GANSHORN Medizin Electronic GmbH
Industriestraße 6-8, D-97618 Niederlauer, Germany
FSCA Ref: QI-69

Field Safety Notice (FSN)

SpiroScout“SP Plus”

manufactured by

GANSHORN Medizin Electronic GmbH, Industriestraße 6-8, D-97618 Niederlauer, Germany

website www.ganshorn.de

SRN: DE-MF-000006566

Date: 2023-02-16

Attention: Ganshorn authorized distributors and their customers

A problem related to accuracy of volume calibration during volume verification procedure which is obliged prior to use of the **SpiroScout SP PLUS** spirometry sensor has been reported to Ganshorn. The spirometry-sensor **SpiroScout SP Plus** is used exclusively with, **CARDIOVIT AT-102 G2, SPIROVIT SP-1 G2** and **CARDIOVIT CS-104**.

The described error pattern shows an inaccuracy of the volume measurement outside the given specifications. In case the described error pattern occur and user ignore error message of “the verification has failed, it might lead to the false volume measurement results and finally, this could lead to misdiagnosis and overtreatment of respiratory diseases.

Please check the user manual for trouble shooting” and further use the device, this might lead to conduction of measurements with false volume measurement results. Therefore, it could be possible that physician make his decision for a diagnosis based on false volume measurement results. Finally, this may could lead to misdiagnosis and overtreatment of respiratory diseases. If User / Authorized Distributor followed the recommended FSCA the risk as described above could be eliminated completely.

The actions that you as a distributor/customer can take to minimize or eliminate the residual risk is to check your potentially affected device on-site remotely with an error pattern correction software. This software can check whether the error pattern is present and if so, directly makes a correction of the gain factor. To perform the action, please follow the manufacturer's instructions for installing the error pattern correction software and checking your potentially affected device.

We kindly ask that you read this notice carefully and send us written acknowledgement by **31.03.2023,** that you have read and understood the contents of this notice. Written acknowledgement can be sent to SCHILLER AG and Ganshorn via the contact details listed below.

If you need any further information or support concerning this issue, please do not hesitate to contact SCHILLER AG Customer Services:

SCHILLER: support@schiller.ch
Ganshorn: support@ganshorn.de

GANSHORN
SCHILLER GROUP GANSHORN Medizin Electronic GmbH
Industriestraße 6-8, D-97618 Niederlauer, Germany
FSCA Ref: QI-69

SCHILLER AG and Ganshorn Medizin Electronic GmbH apologizes for any inconveniences caused by this problem.

Sincerely,

GANSHORN
SCHILLER GROUP

GANSHORN Medizin Electronic GmbH
Industriestrasse 6-8 • D-97618 Niederlauer
Tel: +49 9771 6222 0 • Fax: +49 9771 6222 55

Felix Ciokan
Head of Quality Management
quality@ganshorn.de

Stefan Ponto
Co- Chief Executive Officer

1. INFORMATION ON AFFECTED DEVICES	
COMMERCIAL NAME(S):	SpiroScout SP Plus
PRIMARY CLINICAL PURPOSE OF DEVICE(S)*	Measurement of lung function parameters, flow and volume over time;
MODEL/CATALOGUE/ REF NUMBER(S):	013400563
SOFTWARE VERSION:	USCntl 2.26.1
AFFECTED SERIAL OR LOT NUMBER RANGE :	D22661878 up to D21661180; D19660346, D19660394, D19660463, D19660495, D20660809, D21661079, D19660362, D20660868, D20661058, D19660404, D20660861, D20660922, D20660956, D21661482, D20660654, D20660666, D20660971, D19660343, D19660396, D19660503, D19660532, D19660549, D20660800, D20660995, D20661014, D20661049;
UNIQUE DEVICE IDENTIFIER(S) (UDI-DI):	0 7613365 50003 5
DEVICE TYPE:	handheld spirometry sensor as additional measurement option to SCHILLER ECG, providing spirometry measurement parameters such as Flow and Volume.

