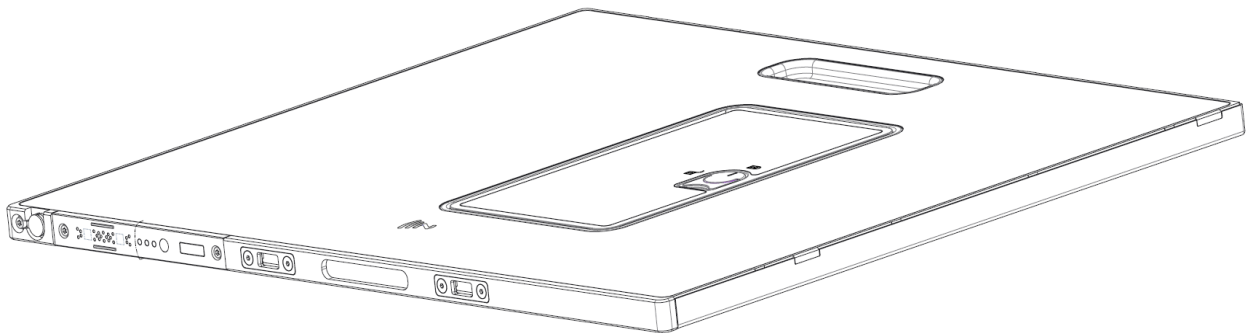


PIXIUM EZ3 NDT

END USER MANUAL



1 TABLE OF CONTENT

1	TABLE OF CONTENT	2
2	DISCLAIMER.....	4
3	STORAGE, HANDLING AND PACKAGING INSTRUCTIONS.....	4
3.1	Environmental conditions	4
3.1.1	Storage and transport conditions.....	4
3.1.2	Functional operating conditions.....	5
3.1.3	Performance operating conditions.....	5
3.1.4	Shocks	6
3.2	Symbols	6
3.2.1	On the pixium EZ3 NDT packaging	6
3.2.2	On the accessories.....	Erreur ! Signet non défini.
3.2.3	On the pixium EZ3 NDT itself	7
4	ACCESSORIES.....	9
4.1	The battery.....	9
4.2	The battery charger	9
4.3	The back-up cable	9
5	SAFETY AND REGULATORY INFORMATION	10
5.1	General precautions	10
5.2	X-ray protection	10
5.3	RF protection	Erreur ! Signet non défini.
5.4	RF features	10
5.5	Recycling	11
6	PIXIUM EZ3 NDT INTERFACES	12
6.1	Human Machine Interfaces.....	12
6.2	WiFi interface.....	13
6.3	LED indicators	13
6.3.1	LED location	13
6.3.2	Meaning of the symbols.....	14
6.3.3	Status LED.....	14
6.3.4	Wifi LED.....	15
6.3.5	Battery LED	15
6.4	LCD display interface	16
6.4.1	Indicators location.....	16
6.5	Removeable handle interface.....	17
7	NFC INTERFACE.....	17
8	BATTERY.....	19

8.1 Models 19

8.2 Battery insertion / removing 19

8.3 Hot-swap functionality (pixium 3543 EZ3 NDT only).....20

9 CLEANING..... 21

10 TURN ON, TURN OFF 24

11 TROUBLESHOOTING 24

12 MARKING 24

12.1 CE marking 24

2 DISCLAIMER

The images and drawings used in this document for illustration purposes are not contractual. The detector design and colour might depend on actual model version.

3 STORAGE, HANDLING AND PACKAGING INSTRUCTIONS

3.1 Environmental conditions

	Do not turn on the pixium EZ3 NDT if condensation is formed on it.
---	--

3.1.1 Storage and transport conditions

Unless special mention, the storage and transport environmental conditions **only** apply for the detector or any separate parts **in the original package provided by TRIXELL and battery not connected**.

	Typ	min	Max
Temperature range	-	-10 °C	+55 °C
Temperature variation	-	-1 °C/min	+1°C/min
Humidity (non-condensing)	-	5 %Rh	95 %Rh
Pressure (air pressure)	-	500 mbar	1100 mbar
Shocks in original package (according to IEC 60068-2-27 Test Ea)	-	-	25 g
Shocks unpacked (according to IEC 60068-2-27 Test Ea)	-	-	10 g
Vibrations in original package (sinusoidal vibration according to IEC 60068-2-6 Test Fc)	-	-	10 g
Vibrations unpacked (sinusoidal vibration according to IEC 60068-2-6 Test Fc)	-	-	2 g
Drop test (applies to packed parts)	-	-	1.2 m

3.1.2 Functional operating conditions

Within the range of functional operating conditions, the pixium EZ3 NDT is safe and functional. Functional means that the detector is able to deliver an image, whereas the image quality and electro-optical performances are not guaranteed. It also means that, except if mentioned explicitly, any perturbation occurring within those conditions are reversible and not existing anymore when the detector is turned back within the performance operating conditions.

