

User manual URYXXON® Relax

Content

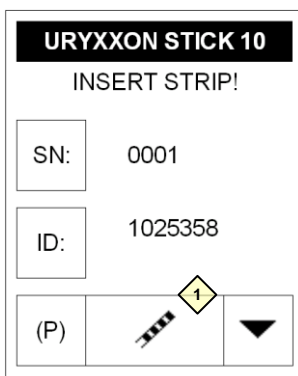
1. Quickstart	4
2. Introduction	6
2.1 System Description	6
2.1.1 <i>Measuring Principle</i>	6
2.1.2 <i>Functional Principle URYXXON® Relax</i>	7
3. Unpacking and Set Up	8
3.1 List of delivered parts	8
3.2 Description of instrument parts	9
3.3 Setting up the instrument	9
3.4 How to plug the instrument in	10
3.5 How to load the printer paper	10
3.6 How to install batteries (optional)	11
3.7 Use of the instrument	12
3.7.1 <i>Buttons</i>	12
3.7.2 <i>Scroll Arrows</i>	13
3.7.3 <i>Round buttons</i>	13
4. User Menu	14
4.1 Flow-chart of the Menu Structure	14
4.2 Description of the Menu Items	15
5. Analysis of Test Sticks	16
5.1 How to perform a measurement	16
5.2 Display of Results	17
5.3 Measurement Errors	17
5.4 Entering the Patient Identification	18
5.5 Changing the sequence number ("SN")	19
5.6 Transferring data to a PC	19
6. Enter the Main Menu	20

7. Recall results	21
7.1 How to scroll through memory	22
7.2 How to find specific results (filtering)	23
7.2.1 <i>Selecting the Day</i>	24
7.2.2 <i>Selecting Search Criteria</i>	25
7.2.3 <i>Display suitable matches</i>	26
7.3 How to delete results from memory	27
8. Quality control testing.....	28
8.1 How to review old QC measurements	28
8.2 How to perform a QC measurement	29
9. Equipment Settings	30
9.1 How to modify strip settings	30
9.1.1 <i>Type</i>	30
9.1.2 <i>Units</i>	31
9.1.3 <i>Order of Parameters</i>	31
9.1.4 <i>Test Stick LOT</i>	31
9.2 How to protect settings from unauthorized access	32
9.3 How to turn the printer on and off	32
9.4 How to enable and disable acoustic signals	32
9.4.1 <i>Acoustic confirmation of user inputs</i>	32
9.4.2 <i>Acoustic warning on positive results</i>	33
9.5 How to deactivate and activate the autostart.....	33
9.6 How to set energy saving options for the battery mode.....	33
9.7 How to change the language	33
9.8 How to set time and date	34
9.9 How to activate data transfer	35
9.10 How to change the text of the printout header	35
9.11 How to print settings.....	35
10. Cleaning and Maintenance	36
10.1 How to clean the housing.....	36
10.2 How to clean the strip holder	37
11. Table of Results	38
12. Service Menu.....	39

12.1 How to reset the system (Load Default)	39
12.2 How to control the LOT-control (LOT activate)	39
12.2.1 <i>Entry of test sticks' LOT</i>	40
12.2.2 <i>Warning on expired test strips</i>	41
12.3 How to change the sensitivity	42
12.3.1 <i>Settings Reset</i>	42
12.3.2 <i>Appointing new Sensitivity Settings</i>	43
12.4 How to update the instrument	44
13. Interface Description	45
13.1 Serial Interface	45
13.2 USB 1.1-Interface.....	45
13.3 Transmission Protocol	45
14. Error Messages und Fault Clearance	46
15. Warranty	47
16. Technical Information	48
16.1 Technical Data	48
16.2 Security standards	48

1. Quickstart

Unpack the instrument and place it on an even, hard surface. Connect the power supply and turn the equipment on with the On/Off-switch (Pic. 3.3-8). After the self test the start screen will appear on the display.



Display 1 : Start menu

- Dip a test stick (Medi-Test URYXXON® Stick 10) into the urine sample for approx. one second.
- Blot by touching the edge of the strip to a paper towel to remove excess urine.
- Place the strip on the strip holder
- Slide or push the strip to the end of the channel. Do not touch the reagent pads on the test strip.

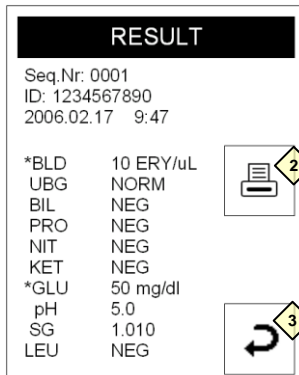
The instrument will automatically detect an applied strip. The measurement cycle will be started. A progress bar on the display shows the remaining measurement time.

Note: If "Autostart" (Chapter 9.5) is deactivated, the measurement must be started using the start control panel (Display 1-1).

Notice:

The stick will be drawn into the instrument after 30 sec.

After approximately 60 sec the result will be displayed on the screen (Display 2) and transferred to the printer and interfaces.



Display 2 : Result

By pressing the printer symbol (Display 2-2) the result can be printed again. Choosing the return panel (Display 2-3) will lead back to the start screen.

Another analysis may be started by applying the next test stick.

Notice :

To start a new measurement it is not necessary to go back to the start screen. A new stick is detected at any time and the measurement is then started automatically.

2. Introduction

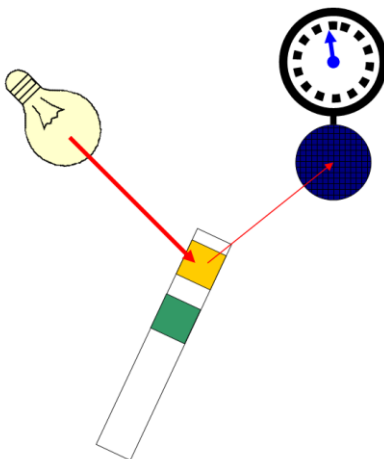
The URYXXON® Relax is a reflection photometer for the analysis of urine test sticks Medi-Test URYXXON® Stick 10. The measurements are performed under standardised conditions, measured values may be displayed, printed and transferred to a computer.

