Serial ports installation guide

190.7004B, Edition 5, 2011

T +31 71 5813333 | info@antecscientific.com | www.antecscientific.com

Copyright ©2011, Antec, The Netherlands. Contents of this publication may not be reproduced in any form or by any means (including electronic storage and retrieval or translation into a foreign language) without prior agreement and written consent from the copyright of the owner. The information contained in this document is subject to change without notice.

ROXY, ALEXYS, DECADE, DECADE II, INTRO, Flexcell, ISAAC, HyREF are trademarks of Antec. Whatman™ (word and device) and Whatrnan™ (word only) are trademarks of Whatman International Ltd. SOLVENT IFD™ and AQUEOUS IFD™ are trademarks of Arbor Technologies, Inc. Clarity®, DataApex® are trademarks of DataApex Ltd. Microsoft® and Windows™ are trademarks of Microsoft Corporation. Excel is a registered trademark of the Microsoft Corporation.

The software and the information provided herein is believed to be reliable. Antec shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of software or this manual. All use of the software shall be entirely at the user's own risk.

Spare parts and service availability

Manufacturer provides a variety of services to support her customers after warranty expiration. Repair service can be provided on a time and material basis. Contact your local supplier for servicing. Technical support and training can be provided by qualified chemists on both contractual or as-needed basis.

Symbols

The following pictogram is used in this installation guide:

Caution, calls attention to a procedure, which, if not correctly executed, could result in damage to the equipment or injury. Do not proceed beyond a "CAUTION" sign until the indicated conditions are fully understood and met.

Electrical hazard, calls attention to a procedure or practice which, if not adhered to, could result in injury or loss of life. Do not proceed beyond a danger sign until the indicated conditions are fully understood and met.

General precautions

Take precautions against electrostatic discharge during installation to prevent damage of the electronic parts

Use of this product outside the scope of this guide may present a hazard.

Safety Practices

It is assumed that the individual using this manual has sufficient training in the service of Personal Computers and is aware of the potential hazards including (but not limited to) electrical hazards. Make certain that you are familiar with the contents of this manual before working on the Personal Computer.

The following safety practices are intended to insure safe operation of the equipment.

Electrical hazards

The removal of protective panels on the instrument can result in exposure to potentially dangerous voltages. Therefore, disconnect the instrument from all power sources before disassembly.

Untrained personnel should not open the instrument.

Take precautions against electrostatic discharge during installation or removal of boards or other electrical components at all times to prevent damage of the Printed Circuit boards

Before installation of the PCI cards make a back-up of all important data on the PC!!!!!

Table of contents

Spare parts and service availability 3
Symbols 3
General precautions 3
Safety Practices 4

Installation of cards into a PC 6
Introduction 6
Unpacking 6
Installation guidelines 7

PCI card driver installation and update check 9
Procedure 9

Configuration of the new COM ports 11
Introduction 11
Installation guidelines 11

Connection of hardware to the new COM ports 15
Procedure 15

C H A P T E R 1

Installation of cards into a PC

Introduction

The hardware elements of the ALEXYS® LC-EC systems communicates through COM-ports with the acquisition software on a computer. The Serial port (PCI) kits 190.0202B and 190.0204B contains parts to make all PC communication connections. The following parts are supplied in the kits:

		190.0202B	190.0204B
Description	Part no.	Qty	Qty
2-port RS232 PCI card	250.0123B	1	2
Serial port installation guide	190.7004B	1	1

To be able to use these kits, the PC needs to have at least one (190.0202B) or two (190.0204B) free PCI slots on the PC main board.

The RS232 PCI card driver is not provided in the kit. It has to be downloaded from the manufacturers' website thus forcing the installation of the newest version.

Unpacking

Inspect the transport box for possible damage as it arrives. Immediately inform the transport company in case of damage, otherwise she may not accept any responsibility.
Carefully unpack the items and inspect them for completeness and possible damage. Contact your supplier in case of damage or if not all marked items on the checklist are included.

Installation guidelines

The instruction for the installation of the PCI cards inside the PC may slightly differ for some steps due to the different PC housings and configurations on the market.

