US ENGLISH



NIOX MINO[®] Data Manager User Manual

for version 1.0.0.11 and higher

Contact: Aerocrine, Inc. 562 Central Avenue New Providence, NJ 07974 USA

Phone: (866) 275-6469 Fax: (877) 329-6469 E-mail: service.US@aerocrine.com

Aerocrine

Table of contents

Intended Use	3
Cautions	3
License Agreement	3
Technical Information	4
Install NIOX MINO Data Manager on a PC	4
Start up NIOX MINO Data Manager	5
Main tab Overview	5
NIOX MINO Overview	5
Add a New Patient	6
Receive Data from NIOX MINO	6
Transfer The NIOX® Value from a NIOX MINO® with a generic NIOX MINO Test Card	7
Transfer NIOX® Values from a NIOX MINO® with a configured NIOX MINO Test Card	8
Transfer NIOX Values from a NIOX MINO without a NIOX MINO Test Card	8
Configure a NIOX MINO® Test Card	9
Measurements tab Overview	10
Advanced View	
Copy and export NIOX MINO Measurement Data	
Create a Report/Print-out	11
Archive or Delete Patient	11
Options tab Overview	12
Backup Database	12
Restore Database	12
Restore Archived Patient	12
Create Generic Test Card	12
Report Settings	12
Receive and Save Service Data	12
How to use the Visual Incentive	13
Troubleshooting	16
Error Messages (shown on the PC screen)	16
Additional Programs included on the CD	16
Appendix 1 - To display hidden files and folders	17

Information in this document is subject to change. Amendments will be made available by Aerocrine as they occur. Copyright © 2009 Aerocrine AB, Solna, Sweden. NIOX MINO, NIOX and Aerocrine are registered trademarks of Aerocrine AB.

Intended Use

The NIOX MINO[®] Data Manager is a software program to be used for transferring patient data between a NIOX MINO and a PC. It also contains a visual incentive program for the inhalation / exhalation procedure.

This provides the user the possibility to save patient data in a stand alone database. Patient data can be trended over time and presented graphically. The software also provides the option to create patient reports that can be either printed or saved as pdf-files.

Measurement data can be further exported for statistical analysis.

Cautions

This is a summary of all Cautions found in this User Manual

- If the **Send** button is clicked (*in the Patient Card*) the user will be questioned in case the NIOX MINO Test Card belongs to another patient or if a generic card is in place. If you answer "Yes", the NIOX MINO Test Card will be configured with the information entered in the Patient Card tab. This will erase any previous configurations of the Test Card and all measurement data saved on the Test Card.
- It is recommended to use the Standard blue Test Card in NIOX MINO. The NIOX® Value received from a NIOX MINO without a Test Card can be transferred several times to more than one Patient Card.
- Regular database backups are recommended. Each customer carries the sole responsibility to perform backups.

License Agreement

This is a License Agreement ("Agreement") between you (the "Licensee") and Aerocrine AB (the "Licensor") regarding the NIOX MINO® Data Manager Software (the "Software") and any upgrades thereof

ATTENTION: PLEASE READ THIS DOCUMENT CAREFULLY BEFORE CLICKING ON THE "I ACCEPT" BUTTON IN THE INSTALLATION PROGRAM. BY PRESSING "I ACCEPT" THE LICENSEE ACKNOWLEDGES TO HAVE READ THIS AGREEMENT AND AGREES TO BE BOUND BY ITS TERMS AND CONDITIONS. IF THE LICENSEE DOES NOT AGREE TO THE TERMS OF THIS AGREEMENT, THE LICENSEE MUST REFRAIN FROM USING THE SOFTWARE AND PROMPTLY RETURN THE SOFTWARE UNOPENED, AND THE LICENCE FEE (IF ANY) WILL BE REFUNDED

1. LICENCE

The Licensee is hereby granted a limited, non-exclusive and non-transferable licence to use the Software and any associated documentation in conjunction with the NIOX MINO® product (the "Product")

The Licensee is permitted to load the Software and use it only on a single computer (with a single input terminal) which is under the Licensee's control. The Licensee may make up to one (1) copy of the Software for back-up purposes only in support of the permitted use. The backup copy must reproduce and include the Licensor's copyright notice. The Software shall only be used in accordance with instructions provided and only for its intended use. The Licensee is not permitted to rent, sub-licence, loan, copy (except as expressly

provided in this Agreement), modify, adapt, translate, reverse engineer, decompile or create derivative works based on the whole or any part of the Software or its associated documentation and may not (except as expressly provided in this Agreement) use, reproduce or deal in the Software in any way.