The URYXXON® Relax is designed for in-vitro diagnostic use (IVD) and should be used by healthcare professionals, only.

2.1 System Description

2.1.1 Measuring Principle


The test stick moves below a fixed measuring head on a slide with an embedded reference pad. The reflectometric analysis of the test stick and the reference field take place during withdrawal and release of the slide.



Pic. 2.1: Measuring Principle

The stick is illuminated with an LED and a detector registers the intensity of light reflected by the test stick at three different wavelengths. Using an internal calibration, the results are calculated from the reflection values. Whenever samples are strongly alkaline, a density correction is automatically conducted.

2.1.2 Functional Principle URYXXON® Relax

A measurement is started by placing a strip on the holder. If the Autostart-feature is turned off, the measurement is started by pressing the start panel  in the display.

The result is shown on the display, printed out and released via the interfaces after the measurement has been completed. After three minutes the instrument will go to stand-by. Touching the screen will reactivate the instrument.

All user inputs are performed via the touch-screen (3.7 Use of the instrument).

3. Unpacking and Set Up

3.1 List of delivered parts

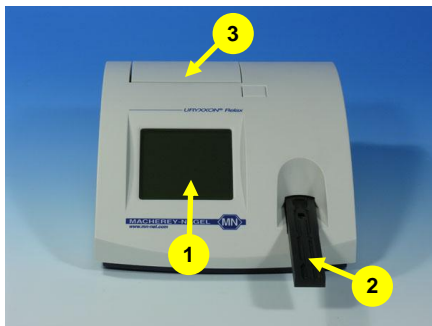
- URYXXON® Relax reflectometer
- Power pack 100 - 240 V, 47/63 Hz, 9V
- Printer paper
- User manual (this booklet)



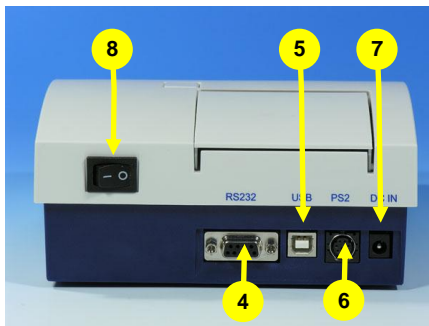
Pic. 3.1 : Content

Read the operating manual for URYXXON® Relax carefully before the first startup in order to ensure an error free operation.

3.2 Description of instrument parts



Pic. 3.2 : Front view



Pic. 3.3 : Backside view

Actuator	Function
1. Touch-Screen	Control of equipment functions
2. Test Stick Slide	Test stick retainer and autonomous start of analysis
3. Printer Flap	Opening the printer flap for paper replacement
4. Serial Interface	Connection of a computer
5. USB - Interface	Connection of a computer
6. PS/2 Interface	Connection of a keyboard or a bar code scanner
7. Mains Connection	Contact for the provided power pack
8. On/Off Switch (I/O)	Turning the equipment on and off

3.3 Setting up the instrument

Place the instrument on a hard, even surface where humidity and temperature are fairly constant. Make sure that the instrument is allowed to acclimate to room temperature prior to use.

Make sure that you

- Do not place the instrument near strong electromagnetic fields
- Do not place the instrument near heating plates, ovens or radiators
- Do not expose the instrument to strong light sources (i.e. direct sunlight)

3.4 How to plug the instrument in



Pic. 3.4 : Power pack



Pic. 3.5 : DC in

Three adapters are provided for adapting the power pack to the available mains connection. The adapter matching the mains connection is plugged on to the power pack (Pic. 3.4). After plugging the power pack cable into the jack "DC in" (Pic. 3.3-7) and connecting the power pack to the power socket the URYXXON® Relax is ready for operation.

3.5 How to load the printer paper



Pic. 3.6 : Printer A



Pic. 3.7: Printer B

Open the printer flap by pressing the rectangular key next to the paper outlet (Pic. 3.6).



Pic. 3.8 : Printer C



Pic. 3.9 : Printer D

Unroll the paper roll by 5 cm and place the roll in the paper compartment with the end on the lower side. Fix the end of the paper to the housing with your forefinger while closing the flap (Pic. 3.8).

3.6 How to install batteries (optional)

The URYXXON® Relax can be operated with type AA batteries independent of the mains supply. The battery compartment is on the underside of the equipment. Notice the designated polarity (+/-) marked on the battery compartment while inserting the batteries.



Pic. 3.10 : battery compartment

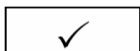
3.7 Use of the instrument

All user inputs are done via a touch-screen (touch-display). All functions are activated directly by slight pressure with the finger on explicit pictograms or text representing the menu items.

3.7.1 Buttons

Framed areas react to pressure and trigger the action linked to it. The caption of an area describes its function.

Examples:



Confirm / perform action



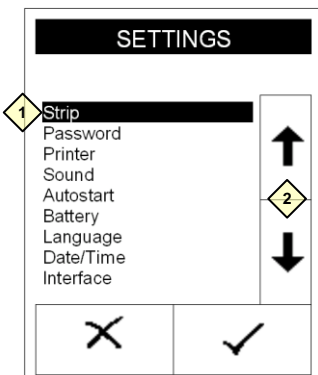
Cancel action



e.g. display of equipment settings

3.7.2 Scroll Arrows

Press the up-and-down arrows on the right side of the screen to scroll through a list of information on the left side of the screen. Once the desired information on the left side is highlighted, press ✓ to confirm your selection.