In case of instalation of two PCI cards:
Start with installation of only one PCI card, complete the driver installation, and only then continue with the hardware installation of the second PCI card.

1. Shut down the PC.
2. Remove the Mains power plug from the wall socket and from the mains inlet of the PC.
3. Remove the side cover (or top cover, depending on the type of PC housing) to access the PC main board with PCI slots.
4. Locate one free PCI slots on the main board (PCI slot is usually a long white or yellow coloured connector (see Fig. 1).
5. Remove the correct metal slit cover plate from the PC back panel (see figure 1).
6. Carefully insert the 2-port RS232 PCI card into the free PCI slot on the main board (see Fig. 1). Do not use excessive force because this may lead to damage to the main board.
7. Fix the back plane of the RS232 PCI card to the frame of the PC housing with a screw (encircled in red in Fig. 1) or with the retaining frame clip (dependent on type of PC housing).
8. Place the PC cover back on the PC.
9. Reconnect the power cable to the PC and connect it to the wall socket.

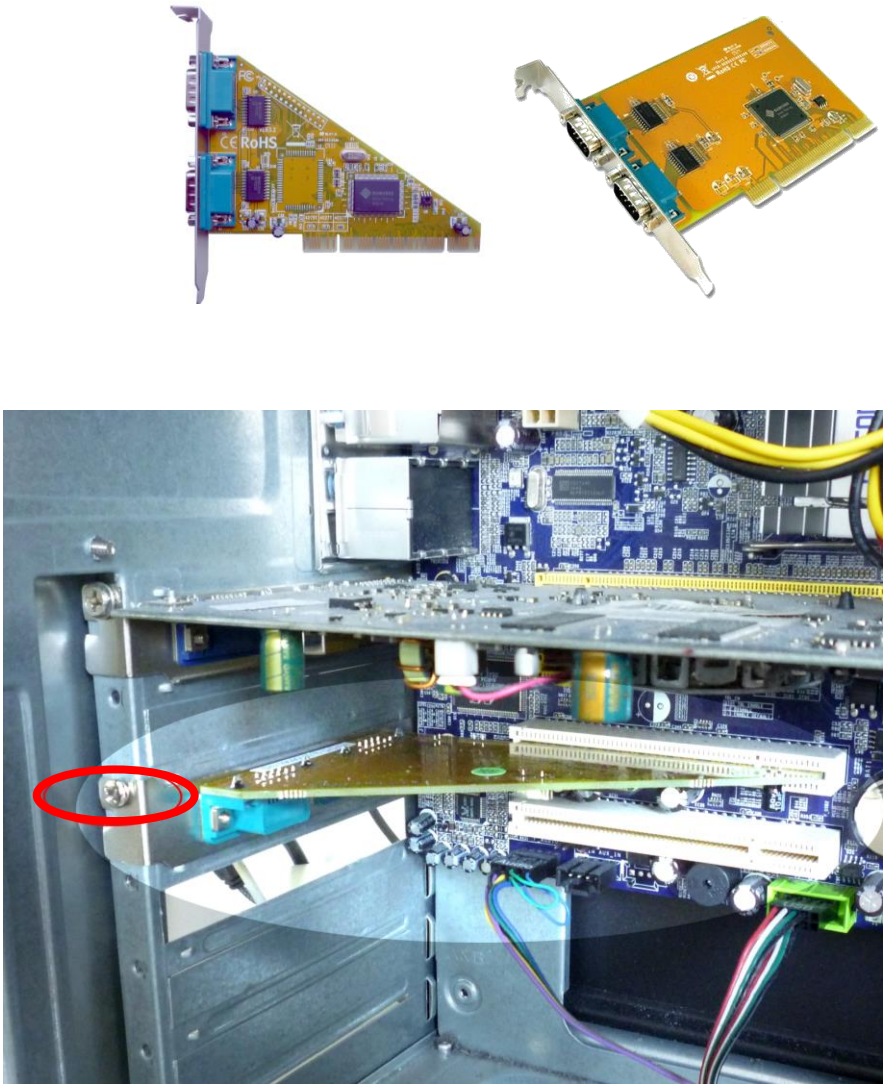


Fig. 1. Top: 2-port RS232 PCI cards; there are different shapes on the market. Bottom: photograph of a 2-port RS232 PCI card installed into free PCI slot on the PC main board.

