

# ACCU-CHEK<sup>®</sup> *Smart Pix*

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**DEVICE READER**

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**Manual**



## **Accu-Chek Smart Pix Manual**

December 2005 edition

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Other brand or product names are trademarks of their respective holders.

### **Product safety information**

This device is designed according to the International Standard IEC 60950 "Safety of Information Technology Equipment" and it was in perfectly safe condition when it left the factory.



This product meets the requirements of EU Council Directive 89/336/EEC of May 3, 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility. Conformity with the above directive is confirmed by the CE mark on the device.

The device may only be operated via the USB port of a suitable computer.

The Accu-Chek Smart Pix system is installed, managed and maintained by the user and in the user's sole responsibility.

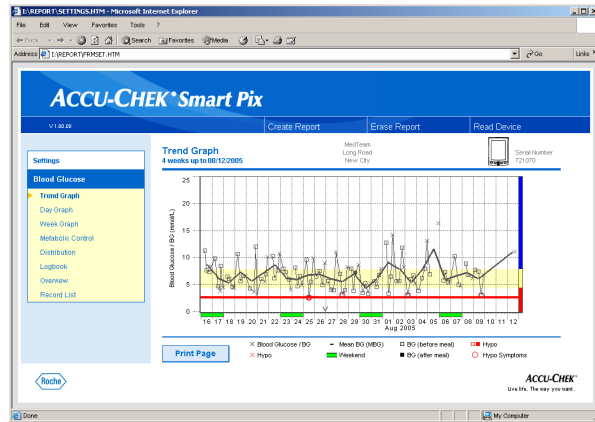
<b>1</b>	<b>Accu-Chek Smart Pix System Overview</b> .....	1-1
1.1	Printed symbols .....	1-3
1.2	Overview of the Accu-Chek Smart Pix system .....	1-4
1.3	Overview of the Accu-Chek Smart Pix display signals .....	1-5
1.4	Overview of the Accu-Chek Smart Pix user interface .....	1-6
<b>2</b>	<b>Installing the Accu-Chek Smart Pix</b> .....	2-1
2.1	What you require for using the Accu-Chek Smart Pix system .....	2-1
2.2	Connecting up the Accu-Chek Smart Pix .....	2-2
	Note about security settings in the Internet browser .....	2-3
2.3	Final preparations .....	2-4
2.4	Configuring the Accu-Chek Smart Pix .....	2-5
	Selecting a Language .....	2-7
	Display Options .....	2-8
	Personal Setup .....	2-9
	Report Setup .....	2-11
	Completing configuration .....	2-13
<b>3</b>	<b>Preparing the Devices</b> .....	3-1
3.1	Accu-Chek Active .....	3-3
3.2	Accu-Chek Aviva .....	3-3
3.3	Accu-Chek Compact/Integra .....	3-4
3.4	Accu-Chek Compact Plus .....	3-4
3.5	Accu-Chek Go .....	3-5
3.6	Accu-Chek Sensor/Advantage .....	3-6
3.7	Accu-Chek Comfort .....	3-7
3.8	Accu-Chek Pocket Compass software .....	3-8
3.9	Insulin pump Accu-Chek D-TRONplus (and Disetronic D-TRONplus) .....	3-9
3.10	Accu-Chek Spirit insulin pump .....	3-10

<b>4</b>	<b>Accu-Chek Report</b> .....	4-1
4.1	Printing reports .....	4-2
4.2	Blood glucose: general information about the reports .....	4-3
	Types of report .....	4-3
	Evaluated data .....	4-4
	Styles of reports .....	4-5
	Graphic elements of the reports .....	4-6
4.3	Blood glucose: content of the report .....	4-9
	Trend Graph .....	4-9
	Day Graph .....	4-10
	Week Graph .....	4-11
	Metabolic Control .....	4-12
	Distribution .....	4-13
	Logbook .....	4-13
	Overview .....	4-14
	Record List .....	4-16
4.4	Insulin pump: general information about the reports .....	4-17
	Types of report .....	4-17
	Graphic elements of the reports .....	4-18
4.5	Insulin pump: content of the report .....	4-20
	Trend Graph .....	4-20
	Day Graph .....	4-21
	Week Graph .....	4-21
	Basal Rates .....	4-22
	Basal-Bolus .....	4-22
	Long-term Overview .....	4-23
	Record Lists .....	4-24
<b>5</b>	<b>Error Signals and Troubleshooting</b> .....	5-1
5.1	Errors without error signals .....	5-1
5.2	Error signals on the device .....	5-2

<b>6</b>	<b>Maintenance</b> .....	6-1
6.1	Cleaning the Accu-Chek Smart Pix .....	6-1
6.2	Disposal .....	6-1
<b>7</b>	<b>Appendix</b> .....	7-1
7.1	Abbreviations .....	7-1
7.2	Technical data .....	7-1
7.3	Warranty Conditions .....	7-2
7.4	Information about advice and the repair service .....	7-2
7.5	Roche Diagnostics addresses .....	7-3

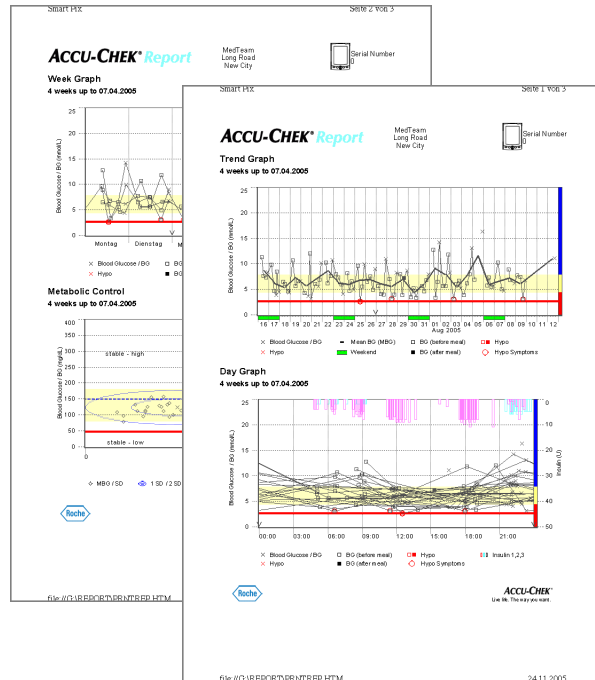


# 1 Accu-Chek Smart Pix System Overview



The Accu-Chek Smart Pix system is used for the easy, automatic analysis of blood glucose levels and therapy data from various Accu-Chek meters and insulin pumps. The analyses are displayed on a computer in the form of various, specific reports using a standard Internet browser. As a result the reports can also be printed out on a connected printer.

In many clinics and doctors' practices such reports are used successfully for facilitating and speeding up assessment of the metabolic situation. The Accu-Chek Smart Pix system features similar functionality. However, operator control is reduced to a simple activity which has since become everyday routine: just a few mouse clicks on a computer are sufficient to see the finished report on the monitor or get a hardcopy of it.





The procedure is as simple as it could possibly be:

- Prepare meter for data transfer
- Place meter in front of the Accu-Chek Smart Pix device
- The report is prepared automatically and it can be viewed and printed out at the computer using an Internet browser







On the following pages you will find more detailed information about the various components, their application and the content of the reports compiled with the Accu-Chek Smart Pix system.

Please read all these pages carefully. To be able to use your new system successfully you should know everything that is explained here. If you have any additional questions, you will find some helpful information in the appendix, along with names and addresses of people to contact to get the answers you require.



## 1.1 Printed symbols

In this manual some passages are highlighted by symbols. Please read those passages very carefully! There are more symbols on the type plate of the device and/or the packaging.

Symbol	Name	Description
	Caution	On the type plate: refer to accompanying documents; please refer to safety-related notes in the manual accompanying this instrument.
	Warning	In the Operator's Manual: points out important health or safety information.
		The symbol draws your attention to important information.
		Manufacturer
REF		Catalogue number
SN		Serial number
		This product falls under the scope of application of EC Directive 2002/96/EC. Therefore it must not be disposed of with household waste.
		This product fulfils the requirements of EC Directive 89/336/EEC.

## 1.2 Overview of the Accu-Chek Smart Pix system



The system consists of the following components, which are described in brief below.

- 
- 1** Accu-Chek Smart Pix device: The central component of the system. This device is the interface with the various Accu-Chek meters and insulin pumps and it also contains the electronics and the programs for processing the data input and measurements. The analyses created are stored in the device temporarily and can be viewed with an Internet browser.

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  - 2** USB connector for hooking up to the computer.

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  - 3** Display for indicating operating status (see page 1-5).

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  - 4** Infrared window for communication with Accu-Chek meters and insulin pumps.

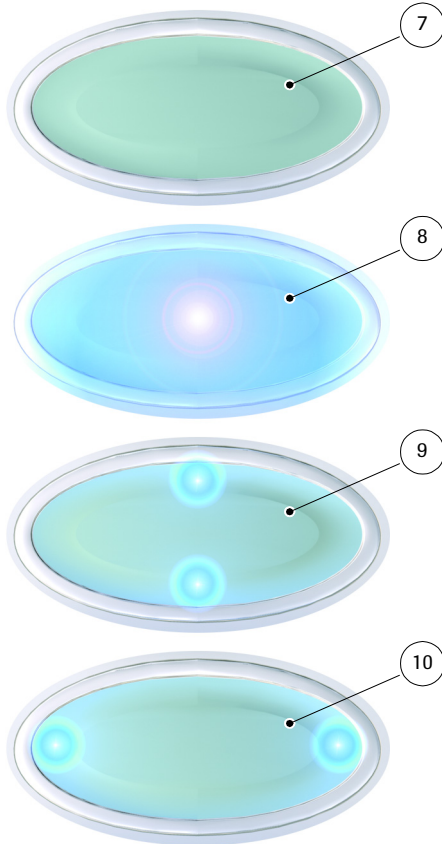
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  - 5** On the bottom of the device there is a holder for an Accu-Chek IR Key. This accessory can be safely stored here to save space when it is not required. The Accu-Chek IR Key allows infrared data communication with Accu-Chek meters that do not have a built-in infrared port (Accu-Chek Sensor and Accu-Chek Comfort). In the devices indicated it is used for data transfer in place of the coding chip. The Accu-Chek IR Key is available as an accessory (REF 0 3307778190) if you have not already received it from your dealer or Roche Diagnostics.
- 

### Not illustrated:

- 
- 6** Manual (this document)
-

### 1.3 Overview of the Accu-Chek Smart Pix display signals



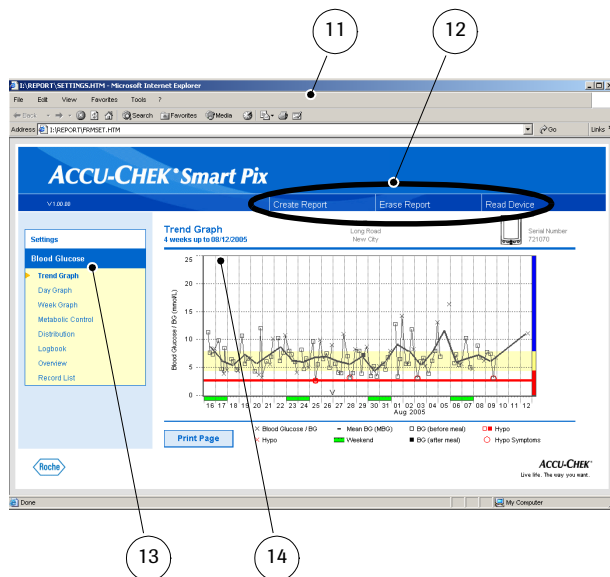
The Accu-Chek Smart Pix system indicates various operating statuses on the display on top of the device. The following signals can appear on this display:

- 
- 7** Off:  
The Accu-Chek Smart Pix device is not connected to a computer or the computer is not switched on.
- 
- 8** Centre display section
- Lit continuously: report is ready on the computer, idle state.
  - Flashing slowly: error
- 
- 9** Top/bottom dots
- Flashing simultaneously about once a second: device is ready for operation and is actively searching for meters or insulin pumps.
  - Flashing fast simultaneously: data transfer
- 
- 10** Left/right dots
- Flashing fast simultaneously: processing report data
- 

Software updates for the Accu-Chek Smart Pix system can be installed via the computer. While such an update is being installed display section **8** and (together) dots **9** and **10** flash alternately.

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## 1.4 Overview of the Accu-Chek Smart Pix user interface



The Accu-Chek Smart Pix system has a user interface that is shown in standard Internet browsers. You do **not** require an Internet connection if you wish to use the Accu-Chek Smart Pix system – the relevant pages are stored in the device itself where they can be called up. The user interface is optimised for a screen resolution of at least 1024 x 768 pixels.

**11** Internet browser (Microsoft Internet Explorer, Firefox, Opera)

**12** Buttons for calling up various functions (context-dependent):

- *Settings*
- *Create Report* (Print)
- *Erase Report*
- *Read Device*

**13** Navigation bar for calling up the individual pages (reports and settings), which are then shown in the display pane **14**

**14** Display pane for reports and settings

**i** Even if various functions are available to you in the Internet browser itself (e.g. Navigate forward/back, Refresh, Print, etc.), we advise you to only use the relevant functions on the Accu-Chek Smart Pix user interface instead. The Accu-Chek Smart Pix system has more options for customising printouts, for example. These options will not be available to you if you use the standard functions of the browser.