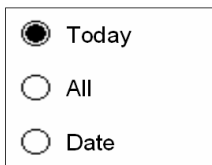


Display 3 : Selective lists

Pressing ✓ will select the highlighted line. You can leave the menu by pressing X.

3.7.3 Round buttons

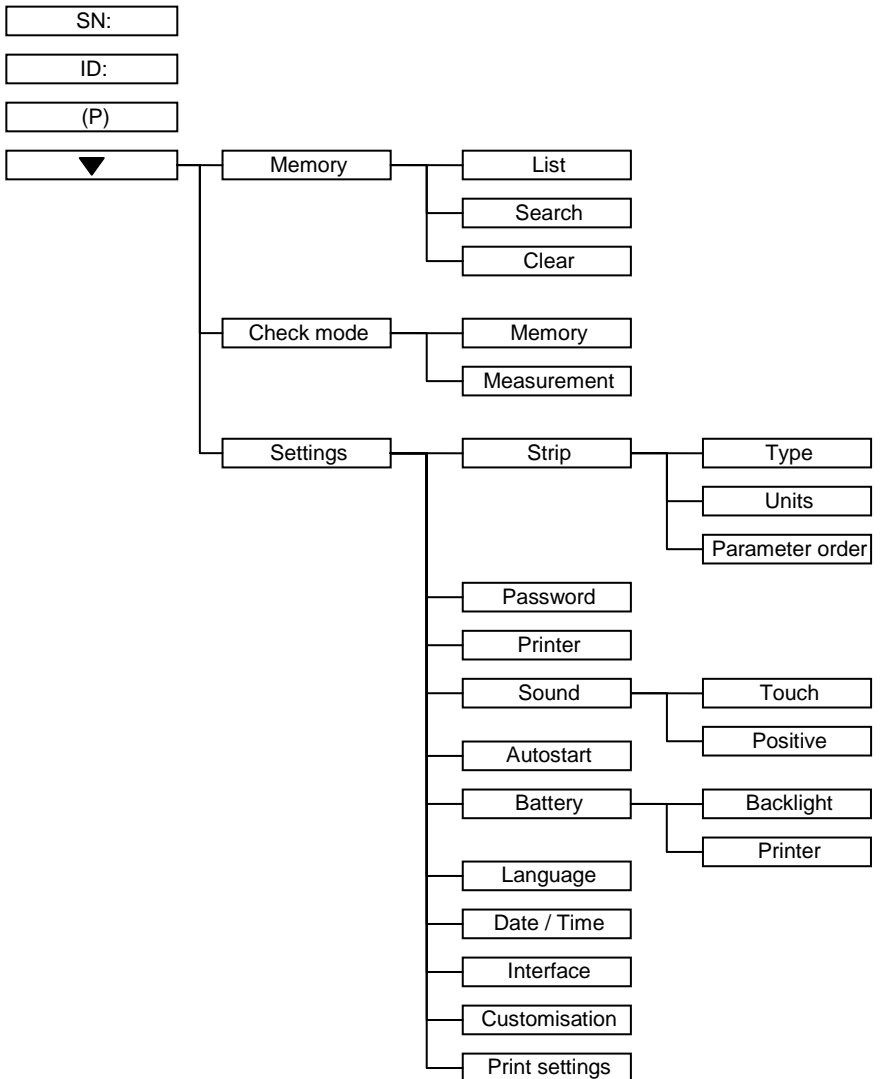
These buttons typically appear on screens that require a selection among serial items. The button with a filled circle is the current selection.



Pressing the circle will activate a selection. Save your selection by pressing ✓. Pressing X will quit the menu without performing any changes.

4. User Menu

4.1 Flow-chart of the Menu Structure



4.2 Description of the Menu Items

- SN:
5.5 Changing the sequence number («SN»)
- ID:
5.4 Entering the Patient Identification
- (P):
Standby
- ▼:
Main menu
- Memory:
7. Recall results
- Check mode:
8. Quality control testing
 - **Settings:**
 - 9.2 Password
 - 9.1 Strip Parameters
 - 9.3 Printer
 - 9.4 Sound
 - 9.5 Autostart
 - 9.6 Battery
 - 9.7 Languages
 - 9.8 Date / Time
 - 9.9 Interface
 - 9.11 Print Settings
 - 9.10 Customisation

5. Analysis of Test Sticks


5.1 How to perform a measurement

The URYXXON® Relax is very easy to use. In order to start the measurement, the test stick is placed on the strip holder. The instrument automatically detects a new strip and starts the measurement. A progress bar appears, that indicates the remaining analysis time. After 30 seconds the test stick is drawn into the instrument, after 60 seconds it is released.

Notice:

Make sure to remove excess urine by blotting the test stick carefully on a lint-free cloth.

Notice:

If auto mode (Chapter 9.5 Autostart) is deactivated, the analysis needs to be started by pressing  on the touch-screen.

After the measurement, the instrument will release the analysed test stick which can now be discarded. The result is displayed on the screen and is transferred via the interfaces and /or printed according to equipment settings.

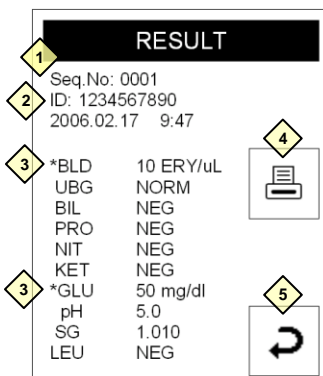
For additional information on the test strip, please read the package insert that comes with the strips.

DANGER OF INFECTION:

Urine and used test sticks bare the danger of infection. Always use protective gloves during handling and disposal. The disposal of used test sticks should be performed according to the regulations for the handling of potentially infectious material.