The Software may not be transferred by Licensee to anyone without the prior written consent of Licensor. Any authorized transferee of the Software shall be bound by the terms and

conditions of this Agreement. Licensee agrees that the Software will not be shipped, transferred or exported into any country or in any manner prohibited by the United States Export Administration Act or any other export law, restr 2. TERM restriction or regulation

This Agreement is effective from the date of the Licensee's acceptance until the Licensee terminates the Agreement by destroying the Software (including any existing copy) and its documentation. The Agreement will also terminate automatically and without notice if the Licensee fails to abide by its terms. Upon termination the Licensee agrees to destroy all copies of the Software and its documentation including any Software which is stored on any computer under the Licensee's control.

3. OWNERSHIP

The Licensee owns only the CD (or authorised replacement) on which the Software is recorded. The Licensor shall at all times retain ownership of the Software as recorded on the original CD and all subsequent copies thereof.

4. LIMITED WARRANTY, LIMITATION OF LIABILITY

For a period of ninety (90) days following delivery of the Software, Licensor warrants that the Software shall perform in accordance with the documentation supplied by Licensor with the Software. Licensor's sole and exclusive obligation for breach of this limited warranty shall be to repair or replace the Software. This limited warranty shall not be valid if the Software was subjected to abuse, misuse, accident, alteration or unauthorized modification or installation. Other than this limited warranty, the Software is provided AS IS.

TO THE EXTENT ALLOWED BY LAW. LICENSOR AND ITS SUPPLIERS DISCLAIM ALL OTHER WARRANTIES. FITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE INTO THE EXTENT ALLOWED BY LAW, LICENSOR AND ITS SOPPLIESS DISCLAIM AUX OTHER WARRANTIES, ETHER EXPRESS OR IMPLIED, INCLUDING BOT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH REGARD TO THE SOFTWARE. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY LICENSOR, ITS DEALERS, DISTRIBUTORS, AGENTS, OR EMPLOYEES SHALL CREATE A WARRANTY OR IN ANY WAY INCREASE THE SCOPPO FT THIS WARRANTY, AND LICENSEE MAY NOT RELY ON ANY SUCH INFORMATION OR ADVICE. NEITHER LICENSOR NOR ANYONE ELSE WHO HAS BEEN INVOLVED IN THE CREATION, PRODUCTION, OR DELIVERY OF THE SOFTWARE SHALL BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL OR INCIDENTAL DAMAGES (INCLUDING DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, AND THE LIKE) ARISING OUT OF THE USE OF OR INABILITY TO USE SUCH PRODUCT EVEN IF LICENSOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES

5. GENERAL

These terms and conditions constitute the entire agreement between the parties with respect to the subject matter, and all prior agreements, representations, statements and undertakings with respect to this matter are expressly cancelled and superseded. If any provision of this Agreement is held to be invalid or unenforceable by a court of competent jurisdiction, that provision will be enforced to the maximum extent permissible, and the remaining provisions of this Agreement will remain in full force and effect. This Agreement may not be amended except by a written instrument executed by a duly authorised officer of Licensor

This Agreement shall be governed by and construed and enforced in accordance with the laws of Sweden.

Technical Information

- A computer with Windows[®] OS is required. NIOX MINO[®] Data Manager is compatible with Windows 2000, XP and Vista; with NIOX MINO units containing software version 1470 and higher.
- The program installation requires up to 300 MB of hard disk space and will install the .NET Framework 2.0 (if not already installed on your PC)
- A PC with an IR port is required to transfer data to and from NIOX MINO. If your PC does not have a built-in IR port, an external IrDA USB Adapter is required. A desktop model has to be used for the Visual Incentive. In case you have a built-in IR port, it needs to be deactivated if you use an external IrDA USB Adapter.