2. REASON FOR FIELD SAFETY CORRECTIVE ACTION (FSCA)	
PROBLEM DESCRIPTION	A problem related to accuracy of volume calibration during volume verification procedure which is obliged prior to use of the SP PLUS spirometry sensor has been reported to Ganshorn. The described error pattern shows an inaccuracy of the volume measurement outside the given specifications. In case where the device will be used disregard of the failed prescribed verification, it might lead to the false volume measurement results and finally, this could lead to misdiagnosis and overtreatment of respiratory diseases. In detail there has been reported two cases with the following SCHILLER products, where spirometry-sensor SP Plus is used exclusively with, CARDIOVIT AT-102 G2, SPIROVIT SP-1 G2 and CARDIOVIT CS-104. .
HAZARD GIVING RISE TO THE FSCA	In case the described error pattern occur and user ignore error message of “the verification has failed. Please check the user manual for trouble shooting” and further use the device, this might lead to conduction of measurements with false volume measurement results. Therefore, it could be possible that physician make his decision for a diagnosis based on false volume measurement results. Finally, this may could lead to misdiagnosis and overtreatment of respiratory diseases. If User / Authorized Distributor followed the recommended FSCA the risk as described above could be eliminated completely.

PROBABILITY OF PROBLEM ARISING	Probability is evaluated and is stated with Occasional.
PREDICTED RISK TO PATIENT/USERS	Risk for user and patient is evaluated and is stated S1 – Lowest level of severity. (The error pattern may result in reversible impairment or injury that is transient and that does not require medical intervention.)
BACKGROUND ON ISSUE ***(if not applicable – remove this row)***	The error pattern described has the following root cause determined by Ganshorn. There is a drift of the gain factor for the reference breathing tube, which is used for the factory setting of the gain factor. The gain factors obtained with this reference breathing tube in the root cause analysis are not in the mean compared to batches that were manufactured and measured later. Thus, the error can be eliminated by calculating an average value for the gain factor used for the factory setting.

3. TYPE OF ACTION TO MITIGATE THE RISK	
ACTION TO BE TAKEN BY THE USER or AUTHORIZED DISTRIBUTOR / CUSTOMER	☒ Identify Device ☒ Quarantine Device ☐ Return Device ☐ Destroy Device ☒ On-site device modification/inspection ☐ Follow patient management recommendations ☐ Take note of amendment/reinforcement of Instructions For Use (IFU) ☒ Other Factory setting will be corrected by Software Update. Software could be downloaded under the following LINK https://nc.ganshorn.de/s/SyfJQxzzPer25jE **Password:** *aFSN16022023* , Installation must be conducted according to Service Note and SpiroScout SP Plus Configuration Tool Instruction for use which could be downloaded by the LINK User or Authorized distributor will get a software which is able to check the potentially affected devices and implement an optimized gain factor if necessary. If the daily volume verification is performed successfully, the device can be used without further restrictions until the software update. If the volume verification fails, the device must be quarantined until the software update. For further information please contact your Service partner.
DATE FOR COMPLETION:	The FSCA should be completed by user, authorized distributor the latest at end of March 2023.

ACTIONS BEING TAKEN BY THE MANUFACTURER	☐ Product Removal ☐ On-site device modification/inspection ☒ Software upgrade ☐ IFU or labelling change ☒ Other ☐ None • Stock of potentially affected devices is checked and if necessary reworked. • New calculated average value for the gain factor is implemented in a timely manner after getting aware the error pattern, in the production of SP PLUS spirometry sensors. • Provide a software to user and authorized distributors to check all potentially affected devices with respect to the reported error pattern.
DATE FOR COMPLETION:	End of March 2023
IS THE FSN REQUIRED TO BE COMMUNICATED TO THE PATIENT / LAY USER?	no
	If yes, has manufacturer provided additional information suitable for the patient / lay user in a patient/lay or non-professional user information letter/sheet? No
FURTHER INFORMATION AND SUPPORT	To evaluate if the potentially affected devices suffer the error pattern a check with a software must be conducted by the user / authorized distributor. In the attachment of this FSN, the Instruction manual for installation and procedure of evaluation of potentially affected devices with the software is described. I Anything is unclear do not hesitate to contact your Service or Sales person at SCHILLER AG.