5.2 Display of Results

The sequence number (Display 4-1) as well as the patient identification (Display 4-2) will be displayed with the results.



Display 4 : Result

Positive findings are clearly marked by an asterisk (*) on the printout and on the display (Display 4-3). Additionally, it is possible to enable an acoustic signal on positive findings.

The printout is light-sensitive and may turn yellow when exposed to light during storage. For archiving purposes the printouts should be kept in a dark place (patient file) or as a photocopy.


The result displayed may be printed again by pressing (Display 4-4). The return panel (Display 4-5) will lead back to the start screen.

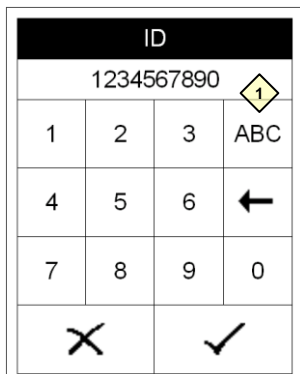
5.3 Measurement Errors

If the display shows "Measuring Error ..." instead of a result please read the instructions in Chapter 14. "Error Messages and Fault Clearance". Repeat the measurement. In case of permanent errors please contact MACHEREY-NAGEL service.

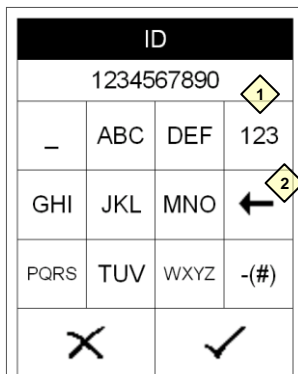
5.4 Entering the Patient Identification

The patient identification needs to be entered before starting the analysis. This can be done as follows:

- a) Directly on the equipment: Pressing  in the start menu brings up an alphanumeric keypad. Enter the ID using the keys. To enter characters (i.e. "Miller") press (Display 5-1) to change the character entry. Repeated pressing on the same field within 0.5 seconds switches through the characters displayed on the key. Wrong entries may be erased by pressing (Display 6-2).



Display 5 : Entering ID (numerics)



Display 6 : Entering ID (letter)

- b) Using a standard PC-keyboard: Connect the keyboard to the PS/2 jack in the backside of the instrument. User inputs on the keyboard will automatically be interpreted as Patient Identifications.
- c) Using a bar code reader: Connect the barcode reader to the PS/2 jack in the backside of the instrument. Barcode readings will automatically be interpreted as Patient Identifications.

After entering the patient identification start the measurement. The Patient Identification is saved together with the diagnostic findings.

Attention:

A new ID cannot be entered before the present analysis has been completed.

5.5 Changing the sequence number ("SN")

Pressing the field in the start menu brings up a numerical pad. Enter a new sequence number using the keys on the pad. All following measurements will now be counted from this number on.


Seq.No.			
1234			
1	2	3	
4	5	6	←
7	8	9	0
✗		✓	

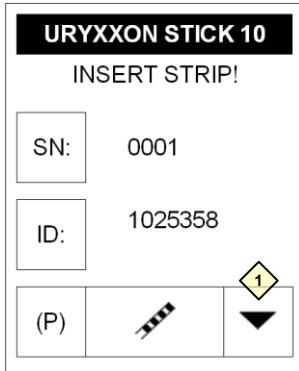
Display 7 : Seq.-Input

5.6 Transferring data to a PC

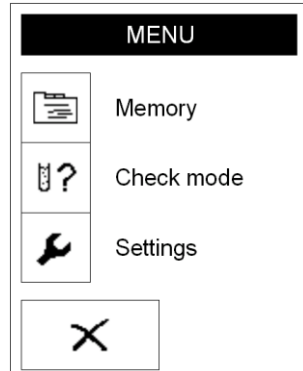
The results may be transferred to a PC via the USB- or RS232-interface. A detailed description of the interface can be found in Chapter 13 Interface Description.

6. Enter the Main Menu

Pressing  on the start screen will bring up the main menu.



Display 8 : Start menu




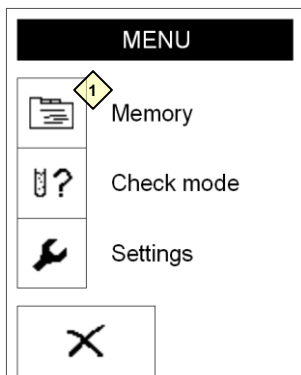
Display 9 : Main menu

From here the other functions e.g. memory (7. Recall results), the test mode (8. Quality Control Testing) as well as the settings (9. Equipment Settings) can be reached.

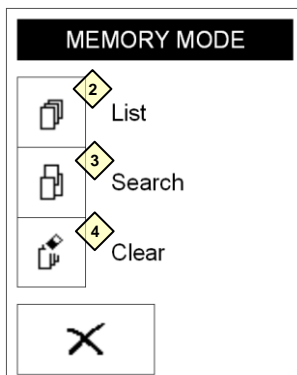
7. Recall results

The URYXXON® Relax has memory for 200 measurements. Every result is automatically saved after the analysis. After 200 measurements, new data will overwrite the eldest saved dataset.

Access the memory by pressing (Display 10-1) in the Main menu .



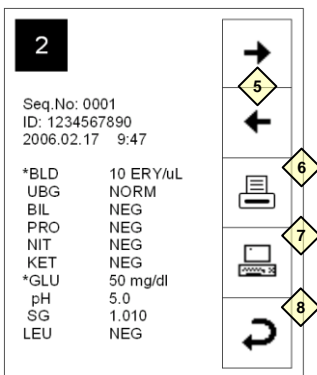
Display 10 : Main menu



Display 11 : Memory mode

7.1 How to scroll through memory

Pressing (Display 11-2) will bring up (Display 12). Scrolling through the memory is possible by pressing the arrows (Display 12-5) on the right side. The next [→] or previous [←] result will be displayed.

