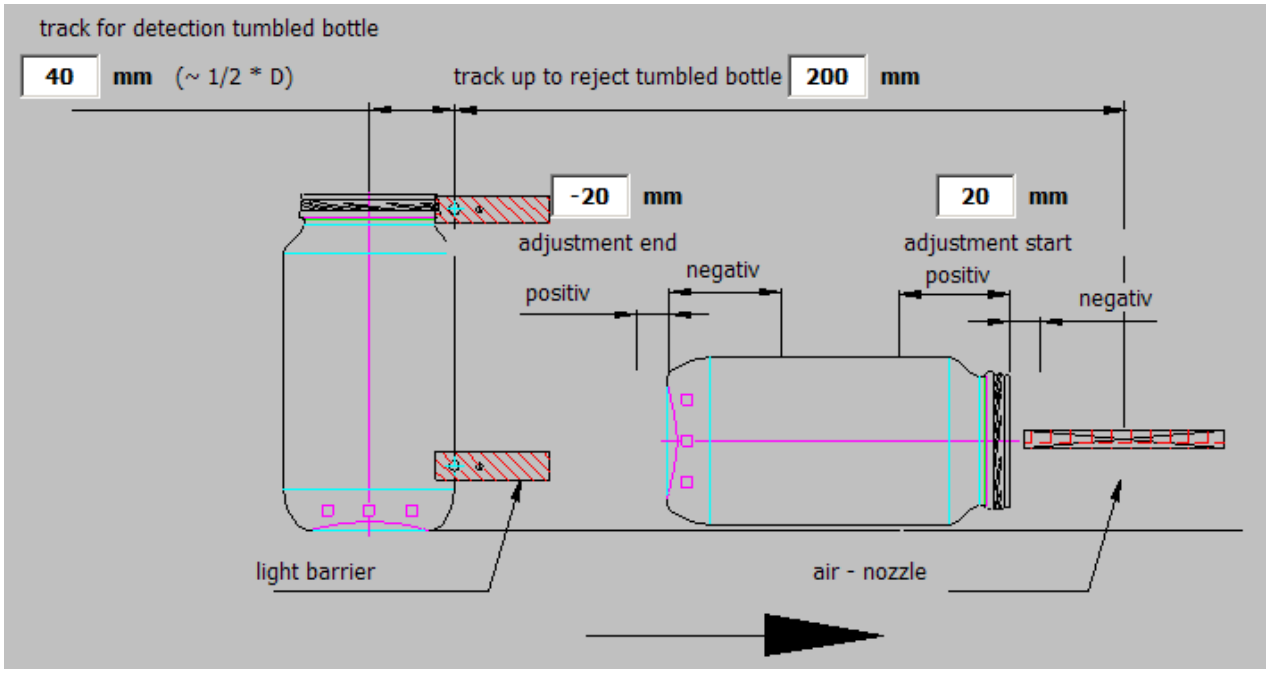
A laying bottle or a fragment is detected when the lower light barrier is shaded and the upper light barrier is free for the distance **track for detection tumbled bottle**. As from now the length of the laying bottle is measured and the signal “tumbled bottle” will be transported to the air nozzle by using the encoder signals. The rejector (air nozzle) is activated for the measured length of the laying bottle, start and stop for blowing is adjustable in plus or minus direction.

The value “encoder resolution” is for convert the distance inputs [mm] to increments with which the PLC works. This value only has to be changed if there is not a 500-pulse encoder mounted. (user service)

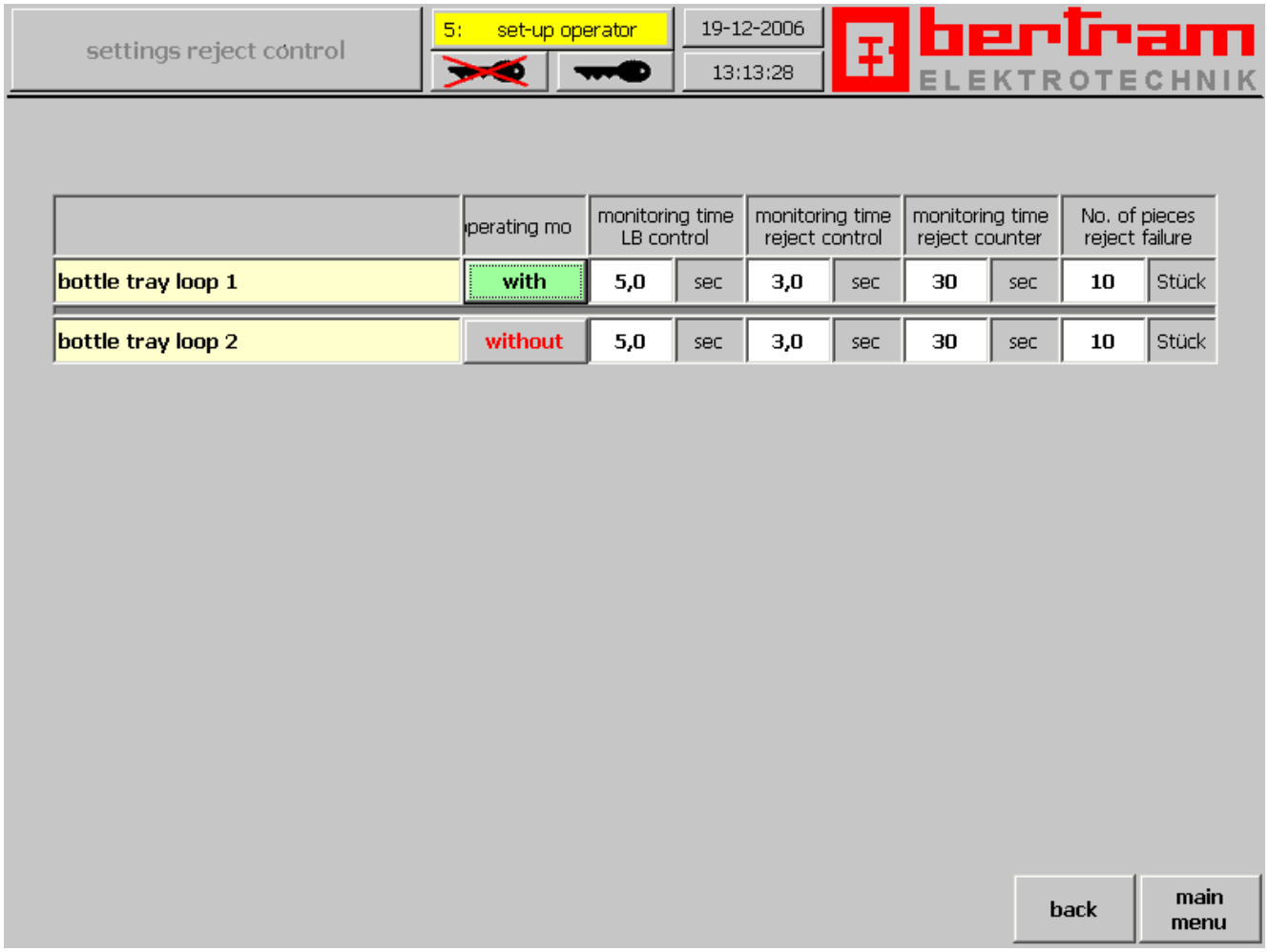
The output field **actual counter value** is to control encoder and PLC-counter-module for right condition. If everything is all right and the conveyor is running the displayed value changes each second (count up).

Any changes at this screen require pressing the accordant button **“data --> PLC”**.

The screens “help tumbled bottle” containing a drawing with the relevant remarks of setting values, the important detail is shown below.



5.5.7 Reject control



operating mode

For each bottle tray the operating mode can select between **enabled** and **disabled** by touching the button. If **no control** is selected the other settings are irrelevant.

monitoring time LB control

Time to control the light barrier against fouling, misalignment, destructed reflector and blocking with bottles.

monitoring time reject control

Time within a rejected bottle has to pass the light barrier. If the light barrier detects no rejected bottle after this monitoring time an error message will be triggered.