4. GENERAL INFORMATION	
FSN TYPE	Final Version
THE COMPETENT (REGULATORY) AUTHORITY OF YOUR COUNTRY HAS BEEN INFORMED ABOUT THIS COMMUNICATION TO CUSTOMERS.	
LIST OF ATTACHMENTS/ APPENDICES:	ANNEX I – Template for a Field Safety Notice Distributor/Importer Reply Form Distributor/Importer Reply Form ANNEX II - Template for a Field Safety Notice Customer Reply Form/Customer Reply Form

Transmission of this Field Safety Notice
This notice needs to be passed on all those who need to be aware within your organisation or to any organisation where the potentially affected devices have been transferred. (As appropriate)
Please transfer this notice to other organisations on which this action has an impact. (As appropriate)
Please maintain awareness on this notice and resulting action for an appropriate period to ensure effectiveness of the corrective action.
Please report all device-related incidents to the manufacturer, distributor or local representative, and the national Competent Authority if appropriate, as this provides important feedback. *

The responsible National Authority has been informed about this communication of this field safety notice.

Contact person of manufacturer:

Felix Ciokan, Head of Quality Management, PRRC
Industriestraße 6-8, D-97618 Niederlauer, Germany
quality@ganshorn.de
T +49 9771 6222-0

ANNEX I

Template for a Field Safety Notice Distributor/Importer Reply Form

Distributor/Importer Reply Form

1. Field Safety Notice (FSN) information	
FSN Reference number	QI-69
FSN Date	16.02.2023
Product/ Device name	Spirometry sensor SP Plus
Product Code(s)	
Batch/Serial Number (s)	

2. Distributor/Importer Details	
Company Name	
Address	
Contact Name	
Title or Function	
Telephone number	
Email	

3. Return acknowledgement to Sender	
Email	Quality@ganshorn.de
Distributor/Importer Helpline	support@ganshorn.de
Postal Address	Industriestrasse 6-8,97618 Niederlauer
Web Portal	www.ganshorn.de
Deadline for returning the Distributor/Importer reply form	End of March 2023

4. Distributors/Importers (Tick all that apply)		
☐	I confirm the receipt, the reading and understanding of the Field Safety Notice.	
☐	I have checked my stock and quarantined inventory	
☐	I have informed the identified customers of this FSN	Date of communication:
☐	I have received confirmation of reply from all identified customers	
☐	Neither I nor any of my customers has any affected devices in inventory	
Print Name		
Signature		
Date		

It is important that your organisation takes the actions detailed in the FSN and confirms that you have received the FSN.

Your organisation's reply is the evidence we need to monitor the progress of the corrective actions.

ANNEX II

Template for a Field Safety Notice Customer Reply Form

Customer Reply Form

1. Field Safety Notice (FSN) information	
FSN Reference number	QI-69
FSN Date	16.02.2023
Product/ Device name	SpiroScout SP Plus
Product Code(s)	REF:013400563
Batch/Serial Number (s)	D22661878 up to D21661180 D19660346, D19660394, D19660463, D19660495, D20660809, D21661079, D19660362, D20660868, D20661058, D19660404, D20660861, D20660922, D20660956, D21661482, D20660654, D20660666, D20660971, D19660343, D19660396, D19660503, D19660532, D19660549, D20660800, D20660995, D20661014, D20661049;

2. Customer Details	
Healthcare Organisation Name	
Organisation Address	
Department	
Contact Name	
Title or Function	
Telephone number	
Email	

