

Promecon
2000

Operation Manual

Fill Level and Label Inspection

Important Notice!

Please read this instruction manual carefully before you make any adjustments, operations or repairs.

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KHS AG

Industriegebiet Scheid 16

D - 56651 Niederzissen

(0049) 2636 9746 0

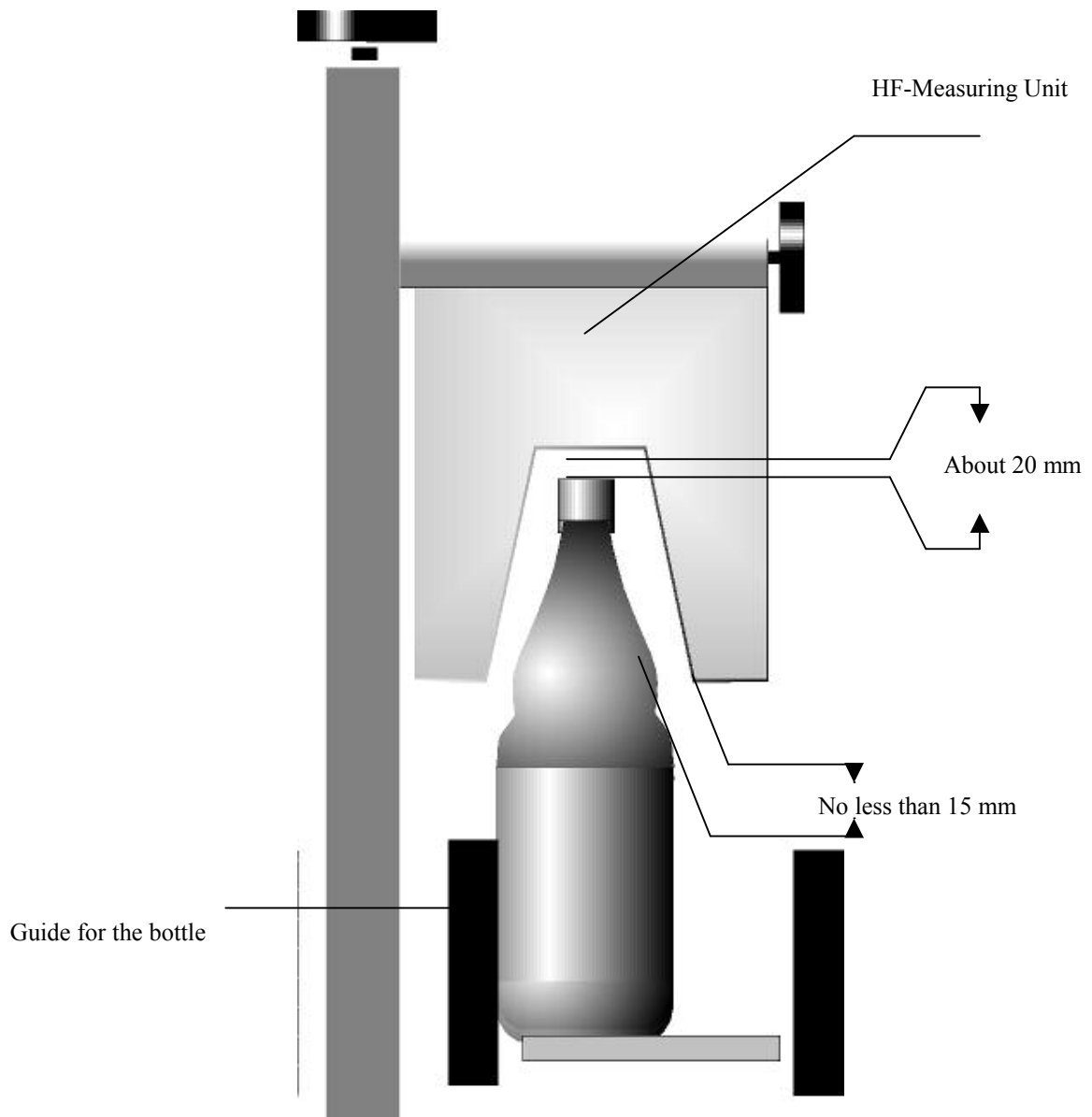
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1 Installation

The following mounting instructions apply only if the HF-measuring unit is mounted solid, for just one type of bottle. The variable type of HF-unit must be adjusted for each bottle type.

- Be sure the bottle passes centric underneath the HF-unit
- Make sure the mounted HF-Unit fits the following specifications:



2 Operation

2.1 The Control Panel

The Front Panel can be divided into four parts :

1. Control keys
2. Activation keys
3. Numeric keypad
4. Display



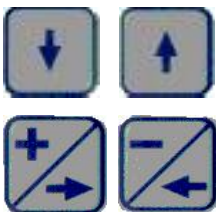
2.1.1 Control keys

The control keys enable to step through the menu and choose specific functions and programs. The ESC key and the OK key, on the left of the numeric keypad are part of the control keys too.