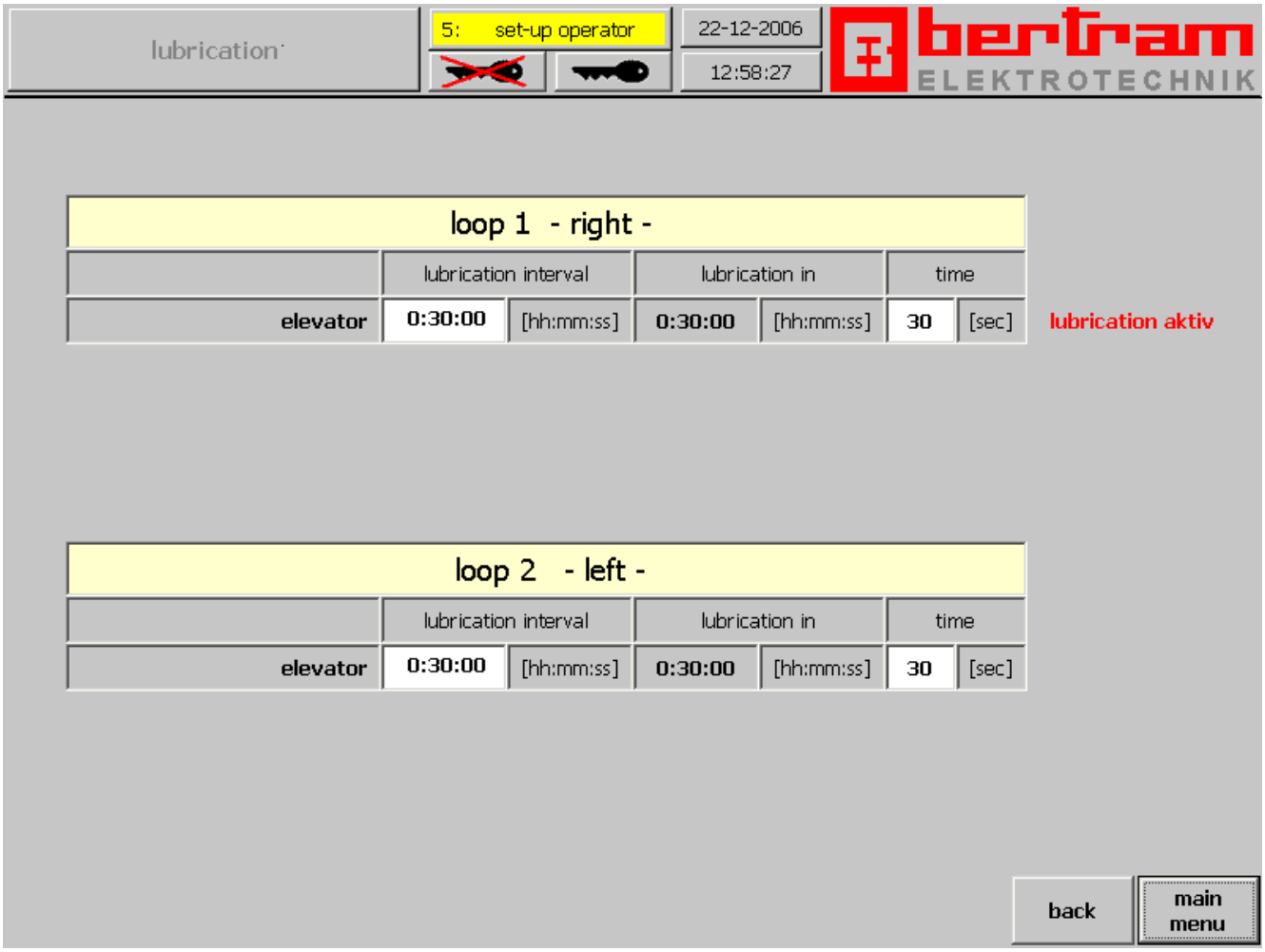
monitoring time reject counter

Time slice (interval) for the reject counter.

No. of pieces reject failure

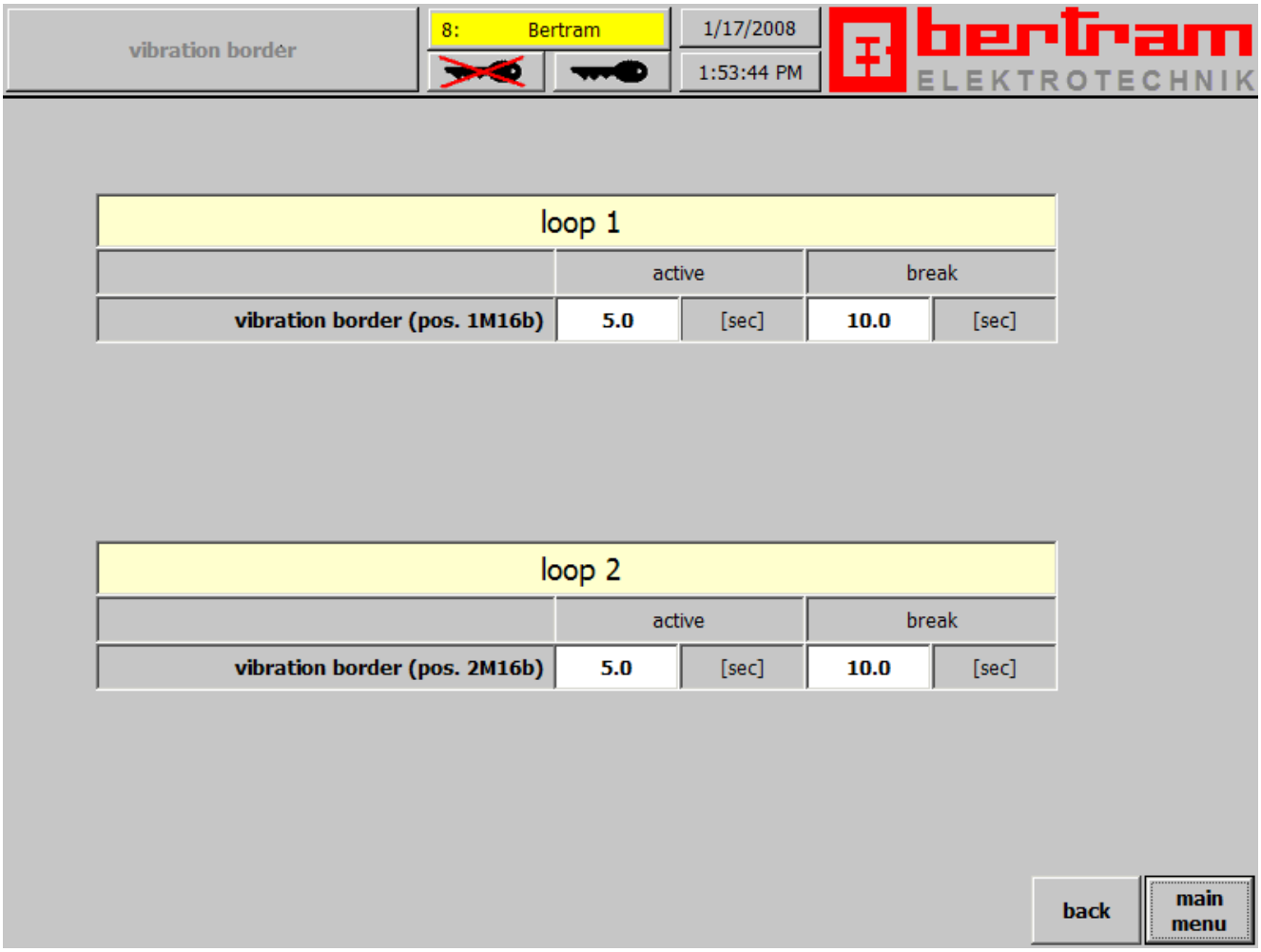
Amount of bottles that can pass the light barrier within the time slice without triggering an error message.