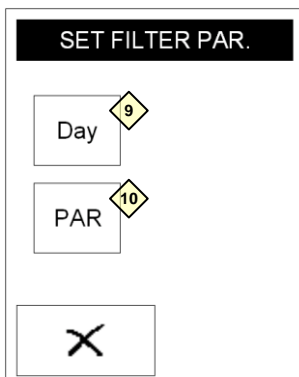


Display 12 : Memory contents

It is possible to print (Display 12-6) and send (Display 12-7) the dataset displayed. The memory menu will reappear upon pressing Return (Display 12-8).

7.2 How to find specific results (filtering)

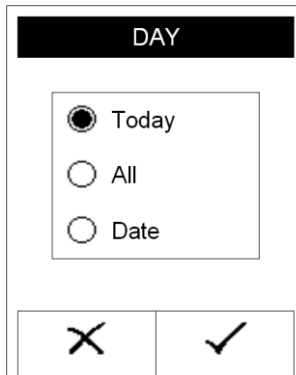
To find the result you may select the date of the measurement and a specific parameter.



Display 13 : Filtering

7.2.1 Selecting the Day

By pressing the panel “Day” (Display 13-9) you will reach the menu displayed below.

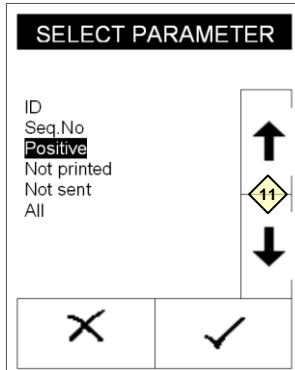


Display 14 : Select day

Set the day with the buttons (Display 14). Selecting “Date” will bring up a screen with the list of available dates (only days with measurements are shown on the screen). Select the desired date with the up-and-down arrows and confirm your selection by pressing ✓. After confirmation your selection will be displayed on the screen 'SET FILTER PAR.'

7.2.2 Selecting Search Criteria

Pressing PAR (Display 13-10, "SET FILTER PAR.") brings up display (Display 15).



Display 15 : Select parameter

Use the arrow keys (Display 15-11) to select the desired criteria and confirm with ✓. The filter criteria will be displayed on filter settings screen (Display 16).

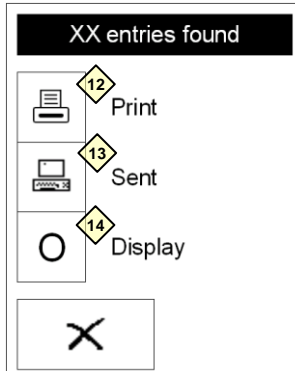
7.2.3 Display suitable matches

After setting Day and Parameter the search may be started by pressing ✓.



Display 16 : Filtering


When suitable matches are found, an option will appear, allowing to print the datasets (Display 17-12), send them to a PC (Display 17-13) or display them on the screen (Display 17-14).



Display 17 : Search result

If no matching results are found, the equipment returns to the memory menu.

7.3 How to delete results from memory



Pressing  (Display 11-4) will delete all data in the memory. You need to confirm this again on a further screen.

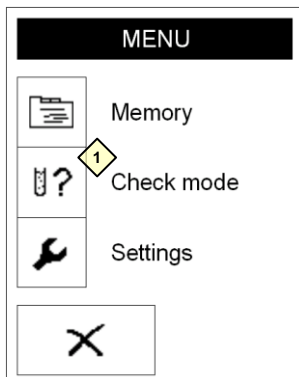
8. Quality control testing

Quality control measurements should be performed regularly with check solutions in order to ensure the correct functioning of the combination of equipment and test sticks.

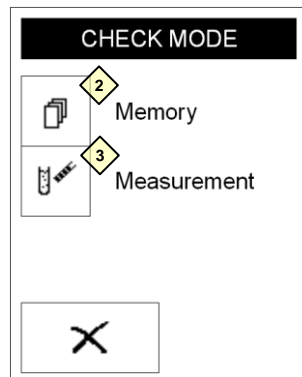
Quality inspection tests are recommended:

- at the beginning of a day
- when introducing a new test stick LOT
- in case of doubtful test results
- when a different person is operating the equipment

Upon pressing  (Display 18-1) on the start menu  the “CHECK MODE” screen will appear.



Display 18 : Main menu



Display 19 : Check mode

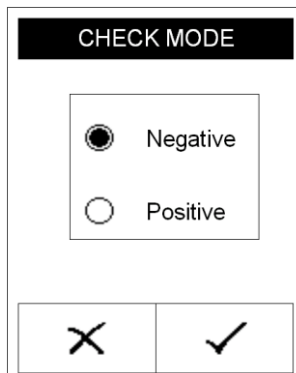
8.1 How to review old QC measurements

The equipment saves the results of the last 20 QC measurements in separate memory. They may be displayed by selecting memory (Display 19-2) and may be printed for documentation purposes.

8.2 How to perform a QC measurement

Prepare the check urines as described in the package insert and test them in test mode.



Handle the check solutions exactly as the patient samples. By pressing the panel (Display 19-3) the sample selection will appear. You may select what type of control sample you want to analyse.

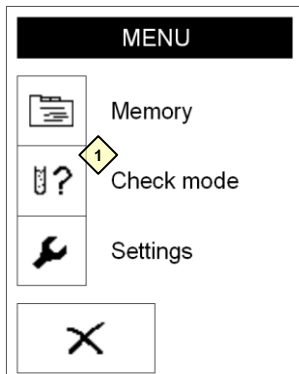


Display 20 : Control sample

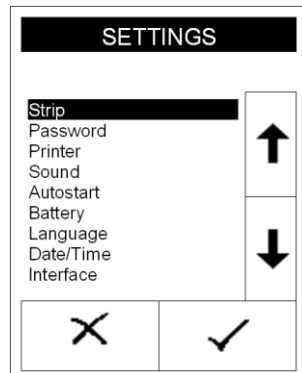
In case several results do not match the expected results (indications in the checking solutions' package inserts), please contact the MACHEREY-NAGEL service.