Windows® is a registered trademark of Microsoft Corporation.

Install NIOX MINO Data Manager on a PC

Note!

- Only one installation of the NIOX MINO Data Manger application is possible on a PC.
- The NIOX MINO Data Manager requires .NET Framework to be installed. If not installed, the installer will ask you to install it. It is included on your installation CD.

You need to uninstall any previous version of NIOX MINO Data Manager before you install a new version.

We recommend that you make a backup of your database before you uninstall the previous version.

See instructions on page 12.

To remove the program:

- 1. Select the **Control Panel** from the **Start** menu.
- 2. Double-click on Add/Remove Programs.
- 3. Select NIOX MINO Data Manager and click Remove.

This procedure will not remove the Patient Database

The database can be found at **C:/Documents and Settings/All users/Application Data/Aerocrine** You must have your Windows software set to show hidden files and folders to see the file. Please refer to Appendix 1 of this manual.

Installation

- 1. Insert the NIOX MINO Data Manager CD into the CD-ROM drive.
- 2. The program installation should launch automatically.
- 3. Follow the on-screen instructions.

If the program does not launch automatically:

- 1. Select My Computer from the Start menu.
- 2. Double-click on the CD icon "NIOX MINO Data Manager"
- 3. Follow the on-screen instructions to install the program.

The Patient database will be automatically retrieved if you have a previous version of NIOX MINO Data Manager.

You need to recover the Patient database if you previously have been using NIOX MINO FE_{NO} Data Manager (version 1.0.0.4, see page 5 and the About tab (C) for identification) This can be done by restoring your database, see page 12 or:

- 1. Browse to: C:/Documents and Settings/All Users/Application Data/Aerocrine
- 2. Move all data from the folder "NIOX MINO FENO Data Manager/Data" to "NIOX MINO Data Manager/Data"

You must have your Windows software set to show hidden files and folders to see the file, see Appendix 1.

Start up NIOX MINO Data Manager

- 1. Double-click on the NIOX MINO Data Manager icon on the Windows desktop.
- 2. The *Main* tab is shown.

Main tab Overview



- A. Main: Open/add Patients and Receive data from NIOX MINO[®].
- B. Options: Back up/restore database. Language and report settings (overview, page 12)
- C. About: View software version and copyright information.
- D. Patients: List of Patients in the database.
- E. Search for Patient: Enter the first letters of the Patient's last name to search in the Patients list.
- F. Existing Patient names in the database, [Last name, First name, Patient ID].
- G. Examiners: List of all Examiners in the database.
- H. (all examiners): Click to view all Patients.
- I. (no examiner): Click to view all Patients not connected to a specific Examiner.
- J. Click to view all Patients that belong to the specific Examiner.
- K. Open Patient: Open a Patient selected in the patient list.
- L. New Patient: Add a new Patient to the database.
- **M.** *Receive*: Transfer data via the IR port from NIOX MINO (with or without NIOX MINO Test Card) to your PC.

NIOX MINO Overview





Transfer The NIOX[®] Value from a NIOX MINO[®] with a generic Test Card

A generic NIOX MINO Test Card is not given a Name and Patient ID.