3. Customer action undertaken on behalf of Healthcare Organisation		
☐	I confirm receipt of the Field Safety Notice and implementation of measure.	
☐	I performed all actions requested by the FSN.	
☐	affected devices (Serial numbers)	

☐	I do not have any affected devices.	
Print Name		
Signature		
Date		

4. Return acknowledgement to sender	
Email	Quality@ganshorn.de
Customer Helpline	support@ganshorn.de
Postal Address	Industriestrasse 6-8, 97618 Niederlauer
Web Portal	www.ganshorn.de
Fax	+49 9771 6222-55
Deadline for returning the customer reply form	End of March 2023

It is important that your organisation takes the actions detailed in the FSN and confirms that you have received the FSN.

Your organisation's reply is the evidence we need to monitor the progress of the corrective actions.

Ganshorn SpiroScout SP plus Configuration Tool

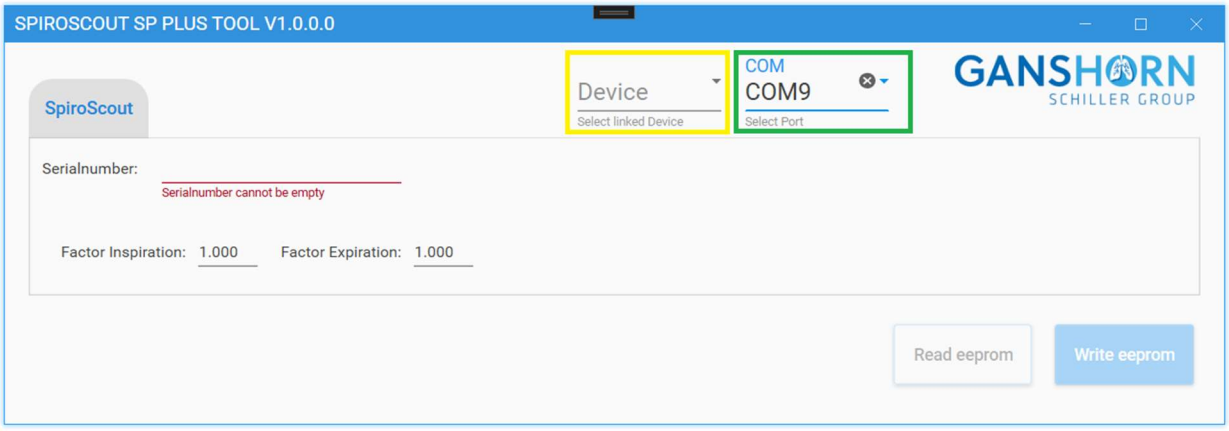
Requirements

1. Laptop or pc with windows 10 x64
2. One free USB 2.0 port or higher
3. Installed USB driver for SpiroScout “USB Driver for SpiroScout.zip”