Function Selection

Lets you select specific functions out of a menu, using the arrow keys.



Arrow keys

Lets you step through menu items.

Increase or decrease value settings. Inside the main menu those keys can be used to adjust display contrast.

**OK key**

Enters the selected function or validates the current parameter data.

**ESC key**

Leaves the current menu or parameter setting and steps back to the previous menu

**Counter Reset**

Resets all counters. CAUTION! All counter settings will be lost.

**Program Select**

Selects programs from menu.

**Language Selection**

Selects a language. Not all menu items will be switched immediately. In order to change the language of all menus the system needs to be restarted.

2.1.2 Activation Keys

The control keys activate or deactivate particular lines attached to the Promecon 2000. The current status is shown on the LED above the button:

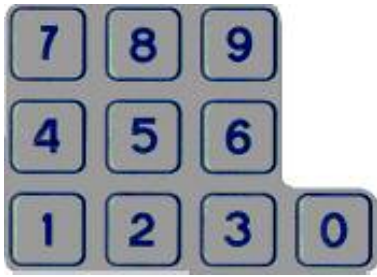
green:	The line is activated and operating.
red:	The system is operating but an error occurred.
off:	The system is deactivated.

Those keys can be locked or unlocked in the „Symbols of product“ menu. To lock or unlock those keys, follow the step by step instructions.

- | | |
|---------|---|
| step 1: | Turn on the system using the main switch on the left side panel. |
| step 2: | Push the „F“ key. |
| step 3: | Choose „Parameters of product“ and push „OK“ |
| step 4: | Enter the password. For more information see the „Enter password “ section. Push „OK“ |
| step 5: | Select „Symbols of product“ and push „OK“. |
| step 6: | Select the function key to be locked or unlocked. Using the left and right arrow key you may select one of the following:
<div><div>On :</div><div>The function is activated and may not be deactivated by the activation key.</div></div> <div><div>Off:</div><div>The function is deactivated and may not be activated by the activation key.</div></div> <div><div>Key:</div><div>The function may be activated or deactivated by the activation key.</div></div> |
| step 7: | Push the „OK“ key. |

Only those function keys showing an icon are connected to a line and can be activated. All other function keys will be shut down and locked.

2.1.3 Numeric Keypad



Those keys are used when numeric values, like parameters need to be entered.

2.2 The display

The display's main purpose is to show the production data. If the system is active the main screen will look like this:

Sorte	
Summ	0
Production	0
ejection	0

While the main screen is visible you may change the display's contrast using the „-“ or „+“ control keys.

2.3 The Menu

The following menu overview will help you navigate through the functions and parameter settings. To change the menu press the „F“ key and select an item with the arrow keys. In order to enter the menu press the „OK“ key.

```

      Selection of function
      -----
->Statistics
  Parameters of product
  Systemparameters
  Service
  
```

```

      Counter statistics
      -----
Sum                               0
Production                       0
Rejection                        0
Underfill                        0
Overfill                         0
Cap                              0
Body label                       0
Back label                       0
Neck label                       0
Foil                             0
Laser                            0
  
```

```

      Parameters of product
      -----
->HF Limits
  Adjustment of sliding register
  Adjustment rejection
  Change program name
  Keyboard of symbols
  Inspection of sequential fault
  Adjustment rejection
  
```

```

      System parameters
      -----
Counter Bt or Timer      [ Timer    ]
Divider Bt * 2 Timer * 2ms  1
Lock Rejection
  
```

```

      Service
      -----
->Inputs
  Outputs
  High frequency measuring values
  Distance Machine → Trigger
  Helping Parameter
  Change of password
  
```

2.3.1 Software Version

The software of the Promecon 2000 is located on an EPROM chip. This chip must be changed to update the software. Press the "ESC" key while the main screen is visible in order to determine the current software version:

Software Version	

Basismodul	0101
Füllhöhenkontrolle	0290

The option "Basismodul" means basic modul and "Füllhöhenkontrolle" is equal to "fill level control".

3 Setting Parameters

3.1 Select a program

If you are about to set parameters for a product you have to select a program. This program serves as a container for all your parameter settings necessary to process a specific type of bottle. Be sure not to overwrite a program already in use. To select a program press the „P “ key. The display may now look like this:

```
          Select a Program
-----
->-01-P01
   -02-P02
   -03-P03
   -04-P04
   -05-P05
   -06-P06
```

The first column represents the slot number. Possible slot numbers are 1 through 16. The second column shows the programs name. All parameters changed in future settings will belong to the selected program. To arrange this menu more clearly you should change the programs name to the name of the bottle type it represents.