5.5.8 Lubrication elevator



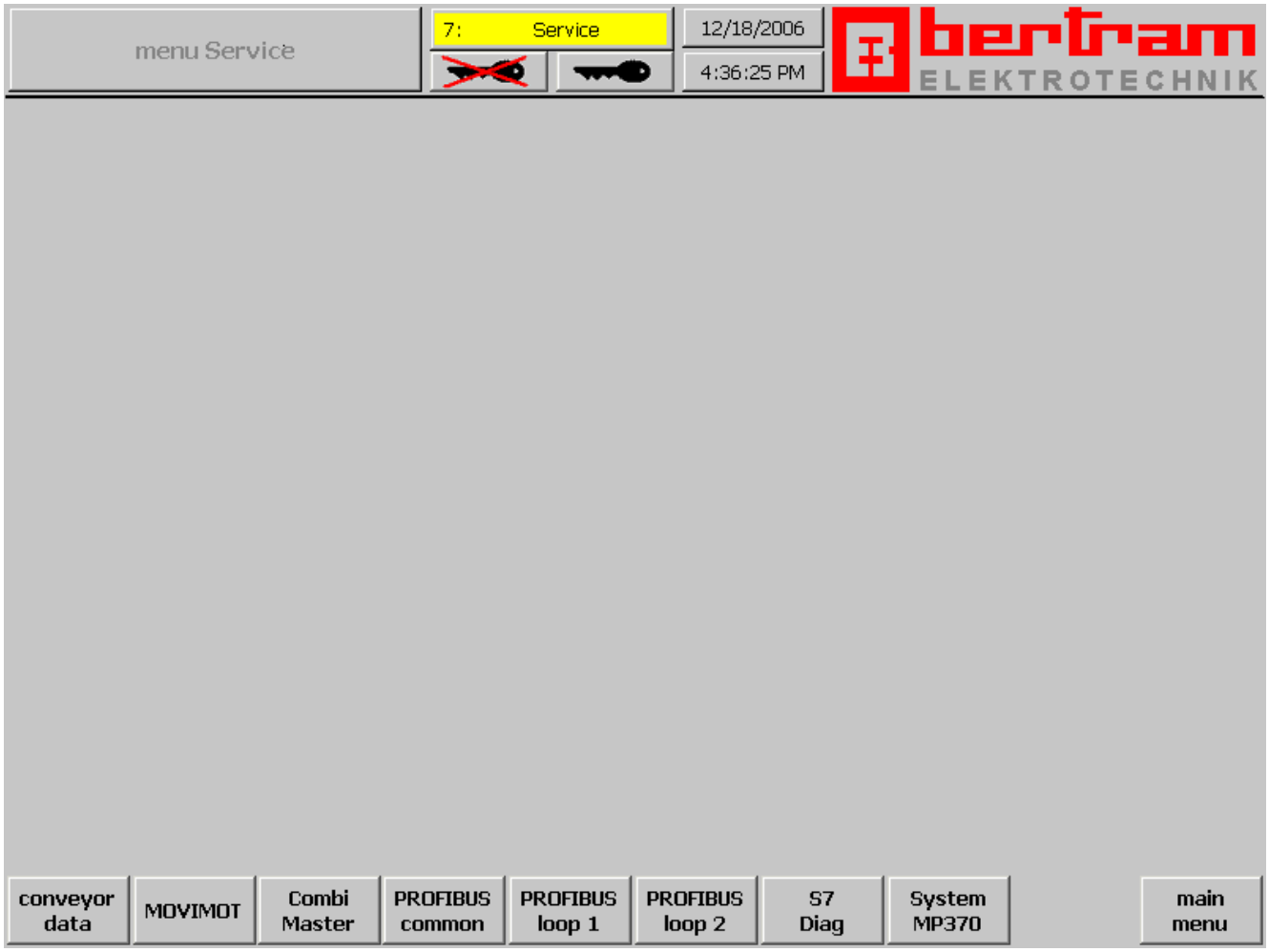
Elevators are equipped with a lubrication unit which is controlled by an adjustable time interval. This time countdown only when the elevator is running. If the elevator stopped the time also stopped. The residual term is displayed at the column ***lubrication in***. If 0:00:00 is reached, the lubrication starts for the amount of seconds what is displayed at the column ***time***. The lubrication interval time-format is hh:mm:ss. A lubrication activity is displayed with the message lubrication aktiv

5.5.9 Vibration border



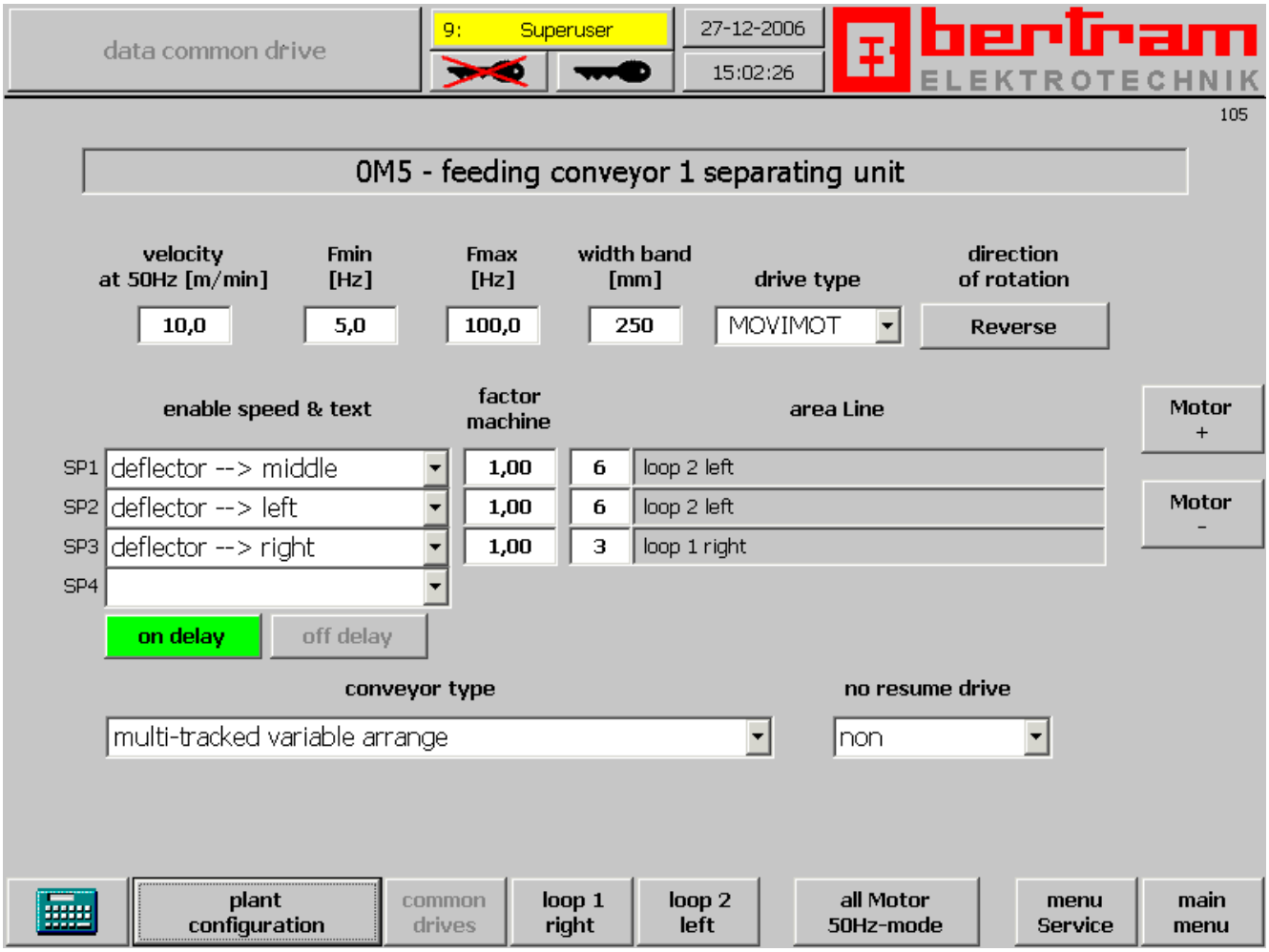
The vibration border is controlled by the time intervals ***active*** and ***break***.

5.6 Service



From the menu service the user has access to the conveyor setup, plant configuration, state and diagnostics of SEW MOVIMOT and CombiMaster, Profibus diagnostics, diagnosis buffer of the PLC and the MP370 system features.

5.6.1 Conveyor data



velocity at 50Hz [m/min] **password level 7**

This value is needed to convert the calculated velocity in m/min to the frequency converter set point in Hz. This value has to be measured with a speedometer when the conveyor runs with a frequency of 50Hz.

frequency fmin and fmax **password level 7**

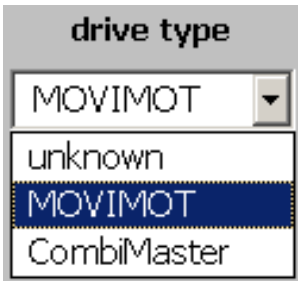
Limit values for the frequency set point of the frequency converter. An error message will be generated if the frequency set point is lower fmin or higher fmax.

width band [mm] **password level 7**

This value is needed to calculate the number of rows (bottles side by side) on conveyors with two or more tracks.

Drive type **password level 9**

For a correct speed calculation the PLC needs the information what kind of frequency converter controls the motor. To adjust the type, touch the field and select the type of frequency converter.



If unknown is selected, no calculation for this drive will be done.

direction of rotation **password level 8**

To adjust the direction of rotation of the motor to the transfer direction of the conveyor, the operator can change it without using a programming device.

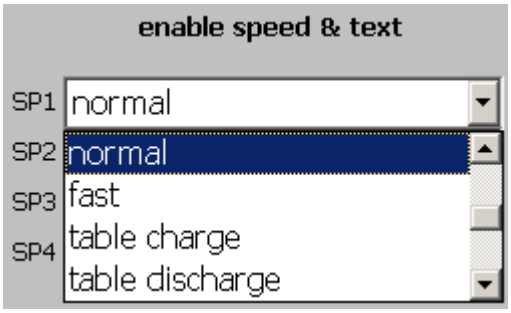
touch this button to change direction of rotation

drive with changed direction of rotation

<u>Caution:</u> **Incorrect adjustment can damage the conveyor !!!**

enable speed & text **password level 9**

To display the speed level description and the input/output fields for correction value, velocity and frequency at the screen setting drives, here can select the adequate text. For each speed level the operator can select a text.