	Typ	min	Max
Temperature (exposed 30 mn max.)	-	-20 °C	+50 °C
Humidity (for a temperature up to 40°C) (for a temperature up to 35°C)	-	20 %Rh	80 %Rh 90 %Rh
Air pressure	1000 mbar	700 mbar	1100 mbar
Weight (mechanical weight uniformly distributed over the complete surface)	-	300 kg	-
Weight (mechanical weight uniformly distributed over the surface of a 4 cm diameter disc)	-	100 kg	-
Vibrations	-	-	1 g

3.1.3 Performance operating conditions

The pixium EZ3 NDT performance is guaranteed within the range of performance operating conditions.

	Typ	min	Max
Temperature	+25 °C	+10 °C	+35 °C
Humidity (for a temperature up to 35°C)	-	20 %Rh	90 %Rh
Pressure	1000 mbar	700 mbar	1100 mbar
Distance to calibration temperature	-	-12 °C	+12 °C
Distance to calibration pressure	-	-50 mbar	+50 mbar
Temperature variation	-	-0.5 °C/min	+0.5 °C/min
Weight (mechanical weight uniformly distributed over the complete surface)	-	150 kg	-
Weight (mechanical weight uniformly distributed over the surface of a 4 cm diameter disc)	-	100 kg	-
Drop height (the detector was verified to stand drops of following height)	-	1.0 m	-

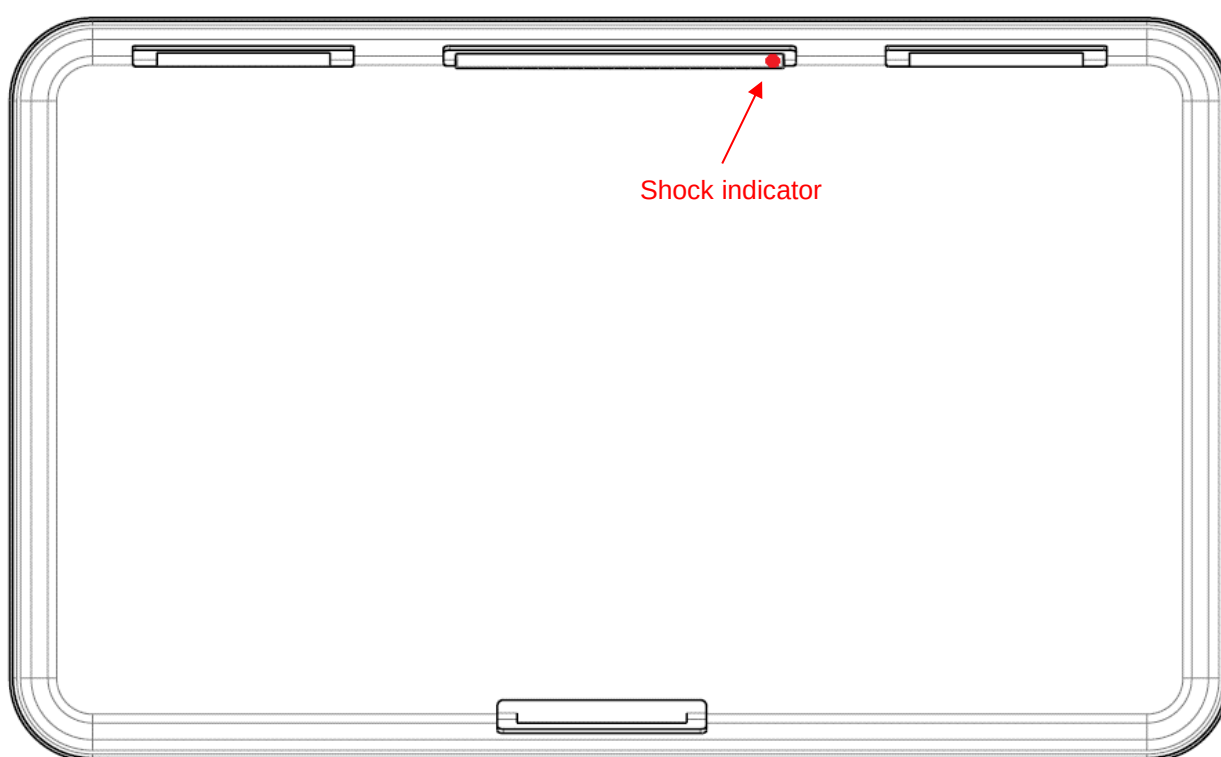
3.1.4 Shocks

The pixium EZ3 NDT includes a shock sensor which records events occurring during its life time even when the detector is switched off.