A. Main screen

NIXX MINO Data Manager Main Options About Examinest Patients Open Patient Indexcement Search for Patient Open Patient Dr Jones Flations, Nords, 1263 New Patient Dr Scott Smith, Tom , 23458 Receive	1.	Click Receive . (The IR icon I on the Windows tool bar indicates that a connection to NIOX MINO has been established.)
Receive Preview Image: Control of the measurement is the measurement is or create a new one. Time NUX Vakue (ppb) Select Patient 8/2/2008 6:27 PM Select Patient Cancel Select Patient New Patient Cancel Select Patient Select Patient Select Select Patient Select Patient Cancel South Control of Patient Select Select Select Select	2.	 For a patient already in the database: a. Click Select Patient to select a patient from the list of patients in the database. b. Highlight a patient in the Select Patient screen and click Select. For a new patient: Click New Patient to create a new Patient. (See Add a New Patient, page 6).
Receive Preview Image: Contains this measurement. Do you want to add it to the patient James Anderson? Time NIDX Value [ppb] Yes 8/2/2008 6:27 PM 29 No	1.	Click Receive . (The IR icon not the Windows system tool bar indicates that a connection to NIOX MINO has been established.) Click Yes in the <i>Receive Preview</i> screen to add The NIOX Value to the Patient Card.

Only the latest NIOX Value can be transferred from a NIOX MINO with a generic Test Card. The NIOX Value from a generic Test Card can only be transferred to one Patient Card. To transfer more than the latest NIOX Value from a Test Card, it must be *configured to that patient prior* to performing the NIOX MINO measurements. (See page 9, on how to configure a Test Card).

Transfer NIOX[®] Values from a NIOX MINO[®] with a configured Test Card

A configured NIOX MINO Test Card is given a Name and Patient ID. See page 9 on how to configure a Test Card.

🔊 Receive Preview				
The inserted test card belongs to James Anderson. Shall these measurements be added to that patient?				
Time	NIOX Value (ppb)	Yes		
5/2/2008 6:27 Pi 5/2/2008 6:17 Pi	No			

From the Main screen or the Patient Card screen

- Click **Receive**. (The IR icon on the Windows system tool bar indicates that a connection to NIOX MINO has been established.)
 Click **Yes** in the *Receive Preview* screen to add the NIOX Values to the
- 2. Click **Yes** in the *Receive Preview* screen to add the NIOX Values to t Patient.

Note!

NIOX Values from a configured Test Card can only be transferred to the set Patient Card. All new NIOX Values since last time data was transferred can be received at the same time.

Transfer NIOX Values from a NIOX MINO without a Test Card



Caution!

It is recommended to use a Test Card in NIOX MINO. NIOX Values received from a NIOX MINO without a Test Card can be transferred several times to more than one Patient Card.

Configure a NIOX MINO[®] Test Card

A NIOX MINO Test Card (blue) can be configured with a Name and Patient ID. Please contact Aerocrine, Inc. if you would like to order additional NIOX MINO Test Cards (contact details on page 16).

- 1. Add a New Patient to the database, see page 6.
- 2. Optional: Enter a text (*Welcome Message*) to be displayed on the NIOX MINO screen when the Test Card is inserted.

181

- 3. Insert a NIOX MINO Test Card into the top of the device.
- 4. Place the NIOX MINO IR port close to the PC IR port.

Anderson, James, 1234 - NIC Patient Card Measurements Report	IX MINO Data Manager	5. Make sure that the IR icon does not be Windows system tool bar is visible to indicate that a NIOX MINO is within range.
Patient Information First Name	Last Name Send	Caution!
James Sex © Male © Female Examiner Dr Jones Comment Test Card Settings Walcome Message James 1234	Anderon Paient ID [1234	If the Send button is clicked (<i>in the Patient Card</i>) the user will be questioned in case the NIOX MINO Test Card belongs to another patient or if a generic card is in place. If you answer " Yes ", the NIOX MINO Test Card will be configured with the information entered in the <i>Patient Card</i> tab. <i>This will erase any previous configurations of</i> <i>the Test Card and all measurement data saved on the Test Card</i> .
Expand		6. In the Patient tab click Send . (The IR icon changes to) , which indicates that a connection to NIOX MINO has been established.)

The NIOX MINO Test Card can be a Personal Test Card for a certain patient or a general configured Test Card to collect NIOX MINO measurements from several patients.

Tip!

To configure a NIOX MINO Test Card to be a general card (a non-personal card) and store NIOX[®] Values from several patients; Add a New Patient, see page 6, and name this Patient Card for example *First Name*: "Card" *Last Name*: "Test" *Patient ID*: "1" and follow steps 2-6 above. This must be done prior to performing NIOX MINO measurements.