9. Equipment Settings

Enter the main menu by pressing the menu key  to reach the “SETTINGS” display press  (Display 21-1).



Display 21 : Main menu



Display 22 : Settings

9.1 How to modify strip settings

9.1.1 Type

The URYXXON® Relax is in principle able to analyse also non-medical stick types. When the equipment has data for various approved strip types, the strip type can be chosen in a selective list.

9.1.2 Units

The URYXXON® Relax can report the results in different units:

- Conventional (e.g. 10 mg/dL)
- SI (e.g. 56 mmol/L)
- ARB, Plus-System (e.g. +++)
- Conventional + ARB
- SI + ARB

Choose the desired unit from the selective list.

9.1.3 Order of Parameters

The output order of the parameters may be customised via a selective list. The parameters need to be selected in the desired order and confirmed by pressing ✓. After the last parameter the equipment will ask whether the setting is to be saved. Save by pressing ✓ or go back to the preprogrammed order by pressing ✕.

9.1.4 Test Stick LOT

The LOT-administration of URYXXON® Relax is deactivated in the default setting. See Chapter 12.2 “LOT activate“.

9.2 How to protect settings from unauthorized access

Select 'Password' in the settings menu if you want to protect the instrument settings with a PIN. An option panel with the possibilities “ON” and “OFF” will be displayed. Selecting “ON” will enable the PIN-protection. After enabling the PIN-protection a numerical pad will appear. Enter a 4-digit PIN and confirm by pressing ✓ . The PIN will be asked for upon the next attempt to change the settings.

Attention:

A forgotten PIN can not be reconstructed. Only a complete reset of the instrument will delete the PIN-protection. This will result in loss of all results and settings!

9.3 How to turn the printer on and off

Selecting 'Printer' in the settings menu will bring up an option panel. Choose the desired option and confirm.

9.4 How to enable and disable acoustic signals

Select “Sound” in the settings menu to enter the settings for acoustic signals.

9.4.1 Acoustic confirmation of user inputs

In the preprogrammed settings all user inputs are confirmed with an acoustic signal. Disable or enable these signals by choosing “ON” or “OFF” in the box 'Touch'.

9.4.2 Acoustic warning on positive results

In the preprogrammed settings an acoustic signal will be given on positive findings. Disable or enable this signal by choosing „ON“ or „OFF“ in the box 'Positive'.

9.5 How to deactivate and activate the autostart

Select "Autostart" in the settings menu. In basic mode URYXXON® Relax automatically detects an applied test stick and starts the measurement. This function may be deactivated via an option panel.

If Autostart is deactivated the analysis must be triggered by pressing a panel in the Start menu.

9.6 How to set energy saving options for the battery mode

Select 'Battery' in the settings menu. Settings in this menu will only apply when the instrument is operated with batteries.

To increase the lifetime of the batteries, the LCD backlight and the printer can be turned off using the option panels.

9.7 How to change the language

Select 'Language' in the settings menu. The language of the URYXXON® Relax menu can be switched to the following languages using the respective selective list:

English, German, Spanish, French, Italian, Portuguese, Polish, Turkish and Hungarian.

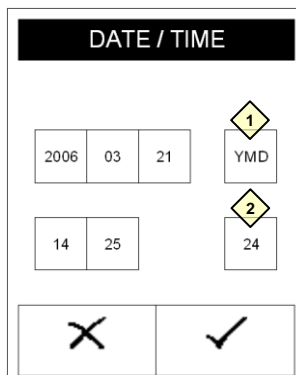
9.8 How to set time and date

Select 'Date/Time' in the setting menu. To change, press on the respective number. A numerical pad appears. Enter the correct number and confirm by pressing ✓.

The date may be formatted in three ways. The active format is shown on a button (Display 23-1) on the right hand side of the date. Select a date format by pressing this button.

Displayed Format Abbreviation	Meaning	Example
YMD	Year - Month - Day	2007-12-17
DMY	Day . Month . Year	17.12.2007
MDY	Month / Day / Year	12/17/2007

The time format may be changed to 12 or 24 hours with the button displayed next to the time (Display 23-2).



Display 23 : Date / time

9.9 How to activate data transfer

Select 'Interface' on the settings menu. The data transfer via the interfaces can be activated or deactivated via an option panel.

9.10 How to change the text of the printout header

Select 'Customisation' in the settings menu. The first two lines of the printout may be filled with a user-specific identifier. Each line contains 23 characters.

To enter the text an external keyboard or the alphanumerical pad on the display can be used. The keys on the touch-screen are linked to several letters. Repeated pressing within half a second switches through the letters displayed on the key.

9.11 How to print settings

Select 'Print Settings' on the settings menu to print the equipment settings for documentation purposes. Thermo printings fade with time. Therefore, please copy the printout or store it in a dark place.

10. Cleaning and Maintenance

DANGER OF INFECTION:

Urine and used test sticks bare the danger of infection. Always use protective gloves during handling and disposal. The disposal of used test sticks should be performed according to the regulations for the handling of potentially infectious material

10.1 How to clean the housing

The instrument housing may be wiped with a cloth. Mild cleaning agents or disinfectants may be used. Ensure that no moisture permeates the equipment

10.2 How to clean the strip holder

Wipe off urine residues from the strip holder with a lint-free cloth after each measurement. This prevents crustification and drying of urine residues.

