ScanX Smart Reader

ULR01.1A1

EN-US Installation and Operating Instructions

CE

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2162100017L29 G8803 2212V003

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Important information

1 About this document

These installation and operating instructions are an integral part of the unit.

Air Techniques shall not be held liable and offers no guarantees of the safe and smooth operation of this unit if you fail to comply with notes and instructions contained in these Installation and Operating Instructions.

The German version of the installation and operating instructions is the original manual. All other languages are translations of the original manual. These Installation and Operating Instructions apply to order number: 2162100010 (ULR01.1A1).

1.1 Warnings and symbols

Warnings

The warning notes in this document highlight possible injury to persons or damage to machinery.
They are marked with the following warning symbols:

General warning symbol

The warnings are structured as follows:

SIGNAL WORD

Description of type and source of danger

Here you will find the possible consequences of ignoring the warning

› Follow these measures to avoid the danger.

The signal word differentiates between different levels of danger:

- **DANGER**
  Direct danger of severe injury or death
- **WARNING**
  Possible danger of severe injury or death
- **CAUTION**
  Risk of minor injuries
- **NOTICE**
  Risk of extensive material/property damage

Miscellaneous symbols

These symbols are used in the document and on or in the unit:

Note, e.g. specific instructions regarding the efficient use of the unit.

REF Part number

SN Serial number

Model number

CE mark

Manufacturer

Distributor

Dispose of correctly in accordance with EU Directive 2012/19/EU (WEEE).

Take note of the accompanying electronic documents.

Please note the operating instructions.

Refer to Operating Instructions.

Wear hand protection.

Do not reuse

DC current

1.2 Copyright information

All electronic drawings, processes, names, software, and appliances mentioned here are protected under copyright.
Printing or copying these Installation and Operating Instructions, including excerpts thereof, may only be carried out with the written approval of Air Techniques.

2 Safety

The unit has been developed and designed appropriately such that hazards are largely excluded if the unit is used in accordance with its Intended use.
Therefore, please note the following.
Despite this, the following residual risks can remain:

– Personal injury due to incorrect use/misuse
– Personal injury due to mechanical effects
– Personal injury due to electric shock
– Personal injury due to radiation
– Personal injury due to fire
– Personal injury due to thermal effects on the skin
– Personal injury due to lack of hygiene, e.g. infection

2.1 Unauthorized modification

Pursuant to Part 15.21 of the FCC rules, any changes or modifications to this equipment not expressly approved by the manufacturer may cause, harmful interference and void the FCC authorization to operate this equipment.

2.2 General safety information

› Comply with the guidelines, laws, rules and regulations applicable at the site of operation when you use this unit.
› Prior to each use, check the function and proper condition of the device.
› Do not convert or modify the unit.
› Comply with the Installation and Operating Instructions.
› Make the Installation and Operating Instructions always available to the operator in the vicinity of the device.

2.3 Specialist personnel

Operation

Persons operating the unit must ensure safe and correct handling based on their training and knowledge.
› Instruct or have every user instructed in handling the unit.

Installation and repairs

› All installation, resetting, alteration, expansion, and repair work must be carried out either by Air Techniques personnel or by a suitably qualified person approved by Air Techniques.

2.4 Protection from electric shock

The device is designed for use in a basic electromagnetic environment with connection to the public power supply network in accordance with IEC 61326-1 (EN 61326-1).
› Replace damaged cables or plugs immediately.

2.5 FCC note

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
› This device may not cause interference.
› This device must accept any interference, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
› Reorient or relocate the receiving antenna.
› Increase the separation between the equipment and receiver.
› Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
› Consult the dealer or an experienced radio/TV technician for help.

2.6 ISED Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Canada ICES-003 compliance statement

This Class B digital apparatus complies with Canadian ICES 003.

2.7 Only use genuine parts

› Only use accessories and optional items specified or approved by Air Techniques.
› Only use original working parts and spare parts.

Air Techniques accepts no liability for damage resulting from the use of non-approved accessories, optional items or any parts other than original spare and wear parts.

The use of non-approved accessories, optional items or non-genuine wear parts / replacement parts (e. g. mains cable) can adversely affect the electrical safety and EMC.

2.8 Transport

Only the original packaging ensures optimum protection for the unit during transport.
If necessary, the original packaging for this unit can be ordered from Air Techniques.

Air Techniques cannot be held responsible for any damage resulting from transport in unsuitable packaging, even during the warranty period.

› Only transport the unit in its original packaging.
› Keep all packaging away from children.
› Do not expose the unit to any strong vibrations or shocks.

2.9 Disposal

Disposal of the units, electronic circuitry and PSPs must be accomplished only at the appropriate facilities for recovery and recycling. Make sure to dispose of such items in accordance with current federal, national, state and local government rules and regulations.