Notice: **Speed level 2 – 4 will be enabled if the combo box of the accordant speed level is not blank.**

factor machine **password level 7**

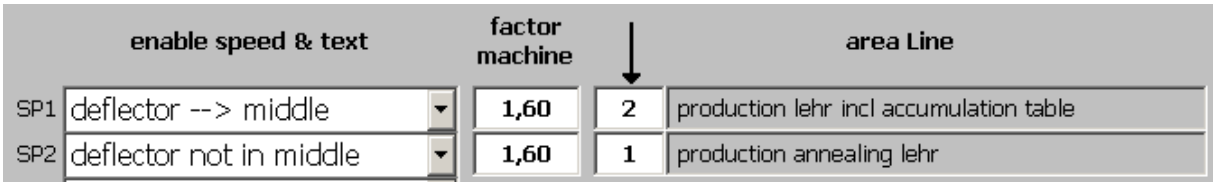
Factor for velocity adaptation, normally set to 1.0 except conveyors like single liner, accumulation table, feed separating unit and separating unit. Herewith the velocity calculation will be fitted to the mechanical configuration.

Notice: **Deflector separating unit, factor machine = 0.0 !!**

area Line **password level 7**

Allocate the drive to a part (area) of the plant for each speed level. This designation is used for proper velocity calculation of the drive. This allocation refers to the value BPM (bottle per minute) of the selected area.

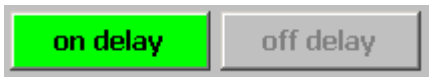
When the value for the area is entered, the text field right of the input box displays the description of the area.



on delay / off delay **password level 9**

To display the delay description and the input field for the time value at the screen setting drives, here can select the adequate delay.

no delay



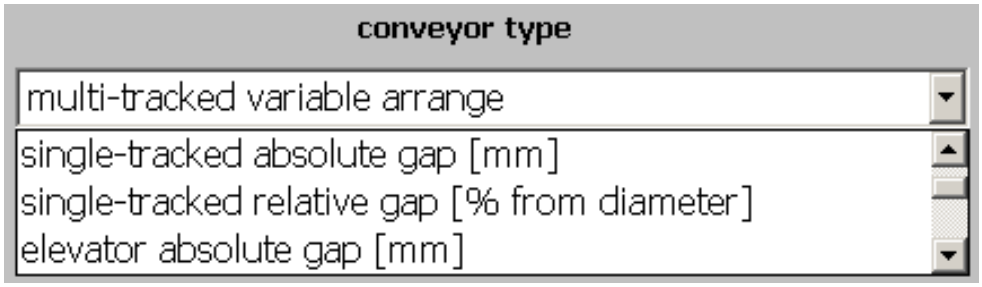
on delay selected

conveyor type **password level 9**

To select the mode of calculation, here the operator can select the conveyor type.

Following conveyor types are selectable:

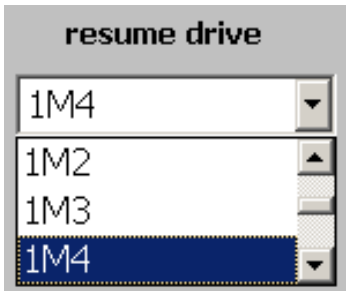
- single-tracked absolute gap [mm]
  Normal transportation conveyor like discharge separating unit, feed inspection loop, discharge inspection loop, feed stacker.
- single-tracked relative gap [% of bottle diameter] not used at the time
- elevator absolute gap [mm]
  Elevator as well as whose discharging conveyor, conveyor inside the inspection loop with one conveyor selected as **master conveyor** for the loop.
- elevator relative gap [% of bottle diameter] not used at the time
- multi-tracked fix arrange
  Conveyor MAG table
- multi-tracked variable arrange
  Accumulation table, single liner, feed separating unit
- separating unit double-line
  Conveyor separating unit
- spacer with finger
  Infeed wheel inspection loop



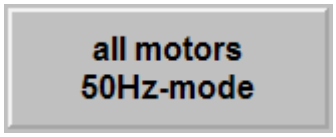
If unknown is selected, no calculation for this drive will be done.

resume drive **password level 9**

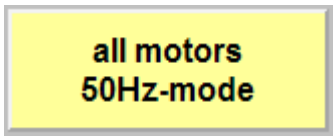
If the conveyor type is elevator absolute/relative gap or separating unit double-line, here the resume drive has to be selected. The calculation for this conveyor types builds up to the calculation of the resume drive.



At the screens data common drives, data drives loop 1 and data drives loop 2 is it possible to switch the 50Hz-mode **for all motors** ON and OFF.



press to switch ON the 50Hz-mode for all motors



press to switch OFF the 50Hz-mode for all motors

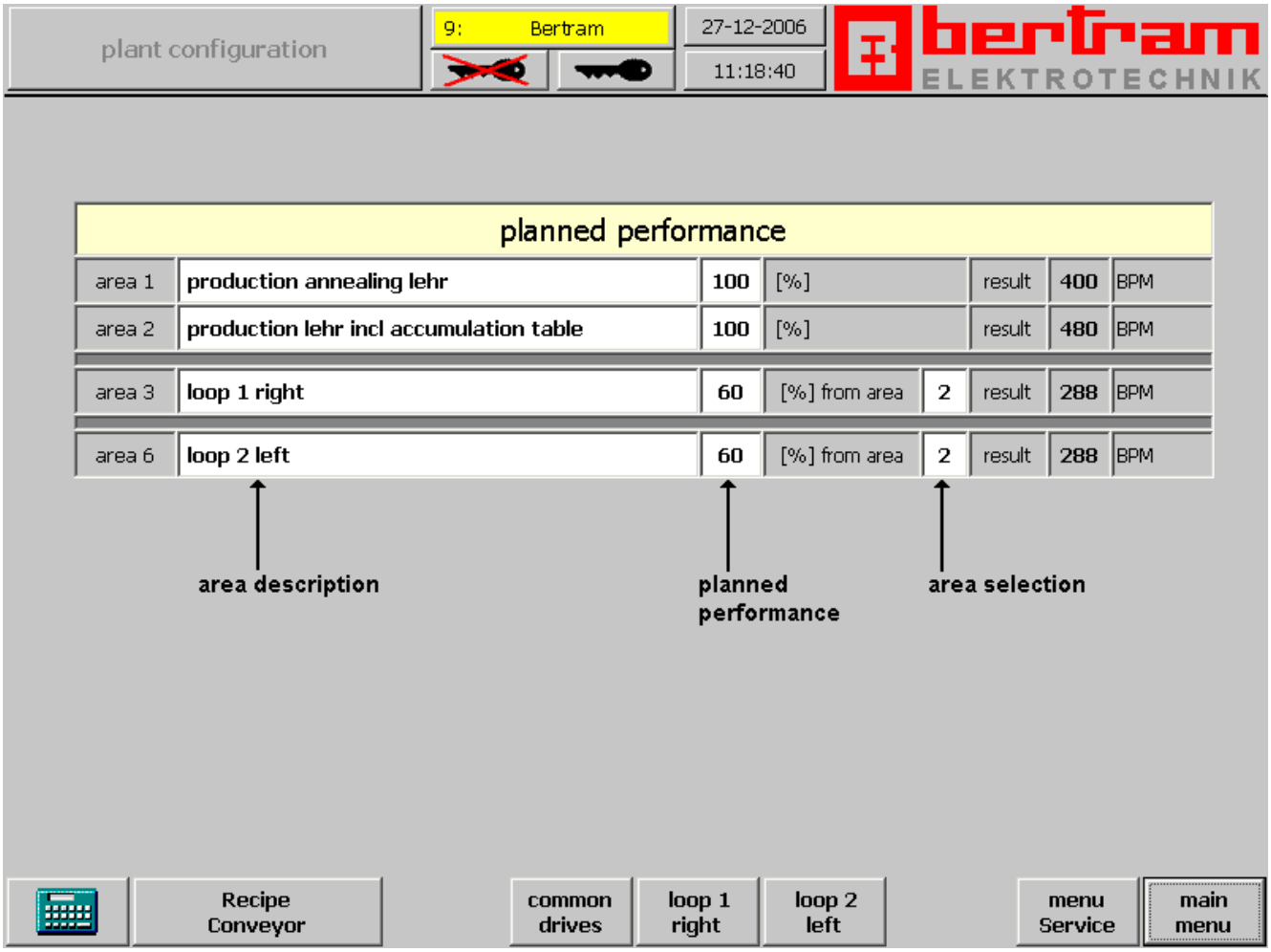
Attention: When the motors are running in the 50Hz-mode all locking and enabling for this motor is switched Off.

!!! Never use this mode with containers on the line !!!

Notice: This special mode is necessary to find out the conveyor speed [m/min] when the motor runs with a frequency of 50Hz. This with a speedometer measured value is needed to convert the conveyor velocity [m/min] into the frequency converter set-point [Hz].