A pixium EZ3 NDT that has triggered the shock sensor is considered as having seen a drop that may have damaged or weakened the detector. In such a case, it is considered as not having been used in conformity with the specifications. Thus, TRIXELL does not guarantee its performances.

The status of the shock sensor is used as an input for standard warranty application, knowing that a triggered shock sensor means that the detector has not been used in conformity with the operating conditions described in the present document.

The status of the shock sensor is readable when the battery is removed.

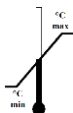
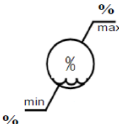
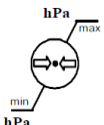
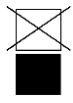


3.2 Symbols

3.2.1 On the pixium EZ3 NDT packaging

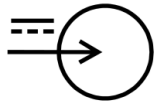
The following symbols appear on the packaging of the pixium EZ3 NDT:

Symbole	Signification
	Keeping dry

Symbole	Signification
	Warning
	Limit of temperature
	Limit of humidity
	Limit of pressure
	Do not stack more than 6 packaging
	Do not stack

3.2.2 On the pixium EZ3 NDT itself

The following symbols appear on the pixium EZ3 NDT:

Symbol	Signification
	Consult accompanying documents
	Rated power input, d.c.
	RF equipment
	Maximum allowed weight
IP67	Degree of protection provided by enclosure

Symbol	Signification
	Detector status
	Battery charge status
	Recycling label
	CE mark

4 ACCESSORIES

4.1 The battery

The model of battery suitable with the pixium EZ3 NDT is BATTERY EZ X.



Refer to the BATTERY EZ X data sheet for more information on this battery.

4.2 The battery charger

The battery charger suitable with the pixium EZ3 NDT is called CHARGER EZ X.



Refer to the CHARGER EZ X data sheet for more information on this battery charger.

4.3 The back-up cable

The cable suitable with the pixium EZ3 NDT is called CABLE PIXIUM EZ3.



Refer to the CABLE PIXIUM EZ3 data sheet for more information on this cable.



Do not disconnect the backup cable until the end of image acquisition.

5 SAFETY AND REGULATORY INFORMATION

5.1 General precautions

-  Only qualified staff must carry out product installation, adjustment and maintenance described in this document.
-  In case of collision of the pixium EZ3 NDT with a tough surface or in case of rough shock or in case of bending, a visual inspection is required to detect any mechanical deformation. In such case, the use of detector must be considered as hazardous and the detector must be returned to TRIXELL for analysis and/or repair.
-  Do not push on the upper face of the detector more than specified in § 3.1.2.
Do not open the product. Opening the product will render the manufacturer's warranty void and the CE approval invalid.
There shall be no heating source close to the detector in normal use.
No modification of the product is allowed.
-  Do not open the detector to avoid electrical, mechanical and substances hazards.

5.2 X-ray protection

-  The detector does not include built-in X-Ray shielding, except some thin and narrow lead plates for electronic components protection. Protection of operator against transmitted X-Ray shall be considered by System integrator (either with protective clothing or other suitable means).
-  Do not shot X-rays when a dysfunction of the pixium EZ3 NDT is noticed, either by the led indicators or at system level.

5.3 RF features

-  The frequency of NFC interface is 13.56 MHz. The maximum radiated power is 5.18 dBμA/m
-  The max radiated power in 2.4 GHz band is 9.53 dBm / 9.0 mW.
The max radiated power in 5 GHz band is 8.64 dBm / 7.3 mW.
-  For all of the European countries listed in the following table, the 5.15-5.35 GHz band (chanel 36 to 64) is restricted to indoor use.