3.2 System parameter

The system parameters do not depend on the type of bottle currently processed. Parameters are pre-adjusted and should not be changed.

```
          System parameter
-----
Counter board in Bt or Timer      [ Timer]
Divider Bt*2  Timer *2           1
```

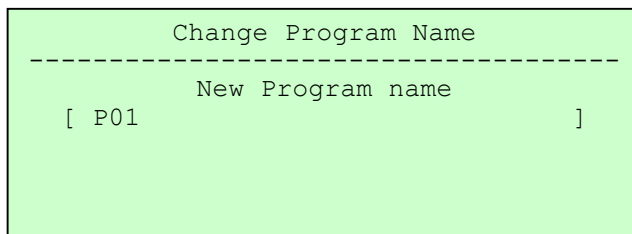
3.2.1 Lock Rejection

In case this parameter is adjusted to ON the rejection segments can be positioned to adjust the zero position.

3.3 Product Parameters

3.3.1 Changing the program name

Press the „F“ key to enter the „select function“ menu. Now select the „product parameters“. The display looks like this:



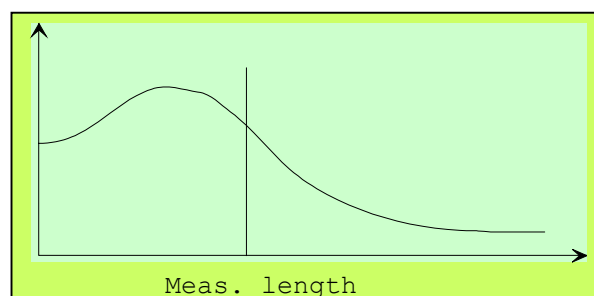
Select the menu „Change Program name“ and press the „OK“ key. Use the arrow up and arrow down key to select the desired letter. Change column by arrow left or arrow right key.

Press the „OK“ key to complete the name change.

3.3.2 HF limits

The distance trigger-measuring unit must be set first. In order to do so, the actual HF-graph has to be evaluated. Follow the steps to set the trigger measuring unit parameter.

- Step 1: Press the "F" key to enter the "Select Function " menu.
- Step 2: Select "the parameter of product" menu item.
- Step 3: Select the "Limits" menu item.
- Step 4: If you let a bottle pass underneath the measuring unit the display should look like this:



- Step 5: Select the measuring window with the arrow keys. The maximum value should be in between the beginning of the graph and the "Meas. Length " line.
- Step 6: Return to the main screen by pushing "OK"

If the maximum value of the graph is far to the right, adjust the "Trigger->HF-Unit " parameter in a way that the curve comes closer to the left.

3.3.2.1 Setting the upper and lower limits

Those two parameters determine the difference between a correct filled bottle and an under- or overfilled bottle. If the level is underneath the lower level, the bottle is detected as underfilled. If it is over the limit it will be recognised as overfilled. Follow the step by step instruction to determine limits:

- | | |
|---------|---|
| Step 1: | Press the "F" key to enter the "Select Function " menu. |
| Step 2: | Select "the parameter of product" menu item. |
| Step 3: | Select the "Limits" menu item. |
| Step 4: | A correctly filled bottle pass through the HF-Unit. |
| Step 5: | Check the "Last measuring value". This parameter shows you the "good value for bottles". |
| Step 6: | Let a slightly overfilled bottle which just barely passes as a good bottle, pass through. This is your upper limit. |
| Step 7: | Do the same thing using an underfilled bottle. |