Notice: **Any changes at the screens conveyor data, except on-/off-delay and direction of rotation, needs to press the calculator button.**

5.6.2 Plant configuration



area description **password level 8**

Name of the area max. 40 characters. This description will be displayed at some other screens like conveyor data and article data.

planned performance **password level 7**

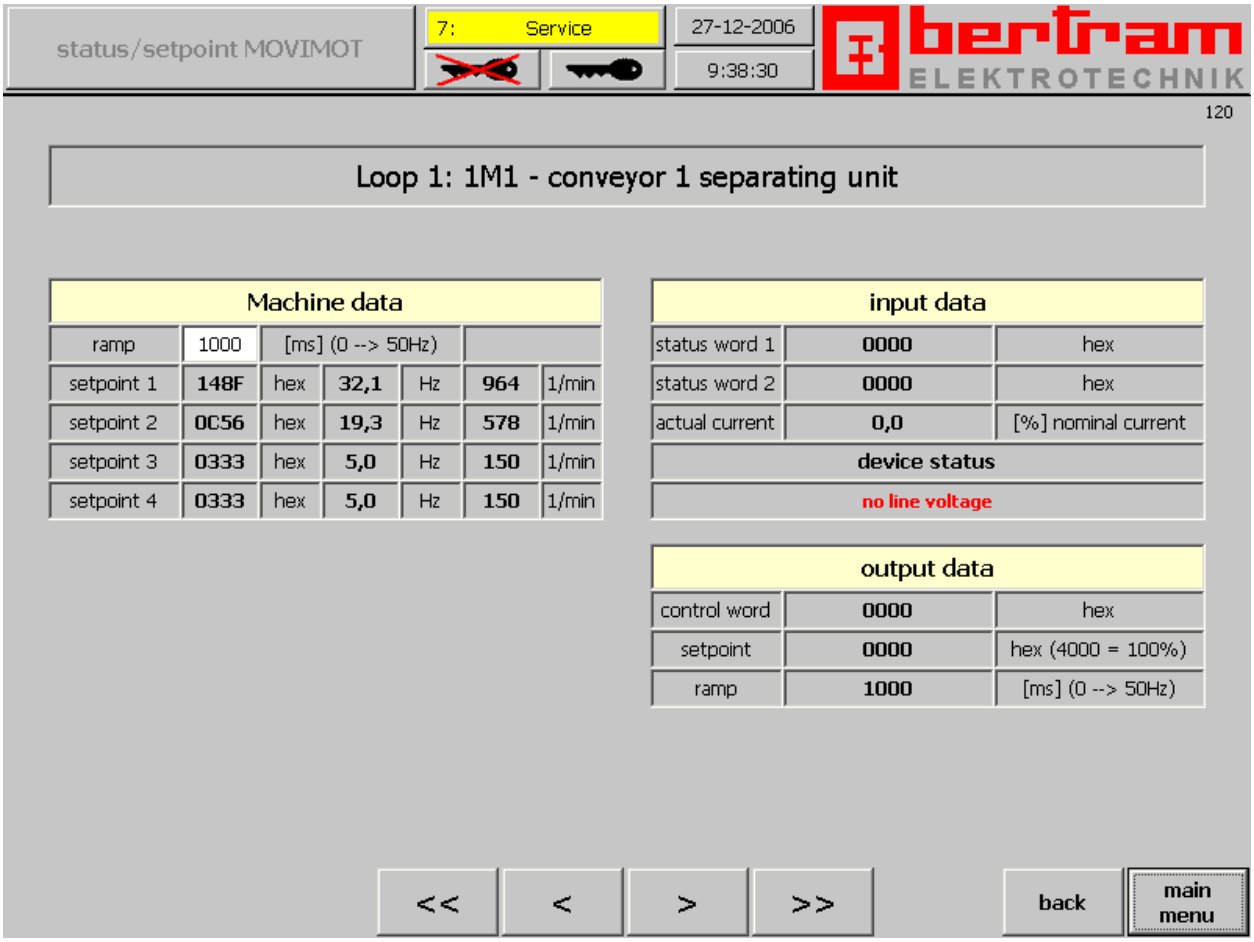
Percentage value from capacity lehr (area 1), capacity lehr + offset accumulation table (area 2) entered at the screen article data.

area selection **password level 9**

Area selection for planned performance of area 3 and area 6.

Notice: **Any changes at this screen needs to touch the calculator button.**

5.6.3 SEW MOVIMOT



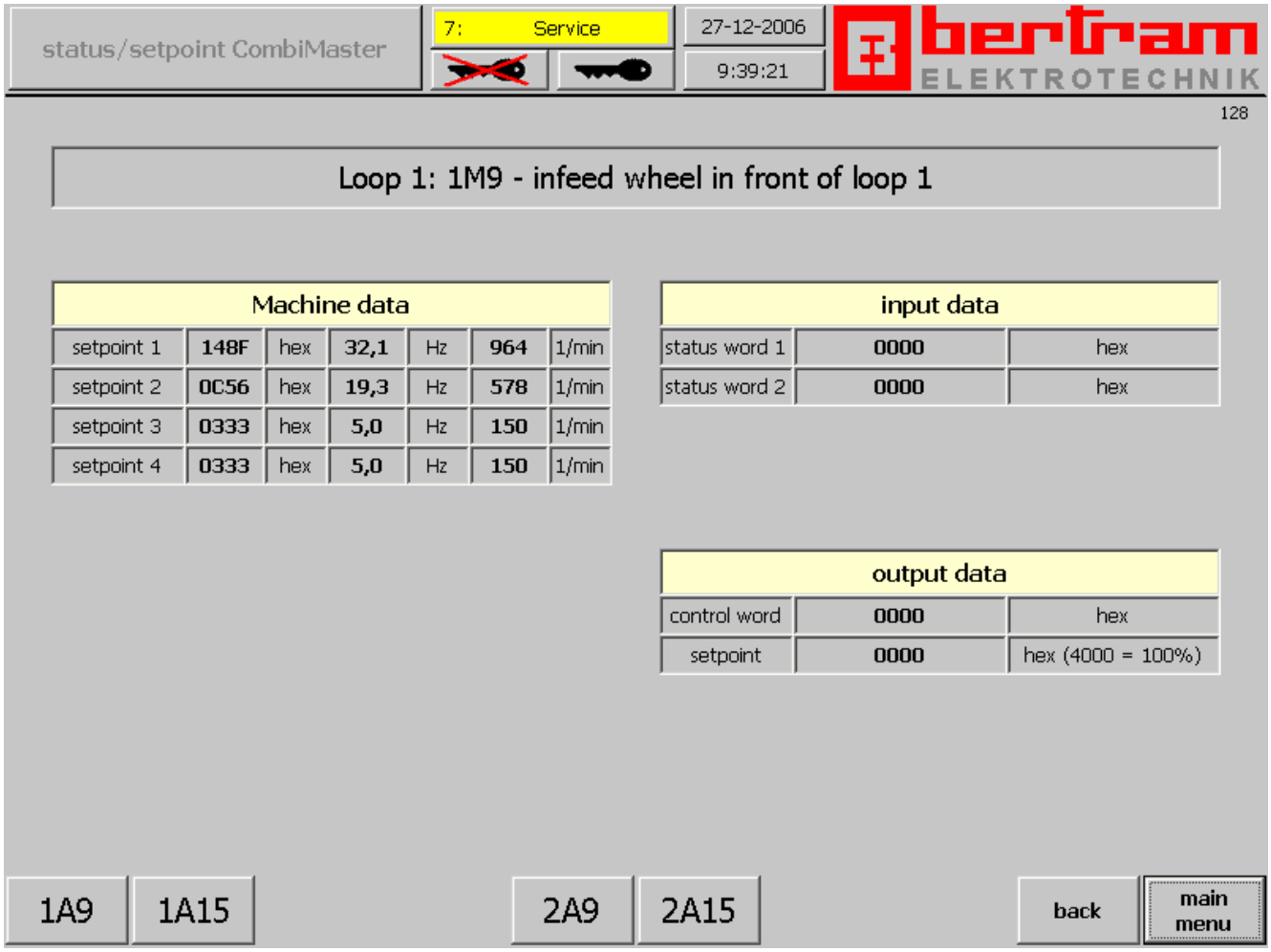
Machine data ramp time in msec relating to 0 – 50 Hz password level 7
(There is only one value for ramp up and ramp down)
setpoints for 4 speed level in 3 different display forms

Input data status word 1, status word 2, actual current in % of the nominal current, device status

Output data control word, setpoint, ramp time

This screen is helpful to get a lot of information about the MOVIMOT state without using a programming device.