You will find a detailed description of the various elements in the chapter 2.4, “Configuring the Accu-Chek Smart Pix” and in the chapter 4, “Accu-Chek Report”.

## 2 Installing the Accu-Chek Smart Pix

You can connect the Accu-Chek Smart Pix system up to any computer which meets the necessary system requirements (see below). No further steps are necessary to prepare the device for operation. Nor is it necessary to install any additional software. However, before the device is used for the first time you should configure it with your personal diabetes-related data according to your requirements in order to obtain customised accurate reports.

### 2.1 What you require for using the Accu-Chek Smart Pix system

You will find the following components in the package:

- Accu-Chek Smart Pix device with USB connector
- Manual on CD-ROM
- Getting Started Guide
- Material bag for storing the Accu-Chek Smart Pix device

You also require:

- A PC with a free USB port
- Operating system Microsoft Windows 2000 (Service Pack 4) or XP (older systems do not provide integrated USB support)
- An installed Internet browser (e.g. Microsoft Internet Explorer 5.x and later, Firefox 1.x and later, Opera 8.x and later)
- Since the user interface of the Accu-Chek Smart Pix system is optimised for a screen resolution of 1024 x 768 pixels, you should use a monitor which is set to that resolution (or higher).
- If you wish to print out the reports, you will also require a printer which is connected to the PC.

## 2.2 Connecting up the Accu-Chek Smart Pix



Plug the USB connector of the Accu-Chek Smart Pix device into a free USB socket on your computer. When you do this it does not matter whether the computer is switched on or off. The Accu-Chek Smart Pix device is also supplied with electricity via this connection so it does not require any batteries or power pack.

When you have plugged in the Accu-Chek Smart Pix device and, if necessary, switched on the computer, the centre display section and the dots on the left and right are switched on. At the same time the Accu-Chek Smart Pix system is recognised by the computer as a drive with removable media (similar to a USB memory stick). Then the dots at the top and bottom of the display start flashing slowly. The Accu-Chek Smart Pix system is now ready to read a device.

### **Note about security settings in the Internet browser**

The Accu-Chek Smart Pix system can use various Internet browsers to display and print out the meter data. Here any customised settings or settings made when the browser was installed can have an influence on use of the Accu-Chek Smart Pix system.

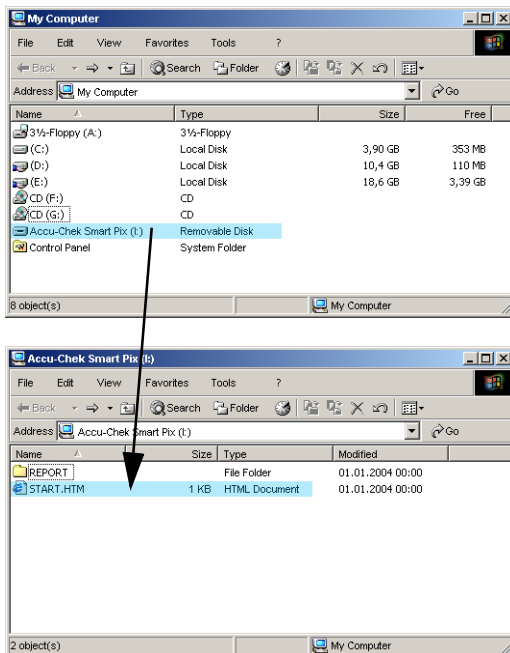
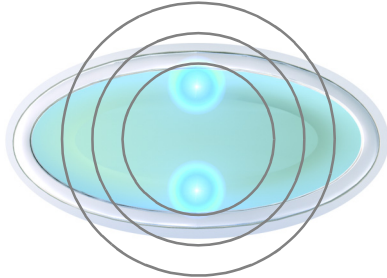
The Accu-Chek Smart Pix system uses pages with so-called "active content" (JavaScript). This active content can be suppressed by making appropriate security settings in the browser, so if this has been done, it may cause warnings or restricted functionality. In such a case check the relevant settings in your browser in order to ensure smooth operation. In many cases you can create different security settings for the Internet and using the Accu-Chek Smart Pix system (e.g. at user log-in on the PC or in user profiles in the browser).

If you classify the Accu-Chek Smart Pix system as a "trusted site", you can use the device without any further limitations.

### **Note about illustrations in this manual**

Please bear in mind that all the illustrations of screen content used in this manual (screenshots) only serve as examples in terms of visual appearance and content. Actual appearance depends on the operating system being used, the Internet browser being used and any personal system settings. The content displayed depends not only on your settings of the Accu-Chek Smart Pix system but also on the meter data or insulin pump data read.

## 2.3 Final preparations



The display section of the Accu-Chek Smart Pix device starts flashing as soon as the device is connected to a computer that is switched on. There are several different display signals which indicate various operating states (see page 1-5). After plugging in the Accu-Chek Smart Pix device or after switching on the computer, as the case may be, the following occurrences indicate that the device is operating properly:

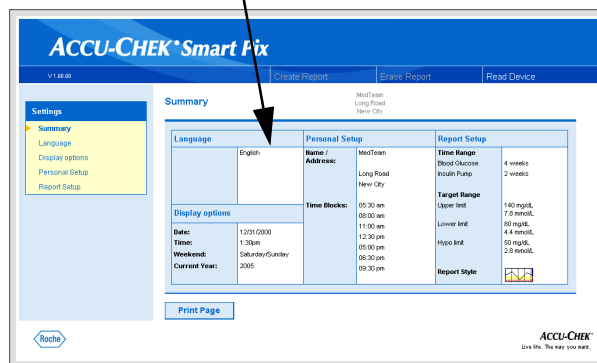
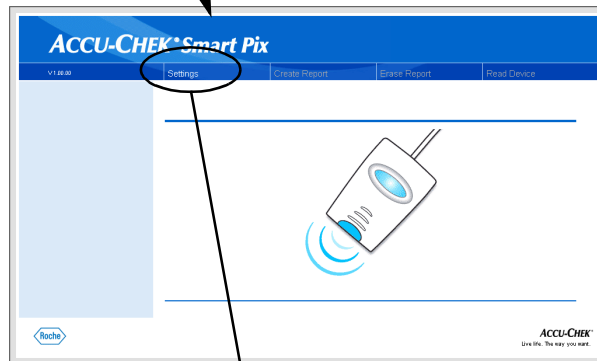
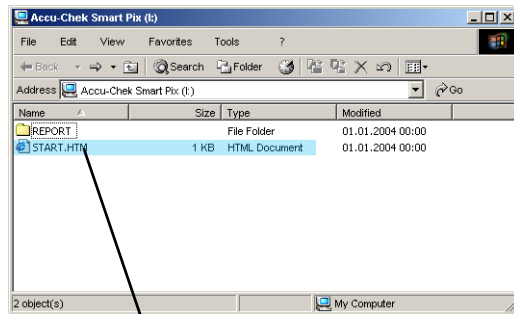
- On the display the dots at the top and bottom flash slowly (about once a second). This indicates that the device is ready for operation and that it is actively searching for meters and insulin pumps.
- Windows (XP) automatically opens a window showing the contents of the drive with removable media (*SmartPix*) as a folder.
- If this does not happen (e.g. in the case of Windows 2000), open *My Computer* with a double click. You will now see *SmartPix* as a drive with removable media.
- Double-click on *SmartPix* (drive with removable media) in order to display the contents. You will now see a folder *REPORT*, the file *START.HTM* and, if applicable, other files and folders.

If you can now follow the above procedure on your computer, the Accu-Chek Smart Pix system is now ready to read data from a meter or an insulin pump. However, you should first perform the configuration described below in order to customise the reports properly.

If you have not been able to complete this brief check successfully (e.g. if the *drive with removable media* is not shown) you will find information about possible sources of error in section 5.



## 2.4 Configuring the Accu-Chek Smart Pix



The Accu-Chek Smart Pix system enables you to customise the appearance and default parameters (e.g. language, default setting English) of the reports to suit your requirements. To perform this configuration (before using for the first time) open the "user interface" of the Accu-Chek Smart Pix system, which is stored in the file *START.HTM* on the removable medium.

- Open the file *START.HTM* with a double click. Now the default Internet browser set on your computer will be launched and the Accu-Chek Smart Pix user interface will be loaded at the same time.
- Click (once, as is usually the case in browsers) on the *Settings* button. The Accu-Chek Smart Pix device now quits search mode (the centre display section is lit continuously).

You will now see the page showing a *Summary* of the current settings (on the right) and the navigation bar with the links to the various setup areas. The following settings are available

- *Language*
- *Display Options* for display formats and the year
- *Personal Setup* for name and time blocks
- *Report Setup*

On the following pages you will find detailed descriptions of the various setup areas. First of all you should set the language you prefer so that the user interface for all the other settings is displayed in that language.


**Note about saving configurations:** The response to saving the following setting may vary according to the operating system and browser you are using:

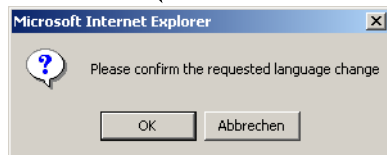
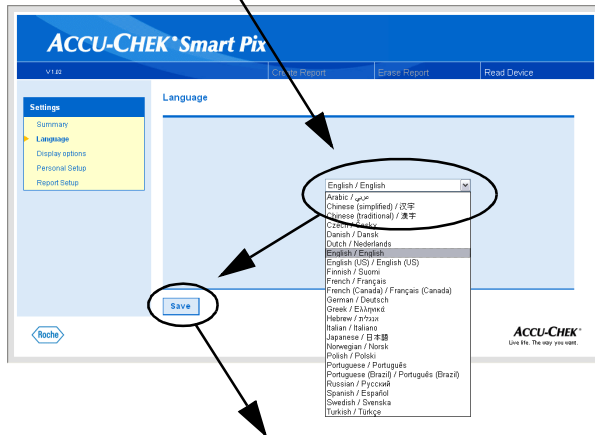
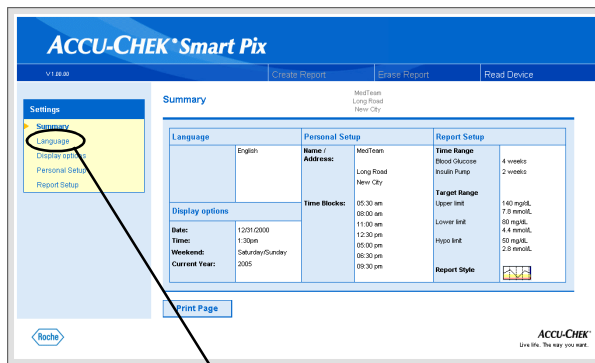
- It may be that the browser closes down after the following log-out and log-in of the Accu-Chek Smart Pix system (as a drive). If that happens, simply open the file *START.HTM* again with a double click. The language setting you have just saved has been accepted.
- It may be that the browser continues running but the changed language setting is not implemented immediately. If this happens, close the browser manually. Open the file *START.HTM* again with a double click. The language setting you have just saved has been accepted.

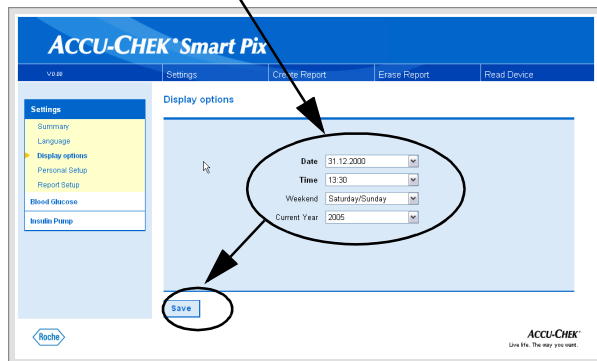
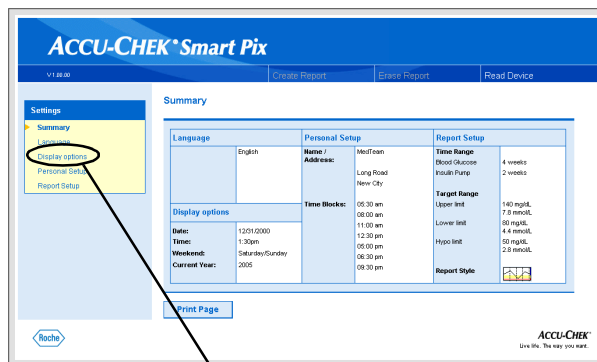
## Selecting a Language

On the navigation bar click the *Language* link. The display pane now shows a fold-down list field with all the languages available, the default setting being *English*. Select the language which you want to be used both for the screen in the browser and for the printouts.

- Click the arrow pointing down to open the selection list.
- Click the desired language in order to select it.
- If you have changed the selection, click the *Save* button in order to send the selection made to the Accu-Chek Smart Pix system.
- In the next dialog box confirm the change to the new language.

 If you leave this page (e.g. by clicking another link or closing the browser) without saving your selection, any change you have made will have no effect.





## Display Options

On the navigation bar click the *Date & Time* link. The display pane now shows the options for the various formats. Select the following settings here:

- Date and time format.
- Typical non-working days at the weekend. These are highlighted in some reports.
- Current year (only for the analysis of data from meters which do not allow you to set the year).