The strip holder can be removed from its transport mechanism and should be cleaned with water and - when necessary - with cleaning agent or disinfectant. Make sure that the instrument is turned off before removing the test slide.

After cleaning, the strip holder should be put back onto its transport mechanism carefully. The rectangular notches of transport mechanism and stick retainer must be placed on top of each other (Pic. Notch B).



*Pic. 8.1 : test slide
(bottom view)*



Pic. 8.2 : Notch A



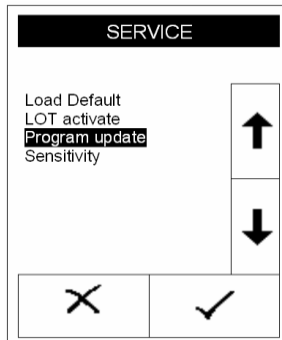
Pic. 8.3: Notch B

11. Table of Results

Param.	CONV	SI	ARB	Param.	CONV	SI	ARB
BLD	NEG	NEG	NEG	GLU	NEG	NEG	NEG
	10 Ery/ μ l	10 Ery/ μ l	+		NORM	NORM	NORM
	50 Ery/ μ l	50 Ery/ μ l	++		50 mg/dl	2,8 mmol/l	+
	250 Ery/ μ l	250 Ery/ μ l	+++		150 mg/dl	8,3 mmol/l	++
UBG	NORM	NORM	NORM	> 500 mg/dl	> 27,8 mmol/l	+++	
	2 mg/dl	35 μ mol/l	+	pH	5	5	5
	4 mg/dl	70 μ mol/l	++		6	6	6
	8 mg/dl	140 μ mol/l	+++		6,5	6,5	6,5
	12 mg/dl	200 μ mol/l	++++		7	7	7
NEG	NEG	NEG	8		8	8	
BIL	1 mg/dl	17 μ mol/l	+	9	9	9	
	2 mg/dl	35 μ mol/l	++	SG	1,000	1,000	1,000
	4 mg/dl	70 μ mol/l	+++		1,005	1,005	1,005
	NEG	NEG	NEG		1,010	1,010	1,010
30 mg/dl	0,3 g/l	+	1,015		1,015	1,015	
PRO	100 mg/dl	1 g/l	++	1,020	1,020	1,020	
	500 mg/dl	5 g/l	+++	1,025	1,025	1,025	
	NEG	NEG	NEG	1,030	1,030	1,030	
	POS	POS	+	LEU	NEG	NEG	NEG
25 mg/dl	2,5 mmol/l	+	25 Leu/ μ l		25 Leu/ μ l	+	
100 mg/dl	10 mmol/l	++	75 Leu/ μ l		75 Leu/ μ l	++	
300 mg/dl	30 mmol/l	+++	500 Leu/ μ l		500 Leu/ μ l	+++	

12. Service Menu

URYXXON® Relax has a password protected service menu. To enter the service menu press the touch-screen three times during the self test after turning the equipment on. Upon request input the PIN “1234”. A selective list with different menu items appears.



Display 24 : Service menu

12.1 How to reset the system (Load Default)

Select 'Load default' from the service menu. The instrument will be reset to delivery status. All settings modified by the user as well as the memory will be cleared!

12.2 How to control the LOT-control (LOT activate)

Select 'LOT activate' from the service menu to activate the LOT-control. This will minimize the risk of using expired test strips. You will be asked for the LOT of strips currently used. The system will give a warning when the test strips are expired. After 100 measurements the system will ask for the LOT-number of the next tube.

12.2.1 Entry of test sticks' LOT

If LOT-control is activated, the actual LOT-number of the test strips can be entered using 'Strip' in the menu 'Settings'.

When selecting "LOT number" a numerical pad will appear, which can be used for entering the LOT printed on the stick packaging. If the entry does not have the format expected for a LOT number, an error message will appear.

After entering the LOT, information on the number of strips from that LOT is requested. If three boxes of the same LOT are present, please enter '300' for the number of strips.

LOT CODE			
68450			
1	2	3	
4	5	6	←
7	8	9	0
✗		✓	

Display 25 : LOT code

NUMBER OF STRIP			
100			
1	2	3	
4	5	6	←
7	8	9	0
✗		✓	

Display 26 : LOT size

NOTICE:

The instrument counts the number of strips. If the number of measurements reaches the previously entered number of strips of that LOT the instrument requests to enter a new LOT-number. Then, please enter the LOT number of the strips you want to use.

12.2.2 Warning on expired test strips

The date of expiry of the test sticks is calculated from the LOT-number. If the expiry date has passed, a warning will appear (Display 27). If you choose to continue without entering a new LOT, Display 28 appears. Please choose the number of measurements you would like to perform without additional warnings.

Display 27 is a rectangular screen with a black header bar containing the text "EXPIRE DATE" in white. Below the header, the text "LOT has been expired!" is displayed. A white rectangular box contains two radio button options: "New LOT" (with a selected radio button) and "Continue" (with an unselected radio button). At the bottom right of the screen is a white rectangular button with a black checkmark.

Display 27 : Expire date A

Display 28 is a rectangular screen with a black header bar containing the text "EXPIRE DATE" in white. Below the header, the text "Continue" is displayed. A white rectangular box contains two radio button options: "1 strip" (with a selected radio button) and "10 strips" (with an unselected radio button). At the bottom right of the screen is a white rectangular button with a black checkmark.

Display 28 : Expire date B

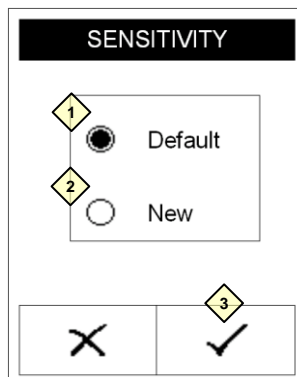
ATTENTION:
MACHEREY-NAGEL does not take responsibility for faulty measurement results due to expired test sticks.