5.6.4 CombiMaster



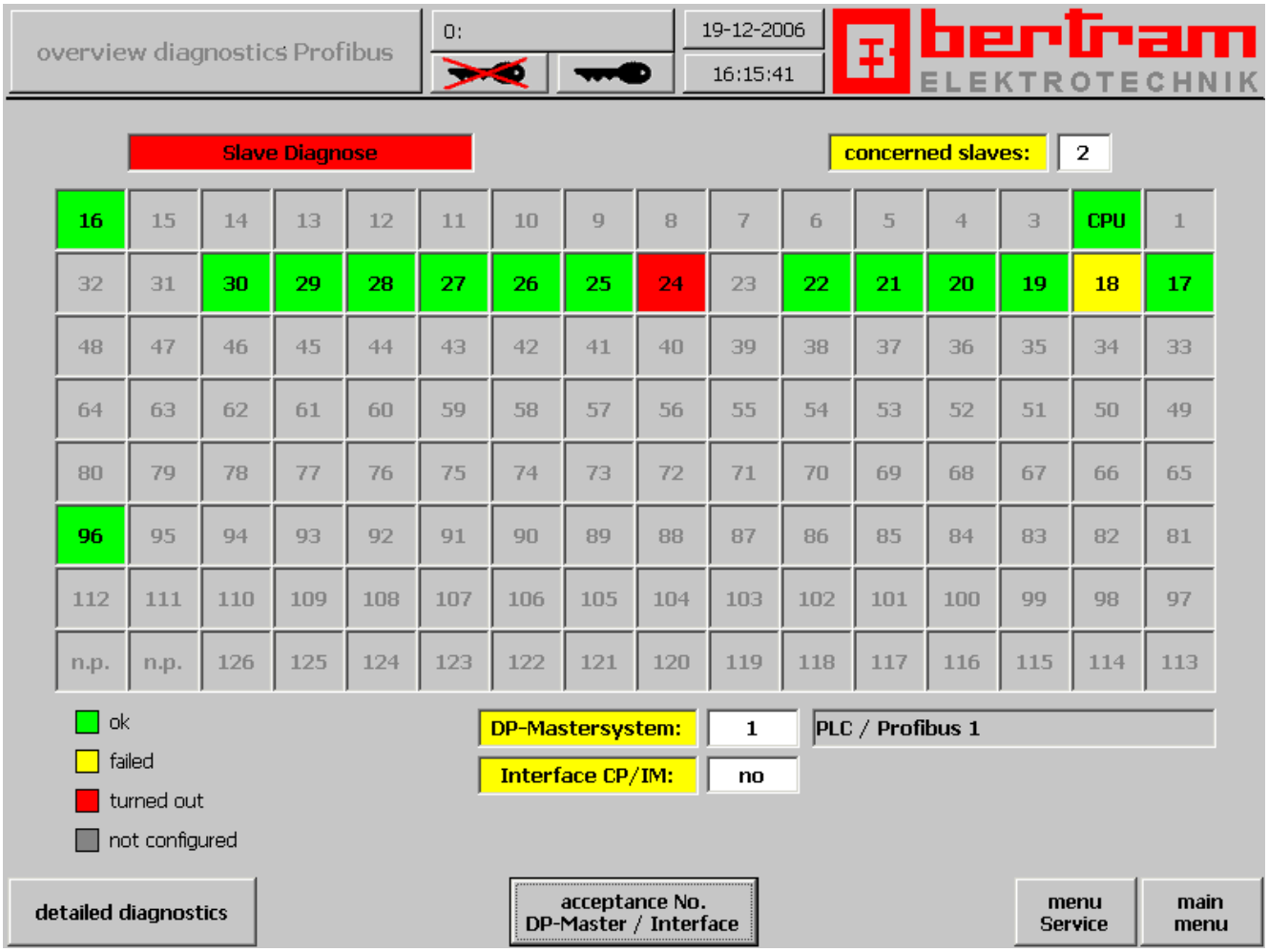
Machine data setpoints for 4 speed level in 3 different display forms

Input data status word 1, status word 2

Output data control word, setpoint

This screen is helpful to get a lot of information about the CombiMaster state without using a programming device.

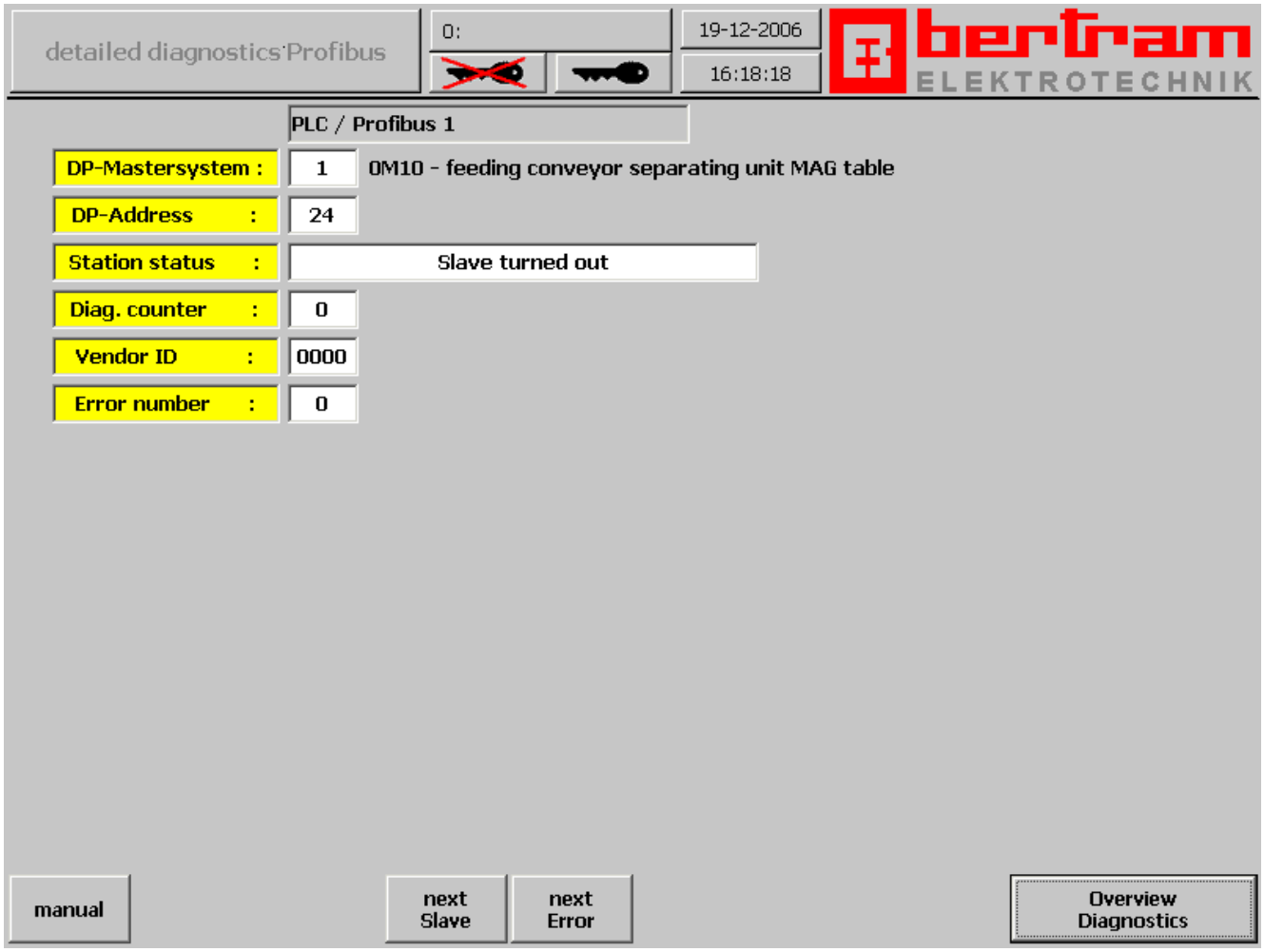
5.6.5 Profibus diagnostics



Screen PROFIBUS overview diagnostics

In the Profibus diagnostics overview faulty Profibus participants will be signalized by color change from green to yellow or red.

The button **“acceptance No. DP-Master / Interface”** is used for refreshing the screen. The screen detailed diagnostics is selected by touching the button **“detailed diagnostics”**.