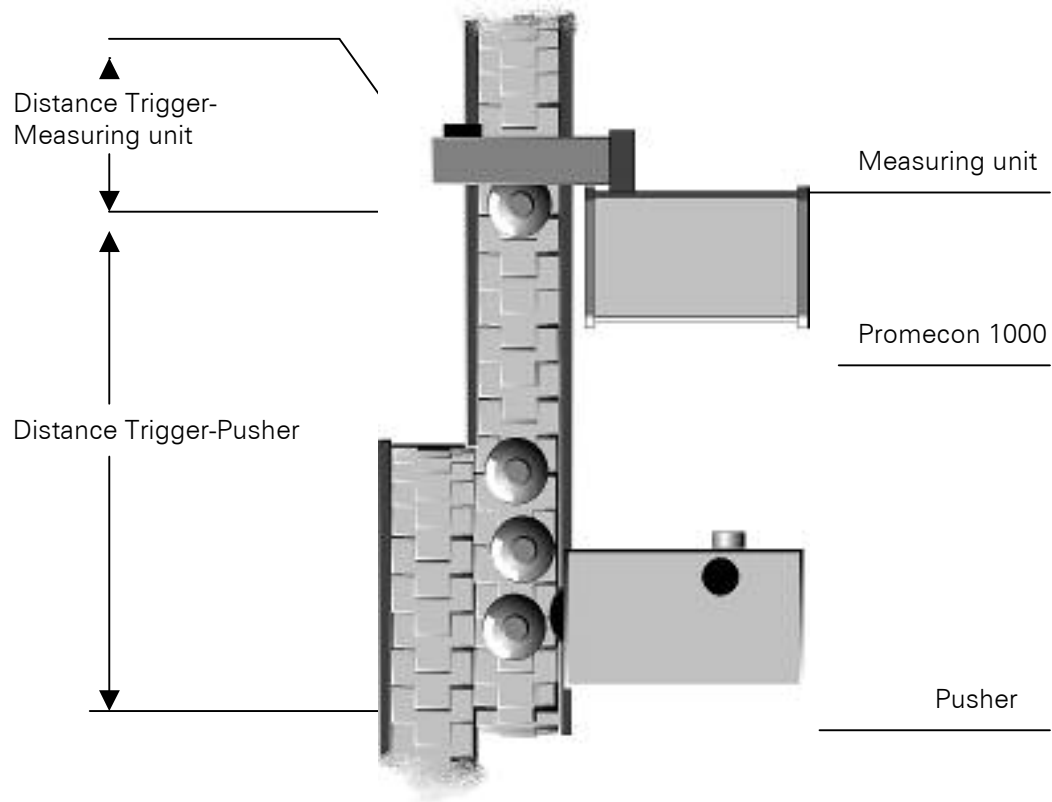
3.3.3 Adjustment of sliding register

Changing the parameters concerned with timing is the most difficult task in this manual. Please make sure that you have read this manual carefully before making any adjustments. It is not only important to do adjust the parameters according to the manual, you need to observe the right order too. To adjust the timing parameters, press the „F" key to enter the „select function" menu. Select the "shift registers" menu item and push the „OK" key.

Adjustment of sliding register		

Distance Trigger ->Pusher	[	1
Distance Trigger ->HF MB		1
Distance Machine →Trigger		0
Impulse length		0
Pretiming		0
Double Trigger		0

The following picture shows how the different distance settings interact and where to find them:



3.3.3.1 Distance Trigger → Pusher

This distance is best determined if the conveyor is moving as slow as possible, because the influence of mechanical inertia is negligible then.

To set this parameter follow the step by step instructions.

First you have to activate the cap seal inspection.

- Step 1: Return to the „product parameter“ menu.
- Step 2: Select the „function keys“ menu item:
- Step 3: Select the inspection items with the arrow up and arrow down key. Press the „+“ or „-“ key, until the status is set to „On“

The pusher now reacts on every bottle that passes the light barrier. You may now adjust the trigger→ pusher distance by following the step by step instructions.

- Step 1: Select the „distance trigger -> pusher“ menu item.
- Step 2: Take a test-bottle, place it on the conveyor belt and let it pass the light barrier.
- Step 3: If the pusher moves, before the bottle has reached it, the distance trigger/pusher needs to be increased. If the pusher reacts to late the time must be decreased. Enter the new value using the numerical keypad.
- Step 4: Try to adjust the timing in a way that the bottle will be hit in the middle because the pushing will be more stable then.

If the bottle will not be pushed over completely you need to adjust the „Impulse length“ value shown in the next section.

Attention!

The distance Trigger-> Pusher must be higher than the measuring length, otherwise the unit does not work.

3.3.3.2 Distance machine -> trigger

This distance is measured with help of the menu "Distance machine → trigger", which you can find in the menu "Service".

- | | |
|---------|---|
| Step 1: | Select the menu "Service" out of the function selection menu. |
| Step 2: | Select menu point "distance machine -> trigger". |
| Step 3: | The message "Waiting for a bottle" appears. |
| Step 4: | Now let the bottle which has just left the machine pass this distance. |
| Step 5: | If the bottle reaches the light barrier, the distance between label machine and trigger will be shown in conveyor cycles. |
| Step 6: | Input the value in the "shift register menu" in "adjustment machine -> measurement unit" and confirm it with "OK". |