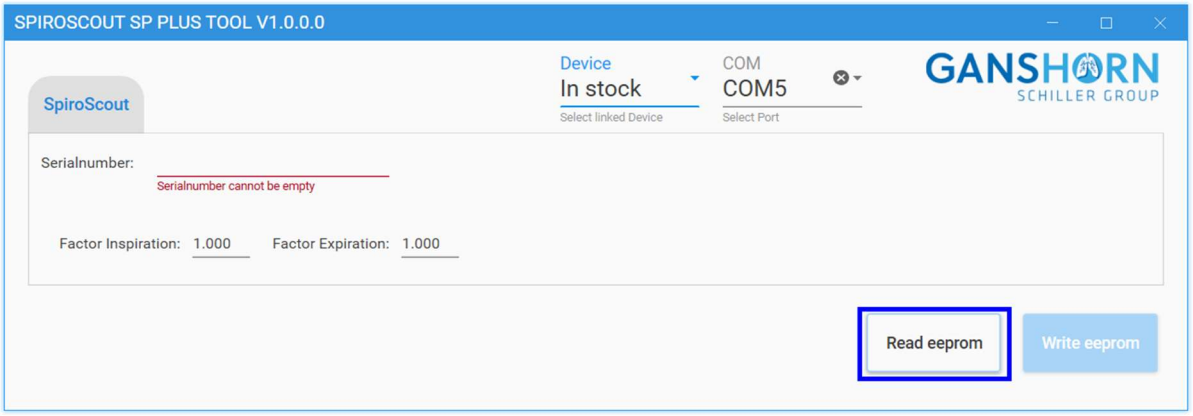
Installation

1. Unpack Zip File “USB Driver for SpiroScout.zip”
2. Start “Ganshorn.SpiroScoutSPplus.Tool.exe”

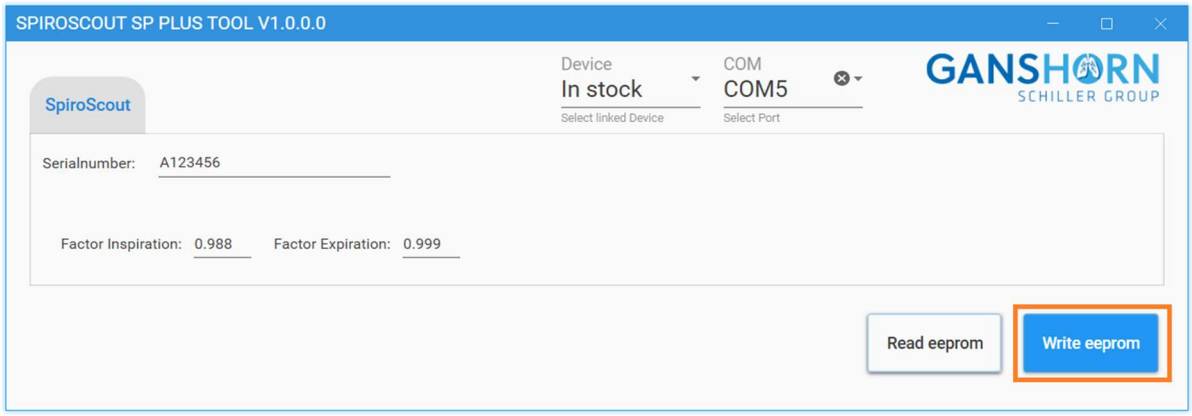
Instruction



1. The Windows-PC must have internet connection
2. The SpiroSocut SP plus must be connected to the Windows-PC (USB connection)
3. Identify to which com port SpiroScout SP plus is connected (green rectangle)
4. Select linked device (yellow rectangle). Button to read eeprom is only active if a linked device is selected (blue rectangle in picture below)



5. Click button to read eeprom (blue rectangle)
    a. If no update is necessary, a report will be sent automatically Ganshorn Medizin Electronic GmbH. No further action needed.
    b. If an update is necessary the button to write eeprom will be active (orange rectangle in picture below).



6. If button to write eeprom is active (orange rectangle): Click button to write eeprom
    a. SpiroScout SP plus will be updated and a report will be sent automatically Ganshorn Medizin Electronic GmbH