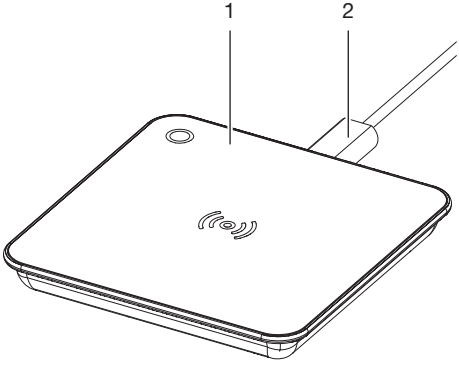
2.10 Protection from cybersecurity threats

The unit is to be connected to a computer that can be connected to the Internet. Therefore, the system needs to be protected from threats from the Internet.

› Use antivirus software and update it regularly. Look for evidence of possible virus infection and, if applicable, check with the antivirus software and remove the virus.
› Perform regular data backups.
› Provide access to units only to trustworthy users, e.g. by means of user name and password.
› Make sure that only trustworthy contents are downloaded. Install manufacturer-authenticated software and firmware updates only.

Product description

3 Overview



1 ScanX Smart Reader
2 USB cable

3.1 Scope of delivery

The following items are included in the scope of delivery (possible variations due to country-specific requirements and/or import regulations):

ScanX Smart Reader G8809

– ScanX Smart Reader basic device
– USB cable (2 m)

3.2 Accessories

The following items are required for operation of the device, depending on the application:

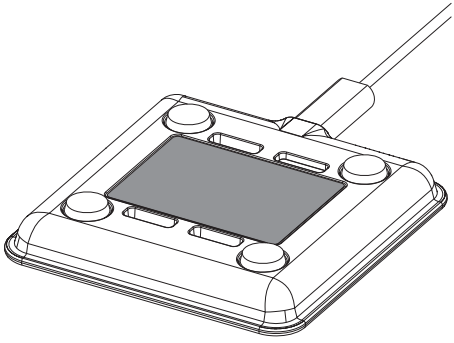
USB cable (2 m) G8808

4 Technical data

Electrical data of the device		
Nominal voltage (supplied via USB)	V DC	5
Max. current consumption	mA	200
Max. power consumption	W	< 1
Power draw in standby	W	0.16
General technical data		
Dimensions (W x H x D)	mm	90 X 13 X 90
	in	3.54 X 0.51 X 3.54
Weight	kg	approx. 0.13
	lb	approx. 0.29
Ambient conditions during operation		
Temperature	°C	+10 to +35
	°F	+50 to +95
Relative humidity	%	20 - 80
Air pressure	hPa	750 - 1060
Elevation above sea level	m	< 2000
	ft	< 6562
Ambient conditions during storage and transport		
Temperature	°C	-20 to + 60
	°F	-4 to +140
Relative humidity	%	10 - 95
Air pressure	hPa	750 - 1060
USB Connector		
USB technology		USB 2.0 or higher
Data Rate		Full Speed
Support for high-performance devices	mA	500
Connection, device side		USB type C
Technical data for the RFID module		
Frequency	MHz	13.56
Supported standard		ISO/IEC 15693
Modulation		ASK
Max. power	mW	400

4.1 Model identification plate

The type plate is located on the underside of the device.



REF Order number
SN Serial number

4.2 Conformity assessment

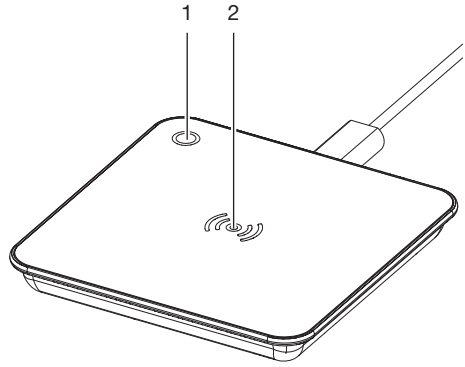
This device has been subjected to conformity acceptance testing in accordance with the current relevant guidelines of the European Union. This equipment conforms to all relevant requirements.

4.3 Simplified declaration of conformity

The manufacturer hereby declares that the device satisfies the requirements of, among others, Directive 2014/53/EU.
The full text of the EU declaration of conformity can be viewed online in the Download Center:

https://qr.duerrdental.com/conformity

5 Function



1 Status LED
2 Scanner

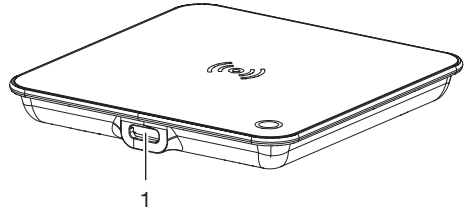
The Smart Reader is an RFID reader that connects to a computer via a USB cable. It reads RFID chips and transmits the read data to software on the connected computer.
With the Smart Reader and SmartScan, for example, a phosphor storage plate is assigned to a specific patient via the imaging software. This allows the phosphor storage plate to be read without a scan job on all devices in the network that support SmartScan.