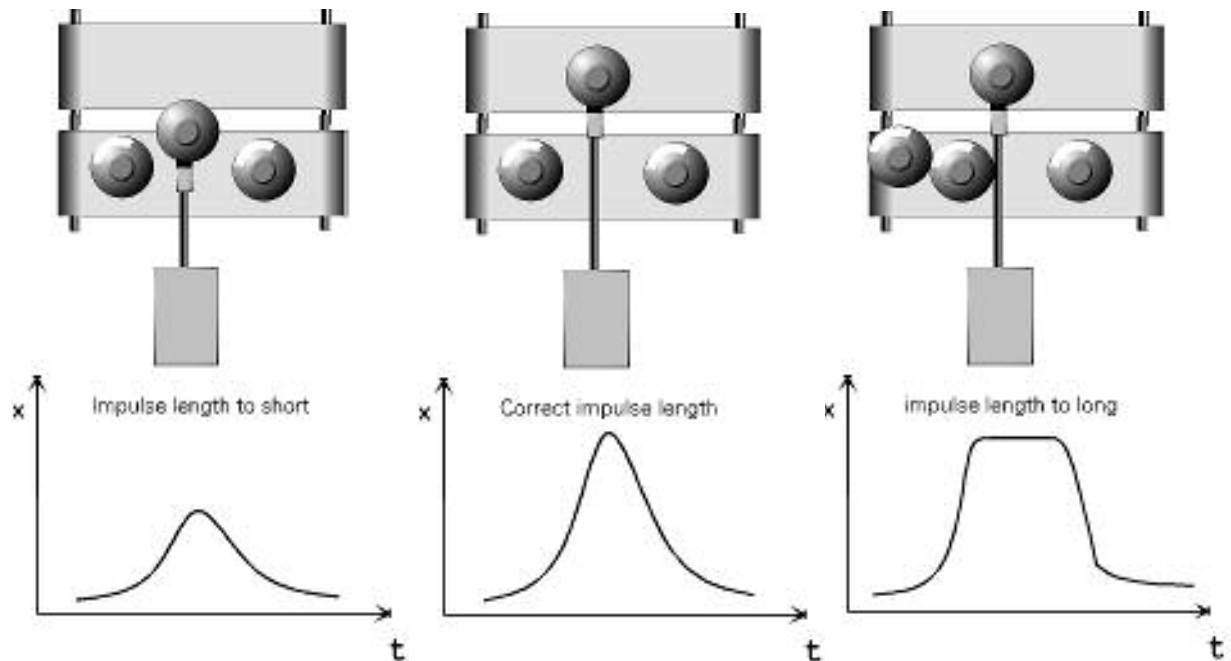
3.3.3.3 Adjusting the distance Trigger → HF-measuring bridge

This value must be set in accordance to the "HF-Limit" measuring length window. The maximum of the graph should be located as far left as possible in this window. A setting like shown in the picture 3.3.1 is OK. To set the Trigger->HF-Unit value, follow the step by step instructions.

- | | |
|---------|---|
| Step 1: | Push the "F" key to enter the "Function select" menu. |
| Step 2: | Select the "Shift registers" menu item. |
| Step 3: | Select the "Distance trigger -> HF unit" menu item. |
| Step 4: | Increase the value setting if the curve is far to the right.
Decrease the Value if the maximum is not visible anymore. |
| Step 5: | Press the "OK" key to confirm the setting. |

3.3.3.4 Adjusting the impulse length

This step is necessary if the pusher does not move the bottles over to a neighboring conveyor belt completely, or the pusher stays in the extended position for too long, so it will be hit by other bottles.



3.3.3.5 Set pre-timing

The „pre-timing“ setting is used to compensate the mechanical inertia. This influence is very small if the conveyor is moving slowly, but it increases with increasing conveyor speed. This is the reason why the „trigger-> pusher“ distance should be adjusted with a slow moving conveyor. In this case however the speed needs to be increased to a maximum.

- | | |
|---------|---|
| step 1: | Make sure „Cap“ (function keys) is activated. |
| step 1: | Return to the „shift register“ menu. |
| step 2: | Select the „pre-timing“ menu item. |
| step 3: | Take a test-bottle, place it on the conveyor belt and let it pass the light barrier. |
| step 4: | If the pusher moves, before the bottle has reached it, the „Pre-timing“ needs to be decreased. If the pusher reacts to late „Pre-timing“ must be increased. Enter the new value using the numerical keypad. |
| step 5: | Try to adjust the timing in a way that the bottle will be hit in the middle because the pushing will be more stable then. |

3.3.3.6 Double triggering

The double-trigger value needs to be set if transparent glass bottles are used, because those bottles may cause several trigger signals. During the number of conveyor cycles entered here, no further trigger signals will be accepted.

Even though you are not using glass bottles at the moment, we still recommend to set this value because it makes the system more stable. In order to adjust this value proceed to the following step by step instructions:

- | | |
|---------|---|
| step 1: | Make sure cap recognition is activated. |
| step 2: | Return to the „sliding register“ menu. |
| step 3: | Select the „Pre-timing“ menu item. |
| step 4: | Wait for a bulk of bottles which only small gaps in between. |
| step 5: | Raise the value for pre-timing slowly, until only every second bottle will be ejected. |
| step 6: | Now set the value to roughly one third of the value retrieved in step 5. Now every bottle should be rejected. |

3.3.4 Sequential Faults

- | | |
|---------|--|
| Step 1: | In the menu „product parameter“ you choose the menu „sequential faults“. |
|---------|--|

Number of sequential faults:

With that parameter the number of sequential faults can be entered after which a sequential fault signal will be set in order the machine will be stopped.