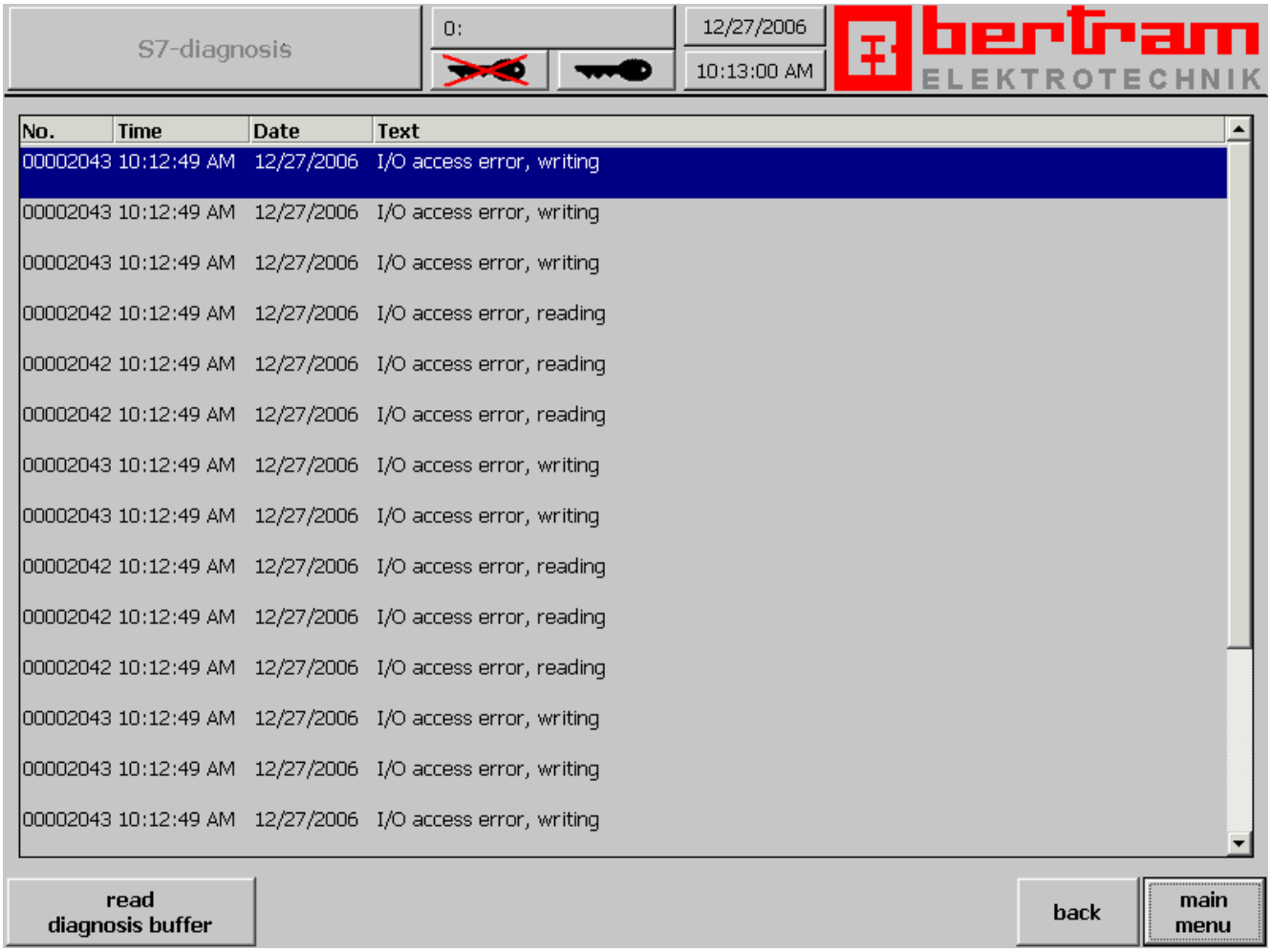
Screen PROFIBUS detailed diagnostics

The operator cans readout additional notification about the failed or turned out slaves.

If there are two or more slaves failed or turned out the operator can switch to the next slave with the button **“next slave”**.

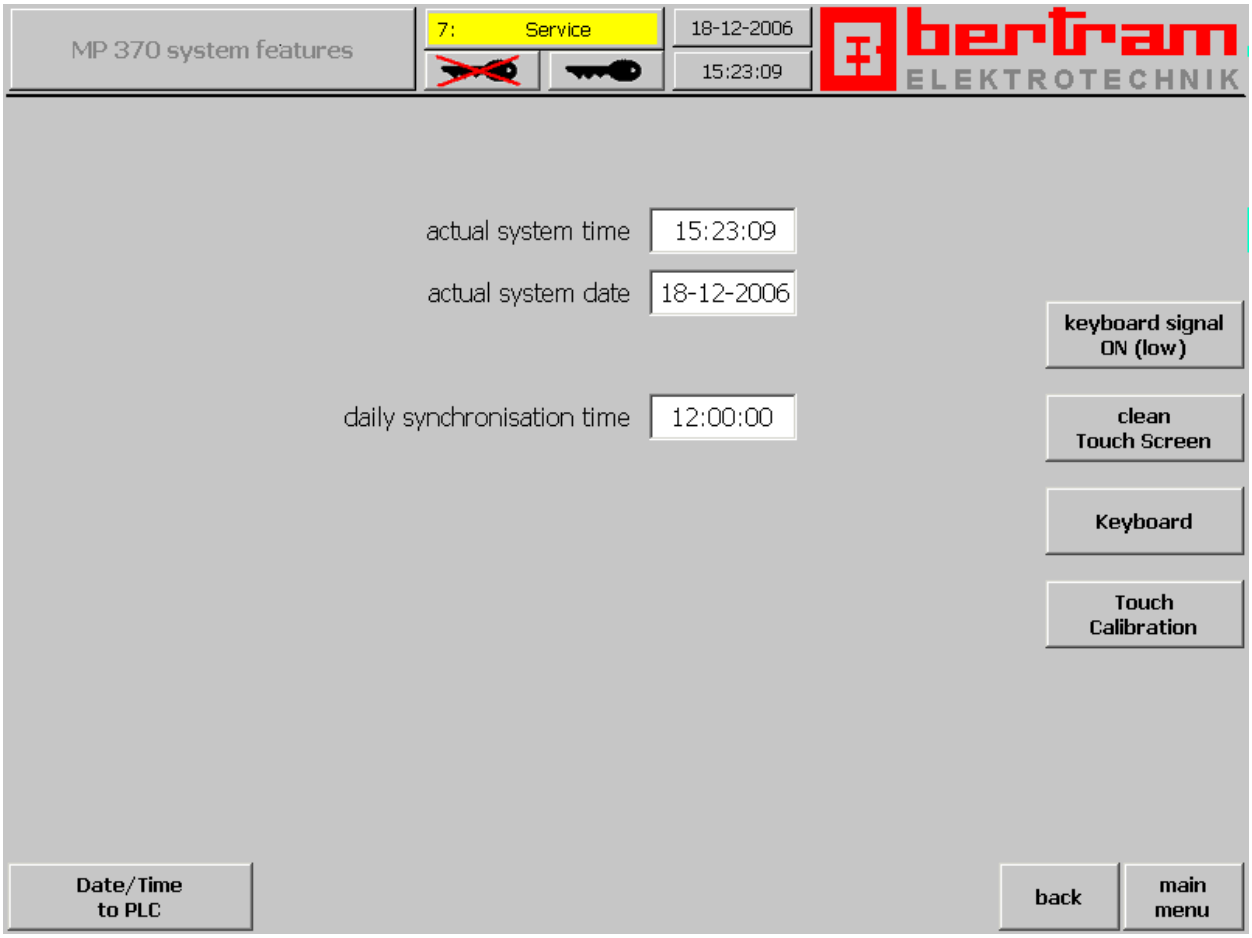
If there are two or more failures at a slave the operator can switch to the next error with the button **“next error”**.

5.6.6 S7 diagnosis buffer



The diagnostics buffer of the PLC can be read without connecting a PG or computer to the PLC.

5.6.5 MP370 system features



actual system time and date

System time and date, which are displayed at the top of the screens. In case of changes time and date can be transferred to the PLC by pressing the button **"Date/Time to PLC"**.

daily synchronisation time

At this time set point the system time and date of MP 370 and PLC will be synchronised.

Keyboard signal On/Off

The acoustic keyboard signal (beep) can be switched On or Off by touching this button.

Clean Touch screen

When the Touch Screen is contaminated with dust, finger prints etc. it can be cleaned after touching this button. The operator has to follow the instructions which are displayed.

Touch Calibration

The Touch Screen can be recalibrated. The operator has to follow the instructions which are displayed.

6. Password

To operate the MP in some cases a password is required, a maximum of 10 different levels is possible.

Password properties:

- min. 4 max. 8 characters
- alphanumeric upper and lower case, no special characters
- automatic logout after 15 minutes

Password level:

Level 0-2 : no changes possible

Level 3 : motor settings and settings jam detector

Level 5 : article data, recipe article data, drives manual operation

Level 7 : conveyor data, recipe conveyor data, drives 50Hz mode
plant configuration (% values)

Level 8 : recipes export/import, drives direction of rotation,
area designation plant configuration

Level 9 : drives band type, resume drive and enabling speed,
resume area plant configuration