Country (country code according to ISO 3166)					
Andorra (AD)	Austria (AT)	Belgium (BE)	Bosnia and Herzegovina (BA)	Bulgaria (BG)	Croatia (HR)

TRIXELL PROPRIETARY INFORMATION

Cyprus (CY)	Czech Republic (CZ)	Denmark (DK)	Estonia (EE)	Finland (FI)	France (FR)
Germany (DE)	Greece (GR)	Hungary (HU)	Iceland (IS)	Ireland (IE)	Italy (IT)
Latvia (LV)	Liechtenstein (LI)	Lithuania (LT)	Luxembourg (LU)	Macedonia, former Yugoslav Republic of (MK)	Malta (MT)
Monaco (MC)	Montenegro (ME)	Netherlands (NL)	Norway (NO)	Poland (PL)	Portugal (PT)
Romania (RO)	San Marino (SM)	Serbia (RS)	Slovakia (SK)	Slovenia (SI)	Spain (ES)
Sweden (SE)	Switzerland (CH)	Vatican city state (VA)	-	-	-

5.4 Recycling



In case of dismantling the product, the local regulations regarding the hazardous substances must be followed and precautions must be taken to prevent damage to the personnel's health and to the environment.



This symbol indicates that this product should NOT be treated as household waste, according to the DEEE directive (2012/19/EU) and your national law. This product should be handed over to a designated collection point or to an authorized collection site for recycling waste electrical and electronic equipment (EEE). Improper handling for this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. By insuring that this product is disposed correctly, you will contribute to the effective usage of natural resources. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, waste authority, approved WEEE scheme or your household waste disposal service. You can also contact us for more information on the environmental performances of our products. Contains lead.

TRIXELL can ensure the recycling of the pixium EZ3 NDT. Please, contact your TRIXELL representative for such service.



TRIXELL expects his customers to take care of the recycling of the detector within the framework of the System recycling procedure.

6 PIXIUM EZ3 NDT INTERFACES

6.1 Human Machine Interfaces

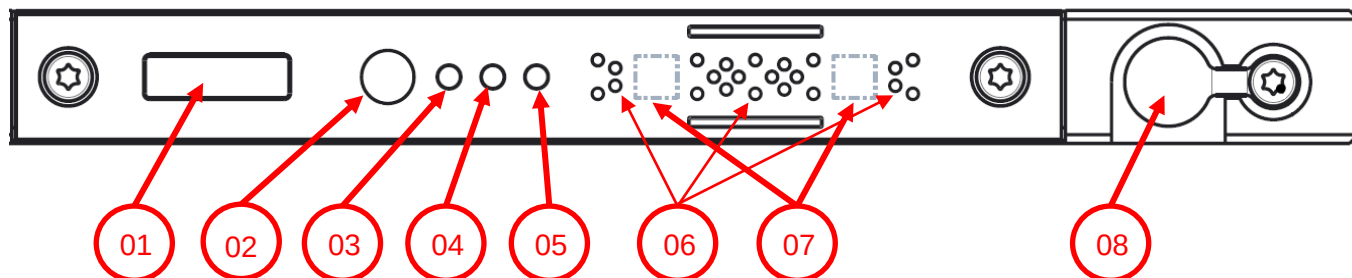


Figure 1 : pixium EZ3 NDT Human Machine interface

Label	Description
01	LCD display
02	ON / OFF button
03	Detector Status LED
04	Wifi LED
05	Battery LED
06	Backup Connector's pins
07	Magnets
08	Accessory Connector with protection cap. See sytem's user manual for more information

6.2 WiFi interface

The location of Wifi's antennas are drawn in red :

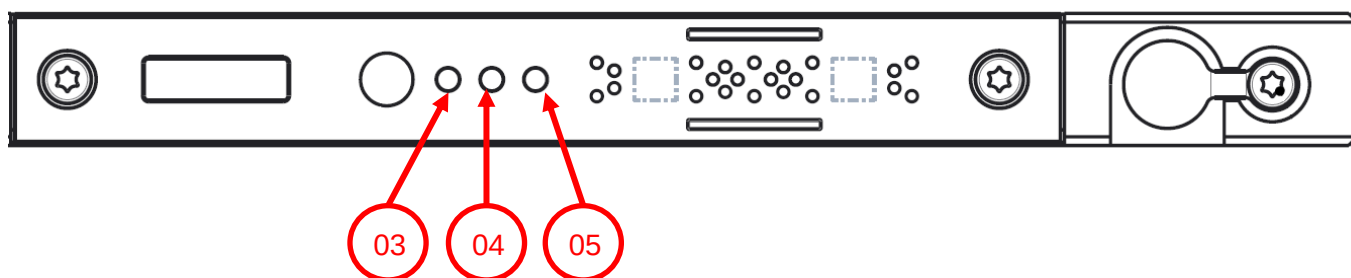


Figure 2 : Location of Wifi's antennas

6.3 LED indicators

6.3.1 LED location

Three LEDs are provided for information and maintenance on the pixium EZ3 NDT in order to give the detector's status to the user. The different LED and indicator behaviours are described hereafter.