3.3.5 Adjustment Label recognition

Among other features, your system is capable of recognizing missing labels on bottles. The label sensor consists of a light switch which is mounted directly onto the HF-Unit. The switch is connected to an input port of the Promecon 2000 unit. Follow the step by step instructions to set the correct input port:

Step 1: Return to the „product parameters“ menu using the „ESC“ key and the „OK“ key.

Step 2: Select the „Adjustment recognition“ menu item and press „OK“.

```

selection recognition
-----
->body label
   back label
   neck label
   foil
   laser
  
```

A menu will now be displayed that may look like the following:

The number and names of the menu items may vary with your system specification.

Step 3: Select the front label and press „OK“. The display now looks like this:

```

front label
-----
input port      [P7.0 ]
invert          off
latch           off
position         conv.
position mach.  ?
  
```

Step 4: Select the „input port“ menu item. Select the correct „input port“ according to the table in section . The standard settings for the menu items „invert“ and „latch“ may be found in the table too.

Step 5: Select the menu item „position“ and press the „+“ or „-“ key until you see a „conv“. This means that the sensors are located on the conveyor.

Step 6: Select the menu item „position mach.“ and use the numerical keypad to enter the number of bottle-positions you have retrieved earlier.

If you are not able to adjust the system properly, You may read the next section on latches and inverting. Be warned however, the this section requires some knowledge about electronics and the internals of the label-inspection-system.

3.3.5.1 Invert

The parameter „Invert“ depends on the type of sensor used. Weather a sensor needs to be inverted or not may be determined with the following step by step instructions.

- Step 1: Return to the „product parameter“ menu.
- Step 2: Select the „service“ menu item and press „OK“
- Step 3: Select the „input ports“ menu item and press „OK“

The last of the digits row represents the input port which is connected to the sensors:

Input ports								
	1	2	3	4	5	6	7	8
Trigger meas. bridge	0	0	-	-	-	-	-	-
Conv. Cycle / presence	0	0	-	-	-	-	-	-
Machine cycle	0	-	-	-	-	-	-	-
Rejection ready	0	-	-	-	-	-	-	-
Labels	0	0	0	0	0	0	0	0

If the inspection system is running, but the label machine is not, and there is no label in front of the sensor the referring digit, should be 0. If it is 1 however you have to set the „invert“ switch to „ON“. Check if the sensor is responding by putting a bottle with a label in front of the sensor and see if the corresponding number is changing. If it does, the sensor is working.

As you may have noticed the numbers 1-8 correspond to the ports P7.0 to P7.7. If you don't know the corresponding port number to a sensor, you may locate it by checking it with the help of the last row of this menu.

3.3.5.2 Latch

This setting is important if the label detection sensors is placed inside a label machine. Weather or not latching is necessary depends on how exact the sensor was positioned. If the sensor could not be placed exactly were it is supposed to be, the sensors signals may not be synchronized with those of the machine cycle. In this case „latch“ must be set to the „ON“ position. However there may be a risk of undetected errors, especially if consecutive bottle are missing the same label.

3.3.5.3 Position

The Position shows where the measurement will be carried out. This may be either at the conveyor or in the labelling machine.

3.3.5.4 Pos. Machine

That parameter shows the position number, at which the label was detected.

3.3.6 Adjustment rejection

Adjustment Rejection	
Sort number rejection v1	0
Limit value conv. Speed v1/v2	0
Sort number rejection v2	0
Limit value conv. Speed v2/v3	0
Sort number rejection v3	0
Number of conveyor ceycles/2s	30

With help of the digital output ports P4.0 - P4.2 an new sort (parameter set) can be selected even during production. This provides the possibility of accomplishing an easier rejection movement at higher speed.

In this menu the number of conveyor cycles per second can be seen, at which an other adjustment of the rejection will be appreciated. The parameter set at the converter of the rejection has to be put in respectively for sort number rejection v1 (lower speed) and sort number v2 (higher speed).

Just before a rejection takes place the corresponding outputs are set binary coded.

In order to adjust the zero position of the pusher segment you can select the parameter "Lock Rejection" in the menu "system Parameters" and switch it ON to get the segment free to move, in this state the rejection is not ready to operate, this state will be shown by a message on the screen.

3.4 The service menu items

This part of the menu is designed to make installation and troubleshooting easier. This menu may be entered from the „function select “ menu by selecting the „service“ menu item.

```

Service
-----
->input
  output
  HF measuring values
  Distance outlet wheel→ Trigger MB
  Helping parameters
  Change password

```

3.4.1 The input ports

The current state of all incoming signals can be seen in this overview . „0“ represents a LOW- and „1“ a HIGH-signal. All the signals seen here are independent from „Invert“ settings.

```

Inputs
-----
1 2 3 4 5 6 7 8
Trigger measuring bridge  0 - - - - - -
Conv. cycle/ presence    0 0 - - - - -
Mach. cycles              0 - - - - - -
Rejection ready          0 0 - - - - -
Labels                    0 0 0 0 0 0 0 0

```

3.4.2 Output ports

This menu enables you to set the output signals to permanent „HIGH“ for testing reasons. The default setting is the „OFF“ position which means they are in operation mode.

```

Output
-----
-> rejection [ ON]
  sequential fault OFF
  sequential fault label OFF
  Lock rejection OFF

```

3.4.3 High Frequency Measuring Values

Inside this menu you may test the HF-Unit.