The selection procedure is identical for all the options:

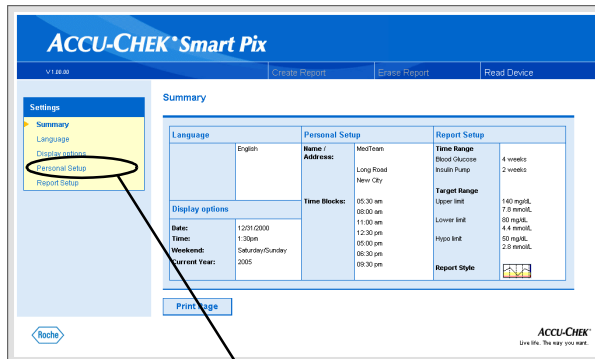
- Click the arrow pointing down to open the selection list.
- Click the desired setting in order to select it.
- When you have completed all your settings on this page, click the *Save* button in order to send the selection made to the Accu-Chek Smart Pix system.



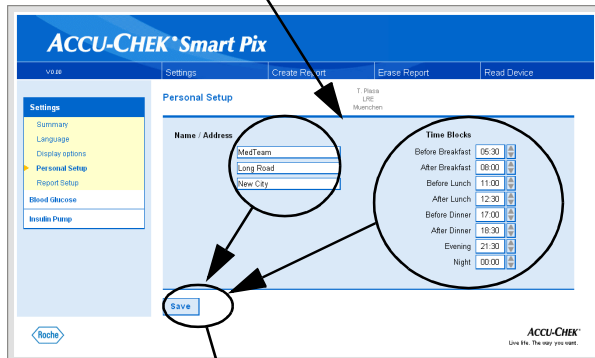
If you leave this page (e.g. by clicking another link or closing the browser) without saving your selection, any change you have made will have no effect.

## Personal Setup

On the navigation bar click on the *Personal Setup* link. The display pane now shows the options.

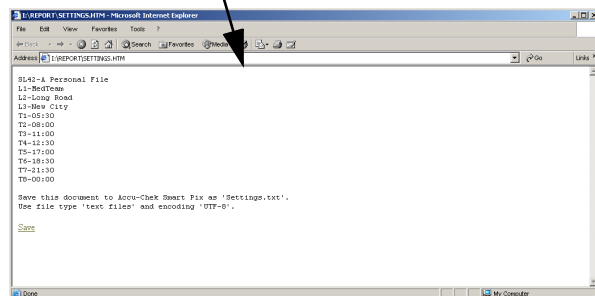


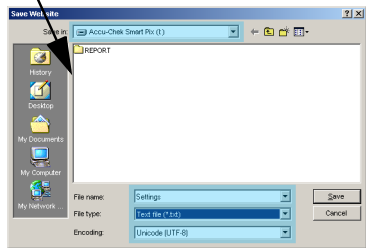
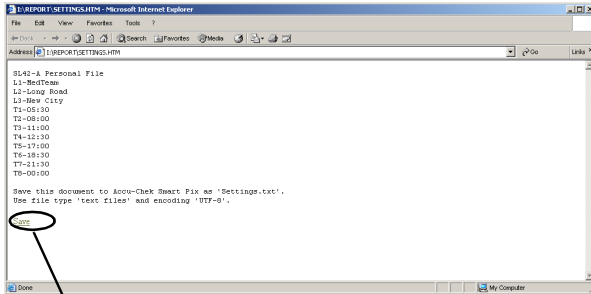
- Input fields for personalising the printouts (here you can enter the name of a doctor's practice or pharmacy, for example). This is where you can enter whatever text you want. The length of the text is limited. Therefore choose abbreviations or use another line for your entries.
- Setting the time ranges. By setting time ranges you split up a 24-hour day into eight periods which are restricted by important regular occurrences (e.g. main meals). For each period you can specify the start time whilst the end time automatically depends on the next start time.



The time ranges you set here are used in reports for subdividing visually and chronologically whenever there is no relevant information from the meter or insulin pump. You can change the time ranges in 30-minute intervals.

- Click (on the right next to the display of a start time) the arrow pointing **up** in order to move it to a **later** time.
- Click (on the right next to the display of a start time) the arrow pointing **down** in order to move it to an **earlier** time.
- When you have completed all your settings on this page, click the *Save* button.






**i** As opposed to all the other settings, these here must be saved immediately in a text file on the *removable medium* (Accu-Chek Smart Pix), as described below. If you leave this page (e.g. by clicking another link or closing the browser) without saving your selection, any change you have made will have no effect.

As soon as you click the *Save* button in the *Personal Setup* pane, another window opens in the browser showing text which contains your settings for this area. Now proceed as follows:

- Click the *Save* link at the bottom of the text or
- select the *Save As...* command in the *File* menu.

In the next dialog box select the storage location, the name and other file attributes:

- Select the *removable medium* (Accu-Chek Smart Pix) as the storage location.
- The following settings are defaults and must not be changed:
  - Name "Settings"
  - File type "Text file (\*.txt)"
  - Code "Unicode (UTF-8)"
- If all the entries are correct, click the *Save* button and close the text window using the *Close* button  (top right of the window).

The text file generated in this way is read by the Accu-Chek Smart Pix system and the entries are adopted as the settings of the Accu-Chek Smart Pix system (until they are changed). The file is then deleted.

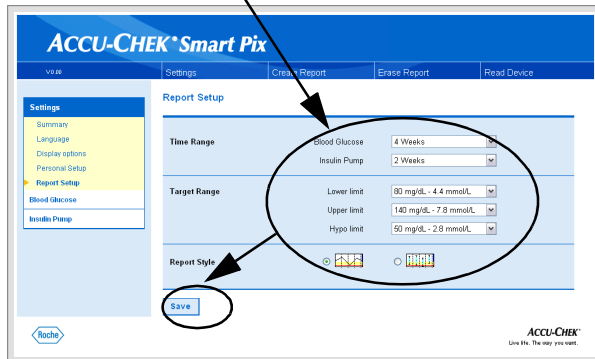
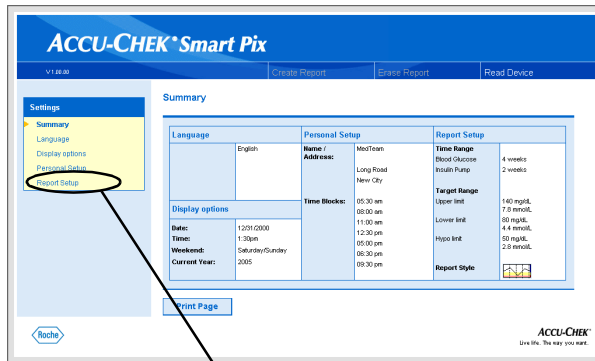
## Report Setup

On the navigation bar click the *Report Setup* link. The display pane now shows the options for the reports to be created in future. Select the following settings here:

- *Time Range* for the reports to be created, for blood glucose meters (2, 4, 6, 8, 10 or 12 weeks) and insulin pumps (1, 2 or 4 weeks) separately.
- *Target Range* for blood glucose measurements, specified by an upper and lower limit and by the hypo(glycaemia) limit.
- *Report Style* This selection influences the level of detail on the chart.

Selecting a time range



- Click the arrow pointing down to open the selection list, for blood glucose meters and insulin pumps separately.
- Click the desired time range in order to select it.



### Target Range

- Click the arrow pointing down to open the selection list, for lower limit and upper limit separately.
- Click the desired figure in order to select it.
- Click the arrow pointing down to open the selection list and enter the hypo limit.
- Click the desired figure in order to select it.

### Preferred Report Style

Some graphic reports can be displayed in two different styles. The main difference between these styles is their level of detail. The *Trends*  report style makes it easy to conduct an interpretation of basic trends and developments (ignoring individual figures). Reports in the *Detailed*  style reflect precise trends and include all the individual figures.

You will find more detailed information about the differences between these report styles in the section “Styles of reports” on page 4-5.

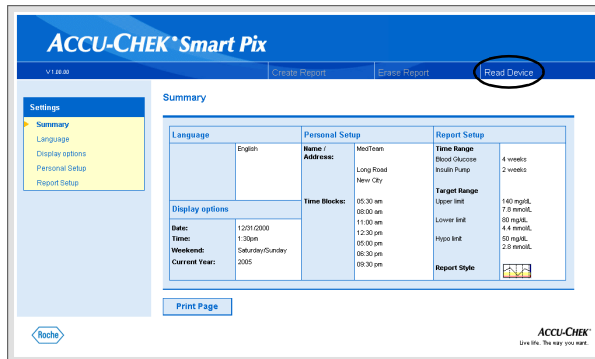
- When you have completed all your settings on this page, click the *Save* button in order to send the selection made to the Accu-Chek Smart Pix system.



If you leave this page (e.g. by clicking another link or closing the browser) without saving your selection, any change you have made will have no effect.



## Completing configuration



When you have made all the settings according to your requirements and if you then wish to read a meter or insulin pump, please prepare the device accordingly first (see section 3). Then click the *Read Device* button (starts search mode).

Please observe the following points about search mode:

- If you start search mode by clicking the *Read Device* button with the mouse, it will close down automatically after a certain time if no device is found. If this happens, an appropriate error message appears.
- If you unplug the Accu-Chek Smart Pix device and plug it in again (or if in the meantime you switch off the computer and switch it back on again), the device switches to search mode automatically. However, this is **not** subject to any time limit so it continues until a device is found.

Therefore, if after having made settings you wish to familiarise yourself with preparation of devices or other issues first, unplug the Accu-Chek Smart Pix device from the USB port and plug it back in again. This puts the device in continuous search mode and you do not have to perform the following steps within a limited timeframe.

When you unplug the USB cable the browser window may close. If it does, simply plug in the Accu-Chek Smart Pix device again and open the file *START.HTM* again with a double click.



### 3 Preparing the Devices

The Accu-Chek Smart Pix system can read and analyse data from the following devices:

- Accu-Chek Active
- Accu-Chek Aviva
- Accu-Chek Compact
- Accu-Chek Compact Plus
- Accu-Chek Go

and from the

- Accu-Chek Pocket Compass software for handheld computers

Using an Accu-Chek IR Key (accessory) the following meters can also be used for transferring data:


- Accu-Chek Advantage
- Accu-Chek Comfort
- Accu-Chek Sensor


The following insulin pumps are suitable for transferring data to the Accu-Chek Smart Pix system:

- Accu-Chek D-TRONplus
- Disetronic D-TRON (plus)
- Accu-Chek Spirit

Note: Not all the devices are available in all countries.

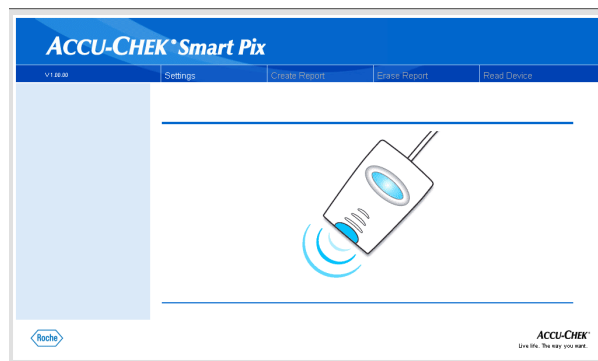
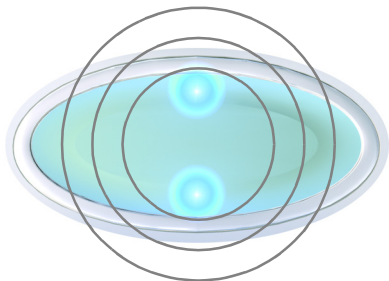
In some cases these devices require different preparations in order to transfer data to the Accu-Chek Smart Pix system. On the following pages you will find a description of the procedure for analysing stored data successfully, with regard to each individual device. You or the user will also find this information in the operator manuals for the meters, insulin pumps and Accu-Chek Pocket Compass software.

 Only ever prepare one device at a time for data transfer. Otherwise data transfer might be interfered with by simultaneous communication attempts.

 Avoid direct extraneous light (e.g. sunlight) because it may interfere with data transfer.

All the descriptions below are based on the following assumptions:

- The Accu-Chek Smart Pix device is already plugged into the computer.
- The computer is switched on and the operating system is running.
- The Accu-Chek Smart Pix device indicates that it is ready for data transfer by causing the top/bottom dots to flash slowly (about once a second).
- If you have already opened the file *START.HTM* in the browser, you will see the picture opposite (search mode).



### 3.1 Accu-Chek Active



The Accu-Chek Active meter has an infrared port for data transfer. In order to read data from these meters, proceed as follows:

- Place the device approx. 10 cm away from the infrared window on the Accu-Chek Smart Pix device. Both infrared windows must be facing one another.
- Switch the meter on by keeping the **M** button pressed for more than 3 seconds.
- The display shows "PC" and data transfer starts automatically.

### 3.2 Accu-Chek Aviva



The Accu-Chek Aviva meter has a built-in infrared port for data transfer. In order to read data from these meters, proceed as follows:

- Place the device approx. 10 cm away from the infrared window on the Accu-Chek Smart Pix device. Both infrared windows must be facing one another.
- Switch the meter on by keeping the < and > buttons pressed simultaneously for more than 3 seconds.
- The display shows two flashing arrows and data transfer starts automatically.