Label	Description
03	Detector Status LED
04	Wifi LED
05	Battery LED

Figure 3 : pixium EZ3 NDT LED indicators

6.3.2 Meaning of the symbols

In the next chapters, the meaning of the symbols is as follow:

Symbol	Meaning
	Continuous light
	LED off
	Blinking slow
	Blinking fast

Figure 4 : Meaning of used symbols

6.3.3 Status LED

Symbol:



LED status	Color	Meaning
	green	Connected to the system and operational
	orange	Not connected to the system
	green	Energy low consumption
	off	Turned off
	orange	ERROR state
	orange	Switching off

Figure 5 : Status LED indication

Status LED sequence during acquisition sequence:

- OFF during image integration (X-ray window) and image readout
- Orange continuous until the image is successfully transferred or stored
- Remains orange, in case of image storage, if the memory is full and don't allow acquiring the required image

Status LED sequence during network configuration:

- all 3 LED blink orange fast after receiving the order for changing the network configuration
- If the reconfiguration is accepted, the 3 LEDs flash green 3 times (during around 1.5s)
- If the reconfiguration is not accepted, the 3 LEDs flash red 3 times (during around 1.5s)

6.3.4 Wifi LED

Symbol:



LED status	Color	Meaning
	green	Wi-Fi available (detector connected to an Access Point)
	off	Wifi disabled by software or detector is turned off or booting
	orange	Wifi not ready (detector not connected to an Access Point)

Figure 6 : Wifi LED indication

6.3.5 Battery LED

Symbol:



LED status	Color	Meaning
	green	External power supply present
	green	External power supply not present and Battery charge level between 100% and 10%
	orange	External power supply not present and Battery charge level between 10% and 5%
	orange	External power supply not present and Battery capacity below 5%
	off	No battery or detector is turned off or booting

Figure 7 : Battery LED indication

6.4 LCD display interface

pixium EZ3 NDT features a LCD display of 120x28 pixels

This section describes the different messages available and meaning of symbols on the display interface regarding the different use cases.

6.4.1 Indicators location

The display shows:

- A battery icon giving a visual indication of the remaining battery level and if the battery is being charged
- The connection mode, that can be:
 - o a computer icon indicating that the detector is connected to a host.
- The number acquisitions that can be performed with the detector (taking into account the remaining storage capacity on the two right digits).

In order to save battery from excessive discharge, the display is normally switch off. To light on the detector for few seconds, please gently shake the detector.



Figure 8 : pixium EZ3 NDT display indicators

Symbol	Meaning
	Battery charge level
	Connected to a host
	Digits indicating remaining storage capacity

6.5 Removeable handle interface

A removeable handle can be mounted on the pixium EZ3 NDT to easily manipulate and transport the detector. Two interfaces are located on the edges of the detector:

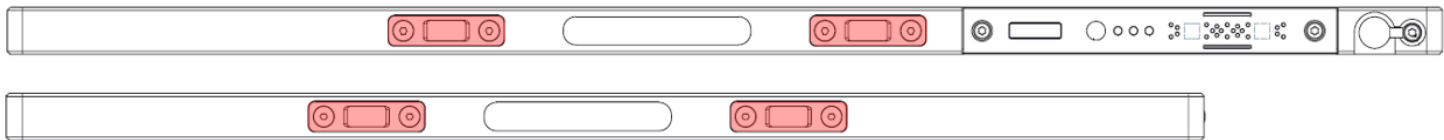


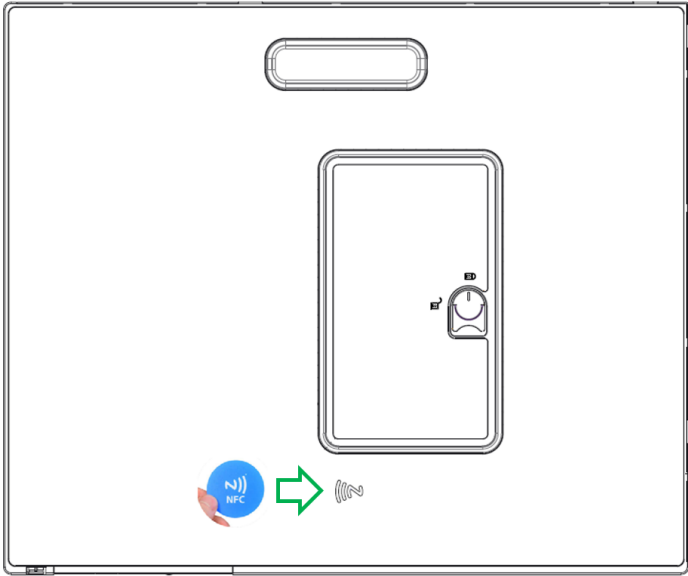
Figure 9 Handle interfaces

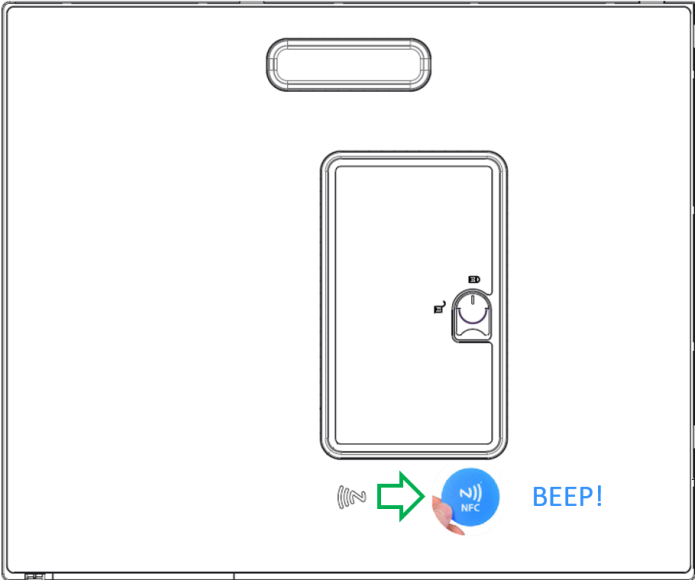
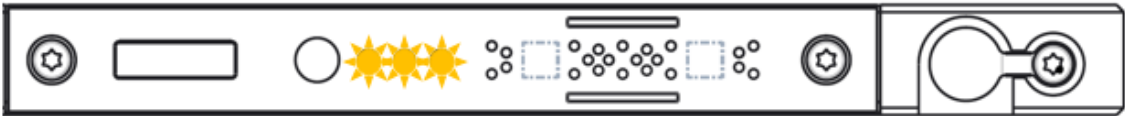
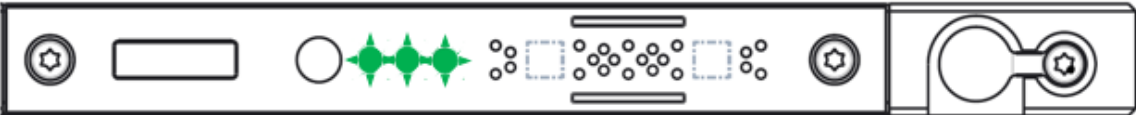
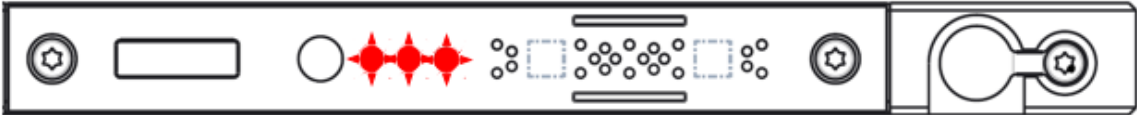
Interface areas are shown in red color.
See system user manual to install / remove handle with the pixium EZ3 NDT.
Removeable handle is not provided by Trixell.

7 NFC INTERFACE

The main functionality of NFC interface is to exchange the following parameters of the pixium EZ3 NDT with the system:

- SSID
- password
- IP address

Step	Action
1	 While the pixium EZ3 NDT is in operation state, present a NFC tag in front of the NFC interface of the pixium EZ3 NDT. The distance between the NFC tag and the pixium EZ3 NDT must be less than 1 cm.
2	

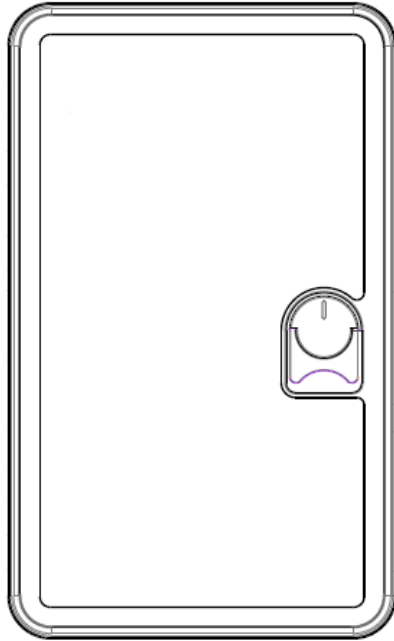
Step	Action
	 As soon as the pixium EZ3 NDT emits a long bip, the NFC tag can be removed.
3	Then, the 3 LEDs blink orange fastly during about 3 seconds: 
4a	If the pixium EZ3 NDT setting is PASS, the 3 LEDs blink green slowly 3 times: 
4b	If the pixium EZ3 NDT setting is FAIL, the 3 LEDs blink red slowly 3 times:  Try again and, if needed, verify that programming of the NFC tag comply with the protocol detailed in the previous chapter.