High frequency measuring values	

Last measuring value	0
Lowpass value	65407
Actual measuring value	1

Last measuring value

Shows the value which the last bottle produced which passed the HF-Unit.

Low pass value

Shows the unfiltered value in Hz of the HF-Unit

Actual measuring value

This shows the actual value of the HF-unit

3.4.4 Distance Machine → Trigger

Menu for distance measuring for parameter setting in the menu "sliding register".

3.4.5 Change Password

To change the password follow the step by step instructions below:

step 1:	Return to the „product parameter“ menu.
step 2:	Select the „service“ menu item and press „OK“.
step 3:	Select the „change password“ menu item and press „OK“.
step 4:	Enter the current password. If this is the first time the password is changed enter the factory-set password „0000“.
step 5:	You will be asked to enter the new password and repeat it once.

3.4.6 Helping parameter

actual position FifoC

This parameter shows a byte which represents all errors entered. If you like to see the actual bits of this entry see „input ports“. The last row shows the bits of the labels.

4 Maintenance and Service

4.1 Detailed service instructions Promecon 2000

4.1.1 Cleaning

Clean the front panel with a moist tissue. Do not use acidic detergents.

4.1.2 Batteries

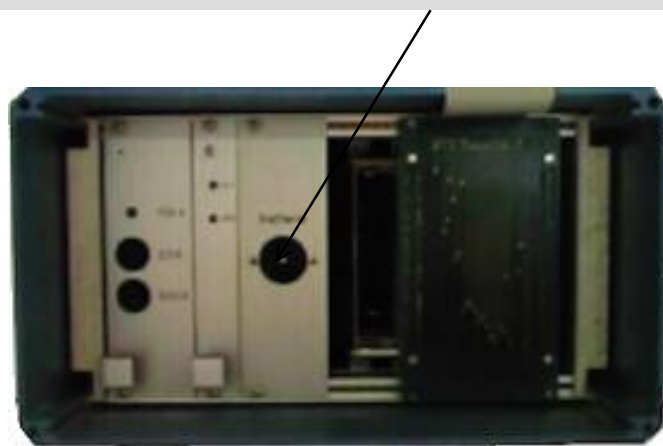
The Promecon 2000 is equipped with a power saving device, which protects the current counter setting from being erased in case of a power outage . This battery must be changed once a year. To change the battery use following step by step instructions.

step 1: unscrew the front panel by loosening the four screws.



Picture 1: Front Panel

step 2: The following picture shows you where the battery is located, use a big screwdriver or a coin to loosen the cap. Pull out the battery holder. Use a Lithium 3.6 V (Size AA/ Type SL760 DUJT)



Picture 2: Removed Frontpanel

4.1.3 Fuses

Your Promecon 2000 unit contains three fuses in two different power-supplies. A blown fuse may be an indicator for some kind of electrical problem. Replace the fuse only if it wasn't recently replaced.

Fuses in the 24V power supply

To replace the fuse in the main power supply unscrew the front panel like described in section 4.1.2. The two fuses of the main power supply are displayed in the following picture.



Replace the upper fuse with a 250 V 2.5 A T

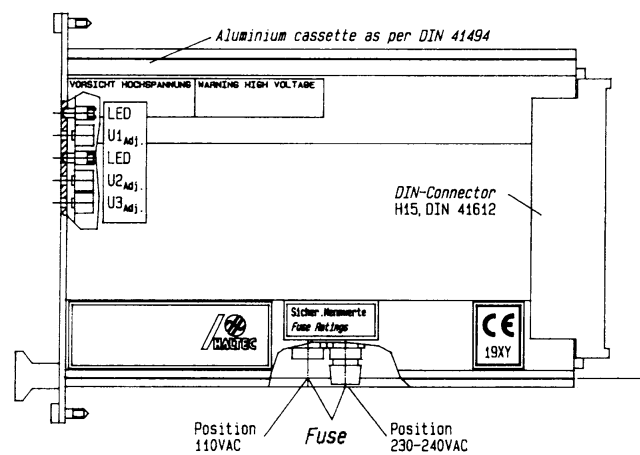
Replace the lower fuse with a 250 V 0.63 A T

The 12V/5V main power supply

In order to change the fuses, the power supply has to be removed from the case. Follow the step by step instructions to change the fuse.

step 1: Unscrew the front panel like described in section 4.1.2.

step 2: Loosen the following screws shown in picture.