### 3.3 Accu-Chek Compact/Integra



The Accu-Chek Compact/Integra meter has a built-in infrared port for data transfer. In order to read data from these meters, proceed as follows:

- Place the device approx. 10 cm away from the infrared window on the Accu-Chek Smart Pix device. Both infrared windows must be facing one another.
- Switch the meter on by pressing the **SET** and **MEMO** buttons simultaneously. The device is now switched on and in data transfer mode, without dispensing a new test strip.
- The display shows two arrows and data transfer starts automatically.

### 3.4 Accu-Chek Compact Plus



The Accu-Chek Compact Plus meter has a built-in infrared port for data transfer. In order to read data from these meters, proceed as follows:

- Place the device approx. 10 cm away from the infrared window on the Accu-Chek Smart Pix device. Both infrared windows must be facing one another.
- Switch the meter on by pressing the **S** and **M** buttons simultaneously. The device is now switched on and in data transfer mode, without dispensing a new test strip.
- The display shows two arrows and data transfer starts automatically.

### 3.5 Accu-Chek Go

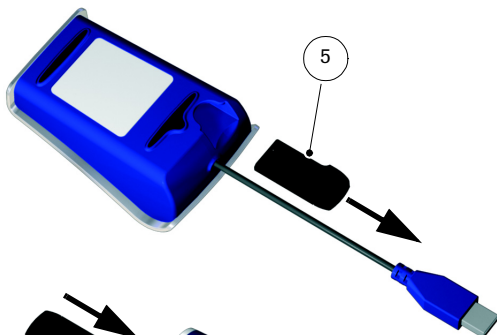


The Accu-Chek Go meter has a built-in infrared port for data transfer. In order to read data from these meters, proceed as follows:

- Place the device approx. 10 cm away from the infrared window on the Accu-Chek Smart Pix device. Both infrared windows must be facing one another.
- Switch the meter on by keeping the **M** button pressed for more than 3 seconds.
- The display shows "PC" and data transfer starts automatically.

That completes preparations for this meter.

### 3.6 Accu-Chek Sensor/Advantage



The Accu-Chek Sensor/Advantage meters use the contacts for the coding chip as an interface for data transfer. In order to read data from these meters, proceed as follows:

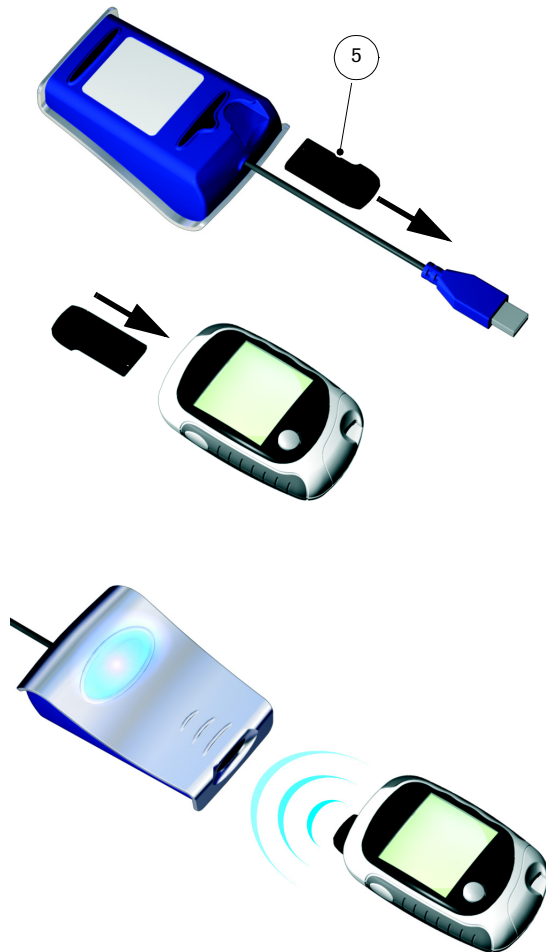
- Leave the device switched **off** for the entire procedure.
- Remove the coding chip from the meter.
- Remove the Accu-Chek IR Key **5** from the compartment on the back of the Accu-Chek Smart Pix device (if that is where you keep it).
- Insert the Accu-Chek IR Key into the meter in place of the coding chip.
- Place the device approx. 10 cm away from the infrared window on the Accu-Chek Smart Pix device. Both infrared windows must be facing one another.
- Data transfer starts automatically.

When data transfer has been completed and the report is on the screen:

- Remove the Accu-Chek IR Key from the meter and return it to the place where you normally keep it (e.g. the compartment on the back of the Accu-Chek Smart Pix device).
- Plug the coding chip back into the meter.



### 3.7 Accu-Chek Comfort



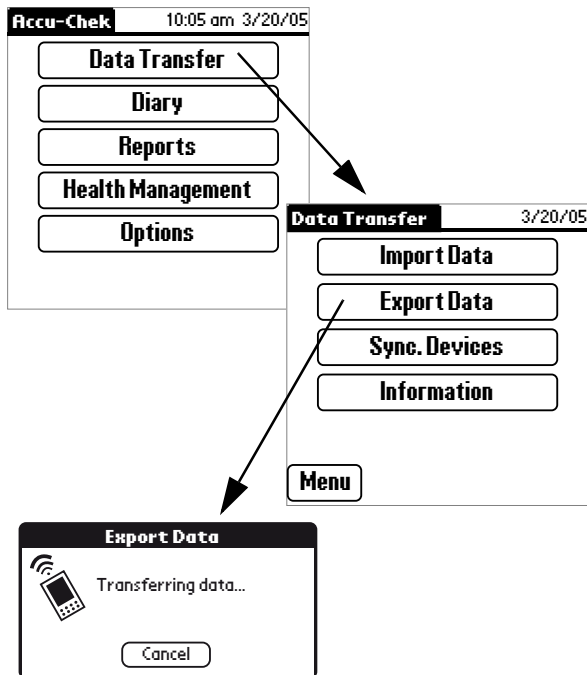
The Accu-Chek Comfort meters use the contacts for the coding chip as an interface for data transfer. In order to read data from these meters, proceed as follows:

- Leave the device switched **off** for the entire procedure.
- Remove the coding chip from the meter.
- Remove the Accu-Chek IR Key **5** from the compartment on the back of the Accu-Chek Smart Pix device (if that is where you keep it).
- Insert the Accu-Chek IR Key into the meter in place of the coding chip.
- Place the device approx. 10 cm away from the infrared window on the Accu-Chek Smart Pix device. Both infrared windows must be facing one another.
- Data transfer starts automatically.

When data transfer has been completed and the report is on the screen:

- Remove the Accu-Chek IR Key from the meter and return it to the place where you normally keep it (e.g. the compartment on the back of the Accu-Chek Smart Pix device).
- Plug the coding chip back into the meter.

### 3.8 Accu-Chek Pocket Compass software



The Accu-Chek Pocket Compass software uses the infrared port of a handheld computer for data transfer. In order to read data from the handheld computer, proceed as follows:

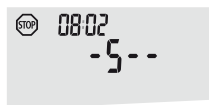
- Place the handheld computer approx. 10 cm away from the infrared window on the Accu-Chek Smart Pix device. Both infrared windows must be facing one another.
- Switch on the handheld computer and start the Accu-Chek Pocket Compass software.
- In the main menu press **Data Transfer**.
- Then press **Export Data**.
- Data transfer starts automatically.

### 3.9 Insulin pump Accu-Chek D-TRONplus (and Disetronic D-TRONplus)




The insulin pump Accu-Chek D-TRONplus (Disetronic D-TRONplus) has a built-in infrared port for data transfer. In order to read data from these meters, proceed as follows:

- Place the device approx. 10 cm away from the infrared window on the Accu-Chek Smart Pix device. Both infrared windows must be facing one another.




- Make sure that your Accu-Chek (Disetronic) D-TRONplus insulin pump is in **STOP** mode and that the key lock (KeyLock) is deactivated or unlocked.




- Press the  button 4 times to select the "Data Transfer" function.



- Confirm your selection with the  button. The built-in infrared port is now activated and data transfer starts automatically.

When data transfer has been completed and the report is on the screen:

- Press the  button to quit data transfer mode.
- Resume operation of the insulin pump (**RUN** mode) so as not to interrupt the supply of insulin at the basal rate for longer than necessary.

### 3.10 Accu-Chek Spirit insulin pump




The Accu-Chek Spirit insulin pump has a built-in infrared port for data transfer. In order to read data from these meters, proceed as follows:

- Place the device approx. 10 cm away from the infrared window on the Accu-Chek Smart Pix device. Both infrared windows must be facing one another.




- Make sure that your Accu-Chek Spirit insulin pump is in **STOP** mode.




- Press the  button to select the "Data Communication" function.

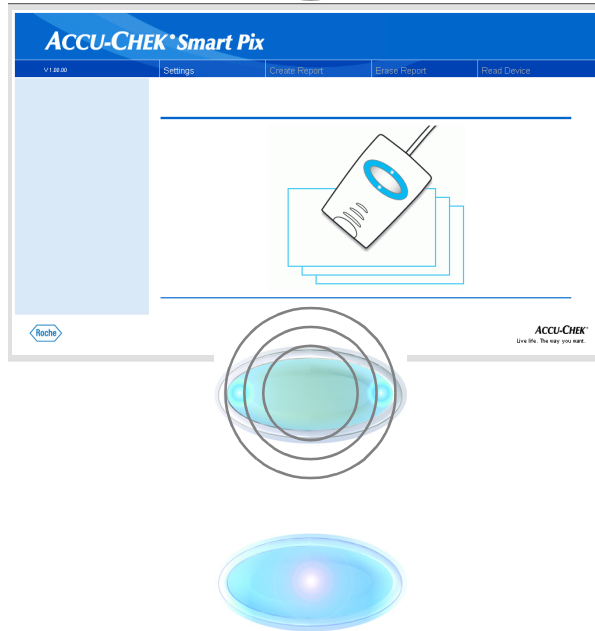
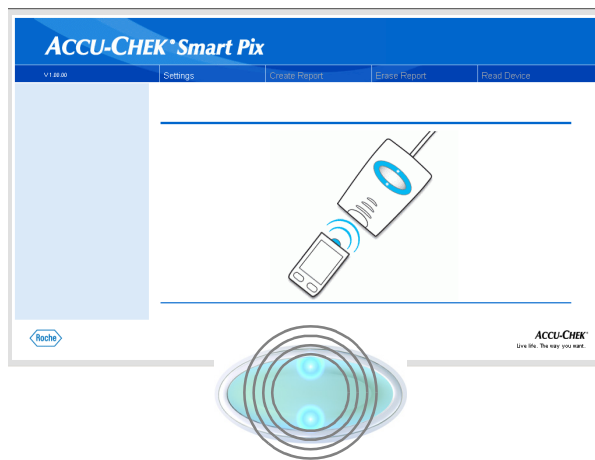


- Confirm your selection with the  button. The built-in infrared port is now activated and data transfer starts automatically.

When data transfer has been completed and the report is on the screen:

- Press the  button to quit data transfer mode.
- Resume operation of the insulin pump (**RUN** mode) so as not to interrupt the supply of insulin at the basal rate for longer than necessary.

## 4 Accu-Chek Report



If, as described in the previous section, you have initiated the transfer of data from a meter, an insulin pump or the Accu-Chek Pocket Compass software, the following now occurs:

- The top/bottom dots on the display flash quickly while data transfer is taking place. Make sure you do not move the devices during this process, so as not to interfere with data transfer.
- When the data has been transferred, the Accu-Chek Smart Pix system prepares the reports. The two left/right dots on the display flash (more slowly) during this process.
- When the reports have been completed, the centre display section is lit continuously. This means two things: the reports are available on the computer and the device search has been switched off (standby mode).

The data stored in the meter or insulin pump is not deleted after data transfer.

The Accu-Chek Smart Pix system creates reports (Accu-Chek Report) with various graphic and statistical analyses. All the elements of a report are always available on the screen. You can decide on a case-by-case basis which report elements you want to print out. Depending on the print options activated you will require up to three pages of paper per report.

## 4.1 Printing reports

The figure consists of three screenshots of the Accu-Chek Smart Pix software interface, illustrating the steps to print reports.

**Top Screenshot:** Shows the 'Trend Graph' view. The 'Create Report' button is circled in the top menu bar. The graph displays blood glucose levels over time, with various data points and trends.

**Middle Screenshot:** Shows the 'Create Report' dialog box. The 'Blood Glucose' and 'Insulin Pump' sections are visible, with several options checked. The 'Print' button is circled at the bottom.

**Bottom Screenshot:** Shows the 'Print' dialog box. The 'Select Printer' section is visible, with 'Acrobat Distiller' selected. The 'Page Range' section is also visible, with 'All' selected. The 'Print' button is circled at the bottom.