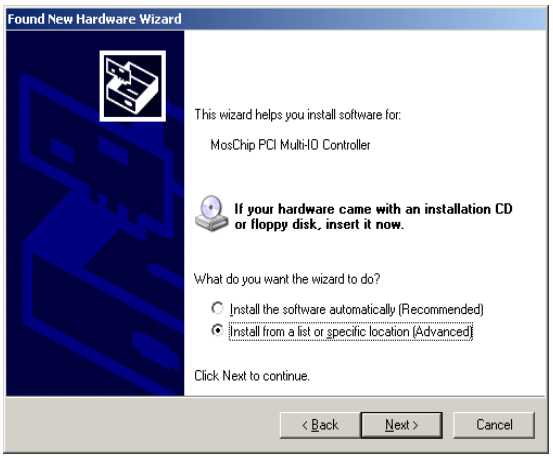
C H A P T E R 2

PCI card driver installation and update check

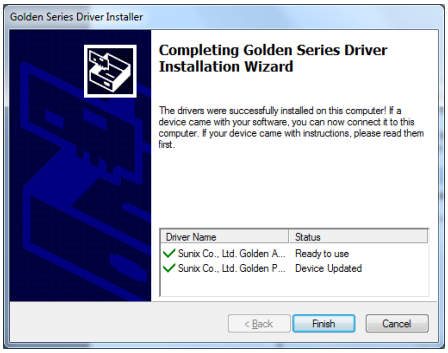
Procedure

The RS232 PCI card driver is not provided in the kit. It has to be downloaded from the manufacturers' website and updated (this forces the installation of the newest version).

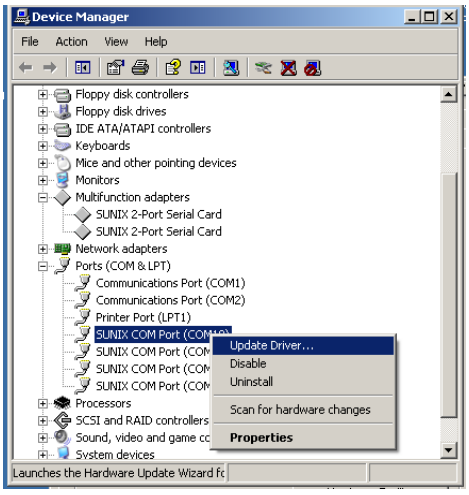
1. Ensure that there are no external devices connected to the COM-ports, as these may interfere with the installation of the drivers.
2. Restart the PC
3. During booting, Windows should detect the new card, and automatically invoke the "Found New Hardware" wizard.
4. Download the Sunix driver from the Antec website and unZip it to a convenient location.



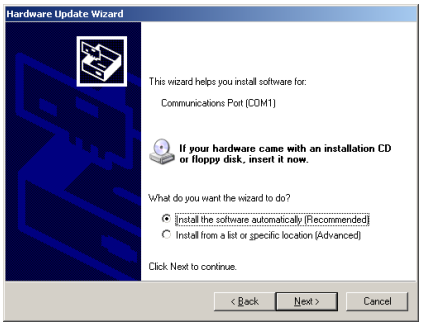
5. In the "Found New Hardware" wizard, select the location where the driver was unZipped.
6. Install the driver: this can take a couple of minutes.



7. Click on “Finish”.
8. Open the ‘Device Manager’ of Windows by right mouse clicking on the Computer icon on the desktop, or access it through the Start/Control panel menu



9. Unfold the item ‘Ports (COM & LPT), right mouse click on one of the new COM-ports, and click ‘Update Driver…’.



10. Select ‘Install the software automatically’, and then Windows will check if there is a newer driver version on the internet.
11. Restart the computer
12. Repeat the procedure in case a second PCI cards needs to be installed.