REVISION AND APPROVAL HISTORY

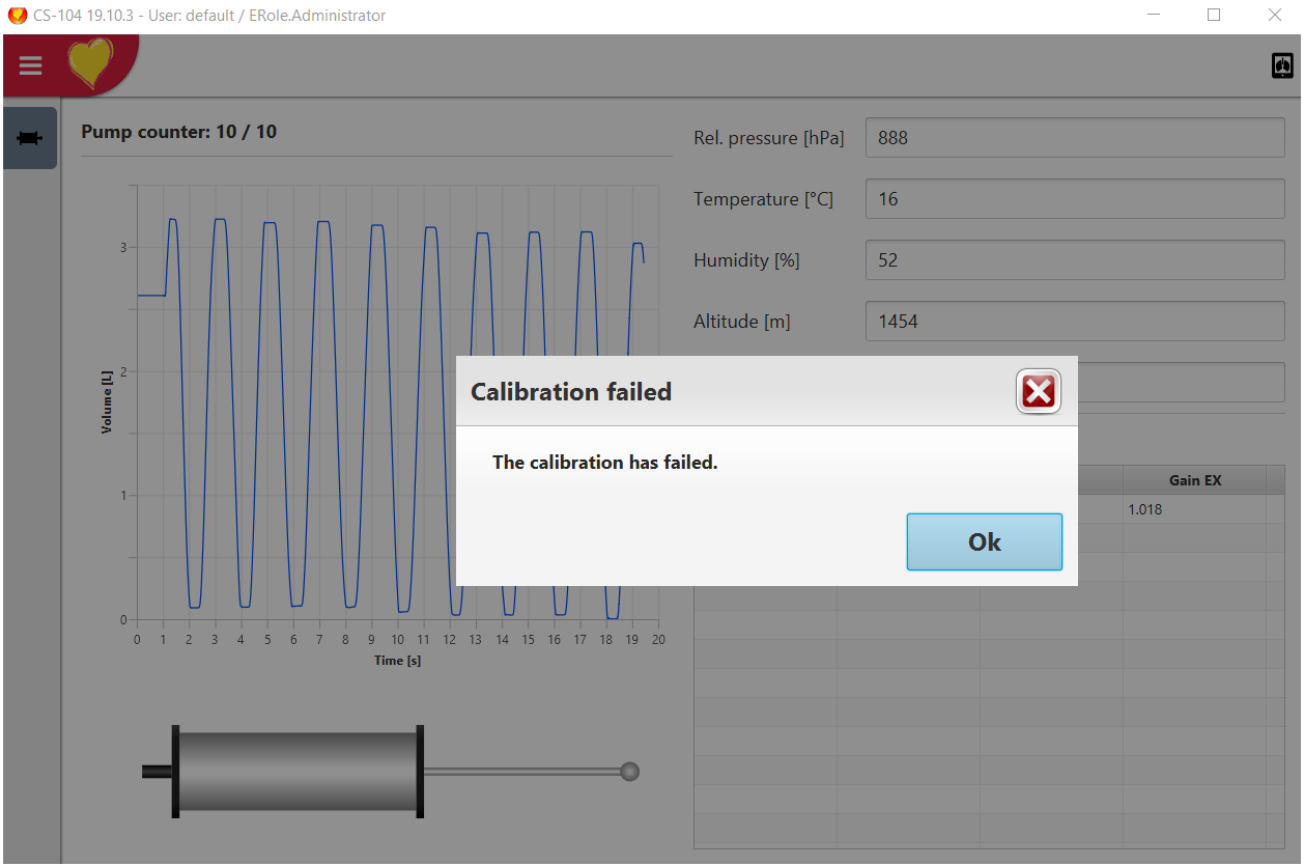
Author User ID	Revision Comments*	Revision
SC	First revision in https://qms.schiller.ch	01

Service Note Nr. / CHANGE NR.	QI-69	Issue date: 2023-02-07
Product:	SpiroScout SP plus	☐ Software ☒ Hardware
Version:	N.A.	☐ initial ☐ follow-up

This release includes changes for:

	Common	Bodyplethysmography	Diffusion	Ergo spirometry	Spirometry	Oscillatory Resistance	Provocation	Other
Software	☐	☐	☐	☐	☐	☐	☐	☐
Hardware	☐	☐	☐	☐	☐	☐	☐	☒

Information:
If there are problems with the SpiroScout SP plus volume verification [see picture], it is recommended to check the calibration factors.



Affected serial numbers: See the attached excel file “Affected serial numbers.xlsx”

Solution:
Check the SpiroScout SP plus volume calibration factors with the "SpiroScout SP plus Configuration Tool".
See separate instructions „Ganshorn.SPplusConfigurationTool.pdf“.