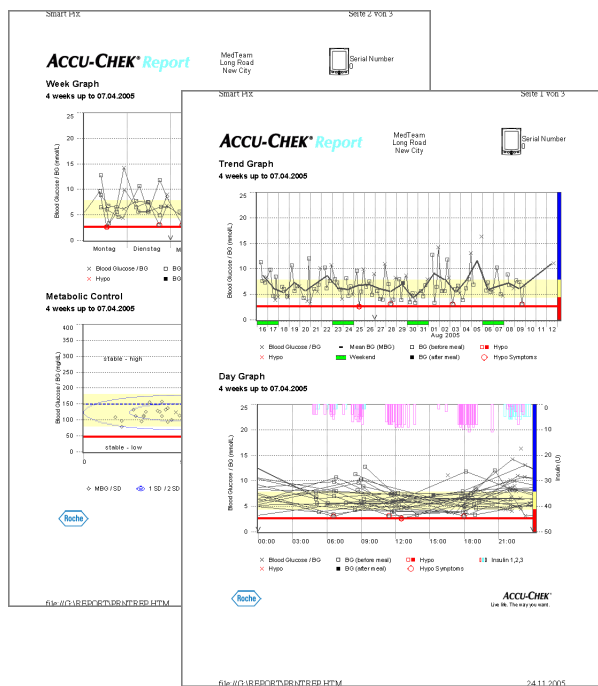
All reports you can see on the screen can also be printed out. Apart from the lists you are offered both for blood glucose analyses and for insulin pump analyses, the reports can all be printed at once in a compact compilation.

To print one or more reports after data transfer do **not** use the integrated print function of the browser – use the special print functions offered by the Accu-Chek Smart Pix system.

- In any view of the report click the *Create Report* button on the menu bar.
- Select the reports you want to gather for printing.
- Now click the *Create Report* button at the bottom of the screen.
- In the preview now displayed click the *Print* button.
- In the next dialog box you can still select the required printer and configure it if necessary. Click the *Print* button as soon as you wish to start printing out on the printer you have selected.
- Close the window containing the print preview.

If you only wish to print the analysis which you can see at the moment (or any of the lists), use the *Print Page* button under the relevant report to do so.

## 4.2 Blood glucose: general information about the reports



### Types of report

The Accu-Chek Smart Pix system creates single-page or multi-page reports for defined periods (e.g. the last 2 or 4 weeks). The period of time and the style of the report will have been set during configuration. A report can contain any of the following elements:

- [1] Trend Graph
- [2] Day Graph
- [3] Week Graph
- [4] Metabolic Control
- [5] Distribution
- [6] Logbook
- [7] Overview
- [8] Record List

The illustration opposite shows examples of the printed version of the reports.

### **Evaluated data**

To create all the individual analyses the data read is checked by the Accu-Chek Smart Pix system. The following data is not included in the statistical analysis:



- Measurements outside the period selected
- Measurements saved without date or time
- Measurements with control solution
- Invalid/deleted measurements
- Measurements outside the measuring range (marked Hi/Lo)

You will find some of this information grouped in the overview (e.g. number of Hi/Lo figures) or in the logbook and the record list (e.g. figures without a date or time, measurements with control solution).


Existing target range definitions are only adopted from the Accu-Chek Pocket Compass software. Apart from that it is the settings made during configuration of the Accu-Chek Smart Pix system which apply.

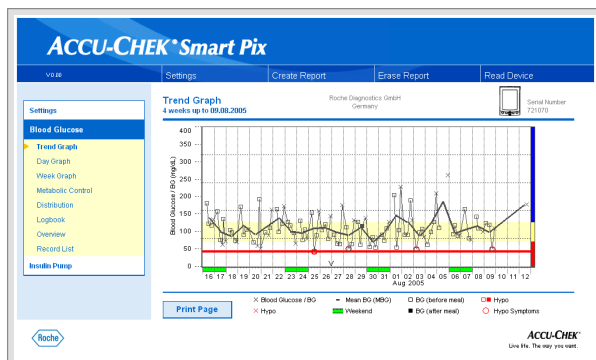
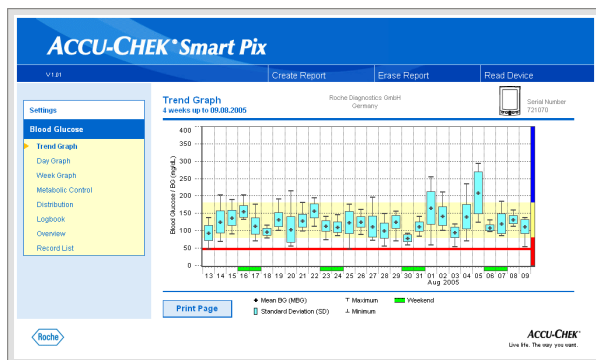



## Styles of reports

For some analyses a style is defined, either *Trends*  or *Detailed* , during configuration of the Accu-Chek Smart Pix system. These two styles offer different types of presentation for identical information. You have this choice for the following analyses:

- Trend Graph
- Day Graph
- Week Graph

**Trends**  These analyses are time block-related, i.e. all the measurements within a certain period are assigned to a single time block. Then the figures displayed are the mean, the variance, the minimum and the maximum of those measurements. A selective analysis of individual values is not possible but it is easier to make statements about general trends within certain periods of time (time blocks/days/weekdays).




**Detailed**  These analyses are linear. Each measurement is plotted along the time axis according to its time of measurement. Measurements following one another within 10 hours are connected by a line. This creates (jagged) "curves" which, together with the measurement entry proper, make it possible to obtain a detailed analysis of individual values and trends.



## Graphic elements of the reports


On all reports you will find legends explaining the meaning of individual elements. Here are detailed explanations of the various elements.

**Colours** The same colours have the same meanings in all blood glucose analyses, irrespective of the particular graphic element being used. On the reports you will find the following colour codes:

- **Dark blue** means "Above target". This colour is used
  - to mark areas of charts (y-axis),
  - on the distribution bar charts,
  - in the logbook.
- **Yellow** means "Within target".
- **Red** means "Below target" or "Hypo". This colour is also used to mark areas of charts, in colour bars and in the logbook.  
Individual measurements below the hypo limit and measurements marked "Hypo Symptoms" are also red.
- **Green** indicates the usual non-working days.

**Symbols (Trends)**  Here the analysis does not cover individual measurements but mean values in relation to certain time intervals. Here you will find the following symbols:

-  Mean value of the particular time interval.
-  Standard deviation within a time interval.
- $\top$   $\perp$  Maximum value or minimum value within a time interval.
- $\wedge$   $\vee$  Maximum value/minimum value outside the measuring range (Hi/Lo)

**Symbols (Detailed)**  Measurements are plotted on the analysis using various symbols which add certain meanings:

- $\times$  Blood glucose level without additional information. Levels below the hypo threshold are shown in red.
- $\square$  Blood glucose level before meal. Levels below the hypo threshold are shown in red.
- $\blacksquare$  Blood glucose level after meal. Levels below the hypo threshold are shown in red.
- $\wedge$   $\vee$  Level outside the measuring range (indicated on the meter as HI or LO)
- $\blacktriangle$  Blood glucose level above 400 mg/dL or 25 mmol/L.
- $\square$  Blood glucose level (any symbol inside the red circle) accompanied by hypo(glycaemia) symptoms.

**Symbols (Records Lists and Logbook)** The following additional symbols are used in the lists of analyses:



User-defined event, e.g. AST measurement (Alternative Site Testing)



Hypo



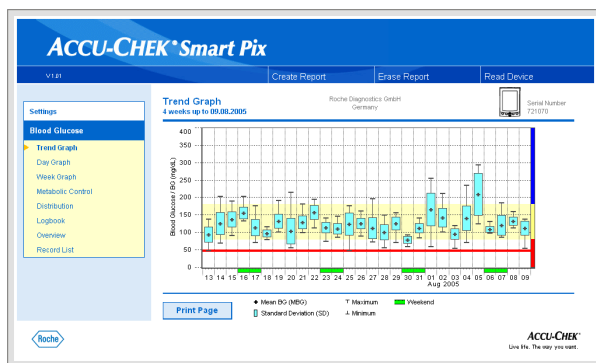
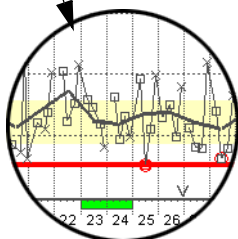
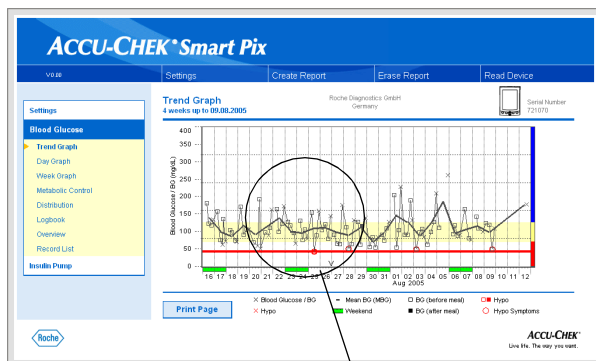
Carbohydrate level

Measurements that have been imported from the Accu-Chek Pocket Compass software may include several items of additional information (events) which are not represented by symbols. In the Record List style such events are indicated by a number or letter in the comments column. You can find out the meanings of these codes by referring to the following table:

<b>Code</b>	<b>Event</b>
<b>3</b>	Snack
<b>20</b>	Fasting
<b>23</b>	Before exercise
<b>24</b>	After exercise
<b>29</b>	Stress
<b>31</b>	Illness
<b>35</b>	Oral medication
<b>36</b>	User-defined
<b>M</b>	Measurement entered manually

The symbols previously described are used for all other events.

### 4.3 Blood glucose: content of the report



### Trend Graph

**Detailed:** This analysis shows you the trend in measurements over the time range selected. You will find the daily and monthly figures along the horizontal (x) axis and the respective blood glucose levels determined along the vertical (y) axis. For your guidance these levels (represented by various symbols) are connected by a line, provided the various measurements are no more than 10 hours apart. You will find the meanings of the various symbols in brief in the legend and in detail on page 4-7.

For further guidance you will find the set target range in the background of the chart (in the form of a yellow bar) and the hypo threshold (in the form of a red line). The various ranges are indicated again in the right margin, according to the defined colour coding (see page 4-6). Usual non-working days (weekends) are also marked with a green bar on the horizontal axis.

In addition to the thin connecting line between the various blood glucose levels you will also see a thicker curve, the day-to-day mean characteristic.

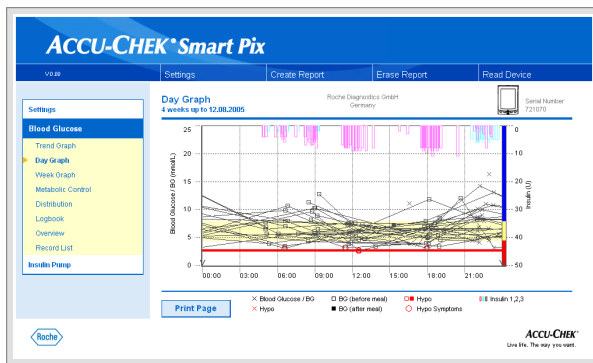
**Trends:** Here you will find the mean level for each individual day from the selected time range, in the form of a single dot (black box containing a horizontal line) for the respective date. The standard deviation, minimum levels and maximum levels, etc. are plotted according to the symbols on page 4-7.

## Day Graph

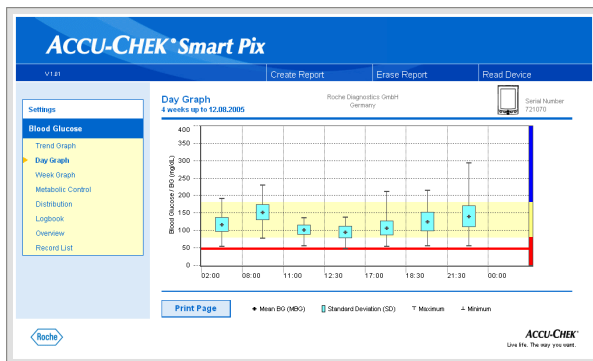
This analysis is used to make it easier to recognise patterns repeated daily. For this purpose all the data is placed on a 24-hour grid, as a result of which all the measurements taken at (approximately) the same time of day are shown at the same position on the time axis. If these time blocks are defined in the meter, the information will be evaluated when the time axis is set out.

If they are not, the settings in the Accu-Chek Smart Pix configuration will be used. The analysis can be displayed in two different styles of presentation. The one which appears on your report is defined during configuration.

**Detailed:** All the blood glucose levels are plotted at the relevant time of day according to the time of measurement. Levels that have been determined within a period of 10 hours are connected by a line in chronological order. This is also where you will find a display of insulin doses (if stored in the meter). Each insulin dose is plotted on the chart from the top downwards and you can read the relevant levels off the right-hand y-axis.



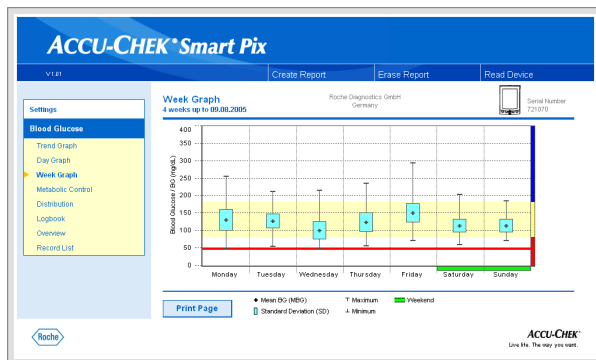
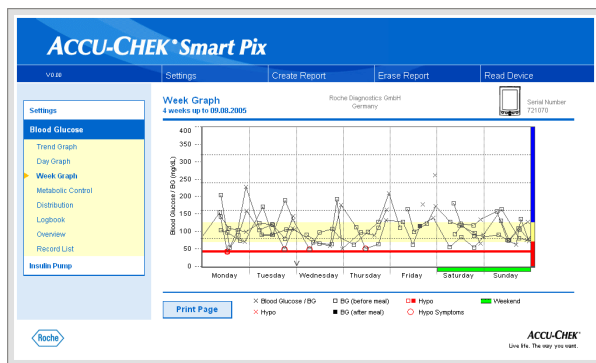
**Trends:** All the blood glucose levels are assigned to one of eight time blocks according to the time of measurement. In this way eight areas are created within which you are shown the average (black box containing a horizontal line), the standard deviation (blue bar), the minimum level and the maximum level. The start and end of the time blocks are plotted on the x-axis.