5 Troubleshooting

5.1 Promecon 2000 Control Unit

Problem	Possible cause	Solution
The Promecon 2000 unit does not operate	1. No power connection 2. main switch not turned on 3. Broken Fuse	Connect to power supply Turn on main power switch Check Fuses:
System is running (See signal post) but display is not illuminated and without text	main wire to the front panel is lose	Check wire.
System is running display is illuminated but without text.	incorrect contrast adjustment	adjust contrast properly
The counters show incorrect values after the system has been switched off and back on again.	memory saving battery empty	change battery

6 Parameter table

The following table shows a detailed list of all parameter settings done by the service personal. If any of the values were changed those values can be set back to their original values.

Name or bottle type	Date	signature
Parameters	Range	Current value
HF-limits		
Upper limit	1-1000	
Lower limits	1-1000	
Measuring length	1..99	
Adjust. Of sliding register		
Distance trigger->pusher	1..2000	
Distance trigger->HF MB	1..2000	
Distance machine → Trigger	1...4095	
Length of pulse	0..255	
Pre-time value	0..255	
Double trigger	0..255	
Symbol keys		
Lowfill	On/Off/Key	
Highfill	On/Off/Key	
Cap	On/Off/Key	
Body label	On/Off/Key	
Back label	On/Off/Key	
Neck label	On/Off/Key	
Foil	On/Off/Key	
Laser	On/Off/Key	
Adjustment label Inspection		
Body label		
Input	Off P7.0 – P7.7	
Inverting	On/Off	
Latch	On/Off	
Position	Conveyor/Machine	
Pos. Machine	0..255	
Back label		
Input	Off P7.0 – P7.7	
Inverting	On/Off	
Latch	On/Off	
Position	Conveyor/Machine	
Pos. Machine	0..255	
Neck label		
Input	Off P7.0 – P7.7	
Inverting	On/Off	
Latch	On/Off	
Position	Conveyor/Machine	
Pos. Machine	0..255	
Foil label		
Input	Off P7.0 – P7.7	
Inverting	On/Off	
Latch	On/Off	
Position	Conveyor/Machine	

Pos. Machine	0..255	
Laser label		
Input	Off P7.0 – P7.7	
Inverting	On/Off	
Latch	On/Off	
Position	Conveyor/Machine	
Pos. Machine	0..255	
Adjustment rejection		
Sort number rejection v1	1...4	
Limit conveyor speed v1/v2	1...10000	
Sort Number rejection v2	1...4	
Limit conveyor speed v2/v3	1...10000	
Sort number rejection v3	1...4	
System parameters		
Count board in Bt or timer	Timer/Bt	
Divider Bt*2 Timer *2	1...5	
Lock Rejection	On/Off	

Name or bottle type	Date	signature
Parameters	Range	Current value
HF-limits		
Upper limit	1-1000	
Lower limits	1-1000	
Measuring length	1..99	
Adjust. Of sliding register		
Distance trigger->pusher	1..2000	
Distance trigger->HF MB	1..2000	
Distance machine → Trigger	1...4095	
Length of pulse	0..255	
Pre-time value	0..255	
Double trigger	0..255	
Symbol keys		
Lowfill	On/Off/Key	
Highfill	On/Off/Key	
Cap	On/Off/Key	
Body label	On/Off/Key	
Back label	On/Off/Key	
Neck label	On/Off/Key	
Foil	On/Off/Key	
Laser	On/Off/Key	
Adjustment label Inspection		
Body label		
Input	Off P7.0 – P7.7	
Inverting	On/Off	
Latch	On/Off	
Position	Conveyor/Machine	
Pos. Machine	0..255	
Back label		
Input	Off P7.0 – P7.7	
Inverting	On/Off	
Latch	On/Off	
Position	Conveyor/Machine	
Pos. Machine	0..255	
Neck label		
Input	Off P7.0 – P7.7	
Inverting	On/Off	
Latch	On/Off	
Position	Conveyor/Machine	
Pos. Machine	0..255	
Foil label		
Input	Off P7.0 – P7.7	
Inverting	On/Off	
Latch	On/Off	
Position	Conveyor/Machine	
Pos. Machine	0..255	
Laser label		
Input	Off P7.0 – P7.7	
Inverting	On/Off	
Latch	On/Off	

Position	Conveyor/Machine	
Pos. Machine	0..255	
Adjustment rejection		
Sort number rejection v1	1...4	
Limit conveyor speed v1/v2	1...10000	
Sort Number rejection v2	1...4	
Limit conveyor speed v2/v3	1...10000	
Sort number rejection v3	1...4	
System parameters		
Count board in Bt or timer	Timer/Bt	
Divider Bt*2 Timer *2	1...5	
Lock Rejection	On/Off	