C H A P T E R 3

Configuration of the new COM ports

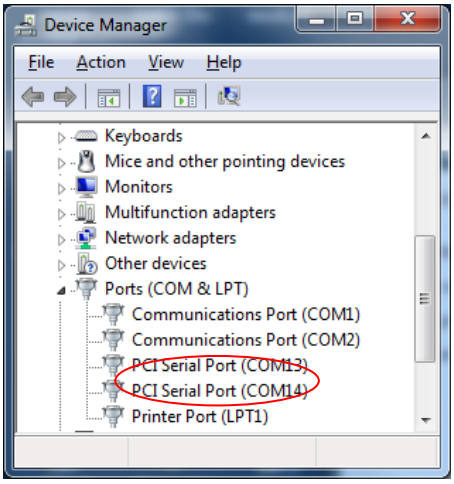
Introduction

The installation of a PCI card will add two additional RS232 ports with an automatically incremented number. However, most of the times, these numbers are not matching with the numbers that are assigned in the preconfigured Clarity-files. Therefore they all need to be changed (to COM7, COM8, COM9 and COM10). In addition to this, the Receive/Transmit buffers have to be set correctly, and the computer energy settings have to be checked.

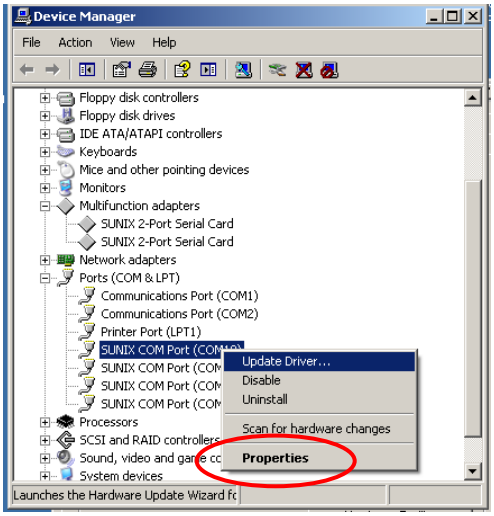
⚠ **It is strongly advised to follow these instructions carefully otherwise your hardware will <u>not</u> be compatible with the pre-configured Clarity system & method files!**

Installation guidelines

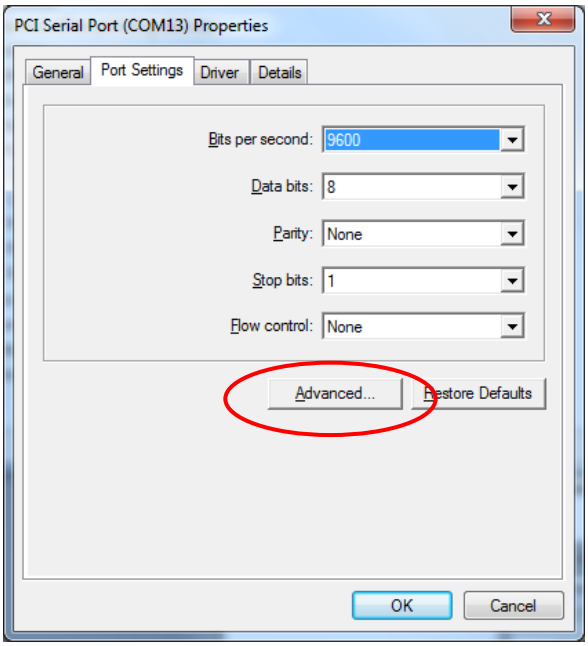
1. Open the ‘Device Manager’ of Windows by right mouse clicking on the Computer icon on the desktop, or access it through the Start /Control panel menu.
2. Unfold the item ‘Ports (COM & LPT).