The NFC interface may be used for other functionalities. Please refer to system’s user manual for more details.

8 BATTERY

8.1 Models

Only one version of the BATTERY EZ X is available:



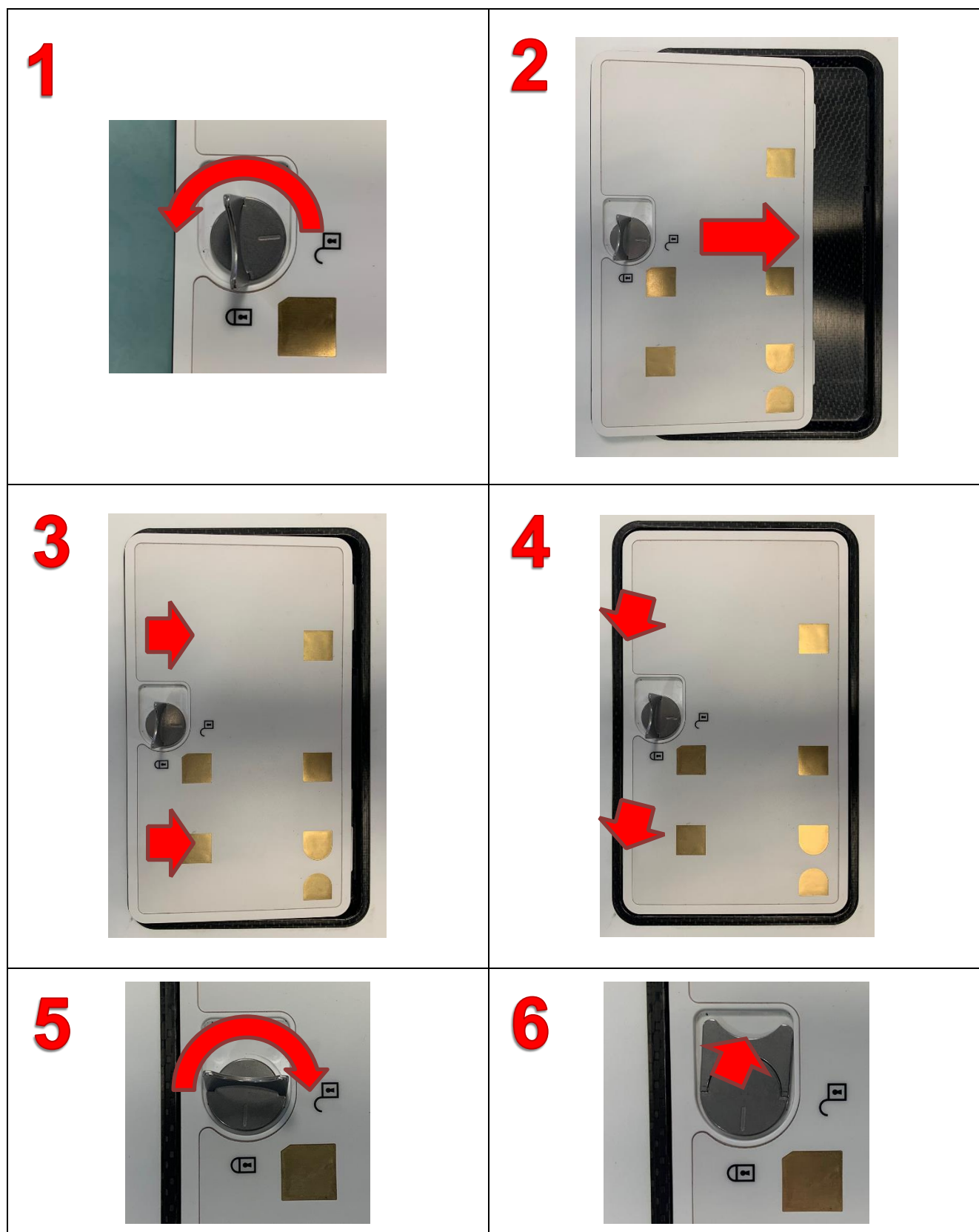
BATTERY EZ X

The system is able to powered the pixium EZ3 NDT and charge the battery is the same time through the battery itself. More information are provided into the system user manual.