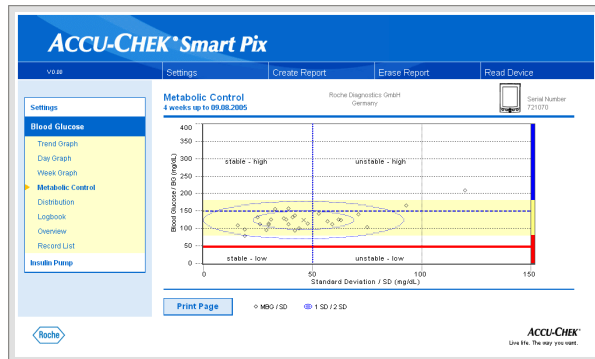
## Week Graph

This analysis as well is used to make it easier to recognise repeated patterns but in this case it depends on the day of the week. For example, it is possible to recognise changes in the metabolic situation brought about by your occupation. As in the case of the Day Graph, there are two different styles available for this analysis.

**Detailed:** All the blood glucose levels are plotted on the chart according to the time of measurement and the respective day of the week. Here too, levels which are no more than 10 hours apart are connected by lines in chronological order to make things clearer. The connecting lines are also drawn beyond week limits (if applicable).



**Trends:** All the blood glucose levels are assigned to one of the seven days of the week according to the date. Accordingly you will see seven blocks indicating the average (black box containing a horizontal line), the standard deviation (blue bar), the minimum level and the maximum level of the relevant day of the week.



## Metabolic Control

For each day of the period analysed the mean blood glucose level (MBG) and the standard deviation (SD/variance of the levels) are calculated. These two results together provide the coordinates at which one entry (per day) is made on the chart. The mean blood glucose level is plotted along the y-axis whilst the standard deviation is plotted along the x-axis.

This type of presentation produces a "cloud of dots". To allow faster assessment of the metabolic situation based on this general picture the chart is split up into four "quadrants". Each of these quadrants represents a certain constitution of the metabolic situation and they are described by the attributes "stable/instable" (depending on the standard deviation) and "low/high" (depending on the mean blood glucose levels). Each quadrant thus has two attributes.

Example:

Mean blood glucose levels below 150 mg/dL (or 8.3 mmol/L) with a standard deviation of less than 50 mg/dL (or 2.8 mmol/L) are plotted in the left lower quadrant. The latter has the attributes "stable/low". If both levels are above those limits, the entry is made in the right upper quadrant ("instable/high").

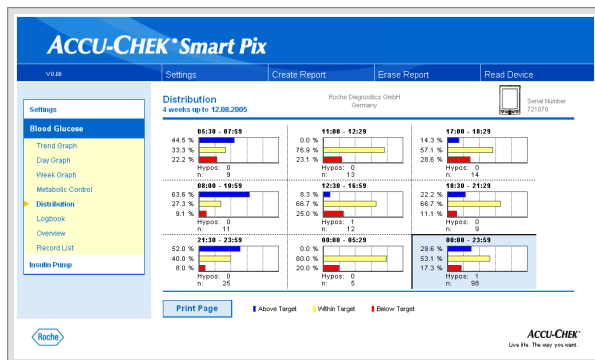
There are two ellipses centred on the mean of all the levels plotted. These represent the standard deviation (1 SD) and twice the standard deviation (2 SD) of the levels displayed.

Good metabolic control can be seen from as many dots as possible in the "stable/low" quadrant (bottom left), although in the relevant period there should have been no hypoglycaemia, or as low an incidence as possible.



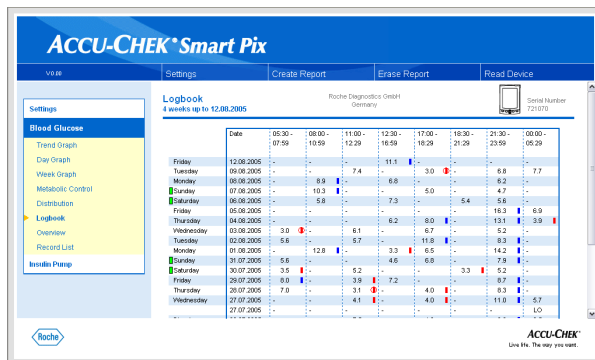
## Distribution

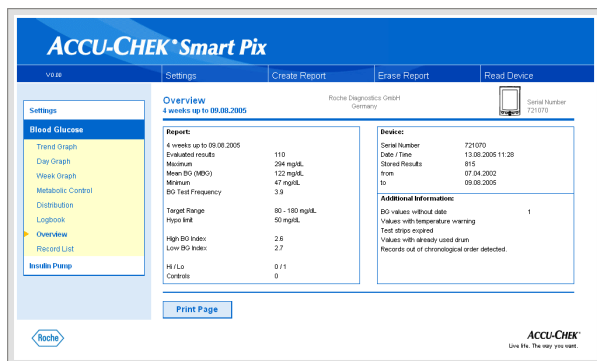
For each time block you will find a bar chart here which represents the percentages of the levels above, within and below the target range. Consecutive time blocks (before/after meal) are positioned above one another in the uppermost six graphs in order to facilitate comparison. The bottom three graphs represent the time blocks "Evening", "Night" and the whole day (highlighted in blue). If the time blocks are defined in the meter, this information will be evaluated. If they are not, the settings in the Accu-Chek Smart Pix configuration will be used.



## Logbook

The logbook creates a tabulated overview of blood glucose measurements. If the blood glucose measurements have appropriate date information, a value table is created (sorted by date and time blocks). The date range displayed is shown in the title of the table. At the bottom you will find statistical analyses of all the measurements plotted. The number of measurements, the blood glucose average and the standard deviation are determined for each time block and for the entire period the minimum and maximum levels are determined as well.





## Overview

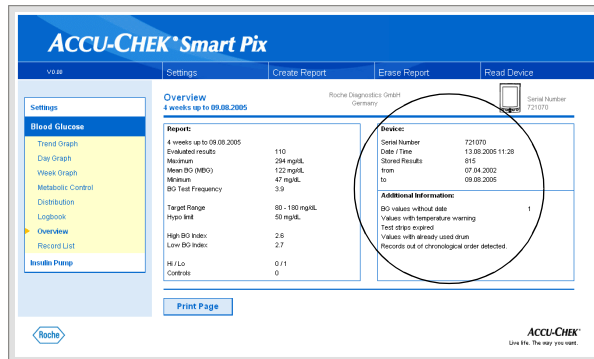
The "Overview" contains general and statistical information about the levels processed for the time range selected. Here you will find the following information (in the order indicated):

### Report title

- **Report Period:** Period (according to configuration) with the most recent date.
- **Meter (symbol):** Displays the meter used and its serial number.

### Report

- **Report Period:** Period (according to configuration) with the most recent date.
- **Evaluated Results:** Number of evaluated blood glucose measurements in the period selected.
- **Maximum/Mean BG/Minimum:** Highest and lowest blood glucose level which was measured in the period selected, and the average of all the levels measured.
- **BG Test Frequency:** Average number of blood glucose measurements per day.
- **Target Range:** The target range used for evaluation.
- **Hypo Limit:** Blood glucose levels below this threshold are marked as hypoglycaemia.
- **High/Low BG Index:** These figures represent the frequency and the resulting risk of blood glucose levels being too low or too high. Figures should be as low as possible.
- **Hi/Lo:** Number of measurements above the measuring range (Hi) and below (Lo).
- **Controls:** Number of measurements with control fluid.



### Device

- **Serial Number:** Serial number of the device.
- **Date/Time:** Time setting of the meter when the report is created.
- **Stored Results:** Total number of measurements in the device, accompanied by timeframe (from ... to).

### Additional information

This information is only displayed if required:

- **Values without Date/Time:** Number of measurements which were stored without date or time information.
- **Values with Warnings:** Number of measurements which were stored with temperature warning, expiry note, etc.

**ACCU-CHEK® Smart Pix**

via USB Settings Create Report Erase Report Read Device

Record List 4 weeks up to 27.06.2005 Roche Diagnostics GmbH Germany Serial Number 721070

**Evaluated results**

Date	Time	Glucose [mg/dL]	Insulin [U]	1	2	3	Comments
Monday	27.06.2005 02:00	120					
Sunday	26.06.2005 20:00	100					E
Sunday	19.06.2005 02:00	240					S.M
Saturday	18.06.2005 23:00	180					
Thursday	16.06.2005 20:30	---					1 2 3 4 D E T
Thursday	16.06.2005 18:30	---					D
Thursday	16.06.2005 16:30	H					
Thursday	16.06.2005 14:30	---					
Thursday	16.06.2005 12:30	---		30.0			
Thursday	14.06.2005 08:15	60		50	20.0	10.0	S.0
Friday	10.06.2005 12:00	130					
Friday	10.06.2005 02:00	110					
Thursday	09.06.2005 12:30	160					

**BG values without date**

Date	Time	Glucose [mg/dL]	Insulin [U]	1	2	3	Comments
1	---	60		50	20.0	10.0	S.0 10 11
2	---	90		50	20.0	10.0	S.0 1 2 3 4 D E T

**Controls**

Date	Time	Glucose [mg/dL]	Level	Flags
1	---	100	L2	
2	Tuesday 07.06.2005 02:00	120	L1	

Print Page

■ Above Target   
 ■ Below Target   
 ■ Hypo   
 ○ Hypo Symptoms   
 ■ Weekends

Roche ACCU-CHEK® One Day. The way you want.

## Record List

The record list shows the measurements sorted by date and time of measurement. All the blood glucose measurements are shown in chronological order together with additional information (events, insulin, etc.) (the example opposite has been shortened).

If you want to print this list, you can do so by pressing the *Print Page* button at the bottom of the list. The list is **not** printed with the *Create Report* function.

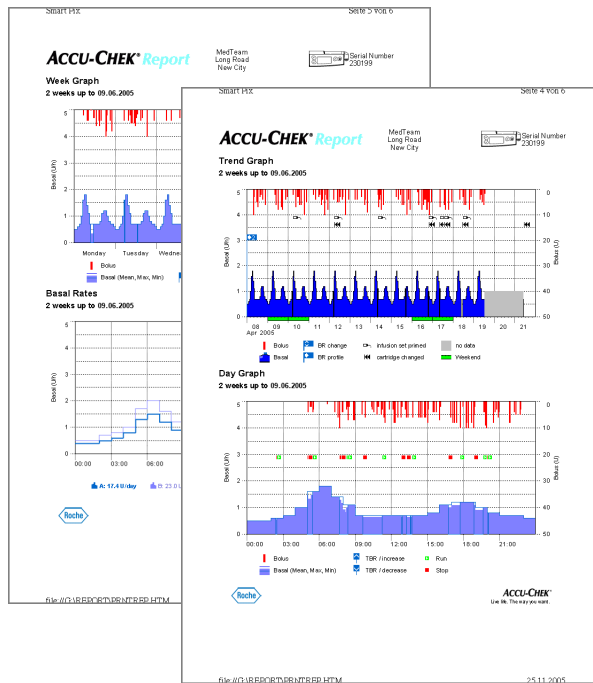
## 4.4 Insulin pump: general information about the reports

### Types of report

The Accu-Chek Smart Pix system creates single-page or multi-page reports for defined periods (e.g. the last 2 or 4 weeks). The period has been defined in configuration. An (insulin pump) report can contain any of the following elements:

- [9] Trend Graph
- [10] Day Graph
- [11] Week Graph
- [12] Basal Rates
- [13] Basal Bolus
- [14] Long-term Overview
- [15] Record Lists (Bolus, Basal, Events)

The illustration opposite shows examples of the printed version of the reports.



## Graphic elements of the reports

On all reports you will find legends explaining the meaning of individual elements. Here are detailed explanations of the various elements.