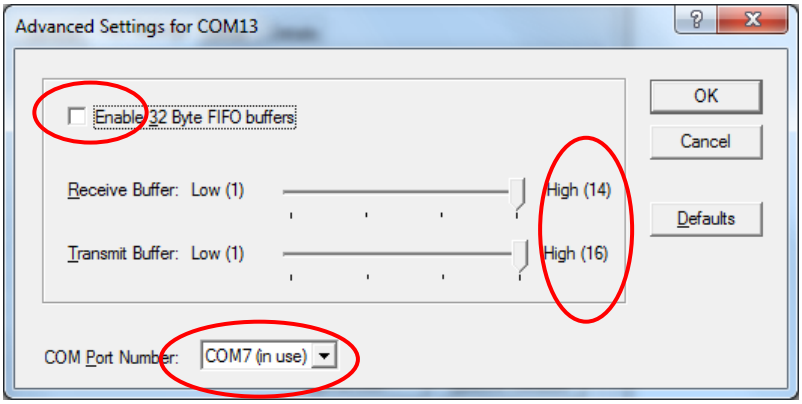
3. Right-click with the mouse on a PCI Serial Port, and open the “Properties” menu.



4. In the Properties menu, open the “Advanced” menu under the “Port Settings” tab.



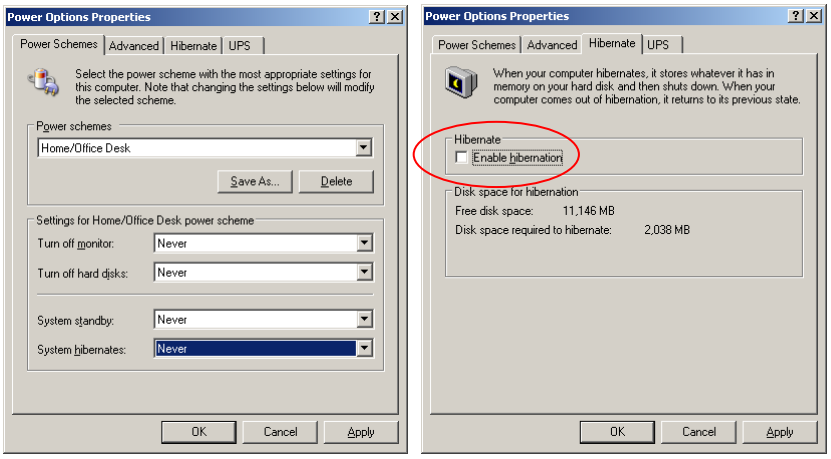
5. Change the COM port to the correct number. The preconfigured Clarity configuration files for use with an ALEXYS system uses the following definitions:
6. COM7 for communication with a DECADE II™
7. COM8 for communication with an autosampler
8. COM9 for communication with a pump
9. COM10 for communication with the optional second pump



10. Uncheck the 'Enable xxx Byte FIFO buffers' box, and change the Receive and Transmit Buffers to 14/16.

Make sure the Receive and Transmit Buffers are set to 14/16, else proper communication with the instruments will <u>not</u> be established!

11. Close the Advanced menu by clicking 'OK'
12. Check in the hardware manager if indeed the COM port number changed to the correct number after the change.
13. Repeat the above procedure for the other new COM ports as well.
14. Restart the PC after completion of the re-configuration steps of the new COM-ports.
15. In the PC, open the 'Power Options' menu from the Control Panel (accessible from 'Start').



16. In the Power Schemes tab, change the settings to 'Never' for Turn off hard disks, System standby and System Hibernate.
17. In the Hibernate tab, uncheck the option 'Enable

hibernation'.

18. change the settings to 'Never' for Turn off hard disks, System standby and System Hibernate.

Do not use the "sleep/hibernate mode" in the Windows energy saving menu when working with ALEXYS because it may potentially affect the serial communication and result in loss of communication.

19. If there is a virus scanner program installed on the PC, exclude the C:\Clarity folder and all its subdirectories from the scanner.

Exclude read/write actions of data files in the C:\Clarity\ path (and it subdirectories) from scanning by an active virus scanner, as this may potentially affect the serial communication and result in loss of communication.

20. The COM-ports are now ready for use.

C H A P T E R 4

Connection of hardware to the new COM ports

Procedure

1. Connect the serial cables supplied in each instrument ship kit to the correct COM-ports and each piece of hardware.
2. It may need some trials before finding which physical COM-port got assigned which number. Using the options in the Configuration screen in Clarity can be helpful to find out the actual numbering.

For further instructions about the installation and use of Clarity software we refer to the screen recordings on the Antec website and the Clarity manuals on the Clarity installation CD.