6.1 Password – Login, Logout –

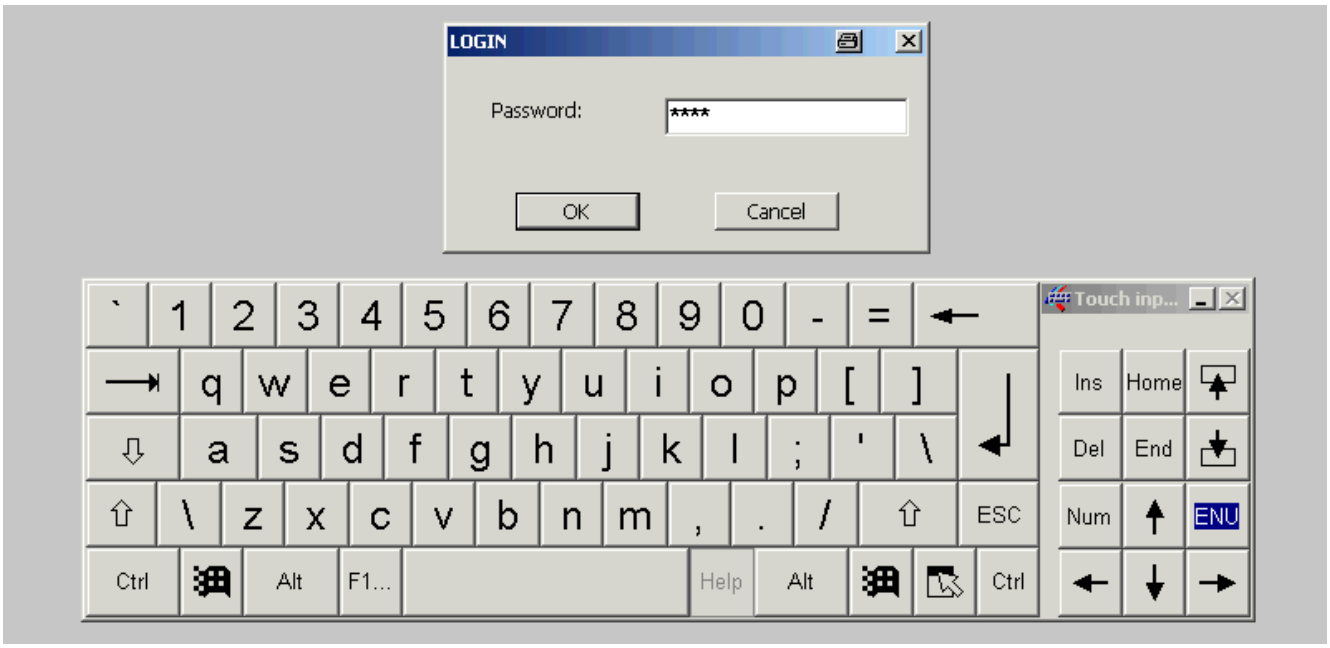
At each screen there's the possibility to enter a password, the actual password and the user-name is also displayed.

no password active

password active

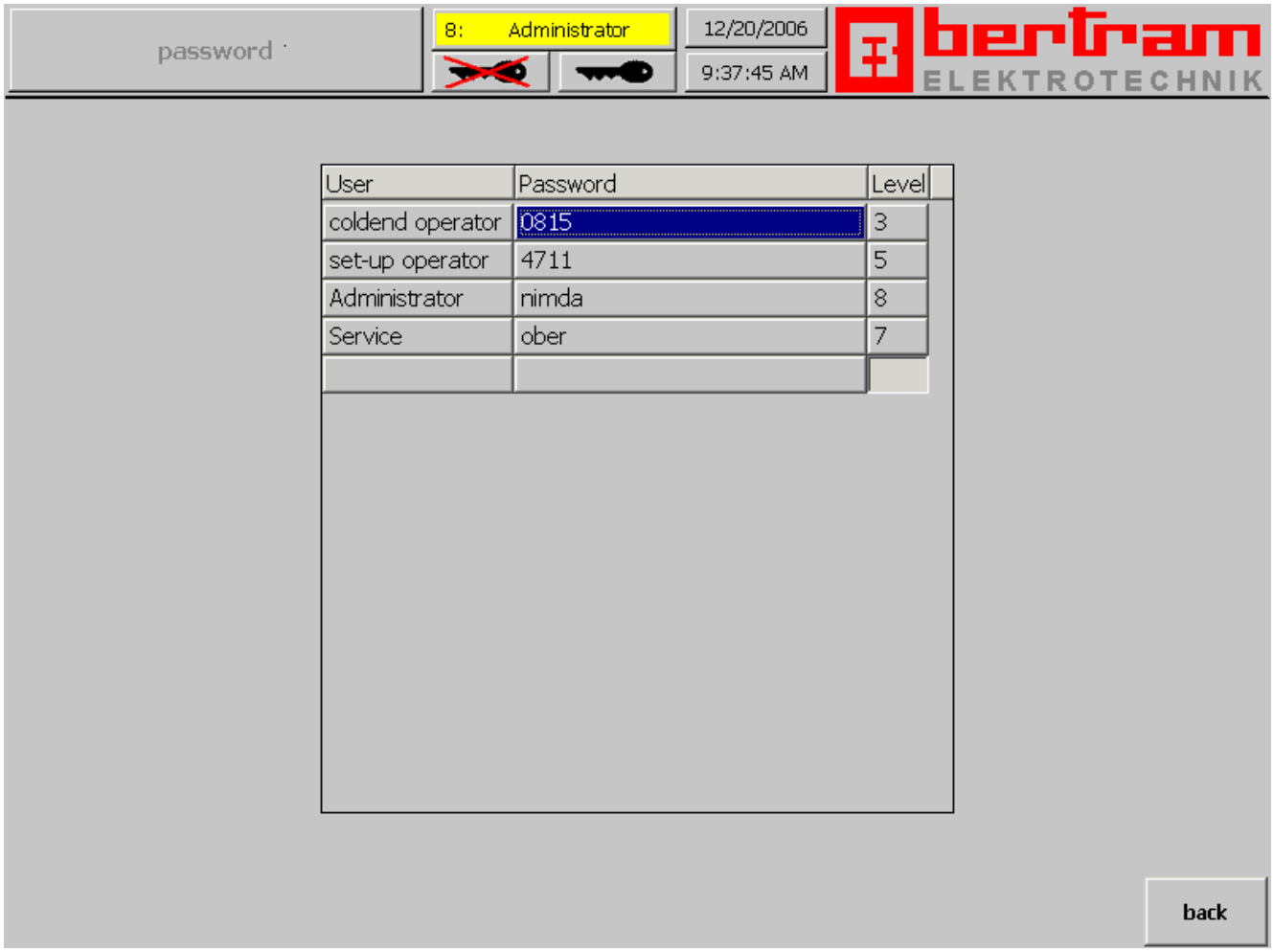
button password login

button password logout



Touching the login button the login box and the keyboard is displayed. Enter the password, take notice for upper and lower case, and then press ENTER (keyboard) or OK (LOGIN box). If a correct password is entered a system message is displayed.

6.2 Password – create, change, delete –



The screen **password** is selected by touching the button password at the screen **Info**. This button is visible and operated with password level 7 or higher. Displayed are only users up the active password level, e.g. level 7 users with level 8 and 9 are not displayed. Only users with the same or lower level may be created, changed or deleted.

Create user:

- Touch the empty field in the column User — enter the user name
- Touch the field Password in the same row — enter the password
- Touch the field Level in the same row — enter the level

Change user, password or level:

- Touch the corresponding field — change the entry

Delete user:

- Touch the corresponding field in column User — delete the entry
- Touch the corresponding field in column Password — delete the entry
- Touch the corresponding field in column Level — delete the entry

Information: All activities have to be finished with ENTER at the keyboard.

7. SIMATIC Panel MP370

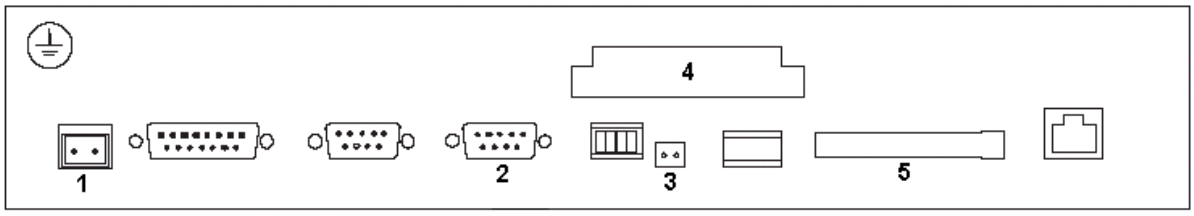
The SIMATIC Panel MP370, a operator guidanced visualisation system, via touch screen for following operating actions:

- Visualisation by graphical user interface
- Operate the line by explained buttons at the screens
- Calculate the set points for conveyor and jam light barrier
- Recipe administration
- Archive of error messages and system messages
- Trend view for line efficiency

PLC and MP370 communicate by MPI-Bus with 187.5kBaud.

Schematic diagram MPI-Bus

Connection elements and storage cards



1 line voltage 24V DC
2 MPI-Bus
3 backup battery
4 PC-Card for backup operating system and runtime visualisation
5 CF-Card for recipes and archives

8. Additional documents

In the present document only the specific functions for the conveyor system should be explained. Therefore you will find the actual issue of the user documentation of HMI unit MP370 Touch in the SIEMENS Internet portal by using the following link:

http://cache.automation.siemens.com/dnl/zE1NDU3OQAA_6909030_HB/MP370_e.pdf

or via the standard search area

http://support.automation.siemens.com/WW/llisapi.dll?aktprim=99&lang=en&referer=%2fWW%2f&func=cslib.csinfo2&siteid=cseus&extranet=standard

by using the keywords „MP370 manual“.

In this document you will also find explanations of the standard controls (e. g. recipes, user administration , ...) and how you have to use them.