Advanced View

- Right-click in the Measurements list, (below the graph). 1.
- Select Advanced from the drop-down list. 2.
- A. Mode: Standard (10 seconds measurement).
- B. Test Card ID: A unique identifier for all NIOX MINO Test Cards.
- C. Sensor ID: Serial Number of the NIOX MINO Sensor.
- D. NIOX MINO ID: Serial Number of NIOX MINO.



Copy and export NIOX MINO Measurement Data

1. Open a Patient from the Main tab and select the Measurements tab.

То	copy all measurements	To copy individual measurements
1.	Right-click in the Measurements	1. Choose one of the alternatives below.
2.	Click <i>Select all</i> in the pop-up	 Press the <i>Ctrl</i> key to select measurements one by one with the mouse Press the <i>Shift</i> key to select a section of measurements with the
3.	menu. Select <i>Copy</i> from the pop-up	mouse. 2. Select <i>Copy</i> from the pop-up menu.
	menu.	

Time

Tip!

Measurement data is copied from NIOX MINO Data Manager as tab delimited text and can be pasted into (for example) Microsoft® Excel.

Create a Report/Print-out

👩 Johnson, Howard , 456 - NIOX MINO Data Manager				
Patient Card Measurements	Report	Patient Options		
Previous Page 1 of 1 Nex	ct Zoon	n 🕶 Print PDF	Page Setup	

- 1. Select the *Report* tab.
 - Select *Print* to print a report.
 - Select *PDF* to convert a report to PDF format

Tip!

See *Report Settings*, below, on how to set a text or an image header on the report.

Archive or Delete Patient

🎢 Johnson, Howard , 456 - NIOX MINO Data Ma	nager	
	Receive	Close Patient
Patient Card Measurements Report Patient Options		
Alcrive		

To remove a Patient from the database.

- 1. Open the Patient to be archived from the Main screen.
- 2. Select the Patient Options tab.
- 3. Click Archive.
- 4. Select a destination for the Patient file.
- 5. Click Save.

The complete Patient File is then deleted from the database. To retrieve an archived Patient to the database, see Restore Archived Patient, page 12.

INIOX MINO Data Manager	-Backun Database
an Upprone About Backup About Backup Alabase Clear database after backup Restore Backup Restore Backup Restore Backup database with the "Clear database after backup" checked. Restore Archived Patient Restore Actived Patien	 Decide if the database should be cleared following backup. Click Backup. Select a destination for the backup. Click Save.
Change User Interface Language	-Restore Database
Create Generic Test Card Show The NIOX Value on NIOX MIND Format	• Click Restore and select the Database to restore.
Report Settings	Restore Archived Patient
Logotype Image File Browse	• Click Restore and select the Patient to restore.
Recieve and Save Service Data	Create Generic Test Card
Enable Service Mode Password	1. Place the NIOX MINO [®] IR port close to the PC IR port.
	2. Make sure that the IR icon an the Windows system tool bar is visible to indicate that a NIOX MINO is within range.
	 Click Format. This will <u>erase all</u> <u>configurations and measurement data</u> on a
	NIOX MINO Test Card. (The IR icon M on the Windows system tool bar indicates that a connection to NIOX MINO has been established.)
, Report Settings	
Configure the Report (print-out) header: En and/or browse for an image (for example the Value logo is set as default and can be cha	nter text (for example the hospital name and address) he hospital's logo) to use as a report header. The NIOX® unged by selecting another <i>Logotype Image File</i> .

Receive and Save Service Data

Only to be used following contact with Aerocrine, Inc Support.

1. Place the NIOX MINO IR port close to the PC IR port.

2. Make sure that the IR icon in the Windows system tool bar is visible to indicate that a NIOX MINO is within range.

3. Click **Receive**. (The IR icon) on the Windows system tool bar indicates that a connection to NIOX MINO has been established.)