**Symbols** On the insulin pump reports you will find the following symbols:



Basal rates (displayed on the Trend Graph)



Mean total basal amount per day (Basal Bolus)



Basal profile



Basal rate (symbol with designation of basal rate in the legend of the basal rate chart)



Changes in basal rate (Basal Bolus)



Changes in basal rate (with designation, Trend Graph)



Temporary increase in basal rate



Temporary decrease in basal rate












Active basal rate (Long-term Overview)



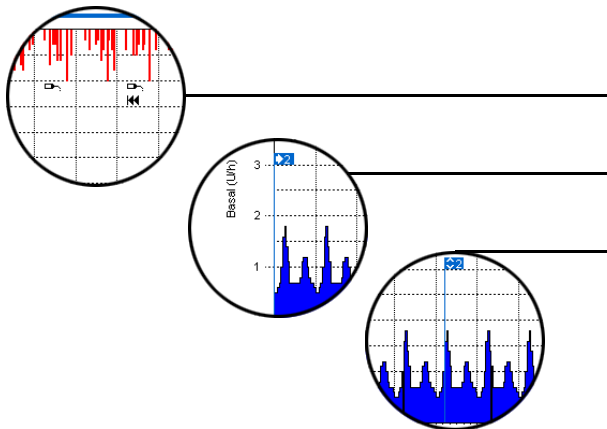
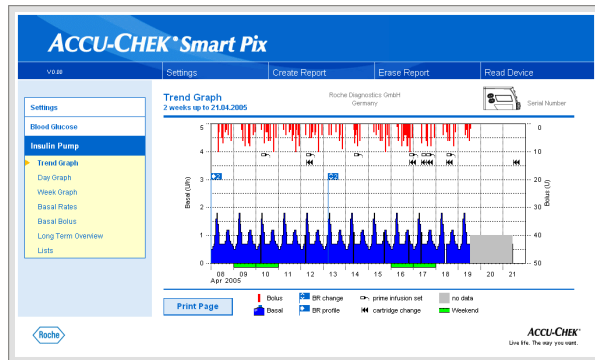
Switch to a basal profile named (e.g. "A")



Switch from one basal profile named (e.g. "A") to another basal profile named (e.g. "B")

-  Total basal insulin + bolus insulin per day
-  Standard bolus
-  Scroll bolus
-  Extended bolus
-  Multi-wave bolus
-  Infusion set primed
-  Return of piston rod (cartridge changed)
-  Start of insulin pump
-  Stop of insulin pump

## 4.5 Insulin pump: content of the report



### Trend Graph

This analysis shows you the trend in insulin dose over the time range selected. You will find the daily and monthly figures along the horizontal (x) axis and the respective amounts of insulin administered along the vertical (y) axis.

The basal rate chart is at the bottom and the individual boluses are shown at the top. Therefore you will find the basal rate scale along the left-hand y-axis (from the bottom upwards) and the scale for the boluses along the right-hand y-axis (from the top downwards).

Various events are also shown in addition to the actual insulin dose. These include:

- Pump events (in this case: black symbols on the chart)
- Change in basal profile (in this case: blue "flag" symbolises a switch to basal profile 2)
- Changes in basal rate (in this case: basal profile 2)

You will find the meanings of the various symbols in brief in the legend and in detail on page 4-18.

As in the blood glucose analysis the usual non-working days (weekends) are also marked with a green bar on the horizontal axis.



## Day Graph

This analysis is used (as with blood glucose) to make it easier to recognise and display patterns repeated daily. For this purpose all the data is placed on a 24-hour grid. Then it is easy to recognise frequent manual changes in basal rate at certain times, for example, so it would therefore be easier to generally adjust basal rate.

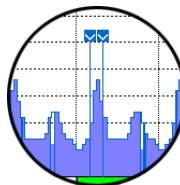
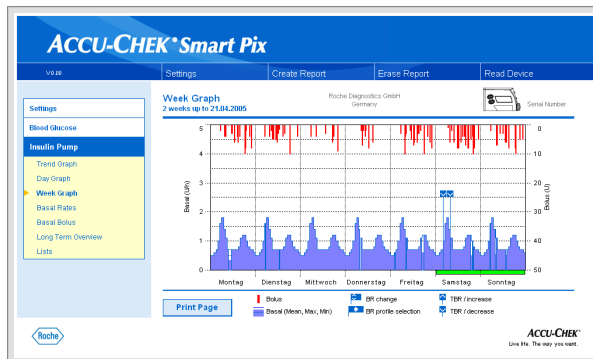
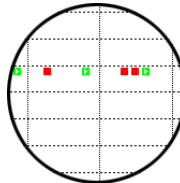
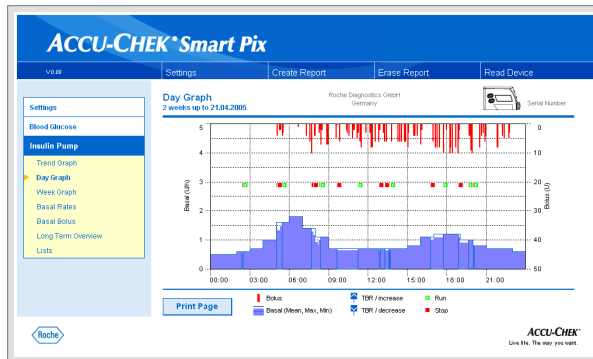
The mean basal rate is displayed as a blue filled-in area whilst the maximum and minimum basal rate at the respective time of day is shown as a thin blue line.

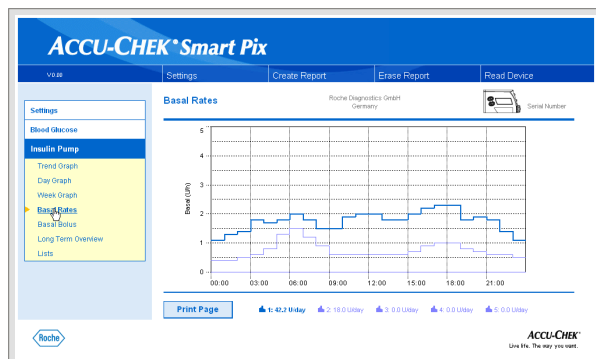
On this chart you will find not only basal rates and boluses but also information about the start and stop of the insulin pump and about temporary decreases and increases in basal rate.

## Week Graph

This analysis as well is used (as with the Day Graph) to make it easier to recognise repeated patterns (e.g. repeated changes in basal rate) but in this case it depends on the day of the week.

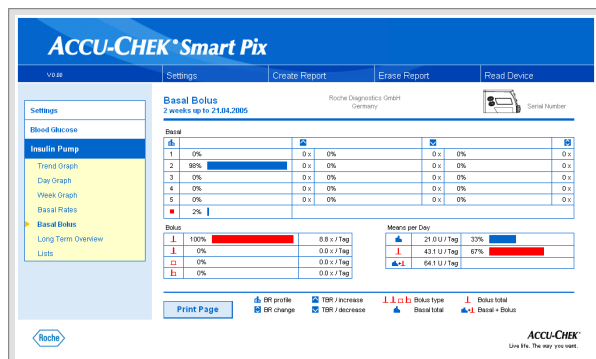
On this chart you will find not only basal rates and boluses but also information about changes in basal rate and the selection of basal profiles.





## Basal Rates

This analysis displays the basal rates set in the insulin pump for the time of data transfer in order to facilitate comparison. The currently active basal rate can be seen from the dark blue thicker line. The total daily amounts of the respective profiles are indicated below the chart and the active basal rate is highlighted in colour.



## Basal-Bolus

The tabulated *Basal Bolus* analysis shows you (absolute and relative) frequencies with which, for example, a certain basal profile or certain bolus type was used.

### Basal

Here you can see, for example, if the basal rate of a certain basal profile was often changed manually and for how long that changed state was valid (as a percentage). Frequent changes and/or long use times with manually changed basal rates might make it advisable to perform a general adjustment.

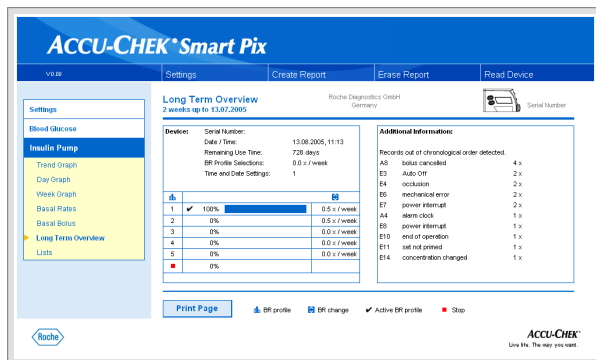
The number of times the basal rate has been reprogrammed is displayed in the last column. For the sake of completeness the *Basal* table also includes the times when the insulin pump was on STOP.

### Bolus

This table shows both the (relative) frequency of use with regard to certain types of bolus and their average number per day.

### Means per day

Here you will find the basal and bolus means and their percentages of total amount.



## Long-term Overview

The *Long-term Overview* report element contains general and statistical information about the figures imported. The time range of this analysis may be different from that of other analyses because it is only complete weeks which are analysed (up to 12). Here you will find the following information (in the order indicated):

### Report title

- **Report Period:** Period (according to configuration) with the most recent date.
- **Insulin Pump (symbol):** Displays the insulin pump used and its serial number.

### Device

- **Serial Number:** Serial number of the insulin pump.
- **Date/Time:** Date and time on the insulin pump at the time of data transfer.
- **Remaining Use Time:** Remaining time of use for this insulin pump.
- **BR Profile Selection:** The frequency (per week) with which the insulin pump was switched over to a different basal profile.
- **Time and Date Settings:** The time and date information was re-entered this number of times (e.g. on account of summer time, transcontinental flights, etc.)

The table shows the percentage of certain basal profiles (and times when the insulin pump was on STOP). The currently active basal profile is marked with a tick ✓.

### Additional information

This information contains error messages and alerts (and the number of them) which were stored in the insulin pump.

## Record Lists

The three groups of information, *Bolus*, *Basal* and *Events*, are also output in the form of lists. On these lists you will find detailed documentation of each individual event stored in the insulin pump, including the date and time.

To see all the lists, please use the scroll bar on the right-hand side (the examples opposite have been shortened). If you want to print these lists, you can do so by pressing the *Print Page* button at the bottom of the list. The lists are **not** printed with the *Create Report* function.

The image displays three screenshots of the Accu-Chek Smart Pix software interface, each showing a different record list. The interface includes a top navigation bar with 'Settings', 'Create Report', 'Erase Report', and 'Read Device' buttons. A left sidebar contains navigation options like 'Blood Glucose', 'Insulin Pump', and 'Lists'. The main area displays the selected record list.

### Bolus List

Date	Time	U	Comments
Wednesday	13.07.2005	14.17	U-I = 45.1 U
Wednesday	13.07.2005	13.39	4.5
Wednesday	13.07.2005	12.22	6.0
Wednesday	13.07.2005	12.24	3.5
Tuesday	12.07.2005	21.09	37.5
Tuesday	12.07.2005	21.04	1.5
Tuesday	12.07.2005	19.24	2.0
Tuesday	12.07.2005	19.10	3.0

### Basal List

Date	Time	Basal Rate (U/h)	Comments
Wednesday	13.07.2005	14.29	power up
Wednesday	13.07.2005	14.17	power down
Wednesday	13.07.2005	14.17	Stop
Wednesday	13.07.2005	13.00	1.80
Wednesday	13.07.2005	11.00	2.00
Wednesday	13.07.2005	09.00	1.80
Wednesday	13.07.2005	07.00	1.80
Wednesday	13.07.2005	05.00	1.80
Wednesday	13.07.2005	03.00	1.80
Wednesday	13.07.2005	02.00	1.40

### Events List

Date	Time	Event	Description
Tuesday	12.07.2005	A8	bolus cancelled
Tuesday	12.07.2005	U	prime infusion set
Tuesday	12.07.2005	A1	cartridge changed
Tuesday	12.07.2005	A1	cartridge low warning
Friday	08.07.2005	A8	bolus cancelled
Friday	08.07.2005	U	prime infusion set
Friday	08.07.2005	U	cartridge changed
Thursday	07.07.2005	A1	cartridge low warning
Sunday	03.07.2005	U	prime infusion set
Sunday	03.07.2005	A1	cartridge changed
Sunday	03.07.2005	A1	cartridge low warning
Thursday	30.06.2005	E14	concentration changed
Thursday	30.06.2005	E13	test error
Thursday	30.06.2005	E12	data interrupted
Thursday	30.06.2005	E11	set not primed
Thursday	30.06.2005	E9	cartridge error
Thursday	30.06.2005	E9	end of operation
Thursday	30.06.2005	A9	end of use time alert
Thursday	30.06.2005	A8	bolus cancelled
Thursday	30.06.2005	A5	remaining pump time
Thursday	30.06.2005	A4	alarm clock
Thursday	30.06.2005	A3	review time and date
Thursday	30.06.2005	A2	battery low
Thursday	30.06.2005	A1	cartridge low
Thursday	30.06.2005	E7	electronic error
Thursday	30.06.2005	E6	mechanical error
Thursday	30.06.2005	E5	end of use time
Thursday	30.06.2005	E4	inclusion
Thursday	30.06.2005	E3	automatic off
Thursday	30.06.2005	E2	PowerPack depleted
Thursday	30.06.2005	E1	empty cartridge
Thursday	30.06.2005	A8	bolus cancelled
Thursday	30.06.2005	A5	end of use time alert
Thursday	30.06.2005	A4	cartridge (adaptor) alert
Thursday	30.06.2005	A3	set time date
Thursday	30.06.2005	A2	low PowerPack warning
Thursday	30.06.2005	A1	cartridge low warning

At the bottom of the Events list, there is a 'Print Page' button and a legend for event codes: A1 (Bolus type), A2 (Basal + Bolus), E1 (Increase), E2 (Decrease), E3 (Profile), and E4 (Profile).