12.3 How to change the sensitivity

Select 'Sensitivity' to adjust the sensitivity settings. The sensitivity of the URYXXON® Relax may be adjusted within specified borders for all parameters except the pH - value.

ATTENTION:

Faulty measurement results due to manipulated sensitivity are the sole responsibility of the operator of the equipment!



Display 29 : Sensitivity A

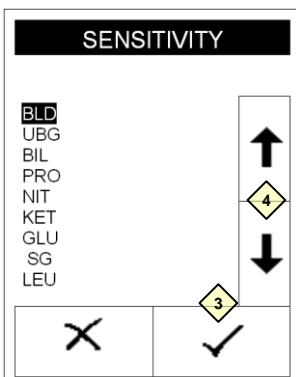
12.3.1 Settings Reset

By selecting the option panel “Default” (Display 29-1) and following confirmation (Display 29-3) all sensitivity values are reset to delivery status of URYXXON® Relax.

12.3.2 Appointing new Sensitivity Settings

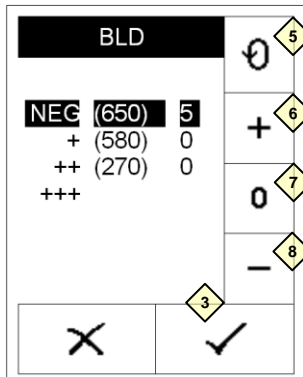
Please note that technical and medical knowledge is required. If you do not feel confident, leave this menu without changes.

By selecting the option panel “NEW” (Display 29-2) and following confirmation (Display 29-3) the parameter selection will appear.



Display 30 : Sensitivity B

Use the arrows to select the parameter that should be modified (Display 30-4). Confirm your choice by pressing (Display 30-3).



Display 31 : Sensitivity C

Display 31 will appear. Press (31-5) to select the value that you would like to modify. Three informations are in each line:

Reported value - (original threshold) – modification

Press the buttons (31-6) and (31-8) to increase or decrease the threshold value. Press (Display 31-7) to return to the original threshold value. Confirm your modifications by pressing ✓.

12.4 How to update the instrument

Select 'Program update' from the service menu. The URYXXON® Relax now expects the upload of a new firmware. Follow the instructions that come with the update-file to finalize the update process.

13. Interface Description

URYXXON® Relax may be connected to a computer via the RS232 or the USB-interface (work station or laboratory information system).

13.1 Serial Interface

Protocol RS232, 19200 Baud, 8 bit, no parity (Picture 3.3-4)
Connection plug arrangement:

Pin	Signal	Description	Direction
1	Nc	Not wired	
2	RxD	Data reception	Input
3	TxD	Send	Output
4	Nc	Not wired	
5	GND	Signal ground	--
6	Nc	Not wired	
7	Nc	Not wired	
8	Nc	Not wired	
9	Nc	Not wired	

13.2 USB 1.1-Interface

USB-jack Type B (Pic. 3.3-5). The instrument will be identified as a serial interface. The driver for the interface module may be downloaded from the MACHEREY-NAGEL homepage (<http://www.mn-net.com>).

13.3 Transmission Protocol

The data is released via the interfaces as plain text. The received dataset corresponds to the format of the printout.

13.4 Barcode Scanner, PC-Keyboard

A PS/2 jack (Pic. 3.3-6) is provided for connection of a keyboard or bar code scanner.

14. Error Messages und Fault Clearance

Messages are displayed in plaintext and are self-explanatory.

Error Message / Error	Cause	Solution
“Dry Stick“	The test stick wasn't dipped completely	Repeat measurement with a new stick
“Wrong Stick“	A wrong test stick has been detected (wrong type)	Use correct test sticks
“Wrong Stick Position“	The stick hasn't been pushed into the stick retainer far enough	New measurement, place strip in right position
“No Paper“	Paper roll empty or printer flap open	Replace paper and close printer flap
“Battery Low“	Batteries are low	Exchange batteries or use power pack
Instrument doesn't start	Power supply not installed or defect	Check whether all connections are plugged in and whether the power socket is functioning

In case a fault cannot be cleared by the aid of the instructions above, please contact your local distributor or the MACHEREY-NAGEL Service.

15. Warranty

The warranty for this equipment has a duration of 24 months from the date of purchase. The original copy of the bill serves as a certificate and must be submitted in case of assertion of a warranty claim. The warranty expires in case of improper handling and/or maintenance of the equipment; it does not comprise defects due to the external power supply.

The warranty is limited to the repair of faulty parts or - at our sole discretion - to the delivery of a faultless substitute. The warranty period of 24 months is not affected by claiming on the warranty during this period. There is no right of withdrawal.

Further claims are excluded. Hereunto we count in particular all claims for damages evolving from consequential damages or indirect damages.

Additionally the relevant version of our general sales terms and delivery conditions apply as printed on all price lists.

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Fax : +49 (0) 2421 969-199
E-mail : sales-de@mn-net.com
Internet : www.mn-net.com

16. Technical Information

16.1 Technical Data

Required electric supply:

Mains transformer:

Input 100 – 240 V

Output 9 V = 1.5 A

Alternative: battery operation with 6 mignon batteries 1,5 V (AA).

Dimensions:

Height: 7,5 cm

Width: 16 cm

Depth: 20 cm

Weight:

710 g (without batteries and power pack)

Range of Ambient Air Temperature:

5 – 40 °C

Humidity:

20-80%

16.2 Security standards

URYXXON® Relax is in compliance with directive 89/336/EEC and conforms to the German EMV - Law. Furthermore it complies with directive 73/23/EEC.

This equipment and the designated test sticks are in compliance with IVD directive 98/79/EG.