8.2 Battery insertion / removing

To insert a battery into a pixium EZ3 NDT , please follow the 6 steps describred here after:

To remove a battery from a pixium EZ3 NDT, please perform steps 6 to 2 with opposite movements.



Pictures are not contractual.

8.3 Safety information for Battery EZ X

	Do not open, shock crush or dispose of Battery EZ X in fire or short circuit, this may cause ignition, explosion, leakage or get causing personal injury. Do not expose Battery EZ X into high temperature or very low air-pressure environments, this may cause ignition, explosion, leakage or get causing personal injury. Follows instructions provided in this document and system's user manual. Replace battery with same battery model only. Use another battery may present a risk of fire or explosion. Keep away from children.
	Battery EZ X must be recycled or disposed of properly. Recycle facilities may not be available in all areas.

8.4 Hot-swap functionality (pixium 3543 EZ3 NDT only)

pixium 3543 EZ3 NDT includes the hot-swap functionality that allows to maintain the detector on during the battery exchange operation. Nevertheless, the operation must be complete in less than 30 seconds, otherwise the detector will start a switch off procedure.

This functionality also is used to secure last taken image and properly switch off the detector in case of suddenly power supply missing

Remark: This function might not be available in some situations like directly after booting or during regular recharging.

9 CLEANING

The pixium EZ3 NDT housing can be cleaned using a smooth towel, with respect to ESD safety conditions. Note that the detector with or without inserted battery has a degree of protection against ingress of water of IP 65 / IP 67 according to IEC 60529.

The sterilization, disinfecting, and cleaning conditions are defined by the System manufacturer in the context of the System use.

Description
pixium EZ3 is free of any cosmetic and mechanical degradation under exposure to the liquids defined in the following table.
#1 Metrex Caviwipes
#2 Schuelke Perform
#3 Bode Mikrobac tissues
#4 Ecolab Incidin plus
#5 Anios Surfa'safe
#6 PDI Sani-Cloth Active
#7 PDI Sani-Cloth Plus
#8 Virox / Diversey AccelTB
#9 Isopropyl alcohol
#10 Ethanol 70 %
#101 Clorox - Dispatch towels with bleach
#102 Clorox - Hydrogen peroxide
#104 - Freshening Industries - Hospicare 70
#105 - Freshening Industries - Hospicare Multi-Surface 60R
#106 - PDI - Sani-Cloth Prime
#107 - Tristel - Duo-wipes + ULT

Table 1: Cleaning agent list

In addition to this list, the external film is known to be free of any cosmetic degradation when exposed to the following liquids:

- #F01 Metrex Caviwipes XL
- #F02 Schuelke Mikrozyd sensitive wipes
- #F03 Schuelke Terralin protect
- #F04 Schuelke Mikrozyd AF wipes
- #F05 Schuelke Mikrozyd PAA wipes
- #F06 Bode Bacillol 30 Tissues
- #F07 Bode Dismozon plus
- #F08 Bode Bacillol AF
- #F09 Bode Mikrobac forte
- #F10 Ecolab Incidin pro
- #F11 Ecolab Incidin active
- #F12 Anios Surfanios premium
- #F13 Dr Schumacher Biguanid Flache
- #F14 Dr Schumacher Cleanisept (wipes 7.5% from liquid)
- #F15 Lysoform Lysoformin 3000
- #F16 Lysoform Clorina
- #F17 BBraun Meliseptol Rapid
- #F18 PDI Sani-Cloth AF3
- #F19 PDI Sani-Cloth Super
- #F20 PDI Sani-Cloth Bleach
- #F21 Clorox Bleach germicidal wipes
- #F22 Diversey - sealed air Accel Five TB Wipes

The battery is considered as a part of the Front End, thus same list of liquids applies.

10 TURN ON, TURN OFF

To turn on the detector, insert a charged battery or connect a backup cable (if available).

To turn off the detector, use a dedicated system command (see system user manual) or remove the battery. In the last case and only for pixium 3543 EZ3 NDT, the hot-swap functionality will maintain the detector ON during at least 30 seconds before starting the switch off procedure (see §0).

11 TROUBLESHOOTING

Refer to the system's user manual.

12 MARKING

12.1 CE marking

The pixium EZ3 NDT is conform to main European regulations and directives:



END OF DOCUMENT