4. Select a destination for the received Service Data.

5. Click Save. (It can take up to 30 minutes to transfer all service data)

Service Mode can only be enabled with a password, but you can receive and save Service Data without a password.

Caution!

Regular database backups are recommended. Each customer carries the sole responsibility to perform backups.

How to use the Visual Incentive

The Visual Incentive program will allow the patient to follow the exhalation procedure on a PC screen provided there is a stable IR link between the device and PC. There are a number of different desk-top IR adapters available.



lain Screen			1. Click Perform Measure
n Options About			
Annines .	Patients		
Smith Parrolt		Open Patient	
	Admission, Howard, 456 Lansen, Per, 1234	New Patient	
		Receive	
		NIOXMINO	
	•		
		Pedom Measurement	
	1		
Start / Proven 🔯 2 Norm - /	2 2 4	57 99%) 🗰 🦓 🖂 🖓 🖗 🕺 1400 -	
n Select mode for Realtim	e Flow 📃 🗖 🔀		
- Displau Mode			2. Select the display mode
biopidy mode			1 /
 Balloon 			The Dome mode gives a
C Mater			The Demo mode gives a
U Meter			possibility to demonstrate t
🔘 Demo			measurement procedure w
			using the Balloon mode
			doing the Duitoon mode.
	ОК		

. . easurement

es a trate the ire when de.



Make sure that you have a quality connection between the device and PC.

The IR icon on the Windows system tool bar indicates that a connection to NIOX MINO has been established. This is only visible just prior to the start of an inhalation maneuver.

Click Balloon .

1. Insure NIOX MINO is activated

- 2. Start to inhale from the device and a rising sun will be visible. Inhale to TLC (Total Lung Capacity).
- 3. Start to exhale and keep the balloon within the pressure limits. The balloon will not land, just disappear when the procedure has been completed.
- 4. Wait for the result to be presented on the NIOX MINO display
- 5. The IR connection will be disabled during the analysis of the sample

A pop-up will be shown in case you loose the IR communication.

- You can either continue the maneuver with the device without using the Visual Incentive
- or
- Stop the maneuver and answer **Yes** and secure that you have a quality IR connection. Redo the maneuver from the beginning.



Troubleshooting

Error Messages (shown on the PC screen)	Action	
Unable to find any device to communicate with	 Check that your PC has a built in IR Port. Otherwise you will need to have an external IrDA USB Adapter. A built in IR port cannot normally be used with the Visual Incentive. Make sure NIOX MINO[®] is plugged in. Check that the IR icon is visible in the Windows system tool bar and Check that the NIOX MINO IR port is facing the PC's IR port (see page 6) Your NIOX MINO must have SW 1470 or higher and a NIOX MINO Data Manager software version 1.0.0.11 or higher in order to use the Visual Incentive. 	
No Test Card is inserted, unable to send data to it	Insert a NIOX MINO Test Card in NIOX MINO and retry.	
An unknown error occurred ()	Restart NIOX MINO Data Manager	
Could not write to file	Contact Support	
Could not write database backup file	Contact Support	
Could not delete database after backing up	Contact Support	
Data in the database is not consistent	Contact Support	
An error occurred during transfer	Contact Support	

For further assistance, please contact Aerocrine, Inc. support.

Aerocrine, Inc. 562 Central Avenue New Providence, NJ 07974 USA

Phone: (866) 275-6469 Fax: (877) 329-6469 E-mail: service.US@aerocrine.com

Additional Programs included on the CD

Right-click on the CD icon (Start menu/ My Computer) and select Open to open the CD.

Windows 2000

Adobe Acrobat Reader installer

Double-click on the AdbeRdr60_enu_full-Windows2000 icon to install.

Windows XP and Vista

Adobe Acrobat Reader installer Double-click on the *AdbeRdr812_en_US* icon to install.

Appendix 1 - To display hidden files and folders

- 1. Open Folder Options in Control Panel.
 - o Click Start, and then click Control Panel.
- Click Appearance and Themes*, and then click Folder Options.
 On the View tab, under Hidden files and folders, click Show hidden files and folders.

*You might see the Folder Options directly