## 5 Error Signals and Troubleshooting

Sometimes situations can occur in which a report is not created or printed, or other problems arise. For most situations imaginable we would like to provide you with some solutions below. If you do not find the required solution here, please contact your local customer support and service centre.

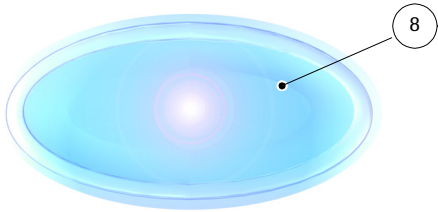
### 5.1 Errors without error signals

The Accu-Chek Smart Pix system fails to appear on the PC as a drive:

- Check whether your PC and your operating system satisfy the system requirements for the Accu-Chek Smart Pix system (see page 2-1).
- Check to make sure the USB connector is firmly plugged into the correct socket on the PC.
- If the Accu-Chek Smart Pix system is still not recognised as a drive, plug the device into a different USB socket on your PC (you may be able to use a USB hub or choose between USB sockets on the front and rear of your PC).

If the Accu-Chek Smart Pix system fails to emit any display signals whatsoever and if all the above tests are to no avail, you could possibly test the device on a different PC. If there is still no sign of operation, the device is probably faulty. This also applies if there are error signals (centre display section flashing) which are not associated with data transfer. Please contact your local customer support and service centre.

## 5.2 Error signals on the device



The Accu-Chek Smart Pix system reports potential errors (e.g. during data transfer) by causing the centre display section **8** to flash.

If such an error occurs, the following options are available to solve the problem:

- In the browser user interface click the *Read Device* button. By flashing slowly again the centre display section should now indicate that it is actively searching for devices and that it is ready for data transfer.
- If the error signal continues, you can unplug the Accu-Chek Smart Pix system and plug it back in again. Any Microsoft Windows error message about removing the data medium is of no further consequence.

Then repeat data transfer.

If this error signal occurs again, check the following points:

- Has the meter been prepared for data transfer properly? You will find information on this in chapter 3.
- Is optical contact unobstructed (infrared port)? Is the distance correct (or too far)?
- Is there any interference from extraneous light (sunlight)?

In the event of error messages associated with data transfer it is not the Accu-Chek Smart Pix system which is faulty – there is interference with data transfer between the devices. In individual cases this may be due to the meter or insulin pump.

## 6 Maintenance

### 6.1 Cleaning the Accu-Chek Smart Pix

Unplug the Accu-Chek Smart Pix device before cleaning it. Use cloths slightly moistened with detergent and make sure no liquid gets inside the device.

Clinical staff: please observe the regulations that apply at your institution with regard to protection against infection.

### 6.2 Disposal

If you no longer wish to use the Accu-Chek Smart Pix device or if the device is beyond repair, dispose of it according to the regulations that apply to you. You can obtain information about proper disposal from your local authority.



The Accu-Chek Smart Pix device falls under the scope of application of EC Directive 2002/96/EC (European Directive on Electric and Electronic Equipment). Do not dispose of the Accu-Chek Smart Pix device with household waste but at the local authority collection depots for waste electric and electronic equipment.





## 7 Appendix

### 7.1 Abbreviations

BG	Blood Glucose
MBG	Mean Blood Glucose
SD	Standard Deviation
AST	Alternative Site Testing
BR	Basal Rate
TBR	Temporary Basal Rate
IR	Infrared
Hi	Value above the measuring range (indicated on the meter as HI)
Lo	Value below the measuring range (indicated on the meter as LO)
Hypo	Hypoglycaemia
U	Insulin dose in International Units
U/h	Insulin dose delivered per hour (basal rate)

### 7.2 Technical data

Model	Accu-Chek Smart Pix
Item number	0 4684206001
Serial number	See type plate on the back of the device
Size	104 x 74 x 38 mm
Weight	90 g
Display	6 blue LEDs, in groups of 2 each
Power supply	Via USB port, 5 V/100 mA
Protection class	Equipment in protection class III
Ports	1 infrared port 1 USB port
Ambient conditions	Service temperature range: 5°C - 40°C Storage temperature range: -25°C - 70°C Absolute humidity: 5 g/m <sup>3</sup> - 25 g/m <sup>3</sup>

### 7.3 Warranty Conditions

The statutory provisions on rights in consumer goods sales in the country of purchase shall apply.

Roche Diagnostics disclaims any warranty or liability related to or arising out of non-conformance with the instructions of use.

### 7.4 Information about advice and the repair service

**Advice:** Your Roche field staff will be pleased to answer questions about handling or any suspected fault in the device. Please, contact your local customer support and service centre.

**Repair service:** Please bear in mind that any repairs, configurations or other changes to the Accu-Chek Smart Pix device may only be performed by persons who have been authorised to do so by Roche Diagnostics. If you suspect that the device is faulty, please contact your local customer support and service centre.

## 7.5 Roche Diagnostics addresses

<b>Country</b>	<b>Company</b>	<b>Address</b>
<b>Australia</b>	Roche Diagnostics Australia Pty Ltd.	Roche Diagnostics Australia Pty Ltd. 31 Victoria Avenue, Castle Hill, NSW 2154, Australia Accu-Chek Enquiry line: 1800 251816
<b>Austria</b>	Roche Diagnostics GmbH	Roche Diagnostics GmbH Engelhorngasse 3, 1211 A-Wien Tel.Nr.: (01) 277 87-0
<b>Belgium</b>	Roche Diagnostics Belgium SA/NV	Roche Diagnostics Belgium SA/NV Schaarbeeklei 198, B-1800 Vilvoorde Tel: 0800-93626
<b>Bosnia and Herzegovina</b>	Roche Diagnostics Promotional Office Adriatic Region	Roche Diagnostics, P.O. Adriatic Region C/O Farmavita d.o.o. Despićeva 1 71 000 Sarajevo, Bosnia and Herzegovina Tel.: + 387 33 712 690, Fax: + 387 33 712 692
<b>Brazil</b>	Roche Diagnóstica Brasil Ltda.	Roche Diagnóstica Brasil Ltda. Av. Engenheiro Billings, 1729 CEP: 05321-010 São Paulo/SP Central de Relacionamento Accu-Chek Responde: 0800 77 20 128 ou através do site <a href="http://www.accu-chek.com.br">www.accu-chek.com.br</a>
<b>Bulgaria</b>	Marvena	МАРВЕНА ООД София 1504, Асен Златаров № 10, тел: 944 18 55
<b>Canada</b>	Roche Diagnostics	Roche Diagnostics, 201 Boul. Armand-Frappier, H7V 4A2, Laval, Québec, Canada, Tel. 1-800-363-7949 (Accu-Chek Soins aux Patients)
<b>China</b>	Roche Diagnostics (Shanghai) Limited	5/F, Shanghai SMC Square No.1565 Nan Jing Road (W) Shanghai 200040, PRC Hotline: 800-810-0733
<b>Croatia</b>	Roche Diagnostics Promotional Office Adriatic Region	Roche Diagnostics, P.O. Adriatic Region C/O Adriamed d.o.o., Zagreb Zagrebačka 53 10 000 Zagreb, Croatia Tel.: + 385 1 30 40 260, Fax: + 385 1 30 40 270


<b>Country</b>	<b>Company</b>	<b>Address</b>
<b>Czech Republic</b>	Roche s.r.o., Diagnostics Division	Roche s.r.o., Diagnostics Division Diabetes Care, Karlovo náměstí 17, 120 00 Praha 2 Tel.: +420 220 382 500, Fax: +420 220 382 501
<b>Denmark</b>	Roche Diagnostics A/S	Roche Diagnostics A/S Industriholmen 59, DK-2650 Hvidovre Tlf. 36 39 99 54
<b>Finland</b>	Roche Oy Diagnostics	Roche Diagnostics Oy, PL 12, Sinimäentie 10 B, FIN - 02631 Espoo, Puh. 09-525331, Asiakaspalvelupuhelin: 010 802 050 (pvm hinnalla) Jakelu: Oriola Oy, Puh. 010 429 -3466/-3467
<b>France</b>	Roche Diagnostics	Roche Diagnostics, 2, Avenue du Vercors, B.P. 59 F-38242 Meylan Cedex Tél.: 04.76.76.30.00 Numéro vert : 0 800 27 26 93
<b>Germany</b>	Roche Diagnostics GmbH	Roche Diagnostics GmbH D-68298 Mannheim, Germany Kunden Service Center: Tel. 0180/2 00 01 65
<b>Greece</b>	Roche (Hellas) S.A. Diagnostics Division	Roche Hellas A.E. Κλάδος Διαγνωστικών Ακακίων 54Α 151 25 Μαρούσι Αττικής Τηλ: 210 8174 000
<b>Hungary</b>	Roche Magyarország Kft.	Roche Magyarország Kft., H-2040 Budaörs, Edison u. 1; Tel.: 06-23-446-871 Ingyenesen hívható szám: 06-80-200-694
<b>Israel</b>	Dyn Diagnostics Ltd.	Dyn Diagnostics Ltd. 7 Ha'Eshel St. Caesarea Industrial Park Tel. 972-4-6277090
<b>Italy</b>	Roche Diagnostics SpA	Roche Diagnostics SpA Viale G. B. Stucchi 110, I-20052 Monza (MI) Numero Verde: 800-822189

<b>Country</b>	<b>Company</b>	<b>Address</b>
<b>Japan</b>	Roche Diagnostics K.K.	Roche Diagnostics K.K. DC Product Department 5F Nippon Roche Building 6-1, Shiba 2-chome, Minato-ku, Tokyo 105-0041, Japan Tel. +81-3-5443-7044 Fax. +81-3-5445-1297
<b>Netherlands</b>	Roche Diagnostics Nederland BV	Roche Diagnostics Nederland BV Transistorstraat 41, NL-1322 CK Almere Tel. 0800-0220585
<b>New Territories, Hong Kong</b>	Roche Diagnostics (Hong Kong) Ltd.	Roche Diagnostics (Hong Kong) Ltd. Rm 1316-1325 Metroplaza Tower I 223 Hing Fong Road Kwai Chung Diabetes Hotline: 852 2485 7512
<b>New Zealand</b>	Roche Diagnostics N.Z. Ltd	Roche Diagnostics N.Z. Ltd 15 Rakino Way, Box 62-089 Mt. Wellington, Auckland New Zealand Tel. 0800-802-299
<b>Norway</b>	Roche Diagnostics Norge AS	Roche Diagnostics Norge AS Brynsengfaret 6B Pb 6610 Etterstad 0607 Oslo, Norge Tlf. +47-23 37 33 00
<b>Poland</b>	Roche Diagnostics Polska Sp. z o.o.	Roche Diagnostics Polska Sp. z o.o. ul. Wybrzeże Gdynskie 6 B 01-531 Warszawa Bezpłatna infolinia 0-800 401 061

<b>Country</b>	<b>Company</b>	<b>Address</b>
<b>Portugal</b>	Roche Sistemas de Diagnósticos, Lda.	Roche Sistemas de Diagnósticos, Lda. Estrada Nacional 249-1 2720-413 Amadora Linha de Assistência a Clientes 800 200 265
<b>Romania</b>	Top Diagnostics SRL	TOP DIAGNOSTICS SRL Str. Gina Patrichi Nr. 6, Sector 1, Bucureşti, Romania Tel. 021-231-91-00 Linia verde (helpline): 021 80 80 228
<b>Russia</b>	Roche Moscow Ltd.	ЗАО «Рош-Москва», отделение «Диагностика», 125445 Москва, Россия, Коммерческая Башня «Меридиан», ул. Смольная 24Д, 13 этаж Информационный центр: 8-800-200-88-99 (звонок бесплатный для всех регионов России), (495) 258 27 89
<b>Singapore</b>	Roche Diagnostics Asia Pacific Pte. Ltd.	298, Tiong Bahru Road # 16-01/06 Central Plaza Singapore 168730
<b>Slovakia</b>	Roche Diagnostics Division	Roche Diagnostics Division Intes Poprad s.r.o. Cesta mládeže 1, P.O. Box 46 830 07 Bratislava 37, Slovensko Tel.: 02/5478 8509
<b>Slovenia</b>	Roche Diagnostics Promotional Office Adriatic Region	Roche Diagnostics, P.O. Adriatic Region C/O Adriamed d.o.o., Ljubljana Dunajska cesta 238e 1000 Ljubljana Slovenia Tel.: + 386 1 56 80 260, Fax: + 386 1 56 80 273

<b>Country</b>	<b>Company</b>	<b>Address</b>
<b>South Africa</b>	Roche Products (Pty) Ltd. South Africa Diagnostics Division	Roche Products (Pty) Ltd. South Africa Diagnostics Division 9, Will Scarlet Road / Ferndale P.O. Box 1927 Randburg 2125 South Africa
<b>Spain</b>	Roche Diagnostics S.L.	Roche Diagnostics S.L. Av. de la Generalitat, s/n E-08190 Sant Cugat del Vallès (Barcelona) Tel.: 935 834 000
<b>Sweden</b>	Roche Diagnostics Scandinavia AB	Roche Diagnostics Scandinavia AB Karlsbodav. 30, Box 147, S-16126 Bromma, Tel. 08-4048800
<b>Switzerland</b>	Roche Diagnostics (Schweiz) AG	Roche Diagnostics (Schweiz) AG Industriestrasse 7, CH-6343 Rotkreuz
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