5.1 Status LED

Depending on the software used, the status LED displays different colors. Refer to the relevant descriptions for the status LED in the software used.

5.2 Connections

The connections are located on the rear of the unit.



1 USB port (type C)

Installation

6 Requirements

6.1 Installation/setup room

The room chosen for set up should fulfil the following requirements:

– Closed, dry, well-ventilated room
– Should not be a room made for another purpose (e.g., boiler room or wet cell)

6.2 System requirements

For the system requirements of the computer systems, visit the download area at www.airtechniques.com (document no. E7201).

7 Installation

7.1 Setting up the unit

Portable and mobile HF communication appliances can interfere with the effectiveness of electrical medical devices.

› Do not stack the unit next to or together with other appliances.
› If, however, this unit is operated next to other units or stacked with other units, monitor the unit carefully in the configuration selected in order to ensure normal operation.
› Place the unit on a firm, horizontal surface.

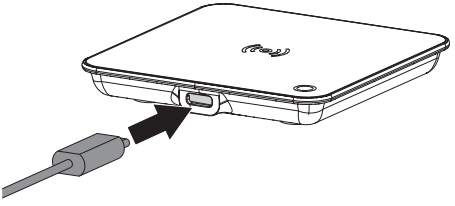
7.2 Connecting the unit

Combining devices safely

› When connecting the unit to other devices, such as a computer system: make sure that e.g. the computer, monitor, or printer that is/are connected is/are compliant with at least the standard IEC 60950-1 or IEC 62368-1.

Connecting the unit via the USB port

› Plug the supplied USB cable into the USB port of the device.



› Connect the USB cable to the computer.

8 Commissioning and first start-up

NOTICE

Short circuit due to the build-up of condensation

› Do not switch on the unit until it has warmed up to room temperature and is dry.

The unit supports the following imaging programs:

– VisionX made by Air Techniques

Always use the current version of the imaging program in the commissioning of the device. Check the version of the enclosed imaging program versus the versions available at www.airtechniques.com.

The device is a so-called ‘plug & play’ device, so it can be used straight away after connecting it.

Usage

9 Operation

The device scans RFID chips from different sources. Whether or not the scanned RFID chip can be used depends on whether it is supported and on the devices and software used.

9.1 SmartScan

Use SmartScan to assign a phosphor storage plate to a particular patient via the imaging software.
As soon as a phosphor storage plate is assigned to a patient in the imaging software, all devices that support SmartScan will change status to “ready for image acquisition”. Afterwards any phosphor storage plates that were previously linked to a patient can be scanned on any of these devices in an arbitrary order. The images are then automatically assigned to this patient by the imaging software.
SmartScan works with the following imaging programs:
– VisionX made by Air Techniques

10 Cleaning and disinfection

When cleaning and disinfecting the unit and its accessories, comply with national directives, standards and specifications for medical products as well as the specific specifications for dental practices or clinics.

NOTICE

The use of unsuitable agents and methods can damage the unit and accessories

› Only use the disinfection and cleaning agents specified or approved by Air Techniques and the EPA.
› Comply with the operating instructions of the disinfectants and cleaning agents.

Wear hand protection.

10.1 Surface of the unit

The surface of the unit must be cleaned and disinfected if it is contaminated or soiled.

NOTICE

Liquid can cause damage to the unit

› Do not spray the unit with cleaning agents or disinfectants.
› Make sure that liquid penetrates into the unit.

› Remove any soiling with a soft, lint-free cloth that has been dampened with cold tap water.
› Disinfect the surfaces with a disinfectant wipe. Alternatively, use a spray disinfectant on a soft, lint-free cloth. Comply with the operating instructions of the disinfectant.

11 Maintenance

The unit is maintenance-free.

Troubleshooting

12 Tips for operators and service technicians

Any repairs above and beyond routine maintenance may only be done by suitably qualified personnel or by one of our service technicians.

12.1 Software error

Error	Possible cause	Remedy
Imaging software fails to recognize the unit	Cable between unit and computer not correctly connected	› Check the connecting cable.
	Connecting cable between device and computer defective	› Check the connecting cable and use a new cable if necessary.
	Computer does not detect any connection to the unit	› Check the connecting cable. › Use a different USB port.
	Hardware error	› Contact technician.

12.2 Fault on the unit

Error	Possible cause	Remedy
Unit does not switch on	Device not connected correctly, or connecting cable or USB port defective	› Check the connecting cable and use a new cable if necessary. › Use a different USB port.
	Hardware error	› Contact technician.
Device does not recognize the phosphor storage plate	Incorrect phosphor storage plate used	› Only use phosphor storage plates that are supported by the device.
	RFID tag damaged or detached	› Check the phosphor storage plate for damage and replace it if required.
Device not responding even though the status LED is lit up	Fault in the device or in the software	› Depending on the software used, the status LED displays different colors. Refer to the relevant descriptions for the status LED in the software used.

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